

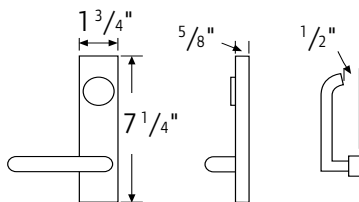
# 1790 Rim touchbar device

The 1790 rim device is typically used in applications where maintenance is a concern because the rim device has fewer parts and pieces than current exit devices. The result is less maintenance and adjustment. The streamlined design has no openings for chains, reducing the risk for code infringements and offering increased building security by eliminating the possibility of tampering and forced entry through the use of coat hangers and other tools. The 1790 may also be used to retrofit a 2090 series crossbar device.



Length	Minimum door size (non-EL)	Minimum door size (EL)
30"	24"	28 1/2"
36"	30"	34 1/2"
42"	36"	40 1/2"
48"	42"	46 1/2"

- Lock/unlock capability
- ADA accessible
- Lever designs
  - Dane
  - Sutro
  - Quantum



Lever projection: Quantum = 3"  
 Sutro = 2 7/8"  
 Dane = 2 7/8"

Key locks or unlocks trim. Lever retracts latchbolt when trim is unlocked. Dane, Quantum and Sutro levers return to within 1/2" of door.

## Specifications

Hand:	Non handed.
Functions:	See trim selection chart on this page.
Finishes:	US28, DC13, DC35, US3, US10, US26, US26D. Centercase and end cap are powder-coated black only.
Strikes:	TD35 strike supplied standard, see page 11 for other rim strikes available.
Latchbolt:	1" thickness, 3/4" throw.
Dogging feature:	Hex key dogging standard, except EL where must use hold back feature on outside cylinder.
Cylinder:	Rim, night latch (NL) or hold back (HB) available (field selectable).
Sizes:	30", 36", 42", and 48".
Doors:	1 3/4" thick metal or wood, specify if wood door.
Projections:	3 3/8" in neutral position, 2 3/8" in dogged position. Pushbar height is 2 1/2".
Stile:	1 3/4" minimum.
Electric functions:	EL - electric latch retraction, ED - electric dogging (both EL and ED require PS914-2RS minimum power supply). RX - request to exit switch, monitors pushpad SPTD switch.
Fasteners:	All machine screw mounting. Device mounting fasteners are concealed, latch fasteners are exposed to egress side.
End caps:	Black powder-coated metal end caps.
ANSI:	Carry UL label and approved for life safety. Certified ANSI A156.3 grade 1 standards.
Mullions:	Removable mullions are available for pairs of doors, see page 12.

Model	Trim package	Type	Function
1790	No outside trim	4	01
1791	Pull only (9970)	4	02
1792	Cylinder only	4	03/04* or 08/09*
1794	Pull (9970) and cylinder	4	02/03/04

\*Requires use of 179L

## FALCON®

# Motorized Electric Latch Retraction-MEL

Featuring the 24 and 25 &  
1690 and 1790 Series exit  
devices



## Overview

Motorized electric latch retraction (MEL) provides energy efficient electronic control of an exit device for an affordable around the door solution. The MEL option on the Falcon 24 and 25 Series is Falcon's® solution of choice for multifamily and commercial real estate facilities, and on the Falcon 1690 and 1790 devices for aluminum store front applications where cost competitive electromechanical latch retraction is desired.

These devices always provide mechanical egress. Motorized electric latch retraction can be used with credential readers to unlatch doors momentarily for authorized users, or it can be incorporated with systems to retract latches for extended periods of time to allow free entry. This is a convenient alternative to mechanical dogging. Doors with automatic operators also often incorporate exit devices with electric latch retraction.

The MEL option is available on panic and fire rated devices. Because fire exit hardware must be self latching, an automatic fire alarm system must be incorporated to drop power to fire rated MEL devices in case of fire.

## Features and benefits

- MEL option available on all 24 and 25, and 1690 and 1790 Series exit devices
- Energy efficient motorized latch retraction enables longer wire runs and the use of a standard Schlage® power supply with option board
- Modular design allows for a simplified installation of the available MEL conversion kit to existing Falcon 24 or 25 and 1690 or 1790 exit devices
- On-board installation and troubleshooting diagnostics built into the motor assembly
- Self-calibrating motor assembly
- Pushbar is pulled in electronically when dogged
- Vandal resistant – detects and responds to events of attack and tampering

## Specifications compliance

- MEL is designed for use on exit devices that are BHMA Certified to ANSI/BHMA A156.3
- Exit devices with MEL are UL and cUL Listed as “Panic Hardware” (UL 305) and as “Fire Exit Hardware” (UL 10C)
- The MEL Conversion Kit is UL Classified under “Accessories for Single-Point Locks and Latches and Fire Exit Hardware” (UL 10C)

