TURFMAKER III
Models SL, SLB, SLP, SLPB
8’, 10’ and 12’
Operator’s Manual
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Introduction

The implement described in this manual has been designed with care and built by skilled workers using quality materials and processes. Proper assembly and maintenance of this machine will provide you with satisfactory use for seasons to come.

**DANGER**

Read this entire manual before attempting to assemble, adjust or operate this machine. Failure to comply with this warning can result in personal injury or death, damage to the machine or its components and inferior operation.

Description of Unit

The Turfmaker III features large seed boxes and high capacity seed meters for unequaled capacity in seeding grasses and flax. These units lend themselves to commercial sod seeding and other high volume operations. The Turfmaker III Series is offered in both three-point and pull-type models. Pull type models include all hydraulic equipment and new implement tires.

Using this Manual

This manual will familiarize you with safety, assembly, operation, adjustment, and maintenance. Read this manual and follow the recommendations to help ensure safe and efficient operation.

- The information in this manual is current at time of printing. Some parts may change to assure top performance.
- Location reference: Right and Left designations in this manual are determined by facing the direction the machine will travel during field operation, unless otherwise stated.

Owner Assistance

If customer service or repairs are needed, contact your Brillion dealer. They have trained personnel, parts and service equipment specially designed for Brillion products. Your machine’s parts should only be replaced with Brillion parts. If items covered in this manual are not understood, contact your local Brillion Dealer.

Warranty Registration

Brillion Farm Equipment, by Landoll, shall have no warranty obligation unless each product is registered, within 10 days of retail purchase, using the Landoll Company, LLC Ag Products on-line registration process. Please refer to the Ag Products Policy and Procedures Manual, accessible at www.landoll.com for step by step instructions regarding product registration.

Enter your product information below for quick reference.

| MODEL NUMBER |
| SERIAL NUMBER |
| DATE OF PURCHASE |

Refer to the ID plate as shown in Figure 1-1. The ID Plate is located on the right front of the machine.

![Figure 1-1: ID Plate](image-url)
Federal law requires that you explain the safety and operating instructions furnished with this machine to all operators before they are allowed to operate the machine. These instructions must be repeated to the operators at the beginning of each season. Be sure to observe and follow the instructions for the safety of anyone operating or near the machine.

**NOTE**

Investigation has shown that nearly 1/3 of all farm accidents are caused by careless use of machinery. Insist that all people working with you or for you abide by all safety instructions.

**Understanding Safety Statements**

You will find various types of safety information on the following pages and on the machine decals (signs) attached to the vehicle. This section explains their meaning.

The Safety Alert Symbol means ATTENTION! YOUR SAFETY IS INVOLVED!

**NOTICE**

Special notice - read and thoroughly understand.

**CAUTION**

Proceed with caution. Failure to heed caution may cause injury to person or damage product.

**WARNING**

Proceed with caution. Failure to heed warning will cause injury to person or damage product.

**DANGER**

Proceed with extreme caution. Failure to heed notice will cause injury or death to person and/or damage product.

**NOTE**

You should read and understand the information contained in this manual and on the machine decals before you attempt to operate or maintain this equipment.

Examine safety decals and be sure you have the correct safety decals for the machine. See Safety Sign and Locations in Safety Section for decal locations. See Figures 1-3 and 1-4.

Order replacement decals through your Brillion dealer. Keep these signs clean so they can be observed readily. It is important to keep these decals cleaned more frequently than the machine. Wash with soap and water or a cleaning solution as required.

Replace decals that become damaged or lost. Also, be sure that any new machine components installed during repair include decals which are assigned to them by the manufacturer.

When applying decals to the machine, be sure to clean the surface to remove any dirt or residue. Where possible, sign placement should protect the sign from abrasion, damage, or obstruction from mud, dirt, oil etc.

**Keep Riders Off of Machinery**

- Do not allow extra riders on the tractor or a machine. Riders could be struck by foreign objects or thrown from the machine.
- Never allow children to operate equipment.
- Keep bystanders away from the machine during operation.

**Transporting Safety**

**IMPORTANT**

It is the responsibility of the owner/operator to comply with all state and local laws.

When transporting the machine on a road or highway, use adequate warning symbols, reflectors, lights and slow moving vehicle sign (purchased separately), as required. Slow moving tractors and towed implements can create a hazard when driven on public roads. They are difficult to see, especially at night.

Do not tow an implement that, when fully loaded, weighs more than 1.5 times the weight of the towing vehicle. Carry reflectors or flags to mark tractor and implement in case of breakdown on the road.

Do not transport at speeds over 20 MPH under good conditions. Never travel at a speed which does not allow adequate control of steering and stopping. Reduce speed if towed load is not equipped with brakes.

Avoid sudden stops or turns because the weight of the machine may cause the operator to lose control of the tractor. Use a tractor heavier than the machine.

Use caution when towing behind articulated steering tractors; fast or sharp turns may cause the machine to shift sideways.
INTRODUCTION AND SAFETY INFORMATION

Keep clear of overhead power lines and other obstructions when transporting. Know transport height and width of your machine. Refer to transport dimensions page 5-1.

Attaching, Detaching and Storage

- Do not stand between the tractor and the implement when attaching or detaching the implement unless both are not moving.
- Before applying pressure to the hydraulic system, be sure all connections are tight and that hydraulic lines and hoses are not damaged.
- Lower machine to ground when not in use so that the shanks are taking the load.
- Block machine so it will not roll when unhitched from the tractor.
- Relieve pressure in hydraulic lines before uncoupling hydraulic hoses from tractor.

NOTE
On most tractors relieving hydraulic pressure can be accomplished by operating valves after the engine is stopped.

Maintenance Safety

Block the machine so it will not roll when working on or under it to prevent injury in case of hydraulic failure or inadvertent lowering by another person.

Do not make adjustments or lubricate the machine while it is in motion.

Make sure all moving parts have stopped and all system pressure is relieved.

Understand the procedure before doing the work. Use proper tools and equipment. Refer to “General Torque Specifications” on page 4-1 for additional information.

High Pressure Fluid Safety

Escaping fluid under pressure can be nearly invisible and have enough force to penetrate the skin causing serious injury. Use a piece of cardboard, rather than hands, to search for suspected leaks.

Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result.

Avoid the hazard by relieving pressure before disconnecting hydraulic lines.

NOTE
On most tractors relieving hydraulic pressure can be accomplished by operating valves after the engine is stopped. Also, the machine should be lowered to ground.

Wear protective gloves & safety glasses or goggles when working with hydraulic systems.

Protective Equipment

- Wear protective clothing & equipment.
- Wear clothing & equipment appropriate for the job.
- Avoid loose fitting clothing.
- Because prolonged exposure to loud noise can cause hearing impairment or hearing loss, wear suitable hearing protection, such as earmuffs or earplugs.

Chemical Safety

Agricultural chemicals can be dangerous. Improper use can seriously injure persons, animals, plants, soil & property.

Read chemical manufacturers instructions and store or dispose of unused chemicals as specified. Handle chemicals with care and avoid inhaling smoke from any type of chemical fire.

Store or dispose of unused chemicals as specified by the chemical manufacturer.

Prepare for Emergencies

- Keep a First Aid Kit and Fire Extinguisher handy.
- Keep emergency numbers for doctor, ambulance, hospital and fire department near phone.

Tire Safety

Tire changing can be dangerous and should be performed by trained personnel using correct tools and equipment.

When inflating tires, use a clip-on chuck and extension hose long enough to allow you to stand to one side, not in front of or over the tire assembly. Use a safety cage if available.

When removing and installing wheels, use wheel-handling equipment adequate for weight involved.

