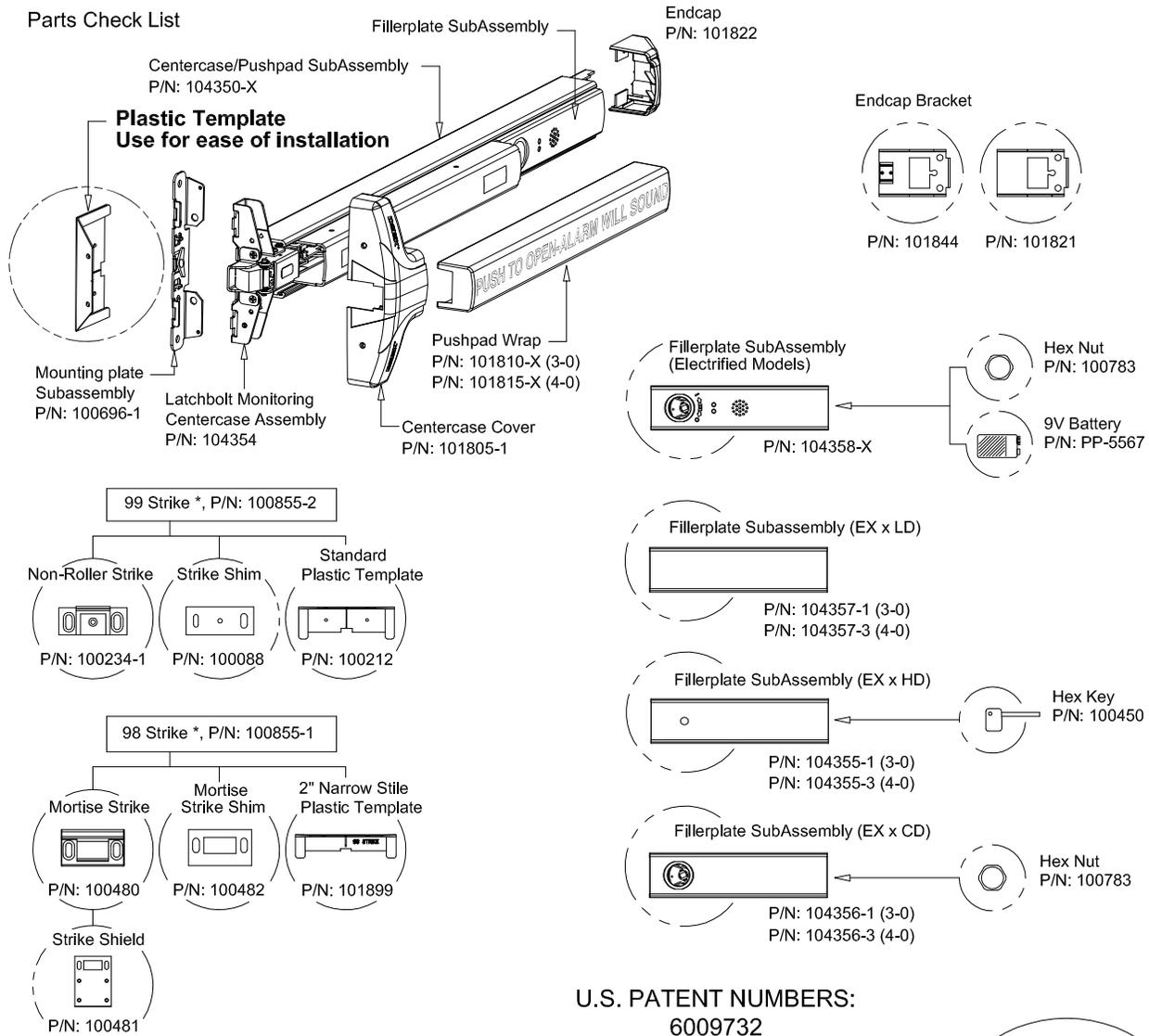


Detex Corporation, 302 Detex Drive, New Braunfels, Texas 78130-3045  
 (830)629-2900 / 1-800-729-3839 / Fax (830)620-6711  
 E-MAIL: detex@detex.com INTERNET: www.detex.com  
**INSTALLATION INSTRUCTIONS FOR DETEX VALUE SERIES® V40 RIM PANIC HARDWARE,  
 FV40 RIM FIRE EXIT HARDWARE AND "H" MODELS (HURRICANE)**

## FV40 / V40 x EB, EH, EHxR, EX VALUE SERIES® RIM

**L9 = Less 9v Battery**  
**SI = Status Indicator "ON"**

### Parts Check List



**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.**

**U.S. PATENT NUMBERS:**

6009732  
 6205825B1  
 6532777B2

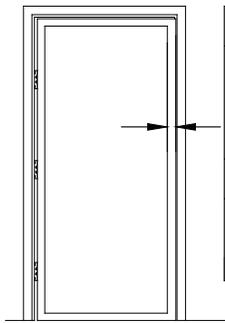
**INTERNATIONAL PATENT NUMBER:**  
 PCT6009732

**Owner's Copy**

**See Optional Accessories For:**

- Glass Bead Kit
- Sex Nuts
- Tamper Kit
- Double Door Strike Kit
- Key Stop Kit
- Narrow Stile Kit

# !!!CHECK BEFORE STARTING!!!

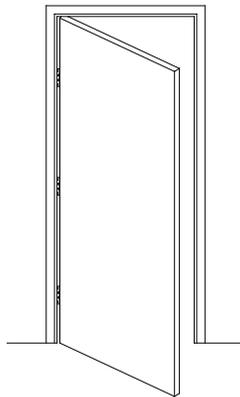
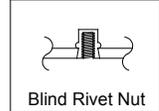
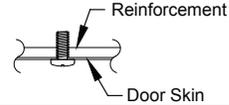


Wide Stile (Surface Strike)
Minimum door stile 4-1/2" (114 mm) Template drawings provide door and frame structural and dimensional specifications for door and frame preparation.
Narrow Stile
Minimum door stile 2" (51mm) Surface strike possible Mortise strike recommended

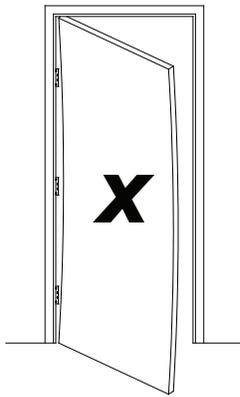
Doors and frames with walls having a structural thickness (metal skin plus reinforcement, or solid wood) to engage less than (3) full screw threads, are considered unreinforced for hardware.

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

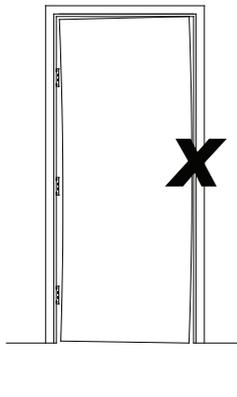
Reinforced door or frame engages at least (3) screw threads.



