CRANE

AUTOMATIC REVOLVING DOOR OPERATION, MAINTENANCE AND ERECTION INSTRUCTIONS

Crane Revolving Door Company
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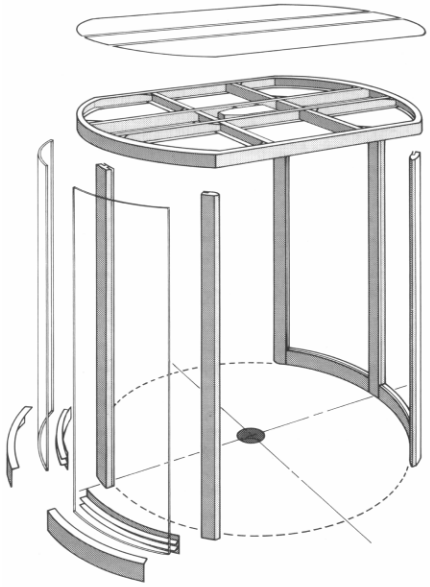

FAN PIER

#3114890A

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EACH REVOLVING DOOR SHIPMENT IS
MADE COMPLETE WITH FULL SIZE
TEMPLATE AND SHOP DRAWING

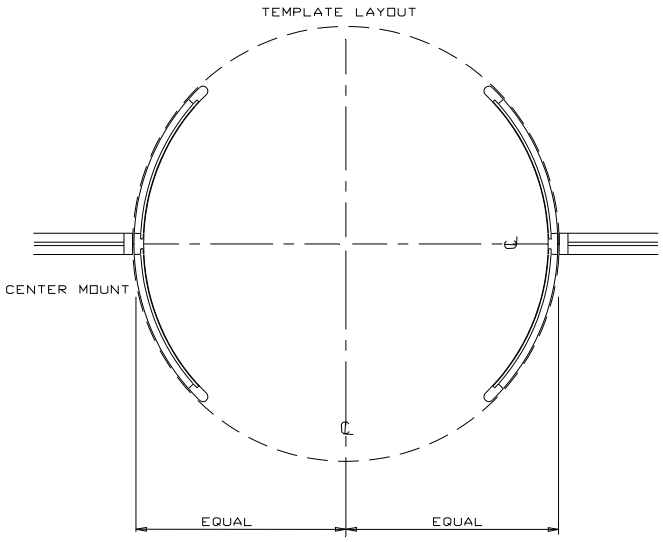
1. BE SURE FLOOR IS LEVEL.

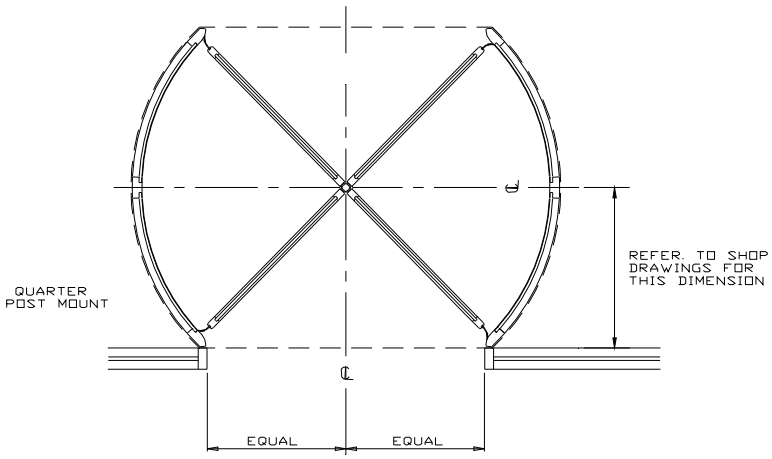
2. LOCATE CENTER LINE OF DOOR AS SHOWN ON SHOP DRAWING

