

SmartDepth™

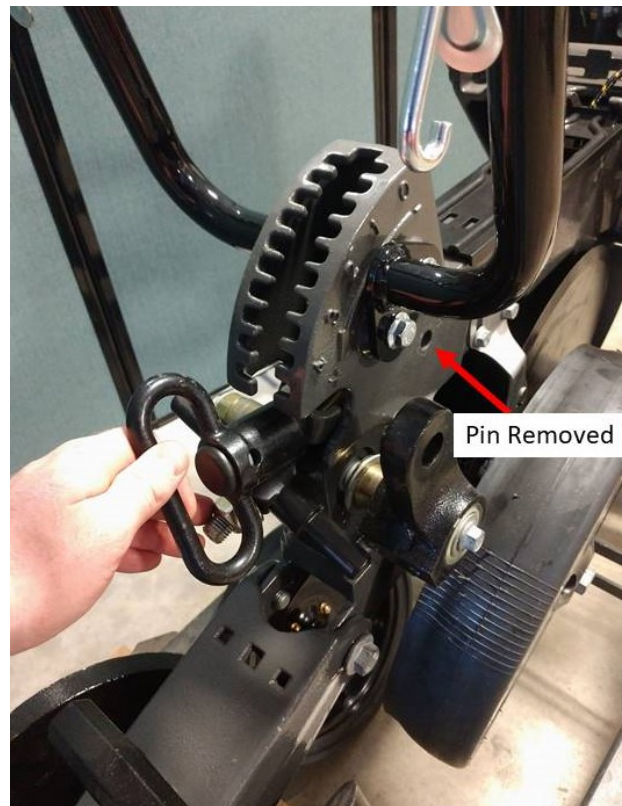
SmartDepth Installation Instructions for White 9000 and Precision Planting Gray Row Unit

Step 1:

Begin by removing the gauge wheels. You may be able to remove one gauge wheel and just slide the second gauge wheel slightly away from the shank.

Step 2:

Next, remove the load cell from the row unit and then remove the depth arm and T handle assembly.



Step 3:

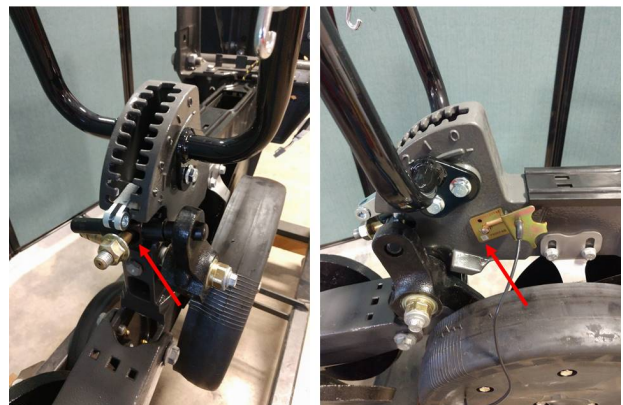
Remove the roll pin from the depth arm using a hammer and roll pin punch.

**Step 4:**

Using the new depth arm provided in the kit, install the depth linkage to the new arm. Note the orientation of the depth arm to the linkage. Reuse the roll pin removed in the previous step.

**Step 5:**

Reinstall the depth arm and load cell. The depth arm can be slid into place by going in through the bottom back side of the shank. Leave the load pin loose for now. You can also reinstall the gauge wheels to help hold the depth arm in place.



Step 6:

