SP200

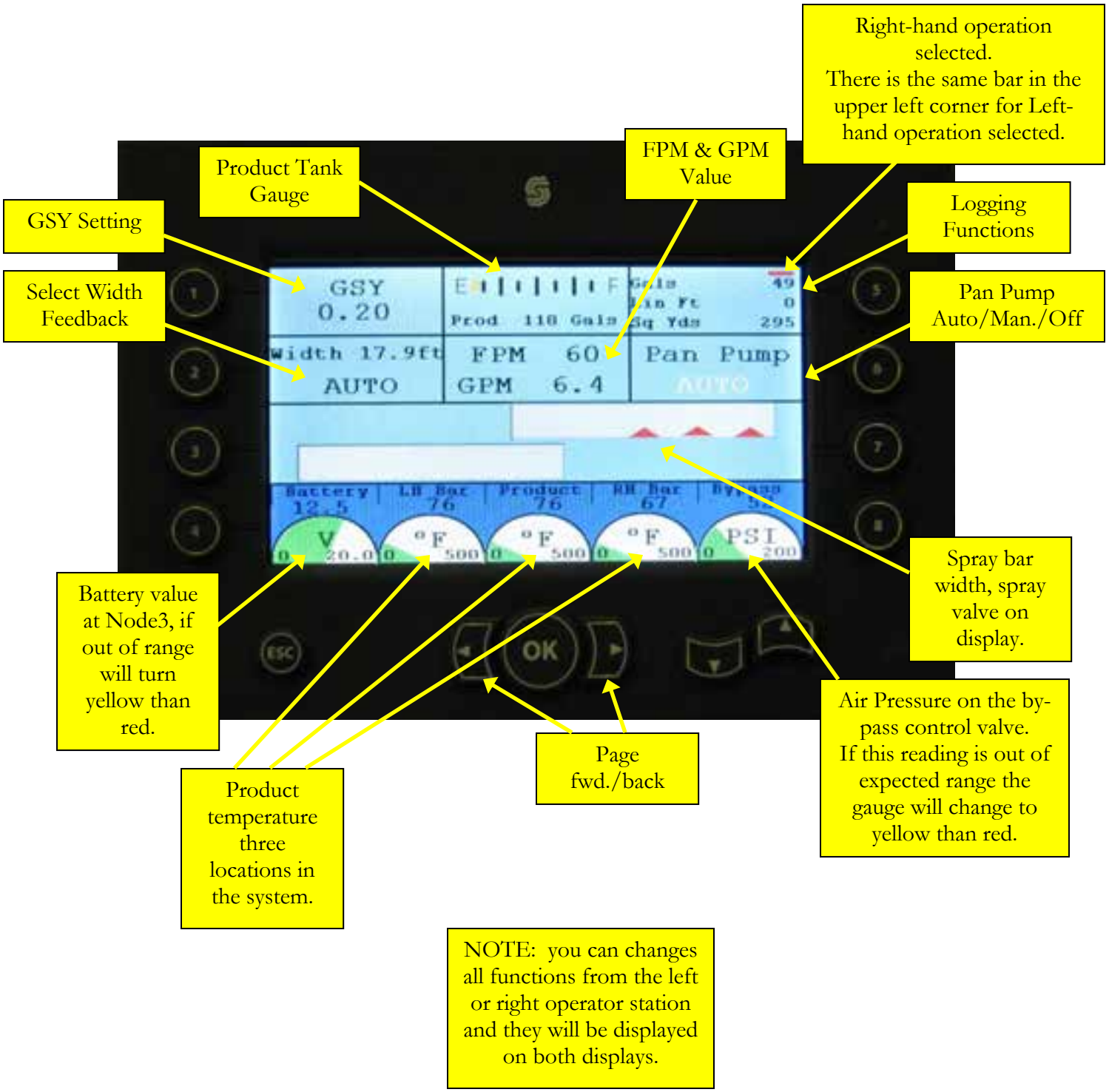
NEW DISPLAY USER MANUAL ADDITION

MODEL SP200 2010

2010 NEW DISPLAY VERSION 1.0

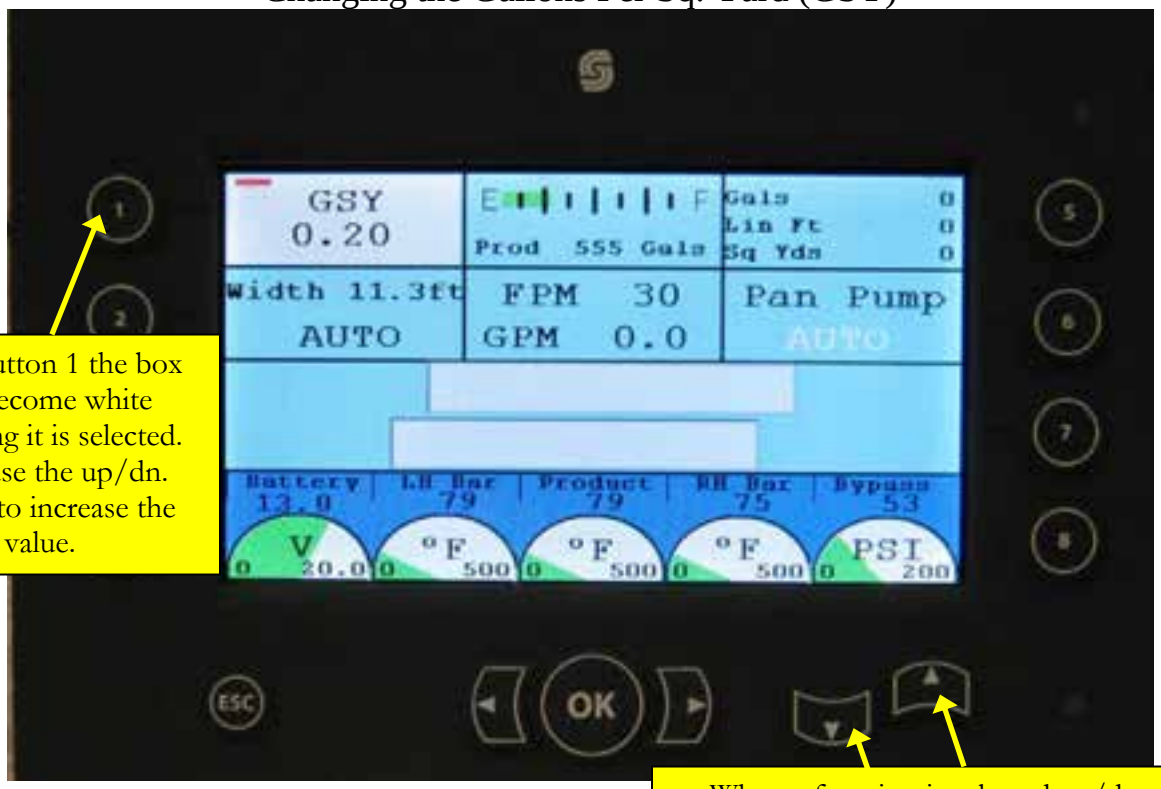
RIGHT/LEFT LIVE CONTROL PLUS-1 CRC SYSTEM

SP200 New Display Features 2010



