



MAGIC-SWING®

Swing Door Operator

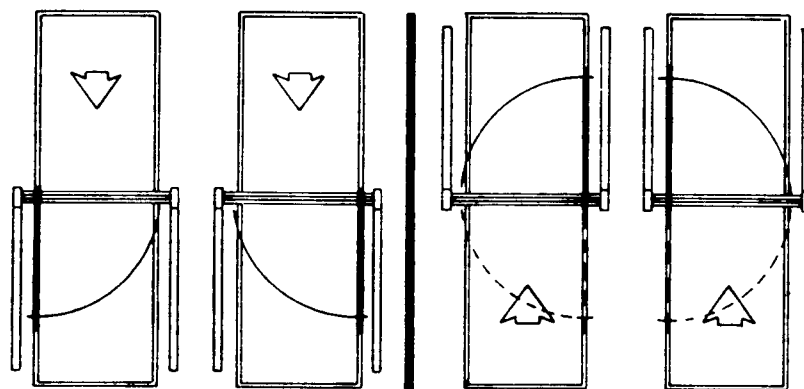
Installation and Tune-In

Manual

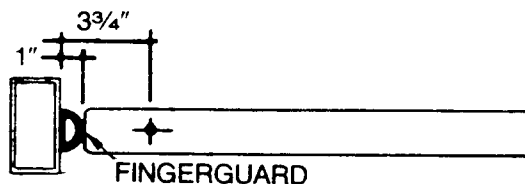
GENERAL INFORMATION

POWER REQUIRED—117 V.A.C. 15 AMP. SERVICE FOR 1-2 OPERATORS
DEDICATED 20 AMP. SERVICE FOR 3-4 OPERATORS

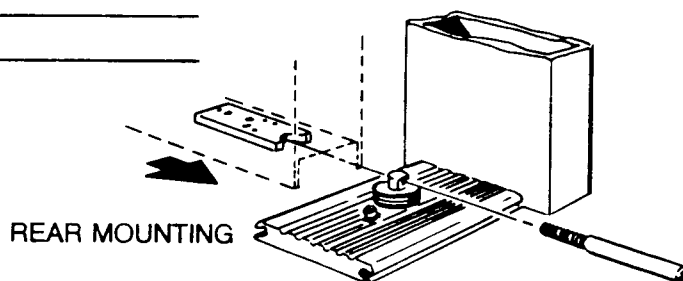
IN-HEADER



- A. Door must be double swing
- B. Door must have min. $\frac{5}{8}$ " top web. $\frac{1}{2}$ " min. bottom web.
- C. Pivot center must be $3\frac{3}{4}$ "

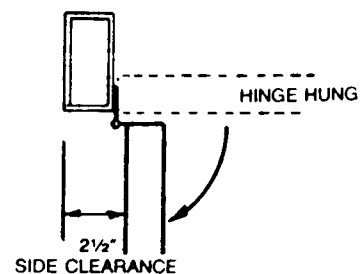
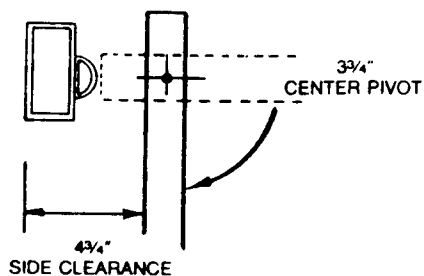
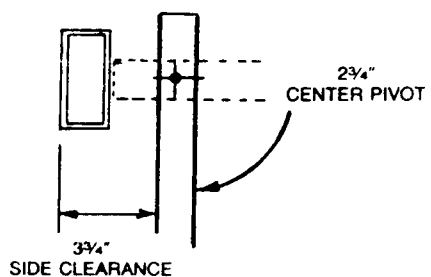
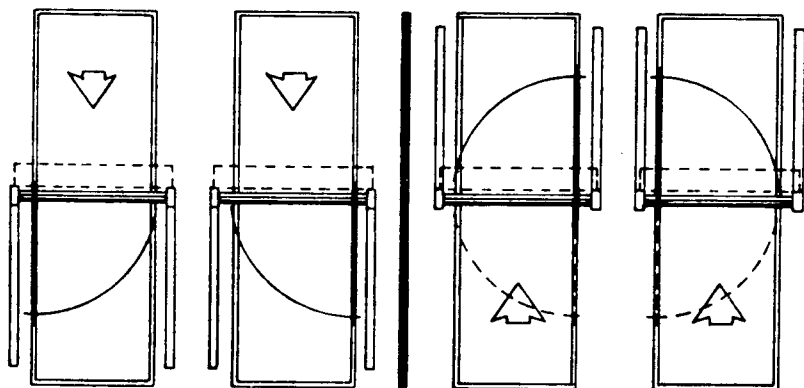


- D. Door must be rear mounting



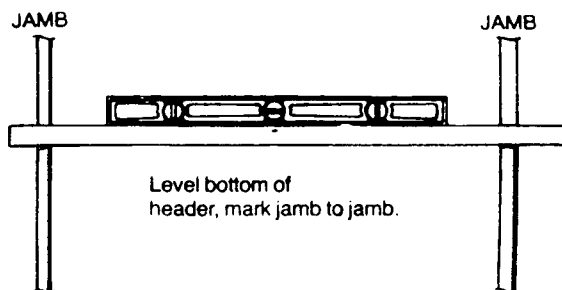
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In applications require the following side clearance for proper 90° swing.



