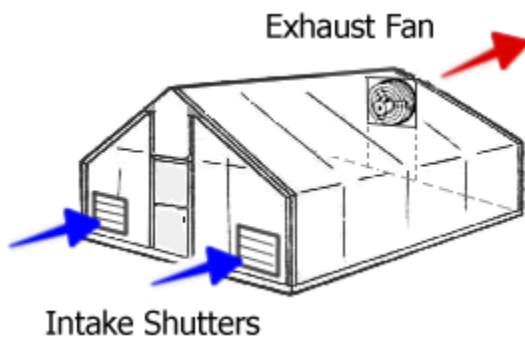
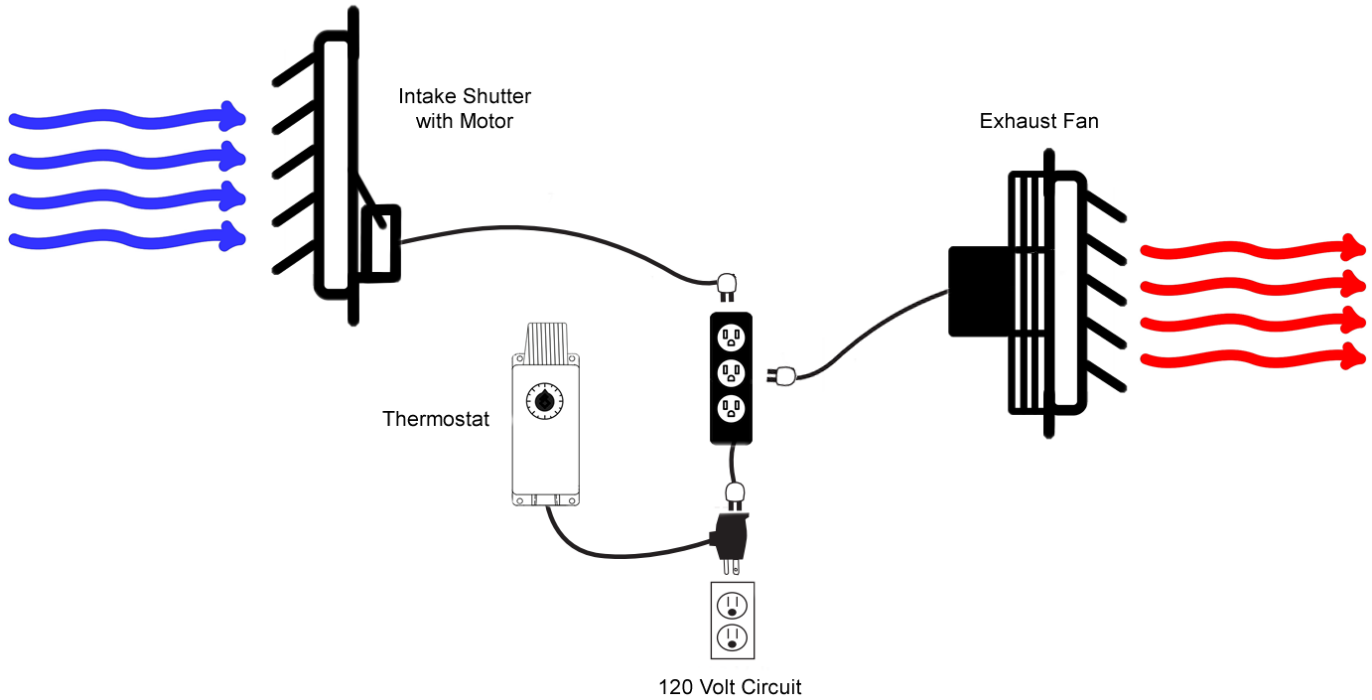




Premium Plug-in Fan System Installation Guide



The picture to the left shows optimal fan and shutter placement in a greenhouse. The exhaust fan should be mounted near the peak so that it is exhausting the hottest air in the greenhouse. The intake shutters should be mounted on the opposite end of the greenhouse so that the cooler fresh air travels across the entire structure minimizing hot spots.

