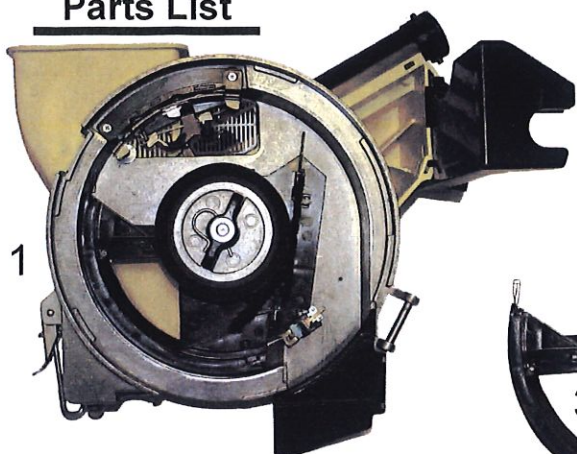


eSet Pro-Series Installation Instructions

Parts List



Housing and bracket not included



1. Complete eSet Pro Kit, (720136)
2. Disk, (1)
3. Liner, (1)
4. Singulator, (1)
5. Mini Hopper, (1)
6. Short Brush Holder, (1)
7. Short Brush, (1)
8. Long Brush, (1)
9. Singulator Shim, (1)
10. Fragment Extractor, (1)
11. Vent, (1)
12. D-Tube, (1)
13. Hardware Kit, (1)
 - A. 1/2" Pan Hi-Lo Screw, (720187) (20)
 - B. 3/4" Hi-Lo Screw, (720188) (24)
 - C. Flat Washer, (720193) (4)
 - D. #6 Flat Hi-Lo Screw, (720046) (8)
 - E. M4 X 7 Flat Phillips Screw, (720259) (4)
 - F. #6-32 Flat Phillips Screw, (720070) (4)

The tools required for assembly include: knife, needle nose pliers, pliers, Flat and #2 Phillips screwdrivers, ratchet with 10mm socket, 7/32 nut driver, 5/16" bit, drill.



Do not discard any of your original JD parts. Keep the original parts so, when it's time to trade your planter, you can put the original components back into your old housings and keep your eSet system to install in your new planter.



Housing Preparation

Remove the handle, shaft adapter, and the gearbox from the drive shaft. Remove both of the elbows that are mounted onto the seed hopper (one on the outside and one on the inside). Remove the clear plastic window from the aluminum housing. Remove the black plastic mounting bracket from the seed hopper by prying in on the locking tab with a flat blade screwdriver and then sliding it out of grooves (2003 models have a green metal mount and you will need to purchase the black plastic mount or modify the metal mount). Remove the 10 screws that retain the seed hopper to the meter housing and then remove the seed hopper. Keep the handle, shaft adapter gearbox, mount bracket and all hardware for reassembly. Remove the brush and brush holders from the housing. Prevent damage to the holders by using a needle nose pliers to pinch the tabs together from the rear.

Installation Instructions Continued

Retain and store these components from the original system. When you trade planters, you can reinstall these components and keep your eSet system for the new planter.



Add-on Kits

Some planters will require additional components to complete installation of the ProFlow Hopper.

- **JD 1790 with 20" Rows** – Order one 720244 check-valve flap per eSet row and one 720196 Step Kit per planter. The check valve flaps prevent seed from flowing back into the seed supply tubes on rows that tip forward during transport. **Check valve flaps are needed before installing eSet.**
- The Step Kit (Part # 720196) is an extension that bolts on the existing step. This eliminates interference with the ProFlow hopper.
- **JD 1790 with 15" or 30" Rows** Order one Elbow Kit - 720206 (Order 1 kit that contains four elbows) This kit improves the routing of the supply tube to the ProFlow hopper on the center rows of this model planter.
- **2003 ProSeries Models** need part number A76666 (1 per row) plastic mounting bracket. In 2003, Deere used a fabricated metal mount bracket for the ProSeries Meter planters. The ProFlow hopper requires the plastic mount bracket or a modified metal bracket.
- **DB ProSeries Meter planters with more than 32 rows.** Inspect the elbows on the right front corner of the mini-hoppers on your current planter. Order one 720245 DB Y-Tube for each "Y" style elbow on your current planter. (One for each additional row over 32)

Step
2

Install the ProFlow Hopper

Insert the rubber lid strap into the housing before you install the Pro Flow hopper. (See Figure 1)

Mount the Pro Flow mini-hopper using the screws you took out of the original mini hopper. (See Figure 2)

