

This document provides a brief overview of the TB7304 DMR Transportable Repeater. For full details on the operation of the repeater itself, refer to the TB7300 Base Station Manual. The TB7300 Transportable Repeater contains a TB7300 base station repackaged into a rugged pelican case with an internal AC supply, internal 12v SLA battery, charge circuit and switching circuits for an external DC supply.

## LED Indication Details

Four LEDs are present to indicate the status of the repeater. Two further LEDs are located on the inside front panel of the case to indicate the status of the battery while charging.

### Repeater

LED	Indication	Details
Repeater Power	Green	Repeater power is on
All LEDs/Alarm	Flashing	Power up sequence is in progress
Alarm	On	Repeater is in offline mode
Alarm	Flashing <sup>a</sup>	An alarm condition needs to be cleared
Receive	Orange	Receiver is receiving
Transmit	Orange	Transmitter is keyed

- a. after the four power-up sequences

### Status

This LED is only lit when an AC supply is connected.

LED	Indication	Details
Status	Green	Battery is fully charged or above 20% charged
Status	Red, flashing	Battery is low
Status	Off	Battery has been disconnected due to low voltage

### Charge

This LED is only lit when an AC supply is connected.

LED	Indication	Details
Charge	Red	Battery is being charged
Charge	Off	Battery is fully charged



**Warning** When operating at high duty cycles with the lid closed, do not exceed 15W output power as this risks thermal shut-down.

## Battery Select Switch



**Warning** When shipping and charging the transportable, set the battery select switch to External DC/Battery Isolate to comply with safety regulations.

The battery select switch is protected with a raised red surround to avoid accidental switching on when the lid is closed.



**Warning** Risk of missing calls! Switching between Internal Battery and External DC/Battery Isolate will likely cause the transportable to restart!

When the switch is set to Internal Battery, the transportable runs from the internal battery (or mains supply if connected).

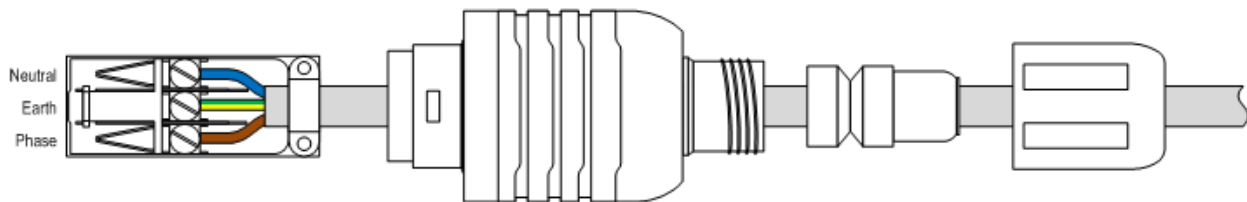
When the switch is set to External DC/Battery Isolate, the internal battery is disconnected from all circuitry in the transportable. In this situation, all the circuits in the transportable, including the repeater, can only run from an external DC supply. When connected to a mains lead, the charger circuitry is automatically switched on and connected to the internal battery.

## Battery Power

With a fully-charged battery, an operating regime of 10% transmit at 15W, and 90% standby time will keep the transportable running for approx. 8 hours (with a new battery).

## Mains Socket Wiring

The repeater is shipped with a Schurter waterproof AC Mains socket this will need to be wired by an electrician or electrically registered person.



## Battery Charging



**Warning Risk of fire! The lid must be open when charging. The VRLA battery may vent when charged at a current greater than 3A. This does not occur during normal charging.**

The transportable will shut itself down when the internal battery voltage drops too low. When that level of discharge has been reached, it will take up to 12 hours to recharge the battery using an AC mains connection. When charging, press the recessed button located at the left of the Charge LED to turn charging off and on.

## External DC Power

A DC input cable is supplied with the transportable for connection to external DC Supplies between 11 and 15VDC.

**Notice** When using external DC power, the battery cannot be charged.

**Notice** When the transportable is not in use, always switch the battery select switch to External DC/Battery Isolate.