COUNTER FIRE DOORS

INSTALLATION INSTRUCTIONS

AND MAINTENANCE MANUAL

3-3953-01(8) ECN 1147 BY RG 2/1/13

THIS REVISION SUPERSEDES ALL PREVIOUS REVISIONS

COUNTER FIRE DOOR INSTALLATION INSTRUCTIONS
TABLE OF CONTENTS

PAGE#	DESCRIPTION	FIG#
	GENERAL FIRE DOOR INFORMATION	
	GETTING STARTED	
1	FREIGHT DAMAGE INSTRUCTIONS	
2	PRE-INSTALLATION INSTRUCTIONS/SAFETY CHECK LIST	
	GUIDE INSTALLATION	
3	GUIDE INSTALLATION	A1 / A2
4	SMOKE DOOR GUIDE INSTALLATION	A3 / A4
5	SMOKE LINTEL GASKET INSTALLATION	A5
	CURTAIN INSTALLATION	
6	CURTAIN INSTALLATION	A6 / A7
7	CURTAIN INSTALLATION (CONT)	A8 / A9
8	STANDARD HOOD COVER INSTALLATION	A10 / A11
	SENSING EDGES / ENTRAPMENT DETECTION DEVICES	
9	SENSING EDGE COIL CORD INSTALL - INSIDE DOOR	A12
10	SENSING EDGE COIL CORD INSTALL - OUTSIDE & ABOVE DOOR	A13
	CONVENTIONAL DROP OUT FIRE DOORS	
	PUSH UP OPERATION	
11	BARREL WIRE RING INSTALLATION	B1
12	BRACKET DETAIL - PUSHUP - SINGLE SPRING	B2 / B3
13	BRACKET DETAIL - PUSHUP - DUAL SPRING	B4 / B5
14	TENSIONING INSTRUCTIONS - SINGLE/DUAL SPRING GOVERNOR	B6
15	RESETTING INSTRUCTIONS - SINGLE/DUAL SPRING	B7
	MOTOR OPERATION (LGJ/MGJ OPERATORS)	
16	BRACKET DETAIL - LGJ/MGJ	C1 / C2
17	COUNTERBALANCING - MOTOR OPERATED	
18	RESETTING INSTRUCTIONS - MOTOR OPER - CONVENTIONAL	C3
	SIMPLE TEST OPERATOR - CHAIN / CRANK / MOTOR	
19	BARREL - WIRE RING INSTALLATION	D1
20	BRACKET DETAIL - CHAIN/CRANK	D2 / D3
21	BRACKET DETAIL - MOTOR OPERATED	D4 / D5
22	TENSIONING INSTRUCTIONS - CHAIN/CRANK	
23	TENSIONING INSTRUCTIONS - MOTOR OPER	
	AUTO TEST OPERATOR - CHAIN / CRANK / MOTOR	
24	BARREL - WIRE RING INSTALLATION	E1
25	BRACKET DETAIL - CHAIN/CRANK	E2 / E3
26	BRACKET DETAIL - TUBULAR MOTOR OPER	E4 / E5
27	ELECTR CONN - CLUTCH CTRL PANEL - ALARM/DETECTORS	E6
28	BRACKET DETAIL - FDO-A10 MOTOR OPER	E7 / E8
29	BRACKET DETAIL - AUTO TEST MOTOR - FDO-A/FDO-B	E9 / E10
30	BRACKET DETAIL - AUTO TEST FDO-A/FDO-B (FS) OPER	E11 / E12
31	TENSIONING INSTRUCTIONS - AUTO TEST CHAIN/CRANK	
32	TENSIONING INSTRUCTIONS - AUTO TEST MOTOR OPER	
	MOTOR OPERATOR - ROTARY LIMIT SWITCH	F1
33	INSTRUCTIONS FOR SETTING ROTARY LIMIT SWITCH	
	FRAME INSTALLATION INSTRUCTIONS - FD10-ST	
34	FRAME INSTALLATION INSTRUCTIONS	G1 / G2
	MAINTENANCE SCHEDULES	
35	CURTAIN CARE INSTRUCTIONS	
36	MAINTENANCE SCHEDULE	
37	TROUBLESHOOTING CHARTS	

FREIGHT DAMAGE INSTRUCTIONS

IMPORTANT

IMMEDIATELY UPON DELIVERY CHECK CONDITION OF MATERIALS FOR VISIBLE CONCEALED FREIGHT DAMAGE INCURRED IN TRANSIT.

UNDER NO CONDITION SHOULD INSTALLATION BE MADE WITHOUT AUTHORIZATION, AS NEITHER THE CARRIER NOR THE MANUFACTURER WILL ASSUME RESPONSIBILITY FOR LABOR COSTS INVOLVED IN REPLACING DAMAGED MATERIAL THAT HAS BEEN INSTALLED.

FOLLOW THE DIRECTIONS BELOW:

CONCEALED DAMAGE:

(A) MUST BE INSPECTED BY CARRIER'S REPRESENTATIVE WITHIN 15 DAYS FROM DATE OF DELIVERY.
(B) CONSIGNEE MUST OBTAIN COPY OF INSPECTION REPORT.
(C) MATERIAL SHOULD NOT BE MOVED FROM POINT OF DELIVERY TO OTHER PREMISES PRIOR TO DISCOVERY AND/OR REPORTING OF DAMAGE.
(D) CONTAINER AND PACKING SHOULD BE RETAINED BY CONSIGNEE UNTIL INSPECTION IS MADE.

VISIBLE DAMAGE:

(A) MUST BE INSPECTED BY CARRIER'S REPRESENTATIVE WITHIN 15 DAYS FROM DATE OF DELIVERY.
(B) CONSIGNEE MUST OBTAIN COPY OF INSPECTION REPORT.
(C) MATERIAL SHOULD NOT BE MOVED FROM POINT OF DELIVERY TO OTHER PREMISES PRIOR TO DISCOVERY AND/OR REPORTING OF DAMAGE.
(D) CONTAINER AND PACKING SHOULD BE RETAINED BY CONSIGNEE UNTIL INSPECTION IS MADE.

NOTE: IF DAMAGE IS CERTAIN, GOODS SHOULD NOT BE UNPACKED UNTIL INSPECTION IS MADE. IF DAMAGE IS UNCERTAIN, PACKAGES MAY BE OPENED BUT PACKING MATERIAL MUST BE SAVED UNTIL INSPECTION IS MADE.

INCOMPLETE DELIVERY:

(A) SHOULD BE NOTED ON DELIVERY RECEIPT.
(B) ACKNOWLEDGES BY DRIVER'S SIGNATURE.
(C) START TRACING IMMEDIATELY.
(D) NOTIFY SHIPPER.

RETURNING DAMAGED MATERIAL:

IF DAMAGED TO THE EXTANT THAT IT IS NECESSARY TO RETURN TO THE MANUFACTURER TO BE REPAIRED, PLEASE DO AS FOLLOWS:
(A) OBTAIN PERMISSION TO DO SO FROM THE DELIVERING CARRIER.
(B) ROUTE THE RETURN SHIPMENT VIA THE IDENTICAL CARRIER(S) INVOLVED IN THE ORIGINAL SHIPMENT.
(C) NOTIFY THE MANUFACTURER WHEN SHIPPED.

PRE-INSTALLATION INSTRUCTIONS

WARNING

ONLY TRAINED DOOR SYSTEMS TECHNICIANS SHOULD DROP TEST, RESET OR PERFORM MAINTENANCE ON DOORS

WARNING

READ AND FOLLOW THESE INSTRUCTIONS THOROUGHLY - THE MANUFACTURER WILL NOT BE HELD RESPONSIBLE FOR ANY CHARGES INCURRED THROUGH MISSING PARTS, OPERATION, OR DAMAGE - DUE TO IMPROPERLY INSTALLED DOOR ASSEMBLIES

1) IF YOU HAVE RECEIVED MORE THAN ONE DOOR, YOU WILL FIND THAT ALL MAJOR PARTS AND PIECES FOR ANY ONE DOOR ARE MARKED WITH CORRESPONDING NUMBERS; THEREFORE, A COMPLETE DOOR SHOULD BE COMPOSED OF PARTS BEARING THE SAME NUMBERS AND LETTERS.

DO NOT INTERCHANGE PARTS FROM ONE DOOR TO ANOTHER!!!

2) BEFORE INSTALLING THE DOOR SEE THAT ALL COMPONENT MARKINGS AGREE.
3) BEFORE ATTEMPTING INSTALLATION OF THE DOOR AND, SPECIFICALLY, BEFORE LEAVING THE JOBSITE MAKE CERTAIN YOU HAVE READ AND ADHERED TO THE ATTACHED "SAFETY CHECK LIST".
4) SHOULD THERE BE ANY DISCREPANCIES IN THE JOB CONDITIONS OR MANUFACTURED MATERIALS, CONTACT THE COOKSON COMPANY, INC. IN WRITING OR BY CALLING 1-800-294-4358 FOR WESTERN U.S. AND CANADA OR 1-800-390-8590 FOR EASTERN U.S. AND CANADA. IF DOOR WAS PURCHASED BY A COOKSON DISTRIBUTOR AND SOLD TO ANOTHER PARTY THEY SHOULD CONTACT THE DISTRIBUTOR FOR WARRANTY OR REPAIR RIGHTS.

SAFETY CHECK LIST

WARNING

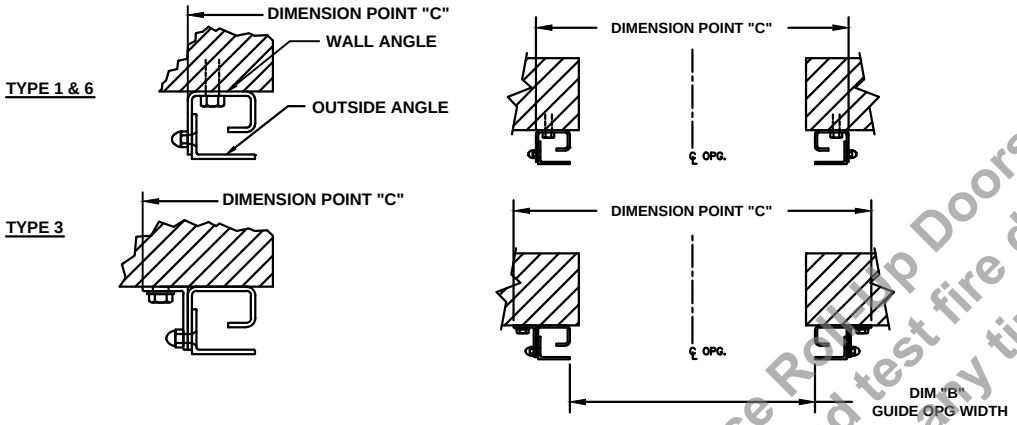
IN ORDER FOR YOU TO ASSURE YOUR CUSTOMER THAT THIS DOOR HAS BEEN INSTALLED PROPERLY AND IN A SAFE MANNER, WE ASK THAT YOU CHECK THE FOLLOWING BEFORE LEAVING THE WEBSITE

1) MAKE CERTAIN THAT THE PROPER AMOUNT OF TENSION HAS BEEN APPLIED TO THE TORSION SPRINGS, IN ORDER TO PROPERLY COUNTERBALANCE THE WEIGHT OF THE CURTAIN.
2) ASSURE YOURSELF THAT THE TENSION WHEEL IS SECURELY FASTENED IN PLACE.
3) ASSURE YOURSELF THAT SPROCKETS OR GEARS REQUIRING KEYS HAVE THE CORRECT KEYS INSTALLED AND DRIVE SHAFT SPROCKETS OR GEARS ARE RETAINED BY COTTER PINS.
4) RECHECK THE SETSCREWS (ONE OVER KEY - THE OTHER LOCATED AT 90ÁFROM KEY) IN EACH SPROCKET OR GEAR FOR TIGHTNESS.
5) CHECK ALL FASTENERS HOLDING GUIDES TO BUILDING STRUCTURES.
6) CHECK ALL FASTENERS USED IN ASSEMBLING DOOR COMPONENTS.
7) INSTRUCT OWNERS OR HIS/HER REPRESENTATIVE IN THE PROPER METHOD OF OPERATING THIS DOOR.

COUNTER FIRE DOOR
GUIDE INSTALLATION

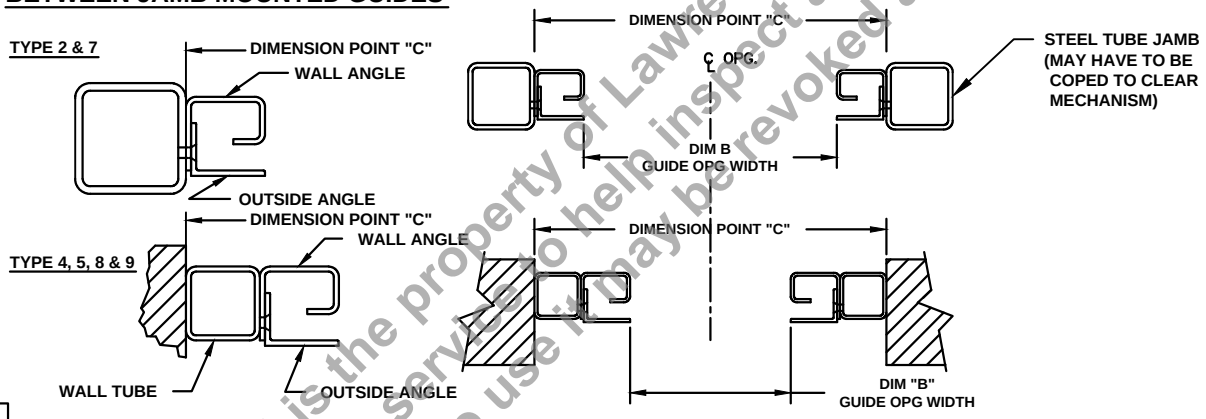
DEPENDING ON YOUR DOOR TYPE YOU HAVE RECEIVED EITHER FACE MOUNTED OR BETWEEN JAMB MOUNTED GUIDES. PLEASE REFER TO THE APPROPRIATE INSTRUCTION.

FACE MOUNTED GUIDES



A1

BETWEEN JAMB MOUNTED GUIDES



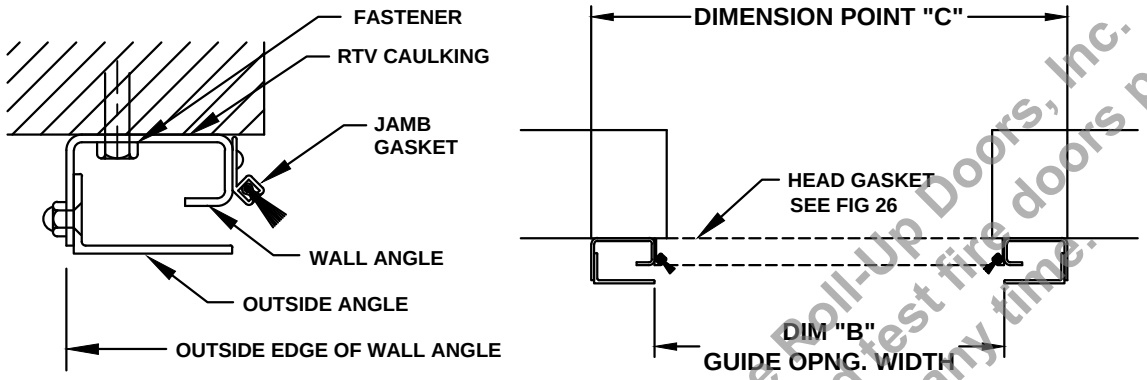
A2

1) LOCATE GUIDE DIMENSION POINT FOR BOTH LEFT AND RIGHT JAMB. MEASUREMENT BETWEEN DIMENSION POINTS MUST EQUAL DIMENSION "C".
2) FOR TYPICAL INSTALLATION FOR TYPE1, 6 AND 3 (SEE FIG A1 & A2) GUIDE ASSEMBLIES, DIMENSION POINT "C" IS CENTERED AROUND JAMB OPENING - (IF SIDE ROOM PERMITS) - IF THERE ARE QUESTIONS CHECK JOB CONSTRUCTION DRAWINGS (IF AVAILABLE).
3) CHECK THE GUIDE OPENING MEASUREMENT. LOCATE A MARK ON THE FLOOR AT THE TIP OF EACH GUIDE AND MEASURE. GUIDE MEASUREMENT MUST EQUAL DIM "B". (SEE FIG 1) THIS IS CRITICAL. IF GUIDE OPENING DOES NOT EQUAL DIM "B", STOP AND REDO STEPS 1 AND 2.
4) SCRIBE A PLUMB LINE ON THE WALL AT DIMENSION POINTS.
5) PLACE THE GUIDES AGAINST THE SCRIBED LINE AND WITH THE TOPS OF GUIDES LEVEL, MARK THE LOCATION OF THE MOUNTING HOLES. NOTE: GUIDE TYPES 2, 6, 8, 9 AND 12 MAY HAVE TO BE DISASSEMBLED.
6) DRILL MOUNTING HOLES FOR WALL FASTENERS AND MOUNT THE GUIDE. REASSEMBLE GUIDES IF NECESSARY.
7) DRILL HOLES IN JAMBS AS FOLLOWS:
   CONCRETE BRICK OR MASONRY: DRILL 3/8" DIAMETER X 3" DEEP HOLE. INSERT 3/8" DIAMETER EXPANSION ANCHOR (FURNISHED), OR EQUAL TO THAT SPECIFIED IN SECTION 6-4.1.3 OF THE LATEST EDITION OF NFPA BULLETING 80.
   STEEL STRUCTURAL: DRILL STEEL JAMB WITH 5/16" DRILL AND TAP HOLE WITH 3/8-16 N.C. TAP.
   STEEL STUD: USE Ï 1/4 SELF TAPPING FASTENERS.

COUNTER FIRE DOOR
SMOKE DOOR GUIDE INSTALLATION

DEPENDING ON YOUR DOOR TYPE YOU HAVE RECEIVED EITHER FACE MOUNTED OR BETWEEN JAMB MOUNTED GUIDES. PLEASE REFER TO THE APPROPRIATE INSTRUCTION.

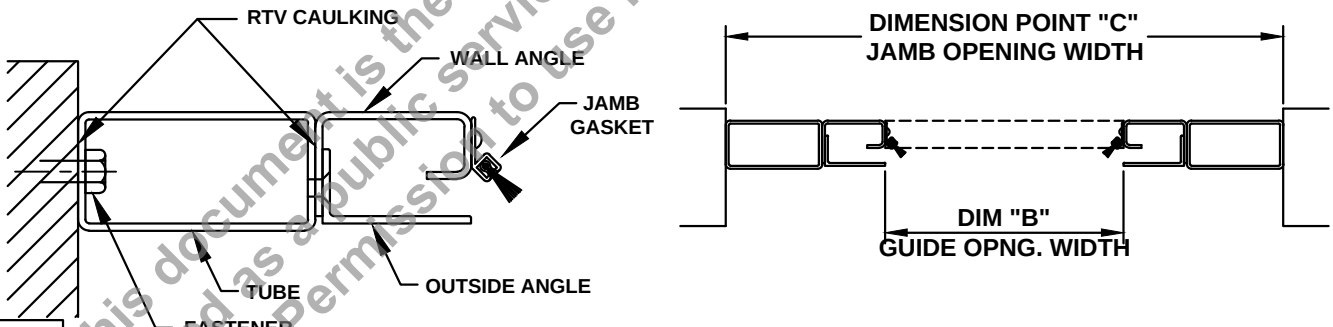
INSTRUCTIONS FOR FACE MOUNTED GUIDES



A3

1) WITH THE WALL ANGLE PLACED AGAINST SCRIBED LINE, LOCATE GUIDE MOUNTING HOLES.
2) APPLY 1/8" CONTINUOUS VERTICAL BEAD OF RTV CAULKING (PROVIDED.)
3) MOUNT GUIDE & CLEAN UP EXCESS CAULKING.

