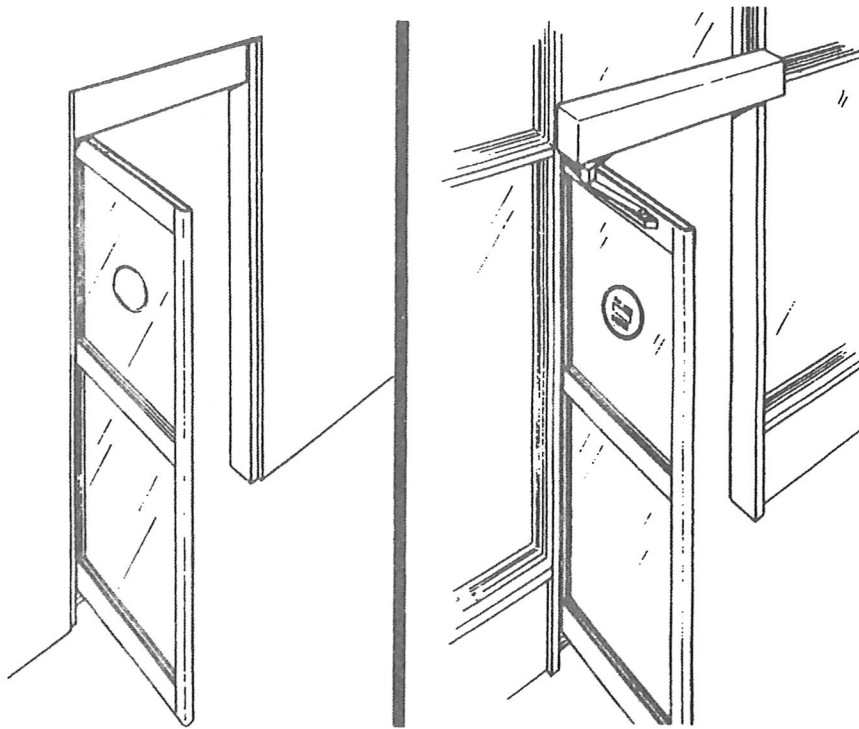


STANLEY®

MAGIC-ACCESS™ *Swing Door*



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

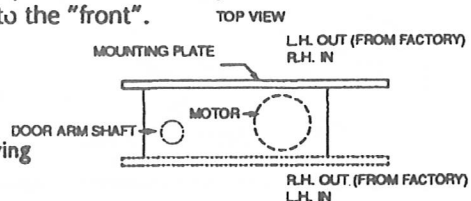
IN OR OUT

This operator mounting is designed symmetrically which enables the operator to be changed from an out to an in type by moving the mounting plate from the "back" of the operator to the "front".

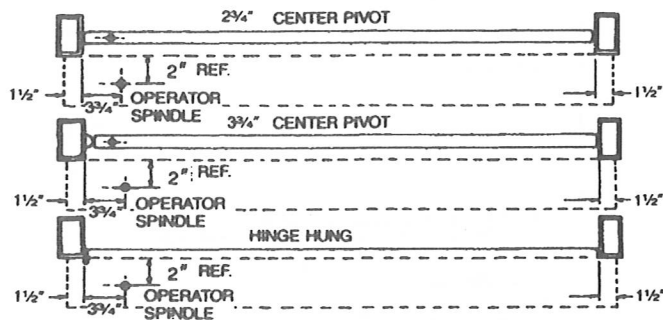
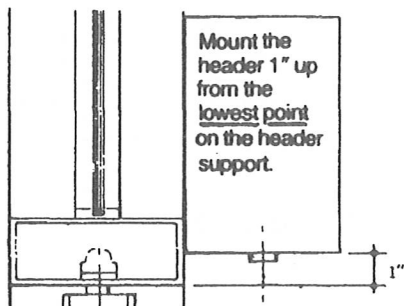
NOTE: THIS DOES NOT CHANGE THE HAND OF THE OPERATOR.

POWER CLOSE ACCESSORY BOARD #313150

This accessory will supplement the closing spring holding force by applying a small reverse voltage to the motor when the door is closed.



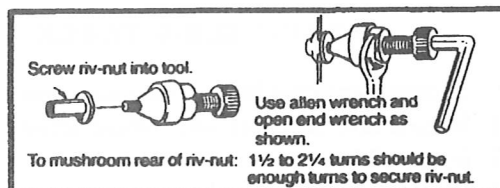
VISIBLE



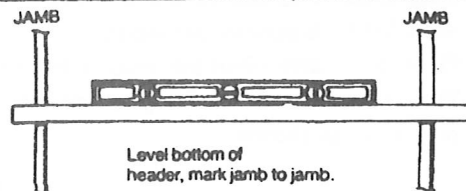
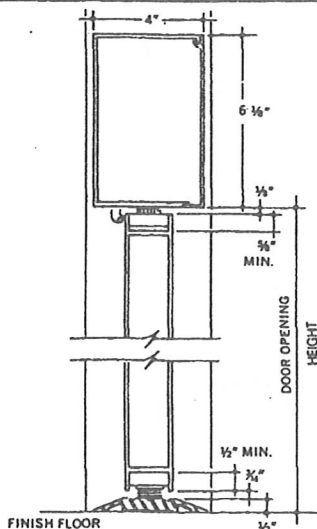
FOR ALL TYPES OF DOOR APPLICATIONS THE HEADER MUST MEASURE 3" LARGER THAN THE DOOR OPENING WIDTH. THIS PROVIDES 1 1/2" OVERLAP ON BOTH JAMBS WHICH IS USED FOR MOUNTING.

