

Auper Electronic Controls Inc

# TM200 tower Quick user guide

Installation and programming





## GENERAL INFORMATION

### FCC INFORMATION

This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference and, (2) this device must accept any interference received including interference that may cause undesired operation.

Note: The user is cautioned that any changes or modifications not expressly approved by the party responsible for FCC compliance could void the user's authority to operate the equipment.

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(b) from the loss of use, revenue or profit of the product; or

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## CONNECTIONS

A 9-wire cable comes down the TM200 tower. All connections go through the junction/Reset box supplied with the tower. You will bring the two flow meter cables and the power supply cable into the junction box as well the TM200 tower cable through the cable strainer behind the box.

Some white connectors are provided with the box to secure your wires together.

Colors:

- **Brown- white: Reset key**
- **Red-black-green: Power supply**
- **Purple-orange: Flow meter No.1**
- **Yellow-blue: Flow meter No.2**

1. The green wire is the ground. It should be connected to the center screw of the power outlet cover plate for proper grounding.
2. A RS-422 jack is available on the circuit board should you want to connect the TM200 to the Draft Manager software. If you connect the tower to an AP421 converter, use a straight RS-422 cables. If you connect the tower to an AP821 hub, use an inverted RS-422 cable.
3. Twist the wires of identical colors together.
4. Insert the connectors provided over the two twisted wires.
5. Using pliers, squeeze the connector firmly to lock it in place.

### Power supply

Use a 12 Volts AC transformer at 20VA to power the TM200 tower. It's a good idea to plug the power supply into a surge protector or UPS (Uninterrupted Power Supply) to insure stable power to the unit.

Avoid using inexpensive power bars as the transformer may fall and disconnect. Make sure the power source cannot be disconnected by the staff or customers.

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## POWER UP AND SET UP

### Switch pad

Four buttons are located on the circuit of the TM200. To access the buttons, you need to remove the top part of the tower.

Your hands must be dry before touching the TM200 circuit board. You should look at the switches first to locate them. Slip your hand inside toward the top of the tower.

From left to right:

1. **Run/Program button:** Press once to change from Run to Program. Press again to go to Run.
2. **Line button**
3. **Set/Reset button**
4. **Mode button**

## PROGRAMMING

Press the Run/Program (1) button once.

### IMPULSE MODE

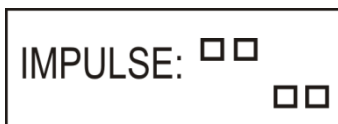
From left to right, 2 dots representing lines 1 and 2.

- When a flow meter is connected to a line, the corresponding dot is up.
- If no flow meter is connected to a line, the corresponding dot is down.
- When a flow meter detects liquid flowing through it, the corresponding dot will alternate up and down.
- If a flow meter is installed backward, the corresponding dot will be up but will not alternate when product is flowing.

Verify that your flow meters are connected and registering by serving a little bit at each faucet.

***If you had not yet removed the air pocket from your beer lines, now is the time to do it. You cannot proceed with calibration until you do.***

Press the Mode (4) button once



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CAL. WITH 20 OZ:

CAL. WITH 1 UNIT

### UNIT SELECTION MODE

The TM200 can be set to measure ounces or units of 1.

To calibrate, you will serve a measured amount of liquid into a graduated cylinder. During the pouring, the system will read the number of rotations sent by the flow meter.

At this stage, you choose how you want the system to count and the amount you will serve into the graduated cylinder to calibrate.

- Press the Set/Rest (3) button to toggle between ounces and units.
- To calibrate for ounces, select 20 oz.
- The count units of 1, serve the unit you want to count.

**Press the Mode button once**

### CALIBRATION MODE

As soon as you enter this mode, both lines are in calibration mode.

Press the up/down button to change the line number displayed on screen.

C1 0289 → 00.0000

**TIP:** For draft beer, you can kill the foam by spraying WD40 into the graduated cylinder before serving.

You have to serve the amount selected (20 oz or 1 litre)). If you miss and serve too much on one line, stop and proceed with serving the selected amount at the other beer tap.

Using the graduated cylinder serve exactly the amount set previously. You can stop to let the beer foam go down. The flow meter pulses will register on the left side of the display.

- Press the Set/Reset (3) button to calibrate after you have poured the amount at each tap. The value on the right will change to the new calibration value. You can view the calibration values of each line by pressing the Line (2) button.
- If you need to recalibrate one of the lines, simply serve the selected amount on this line only. As long as you do not touch the other taps, the registered pulses will remain "0000" and the system will not recalibrate.

CLR 1? 123456.78

### CLEAR COUNTER MODE

You can clear a specific line counter in this mode.

Select the line number with the Line (2) button.

Press Set/Reset (3) to clear the counter.

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CLR PWF?: 10

### CLEAR POWER FAIL COUNTER MODE

The PWF (Power Fail) counter counts the number of times the TM200 tower was disconnected.

Press the Set/ResetE button to clear the counter.

MANAGER KEY 1:  
0000125B0A64

### Manager Key:

Available if your TM200 is equipped with the electronic i-button key option to reset the sales counters. The ibutton key fob is located on the junction box in place of a regular reset key. Two reset key numbers can be programmed in the TM200.

- Press the Line button to change and view the other one.
- Apply your ibutton to the fob.
- A message telling you it is a new key will appear on screen.
- Press the Set/Reset (3) button to program the new key.

BAUD RATE: 9600

### BAUD RATE MODE

The baud rate is used only when connecting the TM200 to a computer. The default baud rate of most computers and printers is 9600 bps.

- Press the Line button to toggle between 9600, 19.2 K and 2400.

SYSTEM NUMBER 00

### SYSTEM NUMBER MODE

The system number is used to identify the TM200 by the computer if you use the Draft Manager software.

You can set the number between 00 and 99.

- Press Line button (2) to increase the system number.
- Press Set/Rest button (3) to decrease the system number.

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INTERFACE OFF

INTF. ON - ASYNC

INTF. ON - SYNC

## INTERFACE MODE

The TM200 is equipped with a real time interface mode. This mode can be used if you have a real time beverage tracking software. The TM200 will send the new counters for the line(s) used, 2 seconds after the faucet was closed. The data will be sent through the serial port following a special communication protocol. **TURN THE INTERFACE TO OFF IF YOU USE DRAFT MANAGER.**

- Press the Set/Reset (3) button to turn the interface ON.  
ASYNC/SYNC SELECTION

Press the LINE (2) button to toggle between Async and Sync. Please READ the interface documentation for details on the operation and selection between synchronous and asynchronous.

**PRESS THE RUN/PROGRAM BUTTON WHEN FINISHED.**