

READ AND SAVE THESE INSTRUCTIONS



Marley
Engineered Products

MODEL GV 16 GABLE MOUNTED VENTILATOR

READ INSTRUCTIONS CAREFULLY BEFORE ATTEMPTING TO INSTALL, OPERATE OR SERVICE THE PATTON ATTIC VENTILATOR. FAILURE TO COMPLY WITH INSTRUCTIONS COULD RESULT IN PERSONAL INJURY AND/OR PROPERTY DAMAGE!
RETAIN INSTRUCTIONS FOR FUTURE REFERENCE.

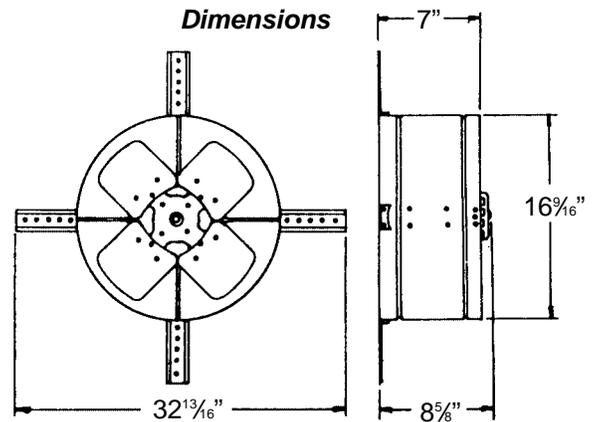


Figure 2 — Dimensions

Description

The Marley Engineered Products gable mounted attic ventilator is fully automatic and designed for general ventilating use only in the attic spaces of houses, apartments and other small buildings. Unit can be installed behind existing attic louvers to exhaust hot air or pull in cool air. An accessory dehumidistat can be used with this unit to automatically activate in the winter to help eliminate excessive moisture.

The ventilator comes complete with mounting brackets, 18" armored flexible cable, prewired automatic thermostat mounted in junction box, thermally protected motor, and heavy gauge plated steel housing.

Unpacking

Unpack carefully. Inspect for loose, missing or damaged parts. In the event of missing components or hidden damage, immediately contact your distributor or the delivering carrier concerning discrepancies. The motor/fan assembly has been carefully factory-balanced. Care should be taken when handling to avoid damage resulting in unnecessary vibration and noise.

IMPORTANT SAFETY INSTRUCTIONS

WARNING:

TO REDUCE RISK OF FIRE, ELECTRICAL SHOCK OR INJURY TO PERSONS, OBSERVE THE FOLLOWING:

1. Do not use this fan with any Solid-State Speed Control Device.
2. Use this unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer.
3. Before servicing or cleaning unit, switch power off at service panel and lock service panel to prevent power from being switched on accidentally.
4. Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction.
5. Sufficient air is needed for proper combustion and exhausting of gases through the flue (chimney) of fuel burning equipment to prevent back drafting. Follow the heating equipment manufacturer's guideline and safety standards such as those published by the National Fire Protection Association (NFPA), and the American Society for Heating and Air Conditioning Engineers (ASHRAE), and the local code authorities.

Specifications

CFM	VOLTS	WATTS	MOTOR			BLADE DIA.	SHUTTER	MAX ATTIC AREA	MIN. INTAKE REQUIRED
			AMPS	HP	RPM				
*1520	120	255	2.6	1/5	1100	16"	STD. WOOD LOUVER	2170 Sq. Ft.	5.1 Sq. Ft.
1860	120	250	2.6	1/5	1115	16"	METAL LOUVER	2656 Sq. Ft.	6.2 Sq. Ft.

* H.V.I. Certified at 0.03" Static Pressure

6. "When cutting or drilling into wall or ceiling, Do Not damage electrical wiring or other hidden utilities.
7. CAUTION: This unit has an unguarded impeller. Do not use in locations readily accessible to people or animals.
8. CAUTION: For general ventilation use only! Do not use to exhaust hazardous or explosive materials and vapors.

INSTALLATION

NOTE: For maximum operating efficiency, proper intake air opening must be provided to allow replacement of exhaust air. One square foot of free open air inlet per 300 CFM of fan capacity is recommended. The best location for air intake is at the opposite end of the attic. See: **MINIMUM ATTIC INTAKE AREA REQUIRED** section.

1. This gable ventilator is designed to mount behind existing louvers in an attic. If a louver is not present and one must be installed, it should be mounted in the center of the uppermost portion of the gable. The area of the louver should be greater than outlet area of ventilator. (See Figures 4 and 5.)
2. There are four sets of holes spaced 90° apart in housing, providing a choice of four depth positions. Reversing brackets produces eight positions. Select proper mounting holes to align bracket and mounting structure on louvers. (See Fig. 3.)