Fan & Shutter Installation

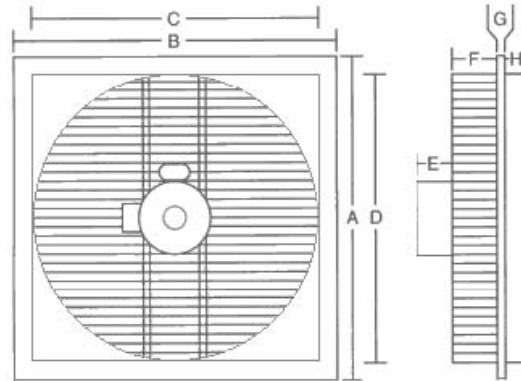
1. Select a location on the greenhouse to insert the fan and shutters (optimal placement is shown in above picture).
2. Draw an outline of the area to be cut in the plastic panels. Dimensions for fans and shutters are included with these instructions.



3. Use a drill or a razor to create an opening large enough to insert a fine saw blade inside the outlined area of the wall panel.
4. Cut out the remainder of the outlined area with the saw, and repeat for each shutter and/or fan.
5. Fasten the fan and shutter to the greenhouse frame. DO NOT mount the fan to the covering because it will not support the fan's weight. You can make mounting brackets if needed out of 1/8" thick 1" x 1" aluminum angle available at most hardware stores. Drill four holes in the brackets for mounting (2 center holes for fan or shutter and the 2 exterior holes for mounting to your frame).
6. Insert the fan and shutters into the openings cut in the plastic panel and attach the mounting brackets to the greenhouse (shutter motors should be mounted to the shutter before this step). All equipment should be mounted so that the louvers open to the outside of the greenhouse.
7. Seal around where the fan and shutters exit your structure with silicone or caulking designed for the material that the fan equipment is mounted through.



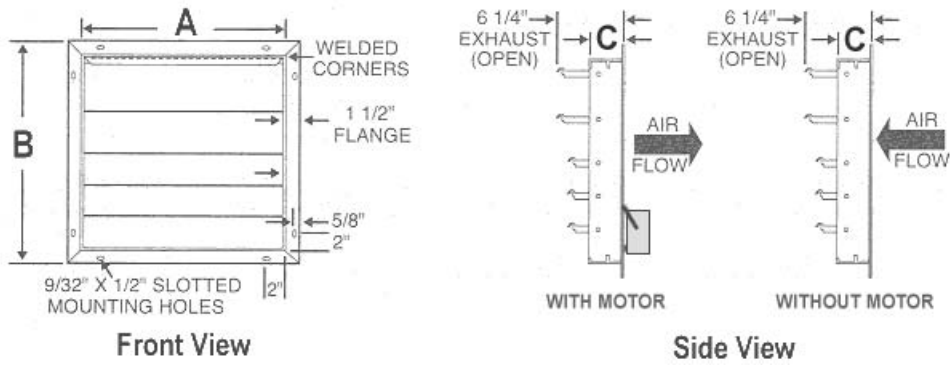
Exhaust Fan Dimensions



3 Speed Fan Dimensions

Fan Size	A	B	C	D	E	F	G	H	Opening Size
12"	15"	15"	12 1/8"	12 1/8"	1 1/2"	5 1/2"	1/8"	2"	12 1/4" sq.
16"	19"	19"	16 1/8"	16 1/8"	2"	5 1/4"	1/8"	2"	16 1/4" sq.
20"	23"	23"	20 1/8"	20 1/8"	2"	5 1/4"	1/8"	2"	20 1/4" sq.
24"	27"	27"	24 1/8"	24 1/8"	2 1/8"	5 3/4"	1/8"	2"	24 1/4" sq.

