

MODEL 5000

Assembly and Operators Manual



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Assembly Instructions

*All references to left and right are correct when standing behind the transplanter looking at the tractor

1. Mark the center of the toolbar.
2. Mark your row centers clearly from the center of toolbar.
3. Fasten unit clamp to the toolbar at the row centers using the proper 5/8" bolts.
 For 4 x 7 Toolbar - use 5/8 x 9-1/2 bolts and 1/2 x 2 x 6 securing plate
 For 4 x 4 Toolbar - use 5/8 x 6-1/2 bolts and 1/2 x 2 x 6 securing plate
 For 4 x 7 Toolbar w/row knocker - use 5/8 x 13 bolts and row knocker clamp



If using our OE 66 Row Knocker, follow the special instruction sheet enclosed with Row Knocker.



4. Move units so holes on scissors hitches are aligned with holes on toolbar clamps. Use 1/2 x 1-1/2 bolts and slide #43 bushing onto bolt. Insert bolt and bushing into each of 4 holes and secure on inside of hole with 1/2" lock nuts.(fig.A)
5. Loosen bolts on each flange block on the toolbar clamp. Do not take them off, but makes sure the flange blocks have some play. Back off the set screws in the flange blocks as well.
6. Slide the 1" stainless steel shaft through the 1st unit only (fig.B). Add transtorque and a 35 tooth sprocket. Do not tighten the sprocket on the transtorque.
7. Slide the stainless shaft through the 2nd unit and add another transtorque and 35 tooth sprocket (fig C).

NOTE: For those setting dark tobacco and using wide plant spacings, a 22 tooth sprocket will be included for the 1" shaft and a 12 tooth sprocket for the gearbox.

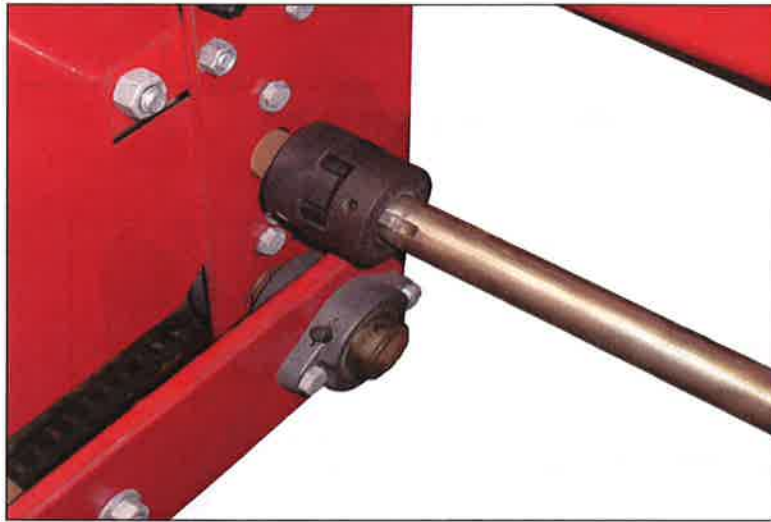
DO NOT TIGHTEN THE SHAFT YET!

8. Mount the gauge wheel drive system to the toolbar using:

4 x 4 Toolbar: 5/8 x 6-1/2 bolts and 1/2 x 2 x 6 securing plates
 4 x 7 Toolbar: 5/8 x 9-1/2 bolts and 1/2 x 2 x 6 securing plates
 (See figure D)

Drive wheels should be in line with tractor tires. On a 4-row, if the row spacings are less than 32", drives will have to go on outside of toolbar; otherwise mount drives between the first and second units and the gauge wheels between the third and fourth units.





9. Fasten the stainless drive shaft to the gauge wheel drive system using the "Love-Joy" coupler.
10. Now tighten the bolts holding the flange block and the set screws securing the 1" steel shaft.



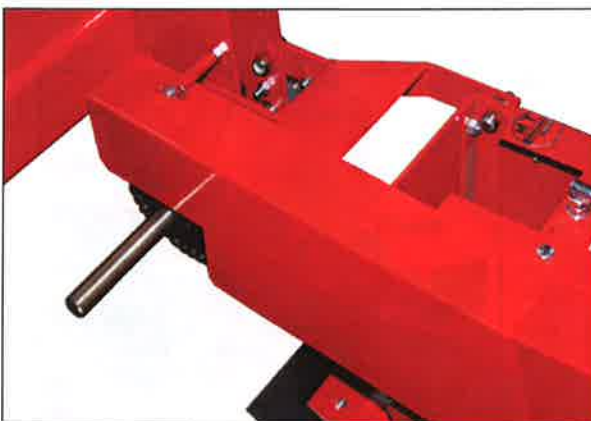
11. Remove guard located over large spur gear. Align the 35 or 22 tooth sprocket on the transtorque with the 10 or 12 tooth sprocket on the transplanter. Tighten by turning the hex side of the transtorque. An instruction card is enclosed for the transtorque.



