

JUPITER

Cable and Core Identifier

by **MADE-SA**

- For working on unpowered cables, with customer loads connected
- Identification of Cables in a trench
- Checking cable Continuity
- Identification of the Cores in both short and open circuit
- Easy to use by one operator

JUPITER is a multi-function system intended to improve the efficiency of work such as cable connections and repairs. Used on unpowered LV or HV networks, it will identify the cable to be worked on, and the cores in the cable, quickly and reliably.

The transmitter is self-powered and injects the signals needed for the different functions sequentially into the cable via the current clamps, so that all the functions are always available. The current clamps are closed around the unscreened cable end, or around the shorting cable supplied with the system.

The receiver is a hand-held unit to which is connected one of up to five sensors for performing the various functions. The operation mode is automatically adapted to the sensor connected. There is a sensor for cable identification, probes for confirming the cable continuity, a Rogowski coil sensor for core identification in closed circuit, and probes for core identification in open circuit, after the cable has been cut, for example. There is an optional double Rogowski coil sensor for core identification on a four-core LV cable. The measurement results are displayed unambiguously by LEDs on the hand-held, so that no operator interpretation is required.

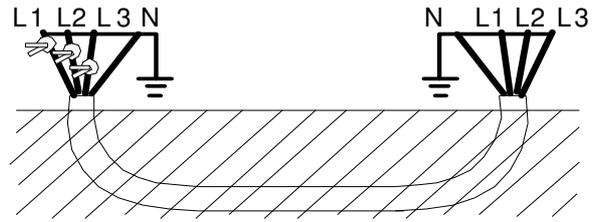


The **JUPITER** system has many applications in electrical network management including making new connections, confirming existing circuits and as an aid to fault location and restoration.

TRANSMITTER CONNECTION

The transmitter current clamps are closed around the unscreened ends of the cores as shown on the right.

Alternatively, they can be closed around the shorting cables supplied with the JUPITER system.



JUPITER is an evolution of **MADE**'s **ZENITH** cable identification system of which hundreds are in service. In addition to being much smaller and lighter, **JUPITER** is much simpler to use as all the functions are available all the time, so there is no need to return to the transmitter to change modes. All indications are by LEDs and no operator interpretation is required.

A typical sequence of use for the system would be:-

1) The ends of the cores in the cable are shorted together in the junction box or with the cables provided, and the transmitter CTs are fitted at one end. The cores can be earthed, but the earth connection must not short the cables again "inside" the transmitter connection.

2) The cable continuity and the colour coding of the cores are confirmed to correspond from end to end using the Rogowski coil sensor shown.

3) The cable is identified at the point of interest in the trench, substation etc., using the detection sensor shown.

4) The cable is cut.

5) The continuity is confirmed between the transmitter and the cut end with these probes.

6) The cores at the cut end are identified for colour in open circuit with these probes.

This optional sensor with two Rogowski coils is available for core identification on a four-core cable (L1, L2, L3, N)

Normally, all transmitters and receivers are identical and interchangeable. However, a « matched » pair of transmitters can be provided for use at opposite ends of a cable to be cut, so that a receiver can be used immediately on either cut section.

TRANSMITTER

Supply - Internal 12v. Accumulator giving 10 hours autonomy.

The integral charger powers the unit & charges the accumulator.

Dimensions 40 x 30 x 8 cm, Weight 12 kg.

RECEIVER

Supply - Internal 9V. PP3 batteries giving an autonomy of 2000 measurements.

Weight 3 kg. including accessories

Display - function dedicated LEDs

Operating temperature -20 to 70°C