3. CHECK TEMPLATE TO LINE UP WITH ANCHOR BASE.

4. LAY TEMPLATE IN PLACE AND DRILL PILOT HOLES IN FLOOR FOR ANCHOR HOLES AND CENTER.

5. DRILL ANCHOR HOLES 2-1/2” DEEP WITH 1/2” DRILL.

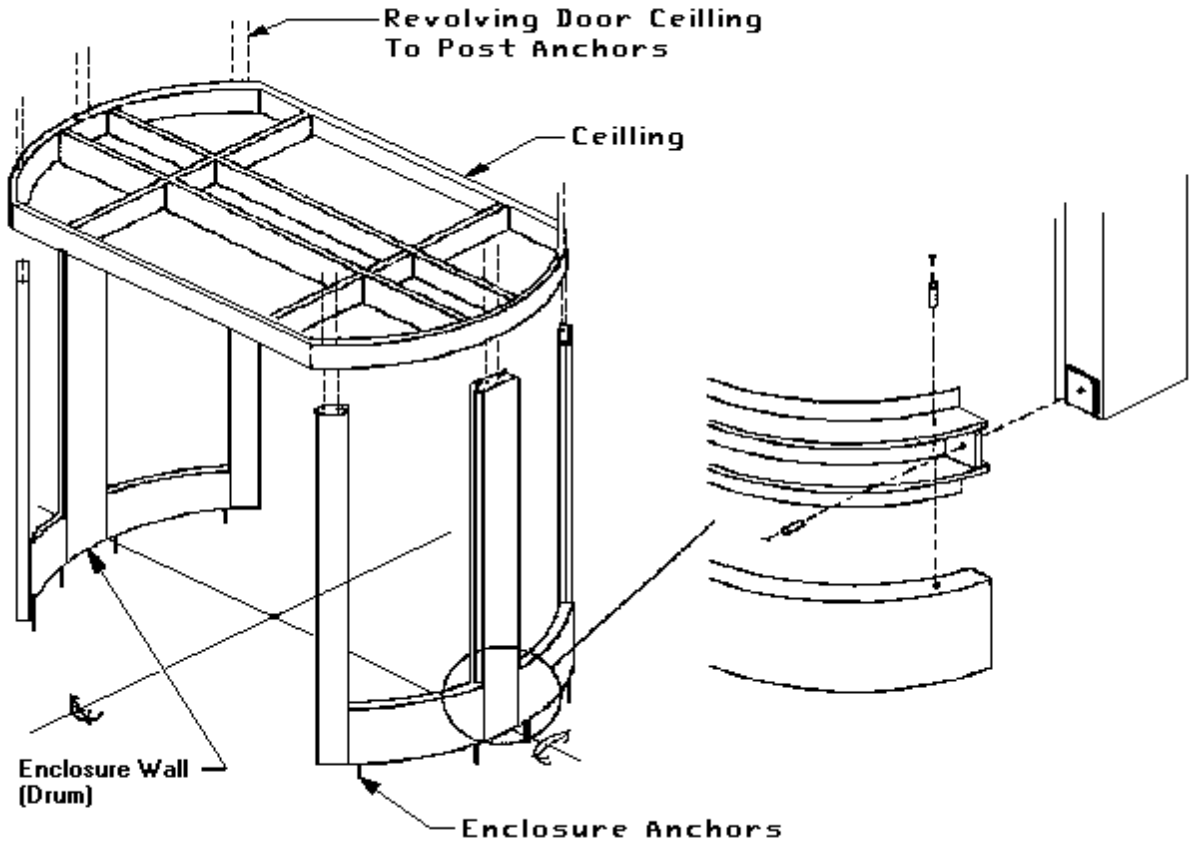




6. REMOVE CEILING COVER

7. RAISE CEILING INTO PLACE. (CRANE USES AN AIR CYLINDER LIFT BY GENIE).

8. FASTEN POSTS TO CEILING WITH SELF TAPPING SCREWS SUPPLIED.



FISH WIRES FROM EDGE STRIPS, PUSH TO SLOW BUTTONS, KEY SWITCH, AND FIRE ALARM (IF APPLICABLE). THE WIRE LEAD ACCESS HOLES ARE FOUND IN CANOPY AT QUARTER POSTS.

