



7700 & F7700 Rim Type Panic And Fire Exit Devices 7760 & F7760 Vertical Rod Panic And Fire Exit Devices ANSI A156.3, Grade 1

CONFIGURATION MAX FRAME DIMENSIONS LOCK TYPE DESIGN PRESSURE (PSF) INSWING/OUTSWING FOR EXIT DEVICE FLORE

CONFIGURATION	MAX FRAME DIMENSIONS	LOCK TYPE		SSURE (PSF) OUTSWING	
	DINIENSIONS		POSITIVE	NEGATIVE	
SINGLE	40" x 88"	7700V Series 7700 Series	+70.0	-70.0	
DOUBLE	76" x 88"	7700V Series	+70.0	-70.0	

HURRICANE APPROVED HARDWARE FOR EXIT DEVICE HARDWARE FLORIDA BUILDING CODE: FL13922 ASTM E1886/E1996 ASTM E330 TAS 201, 202, 203 UL10B UL10C

Features & Construction

- ♦ Retrofits Von Duprin 99 & 98 Series using 7700 Escutcheon Trim
- For use in institutions, schools, universities, commercial buildings where heavy duty reliable operation is a requirement
- ◆ ANSI A156.3, Grade 1 heavy duty exit device in surface vertical rod and rim designs
- Rail assemblies are heavy duty extruded aluminum body with Stainless Steel push pad and end caps are made of brass, bronze or stainless steel. Rail travels in direction of the door swing
- Trims are thru bolted for additional security
- Conforms & Meets ADA Regulations
- UL Listed for Panic and ULC10C, UBC 7-2-1997 codes
- UL Listed for Fire Exit Hardware. 3 hours.
- (A) label rating on pairs of doors up to 8'0" x 8'0" swinging in same or opposite directions
- Uncompromising security and safety in single and double fire exit doors
- Chassis mounted unit construction. Rim and vertical rod devices are non-handed and easily reversible
- Available in many different functions. Lever and escutcheon trims are grade 1 construction with clutch on rose trims. Escutcheon trims are rigid and covers 161 cut out

Suggested Architect's Specifications

3 HOUR FIRE RATED

- ◆ All exit devices shall be of touch bar design with smooth operation and be operative over ¾ of the door's clear opening width
- All exit devices must be listed under "Panic Hardware" in the Accident Equipment List of Underwriters' Laboratories, Inc. Where labeled doors are used as exits, they must be equipped with labeled Fire Exit Hardware and UL10C, UBC 7-2-1997 codes
- All springs shall be of Stainless Steel throughout
- All exit devices shall be of chassis mounted unit construction
- All exit devices shall be ANSI A156.3, Grade 1.











7700 & F7700 Series





Grade 1 Rim Type Exit Device

Specifications

1 3/4" thick standard optional 2 1/4" thick. 4 1/2" minimum stile width for single or double For Doors.....

door application using standard 938 strike and pull lever, thumbpiece and escutcheon

trims. 2 3/4" backset

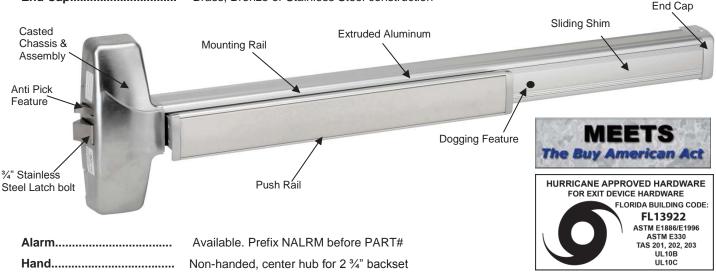
Chassis..... Non-ferrous alloy (Panic Grade), steel (Fire Grade)

Cover..... Non-ferrous plated material. Covers stock hollow metal doors with 161 cut out

Mounting..... Furnished with wood and machine screws. Available thrubolts on request

Thru bolts are included and standard packaging on fire rated devices

End Cap..... Brass, Bronze or Stainless Steel construction



Stainless steel 3/4" throw with anti-pick feature Latch Bolt.....

Spring..... Stainless steel throughout

ANSI Standard..... A156.3, Grade 1

Heavy gauge extruded aluminum body with Stainless Steel Rail Assembly.....

push pad

938 packed standard (See strike page) Strike.....

Dogging Feature..... Allen-type key furnished standard on non-fire labeled devices

Mullion..... Available

UL and ULC Listed..... 7700 Series for panic. F7700 Series for fire exit hardware for all types of 4' x 8' single doors and 8' x 8' double doors for up

to 3 hour fire labeled installations, conforms to standards

UL10C and UBC 7-2-1997 codes

Finish..... Architectural plated finishes

Electronic Functions..... (ELR) Electrical Latch Retraction and RX & LX Signal Switch

available

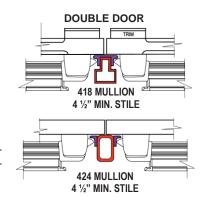
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DIMENSIONS				
Touchbar height to finished floo	or 41" (10	041mm) at center		
Touchbar projection				
Neutral	3 5/8" (9	92mm)		
Depressed	2 %" (7	73mm)		
Center case	8 ½ ₁₆ " x	(2 ¾" x 2 ½"(205mm)	(68mm x 62mm)	
MODEL	ACTUAL LENGTH	MAX CUT DOWN	DOOR SIZE	
7700EO36 and F7700EO36	32"	6"	30" to 36" door width	
7700E049 and E7700E049	44"	10"	20" to 10" door width	

4 1/2" Minimum Stile Requirements

Lifetime

Warranty













7760 & F7760 Series





Grade 1 Vertical Rod Type Exit Device

Specifications For Doors..... 1 3/4" thick standard optional 2 1/4" thick. 3 3/4" minimum stile width required for single door application. 3 ½" minimum stile width required for double door application. Lever, thumbpiece and escutcheon trims available. 2 3/4" backset Chassis..... Nonferrous alloy (Panic Grade), steel (Fire Grade) Cover..... Non-ferrous plated material. Covers stock hollow metal doors with 161 cut out Furnished with wood and machine screws. Thru bolts are included and standard Mounting..... packaging on fire rated devices Brass, Bronze or Stainless Steel construction End Cap..... Hand..... Handed. Easily field reversible. Specify at time of order LHR, RHR for convenience Latch Bolt, Spring..... Stainless steel ANSI Standard..... A156.3, Grade 1 The Buy American Act Rail Assembly..... Heavy gauge extruded aluminum body with Stainless Steel push pad MINIMUM STILE REQUIREMENTS Available. Prefix NALRM before PART# Alarm..... Double Door with Two Vertical Rod Type Exit Devices



7760 Series for panic. F7760 Series for fire exit hardware for all types of 8' x 8' double doors for up to 3 hour fire labeled installations. Conforms to standards UL10C and UBC 7-2-1997 codes

Strike..... See strike page

Allen-type key furnished standard on Dogging Feature..... non-fire labeled devices

Finish..... Architectural plated finishes

Electronic Functions..... (ELR) Electrical Latch Retraction and RX & LX Signal Switch available





DIMENSIONS

DINIENSIONS			
Touchbar height to finished floor	41" (1041r	nm) at center	
Touchbar projection			
Neutral	3 ¾" (92m	m)	
Depressed	2 ¾" (73m	m)	
Center case	8 ½ ₁₆ " x 2 ¾	4" x 2 ½"(205mm x 70mm x 64	mm)
Panic grade top & bottom latch case	3 ¹⁵ / ₁₆ " x 2	⅓" x 1 ¾" (100mm x 54mm x 3	35mm)
Fire grade top latch case	3 ¹⁵ / ₁₆ " x 2	9/ ₁₆ " x 2 ½ ₁₆ " (100mm x 65mm x	c 53mm)
Fire grade bottom latch case	3 ¹⁵ / ₁₆ " x 2	⅓" x 1 ¾" (100mm x 52mm x	42mm)
Top and bottom rod length for 36" x 84" doors	Top rod 37	7 ½" (953mm), bottom rod 35 5	√s" (905mm)
Top and bottom rod length for 48" x 96" doors	Top rod 49	9 5/8" (1260mm), bottom rod 35	%" (905mm)
Vertical rods	½" (13mm) Round tubing	
MODEL	ACTUAL SIZE	MAXIMUM CUT DOWN	DOOR SIZE
7700EO36, F7700EO36, 7790V3696,	32"	6"	30" to 36" door width
F7790V3696 and 7750V36120	32	Ü	30 to 30 door width
7700EO48, F7700EO48, 7790V4896,	44"	10"	38" to 48" door width
F7790V4896 and 7750V48120	77	10	







LBR 7760 & F7760 Series



Grade 1 Vertical Rod Type Exit Device Less Bottom Rod (LBR)

Specifications

No Bottom Strike. Free access for wheel chairs, stretchers and carts which LBR.....

eliminates tripping potential and disfiguration of floors due to dragging of bottom bolts

1 3/4" thick standard optional 2 1/4" thick. 3 3/4" minimum stile width required for single For Doors.....

door application. 3 ½" minimum stile width required for double door application.

