

## MCB 210/212 BICARB SYSTEM BATCH METERS

### Background

The MCB Bicarb System has been manufactured by Evoqua Water Technologies, formerly Mar Cor Purification. When the dual tank unit first was made, it was called MCB 210-XXX (50-gallon or 100-gallon). Throughout the years, improvements have been made to the controls as technology has improved. The MCB 210 and then early models of the MCB 212 each featured an Omega batch meter. We switched to an ATC meter, but now use a Red Lion batch meter/controller.

### Batch Meters

The **Omega meter** clearly states that it is an Omega meter. We still support this meter, but only dealing with calibration. If the meter ceases to function, a new Red Lion meter must be installed. If a customer has a working Omega batch meter, they should have the following O&M manual that would match with the corresponding Bicarb System:

Bicarb System	O&M Manual Part Number
MCB210-50 (no longer supported)	500-15-357 Rev A
MCB210-100 (no longer supported)	500-15-358 Rev A
MCB212-50	500-15-340 V2.0
MCB212-100	500-15-341 V2.0

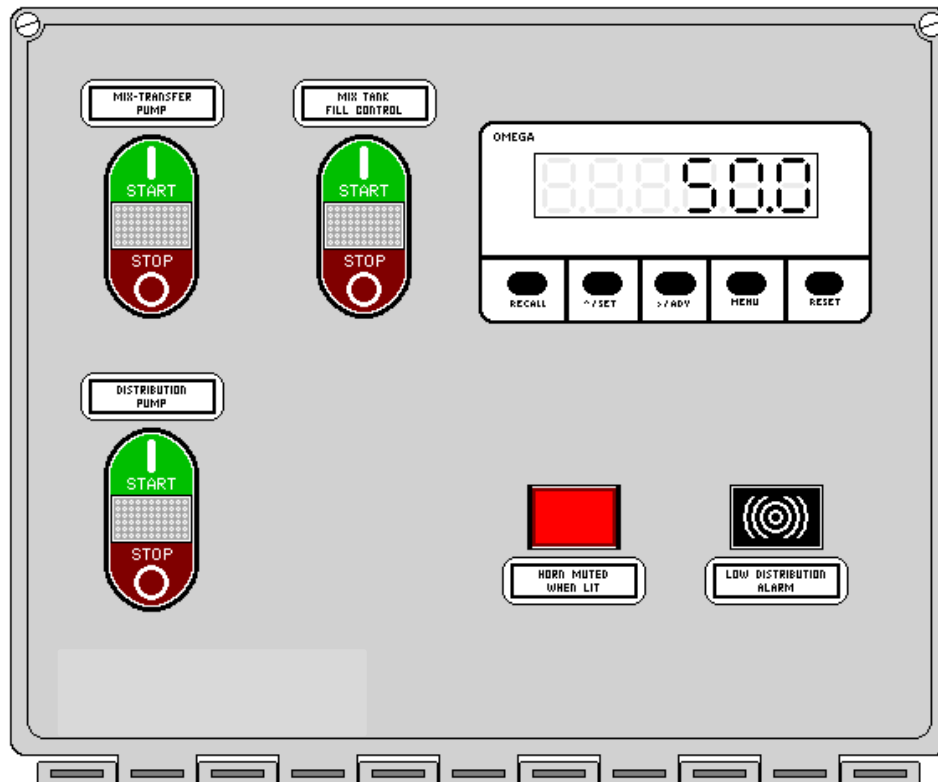


Figure 1: Panel with Omega batch meter

The **ATC meter** does not have a name on the front of the meter. We still support this meter, but only dealing with calibration. If the meter ceases to function, a new Red Lion meter must be installed. If a user has the ATC meter, they should have the following O&M manual to match the corresponding Bicarb System:

Bicarb System	O&M Manual Part Number
MCB212-50	500-15-340 Rev D
MCB212-100	500-15-341 Rev D

