

SpeedTube™

John Deere ME2/+ Row Unit Kit Installation Manual

Precision Planting®

System Hardware

Part Number	Description	Quantity
768501	John Deere ME2/+ SpeedTube Row Unit Kit	1 per row
The Row Unit Kit includes the following parts		
150109	John Deere XP Quick Attach Firmer Bracket	1 per row
768427	John Deere ME2/+ SpeedTube Guard	1 per row
768488	John Deere ME2/+ SpeedTube Retention Spring	1 per row
768518	John Deere ME2/+ Shank Cover	1 per row
768577	John Deere ME2/+ Retention Spring Bracket	1 per row
	M10-1.5 x 25mm DIN 603, Carriage Bolt	2 per row
	M10 x 20mm OD DIN 125, Flat Washer	2 per row
	M10-1.5 DIN 934, Hex Nut	2 per row

Part Number	Description	Quantity
768502	John Deere ME2/+ SpeedTube Row Unit Kit	1 per row
The Row Unit Kit includes the following parts		
150109	John Deere XP Quick Attach Firmer Bracket	1 per row
768442	John Deere ME2/+ SpeedTube Guard	1 per row
768488	John Deere ME2/+ SpeedTube Retention Spring	1 per row
768518	John Deere ME2/+ Shank Cover	1 per row
768577	John Deere ME2/+ Retention Spring Bracket	1 per row
	M10-1.5 x 25mm DIN 603, Carriage Bolt	2 per row
	M10 x 20mm OD DIN 125, Flat Washer	2 per row
	M10-1.5 DIN 934, Hex Nut	2 per row

1) SpeedTube Guard Installation

ME2/+ Row Unit Kit Instructions – 768501

- a) Raise the planter.
- b) Remove the seed tube.
- c) Re-install the seed tube pin.
- d) Remove both gauge wheels and opening disks. Refer to OE Manufacturer's instructions.
- e) Remove currently installed firmer bracket (if applicable).
- f) Remove OEM seed tube guard. Refer to Manufacturer's instructions.
- g) If the guard opening of the shank panel is wider than $11/32"$ (9 mm) then adjust the shank panels to meet this dimension. Check before and after installing the guard. Refer to illustration 1.

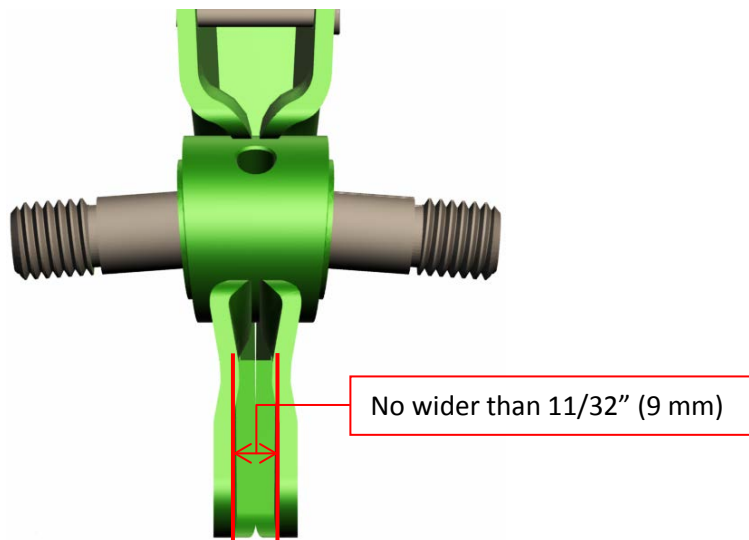


Illustration 1 – Guard Opening between Shank Panels

- h) Align the SpeedTube guard with the guard holes in the shank and install the $1/4" \times 7/8"$ center groove pins using a $7/32"$ punch. Keep the pins centered in the shank. For easier installation, insert a $1/4"$ bolt or pin in the rear hole while installing the front spring pin. Refer to illustration 2 on the next page.

