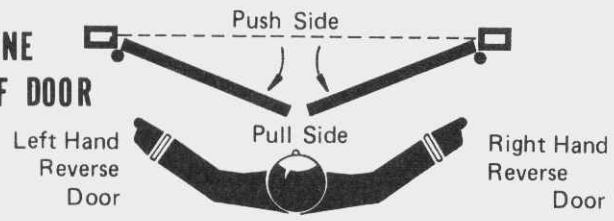
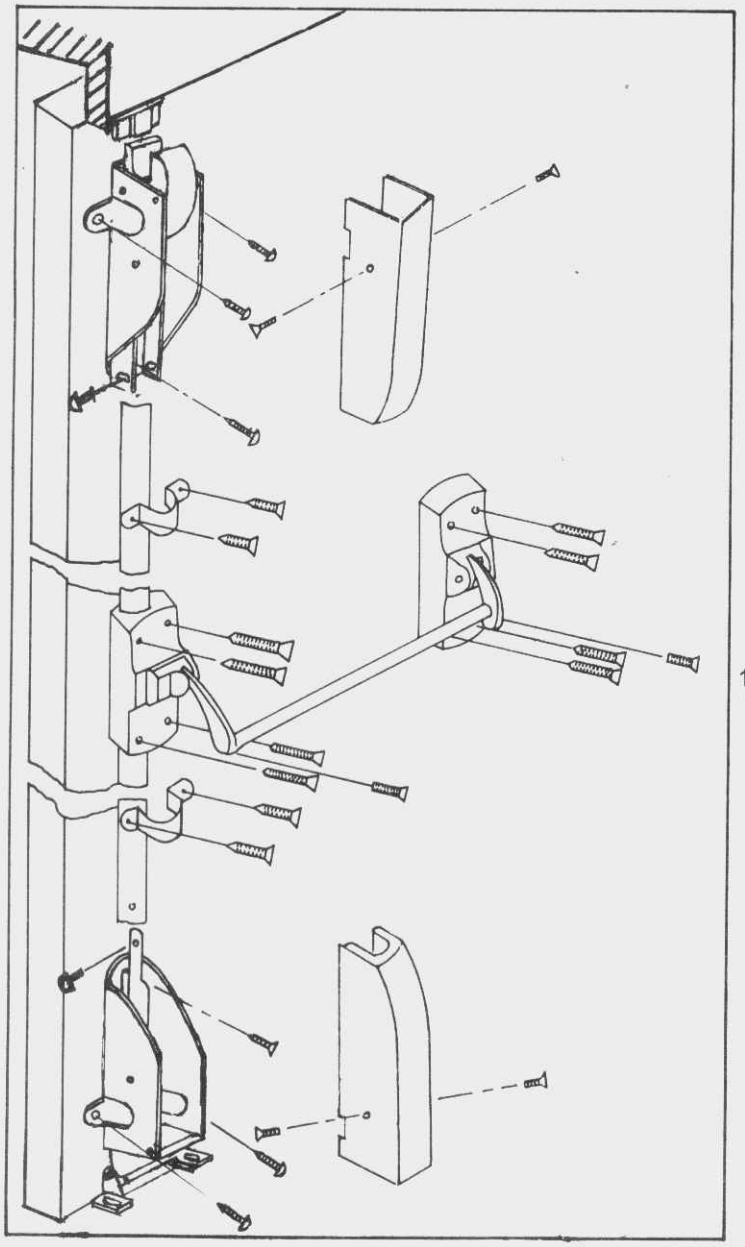
N-VR331 SERIES
Rim Exit Device
VERTICAL ROD MODEL

INSTALLATION INSTRUCTIONS FOR WOOD & METAL DOORS

BEFORE INSTALLING: Check to be sure the Exit Device is the proper hand for your door.