9. FASTEN BASES TO POSTS AS SHOWN.

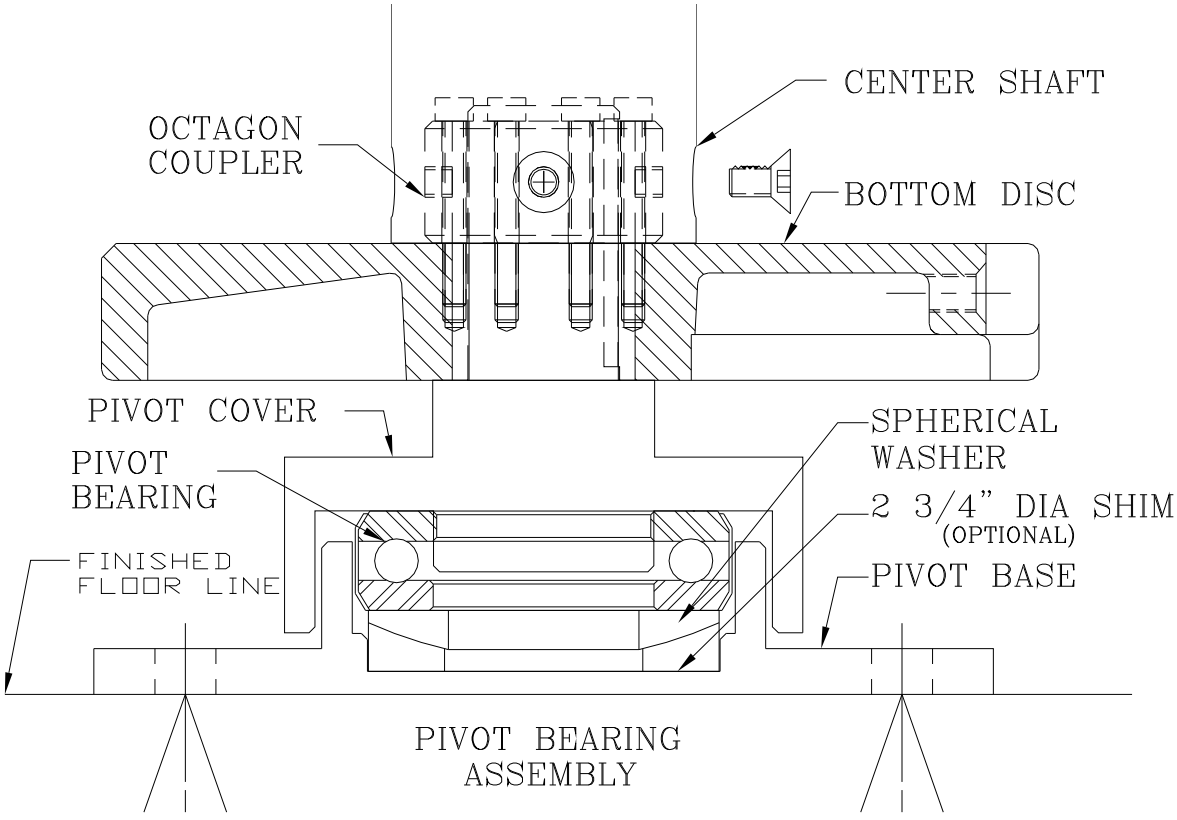
10. SET ANCHORS THRU BASES INTO HOLES IN FLOOR LEVEL WITH HORSESHOE SHIMS AND FILL HOLES WITH QUICK SET CEMENT.

BE SURE TO SET ENCLOSURE WALLS PLUMB AND SQUARE ON LEVEL FLOOR.

11. LOCATE CENTER ON FLOOR AND MARK FOR BEARING.

12. INSTALL FLOOR PIVOT PER SHOP DRAWING.

13. FLOOR PIVOT IS SUPPLIED WITH A GREASE FITTING AT FACTORY. GREASE SEMIANNUALLY OR AS NEEDED.



14. SHAFT INSTALLATION

STEP 1 FEED THE SLIP RING CABLE THROUGH THE BORE IN THE TOP SHAFT EXTENSION/ TO DISC ASSEMBLY ALL THE WAY.
RAISE THE TOP DISC ASSEMBLY SHAFT INTO THE GEAR BOX.
MOUNT THE CENTER SHAFT OVER THE BOTTOM OCTAGON COUPLER MATCHING THE HOLES FOR THE ASSEMBLY SCREWS.