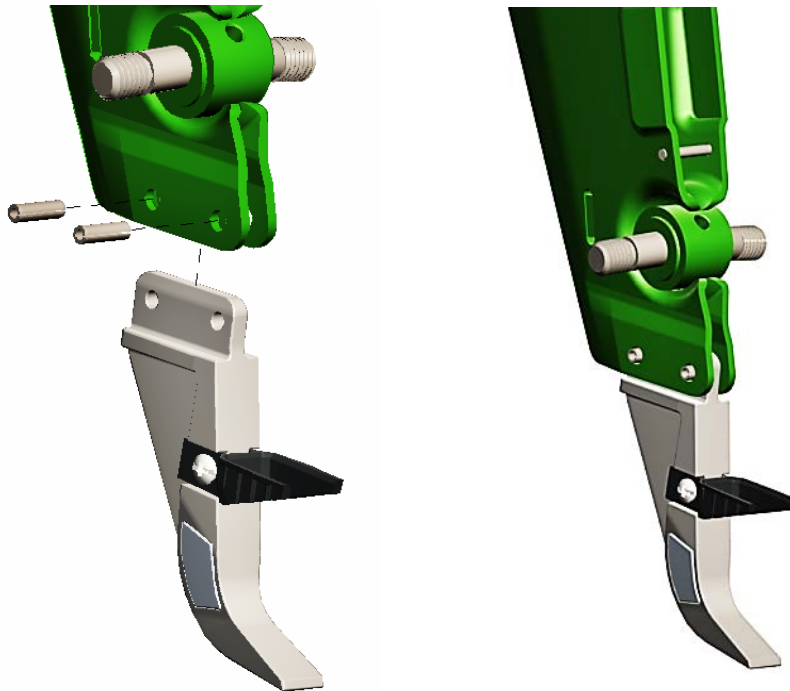


Illustration 2 – SpeedTube Guard Installation

ME2/+ 3/8" Row Unit Kit Instructions – 768502

Note: This kit is designed for previously drilled out or worn shank holes that require drilling. Before drilling out the holes, ensure there is at least 0.2" (5 mm) of steel between the bottom of the holes and the bottom of the shank. Refer to illustration 3.

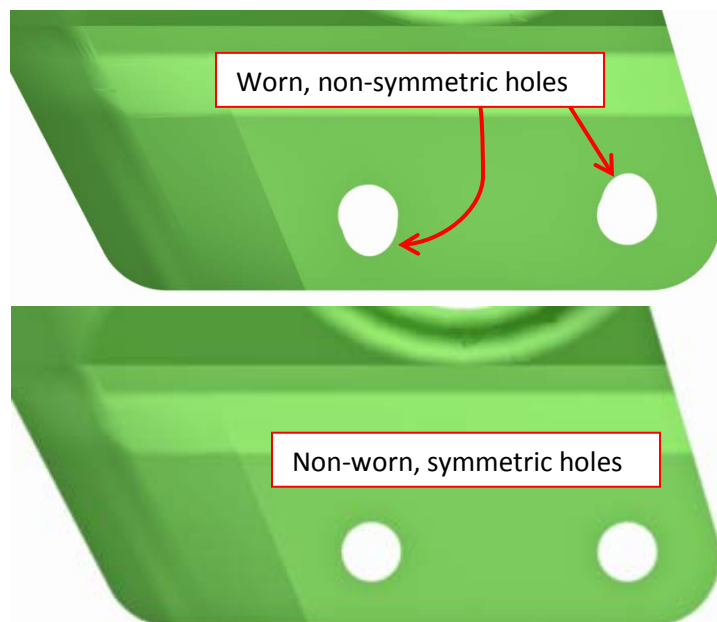


Illustration 3 – Shank Hole Comparison

- i) Follow steps a-g above.
- j) If the holes are worn or oblong in shape and require drilling, use a 13/32" (10 mm) bit to drill out the hole. Do not remove material from the bottom portion of the hole. Refer to illustration 4.

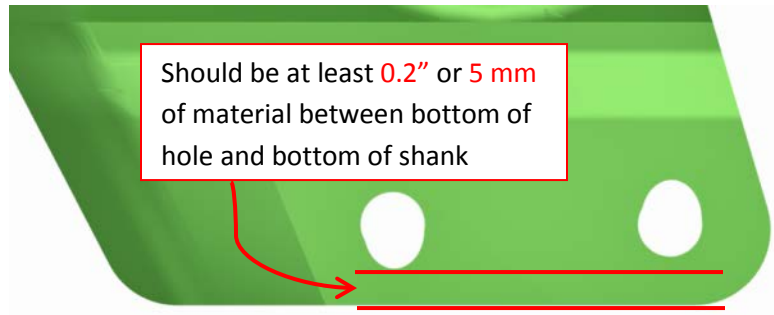


Illustration 4 – Prepare for Drilling Holes

- k) Align the SpeedTube guard with the holes in the shank and use a 5/16" (8 mm) or 11/32" (9 mm) punch to install the 3/8" x 7/8" center groove pins through the holes. Keep them centered in the shank. For easier installation, insert a 3/8" bolt or pin in the rear hole while installing the front spring pin. Refer to illustration 5.

