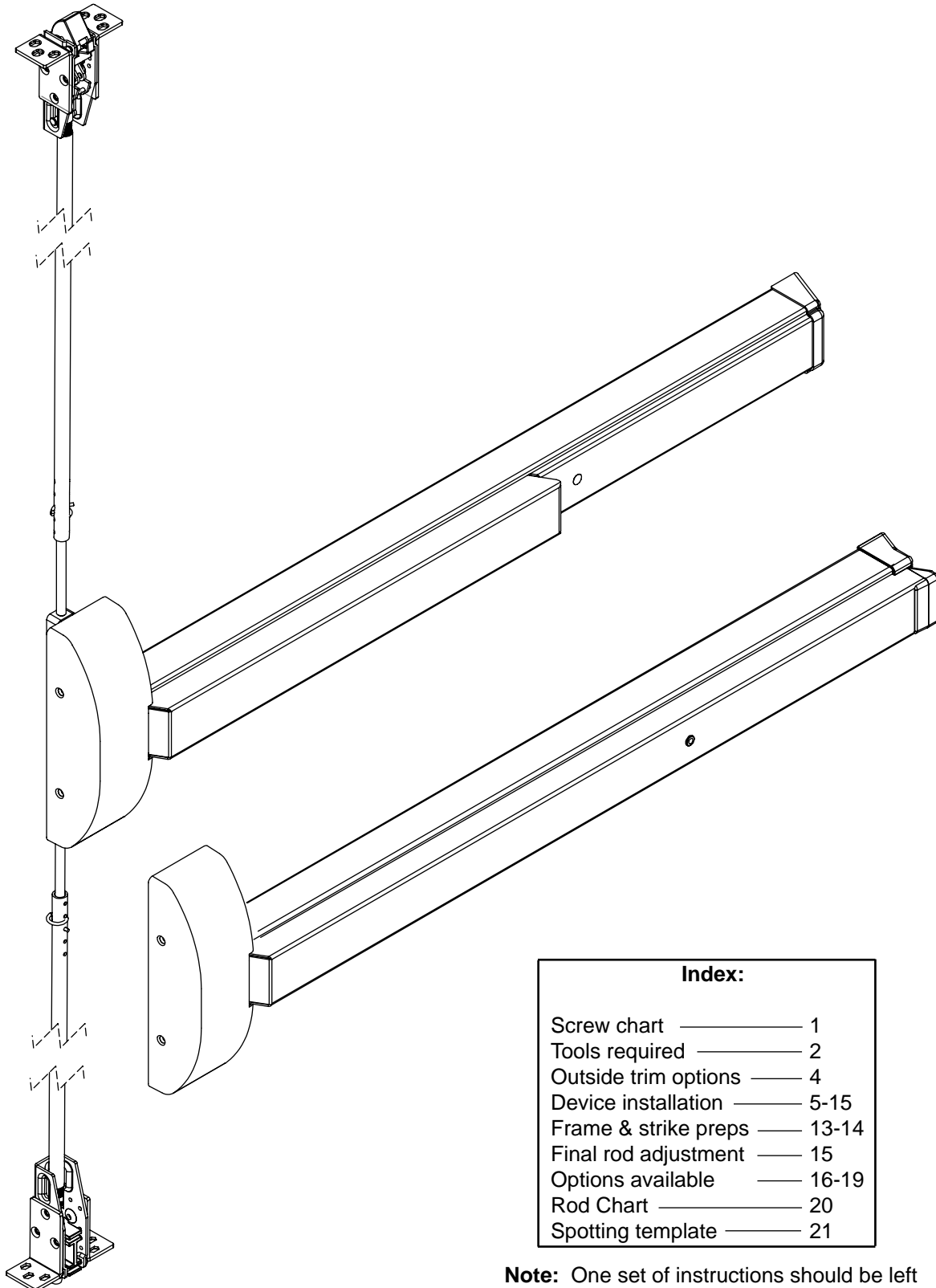




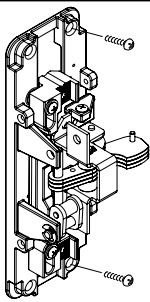
9100/F9100 & 9100FL/F9100FL SERIES CONCEALED VERTICAL ROD EXIT DEVICE


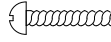


Index:	
Screw chart	1
Tools required	2
Outside trim options	4
Device installation	5-15
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Spotting template	21


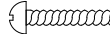
Note: One set of instructions should be left with building owner after device has been installed.

SCREW CHART

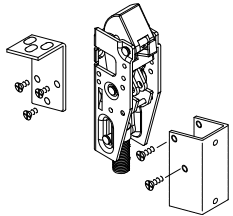




-  (4) 12-24 x 1" R.H.P.M.S. (Metal or Thru Bolts) _____ Chassis Mounting
-  (4) #12 x 1 1/4" R.H.P.T.S. (Wood Door) _____ Chassis Mounting

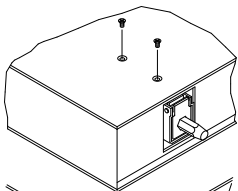





-  (2) 12-24 x 1" R.H.P.M.S. (Metal or Thru Bolts) _____ End Cap Bracket
-  (2) #12 x 1 1/4" R.H.P.T.S. (Wood Door) _____ End Cap Bracket

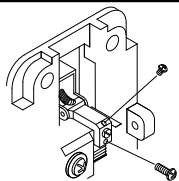
Standard Mounting Brackets (4) (Wood or Steel)





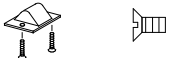
-  (12) 8-32 x 1/4" F.H.P.M.S. _____ Bracket To Latch
- Mounting Bracket (2)
(Medium Stile Aluminum Doors)**  (8) 8-32 x 1/4" F.H.P.M.S. _____ Bracket To Latch




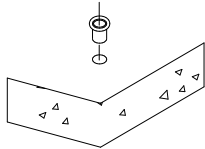
-  (4) 10-32 x 1/4" F.H.P.M.S. (Aluminum) _____ Bracket To Door
-  (12) #10 x 1" F.H.P.T.S. (Wood Door) _____ Bracket To Door
-  (12) 10-32 x 3/8" F.H.P.M.S. (Metal Door) _____ Bracket To Door



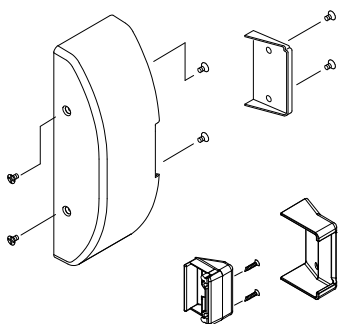
-  (2) 8-32 x 1/4" P.H.P.M.S. _____ Locking Screw
-  (2) 8-32 x 5/8" R.H.P.M.S. _____ Connecting Link Screw




-  (2) 10-32 x 3/8" F.H.P.M.S. _____ #418 Strike Pack





-  _____ #439 Bottom Strike
(Cement or Grout In Place)

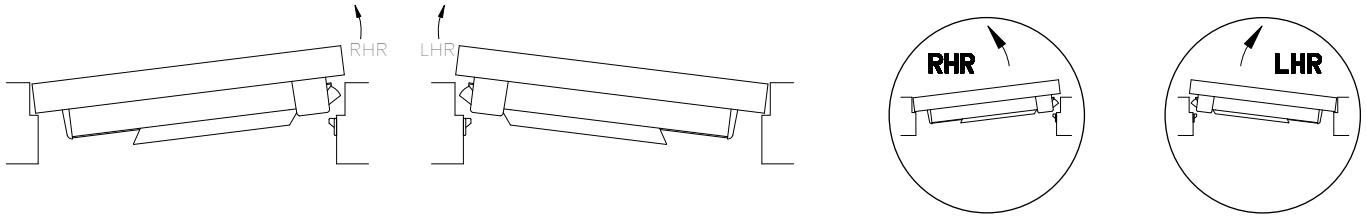


-  (6) 8-32 x 1/4" F.H.P.M.S. _____ Chassis Cover & End Cap

"FL" Full length touch bar & rail series.

-  (2) 8-32 x 1/4" F.H.P.M.S. _____ Chassis Cover & End Cap
-  (2) #10 x 1" F.H.P.T.S. _____ End Cover Mounting

HANDING OF DOOR



Read the entire instruction sheet prior to installation.

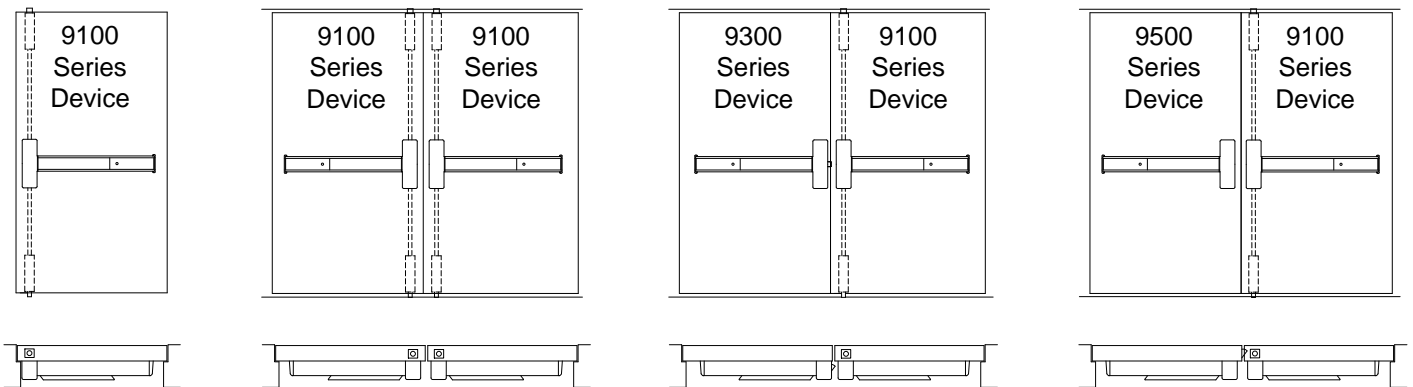
Before installing hardware:

1. Verify door width, handing and product with carton label for correct exit device and length.
2. Device should be installed and preliminary adjustments made prior to hanging door(s) in frame. (Door typically lying on saw horses at this time).
3. For hand reversal of chassis assembly see Step 3.
4. For hand reversal of trim assembly see Step 4.

Note: If device is to be installed over glass lite panels, shim kit may be required, order DORMA No. GK9000.

Note: Device shipped standard for 7' (2134 mm) high door opening. For doors up to but not over 10' (3048 mm) order "ETR" (Extended to rod) device.

TYPICAL APPLICATIONS



SPECIAL TOOLS FOR INSTALLATION

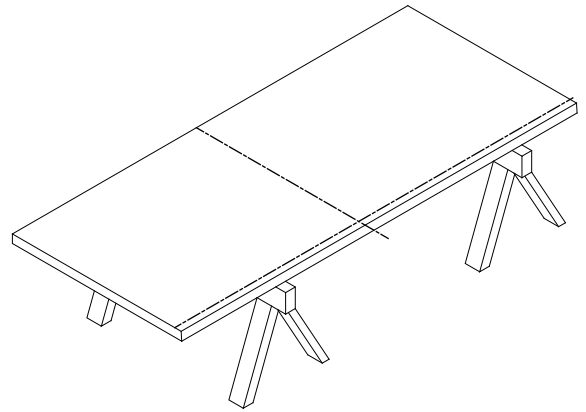
- 12-24 Tap, 10-32 Tap
- Drill bits: 1/8", #25, #16, #21 & 3/8"
- Hole saws: 1", 1 1/4", & 2 1/8" diameter for trim (if required).
- Jig saw or router may be required for thumbpiece trims.
- Set of saw horses.

1 Installation

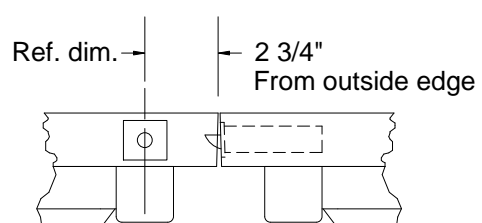
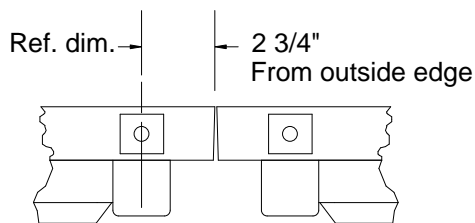
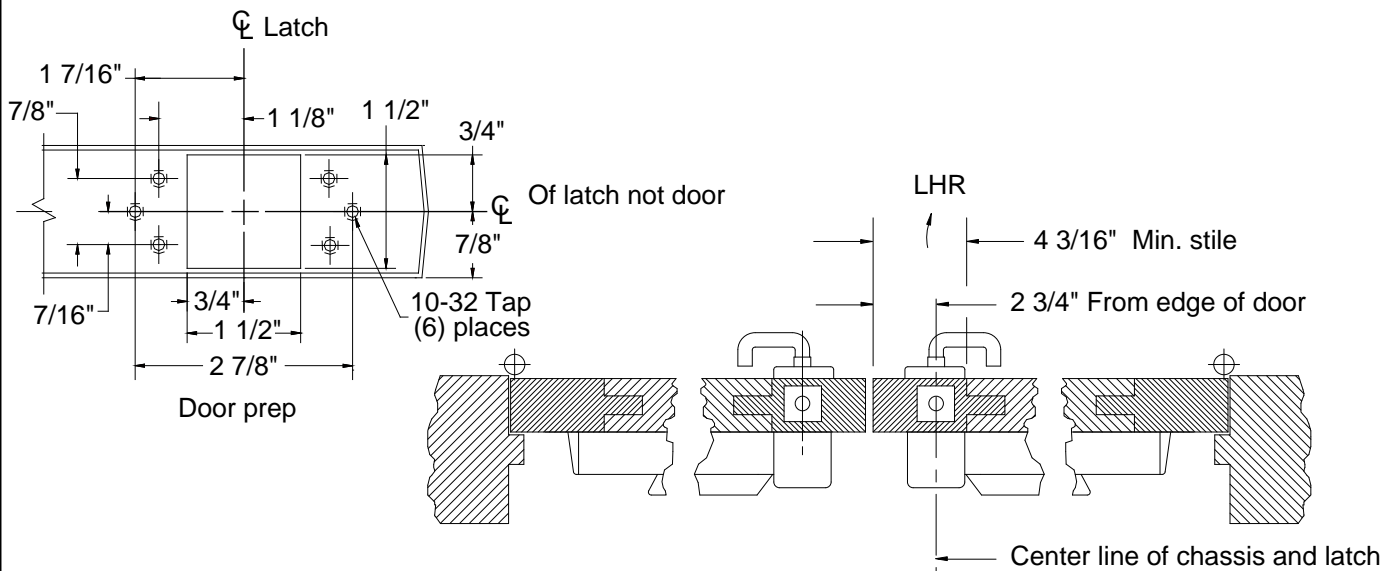
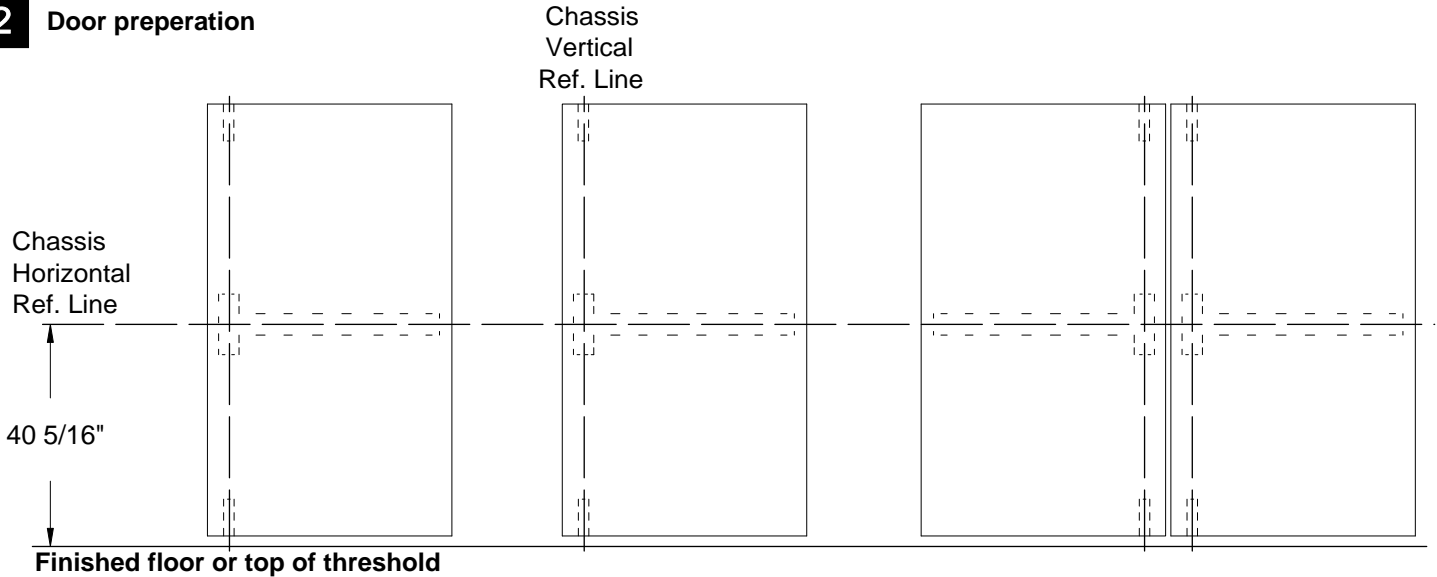
Open box, layout and verify all parts prior to starting installaion. If not done, lay door on saw horses.