Intake Shutter Dimensions

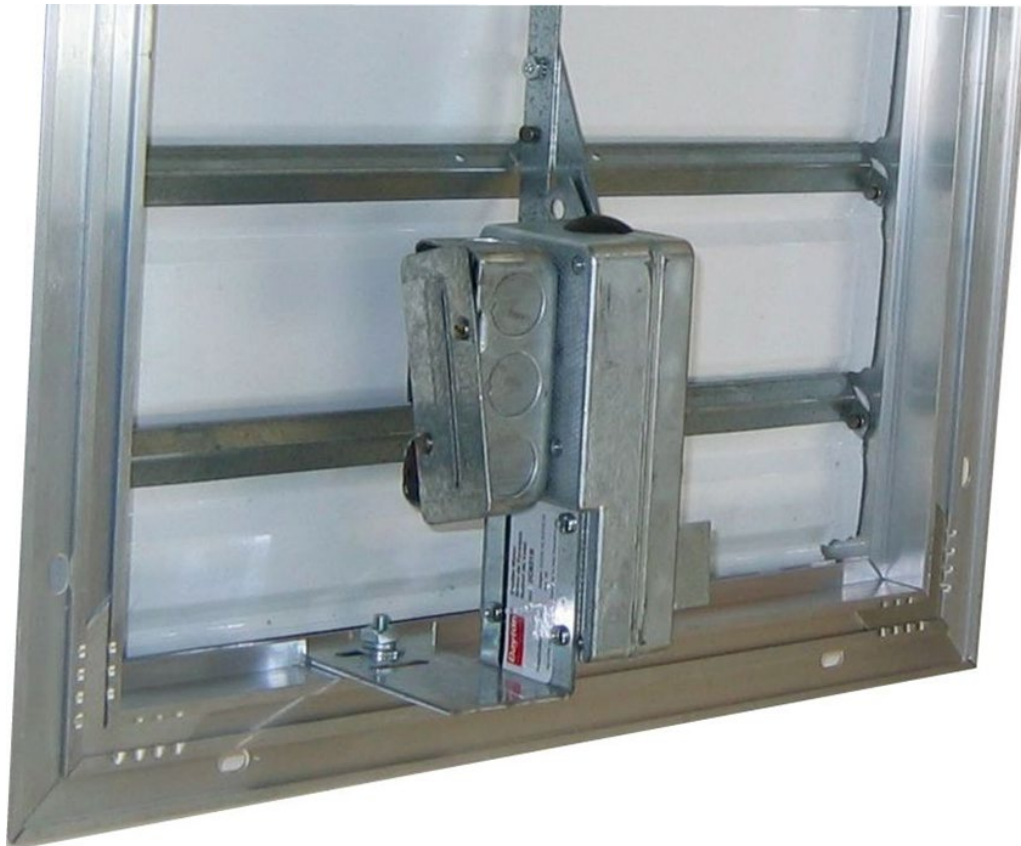


Intake Shutter Dimensions

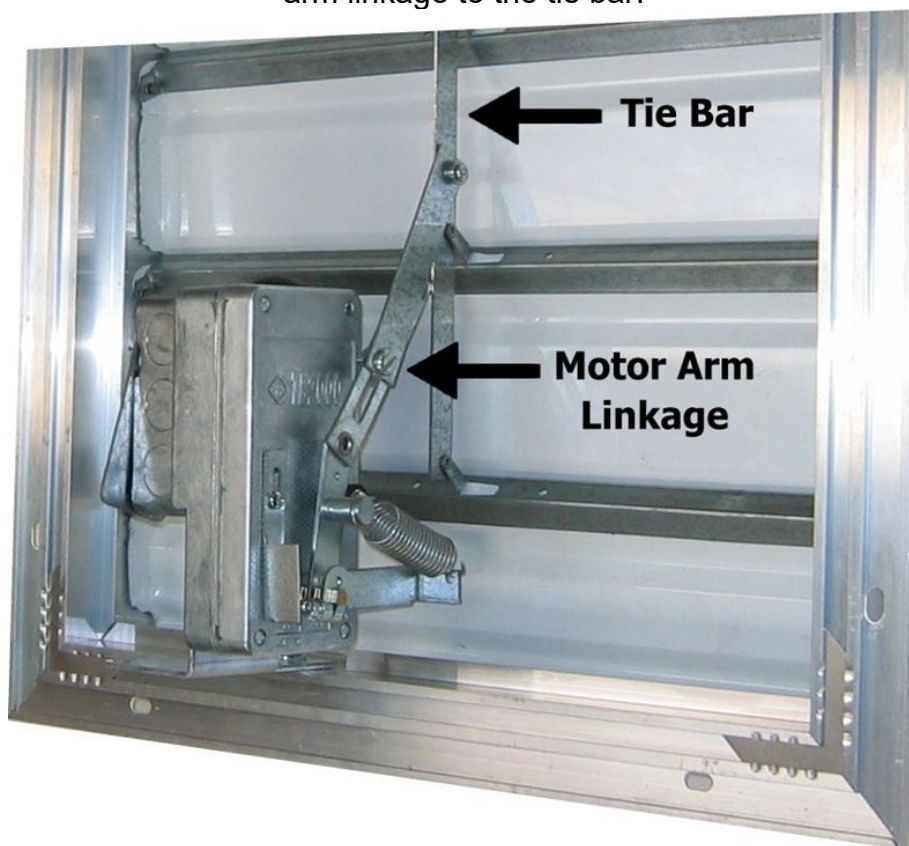
Shutter Size	A	B	C	Opening Size
12"	12 1/16"	15 1/8"	2 5/16"	12 1/4" sq.
16"	16 1/16"	19 1/8"	2 5/16"	16 1/4" sq.
20"	20 1/16"	23 1/8"	2 5/16"	20 1/4" sq.
24"	24 1/16"	27 1/8"	2 5/16"	24 1/4" sq.
30"	30 1/16"	33 1/8"	2 5/16"	30 1/4" sq.

Mounting Motor to Shutter