NOTE: you can changes all functions from the left or right operator station and they will be displayed on both displays.

Changing the Gallons Per Sq. Yard (GSY)



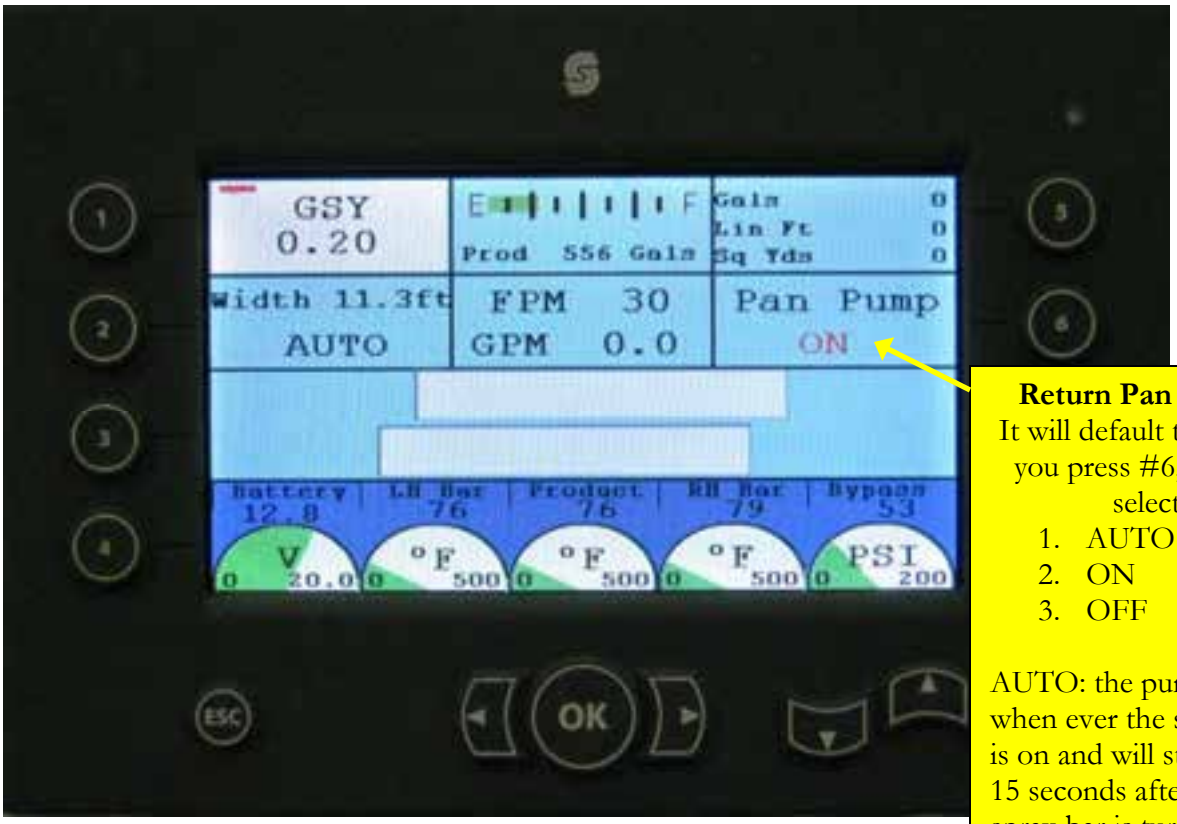
Press Button 1 the box will become white indicating it is selected. Than use the up/dn. arrows to increase the value.