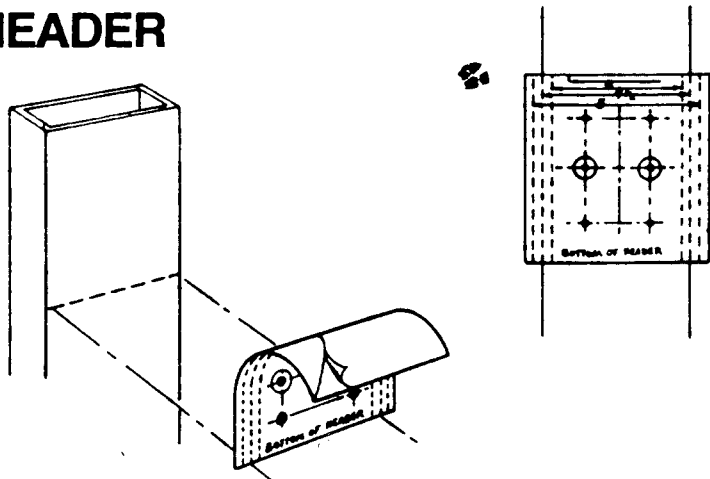
HEADER INSTALLATION

Locate bottom of header on jambs. Jambs must be vertical, parallel. Bottom of header is determined by adding mat thickness plus clearance plus door height plus clearance.



NOTE: Header must be level for proper operation of door.

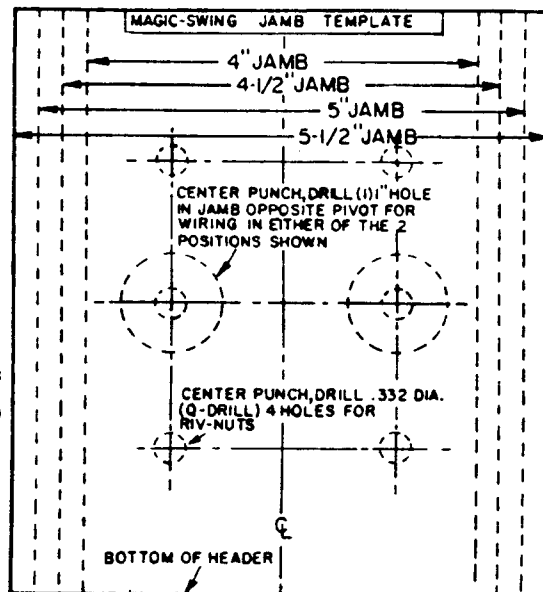
IN-HEADER



Remove backing and apply to jamb. Be sure to align bottom of template with bottom of header line already marked on jamb. NOTE: Be sure to align dotted lines on template to your jamb width.

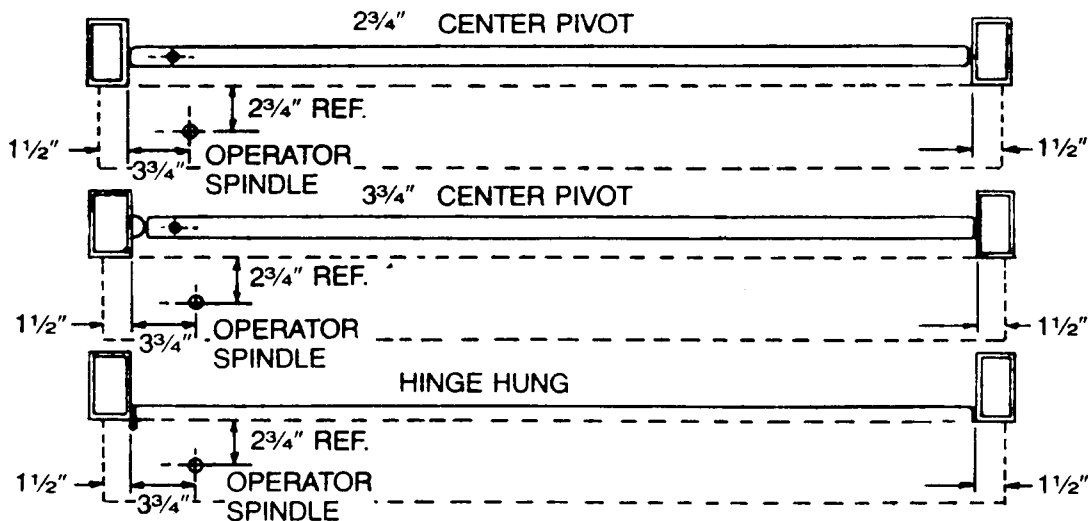
Drill holes in jamb through template as indicated.

NOTE: The 1" hole is drilled in the jamb opposite the pivot.



VISIBLE

Mount the header 1 1/4" up from the lowest point on the header support.

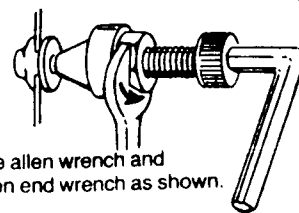


FOR ALL TYPES OF DOOR APPLICATIONS THE HEADER MUST MEASURE 3" LARGER THAN THE DOOR OPENING WIDTH. THIS PROVIDES 1 1/2" OVERLAP ON BOTH JAMBS WHICH IS USED FOR MOUNTING.

