

NO.	Date	REC'D	SECTION	RESP.	RESPONSE	ADD.	WHO
1	1/20/2026	Courtney Smith Scranton Products	105113.2.01- Tufftec Lockers	Allison Grace Lee	Rejected		
2	1/21/2026	Jim Ames ACI Building Systems	133419 2.01 - Metal Building System- PEMB Supplier	Jeffery Parnell	Rejected		
3	1/29/2026	Rachel Meigs Murray Constrution	096723.20 - Tnemec Resin/ Torginol Flake	Allison Grace Lee	Approved		
4	1/30/2026	Rafe Stewart Dominguez Design-Build Pye Barker Fire and Safety	104400 2.01, 2.02, 2.03 - Fire Protection Specialties	Jeffery Parnell	Approved		
5	1/20/2026	Ellen Walkama Corporation	Sika 075419 - Thermoplastic Membrane Roofing	Jeffery Parnell	Rejected		
6	2/2/2026	Derek Bishop Williams	Sherwin-Williams 096723.20 - Decorative Flake Resinous Flooring	Allison Grace Lee	Rejected		
7	2/3/2026	Joe Sanders Building Group Building Systems	Chase ACI 133419 2.01 - Metal Building System- PEMB Supplier	Jeffery Parnell	Rejected		
8	2/4/2026	Peter Ryan Metal Roofing Systems, Inc.	074113 2.03 - Metal Roof Panels- Metal Roofing Systems	Jeffery Parnell	Rejected		
9	2/4/2026	Jim Ames ACI Building Systems	133419 2.01 - Metal Building System- PEMB Supplier	Jeffery Parnell	Rejected		
10	2/4/2026	Rafe Stewart Dominguez Design-Build	087100.2 - Door hardware- Allegion	Jeffery Parnell	Approved		
11	2/4/2026	Mike Loftin LISC LLC	096723.20 - Decorative Flake Resinous Flooring	Allison Grace Lee	Rejected		
12	2/5/2026	Larry Brown Summit Building Solutions	133419 - Metal Building Systems- Summit Building Solutions/Ascent Buildings	Jeffery Parnell	Rejected		
13	2/9/2026	Pat Garrett Greer Building	133419 - Metal Building Systems- Whirlwind Steel Buildings	Jeffery Parnell	Approved		

14	2/9/2026	Zack Graham Boatner Construction	083613 - Sectional Doors- The Overhead Door	Jeffery Parnell	Approved		
15	2/10/2026	Rafe Stewart Dominguez Design-Build	084313 - Aluminum Framing and Glazing	Jeffery Parnell	Rejected		
16	2/10/2026	Pat Garrett Greer Building	133419 - Metal Building Systems- Schulte Building Systems	Jeffery Parnell	Approved		
17	2/12/2026	Rachel Meigs Murray Constnution	085213 2.01 - Metal - Clad Wood Windows	Jeffery Parnell	Rejected		
18	2/17/2026	Magne Grip	Exhaust Removal	Jeffery Parnell	Rejected		

The following are **APPROVED**
Substitution Requests.

SUBSTITUTION REQUEST

Project: ashville fire station
goodwyn mills
To: _____
Attn: _____
Re: _____

Substitution Request Number: 1
From: Overhead Door of
Date: 2/9/2026
A/E Project No.: AHUN250003
Contract For: CITY OF ASHVILLE

Specification Title: SECTIONAL DOORS
Section: 083613

Description: Sectional aluminum all
Page and Paragraph: 2.01

Proposed Substitution: requesting approval of model 521 & RHX both from The Overhead Door
Trade Name: SAME
Manufacturer: The Overhead Door Model No.: model 521 & RHX
Mfg. Address: 2501 HWY 121 City, State, zip: LEWISVILLE TX Phone: _____

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the date are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

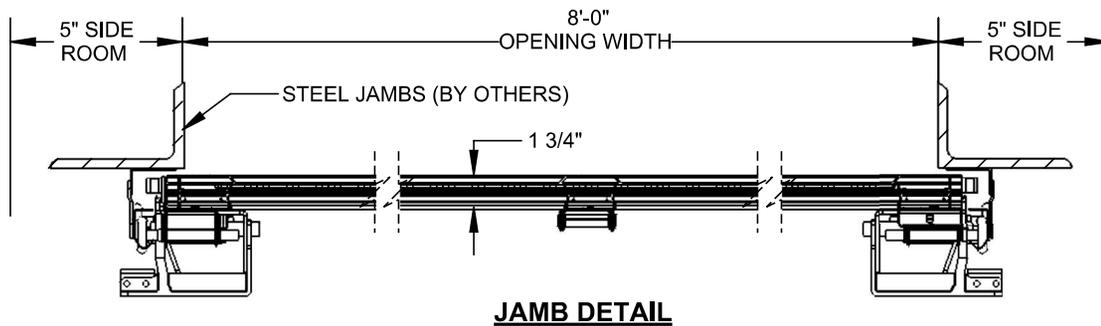
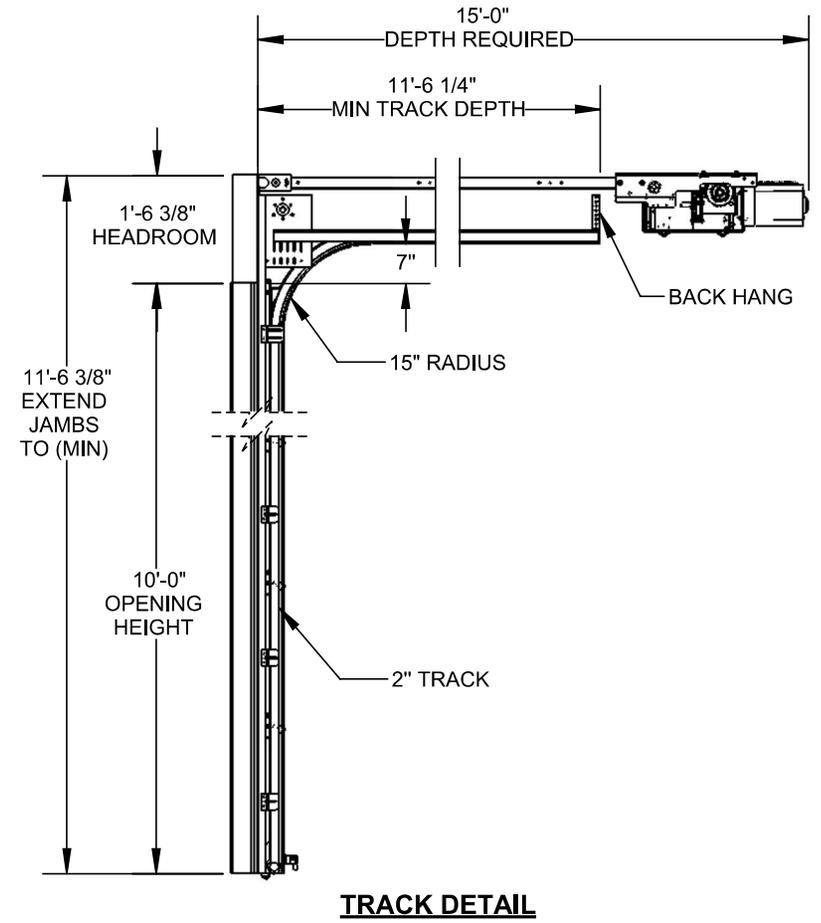
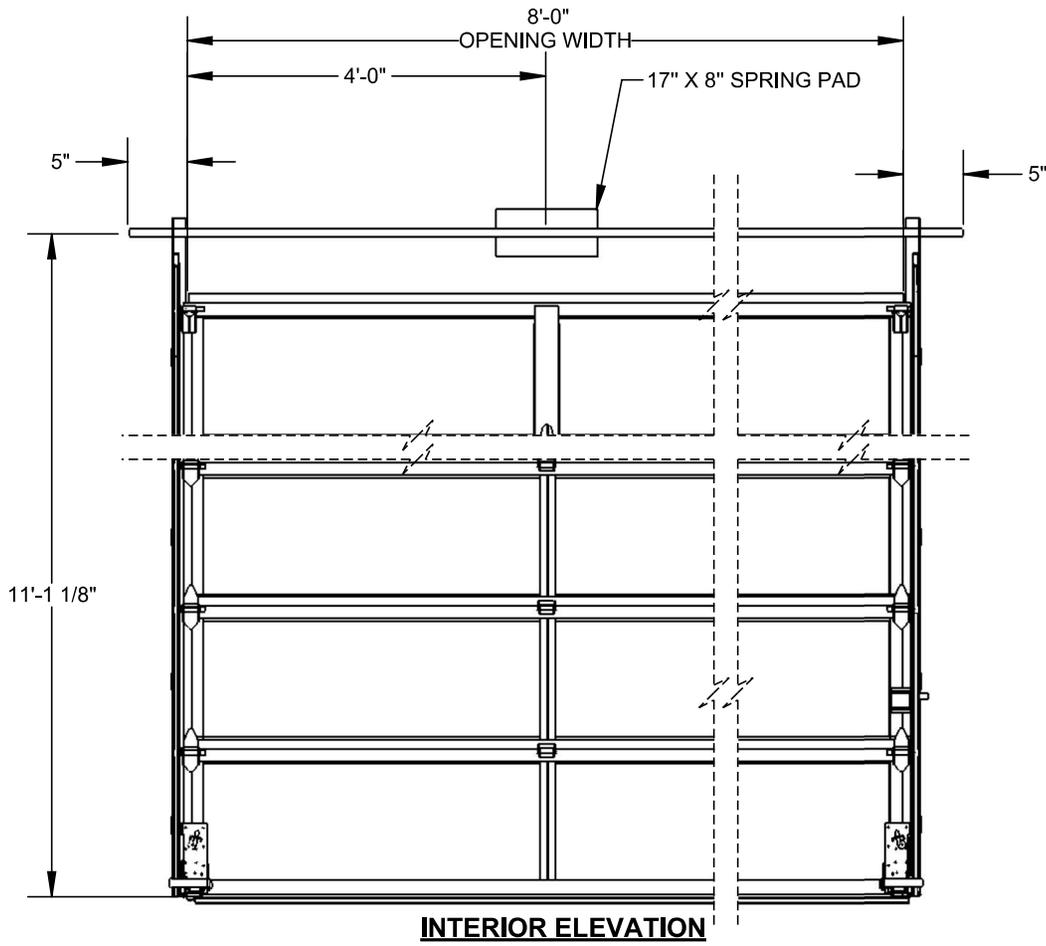
Submitted by: MIKE SCHAFER
Signed by: _____
Firm: Overhead Door of
Address: 2600 crestwood blvd Irondale al
Telephone: 205 956 E-mail: mike@ohdbirmingham.co

A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specifications, Substitution Procedures.
 - Substitution approved as noted - Make submittals in accordance with Specifications Substitution Procedures.
 - Substitution rejected - Use specified materials.
 - Substitution Request received too late - Use specified materials.
- must provide a motor that meets performance requirement of specified OH door. See markup.**

Signed by: Jeffrey Parnell Date: 2/16/26

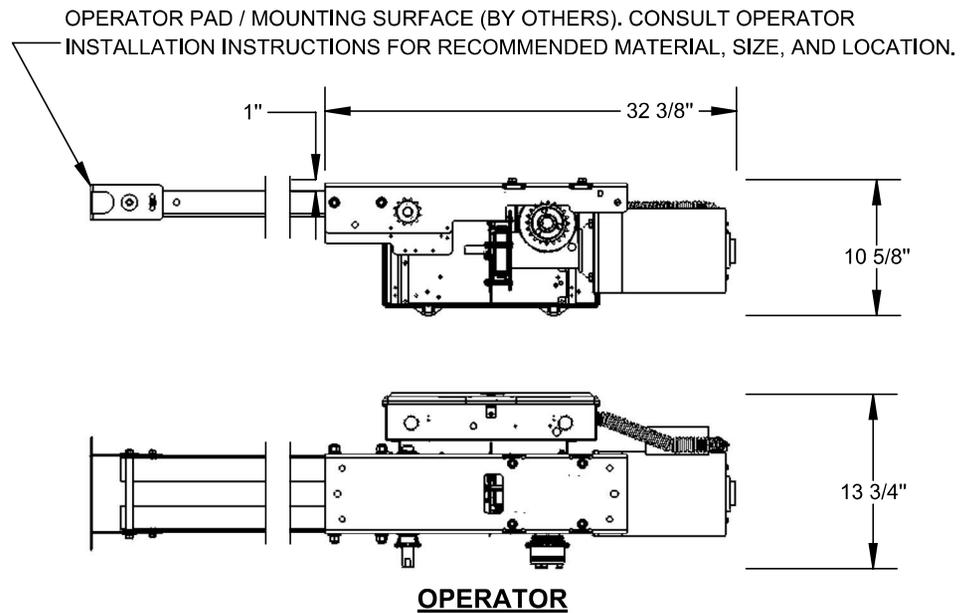
Supporting Data Attached: Drawings Product Data Samples Tests Reports _____



MODEL 521 SECTIONAL The Genuine. The Original. 	DOOR MARK: JOB NAME:ASHVILLE FS # 2	DOOR WIDTH: 8'-2" NOTES:	DOOR HEIGHT: 10'-1"	QUANTITY: 1 SHEET 1 OF 2
	ARCHITECT: GMC CONTRACTOR: TBD			DATE: 02/09/2026 03:27 PM CST
	DISTRIBUTOR: OVERHEAD DOOR COMPANY OF BIRMINGHAM			QUOTE/ORDER#: SQHQ004109-1
				LINE #: 2

SPECIFICATIONS

SECTIONS	SECTIONS ARE COMPRISED OF RAILS AND STILES EXTRUDED FROM 6063-T6 ALUMINUM. U-FACTOR N/A AIR INFILTRATION 0.10 CFM PER SQUARE FOOT AT 15 MPH AND 0.21 CFM PER SQUARE FOOT AT 25 MPH DEFLECTION OF DOOR IN THE HORIZONTAL POSITION WILL NOT EXCEED 1/120 OF DOOR WIDTH. INSULATE AFV FRAME (STILES AND RAILS) NO EXTERIOR COLOR: TO BE DETERMINED
NUMBER OF	SECTIONS: 5 PANELS: 2
WEATHERSEAL	BOTTOM: YES TOP: YES SIDES: YES
GLAZING	ALUMINUM FULL VIEW, 1/2" IGU, TEMPERED, GRAY, DSB SECTION: 1,2,3,4,5 REFER TO EXTERIOR VIEW (DEPICTION) FOR WINDOW PLACEMENT
LOUVERS / PANELS	NONE
HARDWARE	HINGES AND FIXTURES GALVANIZED STEEL
OPTIONAL HARDWARE	INSIDE SIDE LOCK QTY1, CABLE FAILURE SYSTEM
WINDLOAD RATING	NON-RATED
STRUTS	TOP SECTION: NONE SECTION 4: NONE SECTION 3: NONE SECTION 2: NONE BOTTOM SECTION: NONE
TRACK	15" RADIUS 2" TRACK ANGLE MOUNT IN TO STEEL, WITH OVERLAP
SPRINGS / DRUMS	CYCLES: 50,000 CYCLES SPRING QUANTITY: 2 0.289 WIRE, 6" ID, 27.5 LONG TURNS: 10.7 DRUM: D400-123
TORSION SHAFT	SINGLE SHAFT, 1" SOLID
BALANCE WEIGHT	332.12 POUNDS
OPERATION	TROLLEY, DRAWBAR PREP, CENTERED
RELATED WORK	ALL PAD SURFACES MUST BE FLUSH WITH JAMBS. DOOR JAMBS, SPRING PADS, OPERATOR PAD, TRACK BACK HANGERS, AND CENTER HANGERS BY OTHERS.



MOTOR UNIT

RHX TROLLEY, 10 FT RAIL,
LIGHT CURTAIN-3 FT
(MONITORED), 208/230/460V
3PHASE 60HZ, 1/2 HP
BRAKE, AUXILIARY OUTPUT
MODULE

ACCESSORIES

MODEL 521 SECTIONAL

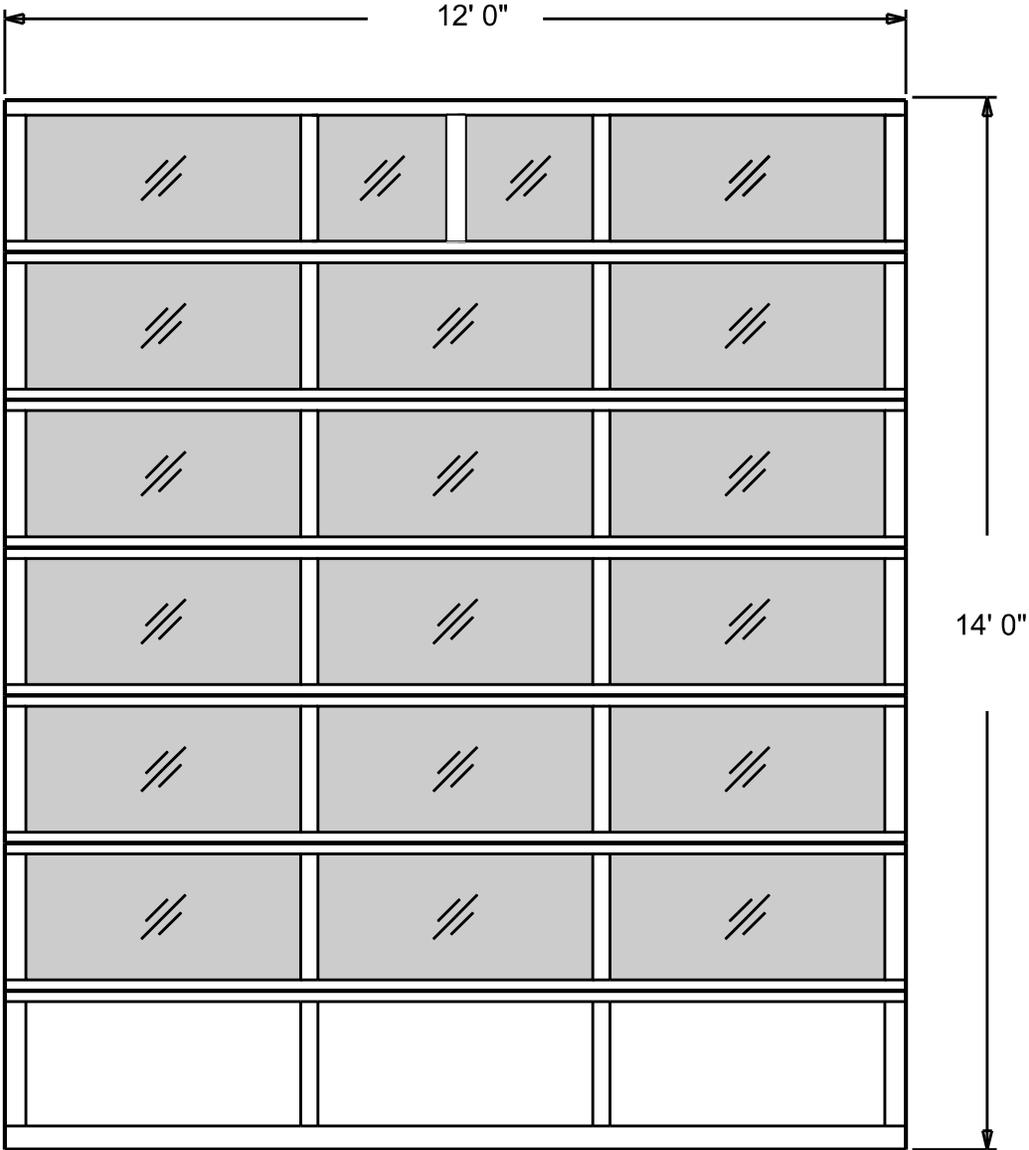
The Genuine. The Original.

DOOR MARK:	JOB NAME: ASHVILLE FS # 2
ARCHITECT: GMC	CONTRACTOR: TBD
DISTRIBUTOR: OVERHEAD DOOR COMPANY OF BIRMINGHAM	

DOOR WIDTH: 8'-2"	DOOR HEIGHT: 10'-1"
NOTES:	

QUANTITY: 1
SHEET 2 OF 2
DATE: 02/09/2026 03:27 PM CST
QUOTE/ORDER#: SQHQ004109-1
LINE #: 2

Exterior View



511/521/522

ALUMINUM DOOR SYSTEMS



ALUMINUM SECTIONAL DOORS



**VISUAL ACCESS.
LIGHT INFILTRATION.
CONTEMPORARY LOOK.**



INDUSTRY LEADING
COMMERCIAL & INDUSTRIAL SOLUTIONS



Model 521, Brown powder coat finish, Clear glass

General features and benefits – Models 511/521

- 1 3/4" (45 mm) thick, corrosion-resistant 6063-T6 aluminum sections with galvanized fixtures and hinges promotes durability and trouble-free operation
- 1/4" (6 mm) diameter through-rods on all stiles and rails enhances strength and sturdiness
- Top-quality materials, excellent field service and optional maintenance program contribute to extended door life, low maintenance costs and maximum productivity
- Glazing choices include DSB glass, acrylic, tempered glass, clear polycarbonate, multi-wall polycarbonate, wire glass, Low E, Lexan and laminate
- Standard clear anodized finish for low-maintenance and corrosion-resistance
- Optional finishes include a wide range of powder coat colors offering an attractive and durable finish
- Manual pull rope operation with optional chain hoist or electric motor operator
- Available in approximately 200 RAL powder coat colors to match the aesthetic and design of your project. This color optional upgrade includes a hardening additive that provides an attractive and durable finish and easy-to-clean surface.

Cover image: Model 521, Clear anodized finish with Clear glass.



Model 522, Mirrored Gray glass

General features and benefits – Model 522

- **Frameless design** – the ultimate sleek and modern aluminum full-view door
- **Vinyl seals** between the sections and the flexible bottom seal help to minimize air flow
- **Large glass panels**, mounted to the front of the door, allow maximum light and visibility
- **1 3/8" thick aluminum section** with patent pending design for long life and durability
- **2 1/4" integrated reinforcing rib** on upper intermediate rail for doors 10'3" wide and over
- **Meets ASHRAE 90.1 and IECC® air infiltration requirements** with a third-party tested value of less than 0.4 cfm/ft²
- **Meets California Code of Regulation, Title 24 air infiltration requirements** with a third-party tested value of less than 0.3 cfm/ft²



ALUMINUM DOOR SYSTEMS

MODELS 511/521/522 offer an attractive solution for commercial and industrial applications where visual access, light infiltration and aesthetics are key design considerations.

Model 521, Clear anodized finish with Clear glass



Model 511, Bronze finish with Clear glass

ALUMINUM DOOR SYSTEMS MODEL 511

doors are designed in sizes up to 16'2" wide and 16'1" high (4928 mm and 4902 mm). Featuring a narrow center stile width of 21/32" (17 mm), these doors are sleek, attractive and permit maximum visibility. An array of glazing choices, top-and bottom-rail widths, finishes and special options customizes the 511 Model to satisfy nearly any project requirement.

Model 511, Black powder coat finish, Clear glass.



Standard features at a glance

Panel thickness	1 3/4" (45 mm)
Maximum standard width	16'2" (6147 mm)
Maximum standard height	16'1" (4902 mm)
Material	6063-T6 aluminum
Standard finish	204R-1 clear anodized
Center stile width	2 1/32" (17 mm)
End stile width	2 3/4" (70 mm)
Top rail width	2 3/8" (60 mm) or 3 3/4" (95 mm)
Top intermediate rail width	3/4" (19 mm)
Bottom intermediate rail width	5/8" (16 mm)
Bottom rail width	2 3/8" (60 mm) or 3 3/4" (95 mm) or 4 1/2" (114 mm)
Weatherseals	Bottom, flexible PVC
Standard springs	10,000 cycle
Track	2" (51 mm)
Mounting	Angle
Operation	Manual pull rope
Hinges and fixtures	Galvanized steel
Lock	Galvanized, interior-mounted single unit
Color palette	Approximately 200 RAL powder coat finishes are available 
Warranty	12-month limited; 3-year powder coat finish

Options

Glazing options*: 1/8" (3 mm) DSB; 1/8" (3 mm) or 1/4" (6 mm) acrylic; 1/8" (3 mm) or 1/4" (6 mm) tempered; 1/8" (3 mm) or 1/4" (6 mm) clear polycarbonate; 1/4" (6mm) and 3/8" twin-wall polycarbonate, 5/8" triple-wall polycarbonate; 1/4" (6 mm) 3/8" (10 mm) and 5/8" (16 mm) twin-wall polycarbonate, triple-wall polycarbonate 1/4" (6 mm) wire glass; 1/2" (12 mm) insulated glass

Electric operator or chain hoist

Bottom sensing edge

3" track

Bracket mounting (not available on full vertical door tracks)

Higher-cycle springs in 25k, 50k, 75k, 100k cycles

Chain hoist

Posi-tension drums

Panel schedule

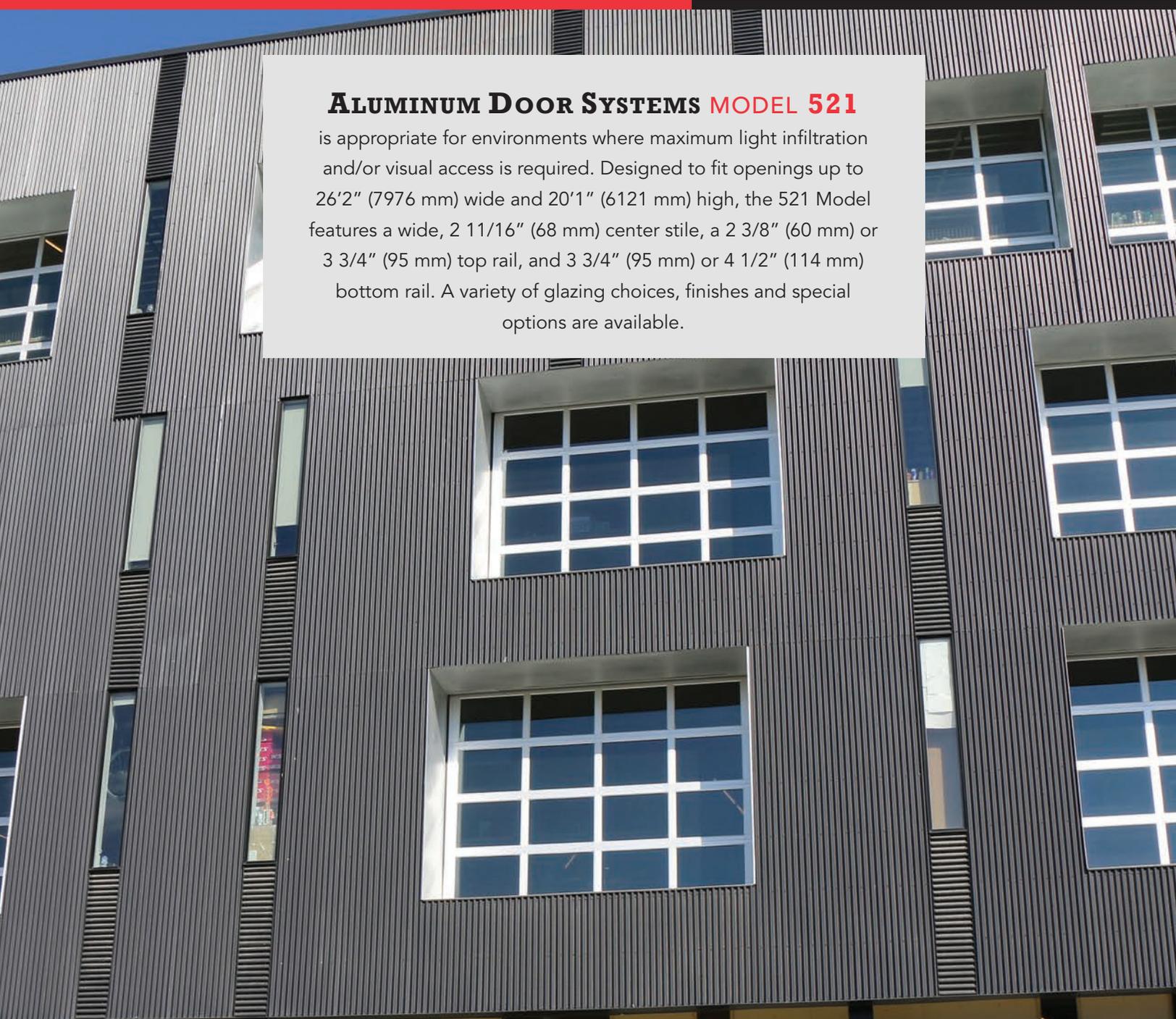
Door width	Number of panels
to 11'11" (3632 mm)	3
12'0" to 14'11" (3658 mm to 4547 mm)	4
15'0" to 16'2" (4572 mm to 4928 mm)	5

Section schedule

Door height	Number of sections
to 8'6" (2591 mm)	4
8'7" to 10'1" (2616 mm to 3073 mm)	5
10'2" to 12'1" (3099 mm to 3683 mm)	6
12'2" to 14'1" (3708 mm to 4293 mm)	7
14'2" to 16'1" (4318 mm to 4902 mm)	8

ALUMINUM DOOR SYSTEMS MODEL 521

is appropriate for environments where maximum light infiltration and/or visual access is required. Designed to fit openings up to 26'2" (7976 mm) wide and 20'1" (6121 mm) high, the 521 Model features a wide, 2 11/16" (68 mm) center stile, a 2 3/8" (60 mm) or 3 3/4" (95 mm) top rail, and 3 3/4" (95 mm) or 4 1/2" (114 mm) bottom rail. A variety of glazing choices, finishes and special options are available.



Model 521, White powder coat finish and Clear glass.



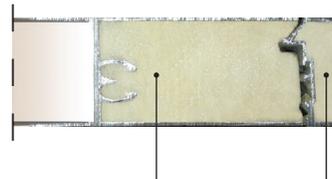
Standard features at a glance

Section thickness	1 3/4" (45 mm)
Maximum standard width	26'2" (7976 mm)
Maximum standard height	20'1" (6121 mm)
Material	Extruded 6061-T6 aluminum
Standard finish	204R-1 clear anodized (painted white at no charge)
Center stile width	2 11/16" (68 mm)
End stile width	3 5/16" (85 mm)
Top rail width	2 3/8" (60 mm) or 3 3/4" (95 mm)
Top intermediate rail width	2 1/8" (54 mm)
Bottom intermediate rail width	1 19/32" (40 mm)
Bottom rail width	3 3/4" (95 mm) or 4 1/2" (114 mm)
Weatherseals	Bottom, flexible PVC
Standard springs	10,000 cycle
Track	2" (51 mm)
Mounting	Angle
Operation	Manual pull rope
Hinges and fixtures	Galvanized steel
Lock	Galvanized, interior-mounted single unit
Color palette	Approximately 200 RAL powder coat finishes
Warranty	12-month limited; 3-year powder coat finish



Optional polyurethane insulation for stiles and rails up to 18'2" wide

1/2" insulated glazing unit	Door R-value (K m ² /W)
DSB- clear, tempered, obscure	2.87
Clear polycarbonate	2.93
DSB - Solar Bronze	3.17
DSB - Low E coating	3.43
SolarBan 70XL argon filled	4.09
Multi-wall polycarbonate	Door R-value (K m ² /W)
1/4" thick unit	2.75
3/8" thick unit	3.21
5/8" thick unit	3.48
Insulated panels	Door R-value (K m ² /W)
3/8" EPS solid panels	2.60



Polyurethane filled rails and stiles

*R-value: Overhead Door uses a calculated door section R-value for our insulated doors.

Options

Glazing options†: 1/8" (3 mm) DSB; 1/8" (3 mm) or 1/4" (6 mm) acrylic; 1/8" (3 mm) or 1/4" (6 mm) tempered; 1/8" (3 mm) or 1/4" (6 mm) clear polycarbonate; 1/4" (6mm) and 3/8" twin-wall polycarbonate, 5/8" triple-wall polycarbonate; 1/4" (6 mm) 3/8" (10 mm) and 5/8" (16 mm) twin-wall polycarbonate, triple-wall polycarbonate 1/4" (6 mm) wire glass; 1/2" (12 mm) insulated glass

Electric operator or chain hoist	Four-section pass door
Bottom sensing edge	Wind load and impact rated door available
3" track	Posi-tension drums
Bracket mounting (not available on full vertical door tracks)	Bronze anodization
Higher-cycle springs in 25k, 50k, 75k, 100k cycles	Powder coat finish
Exhaust ports	Pass door

†Contact your local Overhead Door Distributor for special glazing requirements. Verify 1/4" (6 mm) glass applications with factory.

Panel schedule	
Door width	Number of panels
to 9'2" (to 2794 mm)	2 or 3 (standard)
9'3" to 12'2" (2819 mm to 3708 mm)	3
12'3" to 16'2" (3734 mm to 4953 mm)	4
16'3" to 18'2" (4978 mm to 5537 mm)	4 or 5 (standard)
18'3" to 19'2" (5562 mm to 5842 mm)	5
19'3" to 20'11" (5867 mm to 6375 mm)	6**
21'0" to 23'11" (6401 mm to 7290 mm)	8**
24'0" to 26'2" (7315 mm to 7976 mm)	10**

Section schedule	
Door height	Number of sections
to 8'6" (2591 mm)	4
8'7" to 10'1" (2616 mm to 3073 mm)	5
10'2" to 12'1" (3099 mm to 3683 mm)	6
12'2" to 14'1" (3708 mm to 4293 mm)	7
14'2" to 16'1" (4318 mm to 4902 mm)	8
16'2" to 18'1" (4928 mm to 5512 mm)	9
18'2" to 20'1" (5537 mm to 6121 mm)	10

**Special construction. Consult your local Overhead Door Distributor for additional information.

ALUMINUM DOOR SYSTEMS MODEL 522

This aluminum full-view door is ideal for restaurants, auto dealerships and any application where the door needs to integrate seamlessly with the aesthetics of the building.

Model 522, Mirrored Bronze glass



Standard features at a glance

Max width	18'2" (5486 mm)
Max height	14'1" (4318 mm)
Section width	1 3/8"
Rails	Top and bottom rails with 3 1/2" wide, lower intermediate rail 1 3/8", upper rail 1 5/8", minimum wall thickness 0.062"
Stiles	Single end stiles are 3 1/2" wide, center stile 3" wide, minimum wall thickness 0.062"
Springs	10,000 cycles
Track	Provide track as recommended by manufacturer to suit loading required and clearances available
Warranty	One (1) Year Limited

Options

Springs: 25,000, 50,000, 75,000 or 100,000 cycles
Weather stripping: jamb and header seals
White or Black powder coat track

Glass options



Opaque White



Opaque Black



Mirrored Gray



Mirrored Bronze



Translucent Black

Structure options

Powder Coat Finishes



White



Black



Bronze

Anodized Finishes



Black



Bronze

Actual colors may vary from brochure due to fluctuations in the printing process. Always request a color sample from your Overhead Door Distributor for accurate color matching.

Aluminum and glass pairing

ALUMINUM OPTIONS	GLASS COLOR
White Powder Coat	Opaque White
Black Powder Coat / Bronze Powder Coat / Black Anodized / Bronze Anodized	Opaque Black / Mirrored Gray / Mirrored Bronze / Translucent Black

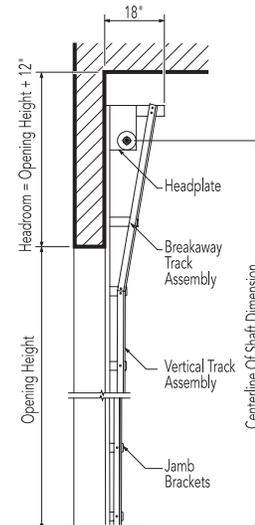
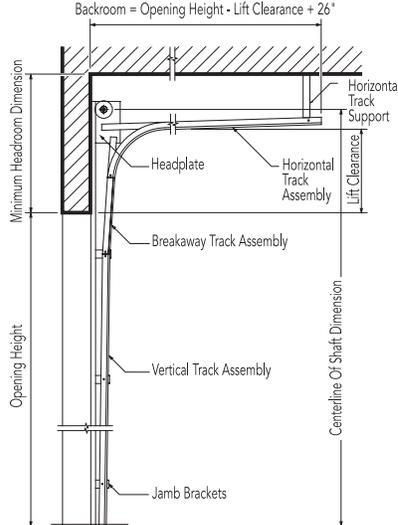
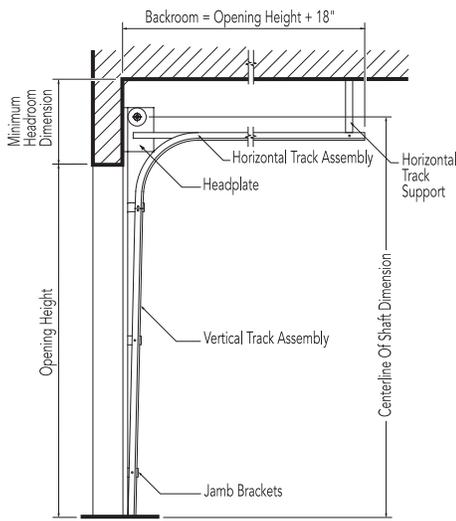
Each door is unique and built to order, therefore a slight deviation in glass alignment is possible. These doors may become hot to the touch in sustained hot weather. See website for door sizes, section selection and other details.

Track detail

Any of the following track configurations can be selected for 511, 521 and 522 Aluminum door models.

O.H.=Opening height L.C.=Lift clearance D.H.=Door height

Standard lift track Lift clearance track Standard Full vertical track



2" (51 mm) Track [15" (381 mm) radius]		
Door height	Centerline of shaft	Minimum headroom
Thru 12'0" (3658 mm)	O.H. + 11 5/8" (295 mm)	14 1/4" (362 mm)
Thru 16'0" (4877 mm)	O.H. + 12 5/8" (321 mm)	20 1/2" (521 mm)

2" (51 mm) Track [15" (381 mm) radius]		
Door height	Centerline of shaft	Minimum headroom
Thru 12'0" (3658 mm)	O.H. + L.C. + 5 5/8" (143 mm)	L.C. + 8 3/4" (222 mm)
Thru 16'0" (4877 mm)	O.H. + L.C. + 5 5/8" (143 mm)	L.C. + 11 1/4" (286 mm)

2" (51 mm) Track [15" (381 mm) radius]		
Door height	Centerline of shaft	Minimum headroom
Thru 11'0" (3353 mm)	O.H. + O.H. + 3/8" (10 mm)	O.H. + 10 1/4" (260 mm)
Thru 16'0" (4877 mm)	O.H. + O.H. + 3/8" (10 mm)	O.H. + 10 1/4" (260 mm)

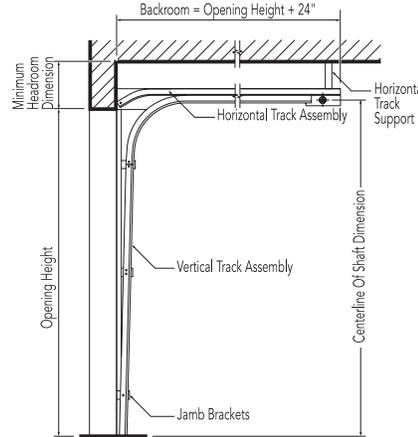
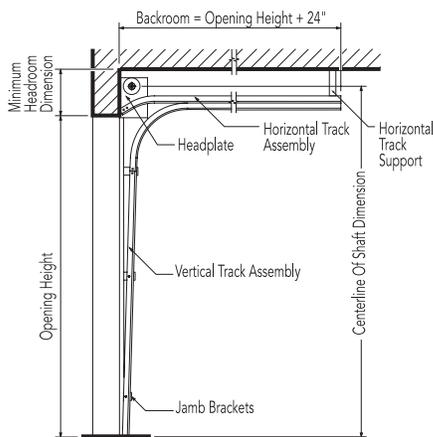
3" (76 mm) Track [15" (381 mm) radius]		
Door height	Centerline of shaft	Minimum headroom
Thru 18'0" (5486 mm)	O.H. + 14 5/8" (372 mm)	18" (457 mm)
Thru 32'0" (9754 mm)	O.H. + 16 7/8" (429 mm)	21 1/2" (546 mm)

3" (76 mm) Track [15" (381 mm) radius]		
Door height	Centerline of shaft	Minimum headroom
Thru 22'0" (6706 mm)	O.H. + L.C. + 6 5/8" (168 mm)	L.C. + 11 1/2" (292 mm)
Thru 32'0" (9754 mm)	O.H. + L.C. + 6 5/8" (168 mm)	L.C. + 12 1/4" (311 mm)

3" (76 mm) Track [15" (381 mm) radius]		
Door height	Centerline of shaft	Minimum headroom
Thru 18'0" (5486 mm)	O.H. + O.H. + 3/8" (10 mm)	O.H. + 10 1/4" (260 mm)

Low headroom track Springs to front

Low headroom track Springs to rear



2" (51 mm) Track [15" (381 mm) radius]		
Door height	Centerline of shaft	Minimum headroom
Thru 12'0" (3658 mm)	D.H. + 8" (203 mm)	11 3/4" (299 mm)
Thru 16'0" (4877 mm)	D.H. + 8" (203 mm)	12 1/2" (318 mm)

3" (76 mm) Track [15" (381 mm) radius]		
Door height	Centerline of shaft	Minimum headroom
Thru 12'0" (3658 mm)	D.H. + 9" (229 mm)	13" (330 mm)
Thru 32'0" (5486 mm)	D.H. + 9" (229 mm)	13 3/4" (349 mm)

2" (51 mm) Track [15" (381 mm) radius]		
Door height	Centerline of shaft	Minimum headroom
Thru 12'0" (3658 mm)	O.H. + 2" (51 mm)	7 1/2" (191 mm)
Thru 16'0" (4866 mm)	O.H. 2" (51 mm)	8" (203 mm)

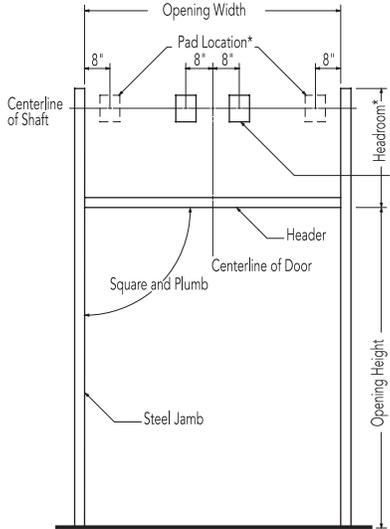
3" (76 mm) Track [15" (381 mm) radius]		
Door height	Centerline of shaft	Minimum headroom
Thru 18'0" (5486 mm)	O.H. 6 3/4" (171 mm)	9 3/4" (248 mm)



Framing and pad detail

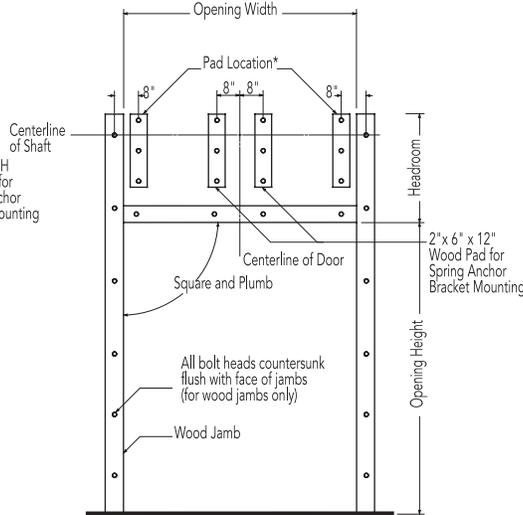
Framing and pad details for common installation of Aluminum doors in steel, wood, concrete and masonry jambs are provided here. If you require additional information or have special project requirements, refer to the Overhead Door Architectural Design Manual, (www.overheaddoor.com/ADM/base.html) or consult with the Overhead Door Applications Engineering Group or your local Overhead Door distributor.

Steel jambs



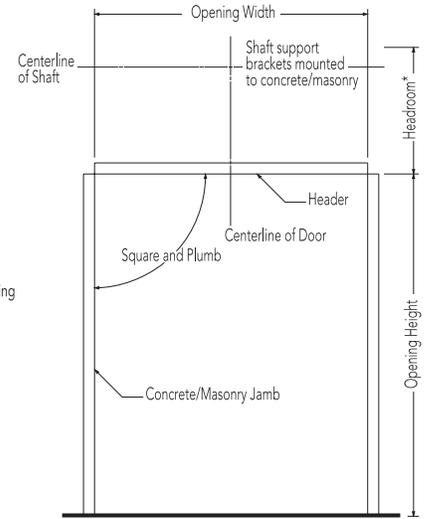
* Pad Location for additional shaft support brackets for doors over 18'3" wide

Wood jambs

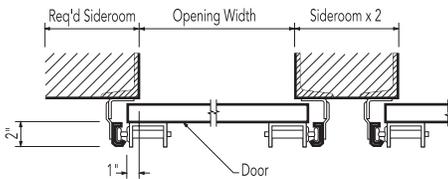


* Pad Location for additional shaft support brackets for doors over 18'3" wide

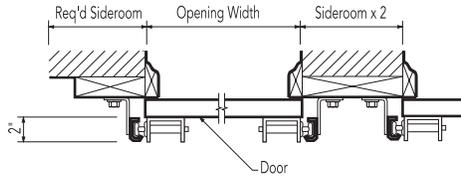
Concrete/masonry jambs



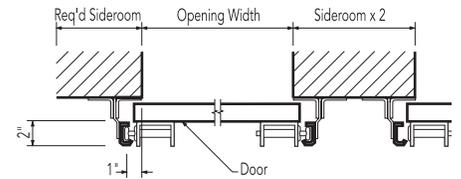
2" (51 mm) track



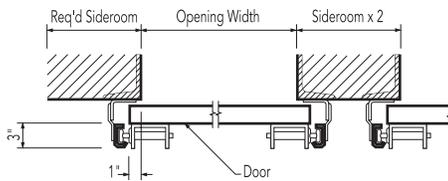
2" (51 mm) track



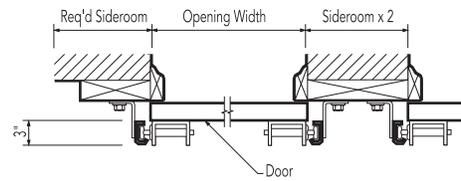
2" (51 mm) track



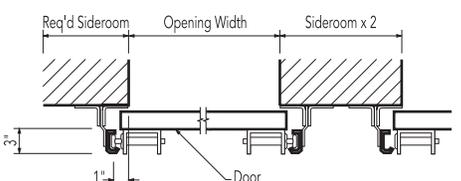
3" (76 mm) track



3" (76 mm) track



3" (76 mm) track



Minimum required sideroom

Track type	2" Track (51 mm)	3" Track (76 mm)
Standard lift	4 1/2" (114 mm)	6 1/2" (165 mm)
Low headroom	9" (229 mm)	10" (254 mm)
Lift clearance	4 1/2" (114 mm)	6 1/2" (165 mm)
Full vertical	4 1/2" (114 mm)	6 1/2" (165 mm)

Minimum required sideroom

Track type	2" Track (51 mm)	3" Track (76 mm)
Standard lift	3 1/2" (89 mm)	5 1/2" (140 mm)
Low headroom	8" (203 mm)	9" (229 mm)
Lift clearance	3 1/2" (89 mm)	5 1/2" (140 mm)
Full vertical	3 1/2" (89 mm)	5 1/2" (140 mm)

Minimum required sideroom

Track type	2" Track (51 mm)	3" Track (76 mm)
Standard lift	4 1/2" (114 mm)	6 1/2" (165 mm)
Low headroom	9" (229 mm)	10" (254 mm)
Lift clearance	4 1/2" (114 mm)	5 1/2" (140 mm)
Full vertical	4 1/2" (114 mm)	5 1/2" (140 mm)

Electric operators

Overhead Door offers the broadest line of electric operators to suit new construction and retrofit applications, as well as unusual or special requirements. In order to improve safety and enhance door and motor life, industry quality assurance guidelines recommend the choice of a single manufacturer for both door and operator applications.

Overhead Door is one of the only national manufacturers to offer a full line of commercial and industrial doors and operators specifically designed for integral applications.

Model RHX®

Model RHX® is a heavy duty commercial operator designed to operate doors up to 24' (7315 mm) in height and 3696 pounds (1676 kg). Available as either a trolley, sidemount or centermount.



Model RMX®

Model RMX® is our newest, most advanced medium-duty operator. It is designed for quicker installation and hassle-free operation and operates doors up to 14' (4267 mm) in height and 620 pounds (282 kg). It is available as a trolley-type or side-mounted unit.



Model RSX®

Model RSX® is a standard duty commercial operator designed to operate doors up to 24' (7315 mm) in height and 1620 pounds (735 kg). It offers unique features like LimitLock®, SuperBelt™ and 16 digit menu setup.



Operator control options

- Push-button, key or combination stations; surface- or flush-mounted for interior and/or exterior locations
- Vehicle detectors, key card reader, photocell and door timer controls
- Treadle or pull switch stations
- Telephone entry and coded keyboard stations
- Universal programmable door timer
- Radio control systems (24 VAC or 120 VAC)
- Explosion and dust ignition-proof systems

Electric operator selection guide										
	Horsepower/ Newtons	Max. height of door	Max. weight of door	Super Belt™/ Polybelt	Worm gear	Adjustable clutch	Totally enclosed	Continuous duty	Explosion proof	Mounting type
RHX®	1/2 HP, 3/4 HP, 1 HP, 3 HP	24' (7315 mm)	3696 lbs (1676 kg)		•	•		•	•	T, S, C
RSX®	1/2 HP, 3/4 HP, 1 HP	24' (7315 mm)	1620 (735 kg)	•		•	•	•		T, S, C
RMX®	1/2 HP	14' (4267 mm)	620 (281 kg)	•						T, S

Mounting options:
T=Trolley S=Side mount C= Center mount

Safety recommendations

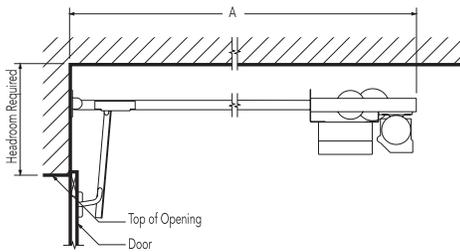
Overhead Door strongly recommends the use of a primary safety device as defined by UL325 2010. A primary safety device can be approved monitored photo-eyes or an approved monitored sensing edge. If a primary safety device is not installed, a constant contact control switch must be used to close the door. Contact Overhead Door for more information.



Mounting details

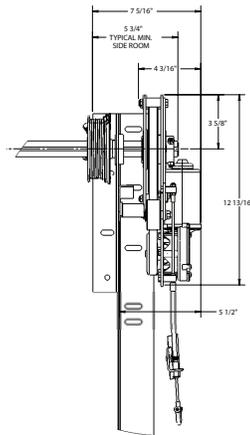
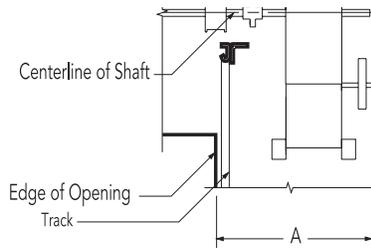
**Trolley-type (Drawbar)
RMX®, RSX®, RHX®**

Trolley-type (Drawbar) operators feature a power unit mounted between, above and to the rear of the horizontal tracks. The drawbar drive provides positive control of the door at all times, making this operator the preferred choice whenever possible. Maximum door width is 20' per drawbar. Door width over 20' requires dual drawbar installation. Available on Models RMX®, RSX® and RHX®.



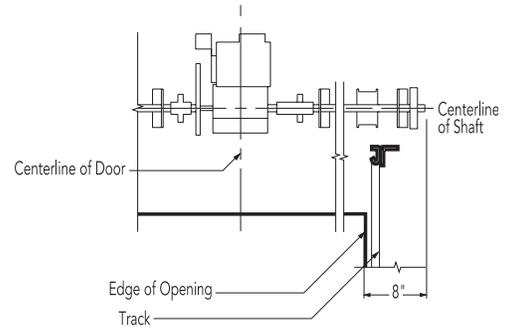
**Side mount type (Jackshaft)
RMX®, RSX®, RHX®**

Side-mounted (Jackshaft) RMX®, RSX®, and RHX® operators feature a power unit mounted on the inside front wall and connected to the crosshead shaft, with an adjustable coupling or drive chain and sprockets.



**Center mount type/Jackshaft
RSX®, RHX®**

Center-mounted (Jackshaft) operators feature a power unit on the front wall above the door opening. No additional backroom is required. Available on models RSX® and RHX®.



Minimum headroom requirements	
RMX®	Track requirements +4 1/2" (114 mm)
RSX®	Track requirements +5" (127 mm)
RHX®	Track requirements +5" (127 mm)

Depth requirements - "A" dimension (backroom)	
RMX®	Door height +4' 0" (1219 mm)
RSX®	Door height +4' 0" (1219 mm)
RHX®	Door height +4' 10" (1219 mm)

"A" dimension - minimum (sideroom)		
	2" track (51 mm)	3" track (76 mm)
RMX®	18 1/2" (470 mm)	19 1/2" (495 mm)
RSX®	21" (533 mm)	22" (559 mm)
RHX®	21" (533 mm)	22" (559 mm)

Minimum headroom requirements	
RSX®	Track requirements +14" (356 mm)
RHX®	Track requirements +23 5/8" (600 mm)



Model 521, solid panel, custom powder coat finish



Tools to help you get the job done.

Architect's Corner

A resource for architects, containing comprehensive technical and resource materials to support your project, including drawings and specifications for commercial doors.

www.overheaddoor.com

The original, innovative choice for unequalled quality and service.

Overhead Door pioneered the upward-acting door industry, inventing the first upward-acting door in 1921 and the first electric door operator in 1926. Today, we continue to be the industry leader through the strength of our product innovation, superior craftsmanship and outstanding customer support, underscoring a legacy of quality, expertise and integrity. That's why design and construction professionals specify Overhead Door products more often than any other brand. Our family of over 400 Overhead Door Distributors across the U.S. and Canada not only share our name and logo, but also our commitment to excellence.



INDUSTRY LEADING
COMMERCIAL & INDUSTRIAL SOLUTIONS

2501 S. State Hwy. 121 Bus., Suite 200, Lewisville, TX 75067
1-800-929-DOOR • sales@overheaddoor.com
www.overheaddoor.com



The Genuine. The Original.



RHX™ Commercial Operator

New state-of-the-art features and technology
for easy and reliable operation.

RHX™ Operator

Heavy duty commercial operator

New state-of-the-art features and technology

The Genuine. The Original.



RHX™ heavy duty operators provide easy and reliable operation for the most stringent applications.

The UL 325 2010 compliant RHX™ offers new state-of-the-art performance features:

- **Easy limit setting with Limit Lock™** – an electro/mechanical limit sensor that makes it easy to set and maintain limits
- **Voltage freedom with Voltamatic™** – one unit for single phase voltages (115/208/230V), one unit for three phase voltages (208/230/460V) and one unit for three phase 575V
- **Extra door system durability with Progressive Braking*** – DC brake system brings the door to a soft stop for less wear and tear on the system
- **Easy installation and trouble-shooting with 16 character LCD display** – intelligent menu structure and expanded self-diagnostics
- **Advanced radio receiver system with auto seek frequency range** – quickly and easily learns up to 250 CodeDodger® transmitters. This system will automatically cycle between 315 and 390 frequencies. It can add and delete transmitters from the menu and easily identify which transmitters are operating the door.
- **True gear head system** – this system's primary drive reduction is via worm gear running in oil bath, which provides reliable operation

*Patents # 6,737,823 and # 6,388,412



RHX™ advantages

Mounting

A wide variety of mounting options are available to fit any application including:

Sectional Doors: Standard, side mount, and dual trolley applications. All models come standard with the DC brake system. Side-mount and center-mount chain couple or direct couple to the door shaft with hoist. Hoist models are left or right hand adjustable in the field.

Rolling Steel Doors: With hoist, front of hood, top of hood, bench mount, and wall-mount applications. Hoist models are left or right hand adjustable in the field.

Motor

Continuous duty motor available in ½, ¾, 1 and 3* horsepower, single or three-phase. Totally enclosed non-ventilated (TENV) construction and totally enclosed fan cooled (TEFC) construction units are available as options. 3* horsepower models come standard with (TEFC) construction.

On-Board Radio Receiver

This standard feature can add radio functionality to every job with no additional cost for the receiver. Stores up to 250 CodeDodger® transmitters including the new commercial dual frequency cycling versions.

Drive Reduction

Primary reduction is worm gear running in oil bath. Secondary reduction is by chain and sprocket.

Direct Coupling (optional on sectional doors only)

Provides fast, easy installation and prevents chain slacking. Available as an optional kit for sectional side/center mount and hoist units.

For sectional, options include:

- 14 RPM kit
- 26 RPM kit

High RPM kit required to match performance of specified OH Door.

Mechanical Brake System

24V DC Disc Brake. Fewer mechanical parts for improved reliability.

Clutch (standard with trolley; optional with hoist)

Adjustable disc-type helps protect door and operator from major damage should the door meet an obstruction. (Included in 14 and 26 RPM direct couple mounting kits)

Cycle Counter

LCD (liquid crystal display) clearly indicates the exact number of cycles logged for easy maintenance support.

Adjustable Shaft

Output shaft of the optional direct coupling kits can be moved from one side to the other, providing flexible installation options.

Trolley Rail Assembly

High strength 2 inch structural angle for added strength and durability.

NEMA 4/4X Operators (optional)

Available for wet, dusty and corrosive environments.

New CodeDodger® Commercial Dual Frequency Cycling Transmitters (optional)

Available in 1,2,3,4-button and Open/Close/Stop versions. Automatically operates at both 315 and 390 MHz every time a button is pressed.

Limited Warranty

RHX™ operator features a 2-year limited warranty. See installation manual for complete limitations and details.

RHX™ Operator

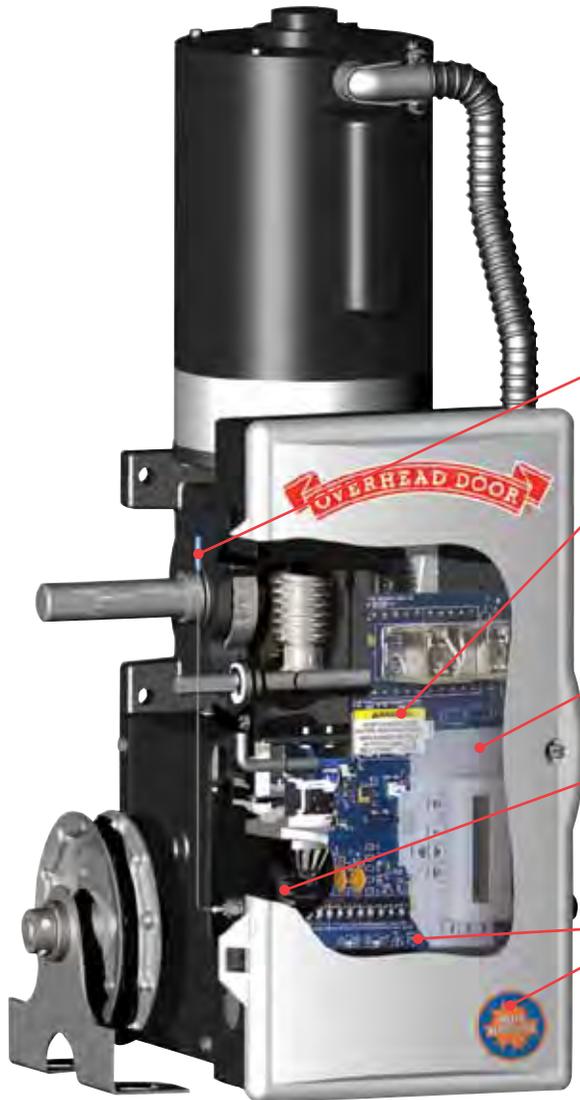
Heavy duty commercial operator

New state-of-the-art features and technology

The Genuine. The Original.



RHX™ heavy duty operators provide easy and reliable operation for the most stringent applications.



- **Advanced radio receiver system**

Provides additional safety and security.

- **Voltage freedom with Voltamatic™**

Voltamatic™ provides 115/208/230V single phase in one unit, and 208/230/460V three phase in another unit. A separate 575V three phase unit is also available.

- **16-character LCD display**

Simplifies installation and troubleshooting.

- **True gear head design**

This system's primary drive reduction is via worm gear running in oil bath, which provides reliable operation.

- **UL325 2010 compliant**

This new standard requires the addition of monitored external entrapment devices prior to the operator working in momentary contact in the close direction.

Progressive braking

An advanced DC brake system similar to anti-lock brakes brings the door to a soft stop for less wear and tear on the system.

Limit Lock™

Makes setting and maintaining limits easy.

RHX™ Sectional Door Chart (Sq. Ft.)

Model	HP	UL Listed	Commercial Steel Insulated & Non-Insulated										Thermacore®						Aluminum		
			Door Series-->		416	418	420	422	424	426	430	432	591	592	593	594	596	598	599	511	521
			Mounting Type	Max. Door Weight (Lbs)	16 GA. Flush Steel	16 GA. Flush Steel Insulated	20 GA. Ribbed Steel	20 GA. Ribbed Steel Insulated	24 GA. Ribbed Steel	24 GA. Ribbed Steel Insulated	Nominal 24 GA. Ribbed Steel	Nominal 24 GA. Ribbed Steel Insulated	Ribbed Steel 1- 5/8"	Ribbed Steel 2"	Ribbed Steel 1- 3/8"	Raised Panel Steel 1- 3/8"	20 GA. Flush Steel 2"	Ribbed Steel 1"	Flush Steel 2"		
RHX™	1/2	Yes	T S C	1310	330	262	406	330	448	366	326	326	490	448	326	326	380	200	448	326	406
RHX™	3/4	Yes	T S C	1450	366	294	490	406	536	448	326	326	536	490	326	326	419	200	448	326	506
RHX™	1	Yes	T S C	1650	448	366	536	448	632	490	326	326	632	584	326	326	501	200	448	326	526
RHX™ w/14 RPM Direct Couple Kit	1	Yes	S C	2400	490	406	684	536	792	584	326	326	792	736	326	326	591	200	448	326	526
RHX™ w/14 RPM Direct Couple Kit	3	Yes	S C	3696	701	588	1020	821	1020	821	326	326	1164	1020	326	326	888	200	448	326	526

T = Trolley S = Jackshaft, Side Mount C = Jackshaft, Center Mount

Note: Side/center direct couple kit output speed is 26 RPM for 1/2, 3/4, and 1HP. For large doors use 14 RPM output speed direct couple kit on 1, and 3 HP RHX operators.

Note: Total door weight, and not the square footage, is the critical factor in selecting the proper operator. Square foot measurements are based on "square doors". (Example = 16' x 16')

Note: Doors that require special wind loading and wide doors normally require increased strutting (reinforcement). Strutting doors can significantly increase door weight beyond maximum weight shown. Consult factory personnel in these situations.

RHX™ Rolling Steel Door Chart (Sq. Ft.)

Model	HP	Max Output Torque (in lbs.)	UL Listed	Rolling Steel Doors										FireKing®		Rolling Fire Doors / Fire Shutters				Counter		Grilles	
				600	610	610/620		625				635		630/631/634				640/641	650/651/652	670	671		
				Coilaway	24 GA.	22 GA.	20 GA.	18 GA.	24 GA.	22 GA.	20 GA.	18 GA.	24 GA.	22 GA.	24 GA.	22 GA.	24 GA.	22 GA.	20 GA.	18 GA.	22 GA.	22 GA./Alum	Alum
RHX™	1/2	466	Yes	256*	465	403	351	268	247	215	199	169	247**	215**	172**	168**	351**	268**	N/A	ALL*	540	240	
RHX™	3/4	570	Yes	256*	580	502	437	334	307	268	248	211	307**	268**	172**	168**	416**	334**	N/A	ALL*	620	290	
RHX™	1	667	Yes	256*	690	600	523	399	367	320	297	252	367**	320**	172**	168**	480**	399**	N/A	ALL*	700	340	
RHX™	3	1972	Yes	256*	N/A	1137	945	867	798	696	645	548	798**	696**	172**	168**	576**	696**	N/A	ALL*	1080	888	

Note: Door chart represents max. door height of 24ft., over 24ft high consult factory.

* Operator must be wall mounted.

**Must use the Auxiliary Input/Output Module part number OPABIOX.s

Optional Accessories

Accessory Description

Transmitters



The RHX™ operator features a built-in Radio Receiver System that can store up to 250 transmitters, giving the customer the ability to identify which transmitters have been operating the door. Radio transmitters may be single-button, two-button, three-button, four-button, or Open/Close/Stop. They are easily programmed or erased using the LCD display. The patented CodeDodger® technology cycles between 315 and 390 MHz with the touch of a button.

Motors



The following motors are available when specified:

- **Totally Enclosed Non Ventilated (TENV)**
- **Totally Enclosed Fan Cooled (TEFV)**

Expansion Modules



- **Auxiliary Output Module** – this plug-in module will provide several auxiliary sets of dry contacts that are microprocessor controlled. Outputs can be configured using the on-board keypad

To maintain compliance when using a sensing edge as a primary safety device with our X-Series commercial operators labeled UL 325 2010, you *must* use one of the following modules:

- **Timer to Close Module** – provides auxiliary control inputs, auxiliary safety inputs, auxiliary timer hold input, and an automatic door closing feature with a user-selectable time delay. Safety inputs can be enabled or disabled using the on board keypad. A sensing device must be used with this module.
- **Monitored Edge Interface Module** – provides an interface between two-wire monitored sensing edges and our X-Series operators. This module allows for the connection of a two-wire monitored sensing edge to be connected to the ODC STB terminals. Compatible for use on Miller Edge electronic two-wire monitored edges models ME and MT.

Sensing Devices



- **Bottom Sensing Edge** – stops and reverses the door upon contact with an obstruction.
- **Safe-T-Beam®** – senses an obstruction and signals the operator to stop or reverse the door.

The service and support you need – when you need them

When you select an Overhead Door product, you get more than advanced product design and manufacturing superiority – you get unmatched support and fast response through our nationwide network of over 450 Ribbon Distributors. For over four generations, Ribbon Distributors have provided the industry's single-source solution for commercial and industrial door and operator systems specifically designed for integrated applications. From design and application consulting to installation and ongoing maintenance, Overhead Door Ribbon Distributors give you the service and support you need – when you need them.



Warranty

RHX™ commercial operator is guaranteed with a 2-year limited warranty. See complete warranty terms for full limitations and details.

The Genuine. The Original.



Overhead Door Corporation
2501 S. State Hwy. 121, Suite 200, Lewisville, TX 75067
1-800-929-DOOR • www.OverheadDoor.com
sales@overhaddoor.com



Complies with UL 325 2010
as of manufactured date.
FCC certified.

SOLD AND DISTRIBUTED BY:

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C900-831 10M 10/10 JAR

SUBSTITUTION REQUEST

Project: ASHVILLE FIRE STATION #2

Substitution Request Number: 002

To: Goodwyn Mills Cawood, LLC

From: Rafe Stewart

Date: 2/4/2026

Attn: _____

A/E Project No.: AHUN250003

Re: 087100 Hardware

Contract For: Dominguez Design-Build, inc.

Specification Title: 087100 Door Hardware

Description: Approve Equal

Section: 2

Page and Paragraph: see page 2

Proposed Substitution: Competitive products as listed on the attachment

Trade Name: Schlage

Manufacturer: Allegion Model No.: _____

Mfg. Address: 11819 N Pennsylvania St. City, State, zip: Carmel, IN 46032 Phone: 317-810-3700

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Submitted by: Maxx Townsend

Signed by: _____

Firm: Allegion

Address: 11819 N Pennsylvania St. Carmel, IN 46032

Telephone: 317-810-3700 E-mail: Maxxwell.Townsend.allegion.com

A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specifications, Substitution Procedures.
 - Substitution approved as noted - Make submittals in accordance with Specifications Substitution Procedures.
 - Substitution rejected - Use specified materials.
 - Substitution Request received too late - Use specified materials.
- Allegion brands are an approved equal to the specified door hardware, however architect will not review a 189 page submittal during bidding. Architect reserves the right to reject non-conforming hardware during construction.

Signed by:

Jeffrey Parnell

Date:

2/16/26

Supporting Data Attached: Drawings Product Data Samples Tests Reports _____



Substitution Request

www.allegion.com

[Document Library](#)

Division 8

We are requesting approval to substitute products that are recognized as equal or better throughout the industry with millions of satisfactory installations that include equal or better warranties than specified. The addition of these approved products will encourage competition in lieu of the currently specified single source products. Cutsheets are attached for review.

Section 087100 Door Hardware

PART 2 – PRODUCTS

2.2 BUTT HINGES: Please add: Ives; an Allegion Company

2.3 CONTINUOUS HINGES: Please add: Ives; an Allegion Company

2.4 CYLINDERS AND KEYING: Please add: Schlage; an Allegion Company

2.6 MORTISE LOCKS AND LATCHING DEVICES: Please add: Schlage L; an Allegion Company

2.8 CONVENTIONAL EXIT DEVICES: Please add: Von Duprin 98/99/70/33A/35A; an Allegion Company

2.9 SURFACE DOOR CLOSERS: Please add: LCN 4040/4110/4030/1460/1260; an Allegion Company

2.10 ARCHITECTURAL TRIM AND ACCESSORIES: Please add: Ives; an Allegion Company

2.11 DOOR STOPS AND HOLDERS

B. Door Stops and Bumpers: Please add: Ives; an Allegion Company

C. Overhead Door Stops and Holders: Please add: Glynn Johnson; an Allegion Company

2.12 ARCHITECTURAL SEALS; Please add: Zero; an Allegion Company

General information - electrification options

Electrical through-wire (TW4 and TW8)

Provides electric power transfer from the frame to the door in order to supply power to an electrified mortise or cylindrical locks, exit devices with electric latch retraction, and/or electric strikes (pairs of doors). Through-wire is rated 50 volts AC/DC at 3.5 amp continuous and 16 amp pulse. Maximum pulse 400 milliseconds. Ives through-wire hinges are fully compatible with 4 wire (TW4) and 8 wire (TW8) installations. Available CON option comes with the Allegion Connect 8-pin Connector which makes it easy to connect to other electrical consumption devices.

- UL634 Listed
- Not available 3PB1, 3SP1, and 5PB1 models
- Not available on 3.5 x 3.5 size hinges
- Not available with security stud (SH) option
- Packaged one hinge per box with standard wood and machine screws
- Hinge is NRP as a standard
- High quality brass ferrules and plastic tubing protect the wires
- Through-wire hinges cycle tested to ensure durability
- Special wire gauge, number, and color configurations available, contact factory



Electrical Monitor (MON, TW4M, TW8M)

Provides door position monitoring. Monitor is rated 30 volts AC/DC at 0.5 amp. Fully compatible with through-wire hinges with 4 wire (TW4M) and 8 wire (TW8M) installations. Available CON option comes with the Allegion Connect 8-pin Connector which makes it easy to connect to other electrical consumption devices.

- UL634 Listed
- Not available 3PB1, 3SP1, and 5PB1 models
- Not available on 3.5 x 3.5 and 4X4 size hinges
- Not available with security stud (SH) option
- Packaged one hinge per box with standard wood and machine screws
- Hinge is NRP as a standard
- High quality brass ferrules and plastic tubing protect the wires
- Through-wire hinges cycle tested to ensure durability
- Special wire gauge, number, and color configurations available, contact factory

Hinges & pivots
A3

Pulls & plates
B

Flush bolts & coordinators
C

Latches, catches & bolts
D

Stops
E

Exterior hardware
F

Miscellaneous hardware
G

Ives Hinge number system

Please note: For availability of specific models, please refer to the item's catalog page or consult Customer Service.

How to order:

5 - BB - 1 - HW - SH - 4.5x4.5 - 652 - NRP

Number of knuckles:

- 3 3 Knuckle
- 5 5 Knuckle

Function:

- PB Plain bearing
- BB Ball bearing
- CB Concealed bearing
- SP Spring Hinge

Type:

- 1 Full mortise
- 2 Half mortise
- 3 Full surface
- 4 Half surface

Weight / Type:

- Blank Standard weight (BHMA Grade 2)
- HW Heavy weight (BHMA Grade 1)
- SC Swing clear
- BSC Beveled swing clear
- SCHW Swing clear, heavy weight
- BSCHW Beveled swing clear, heavy weight
- WT Wide throw

Options:

- HT Hospital tip
- SH Security stud (includes NRP as a standard offering)

Height x Width

- 3.5 x 3.5
- 4 x 4
- 4.5 x 4, 4.5, 5, 6
- 5 x 4.5, 5, 6, 7

Consult model page for availability.

Finish

BHMA	Description	Substrate	Finish
600	Primer paint	Steel	USP
605	Bright brass	Brass	US3
606	Satin brass	Brass	US4
610	Satin bronze	Brass	US10
613	Oil rubbed bronze	Brass	US10B
614	Oxidized bronze	Brass	US10A
616	Blackened bronze	Brass	US11
619	Satin nickel	Brass	US15
622	Matte black	Brass	B-BLK
625	Bright chrome	Brass	US26
626	Satin chrome	Brass	US26D
643e/716	Aged bronze	Brass	B-643e/716
629	Bright stainless	Stainless steel	US32
630	Satin stainless	Stainless steel	US32D
631	Matte black	Steel	F-BLK
632	Bright brass	Steel	US3
633	Satin brass	Steel	US4
639	Satin bronze	Steel	US10
640	Oil rubbed bronze	Steel	US10B
641	Oxidized bronze	Steel	US10A
643	Blackened bronze	Steel	US11
646	Satin nickel	Steel	US15
651	Bright chrome	Steel	US26
652	Satin chrome	Steel	US26D
643e/716	Aged bronze	Steel	F-643e/716

For other colors, consult factory.

Options 2

- NRP Non-removable pin
- RC-1/4 Rounded corners 1/4"
- RC-5/8 Rounded corners 5/8"
- SEC Security screws (hollow metal - hex head pin in socket)
- TW4 Thru-wire - four wire
- TW8 Thru-wire - eight wire
- MON Monitor
- TW4M Thru-wire - four wire with monitor
- TW8M Thru-wire - eight wire with monitor
- CON Allegion connect for wire options above



3PB1 3 Knuckle, plain bearing full mortise hinge

- Recommended for standard weight doors
- Recommended for low frequency usage
- Not recommended for use with a door closer
- Packed with fasteners for hollow metal and wood doors
 - 12-24 x 1/2 UFPHMS, 12 x 1 1/4 FPHWS
 - 10-24 x 1/2 UFPHMS, 10 x 1 FPHWS (3.5x3.5 hinge size only)

Certifications

- Certified to ANSI/BHMA A156.1 for performance standards
- Meets ANSI/BHMA 156.7 for template hinge dimensions

Material substrate

- Made from brass, 1040 steel, or 304 series stainless steel

Options

- NRP Non-removable pin
- HT..... Hospital tip
- SH..... Security stud - comes standard with NRP
- RC-1/4, RC-5/8.... Rounded corners
- SEC Security fasteners - pin-in-socket

Dimensions

Height x Width	Size (mm)	Gauge
3.5 x 3.5	89 x 89	0.123
4 x 4	102 x 102	0.130
4.5 x 4	114 x 102	0.134
4.5 x 4.5	114 x 114	0.134
5 x 4.5	127 x 114	0.146

Refer to General Hinge Information page to determine proper hinge for application

3PB1 Finishes

BHMA	Description	Substrate	Finish
600	Primer paint	Steel	USP
605	Bright brass	Brass	US3
606	Satin brass	Brass	US4
610	Satin bronze	Brass	US10
613	Oil rubbed bronze	Brass	US10B
614	Oxidized bronze	Brass	US10A
616	Blackened bronze	Brass	US11
619	Satin nickel	Brass	US15
622	Matte black	Brass	B-BLK
625	Bright chrome	Brass	US26
626	Satin chrome	Brass	US26D
643e/716	Aged bronze	Brass	B-643e/716
629	Bright stainless	Stainless steel	US32
630	Satin stainless	Stainless steel	US32D
631	Matte black	Steel	F-BLK
632	Bright brass	Steel	US3
633	Satin brass	Steel	US4
639	Satin bronze	Steel	US10
640	Oil rubbed bronze	Steel	US10B
641	Oxidized bronze	Steel	US10A
643	Blackened bronze	Steel	US11
646	Satin nickel	Steel	US15
651	Bright chrome	Steel	US26
652	Satin chrome	Steel	US26D
643e/716	Aged bronze	Steel	F-643e/716

For other colors, consult factory.

Hinges & pivots **A5**

Pulls & plates **B**

Flush bolts & coordinators **C**

Latches, catches & bolts **D**

Stops **E**

Exterior hardware **F**

Miscellaneous hardware **G**



3CBI 3 Knuckle, concealed bearing full mortise hinge

- Recommended for medium weight doors (<150 lbs)
- Recommended for medium frequency usage (<400 cycles per day)
- Made with two concealed nylon bearings
- Recommended for use with a door closer
- Packed with fasteners for hollow metal and wood doors
 - 12-24 x 1/2 UFPHMS, 12 x 1 1/4 FPHWS
 - 10-24 x 1/2 UFPHMS, 10 x 1 FPHWS (3.5x3.5 hinge size only)

Certifications

- Certified to ANSI/BHMA A156.1 for performance standards
- Meets ANSI/BHMA 156.7 for template hinge dimensions
- UL Classified for windstorm rated assemblies - R37965
- UL Listed, 3 hour fire doors

Material substrate

- Made from brass, 1040 steel, or 304 series stainless steel

Options

- NRP Non-removable pin
- HT..... Hospital tip
- SH..... Security stud - comes standard with NRP
- RC-1/4, RC-5/8... Rounded corners
- SEC Security fasteners - pin-in-socket
- TW4 Four wire
- TW4M Four wire with monitor
- TW8 Eight wire
- W8M..... Eight wire with monitor
- MON..... Monitor (not available on 3.5X3.5)

Dimensions

Height x Width	Size (mm)	Gauge
3.5 x 3.5	89 x 89	0.123
4 x 4	102 x 102	0.130
4.5 x 4	114 x 102	0.134
4.5 x 4.5	114 x 114	0.134
5 x 4.5	127 x 114	0.146
5 x 5	127 x 127	0.146

Refer to General Hinge Information page to determine proper hinge for application

3CBI Finishes

BHMA	Description	Substrate	Finish
600	Primer paint	Steel	USP
605	Bright brass	Brass	US3
606	Satin brass	Brass	US4
610	Satin bronze	Brass	US10
613	Oil rubbed bronze	Brass	US10B
614	Oxidized bronze	Brass	US10A
616	Blackened bronze	Brass	US11
619	Satin nickel	Brass	US15
622	Matte black	Brass	B-BLK
625	Bright chrome	Brass	US26
626	Satin chrome	Brass	US26D
643e/716	Aged bronze	Brass	B-643e/716
629	Bright stainless	Stainless steel	US32
630	Satin stainless	Stainless steel	US32D
631	Matte black	Steel	F-BLK
632	Bright brass	Steel	US3
633	Satin brass	Steel	US4
639	Satin bronze	Steel	US10
640	Oil rubbed bronze	Steel	US10B
641	Oxidized bronze	Steel	US10A
643	Blackened bronze	Steel	US11
646	Satin nickel	Steel	US15
651	Bright chrome	Steel	US26
652	Satin chrome	Steel	US26D
643e/716	Aged bronze	Steel	F-643e/716

For other colors, consult factory.



