Detex Corporation, 302 Detex Drive, New Braunfels, Texas 78130-3045

INSTALLATION INSTRUCTIONS FOR EAX-3500 ALARM

Dwg #: 104900

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For device installation videos, scan code below or go to detex.com

Owner's Copy

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<table>
<thead>
<tr>
<th>Item</th>
<th>Order Part #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>103990</td>
<td>Switch assembly, reset, EAX-3500</td>
</tr>
<tr>
<td>2</td>
<td>106392</td>
<td>PWA, logic board, EAX-3500</td>
</tr>
<tr>
<td>3</td>
<td>106390</td>
<td>PWA, power board, EAX-3500</td>
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<tr>
<td>4</td>
<td>106385</td>
<td>Wiring harness, logic board to power board</td>
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<td>5</td>
<td>106740</td>
<td>Switch assembly, add time, EAX-3500</td>
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<tr>
<td>6</td>
<td>103952-1</td>
<td>Battery, 6V 3.4ah (2 required)</td>
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<td>7</td>
<td>103963</td>
<td>Battery strap</td>
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<tr>
<td>8</td>
<td>103965</td>
<td>Tamper Switch Assembly, EAX-3500</td>
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<tr>
<td>9</td>
<td>102966</td>
<td>Cover lock and key</td>
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<td>10</td>
<td>103958</td>
<td>Cable, Battery, EAX-3500 (2 required)</td>
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<tr>
<td>11</td>
<td>102281-7</td>
<td>Lock cylinder MC-65</td>
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<tr>
<td></td>
<td>103800-626</td>
<td>Lock cylinder IC7</td>
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<tr>
<td>12</td>
<td>103303</td>
<td>Cylinder collar</td>
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<tr>
<td>13</td>
<td>103970</td>
<td>Bracket, cylinder, EAX-3500</td>
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<tr>
<td>14</td>
<td>100783</td>
<td>Cylinder nut</td>
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<tr>
<td>15</td>
<td>102680</td>
<td>Cam assembly</td>
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<tr>
<td>16</td>
<td>102627-15</td>
<td>Screw, mach, #8-32 x 1-1/2&quot; truss head</td>
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<tr>
<td>17</td>
<td>103951</td>
<td>Transformer, Plug-in, 120/24VAC/20V-amp</td>
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<tr>
<td>18</td>
<td>CL-1</td>
<td>Cover lock keys (replacement)</td>
</tr>
<tr>
<td>19</td>
<td>106383</td>
<td>S&amp;R EAX-3500 Board replacement kit</td>
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**Fastener Table**

<table>
<thead>
<tr>
<th>Fastener Type</th>
<th>Fastener P/N</th>
<th>Drill Bit</th>
<th>Comments</th>
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</thead>
<tbody>
<tr>
<td>Self-drilling Screws</td>
<td>P/N: 103276-41</td>
<td>NOT</td>
<td>Metal Applications</td>
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<tr>
<td></td>
<td>#10 x 1&quot; PPH</td>
<td>REQUIRED</td>
<td></td>
</tr>
<tr>
<td>Sheetmetal Screws w/ Anchors</td>
<td>P/N: PP-5183-68</td>
<td>1/4&quot;</td>
<td>All other Applications</td>
</tr>
<tr>
<td></td>
<td>#10 x 1&quot; PPH</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Tools Required**

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

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**Mortise Cylinder with standard Yale cam required**

- Approx. dimensions:
  - Mortise Cylinder: .313" x .715"

**Cylinder Installation**:

Unlock enclosure and open hinged panel. To install cylinder (if not already provided) remove cam assembly. Reassemble cylinder into cam assembly as shown above.
Magnetic Switch Position:
The preferred position of the magnetic switch is the top of the door, centered approx 6" from the edge of door, as shown.

MS-1039S
Magnetic Switch

EAX-3500SK
Device

STEP 1. ENCLOSURE MOUNTING: Fig 1
Prep surface of wall for mounting Exit Alarm enclosure.
Enclosure is designed for all wires to be routed through grommet in rear hole.
Route wires from transformer and magnetic switch through rear hole BEFORE mounting enclosure.

Mount enclosure using mounting screws supplied in hardware kit.
Mounting kit options: Option 1 - #10 sheet metal screws
& #10 plastic anchors.
Option 2 - #10 self-drilling screws

NOTE: Enclosure must be earth grounded per NEC requirements.

Self-drilling Screws OR Sheetmetal Screws w/ Anchors
**STEP 2. MAGNETIC SWITCH INSTALLATION:** Fig. 2

Install magnetic contact switch onto door using magnetic switch instructions.

For wire requirements, see Manufacturer’s Recommendation Chart.

Route wires to Exit Alarm location:
- Magnetic Contact Switch: Within 6 feet: 2 conductor cable, 22AWG minimum
- 20 feet or less: Twisted wire pair, 20AWG minimum
- 50 feet or less: Twisted wire pair, 18AWG minimum

Connect magnetic switch wires to LOGIC DISPLAY pc board located on enclosure door. See Fig 2.

