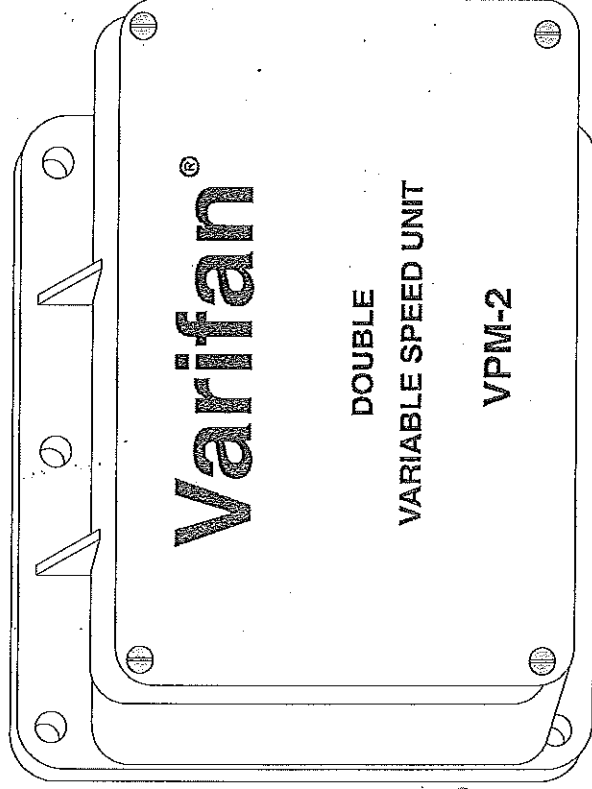


# VPM-2

User's Manual



Although the manufacturer has made every effort to ensure the accuracy of the information contained herein, this document is subject to change without notice due to ongoing product development.

### **WARNING AND PRECAUTIONS**

Equipment, probe failure, blown fuses and/or tripped breakers may prove harmful to the contents of the building. Therefore it is strongly recommended to install backup devices and alarm or warning devices. Spare equipment should also be available at the owner's site. Equipment manufactured by the manufacturer is protected against normal line surges. High surges caused by thunder storms or power supply equipment may damage this equipment. For added security against line voltage surges it is recommended that surge and noise suppression devices be installed at the electrical distribution panel. Use of shielded cable for probes is recommended for protection against lightning. These devices are available from most electrical supply distributors.

### **RECOMMENDATIONS**

The manufacturer recommends that all installation procedures described herein be performed by a qualified electrician or installation technician. Furthermore the manufacturer recommends to test all the functions and equipment connected to the VPM, including the alarm system and backup devices, after installation, after changes to the installation and every month after that.

Fuse verification and replacement, as well as the proper setting of control values shall be the responsibility of the owner of this equipment.

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## **1. GENERAL**

This document provides a description of the VPM-2 unit.  
This document is organized as follows:

- Introduction
- Installation
- User's Guide
- Appendix

### **1.1 DESCRIPTION**

The VPM-2 is designed to drive two variable speed fans of up to 6 amp per stage, under the master control (LX or IC) system resulting in a clean air environment for your livestock.

The VPM-2 provides you with automated control over its two stages via the use of the master control.

The manufacturer recommends that the following installation instructions very closely, and that all work be performed by a certified electrician. Failure to do so may void the warranty!

*INSTALLATION*

# INSTALLATION

*Page 5*



## 2.1 UNPACKING

Unpack the VPM-2 from its box and inspect contents for damage. Should the contents appear to be damaged, contact your local distributor for return material procedures.

The package should contain the following standard items:

- 1 VPM-2 control
- 1 cable fastener or fuse
- 1 user's manual

To limit the unit's exposure to noxious gases install To limit the VPM-2's exposure to noxious gases, install the unit in a hallway.

Make sure the VPM-2 is properly installed, that is, side up with the cable entry holes facing down. DO NOT DRILL ADDITIONAL HOLES INTO THE ENCLOSURE.

The VPM-2 operates in a temperature range of 0°C (32°F) to 50°C (122°F).

The enclosure is watertight, but not splash proof or immersion proof. DO NOT CLEAN WITH HIGH PRESSURED WATER. Cover it carefully with plastic when cleaning the room.

Install in an area protected from sunlight.

