



TRADEMARK HARDWARE

WORLD OF QUALITY HARDWARE

INSTALLATION

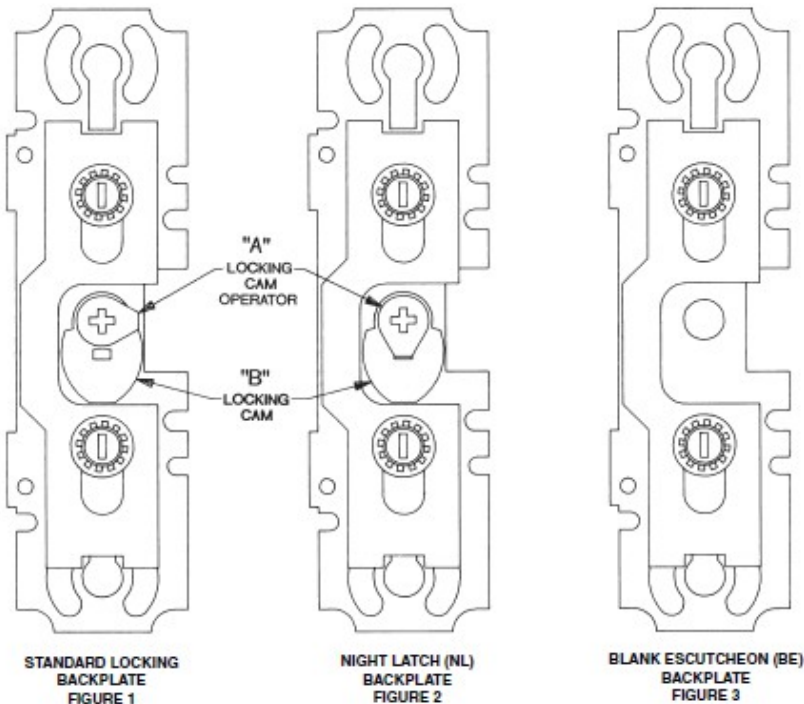
2) TO CHANGE FROM STANDARD LOCKING TRIM TO EITHER NIGHTLATCH FUNCTION OR BLANK ESCUTCHEON (BE) FOLLOW THE PROCEDURES BELOW.

A) FOR NIGHTLATCH FUNCTION:

- 1) REMOVE BACKPLATE ASSEMBLY (4 SCREWS) FROM ACTIVE CHASSIS.
- 2) REMOVE RETAINING RING (ON BACK OF 'BA' BACKPLATE - FIGURE 1).
- 3) REMOVE LOCKING CAM OPERATOR (PART 'A') AND TURN UNTIL POST ON LOCKING CAM OPERATOR FITS INTO SQUARE SLOT ON LOCKING CAM (PART 'B') AND RE-ATTACH RETAINING RING (SEE FIGURE 2).
- 4) THEN TURN LOCKING CAM OPERATOR FULLY ONE DIRECTION OR THE OTHER (SEE PAGE 8) FOR PROPER CYLINDER TIMING.
- 5) REINSTALL BACKPLATE ASSEMBLY ONTO THE ACTIVE CHASSIS (4 SCREWS).
- 6) CONTINUE WITH DEVICE INSTALLATION.

B) FOR BLANK ESCUTCHEON (BE) TRIMS:

- 1) REMOVE BACKPLATE ASSEMBLY (4 SCREWS) FROM DEVICE CHASSIS.
- 2) REMOVE RETAINING RING (ON BACK OF 'BA' BACKPLATE - FIGURE 1).
- 3) REMOVE LOCKING CAM (PART 'B') AND LOCKING CAM OPERATOR (PART 'A') (SEE FIGURE 3).
- 4) REINSTALL BACKPLATE ASSEMBLY ONTO THE DEVICE CHASSIS (4 SCREWS).
- 5) CONTINUE WITH DEVICE INSTALLATION.



