

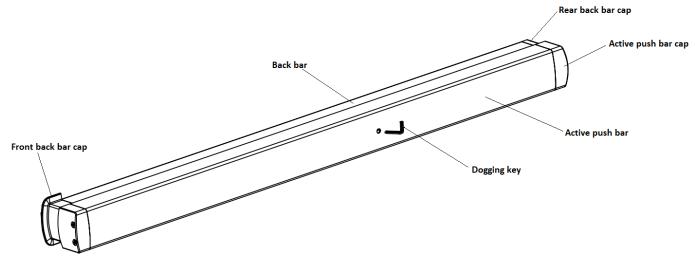
T352 Concealed Vertical Rod Exit Device



Preparation Guide and Installation Instructions

BOX CONTENTS:

1354-80 Rev.03 02/24

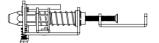




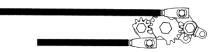
Bottom vertical lock

Rod assembly

Escutcheon (for cylinder)









Top & bottom strike (x2)

Supplements strike 1/32" & 1/16" (x2)

Bottom strike cap

Silencer spider(x3)









| SCREW & NUT CHARTS | | | | | | | |
|--------------------|----------|------------------------------------|--|--|--|--|--|
| PICTURE | QUANTITY | DETAIL | USE FOR | | | | |
| | 2 | M5X15 (5/8" lenght) | Fix front back bar cap with assembly vertical rods | | | | |
| | 2 | PARKER #8x3/4" (selft drilling) | Fix Rear back bar cap with door | | | | |
| | 6 | M5x8 (5/16" lenght) | Fix assembly vertical rods with door (1) Fix top vertical lock with door (2) only the 2 upper fixings Fix bottom vertical lock with door (3) | | | | |
| | 1 | M5X12 (1/2" lenght) | Fix the top lock at the end of the installation. Only the lower fixation | | | | |
| | 6 | PARKER #10x1/2" | Fix strike with top and bottom frame | | | | |
| | 6 | W5/32"x1/2" | Fix strike with top and bottom frame | | | | |
| | 2 | M5x45 (1-3/4" lenght) | Fix escutcheon (cylinder) with door | | | | |
| | 2 | M5x45 (2" lenght) | Fix escutcheon (cylinder) with door | | | | |
| | 2 | W1/4"x3/16"height | Fix rods with top and bottom vertical locks | | | | |



RECOMMENDED INSTALLATION TOOLS:

Safety glasses // Measuring tape // Level Pencil // Ruler

Power drill // Saw horse // Paper tape // Center punch

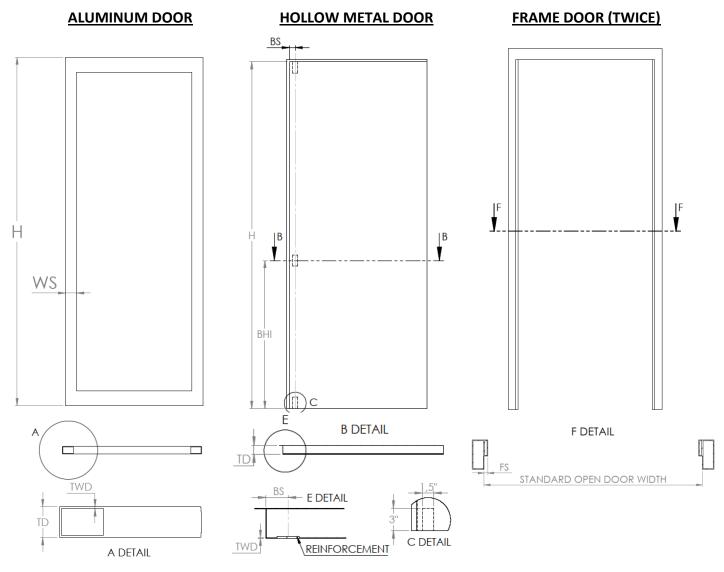
Phillips screw driver//Allen L or T key (2.5mm or 3/32") // wrench sizes (8mm - 5/16" / 11mm or 7/16")

Drill bit sizes (4mm-5/32"// 5.5mm-7/32"// 9.5mm-3/8" (90 deg)// 11mm-7/16"//25.4mm-1"//32mm-1¼"

38mm-1½"// 13mm-1/2")

Drill-TAP W5/32"x32 (opcional strikes fixation)

MEASURING THE FRAME AND DOOR:



<u>Dimensions and limits:</u> (take all this dimension for your application)

H(height door) = 95" standard (up to 120" using extension rod T352E00, sold separately)

WS(width style)= 2 ½"minimum

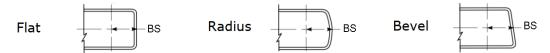
TD(thickness door)= 1 ¾" to 2" (for greater thicknesses consult the manufacturer)