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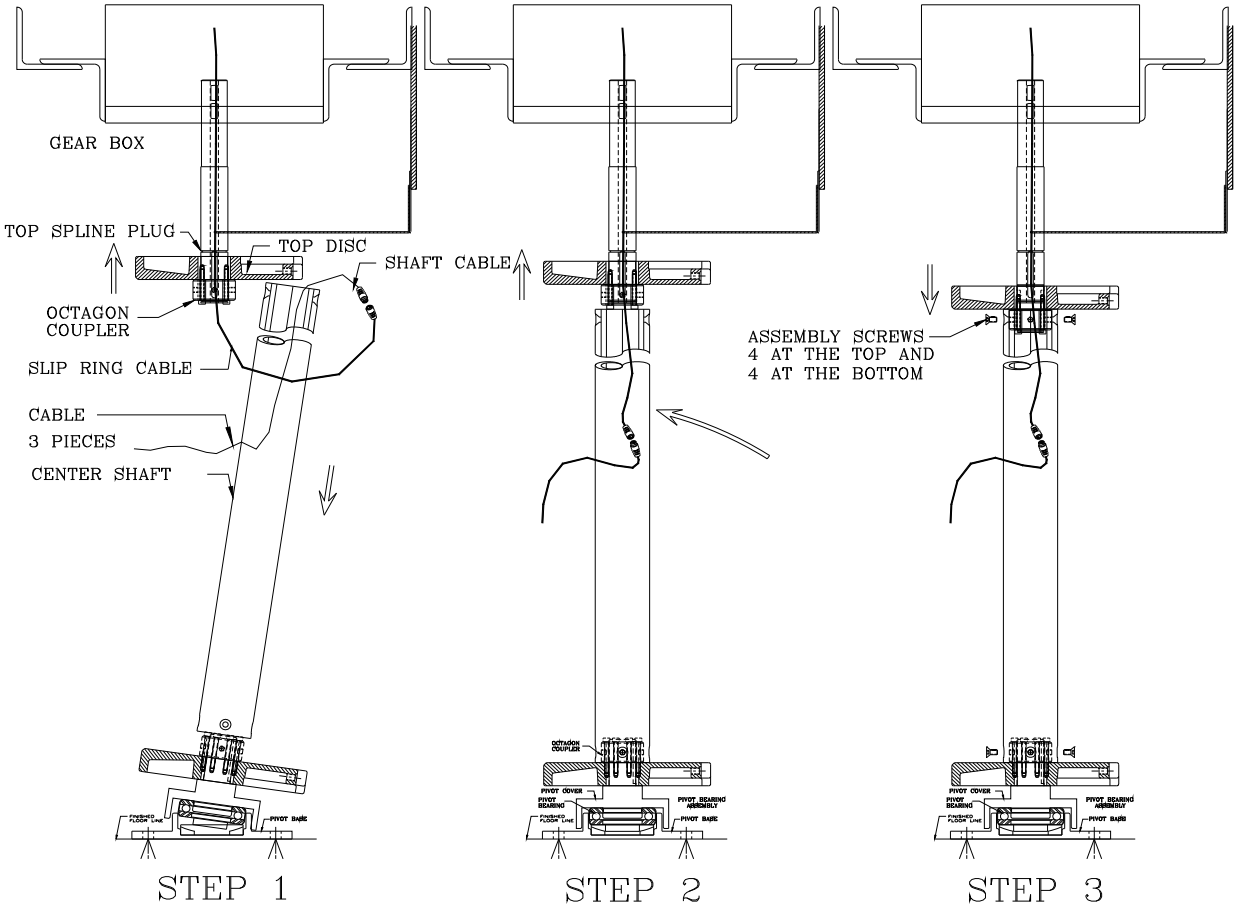
STEP 2 CONNECT THE SLIP RING CABLE AND THE SHAFT CABLE.
STUFF THE EXTRA LENGTH OF THE CABLE INTO THE CENTER SHAFT. CAREFULLY STRAIGHTEN THE CENTER SHAFT MAKING SURE NOT TO DAMAGE THE CABLE.

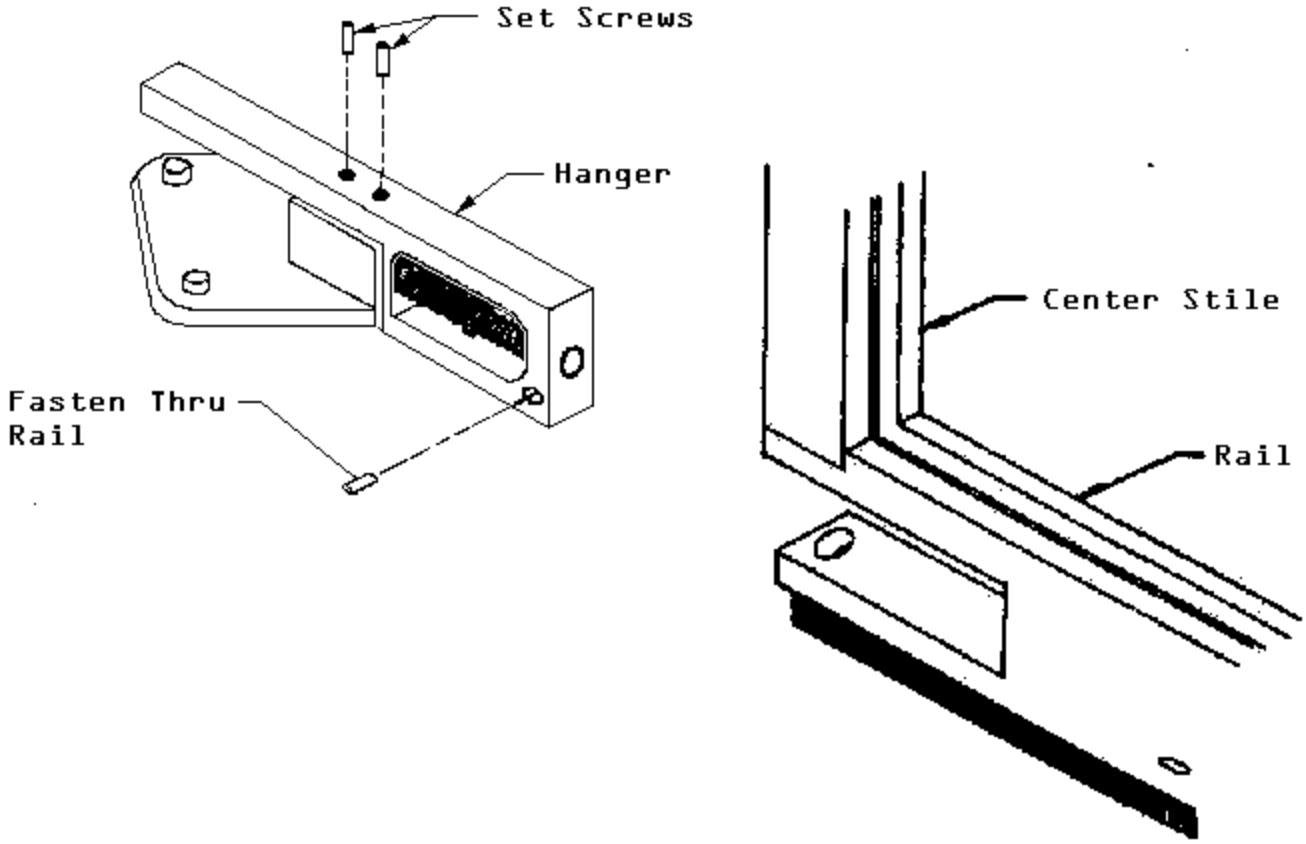
STEP 3 LOWER THE TOP DISC ASSEMBLY WITH THE TOP OCTAGON COUPLER INTO THE SHAFT MATCHING THE HOLES FOR THE ASSEMBLY SCREWS.
FASTEN THE ASSEMBLY SCREWS USING LOCKTITE.
REFER TO THE SETUP INSTRUCTION MANUAL FOR CONNECTION OF THE SLIP RING.



