



terraTX-50

The terraTX-50 is a high power field transmitter capable of delivering 50Amps to a transmitter loop, designed to be used in conjunction with a terraTEM unit. The period is controlled by the terraTEM or the GPS Synchronisation Module. The ramp and the full Tx current waveform are directly inputted into the terraTEM. This makes the system simple to operate, freeing up operators from inputting key system parameters into the console after each sounding.

The transmitter current and turn-off time depend on the transmitter loop resistance and inductance, along with the input voltage. Inbuilt damping resistors allow the operator to tune the response through a wide variety of loops typically encountered in geophysical and geotechnical surveys.



The terraTX-50 base unit comes complete with the console, battery pack (designed to hold 2 x 12V batteries), battery charger, 5m synchronisation cable, loop input cable, Tx output cable, console power cable, three battery interlink cables, and an operation manual on CD. Optional enhancements available for use with the terraTX-50 include a 200m synchronising cable supplied on a reel to be used in place of the 5m synchronisation cable.

An optional GPS Synchronisation Module is available. External GPS Synchronisation Modules are connected to both the terraTEM console and terraTX-50 console to provide a trigger waveform and to transmit bipolar waveform respectively. This option has been designed with the goal of keeping equipment intuitive and operationally simple. The GPS Synchronisation Modules option greatly simplifies field procedures for fixed loop, downhole surveys, and in-loop surveys when cable synchronisation is not possible or practical. It is important to note that the transmitter and receiver must not be connected to the same loop (i.e. do not use in single loop mode).

terraTX-50 Specifications

- 100V loop input voltage.
- 1 - 50Amps output current.
- Bipolar waveform with 50% duty cycle.
- Fast turn-off time (i.e. 22 μ s at 50Amps into a 50m x 50m loop).
- Cable (5m) timing synchronisation as standard.
- GPS and extended cable (200m) optional for timing synchronisation.
- Convection cooled using heatsink with an optional fan for additional cooling.
- terraTX-50 console displays information including the loop input voltage and loop current information, as well as overheating and over current warnings.
- terraTX-50 console includes inbuilt overload protection.
- External battery pack, designed to provide 24V power to the console, allowing for continuous operation throughout the day.
- Operating temperature of -20 to + 50 degrees Celsius.
- terraTX-50 console measures 46cm x 36cm x 16cm, weight 10kg.
- terraTX-50 battery pack measures 28cm x 25cm x 18cm, weight 12 kg (when loaded with 2 x 12V batteries, not included in purchase).

