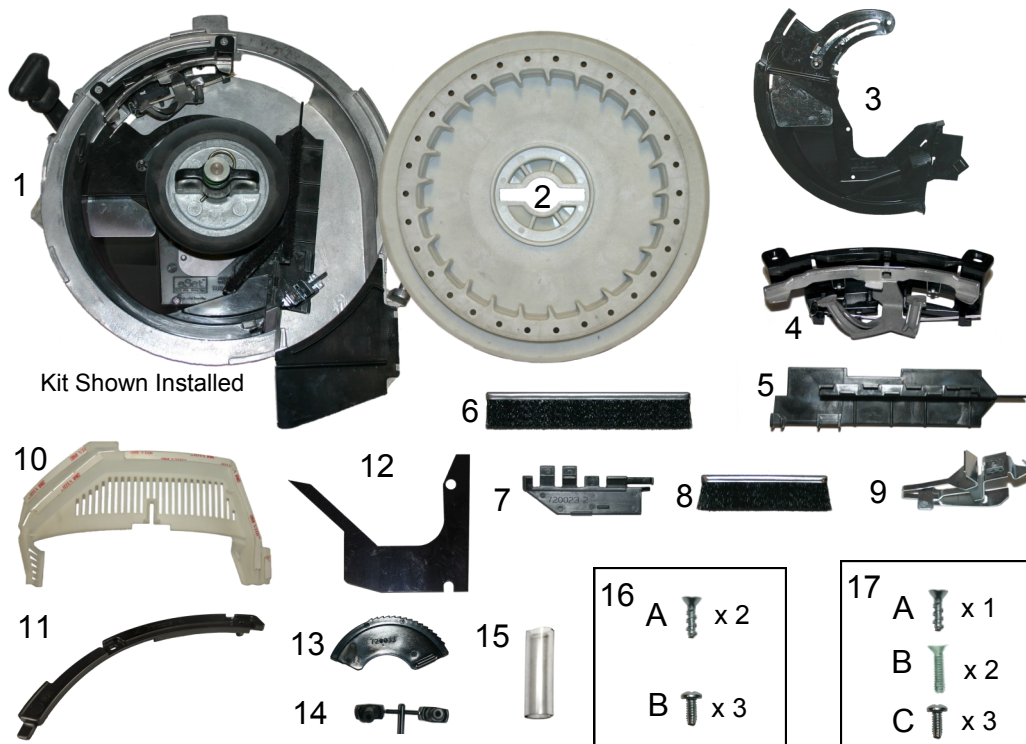


eSet Standard-Series and Max Emerge 5 Installation Instructions

Parts List

1. Complete eSet Kit ME5 and Standard (720370),
2. Disk, (1)
3. Liner, (1)
4. Singulator, (1)
5. Long Brush Holder, (1)
6. Long Brush, (1)
7. Short Brush Holder, (1)
8. Short Brush, (1)
9. Fragment Extractor, (1)
10. Vent, (1)
11. Shim (1)
12. ME5 Shim (1)
13. Wedge, (1)
14. T-shaped Retainers, (2)
15. Seed Deflector Cover Tube (1)
16. Hardware Kit Standard, (1)
 - A. Hi-Lo Screw, (2)
 - B. Pan Head Screw, (3)
17. Hardware Kit ME5, (1)
 - A. Hi-Lo Screw (1)
 - B. Type F thread cutting screws (2)
 - C. Pan Head Screw (3)

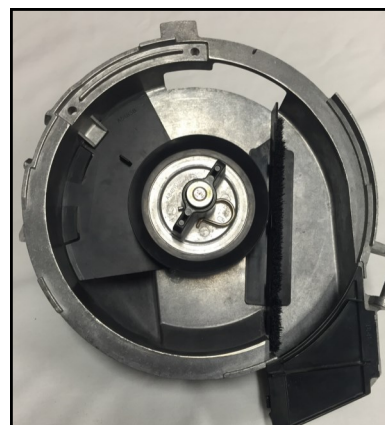


This kit will include hardware for both **ME5** and **Standard** meters.

Max Emerge 5

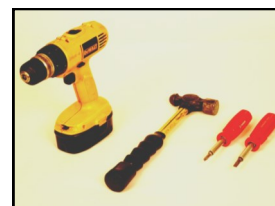


Standard



The tools required for assembly include: 2 Screwdrivers (Flat and #2 Phillips), center punch, **7/64th drill bit**, drill, and hammer.

ME5 will include: T20 Torx Screwdriver, 10mm, and 13mm Wrench.



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.

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

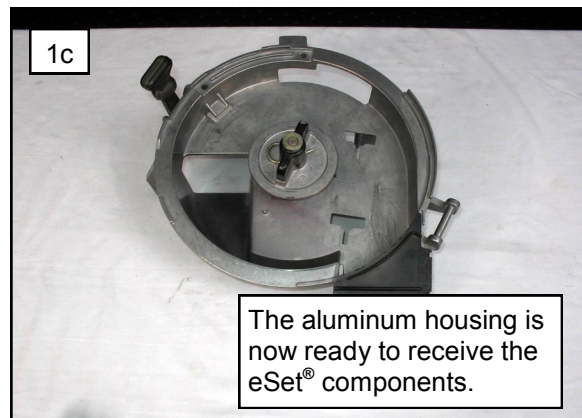
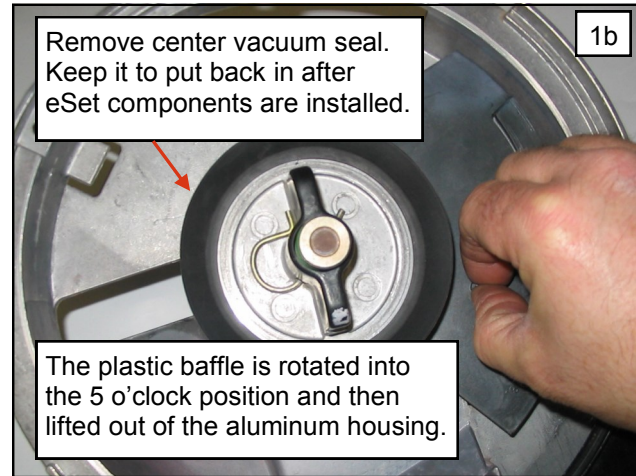
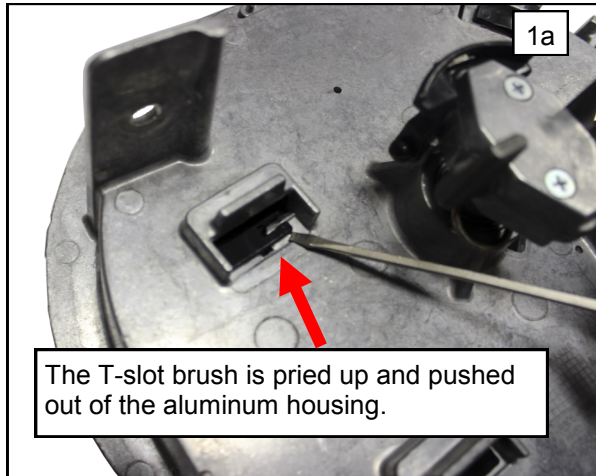
Installation Instructions Continued

