

Installation Instructions

700273 – Large seed tube opening (eSet)
700276 – Small seed tube opening (vSet)

Note: You may need a Power Module (700266) based on your planter. See page 4 for details.

John Deere 2100 or 1100, **2015 and later** with cast iron shank, follow the instructions below:

[Attention: if you have a pre-2015 row unit, follow the instructions on page 2]

Step 1 Unplug the original seed tube sensor from the harness and remove the old seed tube from the row unit. Remove any existing firmer tail from its bracket.

Step 2 Make sure the area around the pin where the seed tube hook is clear of dirt and debris. Install the WaveVision seed tube assembly into the row unit making sure that the hook is over the pin. Secure the tube with the pin and clip. Route the cable securely and connect the weatherpack to the planter harness.



Hook – install 700138 here



Note: If there is space on the hook to allow installation of the 700138 Hook Filler, it is recommended it be installed to limit the movement of the Wavevision sensor to prevent it from contacting the opening discs.

Note: The WaveVision Sensor can be tight going through the firmer bracket — but apply some pressure and it will fit through.

WaveVision is compatible for use with Corn, Soybeans, Cotton, and Sugar Beets: Regular Pellet, Gem 100 and Pro 100.

Other installation considerations:

- The WaveVision Sensor will be somewhat difficult to remove if the firmer tension screw is tightened down to the point that the firmer is touching the sensor.
- If possible, remove the gauge wheel and opening disk on one row unit and verify that the seed tube guard is not hitting against the bottom of the sensor.
- The seed tube protector must be at least 3/4" wide at its narrowest point in order to protect the sensor. The opening discs must have a diameter of at least 14" to ensure that if they do make contact with the sensor that they contact the small rectangular wear inserts located on the sensor housing.
- Please keep your current seed tube and sensor in case it is needed as a backup or replacement.

Seedtube Guard



New



Replace if less than 3/4"

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Installation Instructions

700273, 700276

[Modification required]

WaveVision is compatible for use with Corn, Soybeans, Cotton, and Sugar Beets: Regular Pellet, Gem 100 and Pro 100.



John Deere 2100 or 1100 pre-2015, with stamped steel shank, follow instructions below:



Figure 1: Drill out hole in shank.

Step 1

Unplug the original seed tube sensor from the harness and remove the old seed tube from the row unit. Remove any existing firmer tail from its bracket.

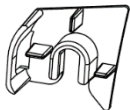
Step 2

Using a .250" (6.5mm) drill bit, enlarge the upper mounting pin hole in the shank. See figure 1.

Note: Verify that the area around the lower mounting stud is free of debris.

Step 3 Install the WaveVision seedtube in the row unit shank verifying that the hook latches the lower mounting stud.

Step 4 Insert a new pin (700279) and clip, or equivalent M6 bolt or pin. Route the cable securely and connect the weatherpack to the planter harness.



PN 700138

Note: If there is space on the hook to allow installation of the 700138 Hook Filler, it is recommended it be installed to limit the movement of the Wavevision sensor to prevent it from contacting the opening discs.

Hook - Install 700138 here.



Other installation considerations:

- The WaveVision Sensor will be somewhat difficult to remove if the firmer tension screw is tightened down to the point that the firmer is touching the sensor.
- If possible, remove the gauge wheel and opening disk on one row unit and verify that the seed tube guard is not hitting against the bottom of the sensor.
- The seed tube protector must be at least 3/4" wide at its narrowest point in order to protect the sensor. The opening discs must have a diameter of at least 14" to ensure that if they do make contact with the sensor that they contact the small rectangular wear inserts located on the sensor housing.
- Please keep your current seed tube and sensor in case it is needed as a backup or replacement.

Seedtube Guard



New



Replace if less than 3/4"

Troubleshooting Guide

If a problem is detected, follow these steps to identify the source and likely remedy.