INSTRUCTIONS FOR BETWEEN JAMB GUIDES



A4

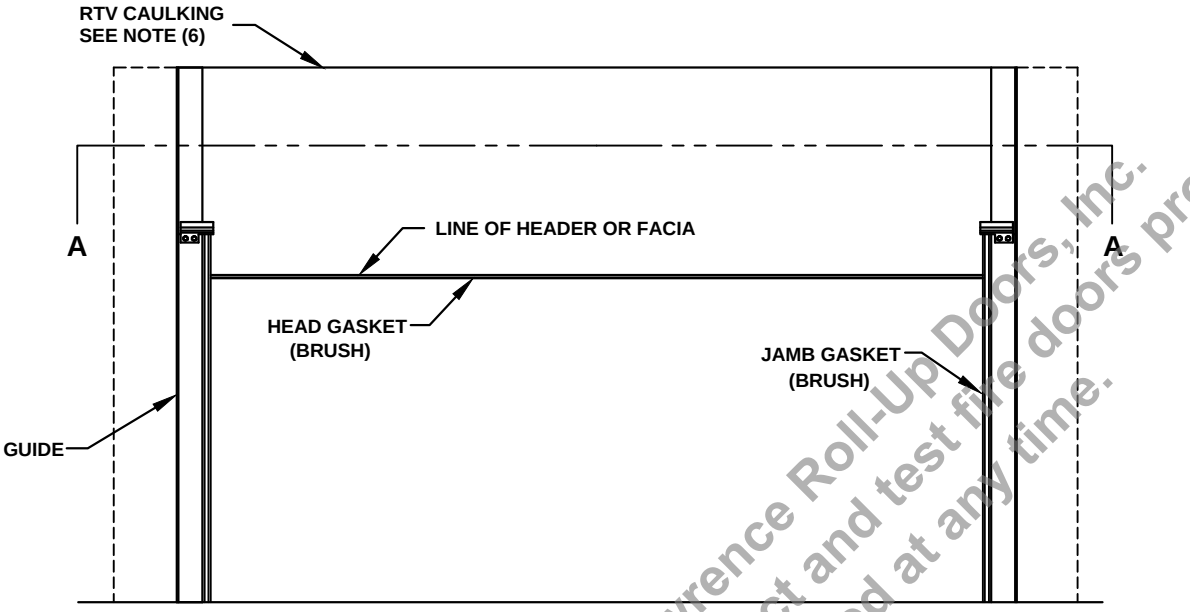
1) DISASSEMBLE WALL AND OUTSIDE ANGLE FROM TUBE AND PLACE TUBE AGAINST JAMB. LOCATE GUIDE MOUNTING HOLES.

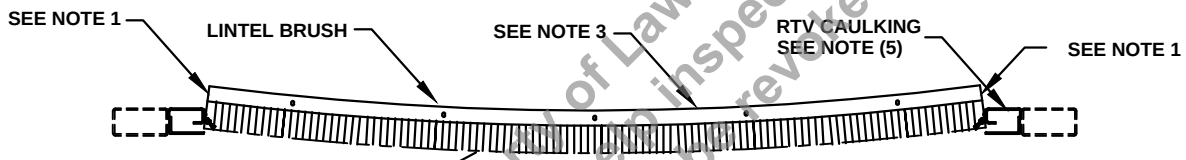
   IMPORTANT: THE TOPS OF EACH GUIDE MUST LIE IN A LEVEL LINE.

2) APPLY 1/8" CONTINUOUS VERTICAL BEAD OF RTV CAULKING (PROVIDED.)
3) MOUNT TUBE & REASSEMBLE GUIDE, CLEAN UP EXCESS CAULKING.

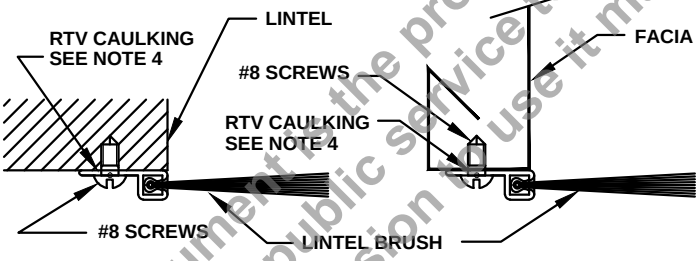
COUNTER FIRE DOOR
SMOKE LINTEL GASKET INSTALLATION

(AIR LEAKAGE RATED DOORS)





SECTION A-A



CENTER SUPPORT MNTG. TO LINTEL (DETAIL A)

CENTER SUPPORT MNTG. TO FACIA (DETAIL B)

AIR LEAKAGE MEASUREMENTS

COIL SIDE IN CHAMBER

TEST PRESSURE (H20)	AT AMBIENT LEAKAGE RATE (CFM PER SQ FT)	AT ELEVATED LEAKAGE RATE (CFM PER SQ FT)
0.05	0.69	0.65
0.10	1.19	0.92
0.20	1.90	1.35
0.30	2.68	1.73

COIL SIDE OUT OF CHAMBER

TEST PRESSURE (H20)	AT AMBIENT LEAKAGE RATE (CFM PER SQ FT)	AT ELEVATED LEAKAGE RATE (CFM PER SQ FT)
0.05	0.75	0.48
0.10	1.18	0.88
0.20	2.02	1.97
0.30	2.83	2.87

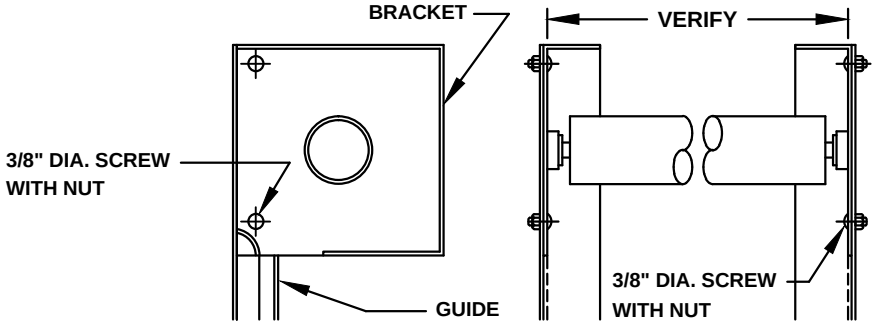
A5

NOTE:

1) IF DOOR IS FACE MOUNTED AT THE HEAD (BRACKETS), MOUNT BRUSH TO LINTEL.
2) TRIM ALUMINUM HOLDER FLANGE TO CLEAR JAMB.
3) IF DOOR IS BETWEEN JAMB MOUNTED WITH A FACIA, ATTACH GASKET TO BOTTOM OF FACIA (SEE DETAIL B.)
4) BOW CENTER OF BRUSH INWARDS UNTIL IT PRESSES ON CURTIAN (CURTAIN MUST BE IN CLOSED POSITION.)
5) APPLY 1/8" CONTINUOUS BEAD (HORIZONTAL) OF RTV CAULKING (PROVIDED.)
6) APPLY 1/8" x 14" BEAD (VERTICAL) OF RTV CAULKING (PROVIDED,) BETWEEN FACIA & GUIDE. (FOR BETWEEN JAMB DOORS WITH FACIA.)
7) SEAL TOP GAP BETWEEN FACIA & HEADER W/ RTV CAULKING. (FOR BETWEEN JAMB DOORS W/ FACIA.)

COUNTER FIRE DOOR
CURTAIN INSTALLATION

1) RAISE ENTIRE ASSEMBLY INTO POSITION AND BOLT BRACKETS TO GUIDES AS SHOWN IN FIG A6.

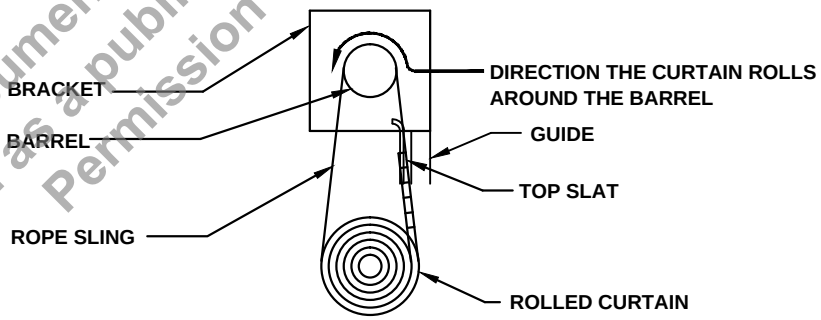


- VERIFY THAT THE BACK AND THE FRONT OF THE BRACKET PLATES ARE MOUNTED AT THE CORRECT DIMENSIONS AND THAT THE FRONT AND BACK DIMENSIONS ARE EQUAL TO EACH OTHER.

A6

BRACKET MOUNTING DETAIL

2) ON DOORS OPERATED BY A TUBULAR MOTOR, AFTER THE BRACKETS ARE BOLTED TO THE GUIDES AND THE BARREL IS IN POSITION, AND BEFORE ATTACHING THE CURTAIN TO THE BARREL;
   - VERIFY THAT THE Ï 5/8" SHAFT AT THE SUPPORT END OF THE BARREL ROTATES FREELY.
   - VERIFY THAT THE BARREL ROTATES FREELY.
   - CONNECT THE TUBULAR MOTOR TO A POWER SOURCE AS SHOWN IN THE WIRING DIAGRAM.
   - VERIFY THAT THE ELECTROMAGNETIC CLUTCH IS PROPERLY ATTACHED TO THE SUPPORT BRACKET AND THAT THE 3/16" KEY IS IN PLACE.
   - SLIDE THE 35B24 SPROCKET ONTO THE Ï 5/8" SHAFT; ALIGN IT WITH THE SPROCKET ON THE CLUTCH ROTOR AND INSTALL THE ROLLER CHAIN PROVIDED. INSERT THE KEY AND TIGHTEN THE SPROCKET SET SCREWS.
   - WIRE THE ELECTROMAGNETIC CLUTCH IN TO THE CONTROL PANEL AS SHOWN IN THE WIRING DIAGRAM. POWER THE CONTROL PANEL AND VERIFY THAT THE ELECTROMAGNETIC CLUTCH ON THE SUPPORT BRACKET ENGAGES AND DISENGAGES CORRECTLY. DO NOT TIGHTEN THE SCREW THAT SUPPORTS THE ELECTROMAGNETIC CLUTCH. VERIFY THAT A GAP OF +/- 1/16" BETWEEN THE CLUTCH'S MOUNTING TAB AND THE WASHERS ON THE SUPPORTING SCREW EXISTS AND THAT THE MOUNTING TAB CAN MOVE FREELY.
   - WITH THE ELECTROMAGNETIC CLUTCH ENGAGED, VERIFY THAT THE MOTOR TURNS THE BARREL IN BOTH DIRECTIONS. (MOTOR TRAVEL LIMIT SWITCH MIGHT REQUIRE ADJUSTMENT - SEE MOTOR INSTRUCTIONS).
3) PLACE THE ROLLED CURTAIN ON THE FLOOR BELOW THE BARREL. HOIST THE CURTAIN UNTIL IT IS APPROXIMATELY TWO FEET BELOW THE BARREL. SUSPEND THE CURTAIN FROM THE BARREL USING TWO OR MORE ROPE SLINGS.



A7

IMPORTANT

ALL TENSION WHEELS MUST BE FREE TO ROTATE DURING THE INSTALLATION OF THE CURTAIN

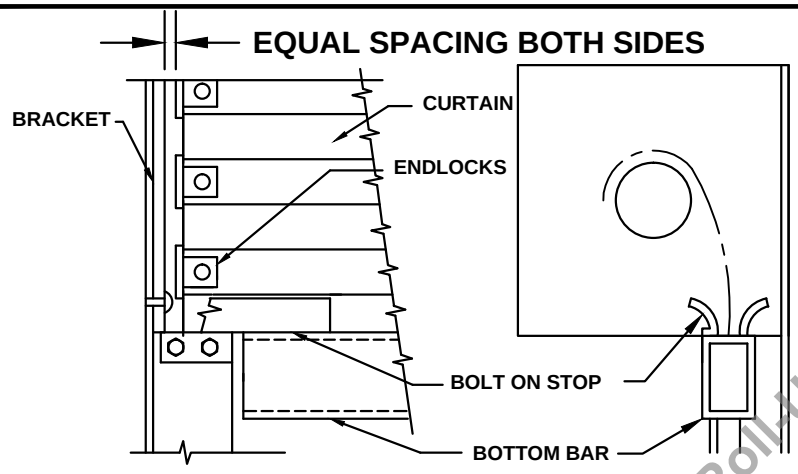
4) PULL THE TOP SLAT AROUND THE BARREL AND LINE UP THE SLOTS WITH THE HOLES IN THE BARREL. THE CLEARANCE BETWEEN THE END OF THE CURTAIN AND THE BRACKETS MUST BE THE SAME ON EACH END. BOLT THE CURTAIN TO THE BARREL WITH THE SCREWS PROVIDED.

CAUTION

THE USE OF LONGER SCREWS THAN PROVIDED WILL INTERFERE WITH AND DAMAGE THE OPERATION OF THE TORSION SPRINGS IN THE BARREL

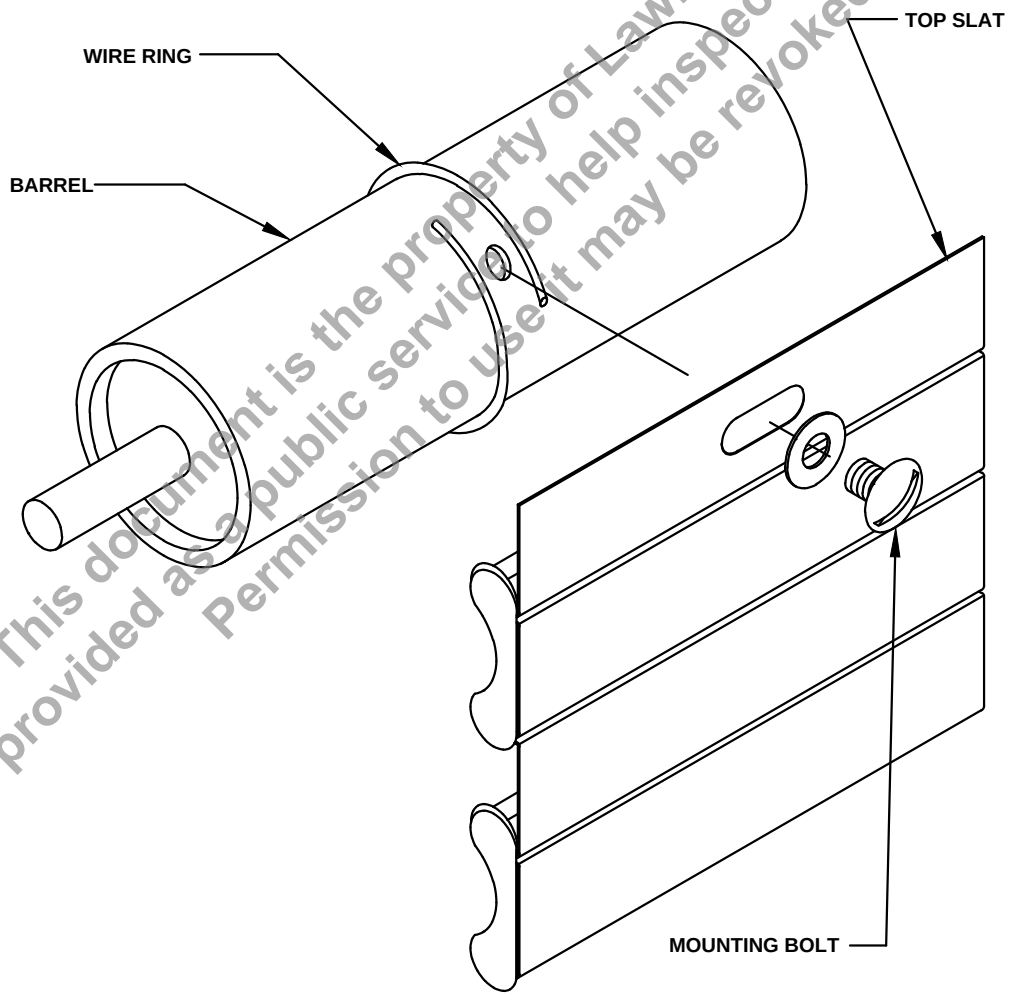
5) NOW ROLL THE CURTAIN AROUND THE BARREL WITH THE ROPE SLINGS IN PLACE. WHEN THE CURTAIN IS COMPLETELY WRAPPED AROUND THE BARREL, FEED THE BOTTOM BAR INTO THE GUIDE GROOVES. REINSTALL STOPS ON THE GUIDES.

6) ON DOORS OPERATED BY TUBULAR MOTOR, MAKE SURE THAT THE ELECTROMAGNETIC CLUTCH IS ENGAGED BEFORE ATTEMPTING TO ROLL THE CURTAIN AROUND THE BARREL. OPERATE THE MOTOR TO ROTATE THE BARREL AND TO ROLL THE CURTAIN AROUND THE BARREL.



