



Installation and Maintenance Instructions

Hydor VMRD Variable Speed Controller

THESE INSTRUCTIONS MUST BE READ FULLY BEFORE COMMENCING INSTALLATION

Code	Supply	Max. Peak Current	H x W	Mounting
VMRD	230V/1Ph/50Hz	10.0 Amps Max	147 x 88 mm	Surface Mounted

DESCRIPTION

Variable speed fan controller suitable for use with single phase units rated up to 10.0 Amps. There is a miniature circuit breaker installed to suit/protect the fan/s being controlled.

GENERAL

It is important these Installation and Maintenance Instructions are fully adhered to.

Upon receipt, the equipment should be visually inspected to check for any damage.

Full details of the unit supplied are shown on the product nameplate. If in doubt about any detail contact HYDOR or its agents for clarification.

All electrical installation must be carried out by suitably qualified and competent personnel in accordance with all current statutory requirements.

These instructions cover only the HYDOR product and do not include the supply or installation of any safety equipment that may be required e.g. adequate guarding or protection from rotating parts and proper electrical isolation.

Any declarations made by HYDOR about product installation and safety, are dependant on the electrical equipment being used within installations which themselves meet the requirements of the relevant Standards and Directives of your region.

The controller is designed for use in an ambient temperature of up to 55°C and up to 95% relative humidity. The controller is not suitable for corrosive or explosive atmospheres.

The installer should provide easy access to the controller to facilitate future maintenance.

The installer should ensure the controller is adequately supported.

This product is not intended for use by young children or infirm persons unless they have been adequately supervised by a responsible person to ensure that they can use the product safely.

Young children should be supervised to ensure that they do not play with the appliance.

INSTALLATION

All electrical installation must be carried out by suitably qualified and competent personnel in accordance with all current statutory requirements.

Check the details on the motor rating plate to ensure that the correct power supply (voltage, frequency and phase) is available. An incorrect power supply will lead to permanent damage of the unit.

Check that the number, size and speed of the fan(s) can safely be controlled by the controller supplied.

Connections are provided for one (1) fan outlet. If more than one fan is to be controlled then a correctly wired external junction box should be used.

Install in a dry sheltered position. Do not install in close proximity to a heat source or in areas of high humidity. The maximum ambient temperature for the controller must not exceed 40° C (104° F).

WARNING! The controller must be isolated from the power supply during installation and maintenance.

Remove the front cover of the controller by unscrewing the cover fixing screws. This provides access to mounting holes and electrical terminals.

The controller must be connected to a suitably rated fused spur.

Switch on the mains supply, and press in the M. C. B. Green Button on the front of the panel. Rotate the speed control knob to maximum setting and check the fan is running at full speed. The voltage to the fan between terminals L & NV should be within 10volts of the mains supply voltage. If not, adjust the right hand pre-set potentiometer on the control card to obtain this.

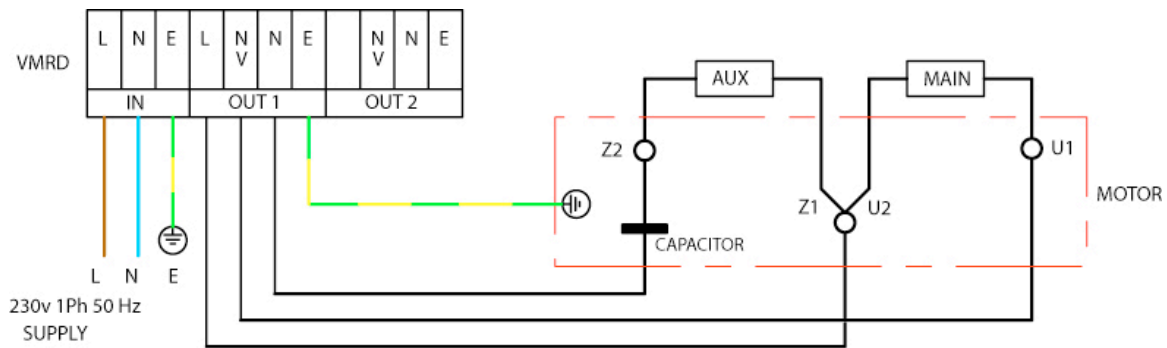
Rotate the speed control fully anti-clockwise to the minimum speed position and check that the fan is rotating at the minimum speed required. The lowest voltage between L and NV terminals that you should run the fans at is 105volts. If they are not, adjust the left hand pre-set potentiometer on the control card to obtain this.