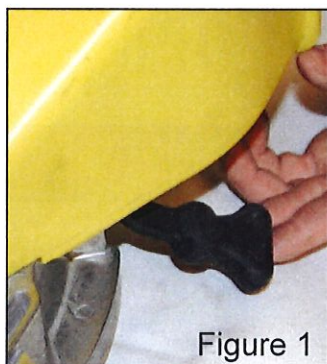


Figure 1

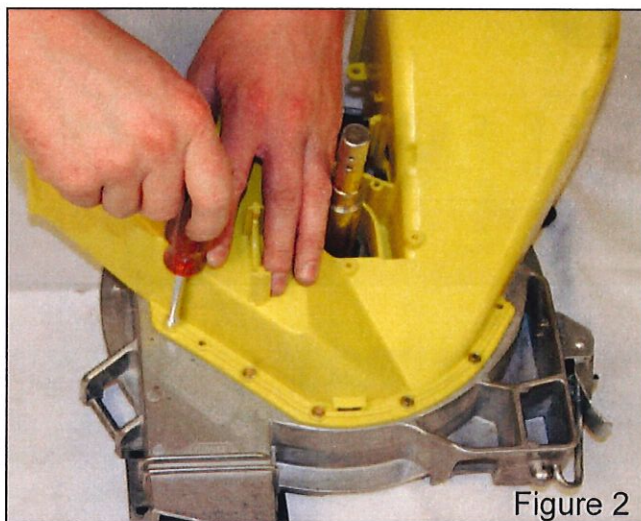


Figure 2

Step
3

Insert the brush into the Liner

Locate the liner and push the long brush in from the end while bending the flexible finger that locks the brush in place. (See Figure 3)

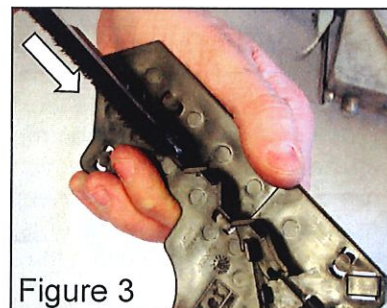


Figure 3

Installation Instructions Continued

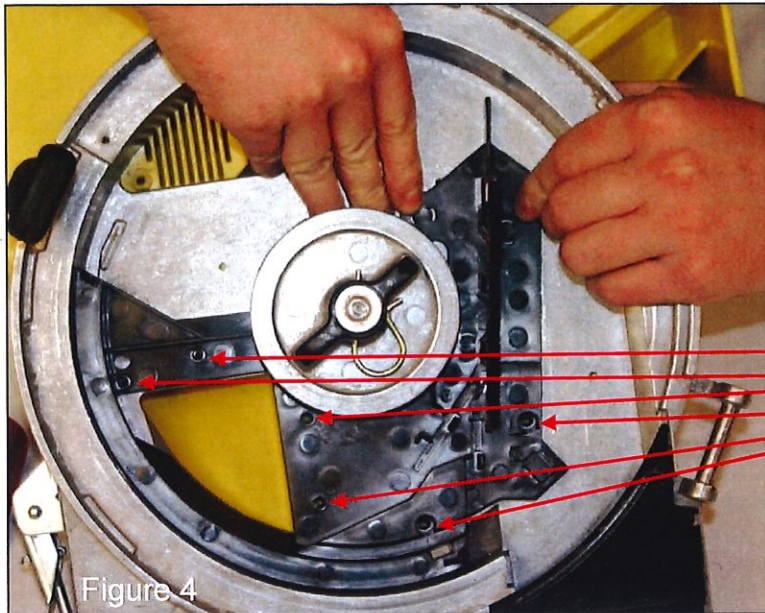


Figure 4

Step 4

Insert the Liner into the Housing

Slide the liner underneath the hub, locate the snaps on the back of the liner with the holes in the aluminum housing and snap the liner into place ensuring that it is snug against the housing floor. Using Screw B ($\frac{3}{4}$ " Hi-Lo) provided, insert into the holes in the liner, through the aluminum housing and into the Pro Flow hopper. Tighten all six screws until snug. (See Figure 4)

Using Screw B ($\frac{3}{4}$ " Hi-Lo), fasten the liner through the housing and into the Pro Flow hopper.

