



PLANTER TOWER

ASSEMBLY INSTRUCTIONS



360YIELDCENTER.COM

FOR QUESTIONS PLEASE CONTACT OUR
PRODUCT SUPPORT TEAM AT 309-300-3120

1.31.2024 • V8

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PLANTER EQUIPMENT TOWER



BEFORE YOU BEGIN

HELPFUL TOOLS



7/16", 15/16", and 3/4" wrenches

7/16" socket

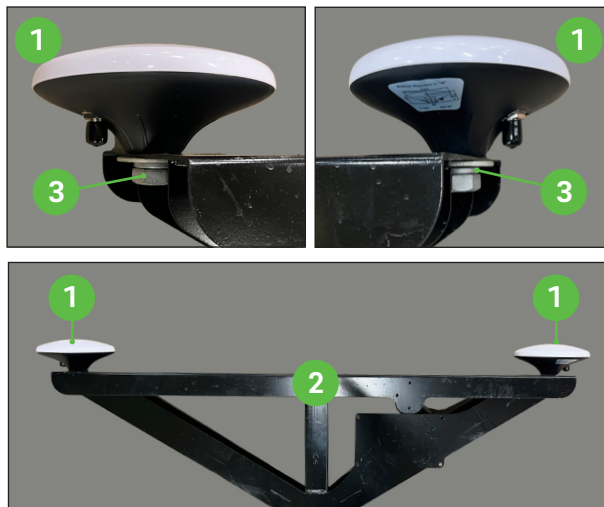
8mm deep well socket

Phillips screw driver

1/4" nut driver

STEP 1

INSTALL GPS RECEIVERS

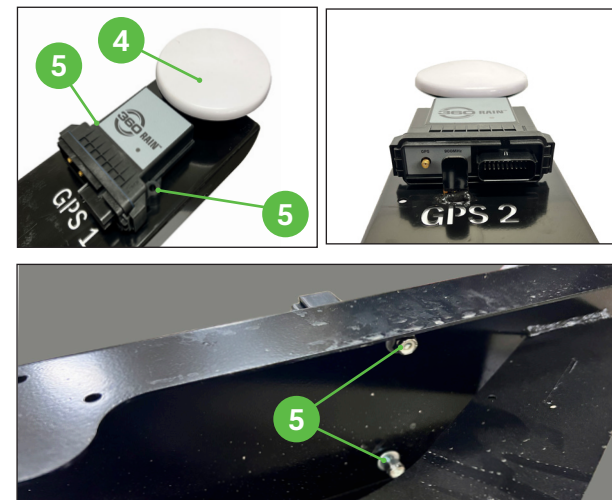


Install the two GPS receivers **1** on top of the planter tower **2** using the provided 5/8" bolts **3** from hardware kit #575758. Tighten completely.

NOTE: Each receiver comes with a lighter cable provided in the box. This lighter cable will NOT be used as a heavier cable is provided from 360 Yield Center.

STEP 2

INSTALL GPS BOARDS



Install the two GPS boards **4** (part # 575513) to the tower using provided 1/4" bolts (two bolts for each board) **5**.

NOTE: The GPS boards are NOT specific to right/left sides of the tower. Either board can be installed on either side. However, orientation of the boards is critical. Orient as pictured above.

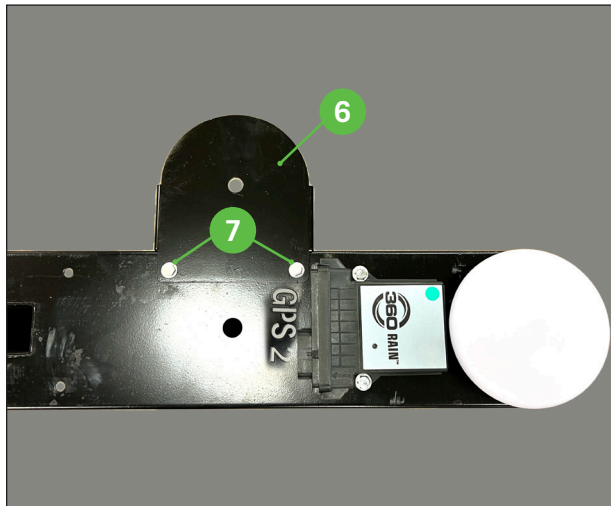
Tighten all four bolts using 7/16" socket and wrench. Do NOT use an impact to tighten.

NOTE: GPS boards are plastic and will crack if over tightened. DO NOT OVER TIGHTEN.