3CBIHW 3 Knuckle, concealed bearing, heavy weight full mortise hinge

- Recommended for heavier weight doors (>150 lbs)
- Recommended for high frequency usage (400 cycles per day)
- Made with two heavy duty concealed nylon bearings
- Recommended for use with a door closer
- Packed with fasteners for hollow metal and wood doors
12-24 x 1/2 UFPHMS, 12 x 1 1/4 FPHWS

Certifications

- Certified to ANSI/BHMA A156.1 for performance standards
- Meets ANSI/BHMA 156.7 for template hinge dimensions
- UL Classified for windstorm rated assemblies - R37965
- UL Listed, 3 hour fire doors

Material substrate

- Made from brass, 1040 steel, or 304 series stainless steel

Options

- NRPNon-removable pin
- HT.Hospital tip
- SH.Security stud - comes standard with NRP
- RC-1/4, RC-5/8. . .Rounded corners
- SECSecurity fasteners - pin-in-socket
- TW4.Four wire
- TW4M.Four wire with monitor
- TW8.Eight wire
- TW8MEight wire with monitor
- MON.....Monitor

Dimensions

Height x Width	Size (mm)	Gauge
4.5 x 4	114 x 102	0.180
4.5 x 4.5	114 x 114	0.180
5 x 4.5	127 x 114	0.190
5 x 5	127 x 127	0.190

Refer to General Hinge Information page to determine proper hinge for application

3CBIHW Finishes

BHMA	Description	Substrate	Finish
600	Primer paint	Steel	USP
605	Bright brass	Brass	US3
606	Satin brass	Brass	US4
610	Satin bronze	Brass	US10
613	Oil rubbed bronze	Brass	US10B
614	Oxidized bronze	Brass	US10A
616	Blackened bronze	Brass	US11
619	Satin nickel	Brass	US15
622	Matte black	Brass	B-BLK
625	Bright chrome	Brass	US26
626	Satin chrome	Brass	US26D
643e/716	Aged bronze	Brass	B-643e/716
629	Bright stainless	Stainless steel	US32
630	Satin stainless	Stainless steel	US32D
631	Matte black	Steel	F-BLK
632	Bright brass	Steel	US3
633	Satin brass	Steel	US4
639	Satin bronze	Steel	US10
640	Oil rubbed bronze	Steel	US10B
641	Oxidized bronze	Steel	US10A
643	Blackened bronze	Steel	US11
646	Satin nickel	Steel	US15
651	Bright chrome	Steel	US26
652	Satin chrome	Steel	US26D
643e/716	Aged bronze	Steel	F-643e/716

For other colors, consult factory.

A7
Hinges & pivots

B
Pulls & plates

C
Flush bolts & coordinators

D
Latches, catches & bolts

E
Stops

F
Exterior hardware

G
Miscellaneous hardware

3CBIWT 3 Knuckle, concealed bearing, wide throw full mortise hinge

- Recommended for medium weight doors (<150 lbs)
- Recommended for medium frequency usage (<400 cycles per day)
- Made with two concealed nylon bearings
- Recommended for use with a door closer
- Packed with fasteners for hollow metal and wood doors
12-24 x 1/2 UFPHMS, 12 x 1 1/4 FPHWS

Certifications

- Certified to ANSI/BHMA A156.1 for performance standards
- Meets ANSI/BHMA 156.7 for template hinge dimensions

Material substrate

- 1040 steel

Options

- NRPNon-removable pin
- HT.....Hospital tip
- SH.....Security stud - comes standard with NRP
- RC-1/4, RC-5/8...Rounded corners
- SECSecurity fasteners - pin-in-socket
- TW4Four wire
- TW4MFour wire with monitor
- TW8Eight wire
- TW8MEight wire with monitor
- MONMonitor

Dimensions

Height x Width	Size (mm)	Gauge
4.5 x 5	114 x 127	0.134
4.5 x 6	114 x 152	0.134
5 x 6	127 x 152	0.146
5 x 7	127 x 178	0.146
5 x 8	127 x 203	0.146

Refer to General Hinge Information page to determine proper hinge for application

3CBIWT Finishes

BHMA	Description	Substrate	Finish
600	Primer paint	Steel	USP
631	Matte black	Steel	F-BLK
632	Bright brass	Steel	US3
633	Satin brass	Steel	US4
639	Satin bronze	Steel	US10
640	Oil rubbed bronze	Steel	US10B
641	Oxidized bronze	Steel	US10A
643	Blackened bronze	Steel	US11
646	Satin nickel	Steel	US15
651	Bright chrome	Steel	US26
652	Satin chrome	Steel	US26D
643e/716	Aged bronze	Steel	F-643e/716

For other colors, consult factory.



3SP1 3 Knuckle, spring full mortise hinge

- For use with doors where self-closing is required
- Maximum door weight 120 lbs, max door width 36"
- Maximum labeled door size - 3'0" wide x 7'0" x 1 3/4" thick as set in NFPA #80
- Packed with fasteners for hollow metal and half metal / half wood applications
 - 12-24 x 1/2 UFPHMS, 12 x 1 1/4 FPHWS
 - Pin for setting spring tension
 - Adjusting wrench

Certifications

- Certified to ANSI/BHMA A156.4 for performance standards
- Meets ANSI/BHMA 156.7 for template hinge dimensions
- UL listed for use with fire rated doors

Material substrate

- Made from 1040 steel or 304 series stainless steel

Options

- RC-1/4, RC-5/8...Rounded corners
- SECSecurity fasteners - pin-in-socket

Dimensions

Height x Width	Size (mm)	Gauge
4 x 4	102 x 102	0.130
4.5 x 4	114 x 102	0.134
4.5 x 4.5	114 x 114	0.134

Refer to General Hinge Information page to determine proper hinge for application.

3SP1 Finishes

BHMA	Description	Substrate	Finish
600	Primer paint	Steel	USP
629	Bright stainless	Stainless steel	US32
630	Satin stainless	Stainless steel	US32D
631	Matte black	Steel	F-BLK
632	Bright brass	Steel	US3
633	Satin brass	Steel	US4
639	Satin bronze	Steel	US10
640	Oil rubbed bronze	Steel	US10B
641	Oxidized bronze	Steel	US10A
643	Blackened bronze	Steel	US11
646	Satin nickel	Steel	US15
651	Bright chrome	Steel	US26
652	Satin chrome	Steel	US26D
643e/716	Aged bronze	Steel	F-643e/716

For other colors, consult factory.

- A9
Hinges & pivots
- B
Pulls & plates
- C
Flush bolts & coordinators
- D
Latches, catches & bolts
- E
Stops
- F
Exterior hardware
- G
Miscellaneous hardware

A10	Hinges & pivots
B	Pulls & plates
C	Flush bolts & coordinators
D	Latches, catches & bolts
E	Stops
F	Exterior hardware
G	Miscellaneous hardware



5PB1 5 Knuckle, plain bearing full mortise hinge

- Recommended for standard weight doors
- Recommended for low frequency usage
- Not recommended for use with a door closer
- Packed with fasteners for hollow metal and wood doors
 - 12-24 x 1/2 UFPHMS, 12 x 1 1/4 FPHWS
 - 10-24 x 1/2 UFPHMS, 10 x 1 FPHWS (3.5x3.5 hinge size only)

Certifications

- Certified to ANSI/BHMA A156.1 for performance standards
- Meets ANSI/BHMA 156.7 for template hinge dimensions

Material substrate

- Made from brass, 1040 steel, or 304 series stainless steel

Options

- NRP Non-removable pin
- HT.....Hospital tip
- SH.....Security stud - comes standard with NRP
- RC-1/4, RC-5/8...Rounded corners
- SEC Security fasteners - pin-in-socket

Dimensions

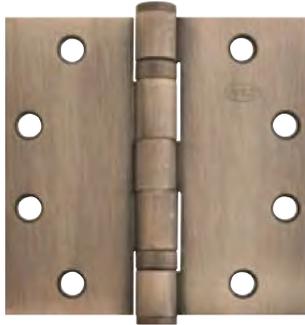
Height x Width	Size (mm)	Gauge
3.5 x 3.5	89 x 89	0.123
4 x 4	102 x 102	0.130
4.5 x 4	114 x 102	0.134
4.5 x 4.5	114 x 114	0.134
5 x 4.5	127 x 114	0.146

Refer to General Hinge Information page to determine proper hinge for application

5PB1 Finishes

BHMA	Description	Substrate	Finish
600	Primer paint	Steel	USP
605	Bright brass	Brass	US3
606	Satin brass	Brass	US4
610	Satin bronze	Brass	US10
613	Oil rubbed bronze	Brass	US10B
614	Oxidized bronze	Brass	US10A
616	Blackened bronze	Brass	US11
619	Satin nickel	Brass	US15
622	Matte black	Brass	B-BLK
625	Bright chrome	Brass	US26
626	Satin chrome	Brass	US26D
643e/716	Aged bronze	Brass	B-643e/716
629	Bright stainless	Stainless steel	US32
630	Satin stainless	Stainless steel	US32D
631	Matte black	Steel	F-BLK
632	Bright brass	Steel	US3
633	Satin brass	Steel	US4
639	Satin bronze	Steel	US10
640	Oil rubbed bronze	Steel	US10B
641	Oxidized bronze	Steel	US10A
643	Blackened bronze	Steel	US11
646	Satin nickel	Steel	US15
651	Bright chrome	Steel	US26
652	Satin chrome	Steel	US26D
643e/716	Aged bronze	Steel	F-643e/716

For other colors, consult factory.



5BB1 5 Knuckle, ball bearing full mortise hinge

- Recommended for medium weight doors (<150 lbs)
- Recommended for medium frequency usage (<400 cycles per day)
- Made with two ball bearing assemblies
- Recommended for use with a door closer
- Packed with fasteners for hollow metal and wood doors
 - 12-24 x 1/2 UFPHMS, 12 x 1 1/4 FPHWS
 - 10-24 x 1/2 UFPHMS, 10 x 1 FPHWS (3.5x3.5 hinge size only)

Certifications

- Certified to ANSI/BHMA A156.1 for performance standards
- Meets ANSI/BHMA 156.7 for template hinge dimensions
- UL Classified for windstorm rated assemblies - R37965
- UL Listed, 3 hour fire doors

Material substrate

- Made from brass, 1040 steel, or 304 series stainless steel

Options

- NRP Non-removable pin
- HT Hospital tip
- SH Security stud - comes standard with NRP
- RC-1/4, RC-5/8 ... Rounded corners
- SEC Security fasteners - pin-in-socket
- TW4 Four wire
- TW4M Four wire with monitor
- TW8 Eight wire
- TW8M Eight wire with monitor
- MON Monitor (not available on 3.5X3.5)

Dimensions

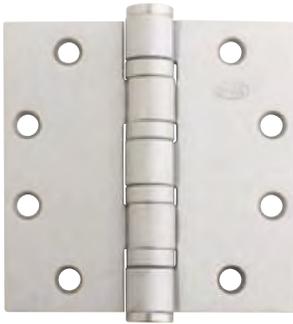
Height x Width	Size (mm)	Gauge
3.5 x 3.5	89 x 89	0.123
4 x 4	102 x 102	0.130
4.5 x 4	114 x 102	0.134
4.5 x 4.5	114 x 114	0.134
5 x 4.5	127 x 114	0.146
5 x 5	127 x 127	0.146

Refer to General Hinge Information page to determine proper hinge for application

5BB1 Finishes

BHMA	Description	Substrate	Finish
600	Primer paint	Steel	USP
605	Bright brass	Brass	US3
606	Satin brass	Brass	US4
610	Satin bronze	Brass	US10
613	Oil rubbed bronze	Brass	US10B
614	Oxidized bronze	Brass	US10A
616	Blackened bronze	Brass	US11
619	Satin nickel	Brass	US15
622	Matte black	Brass	B-BLK
625	Bright chrome	Brass	US26
626	Satin chrome	Brass	US26D
643e/716	Aged bronze	Brass	B-643e/716
629	Bright stainless	Stainless steel	US32
630	Satin stainless	Stainless steel	US32D
631	Matte black	Steel	F-BLK
632	Bright brass	Steel	US3
633	Satin brass	Steel	US4
639	Satin bronze	Steel	US10
640	Oil rubbed bronze	Steel	US10B
641	Oxidized bronze	Steel	US10A
643	Blackened bronze	Steel	US11
646	Satin nickel	Steel	US15
651	Bright chrome	Steel	US26
652	Satin chrome	Steel	US26D
643e/716	Aged bronze	Steel	F-643e/716

For other colors, consult factory.



5BB1HW 5 Knuckle, ball bearing, heavy weight full mortise hinge

- Recommended for heavier weight doors (>150 lbs)
- Recommended for high frequency usage (400 cycles per day)
- Made with four ball bearing assemblies
- Recommended for use with a door closer
- Packed with fasteners for hollow metal and wood doors
12-24 x 1/2 UFPHMS, 12 x 1 1/4 FPHWS

Certifications

- Certified to ANSI/BHMA A156.1 for performance standards
- Meets ANSI/BHMA 156.7 for template hinge dimensions
- UL Classified for windstorm rated assemblies - R37965
- UL Listed, 3 hour fire doors

Material substrate

- Made from brass, 1040 steel, or 304 series stainless steel

Options

- NRPNon-removable pin
- HT.....Hospital tip
- SH.....Security stud - comes standard with NRP
- RC-1/4, RC-5/8...Rounded corners
- SECSecurity fasteners - pin-in-socket
- TW4Four wire
- TW4MFour wire with monitor
- TW8Eight wire
- TW8MEight wire with monitor
- MONMonitor

Dimensions

Height x Width	Size (mm)	Gauge
4.5 x 4	114 x 102	0.180
4.5 x 4.5	114 x 114	0.180
5 x 4.5	127 x 114	0.190
5 x 5	127 x 127	0.190

Refer to General Hinge Information page to determine proper hinge for application

5BB1HW Finishes

BHMA	Description	Substrate	Finish
600	Primer paint	Steel	USP
605	Bright brass	Brass	US3
606	Satin brass	Brass	US4
610	Satin bronze	Brass	US10
613	Oil rubbed bronze	Brass	US10B
614	Oxidized bronze	Brass	US10A
616	Blackened bronze	Brass	US11
619	Satin nickel	Brass	US15
622	Matte black	Brass	B-BLK
625	Bright chrome	Brass	US26
626	Satin chrome	Brass	US26D
643e/716	Aged bronze	Brass	B-643e/716
629	Bright stainless	Stainless steel	US32
630	Satin stainless	Stainless steel	US32D
631	Matte black	Steel	F-BLK
632	Bright brass	Steel	US3
633	Satin brass	Steel	US4
639	Satin bronze	Steel	US10
640	Oil rubbed bronze	Steel	US10B
641	Oxidized bronze	Steel	US10A
643	Blackened bronze	Steel	US11
646	Satin nickel	Steel	US15
651	Bright chrome	Steel	US26
652	Satin chrome	Steel	US26D
643e/716	Aged bronze	Steel	F-643e/716

For other colors, consult factory.



5BB1WT 5 Knuckle, ball bearing, wide throw full mortise hinge

- Recommended for medium weight doors (<150 lbs)
- Recommended for medium frequency usage (<400 cycles per day)
- Made with two ball bearing assemblies
- Recommended for use with a door closer
- Packed with fasteners for hollow metal and wood doors
12-24 x 1/2 UFPHMS, 12 x 1 1/4 FPHWS

Certifications

- Certified to ANSI/BHMA A156.1 for performance standards
- Meets ANSI/BHMA 156.7 for template hinge dimensions

Material substrate

- 1040 steel

Options

- NRP Non-removable pin
- HT Hospital tip
- SH Security stud - comes standard with NRP
- RC-1/4, RC-5/8 ... Rounded corners
- SEC Security fasteners - pin-in-socket
- TW4 Four wire
- TW4M Four wire with monitor
- TW8 Eight wire
- TW8M Eight wire with monitor
- MON Monitor

Dimensions

Height x Width	Size (mm)	Gauge
4.5 x 5	114 x 127	0.134
4.5 x 6	114 x 152	0.134
5 x 6	127 x 152	0.146
5 x 7	127 x 178	0.146
5 x 8	127 x 203	0.146

Refer to General Hinge Information page to determine proper hinge for application

5BB1WT Finishes

BHMA	Description	Substrate	Finish
600	Primer paint	Steel	USP
631	Matte black	Steel	F-BLK
632	Bright brass	Steel	US3
633	Satin brass	Steel	US4
639	Satin bronze	Steel	US10
640	Oil rubbed bronze	Steel	US10B
641	Oxidized bronze	Steel	US10A
643	Blackened bronze	Steel	US11
646	Satin nickel	Steel	US15
651	Bright chrome	Steel	US26
652	Satin chrome	Steel	US26D
643e/716	Aged bronze	Steel	F-643e/716

For other colors, consult factory.



Meets ANSI/BHMA A156.1
A8122 – Steel
A5122 – Stainless Steel
A2122 – Brass

5BB1SC 5 Knuckle, ball bearing, swing clear full mortise hinge
5BB1BSC 5 Knuckle, ball bearing, beveled swing clear full mortise hinge

- Designed to completely clear the opening when door is opened 92°.
- Recommended for use in ADA door opening applications
- 5BB1SC made for square edge doors
- 5BB1BSC made for beveled edge doors
- Recommended for medium weight doors (<150 lbs)
- Recommended for medium frequency usage (<400 cycles per day)
- Made with two ball bearing assemblies
- Packed with fasteners for hollow metal and wood doors
12-24 x 1/2 UPPHMS, 12 x 1 1/4 FPHWS

Certifications

- Certified to ANSI/BHMA A156.1 for performance standards
- Meets ANSI/BHMA 156.7 for template hinge dimensions

Material substrate

- Made from 1040 steel or 304 series stainless steel

Options

- NRPNon-removable pin
- HT.....Hospital tip
- RC-1/4, RC-5/8...Rounded corners
- SECSecurity fasteners - pin-in-socket
- TW4Four wire
- TW4MFour wire with monitor
- TW8Eight wire
- TW8MEight wire with monitor
- MONMonitor

Dimensions

Height	Size (mm)	Gauge
4.5	114	0.134
5	127	0.146

Refer to General Hinge Information page to determine proper hinge for application

5BB1SC Finishes

BHMA	Description	Substrate	Finish
600	Primer paint	Steel	USP
629	Bright stainless	Stainless steel	US32
630	Satin stainless	Stainless steel	US32D
631	Matte black	Steel	F-BLK
632	Bright brass	Steel	US3
633	Satin brass	Steel	US4
639	Satin bronze	Steel	US10
640	Oil rubbed bronze	Steel	US10B
641	Oxidized bronze	Steel	US10A
643	Blackened bronze	Steel	US11
646	Satin nickel	Steel	US15
651	Bright chrome	Steel	US26
652	Satin chrome	Steel	US26D
643e/716	Aged bronze	Steel	F-643e/716

For other colors, consult factory.



5BB1SCHW 5 Knuckle, ball bearing, swing clear, heavy weight full mortise hinge
5BB1BSCHW 5 Knuckle, ball bearing, beveled swing clear, heavy weight full mortise hinge

- Designed to completely clear the opening when door is opened 92°.
- Recommended for use in ADA door opening applications
- 5BB1SCHW made for square edge doors
- 5BB1BSCHW made for beveled edge doors
- Recommended for heavier weight doors (>150 lbs)
- Recommended for high frequency usage (400 cycles per day)
- Made with four ball bearing assemblies
- Packed with fasteners for hollow metal and wood doors
 12-24 x 1/2 UFPHMS, 12 x 1 1/4 FPHWS

Certifications

- Certified to ANSI/BHMA A156.1 for performance standards
- Meets ANSI/BHMA 156.7 for template hinge dimensions

Material substrate

- Made from 1040 steel or 304 series stainless steel

Options

- NRP.....Non-removable pin
- HT.....Hospital tip
- RC-1/4, RC-5/8...Rounded corners
- SEC.....Security fasteners - pin-in-socket
- TW4.....Four wire
- TW4M.....Four wire with monitor
- TW8.....Eight wire
- TW8M.....Eight wire with monitor
- MON.....Monitor

Dimensions

Height	Size (mm)	Gauge
4.5	114	0.180
5	127	0.190

Refer to General Hinge Information page to determine proper hinge for application

5BB1SCHW Finishes

BHMA	Description	Substrate	Finish
600	Primer paint	Steel	USP
629	Bright stainless	Stainless steel	US32
630	Satin stainless	Stainless steel	US32D
631	Matte black	Steel	F-BLK
632	Bright brass	Steel	US3
633	Satin brass	Steel	US4
639	Satin bronze	Steel	US10
640	Oil rubbed bronze	Steel	US10B
641	Oxidized bronze	Steel	US10A
643	Blackened bronze	Steel	US11
646	Satin nickel	Steel	US15
651	Bright chrome	Steel	US26
652	Satin chrome	Steel	US26D
643e/716	Aged bronze	Steel	F-643e/716

For other colors, consult factory.

Hinges & pivots
A15

Pulls & plates
B

Flush bolts & coordinators
C

Latches, catches & bolts
D

Stops
E

Exterior hardware
F

Miscellaneous hardware
G

Ives Continuous Hinges are designed to last the life of the building. The unique design distributes the weight of the door along the entire length of the frame, reducing the high amount of stress normally associated at top of door and frame on butt hinge applications.

Not only does this reduce hinge failure, it also keeps your door in constant alignment, greatly reducing the chance of door sag. These characteristics make continuous hinges suitable for high use/high traffic doors.

The design of a continuous hinge eliminates the gap between the door and the frame. The absence of gap also helps prevent finger from being pinched, making it a safer device than traditional hinges. These benefits result in higher efficiency and less maintenance, maximizing the value of your opening investment.

Continuous hinges are available in two styles; aluminum geared and pin and barrel in steel or stainless steel.



Aluminum geared

Geared continuous hinges utilize a single gear section for the leaf and a separate gear section for the frame side of the door. The two are held in place together by a full length cover channel and rotate on a series of bearings.

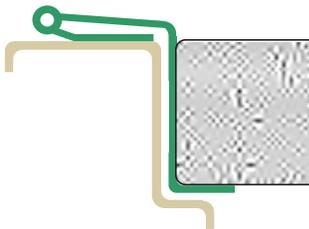
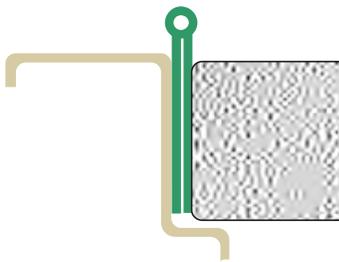
Ives provides two unique series of bearing designs. The HD model features a spread bearing design for lighter weight doors. The XY features a center load bearing design to help reduce frame issues and also has an available hospital tip cap and electric through wire panel with a continuous cover.



Pin and barrel

Pin and Barrel hinges share many of the same characteristics of a traditional hinge. Both have a center pin and rolled knuckles. However, a continuous Pin and Barrel hinge stretches along the entire length of the frame. Ives offers both stainless steel and primed steel to best match your specific application.

Ives also offers the CS series pin and barrel hinges which provides a patented solution that brings the clean aesthetic design of aluminum geared continuous hinge to the ruggedness and safety afforded by stainless pin and barrel continuous hinges.



Lifetime warranty

Ives continuous hinges carry a limited lifetime warranty, ensuring your opening will function to your satisfaction every time. Please refer to the price book for more detailed warranty information.

General hinge information

ANSI Certified

All Ives Aluminum geared hinges are certified to ANSI 156.26, Grade 1

XY Models Grade 1 150lb and 300lb door test

HD Models Grade 1 150lb door test

UL Listed

All Ives Aluminum geared hinges are tested and approved UL 10C (90 minutes).

Material

6063-T6 Aluminum

Hinge duty

All Ives Aluminum geared hinges are heavy duty (XY and HD models)

XY Model - Slot Adjustability



XY Model - Bearings



HD Model



XY Models:

- Rounded gear design for extended life and smoother operation.
- Patented, center loaded, interlocking bearing design which helps handle the opening and closing of the door better over time. All sizes have 37 Bearings.
- XY Mounting Slot Adjustability on all full and half surface models to help with installation.
- Frame guidance lip is extended further for retrofit applications to cover existing heavy weight architectural hinge preps.
- Improved aesthetics with a curved, articulating cover design which eliminates pinch points

HD Models

Features transmission gear design with bearings that are evenly spaced every 3" on center - Amount of bearings varies by size

- 83"32 Bearings
- 85"32 Bearings
- 95"36 Bearings
- 120"47 Bearings

Standard lengths

83", 85", 95", 119" (XY Models), 120" (HD Models) Custom lengths available up to 119", consult factory. Handing required for 224HD

Finishes

BHMA	US	Description	Base Material
628	US28	Clear aluminum anodized	Aluminum
710	313AN	Dark bronze anodized	Aluminum

Custom finishes available, consult factory.

Field modifications

Ives Aluminum geared continuous hinges can be cut to length from both ends during installation.

XY Models

The unique mounting pattern of the XY hinge allows it to be cut down to 69" while still having double row fasteners regardless of the original length of the hinge. Requires the hinge to be cut from both ends. Example: A 119" hinge can have 25" removed from each end to make it a 69" long hinge.

HD Models

The unique mounting pattern allows to cut up to 6" from bottom while still having double row fasteners. If cut more than 13.5", other modifications may be necessary.

Door weight

For doors up to 200 lbs, no door reinforcement is required. For doors between 200 and 450 lbs a 16 gauge channel in the frame is required. For doors up to 600 lb, rivet nuts are required in the frame in addition to the frame reinforcement. Max door width of 4'0".

Hospital tips

Hospital tip (HT) for XY models

The new XY models features a new ligature resistant and tamper resistant Hospital Tip Cap. The new design provides a single uniform 45° angle surface with no exposed edges or openings.

Hospital tips (HT) for HD models

The standard hospital tip option includes an angle machined channel cover and bearing to provide a flush angled surface. Recommended for HT retrofit applications only.



Mounting hardware

Standard hardware		
Full mortise hinges	12-24 x 3/4" Steel self drilling / self tapping phillips head screw	
Half surface hinges Includes 210XY	12-24 x 3/4" Steel self drilling / self tapping phillips head screw 12-24 x 3/4" Steel self drilling / self tapping hex head screw	
Full surface hinges 157XY Only	12-24 x 3/4" Steel self drilling / self tapping hex head screw	
Security screws - Hollow metal door and frame (SEC/HM)		
Full mortise hinges 112HD and 224HD only Available as accessory parts kit for full mortise XY hinges (026XY, 027XY, 040XY, 041XY, 112XY, 114XY, 224XY)	12-24 X 1/2" Stainless steel socket security screw	
Security screws - 1/2 wood, 1/2 hollow metal (SEC/WD/HM)		
Full Mortise Hinges 112HD and 224HD only Available as accessory parts kit for full mortise XY hinges (026XY, 027XY, 040XY, 041XY, 112XY, 114XY, 224XY)	12-24 X 1/2" Stainless steel socket security screw 12 X 1 1/4" Stainless steel socket security wood screw	
1/2 Self drill, self tap / 1/2 wood (TEK/WD)		
Full mortise hinges	12-24 x 3/4" Steel self drilling / self tapping phillips head screw	12 x 1 1/4" Phillips head wood screw
Half surface hinges	12-24 x 3/4" Steel self drilling / self tapping phillips head screw	1/4 x 1 1/2" Hex head lag screw
Full surface hinges	12-24 x 3/4" Steel self drilling / self tapping hex head screw	1/4 x 1 1/2" Hex head lag screw
Wood door and frame (WD)		
Full mortise hinges	12 x 1 1/4" Phillips head wood screw	
Half surface hinges Includes 210XY	12 x 1 1/4" Phillips head wood screw 1/4 x 1 1/2" Hex head lag screw	
Full surface hinges 157XY only	1/4 x 1 1/2" Hex head lag screw	
Thread forming (TF)		
Full mortise hinges 112HD and 224HD only Available as accessory parts kit for full mortise XY hinges (026XY, 027XY, 040XY, 041XY, 112XY, 114XY, 224XY)	12-24 x 3/4" Steel thread forming phillips head screw	

Hinges & pivots
A19

Pulls & plates
B

Flush bolts & coordinators
C

Latches, catches & bolts
D

Stops
E

Exterior hardware
F

Miscellaneous hardware
G

General information - electrification options

Electric power transfer (EPT) available on HD and XY models

Electric power transfer provides the most secure and best solution for transferring power from the door frame to the edge of a swinging door. Ives Continuous Hinges provide standard cut outs to fit Von Duprin EPT-2, EPT-10 and PNT-1 devices. Consult factory for other electrical cut out options. Door handing is required.

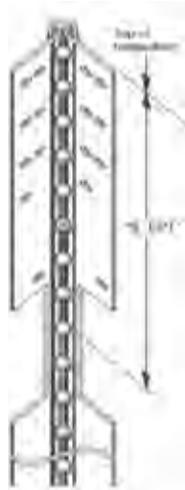


NEW Electrical through-wire panel with Allegion Connect (TWP CON) (XY models only)

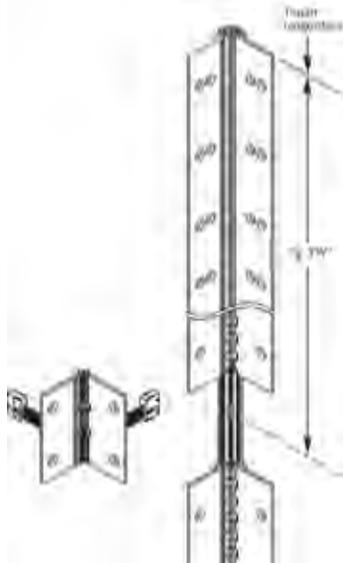
The most secure and best solution for powering your door. The redesigned XY Through-Wire Panel is heavy duty and easy-to-install. Hinge consists of single piece cover design for improved aesthetics and three sections with a standard bottom length and through wire panel location. The panel can quickly slip in and out of the the hinge for maintenance and replacement. Unlike all of the other manufacturer solutions, the XY through-wire panel maintains a one piece appearance on the cover side of the hinge. The new wire design features a teflon coated wire which greatly improves performance and durability. The new panel also comes standard with the Allegion Connect 8-pin Connector which makes it easy to connect to other electrical consumption devices. Warrantied for up to 5 years. Door handing is required.

Provides electric power transfer from the frame to the door in order to supply power to an electrified mortise or cylindrical locks, exit devices with electric latch retraction, and/or electric strikes (pairs of doors). Through-wire is rated 50 volts AC/DC at 3.5 amp continuous and 16 amp pulse. Maximum pulse 400 milliseconds. Ives through-wire hinges are fully compatible with 4 wire and 8 wire installations.

EPT 112HD



TWP XY Series



Note: See ordering guide in price book for proper placement.

Electrical cutouts

Ives aluminum continuous hinges are available with factory modified cutouts to accommodate most electrical frame to door requirements. Special templates are required.

When ordering indicate the following:

1. Opening size.
2. Handing. LH, RH, LHR or RHR.
3. Manufacturer and model number of the electrical product being used. Example; Von Duprin ETPT2

Because clearances may vary between door and frame manufacturer, and locations can be influenced by the door hardware it is always recommend contacting Ives Customer Technical for specific template information.

Below are standard locations for Von Duprin EPT2 or EPT10, and monitor switch.

In accordance with industry standards, all cutouts are made from top edge of door to center line of cut-out

Standard Length	HD	XY	XY
	EPT	EPT	TWP CON
83"	30"	30"	43.5"
85"	32"	32"	45.5"
95"	42"	42"	55.5"
119" (XY)	–	66"	79.5"
120" (HD)	67"	–	–

XY TWP CON is located 39.5 inches from bottom of the hinge. Consult factory for TWP locations on custom length hinges.

How to order

	112XY	HT	US28	83	TWP CON
Model					
026XY	Full mortise - narrow frame leaf, wide door leaf				
027XY	Full mortise - wide door leaf				
040XY	Full mortise - wide throw				
041XY	Full mortise - swing clear				
045XY	Half surface - narrow frame leaf, wide door leaf				
046XY	Half surface - wide door leaf				
053XY	Half surface - narrow frame leaf, narrow door leaf				
054XY	Half surface - narrow door leaf				
112XY	Full mortise - narrow frame and door leaf				
112HD	Full mortise - narrow frame and door leaf				
114XY	Full mortise - narrow frame leaf, door edge protector				
157XY	Full surface - center pivot				
210XY	Full surface - swing clear				
224XY	Full mortise - door edge protector				
224HD	Full mortise - door edge protector				
Option 1					
HT	Hospital tip (XY models only) (Only available on 026XY, 027XY, 040XY, 112XY, 114XY, 224XY)				
Finish					
US28	Clear Anodized Aluminum				
313AN	Dark Bronze Anodized Aluminum				
315AN	Black Anodized Aluminum (XY only)				
Custom finishes available, consult factory.					
Length					
83"					
85"					
95"					
119"(XY) / 120"(HD)					
Custom lengths available up to 119", consult factory. When specifying length, handling required.					
Option 2					
EPT	Electric power transfer prep (Only available on 026XY, 027XY, 112HD, 112XY, 114XY, 224HD, 224XY)				
TWP CON	Handling (LH and RH) Required for 026, 027, 114, and 224 models Through Wire Panel with Allegion Connect Standard (Only Available on 026XY, 027XY, 112XY, 114XY, 224XY)				
SECHM	Security fasteners - pin-in-socket				
SECWDHM	Security fasteners - pin-in-socket (half wood, half hollow metal)				
SECWDWD	Security fasteners - pin-in-socket (wood door and frame)				
WD	Wood door fasteners				
TEKWD	Half thread forming, half wood				
TF	Thread forming screws (pilot hole required) (Only available with 112HD and 224HD)				
TFWD	Half thread forming, half wood				

Hinges & pivots
A21

Pulls & plates
B

Flush bolts & coordinators
C

Latches, catches & bolts
D

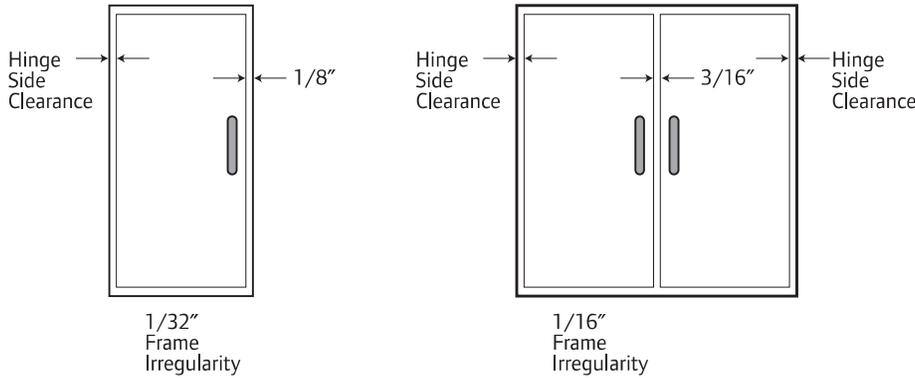
Stops
E

Exterior hardware
F

Miscellaneous hardware
G

Clearance requirements

Consult your local authority having jurisdiction for specific fire codes relating to fire rated doors. The table below is only recommended for non fire related doors.



Single door

Model	Hinge-side clearance	Lock-side clearance	Frame irregularity	Beveled door clearance	Door under-sizing	
					Square edged	Beveled edge
026XY	5/16"	1/8"	1/32"	1/32"	15/32"	1/2"
027XY	5/16"	1/8"	1/32"	1/32"	15/32"	1/2"
040XY	5/16"	1/8"	1/32"	1/32"	15/32"	1/2"
041XY	5/16"	1/8"	1/32"	1/32"	15/32"	1/2"
045XY	5/32"	1/8"	1/32"	1/32"	5/16"	11/32"
046XY	5/32"	1/8"	1/32"	1/32"	5/16"	11/32"
053XY	5/32"	1/8"	1/32"	1/32"	5/16"	11/32"
054XY	5/32"	1/8"	1/32"	1/32"	5/16"	11/32"
112HD	5/16"	1/8"	1/32"	1/32"	15/32"	1/2"
112XY	5/16"	1/8"	1/32"	1/32"	15/32"	1/2"
114XY	5/16"	1/8"	1/32"	1/32"	15/32"	1/2"
157XY	1/16"	1/8"	1/32"	1/32"	7/32"	1/4"
210XY	1/16"	1/8"	1/32"	1/32"	7/32"	1/4"
224HD	5/16"	1/8"	1/32"	1/32"	15/32"	1/2"
224XY	5/16"	1/8"	1/32"	1/32"	15/32"	1/2"

Pair of doors

Model	Hinge-side clearance (2 doors)	Lock-side clearance	Frame irregularity (2 doors)	Beveled door clearance (2 doors)	Door under-sizing			
					Square edge total	Square edge each door	Beveled edge total	Beveled edge each door
026XY	5/8"	3/16"	1/16"	1/16"	7/8"	7/16"	15/16"	15/32"
027XY	5/8"	3/16"	1/16"	1/16"	7/8"	7/16"	15/16"	15/32"
040XY	5/8"	3/16"	1/16"	1/16"	7/8"	7/16"	15/16"	15/32"
041XY	5/8"	3/16"	1/16"	1/16"	7/8"	7/16"	15/16"	15/32"
045XY	5/16"	3/16"	1/16"	1/16"	9/16"	9/32"	5/8"	5/16"
046XY	5/16"	3/16"	1/16"	1/16"	9/16"	9/32"	5/8"	5/16"
053XY	5/16"	3/16"	1/16"	1/16"	9/16"	9/32"	5/8"	5/16"
054XY	5/16"	3/16"	1/16"	1/16"	9/16"	9/32"	5/8"	5/16"
112HD	5/8"	3/16"	1/16"	1/16"	7/8"	7/16"	15/16"	15/32"
112XY	5/8"	3/16"	1/16"	1/16"	7/8"	7/16"	15/16"	15/32"
114XY	5/8"	3/16"	1/16"	1/16"	7/8"	7/16"	15/16"	15/32"
157XY	1/8"	3/16"	1/16"	1/16"	3/8"	3/16"	7/16"	7/32"
210XY	1/8"	3/16"	1/16"	1/16"	3/8"	3/16"	7/16"	7/32"
224HD	5/8"	3/16"	1/16"	1/16"	7/8"	7/16"	15/16"	15/32"
224XY	5/8"	3/16"	1/16"	1/16"	7/8"	7/16"	15/16"	15/32"

Templates and installation instructions available on line at www.allegion.com/us

General information - electrification options

Only available for the full mortise hinges

Electric power transfer (EPT) available on 600, 700, 705, 715, 700CS, 715CS models

Electric power transfer provides the most secure and best solution for transferring power from the door frame to the edge of a swinging door. Ives Pin and Barrel Hinges provide standard cut outs to fit Von Duprin EPT- 2, EPT-10 and PNT-1 devices. Consult factory for other electrical cut out options. Door handing is required.

Electrical through-wire (TW8) for standard models (600, 700, 705, 715) only

Recommended for low frequency usage. Provides electric power transfer from the frame to the door cable in order to supply power to an electrified mortise or cylindrical locks, exit devices with electric latch retraction, and/or electric strikes (pairs of doors). Through-wire is rated 50 volts AC/DC at 3.5 amp continuous and 16 amp pulse. Maximum pulse 400 milliseconds. Ives through-wire hinges are fully compatible with 4 wire and 8 wire installations. Requires the door to be torn down for maintenance. Available CON option comes with the Allegion Connect 8-pin Connector which makes it easy to connect to other electrical consumption devices.

Electrical through-wire panel with Allegion Connect (TWP) (700CS models only)

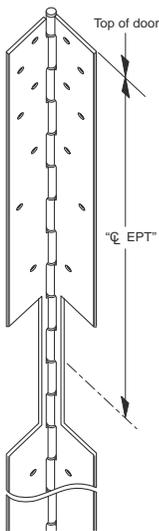
The thru-wire panel solution works in the CS mortise hinge to maintain the clean aesthetic design of aluminum geared continuous hinges. Made with the same medical grade bearings of Ives other pin and barrel hinges, the CS Series brings thru-wire panel innovation to your continuous hinge application while keeping its great looks.

The CS Series thru-wire panel is a heavy duty, easy-to-install, stainless steel panel. Tested to 2.5 million cycles, the CS Series panel can quickly slip in and out of the hinge for maintenance and replacement.

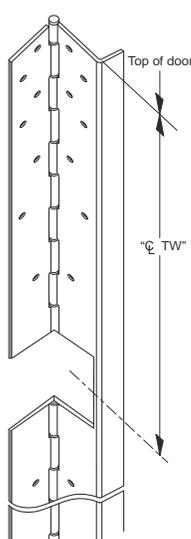
Unlike all of the other manufacturer solutions the CS Series thru-wire panel maintains a one piece appearance on the cover side of the hinge. It installs with the same 5/16" clearance as aluminum geared hinges and works in all of the decorative cover finishes.

Provides electric power transfer from the frame to the door in order to supply power to an electrified mortise or cylindrical locks, exit devices with electric latch retraction, and/or electric strikes (pairs of doors). Thru-wire panel is rated 50 volts AC/DC at 3.5 amp continuous and 16 amp pulse. Maximum pulse 400 milliseconds. Ives through-wire hinges are fully compatible with 4 wire and 8 wire installations. Available CON option comes with the Allegion Connect 8-pin Connector which makes it easy to connect to other electrical consumption devices.

EPT 600/700/
700CS



TW8 600/700s



Note: See ordering guide in price book for proper placement.

Standard Length	EPT	TW	TWP
83"	30"	43-19/32"	43-13/16"
85"	32"	45-17/32"	44-29/32"
95"	42"	55-17/32"	55-9/32"
120"	67"	80-17/32"	79-1/2"

Electrical Cutouts

Ives Pin & Barrel Continuous Hinges are available with factory modified cutouts to accommodate most electrical frame to door requirements. Special templates are required.

When ordering indicate the following:

1. Opening size.
2. Handing, LH, RH, LHR or RHR.
3. Manufacturer and model number of the electrical product being used. Example; Von Duprin ETPT2

Because clearances may vary between door and frame manufacturer, and locations can be influenced by the door hardware it is always recommend contacting Ives Customer Technical for specific template information.

For your general information following are standard locations for Von Duprin EPT2 or EPT10, and TW (through wire).

In accordance with industry standards, all cutouts are made from Top Edge of Door to Center Line of Cut-out.

How to order

	700	HT	US32D	83	TW8 CON
Model					
Stainless steel					
700/700CS	Full Mortise				
702	Full Surface - Center Pivot				
705	Full mortise - full wrap				
711/711CS	Full surface - swing clear				
715/715CS	Full mortise - half wrap				
Steel					
600	Full mortise				
602	Full surface - center pivot				
611	Full surface - swing clear				
Option 1					
HT	Hospital tip (600 and 700 series only)				
Finish					
Stainless steel - only available on 700 Series					
US32D	Satin stainless steel				
Stainless steel / aluminum - only available on CS Series					
US32DAN	Satin stainless anodized				
USP	Grey primer paint				
US28	Clear aluminum anodized				
US4AN	Satin brass anodized				
US10AN	Satin bronze anodized				
313AN	Dark bronze anodized				
315AN	Black anodized				
US26AN	Bright chrome anodized				
US26DAN	Satin chrome anodized				
Steel - only available on 600 Series					
600	Grey primer paint				
Length					
83"					
85"					
95"					
120"					
Other lengths available up to 120", consult factory. Handing is required.					
Option 2					
EPT	Electric power transfer prep (600, 700, 705, 715, 700CS, 715CS models only) Handing (LH and RH) required for 026, 027, 114, and 224 models				
TWP	Through wire panel (only available on 700CS)				
TW8	Electric through Wire (600, 700, 705, 715 models only)				
CON	Allegion Connect (600, 700, 705, 715, 700CS models only)				
SECHM	Security fasteners - Torx				
SECWDHM	Security fasteners - Torx (half wood, half hollow metal)				
SECWDWD	Security fasteners - Torx (wood door and frame)				
WD	Wood door fasteners				

Hinges & pivots
A41

Pulls & plates
B

Flush bolts & coordinators
C

Latches, catches & bolts
D

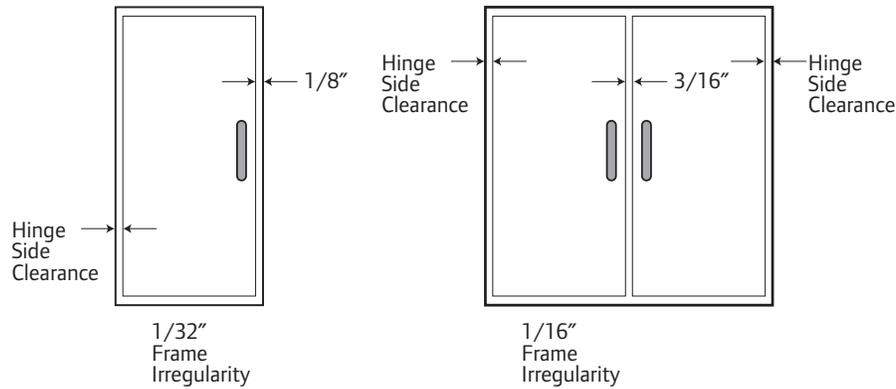
Stops
E

Exterior hardware
F

Miscellaneous hardware
G

Clearance requirements

Consult your local authority having jurisdiction for specific fire codes relating to fire rated doors. The table below is only recommended for non fire related doors.



Single door

Model	Hinge-side clearance	Lock-side clearance	Frame irregularity	Beveled door clearance	Door under-sizing	
					Square edged	Beveled edged
600	1/4"	1/8"	1/32"	1/32"	13/32"	7/16"
602	1/8"	1/8"	1/32"	1/32"	9/32"	5/16"
700	1/4"	1/8"	1/32"	1/32"	13/32"	7/16"
700CS	5/16"	1/8"	1/32"	1/32"	15/32"	1/2"
702	1/8"	1/8"	1/32"	1/32"	9/32"	5/16"
705	3/8"	1/8"	1/32"	1/32"	17/32"	9/16"
705*	1/2"	1/8"	1/32"	1/32"	21/32"	11/16"
711	7/32"	1/8"	1/32"	1/32"	3/8"	13/32"
711CS	3/8"	1/8"	1/32"	1/32"	17/32"	9/16"
715	1/4"	1/8"	1/32"	1/32"	13/32"	7/16"
715CS	5/16"	1/8"	1/32"	1/32"	15/32"	1/2"

* Use the Adjusta-Studs with 705

Pair of doors

Model	Hinge-side clearance	Lock-side clearance	Frame irregularity	Beveled door clearance	Door under-sizing			
					Square edge total	Square edge each door	Beveled edge total	Beveled edge each door
600	1/4"	3/16"	1/16"	1/16"	3/4"	3/8"	13/16"	13/32"
602	1/8"	3/16"	1/16"	1/16"	1/2"	1/4"	9/16"	9/32"
700	1/4"	3/16"	1/16"	1/16"	3/4"	3/8"	13/16"	13/32"
700CS	5/16"	3/16"	1/16"	1/16"	7/8"	7/16"	15/16"	15/32"
702	1/8"	3/16"	1/16"	1/16"	1/2"	1/4"	9/16"	9/32"
705	3/8"	3/16"	1/16"	1/16"	1"	1/2"	1-1/16"	17/32"
705*	1/2"	3/16"	1/16"	1/16"	1-1/4"	5/8"	1-5/16"	21/32"
711	7/32"	3/16"	1/16"	1/16"	11/16"	11/32"	3/4"	3/8"
711CS	3/8"	3/16"	1/16"	1/16"	1"	1/2"	1-1/16"	17/32"
715	1/4"	3/16"	1/16"	1/16"	3/4"	3/8"	13/16"	13/32"
715CS	5/16"	3/16"	1/16"	1/16"	7/8"	7/16"	15/16"	15/32"

* Use the Adjusta-Studs with 705



600 Full mortise pin and barrel continuous hinge - steel

700 Full mortise pin and barrel continuous hinge - stainless steel

- 1/4" diameter pin with nylon self-lubricating, medical grade split bearing
- For doors weighing up to 300 pounds without reinforcing. 600 pounds with reinforcing
- 1/8" Inset recommended for 1 3/4" doors
- 48" Maximum door width
- Non handed for custom cut lengths
- Bevel or square edge door

Certifications

- Meets ANSI 156.26
- UL10C certified

Standard lengths

- 83", 85", 95", 120"

Standard mounting hardware

- #10 X 1/2" Self Drilling, Self Tapping Screws
- #10 X 1" Wood Screws

Material

- 600 - 1012 Cold-rolled steel
- 700 - 14 Gauge Type 304 stainless steel

Finishes

BHMA	Description	Substrate	Finish
600	Grey primer paint	Steel	USP
630	Satin stainless steel	Stainless steel	US32D

Custom paint available on 600 series, consult factory.

Options

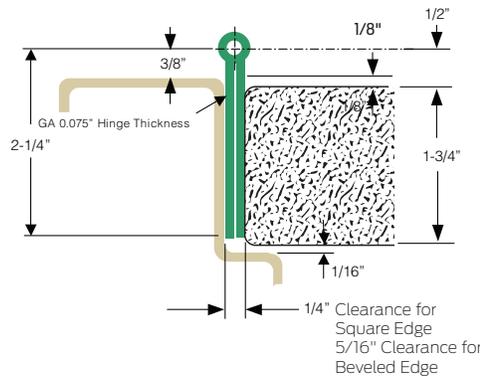
- HT.....Hospital tip
- EPT.....Electric power transfer
- TW8.....Electrical through wire
- CON.....Allegion Connect

Optional mounting hardware

- SECHM.....Security screws - hollow metal door and frame
- SECWDHM.....Security screws - 1/2 wood, 1/2 hollow metal
- SECWDWD.....Security screws - wood door and frame
- WD.....Wood door and frame

For single door applications:

For pairs of doors see chart and general information



Hinges & pivots
A43

Pulls & plates
B

Flush bolts & coordinators
C

Latches, catches & bolts
D

Stops
E

Exterior hardware
F

Miscellaneous hardware
G



700CS Full mortise pin and barrel continuous hinge w/ decorative cover

- Patented cover protects hinge knuckle and creates a cleaner and neater appearance
- XY adjustability feature allows for better door alignment during installation
- Patented, medical grade, nylon winged bearings
- For doors weighing up to 300 pounds without reinforcing. 600 pounds with reinforcing
- 1/16" door inset
- 48" Maximum door width
- Non handed
- Bevel or square edge door

Certifications

- Meets ANSI 156.26
- UL10C certified

Standard lengths

- 83", 85", 95", 120"

Standard mounting hardware

- 12-24 X 3/4" Self drilling, self tapping screws

Material

- 14 Gauge Type 304 stainless steel

Finishes

BHMA	Description	Substrate	Finish
441	Satin stainless anodized	Aluminum/Steel	US32DAN
600	Grey primer paint	Aluminum/Steel	USP
628	Clear aluminum anodized	Aluminum/Steel	US28
688	Satin brass anodized	Aluminum/Steel	US4AN
709	Satin bronze anodized	Aluminum/Steel	US10AN
710	Dark bronze anodized	Aluminum/Steel	313AN
711	Black anodized	Aluminum/Steel	315AN
712	Bright chrome anodized	Aluminum/Steel	US26AN
713	Satin chrome anodized	Aluminum/Steel	US26DAN

Custom paint available, consult factory. Standard custom paint is on cover only. Specify if paint on whole hinge is needed.

Options

- HT.....Hospital tip
- EPT.....Electric power transfer
- TW8.....Electrical through wire
- CON.....Allegion Connect

Optional mounting hardware

- SECHM.....Security screws - hollow metal door and frame
- WD.....Wood door and frame

For single door applications:

For pairs of doors see chart and general information



602 Full surface pin and barrel continuous hinge - steel

702 Full surface pin and barrel continuous hinge - stainless steel

- 1/4" diameter pin with nylon self-lubricating, medical grade split bearing
- For doors weighing up to 300 pounds without reinforcing. 600 pounds with reinforcing
- Flush mounted, no inset
- 48" Maximum door width
- Non handed for custom cut lengths
- Bevel or square edge door

Certifications

- Meets ANSI 156.26
- UL10C certified

Standard lengths

- 83", 85", 95", 120"

Standard mounting hardware

- #10 X 1/2" Self drilling, self tapping screws
- #10 X 1" Wood screws
- Cover clips

Material

- 602 - 1012 Cold-rolled steel
- 702 - 14 Gauge Type 304 stainless steel

Finishes

BHMA	Description	Substrate	Finish
600	Grey primer paint	Steel	USP
630	Satin stainless steel	Stainless steel	US32D

Custom paint available on 600 series, consult factory.

Options

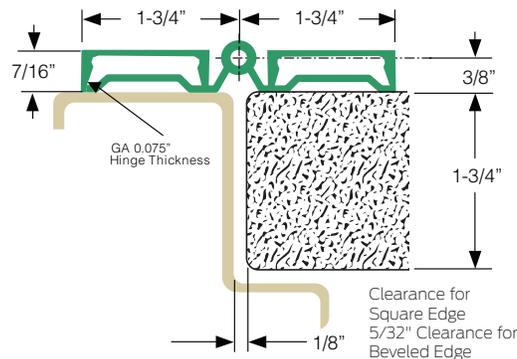
- HT.....Hospital tip

Optional mounting hardware

- SECHM.....Security screws - hollow metal door and frame
- SECWDHM.....Security screws - 1/2 wood, 1/2 hollow metal
- SECWDWD.....Security screws - wood door and frame
- WD.....Wood door and frame

For single door applications:

For pairs of doors see chart and general information



Hinges & pivots
A45

Pulls & plates
B

Flush bolts & coordinators
C

Latches, catches & bolts
D

Stops
E

Exterior hardware
F

Miscellaneous hardware
G

A46
Hinges & pivots

B
Pulls & plates

C
Flush bolts & coordinators

D
Latches, catches & bolts

E
Stops

F
Exterior hardware

G
Miscellaneous hardware



705 Full mortise, full wrap pin and barrel continuous hinge - stainless steel

- Full wrap edge guard
- Adjustable for undersized and out of square doors
- 1/4" diameter pin with nylon self-lubricating, medical grade split bearing
- For doors weighing up to 300 pounds without reinforcing. 600 pounds with reinforcing
- Flush mounted, no inset
- 48" Maximum door width
- Non handed, handing required for custom cut lengths
- Bevel or square edge door

Certifications

- Meets ANSI 156.26
- UL10C certified

Standard lengths

- 83", 85", 95", 120"

Standard mounting hardware

- #10 X 1/2" Self drilling, self tapping screws
- #10 X 1" Wood screws

Material

- 14 Gauge Type 304 stainless steel

Finishes

BHMA	Description	Substrate	Finish
630	Satin stainless steel	Stainless steel	US32D

Custom paint available, consult factory.

Options

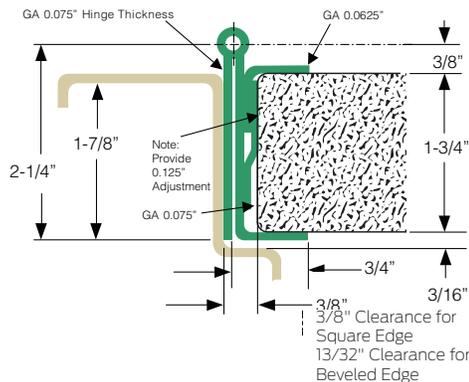
- HT.....Hospital tip
- EPTElectric Power Transfer
- TW8Electrical Through Wire
- CON.....Allegion Connect

Optional mounting hardware

- SECHM.....Security screws - hollow metal door and frame
- SECWDHM.....Security screws - 1/2 wood, 1/2 hollow metal
- SECWDWDSecurity screws - wood door and frame
- WD.....Wood door and frame

For single door applications:

For pairs of doors see chart and general information



* Adjusta-Stud allows up to 3/8" width adjustment which ensures proper alignment and easy installation. Adjusta-Stud also makes it possible for future adjustments of the door on the frame through repositioning.



611 Swing clear pin and barrel continuous hinge - steel

711 Swing clear pin and barrel continuous hinge - stainless steel

- Edge guard
- May be difficult to install on inside walls
- 1/4" diameter pin with nylon self-lubricating, medical grade split bearing
- For doors weighing up to 300 pounds without reinforcing. 600 pounds with reinforcing
- 48" Maximum door width
- Non handed, handing required for custom cut lengths
- Square edge door

Certifications

- Meets ANSI 156.26
- UL10C certified

Standard lengths

- 83", 85", 95", 120"

Standard mounting hardware

- #10 X 1/2" Self drilling, self tapping screws
- #10 X 1" Wood screws

Material

- 611 - 1012 cold-rolled steel
- 711 - 14 Gauge Type 304 stainless steel

Finishes

BHMA	Description	Substrate	Finish
600	Grey primer paint	Steel	USP
630	Satin stainless steel	Stainless steel	US32D

Custom paint available on 600 series, consult factory.

Options

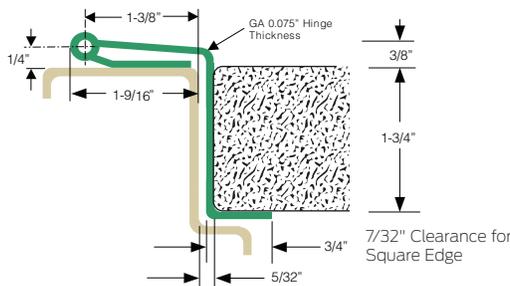
- HT.....Hospital tip

Optional mounting hardware

- SECHM.....Security screws - hollow metal door and frame
- SECWDHM.....Security screws - 1/2 wood, 1/2 hollow metal
- SECWDWD.....Security screws - wood door and frame
- WD.....Wood door and frame

For single door applications:

For pairs of doors see chart and general information



Hinges & pivots
A47

Pulls & plates
B

Flush bolts & coordinators
C

Latches, catches & bolts
D

Stops
E

Exterior hardware
F

Miscellaneous hardware
G

A48	Hinges & pivots
B	Pulls & plates
C	Flush bolts & coordinators
D	Latches, catches & bolts
E	Stops
F	Exterior hardware
G	Miscellaneous hardware



711CS Swing clear pin and barrel continuous hinge w/ decorative cover

- Patented cover protects hinge knuckle and creates a cleaner and neater appearance
- XY adjustability feature allows for better door alignment during installation
- Edge guard
- Easy to install mounting location on mortise end of frame
- 2-11/16" minimum frame face requirement
- Patented, medical grade, nylon winged bearings
- For doors weighing up to 300 pounds without reinforcing. 600 pounds with reinforcing
- 1/16" door inset
- 48" Maximum door width
- Non Handed, handing required for custom cut lengths
- Square edge door

Certifications

- Meets ANSI 156.26
- UL10C certified

Standard lengths

- 83", 85", 95", 120"

Standard mounting hardware

- 12-24 X 3/4" Self drilling, self tapping screws

Material

- 14 Gauge Type 304 stainless steel

Finishes

BHMA	Description	Substrate	Finish
441	Satin stainless anodized	Aluminum/Steel	US32DAN
600	Grey primer paint	Aluminum/Steel	USP
628	Clear aluminum anodized	Aluminum/Steel	US28
688	Satin brass anodized	Aluminum/Steel	US4AN
709	Satin bronze anodized	Aluminum/Steel	US10AN
710	Dark bronze anodized	Aluminum/Steel	313AN
711	Black anodized	Aluminum/Steel	315AN
712	Bright chrome anodized	Aluminum/Steel	US26AN
713	Satin chrome anodized	Aluminum/Steel	US26DAN

Custom paint available, consult factory. Standard custom paint is on cover only. Specify if paint on whole hinge is needed.

Optional mounting hardware

- SECHM.....Security screws - hollow metal door and frame
- WD.....Wood door and frame

For single door applications:

For pairs of doors see chart and general information



715 Full mortise, half wrap pin and barrel continuous hinge - stainless steel

- Half wrap edge guard
- 1/4" diameter pin with nylon self-lubricating, medical grade split bearing
- For doors weighing up to 300 pounds without reinforcing. 600 pounds with reinforcing
- 1/16" door inset
- 48" Maximum door width
- Non handed, handing required for custom cut lengths
- Square edge door

Certifications

- Meets ANSI 156.26
- UL10C certified

Standard lengths

- 83", 85", 95", 120"

Standard mounting hardware

- #10 X 1/2" Self Drilling, Self Tapping Screws
- #10 X 1" Wood Screws

Material

- 14 Gauge Type 304 Stainless Steel

Finishes

BHMA	Description	Substrate	Finish
630	Satin stainless steel	Stainless steel	US32D

Custom paint available on 600 series, consult factory.

Options

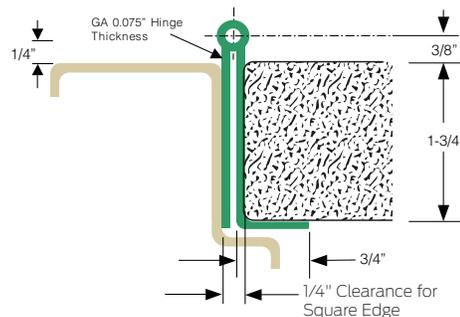
- HT.....Hospital tip
- EPT.....Electric power transfer
- TW8.....Electrical through wire
- CON.....Allegion Connect

Optional mounting hardware

- SECHM.....Security screws - hollow metal door and frame
- SECWDHM.....Security screws - 1/2 wood, 1/2 hollow metal
- SECWDWD.....Security screws - wood door and frame
- WD.....Wood door and frame

For single door applications:

For pairs of doors see chart and general information



Hinges & pivots
A49

Pulls & plates
B

Flush bolts & coordinators
C

Latches, catches & bolts
D

Stops
E

Exterior hardware
F

Miscellaneous hardware
G

A50 Hinges & pivots
B Pulls & plates
C Flush bolts & coordinators
D Latches, catches & bolts
E Stops
F Exterior hardware
G Miscellaneous hardware



715CS Full mortise, half wrap pin and barrel continuous hinge w/ decorative cover

- Patented cover protects hinge knuckle and creates a cleaner and neater appearance
- XY adjustability feature allows for better door alignment during installation
- Half wrap edge guard
- Patented, medical grade, nylon winged bearings
- For doors weighing up to 300 pounds without reinforcing. 600 pounds with reinforcing
- Flush mounted, no inset
- 48" Maximum door width
- Non handed, handing required for custom cut lengths
- Square edge door

Certifications

- Meets ANSI 156.26
- UL10C certified

Standard lengths

- 83", 85", 95", 120"

Standard mounting hardware

- 12-24 X 3/4" Self drilling, self tapping screws

Material

- 14 Gauge Type 304 stainless steel

Finishes

BHMA	Description	Substrate	Finish
441	Satin stainless anodized	Aluminum/Steel	US32DAN
600	Grey primer paint	Aluminum/Steel	USP
628	Clear aluminum anodized	Aluminum/Steel	US28
688	Satin brass anodized	Aluminum/Steel	US4AN
709	Satin bronze anodized	Aluminum/Steel	US10AN
710	Dark bronze anodized	Aluminum/Steel	313AN
711	Black anodized	Aluminum/Steel	315AN
712	Bright chrome anodized	Aluminum/Steel	US26AN
713	Satin chrome anodized	Aluminum/Steel	US26DAN

Custom paint available, consult factory. Standard custom paint is on cover only. Specify if paint on whole hinge is needed.

Options

- EPTElectric power transfer

Optional mounting hardware

- SECHM.....Security screws - hollow metal door and frame
- WD.....Wood door and frame

For single door applications:

For pairs of doors see chart and general information

The door rests on the bottom pivot in this application. This reduces the stress on the frame by distributing the weight of the door throughout the floor and structure. By taking advantage of the strength of the structure, this makes a pivot the ideal solution for your heavy doors. Center and pocket pivots also provide an aesthetic option for your opening.

Used in conjunction with rescue hardware, center hung pivots allows a bi-directional door swing in emergency situations. When a patient becomes trapped behind an inward swing door, the center tong depresses allowing the door to swing in the opposite direction without causing damage to the frame.





L Series

Grade 1 Mortise Locks

Mechanical | Wired Electrified | Wireless Electronic | Multi-Point



Commercial.Schlage.com

Contents

Overview	3	Multi-Point	42
Key Features	6	A Detailed Look - LM9200 Multi-Point.....	43
Mortise Lock Comparison.....	6	LM9200 Multi-Point Lock Functions.....	44
Trims & Finishes	10	A Detailed Look - LM9300 Multi-Point.....	47
Suiting.....	14	LM9300 Multi-Point Lock Functions.....	48
Trim Options.....	15	Credentials & Key Systems	49
Complementing Healthcare Trims.....	18	Readers, Credentials & Power Supplies.....	50
Accessibility & Life Safety	19	Overtur™ Key System Management	52
Mechanical	20	Cylinders & Key Systems	53
A Detailed Look - L Mechanical.....	21	Conventional Cylinders.....	56
Mechanical Lock Functions.....	22	Full Size Interchangeable Cores.....	57
Wired Electrified	32	Small Format Interchangeable Cores.....	58
A Detailed Look - L Wired Electrified.....	33	Parts	59
Wired Electrified Lock Functions.....	34	Ordering & Specifications	62
Wireless Electronic	38	How to Order.....	62
A Detailed Look - LE Wireless Electronic.....	39	Mechanical Product Specifications.....	64
Wireless Electronic Lock Functions.....	41	Wireless Electronic Product Specifications	66
		Door Handing	67

U.S. Customer Service

877-671-7011, Option 1
Support@allegion.com

Ordering

Allegion_Orders@allegion.com
eFax: 1-833-312-3669

Technical Product Support

877-671-7011, Option 2
Mechanical_Locks_TechProdSupport@allegion.com
Electronic_Lock_TechProdSupport@allegion.com
Readers_Credentials_Biometrics_TechProdSupport@allegion.com
Engage.Tech.Prod.Support@allegion.com

Master Key Support

Mechanical_Locks_TechProdSupport@allegion.com

Ordering

U.S. > Customer Service
Canada > Canada.Masterkey@allegion.com
International > Intl.SCH.SS@allegion.com

Canada Customer Service

800-900-4734
Canada.CustomerService@allegion.com

Ordering

Canada.Orders.Service@allegion.com
eFax: 1-800-209-4734

Online Support

Knowledge Center > kc.allegion.com
How To Videos > www.youtube.com/SchlageSecurity
or us.allegion.com/supportvideos
Code Support > idighardware.com

Restricted Account Support

KeyControlDepartment@allegion.com
Support.restrictedproduct@allegion.com > Sign In

Overtur™ Key System Support

Support.overtur.allegion.com > Submit a ticket



INNOVATION THAT WORKS FOR YOU

Designed for beauty, security, and flexibility, L Series features the most innovative and comprehensive list of mortise functional, design, and trim options Schlage has to offer. Able to withstand the rigors of daily use without fail even in the abusive environments of K-12, Higher Education, and Healthcare. These locks will stand the test of time and can serve the needs of all opening types: from mechanical and multi-point latching to electrified and electronic locks served by some of the most secure key and credential systems in the industry. You can use L Series as part of a common aesthetic. They are made to suite with other Allegion products to present a quality, complete door hardware solution and provide a consistent user experience throughout your building or campus. L Series does all this while lowering the total cost of ownership through maintenance ease, key system flexibility and beautiful finishes that are made to last.

Overview

Key Features

Trims & Finishes

Mechanical

Wired Electrified

Wireless Electronic

Multi-Point

Credentials & Key Systems

Parts

Ordering & Specifications



A Legacy of Trust

Over a century ago, Walter Schlage invented the cylindrical lock. His was a simple solution to a problem hidden in plain sight, and from it he built a company that has since grown to become one of the most recognizable names in the security industry. Delivering on quality and building on the trust of our customers, Schlage continues a legacy of providing innovative locking hardware and access control solutions to suit all types of commercial, institutional and multifamily spaces. And, everything we do is backed by friendly, knowledgeable service and support.



Beyond the Brand

Schlage is part of the Allegion family of safety and security solutions featuring other pioneering brands like LCN® and Von Duprin®. Focusing on security around the door and in adjacent areas, we strive to be a trusted advisor to our customers, providing seamless access solutions to secure buildings, people and property. We do this by collaborating with our customers and offering valued services that support their day-to-day responsibilities, including architectural and specification consulting, security and safety consulting, technical services, code compliance support, and training.



STRONG

The Schlage L Series has long been the benchmark for heavy-duty mortise locks.

- Exceeds Security Grade 1 and Operational Grade 1 ratings
- Every Schlage lock undergoes intensive testing to determine its ANSI grade level:
 - Cycle tests
 - Resistance tests
 - Door impact tests
 - Warped door tests
 - Bolt strength tests
- Levers constructed of solid brass or solid stainless steel for a strong-yet-comfortable feel
- Whether the application calls for high abuse resistance or just operation over millions of cycles without degradation in performance, users can have confidence that L Series locks will last

SECURE

A strong lock is only part of the security equation—proper key and card access control are equally important.

- Everest 29™ cylinder with S123 keyway is provided standard which prohibits unauthorized key duplication at local retail stores; patent protected until 2029
- Dealer and end user restricted geographically exclusive Primus cylinder options for advanced key control
- The unique SL cylinder option is designed to accept the same Schlage A2 key system of SFIC cylinders, enabling one key system to span Conventional, FSIC and SFIC cylinder formats for better control
- Wired electrified and wireless electronic locks enable the use of electronic credentials for increased visibility and control over access
- Schlage smart credentials using MIFARE® DESFire® technology utilize encryption, mutual authentication and key diversification to ensure the highest levels of security



SMART

Smart means using innovation to make solutions more efficient, flexible, and easier to install and use.

- One platform, three solutions (mechanical, wired electrified, wireless electronic)—same look and feel throughout the building for a common user experience and lower cost of ownership
- Wired electrified lock has autodetecting 12/24V¹ input and selectable fail safe/fail secure operation
- Optional RX switch² monitors the inside lever to balance security with lever actuation sensitivity
- Energy efficient design allows multiple locks on a single power supply with no “hot levers”
- Wireless electronic locks can be managed with a third party access control system, or software solutions from Allegion
- Wireless electronic locks allow for offline, periodic or real-time control based on application needs
- Mobile enabled wireless locks are ready for the future with the ability to read Bluetooth and NFC mobile credentials

1. Motorized latch retraction functions use 24V DC input only.
2. See function details for availability.



More than just locks, Schlage delivers a complete portfolio and an infrastructure of support throughout the entire build and ownership process.

- Order entry, customer service, technical support, engineering and manufacturing are co-located in the same building in Colorado Springs, Colorado
- Comprehensive support from our sales offices includes consultations, masterkey development and training, industry and code training, specification writing, and product service
- Schlage products suite with other Allegion brands including Von Duprin® exit devices, LCN® door closers and Steelcraft® doors and frames
- A custom engineering department that can develop specialized functions, trim and finishes for unique applications
- Trusted brand for over 100 years

Mortise Lock Comparison

L MECHANICAL



Applications

Schlage mechanical mortise locks offer the most diverse functional and trim options of the Schlage brand. Built on a universal lock case design, several functions in the L mechanical group can be changed and adapted to the building needs over time.

As a commercial mortise lock L Series is inherently more robust and secure than other types of locks against break-in. It's ideal in any institutional, government or educational setting.

Key Features

- Exceeds ANSI/BHMA Grade 1 operational and security standards
- Single- and dual-sided visual indication options available for most functions
- Over 50 standard mechanical functions with custom functions also offered
- Available Vandlgard® and ligature-resistant features
- “The Original” universal lock case allows creation of eight common functions from a single lock body
- 12 finishes and 33 levers, two knobs, five roses and two escutcheon designs
- Supports Conventional, FSIC, SL and SFIC cylinder formats in standard and Primus® designs
- Multiple key systems available: open, patented, restricted, and geographically exclusive

L WIRED ELECTRIFIED



Applications

The wired electrified L Series is ideal for new construction and high traffic areas where hardwired power ensures continuous operation and where electrified door prep, hinges and wiring can easily be incorporated into the building.

The electrified L Series is regularly used as part of an access control system for high security areas, or independently in areas that require a remote access control for entry or accessibility purposes.

Key Features

All mechanical features¹ plus:

- Auto-detects 12/24 VDC²
- Selectable EL/EU
- 15 electrified functions include lever locking/unlocking and latch retraction options
- Available Vandlgard® and ligature-resistant features
- Optional monitoring features: request-to-exit, door position switch and latchbolt monitoring
- Deadbolt monitoring standard on all L949X functions
- Motor-driven activation eliminates “hot levers” and ensures smooth, quiet, and dependable operation
- Patent-pending feature on latch retraction functions detects binding conditions on the motor and adjusts as needed to overcome side load, static pressure and warped door conditions

LE WIRELESS ELECTRONIC



Applications

The Schlage LE mobile enabled wireless mortise lock is designed to affordably extend electronic access control deeper into the building beyond traditional perimeter and high security openings.

The LE is ideal for commercial real estate, K-12, higher education, assisted living, medical offices, or multi-family applications. Facilities can benefit from the enhanced security, efficiency, and convenience of upgrading to electronic credentials.

Key Features

All mechanical features¹ plus:

- Six functions with LED indicator, deadbolt, and interior push button options
- Compatible with Bluetooth, NFC, smart and proximity credentials from Schlage and other brands
- Sectional and escutcheon trim options
- 31 levers, 2 knobs and 9 finishes
- Integrated door position sensor (DPS) and request to exit (RX)
- Wireless configuration from smart phones/tablets
- Built-in Wi-Fi[®] enables automatic daily updates sent directly from host software
- Capable of networked real-time communication with the ENGAGE Gateway and software alliances
- Up to 2 years of battery life

1. Electrified and electronic locks are offered in fewer functions overall and do not utilize mechanical indicator trims.
2. Latch retraction functions utilize 24V DC power only.

L400 MECHANICAL



Applications

L400 Series locks are designed for use as primary locks where no latching is required, such as restrooms and doors to utility spaces.

These mortise deadbolt locks also offer optimum security when used as an auxiliary lock in other applications.

Key Features

- Six available functions
- 12 finishes
- 1" (25 mm) stainless steel throw deadbolt
- Deeper retainer groove in cylinder shell increases security against wrenching and pullout
- 6-pin Everest® 29 cylinder with patented keys standard
- Steel case and parts are corrosion resistant
- Supports Conventional, FSIC, SL and SFIC cylinder formats plus high-security UL 437 options
- Multiple key systems available: open, patented, restricted, and geographically exclusive

LM9200 MULTI-POINT



Applications

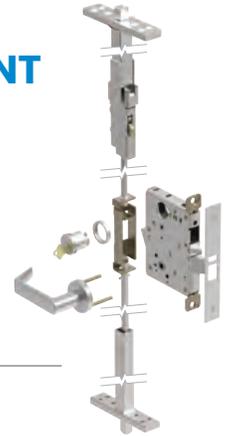
The Schlage LM9200 Series lock utilizes latches in the top and bottom of the door, rather than the side, allowing both leaves of a pair of doors to be active.

Compatible with wood or hollow metal doors, the LM9200 Series is ideal for conference rooms, corridors, office suites, elevator lobbies, and openings where flush bolts and coordinators are not desired.

Key Features

- Concealed vertical cables provide easier installation and reliable performance
- Compatible with sectional and escutcheon trim; does not require "backer plates" or metal wraps for fire protection
- Fire-rated for up to 60 minutes for wood door applications; 90-minute fire rating for hollow metal door applications
- 33 lever designs
- 13 functions (mechanical and electrified)
- Available without the bottom latch for single point latching

LM9300 MULTI-POINT



Applications

The LM9300 Series provides a three-point locking system designed for tornado, hurricane or high security applications, providing superior protection with familiar operation.

Latches at the top, side and bottom of the door protect against high wind speeds and 15-lb. projectile impacts up to 100 mph when paired with a Steelcraft Paladin tornado-resistant door.

Key Features

- All three latches engage when the door is shut and retract simply by rotating the lever
- Compatible with sectional and escutcheon trim
- 33 lever designs
- Six available functions
- Complies to ICC 500-2020, FEMA P-320 (2021), and FEMA P-361 (2021) for tornado shelters when paired with appropriate Steelcraft doors (LM9310 and LM9370 are not approved for use with our ICC 500-2020 solutions)
- Vertical rods ship pre-aligned and pre-installed with Steelcraft doors, enabling quick and simple installation
- Solution requires door and rod set sold through Steelcraft

L SERIES OFFERS A GRADE 1 SOLUTION FOR THE ENTIRE PROJECT

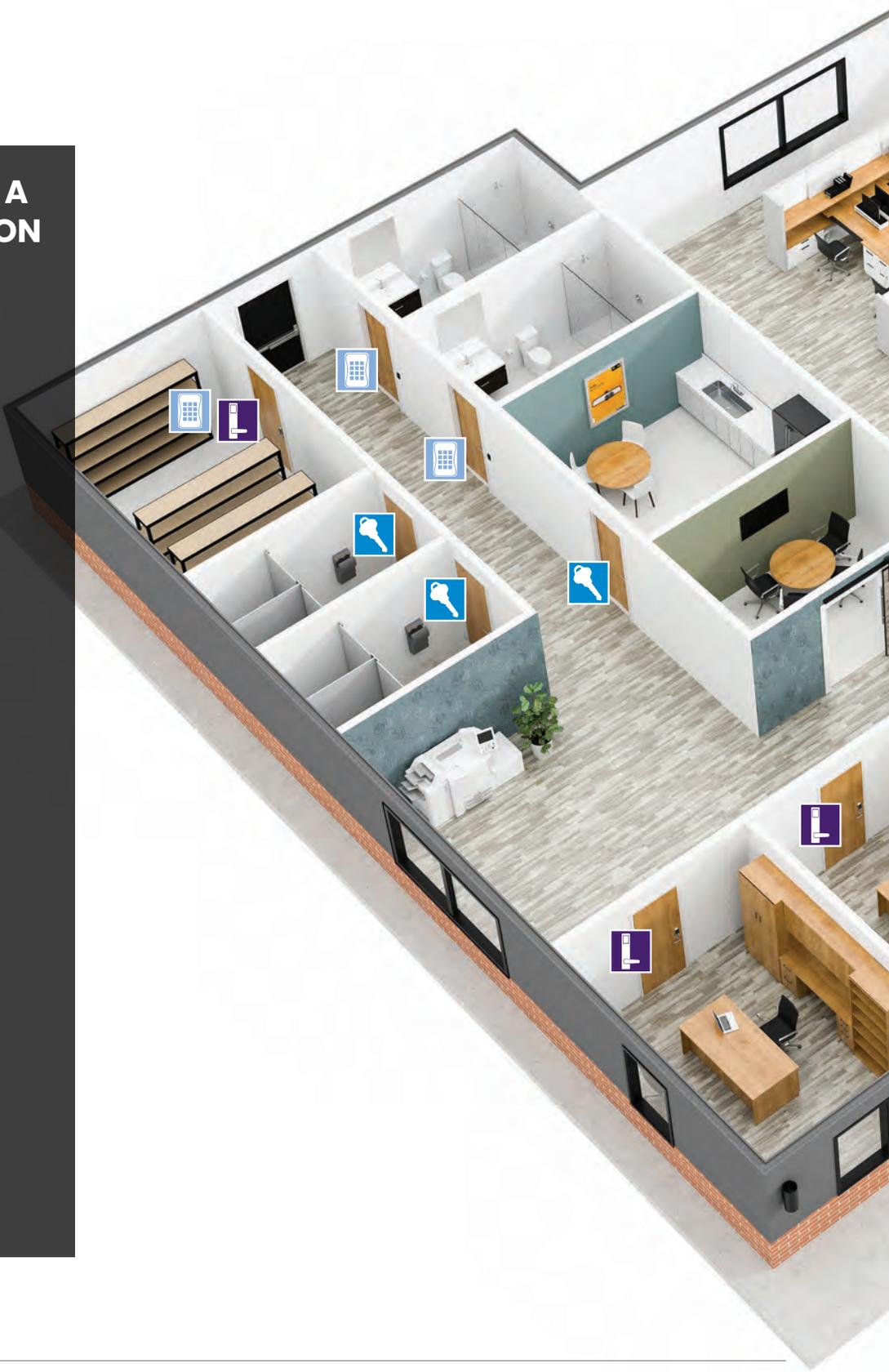
L Mechanical



L Wired Electrified



LE Wireless Electronic



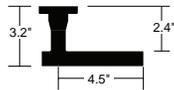


Trims & Finishes

The M Collection

The M Collection is an entire lineup of decorative levers designed to maintain a custom high-style look on doors throughout any building—from the main entrance to the supply closet. The ability to suite M Collection levers across multiple platforms from Schlage and Von Duprin means consistent style and functionality—along with unrivaled security.

