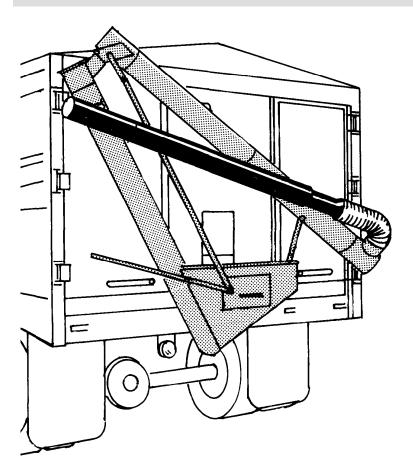


Rear Mount Drill Fill

DF614-3 Operator's and Assembly Manual

This manual applies to:

Hutchinson, Mayrath, AGI, Westfield





Part Number: 30265 R4

Revised: April 2021

Original Instructions

This product has been designed and manufactured to meet general engineering standards. Other local regulations may apply and must be followed by the operator. All personnel must be trained in the correct operational and safety procedures for this product. Use the sign-off sheet below to record initial and periodic reviews of this manual with all personnel.

Date	Employee Name and Signature	Employer Name and Signature
	+	

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1. Introduction

Thank you for your purchase. Follow the instructions in this manual for safe use of this drill fill. Following proper operation and maintenance will help to keep the drill fill running in optimal condition.

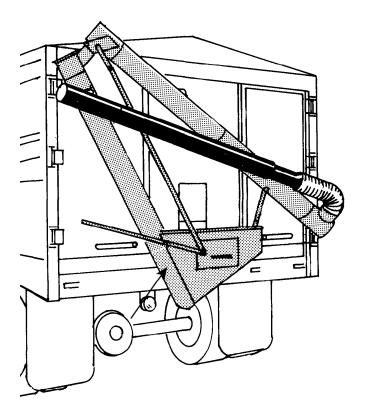
Keep this manual handy for frequent reference and to review with new personnel. A sign-off form is provided on the inside front cover for your convenience. If any information in this manual is not understood or if you need additional information, please contact AGI or your representative for assistance.

This manual should be regarded as part of the equipment.

1.1. Serial Number Location

The serial number location for your drill fill is shown in the figure below. Have the serial number ready when ordering parts or requesting service or other information. Record information in the table below for easy reference.

Model Number	
Serial Number	
Date Received	



1.2. Intended Use

The drill fill is intended for use as listed below and described throughout this manual. Use in any other way is considered contrary to the intended use and is not covered by the warranty.

Intended use for the drill fill:

• Handling grain, pulse crops, treated seeds, fertilizer, or other similar materials.

1.2.1 Misuse

Do not install/use the drill fill for/with:

• transferring material other than dry, free-flowing food-grains.

2. Safety

2.1. Safety Alert Symbol and Signal Words



This safety alert symbol indicates important safety messages in this manual. When you see this symbol, be alert to the possibility of injury or death, carefully read the message that follows, and inform others.

Signal Words: Note the use of the signal words **DANGER**, **WARNING**, **CAUTION**, and **NOTICE** with the safety messages. The appropriate signal word for each message has been selected using the definitions below as a guideline.

Indicates an imminently hazardous situation that, if not avoided, will result in serious injury or death.

⚠ WARNING

Indicates a hazardous situation that, if not avoided, could result in serious injury or death.

⚠ CAUTION

Indicates a hazardous situation that, if not avoided, may result in minor or moderate injury.

NOTICE

Indicates a potentially hazardous situation that, if not avoided, may result in property damage.

2.2. Follow Safety Instructions

Read and understand all safety instructions, safety decals, and manuals and follow them when operating or maintaining the equipment.

 Owners must give instructions and review the information initially and annually with all personnel before allowing them in the work area. Untrained users/operators expose themselves and bystanders to possible serious injury or death.



- Use for intended purposes only.
- Do not modify the drill fill in any way without written permission from the manufacturer and is not covered by the warranty.
- Follow a health and safety program for your worksite. Contact your local occupational health and safety organization for information.
- Follow applicable local codes and regulations.

2.3. Rotating Flighting Safety

A DANGER

- KEEP AWAY from rotating flighting.
- DO NOT remove or modify flighting guards, doors, or covers. Keep in good working order. Have replaced if damaged.
- DO NOT operate the drill fill without all guards, doors, and covers in place.
- NEVER touch the flighting. Use a stick or other tool to remove an obstruction or clean out.
- Shut off and lock out power to adjust, service, or clean.