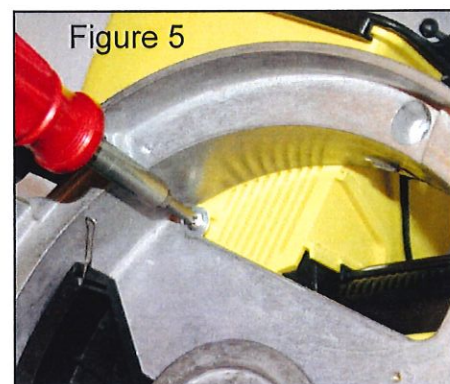
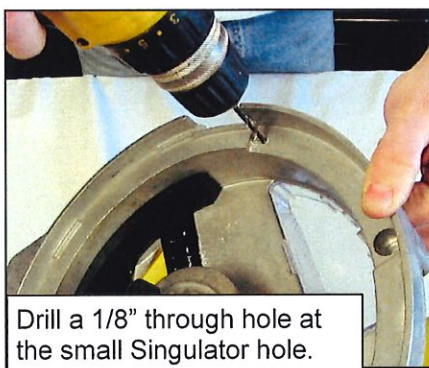


Figure 5

Insert Screw A ($\frac{1}{2}$ " Pan Hi-Lo Screw) and Washer C into the hole in the hopper. Make sure that the washer overlaps the lip of the aluminum housing. Snug the screw, but do not over tighten. (See Figure 5)

Step 5

Singulator Installation For Pre 2008



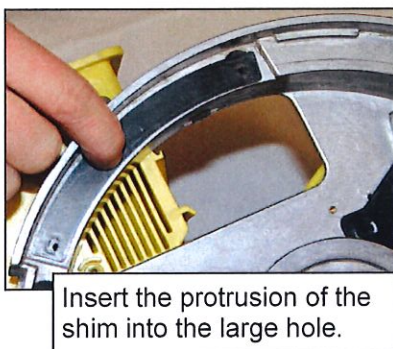
Drill a $\frac{1}{8}$ " through hole at the small Singulator hole.



Drill a $\frac{5}{16}$ " thru hole at the large Singulator hole.



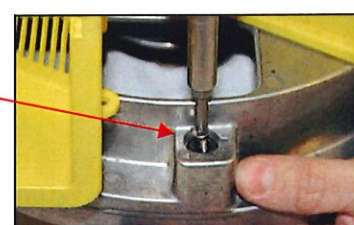
Clip the washer from the Singulator shim molding.



Insert the protrusion of the shim into the large hole.



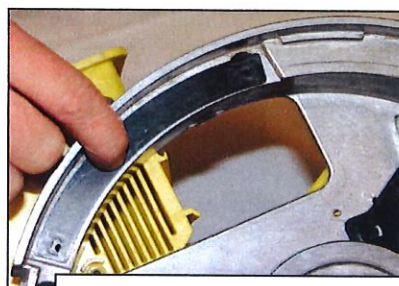
Insert Screw D (#6 Flat Hi-Lo) into the shim washer.



Install the screw and spacer through the back of the housing and into the shim protrusion.

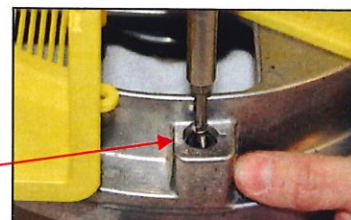
Installation Instructions Continued

Singulator Installation For 2008

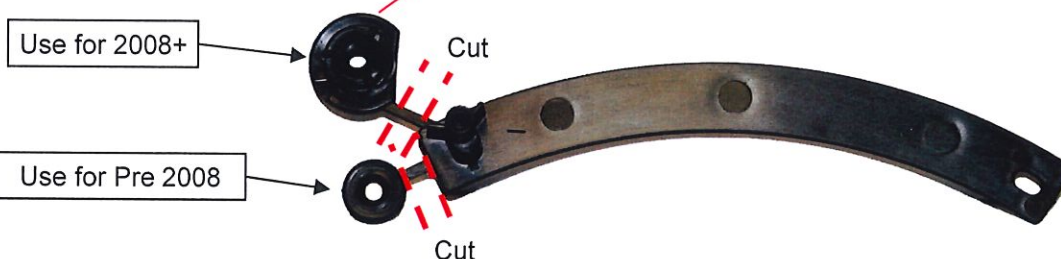


Insert the protrusion of the shim into the large hole.

Insert Screw D (#6 Flat Hi-Lo) into the shim washer.



