Auper Electronic Controls Inc

TM200
Installation guide

2015

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.

LIMITED ONE YEAR WARRANTY

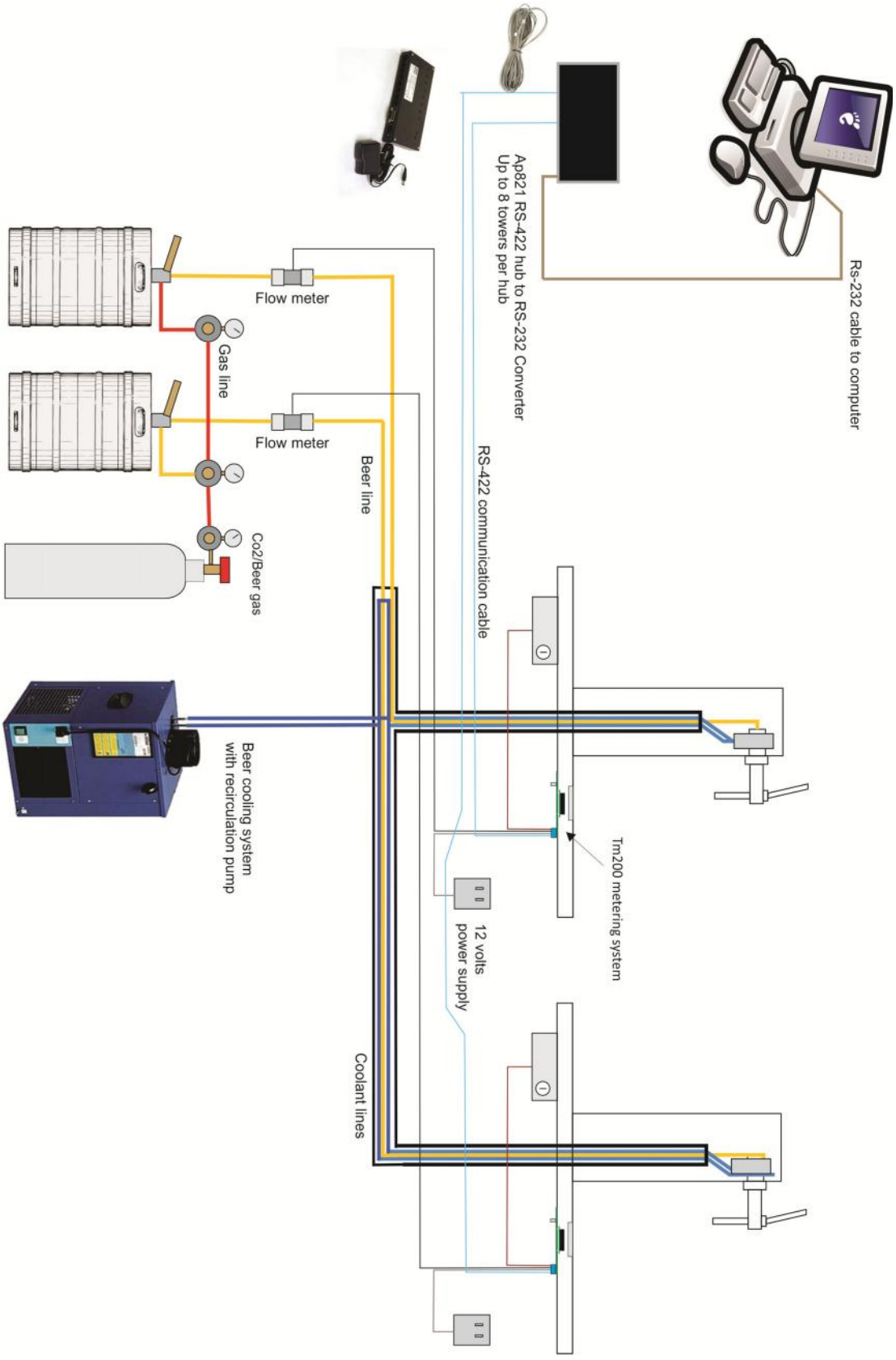
Auper Electronic Controls Inc. warrants that this product is in good working condition, according to its specifications at the time of the shipment, for a period of one (1) year from the date of purchase. Should the product, in Auper Electronic Controls Inc opinion, malfunction within the warranty period, Auper Electronic Controls Inc. will repair or replace the product without charge. Any replaced parts become the property of Auper Electronic Controls Inc. This warranty does not apply to the software component of a product or a product which has been damaged due to an accident, misuse, abuse, improper installation, usage not in accordance with product specifications and instructions, natural or personal disaster or unauthorized alterations, repairs or modifications.
THIS WARRANTY IS LIMITED TO REPAIR OR REPLACEMENT (AT AUPER'S OPTION) ONLY AND DOES NOT INCLUDE ANY LABOR OR TRANSPORTATION CHARGES OR COMPLIANCE WITH ANY FEDERAL, STATE OR LOCAL LAWS, CODES OR REGULATION.
Notice of any claimed breach of said Warranty must be promptly given to the Auper authorized dealer from whom the product was purchased or leased. Upon request, al l systems or parts which are claimed to be defective must be made available for inspection by and/or return to (at AUPER'S option) such authorized dealer and/or Auper. No repair or replacement under said warranty will extend the original warranty period.
THIS WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ALL OTHER WARRANTIES, ORAL OR WRITTEN, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR ANY PARTICULAR PURPOSE.

