

**BACKDRAFT DAMPER AND
 CEILING SHUTTER MOTOR**

MODELS 411, 610-A, 611

**READ CAREFULLY BEFORE ATTEMPTING TO INSTALL, OPERATE OR SERVICE YOUR MOTOR PACK!
 RETAIN INSTRUCTIONS FOR FUTURE REFERENCE!**

DESCRIPTION

Your Backdraft Damper or Ceiling Shutter Motor Pack is designed to automatically open the shutter when the fan is turned on and closes securely when the fan is turned off. This single phase motor pack is equipped with actuator, motor bracket, linkage, and mounting hardware (fasteners).

INSTALLATION

Model 610-A, see figures 1, 3 & 4 for reference.
 Model 411, 611, see figures 2, 3 & 4 for reference.

1. Using bolt, nut and lock washer provided, fasten motor plate to shutter frame and tighten.
2. Attach motor arm linkage to second hole as show. (Shutter must be in closed position when mounting motor).
3. Make proper wiring connections.

NOTE: UNIT IS NOT FIELD SERVICABLE AND SHOULD BE REPLACED AS AN ASSEMBLY.

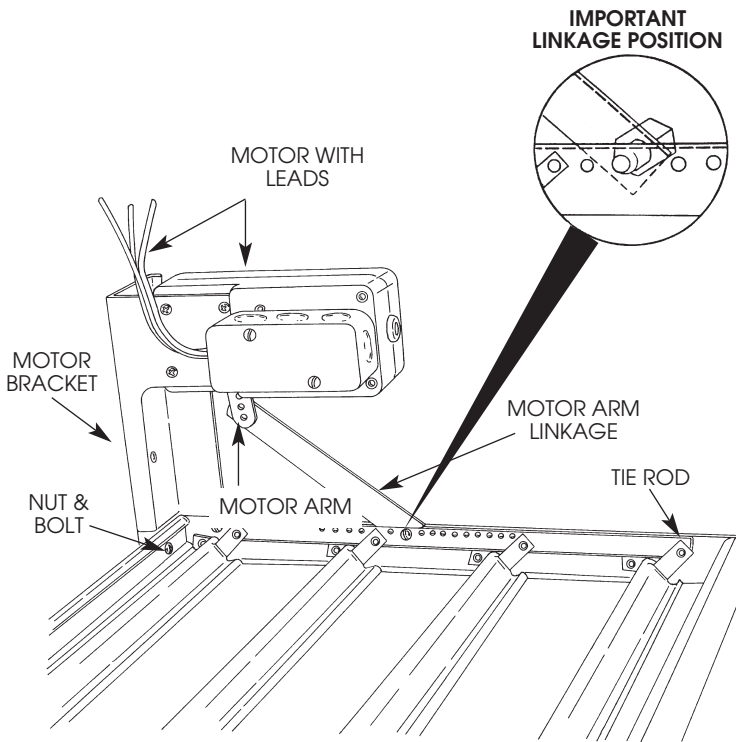


Figure 1 - Installation (610-A)

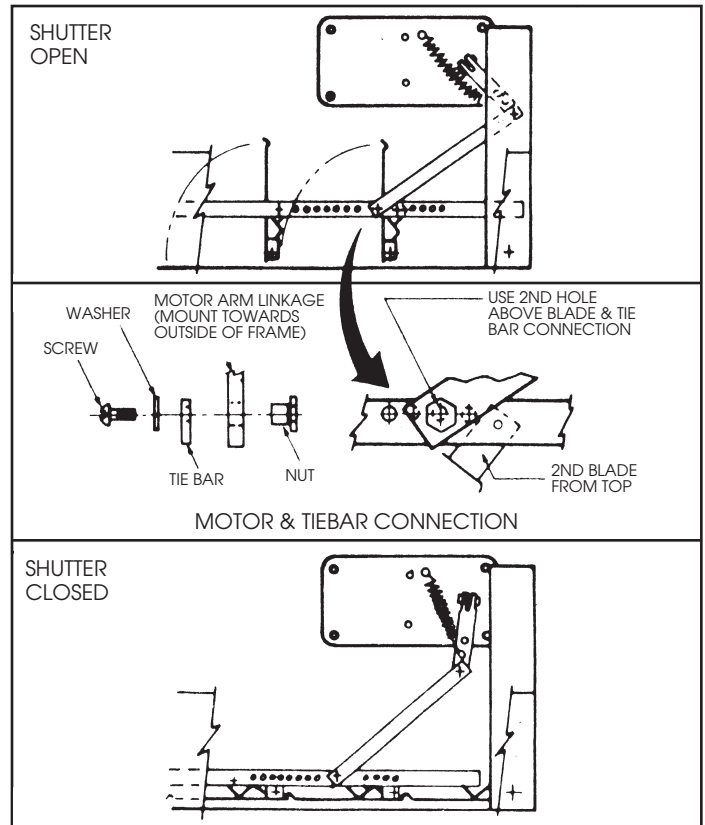


Figure 2 - Installation (611)

SPECIFICATIONS:

Motor Pack Part Number	Power Supply Required	Running AMPS	Stall Torque	Lead Length	Installed Unit Dimension		
					H	W	D
MTR-611, 610	115/230V, 60 Hz	.20/.14	41 in.lbs/47 in.lbs.	6"	8 1/2"	4 1/2"	7.375"
MTR-611 24V	24V, 60HZ	1.02	42 in.lbs	6"	8 1/2"	4 1/2"	7.375"
MTR-611 208V	208V, 60Hz	0.10	42 in.lbs	6"	8 1/2"	4 1/2"	7.375"
MTR-611 277V	277V, 60Hz	0.12	50 in.lbs.	6"	8 1/2"	4 1/2"	7.375"
MTR-611 460V	460V, 60 Hz	0.11	48 in.lbs	6"	8 1/2"	4 1/2"	7.375"
MTR-611-E	115/230V, 60 Hz	.20/.14	41 in.lbs/47 in.lbs.	6"	8 1/2"	4 1/2"	7.375"

Note: (MTR-611-E includes end switch; 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.

