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INSTALLATION INSTRUCTIONS FOR ARCHITECTURAL VALUE SERIES®
ELECTRIC DOGGING / ELECTRIC LATCH RETRACTION AND "H" MODELS (HURRICANE)

V40

ED Electric Dogging
ER ELECTRIC LATCH RETRACTION

Parts Check List

Centercase/Pushpad/Module SubAssembly
P/N: ED 102457-X
ER 102458-X

Endcap
P/N: 101822

Plastic Template
Use for ease of installation

Mounting plate
Subassembly
P/N: 100696-1

Centercase Cover
P/N: 101805-1

Pushpad Wrap
P/N: 101810-2 (3-0)
P/N: 101815-2 (4-0)

Endcap Bracket
P/N: 101821

Fillerplate SubAssembly
P/N: 100481

* 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.

Mortise Strike
P/N: 100480

Mortise Strike Shim
P/N: 100482

2" Narrow Stile Plastic Template
P/N: 101899

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

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

Power Supply
See Accessories on Page 13

Owner's Copy

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### Doors and Frames with Walls Having a Structural Thickness

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.

### Reinforcement

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

### Fasteners

- Blind Rivet Nut

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**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

<table>
<thead>
<tr>
<th></th>
<th>Drill Bit</th>
<th>Tap Wrench</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Machine Screws</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#6-32 x 5/8&quot;</td>
<td>PPH</td>
<td>#36 or 7/64</td>
<td>#6-32 Tap Used on 98 Strike Shield Mounting Holes</td>
</tr>
<tr>
<td>#6-32 x 3/8&quot;</td>
<td>PPH</td>
<td>-----</td>
<td>----- Used to Mount Centercase Cover and Endcap</td>
</tr>
<tr>
<td>#10-24 x 5/8&quot;</td>
<td>PPH</td>
<td>#25 or 9/64&quot;</td>
<td>#10-24 Tap Used on 99 Strike Center Mounting Hole</td>
</tr>
<tr>
<td>#1/4-20 x 1/4&quot;</td>
<td>PPH</td>
<td>-----</td>
<td>----- Used to Fasten Centercase Unit onto Mounting plate</td>
</tr>
<tr>
<td>#1/4-20 x 1&quot;</td>
<td>PPH</td>
<td>#7 or 13/64&quot;</td>
<td>#1/4-20 Tap Used on Strike, Mounting plate, and Endcap Mounting Holes</td>
</tr>
</tbody>
</table>

| **Sheetmetal Screws** |           |            |                                                                          |
| #6 x 1"            | PFH       | 9/64"      | ----- Used on 98 Strike Shield Mounting Holes                           |

| **Self-drilling Screws** |           |            |                                                                          |
| #10 x 1"            | PFH       | -----      | ----- Used on 99 Strike Center Mounting Hole                           |
| #14 x 1"            | PFH       | -----      | ----- Used on Strike                                                   |
| #14 x 1-1/2"       | PFH       | -----      | ----- Metal Applications Used on 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 |
| #10-32       | -----     | 13/64" Interior Door Face | ----- Recommended on Fire Rated Wood and Unreinforced Hollow Metal Doors Used on Strike Hook Mounting Holes |

<table>
<thead>
<tr>
<th><strong>#</strong></th>
<th>#1/4-20</th>
<th>#10-32</th>
<th>#6-32 x 5/8&quot;</th>
<th>#6-32 x 3/8&quot;</th>
<th>#10-24 x 5/8&quot;</th>
<th>#1/4-20 x 1/4&quot;</th>
<th>#1/4-20 x 1&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Notes:</strong></td>
<td>(1)</td>
<td></td>
<td>(2) Mortise cylinder NOT provided.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fastener selection will vary per catalog configuration and kits ordered.</td>
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<tr>
<td></td>
<td>(3) For wood applications use Wood Door Kit, p/n 103991(supplied separately).</td>
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</tr>
</tbody>
</table>

### Tools Required

- **Power Drill**
- **Pencil**
- **Hack Saw**
- **Safety Glasses**
- **Hammer**
- **Level**
- **Tape Measure**
- **Screw Driver**
- **Center Punch**
1. Mark centerline for unit 40 inches above finished floor.

2. Slide 99 strike locator into mounting plate.

3. If necessary, remove label temporarily to mark trim hole. Mark mounting plate and strike holes.

4. Punch marked holes.

5. Strike holes (2)
   - For 1/4-20 machine screws drill #7 holes.
   - No pilot hole necessary for #14 self-drilling screws.
   - For sex nuts drill 3/8" holes.
   (see fastener table)

6. 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)

7. Fasten tightly with lockwashers and 1/4-20x1" machine screws or #14 self-drilling screws.

8. Fasten loosely with two 1/4-20x1" machine screws or #14 self-drilling screws.

(if using a 98 strike, see 98 STRIKE INSTALLATION page)
Insert centercase into slots of centercase mounting plate, depress pushpad, rotate toward door.

Position cam as shown

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

MUST BE INSTALLED!
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!

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

---

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.

see HARDWIRE TRANSFER OPTIONS page
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.

For Hurricane Models
(see Hurricane kit)

1. Fasten rim device to mounting plate and door with 1/4-20 x 1" 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).

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)

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

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

Securing the 99 strike.

Deadlatch

99 strike

For Hurricane Models
(see Hurricane kit)
CONNECTIONS FOR THE ER MODEL
The red and black wires should be connected to the power supply control board (81-800, 82-800, or 83-800, depending on the door configuration). See power supply instructions 101339 or 101340 as appropriate for typical connections.

