

....



# 360 GLIDE<sup>™</sup>

## INSTALLATION INSTRUCTIONS ALL BOOMTRAC PRO SYSTEMS

## 360YIELDCENTER.COM

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

5.3.19 • V8

All trademarks are the property of 360 Yield Center, its affiliates and/or its licensors. ©2019 360 Yield Center. All rights reserved.

#### STEP 1 UNPLUG OEM SENSORS



Unplug the five OEM Sonic Boom Height Sensors <sup>1</sup>. The OEM Boom Height Sensors are located at the middle of the machine, each primary boom, and the each secondary boom.

#### NOTE: OEM sensor locations may vary by model.

Install the supplied (4) dust caps 201350 and (5) plugs 201351 to the OEM harness and OEM sensors.

NOTE: Do not cap the OEM harness at the center sensor. The 360 GLIDE harness will be install at this location in the next step.

#### **STEP 2** ROUTE MAIN HARNESS



Using the main harness (419311), connect the 4-pin receptacle connection 2 into the center OEM sensor harness 3 that was left uncapped in the previous step.

NOTE: The four-position connector labeled "expansion" on harness 419311 will be capped ③. It is an auxiliary harness that will not be used at this time.

Route the remained of the harness through the machine to the center 360 Y-DROP location **5**.

Secure the end of the harness at the center 360 Y-DROP location with zip ties. Secure the harness length along the boom with zip ties and secure any extra harness out of the way.

#### STEP 3 INSTALL COMBO BOARD



Plug the 12-pin plugs from the main harness into the combo board.

# NOTE: The connectors are keyed and color-coded so you can only plug them in one way.

With the connectors facing either forward, rearward or downward, secure the combo board to the boom in a safe location, avoiding pinch points.

NOTE: When securing the combo board, ensure that the connectors do not face the upward direction.

#### **STEP 4** ROUTE BOOM HARNESS



NOTE: The main extension harness has left, center and right specific connections. Ensure that each respective connection is routed to the correct side of the machine. Right and left are determined from the operators seat.

Route the two boom extension harnesses along the right and left primary booms respectively, ensuring that the connector ends up at the last drop location **2**.

Using zip ties, secure the harness (3) to the boom in safe locations, avoiding any pinch points.

NOTE: Leave enough slack in the harness to allow the boom to be folded for transport. Follow existing wiring harness to ensure that the boom extension harness is kept out of the pinch points.

#### STEP 5 INSTALL BREAKAWAY



NOTE: If previously installed, 360 Y-DROP breakaways at the drop locations at center of the center section and the end of each primary boom MUST be removed and replaced with the new three-magnet breakaway.

Using the supplied u-bolts and 5/16" hardware 2, install the three-magnet breakaways 10 at the drop location at end of each primary boom and the center of the center section.

Ensure that the breakaway is oriented in such a way that it breaks away in a rearward motion.

#### STEP 6 INSTALL RISER



Install the risers  $\textcircled{1}{2}$  at each 360 GLIDE drop location by sliding the riser into the riser tube  $\textcircled{2}{2}$  on the three-magnet breakaway.

Secure the risers into the riser tubes on the breakaways with pin and wire clip 13.

NOTE: If not previously installed, the 360 UNDERCOVER unit 19, 360 Y-DROP shield 19 and base unit 19 can now be installed onto the fixed riser.



#### STEP 7 INSTALL SPLINT





With the spacer blocks installed around the riser, slide the sleeve 20 over the spacer blocks. Insert bolts through the side that has square holes (carriage bolt holes) first. Secure with flange nuts 20 installed on the side with the circle holes. Tighten nuts.

# NOTE: The pointed end of the sleeve should be facing the direction of travel.

Install splint cable 29 by inserting a u-bolt 29 on each side of cable and connect through the top and bottom of each sleeve respectively. Secure with nyloc nuts and tighten until the cable has light tension but is not buckling the riser.

NOTE: You may need to slide the riser off the breakaway to tighten the top nyloc nuts.

#### **STEP 8** PREPARE BASE UNIT



Slide the boom height base mount assembly 29 on your 360 Y-DROP base 29 from the back. Center directly between the two arms of the Y-DROP.

Mark the two holes on both the top and bottom of the Y-DROP base unit.

At the marks just made, using a  $3/8^{\prime\prime}$  bit, drill through the top side of the Y-DROP base only.