Safety Chain

Use a safety chain to help control drawn machinery should it separate from the tractor drawbar.
INTRODUCTION AND SAFETY INFORMATION

Use a chain with a strength rating equal to or greater than the gross weight of towed machinery, in accordance with ASAE S338.2 specifications. If two or more machines are pulled in tandem, a larger chain may be required. Chain capacity must be greater than the total weight of all towed implements.

A second chain should be used between each implement.

Attach the chain to the tractor drawbar support or specified anchor location. Allow only enough slack in the chain to permit turning. The distance from hitch pin to attachment point or intermediate support point should not exceed 9 inches. See Figure 1-2.

Machines with a 3 hole drawbar, See Figure 1-2.

Replace chain if any links or end fittings are broken, stretched or damaged.

Do not use a safety chain for towing.

Figure 1-2: Safety Chain Hook-up
INTRODUCTION AND SAFETY INFORMATION

1. 4K706 - Hydraulic Leak Warning
2. 8J309 - Caution Decal
3. 9J302 - Parking Pin Caution
4. 2K123 - Moving Parts Warning
5. 528938 - Orange Stripe
6. 528934 - Amber Reflective
7. 528933 - Red Reflective
8. 9J301 - Parking Pin Decal
9. 5K395 - Rising Drawbar Caution
10. 6K693 - (front) Seed Chart
11. 6K694 - (rear) Seed Chart
12. 9K788 - Cover Handle Decal
13. 4K039 - BRILLION
14. 4K037 - BRILLION
15. 4K338 - TURFMAKER
16. 6K690 - SL308
17. 6K691 - SL310
18. 6K692 - SL312

Figure 1-3: Safety Signs (1 of 2)
Figure 1-4: Safety Signs (2 of 2)

1. 4K706 - Hydraulic Leak Warning
2. 8J309 - Caution Decal
3. 9J302 - Parking Pin Caution
4. 2K123 - Moving Parts Warning
5. 528938 - Orange Stripe
6. 528934 - Amber Reflective
7. 528933 - Red Reflective
8. 9J301 - Parking Pin Decal
9. 5K395 - Rising Drawbar Caution
10. 6K693- (front) Seed Chart
    6K694 - (rear) Seed Chart
11. 9K788 - Cover Handle Decal
12. 4K039 - BRILLION
    4K037 - BRILLION
13. 4K338 - TURFMAKER
14. 6K690 - SL308
    6K691 - SL310
    6K692 - SL312
The intent of this chapter is to provide instruction, allowing you to safely and correctly assemble your Brillion product.

**NOTE**

*In most of the following illustrations, the Pick Up model is shown. Pull Type seeders are assembled in the same way unless otherwise noted.*

If your seeder was shipped with unattached roller assemblies, follow the procedure on Pages 2-1 through 2-8.

If your rollers were assembled at the factory, see Page 2-9, Pull Type Seeder Assembly.

**Step 1**

Support the Frame and Seedbox Assembly with a hoist or by similar means capable of supporting its weight without tipping. See Figure 2-1.
Step 2
Attach the Wheel Assemblies to Frame. See Figure 2-2.
Step 3
Center the Drawbar on the Frame and fasten with 5/8” U-bolts, lock washers, and nuts. Attach the Jack, Hitch and Hose Support. See Figure 2-3.

Figure 2-3: Pull Seeder Step 3
Step 4
Run hoses along frame and down drawbar toward tractor. Refer to the Schematic Diagram. See Page 2-10. Use the hose clamps provided to anchor the hoses to the frame. See Figure 2-4.

Figure 2-4: Pull Seeder Step 4
Step 5
Charge the Hydraulic System. See Page 3-12.

**IMPORTANT**
ATTACH SEEDER TO TRACTOR: Seeder must be raised with 3 Point Hitch or Hydraulic lift to install roller assemblies.

![Figure 2-5: Pull Seeder Step 5](image)

**Step 6**
Install **Stub Shafts**, long shaft on left end, short shaft on right end of front roller assembly. See Figure 2-5.

**Step 7**
Install **7 Tooth Axle Sprocket** onto stub shaft on left side.

**Step 8**
Install **Flange Bearings** on stub shafts. See Figure 2-6.

![Figure 2-6: Pull Seeder Step 8](image)
Step 9
Position **Roller Assembly** between frame members and attach flange bearing to frame with grease fittings toward front. See Figure 2-7.

**NOTE**
Deflectors and transport wheels are not shown in steps 6, 7 and 8 for purposes of clarity.

---

**Figure 2-7: Seeder Assembly Step 9**

- Screw, 1/2 X 2" (Pick Up Frames)
- Screw, 1/2 X 1-3/4" (Drawbar Frames)
- Lock Washer, 1/2
- Hex Nut, 1/2

**NOTE**
- Tighten Bearing Collars in the Direction of Rotation.
Step 10
Attach **Stub Shafts** to the rear roller assembly, and then add the Rear Arm Assemblies. Roll the rear roller assembly with Rear Arms attached into position, behind the front roller. See Figure 2-8.

![Figure 2-8: Seeder Assembly Step 10](image)

Step 11
Attach Left and Right **Rear Arm** assemblies to the frame. (Drawing shows left side, right side is the same.) Secure to the stubs hafts with 3/4" screws, lock washers and nuts. See Figure 2-9.

Step 12
Step 12 only applies to the Pick Up model. Left and Right Rear Arm Assemblies. See Figure 2-10.
Figure 2-9: Left and Right Rear Arm Assemblies Step 11

Figure 2-10: Left and Right Rear Arm Assemblies Step 12 (Pick Up Model)
Pull Type Seeder

When shipped on factory trucks, seeder comes assembled except for lights, rims, and drawbar or 3 pt. Hitch.

**CAUTION**

Do not remove rear roller arm shipping bolts until Steps 1 thru 8 have been completed! See Figure 2-14: Shipping Bolt

Your exact seeder model may vary slightly from the illustration. (Additional parts identification and location can be obtained from reviewing parts catalog.)

**IMPORTANT**

If a pre-assembled component or fastener is temporarily removed, ensure it is correctly re-installed per these instructions.

- Check that all working parts move freely, bolts are tight and cotter pins are spread.
- Park the seeder in a work area that has a level surface and make sure it is blocked securely so that it cannot roll.

**NOTE**

“Left” and “Right” refer to directions seen as if standing behind the machine and facing in the direction of forward travel.

Pull Type Seeder: Drawbar Assembly

1. Loosen hydraulic hoses from frame in area where drawbar is to be attached.
2. Position drawbar on center of frame and secure with four 5/8" x 6-11/16" x 5-1/2" U-bolts, lock washers, and nuts from bag located in seed box.
3. Fasten the hoses to drawbar with straps provided. See Figure 2-11.

![Figure 2-11: Drawbar Assembly](image-url)
ASSEMBLY INSTRUCTIONS

Figure 2-12: Hydraulic Schematic

- Cylinder, 2 1/2 X 6
- Elbow, 08FJS X 08MJ X45
- Restrictor Adapter
- Hose Asm, 72" (12' Machines)
- Hose Asm, 57" (10' Machines)
- Hose Asm, 42" (8' Machines)
- Tee, 08MJ X 08MJ X 90
- Screw, 1/4-20 X 1/2
- Top Plate
- Clamp Pair
- Clamp Plate (Welded To Frame)
- Hose Asm, 105" (12' Machines)
- Hose Asm, 94" (10' Machines)
- Hose Asm, 85" (8' Machines)
- Adapter, 08MJ X 08MOR
- Male Tractor Tip

Note:
Apply Ample Amount Of Grease To Internal Threads Of Welded Clamp Plates Throughout The Frame Before Assembling Hose Clamps.
Pull Type Seeder: Drawbar Assembly
Continued

4. Attach hitch, so that safety chain can be properly attached and then attach drawbar to suitable tractor.

5. Install spindles in wheel arms and secure in outer spindle holes with 1/2" x 3" bolts, lock washers and nuts. See Figure 2-13.