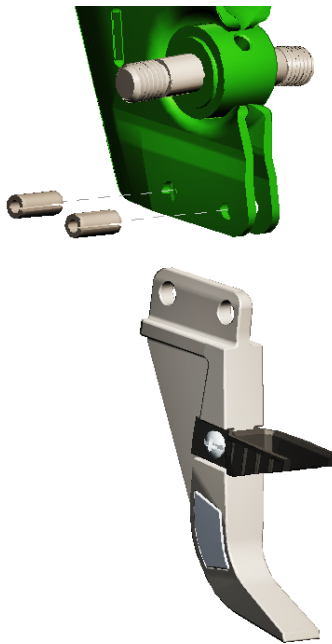


Illustration 5 – SpeedTube Guard Installation

2) Quick Attach Firmer Bracket Installation

- a) Locate the left and right hand side of the firmer bracket.
- b) Slide the eyelet on each half of the firmer bracket onto the respective opening disk shaft. Refer to illustration 6.

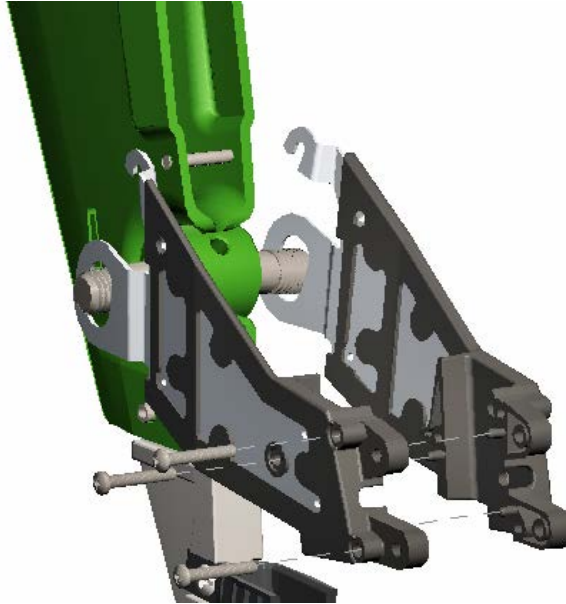


Illustration 6 – Quick Attach Keeton Firmer Bracket Alignment

- c) Secure the upper bracket hooks to the lower seed tube pin on the shank. Assemble the bracket pieces with the three (3) supplied #8 X 1.25" screws. Refer to illustration 7.

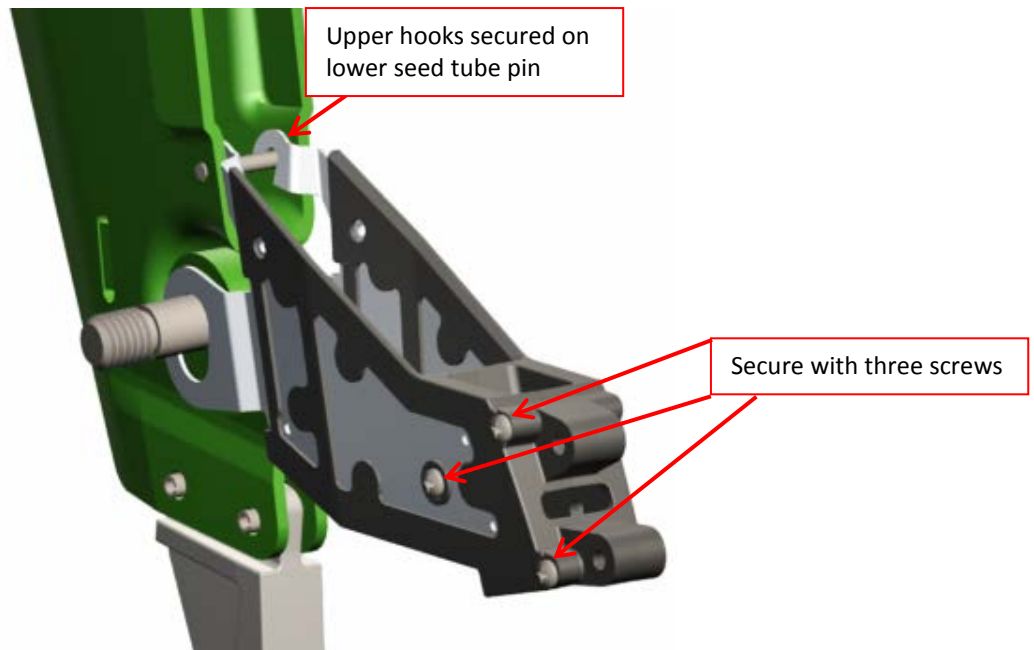


Illustration 7 – Quick Attach Keeton Firmer Bracket Installed

3) SpeedTube Retention Spring Installation

Note: If there is not a wall of material between the fronts of the two shank side panels, then retention spring bracket (768577) needs to be installed. This prevents the retention spring from rotating on the seed tube pin when the wall is not present. Refer to illustration 10.