Step 1

Housing Preparation

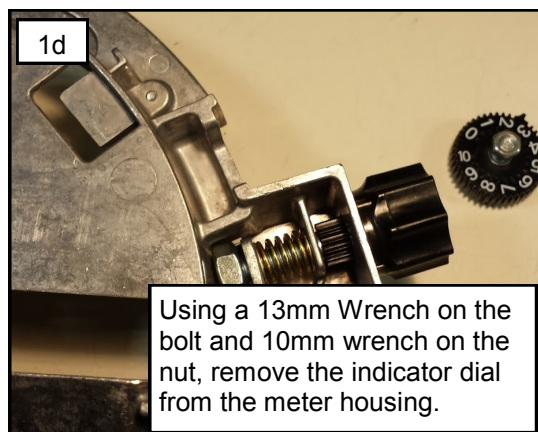
After the T-brush (fig 1a), baffle (fig 1b), and center vacuum seal have been removed, the bare aluminum housing (fig 1c) is ready to accept eSet® components.

ME5 will also require removing the indicator dial (fig 1d, 1e, 1f) and doubles eliminator.



Housing Preparation

ME5 will also require removing the indicator dial (fig 1d, 1e, 1f) and doubles eliminator.



Installation Instructions Continued



By hand, unscrew the adjustment knob. Remove the knob and slide the nut and spring out of the housing.



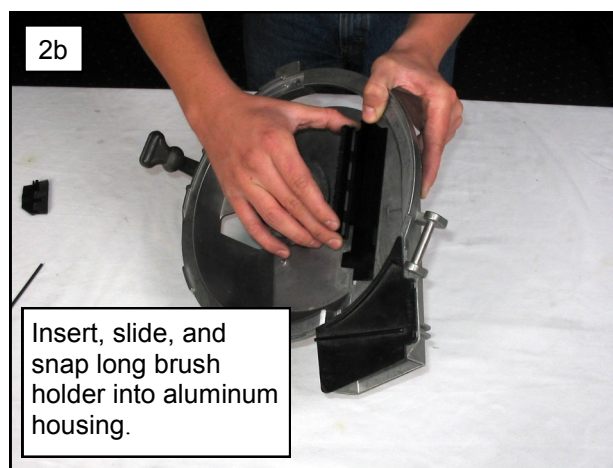
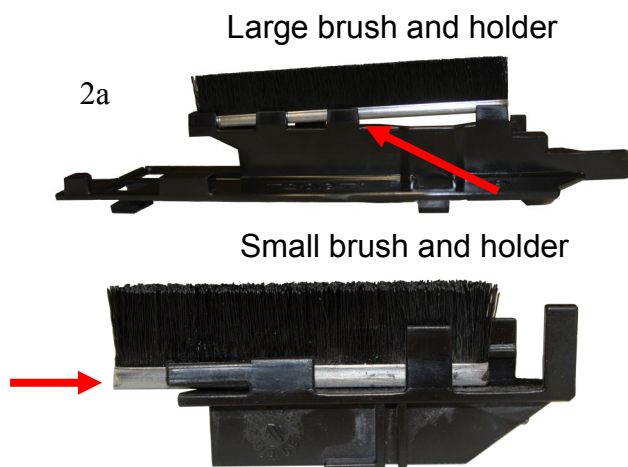
Using a T20 Torx screwdriver, remove the pivot screw that holds the doubles eliminator in the housing.

Step
2

Brush Assembly and Installation

The small and large brushes each have a plastic holder into which they slide. The large brush will be installed by sliding in starting at the tab pictured above in (fig 2a)

Once the brushes are slid into their respective holders the large brush is slid into the T-slot (fig 2b) of the aluminum housing; the small brush is put aside until later.



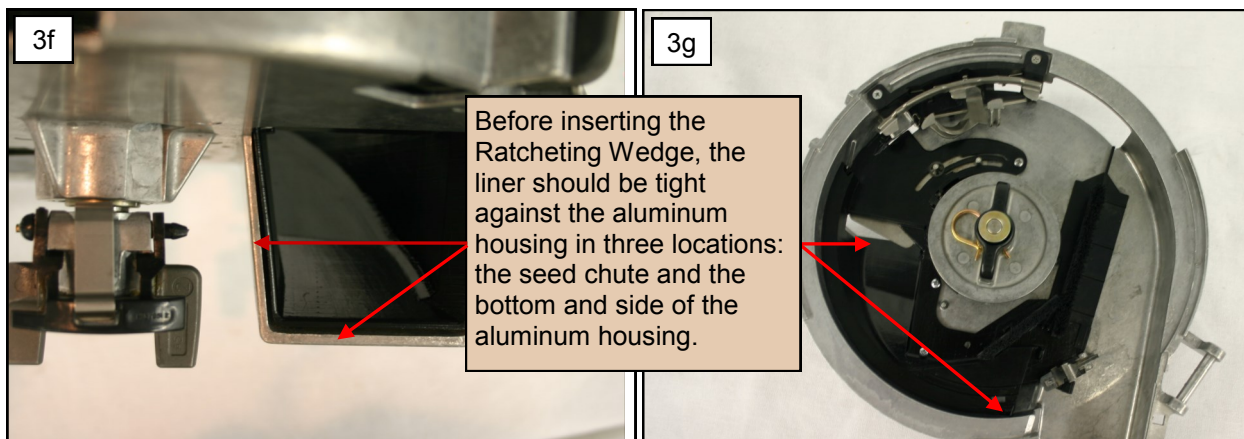
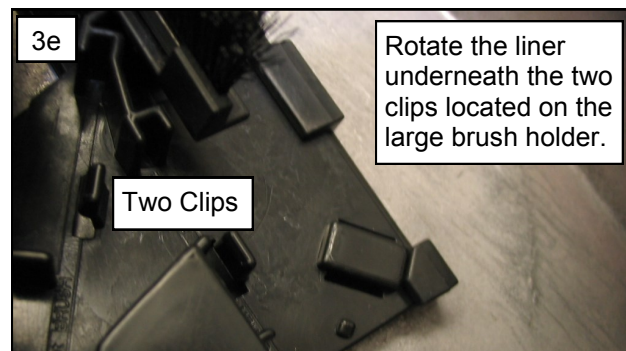
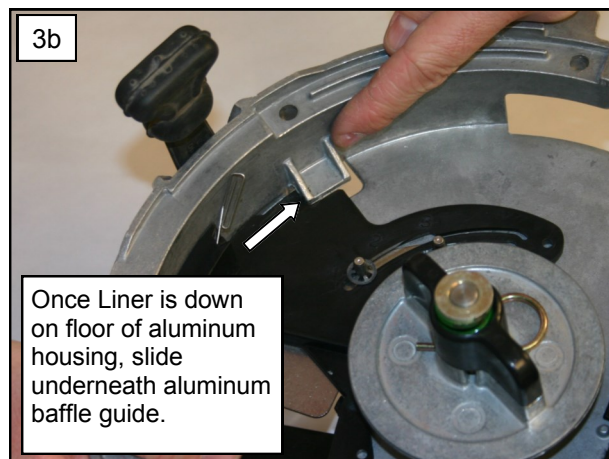
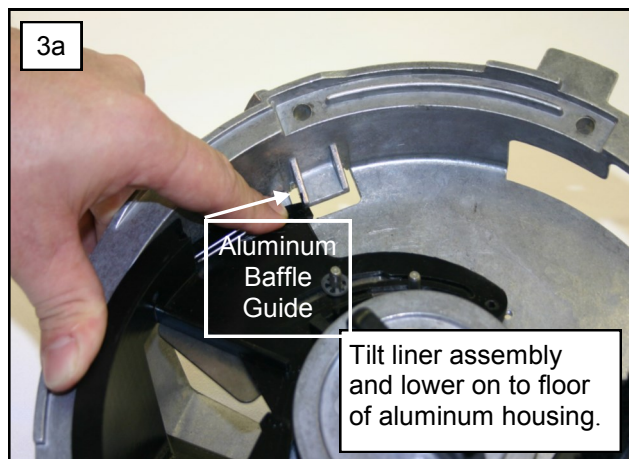
Insert, slide, and snap long brush holder into aluminum housing.

