



360 SOILSCAN™ NITRATE  
SENSOR UPGRADE KIT  
INSTALLATION INSTRUCTIONS



# 360 SOILSCAN™ NITRATE SENSOR UPGRADE KIT INSTALLATION INSTRUCTIONS

## ⊕ PARTS OVERVIEW

360 SOILSCAN Nitrate Sensor Upgrade Kit (Part No. 431050)

- + 360 SOILSCAN Nitrate Sensor Upgrade Kit Installation Instructions (Part No. INST431050)
  - + NO3-N Sensor Installation Instructions
  - + Mixing Rod Installation Instructions
  - + 360 SOILSCAN Storage Guidelines
- + NO3-N Sensor Assembly (Part No. 431040)
- + Calibration Bottle - 4 Compartment (Part No. 432355)
- + Mixing Rod - Aggressive (Part No. 432329)
- + Mixing Sleeve (Part No. 432371)
- + T-25 Torx L-Key (Part No. 432341)

## ⊕ PLEASE NOTE

- + When using a new sensor tip for the first time, allow the sensor to soak in the Standard Solution for a minimum of one hour prior to testing.  
**NOTE:** The first soil test reading with a new sensor tip will be inaccurate due to initial sensor adjustments. Simply discard the first test and continue your testing.
- + Download the latest 360 SOILSCAN Application for use with the new sensor.
- + Please refer to the 360 SOILSCAN Storage Guidelines when not in use.

## ⊕ IMPORTANT: PLEASE READ BEFORE USING 360 SOILSCAN

- + To prevent injuries and to avoid damaging 360 SOILSCAN, please read all product safety instructions before using 360 SOILSCAN. For detailed safety instructions, launch your 360 SOILSCAN Application, select Settings and navigate to Product Safety. In addition, before using your 360 SOILSCAN, please read all product warranty information by launching your 360 SOILSCAN Application, selecting Settings and navigating to Legal.

## ⊕ QUESTIONS

- + If you have questions or need assistance, please email [support@360yieldcenter.com](mailto:support@360yieldcenter.com) or call 888-512-4890.

# 360 SOILSCAN™ NITRATE SENSOR UPGRADE KIT INSTALLATION INSTRUCTIONS

## I.

### NO<sub>3</sub>-N SENSOR INSTALLATION INSTRUCTIONS

Figure 1

**Step 1** Remove the two screws on the sensor cover on the 360 SOILSCAN™ machine.

**Step 2**

Using the T-25 Torx L-Key provided, remove the old NO<sub>3</sub>-N sensor body from the 360 SOILSCAN sensor platform. Save the nut and screw to reuse to install the new NO<sub>3</sub>-N sensor body.

**Step 3**

Remove the small storage bottles from the sensor body and reference electrode. Save the bottles for future storage use.

Figure 2

**Step 4** Insert the new NO<sub>3</sub>-N sensor body (gray) into the sensor body hole located at the 6 o'clock (1) position on the 360 SOILSCAN sensor platform. Insert the reference electrode in the hole located at the 9 o'clock (2) position on the 360 SOILSCAN sensor platform.

Figure 3

**Step 5** Using the T-25 Torx L-Key, fasten the NO<sub>3</sub>-N sensor body with the screw and nut to the 360 SOILSCAN sensor platform.

Figure 4

**Step 6** Plug the NO<sub>3</sub>-N sensor into one of the four vertical connectors on the 360 SOILSCAN panel.

**Step 7**

Once the new NO<sub>3</sub>-N Sensor is connected, the 360 SOILSCAN Application software will auto-configure for the NO<sub>3</sub>-N Sensor.