PLANTER EQUIPMENT TOWER

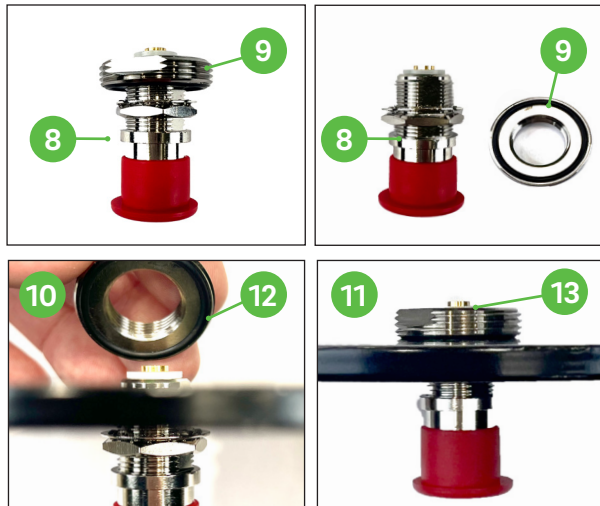


STEP 3 MOUNT ANTENNA



Install the antenna plate (6) to the front right side of the planter tower using the two shorter 1/4" bolts (7) from hardware kit #575758.

STEP 3 CONTINUED MOUNT ANTENNA



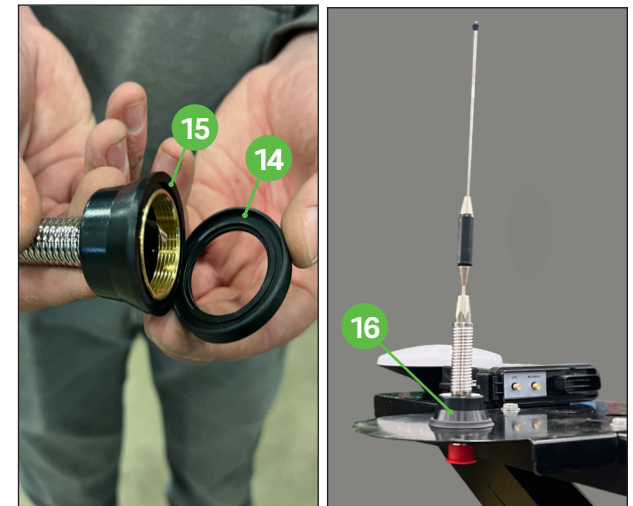
Locate the antenna adapter (8) and remove the antenna mount threads (9) from the end of the adapter.

(10) Thread the antenna adapter through the hole in the circular end of the metal mount.

(11) Reinstall the antenna mount threads on the top side of the antenna adapter. Ensure the rubber o-ring (12) on the antenna mount threads is oriented down towards the antenna mount.

NOTE: When properly installed, the white peg at the top of the threads should be flush with the antenna mounting nut (13).

STEP 4 INSTALL RCM



Insert the flat rubber seal (14) into the threaded end of the antenna (15) ensuring it is fully seated.

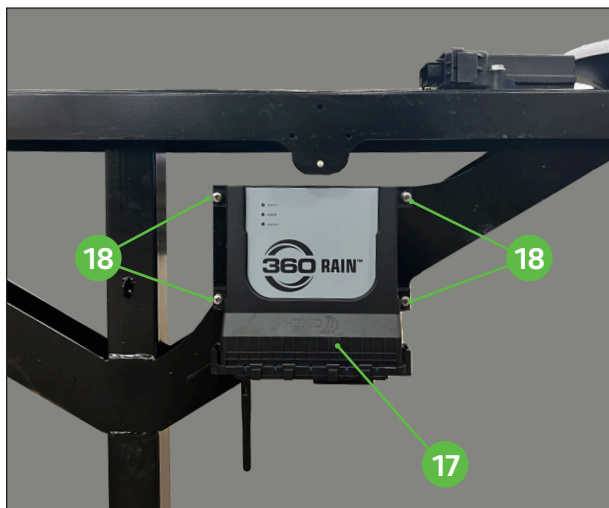
NOTE: There is only one direction to properly install the seal.

With the seal installed thread the antenna onto the antenna adapter (16) and hand tighten.

PLANTER EQUIPMENT TOWER



STEP 4 INSTALL RCM



Install RCM Board (part #575500) (17) to the mounting location on the front left side of the planter tower using four M5 screws (18) provided in hardware kit # 575758.

LTE DEVICE AND SIM CARD

Your cellular/LTE device is shipped with a pre-installed Verizon wireless SIM card.

Inside the included paperwork, you will find the original Verizon SIM card booklet, containing the SIM card number for your reference if needed.

Cellular service can be activated by calling our product support line at 309-300-3120. After planting is complete, call product support to suspend the account to stop re-occurring monthly charges.

STEP 5 ASSEMBLE LTE DEVICE



Locate the LTE device kit (19).

NOTE: The number on the kit will vary for each device.