12. Install the main transplanter drive chain under the front roller and over the rear roller of the chain tightener (The toolbar is in the front).



13. Replace guard over the large spur gear, that was removed to install the chain, before continuing.



14. Slide the front chain guard over the pin located by the toolbar clamp. Secure with small clip found in bag.

15. Install the windshield on the back of the transplanter. Use one 5/16 x 1/2" bolt with the small washer into the threaded hole by the large drop tube.



16. Attach the footrest to either the back of the unit or under the seat. Follow the instructions by using either of the pictures below.



Back of transplanter

- a. Slide 2 silver "C" clips over the studs protruding out the back of the transplanter.
- b. Place the footrest onto the studs. The footrest must fit inside the silver clips.
- c. Place the other silver clips on the studs and over the footrests. Secure with 3/8" nuts.



View under seat

- a. Make sure the long studs are threaded all the way through the inspection plate. These studs may have to be turned over.
- b. Place 2 silver "C" Clips down over the studs.
- c. Slide the footrest over the studs.
- d. Place 2 more silver clips over the footrest and secure with 3/8" nuts.



17. Place the six tube carousel feeder onto the vertical shaft of the gearbox. Align the key in the tubing with the keyway in the vertical shaft. Tighten using the square head set screw.

18. Attaching the seat to the transplanter



Cushion Seat

- a. Attach the red square seat bracket directly to the bottom of the cushion seat. Use four 5/16 x 1/2" bolts.
- b. Slide the round rod of the seat bracket into the tubing of the seat brace.
- c. Secure by tightening the square head set screws when the proper height is achieved.

- a. Find the long seat brace (#5065) and place it over the toolbar clamp.
- b. Secure the seat brace using a 3/4 x 3-1/2 bolt with a flat washer first and then a lock washer.



Fiberglass Seat

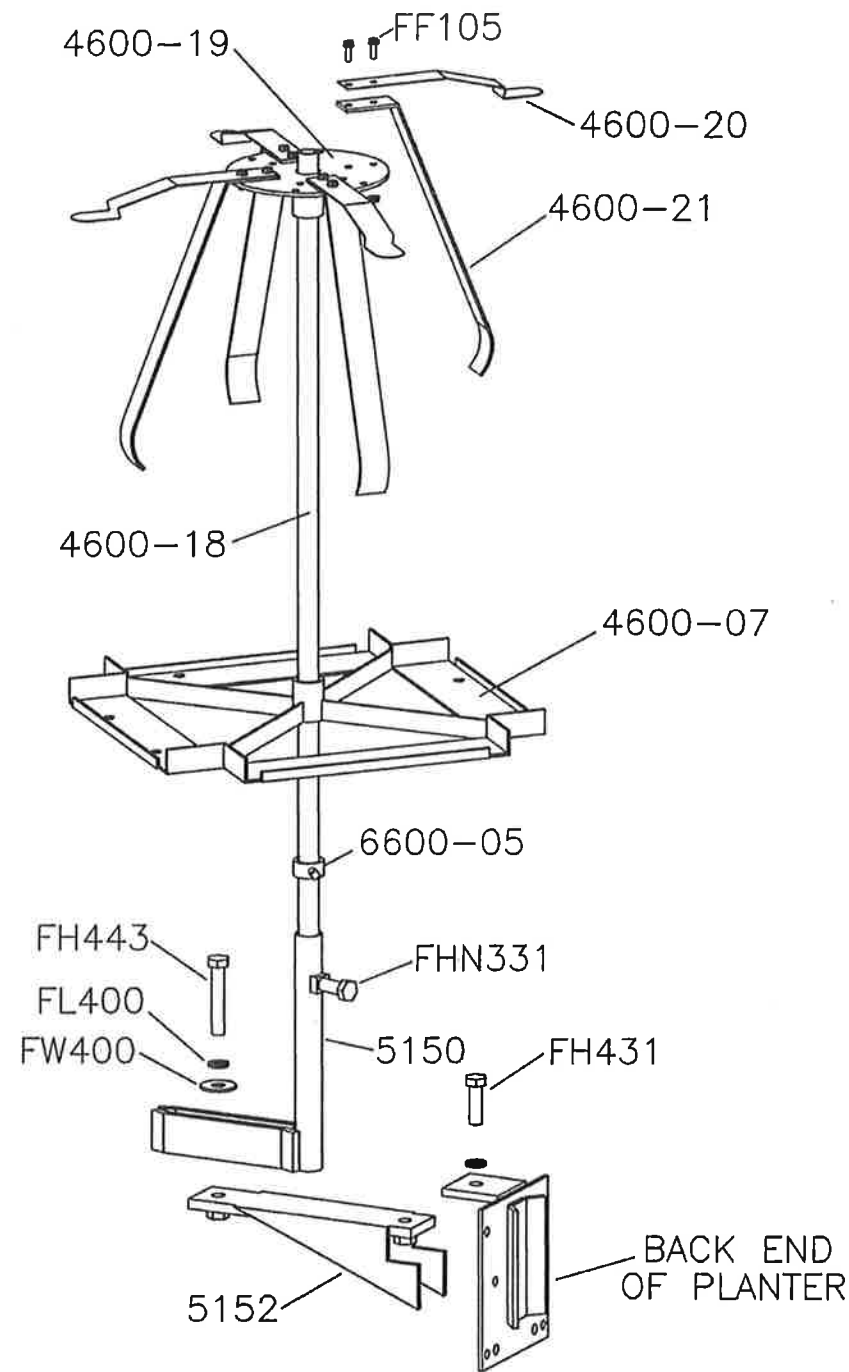
- a. Attach the green fiberglass seat bracket to the bottom of the fiberglass seat and secure with 4-1/4" nuts.
- b. Use a 1/2 x 1-1/2 Carriage bolt through the green seat bracket and attach it to the large hole in the square red bracket.
- c. Slide the round rod of the seat bracket into the tubing of the seat brace.
- d. Secure by tightening the square head set screws when the proper height is achieved.