When the top holes have been drilled, drill through the bottom side of the unit at the marks previously made.

#### **STEP 9** ASSEMBLE BASE UNIT



Insert 3/8" carriage bolts through the bottom of the base unit. Secure on top with washers and 3/8" nyloc nuts 20. Tighten with 9/16" socket.

Repeat steps 8 and 9 for other two 360 GLIDE drop locations.

360 GLIDE"

#### STEP 10 ROUTE DROP HARNESS

#### STEP 11 RE-INSTALL HOSES



Using the drop harness (419312), plug the 4-pin receptacle connector into the previously routed boom harness Plug the 2-pin plug connector into the 2-pin receptacle connector on the three-magnet breakaway 8.

Route the remainder of the harness 29 down the riser through the 360 UNDERCOVER unit to the Y-DROP base unit.

Plug the 3-pin connector <sup>30</sup> into the boom height sensor at the Y-DROP base unit. Zip tie harness to ladder clip on sensor bracket.

Secure harness to riser with zip ties leaving enough slack around the spring.

Repeat for the remaining two drop locations.



Reinstall the 360 Y-DROP hose, and if applicable, the 360 UNDERCOVER hose <sup>(1)</sup> by routing them from the OEM boom down through the 360 UNDERCOVER unit to the Y-DROP base unit.

Secure hoses at multiple locations against the riser  ${}^{32}$ .

Repeat for remaining two drop locations.



#### **MECHANICAL INSTALLATION COMPLETE**

You can now complete the installation process by setting up the in-cab monitor.

NOTE: The following pages contain separate monitor set up instructions for both a 2630 monitor as well as a 4600 monitor. Ensure to reference the steps for your specific monitor.

# MONITOR SETUP

JOHN DEERE R4030 WITH A 2630 MONITOR



#### STEP 1 BOOMTRAC PRO





NOTE: The following monitor setup instructions are for John Deere R4030 models with a 2630 monitor. For setup instructions for a John Deere R4030 with 4600 Monitor see pages 8-9.

On the home screen, click on tile A "R4030 Sprayer" **1** to navigate to the sprayer window.

Once the sprayer window has opened, click on the "BoomTrac Pro" button **2**.

#### STEP 2 UNUSED SENSORS





In the "Sprayer - BoomTrac Pro" window that opens, verify that the two outer sensors ③ are indicated as not reading.

#### NOTE: If a reading is being provided by either outer sensor of the secondary boom, the OEM sensor in that location needs unplugged.

Click on the L1 sensor icon 4 to open the "BoomTrac Pro-Sensor Setup Page" window.

In the "BoomTrac Pro - Sensor Setup Page" window, click on the L2 sensor icon <sup>(3)</sup>. Disable this sensor by un-checking the "Enabled" box.

Repeat for the R2 sensor 6.

#### STEP 3 360 GLIDE SENSORS





In the "BoomTrac Pro - Sensor Setup Page" window, click on the L1 sensor icon 7. Ensure the sensor is marked as "Enabled" 8.

Select the appropriate serial number **9** for the location:

Sensor L1 - Serial Number 36001

Sensor C - Serial Number 36002

Sensor R1 - Serial Number 36003

Repeat for sensor C and sensor R1 using the appropriate serial number for each.

## **MONITOR SETUP** JOHN DEERE R4030 WITH A 2630 MONITOR



#### **STEP 4** TARGET HEIGHT



Manually lower your boom to your preferred operating height. It is recommended to run the Y-DROP base unit about 12-14" off the ground.

Back at the "Sprayer - BoomTrac Pro" window, compare the sensor height readings 10 to the target height settings 11.

In the "Target Heights" section of the screen, click on the value above each sensor location (L, C, & R) <sup>(1)</sup> to open the window <sup>(2)</sup> to set the target height for each sensor location to match the reading from that sensor. E.g. if the actual sensor reading is a value of 30, the target height should be set to 30.

Click "Accept" and repeat for remaining two sensors.

#### **STEP 5** TARGET HEIGHT CONTINUED & RESPONSE RATES



NOTE: In the beginning, it may be beneficial to set the target height slightly higher (by 1-3 units) than the actual sensor reading.

Engage the BoomTrac Pro to check calibration. Disengage and adjust target heights <sup>(1)</sup> as necessary until desired height is achieved.

