SUNBIRD2 TR

Transformer Rectifier Monitor

Quick Start Guide

&

Safety Information

www.MOBILTEX.com

ABOUT THIS DOCUMENT

This document has been issued as a guide only; in all instances please refer to the full SUNBIRD2 TR Installation Instructions for further information.

HOW TO OBTAIN FULL INSTALLATION INSTRUCTIONS

1) Go to www.MOBILTEX.com and click the Corrosion Prevention link under the Solutions menu located at the top of the page.
2) Select Rectifier Monitoring & Interruption
3) Click the link for the CorTalk SUNBIRD TR and download the required files for viewing online or for printing at your own convenience. These documents contain wiring diagrams for the most common installations.

DISCLAIMER

If this equipment is used in a manner not specified by Abriox, the protection provided by the equipment may be impaired. Please ensure you follow all guidance for safe and correct use of your equipment.

SAFETY INFORMATION

Please ensure you are familiar with the safety regulations of your company and observe them at all times.

General Safety Summary

This document contains information and warnings that must be observed to keep the unit in a safe condition and ensure safe operation.

To use the unit correctly and safely, read and follow all precautions given.

Please ensure you fully understand all instructions throughout this document that relate to specific measurement functions.

In addition, please follow all generally accepted safety practices and procedures required when working with and around electricity.

Safety Symbols

The table below lists safety symbols that appear on the SUNBIRD2 TR Monitor and within this document.

Symbol	Description
CAT III	Installation Category (Overvoltage Category) III
CAT IV	Installation Category (Overvoltage Category) IV
⚠	Risk of danger. Important information. See Installation Instructions.
⚠	Hazardous voltage. Voltage > 30V AC (42.4V peak) or 60V DC may be present

Maximum Input Voltage for ON/OFF Potential Channel ⚠

The ON/OFF Potential channel of the SUNBIRD2 TR Monitor is intended to measure ±4V. It can handle a maximum input voltage of 35V AC (RMS) and 50V DC without damage.

Maximum Input Voltage for TR Volts Channel ⚠

The TR Volts channel of the SUNBIRD2 TR Monitor has a maximum input voltage of 150V AC and 150V DC. The unit has protection against high voltage transients built in, but there is a limit to the amount of energy it can dissipate.

Maximum Input Voltage for TR Shunt Channel

The TR Shunt channel of the SUNBIRD2 TR Monitor provides readings up to 100mV AC and ±100mV DC. The channel itself should not be exposed to voltages greater than ±1V peak. Voltages greater than this will cause the channel input protection to activate which can only protect the unit for a limited period of time.

Danger of Electric Shock ⚠

When using the SUNBIRD2 TR Monitor on rectifiers with an output greater than 60V DC, care should be taken as there is a danger of electric shock.

Channel Input Protection ⚠

Channels 1 and 3 have CAT IV surge protection at their rate input voltage ranges. Channel 2 has CAT III surge protection at its rated input voltage range.

WEEE Directive

This symbol indicates that this product is not to be disposed of with your household waste, according to the WEEE Directive (2002/96/EC) and your national law. This product should be handed over to a designated collection point, e.g., on an authorised one-for-one basis when you buy a new similar product or to an authorised collection site for recycling waste electrical and electronic equipment (EEE).

Improper handling of this type of waste could have a possible negative impact on the environment and human health due to potentially hazardous substances that are generally associated with EEE. At the same time, your cooperation in the correct disposal of this product will contribute to the effective usage of natural resources. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, waste authority, approved WEEE scheme or your household waste disposal service.

Batteries Directive—Information for Users

In the European Union (EU) this symbol indicates that the batteries in this product should be collected separately and not be disposed of with household waste. Substances in batteries can have a potential negative impact on health and environment and you have a role in recycling waste batteries thus contributing to the protection, preservation and improvement of the quality of the environment.

COMPLIANCE

Declaration of Conformity CE

This product is CE marked which means that Abriox declares that the product or equipment complies with all applicable European Directives. A copy of the Certificate of Conformity can be obtained from Abriox.

