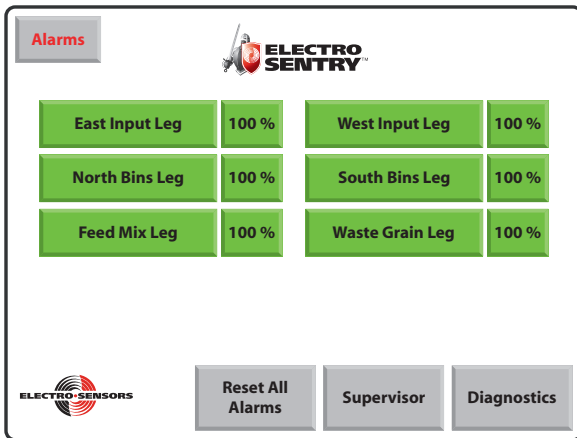
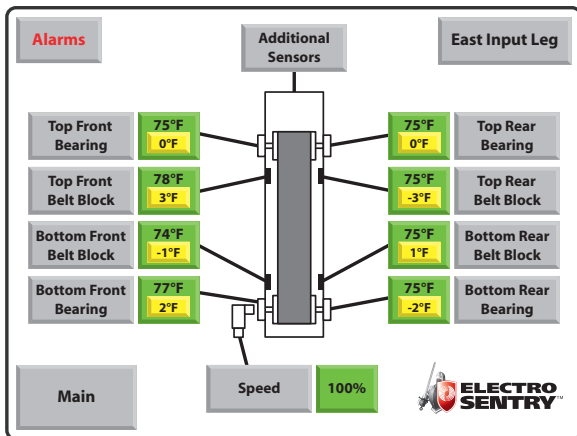


Electro-Sentry Users Manual

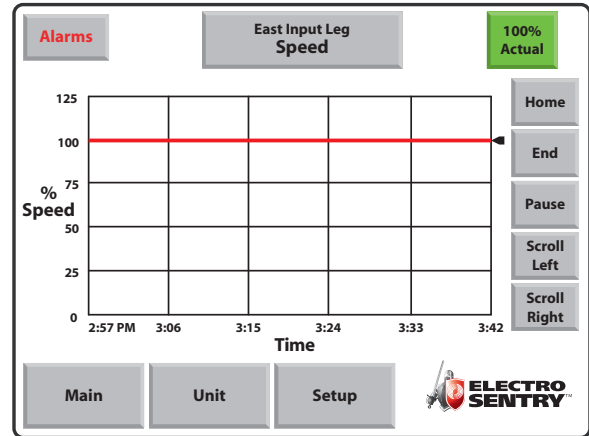


Viewing a Leg:

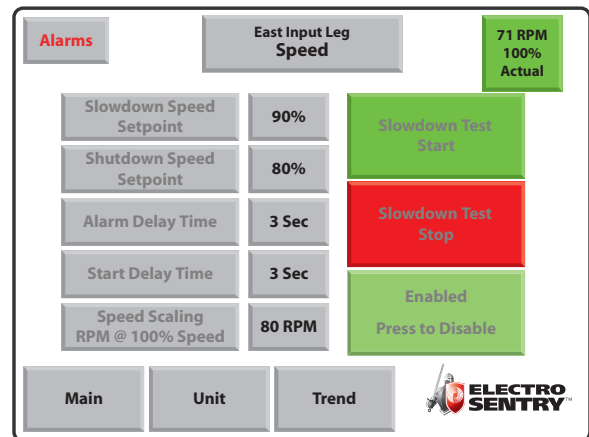
1. Touch the desired leg, e.g. **East Input Leg**, this will then display the eight standard temperature and speed points for that leg.



2. To view an individual point, e.g. **Speed** just touch that point and it will display a graph showing the 45 min. of activity.