Isolate the mains supply and carefully replace front panel.

WIRING

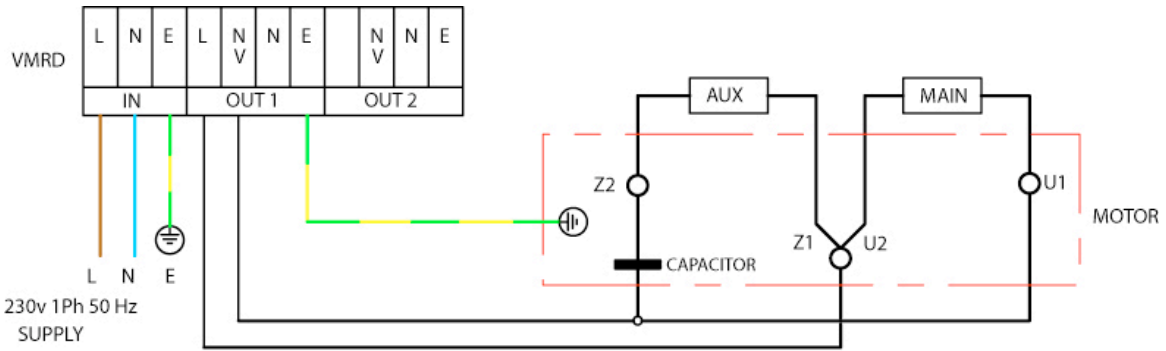
Select the correct wiring diagram for the fan and controller supplied. All wiring and control equipment MUST comply with the latest IEE regulations, in particular 552-01-02/03.

In the event that the wiring connections for the fan supplied do not correspond to diagrams shown, please refer to the fan instructions or contact HYDOR for further assistance.



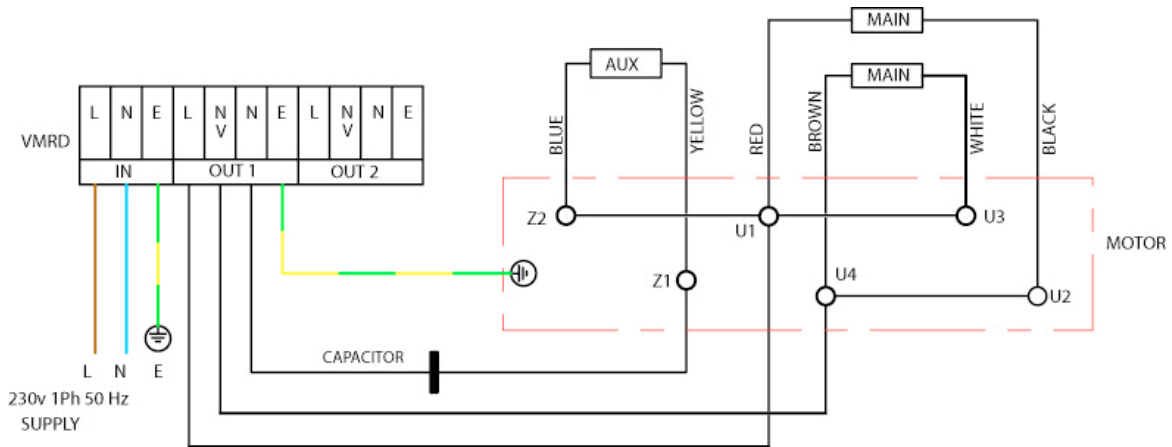
HE FAN 315mm TO 450mm DIAMETER - 3 WIRE

CONNECTIONS SHOWN ABOVE ARE FOR ANTI-CLOCKWISE ROTATION
THAT IS REQUIRED FOR NORMAL FORM 'A' AIRFLOW
INTERCHANGE Z1 AND Z2 MOTOR CABLES FOR CLOCKWISE
ROTATION, FORM 'B' AIRFLOW.