M51



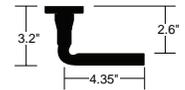
851 - Knurled tactile warning¹

M52 (Broadway)



852 - Knurled tactile warning¹

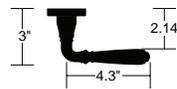
M53



M54



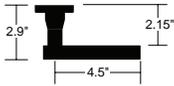
M55



M56



M57²

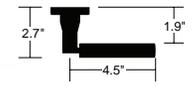


M61



Handed

M62^{2,3}



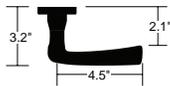
Handed

Images shown with Schlage L mortise 'A' rose; additional rose and escutcheon designs available.

1. Knurled tactile warning available on 609, 612, 613, 625, 626, 629, and 630 finishes only.
2. Not available on LE wireless electronic locks.
3. Available in 629, 630 and 630AM only.

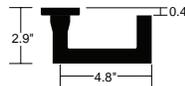
The M Collection

M63



Handed

**M81
(Boardwalk)**



881 - Knurled tactile warning

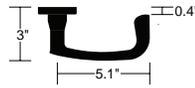
M82



M83



M84



M85



Handed

ME1



*8ME1 - Milled tactile warning
Handed*

ME2



*8ME2 - Milled tactile warning
Handed*

ME3



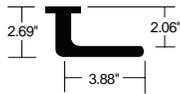
8ME3 - Milled tactile warning

Images shown with Schlage L mortise 'A' rose; additional rose and escutcheon designs available.
ME1, ME2 and ME3 ergonomic levers designed with Gensler as product design consultant.

The Standard Collection

The Standard Collection levers can be paired with exit devices and locks from our trusted Schlage and Von Duprin brands. And, they are built to the same exacting standards. Our Standard Collection levers offer a more traditional style that is appropriate for use in a number of commercial applications.

01



801 - Milled tactile warning

02

802 - Knurled tactile warning¹

03

(Tubular)

803 - Knurled tactile warning¹

05



805 - Milled tactile warning

06

(Rhodes)



806 - Milled tactile warning

07

(Athens)



807 - Milled tactile warning

12

812 - Milled tactile warning
Handed

17

(Sparta)



817 - Milled tactile warning

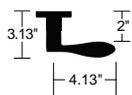
18



818 - Milled tactile warning

ACC

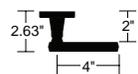
(Accent)



Handed

AST

(Asti)



Handed

LAT

(Latitude)



1. Knurled tactile warning available on 609, 612, 613, 625, 626, 629, and 630 finishes only.

The Standard Collection

LON
(Longitude)



MER
(Merano)



OME
(Omega)



Handed

41



42



Levers shown with Schlage L Series mortise 'A' rose. Additional rose and escutcheon designs available. Knobs shown with rose that is unavailable in the L Series. See available A, B, and C rose options on page 14.

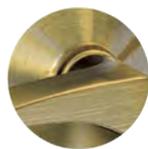
Finishes



605
Bright Brass



606
Satin Brass



609
Antique Brass



612¹
Satin Bronze



613¹
Oil Rubbed
Bronze



619
Satin Nickel



622
Matte Black



625
Bright Chrome



626
Satin Chrome



626AM
Satin Chrome
Antimicrobial



629²
Bright Stainless
Steel



630²
Satin Stainless
Steel



630AM²
Satin
Stainless Steel
Antimicrobial



643e
Aged Bronze

1. Available on standard levers only, not available on Latitude, Longitude, Accent, Asti, or Merano.
2. Not available on Accent, Asti, or Merano.

Lever & Finish Suiting

L Series levers suite widely across mechanical and electronic solutions to provide design and finish options that can carry throughout your building, campus or business.

Series	Mechanical Locks			Electrified Locks	Electronic Locks		Exit Devices	
	L Series	PT Series	L Series	L Series	LE Wireless	XE360™ Series Wireless	98/99 Series	33A/35A Series
Type	Mortise	Mortise Multi-Latch	Tubular	Mortise	Mortise	Mortise, Tubular, & Exit	Von Duprin Exit Exterior Trims	
Standard Collection Levers								
01, 05, 12, 18	•	•		•	• ⁴		• ⁷	• ¹⁰
02, 03 (Tubular), 06 (Rhodes), 07 (Athens)	•	•	• ⁵	•	• ⁴		• ⁷	• ⁹
17 (Sparta/Neptune)	•	•	• ⁵	•	• ⁴	• ⁶	• ⁷	• ⁹
Accent, Asti (optional AVA rose), Merano (optional Merano rose)	• ¹²	• ¹²		• ¹²	• ⁹		• ⁷	• ⁹
Latitude, Longitude	• ¹	• ¹	• ⁵	• ¹	• ⁹	• ⁶	• ⁷	• ⁹
Omega/Von Duprin 16	•	•		•	• ⁴		• ⁷	• ⁹
M Collection Levers								
M51, M53, M54, M55, M56, M61, M63, M82, M83, M84, M85, ME1, ME2, ME3	• ¹	• ¹		• ¹	• ⁹		• ⁷	• ⁹
M52/Broadway	• ¹	• ¹	• ⁵	• ¹	• ⁹	• ⁶	• ⁷	• ⁹
M81/Boardwalk	• ¹	• ¹		• ¹	• ⁹		• ⁷	• ⁹
M57	• ³	• ³		• ³			• ⁸	• ⁸
M62	• ⁸	• ⁸		• ⁸			• ⁸	• ⁸
Trim								
A rose	•	•	• ⁵	•	• ⁴			
B rose	•	•		•	• ⁴			
C rose	• ¹	• ¹	• ⁵	• ¹	• ⁴			
N escutcheon	•	•	• ⁵	•				
L escutcheon	•	•		•				
Addison escutcheon					• ⁴			
996L escutcheons (98/99 Series)							• ⁷	
360L escutcheons (33A/35A Series)								•
940L escutcheons (94/95 Series)								•

Finish availability details: notations on exceptions and limitations

- All finishes except 612 or 613
- All finishes except 629 or 630/630AM
- Available in 629, 630, and 630AM only
- All finishes except 609, 613, 629 or 630/630AM
- Available in 613, 619, 622, 625, 626, and 643e finishes only
- Available in 619, 622, 625, 626, and 716 only
- All finishes except 609, 629, or 643e
- Available in 629 and 630 finishes only
- All finishes except 609, 612, 613, 629, 630/630AM
- All finishes except 609, 629, 630/630AM, or 643e

Schlage Locks



PT Series Tubular Locks / Grade 2

As a tubular lock, PT Series complements the L Series providing a grade 2 alternative for non-mortise interior doors where security is less of a concern. They are also ideal for multi-family settings providing an expanded lever offering on interior doors.



XE360™ Electronic Locks / Grade 1

Available in tubular, mortise, mortise deadbolt and exit trim, XE360™ devices are a perfect complement to the L series, providing a unified aesthetic in addition to intelligent features like wireless lock and unlock. Great for openings that need to utilize access control data.

Von Duprin Exit Devices



98/99 Exit Devices / Grade 1

The 98/99 Series is engineered, manufactured, and tested for superior performance. Designed for flexibility, these devices are configurable and upgradable to meet customer needs.



33A/35A Exit Devices / Grade 1

Offering the same innovative features as the 98/99 Series, the 33A/35A Series of exit devices is intended for narrow-stile doors.

Escutcheons



L full face
Specify by adding 'L' after lever design.
Material: Cold-forged brass or stainless steel
Finishes: Available in all L Series finishes.
Size: 7-15/16" x 1-3/4" x 7/16" (202 mm x 44 mm x 11 mm)



N full face
Specify by adding 'N' after lever design.
Material: Heavy-wrought, reinforced brass or stainless steel
Finishes: Available in all L Series finishes.
Size: 7-7/8" x 2-1/2" x 7/16" (200 mm x 64 mm x 11 mm)



L concealed
Specify by adding 'C' suffix to function and by adding 'L' after lever design.
Material: Cold-forged brass or stainless steel
Finishes: Available in all L Series finishes.
Size: 7-15/16" x 1-3/4" x 7/16" (202 mm x 44 mm x 11 mm)

Roses



A rose
Available for use on L Series knob and lever designs. Specify by adding 'A' after lever design.
Material: Cold-forged brass or stainless steel
Finishes: Available in all L Series finishes.
Size: 2-1/8" (54 mm) diameter



B rose
Available for use on L Series knob and lever designs. Specify by adding 'B' after lever design.
Material: Cold-forged brass or stainless steel
Finishes: Available in all L Series finishes.
Size: 2-9/16" (65 mm) diameter



C rose
Available for use on L Series knob and lever designs. Specify by adding 'C' after lever design.
Material: Cold-forged brass or stainless steel
Finishes: 605, 606, 609, 619, 622, 625, 626, 629, 630, 643e.
Size: 2-5/8" (66 mm) diameter



AVA rose
Available for use with Asti (AST) lever only. Specify as ASTAVA.
Material: Cold-forged brass or stainless steel
Finishes: 605, 606, 609, 619, 622, 625, 626, 643e.
Size: 2-5/8" (66 mm) diameter



MER rose
Available for use with Merano (MER) lever only. Specify as MERMER.
Material: Cold-forged brass or stainless steel
Finishes: 605, 606, 609, 619, 622, 625, 626, 643e.
Size: 2-5/8" (66 mm) diameter

Thumbturns | Turns



ADA thumbturn (standard)
09-544



Large ADA thumbturn
09-509 x L583-363
Optional thumbturn trim for all deadbolt functions except L9463 and L463.



Basic thumbturn
09-509



Cylinder thumbturn
09-90x
Optional thumbturn trim for all deadbolt functions except L9463 and L463.



Coin turn
L283-124
For lock functions L9044 and L9444 with rose trim.

Trim Options

Know It's Locked.™

Patented, 180-Degree, High-Visibility Lock Status Indicator Trims

Lock status indication is about assuring safety and/or privacy. A classroom door that is visibly locked when seen from any angle, even 30' away can help students and teachers feel confident and secure. In restaurant settings, it can reduce patron time spent away from the table. In health care, it can inform staff of a patient's location when out of bed and give the patient a greater sense of privacy. Whether the need is for privacy on dressing rooms, mother's lactation rooms, or restroom doors or, more importantly, for security—to know it's locked when seconds count, status indication is a valuable feature available on most L Series mortise functions.



MADE TO BE SEEN

Clear messaging that can be seen across the room and from any position in sight of the door means teachers can focus on calming and protecting students in an emergency. Schlage has designed indication trim allowing high visibility at a greater distance than other locks.

- Large main viewing windows are 2" x 0.6"
- Maximized message size
- Patented, 180-degree window for visibility from any angle
- High contrast, red and white color is easy-to-read for even the color blind
- Available in 34 functions (31 mechanical and three multi-latch)
- Most functions available as inside, outside, and dual (inside and outside) indication
- Available retrofit kits

Inside Trims



Thumbturn

Key cylinder

Outside Trims



Emergency key

Coin turn

Key cylinder

Available messages

	LOCKED	OCCUPIED	DO NOT DISTURB	
	UNLOCKED	VACANT		
Inside trim	IS-LOC	IS-OCC	IS-DND	IS-SYM
Outside trim	OS-LOC	OS-OCC	OS-DND	OS-SYM
Inside trim	IS-LOCFR	IS-OCCFR	–	–
Outside trim	OS-LOCFR	OS-OCCFR	–	–

Note: Spanish language options available via Special Product Process.



Chevron Indicator

Functions L9486, L9496, and L496 (sectional trim only) use the 09-611 chevron style indicator. Available in these messages: "OCCUPIED", "DO NOT DISTURB" or "LOCKED".



Application Versatility

With many available functions, in all the finishes and lever designs common to L Series locks, you can utilize indication for security, for privacy, and for convenience in many situations.

K-12

- Classroom and study room doors
- Adjoining room doors
- Lab room doors
- Administrative offices
- Faculty and nurse's office restroom doors
- Individual restroom and shower room doors
- Larger rooms like auditoriums, gyms, and lunchrooms using exit devices can include lock status indication with Von Duprin 98/99 Series exit devices

Higher Education

- Applications similar to K-12
- Study pods
- Rehearsal rooms
- Faculty offices

Commercial Real Estate

- Public restrooms
- Mother's lactation rooms
- Rooms requiring temporary closures due to cleaning or stocking

Healthcare

- Patient bathrooms
- Public restrooms
- Physician sleeping/on call rooms
- Radiology or other therapy rooms
- Dressing rooms

Retail

- Restaurant single use restrooms
- Dressing rooms

Complementing Healthcare Trims

HL6 Quiet Push/Pull Mortise Trim

The HL6 push/pull latches are ideal for healthcare applications, restrooms, commercial and institutional doors. The short throw angle allows door opening with an easy push or pull action.

- Vertical or horizontal mounting positions
- 14 mortise functions plus two electrified
- 8 finishes, including antimicrobial options
- Quiet operation designed for healing environments
- Optional engraving on handles
- Available with lead lining
- ASA strike available
- Also available in tubular latching only or privacy models
- Use on 1-3/4" doors only



Material: Heavy-wrought, reinforced brass or stainless steel

Finishes: 605, 606, 612, 613, 625, 626, 626AM, 629, 630, and 630AM

Size: 2.44" x 5.38" x 2"

HSLR Series Ligature-Resistant Trim

The High Security Ligature Resistant (HSLR) trim is especially recommended for high-risk patient applications. The patented crescent-style handle design has quickly become the standard for ligature resistance and accessibility and is recognized by the widely-accepted New York State Office of Mental Health (NYS-OMH) Patient Safety Standard.

- Provides the highest level of ligature-resistance to positively contribute to healing environments
- "Paperclip Protection" designation as determined by NYS-OMH testing
- Recommended for low-, medium- or high-risk areas
- 17 mortise functions plus five electrified (not available with Vandlgard feature)
- ADA compliant - "no pinch, no grasp"
- BAA compliant
- Locks are ANSI/BHMA Grade 1 certified
- UL Listed 3-hour
- Also available in cylindrical trim for the ND Series lock functions



Material: Heavy-wrought, reinforced brass or stainless steel

Finishes: 630 and 630AM

Size: 13.17" x 6" x 2.27"

Ligature-Resistant Solutions

Specifically designed with multiple safety facets including recessed trim, sloped surfaces and concealed fastening hardware to reduce the risk of injury or death due to ligature strangulation in hospitals, behavioral health facilities and detention centers

- Available with lever, knob, thumbturn and cylinder rings
- 22 mortise functions plus nine electrified (not available with Vandlgard feature)
- Available as a complete new lock assembly or as a conversion to an existing lock (available for SK1 and SL1 trim only)



SL1 lever



SK1 knob

Material: Heavy-wrought, reinforced brass or stainless steel

Finishes: 630 and 630AM

Size: SL1 - 3.24" x 6.12" x 3.13"

SK1 - 3.19" x 2.3"

Thumbturn - 2.7" x 1.1"



Accessibility & Life Safety

Door hardware should be as effective in helping people go about their lives as it is in securing their environments. Schlage L Series is designed with these requirements in mind.

Life Safety

The Schlage L is UL listed for use on 3-hour fire doors (except L9076 and L9077 functions). All levers with returns comply with the California State fire code for return to within 1/2" of the door face.

Barricade-Resistant Solutions

Key Override is an optional feature available on six mechanical and two electrified functions that allows a key (or emergency key) used on the outside to retract the deadbolt and/or latchbolt, overriding the inside thumbturn when it is being held in the locked position.

- Barricade-resistant
- Privacy and Lockdown functions
- Code-compliant

Lead Lined Solutions

Lead lined locks are intended for use in X-ray or other rooms with radiation concerns. Add option XL11-515 (L9000) or XL12-216 (L400) on order. Lead lined solutions must be ordered with a complete lock or lock case.

Tactile Warning for the Visually Impaired

Tactile warning is a special knurled or milled surface used to alert the visually impaired to a potential hazard on the opposite side of the door (exit to street, a workshop or other hazardous area, etc.). Tactile warning is typically applied to the outside lever only and is specified by an 8 prefix on the lever design.

Milled



Milling pattern example available on backside of 01, 05, 06, 07, 12, 17, 18, ME1, ME2, and ME3 levers.

Knurled



Knurling pattern example available on 02, 03, M51, M52, and M81 levers.

Accessibility

All Schlage L levers comply with the Americans with Disabilities Act (ADA), which requires that "Operable parts shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate operable parts shall be 5 pounds (22.2 N) maximum." Hands free options for accessibility ease can be achieved using Motorized Latch Retraction lock functions coordinated with an auto operator and a wall-mounted activator.

L Series Mechanical Locks

The Schlage L Series mechanical lock is an industry-leading mortise solution. Designed for flexibility, the L Series mechanical lock is one of only two series in the Schlage lineup offered in ligature-resistant trims for healthcare settings. Other trims and options include the HL hospital latch and widely supported use of visual lock status indication.

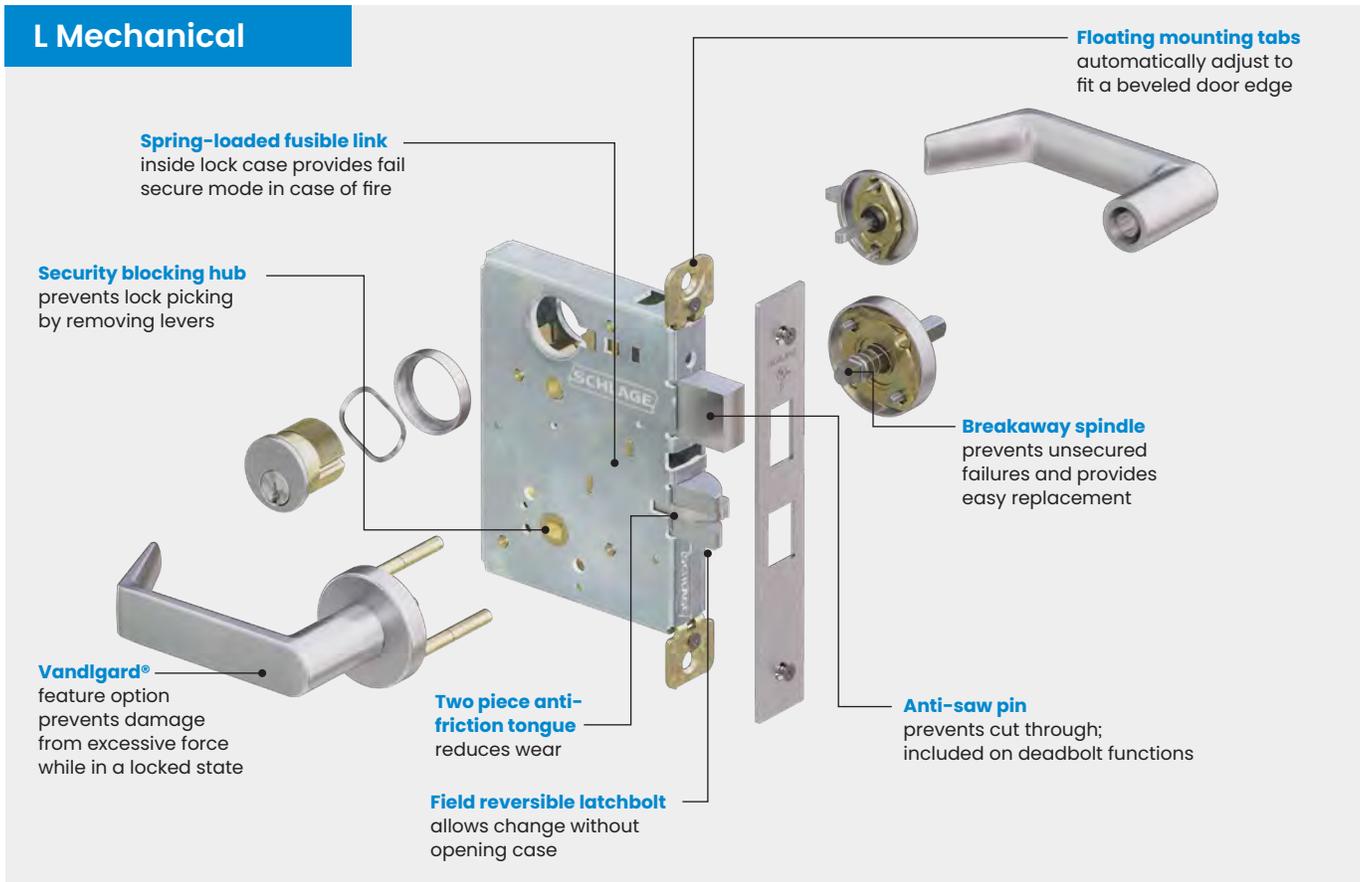
The L Series not only exceeds ANSI/BHMA Security Grade 1 and Operational Grade 1 standards, it also serves as the foundation for the Schlage L wired electrified, LE wireless electronic, and multi-point mortise locks.

33 levers and 12 finishes allow seamless suiting across other Allegion lock styles and exit trims to create truly beautiful environments.

Features

- Exceeds ANSI/BHMA Grade 1 operational and security standards
- Expansive list of configurations and options
- 52 mechanical functions meet the requirements of most applications
- Visual locked/unlocked status indicator options available on most functions
- 12 finishes paired with 33 levers, two knobs, five roses and two escutcheon designs to enhance any building style
- Levers constructed of solid brass or solid stainless steel for a strong-yet-comfortable feel made to endure the elements
- Supports Schlage Conventional, FSIC, SL and SFIC key cylinder formats plus a wide range of competitive cylinders
- Layered security key systems range from open and patented to restricted and geographically exclusive Primus options which include UL 437 high-security cylinders.





Beauty, Brawn & Flexibility

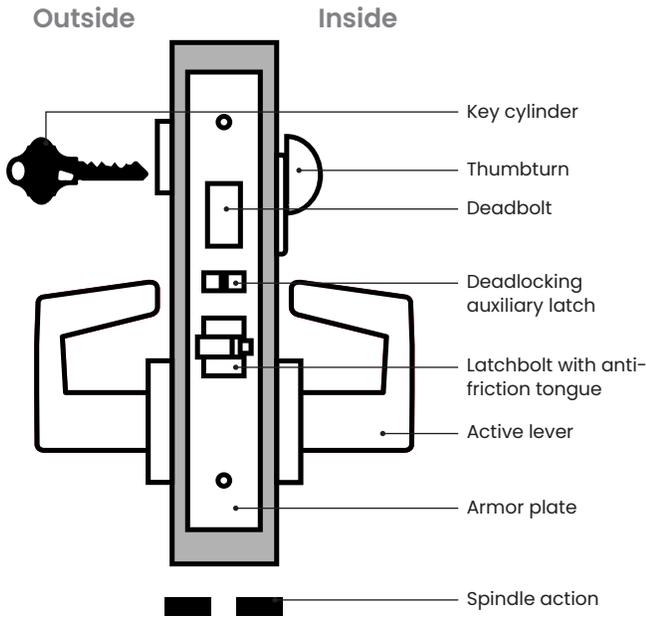
L Series mortise offers the greatest opportunity for customization to fit your needs. Featuring an extensive number of design choices, it's also the strongest, most secure mechanical lock in the Schlage portfolio.

- Several functions can be configured for visual indication trims, push/pull hospital latch or ligature-resistant trims
- Universal lock case design allows the L9050 function to be reconfigured into any of seven other functions
- 46 standard case mortise functions plus 6 small case mortise deadbolt functions
- 12 finishes plus two options for antimicrobial coating
- 33 ADA compliant lever options
- Available Vandlgard and/or key override feature options on several functions
- BAA compliant
- Locks are ANSI/BHMA Grade 1 certified
- Available with lead lining
- UL Listed 3-hour



Mechanical Lock Functions

Legend



Key

-  Emergency thumbturn
-  Coin turn
-  Cylinder thumbturn
-  Fixed lever
-  Knob (when lever option is not available)
-  Solid spindle – connected lever movement
-  Two-piece spindle – independent lever movement
-  Chevron style lock status indicator
-  Inside and/or outside lock status indicator available
-  Hospital latch trim available
-  High-security ligature resistant trim available
-  Ligature-resistant lever trim available
-  Ligature-resistant knob trim available

Product Identification Guide

LV9460 with XL11-635

- Lock series and function code**
 - L = standard
 - LV = Vandlgard option
 - LM = multi-latch
 - LMV = multi-latch with Vandlgard
- 0 = no lock case (dummy trim)
- 9 = functions with lock case
- 0 = no deadbolt
- 1 = dummy trim
- 4 = with deadbolt
- Function code
- Functions requiring special ordering nomenclature

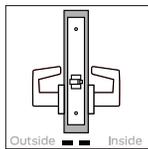


Vandlgard® feature helps protect the lock chassis from damage.

The Vandlgard optional feature available on many functions allows the outside lever to rotate freely down when in a locked state. This limits the ability of vandals to apply excessive force to the lever helping to prevent damage to internal components.

Non-Keyed Functions

Schlage
L9010



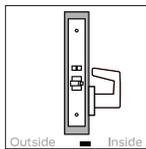
Passage latch



- Levers (or knobs) only—both sides; latchbolt only
- Latchbolt retracted by lever (or knob) from either side at all times
- Inside lever always free for immediate egress

ANSI
F01

Schlage
L9025



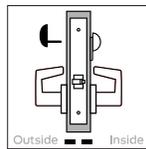
Exit or communicating lock

- No outside trim; lever (or knob) only—inside; latchbolt and deadlocking auxiliary latch
- Latchbolt retracted by lever (or knob) from inside only
- Inside lever always free for immediate egress

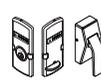
When ordering, specify door handing.

ANSI
F31

Schlage
L/LV9040



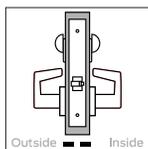
Bath/bedroom privacy lock



- Emergency thumbturn access outside; thumbturn inside; latchbolt only
- Latchbolt retracted by lever (or knob) from either side
- Outside lever is made inoperative by rotating inside thumbturn; Vandgard® option allows outside lever to rotate freely down while locked
- To unlock from outside, remove access hole cover, insert emergency thumbturn (furnished) and rotate
- Rotating inside thumbturn unlocks outside lever; turning inside lever retracts latchbolt and unlocks outside lever; closing door also unlocks preventing lock-out
- Inside lever always free for immediate egress

Note: Hospital latch trim not available with Vandgard option.

Schlage
L/LV9040 with XL11-446



Privacy with thumbturn both sides

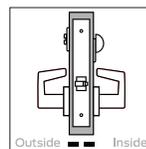


- Thumbturn both sides; latchbolt only
- Latchbolt retracted by lever (or knob) from either side
- Outside lever is made inoperative by rotating either thumbturn; Vandgard® option allows outside lever to rotate freely down while locked
- Rotating either thumbturn unlocks outside lever
- Rotating inside lever retracts latchbolt and unlocks outside lever; closing door also unlocks
- Inside lever always free for immediate egress

Note: Available in rose or L escutcheon trim only. To order, specify function and note XL11-446 as a special option.

ANSI
-

Schlage
L/LV9044



Privacy with coin turn outside

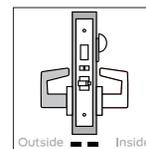


- Coin turn outside; thumbturn inside; latchbolt only
- Latchbolt retracted by lever (or knob) from either side
- Outside lever is made inoperative by rotating outside coin turn or inside thumbturn; Vandgard® option allows outside lever to rotate freely down while locked
- Rotating outside coin turn unlocks outside lever
- Rotating inside thumbturn unlocks outside lever; turning inside lever retracts latchbolt and unlocks outside lever; closing door also unlocks preventing lock-out
- Inside lever always free for immediate egress

Note: Ligature-resistant trims not available with Vandgard option.

ANSI
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Schlage
L9412



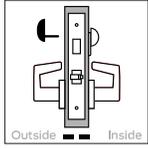
Exit lock with deadbolt

- Lever (or knob) only—outside; thumbturn inside with lever; deadbolt, latchbolt and deadlocking auxiliary latch
- Outside lever (or knob) always fixed; latchbolt retracted by inside lever
- Deadbolt thrown or retracted by rotating inside thumbturn
- Rotating inside lever retracts both deadbolt and latchbolt
- Inside lever always free for immediate egress

Mechanical Lock Functions

Non-Keyed Functions

Schlage L/LV9440



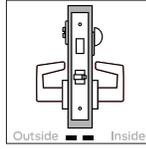
Privacy with deadbolt



- Emergency thumbturn access outside; thumbturn inside; deadbolt and latchbolt
- Latchbolt retracted by lever (or knob) from either side
- Outside lever is made inoperative when deadbolt is thrown by rotating inside thumbturn; Vandgard® option allows outside lever to rotate freely down while locked
- To unlock from outside, remove access hole cover, insert emergency thumbturn (furnished) and rotate
- Rotating inside thumbturn unlocks outside lever; turning inside lever retracts both deadbolt and latchbolt and unlocks outside lever
- Inside lever always free for immediate egress

ANSI F19

Schlage L/LV9444



Privacy with deadbolt and coin turn outside



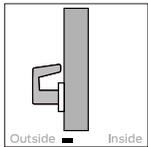
- Coin turn outside; thumbturn inside; deadbolt and latchbolt
- Latchbolt retracted by lever (or knob) from either side
- Outside lever is made inoperative when deadbolt is thrown by rotating inside thumbturn or outside coin turn; Vandgard® option allows outside lever to rotate freely down while locked
- Rotating outside coin turn retracts deadbolt and unlocks outside lever
- Rotating inside thumbturn unlocks outside lever; turning inside lever retracts both deadbolt and latchbolt and unlocks outside lever
- Inside lever always free for immediate egress

Note: Ligature-resistant trims not available with Vandgard option.

ANSI -

Non-Keyed Dummy Functions

Schlage L0170



Half dummy trim

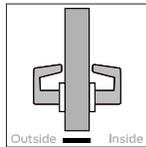
- Lever (or knob) only—one side; no armor front or mortise case
- Lever always fixed

Note: Do not use on hollow core wood doors. All metal door applications require reinforcement.

Ordering: Specify door handing. Additionally, when ordering with escutcheon trim, an inside escutcheon with through bolts will be provided.

ANSI -

Schlage L0172



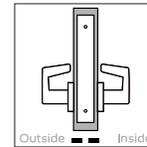
Full dummy trim

- Levers (or knobs) only—both sides; no armor front or mortise case
- Both levers always fixed

Note: All metal door applications require reinforcement.

ANSI -

Schlage L9110



Full dummy trim with active levers

- Levers (or knobs) only—both sides; blank armor front without latchbolt
- Both levers always active

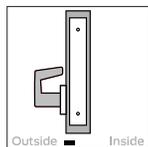
Note: Includes blank armor front and lock case.

May be ordered with optional XL11-743 armor front with cutout to receive deadbolt.

ANSI -

Non-Keyed Dummy Functions

Schlage
L9175



Half dummy trim with lock case

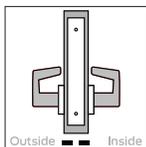
- Lever (or knob) only-one side; blank armor front without latchbolt
- Lever always fixed

Note: Includes blank armor front and lock case.

Door handing must be specified. May be ordered with optional XL11-743 armor front with cutout to receive deadbolt.

ANSI
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Schlage
L9176



Full dummy trim with lock case

- Levers (or knobs) only-both sides; blank armor front without latchbolt
- Both levers always fixed

Note: Includes blank armor front and lock case.

May be ordered with optional XL11-743 armor front with cutout to receive deadbolt.

Ordering: In a double-door application where dummy is used as the strike, order 10-091 armored front strike separately.

ANSI
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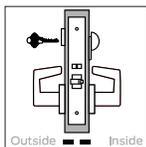
Single Cylinder Non-Deadbolt Functions

The L Series offers a multitude of functional options. But among them, the L9050 basic entrance/office function, is perhaps the most versatile in its ability to be transformed for other uses. With a few part changes this lock can be transformed into these functions:

- L9010** Passage latch
- L9025** Exit or communicating lock
- L9026** Exit lock with cylinder
- L9060** Apartment entrance lock
- L9070** Classroom lock, exterior lockdown only
- L9071** Classroom security lock, interior/exterior lockdown
- L9080** Storeroom lock

To learn more, reference the [L Series Universal Transformation Guide](#).

Schlage
L/LV9050



Entrance/office lock

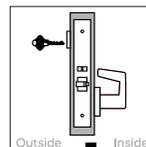
- Key cylinder outside; thumbturn inside; latchbolt and deadlocking auxiliary latch
- Latchbolt retracted by lever (or knob) from either side
- Outside lever is made inoperative by key outside or by turning inside thumbturn; Vandlgard® option allows both levers to rotate freely down while locked
- Key outside unlocks outside lever and retracts latchbolt
- Rotating inside thumbturn unlocks outside lever; turning inside lever retracts latchbolt but does not unlock
- Inside lever always free for immediate egress

Caution: Egress without fully rotating the thumbturn to vertical position can result in lock-out situations.

Note: Hospital latch and ligature-resistant trims not available with Vandlgard option.

ANSI
F04

Schlage
L9026



Exit lock with cylinder

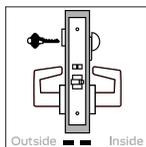
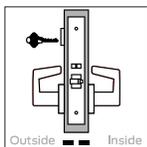
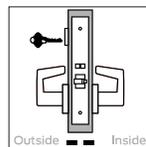
- Key cylinder only, no lever (or knob) outside; lever only-inside; latchbolt and deadlocking auxiliary latch
- Latchbolt retracted by lever from inside
- Key outside retracts latchbolt
- Inside lever always free for immediate egress

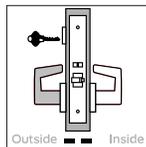
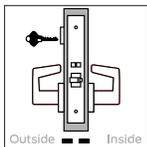
Note: Available in rose or L escutcheon trim only. When ordering, specify door handing.

ANSI
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Mechanical Lock Functions

Single Cylinder Non-Deadbolt Functions

<p>Schlage L/LV9056 L/LV9056 with XL13-439 key override</p>  <p>Entrance/office lock with automatic unlocking</p> <ul style="list-style-type: none"> • Key cylinder outside; thumbturn inside; latchbolt and deadlocking auxiliary latch • Latchbolt retracted by lever (or knob) from either side • Outside lever is made inoperative by key outside or by turning inside thumbturn; Vandlgard® option allows outside lever to rotate freely down while locked • Key outside unlocks outside lever and retracts latchbolt; XL13-439 option allows key to retract latchbolt overriding thumbturn if being held in locked position • Rotating inside thumbturn unlocks outside lever; turning inside lever retracts latchbolt and unlocks outside lever; closing door also unlocks preventing lock-out • Inside lever always free for immediate egress <p>Note: Ligature-resistant trims not available with Vandlgard option.</p> <p>To order with key override, specify function and note XL13-439 as a special option.</p>	<p>ANSI -</p>	<p>Schlage L/LV9070</p>  <p>Classroom lock, exterior lockdown only</p> <ul style="list-style-type: none"> • Key cylinder outside with lever (or knob); lever only-inside; latchbolt and deadlocking auxiliary latch • Latchbolt retracted by lever from either side • Outside lever is made inoperative by key outside; Vandlgard® option allows outside lever to rotate freely down while locked • Key outside unlocks outside lever and retracts latchbolt • Inside lever always free for immediate egress <p>Note: Outside lever remains inoperative until unlocked by key.</p> <p>Note: Hospital latch and ligature-resistant trims not available with Vandlgard option.</p>	<p>ANSI F05</p>	<p>Schlage L/LV9076</p>  <p>Classroom holdback lock, exterior lockdown only</p> <ul style="list-style-type: none"> • Key cylinder outside with lever (or knob); lever only-inside; latchbolt and deadlocking auxiliary latch • Latchbolt retracted by lever from either side • Outside lever is made inoperative by key outside; Vandlgard® option allows outside lever to rotate freely down while locked • Key outside unlocks outside lever and retracts latchbolt • Rotate inside lever while turning key 360° to activate retracted latch holdback feature; to deactivate, reverse key rotation 360° • Inside lever always free for immediate egress <p>Note: Outside lever remains inoperative until unlocked by key.</p> <p>Note: Locks with holdback feature are not UL listed. Installation should be in accordance with existing codes only.</p> <p>Note: Ligature-resistant trims not available with Vandlgard option.</p>	<p>ANSI F06</p>
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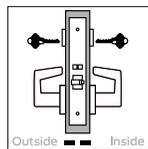
<p>Schlage L/LV9080</p>  <p>Storeroom lock</p> <ul style="list-style-type: none"> • Key cylinder outside with lever (or knob); lever only-inside; latchbolt and deadlocking auxiliary latch • Outside lever always fixed; latchbolt retracted by inside lever; Vandlgard® option allows outside lever to rotate freely down while locked • Key outside retracts latchbolt • Inside lever always free for immediate egress <p>Note: Hospital latch and ligature-resistant trims not available with Vandlgard option.</p>	<p>ANSI F07</p>	<p>Schlage L/LV9081</p>  <p>Accessible storeroom lock</p> <ul style="list-style-type: none"> • Key cylinder outside with lever (or knob); lever only-inside; latchbolt and deadlocking auxiliary latch • Latchbolt retracted by lever from either side • Outside lever is made inoperative by key outside; Vandlgard® option allows outside lever to rotate freely down while locked • Key outside inserted and turned 280° unlocks allowing outside lever to retract latchbolt • Inside lever always free for immediate egress <p>When ordering, specify door handing.</p>	<p>ANSI -</p>
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Double Cylinder Non-Deadbolt Functions

Schlage
L/LV9060

ANSI
F09

Apartment entrance lock



- Key cylinder both sides; latchbolt and deadlocking auxiliary latch
- Latchbolt retracted by lever (or knob) from either side
- Outside lever is made inoperative by key inside; Vandlgard® option allows outside lever to rotate freely down while locked
- Key outside retracts latchbolt but cannot lock or unlock outside lever
- Rotating inside lever retracts latchbolt; key inside retracts latchbolt and unlocks outside lever
- Inside lever always free for immediate egress

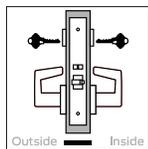
Note: Outside lever remains inoperative until unlocked by key inside.

Note: Hospital latch and ligature-resistant trims not available with Vandlgard option.

Schlage
L9066

ANSI
-

Store lock



- Key cylinder both sides; latchbolt and deadlocking auxiliary latch
- Latchbolt retracted by lever (or knob) from either side
- Both levers are made inoperative by key from either side
- Key use on either side unlocks both levers and retracts latchbolt

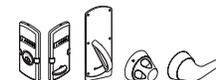
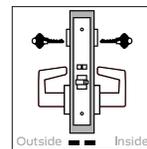
Caution: Double cylinder locks on any door, in any structure which is used for egress are a life safety hazard in times of emergency and their use is not recommended. Installation should be in accordance with existing codes only.

Note: Ligature-resistant trims not available with Vandlgard option.

Schlage
L/LV9071

ANSI
F32

Classroom security lock, interior/exterior lockdown



- Key cylinder both sides; latchbolt and deadlocking auxiliary latch
- Latchbolt retracted by lever (or knob) from either side
- Outside lever is made inoperative by key from either side; Vandlgard® option allows outside lever to rotate freely down while locked
- Rotating inside lever retracts latchbolt; key on either side unlocks outside lever and retracts latchbolt
- Inside lever always free for immediate egress

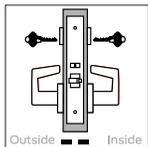
Note: Outside lever remains inoperative until unlocked by key.

Note: Ligature-resistant trims not available with Vandlgard option.

Schlage
L/LV9077

ANSI
-

Classroom security holdback lock, interior/exterior lockdown



- Key cylinder both sides; latchbolt and deadlocking auxiliary latch
- Latchbolt retracted by lever (or knob) from either side
- Outside lever is made inoperative by key from either side; Vandlgard® option allows outside lever to rotate freely down while locked
- Key outside retracts latchbolt but cannot unlock outside lever
- Rotating inside lever retracts latchbolt; key inside retracts latchbolt and unlocks outside lever
- Rotate inside lever while turning key 360° to activate retracted latch holdback feature; to deactivate, reverse key rotation 360°
- Inside lever always free for immediate egress

Note: Outside lever remains inoperative until unlocked by key inside.

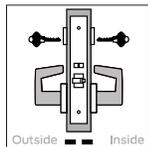
Note: Locks with holdback feature are not UL listed. Installation should be in accordance with existing codes only.

Note: Ligature-resistant trims not available with Vandlgard option.

Schlage
L/LV9082

ANSI
F30

Institution lock



- Key cylinder both sides; latchbolt and deadlocking auxiliary latch
- Both levers (or knobs) always fixed; Vandlgard® option allows both levers to rotate freely down while locked
- Key on either side retracts latchbolt

Caution: Double cylinder locks on any door, in any structure which is used for egress are a life safety hazard in times of emergency and their use is not recommended. Installation should be in accordance with existing codes only.

Note: Hospital latch and ligature-resistant trims not available with Vandlgard option.

Mechanical Lock Functions

Single Cylinder Deadbolt Functions

Schlage L/LV9453	ANSI F20	Schlage L/LV9456 L/LV9456 with XL13-439 key override	ANSI F13	Schlage L9460 with XL11-635	ANSI -
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Entrance/office lock with deadbolt

- Key cylinder outside; thumbturn inside; deadbolt, latchbolt and deadlocking auxiliary latch
 - Latchbolt retracted by lever (or knob) from either side
 - Outside lever is made inoperative when deadbolt is thrown by key outside; rotating thumbturn 20° locks outside lever only; rotating thumbturn 90° also throws deadbolt; Vandlgard® option allows outside lever to rotate freely down while locked
 - Key outside retracts deadbolt and latchbolt, however, outside lever remains locked
 - Rotating inside lever retracts deadbolt and latchbolt; outside lever unlocked when thumbturn is returned to vertical position
 - Inside lever always free for immediate egress
- Caution: Egress without fully rotating the thumbturn to vertical position can result in lock-out situations.
- Note: Hospital latch and ligature-resistant trims not available with Vandlgard option.

Corridor lock with deadbolt

- Key cylinder outside; thumbturn inside; deadbolt and latchbolt
 - Latchbolt retracted by lever (or knob) from either side
 - Outside lever is made inoperative when deadbolt is thrown by key outside or by inside thumbturn; Vandlgard® option allows outside lever to rotate freely down while locked
 - Key outside retracts deadbolt and unlocks outside lever; XL13-439 option allows key to retract deadbolt overriding thumbturn if being held in locked position
 - Rotating inside lever retracts both deadbolt and latchbolt and unlocks outside lever
 - Inside lever always free for immediate egress
- Note: Hospital latch and ligature-resistant trims not available with Vandlgard option.
- To order with key override, specify function and note XL13-439 as a special option.

Cylinder x thumbturn deadbolt with fixed levers

- Key cylinder outside; thumbturn inside; deadbolt only
 - Both levers (or knobs) always fixed
 - Deadbolt thrown or retracted by key outside or by inside thumbturn
- To order, specify function and note XL11-635 as a special option.

Schlage L9460 with XL11-886	ANSI -	Schlage L9464 with XL11-886	ANSI -	Schlage L9465	ANSI -
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Cylinder x thumbturn deadbolt with inside active lever

- Key cylinder outside; thumbturn inside; deadbolt only
 - Outside lever (or knob) always fixed; inside lever always active
 - Deadbolt thrown or retracted by key outside or by inside thumbturn
 - Rotating inside lever retracts deadbolt
 - Inside lever always free for immediate egress
- To order, specify function and note XL11-886 as a special option.

Single cylinder deadbolt with inside active lever

- Key cylinder outside with lever (or knob); lever only-inside; deadbolt only
 - Outside lever always fixed; inside lever always active
 - Deadbolt thrown or retracted by key outside
 - Rotating inside lever retracts deadbolt
 - Inside lever always free for immediate egress
- To order, specify function and note XL11-886 as a special option.

Closet/storeroom lock

- Key cylinder outside with lever (or knob); lever only-inside; deadbolt and latchbolt
 - Latchbolt retracted by lever from either side at all times
 - Deadbolt thrown or retracted by key outside
- Caution: Deadbolt locks with outside key retraction only can result in situations where occupants can be locked in.
- Note: Hospital latch and ligature-resistant trims not available with Vandlgard option.

Single Cylinder Deadbolt Functions

Schlage
L9473

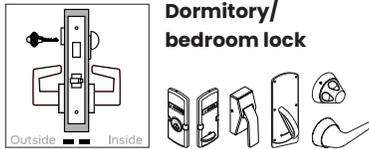
ANSI
F21

Schlage
L/LV9480
L/LV9480 with XL13-439 key override

ANSI
-

Schlage
L/LV9485
L/LV9485 with XL13-439 key override

ANSI
-



**Dormitory/
bedroom lock**

- Key cylinder outside; thumbturn inside; deadbolt and latchbolt
- Latchbolt retracted by lever (or knob) from either side at all times
- Deadbolt thrown or retracted by key outside or by inside thumbturn

Note: Hospital latch and ligature-resistant trims not available with Vandlgard option.

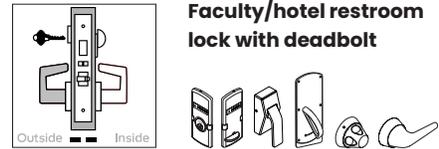


**Storeroom lock
with deadbolt**

- Key cylinder outside; thumbturn inside; deadbolt, latchbolt and deadlocking auxiliary latch
- Outside lever (or knob) always fixed; latchbolt retracted by inside lever; Vandlgard® option allows outside lever to rotate freely down while locked
- Deadbolt thrown or retracted by key outside or by inside thumbturn
- Key outside retracts deadbolt and latchbolt, however, outside lever remains locked; XL13-439 option allows key to retract deadbolt and latchbolt overriding thumbturn if being held in locked position
- Rotating inside lever retracts both deadbolt and latchbolt
- Inside lever always free for immediate egress

Note: Ligature-resistant trims not available with Vandlgard option.

To order with key override, specify function and note XL13-439 as a special option.



**Faculty/hotel restroom
lock with deadbolt**

- Key cylinder outside; thumbturn inside; deadbolt, latchbolt and deadlocking auxiliary latch
- Outside lever (or knob) always fixed; latchbolt retracted by inside lever; Vandlgard® option allows outside lever to rotate freely down while locked
- Deadbolt thrown or retracted by rotating inside thumbturn
- Key outside retracts latchbolt but does not retract deadbolt unless using an emergency key (sold separately)
- Optional XL13-439 allows emergency key to retract deadbolt and latchbolt overriding thumbturn if being held in locked position
- Rotating inside lever retracts both deadbolt and latchbolt
- Inside lever always free for immediate egress

Note: Not available in SFIC or Everest SL formats.

Note: Hospital latch and ligature-resistant trims not available with Vandlgard option.

To order with key override, specify function and note XL13-439 as a special option.

Schlage
L9485 with XL11-557

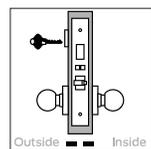
ANSI
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Schlage
L/LV9486
L/LV9486 with XL13-439 key override

ANSI
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Schlage
L/LV9496
L/LV9496 with XL13-439 key override

ANSI
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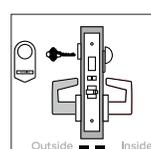


**Prison
function lock**

- Key cylinder outside with knob; knob only-inside; deadbolt, latchbolt and deadlocking auxiliary latch
- Outside knob always free spinning; latchbolt retracted by inside knob
- Inside knob is made inoperative (fixed) when deadbolt is thrown by guard key outside
- Guard key outside retracts deadbolt and unlocks inside knob; in unlocked state use of prisoner's key outside retracts latchbolt only

Note: Available with knobs in rose or L escutcheon trim only. Tamper-resistant Torx screws standard.

To order, specify function and note XL11-557 as a special option.



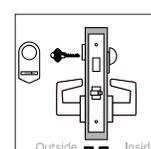
**Faculty/hotel restroom
lock with chevron indicator**

- Key cylinder outside; thumbturn inside; deadbolt, latchbolt and deadlocking auxiliary latch
- Outside lever (or knob) always fixed; latchbolt retracted by inside lever; Vandlgard® option allows outside lever to rotate freely down while locked
- Deadbolt thrown or retracted by rotating inside thumbturn, when thrown-indicator message changes from blank to "DO NOT DISTURB"
- Key outside retracts latchbolt but does not retract deadbolt unless using an emergency key (sold separately)
- Optional XL13-439 allows emergency key to retract deadbolt and latchbolt overriding thumbturn if being held in locked position
- Rotating inside lever retracts both deadbolt and latchbolt
- Inside lever always free for immediate egress

Note: Not available in SFIC or Everest SL formats. Hospital latch trim not available with Vandlgard option.

To order with key override, specify function and note XL13-439 as a special option.

Available with A, B or C roses only; to order chevron indicator with "OCCUPIED" message specify L583-375.



**Corridor lock with
chevron indicator**

- Key cylinder outside; thumbturn inside; deadbolt and latchbolt
- Latchbolt retracted by lever (or knob) from either side
- Outside lever is made inoperative when deadbolt is thrown by key outside or by inside thumbturn, when thrown-indicator message changes from blank to "OCCUPIED"; Vandlgard® option allows outside lever to rotate freely down while locked
- Key outside retracts deadbolt and unlocks outside lever; XL13-439 option allows key to retract deadbolt overriding thumbturn if being held in locked position
- Rotating inside lever retracts both deadbolt and latchbolt and unlocks outside lever
- Inside lever always free for immediate egress

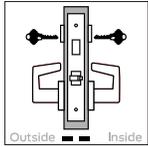
Note: Available in rose trim only.

To order with key override, specify function and note XL13-439 as a special option.

Adds chevron style occupancy indicator (09-611) to sectional trim lock with A or B roses only.

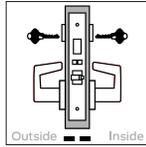
Mechanical Lock Functions

Double Cylinder Deadbolt Functions

Schlage
L/LV9457**Classroom security lock with deadbolt**

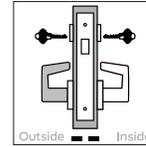
- Key cylinder both sides; deadbolt and latchbolt
- Latchbolt retracted by lever (or knob) from either side
- Outside lever is made inoperative when deadbolt is thrown by key from either side; Vandgard® option allows outside lever to rotate freely down while locked
- Key either side retracts both latchbolt and deadbolt and unlocks outside lever
- Rotating inside lever retracts both deadbolt and latchbolt and unlocks outside lever
- Inside lever always free for immediate egress

Note: Ligature-resistant trims not available with Vandgard option.

ANSI
F33**Schlage**
L/LV9458**Classroom security lock with deadbolt and auxiliary latch**

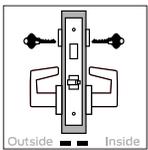
- Key cylinder both sides; deadbolt, latchbolt and deadlocking auxiliary latch
- Latchbolt retracted by lever (or knob) from either side
- Outside lever is made inoperative when deadbolt is thrown by key from either side; Vandgard® option allows outside lever to rotate freely down while locked
- Key either side retracts both latchbolt and deadbolt and unlocks outside lever
- Rotating inside lever retracts both deadbolt and latchbolt and unlocks outside lever
- Inside lever always free for immediate egress

Note: Ligature-resistant trims not available with Vandgard option.

ANSI
F34**Schlage**
L9462 with XL11-886**Double cylinder deadbolt with active inside lever**

- Key cylinder both sides; deadbolt only
- Outside lever (or knob) always fixed; inside lever always active
- Deadbolt thrown or retracted by key from either side
- Rotating inside lever retracts deadbolt
- Inside lever always free for immediate egress

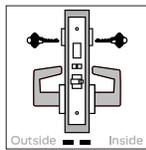
To order, specify function and note XL11-886 as a special option.

ANSI
-**Schlage**
L9466**Utility room/storeroom lock**

- Key cylinder both sides; deadbolt and latchbolt
- Latchbolt retracted by lever (or knob) from either side
- Deadbolt thrown or retracted by key from either side

Caution: Double cylinder locks on any door, in any structure which is used for egress are a life safety hazard in times of emergency and their use is not recommended. Installation should be in accordance with existing codes only.

Note: Hospital latch and ligature-resistant trims not available with Vandgard option.

ANSI
F14**Schlage**
L/LV9482**Institution lock with deadbolt**

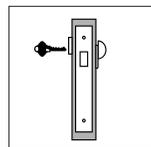
- Key cylinder both sides; deadbolt, latchbolt and deadlocking auxiliary latch
- Both levers always fixed; Vandgard® option allows both levers to rotate freely down while locked
- Deadbolt thrown or retracted by key from either side
- Key on either side retracts both deadbolt and latchbolt

Caution: Double cylinder locks on any door, in any structure which is used for egress are a life safety hazard in times of emergency and their use is not recommended. Installation should be in accordance with existing codes only.

ANSI
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Mortise Deadbolt Functions

Schlage
L9460

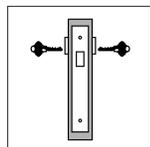


Cylinder x thumbturn mortise deadbolt



ANSI
F17

Schlage
L9462

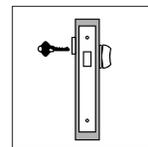


Double cylinder mortise deadbolt



ANSI
F16

Schlage
L9463

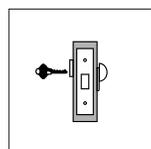


Cylinder x cylinder thumbturn mortise deadbolt



ANSI
F29

Schlage
L460

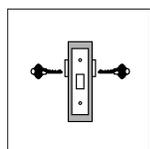


Cylinder x thumbturn small case mortise deadbolt



ANSI
E06071

Schlage
L462

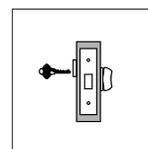


Double cylinder small case mortise deadbolt



ANSI
E06061

Schlage
L463



Cylinder x cylinder thumbturn small case mortise deadbolt



ANSI
E06091

- Key cylinder only, no lever (or knob) outside; thumbturn only, no lever inside; deadbolt only
- Deadbolt thrown or retracted by key outside or by inside thumbturn

Note: L9000 mortise deadbolts available in L escutcheon or sectional trim only.

Note: L400 small case not available with escutcheon trim.

- Key cylinder both sides, no levers (or knobs); deadbolt only
- Deadbolt thrown or retracted by key from either side

Caution: Double cylinder locks on any door, in any structure which is used for egress are a life safety hazard in times of emergency and their use is not recommended. Installation should be in accordance with existing codes only.

Note: L9000 mortise deadbolts available in L escutcheon or sectional trim only.

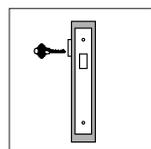
Note: L400 small case not available with escutcheon trim.

- Key cylinder only, no lever (or knob) outside; cylinder thumbturn only, no lever inside; deadbolt only
- Deadbolt thrown or retracted by key outside
- Rotating inside thumbturn retracts deadbolt but cannot project it

Note: L9000 mortise deadbolts available in L escutcheon or sectional trim only.

Note: L400 small case not available with escutcheon trim.

Schlage
L9464

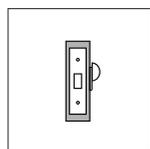


Cylinder only mortise deadbolt



ANSI
F18

Schlage
L480

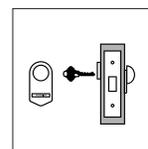


Thumbturn only small case mortise deadbolt



ANSI
-

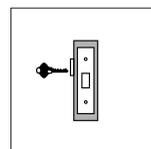
Schlage
L496



Cylinder x thumbturn small case mortise deadbolt with chevron indicator

ANSI
-

Schlage
L464



Cylinder only small case mortise deadbolt



ANSI
E06081

- No outside trim; thumbturn only, no lever inside; deadbolt only
- Deadbolt thrown or retracted by rotating inside thumbturn

Note: When ordered with indicator, the indicator is applied to the thumbturn side.

Note: L400 small case not available with escutcheon trim.

- Key cylinder only, no lever (or knob) outside; thumbturn only, no lever inside; deadbolt only
- Deadbolt thrown or retracted by key outside or by inside thumbturn, when thrown-indicator message changes from blank to "OCCUPIED"

Note: L9000 mortise deadbolts available in L escutcheon or sectional trim only.

Note: L400 small case not available with escutcheon trim.

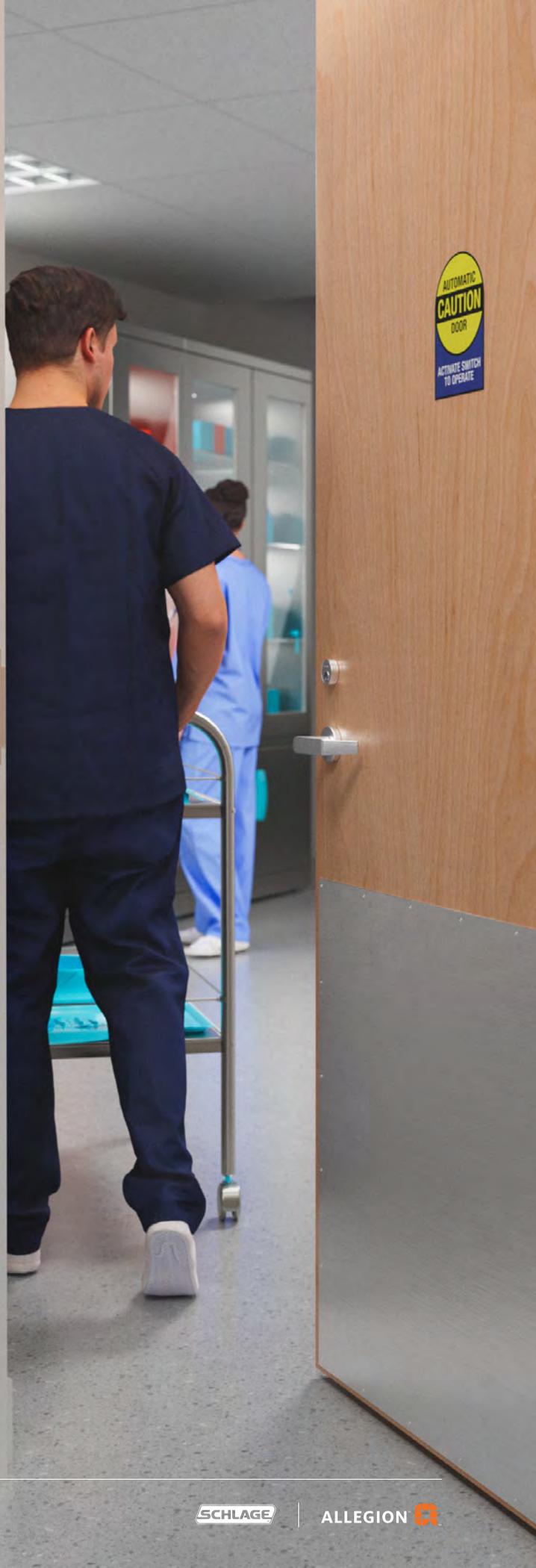
L Series Wired Electrified Locks

Electrified locks offer a powerful blend of mechanical reliability and electronic control—making them a smart, scalable solution for modern access control needs.

The Schlage® L Series includes electrified functions that build on this strength, delivering robust Grade 1 security in a fire-rated lock with the added benefits of independent remote operation or full access control integration. Most functions are built for lever control — electrically managing the locking or unlocking of one or both levers. Motorized latch retraction options are offered with or without lever control. All are built to be efficient, quiet, and long lasting for exceptional performance under even the most challenging conditions

Universal Features for functions with lever control

- User selectable fail safe/fail secure—changing mode between EL and EU is as simple as flipping a switch on the lock case
- Low holding current on lever—0.1 amp produces minimal heat, eliminating “hot levers” in electrically locking applications and allows reliable operation even in poorly ventilated wood doors
- Optional Request to exit (RX) switch monitors the inside lever with enhanced detection level that balances security with lever sensitivity
- Modular RX design — RX can be added on at a later time without opening the lock case



L Wired Electrified

All mechanical features +

Input voltage

- Lever Control only functions accept 12V or 24V DC power
- Latch Retraction functions accept 24V DC

Added options
See functions for availability

- Key override (XL 13-439) of the inside them turn when it is being held in the locked position
- Vandlgard® (LV) lever engagement protects against abuse and vandalism

Monitoring options

- Modular Request-to-Exit (RX) can be added anytime without opening the lock case (all functions except L9582 and L9696EL/EU)
- Latchbolt Monitor (LX)

Lever Control only functions:

- Door Position Sensor (DPS) (non-deadbolt functions)
- Deadbolt Monitor (DM) is standard for deadbolt functions

Standard Molex® connector

- Simplifies connection
- Includes additional 6" wire harness extension for traditional hard terminations

Switch-selectable EL/EU
Change mode (electrically locked or unlocked) anytime via switch on lock case

Efficient motor-driven design

- Lever Control motor: 0.4 amp max draw (24V)
- Latch Retraction motor: 1.4 amps max draw
- Quiet operation
- Patent-pending latch retraction feature detects binding conditions on the motor and adjusts as needed

L/LV9092EL/EU shown.

Choosing Lever Control and/or Latch Retraction

Lever control—electrically managing the locked or unlocked state of one or both levers—is a versatile solution for doors requiring remote release, timed access, or credentialed entry. These locks are ideal for controlled access points while maintaining egress where needed.

In contrast, **latch retraction** directly retracts the latch bolt, enabling hands-free operation. This is commonly used with automatic door openers, such as those used in accessible restrooms. Some functions provide only latch retraction for simple push/pull access, while others combine it with lever control.

When selecting between these options, it's important to consider building codes and safety requirements—particularly whether **fail safe** or **fail secure** operation is appropriate for the application.

Fail Safe vs. Fail Secure

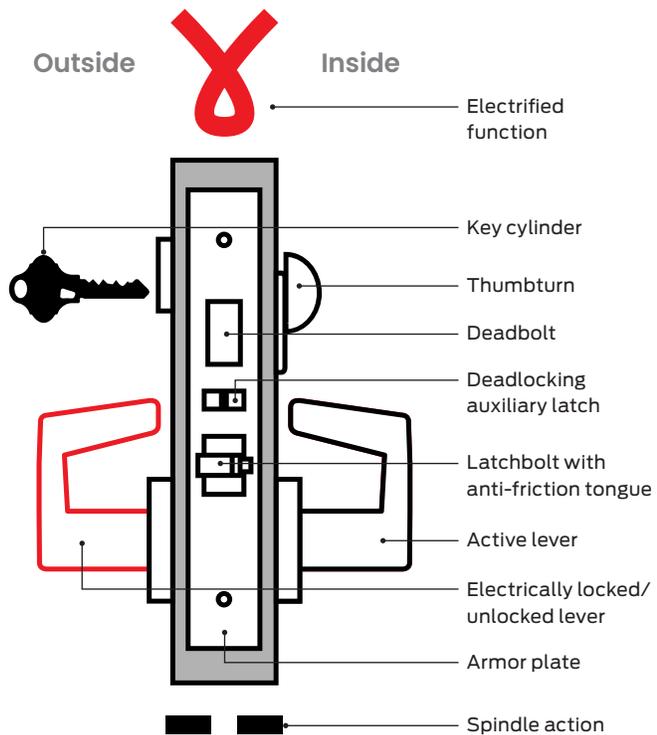
Electromechanical locks with lever control typically operate in one of two ways. Some manage only the outside lever, allowing free egress at all times. Others control both levers and should not be used where free exit is required. Schlage L Series electrified locks include a chassis switch that allows field selection between fail safe and fail secure modes.

Fail Secure (Electrically Unlocked - EU): Remains locked on the secure side(s) when power is lost or removed. Power must be applied to unlock and allow lever rotation. This mode is ideal for securing areas during a power outage.

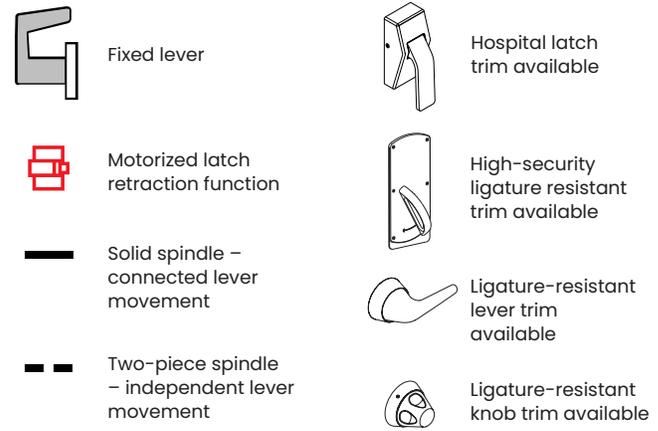
Fail Safe (Electrically Locked - EL): Locked when powered and unlocked when power is lost or removed. Commonly used on stairwell doors to allow re-entry during fire alarms or power failures. These locks always permit exit into the stairwell, except at the discharge door, which may be locked from the outside. Other applications can include areas requiring emergency access during outages or fire events.

Wired Electrified Lock Functions

Legend



Key



Available electrified options include:

- RX** Request to Exit
- LX** Latch bolt monitor
- DPS** Door Position Switch
- DM** Deadbolt monitor (DM)

Product identification guide

LV9492EL with XL13-439

- Lock series and function code**
- L = standard
 - LV = Vandlgard® option
 - LM = multi-latch
 - LMV = multi-latch with Vandlgard
 - 0 = no lock case (dummy trim)
 - 9 = functions with lock case
 - 0 = no deadbolt
 - 4 = with deadbolt
 - 5 = with motorized latch retraction
 - 6 = with motorized latch retraction and lever control
- Function code**
- Electrified functions**
- EL = electrically locked
 - EU = electrically unlocked
- Functions requiring special ordering nomenclature

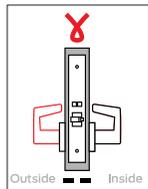


Vandlgard® feature helps protect the lock chassis from damage.

The Vandlgard optional feature available on many functions allows the outside lever to rotate freely down when in a locked state. This limits the ability of vandals to apply excessive force to the lever helping to prevent damage to internal components.

Non-Keyed Electrified Functions

Schlage
L/LV9090EL/EU



**Electrically locking/
unlocking outside lever,
no cylinder**



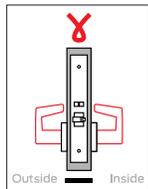
- Levers (or knobs) only both sides; latchbolt and deadlocking auxiliary latch
- Powered state: outside lever continuously locked (EL mode) or unlocked (EU mode); Vandlgard® option allows outside lever to rotate freely down while locked
- When power is removed (or power fails): in EL mode either lever will retract latchbolt; in EU mode outside lever is locked
- Inside lever always free for immediate egress

Note: Auto detects 12 or 24V DC.

Note: Ligature-resistant trims not available with Vandlgard option.

Ordering: Case-mounted switch allows field selectable EL/EU setting however, when ordering, please specify EL or EU.

ANSI - Schlage
L/LV9091EL/EU



**Electrically locking/
unlocking both levers,
no cylinder**



- Levers (or knobs) only both sides; latchbolt and deadlocking auxiliary latch
- Powered state: both levers continuously locked (EL mode) or unlocked (EU mode); Vandlgard® option allows both levers to rotate freely down while locked
- When power is removed (or power fails): in EL mode either lever will retract latchbolt; in EU mode both levers are locked

Note: Auto detects 12 or 24V DC.

Note: Ligature-resistant trims not available with Vandlgard option.

Ordering: Case-mounted switch allows field selectable EL/EU setting however, when ordering, please specify EL or EU.

ANSI - Schlage
L/LV9095EL/EU



**Electrically locking/
unlocking both levers,
double cylinder**



- Key cylinder both sides; latchbolt and deadlocking auxiliary latch
- Powered state: both levers (or knobs) continuously locked (EL mode) or unlocked (EU mode); Vandlgard® option allows both levers to rotate freely down while locked
- Key on either side retracts latchbolt but cannot change the normal locked or unlocked state of levers
- When power is removed (or power fails): in EL mode either lever will retract latchbolt; in EU mode both levers are locked

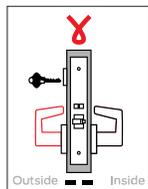
Note: Auto detects 12 or 24V DC.

Note: Hospital latch and ligature-resistant trims not available with Vandlgard option.

Ordering: Case-mounted switch allows field selectable EL/EU setting however, when ordering, please specify EL or EU.

Keyed Non-Deadbolt Electrified Functions

Schlage
L/LV9092EL/EU



**Electrically locking/
unlocking outside lever,
outside cylinder**



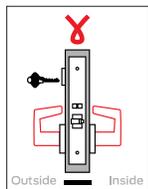
- Key cylinder outside with lever (or knob); lever only-inside; latchbolt and deadlocking auxiliary latch
- Powered state: outside lever continuously locked (EL mode) or unlocked (EU mode); Vandlgard® option allows outside lever to rotate freely down while locked
- Key outside retracts latchbolt but cannot change the normal locked or unlocked state of outside lever
- When power is removed (or power fails): in EL mode either lever will retract latchbolt; in EU mode outside lever is locked
- Inside lever always free for immediate egress

Note: Auto detects 12 or 24V DC.

Note: Hospital latch and ligature-resistant trims not available with Vandlgard option.

Ordering: Case-mounted switch allows field selectable EL/EU setting however, when ordering, please specify EL or EU.

ANSI - Schlage
L/LV9093EL/EU



**Electrically locking/
unlocking both levers,
outside cylinder**



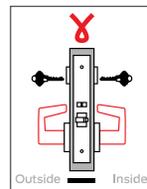
- Key cylinder outside with lever (or knob); lever only-inside; latchbolt and deadlocking auxiliary latch
- Powered state: both levers continuously locked (EL mode) or unlocked (EU mode); Vandlgard® option allows both levers to rotate freely down while locked
- Key outside retracts latchbolt but cannot change the normal locked or unlocked state of either lever
- When power is removed (or power fails): in EL mode either lever will retract latchbolt; in EU mode both levers are locked

Note: Auto detects 12 or 24V DC.

Note: Ligature-resistant trims not available with Vandlgard option.

Ordering: Case-mounted switch allows field selectable EL/EU setting however, when ordering, please specify EL or EU.

ANSI - Schlage
L/LV9095EL/EU



**Electrically locking/
unlocking both levers,
double cylinder**



- Key cylinder both sides; latchbolt and deadlocking auxiliary latch
- Powered state: both levers (or knobs) continuously locked (EL mode) or unlocked (EU mode); Vandlgard® option allows both levers to rotate freely down while locked
- Key on either side retracts latchbolt but cannot change the normal locked or unlocked state of levers
- When power is removed (or power fails): in EL mode either lever will retract latchbolt; in EU mode both levers are locked

Note: Auto detects 12 or 24V DC.

Note: Hospital latch and ligature-resistant trims not available with Vandlgard option.

Ordering: Case-mounted switch allows field selectable EL/EU setting however, when ordering, please specify EL or EU.

Wired Electrified Lock Functions

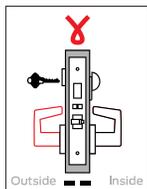
Keyed Deadbolt Electrified Functions

Schlage**L/LV9492EL/EU****L/LV9492EL/EU with XL13-439 key override****ANSI**

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Schlage**L/LV9493EL/EU****L/LV9493EL/EU with XL13-439 key override****ANSI**

-



Electrically locking/unlocking outside lever, outside cylinder, inside thumbturn with deadbolt

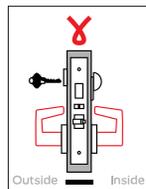


- Key cylinder outside; thumbturn inside; deadbolt, latchbolt and deadlocking auxiliary latch
- Powered state: outside lever (or knob) continuously locked (EL mode) or unlocked (EU mode); Vandlgard® option allows outside lever to rotate freely down while locked
- Deadbolt thrown or retracted by key outside or by inside thumbturn; XL13-439 option allows key to retract deadbolt overriding thumbturn if being held in locked position
- When power is removed (or power fails): in EL mode either lever will retract latchbolt; in EU mode outside lever is locked; deadbolt projection is independent of electrically locked or unlocked state of outside lever
- Rotating inside lever retracts both deadbolt and latchbolt
- Inside lever always free for immediate egress

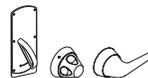
Note: Auto detects 12 or 24V DC; supplied deadbolt monitor allows option to prevent ingress with card use when deadbolt is thrown.

Note: Ligature-resistant trims not available with Vandlgard option.

Ordering: Case-mounted switch allows field selectable EL/EU setting however, when ordering, please specify EL or EU. To order with key override, specify function and note XL13-439 as a special option.



Electrically locking/unlocking both levers, outside cylinder, inside thumbturn with deadbolt



- Key cylinder outside; thumbturn inside; deadbolt, latchbolt and deadlocking auxiliary latch
- Powered state: both levers (or knobs) continuously locked (EL mode) or unlocked (EU mode); Vandlgard® option allows both levers to rotate freely down while locked
- Deadbolt thrown or retracted by key outside or by inside thumbturn; XL13-439 option allows key to retract deadbolt overriding thumbturn if being held in locked position
- When power is removed (or power fails): in EL mode either lever will retract latchbolt; in EU mode both levers are locked; deadbolt projection is independent of electrically locked or unlocked state of either lever
- When unlocked, rotating inside lever retracts both deadbolt and latchbolt

Note: Auto detects 12 or 24V DC; supplied deadbolt monitor allows option to prevent ingress with card use when deadbolt is thrown.

Note: Ligature-resistant trims not available with Vandlgard option.

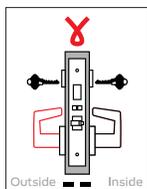
Ordering: Case-mounted switch allows field selectable EL/EU setting however, when ordering, please specify EL or EU. To order with key override, specify function and note XL13-439 as a special option.

Schlage**L/LV9494EL/EU****ANSI**

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Schlage**L/LV9495EL/EU****ANSI**

-



Electrically locking/unlocking outside lever, double cylinder with deadbolt

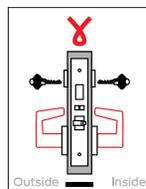


- Key cylinder both sides; deadbolt, latchbolt and deadlocking auxiliary latch
- Powered state: outside lever (or knob) continuously locked (EL mode) or unlocked (EU mode); Vandlgard® option allows outside lever to rotate freely down while locked
- Deadbolt thrown or retracted by key from either side
- When power is removed (or power fails): in EL mode either lever will retract latchbolt; in EU mode outside lever is locked; deadbolt projection is independent of electrically locked or unlocked state of outside lever
- Rotating inside lever retracts both deadbolt and latchbolt
- Inside lever always free for immediate egress

Note: Auto detects 12 or 24V DC; supplied deadbolt monitor allows option to prevent ingress with card use when deadbolt is thrown.

Note: Ligature-resistant trims not available with Vandlgard option.

Ordering: Case-mounted switch allows field selectable EL/EU setting however, when ordering, please specify EL or EU.



Electrically locking/unlocking both levers, double cylinder with deadbolt



- Key cylinder both sides; deadbolt, latchbolt and deadlocking auxiliary latch
- Powered state: both levers (or knobs) continuously locked (EL mode) or unlocked (EU mode); Vandlgard® option allows both levers to rotate freely down while locked
- Deadbolt thrown or retracted by key from either side
- When power is removed (or power fails): in EL mode either lever will retract latchbolt; in EU mode both levers are locked; deadbolt projection is independent of electrically locked or unlocked state of either lever
- When unlocked, rotating inside lever retracts both deadbolt and latchbolt

Note: Auto detects 12 or 24V DC; supplied deadbolt monitor allows option to prevent ingress with card use when deadbolt is thrown.

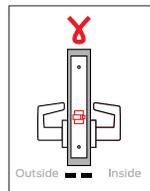
Note: Ligature-resistant trims not available with Vandlgard option.

Ordering: Case-mounted switch allows field selectable EL/EU setting however, when ordering, please specify EL or EU.

Motorized Latch Retraction Functions

Schlage L9510

ANSI -



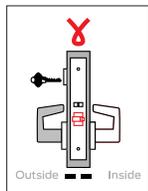
Passage latch with motorized latch retraction

- Lever only both sides; latchbolt only
- Extended latchbolt is retracted by lever from either side at all times
- Powered state: latchbolt is retracted
- When power is removed latchbolt extends
- Inside lever always free for immediate egress

Note: 24V DC only. Available options include Request to Exit (RX) or Latchbolt Monitor (LX).

Schlage L9580

ANSI -



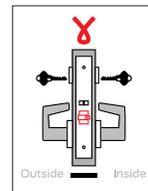
Storeroom lock with motorized latch retraction

- Key cylinder outside with lever; lever only inside; latchbolt and deadlocking auxiliary latch
- Outside lever always fixed; extended latchbolt is retracted by inside lever
- Key outside retracts latchbolt
- Powered state: latchbolt is retracted
- When power is removed latchbolt extends
- Inside lever always free for immediate egress

Note: 24V DC only. Available options include Request to Exit (RX) or Latchbolt Monitor (LX).

Schlage L9582

ANSI -



Institution lock with motorized latch retraction

- Key cylinder and lever both sides; latchbolt and deadlocking auxiliary latch
- Both levers always fixed
- Key on either side retracts latchbolt
- Powered state: latchbolt is retracted
- When power is removed latchbolt extends

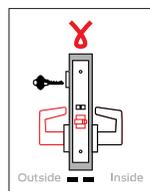
Caution: Double cylinder locks on any door, in any structure which is used for egress are a life safety hazard in times of emergency and their use is not recommended. Installation should be in accordance with existing codes only.

Note: 24V DC only. Available Latchbolt Monitor (LX) option.

Motorized Latch Retraction Functions With Lever Control

Schlage L9692EL/EU

ANSI -



Electrically locking/unlocking outside lever, outside cylinder with motorized latch retraction

- Key cylinder outside with lever; lever only inside; latchbolt and deadlocking auxiliary latch
- Lever control**
- Powered state: outside lever continuously locked (EL mode) or unlocked (EU mode)
 - When power for lever is removed (or power fails): in EL mode either lever will retract latchbolt; in EU mode outside lever is locked

Independent latchbolt control

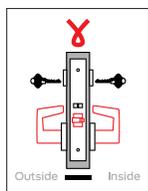
- Powered state: latchbolt is retracted
- When power is removed latchbolt extends
- Key outside retracts latchbolt but cannot change the normal locked or unlocked state of outside lever
- Inside lever always free for immediate egress

Note: 24V DC only. Available options include Request to Exit (RX) or Latchbolt Monitor (LX).

Ordering: Case-mounted switch allows field selectable EL/EU setting however, when ordering, please specify EL or EU.

Schlage L9695EL/EU

ANSI -



Electrically locking/unlocking both levers double cylinder with motorized latch retraction

- Key cylinder and lever both sides; latchbolt and deadlocking auxiliary latch
- Lever control**
- Powered state: both levers continuously locked (EL mode) or unlocked (EU mode)
 - When power for levers is removed (or power fails): in EL mode either lever will retract latchbolt; in EU mode both levers are locked

Independent latchbolt control

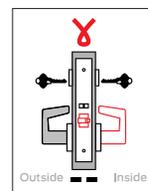
- Powered state: latchbolt is retracted
- When power is removed latchbolt extends
- Key either side retracts latchbolt but cannot change the normal locked or unlocked state of either lever

Note: 24V DC only. Available options include Request to Exit (RX) or Latchbolt Monitor (LX).

Ordering: Case-mounted switch allows field selectable EL/EU setting however, when ordering, please specify EL or EU.

Schlage L9696EL/EU

ANSI -



Electrically locking/unlocking inside lever double cylinder with motorized latch retraction

- Key cylinder and lever both sides; latchbolt and deadlocking auxiliary latch
- Lever control**
- Powered state: inside lever continuously locked (EL mode) or inside lever unlocked (EU mode); outside lever always fixed
 - When power for lever is removed (or power fails): in EL mode inside lever will retract latchbolt; in EU mode inside lever is locked; outside lever always fixed

Independent latchbolt control

- Powered state: latchbolt is retracted
- When power is removed latchbolt extends
- Key either side retracts latchbolt but cannot change the normal locked or unlocked state of either lever

Note: 24V DC only. Available Latchbolt Monitor (LX) option.

Ordering: Case-mounted switch allows field selectable EL/EU setting however, when ordering, please specify EL or EU.

LE Mobile Enabled Wireless Electronic Locks

The Schlage LE mobile enabled wireless mortise lock is designed to affordably extend electronic access control deeper into the building beyond traditional perimeter and high security openings. It offers enhanced security, intelligence, and the convenience of upgrading to smart and mobile credentials¹.

