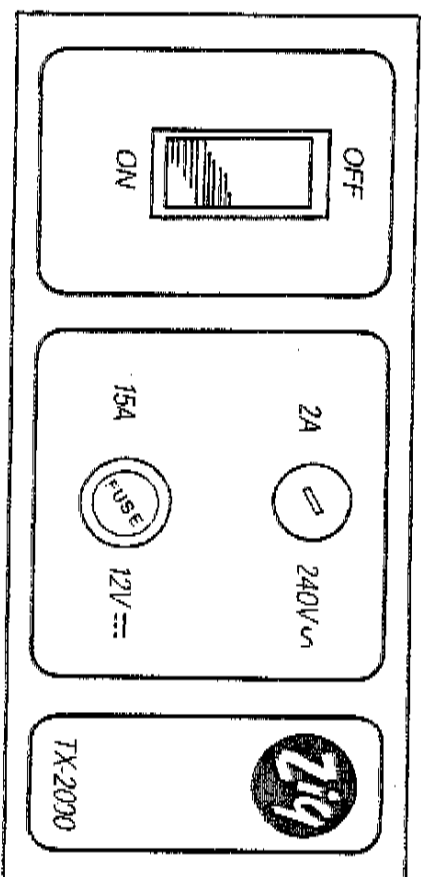


THE ZIG TX-2000
REMOTE CHARGING UNIT & POWER
SUPPLY FOR CARAVANS



INSTRUCTIONS FOR FITTING
AND USE

ZIG ELECTRONICS LTD.
CASHES GREEN
STROUD
GLOS.

INSTRUCTIONS FOR USE AND FITTING

Please read the following instructions carefully before installing or operating the TX charger.

The TX-2000 will provide a continuous 6 amp supply of smoothed usable DC power to operate the 12 volt accessories, allowing a permanent hook-up situation without the battery if required.

N.B. When 220/240 volts is not available we recommend the use of an auxiliary battery to power the accessories and to gain full use from your 21G electrical system. All manufacturers allocate space and the necessary connections for the addition of a battery which should be of lead acid type with 6 cells rated at 12 volts. One of the latest maintenance free sealed for life leisure batteries is designed for caravan and motorhome use and remember the bigger the battery the better.

Under no circumstances employ a car battery, these are designed only to start cars and little else.

Installing the Battery

Locate the battery in the space provided and connect the RED cable to the positive terminal and the BLACK cable to the negative terminal. If blue and white cables are used BLUE is positive and white is negative. Always use proper screw down or clamp on battery terminals and smear with a little petroleum jelly to prevent corrosion. Crocodile clips must never be used in a permanent situation as they deteriorate quickly and are a fire risk.

If a space has not been allocated for the battery during manufacture the following must be observed before installation:

The interior of the battery compartment must be protected against the corrosive effects of acid laden gases that may be released from a battery when it is on charge.

The compartment must be ventilated at low and high level to the outside of the caravan.

Location and installation of the TX-2000:

Choose a suitable location for the TX-2000 bearing in mind the following:

1. The minimum size of compartment must be 140mm H x 180mm W x 215mm L this allows cool air to circulate around the unit, necessary for correct operation
2. Ventilation, preferably to the outside of the van must be provided in the form of at least two 25mm holes protected by guard vents which deny access but allow the free flow of air.

N.B. All transformer operated appliances generate heat and therefore run hot when operating at full capacity.

3. Access to the battery compartment and mains inlet will be required.
4. The unit may be mounted vertically or horizontally and must be securely fixed to prevent movement whilst the vehicle is in motion. It should have at least 25 mm clearance all round and be fixed by means of No. 8 x 1 1/4" screws or similar
5. **WARNING:** This appliance must be earthed.

6. Under no circumstances use cable smaller than that recommended.

Connecting the TX-2000 to the battery:

Connect the battery to the TX-2000 using at least 2.5mm sq (50/025) cable in the following way ensuring the in-line fuse supplied is fitted in the positive as near to the battery terminal post as possible.

Battery positive (via fuse) to terminal No.1 on TX-2000
Battery negative to terminal No.3 on TX-2000

Connections to the 12S Plug/Socket:

Ensure the 12S socket is disconnected.

Using cable of at least 2.5mm sq (50/025) connect the TX-2000 to the 12S socket in the following way:

Positive terminal No.1 on the TX-2000 to No.2 on the 12S plug
Negative terminal No.3 on the TX-2000 to No.3 on the 12S plug.