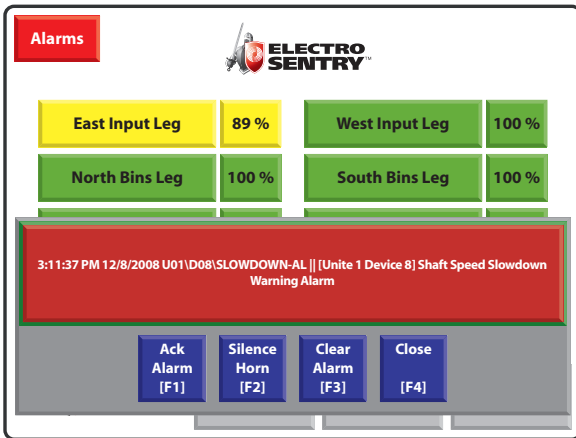
3. From that screen you may also view the setup parameters for that point by pressing **Setup**. You will not be able to change them unless you are in Supervisor Mode.



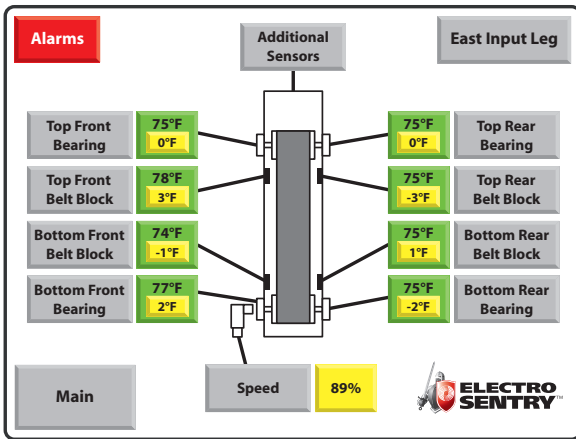
4. To exit, touch **Unit** to go back to the leg screen, or **Main** to go back to the main screen.

Resetting an Alarm or slow down:

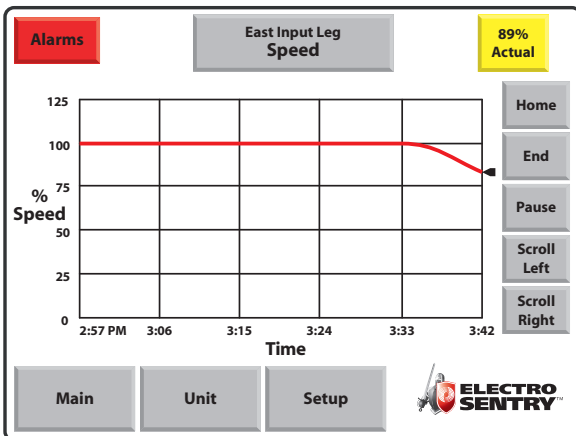
1. You must press **Ack Alarm** or **Silence Horn**, then press **Clear Alarm** and **Close**.



2. Now go to the alarmed leg, it will be indicated by a yellow or red box, e.g. Press **East Input Leg**



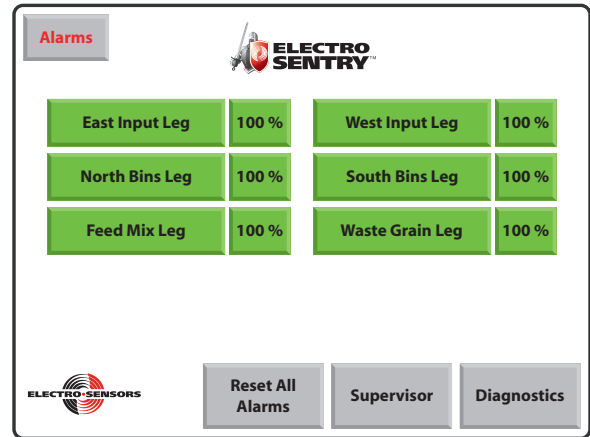
3. Identify the alarmed point, e.g. press **Speed**, and diagnose the problem.



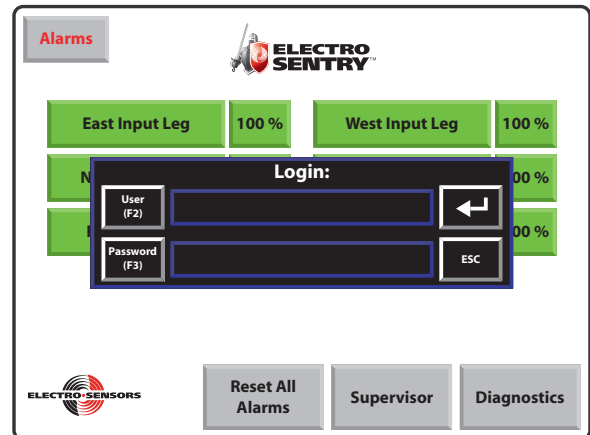
4. Once the problem is solved, touch **Main** and then you can touch **Reset All Alarms**.
5. Monitor leg to assure no further problems exist.