## 2.2 MOUNTING

Mount the unit to the wall using the mounting holes located on the flange of the control housing.

Once the VPM-2 is in place, use a screwdriver to remove the four screws holding the faceplate to the housing.

## **INSTALLATION**

### **2.3 CONNECTION PROCEDURE**

For the connection procedures which follow refer to Figures 1 and 2.

#### **2.3.1 - Wiring**

Use a screwdriver to remove cable knock-outs for the installation of cabling to the unit. Knock-outs may be difficult to remove, drill out if possible.

It is strongly recommended to install PVC conduits. Make sure that the cables are water tight.

**Do not apply power to the control panel until all connections have been completed!**

#### **2.3.2 - Connecting 115VAC Fans**

Refer to figure 1.

- Connect L1 of the power source to terminal 1 for fan 1 and terminal 3 for fan 2.
- Connect the ground wire of the power source to the ground wire in the housing of the unit.
- Connect the neutral side of the power source to the neutral of fans 1 and 2.
- Connect the live lead of fan 1 to terminal 2.
- Connect the live lead of fan 2 to terminal 4.

#### **2.3.3 - Connecting 230VAC Fans**

Refer to figure 2.

- Connect L1 of the power source to terminal 1 for fan and terminal 3 for fan 2.
- Connect the ground wire of the power source to the ground wire in the housing
- Connect L2 of the power source to the appropriate terminals of fans 1 and 2.
- Connect the appropriate lead of fan 1 to terminal 2.
- Connect the appropriate lead of fan 2 to terminal 4.

**Maximum load of 10 Amp per stage only**

**2.3.4 - Connecting to the master control**

- Install a 18 -22 AWG cable pair between the VPM-2 and the LX control. The maximum cable length is of 500 feet (150m).
- Connect one end of the cable to the (+) and (-) terminals of the VPM-2 low voltage terminal block. Refer to the bottom left corner of figures 1 or 2.
- All wires between the master control and the VPM-2, as well as the probes should be shielded.
- Do not place low voltage cable into power conduit.

**CAUTION**

**When using 3 phase power, ensure that the phase supplying the master control and variable fan is the same. Otherwise the control signal of the master control will be too early or too late and the fan will not rotate as expected.**