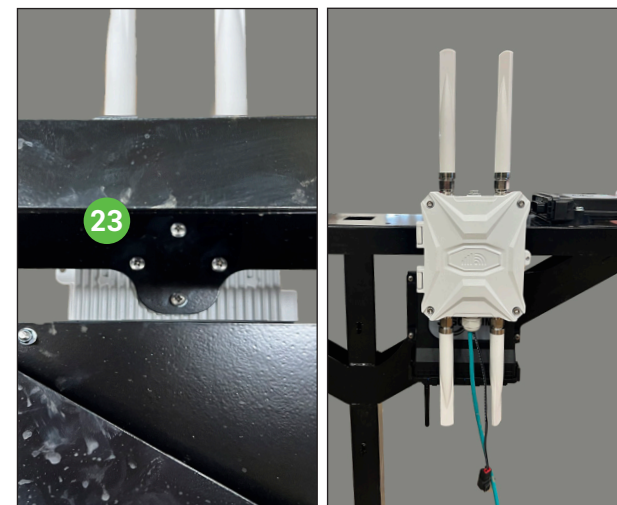
The LTE device (20) comes with a set of four antennas. Two antennas are labeled 4G and two are labeled 2.4 G.

Install both antennas labeled 2.4G (21) on the bottom of the LTE device. The bottom of the device is the side that also has the coed grip. These antennas should be oriented down.

Install both antennas labeled 4G (22) on the opposite end of the LTE device. These antennas should be oriented up.

Snug all four antennas tight with 3/4" wrench.

STEP 6 INSTALL LTE DEVICE



Carefully remove the four screws from the back of the LTE device. Keep these screws as they will immediately be used to install the device to the planter tower.

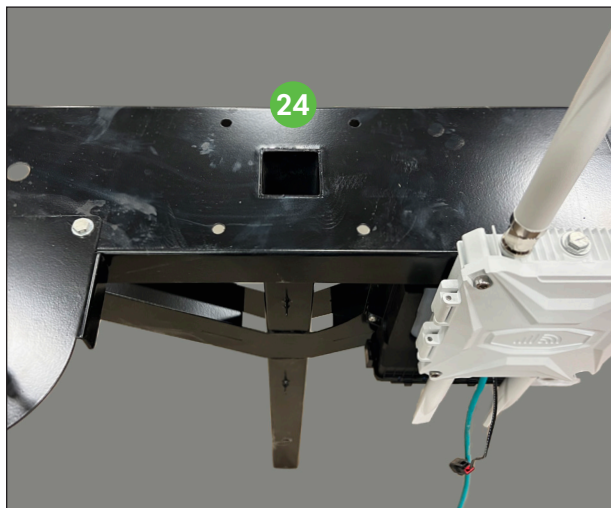
Using the four screws (23) just removed secure the LTE device to the planter tower. Hand tighten with phillips screw driver.

NOTE: Remembering that LEFT and RIGHT are determined from the operators seat, GPS 1, the LTE device, and the RCM box are mounted on the front of the left half of the planter tower. When the completed planter tower is mounted to the planter, the LTE device should be facing forward (towards the tractor).

PLANTER EQUIPMENT TOWER



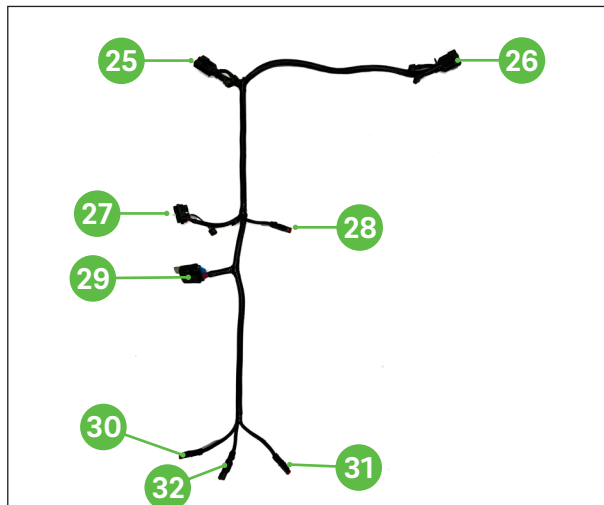
STEP 7 - OPTIONAL STAR FIRE SYSTEM



If your John Deere planter is equipped with active implement guidance, you may be required to re-locate your starfire receiver

Depending on the model year of your planter your John Deere Starfire might be offset from the center of the planter. If your Starfire is mounted in the center there is no need to change the location of the receiver. If your Starfire is mounted off center on the CCS system, our 360 Planter Tower mounts in the same location on the CCS. You can install your Starfire adapter bracket directly to the planter tower **24** using your own hardware and mount.

