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INSTALLATION INSTRUCTIONS FOR DETEX VALUE SERIES[®] V40 EM DELAYED EGRESS RIM PANIC HARDWARE, FV40 EM DELAYED EGRESS RIM FIRE EXIT HARDWARE AND "H" MODELS (HURRICANE)

**V40
 VALUE SERIES[®] EM
 Delayed Egress**

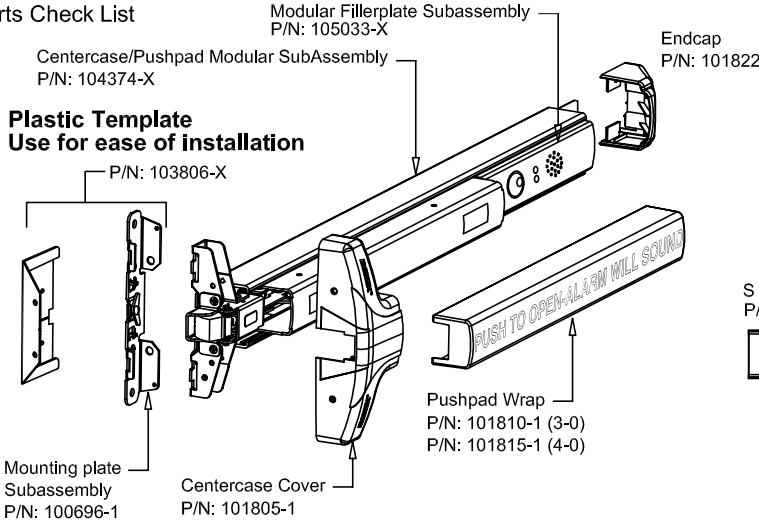


U.S. PATENT NUMBERS:

6009732
 6205825B1
 6532777B2

INTERNATIONAL PATENT NUMBER:
 PCT6009732

Parts Check List



Endcap Bracket
 P/N: 101844-X

9V Battery
 P/N: PP-5567

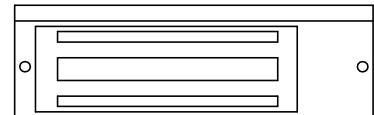


S & R Fillerplate Subassembly
 P/N: 104383-X

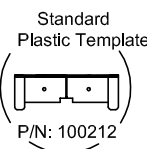
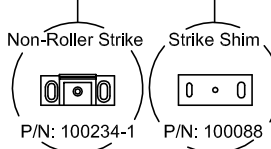


Hex Nut
 P/N: 100783

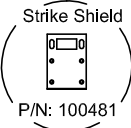
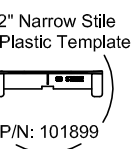
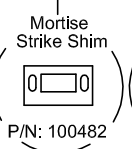
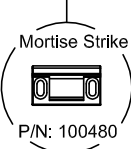
Electromagnetic Lock
 P/N: 102450-X



99 Strike *, P/N: 100855-2

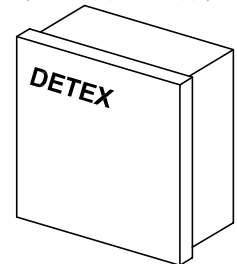


98 Strike *, P/N: 100855-1



Door Sign
 P/N: ECL-395-X
 PUSH UNTIL ALARM SOUNDS
 DOOR CAN BE OPENED IN 15 SECONDS

Detex Power Supply Catalog No: 90-800
 (80-800 Battery back-up power supply available)



*** Note:**
 Parts listed above will vary according to product configuration.

***Narrow Stile "NS" option**

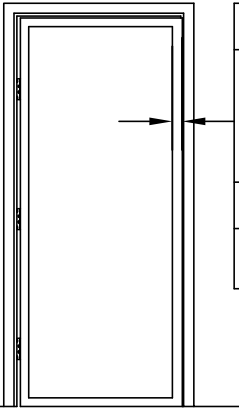


Mortise cylinder not included with device. Standard Yale type cam required.

See **Optional Accessories** For:
 - Glass Bead Kit
 - Sex Nuts
 - Tamper Kit
 - Double Door Strike Kit
 - Key Stop Kit
 - Narrow Stile Kit

FOR SPECIAL LOCKING ARRANGEMENT:
 THIS PRODUCT MUST BE CONNECTED INTO A FIRE ALARM SYSTEM PER NFPA CODE OR OTHER REGULATIONS SO THAT, IN THE EVENT OF FIRE, THE TIME DELAY WILL BE BYPASSED. CONTACT YOUR LOCAL CODE AUTHORITY TO VERIFY COMPLIANCE WITH FIRE AND BUILDING CODES. THE DELAYED EGRESS DEVICE SHOULD BE ROUTINELY CHECKED FOR PROPER OPERATION AND COMPLIANCE WITH FIRE AND BUILDING CODES

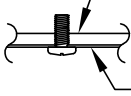
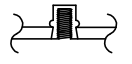
!!!CHECK BEFORE STARTING!!!

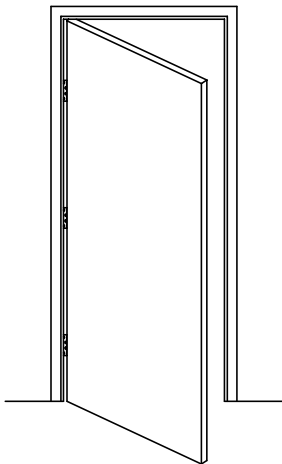


Wide Stile (Surface Strike)
Minimum door stile 4-1/2" (114 mm) Template drawings provide door and frame structural and dimensional specifications for door and frame preparation.
Narrow Stile
2"(51mm) Door Stile requires Mortise strike

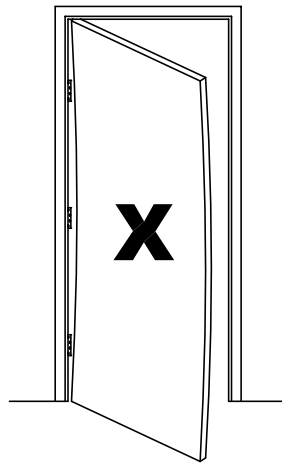
Doors and frames with walls having a structural thickness (metal skin plus reinforcement, or solid wood) to engage less than (3) full screw threads, are considered unreinforced for hardware.

Unreinforced Doors: Use Sex Nuts and Bolts
Unreinforced Frames: Use Blind Rivet Nuts (see sketch) Fasteners for unreinforced openings are not supplied by Detex.

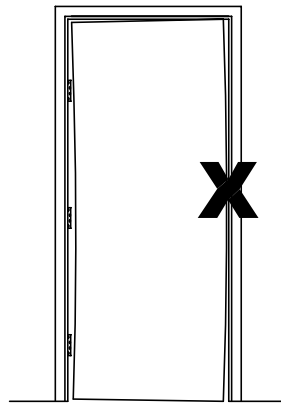
Reinforced door or frame engages at least (3) screw threads.		
	Reinforcement	Blind Rivet Nut
	Door Skin	