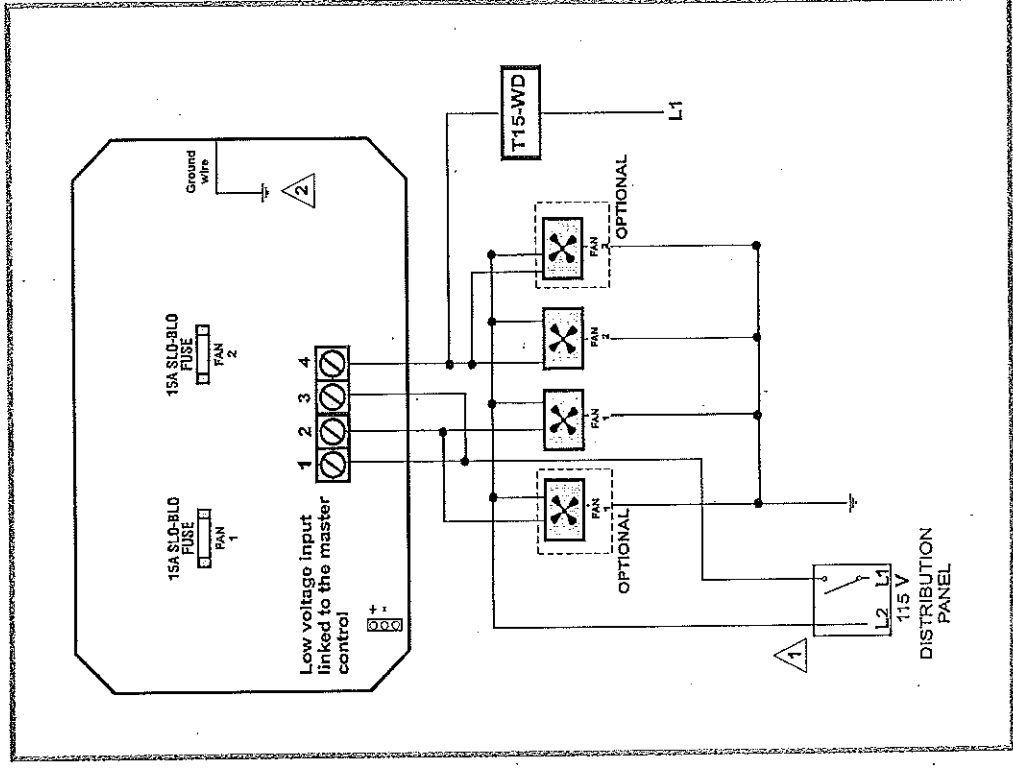
**2.4 POWERING UP**

- Before powering up the VPM-2,
- Screw the faceplate to the casing of the unit using the four screws previously removed.
  - Verify the fan's motor specifications. The current must not exceed 10 A per stage
  - To test the unit use the manual override parameter indicated on the master control.
  - When you have completed verifying the fan operation, set the manual override parameter on the master control to **AUTO**.



# INSTALLATION

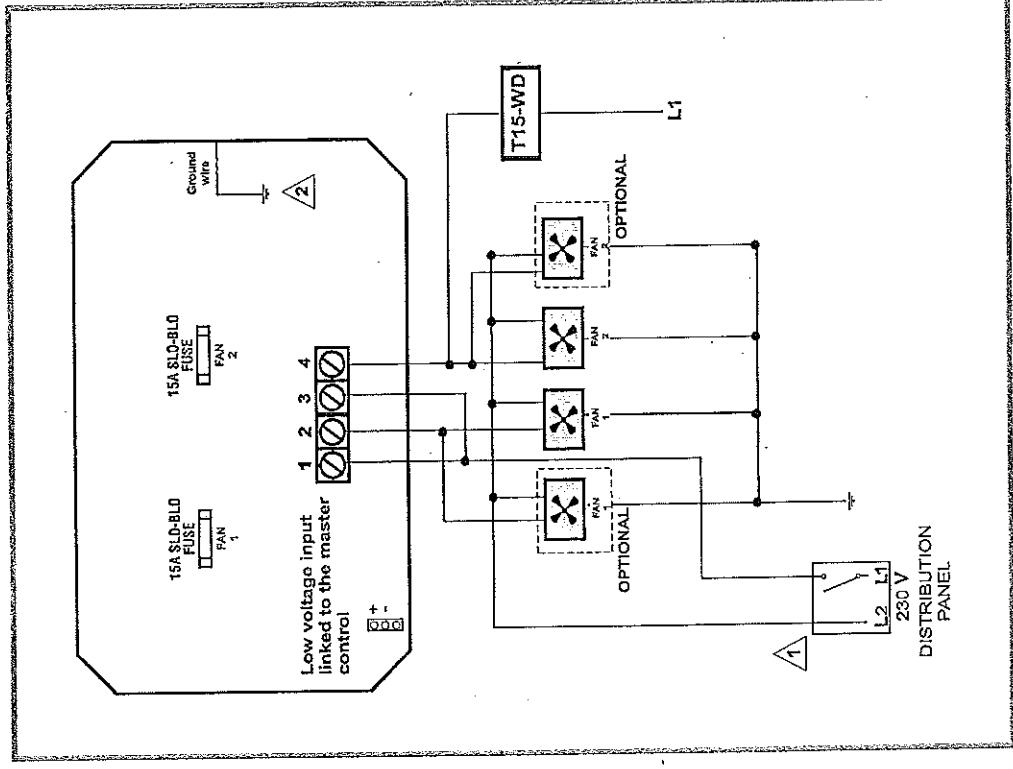
Figure. 1  
Main Board: Connection of 115 VAC source and 115 VAC fan



## Notes for Figure 1

- ⚠ Power cut and protection devices in case of overload.
- ⚠ Connect the grounding wire from the power cord to the ground terminal wire inside the housing.

