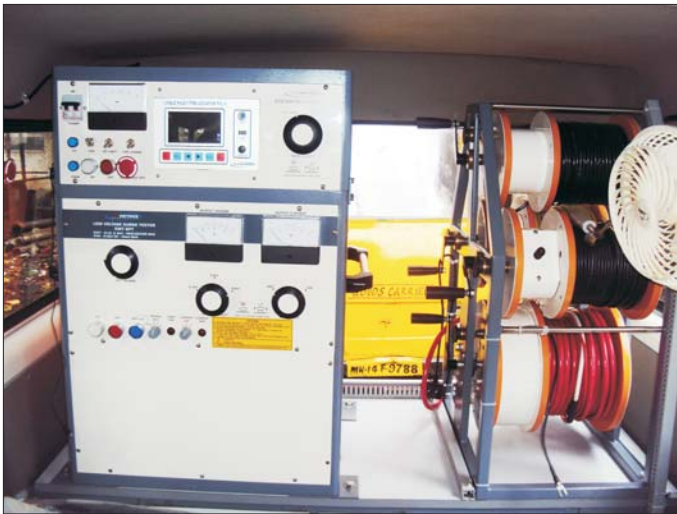


## Cable Test Van System for LT Network 1.1kV



Front View



Rear View

### Description

Telemetrics make Van mounting cable fault locating system is a basic requirement of any power distribution network company.

It is a very common fault locating power full system to localize underground any nature of cable faults in short time.

The system is a mobile laboratory having required equipments available to the operator at a site.

Van mounting cable fault locating system is a total solution for fault location in any type of power cables.



**TELEMETRICS EQUIPMENTS PVT. LTD.**

**Pre-location**

After identifying the type of fault, pre-location of fault can be determined using the latest pre-location method TDR.

**TDR / ECHO Method**

A narrow electromagnetic pulse with a fast rise time is sent in the cable that reflects back from the fault point / far end where the impedance was change.

The distance to the fault is then computed and displayed on screen.

**DC Test**

It is used to perform Di-electric strength of insulation in the cable and prove the integrity to identify and confirm fault conditions with a maximum test voltage up to 6 kV and current 10 mA.

**Pin-point**

Surges of high energy are applied across the fault at the set voltage with suitable time interval for pin-pointing the exact spot of cable fault. These surges create noise and vibrations at the fault point. The intensity of the noise and vibrations get attenuated during their travel to the ground surface. A ground microphone and a sensitive surge wave receiver carried on the route of the cable at the pre-located area and pin-point the exact spot of the fault in minimum time.

**Application**

The Cable fault locating van system is used to perform DC high-pot test, pre-location and pin-point of underground cable fault. Pin-point of cable fault is carried out by acoustic with the help of suitable surge wave receiver in power transmission and distribution cable networks.

**Functions**

The Control unit is an integrated central operator inter-face for all operational modes and provides the monitoring of the system and the integrated safety facilities. It enables an easy and quick operation of the system, prevents operational errors and reduces the fault location time considerably. All necessary selection of equipment, switching and operations such as pre-locations, high voltage test, and pin-pointing is carried out.

**Safety**

Telemetrics gives higher priority to safety of operating personnel. The van system is divided in two section, operator section and HV section. HV section is equipped with proper safe guards such as door interlocks, inbuilt auto discharge. Operator section has Emergency off control on control panel. External emergency off switch at a entrance door to switch off entire system in case of any emergency.

**Working Principle**

Surges of high energy are applied to the fault at the set voltage and time interval for pin-pointing the exact spot on the cable length. These surges create noise and vibrations at the fault site. The intensity of the noise and vibrations get attenuated during their travel to the ground surface. A ground microphone and a sensitive surge wave receiver carried on the route of the cable on the fault pre-located area and pin-pointed the exact spot of the fault in minimum time.

The high voltage DC test up to 6 kV is carried out to check the dielectric strength or insulation of cable on DC test mode. The respective voltage and leakage current is indicated on the meters.

**Features**

- Fast and precise cable fault location.
- Modular test system with stand alone equipments and total test achievable from a single test station.
- Latest Pre-location TDR method.
- Comprehensive safety measures for optimum safety of operator.
- Cable test / proof test by means of DC voltage up to 6 kV.
- Optimized surge energy for switchable capacitors values for each range.
- High surge energy of 750 Joules with 3 & 6 kV max output for easy to pin-point cable faults.
- Full output energy delivering capacity of surge tester on each selected range.
- Continues operation for extended period in case of pin-point difficult cable faults.
- Extended HV output up to 25 meters through heavy duty cable drum.
- Safety earth monitoring system to provide operator safety.
- Fully protected operation with safety interlocks.
- Light weight, small, flexible receiver with high sensitive ground microphone for pin-point of cable fault.