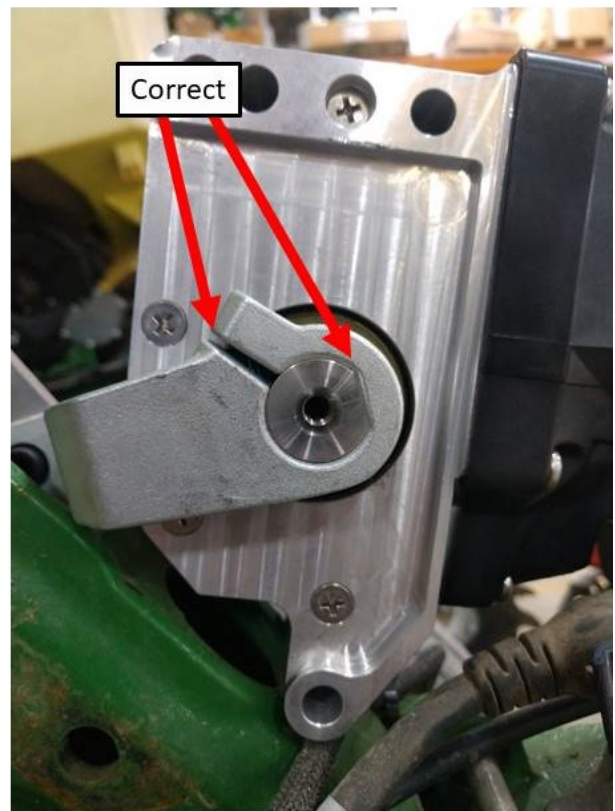
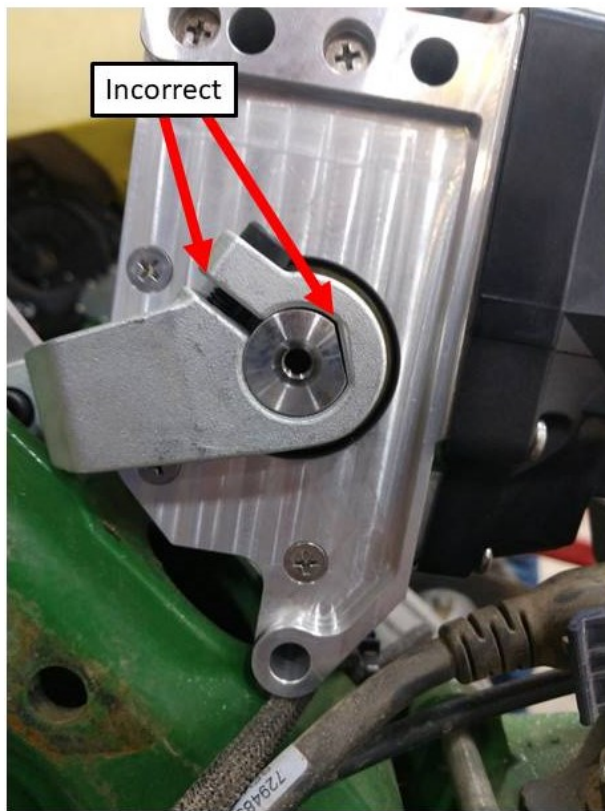
Install the output drive arms to the gear box before mounting to the row unit.

Gear Box Assembly

- a: Start by installing the drive arm with link bushing, the wishbone link and finally the right side drive arm. The drive arms can be install on either side of the actuator but its recommended to instal them with the clamping bolt towards the rear as shown. Use a 5 mm allen wrench and tighten the wishbone joint first, followed by the drive arm bolts.

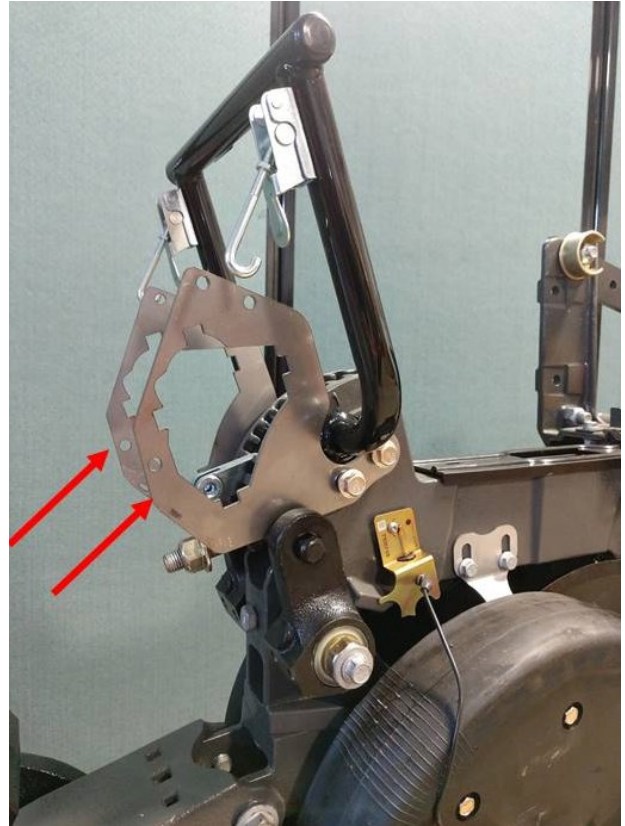


- b: Ensure the drive arms are clamped tight enough as shown and the arm is flush with the gear box output shaft. If the arm is not flush you can gently tap on it with a hammer before its completely tight.