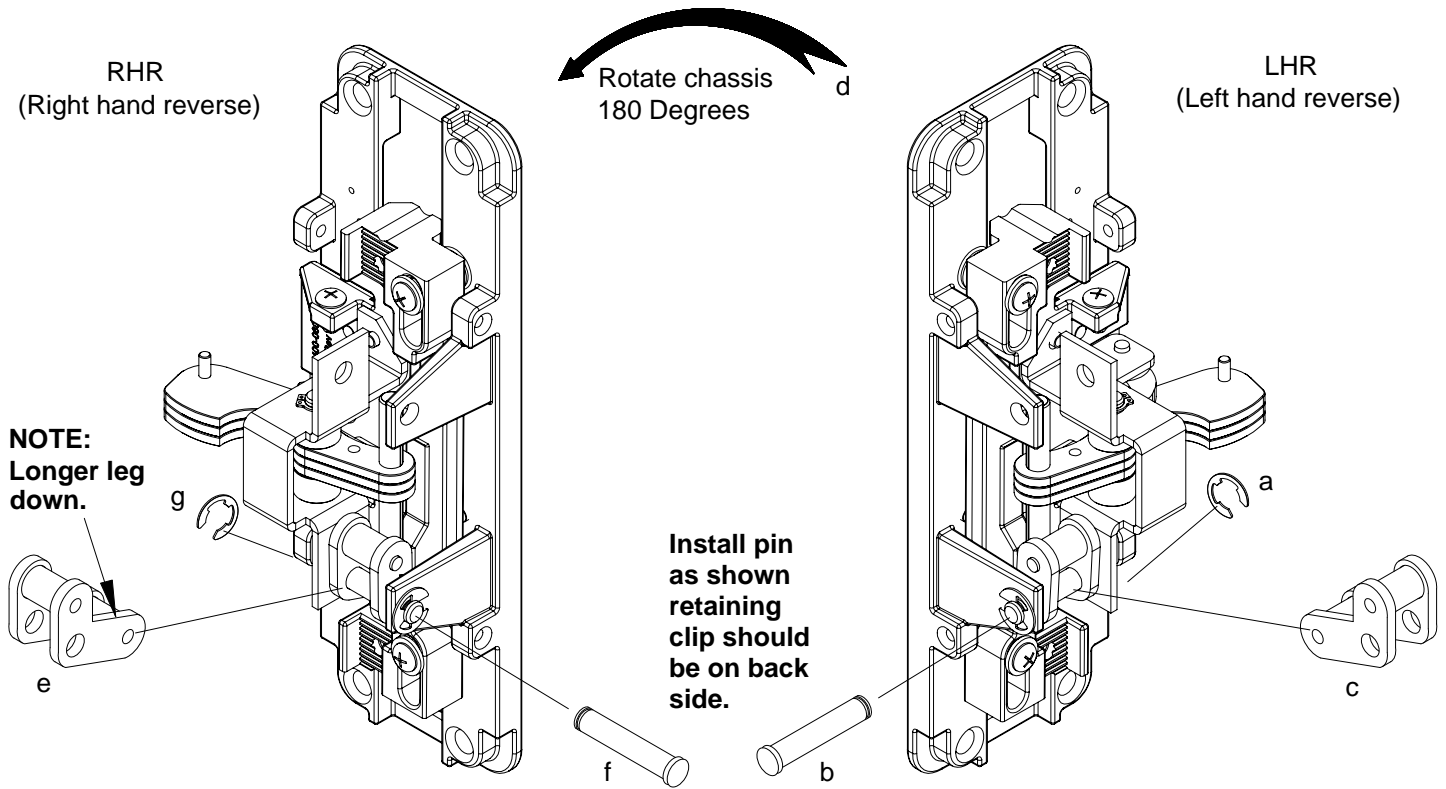
Chassis template located at rear of booklet. Cut and tape in place. Lay out horizontal and vertical reference lines.



2 Door preperation



3 If hand reversal of chassis is required follow steps below in alphabetical sequence.



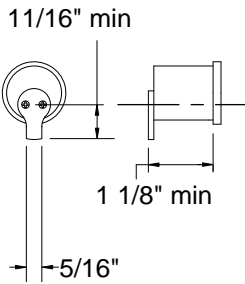
4 Handing of trim, and cylinder specifications and installation.

Note: For specific trim functions, cylinder type, and handing information; see additional instructions packed with trim.

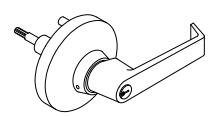
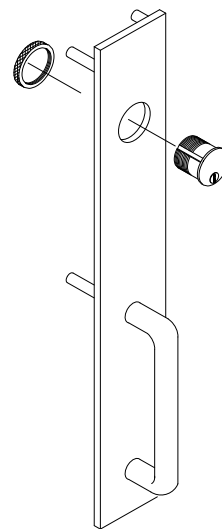
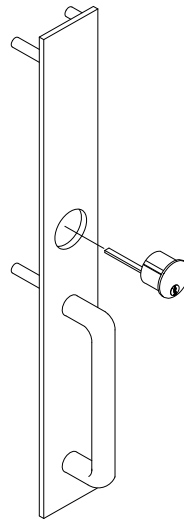
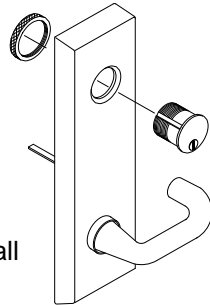
Standard "V" Trim

Standard "T" Trim

Standard "R" Trim



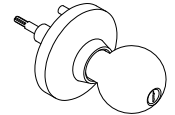
Standard "Y" Trim



Standard "C" Trim

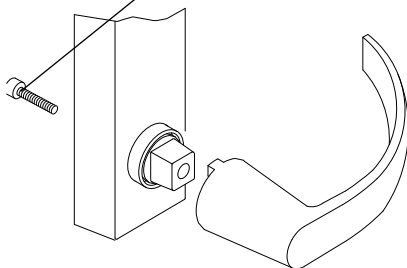


Standard "K" Trim



Note: Spindle must be installed with pin in the vertical position as shown on 08 & 09 functions. Install trim in active (un-locked) position. (Spindle rigid)

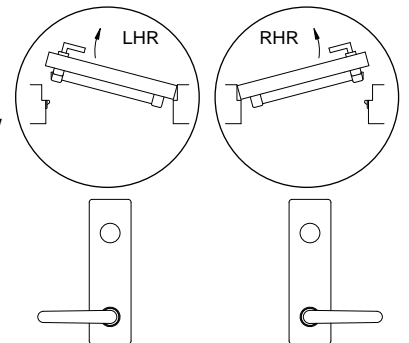
Tighten Securely



All trims are free wheeling.
(Handle will rotate when locked.)

IMPORTANT

Note: All lever handles except for "clutch" are shipped unattached. To install; **Place handle in desired position and attach with allen screw located in back of trim plate.** 5/32" Allen wrench required.
To change hand on "clutch" trim rotate and "break" lever around to desired hand.

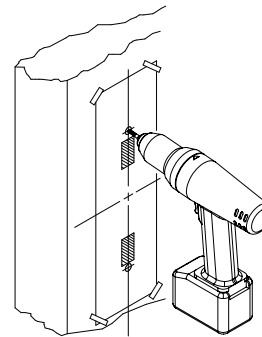
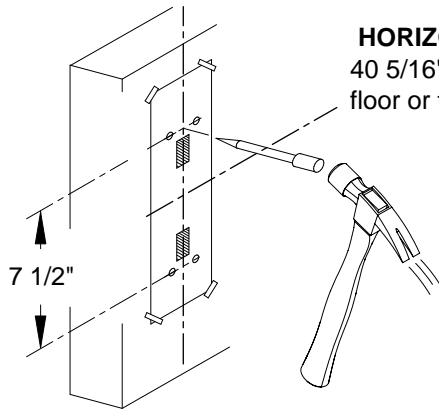


5 If not done layout device on door using drilling template T9100 located at rear of booklet.
For additional templates contact DORMA at 1-800-523-8483 or www.dorma-usa.com

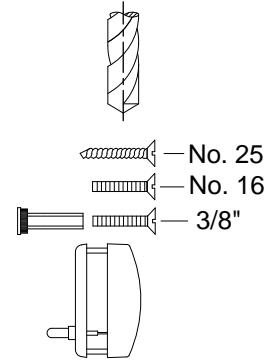
Refer to carton label for model and trim number prior to drilling.
Prepare mounting holes and cut-outs per template.

VERTICAL REF. LINE

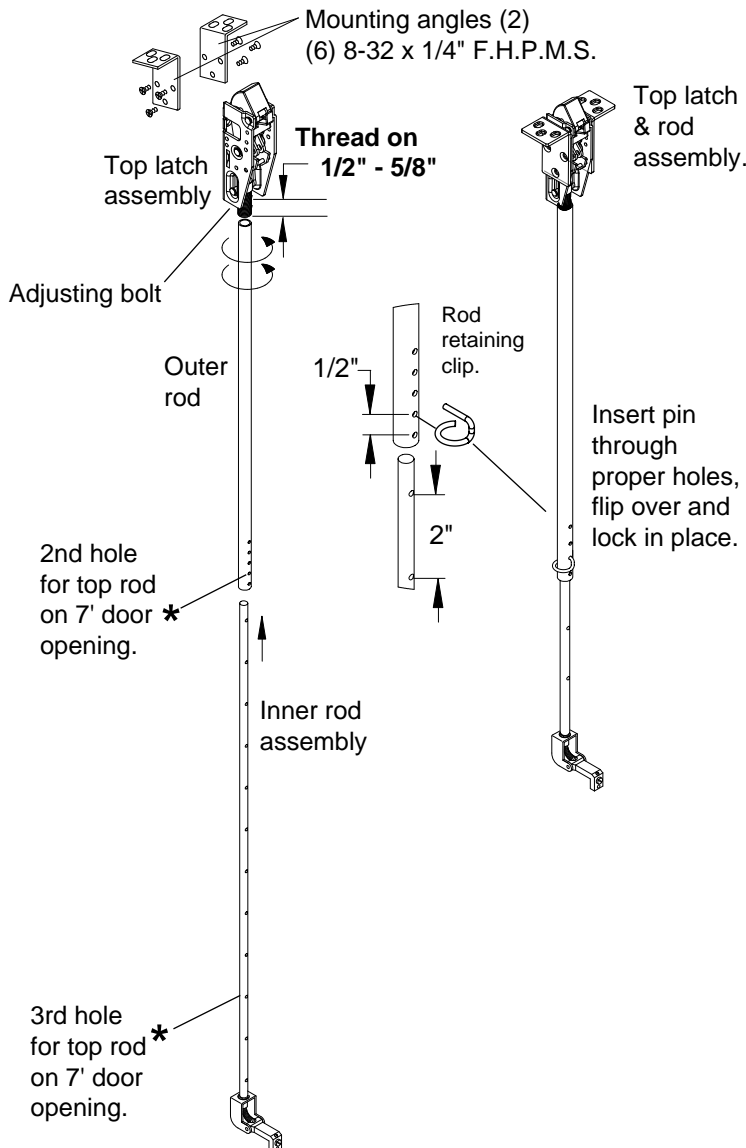
HORIZONTAL REF. LINE
40 5/16" from top of finished floor or top of threshold.



Verify all holes prior to drilling.



6 Top latch mounting bracket and drawbar assembly



Optional: "ALD" bracket
(4) 8-32 x 1/4" F.H.P.M.S.

Top and bottom rods and latches are shipped unassembled and are adjustable for door opening heights ranging from 6' 8" to 8' 0" and will fit up to a 10' 0" door opening with the addition of a 2 foot top rod extension (ETR). **See next page.** Follow instructions on page to assemble the latch and rod assemblies. "Standard" angle brackets are shipped with device.

Optional: "U" shaped brackets are available for use on medium stile aluminum doors install as shown with proper fasteners.

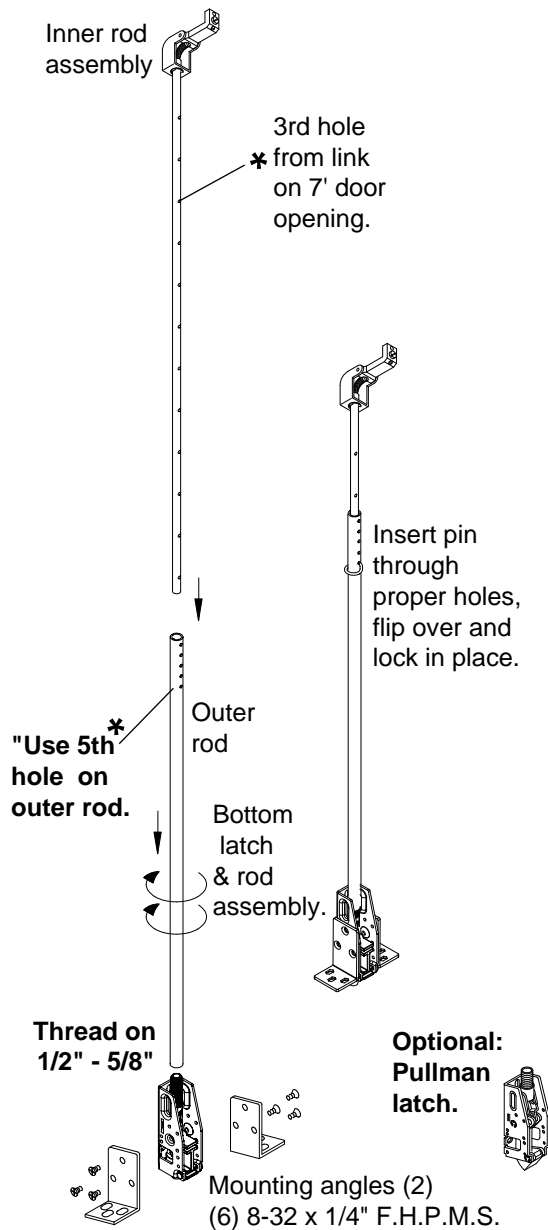
Holes in outer rod are at 1/2" intervals and holes in inner rod are at 2" intervals for door openings under or over 7' (**instructions are for 7' door opening and standard mounting height**). For additional information see rod chart on page 20.