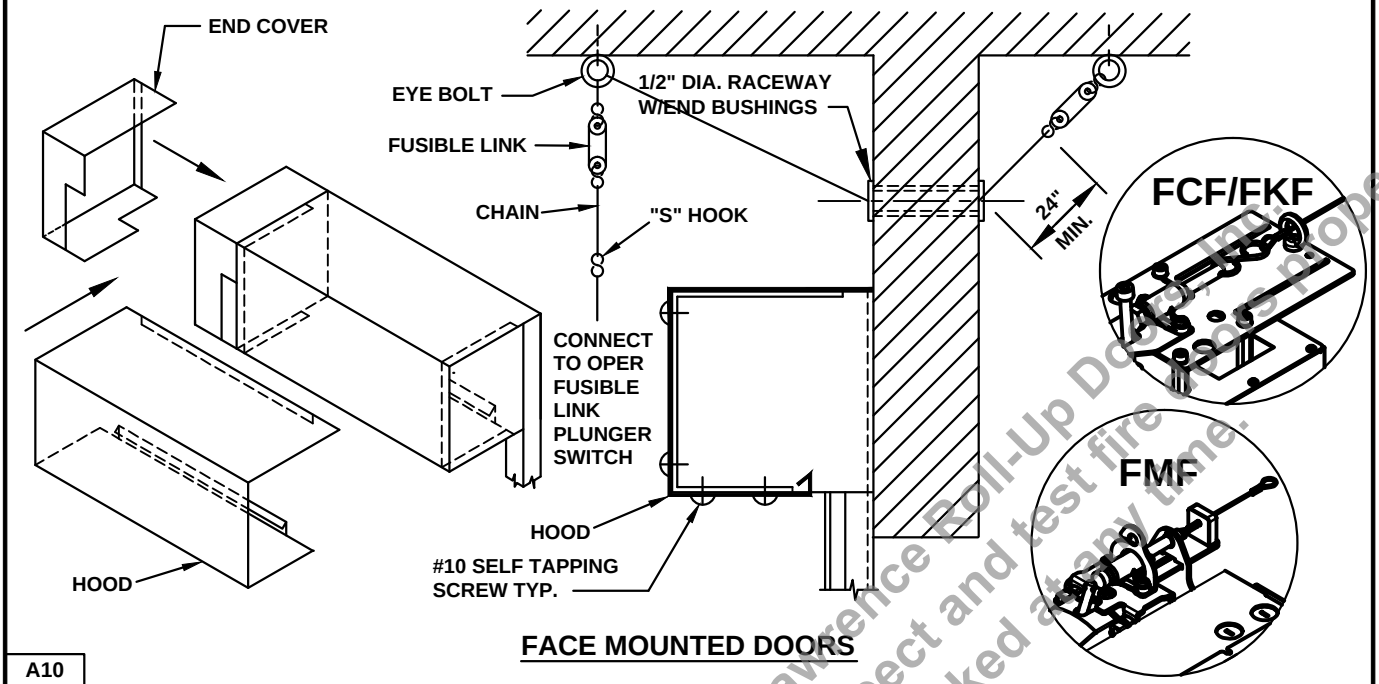
A8

COUNTER FIRE DOOR
TOP SLAT MOUNTING INSTRUCTIONS



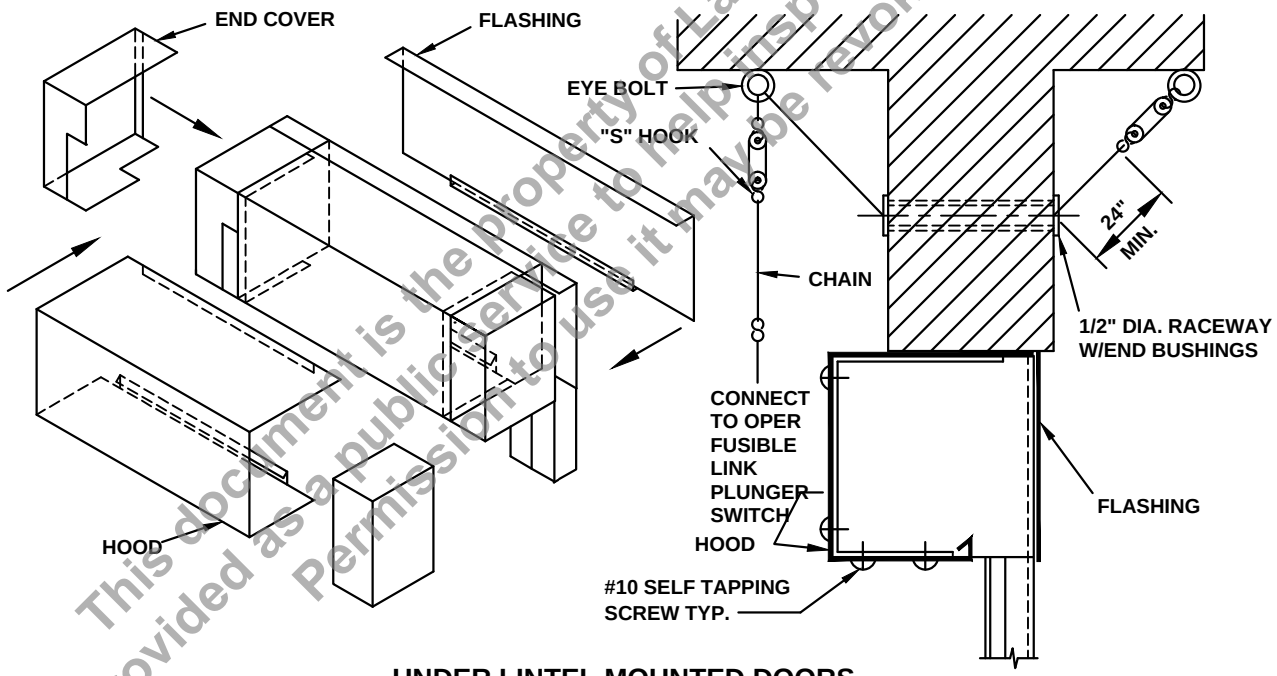
A9

COUNTER FIRE DOOR
STANDARD HOOD COVER INSTALLATION



FACE MOUNTED DOORS

A10



UNDER LINTEL MOUNTED DOORS

A11

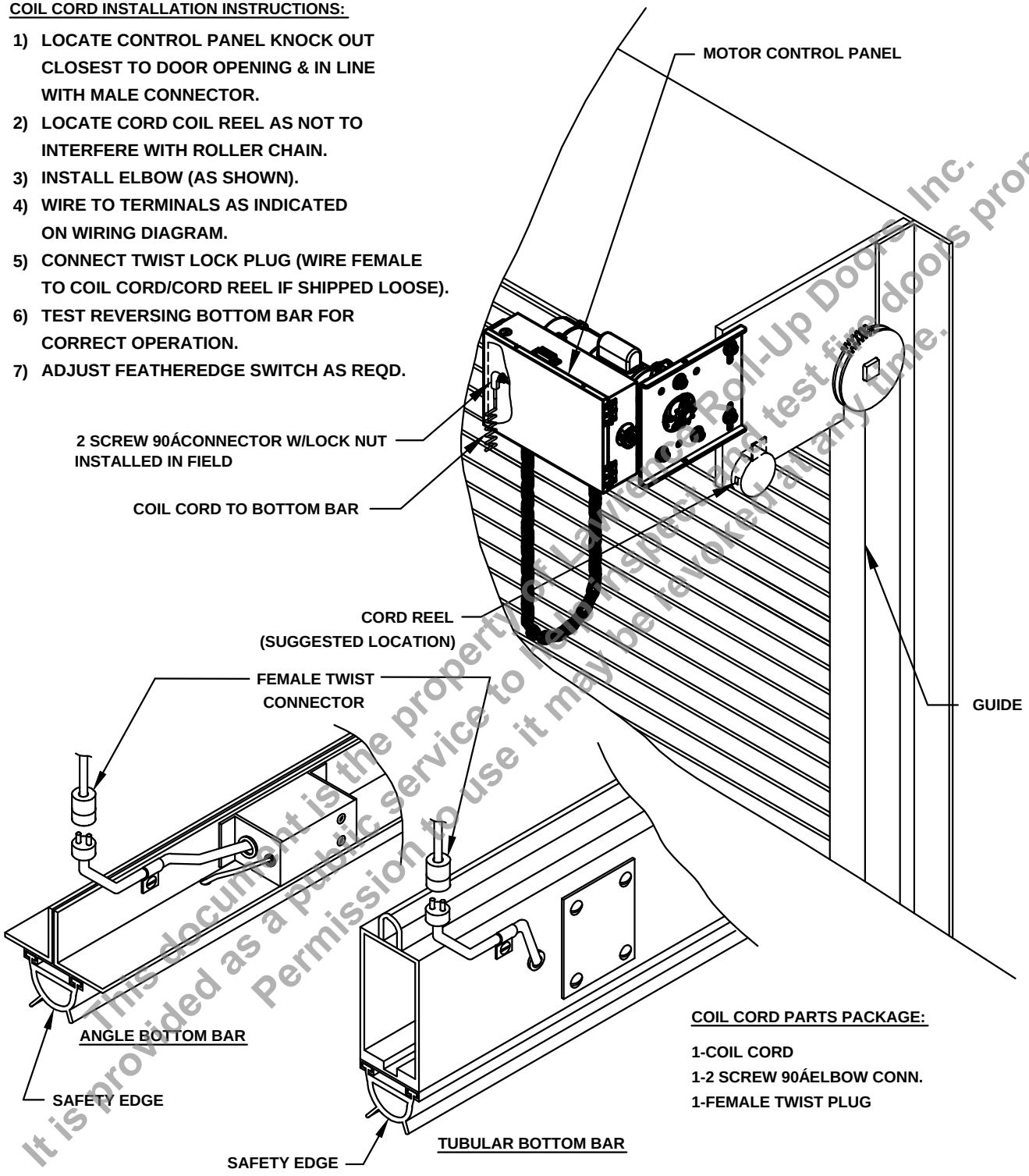
NOTES:
1) RIGHT HAND OPERATED DOOR IS SHOWN - LEFT HAND OPERATED DOOR IS OPPOSITE.
2) HOOD FASTENS TO BRACKET WITH #10 X 3/8 PAN HEAD SELF TAPPING SCREW.
3) FLASHING FASTENS TO GUIDE WITH #10 X 3/8 PAN HEAD SELF TAPPING SCREW.
4) THE END COVERS FIT OVER THE HOOD.

IMPORTANT: RACEWAY MUST REMAIN OPEN AND UNOBSTRUCTED FOR FREE MOVEMENT OF THE FUSIBLE LINK CABLE/CHAIN UPON FUSING OF THE LINKS. FIRESTOPPING OR OTHER SEALING SHOULD NOT BE USED ON SLEEVES, BECAUSE THEY CAN ENCUMBER MOVEMENT AND PREVENT AUTOMATIC CLOSING OF A FIRE DOOR IN A FIRE EVENT

SAFETY EDGE COIL CORD/ CORD REEL INSTALLATION INSIDE DOOR WITH MOTOR MOUNTED CONTROLLER

COIL CORD INSTALLATION INSTRUCTIONS:

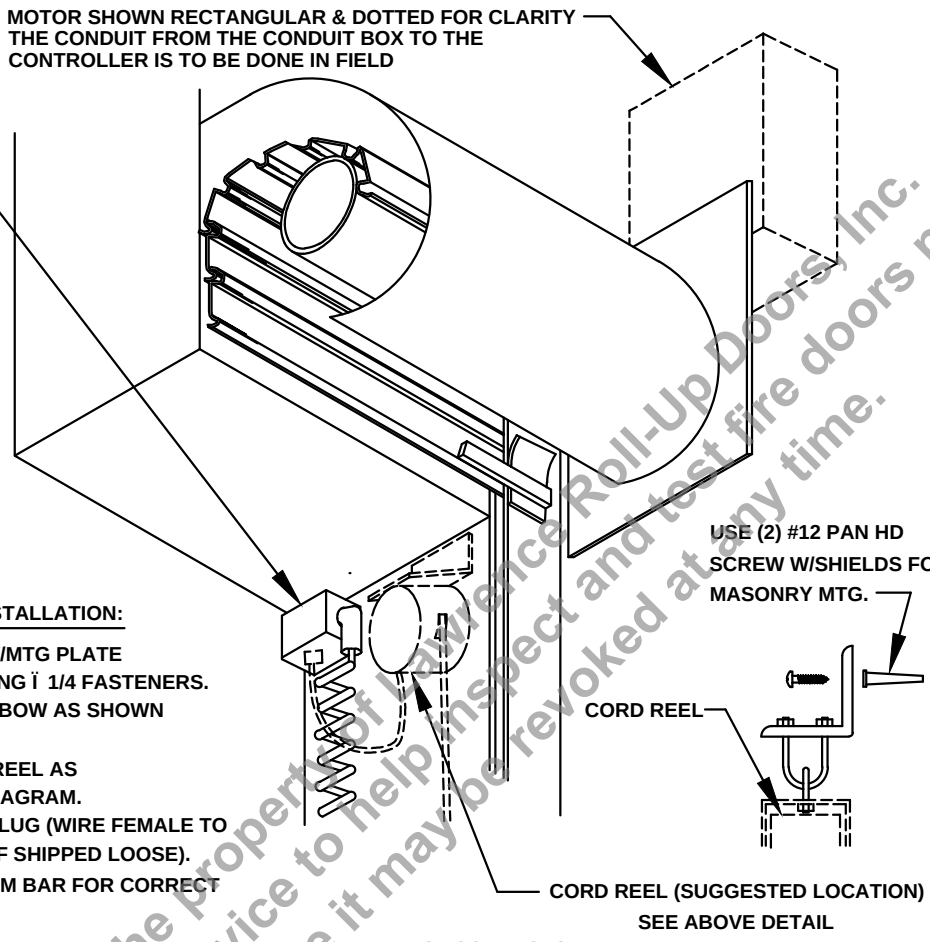
1) LOCATE CONTROL PANEL KNOCK OUT CLOSEST TO DOOR OPENING & IN LINE WITH MALE CONNECTOR.
2) LOCATE CORD COIL REEL AS NOT TO INTERFERE WITH ROLLER CHAIN.
3) INSTALL ELBOW (AS SHOWN).
4) WIRE TO TERMINALS AS INDICATED ON WIRING DIAGRAM.
5) CONNECT TWIST LOCK PLUG (WIRE FEMALE TO COIL CORD/CORD REEL IF SHIPPED LOOSE).
6) TEST REVERSING BOTTOM BAR FOR CORRECT OPERATION.
7) ADJUST FEATHEREDGE SWITCH AS REQD.



COIL CORD PARTS PACKAGE:

1-COIL CORD
1-2 SCREW 90ÁELBOW CONN.
1-FEMALE TWIST PLUG

SAFETY EDGE COIL CORD/ CORD REEL INSTALLATION OUTSIDE AND ABOVE MOUNTED DOORS

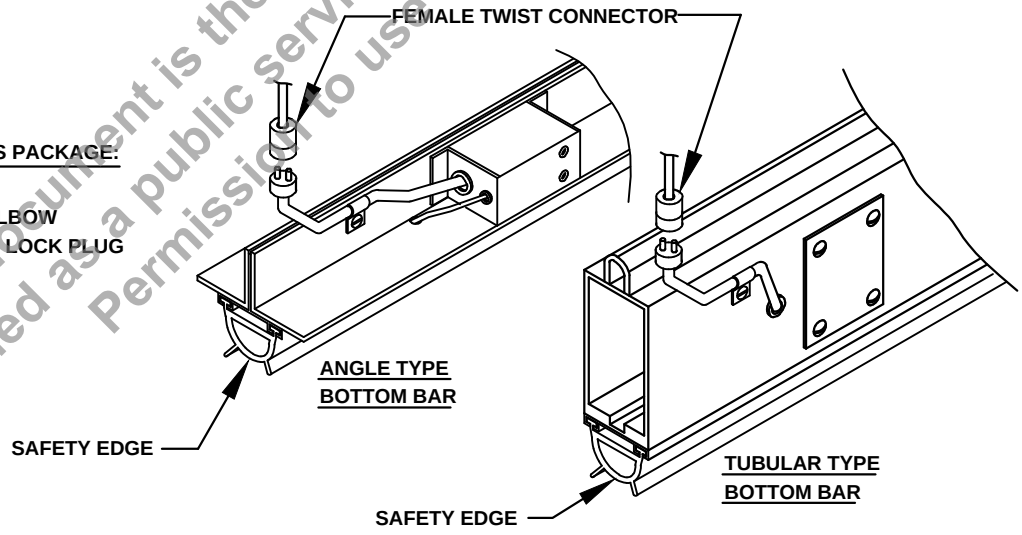


COIL CORD/CORD REEL INSTALLATION:

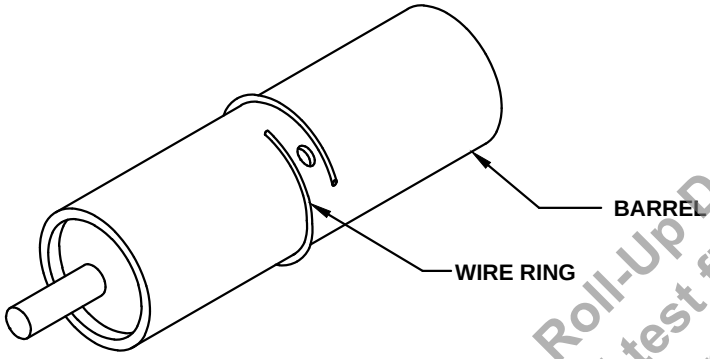
1. FASTEN CONDUIT BOX W/MTG PLATE TO WALL AS SHOWN USING Ï 1/4 FASTENERS.
2. INSTALL 2 SCREW 90ÁELBOW AS SHOWN IF USING COIL CORD.
3. WIRE COIL CORD/CORD REEL AS INDICATED ON WIRING DIAGRAM.
4. CONNECT TWIST LOCK PLUG (WIRE FEMALE TO COIL CORD/CORD REEL IF SHIPPED LOOSE).
5. TEST REVERSING BOTTOM BAR FOR CORRECT OPERATION.

COIL CORD PARTS PACKAGE:

1 - COIL CORD
2 - 2 SCREW 90ÁELBOW
3 - FEMALE TWIST LOCK PLUG



COUNTER FIRE DOORS
BARREL - WIRE RING INSTALLATION



WIRE RING INSTALLATION INSTRUCTION

B1

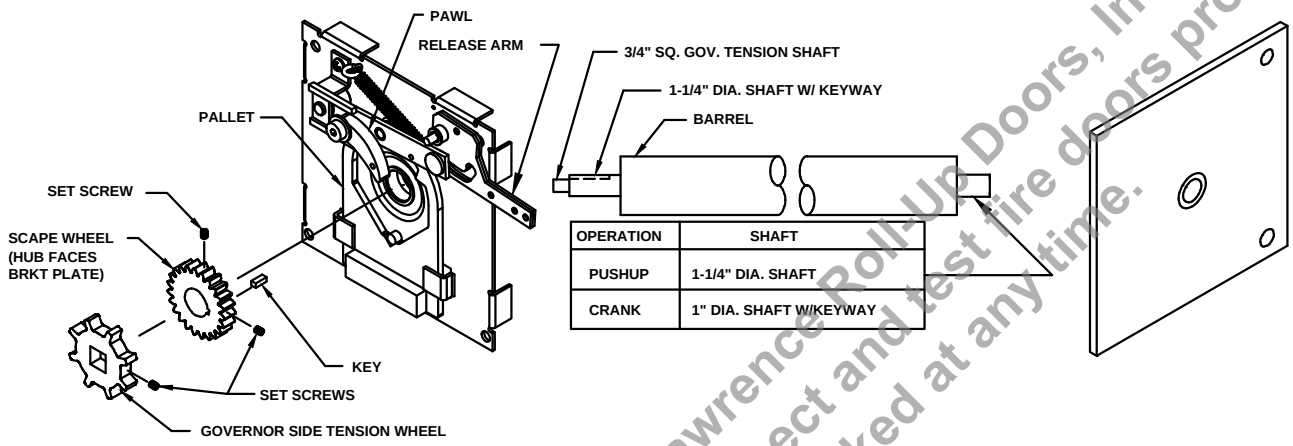
1) **WHEN INSTALLING WIRE RINGS, ENSURE THAT THE COIL ENDS ARE LOCATED ON BOTH SIDES OF THE SLAT CONNECTION HOLES IN THE BARREL ASSEMBLY AS SHOWN ABOVE.**

BRACKET DETAIL - PUSHUP - SINGLE SPRING

1) ASSEMBLE STANDARD / DRIVE BRACKET AND TENSION/GOVERNOR BRACKET AND BARREL AS SHOWN IN FIG B2 & B3.

IMPORTANT:
SCAPE WHEEL HUB MUST FACE TOWARD BRACKET FOR PROPER GEAR CONTACT

RIGHT HAND DOOR

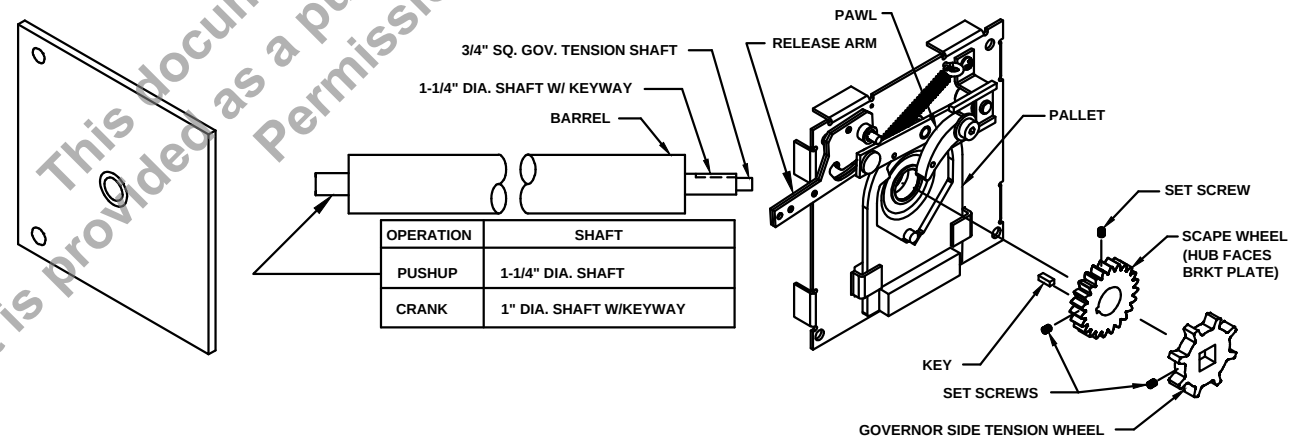


OPERATION	SHAFT
PUSHUP	1-1/4" DIA. SHAFT
CRANK	1" DIA. SHAFT W/KEYWAY

B2

IMPORTANT:
SCAPE WHEEL HUB MUST FACE TOWARD BRACKET FOR PROPER GEAR CONTACT

LEFT HAND DOOR



OPERATION	SHAFT
PUSHUP	1-1/4" DIA. SHAFT
CRANK	1" DIA. SHAFT W/KEYWAY

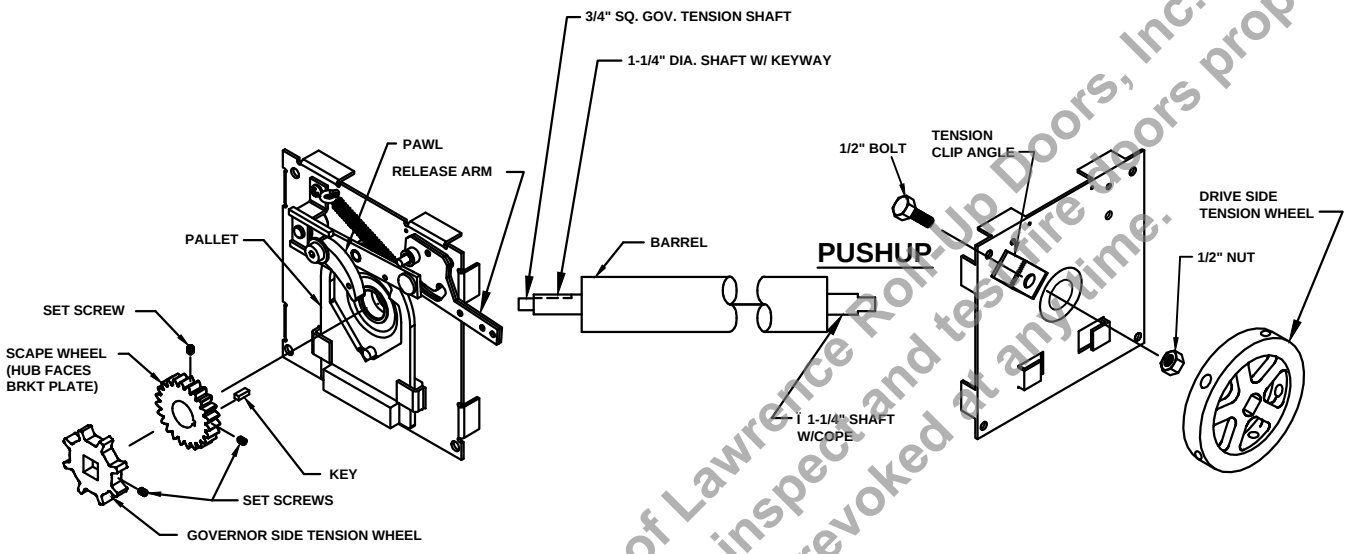
B3

BRACKET DETAIL - PUSHUP - DUAL SPRING

1) ASSEMBLE STANDARD / DRIVE BRACKET AND TENSION/GOVERNOR BRACKET AND BARREL AS SHOWN IN FIG B4 & B5.

