

# elcometer® 701 Cable Avoidance Tool & Live Cable Locator

**Whether you are on a construction site or at the side of the road, detecting buried power lines before excavating is essential.**



*Elcometer 701 Rx Receiver & Tx Transmitter Set*

The Elcometer 701 Cable Avoidance Tool & Live Cable Locator has been specifically designed to accurately and effectively determine the location and depth of underground electrical cables and pipes.

Three options are available:

- Elcometer 701 Rx Receiver & Tx Transmitter Set
- Elcometer 701 Rx Receiver
- Elcometer 701 Tx Transmitter

Used on its own, the Elcometer 701 Rx Receiver, will accurately locate and determine the depth of electrical cables. When used in conjunction with the Elcometer 701 Tx Transmitter, the location and depth of metallic and non-metallic pipes can also be identified.



*Elcometer 701 Rx Receiver*

Ideal for use by water, rail, gas, power, highways and telecommunication utilities and contractors, groundworks, construction, local authorities, civil engineering, street lighting, gardening and landscaping companies.



*Elcometer 701 Tx Transmitter*

- **Cost effective:**
  - Avoid cable damage when excavating - minimising costly accidents and inconvenient delays
- **Quick and Easy:**
  - Locates underground pipes and cables quickly and reliably
- **Large Display:**
  - Large display and automatic backlight for clear visibility in all conditions
- **Ergonomic Design:**
  - Comfortable handle in line with the control panel for single handed operation

## At a glance:

- **Avoid potentially dangerous electrical cables**
- **Reduce the risk of damage to underground pipes and cables.**



## Technical Specifications

### Elcometer 701 Receiver (Rx)

#### Frequency Range

Range 1: Radio	15 kHz to 23 kHz
Range 2: Power Grid	50 Hz. Optional 100 Hz - contact Elcometer for information
Range 3: Transmitter	32.768 kHz

#### Sensitivity (at a depth of 1m)

Range 1: Radio	>20 uA
Range 2: Power Network	>7 mA
Range 3: Transmitter	>5 uA

#### Dynamic Response Range

Range 1: Radio	120 dB
Range 2: Power Network	135 dB
Range 3: Transmitter	120 dB

#### Depth Determination

Depth Range	0.1m to 5m
Resolution	0.1m

#### Accuracy

Range 1: Radio	±20%
Range 2: Power Network	±20%
Range 3: Transmitter	±5% up to 2m ±20% between 2m and 5m

#### Power Supply

10 x IEC R6 / AA cell / Mignon

#### Operating Time

40 hours (intermittent use with alkaline batteries, 20°C)

#### Temperature Range (in accordance with EN 60068-1)

Operation	-20°C to +55°C
Storage	-30°C to +70°C

#### Weight

1.7kg

#### Dimensions (W x H x D)

260 x 255 x 140mm

#### Type of Protection (in accordance with EN 60529)

Dust and water protected IP 67 from the lower edge of the receiver up to the lower edge of the battery compartment, and IP 56 for all parts above this.

### Elcometer 701 Transmitter (Tx)

#### Transmitted Power

0.1 W / 0.5 W (switchable)

#### Frequency

32.768 kHz

#### Power Supply

6 x IEC R20 / D cell / Mono

#### Operating Time

40 hours (intermittent use with alkaline batteries, 20°C)

#### Temperature Range (in accordance with EN 60068-1)

Operation	-20°C to +55°C
Storage	-30°C to +70°C

#### Weight

1.7kg

#### Dimensions (W x H x D)

260 x 255 x 140mm

#### Type of Protection (in accordance with EN 60529)

Dust and water protected IP 56



## Limit Values and Standards

Sinusoidal Vibrations (in accordance with EN 60068-2-6)

Peak Acceleration	20 m/s <sup>2</sup>
Frequency	10 Hz to 150 Hz

Free Fall (in accordance with EN 60068-2-32)

Max. Height (packaged)	800mm (weight up to 10kg)
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Relative Humidity Maximum 93% at 30°C

Atmospheric Pressure Maximum 4 kPa

Protection Class (meets EN 61140) III

## Part Numbers and Packing List

W701---RTX Elcometer 701 Rx Receiver & Tx Transmitter Set:

**Packing List :** Elcometer 701 Rx Receiver, Elcometer 701 Tx Transmitter, 2m Measurement Cable (x2), Alligator Clip (x2), Earth Spike, Batteries for Receiver (x10), Batteries for Transmitter (x6), Nylon Carrying Case and Operating Instructions

W701---TX Elcometer 701 Tx Transmitter:

**Packing List :** Elcometer 701 Tx Transmitter, Batteries (x6) and Operating Instructions

W701---RX Elcometer 701 Rx Receiver:

**Packing List :** Elcometer 701 Rx Receiver, Batteries (x10) and Operating Instructions

## Spares / Accessories



### Transmitter Clamp

Used in conjunction with the Elcometer 701 Tx Transmitter to transmit a signal onto and along live cables without shutting off the power to the cables.

#### Part Number:

TW70120491-1 Elcometer 701 Transmitter Clamp, 50mm  
 TW70120491-2 Elcometer 701 Transmitter Clamp, 100mm



### House Connection Kit

Used to quickly and easily track the services leading from a house out to the main line. The set consists of connecting cables for standard 13A safety electricity sockets, cable TV and telephone sockets. To send a signal directly to the house connection, the Elcometer 701 Tx Transmitter is connected to the relevant socket.

#### Part Number:

TW70120492-1 Elcometer 701 House Connection Kit, EUR 220V



### Transmitter Sonde

A slim, battery powered transmitter with a range of 5m which when connected to a drain rod or flexirod can be used to determine the direction and depth of drains. A heavy duty protective cover is also available for use within dirty water drains and ductworks.

#### Part Number:

TW70120493 Elcometer 701 Transmitter Sonde 33kHz  
 TW70120537 Protective Cover for Transmitter Sonde



### Headphones

Can be connected to the Elcometer 701 Rx Receiver for use in noisy environments, at the side of a busy road for example.

#### Part Number:

TW70120490 Headphones for Elcometer 701 Rx Receiver

