# 360 GUIDE™

## INSTALLATION INSTRUCTIONS
## ALL JOHN DEERE MODELS

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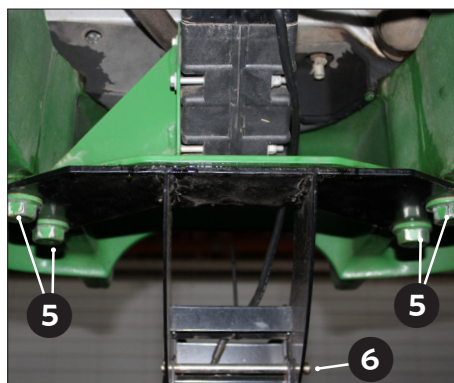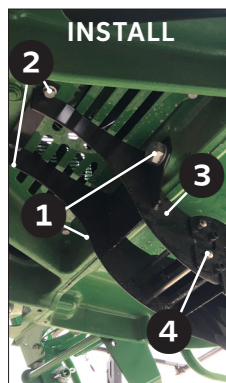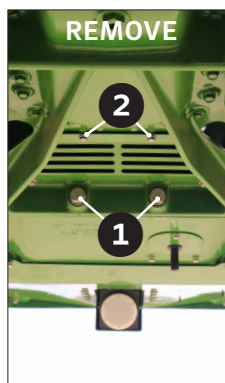PRODUCT SUPPORT TEAM AT 309-300-3120**

5.10.19 • V12

# INSTALLATION INSTRUCTIONS
## ALL JOHN DEERE MODELS

## STEP 1 | INSTALL MATING BRACKET

**NOTE: Step one is specific to your sprayer model. All other steps are the same no matter the sprayer model unless otherwise noted.**



### JD R SERIES

On the underside of the nose of the sprayer, use a 30mm socket to remove the two front bolts ❶ and a 13mm socket to remove the two rear bolts ❷. **All four bolts will be reused - do not discard.**

Place front bolts through the holes in the mating bracket and hand thread in place on the sprayer ❶. Hand thread the rear bolts through the mating bracket and into the machine ❷. Tighten the rear bolts first followed by the front bolts.

Install the drop extension ❸ over the (2) 1/2" tubes on the mating bracket. Secure using the two 2/8" pins and hairpin clips ❹.

**NOTE: With tight tolerances and powder coating between the mating bracket and the drop extension, a rubber mallet may be needed to tap the pieces together.**

### JD 4720 • JD 4730 • JD 4830

On the underside of the nose of the sprayer, using a 30mm socket, remove the four bolts ❺. **All four bolts will be reused - do not discard.**

Attach the mount bracket to the sprayer frame using the four bolts previously removed and tighten all bolts ❺.

Install the drop extension over the two 1/2" tubes on the mating bracket. Secure using the two 2/8" pins and hairpin clips ❻.

**NOTE: With tight tolerances and powder coating between the mating bracket and the drop extension, a rubber mallet may be needed to tap the pieces together.**
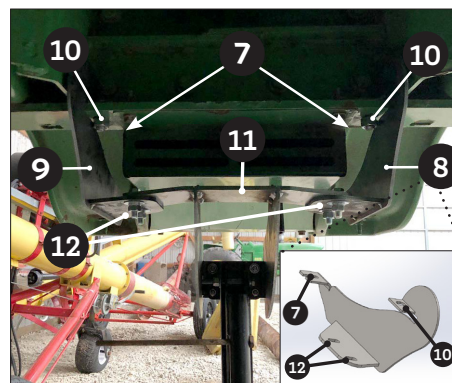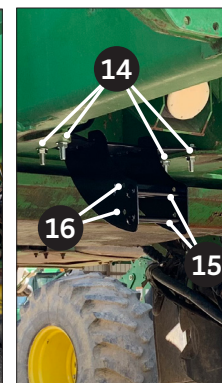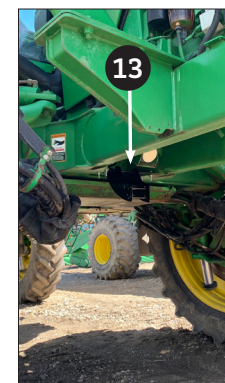
### JD 4930

On the underside of the nose of the sprayer, remove the two OEM bolts ❼. **Both bolts will be reused - do not discard.**

Install the right ❽ and left ❾ vertical pieces of the mount bracket by hooking it over the frame of the sprayer. Secure each mounting bracket with the OEM bolts previously removed ❼ and the 5/8" bolts ❿. Tighten using 15/16" wrench.

Connect the right and left vertical pieces of the mounting bracket with the spanning bracket ⓫ using (4) 7/16" bolts ⓬.

Secure bolts with washers and nuts using 5/8" wrench and 11/16" socket.

### JD 4940

On the underside of the nose of the sprayer ⓭, using a 30mm socket, remove the four bolts.

Attach the mount bracket to the sprayer frame by inserting (4) bolts from the top through the mount bracket and the holes on the sprayer ⓮.

Secure bolts with washers and nuts using 5/8" wrench and 11/16" socket.

Install the drop extension over the two 1/2" tubes ⓯ on the mating bracket. Secure using the two 2/8" pins and hairpin clips ⓰.