Slide inner rod assemblies into outer rods, locate proper holes and insert rod retainer clip by; inserting through both rods, rotating it and locking it in place as shown.

For "LBR" less bottom rod device skip bottom rod and latch assembly instructions.

Additional "Popper" required for "LBR" fire rated openings. See details on next page.

Bottom slide bolt or latch mounting bracket and drawbar assembly



Top and bottom rods and latches are shipped unassembled and are adjustable for door opening heights ranging from 6' 8" to 8' 0" and will fit up to a 10' 0" door opening with the addition of a 2 foot top rod extension (ETR). Follow instructions on page to assemble the latch and rod assemblies. "Standard" angle brackets are shipped with device.

Optional: "U" shaped brackets are available for use on medium stile aluminum doors install as shown with proper fasteners.

Holes in outer rod are at 1/2" intervals and holes in inner rod are at 2" intervals for door openings under or over 7' (**instructions are for 7' door opening and standard mounting height**). For **additional information see rod chart on page 20**.

Slide inner rod assemblies into outer rods, locate proper holes and insert rod retainer clip by; inserting through both rods, rotating it and locking it in place as shown.

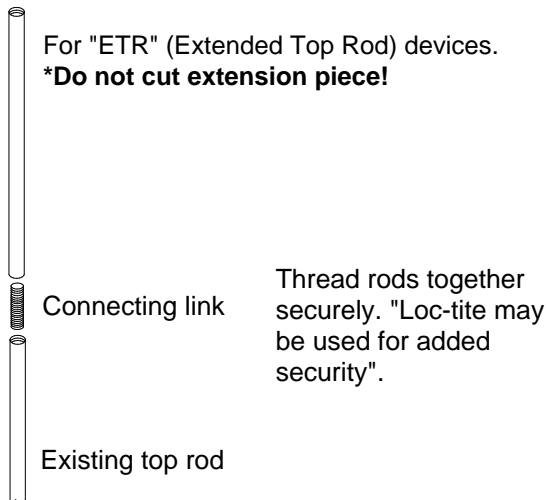
For "LBR" less bottom rod device skip bottom rod and latch assembly instructions.

Additional "Popper" required for "LBR" fire rated openings. See details below.



Optional: "ALD" bracket
(4) 8-32 x 1/4" F.H.P.M.S.

INSTALLING ROD EXTENSION

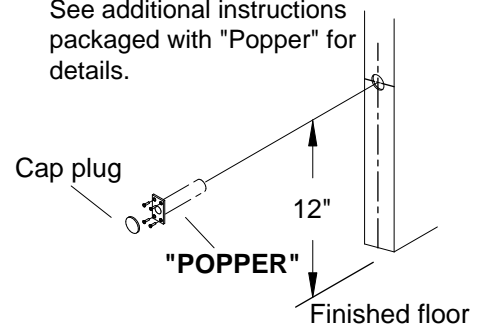


POPPER DETAILS

"LBR" Less bottom rod "Popper" installation.

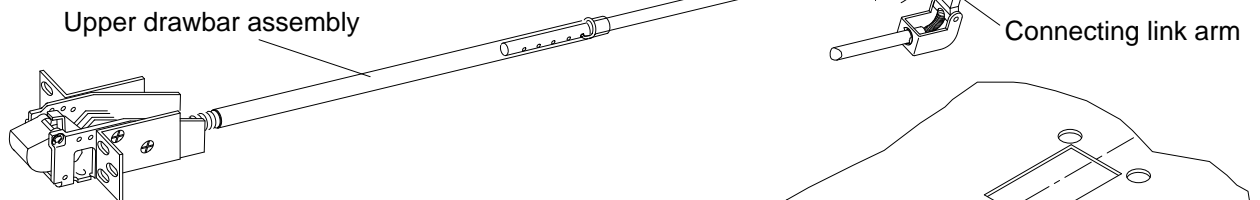
Required for; "LBR" (less bottom rod) fire rated exit devices.

See additional instructions packaged with "Popper" for details.

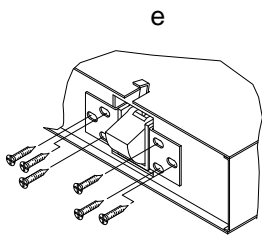
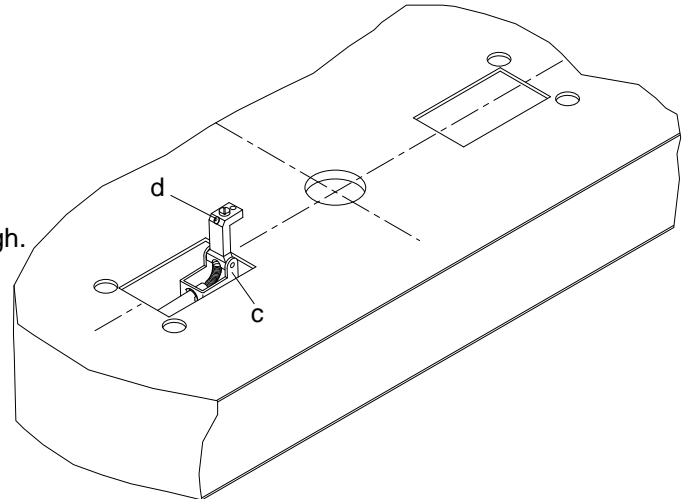


8 Installation of top latch and drawbar assembly

- a Loosen locking screw in upper drawbar assembly as shown. Connecting link arm should move up and down freely.
- b With connecting link arm in down position, guide upper drawbar assembly down through opening in top of door.

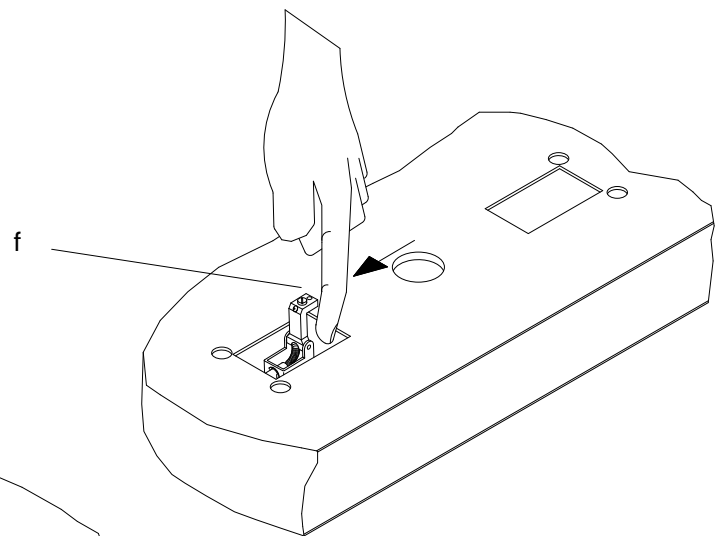
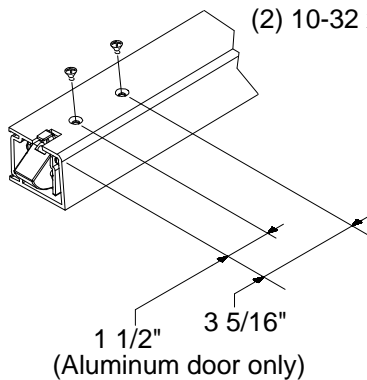


- c As connecting link arm nears cutout in face of door, insert finger through cutout and guide connecting link through.
- d Holding connecting link in full up position, tighten locking screw as shown.



Attach mounting bracket with (6) 10-32 x 3/8" F.H.P.M.S.
Or (6) #10 x 1" F.H.P.T.S.
for wood doors.

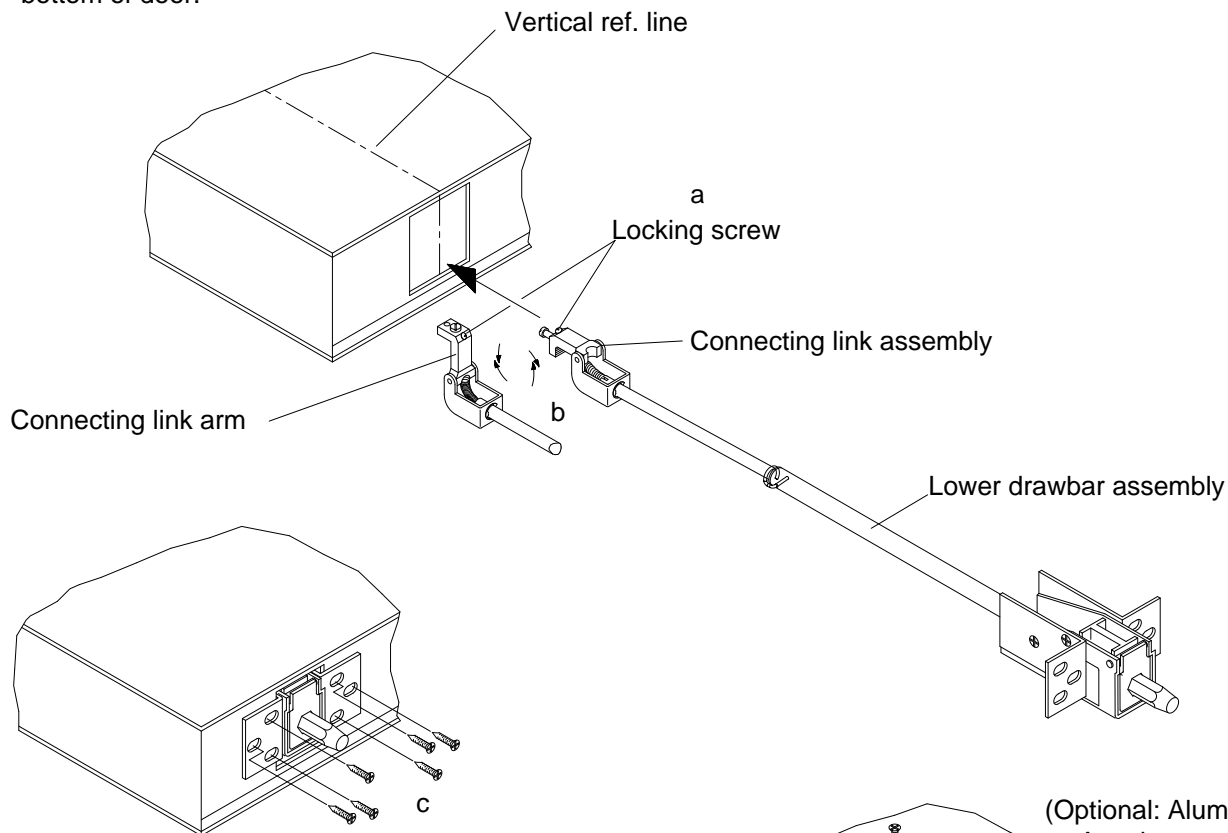
(Optional: Aluminum door bracket)
Attach mounting bracket with
(2) 10-32 x 1/4" F.H.P.M.S.



Push up on bottom of drawbar assembly, top latch should retract and remain retracted - captured by the tripping lever.

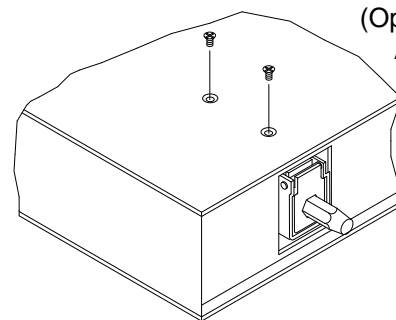
Proceed to next page and install bottom drawbar and bolt assembly.

- a Loosen locking screw in lower drawbar assembly as shown, connecting link arm should move up and down freely
- b With connecting link arm in down position, guide lower drawbar assembly up through opening in bottom of door.



Attach mounting bracket
With (6) 10-32 x 3/8" F.H.P.M.S.
Or (6) #10 x 1" F.H.P.T.S.
for wood doors.

(Optional: Aluminum door bracket)
Attach mounting bracket with
(2) 10-32 x 1/4" F.H.P.M.S.



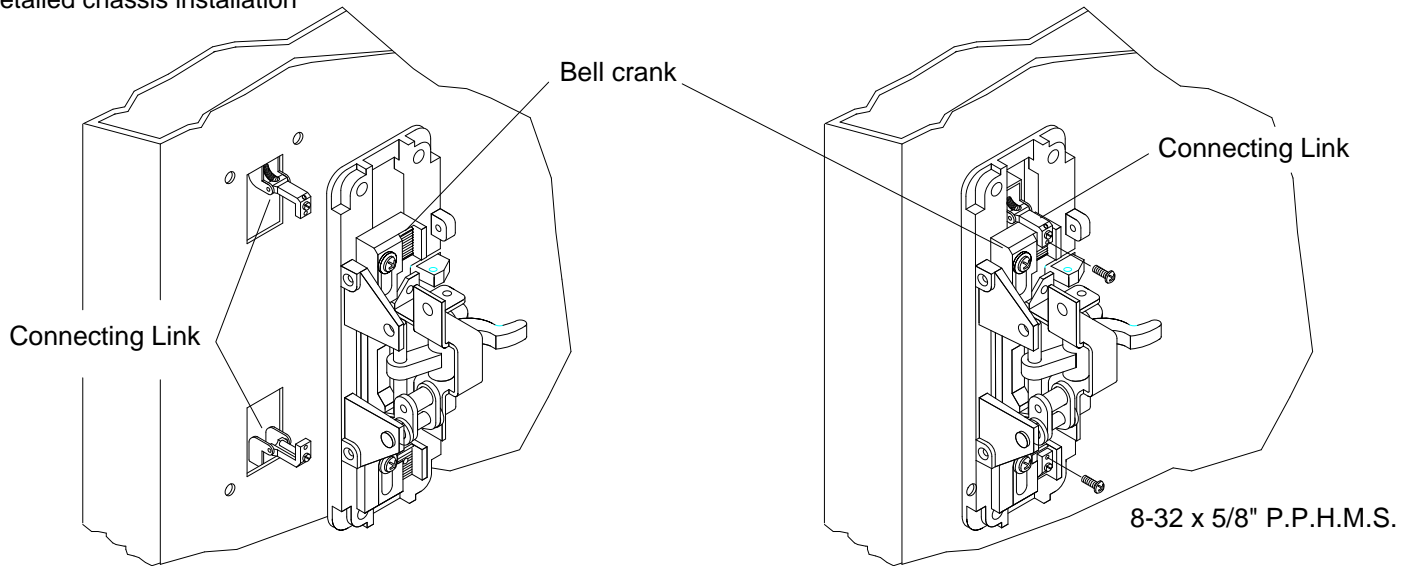
- c As connecting link arm nears cutout in face of door, insert finger through cutout and guide connecting link through.
- d Holding connecting link in full up position, tighten locking screw as shown.
Both connecting links should be in the up right position at this time, secured by locking screws.

