

# USER MANUAL

## MI 415

### Turbidity Meter



Dear Customer,  
Thank you for choosing a Martini product.  
This manual will provide you with the necessary information for the correct use of the instrument.  
Please read it carefully before using the meter. This instrument is in compliance with **CE** directives.

#### SPECIFICATIONS:

**Range** 0.00 to 50.00 FNU  
50 to 1000 FNU

**Resolution** 0.01 FNU and 1 FNU

**Precision**  $\pm 0.5$ FNU or  $\pm 5\%$  of reading, whichever is greater

**Light Source** High emission infrared LED

**Light Detector** Silicon Photocell

**Method** Detection of scattered light

**Environment** 0 to 50°C (32 to 122°F); 100% RH max.

**Battery Type** 1 x 9 volt

**Auto-Shut off** After 5' of non-use

**Dimensions** 192 x 104 x 52 mm  
(7.5 x 4.1 x 2")

**Weight** 380 g

#### MEASUREMENT PROCEDURE:

- 1• Turn the meter on by pressing ON/OFF.
- 2• When the LCD displays "- -", the meter is ready.
- 3• Fill a clean, dry cuvet with sample up to the mark.
- 4• Replace the cap.



- 5• Clean the cuvet with a lintfree cloth to remove any fingerprints, dirt or waterspots.



- 6• Place the cuvet into the holder and ensure that the notch on the cap is positioned securely into the groove.



- 7• Press READ/▲ and "SIP" will blink during measurement.

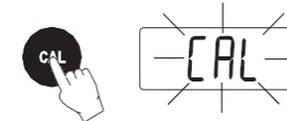


- 8• The instrument directly displays turbidity in FNU units.



#### CALIBRATION PROCEDURE:

- 1• Turn the meter on by pressing ON/OFF.  
When the LCD displays "- -", the meter is ready.
- 2• Press CAL key and "CAL" will blink on the display.



- 3• Press CAL key again. The date of calibration in MM.DD format appears on the LCD.



- 4• To toggle between month and day press DATE/▶ key.



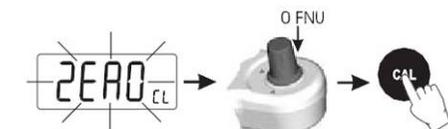
- 5• To change the date press READ/▲ key.



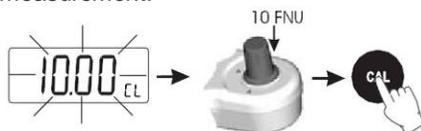
- 6• To confirm the date values press CAL key.



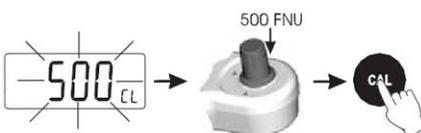
A blinking ZERO message will appear on the LCD. Insert the 0 FNU standard and press CAL key. "SIP" will blink during measurement.



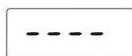
- 7• At the end the blinking “10.00” message will appear on the LCD. Insert the 10 FNU standard and press CAL key. “SIP” will blink during measurement.



- 8• The blinking “500” message will appear on the LCD. Insert the 500 FNU standard and press CAL key. “SIP” will blink during measurement.



- 9• At the end of the reading the instrument goes directly to measurement mode. Now the instrument is calibrated and ready to use.



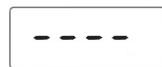
**Note:** A monthly calibration is recommended. The instrument can be checked with the supplied standard solutions each day. To check the date of the last calibration simply press DATE/ key.

### GUIDE TO DISPLAY CODES:

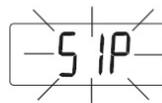
This prompt appears for 1 second each time the instrument is turned on.



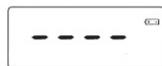
The dashes “- - -” indicates that the meter is in a ready state and measurement can be performed.



Sampling In Progress. Flashing “SIP” prompt appears each time the meter is performing a measurement.



The presence of battery icon on the display indicates that the battery voltage is getting low and the battery needs to be replaced.



“-BA-”, the battery is dead and must be replaced. Once this indication is displayed, the meter will lock up. Change the battery and restart the meter.



“CAL”, the meter is in calibration mode. If the CAL key is not pressed within 6 seconds, the meter will automatically switch to idle mode.



“CL” appears on the lower part of the display when the meter is in calibration mode.

### ACCESSORIES:

- MI0004** Tissue for wiping cuvetts (4 pcs.)
- MI0005** 9V battery (1 pc.)
- MI0011** 10 mL glass cuvette (2pcs.)
- MI0012** cap for 10 mL glass cuvet (2 pcs.)
- MI0013** Stopper for 10 mL glass cuvet (2 pcs.)
- MI515-000** Calibration standards: 0, 10, 500FNU (3 x 30 mL dropper bottles)

### BATTERY REPLACEMENT

Battery replacement must only take place in a non-hazardous environment. Simply rotate the battery cover on the back of the meter.

Detach the battery from the terminals and attach a fresh 9V battery while paying attention to the correct polarity.



Insert the battery and replace the cover.

### WARRANTY

This instrument is warranted against defects in materials and manufacturing for a period of two years from the date of purchase. If during this period the repair or replacement of parts is required, where the damage is not due to negligence or erroneous operation by the user, please return the meter to either distributor or our office in the original packing and the repair will be free of charge. Damages due to accidents, misuse, tampering or lack of prescribed maintenance are not covered.