LIMITATIONS

All warranty for this product, expressed or implied, are limited to one year from the date of purchase and no warranty, expressed or implied, will apply after that period. No warranties for this product expressed or implied will apply to any person who purchases the product in used condition. The liability of Auper Electronic Controls Inc. with respect to any defective product will be limited to the repair or replacement of such product.
In no event shall Auper Electronic Controls Inc be responsible or liable for any damages arising
(a) from the use of the product;
(b) from the loss of use, revenue or profit of the product; or
(c) as a result of any event, circumstances, action or abuse beyond the control of Auper Electronic Controls Inc.; whether such damage be direct, indirect, consequential, special or otherwise and whether such damages are incurred by the person to whom this warranty extends or a third party.

DISCLAIMER OF OTHER WARRANTIES AND LIABILITIES

While all reasonable care has been taken in preparation of this product, it is provided “as is,” without warranty as to performance or fitness except as expressly stated above. The entire risk as to the quality of output developed with this product is assumed by the user.
Auper Electronic Controls Inc does not warrant that the software or system will meet any particular requirements of the user, other than as expressly stated above, and specifically denies any liability for incidental or consequential damages resulting from the use of this software or system. Auper Electronic Controls Inc also specifically denies all liability for any technical or editorial omissions in its product documentation, and for any incidental or consequential damages resulting from the furnishing, performance or use of its documentation.


Rs-232 cable to computer
Ap821 RS-422 hub to RS-232 Converter
Up to 8 towers per hub
RS-422 communication cable
Flow meter
Gas line
Flow meter
Beer line
Co2/Beer gas
Beer cooling system
with recirculation pump
Tm200 metering system
12 volts
power supply
Coolant lines