HOW TO DETERMINE HAND OF DOOR



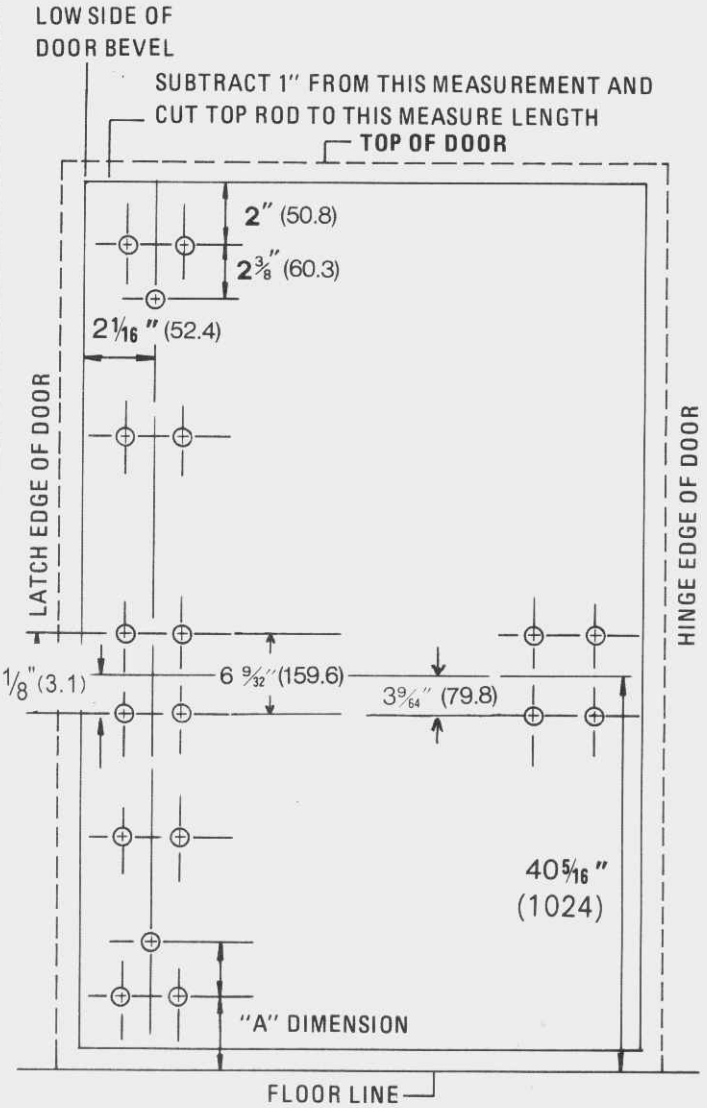


STEP 1 MARK CENTER LINES:

Mark Center Lines on INSIDE of door. Establish the horizontal center line of the device by drawing a line across the door *40-5/16" (1024) above floor line. Establish the top and bottom rod backset center line by drawing a vertical line from the top to bottom of the door measuring from the LOW SIDE of the DOOR BEVEL.

*Regularly furnished unless otherwise ordered.

INSIDE OF LHRB DOOR IS ILLUSTRATED



*Regularly furnished unless otherwise ordered.

"A" DIMENSION	INSTALLATION
1 3/4" (44.5)	Surface Strike
1 3/16" (30.2)	Flush Strike

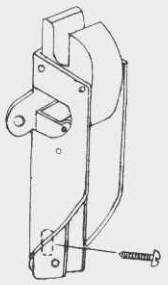
STEP 2 | LOCATE LATCHES:

Locate Top and Bottom Latch. Mark for later installation. (See illustration on Page 1 for dimensions and locations.)

STEP 3 | MOUNT TOP LATCH:

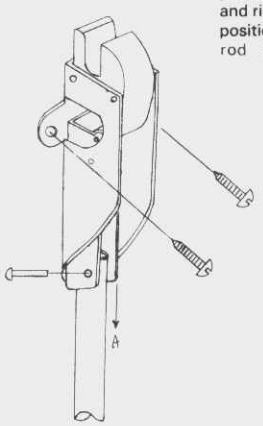
Retract the latch by pushing up on slide and fasten Latch Assembly with screws as illustrated. Be sure to draw the screw up tight. Drill hole for the cover screw using the hole in the slide Assembly at bottom as guide.

First screw into the hole to fix the correct position.



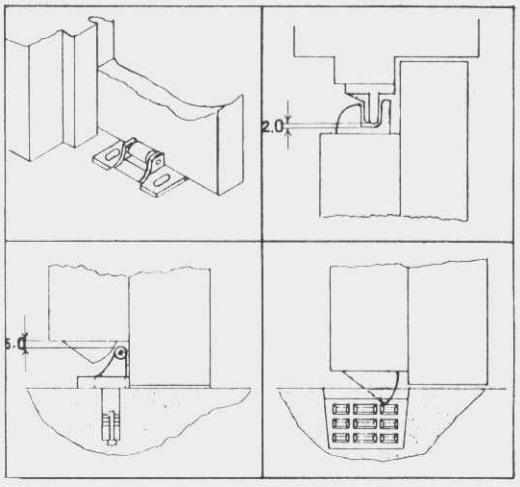
STEP 4 | TOP ROD ASSEMBLY:

Put the top latch and top strike in the proper position, then tighter the left and right screws. Put part (A) in down position to match the screw hole of the rod and assembled.