LE wireless locks simplify installation by combining the lock, credential reader, door position sensor and request-to-exit switch into one unit. Installation requires only minor modifications to existing mechanical mortise prep with no wires to run to the lock or additional components necessary.

Schlage offers organizations the freedom to use the access control software of their choice to manage their system. Select an Allegion solution or one of our third party physical access control software (PACS) alliances to meet application requirements.

- Ideal for office and suite entries, conference rooms, common area doors, resident units, and sensitive storage areas with a mortise door prep
- Multi-technology credential compatibility includes Schlage MIFARE®, Bluetooth® and NFC mobile¹, and proximity
- Optional support for HID® iCLASS®, iCLASS SE®, Seos® and NFC mobile credentials
- Wireless configuration from connected smartphones and tablets
- Built-in Wi-Fi® enables automated daily updates sent directly from host software
- Networked real-time communication available with the ENGAGE Gateway and PACS provider solutions
- Weather-resistant design



1. Dependent on availability of compatible mobile credential.

LE Wireless Electronic

Most mechanical features +

Compatible with 2.4 GHz Bluetooth® and NFC mobile*
13.56 MHz smart and 125 kHz proximity credentials

Connectivity options
for real-time networked via gateway, No-Tour and offline applications

Mechanical key override
compatible with most popular key systems

Built-in Bluetooth®
enables wireless configuration from smart phones or tablets and/or communication to GWE gateway

Built-in Wi-Fi
enables automatic updates to access rights

Up to 2 years of battery life
with 4 AA batteries

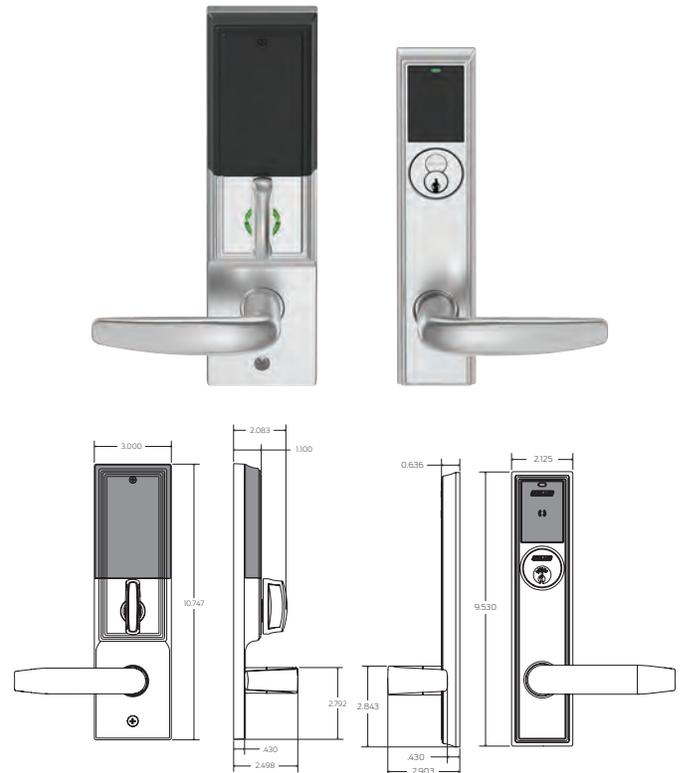
Integrated door position switch
requires no additional prep on MS and MB chassis options

*Dependent on availability of compatible mobile credential

Greenwich



Addison



Additional Details

Available Status Signals

- Request to Exit
- Door position
- Interior cover tamper¹
- Battery level
- Lock/unlock status²
- Communication status¹
- Deadbolt position status (MD only)¹
- Interior push button status (MB only)¹



Use the ENGAGE mobile app to commission and connect devices to your access control system of choice



Standard Multi-Technology Specifications

Credential technologies	Proximity (125 kHz) Smart (13.56 MHz) Bluetooth Low Energy (LE) (2.4 GHz) Near Field Communication (NFC)
Standards	ISO standard 15693 and ISO 14443
Maximum read range	Proximity: up to 1.25" Smart: up to .75" Bluetooth Low Energy: up to 15' NFC: mobile device dependent

1. Consult your access control software provider for specific scope of support.
2. Software indicates lock/unlock status based on sequence of events.



LEMS
LED Indicator

Storeroom

- Lockset is normally secure
- Inside lever always free for immediate egress
- A valid normal credential or mechanical key will momentarily unlock the door
- Valid toggle credential on the exterior may be used to change to a passage or secured status

LEMB
Interior Push Button and LED

Office

- Lockset is normally secure
- Inside lever is always free for immediate egress
- Valid normal credential or key momentarily unlocks door
- Interior push button on inside escutcheon may be used to select a passage or secured state and confirms state of the lock via LED indicator
- Valid toggle credential may be used to change to a passage or secured state
- Meets need for lockdown function for safety and security

Privacy

- Lockset is normally secure
- Valid normal credential or key momentarily unlocks door
- Inside lever is always free for immediate egress
- Interior push button on inside escutcheon may be used to select a privacy status
- Interior push button will disable normal electronic access from the exterior
- Opening the door or pressing the interior push button a second time on the inside housing deactivates the privacy status
- Mechanical key will always retract the latch
- Door position sensor required for function

Apartment

- Lockset is normally secure
- Inside lever always free for immediate egress
- Valid normal or toggle credential is used to change to a passage or secured state
- Interior push button on inside escutcheon may be used to select a passage or secured status
- Opening the door or pressing the interior push button causes the lockset to toggle to passage
- While in passage mode, the lockset can only be secured while the door is closed by pressing the interior push button or using a normal credential on the exterior
- Mechanical key will retract the latch
- Door position sensor required for function

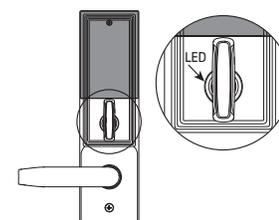
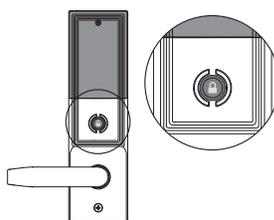
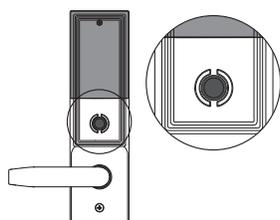
LEMD
Deadbolt with LED

Privacy

- Lockset is normally secure
- Valid normal credential or key momentarily unlocks door
- Valid toggle credential may be used to change to a passage or secured state
- Inside lever always free for immediate egress
- The thumbturn on inside housing may be used to select a privacy status
- The thumbturn will disable normal electronic access from the exterior and confirms state of the lock via LED indicator
- Opening the door or retracting deadbolt deactivates the privacy status
- Mechanical key will always retract the latch
- Door position sensor required for function

Apartment

- Lockset is normally secure
- Inside lever always free for immediate egress
- Opening the door or retracting the deadbolt causes the lockset to toggle to passage
- Valid normal or toggle credential is used to change to a passage or secured state
- Thumbturn on inside housing may be used to select a passage or secured state and confirms state of the lock via LED indicator
- While in passage mode, the lockset can only be secured while the door is closed by extending the deadbolt from inside or using a normal credential on the exterior reader
- Normal electronic access from the exterior is always allowed
- Mechanical key will retract the latch
- Door position sensor required for function



LM9200

Multi-Point Locks

The Schlage LM9200 lock utilizes latches in the top and bottom of the door, rather than the side, on single or double sets of doors. Compatible with wood or hollow metal doors, the LM9200 is also available without the bottom latch for single point latching.

The LM9200 can easily integrate into any application and suite with other Schlage locks and Von Duprin exit devices.

Some applications include:

- Pair of conference room doors
- Pair of fire rated corridor doors
- Pair of office suite doors
- Pair of elevator lobby doors
- Pair of doors where flush bolts and a coordinator are not desired

LM9200 Multi-Point

Fire protection

90-minute hollow metal door fire rating; 60-minute wood door fire rating with metal wrap

Compatible with sectional rose & escutcheon trim

does not require "backer plates" or metal wraps for fire protection on hollow metal doors

Suites visually

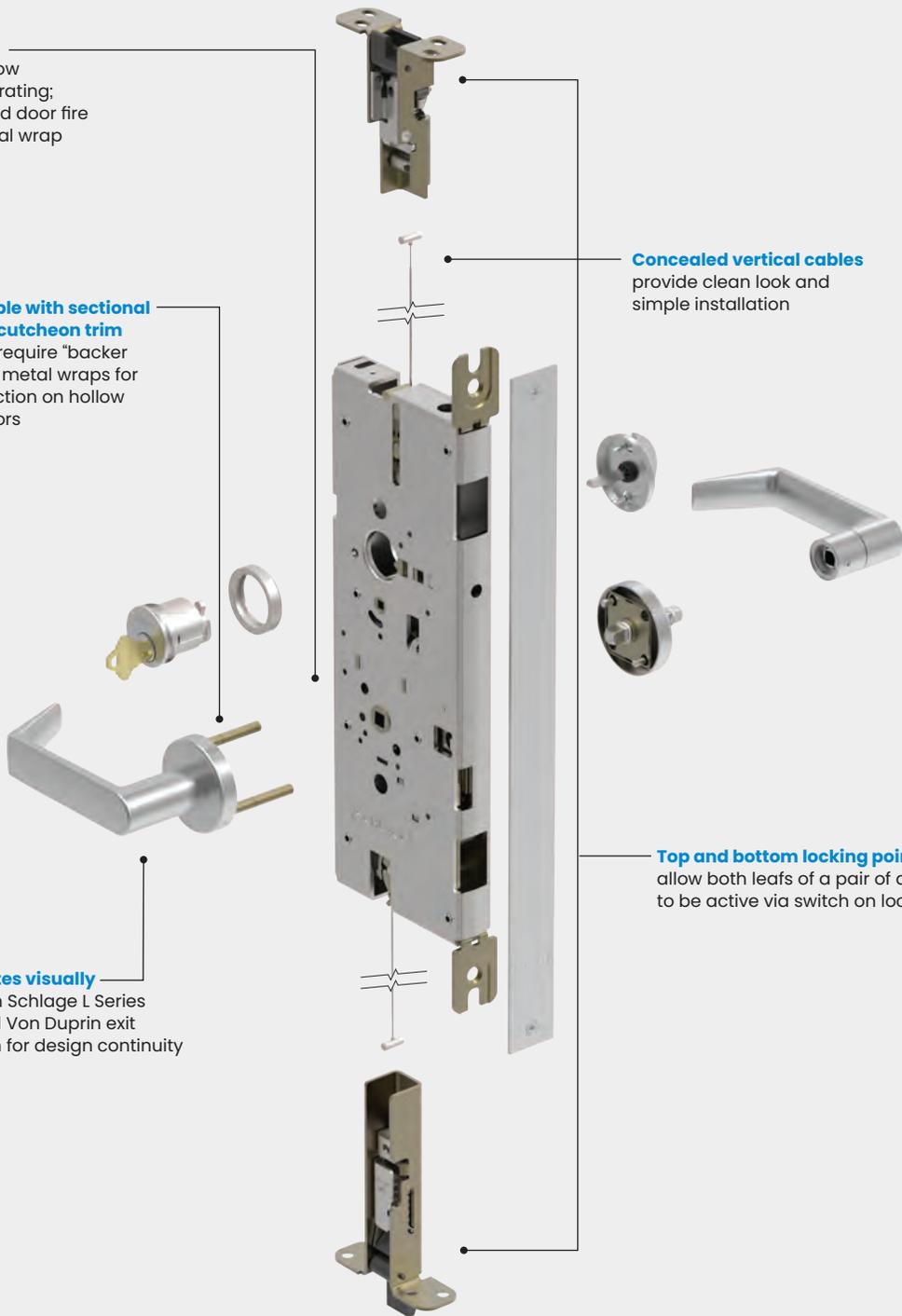
with Schlage L Series and Von Duprin exit trim for design continuity

Concealed vertical cables

provide clean look and simple installation

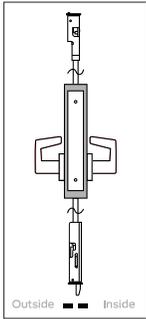
Top and bottom locking points

allow both leaves of a pair of doors to be active via switch on lock case



LM9200 Multi-Point Lock Functions

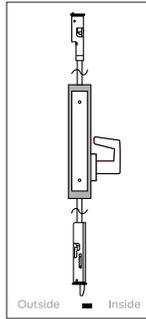
Mechanical Functions

Schlage
LM9210**2-point
passage latch**

- Levers only—both sides; 2-point latch
- Latchbolts retracted by lever from either side at all times
- Inside lever always free for immediate egress

When ordering, specify door handing.

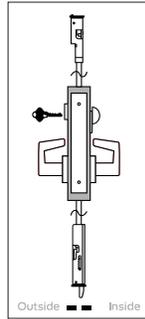
ANSI

Schlage
LM9225**2-point
exit lock**

- No outside trim; lever only—inside; 2-point latch
- Latchbolts retracted by lever from inside only
- Inside lever always free for immediate egress

Note: Available in rose trim only.
When ordering, specify door handing.

ANSI

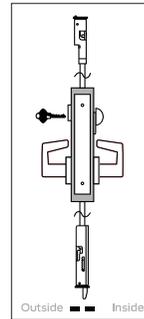
Schlage
LM9250**2-point
entrance/
office lock**

- Key cylinder outside; thumbturn inside; 2-point latch
- Latchbolts retracted by lever from either side
- Outside lever is made inoperative by key outside or by turning inside thumbturn
- Key outside unlocks and enables outside lever to retract both latches
- Rotating inside lever retracts latchbolts; outside lever unlocked when thumbturn is returned to vertical position
- Inside lever always free for immediate egress

Caution: Outside lever remains inoperative until thumbturn is returned to vertical or unlocked by key.

When ordering, specify door handing.

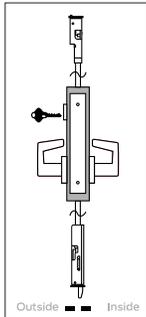
ANSI

Schlage
LM9256**2-point
entrance/
office lock with
automatic
unlocking**

- Key cylinder outside; thumbturn inside; 2-point latch
- Latchbolts retracted by lever from either side
- Outside lever is made inoperative by key outside or by turning inside thumbturn
- Key outside unlocks and enables outside lever to retract both latches
- Rotating inside thumbturn unlocks outside lever; turning inside lever retracts latchbolts and unlocks outside lever
- Inside lever always free for immediate egress

When ordering, specify door handing.

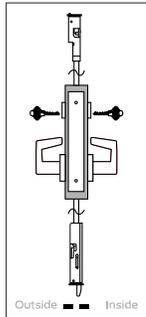
ANSI

Schlage
LM9270**2-point
classroom
lock, exterior
lockdown only**

- Key cylinder outside with lever; lever only—inside; 2-point latch
- Latchbolts retracted by lever from either side
- Outside lever is made inoperative by key outside
- Key outside unlocks and enables outside lever to retract both latches
- Inside lever always free for immediate egress

Note: Outside lever remains inoperative until unlocked by key.
When ordering, specify door handing.

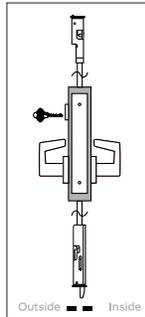
ANSI

Schlage
LM9271**2-point
classroom
security lock,
interior/exterior
lockdown**

- Key cylinder both sides; 2-point latch
- Latchbolts retracted by lever from either side
- Outside lever is made inoperative by key from either side
- Key on either side unlocks and enables outside lever to retract both latches
- Inside lever always free for immediate egress

Note: Outside lever remains inoperative until unlocked by key.
When ordering, specify door handing.

ANSI

Schlage
LM9280**2-point
storeroom lock**

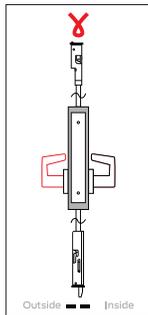
- Key cylinder outside with lever; lever only—inside; 2-point latch
- Outside lever normally locked; latchbolts retracted by inside lever
- Key outside inserted and turned 280° unlocks, allowing outside lever to retract latches; removal of key returns door to locked state
- Inside lever always free for immediate egress

When ordering, specify door handing.

ANSI

Electrified Functions

Schlage
LM9290EL/EU



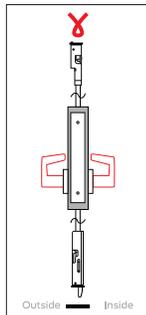
**Electrically locking/
unlocking outside lever,
no cylinder 2-point lock**

- Levers only—both sides; 2-point latch
- Powered state: outside lever continuously locked (EL mode) or unlocked (EU mode)
- When power is removed (or power fails): in EL mode either lever will retract latchbolts; in EU mode outside lever is locked
- Inside lever always free for immediate egress

Note: Auto detects 12 or 24V DC.

Ordering: Specify door handing. Additionally, case-mounted switch allows field selectable EL/EU setting however, when ordering, please specify EL or EU.

ANSI - **Schlage**
LM9291EL/EU



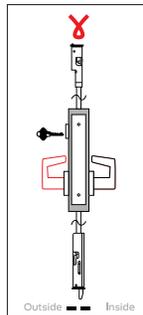
**Electrically locking/
unlocking both levers,
no cylinder 2-point lock**

- Levers only—both sides; 2-point latch
- Powered state: both levers continuously locked (EL mode) or unlocked (EU mode)
- When power is removed (or power fails): in EL mode either lever will retract latchbolts; in EU mode both levers are locked

Note: Auto detects 12 or 24V DC.

Ordering: Specify door handing. Additionally, case-mounted switch allows field selectable EL/EU setting however, when ordering, please specify EL or EU.

ANSI - **Schlage**
LM9292EL/EU



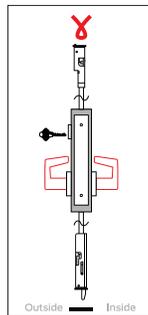
**Electrically locking/unlocking
outside lever,
outside cylinder
2-point lock**

- Key cylinder outside with lever; lever only—inside; 2-point latch
- Powered state: outside lever continuously locked (EL mode) or unlocked (EU mode)
- When locked, key outside enables outside lever to retract both latches but cannot change the normal locked or unlocked state of outside lever
- When power is removed (or power fails): in EL mode either lever will retract latchbolts; in EU mode outside lever is locked
- Inside lever always free for immediate egress

Note: Auto detects 12 or 24V DC.

Ordering: Specify door handing. Additionally, case-mounted switch allows field selectable EL/EU setting however, when ordering, please specify EL or EU.

Schlage
LM9293EL/EU



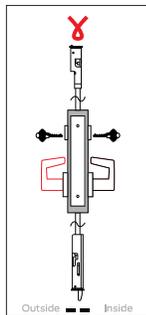
**Electrically locking/unlocking
both levers,
outside cylinder
2-point lock**

- Key cylinder outside with lever; lever only—inside; 2-point latch
- Powered state: both levers continuously locked (EL mode) or unlocked (EU mode)
- When locked, key outside enables outside lever to retract both latches but cannot change the normal locked or unlocked state of outside lever
- When power is removed (or power fails): in EL mode either lever will retract latchbolts; in EU mode both levers are locked

Note: Auto detects 12 or 24V DC.

Ordering: Specify door handing. Additionally, case-mounted switch allows field selectable EL/EU setting however, when ordering, please specify EL or EU.

ANSI - **Schlage**
LM9294EL/EU



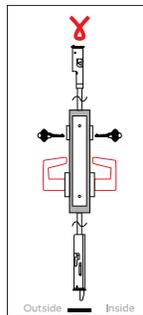
**Electrically locking/
unlocking outside
lever, double
cylinder 2-point lock**

- Key cylinder both sides; 2-point latch
- Powered state: outside lever continuously locked (EL mode) or unlocked (EU mode)
- When locked, key on either side enables either lever to retract both latches but cannot change the normal locked or unlocked state of outside lever
- When power is removed (or power fails): in EL mode either lever will retract latchbolts; in EU mode outside lever is locked
- Inside lever always free for immediate egress

Note: Auto detects 12 or 24V DC.

Ordering: Specify door handing. Additionally, case-mounted switch allows field selectable EL/EU setting however, when ordering, please specify EL or EU.

ANSI - **Schlage**
LM9295EL/EU



**Electrically locking/
unlocking both
levers, double
cylinder 2-point lock**

- Key cylinder both sides; 2-point latch
- Powered state: both levers continuously locked (EL mode) or unlocked (EU mode)
- When locked, key on either side enables either lever to retract both latches but cannot change the normal locked or unlocked state of either lever
- When power is removed (or power fails): in EL mode either lever will retract latchbolts; in EU mode both levers are locked

Note: Auto detects 12 or 24V DC.

Ordering: Specify door handing. Additionally, case-mounted switch allows field selectable EL/EU setting however, when ordering, please specify EL or EU.

LM9300

Multi-Point Locks

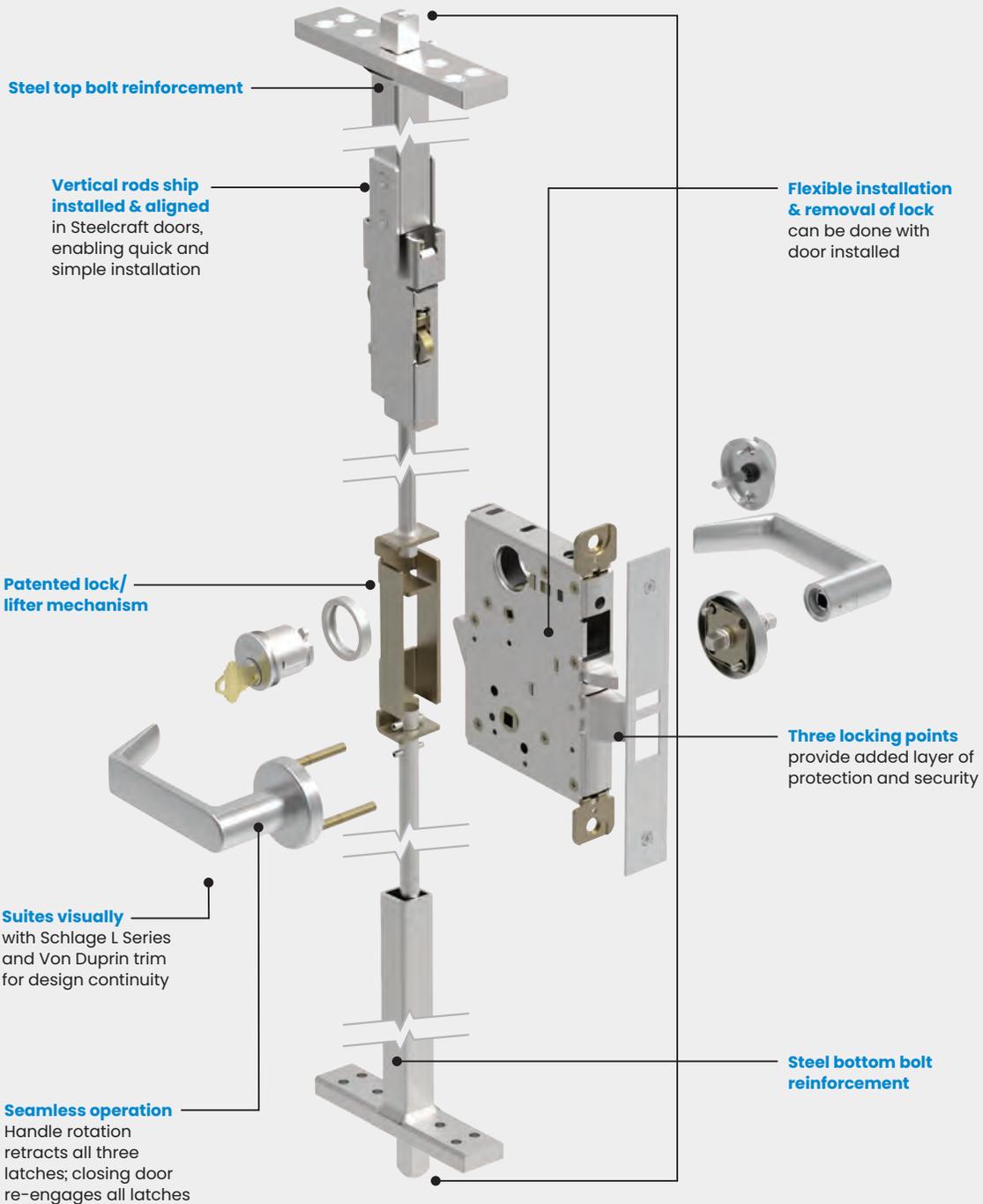
The LM9300 is part of a three-point locking system designed for tornado, hurricane or high security applications. Latches at the top, side and bottom of the door provide protection from high wind speeds and 15-lb. projectile impacts up to 100 mph when paired with a Steelcraft Paladin tornado-resistant door.

All three latches engage when the door is shut and retract simply by rotating the lever, providing superior protection with familiar operation. Available in six functions and with 33 lever designs, the LM9300 can easily integrate into any application and suite with other Schlage locks, as well as Von Duprin exit devices.

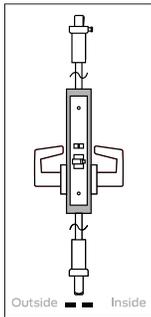
Features

- Tornado configuration is certified by Intertek and labeled showing compliance to ICC 500-2020, FEMA P-320 (2021), and FEMA P-361 (2021) as required by the International Building Code and Florida Building Code Enhanced Protection Area (EHPA) standards when paired with appropriate Steelcraft doors
- Hurricane configuration complies with Florida Building Code Enhanced Protection Area (EHPA) standard when paired with Steelcraft Hurricane doors
- For high security applications, pair with Steelcraft steel-reinforced or honeycombed doors
- Also available for storm shutter configurations

LM9300 Multi-Point



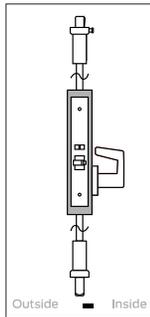
Mechanical Functions

Schlage
LM9310**3-point passage latch**

- Levers (or knobs) only—both sides; 3-point latch and deadlocking auxiliary latch
- Latchbolts retracted by lever from either side at all times
- Inside lever always free for immediate egress

Note: Requires door and rod set sold through Steelcraft.
When ordering, specify door handing.

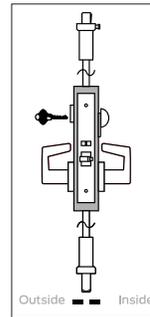
ANSI -

Schlage
LM9325**3-point exit lock**

- No outside trim; lever (or knob) only—inside; 3-point latch and deadlocking auxiliary latch
- Latchbolts retracted by lever from inside only
- Inside lever always free for immediate egress

Note: Requires door and rod set sold through Steelcraft.
When ordering, specify door handing.

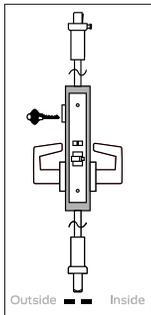
ANSI -

Schlage
LM/LMV9350**3-point entrance/office lock**

- Key cylinder outside; thumbturn inside; 3-point latch and deadlocking auxiliary latch
- Latchbolts retracted by lever (or knob) from either side
- Outside lever is made inoperative by key outside or by turning inside thumbturn; Vandlgard® option allows outside lever to rotate freely down while locked
- Key outside unlocks and enables outside lever to retract all three latches
- Rotating inside lever retracts latchbolts; outside lever unlocked when thumbturn is returned to vertical position
- Inside lever always free for immediate egress

Caution: Outside lever remains inoperative until thumbturn is returned to vertical or unlocked by key.
Note: Requires door and rod set sold through Steelcraft.
When ordering, specify door handing.

ANSI -

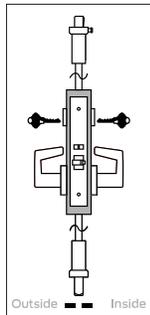
Schlage
LM/LMV9370**3-point classroom lock, exterior lockdown only**

- Key cylinder outside with lever (or knob); lever only—inside; 3-point latch and deadlocking auxiliary latch
- Latchbolts retracted by lever from either side
- Outside lever is made inoperative by key outside; Vandlgard® option allows outside lever to rotate freely down while locked
- Key outside unlocks and enables outside lever to retract all three latches
- Inside lever always free for immediate egress

Note: Outside lever remains inoperative until unlocked by key.
Note: Requires door and rod set sold through Steelcraft.

When ordering, specify door handing.

ANSI -

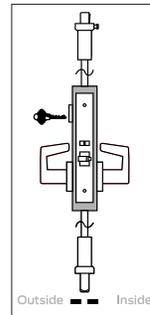
Schlage
LM/LMV9371**3-point classroom security lock, interior/exterior lockdown**

- Key cylinder both sides; 3-point latch and deadlocking auxiliary latch
- Latchbolts retracted by lever (or knob) from either side
- Outside lever is made inoperative by key either side; Vandlgard® option allows outside lever to rotate freely down while locked
- Key on either side unlocks and enables outside lever to retract all three latches
- Inside lever always free for immediate egress

Note: Outside lever remains inoperative until unlocked by key.
Note: Requires door and rod set sold through Steelcraft.

When ordering, specify door handing.

ANSI -

Schlage
LM/LMV9380**3-point storeroom lock**

- Key cylinder outside with lever (or knob); lever only—inside; 3-point latch and deadlocking auxiliary latch
- Outside lever normally locked; latchbolts retracted by inside lever; Vandlgard® option allows outside lever to rotate freely down while locked
- Key outside inserted and turned 280° unlocks, allowing outside lever to retract latches; removal of key returns door to locked state
- Inside lever always free for immediate egress

Note: Requires door and rod set sold through Steelcraft.
When ordering, specify door handing.

ANSI -



Ensuring Mechanical & Electronic Security Continuity

In buildings where electronic access control is used, true security can only be effective if your key system plan accounts for doors where credential use is present. Most often, credential access exists on common area doors and perimeter entrances where limited key distribution is desired. Many facilities also have high security areas where credential use is beneficial.

Credentials are like keys in that they come with varying degrees of duplication control. Any facility employing high security where both keys and credentials are in use must ensure cohesive application of both. Because of this, the choice of credential should reflect the highest level of key system security in the building and vice versa.

Readers, Credentials & Power Supplies

Readers

Schlage's comprehensive portfolio of and wall mount readers are designed to provide enhanced levels of security, efficiency and convenience to any facility.



MTB11
Mullion



MTB15
Single gang



MTKB15
Keypad
single gang



MT11
Mullion



MT15
Single gang



MTK15
Keypad
single gang



MTM515
with magnetic
stripe reader



MTMSK15
with magnetic stripe
reader and keypad

Mobile Enabled Multi-Technology Readers:

- Compatible with Bluetooth® and NFC-enabled smartphones
- Supports a wide range of credential technologies including mobile Bluetooth and NFC, high-frequency smart and low-frequency proximity
- Eases transition from existing legacy system to secure smart technology or mobile solution
- Reader options available with keypad for high security applications
- OSDP, RS-485 and Wiegand support
- Reads proximity, Schlage MIFARE Classic®, Plus®, or DESFire® credentials

Multi-Technology Readers:

- Supports for both high-frequency smart and low-frequency proximity credentials
- Compatible with NFC-enabled mobile devices
- Enables migration from legacy platform to secure smart technology
- Reader options available with keypad for high security applications
- Wiegand and RS-485 support
- Reads proximity, Schlage MIFARE Classic®, Plus®, or DESFire® credentials



SM10
Mini-mullion

Smart (13.56 MHz) Technology Reader:

- Advanced contactless technology, more secure than magnetic stripe and proximity options
- Advanced data encryption secures against duplication
- Recommended for new systems
- Open platform, designed to work with a wide array of systems and applications beyond access control
- SM10 reader features a Wiegand or Clock and Data interface
- Reads proximity, Schlage MIFARE Classic®, Plus®, or DESFire® credentials



PR10
Mini-mullion

Proximity (125 kHz) Technology Reader:

- Basic open contactless technology; recommended for legacy systems only
- Encoded with a unique number that cannot be updated or changed
- PR10 is a Wiegand interface, single technology proximity reader

Credentials

With the latest in NFC and Bluetooth® mobile, as well as smart, multi-technology and proximity technologies, Schlage offers a credential solution for every budget and security strategy.



Mobile Credentials:

- Schlage offers both Bluetooth® and NFC mobile credentials which provide different user experiences
- Schlage Mobile Bluetooth® Credentials require the user to tap on a specific door in an app and are commonly used in small businesses or multifamily sites
- NFC credentials provide a frictionless experience through the Apple Wallet® or Google Wallet™ and are ideal for higher education or corporate settings
- Mobile credentials require software integration, please confirm support with your PACS or PropTech provider



Multi-Technology MIFARE® Credentials:

- Available with MIFARE Classic® and MIFARE® DESFire®
- Multi-technology options available to support transition from proximity or magnetic stripe to secure MIFARE® or MIFARE® DESFire®
- Compatible with Schlage and other industry manufacturers' readers and electronic locks
- Form factors include ISO and clamshell cards, fobs, PVC disks, and wristbands
- Available in multiple memory capacities



Proximity Credentials:

- 125 kHz proximity technology
- Available in ISO style cards with or without a magnetic stripe, clamshell style cards, keyfobs or PVC adhesive disks

Schlage Credential Services provide unique advantages with programs designed to help businesses thrive and make doing business easier. Our services include CardTrax™, custom encryption keys, custom artwork and more.



Scan or click the link below to check out [Credential Services](#)

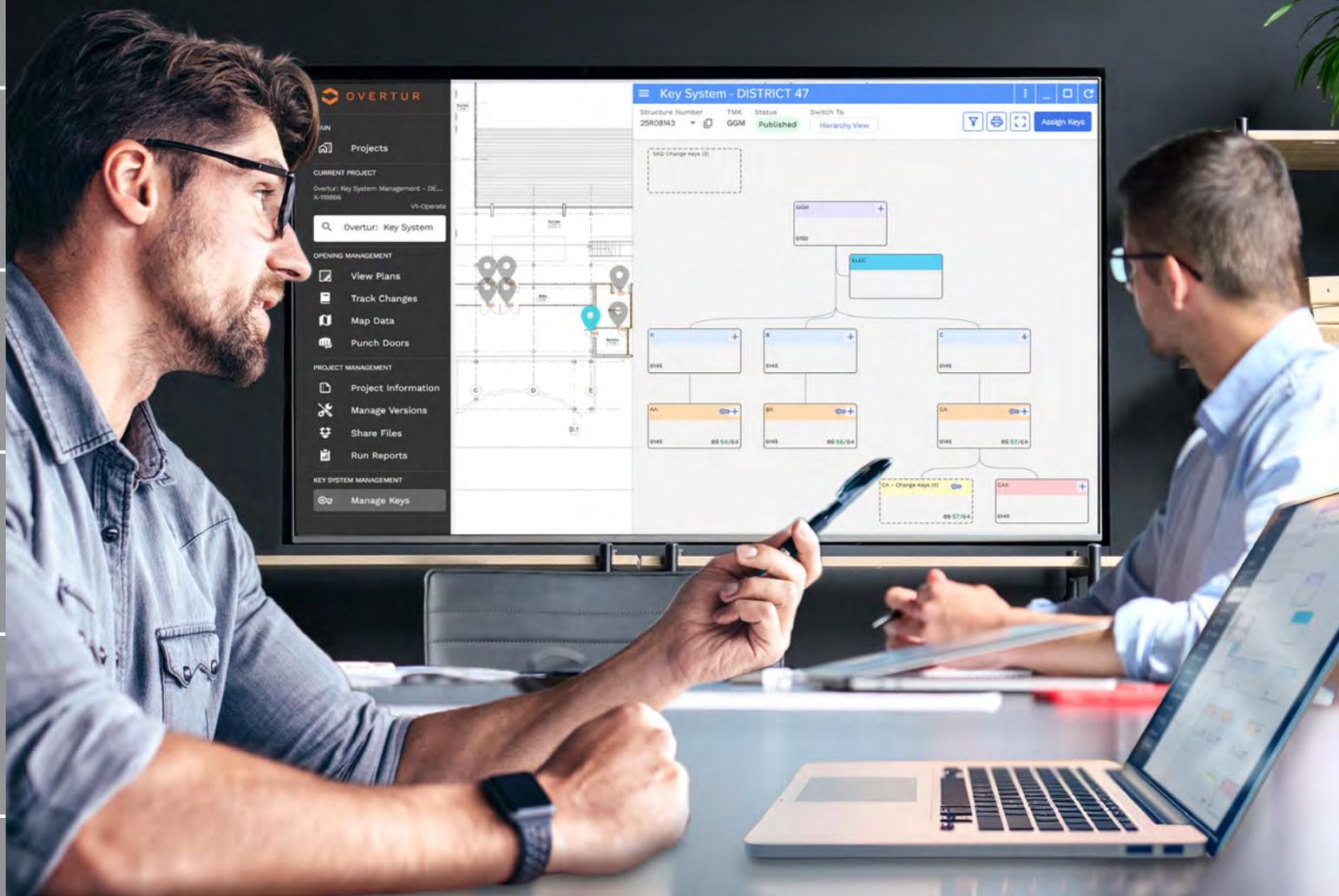
Power Supplies



Schlage power supplies are designed for speed and ease of installation upfront with the assurance post installation of the highest quality output in terms of even power flow to protect downstream devices.

Engineered with versatility and reliability in mind, they can be factory ordered to meet specific needs or configured in-field using a wide selection of option boards. The use of separate battery management ensures tight output power regulation to protect downstream devices. The series includes three models: PS902, PS904 and PS906. They vary by total amperage output capability, ranging from 2 to 6 amps.

Overtur™ Key System Management



Overtur™ Key System Management

A key system is a critical investment in the security of any facility or campus. Safeguarding its integrity requires more than the use of restricted key products and a well-designed master key plan—it takes meticulous tracking of key issuances and returns. While effective management is essential, it doesn't have to be time-consuming or complicated. Overtur™ Key System Management offers a smarter, more efficient solution for managing even the most complex systems with ease.

Getting Started Costs Nothing

Made for security professionals, the Overtur digital platform supports the design, construction, and long-term management of door security systems. Accessible via web or mobile app, it provides intuitive tools for creating, collaborating on, and maintaining key systems.

Learn more at
www.OverturKey.com

Subscription Options Simplify Key System Management

Paper-based or ad hoc tracking methods often lack the convenience of cloud access, making it easy to lose visibility—and costly should a master key go missing. Overtur Key System Management subscriptions, available through door hardware distributors, offer powerful user-friendly, digital tools for managing bitting, pinning and the tracking of keys and key rings. Features include on-demand bitting lists and pinning charts, next available change key information, customizable reports, and digital storage of key holder agreements.

Cylinders & Key Systems

A strong lock is only part of the security solution—proper levels of key system security is equally important. Schlage offers extensive options to meet the needs of each opening and enables a cost-saving layered approach to key system security.

Cylinders



Conventional Mortise Cylinder Options¹

- 6-pin length (default)
- 7-pin length in SL cylinder
- Available in Schlage Classic and Everest 29™ open and restricted keyways
- Primus® level security features and geographic exclusivity options
- Primus UL 437 listed high security cylinder options
- Faculty restroom function available



Full Size Interchangeable Core (FSIC) Options¹

- 6-pin length (default)
- 7-pin length in SL cylinder
- Available in Schlage Classic and Everest 29 open and restricted keyways
- Interchangeable core compatible with conventional cylinder key systems
- Primus level security features and geographic exclusivity options



Small Format Interchangeable Core (SFIC) Options¹

- 7-pin combined Everest 29 R restricted keyways²
- SFIC Everest 29 R keyway can be matched in SL versions of Conventional and FSIC cylinder formats

Key Systems

Classic Obverse Keyway

- Open keyway—keys are duplicated and available without ordering formalities
- Upgradeable to Primus RP and UL 437 levels of security

Everest 29

- Patented through 2029
- Available restricted keyway families provide a higher level of administrative security
- Can be integrated to an existing Everest B, C, or D key system
- Upgradeable to Primus XP and UL 437 levels of security

Cylinder Mechanism Options

Primus Cylinders

- Independent, dual locking mechanisms
- Unique side bit milling on key makes unauthorized duplication highly enforceable
- Allows creation of geographically exclusive keys in thousands of available combinations
- Provides patent protection to 2029 when applied to Schlage Classic Obverse keyway family
- Primus XP cylinders are compatible to all Everest and Everest 29 keyways

Everest 29 SL

- Available in Conventional and FSIC cylinder formats
- Pinned on an A2 system compatible with the Schlage Everest B and Everest 29 R keyways
- Allows sites with multiple Schlage key systems to unify under one system offered in Conventional, FSIC and SFIC formats
- Enables Primus level upgrades on SFIC keyways



1. Plug faces available in 606, 613 (simulated), 626, and 643e (simulated).
2. Restricted keyway cores require authorization from the end user.

Administrative Security	Schlage Everest 29™					
	Schlage Classic Obverse	End user exclusive nationwide	4N		9N	
	Schlage Everest 29 S	End user exclusive within time zone/country	4Z		9Z	
		End user exclusive within zip code	3G		9G	
		End user controlled; non-exclusive	3U		9U	
		Dealer exclusive within time zone/country	2		8	
		Dealer exclusive within zip code	1+		7	
		Authorized dealer only; non-exclusive	1			

End user controlled; non-exclusive	Authorized dealer only	No authorization
 OPEN Schlage Everest 29 S FSIC and Conventional	 RESTRICTED Schlage Everest 29 R ¹ FSIC, FSIC ² and Conventional ² Schlage Everest 29 T FSIC and Conventional	 OPEN Schlage Classic Obverse FSIC and Conventional
<ul style="list-style-type: none"> Patented design Check pin in cylinder 	<ul style="list-style-type: none"> Requires letter of authorization Patented design Check pin in cylinder 	<ul style="list-style-type: none"> Duplicate anywhere

Primus RP RESTRICTED Schlage Classic Obverse FSIC and Conventional	Primus XP RESTRICTED Schlage Everest 29 R FSIC ² and Conventional ² Schlage Everest 29 S or T FSIC and Conventional	Primus UL 437 Option Schlage Classic Obverse Conventional Schlage Everest 29 R Conventional SL Schlage Everest 29 S or T Conventional
<ul style="list-style-type: none"> 5 levels of side bit milling exclusivity Patent protection to 2029 Independent sidebar and finger pin locking mechanisms 	<ul style="list-style-type: none"> 5 levels of side bit milling exclusivity Patent protection to 2029 Independent sidebar and finger pin locking mechanisms 	<ul style="list-style-type: none"> Hardened steel drill pins Proven pick and drill resistant Withstands extreme physical attack

Physical Security

COMPARABLE ELECTRONIC SECURITY - Ensure your credential is as secure as your keyway		
Proximity Credentials <ul style="list-style-type: none"> Low frequency, entry level proximity cards Easily duplicated 	MIFARE Classic® Smart Credentials <ul style="list-style-type: none"> Legacy smart card technology Difficult to duplicate 	MIFARE® DESFire® Smart Credentials <ul style="list-style-type: none"> Advanced data encryption makes duplication nearly impossible Most secure credentials available from Schlage

1. Limited dealer controlled programs available.
 2. FSIC and Conventional in the form of SL cylinders that accept a 7-pin SFIC key.
 3. UL 437 available on Primus XP SL cylinders in the conventional format only.

Primus Access Control & High Security Cylinders

The Primus program of access control and high security cylinders is available to add patented key control and varying degrees of geographical exclusivity to most Schlage 6- and 7-pin key systems, whether Everest, Everest 29, or Classic Obverse keyways. In addition to a standard pin tumbler mechanism, Primus cylinders incorporate a patented finger pin and sidebar design, providing a “dual-locking” cylinder that is virtually pick-proof. For added resistance to drilling and other physical attack, specify UL 437 listed high-security cylinders.

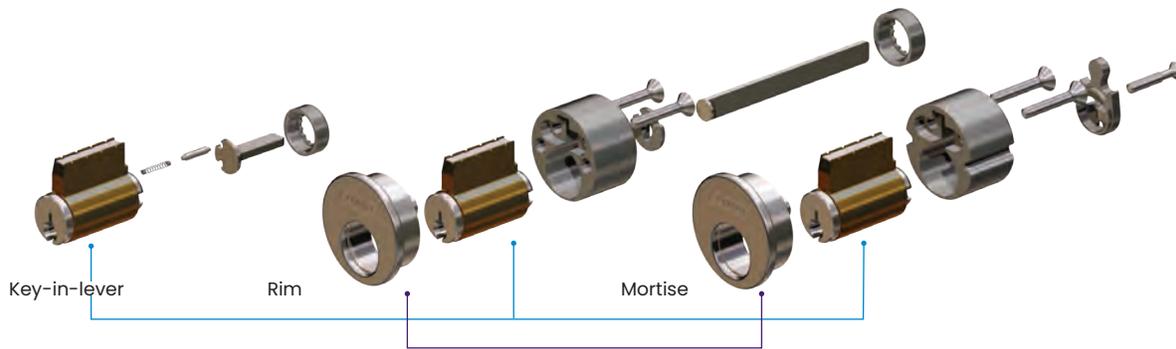
To upgrade an existing Schlage C open keyway system, a changeover to Classic Obverse Primus RP cylinders on critical points of entry is recommended. With it you gain patent protection against unauthorized key duplication to 2029 and Primus administrative and physical security levels. Everest 29 Primus XP cylinders are recommended for new key systems and for upgrading existing Everest legacy key systems.

Modular, Conventional Cylinder System Uses

Schlage Conventional cylinders offer versatility through modular design. These full-size cylinders can be applied to any Schlage key-in-lever (KIL), rim or mortise need. For the locksmith or facility manager inventory costs are reduced while gaining a flexible, easy-to-manage key system solution.

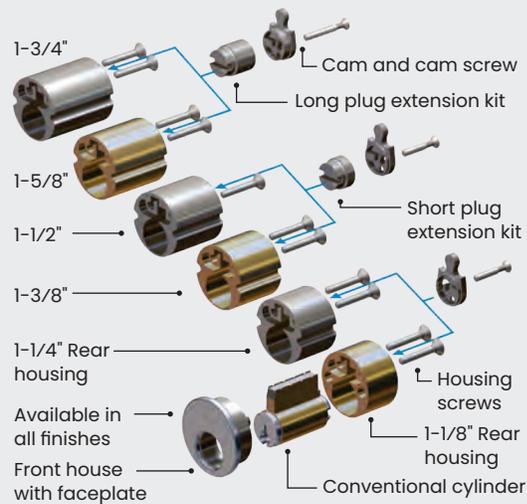
Features:

- Modular system design is compatible with all Schlage conventional cylinders including 7-pin SL options
- Just six mortise housing lengths and one rim housing support a single front housing faceplate design
- Supports all Classic, Everest, and Everest 29 keyway families
- Rear mortise cylinder housing sizes range from 1-1/8" to 1-3/4"
- 12 mortise housing face finishes match all available L Series options



Parts

Modular cylinders use fewer parts because the cylinder and a small number of screws, cams and plug extensions can be universally applied. The majority of parts are simply the rear housings in various lengths and finishes.



Mortise & Rim Front Housing Finish Options



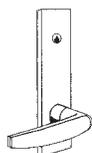
Mortise Cylinders for Schlage L Series



L & N Escutcheons



Cylinder only



L escutcheon



Concealed body cylinder



Sectional trim



Compression ring & spring

L Series Mortise Locksets

Design	Function	Standard pin & tumbler	SL cylinder ¹	Legacy Primus Primus RP Primus XP	Primus XP SL cylinder ¹	UL 437 Legacy Primus Primus RP Primus XP	Primus XP lockout	Primus XP UL 437 lockout
L & N Escutcheons (cylinder only)	All except below	30-021	91-063	20-793 20-793-RP 20-793-XP	91-760-XP	20-593 20-593-RP 20-593-XP	N/A	N/A
	L9060P outside	26-021	91-059	20-701 20-701-RP 20-701-XP	91-754-XP	20-501 20-501-RP 20-501-XP	20-715-XP	20-515-XP
	L9485, L9486 Faculty restroom	30-022 ²	N/A	N/A	N/A	N/A	N/A	N/A
	LM9280, LM/LMV9380 storeroom	30-019	91-130 (1-1/8") Requires Handing	N/A	N/A	N/A	N/A	N/A
L escutcheon with concealed body cylinder	All except below	30-004	N/A	20-789 20-789-RP 20-789-XP	N/A	20-589 20-589-RP 20-589-XP	N/A	N/A
	L9060P outside	26-023	N/A	24-767 24-767-RP 24-767-XP	N/A	24-567 24-567-RP 24-567-XP	N/A	N/A
	L9485, L9486 Faculty restroom	30-005 ²	N/A	N/A	N/A	N/A	N/A	N/A
Sectional trim (cylinder with compression ring & spring)	All except below	30-001	91-062	20-787 20-787-RP 20-787-XP	91-757-XP	20-587 20-587-RP 20-587-XP	20-715-XP	20-515-XP
	L9060P outside	20-001	91-051	20-700 20-700-RP 20-700-XP	91-751-XP	20-500 20-500-RP 20-500-XP	20-715-XP	20-515-XP
	L9485, L9486 Faculty restroom	30-002 ²	N/A	N/A	N/A	N/A	N/A	N/A
	LM9280, LM/LMV9380 storeroom	30-000 ⁴	91-129 (1-1/8")	N/A	N/A	N/A	N/A	N/A

Notes:

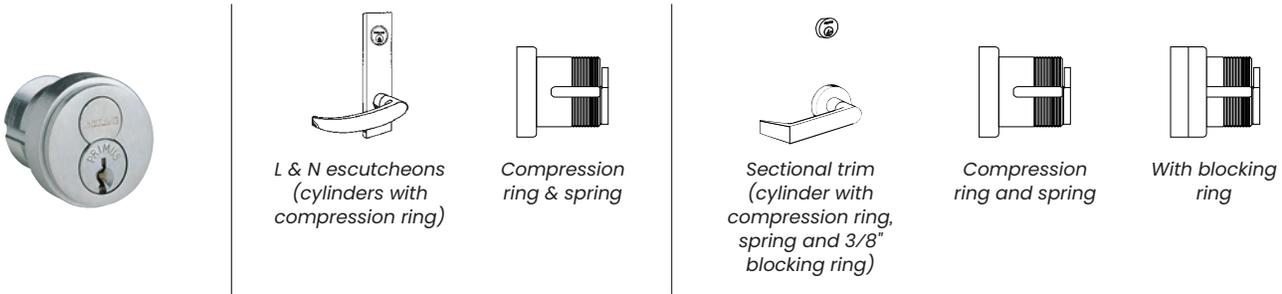
- For restricted Everest 29 R and Everest B only.
- Specify door hand for faculty restroom cylinders.
- Discard compression ring for Lockout cylinders with escutcheon trim.
- Includes the L/LV9081 Accessible Storeroom function.

Finishes: 605, 606, 611, 612, 613, 619, 622, 625, 626, 629 and 630.
Concealed cylinders available in 606, 622, 626 and 643e only.
Plug faces available in 606, 622, 626 and 643e only.

6-pin Everest 29 S123 keyway standard for stock cylinders; S145 standard for new masterkeyed systems.
Standard cylinder lengths: sectionals (rose) trim = 1-1/8" (29 mm), escutcheon trim = 1-1/4" (32 mm).
Optional cylinder lengths are in 1/8" (4 mm) increments ranging from 1-1/8" to 1-3/4" (29 mm to 44 mm).

FSIC Mortise Cylinders

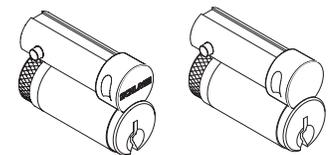
Schlage full size interchangeable core (IC) cylinders allow immediate rekeying at the door. Simply use the special control key to replace the core in seconds. Full size IC cylinders can be integrated into any existing 5- or 6-pin Schlage key system with no adverse effects on keying capacity.



FSIC Cylinders for Schlage L Series Mortise Locks						
Design	Function	Core mechanism				
		Standard pin & tumbler	SL cylinder ¹	Legacy Primus / Primus RP / Primus XP	Primus XP SL cylinder ¹	Housing less core
L & N escutcheons (cylinders with compression ring)	All except below	30-008	91-163	20-798 20-798-RP 20-798-XP	91-863-XP	30-007
	L9060 outside	30-030	91-165	20-782 20-782-RP 20-782-XP	91-865-XP	30-032 + 36-083
	L9485, L9486 faculty restroom	30-010 ²	N/A	N/A	N/A	N/A
	L/LV9081, LM9280, LM/LMV9380	26-101 ²	N/A	N/A	N/A	26-102
Sectional trim (cylinder with compression ring, spring and 3/8" blocking ring). L9060 requires 1/2" blocking ring.	All except below	30-138	91-169	20-776 20-776-RP 20-776-XP	91-869-XP	30-137
	L9060 outside	30-030 + 36-082-050 ³	91-165 + 36-082-050 ³	20-783 20-783-RP 20-783-XP	91-865-XP + 36-082-050 ³	30-032 + 36-083 + 36-082-050 ³
	L9485, L9486 faculty restroom	30-140 ²	N/A	N/A	N/A	N/A
	L/LV9081, LM9280, LM/LMV9380	26-101 ² + 36-082-037 ⁴	N/A	N/A	N/A	26-102 + 36-082-037 ⁴

1. For restricted Everest 29 R and Everest B only.
 2. Specify hand of door.
 3. L9060 requires a 1/2" blocking ring (part 36-082-050).
 4. LM9280, LM/LMV9380 and L/LV9081 require a 3/8" blocking ring (part 36-082-037).

FSIC, Core Only, Cylinders		
Number	Pins	Cylinder mechanism
23-030	6	Standard pin and tumbler (23-031 less logo)
91-161	7	SL cylinder (restricted Everest 29 R and Everest B only) (91-162 less logo)
20-740	6	Legacy Primus (20-741 less logo)
20-740-RP	6	Primus RP (Classic keyways only) (20-741-RP less logo)
20-740-XP	6	Primus XP (20-741-XP less logo)
91-861-XP	7	SL cylinder (restricted Everest 29 R and Everest B only) (91-862-XP less logo)
30-120	6	Faculty restroom standard pin and tumbler (specify hand) (30-121 less logo)

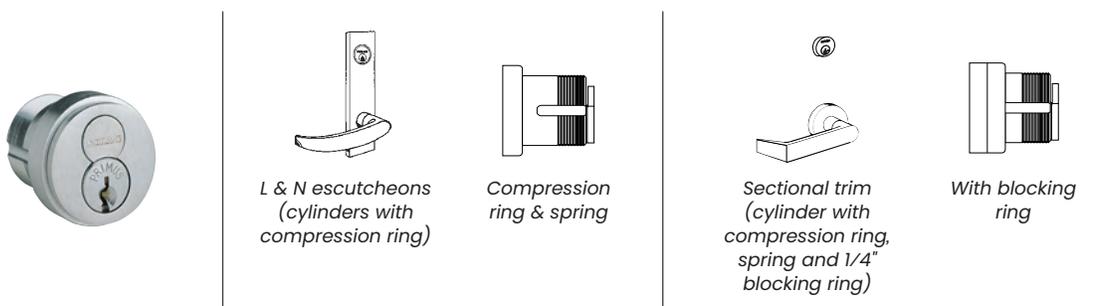


Finishes: 606, 622, 626 and 643e only.

Standard keyway: 6-pin Everest 29 S123 for stock, S145 for new master key systems.

SFIC Mortise Cylinders

The L Series lockset can be ordered to accept small format interchangeable cores (SFIC) compatible with manufacturers such as Falcon, Arrow and Best; cams are easily changeable.



SFIC Cylinders for Schlage L Series Mortise Locks

Design	Function	Core mechanism			
		Everest 29R restricted (G7 suffix)	Keyed construction (H suffix)	Disposable construction (BDC suffix)	Housing less core (B suffix)
L & N escutcheons (cylinders with compression ring and spring)	All except L9060 outside	80-308	80-138	80-115	80-108 ¹
	L9060 outside	80-304	80-134	80-112	80-104 ¹
	LM9280, LM/LMV9380, L/LV9081	26-106	26-107	27-105	26-104 ¹
Sectional trim (cylinder with compression ring, spring and 1/4" blocking ring)	All except L9060 outside	80-301	80-131	80-109	80-101 ¹
	L9060 outside	80-304 + 36-082-050 ¹	80-134 + 36-082-050	80-112 + 36-082-050	80-104 + 36-082-050 ¹
	LM9280, LM/LMV9380, L/LV9081	26-104 + 36-082-025 ²	26-107 + 36-082-025 ²	27-105 + 36-082-025 ²	26-104 + 36-082-025 ^{1,2}

Note: Housings are available in 605, 606, 609, 612, 613, 619, 625, and 626 finish. Cores furnished 606 and 626 only. All cylinders are 1-3/8" long.

- L9060 requires a 1/2" blocking ring (part 36-082-050).
- L/LV9081, LM9280, LM/LMV9380 require a 1/4" blocking ring (part 36-082-025).

Small Format Core Only

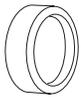
Number	Mechanism
80-036	7-pin Everest 29 R family restricted keyway core uncombined
80-037	7-pin Everest 29 R family restricted keyway core combined (available factory master keyed only)
80-043	6-pin best keyway core, uncombined
80-033	7-pin best keyway core, uncombined

Notes

- Available in 606, 613, 622, and 626 finish only. 80-043 and 80-033 available in 606 and 626 only.
- Suffix keyway, e.g. 80-036 B235, 80-043 AB, etc.
- Proper authorization required for Everest 29 cores. Order control keys separately.
- 80-043 and 80-033 available in Best A, D, E, F, G, H, J, K, L and M keyways. Suffix "B" to keyway letter, e.g. AB, DB, etc.



Blocking & Compression Rings



36-079
Blocking ring.
Specify finish
and dimension.
Not to be used
with 36-083.



36-082
Blocking ring.
Specify finish
and dimension.
Use with 36-083.



36-083
Compression ring
and spring. Specify
finish and dimension.



L538-195
Compression
spring.

Blocking Ring Dimensions

Ring length	Dimension
1/8"	012
3/16"	018
1/4"	025
5/16"	031
3/8"	037
7/16"	043
1/2"	050

FSIC Core Blocking Ring Requirements

Function	Trim	Door thickness			
		1-3/8"	1-3/4"	2"	2-1/4"
		Dimension			
L9050, L9056, L9070, L9076, L9080, L9092EL/EU, L9453, L9456, L9460 with XL11-886 or XL11-635, L9464 with XL11-886, L9465, L9473, L9480	Rose	050	037	025	025
	Escutcheon	025	012	N/A	N/A
L9485 with XL11-557	Rose	—	037	025	025
	Escutcheon	—	012	N/A	N/A
L9486, L9496	Rose	012	N/A	N/A	N/A
	Escutcheon	025	012	N/A	N/A
L9060, L9071, L9077, L9082, L9457, L9462 with XL11-886, L9466, L9482	Rose	—	050	043	031
	Escutcheon	025	012	N/A	N/A
L460, L464, L496, L9460, L9464	Rose trim	050	037	025	025
L462, L463, L9462, L9463	Rose trim	—	050	043	031

SFIC Blocking Ring Requirements

Function	Trim	Door thickness			
		1-3/8"	1-3/4"	2"	2-1/4"
		Dimension			
L9050, L9056, L9070, L9076, L9080, L9092EL/EU, L9453, L9456, L9460 with XL11-886 or XL11-635, L9464 with XL11-886, L9465, L9473, L9480	Rose	037	025	012	N/A
	Escutcheon	N/A	N/A	N/A	N/A
L9060, L9071, L9077, L9082, L9095EL/EU, L9457, L9462 with XL11-886, L9464, L9466, L9482	Rose	—	050	037	025
	Escutcheon	018	N/A	N/A	N/A
L9496	Rose	025	012	N/A	N/A
	Escutcheon	N/A	N/A	N/A	N/A
L460, L464, L496, L9460, L9464	Rose trim	037	025	012	N/A
L462, L463, L9462, L9463	Rose trim	—	050	037	025

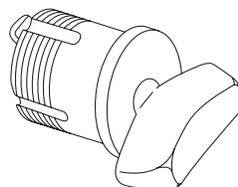
Parts

These cylinders are for L463 and L9463 classroom function deadlocks. They are handed. They have a rotational stop in one direction to prevent locking from the inside, but allow unlocking. Cylinders are field-reversible by changing the position of the rotational stop. All cylinders furnished with L583-254 cam.

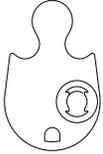
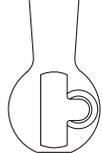
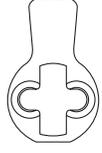
Classroom Thumbturn Cylinders

Number	Collar(s)
09-900	None
09-904	Compression ring and spring
09-905	For 1-3/4" doors: compression ring, spring and 1/8" blocking ring

Specify hand of door and finish. 1-1/8" length standard.
09-900 and 09-905 also available in 1/8" increments up to 1-3/4".



Mortise Cylinder Cams

	Schlage L Series functions (except L9060 outside)			Von Duprin and other straight cam applications (including Schlage L9060 outside)		
Current modular cylinder cams	 <p>L583-474 For cylinder lengths: 1-1/8", 1-3/8", 1-5/8"</p> <p>L583-475 For cylinder lengths: 1-1/4", 1-1/2", 1-3/4"</p>	 <p>L583-800 For SL cylinder length: 1-1/8"</p> <p>L583-801 For SL cylinder length: 1-1/4"</p>	 <p>L583-255 All IC</p>	 <p>L583-476 For cylinder lengths: 1-1/8", 1-3/8", 1-5/8"</p> <p>L583-477 For cylinder lengths: 1-1/4", 1-1/2", 1-3/4"</p>	 <p>L583-802 For SL cylinder length: 1-1/8"</p> <p>L583-803 For SL cylinder length: 1-1/4"</p>	 <p>K510-680 All IC</p>
Legacy cams	 <p>L583-153 Everest and Primus*</p>	 <p>L583-254 Classic keyways*</p>		 <p>B502-948 Everest and Primus*</p>	 <p>B502-191 Classic keyways*</p>	

* For cylinders made prior to August 2010

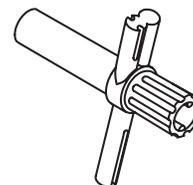
Cam Screws

B502-942	Everest and Primus (non-IC)
B502-468	Classic Conventional (non-IC)
L583-333	All full-size interchangeable core
B520-484	All small format interchangeable core
B520-690	All 1-1/8" and 1-1/4" modular cylinders



IC Installation Tool

This tool is used to install and remove mortise cylinder housings and test mortise cylinder cam action for both small format and full-size interchangeable core cylinders. Its other ends are designed to install the driver and retainer for full-size IC in Schlage key-in-knob/lever locksets.

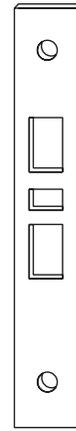


M504-413

L Series armored fronts are produced from brass or stainless steel material, finished to match lock trim and furnished complete with screws. Numbers for ordering separately or with locks are listed below. Armored fronts are specified in latch column of order form.

Armored Fronts		
Square corner		For locks with these configurations:
1-1/4" (32mm) width	1-1/16" (27mm) width	
09-662	09-668	Latch only
09-663	09-669	Latch x auxiliary latch
09-664	09-670	Latch x deadbolt
09-665	09-671	Deadbolt only
09-666	09-672	Latch x auxiliary latch x deadbolt
09-661	09-667	Blank (no holes)
09-713	-	Latch x auxiliary latch, non-UL (holdback functions L/LV9076 and L/LV9077)
09-717	-	Deadbolt only, small mortise case

Note: For 1-3/8" (35mm) doors, 1-1/16" (27mm) front should be specified. See price book for complete list. For L9090, L9091, L9092, L9093, L9095 models with DPS, use armor 09-666 (1-1/4" wide) or 09-670 (1-1/16" wide).

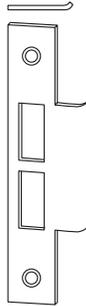


Standard square corner 1-1/4" (32 mm) width

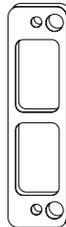
All L Series strikes are produced from brass or stainless steel material, finished to match lock trim, and furnished complete with screws. Numbers for ordering separately or with locks are listed below.



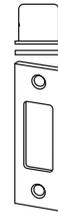
10-072
Standard for L9000
1-1/4" x 4-7/8" x 1-3/16" lip
32 mm x 124 mm x 30 mm



10-091
Armored front strike
1-3/4" x 8" x 1-3/16" lip
32 mm x 203 mm x 30 mm



37-015
Wood frame reinforcer



10-079
Standard for L400
1-1/8" x 3-1/2"
32 mm x 89 mm



10-078
Optional for L400
1-1/4" x 4-7/8"
32 mm x 124 mm

Strikes		
Number	Lip length	Description
10-072	1-3/16" (30mm)	L9000 standard
	7/8" (22mm), 1" (25mm), 1-1/2" (38mm), 1-3/4" (44mm), 2" (51mm)	L9000 optional
10-073	No lip	L9460 Series deadlocks; deadbolt strike, standard
10-075	No lip	1/2" (13mm) rabbeted (use with 1-1/16" (27mm) armor)
10-078	No lip	1-1/4" x 4-7/8" with box, L400 optional
10-079	No lip	1-1/8" x 3-1/2" with box, L400 standard
10-091*	1-3/16" (30mm)	Armored front strike, no box
K510-053	-	Strike box for 10-079
K10-066	-	Strike box, all except 10-079

*Specify hand of inactive leaf.

L Series Ordering Instructions

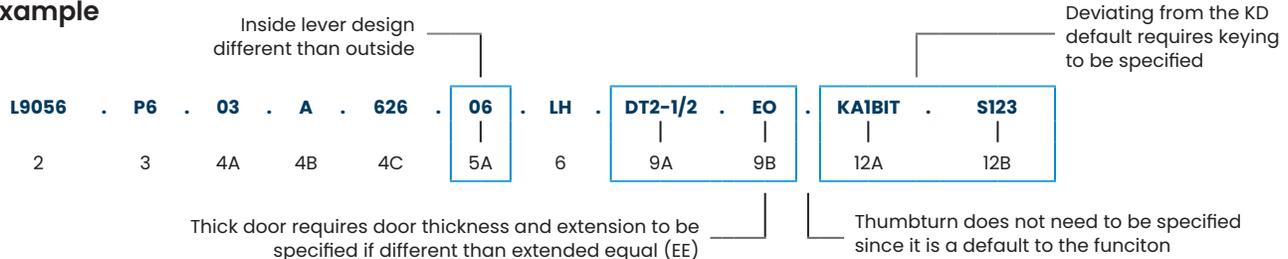
To order Schlage products, descriptive data should be in the same sequence as shown:

		Required for all lock orders								Door dimensions		Lock monitoring		Options				Keying									
Brand	Series + Function	Cylinder type (keyed functions only)		Outside style		Inside style				Door thickness	Extended	Strike lip length	Request to Exit (RX)	Latchbolt monitor (LX)	Door position sensor (DPS)	Deadbolt monitor (DM)	Indicator	Basic or large ADA thumbturn	Screw option	Lead lining	Special options (X numbers)	Buy American Act compliant	Keying code	Keyway	Pack keys independently		
1	2	3	4A	4B	4C	5A	5B	5C	6	7	8	9A	9B	9C	10A	10B	10C	10D	11A	11B	11C	11D	11E	11F	12A	12B	12C

Detail

1	Brand	Required only when specifying a product Less (LLL) any attribute.
2	Series + Function	L (default) or LV (Vandlgard if available) + function choice from list
3	Cylinder type	<p>For keyed functions only:</p> <p>Conventional</p> <p>P6 6-pin cylinder (default)</p> <p>P 6-pin cylinder, keyed 5</p> <p>Z Everest SL cylinder, 7-pin</p> <p>L Less cylinder</p> <p>C Concealed mortise, 6-pin/ keyed 5</p> <p>C6 Concealed mortise, 6-pin</p> <p>W Less concealed mortise cylinder</p> <p>FSIC - Full size interchangeable core</p> <p>R FSIC, 6-pin</p> <p>T FSIC - Construction Core</p> <p>M Everest SL - FSIC, 7-pin</p> <p>J Less FSIC</p> <p>F FSIC, 6-pin less Schlage logo</p> <p>T Refundable Construction FSIC</p> <p>SFIC - Small format interchangeable core</p> <p>G SFIC 7-pin</p> <p>H Refundable Construction SFIC</p> <p>BDC Disposable Construction SFIC</p> <p>B Less SFIC</p>
4	Outside style	4A: input lever or knob code; 4B: input rose or escutcheon code; 4C: input ANSI finish code
5	Inside style	Specify only if different than outside style
6	Handing	Add only when handing must be specified (Lever designs: 12, Accent, Asti, Merano, M61, M62, M63, and M85)
7	Armor front	Specify only attributes that deviate from these defaults: L/LV9000: 1-1/4" x 8"; L400: 1-1/4" x 5-9/16"
8	Strike	Specify only attributes that deviate from these defaults: L/LV9000: 1-1/4" x 4-7/8" square corner, 1-3/16" lip, box; or L400: 1-1/8" x 3-5/8" square corner, box
9	Door dimensions	Specify only attributes that deviate from these defaults: 9A: 1-3/4" thickness; 9B: Extended equally (EE); 9C: 1-3/16" lip
10	Lock monitoring	Available only on specific functions. Note that some EL/EU functions are available with one or more monitor options. L9492, 9493, 9494, 9495 come standard with deadbolt monitor (DM).
11	Options	11A/11B: input part number; 11C: specify TORX; 11D: L/LV9000 specify XL11-515, L400 specify XL12-216; 11E: special options include unlisted functional options, latchbolt insert and deadbolt only armor front. Specify by part number. 11F: Specify BAA.
12	Keying	12A: specify only if different from default of Keyed Different (KD); 12B: specify only if different from default of Everest 29 S123 (Conventional and FSIC cylinders) or, if master keyed, Everest 29 S145 (Conventional and FSIC) and R125 (SFIC)

Example



LE Wireless Electronic Lock Ordering Instructions

LEB - MS - GRW - P6 - 07 - 626 - 00A - 17 - 612 - 00A - LH - 10-136 - 134 - S123

Series	Chassis/function	Style	Cylinder Type	Outside			Inside (optional)			Handing	Strike Lip	Door Thickness	Key System	Additional Options
				Lever style	Finish	Rose (ERW only)	Lever Style	Finish	Rose (ERW only)					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

Selections correspond with the numbers above. See price book for specific configuration options.

Detail																	
1	Series	Specify LEB (mobile enabled wireless lock); LEBSi (mobile enabled wireless lock with HID® credential support)															
2	Chassis	Specify MS (mortise with LED indicator); MB (mortise with interior push button and LED); MD (mortise deadbolt with LED)															
3	Style	Specify GRW for Greenwich sectional; ADD for Addison escutcheon															
4	Cylinder type	<table border="0"> <tr> <td>Conventional</td> <td>FSIC - Full size interchangeable core</td> <td>SFIC - Best® Style, Small format interchangeable core</td> </tr> <tr> <td>P6 6-pin cylinder (default)</td> <td>R FSIC, 6-pin</td> <td>G SFIC 7-pin</td> </tr> <tr> <td>Z Everest SL cylinder, 7 pin</td> <td>J Less FSIC</td> <td>B Less SFIC</td> </tr> <tr> <td>L Less cylinder</td> <td>T FSIC - Construction Core</td> <td>H Refundable Construction SFIC</td> </tr> <tr> <td></td> <td></td> <td>BDC Disposable Construction SFIC</td> </tr> </table>	Conventional	FSIC - Full size interchangeable core	SFIC - Best® Style, Small format interchangeable core	P6 6-pin cylinder (default)	R FSIC, 6-pin	G SFIC 7-pin	Z Everest SL cylinder, 7 pin	J Less FSIC	B Less SFIC	L Less cylinder	T FSIC - Construction Core	H Refundable Construction SFIC			BDC Disposable Construction SFIC
Conventional	FSIC - Full size interchangeable core	SFIC - Best® Style, Small format interchangeable core															
P6 6-pin cylinder (default)	R FSIC, 6-pin	G SFIC 7-pin															
Z Everest SL cylinder, 7 pin	J Less FSIC	B Less SFIC															
L Less cylinder	T FSIC - Construction Core	H Refundable Construction SFIC															
		BDC Disposable Construction SFIC															
5	Outside lever style	Input lever or knob code															
6	Outside finish	Input ANSI finish code															
7	Outside rose	Specify for Greenwich sectional only; input rose code															
8	Inside lever style	Specify only if different than outside style															
9	Inside finish	Specify only if different than outside finish															
10	Inside rose	Specify only if different than outside rose															
11	Handing	Add only when handing must be specified (Lever designs: 12, Accent, Asti, Merano, M61, M62, M63, & M85)															
12	Strike plate/lip length	Specify only attributes that deviate from these defaults: 1-1/4" x 4-7/8" Square corner, 1-3/16" lip															
13	Door thickness	Specify only attributes that deviate from these defaults: 1-3/4" thickness; Extended equally (EE)															
14	Keyway	Specify only if different from these defaults: Keyed Different (KD); Everest 29 S123 (Conventional and FSIC cylinders) or, if master keyed, Everest 29 S145 (Conventional and FSIC) and R125 (SFIC)															
15	Additional options																

Mechanical Product Specifications

	L Mechanical & L Wired Electrified	LM9200	LM9300
Chassis			
Case material	Cold Rolled Steel (CRS) with zinc dichromate plating		
Case size	L9000 Series: 4-7/16" x 6-1/16" x 1" (113 mm x 154 mm x 25 mm) L400 Series: 4-7/16" x 3-5/8" x 1" (113 mm x 92 mm x 25 mm)	4-7/16" x 12-19/32" x 1" (113 mm x 320 mm x 25 mm)	4-7/16" x 6-1/16" x 1" (113 mm x 154 mm x 25 mm)
Spacing	Knob or lever to cylinder: 3-7/8" (98 mm); knob or lever to thumbturn hub: 2-11/16" (68 mm)		
Door thickness	Standard: 1-3/4" (44 mm) Optional: 1-3/8" (35 mm) Over 1-3/4" specify door thickness and position in door EE, EI, EO, ED	Standard: 1-3/4" (44 mm) Over 1-3/4" specify door thickness and position in door EE, EI, EO, ED	Standard: 1-3/4" (44 mm)
Backset	2-3/4" (70 mm) only		
Handing	L9000 Series: Field-reversible L400 Series: Non-handed	Handed to order, field reversible	Handed to order, not field reversible
Trim			
Levers/knobs	33 lever designs (see pages 10-13): Forged brass and cast stainless steel Two knob designs (see page 13): Heavy-duty wrought brass or stainless steel (not available for LM9200) Tactile warning applied to outside lever; available on 01, 02, 03, 05, 06, 07, 12, 17, 18, M51, M52, M81, ME1, ME2, ME3 lever designs		
Health care trims	Ligature resistant lever (SL1) and knob (SK1) High Security Ligature Resistant (HSLR) trim HL6 hospital latch	—	—
Roses/escutcheons	L escutcheons: 7-15/16" x 1-3/4" x 7/16" (202 mm x 44 mm x 11 mm); cold-forged brass and stainless steel N escutcheons: 7-7/8" x 2-1/2" x 7/16" (200 mm x 64 mm x 11 mm); heavy-wrought, reinforced brass and stainless steel Roses: A, B, C: wrought brass and stainless steel; AVA and MER: forged brass		
Finishes	14 available: 605, 606, 609, 612, 613, 619, 622, 625, 626, 626AM, 629, 630, 630AM, 643e		
Combinations	Combinations of available levers and/or knobs allowed. Roses cannot be combined with escutcheons.		
Latches, Armors & Strikes			
Armor	L9000 Series Standard: 1-1/4" x 8" x 7/32" (32 mm x 203 mm x 6 mm) Optional: 1-1/16" x 8" x 7/32" (27 mm x 203 mm x 6 mm) L400 Series 1-1/4" x 5-9/16" x 7/32" (32 mm x 141 mm x 6 mm)	1-1/4" x 15-55/64" x 7/32" (32 mm x 403 mm x 6 mm)	Standard: 1-1/4" x 8" x 7/32" (32 mm x 203 mm x 6 mm) Optional: 1-1/16" x 8" x 7/32" (27 mm x 203 mm x 6 mm)
Latch	3/4" (19 mm) throw stainless steel latch with anti-friction tongue	Top and bottom via concealed vertical cable	3/4" (19 mm) throw stainless steel latches, top and bottom latches via concealed vertical rod
Deadbolt	1" (25 mm) throw stainless steel deadbolt	—	—
Strike	L9000 Series Standard: ANSI curved lip strike 1-1/4" x 4-7/8" (32 mm x 124 mm) x 1-3/16" (30 mm) lip length with dust box Optional: Extended lip strike options (7/8", 1", 1-1/2", 1-3/4", 2") L400 Series Standard: 1-1/8" x 3-1/2" (29 mm x 89 mm) with dust box Optional: 1-1/4" x 4-7/8" (32 mm x 124 mm) with dust box	Standard strike only	Standard: ANSI curved lip strike 1-1/4" x 4-7/8" (32 mm x 124 mm) x 1-3/16" (30 mm) lip length with dust box Optional: Extended lip strike options (7/8", 1", 1-1/2", 1-3/4", 2")
Cylinders & Key Systems			
Formats	6-pin Conventional mortise cylinder (standard); also available in concealed mortise cylinder, FSIC, SFIC and 7-pin SL cylinder formats plus less cylinder options; two nickel silver cut keys per lock; compatible with competitor cylinders and cams that support the L9000 Series		
Keyways	Patented Everest 29 S123 (standard); also available in open, restricted, and Primus security levels with available master keying and construction keying		
Wired Electrified			
Input voltage	12V or 24V DC (24V DC only on motorized latch retraction functions)	12V or 24V DC	—
Operating mode	Fail Safe or Fail Secure via switch on chassis (except L9510, L9580, and L9582)	Fail Safe or Fail Secure via switch on chassis	—

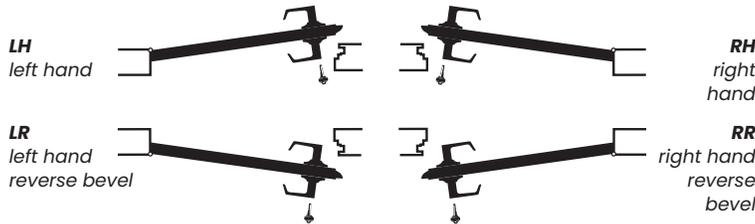
	L Mechanical & L Wired Electrified	LM9200	LM9300
Peak current	12V operating voltage: 1 amp (not applicable to latch retraction functions) 24V operating voltage: 0.4 amp lever control; 1.4 amp latch retraction Holding current: 0.1 amp lever control; 0.1 amp latch retraction		
Request to exit	Modular option on L909X, L949X, L9510, L9580, L9692, and L9695 electrified functions (when ordering or added in field) Available for mechanical functions: L9010/25/26/50/56/70/71/80 and L9453/56/58/65/66/80/85/96 Rating: 3A @ 125V AC/2A @ 30V DC	—	—
Latch bolt monitor	Available on all electrified functions and L9010/25/26/50/56/70/71/80/82 and L9453/56/65/66/80/85/96 mechanical functions	—	—
Door position sensor	Internal available on L909x electrified and L9010/25/26/80/82 mechanical functions; external available on all functions	—	—
Deadbolt monitor	Standard on L949x electrified and available on L9453/56/57/58/80/85/96 mechanical functions	—	—
Warranty			
	10-year limited mechanical and 3-year limited electromechanical	3-year limited mechanical and 1-year limited electromechanical	3-year limited mechanical
Certifications			
ANSI/BHMA	L/LV9000: ANSI/BHMA A156.13-2017 Series 1000, Grade 1 Operational and Security With FSIC Interchangeable Core Cylinders: Grade 1 Operational, Grade 2 Security With SFIC Interchangeable Core Cylinders: Grade 1 Operational, Grade 3 Security L400: ANSI/BHMA A156.36-2010, Grade 1	ANSI/BHMA A156.37-2014 Grade 1 Operational and Security With FSIC Interchangeable Core Cylinders: Grade 1 Operational, Grade 2 Security With SFIC Interchangeable Core Cylinders: Grade 1 Operational, Grade 3 Security	ANSI/BHMA A156.37-2014 Grade 1 Operational and Security With FSIC Interchangeable Core Cylinders: Grade 1 Operational, Grade 2 Security With SFIC Interchangeable Core Cylinders: Grade 1 Operational, Grade 3 Security
ICC	Complies with ICC A117.1 Accessible and Usable Buildings and Facilities	—	Certified by Intertek and labeled showing compliance to ICC 500-2020, FEMA P-320 (2021), and FEMA P-361 (2021) as required by the International Building Code and Florida Building Code Enhanced Protection Area (EHPA) standard when paired with appropriate Steelcraft doors (all except LM9310 and LM9370 functions)
UL/cUL	L/LV9000 Series: UL 10C and CAN/ULC-S104 3-hour fire door (except L9076 and L9077) Electrified functions are UL/ULC listed 3-hour for single-point locking applications UL 437 Listed when using UL 437 Primus cylinder L400 Series: L400 UL Listed Auxiliary Lock for 3-hour fire door UL 437 Listed when using UL 437 Primus cylinder	UL 10C and CAN/ULC-S104 90-minute maximum Fire Listing - pairs only UL 437 Listed when using UL 437 Primus cylinder Hollow metal door applications: available UL listed for 90-minute fire door with two point latch, one point latch, or double egress with astragal. Wood door applications: available UL listed for 60-minute fire door with two point latch or 20-minute fire door with top latch only. (Does not meet Canada UL 20-minute wood door requirement)	UL 10C and CAN/ULC-S104 3-hour fire door UL 437 Listed when using UL 437 Primus cylinder
UL 294	UL 294 Access Control Performance Levels: Destructive Attack - level I; Line Security - level I; Standby Power - level I; Endurance - level IV (with DM or LX, Endurance - level I) ULC-S319 Class III (L909X and L949X functions only)	—	—
CA Fire Code	All levers with a return to door of 1/2" (13 mm) or less comply (Formerly Title 19, California State Fire Marshal Standard)		
Building codes	Miami-Dade NOA and Florida Building Commission Listings Texas Department of Insurance (TDI) for impact and non-impact applications	—	Florida Building Commission Listing for impact rated assemblies
Federal	BAA compliant, all functions		

Wireless Electronic Product Specifications

LE Wireless Electronic		
Chassis		
Case material	CRS with zinc dichromate plating	
Case size	4-7/16" x 6-1/16" x 1" (113 mm x 154 mm x 25 mm)	
Spacing	Knob or lever to cylinder, 3-7/8" (98 mm); knob or lever to thumbturn hub, 2-11/16" (68 mm)	
Door thickness	Standard: 1-3/4" (44 mm) Optional: Up to 2-1/4" (57 mm)	SFIC limited to 2" max
Handing	Handed to order, field reversible	
Trim		
Levers/knobs	31 lever designs (see pages 10-13): Forged brass and cast stainless steel Two knob designs (see page 13): Heavy-duty wrought brass or stainless steel	Tactile warning applied to outside lever; available on 01, 02, 03, 05, 06, 07, 12, 17, 18, M51, M52, M81, ME1, ME2, ME3 lever designs
Roses/escutcheons	Addison escutcheon Greenwich sectional with rose: A, B, C, AVA, MER	Roses: A, B, C can be wrought brass and stainless steel; AVA and MER are forged brass
Finishes	Nine available: 605, 606, 612, 619, 622, 625, 626, 626AM, 643e	
Latches		
Backset	2-3/4" (70 mm) only	
Armor	1-1/4" x 8" x 7/32" (32 mm x 203 mm x 6 mm)	
Bolt	1" (25 mm) throw stainless steel deadbolt	3/4" (19 mm) throw stainless steel latch with anti-friction tongue
Strike	Standard: ANSI curved lip strike 1-1/4" x 4-7/8" (32 mm x 124 mm) x 1-3/16" (30 mm) lip to center with dust box	Optional: Extended lip strike options (1-1/2", 1-3/4")
Cylinders and key systems		
Formats	Standard: Pin and tumbler mechanism in the patented Schlage Everest 29 S123 keyway (6-pin); two nickel silver cut keys per lock	Additional keying options available: Conventional and interchangeable cores; master and grand master keying; compatible with competitor cylinders and cams that support the L9000 Series
Wireless Electronic		
Input voltage	4 AA batteries	
Functions	LEBMS: Storeroom LEBMB (selectable): Office, Privacy, Apartment	LEBMD (selectable): Privacy, Apartment
Communication	2.4 GHz Wi-Fi® (IEEE 802.11b/g/n) WPA2, WPA, WEP, 802.1x Bluetooth® Low Energy (version 4.2)	Transport Layer Security (TLS) version 1.2 Advanced Encryption Standard (AES), 256-bit
Request to Exit	Integrated into chassis	
Door position sensor	Integrated in chassis for LEMS and LEMB, separate from chassis for LEMD	
Tamper sensor	Integrated interior cover tamper	
Operating temperature	Exterior: -31° to 151°F (-35° to 66°C) Exterior: -13° to 151°F (-25° to 66°C) (LEBSi) Interior: 32° to 120°F (0° to 49°C) (battery)	
Operating humidity	0-100% non-condensing	
Warranty		
	1 year wireless electronic	
Certifications		
ANSI/BHMA	ANSI/BHMA A156.25-2013 (indoor/locked outdoor) ANSI/BHMA A156.13-2017 Series 1000, Grade 1 Operational and Security	With FSIC interchangeable core cylinders: Grade 2 Security With SFIC interchangeable core cylinders: Grade 3 Security
ICC	Complies with ICC A117.1 Accessible and Usable Buildings and Facilities, IC RSS-210	
UL/cUL	UL 10C and CAN/ULC-S104 3-hour Fire Listed All locks listed for A label single doors, 4' x 10' and pairs 8' x 10' Letter F and UL symbol on latch front indicate listing	Electrified functions are UL/ULC Listed for single-point locking applications UL 437 Listed when using UL 437 Primus cylinder UL 294 UL ULC 60839
CA Fire Code	All levers with a return to door of 1/2" (13 mm) or less comply	(Formerly Title 19, California State Fire Marshal Standard)
FL Building Code	Florida Building Commission Listings (FL1592, FL3905, FL4613, FL10356, FL12400, FL14482)	

Lock Handing

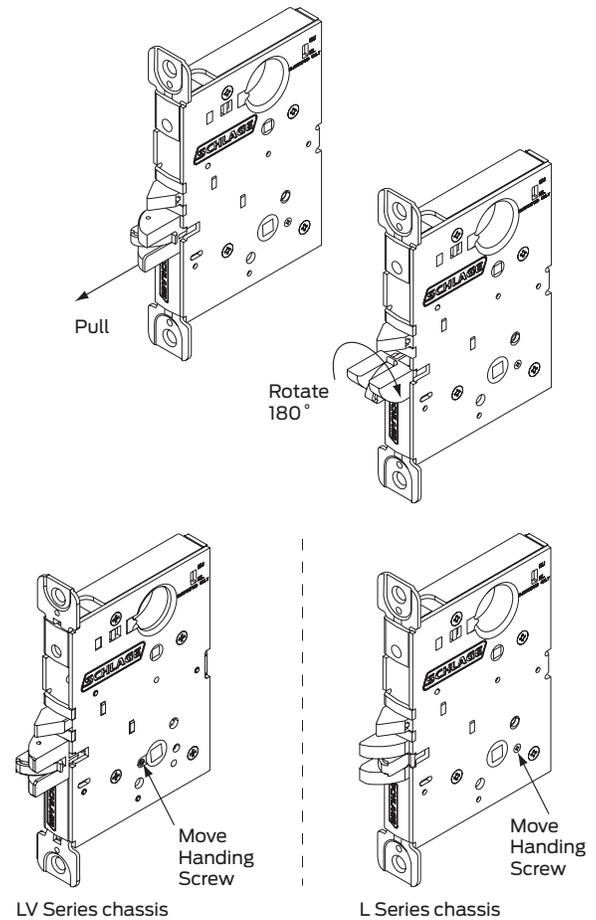
One of the revolutionary features of the L Series mortise lock is that handing can be done by the distributor or installer quickly and easily without opening the lock case.