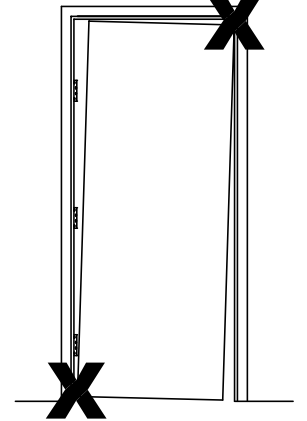
Door Must Swing Freely



Door Must Not be Warped

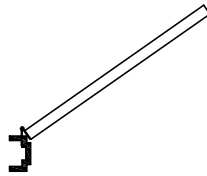


Door Must Not Bind

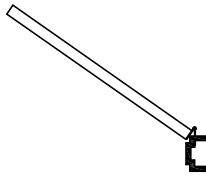


Door Must Not Sag

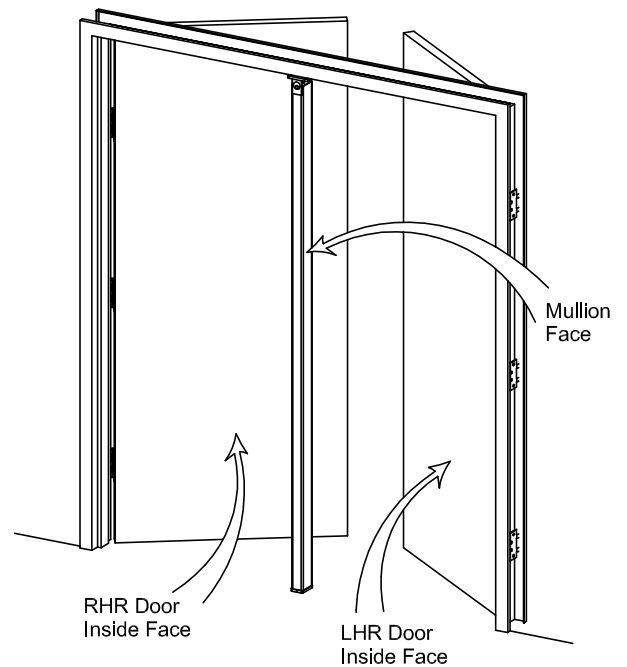
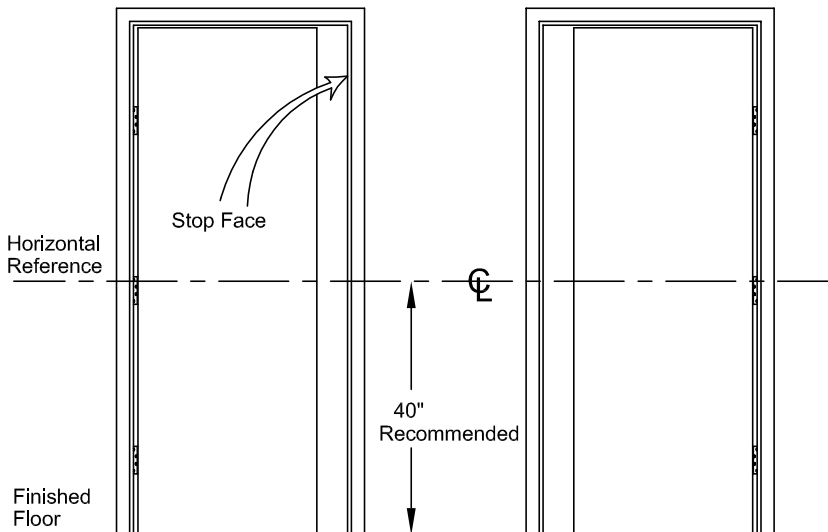
Detex Power Supply Catalog No: 90-800
(80-800 Battery back-up power supply available)




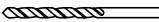
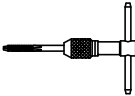



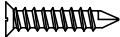
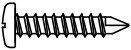
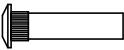
RHR Door



LHR Door

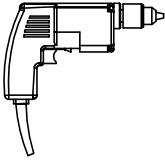

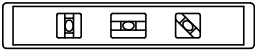
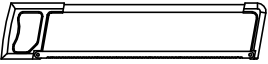
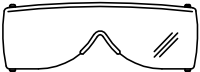
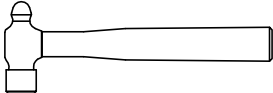
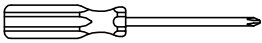


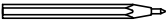


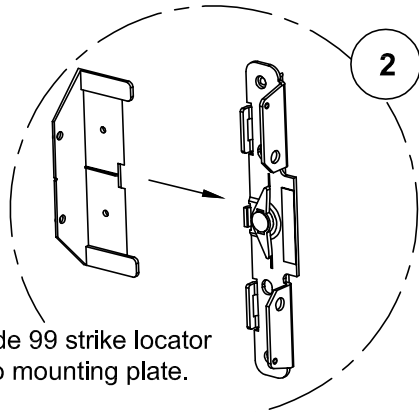
Fastener Table

			Drill Bit	Tap Wrench	Comments
					Use Either Machine Screws, Sheetmetal Screws, or Sex Nuts
Machine Screws 	#6-32 x 5/8"	PPH	#36 or 7/64	#6-32 Tap	Used on 98 Strike Shield Mounting Holes
	#6-32 x 3/8"	PPH	----	----	Used to Mount Centercase Cover and Endcap
	#10-24 x 5/8"	PPH	#25 or 9/64"	#10-24 Tap	Used on 99 Strike Center Mounting Hole
	#1/4-20 x 1/4"	PPH	----	----	Used to Fasten Centercase Unit onto Mounting plate
	#1/4-20 x 1"	PPH	#7 or 13/64"	#1/4-20 Tap	Used on Strike, Mounting plate, and Endcap Mounting Holes
Sheetmetal Screws 	#6 x 1"	PFH	9/64"	----	Used on 98 Strike Shield Mounting Holes
Self-drilling Screws  	#10 x 1"	PFH	No pilot hole necessary for self-drilling screws	----	Used on 99 Strike Center Mounting Hole
	#14 x 1-1/2"	PPH		----	----
Sex Nut 	#1/4-20	---	9/32" Interior Door Face	----	Recommended on Fire Rated Wood and Unreinforced Hollow Metal Doors Used on Mounting plate and Endcap Mounting Holes
		---	3/8" Exterior Door Face	----	
	#10-32	---	13/64" Interior Door Face	----	Recommended on Fire Rated Wood and Unreinforced Hollow Metal Doors Used on Strike Hook Mounting Holes
		---	5/16" Exterior Door Face	----	

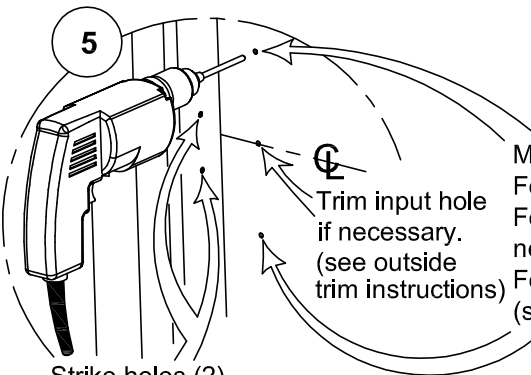
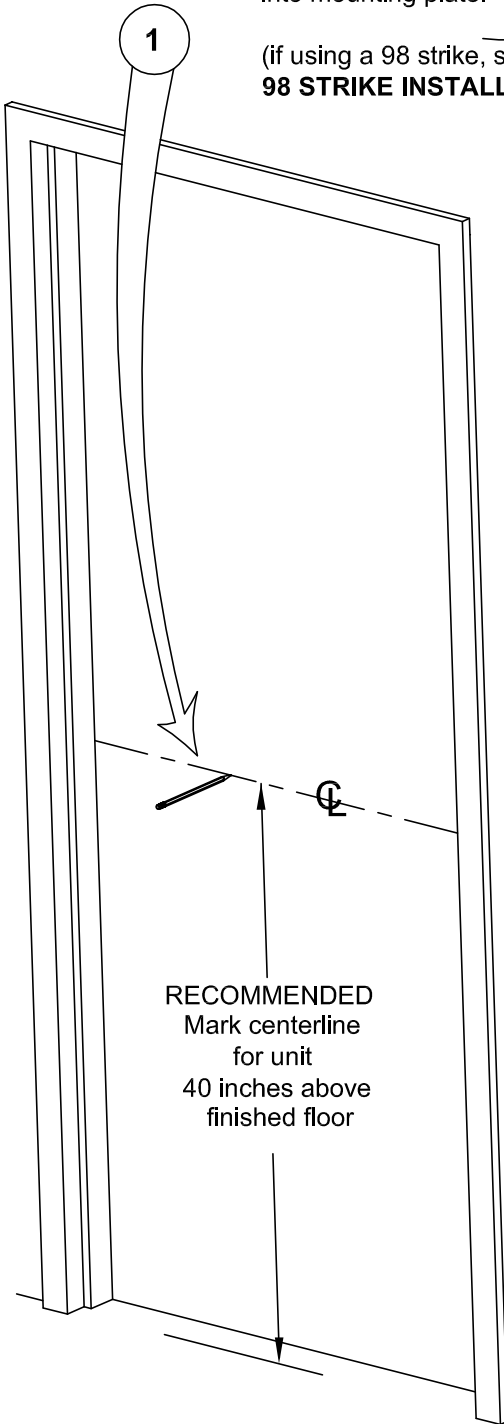
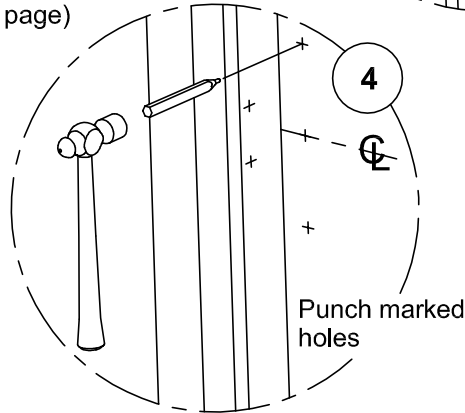
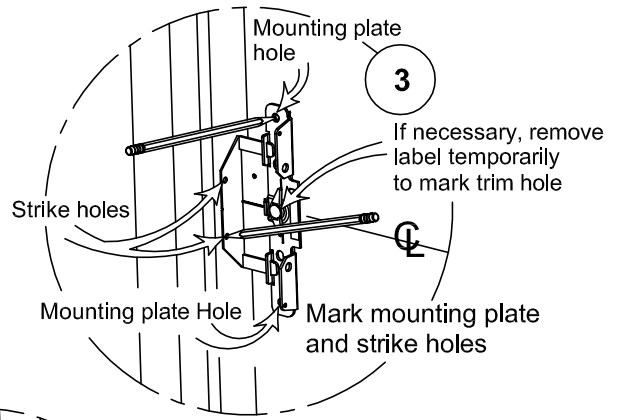
Note: (1) Fastener selection will vary per catalog configuration and kits ordered.
 (2) Mortise Cylinder NOT Provided.