Model 5600 Carrousel Tray Holder Assembly Instructions

1. Place the #5151 carrousel base onto the #5059 back plate of the Model 5000. Secure to bottom with 3/8" hex nuts. Fasten at top with (#FH431) 5/8" x 2" hex bolt with lock washer and hex nut.
2. Place the #5150 pipe holder on the #5151 carrousel base. Secure and adjust using the (#FH443) 5/8" x 3-1/2" hex bolt. Use a lock washer and flat washer with the hex bolt.
3. Slip the set collar #6600-05 over the long pipe (#4600-18). Slide the long pipe into the pipe holder #5150 until it can be seen on the bottom. Tighten the square head screw to keep the pipe in place. The collar may be adjusted later to the proper height needed for each operator.
4. Slide the tray frame #4600-07, with bent edges up, onto pipe #4600-18. Tighten the two 3/8" set screws so the bottom of the tray frame is resting above the six cup feeder head.
5. Place the #4600-19 disc on the long pipe. Measure 26-1/2" from the #4600-07 tray frame to the round disc. Tighten the 3/8" set screws.
6. Fasten the #4600-21 and #4600-20 tray supports to the top side of the disc. Secure with (#FF105) 1/4" x 3/4" flange screws and 1/4" flange nuts.
7. When the trays are ready to be loaded, place the tray under the #4600-20 top flap and lay on the tray base. The #4600-19 may have to be adjusted to center the supports over the #4600-07 tray base.