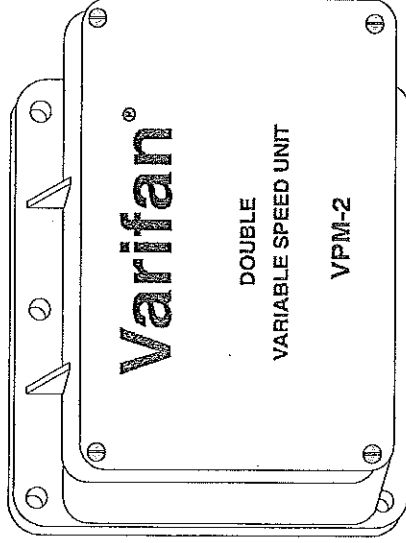
Figure. 2  
Main Board: Connection of 230 VAC source and 230 VAC fan



Notes for Figure 2

- ⚠ Power cut and protection devices in case of overload.
- ⚠ Connect the grounding wire from the power cord to the ground terminal wire inside the housing.

# USER'S GUIDE



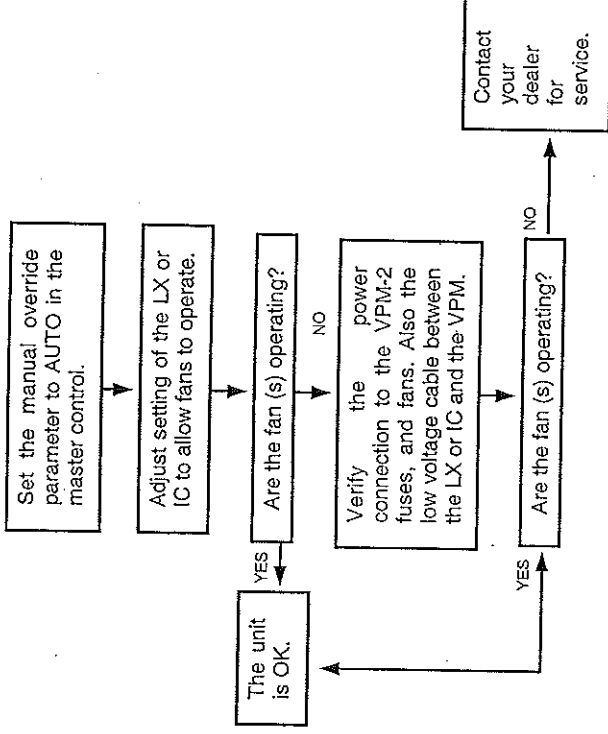
The VPM-2 is a double variable speed unit able to drive one or several fans in two independent stages. The fan speed is controlled accordingly to the logic of the master control, the LX or IC controls.

The VPM-2 can be controlled manually from the master control to:

- be turned OFF,
- run a variable speed fan from 0 to 100%,
- run automatically following the master control logic.

**APPENDIX**

## TROUBLE SHOOTING



## SPECIFICATIONS

Description	Value
STAGE 1 & 2	- 10 AMP 115/230 VAC
	- 50/60 Hz
	- Fuse 15A SLO-BLO

Storage Temperature: 0°C to 70°C (32°F to 122°F).

Operation temperature: 0°C to 50°C (32°F to 158°F).

Weight: 3 pounds (1.35Kg)

Dimension: 7.75"x5.75"x4" (196x146x101mm)

## WARRANTY

### Limited Warranty

The manufactured equipment and supplied components have gone through rigorous inspection to assure optimal quality of product and reliability. Individual controls are factory tested under load, however the possibility of equipment failure and/or malfunction may still exist.

For service, contact your local retailer or supplier. The warranty period shall be for two years from manufacturing date. Proof of purchase is required for warranty validation.

In all cases, the warranty shall apply only to defects in workmanship and specifically exclude any damage caused by over-voltage, short circuit, misuse, acts of vandalism, fortuitous events, acts of God, flood, fire, hail or any other natural disaster. Any unauthorized work, modification or repair on this product automatically voids the warranty and disclaims the manufacturer from all responsibility.

The manufacturer assumes only those obligations set forth herein, excluding all other warranties or obligations. This warranty stipulates that in all cases the manufacturer shall be liable only for the supply of replacement parts or goods and shall not be liable for any personal injury, damages, loss of profits, interrupted operations, fine contravention of the law or damages to the production of the PURCHASER and the PURCHASER shall take up the defense and hold the manufacturer faultless regarding any legal or extra legal proceedings, notice, or claim by the customer or by a third party, and regarding any legal and extra legal expenses and fees brought forward on by such damages.