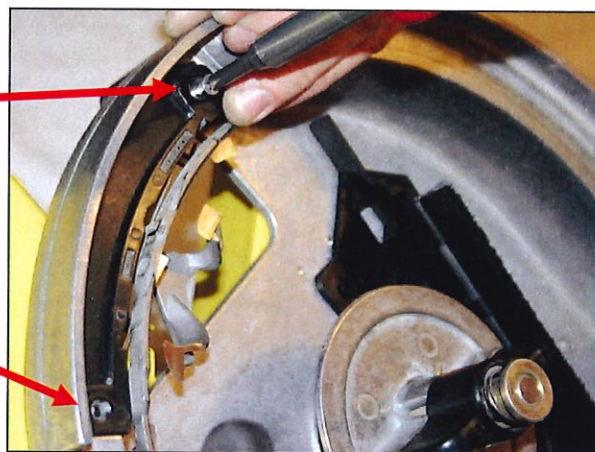
Install the screw and spacer through the back of the housing and into the shim protrusion.



Insert Screw D (#6 Flat Hi-Lo) into the right Singulator hole. Finish tightening all screws in this order: Left and then right on singulator, and rear screw holding shim.

For Pre 2008 Use Screw D (#6 Flat Hi-Lo) in the left hole first. Do not tighten until the second singulator screws are installed.

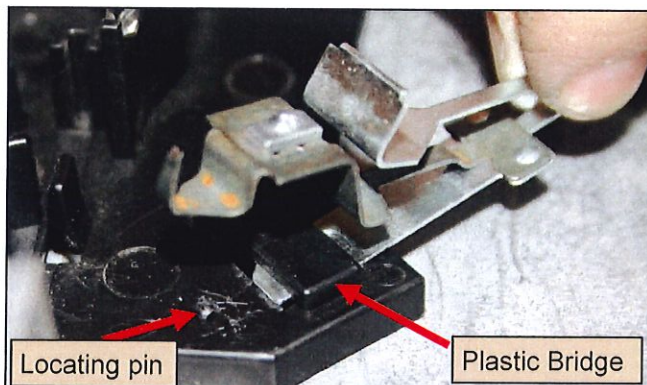
For -2008 Use Screw E (M4 X 7 Flat Phillips).



Step 6

Seed Fragment Extractor

Locate the plastic bridge and locating pin at the bottom right hand side of the liner. Slide the Seed Fragment Extractor under the plastic bridge and over the locating pin until it locks into place.



Locating pin

Plastic Bridge



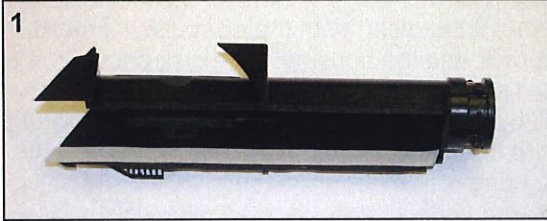
Push until locking into place

Questions? Check the website: www.precisionplanting.com or call us at 309-925-5050.

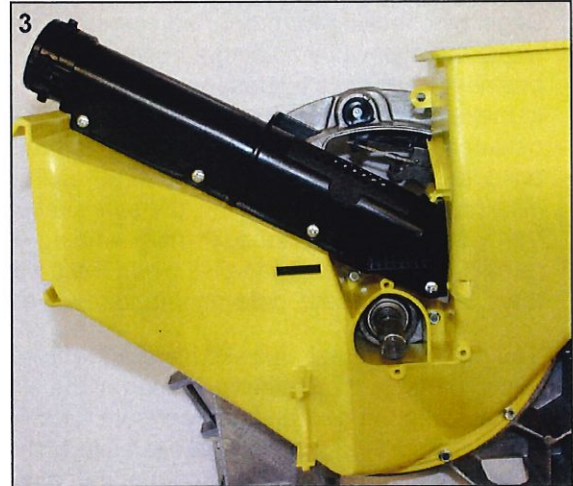
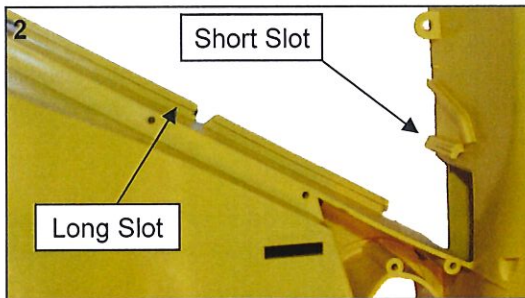
Installation Instructions Continued

Step 7

D Tube Installation. Remove the tape cover from one side of the gasket and adhere it to the front right corner of the D-Tube. Trim off any excess length of the gasket. Position the D Tube over the Pro Flow Hopper. Locate the long and short slots on the hopper and slide the D Tube into the long slot making sure that it is engaged in the short slot along the back edge of the Tube.