2.4. Unloading Safety

- WARNING
 Never enter a truck box or grain wagon when unloading.
 - Unload only as described in the operation section of this manual.
 - Operator can be pulled into the downward flow of grain and if the grain pile is deep enough, fatal engulfment and suffocation can happen.

2.5. Overhead Power Lines



- When operating or moving, keep drill fill away from overhead power lines and devices.
- The drill fill is not insulated.
- Electrocution can occur without direct contact.



2.6. Rotating Parts Safety

WARNING

- · Keep body, hair, and clothing away from rotating pulleys, belts, chains, and sprockets.
- Do not operate with any guard removed or modified. Keep guards in good working order.
- Shut off and lock out power source before inspecting or servicing machine.



2.7. Work Area Safety

- MARNING Have another trained person nearby who can shut down the drill fill in case of accident.
 - The work area should be kept clear of bystanders, including children.
 - Keep the work area clean and free of debris.

2.8. Guards Safety

⚠ WARNING

- Keep guards in place. Do not operate with guard removed.
- Do not walk on, step on, or damage guards.
- Lock out power before removing a guard.
- Ensure all guards are replaced after performing maintenance.

2.9. Drives and Lockout Safety

Inspect the power source(s) before using and know how to shut down in an emergency. Whenever you service or adjust your equipment, make sure you shut down the power source and unplug or remove the key (as applicable) to prevent inadvertent start-up and hazardous energy release. Know the procedure(s) that applies to your equipment from the following power source(s). Ensure that all personnel are clear before turning on power to equipment.



2.9.1 Hydraulic Power Safety

↑ WARNING Power Source

- Refer to the rules and regulations applicable to the power source operating your hydraulic drive.
- Do not connect or disconnect hydraulic lines while system is under pressure.
- Keep all hydraulic lines away from moving parts and pinch points.
- Escaping hydraulic fluid under pressure will cause serious injury if it penetrates the skin surface (serious infection or toxic reaction can develop). See a doctor immediately if injured.
- Use metal or wood as a backstop when searching for hydraulic leaks and wear proper hand and eye protection.
- Check all hydraulic components are tight and in good condition. Replace any worn, cut, abraded, flattened, or crimped hoses.
- Clean the connections before connecting to equipment.
- Do not attempt any makeshift repairs to the hydraulic fittings or hoses with tape, clamps, or adhesive. The hydraulic system operates under extremely high pressure; such repairs will fail suddenly and create a hazardous and unsafe condition.

Lockout

 Always place all hydraulic controls in neutral and relieve system pressure before disconnecting or working on hydraulic system.



2.10. Personal Protective Equipment

The following Personal Protective Equipment (PPE) should be worn when operating or maintaining the equipment.

Safety Glasses

• Wear safety glasses at all times to protect eyes from debris.



Coveralls

• Wear coveralls to protect skin.



Hard Hat

• Wear a hard hat to help protect your head.



Steel-Toe Boots

• Wear steel-toe boots to protect feet from falling debris.



Work Gloves

• Wear work gloves to protect your hands from sharp and rough edges.



Dust Mask

Wear a dust mask to prevent breathing potentially harmful dust.



Hearing Protection

• Wear ear protection to prevent hearing damage.



2.11. Safety Equipment

The following safety equipment should be kept on site.

Fire Extinguisher

 Provide a fire extinguisher for use in case of an accident. Store in a highly visible and accessible place.



First-Aid Kit

 Have a properly-stocked first-aid kit available for use should the need arise, and know how to use it.



2.12. Safety Decals

- · Keep safety decals clean and legible at all times.
- Replace safety decals that are missing or have become illegible. See decal location figures that follow.
- Replaced parts must display the same decal(s) as the original part.
- Replacement safety decals are available free of charge from your distributor, dealer, or factory as applicable.