Tools Required

Power Drill 	Pencil 
Level 	Hack Saw 
Safety Glasses 	Hammer 
Screw Driver 	Tape Measure 
Jewelers (Small) Screwdriver 	Center Punch 

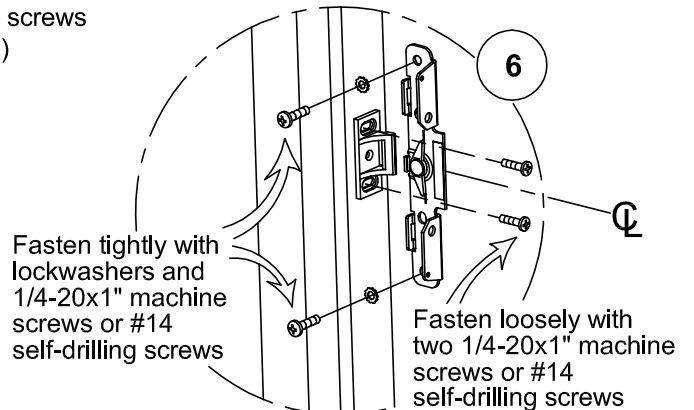


(if using a 98 strike, see **98 STRIKE INSTALLATION** page)

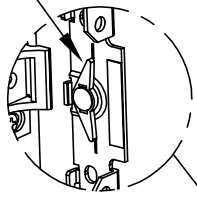


For 1/4-20 machine screws drill #7 holes
No pilot hole necessary for #14 self-drilling screws (see fastener table)

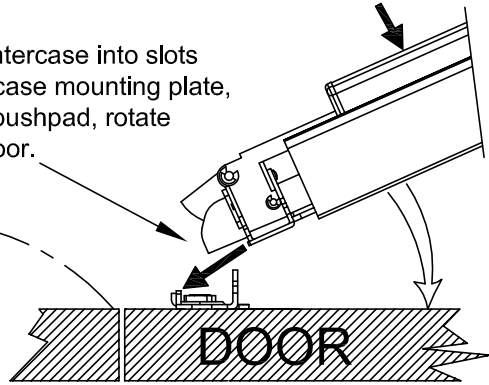
Mounting plate holes (2)
For 1/4-20 machine screws drill #7 holes.
For #14 self-drilling screws no pilot holes necessary.
For sex nuts drill 3/8" holes. (see fastener table)



Position cam as shown

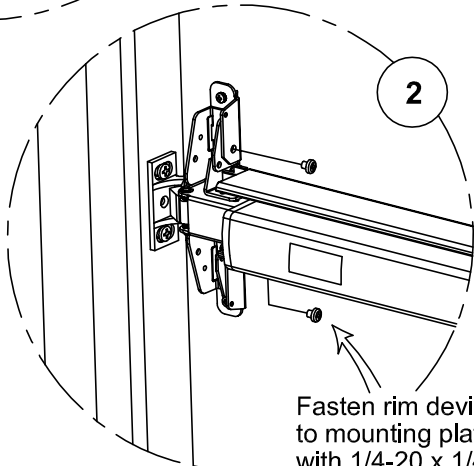
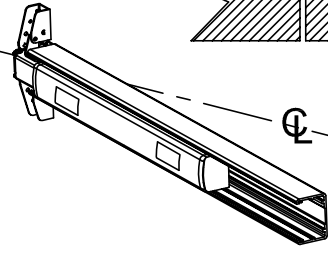


Insert centercase into slots of centercase mounting plate, depress pushpad, rotate toward door.



DOOR

1



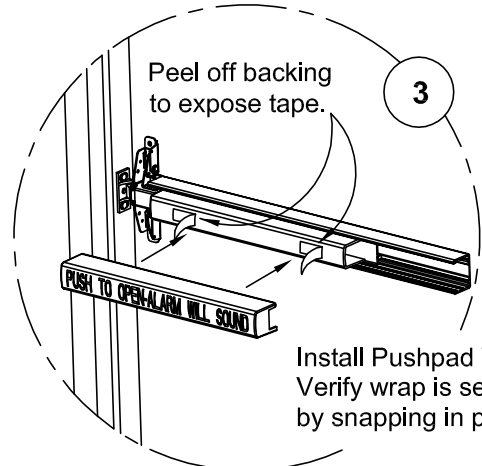
2

Fasten rim device to mounting plate with 1/4-20 x 1/4" PPH

MUST BE INSTALLED!

Peel off backing to expose tape.

3

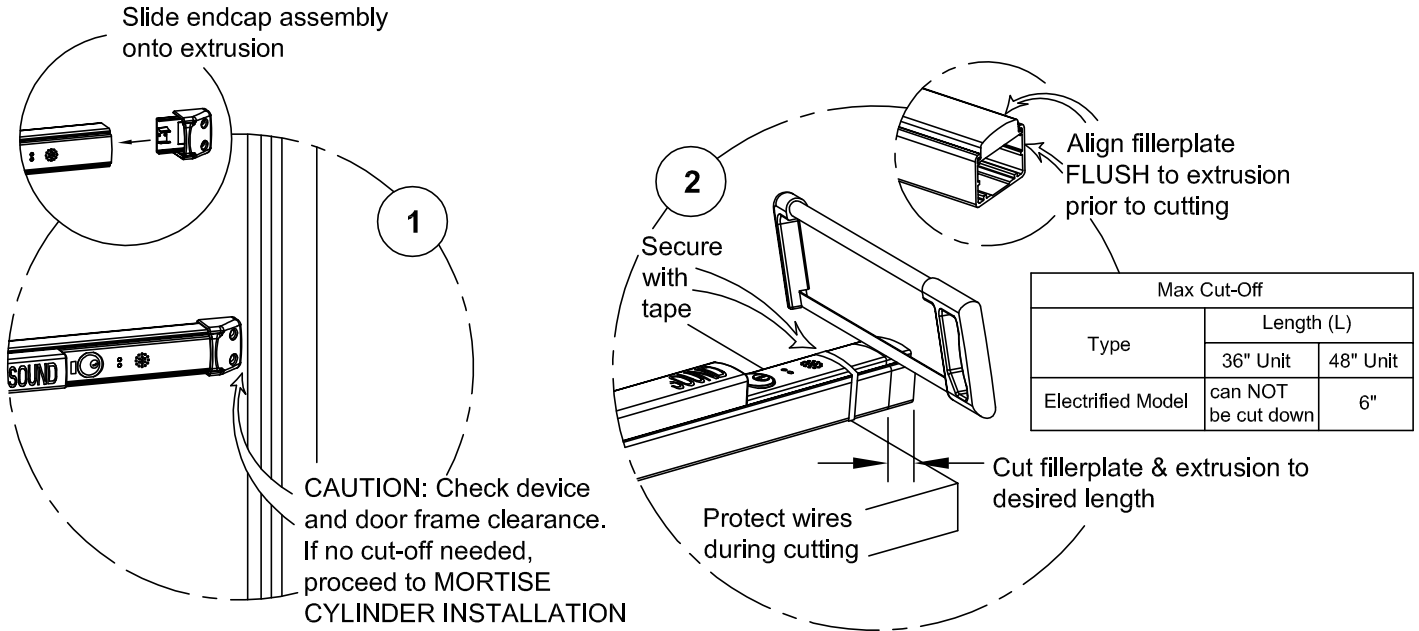


Install Pushpad Wrap. Verify wrap is secured by snapping in place.

IMPORTANT:

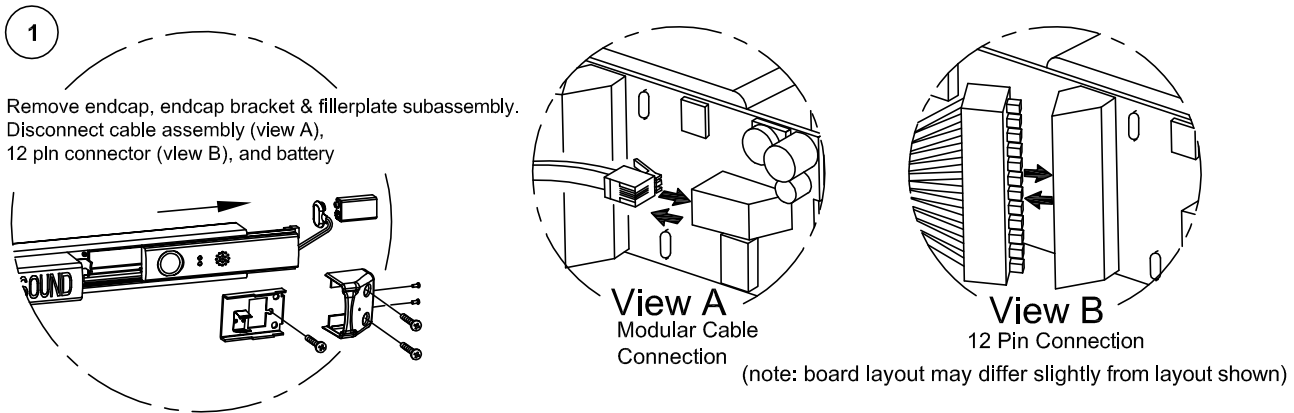
When using Pushpad Wrap with text verify handing before installing wrap. (LHR handing shown)

CHECKING FOR DEVICE CLEARANCE (Cut-Off procedure if required)



MORTISE CYLINDER INSTALLATION PRECAUTIONARY NOTE:

1. Be careful when installing fillerplate assembly not to damage wires.
2. See "EM ELECTRICAL OPTIONS" before reinstalling filler plate.