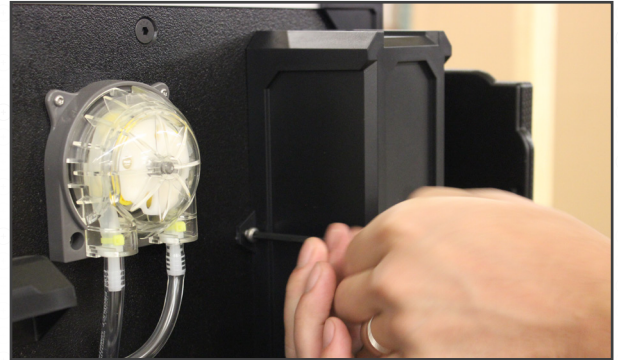


Figure 1

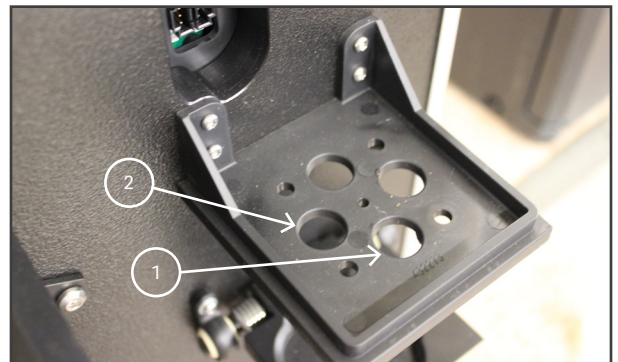


Figure 2



Figure 3

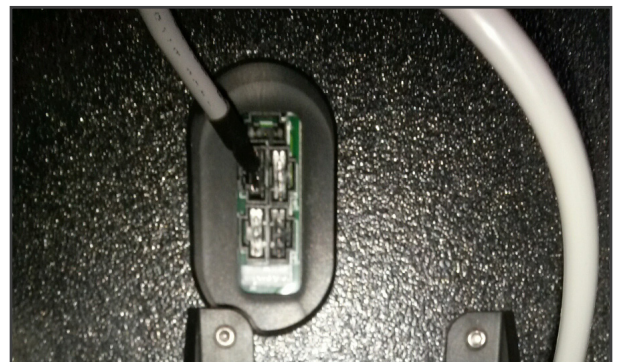


Figure 4

# 360 SOILSCAN™ NITRATE SENSOR UPGRADE KIT INSTALLATION INSTRUCTIONS

I.

## NO<sub>3</sub>-N SENSOR INSTALLATION INSTRUCTIONS (continued)

Figure 5

**Step 8** Replace the sensor cover on the 360 SOILSCAN and secure it with the two screws.

Figure 6

**Step 9** In the calibration bottle, fill each chamber with the Standard Solution and place onto the 360 SOILSCAN sensing chamber to soak the sensors.

**Step 10** Download the latest 360 SOILSCAN Application and open your 360 SOILSCAN Application on your iPad®. Under the Calibrate tab, press Next Step: Soak Sensor. Then press Next Step: Calibrate Sensor.

**Step 11** Follow the instructions in the 360 SOILSCAN Application on your iPad to run new samples through the nitrate sensor.

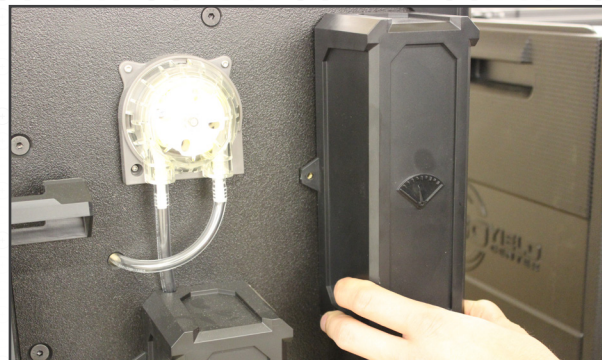


Figure 5

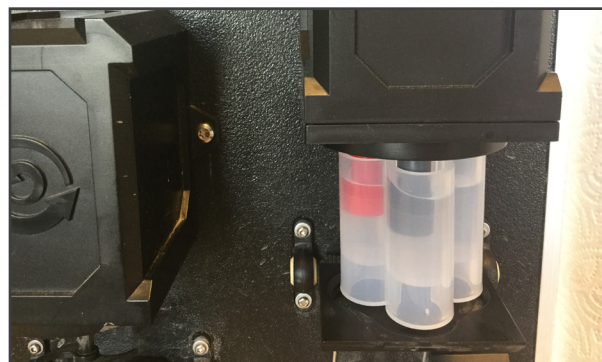


Figure 6

**+** NO<sub>3</sub>-N SENSOR INSTALLATION COMPLETE

## II. MIXING ROD INSTALLATION INSTRUCTIONS

- Step 1** Grasp the upper end of the old Mixing Rod and pull down firmly to remove it.  
**NOTE:** If the Mixing Rod does not come loose easily, use pliers to grasp and pull off.

Figures 7 and 8

- Step 2** Line up the flat side of the hole on the new Aggressive Mixing Rod (1) with the flat side of the mixing motor shaft (2).

Figures 9 and 10

- Step 3** Push the Aggressive Mixing Rod straight up onto the motor shaft. The Aggressive Mixing Rod should slide into the shaft 1/2 inch.

- Step 4** Place a Dixie cup on the mix station to assure the Aggressive Mixing Rod does not come into contact with the sides or bottom of the cup.  
**NOTE:** If not fully engaged with motor shaft, the Aggressive Mixing Rod may be too low and cut the cup.

**NOTE:** Once the Aggressive Mixing Rod is on, leave it on. The Aggressive Mixing Rod is not meant to be continuously switched with the original Mixing Rod. The hole in the Mixing Rod permanently deforms when mated with the motor shaft and, therefore, cannot be reused.