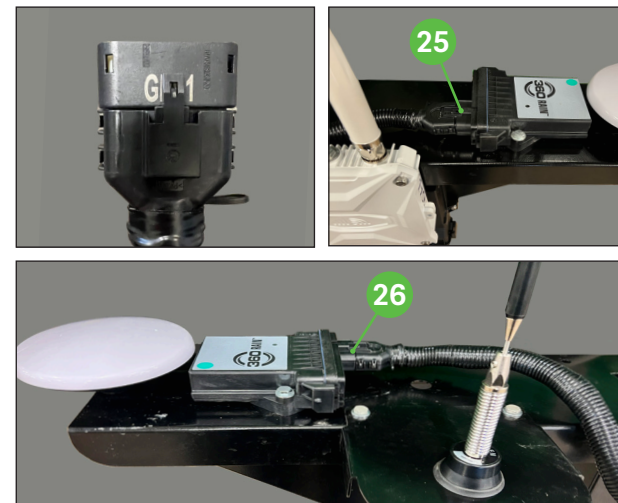
STEP 8 INSTALL HARNESSES



Locate the main harness with GPS connectors (part #575145).

- 25** GPS 1
- 26** GPS 2
- 27** RCM
- 28** COMMS/LTE Device
- 29** PDM (Fuse Block)
- 30** LIFT 1
- 31** LIFT 2
- 32** POWER

STEP 8 CONTINUED INSTALL HARNESSES



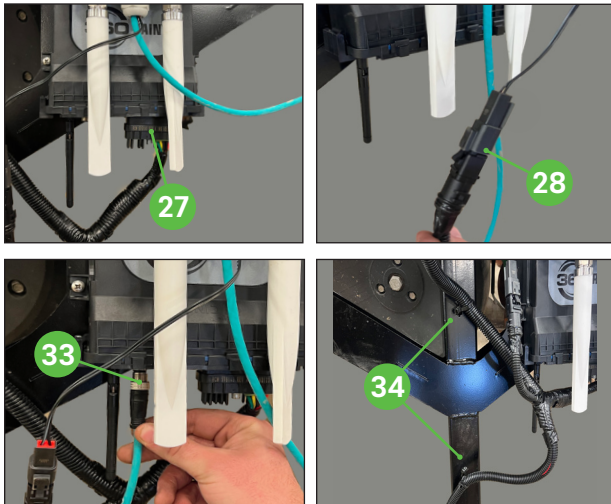
Connect the GPS 1 connector to the GPS 1 board directly behind the LTE device **25**.

Connect the GPS 2 connector to the GPS 2 board **26**.

PLANTER EQUIPMENT TOWER



STEP 8 CONTINUED INSTALL HARNESES



Connect the RCM connector **27** to the RCM box. Using a 1/4" nut driver, tighten the connection.

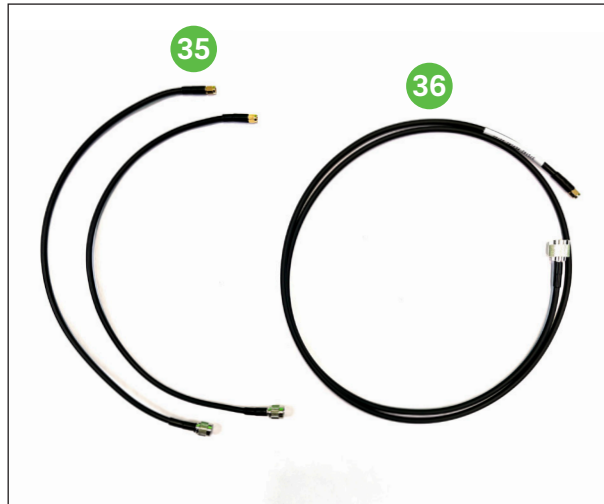
Connect the two-pin COMMS connector **28** to the LTE device.

Install the ethernet cable **33** from the LTE device to the RCM box.

NOTE: This is a keyed connection type so it will only fit one way. This connection can be very tight but needs to be threaded in completely.

Secure harness to tower using zip ties **34**.

STEP 9 INSTALL COAX CABLES

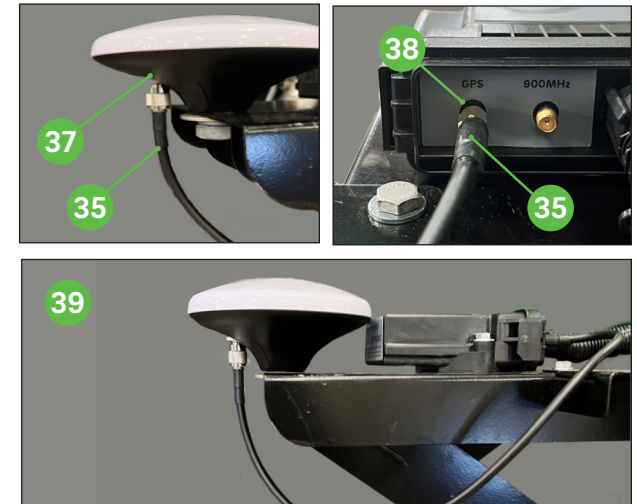


Three coax cables are provided (two short and one long).

