

## MODEL 'COMBI' SINGLE TRACK CONTROLLER

### FOR INDOORS USE ONLY

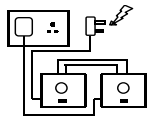
The controller and power supply should be regularly examined for potential hazards such as damage to the casing, cable or plug, connectors etc. In the event of any damage to either of the units, they should not be used until the damage has been repaired. The units are sealed and having no repairable components should not be opened. A repair service, for the controller only is available at the address shown below.

**WALL MOUNTED TRANSFORMER WM1:** Input: 220 – 240V AC at 50Hz BS1363 flat pin moulded plug.  
Output: 18V AC @ 1.1Amps @ 25 deg C via 2.1 x 10 mm power socket and cable.

The secondary winding is fitted with a Positive Temperature Coefficient (PTC) Thermistor which will prevent thermal damage should an over load condition occur. In this event the unit must be disconnected from the mains supply. Having established and rectified the reason for the over load reconnect the Wall Mounted Transformer WM1 to the mains supply.

The primary winding is fitted with a once only thermal fuse. In the unlikely event this should operate then the unit is defunct and a replacement should be sourced. The unit is a single wound transformer and should not be used to power more than one controller.

**CAUTION:** It is very important that the outputs of two or more control units are not connected together in parallel. i.e. outputs linked. If done, there is a risk of electric shock from a plug not inserted into a socket.



**COMBI CONTROLLER:** Some self adhesive pads are supplied for fixing your Model COMBI to your baseboard if desired. Connect the terminals marked "Track" to the section or track you wish to operate. Plug the output lead of the Wall Mounted Transformer WM1 into the socket on your COMBI and then plug the Wall Mounted Transformer WM1 into a 220/240V ac supply. Operate the output control knob and observe the track supply indicator LED that should vary in brightness with the output voltage. Turn the output control knob to off and locate a suitable locomotive onto your track. Slowly apply power using the output control knob. Reverse the DC output connections if the locomotive travels in the wrong direction. The unit is suitable for Cab Control and Common Return wiring providing individual power supplies are used for each controller. Please ensure tracks/sections are correctly isolated from each other. The outputs of two or more control circuits must not be connected in such a way that a short circuit occurs, i.e. through switches or points, etc. A thermal response cutout device protects all outputs. **Connected power supplies such as Gaugemaster WM1, T1 or M1 should only be connected via the designated input power socket and under no circumstances should an external supply be connected into the 16/18V AC Accessories terminals. Connection of the COMBI controller to a power supply other than Gaugemaster models WM1, T1 or M1 will invalidate your warranty.**

**ACCESSORIES:** The "16/18v AC Accessories" terminals are for use with point motors and other electrical accessories, but are not suitable for Common Return wiring with the DC output. When used for point motors it is advisable to use a Capacitor Discharge Unit (CDU) to ensure successful operation.

**OPERATION:** The output on your GAUGEMASTER controller is fitted with an LED that is extinguished at zero output. Dependent upon the control level selected the brightness of the LED will change. Should the LED extinguish or remain extinguished irrespective of the control knob position then a fault condition has occurred and the unit has 'tripped'. Should an overload condition be detected output will be greatly reduced and in most cases no output will be apparent. To reset the unit, having first investigated and rectified the reason for the overload, turn the control knob to and zero and set the direction switch to its central 'OFF' position. Wait approximately 2 minutes before using the equipment as normal. Please note that whilst a tripped condition exists it may be possible to measure a small no load voltage at the output. This is normal. This unit is suitable for use with all types of motors, including Portescap, and High Frequency Track Maintainers.

**COMBI OUTPUTS:** 0-12V DC controlled (nominal), up to 1amp @ 25 deg. C and 18V AC (nominal), 50Hz, up to 1amp @ 25 deg. C  
NB. Maximum total rated output - 1amp @ 25 deg. C

**GUARANTEE:** We undertake to replace, free of charge, any parts found defective within the lifetime of the unit, providing the item has not been tampered with and parts are still available for such a repair. The guarantee on the Wall Mounted Transformer WM1 is limited to replacement of units found to be defective by manufacture. This guarantee covers only the supply of replacement parts, labour cost for fitting of same and the cost of returning the unit to the customer or retailer. This Guarantee does not affect your Statutory Rights. We reserve the right to vary design or specification without notice.