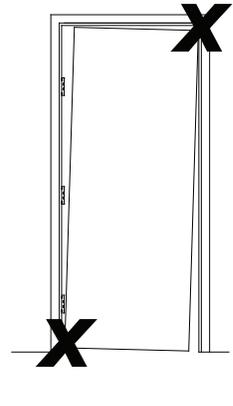
Door Must Swing Freely



Door Must Not be Warped

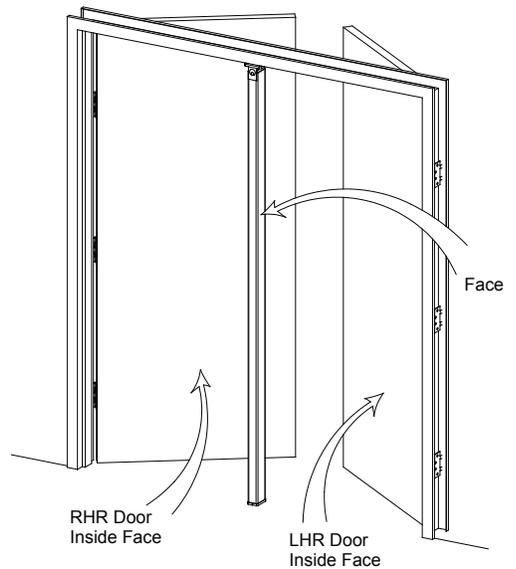
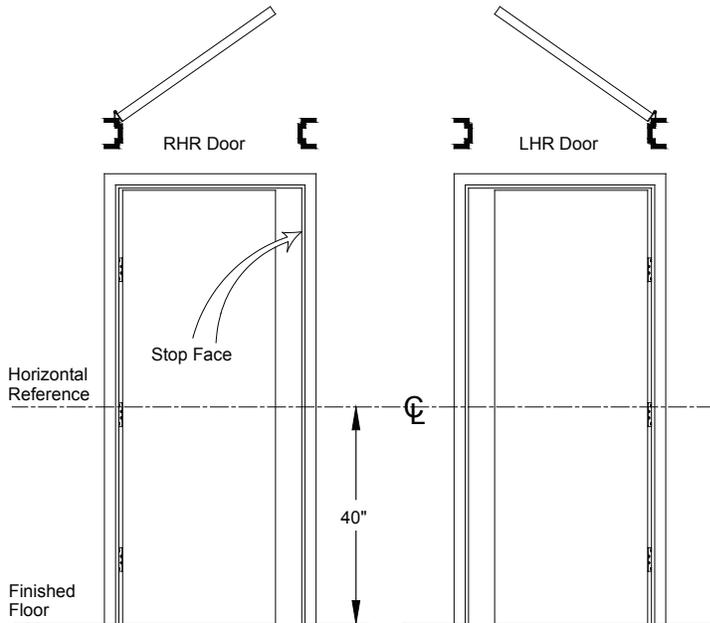


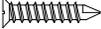
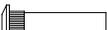
Door Must Not Bind



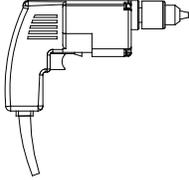
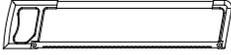
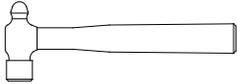
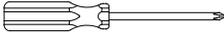
Door Must Not Sag

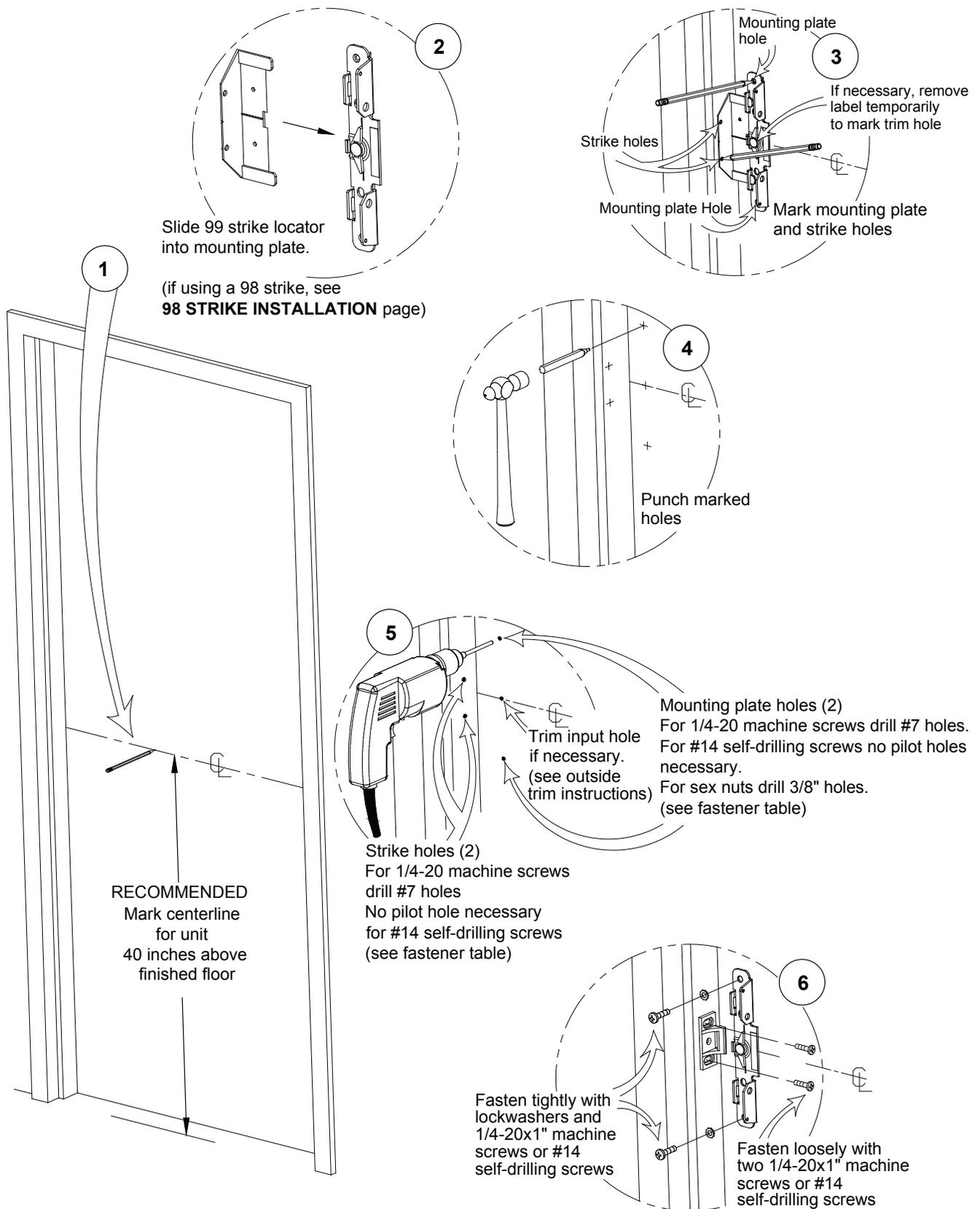
NOTE: 750mm MAXIMUM DOOR WIDTH OPENING FOR EUROPE FOR 36" DEVICE  
(1000mm MAXIMUM DOOR WIDTH OPENING FOR EUROPE FOR 48" DEVICE)  
THE SAFETY FEATURES OF THIS PRODUCT ARE ESSENTIAL TO ITS COMPLIANCE WITH EN 1125.  
NO MODIFICATION OF ANY KIND, OTHER THAN THOSE DESCRIBED IN THESE INSTRUCTIONS ARE PERMITTED.