35 The two shorter coax cables with smaller connectors (part #575185) will be used to connect each GPS receiver to the GPS port on the GPS box.

36 The longer coax cable with a larger connector (part number 575142) will connect the 900 MHz port on the GPS 1 box to the antenna.

STEP 9 CONTINUED INSTALL GPS COAX CABLES



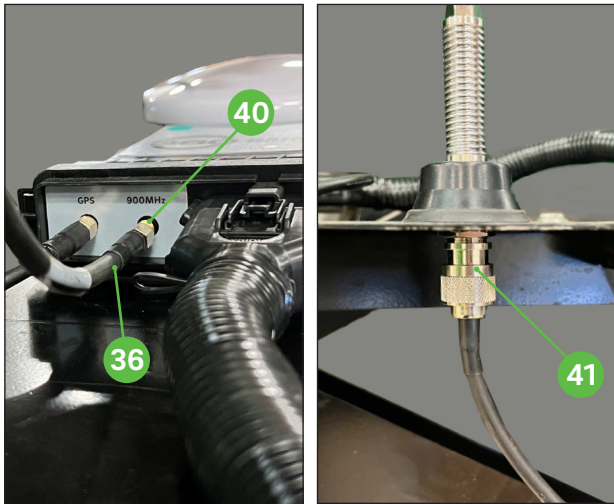
Connect one of the shorter coax cables with smaller connector (part #575185) **35** to the GPS 1 receiver **37**. Connect the other end of the cable to the GPS cable jack on the GPS 1 box **38**.

Repeat this for the GPS 2 at the other end of the tower **39**.

PLANTER EQUIPMENT TOWER



STEP 9 CONTINUED INSTALL 900 MHZ COAX CABLE

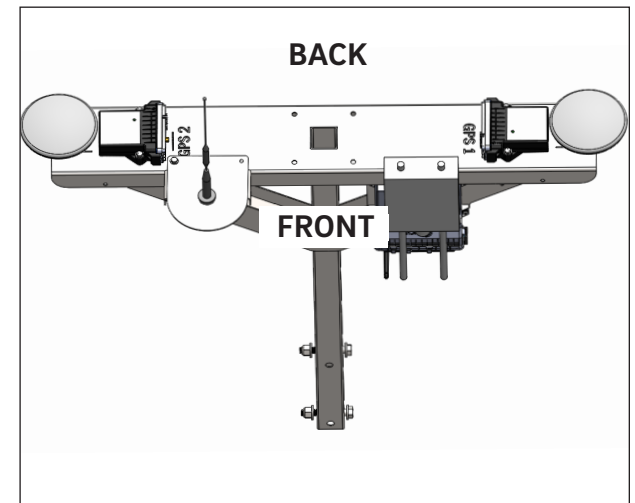
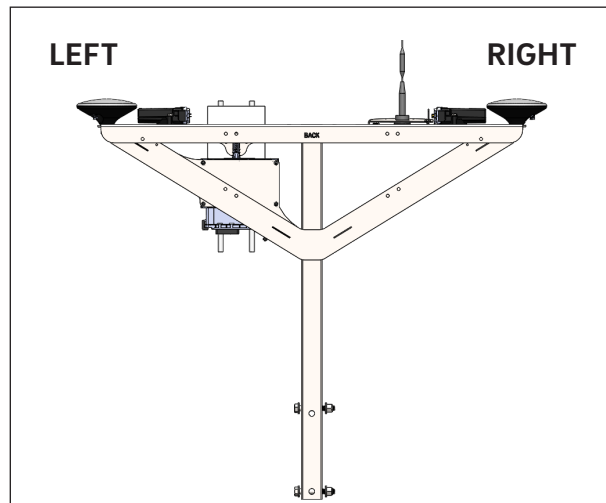


Connect the longer coax cable with the bigger connector (part #575142) **36** to the **GPS 1 box** at the 900 MHz post **40**.

Attach the other end of the cable to the bottom of the antenna **41**.

Coil and secure any extra cable to the tower.

TOWER ASSEMBLY COMPLETE



NOTE: The remaining steps to install the completed tower assembly on the planter are specific to your planter model. Ensure the correct mounting position is used for your specific planter type.

Instructions for mounting this completed tower assembly to the planter are specific to your planter model.



TOWER MOUNTING

JOHN DEERE PLANTERS



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PLANTER EQUIPMENT

JD CCS PLANTER INSTALLATION



STEP 1

PREPARE PLANTER BAR



NOTE: The planter tower must be mounted on the center section of the planter.

