

# VentLogic® V10

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## Operating Instructions



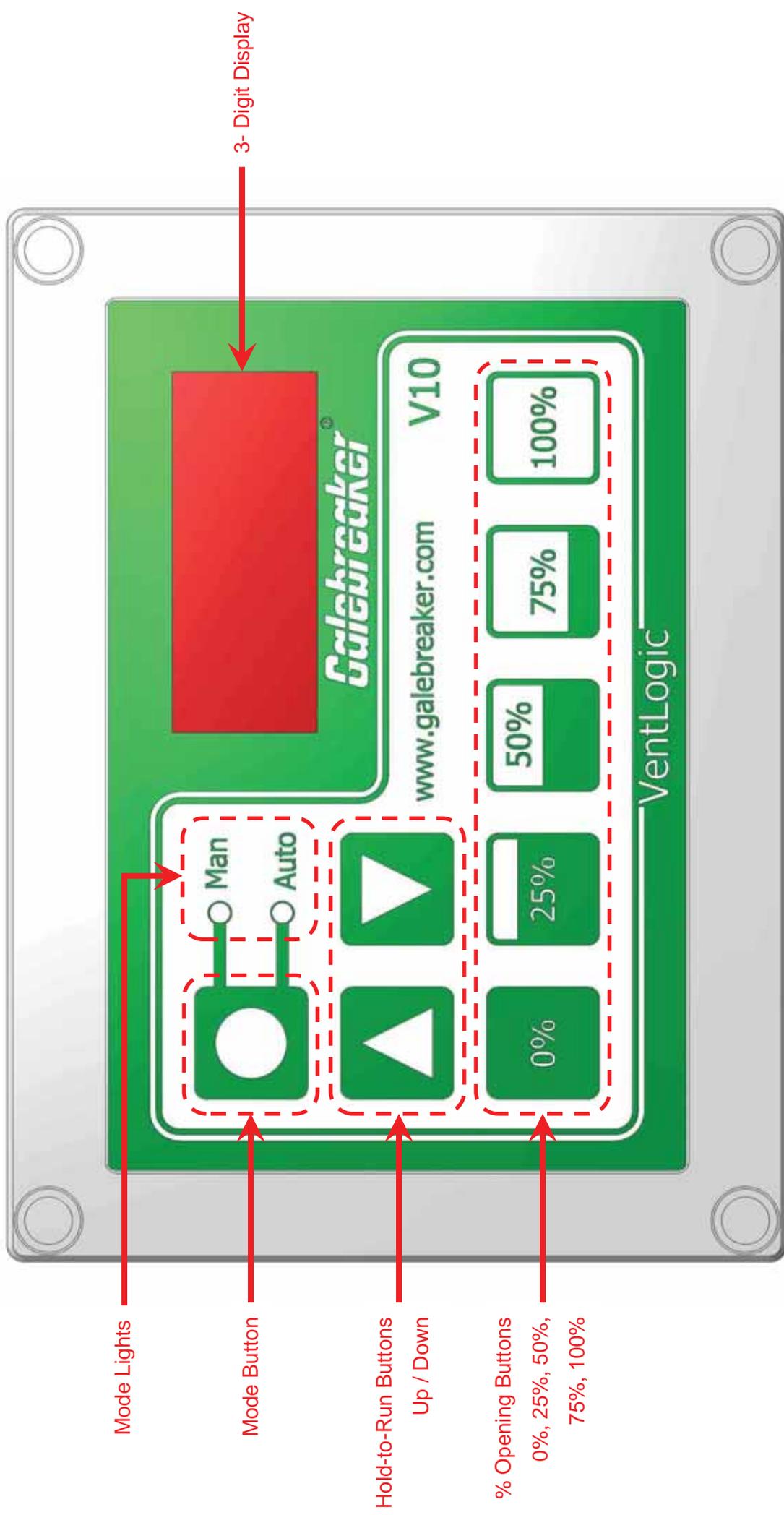


Figure 1, Controller Interface

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# 1 Description of Control Box

## 1.1 Introduction

The aim of these operating instructions is to allow the operator to use the controller in a meaningful and safe manner. Always observe the safety information provided in Section 3 to rule out the possibility of hazards occurring. Section 4 contains a description of how the controller operates.

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Throughout this instruction manual particular aspects of the installation and operation of the controller have been highlighted. Please refer to the following symbols to show how key instructions are categorized.



**CAUTION:** Potentially hazardous situation: must be avoided otherwise injuries may result.



**ATTENTION:** Observe the given instructions otherwise the product or adjacent items may be damaged

**NOTE:** Helpful comments and information to assist in installation or use of your product

**NOTE:** Before starting the installation you must fully read these instructions (including the separate electrical details) to completely understand the procedure.  
Keep the instructions supplied for reference purposes.