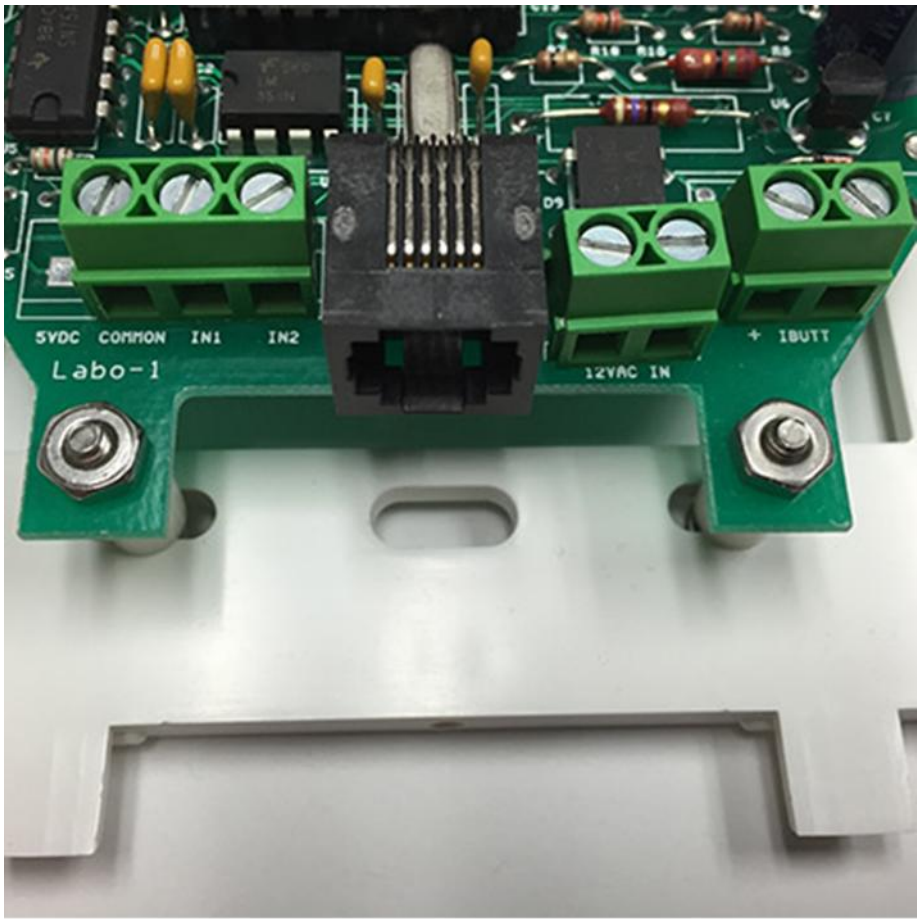
INSTALLATION

The TM200 can be mounted under the table or into a wall using the enclosure provided and a 4 inches stardard electrical box.

To mount the TM200 under the table, some wood work is necessary as the metering system will be screwed under the table with the display facing up as to be visible by the customers. The mounting bracket provided may be used or the metering circuit board could be screwed in placed directly using small screws.

A rectangular opening covered by a small plexiglass or glass window about the size of the display will be needed. The window should be recessed into the table top and sealed using silicone as to prevent any liquid infiltration that could reach the circuit board.

CONNECTIONS



- Reset box to Ibutt terminal
- Power supply to 12 VAC IN
- Flow meter 1 to IN1 and COMMON
- Flow meter 2 to IN2 and COMMON
- Computer to RS-422 jack (black connector in the middle)

Power supply

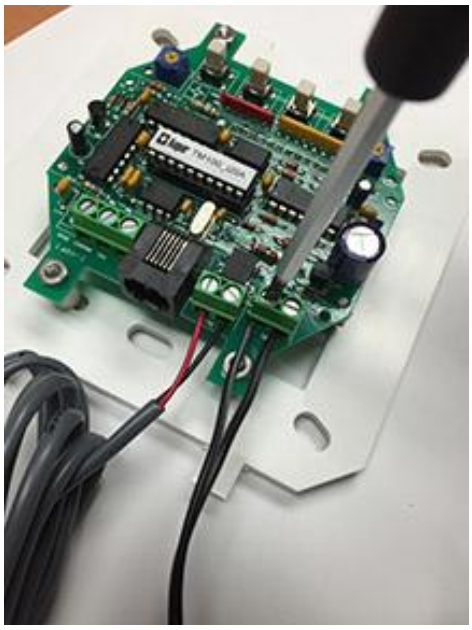
The TM200 will work with either a 12 Volts AC or DC power supply.

It is important to install the power supply in such a way that it cannot be unplugged easily.

Keep in mind that without power, the TM200 cannot register the beer served. The power supply must be installed or secured to prevent any accidental or intentional loss of power.

In the case of a 12 Volts AC power supply, there are no polarities. Cut the copper wires about 5mm long. Secure you wires to the terminal marked 12 VAC IN using a small screw driver. There should be no copper cable visible. It is important the wires cannot touch each other.

If you were provided with an interchangeable blade DC power supply, the TM200 is provided with a female connector already conneted to the power terminal.

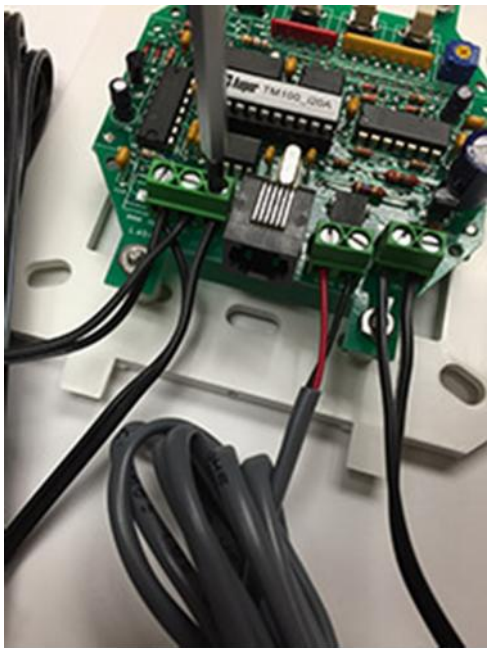


I-button reset box

Mount the reset box under the table. The staff will use the ibutton to reset the counter(s) when bringing new customers to the table.

Cut the copper wires about 5mm long. The wire with the white line must be connected to the + terminal. Secure you wires to the terminal marked IBUTT using a small screw driver. There should be no copper cable visible. It is important the wires cannot touch each other.

Flow meters



You can connect one or two flow meters to the TM200.