**NOTE: With tight tolerances and powder coating between the mating bracket and the drop extension, a rubber mallet may be needed to tap the pieces together.**
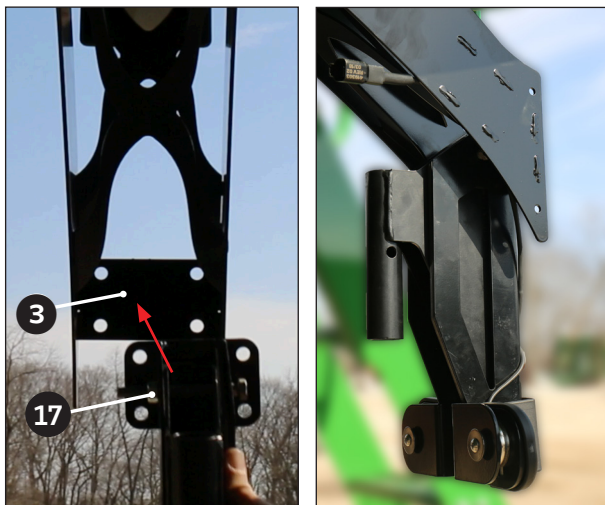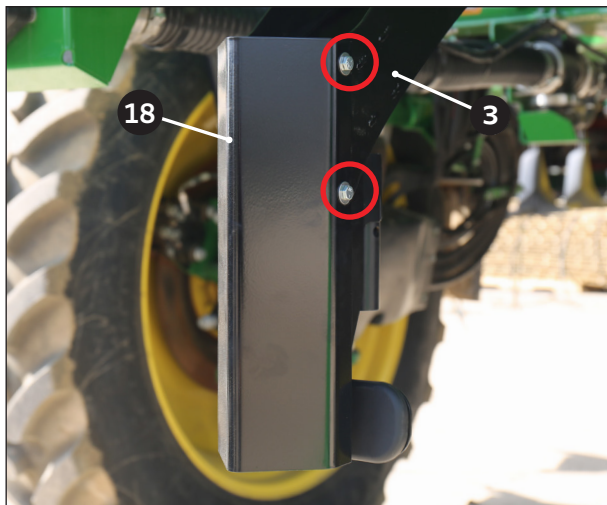
## STEP 2
### MOUNT BREAKAWAY



Mount steering breakaway **17** to the backside of the drop extension **3** using the 5/16" bolts, washers, and locknuts.

**NOTE: Orient the breakaway in such a way that the riser breaks away in a rearward motion rather than a forward motion.**
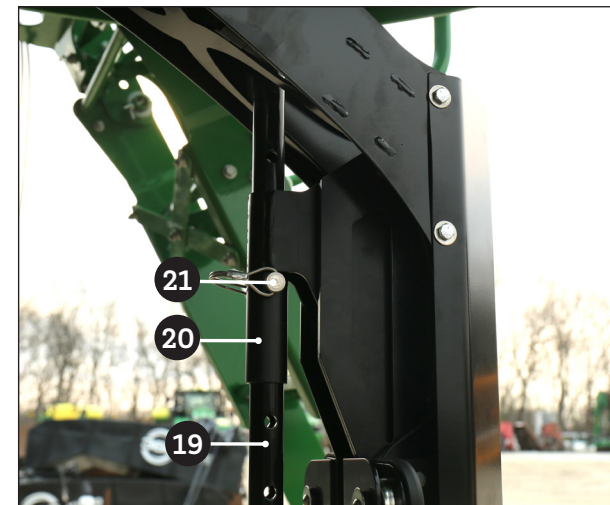
## STEP 3
### MOUNT SHIELD



Using the supplied 1/4" hardware mount the front shield **18** to the drop extension **3** at the hole above and below the breakaway on each side of the shield.

Tighten with 7/16" socket and wrench.

## STEP 4
### INSTALL RISER



Starting from the bottom, insert the riser **19** into the breakaway sleeve **20**. Ensure the end with the 2" adjustment holes goes toward the top of the machine.

**NOTE: In order to provide additional clearance when inserting the riser, it may be helpful to release the breakaway. Use caution when manually pulling apart the breakaway as the magnets are extremely strong.**

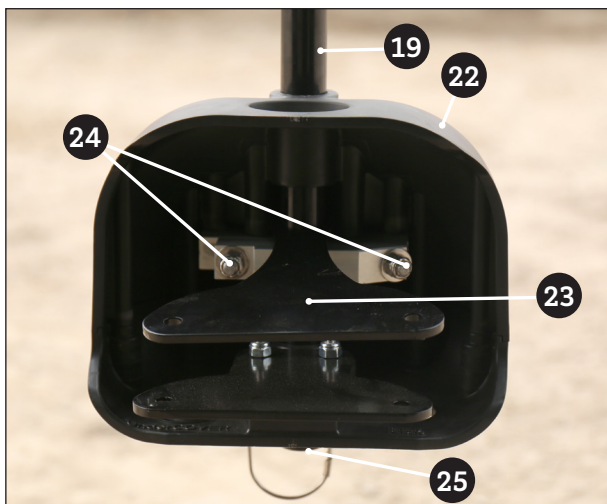Secure at the desired height using the supplied 3/8" pin with wire lock **21**.

## STEP 5
### INSTALL SENSOR GUARD



**NOTE: A 360 UNDERCOVER snout is used as a sensor guard.**

Begin to slide the sensor guard 22 onto the riser 19 starting from the bottom.

