



# Imatic Draft Beer Portion Control System Installation and User Guide



Read this manual carefully before installation

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## 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 opinion, malfunction within the warranty period, Auper Electronic Controls Inc will repair or replace the product without charge.

Any replaced part becomes 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.

## 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 part

## Imatic portion control system

Part No	Description
50-660-K	Imatic Controller and two junction boxes
50-800	Flow meter collector box
70-021	Cat 5 collector cable 25ft
40-660	Transformer 24 volts AC 4.7 Amp
70-100	RS-232 serial cable 3 M



## General Information

Each Imatic controller will accept up to 16 Auper flow meters. The first 8 flow meters are used to drive Imatic portion control faucets. Flow meters 9 to 16 can be used for monitoring the amount of beer, wine, or soft drink dispensed in your bar.

The Imatic portion sizes and prices are entered from the key pad following a calibration procedure. Any number of Imatic systems can be networked to form larger beverage control systems using Auper's AP821 hubs. The Imatic is equipped with a programmable serial port (Rs-232 or Rs-422) and is ready to interface to your POS system or computer. Imatic can be combined with Eclipse liquor systems and Auper flow meter systems to form complete bar control systems.

## Flow Meters

John Guest tubing adapters are available for 3/8" and 1/2" external diameter tubing. **DO NOT HOLD THE BODY OF THE FLOW METER WHEN TIGHTENING THE TUBING ADAPTERS. USE A WRENCH ON BOTH ADAPTERS.**

### Tailpieces:

Use **stainless steel** tailpieces for carbonated water, syrups and wine.

Use chrome plated tailpieces for draft beer.

Hand tightens the plastic nuts at **room temperature**. When the washers are cold, sealing the adaptors may be difficult.

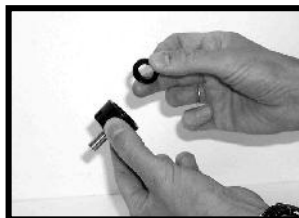


**Caution:** Install the flow meter at least **30 cm (12 inches)** from transformers, blowing fans or motors. These devices emit a magnetic field (50/60Hz), which can be picked up by the flow meter. If the counter moves without any liquid being dispensed, move the flow meter away from the emitting source.



### Installing the tailpieces

- Remove the lexan nut.
- Select the tailpieces corresponding to the internal diameter of the tubing.
- Insert the tailpiece in the lexan nut first and then the washer.
- Screw the lexan nut back on. Do not tighten.
- Repeat on the other side.
- Hold both lexan nut and tighten the nuts to seal. **DO NOT HOLD THE FLOW METER BY THE MIDDLE TO TIGHTEN THE LEXAN NUTS.**



## FOBs

If empty keg detectors (FOBs) are present, install the flow meter immediately after as it will prevent the flow meter from ever being in contact with air or foam.



## Teed beer lines:

If one keg supplies more than one beer lines using a tee, you must install **check valves** before each flow meter. The **check valve** prevent the liquid from moving back in the line when the pressure drops when the faucets are pulled open.



## Installation of the flow meters

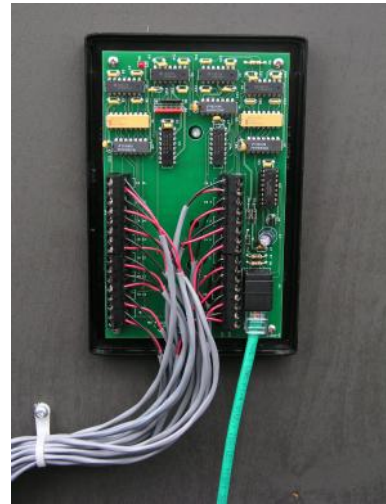
### Draft beer and wine

- **Remove** the keg coupler and open the faucet to decompress the product line.
- **Cut** the line where you will insert the flow meter.
- Slide a hose clamp (or Oetiker) on each side, check the **flow direction** and insert the flow meter.
- **Tighten** both clamps and secure your flow meter to the wall using the bracket.
- Re-install the keg coupler. Check for leaks.
- The insertion of the flow meter has created an **air pocket** in the beverage line.
- Pour enough beer to evacuate the air pocket before proceeding with the calibration of the system.
- Let the beer rest for a few minutes.