Lever, thumbpiece and escutcheon trims available. 2 3/4" backset

Nonferrous alloy (Panic Grade), steel (Fire Grade) Chassis.....

Cover..... Non-ferrous plated material. Covers stock hollow metal doors with 161 cut out

Furnished with wood and machine screws. Thru bolts are included and standard Mounting.....

packaging on fire rated devices

End Cap..... Brass, Bronze or Stainless Steel construction

Hand..... Handed. Easily field reversible. Specify at time of order LHR, RHR for convenience

Latch Bolt, Spring..... Stainless steel

ANSI Standard..... A156.3. Grade 1

Rail Assembly..... Heavy gauge extruded aluminum body with Stainless Steel push pad

Alarm..... Available. Prefix NALRM before PART#









UL and ULC Listed.....

7760 Series for panic. F7760 Series for fire exit hardware for all types of 8' x 8' double doors for up to 3 hour fire labeled installations, conforms to standards

UL10C and UBC 7-2-1997 codes

Dogging Feature..... Allen-type key furnished standard on non-fire labeled devices

Strike..... See strike page

Finish..... Architectural plated finishes

Auxiliary Fire Latch Assembly

Electronic Functions...... (ELR) Electrical Latch Retraction and RX & LX Signal Switch available Double Door with Two Vertical **Rod Type Exit Devices**

MINIMUM STILE REQUIREMENTS



3 ½" Min. Stile



Top rod length for 48" x 96" doors Vertical rods	Top rod 49 %" (126	,	
Top rod length for 36" x 84" doors	Top rod 37 ½" (953	<u>'</u>	
Fire grade top latch case		½ ₁₆ " (100mm x 65mm x 53mm)	
Panic grade top & bottom latch case	3 ¹⁵ / ₁₆ " x 2 ½" x 1 ¾	(a) (100mm x 54mm x 35mm)	
Center case	8 ½16" x 2 ¾" x 2 ½"	(205mm x 70mm x 64mm)	
Neutral Depressed	3 %" (92mm) 2 %" (73mm)		
Touchbar projection	0.5(".(00:)		
Touchbar height to finished floor	41" (1041mm) at center		

MODEL	ACTUAL SIZE	MAXIMUM CUT DOWN	DOOR SIZE
LBR 7760V3694 and LBR F7760V3684 LBR 7790V3696 and LBR F7790V3696	32"	6"	30" to 36" door width
LBR 7790V4896 and LBR F7790V4896	44"	10"	38" to 48" door width







DE7700 Series Delayed Egress



Grade 1 Delayed Egress All in One Exit Device



FEATURES			
EGRESS DELAY	BUILT-IN ANNUNCIATION	CODE COMPLIANCE	
 All in One Device 15 or 30 second exit delay (Factory set to 15 secs) 1 or 2 second nuisance delay Alarm and Lock reset 1 to 30 second momentary bypass Sustained bypass 	 Armed mode Nuisance mode Irreversible egress mode Release mode Optional External Inhibit Input Remote override Remote reset 	 IFC International Fire Code IBC International Building Code NFPA 101 Life Safety Code NFPA 1 Uniform Fire Code California Building Code Field selectable automatic or manual power up after emergency release or power loss 	
CONTROL INPUTS	TRIGGER MODES	MONITORING OUTPUTS	
 1 to 30 second request-to-exit and bypass input with anti-tailgate and jumper selectable door prop alarm Reset 	 Egress Alarm triggered by Push Bar Trigger input from external device field selectable (N/O) or N/C) 	Armed modeNuisance modeRelease status	

TECHNICAL SPECIFICATIONS

- 24VDC @ 430mA
- 24VDC@ 250mA Slave

Power Supply CR602RF 1 Amp / CR631RF 1.5 Amp





- Auto resetting output circuit protection
- Isolated 13.5/27V DC battery charger
- · Low battery disconnect
- · Emergency release input
- Field selectable UBC & California compliant manual power up
- Input, output and battery status LED's
- 11 1/4"" x 11 1/4" x 3 1/2" enclosure
- · Choice of output and door control modules
- CR631F 1.5 Amp, CR602RF 1.0 Amp

APPLICATION

When unauthorized egress is initiated the device delays egress through the door for 15 seconds (or 30 seconds). Meanwhile, the person exiting must wait while personnel or security responds. The door unlocks after 15 seconds have elapsed permitting egress. When powered by a fire control supervised power supply, the lock will release immediately in an emergency.

FOR USE WITH (FIRE- AND NON-FIRE):

- DE7700 Rim Panic Exit Device
- DEF7700 Rim Panic Exit Device
- DEMCVR7700 Concealed Vertical Rod (metal doors)
- DEWCVR7700 Concealed Vertical Rod (wood doors)
- DEFMCVR7700 Concealed Vertical Rod (metal doors)
- DEFWCVR7700 Concealed Vertical Rod (wood doors)
- DE7700V Surface Vertical Rod Exit Device¹
- DEF7700V Surface Vertical Rod Exit Device¹
- DEMR7700 Mortise Exit Device
- DEFMR7700 Mortise Exit Device

¹Recommends use of rod and latch guards and strike monitor for surface vertical rods



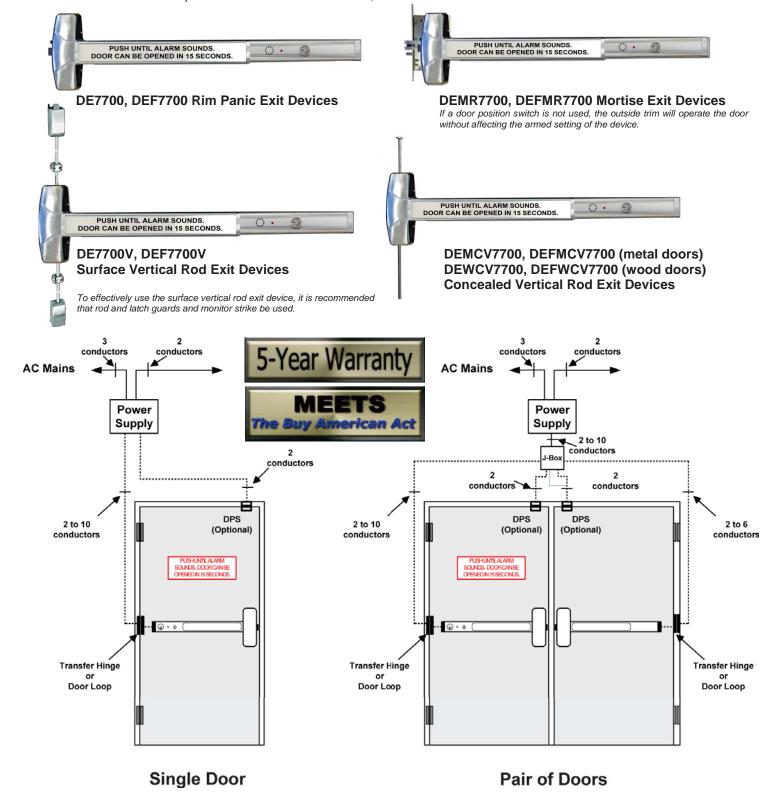




7700 Series Delayed Egress Models



For use in institutions, schools, universities, commercial buildings where heavy duty reliable operation is a requirement. 7700 Series Delayed Egress can also be used for fire exit hardware for all types of 4' x 8' single doors and 8' x 8' double doors for up to 3 hour fire labeled installations, it conforms to standards UL10C and UBC 7-2-1997 codes



