

TECHNICAL DATA

Amprobe UAT-505 Underground Utilities Locator Kit



Key features

- Locate underground energized and de-energized wires and cables
- Locate underground metal pipes
- 33 kHz transmitting frequency: best frequency for general locating
- Measure depths up to 20 ft

Product overview: Amprobe UAT-505 Underground Utilities Locator Kit

The Amprobe UAT-505 Underground Utility Locator Kit is a rugged, economical solution for locating underground energized and de-energized wires, cables and pipes. The Transmitter utilizes the proven 33 kHz frequency, which is ideal for most locating applications. With the Receiver, trace the signal in Induction or Direct Test Leads Connection Modes. The Receiver features fast sound and meter response and easy depth measurements to 20 feet at the push of a button, as well as highly sensitive Power and Radio Modes which detect energized wires and radio signals on underground lines.

Expert tracing features for any situation

The UAT-505 can be used in different modes for optimal tracing in many situations.

Receiver

- Power Mode locates energized wires with a 50/60 Hz frequency. The Receiver alone detects the electromagnetic fields emitted by buried energized lines conducting currents.
- Radio Mode uses the Receiver to detect radio waves coming from cellular towers, radio stations, etc. that are picked up and carried by underground metal objects, such as cables or pipes.

Receiver and transmitter

- Induction Mode uses the Transmitter to wirelessly induce a signal into a buried pipe, cable, or wire. The Receiver then detects the signal carried by the buried utility.
- In Direct Test Leads Connection Mode, the Transmitter is connected to the buried de-energized cables or utilities with test leads (provided there is an available access point to the utility). The Transmitter then sends a signal across the wire or pipe.
- If it is not possible to gain access to a cable for making an electrical contact or it is not safe to do so, the optional Signal Clamp provides an efficient and safe method of applying a locate signal to a cable.

Note: The UAT-505 can also trace non-metallic pipes in Induction or Direct Test Leads Connection Modes. Some of these pipes have embedded metal trace that will conduct signal for tracing. For pipes without embedded metal, use a conductive tracing tape.

Note: The UAT-500-T Transmitter should never be connected to an energized circuit. The Amprobe UAT-600-T Transmitter, safety rated CAT IV 600 V, can be safely used to connect to energized circuits.

Specifications: Amprobe UAT-505 Underground Utilities Locator Kit

| UAT-500-T Transmitter | |
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| Operating voltage | De-energized circuit only for Direct Connection Mode |
| Transmitting frequency | 33 kHz |
| Tracing modes | De-energized: - Induction Mode - Direct Connection Mode - Clamp Mode |
| Transmitting mode power output | Max. 1 watt |
| Output voltage | Max. 35 V rms |
| Output current | Max. 100 mA rms |
| Visual signal indication | Two LEDs indicating LO and HI signal |
| Audio signal indication | Continuous Signal Mode: Continuous audio tone Pulse Signal Mode: Fast pulsed audio tone |
| Compatible receiver | UAT-600-R Receiver |
| Compatible accessories | SC-600 Signal Clamp TL-UAT-500 Test lead set |

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| Operating temperature and humidity | '-4 °F to 122 °F (-20 °C to 50 °C), ≤ 80% RH |
| Storage temperature and humidity | '-40 °F to 140 °F (-40 °C to 60 °C), ≤ 80% RH |
| Operating altitude | < 6561 ft (< 2000 m) |
| Pollution degree | 2 |
| IP-rating | IP54 |
| Power supply | Four (4) 1.5 V D cell alkaline batteries |
| Battery life | Approx. 12 hours at 70 °F (21 °C) (Typical) |
| Low battery indication | Both LO and HI LEDs blink every 1.5 seconds and audio sound pulses every 1.5 seconds |
| Agency approval |  |
| Safety compliance | IEC 61010-1, CSA/UL 61010-1, IEC 61010-031, CSA/UL 61010-031 (test leads) |
| Electromagnetic Compatibility | IEC 61326-1 Korea (KCC): Class A Equipment (Industrial Broadcasting & Communication Equipment) [1] [1] This product meets requirements for industrial (Class A) electromagnetic wave equipment and the seller or user should take notice of it. This equipment is intended for use in business environments and is not to be used in homes. |
| Size (H x W x L) | Approx. 18.1 x 3.5 x 2.6 in (460 x 90 x 65 mm) |
| Weight | Approx. 3.9 lb (1.77 kg) (batteries installed) |
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| UAT-600-R Receiver | |
| Operating voltage | 0 to 600 V |
| Tracing modes | Active tracing: 33 kHz (32,768 Hz) and 8 kHz (8,192 Hz) Passive tracing: 50 / 60 Hz and Radio |
| Locating modes | Peak and Null |
| Sensitivity adjustment (gain control) | Yes |
| Depth measurement | Up to 6 m (20 ft) |
| Depth measurement accuracy | 4 in (0.1 m) to 10 ft (3m): ± 3 % 10 ft (3 m) to 20 ft (6 m): ± 5 % |