- a) Remove the OEM shank cover if installed and orient the retention spring over the shank opening as shown in illustration 8.

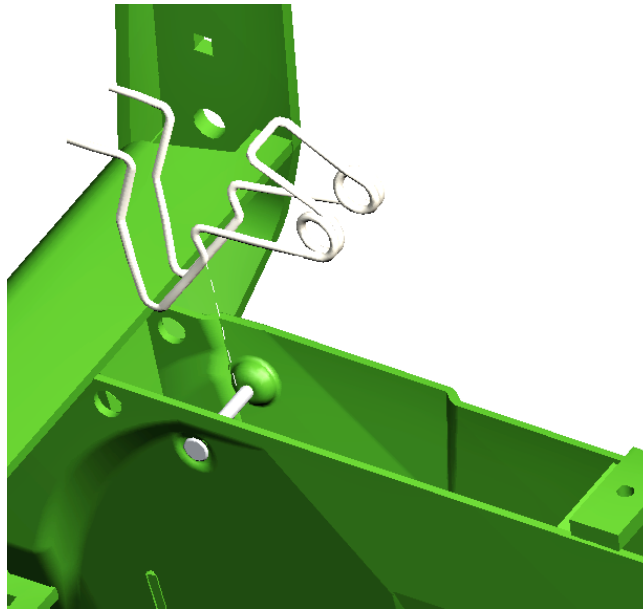


Illustration 8 – SpeedTube Retention Spring Alignment

- b) Push the retention spring down and forward over the seed tube pin. Refer to illustration 9.

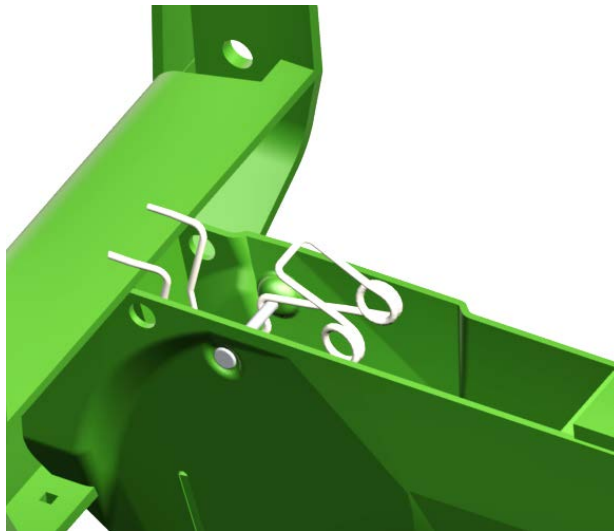


Illustration 9 – SpeedTube Retention Spring Installed

- c) If there is material between the front of the two shank side panels (not the goalpost) and the retention spring cannot rotate around the seed tube pin, proceed to step 4. Otherwise continue with step 3d to install retention spring bracket 768577. Refer to illustration 10 to help determine if material is present.

