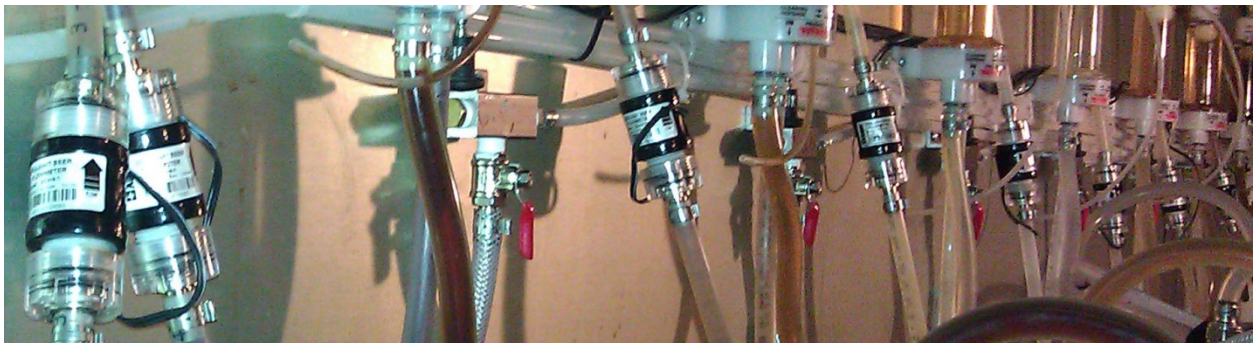
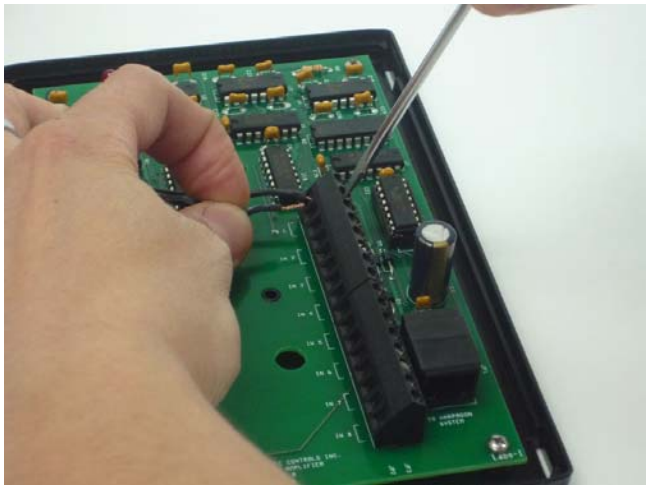
Harpagon wiring instructions



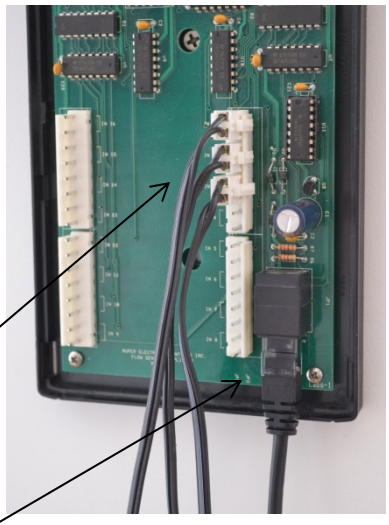
A Cat 5 network cable is used to connect the flow meter collector box to the Harpagon metering system. A 25 ft cable is provided by default. You can order a longer cable when you order the system. These cables can be found in most computer store or may be installed by a local contractor. This cable should be tested to be straight with all 8 wires connected before connecting it to the Harpagon box. A cross over cable CANNOT be used as it may damage the circuitry.

1. Flow meter cables are 25 ft. long. Chose the location of the flow meter collector box inside beer cooler to be within reach of the flow meters you will be connected to it. Secure it to the wall with the 2 screw provided (Phillips).

2. Channel numbers 1 to 16 are available (also called line numbers) and identified on the circuit board. Connect each flow meter to a channel. Take note of the brand and bar where the product will be served.



Collector box with screw terminals



Collector box with connectors

Flow meter cable

Network cable going to Harpagon

3. Connect the other end of the network cable to the Harpagon box.

RS-422 serial connector (use only when multiple Harpagon systems are connected to an AP821 hub)

RS-232 Null modem serial cable connector (10 Ft. serial cable is provided)

Network cable from collector

Serial connector selector switch (Default RS-232)

4. Connect the 12 Volts AC power supply.

The wires can be on either side as there are no polarities. The power supply should be connected to a The power supply should be in a room or locked in a cabinet where it cannot be unplugged.