TWD(thickness wall door)= 3/32" minimum and 1/8" maximum for TD= $1\frac{3}{4}$ " and $\frac{7}{4}$ " for TD=2". For hollow metal needs apply an internal reinforcement only in the face to fix the panic hardware as shown in the picture about hollow metal door. (Its need to have a total thickness between 3/32" to 1/8")

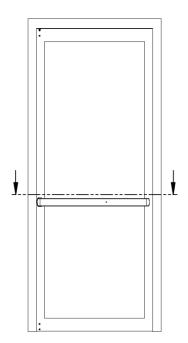
BHI(bar height installation) = 40" standard and maximum for doors up to 95" height. If a lower height is required, the lower rod can be cut (see "Sizing the vertical rods", page 5)

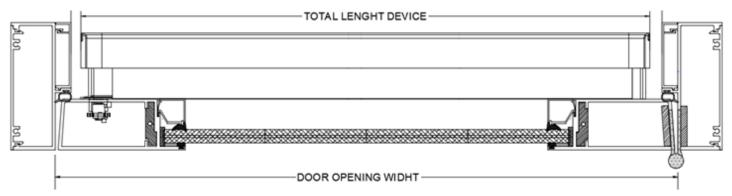
BS(backset)= $1 \frac{1}{2}$ " it is recommended. For WS= $2 \frac{1}{2}$ " use a BS= $1 \frac{1}{2}$ ". Note: Backset its always measured at the door centerline, and not at the edge.



FS(frame stop)= 5/8" is the standard that use in this installation, for greater FS it is necessary to increase the BS with that difference and reduce the total length of the bar by 2 times that difference. In the case that WS= 2 $\frac{1}{2}$ " the FS can be up to $\frac{3}{8}$ " at maximum.

SIZING THE EXIT DEVICE:





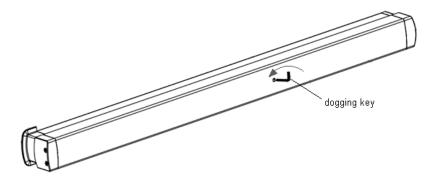


| Standard door widths and mounting hole spacing | | | | | | |
|---|--------------------|------------------------|--------------------|--|--|--|
| Exit device lenght | SMALL (S) | MIDLENGHT (M) | LONG (L) | | | |
| Standard door opening width (NOT CUT REQUERIMENT) | 36" | 42" | 48" | | | |
| Total lenght device | 33 3/4" | 39 3/4" | 45 3/4" | | | |
| Minimum door width exit device can support | 30" | 36" | 48" | | | |
| Special door opening width (EDW) CUT REQUERIMENT | C = 36"-EDW | C = 42"-EDW | C = 48"-EDW | | | |

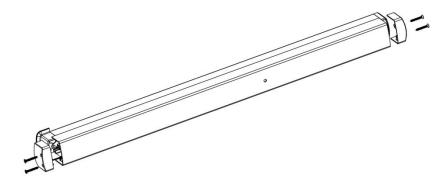
Note: C is the measure that it is necessary to cut the bar, Maximum cut is 6"

INSTRUCTIONS FOR SET UP & CUT THE BAR:

1) Undogging the bar. Use the dogging key and turn counterclockwise.

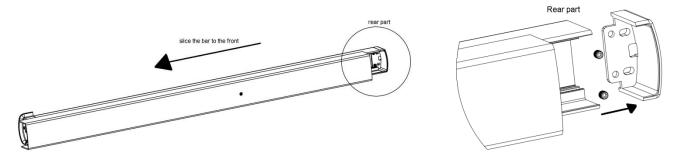


2) Quit the screws that fix the active push cap (twice) with a screwdriver.

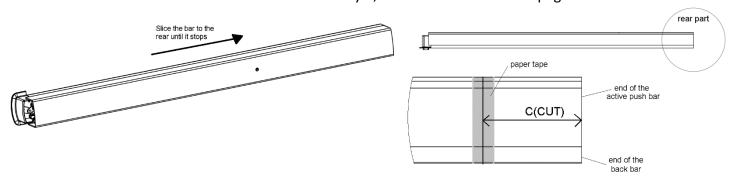




3) Slice the bar a little to the front for quit the screws that fix the rear back bar cap. Use an Allen key 2,5mm or 3/32" size.