The hand is determined by the direction the door swings when viewed from the exterior or corridor side of the door.

Two simple steps allow you to change the handing of any L Series lock:

1. With the lock case removed from the door, pull the latchbolt away from the lockcase and rotate 180°.
2. Remove the lock handing screw from one side of the chassis and install it on the opposite side. The lock handing screw should always be on the interior side of the door.

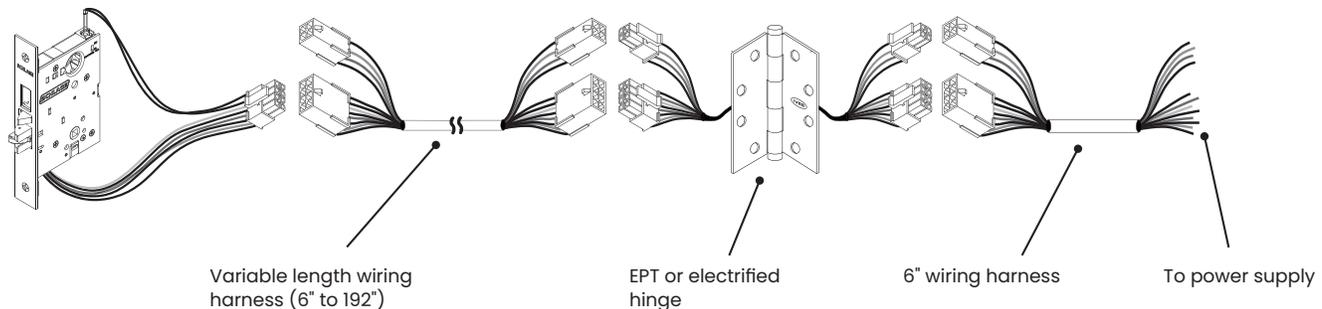


Electrified Lock Installation

The L Series electrified locks are powered by DC power only. All electrified locks are supplied with Allegion Connect Molex style connectors as well as an extended length Molex to traditional terminal wiring harness.

Allegion Connect

This factory-installed Molex connector system utilizes quick-connect harnesses and hinges for a quick and easy way to connect power sources; all the way from your power supply to electrified door hardware. Alternately, the connector can be cut off and the lock installed with traditional wire splicing methods. Note that the Allegion Connect harnesses and hinges are sold separately.



About Allegion

At Allegion (NYSE: ALLE), we design and manufacture innovative security and access solutions that help keep people safe where they live, learn, work and connect. We're pioneering safety with our strong legacy of brands like CISA®, Interflex®, LCN®, Schlage®, SimonsVoss® and Von Duprin®. Our comprehensive portfolio of hardware, software and electronic solutions is sold around the world and spans residential and commercial locks, door closer and exit devices, steel doors and frames, access control and workforce productivity systems.

For more, visit www.allegion.com

KRYPTONITE ■ LCN ■  ■ STEELCRAFT ■ VON DUPRIN

Introduction

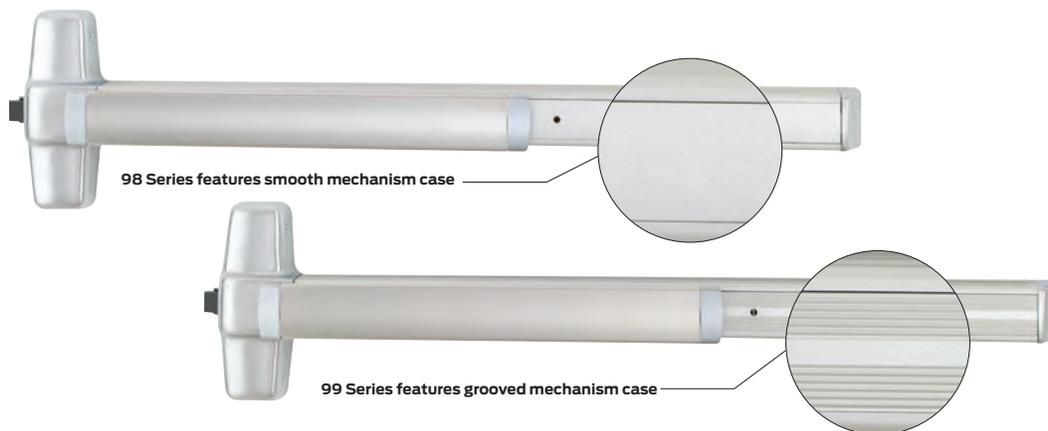
Engineered for value

Von Duprin® devices are designed with our customers in mind. The robust materials and unique engineering add to the longevity of our products, while the flexible design improves their value.

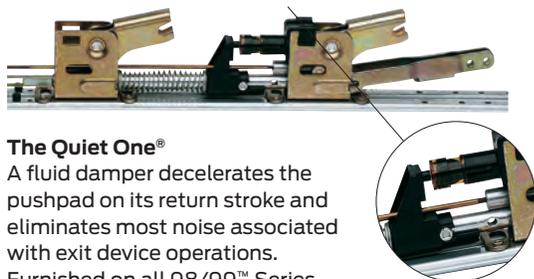
The universal center case provides a simple path to new technology without the cost of replacing the entire device. Whether it's adding trim, switching handing or introducing new features, Von Duprin makes it simple with a wide variety of upgradeable kits for the 98/99 Series. In addition to evolving with security needs, Von Duprin' exit devices are manufactured to meet the highest performance and safety standards.

Passion driving performance

With superior products comes exceptional customer care. Von Duprin customers are supported by industry-leading expertise. Allegion's representatives average more than 15 years of experience, so you're assured to receive knowledgeable advice on fire and life safety codes, installation resources and more. And for those looking to take their skills to the next level, Allegion offers instructor-led workshops, videos and online courses. It's another way Von Duprin stands by our customers—today, tomorrow and for years to come.



Von Duprin exit devices are available in two external surface styles, designated 98 and 99 Series.



VON DUPRIN
Administrative Offices
2720 Tobey Dr.
Indianapolis, IN 46219

Customer Service
877-671-7011
800-999-0328 - Fax

Technical Support
877-671-7011

Options and accessories

Applications and trim operation	Single and double door applications Door handing Outside trim operation Lever styles
--	---

Trim options	Knob Thumbpiece Lever Electrified outside lever trim (E996L) Breakaway lever Thumbturn control Hospital pull Offset pull Vandal resistant pull AD-Series adaptable electronic trim
---------------------	---

Strike options	Strike/Stile information Strikes
-----------------------	-------------------------------------

Dogging options	Cylinder dogging Cylinder dogging with Security Indicator Hex key dogging Hex dogging with Security Indicator Less dogging Dogging keys Special center case dogging Double cylinder Double cylinder with Security Indicator
------------------------	---

Symbols

 Indicates fire rated application  Indicates ADA products

Electrical options	RX Request to exit LX Latchbolt monitoring SS Signal switch CX Chexit® ALK Alarm kit E Electric mortise lock device EL Electric latch retraction QEL Quiet electric latch retraction CON Allegion Connect
---------------------------	--

Electrical accessories	Power supplies Electric power transfer
-------------------------------	---

Mechanical options	XP98/99 rim exit device WS Surface vertical rod exit device Less bottom rod AX Accessible device Pullman latch Dummy push pad Braille, embossed, knurled and safety glow (Luminescent) touchpads
---------------------------	--

Pneumatic options	Pneumatic controlled exit devices Pneumatic power transfer
--------------------------	---

Device accessories	Glass bead kit Vertical rod and latch guard Cover plate kits Cylinders Mullions Sex bolts
---------------------------	--

Additional information	ANSI Function, grade and type UL fire labeling and opening size
-------------------------------	--

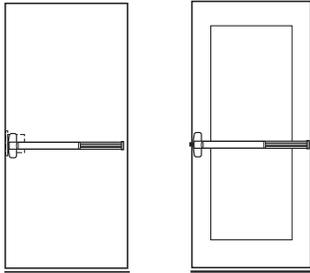
Finishes	Standard and special finishes
-----------------	-------------------------------

Nomenclature – how to order

		EL	99	27	-L	-16	-F	LBR	3'	US3	RHR
None	Standard										
SD	Special dogging R/VR - panic only										
CD	Cylinder dogging - panic only										
CDSI	Cylinder dogging with Security Indicator										
HDSI	Hex dogging with Security Indicator										
CX	Chexit										
E	Electric locking mortise/lever										
QEL	Quiet electric latch retraction										
EL	Electric latch retraction										
LX	Latch bolt monitoring										
RX	Request to exit										
RX2	Double request to exit										
SS	Signal switch										
AX	Accessible device										
PL	Pullman latch										
PN	Pneumatic latch retraction										
XP	Heavy protection - rim										
WS	Tornado and hurricane tested										
98	Series 98-smooth										
99	Series 99-grooved										
None	Rim device										
27	Surface mounted vertical rod device										
47	Concealed vertical rod device										
47WDC	Concealed vertical rod wood door device										
48	Concealed vertical rod device										
49	Concealed vertical cable device										
50WDC	Concealed vertical cable wood door device										
57	Three-point latch device										
75	Mortise lock device										
AD	AD Trim (to come from client)										
DT	Dummy trim										
EO	Exit only										
HL	Hospital pull trim										
K	Knob										
K-BE	Knob - blank escutcheon										
K-DT	Knob, rigid - dummy trim										
K-NL	Knob, rigid - night latch										
L	Lever (classroom)										
L-BE	Lever - blank escutcheon										
L-DT	Lever, rigid - dummy trim										
L-NL	Lever, rigid - night latch										
NL	Night latch										
NL-OP	Night latch cylinder assembly, optional pull										
TL	Turn lever										
TL-BE	Turn lever - blank escutcheon										
TP	Thumbpiece										
TP-BE	Thumbpiece - blank escutcheon										
XX	Lever style 06 standard default Optional levers available										
F	Fire exit device										
-2	Double cylinder (rim and mortise only)										
-2SI	Double cylinder with Security Indicator										
LBR	Less bottom rod										
LBL	Less bottom latch										
SG	Safety glow (luminescent) touchpad										
ALK	Alarm kit										
CON	Allegion Connect										
2'	2' Device (2' door size) 27, 47 or 49 only										
3'	3' Device (2' 4"- 3' door size)										
4'	4' Device (2' 10"- 4' door size)										
Finishes	US3, US4, US10, US26, US26D, US28, 313, 315 US32D – 98 ONLY -AM Antimicrobial (available US26D and US32D)										
-LHR	Left hand reverse										
-RHR	Right hand reverse										

Popular double door applications

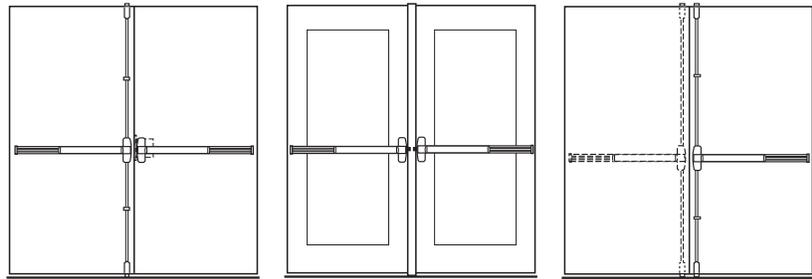
Single door applications



Single mortise lock device

Single rim device

Double door applications

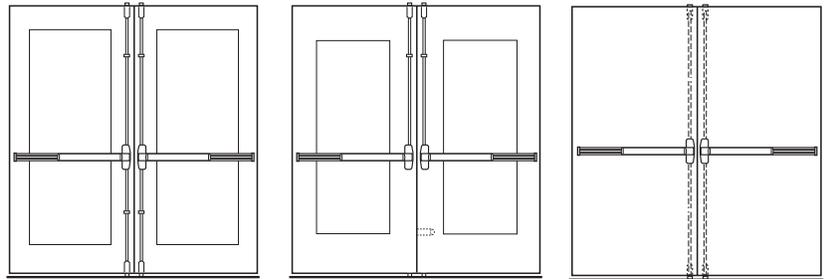
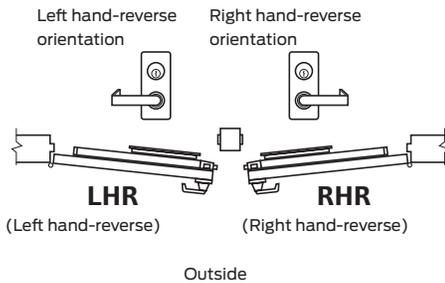


Mortise lock and surface mounted or concealed vertical cable/rod device combination—same direction

Two rim devices with mullion—same direction

Two vertical rods—double egress

Door handing



Two surface mounted vertical rod devices—same direction (do not use with overlapping astragal)

Two fire exit hardware vertical cables/rods with auxiliary fire latch-LBR option

Two concealed vertical cables/rods

Outside trim operation

Trim operation lever or knob

Standard



Key locks and unlocks lever or knob, e.g., 996L (Classroom)

Night latch



Key retracts latch bolt. Lever or knob is rigid. Use NL suffix, e.g., 996LNL. (Storeroom)

Blank escutcheon



Lever or knob always active. Use BE suffix, e.g., 996L-BE. (Passage)

Dummy



Lever or knob rigid for pull operation. Use DT suffix, e.g., 996L-DT.

996L Breakaway™ lever



The 996L Breakaway trim has become the standard lever trim offering on the 98L/99L Series devices. The Breakaway design is especially effective in areas where vandalism to door hardware is a problem. The design intent is to discourage costly repairs from becoming necessary. The Breakaway feature is not available on the NL (night-latch) or DT (dummy trim) versions.

374T/376T Series thumbturn control



Standard operation, key locks and unlocks thumbturn. Optional operation, key unlocks thumbturn, re-locks when key is removed. This operation is created by changing the cylinder plate included with control. Use 1 1/4" mortise cylinder with a straight cam. Schlage cam reference L583-477. Use with a pull trim (990DT pictured).

Lever styles

Decorative Levers



M51
Knurling available



M52
Knurling available



M53



M54



M55



M56



M57¹



M61
(Handed)



M62¹
(Handed)



M63
(Handed)



M81
Knurling available



M82



M83



M84



M85
(Handed)



ME1²
(Handed)



ME2²
(Handed)



ME3²

1. Available in Stainless Steel substrate ONLY.
2. Designed with Gensler as product design consultant.

Standard Levers



01



02
Knurling available



03^{*}
Knurling available



05



06^{*}
Default lever
Knurling available



07



12
(Handed)



16
(Omega)



17^{*}
Knurling available



18



ACC
(Accent)
(Handed)



AST
(Asti)
(Handed)



MER
(Merano)
(Handed)



LAT^{*}
Latitude



LON^{*}
Longitude

* Available in stainless steel - specify SS when ordering.

98/99 Rim exit device



98 and 99 Rim exit devices for all types of single and double doors with mullion, UL listed for panic exit hardware. Devices are ANSI A156.3 – 2014 Grade 1. The 98 device has a smooth mechanism case and the 99 device has a grooved case. The rim device is non-handed except when the following device options are used: SD (special dogging), -2 (double cylinder) or SS (signal switch). See Opposite page for available outside trim and device functions. Covers stock hollow metal doors with 86 or 161 cutouts on single doors (may cover cutouts on pairs – consult template).

Hex key dogging comes standard on 98/99 Rim exit devices



Finishes – US3, US3A, US4, US4A, US10, US26, US26D, US26D-AM Antimicrobial, US28, 313, 315 and 643E. US15 and US32D available with 98 Series only.

Specifications

Device functions	Device ships EO/DT/NL. Field selectable. For TP, K or L remove NL drive screw from device.	
Device lengths	3' 4'	2'4" to 3' (711mm to 914 mm) Door size 2'10" to 4' (864 mm to 1219 mm) Door size
Device centerline from finished floor	39 ¹³ / ₁₆ " (1011 mm) 39 ¹¹ / ₁₆ " (1008 mm) with mullion	
Center case	8" x 2 ³ / ₄ " x 2 ³ / ₈ " (203mm x 70mm x 60mm)	
Mechanism case	2 ¹ / ₄ " x 2 ¹ / ₄ " (57mm x 57mm)	
Projection	Pushbar neutral – 3 ¹³ / ₁₆ " (97 mm) Pushbar depressed – 3 ¹ / ₁₆ " (78 mm)	
Latch bolt	Deadlocking, 3/4" (19mm) throw	
Fasteners and sex bolts (SNB)	Includes screw pack for 1 ³ / ₄ " (44mm) and 2 ¹ / ₄ " (57mm) thick metal or wood doors. Optional 425 SNB available, see page 9 for quantities.	
Electric options	LX	Latchbolt monitor switch
	RX	Pushpad monitor switch
	RX2	Double pushpad monitor switch
	E	Electric locking and unlocking trim
	EL	Electric latch retraction
	QEL	Quiet electric latch retraction
	SS	Signal switch
	CX	Chexit delayed exit
	ALK	Alarm exit kit
	WP-RX	Waterproof request to exit
	CON	Allegion Connect
Mechanical options	-2	Double cylinder
	-2SI	Double cylinder with Security Indicator
	AX	Accessible device
	GBK	Glass bead kit
	PN	Pneumatic latch retraction
	XP	Extra protection
	SNB	Sex bolts
	SEC	Security screws
Dogging feature	Hex key dogging standard	
Dogging options	CD	Cylinder dogging
	CDSI	Cylinder dogging with Security Indicator
	HDSI	Hex dogging with Security Indicator
	SD	Special center case dogging
	LD	Less dogging
	DI	Dogging indicator
	CI	Cylinder dogging indicator
Strikes	299 – Dull black	

XP
Extra protection

- 90° latch-to-strike contact
- Force resistance of 2,000+ lbs.

CDSI
Cylinder dogging with Security Indicator

- Visual indication of whether device is dogged or undogged

QEL
Quiet electric latch retraction

- Bolt retraction via switch
- Converts exit door to push-pull operation

RX
Pushpad monitor switch

- Signals use of an opening
- SPDT switch to monitor pushpad

CX
Chexit delayed exit

- Meets NFPA 101 requirements
- Self-contained controls, locking, alarm

AX
Accessible device

- UL certified to meet new 5 lb. maximum operating force requirement
- Exceeds ANSI/BHMA requirements

EL
Electric latch retraction

- Enables remote unlatching
- Alternative to manual dogging

ALK
Alarm exit kit

- Unauthorized opening triggers 85-decibel horn
- Set in armed or disarmed mode by key

PN
Pneumatic latch retraction

- For areas where electrical devices banned
- Special linkage for mechanical or pneumatic dogging

CON
Allegion Connectors

- Common connectors to connect various door hardware all the way to the power supply

75 Series

Exit Device

OVERVIEW

Mid-Priced, But Beyond Expectations

Enjoy the quality and trust you expect from Von Duprin at a mid-price option. Von Duprin 70 Series exit devices provide reliable performance and peace of mind for applications like warehouse, industrial, office, multifamily, retail, and commercial real estate spaces. The 75 series device is a narrow-stile device available in a wide range of device types, lever designs, options, and finishes.

Von Duprin's 70 Series also can be configured with the Quiet Electric Latch Retraction (QEL) option, which provides electronic control of an exit device where limited operational noise is desired. Plus, quick shipping is an option for time-sensitive projects.



DEVICE TYPES



Rim device



27 Surface mounted
vertical rod device



47 Concealed vertical rod
device, 5/8" throw

FINISHES



605
Bright Brass



606
Satin Brass



612
Satin Bronze



619
Satin Nickel



625
Bright Chrome



626
Satin Chrome



628
Aluminum, Clear
Anodized



630
Satin Stainless



643e
Aged Bronze



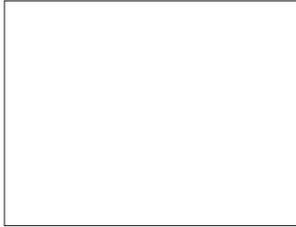
710
Dark Brown,
Anodized



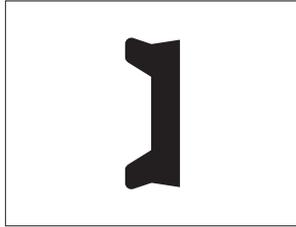
711
Matte Black

Due to the many variations in monitors and printers, color samples may appear different than the physical product. Contact your local sales representative for a physical color sample.

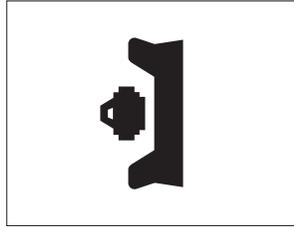
TRIM FUNCTIONS



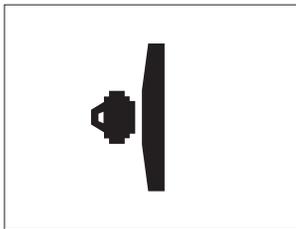
EO
No outside Trim
• Exit only



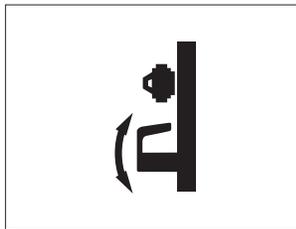
DT
Dummy Trim
• Pull when dogged (not recommended for fire device)



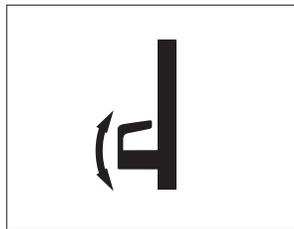
NL
Night latch
• Key retracts latch bolt
• Rim cylinder



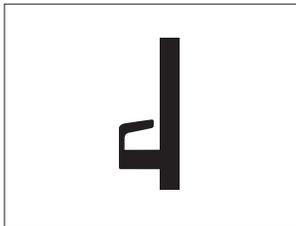
NLOP
Night latch
• Key retracts latch bolt, optional pull required



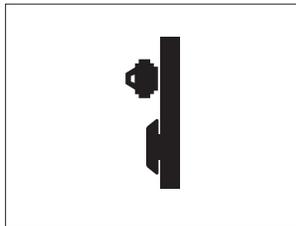
L
Lever
• Key locks and unlocks
• 1-1/4" mortise cylinder
• Handed, reversible lever
• E360 L BE only. No cylinder override available



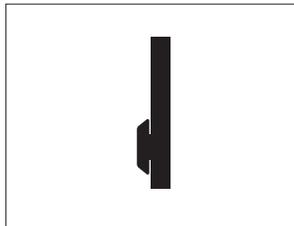
LBE
Lever, blank escutcheon
• Always operable (no cylinder)
• Electrified lever operation available



LDT
Lever, dummy trim
• Pull when dogged



TL
Turn lever
• Key locks and unlocks (use with DT trim)
• 1-1/4" mortise cylinder



TLBE
Turn lever, blank escutcheon
• Blank escutcheon always operable (no cylinder, use with DT trim)

TRIM STYLES



386



388



360L



374T x 386DT



376T x 386DT

Dimensions					
Trim Style	Base Width	Base Height	Projection	Grip Width	Grip Height
386/386DT	1-5/8"	7-15/32"	2-7/16"	4-5/16"	8-1/2"
388	1-11/16"	7-15/32"	1"		
360L	1-11/16"	7-1/2"	3"		
360T	1-11/16"	7-1/2"	1-13/16"		
374T	1-11/16"	7-1/2"	7/8"		
376T	1-11/16"	7-1/2"	7/8"		

LEVER STYLES

Standard Levers



01



02

- Knurling available



03

- Knurling available



05



06

- Default lever
- Suites with Schlage Rhodes
- Knurling available



07

- Suites with Schlage Athens



12

- Handed

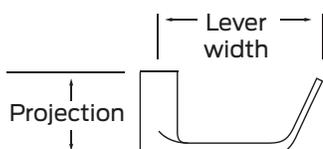


16

- Suites with Schlage Omega

Dimensions

Lever	Width	Projection
01	4.0"	2.1"
02	4.75"	2.3"
03	4.75"	2.813"
05	3.75"	2.8"
06	4.7"	2.1"
07	4.6"	2.3"
12	4.3"	2.9"
16	5.05"	2.66"



LEVER STYLES

Standard Levers



17

- Suites with Schlage Sparta
- Knurling available



18



Accent (ACC)

- Handed



Asti (AST)

- Handed



Merano (MER)

- Handed

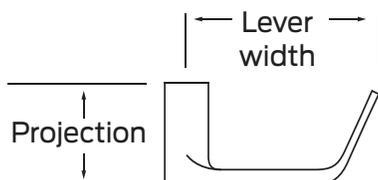


Latitude (LAT)



Longitude (LON)

Dimensions		
Lever	Width	Projection
17	4.7"	2.3"
18	4.75"	2.4"
Accent (ACC)	4.4"	3.1"
Asti (AST)	4.2"	2.5"
Merano (MER)	4.1"	2.5"
Latitude (LAT)	4.6"	2.3"
Longitude (LON)	4.9"	2.3"



LEVER STYLES

Decorative Levers



M51

- Knurling available



M52

- Knurling available



M53



M54



M55



M56



M57¹



M61

- Handed

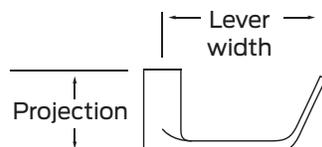


M62¹

- Handed

Dimensions

Lever	Width	Projection
M51	4.5"	2.5"
M52	4.5"	2.4"
M53	4.4"	2.4"
M54	4.4"	2.3"
M55	4.4"	2.7"
M56	4.5"	2.3"
M57	4.5"	2.7"
M61	4.5"	2.7"
M62	4.6"	2.4"



¹ Available in stainless steel substrate only

LEVER STYLES

Decorative Levers



M63

- Handed



M81

- Knurling available



M82



M83



M84



M85

- Handed



ME1¹

- Handed



ME2¹

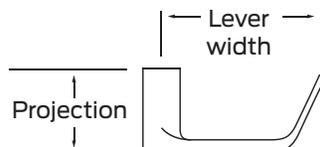
- Handed



ME3¹

Dimensions

Lever	Width	Projection
M63	4.6"	2.6"
M81	4.8"	2.5"
M82	4.9"	2.5"
M83	4.7"	2.25"
M84	5.1"	2.2"
M85	4.9"	2.7"
ME1	5.4"	2.6"
ME2	5.2"	2.4"
ME3	5"	2.8"



¹ Designed with Gensler as product design consultant

ELECTROMECHANICAL OPTIONS

Switches	
LX	Latch Bolt Monitoring <ul style="list-style-type: none"> Signals use of an opening SPDT switch to monitor latch bolt 2 A maximum @ 24VDC; below 50 mA @ 24VDC for low current option
RX	Request to Exit <ul style="list-style-type: none"> Signals use of an opening SPDT switch to monitor pushpad 2 A maximum @ 24VDC; below 50 mA @ 24VDC for low current option

Miscellaneous	
ALK	Alarm Exit Kit <ul style="list-style-type: none"> Unauthorized opening triggers 85-decibel horn Set in armed or disarmed mode by key Assembly includes both a 24VDC input and external inhibit
CON	Allegion Connect <ul style="list-style-type: none"> Common connectors to connect various door hardware all the way to the power supply
E360	Electric Locking and Unlocking Trim <ul style="list-style-type: none"> Remains latched while unlocked Remote electrical control Voltage: 24VDC (Continuous Duty) Current: 0.22 amps

Latch Retraction	
QEL	Quiet Electric Latch Retraction <ul style="list-style-type: none"> Bolt retraction via switch Converts exit door to push-pull operation Voltage: 24VDC Current: 1.0 A inrush (0.5 sec.) / 0.14 A holding

MECHANICAL OPTIONS

Dogging	
CD	Cylinder Dogging, Panic Only
HD	Hex Dogging, panic only
LD	Less Dogging
QEL	QEL options available

California Code	
AX	Accessible Device <ul style="list-style-type: none"> UL certified to meet new 5 lb. maximum operating force requirement Exceeds ANSI/BHMA requirements

Weatherized	
WH	Weep Holes <ul style="list-style-type: none"> Drainage (weep) holes in mechanism case

DEVICE OPTIONS MATRIX

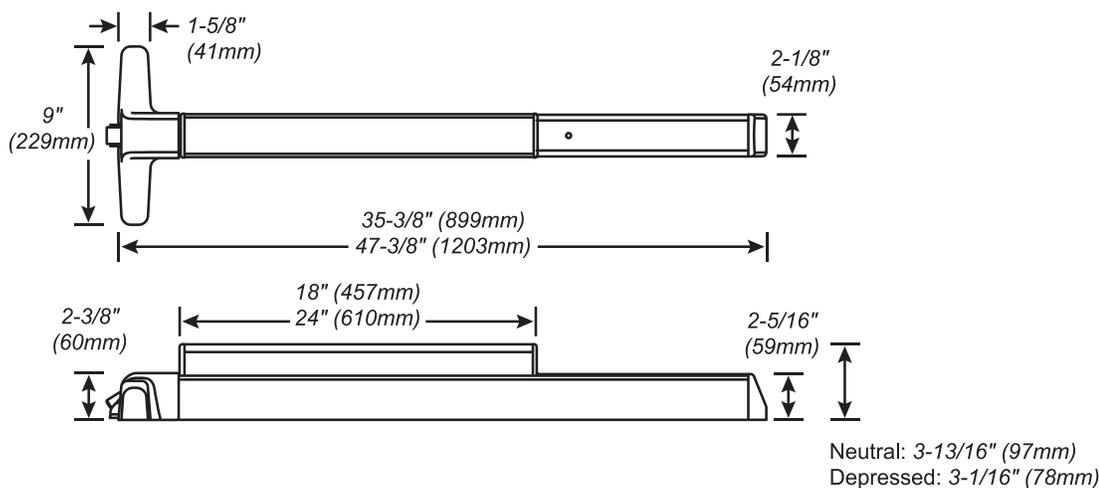
Matrix shows available options per device type, but does not represent compatibility across multiple options.

	Mechanical Options							E-Options					
	CD	HD	LD	WH	AX	LBR	F-LBR/AFL	LX	RX	QEL	ALK	CON	E-TRIM
75-R	•	•	•	•	•			•	•	•	•	•	•
75-R-F				•	•			•	•	•	•	•	•
7527	•	•	•	•		•		•	•	•	•	•	•
7527-F				•			•	•	•	•	•	•	•
7547	•	•	•	•		•		•	•	•	•	•	•
7547-F				•			•	•	•	•	•	•	•

SPECIFICATIONS

Accessibility	<ul style="list-style-type: none"> Force to depress push pad <ul style="list-style-type: none"> AX device: 5 lbs Standard device: 15 lbs Push pad projection <ul style="list-style-type: none"> Neutral: 3-13/16" (97mm) Depressed: 3-1/16" (78mm)
Certifications/Approvals	All Von Duprin 75 exit devices are ANSI/BHMA Certified. Please refer to the BHMA Certified Products Directory for specific listings.
Mounting Height	39-13/16" (1011mm) 39-11/16" (1008mm) with mullion
Warranty	36 months from the date of placing the product in operation

DIMENSIONS



78 Series

Exit Device



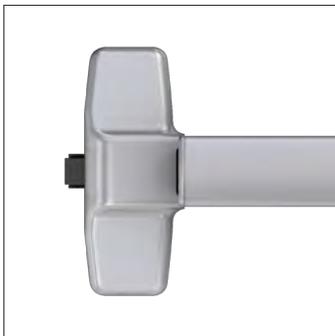
OVERVIEW

Mid-Priced, But Beyond Expectations

Enjoy the quality and trust you expect from Von Duprin at a mid-price option. Von Duprin 70 Series exit devices provide reliable performance and peace of mind for applications like warehouse, industrial, office, multifamily, retail, and commercial real estate spaces. The 78 series device is a wide-stile device available in a wide range of device types, lever designs, options, and finishes.

Von Duprin's 70 Series also can be configured with the Quiet Electric Latch Retraction (QEL) option, which provides electronic control of an exit device where limited operational noise is desired. Plus, quick shipping is an option for time-sensitive projects.

DEVICE TYPES



Rim device



27 Surface mounted vertical rod device



47 Concealed vertical rod device,
5/8" throw
5/8" top, 1-1/2" bottom throw

FINISHES



605
Bright Brass



606
Satin Brass



612
Satin Bronze



619
Satin Nickel



625
Bright Chrome



626
Satin Chrome



628
Aluminum, Clear
Anodized



630
Satin Stainless



643e
Aged Bronze

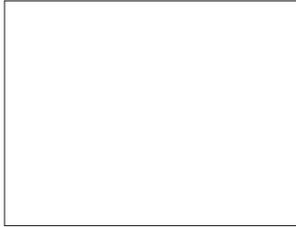


710
Dark Brown,
Anodized



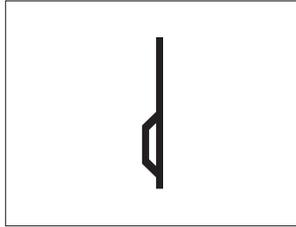
711
Matte Black

TRIM FUNCTIONS



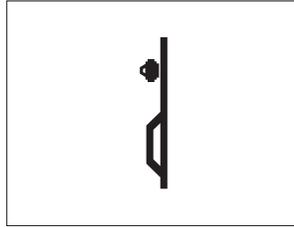
EO
No outside Trim

- Exit only



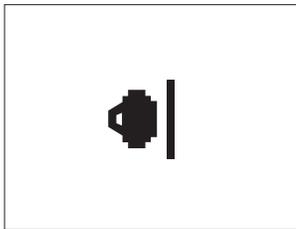
DT
Dummy Trim

- Pull when dogged
(not recommended for fire device)



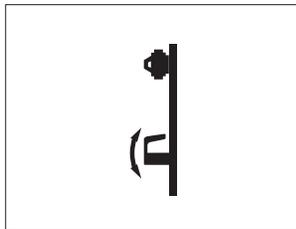
NL
Night latch

- Key retracts latch bolt
- Rim cylinder



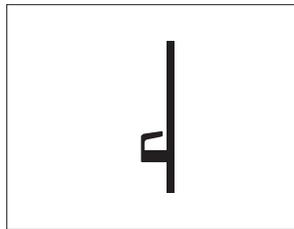
NLOP
Night latch

- Key retracts latch bolt, pull required
- Rim cylinder



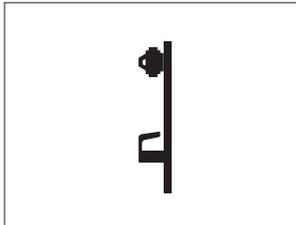
L
Lever

- Key locks and unlocks
- 1-1/4" mortise cylinder
- Handed, reversible lever
- Electrified lever operation available



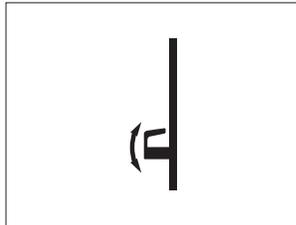
LDT
Lever, dummy trim

- Pull when dogged



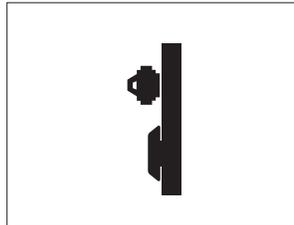
LNL
Lever, night latch

- Key retracts latch bolt
- 1-1/4" mortise cylinder
- Handed, reversible lever



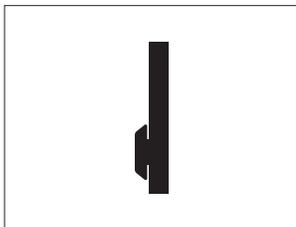
LBE¹
Lever, blank escutcheon

- Always operable (no cylinder)



TL
Turn lever

- Key locks and unlocks (use with DT trim)
- 1-1/4" mortise cylinder



TLBE
Turn lever, blank escutcheon

- Blank escutcheon always operable (no cylinder, use with DT trim)

TRIM STYLES



785 - EO/NL/DT



780 - L/L-BE/L-DT/L-NL



110MD/WD Trim



376T/T-BE



374T/T-BE

Dimensions				
Trim Style	Width	Height	Thickness	Projection
785	3"	14-3/16"	3/32"	2"
780	2-3/4"	10-3/4"	27/32"	2-7/8"
376T/T-BE	1-11/16"	7-1/2"	7/8"	2"
374T/T-BE	1-11/16"	7-1/2"	7/8"	2"

LEVER STYLES

Standard Levers



01



02

- Knurling available



03

- Knurling available



05



06

- Default lever
- Suites with Schlage Rhodes
- Knurling available



07

- Suites with Schlage Athens



12

- Handed

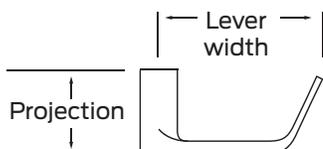


16

- Suites with Schlage Omega

Dimensions

Lever	Width	Projection
01	4.0"	2.1"
02	4.75"	2.3"
03	4.75"	2.813"
05	3.75"	2.8"
06	4.7"	2.1"
07	4.6"	2.3"
12	4.3"	2.9"
16	5.05"	2.66"



LEVER STYLES

Standard Levers



17

- Suites with Schlage Sparta
- Knurling available



18



Accent (ACC)

- Handed



Asti (AST)

- Handed



Merano (MER)

- Handed



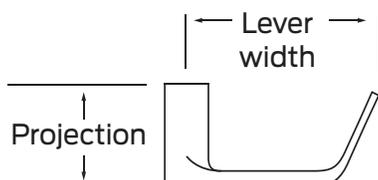
Latitude (LAT)



Longitude (LON)

Dimensions

Lever	Width	Projection
17	4.7"	2.3"
18	4.75"	2.4"
Accent (ACC)	4.4"	3.1"
Asti (AST)	4.2"	2.5"
Merano (MER)	4.1"	2.5"
Latitude (LAT)	4.6"	2.3"
Longitude (LON)	4.9"	2.3"



LEVER STYLES

Decorative Levers



M51

- Knurling available



M52

- Knurling available



M53



M54



M55



M56



M57¹



M61

- Handed

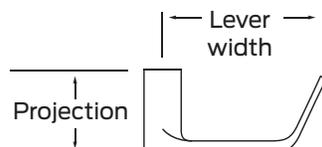


M62¹

- Handed

Dimensions

Lever	Width	Projection
M51	4.5"	2.5"
M52	4.5"	2.4"
M53	4.4"	2.4"
M54	4.4"	2.3"
M55	4.4"	2.7"
M56	4.5"	2.3"
M57	4.5"	2.7"
M61	4.5"	2.7"
M62	4.6"	2.4"



¹ Available in stainless steel substrate only

LEVER STYLES

Decorative Levers



M63

- Handed



M81

- Knurling available



M82



M83



M84



M85

- Handed



ME1¹

- Handed



ME2¹

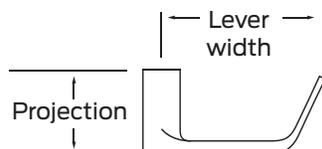
- Handed



ME3¹

Dimensions

Lever	Width	Projection
M63	4.6"	2.6"
M81	4.8"	2.5"
M82	4.9"	2.5"
M83	4.7"	2.25"
M84	5.1"	2.2"
M85	4.9"	2.7"
ME1	5.4"	2.6"
ME2	5.2"	2.4"
ME3	5"	2.8"



¹ Designed with Gensler as product design consultant

ELECTROMECHANICAL OPTIONS

Switches	
LX	Latch bolt Monitoring <ul style="list-style-type: none"> Signals use of an opening SPDT switch to monitor latch bolt 2 A maximum @ 24VDC; below 50 mA @ 24VDC for low current option
RX	Request to Exit <ul style="list-style-type: none"> Signals use of an opening SPDT switch to monitor pushpad 2 A maximum @ 24VDC; below 50 mA @ 24VDC for low current option

Miscellaneous	
ALK	Alarm Exit Kit <ul style="list-style-type: none"> Unauthorized opening triggers 85-decibel horn Set in armed or disarmed mode by key Assembly includes both a 24VDC input and external inhibit
CON	Allegion Connect <ul style="list-style-type: none"> Common connectors to connect various door hardware all the way to the power supply
E-780L	Electric Locking and Unlocking Trim <ul style="list-style-type: none"> Remains latched while unlocked Voltage: 24VDC (Continuous Duty) Current: 0.4 amps

Latch Retraction	
QEL	Quiet Electric Latch Retraction <ul style="list-style-type: none"> Bolt retraction via switch Converts exit door to push-pull operation Voltage: 24VDC Current: 1.0 A inrush (0.5 sec.) / 0.14 A holding

MECHANICAL OPTIONS

Dogging	
CD	Cylinder dogging, panic only
HD	Hex dogging, panic only
LD	Less dogging
QEL	QEL options available

Weatherized	
WH	Weep Holes <ul style="list-style-type: none"> Drainage (weep) holes in mechanism case

California Code	
AX	Accessible Device <ul style="list-style-type: none"> UL certified to meet new 5 lb. maximum operating force requirement Exceeds ANSI/BHMA requirements

DEVICE OPTIONS MATRIX

Matrix shows available options per device type, but does not represent compatibility across multiple options.

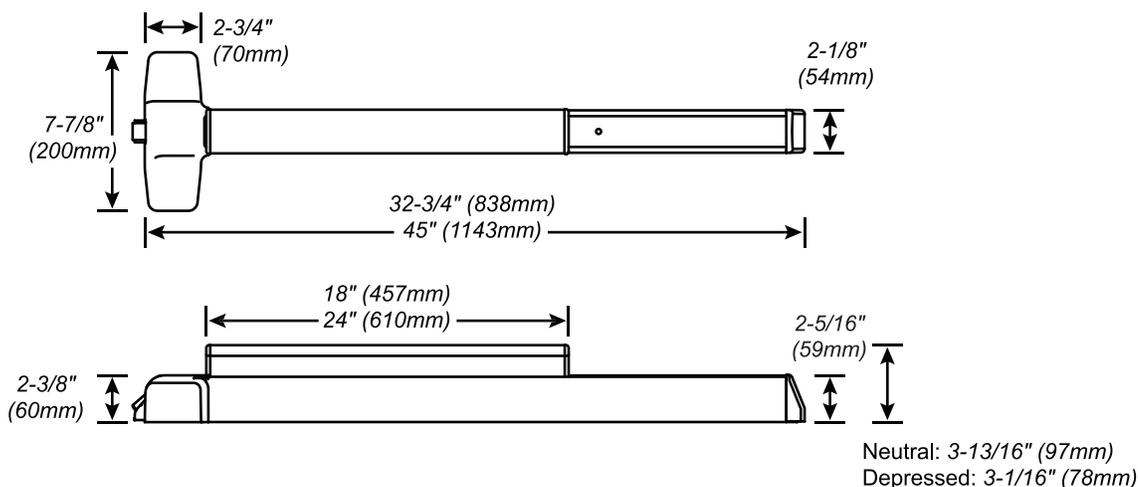
	Mechanical Options							E-Options					
	CD	HD	LD	WH	AX	LBR	F-LBR/ AFL	LX	RX	QEL	ALK	CON	E-TRIM
78-R	•	•	•	•	•			•	•	•	•	•	•
78-R-F				•	•			•	•	•	•	•	•
7827	•	•	•	•	•	•		•	•	•	•	•	•
7827-F				•	•		•	•	•	•	•	•	•
7847	•	•	•	•		•		•	•	•	•	•	•
7847-F				•			•	•	•	•	•	•	•

LBR

SPECIFICATIONS

Accessibility	<ul style="list-style-type: none"> Force to depress push pad <ul style="list-style-type: none"> AX device: 5 lbs Standard device: 15 lbs Push pad projection <ul style="list-style-type: none"> Neutral: 3-13/16" (97mm) Depressed: 3-1/16" (78mm)
Certifications/Approvals	All Von Duprin 78 exit devices are ANSI/BHMA Certified. Please refer to the BHMA Certified Products Directory for specific listings.
Mounting Height	39-13/16" (1011mm) 39-11/16" (1008mm) with mullion
Warranty	36 months from the date of placing the product in operation

DIMENSIONS



VON DUPRIN®

33A/35A™
Series

Exit devices



Introduction

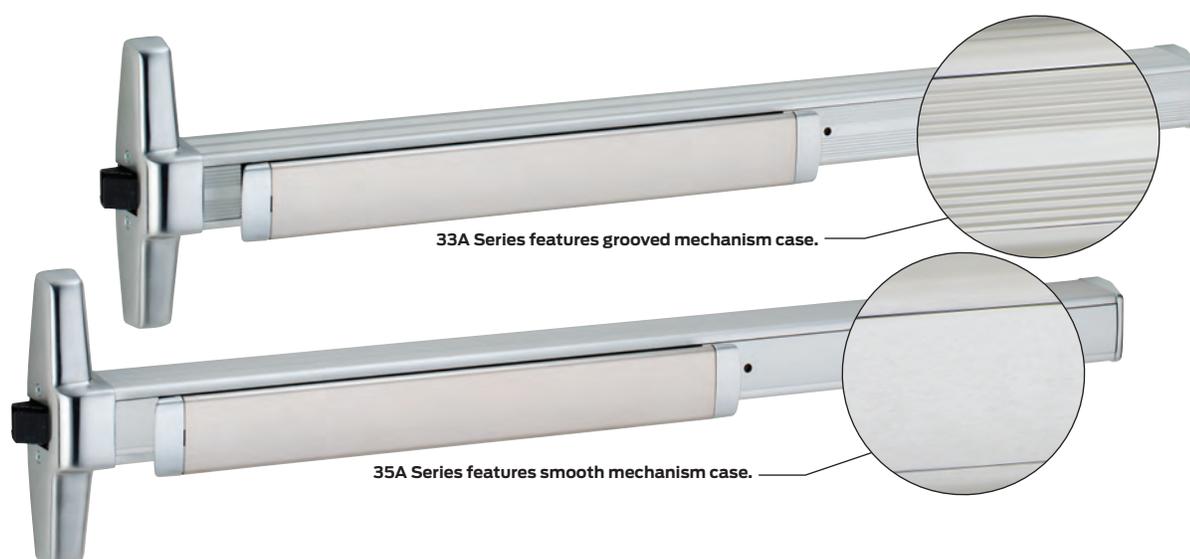
Invest in longevity

Von Duprin® devices are engineered to add value over time. The robust materials and unique engineering add to the longevity, while the flexible design improves the value. The universal center case allows users to change or upgrade features on their current device as security needs evolve.

The 33A/35A Series is a narrow stile push pad device popular for its vast application coverage. With many field configurable and upgradeable solutions available, it's easy to enhance the functionality of an existing device. Mechanical and electronic options include quiet electric latch retraction, delayed and controlled egress, concealed vertical cables and security indicators. It's one way Von Duprin protects its customers' investments long into the future.

Passion driving performance

With superior products comes exceptional customer care. Von Duprin customers are supported by industry-leading expertise. Allegion's representatives average more than 15 years of experience, so you're assured to receive knowledgeable advice on fire and life safety codes, installation resources and more. And for those looking to take their skills to the next level, Allegion offers instructor-led workshops, videos and online courses. It's another way Von Duprin stands by our customers—today, tomorrow and for years to come.



Von Duprin pushpad exit devices are available in two external surface styles, designated 33A Series and 35A Series. The two styles are mechanically and dimensionally identical and provide a wide selection of appearance options.

The Quiet One®

A fluid damper decelerates the pushpad on its return stroke and eliminates most noise associated with exit device operations. Furnished on all 33A/35A Series exit devices.



VON DUPRIN
Administrative Offices
2720 Tobey Dr.
Indianapolis, IN 46219

Customer Service
877-671-7011
800-999-0328 - Fax

Technical Support
877-671-7011

Options and accessories

Applications & trim operation	Trim selection Optional trim
Trim options	Optional levers Optional trim Trim selection Operation options
Strike options	Optional strikes
Additional information	ANSI Grade, type & function Device dimensions Finishes Fire label ratings/applications Handing How-to-order information Nomenclature Popular double door applications Minimum stile information

Symbols

 Indicates fire rated application  Indicates ADA products

Electrical options	ALK Exit alarm kit CX Chexit delayed exit RX Request to exit WP-RX Request to exit E-Trim LX Latch bolt monitoring EL Electric latch retraction QEL Electric latch retraction SS Signal switch PN Pneumatic LBR/LBL Less bottom rod/latch PL Pullman Latch RG-27 Vertical rod and latch guard Dummy pushpad CD Cylinder dogging CDK, HDK Cylinder dogging and Hex key dogging kits GBK Glass bead kit Cylinders CON Allegion Connect
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Electrical accessories	Power supplies PS902 PS914 EPT Electric power transfer
-------------------------------	---

How to order information

Rim devices, specify:

- Exit device model number with trim selection. Examples: 33A-EO (exit only with no outside trim). 33A-NL (includes 386NL trim). 33A-NL-OP (includes the 388 trim less pull).
- Size 4' (1219mm) for door sizes 2' 10" (940mm) to 4' (1219mm). Size 3' (914mm) for door sizes 2' 4" (792mm) to 3' (914mm) is shipped standard.
- Door thickness if other than 1 3/4" (44mm).
- Door and frame material if other than aluminum.
- Finish, see page 38.
- Handing required on "L", "SS", or "386NL". Specify LHR or RHR. See page 7.

Vertical rod devices, specify:

- Exit device model number with trim selection. Examples: 3327A-EO (exit only with no outside trim.) 3327A-TL-OP (includes 360T Control) 3327A-TL (includes 374T and 386DT).
- Size 2' (1219mm) for door sizes 2' (610mm). Size 3' (914mm) for door sizes 2' 2" (792mm) to 3' (914mm) is shipped standard. Size 4' (1219mm) for door sizes 2' 8" (940mm) to 4' (1219mm).
- Door thickness if other than 1 3/4" (44mm).
- Door height if greater than 7' (2134mm) surface vertical rod device (8' 4" for concealed devices) or extension rods will be supplied.
- Door and frame material if other than aluminum or hollow metal.
- Finish, see page 38.
- Handing required on "L", "SS", or "386NL". Specify LHR or RHR. See page 7.

Pullman latches are optional for 3327A/3527A and 3347A/3547A devices. Latchbolts remain extended at all times. Specify "Pullman Latch" when required.

Device trim, cross-reference*:

33/35 Devices	Status	33A/35A Devices
333NL-TP	Replaced	386NL
333DT	Replaced	386DT
337NL-TP	Replaced	386NL
337DT	Replaced	386DT
334	Replaced	388
334 x 550	Replaced	388 x 550
370L	Replaced	360L
370T	Replaced	360T
372L	Replaced	360L
374T x 333DT	Replaced	374T x 386DT
—	New	374T x 392-6
376T x 337DT	Replaced	376T x 386DT
—	New	376T x 392-6
3308NL	Obsolete	—
3308DT	Obsolete	—
—	New	388 x Ives 8190 Series Pull
—	New	360T x Ives 8190 Series Pull

*New trims not compatible with old devices, neither are old trims with new devices.

Nomenclature – how to order

		EL	33	27A	-L	-16	-F	LBR	3'	US3	RHR
CD	Cylinder dogging - panic only										
CX	Chexit delayed egress										
EL	Electric latch retraction										
HD-EL	Electric latch retraction with hex dogging										
QEL	Quiet electric latch										
HH	Hurricane										
LD	Less dogging										
LX	Latchbolt monitoring										
LX-LC	Latch bolt monitor low current										
LX-RX	Latchbolt monitor / request to exit										
LX-RX-LC	Latchbolt monitor / request to exit low current										
PL	Pullman latch										
PN	Pneumatic										
RX	Request to exit										
RX-LC	Request to exit low current										
RX2	Request to exit double switch										
SS	Signal switch										
AX	Accessible device										
WP-RX	Waterproof request to exit										
35A	Series 35A-smooth										
33A	Series 33A-grooved										
A	Rim device										
27A	Surface mounted vertical rod device										
47A	Concealed vertical rod device										
48A	Concealed vertical rod device										
49A	Concealed vertical cable device										
DT	Dummy trim										
EO	Exit only										
L	Lever (classroom)										
L-BE	Lever-blank escutcheon (passage)										
L-DT	Lever-dummy trim										
NL	Night latch (key retracts latchbolt)										
NL-OP	Night latch cylinder assembly – optional pull										
T	Thumbturn										
TL	Turn Lever										
T-BE	Thumbturn-blank escutcheon										
TL-BE	Turn Lever-blank escutcheon (Passage)										
XX	Lever Style 06 standard Optional 01, 02, 02KN, 03, 03KN, 05, 06KN, 07, 12 (handed), 16, 17, 17KN, 18, ACC, AST, MER, STA										
F	Fire Exit Device - Rim, 27A, 47A, 48A, 49A Only										
LBR	Less Bottom Rod										
LBL	Less Bottom Latch										
ALK	Standard Alarm Kit										
CON	Allegion Connect										
2'	2' Device (2' Door Size) 27A, 47A or 49A only										
3'	3' Device (2' 4"– 3' Door Size)										
4'	4' Device (2' 10"– 4' Door size)										
Finishes	US3, US4, US10, US15 (35A only), US26, US26D, US26D-AM, US28, 313, 315										
HR	Handing – RHR or LHR										

Lever styles

Decorative Levers



M51
Knurling available



M52
Knurling available



M53



M54



M55



M56



M57¹



M61
(Handed)



M62¹
(Handed)



M63
(Handed)



M81
Knurling available



M82



M83



M84



M85
(Handed)



ME1²
(Handed)



ME2²
(Handed)



ME3²

1. Available in Stainless Steel substrate ONLY.
2. Designed with Gensler as product design consultant.

Standard Levers



01



02
Knurling available



03^{*}
Knurling available



05



06^{*}
Default lever
Knurling available



07



12
(Handed)



16
(Omega)



17^{*}
Knurling available



18



ACC
(Accent)
(Handed)



AST
(Asti)
(Handed)



MER
(Merano)
(Handed)

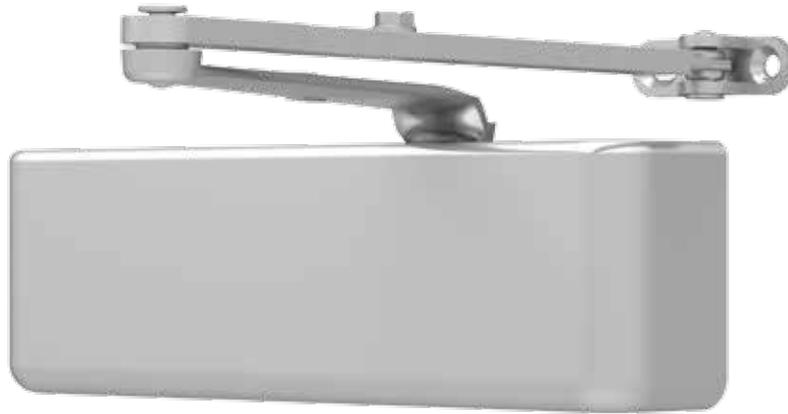


LAT^{*}
Latitude



LON^{*}
Longitude

* Available in stainless steel - specify SS when ordering.

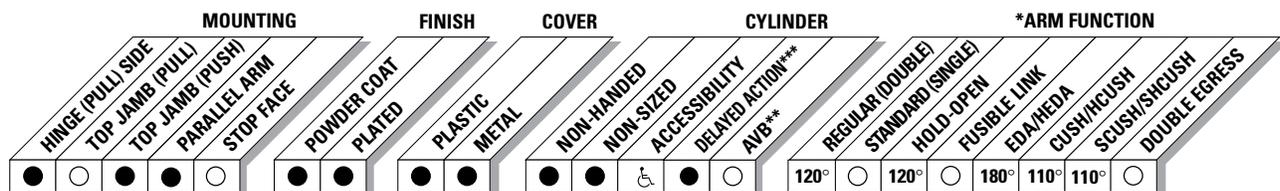


The 4040XP is LCN's most durable and flexible heavy duty closer designed for institutional and other demanding high traffic applications.

Certifications	Grade 1 - ANSI A156.4, UL 10C, ADA, 100 Hour Salt Spray, Meets BAA - Buy American Act	Cover	<ul style="list-style-type: none"> Plastic, Standard Metal, Optional
Body Construction	<ul style="list-style-type: none"> Cast Iron Body Full Complement Bearings 1-1/2" Diameter Piston 3/4" Diameter Double Heat Treated Pinion Journal 	Fasteners	Self Reaming and Tapping Screws (SRT)
Fluid	All Weather Liquid X Fluid	Mounting	Hinge (Pull Side), Top Jamb (Push Side), Parallel Arm (Push Side)
Handing	Non-Handed	Arms	Regular Arm
Templating	Peel-n-Stick templates - 2-1/4" x 5" Mounting Hole Pattern	Finishes/Colors/Powder Coat	<ul style="list-style-type: none"> Aluminum (689) Statuary Bronze (690) Light Bronze (691) Black (693) Dark Bronze (695) Brass (696) Custom colors optional
Size	Adjustable Spring Size 1-6, includes Patented Green Dial		<ul style="list-style-type: none"> Optional SRI primer - powder coat only Optional plated finishes
Warranty	30 years		

Special Templates

Customized installation templates or products may be available to solve unusual applications. Contact LCN Product Support for assistance.



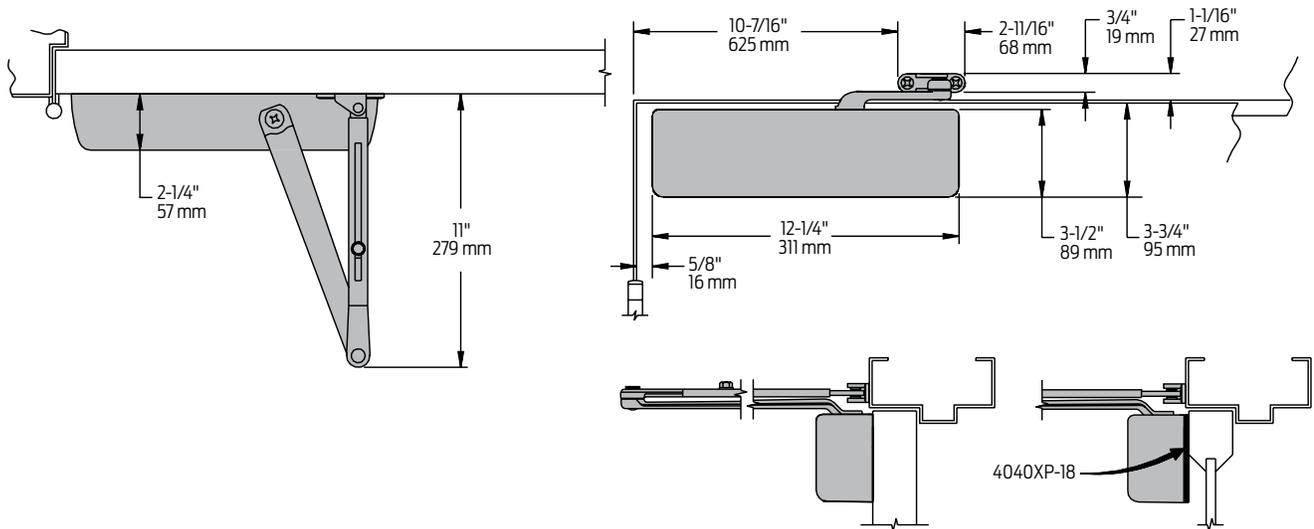
● AVAILABLE
○ NOT AVAILABLE

♿ Closer available with less than 5.0 lbs. opening force on 36" door.
 * Maximum opening/hold-open point with standard template.
 ** Advanced Variable Backcheck.
 *** Delay feature incorporates standard 4040 cylinder (not XP).

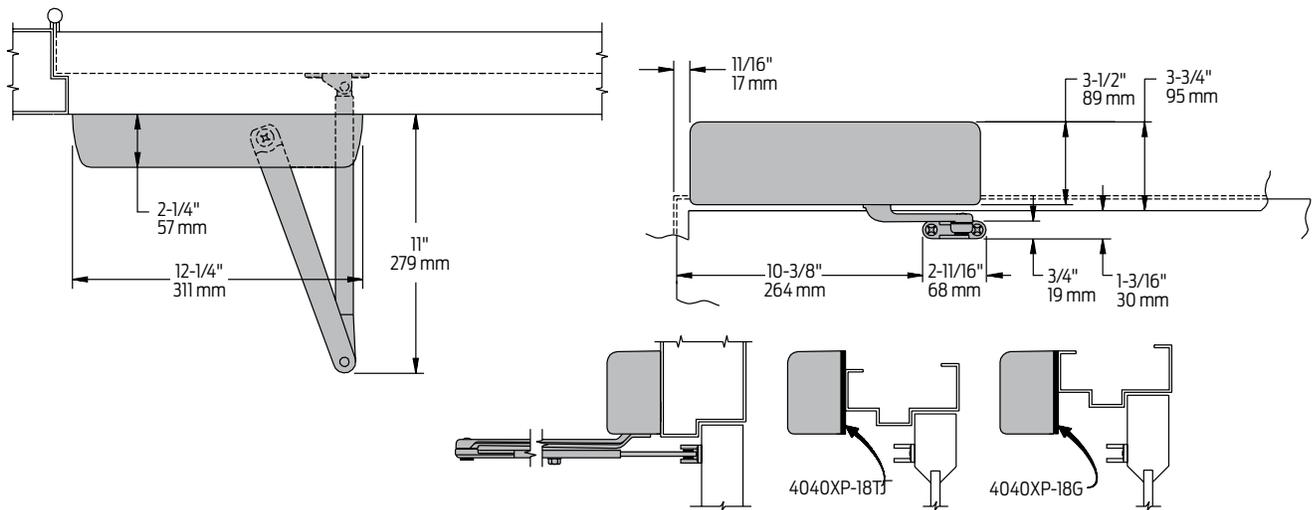
4040XP Series

Mounting details

Hinge (Pull Side) Mounting



Butt Hinges	<ul style="list-style-type: none"> Should not exceed 5" (127 mm) in width
Auxiliary Stop	<ul style="list-style-type: none"> Recommended at hold-open point or where a door cannot swing beyond 120°
Reveal	<ul style="list-style-type: none"> Should not exceed 3/4" (19 mm) for regular arm or hold-open arm
Top Rail	<ul style="list-style-type: none"> Less than 3-3/4" (95 mm) requires PLATE, 4040XP-18. Plate requires 2" (51 mm) minimum
Clearance	<ul style="list-style-type: none"> 2-3/8" (60 mm) behind door required for 90° installation
Delayed Action	<ul style="list-style-type: none"> Incorporates standard 4041 cylinder, without XP cylinder Delays closing from 120° to 70° Delay time adjustable up to approximately 1 minute
Maximum Opening	<ul style="list-style-type: none"> Templating allows up to 120°. Hold-open points 90° up to 120° with hold-open arm.

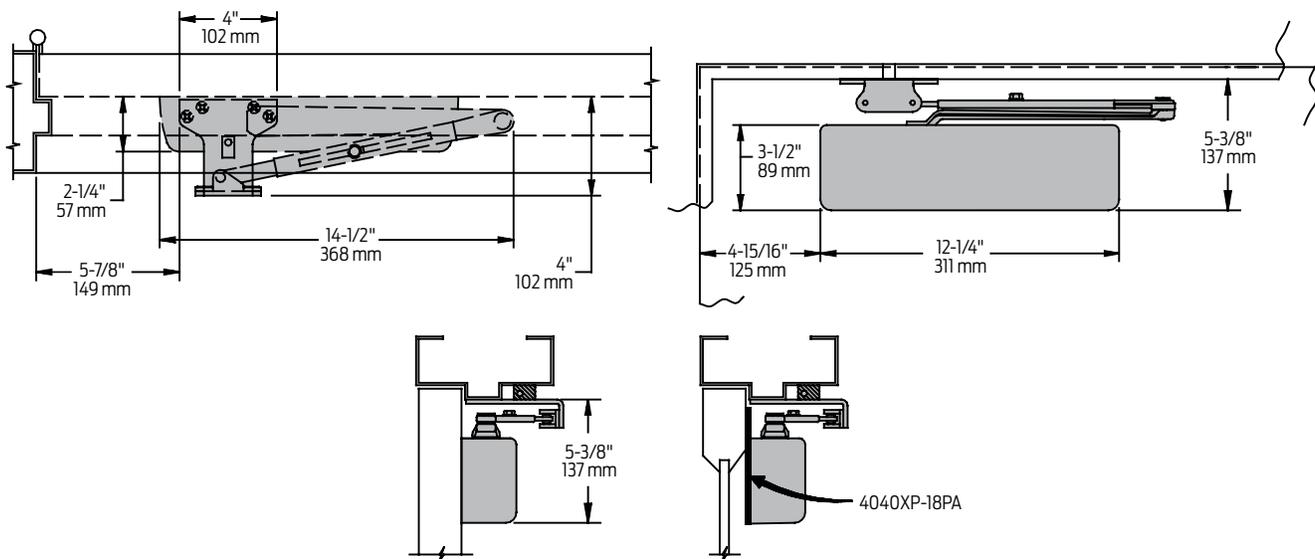


Butt Hinges	Should not exceed 5" (127 mm) in width		
Auxiliary Stop	Recommended at hold-open point or where a door cannot swing beyond 120°		
Reveal	Arm Type	Reveal	Max Opening
	Regular Arm	2-9/16"	Up to 120°
	Long	4-13/16"	Up to 120°
	Hold-Open	2-9/16"	Up to 120°
	Long Hold-Open Arm	8"	Up to 120°
Top Rail	<ul style="list-style-type: none"> Requires 1-1/4" (32 mm) minimum 2-1/4" (57 mm) minimum with closer on PLATE, 4040XP-18TJ 3" (76 mm) minimum with closer on PLATE, 4040XP-18G 		
Head Frame	<ul style="list-style-type: none"> Less than 3-1/2" (89 mm) requires PLATE, 4040XP-18TJ With flush ceiling, use PLATE, 4040XP-18G. Either plate requires 1-3/4" (44 mm) minimum 		
Maximum Opening	<ul style="list-style-type: none"> Templating allows up to 120°. Hold-open points 85° up to 120° with hold-open arm. 		
Delayed Action	<ul style="list-style-type: none"> Incorporates standard 4041 cylinder, without XP cylinder Delays closing from 120° to 70° Delay time adjustable up to approximately 1 minute 		

4040XP Series

Mounting details

Parallel Arm (Push Side) Mounting

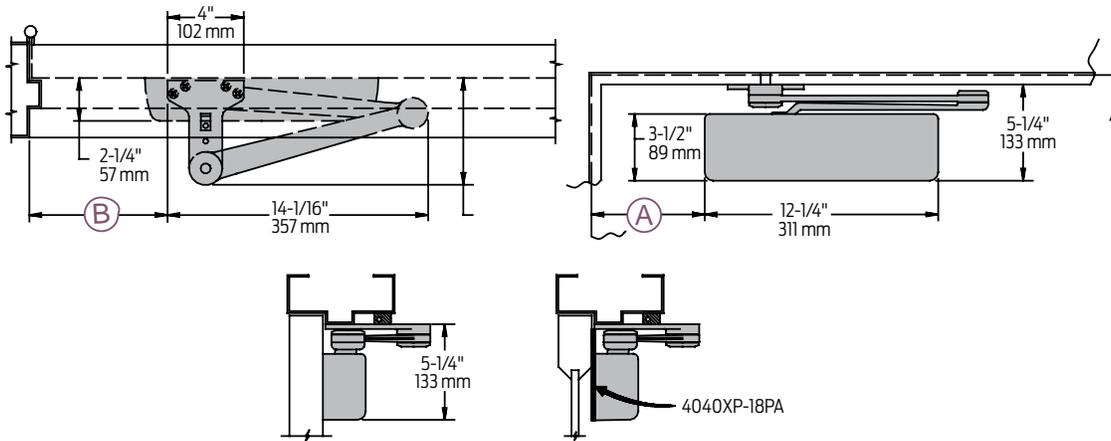


Butt Hinges	Should not exceed 5" (127 mm) in width
Auxiliary Stop	Recommended at hold-open point, where the door cannot swing 180°, or where CUSH-N-STOP arm is not used
Reveal	Should not exceed 7/32" (6 mm)
Top Rail	Less than 5-3/8" (137 mm) measured from the stop requires PLATE, 4040XP-18PA. Plate requires 2" (51 mm) minimum from the stop
Head Frame	Flush or rabbeted requires PA SHOE ADAPTER, 4040XP-419
Stop Width	Minimum 1" (25 mm). CUSH arm requires minimum 1-1/2" (38 mm)
Blade Stop	Clearance requires 1/2" (13mm) BLADE STOP SPACER, 4040XP-61.
Clearance	<ul style="list-style-type: none"> 4040XP-62PA shoe is 4" (102 mm) from door face. EDA shoe projects 5-1/2" (140 mm) from door face. CUSH shoe projects 6" (152 mm) from door face
Delayed Action	<ul style="list-style-type: none"> Incorporates standard 4041 cylinder, without XP cylinder Delays closing from 120° to 70°. Delay time adjustable up to approximately 1 minute.
Maximum Opening	<ul style="list-style-type: none"> 180° opening/hold-open points with all except CUSH arms 110° opening/hold-open with CUSH arms

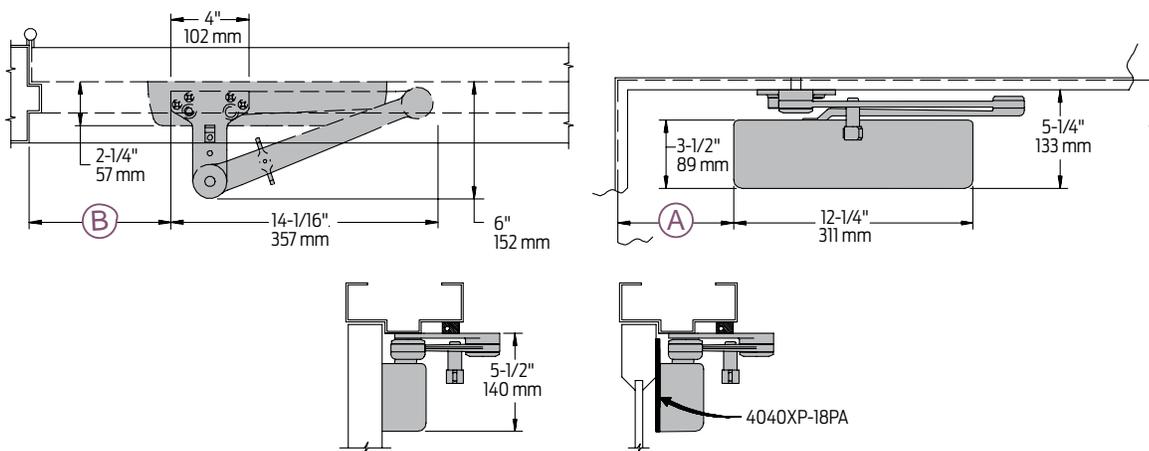
Notes:

- Optional mounting requires PA SHOE, 4040XP-62PA for regular or HOLD-OPEN arms
- Add prefix "P" to closer description (eg. P4040XP)
- P4040XP closer includes 4040XP-201 FIFTH HOLE SPACER to support PA SHOE

EDA mount



CUSH mount



Clearance	4040XP-62EDA is 5-1/2" (140 mm) from door face. 6" (152 mm) for CUSH	
Head Frame	Flush or rabbeted requires CUSH FLUSH PANEL ADAPTER, 4040XP-419	
CUSH ARM	Requires SHOE SUPPORT, 4040XP-30 for fifth screw anchorage where reveal is less than 3-1/16" (78 mm)	
Delayed Action	<ul style="list-style-type: none"> ■ Incorporates standard 4041 cylinder, without XP cylinder. ■ Delays closing from maximum opening to ; 115° with 180° template, 95° with 110° template, 85° with 100° template, 75° with 90° template. Delay time adjustable up to approximately 1 minute. 	
Maximum Opening	EDA arm can be templated for points at:	CUSH arms can be templated for opening/hold-open point at:
	110°: A = 6-3/8" (162 mm) B = 7-3/4" (197 mm)	85°: A = 7-15/16" (202 mm) B = 9-1/8" (232 mm)
	or 180°: A = 2-7/8" (73 mm) B = 4-1/4" (108 mm)	90°: A = 7-3/16" (183 mm) B = 8-1/2" (216 mm)
	Hold-open points up to maximum opening with HEDA arm	100°: A = 6-1/16" (154 mm) B = 7-1/4" (184 mm)
		or 110°: A = 5-1/16" (129 mm) B = 6-3/8" (162 mm)

Notes:

- 4040XP Series closers ordered with EDA or CUSH arms include 4040XP-201 FIFTH HOLE SPACER to support the shoe
- Spring Cush stop points are approximately 5° more than templated stop point
- Hold open at templated stop points

Cylinders



4040XP-3071
Cast Iron Cylinder Assembly

- Non-handed
- Heavy duty



4041-3071 DEL
Cast Iron Cylinder Assembly

- Used for delayed action closing
- Non-handed
- Heavy duty

Covers



4040XP-72
Plastic Cover

- Includes 4040XP-54 snap-on cover clip
- Non-handed
- Standard



4040XP-72MC
Metal Cover

- Handed
- Required for plated finishes and custom powder coat finishes
- Optional

Installation Accessories



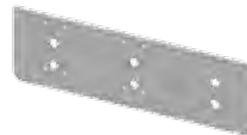
4040XP-18
Plate

- Required for hinge side mount where top rail is less than 3-3/4" (95 mm)
- Requires minimum 2" (51 mm) minimum top rail



4040XP-18G
Plate

- Locates top jamb mounted closer flush with top of head frame face in flush ceiling condition
- Requires 1-3/4" (44 mm) minimum head frame



4040XP-18TJ
Plate

- Centers top jamb mounted closer vertically on head frame where face is less than 3-1/2" (89 mm). Plate requires 1-3/4" (44 mm) minimum head frame



4040XP-18PA
Plate

- Required for parallel arm mounting where top rail is less than 5-1/2" (140 mm), measured from the stop
- Requires 2" (51 mm) minimum top rail



4040XP-62PA
PA Shoe

- Required for parallel arm mounting

Arms

4040XP Series

Accessories



4040XP-3077
Regular Arm

- Non-handed
- Mounts pull side or top jamb with shallow reveal P4041 closer includes PA SHOE, 4040XP-62PA required for parallel arm mounting



4040XP-3077L
Long Arm

- Non-handed
- Includes LONG ROD AND SHOE, 4040XP-79LR for top jamb mount
- Optional



4040XP-3077ELR
Extra Long Arm

- Non-handed
- Includes EXTRA LONG ROD AND SHOE, 4040XP-79ELR for top jamb mount with deep reveal
- Optional



4040XP-3049
Hold-Open Arm

- Non-handed
- Mounts pull side or top jamb with shallow reveal, hold-open adjustable shoe
- 4040XP closer includes 4040XP-62PA shoe required for parallel arm mounting
- Optional



4040XP-3049L
Long Hold-Open Arm

- Non-handed
- Includes LONG HEAD AND TUBE, 4040XP-3048L for top jamb mount
- Optional



4040XP-3077EDA
Extra Duty Arm

- Non-handed
- Features forged, solid steel main and forearm for potentially abusive installations
- Optional



4040XP-3049EDA
Hold-Open Extra Duty Arm

- Handed
- Parallel arm features forged, solid steel main and forearm for potentially abusive installations
- Hold-open function is adjusted at the shoe
- Optional



4040XP-3077EDA/62G
Extra Duty Arm with 62G

- Non-handed
- Features forged, solid steel main and forearm for potentially abusive installations
- 62G shoe provides additional blade stop clearance
- Optional



4040XP-3049EDA/62G
Hold-Open Extra Duty Arm with 62G

- Handed
- Features forged, solid steel main and forearm for potentially abusive installations
- 62G shoe provides additional blade stop clearance. Hold-open function is adjusted at the shoe
- Optional



4040XP-3077CNS
Cush-N-Stop[®] Arm

- Non-handed
- Features solid forged steel main arm and forearm with stop in soffit shoe.
- Optional



4040XP-3049CNS
HCUSH Arm

- Non-handed
- Hold-open function with templated stop/hold-open points
- Handle controls hold-open function
- Optional



4040XP-3077SCNS
Spring CUSH Arm

- Non-handed
- For abusive applications features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe
- Optional



4040XP-3049SCNS
Spring HCUSH Arm

- Non-handed
- For abusive applications features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe
- Handle controls hold-open function
- Optional

Installation Accessories cont.



