DAY NIGHT TEMPERATURE CONTROLLER

Design Concepts:

To provide an economic and versatile control for small to medium commercial glasshouse applications and for the keen amateur glasshouse gardener.
To control air or water temperature in the range from 0°C to 30°C with sensor monitoring.

Technical Specifications:

- Controls electric gas and oil heaters, ideal for bench warming applications
- Temperature range from 0 deg C to 30 deg C.
- Dual use for temperature and ventilation control.
- Differential set to switch at 1deg C.
- Red LED to indicate when heat is called for.
- Sensor integral or remote.
- Switched 240Vac live at 12 amps.
- Maximum load 2Kw resistive.
- Maximum load 1Kw inductive.
- Separate Day and Night controls.
- Yellow LED indication for daytime operation.
- Common ventilation control for day and night.
- Green LED indication for ventilation control.
- Heat override on Day and Night.
- Photocell automatically sets for Day or Night operation.
- Max vent load switched at 240Vac 750 watts resistive.
- Splash proof PVC enclosure.

Operation:

The controller is simple yet versatile, controlling heating and ventilation regimes for day and night control. To adjust, set the front panel potentiometers, labelled Day and Night to the desired temperature. Typically the day temperature would be set to 20ºC and the night temperature would be set to 15°C. The vent temperature would normally be set for day temperature at 22° or 25°C, this setting would also apply to the night temperature. Typical control would be heating applied to the set point 20°C, where the heating turns off. Further increase in ambient temperature to the Ventilation set point causes cooling action. It is impossible to vent and heat at the same time, the heat will always override the vent.
Led's indicate the control application, RED for heating GREEN for venting and YELLOW for daytime operation.
Adjustment of VR3 on diagram 1 sets the light level for changeover from day to night.

Do not adjust VR1 and VR2

Electrical Connections

PLEASE TAKE CARE WHEN CONNECTING CABLES TO THE TERMINAL BLOCKS. DO NOT USE UNDUE TORQUE IN TIGHTENING THE SCREWS AS THIS WILL 'RIP' THE COPPER TRACK FROM THE TERMINAL PIN AND RENDER THE UNIT COMPLETELY USELESS.