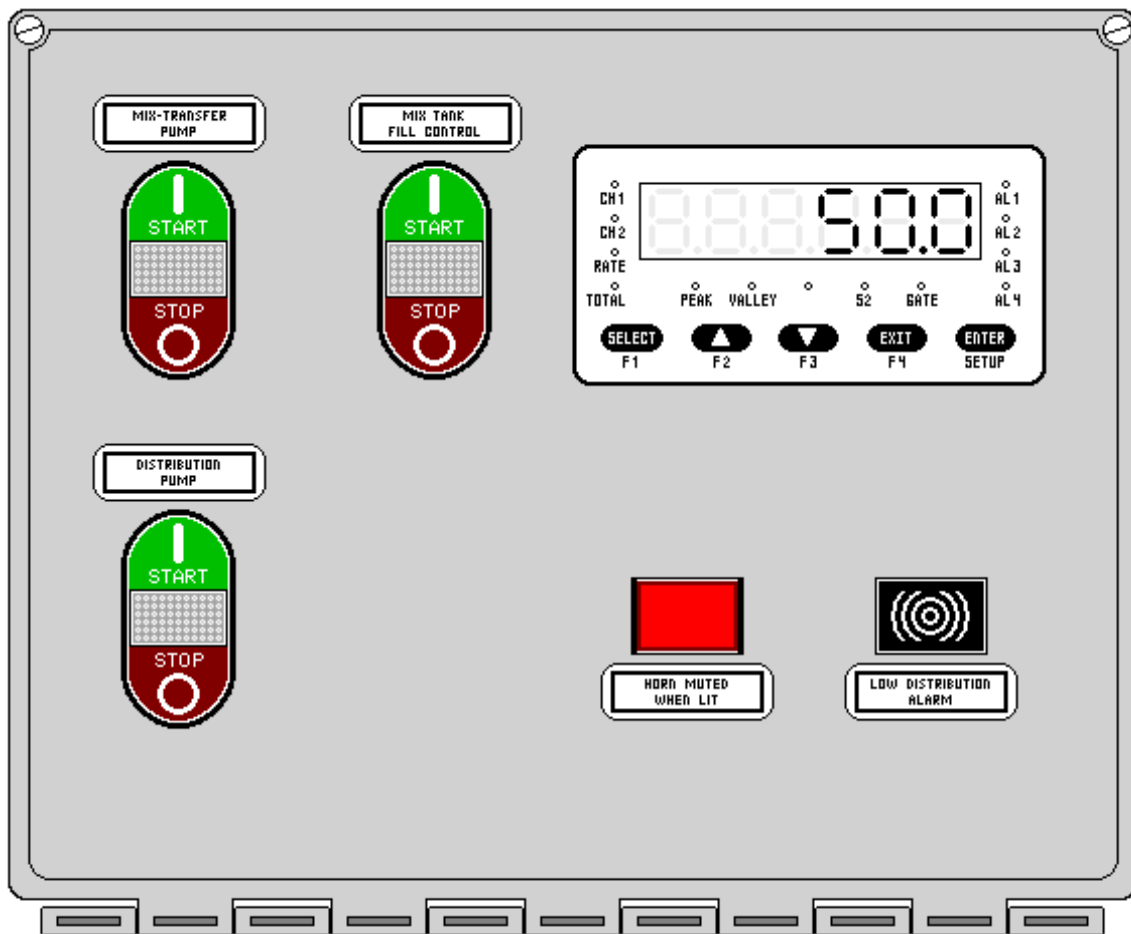


Figure 2: Panel with ATC batch meter

The new **Red Lion meter** clearly states on its face plate that it is a Red Lion meter/controller. We fully support this meter, both by having replacement parts and calibration/set-up procedures. When this meter was introduced, minor plumbing changes were made to the system. If a customer has the Red Lion meter, they should have the following O&M manual to match the corresponding Bicarb System:

Bicarb System	O&M Manual Part Number
MCB212-50/100	W3T573917
MCB212-50/100	W3T573917