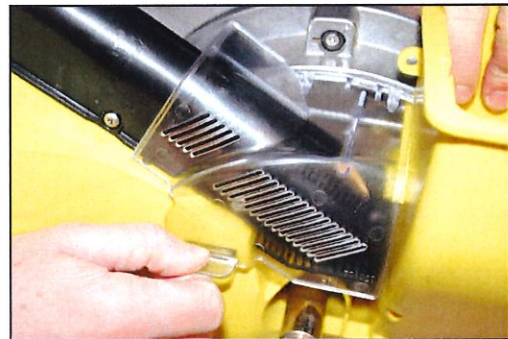
Secure the D Tube to the hopper using 4 of Screw A (½" Pan Hi-Lo Screw). Poke the screws through the foam gasket. Do not over tighten.



Step 8

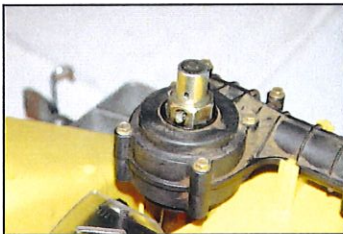
Install the Vent Cover. Slide the transparent vent cover under the aluminum housing and snap it into place on the Pro Flow hopper.

When removing the cover pinch the tab and pull the cover away from the housing.



Step 9

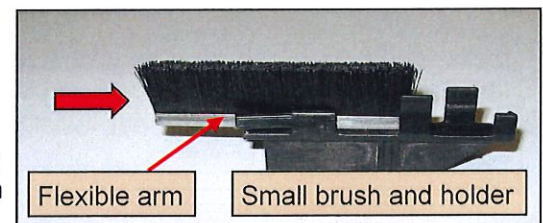
Reinstall the nut, gearbox, handle, cotterpins and mounting bracket.



Step 10

Small Brush Installation and conversion for other crops:

Slide the small brush into the small brush holder until it hits the stop. The small brush can be mounted into one of two different locations: one for planting corn with the eSet disk and another for planting with all other vacuum plates. The locations are marked on the liner. Line up the small brush with the guide post of the location that you want to use and push it down until it snaps into place.



Installation Instructions Continued

Step 11 Hub Height Adjustment:

The eSet disk has been designed to fit interchangeably with the John Deere soybean and specialty crop disks. Avoid too much housing/disk contact — or too little. Make sure the disk doesn't bind on the housing and make sure that seeds can't slip between the housing and disk. The proper adjustment of the hub will result in light contact between the disk and housing as the meter is rotated.

Begin by checking for proper adjustment of the hub with your eSet disk. With the eSet disk installed, rotate the disk while holding a business card between the disk and the housing. The disk should rub the business card at its tightest point, slightly pinching the card between the disk and the housing. To check to make sure that the gap is not too wide, use a 1/16" drill bit and make sure that it will not fit in the gap between the disk and the bottom of the housing. Rotate the disk by hand to ensure that at the widest point, the gap is smaller than the 1/16" drill bit. Before planting with other disks (such as JD specialty crop or soybean disks), follow the same procedure above and verify that the proper gap exists. Verify that the singulator assembly is riding securely on the disk. The last lobe of the singulator should remain in contact with the disk when the meter is under vacuum on the MeterMax® stand. If a gap larger than .015" is present, determine and resolve the source of the problem.

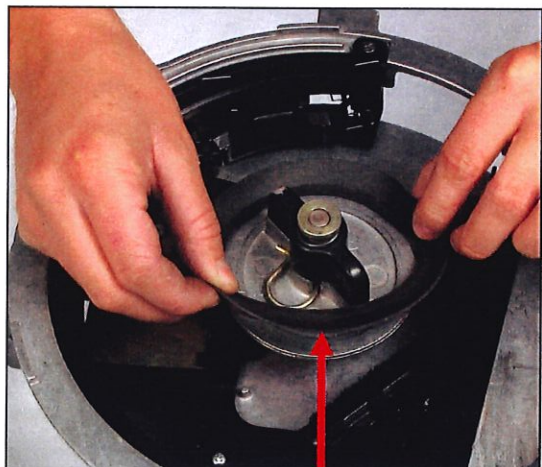
You may notice that all disks have a slight warp to them. The eSet system has been specially designed to compensate for this in the design of the singulator. It is spring-loaded in order to ensure constant contact with the disk and compensate for any run-out in the disk. You may find that by removing the disk and rotating it 180 degrees relative to the hub, it will run more true. In this case, mark the position of the plate and the hub with a paint pen and number the disk to correspond to the row number of the meter it belongs to.