USE OF RIV-NUTS

1. Locate mounting holes using the header as a template.
2. Drill (4) holes with Q drill and insert riv-nuts.
3. Secure header to jamb with 1/4-20 screws provided.

Screw riv-nut into tool.

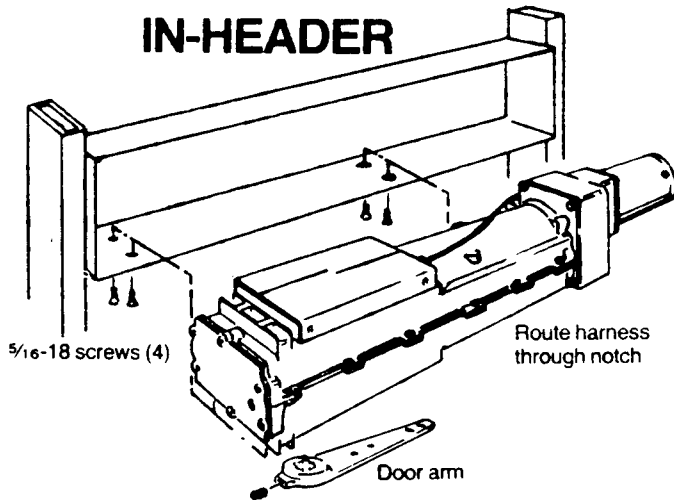


Use allen wrench and open end wrench as shown.

To mushroom rear of riv-nut: 1 1/2 to 2 1/4 turns should be enough turns to secure riv-nut.

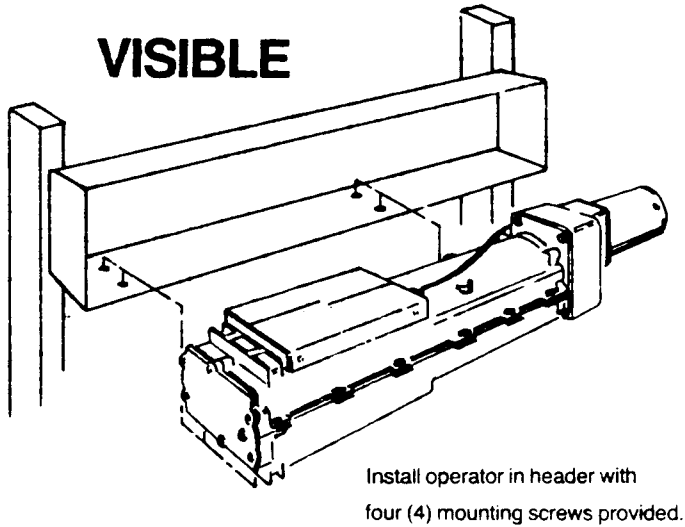
OPERATOR INSTALLATION

IN-HEADER



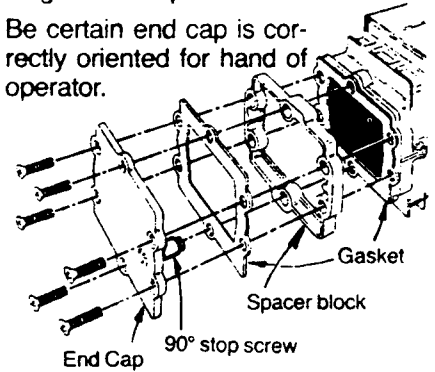
1. Secure door arm to operator. Door arm must be flush with bottom of spindle.
NOTE: Door arm must be set to 0° position and locked in place with set screw.
2. Install operator in header with four (4) mounting screws provided.

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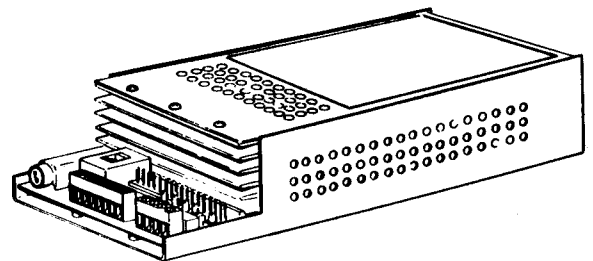
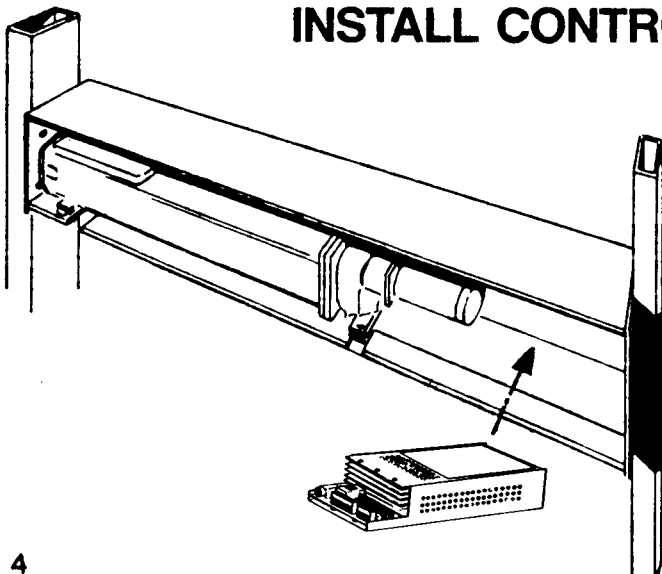
For IN applications only

1. Remove operator end cap.
2. Install space block and two gaskets as shown.
3. Re-install end cap with six longer screws provided.
4. Be certain end cap is correctly oriented for hand of operator.



