**EM Delayed Egress**

**RIM**

Dwg #: 102500  RIM (SS)
104600  RIM (AL)

**Fillerplate SubAssembly**

- Hex Nut P/N: 100783
- 9V Battery P/N: PP-5567

**S & R Pushpad Assembly**

P/N: 105500-X

**EC1 Endcap Bracket with 9V battery holder** P/N: 104636

**EC1 Endcap (AL)** P/N: 104612-X
**EC1 Endcap Bracket** P/N: 100147 (shown)

**EC2 Endcap Bracket** P/N: 104303

**S & R ADV EM CD Dogging Kit**

P/N 104389-X

**Door Sign**

P/N: ECL-395-X

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

- **EC1 Endcap** P/N: 101642-X
- **EC1 Endcap (for FCA)** P/N: 102095-X
- **EC1 Endcap Bracket** P/N: 104303

- **EC2 Endcap (SS)** P/N: 104304-X
**EC2 Endcap (AL)** P/N: 104612-X

- **EC2 Endcap (AL) (for FCA)** P/N: 104686-X
**EC2 Endcap (SS) (for FCA)** P/N: 104317-X

**Electromagnetic Lock**

P/N: 102450-X

**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.

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

Mortise cylinder available as an option.
Standard Yale type cam required.
See Mortise cylinder installation page.

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**Optional Accessories**

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

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**Owner's Copy**
MORTISE CYLINDER INSTALLATION

PRECAUTIONARY NOTES:
1. Be careful when installing fillerplate assembly not to damage modular cable.
2. See "EM ELECTRICAL OPTIONS" before reinstalling filler plate.

1 REMOVE FILLERPLATE
Remove endcap, endcap bracket & fillerplate subassembly. Disconnect cable assembly (view A), 12 pin connector (view B), and battery.

CAUTION:
Install mortise cylinder with hex nut provided.
Dogging lever should be in "ON" (CCW) position before sliding back into extrusion.

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.

2 INSTALL MORTISE CYLINDER
Cylinder nut socket p/n 103779 (sold separately)

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.

CAUTION:
Tighten with hand tools only. Do not overtighten.

See View A & B
Install mortise cylinder with hex nut provided.
Dogging lever should be in "ON" (CCW) position before sliding back into extrusion.

Mortise Cylinder with standard Yale cam required.

3 RE-INSTALL FILLERPLATE
Re-connect in the following order:
1) Cable assembly (view A),
2) Battery,
3) 12 pin connector (view B),
Install fillerplate subassembly & endcap bracket.

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

Slide endcap assembly onto extrusion.
Cut fillterplate and extrusion STRAIGHT & SQUARE to desired length and deburr.
Secure with tape before cutting.

Minimum Fillerplate Length
<table>
<thead>
<tr>
<th>Type</th>
<th>Length (L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EM</td>
<td>9&quot;</td>
</tr>
</tbody>
</table>

For aluminum Advantex finish cutdown applications: After cutting, the baseplate extrusion can be reversed to place the cut end inside the head cover. To do so, loosen the setscrew inside the aluminum baseplate extrusion and slide extrusion out, reverse, & slide back in. Tighten setscrew.
**ELECTRICAL OPTION**

**REQUIRES DETEX POWER SUPPLY**

**REQUIRED WIRE SIZES:**
**STRANDED WIRE GAUGE:** 18 AWG MIN
**MAXIMUM LENGTH OF TWO CONDUCTOR CABLE:** 40 FEET

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**Detex requires one fire alarm relay per power supply**
Closed Fire Alarm Loop (must be supplied for power output)

**FACTORY INSTALLED JUMPER**

**RED**
**BLK**

**Fire Loop Sense**

**To Exit Device Door #1**

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

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

**RED/BLK WIRES TO 24 VOLT**

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

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

**FACTORY INSTALLED JUMPER**

**BLK**
**RED**

**Orange and Blue wires to MAGNET DO NOT ADD POWER!**

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

**9V Alkaline Battery**

90-800 Power Supply with Detex Delayed Egress device

(PC BOARD ASSEMBLY INSIDE DELAYED EGRESS DEVICE)
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 deactivated.