USE OF RIV-NUTS

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

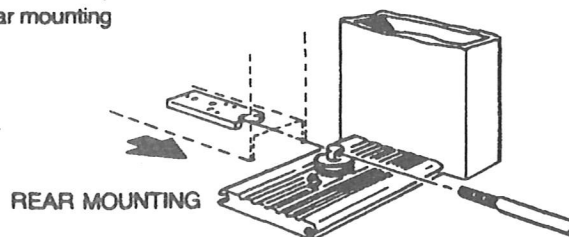


IN-HEADER

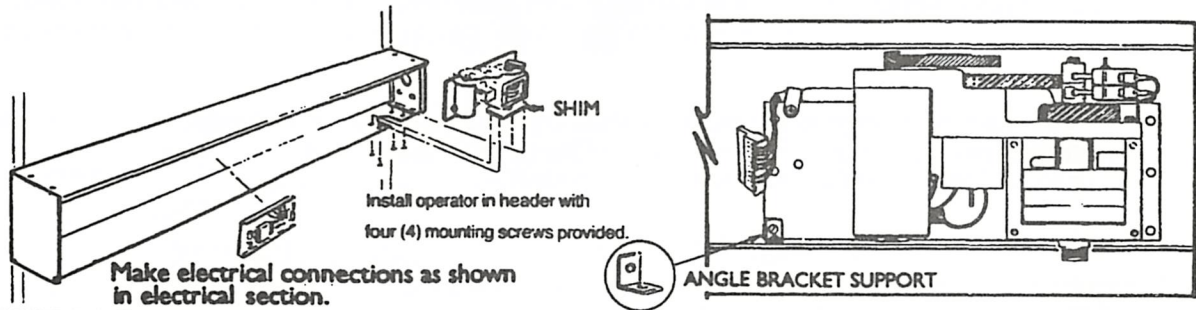


NOTE: Header must be level for proper operation of door.

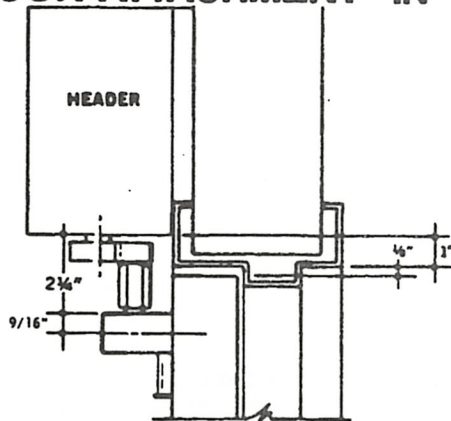
Door must have min. 5/8" top web. 1/2" min. bottom web.
Door must be rear mounting



OPERATOR INSTALLATION • VISIBLE

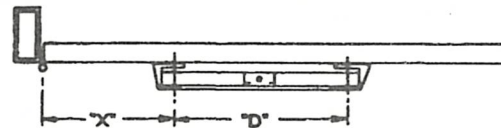


DOOR ATTACHMENT • IN



IN DOOR ATTACHMENT (NO BREAKOUT)

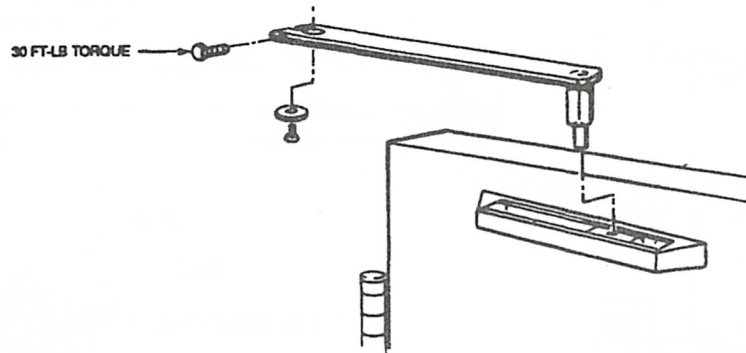
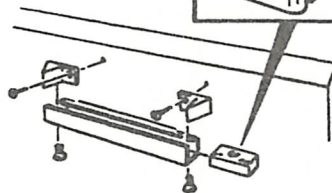
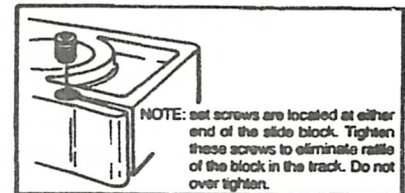
PIVOT TYPE	REVEAL	"D" DIM	"X" DIM	TRACK LENGTH
BUTT HUNG	0	13-1/4	9	15-3/8
OFFSET PIVOT	0	13-1/4	9	15-3/8



1. Jump the signal terminals. Turn power on.
2. The operator spindle will rotate to the full open position.

MOUNT SLIDE TRACK

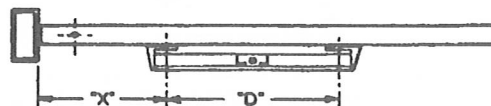
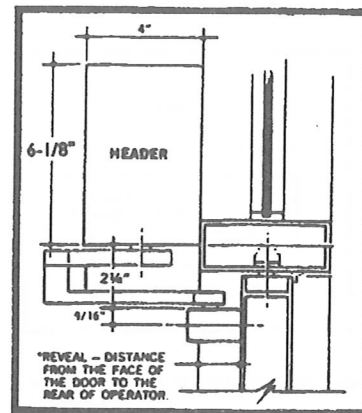
1. Locate mounting holes, refer to proper chart.
2. Secure end brackets with wood screws.
3. Insert slide block.
4. Snap track into end blocks as shown. Secure in place with 5/16-18 screws provided.
5. Place door arm pivot pin into slide block.
6. With the door in the 90° position, attach door arm to operator as shown.