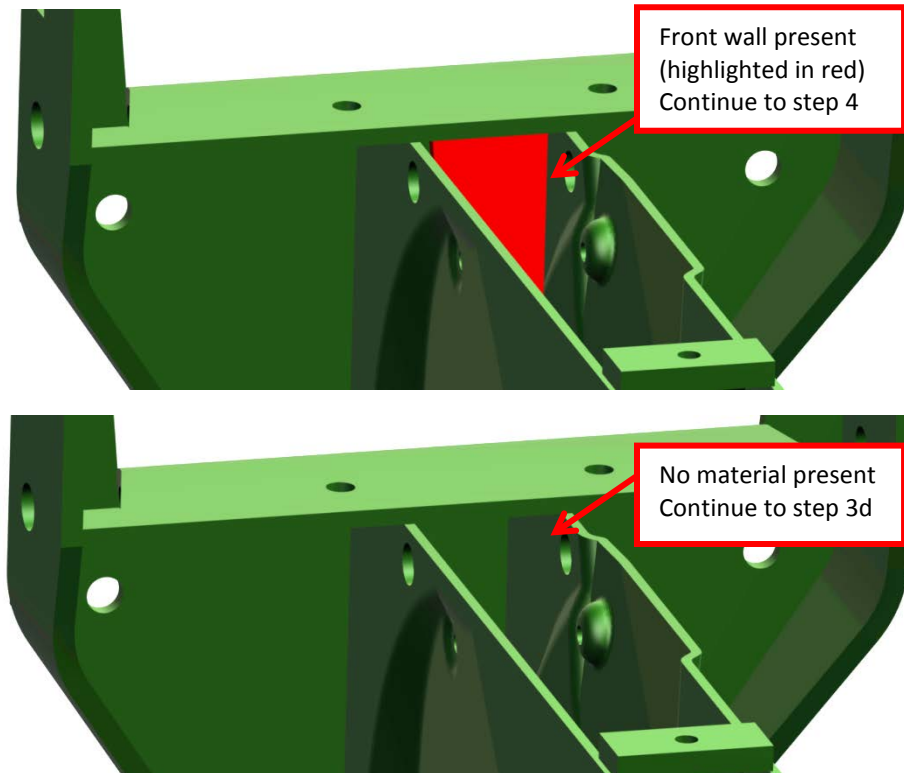


Illustration 10 – Front Shank Material

- d) Place the retention spring bracket over the front of the retention spring. The raised portion of the bracket should go over the retention spring to keep it in place. Refer to illustration 11 on the following page.
- e) If there are holes present on the top of the goal post, use the provided M10 hardware to secure the retention spring bracket. If there are no existing holes, mark the mounting locations through the bracket and drill two 7/16" holes. Use the provided M10 hardware to secure the bracket. Refer to illustration 11 on the following page.

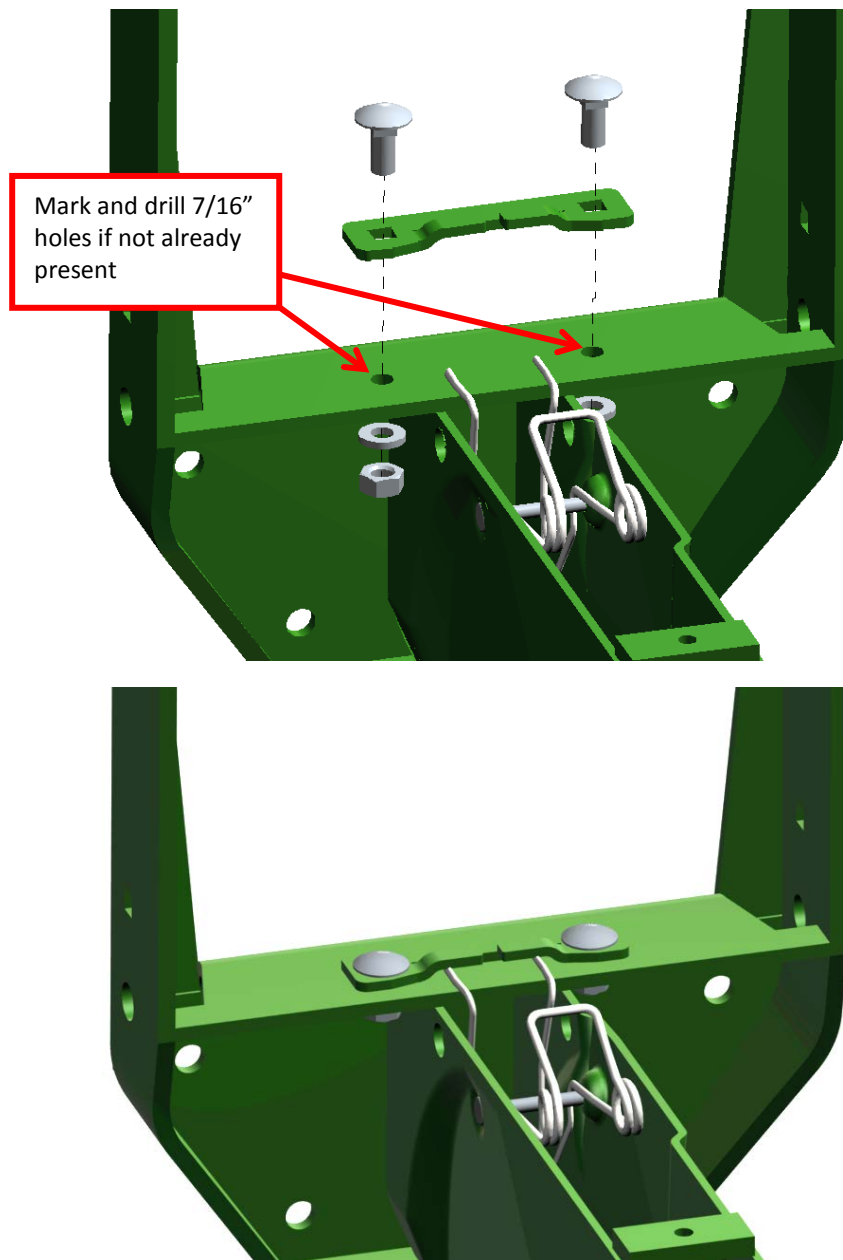


Illustration 11 – Retention Spring Bracket Installation

4) Shank Cover Installation

- a) Position the shank cover over the shank opening as shown in Illustration 12 on the following page.