FCC Rules FC

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

i) Reorient or relocate the receiving antenna

ii) Increase the separation between the equipment and receiver

Do not make any changes or modifications to the equipment unless otherwise specified in the manual. If such changes or modifications should be made, you could be required to stop operation of the equipment.

UK Declaration of Conformity UKCA

This product is UKCA marked which means that Abriox declares that the product or equipment complies with all applicable UK Directives. A copy of the Declaration of Conformity can be obtained from Abriox.

INSTALLATION INSTRUCTIONS

This document has been issued as a guide only; in all instances please refer to the full Installation Instructions for further information.

Step 1 - Software Check

iCPSM4* users, please ensure you have received your iCPSM4 Licence Certificate which details your username and password.

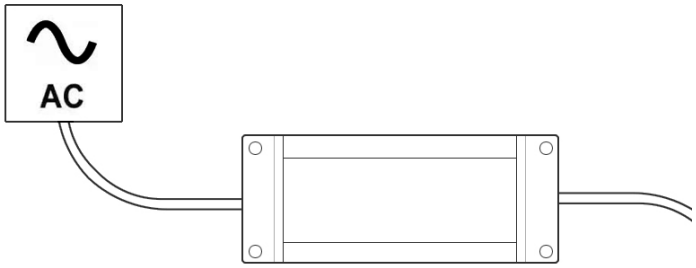
Step 2 - Gather Equipment for Installation

To install the SUNBIRD2 TR Monitor at the rectifier you will need:

- Shunt - of correct value
- A magnet - to activate the Monitor
- Consumables - for making the connections at the rectifier
- Multimeter - for confirming the voltage and current readings
- Cell/tablet - for configuring and installing the Monitor on iCPSM4
- SUNBIRD2 TR Monitor Installation Instructions
- Any accessories - mounting brackets, external antennas, lightning arrestor, relay, surge filter

Step 3 - Turn the AC Supply Off ⚠

Step 4 - Check Power Supply

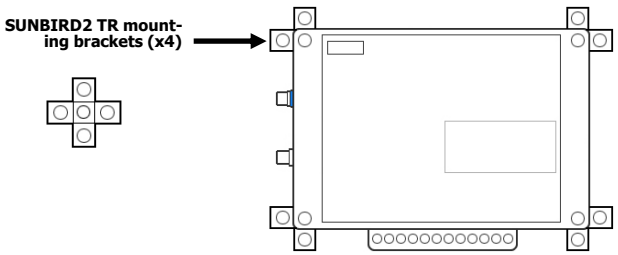


If a Power Supply Unit (PSU) is used, it should be powered from the AC supply to the rectifier (this enables the unit to report an AC outage). Make sure beforehand that there is a suitable power point available so that you can plug or wire the PSU in easily on site.

Alternatively, an external 12V DC power source may be used to power the unit.

Refer to the full installation instructions for further information.

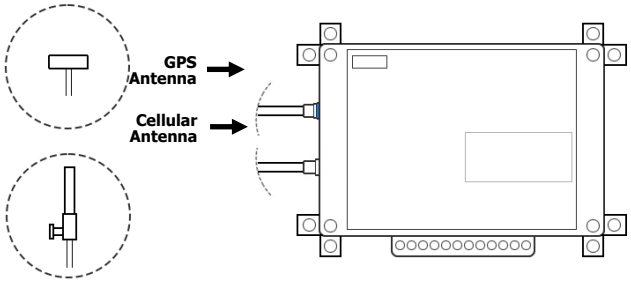
Step 5 - Mount the SUNBIRD2 TR



Locate a suitable position inside the rectifier cabinet for the SUNBIRD2 TR Monitor, PSU and any accessories to be installed.

To mount the Monitor to a chipboard, use the supplied brackets and fix in place using No.6/3.5mm screws.