Flow meter No.1: Use terminal IN 1 and COMMON
Flow meter No.2: Use Terminal IN2 and COMMON

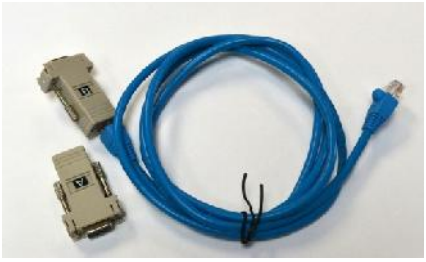
In the case Auper flow meters, there are no polarities. If you have two flow meters, twist one wire of each flow meter together and insert into the COMMON terminal.

Cut the copper wires about 5mm long. There should be no copper cable visible. It is important the wires cannot touch each other.

RS-422 serial connection

If you connect the TM200 to a computer, you will use an AP821 hub to connect as many as eight TM200 systems to the same computer port. The hub can be connected to another hub to extend the number of TM200 you can connect to the computer.

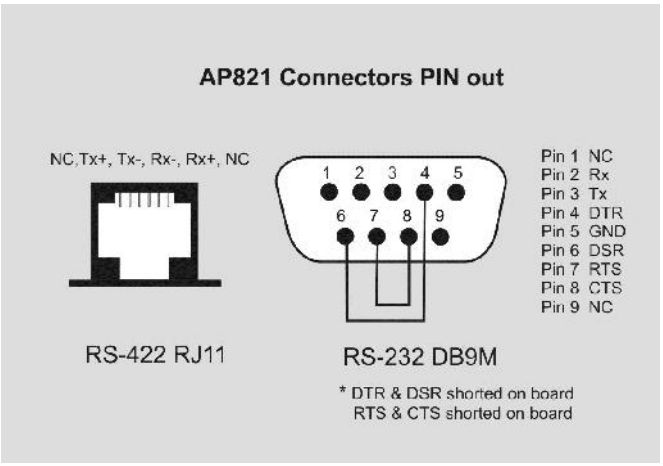
Between each TM200 and the hub, use an inverted Cat 5 2 pair cable terminated with RJ11 kacks. You can order these cables from the factory.
The cables can be up to 500 m long.



Connect the hub to the computer using a RS-232 null modem cable terminated with a USB converter.

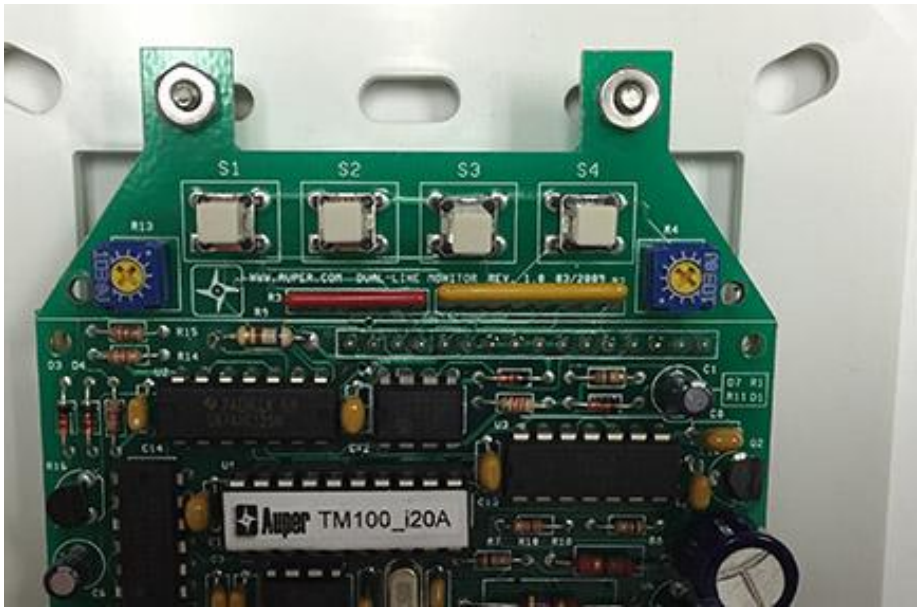
If the hub is close to the computer you can order a 3 M long RS-232 null modem P/N: 70-010.

If the hub is further than 3 M away but no more than 50 M, use a Cat 5 cable terminated with RJ45 to DB9 adapters.



SET UP

Switch pad



Four buttons are located on the circuit of the TM200.
Your hands must be dry before touching the TM200 circuit board.

Proceed slowly to avoid double clicking the buttons.