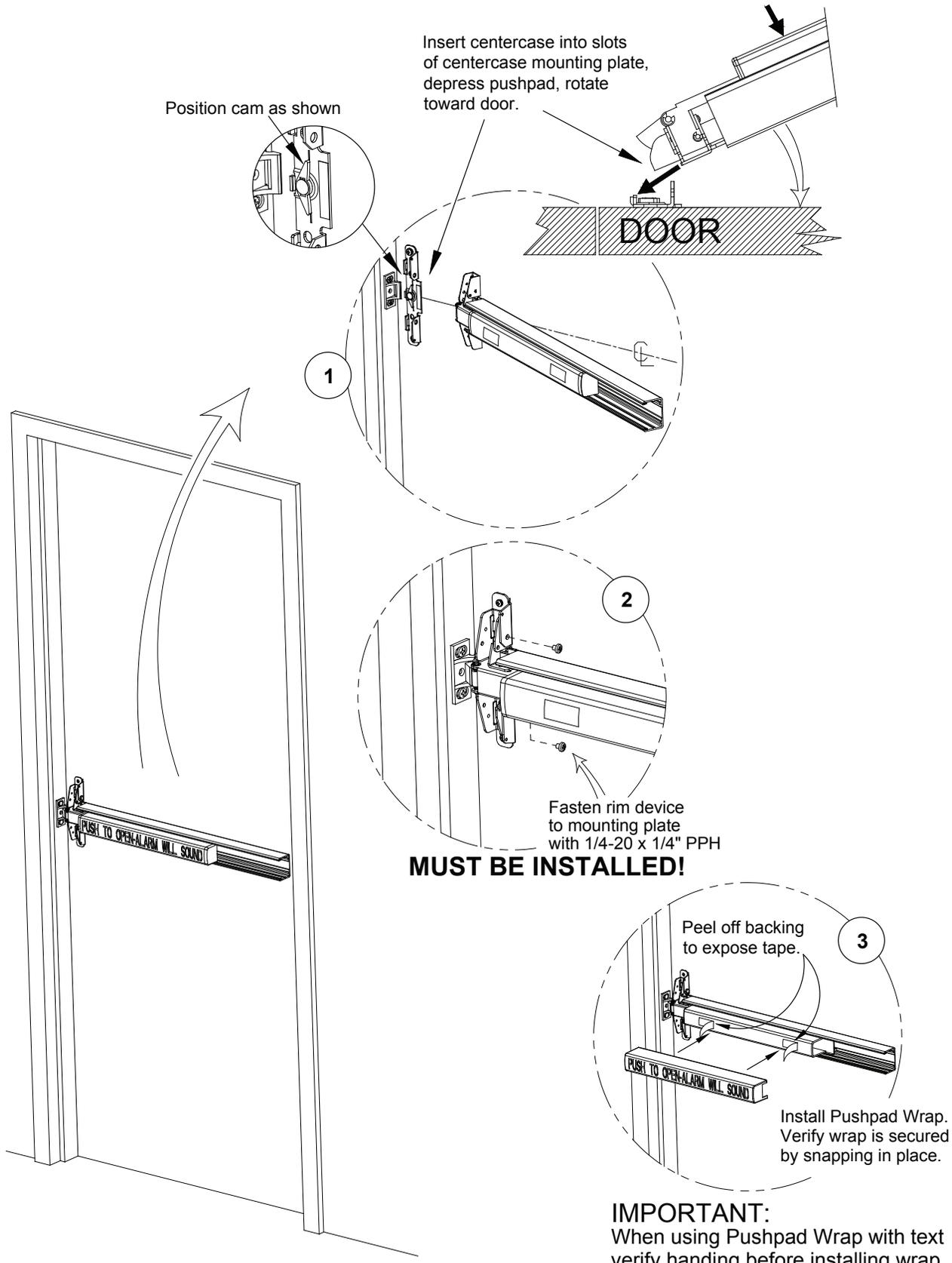


Fastener Table					
			Drill Bit	Tap Wrench	Comments
					
Machine Screws 	#6-32 x 5/8"	PFH	#36 or 7/64	#6-32 Tap	Used on 98 Strike Shield Mounting Holes
	#6-32 x 3/8"	PFH	----	----	Used to Mount Centercase Cover and Endcap
	#10-24 x 5/8"	PFH	#25 or 9/64"	#10-24 Tap	Used on 99 Strike Center Mounting 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"	PPH		----	Metal Applications Used on Strike, Mounting plate, and Endcap Mounting Holes
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.

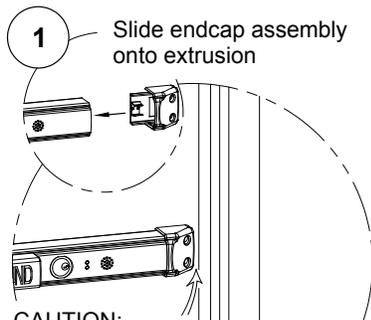
Tools Required	
Power Drill 	Pencil 
	Hack Saw 
Safety Glasses 	Hammer 
Level 	Tape Measure 
Screw Driver 	Center Punch 





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

**1** Slide endcap assembly onto extrusion



**CAUTION:**  
Check for device & door frame clearance. If no cut-off needed, proceed to MORTISE CYLINDER INSTALLATION

**2** Secure with tape

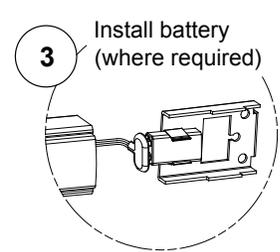
Align fillerplate FLUSH to extrusion prior to cutting

Type	Length	
	36" Unit	48" Unit
Electrified model	2 in	8 in
EX	6 in	12 in

Cut fillerplate & extrusion to desired length\*

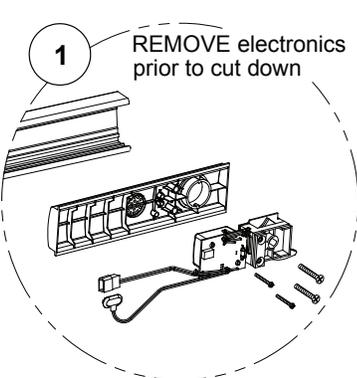
Protect wires during cutting

**3** Install battery (where required)



## Procedures for Maximum Cut Down Lengths Caution Required-Special Handling (Call factory at (800) 729-3839 for assistance)