**NOTE:** Colour versions of the installation instructions can be downloaded from our website:

[www.galebreaker.com](http://www.galebreaker.com)

## 1.2 Intended Use

- The controller is a switch designed to operate a Galebreaker ventilation system where partial opening is required.
- After the switch is activated, it is able to control the ventilation system in a safe and controlled manner without the operator in attendance.
- The controller incorporates its own variable timing device that allows it to be adjusted for a specific size of opening. It does not require feedback from a potentiometer fitted to the drive motor.
- The controller is not intended to be used on access door systems

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## 1.3 Technical Data

|                        |                      |
|------------------------|----------------------|
| Unit Name:             | V10                  |
| Casing:                | IP 65 plastic casing |
| Switch Membrane:       | IP 65                |
| Connection Voltage:    | 230 Volt AC / 50Hz   |
| Secondary Supply Fuse: | 6.3A                 |
| Operating Temp:        | -20 to +55°C         |
| Storage Temp:          | -40 to 70°C          |



**ATTENTION:** It is recommended that the power supply to the VentLogic controller is fitted with a Surge Protector (SPD) so as to protect the sensitive equipment in the event of an over-voltage scenario.

## 1.4 Preliminary Safety Instructions

**NOTE:** Please clarify any areas of uncertainty or questions with the supplier in advance

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## 2 General Information

### 2.1 Copyright

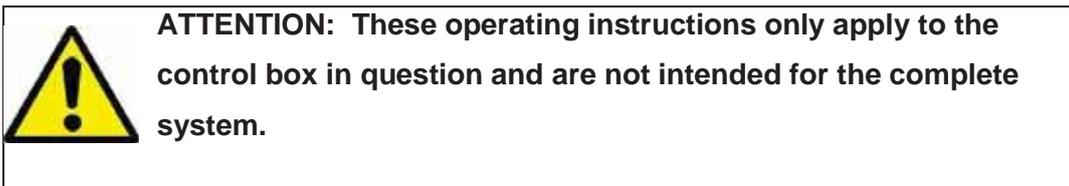
The copyright for these operating instructions belong to:

**Galebreaker Agri Ltd., Galebreaker House,  
New Mills Industrial Estate, Ledbury. HR8 2SS**

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These operating instructions must not be reproduced, divulged, used for the purpose of unauthorised competition or disseminated to third parties in part or in whole. Infringements to the above will result in claims for damages.

Subject to alterations in design.



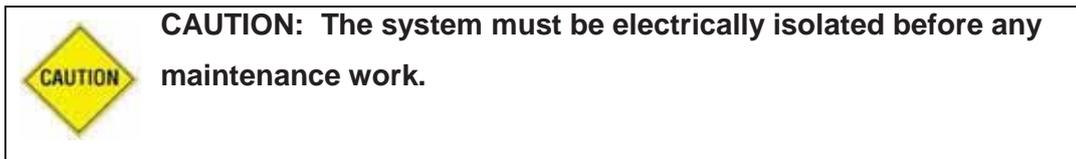
### 2.2 Design Principle for This Equipment

- The controller is only intended for the tasks detailed in Section 1.2. Unless agreed by contract, any other form of use or a more extensive form of use is considered to be contrary to the intended use. The manufacturer is not responsible for any resulting damage. The user/company bears all associated risks.
- Observing the procedures provided in these operating instructions for assembly, operation and maintenance also forms part of the compliance with the intended use.

### 2.3 Directions for Use

- The manufacturer reserves the right to modify the design and technical data in the interests of further development.
- Claims cannot therefore be derived from details, illustrations or drawings and descriptions. The manufacturer reserves the right to make mistakes.
- Before starting installation, familiarise yourself with the actions required for assembly, settings, operation and maintenance.

- The recognised specialist rules of safety and specialised work, must be observed in addition to these operating instructions and relevant accident prevention rulings applicable in the country of use.
- The control box may represent hazards if they are used incorrectly by untrained staff or are not used for their intended purpose.



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## 2.4 Transport and Storage

- The controller is suitably packaged ex-factory for the agreed form of transport.
- Only transport the control unit in its original packaging.
- Avoid impact and collisions.
- Note whether the packaging or control unit is damaged.
- Store the control unit in its original packaging in a dry place with protection from the weather.
- Avoid extremes of temperature.

### 3 Safety Measures

#### 3.1 Electrical / Electronic Equipment



**CAUTION:** Work on electrical components / assemblies may only be undertaken by an electrician in accordance with technical electrical rulings. The contractor or operator must also ensure that the electrical systems and operating equipment are operated and maintained in accordance with technical electrical rulings.

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**CAUTION:** Work **MUST NOT** be undertaken on live parts. The opened units have no protection! You may come into direct contact with dangerous voltages.

- Whilst the controller is in use the enclosure must be closed.
- Fuses may only be replaced; they must not be repaired or bridged.
- Only use the fuses specified in Section 1.3.
- De-energised statuses must be monitored using a two-pin monitoring device.



