

Automatic Draft Tap

Introduction

The Automatic Draft tap is a motorized beer faucet controlled by an internal CPU. Up to four pour sizes can be pre-set to dispense the amount of draft beer or wine you wish to serve in your different glass sizes. The foam button is set to open the tap partially to make beer foam. The Draft Tap can operate with the serving sizes set by the amount of time the faucet is held open or, with an optional Auper flow meter to insure accurate serving sizes in any conditions.

Pressing one of four pour size buttons will open the beer faucet to dispense the product. The faucet will close automatically when the pre-set quantity is reached. The foam button can be pressed to add foam to top off the beer glass when needed. Each pour size and the foam button has a counter that will advance 1 each time a pour size is served.

The manager can read the counters at the end of a shift and reset them to zero at the start of a new shift using a programmable passcode. The Draft Tap can be locked and un-locked using another programmable passcode to prevent people from using it when the bar is closed.



Automatic Draft Tap buttons functions:

- 1, 2, 3, 4** are the regular programmable pour size buttons. Press to serve the pour size, pause or cancel a pour if the options are turned on.
- Buttons **1** and **2** are used to decrease or increase values when programming the tap.
- Button **3** is used to move the cursor when fine tuning pour sizes when programming the tap.
- Button **4** is used to set a pour size served when programming the tap.
- The **F** button is the "add foam" button.
- The **F** button is also used to validate choices when programming the tap or, to open and close the tap manually when cleaning the beer tubing.
- The arrow button is also called the **R** button (return) on the display and in this manual. It is used to activate the hands free option (if turned on), to move to the next mode when programming the tap or accept a passcode.

Installation

The installation of the beer tap with no flow meter involved is limited to replacing the manual beer tap with the faucet wrench provided, securing the cable with cable ties and plugging the power supply.

Number of kegs: This device should not be used on time base if several kegs are connected in series to the draft tap unless the flow is regulated by a beer pump.

Power: The power supply needed is a **6 volts DC at 2 amps**.

The circuit contains super capacitors to provide enough charge for the electronics to close when power is lost. When applying power, the capacitors need 10 seconds to charge before you can use the tap. If the tap is open and the power cord is pulled, it will close automatically.

Tap handle:

The Automatic Draft tap can be ordered with or without the tap handle screw. The nylon tap handle screw is inserted into a plastic support secured to the cover. They are designed to break before any damage can happen to the Automatic Draft Tap if excessive force is applied to the tap handle. Both these parts can easily be replaced.

Installation without flow meter

1. Disconnect and remove the keg coupler.
2. Open the beer tap to release pressure until the liquid stops pouring.
3. Using the faucet wrench, rotate clockwise to unscrew the beer tap from the shank.
4. Replace the beer tap with the Automatic Draft Tap. Tighten using the faucet wrench by turning counter clock wise.
5. Plug in the 6 Volts DC power adapter provided and power up. Secure the cable with cable ties.
6. Wait 10 seconds before pressing any buttons to allow for proper charging of the power components.
7. Connect the keg coupler back.
8. A pour size has been pre-set for you on P1.
9. Press 1 to open the tap to purge the small air pocket created when you exchanged the beer taps.
10. Repeat until the beer pours normally again.

Installation with a flow meter

The Automatic Draft Tap cable is terminated with a DC plug and two wires (green and White). The flow meter can be connected directly to these wires without any concern for polarity. You can do this if the flow meter can easily be installed in the tubing close to the beer tap. Keep the flow meter 30 cm (1 Ft.) away from fan motors or transformers to avoid interferences.

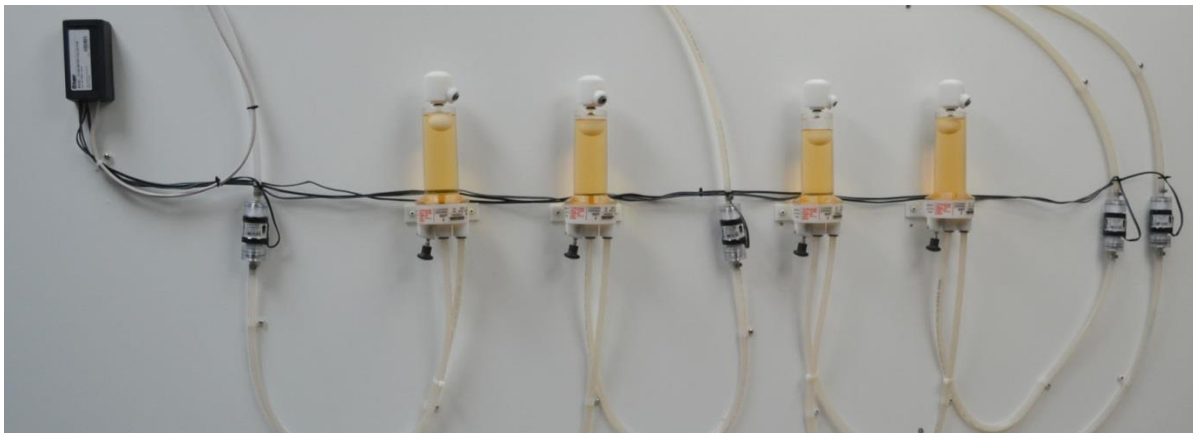


Collector boxes:

If the kegs are in a walk-in cooler for example, you can use two collector boxes P/N: 50-930 linked by a Cat 5 network cable to link the flow meters to the Automatic draft Taps. A collector box can take 6 flow meters. Put the first one in the cooler within reach of the flow meters you want to connect to it. The flow meter cables are 25 Ft. long (7.65 m). Secure the wires to the terminal block.

Write down which terminal number (1 to 6) used for each product and flow meter. You must connect the flow meter measuring a specific product to the Automatic Draft Tap dispensing this product (Ex: flow meter on Budweiser keg connected to the tap dispensing Budweiser).

Run a Cat 5 cables between the collector inside the cooler and the second collector box at the bar area. Connect each Automatic Draft Tap flow meter wire to the terminal corresponding to the keg and flow meter is it dispensing. Connect the Cat 5 cable to each collector box to complete the link.



Programming

To enter

1. Press and hold the Arrow button (R).
2. Press F and release both buttons.

1:VCTER 2:CLEAN
3:RESET 4:SETUP

From this menu you can:

1. Read the counters (VCTER)
2. Activate the line cleaning mode (passcode protected).
3. Reset the counters (passcode protected).
4. Change the setup of your tap.

SETUP

Press 4 to enter setup.

1. Press 2-1-3-2-2-F-2. Press the Arrow button to confirm.
2. Press 4 to enter the Setup mode.
3. Press and hold the Arrow button, Press F and release both buttons.
4. Press 4 to enter SETUP.

1: QTY 2: OPTIONS
3: COMM. R: QUIT

Setting the pour sizes

Pour sizes are set by serving the amount you wish to serve in the corresponding glass. Set a pour size to 0 if you want to disable it. The Automatic Draft tap has 4 different pour sizes: 1 to 4 and the Foam button (5).

1:QTY

1. Press 1: QTY to set the pour sizes.
2. Press F to open and close the tap manually to start measuring the amount to serve.
3. If beer foams, you can close the tap to let the foam settle down and open it again to continue.
4. The pulses will increase on the top right (4 digits).
5. When the desired amount is reached, press 4 to save it. You can serve it again if you are unhappy with the quantity served or, you can change it manually. See **Fine tuning** below.
6. Press R to move to the next pour size.
7. Repeat for each pour size.
8. After F5, you will be asked if you are done with sizes.
9. Press F to exit or press R to go back to P1.

P1:[0065] < 0000
0/1=F SET=P4

DONE WITH SIZES?
YES=F NO=R

Fine tuning of the timer values:

A pour size timer can be edited manually after it has been saved by pressing 4. The last digit of the timer value is underscored and flashing. You can decrease that digit's value by pressing 1 and increase it by pressing 2. You can move the cursor to the left using 3. **DO NOT PRESS 4 TO SAVE**. You would transfer the 0000 value from the right to save it as the new pour size value.

2:OPTIONS

1: QTY 2: OPTIONS
3: COMM. R: QUIT

Timer mode/Flow sensor mode

This is the option where you select if you have a flow sensor installed or, if you are using the timer to set the pour sizes. *To use the flow sensor mode, you must have an Auper 50-316-C flow meter installed in the tubing wired to the Automatic Draft tap. If you do not have the flow meter, set it to Timer mode.*

If you accidentally put the tap to flow sensor mode without a flow meter wired to it, the tap will shut off after a few seconds with the message Beer Line Empty! This is caused by the tap expecting to receive flow meter impulses on the flow meter wire.

1. Press 1 or 2 to toggle between Timer mode and Flow sensor mode.
2. Press R to continue.

TIMER MODE
<>=1-2 NEXT=R

FLOW SENSOR MODE
<>=1-2 NEXT=R

Pause pour:

When set to ON, after starting a pour size, if you press any button again, the tap will shut off to allow foam to settle. Pressing it again will complete the pour size. You can pause a pour size as many times as needed.

1. Press 1 or 2 to turn OFF/ON.
2. Press R to continue.

PAUSE POUR: ON
<>=1-2 NEXT=R

PAUSE POUR: OFF
<>=1-2 NEXT=R

Cancel pour:

When set to ON, after starting a pour size, pressing another pour size button will cancel the pour size and the faucet will close. The pour size counter will count 1. The cancellation should be justified to management when used.