ELECTRICAL

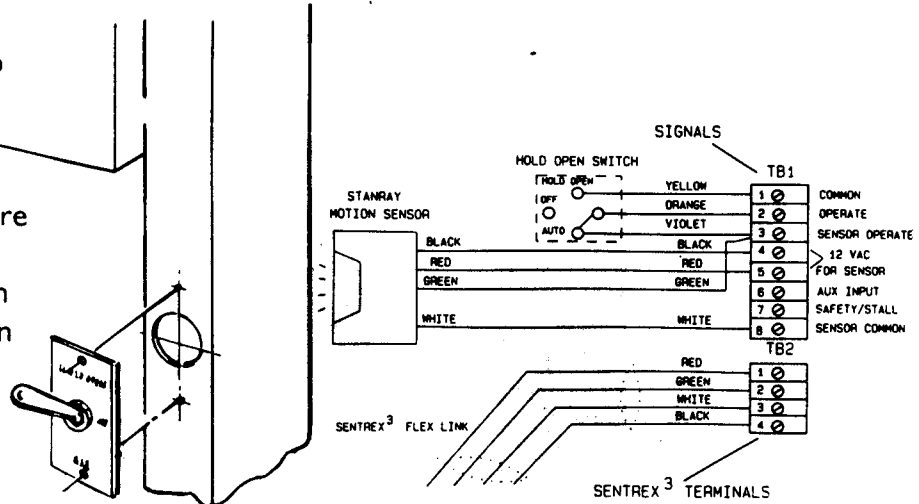
INSTALL CONTROL BOX



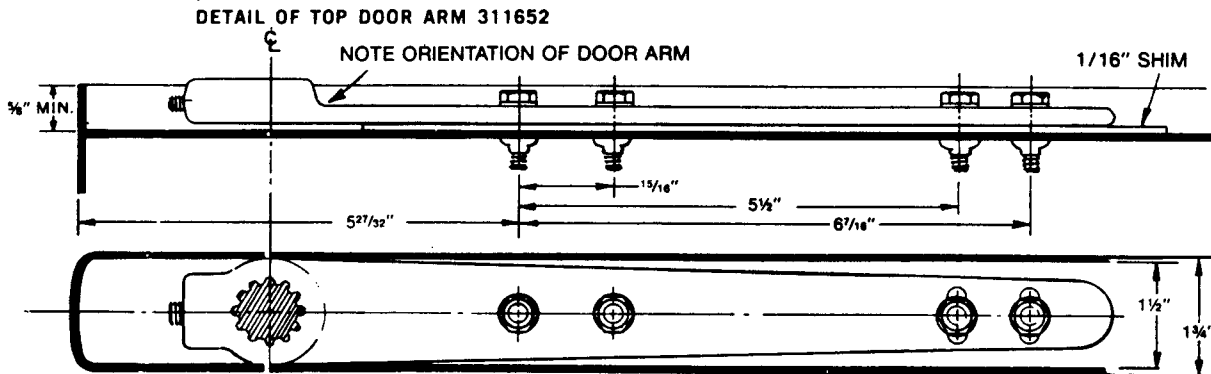
1. Install control box.
 2. Make necessary connections. (Consult Microprocessor Control Box instructions #203821.)
- IMPORTANT:** Do not turn operator on until the 90° stop is adjusted as shown in the "Tune-In" section.
3. Power door open by shorting the yellow and orange leads to each other on the control connector.

INSTALL ON-OFF-HOLD OPEN SWITCH

1. Locate on-off-hold open switch on jamb opposite pivot.
2. Drill 1-1/4" dia. hole as shown.
3. Feed wires through the jamb.
4. Insert on-off-hold open switch and secure with screws provided.
5. Attach wires to control box as shown in Microprocessor Control Box instruction manual #203821.



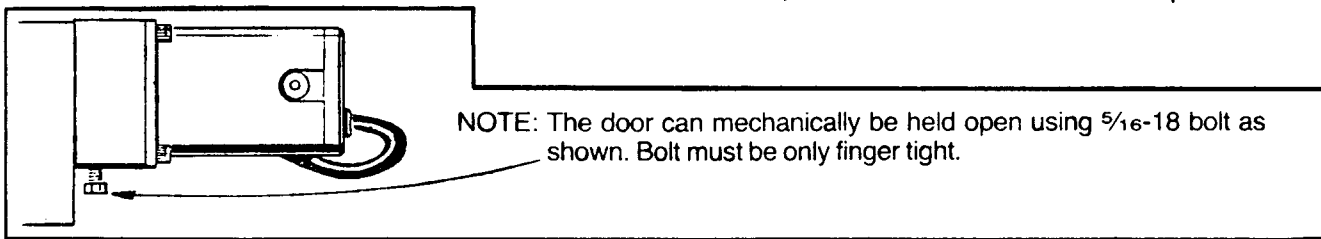
IN-HEADER DOOR PREPARATION



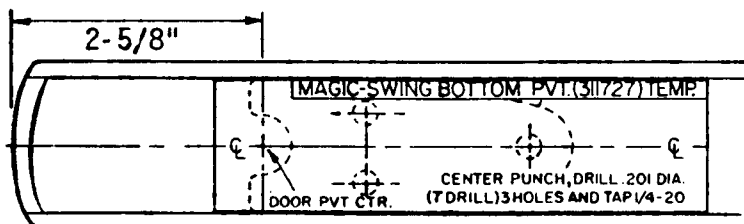
1. See dimensional locations for holes.
2. Drill (4) .332 dia. ("Q" drill) holes previously located.
3. Insert the 1/4-20 steel riv-nuts provided. Make sure they are properly seated.