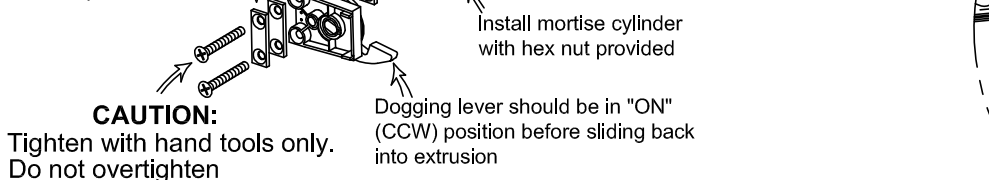


2 INSTALLING MORTISE CYLINDER

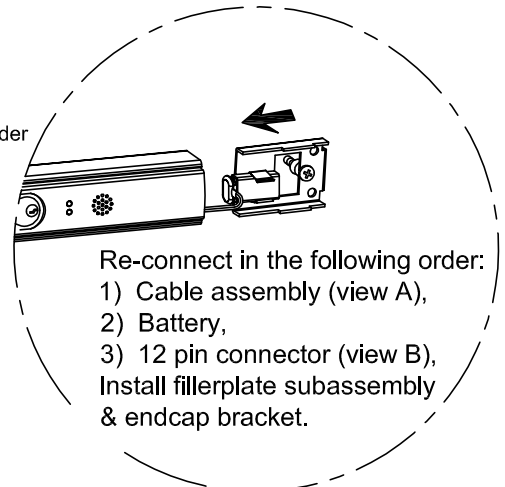
See View A & B above

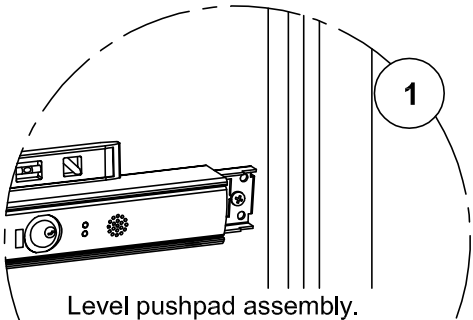
NOTE:

- (1) Move placement of spacers to match length of cylinder used to allow smooth rotation of cam.
- (2) All cylinder spacers must be used, either on top or bottom



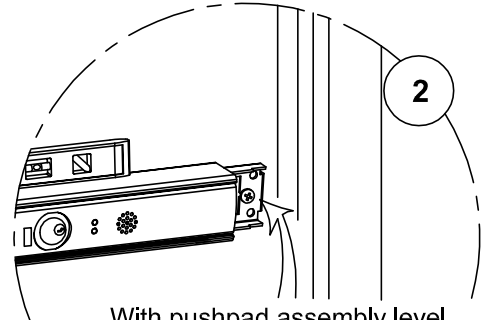
3 RE-INSTALL FILLERPLATE



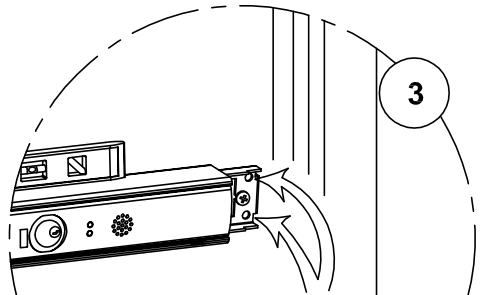


Level pushpad assembly.

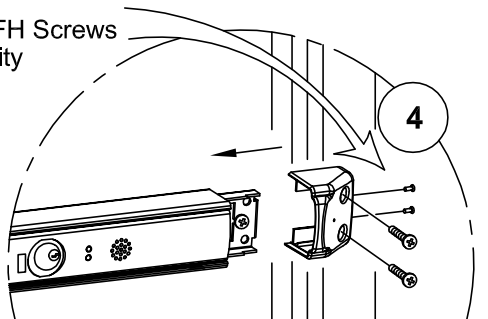
Note: Endcap Bracket must bottom-out on extrusion. DO NOT REMOVE NYLON SPACER ON BACK OF BRACKET!



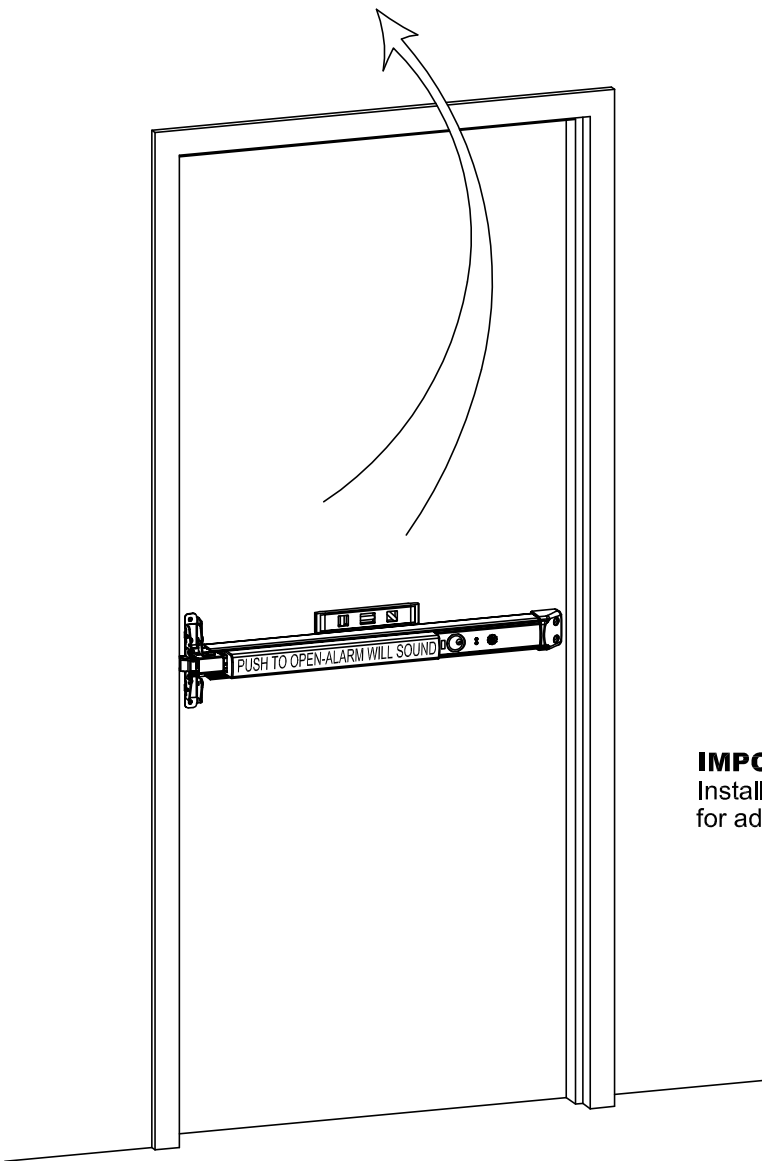
With pushpad assembly level, secure the endcap bracket to door by tightening the factory installed self-drilling screw.



For 1/4-20 machine screws drill #7 holes.
For #14 self-drilling screws no pilot holes necessary.
For sex nuts drill 3/8" holes.



Slide and mount endcap to endcap bracket with two 1/4-20x1" PPH machine screws or #14 self-drilling screws. DO NOT OVERTIGHTEN



IMPORTANT:
Install (2) 6-32 FH Screws for added security

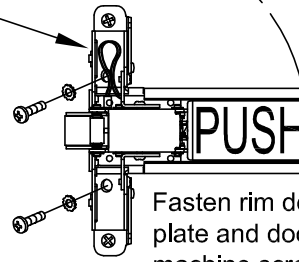
Refer to electromagnetic lock instructions after step 4 below. (packaged with electromagnetic lock)

For Hurricane Models

(see Hurricane kit)

Protect wires

1



Fasten rim device to mounting plate and door with 1/4-20x1" machine screws (drill #7 holes) or #14 self-drilling screws

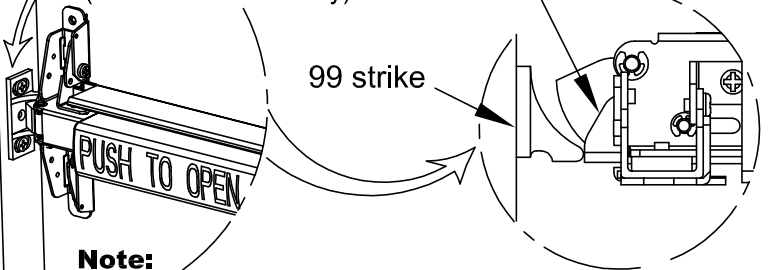
5 Place ECL-395-X sign on door

2

Align the 99 strike with the latchbolt. Firmly tighten screws (use shim if necessary)

Deadlatch

99 strike



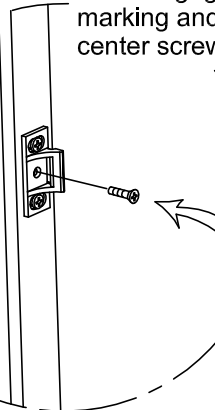
Note:

Check device function and strike engagement BEFORE marking and drilling for center screw.

