XX SERIES THREE POINT LATCH PANIC & FIRE EXIT DEVICES

INSTALLATION INSTRUCTIONS

1) MAKE SURE THE CORRECT DEVICE IS BEING USED, AND IS THE CORRECT HANDING (SEE PAGE #15 FOR REVERSING INSTRUCTIONS).
2) MAKE SURE ALL NEEDED PARTS ARE ON HAND.

NOTE: LIST DOES NOT REFLECT ALL POSSIBLE APPLICATIONS.

1) (F) XX-TPL DEVICE AND CROSSBAR

NOTE: DEVICE IS FIELD REVERSIBLE

2) STRIKE

<table>
<thead>
<tr>
<th>FIRE</th>
<th>TOP</th>
<th>3788</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPT.</td>
<td>MIDDLE</td>
<td>1279</td>
</tr>
<tr>
<td>PANIC</td>
<td>TOP</td>
<td>4163</td>
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<tr>
<td>OPT.</td>
<td>MIDDLE</td>
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<td>OPT.</td>
<td>BOTTOM</td>
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<td>OPT.</td>
<td>BOTTOM</td>
<td>2126A</td>
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1/8"x1" COTTER KEY (1 QTY)
ROD GUIDE COVER (2 QTY)
ROD GUIDE BRACKET (2 QTY)
ROD GUIDE INSERT (2 QTY)
#8-32x1/4" UFPHMS (4 FINISHED)
#10-24x3/4" FPHMS w/NYLON PATCH (1 QTY)

3) VERTICAL RODS (LENGTHS FOR 70" OPENINGS)

<table>
<thead>
<tr>
<th>TOP ROD= 35&quot;</th>
<th>BOTTOM ROD = 36-1/2&quot; (WITH DEAD BOLT)</th>
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4) LATCHES & BOTTOM BOLTS

<table>
<thead>
<tr>
<th>TOP LATCH</th>
<th>BOTTOM BOLT</th>
</tr>
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</table>

5) SCREW PACK FOR PANIC DEVICE

<table>
<thead>
<tr>
<th>DOGGING KEY (1 QTY)</th>
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</thead>
<tbody>
<tr>
<td>#10x1-1/4&quot; FPHSMS (6 QTY (2 FINISHED))</td>
</tr>
<tr>
<td>#10x1-1/4&quot; PPBHMS (6 QTY (2 FINISHED))</td>
</tr>
<tr>
<td>1/8&quot;x1&quot; COTTER KEY (1 QTY)</td>
</tr>
<tr>
<td>ROD GUIDE COVER (2 QTY)</td>
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<tr>
<td>ROD GUIDE BRACKET (2 QTY)</td>
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<tr>
<td>ROD GUIDE INSERT (2 QTY)</td>
</tr>
<tr>
<td>#8-32x1/4&quot; UFPHMS (4 FINISHED)</td>
</tr>
<tr>
<td>#12-24x1/4&quot; UFPHMS (4 FINISHED)</td>
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</tbody>
</table>

6) MORTISE LOCK

NOTE: MORTISE LOCK IS FIELD REVERSIBLE

7) SCREW PACK FOR FIRE DEVICE

<table>
<thead>
<tr>
<th>#10-24x3/4&quot; FPHMS (6 QTY)</th>
</tr>
</thead>
<tbody>
<tr>
<td>#10-24x3/4&quot; PPBHMS (6 QTY)</td>
</tr>
<tr>
<td>1/8&quot;x1&quot; COTTER KEY (1 QTY)</td>
</tr>
<tr>
<td>ROD GUIDE COVER (2 QTY)</td>
</tr>
<tr>
<td>ROD GUIDE BRACKET (2 QTY)</td>
</tr>
<tr>
<td>ROD GUIDE SUPPORT (2 QTY)</td>
</tr>
<tr>
<td>#8-32x1/4&quot; UFPHMS (4 FINISHED)</td>
</tr>
<tr>
<td>#12-24x1/4&quot; UFPHMS (4 FINISHED)</td>
</tr>
<tr>
<td>LIFT FINGER (1 QTY)</td>
</tr>
<tr>
<td>#10-24x1/2&quot; FPHMS w/NYLON PATCH (1 QTY)</td>
</tr>
</tbody>
</table>

3) EDGE OF DOOR SHOULD BE PREPARED FOR MORTISE LOCK (SEE PAGE #7).
4) FRAME SHOULD BE PREPARED TO RECEIVE MORTISE STRIKE (SEE PAGE #7).
5) MAKE SURE OUTSIDE TRIM (IF BEING USED) HAS BEEN PROVIDED AND IS THE CORRECT HANDING.

