

## General

The Roots-Tech preheater uses a simple electro-mechanical calibration that requires removal of the rear access panel while the power is connected to the preheater. This procedure calibrates the Front Panel Meter to the actual Loop-Volts. It also requires inspection of the metering pulley.



**WARNING**  
High Voltage is present within the rear section of the cabinet.



**WARNING**  
Pinch-points and pulleys with spokes are present at the operator's side of the preheater. The pinch-points and spokes can cause serious injury to fingers.

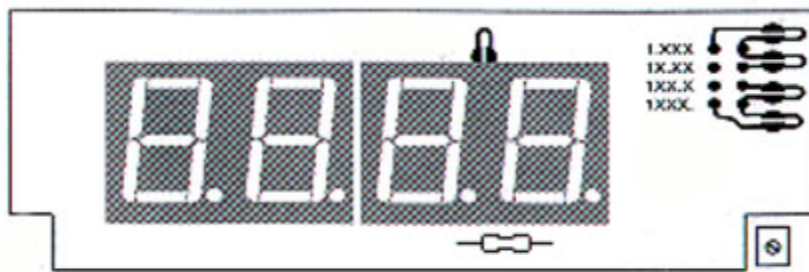
**Step 1.** With power off and the wire-line not in motion, remove the process conductor from the preheater.

**Step 2.** With power off and wire-line not in motion, confirm that the lower sheave is securely mounted to the shaft and inspect the pulley groove for wear. If pulley is worn, it should be replaced.

**Step 3.** Remove the rear cover using a Phillips screwdriver. Locate the power supply mounted on your left.

**Step 4.** Locate the **RUN - TEST** switch (red switch with white toggle) on the main circuit board and change setting to **TEST**.

**Step 5.** With power off and wire-line not in motion, place an 8' length of insulated wire (18-26 ga) in the process conductor path (see illustration). Connect the bare ends to a True RMS (T-RMS) type voltmeter as shown below.



**Step 6.** Remove the filter lens from the Front Panel Meter by carefully inserting a 1/8" screwdriver blade at bottom of the lens. Hint: do not place screwdriver in center. Gently pry outwards to release the filter lens.

**Step 7.** Locate the exposed **Span Pot** (see illustration). This is used to calibrate the meter to the actual Loop-volts.

**Step 8.** Press the START button and increase the Operator's Dial setting so that the test voltmeter reading is 10.0 VAC.

**Step 9.** Adjust the Front Panel Meter **Span Pot** so that it's readout matches the test voltmeter reading, then replace the filter lens.

**Step 10.** Return the Operator's Dial Setting to zero. The Front Panel Meter will read less than 1.0 Volt.

**Step 11.** Press the **STOP** button.

**Step 12.** Return the **RUN - TEST** position to **RUN** and replace and secure the rear machine cover. Calibration complete.