3

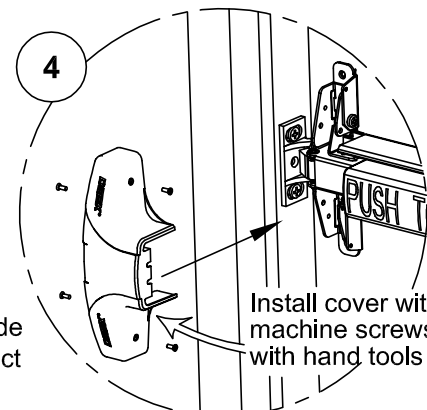
Mark and drill center hole. 9/64" for 10-24 machine screws. No pilot hole necessary for #10 self-drilling screws. (see fastener table)

Secure the 99 strike.



4

Install cover with 6-32 machine screws. Tighten with hand tools only.



Care and Maintenance: The Detex Value Series® devices are designed to provide many years of maintenance free service under normal usage. Periodically inspect and lubricate the unit to extend its life.

EM ELECTRICAL OPTION

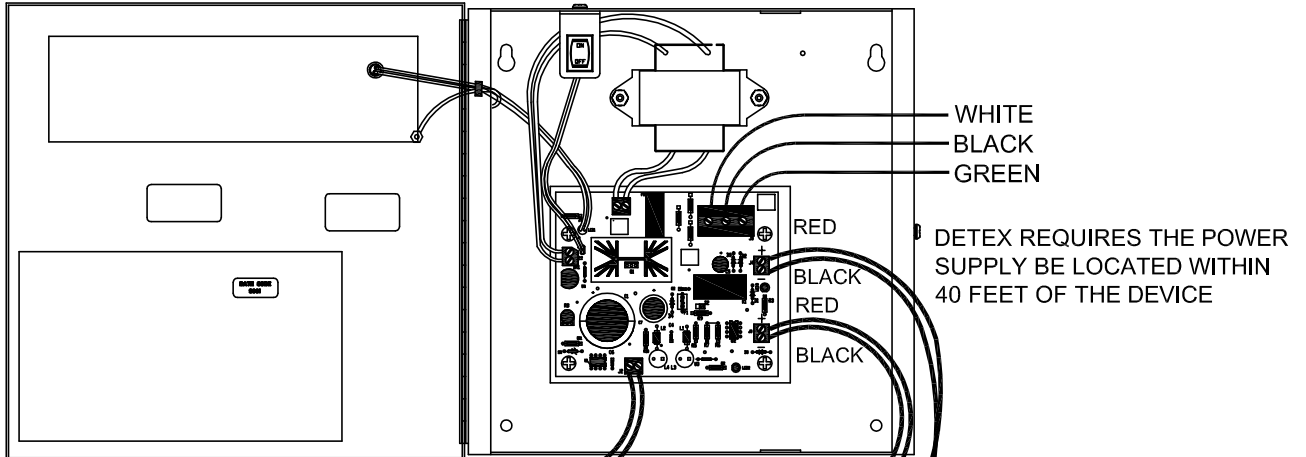
REQUIRES DETEX POWER SUPPLY

REQUIRED WIRE SIZES:

STRANDED WIRE GAUGE: 18 AWG MIN

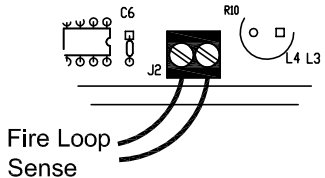
MAXIMUM LENGTH OF TWO CONDUCTOR CABLE: 40 FEET

Power Supply with Detex Delayed Egress device



Detex requires one fire alarm relay per power supply

Closed Fire Alarm Loop (must be supplied)



To Exit Device Door #2 (if req'd)

To Exit Device Door #1

From (+) terminal to pin #1 on exit device

From (-) terminal to pin #2 on exit device

RED/BLK WIRES TO 24 VOLT

BLK
RED

BLK
RED

FACTORY INSTALLED JUMPER

To disable the low-battery indication, slide the Dis Lo Bat switch to 'ON'

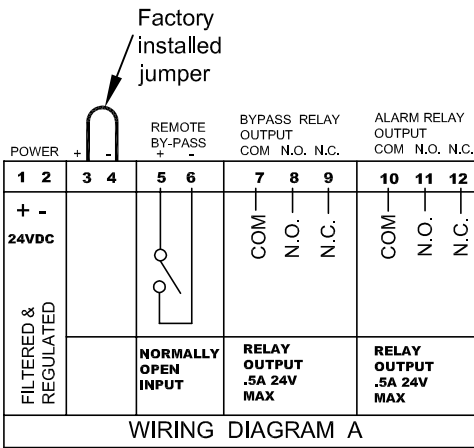
Orange and Blue wires to MAGNET DO NOT ADD POWER!

(PC BOARD ASSEMBLY INSIDE DELAYED EGRESS DEVICE)

9V Alkaline Battery

EM ELECTRICAL OPTIONS

L9= Less 9V battery
SI= Status Indicator



POWER REQUIREMENT:
.4 AMPS @ 24 VDC

The key cylinder arming switch must be set to "OFF". To prevent the alarm from sounding during installation, attach battery AFTER main power is applied.

Delayed Egress Device requires a connection to the Fire Alarm System. The fire alarm connection needs to be made **Externally** at the Power Supply. During a fire alarm condition the delayed egress will be by-passed.

MAIN POWER CONNECTION: (1 AND 2)
See Power Supply instructions

DETEX REQUIRES USING THE FIRE ALARM CONNECTION IN THE POWER SUPPLY:
CLOSED connection is provided to the fire alarm system when not in-alarm and OPEN when in-alarm. See power supply instructions for details.

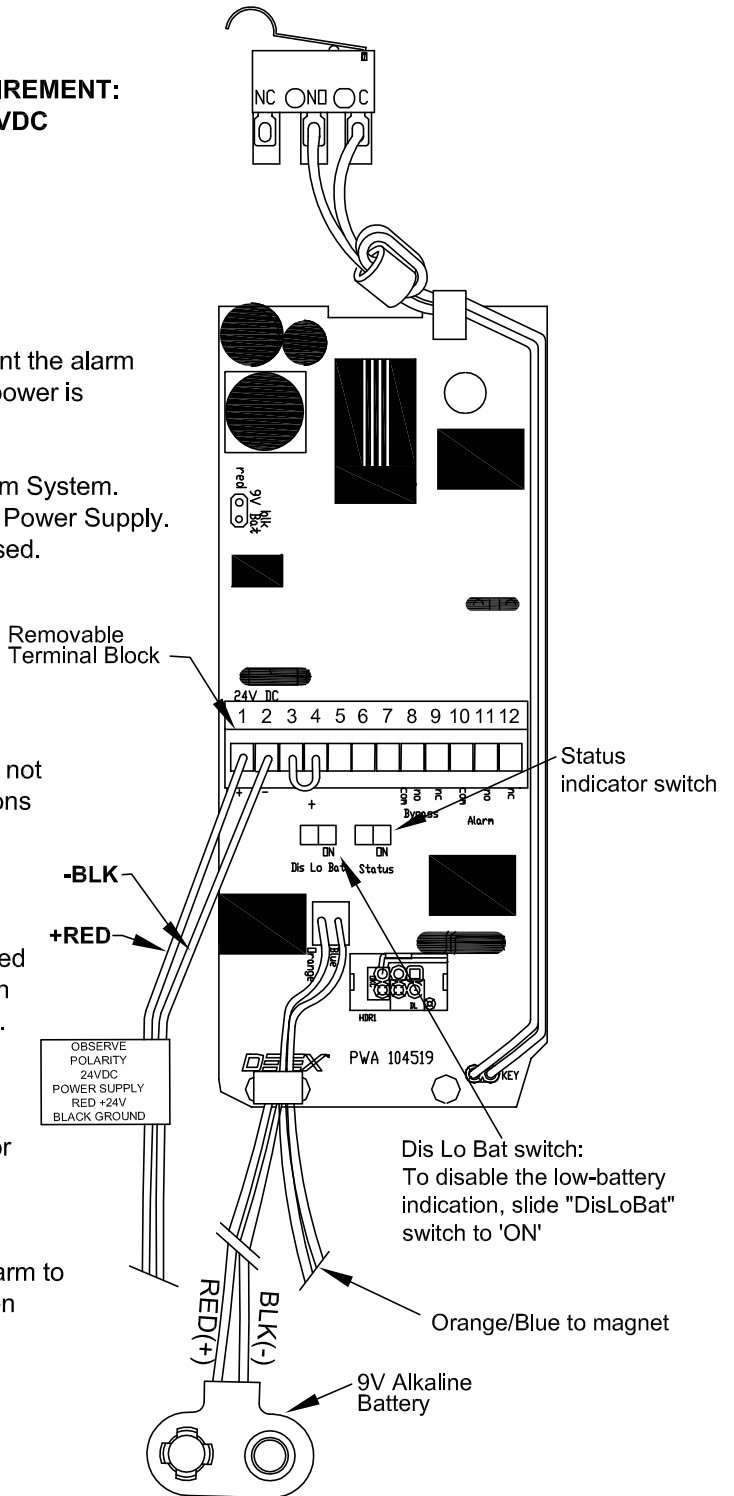
REMOTE BY-PASS: (5 & 6)
Normally open (N.O.)
When the contact is closed momentarily, the door can be opened without the alarm sounding. The unit will automatically re-arm in 15 seconds after the door is closed (three quick audible beeps).