#5600 FOUR TRAY CARROUSEL

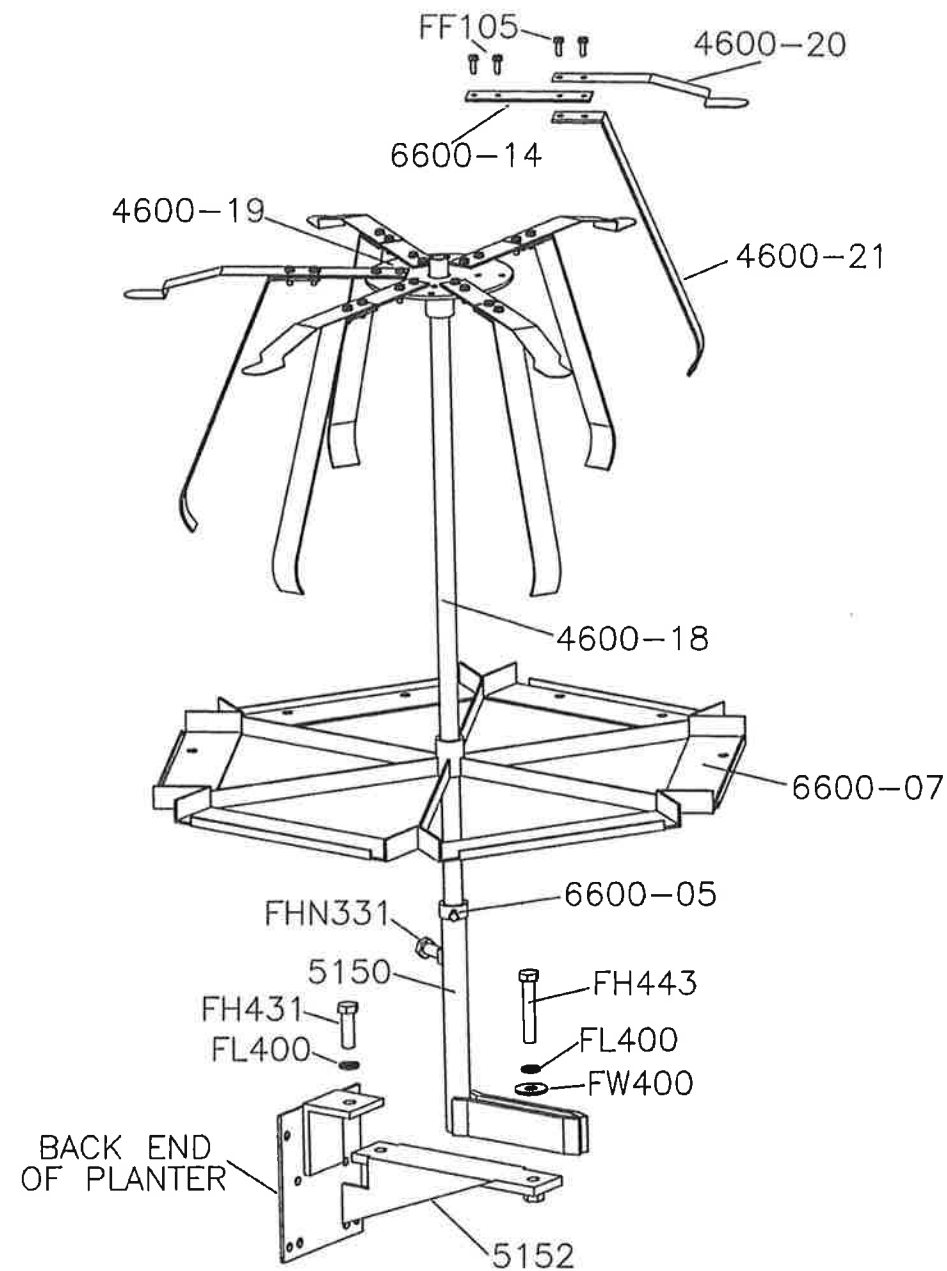


Model 5606 Carrousel Tray Holder Assembly Instructions

1. Place the #5151 carrousel base onto the #5059 back plate of the Model 5000. Secure on the bottom with the 3/8" hex nuts. Fasten at the top with the (#FH431) 5/8 x 2 hex bolt with lock washer and hex nut.
2. Place the #5150 Pipe holder on the #5151 carrousel base. Secure and adjust using the (#FH443) 5/8 x 3-1/2 hex bolt. Use a lock washer and flat washer with the hex bolt.
3. Slip the set collar #6600-05 over the long pipe #4600-18. Slide the long pipe into the pipe holder #5150 until it can be seen on the bottom. Tighten the square head screw on the collar to keep the pipe in place. The collar may be adjusted later to the proper height needed for each operator.
4. Slide the tray frame, #6600-07, with bent edges up, onto pipe #4600-18. Tighten the two 3/8" set screws so the bottom of the tray frame is above the six-cup feeder head.
5. Place the #4600-19 disc on the long pipe. Measure 26-1/2" from the #6600-07 tray frame to the round disc. Tighten the 3/8" set screws.
6. Fasten 6 #6600-14 extension plates to the top disc. Use two (#FF105) 1/4" x 3/4" flange screws and 1/4" flange nuts to secure.
7. Assemble spring #4600-20 and support #4600-21 to the #6600-14 extension bracket. Secure with two 1/4" x 3/4" flange screws. Adjust the #4600-19 top disc to insure the springs and supports line up with the center of the tray supports.