D-1001

F-XX-R & XX-R

Exit Devices

Installation Instructions

1 PARTS CHECK

- 1) MAKE SURE THE CORRECT DEVICE AND TRIM (IF APPLICABLE) ARE BEING USED AND ARE THE CORRECT HAND. SEE PAGE 8 FOR REVERSING INSTRUCTIONS; SEE PAGE 9 FOR LOCKING FUNCTIONS.
- 2) MAKE SURE ALL NEEDED PARTS ARE ON HAND.

NOTE: LIST DOES NOT REFLECT ALL POSSIBLE APPLICATIONS.

1) (F)XX-R DEVICE NOTE: DEVICES ARE FIELD REVERSIBLE	3) SCREW PACK FOR PANIC DEVICE DOGGING KEY (1 QTY) #10x1-1/4" PPHSMS (8 QTY) #10x1-1/4" FPHSMS (2 QTY) 	5) STRIKES 570 PANIC STD. F-570 FIRE STD. 490 PANIC OPT. F-490 FIRE OPT. 565 PANIC OPT. 579 PANIC OPT. 571 PANIC OPT. 571-A PANIC OPT.
2) CROSSBAR 	4) SCREW PACK FOR FIRE DEVICE #10-24x1" PPHMS (8 QTY) #10-24x1-1/2" PPHMS (2 QTY) #10-24x3/4" FPHMS (3 QTY) 	



www.tmhardware.com



845-388-1300



845-388-1388



sales@tmhardware.com



TRADEMARK HARDWARE

WORLD OF QUALITY HARDWARE

FALCON XX-R; F-XX-R EXIT DEVICE INSTALLATION

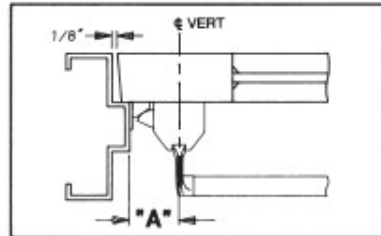
2 DOOR LAYOUT

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

- 1) DOOR MUST BE FITTED AND HUNG PROPERLY BEFORE PROCEEDING.
- 2) MULLION, IF BEING USED, SHOULD BE INSTALLED.
- 3) MARK VERTICAL ϕ AND DEVICE REF. ϕ ON DOOR AND FRAME. (SEE FIGURES & CHARTS BELOW)

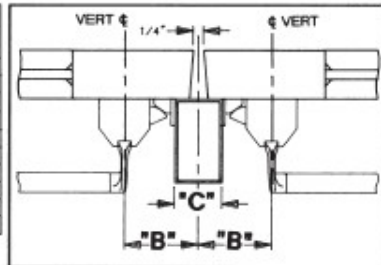
A) VERTICAL ϕ : SINGLE DOOR APPLICATION

STRIKE	INSTALLED	MINIMUM STILE	"A" BACKSET
570	SURFACE	4"	2-1/4"
565	SURFACE	3-3/4"	2"
565	RECESSED	3-1/4"	1-1/2"
579	SURFACE	3-1/2"	1-5/8"
490	SURFACE	4"	2-1/4"
F-570	SURFACE	4"	2-1/4"
F-490	SURFACE	4"	2-1/4"



B) VERTICAL ϕ : DOUBLE DOOR APPLICATION WITH MULLION

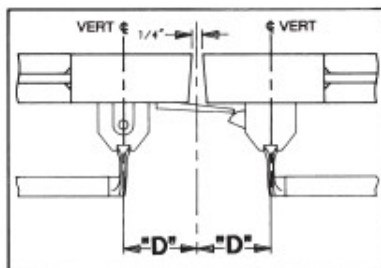
STRIKE	INSTALLED WITH	MINIMUM STILE	"B" BACKSET	"C" WIDTH
570	2923 MULLION	4"	3"	1-1/2"
570	4023 MULLION	4-1/4"	3-1/4"	2"
565	2923 MULLION	3-3/4"	2-3/4"	1-1/2"
565	4023 MULLION	4"	3"	2"
579	2923 MULLION	3-3/8"	2-3/8"	1-1/2"
579	4023 MULLION	3-5/8"	2-5/8"	2"
490	2923 MULLION	4"	3"	1-1/2"
490	4023 MULLION	4-1/4"	3-1/4"	2"
F-570	F-4023 MULLION	4-1/4"	3-1/4"	2"
F-490	F-4023 MULLION	4-1/4"	3-1/4"	2"