BY-PASS RELAY: (7, 8 & 9) **Dry** contact output.
The BY-PASS relay is energized when the unit is disarmed by the KEY or REMOTE BY-PASS to indicate to a remote indicator that the door is not armed.

ALARM RELAY: (10, 11 & 12) **Dry** contact output.
The ALARM relay is energized when the unit is sounding its alarm to indicate to a remote indicator that an unauthorized exit has been attempted.

OUTSIDE KEY CONTROL
If the OKC option is used, the outside key bypasses and rearms the alarm.

STATUS INDICATOR (SLIDE SWITCH)
ON: Green LED blinks every three seconds when the unit is disarmed.
Red LED blinks every three seconds when the unit is armed.
OFF: No status indication



RISER DIAGRAM

DETEX FILTERED AND REGULATED
POWER SUPPLY WITH FIRE ALARM SYSTEM LOOP
24 VDC @1 AMP MIN

DETEX REQUIRES THE POWER SUPPLY BE LOCATED
WITHIN 40 FEET OF THE DEVICE

DETEX MAG LOCK SUPPLIED
WITH DETEX DELAYED EGRESS
PANIC HARDWARE

PROVIDE WIRING CONDUIT, CONNECTOR,
ETC BETWEEN DETEX POWER SUPPLY
AND FIRE ALARM CONTROL PANEL AS
REQUIRED TO ALLOW THE FIRE ALARM
SYSTEM TO OVERRIDE THE DETEX DELAYED
EGRESS FEATURE DURING A FIRE ALARM

THE LOSS OF POWER OR OPEN FIRE
ALARM CIRCUIT WILL ELIMINATE THE
DELAY EGRESS OPERATIONS

REQUIREMENTS:
MIN. 22 GA STRANDED WIRE FOR SIGNALING
MIN. 18 GA STRANDED WIRE FOR POWER

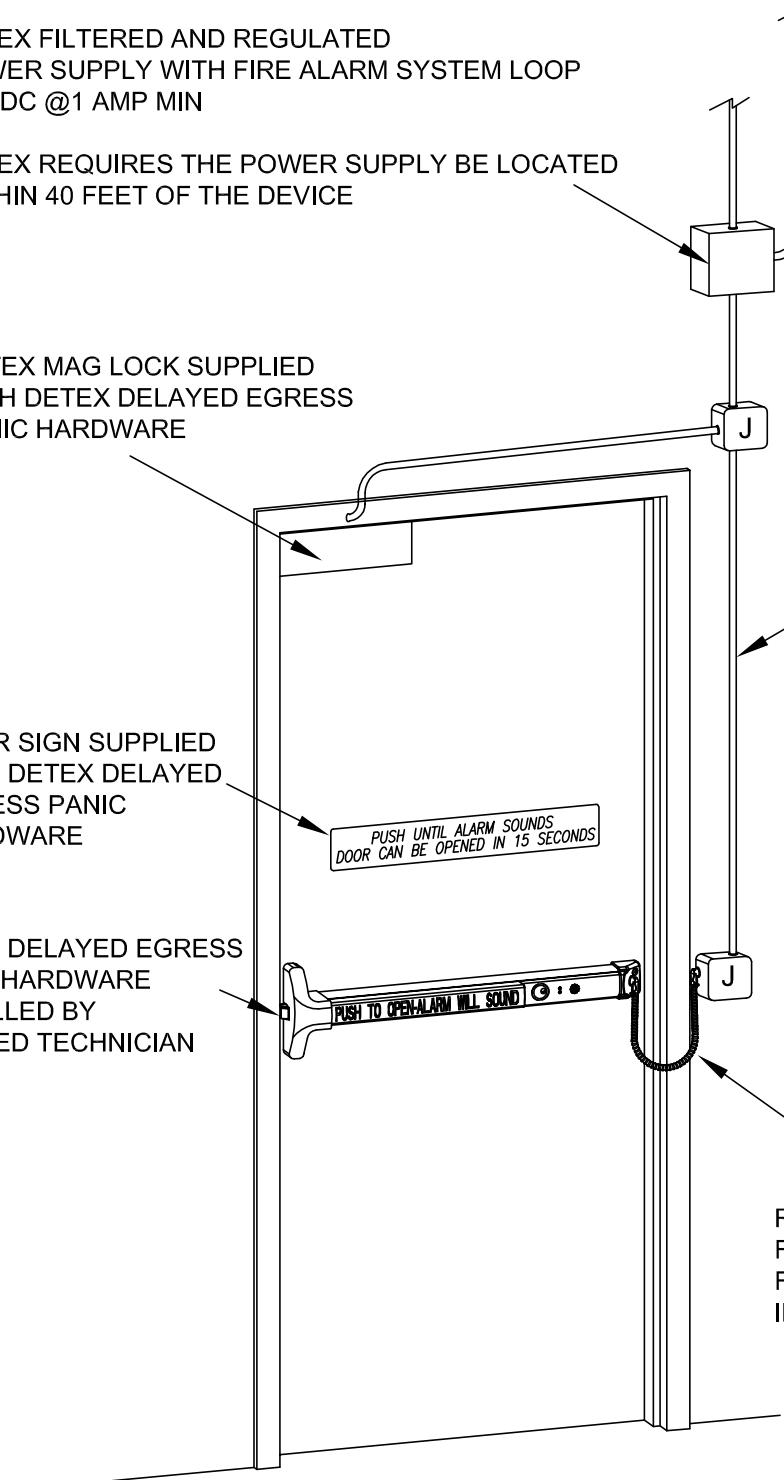
DOOR SIGN SUPPLIED
WITH DETEX DELAYED
EGRESS PANIC
HARDWARE

PUSH UNTIL ALARM SOUNDS
DOOR CAN BE OPENED IN 15 SECONDS

DETEX DELAYED EGRESS
PANIC HARDWARE
INSTALLED BY
TRAINED TECHNICIAN

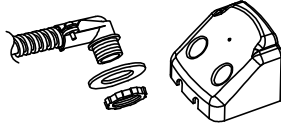
PUSH TO OPEN ALARM WILL SOUND

REFER TO WIRING &
FIRE ALARM DIAGRAMS
FOR WIRING
INSTRUCTIONS

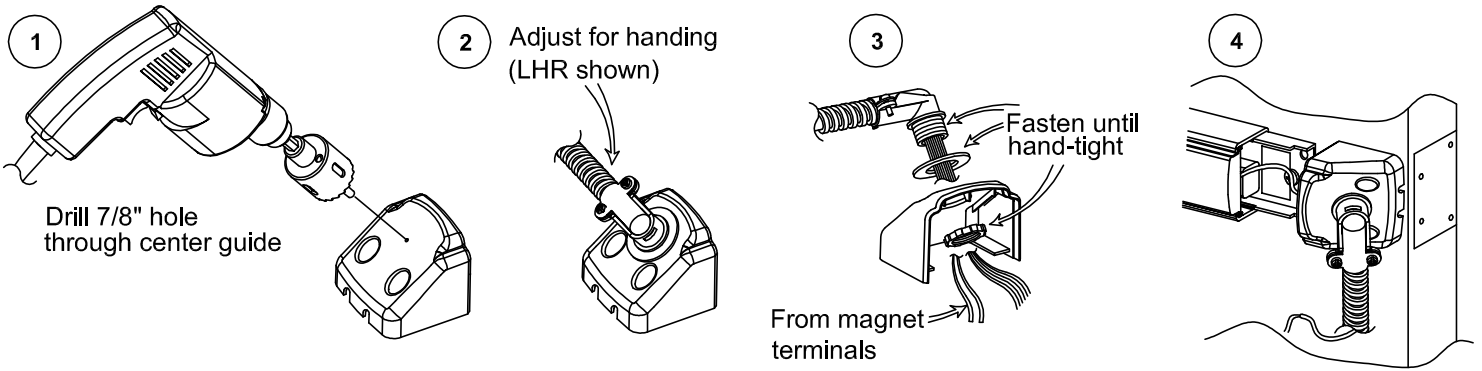


Value Series Flex Conduit/End Cap Kit (included)