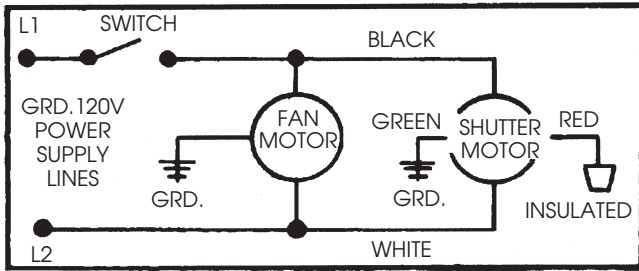


Figure 3 – Wiring Diagram – 120V, 60 Hz

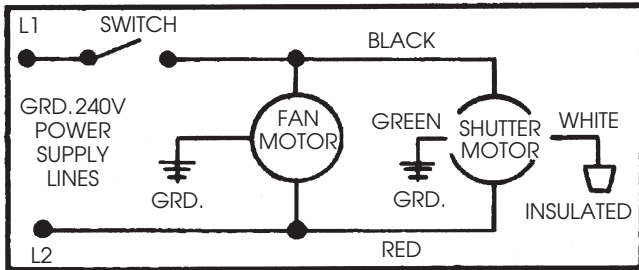


Figure 4 – Wiring Diagram – 240V, 60 Hz

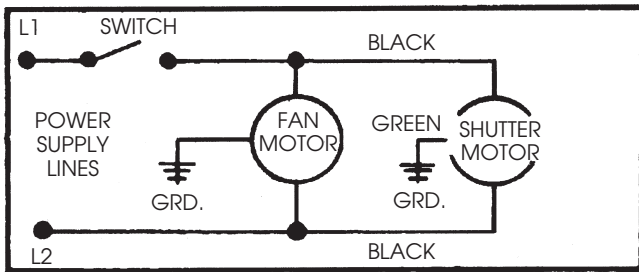


Figure 5 – Wiring Diagram – 24V; 480V, 60 Hz; 277V, 60 Hz; 208V, 60 Hz

GENERAL SAFETY INFORMATION

1. Follow all local electrical and safety codes, as well as the National Electrical Code (NEC) and the Occupational Safety and Health Act (OSHA).
2. 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 bare metal of the motor frame, or other suitable means.
3. 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.

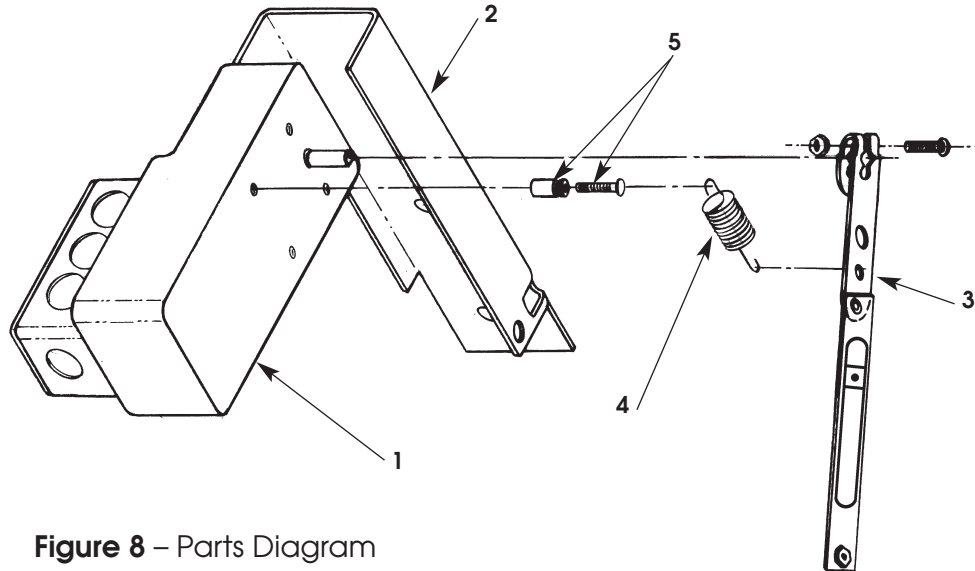


Figure 8 – Parts Diagram

LIMITED WARRANTY

All products manufactured are warranted by Air Conditioning Products Company (ACP) to be free from original defects in workmanship for a period of one year from date of shipment, under conditions of normal use and service. ACP will replace or repair any defective parts upon return to our plant, freight prepaid. This limited warranty will, in no way, include the payment of labor charges for field replacement of defective parts, installation, repairs of adjustments, or any other work done. Back charges will not be accepted for any reason unless ACP has given prior written permission, nor will ACP be responsible for consequential damages of any character, no limited warranty expressed or implied will supersede the foregoing.

Manufactured for Air Conditioning Products Co.
30350 Ecorse Raod • Romulus, MI 48174

PARTS LIST

Ref. No.	Description	Part No.	Qty.
1	Motor	Varies	1 ea.
2	Motor Bracket	50003	1 ea.
3	Motor Crankarm	50015-A	1 ea.
4	Return Spring	FPR 556-104	1 ea.
5	Spring Post With Screw	611-116	1 ea.