WARNING - DO NOT SUBSTITUTE ALUMINUM RIV-NUTS.

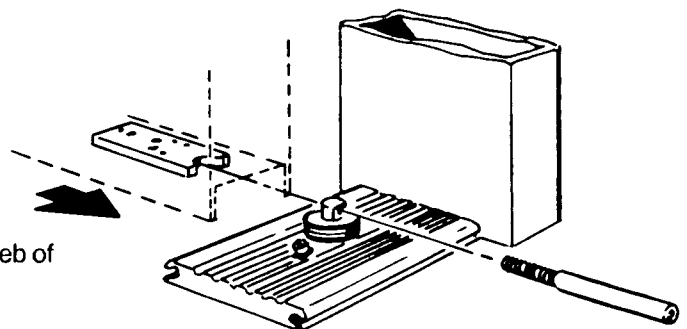
NOTE: A) Long riv-nut for 1/4" thick top web. B) Short riv-nut for 1/8" thick top web.



MOUNT BOTTOM PIVOT AND THRESHOLD

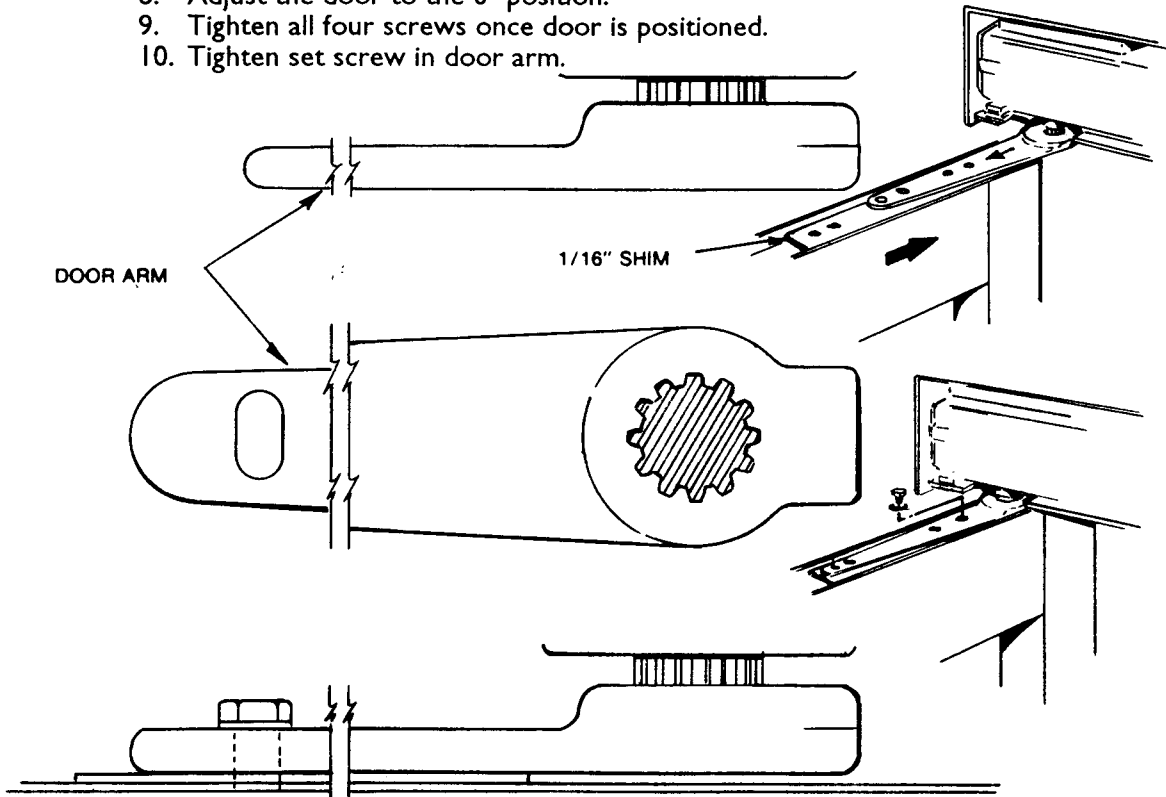


1. Remove backing from bottom pivot template. Apply to bottom web of door as shown.
2. Template door pivot, must be located on door properly.
3. Drill and tap 3 holes for 1/4-20 screws provided.
4. Position threshold centerline on centerline of jamb. Centerline of pivot must be 3 3/4" away from jamb. Mark screw holes, drill and fasten to floor.