p/n: FCV



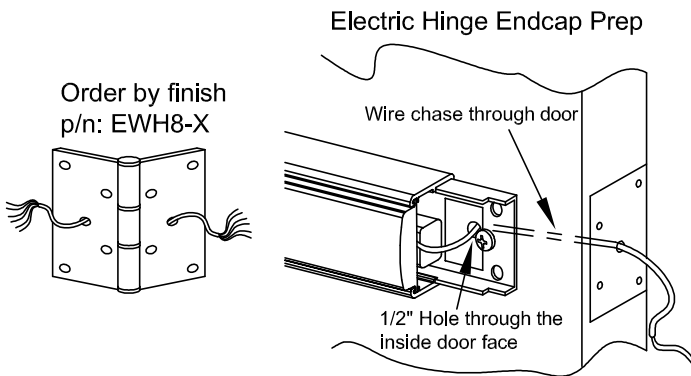
VALUE SERIES FLEX CONDUIT INSTALLATION



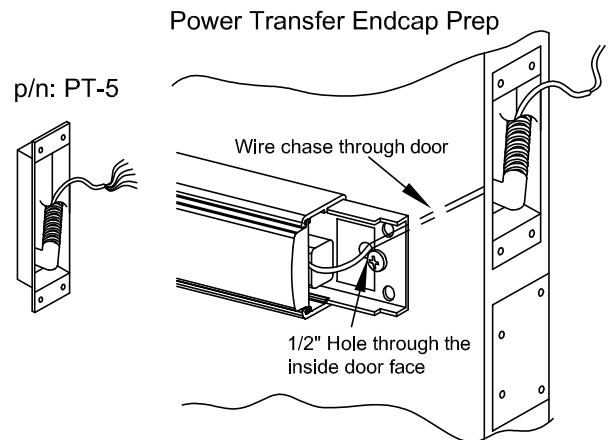
Note: For high traffic areas an electric through-wire hinge or power transfer is recommended.

OPTIONAL HARDWARE TRANSFER KITS

Electric Hinge

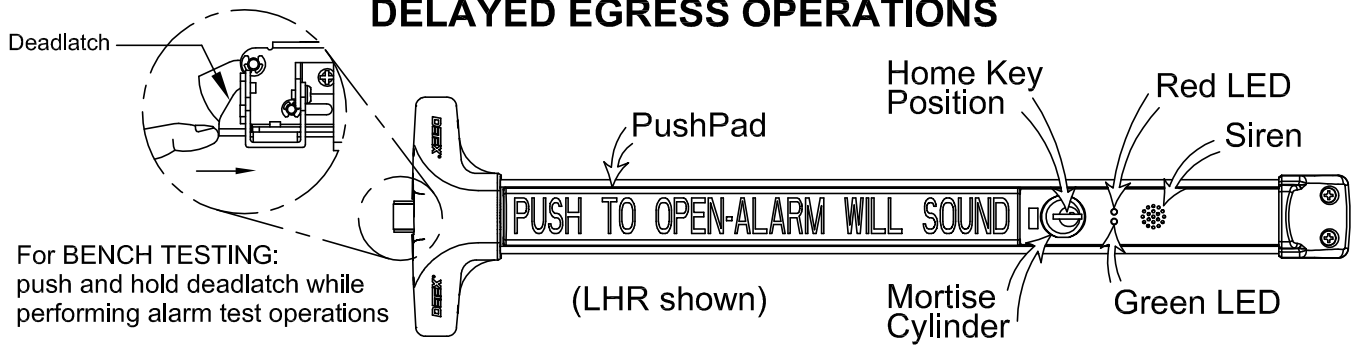


Power Transfer



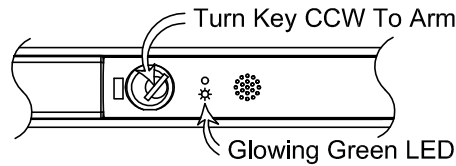
Note: For high traffic areas an electric through-wire hinge or power transfer is recommended.

DELAYED EGRESS OPERATIONS



ARMING AND AUTHORIZED EXIT

With door closed, insert key in the cylinder, turn CCW then back to the home key position and remove it. LED glows green. Authorized personnel can exit the door during this rearm cycle. After a 1, 5 or 15 second arming period, alarm issues three quick beeps and LED goes off, indicating that the unit is armed.

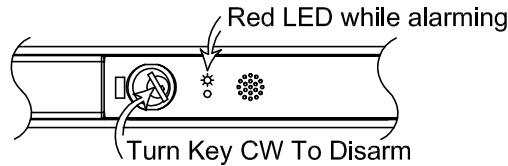


DISARMING

Insert key, turn CW to a stop. Green LED will blink twice to indicate the unit is disarmed.

EXITING UNDER ALARM

To exit, push and maintain pressure on the pushpad. LED flashes RED and alarm pulses on and off for 15 seconds. After 15 seconds, alarm issues short and long pulses to indicate that you can exit by depressing the pushpad. Alarm sounds continuously and LED is steady RED. Turn key CW to stop alarm. In case of fire, the fire alarm over-rides the 15 second delay and the door opens without delay when the pushpad is pushed.



NORMAL OPERATION

LED COLOR		SIREN SOUNDS	FUNCTION
RED	GREEN		
OFF	ON	THREE CHIRPS	Indicates the unit is in process of arming. The siren will chirp three times to indicate the unit is armed and green LED will turn off
OFF	OFF		This indicates either armed or disarmed
ON	ON		Factory installed jumper removed from terminals 3 & 4
SLOW BLINKING	OFF	SLOW PULSE	Pushpad is depressed, delay to open started
FAST BLINKING	OFF	FAST PULSE	Delay to open expired
ON	OFF	ON	Delay to open expired, door has been opened
DOUBLE BLINK	OFF	DOUBLE CHIRP	Low Battery - every 45 seconds
BLINK	OFF		Armed - status ON
OFF	BLINK		Disarmed - ON

BATTERY BACKUP FOR ALARM

A 9-volt battery is included as a backup power source for the alarm siren if power is lost.

To disable low battery indication, slide "DisLoBat" switch to 'ON'. See EM ELECTRICAL OPTIONS page.

LOW BATTERY INDICATION

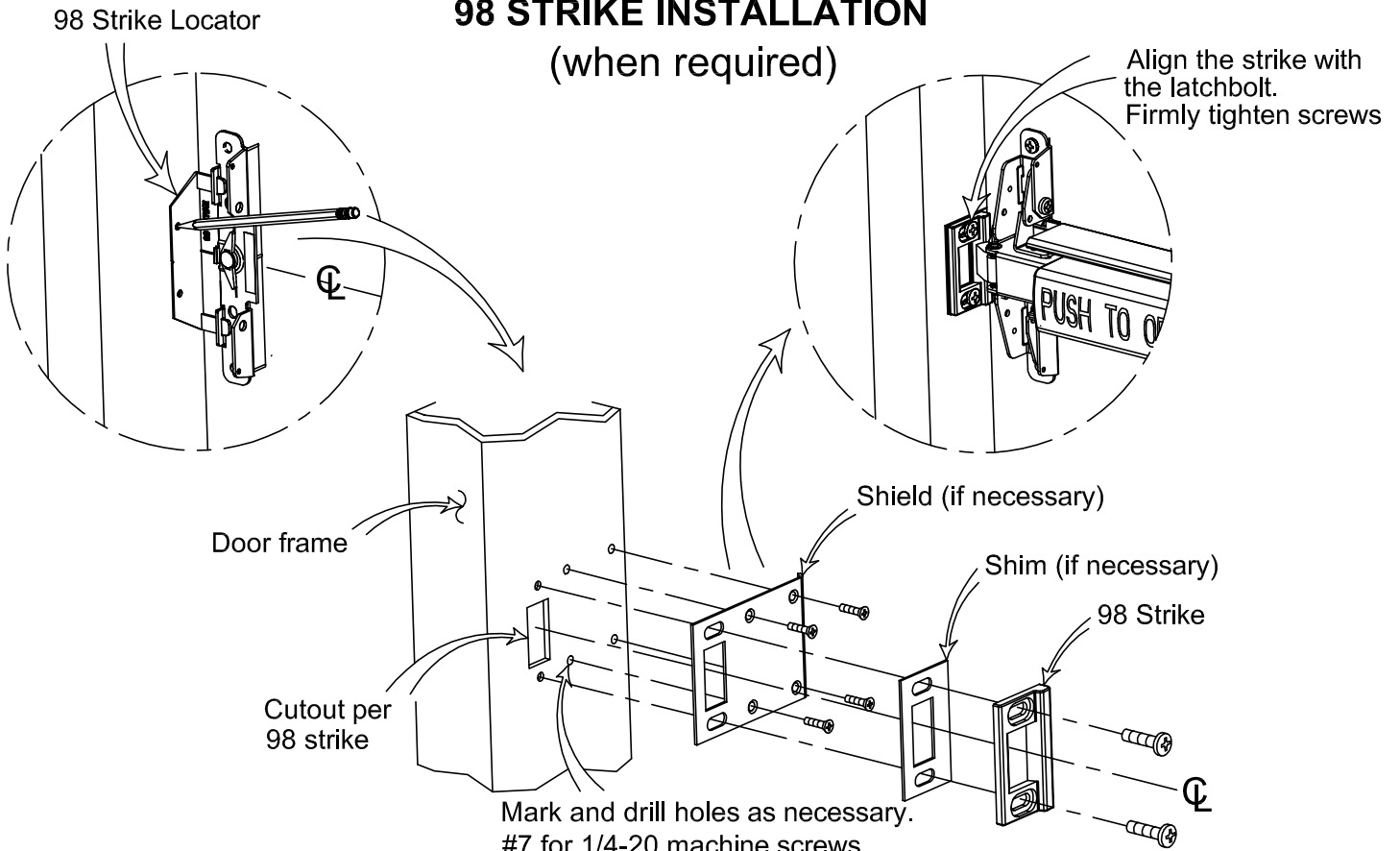
If battery voltage is low (7 volts or less), unit remains armed but LED flashes RED and unit beeps twice every 45 seconds. Replace battery as soon as possible.