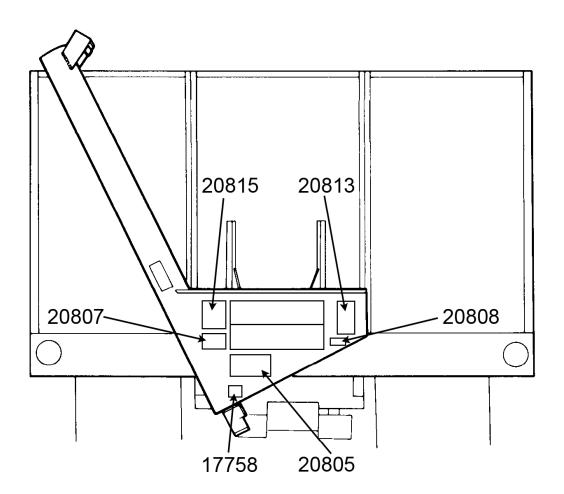
2.12.1 Decal Installation/Replacement

- 1. Decal area must be clean and dry, with a temperature above 50°F (10°C).
- 2. Decide on the exact position before you remove the backing paper.
- 3. Align the decal over the specified area and carefully press the small portion with the exposed sticky backing in place.
- 4. Slowly peel back the remaining paper and carefully smooth the remaining portion of the decal in place.
- 5. Small air pockets can be pierced with a pin and smoothed out using the decal backing paper.

2.12.2 Safety Decal Locations and Details

Replicas of the safety decals that are attached to the drill fill and their messages are shown in the figure(s) that follow. Safe operation and use of the drill fill requires that you familiarize yourself with the various safety decals and the areas or particular functions that the decals apply to, as well as the safety precautions that must be taken to avoid serious injury, death, or damage.

Figure 1. Safety Decal Locations



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Table 1. Safety Decals

Part Number	Description		
20815	A DANGER		
	ELECTROCUTION HAZARD		
	To prevent death or serious injury:		
	When operating or moving, keep equipment away from overhead power lines and devices.		
	Fully lower equipment and truck box before moving.		
	This equipment is not insulated.		
	Electrocution can occur without direct contact.		

Table 1 Safety Decals (continued)

Part Number	Description		
20813	⚠ DANGER		
	ROTATING FLIGHTING HAZARD		
	To prevent death or serious injury:		
	KEEP AWAY from rotating auger flighting.		
	DO NOT remove or modify auger flighting guards, doors, or covers. Keep in good working order. Have replaced if damaged.		
	DO NOT operate the auger without all guards, doors, and covers in place.		
	NEVER touch the auger flighting. Use a stick or other tool to remove an obstruction or clean out.		
	Shut off and lock out power to adjust, service, or clean.		

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Table 1 Safety Decals (continued)

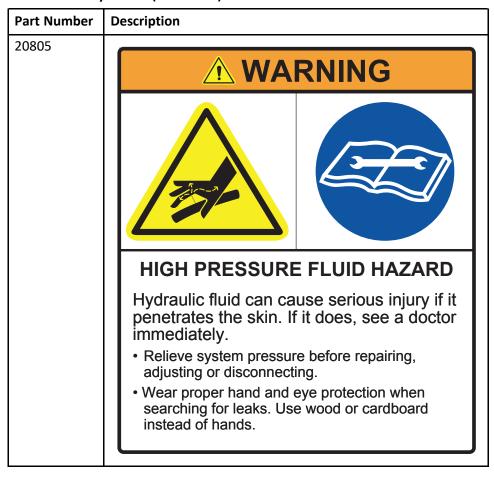


Table 1 Safety Decals (continued)

Part Number Description 20807 **⚠ WARNING** To prevent serious injury or death: Read and understand the manual before assembling, operating, or maintaining the equipment. • Only trained personnel may assemble, operate, or maintain the equipment. • Children and untrained personnel must be kept outside of the work area. • Do not modify the equipment. Keep in good working order. • If the manual, guards, or decals are missing or damaged, contact factory or representative for free replacements. · Lock out power before performing maintenance. • To prevent equipment collapse or upending, support equipment tube while disassembling certain components. Follow grain storage structure manufacturer's warnings when loading and unloading. • Electric motors must be grounded. Disconnect power before resetting overloads.

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Table 1 Safety Decals (continued)

Part Number	Description	
20808	CRUSH HAZARD To prevent serious injury or death, securely block truck box hoist before installing or servicing hydraulic or electrical lines.	
22145	₩.	ARNING

3. Features

Read this section to familiarize yourself with the basic component names and functions of the drill fill.