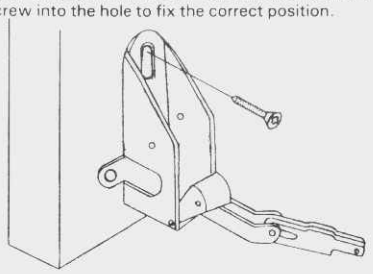
STEP 5 | INSTALL STRIKES:

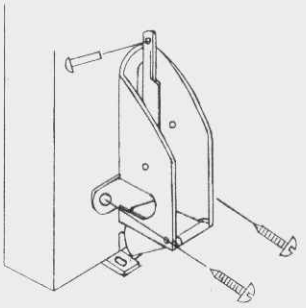
Close door. Align center of Strike with Vertical Backset center line on door and install top and bottom Strikes.



STEP 6 | MOUNT BOTTOM LATCH:

Insert Bottom Latch Screw through bolt in Latch Frame into bottom hole. Do not tighten. Lift up Slide Assembly and fit the Spring Loop over the stump on the latch frame. Position Latch Frame so that Latch engages strike. Now tighten bottom screw. Drill a hole for the Cover Screw using the hole in the Slide Assembly at top as guide. Spot with ¼" (6.4) drill. Drill through with #3 drill for self-lapping screw.
First screw into the hole to fix the correct position.



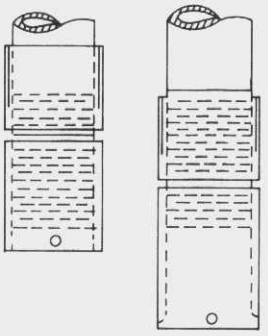


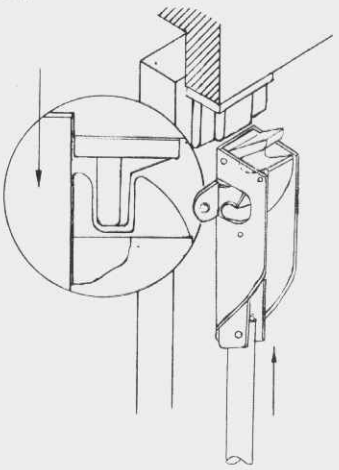
STEP 7 | INSTALL TOP ROD ADJUST TOP LATCH:

Attach Top Rod to Bar Assembly by slipping hole over Stump and secure Rod by means of "E" Ring. Shut door. Turn Adjustable Rod Connector until head Toucher underside of latch slide. Insert pin. Depress bar, if top latch does not retract completely, remove pin and turn connector to adjust length. Repeat until Latch Bolt just disengages.

CAUTION: MAKE CERTAIN "E" RING ENGAGES SLOT IN STUMP.

NOTE: there is 1" tread in the rod to adjust door opening & closing.

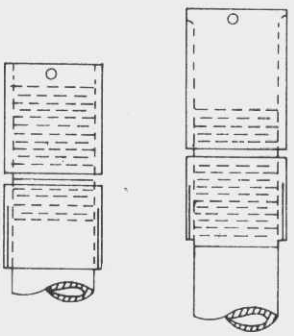


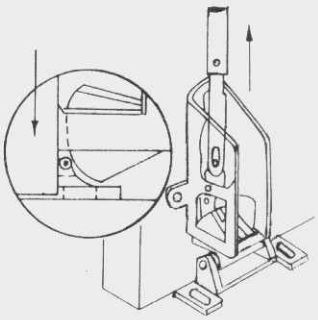


STEP 8 | INSTALL AND ADJUST BOTTOM ROD:

Attach Bottom Rod to Bar Assembly by slipping hole over Stump and secure Rod by means of "E" Ring. Shut door. Dog down Active Case. Insert pin into Rod Connector by turning clockwise or counter clockwise until Latch Bolt just clears Strike. Undog Device.

CAUTION MAKE CERTAIN "E" RING ENGAGES SLOT IN STUMP.

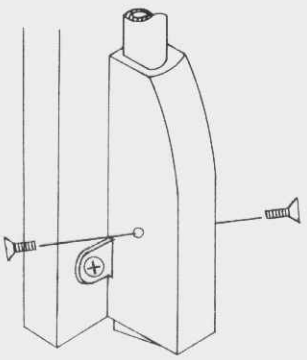


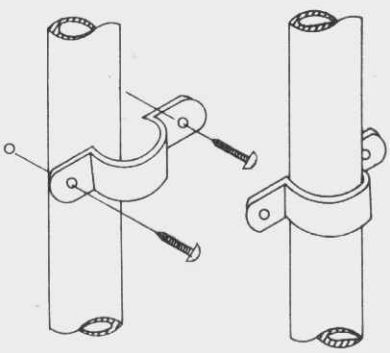


ATTACH TO LATCH MECHANISM ATTACH TO BOTTOM LATCH BOLT JUST CLEARS STRIKE

STEP 9 | MOUNT TOP AND BOTTOM LATCH COVERS:

Bottom Cover—Position above Bottom Latch Frame align with hole in slide assembly at bottom. Secure with furnished screw.
Top Cover—Position and secure with screw through bottom hole in Top Latch Frame.