**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

**POWER REQUIREMENT:**

.4 AMPS @ 24 VDC

**POWER SUPPLY**

RED +24V
BLACK GROUND

**POLARITY**

**Terminal Block**

+RED
-BLK

**Dis Lo Bat switch:**

To disable the low-battery indication, slide "DisLoBat" switch to 'ON'

**9V Alkaline Battery**

**Removable Terminal Block**

**Orange/Blue to magnet**
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

DOOR SIGN SUPPLIED WITH DETEX DELAYED EGRESS PANIC HARDWARE

DETEX DELAYED EGRESS PANIC HARDWARE INSTALLED BY TRAINED TECHNICIAN

REFER TO WIRING & FIRE ALARM DIAGRAMS FOR WIRING INSTRUCTIONS

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

HARDWIRE TRANSFER OPTIONS

Electric Hinge
p/n: EWH8-X

Power Transfer
p/n: PT-5

Flex Conduit/End Cap Kit
p/n: FCA
(Order FCA x Finish)

Electric Hinge Endcap Prep
Wire chase through door
1/2” Hole through the inside door face

Power Transfer Endcap Prep
Wire chase through door
1/2” Hole through the inside door face

FCA Flex Conduit Endcap Prep

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, then BOTH LED's will turn off.

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

<table>
<thead>
<tr>
<th>LED COLOR</th>
<th>SIREN SOUNDS</th>
<th>FUNCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>RED</td>
<td>GREEN</td>
<td>Normal 1</td>
</tr>
<tr>
<td>OFF</td>
<td>ON</td>
<td>Indicate the unit is in a process of arming. The siren will chirp three times to indicate that the unit is armed and green LED will turn off.</td>
</tr>
<tr>
<td>OFF</td>
<td>OFF</td>
<td>This indicates either armed or disarmed.</td>
</tr>
<tr>
<td>ON</td>
<td>ON</td>
<td>Factory installed jumper removed from terminals 3 &amp; 4.</td>
</tr>
<tr>
<td>SLOW BLINKING</td>
<td>SLOW PULSE</td>
<td>Pushpad is depressed, delay to open started.</td>
</tr>
<tr>
<td>FAST BLINKING</td>
<td>FAST PULSE</td>
<td>Delay to open expired.</td>
</tr>
<tr>
<td>ON</td>
<td>OFF</td>
<td>Delay to open expired, door has been opened.</td>
</tr>
<tr>
<td>DOUBLE BLINK</td>
<td>DOUBLE CHIRP</td>
<td>Low Battery - every 45 seconds.</td>
</tr>
<tr>
<td>BLINK</td>
<td>OFF</td>
<td>Armed - status ON.</td>
</tr>
<tr>
<td>OFF</td>
<td>BLINK</td>
<td>Disarmed - ON.</td>
</tr>
</tbody>
</table>

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

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

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

### Optional Accessories

**Tamper Kit**  
(Security Kit)  
Catalog No: SSK3  
p/n: 101233  
![Tamper Kit](image)
- Security Screws
- Security Pin TORX® Bits provided

**Double Door Strike Kit**  
Catalog No: 94 Security screws  
p/n: 102212-1  
![Double Door Strike Kit](image)
- Security Screws

**Key Stop Kit**  
(Momentary Shunt)  
Catalog No: KS  
p/n: 101867  
![Key Stop Kit](image)
- Key Stop Screw
- Dogging Lever Assembly (shown for reference ONLY)

The following models in the series were evaluated by UL: Controlled Exit Panic Devices; Models 10, 20, 21, 30, 40, 50, 51, 60, 61, 62, 63, 70, 71, 80, 81, 82, 83, F10, F20, F21, F30, F40, F50, F51, F60, F61, F62, F63, F70, F71, F80, F81, F82 & F83.  
Refer to U.L. listing files for additional information.