When a function is selected up/dn. Arrow increases and decreases the value.

Manual width Control
Press and hold button 2 the box will toggle from auto to Manual.

Use this if a string width sensor fails.
When in manual and the box is white it is selected. Than use the up/dn. arrows to increase/decrease the value. This will override the width sensor.

When a function is selected up/dn. Arrow increases and decreases the value.



Return Pan Control

It will default to Auto, if you press #6, you can select:

1. AUTO
2. ON
3. OFF

AUTO: the pump in on when ever the spray-bar is on and will stay on for 15 seconds after the spray-bar is turned off.

ON: is ON.

OFF: is OFF

Calibration & Setup Pages

Editing Calibration & Set-up Values

1. To select any of the items on the calibrate or set-up pages for editing press the button next to the item, it will change to white it is than ready for editing.
2. Use the up/dn. Arrows to increase/decrease the value.
3. Press OK to save the value.

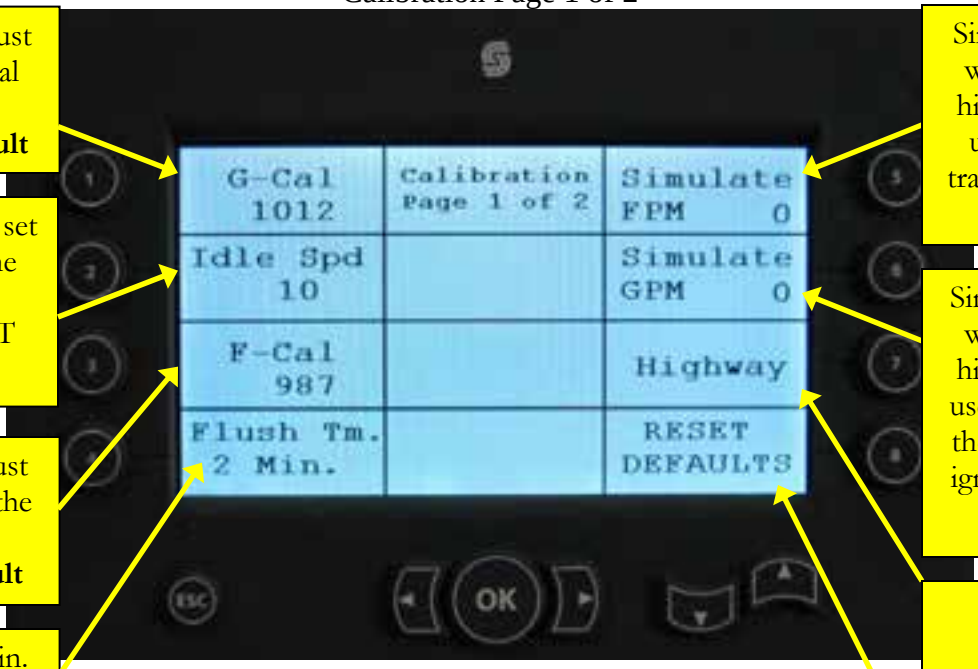
Calibration Page 1 of 2

G-Cal is used to adjust the amount of actual product applied. **1012 Factory Default**

Idle speed is used to set how many GPM the system circulates product when NOT spraying.

F-Cal is used to adjust the foot counter to the actual distance. **987 Factory Default**

Flush default is 2 min. for each part of the flush cycle, if you need to circulate the solvent longer set the minutes here.



Sim. FPM default is 0, when it is set to 1 or higher the system will use this number for travel speed and ignore the FPM sensors.

Sim. GPM default is 0, when it is set to 1 or higher the system will use this number to run the product pump and ignore the pump PPU. sensors.

Changes spray operation from City/Hwy mode.

Pressing button #8 brings you to a Reset page to select what type of reset you want.