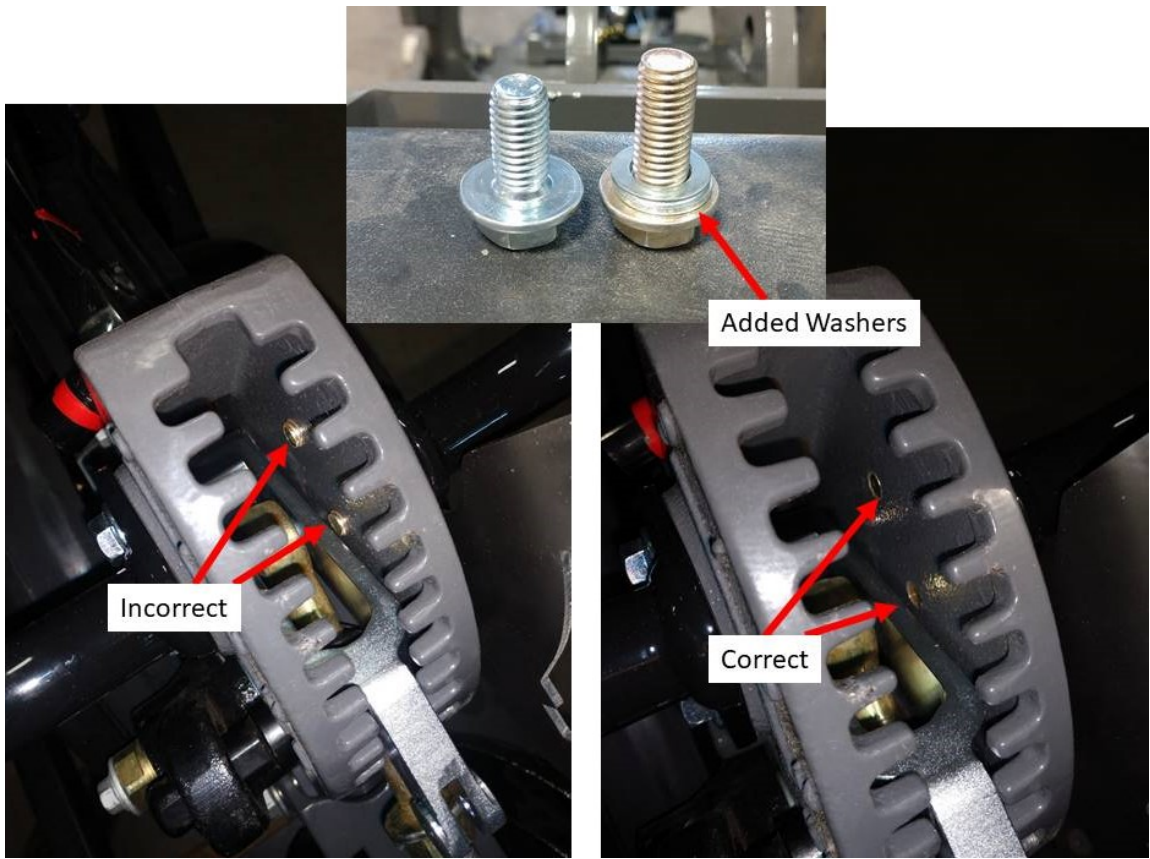


Step 7:

Next, install the depth actuator support brackets.



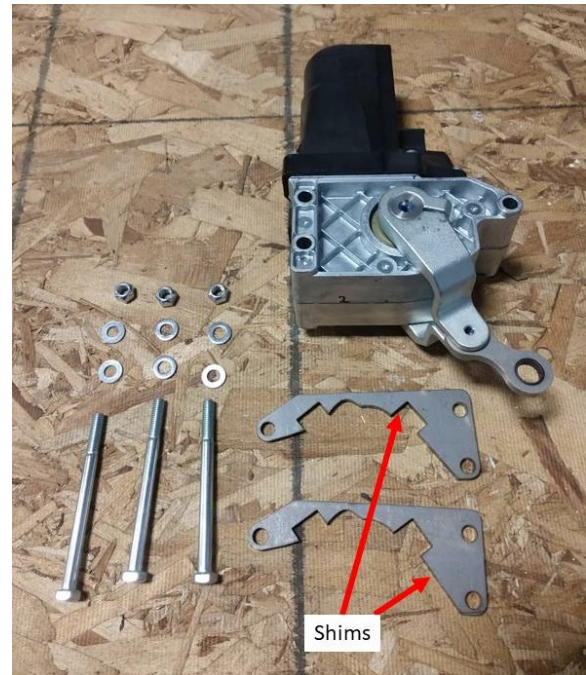
- a: Use the Bolts provided in the hardware kit. Ensure the bolt securing the support bracket does not protrude to far into the shank where it could hit the depth arm. If the bolt goes into the shank to far, add the M10 washers to move it out. Leave the hardware loose at this time.