TROUBLESHOOTING

Problem	Probable cause
Alarm sounds immediately when power is applied:	Make sure the key cylinder arming switch is set to 'OFF'.
No green light when key is turned CCW:	<p>Confirm strike is pushing in dead latch, door must be closed.</p> <p>Confirm 24VDC power on the delayed egress device main board terminals 1(+) & 2(-).</p> <p>Confirm closed fire loop connection on power supply.</p> <p>Confirm the two black wires on the center case are plugged into the 2-pin header on the center case circuit board.</p> <p>Confirm cable is plugged in properly.</p> <p>Confirm the mortise cylinder is functioning correctly.</p>
No delayed egress:	<p>Confirm closed fire loop connection on power supply.</p> <p>Confirm 24VDC power on the delayed egress device main board terminals 1(+) & 2(-).</p> <p>With the unit armed there should be (30-38VDC without load) on the orange (+) and blue (-) wires.</p> <p>The armature plate needs to float. See mag-lock instructions.</p> <p>The orange wire needs to be wired to terminal 1 in the mag-lock. The blue wire needs to be wired to terminal 3 in the maglock.</p>
Both red and green lights on:	Factory installed jumper removed from terminals 3 & 4.
Low battery signal- Two chirps every 45 seconds:	<p>Check battery. If no battery is needed, slide "DisLoBat" switch to on.</p> <p>See electrical pages of instructions.</p>

98 STRIKE INSTALLATION

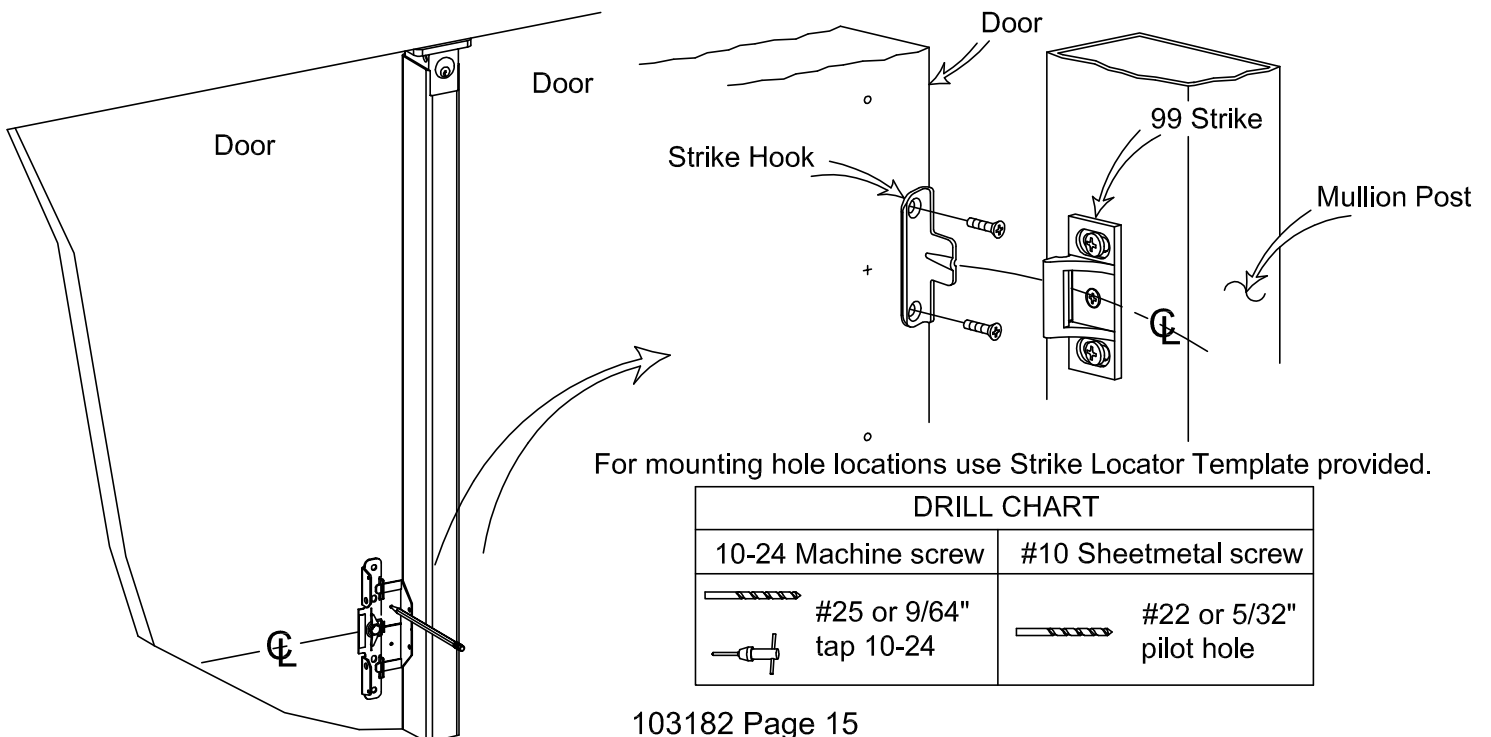
(when required)



Mark and drill holes as necessary.
 #7 for 1/4-20 machine screws,
 For #14 self-drilling screws, no pilot hole necessary.
 7/64" for 6-32 machine screws,
 9/64" for #6 sheetmetal screws
 (see fastener table)

STRIKE HOOK INSTALLATION

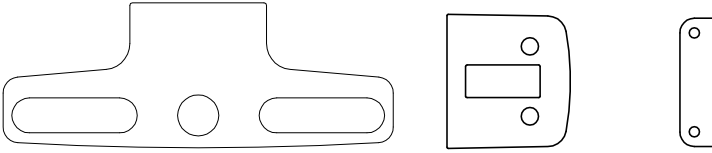
(Caution: This installation is required on fire rated door openings with removable mullion.)



Optional Accessories

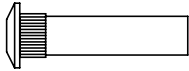
Glass Bead Kit

Catalog No: GB2 - Glass Bead Kit, 40 series
p/n: 101644



#1/4-20 X 1-1/2" Screw
(4) Included

Sex Nut



The #10-32 kit is available in (4) finishes:

Catalog No: SN2 Brushed Brass BHMA 606 Finish
Catalog No: SN2 Oil Rubbed Bronze BHMA 613 Finish
Catalog No: SN2 Brushed Chrome BHMA 626 Finish
Catalog No: SN2 Stainless Steel BHMA 630 Finish

p/n: 101617-X

The #1/4-20 kit is available in (4) finishes:

Catalog No: SN1 Brushed Brass BHMA 606 Finish
Catalog No: SN1 Oil Rubbed Bronze BHMA 613 Finish
Catalog No: SN1 Brushed Chrome BHMA 626 Finish
Catalog No: SN1 Stainless Steel BHMA 630 Finish

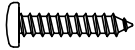
p/n: 101616-X

Tamper Kit

(Security Kit)

Catalog No: SSK3

p/n: 101233



Security Screws



Security Pin TORX® Bits provided

Narrow Stile Door Kit

(Splice Kit may be used with either 3-0 or 4-0 units)

Catalog No: NSK1

p/n: 101879-1 (628 Finish, Clear)

p/n: 101879-2 (711 Finish, Black)



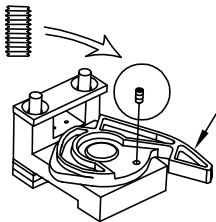
Key Stop Kit

(Momentary Shunt)

Catalog No: KS

p/n: 101867

Key Stop Screw

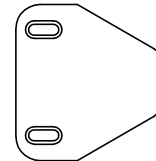


Dogging Lever Assembly
(shown for reference ONLY)

Double Door Strike Kit

Catalog No: 94

p/n: 102212-1



The following Models in the series were evaluated by UL: Controlled Exit Panic Devices; Model V40. These devices may be suffixed with 01, 02, 03, 08, 09, or 14 followed by A, AN, BN, CN, DN, DNT, DNU, MN, P, PN or WS, followed by BP2 or BP8 followed by 605, 606, 611, 612, 613, 625, 626, 628, 629, 630, or 711 followed by the RHR or LHR, followed by EM, which may be followed by LD or CD, followed by 628 or 711, followed by 98 or 99, followed by 36 or 48.