**1** REMOVE electronics prior to cut down



**2** Secure with tape

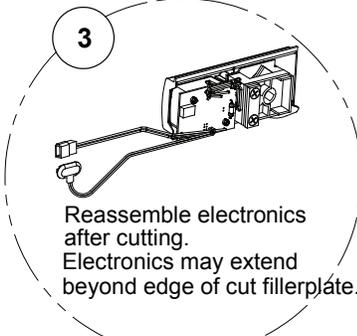
Align fillerplate FLUSH to extrusion prior to cutting

Length (L) inches	36" Unit	48" Unit
	Max. Cut-Off	4"

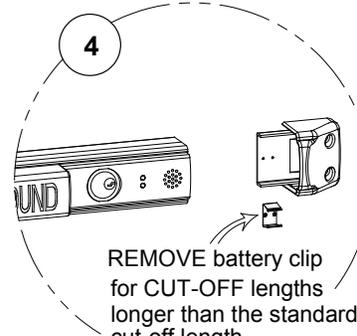
Cut fillerplate & extrusion to desired length\*

Protect wires during cutting

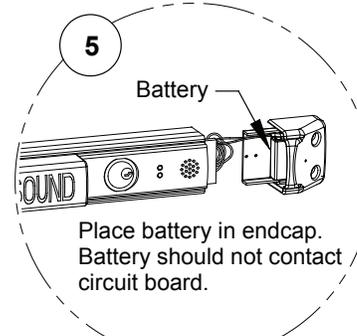
**3** Reassemble electronics after cutting. Electronics may extend beyond edge of cut fillerplate.



**4** REMOVE battery clip for CUT-OFF lengths longer than the standard cut-off length

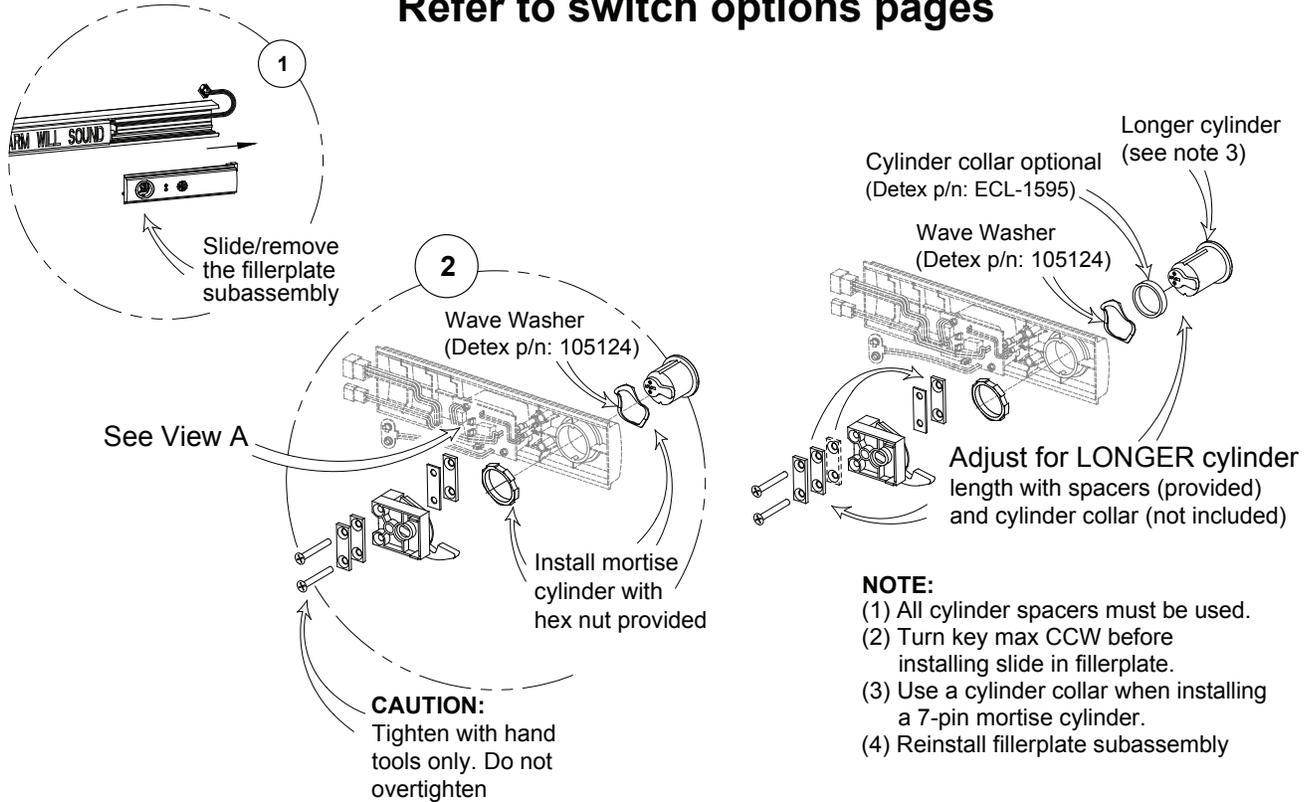


**5** Place battery in endcap. Battery should not contact circuit board.

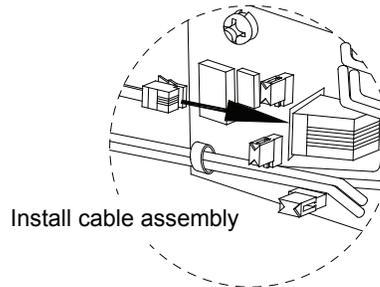


# MORTISE CYLINDER INSTALLATION

Refer to switch options pages



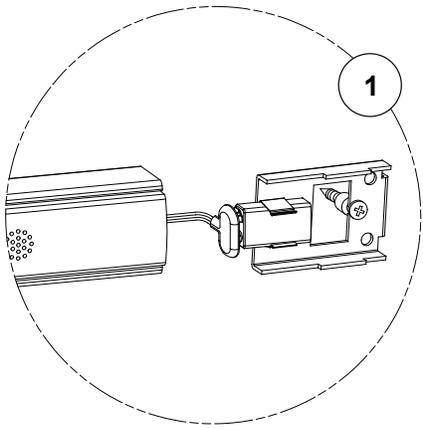
For Latch Bolt Monitoring (LBM) units only



