

**TECHNICAL BULLETIN NO. 20120101**

January 01, 2012

**SUBJECT Additional Features of SC900 Digital Compaction Meter**

**PRODUCT FAMILY SC 900**

This bulletin describes modifications to the SC 900. The changes outlined below took effect with all units shipped after January 1, 2012.

**3/4" Cone Tip**

SC 900 meters now ship with two types of cone tips. The 1/2" cone tip is used for fine soils. A 3/4" cone tip is now available for use with coarse-textured soils. The cone size option is selected via the meter's display and is field-changeable.

**Improved Handling of Insertion Errors**

The SC 900 measures insertion depth with an ultrasonic depth sensor. The sensor allows the meter to capture cone index values at one-inch increments. If the meter is pushed too rapidly into the soil, it is possible that the depth sensor may not be able to query the internal load cell fast enough to capture every cone index value. This can happen, for example, if the probe passes from a highly compacted zone into a much less compacted zone. This will trigger a "Depth Error" message. The meter firmware now allows this error message to be over-ridden and the measurement profile saved. The cone index value for the intermediate depths is assigned a value of 0 PSI (0 kPa). Take care when over-riding this error message because it can also be caused by an external object (such as a plant or a knee) that comes into the field of view of the depth sensor.

**Depth Target**

*Enlarged Center Hole:* The center hole of the depth target has been enlarged to accommodate the 3/4" cone tip.

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**Upgrading Older Meters**

Meters acquired prior to 2012 can be upgraded by purchasing the SC900 Upgrade Package (Item # 6110FSUP). The upgrade includes a microcontroller chip with updated firmware, a 3/4" cone tip, new depth target, and updated User's Manual.