## Connecting the flow meters to the collector box

Always disconnect the Imatic system before working on the flow meter collector. The flow meter collector box should be mounted within 25 ft (7.6 M) of the flow meters it will be connected to.

Precautionary measures against splashing liquids include installing the collector with the cable slot facing downward and high enough on the wall away from the FOB's vents. The only cable coming out of the cooler will be the network cable going to the Imatic system. The Imatic system must be installed at the bar. The network cable will follow the same path as the beer lines.

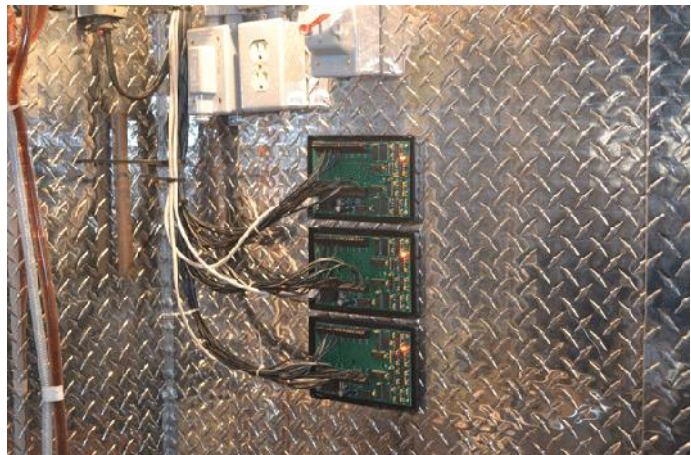


- Secure all your cables with cable ties.
- Strip 1/4 inch (0.5 cm) of the insulation off the wires.
- Press the lower sides of the cover to remove it.
- Each terminal is identified on the circuit board T1 to T16.
- Use a small flat screw driver and unscrew the terminals.
- Insert the wires.
- Screw down the terminals to close the contact.
- **Make sure the contact is closed on the copper wire** to guarantee a secured and solid connection.
- Avoid longer bare copper wires that could touch each other or the circuitry.
- Secure all your wires with cable ties.

## Connecting the serial collector to the I-Matic Controller

The flow meter collector is powered by the Imatic system. The Cat 5 cable that connects the collector to the Imatic contains the power lines to the collector. AN INVERSION IN THE CABLE MIGHT DAMAGE THE COLLECTOR AND IMATIC SYSTEM.

- **Make sure the I-Matic Controller is unplugged before connecting the collector.**
- Connect (see caution) a straight Cat 5 network cable between the collector and the Imatic Controller.
- Always check your network cable with a cable analyzer before connecting it to the Imatic system.
- Maximum length of Cat 5 cable is 300M.



## Installing the Imatic beer faucets

Make sure the Imatic controller is **disconnected** before working on the faucet cables.

If the power lines and keypad lines touch, you will damage the circuits resulting in erratic keypad and system behavior.

The Imatic beer faucets are delivered with a 5 M (15ft cable). You can extend this cable up to 15 M (45ft).

A ½ BPT adapter is available to attach the Imatic faucet to European shanks.

Run the faucets cable from the beer faucets to the Imatic control system.

If you cut the cable, strip 5 mm (.2 in) of wire insulation on each wire. We recommend to add solder to the copper wire ends to add rigidity.

Using a small flat screw driver, connect the Imatic faucet cable to the Imatic junction boxes.

The terminal strips are identified corresponding to the flow meter line numbers. It is important that the faucet number correspond to the flow meter number. Faucet 1 with flow meter 1..

The wire colors are identified on the circuit.

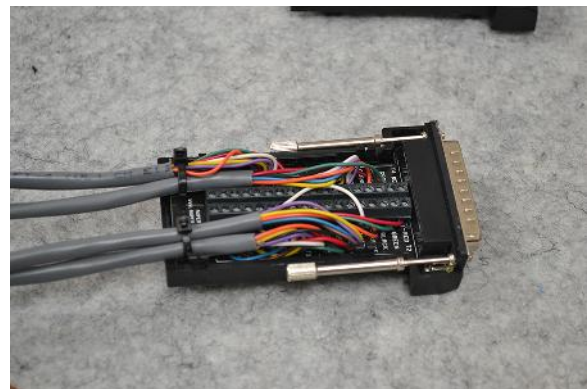
Connect faucets 1 to 4 on the first Imatic junction box.