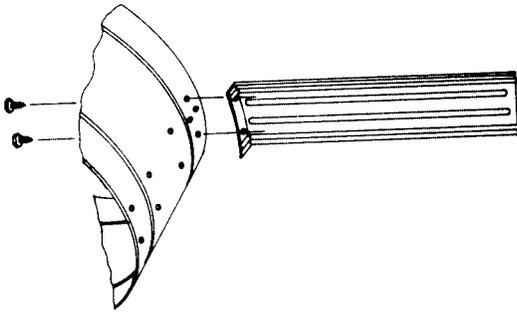


Figure 3 — Mounting Housing to Brackets

3. Ventilator may be mounted directly against a gable louver as shown in Figure 4. If louver is sufficiently strong, mounting brackets may be nailed or screwed onto it.

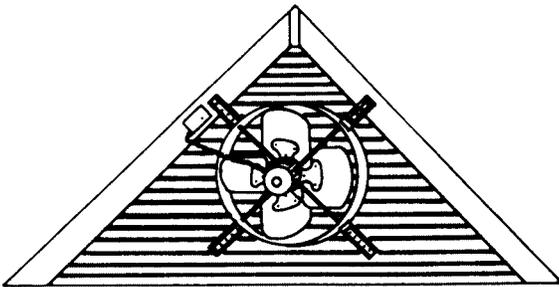


Figure 4 — Mounting to Gable Louvers

4. If mounting the vent directly to gable louver is undesirable, a pair of furring strips may be suspended vertically at a minimum of 16 3/4" apart.
5. Ventilator may also be mounted on rectangular louvers as shown in Figure 5.
6. For better performance, cover any open louvered area around vent with plywood or other suitable material. This will improve efficiency of air exchange between attic and outside air. It will also prevent thermostat from being directly affected by outside air.

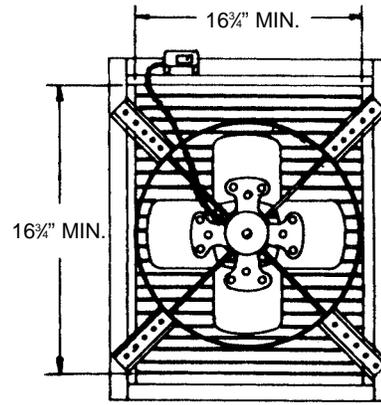


Figure 5 — Mounting to Rectangular Louvers

MINIMUM ATTIC INTAKE AIR REQUIRED

Sufficient intake area must be provided in the attic to ensure that fan will not be overloaded and that it will deliver its rated CFM. This can be accomplished with some type of attic venting such as gable louvers or undereave vents. The table below shows minimum intake area needed for each fan installed.

MINIMUM ATTIC INTAKE OPENING REQUIRED

UNRESTRICTED	WOOD LOUVER	METAL LOUVER
5.1 Sq. Ft.	6.4 Sq. Ft.	5.9 Sq. Ft.

Note: If openings are covered with 1/2" hardware cloth or large mesh expanded metal, increase area by 20%. Double area if fly screen is used.

WIRING

WARNING: TO REDUCE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT USE THIS FAN WITH ANY SOLID STATE SPEED CONTROL DEVICE.

Note: This fan is designed to run on 120V, 60 HZ power only.

1. Thermostat box can be screwed or nailed to a rafter by mounting bracket provided. If nailed, remove thermostat from box before nailing to avoid damage. Connection to existing circuit must conform to local electrical code regulations.
2. Wiring of this unit is done inside attic. Remove cover from thermostat/junction box. Bring power cable at least 6 inches into the box. Fasten power cable to box with appropriate connector.
3. For standard installation, connect the two leads in thermostat/junction box to the two supply leads. Attach ground wire from the supply to the green ground screw in the box. (See Fig. 6.)