C) VERTICAL ϕ : DOUBLE DOOR APPLICATION WITH XX-R x XX-V

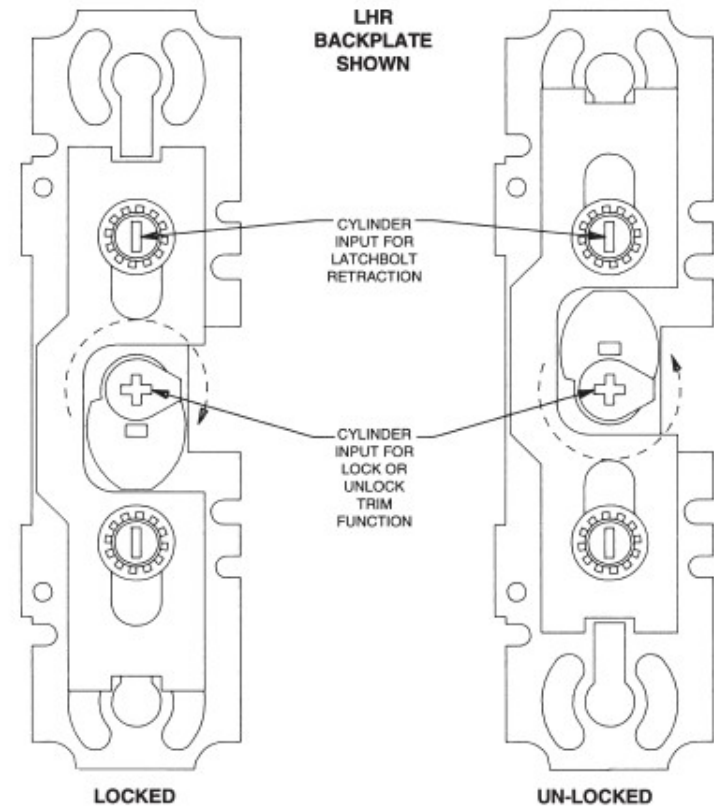
STRIKE	INSTALLED WITH	MINIMUM STILE	"D" BACKSET
571	XX VERTICAL	4"	2-7/8"
571-A	XX VERTICAL	3-1/2"	2-3/8"

NOTE: 571 AND 571-A STRIKES ARE NOT APPROVED FOR FIRE RATED APPLICATIONS



6 LOCKING FUNCTIONS

- 1) IF USING STANDARD LOCKING TRIM, ROTATE LOCKING CAM OPERATOR COMPLETELY TO EITHER FULLY-LOCKED (CLOCKWISE) OR FULLY-UNLOCKED (COUNTER-CLOCKWISE) POSITION AS SHOWN IN THE FIGURES BELOW. THIS WILL ENSURE PROPER TIMING BETWEEN THE LOCKING FEATURE AND THE CYLINDER.