The response rate <sup>13</sup> can be adjusted according to your preference by clicking on the "-" or "+" buttons on either side of the numerical value in the "Raise Response" or "Lower Response" section. The higher the number, the faster the response.

NOTE: Some response scales may have "Low, Medium Low, Medium, Medium High, High" options rather than numeric values.

#### STEP 6 OTHER



Ensure that both the "BoomTrac Enabled" <sup>40</sup> and the "Center Frame Control" <sup>15</sup> check-boxes are checked.

#### MONITOR SET UP COMPLETE

NOTE: Once setup is complete if you return to the home page, the values for L and R will read as "0" because the L2 and R2 sensors are unplugged. In order to view the L1 and R2 values you must navigate back to the Sprayer -BoomTrac Pro page using the "BoomTrac Pro" button on the home page.

NOTE: Response time varies from applicator to applicator. If you would like to increase the responsiveness of your booms while using 360 GLIDE on R-Series sprayers you can do a couple of things: first increase the raise and lower response setting. For additional response adjustment, manually adjust the Tilt Valve Calibration in the Boom Calibration menu in the sprayer monitor.

## **MONITOR SETUP** JOHN DEERE R4030 WITH A 4600 MONITOR



#### STEP 1 BOOMTRAC PRO BOX



NOTE: The following monitor setup instructions are for John Deere R4030 models with a 4600 monitor. For setup instructions for a John Deere R4030 with 2630 Monitor see pages 6-7.

In the BoomTrac Pro tile on the monitor, the heights provided by each 360 GLIDE sensor is displayed. Click on the "BoomTrac Pro" tile **1** to open the "Boom & Nozzles" window.

#### STEP 2 INFO AND SETTINGS



In the "Boom & Nozzles" window that opens, the boom height reading from the 360 GLIDE sensors is displayed to the right in the "Target Height" section **2**.

Click on the information icon ③ at the top of the "Boom & Nozzles" window to open the "Information and Settings | Boom" window.

#### STEP 3 SENSOR LOCATIONS



With the "Information and Settings | Boom" window open, select the "Settings" tab 4 to the left.

Verify that the two outer sensors  $\begin{tabular}{ll} \end{tabular}$  are indicated as not reading.

NOTE: If a reading is being provided by either outer sensor of the secondary boom, the OEM sensor in that location needs unplugged.

Clicking on each sensor icon 3, thus opening the "Edit Sensor" dialog box. Then, select the appropriate serial number 2 for the location:

Sensor L1 - Serial Number 36001

Sensor C - Serial Number 36002

Sensor R1 - Serial Number 36003

### **MONITOR SETUP** JOHN DEERE R4030 WITH A 4600 MONITOR



#### **STEP 4** TARGET HEIGHT



Close the "Information and Settings | Boom" window by clicking the "X" <sup>3</sup> in the upper right-hand corner. You will now be back to the "Spraying" home screen.

Manually lower your boom to your preferred operating height. It is recommended to run the Y-DROP base unit about 12-14" off the ground.

Click on the "BoomTrac Pro" tile 1 to re-open that window.

In the "Target Height" section of this window, compare the sensor height readings (2) to the target height settings (0).

Click "Target Height" 10 to open the window to adjust this setting.

#### STEP 4 CONTINUED TARGET HEIGHT



Click on the value under each sensor (L, C, & R) 1 to set the target height for each sensor location to match the reading from that sensor. E.g. if the actual sensor reading is a value of 75, the target height should be set to 75.

# NOTE: In the beginning, it may be beneficial to set the target height slightly higher (by 1-3 units) than the actual sensor reading.

Engage the BoomTrac Pro to check calibration. Disengage and adjust as necessary until desired height is achieved.

#### STEP 5 RESPONSE RATES



The raise response rate <sup>13</sup> can be adjusted according to your preference by clicking on the "-" or "+" buttons on either side of the numerical value in the "Raise Response" section. The higher the number, the faster the response.

It is recommended to set the "Sensor Target" setting to "Ground" <sup>12</sup>.

#### MONITOR SET UP COMPLETE

NOTE: Response time varies from applicator to applicator. If you would like to increase the responsiveness of your booms while using 360 GLIDE on R-Series sprayers you can do a couple of things: first increase the raise and lower response setting. For additional response adjustment, manually adjust the Tilt Valve Calibration in the Boom Calibration menu in the sprayer monitor.