**CAUTION:** Any defects established on electrical systems/ assemblies/operating equipment must be rectified immediately. If the unit represents an acute hazard in its current condition, the unit/system must not be operated in this defective condition.

#### 3.2 EN ISO 13849-1:2008

As part of Galebreaker's mechanical risk assessment for their ventilation system to conform to the Machine Directive 2006/42/EC, a limited movement (pulse-pause) drive of the curtain, is a defined safety measure of the system. With this safety measure being part of the algorithms of this controller, the V10 has been classed with a Performance Level C under EN ISO 13849-1:2008.

### 3.3 EN61326-1:2006

The V10 controller has been tested to the EMC standards and conform to Class A Emissions limits and Basic Immunity limits.

### 3.4 Using Contractors from Outside the Supplier of Controller

Repair and maintenance work is often undertaken by staff from outside the company that supplied the Controller. They are often not aware of the special circumstances and associated hazards.

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- Provide such people with the detailed information of the hazards in their area of work.
- Monitor their manner of working and intervene in good time

**NOTE: As the supervisor, you are responsible for the safety of staff from outside the company.**

### 3.5 Accessories, Spare Parts



**CAUTION: Only use parts and additional equipment that have been approved and/or recommended by Galebreaker Agri Ltd. A judgement cannot be made as to whether external products or other modifications not approved or recommended by Galebreaker Agri Ltd. result in a safety risk when used in conjunction with the Controller.**

### 3.6 Address of Manufacturer, Service Address

If you have any questions about how to use our products or if you are planning special applications, please contact:

Galebreaker Agri Ltd., Galebreaker House  
New Mills Industrial Estate, Ledbury  
Herefordshire. HR8 2SS  
United Kingdom  
Tel: +44 (0) 1531 637900  
Fax: +44 (0) 1531 637901

## 4 Operation

### 4.1 Master / Slave Control

The V10 controller can be used in two different scenarios – either as a sole controller for an individual drive (Master Control) as shown in Figure 2, or as a local controller for a fully automated V40 controller (Slave Control) as shown in Figure 3.

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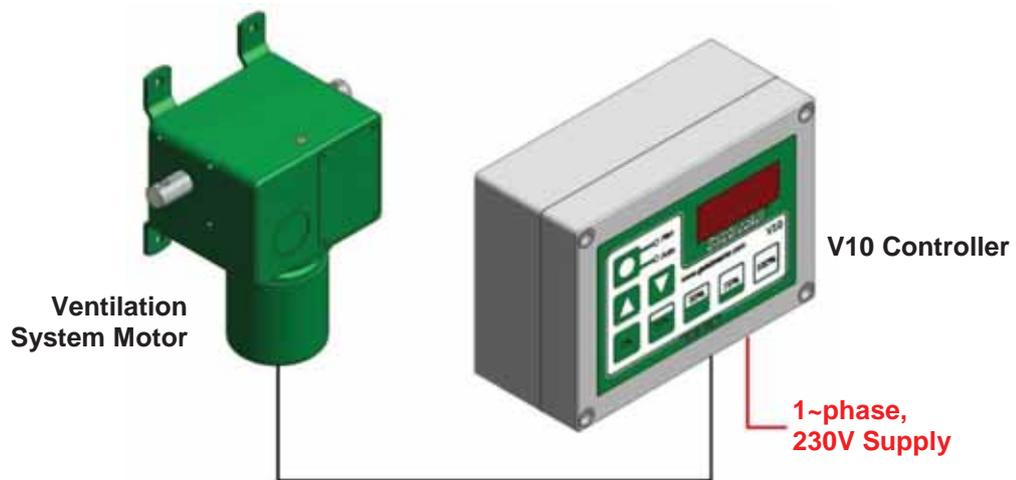


