CABLE LOCATORS & SIGNAL GENERATORS

SAFETY PRECAUTIONS & WARNINGS

It is in the interests of those operating this equipment, and for the safety of others, that these SAFETY PRECAUTIONS & WARNINGS are carefully read and understood before operating this equipment.

PURPOSE

CABLE LOCATORS

1. This equipment is designed, when used independently, for locating buried cables and other similar conductors.

SIGNAL GENERATORS

2. This equipment is designed to transmit a signal through 'non-energised' buried cables and pipes whether connected, or dis-connected, for the purpose of detecting their presence.

   NOTE: DO NOT CONNECT THIS PARTICULAR EQUIPMENT TO ANY UN-INSULATED LIVE CONDUCTORS.

PERSONAL SAFETY

3. This equipment is designed for operation by an able bodied adult. Anyone with either temporary or permanent disability must seek expert advice before using it. It must not be operated by minors, or by anyone under the influence of drugs or alcohol.
4. Before attempting to operate this equipment you must familiarise yourself with the equipment, its controls and operating characteristics.
5. Before starting your work, think and plan ahead to ensure you, and others around you, will be working in a safe environment.
6. When operating this equipment, it is recommended that the following items of Personal Protective Equipment (PPE) be worn:
   - **Safety helmet to EN397 or BS5240.**
   - **Safety boots to EN345 or BS1870/4972.**

   Note: Other types of work, or environment, may require a higher level of PPE.

OPERATING AREA SAFETY

7. Before commencing work, ensure that the area you are to operate the equipment in is a safe environment. Erect safety barriers and warning signs as necessary.
8. Make sure that the work area is clear of obstructions and hazards and that no one is close by that could distract you whilst operating the hoist.
9. Anybody who is working near to you will also need to wear the appropriate PPE.
10. Before commencing work, warn others who may be working in the vicinity to keep clear. If possible, place safety barriers and signs around your work area.

BEFORE OPERATING THE EQUIPMENT

SAFETY CHECKS

11. Visually inspect the equipment for serviceability (completeness, signs of damage, undue wear, etc.). Do not use the equipment if found damaged or worn - contact the hire company immediately.
12. Before attempting to operate the equipment, familiarise yourself with the equipments controls. Make sure you understand their purpose and function.

OPERATING THE EQUIPMENT

CABLE LOCATOR

13. To minimize interference, do not use a cable locator that has been switched-on within 5m (16ft) of a signal generator.
14. This equipment is delicate and should be handled with care. If found damaged, do not use - inform the hire company.
15. Familiarise yourself with the operation and functioning of the equipment and how to interpret the incoming signals.
16. Check the operation of the equipment by squeezing the trigger **'ON'** and **'OFF'** when an audible 'beep' should be heard.
17. If no **'bleep'**, is heard, change the batteries located in the battery compartment. Repeat the test above.
18. Check for correct operation of the sensitivity control. Follow the instructions printed on the inside of the equipments cover.
19. The majority of cable locators have detachable speakers for use on noisy work sites. Check they are functioning correctly.
20. Cable locators have three modes of operation, controlled by either three independent switches or an electronic function control. All methods operate in a similar manner. The three operating modes are:

    (a) Power Mode

    Enables the equipment to locate energized cables and pipes.

    (b) Radio Mode

    Enables the equipment to locate long pipes and cables that have no energy of their own, but are resonating certain very low frequencies (VLF) from other distant radio or VLF transmitters.

    Note: In these two modes, (a) and (b) above, the cable locator is used WITHOUT a signal generator.

    (c) Signal Generator Mode

    In this mode the cable locator is used to produce a signal in conjunction with the signal generator (see section on **SIGNAL GENERATOR**).
21. For future identification of the location of the detected cable or pipes mark the surface with spray paint.
22. Stop working and switch-**'OFF'** the equipment if someone approaches you.

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SIGNAL GENERATOR

23. This equipment is delicate and should be handled with care. If found damaged, do not use - inform the hire company.
24. Familiarise yourself with the operation and functioning of the equipment and how to interpret the incoming signals.
25. Check the operation of the equipment by switching **'ON'** and **'OFF'**, an audible 'beep' should be heard.
26. If no **'bleep'**, is heard, change the batteries located in the battery compartment. Repeat the test.
27. The majority of signal generators have detachable speakers for use on noisy work sites. Check they are functioning correctly.
28. Two sockets are provided; one for a cable connection to a pipe via an alligator clip (or clamp), the other for an earth lead.
29. Signal generators have three or more modes of operation, controlled by one function switch. The signals generated are transmitted to a cable locator. The operating modes are:

    (a) The 'OFF' Mode

    For when the signal generator is not in use, select this position to save battery life.

    (b) Induction Mode

    For the detection of one pipe only. In this mode the signal generator must not have any cable or wires connected to any external object. In the selective induction mode, the signal generator detects one pipe only, in conjunction with a cable locator. Position the signal generator upright, in-line with and directly above a known part of a pipe to be located. Use the cable locator to detect the signal (pipe) and mark its position with spray paint. To obtain a wider area response, the signal generator is laid on its side with its load speaker facing upper most. To induce a signal into an under ground electrical system, place the signal generator against, for example, a lamppost.

    (c) Connection Mode

    This mode should be used in preference to the induction mode whenever possible. Connect one end of the lead into the signal socket on the signal generator and secure the other end to the pipe you wish to locate. Connect the earth lead into the jack socket and secure (alligator clip or clamp) the opposite end to metal stake driven into the ground. To check for successful connection, disconnect and reconnect the alligator clip (or clamp) on the pipe and listen for the change in tone through the loudspeaker. Mark the pipes position with spray paint.

    (d) Metal cover Detection

    The majority of signal generators can be used to detect metal covers or metal boxes beneath ground. Switch to **'CONNECTION MODE'**, adjust the tuning control and follow the instructions attached to the side of the signal generator.

SECURITY & MAINTENANCE

30. Visually check the condition of the equipment at the start of each day.
31. If the equipment operates erratically, or incorrectly, do not use and do not attempt to repair it. Inform the hire company.
32. Periodically clean the equipment to ensure it is free from dust, dirt and other debris.
33. When the equipment is left unattended for long periods (i.e. overnight), ensure it is made secure to prevent unauthorised use or loss.

COLLECTION & PICK-UP

34. For safety reasons this equipment requires you to use a **VAN** or an **ESTATE**.