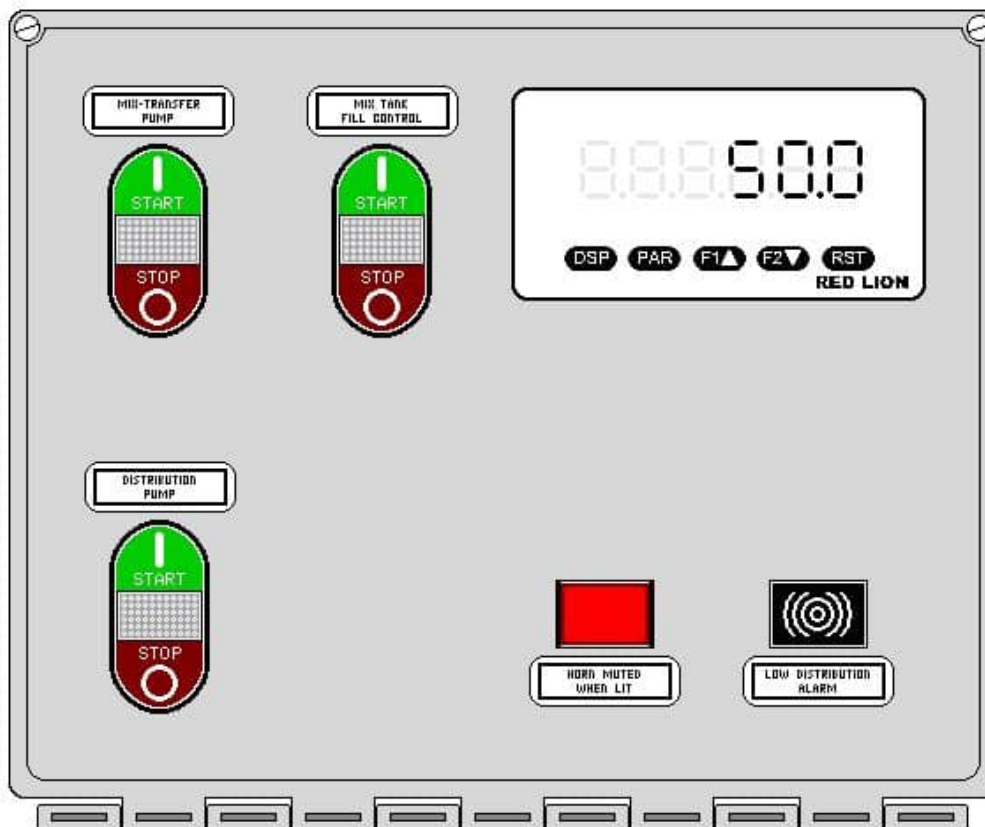


Figure 3: Panel with Red Lion batch meter

### Batch Meter Upgrade

- The first Bicarb System to incorporate the new Red Lion meter has a Serial Number of MCB 08-694. All Bicarb units manufactured after this S/N will have the new Red Lion meter.
- Each meter type has a different calibration procedure. Copies of each procedure are available by contacting Technical Support.
- If an **Omega** or **ATC meter** needs to be replaced, the part number for the meter upgrade kit, which includes the Red Lion meter is W3T577895. This kit also includes the instructions on meter set-up and use.

**NOTE:** When upgrading, you must order the complete kit and not a raw meter.

**Procedure To Setup MCB 212-100/50 Red Lion Meter To Readout and Fill In Liters.**

Change only those parameters mentioned below. The DSP button can be used to exit programming at any time without harming a setting.

- Step 1: Open the control panel being careful not to wet internal components! Remove the jumper between meter **terminals 10 and 7**. Removing one end and bending it out of the way will work if the wire does not touch any other terminals.
- Step 2: Press the **PAR** button once. Press the **F1** button once. Press the **PAR** button once again. The display will alternate between (A cnt) and (cnt). Press **PAR** slowly while watching the alternating display until you see, (ASCFAC)-(numbers), this is the **scale number**. You now enter **(0.64000)** this is your new scale number starting point.
- Step 3: To change the scale number use the **F1/UP** and **F2/DOWN** buttons. The **RST** button can be used to jump to an individual digit rather than running the whole number up and down.
- Step 4: When finished press the **PAR** button once and then the **DSP** button. Now you are back in run mode. Reinstall jumper between terminals 10 and 7.
- Step 5: Now fill the tank to a specific level and see if meter read out agrees with level on tank.
- Step 6: If levels do not agree repeat steps 2 to 5 by adjusting scale number up or down until meter and level on tank agree. (See note below)

**Note: Scale value up = water amount DOWN**  
**Scale value down = water amount UP**