Finished floor height to bottom of door must be known for bottom slide bolt installation. Slide bolt should protrude approximately 1/2" into strike.
These are preliminary adjustments, additional will be required after door is hung.



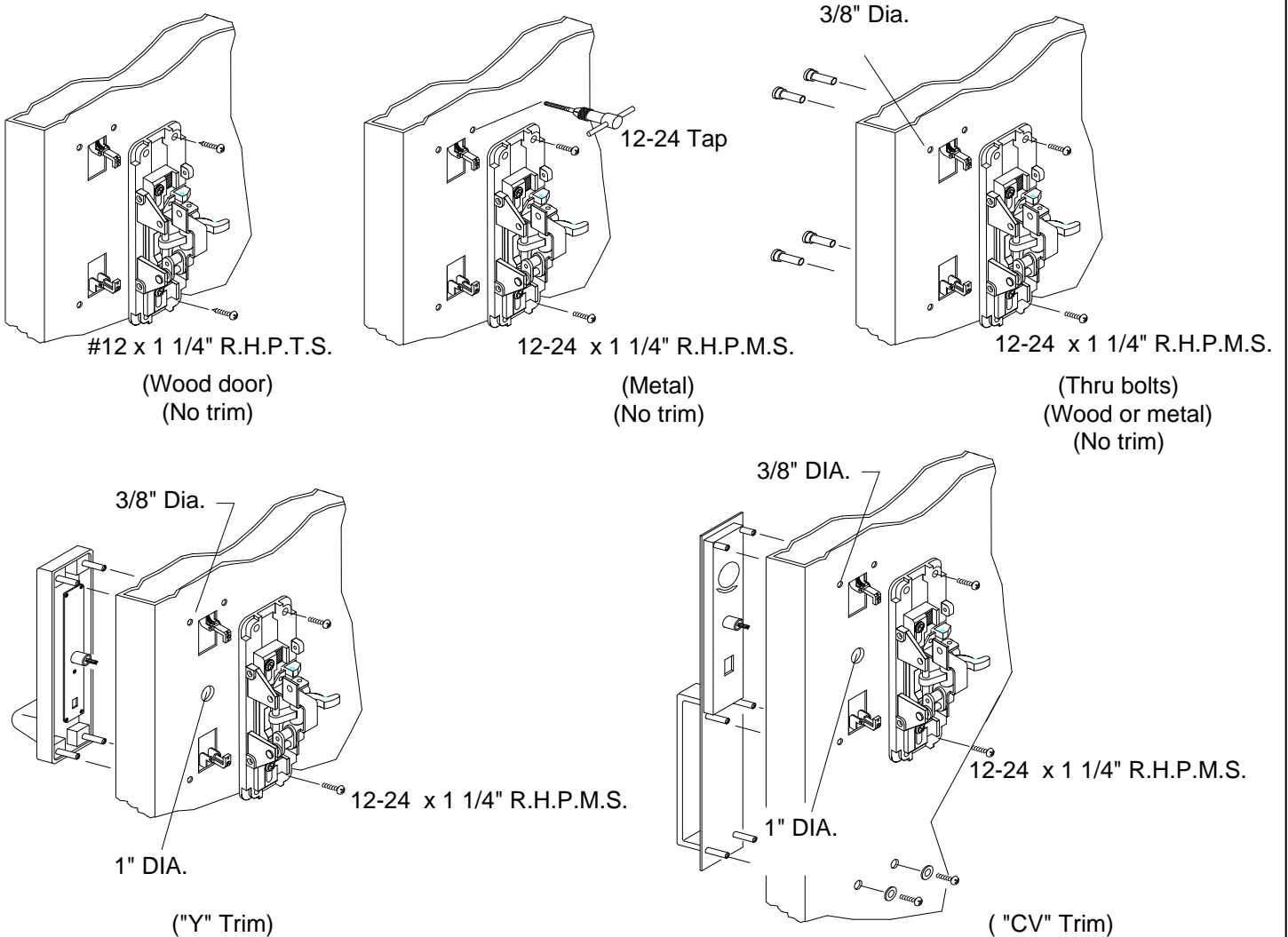
10 Chassis installation. (If using GK9000 install shims under chassis at this time.)

Detailed chassis installation

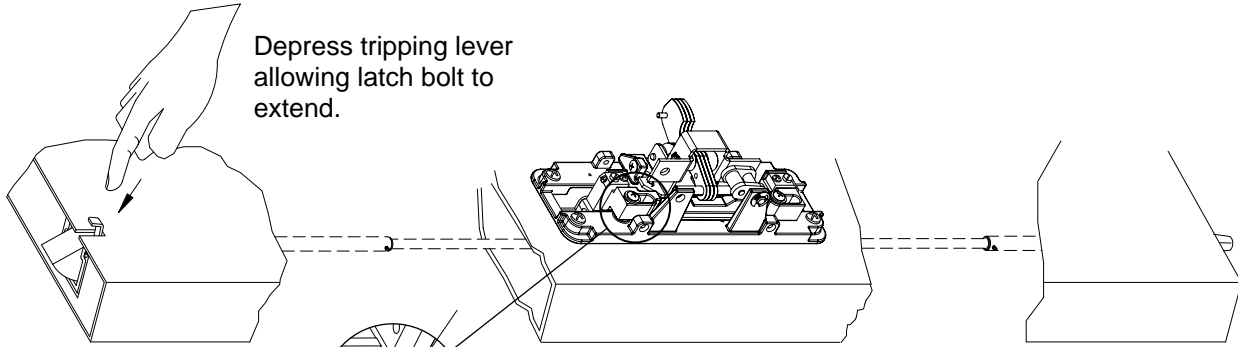


Guide top connecting link through cut out in top of chassis assembly, slide bell crank up if necessary and guide bottom connecting link through cut out in bottom of chassis, attach connecting links to bell crank with (2) 8-32 x 5/8" P. H. P. M. S. Tighten securely.

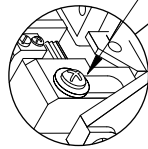
Proceed to mount chassis to door using one of the proper methods shown below.



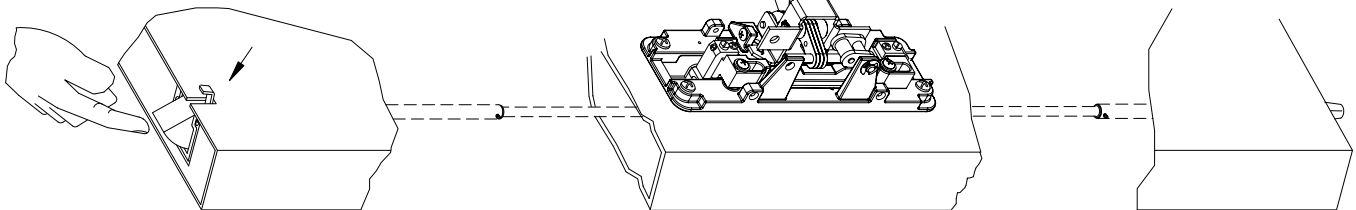
11 Preliminary rod adjustment. (Door still on saw horses)



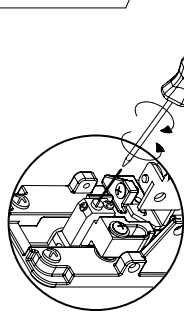
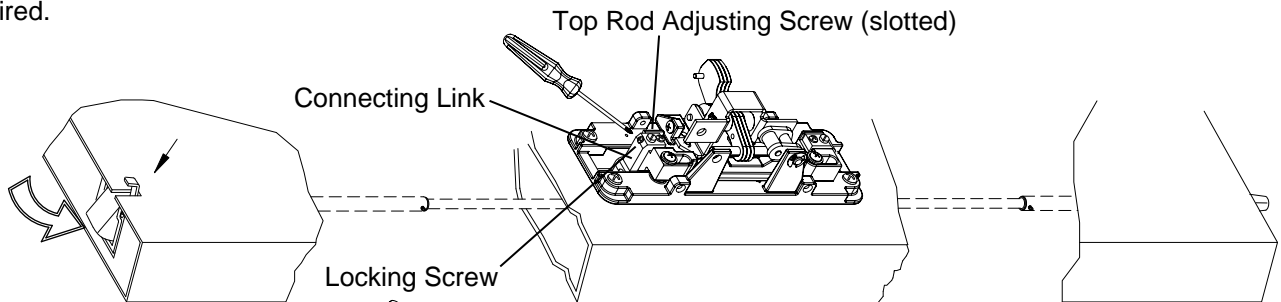
Depress tripping lever allowing latch bolt to extend.



Bell crank should be all of the way down in slot as shown.



Push down on top latch bolt, bolt should not retract or be able to be pushed in. Bolt should be dead-locked. If latch bolt can be pushed in; additional adjustment will be required.



- Loosen locking screw in top connecting link. #2 phillips head screwdriver required.
- Rotate adjusting screw clockwise (right) to shorten the rod assembly. **Medium flat blade screwdriver required.**
- Re-check adjustment "after each half turn" of adjusting screw. Do this by attempting to push in on top latch as before then push in on tripping lever to ensure latch bolt is fully out; adjust until dead latch is achieved.**
- Once dead latch is achieved secure in place by tightening the locking screw in top of connecting link securely.
- Retract latch bolts, tripping lever in top latch should hold latch bolts in fully retracted position. Ensure bottom bolt is protruding no more than 1/8" to 1/4" below door edge. Adjust it in same manner as with top latch.

Note:
Check outside trim operation and make any required adjustments in same manner; use outside trim in lieu of touch bar assembly to retract latch bolts; ensure that both top and bottom bolts retract fully and clear strikes.

Note:

If resistance is met when making adjustment to rods ensure they are not too long or are in a bind inside of the door, or the connecting spring can be broken.

12 Prepare to install touch and rail on door.

NOTE: All dimensions are based on 5/8" stop height; Verify strikes, stile width, any trim and stop height prior to making any cuts. If cutting is required follow instructions below.

Size A:

Fits 48" door opening without cutting.
Can be cut to fit a 34" minimum door opening.

Size B:

Fits 36" door opening without cutting.
Can be cut to fit a 28" minimum door opening.

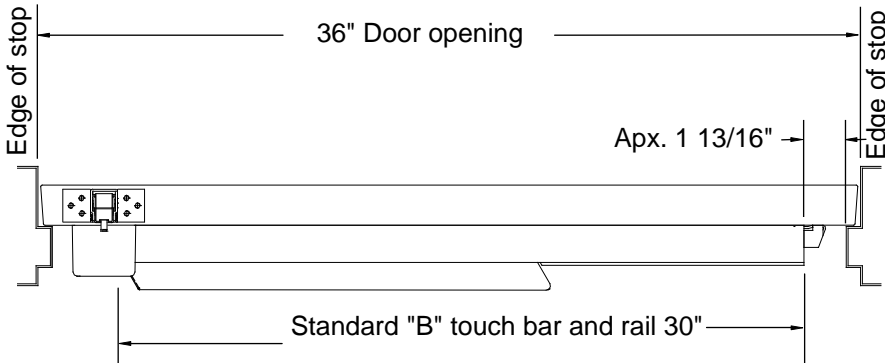
Size C:

Fits 36" door opening with out cutting.
Using a shorter touch pad then the standard "B" size allows it to be cut to 25" door opening.

Note: Models with prefix options such as "ES", "DE" etc. may not be cut down to minimums shown to left. Consult factory or catalog for details.

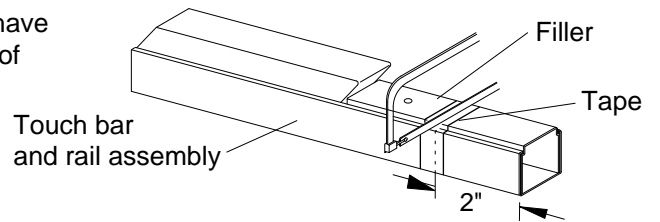
Verify device length with box label; "A", "B" or "C", ie. 9100B

Example:



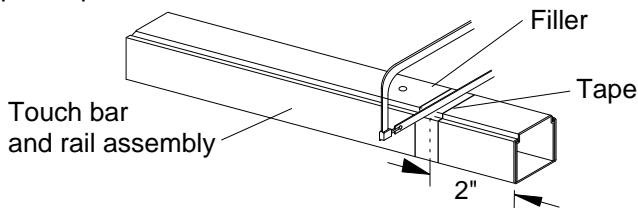
Note: If door opening width is less then standard touch bar will have to be cut down. ie: door opening width 34" subtract 2" from rear of touch bar and rail, tape and cut to length as shown.

IMPORTANT
Use caution when cutting touchbar and rail to size on models with "ES", "MS", "LM" or "DWA" prefix options. These units contain internal wiring. For models with prefix options "BPA", BPAR" or "DE" remove filler containing electronics before cutting.

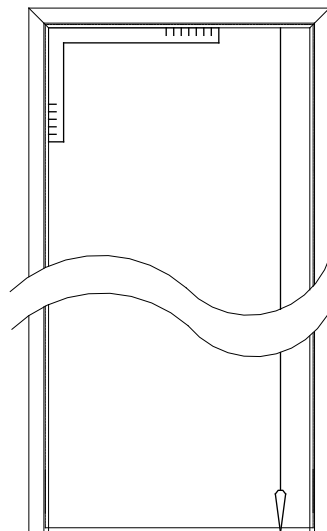


12A Cutting of "FL" type touch bar and rail assembly.

Note: If door opening width is less or stops are different, then standard touch bar will have to be cut down. ie: door opening width 34" subtract 2" from rear of rail, depress touch bar as shown, tape and cut to length as shown. Touch bar should be approximately 3/16" longer then rail once it is released to upward position.



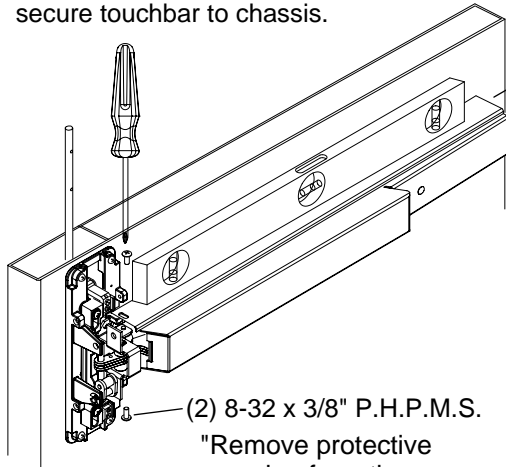
13 Hang door in opening, ensure door is square, plumb and swings freely.



Make any adjustments required to door, frame and opening prior to proceeding with installation.

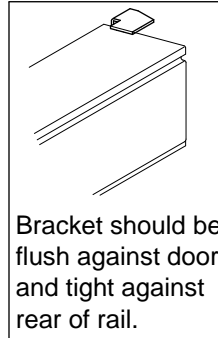
14 Install touch bar and rail assembly and end cap bracket to door.

Remove two 8-32 screws from chassis, slide touch bar and rail assembly under rear of chassis. **Note: If device has prefix "ES" ensure that pins in lever bolt align with slots in actuator located inside nose of touch bar.** See instruction sheet IES-7 packed with device. Install (2) two 8-32 x 3/8" P.H.P.M.S. to secure touchbar to chassis.



(2) 8-32 x 3/8" P.H.P.M.S.
"Remove protective covering from the touchbar and rail assembly prior to installing on door."

Hold rear mounting bracket tightly against door and rear of rail. Mark (2) two holes and drill per chart. Secure with proper fasteners.



Bracket should be flush against door and tight against rear of rail.

