

## Series 8L Alarm Aux Setpoint Configuration

### Procedure

1. Connect the Series 8L communication terminals to the "Slave 1 RS485" terminals on the 9XXX controller.
  - a. The Series 8L controller terminals for communication are labeled as follows:
    - i. HE - negative communication wire
    - ii. HF - positive communication wire
  - b. The series 9XXX controller terminals for communication are labeled as follows:
    - i. 5 - negative communication wire
    - ii. 6 - positive communication wire
  - c.
2. Power on the Series 8L device and check the device address for communication via configuration mode.
  - a. To enter Configuration mode, hold the page button until the controller reads "LEV 1 Goto."
    - i. Press the up arrow button twice. The controller should read "CONF Goto."
    - ii. Push the enter button on the right side of selection arrows.
    - iii. "0" and "code" will appear.
    - iv. Select the code number with the arrow keys.
      1. Default configure code is 4.
    - v. Push the enter key to accept.
  - b. Go to parameter 61 (P61). This is the communication address. Take note of the number listed. (Default is 1)
    - i. If multiple devices are chained together on the RS485 bus, the address may need to be adjusted. Take note of any adjustment.
  - c. Go to parameter 62 (p62) which is baud rate. Make sure this number is set to **19.20**.
3. Power on the 9XXX controller to set up communications to the Series 8L controller.
  - a. Connect an RJ45 Ethernet cable to the Ethernet port of the 9XXX controller.
  - b. Connect the other end of that RJ45 Ethernet cable into the network using a switch or a cross through cable to the computer itself.
  - c. On your computer, find the working IP address of the 9XXX controller by using the SSI Configurator software (The default location of Configurator is **C:/SSi/bin/Configurator.exe** on the computer used to set up the 9XXX controller). For installation help, Please refer to the PC Configurator 2 Operations manual found at:  
[http://www.supersystems.com/wp-content/uploads/Configurator\\_2\\_Manual\\_Operation.pdf](http://www.supersystems.com/wp-content/uploads/Configurator_2_Manual_Operation.pdf)
    - i. To log in as Administrator, first click on the red lock in the top left corner of the screen. A login screen will appear.
      1. The default Administrator login is:  
Name: "administrator" Password: "2"
      2. Click OK to login.
    - ii. In the Configurator software the IP address is viewable under the "IP Address" selection in the main drop down menu. Note this IP address.

- iii. The IP address can also be found using nLocateIP (The default location of nLocateIP is **C:/SSi/sd\_utilites** on the computer used to set up the 9XXX controller).
- d. Open the Configurator program and set up the 9XXX controller with the IP address that was found in step 3c (for detailed instructions on this procedure, refer to the “**Manage Controllers**” section of the PC Configurator 2 Operations manual found at: [http://www.supersystems.com/wp-content/uploads/Configurator\\_2\\_Manual\\_Operation.pdf](http://www.supersystems.com/wp-content/uploads/Configurator_2_Manual_Operation.pdf))
- e. Connect to the controller by pressing the two gears box  in the top left corner of the screen.
- f. Click on the dropdown menu labeled “(Menu)” and find “Slave Instrument Setup”. (See Figure 1)