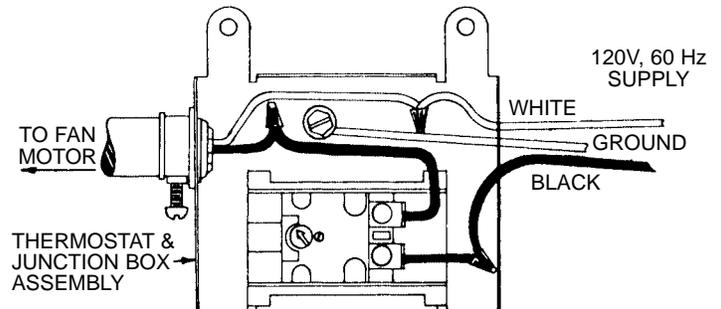


Figure 6 — Wiring Diagram

4. See Fig. 7 for wiring dehumidistat to ventilator.

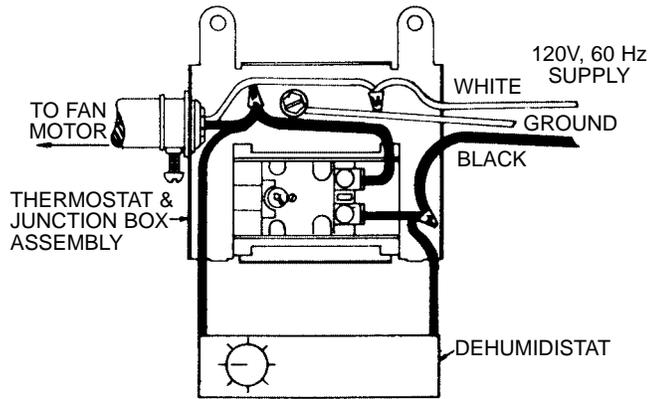


Figure 7 — Wiring Diagram for Dehumidistat

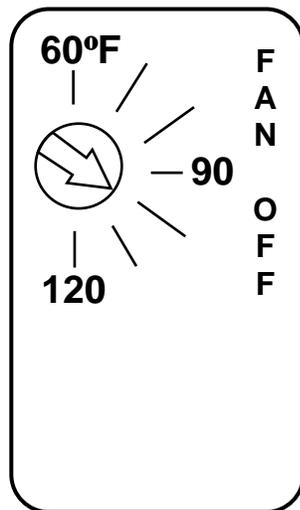
5. Replace cover to thermostat/junction box.

OPERATION

Set automatic thermostat to meet your requirements. The thermostat has an adjustable range from 60° to 120° and operates on a 15° differential. For example, factory setting is 100°. At this setting, as soon as temperature reaches 115°, thermostat will close and start ventilator. When temperature has been reduced to 100°, thermostat will open and ventilator will stop. Dial pointer may be set at temperature that is best for local conditions.

NOTE: Remember the 15° differential. If dial point is set on 120°, ventilator will start at 135° and operate until temperature has been reduced to 120°, a difference of 15°. (See Figure 8.)

Figure 8 — Thermostat



MAINTENANCE

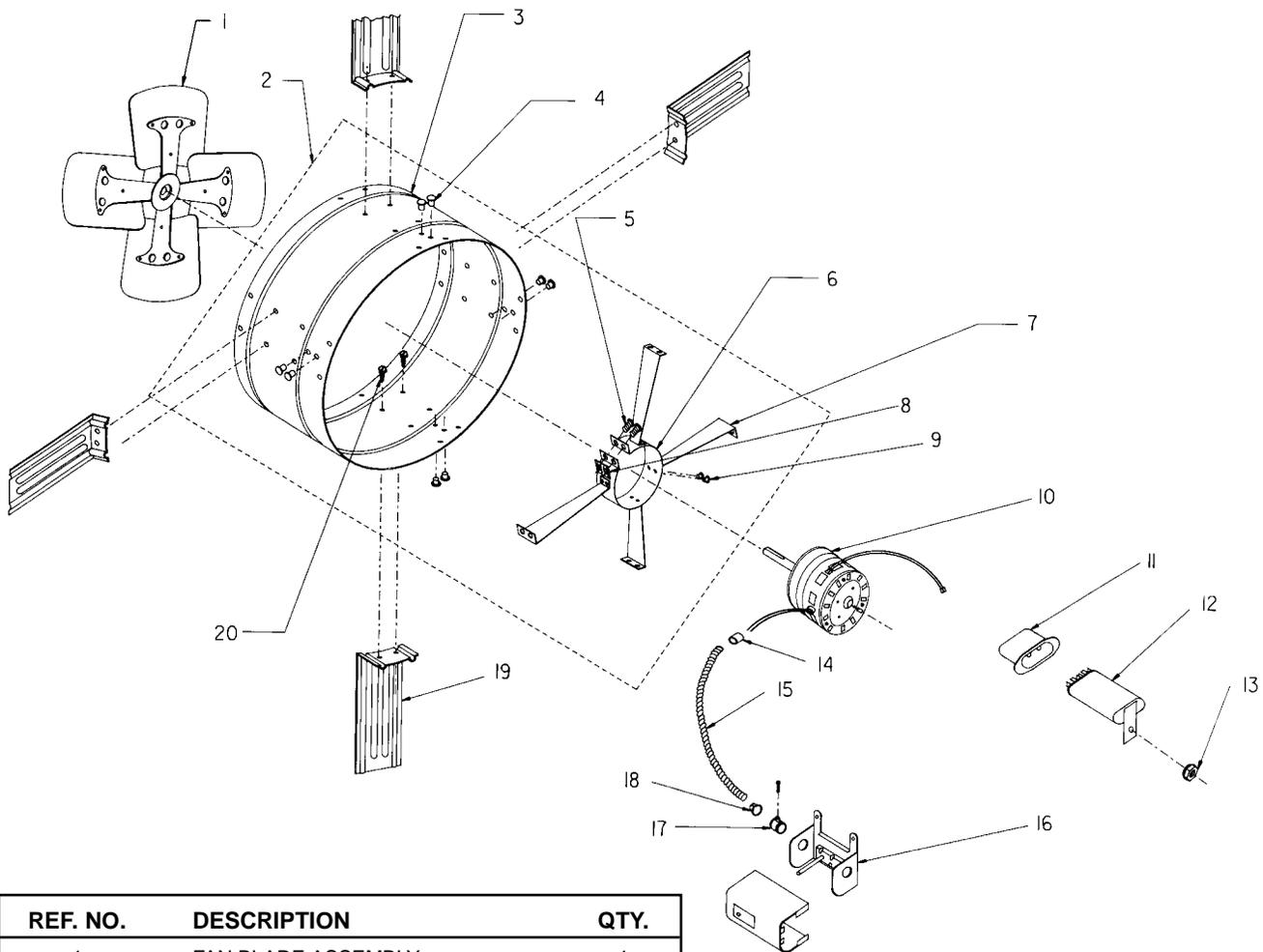
WARNING: MOTORS ARE THERMALLY PROTECTED AND AUTOMATICALLY TEMPERATURE CONTROLLED AND MAY START WITHOUT WARNING. THEREFORE, MAKE CERTAIN THAT POWER SOURCE IS DISCONNECTED BEFORE ANY ATTEMPT TO SERVICE OR DISASSEMBLE ANY COMPONENTS! IF POWER DISCONNECT IS OUT-OF-SIGHT, LOCK IT IN THE OPEN POSITION AND TAG TO PREVENT APPLICATION OF POWER.