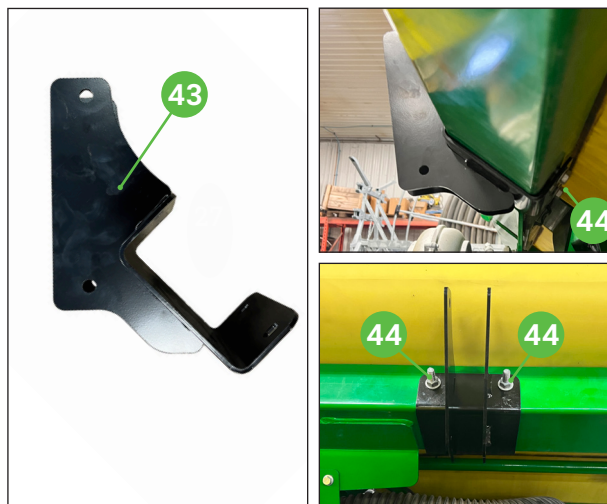
NOTE: Any object within three feet of the tower when mounted needs to be at height that is below the GPS receivers as both receivers need a clear and unobstructed view of the sky.

The following steps illustrated the installation process on a John Deere CCS model planter. Other planter models may vary.

Remove the two plugs (42) on the JD CCS planter bar.

STEP 2

INSTALL TOWER MOUNT



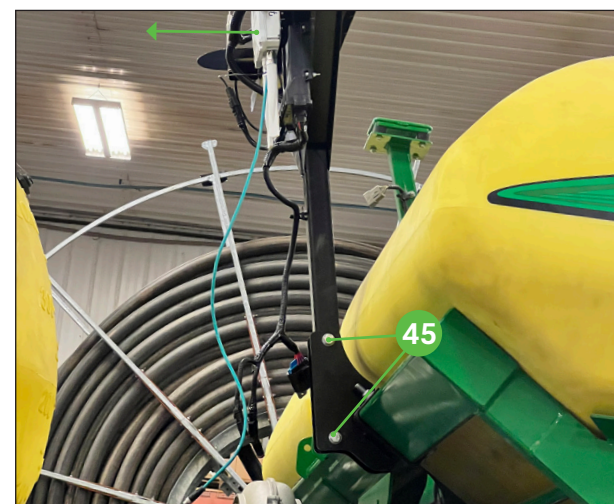
Install the provided tower mounting bracket (43) (specific to John Deere CCS) using two long 1/2" bolts (44).

NOTE: For ease of installation, insert the bolts from the back side.

Be sure the bracket is completely tight with no room for movement.

STEP 3

INSTALL TOWER TO MOUNT



Position the tower in the mount on the planter ensuring the RCM and LTE device are facing forward (toward the tractor). The back side of the planter is labeled "BACK" to ensure proper orientation of the tower when mounting.

Secure the tower to the mount using provided 1/2" bolts (45) and tighten completely. When properly secured the tower should not shake, even when pushed.

With the tower secured to the planter, connect the provided power harness to the PWR connector on the main harness.

NOTE: Multiple adapter harnesses are provided that the grower should use to run power to the command post on their tractor.

PLANTER EQUIPMENT

JD CCS PLANTER INSTALLATION



STEP 4

INSTALL LIFT SWITCHES



NOTE: Due to Precision Planting software, we cannot "Y" into existing Precision Planting lift switches. Please install lift switches provided by 360 Yield Center.

The kits come with two sets of lift switch brackets. Utilize the brackets that best fit the length of the parallel arms on your row units.

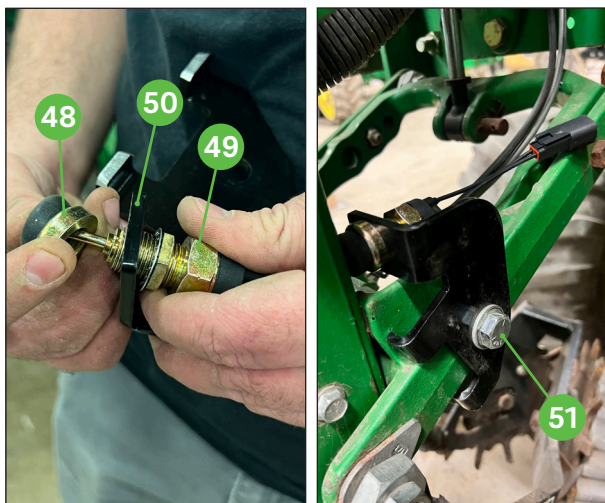
46 Use this bracket Long Parallel Linkage Bar Planter Setups.

47 Use this bracket Short Parallel Linkage Bar Planter Setups.

The pictures in the remaining steps illustrate the installation process using the Short Parallel Linkage Bar Planter Setup but the installation process is the same for Long Parallel Linkage Bar Planter Setups.

STEP 4 CONTINUED

INSTALL LIFT SWITCHES



Remove the threaded sensor cover **48** from the lift switch sensor **49** but leave the jam nut and serrated washer on.

Install the sensor through the hole in the chosen lift switch bracket **50**.

Secure to the bracket by replacing the previously removed threaded sensor cover **48**.