Step
3

Liner Installation-continued on next page

- 1) Tip the liner assembly to bridge the hub (fig 3a) with one end down in the hopper chute.
- 2) Rotate the liner clockwise and slide the liner underneath the aluminum baffle guide (fig 3b).
- 3) If liner is being installed in an ME5 JD meter, ME5 shim is required. Flip liner over, and remove white paper from shim, and install. (fig 3c-d). Align holes and inside edges of shim and liner. It may be helpful to use screws provided to align holes in the shim with holes in the liner.
- 4) Rotate the liner counter-clockwise so that it fits underneath two clips located on the large brush holder (fig 3e).
- 5) Make sure that the liner is tight against the aluminum housing on the back where the seed chute begins (fig 3f) and at the side and bottom of the aluminum housing (fig 3g).

Installation Instructions Continued



Step 4

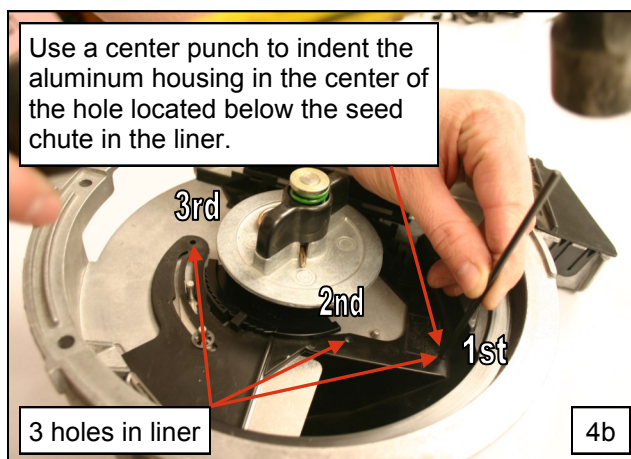
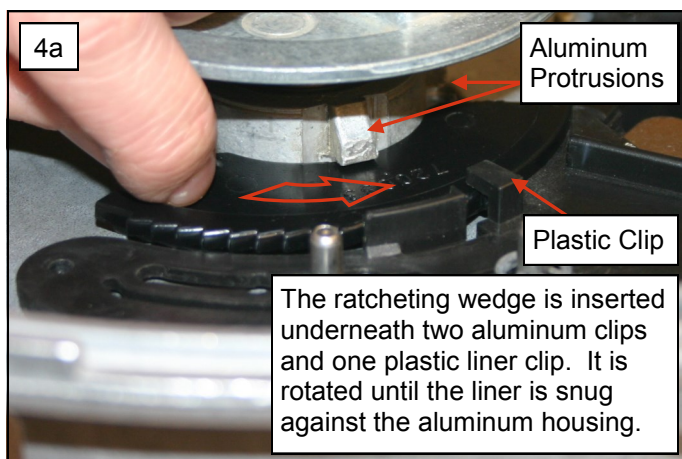
Securing Liner to Housing

The liner is now ready to be secured to the housing and to be screwed down.

Insert the ratcheted center wedge around the center hub and along the inside of the liner. The cam shaped wedge is rotated counter-clockwise under the aluminum protrusions and the plastic liner clips (fig 4a) The ratcheted rotation will squeeze the liner out against the aluminum housing. There is no need to force the wedge, it merely keeps the liner tight against the aluminum housing.

Verify that the liner is tight against the seed chute as well as the bottom and side of the aluminum housing and securely tucked under the two clips on the brush holder (fig 3c, 3d & fig 3e above).

Installation Instructions Continued



Locate the 3 holes provided in the liner (fig 4b). Use a center punch and indent the aluminum housing in the center of the hole located below the seed chute in the liner.

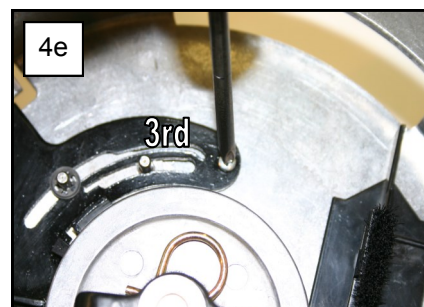
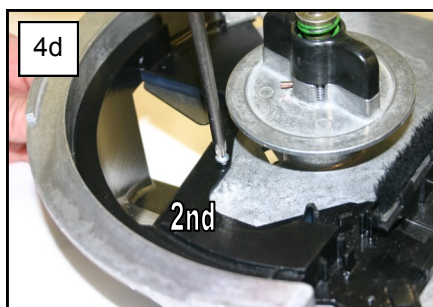
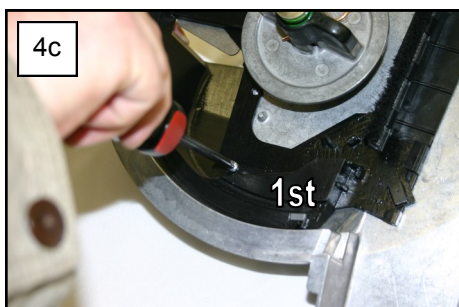
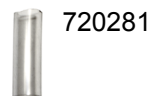
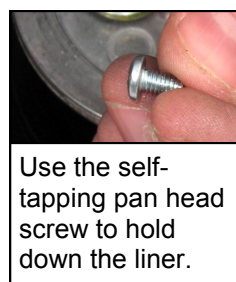
Then take a 7/64" drill bit and make a through-hole for the self-tapping pan head screw. Drill hole entirely through aluminum housing and tilt the housing to allow filings to fall out from underneath the plastic liner.