Lubricate motor every 6 months using SAE 20 non-detergent oil. Insert 2-3 drops of oil in the oiling hole on the back plate of the motor.

TROUBLESHOOTING CHART
WARNING: ITEMS MARKED WITH AN ASTERISK (*) SHOULD BE PERFORMED ONLY BY EXPERIENCED AND QUALIFIED PERSONNEL.

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
Excessive noise.	<ol style="list-style-type: none"> 1. Propeller blade contacting housing. 2. Foreign material inside housing. 3. Motor loose. 4. Motor needs oiling. 5. Dirt accumulation on propeller, causing imbalance. 	<ol style="list-style-type: none"> 1. Realign or replace. 2. Clean. 3. Secure properly. 4. See Maintenance section. 5. Clean.
Insufficient air flow.	<ol style="list-style-type: none"> 1. Not enough eave vents to provide make-up air. 2. Clogged screen. 	<ol style="list-style-type: none"> 1. See installation section. 2. Clean or replace.
Unit fails to operate.	<ol style="list-style-type: none"> 1. Blown fuse or open circuit breaker. 2. Defective motor. 3. Improper setting of thermostat. (REMEMBER THE 15° DIFFERENTIAL) 4. Defective thermostat. 	<ol style="list-style-type: none"> *1. Replace fuse or reset circuit breaker. *2. Replace. *3. See Operation section. *4. Replace

PARTS LIST



REF. NO.	DESCRIPTION	QTY.
1	FAN BLADE ASSEMBLY	1
2	SHROUD ASSEMBLY	1
3 +	SHROUD	1
4 +	POP RIVET, 1/8 X 1/8 STEEL	8
5 *	SCREW 1/4"- 20 X 1.5"	2
6 +	MOTOR BAND	1
7 +	MOTOR BRACKET	4
8	SPEED NUT, 1/4 X 20	1
9 +	RIVET, 1/8 X 5/32 STEEL	8
10	MOTOR, PSC 115V 1/5 HP	1
11	BOOT, CAPACITOR TERMINAL COVER	1
12	CAPACITOR, 4 MFD, 370 VAC	1
13 *	KEPS NUT, #8-32	1
14	CUP, BX	1
15	CONDUIT, FLEXIBLE	1
16	THERMOSTAT ASSEMBLY	1
17 +	BX CONNECTOR	1
18	ANTI SHORT BUSHING	1
19	MOUNTING BRACKET	4
20 *	SCREW #8 X 3/8" TYPE AB	8
21 †	INSTRUCTION SHEET	1

* STANDARD HARDWARE ITEM AVAILABLE
LOCALLY
+ NOT AVAILABLE AS A REPLACEMENT PART
† ITEM NOT SHOWN

HOW TO ORDER REPAIR PARTS

In order to obtain any needed repair or replacement parts, warranty service or technical information, please contact Marley Engineered Products Service Center toll-free by calling 1-800-642-HEAT.

When ordering repair parts, always give the information listed as follows:

1. The Part Number
2. The Model Number
3. The Part Description
4. Date of Manufacture



Marley
Engineered Products

SPX Corporation
470 Beauty Spot Rd. East
Bennettsville, SC 29512 USA