1. Press 1 or 2 to turn OFF/ON.
2. Press R to continue.

CANCEL POUR: ON
<>=1-2 NEXT=R

CANCEL POUR: OFF
<>=1-2 NEXT=R

Repeat pour (hands free):

When set to ON, after starting a pour size, you can press the Arrow button to put the tap in automatic repeat mode. The LED will turn ON. The pour size selected will start again after the pre-set delay freeing both hands to serve several glasses in a row. Pressing the Arrow button after the last pour size has started will exit the repeat mode (LED off) and the tap will stop at the end of the pour size.

1. Press 1 or 2 to turn OFF/ON.
2. Press R to continue.

REPEAT POUR: ON
<>=1-2 NEXT=R

REPEAT POUR: OFF
<>=1-2 NEXT=R

Repeat delay:

This sets the delay in seconds between two pour sizes when the repeat pour option is used.

1. Press 1 to decrease.
2. Press 2 to increase.
3. Press R to continue.

REPEAT DELAY: 4
+/- =1-2 NEXT=R

Line cleaning mode:

When set to ON, if given the access code, the technician who comes to sanitize the tubing, can set the tap in Line Cleaning mode to open and close the faucet manually using the F button. If set to OFF, the technician will clean the beer tubing using the pour size buttons.

1. Press 1 or 2 to turn OFF/ON.
2. Press R to continue.

LN. CLEANING: ON
<>=1-2 NEXT=R

LN. CLEANING: OFF
<>=1-2 NEXT=R

Enter new code (Line cleaning) (Default factory code is 1234)

1. Press the arrow button if you want to skip.
2. Use buttons 1-2-3-4 and F(5) to enter a code 4 to 7 digits long.
3. To erase a digit hold F and press R
4. Press the arrow button to save.

ENTER NEW CODE:
(LINE CLEANING)

Reset counters code (Default factory code is 1234)

1. Press the arrow button if you want to skip.
2. Use buttons 1-2-3-4 and F(5) to enter a code 4 to 7 digits long.
3. To erase a digit hold F and press R
4. Press the arrow button to save it.

ENTER NEW CODE:
(RESET COUNTERS)

Lock tap

When turned ON, the manager can lock the tap and unlock the tap using a passcode.

1. Press 1 or 2 to turn ON/OFF
2. Press R to continue

LOCK TAP: ON
<=>1-2 NEXT=R

Lock code (Default factory code is 1234)

1. Press the arrow button if you want to skip.
2. Use buttons 1-2-3-4 and F(5) to enter a code 4 to 7 digits long.
3. To erase a digit hold F and press R
4. Press the arrow button to save it.

ENTER NEW CODE:
(LOCK/UNLOCK)

Options done?

1. Press F to exit to the previous menu.
2. Press R to start at the beginning of the options settings.

OPTIONS DONE?
YES=F NO=R

EXIT programming

At this point you should be finished with the basic configuration of the Automatic Draft Tap. The next section is for more advanced users who wish to use software.

QUIT SETUP MODE?
YES=F NO=R

1. Press R to quit.
2. Press F to confirm and exit.

3:COMM.

You should not enter this mode unless you have a wireless chip installed and plan to interface your Automatic draft taps to the software.

1: QTY 2: OPTIONS
3: COMM. R: QUIT

This is where we set the draft tap for communication with the software and turn the interface on/off. This means you plan on interfacing your draft taps with the computer. The software will record the date and time each pour sizes was served with the amounts owed and report automatically by email the total draft dispense per tap, brand and bar. See the software documentation for more details.

Each beer tap can be equipped with a WIFI module that is set at the factory to communicate with a preconfigured wireless access point. The access point is a dedicated factory preconfigured WIFI device. The access point will be connected to your computer network router or Ethernet switch to put the draft taps on the computer network to communicate with the software.

The draft taps installed in a bar can be grouped by bar or station. We identify the group(s) by a system number. Each system number will be associated to the bar or dispense station name in the software. Each draft tap in a group is given a tap number. In the software, the tap number will be associated with the product name it is dispensing.

Each time the beer tap is used, the software will record the brand served and the pour size used.

WIFI link

1. Press 1 or 2 to change the baud rate between the tap and WIFI access point.
2. The default setting is 115200 bytes per second.
3. Press R to continue

WIFI LINK
BAUDRATE 115200

System No.

1. Press 1 to decrease or 2 to increase the value.
2. Press R to continue

SYSTEM No: 0
ADJ=1-2 NEXT=R

Tap number

1. Press 1 to decrease or 2 to increase the value.
2. Press R to continue

TAP NUMBER 0
ADJ=1-2 NEXT=R

Interface (do not turn on without software)

1. Press 1 or 2 to turn OFF/ON.
2. Press R to continue.

INTERFACE : OFF
<>=1-2 NEXT=R

Timeout (interface ON only)

The time out value is the number of seconds that the beer tap will wait for the computer to respond to a pour request that it has just sent. In the event the software was off line, a timeout response would alert the staff that a problem has just occurred.

```
INTF TIME OUT= 4s
+/- =1-2  NEXT=R
```

1. Press 1 to decrease or 2 to increase the value.
2. Press R to continue.

MCU: AT89LP51RB2 and version

1. Press R to continue

```
MCU: AT89LP51RB2
FIRMAWARE: 2.2a
```

COMM. Done?