Take the 6-32 self-tapping pan head screw and screw the liner down tight against the aluminum housing (fig 4c). The screw should protrude a small amount through the back side.

After installing the first screw, check to see that the liner is still tight against the seed chute and the bottom and side of the aluminum housing (fig 3e & fig 3d on page 3).

Repeat the above process for the second (fig 4d) and third hole (fig 4e) in the liner.

Place the cover tube (720281) over the seed deflector. This will be used for all crops.



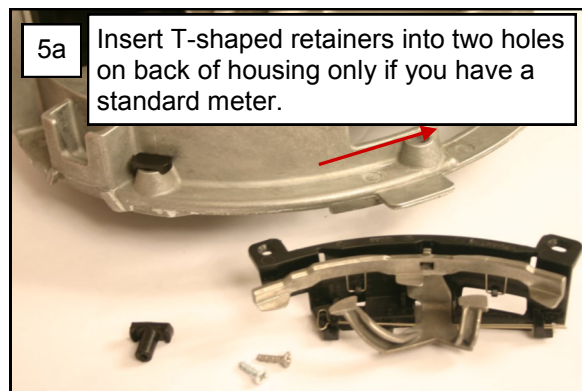
Before you install the Singulator, skip to Step 9 and go through the hub height adjustment procedure. After setting the hub height, return to Singulator installation.

If you have a Max Emerge 5 housing skip to step 6 on next page.

Step 5

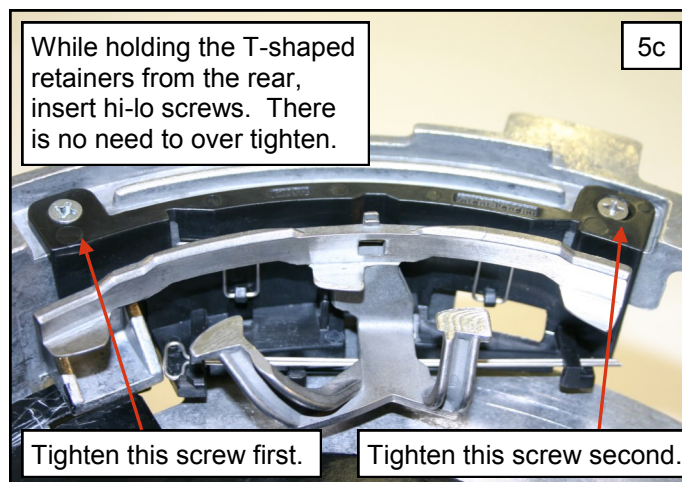
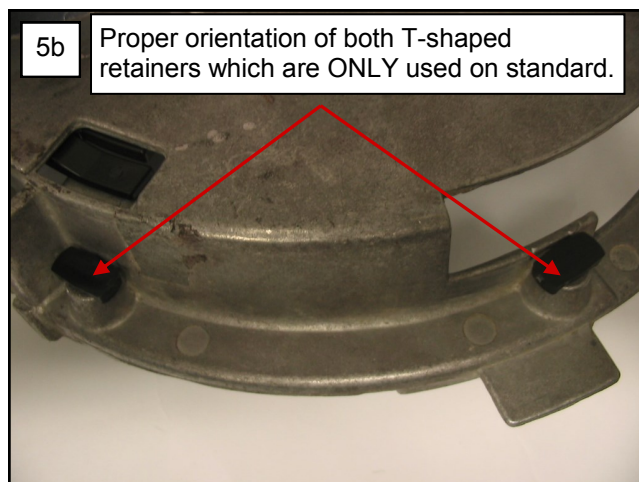
Singulator Installation for Standard ONLY.

Now that the liner is in place, the Singulator assembly can be mounted. Using the T-shaped retainers insert them into the two holes at the top of the meter. (fig 5a & 5b).



Installation Instructions Continued

Now place the Singulator into position and screw each of two #6 Hi-Lo flat head screws (Fig 5c) into the T-shaped retainer. Do not over tighten. The plastic piece only needs to be slightly snug. This step is only for Standard meter.



For the ME5 you will then insert the shim as described below (Fig 6a). After the shim is installed you will then install the Singulator (Fig 6b).

Step 6

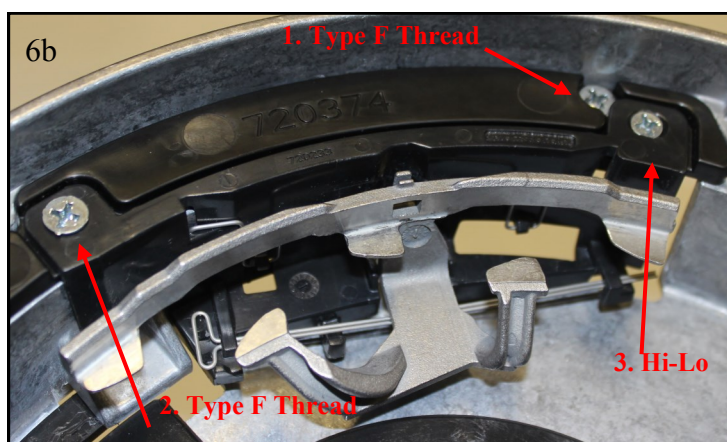
Shim Installation ME5.

You then will insert screw (Type F thread cutting screw) where arrow is pointing to in picture 6a. Now the Singulator is ready to be installed.



Singulator Installation ME5.

Now that the shim is in place tighten screws (Type F thread cutting screw #2) on arrow 1. Next you will tighten down the 2 screws on arrows 2 and 3. Tighten down the left screw (2) before the right screw (3).

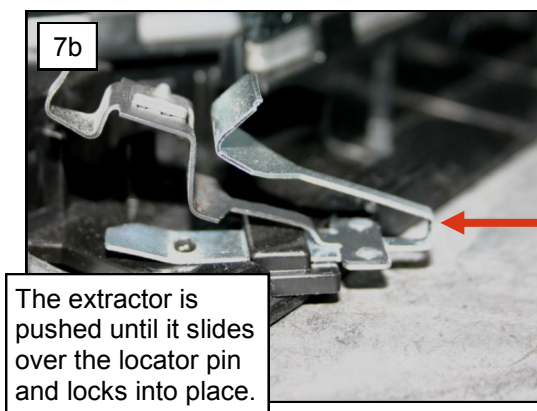
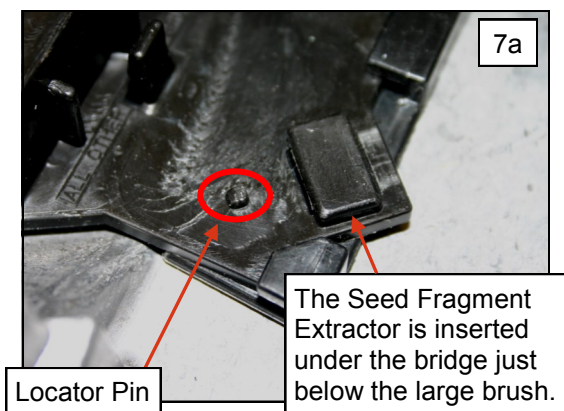


Installation Instructions Continued

Step 7

Seed Fragment Extractor Installation.