If you are wiring a motorised caravan using the same cable connect terminal No.3 on the TX-2000 to earth, (bolt the cable securely to the vehicle chassis using the smallest cable run possible). Connect terminal No.1 on the TX-2000 to the main engine battery positive terminal taking care not to omit the in-line fuse supplied.

The Mains 220/240 Volt Wiring:

The TX-2000 does not control the mains facilities within your van it uses mains 220/240 volt during its operation.

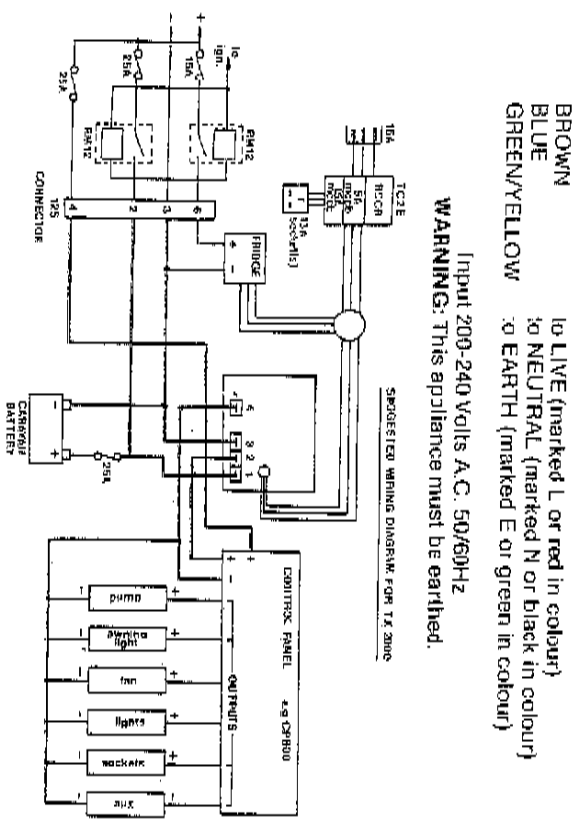
WARNING: Mains electricity can be dangerous particularly in mobile installations such as caravans and yachts if you do not have the necessary knowledge you should not attempt the following installation you should entrust it to a qualified electrician. The installation must be in accordance with the relevant ISO and IEC wiring regulations.

A Residual Current Circuit Breaker (RCCB) or Earth Leakage Circuit Breaker (ELCB) must be fitted. This is an inexpensive way of protecting against electric shocks. The device fitted must be of current operated type to the following specification:
25 amp, 30 milliamp operating in approximately 30 milliseconds.

When all the necessary 12 volt connections have been made the mains wiring can be completed. The mains input plug and socket must be polarised (connection can only be made on way round). Should you find yourself in a situation where the polarity is reversed, possibly on the continent the operation of the Zig unit will continue as normal however steps must be taken to rectify the situation as soon as possible as other electrical devices may be a source of shock. We recommend you carry a polarity tester when travelling abroad.

The plugs and sockets are widely available from caravan dealers and chandlers and must be to BS 443. Different types may be required abroad if in doubt your site operator will be able to help.

The socket chosen may be flush or surface mounted, either must be situated as near to the RCCB as possible and should be connected using 2.5mm sq cable not exceeding 2 metres in length. The input cable for the TX-2000 may now be connected preferably via a covered junction box as follows:



BROWN to LIVE (marked L or red in colour)
BLUE to NEUTRAL (marked N or black in colour)
GREEN/YELLOW to EARTH (marked E or green in colour)

Input 200-240 Volts A.C. 50/60Hz
WARNING: This appliance must be earthed.

We strongly recommend the TX-2000 is built into the van permanently, the use of plug and socket connections is not advised.

If a 13 amp plug is used this must be connected as follows:

GREEN & YELLOW to EARTH
BLUE to NEUTRAL
BROWN to LIVE

The colours of the wires in the mains lead may not correspond with the coloured markings identifying the terminals in the plug, if so proceed as follows:

The wire that is coloured green and yellow must be connected to the terminal in the plug marked with the letter E or the earth symbol

The wire which is coloured blue must be connected to the terminal marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal marked with the letter L or coloured red.

Secure all mains connections with cable clips and check the installation ensuring no strands of wire are astray which may short to earth.

Do not connect the mains supply at this stage.

The 220/240 Volt Mains Supply to the Caravan:

The 220/240 volt mains power to your caravan should be obtained from a normal domestic supply via a fused connection point. The hook-up cable should be no less than 2.5mm sq. and should be regularly inspected for damage. Once the complete electrical installation has been satisfactorily checked by a qualified electrician the TX-2000 can be tested. In order to ensure the unit is functioning correctly note the following procedure.