STEP 10 TEST PUSH BAR

The latches should engage the strikes when the door is closed. If the door can be pushed open without depressing the push bar the top rod connector has been over adjusted. Remove cover. Adjust connector as needed. Replace cover.

The top and bottom latches should disengage from the strikes freely when the push bar is depressed or dogged down. If they do not disengage, remove the covers and adjust the connectors as needed. Replace the covers. Retest for proper operation.

SERIES: NO–TRIM
Top and bottom latch bolts are retracted by the push bar inside.

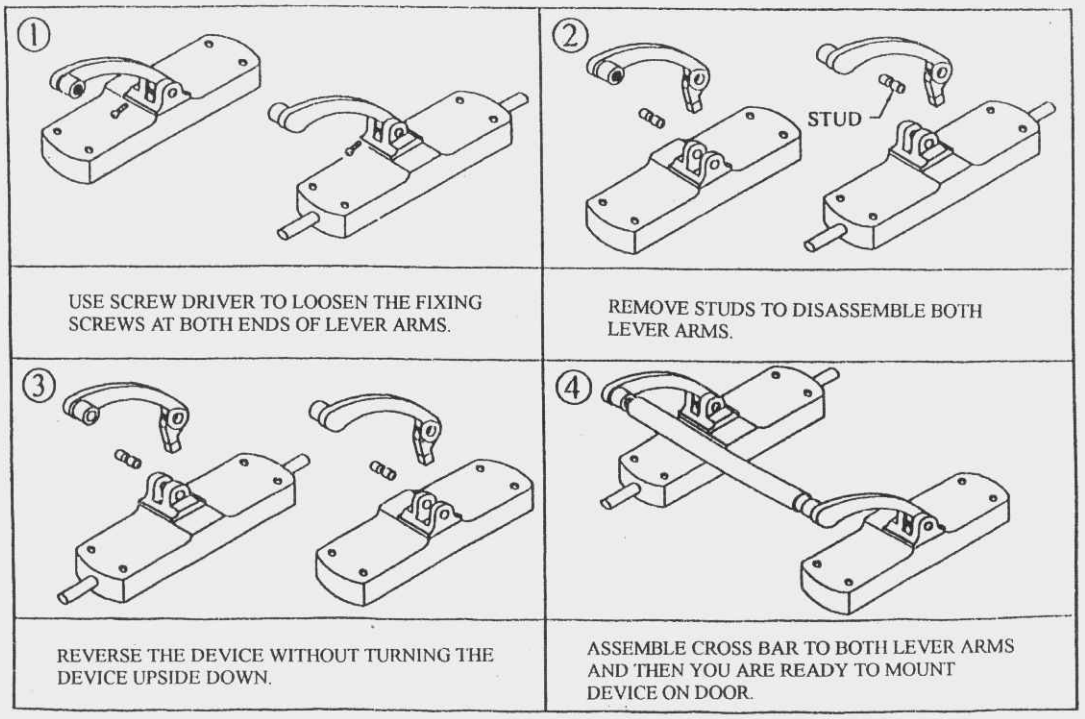
SERIES: PLATE AND PULL TRIM
Top and bottom latch bolts are retracted by the push bar inside and the key outside. Turning the key in either direction will retract the latches. remove key and project latches.

SERIES: KNOB TRIM
Top and bottom latch bolts are retracted by the push bar inside and the key or knob outside.

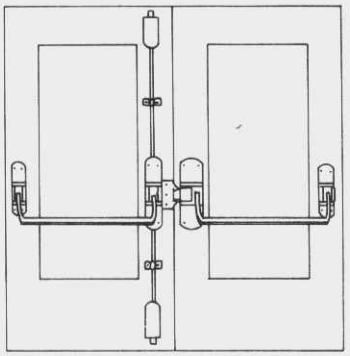
To lock knob. Insert key in cylinder and turn counterclockwise as far as key will turn. Then return key to its vertical position and withdraw key.

To unlock knob: Insert key in cylinder and turn clockwise as far as key will turn (the latches will retract during this procdure). Then return key to its vertical position and withdraw key.