## Electronic specifications

MEL electrical load		MEL wire run lengths	
Voltage	24 VDC	Distance (one way)	Wire gauge
Current	1.0 A Inrush (0.5 sec) 0.14 A Holding	200'	18 AWG
		320'	16 AWG
		500'	14 AWG
		800'	12 AWG

## Accessories

The MEL has a low inrush current = 1.0 amps, so it can be used with standard Schlage power supplies. When powering multiple components, verify that the amperage requirement of all components combined does not exceed the power supply output rating. See table below for output ratings.

Schlage PS902	Schlage PS904	Schlage PS906
up to 2 amps	up to 4 amps	up to 6 amps

The MEL device is compatible with the following equipment: PS900 Series power supplies - PS902, 904, 906, 914; 900 Series Option Boards - 900-2RS, 900-4R and 900-4RL. The power transfer (EPT, electrified hinge, or door loop) is also sold separately. Please refer to Falcon catalog for more information on EPT-2/EPT-10 power transfers, electrified hinges, and PS900 series power supplies.

## How to order

- To order the MEL feature add “MEL” prefix to device designation (example: MEL-25-R-EO). **Note:** Mechanical dogging is not an option with MEL.
- To order the MEL conversion kit for the 24 or 25 Series, please specify finish with part number (605, 606, 630, 689, 695). Falcon MEL conversion kits are only compatible with the appropriate Falcon listed exit device models.

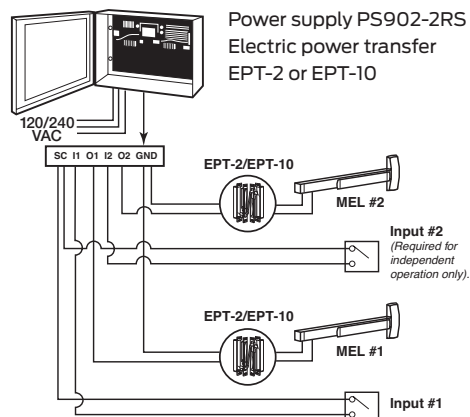
### 24 and 25 Series devices

Model No.	Description	Part #
25-MELK-3	25 Motorized Electric Latch Retraction Kit 3'	47266630
25-MELK-4	25 Motorized Electric Latch Retraction Kit 4'	47266631
24-MELK-3	24 Motorized Electric Latch Retraction Kit 3'	47266632
24-MELK-4	24 Motorized Electric Latch Retraction Kit 4'	47266633

### 1690 and 1790 Series devices

Model No.	Description	Part #
1690/1790	16/1790 MEL Kit	47867200
1690/1790	16/1790 MEL Connector Kit	47935967

## Popular application



## About Allegion

Allegion (NYSE: ALLE) is a global pioneer in seamless access, with leading brands like CISA®, Interflex®, LCN®, Schlage®, SimonsVoss® and Von Duprin®. Focusing on security around the door and adjacent areas, Allegion secures people and assets with a range of solutions for homes, businesses, schools and institutions.

For more, visit [www.allegion.com](http://www.allegion.com)

KRYPTONITE ■ LCN ■ **SCHLAGE** ■ STEELCRAFT ■ VON DUPRIN



© 2023 Allegion  
012500, Rev. 12/23  
[www.allegion.com/us](http://www.allegion.com/us)

# Strikes /accessories

## Strikes

### 1690 Concealed vertical rod device



**PB48**  
Top strike for 1690 device. Packed with three 0.050" thick shims. 1 1/16" x 1 1/16" x 7/16" (H x W x D)

### 1790 Rim device



**STK45**  
Strike for inactive leaf, pair of doors with 1790 device. 3 1/4" x 1 5/16" x 1/4" (H x W x D)



**TD35**  
Strike for single doors, 1790 device. Includes 1/8" shim. 3" x 2" x 1/2" (H x W x D)

### (F) 19-R Rim devices



**F570**  
Standard strike. 2 5/8" x 1 1/4" x 19/16" (H x W x D)



**F490**  
Optional strike. 2 5/8" x 1 1/4" x 7/8" (H x W x D)



**565**  
Adjustable surface mounted for use with blade or applied stops. Mounts flush for 1/2" stop height.



**571/571A**  
Used on inactive leaf for device on active leaf of pair of doors without removable mullion. 571 keeps 2 5/16" backset. 571A is trimmer and projects less into opening.

