

HEATEC TEC-NOTE

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Re-calibrating temperature pointers on UE controllers

Do you use an older Heatec hot oil (thermal fluid) heater at your HMA plant or asphalt terminal? If so, the heater may be fitted with UE controllers.

Over a period of time, pointers on UE controllers get out of calibration and need to be re-calibrated.

Tec-Note x-03-xxx describes how to re-calibrate the *red and green* adjustment pointers. This procedure is for calibrating the *black* temperature pointers on UE controllers. These controllers are used to control operation of burners provided with low-high fire controls.

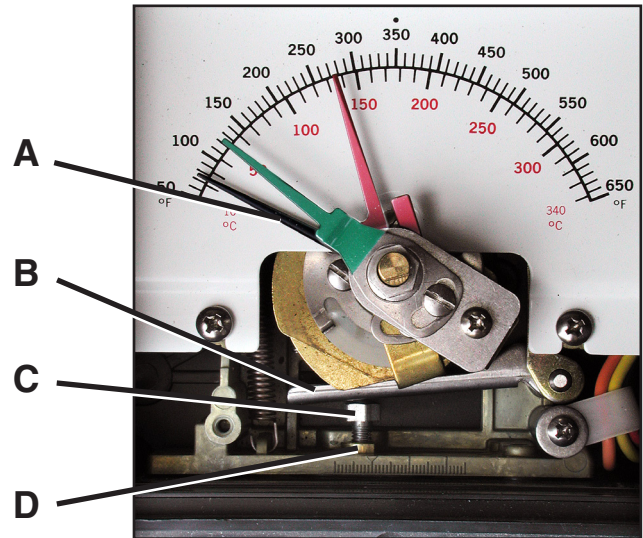
UE controllers have capillary lines with a thermal sensor at the end. The thermal sensors are mounted



in dry wells in the heater hot oil piping to sense oil temperature. Next to these dry wells are thermometers needed to aid in calibrating the controllers.

The controller has three pointers: a black pointer, a red pointer, and a green pointer. The black pointer is controlled by the thermal sensor and always denotes the temperature where the sensor is located. Over a period of time this pointer will get out of calibration. While the heater is operating, re-calibrate it as follows:

1. Be sure the dry well where the thermal sensor is installed is full of thermal oil.
2. Remove the cover and knobs from the controller.
3. Using 5/16-inch wrenches, hold the wrench flats (D) while turning the zero adjustment screw (C). As you turn the adjustment screw, the actuating lever



(B) will move the temperature pointer (A). Turn until the pointer indicates the same temperature as the thermometer next to the dry well. **Note:** It is generally best to adjust the temperature pointer from slightly *below* the proper temperature *up* to the proper temperature.

4. Replace cover and knobs to the controller.

Because of the limited length of capillary lines, UE controllers are mounted near the heater's hot oil piping. This can make accessing the controllers for calibration an awkward task, since the heater is running and pipes are hot.



Heatec offers a digital control panel that replaces UE controllers. The panel, called the UE conversion panel, can be mounted at a more convenient location, away from hot oil pipes. And since the controllers are digital, they do not require calibration. For more info, call the Heatec parts department at 1-800-235-5200.



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