www.tmhardware.com



845-388-1300



845-388-1388



sales@tmhardware.com



TRADEMARK HARDWARE

WORLD OF QUALITY HARDWARE

FALCON XX-R; F-XX-R EXIT DEVICE INSTALLATION

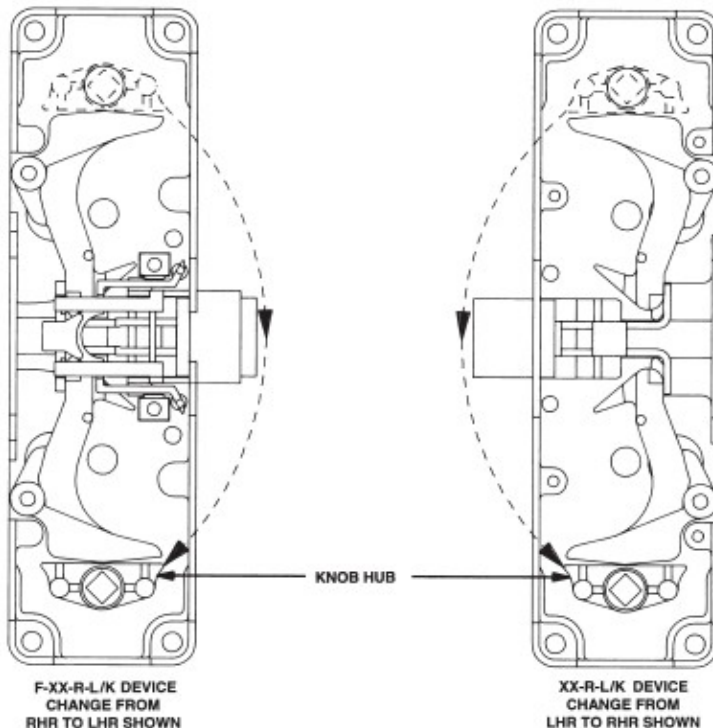
5 REVERSING INSTRUCTIONS

TO REVERSE THE HANDING OF A FALCON (F)XX-R DEVICE

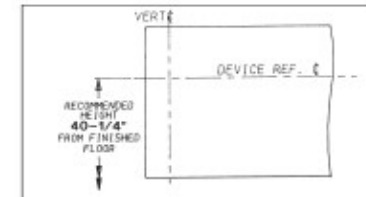
NOTE: DOUBLE CYLINDER DEVICES ((F)XX-R-L2, (F)XX-R-K2, OR (F)XX-R-TP2) CANNOT BE REVERSED

- 1) REMOVE CHASSIS COVER FROM BOTH ACTIVE AND INACTIVE HEADS.
- 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) IF DEVICE IS (F)XX-R-L OR (F)XX-R-K, PERFORM THE FOLLOWING STEPS:
OTHERWISE, PROCEED WITH DEVICE INSTALLATION

- A) TURN ACTIVE HEAD OVER AND REMOVE BACKPLATE SUB-ASSEMBLY AND 4 SCREWS (NOT SHOWN).
- B) REMOVE KNOB HUB FROM ACTIVE HEAD.
- C) PLACE KNOB HUB IN OPPOSITE HOLE AS SHOWN BELOW.
- D) REPLACE BACKPLATE SUB-ASSEMBLY WITH 4 SCREWS (NOT SHOWN).
- E) PROCEED WITH DEVICE INSTALLATION.



D) DEVICE REF. $\bar{C}$ (HORIZONTAL)

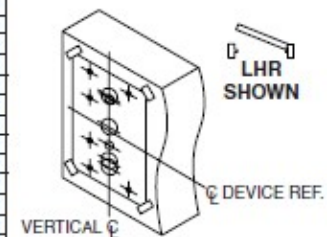


3 DOOR & HARDWARE PREPARATION

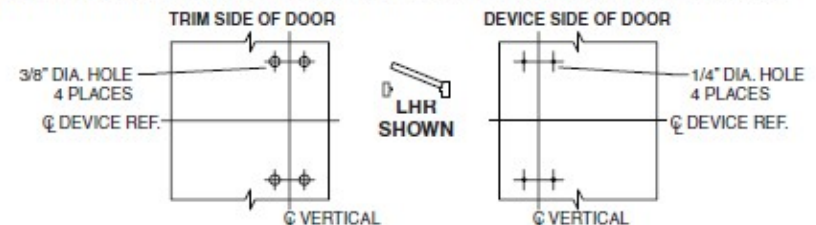
1) TAPE DRILLING TEMPLATE (FROM CENTER OF THIS BOOK) ON DOOR USING MOUNTING $\bar{C}$ AND DEVICE REF. $\bar{C}$ FROM "2 DOOR LAYOUT" (PAGES 2 AND 3).