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| Sensitivity at 1 m (typical) | Power: 2 mA Radio: 20 μ A 8 kHz: 5 μ A 33 kHz: 5 μ A |
| Display backlight | Automatic |
| Audio indication | Increasing closer to the signal |
| Compatible transmitter | UAT-600-T Transmitter |
| Display | 4.3 in (109 mm), 320 x 240 BW outdoor LC-Display with auto backlight |
| Update rate | Instantaneous |
| Operating temperature and humidity | '-4 °F to 122 °F (-20 °C to 50 °C), ≤90% RH |
| Storage temperature and humidity | '-40 °F to 140 °F (-40 °C to 60 °C), ≤ 90% RH |
| Operating altitude | < 6561 ft (< 2000 m) |
| Pollution degree | 2 |
| IP-rating | IP54 |
| Drop proof | 3.28 ft (1 m) |
| Power supply | Six (6) 1.5 V AA alkaline batteries |
| Auto power off | 15 minutes idle Will auto turn off after 15 min of no button pressing |
| Battery life | Approx. 35 hours at 70 °F (21 °C) (Typical) |
| Low battery indication |  and/or  at upper right corner of the screen |
| Measurement Category | CAT IV 600 V |
| Agency approval |     |
| Safety compliance | IEC 61010-1, IEC 61010-2-033 CSA/UL 61010-1, CSA/UL 61010-2-033 |
| Size (H x W x L) | Approx. 11.9 x 4.7 x 30.7 in (302 x 120 x 779 mm) |
| Weight | Approx. 4.2 lb (1.9 kg) (batteries installed) |
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| TL-UAT-500 Test Leads | |
| Operating voltage and current | 50 V max, 1 A |
| Leads length | 11.5 ft (3.5 m) |

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| Compatible transmitter | UAT-500-T Transmitter |
| Operating temperature and humidity | '-4 °F to 122 °F (-20 °C to 50 °C), ≤ 80% RH |
| Storage temperature and humidity | '-40 °F to 140 °F (-40 °C to 60 °C), ≤ 80% RH |
| Operating altitude | < 6561 ft (< 2000 m) |
| Pollution degree | 2 |
| Agency approval |     |
| Safety compliance | IEC 61010-031, CSA/UL 61010-031 |
| Size (H x W x L) | Approx. 9 x 3.5 x 3.1 in (230 x 90 x 80 mm) |
| Weight | Approx. 1.1 lb (0.5 kg) |
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| SC-600 Signal Clamp | Not included, optional accessory |
| Operating voltage & current | 0 to 600 V, 100 A max. |
| Operating frequency | 33 kHz (32,768 Hz) and 8 kHz (8,192 Hz) |
| Signal voltage output (nominal) | 23 V rms at 8 kHz 30 V rms at 33 kHz |
| Operating temperature and humidity | '-4 °F to 122 °F (-20 °C to 50 °C), ≤ 90 % RH |
| Storage temperature and humidity | '-40 °F to 140 °F (-40 °C to 60 °C), ≤ 90% RH |
| Operating altitude | < 6561 ft (< 2000 m) |
| Pollution degree | 2 |
| IP-rating | IP54 |
| Drop proof | 3.28 ft (1 m) |
| Measurement Category | CAT IV 600 V |
| Agency approval |     |
| Safety compliance | IEC 61010-1, IEC 61010-2-032 CSA/UL 61010-1, CSA/UL 61010-2-032 |

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| Electromagnetic Compatibility | IEC 61326-1 Korea (KCC): Class A Equipment (Industrial Broadcasting & Communication Equipment) [1] [1] This product meets requirements for industrial (Class A) electromagnetic wave equipment and the seller or user should take notice of it. This equipment is intended for use in business environments and is not to be used in homes. |
| Size (H x W x L) | Approx. 11.6 x 7.1 x 1.4 in (295 x 180 x 37 mm) |
| Weight | Approx. 1.9 lb (0.85 kg) |
| | |

Ordering information



Amprobe UAT-505

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