The Seed Fragment Extractor is inserted at the bottom right corner of the liner (Fig 7a). Slide the component underneath the plastic bridge and over the locator pin until it locks into place (Fig 7b).



Note:

When using specialty eSet discs for specialty crops use the specialty extractor instead of the standard eSet extractor. The difference between the standard extractor and the specialty extractor is that the standard extractor has a pick located at the back and the specialty extractor does not have the pick.



Specialty Extractor



Standard Extractor

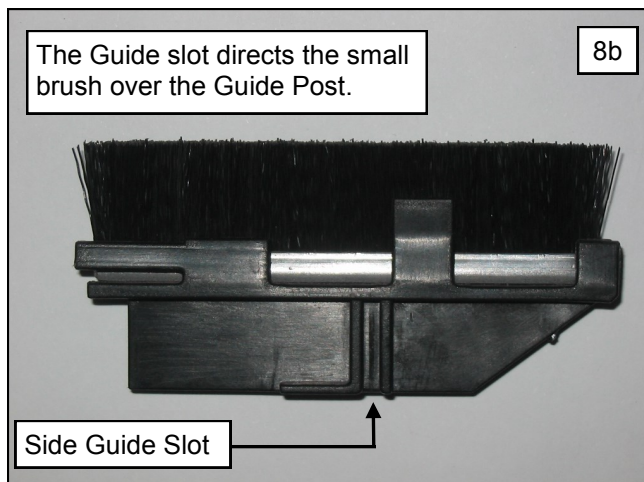
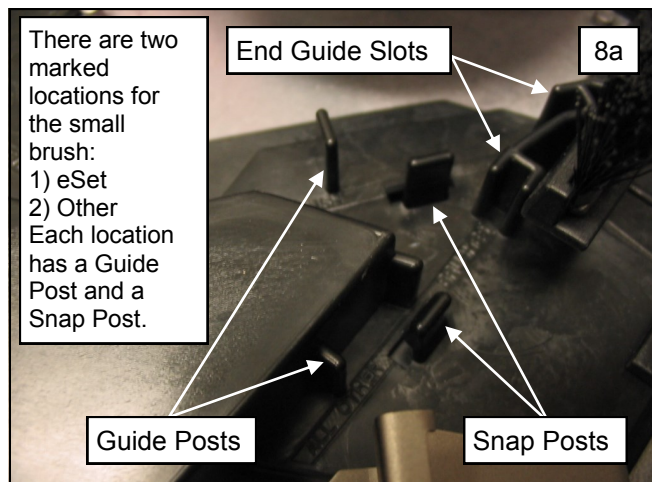
Notice the pick, it is the only difference between the standard and the specialty extractor.

Installation Instructions Continued

Step 8

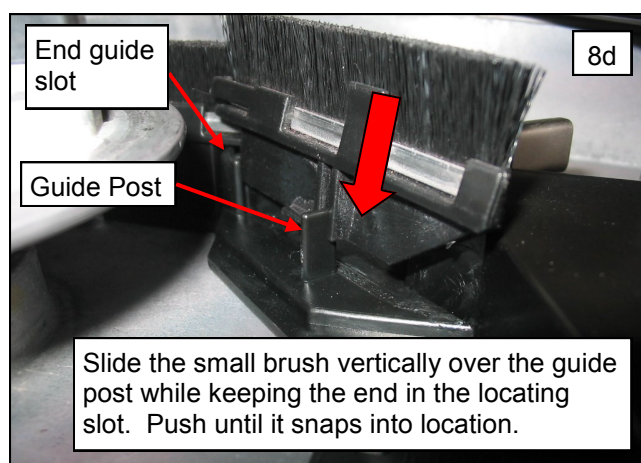
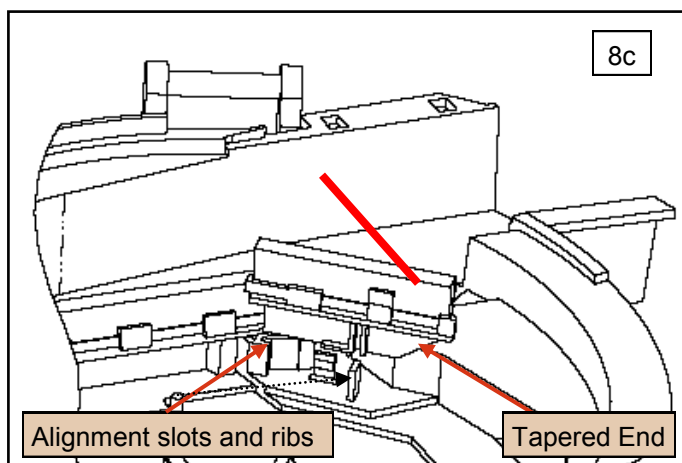
Small Brush Installation

The small brush can be mounted into one of two different locations: one for planting with the eSet® disk and another for planting with all other standard vacuum plates. The locations are marked on the liner; each location has a guide slot, guide post, and snap post (Fig 8a). The small brush has a guide slot that will span the guide post in either location (Fig 8b)



Slide the brush vertically (Fig 8c) downward into the provided grooves (Fig 8d):

- 1) Slide guide slot over the guide post, and the end of the brush into the end guide slot.
- 2) Snap into place.

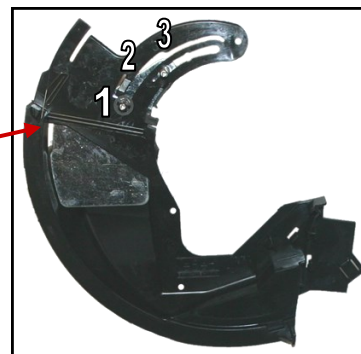


Step 9



Final Components:

Slide over the center vacuum seal; set the baffle position to the lowest position (1) for corn; install the eSet disk and vacuum cover



Installation Instructions Continued

**Step
10**

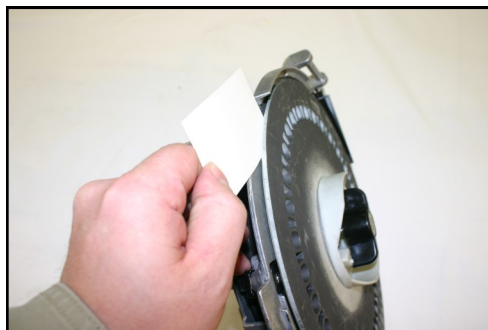
Hub Height Adjustment

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.