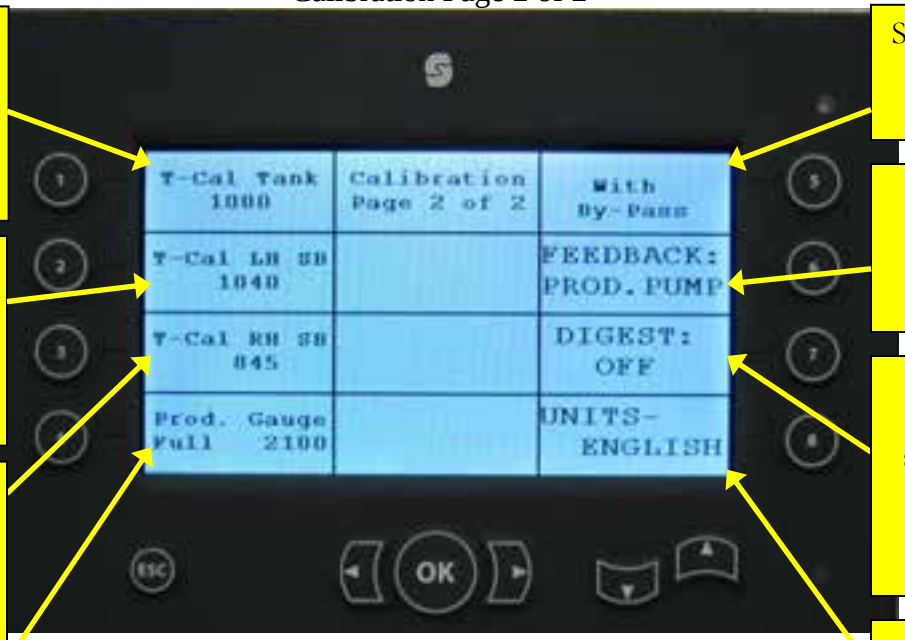
Reset Default Page (button #8)

T-Cal Tank is used to adjust the temperature reading of the product tank temperature. Default is 1000

T-Cal LH spray-bar is used to adjust the temp. reading of the LH Spray-bar. Default is 1000

T-Cal RH spray-bar is used to adjust the temp. reading of the RH Spray-bar. Default is 1000

Used to set the size of the product tank, SP200' are 2100 gallons. Default value is 2100



Select w/bypass or w/o bypass. See notes below.

Select FB product pump or FB Flow Meter. See notes below.

Allows the bio-degradable flushing solvent to be returned to the product tank instead of the flush (EPA) tank.

English Metric selection

Using the temperature (T-Cal numbers)

1. To select any of the items on the calibrate or set-up pages for editing press the button next to the item, it will change to white it is than ready for editing.
2. Use the up/dn. Arrows to increase/decrease the value.
3. Press OK to save the value.
4. Note: because these are resistive type temperature sensors it may be necessary to adjust the T-Cal because of wire resistance, etc.

With or Without Bypass Valve

1. By pressing button #5 it toggles between w/bypass & w/o bypass.
   a. **With bypass**: is the standard SP200 operation, anytime the system is calling for less than 5gpm the computer holds the product pump at 5gpm and controls the air pressure on the bypass valve allowing the extra product to be bypassed back to the tank.
   b. **Without bypass:** the computer will maintain 50psi on the bypass valve at all times, and allow the product pump to run down as low as required (to zero if necessary.

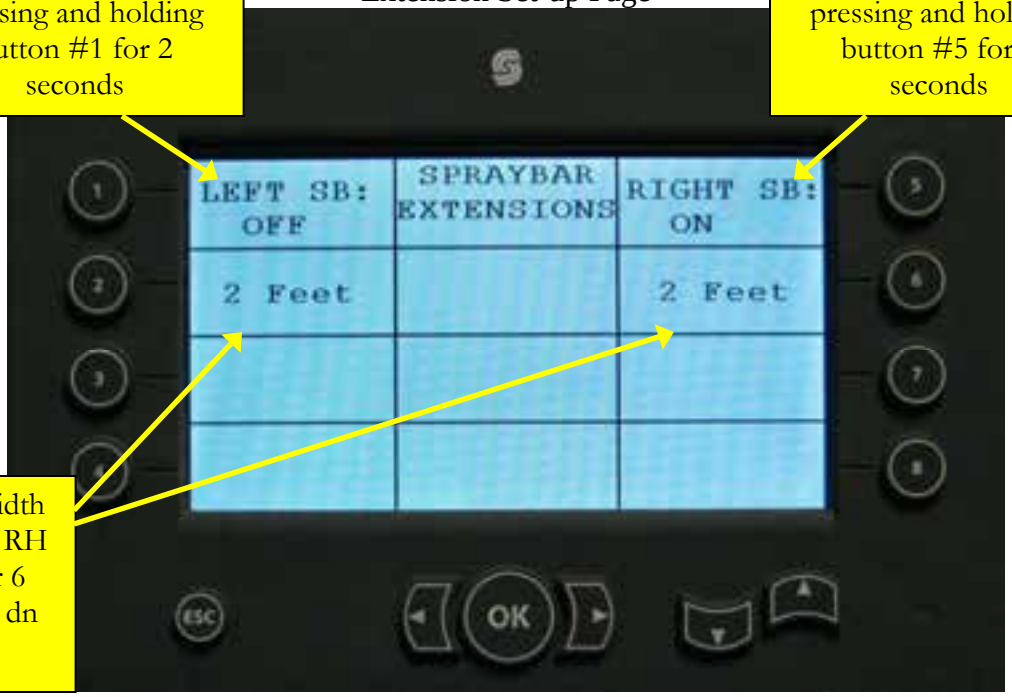
Feedback Product Pump or Flow Meter

1. By pressing button #6 it toggles between FB product pump & FB Flow Meter.
    a. **FB Product Pump**: is the standard SP200 operation, there is a PPu sensor in the hydraulic motor running the product pump, the computer calculates the GPM by using the RPM of the product pump.
    b. **FB Flow Meter:** this system uses an actual flow meter in the pump outlet line.