DOOR ATTACHMENT • IN CONTINUED

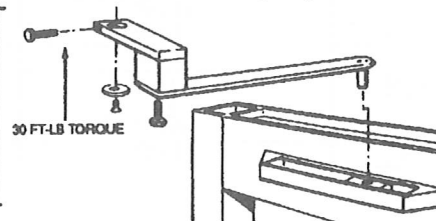
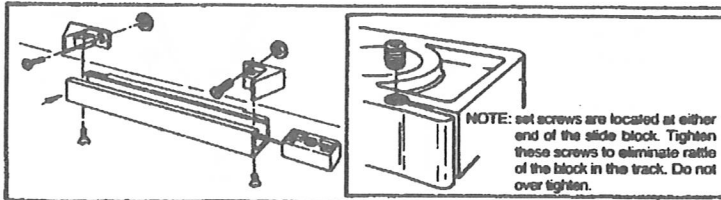
IN DOOR ATTACHMENT (NO BREAKOUT)				
PIVOT TYPE	REVEAL	"D" DIM	"X" DIM	TRACK LENGTH
2-3/4 CTR PIVOT	0 - 4	13-1/4	10-1/2	15-3/8
3-3/4 CTR PIVOT	0 - 4	13-1/4	11	15-3/8

IN DOOR ATTACHMENT (WITH BREAKOUT)				
PIVOT TYPE	REVEAL	"D" DIM	"X" DIM	TRACK LENGTH
2-3/4 CTR PIVOT	0 - 4	20-7/8	6-1/2	23
3-3/4 CTR PIVOT	0 - 4	20-7/8	7-1/2	23



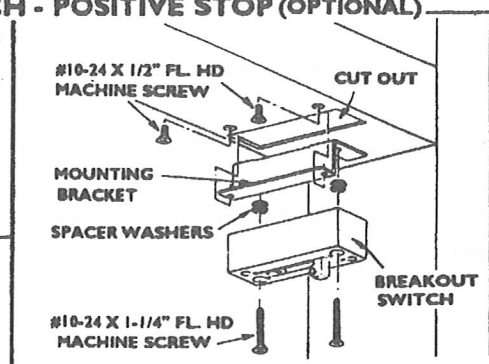
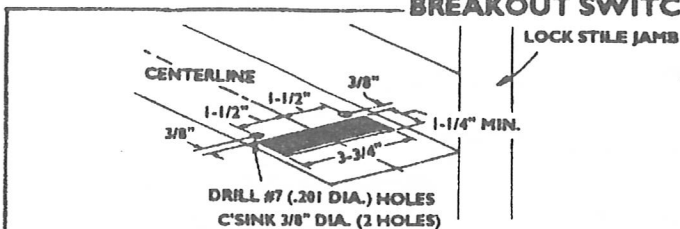
MOUNT SLIDE TRACK

1. Turn power on. Jump the signal terminals.
2. The operator spindle will rotate to the full open position.

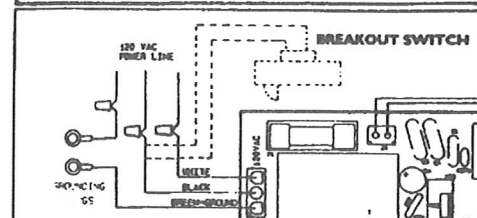


1. Locate mounting holes refer to proper chart.
2. Center punch and drill .332 DIA. holes (Q Drill) for riv-nuts.
3. Install riv-nuts as previously shown.
4. Secure end brackets with 1/4-20 screws provided.
5. Insert slide block.
6. Snap track into end blocks as shown. Secure in place with 5/16-18 screws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

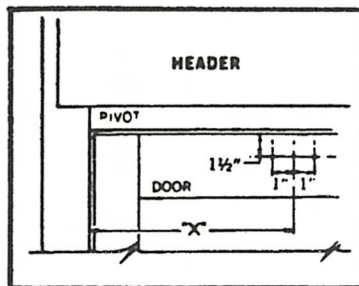
BREAKOUT SWITCH - POSITIVE STOP (OPTIONAL)



1. PREPARE HEADER TO INSTALL BREAKOUT SWITCH - STOP.
2. INSTALL MOUNTING BRACKET.
3. INSTALL SWITCH - STOP AND WIRE AS SHOWN.

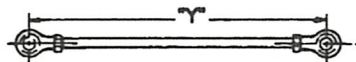


DOOR ATTACHMENT • OUT

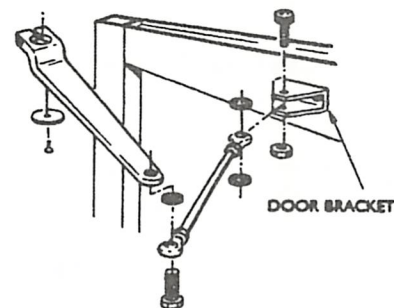


REVEAL	2-3/4" / 3-3/4" CENTER PIVOT DIMENSION "X"	BUTT HUNG / OFFSET PIVOT DIMENSION "X"
0	16"	16"
1/2	16"	16"
1	16"	16"
1-1/2	16"	16"
2	17"	16"
2-1/2	17"	16-1/2"
3	18"	16-1/2"
3-1/2	18"	16-1/2"
4	19"	17"

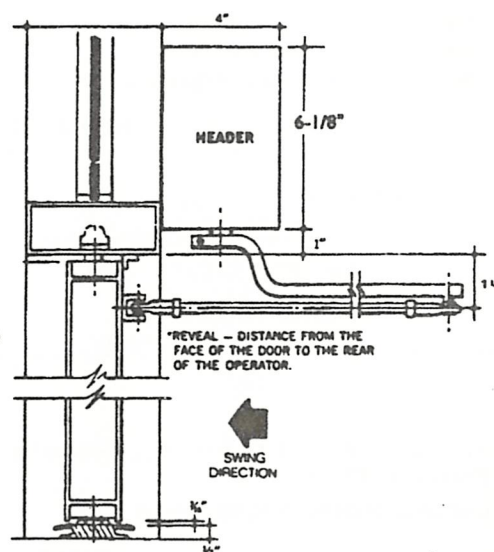
Locate centerline of bracket on door (Use chart) The door must have a positive stop in the closed position.