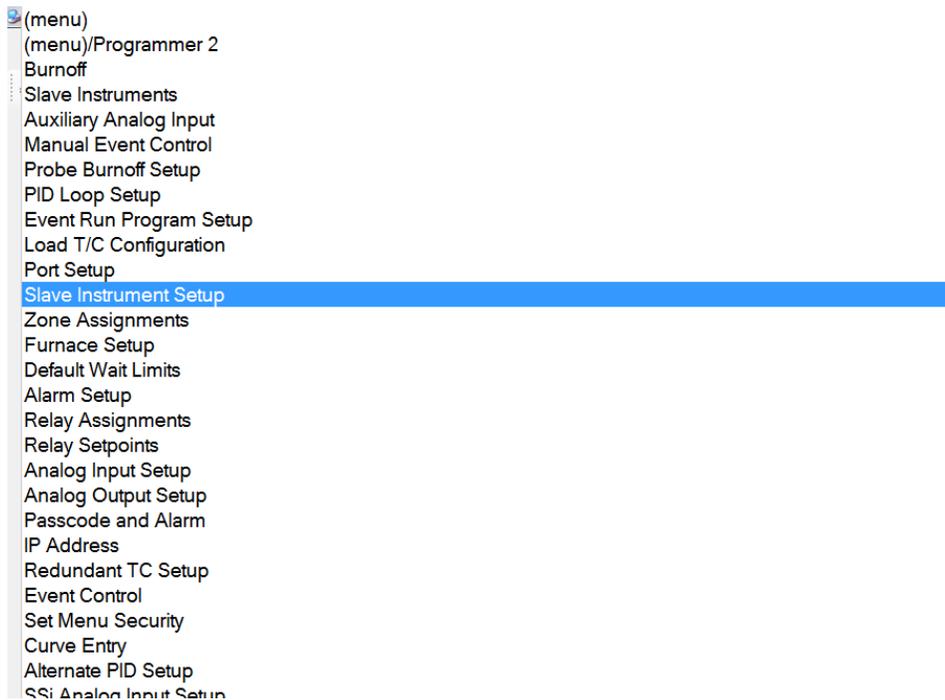


Figure 1 – Drop down selection menu in Configurator

- g. Click on “Instrument 1” (If there are more devices connected to the RS485 bus, you may need to use “Instrument 2” or “Instrument 3.”)
- h. A box will pop up. (See Figure 2)

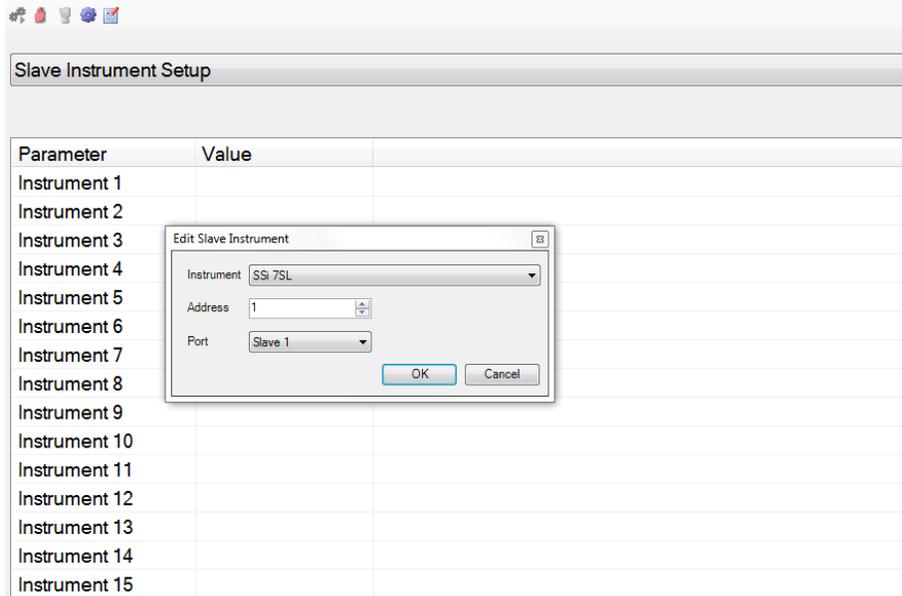


Figure 2 – Configurator slave instrument setup

- i. Click on the “Instrument” dropdown box, and select “SSi 7SL.”
- j. For “Address,” enter the number of parameter 61 (P61) on the Series 8L device (found in step 2d).
- k. For “Port,” select “Slave 1.”
- l. Once the device has the correct options selected, click “OK.”
- m. Click on the dropdown menu labeled “Slave Instrument Setup” and click on “Aux Setpoint Configuration.”
- n. Click on “Retrans to slave 1” (If a different Instrument number was selected in step 3h, choose the corresponding number instead).
- o. Click on the dropdown box, choose the appropriate loop to retransmit the setpoint to the Series 8L device and click “OK.” (See Figure 3)