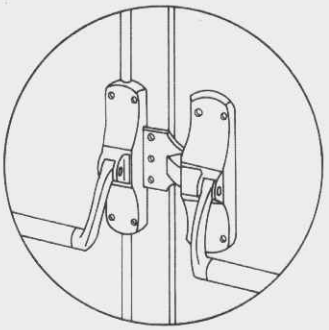
STEP 11 DIRECTIONS FOR REVERSING HANDING OF DEVICE



Vertical Rod and Rim Type Combinations for Double Doors



INACTIVE DOOR DEVICE



ACTIVE DOOR DEVICE

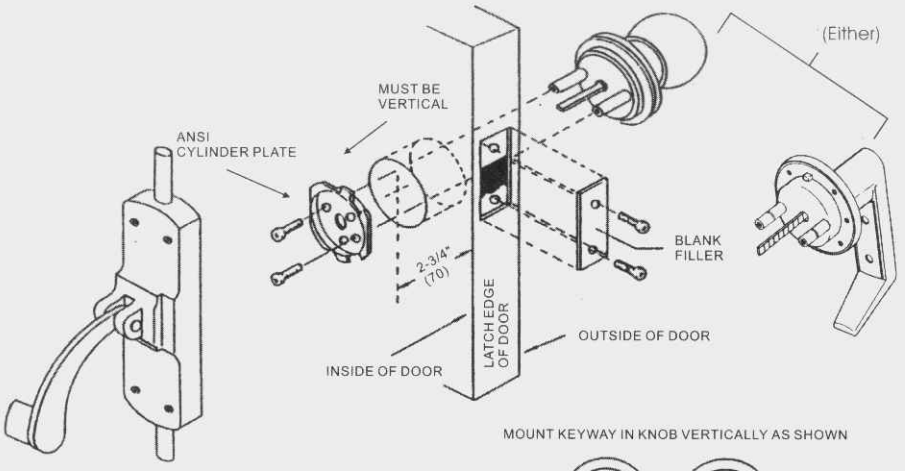
SERVICE CHART

ITEM	QTY	FASTENER
Top Strike	2	#12 x 3/4" Flat Phil Head Wood Screw
Top and Bottom Latch	4 2	#10 x 1" Pan Phil Head Wood Screw #10 x 1" Flat Phil Head Wood Screw
Top and Bottom Guides	4	#10 x 1" Pan Phil Head Wood Screw
Bottom Strikes	2	1/4- 20 x 5/8" Long Flat Head Machine Screw and Anchors

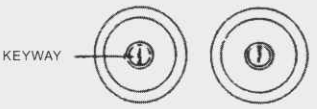
INSTALLATION FOR KNOB /LEVER LOCK TRIM & STRIKE

ALWAYS REFER TO PLATE PACKED WITH TRIM BEFORE PROCEEDING WITH INSTALLATION

CUT OFF LENGTH OF CYLINDER CONNECTING BAR SO THAT 3/16" (4.8) PROJECTS BEYOND INSIDE FACE OF DOOR.



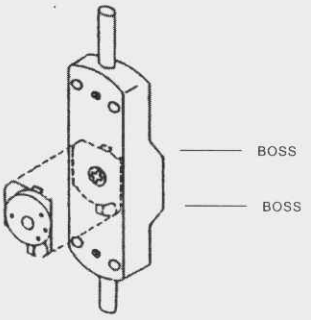
MOUNT KEYWAY IN KNOB VERTICALLY AS SHOWN



PLEASE NOTE AND BE CAREFUL

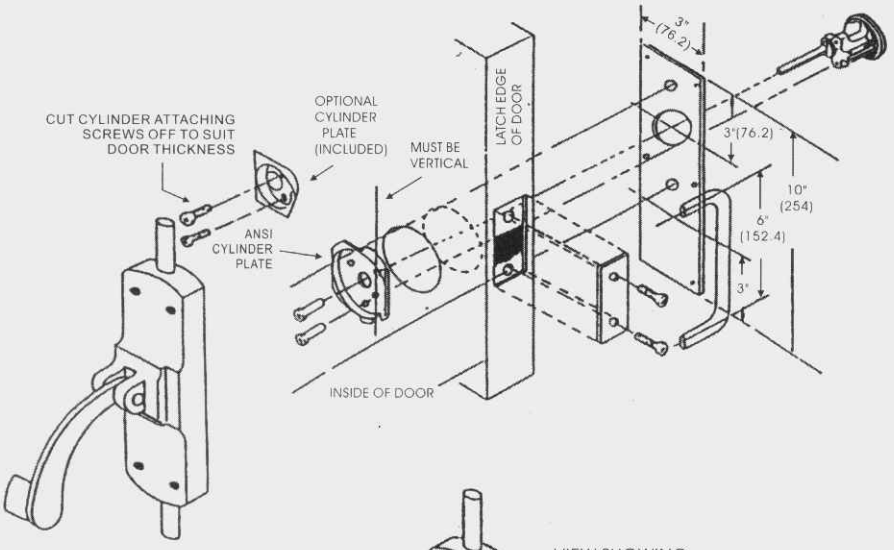
WHEN USING. THE ANSI CYLINDER PLATE BE SURE THE BOSSES ON THE LATCH ASSEMBLY FIT INTO THE CUTOUTS ON THE CYLINDER PLATE SO THAT THE LATCH ASSEMBLY LIES FLAT ON THE DOOR.