Alarm Exit Hardware





Rim Type Exit Devices

NALRM7700EO36 Alarm Rim Type 36" Door (Panic Grade) NALRM7700EO48 Alarm Rim Type 48" Door (Panic Grade) FNALRM7700EO36 Alarm Rim Type 36" Door (Fire Grade) FNALRM7700EO48 Alarm Rim Type 48" Door (Fire Grade)

Vertical Rod Type Exit Devices

Prefix "NALRM" before PART#

Features

- 1-, 3-, 5-minute and continuous alarm type settings available
- ON and OFF power switch
- Alarm sound frequency is 120 db
- Alarm unit has an internal horn. When the push rail is depressed, the horn sounds to provide an audible means of signaling that the door has been opened and breached
- The key switch to turn alarm off is a standard 1 1/4" cylinder with "C" keyway. The alarm operates on one standard 9 volt transistor battery. When battery is weak the horn will emit an intermittent signal
- Alarmed units are supplied with a micro switch, which monitors the push rail and the latch bolt for foolproof security on rim devices
- Alarm unit has a signal OC output that can be linked to external alarm control systems
- Unit includes "EMERGENCY EXIT ONLY ALARM WILL SOUND" decal for application on door or unit

Cylinder Dogging Kit

TO ORDER: Prefix "CD" before PART#. Available for all 7700 Series devices except fire exit hardware.

To order KIT ONLY: use PART# 36CD7700 for 36" and 48CD7700 for 48" devices. Specify finish.



Finishes (Refer to Price List for Stock Finishes)

Cal-Royal	Description	BHMA	US Finish	Material
10B	Oil Rubbed Bronze	613	US10B	Bronze
32D	Satin Stainless	630	US32D	Stainless Steel









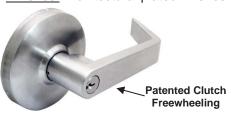
LEVER DESIGN

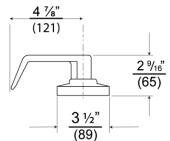
Non-handed Grade 1 (Clutch Style)

Cylindrical body hardened steel heavy duty tailpiece. For 1 3/4" and 2 1/4" doors. Prefix THI before part # for 2 1/4" door Available for fire and non-fire rated rim and thickness. vertical rod exit devices

Rose diameter 3 ½", lever length 4 ¾". Fits and covers 161 cutout.

Finishes: Architectural plated finishes.





ENT00L or

- ICENT00L or
- ICSCENT00L4
- SARICENTOOL (Sargent)
- **RUSICENT00L** (Corbin/Russwin)
- **YALICENTOOL** (Yale)

8000K

STR05L or

- ICSTR05L or
- ICSCSTR05L4
- SARICSTR05L (Sargent)
- **RUSICSTR05L** (Corbin/Russwin)
- **YALICSTR05L** (Yale)

ENTRANCE

Key locks and unlocks lever. Operates as CLASSROOM FUNCTION.

ANSI Function - 08

Ball Knob Keylock

STOREROOM

Key operates lever, otherwise always locked. ANSI Function - 04

PAS30L

PASSAGE

Trim always operable and free.

ANSI Function - 15

DUM40L

DUMMY

Dummy trim. One sided ANSI Function - 10

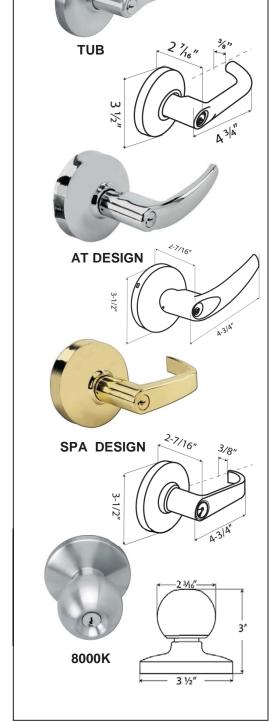
When ordering "AT" and "SPA" designs, prefix design name before part #. Example: ENTOOL in "AT" is ATENTOOL.

KEYWAY: 6 pin solid brass "C" keyway standard. Schlage E, Schlage C-K, Russwin D1-2-3-4, Corbin 59/60, Sargent LA-LB-LC, Falcon/Weiser E, Arrow A, Yale 8, Yale GA and Kwikset. Can also accept Medeco, Assa, Kaba and Cal-Royal HSK High Security Cylinders.

(IC) INTERCHANGEABLE CORE

Interchangeable Core locks will accept compatible 6 or 7 pin cores with BEST, FALCON and ARROW.

(ICSC) INTERCHANGEABLE CORE: Indicates function available with Schlage Full size format Interchangeable



Other Lever Trim Designs





ESCUTCHEON LEVER DESIGN

CONSTRUCTION

- Rigid, non clutch mechanism
- Double heavy duty spring support to prevent sagging and enhance operation
- Grade 1, thru-bolted design. Non-handed design. Easily field reversible
- Hardened steel heavy duty tailpiece. Available for fire and non-fire rated rim and vertical rod exit devices

2 ¼" (70)(57)10 1/4" (261)4 ¾" (121)

DOOR THICKNESS

Standard 1 3/4". For 2 1/4" thick door use additional part# TAIL3

ESCUTCHEON DIMENSIONS

2 3/4" width X 10 1/4" length. Lever length: 4 3/4". Fits and covers 2 1/8" 161 cutout

ESC7700 or **ENTRANCE** ICESC7700 or Rigid Entrance, key locks or unlocks escutcheon trim ICSCESC7700 ANSI FUNCTION (63) Operates as classroom function

ESC7705 or STOREROOM

ICESC7705 or Rigid Storeroom, key unlocks lever, lever retracts latch bolt, otherwise always locked ICSCESC7705

ANSI FUNCTION (04)

ESC7730 PASSAGE

Trim always operable and free

ANSI FUNCTION (62)

ESC7740 **DUMMY**

Dummy Escutcheon trim ANSI FUNCTION (10)

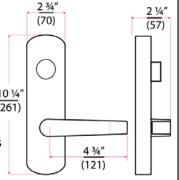
TO ORDER other lever design insert "AT" or "RL" before "ESC":

e.g. ATESC7700 for ESC7700 with AT design or RLESC7700 for ESC7700

KEYWAY: 6 pin solid brass "C" keyway Mortise Cylinder standard. Optional: Schlage E, Schlage C-K, Russwin D1-2-3-4, Corbin 59/60, Sargent LA-LB-LC, Falcon/Weiser E, Arrow A, Yale 8, Yale GA and Kwikset. Can also accept Medeco, Assa, Kaba and Cal-Royal HSK High Security Cylinders.

FOR ELECTRIFIED TRIM OPTIONS SEE PAGE 11

- (IC) INTERCHANGEABLE CORE: Interchangeable Core locks will accept compatible 6 or 7 pin cores with BEST, FALCON and ARROW.
- (ICSC) INTERCHANGEABLE CORE: Indicates function available with Schlage Full size format Interchangeable Core.