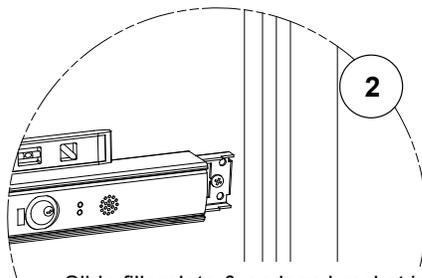
**View A**

**PRECAUTIONARY NOTE:**

Be careful when installing fillerplate assembly not to damage cable

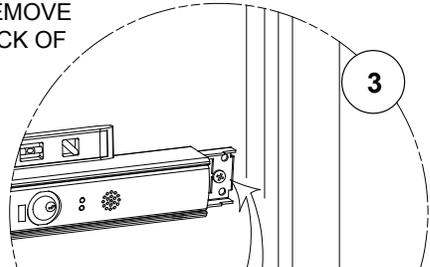


1



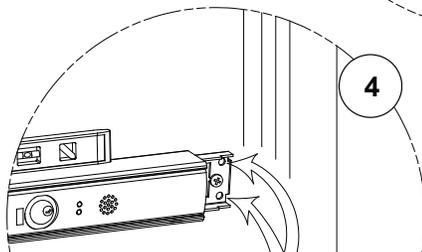
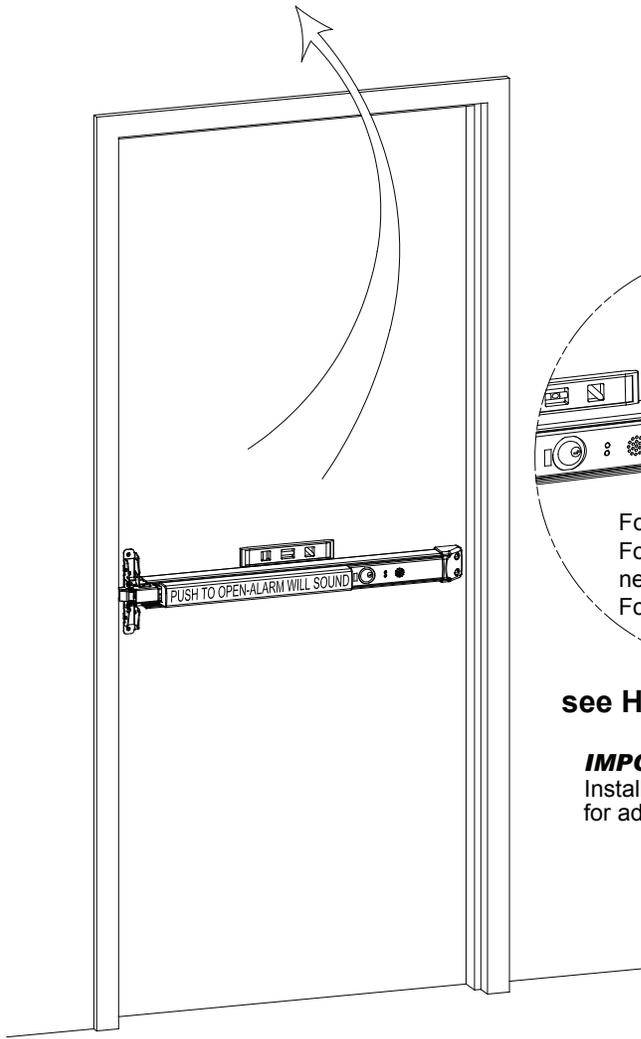
2

Slide fillerplate & endcap bracket into extrusion & level pushpad assembly.  
**Note:** Endcap Bracket must bottom-out on extrusion. DO NOT REMOVE NYLON SPACER ON BACK OF BRACKET!



3

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

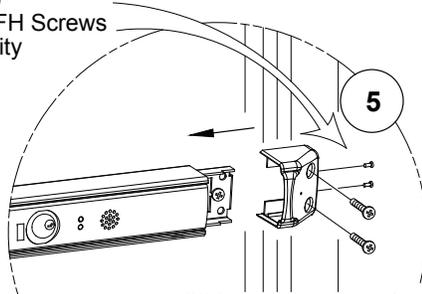


4

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 HARDWARE TRANSFER OPTIONS page**

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



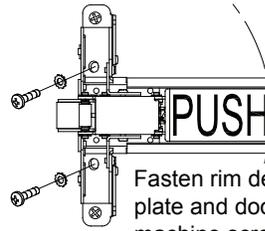
5

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

## For Hurricane Models

(see Hurricane kit)

1



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

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.

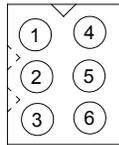
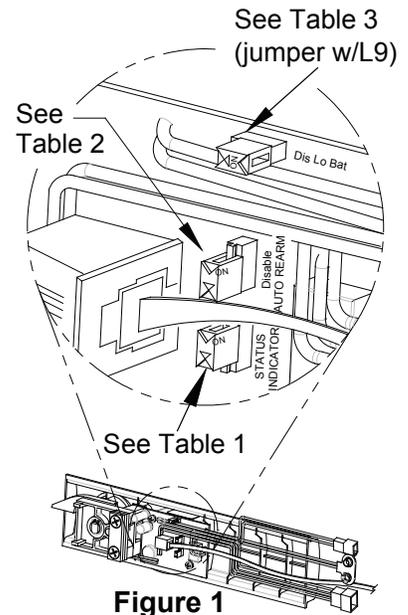
# SWITCH OPTIONS

Switch selections must be made before applying power or installing battery (See Figure 1)

Table 1	
Status Indicator	Status Description
Off (factory set)	The Device gives no indication of armed or disarmed status.
On	The Device flashes red or green LED every 3 seconds. Red indicates armed status and green indicates disarmed.

Table 2	
Disable Auto rearm	Auto Rearming Feature Setting
On (factory set)	Alarm sounds until turned off with key. Extended bypass is enabled.
Off	Unit sounds alarm as long as door is open. Alarm turns off 2 minutes after door is closed

Table 3 (EH models only) Note: AC power must be applied	
Disable Low Battery	Status Description
Off (factory set)	The device flashes one red LED and one beep about every 45 seconds
On	The Device gives no indication of battery being low.



(see Table 5) P1 detail

Figure 3

Table 5 (P1 wire usage)					
Remote Signal			Remote Bypass		
Pin 1	Brown	Common	Pin 4	Violet	N.O. contact
Pin 2	Yellow	Normally Open	Pin 5	Violet	N.O. contact
Pin 3	Gray-Green	Normally Closed	Pin 6	----	----