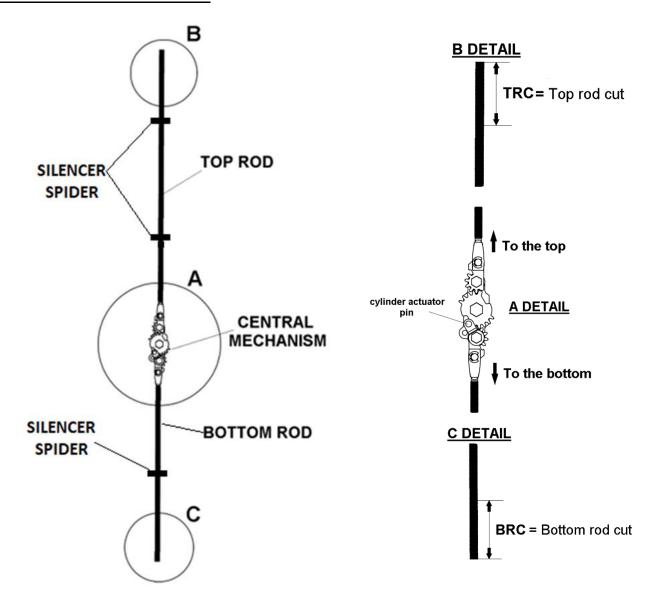
4) Slide the bar back until it stops, push the bar and check that de edge of the bar back and active push bar coincide. Then cut twice the measure necessary C, calculate in the table of page 4.



5) Fix again the rear back bar cap. (do not fix the active push bar caps again for now).



SIZING THE VERTICAL RODS:



ROD CUT CALCULATION:

Standard installation BHI=40" and H=95", no need any cut. If **TRC** is a negative value it's no necessary cut the top rod, and this is the additional large of extension rod that its necessary.



PREPARING THE INSIDE OF THE DOOR:

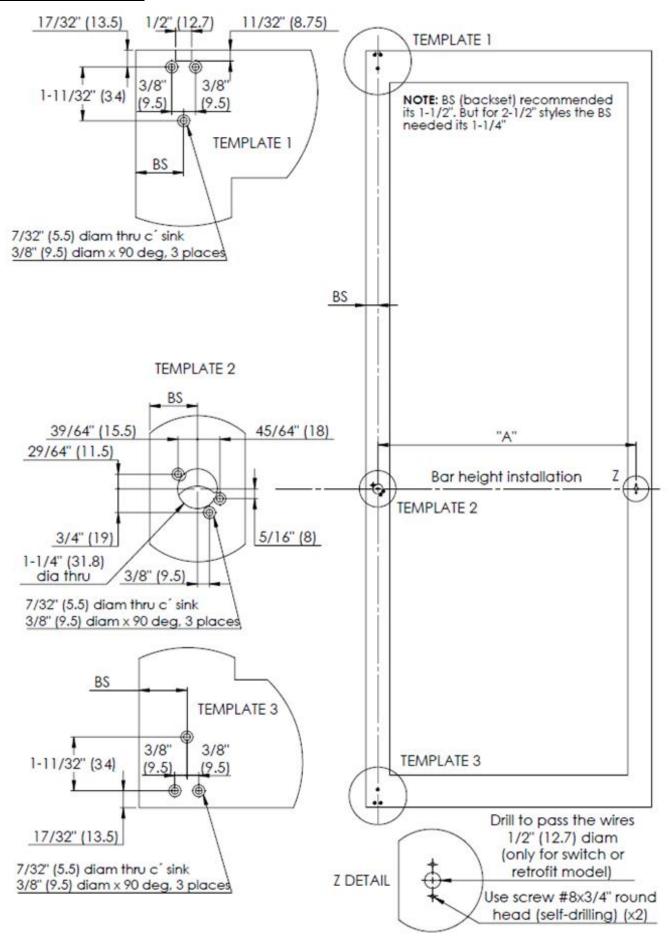
- 1. Determine and mark the applicable bar height installation (horizontal line) of the exit device on the interior of the door.
- 2. Determine and mark the backset required.
- 3. Determine the location of the door templates by using the bar height installation of the exit device and aligning the template with the backset centerline (vertical line) of the door. Affix the templates to the door.
- 4. Determine and mark the hinge side preparation using dimension "A" as shown in the "Standard Door Widths and Mounting Hole Spacing" chart below. If the holes are done manually, it is recommended to do these holes last (see the exit device installation, point 15)
- 5. Mark, center punch, drills all holes.
- 6. Prepare door for cylinder escutcheon using "Outside preparation for use with mortise cylinder & escutcheon" on page 10, if required.
- 8. Remove the templates.

| Standard door widths and mounting hole spacing | | | | | | |
|--|--------------------|------------------------|--------------------|--|--|--|
| Exit device lenght | SMALL (S) | MIDLENGHT (M) | LONG (L) | | | |
| Standard door opening width | 36" | 42" | 48" | | | |
| Dimension "A" (for standard door) | 32 7/16" | 38 7/16" | 44 7/16" | | | |
| Dimension "A" (for special door) | 32 7/16"- C | 38 7/16"- C | 44 7/16"- C | | | |