How to enter Supervisor Mode:

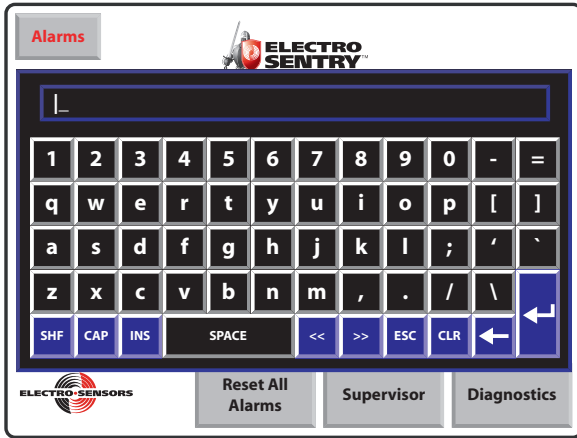
1. Start at the main screen.



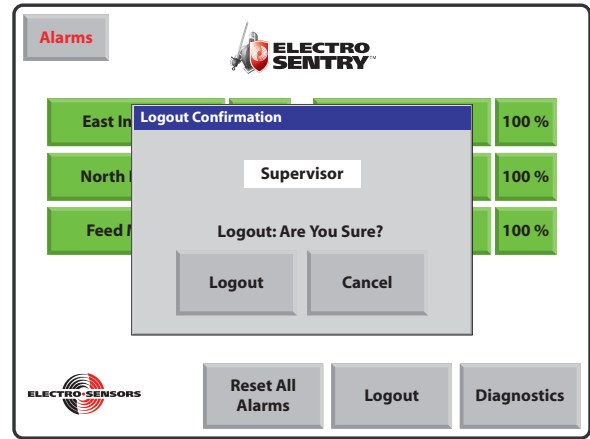
2. Touch **Supervisor**, then **User (F2)**.



- Type “supervisor” for the username and then press **enter**.



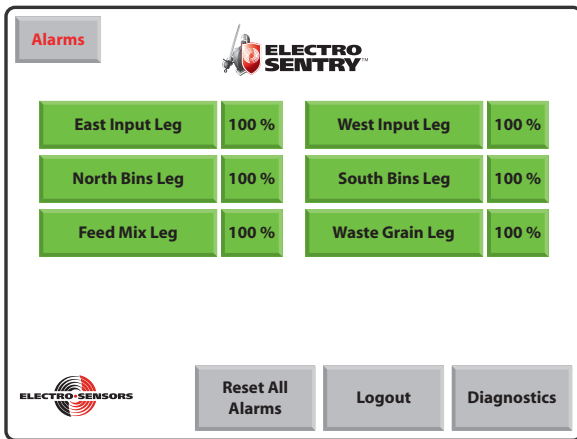
- Then you will see “Logout, Are You Sure?”



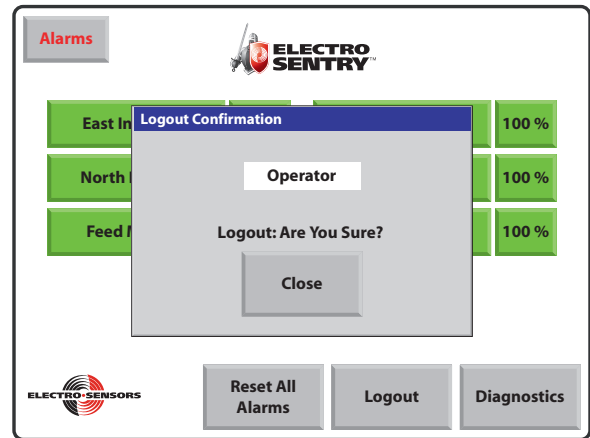
- Touch **Password** (F3) and type your password, and then press **enter** and **enter** again.
Note: the factory default password is set to “sup”.
 Your system may be different, check your documentation.
- You are now in supervisor mode.