1. Motors are fastened to the aluminum shutters with a single nut and bolt. Use the front slot on the motor bracket to mount it to the shutter.

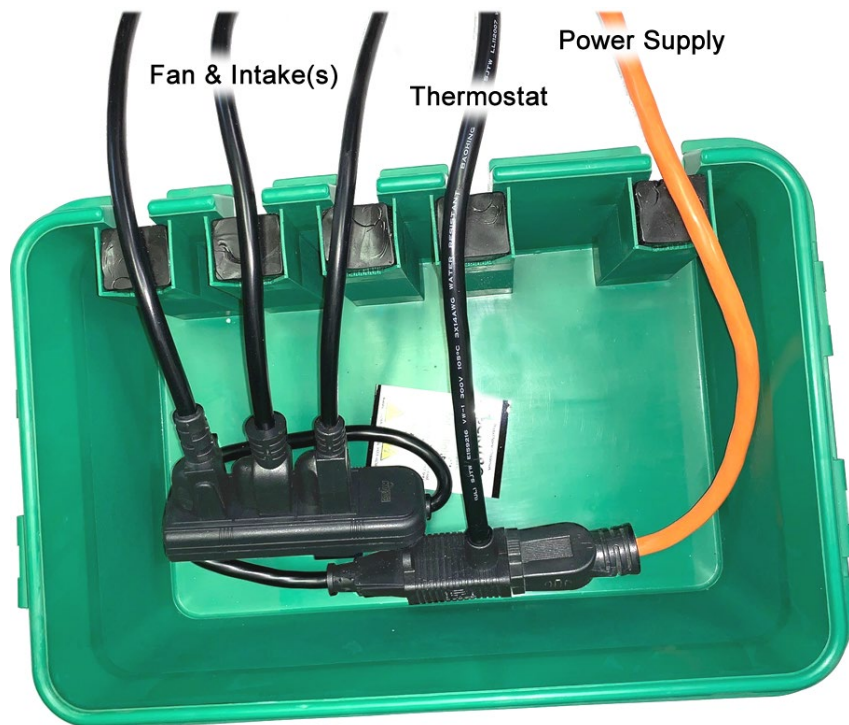


2. Make sure the motor is off and the shutter louvers are completely closed when attaching the arm linkage to the tie bar.



Plugging Everything In

Make sure all of the cord connections are sealed inside the included boxes for safety.



Waterproof Electrical Box Layout



Use when connecting an extension cord to the shutter motor