6. Install wheels and tires.

7. If seeder is equipped with rear box, attach 5K395 Caution Decal.

8. Connect the hydraulic hoses to the tractor and raise seeder into transport position.

9. Install the transport locks.

10. Remove 5/8" shipping bolt which locks rear roller arms down. One bolt is used on each side of the machine. See Figure 2-14.

NOTE
If the bracket for the SMV sign has been shipped loose, attach it as shown using 3/8" x 1-1/2" bolts, washers, and nuts provided. See Figure 2-15.
When plugging in the LED 7-pin connector:
1) Make sure the tractor has a good clean receptacle, free of dirt and corrosion.
2) Make sure the 7-pin connector is inserted ALL the way in. With tighter fitting pins, operator may think the connector is all the way in, but really isn’t.
3) Make sure the tractor receptacle cover latches over the keyway on the 7-pin connector to hold the connector in place.

If an operator plugs in the 7-pin connector, but the lights do not seem to work right, check the above items to make sure there is a good connection with the 7-pin connector.

Figure 2-16: LED Warning Lights
12’ Pick-up and Drawbar Models

Figure 2-17: 12 ft Pick-up and Drawbar Models
NOTE

12 foot pick-up model is shown, drawbar model similar.

1. Attach both Red LED’s to the ends of the light bar using (4) 1/4-20 x 1-1/4 Screws and Locknuts for each lamp.
2. Attach Amber LED’s to the outer ends of the seedboxes using (4) 1/4-20 x 1-1/4 Screws and Locknuts.
3. Attach the Light Module to the Module Bracket using (2) 1/4-20 x 1-1/2 Screws and Locknuts. See Figure 2-18.
4. Layout the Lamp Harness, noting that the connectors marked with Green Tape is Right Side and Yellow Tape is Left Side.
5. Plug the Lamp Harness into the Light Module, route the plugs with Green Tape along the front right side of the frame up the outer end of the seedbox and plug the 2 prong cord into the Amber LED. Route the 3 prong cord up the right hand side of the Light Bracket and plug into the Red LED.
6. Repeat for the Left Side (Yellow Tape).
7. Plug the 7 Pin Harness into the Light Module, then route the harness along the 3 Pt. Hitch.

NOTE

If equipped with electrical clutch, install, route and secure electric clutch wire harness with the warning light harness.

IMPORTANT

All wires must be firmly attached to machine frame members or hydraulic lines so they do not sag or become torn loose by field debris.

9. Attach the SMV sign to the SMV Mount located on the center on the Light Bar (12’ Model Only) using (2) 5/16-18 x 1” Screws, Flat Washers, and Locknuts.
10. Attach the Plug Holder to the 3 Pt. Hitch using (2) 1/4-20 x 1” Screws, Flat Washers, and Locknuts.

NOTE

The plug on the other end of the 7 Pin harness connects to the tractor socket when in use. When not in use, it can be stored in the Plug Holder on the 3 Pt. Hitch. Allow enough harness length to reach tractor socket and roll or fold up excess and secure hydraulic hose or 3 Pt. Hitch.
8’ and 10’ Pick-up Drawbar Models

Figure 2-19: 8’ and 10’ Pick-up Drawbar Models
ASSEMBLY INSTRUCTIONS

**NOTE**

10’ drawbar model is shown, 8’ model similar.

1. Attach Amber LED’s to the upper portion of the Light Bracket located at the ends of the seedbox using (4) 1/4-20 x 1-1/4 Screws and Locknuts.

2. Attach Red LED’s below the Amber LED using (4) 1/4-20 x 1-1/4 Screws and Locknuts. Ensure Red LED lenses faces rearward.

3. Attach the Light Module to the Module Bracket using (2) 1/4-20 x 1-1/2 Screws and Locknuts. See Figure 2-20.

4. Layout the Lamp Harness, noting that the connectors marked with Green Tape is Right Side and Yellow Tape is Left Side.

5. Plug the Lamp Harness into the Light Module, route the plugs with Green Tape along the front right side of the frame. Route the 3 prong cord up the Light Bracket and plug into the Red LED. Route the 2 prong cord along the front of frame, up the outer Light Bracket and plug it into the Amber LED.

6. Repeat for the Left Side (Yellow Tape).

7. Plug the 7 Pin Harness into the Light Module, then route the harness along the drawbar with the hydraulic hoses and secure with Tie Straps.

8. Bundle and secure excess cord to the Module Bracket with Tie Straps. Secure cords along frame and drawbar using Adhesive Mounts and Tie Straps.

**NOTE**

If equipped with optional electrical clutch, install, route and secure electric clutch wire harness with the warning light harness.

**IMPORTANT**

All wires must be firmly attached to machine frame members or hydraulic lines so they do not sag or become torn loose by field debris.

9. Attach the SMV sign to the SMV Support using (2) 5/16-18 x 1” Screws, Flat Washers, and Locknuts.

10. Attach the Plug Holder to the Hose Support using (2) 1/4-20 x 1” Screws, Flat Washers, and Locknuts.

**NOTE**

The plug on the other end of the 7 Pin harness connects to the tractor socket when in use. When not in use, it can be stored in the Plug Holder on the hose support bracket. Allow enough harness length to reach tractor socket and roll or fold up excess and secure drawbar or hydraulic hose.
**Electric Clutch**

1. Check that the clutch case has proper clearance between rubber bumper stop. Improper clearance may prevent clutch from engaging or cause it to disengage. See Figure 2-21.

   ![Figure 2-21: Clutch Case Clearance](image)

2. Connect the clutch wiring harness to clutch lead and route wire along frame and drawbar. See Figure 2-22.

   ![Figure 2-22: Clutch Lead](image)

3. Secure to the frame and drawbar. Run along with hydraulic hoses and warning light harness. Use cable ties or adhesive mounts. See Figure 2-23.

4. Install the switch onto the tractor in a convenient location with the hook and loop provided or other type of mount (not included).

5. Attach the wire lead to the power source and secure wire.

6. Check clutch operation. Clutch will **disengage** when power is applied. (Clutch will make a clicking sound). Set seeder on the ground and drive a short distance. While driving turn the switch “on” and “off”.

7. Turn the switch to the “ON” position when the seeder is not used to shut off power to prevent possible overheating of clutch coil.

   ![Figure 2-23: Secure Wiring to Frame](image)
Pick Up Seeders: Hitch Assembly

1. Position the 3 Pt.Hitch weldment on the center of frame and secure with four 5/8” x 6-11/16” x 5-1/2” U-bolts, lock washers and nuts from bag inside seed box. See Figure 2-24.

2. Remove the 5/8” shipping bolt from right side of frame which locks rear roller down. Bolt is located in a position similar to parking pin. See Figure 2-14.

**CAUTION**
Do not disengage the pin unless seeder is fully attached to the tractor. Seeder may be rear-heavy and tip backward on frame.

3. Install the Warning Lamps and Wiring Harness. See Figures 2-16, 2-17, 2-18 and 2-19 for correct installation per machine size.

**NOTE**
If the bracket for the SMV sign has been shipped loose, attach it as shown using 3/8” x 1 1/2” bolts, washers, and nuts provided.
Acre Meter Kit 5K275 (Optional)

**NOTE**
The Acre Meter Kit consists of three main parts, the acre meter, the pick-up and the magnet wheel, is mounted on the left side of the front seedbox.

1. Use the Acre Meter Bracket as a guide and drill two 13/32" holes into seedbox at location shown in illustration. Then attach the Acre Meter Bracket as shown with two 3/8-16 x 1" bolts, lock washers and nuts. See Figure 2-26.

2. Attach the 5K332 pick up switch bracket to the 5K209 clutch support bracket with two #10-24 x 3/4" machine screws, flat washers, lock washers and nuts. Do not tighten screws at this time.