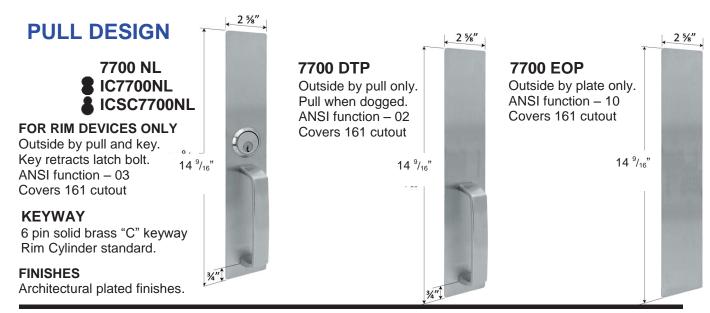
RLESC











THUMBPIECE TRIM

(OPERATES ON RIM & VERTICAL ROD DEVICES)

77TP00 or ENTRANCE

IC77TP00 Key locks or unlocks thumbpiece. (Operates as classroom function)

ANSI Function - 63

77TP05 or STOREROOM

IC77TP05 Key unlocks thumbpiece, thumbpiece retracts latch bolt, otherwise always

locked. ANSI Function-04

77TP30 PASSAGE

Trim always operable and free.

ANSI Function – 62

77TP40 DUMMY

Dummy trim. Includes blank Mortise

dummy cylinder. One sided.

ANSI function – 10

14 ½"

14 ½"

1 3/8"

KEYWAY: 6 pin solid brass "C" keyway Mortise Cylinder standard. Optional: Schlage E, Schlage C-K, Russwin D1-2-3-4, Corbin 59/60, Sargent LA-LB-LC, Falcon/Weiser E, Arrow A, Yale 8, Yale GA and Kwikset. Can also accept Medeco, Assa, Kaba and *Cal-Royal HSK* High Security Cylinders.

(IC) INTERCHANGEABLE CORE

Interchangeable Core locks will accept compatible 6 or 7 pin cores with BEST, FALCON and ARROW.

(ICSC) INTERCHANGEABLE CORE: Indicates function available with Schlage Full size format Interchangeable Core.

FINISHES

Architectural plated finishes.







Electrified Lever Trim



Cal-Royal's electrified lever trim provides remote locking and unlocking capabilities. The 24V DC solenoid can be energized from a distant controller, thus allowing access control of the opening.

The control of stairwells in high-rise buildings is a common application for this trim, where electric pullback of the exit device's latch bolt is cost prohibitive or not required. This is especially practical in applications where fire/life safety codes require a "fail-safe" condition which is not an option with electrified latch pullback devices. Because the current draw is quite low there is no need for a more expensive power supply to provide the surge current.

Features

- Continuous duty solenoids used to insure trouble-free operation
- Internally mounted solenoid to ease installation (no special door prep required)
- No hassle 3-Year Warranty
- Options
- Available Fail Safe (electrically locked) or Fail Secure (Electrically Unlocked)
- Voltage options 12V or 24V (AC/DC)
- Request to Enter Switch (REE) available
- CRU2 Current Reduction Unit to improve solenoid life in "CONTINUOUSLY ON" applications

Specifications

Solenoid...... Continuous Duty 24VDC

Operating Voltage....12 or 24VAC/DC + OR - 10% (must

specify 12 or 24 volts when ordering)

Amperage......260mA@12V / 160mA@24V

Coil Resistance......12V=49 Ω / 24V=159 Ω

To order, Specify:

OPTIONS: FAIL SAFE (**FS**)
FAIL SECURE (**FSE**)

ITEM#	DESCRIPTION
FS12 ESC77	FS12 FAIL-SAFE OPTION 12V AC/DC
FS24 ESC77	FS24 FAIL-SAFE OPTION 24V AC/DC
FSE12 ESC77	FSE12 FAIL-SECURE OPTION 12V AC/DC
FSE24 ESC77	FSE24 FAIL-SECURE OPTION 24V AC/DC

TO ORDER other lever design insert "AT" or "RL" before "ESC": e.g. ATESC77 for ESC77 in AT design or RLESC77 for ESC77 in RL design











(ELR) Electrical Latch Retraction

Our electrified latch pullback exit device allows for remote keyless access control in high occupancy/high traffic conditions where exit devices are required. Common applications include conditions such as hospitals, airports, schools, churches and they are commonly specified in applications that require automatic door openers. The device may be continuously energized allowing for a push/pull condition if desired.

Features:

- Available on 7700 Series, including rim, vertical rod, concealed vertical rod fire-rated devices.
- High-performance quality solenoids designed for demanding applications
- The PM200* interface power module (included) is programmed to meet the requirements of the specific exit device modification. It maximizes the efficiency and life of the solenoid, allows for a much longer wire run and may be used with 24VDC power supplies rated at 1.5A or greater
- Dual coil solenoids, or PWM programming, allow for either momentary or extended time latch retraction
- No hassle 3-Year Warranty

Specifications

- Voltage 24VDC
- Amperage Surge current 12A for 200ms@24V / Holding 250mA@24V
- Coil resistance 3.7Ω

To order, specify:

Prefix ELR before PART#

CANNOT BE COMBINED WITH REGULAR DOGGING, CYLINDER DOGGING AND ALARM KITS

Signal Switch RX and LX

RX (request to exit) signal switch is used to signal the use of an opening from the push side. When the push pad is Depressed, the switch is activated. These devices are equipped with an internal SPDT (single pole double throw) switch that monitors the touch bar.

LX (latch bolt monitoring) signal switch monitors both egress and access of an opening. When the latch bolt is retracted, the switch is activated. These devices are equipped with an internal SPDT (single pole double throw) switch that monitors the latch bolt position.

LX and RX switches can be combined.

LX, RX switches can be used in combination with EL (electric latch retraction) option.

Specifications

RX or **LX**.......Switch rated 0.5 amps @ 24VAC/DC resistive Low current **RX** or **LX**.Switch rated 0.5 amps @ 24VAC/DC resistive For Factory Installed:

To Order, Specify:

Prefix: - RX......Request to Exit switch for field installation

LXRX.....Latch bolt Monitoring switch for field installation

LXRX....Latch bolt Monitoring/Request to Exit Combination







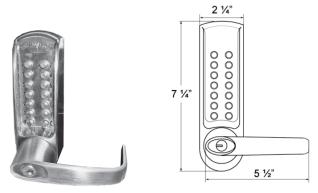
Heavyduty Keyless Locks



MECHANICAL CRCODE101

Features

- For use with Rim & Vertical Exit Devices
- Heavy Duty
- Designed for 7700 and 9800 Series
- Grade 1 Panic Exit Device
- Single code (up to 8000 code combinations)
- · Weather-resistant finish
- Code can be changed anytime without dismounting
- Full size, non-handed lever handle
- Easy Installation
- Reversible Handing

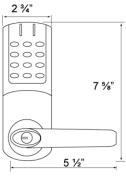


ELECTRONIC CRCODE007

Features

- For use with Rim Exit Devices only
- Dual mode for code free entry either mechanically by key or electronically thru the keypad
- Designed for 7700 and 9800 Series
- Can store up to 90 different numeric user codes in 4, 5 or 6 digits
- Settings remain in memory when batteries are removed
- Audible alarm sounds after 3 incorrect attempts
- Connections available for remote release switch and automatic lock activation when linked to Fire alarm system
- Can be used as STOREROOM or CLASSROOM function
- Factory default set as STOREROOM function
- Fast and easy programming via master code





CR5000 TRILOGY® KEYLESS EXIT TRIM

Features

- For use with Rim Exit Devices only
- Clutch mechanism insures long life and durability
- Fingertip and/or Windows Programmable
- 2000 User Codes: Master, manager, supervisor and users
- Real Time Clock for up to 40,000 Event Time/Date-Stamped Audit Trail
- Up to 500 Lock/Unlock Schedules (with Time Zone Support)
- Rugged 12-Button Metal Keypad
- Non-Handed; Fully Field Reversible
- Adaptable to most major manufacturers of standard RIM and IC RIM Cylinders
- Battery operated; uses 5 AA batteries



KABA® - Cal-Royal Combination

Cal-Royal's Exit hardware devices combined with **Kaba InSync CP** provide a variety of alternatives when addressing community access control. Recommended for applications such as controlling building entry openings, common area rooms and doors with exit devices. **InSync CP** are available as stand-alone battery operated door locks designed to work in conjunction with **Cal-Royal's Exit Hardware Devices**.