Connect faucets 5 to 8 on the second Imatic junction box.

**Make sure the contact is closed on the copper wire** to guarantee a secured and solid connection.

Before you close the covers, inspect your cables and wires for short circuits or unconnected wires. Avoid longer bare copper wires that could touch each other or the circuitry.

Secure the cables with small cable ties. Install the covers on each junction box.





Secure to the proper connector on the Imatic system.

Use the screws to tighten the junction box to the connector.

**Note:** An Imatic faucet connected to the wrong flow meter will enter the **Pause** mode a few seconds after you have pressed a pour size button because it does not detect the flow meter pulses.

### Testing the flow meter connections

- Turn the key to **PROG** on the Imatic Controller.
- The “**impulse**” mode is used to verify that the flow meters are connected to the collector. From left to right, the 16 dots represent flow meters 1 to 16.
- When a flow meter is connected to a line, the corresponding dot is up.
- When there is no flow meter, 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.
- Press any of the pour size buttons to open the beer faucet. Press the same button to close it.
- Make sure every flow meter registers properly on the right faucet.

## Flow meter mode or timer mode

Imatic can be used in “timer mode” or in “flow meter mode”. The measures in timer modes are based on the time it takes to serve the quantity. Use the timer mode only if your dispenser’s pressure settings are fixed. It is not recommended for measuring draft beer. There are important flow fluctuations in a beer system that will make the measurements inaccurate. You can change from Flow meter to Timer mode by pressing the Set button.

## Calibrating the Imatic system

The calibration procedure insures the accuracy of the measurements of the Imatic system. Each flow meter must be calibrated with the product it is measuring. The flow meter should be re-calibrated if the product is changed or if the dispensing flow rate was changed by a factor of 30 % or more.

Calibrating an Auper metering system requires you to pour a measured amount of product at each faucet into a graduated cylinder. In the calibration mode, the system calculates how much liquid flows through each flow meter for one turbine impulse. A minimum of 20 Oz or 50 CL is recommended to provide a large enough sample.

During the calibration procedure all 16 lines are calibrated at the same time. This feature prevents you from having to go back and forth to the Imatic system to set the calibration values.

As soon as the system is put in the calibration mode, the amount of liquid dispensed at each faucet is used to calibrate the metering system. If liquid is dispensed on a line that you did not intend to calibrate, the calibration of that flow meter will be changed. Only the lines that have detected liquid flowing will calibrate. When you are ready to calibrate your meters, **tell everyone not to use any of the beverage lines** for the duration of the calibration procedure to prevent unwanted re-calibrations.

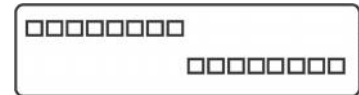
**\*\*\*To accelerate the calibration, spraying a little WD40 inside the graduated before filling it with beer will eliminate the foam rapidly.**

## PROGRAMMING MODES

Turn the key to **Prog.**  
 Press the **Mode** button to move to the next mode.

### 1. Pulse mode.

16 dots for 16 flow meters connected to the flow meter collector box.  
 Dot UP = Flow meter connected  
 Dot Down = No flow meter connected  
 Dot move up and down when liquid flows through the flow meter.



### 2. Flow meter / Timer mode

Press the **Set** button to select the mode you want to use.



### 3. MEASURING UNIT SELECTION

Press **SET** to change.  
 Press the **+** and **-** buttons to increase or decrease the amount you select to serve into a graduated cylinder to calibrate.



Select **USE 20 OZ TO CAL.** to count and measure in ounces.  
 Select **USE 20 CL to CAL.** to count and measure in CL.  
 Use the **+** button to increase to increase the amount to 50CL.



With the help of the **+** and **-** buttons you can choose the number of ounces (CL) you will serve in a graduated cylinder to calibrate your system. For draft beer a minimum of 20 Oz is recommended and 50 cl for metric calibration.