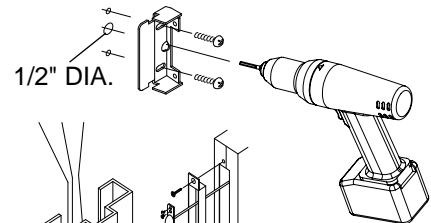
NOTE: If carton label list prefix; "ES", "MS", "LM", "BPA", "BPAR", "DWA", "LM/MS/BP" or "CD" prefix see Options pages at rear.



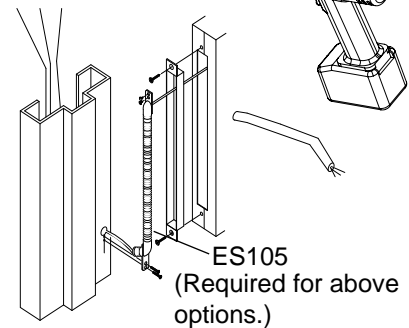
- 1/8" Drill 1" Deep (Wood)
- No. 16 Drill - 12-24 Tap (Metal)
- 3/8" Dia. (Thru bolts)

Metal/thru-bolts - (2) 12-24 x 1" F.H.P.M.S.
Wood - (2) #12 x 1 1/4" F.H.P.T.S.

For the following models prefixes: "ES", "MS", "LM" or "DWA" drill an additional 1/2" diameter hole as shown. See options pages at rear for additional information.

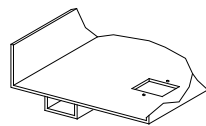


1/2" DIA.



ES105
(Required for above options.)

15 Install top strike in frame.



#418 Strike

(2) 10-32 x 3/8"
F.H.P.M.S.

Optional:
#419 Strike
(wood jamb)

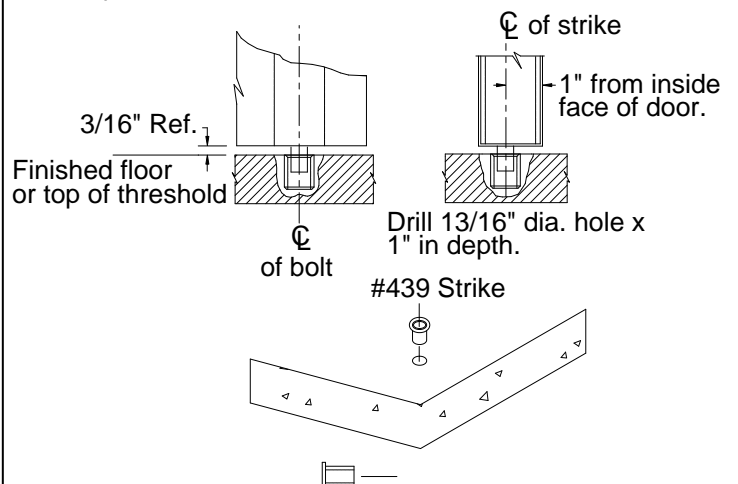


(2) #10 x 1"
F.H.P.T.S.

See "**Frame Preparation**" on page 14 for cut out and holes.

16 Install bottom strike in floor or threshold.

See page 15 for additional mounting and optional strikes.



Finished floor or top of threshold

3/16" Ref.

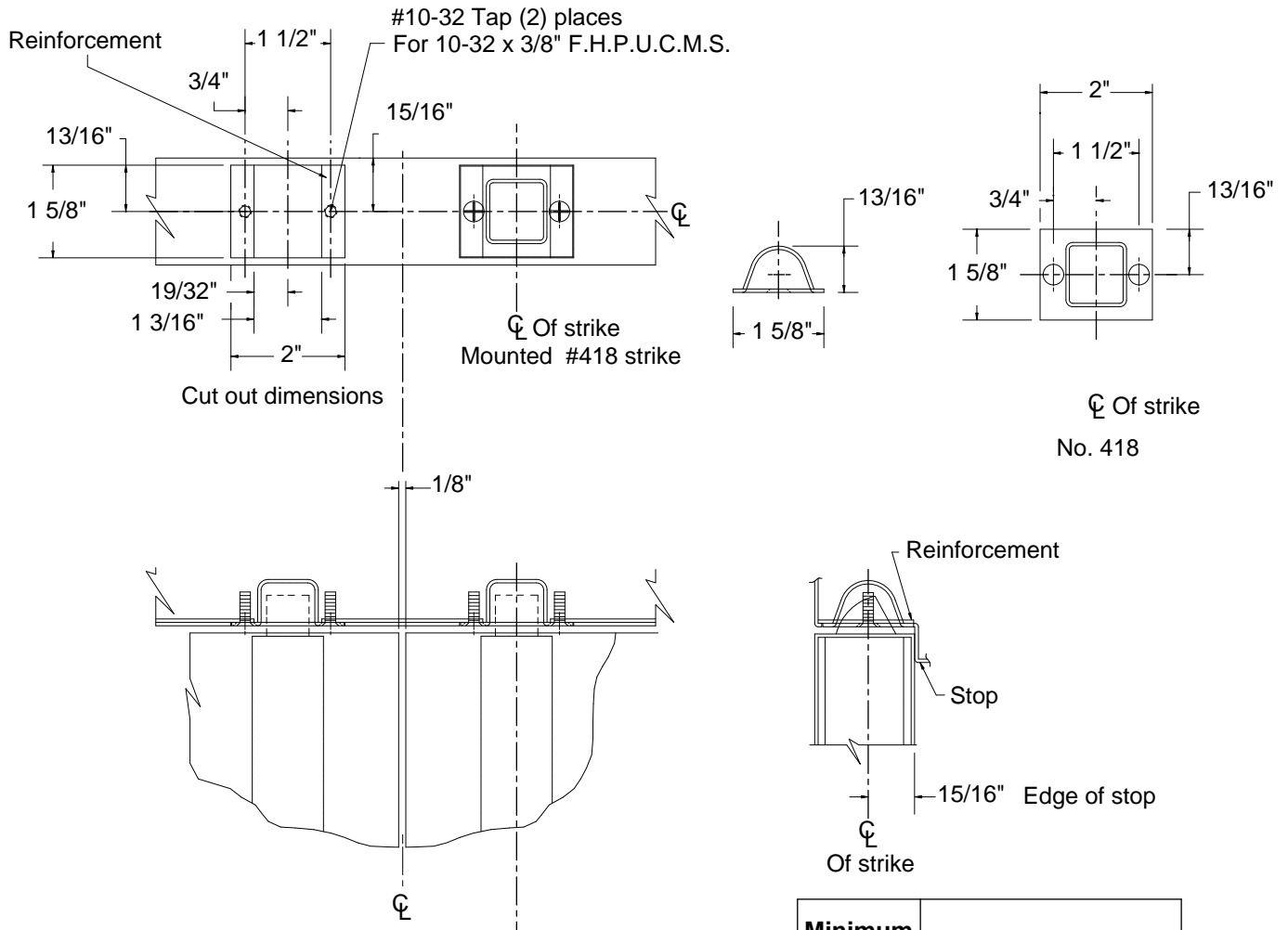
of bolt

Drill 13/16" dia. hole x 1" in depth.

#439 Strike

1" from inside face of door.

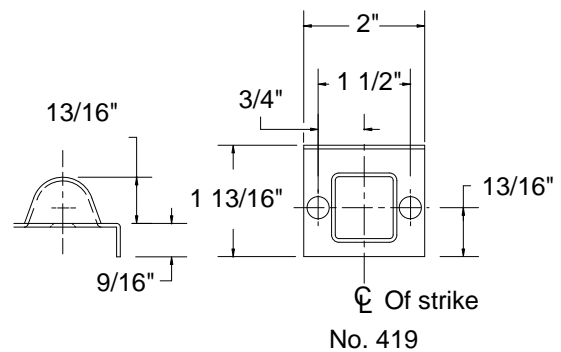
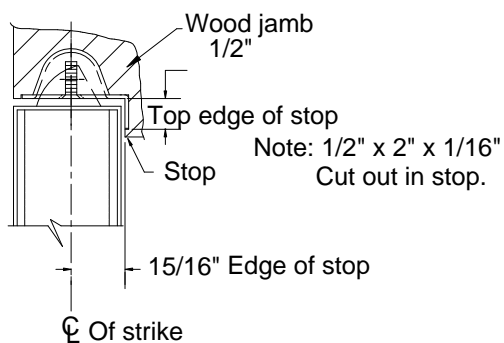
FRAME PREPARATION



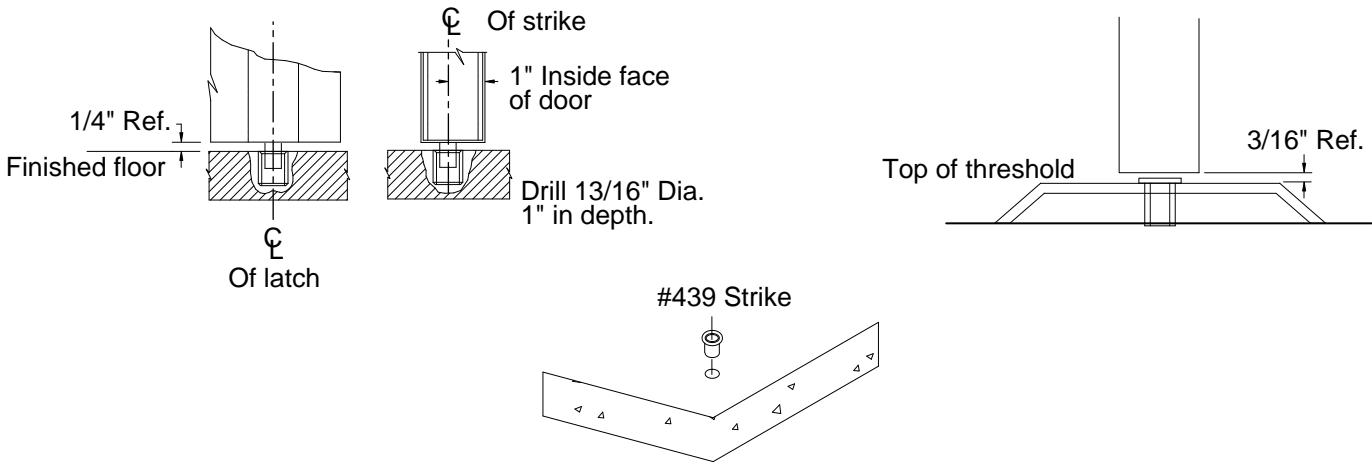
Type of installation	Minimum vertical ref. of chassis	Minimum Stile	
		Pull only	"Y" trim
Single door 1/2" blade stop	1 1/4"	2 1/16"	2 5/16"
Pairs and double egress	1 1/4"	2"	2 1/8"
Fire rated & wood door	2"	2 5/8"	2 7/8"

Note: Metal edge may be required on fire door applications.

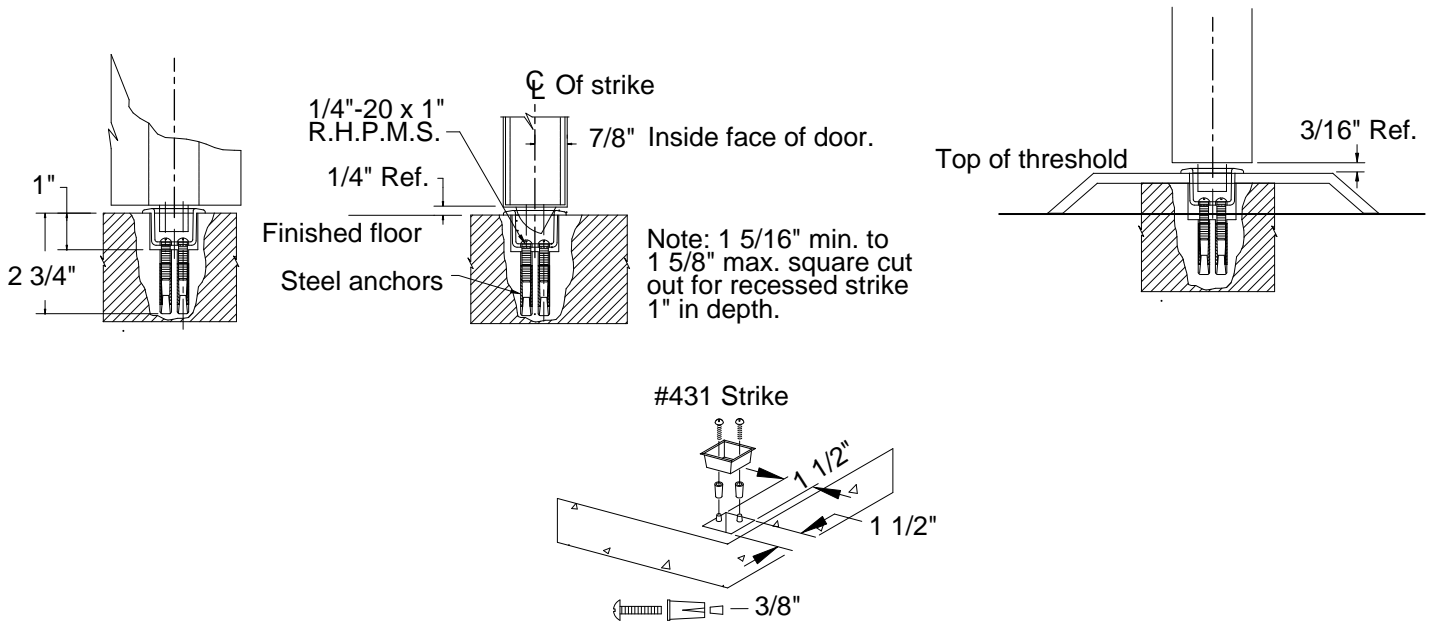
Optional prep for No. 419 top strike in wood frame



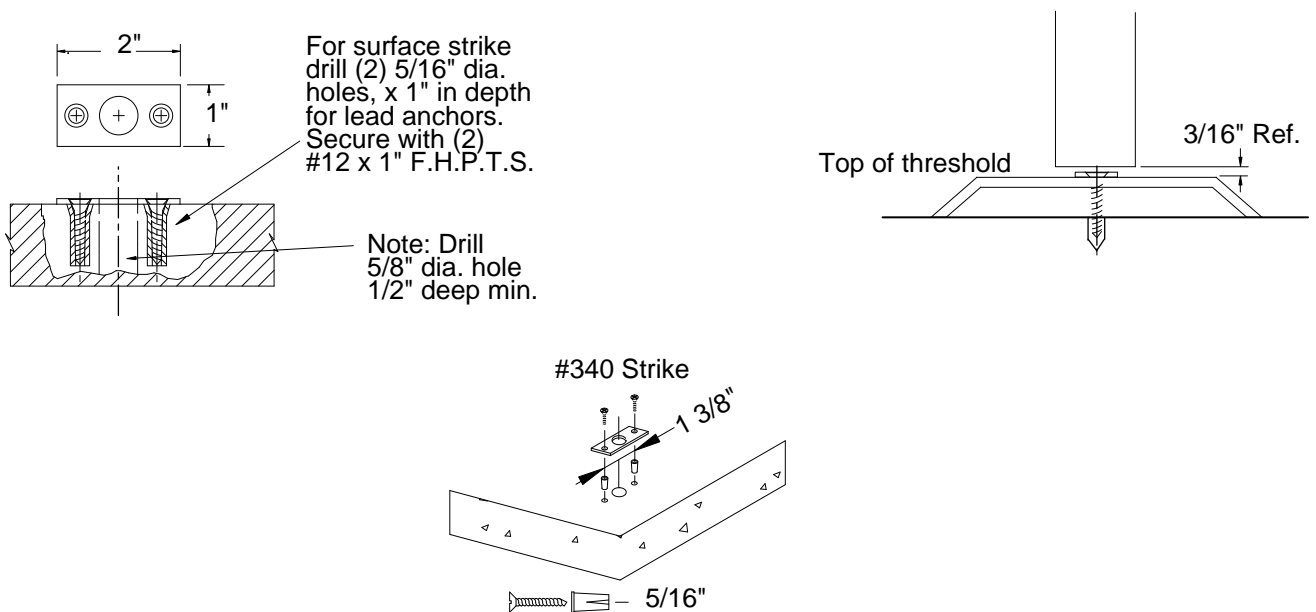
BOTTOM STRIKE PREPARATION



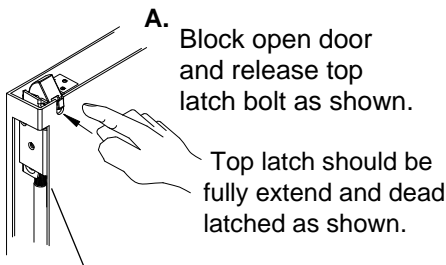
Optional pullman latch No. 431 strike installation



Optional slide bolt No. 340 strike installation



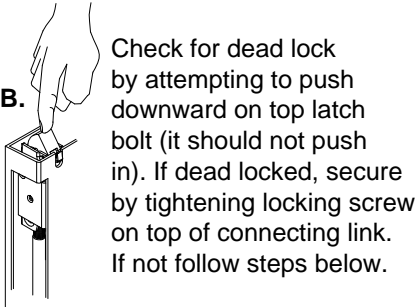
17 Adjustment of rods.