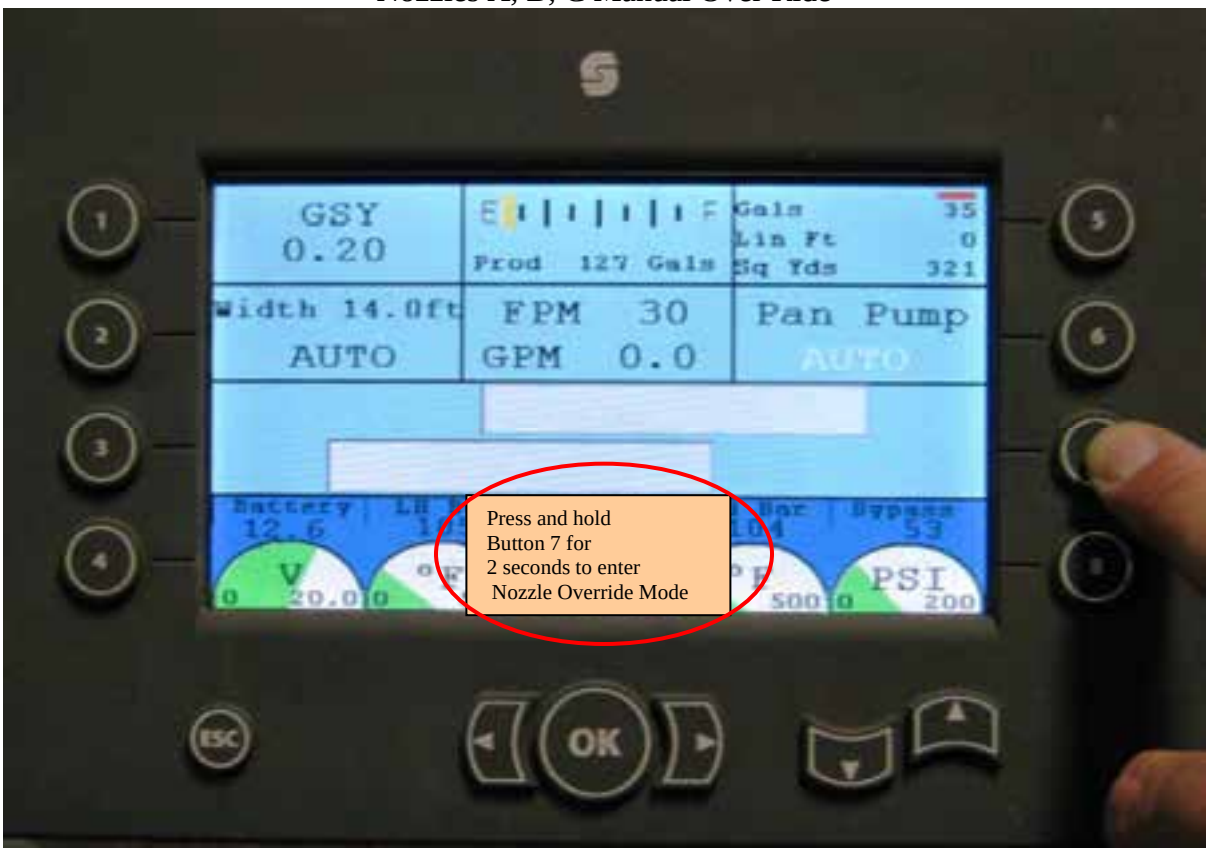
Extension Set-up Page

Select LH Extension by pressing and holding button #1 for 2 seconds

Select RH Extension by pressing and holding button #5 for 2 seconds

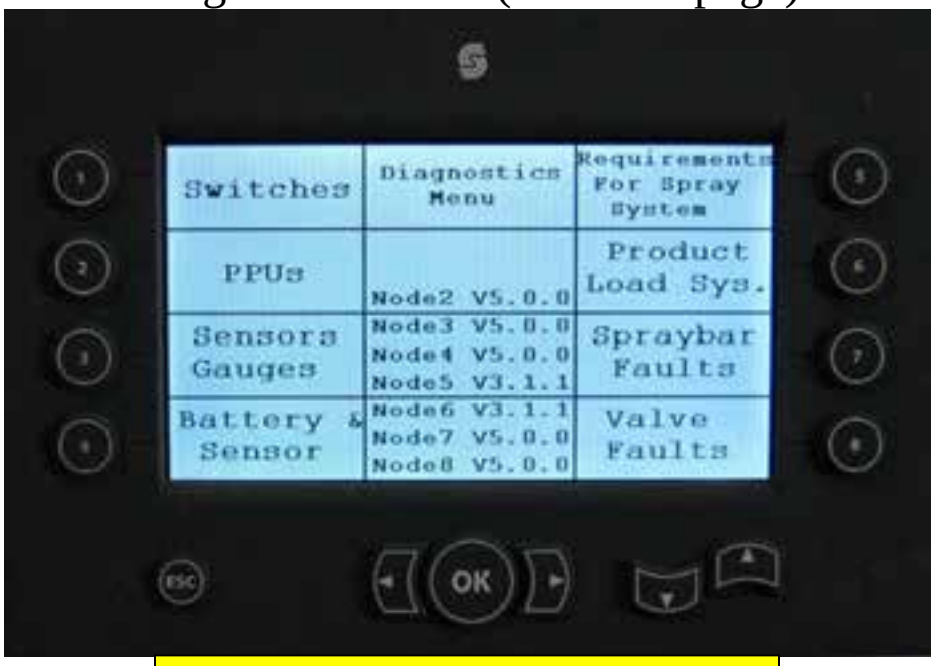


Select extension width by selecting LH or RH using button 2 or 6 than use the up & dn arrows.


GSY
0.20
Prod 127 Gals
Gals 35
Lin Ft 0
Sq Yds 321
Width 14.0ft
AUTO
FPM 30
GPM 0.0
Pan Pump
AUTO
Press and hold
Button 7 for
2 seconds to enter
Nozzle Override Mode
Battery
12.6
V
PSI
OK
ESC


GSY
0.20
Prod 129 Gals
Gals 35
Lin Ft 0
Sq Yds 321
Width 14.0ft
AUTO
FPM 30
GPM 0.0
Pan Pump
AUTO
5 to Override A Noz.
6 to Override B Noz.