REVEAL	2-3/4" / 3-3/4" CENTER PIVOT DIMENSION "Y"	BUTT HUNG / OFFSET PIVOT DIMENSION "Y"
0	16-1/2"	17-1/8"
1/2	16-7/8"	17-1/2"
1	17-1/4"	17-3/4"
1-1/2	17-3/4"	18-1/4"
2	18-3/4"	18-3/4"
2-1/2	19"	19-1/4"
3	20"	19-3/4"
3-1/2	20-1/2"	20-1/4"
4	21-1/2"	20-3/4"

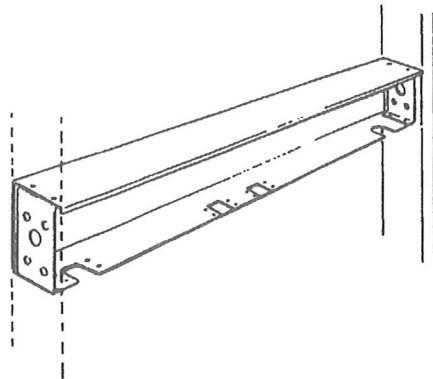


1. Turn power on. Jump the signal terminals.
2. The operator spindle will rotate to the full open position.
3. With the door in the 90° position, attach door arm to operator as shown.



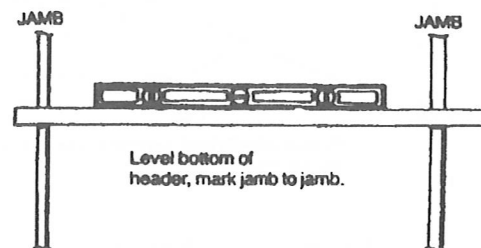
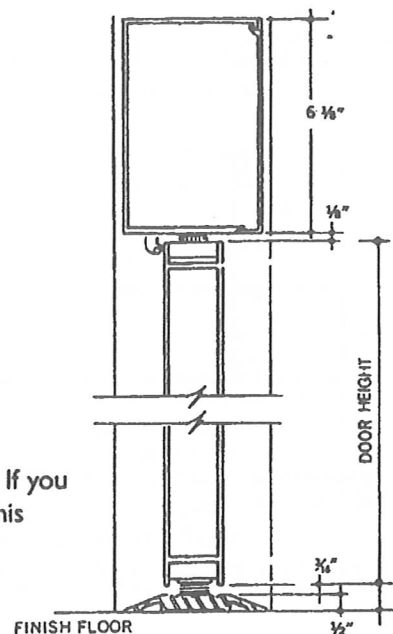
OUT

HEADER INSTALLATION • IN-HEADER



NOTE: Holes and riv-nuts are prelocated and installed on some jamps. If you must locate mounting hole, use the template found on the last page of this instruction booklet and proceed as follows:

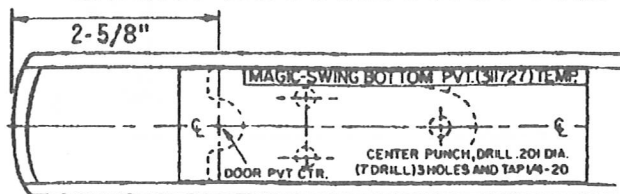
1. Locate bottom of header on jamps. Jamps must be vertical and parallel. Bottom of header is determined by adding bottom door clearance, door height plus clearance. Level bottom of header to this mark.
2. Center the template on the jamb. Punch holes on jamb through template (tape template in place). Locate holes on other jamb.
3. Drill holes in jamb for riv-nuts. Note the 1" hole is drilled in the jamb opposite the pivot.



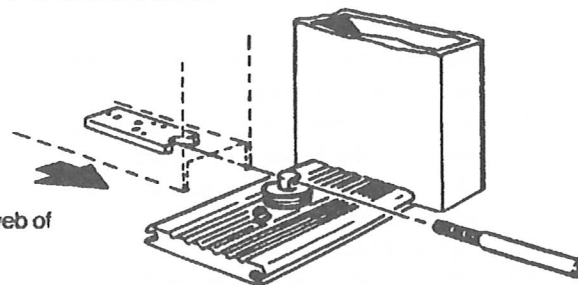
NOTE: Header must be level for proper operation of door.

IN-HEADER DOOR PREPARATION

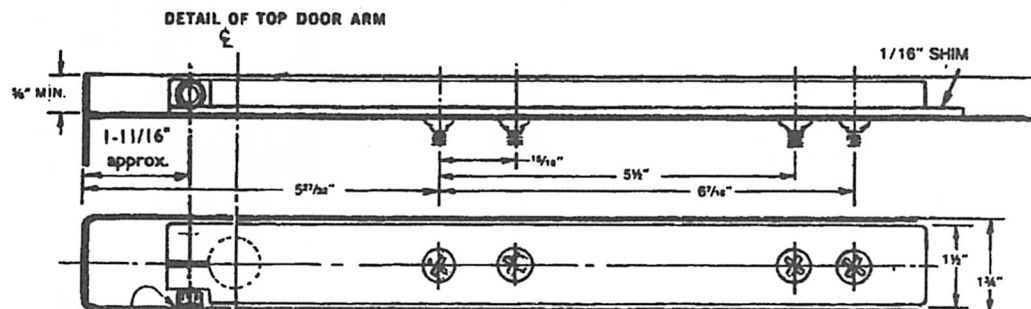
MOUNT BOTTOM PIVOT AND THRESHOLD



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 DOOR PREPARATION



NOTE: You may decide to drill a 1/2" dia. access hole through the door to tighten or loosen the door arm screw.

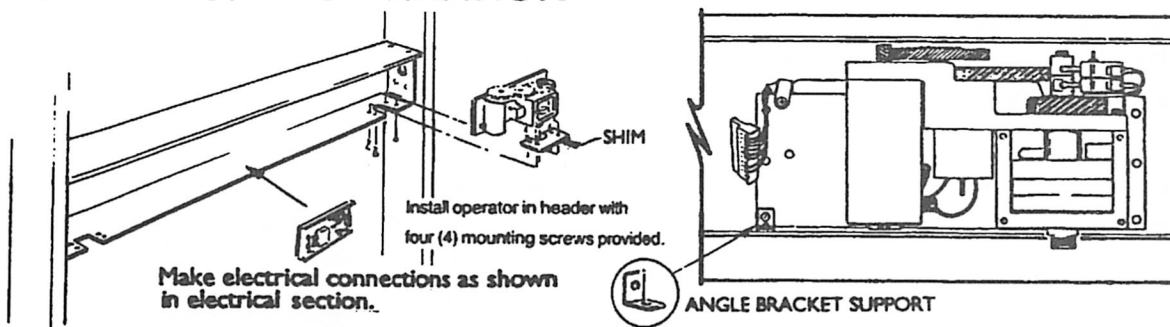
1. Drill (4) .332 dia. ("Q" drill) holes previously located.
2. Insert the 1/4-20 steel riv-nuts provided. Make sure they are properly seated.