Note: **C** is the cut that it's necessary in case of special door

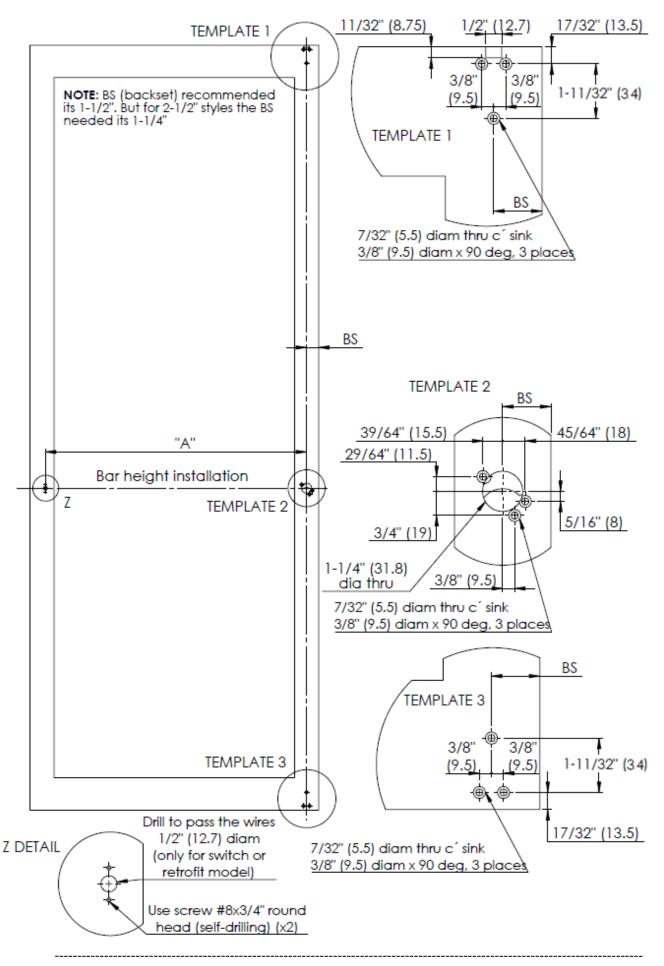


LHR SHOWN (INSIDE)



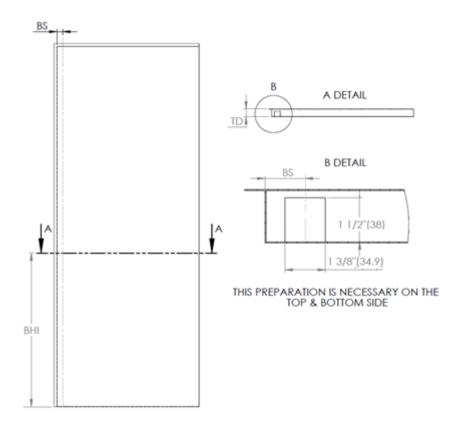


RHR SHOWN (INSIDE)

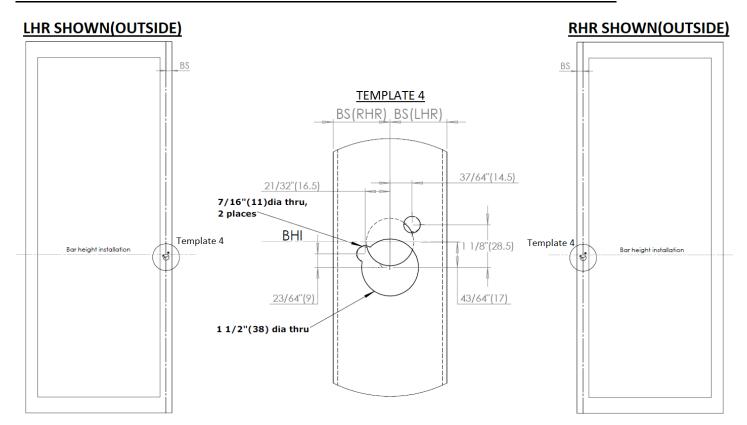




ADDITIONALS PREPARATIONS FOR HOLLOW METAL DOORS:



OUTSIDE PREPRARATION FOR USE WITH MORTISE CYLINDER & ESCUTCHEON:





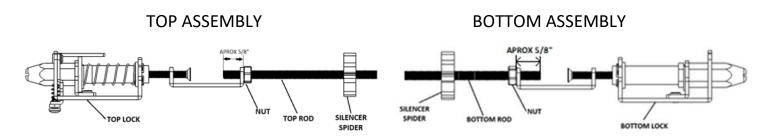


INSTALLING THE EXIT DEVICE:

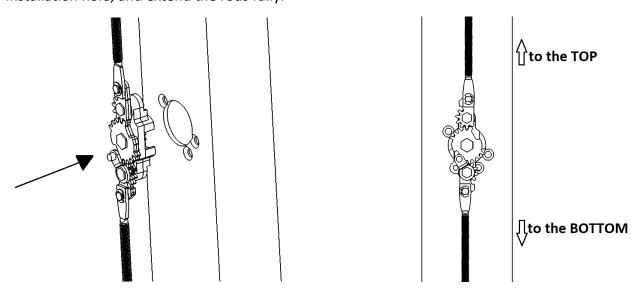
1. Place the door assembly on a saw horse with the inside surface facing up.