TM200 COUNTERS

The TM200 has two sets of counters for each flow meter:

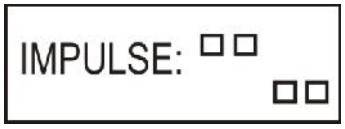
1. The sales counters are shown on the display. These are the counters that the customer sees and that you can clear to zero using the reset box. The optional single flow meter firmware has a serving counter that shows the amount of beer served each time a glass is poured. This model is limited to one flow meter.

2. The master counters are hidden. You can read them by pressing the No.1 button when the TM200 is in run mode. The master counters can be cleared in the programming mode as explained in the programming section of this manual.

PROGRAMMING

Press the S4 button once.

IMPULSE MODE



From left to right, 2 dots representing flow meters 1 and 2.

- When a flow meter is connected to an input (1 or 2) , the corresponding dot is up.
- If no flow meter is NOT connected to an input, the corresponding dot is down.
- When a flow meter detects liquid flowing through it, the corresponding dot will move up and down.
- If a flow meter is installed backward, the corresponding dot will be up but will not move when product is flowing.

Verify that your flow meters are connected and registering by serving a small amount of beer 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 S1 button once

UNIT SELECTION MODE

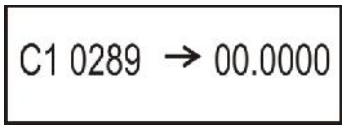
The TM200 can be set to measure ounces or units of 1 (1 litre, one glass or else).

At this stage, you choose if you want the system to count ounces or units (litres).

- Press the S2 button to toggle between ounces and units.
- To calibrate for ounces, select 20 oz.
- To count units of 1(litres), select 1 unit.

Press the S1 button once

CALIBRATION MODE



As soon as you enter this mode, both counters are in calibration mode. To calibrate, you will serve a measured amount of liquid into a graduated cylinder. The system will then read the number of pulses sent by the flow meter this amount of liquid (20 oz or 1 litre).

Press the S3 button to change the flow meter displayed on screen but keep in mind that both are being calibrated in this mode.

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

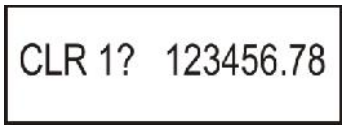
You have to serve the amount selected (20 oz or 1 unit). If you serve too much on one, proceed with serving the selected amount at the other beer faucet.

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 S2 button to calibrate after you have poured the amount at each beer faucet. The value on the right will change to the new calibration value. You can view the calibration values of each line by pressing the S3 button.
- If you need to recalibrate one of the lines, simply serve the selected amount at this tap only. As long as you do not touch the other beer tap, the registered pulses will remain “0000” and the system will not recalibrate.

Press the S1 button once

CLEAR COUNTER MODE



You can clear a specific master counter in this mode.
Select the counter (1 or 2) with the S3 button.
Press S2 to clear the counter.

Press the S1 button once

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 S2 button to clear the counter.

Press the S1 button once

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 sensor is located on the resel box in place of a regular reset key. Two reset key numbers can be programmed in the TM200.

<u>If you have several TM200 in your establishment, you can program the same two i-button keys in all your systems.</u>

- Press the S3 button to view the other one.
- To program a NEW key, apply your new ibutton to the fob.
- A message telling you it is a new key will appear on screen.
- Press the S2 button to program the new key.

Press the S1 button once

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 S2 button to toggle between 9600, 19.2 K and 2400.

Press the S1 button once

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. Each Tm200 must be given a differente system number.

You can set the number between 00 and 99.

- Press S3 to increase the system number.
- Press S2 to decrease the system number.

Press the S1 button once

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 use the **Draft Manager Live** real time beverage tracking software. **TURN THE INTERFACE TO OFF IF YOU DO NOT USE THE DRAFT MANAGER LIVE SOFTWARE.**

- Press the S2 button to turn the interface ON.
- Press the S3 button to toggle between Async and Sync.

The Async mode is no longer used. **Use the Sync mode only.**

PRESS the S4 BUTTON WHEN FINISHED.

RUN MODES

1. In Run mode you see the counters for flow meters 1 and 2.
2. Press the S1 button to view the master counters.
3. Press the S1 button again to view the power fail counter.
4. Press the S1 button again to return to the first screen.

GENERAL INFORMATION

Faucet locks.

We recommend locking the faucets using a faucet lock to prevent people from using the beer tap when the table is not assigned.

DRAFT MANAGER SOFTWARE

The Draft Manager Live software uses the master counters for its operation. If you use the software, When using the software you should never clear the master counters.

The Draft Manager Live software will show on screen the actual amount of beer served at each faucet with a total beer served per table helping you monitor the beer consumtion at each table.

The software can also interface yor POS system. You can prevent the staff from clearing the counters at the tables until the corresponding sale has been rung in the POS.