- 2) PREPARE HOLES: A) PREPARE HOLES PER TABLE BELOW.
B) TAP HOLES AS REQUIRED.
C) REMOVE TEMPLATE.

DEVICE FUNCTION	PREPARE HOLES ON TEMPLATE
(F)-XX-R-N	NONE
(F)-XX-R-C (CYLINDER ONLY)	A
(F)-XX-R-NL	A
(F)-XX-R-TP	B, C (ALL DOORS) + E (WOOD DOORS)
(F)-XX-R-TP2	A, C (ALL DOORS) + E (WOOD DOORS)
(F)-XX-R-TP(20.C.)	A, B, C (ALL DOORS) + E (WOOD DOORS)
(F)-XX-R-K	B, D (ALL DOORS) + E (WOOD DOORS)
(F)-XX-R-K2	A, D (ALL DOORS) + E (WOOD DOORS)
(F)-XX-R-K(20.C.)	A, B, D (ALL DOORS) + E (WOOD DOORS)
(F)-XX-R-K-BE	D (ALL DOORS) + E (WOOD DOORS)
(F)-XX-R-K (NL)	B, D (ALL DOORS) + E (WOOD DOORS)
(F)-XX-R-K DT	D (ALL DOORS) + E (WOOD DOORS)
(F)-XX-R-NL x K DT	A, D (ALL DOORS) + E (WOOD DOORS)
(F)-XX-R-L	B, D (ALL DOORS) + E (WOOD DOORS)
(F)-XX-R-L2	A, D (ALL DOORS) + E (WOOD DOORS)
(F)-XX-R-L(20.C.)	A, B, D (ALL DOORS) + E (WOOD DOORS)
(F)-XX-R-L-BE	D (ALL DOORS) + E (WOOD DOORS)
(F)-XX-R-L (NL)	B, D (ALL DOORS) + E (WOOD DOORS)
(F)-XX-R-L DT	D (ALL DOORS) + E (WOOD DOORS)
(F)-XX-R-NL x L DT	A, D (ALL DOORS) + E (WOOD DOORS)



3) IF USING OUTSIDE TRIM, PREPARE DOOR USING SEPARATE TRIM DIRECTION SHEET. FOR SEX BOLT INSTALLATIONS, DRILL 3/8" DIAMETER HOLES ON TRIM SIDE OF DOOR ONLY (SEE FIGURE BELOW).





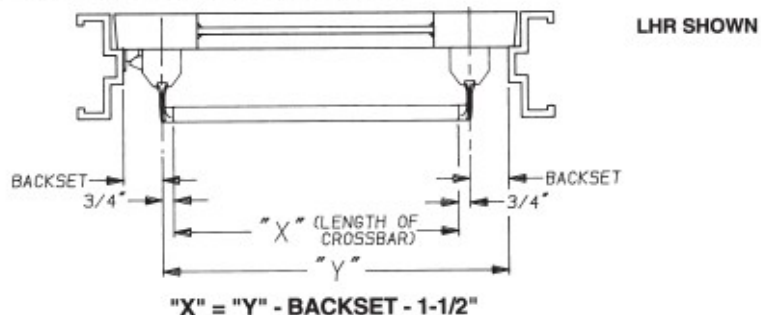
TRADEMARK HARDWARE

WORLD OF QUALITY HARDWARE

FALCON XX-R; F-XX-R EXIT DEVICE INSTALLATION

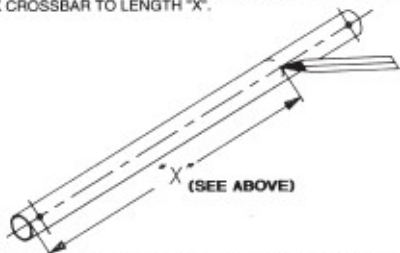
4) DETERMINE CROSSBAR LENGTH.

- MEASURE DISTANCE BETWEEN VERTICAL $\bar{C}$ AND HINGE SIDE STOP (DIMENSION "Y" BELOW)
- CALCULATE CROSSBAR LENGTH "X" USING FORMULA BELOW.