Contacts rated at 1.0A @ 30VDC or 0.5A @ 125VAC

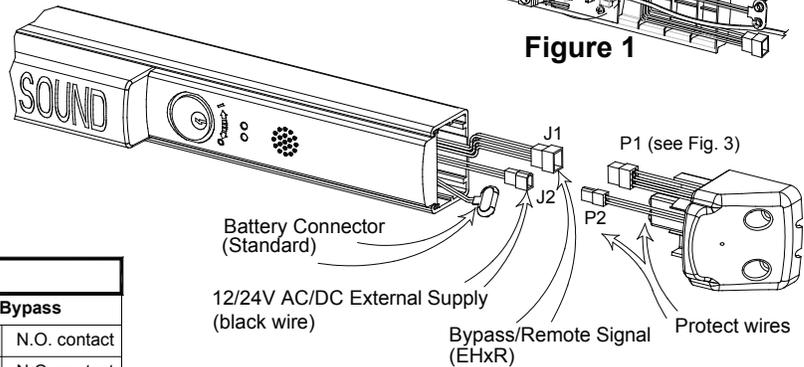
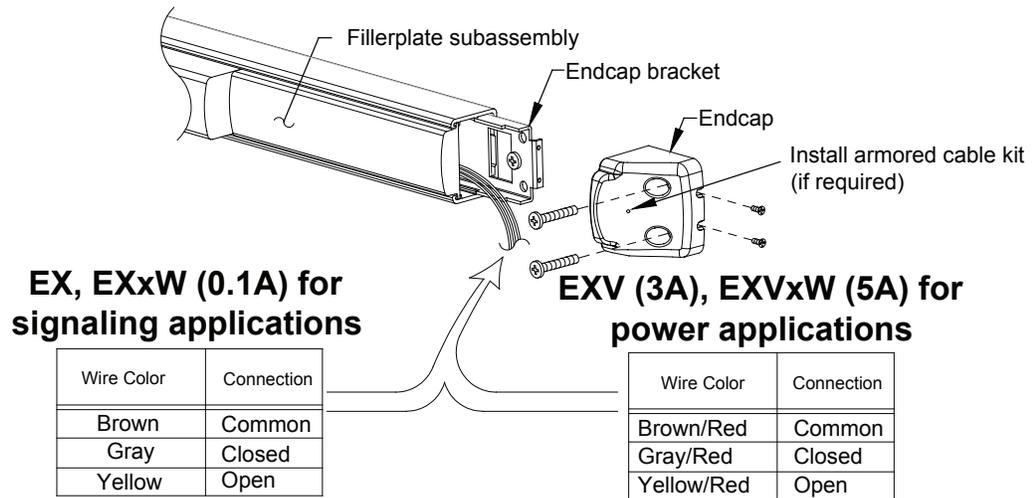


Figure 2  
Wiring Detail

## V40 EX, EXxW, EXV & EXVxW Wiring Assemblies

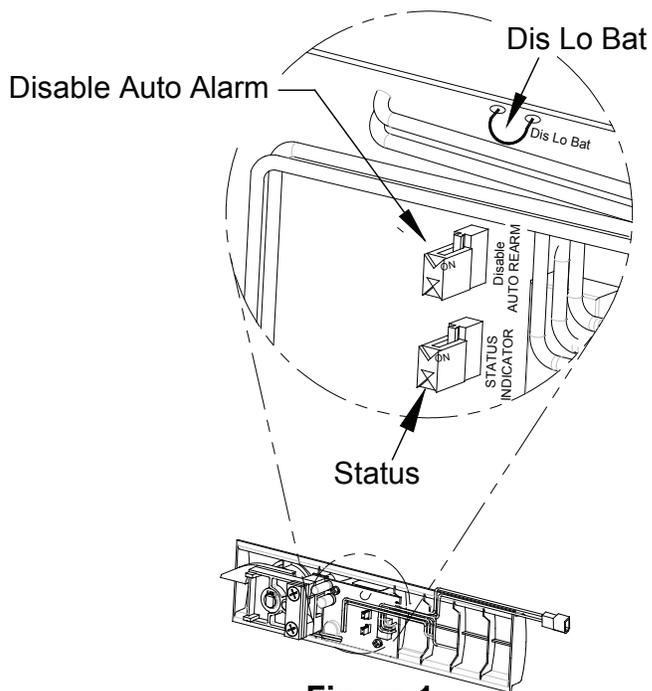


# L9SI SWITCH OPTIONS

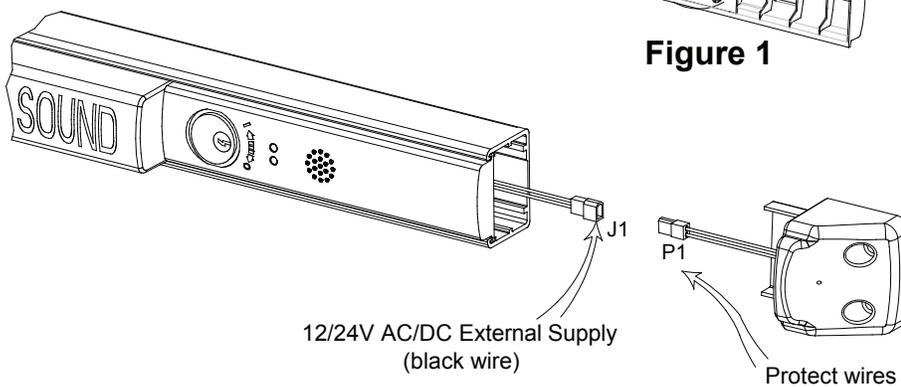
**L9 = Less 9v battery**  
**SI = Status indicator**

Switch selections must be made before applying power.

L9SI factory presets		
Status Indicator	On	The Device flashes red or green LED every 3 seconds.
Disable Auto rearm	On	Alarm sounds until turned off with key.
Disable Low Battery	Jumper	(No battery or leads on device)



**Figure 1**



**Figure 2**  
EH wiring detail

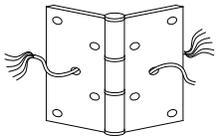
# HARDWIRE TRANSFER OPTIONS

(EH and EHxR models)

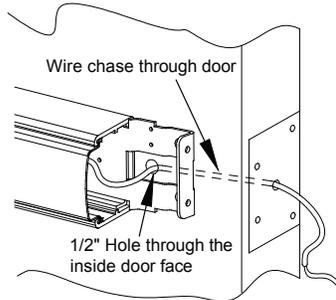
(Requirements: Minimum 6 Conductor Wires, Maximum 12 Conductor Wires)

## Electric Hinge

Order by finish  
p/n: EWH8-X

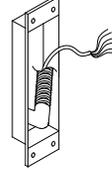


### Electric Hinge Endcap Prep

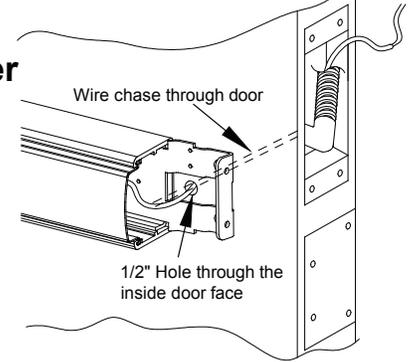


## Power Transfer

p/n: PT-5



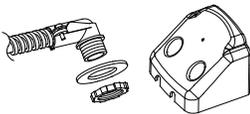
### Power Transfer Endcap Prep



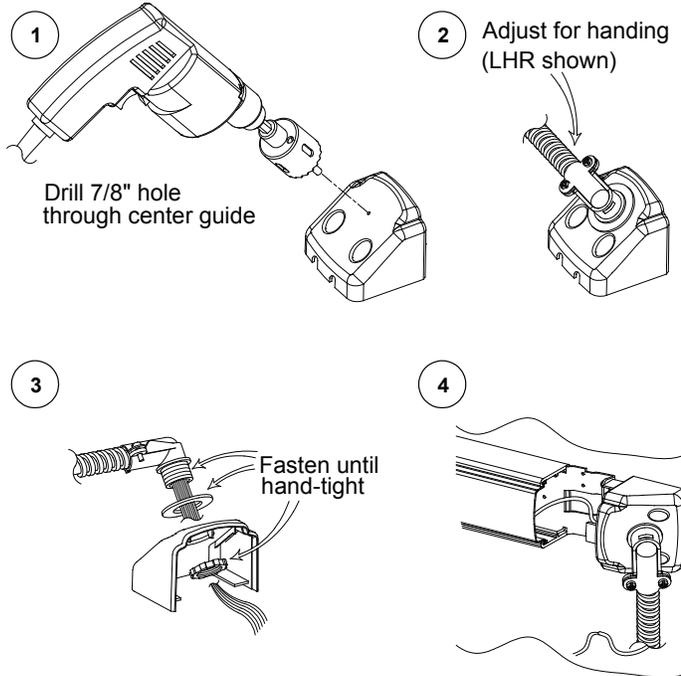
**Note:** For high traffic areas an electric through-wire hinge or power transfer is recommended.