⊕ MIXING ROD INSTALLATION COMPLETE

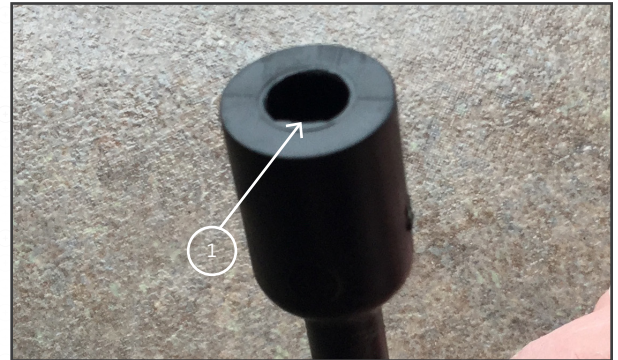


Figure 7



Figure 8



Figure 9

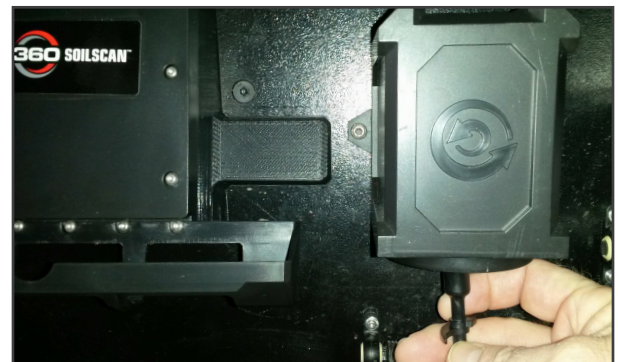


Figure 10

### III. MIXING SLEEVE FUNCTION

The Mixing Sleeve provided in this upgrade kit is intended to support the Soil Cup to simplify cup loading and reduce cup tearing when working with more challenging soil types.

Figure 11

**Step 1** Before mixing the soil sample, place the Soil Cup inside the Mixing Sleeve (1) and then continue the mixing process.

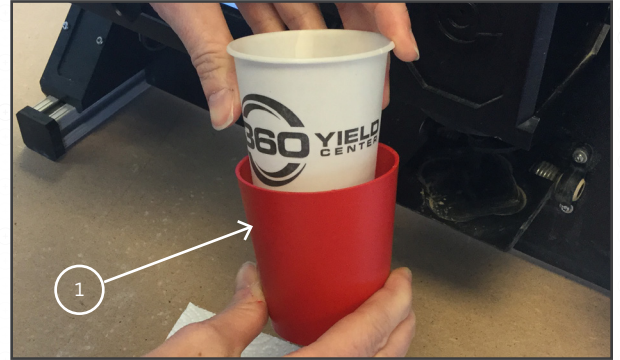


Figure 11

## 360 SOILSCAN™ NITRATE SENSOR UPGRADE KIT INSTALLATION INSTRUCTIONS

### IV.

## 360 SOILSCAN™ STORAGE GUIDELINES

Below are tips for storing your machine for more than 24 hours or over the winter.

- ⊕ Store the NO<sub>3</sub>-N Sensor (gray) dry. Use the NO<sub>3</sub>-N Storage Bottle that came with the sensor to cover the tip. Switch to this storage method if the machine will not be used within the next 24 hours.
- ⊕ Fill the small Reference Electrode Storage Bottle  $\frac{3}{4}$  full with Standard Solution. Add cap to bottle and insert over electrode (red), making sure electrode tip is immersed in solution. Tighten the cap on the bottle. Switch to this storage method if the machine will not be used within the next 24 hours.
- ⊕ Place the 360 SOILSCAN™ machine and sensors in a mild environment (60°F to 80°F). Do not leave the machine in an unheated shop as exposure to cold temperatures can affect the sensor performance. A good rule of thumb is to treat the machine and sensors similar to how you would treat your iPad.
- ⊕ Standard Solution can be stored at room temperature.
- ⊕ Extra tips that have not been opened should also be stored at room temperature in their original packaging.
- ⊕ For winter storage, make sure the water tank on your machine is empty and the water line is purged.

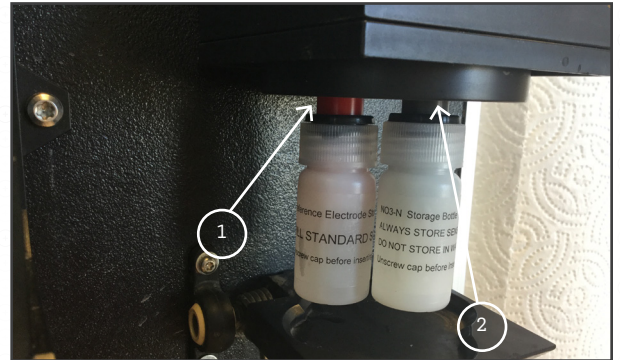


Figure 12: Reference Electrode (1) (Red): Always store wet in the Standard Solution. NO<sub>3</sub>-N Sensor (2) (Gray): Store dry.