7 to Override C Noz.
ESC to exit
Battery
12.5
Bypass
52
V
PSI
OK
ESC

Diagnostics Menu (selection page)



The center will display the node number and the Version of the software in that node.

The next few pages will shoe each diagnostics page.

Node not communicating with the rest of the system will flash in the center of the display, which node is not communicating.

Switch diag. screen will test the RH switches or the LH switches, which ever operator mode you have selected.

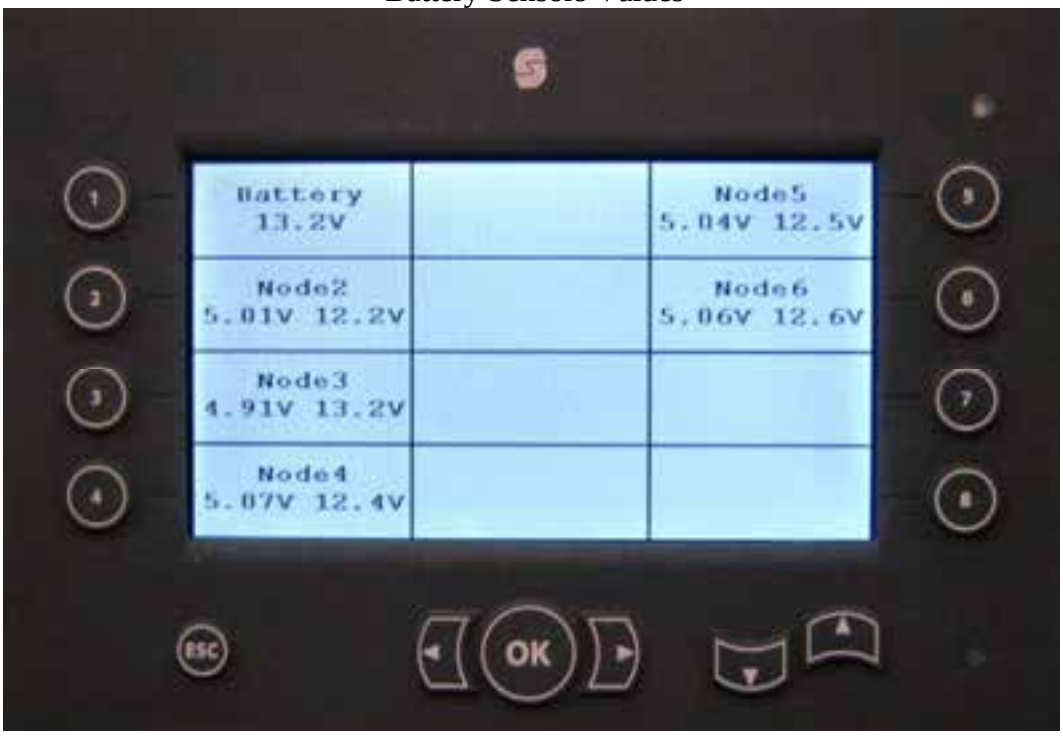
PPU diag. page: you can look at the frequency of the pulse pickup sensors. Also shows the command GPM from the computer and the actual FB GPM.