For inquiries and information on **InSync** line of products please visit **www.kabamultihousing.com**











POWER SUPPLIES FOR ELECTRIFIED EXIT DEVICES

The CRPS1N is a heavy duty, high quality, low cost solution for powering a single latch retracting exit device. The solid state design insures years of trouble-free operation. The power supply delivers raw, unregulated DC current which is ideal for the extreme in-rush requirement of most solenoid driven electric latch retracting exit devices. The power supply comes housed in a sturdy, yet compact metal enclosure.

CRPS1N



Features:

- Power supply delivers the necessary high current in-rush for a single exit device
- Solid-state design eliminates problems associated with mechanical relays
- Single input/output



Specifications:

- Input voltage 120 VAC
- Output voltage 24 VDC unregulated @ 1A
- Temperature range 0 to 120F
- 1 Solid-State input/output (input triggered by dry contact)
- LEDs RED = Power indicator GREEN = Channel on
- Enclosure dimensions: 10" x 10" x 4"

The CRPS2 Series power supplies are high quality, cost effective solution for powering two electric latch-retracting exit devices. These power supplies provide the necessary surge current that most latch-retracting exit devices require. The CRPS2 Series offers features found on power supplies costing much more; and the solid-state design and careful attention to detail make the CRPS2 Series ideal choice for the discerning user who requires a power supply that can offer years of trouble-free operation.

CRPS2BB





Features:

- Delivers the necessary in-rush current to power two latch pullback exit devices.
- Two independent inputs/outputs
- Solid-state design eliminates mechanical problems associated with relays
- Thermal overload sensing reduces risk of failure due to overheating
- Fire alarm disconnect link
- Inputs triggered by dry contact
- Intelligent short circuit detection detects shorts much faster than fuses and isolates the short to the individual output
- Removable Euro-style terminal blocks allow for easy installation
- UL Pending at time of print
- No hassle 3-Year Warranty

Additional Features (CRPS2BB Only):

- Efficient battery backup/charging circuitry with zero voltage drop at power loss
- Solid state reverse polarity protection for battery connections
- Audible alert when sensing AC power failure & low battery (batteries not included)
- Output Voltage 24 VDC unregulated @ 2.3A
- Enclosure dimensions: 12.5" x 15" x 4"

Specifications:

- Input Voltage 120 VAC
- Output Voltage 24 VDC unregulated @ 2A**
- Temperature Range 0 to 120 F
- 1 Solid-State input/output (input triggered by dry contact)
- LEDs Red = Power indicator GREEN = Channel on
- Enclosure dimensions: 10" x 10" x 4" **
 **CRPS2 only

The CRSW3 power supply is a low cost, regulated switching power supply. It is designed specifically to supply power to low current DC devices such as mortise locks, cylindrical locks and electric strikes. The CRSW3 supplies <u>2.4A @ 27VDC</u> and provides (3) non-fused outputs. The CRSW3 comes housed in a 10" x 10" x 4" sturdy metal enclosure.

CRSW3



Features:

- Adjustable output voltage (22-27V under load)
- No hassle 3-Year Warranty

Specifications:

- Input voltage 110 or 240VAC
- Output voltage 2.4A @ 27VDC
- (3) Non-fused outputs
- Enclosure dimensions: 10" x 10" x 4"





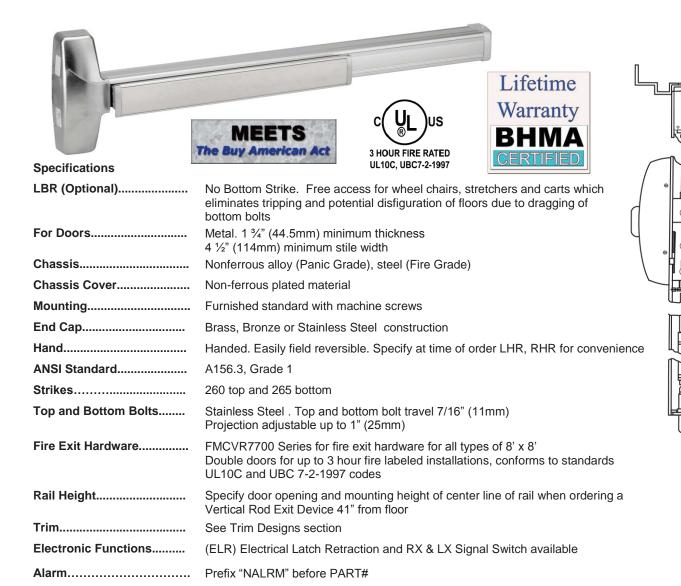


MCVR7700 & FMCVR7700 Series CALROY



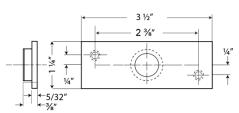
Optional Less Bottom Rod (LBR)

Grade 1 Concealed Vertical Rod Exit Device For Metal Doors



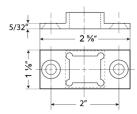
MODEL SIZE	ACTUAL LENGTH	MAXIMUM CUT DOWN	DOOR SIZE
M77CVR3684 and M77CVR3696	32"	6"	30" to 36" door width

Cylinder dogging available for non-rated applications



260 TOP STRIKE

- For applications metal frames
- Stainless Steel



265 BOTTOM STRIKE

- Furnished with expansion shields
- Mortised into floor
- Stainless Steel



Dogging Feature.....





WCVR7700 & FWCVR7700 Series CALFOYAL



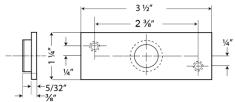
Optional Less Bottom Rod (LBR)

Grade 1 Concealed Vertical Rod Exit Device For Wood Doors



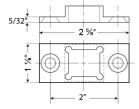
MODEL SIZEACTUAL LENGTHMAXIMUM CUT DOWNDOOR SIZEW77CVR3684 and W77CVR369632"6"30" to 36" door width

Cylinder dogging available for non-rated applications



260 TOP STRIKE

- For applications metal frames
- Stainless Steel



265 BOTTOM STRIKE

- Furnished with expansion shields
- Mortised into floor
- Stainless Steel



Dogging Feature.....







MCVR7700, FMCVR7700, WCVR7700 & FWCVR7700

Concealed Vertical Rod Exit Device For Wood And Metal Doors

Trim Selection

ESCUTCHEON LEVER DESIGN

CONSTRUCTION

- Free-wheeling clutch mechanism
- Grade 1, thru-bolted design
- Non-handed design. Easily field reversible.
- Hardened steel heavy duty tailpiece available for fire and non-fire rated rim and concealed vertical rod exit devices.



Architectural plated finishes

DOOR THICKNESS

Standard 1 3/4"

ELECTRIFICATION NOT AVAILABLE FOR TRIM.

Electrical Latch Retraction (ELR), Request to Exit (RX) and Latchbolt Monitoring (LX) available for Exit Device only.

25/16"

(59)

8 1/2"

(216)

ESCUTCHEON DIMENSIONS

 $2^{5}/_{16}$ " width X 8 ½" length. Lever length: 4 ¾". Fits and covers 2 ¼" 161 cutout

CVRESC7700 or ICCVRESC7700 or ICSCCVRESC7700 ANSI FUNCTION (63) Operates as classroom function

CVRESC7705 or ICCVRESC7705 or Clutch Storeroom, key unlocks lever, lever retracts

ICSCCVRESC7705 latch bolt, otherwise always locked ANSI FUNCTION (04)

CVRESC7730 PASSAGE

Trim always operable and free

ANSI FUNCTION (62)

CVRESC7740 DUMMY

Dummy Escutcheon trim ANSI FUNCTION (10)

KEYWAY: 6 pin solid brass "C" keyway Mortise Cylinder standard. Optional: Schlage E, Schlage C-K, Russwin D1-2-3-4, Corbin 59/60, Sargent LA-LB-LC, Falcon/Weiser E, Arrow A, Yale 8, Yale GA and Kwikset. Can also accept Medeco, Assa, Kaba and *Cal-Royal HSK* High Security Cylinders.

