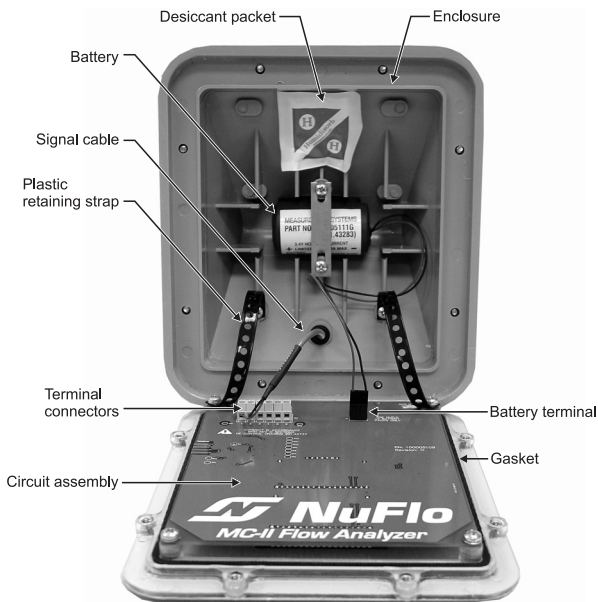
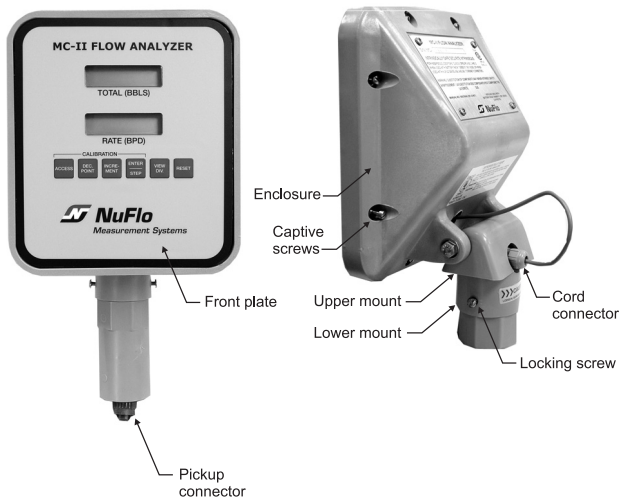


# Quick Start Guide MC-II Flow Analyzer



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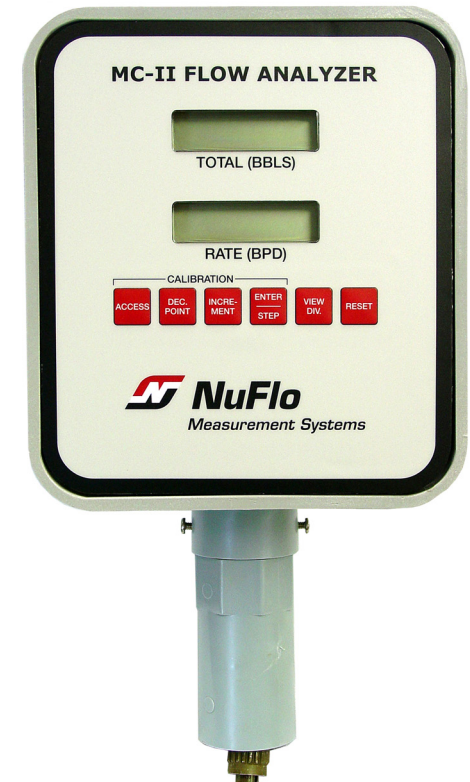
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**A Quick Reference on  
Mounting, Wiring, and Calibrating  
the MC-II Flow Analyzer**

For complete instructions,  
see the MC-II Flow Analyzer  
User Manual (Part No. 100079666).

## CAUTION

The lithium battery that powers the MC-II is sealed, but a battery leak could expel toxic fumes into the MC-II enclosure. Before opening the enclosure, make sure the enclosure is in a well-ventilated area and avoid breathing fumes that could be trapped inside. If the battery appears to be damaged, adhere to the safety precautions and follow the disposal instructions provided in Appendix C of the user manual.

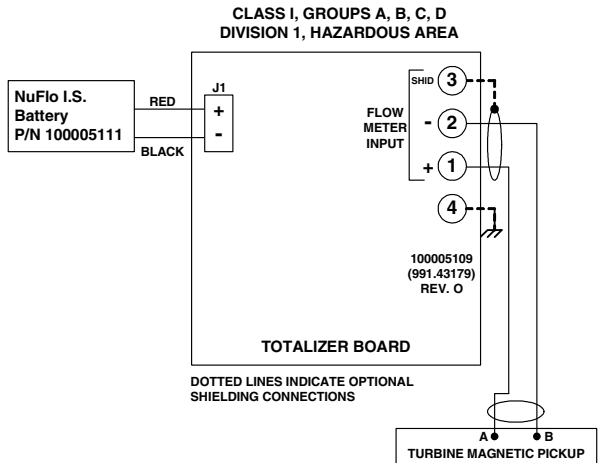
### Step 1: Mount the MC-II (Direct Mount)

(For remote mount instructions, see the User Manual.)