IMPORTANT:
SCAPE WHEEL HUB MUST FACE TOWARD BRACKET FOR PROPER GEAR CONTACT

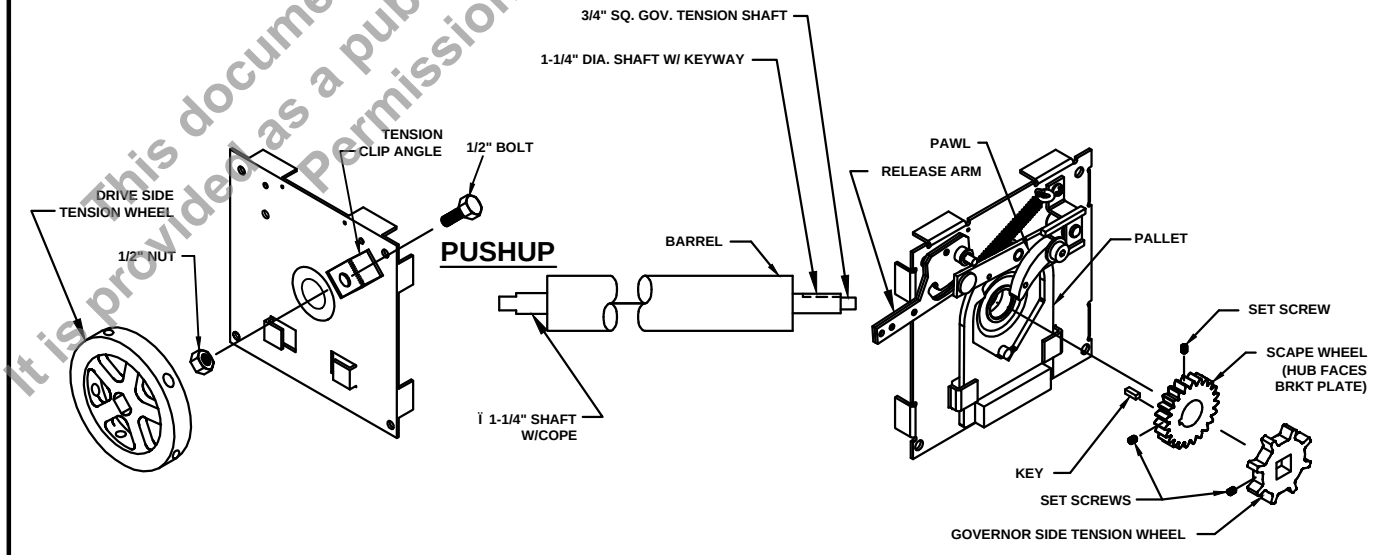
RIGHT HAND DOOR



B4

IMPORTANT:
SCAPE WHEEL HUB MUST FACE TOWARD BRACKET FOR PROPER GEAR CONTACT

LEFT HAND DOOR



B5

TENSIONING INSTRUCTIONS - COUNTER FIRE DOOR - PUSHUP SINGLE SPRING BALANCE ARRANGEMENT

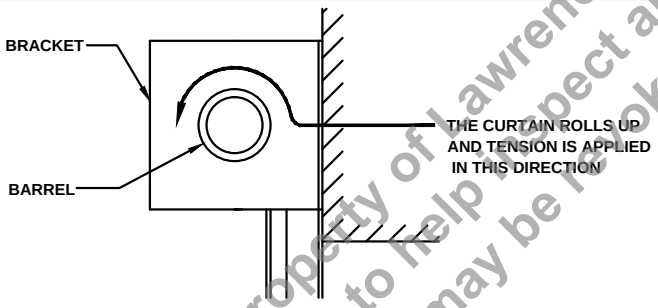
1) TO CHARGE THE COUNTERBALANCE SPRING, THE CURTAIN IS TO BE IN THE RAISED POSITION WITH THE BOTTOM BAR POSITIONED APPROXIMATELY 6" BELOW THE GUIDE STOPS. PLACE A "C" CLAMP ACROSS THE THROAT OF THE DOOR'S GUIDES TO PREVENT THE CURTAIN FROM DRIFTING TO THE CLOSED POSITION.
2) WITH A WRENCH GRIPPED TO THE SQUARED END OF THE TENSION/GOVERNOR SHAFT, AND THERELEASE ARM IN THE ENGAGED POSITION, ROTATE THE SHAFT IN THE DIRECTION THE BARREL ROTATES WHEN COILING THE CURTAIN ON THE BARREL. THE SHAFT IS TO BE ROTATED UNTIL THE BOTTOM BAR RAISES UP TO THE GUIDE STOPS AND REMAINS IN THAT POSITION. FOR OPTIMUM OPERATION YOU MAY FIND MORE TURNS ARE REQUIRED, OR IN SOME CASES, LESS TURNS ARE REQUIRED.

CAUTION: UNDER NO CIRCUMSTANCES SHOULD MORE THAN ONE FULL TURN BE ADDED OVER THAT REQUIRED TO HOLD THE CURTAIN'S BOTTOM BAR AT THE GUIDE STOPS

3) NOW TEST THE DOOR FOR NORMAL OPERATION.
4) AFTER NORMAL OPERATION TESTS HAVE BEEN MADE, IT REMAINS TO TEST THE AUTOMATIC CLOSE FEATURE. PROCEED AS FOLLOWS:

WARNING
ONLY TRAINED DOOR SYSTEMS TECHNICIANS SHOULD DROP TEST DOOR

5) WITH DOOR IN THE FULL OPEN POSITION, DROP THE RELEASE ARM. THE PALLET ARM WILL DROP, ALLOWING THE "PALLET" TO ENGAGE THE "SCAPE WHEEL", AND AT THE SAME TIME DISENGAGE THE PAWL FROM THE TENSION/GOVERNOR WHEEL, RELEASING THE COUNTERBALANCE SPRING. THE DOOR SHOULD NOW DESCEND TO THE FULLY CLOSED POSITION.
6) THE CLOSING TIME SHOULD APPROXIMATE AN AVERAGE CLOSING SPEED OF 6"-2 FEET PER SECOND.
7) IF THE CLOSING VELOCITY GREATLY EXCEEDS THE AVERAGE SPEED OF 6"-2 FEET PER SECOND, AND THE COUNTERBALANCE SPRING ADJUSTMENTS HAVE BEEN MADE, CONTACT THE COOKSON COMPANY FOR FURTHER INSTRUCTIONS. WHEN CONTACTING US, BE SURE TO ADVISE U AS TO THE TIME IT TOOK IN SECONDS FOR THE DOOR TO CLOSE, AND THE NUMBER OF TURNS OF INITIAL TENSION APPLIED.
8) TO RESET THE DOOR, SEE THE INSTRUCTIONS ON PAGE 15.
9) CONNECT THE FUSE LINK SYSTEM TO THE FUSIBLE LINK PLUNGER SWITCH AS SHOWN ON PAGE 15.



B6

TENSIONING INSTRUCTIONS - COUNTER FIRE DOOR - PUSHUP DUAL SPRING BALANCE ARRANGEMENT

1) TO CHARGE THE COUNTERBALANCE SPRING, THE CURTAIN IS TO BE IN THE RAISED POSITION WITH THE BOTTOM BAR POSITIONED APPROXIMATELY 6" BELOW THE GUIDE STOPS. PLACE A "C" CLAMP ACROSS THE THROAT OF THE DOOR'S GUIDES TO PREVENT THE CURTAIN FROM DRIFTING TO THE CLOSED POSITION.
2) NOW APPLY TENSION TO THE DRIVE SIDE COUNTERBALANCING SPRING. ROTATE THE DRIVE SIDE TENSION WHEEL IN THE DIRECTION THE CURTAIN NORMALLY WINDS ONTO THE BARREL. SEE THE INSTALLATION INFORMATION SHEET FOR NUMBER OF TURNS. NOW LOCK TENSION WHEEL IN PLACE TO THE DRIVE BRACKET.
3) NEXT, WITH A WRENCH GRIPPED TO THE SQUARED END OF THE TENSION/GOVERNOR SHAFT AND THE RELEASE ARM IN THE ENGAGED POSITION, ROTATE THE SHAFT IN THE DIRECTION THE BARREL ROTATES WHEN COILING THE CURTAIN ON THE BARREL. THE SHAFT IS TO BE ROTATED UNTIL THE BOTTOM BAR RAISES UP TO THE GUIDE STOPS AND REMAINS IN THAT POSITION. FOR OPTIMUM OPERATION YOU MAY FIND THAT MORE TURNS ARE REQUIRED. <u>IMPORTANT</u>: UNDER NO CIRCUMSTANCES SHOULD MORE THAN ONE FULL TURN BE ADDED OVER THAT WHICH IS REQUIRED TO HOLD THE CURTAIN'S BOTTOM BAR AT THE GUIDE STOPS.
4) NOW, TEST THE DOOR FOR NORMAL OPERATION.
5) AFTER NORMAL OPERATION TESTS HAVE BEEN MADE, IT REMAINS TO TEST THE AUTOMATIC CLOSE FEATURE. PROCEED AS FOLLOWS:

WARNING
ONLY TRAINED DOOR SYSTEMS TECHNICIANS SHOULD DROP TEST DOOR

6) WITH THE DOOR IN THE FULL OPEN POSITION, DROP THE RELEASE ARM. THE PALLET ARM WILL DROP, ALLOWING THE "PALLET" TO ENGAGE THE "SCAPE WHEEL", AND AT THE SAME TIME DISENGAGE THE PAWL FROM THE TENSION/GOVERNOR COUNTERBALANCE SPRING. THE DOOR SHOULD NOW DESCEND TO THE FULLY CLOSED POSITION.
7) THE CLOSING TIME SHOULD APPROXIMATE AN AVERAGE CLOSING SPEED OF 6" TO 2 FEET PER SECOND.
8) IF THE CLOSING VELOCITY GREATLY EXCEEDS THE AVERAGE SPEED OF 2 FEET PER SECOND, AND THE COUNTERBALANCE SPRING ADJUSTMENTS HAVE BEEN MADE, CONTACT THE COOKSON COMPANY FOR FURTHER INSTRUCTIONS. WHEN CONTACTING US, BE SURE TO ADVISE US AS TO THE TIME IT TOOK IN SECONDS FOR THE DOOR TO CLOSE, AND THE NUMBER OF TURNS OF INITIAL TENSION APPLIED.
9) TO RESET THE DOOR SEE THE INSTRUCTIONS ON PAGE 15.
10) CONNECT THE FUSE LINK SYSTEM TO THE FUSIBLE LINK PLUNGER SWITCH AS SHOWN ON PAGE 15.

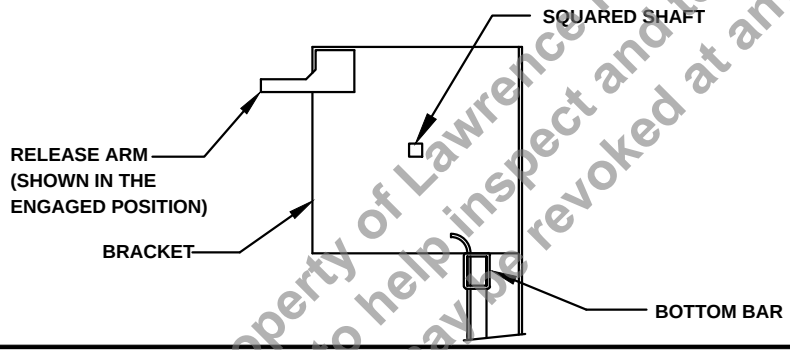
RESETTING INSTRUCTIONS - COUNTER FIRE DOOR - PUSHUP OPERATION - WITH SINGLE SPRING BALANCE ARRANGEMENT

CAUTION

ONLY TRAINED PERSONNEL SHOULD RESET FIRE DOORS

1) THE CURTAIN IS TO BE IN THE RAISED POSITION WITH THE BOTTOM BAR POSITIONED APPROX. 6" BELOW THE GUIDE STOPS. PLACE A "C" CLAMP ACROSS THE THROAT OF THE DOOR'S GUIDES TO PREVENT THE CURTAIN FROM DRIFTING TO THE CLOSED POSITION.
2) RAISE THE RELEASE ARM TO THE ENGAGED POSITION. CONNECT THE RELEASE ARM TO THE FUSIBLE LINK SYSTEM OR OTHER APPROVED RELEASE DEVICE.
3) WITH A WRENCH GRIPPED TO THE SQUARED END OF THE TENSION/GOVERNOR SHAFT, ROTATE THE SHAFT IN THE DIRECTION THE BARREL ROTATES WHEN COILING THE CURTAIN ON THE BARREL. THE SHAFT IS TO BE ROTATED UNTIL THE BOTTOM BAR RAISES UP TO THE GUIDE STOPS, AND REMAINS IN THAT POSITION.

CAUTION: UNDER NO CIRCUMSTANCES SHOULD MOR THAN ONE FULL TURN BE ADDED OVER THAT REQUIRED TO HOLD CURTAIN BOTTOM BAR AT THE GUIDE STOPS



B7

RESETTING INSTRUCTIONS - COUNTER FIRE DOOR - PUSHUP OPERATION - WITH DUAL SPRING BALANCE ARRANGEMENT

CAUTION

ONLY TRAINED PERSONNEL SHOULD RESET FIRE DOORS

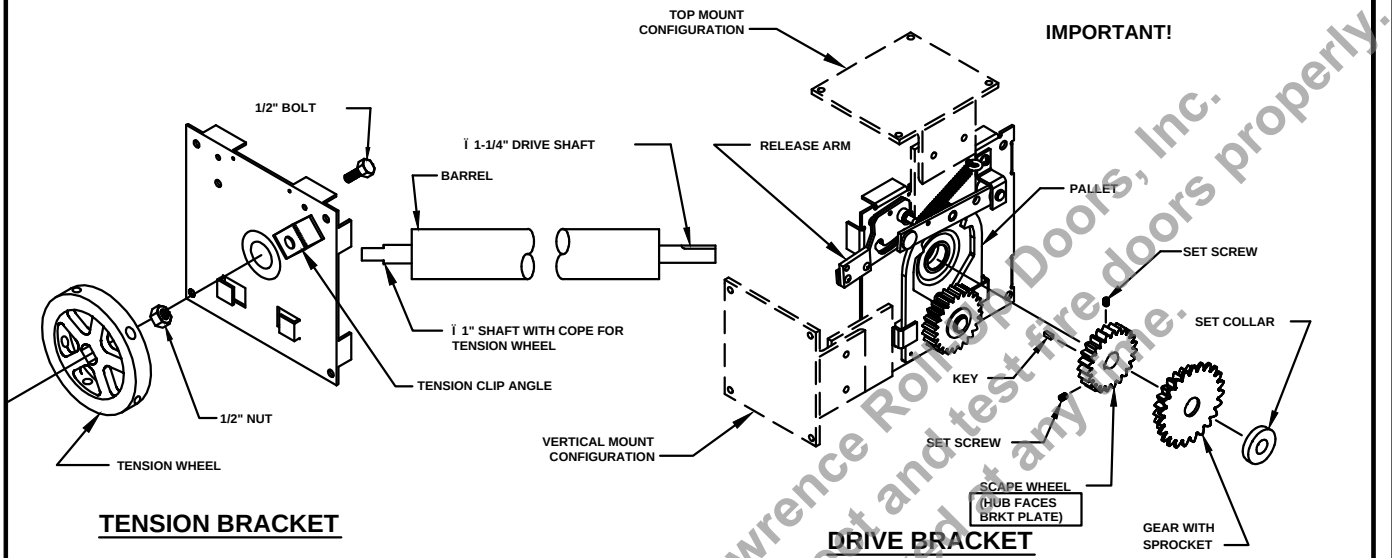
1) THE CURTAIN IS TO BE IN THE RAISED POSITION WITH THE BOTTOM BAR POSITIONED APPROX. 6" BELOW THE GUIDE STOPS. PLACE A "C" CLAMP ACROSS THE THROAT OF THE DOOR'S GUIDES TO PREVENT THE CURTAIN FROM DRIFTING TO THE CLOSED POSITION.
2) RAISE THE RELEASE ARM TO THE ENGAGED POSITION. CONNECT THE RELEASE ARM TO THE FUSIBLE LINK SYSTEM OR OTHER APPROVED RELEASE DEVICE.
3) WITH A WRENCH GRIPPED TO THE SQUARED END OF THE TENSION/GOVERNOR SHAFT, ROTATE THE SHAFT IN THE DIRECTION THE BARREL ROTATES WHEN COILING THE CURTAIN ON THE BARREL. THE SHAFT IS TO BE ROTATED UNTIL THE BOTTOM BAR RAISES UP TO THE GUIDE STOPS AND REMAINS IN THAT POSITION.

CAUTION: UNDER NO CIRCUMSTANCES SHOULD MORE THAN ONE FULL TURN BE ADDED OVER THAT REQUIRED TO HOLD CURTAIN BOTTOM BAR AT THE GUIDE STOPS

MOTOR OPERATED LGJ/MGJ BRACKET DETAIL

1) ASSEMBLE THE BRACKETS ONTO THE BARREL AS SHOWN IN FIG C1 & C2.

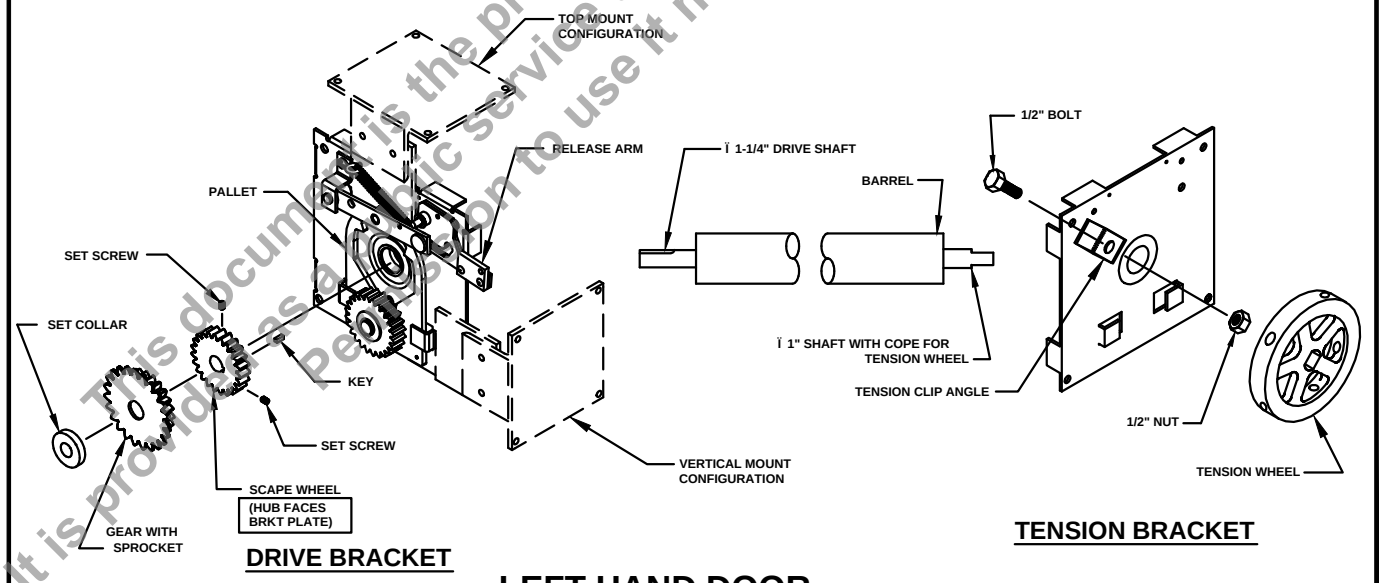
IMPORTANT:
SCAPE WHEEL HUB MUST FACE TOWARD BRACKET FOR PROPER GEAR CONTACT



RIGHT HAND DOOR

C1

IMPORTANT:
SCAPE WHEEL HUB MUST FACE TOWARD BRACKET FOR PROPER GEAR CONTACT



LEFT HAND DOOR

C2

COUNTER FIRE DOOR - COUNTERBALANCING
MOTOR OPERATED ARRANGEMENT

A.) TO CHARGE THE COUNTERBALANCE SPRING, THE CURTAIN MUST BE IN THE RAISED POSITION WITH THE BOTTOM BAR POSITIONED APPROXIMATELY 6" BELOW THE GUIDE STOPS. NOW PLACE A "C" CLAMP ACROSS THE THROAT OF THE DOOR'S GUIDES TO PREVENT THE CURTAIN FROM DRIFTING TO THE CLOSED POSITION.

B.) ROTATE THE TENSION WHEEL IN THE DIRECTION THE CURTAIN NORMLLY WINDS ONTO THE BARREL. SEE THE INSTALLATION INFORMATION SHEET FOR THE NUMBER OF TURNS. NOW LOCK THE TENSION WHEEL IN PLACE TO THE BRACKET. FOR OPTIMUM OPERATION YOU MAY FIND MORE TURNS ARE REQUIRED, OR IN SOME CASES, LESS TURNS ARE REQUIRED.

IMPORTANT: UNDER NO CIRCUMSTANCES SHOULD MORE THAN ONE FULL TURN BE ADDED OVER THAT WHICH IS LISTED ON INSTALLATION INFORMATION SHEET.

C.) NOW TEST THE DOOR FOR NORMAL OPERATION.

D.) AFTER NORMAL OPERATION TESTS HAVE BEEN MADE, IT REMAINS TO TEST THE AUTOMATIC CLOSE FEATURE. PROCEED AS FOLLOWS:

WARNING

ONLY TRAINED DOOR SYSTEMS TECHNICIANS SHOULD DROP TEST DOOR

E.) WITH THE DOOR IN THE FULLY OPEN POSITION, DROP THE RELEASE ARM. THE PALLET ARM WILL DROP, ALLOWING THE "PALLET" TO ENGAGE THE "SCAPE WHEEL", AND AT THE SAME TIME, DISENGAGE THE MOTOR. THE DOOR SHOULD NOW DESCEND TO THE FULLY CLOSED POSITION.