2. Place the top and bottom rod into the top and bottom lock, insert the rods into the silencer spider and insert the rod approximately 5/8" as shown in the image and adjust with the nut with wrench 7/16".

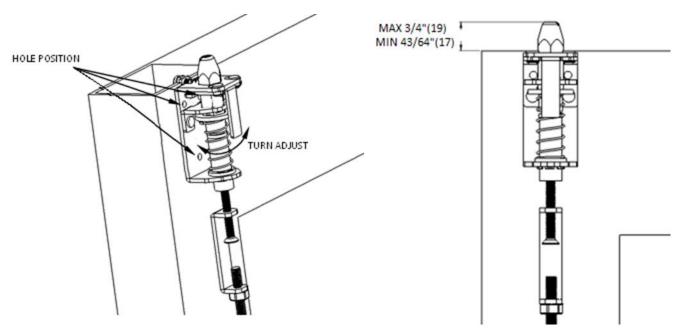


3. Place the rod assembly on the face of the door with the center block cylindrical portion aligned with the installation hole; and extend the rods fully.

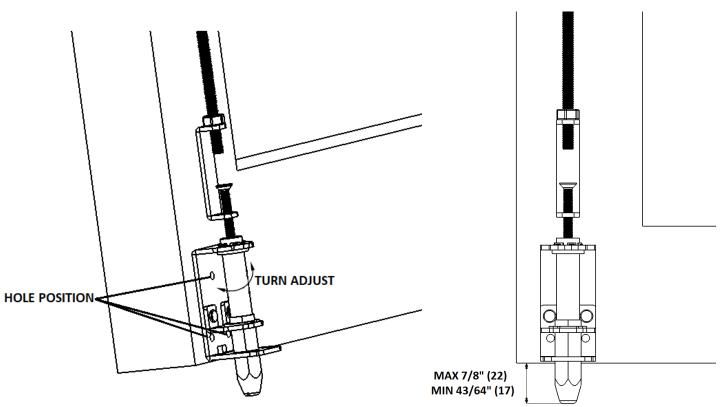




4. Adjust the top lock matching the position holes of the preparation, for this turn in clock or anti-clock side the top lock. Maximum projection from the top edge of the door is recommended.

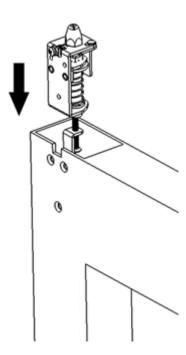


5. Adjust the bottom lock turning in clock or anti-clock side the bottom lock as shown in the picture (2 full rotation equivalent to 7/64" projection). The recommended projection is 1/2"+gap (edge door with floor).

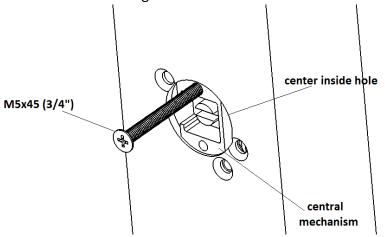




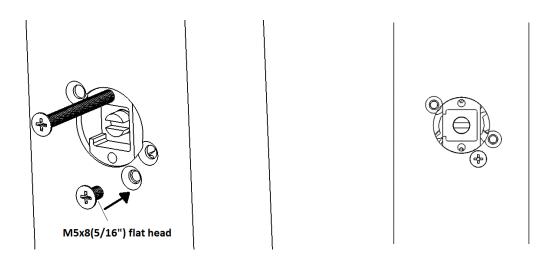
6. Being careful not to bend the rods, slide rod assembly through the top end of the latch stile towards the center of the door until the bottom bolt reaches the bottom of the stile.



7. Align the center mechanism with the central inside hole, help yourself with the screw by screwing it to the central mechanism as shown in the image.

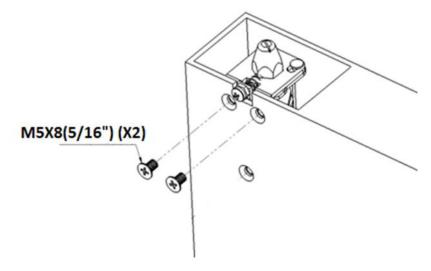


8. While holding helper screw, secure center mechanism with provided M5x8(5/16") flat head screw. Once secure, remove and the helper screw.