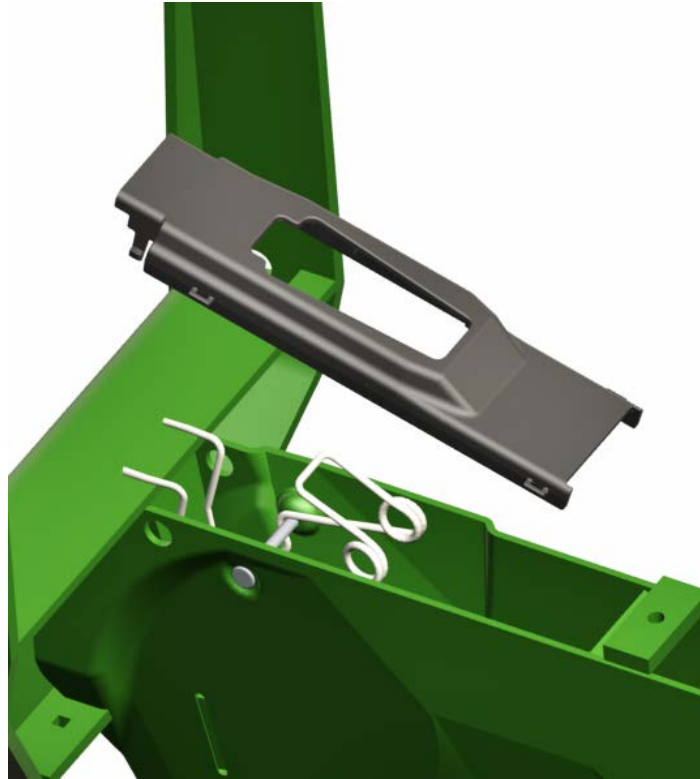


Illustration 12 – Shank Cover Alignment

- b) If desired, route the load pin wire through the molded slots on the underside of the cover before installing. Refer to illustration 13.

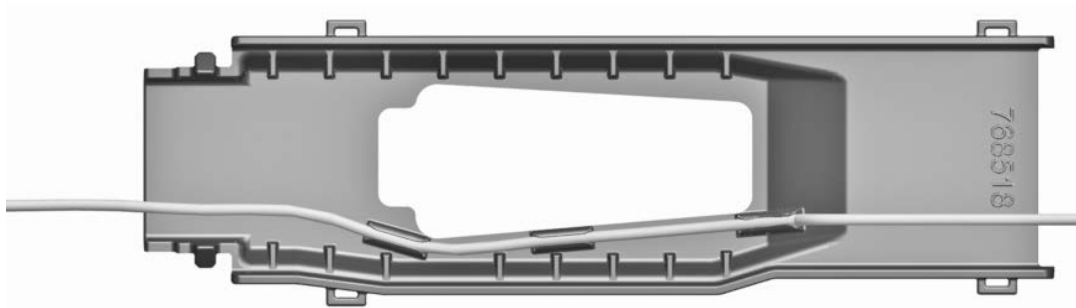


Illustration 13 – Routing Load Pin Wire through Shank Cover

- c) Press the cover down until fully seated on the shank. The rear lip should be under the rear hopper mount. Push the front tabs down until secured. Refer to illustration 14 on the next page.

