

( Kind attention sh. V.K. Katiyar )

Indent of SSE/T/CTO/KOTA

NO. 48115037 Dtd: 08.01.14

Sub. :- " Technical Specification Of Cable Avoidance Tool "

Respected Sir,

The Technical specification of cable avoidance tool (cable location equipment) is as under -

A. Cable locating unit -

The Locating unit shall be able to detect the presence of buried signal and telecom cables, power cables, iron pipes, etc. through selection switch and should also precisely plot the existing cable route which is helpful in protecting the cables against damage caused by excavations. It should be able to detect cables.

- (1) By feeding a signal at one end through signal generator and
- (2) Without feeding any signal.

It should also check the proper route for new cabling work and may thus be able to identify best route free from existing services. It should be capable of measuring the depth of buried cables to ascertain that the cables are buried at proper depth. It should be robust enough to perform reliably in all site conditions and whether situation.

1. Indicators

Visual-

\*Large, easy to read liquid crystal display. Shock resistance, mounted behind polycarbonate lens maximum protection. The display should indicate-

- Received signal strength.

*Jc*  
*28/1/14*

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(1)

- Battery condition.
- Current selected mode.
- Depth in case of depth measurement mode selected

Audio-

- \* Audio response to be produced by integrated loudspeaker.
- \* Loudspeaker should be removable and user replaceable.
- \* Audio response should be an analog derivative of received signal.

2. Depth measurement

- \* Range- Upto minimum 3 Mtr.
- \* Accuracy- Better than  $\pm 5\%$ @ 1mtr.

3. Construction

- \* Casing of digital receiver should be of high impact plastic, Moisture/duct resistant to IP65.

4. Power source

- \* Shall be powered by standard internal main battery, with automatic switching off feature to save battery life, fitted in a battery capsule and an extra set of battery fitted into extra battery capsule. Both main and extra battery capsule should be fitted in to a single battery compartment.
- \* Battery life- Approx. 40 Hrs intermittent use.

5. Weight- The approximate weight of the equipment shall be less than 3 Kgs.

Signal Generator-

The signal generator should be capable of applying its signal to a cable using direct connection method with the help of signal clamp and by remote induction without the physically connecting to the buried service or external aerals for tracing the route of buried services.

1. Indicators

Visual-

- \* Large, easy to read liquid crystal display. Shock resistant, mounted behind polycarbonate lens (maximum protection). The display should indicate-
  - Output signal strength.
  - Output signal selected (Pulse or continuous)
  - Battery condition.
  - Speaker mute.

Audio-

- \* Audio response to be produced by integrated-loudspeaker.
- \* Battery low indication.

2. Construction

- \* Casing should be of high impact plastic, Moisture/duct resistant to IP65.

3. Power source

- \* Shall be powered by standard internal battery, with automatic switching off feature to save battery life.
- \* Battery life- Approx. 40 Hrs intermittent use.

4. Weight- The approximate weight of the equipment shall be less than 3 Kgs.

Signal Clamp-

- It should be large enough to fit around 100mm dia cable.
- Should be resistant to ingress of dirt
- It should operate without deterioration when emerged in the water.

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