Note: reference only!

a. Speed sensors 280 Hz = 30 FPM
b. Pump sensor 55 Hz = 14 GPM

Sensors Gauges Values

Battery Sensors Values



Requirements for Spray

This is a graphical representation of the three requirements for the spray-bar to turn ON.


LH Load Pot
0.465 VDC
OK
Product Load
System
RH Load Pot
2.461 VDC
OK
LH FWD
RH FWD
LH REV
Note: to flush
pump Fwd/Rev
Sw. must be OFF
RH REV
LH Select
Flush Sw.
RH Select
1
2
3
4
5
6
7
8
ESC
OK

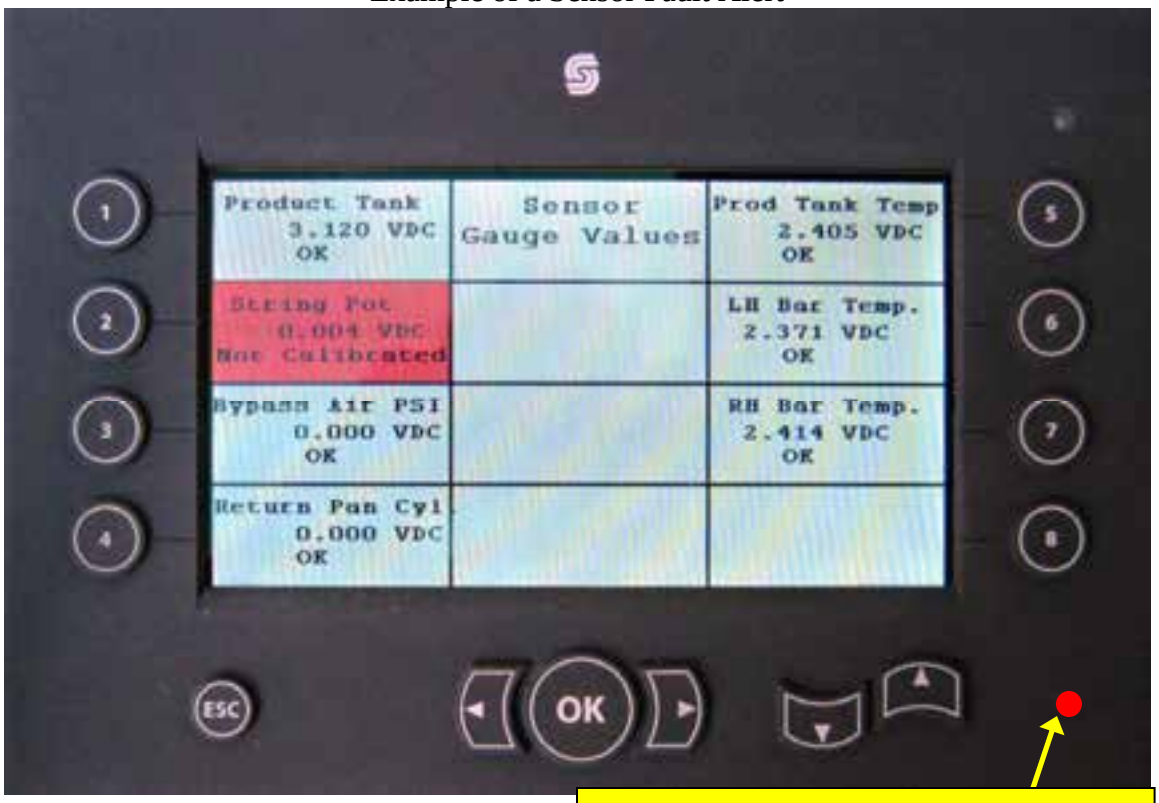

Spraybar Valve Faults
A
B
C
1 OK OK OK
2 OK OK OK
3 OK OK OK
4 OK OK OK
5 OK OK OK
6 OK OK OK
7 OK OK OK
8 OK OK OK
9 OK OK OK
10 OK OK OK
1
2
3
4
5
6
7
8
ESC
OK


Product Pump
OK
Valve
Faults
Load Pump
OK
Prod Pump Fwd
OK
Prod Pump Rev
OK
Return Pan Htr
OK
Hot Oil Htr
OK
1
2
3
4
5
6
7
8
ESC
OK

