



## Electric monitor hinge installation instruction

- Electric monitor (EM) hinge has a switch that is used to monitor door position only. When through wires are added, the hinge can also pass low voltage power from the frame to other hardware devices on door such as power lock sets, exit devices and other door monitoring devices.
- EM Hinge is non-load bearing. **Hinge must be mounted in center position only.**
- Do not allow hinge to dangle from its wire during handling and installation. Damage will occur.
- Steel hinge is for interior use only. Use stainless steel or brass hinge for exterior application.
- Refer to the template of a specific hinge type and size for screw hole location and size.

### 1) Frame preparation for all EM hinges:

Mark, drill and deburr a 1" diameter hole per EM hinge template location to receive wires and switch from EM hinge.

### 2) Door preparation for EM hinges with through wires only (skip if no through wire):

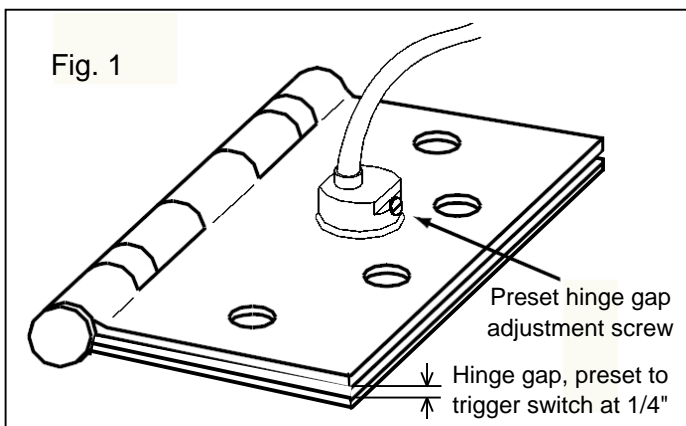
- Mark, drill and deburr a hole through the door for wire chase with a 3/8" drill bit per EM hinge template location.
- Drill and deburr a 3/4" diameter by 1-1/2" deep hole at the same spot for splicing and locking through wires.

NOTE: For fire rated condition, check with appropriate agency for the maximum starter diameter and depth allowed.

### 3) EM hinge installation:

- Do not disassemble hinge. Disassembly voids warranty. Do not dangle hinge from its wires. Damage will occur.
- Splice monitor switch wires to source wires and slide spliced wires into the frame hole.
- For EM hinges with through wires, splice through wires to door device wires and slide spliced wires into the door hole.
- Use screws provided to mount hinge. Be careful not to scrape wires across sharp edges or pinch wires against door/frame.

Note: It is not recommended to splice 26 AWG wires to any wires heavier than 18 AWG or splice 28 AWG wires to any wires heavier than 20 AWG.



### 4) Electric Monitor Switch Adjustment

- Switch will trigger when the hinge gap is more than the preset hinge gap which is factory adjusted to 1/4". The preset hinge gap can be narrowed by turning adjustment screw (shown in Fig. 1) counter-clockwise and widened by turning clockwise. Preset hinge gap range is 3/16" to 3/8".
- Hinge gap relates approximately to door gap as follows:

| Door gap for: | 3/16" hinge gap | 3/8" hinge gap |
|---------------|-----------------|----------------|
| 3' wide Door  | 1"              | 3-1/2"         |
| 4' wide door  | 1-1/2"          | 4"             |

|  | No thru wire  | 2 thru wires    | 4 thru wires   | 6 thru wires    | 8 thru wires    |
|--|---|-----------------|--|-----------------|-----------------|
| Part number suffix                     | EM  | EM2             | EM4  | EM6             | EM8             |
| Monitor switch wire                    | 3 striped 26- AWG for all models. Yellow / Black Stripe - Common.<br>Blue / White stripe - Normally closed. Red / White stripe - Normally open.                             |                 |  |                 |                 |
| Switch rating                          | Electrical: 50 - 100 mA, 30V DC. Inrush Current: NC - 0.5A max. NO - 0.5A max.<br>Operating Frequency: Mechanical - 60 operations / min. Electrical - 20 operations / min.. |                 |  |                 |                 |
| Through wire size                      | N/A   | 2 solid 18- AWG | 4 solid 26- AWG  | 6 solid 26- AWG | 8 solid 28- AWG |
| Max thru wire continuous current @ 24V | N/A   | 4.0 A           | 1.0 A each pair for wire leads < 2 ft.<br>0.4 A each pair for wire leads > 2 ft but < 10 ft. |                 |                 |