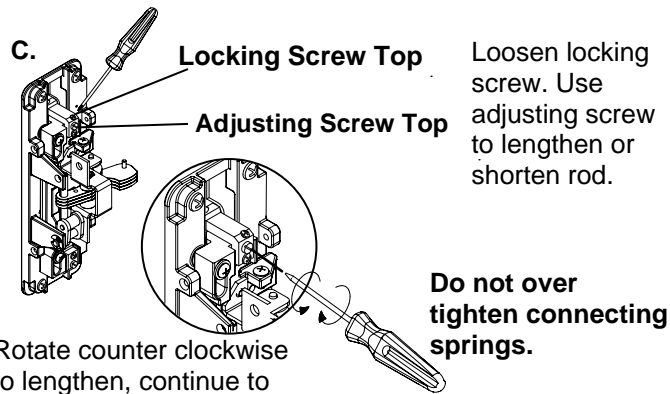
A. Block open door and release top latch bolt as shown.

Top latch should be fully extend and dead latched as shown.

Note: "Cutouts" shown for clarity, not required.



B. Check for dead lock by attempting to push downward on top latch bolt (it should not push in). If dead locked, secure by tightening locking screw on top of connecting link. If not follow steps below.



Locking Screw Top

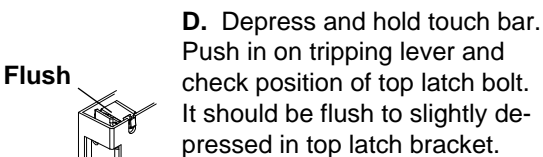
Adjusting Screw Top

Loosen locking screw. Use adjusting screw to lengthen or shorten rod.

Do not over tighten connecting springs.

Rotate counter clockwise to lengthen, continue to check for dead lock as screw is rotated.

Secure by tightening top locking screw once dead lock is achieved.

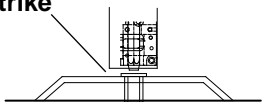


Flush

D. Depress and hold touch bar. Push in on tripping lever and check position of top latch bolt. It should be flush to slightly depressed in top latch bracket.

E. Release tripping lever and touch bar, top latch should remain in retracted position

Slide bolt clears strike



F. With top latch held retracted, adjust bottom rod so slide bolt is flush across bottom of latch bracket and clears threshold, floor and strike. If adjustment is required use bottom adjusting screw: follow same steps as above for adjusting top latch bolt. Secure with bottom locking screw once adjustment is complete.

G. Standing on inside, close door and check that top and bottom latch bolts align and engage in top and bottom strikes.

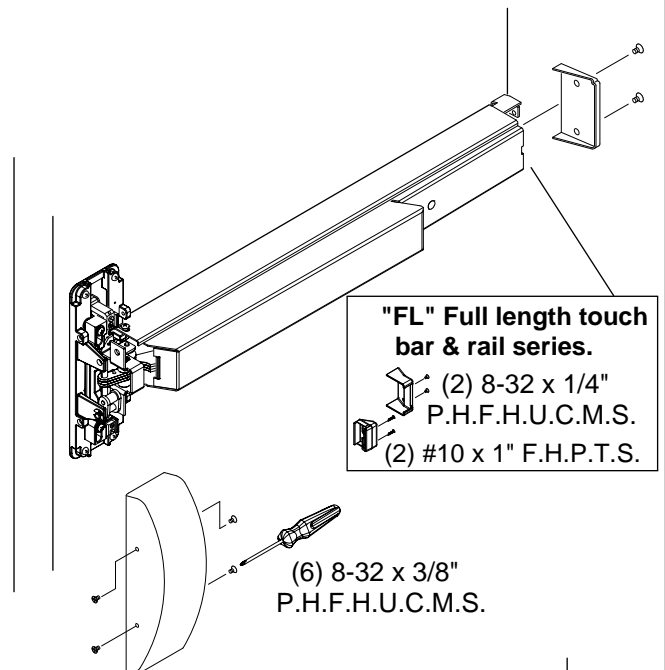
H. After rods are fully adjusted ensure that top and bottom locking screws are tight.

I. Check device operation by opening and closing door several times from **inside**. Check and operate outside trim if installed.

Repeat adjustment procedure if:

Top latch is not held retracted
Bottom slide bolt does not clear strike or floor.
Latches do not work properly with outside trim

J. Install end cap and center case covers.

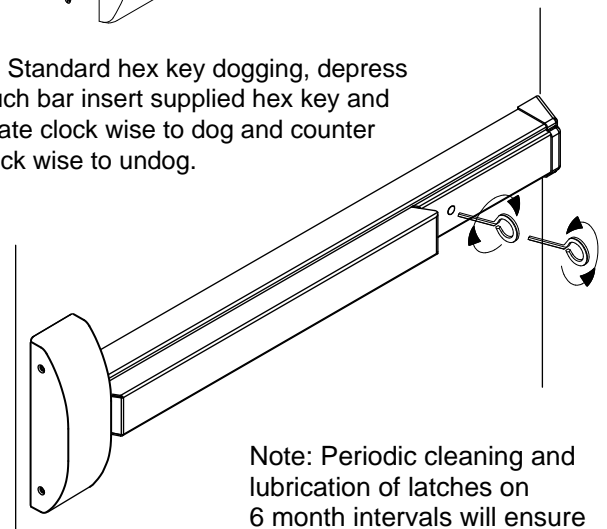


"FL" Full length touch bar & rail series.

(2) 8-32 x 1/4"
P.H.F.H.U.C.M.S.
(2) #10 x 1" F.H.P.T.S.

(6) 8-32 x 3/8"
P.H.F.H.U.C.M.S.

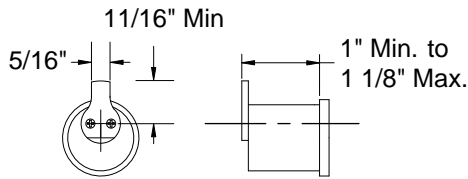
K. Standard hex key dogging, depress touch bar insert supplied hex key and rotate clock wise to dog and counter clock wise to undog.



Note: Periodic cleaning and lubrication of latches on 6 month intervals will ensure proper operation of device.

OPTIONS: Cylinder dogging

Cylinder specifications and cams;

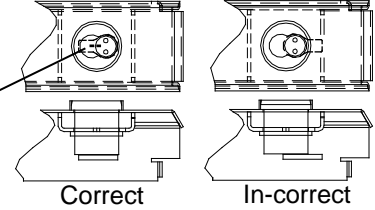


Note: When using IC core cylinders, ensure that cam is in proper position prior to installing the new core.

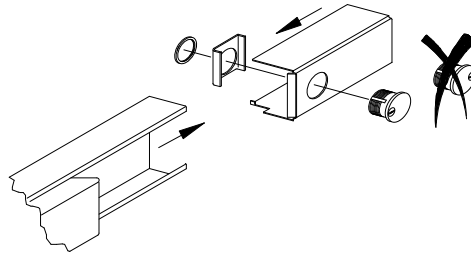
Useable Cams

Arrow	001	Ilco/Unican	SC1
Assa	Std. (Yale)	Lori	SC1 4200-82-2002 Std.
Best	C136	Sargent	13-0664 or 13-0660
Corbin	A02	Schlage	001
Falcon	12667-3	Yale	2160

Witness Marks



Cylinder dogging option on standard touch bar and rail;

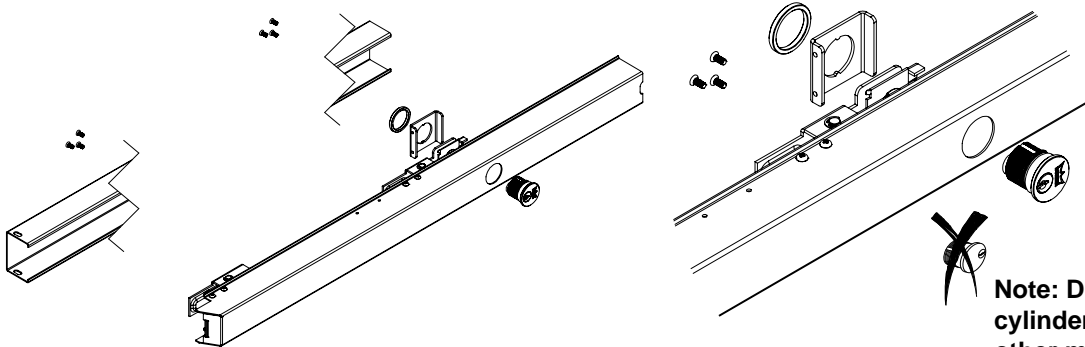


Note: DORMA mortise cylinder supplied. To use other manufacture cylinders, "L" less cylinder is available.

To change cylinder:

1. Dog down touch bar.
2. Remove end cap and end cap mounting bracket.
3. Slide out filler from rear of rail.
4. Remove cylinder nut on underside of filler.
5. Remove cylinder and mounting plate.
6. Insert new cylinder facing as shown in detail.
7. Install mounting bracket and cylinder nut.
8. Slide filler back into rear of rail.
9. Install end cap mounting bracket and end cap.
10. Undog touch bar.

Cylinder dogging option on full length touch bar and rail; (See cam specifications above.)



Note: DORMA mortise cylinder supplied. To use other manufacture cylinders, "L" less cylinder is available.

To change cylinder:

1. Remove end cap, end cover & end cap mounting bracket.
2. Remove cover from chassis and two chassis to touch bar mounting screws.
3. Remove (6) touch bar to rail mounting screw from underside of rail.
4. Flip rear arm assembly outward from underside of touch bar.
5. Remove cylinder nut on underside of touch bar.
6. Remove cylinder and mounting plate.
6. Insert new cylinder facing as shown in detail.
7. Install mounting bracket and cylinder nut.
8. Flip rear arm assembly back under touch bar.
9. Re-install touch bar to rail with (6) screws.
10. Install touch bar & rail back on to chassis with (2) screws.
11. Re-install end cap mounting bracket.
12. Re-install end cap, end cover & chassis cover.

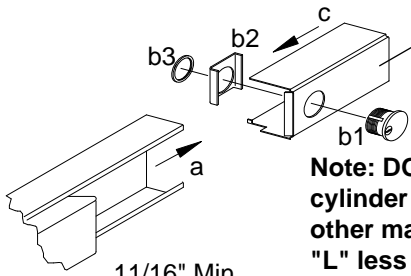


OPTIONS

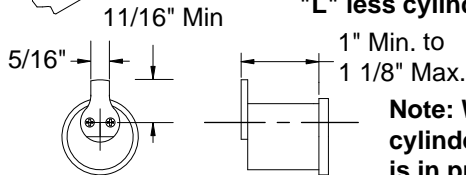
"CD" (CYLINDER DOGGING) OPTION:

Cylinder dogging installation instructions & cylinder specifications.

NOTE: Touch bar must be in dogged down position, to remove the rear filler panel.

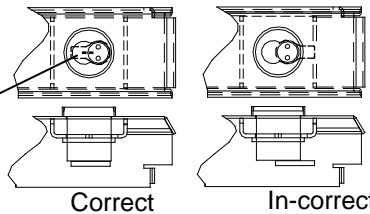


Note: DORMA mortise cylinder supplied. To use other manufacture cylinders, "L" less cylinder is available.



Note: When using IC core cylinders, ensure that cam is in proper position prior to installing the new core.

Witness Marks



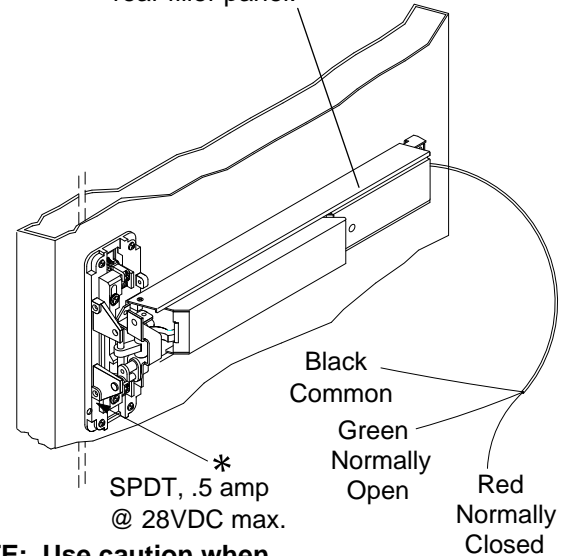
Useable Cams

Arrow	001
Assa	Std. (Yale)
Best	C136
Corbin	A02
Falcon	12667-3
DORMA	10
Ilco/Unican	SC1
Lori	SC1 4200-82-2002 Std.
Sargent	13-0664 or 13-0660
Schlage	001
Yale	2160

"LM" (LATCH MONITOR) OPTION:

Latch monitor: Monitors movement of latch bolt, with or without depressing of touch bar. Can be wired normally open or normally closed.

NOTE: Touch bar must be in dogged down position, to remove the rear filler panel.



* SPDT, .5 amp @ 28VDC max.

NOTE: Use caution when cutting touch bar and rail to length.

"BPA" & "BPAR" (ALARM) OPTION: (STANDARD INSTALLATION)

BPA: Battery powered alarm, sounds continuous or until disarmed.

BPAR: Battery powered alarm, sounds for 4 minutes, automatically resets.

"Alarm mode set at factory."

SIZE A:

Will fit 48" (1219 mm) door opening without cutting. Can be cut to fit a 39" (991 mm) minimum door opening.

