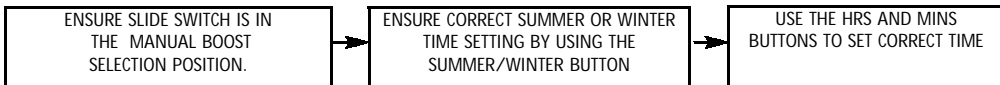
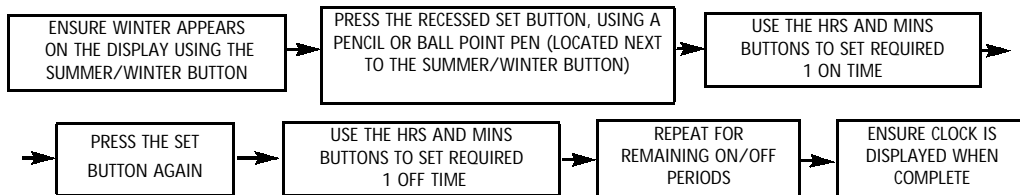


SETTING THE TIME OF DAY



ENSURE THAT THE AM/PM SETTING ARE CORRECT (THIS COULD EFFECT YOUR OFF-PEAK PROGRAMMING)

SETTING THE OFF-PEAK TIMES



SHOULD YOU NOT REQUIRE ANY FURTHER OFF-PEAK SETTINGS ENSURE THAT THE REMAINING PERIODS ARE SET AT THE SAME TIME EG; 2 ON 12:00PM - 2 OFF 12:00PM,
3 ON 12:00PM - 3 OFF 12:00PM (THESE ARE THE FACTORY DEFAULT SETTINGS)

ONCE THE CLOCK DISPLAY HAS BEEN RESTORED PLEASE ENSURE THE CORRECT SUMMER/WINTER SETTING IS ON THE DISPLAY.

COMPLETING THE INSTALLATION

To assemble the controller to its mounting box first push the connectors numbered 1 - 5 into the corresponding numbered terminal as shown in Fig.1

Carefully offer the controller to the box and secure with the fixing screws, ensuring the wiring does not become damaged.

Switch on the mains supply, put the rocker switch in the TIMED position.

QUESTIONS AND ANSWERS

The unit display has become frozen	This could be due to local electrical interference Using the RESET procedure on page 3, may rectify the fault.
There is no display on the programmer	The commissioning switch located on the rear of the unit needs to be set in either the GMT or GMT/BST position. The Electronic 7 must only be removed from it's back-box by a qualified electrician.
How do I know if the is still under warranty	The Electronic 7 comes with a 2 year guarantee from the date of manufacture. This date is located on the rear of the unit, indicated by a month over a year. The Electronic 7 must only be removed from it's backbox by a qualified electrician.

SPECIFICATION

13A 230V AC 50Hz
Suitable for immersion heaters up to 3kW
Live Parts - enclosed
Dirt protection - normal situation
Moisture protection - ordinary
Shock protection - Class 1
Contacts - Micro-disconnection
Battery Reserve - approximately 2 years total power dis-connection
Size - 170mm x 115mm x 60mm (excluding rocker switch)

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LEAFLET No P30910
ISSUE 8

**ELECTRONIC 7
INSTALLATION INSTRUCTIONS**



HORSTMANN

The Horstmann Electronic 7 is an advanced water heating control, which can be programmed to take advantage of cheap night-rate electricity, so that there is a tank of hot water available for the morning.

INSTALLATION AND CONNECTION SHOULD ONLY BE CARRIED OUT BY A SUITABLY QUALIFIED PERSON AND IN ACCORDANCE WITH THE CURRENT EDITION OF THE IEE WIRING REGULATIONS.

**WARNING : ISOLATE MAINS SUPPLY BEFORE COMMENCING INSTALLATION
ENSURE THE UNIT IS PROPERLY EARTHED.**

The Electronic 7 is supplied with it's own surface mounting box, which can also be mounted over a single or double gang flush wall box. It should NOT be mounted on an unearthed metal surface.

Means of disconnection from the supply having at least 3mm contact separation in both poles must be incorporated in the fixed wiring.

We recommend a separate fused circuit from the consumer unit (24 Hour supply) protected by a 15 amp HRC fuse or, preferably a 16 amp MCB. In some cases immersion heater failure can damage the ELECTRONIC 7. Installation of a 100 mA RCD will provide additional protection for the unit. If the ELECTRONIC 7 is to be connected to a ring main then the spur feeding the controller should be protected in the same way.

MOUNTING

The Electronic 7 should be removed from the mounting box by opening the front flap and unscrewing the 2 captive screws securing the unit to the mounting box. The flap, which is hinged along the bottom edge may be opened by inserting fingernails simultaneously behind the flap on both sides and gently levering forward.

CONDUIT BOX MOUNTING

Use either holes marked 'A' in Fig.1 to secure to a single gang box, or the two holes marked 'C' for a double gang box. Cable entry is through the cut-out between the 2 fixing holes 'A'

SURFACE MOUNTING

Use the two holes marked 'B' in Fig.1 Cable entry is through the most appropriate cut-out

REMOVE THE APPROPRIATE CABLE ENTRY CUT-OUTS BEFORE FIXING THE BOX, WHERE POSSIBLE DRILL THE BOX TO PROVIDE A CLOSE FITTING ENTRY FOR CABLES AND HEAT-RESISTANT FLEXIBLE CORDS. TAKE CARE TO REMOVE SHARP EDGES.