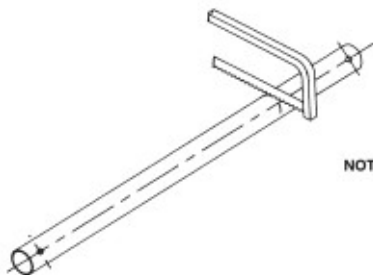


- IF CROSSBAR LENGTH IS LONGER THAN "X", CUT THE CROSSBAR TO THE CORRECT LENGTH

A) MARK CROSSBAR TO LENGTH "X".



B) CUT CROSSBAR TO MARKED DIMENSION AND REMOVE BURRS.



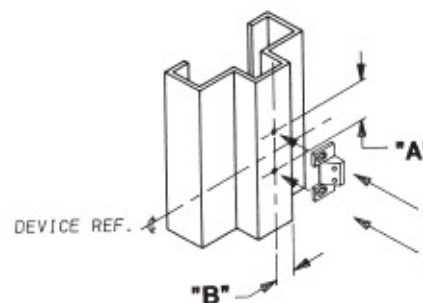
NOTE: FACTORY RECOMMENDS SAWING RATHER THAN GRIND CUT TO SIZE. GRINDING CAN DAMAGE THE FINISH OF THE DEVICE AND SAWING RESULTS IN LESS DAMAGE TO THE DEVICES'S FINISH.

9) STRIKE PREPARATION:

- TRANSFER DEVICE REF. $\bar{C}$ TO DOOR STOP.
- CENTER STRIKE ON DOOR STOP ACROSS DEVICE REF. $\bar{C}$ AND FLUSH TO DOOR SURFACE.
- MARK SCREW LOCATIONS, THEN CENTERPUNCH AND DRILL (AND TAP IF REQUIRED) FOR MOUNTING SCREWS.
- APPLY STRIKE TO DOOR STOP.

570 STRIKE SHOWN

LHR SHOWN



STRIKE	"A"	"B"
570	2"	3/4"
565	1"	1-11/32"
490	2"	3/4"
579	2-3/8"	15/16"
F-570*	2"	3/4"
F-490*	2"	3/4"

* - FOR THIRD SCREW ON F-570 AND F-490 DRILL AND TAP FRAME OR MULLION AFTER ADJUSTING STRIKE.

PANIC: #10x1-1/4" FPHSMS (2 QTY)
FIRE: #10-24x3/4" FPHMS (3 QTY)

10) CHECK FOR SMOOTH OPERATION AND SECURE LATCH BOLT ENGAGEMENT. ADJUST STRIKE IF REQUIRED



www.tmhardware.com



845-388-1300



845-388-1388



sales@tmhardware.com



TRADEMARK HARDWARE

WORLD OF QUALITY HARDWARE

FALCON XX-R; F-XX-R EXIT DEVICE INSTALLATION

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



- 4) LOCATE, MARK, AND DRILL INACTIVE HEAD MOUNTING HOLES:

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

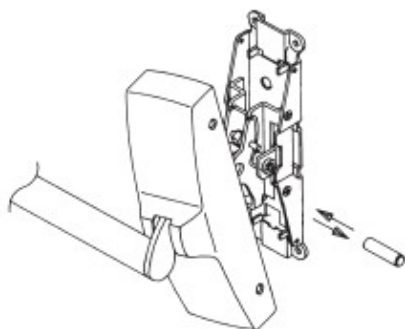


LHR SHOWN

#10x1-1/4" PPHSMS OR
#10-24x3/4" PPHMS (SURFACE MOUNTED) OR
#10-24x3/4" PPHMS WITH SEXBOLTS (4 QTY)

- 5) ATTACH CHASSIS COVERS.