Before the riser goes into the aluminum clamp in the sensor guard, slide the upper sensor bracket 23 on the riser.
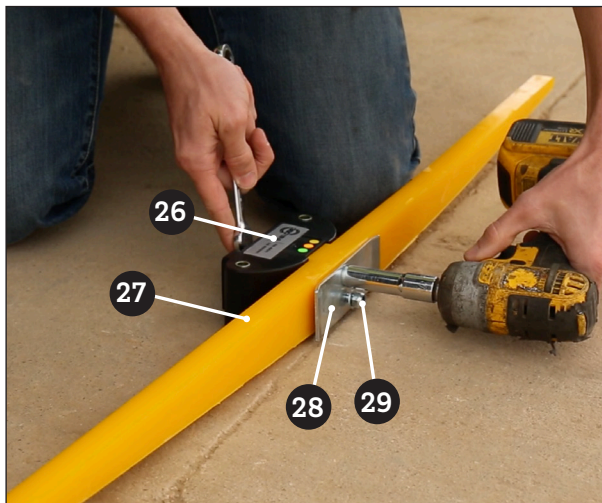
Continue to slide the sensor guard and the upper sensor bracket up the riser until you get at least one inch of the riser protruding from beneath the sensor guard.

Ensure the sensor guard is pointing straight forward and tighten the aluminum clamp bolts 24 using a 1/2" socket.

Insert and secure the clip 25 at the bottom of the riser.

## STEP 6
### ASSEMBLE STEERING SENSOR



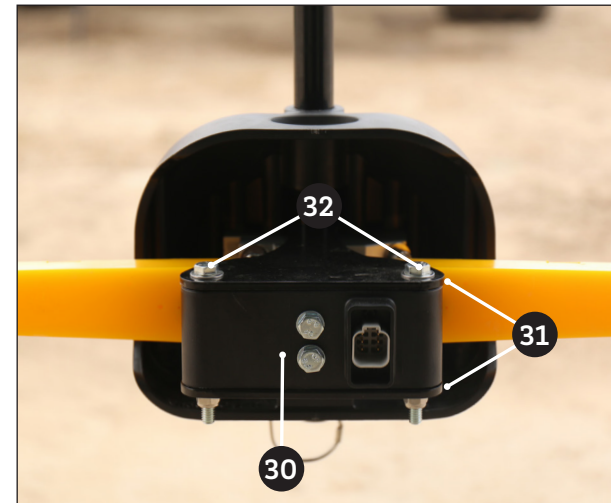Using a 1/2" socket and wrench remove the hardware and plate on the steering sensor 26.

Slide the tactile wand 27 onto the spindles of the steering sensor ensuring that the "V" of the tactile wand is oriented to the bottom of the sensor. The rectangular offset of the tactile wand should be facing the steering senor.

**NOTE: The top of the steering sensor is the side with product labels.**

Reinstall the plate 28 and hardware 29 to secure the tactile wand to the steering sensor.

## STEP 7
### INSTALL SENSOR ASSEMBLY



Place the wand/sensor assembly 30 in between the upper and lower sensor brackets 31 attached to the sensor guard assembly so that the top of the sensor is facing up and the wand is facing the front of the sensor guard assembly.

Using the supplied 5/16" bolts, washers and lock nuts 32 bolt the upper and lower sensor brackets together, sliding the bolts through the holes in the rear of the sensor assembly.
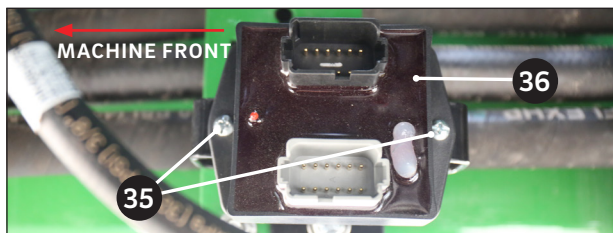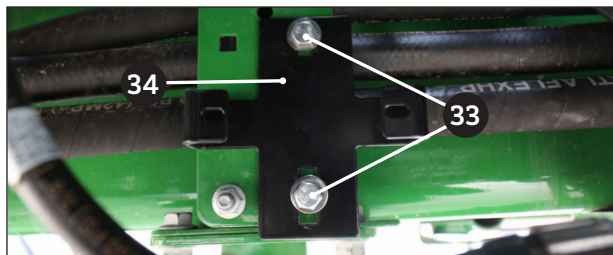
Tighten with 1/2" socket and wrench.

## STEP 8
### INSTALL CONTROLLER



Using the supplied 5/16" X 1" hardware **33**, mount the combo board bracket **34** to the existing hydraulic hose bracket towards the rear of the cab under the belly of the machine.
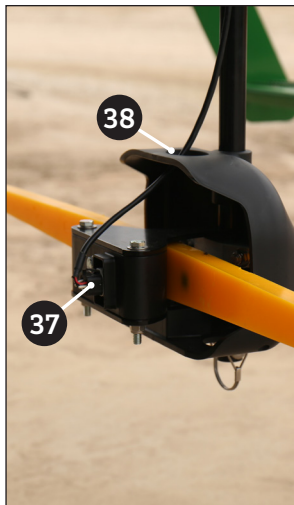
Tighten with 1/2" socket and wrench.

Orient the combo board with the red LED indicator to the front of the machine and the grey connector on the bottom.

Using the screws in hardware kit 490290 **35** secure the combo board **36** to the combo board bracket using a 10 mm wrench and a phillips screw driver.

## STEP 9
### INSTALL DETACH EXTENSION HARNESS (490291)



Feed the 6 pin plugend of the harness **37** through the hole **38** in the top of the sensor guard assembly and plug it in to the rear of the tactile sensor.