Leaving Supervisor Mode:

- From the Main Screen, simply touch **Logout**

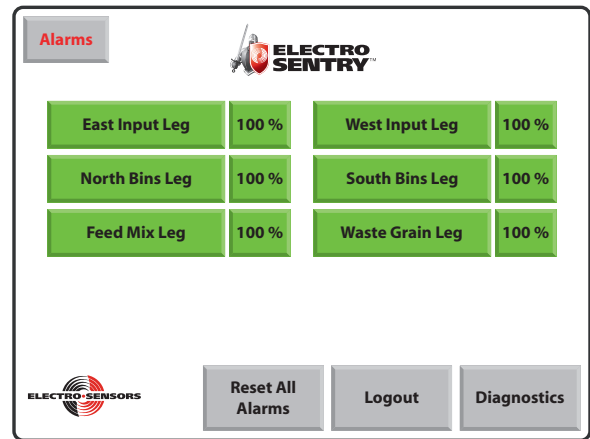


- Then touch **Logout** in the confirmation screen and **Close**.

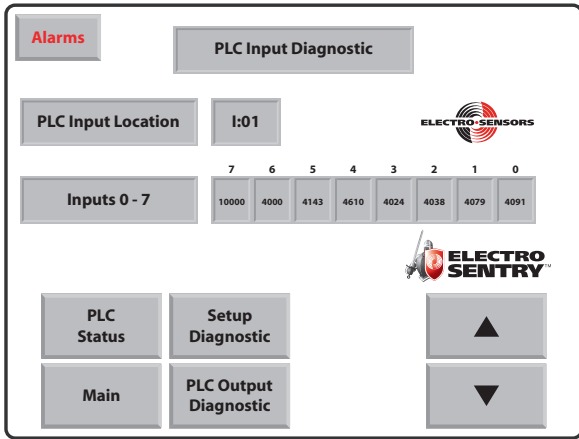


System Configuration:

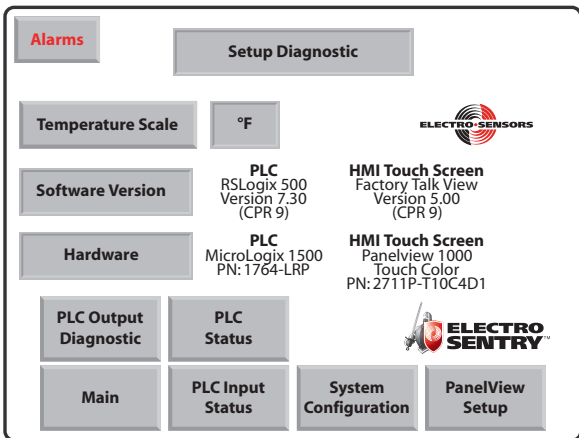
- Start from the Main Screen in Supervisor Mode, press **Diagnostics**.



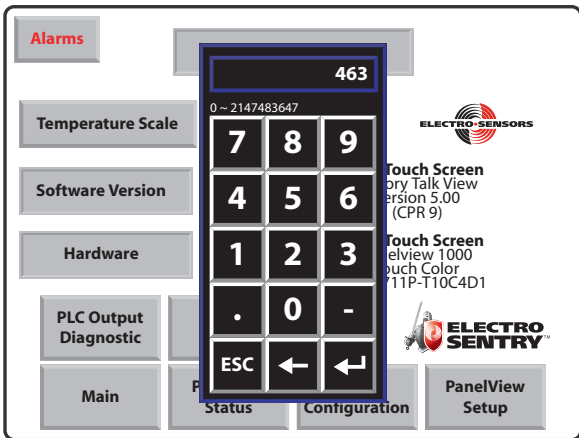
2. Then, **Setup Diagnostic**.