- A) REMOVE AXLES FROM BOTH ACTIVE AND INACTIVE CHASSIS
- B) REMOVE CROSSBAR AND CROSSBAR ARMS FROM CHASSIS
- C) SLIDE CROSSBAR ARMS INTO RECTANGULAR CUTOUT 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 EACH CHASSIS AND ATTACH WITH 4 (PER CHASSIS) #8-23x1/4" UPPHMS



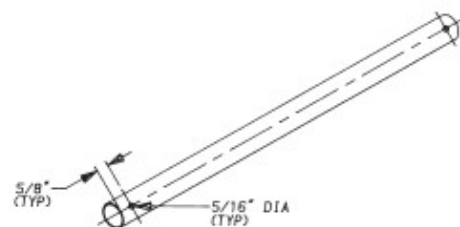
LHR INACTIVE SHOWN

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)

- 6) CHECK DOGGING OPERATION (PANIC APPLICATION ONLY)

- A) DEPRESS CROSSBAR, INSERT AND TURN DOGGING KEY IN BOTH OF THE HEADS.
- B) REMOVE DOGGING KEY. CROSSBAR SHOULD REMAIN DEPRESSED.
- C) REINSERT DOGGING KEY AND TURN IN OPPOSITE DIRECTION (IN BOTH HEADS). CROSSBAR WILL "POP UP".
- D) FOR CYLINDER DOGGING, REFER TO INSTALLATION D-4085.

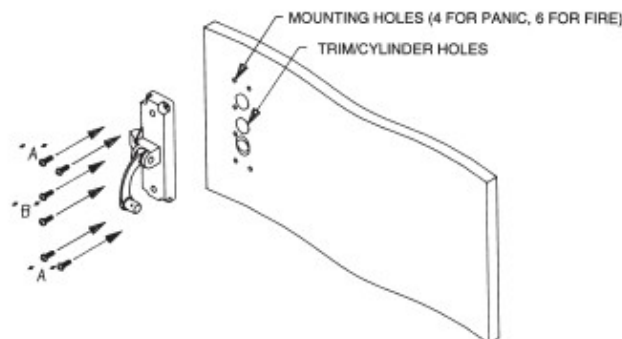
- C) DRILL A 5/16" DIA. HOLE 5/8" FROM THE JUST CUT END OF THE CROSSBAR



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

4 HARDWARE INSTALLATION

- 1) IF USING OUTSIDE TRIM OR SEXBOLTS, MOUNT TRIM PER DIRECTIONS IN TRIM BOX, OR INSTALL OUTSIDE SEX BOLTS.
- 2) EITHER SURFACE MOUNT DEVICE, OR THROUGH-BOLT DEVICE TO TRIM OR SEXBOLTS (NOTE: FOR LOCKING TRIM, SEE PAGE #9 FOR LOCKING CAM AND LOCKING CAM OPERATOR POSITION).



LHR SHOWN

APPLICATION	"A"	"B"
FIRE - REINFORCED HOLLOW METAL DOOR	#10-24x1" PPHMS	#10-24x1-1/2" PPHMS
FIRE - SEXBOLTS OR THRU-BOLTING TRIM	#10-24x1" PPHMS	#10-24x1-1/2" PPHMS *
FIRE - WOOD DOOR	#10-24x1" PPHMS w/SEXBOLTS	#10-24x1-1/2" PPHMS w/SEXBOLTS *
PANIC - REINFORCED HOLLOW METAL DOOR	#10x1-1/4" PPHSMS or #10-24x1" PPHMS	-
PANIC - NON-REINFORCED HOLLOW METAL DOOR	#10x1-1/4" PPHSMS or #10-24x1" PPHMS w/SEXBOLTS	-
PANIC - WOOD DOOR	#10x1-1/4" PPHSMS or #10-24x1" PPHMS w/SEXBOLTS	-
PANIC - SEXBOLTS OR THRU-BOLTING TRIM	#10-24x1" PPHMS	-