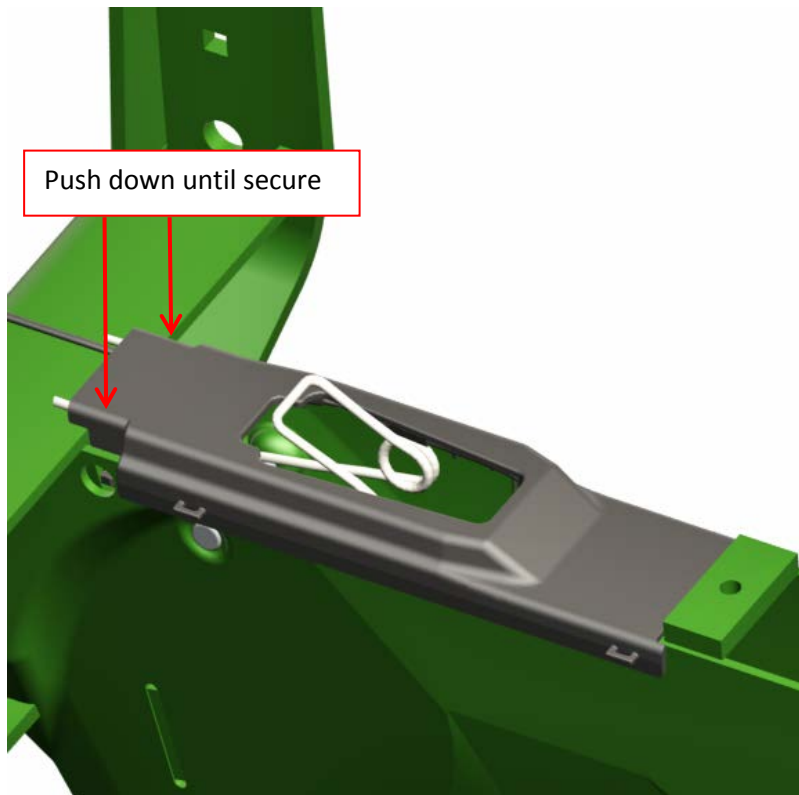


Illustration 14 – Shank Cover Installed

5) SpeedTube Installation

- a) Lower the SpeedTube onto the retention spring so the front hook rests on the retention spring as shown in illustration 15. The SpeedTube should rest freely on the retention spring.

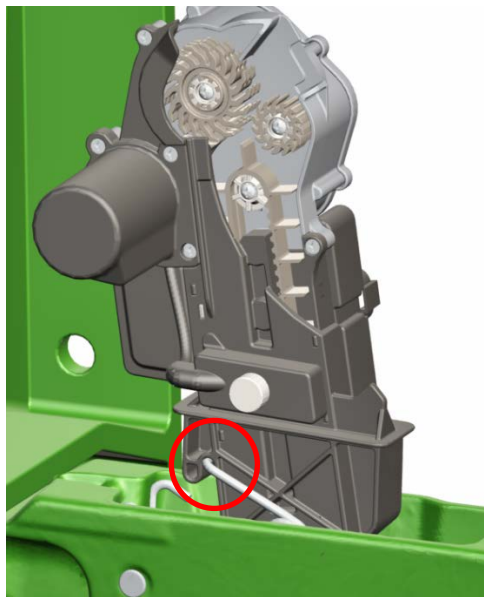


Illustration 15 – SpeedTube Resting on Retention Spring

- b) Locate the SpeedTube wiring clip and mount it to the SRM ladder clip using the two provided zip ties. The clip should align with each row of openings on the ladder bracket and the harness connection point positioned below the 12 pin connector on the SRM. Refer to illustration 16.

Note: It will be easier to mount the wiring clip before installing the ladder clip to the SRM. If the ladder clip is already installed, the mounting nut will need to be loosened to feed the zip ties through the bracket holes.

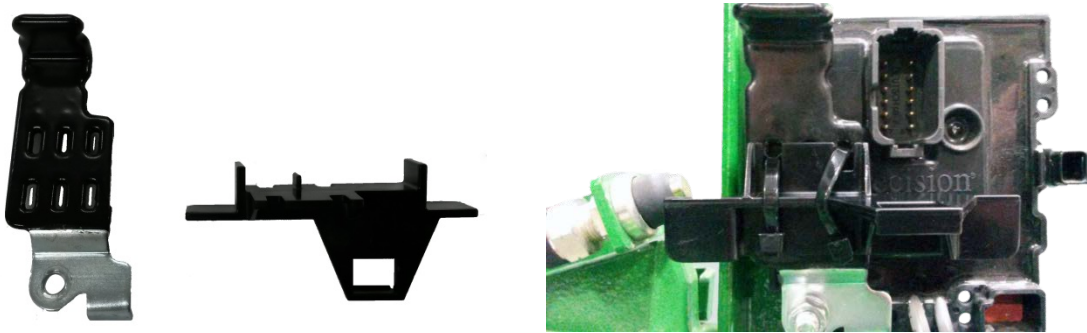


Illustration 16 – SpeedTube Wiring Clip

- c) Wrap any extra vDrive row harness connection length around the wiring clip. Refer to illustration 17.

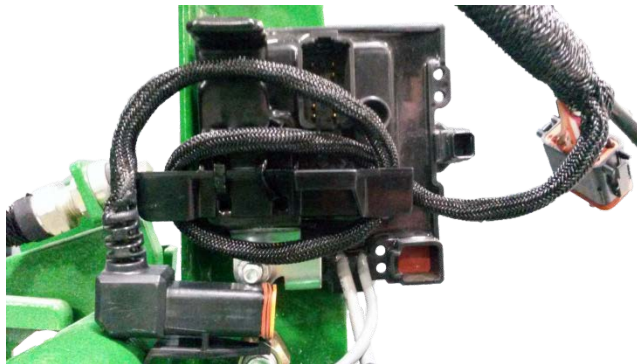


Illustration 17 – SRM Row Harness Installed around SpeedTube Wiring Clip

- d) Install the SpeedTube Y-Harness by sliding the receptacle labeled “Row Harness” into the mounting location on the wiring clip. Plug the vDrive connection from the SRM row harness into the Y-harness. Refer to illustration 18.