Using zip ties, securely attach the harness to the riser, moving up toward the breakaway.
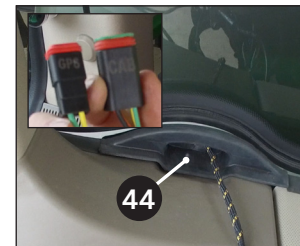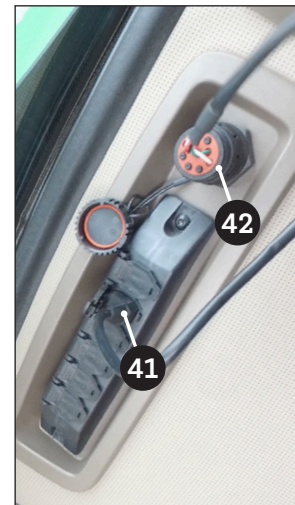
**NOTE: Be sure to leave enough slack in the harness to allow you to adjust the riser height if needed.**

Route the harness through the inside of the front shield and through the X braces **39** in the drop extension. Attach in at least one place with a zip tie.

Plug 2 pin connector to existing breakaway harness **40**. Coil remaining cable within the x braces of the drop extension.

## STEP 10
### INSTALL JD POWER HARNESS (490228)



In the cab of the sprayer, attach the auxiliary power connector into the cab auxiliary power bank **41**.

Attach the large 9 pin circular connector to the OEM diagnostic port **42**.

**NOTE: The Gateway has labels for "A" and "B" ports. The "A" port will use the gray 12 pin connector and the "B" port will use the black.**

Connect the harness to the Gateway with the two 12 pin connectors **43** and place in any position next to the seat.

Using the rubber through-port below the rear window **44** run 4 pin and 2 pin connectors (labeled GPS and CAB) outside the cab.
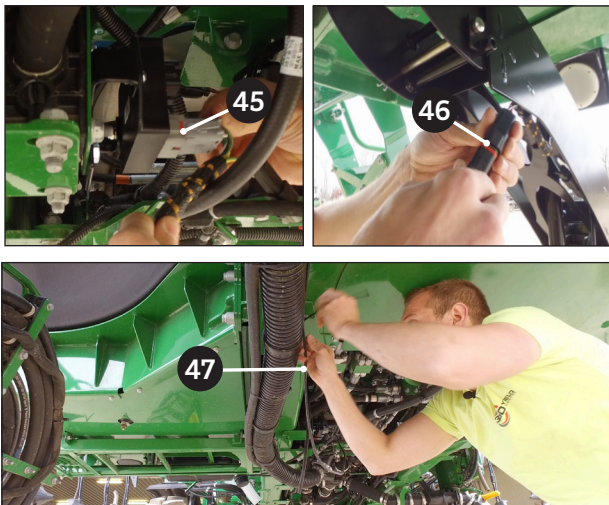
## STEP 11
### INSTALL EXTENSION HARNESS (490229)



Connect the gray 12 pin connector on the harness to the gray port on the combo board **45**. Use the extra black plug to fill the black port on the combo board.

Run the 4' short lead with the 4 pin receptacle connector up between the cab and the tank.

Route the 140" extension harness towards the sensor. Start at the front of the machine and plug in the 6 pin plug connector to the 6 pin receptacle connector from the detach extension harness **46**. Work your way along the belly of the machine securing the harness with zip ties at multiple spots along the way **47**.
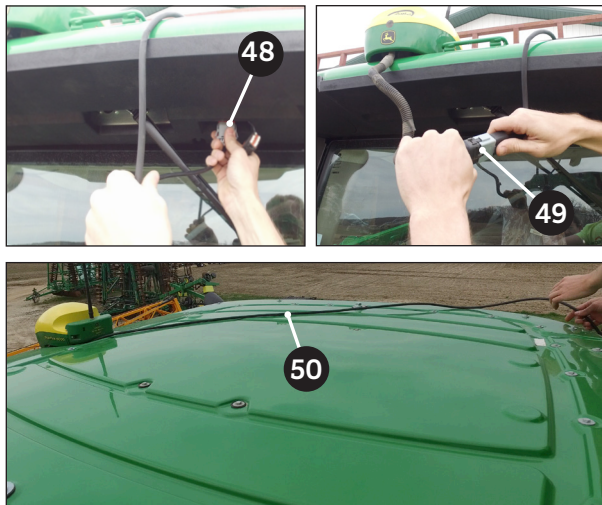
**BEFORE THE NEXT STEP...**

If already installed, remove the globe and disconnect it from the cab connection.

John Deere 4930 models will need the extra harness extension (490400) to reach the sensor and bracket.

## STEP 12
### INSTALL GPS HARNESS (490230)



Plug in the 12 pin plugconnector into the GPS port embedded into the front of the cab, just below the GPS globe and bracket **48**. Secure the harness on the back of the GPS StarFire mount with a ziptie, keepin g it on the outside and bottom.
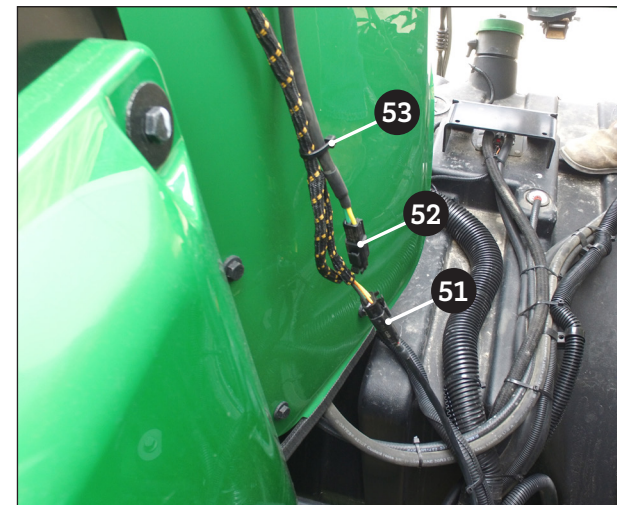
Reinstall the Globe and plug in the 12 pin receptacle connector in the 12 pin plug connector on the short OEM StarFire harness off the globe **49**. Secure the harness out of the way.

