

## 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.

## OPTIONAL ACCESSORIES

<b>M10031B</b>	1413 $\mu\text{S}/\text{cm}$ (1.41 $\text{mS}/\text{cm}$ ) calibration solution, 20 mL sachet (25 pcs)
<b>M10032B</b>	1382 $\text{mg}/\text{L}$ solution, 20 ml sachet (25 pcs)
<b>M10038B</b>	6.44 $\text{g}/\text{L}$ solution, 20 ml sachet (25 pcs)
<b>M10039B</b>	5000 $\mu\text{S}/\text{cm}$ (5.00 $\text{mS}/\text{cm}$ ) calibration solution, 20 mL sachet (25 pcs)
<b>MA950</b>	Portable meter wall mounting kit
<b>SE510</b>	EC/TDS probe w/DIN connector and 1m cable
<b>SE520</b>	EC/TDS probe w/DIN connector and 1m cable

*Milwaukee Instruments reserves the right to make improvements in design, construction and appearance of its products without advance notice.*

## CERTIFICATION

Milwaukee Instruments conform to the CE European Directives.

**Disposal of Electrical & Electronic Equipment.** Do not treat this product as household waste. Hand it over to the appropriate collection point for the recycling of electrical and electronic equipment.

**Disposal of waste batteries.** This product contains batteries. Do not dispose of them with other household waste. Hand them over to the appropriate collection point for recycling.

Please note: proper product and battery disposal prevents potential negative consequences for human health and the environment. For detailed information, contact your local household waste disposal service or go to [www.milwaukeeinstruments.com](http://www.milwaukeeinstruments.com) (USA & CAN) or [www.milwaukeeinst.com](http://www.milwaukeeinst.com).

## RECOMMENDATION

Before using this product, make sure it is entirely suitable for your specific application and for the environment in which it is used. Any modification introduced by the user to the supplied equipment may compromise the meter's performance. For your and the meter's safety do not use or store the meter in hazardous environment. To avoid damage or burn, do not perform any measurement in microwave ovens.

## WARRANTY

These instruments are warranted against defects in materials and manufacturing for a period of 2 years from the date of purchase. Probe is warranted for 6 months. This warranty is limited to repair or free of charge replacement if the instrument cannot be repaired. Damage due to accidents, misuse, tampering or lack of prescribed maintenance is not covered by warranty. If service is required, contact your local Milwaukee Instruments Technical Service. If the repair is not covered by the warranty, you will be notified of the charges incurred. When shipping any meter, make sure it is properly packaged for complete protection.

ISTMW402 11/20



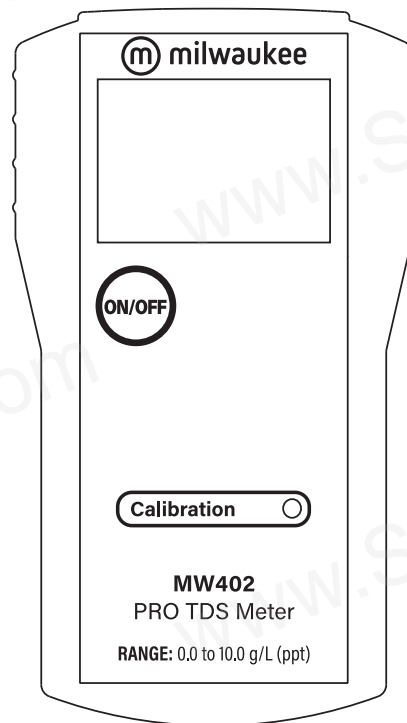
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## USER MANUAL

### MW301, MW302, MW401, MW402

### PRO EC/TDS Portable Meters

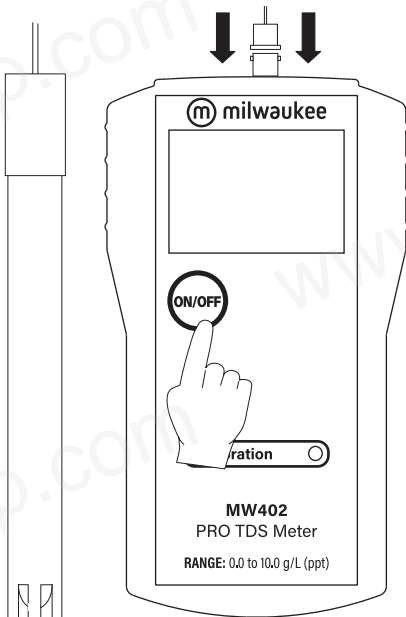


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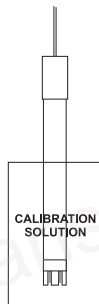
## OPERATION

- 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:

"1413  $\mu$ S" for **MW301**

"1.4 mS" for **MW302**

"1382 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.

## SPECIFICATIONS

### RANGE/RESOLUTION

<b>MW301</b>	0 to 1990 $\mu$ S/cm / 1 $\mu$ S/cm
<b>MW302</b>	0.0 to 10.0 mS/cm / 0.1 mS/cm
<b>MW401</b>	0 to 1990 mg/L (ppm) / 1 mg/L
<b>MW402</b>	0.0 to 10.0 g/L (ppt) / 0.1 g/L

### ACCURACY (@ 25°C)

$\pm$ 2% Full Scale

### CONVERSION FACTOR

<b>MW401</b>	0.5
<b>MW402</b>	0.5

### CALIBRATION SOLUTIONS

<b>MW301 &amp; MW302</b>	1413 $\mu$ S/cm = 1.41 mS/cm (M10031B)
<b>MW401</b>	1382 mg/L (M10032B)
<b>MW402</b>	6.4 g/L (M10038B)

### CONDUCTIVITY PROBE

<b>MW301 &amp; MW401</b>	<b>SE510</b> (included)
<b>MW302 &amp; MW402</b>	<b>SE520</b> (included)

### TEMP. COMPENSATION

Automatic, from 5 to 50 °C

### 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