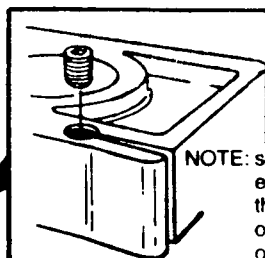
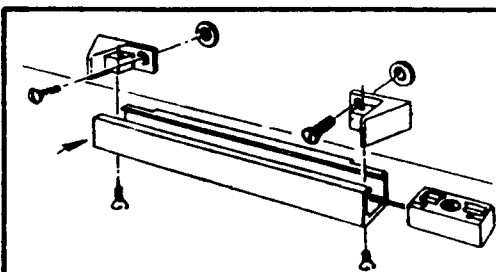
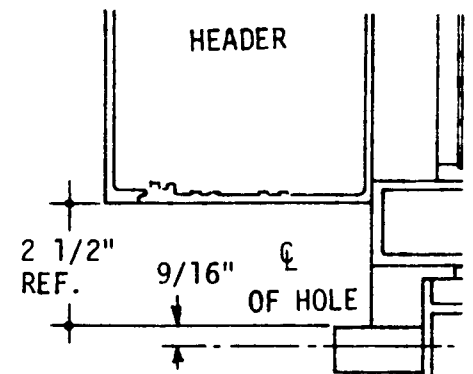
IN HEADER

1. Place the heel of the door on the bottom pivot.
2. Straighten the door into position under the door arm previously attached to the operator.
3. Slide the 1/16" thick aluminum shim plate into position over the riv-nut heads.
4. Loosen the door arm set screw and lower the door arm onto the shim plate.
5. Insert 1/4-20 x 1-1/4 hex head screw and lock washer into the hole nearest the pivot. This screw will support the door as you continue the installation.
6. Insert the other three 1/4-20 x 1-1/4 screws.
- DO NOT FULLY TIGHTEN.
7. Check to make sure the shim is in proper position.
8. Adjust the door to the 0° position.
9. Tighten all four screws once door is positioned.
10. Tighten set screw in door arm.

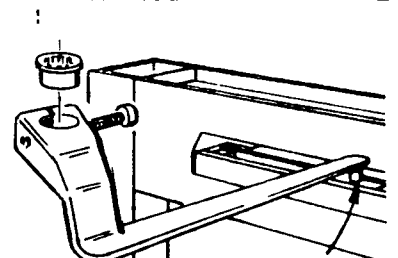


VISIBLE IN DOOR ATTACHMENT

1. Locate mounting holes refer to proper chart.
2. Center punch and drill .332 DIA. holes (Q Drill) for riv-nuts.
3. Install riv-nuts as previously shown.
4. Secure end brackets with 1/4-20 screws provided.
5. Insert slide block.
6. Snap track into end blocks as shown. Secure in place with 5/16-18 screws provided.
7. Place door arm pivot pin into slide block.
8. With the door in the 0° position, attach door arm to operator as shown.



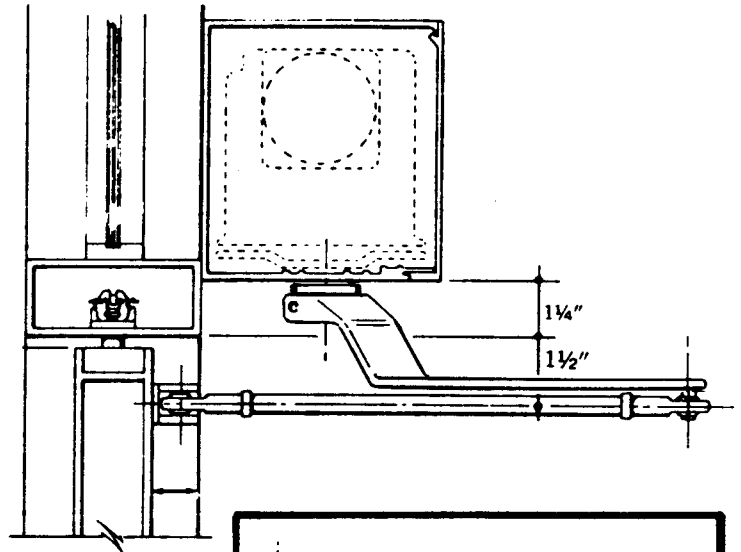
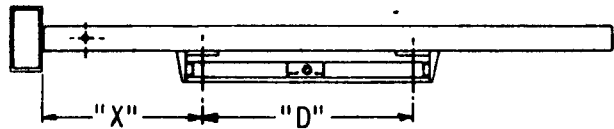
NOTE: set screws are located at either end of the slide block. Tighten these screws to eliminate rattle of the block in the track. Do not over tighten.



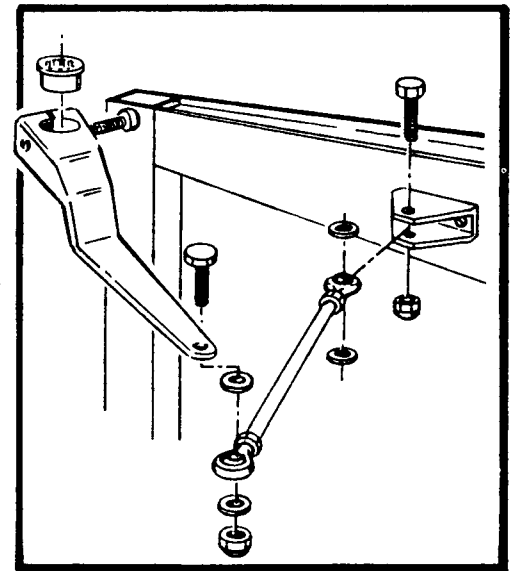
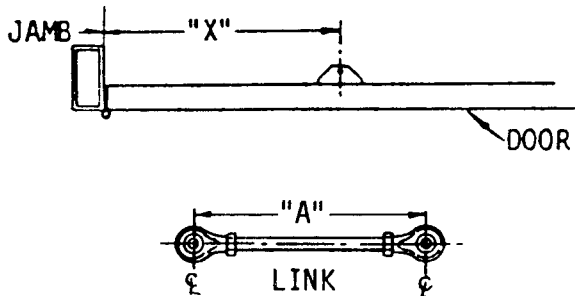
IN DOOR ATTACHMENTS