### 4. CALIBRATION

L01 = Line number on display. Press **↑ ↓** to change.  
 20/50 = Amount to serve in graduated cylinder.  
 0290 = existing calibration value. Will be **0000** if never calibrated.



To open and close the valve manually, press the **Size 1** button on the Imatic faucet.  
 Serve the amount selected into a graduated cylinder at each faucet.  
 You can stop to let the foam to go down.



As you serve liquid, the 4 digits on the right, showing the flow meter pulses will increase.

When you have served 20 oz or 50 cl at each faucet,

L01 50: 0290 0304

Press the **Set** button.

The numbers will be transferred on the left side of the display confirming the calibration of that line:

L01 20: 0304 0000

Press **↑ ↓** to change the line number on display to review your calibration values.

L01 50: 0304 0000

These calibration values can be changed manually to fine tune the amount served.

Press **↑ ↓** to change the line number on display

Press the **← →** buttons to move cursor.

Press the **+** and **-** buttons to increase or decrease value (0-9).

## 5. SETTING THE SERVING SIZES

This mode will let you enter the values in ounces (or CL) of the eight pour sizes of the 8 dispensing heads.

L01 to L08 identifies the 8 lines.

L01A: CAL.= 16.00

The letters A to H identifies the 8 pour sizes.

Press **↑ ↓** to change the line number and serving size on display.

Press the **← →** buttons to move cursor.

Press the **+** and **-** buttons to increase or decrease value (0-9).

L01A: CAL.= 25.00

**TIP : If your serving sizes are the same for all, set the serving sizes for line 1 only and move on to the next mode.**

## 6. SAME SIZES AS 1 ?

SAME SIZE AS 1?

Press **SET** to make all the serving sizes identical to those programmed for Line 1.

After the system has completed the changes, **SIZES EQUALIZED** will be displayed.

## 7. Dollars values

Ln01A: \$ 00.00

Enter the price for each serving size for each line.

Press **↑ ↓** to change the line number and serving size on display.

Press the **← →** buttons to move cursor.

Press the **+** and **-** buttons to increase or decrease value (0-9).

## 8. RESET COUNTER

You can reset the counters individually using this mode.  
Press **↑** **↓** to change the line number and serving size on display.  
Press **SET** button to reset this counter

RS01A: 000000

## 9. POS DISABLED

The mode is used to interface the Imatic system to a POS system.  
If you do NOT interface the Imatic to a POS system, this mode must remain on DISABLED.

POS DISABLED

POS ENABLED (1)

There three interface protocol available:

POS ENABLED (1) = BERG GENERIC PROTOCOL  
POS ENABLED (2) = MICROS NALDS  
POS ENEBLED (3) = AUPEER LIQUOR MANAGER INTERFACE

Press **SET** to change to POS ENABLED (1)  
Press **↑** **↓** to change the POS protocol.

## 10. HANDS FREE MODE

If your Imatic faucets are all equipped with a hands free switch option, set this mode to ON.

POS SWITCH OFF

Press **SET** to change.

## 11. BAUD RATE

Select the baud rate required by the computer or POS interface specifications.

Windows computer default is 9600.

Berg generic is 2400.

Micros NALDS is programmable in the Micros.

BAUD RATE 9600

Press **+** and **-** to change

## 12. SYSTEM NUMBER

Several Imatic or Eclipse liquor systems can be connected to a network using RS-422 or a computer network.

Each system on a network must be given a different system number to be able to communicate with the Liquor Manager Live software.

SYSTEM NUMBER 01

Press **+** and **-** to change

### 13. POWER % TO OPEN FAUCET

The pressure applied to each beer faucet will vary depending on the beer system pressure. Imatic faucets can be set to open with less or more power depending on the pressure applied. You will reduce the power when pressure is lower and increase the power when necessary.

L01 POWER= 60%

Press **↑ ↓** to change the line number.  
Press the **+** and **-** buttons to increase or decrease power.

To open and close the valve manually, press the **Size 1** button on the Imatic faucet to adjust the power.

### 14. PAUSE MODE

When the PAUSE mode is ON, the bartender will be able to close the faucet temporarily to “pause” a serving size. This mode is used to let the foam go down if the beer is foamy by pressing the pour size button again. The amount to serve will stop when the flow meter has measured the amount set to serve.

