

# INSTALLATION INSTRUCTIONS



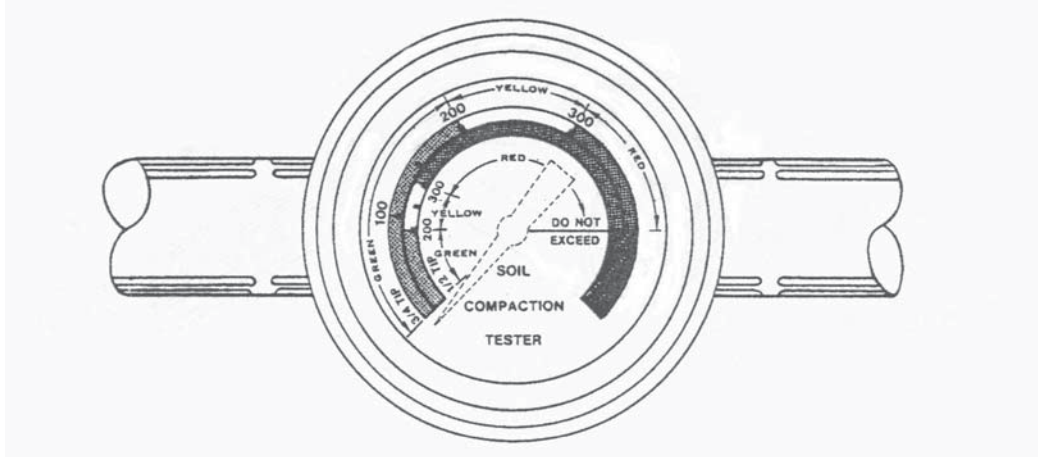
## SOIL COMPACTION TESTER

The DICKEY-john Soil Compaction Tester is a penetrometer that measures the firmness (compaction) of soil. The instrument is supplied with two tips:

- 1/2" tip for use in firm soil
- 3/4" tip for use in soft soil

The dial indicator has two scales (for 1/2" tip and 3/4" tip) that are calibrated in pounds per square inch of the base area of the cone (tip) and are color coded for reference only. The colors are green (0-200 psi), yellow (200-300 psi), and red (300 psi and above) where most crop roots can grow well in the green range, fair in the yellow range, and poor in the red range.

*Figure 1*



The best time to use the tester is early Spring when the soil has good moisture content. Because moisture content and soil texture effects readings, the soil compaction tester is best used to compare the readings of the same soil type and moisture content.

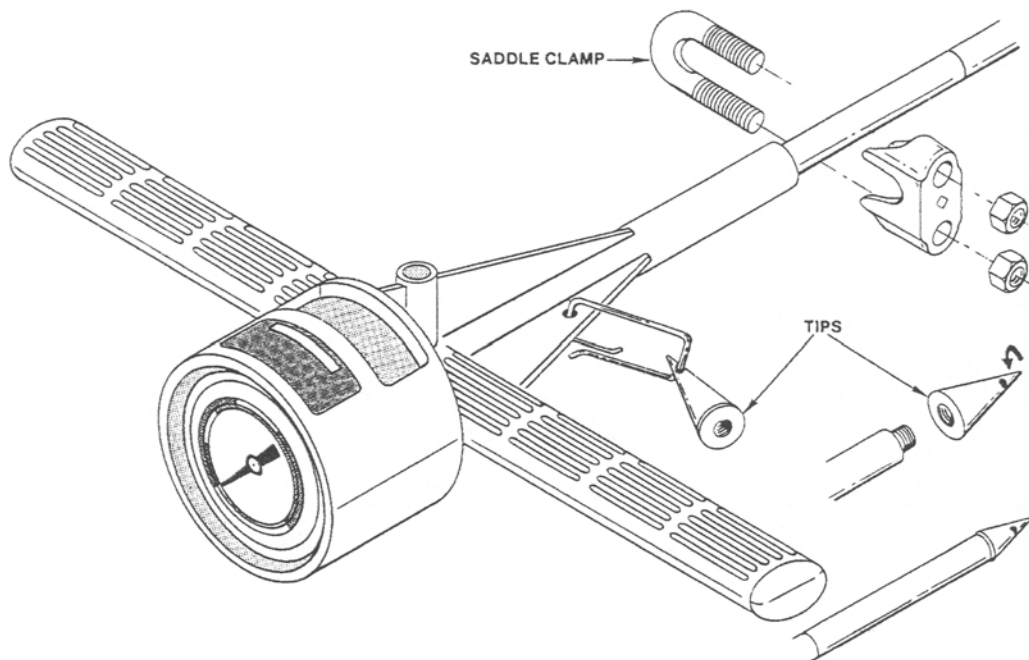
Check a fence row and then check the field area for comparison. Several tests should be performed in an area to get accurate readings.

The soil compaction tester should be used:

- before tilling to verify if there is a compaction layer
- to identify how deep the compaction layer is
- to identify how deep the soil is actually worked
- if the tillage operation solved the problem

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## UNPACKING

1. Remove tester from the carton. A saddle clamp is installed on the shaft of the tester next to the plastic housing. This clamp is used during shipping to protect the gauge from damaging spikes that may occur if the tester is dropped. NOTE: Retain this clamp and reinstall in the event the tester is shipped.
2. Remove clamp and visually inspect the tester for damage.
3. Check the gauge indicator and verify it is "0"; if not, pull on the shaft or gently tap the gauge. If it does not return to "0", contact DICKEY-john Technical Support at 1-800-637-3302.

## OPERATION

1. Select and install the tip for the soil type.
2. Apply even pressure to the handles on the instrument to keep the rod point penetrating the soil at a slow, even pace.
3. The penetrating rod is marked at 3" intervals for easy depth measurement. As the instrument's rod penetrates the soil, the gauge readings at the 3", 6", 9", 12", 15", and 18" depths should be noted.
4. A compacted layer on the gauge indicator increases upscale into the red range and then moves back down scale after passing through the compacted layer. The depth of the beginning of the compacted layer and depth of leaving the compacted layer should be noted.
5. It can be determined by taking multiple readings if a compaction layer exists, at what depth, and how thick.

**IMPORTANT: Multiple readings in an area more accurately defines the compaction layer if one exists.**

Specifications subject to change without notice.