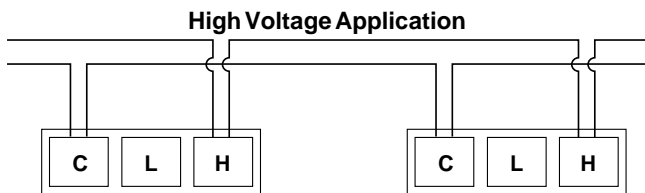
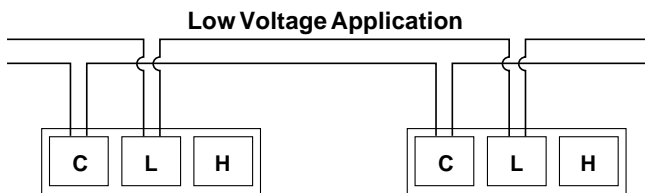
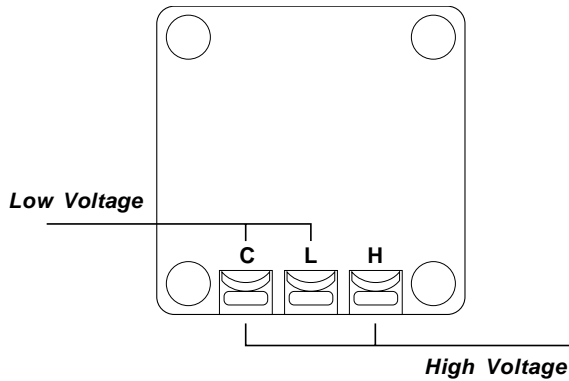


This product is a high quality electromagnetic holding device intended for use in fire door applications.

## I. Wiring Instructions

**Voltage References**  
C= common  
L= low  
H= high



### Performance Data

Model	Voltage	DC	AC	Terminals
EM X1224	12V	30mA	30mA	C and L
	24V	15mA	15mA	C and H
EM X24120	24V	15mA	15mA	C and L
	120V	—	15mA	C and H

X = F— Flush Mount  
R— Completely Flush  
S— Surface Mount

**Note:**  
When using model EM X24120 (see chart above) attach green wire to earth ground.

EM-F Total Projection = 3-9/16 "  
EM-R Total Projection = 2-1/4 "  
EM-S Total Projection = 5-1/16 "

See VI. Accessories for available extension rods.

# EM Electromagnetic Door Holder



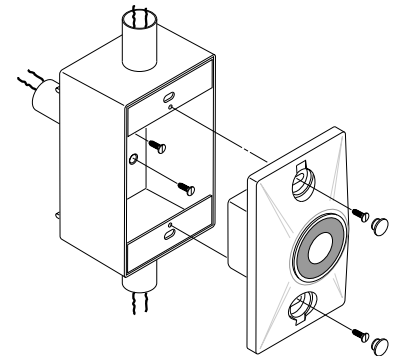
## Assembly Instructions & Electric Configurations



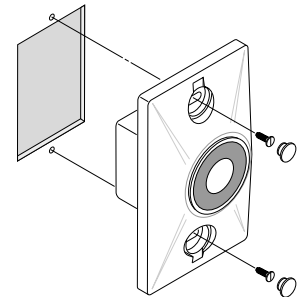
California State Fire Marshal  
Approved  
MEA (New York City)