3. Attach the pick up switch to the top of the 5K332 bracket with two #8-32 x 1 1/4" machine screws, flat washers, lock washers and nuts. Do not tighten screws at this time.

![Figure 2-26: Electronic Acre Meter](image-url)

Figure 2-26: Electronic Acre Meter
4. Press the magnetic wheel onto the clutch shaft until it is vertically centered with the pickup switch.

5. Adjust the pickup switch and bracket so the centerline of the magnet wheel and pickup switch are horizontally and vertically aligned with maximum 1/8” between the magnet wheel and pickup switch. Firmly tighten all screws.

**NOTE**

Alignment of the pickup switch and the magnet wheel is critical. Improper alignment will cause the acre counter to record acres erratically or not at all.

6. Attach the short pickup switch ground wire to the small hole in the 5K332 bracket with a #6-32 x 1/2” machine screw, removing paint under the wire connector to assure a good electrical ground connection. See Figure 2-27.

7. Route the wire from the Acre Meter down the front of the seed box to the pickup switch and connect the mating plugs.

8. Securely fasten the wire to the seed box and transmission drive using the adhesive mounting bases and wire ties to prevent wire from becoming entangled or rubbing moving parts.

9. Program the Acre Meter. See “Electronic Acre Meter Kit (Optional)” on page 3-8.
Seed Shaft Sensor Kit (Optional)

Remove the two #10 x 24 x 3/4" self tapping screws from the Magnet Wheel Assembly. Position half of the Magnet Wheel Assembly on the seed shaft. Ensure it fits squarely onto shaft. Mount the other half, ensuring it fits squarely onto shaft. Fasten the two halves together using two #10-24 x 3/4" self tapping screws. Do not over tighten.

Identify the seed cups on either side of the Magnet Wheel Assembly and remove the 1/4-20 hardware. Insert Sensor into Shaft Sensor Bracket slot. Align the Shaft Sensor Bracket with the two 1/4-20 screws. Secure with existing lock washers and nuts. Slide/Position Seed Shaft Sensor so it is 1/8" from the magnet. See Figure 2-29. Tighten both retaining nuts.

Figure 2-28: Seed Shaft Sensor Brackets
Figure 2-29: Seed Shaft Sensor Mounting Dimensions - Seedmeter
Seed Shaft Sensor Schematic

Mount Console with Clutch Control on Tractor.

1. Route Console Harness with 9 Pin Connector to the Seeder Harness.
2. Attach 3 Pin Power Plug to tractor.
4. Route Seeder Harness along front frame of seeder. Ensure plug labeled Electric Clutch Power is on the left side.

5. On left side connect plug labeled “Electric Clutch Power” to the Electric Clutch lead. See Figure 2-30.
6. Connect plug labeled “Left Front Seed Shaft Sensor” to the left front Seed Shaft Sensor. Seal the plug end using a 3-Pin Tower and Cavity Plugs to protect it from the environment.
7. Repeat for the right side.
8. Secure all harnesses and wires with cable tie and tie straps.

Figure 2-30: Seed Shaft Sensor Schematic
Addition of Rear Box (Optional)

If a rear box kit is desired after the purchase of the seeder, install it as follows:

Step 1.
- Unplug acre meter and warning light plugs.
- Loosen and remove large box seed shaft coupling, and unscrew seed shafts at the center of the seeder.
- Loosen transmission drive chain.
- Loosen and remove large outside seed rate adjustment nut. (Do not loosen 1/2" nuts at ends of rate adjustment threaded sleeve.)

2. Remove right side seed box end bracket. (On 8-ft and 10-ft models, also remove light brackets.) Slide end bracket off of rate adjustment sleeve.

3. Remove right seedbox.

4. Remove center seedbox bracket.

Figure 2-31: Rear Seedbox Addition (1 of 4)
**CAUTION**

Support seedboxes at all times to prevent bending seed shafts.

5. Remove left seedbox far enough to mount plate. NOTE: Complete removal is not required. Slide seed box to the right; seed shaft will slide in 37-tooth sprocket and bearing (Step 6).

6. Remove LH seed box mount plate on transmission and replace with RH mount plate.

7. Install rear seedbox drive coupling on transmission shaft.

8. Remove all bolts from rear seed deflector shields. Turn shields so the top lip angles rearward, re-install and tighten all bolts.

Figure 2-32: Rear Seedbox Addition (2 of 4)
9. Remount LH front seedbox to transmission mount plate.

10. Mount LH rear seedbox to transmission mount plate.

11. Install new center bracket.

12. Install RH front seedbox.

Figure 2-33: Rear Seedbox Addition (3 of 4)
15. Screw the front and rear left and right hand seed shafts together. Do not tighten couplings at this time. Sight along seedboxes from ends, front and rear to ensure seedboxes are straight and level and tighten the boxes to the transmission mounting plate, then to center mounting bracket and then to the right hand mounting bracket. Next tighten the mounting brackets to frame.

16. Assemble front and rear seed shaft rate adjustment parts onto seed shafts.

17. Adjust seedcups and tighten seed shaft couplings. Completely close all seed cups (meters). Set rate adjustment sleeve and nuts to correct settings.
Scraper Kit (Optional)
(Cannot be used with Coil Tine track remover Kit) See Figure 2-35.

1. Assemble 1K212 brackets to front of seeder frame tube. The brackets are provided. (If you have a wheel track remover kit on your seeder you will not need these brackets on the outer ends). You can mount to the same brackets provided with the wheel track remover. Do not fasten securely at this time.

2. Attach vertical brackets loosely and assemble scraper angle to them. Attach two center scrapers at center hole locations and then attach all of the regular scrapers. Center entire assembly on machine, position scrapers for proper fit and tighten hardware.

3. Scrapers should be close enough to the wheels to be functional but without interference. Some final adjustments maybe required in the field.
S-Tine Tire Track Remover (Optional)

1. Attach the brackets to frame with U-bolts 1/2” x 4-1/2” centers x 7-1/2” deep, lock washers, and nuts. Note that long ends of brackets are downward. Brackets should be about 53 inches from center of machine. See Figure 2-36.

2. Attach the tube to brackets using straps and bolts 1/2” x 6”, lock washers, and nuts.

3. Locate and install the S-tines as needed to cover tractor tire tracks. Suggested pattern is to use 1-3/8” point on center tine and 2-1/2” points on each side. If needed, additional tines may be purchased and installed. This kit must be used with standard 9J442 long three point hitch on pickup machines.

The Wheel Track Remover is furnished with 6 S-tines more or less tines may be used as required.

**NOTE**

S-tines should not be operated any deeper than necessary to remove tractor tire tracks. Otherwise, wet soil is brought up which will stick to the rollers, draft load is increased, and under some conditions, tines may deflect back to rollers and break.

Figure 2-36: S-Tine Setup
Coil Tine Track Remover
(Optional)

NOTE

Cannot be used with the Scraper Kit

1. Assemble the coil tines and the arm weldments to the 1-1/2" diameter x 29" bar. The arm weldments may be placed anywhere along the bar, but it is suggested that they be mounted in the second hole from the right end, and the third hole from the left end. (Left end and right end designations are those related to the operator when sitting in the operating position). Mount 6 of the coil tines to the bar with 3/8" x 2-1/2" bolts, flat washers, lock washers, and nuts.

2. Then mount the other two coil tines to the bar with the 3/8" x 3" bolts, lock washers, and nuts which also attach the arm weldments to the bar.

3. Clamp the brackets loosely to the seeder frame, using the U-bolts, lock washers, and nuts. Attach the adjusting angles to frame brackets with lock screws. Secure the adjusting angle from swinging with a 1/2" clevis pin and hair pin cotter. Fasten the bar and tine assemblies to the adjusting angles with 1/2" x 1-3/4" bolts and locknuts. Tighten the locknuts to allow free side to side swinging. Center the entire wheel track leveler behind the tractor tires. Tighten the U-bolts against the seeder frame. See Figure 2-37.