FF105	1/4 x 3/4" Flange Screw	4600-19	Top Disc
FH431	5/8 x 2" Hex Bolt	4600-20	Top Spring Plate
FH443	5/8 x 3-1/2" Hex Bolt	4600-21	Back Spring Plate
FHN331	1/2 x 1" Nylon Hex Bolt	5150	Carrousel Arm
FL400	5/8" Lock Washer	5151	Carrousel Base
FW400	5/8" Flat Washer	6600-05	Set Collar
4600-18	Carrousel Pipe	6600-07	Bottom Tray

#5606 SIX TRAY CARROUSEL

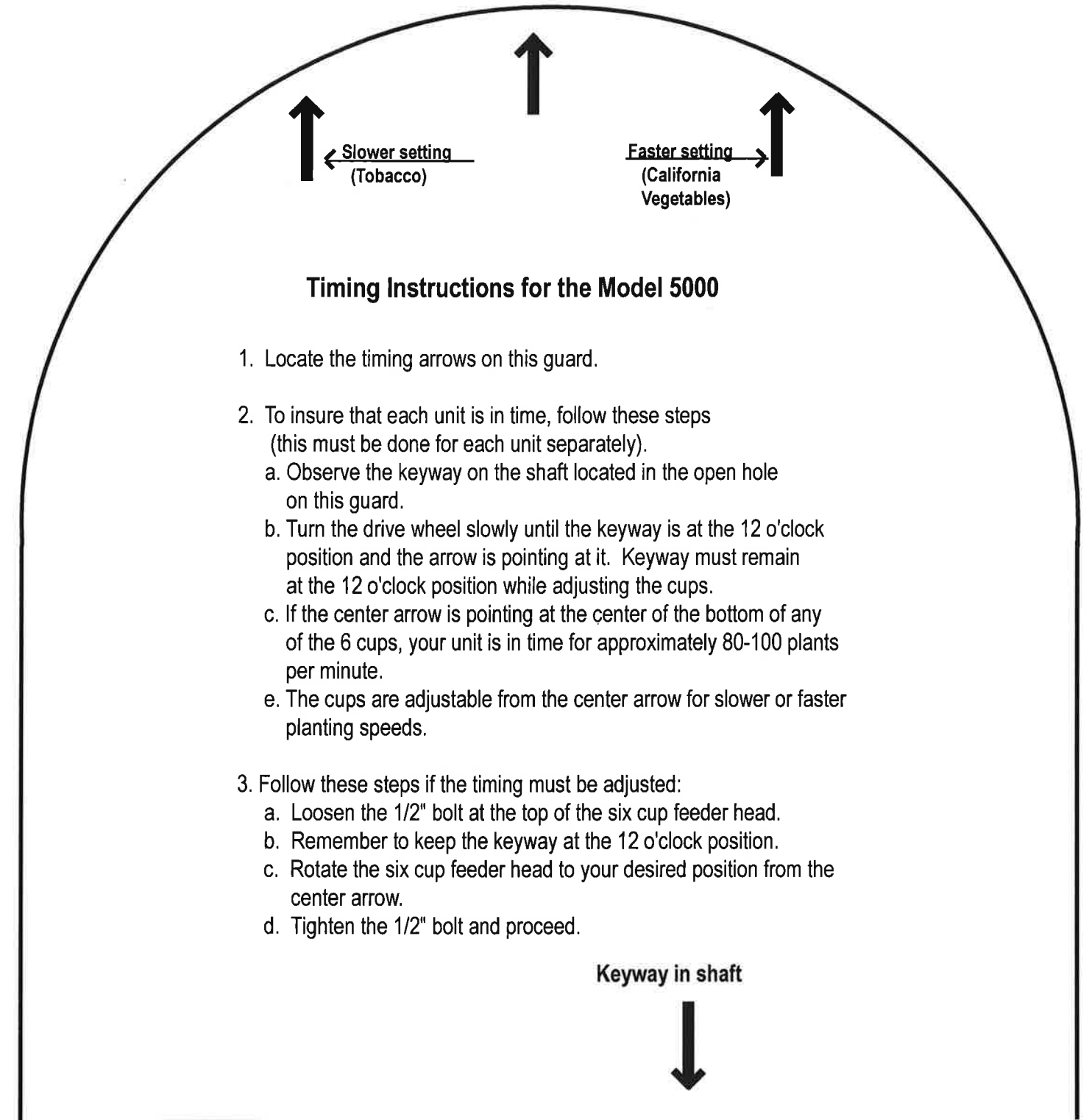


FF105	1/4 x 3/4" Flange Screw	4600-20	Top Spring Plate
FH431	5/8 x 2" Hex Bolt	4600-21	Back Spring Plate
FH443	5/8 x 3-1/2" Hex Bolt	5150	Carrousel Arm
FHN331	1/2 x 1" Nylon Hex Bolt	5151	Carrousel Base
FL400	5/8" Lock Washer	6600-05	Set Collar
FW400	5/8" Flat Washer	6600-07	Bottom Tray
4600-18	Carrousel Pipe	6600-14	6-Tray Extension
4600-19	Top Disc		

MODEL 5000 OPERATION

A. Timing Instructions

1. The diagram below is on the side of your transplanter. The arrows signify the location of a tube with the lower keyway straight up.
2. Follow the instructions below carefully. This must be done with each transplanter.