WARNING - DO NOT SUBSTITUTE ALUMINUM RIV-NUTS.

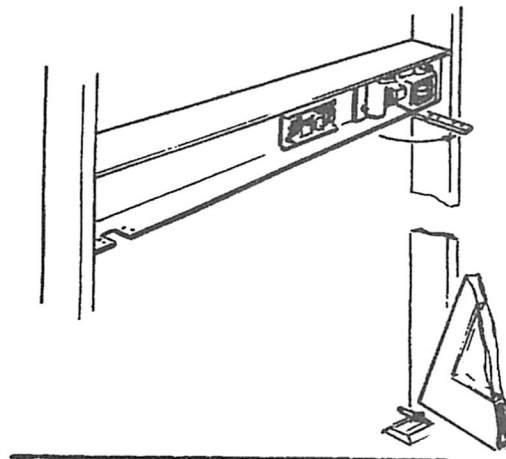
NOTE: A) Long riv-nut for 1/4" thick top web. B) Short riv-nut for 1/8" thick top web.

DO NOT INSTALL DOOR ARM AT THIS TIME.

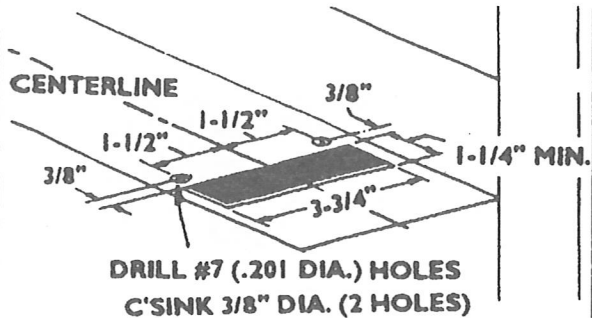
OPERATOR INSTALLATION



1. Turn power on. Jump the signal terminals.
2. The operator spindle will rotate to the full open position.
3. Secure the door arm to the operator spindle in the 90° position.
4. Place the heel of the door on the bottom pivot.
5. Straighten the door into position under the door arm previously attached to the operator.
6. Slide the 1/16" shim plate into position over the riv-nut heads.
7. Secure the door arm to the top of the door with the fasteners supplied.
8. Check to make sure the shim is in the proper position.
9. Tighten all screws.
10. Install the positive stop or breakout stop at this time.

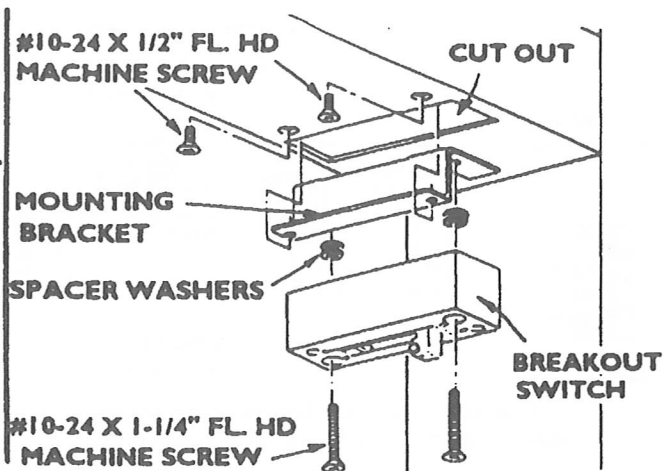


VISIBLE



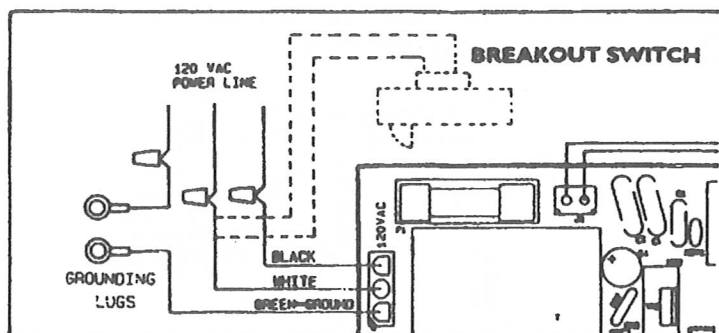
1. Install mounting bracket as shown.
2. If breakout switch is installed, wire as shown.

BREAKOUT SWITCH - POSITIVE STOP (OPTIONAL)

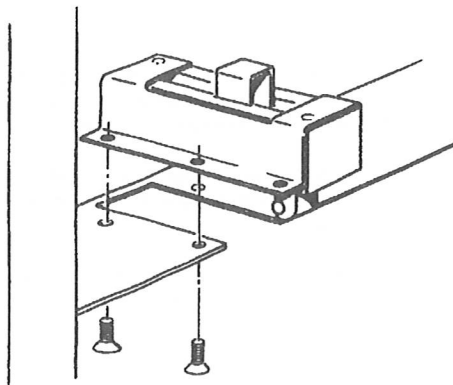


IN-HEADER

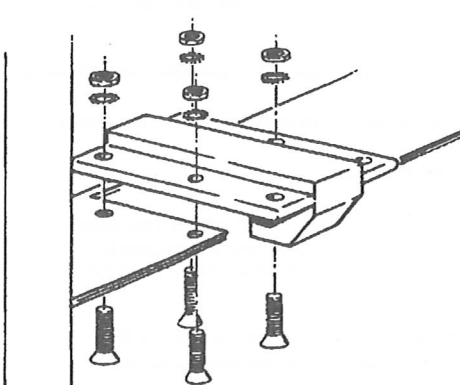
1. Install mounting bracket or one-piece positive stop as shown.
2. If breakout switch is installed, wire as shown.