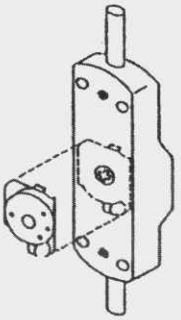
VIEW REVERSED TO SHOW PROPER MATING POSITION WHEN INSTALLED.



INSTALL TRIM & STRIKE PULL AND PLATE TRIM

MOUNT CYLINDER HORIZONTALLY AS SHOWN
CUT OFF LENGTH OF CYLINDER CONNECTING BAR SO THAT 3/16" (4.8) PROJECTS BEYOND INSIDE FACE OF DOOR.





VIEW SHOWING PROPER JOINTING POSITION WHEN INSTALED

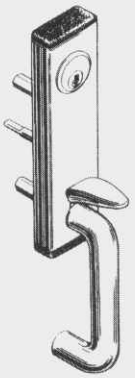
PLEASE NOTE AND BE CAREFUL

WHEN USING. THE ANSI CYLINDER PLATE BE SURE THE BOSSES ON THE LATCH ASSEMBLY FIT INTO THE CUTOUTS ON THE CYLINDER PLATE SO THAT THE LATCH ASSEMBLY LIES FLAT ON THE DOOR.

NEW WIDE FRAME MODEL

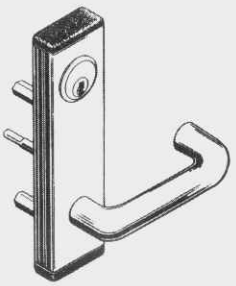
LOCK FACE SIZE
2-1/2" WIDE
7-1/4" LONG

This model covers 2-1/8" dia ANSI prepped door holes

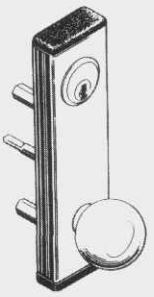


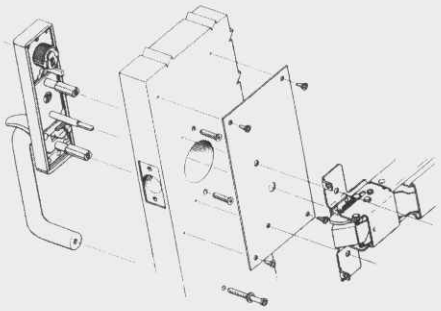
NEW WIDE FRAME MODEL

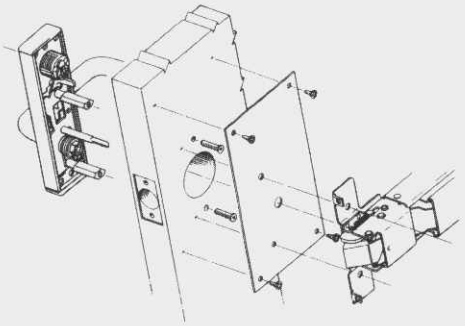
NEW

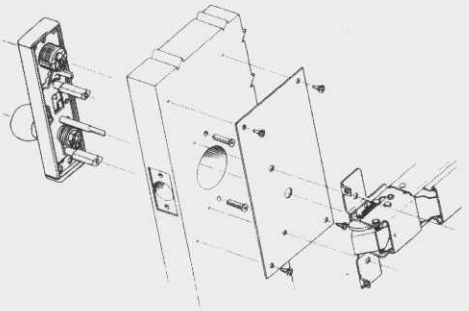


NEW WIDE FRAME MODEL









VERY IMPORTANT

IF REHANDING IS REQUIRED, YOU MUST POSITION THE ACTUATOR SHAFT AND CAM ASSEMBLY AS SHOWN IN FIG. 1 AND FIG. 2. OTHERWISE YOU MAY DAMAGE LOCK