Examples shown are for Detex magnetic switches. Magnetic switches are required and can be purchased separately.
STEP 3. TRANSFORMER WIRING: Fig. 3 (DO NOT PLUG IN TRANSFORMER AT THIS TIME)
Connect power wires to the two terminals on the 12V or 24V AC/DC transformer (500mA minimum). Wires are not polarity sensitive. Route wires to Exit Alarm location per applicable building code(s).

Power Leads from Transformer to Exit Alarm:
20 feet or less: 20AWG minimum
50 feet or less: 18AWG minimum

Connect power wires to the two place terminal block located on lower left corner of POWER SUPPLY pc board.
Wires are not polarity sensitive.

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STEP 4. INSTALL BATTERIES: Fig. 4
Before installing batteries, pull out the post of the tamper switch.
Once batteries are installed & connected, alarm will sound if magnetic switch is not closed & tamper switch plunger is not extended.

Install batteries (supplied with unit).
Remove plastic protectors from the polarity sensitive battery terminals.
Plug wall mounted transformer into wall outlet and secure.

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**DEVICE OPERATION:** (Reference Fig. 5 for the following)
Pull the plunger on tamper switch. Confirm that LED D7 (Yellow) is on before continuing, or alarm will sound.

(Reference Fig. 6 for the following)
Turn access control key counterclockwise (CCW) 1/4 turn and HOLD for 5 seconds. LIGHT BAR METER will turn OFF and ALARM is reset. Close hinged panel and secure cover lock. Alarm will sound. To silence alarm, rotate access control key CCW.

The single red LED located next to light meter bar will turn ON indicating device is powered and in the armed mode. Alarm will sound if magnetic contact switch on door is opened. To silence alarm close magnetic contact switch on door and turn control key CCW.

**TO ACTIVATE TimED BYPASS:**
Rotate key counterclockwise (CCW) until light bar meter flashes, release key.

To add By-Pass time press and hold 'ACTIVATE TimED BY-PASS' button. Light bar illuminates gradually as more By-Pass time is added.

Release button.
Single green LED turns ON indicating By-Pass time is set.

Remove key and prop door open.

**NOTE:** Alarm automatically arms and resets if door closes before time expires.

**ADD ADDITIONAL TimED BYPASS:**
Insert key and rotate CCW single green LED turns off. Release key.

Press and hold 'ACTIVATE TimED BY-PASS' button. Light bar illuminates gradually as more By-Pass time is added.

**Note:** If By-Pass time expires while door is open, alarm will sound.

**TO SILENCE ALARM:** Close door, insert and rotate key CCW.

To service device, pull plunger on tamper switch as shown in Fig 3. Rotate access control key CCW.
Use this relay for signaling a remote system. The alarm relay will change states once the EAX-3500 goes into alarm. This is a dry contact.

**SETTING BY-PASS TIME:**
By-Pass time is factory set for 5 minutes. See label on enclosure door for additional By-Pass time options.

**LOW BATTERY ALERT:**
Set S1 switch to 'ON' to enable low battery alert. ONLY ACTIVE when unit is operating on battery power.

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**Troubleshooting:**

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Probable cause / Fix</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key cylinder is loose or sticks out.</td>
<td>Tapered collar not installed. Hex nut is not secure. 103970 cylinder bracket not installed or installed backwards (Flange goes towards the cover).</td>
</tr>
<tr>
<td>Does not arm, key requires high effort to rotate.</td>
<td>Incorrect cam on mortise cylinder. Should be Yale type cam. Self adjusting switch cam mounting screws overly tight.</td>
</tr>
<tr>
<td>Unit in constant alarm mode. Turning key CCW does not reset alarm.</td>
<td>Magnetic switch misaligned or connected to the wrong terminals on the PWA. Wrong type of switch contact. Must be closed contact with the door closed and magnet in correct position.</td>
</tr>
<tr>
<td>Unit goes into alarm when service requires opening the front cover.</td>
<td>Pull tamper switch plunger fully out, turn key CCW. Make sure door is closed during initial opening of the cover.</td>
</tr>
<tr>
<td>Not enough bypass time when set at max.</td>
<td>Change switch positions as needed. See label on inside front cover for options.</td>
</tr>
<tr>
<td>Goes into alarm when trying to set time.</td>
<td>Turn key CCW and release. Then press the 'Activate Timed By-Pass' button.</td>
</tr>
<tr>
<td>Unit does not reset once in alarm mode.</td>
<td>Make sure door is fully closed. Make sure wiring to the magnetic switch is not damaged or cut.</td>
</tr>
<tr>
<td>Unit chirps approximately every 45 seconds.</td>
<td>Check AC power to the device, and that building power is present at the outlet. Make sure optional plug-in transformer is plugged in and the holding screw installed. Check for damaged wiring between the transformer and the EAX-3500. The battery should be replaced every three years</td>
</tr>
</tbody>
</table>