## II. Electromagnet Mounting

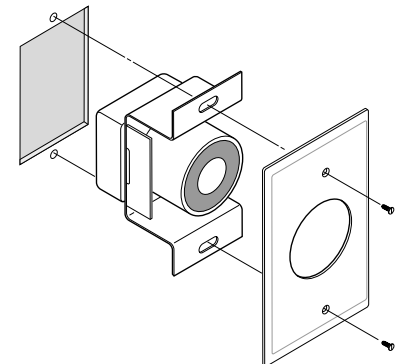
### Surface Mounting



### Flush Mounting



### Recessed Mounting

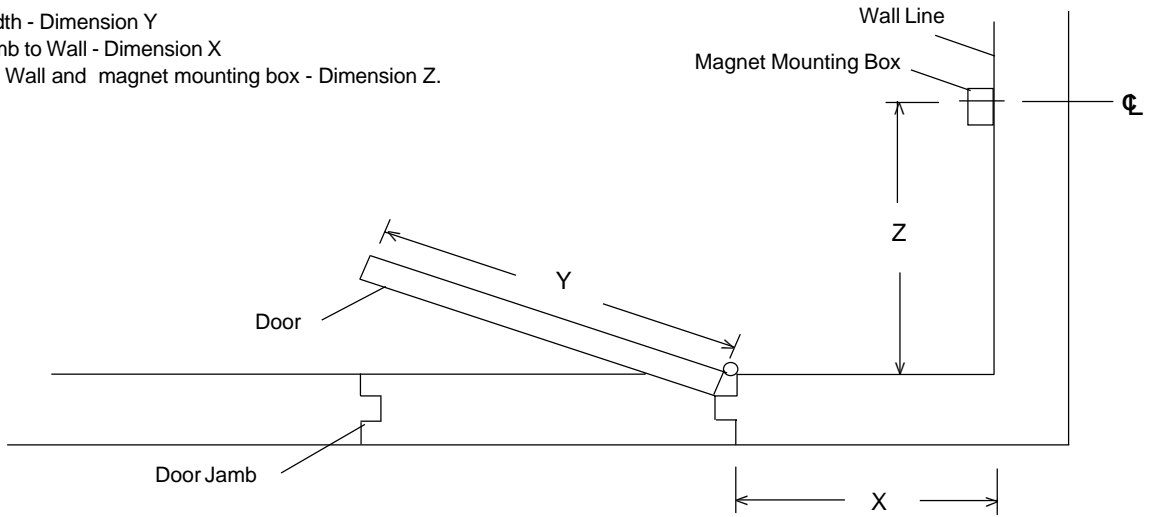


### III. To Locate Outlet Box

**Step 1:**

Dimensions:

- Door Width - Dimension Y
- Door Jamb to Wall - Dimension X
- Between Wall and magnet mounting box - Dimension Z.



**Step 2:**

Refer to Dimension Chart - Locate Dimension Z which is intersect of Dimension X and Dimension Y.

Example: If Dimension X = 12" and Dimension Y = 34", then Dimension Z = 30 1/8".

When Dimension is not shown in the Chart, find the difference between upper and lower limits and determine Dimension Z.

Example: If Dimension X = 11" and Dimension Y = 36", then Dimension Z is somewhere between 33" and 32 1/4", divided by 2 = 3/8". Subtract 3/8" from 33" = 32 5/8".

**Dimension Chart**

		Y Dim. Door Width										
X	Z	28	30	32	34	36	38	40	42	44	46	48
2	Z	26	28	29-7/8	32	34	36	38	40	42	43-7/8	45-5/8
4	Z	26	28	29-7/8	32	34	36	38	40	42	43-7/8	45-5/8
6	Z	25-5/8	27-5/8	29-5/8	31-3/4	33-3/4	35-3/4	37-3/4	39-3/4	41-3/4	43-5/8	45-3/8
8	Z	25-1/4	27-1/4	29-1/4	31-3/8	33-1/2	35-1/2	37-3/8	39-1/2	41-1/2	43-3/8	45-1/4
10	Z	24-5/8	26-3/4	28-3/4	30-7/8	33	35	37	39-1/8	41-1/8	43	44-7/8
12	Z	23-3/4	25-7/8	28	30-1/8	32-1/4	34-3/8	36-3/8	38-1/2	40-5/8	42-1/2	44-3/8
14	Z	22-3/3	25	27-1/4	29-3/8	31-1/2	33-3/4	35-7/8	38	40	42	43-7/8
16	Z	21-3/4	24	26-1/4	28-1/2	30-3/4	33	35-1/8	37-1/4	39-3/8	41-3/8	43-3/8
18	Z	20	22-1/2	25	27-3/8	29-3/4	32	34-1/4	36-1/2	38-5/8	40-5/8	42-1/2
20	Z	18-1/4	21	23-1/2	26	28-1/2	30-7/8	33-1/8	35-3/8	37-5/8	39-5/8	41-5/8
22	Z		18-3/4	21-5/8	24-3/8	27	29-3/8	31-3/4	34-1/8	36-1/2	38-5/8	40-3/4
24	Z				22-1/2	25-1/2	28-1/8	30-5/8	33-1/8	35-5/8	37-7/8	40
26	Z						26-1/4	29	31-5/8	34-1/4	36-1/2	38-5/8
28	Z								29-3/4	32-1/2	34-7/8	37-1/8
30	Z								27-3/4	30-5/8	33	35-3/8
32	Z										31-3/8	33-7/8

**Step 3:**

Do not install outlet box if Dimensions X & Y intersect at a blank square. The armature and electromagnet cannot be aligned.

**Note** Vertical location of EM magnet to be determined in the field according to job site requirements. Vertical location is not critical to function of magnet. Location must be within door height.

## IV. Catch-Plate Mounting

### Step 1:

With door magnet securely fastened, aligned and energized, proceed with swivel base assembly. NOTE: If door extensions are required, install before step 2.

### Step 2:

Attach swivel portion of magnet, being careful to center catch plate over magnet.