Help Menus

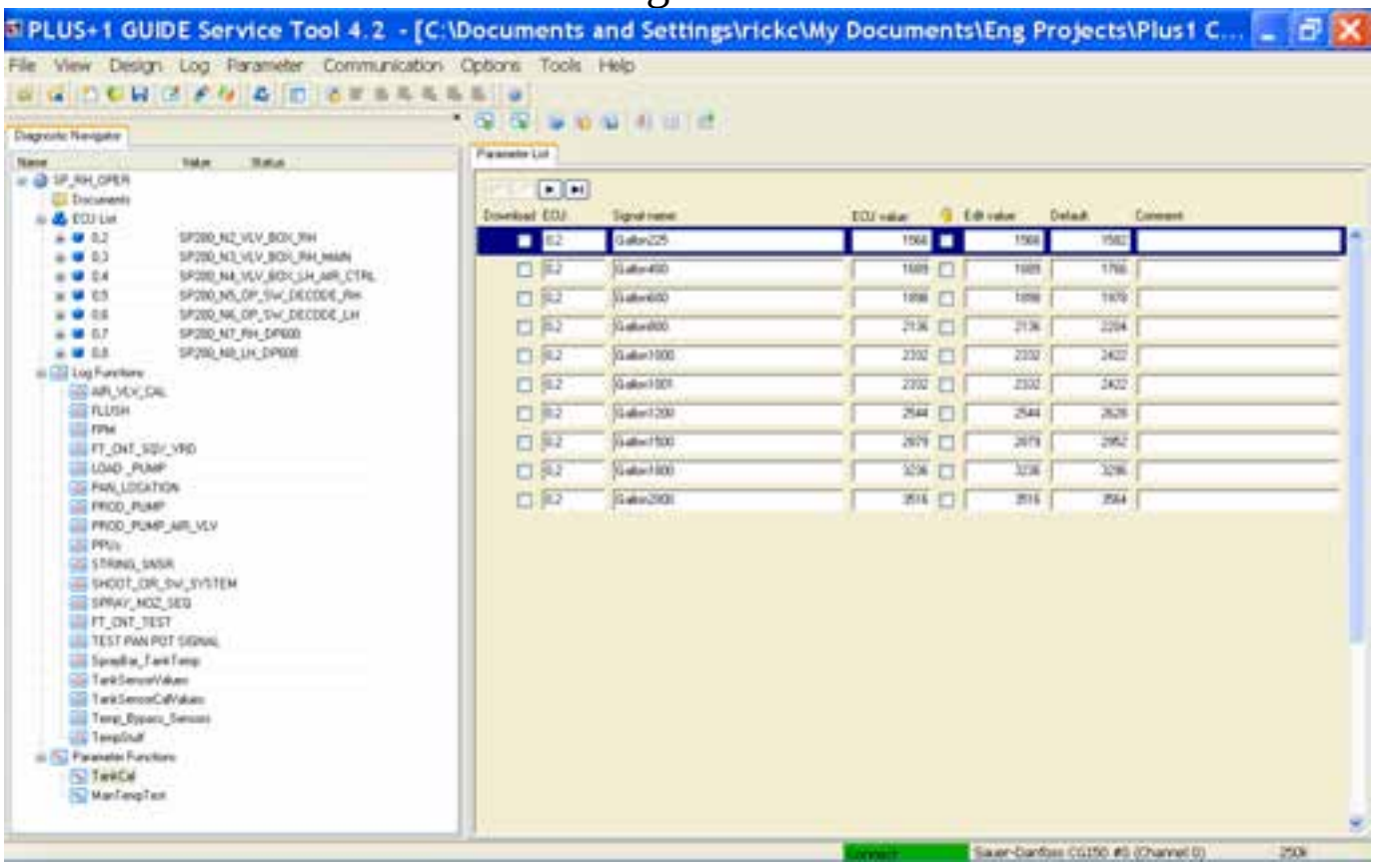
To reach the help screen for item, hold the button associated with that item and the ESC button.
Note: the help menu's have not text at this time.

Example of a Sensor Fault Alert



Blinking Warning Light
Also if the fault is high Level the spray system will shut down and window will pop-up telling the operator about the fault.

Tank Gauge Calibration



The tank sensor is calibrated at the factory when the mechanical tank gauge is calibrated, these numbers are recorded for each SP200 starting at s/n112, and a copy placed in the right valve box.

- If the computer system looses the calibration or node2 is replaced, you can use the service tool to put those values back into node2.
- You can also use the service tool to set the default valves which will set your tank gauge close. **(it is not calibrated by doing this).**
- You can also do a calibration in the field by filling your tank with a calibrated meter and following the below instructions.

```
        TO CALIBRATE THE TANK SENSOR:
NOTE: Do all tank calibration from RH side ONLY!

  1: Turn off Master Switch
  2: Toggle pump switch to FWD or REV than back
     neutral.
  3: Wait 20 seconds.
  4: Toggle the #10 valve select switch 5 times.
     leave sw #10 on
  5: When tank has 225 gallons turn on sw #1.
  6: When tank has 400 gallons turn on sw #2
  7: When tank has 600 gallons turn on sw #3.
  8: When tank has 800 gallons turn on sw #4.
  9: When tank has 1000 gallons turn on sw #5.
  10: When tank has 1200 gallons turn on sw #6.
  11: When tank has 1500 gallons turn on sw #7.
  12: When tank has 1800 gallons turn on sw #8.
  13: When tank has 2000 gallons turn on sw #9.
```