NEW IMPROVED CAM ACTION

ROTATION

ROTATION

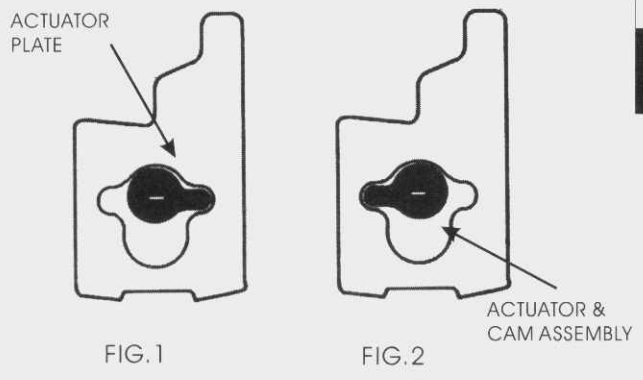


FIG.1

FIG.2

TRIM REVERSING INSTRUCTION FOR HANDING

FOR HANDED PANIC DEVICES ONLY

- FOR USE WITH TOUCH BAR WITH "CENTER ACCESS HOLE FIG. A. PAGE 3" NO NEED TO REVERSE HANDLE USE A S IS.
- FOR USE WITH PANIC DEVICES WITH " TWO ACCESS HOLES, FIG. B. FIG C. PAGE 3" FOLLOW THESE INSTRUCTIONS TO REVERSE HANDING:

1. Remove top and bottom Hex stud.
2. Remove backplate Assembly. (Note: Be careful not to disturb or lose internal components.)
3. Lift up Actuator Shaft and Cam Assembly Flip over and remove retaining Clip at bottom of Actuator Shaft. Remove Cam and flip over to achieve opposite handing desired according to Touch Bar brand. Fig 1& 2. Reinstall Cam into bottom of Actuator then install Retaining Clip.
4. Reinstall Actuator and Cam assembly back into Actuator Plate Note: Actuator Plate stays always in the same position as in Fig. 1& 2.
5. Reinstall Backplate Assembly (Note: Make sure Actuator Plate is in locked or at rest position)
6. Screw in top & bottom hex studs. Test to make sure Actuator shaft rotation is correct and trim functions smoothly. Loosen Studs and adjust if required.
7. Proceed with trim/device installation.

IMPORTANT: YOU MUST ENGAGE CAM EXACTLY AS SHOWN TO PREVENT ANY DAMAGE TO LOCK.

VERY IMPORTANT

1. DO NOT REVERSE THIS LOCK ! WHEN USED WITH ANY TOUCH BAR PANIC DEVICE, USE AS PRESET RHR OR LHR.
2. ONLY REVERSE WHEN USED WITH ANY CONVENTIONAL TYPE DEVICE. THEN, FOLLOW ABOVE INSTRUCTIONS CAREFULLY.

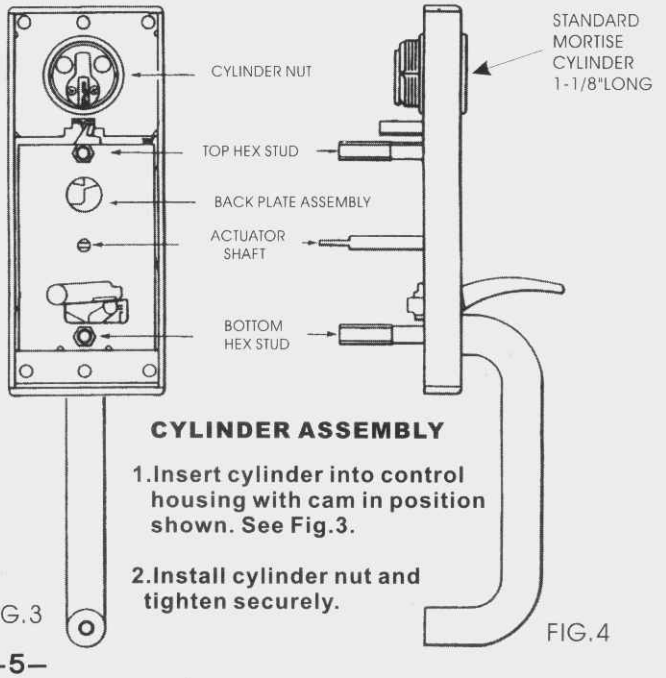


FIG.3

CYLINDER ASSEMBLY

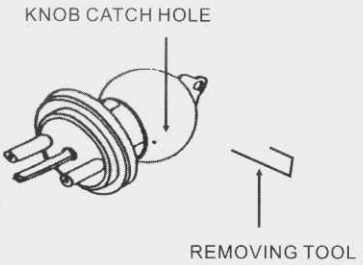
1.Insert cylinder into control housing with cam in position shown. See Fig.3.