### Step 3:

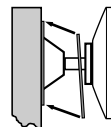
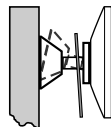
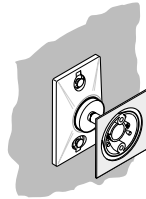
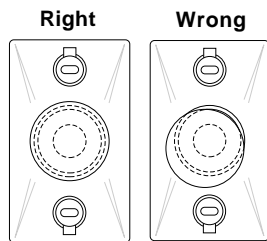
With catch plate assembly attached magnetically to door magnet, peel adhesive backing off mounting template and slide over catch plate, making sure adhesive side faces door.

### Step 4:

Gently close door and with one hand adjust base of catch plate to lie flat against door.

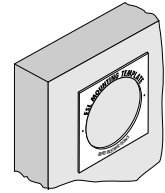
### Step 5:

While keeping slight pressure on door, slide mounting template over catch plate to door surface and apply pressure to template in a few spots.



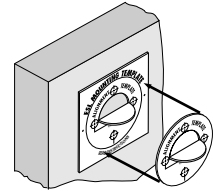
### Step 6:

Opening door will reveal mounting template. Apply final pressure to insure template does not fall off while assembly takes place.



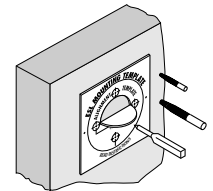
### Step 7:

Insert alignment template into center of mounting template. Use tab to rotate for fine adjustment. While holding alignment template with one hand, remove adhesive backing of tab, then push flat against door.



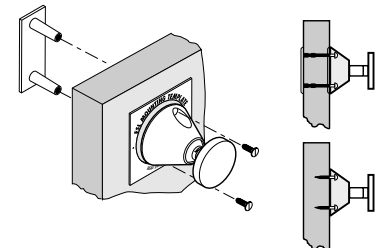
### Step 8A:

If using optional door back plate, center punch points indicated on alignment template for either horizontal or vertical mounting. For best results drill 1/8" pilot first, then follow with 5/16" dia. drill.



### Step 8B:

If mounting catch plate assembly directly to door, drill 1/8" dia. pilot hole approximately 1 to 1 1/2" deep, being careful not to go through door.

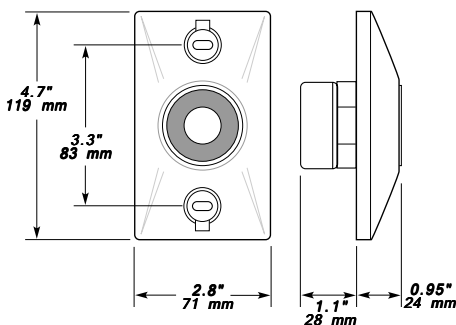


### Step 9:

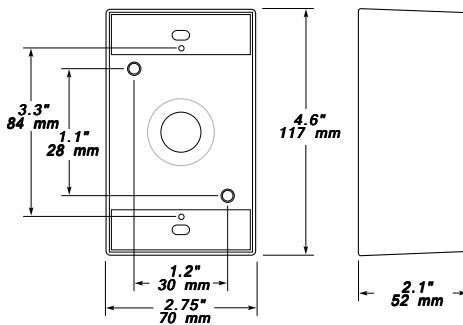
For either style of mounting (thru door/direct) remove only alignment template, then place swivel in center. Align holes, then insert screws and tighten assembly fully. Lastly, remove mounting template.

## V. General Dimensions

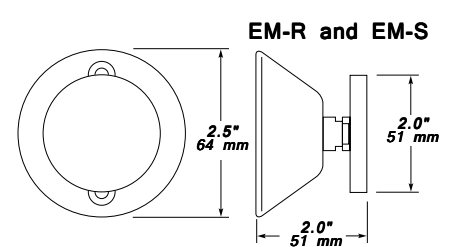
### Door Magnet Dimensions



### Surface Mount Back Box Dimensions

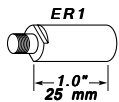


### Catch Plate Dimensions

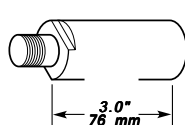


## VI. Accessories

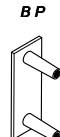
### Extension Rods



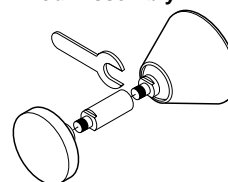
### ER3



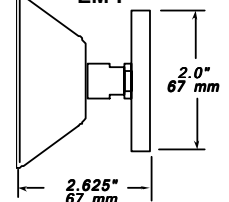
### Backplate



### Catch Plate Extension Rod Assembly



### EM-F





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