

Instructions on the Safe use of Cable Height Meter

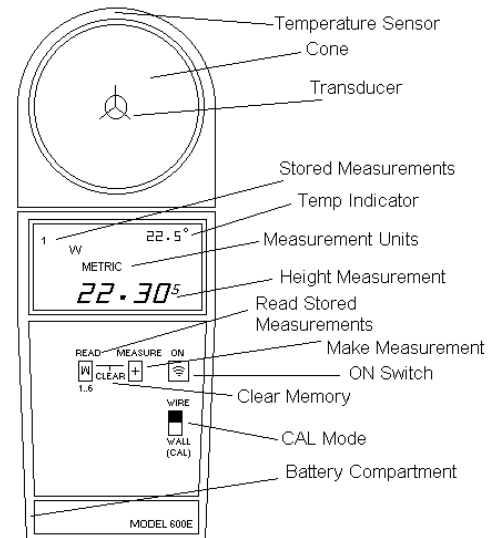


Theory of operation

- Sends (ultra) sound wave to target
- Measures time to echo
- Calculates distance, based on speed of sound
- Adjusts for air temperature

CHM Operation

1. Select: **M** (metric) or **I** (imperial)
2. Set the **CAL** mode switch to the **WIRE** position.
3. Press the **ON** key to power
4. Stand directly underneath the conductor(s) to be measured.
5. Press the **MEASURE** Key to take measurement
6. Press the **READ** key to display each of the stored wire height differences (Stored Measurements).



Do's:

- Position the unit on the ground, directly underneath the conductor(s) to be measured.
- Align the unit in the direction of the conductor, with the cone pointing towards the conductor(s).
- The ultrasonic waves need to be sent and received in the cone, so alignment is important.
- Keep the unit dry; if it does get wet, leave it upside down in a warm area
- The unit will work in a humid environment; however, if water gets into the electronics, long-term damage can occur.
- Do regular calibration check using the Calibration mode (CAL) as described in manual
- Send the unit back for calibration to Suparule to ensure reliable accuracy & resolution, every 12 months is recommended.

Don'ts:

- Avoid clutter.
Too many branches/leaves could confuse the unit, as the ultrasonic waves will bounce back from any obstacles. The software can eliminate a number of external interferences, but too many can lead to erratic readings.
- Avoid water.
It can damage the electronics within the Cable Height Meter.
- Avoid sudden changes of temperature.
The Cable Height Meter takes into account temperature to measure the speed of sound traveling in air. If there are sudden temperature changes, i.e. from a warm car in winter to cold icy ground, leave the unit to adjust for a few minutes. The temperature will begin dropping on the display, and will need to stabilise to get accurate, reliable readings.
- Avoid overhanging objects, and allow proper clearance around the Cable Height Meter.
The ultrasonic reflections need to be received in the cone

When the measure key is pressed, the Cable Height Meter will first measure the height to the lowest conductor, and then the spacing in between any additional conductors stacked above the first one, provided they are all within the ultrasonic beam. It is not necessary to press the measure button for each of the conductors above the first; all of the measurements are taken simultaneously.

To read the measurements taken, press the read key. Each time the read key is pressed, the reading for each wire is displayed, with the wire number indicated in the top-left corner of the display. An infinity reading indicates either that that number wire is not present or is outside the range of the meter. The measurements are held in the unit until the unit powers off (automatically, three minutes after the last key-press).

Typical faults

Screen is blank



Check battery is inserted correctly.

- Open battery door on the bottom rear of the unit.
- The battery is inserted with the terminals inwards.
- The + and - symbols on the battery should correspond with the + and - symbols on the inside of the battery compartment.

Unit does not measure all wires



- Ensure that horizontal distances between wires are within the sonic beam.

Incorrect readings



- Ensure CAL mode switch is on correct position, i.e. WIRE for cable height measurement, and WALL for horizontal distance measurement.
- Ensure no walls or similar obstructions within 2 meters either side of unit, as reflections from these can interfere with correct operation.

If the display shows

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- This indicates a “poor target”, and normally happens when the conductors are moving due to wind, etc.

Do not hesitate to call SupaRule: +353.61.201030, if you have any technical queries, we will be pleased to help.