PAUSE MODE: ON

Press **SET** to change to OFF

### 15. CANCEL MODE

When the CANCEL mode is ON, the bartender will be able to cancel a serving size by pressing the orange button on the Imatic faucet. The amount to serve will stop, the system will count 1 but the full portion of beer will not be served. Can be used in case of mistakes to prevent losing beer. Management should be made aware of a serving size cancelation.

CANCEL MODE: ON

Press **SET** to change to OFF

### 16. PC COM SELECT

Choose if the computer is connected by RS-232 or RS-422.

PC -> COM RS-232

Press **SET** to change.

### 17. POS COM SELECT

Choose if the POS terminal is connected by RS-232 or RS-422.

POS -> COM RS-232

Press **SET** to change.

**18. PRINTER COM SELECT**

Choose if the serial printer is connected by RS-232 or RS-422.

Press **SET** to change.

PRINTER -> RS-232

**19. DEFAULT SIZE RETURN**

You can set Imatic to return to default serving size after it has not been used for 5 seconds.

Press **SET** to turn ON or OFF.

RET DEF. SZ: ON

**20. DEFAULT SIZE SELECT**

Press **+** and **-** to change from 1 to 8.

DEFAULT SIZE: 1

**21. SAVE SETTINGS**

Press **SET** to save settings in EEPROM.

SAVE SETTINGS

**22. FIRMWARE**

Display firmware version of the system.

FIRMWARE V2.2e

## OPERATION ( Key on "RUN" )

In operation mode, the key is used to the clear counters or to put the system in cleaning mode.

### COUNTING MODE

Ln01A: 0004 00201

The number of pour sizes dispensed is on the right.

The number of pulses required to serve this serving size is on the left of the screen.

After each size, a few flow meter pulses will be registered. The number is caused by the delay from the time the faucet shuts off and the flow meter stops moving. This amount should never be much more than a few pulses.

Press **↑** **↓** to change the line number.

### PRINT REPORT

PRINT REPORT ?

Used only if you have a serial printer connected to the Imatic system.

Press **SET** to print report.

The display will show DATA PRINTING.

Then you are asked if you want to reset all the counters.

Turn the key to Prog and back to Run to clear the counters.

CLEAR COUNTERS ?

### LINE CLEANING

LINE CLEANING ?

In this mode you are asked if you want to disable the system to proceed with the beer line cleaning.

Turn the key to Prog to put the system in cleaning mode.

The pour size buttons can be used to open and close the faucets manually

Turn the key back to Run when finished.

CLEANING MODE...

### POWER FAILURES COUNTER

This counter count how many times the Imatic system lost power.

NUMBER OF PWF=03

## ANNEXE 1: POS system interface additional programming modes

### 9.1 WAIT FOR POS ACK?

When Imatic is connected to a POS system, this option becomes available in the programming modes.

WAIT FOR POS ACK: YES

Press + to set to YES.

Imatic will wait until a ACK reply has been received from the POS system before opening the faucet.

Press – to set to NO.

Imatic will not wait for the ACK to be received and open the faucet immediately.

### 9.2 POS TIMEOUT = 5 s

Sets the time that the Imatic is going to wait to receive an ACK signal from the POS system after it has sent a pour request.

POS TIME OUT = 5 SEC

- When you press a pour size button, a pour request is sent to the POS terminal.
- To indicate that the pour request has been sent, the pour size light will be turned OFF.
- When the POS system replies with a positive answer (ACK), the light is turned back ON and the beer faucet opens to serve the glass requested.
- If the pour request is refused by the POS server, the light will be turned back on upon receiving the “Nack” signal.
- If the server fails to answer during the delay, the Imatic stops waiting and the light will go back ON. You can send another pour request.

**Press the + and – buttons to increase or decrease the time out delay.**

### 9.3 PLUs

When interfaced to a POS using POS Enabled 1 or 2, each brand and pour size is given a PLU number corresponding to those set in the POS system.

PLU 01A: 0101

Press **↑ ↓** to change the line number and serving size on display.  
Press the **← →** buttons to move cursor.  
Press the **+** and **–** buttons to increase or decrease value (0-9).