READ & SAVE THESE INSTRUCTIONS

WARNING

• TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS, OBSERVE THE FOLLOWING:
  • This product contains chemicals which are known to the state of California to cause birth defects or other reproductive harm.
  • This exhaust fan is not for use in explosive or combustible atmospheres.
  • Read and follow all instructions before operating fan.
  • Do not use fan if any part is damaged or missing.
  • Do not alter the fan’s assembly.
  • All electrical connections should be made by a qualified electrician. Installation work and electrical wiring must be done by qualified person(s) following all local electrical and safety codes in the United States and Canada, as well as the National electrical Code (NEC) and the Occupational Safety and Health Act (OSHA) in the United States, and the Canadian Electric Code (CEC) in Canada.
  • Use OSHA approved lock-out tag-out devices on power supply to prevent shock and/or electrocution.
  • When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.
  • To reduce the risk of fire or electrical shock, do not expose to water or rain.
  • To reduce the risk of fire or electrical shock, do not use this fan with any solid state speed control device.
  • To reduce the risk of fire or electrical shock, do not use an extension cord, unit is intended to be permanently hard wired to properly rated electrical service outlet (120V 60Hz).
  • To reduce the risk of injury to persons, install fan at least 7 feet (2.1m) above the floor (8 feet in Canada).
  • The fan frame and motor must be electrically grounded to a suitable electrical ground, such as a grounded water pipe or ground wire system.
  • This has a single speed motor which is equipped with a thermo – protector and will automatically de-energize the fan if it overheats for any reason.

RULES FOR SAFE OPERATION:
1. Never insert fingers or any other objects through the grill guard when fan is in operation.
3. Disconnect the fan from its power source when removing guards for cleaning.
4. Do not use the fan in windows. Rain and moisture may create electrical hazard.
5. Do not place the fan near an open flame, cooking or heating appliance, or hot surface.
6. This fan is for indoor dry applications.
7. This fan should not be operated outside.
8. For proper exhaust operation, a window, door, or louver should be opened on the opposite side of the area to be ventilated.
9. Periodically clean the propeller, guard, motor, and louver of any accumulated dirt.
SHUTTER INSTALLATION INSTRUCTIONS

1. The unit has to be securely mounted in a rigid framework. See chart below for the recommended wall hole sizes.

Mounting hardware is not included.

Use appropriate hardware for wall condition.

<table>
<thead>
<tr>
<th>Model</th>
<th>Size</th>
<th>Recommended rough in hole size</th>
</tr>
</thead>
<tbody>
<tr>
<td>248448A</td>
<td>10&quot;</td>
<td>10.5&quot; square hole</td>
</tr>
<tr>
<td>294495A</td>
<td>12&quot;</td>
<td>12.5&quot; square hole</td>
</tr>
<tr>
<td>294496A</td>
<td>18&quot;</td>
<td>19&quot; square hole</td>
</tr>
<tr>
<td>294497A</td>
<td>24&quot;</td>
<td>25&quot; square hole</td>
</tr>
</tbody>
</table>

2. Be sure when mounted that the louver blades will open upward.
3. Use appropriate screws for framework and wall conditions.

To mount louver assembly, use the eight pre-punched 1/4" x 1/2" slotted mounting holes of the louver assembly to attach the unit to the framework.

4. Seal the joint between the wall and the louver with silicon or any other sealer.

5. Insert the square plastic plugs into the square holes on corner gussets located on the back side of the shutter.

6. Remove screws, washers and nuts from the protective screen of the fan.
**Variable Speed Exhaust Fan**

### Assembly Instructions

7. Use bolts H1 and washers H2 and vibration pad H3 to assemble motor/fan-guard to inner fan guard to louver-assembly.

---

**FAN INSTALLATION INSTRUCTIONS**

8. Connect power to the motor, using the appropriate wiring method. Place all connections inside junction box.

![Wiring Diagram]

- **Black**
- **White**
- **Yellow/Green**
- **Blue**

---

**WARNING**

This product contains chemicals which are known to the state of California to cause birth defects or other reproductive harm.

---

<table>
<thead>
<tr>
<th>Model</th>
<th>Rating (120V 60Hz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>246617</td>
<td>45W, 0.38A</td>
</tr>
<tr>
<td>246618</td>
<td>65W, 0.55A</td>
</tr>
<tr>
<td>246619</td>
<td>160W, 1.25A</td>
</tr>
<tr>
<td>246620</td>
<td>245W, 2.2A</td>
</tr>
</tbody>
</table>