READ INSTRUCTIONS BELOW CAREFULLY BEFORE ATTEMPTING TO INSTALL, OPERATE OR SERVICE SHUTTER MOTOR. RETAIN INSTRUCTIONS FOR FUTURE REFERENCE.

The single panel exhaust shutter motor pack, model MTR-556 SP is designed to be used with shutter models 556-SP, EAS-SP, EASR-SP and FGS-SP. Field installation is required to convert gravity exhaust shutter to motorized operation. This motor pack features power open spring close, which provides closure in the event of electrical failure. This motor pack is equipped with motor, motor bracket, linkage and mounting hardware.

Installation instructions:

- 1 Fasten motor plate loosely to shutter frame. Mounting hole(s) located on frame bottom (except for FGS-SP which is located at frame top – see separate installation instruction sheet). For model EAS-SP and EASR-SP, use "B" hole only. Refer to figure 2.
- 2 With shutter blades closed and motor arm in closed position, loosen adjustable extension arm connected to motor crankarm.
- 3 Connect adjustable extension arm to the shutter tie rod and tighten securely. (Note, the extension arm must be on the right side of the tie rod.)
- 4 Tighten adjustable extension arm that was loosened in step (2) above.
- 5 Slide the motor bracket plate right or left to align linkage and motor crankarm along side of tie rod. Tighten motor bracket plate securely to frame.
- 6 Determine power supply voltage and wire motor per appropriate wiring diagram included on instruction sheet.

For the following shutter sizes – 11", 15", 19", 23", 27" and 31" – discard the adjustable extension arm and use the slotted linkage arm only.

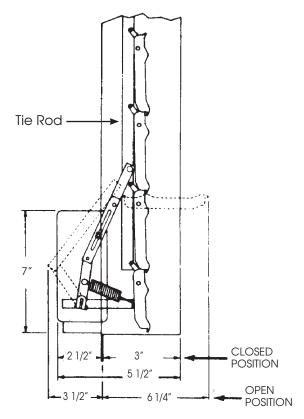


Figure 1 - Maximum Operating Dimensions

SPECIFICATIONS

Motor Pack	Power Supply	Running	Stall	Lead	Installed Unit Dimension		
Part Number	Required	AMPS	Torque	Length	Η	W	D
MTR-556 SP	120/240V,60 Hz	0.11/0.07	77 in.lbs	6″	7″	5″	3 1/2"
MTR-556 SP 24V	24V,60HZ	1.02	42 in.lbs	6″	7″	5″	3 1/2"
MTR-556 SP 208V	208V,60Hz	0.10	42 in.lbs	6″	7″	5″	3 1/2"
MTR-556 SP 277V	277V,60Hz	0.12	50 in.lbs.	6″	7″	5″	3 1/2"
MTR-556 SP 460V	460V, 60 Hz	0.11	48 in.lbs	6″	7″	5″	3 1/2"

Note: 50 Hz versions of above motor packs available but not UL rated).

^(*) Motor is single-phase, continuous duty with a 40°C, (104°F) maximum ambient temperature.

GENERAL SAFETY INFORMATION

- Follow all local electrical and safety codes, as well as the National Electrical Code (NEC) and the Occupational Safety and Health Act (OSHA).
- Motor must be securely and adequately grounded.
 This can be accomplished by wiring with a grounded, metal-clad raceway system, by using a separate ground wire connected to the green wire in the motor junction box.
- Always disconnect power source before working on or near a motor or its connected load. If the power disconnect point is out-of-sight, lock it in the open position and tag to prevent unexpected application of power.
- 4. Protect the power cable from coming in contact with sharp objects.
- 5. Do not kink power cable and never allow the cable to come in contact with oil, grease, hot surfaces, or chemicals.
- 6. Make certain that the power source conforms to the requirements of your equipment.

REPLACEMENT PARTS LIST

Ref. No.	Description	Part No.	Qty.
1	60Hz Motor 120/240V (TB2001)	UL14V-3050	1 ea.
2	Motor Crankarm	Linkage	1 ea.
3	Motor Bracket,		
	Nut & Bolts	3239	1 ea.
4	Motor Arm Stop	50010	1 ea.
5	Return Spring	FRP556-104	1 ea.
6	Motor Arm Rubber Stop	26067	1 ea.
7	Spring Bracket	50011	1 ea.

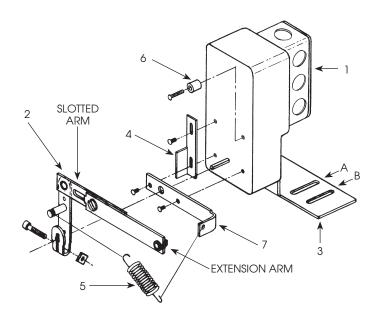


Figure 2- Attaching Motor Plate

TB2001 MOTOR WIRING DIAGRAM L1 GRD.120V POWER SUPPLY LINES GRD. L2 BLACK WHITE L1 BROWN BLACK WHITE L2 WHITE L1 BLACK WHITE L2 WHITE BLACK WHITE L2 WHITE L2 WHITE L2 WHITE L2 WHITE

Figure 3 - Wiring Diagram - 120V and 240V, 60 Hz

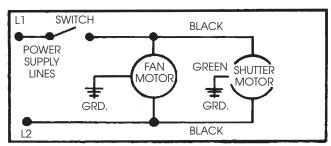


Figure 4 – Wiring Diagram – 24V; 480V, 60 Hz; 277V, 60 Hz; 208V, 60 Hz