1. Disconnect and reconnect the sensor from the row harness. When the sensor is reconnected does the sensor's red indicator light turn on for about 1 second and then turn off?
 - Yes. Continue to step 4.
 - No. Continue to step 2.
2. Is the sensor's red indicator light on solid?
 - Yes. If the planter monitoring system includes a 20/20 SeedSense then confirm that the sensors are not currently being reprogrammed. If the sensors are not being reprogrammed then continue to step 5. Otherwise, wait until reprogramming is complete before using the sensor.
 - No. Continue to step 3.
3. When the sensor is reconnected to the row harness does its red indicator light remain off and not illuminate for 1 second?
 - Yes. Continue to step 4.
 - No. The sensor's indicator light is randomly flashing on and off. Unplug the sensor and use a voltmeter to measure the voltage between pins C and B on the three pin connector on the row harness. This voltage should be between 6.5 and 10 volts. If the voltage is not in this range then troubleshoot the wiring and the module that supplies power to the sensors. If the voltage is within this range then replace the sensor.
4. Swap the seed tube/sensor with a row where the sensor is functioning. If the planter monitor does not detect the sensor on this new row then the sensor is malfunctioning. Check the cable and connector on this sensor and look for damage. If damage is found then either fix or replace the sensor. If no damage is found then re-place the sensor. If sensors on multiple rows are not being detected then use a voltmeter to measure the voltage between pins C and B on the three pin connector on the row harness. This voltage should be between 6.5 and 10 volts. If the voltage is not in this range then troubleshoot the wiring and the module that supply power to the sensors.
5. Unplug the sensor and use a voltmeter to measure the voltage between pins C and B on the three pin connector on the row harness. This voltage should be between 6.5 and 10 volts. If the voltage is not in this range then troubleshoot the wiring and the module that supply power to the sensors. If the voltage is within this range then replace the sensor.

Is the planter monitor reporting no seeds being planted on the row in question?

Check to make sure that seed is flowing from the meter to the bottom of the seed tube. If seed is flowing but no seeds are detected after sixty seconds of seed flow and the seed being planted is seed corn, soybeans, cotton, or any other seed with at least a 0.15 inch diameter, then replace the sensor.

Is the planter monitor reporting too few seeds on the row in question?

If the reported number of seeds is slightly less than the expected number of seeds during the first couple of minutes then continue planting and see if the seed count reaches the expected value. If the seed count remains low after the first couple of minutes of planting then check meter performance, check the fit of the sensor to the seed tube, and check the seed tube for obstructions. If all of this checks OK and the seed being planted is seed corn, soybeans, cotton, or any other seed with at least a 0.15 inch diameter, then replace the sensor.

Is the planter monitor reporting too many seeds on the row in question?

Check meter performance, check the fit of the sensor to the seed tube, and check the seed tube for obstructions. If all of the rows are reporting too many seeds then this is an indication of an intermittent 8V supply to the sensors. Check the wiring and the module that is supplying 8V to the sensors to find the cause of this problem. If one row is reporting too many seeds then this may be the result of an intermittent connection at the sensor's 3-pin Weather Pack connector or a problem with the wiring to this row. Check this wiring and connector to resolve the problem. If all of this checks OK and the seed being planted is seed corn, soybeans, cotton, or any other seed with at least a 0.15 inch diameter, then replace the sensor.

WaveVision is not compatible with these monitors:

Agco GTA	KPM I, II, III
Kinze Vision	Monosem MPM
SM400SE	GTA

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WaveVision Power Module Tables

WaveVision Power Module & Adapter Harness Matrix for Planters with a 20/20 SeedSense® System:

Number of Rows:	Number of WaveVisions	20/20 SeedSense on JD Planter	20/20 SeedSense on Kinze Planter
4 Row Planter	4	Nothing Needed	Nothing Needed
6 Row Planter	6	Nothing Needed	Nothing Needed
8 Row Planter	8	Nothing Needed	Nothing Needed
12 Row Planter	12	Nothing Needed	700266 10V Power Module Required
16 Row Planter	16	725667 Adapter Harness Required	700266 10V Power Module Required
24 Row Planter	24	725667 Adapter Harness Required	700266 10V Power Module Required
32 Row Planter	32	725667 Adapter Harness Required	700266 10V Power Module Required

Notes for 20/20 SeedSense®:

1. The Smart Connector and Power Module should always be connected to the 37-pin connector closest to the row units.
2. A Power Module installed with a Smart Connector will require a 24" 37-pin extension (725272) to be installed between the SC and the Power Module.
3. **Note that 20/20 SeedSense systems with the new Gen II Smart Connector do NOT need a Power Module. John Deere systems WILL, however, still need the 725667 Adapter Harness.**

WV Power Module Matrix for Non-20/20 SeedSense® Systems:

Number of Rows:	Number of WaveVisions	Dickey John or JD Computrac	John Deere SeedStar
4 Row Planter	4	Nothing Needed	Nothing Needed
6 Row Planter	6	Nothing Needed	8V or 10V Power Module Required
8 Row Planter	8	8V or 10V Power Module Required	8V or 10V Power Module Required
12 Row Planter	12	8V or 10V Power Module Required	8V or 10V Power Module Required
16 Row Planter	16	8V or 10V Power Module Required	8V or 10V Power Module Required
24 Row Planter	24	8V or 10V Power Module Required	8V or 10V Power Module Required
32 Row Planter	32	8V or 10V Power Module Required	8V or 10V Power Module Required

Notes for non-20/20 SeedSense® systems:

1. The Smart Connector and Power Module should always be connected to the 37-pin connector closest to the row units.

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