PAGE 1
DOOR LAYOUT

(NOTE: FOR FACTORY PREPARED DOORS, VERIFY LAYOUT.)

1) DOOR MUST BE FITTED AND HUNG PROPERLY BEFORE PROCEEDING.
2) MARK VERTICAL \( \ell \) AND DEVICE REF. \( \ell \) ON DOOR AND FRAME (SEE FIGURES & CHART BELOW).

NOTE: FOR FACTORY PREPARED DOORS, USE MORTISE LOCK FRONT \( \ell \) TO FIND DEVICE REF. \( \ell \).
1) CHOOSE CORRECT DRILLING TEMPLATES FROM DRILLING TEMPLATE (DT-1060).
2) TAPE DRILLING TEMPLATE ON DOOR USING VERTICAL \( \alpha \) AND DEVICE REF. \( \alpha \) (REFER TO 2).

3) PREPARE HOLES FOR DEVICE, STRIKE AND LATCHES. FOR DEVICES WITH TRIM FUNCTIONS, PREPARE THE HOLE(S) ON THE DEVICE TEMPLATE DESCRIBED IN THE CHART BELOW. AFTER DRILLING HOLES, REMOVE THE DRILLING TEMPLATE.

<table>
<thead>
<tr>
<th>DEVICE FUNCTION</th>
<th>DRILLING TEMPLATE HOLES</th>
</tr>
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<tbody>
<tr>
<td>(F)XX-TPL-N</td>
<td>B</td>
</tr>
<tr>
<td>(F)XX-TPL-KE</td>
<td>A,B</td>
</tr>
<tr>
<td>(F)XX-TPL-LE</td>
<td>A,B</td>
</tr>
</tbody>
</table>
4) IF USING OUTSIDE TRIM, PREPARE DOOR USING SEPARATE TRIM DIRECTION SHEET. FOR SEXBOLT INSTALLATIONS, DRILL 3/8" DIAMETER HOLES ON TRIM SIDE OF DOOR ONLY (SEE DIAGRAM BELOW).

5) DETERMINE CROSSBAR LENGTH.
   A) MEASURE DISTANCE BETWEEN VERTICAL CL AND EDGE OF DOOR.
   B) CALCULATE CROSSBAR LENGTH "X" USING FORMULA BELOW.

   "X" = "Y" - 3-3/4"

6) IF CROSSBAR IS LONGER THAN "X", CUT THE CROSSBAR TO THE CORRECT LENGTH.
   A) MARK CROSSBAR TO LENGTH "X".
B) Cut crossbar to marked dimension and remove burrs.

NOTE: Factory recommends sawing rather than grind cut to size. Grind can damage the finish of the device and sawing results in less damage to the device’s finish.

C) Drill a 5/16" dia. Hole 5/8" from the just cut end of the crossbar.

NOTE: HOLE SHOULD BE IN-LINE WITH HOLE AT OPPOSITE END OF THE CROSSBAR.

7) If door opening is not 7'0", determine top rod length based on a 40-1/4" device ref. 7'-0" from finished floor.
   A) For door openings under 7'0":
      1) Subtract door opening from 7'0" opening.
      2) Subtract answer from part 1 from 35" to determine top rod length.
         (Example: 6'8" opening - 7'-0"-6'-8" = 4", 35"-4" = 31" top rod).
   B) For door openings above 7'0":
      1) Subtract 7'-0" from door opening.
      2) Add answer from part 1 to 35" to determine top rod length.
         (Example: 8'-10" opening - 8'-10"-7'-0" = 22", 35"+22" = 57" top rod).
8) MODIFY TOP ROD TO REQUIRED LENGTH.
   A) FOR TOP RODS THAT ARE TOO LONG, FOLLOW PROCEDURE BELOW TO CUT ROD TO SIZE.
      1) MARK RODS TO REQUIRE LENGTH.
         NOTE: ROD MUST BE MEASURED FROM THREADED PORTION OF ROD.
         **DO NOT CUT ROD AT END WITH INTERNAL THREADS.**

![Diagram of calculated rod length measured from threaded end of rod]

2) CUT ROD AT MARKED LOCATION.

