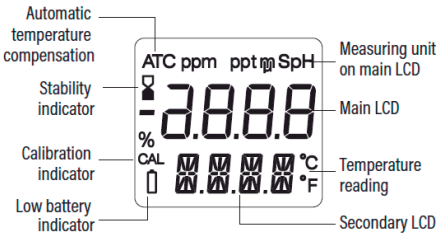

OPERATIONAL GUIDE

- Remove the probe cap and turn the meter on by pressing the ON/OFF/CAL button. All the used segments on the LCD will be visible for 1 second or as long as the button is pressed.
- Immerse the probe in the solution to be tested and select either pH, EC or TDS mode with SET/HOLD button.
- Stir gently and wait for the reading to stabilize, i.e. the stability indicator on the LCD turns off. The pH and EC (or TDS) values are automatically compensated for temperature and will be displayed on the main LCD, while the temperature is shown on the secondary LCD.
- ***To freeze the display***, while in measurement mode, press and hold the SET/HOLD button. The "HOLD" message appears on the secondary display and the reading will be frozen on the LCD.
- Press any button to return to normal mode.
- ***To turn the meter off***, press the ON/OFF/CAL button. The "OFF" message will appear on the secondary display. Release the button.

Notes:

Before taking any measurement, make sure the meter is calibrated (the CAL tag is on).

After use always turn the meter OFF, rinse the probe with water and store it with the protective cap.

SETUP

Setup mode allows the selection of temperature (°C or °F), calibration buffer set, in pH mode only,TDS conversion factor (CONV) and temperature coefficient (BETA), in EC mode only. To enter the Setup mode, press the ON/OFF/CAL button until "CAL" on the secondary LCD is replaced by "TEMP" and the current temperature unit (e.g. TEMP °C). Then:

In EC and pH mode:

- ***for °C/°F selection:*** use the SET/ HOLD button, then press the ON/OFF/CAL button to go in the settings menu and to return to the normal measurement mode.

In EC mode only:

- ***to change the TDS factor value:*** after setting the temperature unit, press ON/OFF/CAL button once to show the current value (e.g. 0.50 CONV). Select the desired value by using the SET/HOLD button, then press ON/OFF/CAL button twice to return to the normal measurement mode.
- ***to change the temperature coefficient:*** after setting the TDS factor, press ON/OFF/CAL button to show the current value of the temperature coefficient ß (e.g. 2.1 BETA). Use the SET/ HOLD button to set the desired value, then press ON/OFF/CAL button to return to the normal measurement mode.

In pH mode only:

- ***to change the calibration buffer set:*** after setting the temperature unit, press ON/OFF/CAL button once and select the buffer set ("pH 7.01 BUFF" for pH 4.01/7.01/10.01 or "pH 6.86 BUFF" for NIST set 4.01/6.86/9.18) by using the SET/HOLD button. Press ON/OFF/CAL button to return to the normal measurement mode.

EC MEASUREMENT AND CALIBRATION PROCEDURE

Select the EC or TDS mode with the SET/HOLD button. Submerge the electrode in the solution to be tested. The measurements should be taken when the stability indicator ⧖ on the top left of the LCD disappears.

- For better accuracy, frequent calibration of the tester is recommended. Calibration is also necessary after probe replacement, after testing aggressive chemicals and where extreme accuracy is required. From normal EC operation mode, press and hold the ON/OFF/CAL button until the "OFF" message on the secondary LCD is substituted by "CAL". Release the button.
- Immerse the probe in the proper calibration solution: **M10031** (1413 µS/cm) for **MW803** and **M10030** (12.88 mS/cm) for **MW804**.
- Once the calibration has been automatically performed, the LCD will show "OK" for 1 second and the meter will return to normal measurement mode.
- Since there is a known relationship between EC and TDS readings, it is not necessary to calibrate the meter in TDS if it was previously calibrated in EC mode.

pH MEASUREMENT AND CALIBRATION

Select the pH mode with the SET/HOLD button. Submerge the electrode in the solution to be tested. The measurements should be taken when the stability indicator ⧖ on the top left of the LCD disappears.
For better accuracy, frequent calibration of the tester is recomanded. Calibration is also necessary after electrode replacement, after testing aggressive chemicals and where extreme accuracy is required.

- From normal operation mode, press and hold the ON/OFF/CAL button until the OFF message on the secondary LCD is substituted by "CAL". Release the button.
- The instrument enters the calibration mode by displaying "pH 7.01 USE" (or "pH 6.86 USE" if the NIST buffer set was selected).
- For a single-point calibration, immerse the electrode in any buffer, i.e. pH 4.01, 7.01 (or 6.86), 10.01 (or 9.18).
- The meter activates the automatic buffer recognition. If no valid buffer is detected, the meter keeps the USE indication active for 12 seconds, and then replaces it with WRNG indicating that the sample being measured is not a valid buffer. Otherwise, if a valid buffer is detected, then its value is shown on the main display, and REC appears on the secondary LCD.
- If the pH 7.01 (or 6.86) was used, press the SET button to exit the Calibration mode and the "OK 1" message will appear on the display. The calibration point is stored and the meter returns to normal measurement mode. For better accuracy, it is always recommended to perform a 2-point calibration.
- For a 2-point calibration, immerse the electrode in pH 7.01 (or 6.86) buffer solution.
- After the first point has been accepted, the meter will then ask for the second buffer and the message "pH 4.01 USE" will appear.
- Rinse the electrode and immerse it in the second solution (pH 4.01,10.01 or 9.18).

Notes:

When the calibration procedure is completed, the CAL tag is turned on.

To quit the procedure and return to the last calibration data, after entering the calibration mode press the ON/OFF/CAL button.

- The secondary LCD displays "ESC" for 1 second and then the meter returns to the normal measurement mode.
- To reset to the default values and clear a previous calibration, press the SET/HOLD button after entering the calibration mode and before the first point is accepted.
- The secondary LCD displays "CLR" for 1 second, the meter resets to the default calibration and the CAL tag on the LCD turns off.
- If a valid buffer value is detected, the REC message is displayed and the meter completes the calibration procedure.
- The LCD shows the accepted value with the "OK 2" message and the instrument returns to the normal measurement mode. Otherwise, if no valid buffer is detected, the meter displays the WRNG message.

PROBE REPLACEMENT

- Remove the protective cap and unscrew the plastic ring on the top of the probe.
- Pull out the **MI60P** probe and replace it with a new one.
- Make sure the gaskets are in place before screwing back the ring.

BATTERY REPLACEMENT

When the batteries become weak, the battery symbol on the LCD will light up to advise that only a few hours of working time is remaining. The meter is also provided with BEPS (Battery Error Prevention System), which avoids any erroneous readings due to low battery level by automatically switching the meter off. It is recommended to replace the batteries immediately.
To replace the batteries unscrew the battery compartment cap and replace all four 1.5V batteries while paying attention to their polarity.
Make sure the gasket is in place before screwing back the cap. Batteries should only be replaced in a safe area using the battery type specified in this instruction manual.