Figure 2, V10 as a Master Controller

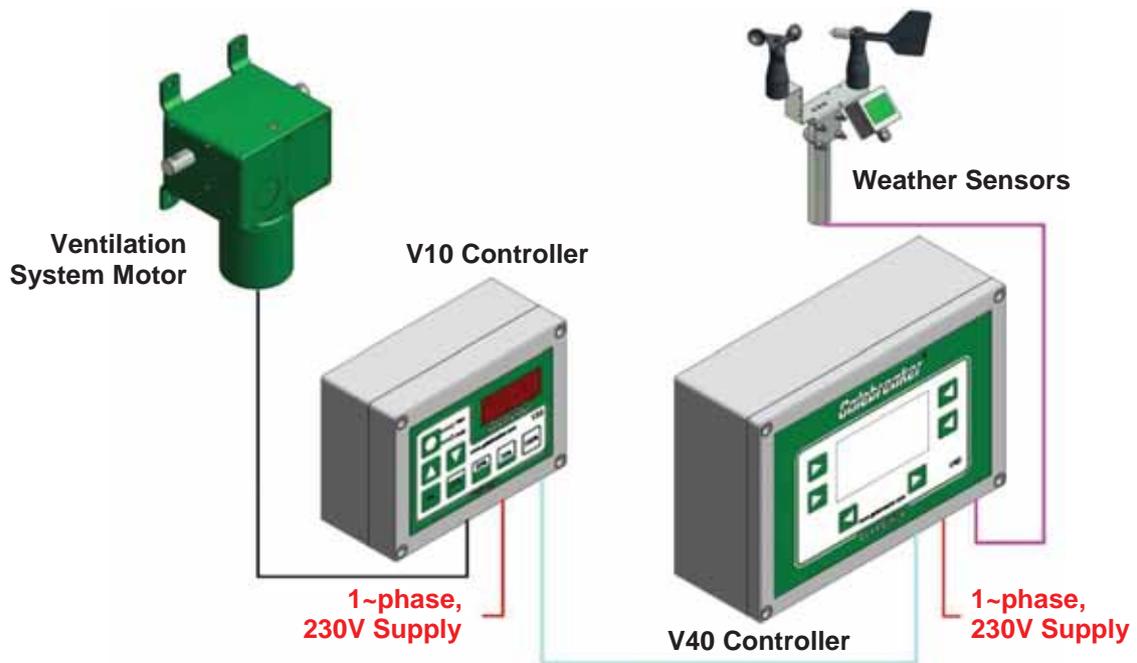


Figure 3, V10 as a Slave to V40 Controller

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## 4.2 General Functionality

### 4.2.1 Controller Interface

For the layout of the buttons please refer to Figure 1 on inside of front cover.

### 4.2.2 System Position

The system position is referred to by the percentage opening, with

|                  |   |                     |
|------------------|---|---------------------|
| 0% Ventilation   | = | System fully closed |
| 100% Ventilation | = | System fully open   |

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The controller is calibrated to the overall opening height of the system based on the motor run time. It always knows the current position of the system and will calculate the motor run time to adjust to new positions.

### 4.2.3 Motion Control

When using the % Opening Buttons or when it is controlled in automatic mode, Section 4.4.1, the controller operates the motor in a pulsed manner – 3 seconds on, 30 seconds off in the open (down) direction and operates the motor in a continuous manner in the closed (up) direction. This cannot be changed for safety reasons.

When using the Hold-to-Run direction buttons the curtain will move in a continuous manner but will require the operator to continually press the button. As soon as the operator ceases to press the button, the system will stop moving.

When the system is moving to the newly required position, the decimal points between the digits in the display will flash. This helps to indicate when the system is actually in a pause phase of the drive and is still in the process of reaching the required position. Once the system has reached the required position the decimal points will cease to flash.

### 4.3 Manual Mode

The Manual Mode is entered by pressing the <MODE> button so that the 'Man' light is illuminated.



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#### 4.3.1 Hold-to-Run Buttons

When in Manual Mode, the ventilation system can be opened or closed in a continuous manner using the 'Hold-to-Run' buttons. By pressing either direction button the operator will see the system moving and the display, showing the system position, will update accordingly. On release of the 'Hold-to-Run' button the system will stop moving immediately.



**CAUTION:** When moving the system using the Hold-to-Run switches always look at the system to ensure no other person(s) are in close proximity to the moving parts.

#### 4.3.2 Opening Buttons

When in Manual Mode, the operator is able to select a particular system % Opening position. The controller will drive the system to the required position in a safe manner that does not require the operator to be in attendance. If the operator wishes to stop the system at any time, the hold-to-run buttons can be used.

### 4.4 Automatic Mode

The Automatic Mode is entered by pressing the <MODE> button so that the 'Auto' light is illuminated.



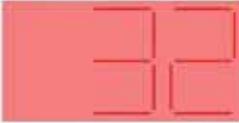
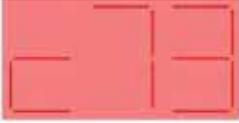
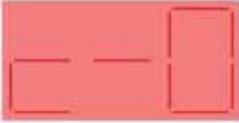
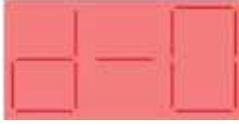
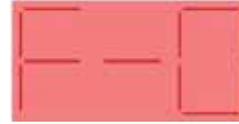
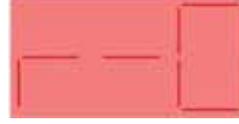
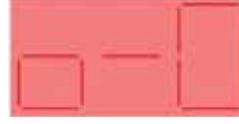
When in Automatic Mode:

- The 'Hold-to-Run' direction buttons are disabled from driving the system
- The '% Opening' buttons are disabled from driving the system
- The display shows the current system position
- The external override closure circuit becomes active, Section 4.4.2.