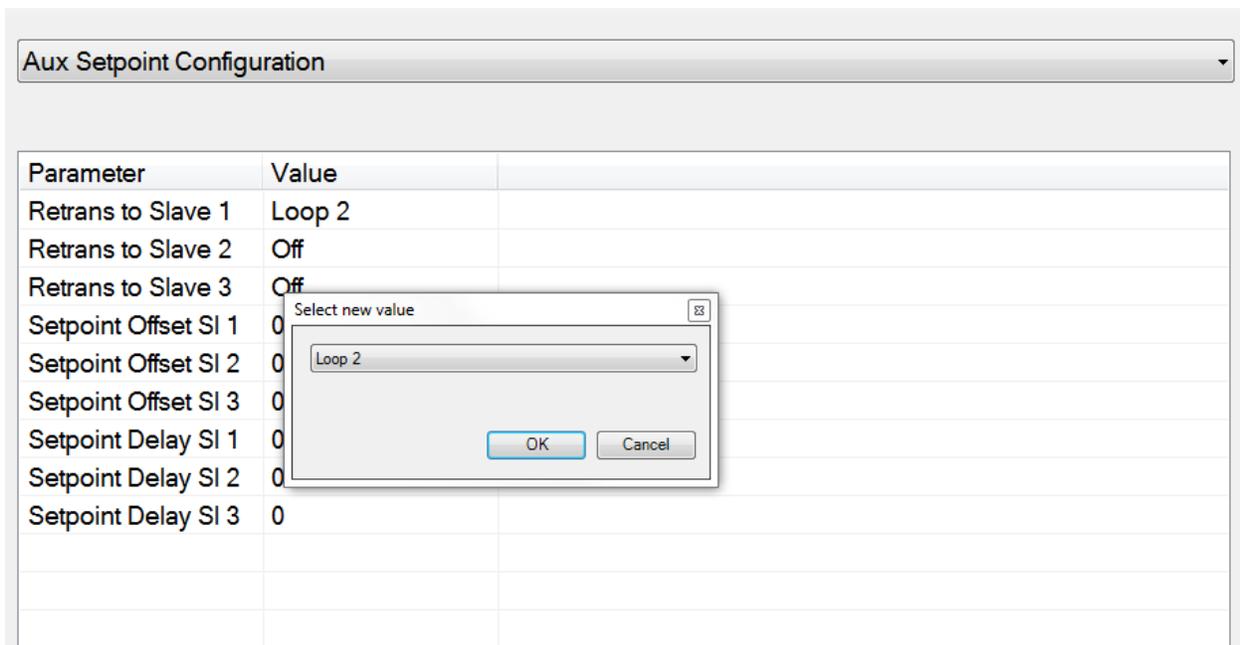


Figure 3 – Configurator in Aux Setpoint Configuration choosing process variable to retransmit

- p. Click on “Setpoint Offset SI 1” to set the temperature offset. (If a different Instrument number was selected in step 3h, choose the corresponding number instead). Click “OK” when done.
  - i. For NADCAP this should be 25.
- q. Click on “Setpoint Delay SI 1” to set the delay time. (If a different Instrument number was selected in step 3h, choose the corresponding number instead). This option is in minutes. Click “OK” when done.
  - i. This should be set depending on the furnace and cool down rate.
4. Test that the 9XXX controller is communicating with the series 8L device.
  - a. Click on the dropdown menu labeled “Aux Setpoint Configuration” and click on “Slave Instruments”. There should be an “OK” next to the corresponding instrument slave number setup in step 3k.
    - i. A “BAD” message next to the corresponding instrument slave number set up in step 3k indicates a communications problem.
      1. Check the communication wires from the 9XXX controller and the Series 8L (Refer to section 1).
      2. Check that the Slave, Port, and Address are set up correctly in the Slave Instrument Setup menu (Refer to steps 3g-3l)
      3. Check the Baud rate, and port setup on the controller under “Port Setup” menu.
        - a. The “Slave 1 (5,6) Baud” rate needs to be set at 19200, and the “Slave 1 (5,6) Mode” needs to be set as “Modbus.”
      4. If these steps do not restore communications, contact SSi.
    - b. Change the 9XXX Temp Setpoint. This should be transmitted to the Series 8L device with offset amount added.
5. Make sure the settings in the Series 8L devices are set properly. (See Table 1 for 804L/808L, See Table 2 for 816L)

For the Series 804L/808L devices, the default setup is as follows:

Device Type	804L/808L		
Device Version	A1.22		
<b>Name</b>	<b>Description</b>	<b>Value</b>	<b>Comment</b>
P1	Input Type and Range	CA.TC (1)	K T/C
P2	Decimal Point Position	NNNN (0)	
P3	Low Scale Range Value	0	
P4	High Scale Range Value	2502	
P7	Control Output and Type	NONE (0)	
P11	Output 1 Function	AL3.I (8)	Alarm offset output
P12	Output 2 Function	NONE (0)	N/A
P13	Output 3 Function	NONE (0)	N/A
P14	Output 4 Function	AL2.I (6)	High limit output
P21	Alarm 1 Type	NONE (0)	N/A
P24	Alarm 2 Type	HI (1)	High limit AL
P25	Alarm 2 Latching	MAN (2)	
P26	Alarm 2 Blocking	NO (0)	
P27	Alarm 3 Type	HI (1)	NADCAP AL offset
P28	Alarm 3 Latching	NONE (0)	
P29	Alarm 3 Blocking	NO (0)	
P31	Current Transformer Source	NONE (0)	
P32	Current Transformer Range	10	
P33	Current Transformer Alarm Latching	NONE (0)	
P34	Loop Break Alarm Time	OFF (0)	
P35	Sensor Break Alarm Type	LAT (2)	
P36	Sensor Break Safe Output Power	0	
P37	Break Alarms Output	AL2 (2)	
P41	Timer Configuration	NONE (0)	
P51	Digital Input 1 Function	T.RUN	

		(45)	
P52	Digital Input 2 Function	T.RES (44)	
P61	Communications Address	1	
P62	Communications Baud Rate	19.20 (1)	
P63	Communications Parity	NONE (0)	
P64	Communications Master Retransmission Parameter	NONE (0)	
P71	F1 Pushbutton Functionality	A-M (3)	
P72	F2 Pushbutton Functionality	T.ST (4)	
P73	Pushbutton Functionality	AC.AL (1)	
P74	Home Display Second Line Content	AL.2 (14)	
P75	Home Display Third Line Content	AL.3 (15)	
P76	Lev 2 Passcode	2	
P77	Conf Passcode	4	
P81	Energy Meter Source	NONE (0)	
rEcS	Recovery Point Save	NONE (0)	
rEcL	Recovery Point Load	NONE (0)	
PHAS	Calibration Phase	NONE (0)	

Table 1 – Series 804L/Series 808L default configuration for NADCAP alarm.

**For the Series 816L devices, the default setup is as follows:**

Device Type	816L		
Device Version	A1.22		
<b>Name</b>	<b>Description</b>	<b>Value</b>	<b>Comment</b>
P1	Input Type and Range	CA.TC (1)	K T/C
P2	Decimal Point Position	NNNN (0)	
P3	Low Scale Range Value	-328	
P4	High Scale Range Value	2502	
P7	Control Output and Type	NONE (0)	
P11	Output 1 Function	AL3.I (8)	Alarm offset output
P12	Output 2 Function	NONE (0)	N/A

P14	Output 4 Function	AL2.I (6)	High limit output
P21	Alarm 1 Type	NONE (0)	N/A
P24	Alarm 2 Type	HI (1)	High limit AL
P25	Alarm 2 Latching	MAN (2)	
P26	Alarm 2 Blocking	NO (0)	
P27	Alarm 3 Type	HI (1)	NADCAP AL offset
P28	Alarm 3 Latching	NONE (0)	
P29	Alarm 3 Blocking	NO (0)	
P31	Current Transformer Source	NONE (0)	
P32	Current Transformer Range	10	
P33	Current Transformer Alarm Latching	NONE (0)	
P34	Loop Break Alarm Time	OFF (0)	
P35	Sensor Break Alarm Type	LAT (2)	
P36	Sensor Break Safe Output Power	0	
P37	Break Alarms Output	AL2 (2)	
P41	Timer Configuration	NONE (0)	
P51	Digital Input 1 Function	T.RUN (45)	
P61	Communications Address	1	
P62	Communications Baud Rate	19.20 (1)	
P63	Communications Parity	NONE (0)	
P64	Communications Master Retransmission Parameter	NONE (0)	
P73	Pushbutton Functionality	AC.AL (1)	
P74	Home Display Second Line Content	AL.2 (14)	
P76	Lev 2 Passcode	2	
P77	Conf Passcode	4	
P81	Energy Meter Source	NONE (0)	
rEcS	Recovery Point Save	NONE (0)	
rEcL	Recovery Point Load	NONE (0)	
PHAS	Calibration Phase	NONE (0)	

Table 2 – Series 816L default configuration for NADCAP alarm.