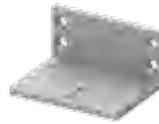
4040XP-30
CUSH Shoe Support

- Provides anchorage for fifth screw used with CUSH arms, where reveal is less than 3-1/16" (78 mm)
- Optional



4040XP-61
Blade Stop Spacer

- Required to lower parallel arm shoe to clear 1/2" (13 mm) blade stop
- Optional



4040XP-419
PA Flush Panel Adapter

- Provides horizontal mounting surface for parallel arm shoe on single rabbeted or flush frame
- Optional



4040XP-62A
Auxiliary Shoe

- Requires a top rail of 7" (178 mm)
- Shoe replaces -62PA for parallel arm mounting of regular arm with overhead holder/stop
- Optional



4040XP-54
Snap-On Cover Clip

- Used to secure 4040XP-72 Plastic Cover to cylinder body

How-to-order 4040XP Series closers

1. Select finish

- Standard Powder Coat _____
Aluminum, Dark Bronze, Statuary,
Light Bronze, Black, Brass.

Closer will be shipped with:

- Standard cylinder
- Standard cover
- Regular arm
- Self-reaming and tapping screws
unless options listed below are selected.

Closer options

Cylinder

- Delayed Action (4041 DEL)

Cover

- Metal (specify right or left hand) (MC)

Finish

- Custom Powder Coat (RAL) _____
(handed metal cover required)
- Plated Finish, US _____
(handed metal cover required)
- SRI primer (use with powder coat finishes only)

Arm

- Regular (REG)
- Regular w/62PA (Rw/PA)
- Regular w/62A (R/62A)
- Long (LONG)
- Extra Long (XLONG)
- Hold-Open (H)
- Hold-Open w/62PA (Hw/PA)
- Long Hold-Open (HLONG)
- Extra Duty Arm (EDA)
- Extra Duty Arm with 62G (EDA/62G)
- Hold Open Extra Duty Arm (HEDA)
(Handed)
- Hold Open Extra Duty Arm with 62
(HEDA/62G)(Handed)
- Cush-N-Stop (CUSH)
- HCush-N-Stop (HCUSH)
- Spring Cush (SCUSH)
- Spring HCush (SHCUSH)

Optional Screw Packs

- TB* w/Self-Reaming and Tapping (TBSRT)
- Wood & Machine Screw (WMS)
- TB*, Wood & Machine Screw (TBWMS)
- TORX Machine Screw (TORX)
- TB* & TORX Machine Screw (TBTRX)
* Specify door thickness if other than
1-3/4".

Installation Accessories

- Plate, 4040XP-18
- Plate, 4040XP-18TJ
- Plate, 4040XP-18G
- Plate, 4040XP-18PA
- CUSH Shoe Support, 4040XP-30
- Blade Stop Spacer, 4040XP-61
- Auxiliary Shoe, 4040XP-62A
- PA Flush Panel Adapter, 4040XP-419

Special Template

- ST- _____

Table of sizes

- 4040XP cylinders are adjustable from size 1 through size 6 and is shipped set to size 3
- Closing power of 4040XP Series closers may be adjusted 50%

Exterior (and vestibule) door width



Interior door width



→ Indicates recommended range of door width for closer size. *Adjustable Size 1 thru 6.

Reduced opening force 4040XP Series closers

CAUTION! Any manual door closer, including those certified by BHMA to conform to ANSI Standard A156.4, that is selected, installed and adjusted based on ADA or other reduced opening force requirements may not provide sufficient power to reliably close and latch a door.

Refer to POWER OPERATORS section for information on systems that meet reduced opening force requirements without effecting closing power.

	DOOR WIDTH	36"	42"	48"
	8.5* lbs.	4040XP	4040XP	4040XP
5.0* lbs.	4040XP	4040XP	4040XP	

* Maximum opening force.



Surface mounted closer

4110 Series

Overview

The 4110 is LCN's best performing heavy duty closer with an adjustable spring and possible hold-open point beyond 140 degrees, meeting ADA requirements. Backed by a 30 year warranty, the cast iron body and all weather fluid offer versatility in high traffic applications.



Cylinder

4111(6)-3071

Cast iron cylinder assembly

Handing

Handed

Sizing

Adjustable spring size 1-5, or sized 6

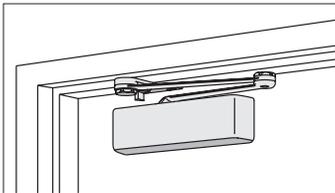
Includes patented Green Dial

- 4111 (adjustable from size 1 to 5)
- 4116 (Size 6; DEL, SHCUSH or HCUSH arm not available)

Available cylinder options

DEL	Delayed action cylinder
AVB	Advanced variable backcheck

Mounting



Parallel arm (push side)

Finishes

Powder coat finishes



689
Aluminum



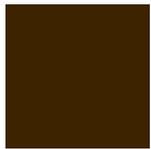
690
Statuary Bronze



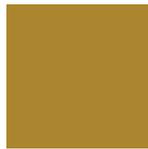
691
Light Bronze



693
Black



695
Dark Bronze



696
Brass

150+ additional custom colors available using the RAL numbering system

Metal plated finishes



632
Bright Brass



633
Satin Brass



639
Satin Bronze



616
Satin Bronze,
Blackened



646
Satin Nickel



651
Bright Chrome



652
Satin Chrome

Available finish options

MTLPC	Brite metallic: Custom powder coat finish, which resembles that of 651 or 652 plated finish.
SRI	For installations where a higher level of protection against weather conditions, or the effects of a potentially corrosive atmosphere is required, LCN offers a special rust inhibiting (SRI) process. Ferrous metal components receive an SRI pretreatment and a standard powder coat finish of your choice, or a custom powder coat finish for a nominal additional cost. Closers treated with the SRI process exceed the 100 hour protection level available with standard LCN powder coated finishes.

Covers

Standard cover



4110-72

Plastic cover

- Non-handed
- Standard

Optional cover



4110-72MC

Metal cover

- Handed
- Required for plated finishes and custom powder coat finishes
- Optional

Arms



4110-3049EDA
Hold-open arm

- Handed
- Optional
- Provides hold-open function, adjustable at shoe



4110-3049FL
Fusible link arm

- Handed
- Releases hold-open function adjustable at shoe when exposed to temperatures above 165° F
- Optional
- NOTE: Check local codes before specifying FL arms. NOT A life safety product!



4110-3077CNS
Cush-N-Stop arm

- Non-handed
- Features solid forged steel main arm and forearm with built-in stop in soffit shoe



4110-3077EDA
Extra duty arm

- Non-handed
- Features forged, solid steel main and forearm for potentially abusive installations



4110-3077EDA/ 62G
Extra duty arm

- Non-handed
- Features forged, solid steel main and forearm for potentially abusive installations
- Optional 4110-62G thick hub shoe for blade stop clearance



4110-3049CNS
HCUSH arm

- Non-handed
- Provides hold-open function with templated stop/ hold-open points.
- Handle controls hold-open function



4110-3077SCNS
Spring CUSH arm

- Non-handed
- For abusive applications features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe
- Optional



4110-3049SCNS
Spring HCUSH arm

- Non-handed
- For abusive applications features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe
- Handle controls hold-open function
- Optional

Installation accessories



4110-18

Plate

- Required for push side mount where top rail is less than 5 1/8" (130 mm), measured from the stop
- Requires minimum 2" (51 mm) minimum top rail



4110-30

CUSH shoe support

- Provides anchorage for fifth screw used with CUSH arm, where reveal is less than 3 1/16" (78 mm)



4110-61

Blade stop spacer

- Lowers parallel arm shoe to clear 1/2" (13 mm) blade stop



4110-419

PA flush panel adapter

- Provides horizontal mounting surface for CUSH shoe on single rabbetted or flush frame

Fasteners

Self-reaming and tapping screws included standard

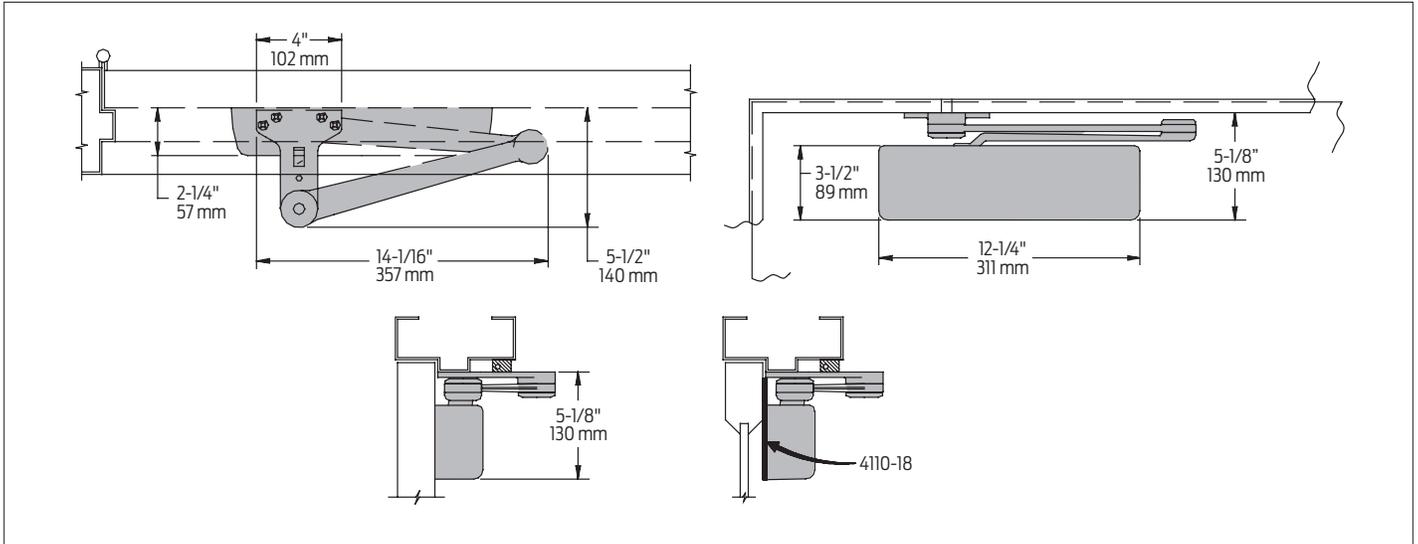
Fastener pack options

TBSRT	TB ¹ with self-reaming and tapping screws
WMS	Wood and machine screw
TBWMS	TB ¹ , wood and machine screw
TORX	TORX machine screw
TBTRX	TB ¹ and TORX machine screw

¹ Specify door thickness if other than 1 3/4"

Dimensions and mounting

Parallel arm (push side) mounting



Specifications

Accessibility	Available with less than 5.0 lbs. opening force on 36" door
Certifications/ approvals	<ul style="list-style-type: none"> ■ Grade 1 - ANSI A156.4 ■ UL 10C ■ Meets BAA - Buy American Act
Degree of operation	<p>EDA</p> <p>Max opening: 180°</p> <p>Hold open: 180°</p> <p>Cush</p> <p>Max opening: 110°</p> <p>Hold open: 110°</p>
Environmental conditions	<ul style="list-style-type: none"> ■ Approved for interior use ■ Approved for exterior use (SRI coated only) ■ LCN's standard all weather fluid performs to temperature ranges from 120°F (49°C) to -30°F (-35°C) ■ LCN's powder coat finish surpasses 100 hours of salt spray which is over four times the ANSI standard for corrosion resistance.
Warranty	30 years
Standard features	<ul style="list-style-type: none"> ■ Cast iron body ■ Full complement bearing ■ 1 1/2" diameter piston ■ 1/16" diameter double heat treated pinion journal



Surface mounted closer

4030

Overview

The 4030 is a cast iron, universal closer designed specifically for doors in moderate traffic conditions. This versatile closer compliments the rest of the heavy duty 4000 Series and offers the choice of three mountings and multiple arm options.



Cylinder

4031-3071

Cast iron cylinder assembly

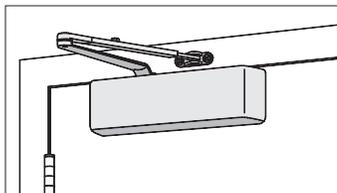
Handing

Non-handed

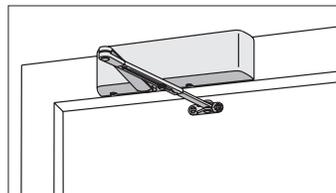
Sizing

Adjustable spring size 1-4

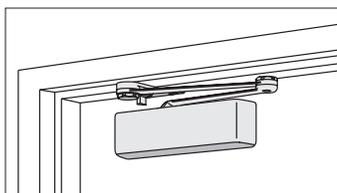
Mounting



Hinge (pull side)



Top jamb (push side)



Parallel arm (push side)



Finishes

Powder coat finishes



689
Aluminum



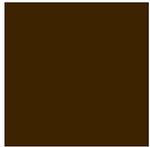
690
Statuary Bronze



691
Light Bronze



693
Black



695
Dark Bronze



696
Brass

150+ additional custom colors available using the RAL numbering system

Metal plated finishes



632
Bright Brass



633
Satin Brass



639
Satin Bronze



616
Satin Bronze,
Blackened



646
Satin Nickel



651
Bright Chrome



652
Satin Chrome

Available finish options

MTLPC	Brite metallic: Custom powder coat finish, which resembles that of 651 or 652 plated finish.
SRI	For installations where a higher level of protection against weather conditions, or the effects of a potentially corrosive atmosphere is required, LCN offers a special rust inhibiting (SRI) process. Ferrous metal components receive an SRI pretreatment and a standard powder coat finish of your choice, or a custom powder coat finish for a nominal additional cost. Closers treated with the SRI process exceed the 100 hour protection level available with standard LCN powder coated finishes.

Covers

Standard cover



4030-72MC

Metal cover

- Non-handed

Arms



- 4030-3077**
Regular arm
- Non-handed
 - Mounts hinge side or top jamb
 - P4031 closer includes PA SHOE, 4030-62PA is required for parallel arm mounting



- 4030-3077LD**
Light duty arm
- Non-handed
 - Mounts hinge side, top jamb or parallel arm (62PA required)
 - Optional



- 4030-3077L**
Long arm
- Non-handed
 - Includes LONG ROD AND SHOE, 4030-79LR for top jamb mount with deep reveals
 - Optional



- 4030-3049**
Hold-open arm
- Non-handed
 - Mounts hinge side, top jamb or parallel arm (62PA required)
 - Hold-open adjustable at shoe
 - Optional



- 4030-3049L**
Long hold-open arm
- Non-handed
 - Includes LONG HEAD AND TUBE, 4030-3048L for top jamb mount with deep reveals
 - Optional



- 4030-3077EDA**
Extra duty arm
- Non-handed
 - Extra duty arm features solid forged steel main and forearm for potentially abusive installations
 - Optional



- 4030-3049EDA**
Hold-open EDA arm
- Handed
 - Arm, provides hold-open function adjustable at shoe
 - Optional



- 4030-3077CNS**
Cush-n-Stop® arm
- Non-handed
 - Solid forged steel main arm and forearm with stop in soffit shoe
 - Optional



- 4030-3049CNS**
Hold-open CUSH arm
- Non-handed
 - Provides hold-open function with templated stop/hold-open points
 - Handle controls hold-open function
 - Optional



- 4030-3077SCNS**
Spring CUSH arm
- Non-handed
 - For abusive applications
 - Features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe
 - Optional



- 4030-3049SCNS**
Spring HCUSH arm
- Non-handed
 - For abusive applications
 - Features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe
 - Handle controls hold-open function
 - Optional

Installation accessories



4030-18TJ
Plate

- Required for top jamb mounting where head frame is less than 2 1/4" (57 mm) or flush ceiling condition exists
- Requires 1 1/2" (38 mm) minimum



4030-18PA
Plate

- Required for parallel arm mounting where top rail is less than 5" (127 mm), measured from the stop
- Requires 1 3/4" (44 mm) minimum



4030-30
CUSH shoe support

- Provides anchorage for fifth screw used with CUSH arms where reveal is less than 3 1/16" (78 mm)



4030-61
Blade stop spacer

- Lowers parallel arm shoe to clear 1/2" (13 mm) blade stop



4030-62A
Auxiliary shoe

- Requires a top rail of 7" (178 mm)
- Replaces -62PA for parallel arm mounting of regular arm with some overhead holder/stop
- Optional



4030-419
PA flush panel adapter

- Provides horizontal mounting surface for PA or CUSH shoe on single rabbeted or flush frame



4030-62PA
PA shoe

- Required for parallel arm mounting

Fasteners

Wood and self-tapping machine screw pack

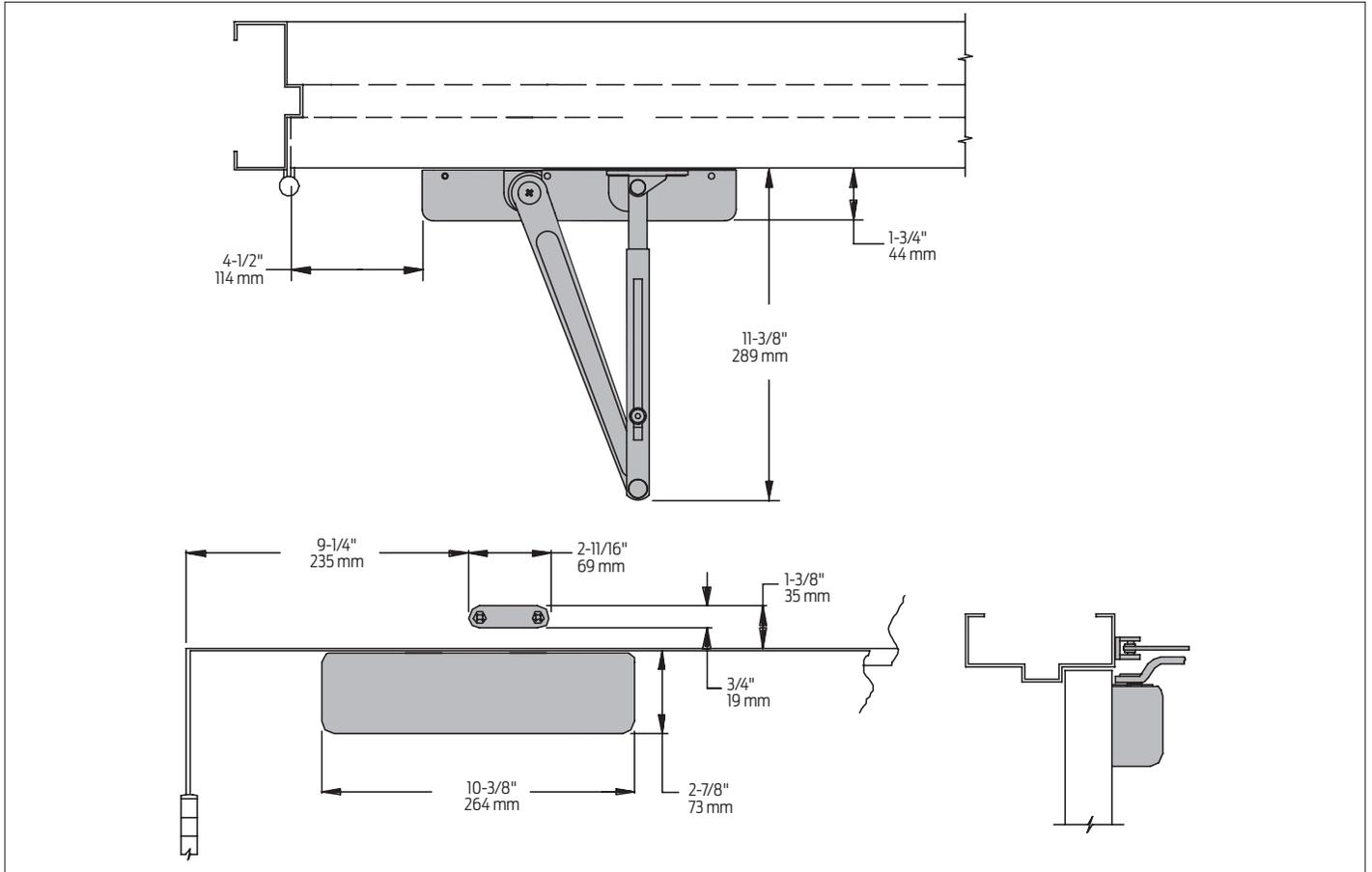
Fastener pack options

TBWMS TB¹, wood and machine screw

¹ Specify door thickness if other than 1 3/4"

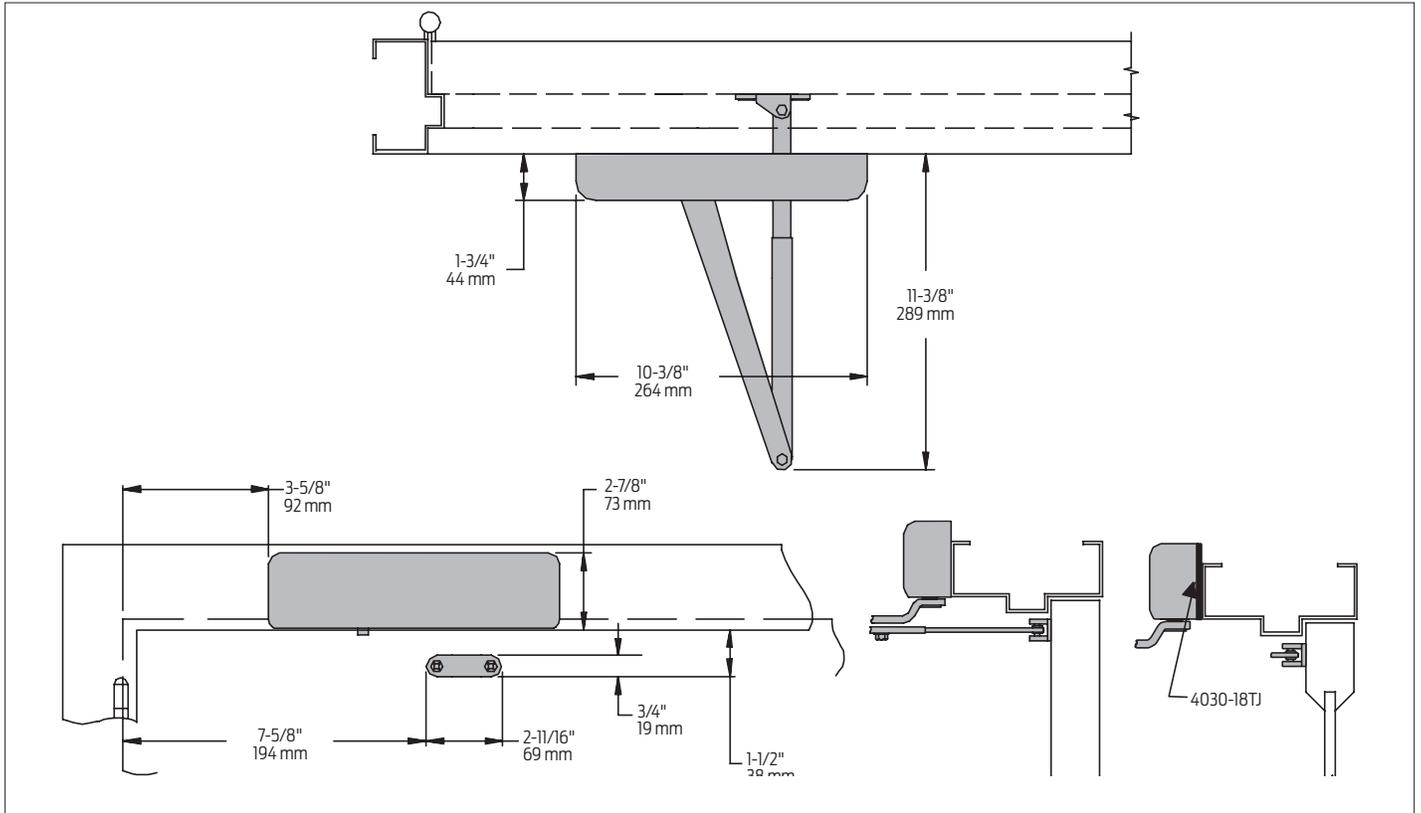
Dimensions and mounting

Hinge (pull) side mounting

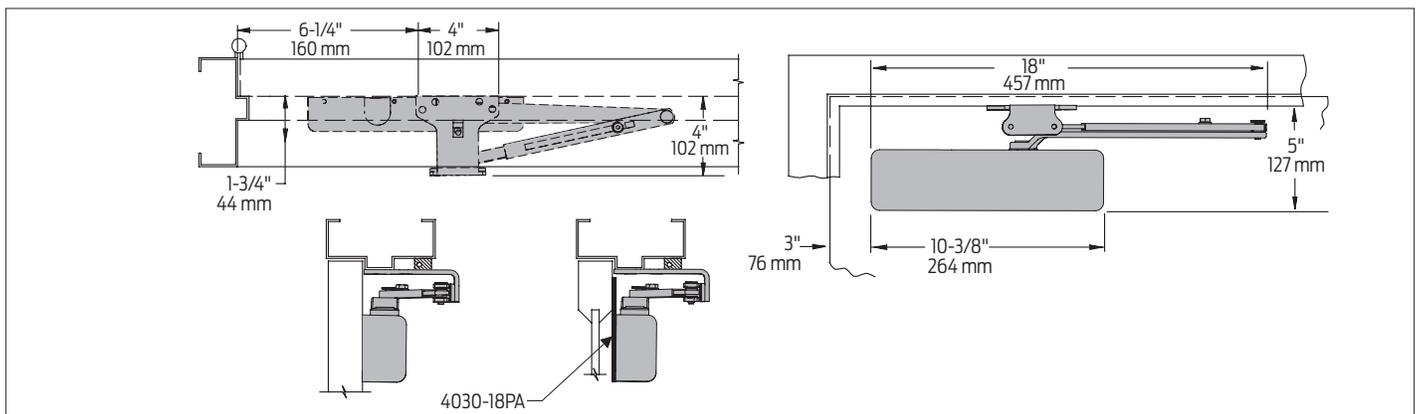


Dimensions and mounting

Top jamb (push side) mounting

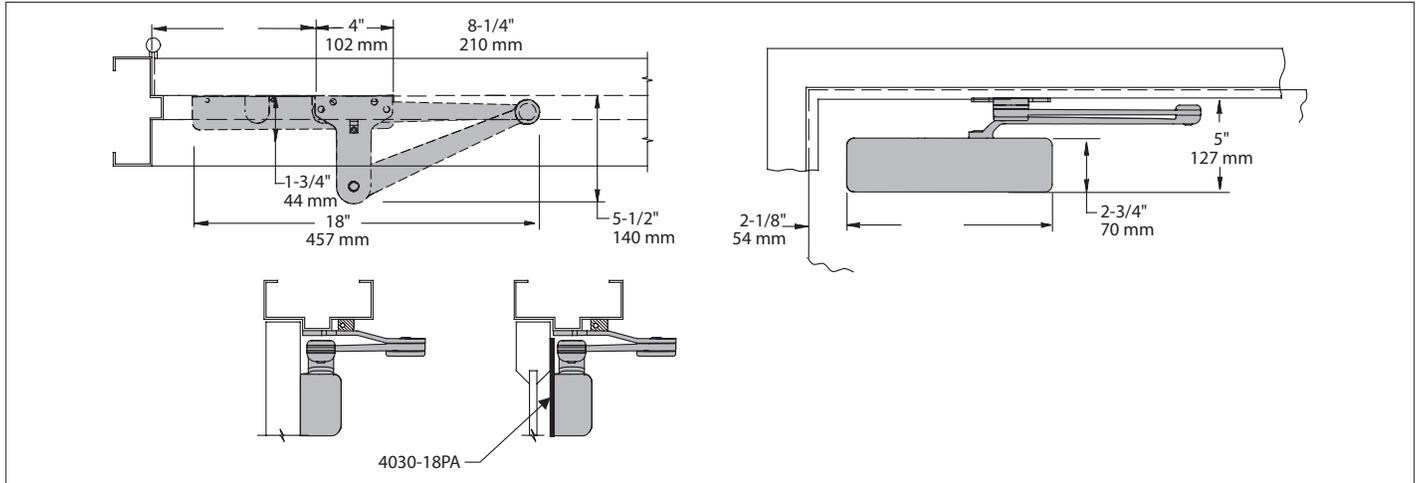


Parallel arm mounting

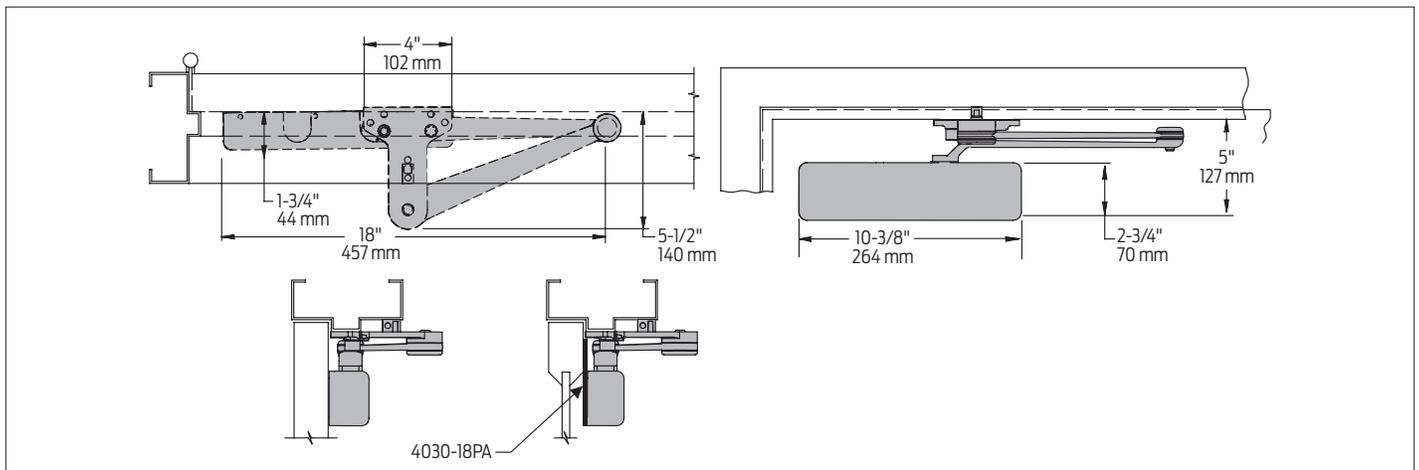


Dimensions and mounting

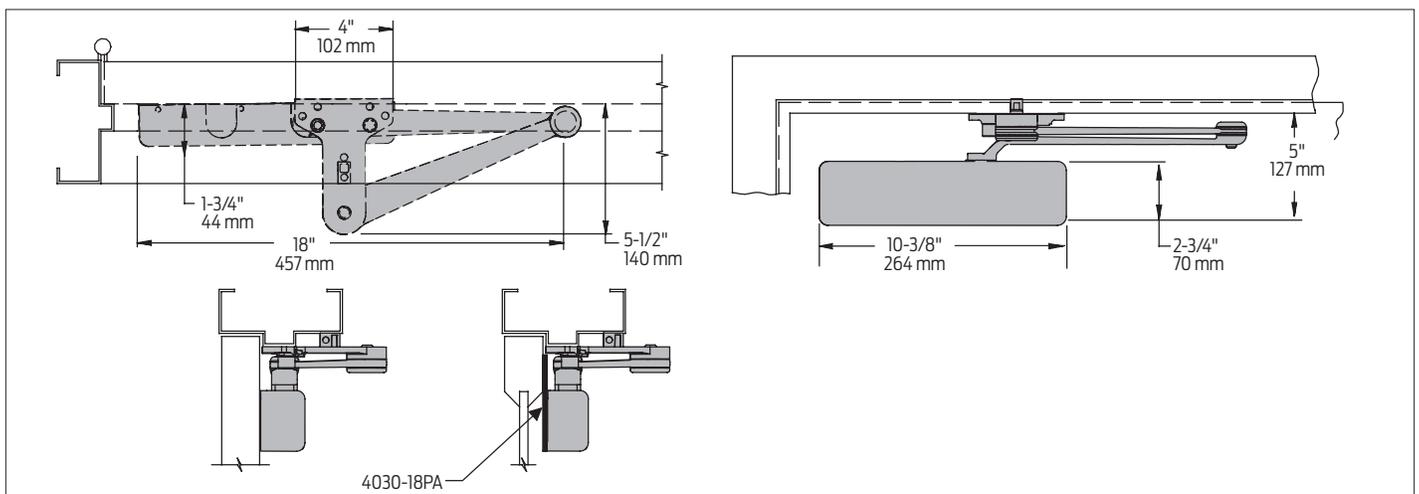
EDA mount



CUSH mount



SCUSH mount



Specifications

Accessibility	Available with less than 5.0 lbs. opening force on 36" door
Certifications/ approvals	<ul style="list-style-type: none"> ■ Grade 1 - ANSI A156.4 ■ UL 10C ■ Meets BAA - Buy American Act
Degree of operation	<p>Hinge (pull) side</p> <p>Max opening: 180°</p> <p>Hold open: 180°</p> <p>Top jamb (push side) mount</p> <p>Max opening: 180°</p> <p>Hold open: 180°</p> <p>Parallel arm with 62PA</p> <p>Max opening: 180°</p> <p>Hold open: 180°</p> <p>EDA</p> <p>Max opening: 110°</p> <p>Hold open: 110°</p> <p>Cush and Spring cush</p> <p>Max opening: 100°</p> <p>Hold open: 100°</p>
Environmental conditions	<ul style="list-style-type: none"> ■ Approved for interior use ■ Approved for exterior use (SRI coated only) ■ LCN's standard all weather fluid performs to temperature ranges from 120°F (49°C) to -30°F (-35°C) ■ LCN's powder coat finish surpasses 100 hours of salt spray which is over four times the ANSI standard for corrosion resistance.
Warranty	30 years
Standard features	<ul style="list-style-type: none"> ■ Cast iron body ■ Full complement bearing ■ 1 1/8" diameter piston ■ 1/2" diameter single heat treated pinion journal

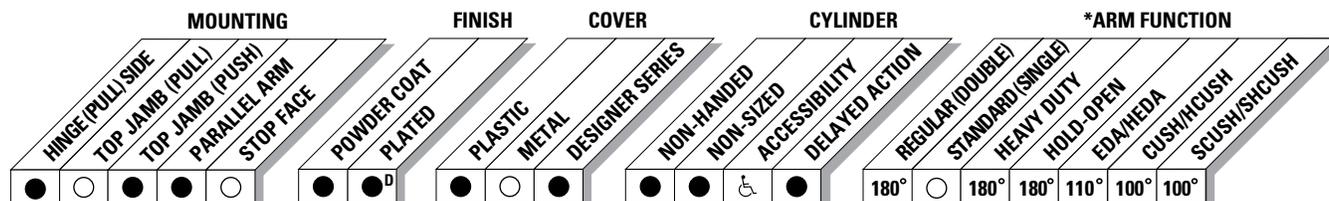


Designed for maximum versatility, the 1460, available with multiple cover options, can be used for both commercial and institutional applications. This fully universal closer offers a wide variety of options and fast and accurate installation.

Certifications	Grade 1 - ANSI A156.4, UL 10C, ADA, 100 Hour Salt Spray, Meets BAA - Buy American Act	Cover	<ul style="list-style-type: none"> ■ Slim Line Plastic, Standard ■ Full Plastic and Metal Designer Series, Optional
Body Construction	<ul style="list-style-type: none"> ■ Cast Iron Body ■ Full Complement Bearing ■ 1-1/4" Diameter Piston ■ 3/4" Diameter Single Heat Treated Pinion Journal 	Fasteners	Self Reaming and Tapping Screws (SRT)
Fluid	All Weather Fluid	Mounting	Hinge (Pull Side), Top Jamb (Push Side), Parallel Arm (Push Side)
Handing	Non-Handed	Arms	Standard regular pull side, and top jamb
Templating	Peel-n-Stick templates - 1" x 7-1/2" Mounting Hole Pattern	Finishes/Colors/Powder Coat	<ul style="list-style-type: none"> ■ Aluminum (689) ■ Statuary Bronze (690) ■ Light Bronze (691) ■ Black (693) ■ Dark Bronze (695) ■ Brass (696) ■ Custom colors optional
Size	Adjustable Spring Size 1-6. Includes Patented Green Dial		<ul style="list-style-type: none"> ■ Optional SRI primer - powder coat only ■ Optional plated finishes
Warranty	30 years		

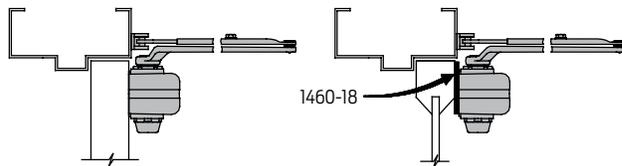
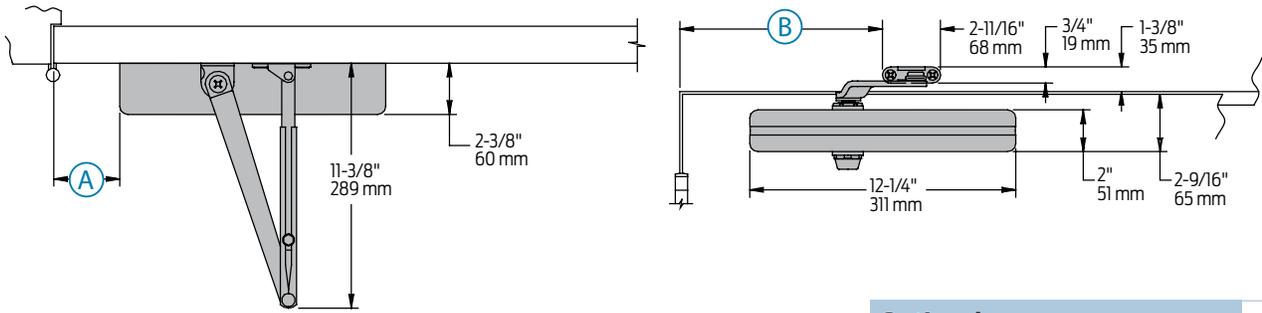
Special Templates

Customized installation templates or products may be available to solve unusual applications. Contact LCN Product Support for assistance.



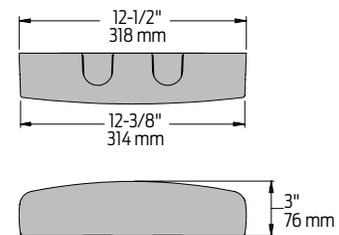
● AVAILABLE
○ NOT AVAILABLE

○ Closer available with less than 5.0 lbs. opening force on 36" door.
* Maximum opening/hold-open point with standard template.
D = For designer series only.

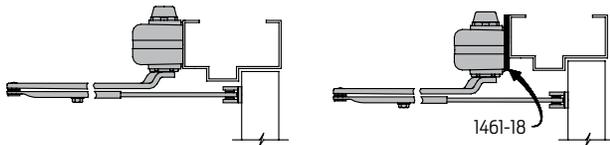
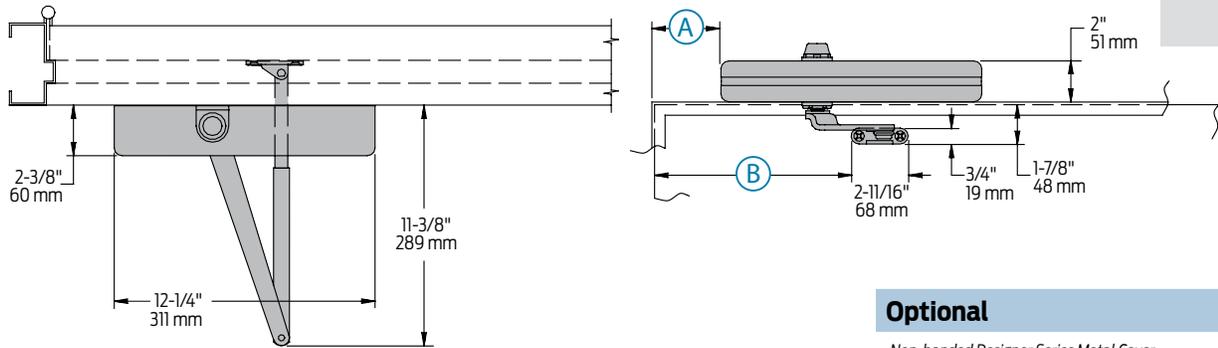


Optional

Non-handed Designer Series Metal Cover

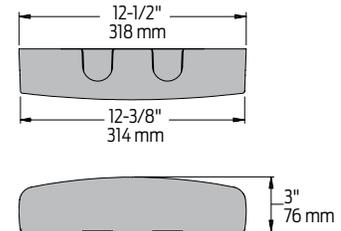


Butt Hinges	Should not exceed 5" (127 mm) in width
Auxiliary Stop	Recommended at hold-open point or where a door cannot swing 180°
Reveal	Should not exceed 3/4" (19 mm) for regular arm or 1/2" (13 mm) for hold-open arm
Top Rail	<ul style="list-style-type: none"> Less than 2-1/2" (64 mm) requires PLATE, 1460-18 With Full cover, use PLATE, 1460-18FC. Plate requires 1-1/2" (38 mm) minimum With Designer Series metal cover, use PLATE, 1460-18DSI
Clearance	2-3/8" (60 mm) behind door required for installation
Delayed Action	<ul style="list-style-type: none"> Add suffix "DEL" to selected cylinder (eg. 1461 DEL) Delays closing from: <ul style="list-style-type: none"> 110° to 65° (using 110° template) 160° to 75° (using 180° template) Delay time adjustable up to approximately 1 minute
Maximum opening	110°: A = 5-7/8" (149 mm) B = 10-7/8" (276 mm) or *180° A = 2-7/8" (73 mm) B = 7-7/8" (200 mm) Hold-open points up to maximum opening with hold-open arm *Frame and trim permitting.

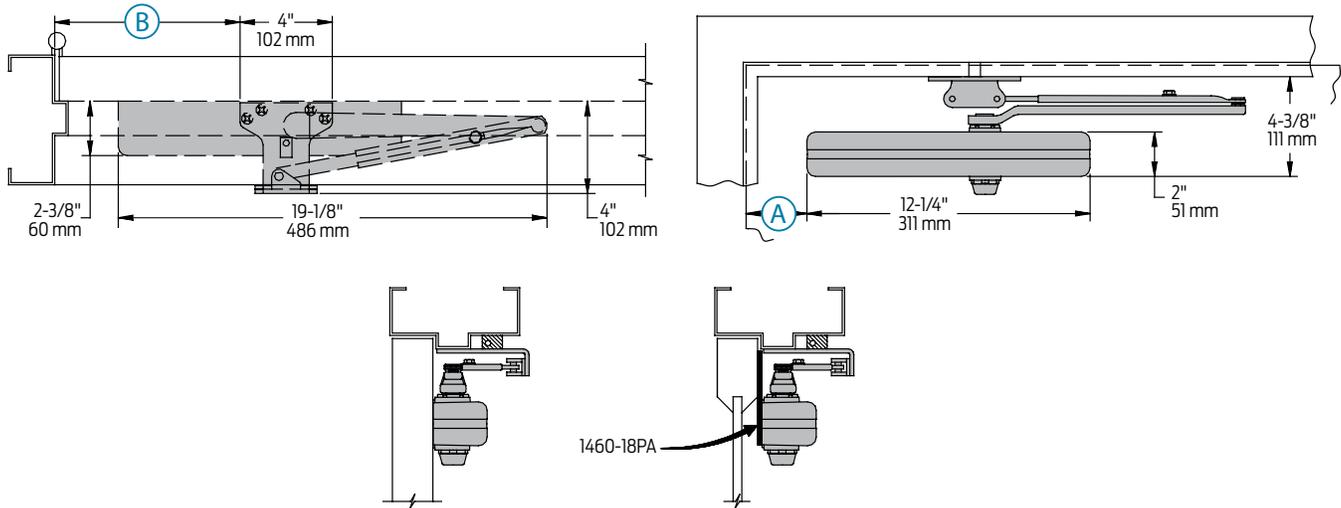


Optional

Non-handed Designer Series Metal Cover



Butt Hinges	Should not exceed 5" (127 mm) in width		
Auxiliary Stop	Recommended at hold-open point or where a door cannot swing 180°		
Reveal	Arm Type	Reveal	Max Opening
	Regular Arm	4-7/8"	Up to 140°
	Regular Arm	3-1/2"	Up to 180°
	Long Arm	7"	Up to 140°
	Hold-Open Arm	2-1/2"	Up to 180°
	Long Hold-Open Arm	4-7/8"	Up to 140°
Top Rail	Requires 1-7/8" (48 mm) minimum. 2-3/4" (70 mm) minimum with closer on PLATE, 1460-18		
Head Frame	Less than 1-3/4" (44 mm) requires PLATE, 1460-18. For flush ceiling condition with 2" (51 mm) head frame, use PLATE, 1460-18		
Delayed Action	<ul style="list-style-type: none"> ■ Add suffix "DEL" to selected cylinder (eg. 1460 DEL). ■ Delays closing: <ul style="list-style-type: none"> 110° to 75° (using 110° template) 180° to 95° (using 180° template) ■ Delay time adjustable up to approximately 1 minute. 		
Maximum opening	110°:	A = 6-3/4" (169 mm) B = 11-1/4" (286 mm)	
	101° to 120°:	A = 3" (76 mm) B = 7-1/2" (191 mm)	
	Hold-open points up to maximum opening with hold-open arm. *Frame and trim permitting.		

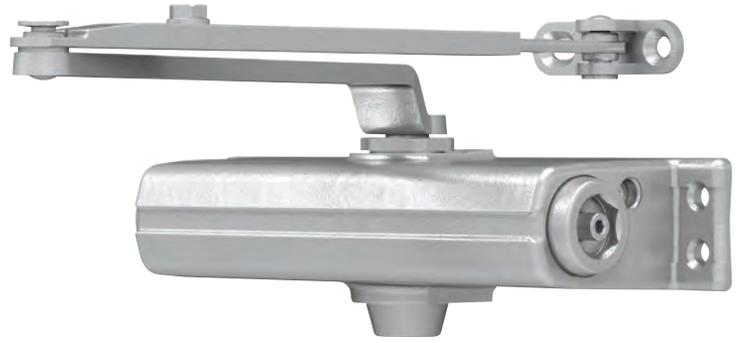


Butt Hinges	Should not exceed 5" (127 mm) in width
Auxiliary Stop	Recommended at hold-open point, where a door cannot swing 180°, or where CUSH-N-STOP arm is not used
Top Rail	<ul style="list-style-type: none"> Less than 4-3/8" (111 mm) measured from the stop requires PLATE, 1460-18PAFC Plate requires 1-3/4" (44 mm) minimum. Plate requires 1-1/4" (32 mm) minimum With Designer Series metal cover, use PLATE, 1460-18PADSI
Clearance	1460-62PA shoe projects 4" (102 mm) from door face
Head Frame	Flush or single rabbeted requires PA SHOE ADAPTER, 1460-419
Stop Width	Minimum 1" (25 mm)
Blade Stop	Clearance, requires 1/2" (13 mm) BLADE STOP SPACER, 1460-61
Auxiliary Shoe	<ul style="list-style-type: none"> 1460-62A allows installation of regular arm with overhead holder/stop Special templating required
Delayed Action	<ul style="list-style-type: none"> Add suffix "DEL" to selected cylinder (eg. P1460 DEL) Delays closing from maximum opening to approximately 75° Delay time adjustable up to approximately 1 minute
Maximum opening	<p>Regular or hold-open arm can be templated to</p> <p>100°: A = 4-1/4" (108 mm) B = 9-1/4" (235 mm)</p> <p>or 180°: A = 1-3/4" (44 mm) B = 6-3/4" (171 mm)</p> <p>Hold-open points up to maximum opening with hold-open arm.</p>

Notes:

- Optional mounting requires PA SHOE, 1460-62PA for REGULAR or HOLD-OPEN arms. Add prefix "P" to closer description (e.g. P1460)
- P1460 closer includes 1460-201 FIFTH HOLE SPACER to support PA SHOE.

1260 Series



The 1260 is a light to medium duty cast iron closer designed to fit the most common commercial foot print. It's adjustable for spring sizes 1-5, features a complete line of regular and extra duty arms, and an optional Quick Fix™ bracket kit.

Features

Certifications	Grade 1 - ANSI A156.4, UL 10C, ADA, 100 Hour Salt Spray, Meets BAA - Buy American Act	Cover	Slim line plastic cover, optional
Body construction	<ul style="list-style-type: none"> Cast iron body Full complement bearing 1 3/8" Diameter piston 5/8" diameter single heat treated pinion journal 	Fasteners	Self reaming and tapping screws (SRT)
Fluid	All weather fluid	Mounting	Hinge (pull side), top jamb (push side), parallel arm (push side)
Handing	Non-handed	Arms	Regular arm
Templating	Peel-n-Stick templates - 3/4" x 9 1/16" mounting hole pattern	Finishes/colors/ powder coat	<ul style="list-style-type: none"> 689 Aluminum 690 Statuary Bronze 691 Light Bronze 693 Black 695 Dark Bronze 696 Brass Custom colors optional Optional SRI primer - powder coat only
Size	Adjustable spring size 1-5		
Warranty	20 years		

Special templates

Customized installation templates or products may be available to solve non-standard applications. Contact LCN Product Support for assistance.

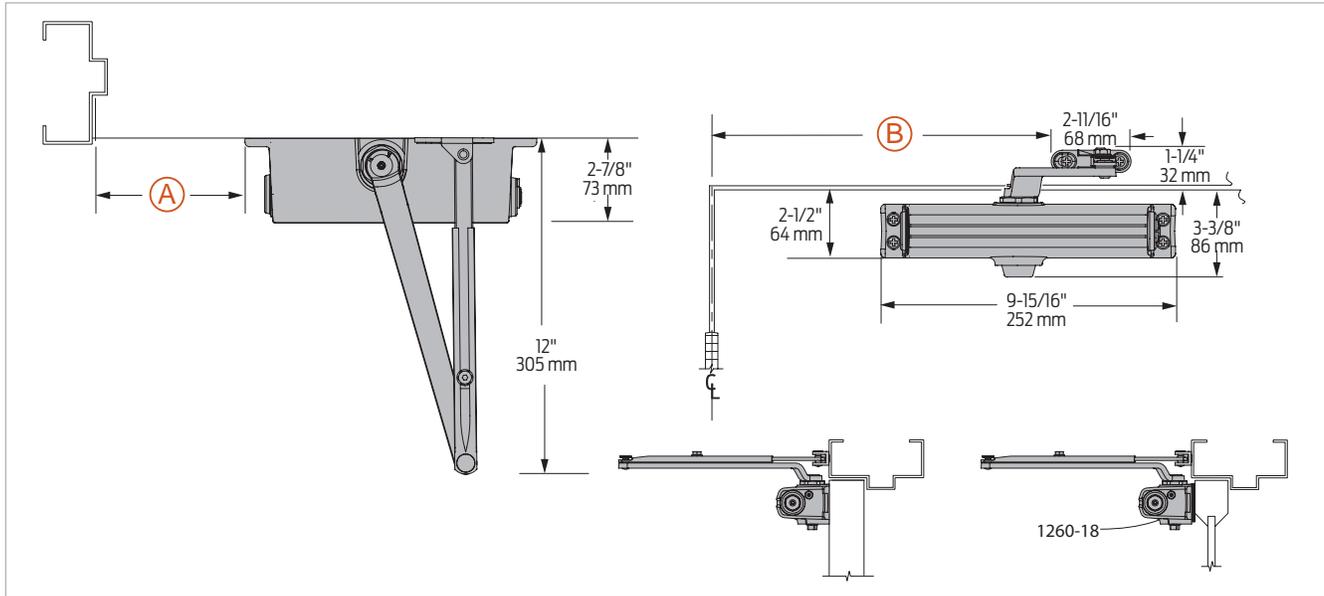
Mounting		Finish		Cover		Cylinder		Arm function*	
■	Hinge (pull) side	■	Plastic	■	Designer series	■	180°	■	Regular (double)
■	Top jamb (pull)	■	Metal	■	Non-handed	■	180°	■	Standard (single)
■	Top jamb (push)	■	Plated	■	Non-sized	■	120°	■	Heavy duty
■	Parallel arm	■		■	Accessibility	■	110°	■	Hold Open
■	Stop face	■		■	Delay action	■		■	EDA/HEDA
■		■		■		■		■	CUSH/HCUSH
■		■		■		■		■	SCUSH/SHCUSH

■ Available
 ■ Not available

♿ Closer available with less than 5.0 lbs. opening force on 36" door.
 * Maximum opening/hold open point with standard template.

Mounting details

Hinge (pull) side mounting

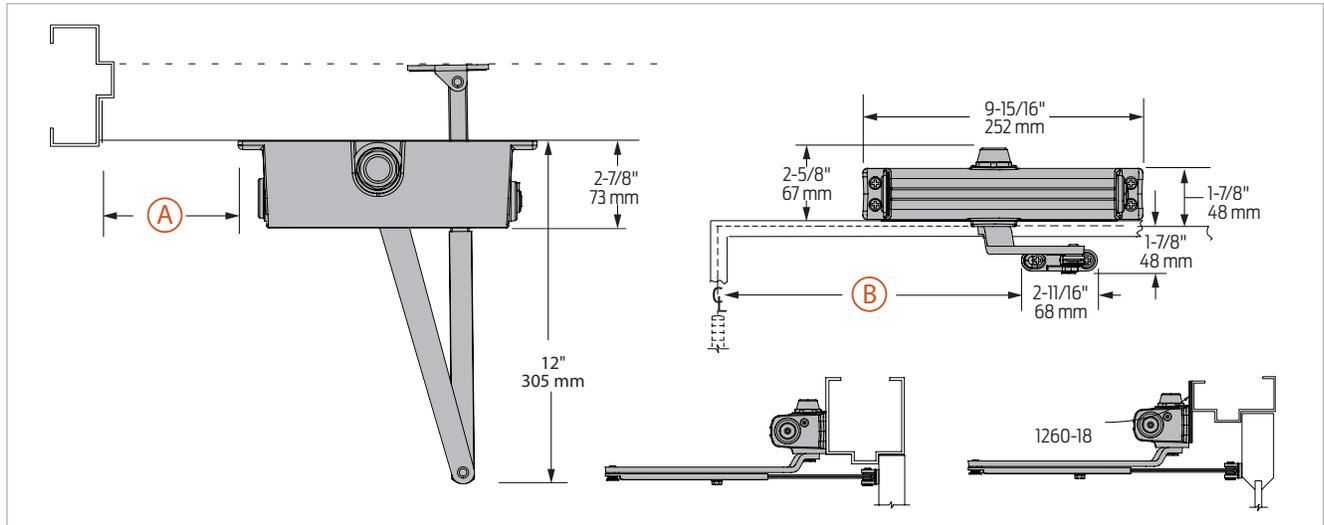


Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	Recommended at hold open point or where a door cannot swing 180°
Reveal	Should not exceed 3/4" (19 mm) for regular arm or 1/2" (13 mm) for Hold Open Arm
Top rail	Less than 2 1/2" (64 mm) requires plate, 1260-18
Clearance	2 7/8" (73 mm) behind door required for installation
Maximum opening	110°: A = 6 9/16" (167 mm) B = 12 7/16" (316 mm)
	101° to 120°: A = 5 9/16" (141 mm) B = 11 7/16" (291 mm)
	or *121° to 180°: A = 3 1/16" (78 mm) B = 8 15/16" (227 mm)

Note: Hold open points up to maximum opening with Hold Open Arm.
* Frame and trim permitting.

Mounting details

Top jamb (push side) mounting

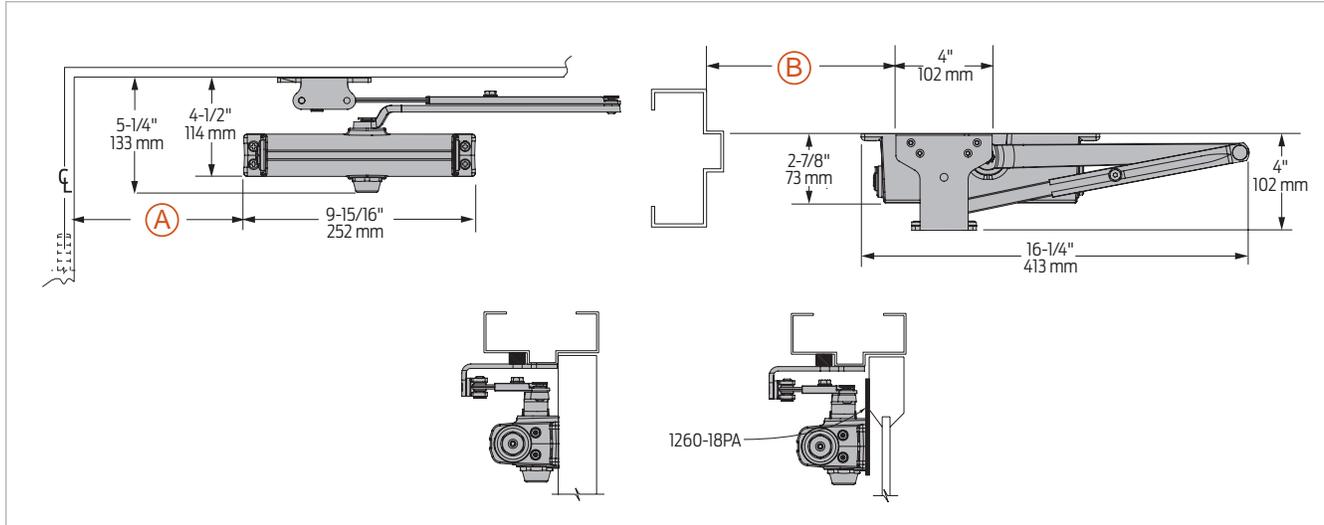


Butt hinges	Should not exceed 5" (127 mm) in width		
Auxiliary stop	Recommended at hold open point or where a door cannot swing 180°		
Reveal	Arm type	Maximum reveal	Opening
	Regular Arm	3 1/2"	Up to 120°
	Regular Arm	2 1/4"	121° to 180°
	Long Arm	7 1/2"	Up to 120°
	Long Arm	3 1/2"	121° to 180°
	Hold Open Arm	2"	Up to 120°
	Hold Open Arm	2 1/4"	121° to 180°
	Hold Open Long Arm	4 1/2"	Up to 120°
	Hold Open Long Arm	4 1/2"	121° to 160°
Top rail	1 3/4" (44 mm) minimum. 2 1/2" (64 mm) minimum with closer on plate, 1260-18		
Head frame	Less than 1 3/4" (44 mm) requires plate, 1260-18. For flush ceiling condition with 2" (51 mm) head frame, use plate, 1260-18. (Plate requires 1 3/8" (35 mm) minimum.)		
Maximum opening	110°:	A = 7 1/16" (179 mm) B = 12 15/16" (329 mm)	
	101° to 120°:	A = 5 9/16" (141 mm) B = 11 7/16" (291 mm)	
	or *121° to 180°:	A = 3 1/16" (78 mm) B = 8 15/16" (227 mm)	

Note: Hold open points up to maximum opening with Hold Open Arm.
* Frame and trim permitting.

Mounting details

Parallel arm (push side) mounting

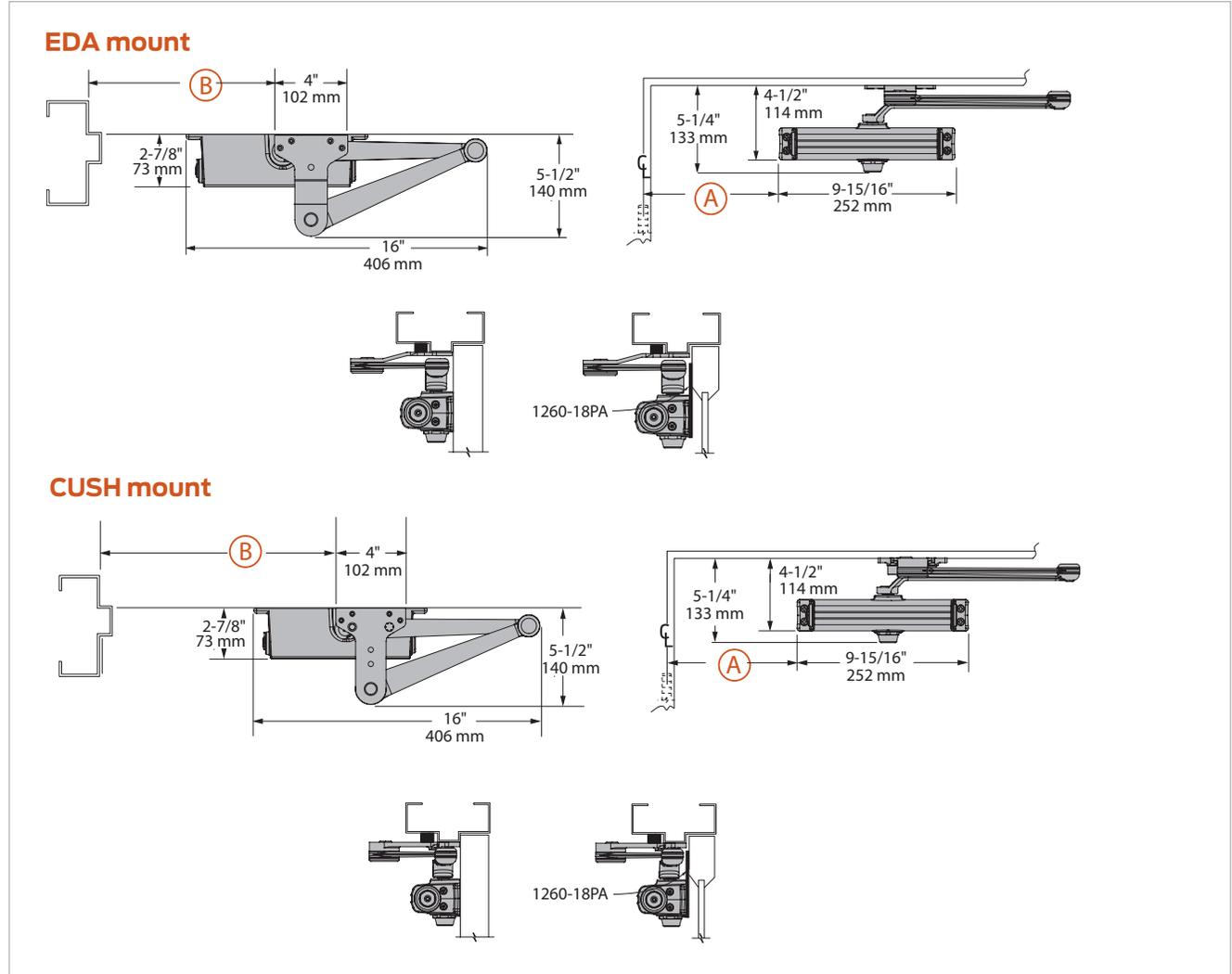


Butt hinges	Should not exceed 5" (127 mm) in width
Auxiliary stop	Recommended at hold open point, where a door cannot swing 180°, or where Cush-n-Stop Arm is not used
Top rail	Less than 4 3/8" (111 mm) measured from the stop requires plate, 1260-18PA
Clearance	1260-62PA shoe projects 4" (102 mm) from door face
Stop width	Minimum 1" (25 mm)
Blade stop	Clearance, requires 1/2" (13 mm) blade stop spacer, 1260-61
Auxiliary shoe	1260-62A allows installation of regular arm with overhead holder/stop. Special templating required
Maximum opening	Regular or Hold Open Arm can be templated to 100°: A = 7 3/16" (183 mm) B = 8 5/8" (219 mm) or 101° to 130°: A = 5 11/16" (144 mm) B = 7 1/8" (181 mm) or *131° to 180°: A = 3 11/16" (94 mm) B = 5 1/8" (130 mm)

Note: Hold open points up to maximum opening with Hold Open Arm. Optional mounting requires PA shoe, 1260-62PA for Regular and Hold Open Arms. 1260 Parallel Arm closer includes 1260-201 fifth hole spacer to support PA shoe.
 * Frame and trim permitting.

Mounting details

EDA and Cush-n-Stop mounting



Clearance	1260-62EDA or CUSH shoe projects 5 1/2" (140 mm) from door face	
Head frame	Flush or rabbeted requires CUSH flush panel adapter, 1260-419	
EDA or CUSH ARM	Requires shoe support, 1260-30 for fifth screw anchorage where reveal is less than 3 1/16" (78 mm)	
Maximum opening	EDA template allows 120°. Hold open point up to maximum opening	CUSH arms can be templated for maximum opening/hold open point at
	90°: A = 4 13/16" (122 mm) B = 9 1/2" (241 mm)	85°: A = 5 5/16" (135 mm) B = 10" (254 mm)
	or 120°: A = 3 5/16" (84 mm) B = 8" (203 mm)	90°: A = 4 11/16" (119 mm) B = 9 3/8" (238 mm)
	Hold open points up to maximum opening with HEDA arm	100°: A = 3 9/16" (90 mm) B = 8 1/4" (210 mm)
		110°: A = 2 13/16" (71 mm) B = 7 1/2" (191 mm)

Note: 1260 closers ordered with EDA, CUSH or SCUSH arms include 1260-201 fifth hole spacer to support the shoe.

Accessories

Cylinders



1261(2)(3)(4)(5)-3071
Cast iron cylinder
assembly (CYL)

- Non-handed
- Standard

Covers



1260-72
Slim line plastic cover
(SLIMPC)

- Non-handed
- Optional

Installation accessories



1260-18
Plate

- Required for hinge side mount where top rail is less than 2 1/2" (64 mm)
- Required for top jamb mounting where head frame is less than 1 3/4" (44 mm) or flush ceiling condition exists
- Requires minimum 1 1/2" (38 mm) minimum top rail or 1 1/4" (32 mm) head frame



1260-18PA
Plate

- Required for parallel arm mounting where top rail is less than 4 3/8" (111 mm), measured from the stop
- Requires 1 3/4" (44 mm) minimum top rail



1260-18QF
Quick Fix™ bracket kit

- Optional kit includes retro-fit mounting plates for 1371 closer cylinder and shoe
- Useful in applications when previously drilled holes are damaged



1260-30
CUSH shoe support

- Provide anchorage for fifth screw used with CUSH arms where reveal is less than 3 1/16" (78 mm)



1260-61
Blade stop spacer

- Lowers parallel arm shoe to clear 1/2" (13 mm) blade stop



1260-62A
Auxiliary shoe

- Requires a top rail of 7" (178 mm)
- Optional shoe replaces-62PA for parallel arm mounting of regular arm with overhead holder/stop



1260-419
PA flush panel adapter

- Provides horizontal mounting surface for PA, EDA or CUSH shoe on single rabbeted or flush frame



1260-62PA
PA shoe

- Required for parallel arm mounting

Accessories

Arms


**1260-3077
Regular Arm with Parallel
Arm Bracket (RWPA)**

- Non-handed
- Mounts hinge side or top jamb
- Parallel arm includes PA shoe, 1260-62PA required for parallel arm mounting


**1260-3077L
Long Arm (LONG)**

- Non-handed
- Includes long rod and shoe, 1260-79LR for top jamb mount with deep reveals
- Optional


**1260-3049
Hold Open Arm (H)**

- Non-handed
- Mounts hinge side, top jamb or parallel arm (62PA required)
- Hold open adjustable at shoe
- Optional


**1260-3049L
Hold Open Long Arm
(HLONG)**

- Non-handed
- Includes long head and tube, 1260-3048L for top jamb mount with deep reveals
- Optional


**1260-3077EDA
Extra Duty Arm (EDA)**

- Non-handed
- Features solid forged steel main and forearm for potentially abusive installations
- Optional 1260-3077EDA/G for blade stop clearance


**1260-3077EDA/62G
Extra Duty Arm with 62G
Thick Hub Shoe (EDAW62G)**

- Non-handed
- Features solid forged steel main and forearm for potentially abusive installations


**1260-3049EDA
Hold Open Extra Duty Arm
(HEDA)**

- Handed
- Provides hold open function adjustable at shoe
- Optional


**1260-3077CNS
Cush-n-Stop Arm (CUSH)**

- Non-handed
- Features solid forged steel main arm and forearm with stop in soffit shoe
- Optional


**1260-3049CNS
Hold Open Cush-n-Stop
Arm (HCUSH)**

- Non-handed
- Provides hold open function with templated stop/hold open points
- Handle controls hold open function
- Optional


**1260-3077SCNS
Spring Cush-n-Stop Arm
(SCUSH)**

- Non-handed
- For abusive applications features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe
- Optional


**1260-3049SCNS
Spring Hold Open Cush-n-Stop
Arm (SHCUSH)**

- Non-handed
- For abusive applications features solid forged steel main arm and forearm with spring loaded stop in the soffit shoe
- Handle controls hold open function
- Optional

Ordering information

How-to-order 1260 Series closers

1. Select finish

- Standard powder coat _____
Aluminum (689), Dark Bronze (695),
Statuary Bronze (690), Light Bronze (691),
Black (693), Brass (696).

Closer options

Cover

- Slim line plastic cover (SLIMPC)

Finish

- Custom Powder Coat (RAL) _____
- SRI primer (for use with powder coat finishes only)

Arm

- Regular Arm with Parallel Arm Bracket (RWPA)
- Long Arm (LONG)
- Regular Arm with 62A Auxiliary Shoe (RW62A)
- Hold Open Arm (H)
- Hold Open with Parallel Arm Bracket (HWPB)
- Hold Open Long Arm (HLONG)
- Extra Duty Arm (EDA) (optional -62G)
- Hold Open Extra Duty Arm (HEDA) -
specify handing (optional -62G)
- Cush-n-Stop Arm (CUSH)
- Hold Open Cush-n-Stop Arm (HCUSH)

Closer will be shipped with:

- Standard cylinder
- Regular arm
- Self reaming and tapping screws
(unless options listed below are selected)

Optional screw packs

- Through Bolt¹ Self Reaming and Tapping Screws (TBSRT)
- Wood and Machine Screws (WMS)
- Through Bolt¹ Wood and Machine Screws (TBWMS)
- Torx Machine Screws (TORX)
- Through Bolt¹ and Torx Machine Screw (TBTRX)

Installation accessories

- Plate, 1260-18
- Plate, 1260-18PA
- CUSH shoe support, 1260-30
- Blade stop spacer, 1260-61
- Auxiliary shoe, 1260-62A
- PA flush panel adapter, 1260-419
- Quick Fix™ bracket kit, 1260-18QF

Special template

- ST- _____

1. Specify door thickness if other than 1 3/4".

Table of sizes

- Select closer based on width of door.
- The spring power of a 1261 cylinder is field adjustable from size 1 through size 5 and is shipped adjusted to size 3.

Exterior (and vestibule) door width



Interior door width



➔ Indicates recommended range of door width for closer size.
* Adjustable Size 1 thru 5.

Reduced opening force 1260 Series closers

CAUTION! Any manual door closer, including those certified by BHMA to conform to ANSI Standard A156.4, that is selected, installed and adjusted based on ADA or other reduced opening force requirements may not provide sufficient power to reliably close and latch a door.

Refer to Automatic Operators catalog for information on systems that meet reduced opening force requirements without effecting closing power.

	Door width		
	36"	42"	48"
8.5* lbs.	1261	1261	1261
5.0* lbs.	1261	1261	1261

* Maximum opening force.

Types of protection plates

A
Hinges & pivots



Mop plates

- Protect the bottom of the pull side of door subject to cleaning and mopping procedures.
- Size Ranges: 4" to 6" high, 22" to 48" wide

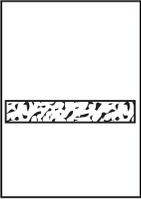
B46
Pulls & plates



Kick plates

- Protect the bottom of the push side of doors subject to scuffing from foot traffic.
- Recommended for all doors subject to normal use (especially doors using a closer).
- Size Ranges: 8" to 24" high, 22" to 48" wide

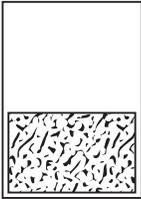
C
Flush bolts & coordinators



Stretcher plates

- Protect doors at specific areas where consistent contact is made by stretchers, service carts or other equipment.
- Usually applied to push side of doors.
- Specify "B4E" Option for beveled edges.
- Size Ranges: 6" to 8" high, 22" to 48" wide

D
Latches, catches & bolts



Armor plates

- Protect lower half of doors from abuse by hard carts, trucks and rough usage.
- Usually applied to push side of single doors and both sides of double acting doors.
- Size Ranges: 26" to 48" high, 22" to 48" wide

E
Stops

F
Exterior hardware

G
Miscellaneous hardware

8400 Commercial protection plates
8402 UL Commercial protection plates

- Door protection plates are available in .050" thick brass, stainless steel or aluminum; and 1/8" thick high impact polyethylene in clear or black.
- All plates, metal and plastic, come standard with four beveled edges and countersunk mounting holes (B-CS).
- Protection plates must be ordered in 1/2" increments. Available in other sizes, consult customer service
- For 8402 UL Plates, UL mark appears in upper right corner. Not available on plastic protection plates.

Certifications

- Meets ANSI A156.6 for J301
- UL protection plates certified to UL10C

Mounting

- Standard mounting package, 16 per pack
 - #6 X 5/8 oval head screws
- Optional TEK/TORX package, specify TK-TX
 - #6 X 5/8 Self-drilling, Self-tapping screws
 - #6 X 5/8 Torx screws

Finishes

- Aluminum 5005 Series, Brass C26800 Series, Stainless Steel 300 Series, Plastic

BHMA	Description	Substrate	Finish	Max sizes
605	Bright Brass	Brass	US3	24"X48"
606	Satin Brass	Brass	US4	24"X48"
612	Satin Bronze	Brass	US10	24"X48"
613	Oil rubbed Bronze	Brass	US10B	36"X48"
619	Satin Nickel	Brass	US15	24"X48"
625	Bright Chrome	Brass	US26	36"X48"
626	Satin Chrome	Brass	US26D	24"X48"
628	Satin Aluminium	Aluminium	US28	48"X48"
629	Bright Stainless Steel	Stainless Steel	US32	48"X48"
630	Satin Stainless Steel	Stainless Steel	US32D	48"X48"
654	Satin Stainless Steel	Stainless Steel	US32D	48"X48"
BLK	Matte black	Stainless Steel	BLK	24"X48"
P-BLK	Black	Plastic	P-BLK	48"X48"
CLR	Clear	Plastic	CLR	48"X48"

- Custom finishes are available as engineering special, consult customer service.

Available options

- Specify B-NH for no mounting holes. (Not available on 8402. Available only with US32D, US32, US3, US4, US28, Clear, Black only)
- Specify B-NHA for no mounting holes with adhesive.
- Specify ERS prepped with extra row of screws.
- Special Cut-outs are available as engineering special, consult customer service.

Available accessory

- Gasket tape kit tape is recommended when using a brass plate on a metal door to reduce tarnishing from electrolytic oxidation. One tape pack will cover an the perimeters of a 8" x 34" kickplate. Order 8401 gasket tape.



Number of screw packs required by plate size (specify TEK Screws or TORK screws)

	22"-25"	26"-33"	34"-41"	42"-48"
4"-8"	1	1	1	1
9"-16"	1	1	1	1
17"-24"	1	1	1	2
25"-32"	1	1	2	2
33"-40"	1	2	2	2
41"-48"	2	2	2	2

A
Hinges & pivots

B47
Pulls & plates

C
Flush bolts & coordinators

D
Latches, catches & bolts

E
Stops

F
Exterior hardware

G
Miscellaneous hardware



WS401CCV & WS402CCV

WS401/402CVX (Convex) wall bumpers
WS401/402CCV (Concave) wall bumpers

- Constructed in heavy-duty cast brass
- Special retainer ring makes rubber tamper resistant
- Grey rubber bumper
- WS401/402CVX – convex rubber bumper, packed with fasteners for drywall/wood applications
- WS401/402CCV – concave rubber bumper which avoids damage to locks with projecting buttons, packed with fasteners for drywall/wood applications

Certifications

- WS401/402CVX Meets ANSI/BHMA 156.16, L12101
- WS401/402CCV Meets ANSI/BHMA 156.16, L12251

Material substrate

- Made from cast brass

Dimensions

- Base diameter: 2-1/2"
- Base thickness: 3/8"
- Overall projection: 1"

Finishes - Brass

BHMA	Description	Substrate	Finish
605	Bright brass	Brass	US3
606	Satin brass	Brass	US4
612	Satin bronze	Brass	US10
613	Oil rubbed bronze	Brass	US10B
619	Satin nickel	Brass	US15
625	Bright chrome	Brass	US26
626	Satin chrome	Brass	US26D

For other colors, consult factory.