#### 4.4.1 V10 as Slave to VentLogic® V40 Controller

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When in Automatic Mode, if the V10 is a slave to a V40 controller, Figure 3, the system position will be controlled by the V40. It is possible to identify what parameter of the V40 is controlling the current position by the following being displayed on the V10:

- System position due to temperature 
- System position due to wind 
- System closed due to wind 
- System closed due to rain 
- System closed due to frost 
- System closed due to reference run 
- System closed due to external override 

#### 4.4.2 External Override Closure (including Rain Sensor)

The external override is used to ensure the ventilation system is fully closed and remain closed during particular circumstances. A rain sensor can be connected to the V10 to close the system when rain is detected or if an auxiliary system (i.e. a heater, a robotic bedding or food dispenser etc.) requires the system to be closed for it to operate effectively, the auxiliary controller can be connected to the V10, refer to wiring diagram Appendix A.

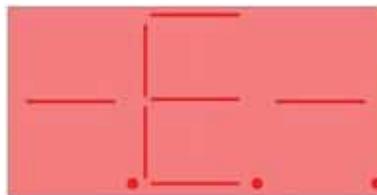
With a closed circuit signal across the Override Terminals, the controller will fully close the ventilation system and display 'o-0', as per Section 4.4.1. When the signal across Terminals returns to open circuit, the controller will return to its previous set position after 3 minutes.

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**NOTE: The external override closure (within the V10) will not operate if the controller is in Manual Mode or if the V10 is a slave to an Automatic VentLogic® V40 controller**

#### 4.5 Emergency Stop (optional)

On activation of an (installed) emergency stop, the controller will immediately stop any drive it is carrying out. The display will show '-E-' showing that the emergency stop has been activated.



After the emergency stop has been deactivated, the display '-E-' will now flash. In this status the controller is able to move the system using the 'hold-to-run' buttons but full operation using the % Opening buttons or automatic control is disabled.

To return the controller to full operation the **<MODE>** button has to be pressed for 3 seconds. Once the screen returns to the normal operation menu, the controller can be used as normal.

## 5 Service and Maintenance

### 5.1 General Maintenance

The V10 control unit does not require any general maintenance. A damp cloth (no solvents) can be used to clean the outer surfaces of the control box.



**ATTENTION: Under no circumstances should the controller or sensors be cleaned using water under pressure.**

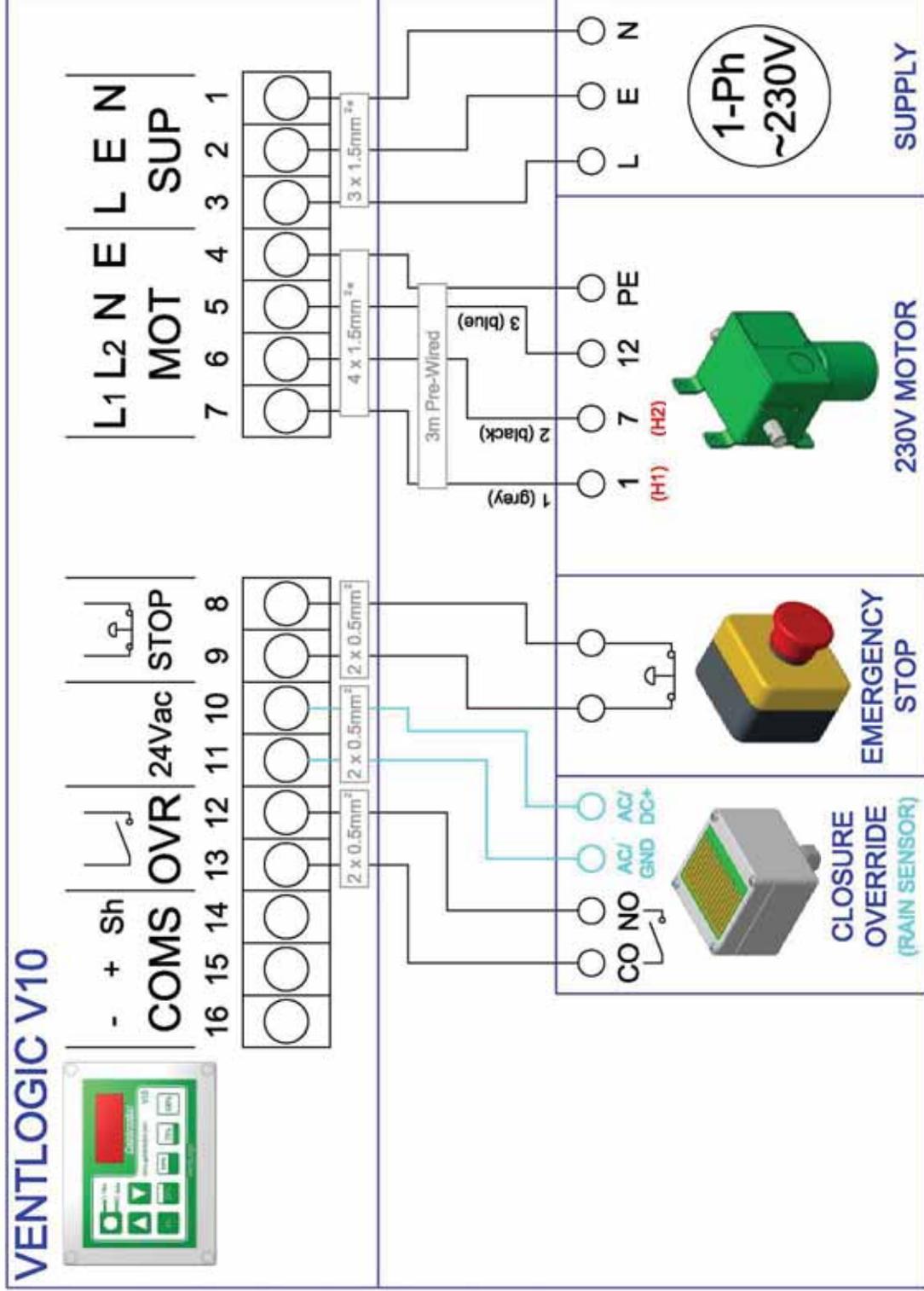
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### 5.2 Fault Diagnostics