B. Sizing cell to shoe

1. Take a cell and place into the rear of the shoe.
2. Using a 15/16" wrench, adjust the bolt on the outside of the shoe to widen or narrow the shoe.
Cell must fit snugly, stopping near bottom of shoe.



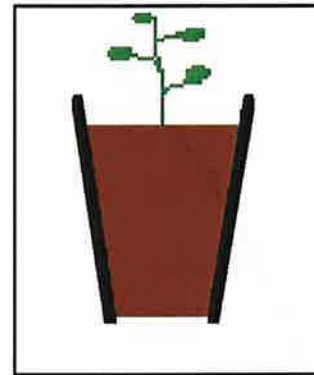
Incorrect
- Narrow the shoe
with adjustment
bolt.



Correct



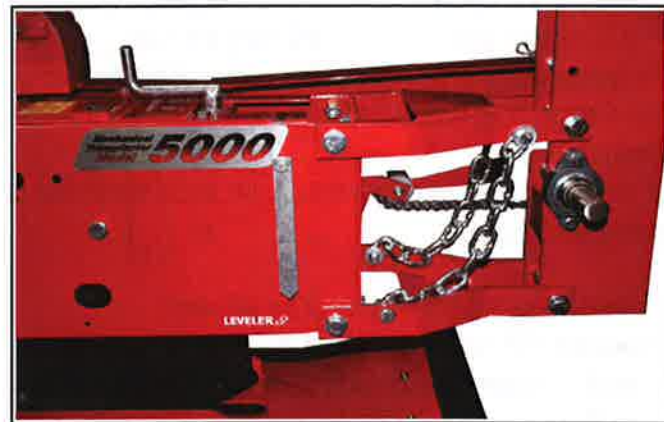
Incorrect
- Widen the shoe
with adjustment
bolt.



Correct

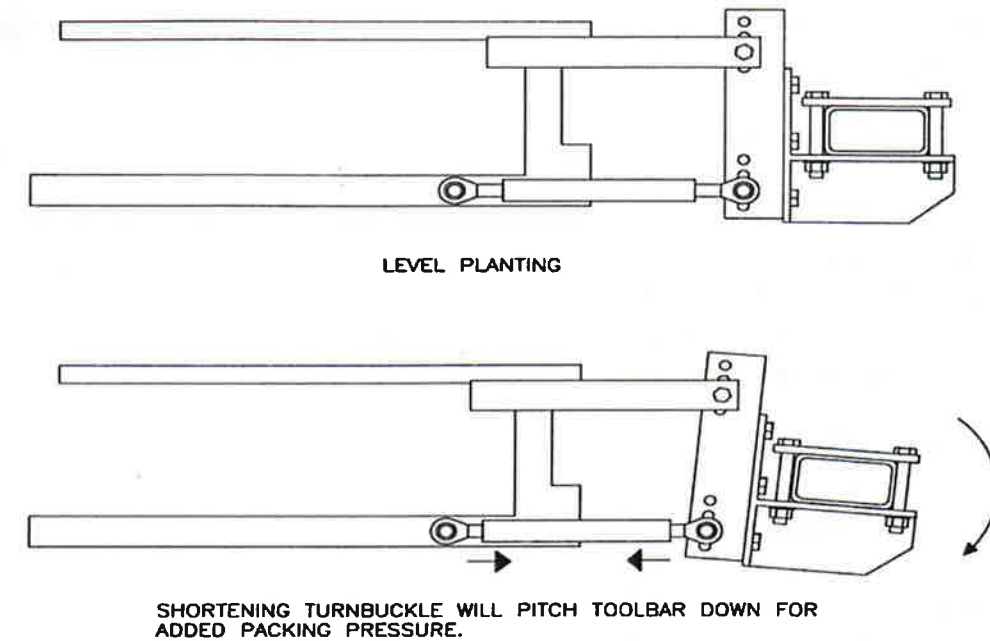
C. Level Planting

1. Lower the Model 5000 transplanter into the soil.



2. Set height of gauge wheels so parallel hitches are level with frame. Use the leveler on the side of the transplanter to insure level planting.
3. Toolbar Pitch- The toolbar can be pitched back to put extra pressure on the packing wheels.
 - a. Three point hitch, 803F 2-Row frame, or 803 4HF 4-Row Frame - Adjust the 3rd arm longer on the 3 point hitch for added packing pressure.