- (IC) INTERCHANGEABLE CORE: Interchangeable Core locks will accept compatible 6 or 7 pin cores with BEST, FALCON and ARROW.
- **(ICSC) INTERCHANGEABLE CORE:** Indicates function available with **Schlage Full size format** Interchangeable Core.







2 %"

(64)

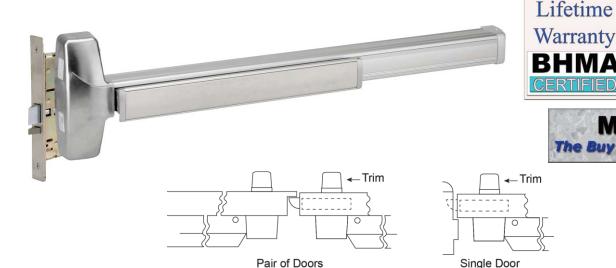
MR7700 and FMR7700 Series



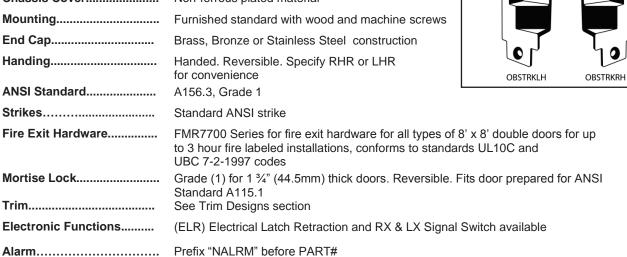
3 HOUR FIRE RATED UL10C, UBC7-2-1997

OPTIONAL OPEN BACK STRIKE

Grade 1 Mortise Lock Exit Device







MODEL SIZE	ACTUAL LENGTH	MAXIMUM CUT DOWN	DOOR SIZE
MR7700EO36, FMR77EO36	32"	6"	30" to 36" door width
MR7700EO48, FMR77EO48	44"	12"	36" to 48" door width

Cylinder dogging available for non-fire rated applications



Dogging Feature.....





MR7700 and FMR7700 Series



Grade 1 Mortise Lock Exit Device

Trim Selection

ESCUTCHEON LEVER DESIGN

CONSTRUCTION

Refer to Mortise Lock NM Series for product information

FINISHES

Architectural plated finishes

DOOR THICKNESS

Standard 1 3/4"

ESCUTCHEON DIMENSIONS

2" width X 8 1/2" length. Lever length: 4 3/4".



IMPORTANT: MR7700 and FMR7700 Mortise Lock case comes standard with exit device.
(TRIMS SOLD SEPARATELY)

MRESC7700 or ICMRESC7700 or ICSCMRESC7700

ENTRANCE

Key locks or unlocks lever

Operates as classroom function

ANSI FUNCTION (63)

MRESC7705 or

STOREROOM

ICMRESC7705 or ICSCMRESC7705

Key retracts latch bolt, otherwise always locked

ANSI FUNCTION (04)

*MUST USE MR98005EO36/48 Mortise Rim Exit

MRESC7730 PASSAGE

Trim always operable and free

ANSI FUNCTION (62)

*MUST USE MR98005EO36/48 Mortise Rim Exit

8" (203)

KEYWAY: 6 pin solid brass "C" keyway Mortise Cylinder standard. Optional: Schlage E, Schlage C-K, Russwin D1-2-3-4, Corbin 59/60, Sargent LA-LB-LC, Falcon/Weiser E, Arrow A, Yale 8, Yale GA and Kwikset. Can also accept Medeco, Assa, Kaba and **Cal-Royal HSK** High Security Cylinders.

- **(IC) INTERCHANGEABLE CORE:** Interchangeable Core locks will accept compatible 6 or 7 pin cores with BEST, FALCON and ARROW.
- **& (ICSC) INTERCHANGEABLE CORE:** Indicates function available with **Schlage Full size format** Interchangeable Core.

FOR ELECTRIFICATION OPTION:
SPECIFY ITEM# UPON ORDERING

(MORTISE LOCK CASE COMES STANDARD WITH EXIT DEVICE)

ITEM#	DESCRIPTION
FS12 MR77	FS12 FAIL-SAFE OPTION 12V AC/DC
FS24 MR77	FS24 FAIL-SAFE OPTION 24V AC/DC
FSE12 MR7	FSE12 FAIL-SECURE OPTION 12V AC/DC
FSE24 MR77	FSE24 FAIL-SECURE OPTION 24V AC/DC







GLS7700 Series

CALROYAL PRODUCTS, INC.

Grade 1 Rim Type, Narrow Stile Exit Device

Specifications

1 3/4" thickness for single or double door application

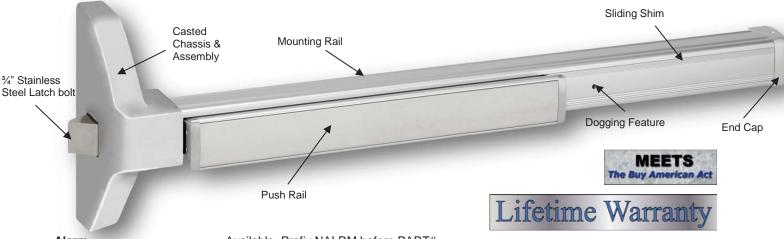
Chassis...... Non-ferrous alloy (Panic Grade)

Cover..... Non-ferrous plated material

Mounting...... Furnished with wood and machine screws. Thrubolts available upon request.

End Cap...... Brass, Bronze or Stainless Steel construction





Alarm...... Available. Prefix NALRM before PART#

Hand...... Non-handed

Latch Bolt..... Stainless steel 3/4" throw

Spring..... Stainless steel throughout

ANSI Standard...... A156.3, Grade 1

Rail Assembly...... Heavy gauge extruded aluminum body with Stainless Steel

push pad.

Dogging Feature..... Allen-type key furnished standard

Mullion..... Available

UL and ULC Listed...... GLS7700 Series for Panic & Safety for all types of 4' x 8'

single doors and 8' x 8' double doors

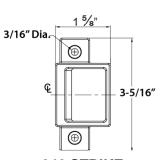
Finish..... Architectural plated finishes

Electronic Functions....... (ELR) Electrical Latch Retraction and RX & LX Signal Switch

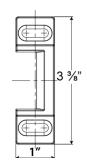
available

DIMENSIONS

D.II.I. 2.1.0.0.1.0				
Push Rail height to fini	shed floor	41" (1034mm) at ce	enter	
Push Rail projection				
Neutral		3 %" (92mm)		
Depressed		2 %" (73mm)		
Center case		8 ½6" x 2 ¾" x 2 ½"	(205mm x 68mm x 62mm)	
MODEL	ACTUAL LENGTH	MAX CUT DOWN	DOOR SIZE	
GLS7700EO36	34 ⁹ / ₆₄ "	10"	26" to 36" width	
GLS7700EO48	45 ²⁹ / ₃₂ "	12"	36" to 48" width	



246 STRIKE



247 STRIKE (OPTIONAL)







GLSCVR7700 Series



Grade 1 Concealed Vertical Type, Narrow Stile Exit Device Optional Less Bottom Rod (LBR)

Specifications

For Doors..... Metal or Aluminum Glass doors with 1 3/4" minimum stile width,

1 3/4" thickness for single or double door application

Chassis..... Non-ferrous alloy (Panic Grade)

Cover..... Non-ferrous plated material

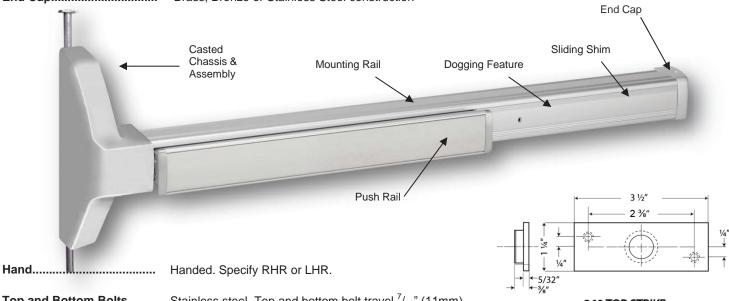
Mounting..... Furnished with wood and machine screws

Brass, Bronze or Stainless Steel construction End Cap.....