1. Press F to exit.
2. Press R to start again the COMM. settings.

```
COMM. DONE?
YES=F NO=R
```

EXIT programming

1. Press R to quit.
2. Press F to confirm and exit.

```
QUIT SETUP MODE?
YES=F NO=R
```

Operation

Locking the tap (if the option is turned on)

1. Press and hold the arrow (R) button and then Press 1.
2. Release both buttons.
3. Enter your 4 to 7 digit passcode and press R.

ENTER CODE:
(LOCK/UNLOCK)

TAP LOCKED
F: UNLOCK

Unlocking the tap

1. Press F.
2. Enter your 4 to 7 digit passcode and press R.

Serving product

1. Press a pour size button (1to 4 or F for foam)

The pour size is identified on the first line and the pulse counter is counting until the pour size setting has been reached. Upon reaching the number of pulses set for this size, the faucet will close.

READY....
C1 12 < 0000

Pausing a pour (if the option is turned on)

1. Press any button once to stop the faucet.
2. The LED will flash.
3. Press the same pour size button again to reopen the faucet.
4. Repeat until completion of the pour size.

SERVING P1
C1 11 < 0024

PAUSING P1
C1 11 < 0035

Cancelling a pour (if the option is turned on)

If the pause a pour option is turned on, the tap will stop the pour first leaving the option to restart without canceling. If only the Cancel a pour mode option is turned on, the pour will cancel immediately.

1. Press any of the other pour size buttons to stop the tap (excluding the arrow button).
2. The pour size selected stops immediately and the counter advance by 1. The tap is ready to use again.

Reading the counters

1. Press and hold the Arrow button (R).
2. Press F and release both buttons.
3. Press 1 to read the counters.
4. Press 1 or 2 to move up and down to the next counter.
5. Press R to exit

```
1:VCTER  2:CLEAN  
3:RESET  4:SETUP
```

```
COUNTER 1    15  
<=>=1-2    NEXT=R
```

Line cleaning (if the option is turned on)

1. Press and hold the Arrow button (R).
2. Press F and release both buttons.
3. Press 2.
4. Enter your 4 to 7 digit passcode and press R.
5. Pressing F turns the beer tap on/off manually.
6. Press R when finished.

```
LINE CLEANING...  
I/O=F    QUIT=R
```

Resetting the counters

1. Press and hold the Arrow button (R).
2. Press F and release both buttons.
3. Press 3.
4. Enter your 4 to 7 digit passcode and press R.
5. Pressing F to reset all 5 counters.
6. Press R when finished.

```
RESET COUNTERS?  
C1    11 <Y=F
```

Troubleshooting

Portion size changed

If used without a flow meter the pour sizes may change if the pressure applied to the keg has been changed or, any other work has been done to the dispensing system. This device should not be used on timer mode if more than one keg is connected in series to the beer tap unless the flow is regulated by a pump.

Waiting for ACK message

If you receive these messages, it means the Automatic Draft Tap is set to interface with the computer and that it has lost the connection. If you do not use the software, then you should turn the interface option off.

If you use the software, check if the software is running and the computer connected to the network.



```
WAITING FOR ACK
C1 11< 0000
```



```
INTF. TIMED OUT
C1 11< 0000
```

Beer line empty message

This message means the Automatic Draft Tap is set to flow sensor mode and that it is not receiving pulses from the flow meter. If you are not using a flow meter, set the tap to **timer mode**.



```
BEER LINE EMPTY!
C1 11< 0000
```

1. If you are using a flow meter, verify the connections.
2. Check the flow direction.
3. Remove the flow meter from the line and look for anything that could prevent the propeller from spinning freely.

Specifications:

630SS Pearl faucet: The seat forward design of the Pearl faucet is a good choice for a motorized beer tap because its internal parts are not normally exposed to air. The faucet will not become sticky if the tap is not used for several days. The tubing can be cleaned and sanitized with the faucet in place. With the chemicals used, the inside of the faucet becomes sparkling clean.

Power: 6 volts DC @ 2 Amps or more. Example: Triad WSU060-2000 or WSU060-3000

Plug: 2.1mm x 5.5mm barrel

Power adapter splitter: A barrel plug splitter and a 3 Amp or more power supply can be used to power two Automatic Draft Taps with the same power adapter.

Force: The motor delivers 20 Kg of torque to open and close the beer faucet in 0.14 sec.