WING ATTACHMENT TO HANGER AND HANGER ADJUSTMENT

FULVIEW MODEL HANGERS

ATTACH WINGS TO HANGERS.

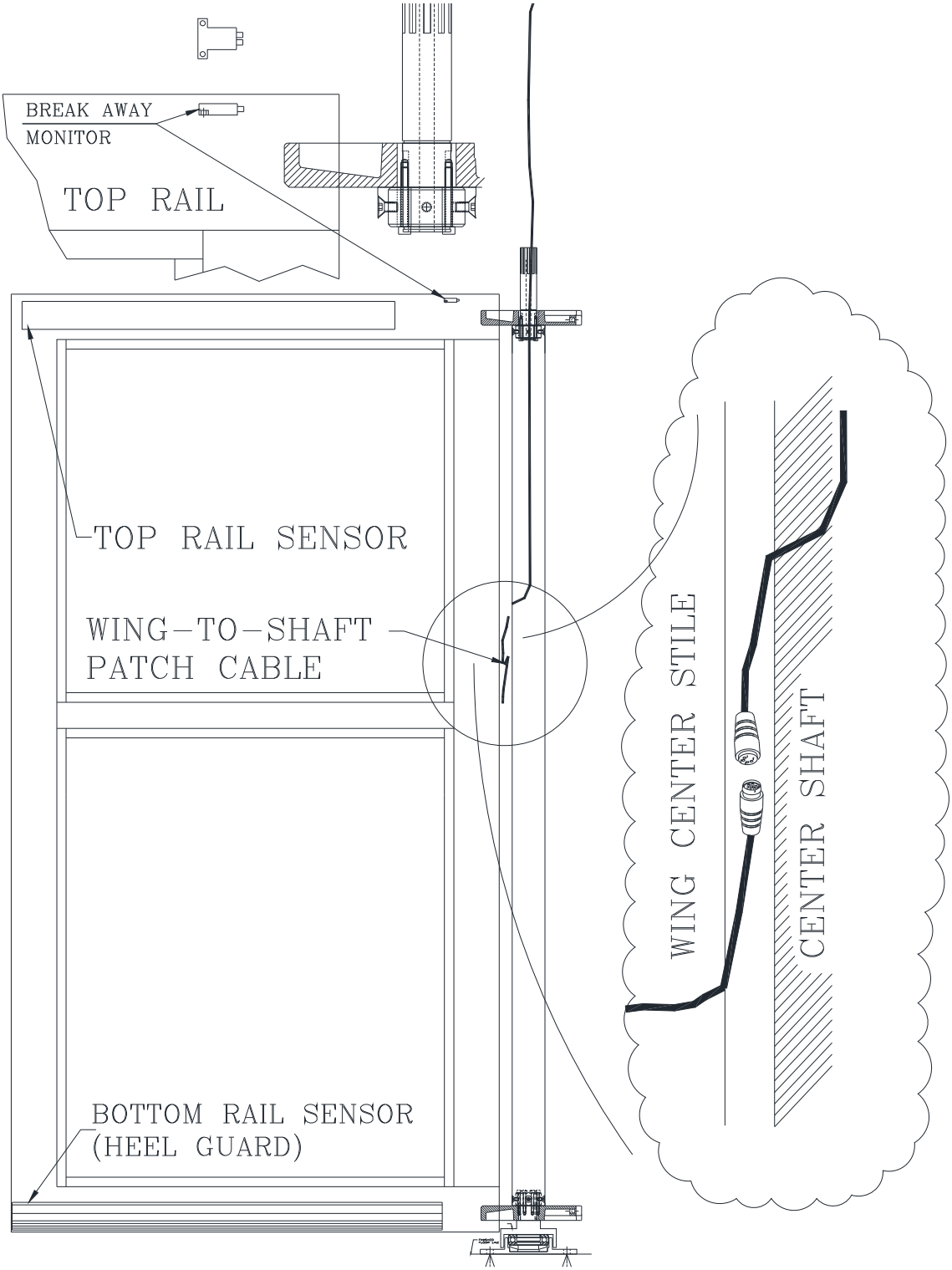


CHECK BOOKFOLD MECHANISM AND ADJUST TO REQUIRED TENSION FOR BUILDING CONDITIONS. ADJUST FINGER TIGHT, THEN ONE AND ONE QUARTER (1-1/4) TURNS