Once singulator is installed 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.

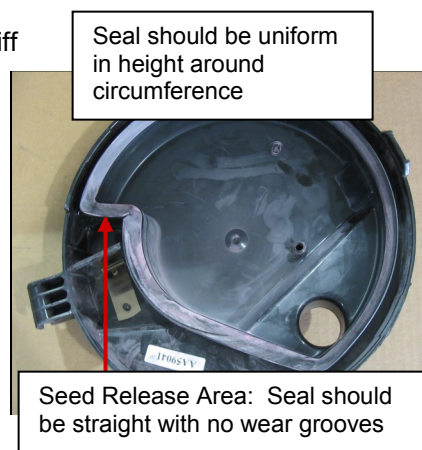
**Step
11**

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)



Installation Instructions Continued

Step
12

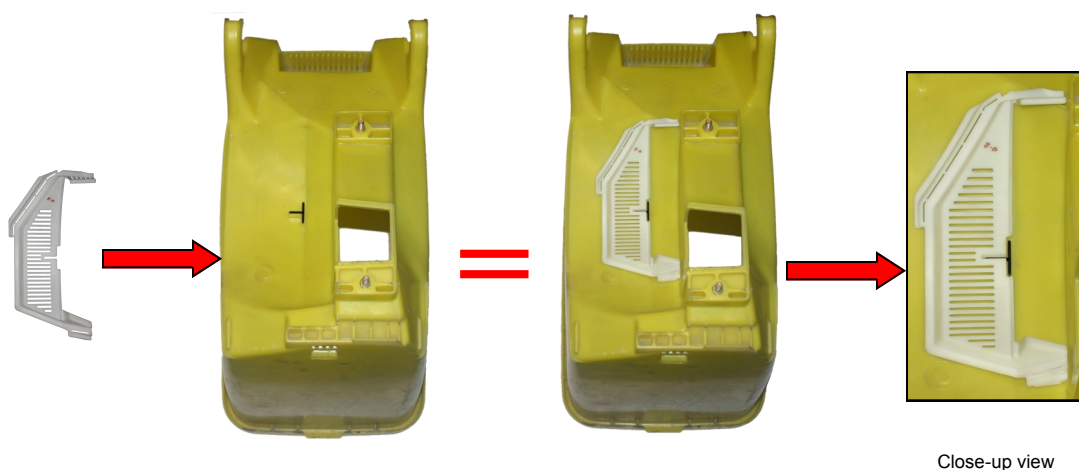
Universal Vent Installation *If you have Max Emerge 5 you will reuse the JD vent.

1.6 Bushel Plastic hopper - Do not make any modifications.

3 Bushel Plastic hopper - Cut on the red lines indicated below.

*****ONLY USED FOR
STANDARD METERS**

Vent Installation for 1.6 bu plastic hopper

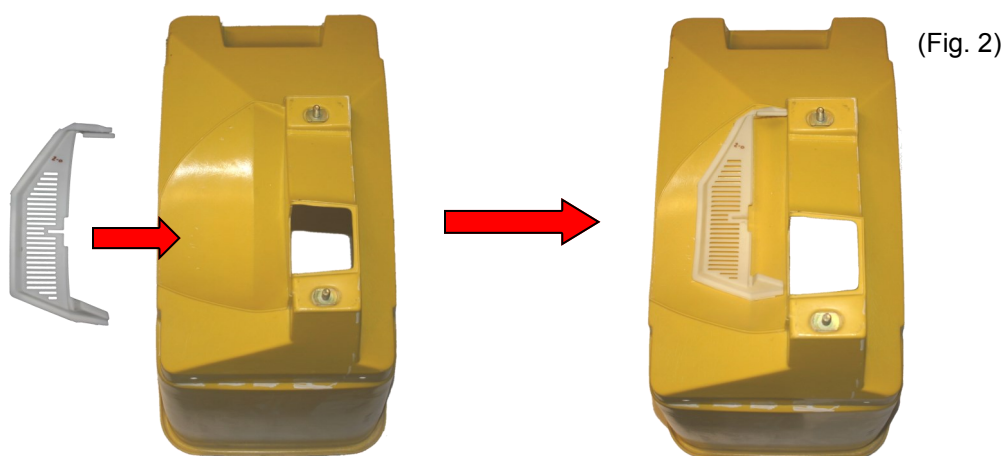
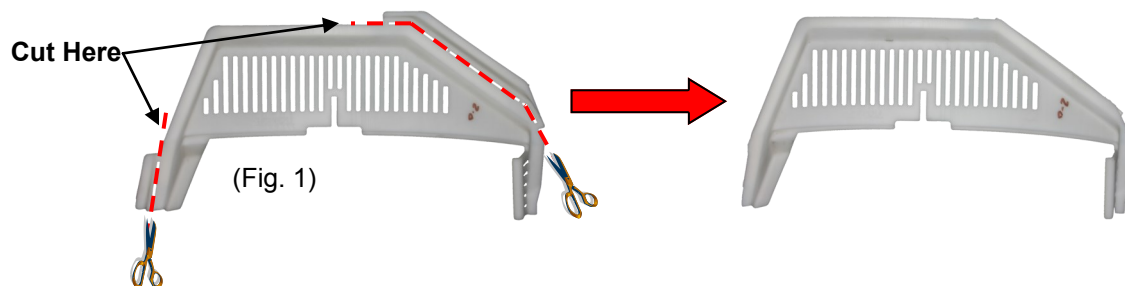


Close-up view

1. Clean with water or degreaser and allow hopper to warm to 70°.
2. Test fit by placing vent onto hopper by lining up the vent with the guide on the hopper as shown above.
3. Adhere vent to hopper.
4. Keep hopper in area warmer than 70° for 24 hours for best adhesion.

Installation Instructions Continued

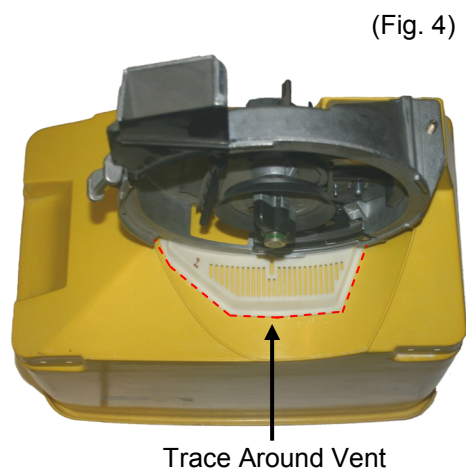
Vent Installation for 3 bu hoppers except for Max Emerge 5



(Fig. 3)



Enlarged to show how the vent and meter line up.