![Diagram of cut rod at marked location]

3) DRILL COTTER KEY CONNECTION HOLE.
   DRILL 1/8" DIA. HOLE THRU ON VERTICAL ROD 7/16" FROM END OF ROD JUST CUT.

![Diagram of 1/8" dia. hole thru 7/16"]

B) FOR RODS THAT ARE TOO SHORT, FOLLOW PROCEDURE BELOW.
   1) ATTACH EXTENSION RODS TO THREADED SECTION OF TOP ROD.

![Diagram of top rod and extension rod]

2) FOLLOW INSTRUCTIONS TO MARK, CUT & DRILL TOP ROD (SEE ABOVE).
11) INSTALL LIFT FINGER ONTO SLIDEBAR
A) PLACE LIFT FINGER INTO RECESS IN SLIDEBAR (ACCESSIBLE THROUGH CUTOUT IN BACK OF CHASSIS).
B) POSITION LIFT FINGER AS SHOWN FOR HANDING REQUIRED.
C) ASSEMBLE LIFT FINGER WITH #10-24x1/2" FPHMS WITH NYLON PATCH AND TIGHTEN SECURELY.

12) VERIFY MORTISING FOR MORTISE LOCK AND STRIKE.

1279 STRIKE SHOWN

NOTE: FOR OTHER STRIKES SEE SEPARATE TEMPLATES

MORTISE LOCK CAVITY PREP
1) INSTALL MORTISE LOCK WITH 2 #12-24x1/2" UFPHMS SCREWS.
   NOTE: LEAVE SCREWS LOOSE FOR EASIER DEVICE AND TRIM INSTALLATION.

2) IF USING OUTSIDE TRIM OR SEXBOLTS, MOUNT TRIM PER DIRECTIONS IN TRIM BOX, OR INSTALL OUTSIDE SEX BOLTS.

3) EITHER SURFACE MOUNT DEVICE, OR THROUGHBOLT DEVICE TO TRIM OR SEXBOLTS (NOTE: FOR LOCKING TRIM, SEE PAGE #15 FOR LOCKING CAM AND LOCKING CAM OPERATOR POSITION).

4) REMOVE CROSSBAR RETAINER SCREW AND ROUNDED WASHER FROM XX CROSSBAR ARMS. SLIDE THE CROSSBAR OVER BOTH THE ACTIVE AND INACTIVE ARMS AND ATTACH WITH CROSSBAR RETAINER SCREW AND ROUNDED WASHER.

5) LOCATE, MARK, AND DRILL INACTIVE HEAD MOUNTING HOLES.
   A) LEVEL CROSSBAR ON DOOR AND MARK CENTER OF FOUR MOUNTING HOLES.
   B) DRILL 9/64" DIA. HOLES IF USING SHEET METAL SCREWS OR DRILL & TAP #10-24 IF USING MACHINE SCREWS OR DRILL 1/4" DIA. HOLE INSIDE AND 3/8" DIA. HOLE OUTSIDE FOR SEXBOLTS.

LHR SHOWN

#10x1-1/4" PPHSMS OR
#10-24x3/4" PPHMS (SURFACE MOUNTED OR SEXBOLTS)
(4 QTY)
6) ATTACH ROD GUIDE BRACKETS TO DOOR ON VERTICAL Q EQUIDISTANT BETWEEN THE LATCHES AND DEVICE HEAD.

7) TIGHTEN ALL DEVICE MOUNTING SCREWS.
8) INSTALL TOP AND BOTTOM LATCHES.

FOR DEVICES ON DOORS OVER 8'0" TALL, TWO ROD GUIDE BRACKETS SHOULD BE PLACED EQUALLY BETWEEN THE TOP LATCH AND DEVICE HEAD.
8) SLIDE TOP ROD THROUGH ROD GUIDE INSERT AND THEN ATTACH TO TOP LATCH USING 1/8"x1" COTTER KEY. BEND COTTER KEY. UNSCREW ADJUSTMENT SCREW FROM BOTTOM ROD WITH BOLT AND SLIDE ON ROD GUIDE INSERT, RE-SCREW THE ADJUSTMENT SCREW TO THE BOTTOM ROD, THEN INSERT BOTTOM BOLT THROUGH BOTTOM BOLT GUIDE AND PLACE ADJUSTMENT SCREW INTO BRASS SLIDEBAR.