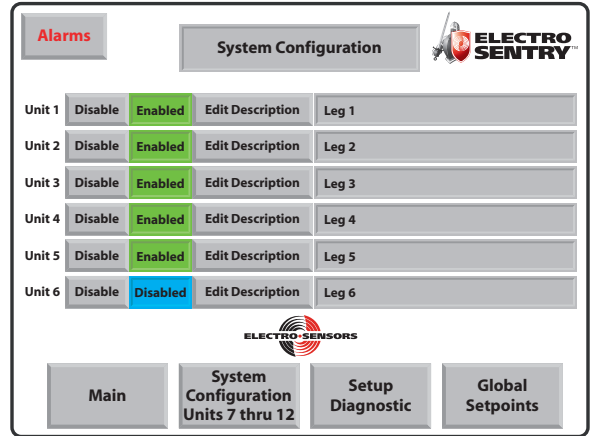
3. Then press **System Configuration**.



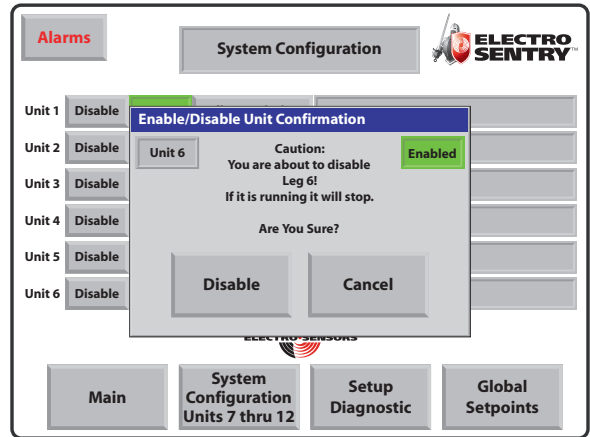
4. To access this level you will have to enter the pass code (463) and then press **Enter**.



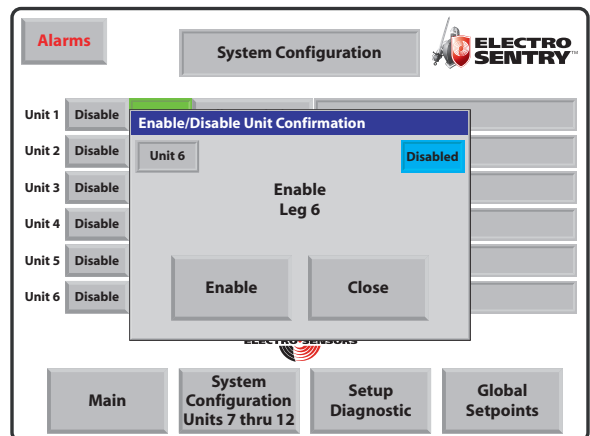
5. The **System Configuration** button will turn blue, press **System Configuration** again. This will bring you to the System Configuration screen.



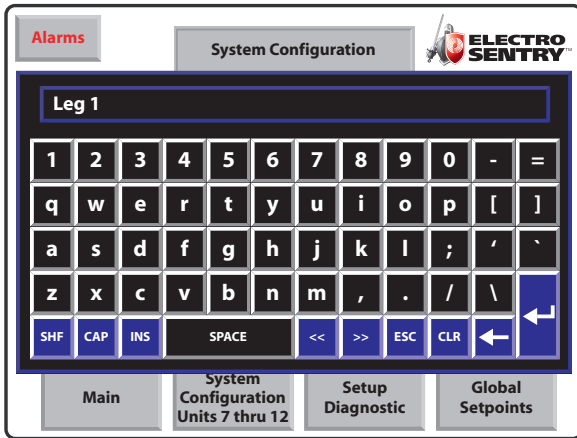
7. From this point you are able to **Enable** or **Disable** a Leg and **Edit Description** such as: "North Leg" etc.
 8. To Disable a leg, press **Disable**, and then confirm the selection.



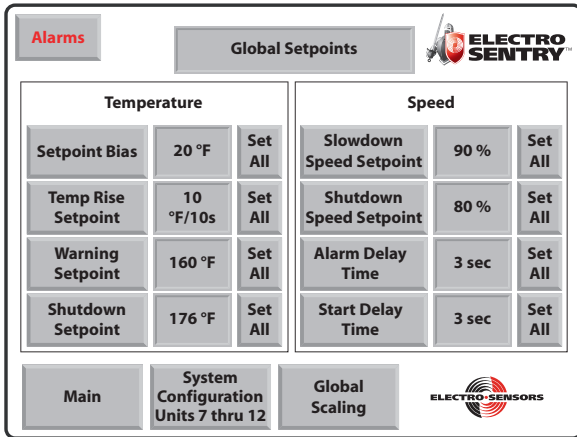
9. To Enable a leg, press **Enable**, and confirm the selection.