Run the harness over the cab to the rear **50**, and then down along the right rear pillar of the cab. Secure with zipties.

The 2 pin receptacle connector will attach to the 2 pin plug connector on the JD steering tractor power harness (490228)  in a later step.

## STEP 13
### CONNECT HARNESSES



Behind the cab, attach the four pin connection from the power harness **51** to the four pin connector on the sensor harness **52** and then the two pin connector from the GPS harness to the power harness.

Once connected, zip tie them together **53**.

### INSTALLATION COMPLETE

Once the 360 GLIDE system has been installed connect to it via wifi on your iPad using the 360 GUIDE App.
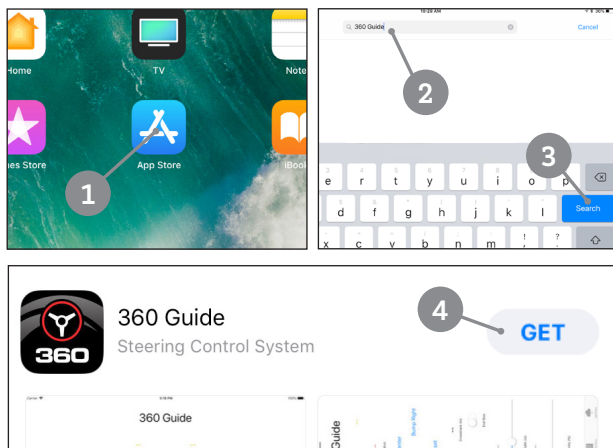
See pages 7-11 for instructions on setting up your 360 GUIDE App.

# 360 GUIDE APP
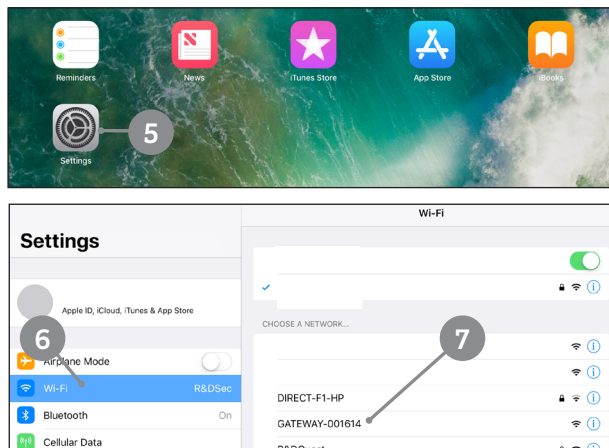## SET-UP AND USE

## STEP 1
### DOWNLOAD APP



Select the App Store icon **①**.

In the search section enter "360 Guide" **②** and then choose "Search" **③**.

Select "Get" **④** to install the 360 Guide App on your iPad.
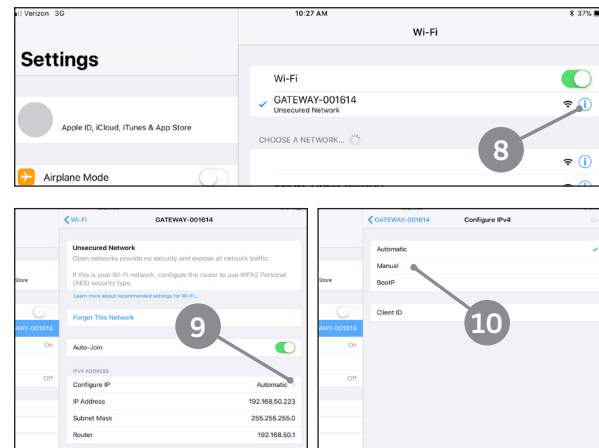
## STEP 2
### SETUP WIFI



**NOTE: Ensure the gateway control box is plugged in and powered on, indicated by the green LED.**

Select the settings icon **⑤**.

In the left side of the Settings window, select the tab that reads "Wi-Fi" **⑥**.

In the "Choose a Network" section, select "GATEWAY-OOXXXXX" **⑦**.

## STEP 3
### OPEN NETWORK SETTINGS



Once the GATEWAY-OOXXXXX network is active, press the information icon **⑧** to the right of the network name to open the GATEWAY-OOXXXXX settings page.

In the IPV4 Address section on the Configure IP line, select the small arrow **⑨** next to "Automatic".

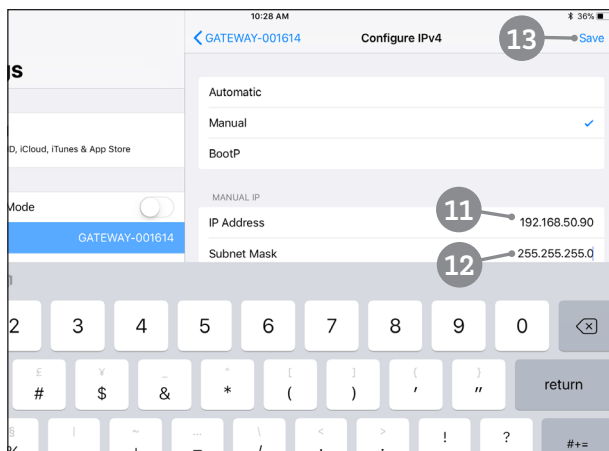In the Configure IPv4 window, automatic is checked by defalt. Change the setting by selecting "Manual" **⑩**.

## STEP 4
### CONFIGURE NETWORK



Once the "Manual" option is checked, a "Manual IP" section will appear in the window.