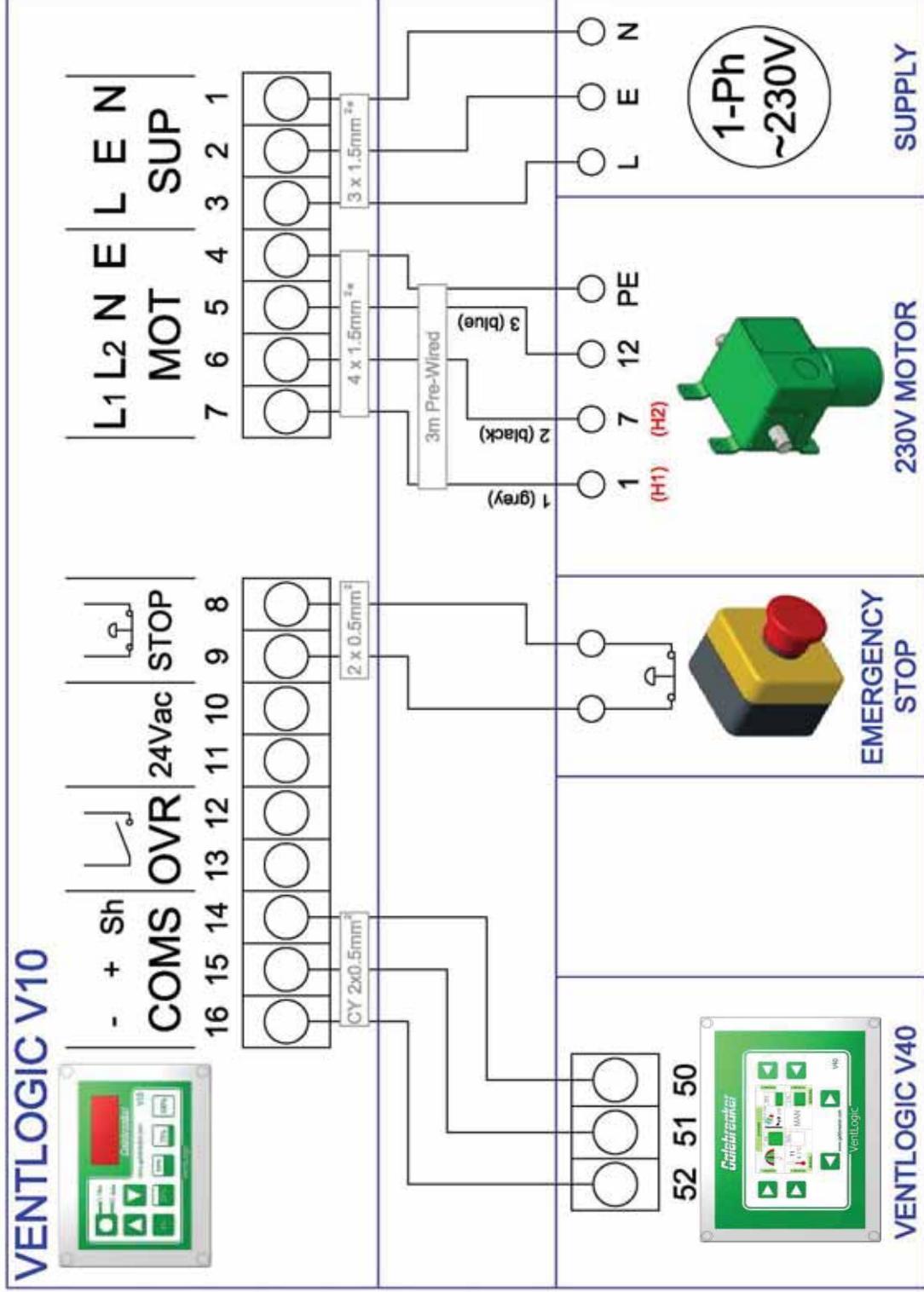
| Fault                                    | Possible Cause / Solution  |
|--|--|
| Motor Operates in the Wrong Direction    | <ul style="list-style-type: none"> <li>• Swap Power Connectors (L1 &amp; L2)</li> </ul>  |
| Nothing Happens when a button is pressed | <ul style="list-style-type: none"> <li>• Check that the controller is not in Automatic mode with the 'Auto' light illuminated.</li> <li>• Check that you are not on a motor end limit.</li> <li>• Check that the Emergency Stop is or has been activated ('-E-' visible on the display).</li> <li>• Check Internal Fuses (Isolate Power First)</li> <li>• Check Main Supply is live</li> </ul> |
| Movement is too short or too long        | <ul style="list-style-type: none"> <li>• Re-Calibrate the Unit</li> </ul>  |