Step 12 Inspect Vacuum Seal

The seal should not have any wavy sections and the height of the seal should be very uniform around the entire circumference. The section of the seal where the seed is released should be free from wear grooves. If this area is grooved, replace the seal.

Note: John Deere made a design change to the seal in recent years that makes the seal more stiff. They recommend that the soft and stiff seals not be intermixed within the same planter to ensure uniform vacuum pressure from row to row.

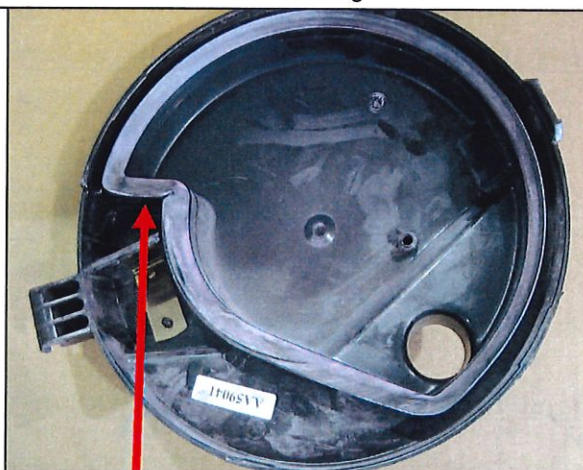
Precision Planting has replacement seals available in a pack of 2 pcs (order part number 720076 for two outer seals and 720077 for two hub seals)



Final Components:

Slide over the center vacuum seal, install the eSet disk and vacuum cover.

Seal should be uniform in height around circumference.



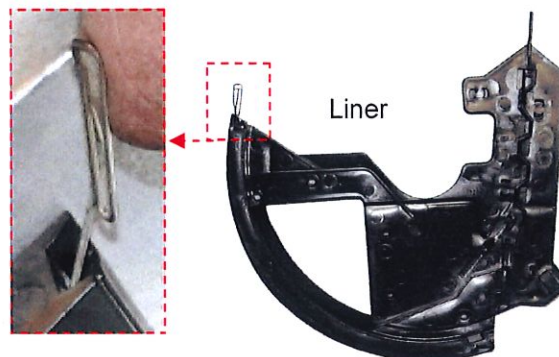
Seed Release Area: Seal should be straight with no wear grooves.

We will be sending out a lid for the mini hoppers at a later date.

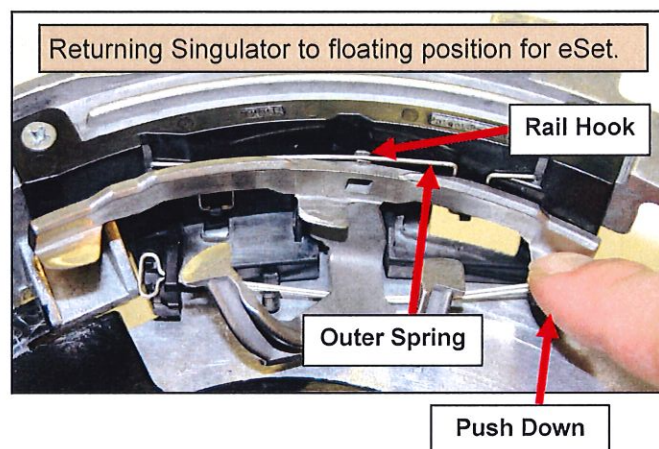
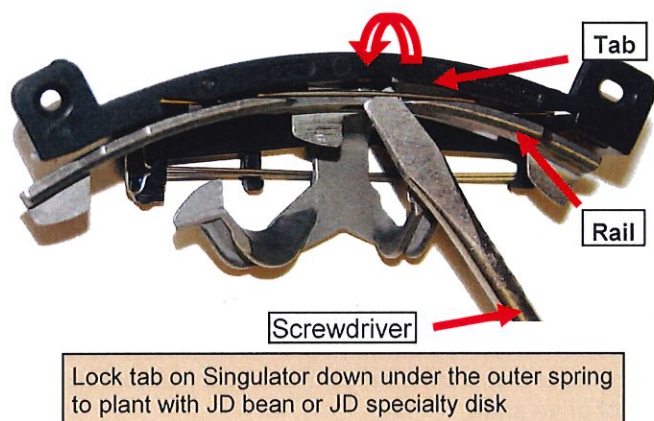
Questions? Check the website: www.precisionplanting.com or call us at 309-925-5050.