CONTINUED

PIVOT TYPE	DOORS WIDTH	REVEAL	D HOLE SPACING	X DIM TO FIRST HOLE	TRACK LENGTH
BUTT HUNG	32"-44"	0-6"	13¼"	12¾"	15¾"
2½ CTR. PIVOT	32"	0-2" 3-6"	13¼" 20¾"	10" 6½"	15¾" 23"
	36"	0-2" 3-6"	13¼" 20¾"	10" 6½"	15¾" 23"
	42"	0-2" 3-6"	13¼" 20¾"	10" 6½"	15¾" 23"
	44"	0-2" 3-6"	13¼" 20¾"	10" 6½"	15¾" 23"
OFFSET	32"-44"	0-6"	13¼"	12¾"	15¾"
	32"	0-2" 3-6"	13¼" 20¾"	11" 7"	15¾" 23"
	36"	0-2" 3-6"	13¼" 20¾"	11" 7"	15¾" 23"
	42"	0-2" 3-6"	13¼" 20¾"	11" 7"	15¾" 23"
	44"	0-2" 3-6"	13¼" 20¾"	11" 7"	15¾" 23"



VISIBLE OUT DOOR ATTACHMENT



PIVOT TYPE	DOORS WIDTH	REVEAL	"X" DOOR DIMENSION	"A" LINK DIMENSION
BUTT HUNG	32"	0-3" 4-8"	11" 11"	11" 12.5"
	36"	0-3" 4-8"	11" 11"	11" 12.5"
	42"	0-4" 5-8"	11" 11"	11" 12.5"
	44"	0-4" 5-8"	11" 11"	11" 12.5"
2½ CTR. PIVOT	32"	0-5" 6-8"	15" 15"	11" 12.5"
	36"	0-5" 6-8"	15" 15"	11" 12.5"
	42"	0-5" 6-8"	15" 15"	11" 11"
	44"	0-5" 6-8"	15" 15"	11" 12.5"
OFFSET PIVOT	32"	0-3" 4-6" 7" 8"	11" 12.5" 11.5" 11"	11" 12.5" 12.5" 12.5"

PIVOT TYPE	DOORS WIDTH	REVEAL	"X" DOOR DIMENSION	"A" LINK DIMENSION
OFFSET PIVOT CONT.	36"	0-3" 4-6" 7" 8"	11" 12.5" 11.5" 11"	11" 12.5" 12.5" 12.5"
	42"	0-3" 4-6" 7" 8"	11" 12.5" 11.5" 11"	11" 12.5" 12.5" 12.5"
	44"	0-3" 4-6" 7" 8"	11" 12.5" 11.5" 11"	11" 12.5" 12.5" 12.5"
	44"	0-3" 4-6" 7" 8"	11" 12.5" 11.5" 11"	11" 12.5" 12.5" 12.5"
3 CTR. PIVOT	32"	0-7" 8"	17" 16"	12.5" 12.5"
	36"	0-7" 8"	17" 16"	12.5" 12.5"
	42"	0-7" 8"	17" 16"	12.5" 12.5"
	44"	0-7" 8"	17" 16"	12.5" 12.5"

TUNE-IN and ADJUSTMENT

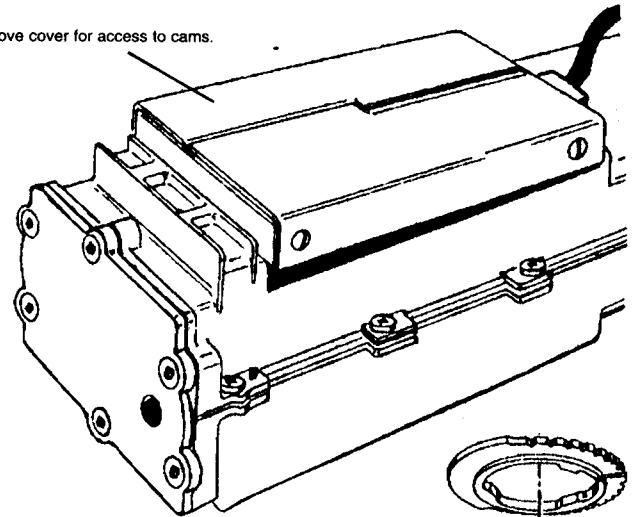
DOOR ADJUSTMENT - 90° POSITION

Open the door manually until you feel the operator reach its internal stop. Determine how much more or less travel is required for proper 90° operation.

To make 90° position adjustment with the operator in the header, drill a 1" hole in the end cap in line with the stop screw, or remove the header end plate.