9) TURN ADJUSTMENT SCREW UNTIL IT IS APPROXIMATELY 1/2" INTO THE VERTICAL ROD. SWING RODS SO THAT THE ADJUSTMENT SCREW IS IN THE BRASS SLIDEBAR IN THE ACTIVE HEAD AS SHOWN BELOW.

(F)XX-TPL DEVICE ACTIVE HEAD SHOWN WITHOUT CROSSBAR ARM FOR CLARITY.
10) VERTICAL ROD ADJUSTMENT

A) TOP ROD ADJUSTMENT WITH DOOR OPEN.
   1) RELEASE TOP LATCH BOLT USING RELEASE TRIGGER.
   2) CHECK TOP LATCHBOLT PROJECTION, LATCHBOLT PROJECTION SHOULD BE 5/8" TO 3/4".
   3) IF THE TOP LATCH BOLT DOES NOT PROJECT THIS MUCH, SWING OUT THE TOP ROD FROM THE
      BRASS SLIDEBAR AND TURN THE ADJUSTMENT SCREW ONE FULL TURN (SEE BELOW).
      RETURN THE ROD TO THE SLIDEBAR AND RECHECK THE LATCH BOLT PROJECTION. REPEAT UNTIL
      TOP LATCH BOLT PROJECTION IS 5/8" TO 3/4".
   4) SLOWLY DEPRESS THE TOUCHBAR AND RELEASE, THE LATCH BOLT SHOULD REMAIN IN THE
      RETRACTED POSITION.
   5) IF THE LATCH BOLT DOES NOT REMAIN RETRACTED, DECREASE TOP LATCH BOLT PROJECTION BY
      ROTATING THE ADJUSTMENT SCREW ONE-HALF TURN (SEE BELOW).
   6) REPEAT PROCESS UNTIL LATCHBOLT REMAINS IN RETRACTED POSITION.

B) BOTTOM BOLT ADJUSTMENT WITH DOOR OPEN AND TOP LATCH BOLT SHOULD REMAIN IN THE RETRACTED
POSITION.
   1) ROTATE ROD TO ALLOW BOTTOM BOLT TO CLEAR FINISHED FLOOR. (SEE BELOW).

C) IF TRIM IS BEING USED, RELEASE TOP LATCH BOLT USING RELEASE TRIGGER, OPERATE TRIM AND CHECK
FOR FULL LATCH BOLT RETRACTION. IF TOP LATCH BOLT DOES NOT REMAIN IN RETRACTED POSITION,
DECREASE TOP LATCH BOLT PROJECTION (SEE BELOW).

DEVICES SHOWN WITHOUT CROSSBAR ARM FOR CLARITY

TURN ADJUSTMENT SCREW TO DECREASE TOP LATCH PROJECTION
TURN ADJUSTMENT SCREW TO INCREASE TOP LATCH PROJECTION
TURN ADJUSTMENT SCREW TO DECREASE BOTTOM LATCH PROJECTION
TURN ADJUSTMENT SCREW TO INCREASE BOTTOM LATCH PROJECTION
11) INSTALL ROD GUIDE COVER.
   A) SLIDE ROD GUIDE INSERT INTO ROD GUIDE BRACKET.
   B) PLACE ROD GUIDE COVER OVER ROD GUIDE INSERT.
   C) INSTALL ROD GUIDE COVER TO ROD GUIDE BRACKET USING #8-32x1/4" UFPHMS (2 QTY, PER ROD GUIDE).
11) APPLY STRIKES AND COVERS.
   A) ATTACH TOP AND BOTTOM LATCH COVERS USING (2) #8-32x1/4" UFPHMS SCREWS.
   B) INSTALL STRIKES TO TOP OF DOOR FRAME AND TO FLOOR OR THRESHOLD.

DEVICES SHOWN WITHOUT CROSSBAR ARMS AND COVER FOR CLARITY.