Step 6 - Fit Antennas and Accessories

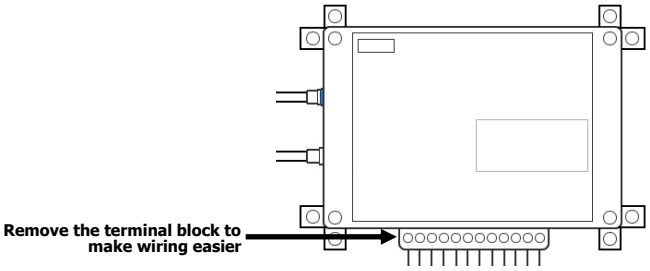


Connect both the GPS and Cellular antennas as shown (GPS is colour coded blue). When fitting the external antennas, ensure they are mounted outside any metal enclosures and ideally as high up as possible in order to gain the best GPS/Cellular signal.

Fit any other additional accessories (lightning arrestor, relay, surge filter) as required.

Please refer to the full Monitor Installation Instructions for further information.

Step 7 - Make Connections



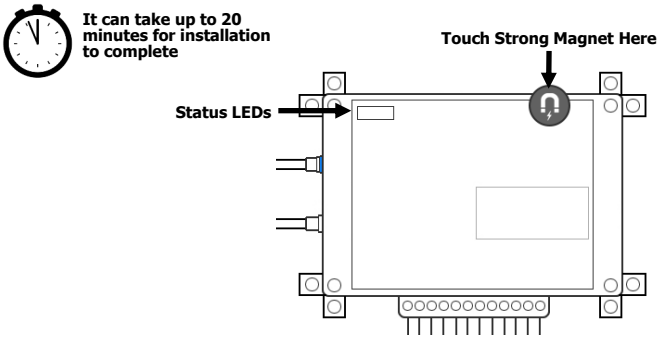
To aid installation, the terminal block may be removed by gently pulling from the SUNBIRD2 TR Monitor.

Make the connections to the Monitor as required. The unit has up to 12 connections (labelled A to L) and are briefly described on the front label.

Please refer to the full Installation Instructions for further information.

Step 8 - Turn the AC Supply On ⚠

Step 9 - Activation

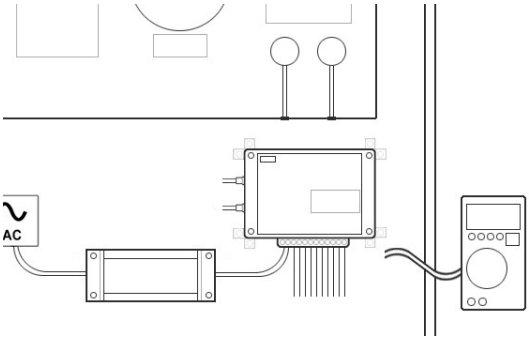


Activate the Monitor by touching a strong magnet on top of the Reset switch where indicated on the label, all 3 LEDs (Green, Amber and Red) will illuminate whilst the magnet is held in place. Once the LEDs have illuminated, remove the magnet to start the installation process.

The **Status LEDs** on the Monitor will flash to indicate the installation status. The LEDs will flash between Amber and Green to show installation/communications are taking place. Once the unit is flashing green (1 green flash every 2 seconds), communications have been established and installation has been completed.

The Status LEDs can indicate various statuses, please refer to the full Installation Instructions for further information on the LED Status.

Step 10 - Take a Reading (Optional)



Take a reading on the terminals using a multimeter and compare the measurements against the readings given by the Monitor in the iCPSM4 software.

To check the measurements taken by the Monitor, open iCPSM4 via a browser on your phone/tablet/ laptop etc. Once you are logged in, click on "New Installations" from the menu on the left and locate your unit by matching the serial number on the front of the unit.

Check the reading values match those given by the multimeter.

If any of the readings are inconsistent with the multimeter, check the wiring.

Step 11 - Post Site Configuration and Installation

Once installed you will need to assign the Monitor to a Pipeline and Location, you will also need enter the shunt value in the iCPSM4 software.

The software also allows you to specify the alert thresholds, measurement time and time zone.

Further configuration and operational features can be carried out directly via the software. Please refer to the full Installation Instructions for further information.