10. To edit the description of a leg, press **Edit Description**, and type the desired description. Press **enter** when done.



11. To examine or change the global setpoints, press **Global Setpoints** and you will be able to toggle between Global Scaling and Global set points.



Temperature:

Setpoint Bias: The maximum allowable temperature difference between two opposing sensors e.g. Bottom Front Bearing, and Bottom Rear Bearing.

Temperature Rise Setpoint: The maximum amount a temperature can rise over a period of 10 seconds.

Warning Setpoint: The temperature at which an alarm will be triggered.

Shutdown Setpoint: The temperature at which a shutdown command will be triggered.

Speed:

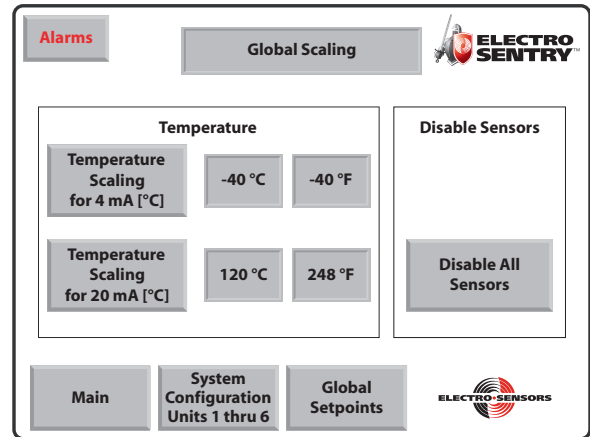
Slowdown Speed Setpoint: The speed, as a % of maximum speed, at which an alarm will be triggered.

Shutdown Speed Setpoint: The speed, as a % of maximum speed, at which a shutdown command will be triggered.

Alarm Delay Time: The amount of time the alarm will be delayed after a setpoint is reached.

Start Delay Time: The amount of time allowed to reach normal operating speed.

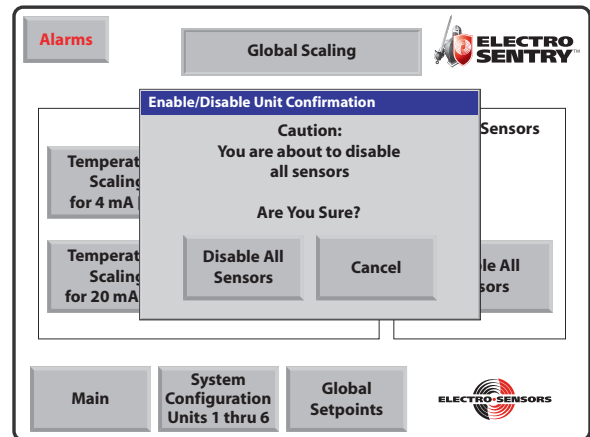
1. To examine or change the global scaling, or disable all sensors, press **Global Scaling**.



Temperature Scaling for 4mA [°C]: This is the temperature value. in °C. that will represent 4mA.

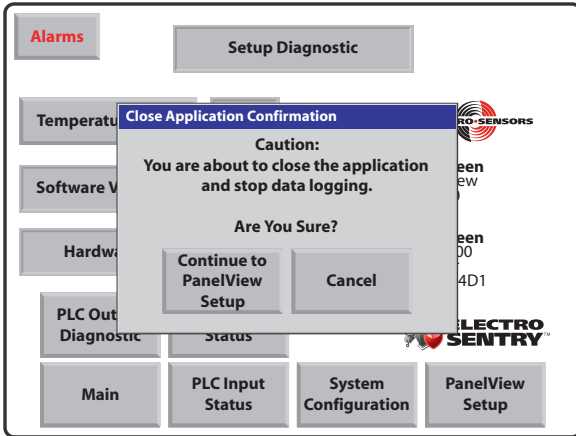
Temperature Scaling for 20mA [°C]: This is the temperature value. in °C. that will represent 20mA.

Disable All Sensors: This will disable all sensors, and is used at initial setup of a system.