TIGHTER WITH WRENCH FOR APPROXIMATE ADJUSTMENT.

1/4 OF A TURN IN EITHER DIRECTION FROM THIS POINT WILL MAKE A NOTICEABLE DIFFERENCE.

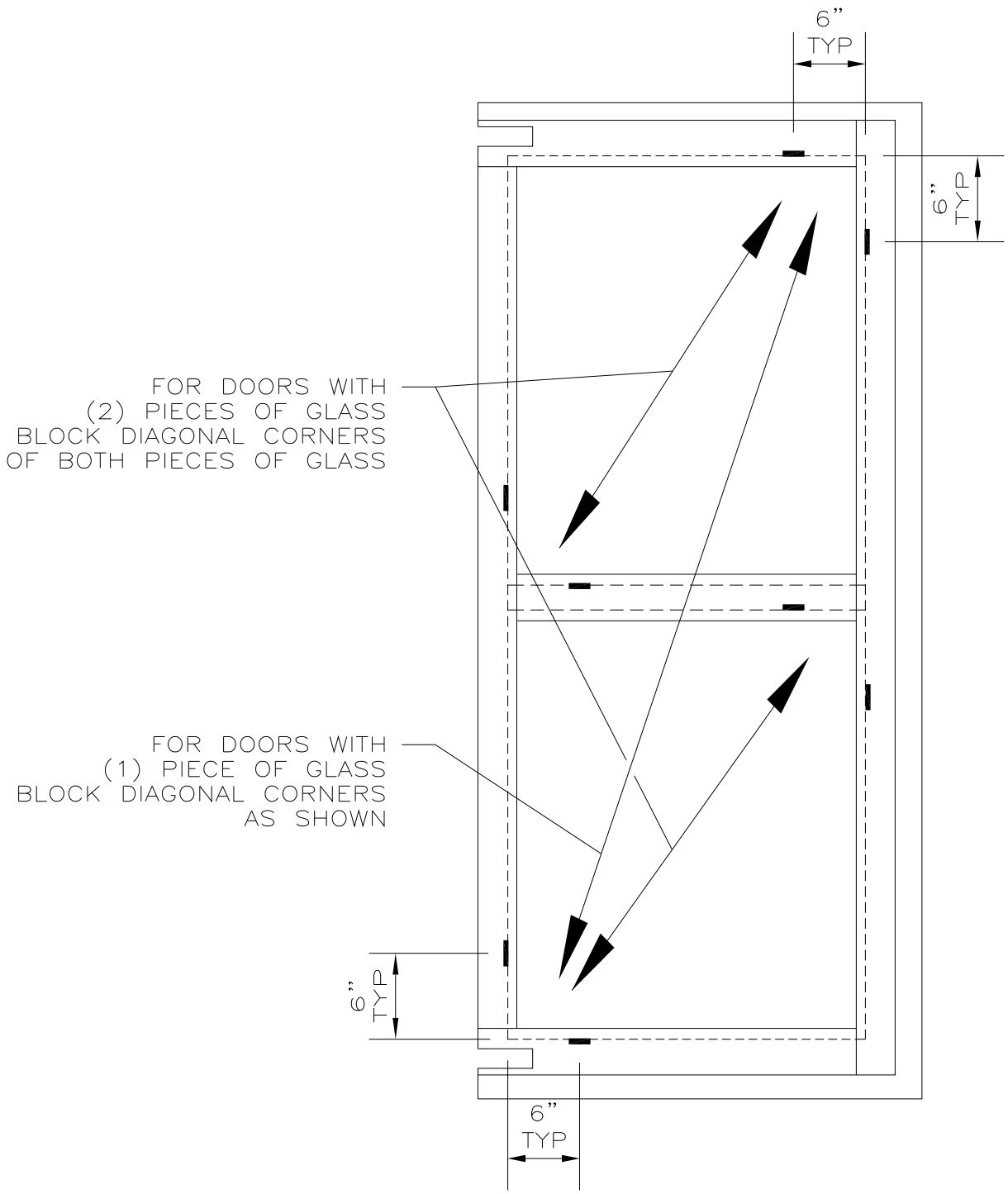
NOTE: BOOKFOLD TENSION IS NOT PRESET. IT MUST BE SET BY INSTALLERS TO MEET BUILDING CONDITIONS.