1. Plug the MC-II cable connector into the magnetic pickup and turn the swivel nut clockwise until the connector is fully inserted into the pickup and the swivel nut is hand-tight.
2. Loosen the locking screws that secure the base MC-II mount.
3. Position the MC-II on the flowmeter, carefully pulling excess signal cable through the strain relief cord connector on the side of the upper mount.
4. Thread the base of the mount onto the conduit adapter of the turbine meter and tighten two extra rounds after it is hand-tight. DO NOT allow the upper mount and MC-II readout to turn while tightening the base to avoid damaging the signal cable.
5. Tighten the outside nut of the strain relief cord connector on the upper mount with a 15-mm open-end wrench to prevent cord slippage.
6. If necessary, adjust the MC-II readout for best viewing. Loosen the nut on the bolt that holds the MC-II readout on the upper mount, tilt the unit to the desired angle and retighten the nut.

### Step 2: Install Field Wiring

Connect the battery and flowmeter signal cable as shown.



TURBINE MAGNETIC PICKUP MAY BE 991 OR 458 SERIES NUFLO FLOWMETER OR ANY APPROVED DEVICE WITH THE FOLLOWING MAXIMUM ENTITY PARAMETERS:

Vmax = 6.0 VDC or peak  
 Voc = 5.88 VDC  
 ISC = 2.94 mA  
 Ca = 15 uF max  
 La = 2 H max

### Step 3: Calibrate the MC-II

The following information is needed to calibrate the MC-II:

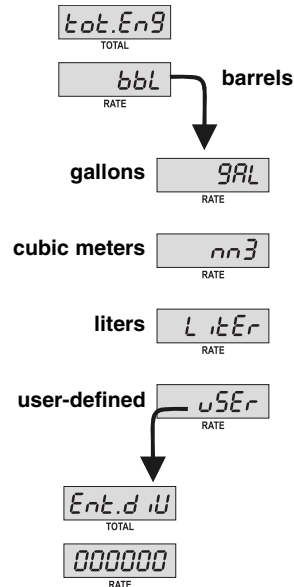
- unit of measure for volume
- flowmeter calibration factor (in pulses per gallon)
- unit of measure for flow rate

1. Press **ACCESS** to enter Calibrate mode. **Prog.no** will appear in the top display and the version number of the firmware will appear in the bottom display. The **tot.Eng** menu will then appear in the top display, and the default volume unit - bbl - will appear in the bottom display.
2. Press **INCREMENT** until the desired unit of measure appears in the bottom display. Press **ENTER/STEP**.

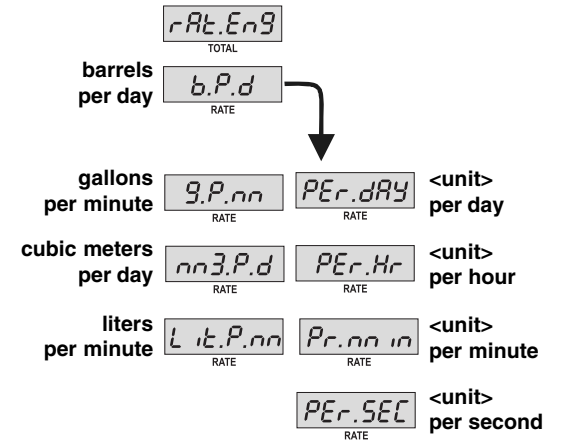
- If you select a preprogrammed unit (bbl, gal, m<sup>3</sup>, liter), **Pu.PgAL** will appear in the top display. Go to Step 3 for instruction on entering your flowmeter's calibration factor (in pulses per gallon). The MC-II will automatically calculate the divisor.
- If you select **uSER**, **Ent.diV** will appear in the top display. Enter a calculated divisor (in terms of specified unit) from right to left. Press **INCREMENT** to select each digit; press **ENTER/STEP** to advance to the next digit. Proceed to Step 4.

3. Locate the flowmeter calibration factor (pulses per gallon) on a plastic tag attached to the meter. Enter the number as follows:
  - a. Press **DEC. POINT** repeatedly to position your decimal point for the calibration factor.
  - b. Enter the digits from right to left, beginning with the flashing digit to the far right.

Press **INCREMENT** to select digits between 0 and 9 (or press and hold **INCREMENT** to scroll the digits). Press **ENTER/STEP** to save the selection. Repeat this step to enter all six digits. If your calibration factor is less than six digits in length, enter 0 for remaining digits. When the last (sixth) digit is saved, the calibration factor will be saved in the MC-II's memory and **rAt.Eng** will appear in the top display.



4. At the **rAt.Eng** prompt, select a unit of measure for rate:



To select a unit of measure for rate, press **INCREMENT** until the desired unit of measure appears in the bottom display. If you selected a user-defined unit of measure for volume in Step 2, your rate unit options will be per day, per hour, per minute, or per second.

Press **ENTER/STEP**. **PULSE** will appear in the top display.

5. Select or deselect the Pulse Output option, using **INCREMENT** to scroll through the available settings.

If your MC-II is **not** configured with the pulse output option, press **ENTER/STEP** to accept the default setting, **OFF**, and proceed to Step 6.

If your MC-II is configured with the pulse output option, set the scale factor in the user interface and set jumper W1 on the pulse output board to “÷1”.

Press **INCREMENT** repeatedly to select the volume increment that will cause a pulse output to occur. Press **ENTER/STEP**. **CoDE** will appear in the top display.

6. Enable or disable the password-protected security feature. Press **ENTER/STEP** to retain the default **no** setting or press **INCREMENT** to toggle the setting to **YES** (password protection enabled). Press **ENTER/STEP**.

A data entry field will appear in the bottom screen. Enter a numeric password containing up to six digits.

Remember your password. You will be asked for it each time you press **ACCESS** (to enter the Calibration mode) or **RESET** (to reset the total).