WS404CVX (Convex) wall bumpers

- Compact size
- Constructed in cast brass
- Totally concealed mounting discourages vandalism or tampering
- Unit furnished with grey convex rubber bumper
- Packed with fasteners for drywall/wood applications

Material substrate

- Made from cast brass

Dimensions

- Base diameter: 1"
- Overall projection: 17/32"

Finishes - Brass

BHMA	Description	Substrate	Finish
605	Bright brass	Brass	US3
606	Satin brass	Brass	US4
609	Blackened brass	Brass	US5
612	Satin bronze	Brass	US10
613	Oil rubbed bronze	Brass	US10B
619	Satin nickel	Brass	US15
622	Matte black	Brass	BLK
625	Bright chrome	Brass	US26
626	Satin chrome	Brass	US26D
---	Aged bronze	Brass	643e/716

For other colors, consult factory.

Hinges & pivots **A**

Pulls & plates **B**

Flush bolts & coordinators **C**

Latches, catches & bolts **D**

Stops **E11**

Exterior hardware **F**

Miscellaneous hardware **G**



WS406CVX & WS407CVX

WS406/407CVX (Convex) wall bumpers WS406/407CCV (Concave) wall bumpers

- Constructed in sturdy yet economical wrought base of brass or stainless steel construction
- Feature concealed tamper-proof mounting
- Shipped factory preassembled backplate to reduce installation cost
- Easy installation by inserting screwdriver through small hole in rubber
- WS406/407CVX – convex rubber bumper, packed with fasteners for drywall/wood applications
- WS406/407CCV – concave rubber bumper which avoids damage to locks with projecting buttons, packed with fasteners for drywall/wood applications

Certifications

- WS406/407CVX Meets ANSI/BHMA 156.16, L22201 for brass and L52201 for stainless steel
- WS406/407CCV Meets ANSI/BHMA 156.16, L22251 for brass and L52251 for stainless steel

Material substrate

- Made from brass and stainless steel

Dimensions

- Base diameter: 2-1/2"
- Base thickness: 3/8"
- Overall projection: 1"

Finishes - Brass

BHMA	Description	Substrate	Finish
605	Bright brass	Brass	US3
606	Satin brass	Brass	US4
609	Blackened brass	Brass	US5
612	Satin bronze	Brass	US10
613	Oil rubbed bronze	Brass	US10B
619	Satin nickel	Brass	US15
622	Matte black	Brass	BLK
625	Bright chrome	Brass	US26
626	Satin chrome	Brass	US26D
---	Aged bronze	Brass	643e/716

Finishes - Stainless steel

BHMA	Description	Substrate	Finish
630	Stainless steel	Stainless steel	US32D

For other colors, consult factory.



411R-W Wall bumper - adhesive

- Adhesive-backed wall door stop for use on clean, smooth, flat surfaces only
- Non-marring white rubber
- Concave design permits knob to strike stop without damaging or engaging lock mechanism

Material substrate

- Made from rubber

Dimensions

- Base diameter: 1-7/8"
- Base thickness: 3/8"
- Overall projection: 1-1/16"

Finishes

BHMA	Description	Substrate	Finish
---	White	Rubber	R-W



63 Flexible door stops

- Utilizes heavy gauge spring to maintain rigid protections
- Simple to install - only a screwdriver required
- Packed disassembled for quick installation
- White rubber tip
- Packaged with fastener for wood applications

Material substrate

- Made from wrought steel

Available accessory items

- Replaceable white rubber tip available
- Replaceable black rubber tip available

Dimensions

- Base diameter: 1"
- Tip diameter: 9/16"
- Projection: 3"

Finishes

BHMA	Description	Substrate	Finish
631	Matte black	Steel	F-BLK
632	Bright brass	Steel	F3
638	Blackened brass	Steel	F5
---	Aged bronze	Steel	F-643E/716
646	Satin nickel	Steel	F15
651	Bright chrome	Steel	F26
652	Satin chrome	Steel	F26D
---	White	Steel	F-W

For other colors, consult factory.



64 Base door stop

- Base door stop features deluxe one-piece styling
- Easily screws into base
- Designed with hexagonal head to accommodate wrench or pliers when installing
- White rubber tip
- Packaged with fastener for wood applications

Material substrate

- Made from solid brass or aluminum

Available accessory items

- Replaceable white rubber tip available
- Replaceable black rubber tip available

Dimensions

- Base diameter: 1"
- Tip diameter: 9/16"
- Projection: 3-1/4"

Finishes - Brass

BHMA	Description	Substrate	Finish
605	Bright brass	Brass	B3
606	Satin brass	Brass	B4
609	Blackened brass	Brass	B5
612	Satin bronze	Brass	B10
613	Oil rubbed bronze	Brass	B10B
619	Satin nickel	Brass	B15
622	Matte black	Brass	B-BLK
625	Bright chrome	Brass	B26
626	Satin chrome	Brass	B26D
---	Aged bronze	Brass	B-643e/716

Finishes - Aluminum

BHMA	Description	Substrate	Finish
666	Bright brass	Aluminum	A3
703	Oil rubbed bronze	Aluminum	A10B
673	Aluminum clear coat	Aluminum	A92

For other colors, consult factory.

Hinges & pivots

A

Pulls & plates

B

Flush bolts & coordinators

C

Latches, catches & bolts

D

Stops

E21

Exterior hardware

F

Miscellaneous hardware

G



69 Hinge pin door stops

- Economical solution for use on low frequency, light weight, residential 3 1/2 or 4" hinged doors where the installation of a standard door stop or overhead is not desirable
- Adjustable for 70° to 100° Door Openings
- Positive slip proof adjustment
- White non-marring rubber tips
- Removable bushings accommodate 1/4" to 5/16" diameter hinge pins
- Easy installation—only a screwdriver required

Material substrate

- Made from burnished wrought steel

Available accessory items

- Replaceable white rubber tip available

Dimensions

- Base diameter: 1"
- Tip diameter: 9/16"
- Projection: 3-1/4"

Finishes

BHMA	Description	Substrate	Finish
631	Matte black	Steel	F-BLK
632	Bright brass	Steel	F3
638	Blackened brass	Steel	F5
639	Satin bronze	Steel	F10
640	Oil rubbed bronze	Steel	F10B
645	Bright nickel	Steel	F14
---	Aged bronze	Steel	F-643E/716
646	Satin nickel	Steel	F15
647	Bright nickel	Steel	F15A
651	Bright chrome	Steel	F26
652	Satin chrome	Steel	F26D

For other colors, consult factory.

A
Hinges & pivots

B
Pulls & plates

C
Flush bolts & coordinators

D
Latches, catches & bolts

E22
Stops

F
Exterior hardware

G
Miscellaneous hardware

90 Series surface overhead door holders/stops



90 Series heavy-duty

Glynn-Johnson 90 Series holders and stops are the most rugged models available for heavy-duty applications. The channel is surface-mounted to the door, most often with sex bolts, and the jamb bracket is surface mounted to the jamb, requiring minimal door and frame preparation.

These versatile units can be used in conjunction with most surface-applied door closers. The provided templates allow for variable mounting positions, ranging from 85° to 110° hold-open/stop angle. These templates are designed for installation in almost all types of doors, including doors with conventional butt-type hinges or specialty hinges.

Four models:

- 90H Series hold-open model
- 90S Series stop-only model
- 90F Series friction hold-open model
- 90SE Series special stop-only model

Five sizes:

- Simple
- Standardized
- Each model is available in five sizes

Three options:

- J—Angle jamb bracket
- SHIM—Blade stop shim kits
- SOC—Pin-in-socket security screw package

Unmatched convenience:

- Non-handed
- Improved compatibility with door closers
- Single-acting doors
- Interior/exterior applications
- Durable
- Easy to install
- Improved corrosion resistance
- Function conversion kits available

Materials and finishes

In 300 Series stainless steel, brass and steel substrates, these models are available in the largest selection of finishes in the industry. Stainless steel models offer the highest resistance to corrosion. Available in the following finishes:

Finish	Description
US3	Polished brass
US4	Satin brass
US10	Satin bronze
US10B	Oil rubbed bronze
US32	Polished stainless steel
US32D	Satin stainless steel
SP4	Powder coat brass
SP10	Powder coat bronze
SP28	Powder coat aluminum
SP313	Powder coat dark bronze
SPBLK	Powder coat black
652	Chrome-like coating

Models

Glynn-Johnson 90 Series door holders and stops provide long-lasting protection for doors, frames and hardware. All models incorporate a heavy-duty channel/slide-arm design and offset jamb bracket. This unique design allows for simple field modification of functions, should user requirements change.

90H Series hold-open

(Suffix H) Hold-open models provide a convenient method of holding the door open at a predetermined position for short or long periods of time, permitting an unobstructed traffic flow through the opening. The hold-open function can easily be turned on or off by simply rotating the serrated knob on the bottom of the channel. This knob engages the hold-open mechanism, allowing the door to be held open at a predetermined position ranging from 85° to 110°. When the knob is flipped over, it acts as a stop and shock absorber.

The tension on the hold-open mechanism can be adjusted using a phillips screwdriver to offset air currents or other exterior conditions. The hold-open tension adjustment is located on the top of the slider in the channel.

90S Series stop-only

(Suffix S) When the hold-open function is not a requirement, stop-only models provide a reliable method of door control. Stop-only models provide the same shock-absorbing capability as hold-open models. The stop-only model may be used on fire doors.

90F Series friction hold-open

(Suffix F) Friction hold-open models are ideal for patient room doors, wardrobe and closet doors or similar applications where multiple hold-open positions are desired. The friction tension can be adjusted through the top of the channel using an allen wrench. The friction tension adjustment is located on the top of the slider in the channel.

90SE Series special stop-only

(Suffix SE) When stop-only models are used in conjunction with single-point, hold-only electronic door closers, the stop-only function may be ordered without the shock-absorbing mechanism. Used as an auxiliary stop, these models prolong the life of the closer. The stop location is adjusted using an allen wrench on the stop block located in the channel.

Note: Caution should be taken when using this option in other applications, as the elimination of the shock-absorbing spring can put added stress on the door and frame.

Application Information

UL Classification

The 90 Series stop-only models are classified by Underwriters Laboratories (UL) as miscellaneous fire door accessories. This classification applies to use on either hollow metal fire doors or wood fire doors. These units may be used on doors of any rating. As a reminder, the miscellaneous fire door accessories (GVUX) section is defined by UL as: "Miscellaneous fire door accessories are intended in the individual listings. The accessories have been investigated to determine that when installed in accordance with the manufacturer's instructions, the accessories do not adversely affect the fire rating of the fire door and/or fire door frames."

Dead-stop templating

Dead-stop templating is recommended for applications where a wall or similar obstruction is placed at an opening angle of 110° or less (i.e., doors that open back-to-back). Dead-stop templating can be applied to hold-open, stop-only and friction models. The dead-stop position is the point at which the shock-absorbing spring is fully compressed. Therefore, when dead-stop templating is used, the initial degree of opening will be 5° to 7° less than the dead-stop opening.

Example: If the holder is templated to a 100° dead stop, the door will hold open at an angle between 93° and 95° but no further than 100°.

Note: Do not use dead-stop templating on the 90SE Series since there is no shock-absorbing spring.

Environmental considerations

Environmental factors should always be considered when specifying overhead holders and stops. Doors that are positioned on a building's exterior or subject to corrosive conditions should be equipped with a holder constructed primarily of stainless steel or brass materials. For interior applications, steel is acceptable, though brass substrates generally provide a more attractive architectural-grade finish.

Options

Suffix J (angle jamb bracket)

An angle jamb bracket is available for converting standard models to hinge-side or flush transom mounting. The angle jamb bracket affixes to the standard jamb bracket. If ordered with the unit add suffix J. If needed separately order 90J by finish needed.

Suffix SOC (pin-in-socket security screws)

A screw package with pin-in-socket screws for mounting the door bracket and the jamb bracket is provided instead of the standard screw package.

Suffix SHIM (blade stop shims)

Shim kits are available in 3 sizes

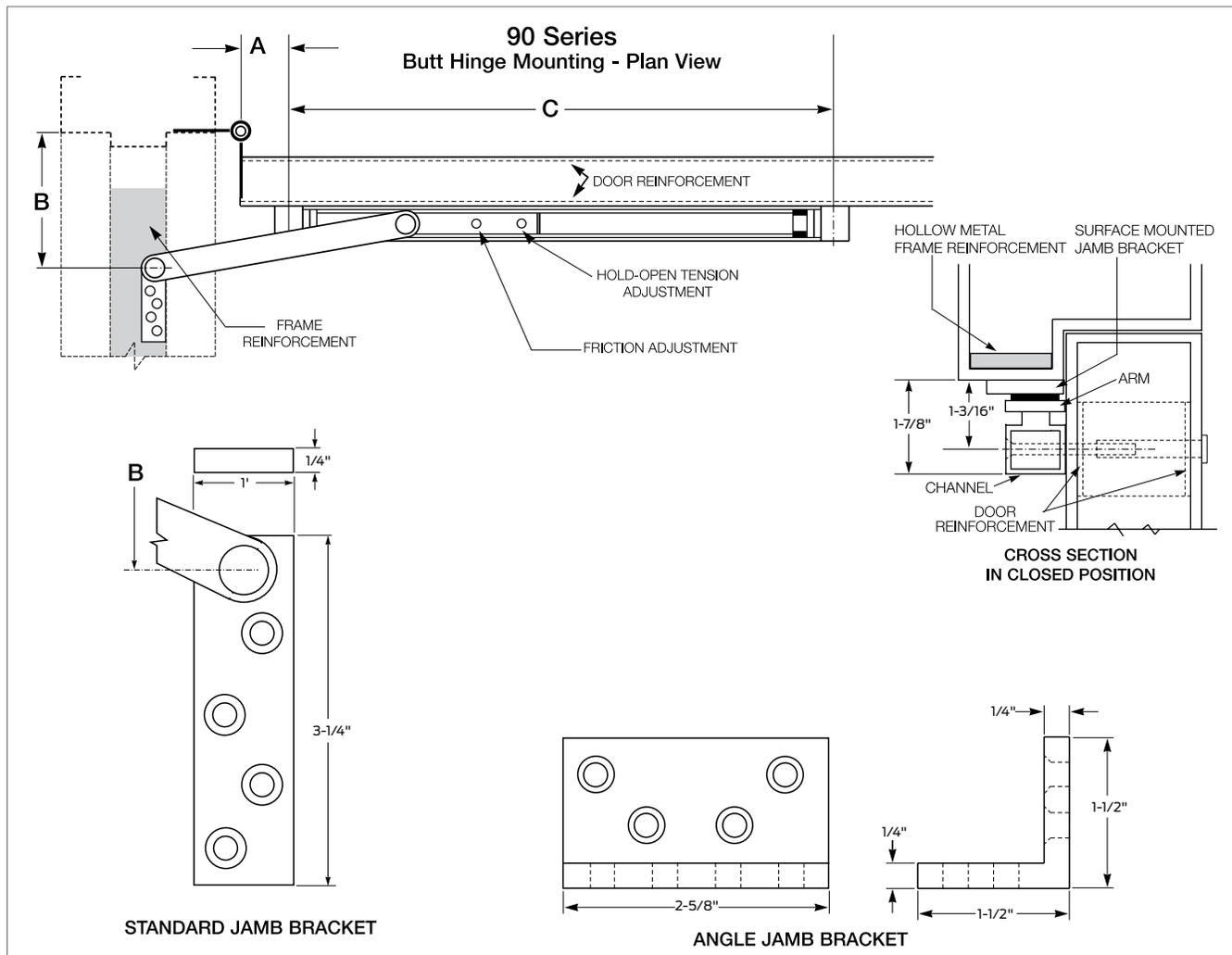
90 SHIM1 is a 1/4" shim kit

90 SHIM2 is a 1/2" shim kit

90 SHIM3 is a 3/4" shim kit

If ordered with overhead, add suffix SHIM (1, 2 or 3). If needed separately order 90 SHIM (1, 2 or 3)—finish.

90 Series surface overhead door holders/stops



90 Series sizing chart

Butts/offset pivots					Center hung			
Size	Door opening	Stop only	Hold open	Friction	Door opening	Stop only	Hold open	Friction
1	-	-	-	-	-	-	-	-
2	23 1/16" - 27"	902S	902H	902F	27 1/16" - 33"	902S	902H	902F
3	27 1/16" - 33"	903S	903H	903F	33 1/16" - 39"	903S	903H	903F
4	33 1/16" - 39"	904S	904H	904F	39 1/16" - 45"	904S	904H	904F
5	39 1/16" - 45"	905S	905H	905F	45 1/16" - 51"	905S	905H	905F
6	45 1/16" - 51"	906S	906H	906F	51 1/16" - 59"	906S	906H	906F

Note: This chart illustrates the most common types of hinging and door opening sizes. For unusual door details, contact Glynn-Johnson for availability.

BHMA/ANSI, A156.8 & Fed. spec. cross reference

G-J model	BHMA*	Fed. spec.
902-906 H	C02511	1161
902-906 S	C02541	1161A
902-906 F	C02531	-

* First numeral (0) designates optional material.
 To specify:
 Brass material, change 0 to 1 (i.e. C12511)
 Stainless steel material, change 0 to 5 (i.e. C52511)
 Steel material, change 0 to 8 (i.e. C82511)

The template information on this page is for reference only and is not intended to serve as an installation template. For complete dimensional information, refer to Glynn-Johnson template book.



How to order

	90	4	H	-	US32D	-	J
Overhead Series:							
90							
Size (door opening using butts or offset pivots):							
2	(23 1/16"–27")						
3	(27 1/16"–33")						
4	(33 1/16"–39")						
5	(39 1/16"–45")						
6	(45 1/16"–54")						
Function:							
H	Hold-open						
F	Friction hold-open						
S	Stop-only						
SE	Special stop-only						
Finishes:							
US3	Polished brass						
US4	Satin brass						
US10	Satin bronze						
US10B	Oil rubbed bronze						
US32	Polished stainless						
US32D	Satin stainless steel						
SP4	Powder coat brass						
SP10	Powder coat bronze						
SP28	Powder coat aluminum						
SP313	Powder coat dark bronze						
SPBLK	Powder coat black						
652	Chrome-like coating						
Options:							
J	Angle jamb bracket						
SHIM	Blade stop shims						
	SHIM 1 1/4" kit						
	SHIM 2 1/2" kit						
	SHIM 3 3/4" kit						
SOC	Pin-in-socket security screws						

450 Series surface overhead door holders/stops



450 Series medium-duty

Glynn-Johnson provides the most complete line of overhead holders and stops, offering solutions for the most demanding door control problems. These surface-mounted holders and stops offer the widest variety of functions, materials and finishes to fit all medium- to light-duty applications.

Glynn-Johnson 450 Series holders and stops provide reliable and versatile surface-mounted overhead door control for all medium to light-duty applications. The visible components are available in a wide variety of architectural finishes to complement any design.

The 450 Series holders and stops are designed for installation in virtually all types of doors and frames including doors with conventional butt hinges, offset pivots, continuous hinges, swing clear hinges and many other specialty hinges. The templates provided allow for variable mounting positions, ranging from 85° - 110° of opening.

Four models:

- 450H Series hold-open model
- 450S Series stop-only model
- 450F Series friction hold-open model
- 450SE Series special stop-only model

Five sizes:

- Simple
- Standardized
- Each model is available in five sizes

Three options:

- J—Angle jamb bracket
- SHIM—Blade stop SHIM kit
- Soc—Pin-in-socket security screw package

Unmatched convenience:

- Non-handed
- Improved compatibility with door closers
- Improved jamb bracket design

- Single acting doors
- Interior applications
- Durable
- Easy to install
- Improved corrosion resistance

Materials and finishes

In brass, 300 Series stainless steel or steel, these models offer the broadest range of finishes in the industry to complement any design. Brass and stainless steel offer the highest resistance to corrosion, while all these base materials are suitable for normal interior use.

Finish	Description
US3	Polished brass
US4	Satin brass
US10	Satin bronze
US10B	Oil rubbed bronze
US32	Polished stainless steel
US32D	Satin stainless steel
SP4	Powder coat brass
SP10	Powder coat bronze
SP28	Powder coat aluminum
SP313	Powder coat dark bronze
SPBLK	Powder coat black
652	Chrome-like coating

Models

Glynn-Johnson 450 Series holders and stops are designed for medium to light-duty applications. They're ideal for openings that are subject to normal activity, providing protection for the door, frame, hinges and surrounding walls or obstructions.

Designed for improved compatibility with most door closers, all models incorporate popular channel/slide arm design and offset jamb brackets. The improved design makes it easier to change functions in the field, should user requirements change.

450H Series hold-open

(Suffix H) These models conveniently hold doors open at a predetermined position, permitting unobstructed traffic flow.

These models feature an adjustable automatic hold-open that is activated when the door is opened to a preset angle. The hold-open tension can be adjusted using an allen wrench through the end of the slider located in the channel at the top of the door. Each meets the 250,000 test cycles required for Grade 1 classification.

450S Series stop-only

(Suffix S) When the hold-open function is not required, the stop-only function provides the same effective door control without keeping the door held open. The stop-only model may be used on fire doors.

450F Series friction hold-open

(Suffix F) Friction hold-open models provide an alternative holding method ideal for patient room doors, wardrobe or closet doors, or similar applications where multiple hold-open positions are desired. The friction tension can be adjusted using an allen wrench on the slider located in the channel at the top of the door.

450SE Series special stop-only

(Suffix SE) When stop-only models are used in conjunction with single point hold-open electronic door closers, the function may be ordered without the shock absorbing mechanism. Used as an auxiliary stop with these closers, they will prolong the life of the closer. The stop location is adjusted using an allen wrench on the stop block located in the channel.

Note: Caution should be taken when using this option in other applications, as the elimination of the shock-absorbing spring can put added stress on the door and frame.

Application information

Closer applications

Glynn-Johnson 450 Series models require minimal door and frame preparation. They may be used in conjunction with most surface-applied door closers. In some cases, optional drop brackets may need to be mounted on the closers. These brackets are available from the closer manufacturer.

UL classification

The 450 Series stop-only models are classified by Underwriters Laboratories (UL) as miscellaneous fire door accessories. This classification applies to use on either hollow metal fire doors or wood fire doors. These units may be used on doors of any rating. As a reminder, the miscellaneous fire door accessories (GVUX) section is defined by UL as: "Miscellaneous fire door accessories are intended in the individual listings. The accessories have been investigated to determine that when installed in accordance with the manufacturer's instructions, the accessories do not adversely affect the fire rating of the fire door and/or fire door frames."

Dead-stop templating

For situations where a wall or similar obstruction is in place at an opening angle of 110° or less (e.g. doors that open back-to-back), dead stop templating should

be used. This includes all hold-open, Friction and stop-only models, except when the "SE" option is used.

The dead stop position is reached when the shock-absorbing spring is fully compressed, allowing an initial degree of opening of 5° to 7° less than the dead stop opening.

Example: If the holder is templated to a 100° dead stop, the door will hold open at an angle between 93° and 95° but no further than 100°.

Note: Do not use dead-stop templating on the 450SE Series since there is no shock-absorbing spring.

Environmental conditions

To assure a long operating life for holders and stops, consider the environment where they will be used. Doors that open to the exterior of a building or are subject to corrosive conditions should have a holder constructed primarily of stainless steel, brass or bronze materials. For interior doors, steel material may be acceptable, although brass and bronze substrates will provide a more attractive architectural grade finish.

Heavy-use applications

Where doors and frames are subject to heavy use and abuse, a heavy-duty holder or stop should be considered. Also heavy-duty units should be considered on exterior doors subject to wind.

Options

Suffix J (angle jamb bracket)

An additional option on the 450 Series is the angle jamb bracket for hinge-side or flush transom mounting. The angle jamb bracket affixes to the standard jamb bracket. If ordered with the overhead add suffix J. If needed separately order 450J-finish.

Suffix SHIM (blade stop shims)

Shim kits are available in 3 sizes:

450 SHIM1 is a $\frac{3}{16}$ " shim kit

450 SHIM2 is a $\frac{3}{8}$ " shim kit

450 SHIM3 is a $\frac{9}{16}$ " shim kit

If ordered with overhead, add suffix SHIM (1, 2 or 3).

If needed separately order 450SHIM (1, 2 or 3)–finish.

Suffix SOC (Pin-in-socket security screw package)

A screw package with pin-in-socket screws for mounting the channel to the door and the jamb bracket to the frame is provided instead of the standard screw package.



ALLEGION™



Door sealing
systems

Explore >

Start

Introduction

Thresholds

Automatic door bottoms

Perimeter seals

Weatherstripping

Intumescent solutions

Sound control solutions

Specialty solutions

Service and support



ALLEGION™



The standard for quality in door sealing hardware

Allegion's Zero International brand is recognized as the standard for quality in door sealing hardware. Our perimeter seals and thresholds are engineered for durability and reliable performance even under the most challenging installation and operating conditions. Our sealing products also support green building applications by promoting heating and cooling efficiency.

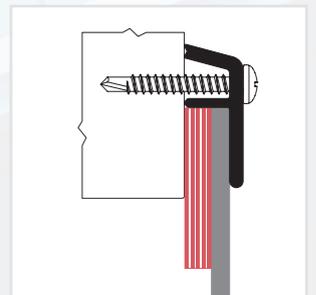
The comprehensive Zero product line includes advanced sound-control gasketing and a full array of other specialized sealing systems for doors and windows, as well as intumescent fire and smoke protection systems. We also offer a line of flood barrier shields with proven value for protecting door openings and building contents in flood-prone areas.



Sound trap system



Patented automatic door bottom technology



Gap solutions-restore lost fire rating

Start

Introduction

Thresholds

Automatic door bottoms

Perimeter seals

Weatherstripping

Intumescent solutions

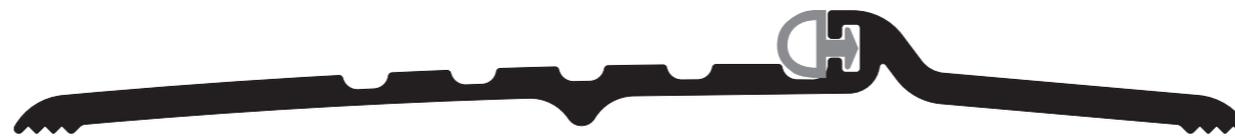
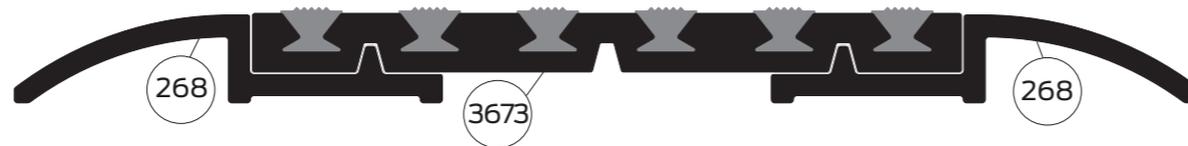
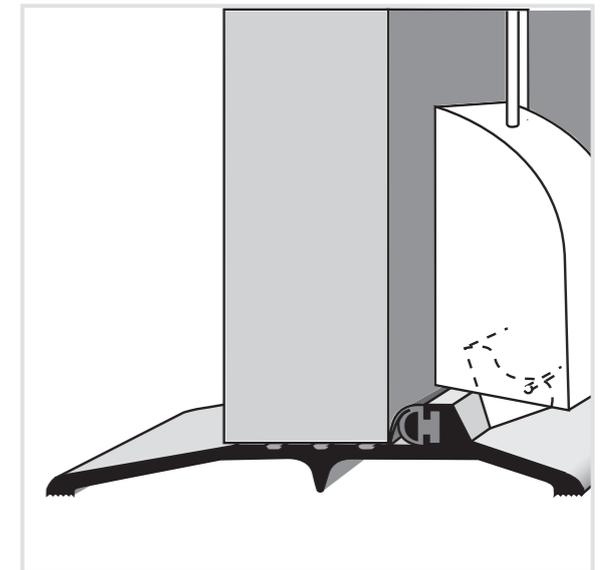
Sound control solutions

Specialty solutions

Service and support

Thresholds

Zero's thresholds feature top quality materials and construction to endure the demands of heavy traffic applications as well as those with extreme temperature differentials. They can be drilled or screwed directly into concrete without the common issues that arise when using lighter commercial materials, such as buckling under heavy loads or loose screws. A variety of types of thresholds are available to accommodate your project's specific needs.



65



655

Start

Introduction

Thresholds

Automatic door bottoms

Perimeter seals

Weatherstripping

Intumescent solutions

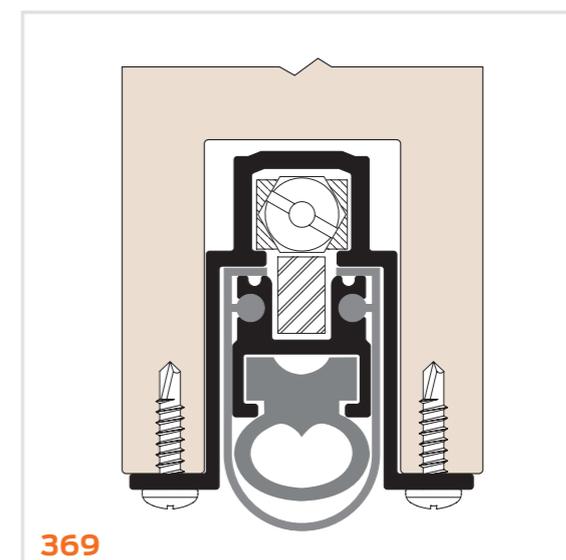
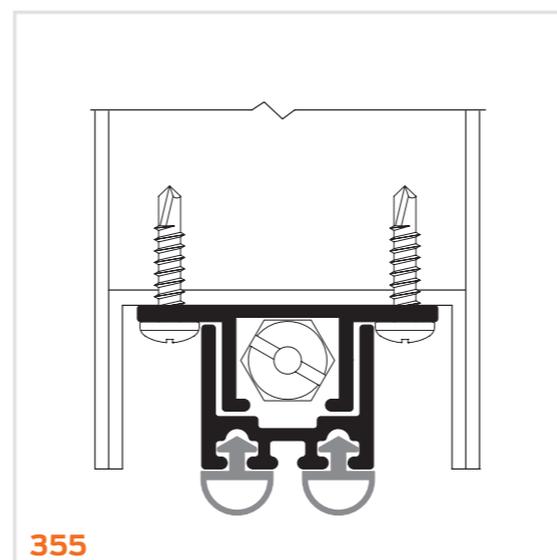
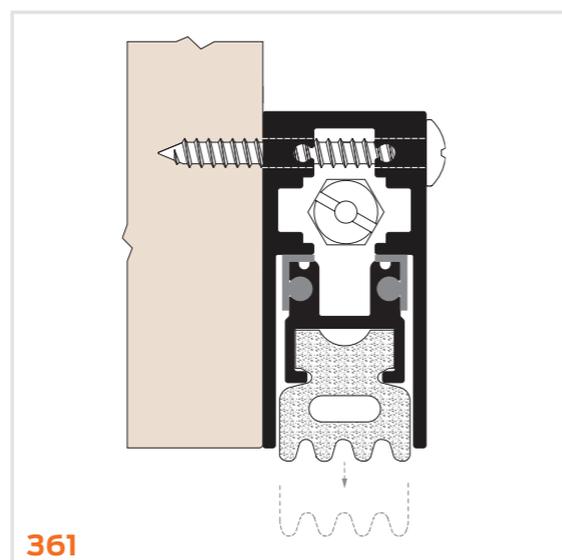
Sound control solutions

Specialty solutions

Service and support

Automatic door bottoms

The patented automatic door bottom technology from Zero ensures an efficient seal against the floor or saddle. As the door is closed, the adjustable plunger is compressed against the door frame, activating a concealed flat spring mechanism. This mechanism drops the seal smoothly from the housing in a scissor-like motion. Door bottoms are available in specialized versions for various applications, including light spring (LS options). Zero door bottoms are designed to block penetration by air, sound, smoke and flames.



Start

Introduction

Thresholds

Automatic door bottoms

Perimeter seals

Weatherstripping

Intumescent solutions

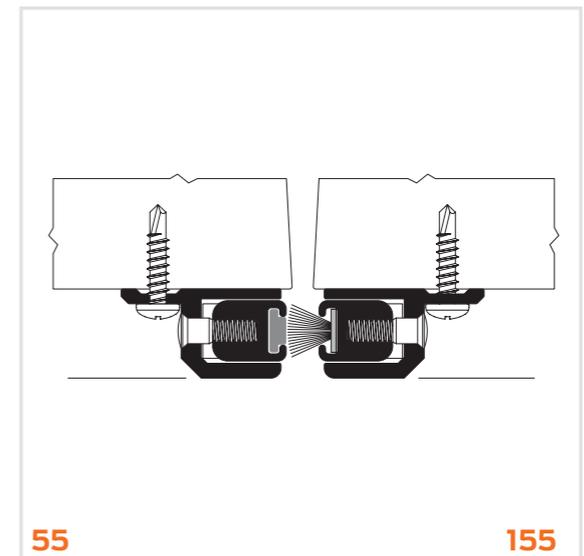
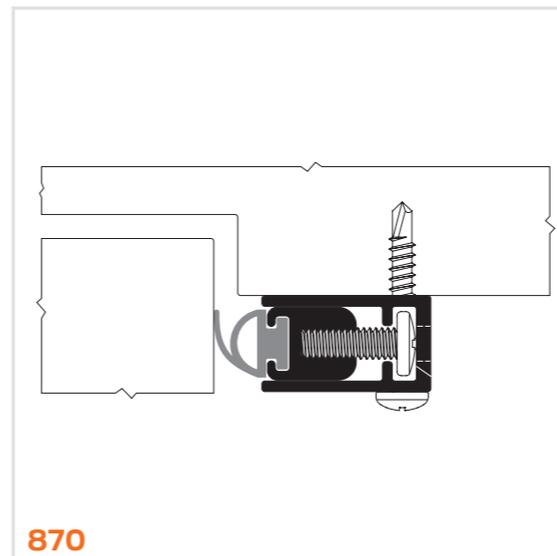
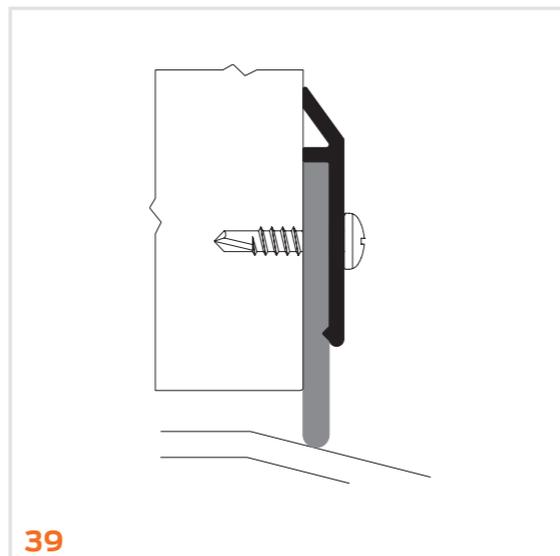
Sound control solutions

Specialty solutions

Service and support

Perimeter seals

Zero's door gaskets for protecting head, jamb, sill and meeting stiles are engineered for reliable performance in demanding environments. Constructed from top-quality materials, they are built to last. When you need the best seal to satisfy codes, or field conditions are less than perfect, Zero's mechanically fastened gasketing provides many choices. The offering includes a range of features, aesthetic options and specialized solutions.



Start

Introduction

Thresholds

Automatic door bottoms

Perimeter seals

Weatherstripping

Intumescent solutions

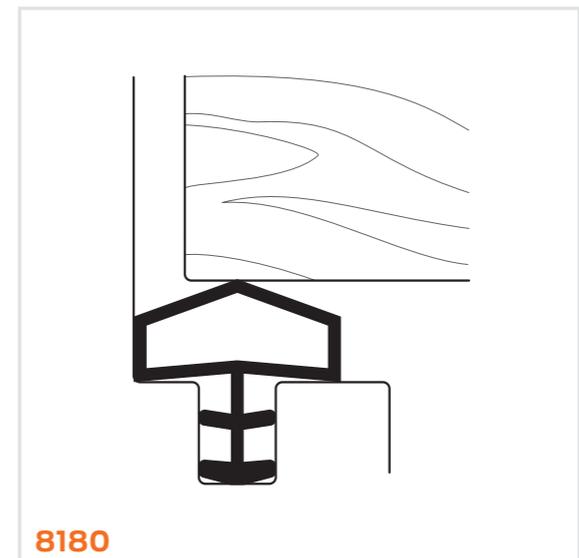
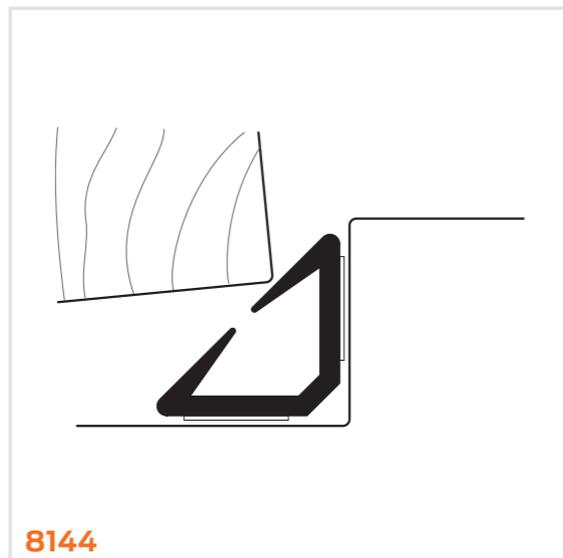
Sound control solutions

Specialty solutions

Service and support

Weatherstripping

A comprehensive selection of kerf seals and pressure-sensitive adhesive (PSA) rubber seals is available in a variety of materials. With a broad portfolio, Zero offers solutions for a variety of challenging applications—and your common sealing needs. Special features, such as state of the art adhesive, set Zero apart. And a variety of material options make it easy to customize solutions to meet the needs of each opening in your project.



Start

Introduction

Thresholds

Automatic door bottoms

Perimeter seals

Weatherstripping

Intumescent solutions

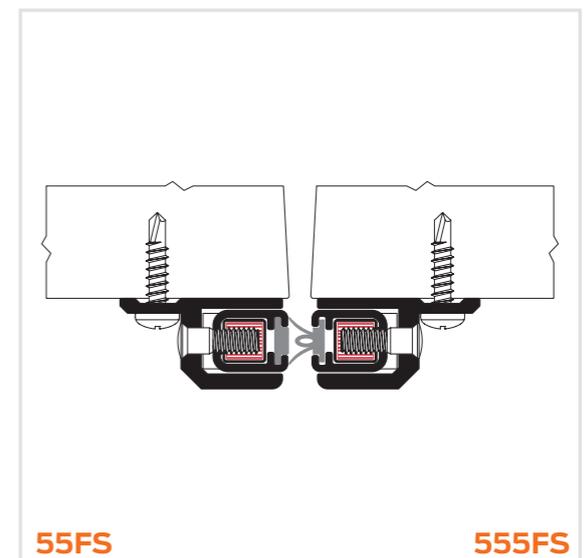
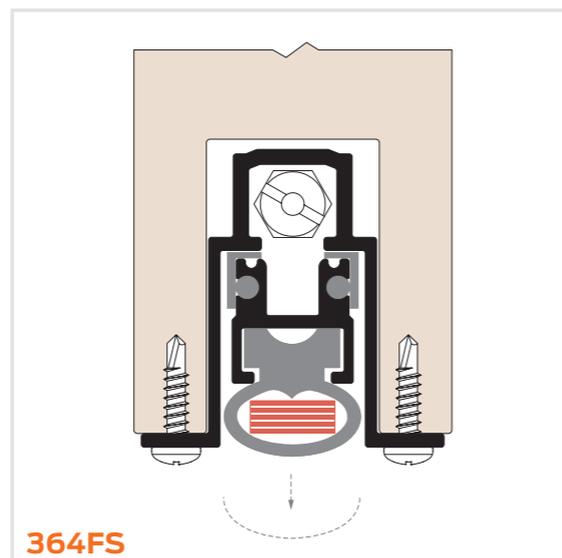
Sound control solutions

Specialty solutions

Service and support

Intumescent solutions

Zero's many years of leadership in developing fire and smoke seals have produced top-quality gasketing systems that meet the highest standards, including intumescent technology. Zero's positive pressure seals are tested and listed according to U.S. listing agencies' classifications for Category G edge sealing systems and Category H smoke and draft control systems.



Start

Introduction

Thresholds

Automatic door bottoms

Perimeter seals

Weatherstripping

Intumescent solutions

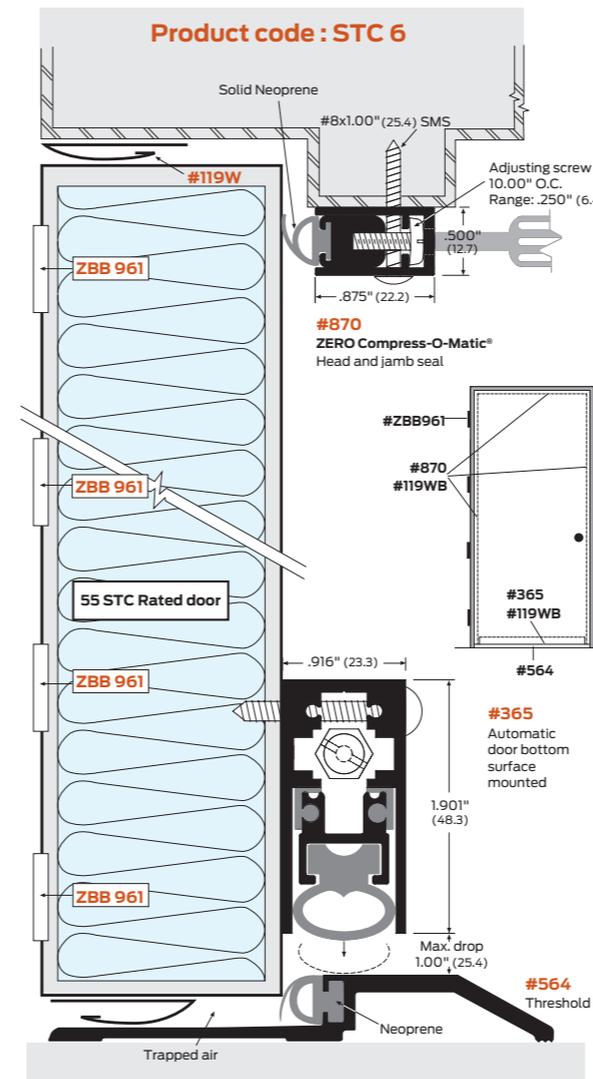
Sound control solutions

Specialty solutions

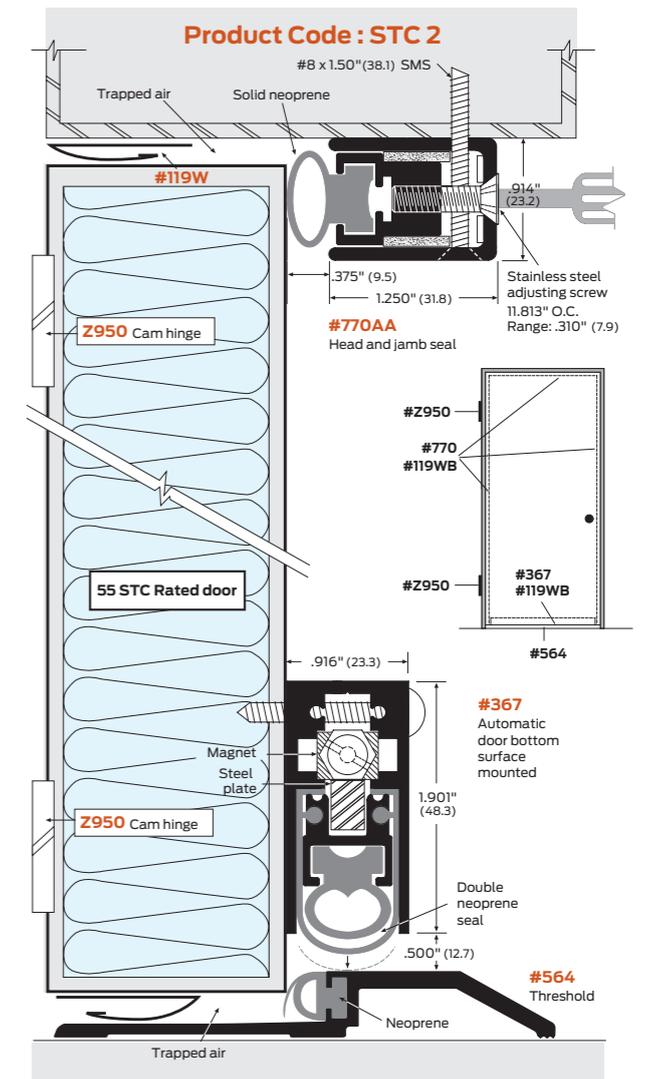
Service and support

Sound control solutions

Sounds control is a common desire in facilities like hospitals, schools, performing arts centers, recording studios, commercial offices, churches, hotels and apartment buildings. Zero uses advanced technology to master two critical challenges: creating an effective sound barrier at the perimeter of the door and preventing gaps in that barrier for the life of the assembly.



Sound Trap 49 STC sealing system



Sound Trap 52 STC sealing system

Start

Introduction

Thresholds

Automatic door bottoms

Perimeter seals

Weatherstripping

Intumescent solutions

Sound control solutions

Specialty solutions

Service and support

Specialty solutions

Piecing a solution together across multiple product and manufacturers adds time, complexity and risk. Instead, ZERO offers proven solutions for a variety of applications, including: sound control, fire and smoke seals, flood barriers to ADA access systems and more. In addition, ZERO offers many unique products for challenging applications, such as:

- Finger guards
- Ligature-resistant gasketing
- Flood barrier shield
- Cam lift full mortise hinges
- Specialty head and jamb protection



SUBSTITUTION REQUEST

Project: Ashville Fire Station #2

Substitution Request Number: 1

To: Goodwyn, Mills, Cawood LLC

From: Pye Barker Fire and Safety

Attn: Fire & Safety

Date: 1/29/26

Re: Fire Extinguisher/Accessories

A/E Project No.: AHUN 256003

Contract For: City of Ashville

Specification Title: Fire Protection Specialties

Description: Products - Manufacture

Section: 104400

Page and Paragraph: 531-532, 2.01, 2.02, 2.03

Proposed Substitution: Amerex B424 Part #15267

Trade Name: Amerex Corporation

Manufacturer: Amerex Corporation Model No.: B424

Mfg. Address: 7595 Gadsden Hwy City, State, zip: Trussville, AL Phone: (205) 655-3271

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Submitted by: Patrick Swann

Signed by: [Signature]

Firm: Pye Barker Fire and Safety

Address: 712 Cahaba Valley Cir.
Pelham, AL 35124

Telephone: (943) 291-6348 E-mail: patrick.swann@pyebarkerfs.com

A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specifications, Substitution Procedures.
- Substitution approved as noted - Make submittals in accordance with Specifications Substitution Procedures.
- Substitution rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

Signed by: **Jeffrey Parnell**

Date: **2/16/26**

Supporting Data Attached: Drawings Product Data Samples Tests Reports



ABC DRY CHEMICAL

ABC or MULTI-PURPOSE extinguishers utilize a specially fluidized and siliconized mono ammonium phosphate dry chemical. It chemically insulates Class A fires by melting at approximately 350°F and coats surface where it is applied. It smothers and breaks the chain reaction of Class B fires and will not conduct electricity back to the operator.



B424
P/N 15267

B461
P/N 15386

B441
P/N 14966

423
P/N 01010

BRASS VALVE

RUGGED

- 6-Year manufacturer's warranty
- Stored-pressure design
- Dependable drawn-steel cylinders
- Durable high-gloss polyester powder paint
- All-metal valve construction

BRASS VALVE—Heavy Duty

- Chrome-plated brass valve body
- Stainless steel handle & lever

ALUMINUM VALVE—Light to Medium Duty

- Anodized aluminum valve body
- Anodized aluminum handle & lever

- Temperature range -65°F to 120°F

USER-FRIENDLY

- Easy and economical to maintain and service
- QR coded and multilingual labels OPTION
- USCG approved with bracket listed on UL label
- Chrome cylinders (see chart below)



B417T
P/N 15217

B500(T)
P/N 15312
(P/N 15310)

B402(T)
P/N 15280
(P/N 15281)

B443
P/N 15393

B456
P/N 14967

A411
P/N 11213

ALUMINUM VALVE

MANUFACTURED AND TESTED TO UL STANDARDS
COMPLIES WITH NFPA 10 STANDARD
ISO-9001/ISO-14001 CERTIFIED UL LISTED

CONFORMS TO TEST STANDARDS:
CAN/ULC-S504 - UL 299 &
CAN/ULC-S508 - UL 711

AVAILABLE IN WHEELED EXTINGUISHERS

LARGEST SELECTION OF EXTINGUISHER SIZES AND OPTIONS AVAILABLE

AGENT TYPE	ABC DRY CHEMICAL									
	Anodized Aluminum						Chrome-Plated Brass			
VALVE TYPE	Nozzle						Hose & Nozzle			
DESIGN	Hose & Nozzle						Hose & Nozzle			
MODEL NUMBER	B417T	B500/B500T	B402/B402T	B443	B456	A411	B424	B461	B441	423
UL & ULC RATING	1A:10B:C	2A:10B:C	3A:40B:C	3A:40B:C	4A:80B:C	10A:120B:C	2A:10B:C	3A:40B:C	4A:80B:C	10A:120B:C
CAPACITY (LBS.)	2.5	5	5	6	10	20	5	6	10	20
*SHIPPING WT. (LBS.)	5.5	9.25/9.5	9.25/9.5	12.75	18	36.5	10.5	14	19.5	38
HEIGHT (IN.)	15.25	15.25	15.25	16	20	24	15.5	16.25	20.5	24
WIDTH (IN.)	5.5	7.25	7.25	7.75	7.75	10.25	8	8.5	8.75	10.25
DEPTH (IN.)	3	4.25	4.25	5	5	7	4.25	5	5	7
RANGE (INITIAL- FT.)	9-15	12-18	12-18	15-21	15-21	15-21	12-18	15-21	15-21	15-21
DISCHARGE TIME (SEC.)	9	14	14	14.5	22	30	14	14	22	30
OPTIONAL CHROME CYLINDER	Yes	Yes	Yes		Yes			Yes	Yes	
NOMINAL OPERATING PRESSURE	195 PSIG	195 PSIG	195 PSIG	195 PSIG	195 PSIG	195 PSIG	195 PSIG	195 PSIG	195 PSIG	195 PSIG
INCLUDED BRACKET	Vehicle	Wall/Vehicle			Wall		Wall			

*Shipping weight includes box.



Stainless Steel Fire Extinguisher Cabinet - 2 1/2 - 5 lb



Stands up to damp conditions while maintaining a clean, professional look.

- Type 304, polished stainless steel resists rust and corrosion.
- Use indoors or in covered outdoor areas.
- Clear plexiglass window. Convenient pull handle.
- Surface mount for easy installation. Sticks out 7" from wall.
- Zinc-plated mounting hardware included.
- Fire extinguishers sold separately.

[More Images](#)

MODEL NO.	MAX. EXTINGUISHER CAPACITY	INSIDE DIM. W x D x H	WT. (LBS.)	PRICE EACH	IN STOCK SHIPS TODAY
H-10025	2 1/2 - 5 lbs.	8 x 6 x 18"	10	\$195 \$195	1 <input type="button" value="ADD"/>

[Additional Info](#) [Shopping Lists](#) [Request a Catalog](#)

<p>DIMENSIONS:</p> <ul style="list-style-type: none"> • Inside (Actual): 8 1/4 x 5 1/2 x 18 1/4" • Outside: 8 1/2 x 6 1/2 x 18 1/2" • Mounting Holes: <ul style="list-style-type: none"> ◦ Diameter: (4) 1/4" ◦ Spacing (Center to Center): <ul style="list-style-type: none"> ▪ Top/Bottom Holes: 3 1/8" apart ▪ Distance Between Top and Bottom Holes: 13 1/16" <p>FEATURES:</p> <ul style="list-style-type: none"> • Piano hinge • Can be mounted with door opening on either side. <p>CAPACITY:</p> <ul style="list-style-type: none"> • Max Extinguisher Capacity: Based on size of Uline's ABC Fire Extinguishers. 	<p>Availability: In Stock Unit Weight: 10 lbs.</p> <p>Instructions</p> <p>Email Item</p>
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SUBSTITUTION REQUEST

Project: Ashville Fire Station No. 2
Apparatus Bay
To: GMC
Attn: Jay Purkey & Brittany Parnell
Re: SUBSTITUTION REQUEST FOR DIV 13, PEMB

Substitution Request Number: 3
From: Pat Garrett
Date: 02/10/26
A/E Project No.: AHUN250003
Contract For: _____

Specification Title: METAL BUILDING SYSTEM
Section: SECTION 13 34 19

Description: SUBSTITUTION REQUEST FOR PEMB SUPPLIER
Page and Paragraph: 13 34 19 - 2, PAR. 2.01

Proposed Substitution: SCHULTE BUILDING SYSTEMS
Trade Name: SCHULTE BUILDING SYSTEMS
Manufacturer: SCHULTE BUILDING SYSTEMS Model No.: _____
Mfg. Address: 3387 DAVEY ALLISON BLVD City, State, zip: HUEYTOWN, AL 35023 Phone: 205-744-1561

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution. GC to confirm highlighted passages above.

Submitted by: Pat Garrett
Signed by: _____
Firm: GREER BUILDING CONTRACTORS, LLC
Address: 110 THOMAS DRIVE
GADSDEN, AL 35904
Telephone: 256-547-7935 E-mail: BIDS@GREERBUILDING.COM

A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specifications, Substitution Procedures.
- Substitution approved as noted - Make submittals in accordance with Specifications Substitution Procedures.
- Substitution rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

Signed by: Jeffrey Parnell

Date: 2/13/26

Supporting Data Attached: Drawings Product Data Samples Tests Reports _____

SUBSTITUTION REQUEST

Project: Ashville Fire Station No. 2
Apparatus Bay
To: GMC
Attn: Jay Purkey & Brittany Parnell
Re: SUBSTITUTION REQUEST FOR DIV 13, PEMB

Substitution Request Number: _____
From: Beau Leverett - District Sales Manager
Date: 02/09/26
A/E Project No.: AHUN250003
Contract For: _____

Specification Title: METAL BUILDING SYSTEM
Section: SECTION 13 34 19

Description: SUBSTITUTION REQUEST FOR PEMB SUPPLIER
Page and Paragraph: 13 34 19 - 2, PAR. 2.01

Proposed Substitution: WHIRLWIND STEEL BUILDINGS
Trade Name: WHIRLWIND STEEL
Manufacturer: WHIRLWIND STEEL BUILDINGS Model No.: _____
2175 SWEETWATER LITHIA SPRINGS, GA
Mfg. Address: IND BLVD City, State, zip: 30122 Phone: 256-531-8636

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have **no adverse effect on other trades and will not affect or delay progress schedule.**
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution. **GC to confirm highlighted passages above.**

Submitted by: Beau Leverett - District Sales Manager
Signed by: _____
Firm: WHIRLWIND STEEL BUILDINGS
Address: 2175 SWEETWATER IND BLVD
LITHIA SPRINGS, GA 30122
Telephone: 256-531-8636 E-mail: beau.leverett@whirlwindsteel.com

A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specifications, Substitution Procedures.
- Substitution approved as noted - Make submittals in accordance with Specifications Substitution Procedures.
- Substitution rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

Signed by: Jeffrey Parnell

Date: 2/13/26

Supporting Data Attached: Drawings Product Data Samples Tests Reports _____

The following are REJECTED
Substitution Requests.



February 4, 2026

GMC Goodwyn Mills Cawood

Project: Ashville Fire Station #2 (Ashville, AL)

We know that the **Ashville Fire Station #2 (Ashville, AL)** needs a permanent roof solution with a competitive price to keep the project within the owner's budget. Metal Roofing Systems (MRS) has been requested by some of the better roofers to provide them with a quote for our quality roofing products for this project. As a local manufacturer of top quality metal panels and edge metal products, our competitive pricing will help keep the project within your owner's budget.

Your design for this project reflects your interest in looking after the owner's best interest. MRS likewise tries to look after the owner's best interest by offering the best quality products on the market today at competitive pricing and these products are installed by our network of trained, certified roofing contractors.

Having performed a detailed review of the contract documents, we want to assure you that we have the same products as you have specified and that they meet or exceed your relevant performance requirements.

Since a number of roofing contractors have asked for our pricing on this project, we ask for you to please review and approve the attached CSI Substitution Request Form and let us know if you have any questions. Also, please let us know if you need for us to make the substitution request with some other form.

Please feel free to call me on my cell phone (804) 385-5798 if you should have any additional questions on the MRS product's compliance to the specified requirements.

Sincerely,

Peter Ryan
Metal Roofing Systems, Inc.

SUBSTITUTION REQUEST

Project: Ashville Fire Station #2 (Ashville, AL)

Substitution Request Number:

From: Peter Ryan, Metal Roofing System

To: GMC Goodwyn Mills Cawood

Date: February 4, 2026

A/E project Number:

Re:

Contract For:

Specification Title: Division 7
Section: 074113

Page:3

Description: Metal Roof Panels
Article/Paragraph: Part 2 Products 2.03

Specification Title: Division 7
Section: 074113

Page:3

Description: Metal Roof Panels
Article/Paragraph: Part 2 Products 2.03

Proposed Substitution: MRS System 2500, MRS Flush Seam

Manufacturer: Metal Roofing Systems

Address: 7670 Mikron Road Stanley, NC 28164

Phone: 704-820-3110

Fax: 704-820-0113

Trade Name: Metal Roofing Systems Inc.

Attached data includes product description, specifications, drawings, photographs, performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for the proposed substitution as for specified product
- Same maintenance service and source of replacement parts, as applicable, is available
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Submitted by: Peter Ryan

Firm: Metal Roofing Systems Inc.

Address: 7670 Mikron Drive Stanley, NC 28164

Telephone: 704-820-3110

A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specification Section.
- Substitution approved as noted - Make submittals in accordance with Specification Section
- Substitution rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

Signed by

Jeffrey Parnell **2/16/26**

Supporting Data Attached: Drawings Product Data Samples Tests Reports _____

SUBSTITUTION REQUEST FORM

To: GMC Goodwyn Mills Cawood

Project: Ashville Fire Station #2 (Ashville, AL)

We hereby submit for your consideration the following product instead of the specified item for the above project:

DRAWING: SPEC. SECT. NO: **074113 – METAL ROOF PANELS**

PARAGRAPH: **PART 2 – PRODUCTS, 2.03**

Proposed Substitution: **MRS SYSTEM 2500**

DRAWING: SPEC. SECT. NO: **074113 – METAL ROOF PANELS**

PARAGRAPH: **PART 2 – PRODUCTS, 2.03**

Proposed Substitution: **MRS FLUSH SEAM**

Attach complete information on changes to Drawings and/or Specifications which proposed substitution will require for its proper installation.

Submit with request all necessary samples and substantiate data to prove equal quality and performance to that which is specified. Clearly mark manufacturer's literature to indicate equality in performance.

Fill in the blanks below:

- A. Does the substitution affect the dimensions shown on the Drawings? **No**
If yes, clearly indicate the changes:
- B. Will the undersigned pay for changes to the building design, including engineering and detailing costs caused by the requested substitution? **Yes**
If no, fully explain: **Note: MRS product is exact same as the specified product and thus will not affect the building design.**
- C. What effect does substitution have on other Contracts or other Trades? **None**
- D. What effect does substitution have on construction schedule?
None. Possible shorter lead times because MRS is a local Manufacturer.
- E. Manufacturer's warranties of the proposed and specified items are.
The proposed product provides superior warranty with a 50-year substrate warranty, and a 40-year finish warranty vs 35-year specified, thus providing additional value to owner. Weathertightness warranty for proposed and specified are equal.
- F. Reason for request: **MRS product is the exact same as the specified profile and provides superior warranty.**

- G. Itemized comparison of specified item(s) with the proposed substitution; list significant variations: **See attached document**
- H. Accurate cost data comparing proposed substitution with product specified:
- I. Designation of maintenance services and sources:

(Attach additional sheets if required.)

**Certification of Equal Performance And
Assumption Of Liability For Equal
Performance**

For Use By Architect:

The undersigned states that the function, appearance and quality are equivalent or superior to the specified item. Submitted By:

Accepted Not	Accepted as Noted	Received
Accepted		Too Late

Peter Ryan

Signature: Peter Ryan Title: Architectural Manager

By: _____

Firm: Metal Roofing Systems, Inc.

Date:

Address: 7687 Mikron Drive, Stanley, NC 28164

Remarks:

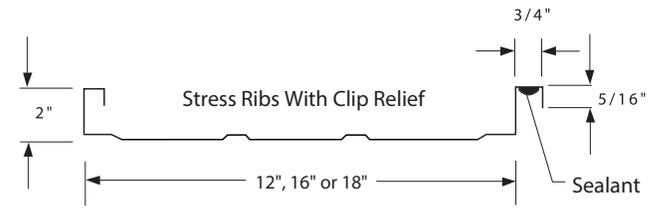
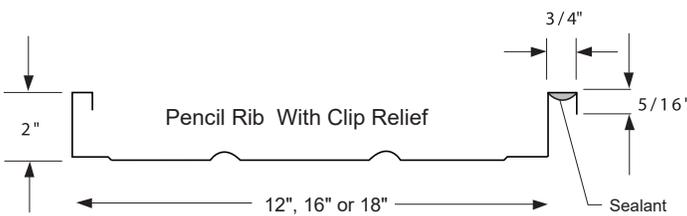
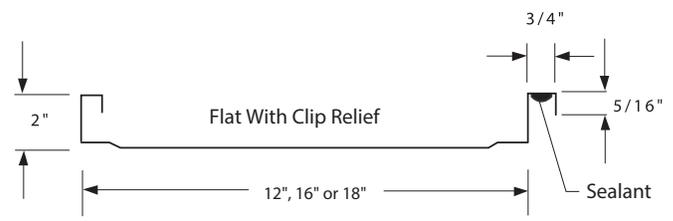
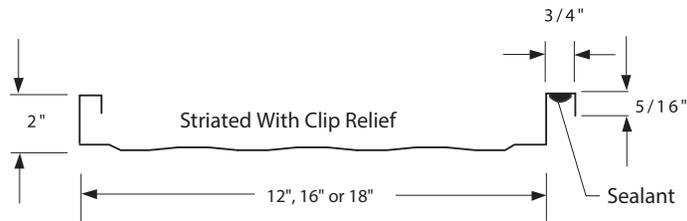
Telephone: 704-820-3110

Signature shall be by person having authority to legally bind his firm to the above terms. Failure to provide legally binding signature will result in rejection of proposed substitution

Roof Panel

MRS System 2500

12", 16" or 18" o.c.
2" high
Mechanical Seam
Single Lock or Double Lock



Materials

- .032 Aluminum 24-gauge Galvalume
- .040 Aluminum 22-gauge Galvalume

Requirements

- Solid substrate or open framing
- Ice & water shield or synthetic underlayment
- Minimum roof pitch: 1/2" on 12"

PRODUCT FEATURES

- Stress ribs, pencil ribs or striated profiles available by request
- Optional clip relief available by request
- 40-year non-prorated finish warranty
- Weathertightness warranty available
- Optional Seam Sealant (Required for weathertightness warranty)

UL CLASSIFICATION

- UL-580 Class 90
- UL-790 Class A fire rated
- UL-2218 impact resistance rated
- UL-1897 wind uplift

ASTM TESTS

- ASTM E1592 tested
- ASTM E1646 tested
- ASTM E1680 tested
- ASTM E2140 tested

FBC Approval #: **FL41654**
FL39697



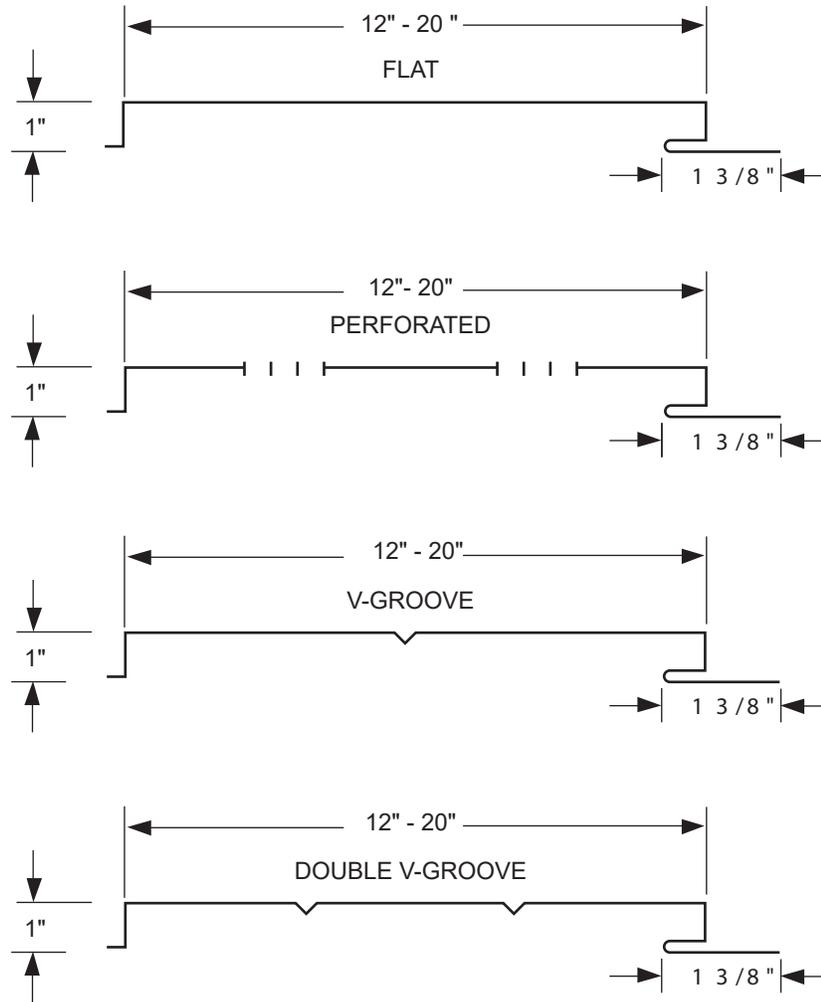
METAL ROOFING
Systems, Inc

Soffit

MRS FLUSH SEAM

12" - 20" Width

24 gauge steel
.032 Aluminum



Versatility accomodates a variety of commercial or residential installations. Can be used as a wall or soffit panel system.

Material: 24 gauge Steel, .032 Aluminum
12" - 20" width
1 1/2", 1/2", 1", or 3/8" "slim-line" depth

Features: Vented or Solid Profiles
Vent placement and widths can vary within panel limits
With or Without Stiffening Beads

Requirements: Open Framing, Solid Substrate
Solid Substrate requires Ice & Water Shield or Synthetic Underlayment

Finish: Kynar 500

Locations:

7670 Mikron Drive
Stanley, NC 28164
Tel: 704-820-3110
Fax: 704-820-0113

2451 Bulk Plant Road
Conway, SC 29526
Tel: 843-365-6673
Fax: 843-365-6683

5512 Fort Henry Drive
Kingsport, TN 37663
Tel: 423-239-0013
Fax: 423-447-7150



METAL ROOFING
Systems, Inc

Website: www.metalroofingsystems.biz

Color Chart



ENVIRONMENTALLY SMART COLORS - DESIGNED ENERGY EFFICIENT



SIERRA TAN



MEDIUM BRONZE



MANSARD BROWN



DARK BRONZE



MATTE BLACK



TERRA COTTA



SURREY BEIGE



SANDSTONE



BONE WHITE



STONE WHITE



REGAL WHITE



COLONIAL RED



ASH GRAY



DOVE GRAY



SLATE GRAY



CHARCOAL GRAY



SLATE BLUE



BURGUNDY



PATINA GREEN



HEMLOCK GREEN



EVERGREEN

NON-PAINTED



ACRYLIC-COATED GALVALUME*

TEXTURED COLORS - PREMIUM UPCHARGE



TLG BLACK



TLG CHARCOAL GRAY



TLG DARK BRONZE



TLG MEDIUM BRONZE



TLG MOONSTONE™

METALLIC / PREMIUM COLORS - PREMIUM UPCHARGE



SILVER



COPPER



CHAMPAGNE



PRE-WEATHERED GALVALUME*



HARTFORD GREEN



REGAL RED



REGAL BLUE

* CONTACT YOUR REPRESENTATIVE FOR EXACT COLOR CHIP SAMPLE



LOCATIONS

Stanley, NC

Conway, SC

Pinellas Park, FL

Jackson, MS

Fayetteville, NC

Gallatin, TN

www.metalroofingsystems.com

Faster. Smarter. Better. Period.



Colors shown are matched as accurately as possible, but may vary slightly from finished product. These rich and vibrant colors are produced with either Kynar® 500 or Hylar® 5000 resins, which provide superior color retention, and allow us to offer non-prorated coating warranties for most applications. Coating warranty varies for Regal Red, Matte Black, Copper, Silver, Champagne, and Pre-Weathered Galvalume. Metallics are warranted for chip, crack, and peel only. Please contact your representative for more information.

STOCK AVAILABILITY MATRIX	LEED V4.1	ISR	EMI	3 YR. SRI	SRI	GALVALUME		ALUMINUM			
						24 GA.	22 GA.	.032	.040	.050	.063
Acrylic Coated Galvalume®	L	0.67	0.14	N/A	56	●	●				
Ash Gray		0.32	0.83	31	31	●		●	●		
Bone White	L	0.65	0.83	77	77	●		●	●	●	●
Burgundy		0.31	0.86	29	32	●					
Champagne		0.32	0.83	31	31	●					
Charcoal Gray		0.25	0.83	22	22	●	●	●	●		
Colonial Red		0.25	0.83	22	22	●		●			
Copper	L	0.35	0.75	32	32	●		●			
Dark Bronze		0.25	0.83	22	22	●	●	●	●	●	●
Dove Gray	L	0.35	0.83	35	35	●	●	●	●		
Evergreen		0.25	0.83	22	22	●		●	●		
Hartford Green		0.25	0.83	22	22	●		●	●	●	
Hemlock Green		0.25	0.83	22	22	●					
Mansard Brown		0.25	0.83	22	22	●	●	●	●	●	
Matte Black		0.25	0.83	22	22	●	●	●	●	●	●
Medium Bronze		0.25	0.83	22	22	●	●	●	●	●	●
Patina Green		0.32	0.83	31	31	●					
Pre-weathered Galvalume®		0.24	0.83	19	21	●		●			
Regal Blue		0.25	0.83	22	22	●					
Regal Red	L	0.35	0.83	35	35	●					
Regal White	L	0.65	0.83	77	77	●	●	●	●	●	●
Sandstone	L	0.35	0.83	35	35	●		●	●		
Sierra Tan		0.31	0.87	28	31	●		●	●		
Silver	L	0.54	0.77	55	60	●		●	●	●	
Slate Blue		0.25	0.83	22	22	●		●			
Slate Gray	L	0.35	0.83	35	35	●	●	●	●	●	
Stone White	L	0.55	0.83	59	63	●		●	●		
Surrey Beige	L	0.35	0.75	32	32	●		●			
Terra Cotta	L	0.35	0.83	35	35	●		●	●		
TLG Black		0.25	0.83	22	22	●					
TLG Charcoal Gray		0.25	0.83	22	22	●					
TLG Dark Bronze		0.25	0.83	22	22	●					
TLG Medium Bronze		0.25	0.83	22	22	●					
TLG Moonstone™		0.32	0.83	31	31	●					

*** IF DESIRED COLOR IS NOT LISTED ON MATRIX PLEASE CONTACT METAL ROOFING SYSTEMS FOR AVAILABILITY**

NOTES
<ul style="list-style-type: none"> All metal is painted with a .20 mil primer and .70-.90 mil Top Coat and 70% Kynar® 500 or Hylar® 5000. The reverse side has a .20 primer and .30-.40 backer coating. 22-gauge steel available upon request. For low slope roofing to meet LEED V4.1 requirements, the initial SRI must be ≥ 82 OR the 3-year SRI must be ≥ 64. For steep slope roofing to meet LEED V4.1 requirements, the initial SRI for 75% of the roof must be ≥ 39 OR the 3-year SRI must be ≥ 32. Low slope roofing is defined as ≤ 2:12. Steep slope roofing is defined as > 2:12.

KEY	
●	Stocked Item
L	LEED V4.1 Compliant
ISR	Initial Solar Reflectance
EMI	Emissivity
SRI	Solar Reflectance Index

Oil canning is an aesthetic issue and is an inherent part of light gauge cold formed metal products. By using coil that has been processed properly, designing for thermal movement, following stringent specifications for installation, and proper handling, most oil canning can be eliminated. Oil canning is not grounds for coil/panel rejection.

Galvalume® is a registered trademark of BIEC. Hylar® 5000 is a registered trademark of Solvay Solexis, Inc. Kynar® 500 is a registered trademark of Atofina, Inc.



METAL ROOFING
SYSTEMS



www.metalroofingsystems.com

Warranty

40-Year Limited COOLR “Paint” Warranty AZ50 Galvalume®, G90 Galvanized, or Aluminum

EXCLUSIVE WARRANTY

This Warranty (collectively, the “Warranty”) is issued by Metal Roofing Systems, Inc. (hereinafter referred to as “MRS”), to the customer identified in this Certificate (hereinafter referred to as “Customer”) and applies to the finish on AZ50 Galvalume®, G90 Galvanized, or Aluminum flat sheet and coil products (hereinafter referred to as the “Product”) with PVDF based coating consisting of KYNAR 500® or Hylar 5000® resin (hereinafter referred to as the “Coating”) if erected anywhere within the Continental United States including Alaska, Hawaii and Canada.

1. Subject to the provisions contained herein, MRS warrants that during the Forty (40) Year Warranty Period, MRS’s COOLR stock Coatings will not chip, crack, peel, flake or check (except for such slight crazing or cracking as may occur on tightly roll-formed edges or break bends at the time of roll forming or other fabrication of pre-painted sheet or coil and which is accepted in the industry as standard). Subject to the provisions contained herein, MRS warrants that for Thirty (30) years from the date of installation of panels, the Coating will not chalk in excess of ASTM D-4214method A659 number eight (8) rating when properly maintained in accordance with Valspar’s printed guidelines. Will not change color more than Five (5.0) Hunter ΔE units as determined by ASTM method D-2244 when properly maintained in accordance with Valspar’s printed guidelines. Color change will be measured on an exposed painted surface that has been cleaned of surface soils and chalk, and the corresponding values measured on the original or unexposed surface. It is understood that fading or color change may not be uniform, if the surfaces are not equally exposed to the sun and elements.

2. This Warranty does not apply to circumstances beyond Sheffield’s control, including:

- a. Fire or other casualty or physical damage;
- b. Unusual harmful fumes, foreign substances in the atmosphere or standing water. No warranty is provided for the coating on any substrate that is subjected to sea spray or installed on a property located 1500 or fewer feet from a coastline, salt or brackish water, or any salt water environment;
- c. Improper treatment of or defects in the metal or in the fabrication or areas where items such as snow guards or solar panels are attached / adhered to the product.
- d. Intermittent or continual submersion in water or any other liquid or solid material;
- e. Damage from wind, deliberate damage, improper handling by erectors, from abrasive or chemical cleaners.
- f. Mishandled Products, e.g., ANY PRODUCT WHICH HAS BEEN ABUSED, ALTERED, MODIFIED, USED IN A MANNER NOT ORIGINALLY INTENDED, OR STORED CONTRARY TO OUR INSTRUCTIONS.
- g. Stored or installed in a way that allows for poor air circulation, contact with animals or animal waste.
- h. Embossing that fractures or severely stretches the film (i.e. film is diminished at the point of emboss by greater than 0.2 mils.

3. This Warranty does not cover damage or deterioration resulting from moisture contamination or entrapment or any other contamination detrimental to the coating, which occurs prior to installation of the Products, including, without limitation, contamination occurring during shipment of the Product to the jobsite or during storage at the jobsite. This Warranty does not cover failure due to corrosion of substrate.

4. EXCLUDED ATMOSPHERIC CONDITIONS

This Warranty does not apply to sheet exposed at any time to corrosive, aggressive, harmful or other abnormal atmospheric conditions, including but not limited to:

- A.** Areas subject to fallout exposure to corrosive chemicals, ash, fumes, cement dust, animal waste, or it’s decomposition by-products, fallout from copper, lead, nickel or silver mining or refining operations and carbon black;
- B.** Conditions/circumstances where corrosive fumes or condensation are generated or released inside the building;
- C.** Areas subject to water run-off from lead or copper flashing or piping or areas in contact with lead or copper or lumber containing same;

5. All Warranty work will be performed by MRS, or any company, dealer, contractor, applicator, or distributor selected by MRS. Since there may be a color variance between the replacement or repainted Product and the originally installed Product due to normal weathering (i.e. exposure to sunlight and extremes of temperature and weather) of the originally installed Products, this condition shall not be indicative of a defect.

6. NOT WITHSTANDING ANYTHING TO THE CONTRARY CONTAINED HEREIN, MRS’S LIABILITY SHALL NOT EXCEED THE LESSER OF THE FOLLOWING: (I) THE CUSTOMER’S LIABILITY DIRECTLY ATTRIBUTABLE TO A BREACH OF THIS WARRANTY, OR (II) THE REFINISHING OR REPLACEMENT OF THE FAILED COATED MATERIAL, OR AT SHEFFIELD’S OPTION, REFUND OF THE PURCHASE PRICE WHICH SHALL NOT EXCEED AN AMOUNT EQUAL TO ONE HUNDRED PERCENT (100%) OF THE AMOUNTS PAID TO MRS BY THE CUSTOMER FOR THE PURCHASE OF THE DEFECTIVE PRODUCT. MRS SHALL NOT BE LIABLE FOR INJURY TO PROPERTY OTHER THAN THE FLAT SHEET AND/OR COIL PRODUCTS COATED WITH FLUOROCARBON PAINT SYSTEMS, IN THE CONDITION AND AS PURCHASED BY CUSTOMER FROM MRS. IN ALL INSTANCES, SHALL HAVE THE SOLE AND EXCLUSIVE RIGHT TO DETERMINE WHETHER OR NOT REFINISHING OR REPLACEMENT OF THE FAILED AREAS IS REQUIRED, AND TO FULFILL ITS OBLIGATION UNDER THE WARRANTY. MRS RESERVES THE RIGHT TO NEGOTIATE AND APPROVE ANY FINAL CONTRACT LET FOR REFINISHING AND REPLACEMENT AS THE CASE MAY BE.

7. This Warranty applies only to products manufactured by the customer within six (6) months from shipment thereof by MRS Metals International.

8. Claims under this Warranty must be presented by the

customer to MRS in writing during the warranty period and within thirty (30) days after Customer becomes aware that any warranted condition has occurred. Time is of the essence and failure to give notice within the specified time shall discharge MRS from any obligations under this Warranty. MRS must be given a reasonable opportunity to do an on-site inspection to determine if there is a coating failure.

9. The laws of the State of Ohio shall exclusively govern the rights and duties of the parties to this Warranty. Any controversy or claim arising out of or related to this Warranty, or the breach thereof shall be brought before a court of competent jurisdiction in Cleveland, Ohio under the substantive and procedural laws of the State of Ohio.