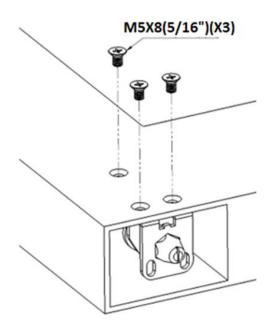




9. Secure the top lock with two (2) provided M5x8(5/16") flat head screws.



10. Secure the bottom lock with two (2) provided M5x8(5/16") flat head screws.



- 11. MORTISE CYLINDER & ESCUTCHEON INSTALLATION
- a) You should first check if it is necessary to use cylinder shims:

S= supplements sizes necessary (standard sizes 1/16" & 1/8")

C= large of cylinder (standard sizes 1" & 1 ¼", separate sale)

T= Thickness door

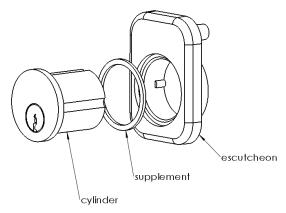
If the "S" value its zero, this means that it's not necessary supplements.

If the "S" value its positive, this means that its necessary these sizes of supplement

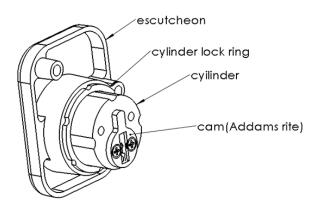
If the "S" its negative, this means that a longer cylinder is necessary



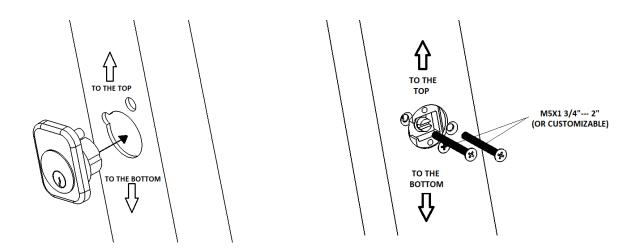
b) Place the cylinder & the supplement (if required) into the escutcheon as shown in the picture, it is important to respect the position of cylinder placement on the escutcheon.



c) Fit the cylinder to the escutcheon by threading the cylinder lock ring as far as it will go. The cylinder cam must necessarily be of the Addams rite cam type. OBS:the cylinder lock ring its incluide in the standard 1" & 1 %"cylinders GAAB series, if you buy other manufacturer cylinder you must order this accessory separately.



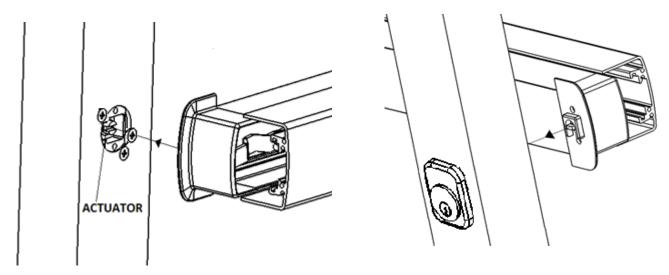
d) Place the assembly (cylinder/escutcheon) into de central hole as shown in the picture, respect the position its important. Fix the escutcheon with the 2 screws M5 flat head, the large of the screws must be the same of the thickness door.



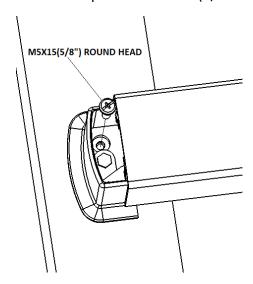
12. Undogg the bar and quit the screws that fix the active push cap, as shown in step 1 & 2 of INSTRUCTIONS FOR SET UP & CUT THE BAR (page n°4) if necessary.



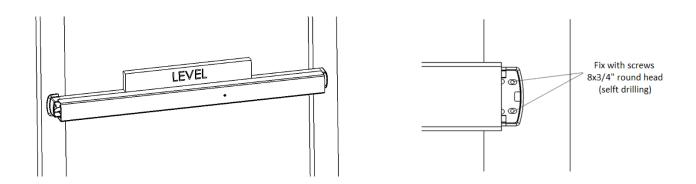
13. Place exit device onto style, verify that the actuator is horizontal and insert the device in to de hole verifying the correct connection.



