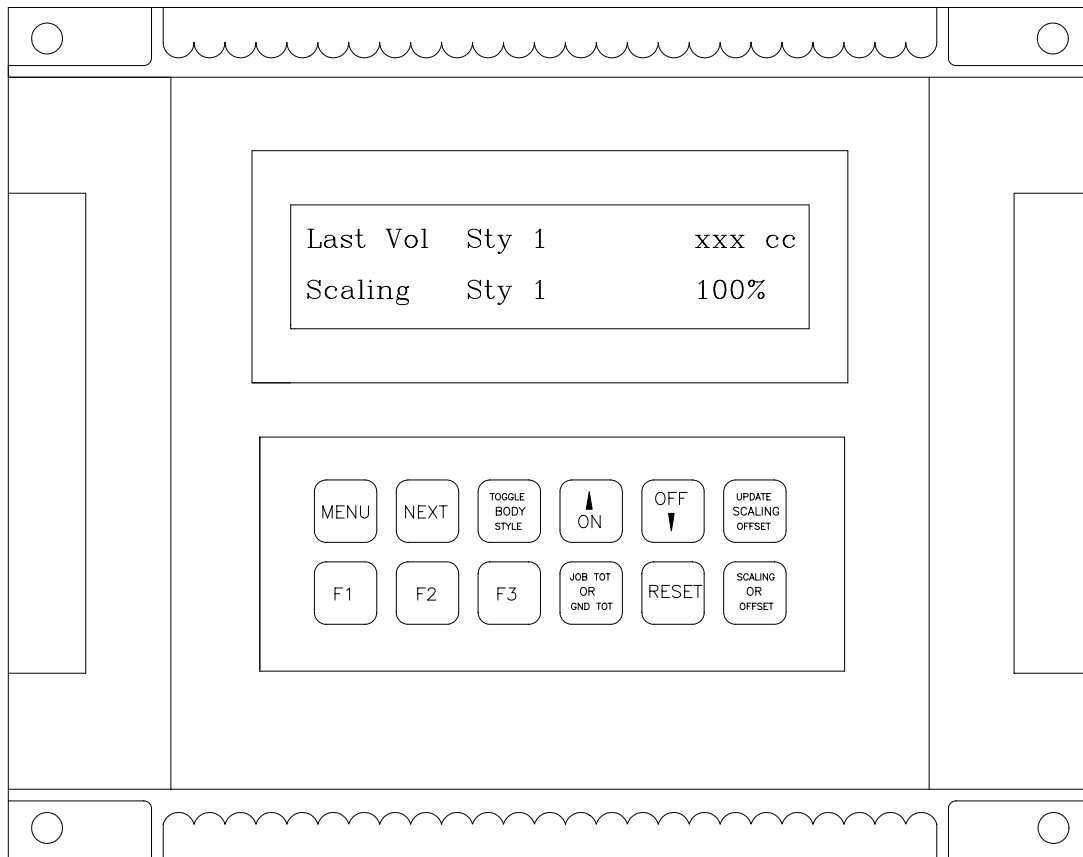


SETTING THE VARIABLES ON THE FLOW CONTROL MICRO-COMPUTER VERSION 3.35 Level 37 & 38



1. PROGRAMMABLE OPTIONS AVAILABLE ON THE FCM.

1. Three different body styles available.
2. Global scaling and global offset variables for each body style. (Option)
3. High and low pressure settings. (Option)
4. Adjustable tooth volumes. (Option)
5. High and low volume settings. (Option)
6. High and low flow rate settings. (Option)
7. Adjustable Air bubble size Detection. (Option)
8. Choice of pressure transducer size (Option)

2. SETTING THE SYSTEM VARIABLES:

1. The FCM display must be in the cycle complete mode.
 1. Depress the fault-reset button on the door panel.
 - (1) This will automatically put the FCM in the cycle complete mode.
2. Depress the MENU button on the FCM keypad.
 1. The FCM will display the options available one at a time by depressing the NEXT button. If the NEXT button is not depressed the FCM will automatically scroll.
 2. Use the appropriate function buttons, up arrow, down arrow, on, off, F1, F2, F3 to obtain the desired value displayed.

3. FLOW CONTROL MICRO-COMPUTER OPTIONS DISPLAYED:

1. "How many body styles do you want?"
 1. Use the up arrow button to increase the body styles up to three.
 2. Use the down arrow button to decrease the body style down to one.
 - (1) To utilize the different body styles they need to be wired (see electrical drawings). There are separate inputs for each body style.
2. "x.xxx(value) tooth volume".
 1. Use the up arrow button to increase the value.
 2. Use the down arrow button to decrease the value.
 - (1) The F1 button is a .1 multiplier
 - (2) The F2 button is a .001 multiplier
 - (3) The F3 button is a .0001 multiplier
 - (1) 362-104A value=2.0750
 - (2) 362-256 value = .2860 default
3. "xxx (value) precharge"
 1. Use the up or down arrow to change the value
 - (1) The default value is always .0 (option not being used).
4. "xxxx (value) transducer size".
 1. Use the up or down arrow to change the value.
 - (1) The choices are 1000, 2000, 3000, 4000 and 5000 PSI.
5. "Latch pressure fault".
 1. Use the up or down arrow button for yes or no.
6. "xxxx (value) Low Pressure Style #1".
 1. Use the up or down arrow buttons to increase or decrease the value.
 - (1) Value can be set from 0 to 9999 PSI.
7. "xxxx (value) High Pressure Style #1".
 1. Use the up or down arrow buttons to increase or decrease the value.
 - (1) Value can be set from 0 to 9999 PSI
8. "xxx (value) Bubble Size Style #1".
 1. Use the up or down arrow buttons to increase or decrease the value.
 - (1) The FCM will repeat the Low, High and Bubble PSI for style #2 then repeat for Style #3.
 - (2) Value can be set from 0 to 400 PSI.
9. "Do you want Flow rate Faults".
 1. Use the up or down arrow buttons for yes or no.
10. "Do you want to Latch flow rate faults".
 1. Use the up or down arrow buttons for yes on no.
11. "xxx (value) cc/s Low flow rate limit".
 1. Use the up or down arrow buttons to increase or decrease the value.
12. "xxx (value) cc/s High flow rate limit".
 1. Use the up or down arrow buttons to increase or decrease the value.
 - (1) The FCM will repeat the Low and High flow rates for style #2 then repeat for Style #3.
13. "xxx (value) cc Low volume limit"
 1. Use the up or down arrow buttons to increase or decrease the value.