4. Attach the chains' end links to the adjusting angles with 3/8" x 1-1/4" bolts, flat washers, lock washers and nuts. There is one chain for the left side and one chain for the right side.

The vertical position can be changed by removing the clevis pins and lock screws and moving the adjusting angles up or down.

To inactivate the tines, remove the 1/2" clevis pins and loosen the lock screws. Then swing the bar and tine assemblies upward and sideways. To hold in place, wrap the chain under the bar and place the chain into the slot in the adjusting angle. Re-tighten the lock screws.

Figure 2-37: Coil Tine
Latch Installation

Large Seedbox Cover with Latches and Gas Springs

1. Place the gasket on latch base and place on seedbox cover.
2. Install slotted screws to secure latch to cover.

3. Thread the nut onto latch rod, then slide on internal tooth washer, pawl, the other internal tooth washer and then thread on the other nut. Hand tighten only.
4. Close the cover and turn latch to see if pawl fits snug up against seedbox lip. If it does not, open cover and adjust nuts accordingly. When properly adjusted, securely tighten latch nuts.

Figure 2-38: Latch Assembly
Turfmaker Sprockets (Optional)

Turfmaker Sprockets provide extra traction in certain soil types. See your Landoll/Brillion Dealer for more information.

1. Position the Turfmaker Wheel Spacer between each 4C689 Sand Wheel. See Figure 2-39.
2. At the end of the process slide a Half Wheel onto the axle next to the last Wheel Spacer.
3. Slide the Clamp Band over the axle and next to the Half Wheel.
4. Insert 1/2-13 Socket Head Screw into Clamp Band, secure with locknut.
5. Make sure the sprocket does not bind.

![Figure 2-39: Turfmaker Sprockets]
Chapter 3
Operation

Seeder Operation

This chapter will cover basic operation and procedures for the Brillion Turfmaker III. Be sure to read and understand the Safety Procedures and Cautions starting on Page 1-2.

Transport Lock (Pull Type Seeders Only)

To prepare machine for transport:
Raise the machine fully and pin transport lock in place on each lift cylinder.

For field operation:
Disengage each transport lock and replace the pin. See Figure 3-1.

**IMPORTANT**
If the pin is not installed, the transport lock may bounce up and cause significant damage to the cylinder and fittings.

**WARNING**
Failure to follow this procedure will result in a rapid rise of drawbar to approximately 5 1/2 feet.

Be sure to observe the following sequence:
If seeder is to be unhooked with rollers on the ground, do one of the following two things to assure proper balance.
- Lower tires to the ground, holding them hydraulically,
- Install a 5/8" x 2 1/2" bolt and nut in the “Shipping” bolt position as shown. See Figure 3-2.

**NOTE**
Be sure to remove bolt after seeder is reattached to tractor so rear rollers can float in operation.

Figure 3-1: Transport Lock

Figure 3-2: Shipping Bolt Position
Parking Pin (Pick-up Seeders Only)

**WARNING**
To Prevent The Machine From Tipping Backward On The Frame, Disengage Parking Pin Only When Seeder Is Fully Attached To Tractor. Be Sure To Observe The Following Sequence.

When Hooking Up The Seeder:
1. Attach the tractor.
2. Remove the klik pin, pull parking pin in outer position, replace klik pin. See Figure 3-3.

When Unhooking The Seeder:
1. Remove the klik pin, push in parking pin, replace klik pin.
2. Disconnect the tractor.

Seed Rate Adjustment

**NOTE**
Wrenches for adjustment are stored on a pin at the back of the transmission.

**WARNING**
- To prevent damage to seed meters, do not apply excessive force to adjusting nuts. This is especially important when closing meters as seed in flutes can be pinched between cut-off and washer in seed cup.
- Do not close the meters more than 1/8” when there is seed in the meters without rotating the seed shaft to prevent damage to the rotating washers and retainer rings in the seed meters.
- Do not attempt to open the meters more than 1”. (Feed rolls could become disengaged from washer in the seed cup.)

Seed rate charts are located inside the seed box cover and in this manual. See Figure 3-6. They should be used as a general guide only. Because of seed variation, a more accurate rate can be determined by calibrating the seeder. See Page 3-5.

The seed rate is set by adjusting the micro-meter on the right side. See Figure 3-4.

To increase the rate of seeding: loosen the large locknut (see NOTE above “WARNING” notice) on inside of the bearing and turn the outer seed rate adjusting nut to the desired higher number setting, then tighten the large inner locknut. To decrease the rate of seeding: loosen the inner seed rate adjusting nut and set the outer adjusting nut to the new desired lower number position; then tighten the large inner locknut.

Seed cups discharge to the front of the machine to aid the operator in determining proper operation.
Figure 3-4: Seed Rate Adjustment

- **Increase**: Shaft moves this direction. Adjusting Nut.
- **Decrease**: Shaft moves this direction. Large Locknut.

**IMPORTANT**
DO NOT LOOSEN OR ADJUST THESE NUTS.

Right End Of Seeder
Seed rates shown on Figures 3-6 and 3-7 can be doubled by using the 22 tooth sprocket provided in the transmission.

Procedure is as follows:

1. Loosen drive chain as shown on page 4-3.
2. Open chain at connector.
3. Remove 5/16” roll pin in 11-22 tooth sprocket.
4. Move sprocket to new position & replace roll pin.
5. Add extra chain links as provided with this seeder.
6. Adjust chain tension as shown on page 4-3.

Figure 3-5: Drive Chain Set for 11 & 22 Tooth Seed Rate
Seed Rate Calibration
• Seed rate charts are located inside the seed box covers of both the front and rear seed boxes. They should be used as general guides only.
• Because of seed variation, a more accurate rate can be found by calibrating the seeders as shown in steps 1-6.
• The provided charts were determined by laboratory tests on various samples. To find rates for specific seed lots or to calibrate for unlisted seeds, proceed as shown on the seed charts reproduced below and on the next page.

Calibration of Front Seed Box
Front Seed Box May be calibrated for unlisted seed as follows:
2. Disengage clutch (electrical power is required to disengage).
3. Close Meters of rear seed box if box contains seed.
4. Place a tarp under machine to collect seed.
5. Turn the 11/16 Hex on transmission clockwise as follows:
   - 118 revolutions for 8-foot seeder
   - 92 revolutions for 10-foot seeder
   - 78 revolutions for 12-foot seeder
6. Weigh seed for approximate planting rate in pounds/acre. Seed rate will be doubled if 22 tooth sprocket is used.

PLANTING RATES FOR FRONT SEED BOX
1. Rates are for 11 tooth driver. Double these values for 22 tooth driver.
2. Rates are intended as a guide only. Variation in size and cleanliness will affect rates.
3. Check acreage and pounds of seed used for best results.

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11 Tooth Driver
(Using the 22 Tooth sprocket doubles the seed rates shown.)

PLANTING RATES FOR FRONT SEED BOX
11/16 HEX
MACHINE MAY BE CALIBRATED FOR UNLISTED SEED AS FOLLOWS:

1. RAISE MACHINE AND LOCK IN TRANSPORT POSITION.
2. DISENGAGE CLUTCH (ELECTRICAL POWER IS REQUIRED TO DISENGAGE).
3. CLOSE METERS OF FRONT SEED BOX IF BOX CONTAINS SEED.
4. PLACE A CANVAS OR TARP TO CATCH SEED.
5. TURN 11/16 HEX ON TRANSMISSION CLOCKWISE (CW) AS FOLLOWS:
   - 118 REVOLUTIONS FOR 8 FOOT SEEDER.
   - 92 REVOLUTIONS FOR 10 FOOT SEEDER.
   - 78 REVOLUTIONS FOR 12 FOOT SEEDER.
6. WEIGH SEED FOR APPROXIMATE PLANTING RATE IN POUNDS PER ACRE. SEED RATE WILL BE DOUBLED IF 22 TOOTH SPROCKET IS USED.