LHR SHOWN
12) ATTACH CHASSIS COVER.
   A) REMOVE AXLES FROM BOTH ACTIVE AND INACTIVE CHASSIS.
   B) REMOVE CROSSBAR AND CROSSBAR ARMS FROM BOTH CHASSIS.
   C) SLIDE CROSSBAR ARMS INTO RECTANGULAR CUT-OUT IN TOP OF CHASSIS COVER.
   **NOTE:** THE 1/2” DIA. HOLE IN THE CHASSIS COVER ON BOTH COVERS SHOULD FACE EACH OTHER.
   D) INSERT CROSSBAR ARMS INTO CHASSIS AND INSERT AXLES.
   E) SLIDE CHASSIS COVER OVER CHASSIS AND ATTACH WITH 4 (PER HEAD) #8-32x1/4” UFPHMS.

LHR ACTIVE HEAD SHOWN WITHOUT VERTICAL RODS FOR CLARITY.

**NOTE:** 1/2” DIA. HOLE IN EACH CHASSIS COVER SHOULD FACE AWAY FROM DOOR STOPS WHEN ASSEMBLED TO CHASSIS (HOLES WILL FACE TOWARDS EACH OTHER).

13) CHECK DOGGING OPERATION (PANIC OPERATION ONLY).
   A) DEPRESS CROSSBAR, INSERT AND TURN DOGGING KEY IN BOTH ACTIVE AND INACTIVE HEADS.
   B) REMOVE DOGGING KEY, CROSSBAR SHOULD REMAIN DEPRESSED.
   C) REINSERT DOGGING KEY AND TURN IN OPPOSITE DIRECTION (BOTH HEADS). CROSSBAR WILL SWING OUT.
   D) FOR CYLINDER DOGGING, REFER TO INSTALLATION D-4085.

14) CHECK FOR SMOOTH OPERATION AND SECURE LATCHBOLT ENGAGEMENT. ADJUST STRIKE IF REQUIRED.
TO REVERSE THE HANDING OF A MONARCH (F)XX-TPL DEVICE

NOTE: TO REVERSE THE HANDING OF THE MORTISE LOCK, REFER TO INSTALLATION D-4010.

NOTE: DEVICES WITH CYLINDER DOGGING CANNOT BE REVERSED.

1) REMOVE CHASSIS COVER FROM BOTH HEADS (4 SCREWS EACH).
2) REMOVE AXLES FROM BOTH ACTIVE AND INACTIVE HEADS.
3) SWAP CROSSBAR ARMS FROM ACTIVE HEAD TO INACTIVE HEAD.
4) REINSERT AXLES INTO BOTH ACTIVE AND INACTIVE HEADS.
5) PROCEED WITH INSTALLATION.
DRILL AND TAP FOR #10-24 MACHINE SCREW
OR DRILL 9/64" DIA. HOLE FOR #10 SHEET METAL
SCREW OR DRILL 1/4" DIA. HOLE INSIDE AND
1/2" DIA. HOLE OUTSIDE FOR THRUBOLTED TRIM
OR DRILL 1/4" DIA. HOLE INSIDE AND 3/8" DIA. HOLE
OUTSIDE FOR SEXBOLT (4 HOLES)
DRILL AND TAP FOR #10-24 MACHINE SCREW
OR DRILL 9/64" DIA. HOLE FOR #10 SHEET METAL
SCREW OR DRILL 1/4" DIA. HOLE INSIDE AND
1/2" DIA. HOLE OUTSIDE FOR THRBOLTED TRIM
OR DRILL 1/4" DIA. HOLE INSIDE AND 3/8" DIA. HOLE
OUTSIDE FOR SEXBOLT (4 HOLES)
CAVITY PREPARATION FOR 2130 STRIKE

1-1/2" VERT CL

FINISHED FLOOR BOTTOM LATCH

DRILL 9/64" DIA. FOR SHEET METAL SCREWS OR DRILL AND TAP #10-24 FOR MACHINE SCREWS (2 HOLES)

1-1/4" VERT CL

FINISHED FLOOR TOP LATCH

DRILL 9/64" DIA. FOR SHEET METAL SCREWS OR DRILL AND TAP #10-24 FOR MACHINE SCREWS OR DRILL 1/4" DIA. HOLE INSIDE AND 3/8" DIA. HOLE OUTSIDE FOR SEXBOLTS (3 HOLES)

1/2" VERT CL

FINISHED FLOOR BOTTOM LATCH

DRILL 9/64" DIA. HOLE FOR SHEET METAL SCREWS OR DRILL & TAP #10-24 FOR MACHINE SCREWS (3 HOLES)