## Specifications

### Low Voltage Surge Tester SWT 6 PT

#### Surge Mode

Output Ranges	0 - 3, 6 kV selectable & continuously variable
Output Energy	750 Joules full energy at each range
Impulse Mode	Single and Auto
Auto Impulse Sequence	1.5, 3 and 6 seconds intervals
Indication	ON / OFF lamp indication Analog moving coil meter for output voltage (kV) Indication Over Temp Trip LED indication Analog moving coil meter for Mains input
Operating Time	Surge Test 2 - 3 hours continuous DC Test 3 minutes
Earth Discharge	Soft and automatic discharge

#### DC Test Mode

Output Voltage	6 kV
Output Current	1, 5, 10 mA
Indication	Analog moving coil meter for output voltage (kV) Indication Analog moving coil meter for output current (mA) Indication Over Current Trip LED indication
Power Supply	230V AC $\pm$ 10%, 50 Hz, Single phase
Safety Protections	Variac zero inter-lock Output cable plug inter-lock HV Switch inter-lock Mode Switch inter-lock Emergency OFF switching Over Temperature & Current Trip Mains input circuit breaker (MCB)
Working Temp.	0 Deg C ~ 55 Deg C
Storage Temp.	- 5 Deg C ~ 60 Deg C
Dimensions	550(L) x 450(W) x 615(H) mm
Weight	95 Kg Approx

### Cable Fault Pre-locator TFL 5

Fault Distance Range	8 Km (240m, 480m, 1000m, 2000m, 4000m, 8000m)
Measurement Mode	TDR (Time Domain Reflectometer)
Fault Accuracy	1 Meter
Pulse Width	40 ns - 10 us
Pulse Waveform	Two polarity pulse
Pulse Amplitude	0 - 30 V Adjustment adaptive
VOP Range	100 - 300
Impedance Matching	Automatic
Gain Adjustment	Automatic and Manual
Testing Accuracy	$\pm$ 1% $\times$ Cable length
Measurement Dead Zone	0 Meter
Auto Measurement Dead Zone	0 Meter
Output Impedance	25 - 120 Adaptive
Sampling Speed	100 MHZ
PC Connectivity	USB
Resolution	1 Meter
Gain Range	1 - 99
Display Readout	Color LCD and 480 * 280
Power Supply	7.4 V Rechargeable Li-on battery
Charging Time	3 Hours
Operating Time	8 Hours
Charging Voltage	230V AC $\pm$ 10%, 50Hz, Single phase.
Storage Temp.	-15 Deg C ~ + 55 Deg C
Working Temp.	-15 Deg C ~ + 45 Deg C
Dimension	212 (L) $\times$ 170 (W) $\times$ 90 (H) mm
Weight	1.27 Kg Approx



## Specifications

### Surge Wave Receiver SLE 90

Power Supply	1.5 V X 8 AA size batteries
Operating Time	More than 15 Hrs. Continuous
Working Channels	Acoustic and Magnetic
Acoustic Channels	Broad band Filter 70 - 3000 Hz
Magnetic Channels	9820 Hz $\pm$ 10 Hz Bandwidth Filter
Gain	More than 96 dB for both magnetic and acoustic channels

Indication	Dual LCD bar-graph display to indicate the levels of acoustic and Magnetic channels. Battery check status Peak hold signal level bar on LCD
Input Impedence	500 Ohm for ground microphone
Working Temp.	0 deg C ~ 55 deg C
Storage Temp.	- 5 deg C ~ 60 deg C
Dimensions	240 (L) x 80 (H) x 190 (D) mm
Weight	1.5 kg Approx with Batteries

### Cable Drums

- HV Output Cable - 6 sq mm single core screen output HV cable 25 mtr.
- Earth Cable - 16 sq mm single flexible PVC copper cable 25 mtr.
- Mains Cable - 6 sq mm single core flexible copper cable 25 mtr.
- TDR Cable - Single core shielded cable 25mtr.

Standard Warranty	One Year
Standard Accessories	Hard Discharge Rod, Earth Spike, Cooling Fan, Tools Set, Multimeter or Insulation Tester 5kV, Fire Extinguisher,
Flooring in van system	Copper sheet 0.5mm, Good insulation quality Rubber sheet 3mm, Carpet 1.5mm

**Telemetrics Equipments Pvt. Ltd.**

[www.telemetrics.in](http://www.telemetrics.in)

**Pune**

5, 7 & 8 Electronic Sadan II, MIDC,  
Bhosari, Pune - 411026  
Maharashtra, INDIA.

+91-20-27122936 / 27123176

[sales@telemetrics.in](mailto:sales@telemetrics.in)

CIN  
U99999MH1976PTC 018745



**TELEMETRICS EQUIPMENTS PVT. LTD.**