CONNECTIONS

Use a three-core cable with a minimum conductor size of 1.0mm² for a 2kW heater, or 1.5mm² for a 3kW heater to connect the unit to the supply. Connect the incoming wires to the terminal block as follows;

- TERMINAL 1 - LIVE in
- TERMINAL 2 - NEUTRAL in
- TERMINAL 3 - NEUTRAL(s) out to immersion heater(s)
- TERMINAL 4 - LIVE out to Boost immersion heater
- TERMINAL 5 - LIVE out to Off-Peak immersion heater

Clamp all surface wiring adjacent to the box or use trunking where appropriate. Secure the heat resistant flexible cords from the immersion heaters using the cable clamp in the box.

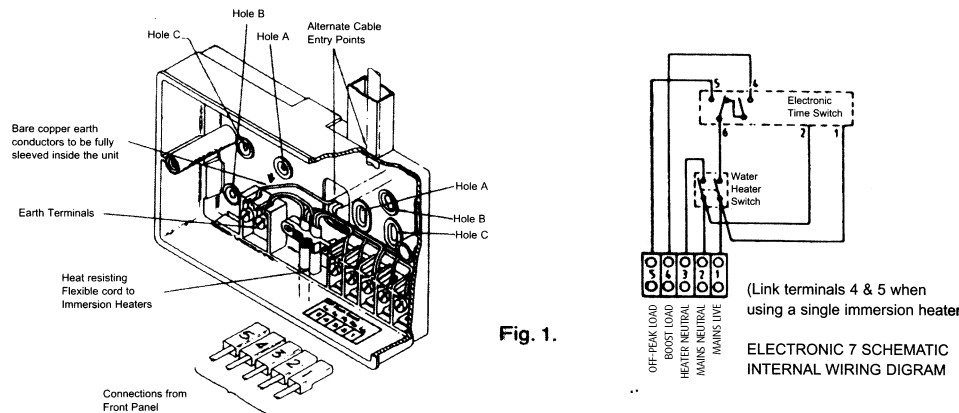


Fig. 1.

SINGLE ELEMENT IMMERSION HEATERS

The 3 core flexible cord should be heat-resistant and rated to 85°C.

TERMINAL 4 (Boost live output) should be connected to TERMINAL 5 (Off-Peak live output) and to the immersion heater.

The Neutral connection should go to TERMINAL 3 and the Earth connection to the EARTH TERMINALS.

DUAL ELEMENT IMMERSION HEATERS

The elements should be controlled through separate thermostats. In practice the thermostat for the top short element is usually set 5-10°C less than the thermostat for the long Off-Peak element.

The 3 core flexible cords should be heat-resistant and rated 85°C.

TERMINAL 4 (boost live output) should be connected to the short element and TERMINAL 5 (Off-Peak live output) to the long element.

The Neutral connections should go to TERMINAL 3 and the Earth connection to the EARTH TERMINALS.

TWIN IMMERSION HEATERS

The thermostat for the top immersion element should be set lower than the thermostat for the bottom immersion heater.

The 3 core flexible cords should be heat-resistant and rated 85°C. TERMINAL 4 (boost live output) should be connected to the top immersion heater and TERMINAL 5 (off-peak live output) to the bottom immersion heater. The two Neutral connections should go to TERMINAL 3 and the Earth connections to

PAGE 2 the EARTH TERMINALS

When wiring is complete ensure that all terminal screws, including the earth terminal screws are securely tightened to achieve a minimum torque of .75Nm.

COMMISSIONING INSTRUCTIONS

SETTING THE CONTROLLER

A feature of this controller is that it allows the time of day and Off-Peak switching times to be set before the unit is finally installed and powered up.

COMMISSIONING SWITCH

The commissioning switch which is on the back of the unit must now be set to achieve correct operation of the controller and battery reserve. The display will remain blank with the switch in the OFF position.

SWITCH POSITION - GMT or GMT/BST

It is essential that the correct commissioning switch position is selected. Incorrect setting of the commissioning switch may result in inefficient use of the available Off-Peak supply.

GMT ONLY - Switching will always take place at GMT times (summer and winter).

GMT/BST - Switching time will be changed by one hour, when the user presses

SUMMER/WINTER button on the face of the unit. In the GMT/BST mode the clock display will match the actual switching time.

If connection is to be made where a 2-Rate electricity meter is controlled by a Radio Teleswitch or other equipment, which control tariffs remotely or seasonally, it is essential that before setting the commissioning switch you find out how the off-peak times are controlled.

The Customer Service Centre of your Electricity Supplier will confirm information regarding Off-Peak electricity timing and the switching method used for your area. (see below)

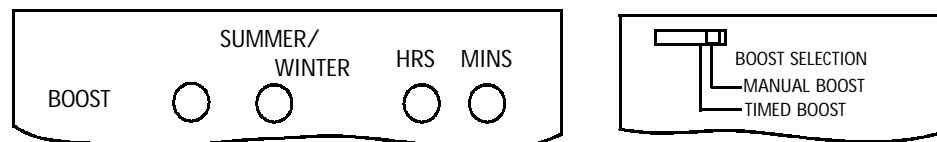
GMT ONLY - Set the switch in the GMT position, switching will always take place at GMT times (summer and winter).

GMT/BST - Set the commissioning switch in the GMT/BST position. Switching time will be changed by one hour, when the user presses SUMMER/WINTER button on the face of the unit. In the GMT/BST mode the clock display will match the actual switching time.

On installations where the 2-Rate electricity meter is controlled by a mechanical Tariff Timeswitch the commissioning switch should be set to GMT ONLY .

RESETTING THE ELECTRONIC 7

Before installing the off-peak heating periods it is important to reset the unit, this is achieved by simultaneously pressing the Boost, Summer/Winter, Hrs and Mins buttons together. The Boost selection switch must be in the Manual Boost Position.



Electronic equipment can sometimes be affected by sudden changes of atmosphere, this can result in Display being fogged or Reset function failure. If this happens leave the unit switched on for 15 minutes and repeat the RESET function.