F.) THE CLOSING TIME SHOULD APPROXIMATE AN AVERAGE CLOSING SPEED OF 6" TO 2 FEET PER SECOND.

G.) IF THE CLOSING VELOCITY GREATLY EXCEEDS THE AVERAGE SPEED OF 2 FEET PER SECOND, AND AFTER COUNTERBALANCE SPRING ADJUSTMENTS HAVE BEEN MADE, CONTACT THE COOKSON COMPANY FOR FURTHER INSTRUCTION. WHEN CONTACTING US, BE SURE TO ADVISE US AS TO THE TIME IT TOOK, IN SECONDS, FOR THE DOOR TO CLOSE AND THE NUMBER OF TURNS OF INITIAL TENSION APPLIED.

H.) TO RESET THE DOOR, SEE RESET INSTRUCTIONS ON PAGE 18.

I.) CONNECT THE FUSE LINK SYSTEM TO THE RELEASE ARM AS SHOWN ON PAGE 18.

COUNTER FIRE DOORS RESETTING INSTRUCTIONS

MOTOR OPERATION - CONVENTIONAL DROP-OUT

CAUTION: ONLY TRAINED PERSONNEL SHOULD RESET FIRE DOORS AND ADJUST LIMIT SWITCH. ADJUST LIMIT SWITCH WITH POWER "OFF"

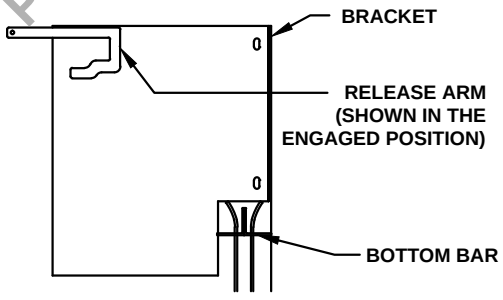
1) WITH THE DOOR CLOSED BY FIRE DROP AND THE RELEASE ARM IN THE DISENGAGED POSITION, ACTIVATE THE "CLOSE" CONTROL AND ALLOW THE MOTOR TO RUN UNTIL IT IS STOPPED BY THE DOWN LIMIT SWITCH.

CAUTION: THIS STEP IS CRITICAL. FAILING TO RUN MOTOR TO CLOSE WILL RESULT IN DAMAGE TO DOOR.

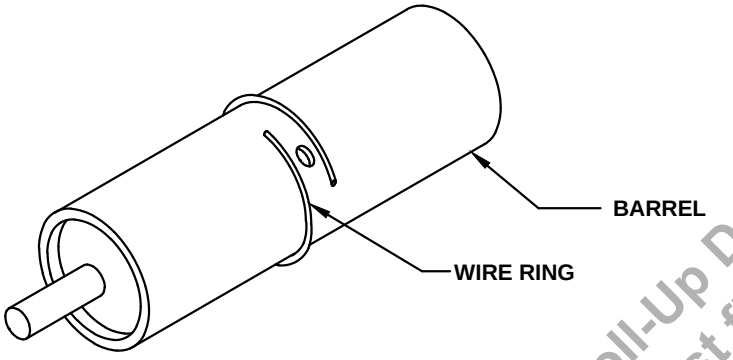
2) RAISE THE RELEASE ARM TO THE ENGAGED POSITION. CONNECT THE RELEASE ARM TO THE FUSIBLE LINK SYSTEM OR OTHER APPROVED RELEASE DEVICE.
3) ACTIVATE THE "OPEN" CONTROL AND ALLOW THE DOOR TO OPEN. STOP THE DOOR BY ACTIVATING THE "STOP" CONTROL WHEN THE BOTTOM BAR IS APPROXIMATELY 12" BELOW THE STOPS AT THE TOP OF THE DOOR.
4) USING MANUAL OPERATION, RAISE THE DOOR TO APPROXIMATELY 3" BELOW THE STOPS.
5) DISCONNECT THE POWER.
6) THE UP LIMIT SWITCH CAN NOW BE IDENTIFIED AS THE ONE WITH THE CAM NUT CLOSEST TO IT. DEPRESS THE LOCKING PLATE AND ROTATE THE CAM NUT TOWARD THE LIMIT SWITCH UNTIL A "CLICK" IS HEARD. THE "UP" LIMIT IS NOW SET.
7) RE-CONNECT THE POWER.
8) ACTIVATE THE "CLOSE" CONTROL AND ALLOW THE DOOR TO CLOSE. STOP THE DOOR BY ACTIVATING THE "STOP" CONTROL WHEN THE BOTTOM BAR IS APPROX. 12" ABOVE THE FLOOR.
9) USING MANUAL OPERATION, LOWER THE DOOR TO APPROX. 3" ABOVE THE FLOOR.
10) DISCONNECT THE POWER.
11) THE DOWN LIMIT SWITCH CAN NOW BE IDENTIFIED AS THE ONE WITH THE CAM NUT CLOSEST TO IT. DEPRESS THE LOCKING PLATE AND ROTATE THE CAM NUT TOWARD THE LIMIT SWITCH UNTIL A "CLICK" IS HEARD. THE DOWN LIMIT IS NOT SET.
12) RECONNECT THE POWER.
13) TEST THE DOOR OPERATION AT THE TOP AND BOTTOM AND FINE ADJUST AS DESIRED.

CAUTION: DO NOT ALLOW THE MOTOR TO FORCE THE BOTTOM BAR AGAINST THE STOPS OR THE FLOOR

14) TEST ENTIRE DOOR MOTOR OPERATION.



SERVICE COUNTER FIRE DOORS
BARREL - WIRE RING INSTALLATION

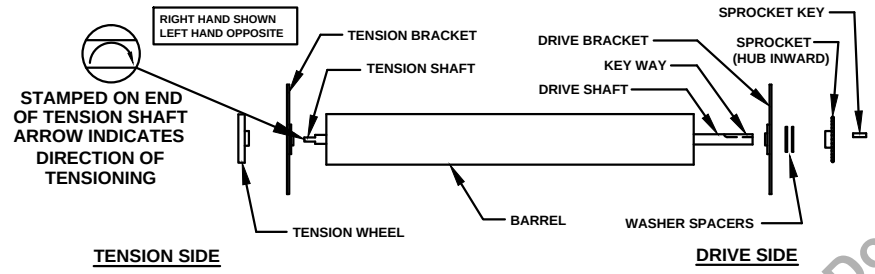


D1

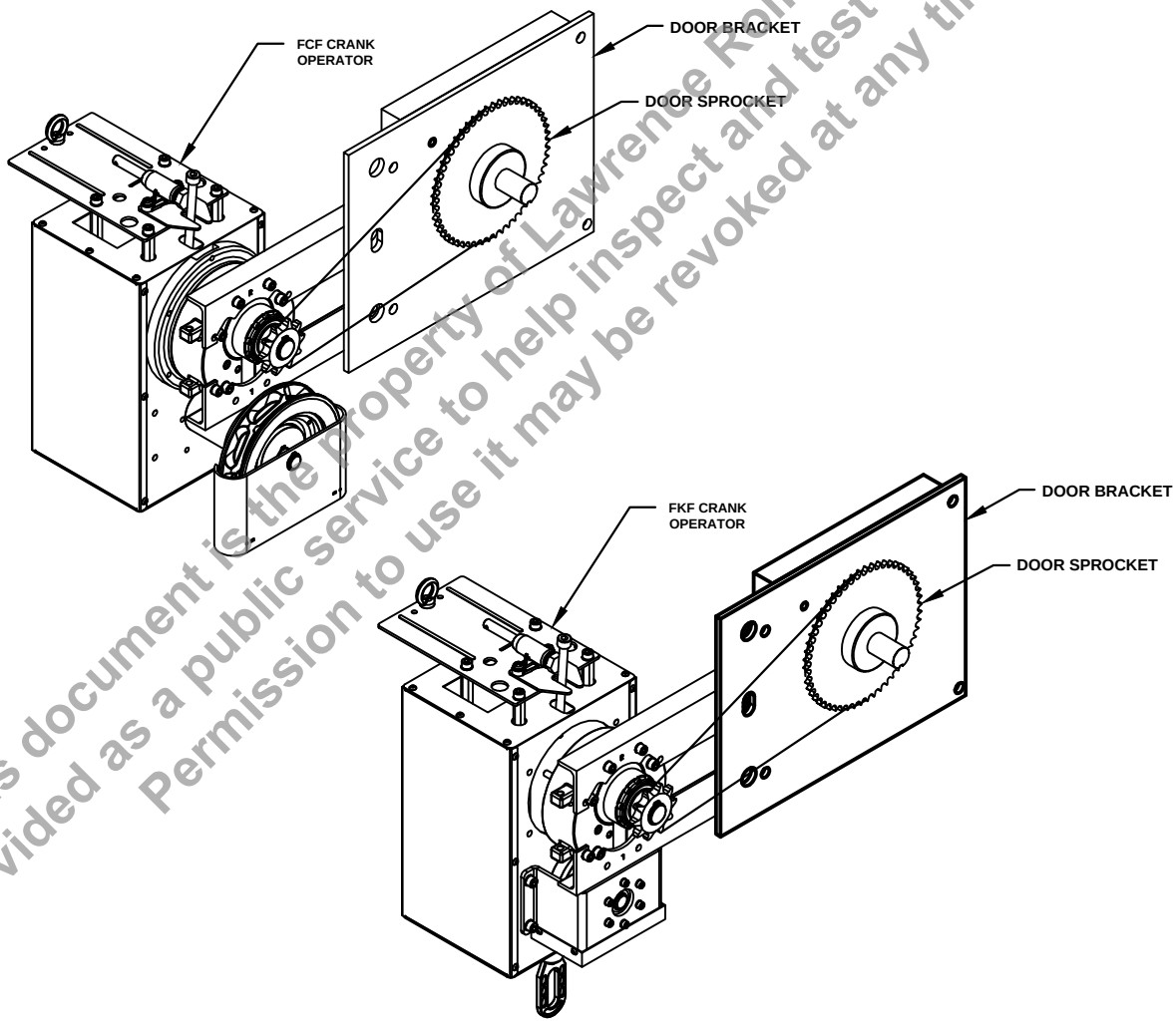
1) WHEN INSTALLING WIRE RINGS, ENSURE THAT THE COIL ENDS ARE LOCATED ON BOTH SIDES OF THE SLAT CONNECTION HOLES IN THE BARREL ASSEMBLY AS SHOWN ABOVE.

SIMPLE-TEST CHAIN / CRANK BRACKET DETAIL

1) ASSEMBLE THE BRACKETS ONTO THE BARREL AS SHOWN IN FIG D2 & D3.



D2

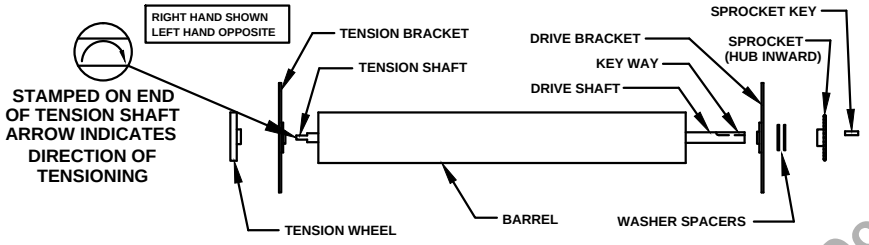


RIGHT HAND IS SHOWN - LEFT HAND IS OPPOSITE

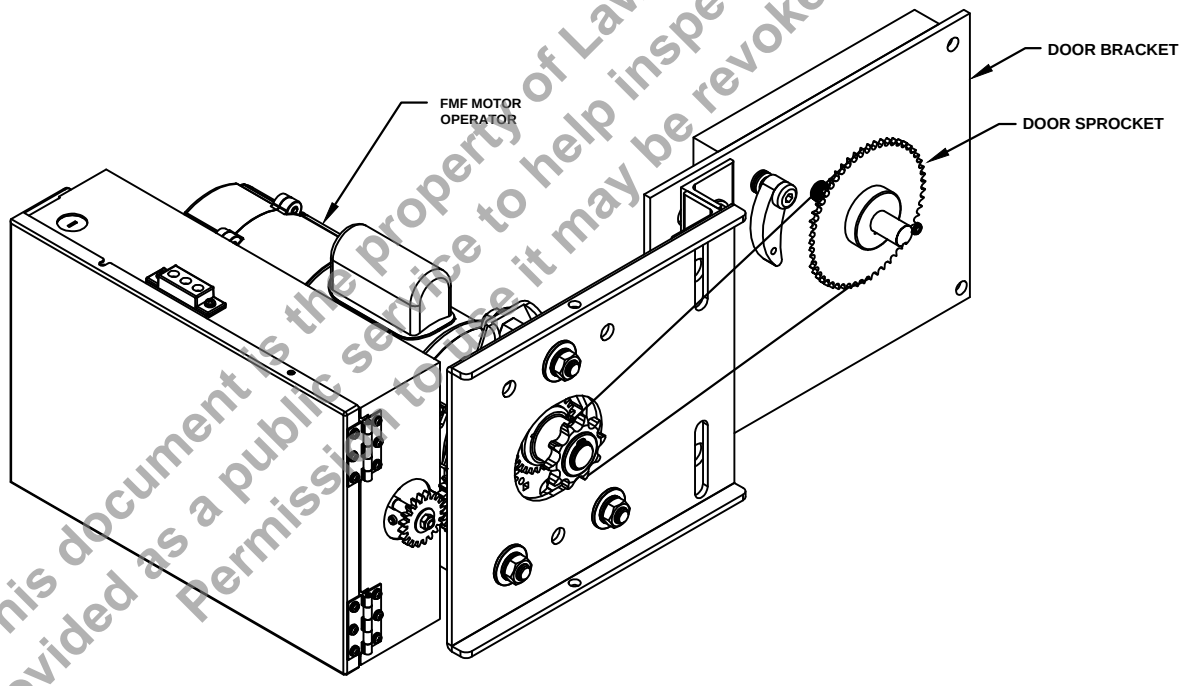
D3

SIMPLE-TEST MOTOR OPERATED BRACKET DETAIL

1) ASSEMBLE THE BRACKETS ONTO THE BARREL AS SHOWN IN FIG D4 & D5.



D4



RIGHT HAND IS SHOWN - LEFT HAND IS OPPOSITE

D5

COUNTER FIRE DOORS TENSIONING INSTRUCTIONS
SIMPLE-TEST CHAIN / SIMPLE-TEST CRANK OPERATION

IMPORTANT

DO NOT ATTEMPT TO MAKE ANY ADJUSTMENTS TO THE TENSION ASSEMBLY WITH THE CURTAIN IN ANY POSITION OTHER THAN FULLY COILED ON THE BARREL (DOOR OPEN). WINDING BARS SHOULD BE A MINIMUM OF 3/8 SOLID STEEL ROD, 2 TO 3 FT LONG. DO NOT USE PIPE OR CONDUIT.

1) **TO CHARGE THE COUNTERBALANCE SPRING, THE CURTAIN IS TO BE IN THE RAISED POSITION WITH THE BOTTOM BAR POSITIONED APPROXIMATELY 6" BELOW THE GUIDE STOPS (OR FLAT BAR STOPS IF PROVIDED). NOW, PLACE A "C" CLAMP ACROSS THE THROAT OF THE DOOR'S GUIDE TO PREVENT THE CURTAIN FROM DRIFTING TO THE CLOSED POSITION.**
2) **NOW APPLY TENSION TO THE TENSION SIDE COUNTERBALANCING SPRING. ROTATE THE WHEEL IN THE SAME DIRECTION THE CURTAIN NORMALLY WINDS ONTO THE BARREL. SEE INSTALLATION INFORMATION SHEET FOR NUMBER OF TURNS. LOCK THE TENSION WHEEL IN PLACE TO THE TENSION BRACKET.**

IMPORTANT

UNDER NO CIRCUMSTANCES SHOULD MORE THAN ONE FULL TURN BE ADDED OVER THAT WHICH IS SPECIFIED.

3) **THE DOOR IS NOW PROPERLY SET AND READY TO TEST. TEST THE DOOR FOR NORMAL OPERATION.**
4) **AFTER NORMAL OPERATION TESTS HAVE BEEN MADE, IT REMAINS TO TEST THE AUTOMATIC CLOSE FEATURE. PROCEED AS FOLLOWS:**

WARNING

ONLY TRAINED DOOR SYSTEMS TECHNICIANS SHOULD DROP TEST DOOR

5) **WITH THE DOOR IN THE FULLY OPEN POSITION, PULL THE COTTER PIN FROM THE FUSIBLE LINK PLUNGER SWITCH. WHEN THE PLUNGER IS RELEASED, THE DOOR SHOULD BEGIN TO CLOSE.**
6) **PROPER CLOSING SPEED IS WHEN THE AVERAGE SPEED OF THE DOOR FALLS BETWEEN 6" AND 16" PER SECOND.**
7) **DOOR SPEED ADJUSTMENT: (AUTOMATIC CLOSING MODE)**
   - **IF THE DOOR DROPS FASTER THAN 16" PER SECOND, ADD TENSION TO THE TENSION SIDE COUNTERBALANCING SPRING. ADD ONLY ONE HOLE (IN TENSION WHEEL) AT A TIME AND UP TO A MAXIMUM OF TWO HOLES.**
   - **IF THE DOOR DROPS SLOWER THAN 6" PER SECOND, DECREASE THE AMOUNT OF TENSION TO THE TENSION SIDE COUNTERBALANCE SPRING. DECREASE ONE HOLE (IN TENSION WHEEL) AT A TIME AND UP TO A MAXIMUM OF TWO HOLES.**
   - **IF AFTER MAKING THE ABOVE ADJUSTMENTS THE CLOSING SPEED STILL EXCEEDS 16" PER SECOND, OR IS LESS THAN 6" PER SECOND, CONTACT CUSTOMER SERVICE FOR FURTHER INSTRUCTIONS. WHEN CONTACTING US, BE SURE TO ADVISE THE TIME IT TOOK, IN SECONDS, FOR THE DOOR TO CLOSE. ALSO ADVISE THE NUMBER OF INITIAL TURNS OF TENSION APPLIED AND ANY ADJUSTMENTS THAT WERE MADE AND CLEAR OPENING HEIGHT.**

TENSIONING INSTRUCTIONS - COUNTER FIRE DOOR
SIMPLE-TEST MOTOR OPERATED ARRANGEMENT

1) TO CHARGE THE COUNTERBALANCE SPRING, THE CURTAIN MUST BE IN THE RAISED POSITION WITH THE BOTTOM BAR POSITIONED APPROXIMATELY 6" BELOW THE GUIDE STOPS. NOW PLACE A "C" CLAMP ACROSS THE THROAT OF THE DOOR'S GUIDES TO PREVENT THE CURTAIN FROM DRIFTING TO THE CLOSED POSITION.
2) ROTATE THE TENSION WHEEL IN THE DIRECTION THE CURTAIN NORMLLY WINDS ONTO THE BARREL. SEE THE INSTALLATION INFORMATION SHEET FOR THE NUMBER OF TURNS. NOW LOCK THE TENSION WHEEL IN PLACE TO THE BRACKET. FOR OPTIMUM OPERATION YOU MAY FIND MORE TURNS ARE REQUIRED, OR IN SOME CASES, LESS TURNS ARE REQUIRED.

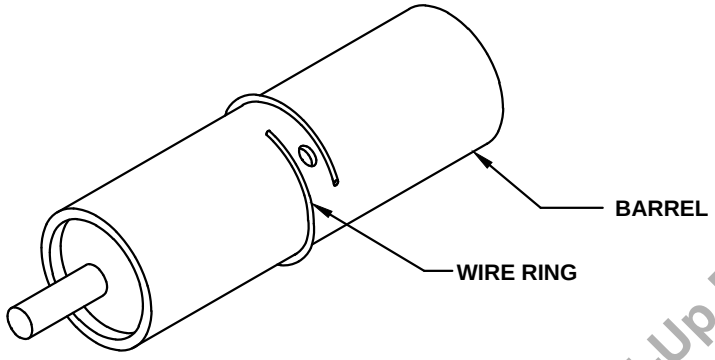
IMPORTANT: UNDER NO CIRCUMSTANCES SHOULD MORE THAN ONE FULL TURN BE ADDED OVER THAT WHICH IS LISTED ON INSTALLATION INFORMATION SHEET.