### (F) 19-V Surface vertical rod devices



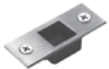
**3788**  
Top strike for 19-V.



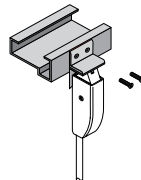
**2130**  
19-V bottom strike for grouting into concrete or masonry floors.



**4155**  
19-V optional bottom strike.



**2126A**  
19-V optional bottom strike.

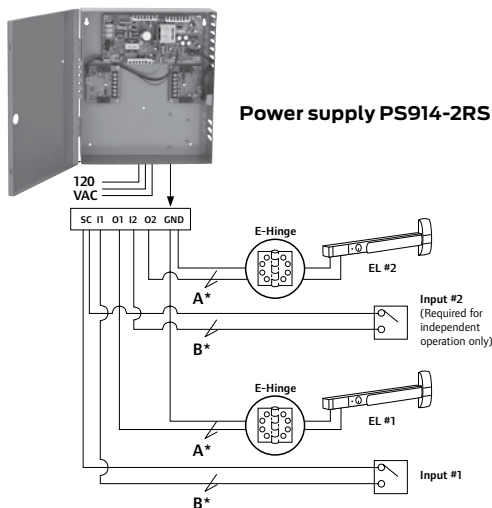


**4215**  
Angle bracket for 19-V devices flush transom applications. Does not require elimination of latch retention feature.



**Extension rods**  
Extension rods are available in 12", 24" and 36" lengths in all finishes. Both ends tapped and all-thread included as connector.

## Popular EL application



### EL Device wire selection size

A*	Run length	EL device w/EPT or door loop
	0-100 ft.	14 gauge
	100-200 ft.	12 gauge

A*	Run length	EL device w/electric hinge/pivot
	0-75 ft.	14 gauge
	76-150 ft.	12 gauge

B*	Wire selection	Switch wire size
	1200 ft. max.	18 gauge

# Power supply



The PS900 series is a consolidated line of power supplies and accessories that offer enhanced flexibility and functionality specific to the changing needs of the access control market. The PS900 series can be used in a variety of applications to convert high voltage AC power into the low voltage DC outputs required by most access control devices. The PS900 series protects devices downstream by providing Class 2\*, filtered and regulated power. The full line is UL294 certified.

Note: PS906 can provide Class 2 rated outputs when used with 900-8P distribution board.

## Features:

- Constant output rating at both 12 VDC and 24 VDC provides superior performance ; includes field selectable jumper
- Polarized connectors for option boards eliminate need for racks and side connectors
- Flat mounting of option boards provides easier access to terminal blocks for connection of electrified devices
- High voltage protective cover
- Battery back-up board auto-selects voltage
- Fire alarm relay can be configured to provide either switched or un-switched outputs from a power supply
- PS914 designed with high in rush current for powering electrified panic devices
- Universal 120-240 VAC input
- Low voltage DC, regulated and filtered
- Electronic power limiting foldback circuit for AC current overload protection
- Fused primary input
- AC status monitor- isolated SPDT contacts
- AC input and DC output LED status indicators
- Cover mounted AC input indication
- Hinged cover with lock down screws

## Certifications:

- UL 294 certified—the standard for access control
  - Class 2 rated\*
- \* Except PS906, output rating exceeds Class 2 power limits

Once power is converted to low voltage DC, the PS900 Series offers a variety of distribution options, including basic fuse

protection, simple relay, and advanced logic providing complex sequencing and timing functions.

\* PS906 can provide Class 2 rated outputs when used with 900-8P distribution board.

	PS902	PS904	PS906	PS914
<b>Number of connectors on power supply for the following:</b>				
2 amps				
4 amps				
6 amps				
4 amps				
Distribution boards	1	2	3	2
Battery back-up board	1	1	1	1

Note: One fire alarm board can be connected directly to the PS902. If a fire alarm board is desired for the PS904, PS906 or PS914 it can be connected to a distribution board.

## Applications:

The PS900 series of power supplies works with many electrified devices including Falcon exit devices, electromagnetic locks, hardwired locks, electrified mechanical locks, electrified strikes and many other products.

## Accessories:

The PS900 series features seven option boards for use in a variety of applications. All PS900 series power supplies option boards are UL 294 certified.

### Option boards:

**900-4R:** 4 relay controlled output board to power multiple devices

**900-4RL:** 4 relay distribution board with logic is field configurable for time delay function, auto operator, security interlock

**900-8F:** Provides 8 individually fuse-protected outputs, giving the flexibility to power multiple devices and provide another layer of protection

**900-FA:** Emergency interface relay integrates with fire alarm and is used to cut power in case of emergency

**900-BB:** Battery backup

**900-2RS:** 2 relay EL panic device control board (PS914 only)

**900-BBK:** Battery backup kit includes two 7A/hr batteries and provides up to four hours of backup power when cycled every 5 minutes at full load.