Enter the following information in the IP Address **11** and Subnet Masks **12** lines respectively:

IP Address: **192.168.50.90**
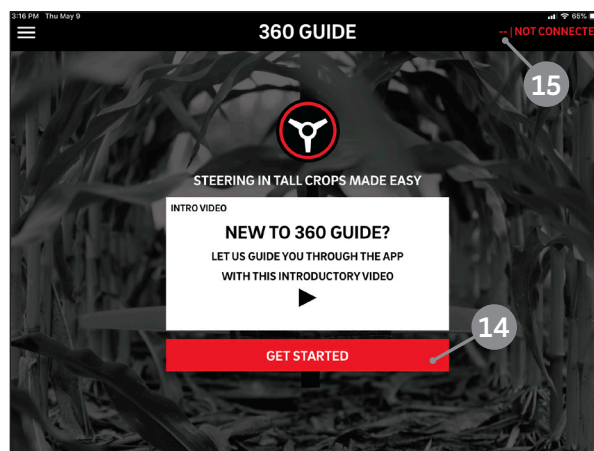Subnet Mask: **255.255.255.0**
**NOTE: Leave "Router" empty.**

Select "Save" **13** in the top right corner.

**NOTE: The iPad is now connected to your cellular data network (if applicable) AND the GATEWAY WiFi network. When an app update is performed, reconnect to the GATEWAY network by selecting the GATEWAY network option under "Choose a network".**

With the entire system installed, WiFi configured, and the app dowloaded you can now power on the steering system.

## STEP 5
### OPEN 360 GUIDE APP



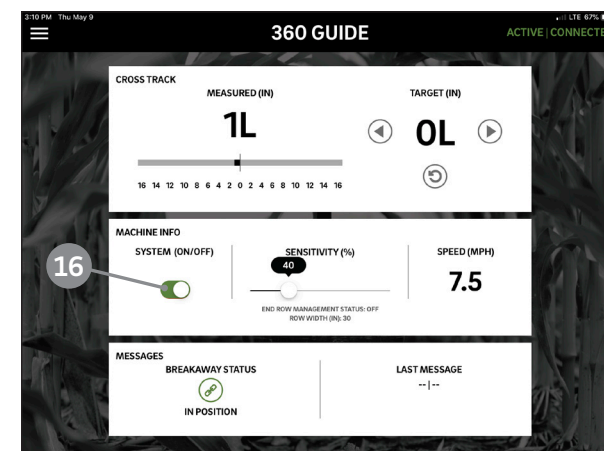Ensure the gateway control box is showing a green light and that the iPad is connected to the gateway Wi-Fi network.

Open the 360 GUIDE App.

When opening the app for the first time a welcome screen will be displayed. Choose "Get Started" **14** to enter the app.

The top right corner of the app will show "--" **15** until the system is tured on - This indicates that the GPS is not currently correcting based on the 360 GUIDE system.

## STEP 6
### ACTIVATE 360 GUIDE



Let's review some of the basic app functions.

The main page that is displayed is the OPERATIONS page.

Turn the "SYSTEM" toggle **16** on to activate the 360 GUIDE system. The toggle will illuminate green when on.

With the System toggle on, the 360 GUIDE system is manually engaged and will begin applying a correction to the GPS data until the toggle is switched off.

**NOTE: With ONLY the System toggle on, the system will correct whether or not it is sensing a corn row. For additional intelligence, continue to STEP 7.**

**NOTE: If neither side of the sensor is in contact with the corn rows, measured crosstrack will show "SENSORS NOT CONTACTING"**
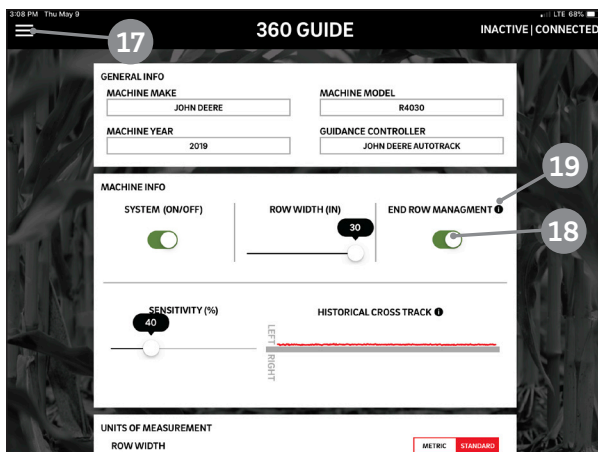
# 360 GUIDE APP
## SET-UP AND USE

## STEP 7
### END ROW MANAGEMENT

The additional intelligence mentioned in the previous step is called "End Row Management". To activate End Row Management, navigate to the SETTINGS page using the Menu **17**.
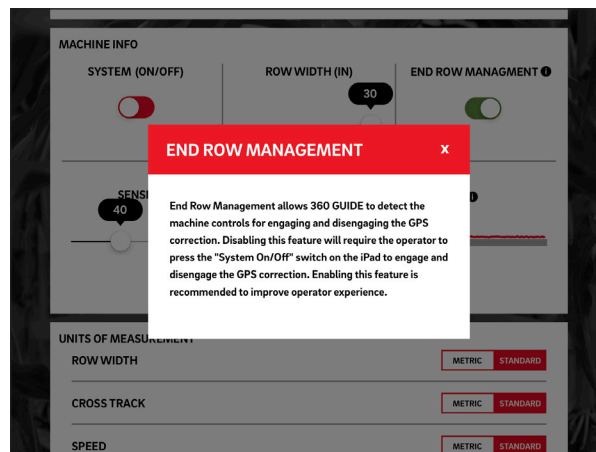
**NOTE: To use this feature the "System" toggle must be left in the "on" position.**

Turn the "END ROW MANAGEMENT" toggle **18** on to active the End Row Management feature of the 360 GUIDE system. The toggle will illuminate green when on.