Stainless steel. Top and bottom bolt travel ⁷/₁₆" (11mm) Top and Bottom Bolts......

Stainless Steel adjustable to 1" (25mm)

Spring..... Stainless steel throughout

A156.3, Grade 1 ANSI Standard.....

Rail Assembly..... Heavy gauge extruded aluminum body with Stainless Steel push pad.

Strike..... 260 Top and 265 Bottom strikes packed standard (See strike page)

Dogging Feature..... Allen-type key furnished standard

Mullion..... Available

UL and ULC Listed..... GLSCVR7700 Series for Panic & Safety for all types of 4' x 8' single

doors and 8' x 8' double doors for Panic & Safety

Finish..... Architectural plated finishes

Electronic Functions..... (ELR) Electrical Latch Retraction and RX & LX Signal Switch available

260 TOP STRIKE

265 BOTTOM STRIKE

DIMENSIONS

Push Rail height to finished floor	41" (1034mm) at center	
Pull Rail projection		_
Neutral	3 %" (92mm)	
Depressed	2 1/8" (73mm)	
Center case	8 1/16" x 2 3/4" x 2 1/2"(205mm x 68mi	m x 62mm)
MODEL	ACTUAL LENGTH MAX CUT DOWN	DOOR SIZE
GLSCVR773684	34 ⁹ / ₆₄ " 10"	26" to 36" width
GLSCVR774884	45 ²⁹ / ₃₂ " 12"	36" to 48" width





ESCUTCHEON LEVER DESIGN

CONSTRUCTION

- Free-wheeling clutch mechanism.
- Grade 1, thru-bolted design. Reversible design.
- Hardened steel heavy duty tailpiece. Available for rim and concealed vertical rod exit devices.

DOOR THICKNESS

Standard 1 3/4".

ESCUTCHEON DIMENSIONS

1-13/16" width X 8" length Lever length: 5"

ICSCGLSRIM9805

ICSCGLSCVR9805

ICGLSCVR9805





IMPORTANT: GLS7700 and GLSCVR7700 Trims are interchangeable with GLS9800 and GLSCVR9800 Trims

ELECTRIFICATION NOT AVAILABLE FOR TRIM.

Electrical Latch Retraction (ELR), Request to Exit (RX) and Latchbolt Monitoring (LX) available for Exit Device only.

GLSRIM9800 **ENTRANCE**

GLSCVR9800 Clutch free-wheeling Entrance, key locks or

unlocks escutcheon trim ■ ICGLSRIM9800

ANSI FUNCTION (63) Operates as ICSCGLSRIM9800

classroom function ICGLSCVR9800

CVR is used for Concealed Vertical Rod Exit Device

ICSCGLSCVR9800 RIM is used for Rim Type Exit Device

GLSRIM9805 STOREROOM

GLSCVR9805 Clutch free-wheeling Storeroom, key unlocks lever, lever retracts latch bolt, otherwise always locked **■ ICGLSRIM9805**

ANSI FUNCTION (04)

CVR is used for Concealed Vertical Rod Exit Device

RIM is used for Rim Type Exit Device

GLSRIM9830 **PASSAGE**

Trim always operable and free GLSCVR9830

ANSI FUNCTION (62)

CVR is used for Concealed Vertical Rod Exit Device

RIM is used for Rim Type Exit Device

GLSRIM9840 DUMMY

GLSCVR9840 Dummy Escutcheon trim ANSI FUNCTION (10)

CVR is used for Concealed Vertical Rod Exit Device

RIM is used for Rim Type Exit Device

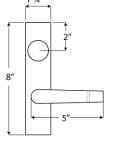
KEYWAY: 6 pin solid brass "C" keyway Mortise Cylinder standard. Optional: Schlage E, Schlage C-K, Russwin D1-2-3-4, Corbin 59/60, Sargent LA-LB-LC, Falcon/Weiser E, Arrow A, Yale 8, Yale GA and Kwikset. Can also accept Medeco, Assa, Kaba and Cal-Royal HSK High Security Cylinders.

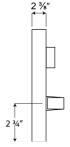


(ICSC) INTERCHANGEABLE CORE: Indicates function available with Schlage Full size format Interchangeable Core.



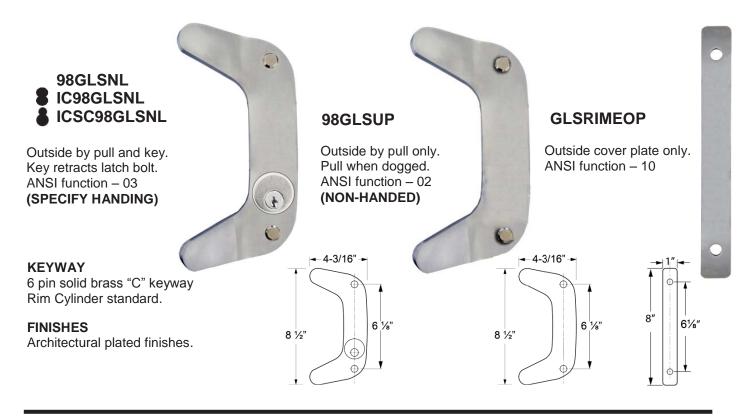








PULL DESIGN - FOR GLS7700 RIM EXIT DEVICE ONLY



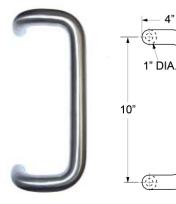
IMPORTANT: GLS7700 and GLSCVR7700 Trims are interchangeable with GLS9800 and GLSCVR9800 Trims



98GLSCYL-1



IC98GLSCYL-1 **ICSC98GLSCYL-1**



OFSTPUL-10 (REVERSIBLE)

Outside by pull only

KEYWAY: 6 pin solid brass "C" keyway Mortise Cylinder standard. Optional: Schlage E, Schlage C-K, Russwin D1-2-3-4, Corbin 59/60, Sargent LA-LB-LC, Falcon/Weiser E, Arrow A, Yale 8, Yale GA and Kwikset. Can also accept Medeco, Assa, Kaba and Cal-Royal HSK High Security Cylinders.

- (IC) INTERCHANGEABLE CORE
 - Interchangeable Core locks will accept compatible 6 or 7 pin cores with BEST, FALCON and ARROW.
- (ICSC) INTERCHANGEABLE CORE: Indicates function available with Schlage Full size format Interchangeable Core.







11"

Strikes & Accessories



Strikes for use with 7760 vertical rod exit device

All strikes are black nylon coated

221

Standard for 7760. Applied to surface of floor or to a flat threshold. Standard packaging.

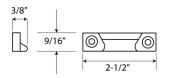
Applied to surface of stop. No mortise required. Standard packaging.

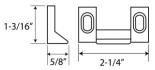
233

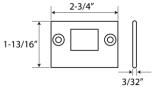
Bottom strike. Alternate bottom strike. Flush mounting stainless steel. Furnished with expansion shields. Requires mortise in the floor.

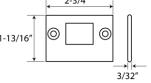
Strikes for use with 7700 rim type exit device 938

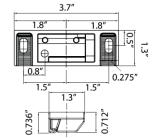
For 7700 & F7700 surface applied. Standard packaging











Strikes for use with F7760 vertical rod fire rated exit device

Surface applied for F7760. Standard packaging.