NOTE: Once the stop screw has been adjusted, you may have to adjust the opening check switch cam to obtain the recommended 15° of checking action.

Remove cover for access to cams.

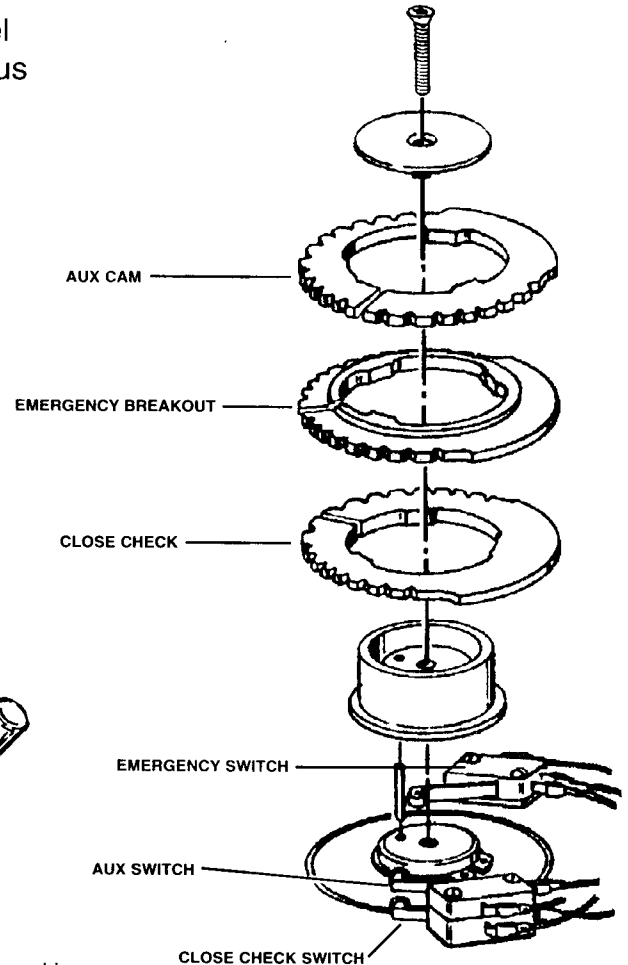
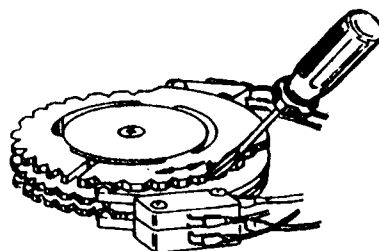
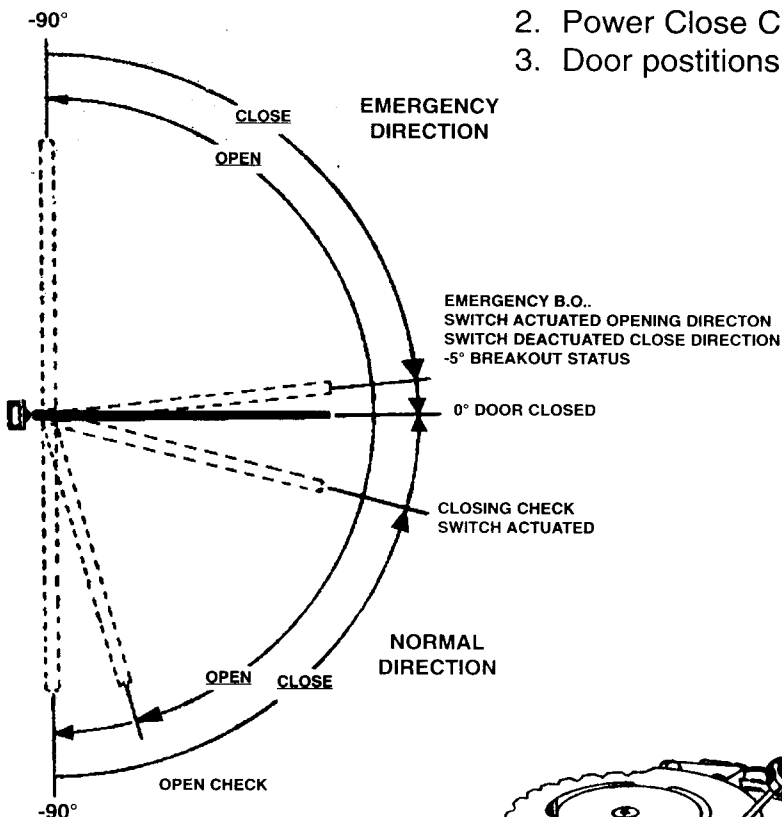


NOTE:

When you have a visible application and it becomes necessary to adjust the cams, keep the following in mind. The breakout cam and the close check adjustment cam may interfere with each other. Flip the breakout cam over so the flange is pointing down.

Remove jam screw from stop screw hole. Adjust stop screw in to reduce or out to increase door opening. 1/2 turn of stop screw will move edge of 42" door 1". Reinstall jam screw and tighten hard against stop screw. Open check switch and cam are not used with Microprocessor Control Box. This switch and cam can be used for other door functions:

1. Breakout status
2. Power Close Cancel
3. Door positions status



Adjust cams if necessary - cams may be adjusted with a screwdriver as shown, It is not necessary to loosen screw to adjust cams.