3) NOW TEST THE DOOR FOR NORMAL OPERATION.
4) AFTER NORMAL OPERATION TESTS HAVE BEEN MADE, IT REMAINS TO TEST THE AUTOMATIC CLOSE FEATURE. PROCEED AS FOLLOWS:

WARNING
ONLY TRAINED DOOR SYSTEMS TECHNICIANS SHOULD DROP TEST DOOR

5) WITH THE DOOR IN THE FULLY OPEN POSITION, DROP THE RELEASE ARM. THE PALLET ARM WILL DROP, ALLOWING THE "PALLET" TO ENGAGE THE "SCAPE WHEEL", AND AT THE SAME TIME, DISENGAGE THE MOTOR. THE DOOR SHOULD NOW DESCEND TO THE FULLY CLOSED POSITION.
6) PROPER CLOSING SPEED IS AN AVERAGE SPEED OF 6" TO 24" PER SECOND.
7) IF THE CLOSING VELOCITY EXCEEDS THE AVERAGE SPEED OF 24" PER SECOND AFTER COUNTERBALANCE SPRING ADJUSTMENTS HAVE BEEN MADE, CONTACT THE COOKSON COMPANY FOR FURTHER INSTRUCTION. WHEN CONTACTING US, BE SURE TO ADVISE US AS TO THE TIME IT TOOK, IN SECONDS, FOR THE DOOR TO CLOSE, THE NUMBER OF TURNS OF INITIAL TENSION APPLIED AND THE CLEAR OPENING HEIGHT OF THE DOOR.
8) TO RESET THE DOOR, SEE RESET INSTRUCTIONS ON PAGE 18.
9) CONNECT THE FUSE LINK SYSTEM TO THE RELEASE ARM AS SHOWN ON PAGE 18.

COUNTER FIRE DOORS
BARREL - WIRE RING INSTALLATION



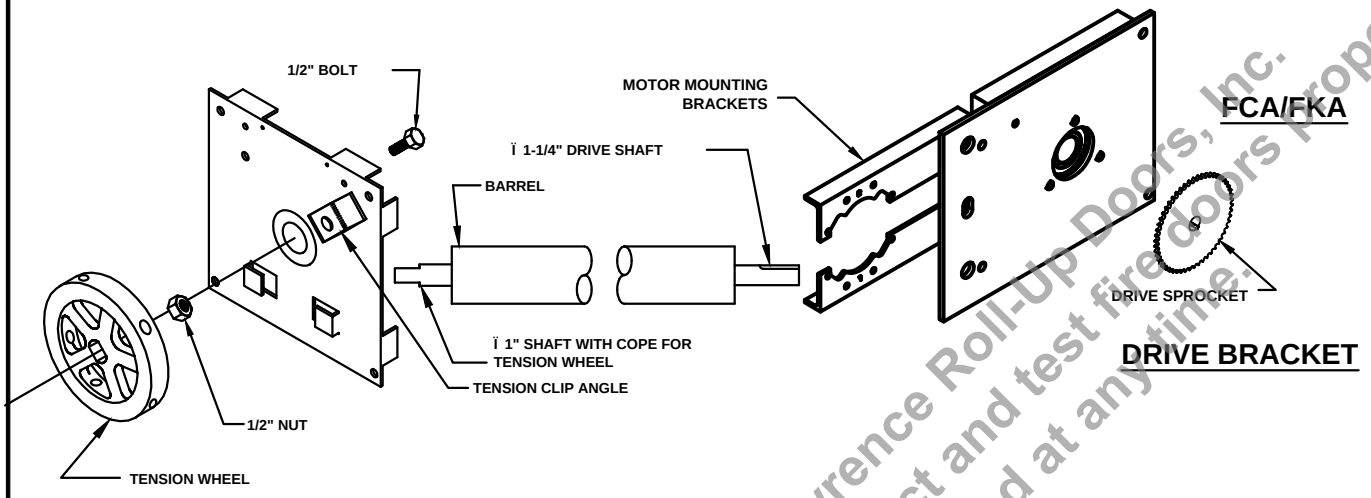
E1

1) WHEN INSTALLING WIRE RINGS, ENSURE THAT THE COIL ENDS ARE LOCATED ON BOTH SIDES OF THE SLAT CONNECTION HOLES IN THE BARREL ASSEMBLY AS SHOWN ABOVE.

AUTO TEST CHAIN / CRANK BRACKET DETAIL

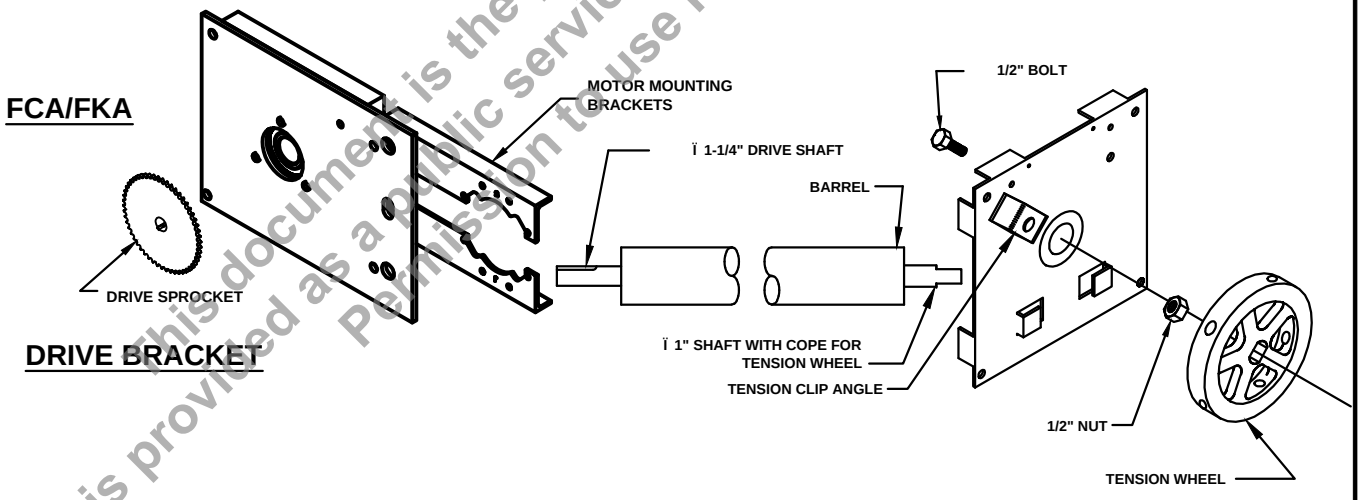
1) ASSEMBLE THE BRACKETS ONTO THE BARREL AS SHOWN IN FIG E2 & E3.

RIGHT HAND DOOR



E2

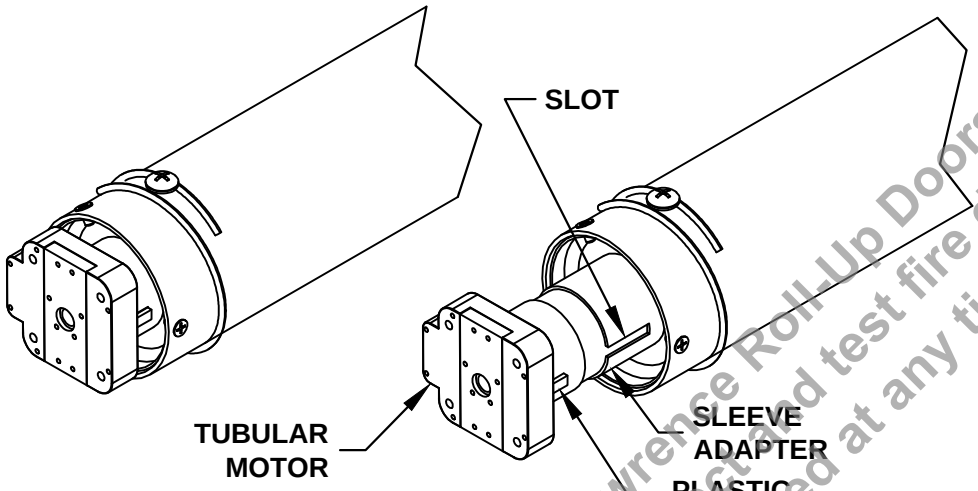
LEFT HAND DOOR



E3

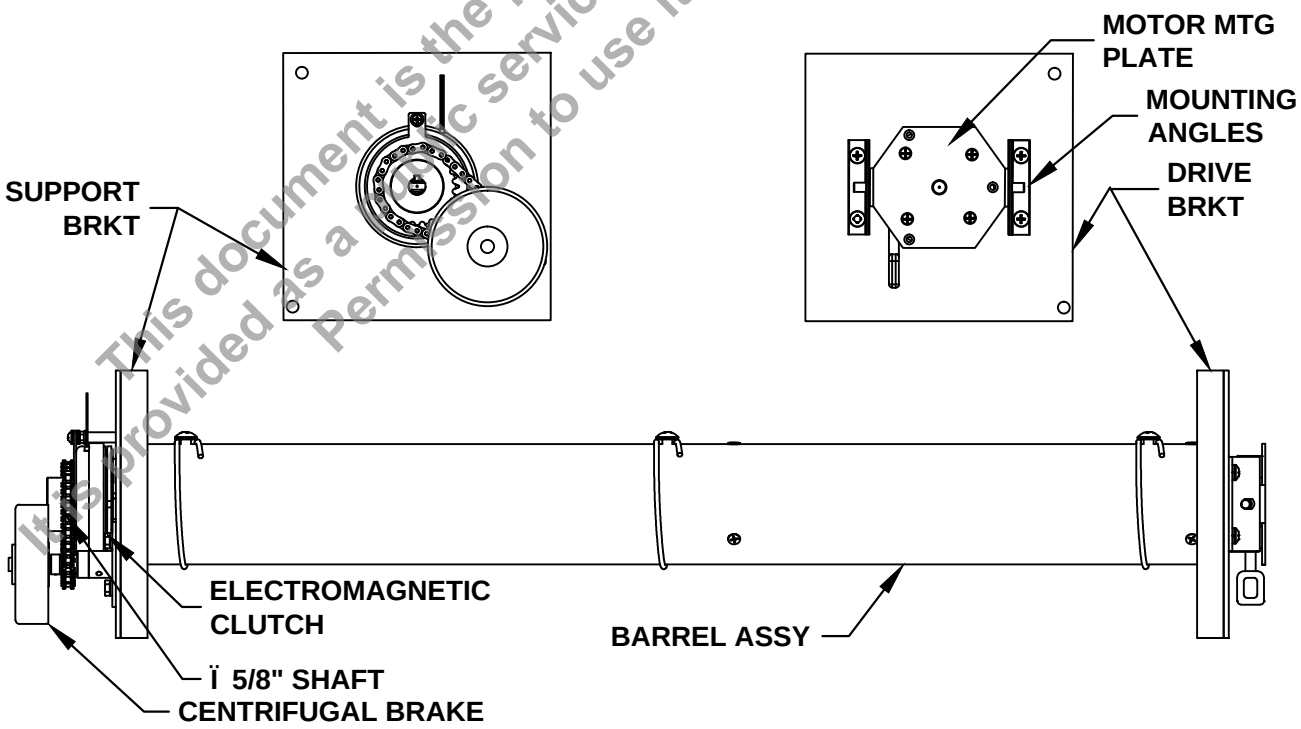
BRACKET DETAIL - TUBULAR MOTOR OPER

1) BEFORE ASSEMBLING THE BRACKETS ONTO THE BARREL INSERT THE TUBULAR MOTOR INTO THE BARREL ASSEMBLY. ALIGN THE PLASTIC TAB ON THE MOTOR AND THE SLOT ON THE SLEEVE ADAPTER AND SLIDE THE TUBULAR MOTOR ALL THE WAY INTO THE SLEEVE ADAPTER. AS SHOWN IN FIGURE E4. REFER TO TUBULAR MOTOR INSTALLATION INSTRUCTIONS AND OPERATION MANUAL FOR DETAILS.



E4

2) ASSEMBLE THE BRACKETS ONTO THE BARREL AS SHOWN IN FIGURE E5. ATTACH THE OCTOGONAL MOTOR MOUNTING PLATE TO THE MOTOR AND THE DRIVE BRACKET TO THE MOTOR ASSEMBLY. ON THE SUPPORT SIDE, SLIDE THE 5/8" SHAFT THROUGH THE BEARING ON THE BRACKET AND THE ELECTROMAGNETIC CLUTCH.

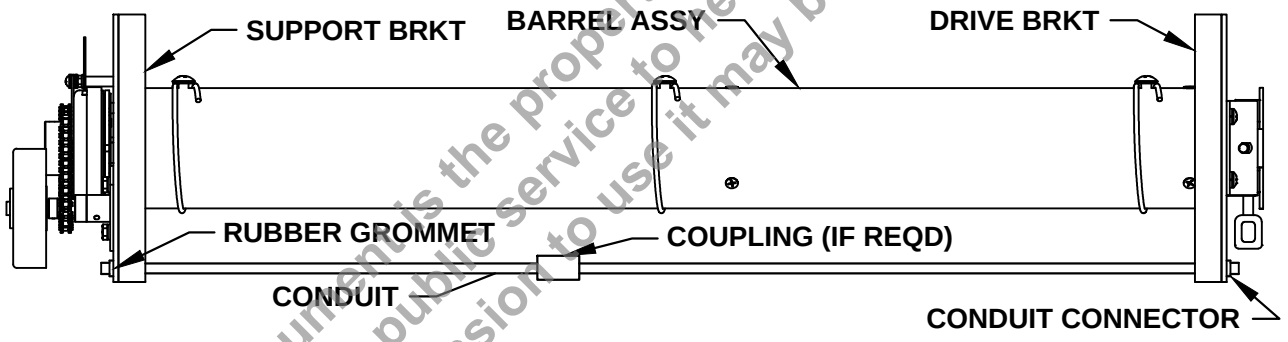


E5

ELECTRICAL CONNECTIONS FOR CLUTCH CONTROL PANEL TO ALARM SYSTEM/SMOKE DETECTORS

UNIT REQUIRES ONE SWITCHED POWER INPUT, 24VDC, 24VAC OR 115VAC ACCORDING TO WIRING DIAGRAM AND LOCAL CODES. MINIMUM WIRE SIZE IS 20GA COPPER (USE HEAVIER WIRE FOR LONG RUNS). SEE ELECTRIC CLUTCH MANUAL FOR ADDITIONAL INFORMATION.

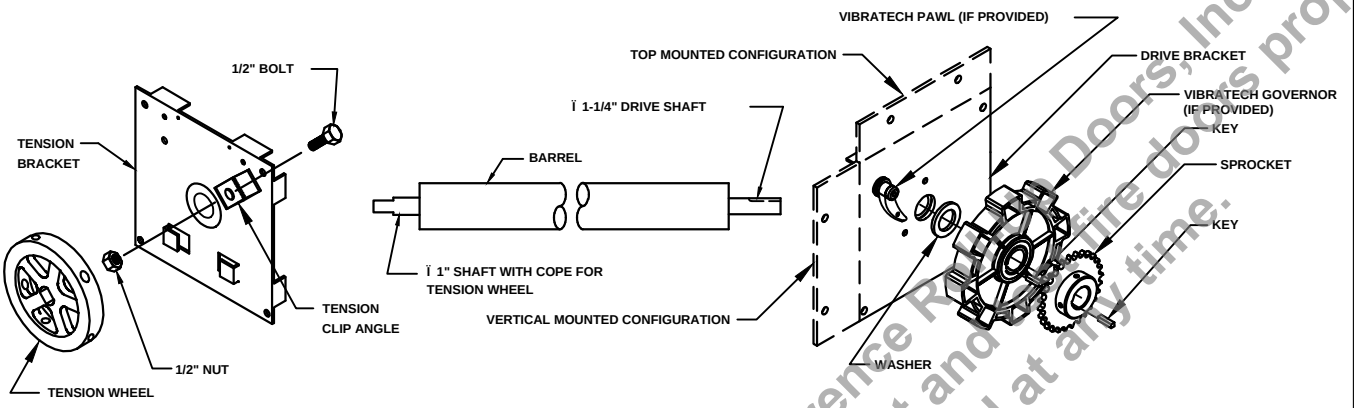
1) THE CLUTCH CONTROL PANEL IS WALL MOUNTED. A PARTS PACKAGE IS PROVIDED WITH THE DOOR TO ALLOW MOUNTING OF THE CONTROL PANEL ON THE MOTOR SIDE OF THE DOOR. THE PARTS PACKAGE CONTAINS: (2) WIRE CONNECTOR SPLICES, (2) WIRE CABLE CLIPS, 1/2" EMT CONDUIT, (1) CONDUIT CONNECTOR, (1) CONDUIT INSULATED BUSHING, (1) CONDUIT COUPLING (IF REQUIRED) AND ELECTRICAL WIRE.
2) AFTER INSTALLING THE DOOR AND BEFORE ATTACHING THE HOOD AND END COVERS, RUN THE EMT CONDUIT BETWEEN THE DOOR BRACKETS:
   (A) CUT THE EMT CONDUIT TO THE REQUIRED OVERALL LENGTH (DISTANCE BETWEEN BRACKETS PLUS 1/2"). IF THE CONDUIT COMES IN TWO SECTIONS, USE THE CONDUIT COUPLING TO CONNECT THEM.
   (B) RUN THE ELECTRIC WIRE THROUGH THE EMT CONDUIT AND CUT TO DESIRED LENGTH.
   (C) MOUNT THE CONDUIT BETWEEN THE DOOR BRACKETS. FOR THE DRIVE BRACKET USE THE CONDUIT CONNECTOR PROVIDED. AT THE SUPPORT BRACKET, RUN THE CONDUIT THROUGH THE GROMMET ON THE BRACKET PLATE. INSERT THE INSULATED BUSHING IN THE CONDUIT FOR WIRE PROTECTION.
   (D) USE THE CONNECTOR SPLICE TO CONNECT THE CLUTCH WIRES.
   (E) USE THE CABLE CLIPS TO SECURE WIRES ON THE DOOR BRACKETS.
   (F) RUN THE DOOR IN OPEN POSITION AND CHECK FOR ANY INTERFERENCES BETWEEN THE CURTAIN AND CONDUIT.
   (G) INSTALL HOOD END COVERS. CHECK FOR ANY INTERFERENCE BETWEEN THE HOOD AND THE CONDUIT.



BRACKET DETAIL - FDO-A10 MOTOR OPER

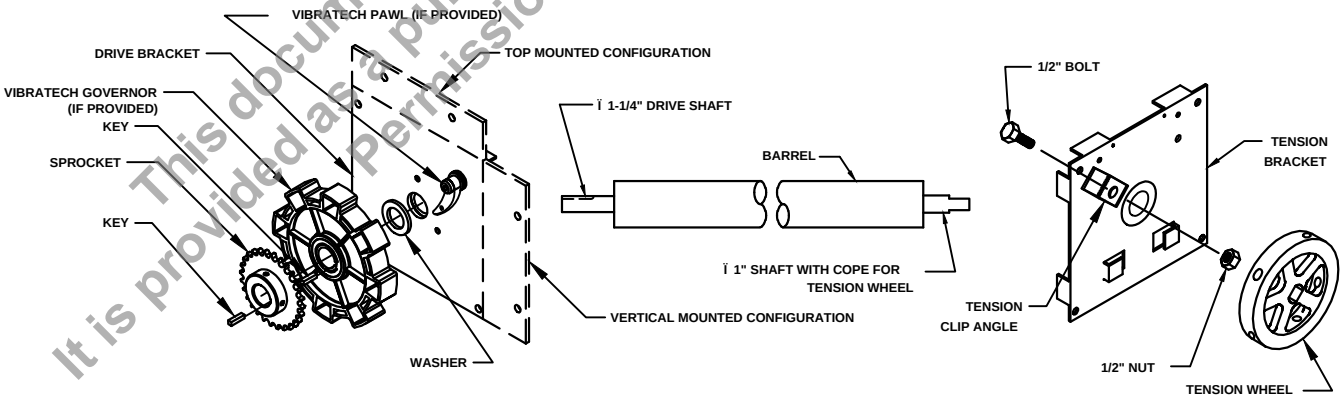
1) ASSEMBLE THE BRACKETS ONTO THE BARREL AS SHOWN IN FIGURE E7 & E8.

RIGHT HAND DOOR



E7

LEFT HAND DOOR

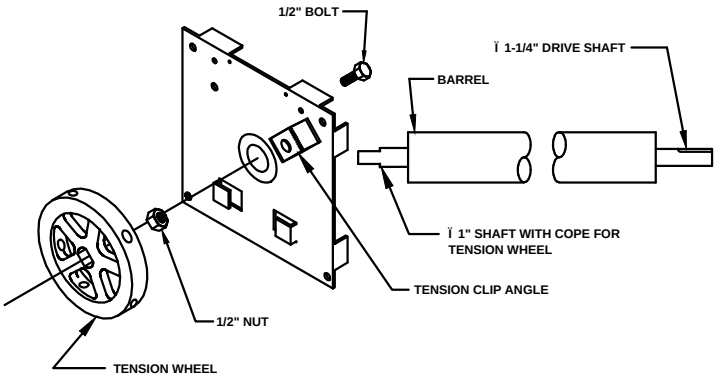


E8

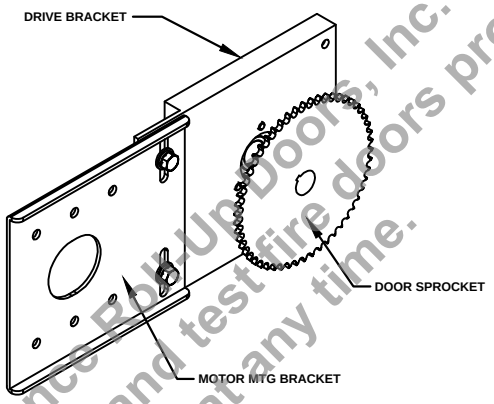
BRACKET ASSY - AUTO-TEST MOTOR OPER

1) ASSEMBLE THE BRACKETS ONTO THE BARREL AS SHOWN IN FIG E9 & E10.