### Wire selection size / type

Run length	EL device w/ EPT or door loop
0-100 ft	14 gauge standard wire
101-200 ft	12 gauge standard wire
Run length	EL device w/ electric hinge / pivot
0-75 ft	14 gauge standard wire
76-150 ft	12 gauge standard wire
Wire selection	Switch wire size
1200 ft max.	16 gauge

# Accessories



F-4023 Shown

## Removable mullion

- Removable mullions are easily removed and reinstalled for full width access
- Increased security and tighter closure
- Minimizes door warp age and sag
- Regulates the traffic flow in-and-out
- Rim devices are used on both leaves, attaining a perfect symmetrical opening
- Mullion assembly consists of a mullion, top and bottom fittings and mounting package
- Mullion can be cut on the job for doors under stock lengths

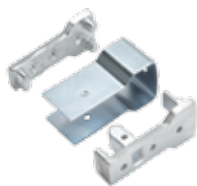
## 2923, (F)4023, (F)KR4023 Mullion

These steel mullions can be used with the 19-R and F-19-R devices. Soffit adapters are available for the 2923 and 4023 mullions. The F4023 and F-KR4023 fire-rated mullions also include four stabilizer blocks as required for labeled installations. Strikes are not included with mullion and should be specified with the 19-R or F-19-R device, see page 11 for strike information. KR mullions require 1 1/8" mortise cylinder with standard "A" cam. The mullion fittings are made from ductile iron. The (F)4023 and (F)KR4023 are 2" wide and 3" deep. The 2923 is 1 1/2" wide and 2 1/2" deep. Furnished in prime coat.

## Mullions



RM 170



Mullion brackets



525 Mullion stabilizer for RM170

## RM 170 Removable mullion

RM 170 for use with 1790 series. Comes complete with adjustable mortised strikes and security clips. Compatible with doors 7' to 10' and for use with stiles as narrow as 1 3/4". Made of aluminum, available in anodized aluminum or bronze finishes. Mullion is 3 1/2" deep, 1" wide on door side, and 1 5/8" at the widest point.

## Mullion strikes



### STK170

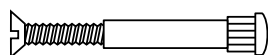
Adjustable mortise strikes (pair).

- 2 7/8" tall
- 1 3/4" wide
- 1" thick

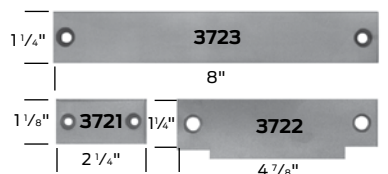
## Sex bolts

Sex bolts are available for 1 3/4" door thickness. Screws to fit are available in 3/4" and 2" lengths to cover a wide range of door thicknesses.

- 2729 (#10-24 thread)
- 4122 (1/4"-20 thread)



## Filler plates



## 3721/3722/3723

Steel filler plates

- 3721 Cylindrical lock frontfiller
- 3722 ASA strike filler - set no. SC for 161 cutout
- 3723 Mortise lock front filler
- 3722 ASA strike filler - set no. SM for 86 cutout

# 1690/1790

		EL	1690	EO	36"	US28	RL*
<b>HH</b>	High security device*						
<b>RX</b>	Request to exit switch						
<b>EL</b>	Electric latch retraction						
<b>ED</b>	Electric dogging						
<b>1690</b>	See model numbers on page 6						
<b>1790</b>	See model numbers on page 7						
<b>EO</b>	Exit only						
<b>DT</b>	Dummy trim						
<b>NL-HBOP</b>	Cylinder assembly - optional pull						
<b>NL-HBP</b>	Cylinder assembly with 9970						
<b>30"</b>	30" (optional)						
<b>36"</b>	36" (standard)						
<b>42"</b>	42" (optional)						
<b>48"</b>	48" (optional)						
<b>US28</b>	<b>DC35</b>	<b>US10</b>	<b>US26D</b>				
<b>DC13</b>	<b>US3</b>	<b>US26</b>					
<b>1690 Only</b>							
<b>HEX</b>	Standard bottom latch						
<b>RL</b>	Rod bottom latch						
<b>PL</b>	Pullman lottomlatch						
<b>ES</b>	Top latch for use with electric strike						
<b>LESS RODS</b>	Less rods (retrofit of 1990 device)						
<b>LBR</b>	Less bottom rods						

\*Applies to 1690 Only