In the unlikely event that the fault with the controller still remains, then please contact the manufacturer.

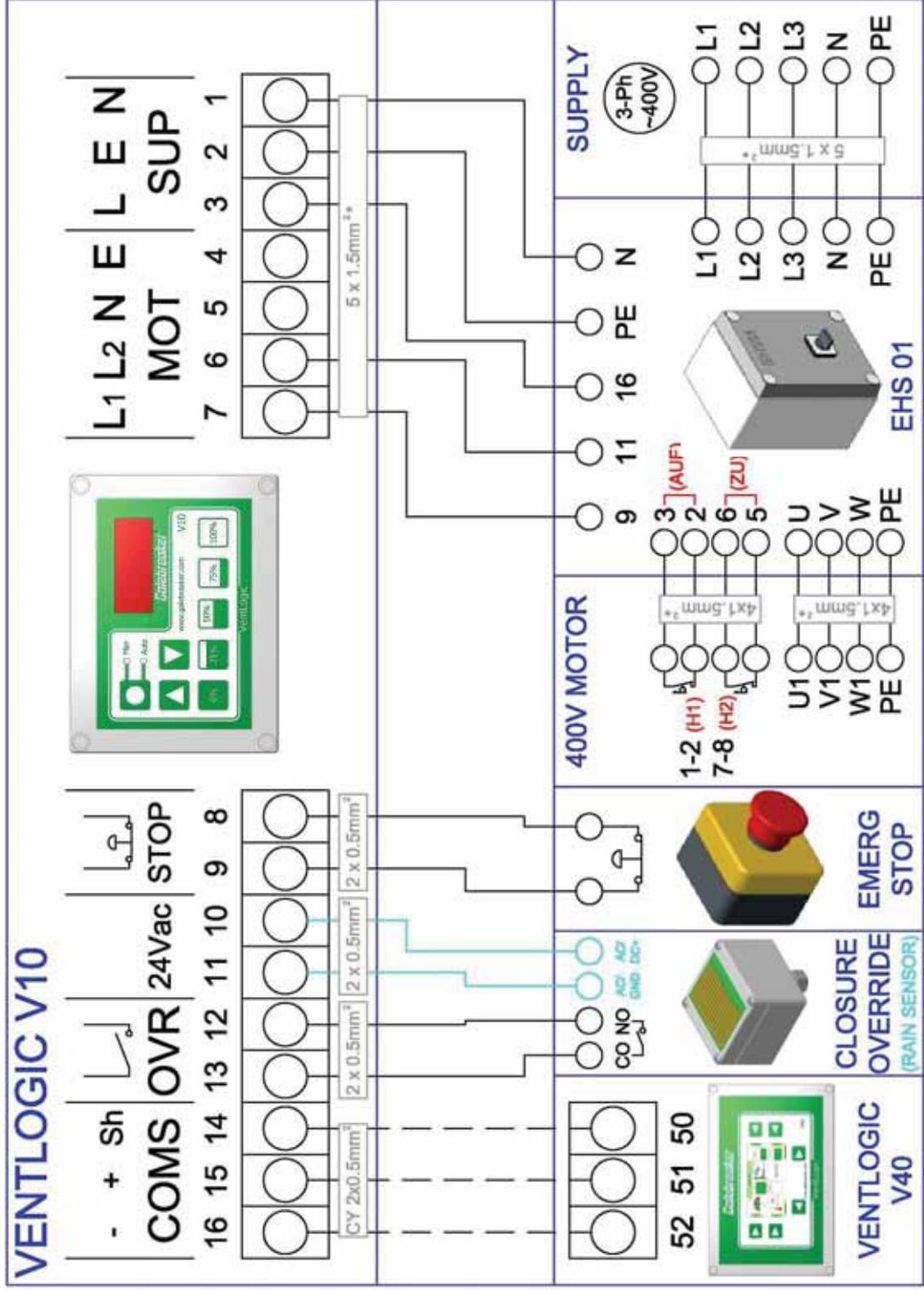
230Volt, V10 as Master Controller



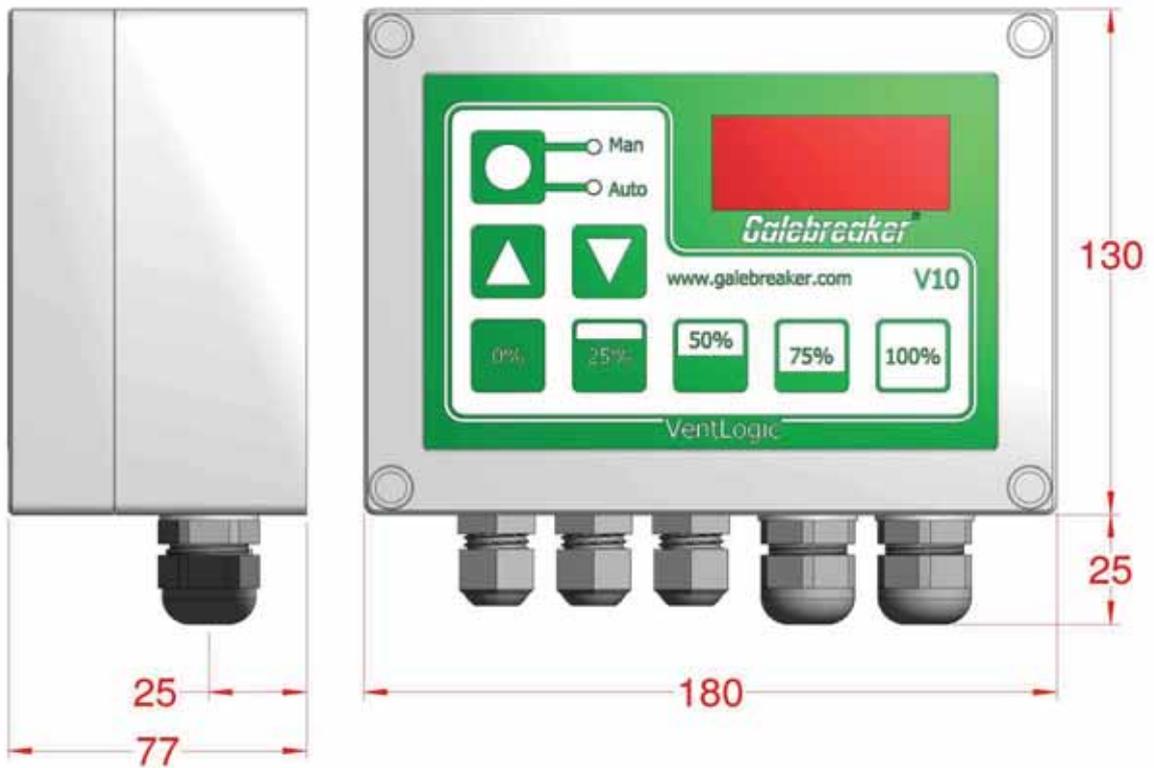
230Volt, V10 as Slave Controller to VentLogic V40



400Volt, V10 as Master or Slave Controller