14. "xxx (value) cc High volume limit"
 1. Use the up or down arrow buttons to increase or decrease the value.
 - (1) The FCM will repeat the Low and High volume faults for style #2 then repeat for Style #3
15. "Want to test I/O?"
 1. Use the up arrow for yes and the down arrow for no.
16. **Test Analog inputs.**
 1. Use the up arrow for yes and the down arrow for no.
 2. Use the arrow buttons to raise or lower the Input numbers.
 - (1) Input #1 = Global Scaling
 - (2) Input #2 = Pressure transducer
 - (3) Input #3 = Global Offset
 - (4) Input #4 = Fault Reset (Normally 10 V)
 - (5) Input #5 = By-Pass on- off switch (Normally 10 v)
 - (6) Input #6 = Remote analog signal from the robot.
 3. Depress the NEXT button to get out of the Analog Input menu.
17. **Test Digital Inputs.**
 1. Use the up arrow for yes and the down arrow for no.
 2. Use the arrow buttons to raise or lower the Input numbers.
 - (1) Input #1 = Dispense Valve ON, Body style #1
 - (2) Input #2 = Qualified Cycle complete
 - (3) Input #3 = Run/ Learn selector switch
 - (4) Input #4 = Cycle Complete
 - (5) Input #5 = Dispense Valve ON, Body style #2
 - (6) Input #6 = Dispense Valve ON, Body Style #3
 - (7) Input #7 = Flow rate sensor input
 3. Depress the NEXT button to get out of the Digital Input Menu.
18. **Test Digital Outputs.**
 1. Use the F1 button to raise the output channel.
 2. Use the F2 button to lower the output channel.
 3. Use the on button to turn the output on and the off button to turn the output off.
 - (1) Output #1 = Not Calibrated light
 - (2) Output #2 = Scaling
 - (3) Output #3 = Dispense Fault
 - (4) Output #4 = Low Volume Fault
 - (5) Output #5 = Flow Rate Fault
 - (6) Output #6 = Low Pressure Fault
 - (7) Output #7 = High pressure Fault
 - (8) Output #8 = Bubble Fault
 - (9) Output #9 = High Volume Fault
 - (10) Output #10 = System Fault
 - (11) Output #11 = Door Volume indicator reset
 4. Depress the NEXT button to get out of the Digital Output Menu.
19. **Test Analog Output.**
 1. Not used.
 2. Depress the NEXT button to get out of the Analog Output Menu.

4. ADJUSTING THE MANUAL FLOW POTENTIOMETER:

1. The manual flow pot only operates in the Auto with Pot or Manual position on the selector switch.
2. The dial setting on the potentiometer range from 0 to 10.
 1. 0 position on the dial = 0v and = 0 Psi on the servo valve.
 2. 10 position on the dial = 10v and = the inlet pressure on the servo valve (100PSI).

5. ADJUSTING THE GLOBAL SCALING and GLOBAL OFFSET POTENTIOMETER:

1. The global scaling and offset potentiometer only operates in the Automatic position on the selector switch.
 1. The dial setting on the Global Scaling potentiometer range from 5 to 15.
 - (1) 5 position on the dial = 50% of the Robot analog signal.
 - (2) 15 position on the dial = 150% of the Robot analog signal.
 2. The dial setting on the Global Offset potentiometer range from 5 to 15.
 - (1) 5 position on the dial = -5v subtracted from the Robot analog signal.
 - (2) 15 position on the dial = +5v added to the Robot analog signal.
2. The potentiometer cannot be adjusted by just turning the dial. The values are locked by the FCM.
 1. To adjust the potentiometer the FCM must be in the Cycle Complete mode (Depress the fault reset button).
 - (1) Depress the UPDATE SCALING OFFSET button on the FCM.
 - (1) The screen will display either UPDATING GLOBAL SCALING STYLE #x or UPDATING GLOBAL OFFSET STYLE #x.
 - (2) To toggle between the Global Scaling and Global Offset screen depress the SCALING or OFFSET button.
 - (3) Adjust the potentiometer on the control panel door and the value can be read on the FCM display screen.
 - (4) Depress the UPDATE SCALING OFFSET button and the FCM will return to the normal mode and lock the scaling and offset values.

6. DISPLAYING JOB TOTALS OR GRAND TOTALS ON THE FCM:

1. Depress the JOB TOT or GND TOT button on the FCM.
 1. The FCM display will toggle between the last Job Total in cc or Grand total in Gallons.
 - (1) The Grand Total value can be reset to zero by depressing the reset button.

NOTE: If the FCM does not respond as expected the microprocessor might have to be reset. To reset, depress MASTER STOP and then MASTER START.