INSTALL AND ADJUST THE HANGERS AND THE WINGS.
CONNECT THE PATCH CABLES.



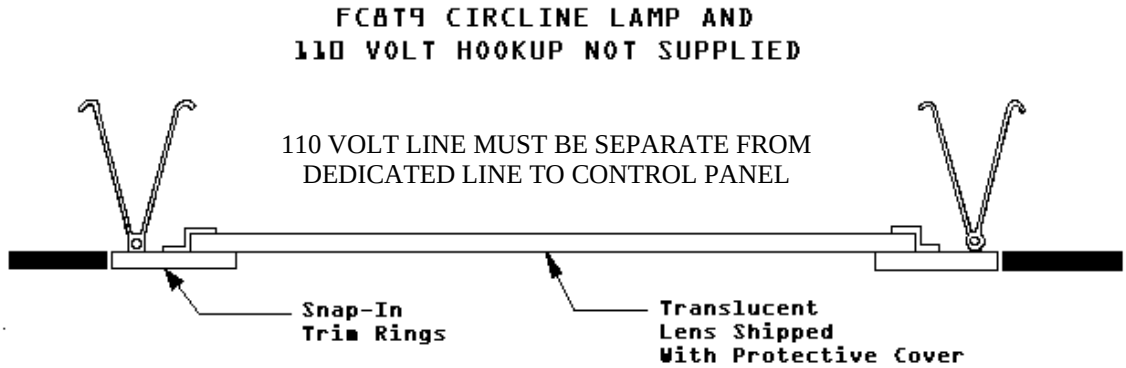
GLAZING INSTRUCTIONS

GLAZING SHALL BE DONE AS SHOWN ON SHOP DRAWINGS
IN ADDITION, WINGS MUST BE BLOCKED TIGHT AND SQUARE



LIGHT FIXTURE

CEILING LIGHTS ARE AN OPTION
REMOVE PROTECTIVE PAPER FROM LIGHT LENSES



SECTION OPTIONAL LIGHT FIXTURE THRU SHOWING
SNAP IN TRIM RING AND LENS.

Automatic revolving door function description.

The door is equipped with heavy duty gear/motor drive assembly, activation and safety detection network, and solid state microprocessor based control box.

NOTE: ALL ITEMS TO BE SUPPLIED WITH THE DOOR ARE SHOWN ON THE SHOP DRAWINGS.

The drive unit consists of heavy duty Helical Bevel Gear Reducer driven by a 1/3 HP AC motor, Pulse Encoder, Index Sensor and Slip Ring .

Direction sensitive motion detectors installed on the fascia of the canopy will initiate the working cycle of the door upon motion of a pedestrian toward the passage way.

The Top Rail infrared sensors and the Bottom Rail contact sensors installed in the leading face of each wing along with the End Wall contact sensor on the leading edge of the enclosure will protect pedestrians from being injured by the rotating door. Upon activation of a safety sensor the motor will stop and resume the motion only after the protected area is cleared. Activation of a Top Rail infrared sensor will slow the door down to a safe speed and stop the door if the signal is longer than 3 seconds.

The Out-Of-Position sensors will stop the center shaft rotation when at least one of the wings is collapsed and keep the drive system idle until the wing is returned to the normal position.

The internal circuit of the control unit will provide an additional safety protection by disabling the motor drive if there is a mechanical obstacle to the door motion.