5. Connecting to a computer (optional)

If you plan on using the Draft manager Live software, you should have been provided with a serial to USB adapter (purchased separately) to terminate the serial cable provided with the Harpagon system. The drivers and software will be installed at the same time by the Auper technician.

A- Turn the key to the left to enter the program mode.

The first mode is used to verify that all the flow meters are connected properly to the Harpagon system.

- From left to right, 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 connected to a line, 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 backwards, the corresponding dot will be up but will not move when product is flowing.
- The numbers followed by a vertical line on the bottom line, indicate where the dots for flow meters 4, 8 and 12 are.

Press M to change mode.

B- MEASURING UNIT SELECTION MODE

You must calibrate your Harpagon system with the flow meters and products to insure the most accurate measurements. To calibrate, you will use a graduated cylinder and serve a "measured" amount into the graduated cylinder at each beer tap. Before you can calibrate, you must first select the measuring unit and the amount you will serve in the graduated cylinder to calibrate. Choose between B1 to B3.

B1. To measure ounces

Leave the screen on "Cal with 20 Oz".

20 Ounces is the perfect amount to serve into the graduated cylinder to calibrate to count ounces. If you want to select a different amount, press the arrows to increase or decrease the amount you will serve (From 20 Oz. to 80 Oz).

Press M to enter the calibration mode.

B2. To measure Centilitre

Press S/R to change to "Cal with 20 CL".
Press the arrows to increase or decrease the amount you will serve From 20 cl to 80 cl.

Press M to enter the calibration mode.

B3. To measure Litres/gallons/glasses:

Press S/R to change to “Cal with 1 unit”
You will be serving this amount to calibrate.
Serve 1 litre into the graduated cylinder to calibrate to count litres.
Serve one glass to calibrate to count glasses.

Press M to enter the calibration mode.

C. CALIBRATION MODE

- As soon as you press the M button, you enter the calibration mode.
- You can use the arrows to change the flow meters shown on display but all the flow meters are being calibrated at the same time.
- MAKE SURE NO ONE IS USING THE BEER SYSTEM WHILE YOU ARE IN CALIBRATION MODE. Any beer served at any beer tap is used to calibrate the flow meter.
- Spray some WD40 into the graduated cylinder before you serve each beer. It kills the foam for most beers and speeds up the process. For Guinness and Cream Ales, you have to wait to let the foam go down since WD40 has no effect.
- You can close the tap while you serve the amount into the graduated cylinder to let the foam go down. It is the final amount that counts.
- If you over pour your measure, note the brand and tap and move on to the next.
- When you have served the amount at all the taps, press the S/R button to calibrate. YOU WILL REMAIN IN CALIBRATION MODE UNTIL YOU PRESS THE M BUTTON.
- Serve the amount again at the taps you have over poured. If you don’t touch the other taps, the calibration value will not change.
- Press S/R to calibrate.

Press M to exit the calibration mode and change mode.

D. INDIVIDUAL COUNTER CLEAR MODE

- Use the arrows to select the counter you wish to clear.
- Press S/R to reset this counter to zero.
- Do not use this mode if you want to clear all the counters. You can clear the counters with the key in RUN position.

Press M to change mode.

E. SYSTEM DISABLED MODE

As long as you leave this mode on display, your meters are de-activated.
Press M to exit and re-activate the counters.

F. POWER FAIL COUNTER

- Every time your system loses power, this PWF counter counts one. A large number of PWF indicates a problem with your electrical outlet or staff disconnecting the system.
- Press S/R to clear the PWF counter to zero.

Press M to change mode.
G. SYSTEM NUMBER 00

- You will use the system number to identify the Harpagon system if you use the software.
- Use the arrows to change the number from 00 to 99.
- The corresponding system number must exist in the software.

Press M to change mode.

H. RT INTERF.: OFF

- Press the S/R button to turn this mode ON/OFF.
- This mode needs to be ON, if you are using the Draft Manager Live software. With this mode ON, the system will transmit the amount served a few seconds after the tap has been closed.

Press M to change mode.