Illustration 18 – Row Harness and Y-Harness Connected

- e) Identify the 6 pin Deutsch plug on the y-harness labeled “SpeedTube” and plug it into the SpeedTube module. Refer to illustration 19.



Illustration 19 – SpeedTube Module Connection

- f) Identify the 6 pin Deutsch plug on the y-harness labeled “vDrive” and plug it into the vDrive motor. If vDrive Insecticide is installed, the remaining 6 pin Deutsch connector labeled “Insecticide” will be used for that system. If vDrive insecticide is not installed, the connector will not be used.
- g) Make sure all wiring is secured out of the way to avoid contact with raised gauge wheels or other components.

6) vSet 2 Meter and SpeedTube Interface

- a) Install the assembled hopper and meter to the row unit. Refer to the vSet 2 instructions for details. When locking the hopper in place with the rear latch, ensure the SpeedTube housing and vSet 2 meter housing are properly aligned. The meter housing should pilot into the open area above the SpeedTube motor housing. The tab on the SpeedTube housing should align between the opening of the meter housing and meter cover. Refer to illustration 20 on the next page.

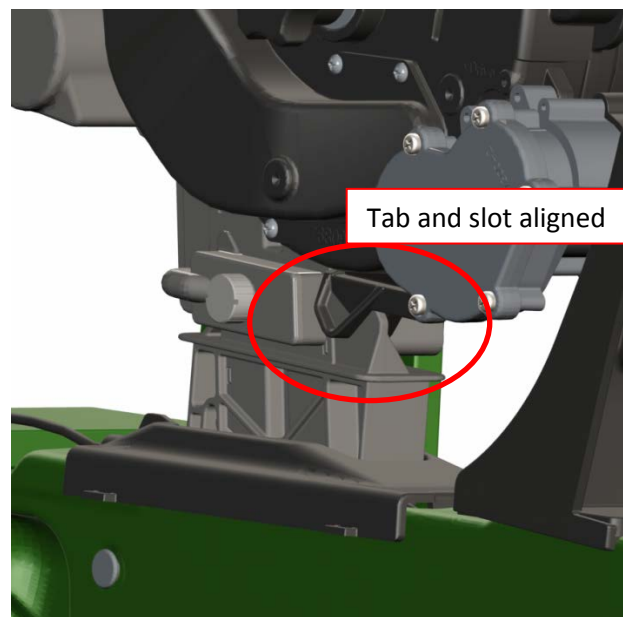
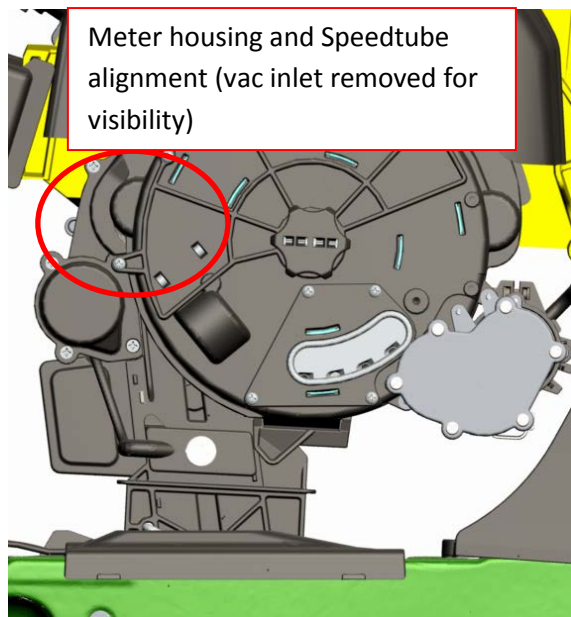


Illustration 20 – vSet 2 Meter and SpeedTube Interface

7) Installation Completion

- a) Reinstall the opening disks with 1.5"-2" of contact (check multiple locations). Shim disks as necessary. Ensure firmer bracket remains fully seated on the lower seed tube pin when tightening.

Note: The Keeton bracket eyelets will serve as a shim for each disk. General recommendation would be one less shim (per side) than previously installed.

- b) Reinstall both gauge wheels according to Manufacturer's instructions.