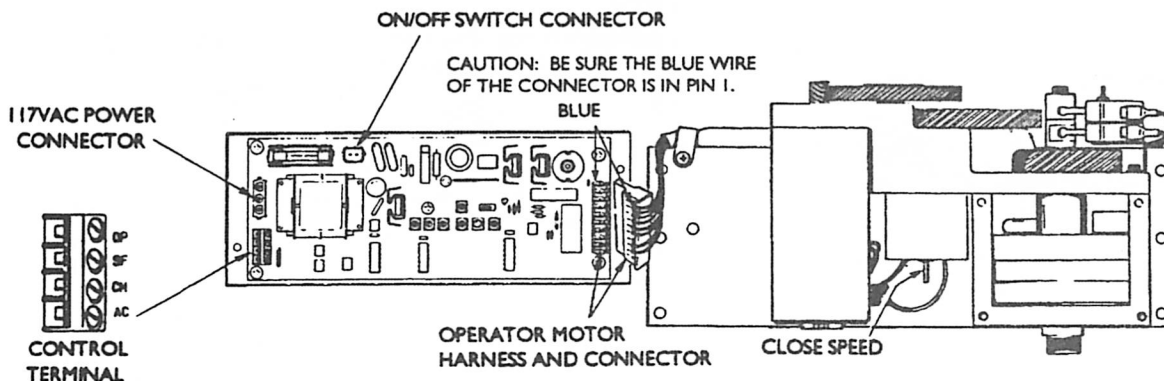
BREAKOUT SWITCH



POSITIVE STOP

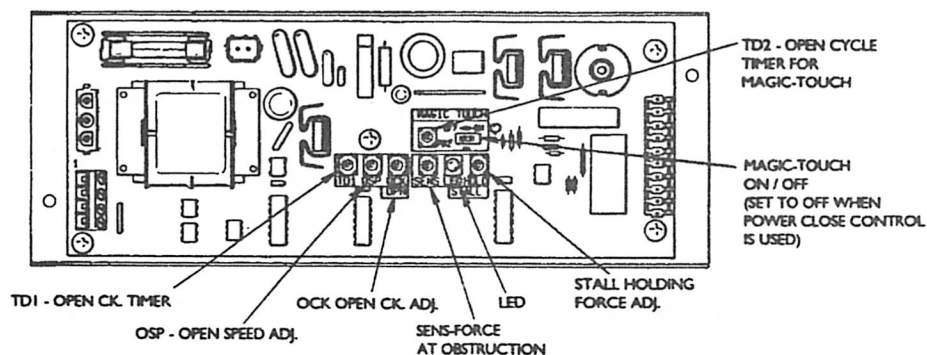


ELECTRICAL **CAUTION: TURN POWER OFF BEFORE MAKING ADJUSTMENTS**



- 1) Connect power to the 3-pin connector provided.
IMPORTANT: Install grounding lugs to header with screws and lock washers provided. See wiring schematic on back cover.
 Plug connector to control board as shown.
- 2) Install on-off switch in end cap (away from spindle end of operator). Screw switch into end cap and attach connector to circuit board.
- 3) Attach activating control to board.
 - a) For push button, push plate, mat or radio control, attach to terminals 1 & 3.
 - b) For radio control power 24VAC, attach to terminals 3 & 4.

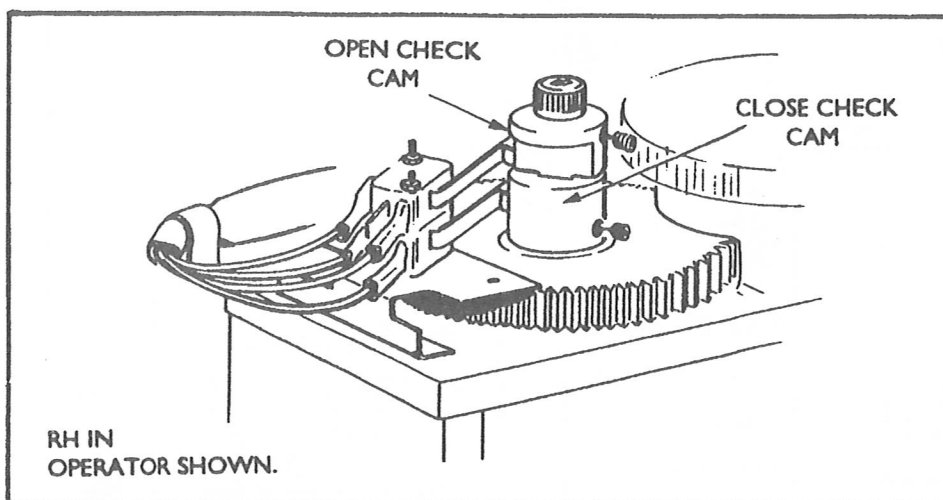
TUNE-IN and ADJUSTMENT



- 1) Set stall hold, open speed and open check to mid-range.
- 2) Set close speed to mid-range (see above for location).
- 3) Operate Door - adjust opening and closing speed controls to a minimum travel time of 3 seconds for the first 75° of travel. Adjust the open check speed for smooth stop.
- 4) Adjust operator timer as required TD1 4-30 sec. (Time from operate signal to full open to full close.)
- 5) Set motor torque to hold the door open against closing spring.
 - a) Maintain operate signal for approximately 15 seconds. The stall LED will turn on. Hold control is now active.
- 6) Adjust the reversal response when the door meets an obstruction. Turn the sens control clockwise until the door reverses momentarily after hitting the obstruction.
- 7) Magic-Touch - Set the S2 switch to the on position. Set the opening cycle timer by adjusting TD2 (1.5 - 10 seconds).