I.BAUD RATE: 9600

- The baud rate is set by default to 9600 which is Windows default baud rate. If you change it, you also need to change the baud rate for that COM port in Windows.
- Use the arrows to change the baud rate.

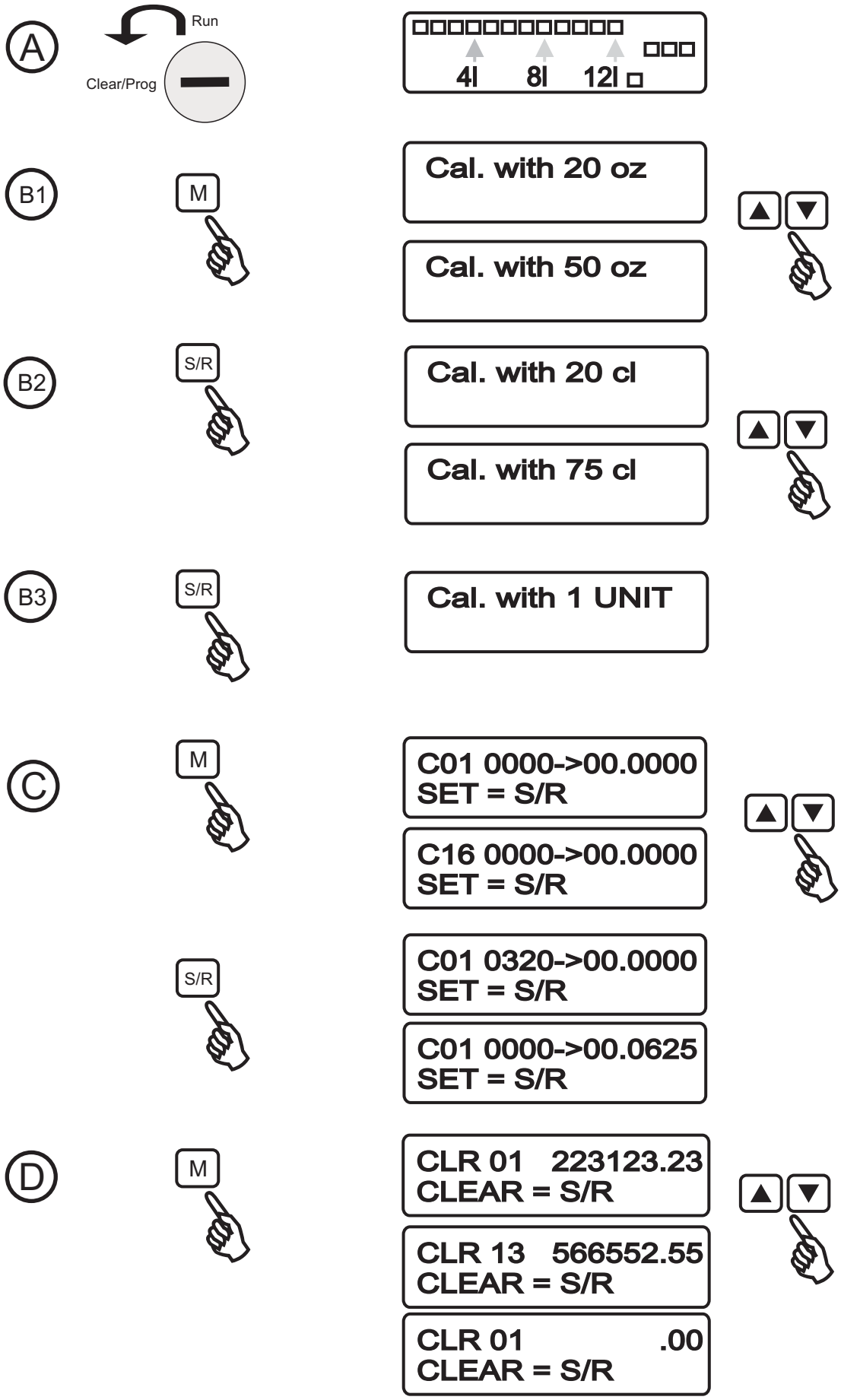
Press M to change mode.