Step 8:

Install the SmartDepth actuator to the support brackets.

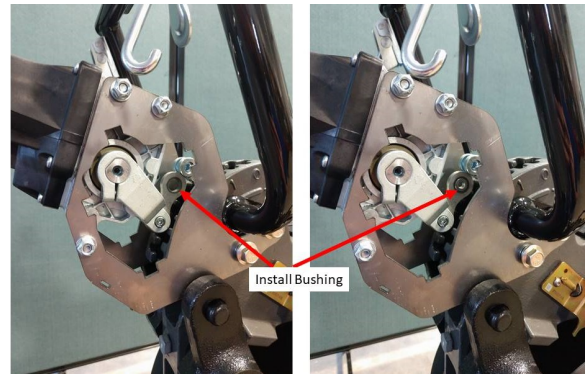
- a: Start by identifying the type of rear post installed on the row units. If the rear post uses the 4 support bracket bolts then the shims will be required between the SmartDepth gear box and the support brackets.



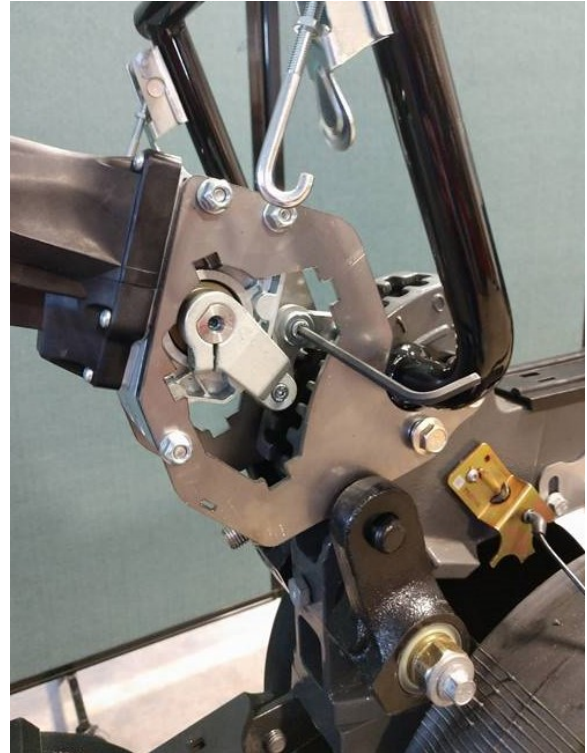
- b: Use the longer 100 mm bolts, flat washers, and nuts found in the hardware kit to mount the actuator to the support brackets. Leave the bolts loose for now. Also, notice this style of rear post uses the same mounting holes as the support brackets, the shims are required and installed between the support bracket and gear box.



- c: Install the bushing in the wishbone link and then slide it into the depth arm.



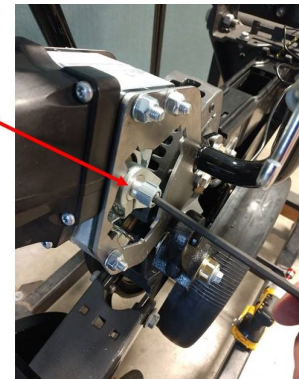
- d: Use a 5 mm allen head bolt from the hardware kit to secure this joint. You can now tighten the 3 gear box support bolts and 2 support bracket bolts which were previously left loose. Make sure the load cell is properly installed.



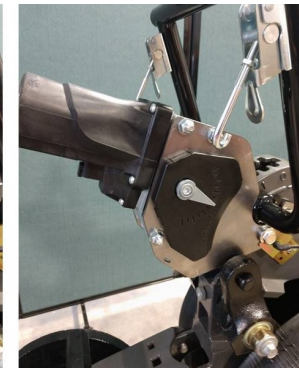
Step 9:

Install the guards and flags.

- a: If you used the shims between the support brackets and the gear box then you must use the spacer when installing the flags. If you did not use the shims, then you do not need the spacer. Install the spacer (if needed) followed by the flag bushing using a M6 allen head bolt. Do not tighten the bolt yet. Repeat this step on both sides.



