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TEMPERATURE CONTROLLERS... PORTABLE CHILLERS... CENTRAL CHILLERS... PUMP TANK STATIONS... TOWER SYSTEMS...

SUBJECT: SECOND SETPOINT & REMOTE SETPOINT FEATURE AVAILABLE ON SENTRA & REGAL TEMPERATURE CONTROL UNITS WITH THE TEMPTENDER INSTRUMENT   #323   02/15/2017
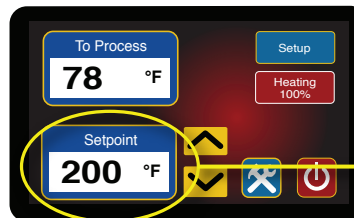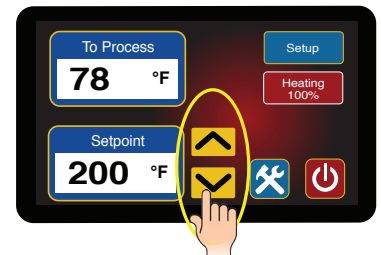
The Sentra and Regal Temptender microprocessor instrument is available with optional second setpoint or remote setpoint capability. The second setpoint is activated by a contact closure between the red and black wires on the remote/second setpoint cable. The remote setpoint is activated by the input of a 0-6 volt signal per the following procedure.

Note : Not all Temptender microprocessor instruments are configured for second or remote setpoint. The instrument must be purchased with these features because additional components are required including a specific feature boards, external connector and appropriate length cable.

Primary Setpoint   Allows the user to configure the primary setpoint.
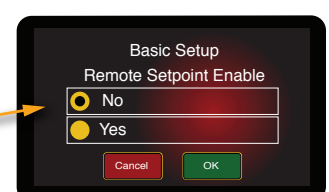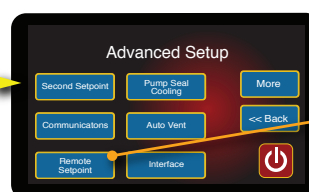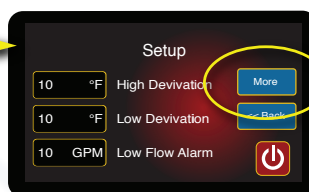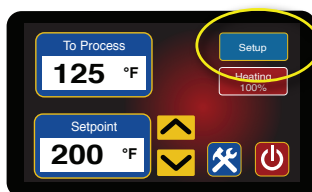
There are two methods to select the Setpoint temperature.

1. **Use the Up and Down Arrows** on the Home screen to select the Setpoint as displayed in the Setpoint window. Release the Arrow Key once the Setpoint is reached. The controller will save the Setpoint.

2. **Press the Setpoint window.** The gold outline around the window indicates the window can be pressed to advance to another screen.

a. Press the Arrow Keys to select the Setpoint

b. Input the Setpoint using the keypad.

c. Press on the OK button to save the setpoint. Press Cancel to return to the Home screen.

Remote Setpoint   Allows the user to configure the remote setpoint.

1. Special hardware is required for remote setpoint including a cable and box, which must be installed prior to selecting this parameter.

2. Follow the screen flow as shown below to the Remote Setpoint Enable Screen.

3. At the Remote Setpoint Enable Screen ... select Yes or No. The selection icon will indicate the selection. Press OK to save the selection. Press Cancel to cancel the selection.

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Web site: www.AdvantageEngineering.com Email: sales@AdvantageEngineering.com
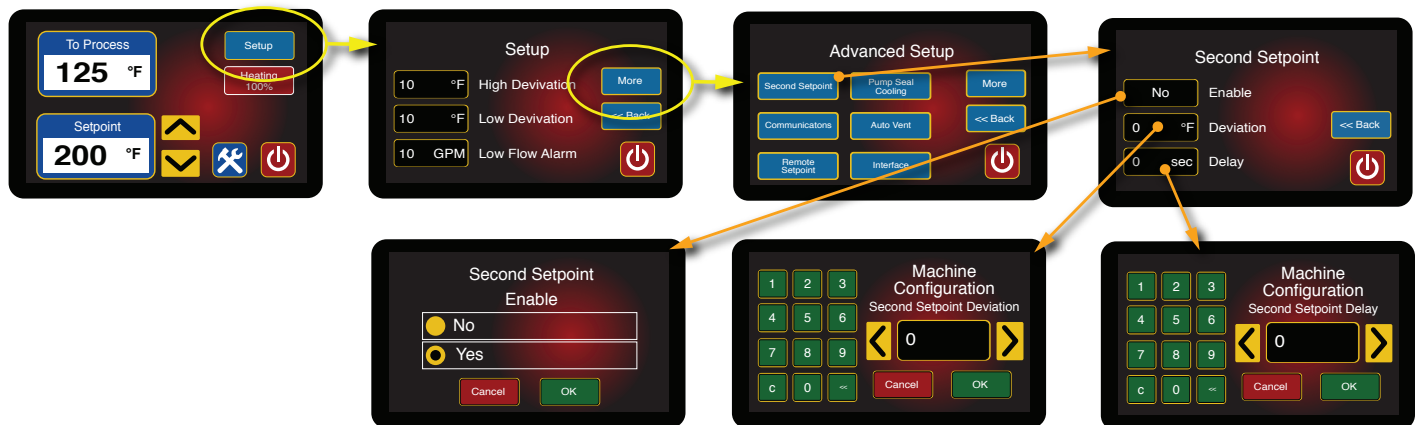*Updated 2/17/2017*   © 2017 ADVANTAGE ENGINEERING, INC.

Second Setpoint	The second setpoint feature is activated by a contact closure between the red and black wires on the remote/second setpoint cable. This feature allows the user to configure a deviation from primary setpoint called the second setpoint. The deviation from primary setpoint also called the second setpoint is the temperature the unit will attempt to control to when the contact is closed. When the contact is opened again the unit will attempt to control to the primary setpoint.

Example of how this feature might be used. When the process is operating normally, the primary setpoint is required for best results. When the process is interrupted for some reason it might be desirable to have the process temperature be either warmer or colder than the primary setpoint. Opening and closing the contact will achieve this purpose.

1. Follow the screen flow as shown below to the Second Setpoint Screen.

2. **Enable.** Select Yes or No.

3. **Deviation.** Press to advance to the Second Setpoint Deviation screen to select the deviation temperature. The deviation temperature entered will be plus or minus a change from the primary setpoint value. For example, if the primary setpoint is 150°F and the deviation is set to -50°F, when switched by closing the contact, the unit will try to control to 100°F (Setpoint 150°F - deviation 50°F = 100°F). Opening the contact will signal the unit to go back to the 150°F primary setpoint.

4. **Delay.** Press to advance to the Second Setpoint Delay screen to select the delay in seconds. To avoid short cycling between the primary and second setpoint, an adjustable delay time is included. The minimum delay time between switching from primary setpoint and second setpoint is 30 seconds.

Remote Setpoint / Second Setpoint Cable

Typical Remote/Second Setpoint Cable