Figure 2. Drill Fill Features

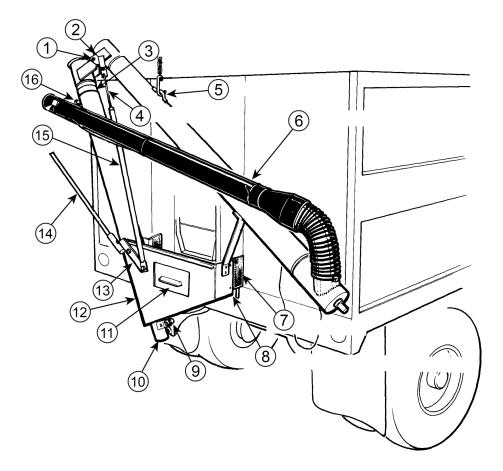


Table 2. Drill Fill Features

Item	Description	Item	Description
1	Pivot Pin	9	Solenoid
2	Lift Arm	10	Hydraulic Motor
3	Upper Mounting Bracket & Half Clamp Assembly	11	Dump Cover
4	Rod End	12	Clean Out Cover
5	Lifting Point	13	Lift Lever
6	Telescoping Unloading Spout	14	Lift Handle
7	Rubber Skirting	15	Off/On Switch
8	Lower Mounting Brackets & Support Pin	16	Spout Hook

4. Assembly



Before continuing, ensure you have completely read and understood this manual's Safety section, in addition to the safety information in the section(s) below.

4.1. Assembly Safety

- Do not take chances with safety. The components can be large, heavy, and hard to handle. Always use the proper tools, rated lifting equipment, and lifting points for the job.
- Carry out assembly in a large open area with a level surface.
- Always have two or more people assembling the drill fill.
- Make sure you have sufficient lighting for the work area.
- Stay away from overhead power lines and other obstructions during assembly. Contact with power lines can cause electrocution.

4.2. Check Shipment

Unload the drill fill parts at the assembly site and compare the packing slip to the shipment. Ensure that all items have arrived and that none are damaged. Take pictures of shipments prior to or just after unloading if there are any damaged parts.

Report missing or damaged parts immediately to ensure that proper credit is received from AGI or your representative, and to ensure that any missing parts can be shipped quickly to avoid holding up the assembly process.

Important

Do not assemble or install damaged components.

4.3. Before You Begin

Before you assemble the drill fill:

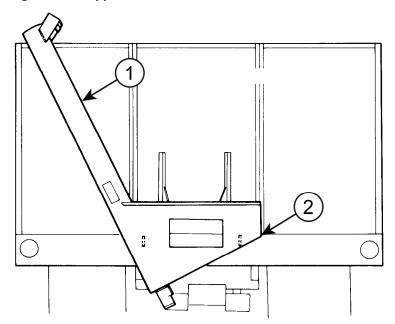
- Familiarize yourself with all the sub-assemblies, components, and hardware that make up the equipment.
- Have all parts and components on hand, and arrange them for easy access.
- Separate the hardware (bolts, nuts, etc.) and lay them out into groups for easier identification during assembly.
- Ensure there is adequate space to remove the assembled drill fill from the assembly area.

4.4. Mounting Brackets

Install mounting brackets prior to installing the drill fill.

1. Lift the hopper section of the drill fill and slide the lip of the hopper under center gate at rear of truck box. Tie or hold drill fill in place while marking mounting holes.

Figure 3. Hopper Tube Section

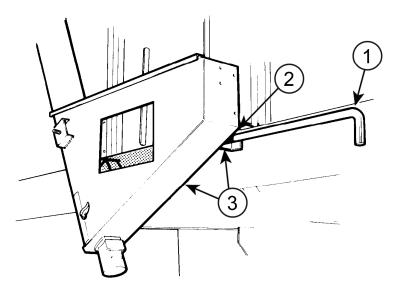


Item	Description
1	Hopper Tube Section
2	Lip

- 2. Insert long support pin through lower mounting brackets and welded tabs on back of drill fill hopper. Position mounting brackets on outside of tabs if you can, or as far apart as possible.
- 3. Mark the lower mounting bracket hole locations on the truck box.

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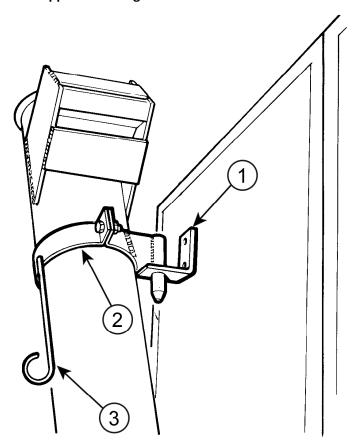
Figure 4. Lower Mounting Bracket Location



Item	Description
1	Long Support Pin
2	Lip
3	Lower Mounting Brackets

- 4. Attach the 2 half clamps (with pin pointing down) to upper end of the hopper tube section with two 7/16" x 1" bolts and locknuts.
- 5. With the half-clamp assembly as high as possible on the tube, rotate clamps until the pin is in a vertical position. Tighten bolts.
- 6. Slip upper mounting bracket on half clamp pin and mark the 2 holes.