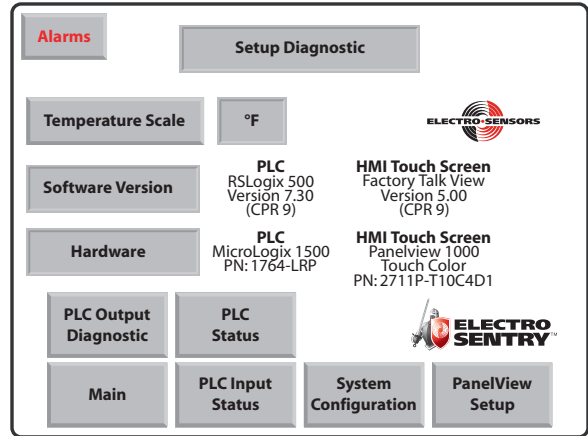


PanelView Setup:

PanelView setup is only needed for upper level changes and you would only go here with permission from a supervisor, ESI, or another qualified rep.

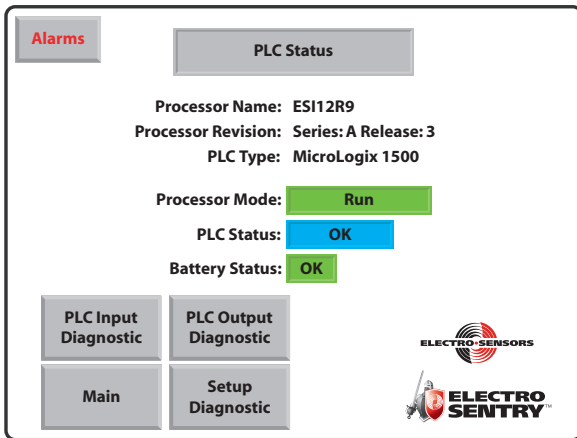


Diagnostics maybe viewed but not changed. You can only change Fahrenheit to Celsius. Supervisor mode is a requirement on this level. This screen will also show information about the touchscreen.



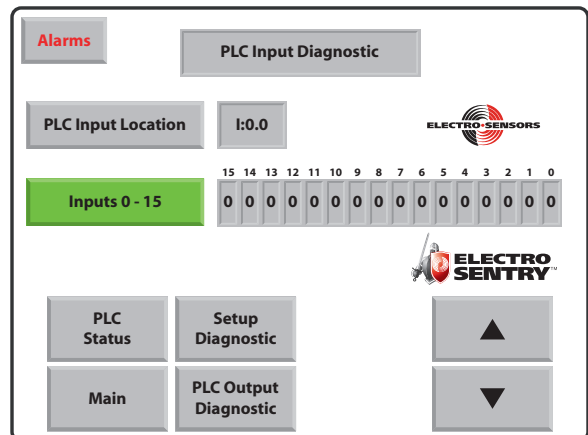
PLC Status:

This is a quick check of the Processor Mode, PLC Status, and the Battery Status.



PLC Input Diagnostics:

This Diagnostic allows the user to view the switched input status and the analog input values. Switched input values read: 1 = ON and 0 = OFF.

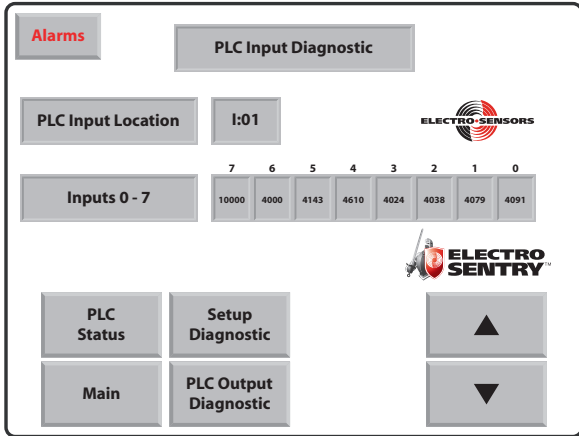


The Up and Down arrows scroll through the PLC input locations.