14. Fix the front bar cap only with one screw provided M5x15(5/8" length) round head.

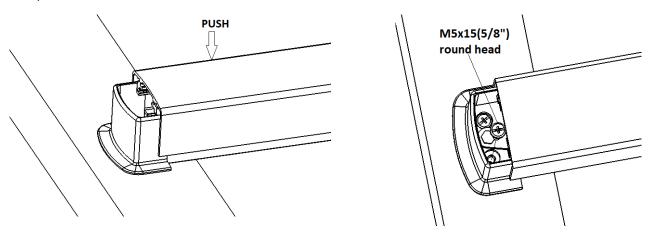


15. Align the device with the help of a level and fix with screws 8x3/4" round head (self-drilling).



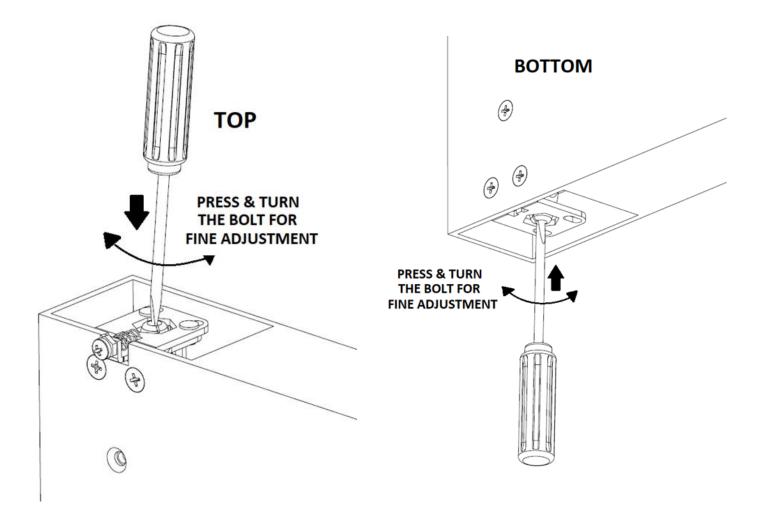


16. Push the bar to release the area where the M5x15(5/8") round head screw must be fixed as shown in the picture.



TESTING AND ADJUSTING EXIT DEVICE OPERATION

- 1. Perform a visual inspection to make certain exit device will be level and secure.
- 2. Test the operation of the active push bar and the top and bottom bolts and adjust as necessary. Fine adjustment is made using a flat screwdriver, pressing inward while turning in the desired direction.

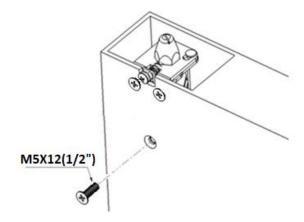




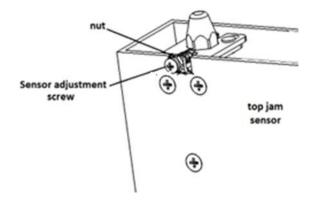
IMPORTANT:

The minimum adjustment is 1/6 of a turn (since it is positioned between the face-to-face rotation of the hexagon), so to make the adjustment it must be turned until the faces of the hexagon coincide with the guides. Be careful not to overextend the projection of the bolt (with excessive turns clockwise or due to poor pre-installation), since in that case the rod will be compressed. To avoid this in case the bolt If it is at its maximum protrusion, it must be turned counterclockwise by inserting the bolt 1/6 of a turn and verify that the bolt has reduced its protrusion. If this does not happen, the rod is compressed. In this case, it should be Continue turning counterclockwise 1/6 of a turn until you observe a decrease in the bolt protrusion. Once this occurs, you can turn 1/6 of a turn clockwise again to recover the bolt protrusion.

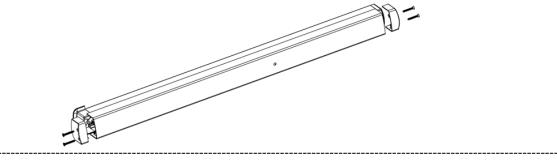
3. Once the fine adjustment has been made, place the M5x12 (1/2") fixing screw at the bottom of the top lock, as shown in the picture. This screw limits the movement of the locking bolts so that at no time of use can they come out of the guide (This situation is only necessary in fine regulation).



- 4. Verify that the top bolt retracts and latches, as appropriate.
- 5. Push top jam sensor and verify the top and bottom bolts project from the door edge.



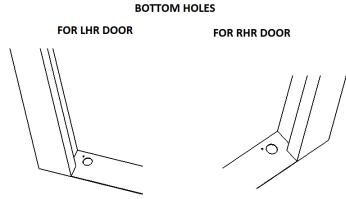
- 6. If bolts do not move, then check rods for binding.
- 7. If all steps are ok, fix the caps into the active push bar, as shown in the picture.

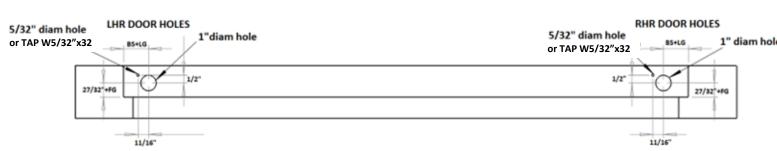




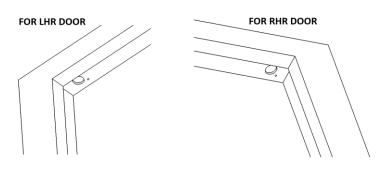
PREPARING THE TOP AND BOTTOM STRIKE INSTALLATION

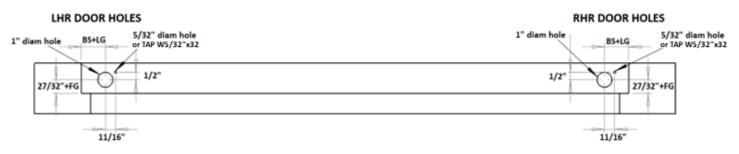
- 1. Position door inside opening such that it is plumb and square, and door freely swings open. Install door according to manufacturer's instructions. (This step makes with the push bar in dog position).
- 2. Mark and drill the hole's locations for strikes (top and bottom) as shown in the pictures.