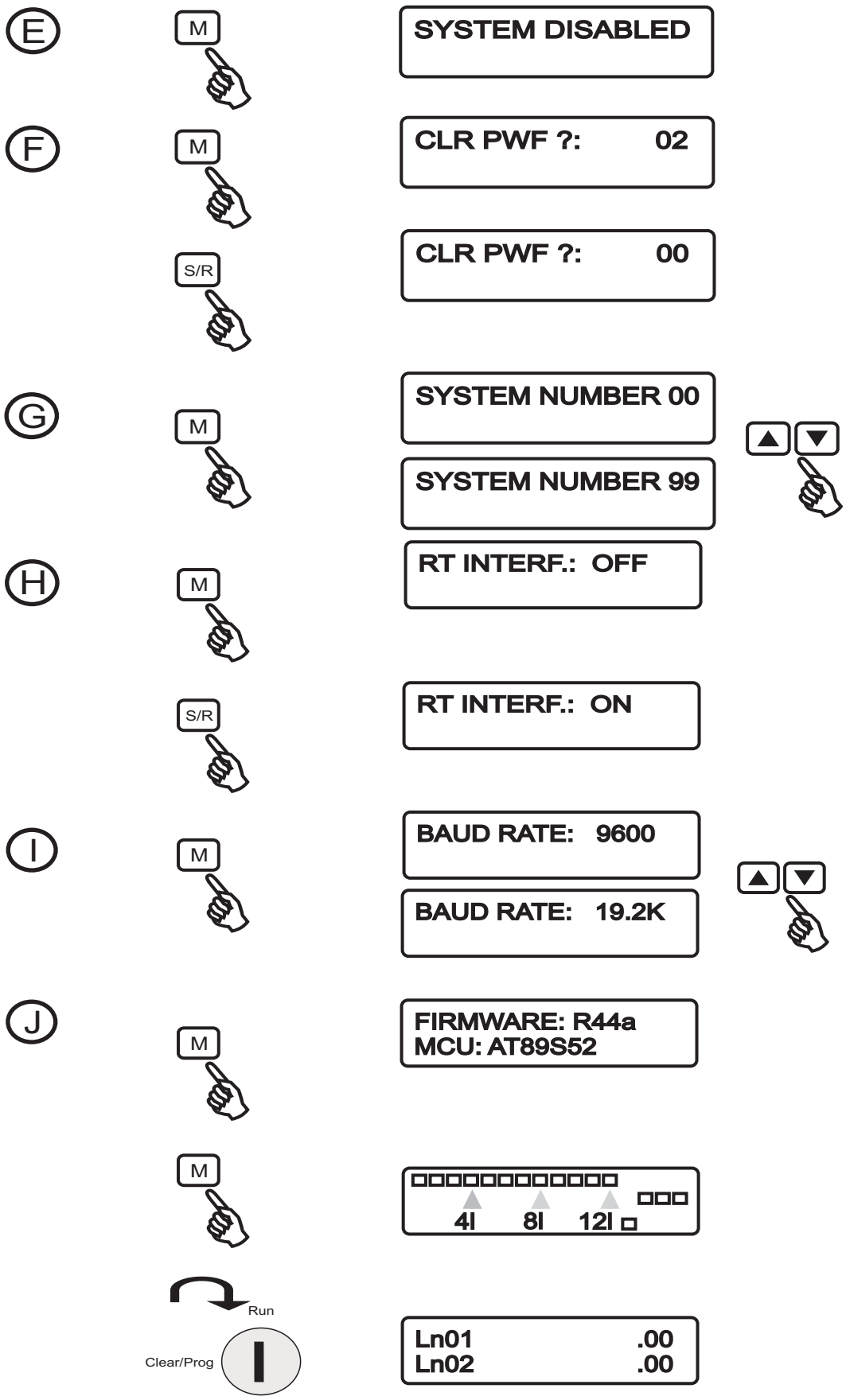
J.FIRMWARE VERSION

This is the firmware version and MCU model

Press M to change mode.
You are back at the first mode. Turn the key to run to exit.

Harpagon programming modes




E
M
SYSTEM DISABLED
F
M
CLR PWF ?: 02
S/R
CLR PWF ?: 00
G
M
SYSTEM NUMBER 00
SYSTEM NUMBER 99
H
M
RT INTERF.: OFF
S/R
RT INTERF.: ON
I
M
BAUD RATE: 9600
BAUD RATE: 19.2K
J
M
FIRMWARE: R44a
MCU: AT89S52
M
4I 8I 12I
Run
Clear/Prog
Ln01 .00
Ln02 .00

Harpagon Run modes