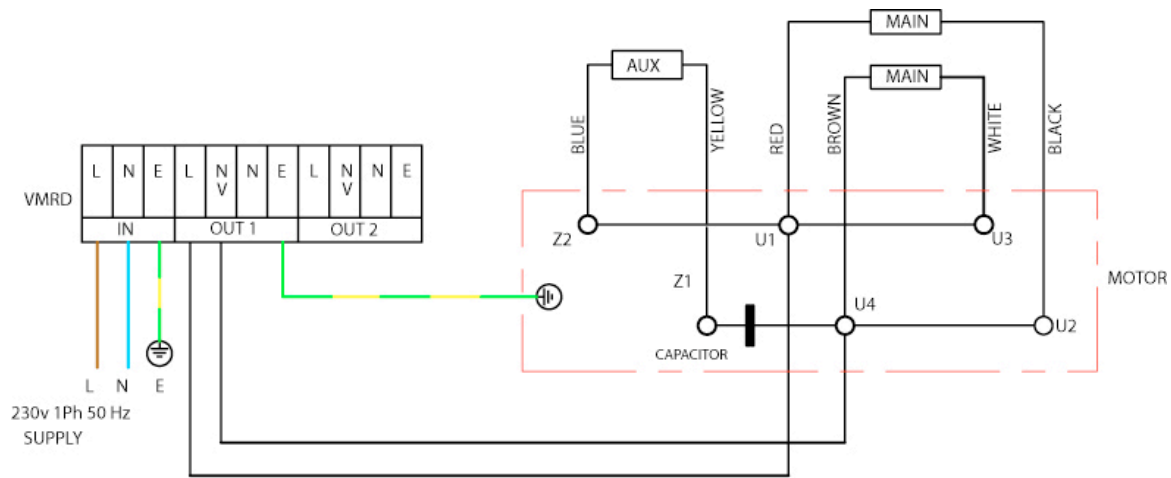
HE FAN 315mm TO 450mm DIAMETER - 2 WIRE

CONNECTIONS SHOWN ABOVE ARE FOR ANTI-CLOCKWISE ROTATION THAT IS REQUIRED FOR NORMAL FORM 'A' AIRFLOW INTERCHANGE Z1 AND Z2 MOTOR CABLES FOR CLOCKWISE ROTATION, FORM 'B' AIRFLOW.



HE FAN 450mm TO 760mm DIAMETER - 3 WIRE

CONNECTIONS SHOWN ABOVE ARE FOR ANTI-CLOCKWISE ROTATION THAT IS REQUIRED FOR NORMAL FORM 'A' AIRFLOW INTERCHANGE Z1 AND Z2 MOTOR CABLES FOR CLOCKWISE ROTATION, FORM 'B' AIRFLOW.



HE FAN 450mm TO 760mm DIAMETER - 2 WIRE

CONNECTIONS SHOWN ABOVE ARE FOR ANTI-CLOCKWISE ROTATION THAT IS REQUIRED FOR NORMAL FORM 'A' AIRFLOW INTERCHANGE Z1 AND Z2 MOTOR CABLES FOR CLOCKWISE ROTATION, FORM 'B' AIRFLOW.

OPERATION

Switch on the mains supply to the Controller. Switch ON the fan by pressing the green button and adjust the fan speed required by means of the speed control knob. The fan is switched OFF by pressing the red button.

Should the Miniature Circuit Breaker trip out, check the motor current or connections as an overload condition has occurred, indicating misconnection, faulty motor or capacitor, or a jammed propeller.

MAINTENANCE

Minimal maintenance of the Controller is required, but it should be kept clean and free from dust. Ensure that all connections are tight as possible as part of a routine maintenance programme.

GUARANTEE

HYDOR or its agents will, within a period of 1 year from the date of dispatch from their works, repair or, at its option, replace any goods, which are proven to have defects as a result of defective materials or workmanship. The goods MUST be returned to HYDOR, carriage paid, for examination.

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