Figure 3-7: Calibration of Rear Seed Box
1. RATES ARE FOR 11 TOOTH DRIVER. DOUBLE THESE VALUES FOR 22 TOOTH DRIVER.
2. RATES ARE INTENDED AS A GUIDE ONLY. VARIATIONS IN SIZE AND CLEANLINESS WILL AFFECT RATES. CHECK ACREAGE AND POUNDS OF SEED USED FOR BEST RESULTS.

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<td>0.05 0.14 0.23 0.30 0.39 0.46 0.55 0.64</td>
</tr>
<tr>
<td><strong>HIGHLAND BENT</strong></td>
<td>2 5 7 9 11 13 15 17</td>
<td>0.05 0.11 0.16 0.21 0.25 0.30 0.34 0.39</td>
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<tr>
<td><strong>KLEIN GRASS</strong></td>
<td>2 8 14 21 27 34 41</td>
<td>0.05 0.18 0.32 0.48 0.62 0.78 0.94 1.08</td>
</tr>
<tr>
<td><strong>LESPEDEZA (KOREAN HULLED)</strong></td>
<td>2 6 16 21 26 32 36</td>
<td>0.05 0.14 0.25 0.37 0.48 0.60 0.73 0.83</td>
</tr>
<tr>
<td><strong>LESPEDEZA (KOREAN HULLED)</strong></td>
<td>4 8 14 21 26 32 38 42</td>
<td>0.09 0.18 0.32 0.48 0.60 0.73 0.87 0.95</td>
</tr>
<tr>
<td><strong>LESPEDEZA (SERICEA HULLED)</strong></td>
<td>1 5 8 12 16 20 23 26</td>
<td>0.02 0.11 0.18 0.28 0.37 0.46 0.53 0.60</td>
</tr>
<tr>
<td><strong>LESPEDEZA (SERICEA HULLED)</strong></td>
<td>4 10 16 23 29 36 44 50</td>
<td>0.09 0.23 0.37 0.53 0.67 0.83 1.01 1.15</td>
</tr>
<tr>
<td><strong>LOVE GRASS (WEEPING)</strong></td>
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</tr>
<tr>
<td><strong>LOVE GRASS (SAND)</strong></td>
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<tr>
<td><strong>MILLET</strong></td>
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<td>0.05 0.18 0.32 0.48 0.62 0.76 0.92 1.08</td>
</tr>
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<td><strong>NORTHROP KING MIXTURE</strong></td>
<td>2 3 4 5 6 8 9 10</td>
<td>0.05 0.07 0.09 0.11 0.14 0.18 0.21 0.23</td>
</tr>
<tr>
<td><strong>RED TOP</strong></td>
<td>1 4 6 8 10 11 12 14</td>
<td>0.02 0.09 0.14 0.18 0.23 0.25 0.28 0.32</td>
</tr>
<tr>
<td><strong>REED CANARY GRASS</strong></td>
<td>1 4 6 8 11 13 16 20</td>
<td>0.02 0.09 0.14 0.18 0.25 0.30 0.37 0.46</td>
</tr>
<tr>
<td><strong>SCOTT'S FAMILY GRASS</strong></td>
<td>1 2 3 4 5 6 8 8</td>
<td>0.02 0.05 0.07 0.09 0.11 0.14 0.18 0.18</td>
</tr>
<tr>
<td><strong>SWITCH GRASS (CLEANED AND HULLED)</strong></td>
<td>0 4 6 8 11 14 17 21</td>
<td>0.00 0.09 0.14 0.18 0.25 0.32 0.39 0.48</td>
</tr>
<tr>
<td><strong>TILLAGE RADISH</strong></td>
<td>2 * 8 13 18 23 28 33 38</td>
<td>0.05* 0.19 0.29 0.41 0.52 0.64 0.75 0.87</td>
</tr>
<tr>
<td><strong>TIMOTHY</strong></td>
<td>2 6 11 17 22 27 33 39</td>
<td>0.05 0.14 0.25 0.39 0.51 0.62 0.76 0.90</td>
</tr>
</tbody>
</table>
Electronic Acre Meter Kit (Optional)

**IMPORTANT**

Acre Meter is dust and splash resistant, under no circumstances should this unit be submerged in any conductive, corrosive, or flammable liquid. At no time use high pressure water or air to clean it, as this can damage the unit.

**Settings for Loup Acre Meters**

The battery operated Acre Meter operates in one of two modes.

1. In sleep mode, the display is blank, and the counter is accumulating acres. Sleep mode will be entered if a button is not pressed for 20 seconds.
2. In entry mode, the display is on, and the operator can enter values. To get into entry mode, press the */FUNC button. If you continue to press the */FUNC button, the acre counter will cycle through the functions that it can perform. The LEDs above the display indicate which function is selected.

The available functions are:

- Field Acres, Total Acres, Pulses per 400 feet, Width, Password and Low Battery

**Field Acres**

Press the */FUNC button until the “FIELD” LED is lit. The digits indicate the acres covered since the field acre counter was cleared.

To clear the field acre count, press the UP and DOWN buttons simultaneously for two seconds. If a password has been entered, you will not be able to clear the total acre count. Field acres will count in tenths of an acre up to 99999.9 acres.

**Total Acres**

Press the */FUNC button until the “FIELD” and “TOTAL” LEDs are lit. The digits indicate the acres covered since the total acre counter was cleared.

To clear the total acre count, press and hold the UP and DOWN buttons for two seconds. If a password has been entered, you will not be able to clear the total acre count. Total acres will count from .1 to 999999 acres.

**Pulses Per 400 Feet**

Press the */FUNC button until the “PULSES” LED is lit. The number in the display indicates how many pulses are generated for every 400 feet driven. There are two methods to enter the pulses per 400 feet:

1. If you know the number, select it using the UP and DOWN buttons. When you press the */FUNC button, the Acre Counter will accept the number in the display as the new pulses per 400 feet. See Table 3-1.
2. If you do not know the pulses per 400 feet, press and hold the UP and DOWN buttons until the “0” appears in the display. The “PULSES” LED will blink. The acre counter is now counting shaft rotations. Enter the cab and drive 400 feet. Press the */FUNC button to wake up the acre counter. The “PULSES” LED will light. The number displayed is the pulses per 400 feet. Press the */FUNC button to accept the setting.

If a password is set, you will not be able to adjust the pulses.

**Width**

Press the */FUNC button until the “WIDTH” LED is lit. The number displayed is the length of your implement in feet.

To adjust the width, press the UP and DOWN buttons. If a password has been entered, you will not be able to adjust the width.

The width can be adjusted from .1 to 99.9 feet, in tenths of a foot.

**Password**

The password function allows you to protect the total acre count, pulses per 400 feet, and width settings with a password. This stops anyone from accidentally changing those settings. When the acre counter is shipped, the password is disabled. You can modify the pulses per 400 feet and implement width at any time.

Press the */FUNC button until the “PASS” LED is lit. The digits will display the word “Ent” or “DIS”.

If the display shows “DIS”. The password is disabled. The total acre count, pulses/400 feet, width, and password settings can be adjusted using the UP and DOWN buttons. The password can also be changed using the UP and DOWN buttons.

If the display shows “Ent”: You must enter your password using the UP and DOWN buttons. When your password is displayed, press the */FUNC button to test the password. If the password is correct, you will be able to change the acre counter settings. The password will be viewable until the acre counter powers down. When the acre counter is powered up again, you will have to re-enter the password to change settings.

