

# HEATEC TEC-NOTE

Publication No. 5-09-220

## Setting Datel display used with Heatec portable asphalt tanks

This document provides information for setting Datel Displays DMS-20 PC-4/20S (**Figure 1**) when used to indicate asphalt levels in Heatec *portable* asphalt tanks.

The settings apply to portable tanks 126 inches in diameter equipped with a Siemens pressure transmitter that has been setup according to Heatec Tec-Note 5-09-215.

Displays purchased from Heatec are normally set at our factory and require no further setup. However, personnel at a hot mix plant can use these instructions to reset a display if necessary. The display can be set to show levels in either feet or inches. **We set displays for inches.** If you prefer feet, you can change the dip switches so it will read out in feet.

You will need a signal simulator, such as a Fluke 787 Processmeter, to provide outputs from 4 to 20 mA. You will also need a small screwdriver, such as a jewelers No. 0. Reset the display as follows (**See Figure 2**):

1. Disconnect existing wires from the two terminals on the back of the display.
2. Set DIP switches as indicated in table shown here:

CHOOSE DISPLAY VALUES (EITHER FEET OR INCHES)	DIP SWITCH SETTINGS					
	1	2	3	4	5	6
FEET (Display shows levels in feet from 0.25 to 10.50 )	ON	OFF	OFF	OFF	ON	OFF
INCHES (Display shows levels in inches from 03.0 to 126.0)	ON	OFF	OFF	OFF	OFF	ON

3. Connect positive wire from simulator to positive terminal on display. Connect negative wire from the simulator to negative terminal on display.
4. Set the output of the simulator to 4.0 mA. Adjust potentiometer R3 on the back of the display to make the display indicate either 0.25 feet or 03.0 inches.
5. Reset the output of the simulator to 20.0 mA. Adjust potentiometer R7 on the back of the display to make the display indicate either 10.50 feet or 126.0 inches.
6. Reset the output of the simulator to 4.0 mA. Readjust R3 to make the display indicate the same values as in step 4.

7. Reset the simulator to 20.0 mA to make sure the display still indicates values in step 5. If not repeat the process.
8. Disconnect the wires from the simulator and reconnect the original wires.

The display should now indicate levels of liquid above the bottom of the tank. However, the transmitter cannot read levels below 3 inches, which is usually the point where it is connected to the tank. So the display will show 3.0 inches for all levels lower than 3 inches.



Figure 1. Datel display set to show inches.

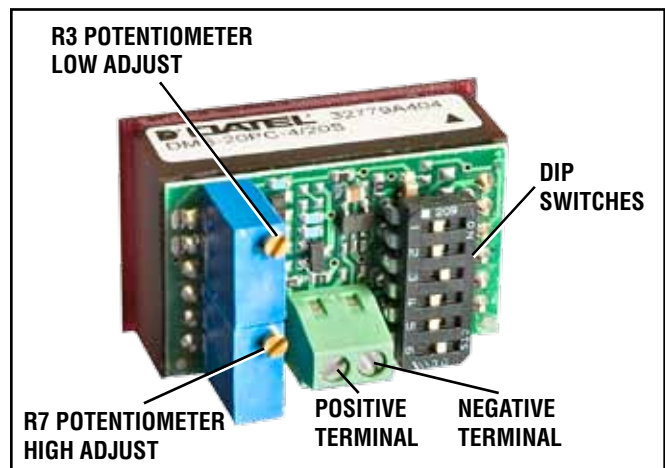


Figure 2. Controls on back of Datel display