1. Disconnect the auxiliary battery by removing the in-line fuse.
2. Hook the caravan to the mains supply.
3. Switch the TX-2000 power supply on (the illuminated switch will be lit when in the down position).
4. If the 12 volt accessories work in the van the unit is functioning correctly.
5. Replace in-line fuse.

WIRING THE TOWCAR

Using cable of at least 2.5mm sq (50/.025) connect the socket as follows:

Pin 4 - (Green) Is wired directly to the main engine battery positive terminal via a 25 amp in-line fuse.

Pin 3 - (White) Is wired to the car chassis.

Pin 2 - (Blue) Is wired directly to the main engine battery positive terminal via a split charge relay. (available from Zig Electronics Ltd.) controlled by the ignition switch so the relay is only energised when the engine is running.

Pin 6 - (Red) Is wired as pin 2 above using a separate cable and relay. *N.B. Under no circumstances must the two cables be connected together.*

The above is provided for your information only, please note the split charge facility available from the car is automatic and is totally independent from the TX-2000.

Safety Protection for the TX-2000:

The Fuses.

The TX-2000 is protected by three safety devices, an automatically resetting thermal cutout which prevents the unit from current overload and overheating and two fuses one protecting the main supply and other the 12 volt output.

The mains fuse is a standard 20mm x 5mm glass quick blow fuse and may only be removed with the use of a tool, this is in accordance with the British Standard. Do not attempt to remove this fuse whilst the mains is connected.

The 12 volt output fuse is a standard 1 1/2" (32mm) glass quick blow fuse. Both are readily available from caravan dealers and radio spares stockists.

WARNING: Under no circumstances should a fuse of different size or rating be fitted. Should a fuse blow for any reason the fault must be diagnosed before replacement.

N.B. If a battery is not used or is heavily discharged the load drawn by the accessories must not exceed the rated output of the TX-2000.

Your Zig power supply is designed to give years of trouble free service it is rigorously tested and complies to the relevant British Standards and the requirements of the National Caravan Council and the Society of Motor Manufacturers and Traders for installation into caravans and motorhomes.

If the compartment is accessible from the outside it must be sealed to the inside of the van.

The battery must be secured upright where it cannot tip over it must be free from movement when the vehicle is in motion.

GUARANTEE

Thank you for purchasing a ZIG product.

Peter Everard Ltd, and its subsidiary Zig Electronics Ltd, Guarantee this product against failure due to faulty workmanship and/or material for a period of 12 months from the date of original purchase.

This Guarantee will be extended when the product is fitted to a caravan or motor-caravan by an original equipment manufacturer, the term will then be 12 months from the date that the caravan first became the subject of a retail sale.

It shall be at the company's discretion to determine the method of rectifying the fault.

This Guarantee is not transferable and any claims made under the Guarantee MUST be made to the supplier from whom the product was purchased, (or to the dealer who supplied the caravan originally). It is important that proof of the date of purchase is supplied by the customer.

In the event of a claim under this Guarantee please do one of the following things:

1. Return the product or the caravan to the original supplier together with proof of the date of purchase.
2. Contact the dealer for information about repairs in situ.

IMPORTANT

This guarantee will be invalidated if any attempt has been made to open, modify or repair by unauthorised personnel.

Fuses and fuseholders are not covered for failure or damage by whatever cause.

What to do if a problem occurs outside the Guarantee period.

1. Ask your local caravan dealer if he can service the unit for you.
2. Contact a qualified electrician (or if the problem is confined to the 12 volt circuits, a qualified auto-electrician.
3. If 1 and 2 above are not practical or unsuccessful, you may return the product to the manufacturers, Peter Everard Ltd., at Cashes Green, Stroud, Glos. GL5 4PA subject to the following:

(a) The product is packaged in accordance with Post Office requirements, i.e. a minimum of 2" (50mm) of packing material around the parcel. Peter Everard Ltd., will not be responsible for any damage in transit.

(b) A letter describing full details of the fault, including how and when it occurred.

(c) A cheque for £23.50 (incl. vat) made payable to Peter Everard Ltd. This is to defray charges for checking and return postage. If any repairs required exceed this figure you will be advised in writing before repairs commence. Should you decide not to proceed the above amount will be returned to you less the cost to return postage.

This Guarantee does not in any way affect your statutory rights.