www.growland.net / www.growland-hydroponics.com
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of our products without advance notice.

SPECIFICATIONS:

RANGE / RESOLUTION	
MW301	0 to 1990 µS/cm / 10 µS/cm
MW302	0.0 to 10.0 mS/cm / 0.1 mS/cm
MW401	0 to 1990 mg/L (ppm) / 10 mg/L
MW402	0.0 to 10.0 g/L (ppt) / 0.1 g/L
ACCURACY (@25°C)	±2% Full Scale
CONVERSION FACTOR	
MW401	0.5
MW402	0.5
CALIBRATION SOLUTIONS	
MW301 & MW302	1413 µS/cm = 1.41 mS/cm (**M10031B**)
MW401	1382 mg/L (**M10032B**)
MW402	6.44 g/L (**M10038B**)
CONDUCTIVITY PROBE	
MW301 & MW401	**MA811D/1** (included)
MW302 & MW402	**MA812D/1** (included)
TEMP.COMPENSATION	Automatic, from 5 to 50ºC
ENVIRONMENT	0 to 50°C, 95% RH max.
BATTERY TYPE	1 x 9V alkaline (included)
BATTERY LIFE	approximately 300 hours of use
DIMENSIONS	143 x 80 x 32 mm
WEIGHT	220 g (with battery) meter only

OPTIONAL ACCESSORIES:

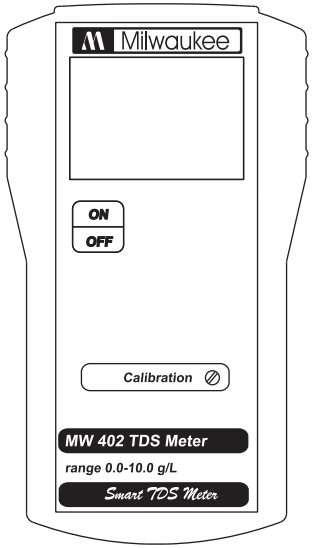
M10031B	1413 µS/cm (1.41 mS/cm) calibration solution, 20 mL sachet (25 pcs)
M10032B	1382 mg/L solution, 20 ml sachet (25 pcs)
M10038B	6.44 g/L solution, 20 ml sachet (25 pcs)
MA811D/1	EC/TDS probe w/DIN connector and 1m cable
MA812D/1	EC/TDS probe w/DIN connector and 1m cable
MA950	Portable meter wall mounting kit

IST/MW402 01/10

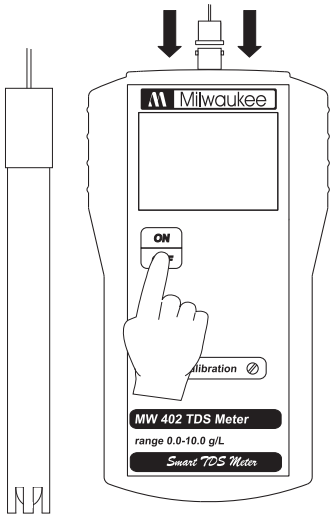
USER MANUAL

PORTABLE
CONDUCTIVITY & TDS METERS
MODELS: MW301, MW302, MW401, MW402

Smart EC & TDS Meters

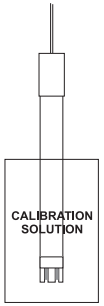


OPERATION:



- The meter is supplied complete with a 9V battery. Slide off the battery compartment cover on the back of the meter. Install the battery into the battery clip connector while observing polarity.
- Connect the probe to the meter securely by aligning the pins with the plug in.
- Make sure that the meter has been calibrated before taking any measurements (see Calibration Procedure).
- Immerse the tip (4 cm) of the EC/TDS probe into the sample. If possible use plastic beakers or containers to minimize any EMC interference.
- Turn the instrument on by pressing the ON/OFF key.
- Wait for the temperature sensor to reach the thermal equilibrium before taking any measurements.
- After use, the instrument should be switched off and the probe should be cleaned and dried. Whenever needed, use alcohol for better cleaning.

CALIBRATION PROCEDURE:



- Clean the probe with alcohol and let it dry.
- Open a sachet of conductivity calibration solution (see Specifications) and immerse the probe making sure that the metal pins are completely submerged.
- Wait until the thermal equilibrium is reached and the reading is stable.

- Adjust the calibration trimmer on the front panel of the instrument with the supplied screwdriver until the display shows:
  "1410 µS" for **MW301**
  "1.4 mS" for **MW302**
  "1380 mg/L" (ppm) for **MW401**
  "6.4 g/L" (ppt) for **MW402**
- The calibration is now complete and the meter is ready for use.

The instrument should be re-calibrated at least once a month, or whenever the probe or battery is changed.

BATTERY REPLACEMENT:

When the battery becomes weak the meter will display "". When the low battery indicator appears, the battery has only about 50 hours of working time left. A low battery will result in unreliable measurements. Prompt battery replacement is required.

Battery replacement must only take place in a non-hazardous area using an alkaline 9V battery.

Turn the meter off, slide the battery compartment cover located at the rear of the meter off and replace the 9V battery with a new one. Make sure the battery contacts are fully engaged in the connector, seat the battery in its compartment and replace the cover.