- b. Model 800-2 Row Trailer- Shorten each turnbuckle arm equally to pitch toolbar down for added pressure (See diagram below).



D. Depth Control and Packing

1. If the depth of the cell planted is incorrect, turn the crank under the seat to go deeper or shallower.
2. Use the 5/8" plastic bolts on the back of the ski to adjust soil flow.
Turn down for more soil flow, and up for less.
Added pressure can be given to the back of the transplanter by lengthening the 3rd arm of the 3-point hitch or shortening the bottom link arms on the pull-type trailer.

E. Water Valve Adjustment

1. The water valve is set at the factory for maximum stroke.
Set the ball valve on side of unit for desired amount of water to be released with each plant.
2. If a smaller stroke is desired, remove the inspection plate in front of the gearbox. Raise the #5199 channel on the pump rod to decrease the stroke.
Do not over-stroke valve or it will lock up and damage unit!
3. Be sure to drain the water out of the valve at the end of the season or the valve will freeze.

Machine Improvements

Mechanical Transplanter Co. is always striving to make improvements on their line of equipment. Mechanical Transplanter Co. reserves the right to make improvements and changes at any time without incurring obligations to make such changes or additions to equipment previously sold.

Service

Attention: Care should be taken while servicing the unit because of the bolt together construction of the main frame. NEVER remove the unit top plate, backplate, or shoe at the same time. Frame alignment could be jeopardized if this is done!

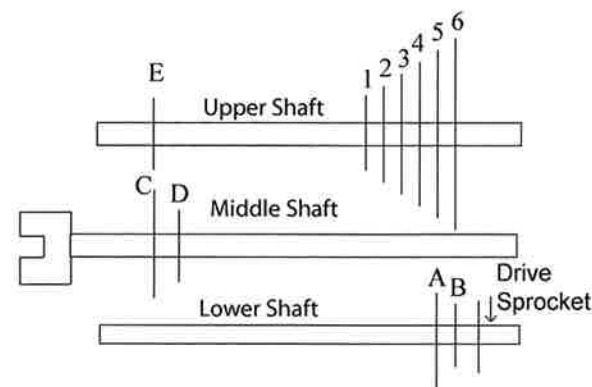
- A. Resetting the transplanter to factory timing
See page 11
- B. Removal of Ski
 1. Lift the transplanter slightly off the ground
 2. Loosen and remove the four 3/8" nuts on the top of the ski
 3. Remove bolts and the ski will come off
- C. Replacing the Shoe
 1. Follow the steps to remove the packing ski.
 2. Loosen and remove the two 3/8" bolts going into the bottom of the framework.
- D. Kicker spring replacement
 1. Remove any plant racks or carousel tray holders
 2. Disassemble the footrest
 3. Loosen the four bolts holding the back plate on
 4. Remove the back plate for easy access inside the transplanter

STANDARD CHART

Model 5000 Spacing Chart

Spacing	Use Sprocket Arrangement		
		11"	B2D
5-1/2"	A1D	12"	A4C
6-1/2"	A2D	14"	A5C
7-1/2"	A3D	16"	A6C
8-1/2"	A4D	17"	B3C
9"	A2C	19"	B5D
9-1/2"	A5D	20"	B6D
10-1/2"	A3C	23"	B5C
10-3/4"	A6D	26"	B6C

35 Tooth on Jackshaft
10 Tooth on Transplanter



To change cluster spacings, just slide cluster over to align desired sprocket above either sprocket A or B.

To change C or D spacing, move sprocket E over C or D.

Model 5000 Wide Spacing Chart

Spacing	Use Sprocket Arrangement		
9"	A1D	20"	A4C
10-1/2"	A2D	23"	B3D
13"	A3D	24"	A5C
15"	A4D	26"	A6C
16-1/2"	A5D	30-1/2"	B5D
17-1/2"	A3C	35"	B6D
18-1/2"	B2D	40"	B5C
19-1/2"	A6D	48"	B6C

22 Tooth on Jackshaft
12 Tooth on Transplanter

TROUBLE SHOOTING

Reminder: Cell-type setters, such as the Model 5000, require a firm, rootbound, and moist cell for consistent planting. A poor quality cell directly affects the performance of the transplanter.