Installation Instructions Continued

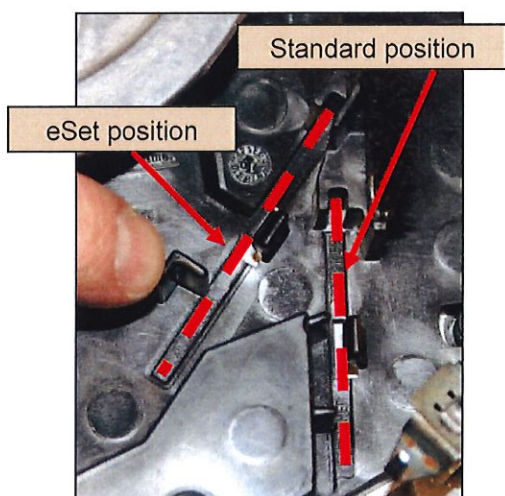
- Step 13 Seed Deflector:** Lift the seed deflector up and to the left until it locks into the up position for eSet. For standard disc lift it up and to the right and lower it down to the floor of the aluminum housing.



- Step 14 Singulator Changes for Other Crops.** The singulator needs to be locked into the lower position for any crop that uses a disk other than the eSet disk. Push the Singulator rail under the outer spring as shown below. The spring will click over the tab and snap into the locked position. To unlock, push down on the right lobe to release the rail from the spring.



- Step 15 Short brush Installation**

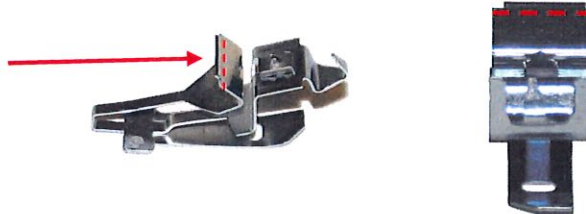


Annual Maintenance

eSet should be inspected and maintained annually.

- 1) Check fragment extractor for wear.
- 2) Inspect short & long brush for wear. (replace if necessary)
- 3) Check back side of disk to see if graphite is worn away. (Respray with graphite if gone)
- 4) Check vac seals for wear.
- 5) **Test meters on MeterMax® Test Stand to insure Maximum performance.**

If wiper is worn below this line replace.



Troubleshooting Guide

Problem	Solution
Lots of Skips	<ol style="list-style-type: none"> 1 ► Increase vacuum. 2 ► Check to make sure singulator is floating and not locked down. 3 ► Check for debris caught in singulator.
Seeing Doubles	<ol style="list-style-type: none"> 1 ► Check to make sure Singulator is in correct position and floating. 2 ► Check for damaged singulator.
Inconsistent Spacing	<ol style="list-style-type: none"> 1 ► Check shafts for proper alignment, especially where planter flexes. 2 ► Check bearings of drive shaft. 3 ► Check for meter alignment over seed tube. 4 ► Check seed tube for debris or defects. 5 ► Use correct amount of eFlow or talc.
Consistent Low or High Population	<ol style="list-style-type: none"> 1 ► Verify population settings are correct. 2 ► The JD population charts may not be compensating for wheel slippage or incorrect distance calibration. 3 ► Check air pressure in drive tires.

Always pay attention to your seed monitor, operating manual, and the amount of seed you are planting compared to your expectations.

Always investigate abnormalities!

Warranty: Precision Planting®, Inc. warrants this product to be free from defects in material or workmanship during the first year of service. Our obligation under this warranty shall be limited to repairing or replacing, free of charge to the original purchaser, any part that in our judgment shall show evidence of such defect, provided further that such part shall be returned within thirty (30) days from the date of failure – routed through the dealer from whom the purchase was made. Shipping charges prepaid.

Precision Planting® shall have no obligation or liability of any kind on account of any of its equipment and shall not be liable for special or consequential damages. This warranty does not extend to loss of crops, loss because of planting delays or any expense or loss incurred for labor, supplies, substitute machinery, rental or for any other reason. Precision Planting makes no other warranty, express or implied.

Questions? Check the website: www.precisionplanting.com or call us at 309-925-5050.

Precision
PLANTING



PLEASE DETACH THIS FORM AND KEEP FOR QUICK REFERENCE

eSet Operating Guidelines

Thank you for placing your confidence in Precision Planting's eSet. While this revolutionary system offers unparalleled operating simplicity, there are some guidelines to keep in mind for optimum performance.

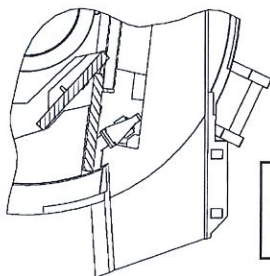
Vacuum Setting:

Bag Weight	Vacuum Level
Less than 60 lbs (>1350 seeds/lb)	15"
Greater than 60 lbs (<1350 seeds/lb)	18"

Lubricant: As with all vacuum planters, eSet works best with lubricated seed. Follow the general recommendation below and adjust as necessary to prevent excess accumulation of talc in the meter.