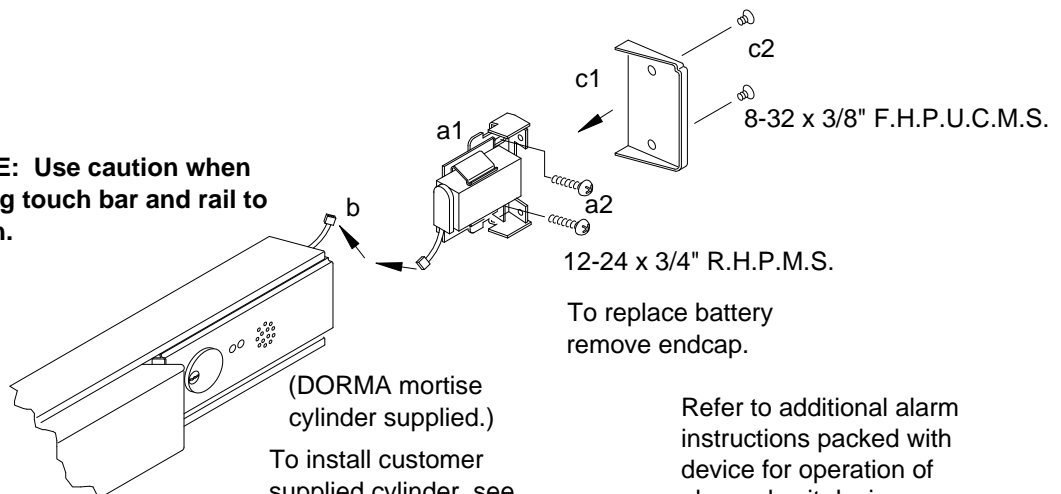
SIZE B:

Will fit 36" (914 mm) door opening without cutting. Can be cut to fit a 33" (838 mm) minimum door opening.

SIZE C:

Will fit 36" (914 mm) door opening without cutting. Can be cut to fit a 30" (762 mm) minimum door opening.

***NOTE:** Use caution when cutting touch bar and rail to length.



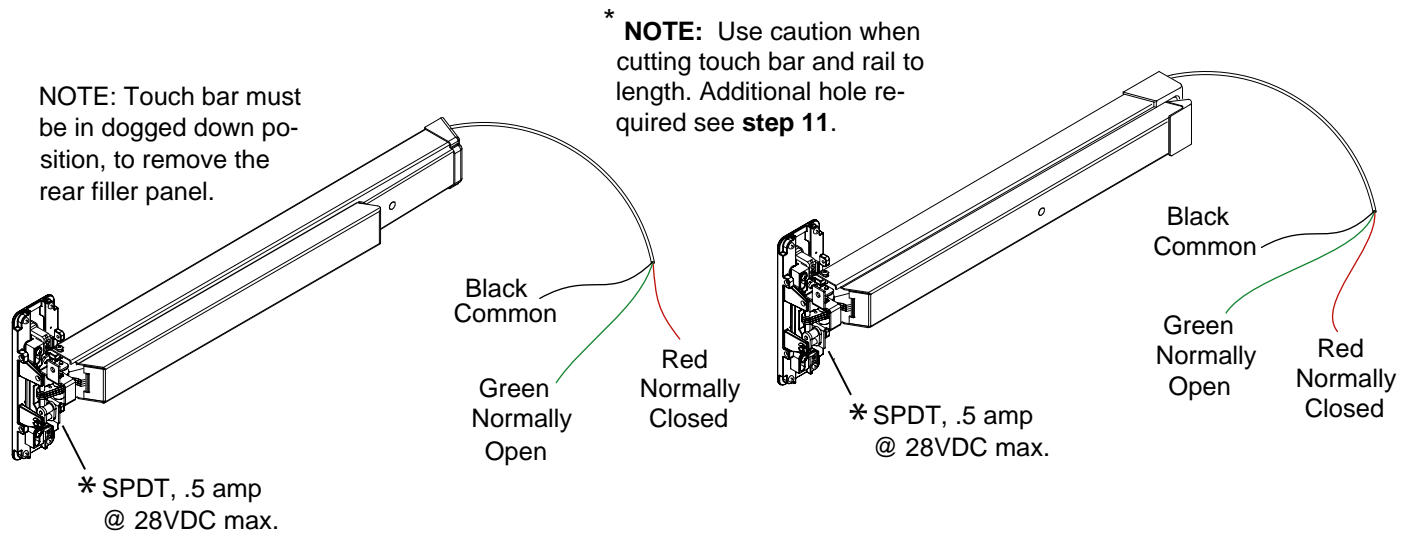
(DORMA mortise cylinder supplied.)

To install customer supplied cylinder, see cylinder dogging option at top of page.

To replace battery remove endcap.

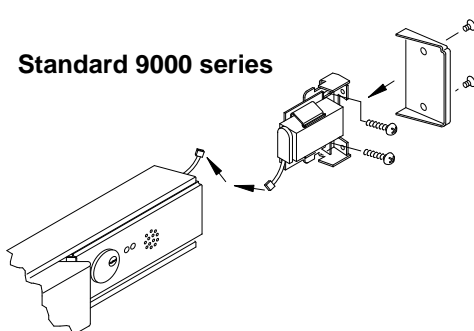
Refer to additional alarm instructions packed with device for operation of alarmed exit device.

Option: "LM" Latch monitor; monitors movement of latch bolt with or without depressing of touch bar.
May be wired either normally open or normally closed.



"BPA", "BPAR" & DWA (ALARM) Options; "BPA" Battery powered alarm, sounds continuous until reset. "BPAR" alarm sounds for 4 minutes then will automaticly reset. **Alarm mode set at factory.**

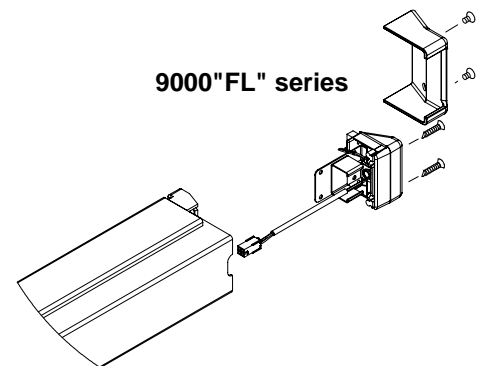
Note: On either the standard 9000 alarm or the 9000"FL" versions caution must be used when cutting touch bar and rail to length due to the wires running inside of the assembly. A standard DORMA cylinder is supplied on both units, to change to a customer supplied cylinder follow steps under "**cylinder dogging**". Refer to **additional instruction sheet packed with device for operational instructions etc.**



"DWA" OPTION:
Battery Eliminator

White
Green
(Non-polarized)

Connected to outside power source; 12-24V AC/DC supply. ie: Dorma ES-100 etc. Contact Dorma **1-800-523-8483** for other supplies available.



To change battery:

1. Prop open door.
2. Remove (2) end cap mounting screws.
3. Remove (2) end cap mounting bracket screws.
4. Remove mounting bracket & replace battery.
5. Re-install in reverse order.

To change battery:

1. Prop open door.
2. Remove (2) end cover mounting screws.
3. Remove (2) end cap screws.
4. Remove end cap & replace battery.
5. Re-install in reverse order.

Size A:

Fits 48" door opening without cutting.
Can be cut to fit a 37 1/2" minimum door opening.

Size B:

Fits 36" door opening without cutting.
Can be cut to fit a 31 1/2" minimum door opening.

Size C:

Fits 36" door opening with out cutting.
Using a shorter touch pad then the standard "B" size allows it to be cut to 28 1/2" door opening.

OPTIONS

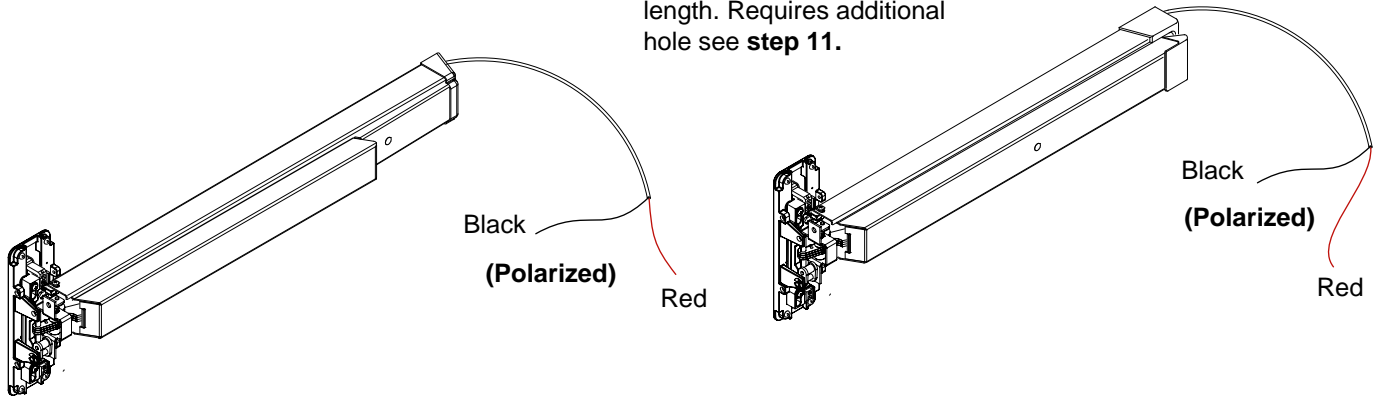
Option: "ES" Electric latch retraction: Electrically retracts latch bolt(s) when energized by power supply.

Electrically retracts latchbolt(s)
when energized by power supply.

**REQUIRES DORMA PS501 POWER SUPPLY
AND ES105 POWER TRANSFER.**

PS501 Will operate (2) "ES" 9600 exit devices,
but is capable of powering (2) additional devices
by installing the optional "ES-2" card.

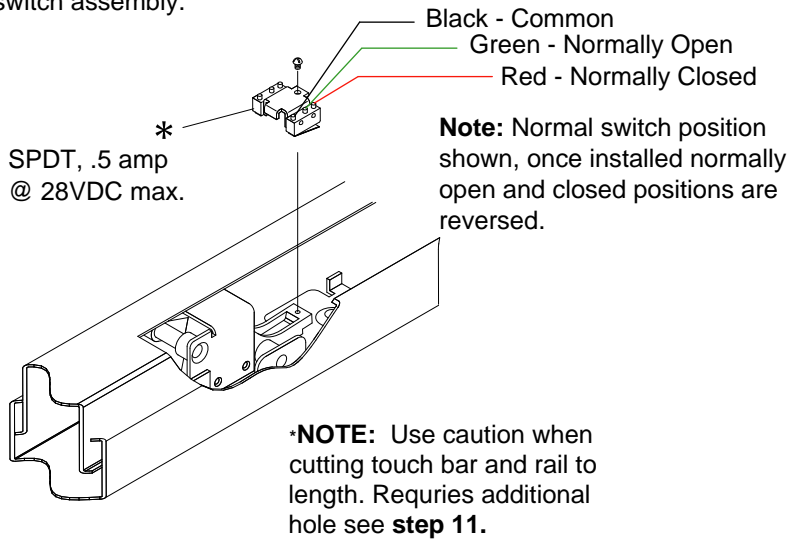
***NOTE:** Use caution when
cutting touch bar and rail to
length. Requires additional
hole see **step 11**.



Option: "MS" Monitor Switch: Monitors movement of touch bar, or can be used to signal an external light, horn etc.

Located on the rear arm assembly as shown;
Comes standard with (2) two micro switches.
Both can be wired normally open or normally
closed.

On the standard 9000 series it can be added
in the field by removing rear filler. On the "FL"
series it can be added, however the touch bar
must be removed completely from the rail to
install switch assembly.



OPTIONS

"DE" (DELAYED EGRESS) OPTION:

Note: Refer to DE9000 Series Installation Instructions for additional instructions for installation and operation of the "Delayed Egress" exit device.

Specific project or custom wiring diagrams available on request, consult the **DORMA** technical service department.

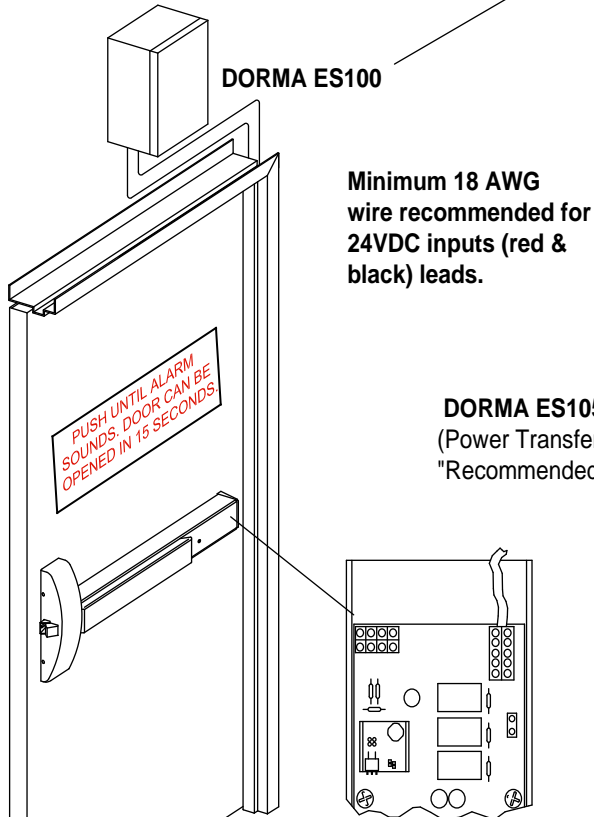
NOTE: Always disconnect power prior to making any connections or service.

It is recommended that the 120VAC power be supplied from an Uninterrupted Power Supply (UPS) to ensure proper operation during a power failure.

Always observe proper static discharge grounding procedure's when installing or servicing the DE device.

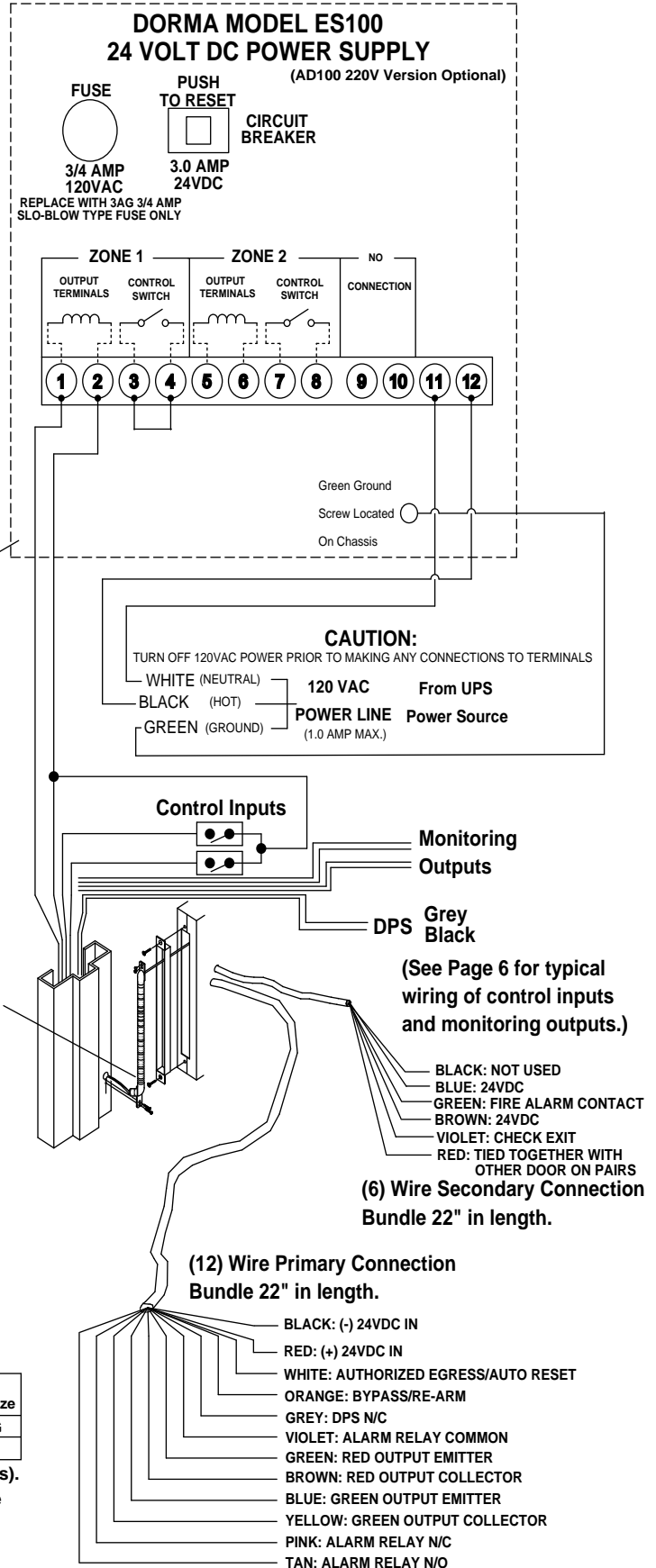
Wires that interconnect the remote authorized egress and remote by-pass/rearm must be located within the same room as the panic hardware (DE), or outside the door at no more than 10' feet of distance.

