

# HOLMAN

# Cable & Solenoid Seeker



## Parts Included:

- 1 x Wire Locator Transmitter
- 1 x Wire Locator Receiver
- 1 x Premium Durable Case
- 1 x Earphones

Note: The HOLMAN Cable & Solenoid Seeker is ideal for users to trace low voltage cables. It is not recommended that unqualified people use this equipment to trace cables that are above 32 Volts. (Requires 2 x 9V Batteries - Included)

## Instruction Manual



Product Code: CSS001

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# Safety & Specifications

## Safety

### WARNING - READ INSTRUCTION MANUALS BEFORE USE

Read & understand this material before operating or servicing this equipment. Failure to understand how to safely operate this tool could result in an accident causing serious injury or death.

The HOLMAN Cable & Solenoid Seeker is suitable for use on LOW voltage (below 30VAC or 30VDC) installations only.

At no time should this device be used on utility mains powered devices or cabling connected to the utility mains! If in doubt do not use this device and call in a suitably qualified electrical contractor.

Parts included: 1 x Wire Locator Transmitter, 1 x Wire Locator Receiver, 1 x Premium Durable Case, 1 x Earphones, 2 x Instruction Manuals.

## Specification



### Electrical

Output Voltage (open circuit) .....9V peak to peak

Output Frequency (nominal):

Carrier .....447.5 KHz

Audio Modulation .....900Hz

Battery .....9VDC

Battery Life (nominal):

Wire Locator Transmitter .....32 Hrs

Wire Locator Receiver .....22 Hrs

### Operating Storage Conditions

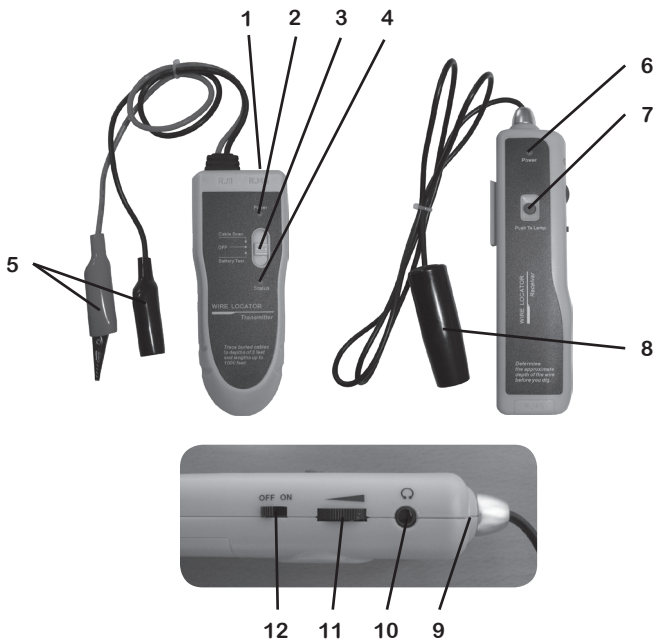
Operating Temperature:

Celcius .....0 C to 50 C

Storage Temperature:

Celcius .....0 C to 75 C

# Glossary



- 1 - Thumb wheel switch
- 2 - Transmitter LED
- 3 - Transmitter switch
- 4 - Status LED
- 5 - Alligator clips & Leads
- 6 - Receiver LED

- 7 - Push for light button
- 8 - Antenna
- 9 - LED Flash light
- 10 - Earphone jack
- 11 - Thumb wheel switch
- 12 - On / Off switch

## Introduction

The Holman Cable & Solenoid Seeker is designed to allow the user to track low voltage cables used for garden and landscape automatic watering systems, and also low voltage garden lighting systems.

It can also be used to trace other cables.

Any cable carrying voltages above 30 volts should be traced by a licensed electrician.

The system uses a “transmitter” to send a signal down the cable being traced or to a solenoid valve that is being located.

A “receiver” is then used to pick up the signal and follow the cable or locate the coil.

## A. Battery Test

To test the Transmitter battery, set switch to “Battery Test” position and set the output to maximum. The power LED will light up. Short the alligator clip leads together. The Status LED will light up - a bright Status LED indicates an acceptable battery condition.

To test Receiver battery, push the transmitter switch to “Cable Scan” position. Then set the ON / OFF Receiver switch to ON position, place the antenna next to the Transmitter. An audible tone indicates an acceptable battery level.