Seed characteristics	Application rate	Type of Lubricant
Less than 60 lbs (>1350 seeds/lb)	1/4 Cup per Unit	eFlow (80% Talc, 20% graphite)
Greater than 60 lbs (<1350 seeds/lb)	1/8 Cup per Unit	eFlow (80% Talc, 20% graphite)
Humid planting conditions	Increase rate as necessary	eFlow (80% Talc, 20% graphite)
Treated seed (Poncho/Cruiser)	Increase rate as necessary	eFlow (80% Talc, 20% graphite)

Disk Changes: The eSet disk is designed especially for planting corn. At this time, specialty crops should be planted with the standard John Deere disks you previously used. For limited amounts of sweetcorn, the eSet disk will plant fine. (If planting production fields of sweetcorn, contact Precision Planting for a special disk.) When planting specialty crops or using celled disks, verify that seeds are not interfering with the singulator assembly and remove singulator assembly if necessary. There are three parts that need to be adjusted when you are switching from the eSet disk to a JD disk. The Short Brush, the Seed Deflector and the Singulator. All three are described below.

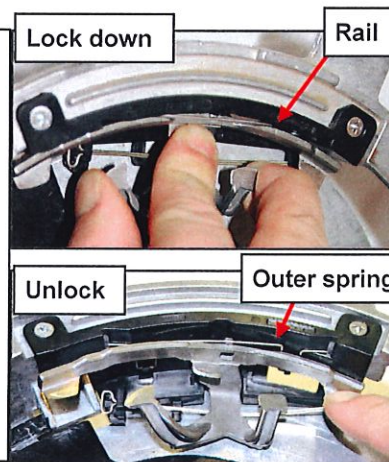


Seed Deflector:
eSet disk - up stan-
dard disk - down

Brush Position
for eSet Disk

Brush Position for all John
Deere disks (soybeans and
specialty crops)

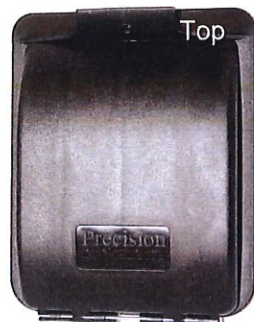
Singulator: To lock the Singulator out of the way for other crops, push down while rotating back on the metal Singulator until the outer spring clicks over the tab on the rail. To return to the unlocked position for corn, push down on the right hand lobe of the singulator and the tab will walk out from under the spring.



Pro-Series™ Meter Vented Hopper Lid Instructions

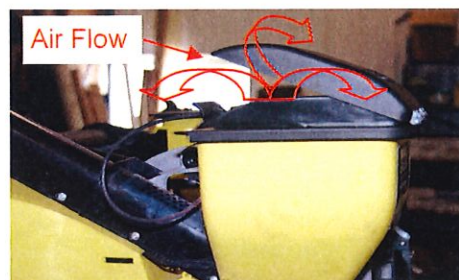
Parts List

1. Vented Hopper Lid (720225)



Purpose:

The purpose of the vented hopper lid is to release the excess pressure in the hopper when the CCS tank empties and seed flow to the meter has stopped. The lid prevents back pressure which can cause the seed in meter to flow over the brush.

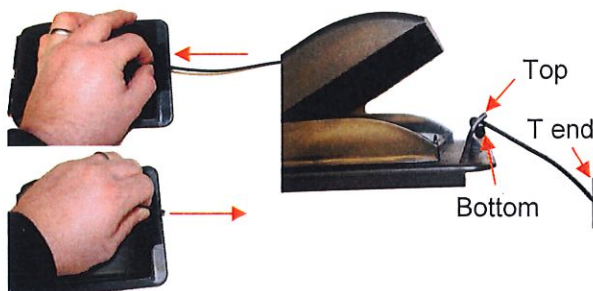


Step 1 Remove the old lid from the hopper by undoing the rubber lanyard and pulling the lid off the hopper.

Step 2 Take the rubber lanyard and feed the T shaped end through the lower hole until tab end stops on lower hole. Feed T shaped end through top hole and pull till loop is tight to the lid. Replace lanyard to hopper.



Step 3 Replace lid by sliding it on until it locks into place



Note:

The vented lid will only open halfway and then stops. DO NOT try to force lid open. This stop is so the lid can seal itself again after it has vented.

