Lee-Vaughan Cable Identifier Mk IV

Cable identifier for use by Electricity Distribution Engineers as an essential part of their equipment when reliable high voltage cable identification is required.

The Lee-Vaughan Cable Identifier is a well proven and reliable instrument for the positive identification of high voltage power cables prior to spiking or commencing work. The Lee Vaughan is particularly beneficial in situations where one of several cables in a location requires identification.

Features

- DEVELOPED FOR USE BY ELECTRICITY DISTRIBUTION SYSTEM ENGINEERS
- COMPLIES WITH RELEVANT CE REQUIREMENTS
- VISUALAND AUDIBLE IDENTIFICATION FROM RISE AND FALL OF INDUCED SIGNAL DUE TO CABLE ‘LAY’.
- CONVENIENTLY HOUSED IN FITTED CARRY CASE
- TRANSMITTER & RECEIVER EACH POWERED BY READILY AVAILABLE 4 X AA SIZE CELLS
- NEAT COMPACT DESIGN

Description

It consists of a sturdy plastic carrying case foam-fitted to house the transmitter, receiver, and headset.

The transmitter is in a strong plastic case with spring loaded output connection terminals. Power for several hours use is by 4 AA cells (HP7) that are readily available and easily fitted. The transmitter emits an interrupted signal that when fed into the cable can be picked up by the receiver at the identification point. When the unit is in operation a red LED flashes at the interrupt frequency.

The receiver is housed in a similar case to the transmitter and requires the same type of battery. It contains a coil for signal pickup and an amplifier with gain control for the meter and headset. To help to conserve battery life an interlock is arranged to disconnect the battery when the headset plug is removed from its socket.

Operation

The cable to be identified must be discharged to earth and ‘dead’ before using the identifier.

To use the Identifier, a short circuit is placed across two healthy cores at the far end of the cable to be identified. The transmitter should be connected to the same two cores at the near end. The

transmitter should be switched on and the LED observed to flash. After switching on the receiver and plugging-in the headset, the transmitter's 'bleep bleep' will be heard. Observing the meter should show a varying deflection in sympathy with the 'bleeps'. Leave the transmitter switched on but switch off the receiver.

At the site where the cable is to be identified the headset should be plugged into the receiver again and switching on should produce some background hiss in the headset. As the correct cable is approached by the receiver the distinctive 'bleep bleep' will be heard in the headset and an accompanying deflection seen on the meter.

It is important to understand that 'identification' by this technique is made by detection of the magnetic field from the current loop formed by the shorted cable cores. Due to capacity effects some signal might sometimes be heard from cables other than the correct one. To avoid this 'false identification' always run the receiver probe along the axis of the cable and ensure that the 'lay' of the cable (twist of the cores) gives rise to a clearly defined rise and fall of the received signal. It is this rise and fall characteristic in the loudness of the 'bleeps' that gives this method of identification its effectiveness.

Caution

The Electricity Supply Safety Rules should be observed when using this instrument.

Specification

Transmitter Signal 1 .6KHz interrupted Power output minimised to avoid adjacent cable pickup.
Battery Power: - 4 x AA per unit.
Dimensions
Transmitter I Receiver 175 x 90 x 45mm
Carrying Case:-360 x 270 x 90mm
Weight including carry case and batteries:-1 .7 Kg