## B. Transmitter Connection

To locate a cable follow the following procedure:-

1) Connect the transmitter to the cable you are looking for. If the cable is connected to an irrigation controller, disconnect the cable from the controller and clip the RED alligator clips from the transmitter onto the solenoid cable.

2) The BLACK alligator clip should be connected to an independent grounded earth. The easiest way to do this is to connect it to the blade of a screw driver pushed into the ground (preferably wet ground). You may require to connect via a short length of cable.

If it is inconvenient to connect to an independently grounded earth, remove the valve common cable from the controller and connect the BLACK alligator clip to this cable.

3) Move the transmitter switch to the “Cable Scan” position.

# Operation

## C. Locating & Tracking Buried Irrigation or Garden Lighting Cables

Once the transmitter is attached to the cable and the ground or common as in “B” above, ensure the transmitter switch is in the “Cable Scan” position and turn the “Thumb Wheel” switch to high tone.

Locate approximately the route of the cables and swing the receiver antenna (8) in a pendulum type action at right angles to the cable path starting at least 3 metres away from the transmitter.

As the receiver antenna swings past the underground cable, a tone will be heard on either side of the cable path with a “null” or no noise directly over the cable. Proceed along the path of the cable following the “null” direction.

You can adjust the transmitter and receiver controls to move further distances between the two.

You can also use the ear phones to assist with detecting the null position.

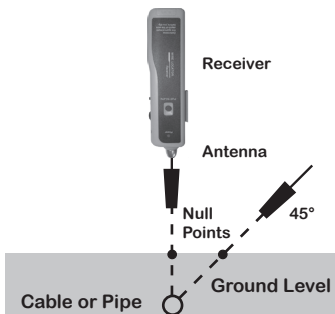
## D. Measuring Depth

Once the path has been determined, mark the ground at a null point along the path.

Hold the Receiver antenna at a 45-degree angle to the ground and move at a right angle away from the path of the wire until another null is found. Mark this point.

the distance between the two marks is the approximate depth of the wire. (fig. 1)

(Fig.1) Measuring Depth



## E. Detecting A Cable Break

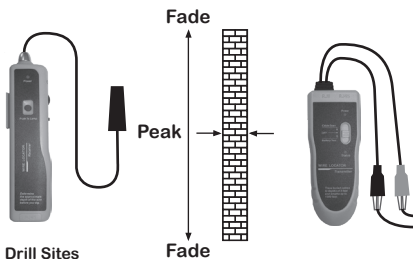
A cable break will be detected by the loss of signal in the receiver antenna.

## G. Pinpointing Drill Sites

Setup the Transmitter as described in (Fig. 1)

Locate and mark the path of any signal near your drill site. If you have reason to believe that other installations are present near your drill site, use the procedures outlined in section 'C' (Locating & Tracking Buried Irrigation Wires).

The signal generated by the Transmitter can be detected through walls and ceilings, to pin point the transmitter's location (specific point), wrap the alligator clip leads around the Transmitter, short the leads together, turn the transmitter on and secure it to the opposite side of the wall or ceiling with tape. Scan the wall with the antenna flat against the wall. The PEAK signal will be heard when the antenna passes directly over the transmitter location. (Fig.6)



(Fig.6) Pinpointing Drill Sites

## H. Locating Alarm, Sound & Computer Wires

To locate other wires, it is best to disconnect the wire in question and directly attach only one transmitter lead to the subject wire, letting the other lead hang. Trace the path as outlined in point 'C' (Locating & Tracking Buried Irrigation Wires).

# Operation & Maintenance

## I. External Earphones

The 3.5mm earphones can be connected to the Receiver earphone jack to improve efficiency in a noisy environment. (Fig. 7)



## J. White LED Flash-light

The user can activate the LED flash-light by pressing the 'Push For Light' button. (Fig.8)



The only field service required for maintaining proper operation is the periodic replacement of the batteries in the Transmitter and Receiver.

## Battery Replacement

To replace the Receiver battery:

1. Slide off battery compartment cover.
2. Replace the 9V battery. Observe polarity.
3. Replace cover.

To replace the Transmitter battery:

1. Slide off battery compartment cover.
2. Replace the 9V battery. Observe polarity.
3. Replace cover.

Should you have any questions about this product or its operation please telephone our customer service helpline on **1300 716 188**.

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