With the END ROW MANAGEMENT toggle on, the 360 GUIDE system will only engage when the sensors indicate incoming data. It will also sense when the steering wheel is moving and will recognize when the OEM auto-steer is on.
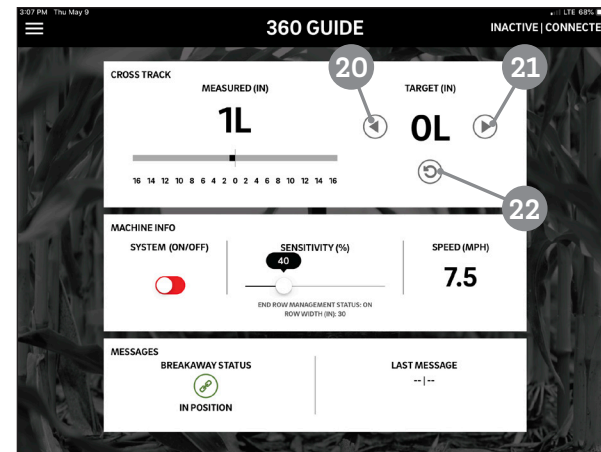
## STEP 7 CONTINUED...
### END ROW MANAGMENT

The system requires an inactive steering wheel and listens for **two presses** of the OEM auto-steer engagment button before it will engage 360 GUIDE steering. The 360 GUIDE system will automatically disengage when the steering wheel has been moved or if the sensors are not indicating incoming data.

This will allow you to use your OEM auto-steer to find the row and then with a second click of the auto-steer engagment button activates 360 GUIDE correction.

An overview description of the End Row Management function can be found in the app by tapping on the "i" icon **19** next to "END ROW MANAGEMENT".

## STEP 8
### OFFSET UTILIZATION

Navigate back to the OPERATIONS page using the menu.

To offset to the left or right, utilize the left arrow **20** and right arrow **21** buttons in the "TARGET" section.

Every left or right bump will move the target by 1 inch. Bumping left will be indicated by "L" and bumping right will be indicated with "R".
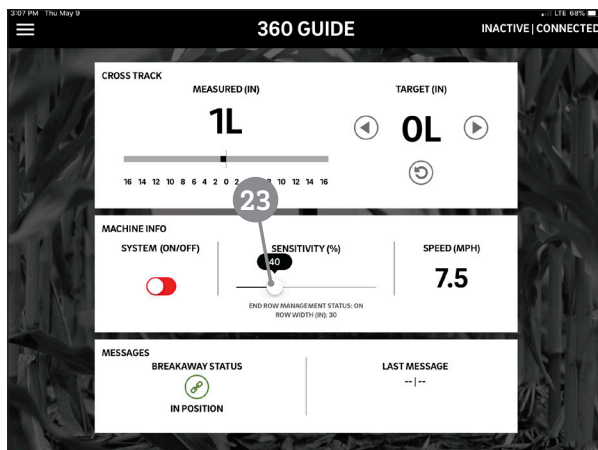
Press the "Reset" button **22** to reset to a target of zero.
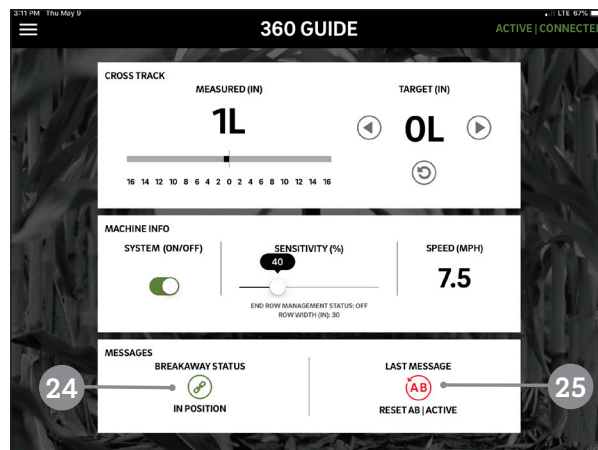
# 360 GUIDE APP
## SET-UP AND USE

## STEP 9
### SENSITIVITY



Also on the OPERATION page is the sensitivity adjustment and system alerts (which will be covered in the next step).

The "SENSITIVITY" slider **23** can be adjusted between values of 20% and 100%. It is recommended to set the OEM sensitivity between 75 and 85. Then adjust the sensitivity slider in the 360 GUIDE app based off of your steering performance and preference. The "SENSITIVITY" slider can be found on the "OPERATIONS" screen.

## STEP 10
### SYSTEM ALERTS



If the steering sensor has been pushed back enough to disconnect the magnet connection at the breakaway there will be an alert in the "BREAKAWAY STATUS" **24** section of the operation page . When the breakaway re-engages, the alert will go away.
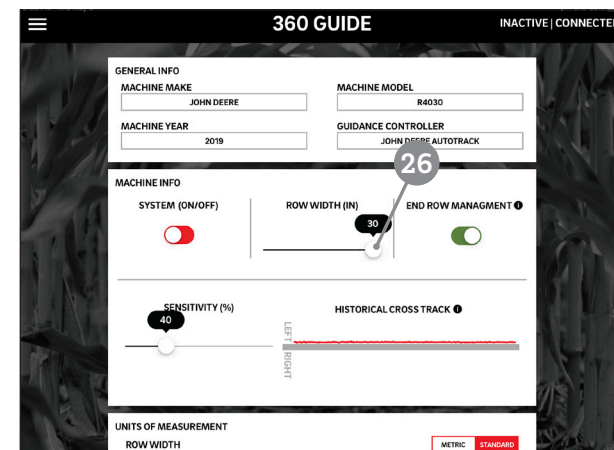
"LAST MESSAGE" **25** section:

**Reset A-B Line:** the system feels that it is working too hard to keep the sensor in the center of the row. If the system is correcting more than 15", it is recommended to reset your GPS line.