## Value Series Flex Conduit/End Cap Kit

p/n: FCV



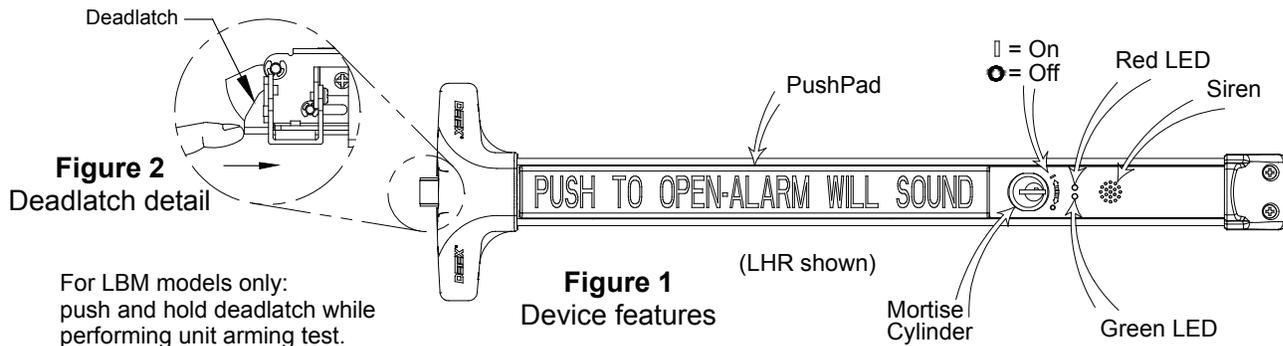
### VALUE SERIES FLEX CONDUIT INSTALLATION



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

# ALARM OPERATIONS

Refer to SWITCH OPTIONS pages



## SPECIAL NOTES and DEFINITIONS

1. The door needs to be closed to test the unit.
2. When operating the ON/OFF switch, there is a slight delay.
3. The key is inserted and removed only in the horizontal position (home position).
4. Key function: counter clockwise (CCW) = Armed; clockwise (CW) = Disarmed.
5. Arming delay mode and auto rearm timers vary by order.
6. The power needs to be removed to register changes in the slide switches.
  - a. Status Indicator (This will affect battery life)
  - b. Disable Auto Rearm
  - c. Dis Lo Bat INDicator (EH units only)

## UNIT ARMING TEST:

1. Turn key counterclockwise (CCW) (key is removable after rotating back to horizontal position).
2. Red LED will flash twice, then green LED will illuminate for the 15 second delay time, then turn off.  
The siren will sound three short beeps indicating the unit is armed.
3. Depress Pushpad (Siren will sound and red LED will illuminate)
4. Turn key clockwise (CW). Turns alarm off.

## LOW BATTERY ALERT:

1. Siren will beep and red LED will blink at approximately 45 second intervals when battery is low.

## DOGGING FEATURE: (non-fire rated units only)

1. Depress Pushpad.
2. While holding Pushpad depressed, turn key clockwise (CW). Pushpad should remain depressed.  
(Key is removable after rotating back to horizontal position)
3. Unit is now disarmed.

## STATUS INDICATOR

1. Slide the switch to ON and apply power.
2. If the unit is armed, the red LED will blink every 3 seconds.
3. If the unit is disarmed, the green LED will blink every 3 seconds.

## Disable AUTO REARM

1. When the unit is in full alarm and the door closes, the alarm will shut off after 2 minutes.

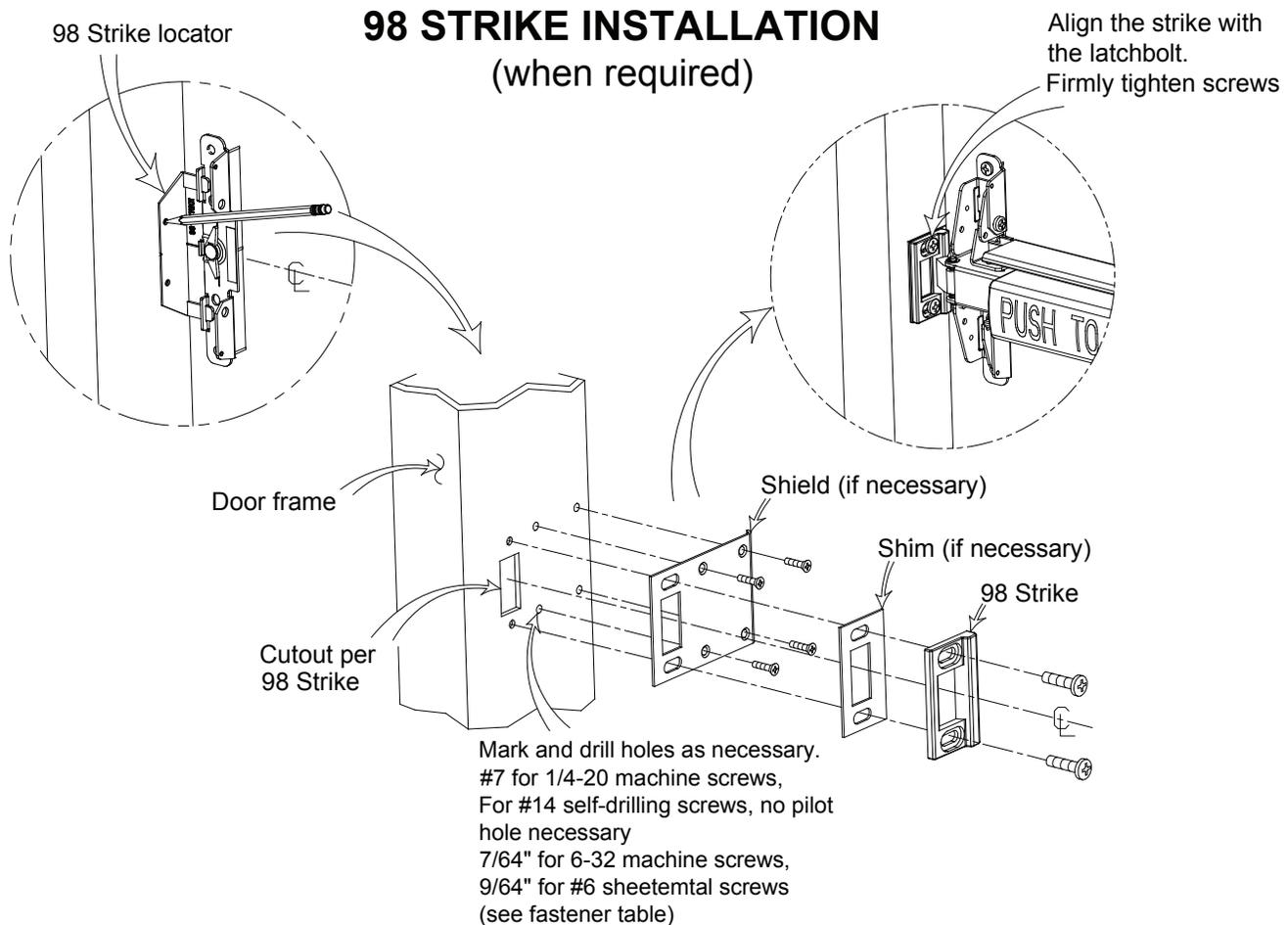
## Care and Maintenance:

