

## GUARANTEE

Zig products are fully guaranteed for a period of one year from the date of first purchase against faulty workmanship or materials.

Zig Electronics Ltd will repair any such items free of charge provided they have been installed and used in accordance with our instructions.

In the event of a fault, the product should be returned to the place of purchase for repair or replacement under the terms of this guarantee.

This guarantee does not in any way affect your statutory rights under the Sale of Goods Act 1979.

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# CONTROL PANEL HANDBOOK

(Refers to all Zig Control Panels)

This handbook refers to the complete range of control panels available from Zig Electronics.

## THE CONTROL PANEL:

Provides switched and/or fused outlets each with their own clearly marked function. Those marked auxiliary allow for a choice of equipment to be connected during installation. (Refer to manufacturer's instructions for allocation).

The switches and fuses isolate and protect their allocated 12V accessories and allow you to choose the equipment you wish to use at any one time.

## CAR/CARAVAN BATTERY SWITCH

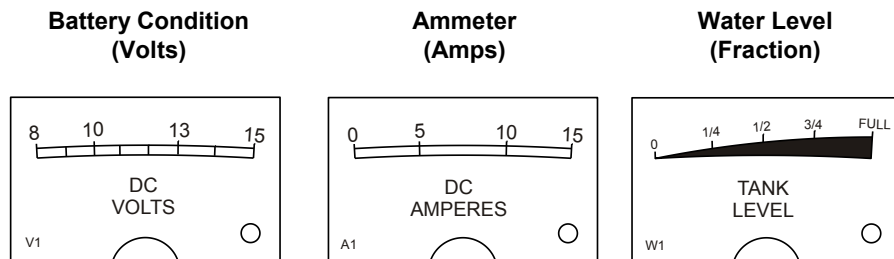
Battery power selection is sourced via the car/caravan battery changeover switch. Use of the car battery to power the internal accessories will provide longer periods between charging, care should however be taken not to flatten the car battery so far as to disable it from starting the engine. Conversely, this switch will allow you to be independent of the car by using the auxiliary battery only.

## 12V ON/OFF MASTER SWITCH

This is sometimes incorporated in the centre position of the car/caravan battery switch and serves to isolate the on board accessories and the control panel.

## PANEL METER, INDICATORS

Many of the control panels contain either one or all three of the following meters.



### 1. Battery Condition Meter (applies to LED indicators also)

The state of the battery is constantly monitored and shown on the battery indicator. The indicator is provided as a guide to show the battery requires charging or, if the battery is fully charged, the charger should be switched off. A true reading is only available when all the accessories are switched off and the battery is not being charged. The indicator may flicker as accessories are switched on and off. This is normal as the voltage differs as accessories are used.

The battery should not be allowed to fall below 11 volts and, if so, must be charged. A battery is fully charged at approximately 14 volts.

### 1a. LED Battery Condition Indicator

Providing similar information to the panel meter, the red battery low LED is set to come on when the battery voltage is below 11 volts, above this the green will glow.

### 2. Ammeter

The ammeter measures the amount of current drawn by the system at any one time, it does not show how much current is being used by the battery for charging.

NB: The current drawn by the caravan's accessories should not exceed the maximum rated output of the battery charger or power supply.

### 3. Water Level Meter

The water tank contents can be seen at any one time by pushing the button marked 'Read'. The tank's probe assembly will be set in such a way that when the meter reads empty there will be enough water in reserve to use prior to the next fill.

Each time the tank is filled an adjustment can be made to compensate for differing water conditions, i.e. acidity, softness. This can be done by holding in the push button for a short length of time whilst the tank is full and setting the needle with the calibration screw marked 'set' to full. The calibration screw should not be altered as the water level reduces.

## WATER PUMP RUNNING INDICATOR

The pump running LED will glow whenever the water pump is in operation whether or not the system contains water. It provides a warning should the pump be running when the water system is empty. This is usually only associated with pressurised systems.

## FUSES

Most panels are fitted with easy access fuse holders, either removable by hand or with the aid of a suitable tool. The fuse caps are soft and should not be over-tightened when replaced.

The fuses used are 1.25" glass quick blow. If a fuse blows the cause should be investigated and repaired prior to replacement. Only fuses of the same size, value and rating should be fitted. All other circuits will continue to function correctly in the event of a fault with any one fuse.

## CARVER CASCADE INDICATORS

Some control panels contain LED indicators to show the operation of the Carver Cascade system. This is only a repeater system and the manufacturer's handbook should be referred to for the correct operation of the water heater.

## WASTE TANK INDICATORS

The waste tank full indicators will glow when the tank is full. It is recommended that the float assembly be fitted one quarter of the tank's depth from the top so that if the indicator glows the waste system can still be used prior to emptying.