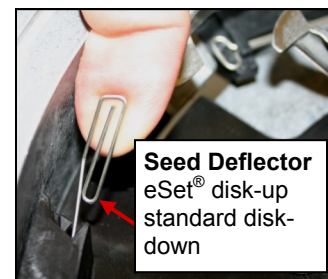


1. Cut vent on dashed lines. (Fig. 1)
2. Place vent onto hopper like shown. (Fig. 2)
3. Place meter housing onto hopper as shown. (Fig. 3)
4. Adjust housing and vent until they are secure and line up.
5. Once in place, trace around vent with marker. (Fig. 4)
6. Remove meter and vent from hopper .
7. Peel off strips from adhesive on vent.
8. Line up the vent with the traced line and stick it to the hopper.
9. For best adhesion, keep hopper 70° or warmer for 24 hrs.

Installation Instructions Continued

Switchover to other disks:

There are three steps when changing from eSet to other disc.

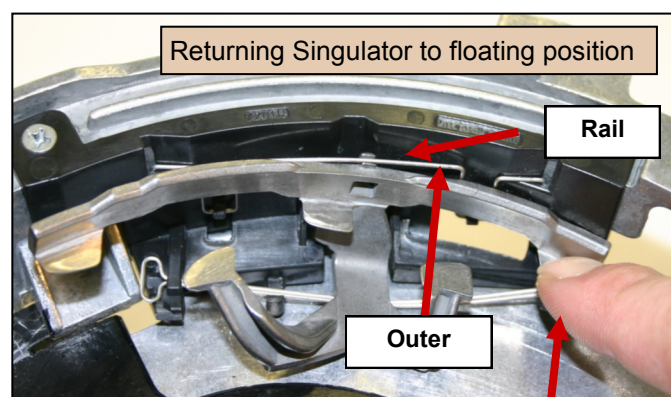
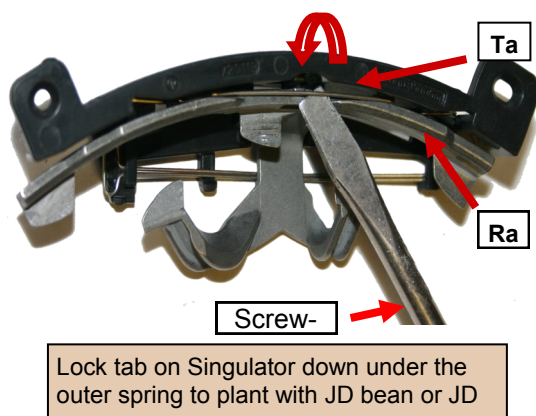


Step 13

Seed Deflector: Locate the seed deflector on the liner. For eSet the deflector must be in the up position (away from the base of the liner/housing). For other discs, pull up and to the right to release the deflector, and lower it so that it rests close to the liner/housing base.

Step 14

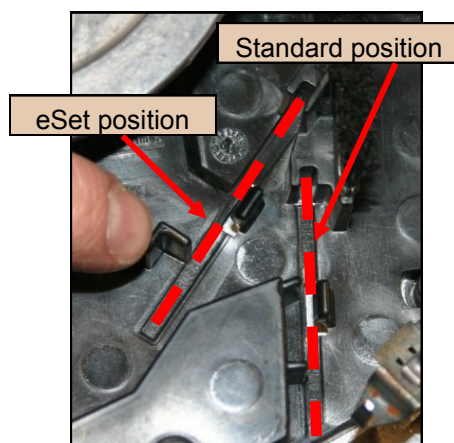
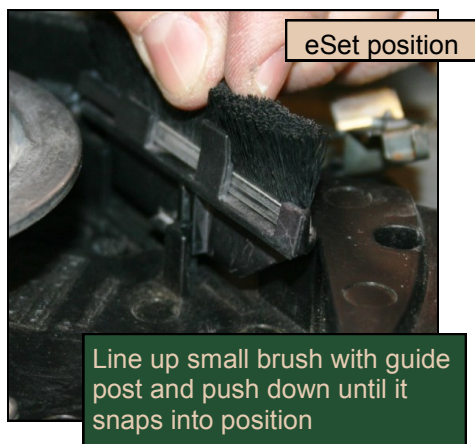
Singulator Changes for Other Crops: Lock the Singulator into the lower position when using non-eSet disks. Push the Singulator rail under the outer spring as shown below. The spring will click over the tab and snap into the locked position. To unlock, push down on the right lobe to release the rail from the spring.



Step 15

Short Brush:

Remove the short brush from the eSet® position and locate it into the straight up and down position for standard JD disk. Reverse procedure to return back to eSet®.



Step 16

Baffle Position:

The baffle should be in the number 1 position for corn and soybeans and most other crops.



Gate Modification for ME5 Meters with eSet

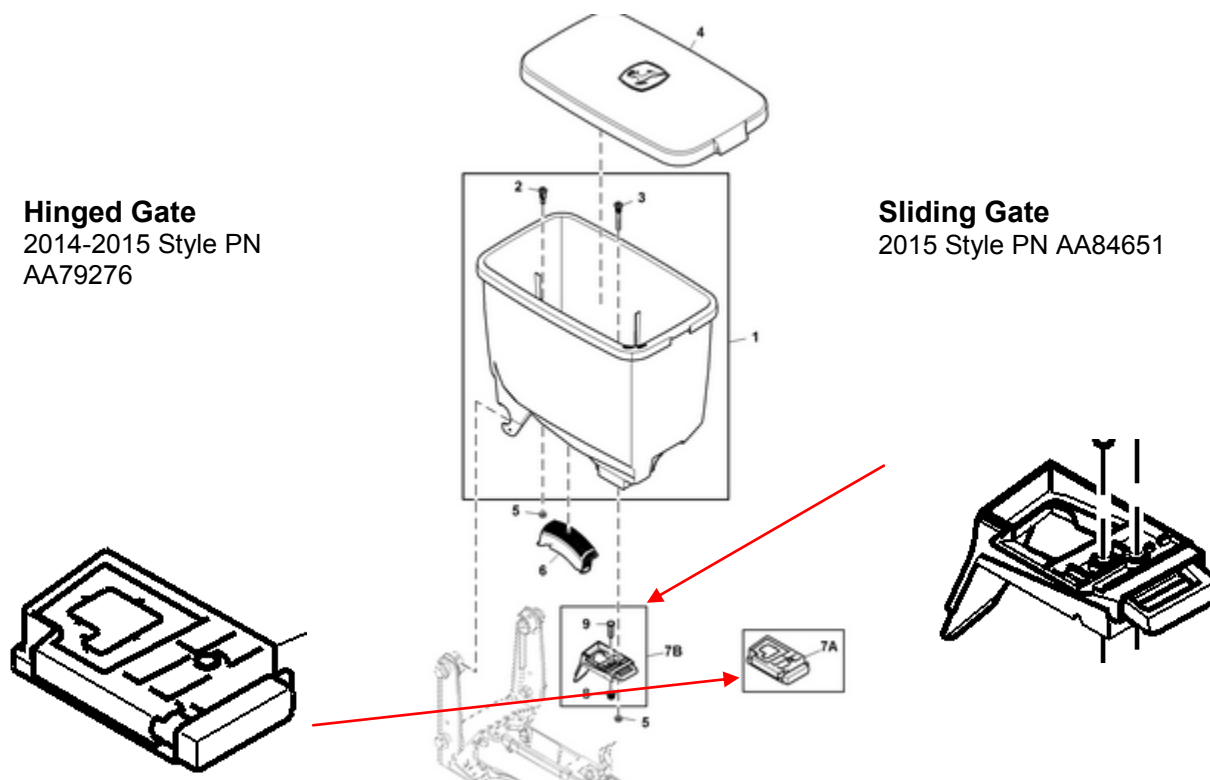
Gate Styles:

Hinged Gate

2014-2015 Style PN
AA79276

Sliding Gate

2015 Style PN AA84651



Options for Hinged Gate Style:

1. Replace the gate on all rows with JD PN AA84651. This allows you to keep the seed shut-off capability with your eSet meter.
2. Modify the existing gate to work with eSet. This does not allow you to keep the seed shut-off capability.

Parts and Tools needed to Modify Hinged Gate:

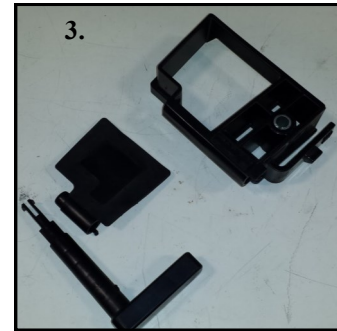
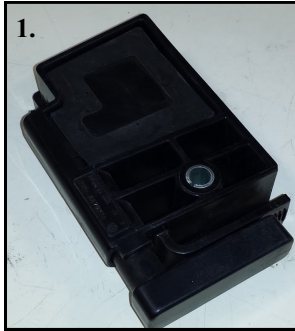
Tools: 5/8" and 11/16" Wrench

Parts: 7/16x3.5" Hex Head Bolt and 7/16" Nut

Removing the Existing Gate:

**This step is easiest while the gate is still installed between the meter and hopper and the hopper is mounted on the row unit.

1. Open the gate (handle in down position).
2. Pull on the handle and slide the handle out of the housing.
3. Remove the gate flap from the housing.

**Installing the bolt:**

**Use the 7/16" bolt to plug the opening in the gate so seed does not leak out of the housing.

1. Insert the bolt from the back side.
2. Tighten the nut enough to secure the bolt, but not so much to compress/crack the plastic housing.



Troubleshooting Guide

Problem	Solution
Lots of Skips	1 ► Increase vacuum. 2 ► Check to make sure singulator is floating and not locked down. 3 ► Check for debris caught in singulator. 4 ► Make sure singulator is centered and in correct position. Verify that 5th lobe does not cover more than 50% of hole.
Seeing Doubles	1 ► Check to make sure Singulator is in correct position and floating. 2 ► Check for damaged singulator.
Inconsistent Spacing	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	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.
Cannot Maintain Vac Pressure	1 ► Check vac lid style to make sure lid has 1992+ seal 2 ► Check lid seals and vac hoses.

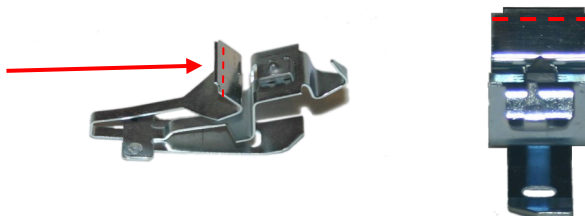
Always pay attention to your seed monitor, operating manual, and the amount of seed you are planting compared to your expectations. **Always investigate abnormalities!**

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.



If singulator lobe #5 covers more than 50% of hole, tune or replace singulator. See your MeterMax Rep for singulator inspection and tuning.

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.

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:

Seed Corn Bag Weight	Vacuum Level
Less than 60 lbs (>1350 seeds/lb)	18"+
Greater than 60 lbs (<1350 seeds/lb)	20"+

Baffle Position:

Crop	Baffle Position
Soybeans	1 or 2
Corn	1
Sweetcorn	2
Large specialty crops	2
JD celled disks	2

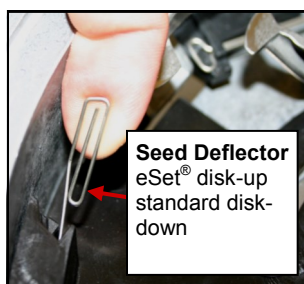
The baffle regulates the amount of seed entering the meter. Numbers molded to the left of the metal post designate the position.

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.

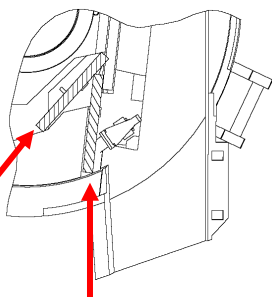
Seed corn characteristics	Application rate	Type of Lubricant
Less than 60 lbs (>1350 seeds/lb)	1/4 Cup per Unit	eFlow (80% Talc, 20% graphite)
Greater than 60 lbs (<1350 seeds/lb)	1/8 Cup per Unit	eFlow (80% Talc, 20% graphite)
Humid planting conditions	Increase rate as necessary	eFlow (80% Talc, 20%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

Other Crops: In addition to the eSet corn disc, Precision Planting has a range of discs for other crops. **These crops include sweetcorn, popcorn, sunflowers, soybeans, cotton, sugar beets, sorghum, small edible beans and other crops not mentioned here.** For more information or to test your specialty seed with eSet, contact your Precision Planting dealer or go to our website www.precisionplanting.com.

Changing to JD Discs: 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. When planting specialty crops or using celled disks, verify that seeds are not interfering with the singulator assembly and remove singulator assembly if necessary.



Seed Deflector
eSet® disk-up
standard disk-down

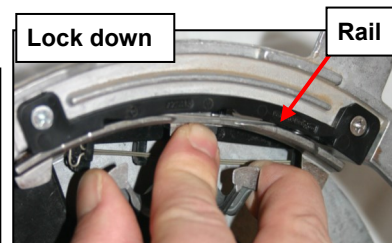


Brush Position
for eSet Disks

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

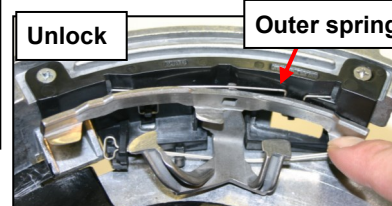
Warning: For some larger crops like edible beans or kidney beans you may need to remove the entire singulator to avoid interference.

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.



Lock down

Rail



Unlock

Outer spring

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