RETRACTING THE LATCH
The ER device must be connected to a Detex power supply/controller, 81-800, 82-800 or 83-800. With all the connections made according to the power supply instructions, closing the contact will retract the latch. The pushpad will be pulled down as the latch and deadbolt are retracted. The latch is held by an internal dogging assembly until the contact is released/opened.

HOLDING THE LATCH RETRACTED
ER model holds the latch retracted as long as the control switch is maintained(closed).

RELEASING THE LATCH
ER is an electronically dogged latch. Opening the control switch (or contacts) causes the latching mechanism to release. If an 8X-800 series Detex power supply is used, there is a slight delay from the opening of the switch contacts to the release of the latch. This delay is intended for external signaling and is described in the power supply instructions.
DETEx ED UNITS MAY BE OPERATED FROM A 24 V AC OR DC SOURCE OR WITH A DETEX POWER SUPPLY
(NOTE: FIRE RATED DEVICES MUST USE 80-800-X POWER SUPPLY)

POWER CABLE FROM ED MODULE
(CONNECT TO POWER SUPPLY)

WIRES FROM EX SWITCH
(Optional)

GREY (CLOSED)
BROWN (COMMON)
YELLOW (OPEN)

CONNECTIONS FOR THE ED MODEL
For transformer operation, the ED device can use a transformer or power supply. Use Detex part number PP-5152-2 transformer or approved 24 volt Class 2 equivalent rated at 40 VA or higher. An appropriate switch must be used to control the power to the device. See Figure 1 on page 10 for a typical installation. Detex power supply 80-800 may also be used. See Figure 2 on page 10 for a typical installation. Fire rated doors must use the 80-800 power supply. This is because transformers cannot be controlled by the building's fire system. Connections to the building's fire system are described in the power supply instructions.

RETRACTING THE LATCH
The ED model is electrically dogged, but has no mechanism to retract the latch. Once the switch is activated/closed and power is supplied to the device, press the pushpad to open the door. As the pushpad reaches the proper amount of travel, it will automatically latch into place. The pushpad will be held in this position as long as the control switch is maintained(closed).

HOLDING THE LATCH RETRACTED
ED model holds the latch retracted as long as the control switch is maintained(closed).

RELEASING THE LATCH
ED is an electronically dogged latch. Opening the control switch (or contacts) causes the latching mechanism to release the lock.
Typical ED Connection Diagrams

**Fig. 1**
ED with transformer

- Maintain switch 120VAC 1 Amp (call Detex for model numbers)
- 24VAC output transformer Detex p/n PP-5152-2 or approved equivalent
- Red to Positive
- Black to Negative

**Fig. 2**
ED with power supply

- See 80-800-X instructions for fire loop connections & voltage selection
- Maintain switch 120VAC 1 Amp (call Detex for model numbers)
- Red to Positive
- Black to Negative

**RISER DIAGRAM**
2 Wires

SEE POWER SUPPLY INSTRUCTIONS FOR TERMINATION

RED WIRE (+)
BLACK WIRE (−)

SEE POWER SUPPLY INSTRUCTIONS FOR TERMINATION

RED WIRE (+)
BLACK WIRE (−)

FOR LONG WIRE RUNS, SEE RECOMMENDED WIRE GAUGE IN POWER SUPPLY INSTRUCTIONS

ELECTRIFIED HINGE INSTALLATION (MIN 22 GA WIRE)

OPTIONAL JB-1 JUNCTION BOX INSTALLATION WITH 10' FLEX CONDUIT TO DETEX POWER SUPPLY

SEE POWER SUPPLY INSTRUCTIONS FOR TERMINATION

SEE POWER SUPPLY INSTRUCTIONS FOR TERMINATION

SEE POWER SUPPLY INSTRUCTIONS FOR TERMINATION

SEE POWER SUPPLY INSTRUCTIONS FOR TERMINATION
HARDWIRE TRANSFER OPTIONS
(Requirements: Minimum 6 Conductor Wires, Maximum 12 Conductor Wires)

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

1. Drill 7/8" hole through center guide
2. Adjust for handing (LHR shown)
3. Fasten until hand-tight
98 STRIKE INSTALLATION
(when required)

Align the strike with the latchbolt. Firmly tighten screws.

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.)

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

<table>
<thead>
<tr>
<th>DRILL CHART</th>
<th>10-24 Machine screw</th>
<th>#10 Sheetmetal screw</th>
</tr>
</thead>
<tbody>
<tr>
<td>-#25 or 9/64“ tap 10-24</td>
<td>-#22 or 5/32“ pilot hole</td>
<td></td>
</tr>
</tbody>
</table>

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Optional Accessories

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

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

Double Door Strike Kit
Catalog No: 94
p/n: 102212-1

Power Supply

<table>
<thead>
<tr>
<th>Power Supply</th>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>80-800-X</td>
<td>ED Single Door</td>
</tr>
<tr>
<td>81-800-X</td>
<td>ER Single Door</td>
</tr>
<tr>
<td>82-800-X</td>
<td>ER Dual Door</td>
</tr>
<tr>
<td>83-800-X</td>
<td>ER Dual Door w/ Independent Operator</td>
</tr>
</tbody>
</table>

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 ED or ER, which may be followed by LD or CD, followed by 628 or 711, followed by 98 or 99, followed by 36 or 48.