- b: Snap the guard onto the support bracket and then slide the flag over the bushing. Note the alignment tabs.

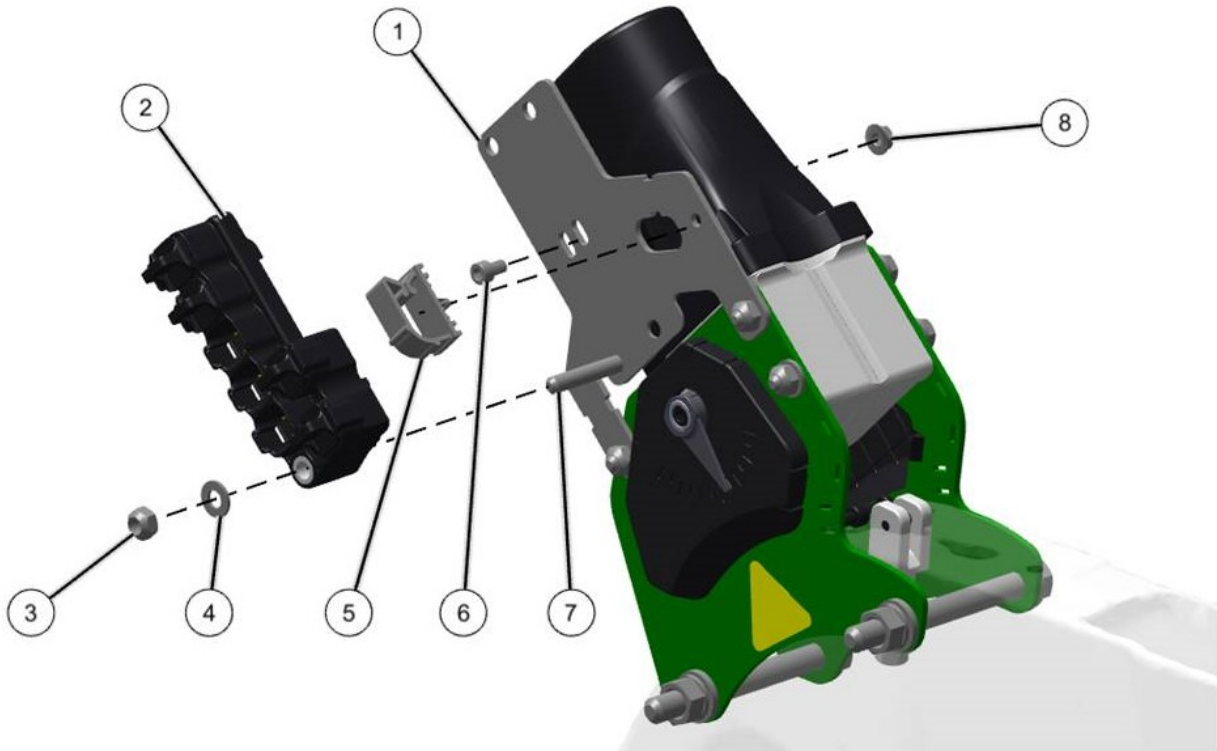


- c: Wait until the install is complete to set the depth indicator final location. Once the installation is complete, the 2020 is setup, and the depth calibration is completed, command the depth to 2" as an example (any depth can be chosen). With all of the SmartDepth modules at their commanded depth align the depth indicator with the center notch on the guard and tighten the M6 allen head bolt. Notice that you can depress the flag into the center notch to help hold it in place as you tighten the bolt.
- d: Finally, route the jumper up the shank securing it with zip ties.



Step 10:

Install the SmartDepth CAN expansion Hub bracket (optional).



The CAN expansion hub bracket is designed to be flexible in its mounting location and orientation. It allows for the CAN hub to be installed on either the right or left hand side of the SmartDepth assembly and provides zip tie points as well as clips to help secure the harnessing in place.

- a: Use M8 bolt (7), M8 nut (3), and flat washer (4) to bolt the CAN expansion hub to bracket (1). The CAN hub can be mounted with the bolt on the bottom (as shown) or on top depending on preference.
- b: Use M6 bolt (6) and M6 flange nut (8) in one of the center slotted holes. The purpose on Bolt (6) is to help keep the CAN expansion hub located in the correct spot and prevent it from rotating.
- c: Next, mount bracket (1) to the top two bolts of the SmartDepth support bracket as shown.
- d: Finally, snap clip (5) in the bracket which can be used to help secure harnesses as desired.