On any two row units on the center section, install the lift switch sensor assemblies to the parallel arms using the provided 3/8" x 2" Bolt **51**.

STEP 4 CONTINUED

INSTALL LIFT SWITCHES



Connect a lift switch harness **52** to each of the lift switch sensors at the row unit.

Route the harness to the planter tower and connect the left mounted lift switch to the LIFT 1 **30** and the right mounted lift switch to LIFT 2 **31** pins on the main harness.

PLANTER EQUIPMENT

JD OR 7x7 PLANTER INSTALLATION - OPTION 1



BEFORE YOU BEGIN

PREPARE PLANTER BAR



NOTE: The planter tower must be mounted on the center section of the planter ⁵².

NOTE: Any object within three feet of the tower when mounted needs to be at height that is below the GPS receivers as both receivers need a clear and unobstructed view of the sky.

The following steps illustrate the installation process on a John Deere or 7X7 style planter. There are two installation options. Choose whichever fits your planter bar best.

Other planter models may vary.

STEP 1 - OPTION 1

INSTALL TOWER MOUNT



Place the provided tower mounting bracket ⁵³ (specific to John Deere or 7x7 style planters) on the 7x7 bar ⁵⁴.

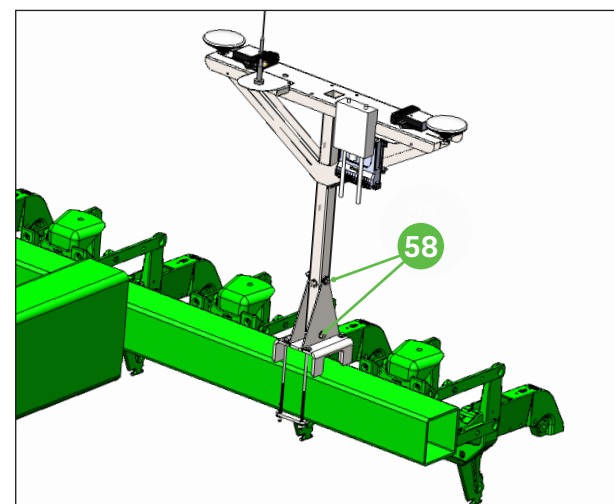
NOTE: There is a cutout in the bracket so that harnesses or hoses can run underneath.

Insert the four long 3/8" bolts through the top of the mounting bracket ⁵⁵. Install the bottom plate ⁵⁶ on the bolts under the 7x7 bar. Secure with washers and nuts ⁵⁷ and tighten.



STEP 2 - OPTION 1

INSTALL TOWER TO MOUNT



Position the tower in the mount on the planter ensuring the RCM and LTE device are facing forward (toward the tractor).

Secure the tower to the mount using provided 1/2" bolts ⁵⁸ and tighten completely. When properly secured the tower should not shake, even when pushed.

With the tower secured to the planter, connect the provided power harness to the PWR connector on the main harness.

NOTE: The provided power harness has bare wire leads for different installation options for various power sources. It will be up to the grower to connect these with their own wire and butt splices.

PLANTER EQUIPMENT

JD OR 7x7 PLANTER INSTALLATION - OPTION 2



BEFORE YOU BEGIN

PREPARE PLANTER BAR



NOTE: The planter tower must be mounted on the center section of the planter **52**.

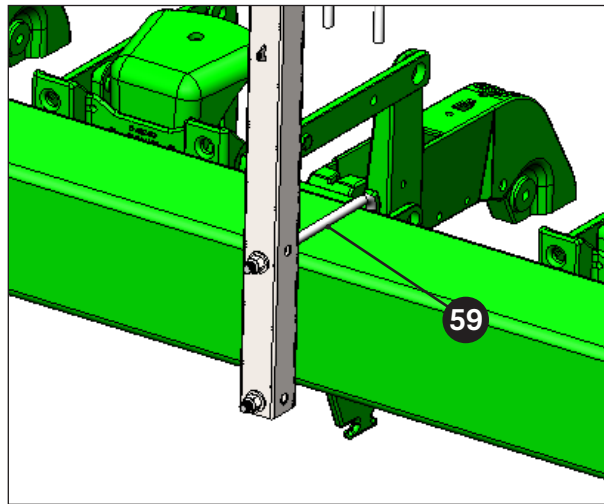
NOTE: Any object within three feet of the tower when mounted needs to be at height that is below the GPS receivers as both receivers need a clear and unobstructed view of the sky.

The following steps illustrate the installation process on a John Deere or 7X7 style planter. There are two installation options. Choose whichever fits your planter bar best.

Other planter models may vary.

