

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 have 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

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

The circuit contains super capacitors to provide enough charge for the electronics to close if electrical 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 a tap handle screw and support to mount on the cover. A nylon tap handle screw is inserted into a plastic support that has 3M VHB two-sided tape under. You can glue the tap handle on the Automatic Draft Tap cover.

Installation without flow meter (timer mode necessary)

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. Position and 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.



Connecting the optional flow meter

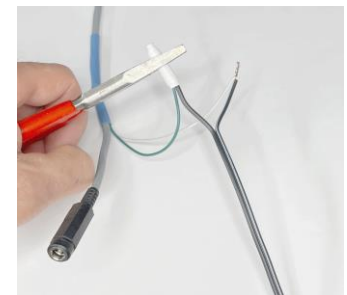
Basic model

The basic ADT is provided with a 6 ft / 2M cable that ends with a female DC jack and a pair of wires (green and white) to which you can connect an Auper draft beer flow meter. The flow meter cables are 25 Ft / 7.65 m but can be extended as far as you need. We recommend 22-gauge stranded wire.

There is no voltage supplied to the flow meter. You cannot break anything if the wires touch. You can connect the flow meter directly to the white and green wires without concern for polarity.

Secure and insulate the connections with the crimp connectors provided.

Secure your flow meter cable with the ADT cable. You can use cable ties and/or electrical tape to protect your connections.



Ethernet model

The Ethernet model of the Automatic draft tap is provided with 6 ft/2M cable terminated by a 9-pin connector. You will connect the cable to the Ethernet junction box as well as the power supply and optional flow meter.

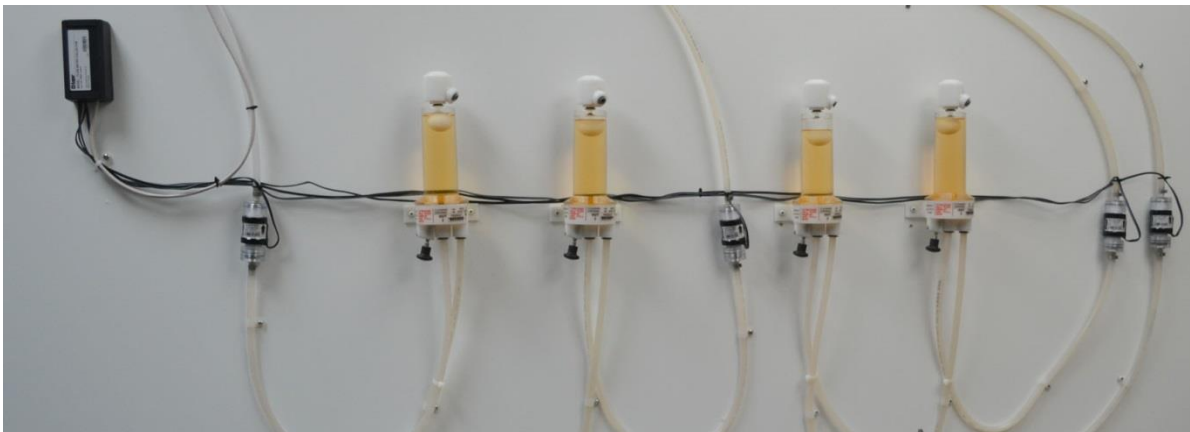
The flow meter wires coming out of the junction box are black. Connect the flow meter directly to these and secure your connections as explained above.



Installation with flow meter collector boxes (2):

If the kegs are in a walk-in cooler 75 ft/25 M from the beer taps 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. One set of collector boxes can take 6 flow meters. Put the first one in the cooler within reach of the flow meters you want to connect to it. Secure the wires to the terminal block and note the port number selected (1 to 6) for each brand.

Run a Cat 5 cables between the collector inside the cooler and the second collector box you will now install at the bar area. You will need some 22-gauge stranded cable to link the terminals from the second collector box to each Automatic draft tap flow meter cable. Connect each Automatic Draft Tap flow meter wire to the terminal corresponding to the brand and flow meter it is dispensing. Connect the Cat 5 cable to each collector box to complete the link.



Programming

The Automatic Draft taps are normally shipped on the timer mode after testing.

To enter the programming modes

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.
5. Press 4 to enter setup.

SETUP

1. Press **2-1-3-2-2-F-2**. Press the Arrow button to confirm.

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

*** If you have connected a flow meter to your Automatic Draft Tap, you will want to start with **Options** before you can set pour sizes to set the flow meter mode instead of timer mode. If you are using the timer mode, you can already set the quantities.