2.Install cylinder nut and tighten securely.

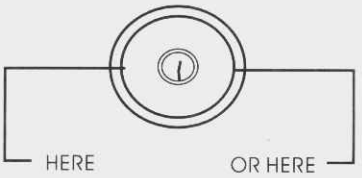
FIG.4

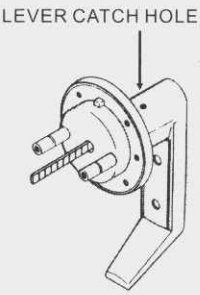
HOW TO REMOVE & REINSTALL CYLINDER IN LOCK

Remove Knob or Lever:
1. Insert key in cylinder and turn 90° clockwise.
2. Insert knob or lever removing tool into the hole in the knob or lever and depress the knob or lever catch button.
3. While knob or lever catch button is depressed pull knob or lever off.



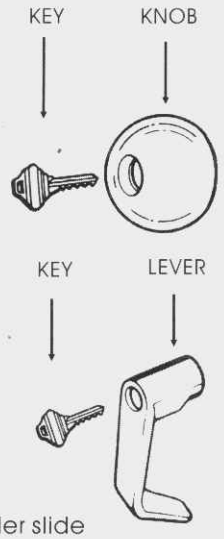
(The knob or lever catch button will be in one of these positions).

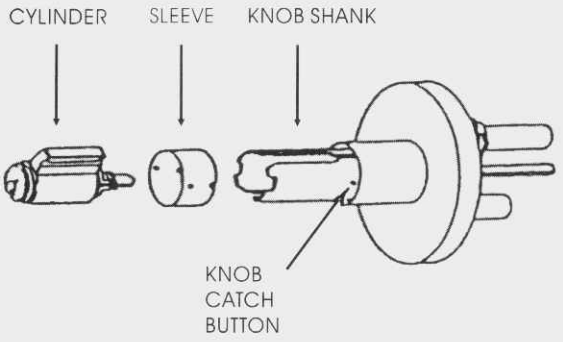




Remove cylinder from Knob or Lever :
1. Remove sleeve.
2. Remove key.
3. Slide cylinder out of knob or lever.

Reinstall cylinder in knob or lever :
1. Slide cylinder into knob or lever .
2. Replace sleeve.

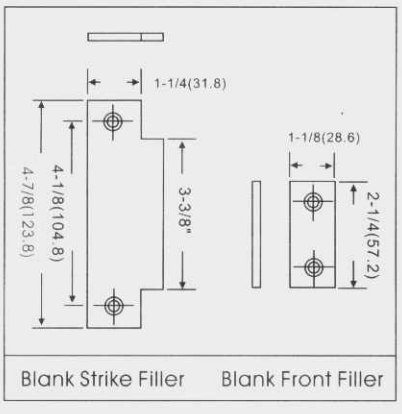




Reinstall Knob or Lever :
1. With key inserted part way into cylinder slide knob onto knob or lever shank.
2. Depress knob or lever catch button and push knob or lever on to the knob or lever shank as far as it will go.
3. Insert key completely into the cylinder and turn the key while pushing on the knob or lever until it engages the knob or lever catch button.
4. Return key to its vertical position and remove it.
5. Pull on the knob or lever to be certain it is properly engaged to the knob or lever catch button.

	TWIST DRILL SIZES				
Screw Diameter	Machine Screws	Self Tapping Screws			
	All Door Gauges	24 GA.	20 GA.	18 GA.	16 GA.
#8	# 29 (3.5)	1/8" (3.2)	1/8" (3.2)	# 30 (3.3)	# 29 (3.5)
#12	# 16 (4.5)	# 19 (4.2)	#19 (4.2)	# 18 (4.3)	# 16 (4.5)

Machine screws are intended for use with doors having sufficient metal thickness for proper tapping (reinforced doors) or sex bolts.



SCREW CHART		
Item	Qty.	Fastener
Front plate assembly and rear bracket	8	#12 x 2" Lg. oval head tapping screws type "A"
Strike	2	#12x1" Lg. oval head tapping "screws type "A"
Edge Filler	4	2 #8-32x1/2 machine screw, 2 #8x1 pan hd, tapping screw.
Strike Filler	4	#12-24x1/2 flat hd, machine screw, 2 #12x3/4, pan hd, tapping screw.

Drill sizes for screws are recommended but various factors, such as type of door and frame construction, thickness and type of metal, etc. can affect the final hole diameter and resulting holding strength of the fastener.

TEMPLATE FOR MODEL #N-VR331