Setup Diagnostics:



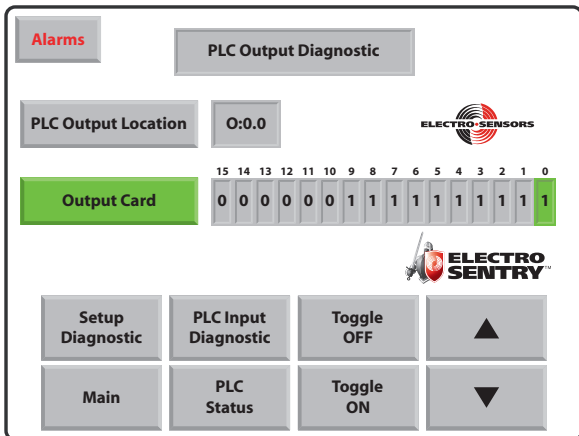
Analog inputs read: 0-9999 for the lowest temperature to the highest. For speed, the relationship is 0-100% of Leg speed.



Use the up and down arrows to move back and forth between them.

PLC Output Diagnostics:

This Diagnostic allows the user to toggle the outputs ON or OFF. Press **PLC Output Location** and then use the **Up** and **Down** arrows to select the desired output card. Press **Output Card** and then the **Up** and **Down** arrows to select which output bit you want to toggle ON or OFF. Refer to system schematics for map of outputs. This is very useful when trouble shooting a problem or checking wiring.



Testing Temperature Alarms:

1. Enter supervisor mode.
2. Then select the desired leg to be tested.
3. Select the individual temperature point to be tested.
4. Press **Setup**.
5. Note the value for Warning Set point.
6. Change the value for Warning Set point to a value that is below the actual temperature. This will trigger an alarm.
7. Clear/Reset the alarms, and change the Warning Set point value back to its original value.
Note: if you are able to read the temperature and it is active, not reading open or 9999, it is working.

Testing Speed Alarms:

1. Enter supervisor mode.
2. Select the desired leg to be tested.
3. Select the speed point to be tested.
4. Press **Setup**.
5. Press **Slowdown Test**, after leg stops press **Stop Slowdown Test**, go to **Main** screen and **Reset Alarms**.
6. When finished testing operation of the speed inputs, logout of Supervisor Mode, by pressing **Logout** on the main screen.

Electro-Sentry check list for commissioning:

1. 115 VAC @ 20A will need to be available for control enclosure.
2. You may power unit up at this time to ensure there was no damage during delivery.
3. Turn power off while landing sensor connections.
4. Note the temp probes are two wires with shield, and the FB420 is three wires with shield requiring the +24 VDC, signal and 24VDC common.
5. Ensure all leads are properly trimmed and stripped at least 3/8" You will be able to monitor the sensors once landed and power is turned on to check wiring.
6. You will have to provide the Electro-Sentry with the motor starter auxiliary relay run contacts providing 120 VAC to the motor run input. When the input is satisfied it will be indicated by the unit module turning green.
7. There is one input for each leg in the system. This would be two wires from the MS relay contacts.
8. The Electro-Sentry provides one normally open relay contact for each leg. This will go in the motor starter control circuit. This relay contact will open during



- a leg slowdown below the shutdown speed or the temperature probe exceeds the high set point
9. There are warning alarm present and a shutdown alarm present outputs for turning on a light, horn or additional control function with your Electro-Sentry.
 10. Observe the location of the fuses for each sensor block input. If a wire shorts, they are there to protect the 24 VDC power supplies.
 11. Once all temperature and speed sensors are being monitored you will want to set your temperature bias, rise, warning, shutdown and speed warning and shutdown alarms. You may enable your probes and speed sensors in each unit's setup.
 12. Implement (enable) the motor starter control circuits. You are reading and monitoring the legs. At this time the motor starter control relay contact will open and shut down the monitored leg when a shutdown alarm is detected.
 13. You may enable each point individually.

Programming Global Set Points, Scaling, Labeling Legs and Enabling:

1. Enter supervisor mode.
2. Press **Diagnostics** then **Setup diagnostics**.
3. Now system configuration will appear.
4. Press **System Configuration** and you will need to enter the diagnostic password (463) and press **Enter**.
5. Press **System Configuration** again (once it has turned blue).
6. Now you are open to set the global set points and scaling.
7. Also at this point you may enable, disable, name or change a leg description.