STEP 1 - OPTION 2

INSTALL TOWER

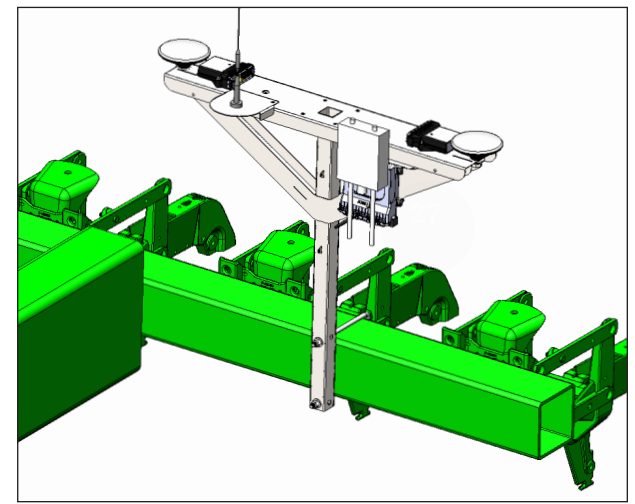


Place the provided U-bolt **59** around the back side of the 7x7 bar.

Slide the completed tower assembly onto the u-bolt and secure with provided hardware.

STEP 2 - OPTION 2

COMPLETE HARNESSING



With the tower secured to the planter, connect the provided power harness to the PWR connector on the main harness.

NOTE: The provided power harness has bare wire leads for different installation options for various power sources. It will be up to the grower to connect these with their own wire and butt splices.

PLANTER EQUIPMENT

JD OR 7x7 PLANTER INSTALLATION



STEP 3

INSTALL LIFT SWITCHES



NOTE: Due to Precision Planting software, we cannot "Y" into existing Precision Planting lift switches. Please install lift switches provided by 360 Yield Center.

The kits come with two sets lift switch brackets. Utilize the brackets that best fit the length of the parallel arms on your row units.

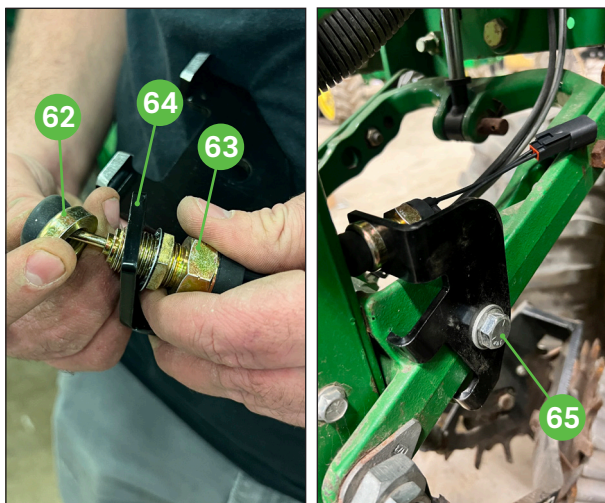
60 Use this bracket with Long Parallel Linkage Bar Planter Setups.

61 Use this bracket with Short Parallel Linkage Bar Planter Setups.

The pictures in the remaining steps illustrate the installation process using the Short Parallel Linkage Bar Planter Setup but the installation process is the same for Long Parallel Linkage Bar Planter Setups.

STEP 3 CONTINUED

INSTALL LIFT SWITCHES



Remove the threaded sensor cover **62** from the lift switch sensor **63** but leave the jam nut and serrated washer on.

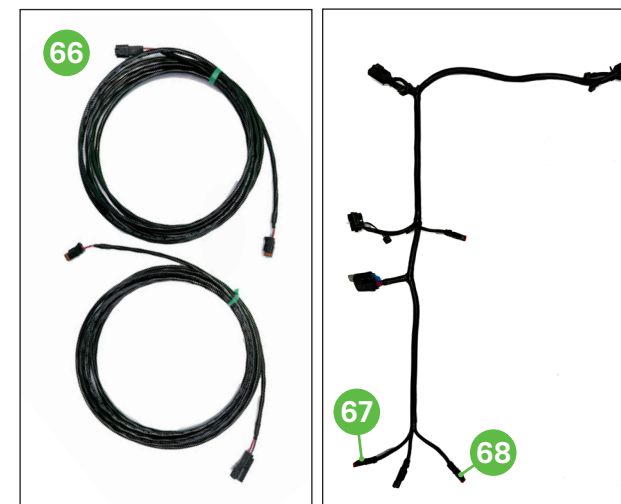
Install the sensor through the hole in the chosen lift switch bracket **64**.

Secure to the bracket by replacing the previously removed threaded sensor cover **63**.

On any two row units on the center section, install the lift switch sensor assemblies to the parallel arms using the provided 3/8" x 2" Bolt **65**.

STEP 3 CONTINUED

INSTALL LIFT SWITCHES



Connect a lift switch harness **66** to each of the lift switch sensors at the row unit.

Route the harness to the planter tower and connect the left mounted lift switch to the LIFT 1 **67** and the right mounted lift switch to LIFT 2 **68** pins on the main harness.