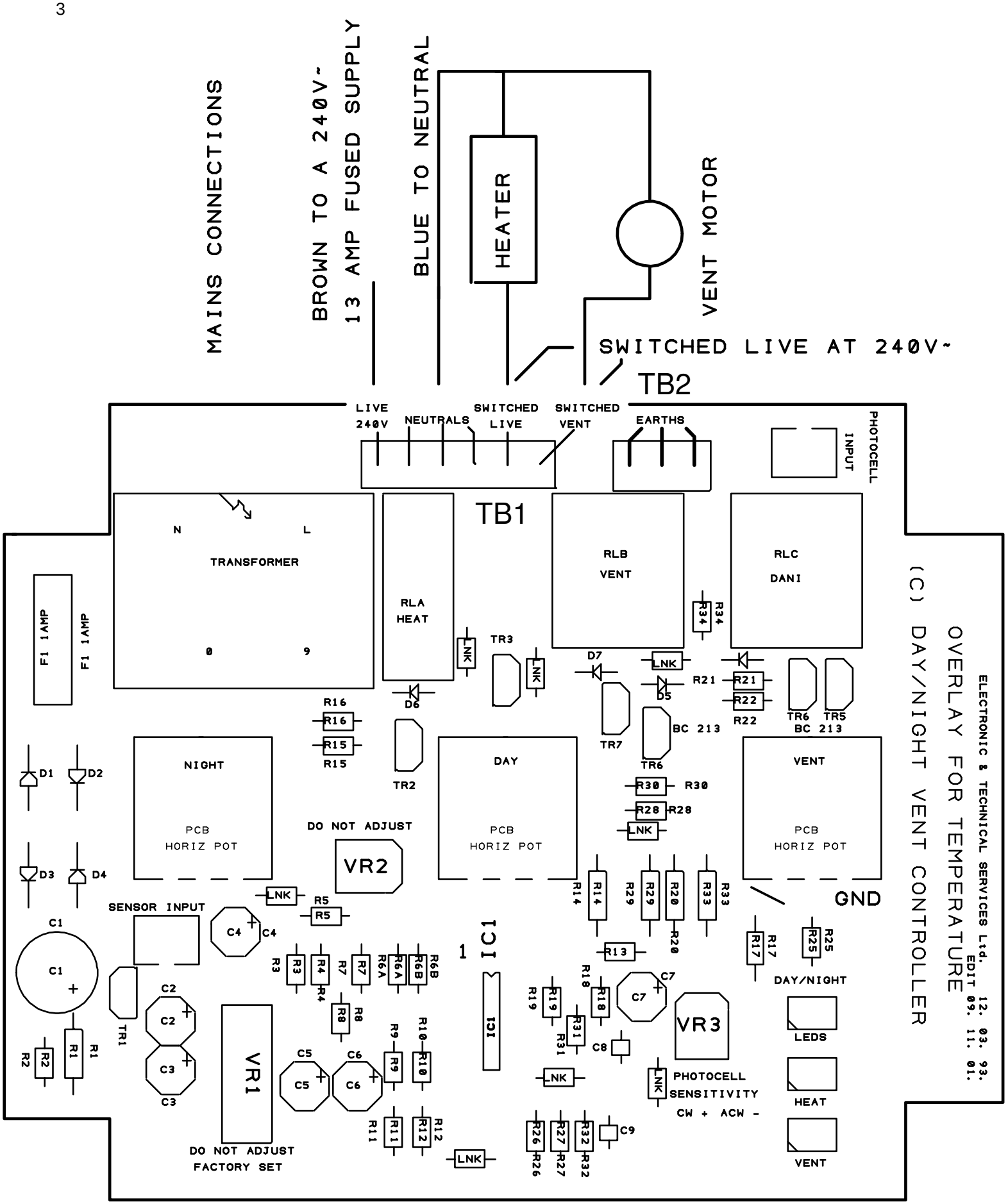
WE STRONGLY ADVISE THE USE OF AN E.L.C.B. ON THE MAINS SUPPLY TO THIS UNIT

Unscrew the four corner screws and with great care remove the front panel.
A fused mains supply of 240Vac, correctly rated to supply the load needs to be connected to TB1 3 way terminal Block labelled:
Live 240Vac
Neutral
Earth must be connected to **TB2**

Please note that this supply must be externally fused at a value to suit the load and no greater than 10 amps.
The switched 240Vac load is connected to terminal block TB1 as shown in diagram 1 and is labelled 'switched live'.
Load neutral connected to 'neutrals' in TB1
Fan connection for the vent is connected to terminal block TB1 and is labeled 'switched vent'
The terminal block labeled TB2 is for the load and supply Earths

Mounting:
Secure base by utilising the moulded knock out mounting points.

Diagram 1



ELECTRICAL CONNECTIONS FOR THE DAY NIGHT TEMPERATURE CONTROL

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ELECTRONIC & TECHNICAL SERVICES LTD.

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DECLARATION OF CONFORMITY

Name of manufacturer or supplier:	E&TS Ltd
Full postal address including country of origin:	40 Acreville Rd, Bebington, Wirral, CH63 2HY U.K.

Description of product: Day Night Temperature Controller
Conforms to the following product specifications:

Low Voltage Directive 2006/95/EC

Standard EN61558-1:2005

EMC and harmonised European and national standards

Standard	**2004/108/EC**
Emissions	EN6100-3-2/3/4
Immunity	EN61000-4-2/3/4/5/6/8/11/13/14 EN61000-6-2

Place of Issue: Bebington

Date: 15. 03. 2013

Name of authorised representative: John W Walker

Position of authorised representative: Managing Director

Declaration:
I declare that as the authorised representative, the above information in relation to the supply/manufacture of this product is in conformity with the stated standards and other related documents following the provisions of EEC Directives.

Signature of authorised representative:……..