For ULC installations: Some "Authorities Having Jurisdiction" also require an illumination level of 100' feet at the door, to be provided by the emergency power supply system.



Maximum Wire Length From Power Supply To Device & Back To Supply In Feet x Wire Gage/Size				
WIRE	18AWG	16AWG	14AWG	12AWG
FEET	25	50	75	100

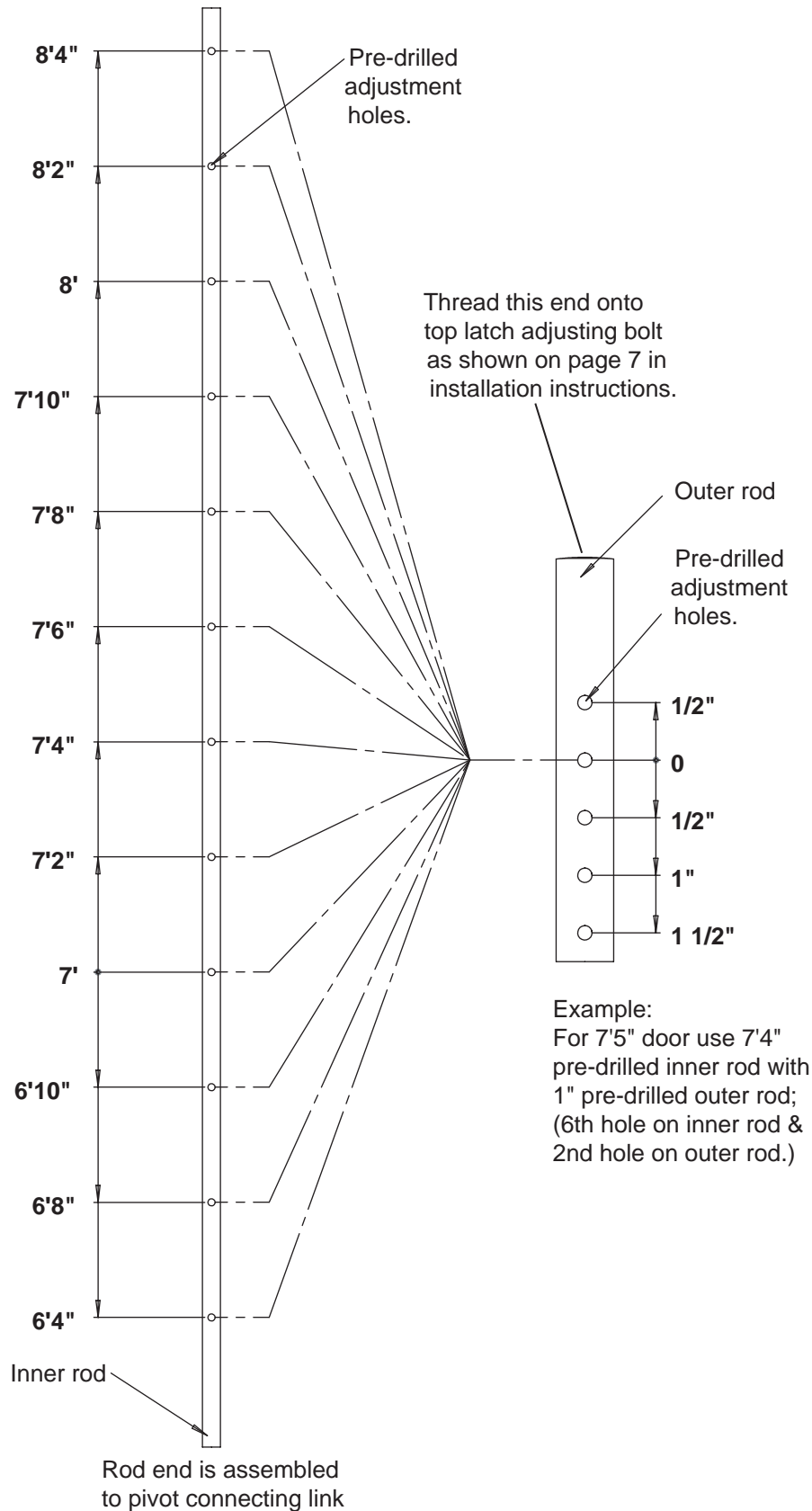
* For 24VDC inputs only (red & black wires).
Note: Wire run is from supply to device and back to the supply.



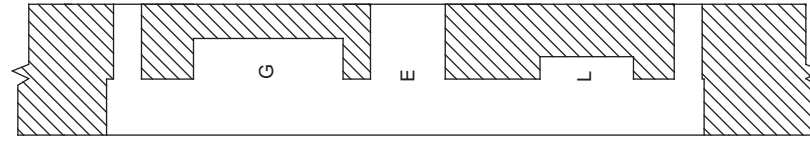
9100/F9100 SERIES CONCEALED VERTICAL ROD EXIT DEVICE



Top Rod Adjustment Chart - for door sizes ranging from 6'4" to 8'4".

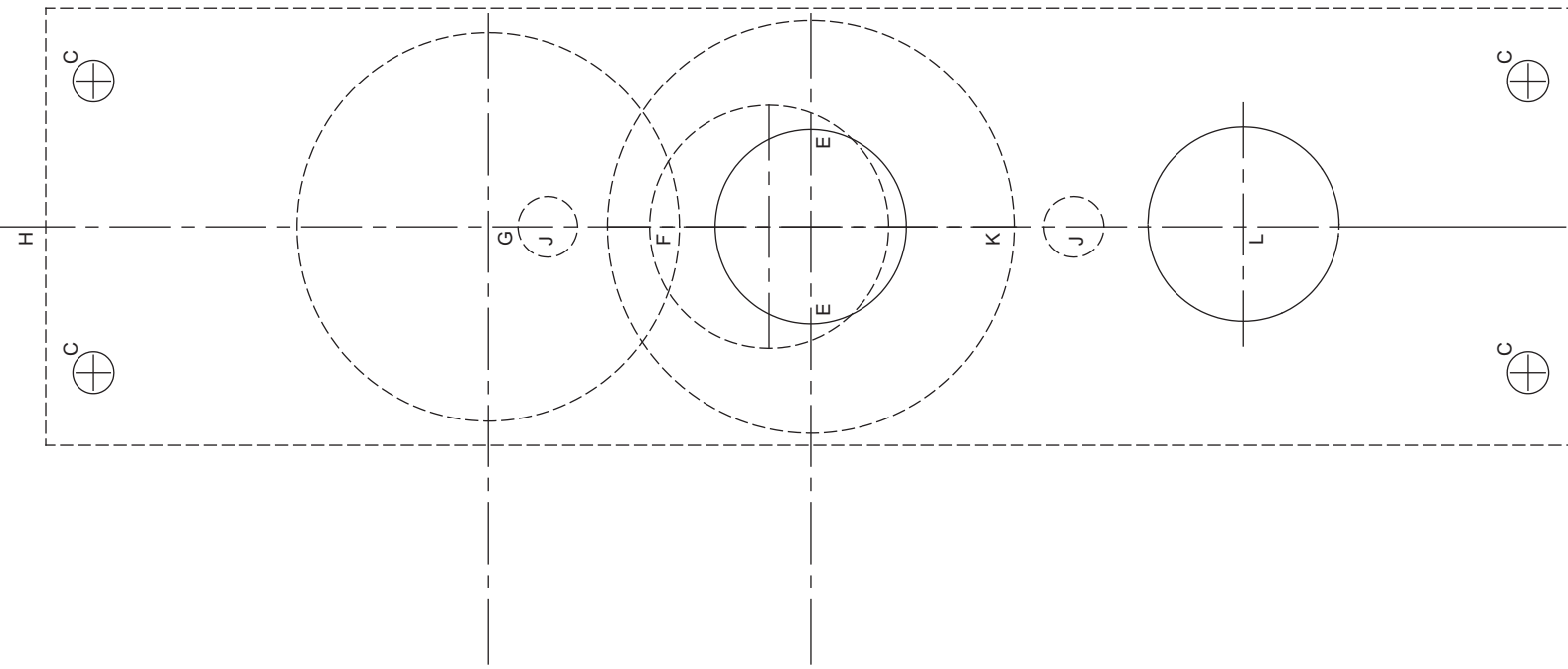


For Wood or Composite Doors;
 8 1/8" x 2 3/8" x 3/4" Deep Min. Cut
 Out. (Outside Face)
DO NOT CUT THROUGH DOOR!
 (G) 2 1/8" Dia. Min. Hole x 1 1/4" Deep As Shown
 (E) 1" Dia. Min. Hole Thru As Shown
 (L) 1 1/4" Dia. Hole x 1" Deep As Shown



OUTSIDE DOOR PREP
 (VERTICAL REFERENCE)

FOR WOOD DOOR 8 1/8" x 2 3/8" x 3/4" DEEP MIN. (SEE TEMPLATE BOOK PRINT T-9005 FOR ADDITIONAL INFO.)



DRILL CHART

C 3/8" (10 mm) DIA. THRU

C 3/8" (10 mm) DIA. THRU
 G 2 1/8" (54 mm) DIA. OUTSIDE FACE "08" FUNCTION

E 1" (25.4 mm) DIA. THRU FOR "08" FUNCTION

F 1 1/4" (32 mm) DIA. THRU FOR "03" FUNCTION

C 3/8" (10 mm) DIA. THRU

F 1 3/8" (35 mm) DIA. THRU FOR "03" FUNCTION

H 2 1/4" (57 mm) x 8" (203 mm) CUTOUT OUT-

SIDE FACE ONLY FOR "05" & "22" FUNCTION

L 1 1/4" DIA. FOR THUMPIECE CLEARANCE

D 3/8" (10 mm) DIA. THRU

J 5/16" (8mm) DIA. THRU DOOR - C08, R08 & K08

K 2 1/8" (54mm) DIA. THRU DOOR - C08, R08 & K08

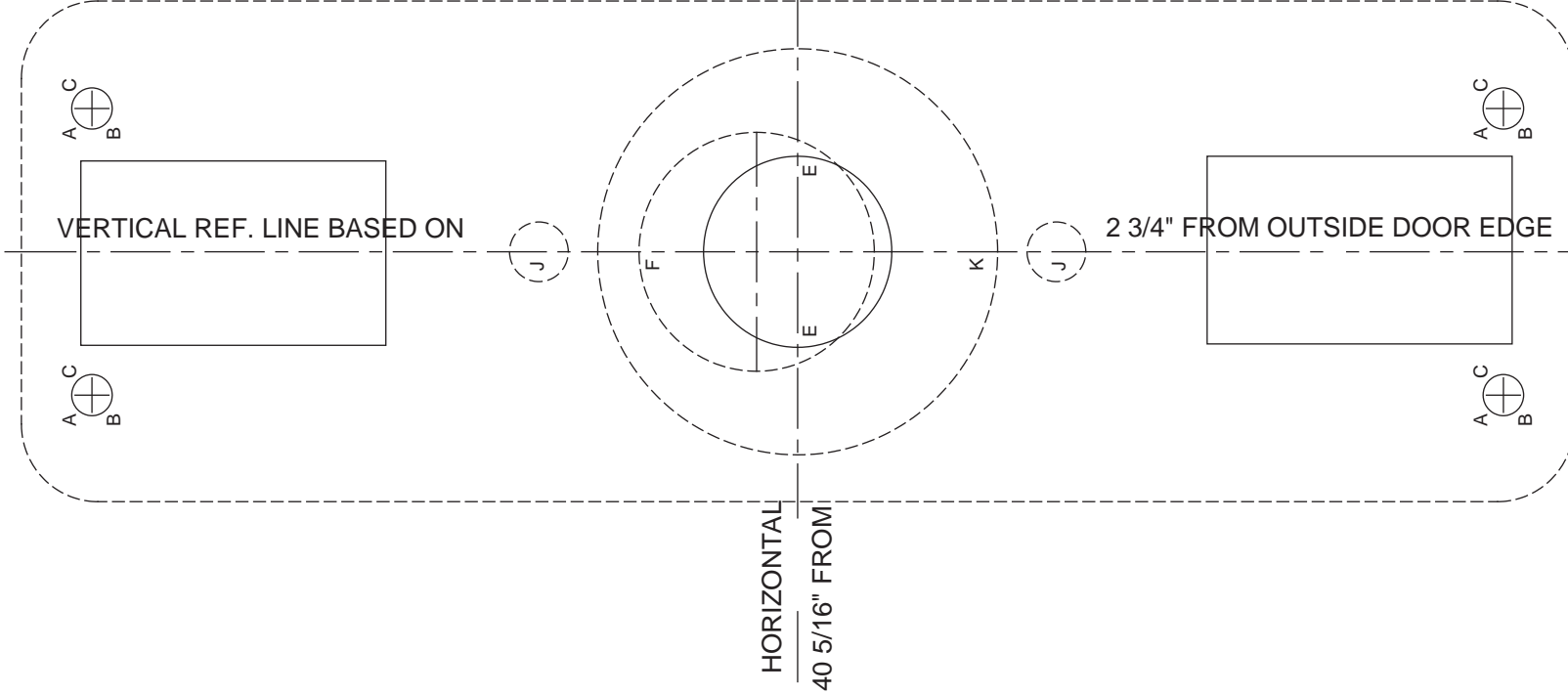


INSIDE DOOR PREP
 (VERTICAL REFERENCE)

1" x 1 5/8" CUTOUT
 TOP AND BOTTOM

REFERENCE
 FINISHED FLOOR

1" x 1 5/8" CUTOUT
 TOP AND BOTTOM



DRILL CHART

A 1/8" (3 mm) DIA. DRILL 1" (25 mm) DEEP

B NO. 14 DRILL 12-24 TAP

C 3/8" (10 mm) DIA. THRU

C 3/8" (10 mm) DIA. THRU
 E 1" (25.4 mm) DIA. THRU FOR "08" FUNCTION

F 1 1/4" (32 mm) DIA. THRU FOR "03" FUNCTION

C 3/8" (10 mm) DIA. THRU

E 1" (25.4 mm) DIA. THRU FOR "05" FUNCTION

F 1 3/8" (35 mm) DIA. THRU FOR "03" FUNCTION

D 3/8" (10 mm) DIA. THRU

J 5/16" (8mm) DIA. THRU DOOR - C08, R08 & K08

K 2 1/8" (54mm) DIA. THRU DOOR - C08, R08 & K08

B NO. 14 DRILL 12-24 TAP