All the initial settings and adjustments can be performed by a trained technician through the control box internal interface.

The revolving door is designed to provide long trouble free service.
Although no special maintenance to the drive unit, sensors and control is required, a quarterly professional inspection is recommended for the first year of use.
The mechanical joints of the door may need to be greased / readjusted once or twice a year later on.

Keep the safety and activation sensors clean, moisture and dust free. Wipe using non-abrasive non-aggressive chemicals or water.

REVOLVING DOOR KINETIC ENERGY.

Diameter (inches)	Wings	Wing Width	Metal Wing weight	Glass Wing Weight	Total per Wing	Extended Wing Weight	Core Weight	Total Weight	Max RPM at 2.5 ft lb	Acceptble RPM
72	3	33	67	42	108	325	na	325	4.5	7.0
80	3	37	69	48	117	350	na	350	3.9	7.0
84	3	39	70	51	121	363	na	363	3.6	7.0
96	3	45	74	60	134	401	na	401	3.0	7.0
108	3	51	77	69	147	440	na	440	2.6	6.0
120	3	57	81	79	159	478	na	478	2.2	5.0
132	3	63	84	88	172	516	na	516	1.9	4.0
144	3	69	88	97	185	554	na	554	1.7	4.0
144	3	48	75	65	140	420	545	966	1.3	4.0
168	3	56	80	77	157	471	596	1068	1.1	4.0
192	3	64	85	89	174	522	647	1170	0.9	3.2
216	3	72	89	102	191	573	698	1271	0.8	2.7
240	3	80	94	114	208	624	749	1373	0.7	2.2
72	4	33	67	42	108	433	na	433	3.9	7.0
80	4	37	69	48	117	467	na	467	3.4	7.0
84	4	39	70	51	121	484	na	484	3.1	7.0
96	4	45	74	60	134	535	na	535	2.6	7.0
108	4	51	77	69	147	586	na	586	2.2	6.0
120	4	57	81	79	159	637	na	637	1.9	5.0
132	4	63	84	88	172	688	na	688	1.7	4.0
144	4	69	88	97	185	739	na	739	1.5	4.0
144	4	46	74	62	136	544	694	1237	1.1	4.0
168	4	54	79	74	153	612	762	1373	0.9	4.0
192	4	62	84	86	170	679	829	1509	0.8	3.2
216	4	70	88	99	187	747	897	1645	0.7	2.7
240	4	78	93	111	204	815	965	1780	0.6	2.2
120	2	40	71	52	122	245	1734	1979	1.1	4.0
144	2	48	75	64	139	278	1835	2113	0.9	4.0
168	2	55	80	76	156	312	1936	2247	0.7	4.0
192	2	63	84	88	173	345	2036	2382	0.6	3.2

The chart is shown as an example of the maximum RPM the door can operate under conditions specified in the standard.
Maximum RPM at 2.5 ft lb. can vary depending on the weight of the door. The weight shown in this chart is typical aluminum door with 1/4" glass. Weight will vary by manufacturer, type of glazing and type of metal construction of the door. The individual manufactures installation instructions and owners manual should provide a chart for the door as it is installed so the installer will know how to adjust the door. Acceptable RPM is the maximum speed the door can rotate. If the door exceeds the maximum RPM, it must be equipped with a wing sensor to slow the door to the RPM shown under Max. RPM at 2.5 ft lb. (exception is Access Controlled Doors which are majority trained traffic users and in high security).

MAINTENANCE — CLEANING

ALUMINUM - Can provide years of dependable service with minimum maintenance. Dust and grime should be removed by regular cleaning. Use soap and water, any mild non-abrasive soap or cleaning solution is adequate. To remove tar or built up dirt, solvent cleaners such as turpentine are safe if followed by a soap and water cleaning and fresh water rinse. Acid or alkali cleansers should not be used as they may attack the anodic coating. After cleaning, surfaces should be wiped dry with a clean absorbent material.

STAINLESS STEEL - For routine cleaning on #4 satin finish, use soap, ammonia, or a detergent and water. Rub with sponge or rag, rinse with clear water, wipe dry. Always rub in direction of grain. For removal of stubborn or heavy dirt or grime, any quality commercial stainless steel cleaner can be used. Mirror finish stainless steel requires very special care, no abrasive cleaner or cloth should ever be used. Mild soap and water or glass cleaner only, is recommended.

BRONZE - Bronze provides years of dependable service with normal maintenance. It is recommended a professional bronze finisher be consulted and a regular metal cleaning program be established.

PAINTED FINISH - Any mild non-abrasive soap or mild solvent is recommended for cleaning. Strong solvents may dissolve paint. Wax can be used to protect the finish.