RIGHT HAND DOOR



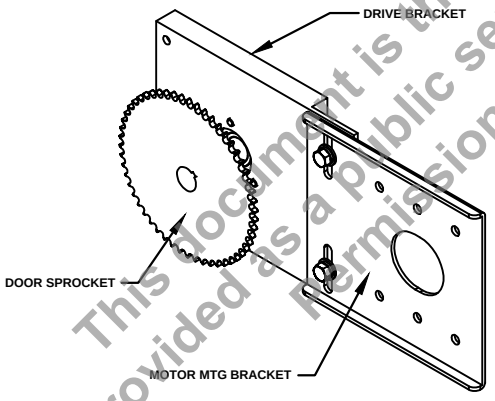
TENSION BRACKET



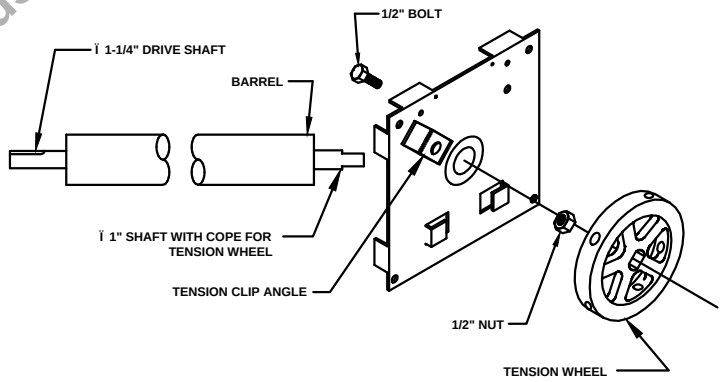
DRIVE BRACKET

E9

LEFT HAND DOOR



DRIVE BRACKET



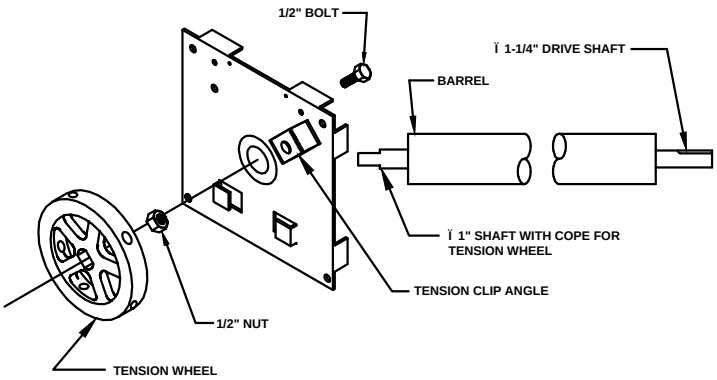
TENSION BRACKET

E10

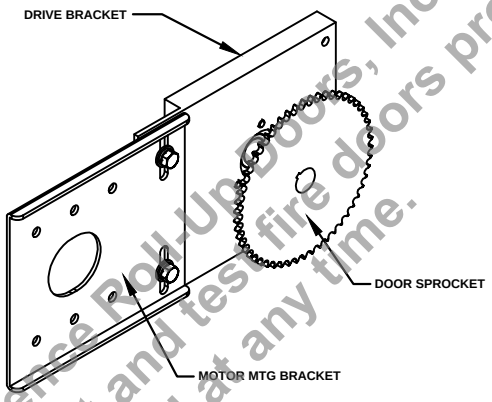
BRACKET ASSY - AUTO-TEST FDO-A/FDO-B (FS) OPERATOR

1) ASSEMBLE THE BRACKETS ONTO THE BARREL AS SHOWN IN FIG E11 & E12.

RIGHT HAND DOOR



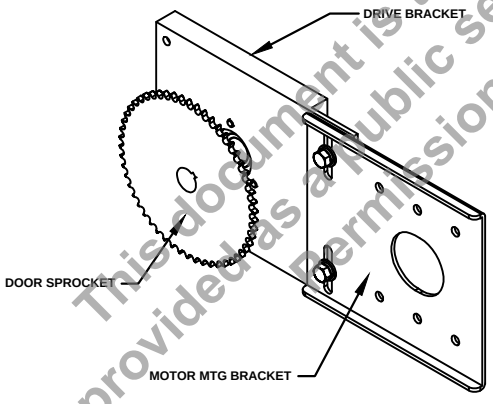
TENSION BRACKET



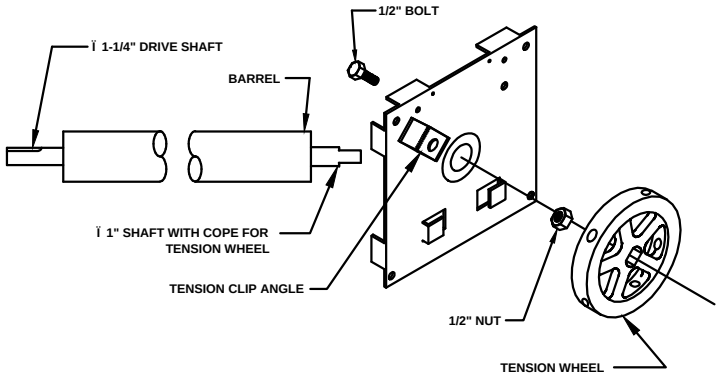
DRIVE BRACKET

E11

LEFT HAND DOOR



DRIVE BRACKET



TENSION BRACKET

E12

TENSIONING INSTRUCTIONS - COUNTER FIRE DOORS
AUTO-TEST CHAIN / AUTO-TEST CRANK OPERATED

1) TO CHARGE THE COUNTERBALANCE SPRING, THE CURTAIN IS TO BE IN THE RAISED POSITION WITH THE BOTTOM BAR POSITIONED APPROXIMATELY 6" BELOW THE GUIDE STOPS (OR FLAT BAR STOPS IF PROVIDED). NOW, PLACE A "C" CLAMP ACROSS THE THROAT OF THE DOOR'S GUIDE TO PREVENT THE CURTAIN FROM DRIFTING TO THE CLOSED POSITION.
2) NOW APPLY TENSION TO THE COUNTERBALANCE SPRING. ROTATE THE WHEEL IN THE SAME DIRECTION THAT THE CURTAIN NORMALLY WINDS ONTO THE BARREL. SEE THE TABLE ON THE FRONT SHEET FOR THE NUMBER OF TURNS REQUIRED. LOCK THE TENSION WHEEL IN PLACE TO THE TENSION BRACKET.
3) TEST THE DOOR FOR NORMAL OPERATION.
4) RECHECK DRIVE CHAIN TENSION AND ADJUST AS NECESSARY.
5) AFTER NORMAL OPERATIONAL TESTS HAVE BEEN MADE, IT REMAINS TO TEST THE AUTOMATIC CLOSE FEATURE.

AUTOMATIC CLOSE TESTING PROCEDURE

1) OPEN DOOR TO FULLY OPEN POSITION.
2) VERIFY WIRING PER DIAGRAM.
3) ACTIVATE INITIATING DEVICE (SMOKE DETECTOR/FIRE ALARM).
4) CLUTCH MECHANISM WILL DISENGAGE ALLOWING THE DOOR TO DESCEND.
5) ONCE DOOR HAS REACHED THE FULLY CLOSED POSITION DEACTIVATE THE SMOKE DETECTOR/FIRE ALARM. POWER SHOULD NOW BE RESTORED TO THE UNIT.
6) BEGIN PULLING HOIST HAND CHAIN OR ROTATE THE CRANK HANDLE TO RAISE THE DOOR. THE HOIST/CRANK MAY FREEWHEEL UNTIL THE CLUTCH REENGAGES.
7) THE DOOR IS RESET BY RESTORING POWER TO THE UNIT AND/OR RESETTING THE ALARM INITIATING DEVICE. IF CLOSURE WAS DUE TO FUSE LINK ACTIVATION REFER TO FIG E2 IN ADDITION TO THE ABOVE.

TENSIONING INSTRUCTIONS - COUNTER FIRE DOOR
AUTO-TEST FDO-A10/FDO-A/FDO-B (FS) MOTOR OPERATION

1) TO CHARGE THE COUNTERBALANCE SPRING, THE CURTAIN MUST BE IN THE RAISED POSITION WITH THE BOTTOM BAR POSITIONED APPROXIMATELY 6" BELOW THE GUIDE STOPS. NOW PLACE A "C" CLAMP ACROSS THE THROAT OF THE DOOR'S GUIDES TO PREVENT THE CURTAIN FROM DRIFTING TO THE CLOSED POSITION.
2) ROTATE THE TENSION WHEEL IN THE DIRECTION THE CURTAIN NORMLLY WINDS ONTO THE BARREL. SEE THE INSTALLATION INFORMATION SHEET FOR THE NUMBER OF TURNS. NOW LOCK THE TENSION WHEEL IN PLACE TO THE BRACKET. FOR OPTIMUM OPERATION YOU MAY FIND MORE TURNS ARE REQUIRED, OR IN SOME CASES, LESS TURNS ARE REQUIRED.

IMPORTANT: UNDER NO CIRCUMSTANCES SHOULD MORE THAN ONE FULL TURN BE ADDED OVER THAT WHICH IS LISTED ON INSTALLATION INFORMATION SHEET

3) NOW TEST THE DOOR FOR NORMAL OPERATION.
4) AFTER NORMAL OPERATION TESTS HAVE BEEN MADE, IT REMAINS TO TEST THE AUTOMATIC CLOSE FEATURE. PROCEED AS FOLLOWS:

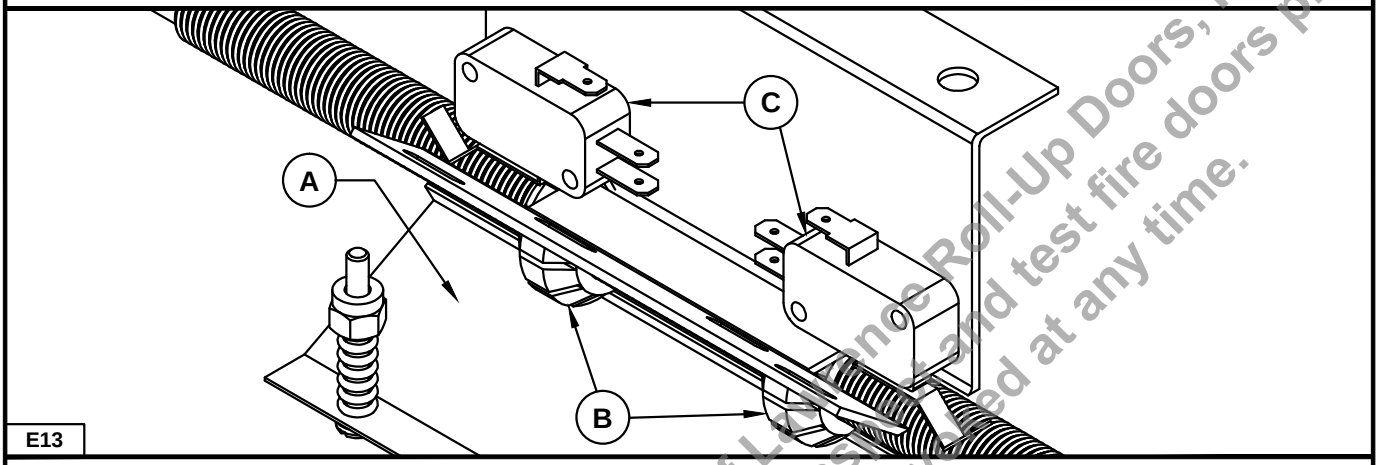
WARNING
ONLY TRAINED DOOR SYSTEMS TECHNICIANS SHOULD DROP TEST DOOR

5) WITH THE DOOR IN THE FULLY OPEN POSITION, REMOVE POWER FROM THE DOOR CONTROLLER EITHER BY ACTIVATING THE OPTIONAL KEYED TEST STATION OR BY TURNING THE CIRCUIT BREAKER OFF. THE DOOR SHOULD CLOSE VIA GRAVITY WITH THE DOOR SPEED CONTROLLED BY THE MOTOR AND GOVERNOR (IF PROVIDED). THE DOOR SHOULD DESCEND AT AN AVERAGE RATE OF AT LEAST 6 IN/SECOND NOT TO EXCEED 24 IN/SECOND.
6) IF THE DOOR CLOSES TOO SLOWLY OR NOT AT ALL, RESTORE POWER AND FULLY OPEN DOOR. REMOVE 1/5 TURN OF TENSION REPEAT STEP (E) UNTIL DOOR DESCENT RATE IS ADEQUATE.
   NOTE: NEVER BACK WIND THE SPRING.
7) IF DOOR CLOSES TOO RAPIDLY FOLLOW STEP (F) EXCEPT ADD 1/5 TURN OF TENSION THEN REDO STEP (5).
8) TO RESET THE DOOR, RESTORE POWER AND CLEAR ALARM.

INSTRUCTIONS FOR SETTING ROTARY LIMIT SWITCH

CAUTION: ONLY ADJUST THE ROTARY LIMIT SWITCH WITH THE POWER "OFF". ONLY TRAINED PERSONNEL SHOULD SET OR ADJUST THE LIMIT SWITCH.

1) USING THE MANUAL OPERATOR, LOWER OR RAISE THE CURTAIN TO THE MIDPOINT OF THE OPENING.
2) OPEN THE LIMIT SWITCH BOX AND IDENTIFY ALL PARTS:
   Ⓐ DETENT PLATE Ⓑ CAM NUT Ⓒ BASIC SWITCHES
3) DEPRESS THE SPRING LOADED DETENT PLATE AND ROTATE EACH CAM NUT APPROXIMATELY 1/8" FROM THE BASIC SWITCHES AS SHOWN BELOW.



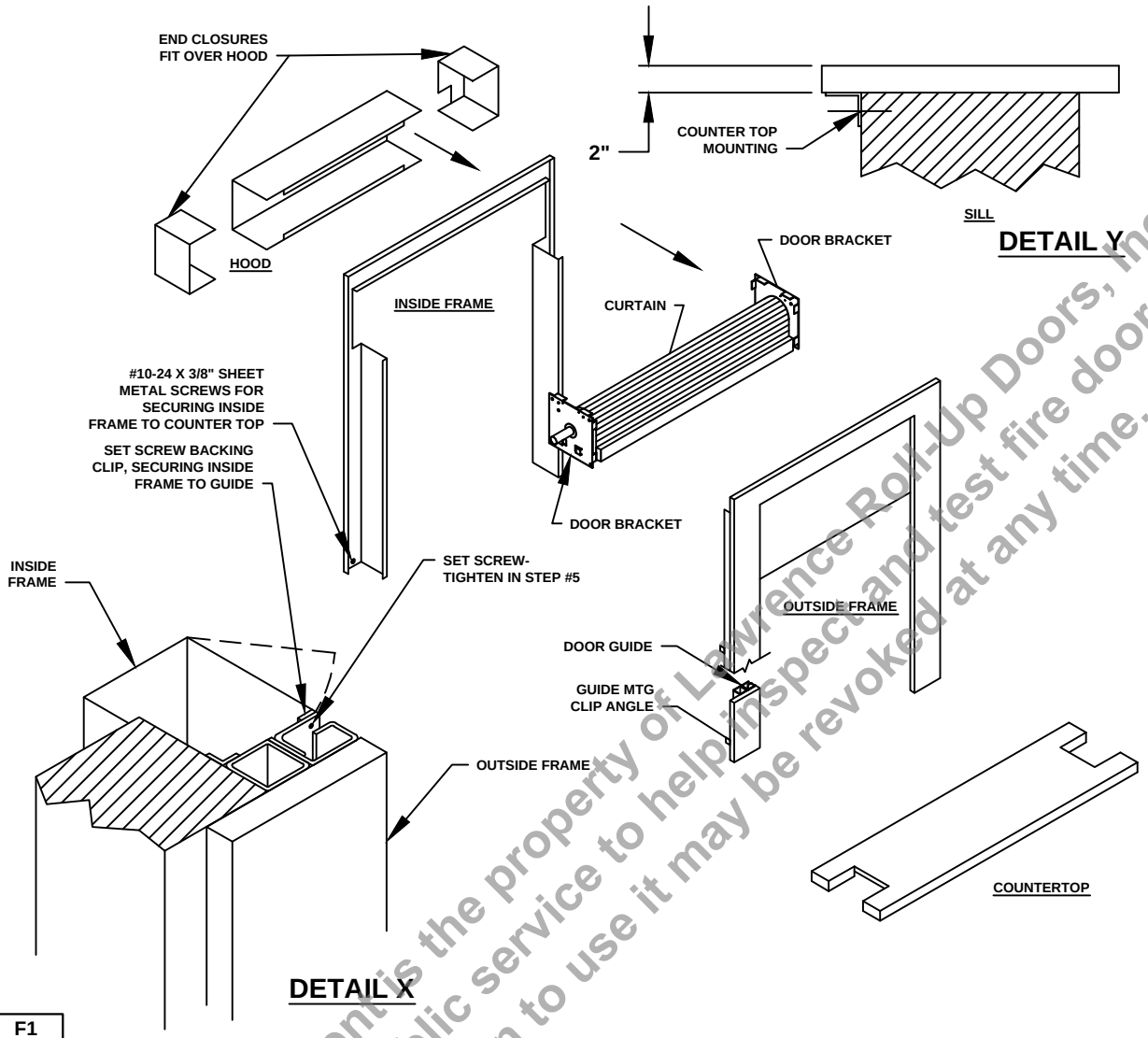
E13

4) APPLY POWER TO THE MOTOR AND TEST THE OPERATION OF THE DOOR. AS THE DOOR IS OPENING THE "OPEN" CAM NUT SHOULD BE TRAVELING TOWARDS THE "OPEN" BASIC SWITCH. AS THE DOOR IS CLOSING THE "CLOSE" CAM NUT SHOULD BE TRAVELING TOWARDS THE "CLOSE" BASIC SWITCH. THE CAM NUTS ARE DESIGNED TO ACTIVATE THE BASIC SWITCHES AND TERMINATE THE TRAVEL OF THE DOOR.
5) IMPORTANT: CHECK THAT THE MOTOR IS CORRECTLY WIRED IN REGARDS TO ROTATION AND DIRECTION. OPERATE THE OPEN AND CLOSE FUNCTIONS. IF THE MODE OF OPERATION IS INCORRECT (WHEN THE "OPEN" FUNCTIONS OF THE CONTROL STATION MAKES THE DOOR CLOSE OR THE "CLOSE" FUNCTIONS OF THE CONTROL STATION MAKES THE DOOR OPEN) OR THE ROTATION DIRECTION OF THE CAM NUT IS INCORRECT (CAM NUT TRAVELS TOWARD THE "OPEN" BASIC SWITCH WHEN CLOSING AND THE "CLOSE" BASIC SWITCH WHEN OPENING) DISCONTINUE OPERATION OF THE DOOR AND CHECK THE WIRING. ALL WIRING MUST BE CORRECT BEFORE PROCEEDING.
6) ONCE THE CORRECT ROTATION AND ORIENTATION OF THE CONTROL FUNCTIONS AND BASIC SWITCHES HAS BEEN DETERMINED, PROCEED WITH THE FINALIZED SETTING OF THE ROTARY LIMIT SWITCH.
7) TURN POWER OFF. WITH THE MANUAL OPERATOR LOWER THE DOOR TO THE FULLY CLOSED POSITION. ROTATE THE "CLOSE" CAM NUT TOWARD THE "CLOSE" BASIC SWITCH UNTIL THE SWITCH CLICKS. THE "CLOSE" BASIC SWITCH IS NOW SET. RAISE THE DOOR TO THE FULLY OPEN POSITION. ROTATE THE "OPEN" CAM NUT TOWARD THE "OPEN" BASIC SWITCH UNTIL THE SWITCH CLICKS. THE OPEN BASIC SWITCH IS NOW SET.
8) MAKE SURE THAT THE DETENT PLATE IS FULLY ENGAGED IN THE SLOTS OF EACH CAM NUT, REPLACE THE COVER ON THE LIMIT SWITCH AND APPLY POWER TO THE MOTOR OPERATOR TO TEST THE OPERATION OF THE DOOR. IF FURTHER FINE TUNING ADJUSTMENTS ARE REQUIRED MAKE SURE THAT THE POWER IS OFF BEFORE ADJUSTMENTS ARE MADE.