10. Customer acknowledges that MRS is not the manufacturer or applicator of the coating warranted herein and agrees that all issues arising from or related to the exceptions set forth herein shall be determined finally and conclusively as to Customer, by the original manufacturer.

11. Due to pigment limitations, Regal Red, Matte Black and L/S Antique Black are covered by a number eight (8) rating for chalk, and five (5) ΔE units for fade for a period of ten (10) years from installation. Copper and other metallic colors have no rating available for color change.

12. This Warranty applies solely to MRS “inventoried stock” colors. Custom matched colors and non-inventoried items may have different Warranty terms, or not be warranted.

13. For this Warranty to apply, the Customer must retain certain records. In order for MRS to process a claim, we will need to be told the original coil or skid tag number.

14. THIS WARRANTY IS GIVEN AS THE SOLE AND EXCLUSIVE WARRANTY AND EXCLUSIVE REMEDY BY OR AGAINST MRS, AND NO OTHER WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR PURPOSES, ARE MADE, AND ANY SUCH OTHER WARRANTIES ARE EXPRESSLY DISCLAIMED. THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE DESCRIPTION CONTAINED IN THIS INSTRUMENT. CUSTOMER WAIVES THE BENEFIT OF ANY RULE THAT THE DISCLAIMERS OF WARRANTY SHALL BE CONSTRUED AGAINST THE SELLER, AND AGREES THAT THE DISCLAIMERS IN THIS INSTRUMENT

SHALL BE CONSTRUED LIBERALLY IN FAVOR OF MRS SHALL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES. MRS HEREBY DISCLAIMS ALL LIABILITIES FOR DAMAGES BASED ON THEORIES OF NEGLIGENCE AND STRICT PRODUCT LIABILITY. THIS WARRANTY IS EXTENDED TO CUSTOMER AND IS TRANSFERABLE AND ASSIGNABLE TO A SUBSEQUENT OWNER OF THE SUBJECT BUILDING. MRS WILL REQUIRE THE SUBJECT BUILDING TO BE INSPECTED BY AN AUTHORIZED MRS REPRESENTATIVE BEFORE ANY TRANSFER CAN TAKE PLACE. THE FEE FOR THIS INSPECTION IS AT THE OWNERS EXPENSE. THIS WARRANTY MAY NOT BE ENLARGED IN ITS SCOPE BY ANY REPRESENTATIVE, SALES PERSON, AGENT OR OTHER EMPLOYEE OF MRS, EXCEPT AS OTHERWISE EXPLICITLY PROVIDED HEREIN. THE CUSTOMER SHALL NOT PERMIT ANYONE TO CLAIM OR IMPLY THAT THIS WARRANTY EXTENDS OR CAN BE “PASSED THROUGH” TO ANYONE OTHER THAN THE CUSTOMER. THIS PROVISION IS A MATERIAL TERM OF THIS WARRANTY AND ITS VIOLATION OR BREACH BY CUSTOMER OR ANY OF CUSTOMER’S AGENTS OR REPRESENTATIVES, SHALL VOID AND CANCEL THIS WARRANTY FOR ALL PURPOSES. IN THE EVENT THIS WARRANTY IS TRANSFERRED OR ASSIGNED TO A SUBSEQUENT OWNER OF THE SUBJECT BUILDING, SUCH SUBSEQUENT OWNER SHALL COMPLY WITH ALL OF THE TERMS AND CONDITIONS OF THIS WARRANTY.

THE LIABILITY OF SELLER MRS SHALL NOT EXTEND TO PERSONAL INJURY, PROPERTY DAMAGE, LOSS OF PROFIT, DELAY OR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE FAILURE OF ANY PRODUCT OR COATING TO CONFORM WITH THE PROVISIONS OF THIS LIMITED WARRANTY.

MRS SHALL NOT IN ANY EVENT BE LIABLE TO THE CUSTOMER OR ANY OTHER PERSON OR ENTITY FOR ANY ACTIONS, CLAIMS, CAUSES OF ACTION, DAMAGES, EXPENSES AND/OR LIABILITIES ARISING FROM OR RELATED TO THE DESIGN, USE OR FAILURE OF THE PRODUCT OR COATING, FOR THE INTERRUPTION OF THE CUSTOMER’S OR ANY OTHER PERSON’S OR ENTITY’S OPERATIONS OR BUSINESS, FOR THE COST OF LABOR EXPENDED BY OTHERS ON ANY DEFECTIVE PRODUCT OR COATING OR FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES WHATSOEVER OR LOSS OF PROFIT OR OTHER FINANCIAL LOSS ARISING OUT OF THE USE OR FAILURE OF THE PRODUCT OR COATING, EVEN IF MRS HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH ACTIONS, CLAIMS, CAUSES OF ACTION, DAMAGES, EXPENSE, LOSS AND/OR LIABILITIES, WHETHER ARISING FROM BREACH OF CONTRACT, BREACH OF WARRANTY, TORT, INCLUDING NEGLIGENCE, STRICT LIABILITY OR OTHERWISE TO ANYONE BY REASON OF THE FACT THAT SUCH PRODUCT OR COATING SHALL HAVE BEEN DEFECTIVE.

SIGNATURE:

This Warranty is not valid unless signed by an authorized employee or agent of Metal Roofing Systems, Inc.

By: _____

Name Printed:

Title:

Date:

Issued To:

For:

Job:

Color:

Completion Date:



METAL ROOFING

SYSTEMS

50-Year Painted AZ50 Galvalume® Limited "Metal" Warranty

EXCLUSIVE WARRANTY

This Warranty, (collectively, the "Warranty" is issued by Metal Roofing Systems, Inc. (hereinafter referred to as "MRS"), to the customer identified in this certificate, (hereinafter referred to as "Customer") to warrant that the AZ50 Galvalume painted with MRS stock COOLR®, PVDF resin painted sheet steel sold for use as steel building roofing and/or siding panels, if erected within the continental United States and Caribbean, WILL NOT as a result of corrosion: rupture, fail structurally or perforate within a period of 50 years after shipment from MRS when exposed to normal atmospheric conditions.

1. EXCLUDED ATMOSPHERIC CONDITIONS

This Warranty does not apply to sheet exposed at any time to corrosive, aggressive, harmful or other abnormal atmospheric conditions, including but not limited to:

- A: Coastline areas with a marine exposure within the following distances: Coastline with breaking surf - 1500 ft. Coastline with large bay - 800 ft. Coastline with marsh - 400 ft.

And all areas subjected to constant spraying of either salt or fresh water.

B. Areas subject to fallout exposure to corrosive chemicals, ash, fumes, cement dust, animal waste, or it's decomposition by-products, fallout from copper, lead, nickel or silver mining or refining operations and carbon black.

C. Conditions/circumstances where corrosive fumes or condensation are generated or released inside the building.

D. Areas subject to water run-off from lead or copper flashing or piping or areas in contact with lead or copper or lumber containing same.

2. OTHER EXCLUDED SITUATIONS

- A. Mechanical, chemical, or other damage sustained during shipment, storage, forming, fabrication, during or after erection.
B. Failure to provide free drainage of water, including internal condensation, from overlaps on all other surfaces of the sheets or panels.
C. Failure to remove debris from overlaps and all other surfaces of the sheets or panels.
D. Damage caused to the metallic coating by improper roll forming, scouring or cleaning procedures.
E. Deterioration of the panels caused by contact with green or wet lumber or wet storage stain caused by water damage or condensation.
F. The presence of damp insulation or other corrosive materials in contact with or close proximity to the panel.
G. Deterioration to the panels is caused directly or indirectly by panel contact with fasteners. Selection of suitable long-lasting fasteners to be used with Galvalume® roofing and siding panels rests solely with the Customer.
H. Bends less than 2T for sheet thickness .030" and thinner and less than 4T for sheet thickness .031" and thicker.
I. Slopes of roof or sections of the roof flatter than 1:15.
J. Forming, which incorporates severe reverse bending or which subjects coating to alternate compression and tension.
K. "Cut edge corrosion" which is to be expected with all Galvalume®;

L. This Warranty applies only to the hot dipped aluminum-zinc alloy coating and not to any paint coating that may be applied to the metal. A separate warranty is available for MRS's COOLR paints.

3. EXCLUSIVE REMEDIES

Customer's exclusive remedy and Seller's sole liability for breach of this limited Warranty shall be limited to the cost of either repairing non-conforming panels, or at Seller's sole option:

- A. Furnishing to Customer, FOB Customer's plant, sufficient sheet metal to enable Customer to fabricate replacement panels for the defective panels, or;
B. Reimbursing Customer for the cost of the defective panels.

4. LIMITATION OF DAMAGES

THE LIABILITY OF THE SELLER SHALL NOT EXTEND TO PERSONAL INJURY, PROPERTY DAMAGE, LOSS OF PROFIT, DELAY OR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE FAILURE OF ANY SHEET TO CONFORM TO THE PROVISIONS OF THIS LIMITED WARRANTY.

MRS SHALL NOT IN ANY EVENT BE LIABLE FOR THE COST OF LABOR EXPENDED BY OTHERS ON ANY DEFECTIVE PANEL OR FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES WHATSOEVER WHETHER ARISING FROM BREACH OF CONTRACT, BREACH OF WARRANTY, TORT, INCLUDING NEGLIGENCE, STRICT LIABILITY OR OTHERWISE TO ANYONE BY REASON OF THE FACT THAT SUCH PANELS SHALL HAVE BEEN DEFECTIVE.

THIS WARRANTY IS GIVEN AS THE EXCLUSIVE WARRANTY AND EXCLUSIVE REMEDY, AND NO OTHER WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR PURPOSES, ARE MADE, AND ANY SUCH OTHER WARRANTIES ARE EXPRESSLY DISCLAIMED. THERE ARE NO WARRANTIES, WHICH EXTEND BEYOND THE DESCRIPTION CONTAINED IN THIS INSTRUMENT. CUSTOMER WAIVES THE BENEFIT OF ANY RULE THAT THE DISCLAIMERS OF WARRANTY SHALL BE CONSTRUED AGAINST THE SELLER AND AGREES THAT THE DISCLAIMERS IN THIS INSTRUMENT SHALL BE CONSTRUED LIBERALLY IN FAVOR OF MRS. MRS SHALL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES. SHEFFIELD HEREBY DISCLAIMS ALL LIABILITIES FOR DAMAGES BASED ON THEORIES OF NEGLIGENCE AND STRICT PRODUCT LIABILITY.

5. INSPECTION AND NOTICE OF CLAIM

Customer shall exercise diligence in inspection of panels as received from MRS to mitigate repair or replacement. No Warranty shall apply to panels that are used and contain coating defects discernable by reasonable inspection. Claims for any breach of Warranty must be made within the period of this limited Warranty. Customer must give Seller a reasonable opportunity to inspect the material. Claims must be promptly reported in writing to MRS, and MRS shall be given a reasonable opportunity to inspect the panels claimed to be defective. Customer must prove that the defective materials were sold by MRS by means of proper identification of the material involved in the claim, including date of shipment by MRS, date of installation, MRS order number, coil number, and invoice number.

6. TRANSFERS, REPRESENTATIONS AND ASSIGNMENTS

This limited Warranty is extended to the Customer as the original purchaser from MRS and is non-transferable and non-assignable, and may not be enlarged in its scope by any representative, sales person, agent or other employee of

MRS No rights against Sheffield shall be created by any purported transfer or assignment. This provision is a material term of this Warranty and its violation or breach by Customer

or any of Customer's agents or representatives shall void and cancel this Warranty for all purposes.

7. WAIVER OR MODIFICATIONS OF SHEFFIELD'S RIGHTS

No terms or conditions, other than those stated herein, and no agreement or understanding, oral or written, and no course of conduct or performance, in any way purporting to modify this limited Warranty or to waive MRS rights hereunder, shall be binding on MRS unless the same be clearly set forth in a writing that expressly refers to this limited warranty and expressly refers to having such effect upon this limited Warranty, and is signed by the authorized representative of MRS.

8. OTHER PROVISIONS

Customer acknowledges that MRS is not the manufacturer or applicator of the coating warranted herein and agrees that all issues arising from or related to the exceptions set forth herein shall be determined finally and conclusively as to the Customer, by the original manufacturer.

9. GOVERNING LAW

The substantive law of the State of Ohio shall exclusively govern the rights and duties of the parties under this agreement. Any controversy or claim arising out of or related to this warranty, or the breach thereof shall be brought before a court of competent jurisdiction in Cleveland, Ohio.

SIGNATURES:

This Warranty is not valid unless signed by an authorized employee or agent of MRS.

Metal Roofing Systems, Inc.

By: _____

Name Printed:

Title: President

Date:

"MRS"

Issued To:

For

Job:

Color:

Completion Date:



20-Year Watertightness Limited Warranty

Building Owner : _____ MRS Work Order Number _____

Building/Job Name: _____ Date Roof Completed _____

Building Location: _____ Contract Amount (MRS Materials): _____

Metal Roofing Systems, Inc. (hereinafter referred to as "MRS") and the Roofing Contractor/Installer whose signature appears below (hereinafter referred to as "Roofer") severally warrant [Roofer only for any matter arising during the first two years after completion of installation of the subject roof on the above referenced Building and MRS only for any matter first arising after the second anniversary of successful completion of installation of the subject roof but arising not later than the twentieth anniversary of such completion] to the above named Building Owner (hereinafter referred to as "Owner") that subject to each and every term(s), condition(s), limitation(s), allocation(s) of warranty, and responsibility(ies) stated herein, Roofer's workmanship on the above named building will be adequate to prevent leaks for 20 years commencing with the date of completion of Installation of the Roofing System. This warranty will be fully satisfied by repair of the Roof, and any such repairs shall carry a warranty against leaks for any then remaining balance of the original 20-year warranty period.

MRS'S AND ROOFER'S AGGREGATE TOTAL CUMULATIVE LIABILITY UNDER THIS 20 YEAR WATERTIGHTNESS LIMITED WARRANTY IS LIMITED TO THE AMOUNT OF THE OWNER'S ORIGINAL PAYMENT MADE TO THEM FOR MATERIALS FURNISHED BY MRS ONLY AND FOR THE INSTALLATION OF THOSE MATERIALS ONLY, NEITHER MRS NOR ROOFER MAKES ANY OTHER WARRANTY WHATSOEVER, EXPRESS OR IMPLIED, ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND ALL IMPLIED WARRANTIES OF FITNESS FOR ANY PARTICULAR PURPOSE WHICH EXCEED OR DIFFER FROM THE WARRANTIES HEREIN EXPRESSED ARE DISCLAIMED BY EACH AND ALL OF SAID PARTIES AND EXCLUDED FROM THIS 20 YEAR WATERTIGHTNESS LIMITED WARRANTY. MRS DOES NOT IN ANY WAY WARRANT THE MERCHANTABILITY OF THE GOODS SOLD HEREBY. NO WARRANTIES EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF.

IN NO EVENT SHALL ANY ONE OR MORE OF MRS AND ROOFER HAVE ANY LIABILITY FOR ANY COMMERCIAL LOSS, CLAIMS FOR LABOR, OR CONSEQUENTIAL DAMAGES OF ANY OTHER TYPE WHETHER OWNER'S CLAIM BE BASED IN CONTRACT, TORT, WARRANTY, STRICT LIABILITY, OR OTHERWISE, IT IS EXPRESSLY AGREED THAT OWNER'S REMEDIES EXPRESSED IN THIS 20 YEAR WATERTIGHTNESS LIMITED WARRANTY ARE OWNER'S EXCLUSIVE REMEDIES.

TERMS, CONDITIONS, LIMITATIONS

1. Owner shall provide MRS and Roofer with written notice within thirty days of the discovery of any leak(s) in the Roof. Failure of the Owner to do so shall automatically relieve both MRS and Roofer of any and all responsibility and/or liability under the 20 year Watertightness Limited Warranty.
2. In the event a roof repair is necessary during the first two-year period or any extension thereof, the Roofer's responsibility [which shall be in lieu of any and all MRS liability during this period and any such extensions] shall be extended for a two-year period from the date of the last such repair. In any such case, MRS will be responsible only for the balance remaining after the end of such a period and any and all extension(s) of the original twenty-year period from the date of completion or installation of the Roofing System.
3. Following MRS's inspection, MRS determines that the leak(s) in the Roof are caused by defects in MRS materials or in the workmanship of the Roofer, Roof repair obligations shall then arise in accordance herewith, but Owner's remedies and MRS's liability shall in any event be limited to repair of the Roof, subject to the cost limitations set forth above. Otherwise, neither MRS nor Roofer shall have any liability. The Roofer's two year liability (which is in lieu of any and all MRS liability for such period) shall be extended an additional two years from date of last repair, should such repairs be necessary during the first two years of the Roofer's liability or during any extension thereof.

4. Neither MRS nor Roofer shall have any liability or responsibility under or in connection with either this 20-Year Watertightness Limited Warranty or the Roof if any one or more of the following shall occur:
 - a) Deterioration caused by marine(salt water) atmosphere or by regular spray of either salt or fresh water.
 - b) Corrosion caused by heavy fallout or exposure to corrosive chemicals, ash or fumes from any chemical plant, foundry, planting works, kiln, fertilizer manufacturing, paper plant, and the like.
 - c) Deterioration caused by any corrosive substance or any condensate of any condensate or any harmful substance contained, generated or released inside the building.
 - d) Damage caused by worker(s) on the roof.
 - e) Any other cause beyond MRS's control.
 - f) Damage to the Roof caused by natural disasters, including but not limited to, lightning, or any strong gale, hurricane, tornado, or earthquake.
 - g) Failure by any contractor or subcontractor to follow MRS's recommended installation instructions for the layout design and installation of the Roof.
 - h) If, after installation of the Roof by Roofer, there are any alterations, such as, but not limited to, structures, fixtures, or utilities being place upon or attached to the roof without prior written authorization from MRS, or
 - i) If there is any failure by the Owner or lessee or other occupant or user to use reasonable care in maintaining the Roof, or
 - j) If Owner fails to comply with every term and/or condition stated in this 20-Year Watertightness Limited Warranty, or
 - k) If any panels or other parts are installed in a manner that does not permit drainage of water from all surfaces.
 - l) MRS shall not have any liability or responsibility with leakage caused by ridge vents.
 - m) MRS shall not have any liability or responsibility with failure of gutters and gutter accessories.
 - n) Failure of roofing installation and the materials supplied by MRS for the flashing and metal roofing due to reaction of dissimilar metals will not be the responsibility of MRS, nor will MRS be held liable for any claims due to failures caused by dissimilar metals.
5. MRS shall not have any liability or responsibility under or in connection with either this 20-Year Watertightness Limited Warranty or the Roof in the event of a failure by any contractor or subcontractor to use approved installation details for roof curbs, roof jacks, sealants, sub framing, and flashing furnished by MRS, [or to substitute therefore only products approved in writing in advance by MRS as equal (if provided by the contractor)].
6. During the term of this Warranty, MRS, its Sales Representative and employees, shall have free access to the roof during regular business hours
7. MRS shall not have any obligation under this 20-Year Watertightness Limited Warranty until final drawings of the completed roof are submitted by MRS to the Roofer and accepted in writing by MRS. Such drawings must show the exact number, size and location of all roof penetrations and rooftop equipment. Photos of the roof showing these items must accompany the drawings.
8. MRS shall not have any obligation under this 20-Year Watertightness Limited Warranty until all invoices for installation, supplies and services have been paid in full to each of MRS and Roofer and each material supplier.
9. Neither MRS nor Roofer shall be responsible for any consequential damages or loss to the building its contents or other materials.
10. Neither MRS nor Roofer's failure at any time to enforce any of the terms or conditions stated herein shall be construed to be a waiver of such provision or of the right to exercise any right in the future.
11. This 20-Year Watertightness Limited Warranty supercedes and is in lieu of any and all other warranties (whether express or implied) that are either in addition to or in conflict with the term(s) and condition(s) stated herein. ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND ALL IMPLIED WARRANTIES OF FITNESS FOR ANY PARTICULAR PURPOSE WHICH EXCEED OR DIFFER FROM THE WARRANTIES HEREIN EXPRESSED ARE DISCLAIMED BY EACH AND ALL OF SAID PARTIES AND EXCLUDED FROM THIS 20-YEAR WATERTIGHTNESS LIMITED WARRANTY.
12. If the subject roof is covered by products of more than one roofing products manufacturer, this 20-Year Watertightness Limited Warranty applies only to those portions of such roof which are covered solely by MRS manufactured products.
13. Notwithstanding any other provision of this 20-Year Watertightness Limited Warranty, MRS shall not have any liability or responsibility at any time for or as a consequence of any condensation or underside corrosion which is or was caused at any time in part or wholly by any condensation resulting from either or both of the following:
 - a) The use of an inadequate vapor barrier where the insulation is installed immediately beneath the roof panels. An adequate vapor barrier is defined as one which has a perm rating of .05 or less with sealed joints and perimeter.

- b) Inadequate ventilation of the attic space between a roof panel and insulation.
- 14. Roofing installation must be supervised by an authorized MRS installer or an individual that has been factory trained in the installation of MRS roofing products.
- 15. MRS roof panels must be made of a material which carries a 20-year durability warranty from manufacturer, such as a 20-year warranty Kynar 500 painted panel.

WARRANTY RESPONSIBILITY:

ROOFER:

- First through second Year, plus any applicable extension period(s) as describe hereinabove.

MRS:

- The thereafter remaining balance of the first 20 years from date of completion of installation of the subject Roof.

This 20-Year Watertightness Limited Warranty is tendered for the sole benefit of the original purchaser as named below is not transferable or assignable. It becomes valid only when signed by each of Roofer, Owner, and MRS.

EXCEPT ONLY AS EXPRESSLY PROVIDED HEREIN, MRS MAKES NO REPRESENTATION(S) OR WARRANTY(IES) OR MERCHANTABILITY AND WARRANT(IES) OF FITNESS FOR ANY PARTICULAR PURPOSE, ALL OF WHICH ARE EXPRESSLY DISCLAIMED WITH RESPECT TO THE GOODS AND OR SERVICES COVERED HEREBY, NOR DOES MRS MAKE ANY WARRANTY OR RESUME ANY RESPONSIBILITY WITH THE RESPECT TO THE VALIDITY OF ANY PATENT(S), DESIGN(S), COPYRIGHT(S), OR TRADEMARK(S) WHICH MAY COVER ANY OF SUCH GOODS. THE CONDITIONS OF LIABILITY, RIGHTS, OBLIGATIONS AND REMEDIES OF THE PARTIES RELATING TO CLAIMS ARISING FROM ANY DEFECTIVE GOODS AND/OR WORKMANSHIP SHALL BE GOVERNED EXCLUSIVELY BY THE TERMS HEREOF. THIS 20-YEAR WATERTIGHTNESS LIMITED WARRANTY MAY NOT BE CHANGED ORALLY.

This 20-Year Watertightness Limited Warranty shall be governed by and construed and enforced in accordance with the laws of the State of North Carolina.

Roofing Contractor/Installer: _____

Owner: _____

By: _____

Title: _____

Date: _____

Metal Roofing Systems, Inc.: _____

Date: _____

CSI Form 1.5C

SUBSTITUTION REQUEST (During the Bid Period)

Project: Ashville Fire Station #2 Substitution Request Number:

From:

To: Date: 1/19/2026

A/E Project Number:

Re: Roofing Sub request Contract For:

Specification Title: SECTION 07 54 16 - Description: Thermoplastic Membrane Roofing

Section: 07 54 19 Page: 15 Article/Paragraph:

Proposed Substitution: Sikaplan 60

Manufacturer: Sika Address: 100 Dan Road Canton MA 02021 Phone: 800-451-2502

Trade Name: Sika Sarnafil Model No.:

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
Same warranty will be furnished for proposed substitution as for specified product.
Same maintenance service and source of replacement parts, as applicable, is available.
Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
Proposed substitution does not affect dimensions and functional clearances.
Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Submitted by: Ellen Walkama

Signed by:

Firm: Sika Sarnafil

Address:

Telephone: 781-332-3259

A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
Substitution approved as noted - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
Substitution rejected - Use specified materials.
Substitution Request received too late - Use specified materials.

Signed by: Date:

Supporting Data Attached: Drawings Product Data Samples Tests Reports

SUBSTITUTION REQUEST

Project: Asheville Fire Station
2
To: Goodwyn Mills Cowood
Attn: _____
Re: Aluminum Framed Storefront

Substitution Request Number: 005
From Rafe Stewart
Date: 2-10-2026
A/E Project No.: AHUN250003
Contract For: Dominguez Design-Build, inc.

Specification Title: Aluminum-Framed Storefronts Description: Manufacturers
Section: 084313 Page and Paragraph: 2 paragraph 2.01

Proposed Substitution: Alternative Manufacturer
Trade Name: Aluminum Framing and glazing
Manufacturer: YKK AP America Model No.: YES 60 TU
Mfg. Address: 1229 US 441-BYP City, State, zip: Publin, GA 31021 Phone: 478-277-1955

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

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- Proposed substitution does not affect dimensions and functional clearances.
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Submitted by: Breanna Eymann
Signed by: Breanna Eymann
Firm: Planet Glass Corp
Address: 119 Nashville Highway Suite 01
Columbia TN 38401
Telephone: 615-593-4905 E-mail: Breanna@planetglass+n.com

A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specifications, Substitution Procedures.
- Substitution approved as noted - Make submittals in accordance with Specifications Substitution Procedures.
- Substitution rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

Signed by: Jeffrey Parnell Date: 2/16/26

Supporting Data Attached: Drawings Product Data Samples Tests Reports _____

YKK AP[®]

www.ykkap.com

STFH Triumph (Ward 8) - Washington D.C.

YES 60 TU

Thermally Broken, Offset Storefront System with Insulating Glass

The **YES 60 TU** is a thermally broken, offset storefront system for insulating glass. The system is thermally broken by means of a poured and de-bridged pocket that employs an internal process, ThermaBond Plus[®], to greatly improve adhesion and resolves the problem of adhesion and resulting dry shrinkage associated with typical poured and de-bridged systems.

- Large horizontal/vertical spans for 6" system
- 1" Standard Insulating Glazing with a 1/4" Monolithic Glass infill option
- High Performance Sill Flashing
 - ◆ No blind seals
 - ◆ Tall back leg for enhanced water resistance
 - ◆ Patented 3-point attachment of end dam
- ThermaBond Plus[®] Thermal Break
- Integrates with our YKK AP Entrances and Sun Control Systems

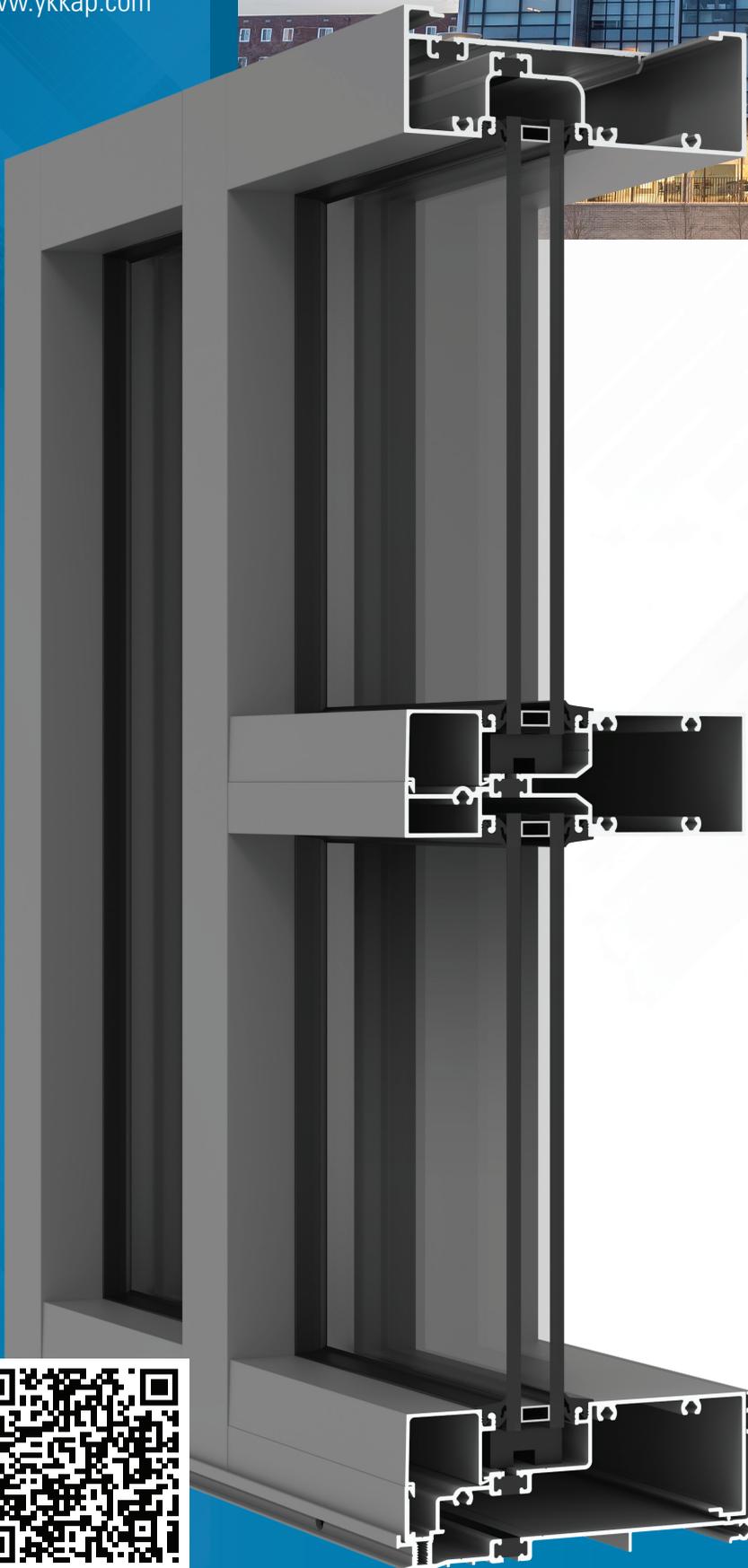
Configuration:

Glazing	Glass Setting	Installation
Outside	Offset	Screw Spline

Thermal Values:

U-Factor:	Values as low as 0.33*
CRF:	Minimum 69 frame and 68 glass

*Based on NFRC 100. Lower values may be achieved through further simulation.



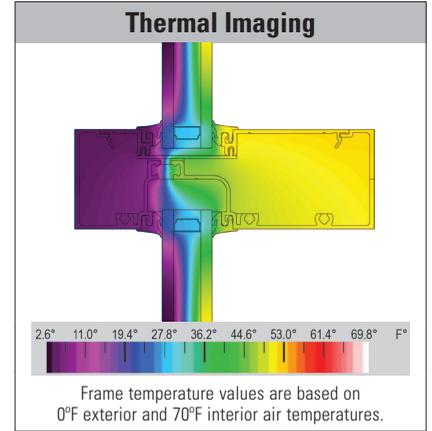
YES 60 TU SPECS		
Base Depth	6"	
Sightline	2"	
Config	Outside Glazed / Offset	
Tested Glass	1" IGU with Low-E (C.O.G. U-Factor: 0.29)	
Test	Results	Standards
Air Infiltration	0.06 CFM/FT ² (1.10 m ³ /h·m ²) @ 6.24 PSF (299 Pa)	ASTM E 283
Water Infiltration	Static: 12 PSF (575 Pa) Dynamic: 12 PSF (575 Pa)	ASTM E 331 AAMA 501
Acoustical (1" IGU)	Standard STC: 31 Standard OITC: 25	ASTM E 90 ASTM E 1425
	Laminated STC: 34 Laminated OITC: 29	

Thermal Performance								
Mullion Depth (1" IGU)	U-Factor - BTU/hr·ft ² ·°F						CRF	
2" x 6"	0.41	0.40	0.38	0.36	0.35	0.33	69	68
Center of Glass	0.30	0.28	0.26	0.24	0.22	0.20	Frame	Glass
AAMA 507 & NFRC 100							AAMA 1503	

Finish Options	
Type	Standard
Factory Anodized	AAMA 612
Organic Paints	AAMA 2604 AAMA 2605

Various System Options

Compound Mullions, Expansion Mullion, 90° Outside and Inside Mullions, Door Jambs and Transoms



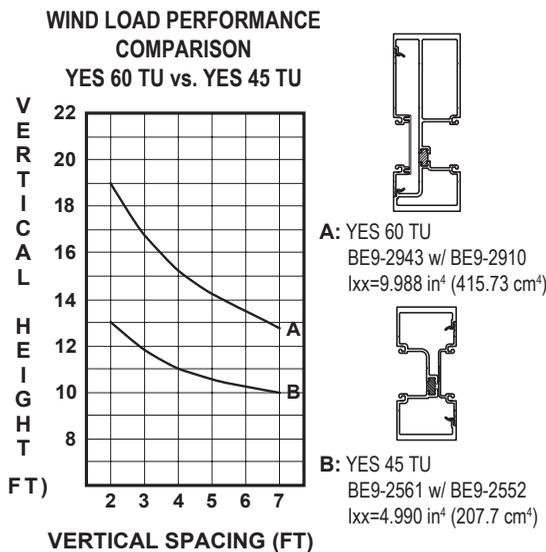
Sill Flashing Design

- ▶ 2" back leg on sill flashing – enhanced water resistance in the field and in water testing
- ▶ Three point attachment of end dam, with a foldable tab and two screws into flashing splines
- ▶ No sill anchoring required if end reaction is less than 500 lbs
- No secondary penetration of sill and flashing when properly sealed



Structural Integrity

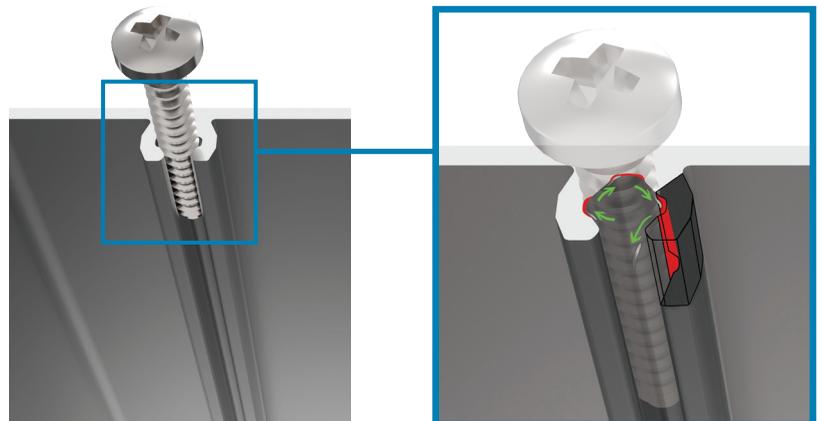
Longer horizontal mullions resulting in greater spans for projects. Chart based on a 20 PSF windload.



Installation Efficiency

Our screw spline storefronts utilize a diamond shaped spline to help with installation speed and efficiency.

- Reduces stress at the fastener head helping prevent any screw breaks
- Eliminates the need for wax dipping fasteners prior to use
- Can re-use/re-drive screws into splines without stripping
- Fastener chip relief makes for reduced fabrication time



Additional information including CAD details, CSI specs, test reports and installation instructions are found on the Product Guide by clicking this link or visiting www.ykkap.com/commercial/productguide

SUBSTITUTION REQUEST

Project: Ashville Fire Station No. 2
Apparatus Bay

Substitution Request Number: _____

To: GMC

From: JIM AMES, DM FOR NORTH AL FOR ACI

Date: 1/21/26

Attn: Jay Purkey & Brittany Parnell

A/E Project No.: AHUN250003

Re: SUBSTITUTION REQUEST FOR ACI, DIV 13, PEMB

Contract For: _____

Specification Title: METAL BUILDING SYSTEM

Description: SUBSTITUTION REQUEST FOR PEMB SUPPLIER

Section: SECTION 13 34 19

Page and Paragraph: 13 34 19 - 2, PAR. 2.01

Proposed Substitution: ACI BUILDING SYSTEMS

Trade Name: ACI BUILDING SYSTEMS

Manufacturer: ACI BUILDING SYSTEMS Model No.: _____

Mfg. Address: HWY 6 City, State, zip: BATESVILLE, MS Phone: (O) 662-563-4574
JIM'S CELL: 205-294-0662

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

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- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Submitted by: JIM AMES, DM FOR NORTH ALABAMA FOR ACI BUILDING SYSTEMS

Signed by: 

Firm: ACI BUILDING SYSTEMS

Address: HWY 6, BATESVILLE, MS

Telephone: (O) 332-563-4574 E-mail: jim.ames@acibuildingsystems.com
JIM'S CELL: 205-294-0662

A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specifications, Substitution Procedures.
- Substitution approved as noted - Make submittals in accordance with Specifications Substitution Procedures.
- Substitution rejected - Use specified materials. **No MBMA information provided**
- Substitution Request received too late - Use specified materials.

Signed by: Jeffrey Parnell

Date: 2/13/26

Supporting Data Attached: Drawings Product Data Samples Tests Reports _____



SUBSTITUTION REQUEST

(During the Bidding/Negotiating Phase)

PROJECT: Ashville Fire Station #2 SUBSTITUTION REQUEST NUMBER: _____
Ashville, AL 35953 FROM: Larry Brown
TO: Goodwin, Mills Caywood, LLC DATE: 2/5/26
Huntsville, AL 35801 A/E PROJECT NUMBER: AHUN250003
RE: Metal Building Systems CONTRACT FOR: Metal Building Materials

SPECIFICATION TITLE: Metal Building Systems DESCRIPTION: _____
SECTION: 133419 PAGE: All ARTICLE/PARAGRAPH: _____

PROPOSED SUBSTITUTION: Summit Building Solutions, LLC a division of Ascent Buildings, LLC
MANUFACTURER: Ascent Buildings, LLC PHONE: 888-507-9568
TRADE NAME: Same MODEL NO.: _____

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.
Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

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- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

SUBMITTED BY: Larry Brown
SIGNED BY: Larry Brown
FIRM: Summit Building Solutions, LLC a division of Ascent Buildings, LLC
ADDRESS: 214 Fountainhead Rd, Portland, TN 37148
TELEPHONE: 888-507-9568

A/E's REVIEW AND RECOMMENDATION:

Approve Substitution—Make submittals in accordance with Specification Section 01 33 00 Submittal Procedures.

Approve Substitution as noted—Make submittals in accordance with Specification Section 01 33 00 Submittal Procedures.

Reject Substitution—Use specified materials.

Substitution Request received too late—Use specified materials.

SIGNED BY: _____ DATE: _____

SUPPORTING DATA ATTACHED: Drawings Product Data Samples Tests Reports _____

SUBSTITUTION REQUEST

Project: Ashville Fire Station #2 Substitution Request Number: _____
From: Magne Grip
To: Goodwyn Mills Cawood Date: 2/17/26
Attn: Jay Purkey A/E Project No.: AHUN250003
Re: Vehicle Exhaust Removal Substitution Contract For: _____

Specification Title: _____ Description: _____
Section: _____ Page and Paragraph: _____

Proposed Substitution: Magne Grip Exhaust Removal Rail System
Trade Name: Exhaust Removal
Manufacturer: Magne Grip Model No.: SSRMPRO-541
Mfg. Address: 11449 Deerfield Rd City, State, zip: Cincinnati, OH, 45242 Phone: 513-489-4440

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

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- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Submitted by: Samuel Broze
Signed by: [Signature]
Firm: Magne Grip
Address: 11449 Deerfield Rd Cincinnati OH 45242
Telephone: 513-519-1866 E-mail: sjbroze@magnegrip.com

A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specifications, Substitution Procedures.
- Substitution approved as noted - Make submittals in accordance with Specifications Substitution Procedures.
- Substitution rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

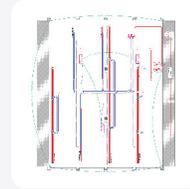
Signed by: Jeffrey Parnell Date: 2/18/26

Supporting Data Attached: Drawings Product Data Samples Tests Reports _____

MagneGrip®

MagneGrip manufactures, installs, and services exhaust removal and air filtration systems specifically for fire stations.

Committed to firefighter health and wellness with over 40 years of experience in the air cleaning industry. Headquartered in Cincinnati, MagneGrip is proudly owned and operated by Midwest Ohioans, and manufactured and assembled in the USA.



FREE CAD SERVICES

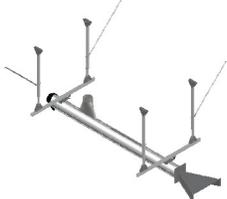
Let us help make your job easier. Our process is simple and streamlined. We will provide you with free CAD drawings for any facility (existing or new construction) and are happy to help review them, make any necessary edits, and give any input we may have.



MAGNETIC, SOURCE CAPTURE, FLAGSHIP LINE

MagneGrip Exhaust Removal Systems is the easiest way for fire departments to eliminate 100% of all diesel exhaust fumes from within the station. MagneGrip offers five different systems. Each system is designed with the same exhaust removal technology but the right design depends on fire house's needs, budget, and size.



				
Simple Hose Drop System (SHD)	Sliding Balancer Track System (SBT)	Sliding Flexhose Track System (SFT)	Straight Suction Rail System (SSR)	Vertical Stack Rail System (VSR)
Capture of cold start exhaust. Limited reach.	Capture of cold start exhaust in a back-in bay. Track/Trolley will allow for reach to door threshold.	Capture of cold start exhaust in a back-in bay. Will reach door threshold. Also reduces amount of hanging hose.	Capture of cold start exhaust in a back-in or drive-through bay. Will reach door threshold. Can accommodate up to 3 tandem vehicles. Also reduces amount of hanging hose.	Connects vertical exhaust vehicles in a back-in or drive-through bay. Uses top exhaust adaptor on vertical exhaust instead of magnetic nozzle.

This line of products features either of our magnetic nozzles (MagneGrip PRO nozzle or Original nozzle) or a vice grip nozzle (SHDD only). Custom lengths available to accommodate various distances from parked position to door threshold.



The MagneGrip PRO Nozzle is the easiest, most advanced nozzle ever. With our patented flex-magnet technology, the PRO nozzle can easily connect from any angle. Making it safer to use and more versatile. The true 100% seal prevents any leakage of exhaust fumes from the nozzle connection.



MULTI-STAGE AIR FILTRATION LINE

AirHAWK Air Purification Systems, also manufactured by MagneGrip, are ceiling-mounted air cleaning units that remove exhaust emissions, gases, and other contaminants. They can be used in maintenance facilities, factories, auto repair shops, etc. AirHAWK also has ducted and portable units for office buildings, bus terminals, clinics, and single rooms. These units can also be used in combination with a MagneGrip custom system.

	<p>AH3000XL ECM Allows for 24/7 air cleaning of apparatus bay area with 1.75 hp fan. Constant low-speed filtration until vehicle activation of high-speed filtration. Individual unit programable run times and run speeds.</p> <p>AH3000XL Allows for air cleaning of apparatus bay area. Vehicle activated air filtration with 1 hp fan. Programable system run times.</p> <p>AH2000 Allows for air cleaning of apparatus bay area. Vehicle activated air filtration with .75 hp fan. Programable system run times.</p>
	<p>AH1000 Ducted unit for air cleaning of turn out gear rooms, bunk rooms, living areas, etc. Switch activation with fractional hp fan.</p>
	<p>AH265 Portable unit for air cleaning of bunk rooms, offices, living quarters, etc. Plugs in to standard outlet.</p>

Bay area products' activation typically with photo eyes and door flags. Door contacts and On-Board activation available.
 10 Air Changes Per Hour for apparatus bay is our recommended filtration rate.



WOMEN OWNED

READY TO GET STARTED?

magnegrip.com | 800-875-5440 | info@magnegrip.com



★ PRO NOZZLE

THE EASIEST, MOST ADVANCED NOZZLE EVER.

NEW FLEX-MAGNET TECHNOLOGY

100% seal prevents any leakage of exhaust fumes from the nozzle connection. And our easy-seal connection is safer to use, more versatile, & less maintenance.



FLEXIBLE

With our patent-pending flex-magnet technology, the PRO nozzle can easily connect from any angle.

EASY TO USE

Connects seamlessly from a standing position – so no bending down, keeping you away from exhaust fumes. And with our flex-magnet technology, the PRO nozzle is so easy to use, it almost connects itself!

SPACE SAVING DESIGN

90° nozzle angle keeps the hose close to the apparatus, leaving more space in aisle ways.

MOST CORROSION RESISTANT

Rust and corrosion proof components lead to the most maintenance free and easiest to use system.

★ **PRO** NOZZLE

10 POINT CHECK LIST

✓ **01. QUICK & EASY**

MagneGrip PRO **pull-down design** provides a quick and easy connection – regardless of tailpipe height and will never come in contact with the floor.

✓ **02. LESS MAINTENANCE**

A stainless steel heat shield, along with air flow through the magnet assembly, separates and protects the magnets from heat and particulate - **extending magnet life.**

✓ **03. VERSATILE FIT**

Compatible with **4", 5", and 6" diameter hoses** to accommodate any system design criteria.

✓ **04. DURABLE**

Durable cast aluminum transition elbow dissipates heat faster and **does not rust** like other designs.

✓ **05. MAXIMUM AIR FLOW**

MagneGrip PRO tailpipe adapter allows for maximum ambient air induction that dissipates heat faster, cooling the system and making it **safer to the touch.**

✓ **06. TRUE 100% SEAL**

Includes a positive pressure check valve that adheres to mechanical codes and agency recommendations, ensuring a 100% seal with **zero leaks.**

✓ **07. SMOOTH RELEASE**

MagneGrip PRO **flex magnets pivot** to provide consistent contact with the tailpipe adapter and ensures an extra smooth release.

✓ **08. SLEEK PROFILE**

MagneGrip PRO tailpipe adapter can be **mounted flush to vehicle body**, with no protrusions.

✓ **09. MAX GROUND CLEARANCE**

MagneGrip PRO offers the **smallest standard tailpipe adapter** in the industry for greater ground clearance.

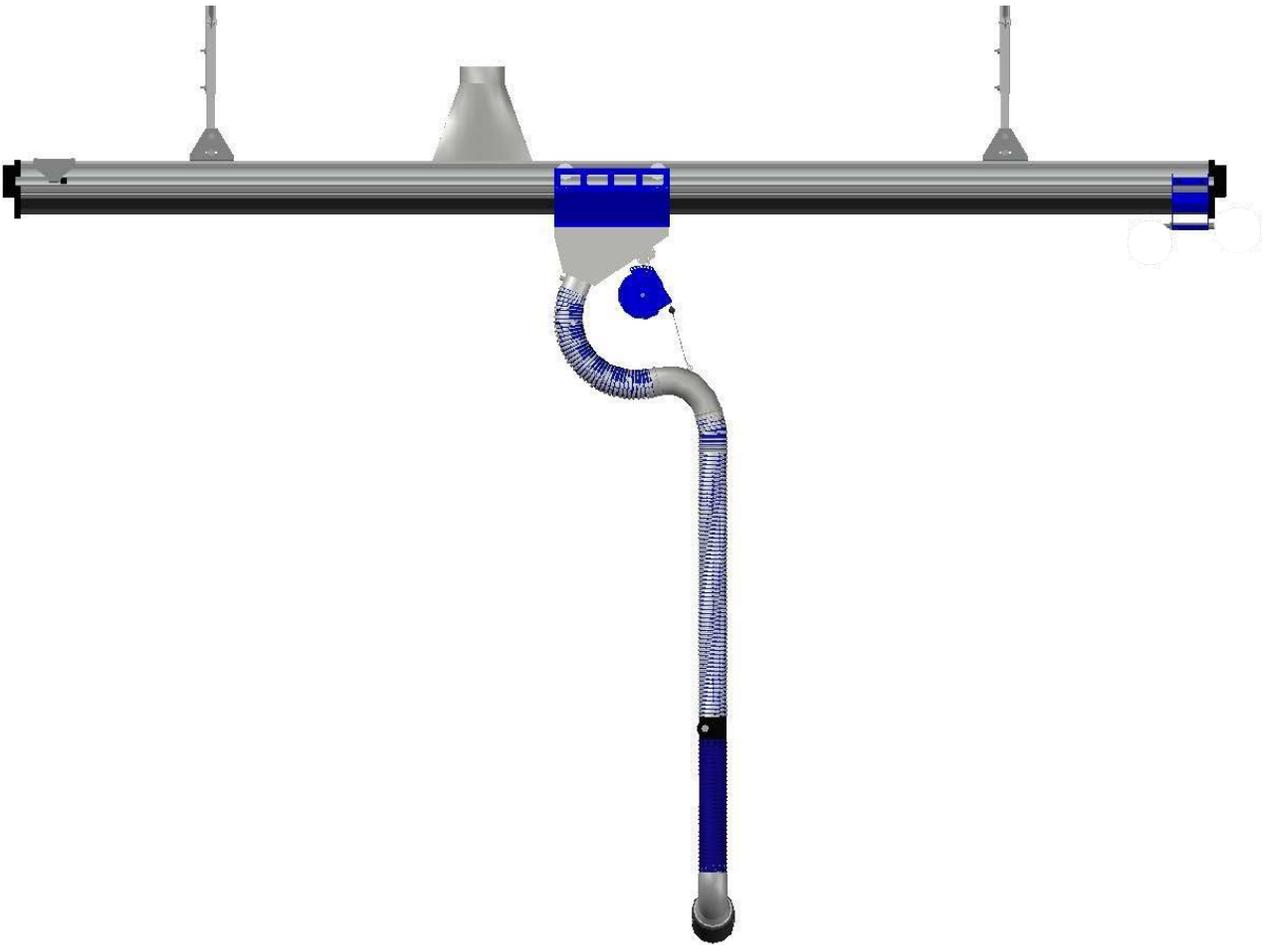
✓ **10. MORE SPACE**

MagneGrip PRO 90° transition elbow allows for more room for personnel to maneuver around and between vehicles, **great for tight and shallow spaces.**





Submittal Pages For
STRAIGHT SUCTION RAIL



Manufactured by:



magnegrip.com

11449 Deerfield Road
Cincinnati, OH 45242
info@MagneGrip.com
Phone: 800-875-5440
Fax: 513-247-2502

Straight Suction Rail (SSR)



Suction rails are especially advantageous in stations where vehicles drive through a building or when vehicles are parked in tandem one behind another. The suction rail transports air for removal from the building, the rail can accommodate up to four emergency vehicles parked in tandem. because the system uses a rail transport air the amount of flex hose is minimized providing a neat, clean installation in drive through bays. the SSR can be used with MagneGrip system or pneumatic HazVent system.

A trolley with external wheels which roll on the outside of the rail mount and travel back and forth with the vehicle the hose connects to an inlet plenum at the base of the trolley and rubber lips sealed the rail to prevent escaping of gases when the vehicle exits the station at the nozzle automatically disconnects at the threshold.



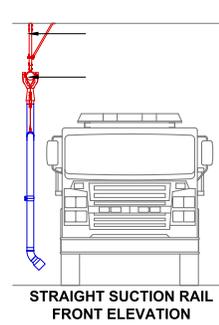
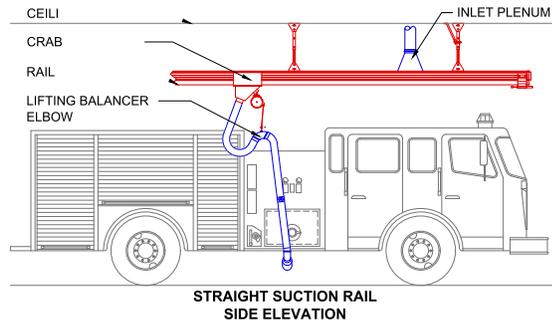
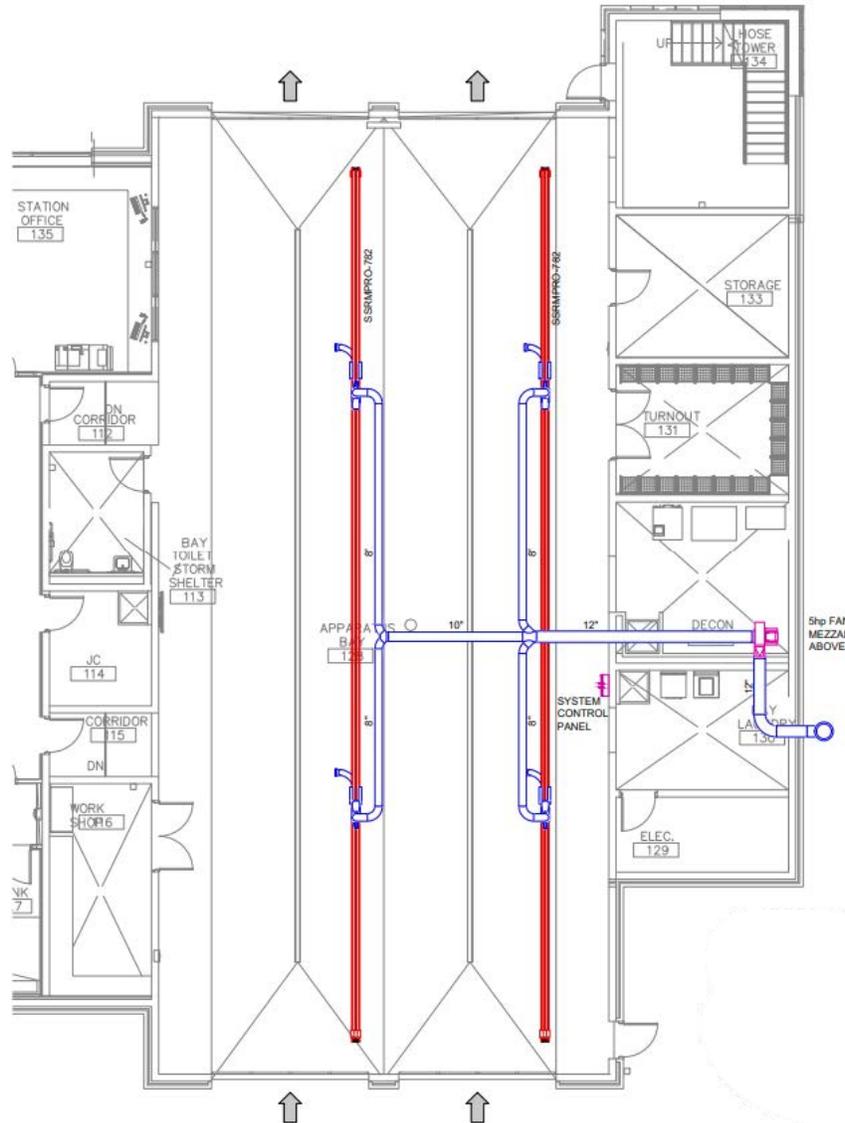
Architect:

Project Name:

Contractor:

Date:

Straight Suction Rail Sample Layout



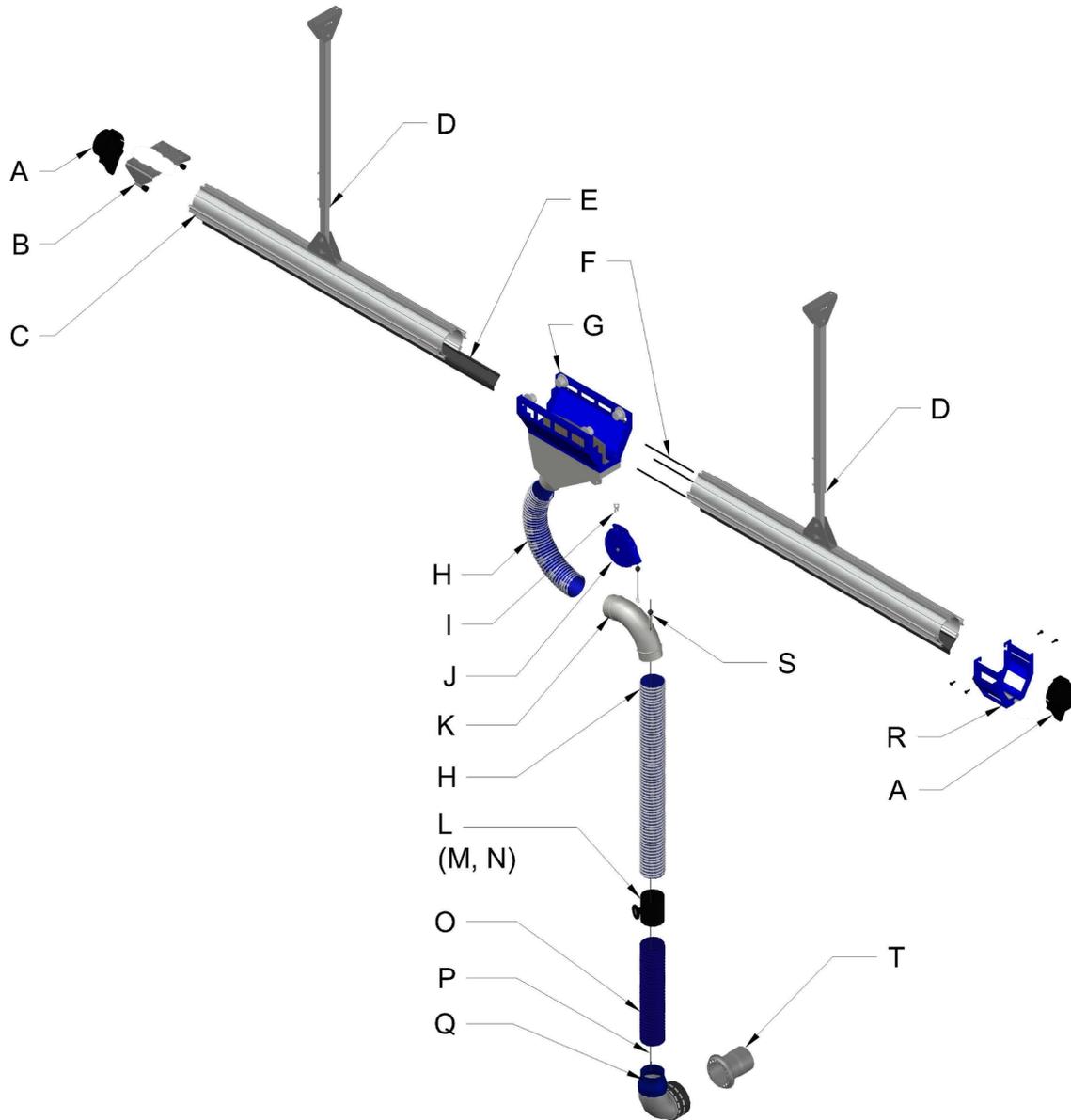
Architect:

Contractor:

Project Name:

Date:

SSRMPRO System breakdown



A: 520024-01 SSR endcap 6"

B: 500064-14 Rear SSR end stop -2025

C: 520023-06 6"x6' Straight suction rail

D: 500047-02 Leg assy. w/ feet

E: 520032-03 Lip insert for rail

F: 520040-02 rail connector pin

G: 520020-04 Crab Assy.

H: 500095-11 Blue/White Hose 5"x11'

I: 500065-01 Swivel "H" for balancer

J: 500084-04 Blue balancer Assy.

K: 530408-05 Lifting Elbow Assy. 5"

L: 530622-02 Handle/Knob 5" Assy.

M: 500071-05 Pressure Sensor

N: 540557-02 Transmitter standard

O: 430630-02 5X2' MGPRO Lower hose

P: 500002-75 MGPRO INNER HOSE CABLE

Q: 400076-02 MGPRO Nozzle Assy

R: 520049-10 SSR 3-Point endstop

S: 500002-76 MGPRO INNER CABLE SPRING

5000084-08 BALANCER BALL STOP

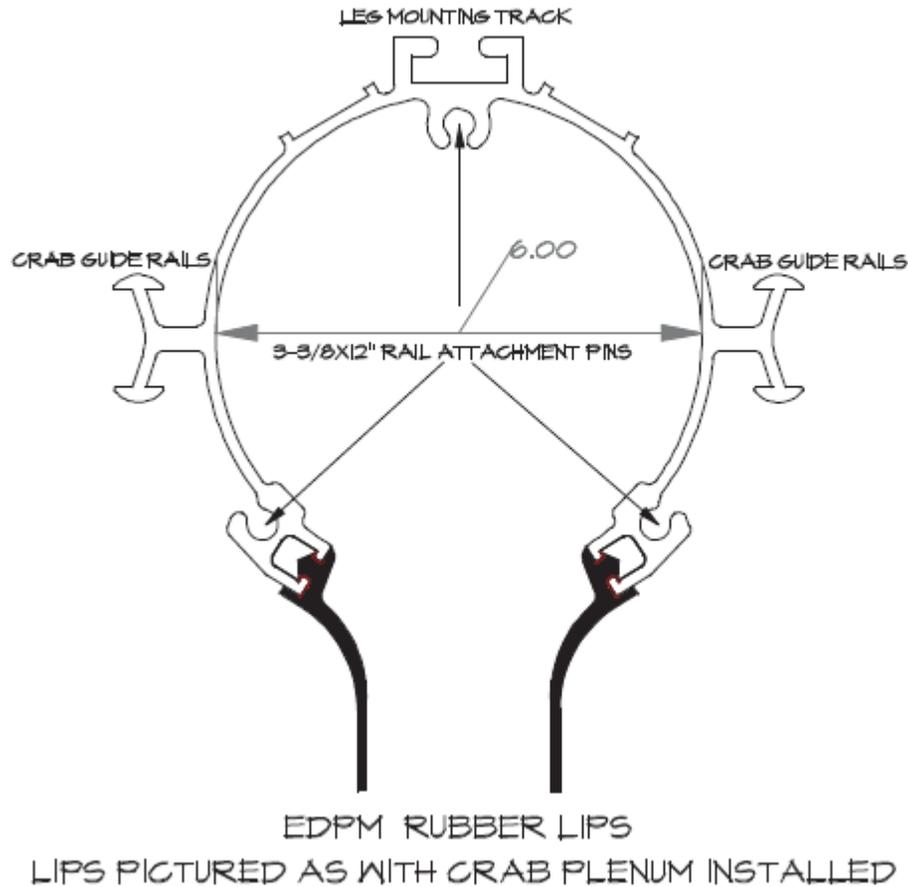
T: 400073-02 MGPRO TAILPIPE ADAPTOR 5"

U: 500084-25 Balancer Safety Cable (not shown)

Straight Suction Rail Technical Information

EXPLODED VIEW

MADE IN THE USA



- ★ Made from 6063-T5 Aluminum with a mill finish and delivered in 6-foot lengths
- ★ Weight per foot 6.3lbs for 37.8 lbs. per 6' section
- ★ Wall thickness .150, rail is manufactured as an extrusion and is designed to serve as a ventilation tube
- ★ Guide rails are designed to support crab assembly as it slides along its length
- ★ Suction rail incorporates a set of EDPM lips that tightly seals the rail to the crab assembly roller cone while the system is in use allowing for effective removal of all exhaust fumes from the tailpipe as the crab moves along the rail until automatic release



Architect:

Project Name:

Contractor:

Date:

Straight Suction Rail Crab Trolley



- ★ Dim: 20.75" x 23.5" x 12.75"
- ★ Angled designed to allow room for balancer
- ★ Balancer/Safety Cable mounting plate
- ★ Wheels positioned to sit on guide-rails on exterior of suction rail
- ★ Roller cone assembly
- ★ Internal damper



Architect:

Project Name:

Contractor:

Date:

Straight Suction Rail EDPM Lips



- ★ Made from EDPM rubber with a durometer of 70
- ★ Designed to be installed into the Straight Suction Rails to seal them while allowing the crab assembly to move and well suited to handle exhaust temperatures
- ★ Excellent resistance to UV and weathering
- ★ Designed with friction reduction groves to lower the crabs rolling resistance during operation
- ★ Manufactured in standard lengths of 56, 62, 68, 74, 80, 86, 92, and 98'



Architect:

Project Name:

Contractor:

Date:

Straight Suction Rail Three Point End-stop Assembly



Architect:

Project Name:

Contractor:

Date:

Straight Suction Rail Adjustable Rear End-stop Assembly



- ★ Designed to fit the 6-inch Suction Rails
- ★ Mounts directly to the SSR side rails
- ★ Made from powder coated cold rolled steel
- ★ Incorporates conical cone rubber bumpers to cushion the stop of the crab assembly



Architect:

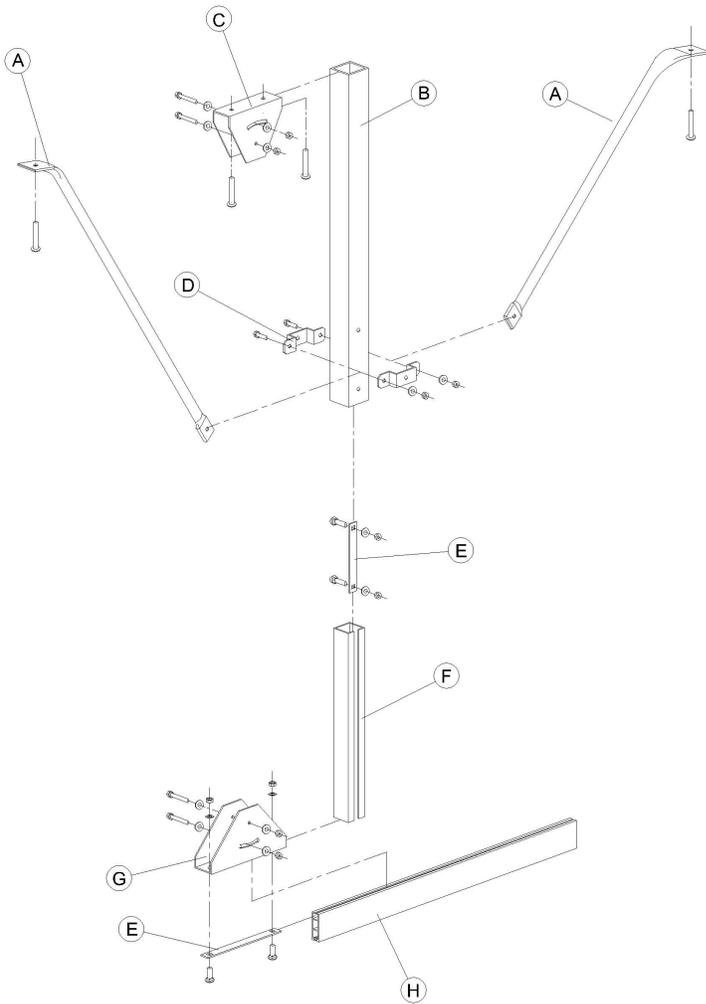
Project Name:

Contractor:

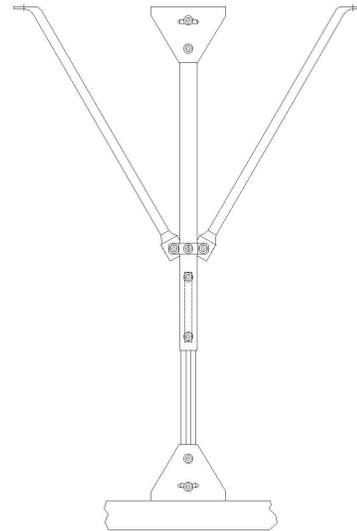
Date:

Aluminum Telescopic Leg and Foot Assembly

PARTS LIST



ITEM	PART NO.
A EMT TUBING (LEG BRACE)	FIELD SUPPLIED
B OUTER LEG TUBE	500047-06
C UPPER FOOT	500046-15
D LEG BRACE CLAMP	500047-10
E CLAMP PLATE	50007-02
F INNER LEG TUBE	500047-06
G LOWER FOOT	500046-15
H ALUMINUM TRACK	500006-01



- ★ Outer tube 1 7/8" x 72", inner tube "c" channel construction 1 1/2" x 72" x 1/2" opening, wall thickness at 3/4" both inner and outer tubes designed to slide together and adjustable by using clamp plate.
- ★ Material 6063-T6 aluminum, with a mill finish.
- ★ Upper- and lower-foot assemblies made from 11-gauge g-60 galvanized steel, supplied with mating clamp plate and hardware. supplied with leg brace clamp assemblies for added support



Architect:

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MagneGrip Lifting Elbow

Available in 4- and 5-inch diameters



- ★ 90 Degree Lifting elbow ensures that the hose is lifted and kept out of the way while allowing for unrestricted airflow while eliminating the hose collapse associated with using a molded rubber saddle
- ★ Lifting eye with 37.5 deg offset allows for proper alignment of hose to nozzle assembly
- ★ Made from 16 ga cold rolled steel and powder coated for long life and durability



Architect:

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Stainless Steel Double “H” Swivel



- ★ Forged 316 Stainless Steel
- ★ 2-5/8 inches long by 1/4 inch diameter, threaded ends with lock nuts
- ★ Rated for 600lbs
- ★ Attaches balancer to trolley or plenum
- ★ Allows balancer to align and adjust to vehicle location during movement in the bay



Architect:

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Balancer



- ★ Hose Balancer is non-locking with adjustable lifting capacity of 20-27 lbs.
- ★ Balancer cable shall incorporate a .080 diameter coated steel cable
- ★ Safety cable assembly included
- ★ Housing shall incorporate a high impact designed and finished in powder coated blue color



Architect:

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MagneGrip 400°+ Double ply Acrylic Coated Exhaust Hose



- ★ Hose shall be high-temperature, double-ply, acrylic-coated, blue polyester fabric construction with a continuous operating range of up to 400 degrees (F) with an intermittent temperature of 550 degrees (F)
- ★ Listed as UL 94V-0 flame retardant
- ★ Hose shall incorporate a 3/4" bound spring steel wire helix, a wear strip white in color and 9/16" wide shall cover the wire helix
- ★ Hose shall be blue and white for increased visibility and safety
- ★ Hose is available in standard sizes of 4- and 5-inch diameter in lengths of 13- 21- and 38-feet
- ★ Other sizes available on request



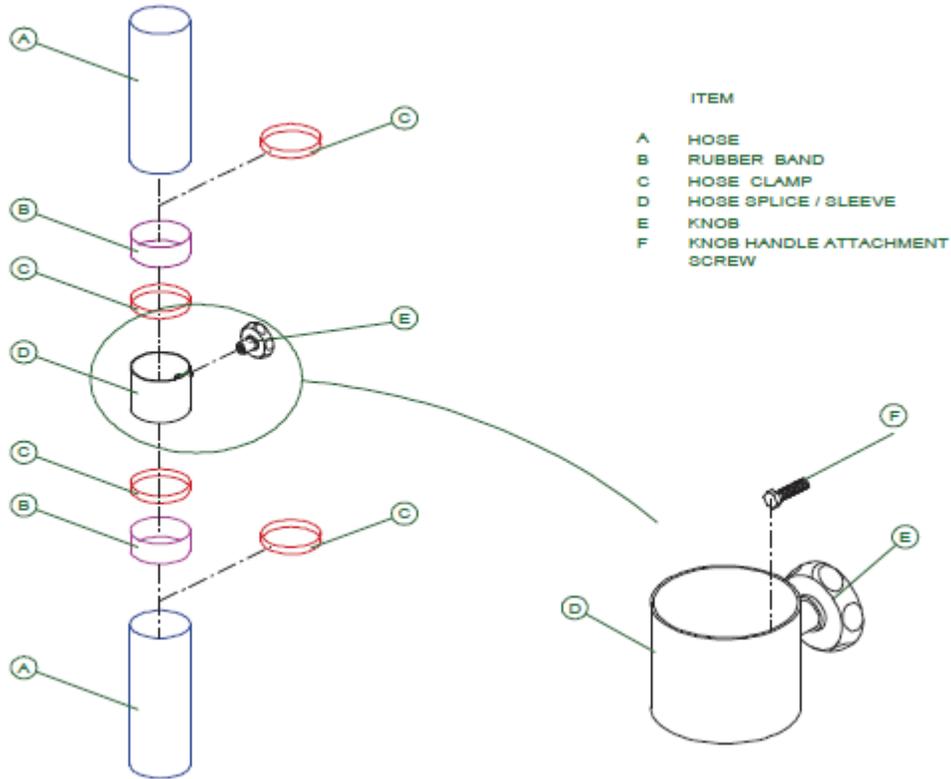
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MagneGrip Hose Lifting Handle Assembly



- ★ Manufactured from painted rolled galvanized steel and designed to assist in handling the hose for easy attachment to the Tail Pipe Adaptor
- ★ 4 inch and 5-inch diameter sizes are available



Architect:

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MagneGrip 1050° Lower Exhaust Hose



- ★ Multi-Layer material with spring steel wire helix and multiple layer reinforced construction
- ★ 2 feet long and available 4 inch and 5-inch diameter
- ★ Lower Hose is designed to operate at temperatures up to 1050 degrees (F) without failure
- ★ Hose shall be blue in color and UL 94V-0 Flame retardant
- ★ Shall have smooth interior wall for unrestricted airflow



Architect:

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MagneGrip PRO Nozzle / Tailpipe Adaptor Assembly



- ★ Boot assembly is 7" diameter and incorporates ambient air inlets in the Flex-Magnet ring with a one-way silicone gasket to allow for cooler air to enter the airstream yet prevent any possible backwash into the bays
- ★ Tailpipe Adaptor body is made from aluminized 12-gauge steel with a low profile 7" diameter nickel plated contact plate
- ★ SS Heavy Duty clamps with 5/16-inch drive for mounting boot to elbow transition
- ★ 90 Deg Elbow Transition is made from 319 cast aluminum and includes a removable debris screen and powder coated reducer to allow use on 4-, 5- or 6-inch hoses



Architect:

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MagneGrip Auto-Start Exhaust Pressure Sensor



- ★ MPL 500 series pressure sensor, contacts are designed for dry circuit applications
- ★ Terminals for NEMA .020 x .187 male tabs and mate to standard .020 x .187 female quick connects and 18-22ga wire
- ★ Pressure Sensor Specifications, body is glass filled polyester, the diaphragm is made from polyurethane with an operating temperature of -40 to 250 degrees and operating pressure of .05in SP H2O
- ★ Mechanical life range above 100,000,000 cycles



Architect:

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MagneGrip Transmitter



- ★ 1-Channel 315MHz Transmitter
- ★ Operates up to 500ft
- ★ LED transmission indicator
- ★ Powered by internal 3v lithium battery (CR-2032)
- ★ Dimensions 1-1/4" x2-3/16" x5/16"



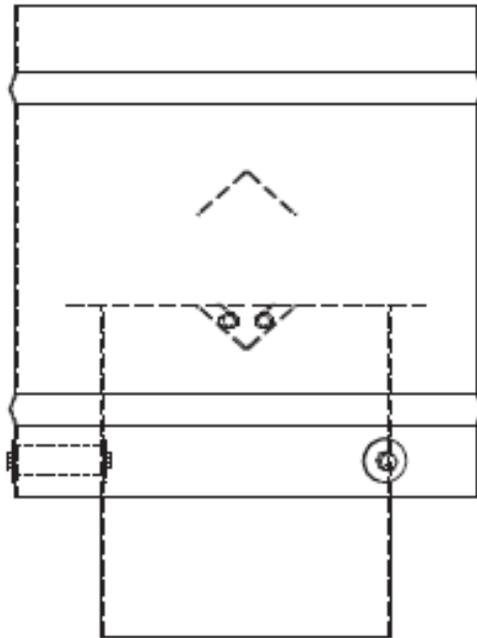
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MagneGrip Upblast Backdraft Damper Rain Cap



- ★ Standard design, 20ga galvanized steel construction, upblast back draft damper has butterfly damper located inside outer shell for air and water tightness
- ★ Designed for static free upblast of exhaust gases while including ambient air to help eject exhaust an additional 10-15 feet up and into the prevailing airstream
- ★ Available in 6" to 18" sizes as standard
- ★ Also available in Stainless Steel or custom sizes as required



Architect:

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MagneGrip Galvanized Spiral Pipe and Fittings



- ★ Requirements for industrial ventilation class #2 (B) gaseous emission control is the category that will generally apply to MagneGrip vehicle exhaust systems
- ★ Meets SMACNA Class 2 standards
- ★ Spiral pipe, Elbows, fittings, etc. 3" though 8" diameter 24ga
- ★ Spiral pipe, Elbows, fittings, etc. 8.5" though 12" diameter 22ga
- ★ Spiral pipe, Elbows, fittings, etc. over 12.5" diameter 20ga



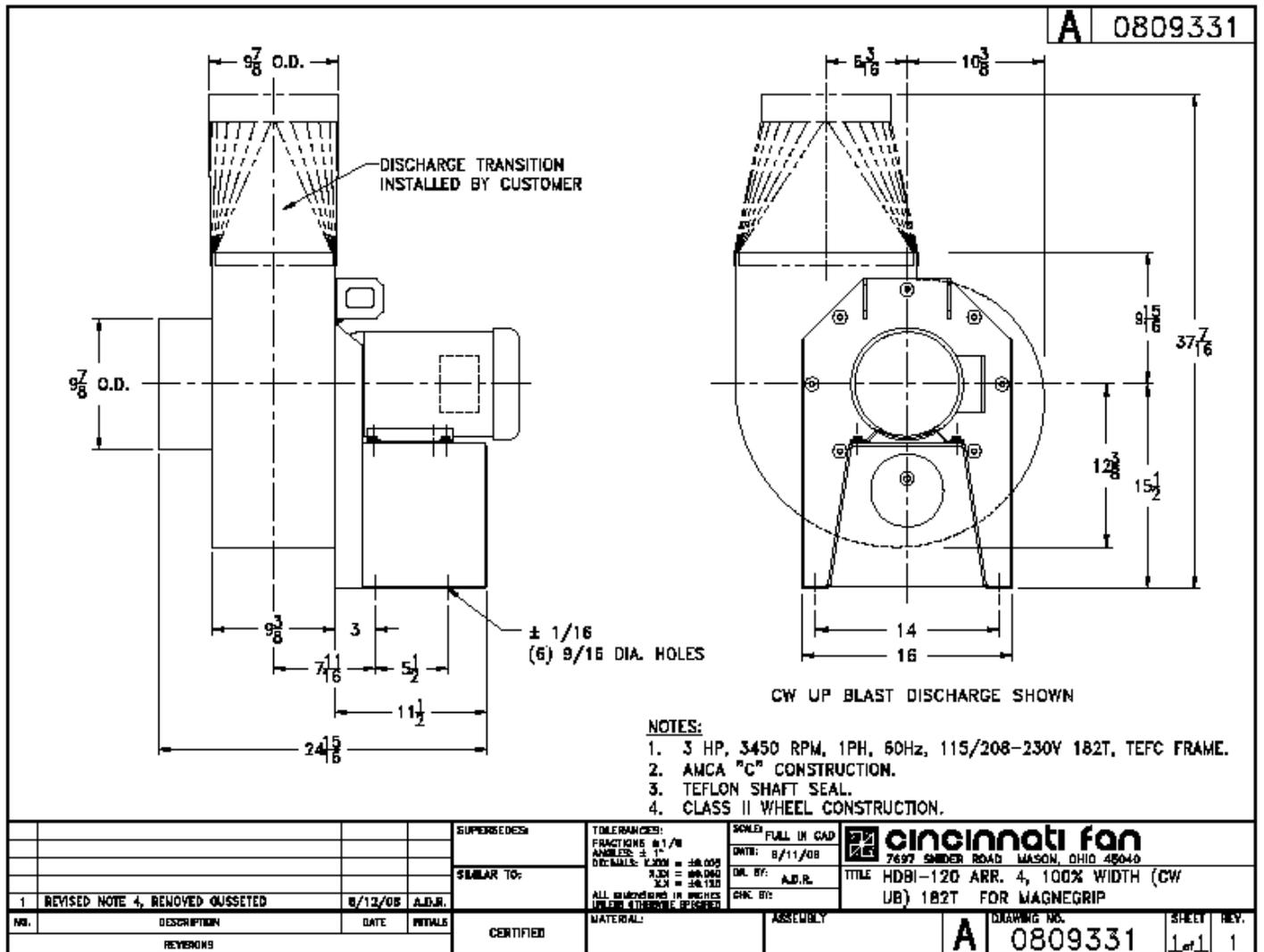
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CF SERIES 3-HP FAN DETAIL



Architect:

Project Name:

Contractor:

Date: