

**Application Brief**  
**TROXLER MODEL 2701B**  
**Offset Procedure for the PaveTracker™ Plus**  
**Electromagnetic Sensing Device for Asphalt Quality Control**  
**August 2007**

**Introduction**

The Troxler PaveTracker™ Plus Model 2701B is a non-nuclear, electromagnetic sensing device manufactured by Troxler Electronic Laboratories, Inc., the industry leader in field density measurement of asphalt. This gauge provides advanced technology in a patented<sup>1</sup> device designed for the asphalt industry that allows rapid and reliable pavement measurements. A relative density reading is given that can be offset to a representative core sample or nuclear gauge reading to give actual density readings for the pavement being measured.

This document will explain how to perform the offset with the device in order to obtain actual density values when using the Troxler PaveTracker™ Plus.

**Instructions**

2701B PaveTracker™ Plus

1. Reference the device in the transport case by placing the case on a level surface and place the PaveTracker™ on the reference plate, in the case, making sure it is fully in contact with the surface. Press the **<Ref>** button. If the gauge is within the tolerances, it will pass and return to the Ready screen. {Optional: To check the gauge's performance, a reading (measurement) can also be performed on the reference block. Do this by placing the PT+ on the reference plate as described above and press the **<Start>** button. The resulting Density should match that shown on the sticker inside the case lid.}
2. Perform a minimum of 4 measurements on the asphalt (rotating 90° between readings) on the same location where the alternative density reading has been or will be done (core location or nuclear gauge measurement site). Average the results of these readings.
3. Compare this averaged PaveTracker Plus value to the "known" density value obtained from the alternative measurement. (Ex.: PaveTracker™ Plus reads 139 (2226 kg/m<sup>3</sup>), nuclear gauge/ core reads 143.5 (2298 kg/m<sup>3</sup>)= difference of 4.5 pcf (72 kg/m<sup>3</sup>) If the 2701B reads lower than the alternative method, the offset value will be positive; if the 2701B reads higher, the offset will be negative.
4. Press the **<Offset>** button and enter the calculated offset value (Ex: 4.5 pcf).

**Step 1**



**Step 2 (comparing to core or nuclear gauge)**



**Step 3**