PROBLEM	CAUSE	SOLUTION
Plants fall on kicker	Machine is out of time	Review decal on side of transplanter or see page 10 in the manual
	Poor cell quality and/or dry cells	Water cells lightly to help them drop faster
Plants are buried or lying top of the soil	The furrow opening shoe is not adjusted properly	See the diagram on page 11 of this manual
	Poor cell quality	Make sure the cells are fully intact when removing from the tray
Furrow is not filling in properly	Transplanter is not running level	Adjust the gauge wheels so the scissors hitch is running level. Toolbar should be about 14" off the ground.
	Packing pads are not properly adjusted	Adjust the plastic bolts in one turn increments until proper packing is achieved. Roto-till soil.
	Use as last resort	Adjust toolbar pitch to put more pressure on the back of the unit: See page 12
Kicker is not moving	Drive wheel is not touching the ground	Turn gauge wheel crank to lower tire
	Transtorque loose	Tighten the 1" transtorque on the main drive shaft
Plants are being flooded out of shoe	Ball valve on side of transplanter opened too much	Close ball valve until proper water flow is achieved

Safety Precautions

1. Make sure tractor is stopped and in neutral with the transplanter lowered to the ground before getting on and off the unit.
2. No operator is allowed to be on the unit as it is raised and lowered.
3. No operator is allowed on the transplanter as it is transported to or from the field.
4. All operators must be seated before movement begins and remain seated until the transplanter is completely stopped.
5. Never leave the transplanter in the raised position.
6. Keep all shields and guards in place when operating the transplanter.
7. Never attempt repairs or maintenance while the transplanter is in motion.
8. Never put the tractor in reverse while the transplanter is on the ground.
9. Follow all safety instructions supplied by the tractor manufacturer to which the transplanter is mounted.

MACHINE IMPROVEMENTS

MECHANICAL TRANSPLANTER CO. IS ALWAYS STRIVING TO MAKE IMPROVEMENTS ON THEIR LINE OF EQUIPMENT. MECHANICAL TRANSPLANTER CO. RESERVES THE RIGHT TO MAKE IMPROVEMENTS AND CHANGES AT ANY TIME WITHOUT INCURRING OBLIGATIONS TO MAKE SUCH CHANGES OR ADDITIONS TO EQUIPMENT PREVIOUSLY SOLD.

Limited Warranty

Mechanical Transplanter Company warrants each item of new equipment manufactured by Mechanical to be free from defects in material and workmanship under normal use and service.

The obligation of Mechanical Transplanter Company under this LIMITED WARRANTY is limited to repairing or replacing as Mechanical may elect, and any parts that prove, in Mechanical's judgment, to be defective in material and workmanship within the first season's use or 45 consecutive days after initially placing equipment in operation, whichever occurs first. Any outside work or alterations without Mechanical's written approval will render the LIMITED WARRANTY void.

Mechanical's obligation specifically excludes any liability for consequential damages, such as loss of profits, delays, expenses, damage to goods or property used in connection with or processed in or by the product sold, or damage to the product sold from whatsoever cause, whether or not such loss is due to negligence of selling dealer of Mechanical Tranplanter Company.

This limited warranty shall not apply to any item or machine which shall have been operated in a manner not recommended by the Company nor which shall have been repaired, altered, misused, damaged in an accident, neglected, tampered with or used in any way which in the Company's opinion adversely affects its performance and results.

No person is authorized to give any other warranties or to assume any other liability on behalf of Mechanical Transplanter Company, unless made in writing by Mechanical.

This limited warranty covers repair or replacement of Mechanical Transplanter Co. equipment only and does not cover crop loss, downtime, labor, damage to other equipment, etc.

This limited warranty does not apply to exterior finishes, tires, chain links, bearings, or any other items sold by Mechanical Transplanter Co., but warranted by the original manufacturer except to the extent of their individual manufacturer's warranty.

THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WARRANTIES OF MERCHANT ABILITY AND FITNESS FOR PARTICULAR PURPOSE ARE EXCLUDED, AS ARE ALL OTHER REPRESENTATIONS TO THE USER-PURCHASER, AND ALL OTHER OBLIGATIONS OR LIABILITIES, INCLUDING LIABILITY FOR INCIDENTAL AND CONSEQUENTIAL DAMAGES, ON THE PART OF MECHANICAL OR THE SELLER.