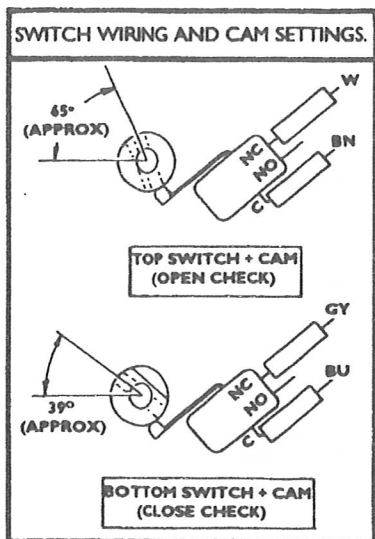
TURN ON POWER.

ADJUSTMENT

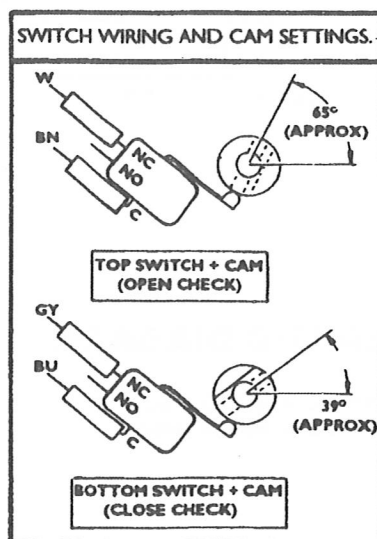


Adjust open check and close check cams as shown.

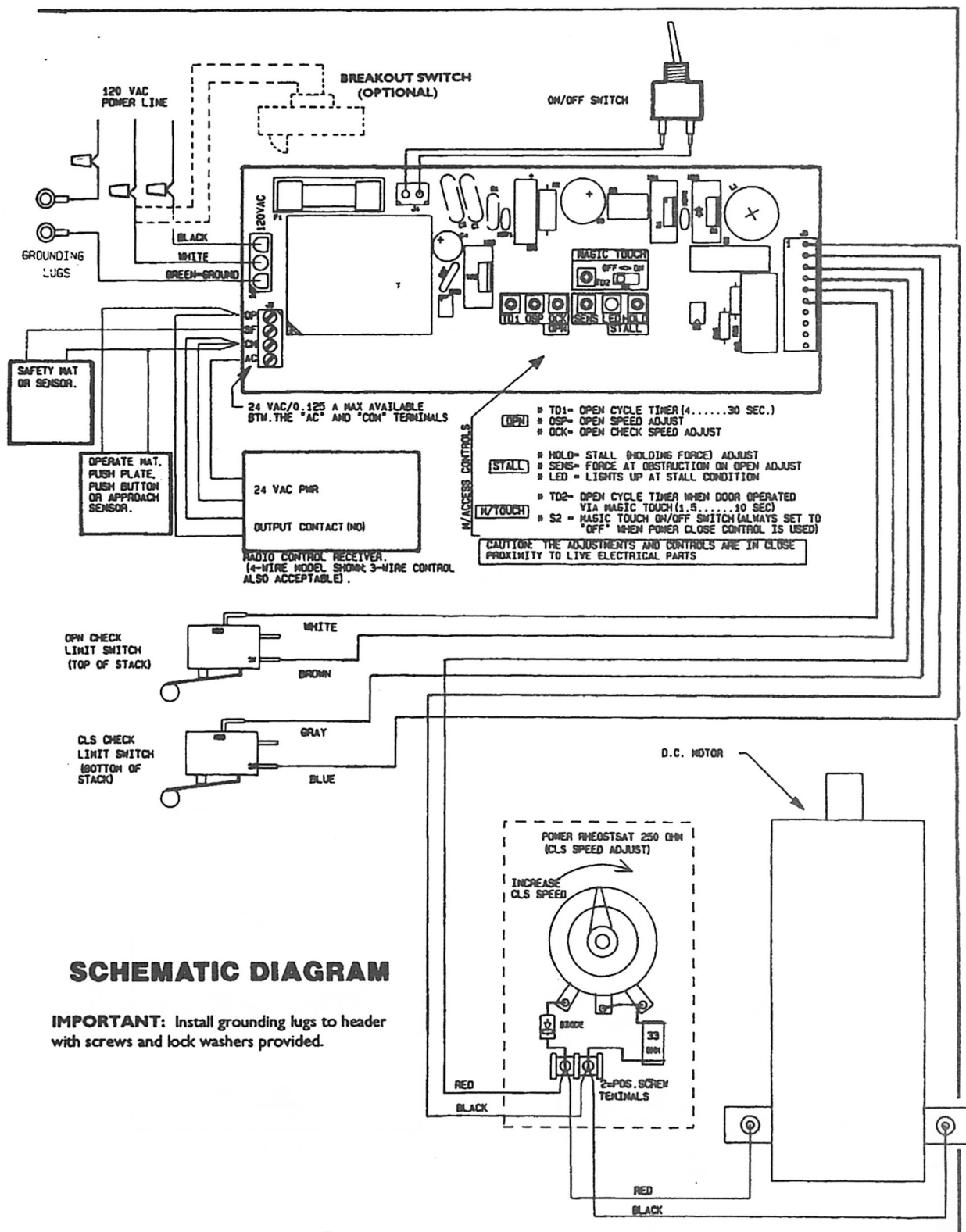
1. Loosen set screw and rotate cam until check area is in proper location.
2. After adjustment has been made, secure cams with set screws.



RH OUT
SHOWN



LH OUT
SHOWN



SCHEMATIC DIAGRAM

IMPORTANT: Install grounding lugs to header with screws and lock washers provided.

ANSI/BHMA & UL COMPLIANCE

MAGIC-ACCESS LOW ENERGY SWINGING DOOR

Final adjustment and proper operation of the door system must be and shall be performed in the field.