If the password is correct, you will be able to change the acre counter settings. The password will be viewable until the acre counter powers down. When the acre counter is powered up again, you will have to re-enter the password to change settings.

If the password is not correct, you will not be able to change the acre counter settings. When the “PASS” function is selected again, “Ent” will appear in the display.
Changing the Password

Select a new password using the **UP** and **DOWN** buttons. Press the */FUNC* button until the word “SET” appears in the display. Release the */FUNC* button. The number in the display is your new pass code. Make sure you record this number. Press and hold the */FUNC* button until the word “dIS” appears in the display.

If the password is forgotten, it can be disabled by removing the batteries. The password is intended for rental units. It is recommended that a seal be affixed to the rear plate of the acre counter to determine if the settings have been tampered with.

Battery Replacement

The battery operated acre counter uses 3 AA batteries. The batteries should last between 5 and 10 years. The acre counter will last much longer than that. Eventually, you will have to replace the batteries. The “BATT” LED will light when the batteries require replacement. Remove the acre counter from the implement and undo the 4 screws on the back of the case. This will separate the housing from the rear plate. Replace the batteries with 3 high quality AA alkaline batteries.

See “Acre Meter Troubleshooting” on page 4-5.
## Table 3-1: Acre Meter Setting (After 05/15/2012)

<table>
<thead>
<tr>
<th>MODEL</th>
<th>PULSES</th>
<th>WIDTH</th>
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### Table 3-2: Acre Meter Setting (Prior to 05/15/2012)

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OPERATION

Transmission Clutch
The clutch is disengaged when power (12 volts) is applied. If there is a power failure or electrical problem, the seeder will continue to operate, so the machine must be raised to stop seeding.

1. Seed shafts will not rotate when the machine is backed up.
2. The switch box contains a standard 5 amp fuse.
3. The clutch must be disengaged (power applied) when seed shafts are turned manually for calibration.

Charging the Hydraulic System
Ensure that the hydraulic system is full of oil. If a hydraulic component is removed, repaired, or replaced the system, must be purged of air before operations. To purge the system or air, unpin the rod end of both cylinders. Align or prop the cylinders into position so that the rod will not interfere with anything during its travel. Slowly engage the tractor hydraulics fully extending and retracting both cylinders. Repeat several times until the action of both cylinders is positive and immediately responsive. Do not loosen or crack any fittings. Reconnect the rod end of both cylinders.
Chapter 4
Maintenance

General Torque Specifications

This chart provides tightening torques for general purpose applications when special torques are not specified on process or drawing. Assembly torques apply to plated nuts and capscrews assembled without supplemental lubrication (as received condition). They do not apply if special graphite moly-disulfide or other extreme pressure lubricants are used. When fasteners are dry (solvent cleaned) add 33% to as received condition torque. Bolt head identification marks indicate grade and may vary from manufacturer to manufacturer. Thick nuts must be used on grade 8 capscrews. Use value in [ ] if using prevailing torque nuts.

<table>
<thead>
<tr>
<th>UNC SIZE</th>
<th>SAE Grade 2</th>
<th>SAE Grade 5</th>
<th>SAE Grade 8</th>
<th>UNF SIZE</th>
<th>SAE Grade 2</th>
<th>SAE Grade 5</th>
<th>SAE Grade 8</th>
</tr>
</thead>
</table>

Nominal thread diameter (mm) | Newton Meters (Standard Torque) | Foot Pounds (Standard Torque) | Nominal Thread Diameter (mm) | Newton Meters (Standard Torque) | Foot Pounds (Standard Torque)
10 | 46 [60] | 34 [47] | 30 | 1330 [1470] | 990 [1090] |
12 | 80 [125] | 60 [75] | 33 | 1790 [1950] | 1340 [1450] |
18 | 275 [330] | 205 [245] | | | |

Fasteners

Before operating your Brillion machine, check all hardware for tightness. Use the Tightening Torque Table above as a guide. After a few hours of use, check entire machine and tighten any loose nuts or bolts. Daily or periodic checks should be performed.
MAINTENANCE

Tires

Recommended inflation pressure is as follows:

9.5 L-15        6 ply rating........32 psi
11 L-15         8 ply rating........28 psi

Hydraulic Maintenance

1. Check the tractor hydraulic fluid level per tractor owner's manual and after any leakage. Check fluid level with the cylinders in the retracted position.

2. If a cylinder or valve leaks, disassemble the parts to determine the cause of the leak. Any time a cylinder is opened up, or whenever any seal replacement is necessary, it is advisable to clean all parts and replace all seals. Seal kits are available from your Landoll/Brillion dealer.

3. Check all hydraulic hoses weekly. Look for binding or cracking. Replace all worn or defective parts immediately.

IMPORTANT

Lower the unit to the ground, and relieve hydraulic pressure before attempting to service any hydraulic component.

4. Transport locks are provided to hold the implement in a raised position. Do not attempt to perform any service work under the implement without first installing the transport locks. Before servicing any hydraulic component, lower the implement to the ground and relieve all system pressure. If a hydraulic component is disconnected, repaired, or replaced, it will be necessary to purge the system of air before operation.

Transmission Chain

To adjust the transmission chain, first loosen the 5/8" idle axle bolt and then use the clevis bolt to obtain about 1/8" - 1/4" sag. Re-tighten axle bolt. Be careful not to over tighten this chain. See Figure 4-1.

Adjust the chain between the front roller and transmission to have approximately 2" of total deflection. See Figure 4-2.

Adjust the chain between the front roller and transmission to have approximately 2” of total deflection.
Figure 4-1: Idle Bolt Adjustment

Figure 4-2: Chain Tension
Feed Cup Adjustment

All cups must be set the same to seed uniformly. To check, set the adjusting nut to 0-A. All cups should be closed. If not, there are three adjustments to make as needed.

1. Jam nuts on both ends of the micrometer are used to adjust all cups the same amount.

2a. **Front Box:** Remove clamp that joins seed shafts. Turn right hand seed shaft in or out of left seed shaft as required so all cups close at the same time. See step 3.

2b. **Rear Box:** Loosen feed roll coupling jam nuts and set screws. Turn right hand seed shaft in or out of coupling as required so all cups close at the same time. See step 3.

3. Individual cups can be adjusted by loosening their mounting bolts, moving cups, and then re-tightening.

**Figure 4-3: Feed Cup Adjustment**
Acre Meter Troubleshooting

**IMPORTANT**

Acre Meter is dust and splash resistant, under no circumstances should this unit be submerged in any conductive, corrosive, or flammable liquid. At no time use high pressure water or air to clean it, as this can damage the unit.

**NOTICE**

DO NOT PRESSURE CLEAN WITH AIR OR WATER

Figure 4-4: Acre Meter

**NOTE**

The ground wire is for static discharge protection and has no effect on the ability of the sensor to function properly under normal conditions.

The battery operated Acre Meter uses 3 AA batteries. The Acre Meter will display “LObat” when the batteries require replacement. Remove the Acre Meter from the implement and then the 4 Screws on the back of the case. Separate the housing from the rear plate. Replace with 3 quality AA batteries.

Acre Meter does not count pulses during calibration or does not count acres during operation.

1. Check the position of the Magnet Wheel Assembly and Pick-up Switch against the set-up instructions in this manual. See Figure 2-27.
2. Verify that the magnet in the Magnet Wheel Assembly has not come out.
3. Place the Acre Meter display in “Calibrate” mode by pressing the “*(FUNC)” key until the P-Word indicator LED is lit and then press the up/down arrow keys until the display shows 0 and the LED is blinking. Break the connection between the display and the Pick-up Switch and short between pins A and B on the display harness connector. You should see the display increment +1 with each contact of the connector terminals.
4. If step 3 works then wave a magnet in front of the Pick-up Switch face with it re-connected to the display and see if the display increments up. If not, put an ohm meter or continuity tester on the contacts of the Pick-up Switch harness and place a magnet in front of the Pick-up Switch face. The Pick-up Switch should show continuity or near 0 ohms resistance.