TOP HOLES



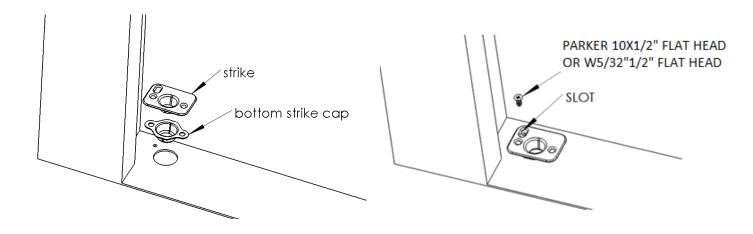


BS: Backset

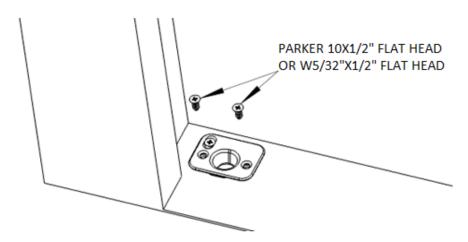
LG: lateral door gap FG: front door gap



3. Fix the 2 strikes (top & bottom) with a single screw parker 10x1/2" or W5/32"x1/2" in the slot. Apply also the bottom strike cap only if necessary.



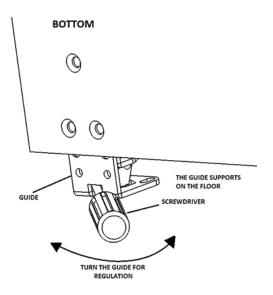
- 4. Undogg the bar and adjust de position of the strike through the slot, ensuring that the door does not have a gap in its closure.
- 5. Once the position of both strikes (top & bottom) is defined, mark and drill the remaining 2 holes and fix the strikes with the 2 Parker screws N°10x1/2" or W5/32"x1/2" as shown in the image.



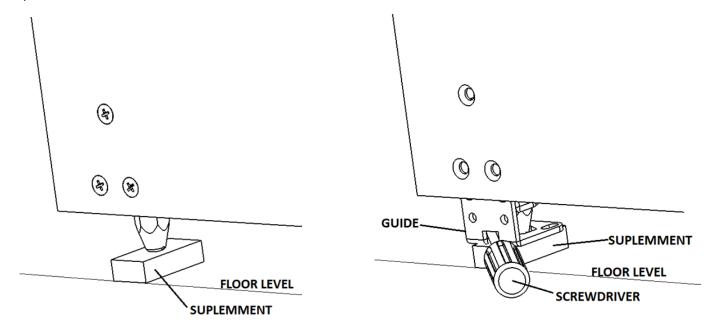
- 6. Check the general operation of the hardware and verify the correct closing and opening of the door (there should be no gap in the closure) and adjust the projection of the top jam sensor if necessary. It's possible to use without the screw or decrease or increase the overhang.
- 7. If it is necessary to adjust the top lock again, you must first operate the push bar by releasing the strike locks and push the door to remove it from the closing area. Then you must remove the M5x12 (1/2" length) screw placed at the end and then with a flat screwdriver you can perform the adjustment as shown previously. Later adjust again the M5x12 (1/2"length).
- 8. If it is necessary to adjust the bottom lock again, you must first operate the push bar by releasing the strike locks and push the door to remove it from the closing area. Then the upper sensor must be activated to make the bolts release and come out (always in an area different from the closing area to prevent the obstacles from entering the strikes). Then you must remove the three M5x8 screws (5/16" length) and depending on the gap between the door and the floor, it must operate in a different way.



A) If the gap is equal to or less than 1" drop the guide and with a screwdriver as shown in the image, turn the guide in the direction that requires making the adjustment, it will be one full turn and you will be able to make exit or enter the bolt 0.05" for each turn.



B) If the gap is greater than 1", you must place some supplement on the tip of the bolt that allows the guide to not fall a distance greater than the tip of the bolt when disassembling the guide. Then rotate the guide in the direction that is required to be adjusted with the help of a screwdriver as shown in the image. Each turn regulates 0.05" of the bolt's recess or protrusion.



In both cases, once the new adjustment has been made, the guide must be re-fixed with the 3 M5x8 screws (5/16" length).