Note: These instructions are for informational purposes and do not substitute for review against the current revision of the referenced standards. Where a requirement exists in multiple standards, such as the ANSI/BHMA standard and the UL standard, the more restrictive condition applies. Other local codes and fire codes likely exist, and must also be followed.

1.0 ANSI/BHMA A156.19 Low Energy Swinging Door Systems

Low energy swinging door systems must be installed and adjusted for compliance with the current version of ANSI/BHMA A156.19, American National Standard for Power Assist and Low Energy Power Operated Doors?

Critical aspects of the installation for compliance with A156.19 include:

- Opening times and force.
- Closing times and force.
- Manual opening force.
- Time delay.
- Signage. (Decals and application instructions are provided with the door operator hardware.)

2.0 UL 325 Compliance

All power operated door systems must be installed in compliance with the current edition of UL 325, Standard for Safety for Door, Drapery, Gate, Louver, and Window Operators and Systems?

2.1 Wiring

- 2.1.1 To reduce the risk of electric shock proper and reliable grounding is mandatory. See the wiring diagrams in the Magic-Access instruction manual (p/n 203838) for grounding technique.
- 2.1.2 Permanent wiring is to be employed as required by the National Electrical Code and/or local codes.
- 2.1.3 Connection of external devices is shown in the wiring diagrams and terminal block layouts in the Magic-Access instruction manual. Please refer to this information for proper wiring of external devices to ensure compliance with UL 325.

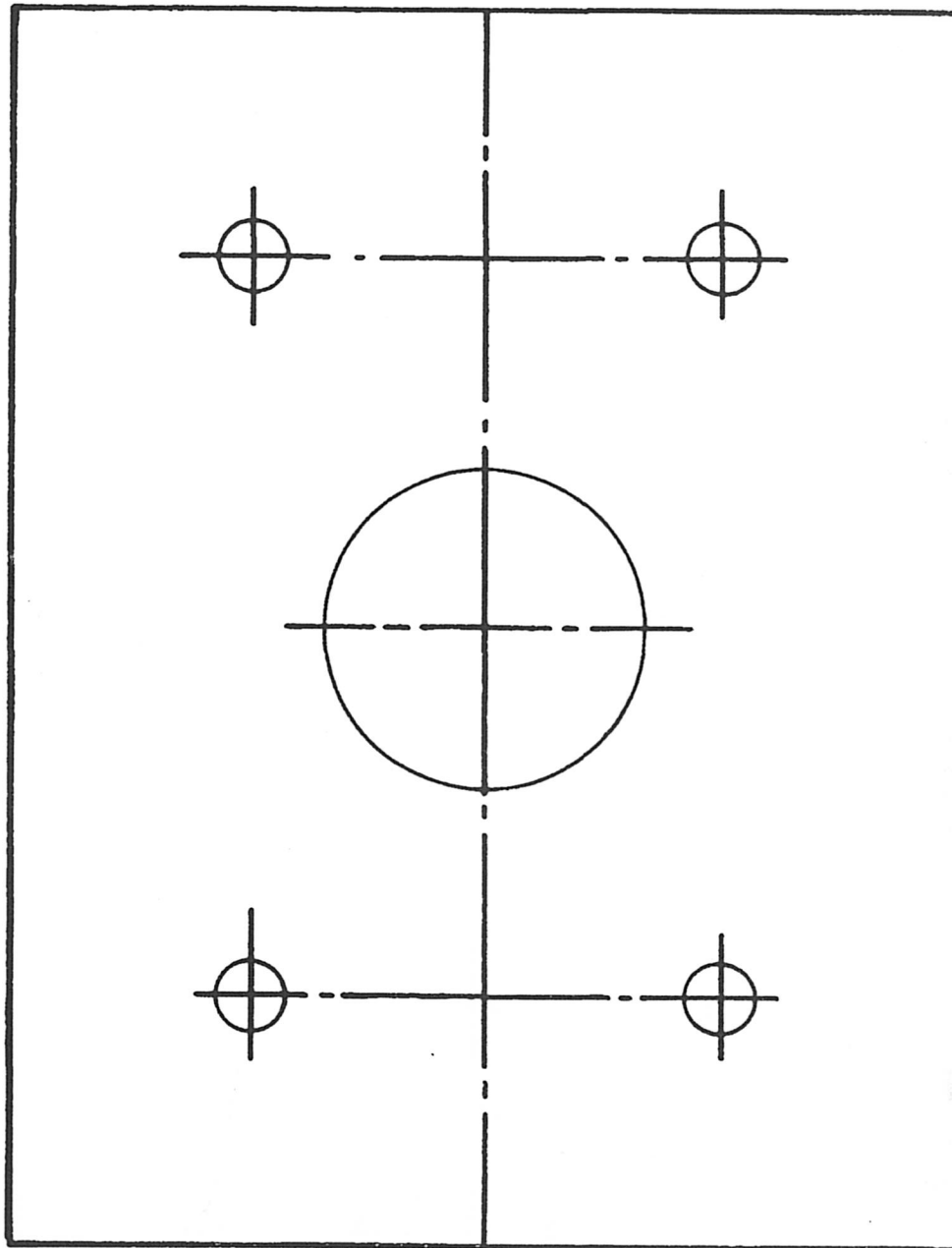
2.2 Knowing Act

Doors activated by a manual switch (Knowing Act switch in ANSI/BHMA terms) must have the switch installed in a location from which operation of the door can be observed by the person operating the switch.

2.3 Entrapment

To ensure that a **swinging** door operates in accordance with UL 325 entrapment protection criteria the following must be established:

- Manual opening force with power on or off must be less than 15 lbf (66.7 N).
- Breakout force must be less than 30 lbf (133.4 N) to set the door in motion (trip the breakout device) and less than 15 lbf to swing to 90 degrees.
- Closing force must be less than 15 lbf at the lock/latch stile.
- Closing time through the final 10 degrees must be greater than 1.5 seconds.
- Maximum recommended door weight = 250 lbs (115 kg).



END BRACKET TEMPLATE