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.

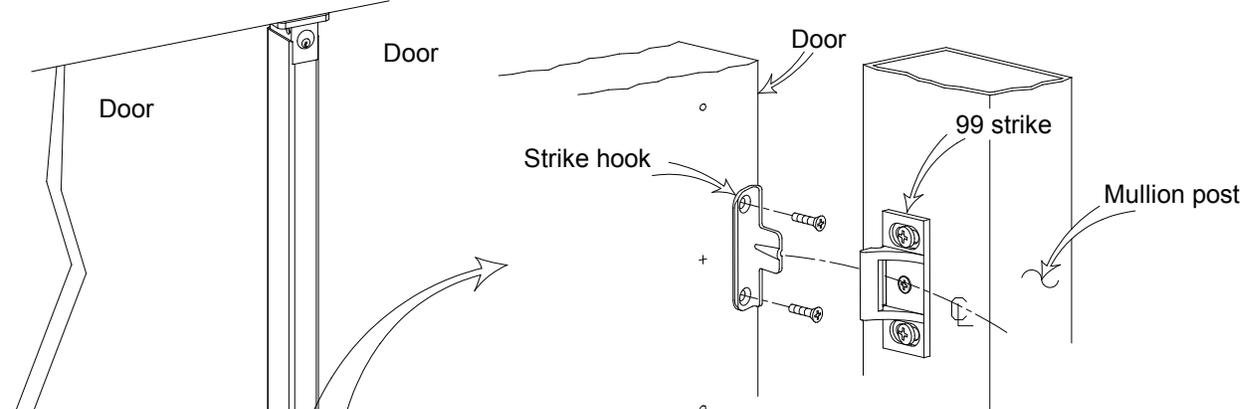
## V40 EB/EH and LBM Troubleshooting Tips for Default Setting

<b>EB/EH (Bar Monitoring) PROBLEMS</b>	<b>PROBABLE CAUSE</b>	<b>ACTION</b>
No LED activity when key is turned CCW to armed position	<p>Dead or weak battery.</p> <p>Battery not secured to connector correctly.</p> <p>Slide switches not in default mode.</p> <p>Outside trim not correctly installed.</p>	<p>Install new battery, LED's should flash and the siren beep once.</p> <p>Secure battery correctly.</p> <p>Set switch to default and reconnect power.</p> <p>Check outside trim (if applicable). See trim instructions.</p>
When the unit is armed, red LED flashes twice, green LED is on for 15 seconds, but the unit does give three beeps after the green LED goes off. The unit will not sound when opened.	Actuator is sticking to microswitch	Lubricate spring
LED's do not flash to indicate armed or disarmed status	Status indication switch is in off position.	Remove battery power from unit. Slide status indicator switch to the ON position. Reinstall battery.
Give low battery alert.	Dead or weak battery.	Install new battery, LED's should flash and the siren beep once.
<b>LBM (Latchbolt Monitoring) PROBLEMS</b>	<b>PROBABLE CAUSE</b>	<b>ACTION</b>
When the unit is armed, red LED flashes twice, green LED is on for 15 seconds, but the unit does give three beeps after the green LED goes off. The unit will not sound when opened.	<p>Dead latch not in proper position.</p> <p>1/4-20 screws not installed.</p>	<p>Close door.</p> <p>Door not fully closed. Press dead latch manually as shown in Fig 2 on pg 13.</p> <p>If unit operates properly, check unit's backset and adjust unit or add shims to strike as needed.</p> <p>See page 5, bubble #2.</p>
Battery connector missing	L9 option ordered	Battery connector not supplied with L9 option

Technical Support 1-800-729-3839



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



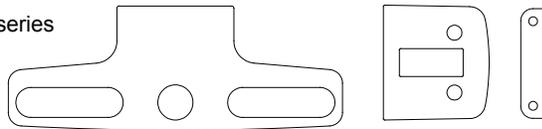
For mounting hole locations use Strike Locator (Template) provided.

DRILL CHART	
10-24 Machine screw	#10 Sheetmetal screw
#25 or 9/64" tap 10-24	#22 or 5/32" pilot hole

## Optional Accessories

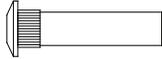
### Glass Bead Kit

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:

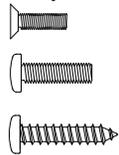
Catalog No: SN1 Brushed Brass BHMA 606 Finish  
 Catalog No: SN1 Oil Rubbed Bronze BHMA 613 Finish  
 Catalog No: SN1 Brushed Chrome BHMA 626 Finish  
 Catalog No: SN1 Stainless Steel BHMA 630 Finish

p/n: 101616-X

### Tamper Kit

(Security Kit)  
Catalog No: SSK3  
p/n: 101233

Security Screws

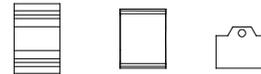


Security Pin TORX® bits provided



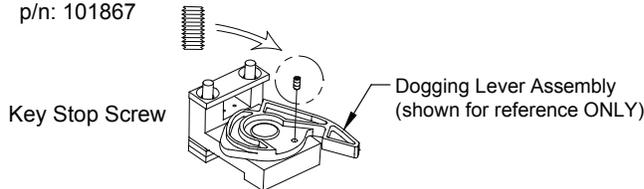
### Narrow Stile Door Kit

(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: 101189-2 (711 Finish, Black)



### Key Stop Kit

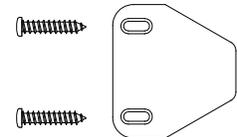
(Momentary Shunt)  
Catalog No: KS  
p/n: 101867



### Double Door Strike Kit

Catalog No: 94 Security screws  
p/n: 102212-1

Catalog No: 95 - Standard screws  
p/n: 102212-2



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 EB, EH or EHxR, which may be followed by LD or CD, followed by 628 or 711, followed by 98 or 99, followed by 36 or 48.