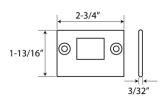
245

4-1/4 3/4'

233

Bottom strike for F7760. Flush mounting stainless steel. Furnished with expansion shields.

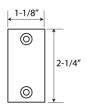
Requires mortise in the floor. Standard packaging.

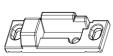


Additional Accessories LFF

Lock front filler

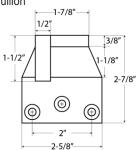
SF





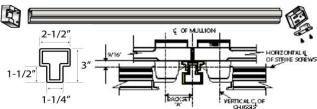
Overlapping Strikes

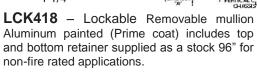
Surface applied. Used on inactive leaf for device on active leaf of pair of doors without mullion



Mullions

418 – Removable mullion Aluminum painted (Prime coat) includes top and bottom retainer supplied as a stock 96" for non-fire rated applications.



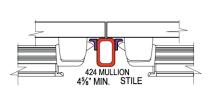


ICLCK418 - Interchangeable Core locks will accept compatible 6 or 7 pin Cores

ICSCLCK418 - Indicates function available with Schlage Full Size Format Interchangeable Core.

Strike filler 0 4-7/8 1-1/4"

424 - Fire exit mullion. 2" x 3" x 96" steel tubing round corner, iron construction with iron top and bottom retainers. To be used with two rim type devices on two independent active doors with full double door openings.



GLASS BEAD SHIM KITS

901 - For rim type, 1/8" thick 906 - For vertical type, 1/8" thick 912 - For fire rated type, 1/8" thick



Additional Rods

Vertical rod for 10 feet high doors available on non-fire rated vertical rod devices only. Use part# VRRD-10

with Best, Falcon and Arrow.





Fire Exit Hardware Selector



FIRE EXIT HARDWARE				
APPLICATION	MODEL#	MAXIMUM DOOR OPENING	(A) 3 HOUR	
SINGLE DOORS Rim type	F7700EO36 F7720EO48	4'0" X 8'0"	✓	
PAIRS OF DOORS Two surface mounted standard vertical rod type or less bottom rod (LBR) application. Prefix	F7760V3684 X F7760V3684	8'0" X 7'2"	✓	
before Part# a) Swinging in same direction b) Swinging in opposite direction (double egress)	F7790V3696 X F7790V3696 F7780V4896 X F7780V4896	8'0" X 8'0"	✓	
PAIRS OF DOORS Two rim type with Mullion	F7700EO36 F7720EO48	8'0" X 8'0"	✓	

All fire rated exit devices in all applications, are also labeled for (B) 1 ½ hour, (C) ¾ hour, (D) 1 hour, (E) ¾ hour. All fire exit hardware meet UL10C and UBC 7-2-1997 codes.

HOW TO ORDER INFORMATION Exit device model number

Panic grade

7700 EO36 Rim type 36" door 7720 EO48 Rim type 48" door 7760 V3684 Vertical rod type 36" x 84" 7790 V3696 Vertical rod type 36" x 96" 7780 V4896 Vertical rod type 48" x 96" VRRD10 – Rod for 10' non-rated door 7750 V36120 Vertical rod type 36" x 120" 7740 V48120 Vertical rod type 48" x 120"

Fire grade

F7700 EO36 Rim type 36" door F7720 EO48 Rim type 48" door F7760 V3684 Vertical rod type 36" x 84" F7790 V3696 Vertical rod type 36" x 96" F7780 V4896 Vertical rod type 48" x 96"

- 1) Specify exit device model number according to size of door.
- 2) Specify trim selection. For interchangeable core prefix "IC" before part #. See trim selection pages.
- 3) For vertical rod devices specify LHR (Left Hand Reverse) or RHR (Right Hand Reverse) for convenience easily field reversible, otherwise shipped as LHR.
- 4) Specify finish:
 - US10B, 32D. See Page 7
- 5) On thru bolt applications, fire rated vertical rod devices are packed with thru bolts as standard feature. Thru bolts are also available for other devices. To order thru bolts add "SBN" to trim pack.

When ordering separately use following part#

Cal-Royal Part # 357 —— Thru bolts for rim devices, 6 PCs / pack.

Cal-Royal Part # 369 — Thru bolts for vertical rod devices, 14 PCs / pack.

Cal-Royal Part # 363 — Thru bolts for rim devices, 6 PCs / pack for 2 1/4" thick doors.

Cal-Royal Part # 375 — Thru bolts for vertical rod devices, 14 PCs / pack for 2 1/4" thick doors.

Ordering example: 7700E036 ALUM X SBN X ENT00L 26D

F7780V4896 10B X ICSTR05L 10B





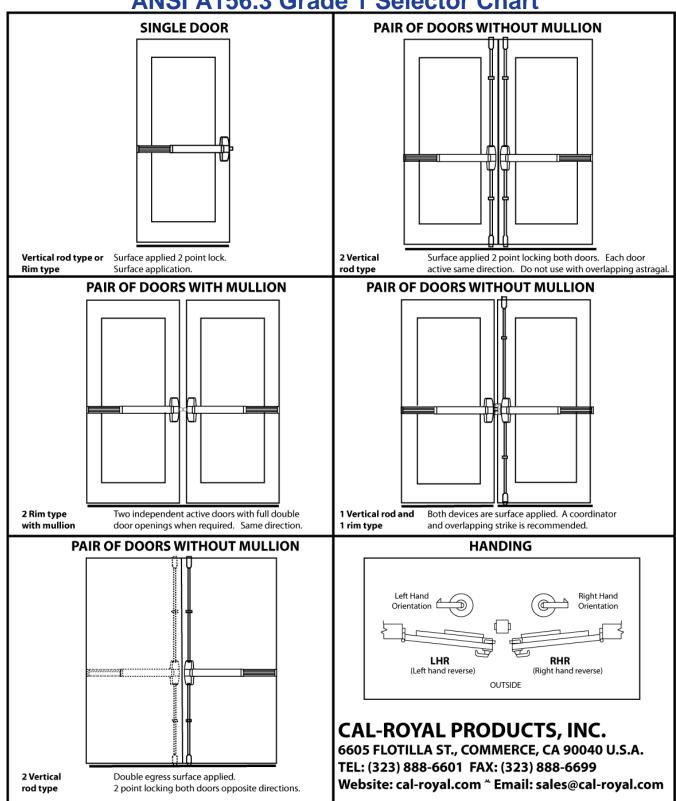






7700 & F7700 Rim Type and Fire Exit Devices 7760 & F7760 Vertical Rod and Fire Exit Devices

ANSI A156.3 Grade 1 Selector Chart





EXIT DEVICES COMPARISON CHART

RIM EXIT DEVICE CONVERSIONS	RIM	VERTICAL ROD	RIM	VERTICAL ROD	CONCEALED VERTICAL ROD	MORTISE RIM	NARROW STILE RIM	NARROW STILE CVR
ARROW	S1200	S1100	S3800/ 1800	S3700	S3600	S3900	S4803	S4601
CAL-ROYAL	9800/ 7700	9860/ 7760	2200/ 4400	2260	MCVR9800/ WCVR9800/ MCVR7700/ WCVR7700	MR9800/ MR7700	GLS9800/ GLS7700	GLSCVR9800/ GLSCVR7700
CORBIN/RUSSWIN	ED8200	ED8400	ED5400/ ED6000	ED4750	ED5800	ED5600	ED4200	ED4800
DETEX	V4000		10	20	70	30	V40NS	60
DORMA	8300	8400	9300	9400	9100	9500	AD4300	AD4100
PRECISION	5100	5200	2100/ 100	9800/ 200	2800	2300	2400	2600
SARGENT	2828	2727	8800/ 9898	8700	MD8600/ WD8600	8900	AD8500	AD8410
VON DUPRIN	98/ 99	9827/ 9927	98	9827	9947EO	9975EO	33A	3348
YALE	2100	2110	7100/ 1500	7110/ 1510	7120	7130	7250	7220





Distributed by:		