Setting the pour sizes

Pour sizes are set by serving the amount you wish to serve in the corresponding glass size. 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 (time or flow meter) will increase on the top right (4 digits).
5. When the desired amount is reached, press **4** to save it. It will transfer to the left. You can serve it again if you are unhappy with the quantity served or, you can change it manually. See **Fine tuning** next.

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

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.

DONE WITH SIZES?
YES=F NO=R

Fine tuning:

The number of pulses corresponding to a pour size (on the left) can be changed manually after it has been saved by pressing 4. The last digit of the pulses 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. You can press 4 if you want to disable this pour size.

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 connected to it, the beer 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 have clean the beer tubing using the pour size buttons and the counters will change.

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

3-MODE KEYPAD (Ethernet version)

The front panel keypad can be disabled if the Automatic Draft Tap is controlled by a third-party application software that sends commands to open and close the faucet.

1. Press 1 or 2 to set to Y/N
2. Press R to continue

3-MODE KEYPAD: N
<=>=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)

Back light setting

1. Press 1 or 2 to set to increase or decrease
2. Press R to continue

```
BACK LIGHT 6  
- /+ =1-2  NEXT=R
```

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.

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

3:COMM.

You should not enter this mode unless you have a WI-FI or Ethernet adapter installed and plan to interface your Automatic draft taps to the Auper software or, control the Automatic Draft tap with a remote application.

```
RS232 (TTL) LINK  
BAUDRATE 115200
```

The draft taps installed in a bar can be grouped by system number. A system number is associated with a specific bar or dispensing station (Example: Sys No.1 for the patio bar and Sys No. 2 for the main bar).

```
WIFI LINK  
BAUDRATE 115200
```

Each Automatic draft tap in a group is also given a tap number. In the software, the tap number will be associated with the product name it is dispensing.

RS232 Link / WIFI link

1. Press 1 or 2 to change the baud rate between the tap and computer.
2. The default setting is 115200 bytes per second.
3. Press 3 to change from RS232 (TTL) and Wi-Fi.
4. Press R to continue

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 the Auper 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 the Automatic Draft tap will wait for the computer to respond to the pour request is has just sent. In the event the software was off line or the link with the computer was broken, the user would see WAITING FOR ACK quickly followed by INTF. TIMED OUT on the display after the programmed delay.

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

1. Press 1 to decrease or 2 to increase the delay.
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 (1 to 4 or F for foam)

The last button pressed (C1) is identified on the first line followed by the counter and the pulse counter at 0000. Upon pressing a button, the new button number will be on display with the counter. The pulse counter will increase until the pour size setting has been reached and 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 to allow the foam to rest
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 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 opens and closes the beer tap 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
```

3-mode key pad (Option set to Y)

The keypad is necessary to program the Automatic Draft tap. However, if you control the tap with a third-party software sending commands using the Ethernet or Wi-Fi, the keypad can be disabled completely or not.

1. Press and Hold the arrow (R) button and press 2. Release both buttons. This combination works even if the keypad has been disabled.
2. Enter the code to unlock the Automatic Draft Tap and press R.
3. Press 1 or 2 to change.

```
KEYPAD: MANUAL  
<>=1-2  OK=R
```

```
KEYPAD: REMOTE  
<>=1-2  OK=R
```

```
KEYPAD: BOTH  
<>=1-2  OK=R
```

Manual: keypad activated, No remote control.

Both: Keypad activated with remote control

Remote: keypad deactivated remote control only.

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.



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

If you use the software, check if the software is running and the computer and Automatic Beer tap are linked by network.



```
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 faucet: The seat forward design of the Perlick 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 and optional flow meter can be cleaned and sanitized with the faucet in place. With the chemicals used, the inside of the faucet becomes sparkling clean.

650SS faucet: Same as above with a flow control lever. Using the lever the flow control lever, you can slow the beer down if it is coming in too fast or, if the beer is foamy. The lever should be removed after the flow has been set to your satisfaction, then covered and secured with the lever cover provided.

Allowing to change the lever position would change the pour size if the Automatic Draft tap is set to the timer mode. The lever may also slow down the flow of beer below the minimal flow rate the normal flow meter (50-316) used to measure draft beer. If that was the case, the tap would shut off and the display show that the beer line is empty.



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.