INSTRUCTIONS FOR TUBULAR MOTOR LIMIT SWITCH ADJUSTMENT

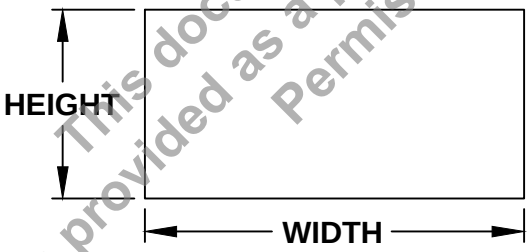
LIMIT SWITCH ADJUSTMENT TOOL AND INSTRUCTIONS ARE PROVIDED WITH THE TUBULAR MOTOR. REFER TO TUBULAR MOTOR INSTALLATION INSTRUCTIONS MANUAL FOR LIMIT SWITCH ADJUSTMENT. NOTE: THE MOTOR HAS A BUILT IN THERMAL CUTOFF. IF AFTER SEVERAL MINUTES OF USE THE MOTOR WILL NOT RUN IN EITHER DIRECTION, ALLOW THE MOTOR TO COOL FOR APPROXIMATELY 20 MINUTES.

COUNTER FIRE DOOR
FRAME INSTALLATION INSTRUCTIONS



F1

INSTALLATION PROCEDURE



1) CHECK OPENING HEIGHT AND OPENING WIDTH.
2) CHECK SILL TO SEE THAT IT IS LEVEL. NOW PLACE COUNTERTOP ON SILL PER DETAIL "Y" & ATTACH PER COUNTERTOP INSTALLATION INSTRUCTIONS.
3) PLACE OUTSIDE FRAME ON COUNTERTOP AND TILT INTO POSITION AND SECURE TO JAMB. SEE DETAIL "X" AND GUIDE INSTALLATION SECTION.
4) INSTALL BRACKET, BARREL AND CURTAIN PER APPROPRIATE INSTALLATION SECTIONS.
5) AFTER CHECKING THAT THE AUTOMATIC DROP AND DOOR OPERATION IS SATISFACTORY, INSTALL INSIDE FRAME. MAKE SURE FRAME IS FLUSH WITH GUIDE AND TIGHTEN SET SCREW PER DETAIL "X". SECURE INSIDE FRAME TO COUNTER TOP.
6) NOW SECURE HOOD PER HOOD COVER INSTALLATION SECTION.

F2

CURTAIN CARE AND TOUCH-UP INSTRUCTIONS

WHILE COOKSON DOOR FINISHES ARE ENGINEERED TO LAST, THE INHERENT DESIGN OF ROLLING DOOR PRODUCTS WILL EVENTUALLY ABRADE VIRTUALLY ANY APPLIED FINISH. CARE SHOULD BE TAKEN ON DIRTY OR DUSTY JOBSITES NOT TO USE THE DOORS UNLESS THEY HAVE BEEN CLEANED, OTHERWISE THE FINISH MAY BE DAMAGED. ROUTINE CARE AND MAINTENANCE WILL FURTHER HELP PROLONG FINISH LIFE BY REDUCING THE AMOUNT OF WEAR CAUSED BY FOREIGN SUBSTANCES ON THE DOOR CURTAIN. FOLLOWING THE CLEANING AND TOUCH-UP INSTRUCTIONS BELOW WILL HELP TO PROTECT AND MAINTAIN THE SURFACE FINISH.

TO FURTHER PROTECT THE DOOR, IT IS ALSO RECOMMENDED THAT IT BE DISABLED IN THE OPEN POSITION UNTIL PROJECT CLOSE OUT. IF THE DOOR IS TO BE UTILIZED BY OTHER TRADES DURING THE CONSTRUCTION PROCESS, THEN THE CONTRACTOR SHOULD ACCEPT OWNERSHIP OF IT AT THE TIME OF INSTALL TO ENSURE THAT THE DOOR IS TURNED OVER TO THE BUILDING OWNER IN ITS ORIGINAL "NEW" CONDITION.

CLEANING INSTRUCTIONS

1) **CLEAN THE DOOR PRIOR TO USE, AND REGULARLY, USING A DAMP CLOTH OR LIGHT SPRAY WASH. REMOVE ALL DUST, DIRT AND DEBRIS FROM THE CURTAIN SURFACE.**
2) **FOR DOORS WHICH ARE SUBJECTED TO HEAVIER DIRT CONDITIONS, WASH THE DOOR WITH A MIXTURE OF LIGHT DISH SOAP AND WATER. USE 2 OZ OF SOAP FOR EACH GALLON OF WATER, THEN RINSE ALL SOAP FROM THE DOOR AND DRY.**

TOUCH-UP INSTRUCTIONS

1) **CLEAN THOROUGHLY AND ENSURE THAT THE DOOR IS COMPLETELY DRY.**
2) **MIX PAINT FOR ONE FULL MINUTE PRIOR TO USE.**
3) **APPLY MULTIPLE LIGHT COATINGS TO AVOID PAINT RUNS. FOR SPRAY APPLICATIONS, HOLD THE CAN APPROXIMATELY 8" TO 12" FROM THE SURFACE, COVERING ALL WEAR AREAS. FOR BRUSH APPLICATIONS, APPLY EVENLY ACROSS WEAR AREA AND EXTEND OVER COATED AREA.**
4) **LET DRY FOR 24 TO 48 HOURS BEFORE CYCLING THE DOOR.**

MAINTENANCE INSTRUCTIONS

DOOR INSTALLATION:

ALL ROLLING FIRE DOORS SHOULD BE INSTALLED IN CONFORMANCE WITH NFPA 80.
INSPECT FOR NFPA CONFORMANCE:

A. INSTALLATION

B. FUSE LINKS OR SMOKE DETECTORS

C. MOUNTING

ANNUAL INSPECTION OF DOOR:

ALL ROLLING FIRE DOORS SHOULD BE INSPECTED AND TEST DROPPED ANNUALLY BY AN AUTHORIZED DISTRIBUTOR. FOR THE LOCATION OF THE NEAREST DEALER PLEASE CONTACT THE MANUFACTURER.

REGULAR SCHEDULED MAINTENANCE:

ALL ROLLING DOORS SHOULD BE INSPECTED ON A REGULAR BASIS TO ENSURE PROPER AND SAFE OPERATION. THE FREQUENCY OF THE INSPECTION IS DEPENDANT ON THE USAGE OF THE DOOR BUT ALL DOORS SHOULD BE INSPECTED AT LEAST ONCE A MONTH. THE INSPECTION SHOULD CONSIST OF THE FOLLOWING:

⚠ IMPORTANT

ONLY TRAINED PERSONNEL SHOULD PERFORM MAINTENANCE

A. VISUAL INSPECTION
- **1) BENT BOTTOM BARS**
- **2) DAMAGED SLATS**
- **3) PINCHED GUIDES**
- **4) DENTED OR MISSING HOOD**
- **5) FUSE LINKS**
- **6) RELEASE HOLDERS**
- **7) SMOKE DETECTORS**
- **8) RACEWAYS**

B. CHECK ALL FASTENERS
- **1) WALL ATTACHMENT BOLTS**
- **2) GUIDE ASSEMBLY BOLTS**
- **3) BRACKET ATTACHMENT BOLTS**
- **4) SET SCREWS ON GEARS AND SPROCKETS**
- **5) TENSION WHEEL SECURE**
- **6) KEYS SECURE**

C. CHECK OPERATING ASSEMBLIES
- **1) OPERATING ASSEMBLY**
- **2) GOVERNOR ASSEMBLY**
- **3) BARREL ASSEMBLY**

MAINTENANCE INSTRUCTIONS (CONT)

D. LUBRICATE

1) ALL PIVOT JOINTS

2) SHAFTS

3) ROLLER CHAIN

E. CHECK NORMAL OPERATION

1) OPERATION

2) SPRING TENSION

3) BALANCE

F. TEST DROP

1) ANNUALLY OR MORE FREQUENTLY AS REQUIRED

2) RESET PER MANUFACTURER'S INSTRUCTIONS ONLY

⚠ IMPORTANT

ONLY TRAINED PERSONNEL SHOULD TEST AND RESET FIRE DOORS

IF ANY PARTS OF THE ROLLING DOOR ARE DAMAGED THEY SHOULD BE REPLACED IMMEDIATELY WITH APPROVED PARTS MADE BY THE DOOR MANUFACTURER. THE USE OF OTHER PARTS WILL VOID ALL WARRANTIES AND MAY RESULT IN UNSAFE OPERATION.

TROUBLESHOOTING GUIDE

NOTE: FOR MAINTENANCE OR REPAIR OF THIS PRODUCT, PLEASE CONSULT YOUR LOCAL AUTHORIZED DISTRIBUTOR

BARREL

PROBLEM	CAUSE	CORRECTION
DOOR STARTS DOWN THEN BINDS	1) CURTAIN BINDS IN GUIDES. 2) SCREWS CONNECTING CURTAIN TO BARREL TOO LONG AND INTERFERING WITH TORSION SPRING. 3) INCORRECT BARREL FOR OPENING. 4) INTERNAL INTERFERENCE INSIDE BARREL.	1) INCREASE GUIDE GROOVE OPENING. CURTAIN MUST BE LOOSE IN GUIDES. 2) REPLACE MACHINE SCREWS WITH SHORTER LENGTH. THEY MUST NOT PROTRUDE PAST BARREL WALL. 3) CHECK DOOR MARK. LOCATE CORRECT BARREL. 4) CONSULT DISTRIBUTOR.
TENSION WHEEL TURNS FREELY	1) SPRING BROKEN. 2) BROKEN SHAFT TIE. 3) BROKEN BARREL TIE.	1) CONSULT DISTRIBUTOR. 2) CONSULT DISTRIBUTOR. 3) CONSULT DISTRIBUTOR.
TENSION SHAFT SLIPPED INTO BARREL.	1) DRIVE PIN FAILURE - SHIPPING DAMAGE. 2) BEARING FAILURE - SHIPPING DAMAGE.	1) CONSULT DISTRIBUTOR. 2) CONSULT DISTRIBUTOR.
DOOR LOSES TENSION (SPRUNG DOORS ONLY)	1) PAWL SLIPPING ON INTERNAL TENSION WHEEL BECAUSE PAWL IS BINDING ON ATTACHING RIVET. 2) DOOR DAMAGED CAUSING INCREASED DRAG. 3) HOOPS SLIPPING.	1) LOOSEN PAWL PIVOT POINT. 2) CONSULT DISTRIBUTOR. 3) TIGHTEN HOOPS.
DRIVE SHAFT CROOKED	1) BROKEN WELD OR SHIPPING DAMAGE.	1) CONSULT DISTRIBUTOR FOR DETERMINATION IF FIELD REPAIR IS POSSIBLE.

CURTAIN

PROBLEM	CAUSE	CORRECTION
CURTAIN ROLLS UP UNEVENLY	1) TOP SLAT NOT IN LINE. 2) BARREL NOT LEVEL.	1) LOOSEN TOP SCREWS AND STRAIGHTEN CURTAIN. 2) USE BUBBLE LEVEL TO LEVEL BARREL.
DOOR CURTAIN SEPARATES	1) FREIGHT DAMAGE.	1) CONSULT DISTRIBUTOR.
CURTAIN SEPARATES FROM BARREL	1) MACHINE SCREWS PULLED THRU TOP SLAT. 2) INTERLOCKS NOT INSTALLED ON MOTOR OPERATED DOOR.	1) INSTALL WASHER UNDER HEAD OF SCREWS. 1) INSTALL INTERLOCKS TO PREVENT MOTOR OPERATION WHEN DOOR IS LOCKED.

TROUBLESHOOTING GUIDE

NOTE: FOR MAINTENANCE OR REPAIR OF THIS PRODUCT, PLEASE CONSULT YOUR LOCAL AUTHORIZED DISTRIBUTOR

CURTAIN (CONT)

PROBLEM	CAUSE	CORRECTION
FINISH PROBLEMS	1) DOOR CORRODES DUE TO ENVIRONMENTAL CONDITIONS.	1) CLEAN DOOR PERIODICALLY.
CURTAIN APPEARS TO SAG AT CENTER	2) CENTER OF CURTAIN IS AGAINST BARREL AND EDGE OF CURTAIN IS PULLED TOWARD LINTEL AS IT ENTERS GUIDES. 3) BARREL DEFLECTION OF WIDE DOORS. SHOULD NOT EXCEED .03 INCHES PER FOOT OF OPERATING WIDTH.	2) CURVATURE OF CURTAIN MAKES IT APPEAR TO BE SAGGING WHILE IT IS ACTUALLY LEVEL. CHECK WITH CARPENTER'S LEVEL. 3) CONSULT DISTRIBUTOR. 1) CONSULT DISTRIBUTOR.

BOTTOM BAR

PROBLEM	CAUSE	CORRECTION
SAFETY EDGE NOT WORKING	1) OPEN CIRCUIT IN BOTTOM BAR. CONFIRM THIS BY DISCONNECTING PLUG AT BOTTOM BAR AND INSERTING CONTINUITY CHECKER. IF PRESSING UP ON SAFETY EDGE DOES NOT CLOSE CIRCUIT, PROBLEM IS OPEN CIRCUIT IN BOTTOM BAR. 2) OPEN CIRCUIT IN COIL CORD OR CORD REEL. CONFIRM THIS BY INSERTING VOLTMETER INTO PLUG. READING SHOULD BE 24VAC. 3) DOOR LOCATED IN EXTREMELY WET OR FLOOD ENVIRONMENT.	1) DEFECTIVE SWITCH OR CONNECTION AT SWITCH TO PLUG. CHECK TO MAKE SURE ALL WIRES ARE SECURELY FASTENED. REPLACE SWITCH IF NECESSARY. 2) REPLACE COIL CORD OR CORD REEL. 3) ELIMINATE WATER. REPLACE SAFETY EDGE OR SAFETY EDGE SWITCH.
LOCKS INOPERATIVE	1) CAM OF CYLINDER NOT IN CORRECT POSITION. 2) DAMAGE TO INTERNAL COMPONENTS	1) REPOSITION CYLINDER AND FIRMLY SECURE WITH SMALL SCREW LOCATED BELOW CYLINDER. 2) REMOVE BOTTOM BAR FROM GUIDE. REPLACE LOCK MECHANISM.
ELECTRICAL INTER-LOCKS INOPERATIVE	1) LOCK BOLT DOES NOT LINE UP WITH SWITCH ON GUIDE. 2) INTERLOCK DOES NOT PREVENT MOTOR FROM OPERATING.	1) ADJUST SWITCH LOCATION WHERE IT IS MOUNTED ON GUIDES. 2) DEFECTIVE SWITCH. CHECK ELECTRICAL CONNECTION AND REPLACE IF NECESSARY.

TROUBLESHOOTING GUIDE

NOTE: FOR MAINTENANCE OR REPAIR OF THIS PRODUCT, PLEASE CONSULT YOUR LOCAL AUTHORIZED DISTRIBUTOR

BRACKET

PROBLEM	CAUSE	CORRECTION
BRACKETS NOT PERPENDICULAR TO BARREL	1) WALL ANGLE FLANGE NOT SQUARE.	1) BRACE BRACKET INTO POSITION.
DRIVE CHAIN TENSION	1) SPROCKET POSITION OUT OF ADJUSTMENT.	1) TIGHTEN CHAIN BY SLIDING OPERATOR OR REMOVE LINK FROM CHAIN.
BINDING IN BEVEL GEAR BOX	1) LACK OF LUBRICATION.	1) LUBRICATE GEAR BOX.

GUIDES

PROBLEM	CAUSE	CORRECTION
CURTAIN BINDS IN GUIDE GROOVE	1) INCORRECT GUIDE GROOVE OPENING. 2) INCORRECT TIP-TO-TIP DIMENSION OF GUIDES.	1) REFER TO INSTALLATION INSTRUCTIONS AND ADJUST GUIDE GROOVE OPENING. 2) REFER TO INSTALLATION INSTRUCTIONS FOR TIP-TO-TIP DIMENSION AND ADJUST GUIDE SPACING.

HOODS

PROBLEM	CAUSE	CORRECTION
INCORRECT DIMENSIONS, MATERIAL OE END COVERS	1) ORDERING PROCESSING PROBLEM. OPENING.	1) GET ALL DIMENSIONS OF MATERIAL SUPPLIED AND CONSULT DISTRIBUTOR.

MOTOR OPERATOR

PROBLEM	CAUSE	CORRECTION
EMERGENCY HAND CHAIN OR CRANK FAILS OR IS DIFFICULT TO OPERATE DOOR. (THIS IS NORMAL ON UN-SPRUNG DOORS)	1) DOOR MAY BE JAMMED OR OBSTRUCTED. 2) INCORRECT TENSION IN SPRING. 3) DOOR MAY BE LOCKED. 4) PROBLEM IN GEARBOX HOUSING.	1) REMOVE OBSTRUCTION. 2) MAKE SURE THAT SPRING HAS CORRECT TENSION. 3) CHECK TO SEE IF LOCK IS DISENGAGED. 4) CONSULT DISTRIBUTOR.
EMERGENCY HAND OR CRANK TURNS BUT DOES NOT TURN THE OUTPUT SHAFT OF GEAR BOX	1) KEYS FIXING GEARS TO SHAFTS ARE SHEARED.	1) CHECK KEYS AND KEYWAYS.

TROUBLESHOOTING GUIDE

NOTE: FOR MAINTENANCE OR REPAIR OF THIS PRODUCT, PLEASE CONSULT YOUR LOCAL AUTHORIZED DISTRIBUTOR

MOTOR OPERATOR (CONT)

PROBLEM	CAUSE	CORRECTION
FINISH PROBLEMS	1) DOOR CORRODES DUE TO ENVIRONMENTAL CONDITIONS.	1) CLEAN DOOR PERIODICALLY.
CURTAIN APPEARS TO SAG AT CENTER	2) CENTER OF CURTAIN IS AGAINST BARREL AND EDGE OF CURTAIN IS PULLED TOWARD LINTEL AS IT ENTERS GUIDES. 3) BARREL DEFLECTION OF WIDE DOORS. SHOULD NOT EXCEED .03 INCHES PER FOOT OF OPERATING WIDTH.	2) CURVATURE OF CURTAIN MAKES IT APPEAR TO BE SAGGING WHILE IT IS ACTUALLY LEVEL. CHECK WITH CARPENTER'S LEVEL. 3) CONSULT DISTRIBUTOR. 1) CONSULT DISTRIBUTOR.
MOTOR FAILS TO RUN OR CONTROL CIRCUIT FAILS TO ENERGIZE	1) FUSES BLOWN OR CIRCUIT BREAKER TRIPPED. 2) OPERATORS ARE PROTECTED FROM RUNNING IN OVERLOAD CONDITION BY THERMAL OVERLOAD DEVICES OF THE AUTOMATIC RESET TYPE. 3) IF CONTACTS FOR MOTOR CONTROLLER ENERGIZE BUT MOTOR STILL FAILS TO OPERATE. 4) PUSHBUTTONS ENERGIZE ON ONLY ONE SIDE OF THE CONTROL CONTACTS.	1) CHECK FUSE OR CIRCUIT BREAKER BOX. 2) CONSULT DISTRIBUTOR. 3) CONSULT DISTRIBUTOR. 4) CHECK ALL ELECTRICAL CONNECTIONS FOR BROKEN OR LOOSE WIRES, ETC. CHECK ELECTRICAL CONNECTIONS FOR ANY OPTIONAL EQUIPMENT: CARD KEY, CYLINDER KEY SWITCH, PHOTO CELL, REVERSING BOTTOM BAR OR SPECIAL INTERLOCKS.
MOVEMENT OF THE DOOR IS IN AGREEMENT WITH PUSHBUTTON STATION, BUT THE LIMIT SWITCH DOES NOT STOP DOOR	1) ELECTRICAL CONNECTIONS ARE SWITCHED.	1) CHECK ELECTRICAL CONNECTIONS AND JUMPER WIRE LEAD BETWEEN THE MICRO SWITCHES. CONSULT DISTRIBUTOR.
LIMIT SWITCH DOES NOT HOLD ITS SETTING.	1) SPROCKET SHAFT END PLAY TOO LARGE. 2) DRIVE CHAIN LOOSE. 3) LIMIT SWITCH DETENT PLATE LOOSE.	1) END PLAY SHOULD NOT EXCEED 1/32". 2) CHECK DRIVE CHAIN. 3) THE PLATE MUST ENGAGE BOTH TRAVELING CAMS.
ELECTRICAL CONTROL CIRCUIT ENERGIZES BUT THE MOTOR DOES NOT RUN OR MOTOR OVERLOADS TRIP.	1) INCORRECT WIRING.	1) CONSULT DISTRIBUTOR.

TROUBLESHOOTING GUIDE

NOTE: FOR MAINTENANCE OR REPAIR OF THIS PRODUCT, PLEASE CONSULT YOUR LOCAL AUTHORIZED DISTRIBUTOR

MOTOR OPERATOR (CONT)

PROBLEM	CAUSE	CORRECTION
LOW VOLTAGE TO MOTOR.	1) INCORRECT ELECTRICAL POWER TO MOTOR.	1) CHECK VOLTAGE AGAINST THE CORRECT VOLTAGE STAMPED ON THE MOTOR. IF THE VOLTAGE IS 10% BELOW THE RATING, THERE IS NOT SUFFICIENT VOLTAGE TO RUN THE MOTOR.
MOTOR IS BURNED OUT.	1) INCORRECT WIRING.	1) CONSULT DISTRIBUTOR.