**No Sensor Data:** the system has lost the stream of incoming cross track data.

**No GPS Data:** the system is no longer receiving incoming GPS data.

The message will show "Active" if the error is current or will show a time if the error was in the last two minutes. After two minutes the error will clear itself.

## STEP 11
### ROW WIDTH



Navigate to the SETTINGS page to adjust the Row Width setting.

The "ROW WIDTH" slider **26** should be set to match the row width to your specific crop spacing. The slider ranges from 20-30 inches. The "ROW WIDTH" slider is accessed on the "SETTINGS" screen.
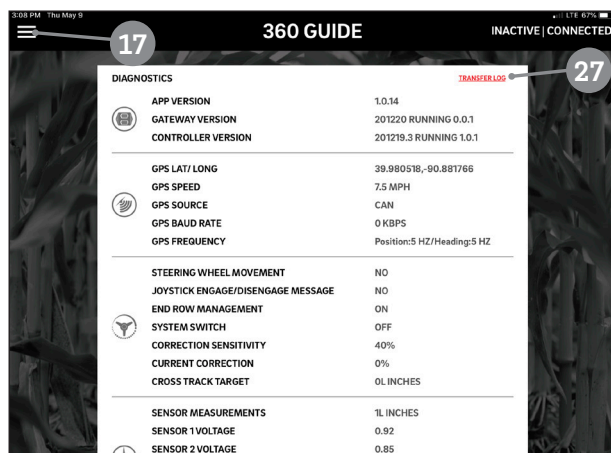
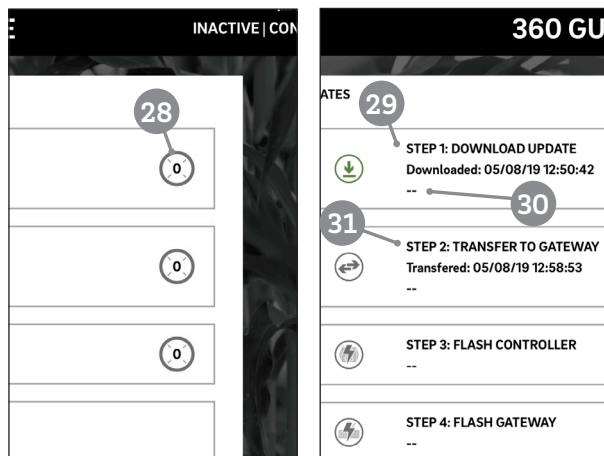# 360 GUIDE APP
## SET-UP AND USE

## STEP 11
### DIAGNOSTICS



To view Diagnostics of the system select DIAGNOSTICS from the *Menu* ⓘ⑰.

If needed, the "TRANSFER LOG" link ㉗ can be used to send diagnostic information about the system back to 360 Yield Center for further system diagnosis.

## STEP 12
### UPDATING THE CONTROLLER SOFTWARE



**NOTE: Updates can be downloaded while in the field provided there is a strong LTE and GATEWAY WiFi connection.**
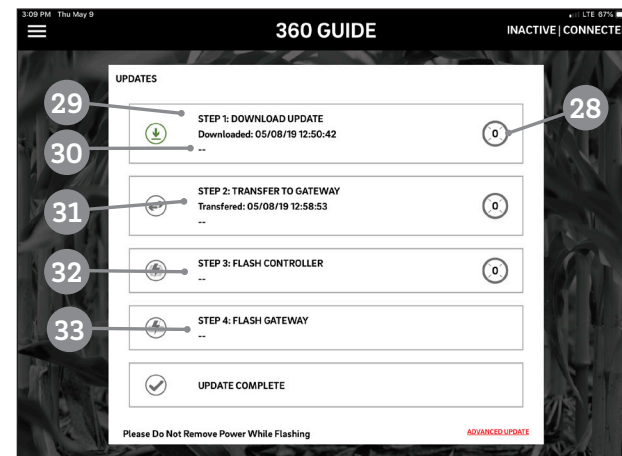
Touch the menu button in the top left corn of the screen then select the UPDATES to open the "Updates" screen.

**NOTE: Do not remove power during the update process.**

The percent complete status ㉘ of each download step will be indicated to the right of each step.

Touch "STEP 1: DOWNLOAD UPDATE" ㉙ on the top of the screen to start the download.  When complete step 1 will show a status of "Download succeeded" ㉚.

When the download is complete, touch "STEP 2: TRANSFER TO GATEWAY" ㉛. When complete step 2 will show a status of "Transfer succeeded".



When the transfer is complete touch "STEP 3: FLASH CONTROLLER" ㉜. When complete step 3 will show a status of "Controller flashed".

When the controller has been flashed, touch "STEP 4: FLASH GATEWAY" ㉝. This process may take several minutes. When complete the gateway will need to reboot which may also take several minutes. The gateway will be ready to function when the indicator LED on the gateway control box has turned green.

**Ensure you are connected to the GATEWAY WiFi network. If the network is not connected, select the GATEWAY network option under "Choose a network".**

**360 GUIDE APP SETUP & OVERVIEW COMPLETE**