* - IF USING K, L, VANGUARD, OR APOLLO TRIM, OMIT THESE SCREWS



www.tmhardware.com



845-388-1300

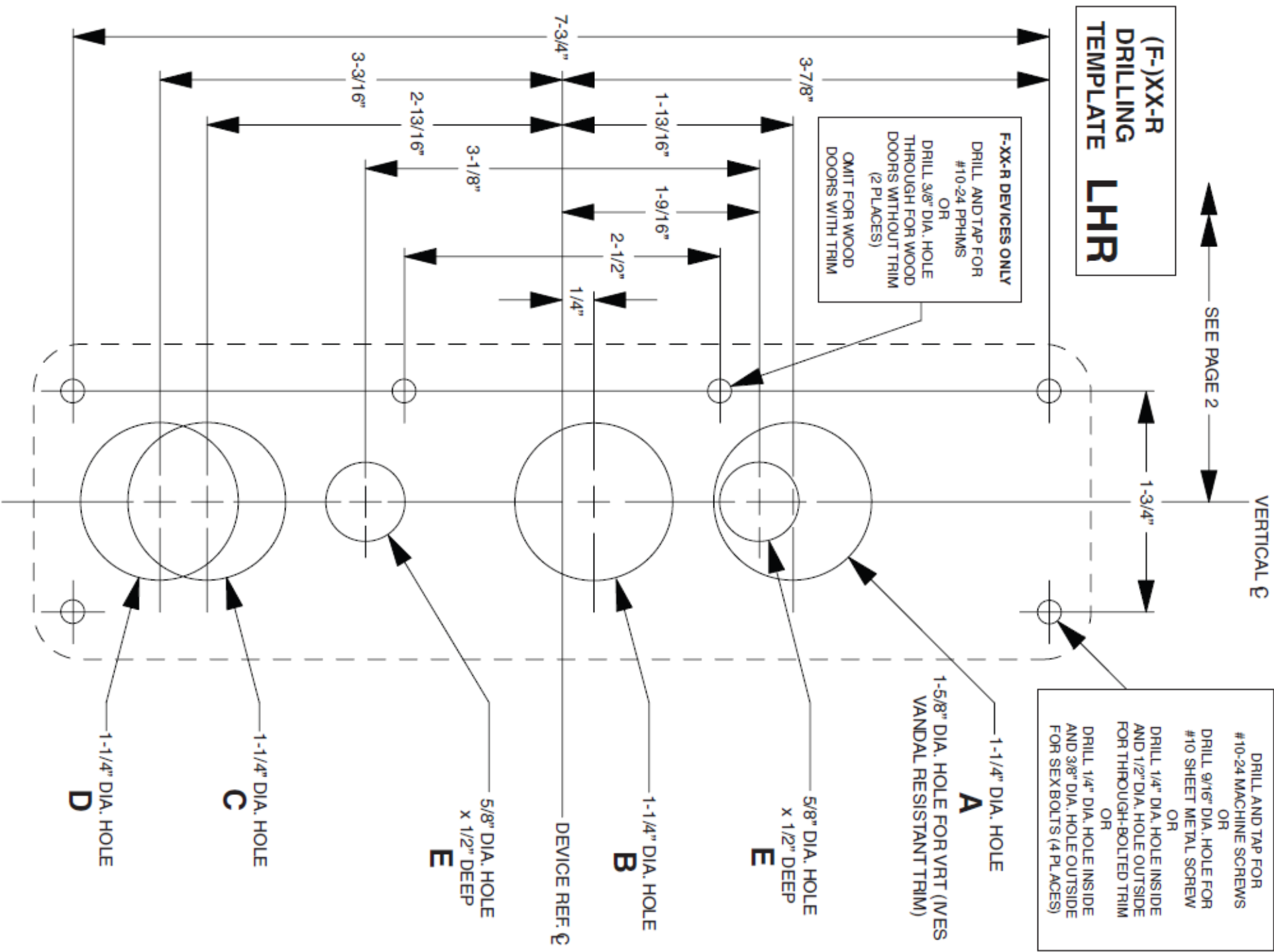


845-388-1388



sales@tmhardware.com

FALCON XX-R; F-XX-R EXIT DEVICE



FALCON XX-R; F-XX-R EXIT DEVICE