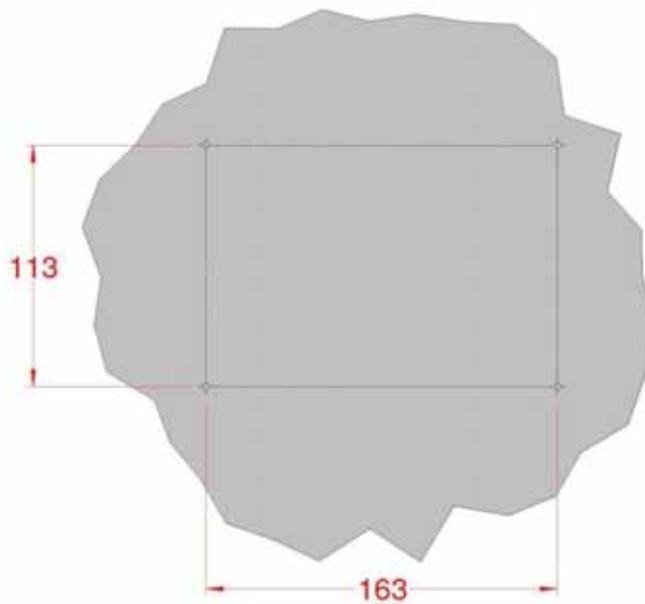


**Equipment Dimensions and Mounting**



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**Wall Mounting**





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Designed and Manufactured in the UK by Galebreaker Agri Ltd.

Original Instructions

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