Acre Meter can not change the width or pulse count settings or clear the field and total acres.

1. Check to see if a password needs to be entered by pressing the “*(FUNC)” key until the P-Word indicator LED is lit. If “dIS” is displayed (password disabled) no password is set.
2. If “Ent” is displayed a password must be entered to change the settings or the password must be disabled as instructed in the setup section of this manual.
Roller Wheels

Occasionally it is necessary to loosen clamp bands and tighten roller wheel assemblies as nearly as possible, peaks on rear wheels should line up with valleys on front wheels. This requires adjusting both end clamps on the rear axle drum.

Adjustment Procedure

**IMPORTANT**

Failure to locate clamp band bolt over weld will cause clamp band to loosen and slide.

Adjust the front roller wheels first. Loosen clamp bands and slide wheels snug against each other, centering the entire assembly under the deflector shields. Locate the bolt in the clamp band over the weld on the pipe. Slide the clamp band against the end wheel and tighten the clamp band bolt. **See Figure 4-5.**

To adjust the rear roller wheels follow the front wheel procedure. Start aligning the peaks of the rear wheels with the valley of the front wheels at the center of the rear roller. This will provide the best alignment of worn wheels.

Storage

1. The service life of the Seeder will be extended by proper off-season storage practices. Prior to storing the unit, complete the following procedures:
   a. Completely clean the unit, blow all seed out of meters.
   b. Inspect the machine for worn or defective parts. Replace as needed.
   c. Repaint all areas where the original paint is worn off.
   d. Apply a light coating of oil or grease to exposed cylinder rods to prevent them from rusting.
   e. Lubricate each point of the machine as stated in “Lubrication” on page 4-7.

2. Store the unit in a shed or under a tarpaulin to protect it from the weather. The ground tools and tires should rest on boards, or some other object, to keep them out of the soil.

3. 3Pt Hitch Models, raise track removers, lower Parking Stands, and insert Parking Pin before unhitching from tractor.

4. Pull Type Models, raise the machine and install Transport Locks. Lower Drawbar Jack.
   a. Relieve Hydraulic Pressure in hoses after locks are installed.
   b. Block wheels before unhitching from tractor.
Lubrication

- All machines have a grease zerk on the bearings on each end of the front and rear rollers. Pull type machines have a zerk on each wheel arm pivot as well.

- Oil roller chains periodically.

- Repack wheel bearings annually.

- Grease all bearings every 20 hours.

- Grease wheel arms every 4 hours when machine is constantly raised and lowered.

- When machine is not used for some time, exposed portions of hydraulic cylinder rods must be cleaned and covered with a thick coat of grease to prevent corrosion which will damage seals.

Figure 4-6: Lubrication Points
Table provided for general use.

<table>
<thead>
<tr>
<th>NOTES:</th>
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<tbody>
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Chapter 5

General Reference Tables and Specifications

SL3 (Slow-speed) series Grass Seeder Models are described as follows:

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Approximate Weight</th>
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<tbody>
<tr>
<td>SL3081</td>
<td>8' Landscape Seeder, Pull Type, Front Box Only</td>
<td>2451</td>
</tr>
<tr>
<td>SLB3081</td>
<td>8' Landscape Seeder, Pull Type, Front &amp; Rear Boxes</td>
<td>2634</td>
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<tr>
<td>SLP3081</td>
<td>8' Landscape Seeder, Pick-Up Type, Front Box Only</td>
<td>2114</td>
</tr>
<tr>
<td>SLPB3081</td>
<td>8' Landscape Seeder, Pick-Up Type, Front &amp; Rear Boxes</td>
<td>2297</td>
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<tr>
<td>SL3101</td>
<td>10' Landscape Seeder, Pull Type, Front Box Only</td>
<td>2853</td>
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<td>SLB3101</td>
<td>10' Landscape Seeder, Pull Type, Front &amp; Rear Boxes</td>
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<td>SLP3101</td>
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<td>2494</td>
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<td>SLPB3101</td>
<td>10' Landscape Seeder, Pick-Up Type, Front &amp; Rear Boxes</td>
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<td>SL3121</td>
<td>12' Landscape Seeder, Pull Type, Front Box Only</td>
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<td>SLB3121</td>
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<td>SLP3121</td>
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<td>SLPB3121</td>
<td>12' Landscape Seeder, Pick-Up Type, Front &amp; Rear Boxes</td>
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Dimensions

<table>
<thead>
<tr>
<th>Models 308</th>
<th>Models 310</th>
<th>Models 312</th>
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<tbody>
<tr>
<td>Rolling Width</td>
<td>8'0&quot;</td>
<td>10'0&quot;</td>
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<tr>
<td>Overall Width</td>
<td>8'7&quot;</td>
<td>10'6&quot;</td>
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<tr>
<td>Pick-Up Type</td>
<td>10'11&quot;</td>
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<tr>
<td>Pull Type, 7.60 X 15 tires</td>
<td>11'6&quot;</td>
<td>13'4&quot;</td>
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<tr>
<td>Pull Type, 9.5L X 15 tires</td>
<td>7'1&quot;</td>
<td>7'1&quot;</td>
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<tr>
<td>Pull Type, 11L X 15 tires</td>
<td>11'9&quot;</td>
<td>11'9&quot;</td>
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<tr>
<td>Overall Length</td>
<td>4'5&quot;</td>
<td>4'5&quot;</td>
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<tr>
<td>Pick-Up Type</td>
<td>6'6&quot;</td>
<td>6'6&quot;</td>
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<tr>
<td>Transport Clearance (pull type)</td>
<td>15&quot;</td>
<td>15&quot;</td>
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<tr>
<td>Three-Point Hitch</td>
<td>Cat. 2</td>
<td>Cat. 2</td>
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<td>Optional Equipment</td>
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<td>5K275 Acre Meter</td>
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<td>6J189 15 X 8lb Wheel for 11L X 15 Tire (two required) Standard on 10 and 12 foot Machines</td>
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<td>9J131 S-Tine Tire Track Remover Kit for 8ft Seeder (Pick-Up Seeders require standard 9J442 long hitch to use s-tine tire track remover kit)</td>
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<td>9J438 S-Tine Tire Track Remover Kit for 10ft Seeder (Pick-Up Seeders require standard 9J442 long hitch to use s-tine tire track remover kit)</td>
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<td>2K496 S-Tine Tire Track Remover Kit for 12ft Seeder (Pick-Up Seeders require standard 9J442 long hitch to use s-tine tire track remover kit)</td>
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<td>9J932 Coil Tine Tire Track Remover Kit (for use with all hitches) Cannot be used with Scraper Kits)</td>
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<tr>
<td>1K225 Scrapper Kit for 8' Seeder (Front Roller Only) [Not for use with Coil Tine Track Remover]</td>
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<tr>
<td>1K224 Scrapper Kit for 10' Seeder (Front Roller Only) [Not for use with Coil Tine Track Remover]</td>
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<tr>
<td>2K526 Scrapper Kit for 12' Seeder (Front Roller Only) [Not for use with Coil Tine Track Remover]</td>
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<td>188858 Seed Shaft Monitor Kit</td>
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<td>Date</td>
<td>Revision</td>
<td>Improvement(s) Description and Comments</td>
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<td>5/29/2008</td>
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<td>Initial Release</td>
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<td>7/2011</td>
<td>0711</td>
<td>Improved Pictures and Drawings. Incorporated ECN 35017</td>
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<tr>
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<td>1113</td>
<td>Added LED Warning Lights</td>
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