Figure 5. Upper Mounting Bracket Location



Item	Description
1	Upper Mounting Bracket
2	Half Clamp
3	Spout Hanger

Important

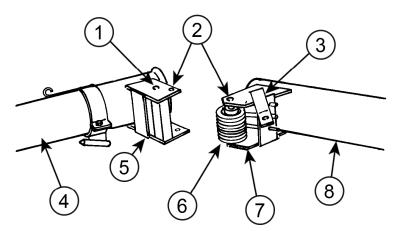
The lower tube section of the drill fill must be parallel to the truck box end gate. Shim up the upper mounting bracket if necessary. You may need a longer bolt (not provided).

- 7. Remove hopper section from truck box and drill four 29/64" holes at the marked locations.
- 8. Secure the lower and upper mounting brackets to truck box with four 7/16" x 1" bolts and locknuts.

4.5. Drill Fill Assembly

1. On a level surface, lay upper tube next to lower tube (Figure 6 on page 23).

Figure 6. Springs on Spacer Pipe



Item	Description	Item	Description
1	Loop Hole	5	Lower Pivot Bracket
2	Pivot Hole	6	Springs on Spacer Pipe
3	Lift Arm	7	Upper Pivot Bracket
4	Lower Tube Section	8	Upper Tube

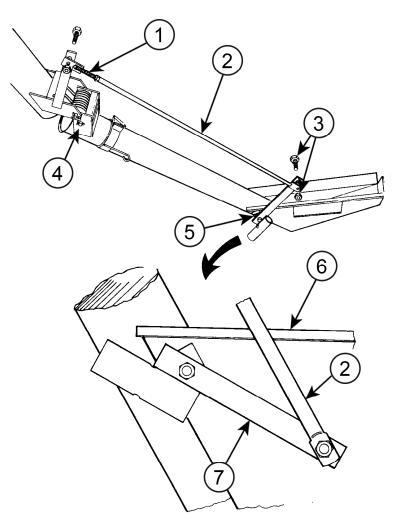
- 2. Stack the 3 springs with large coil over spacer pipe and insert spring ends through end plate holes in upper pivot bracket.
- 3. Align pivot holes of upper and lower tube sections. Insert a 5/8" x 7–1/4" pin through pivot holes and through the spacer pipe. Secure with cotter pins.
- 4. Insert the other 5/8" pin through loop hole in lower tube pivot bracket and through loops on the 3 springs. Secure 5/8" pin with cotter pins.

Important

This 5/8" pin must go through the loops on the springs.

5. Slip a 5/8" flat washer and the lift lever onto welded bolt on the hopper (Figure 7 on page 24) and secure with a 5/8" locknut. Tighten snug only, as this acts as a pivot point.

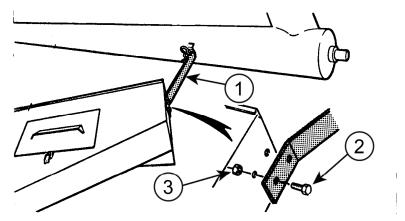
Figure 7. Threaded Rod End



Item	Description
1	Threaded Rod End
2	Lift Rod
3	5/8" x 1–12" Bolt and Locknut
4	5/8" Pin
5	5/8" Flat Washer
6	Hopper Assembly
7	Lift Lever

- 6. Attach the lift rod to lift lever (Figure 7 on page 24) with a 5/8" x 1–1/2" bolt and locknut. Tighten snug only; this bolt acts as a pivot point.
- 7. Thread a 5/8" jam nut onto the threaded rod end, then screw rod end into top threaded end of the lift rod.
- 8. Secure the upper support brace to hopper with two 3/8" x 1" bolts and whiz-nuts.

Figure 8. Upper Support Brace



Item	Description
1	Upper Support Brace
2	3/8" Bolt
3	3/8" Whiznut

4.6. Adjust Over-Center Lock

- 1. Pull upper tube into operating position.
- 2. Adjust threaded rod end and secure to lift rod on upper tube with a 5/8" x 1–1/2" bolt and locknut. Repeat this procedure until upper tube over-center locks into operating position with some tension on the lift handle.
- 3. After adjustment is complete, tighten the 5/8" jam nut on rod end. The 5/8" x 1-1/2" bolt and locknut should be tightened snug only, as this bolt acts as a pivot point.

4.7. Flighting Adjustment

- 1. With upper tube locked into operating position, remove the lock collar on top bearing.
- 2. Push upper flight down until it meets the lower flight. Reach into outlet spout on upper tube and rotate upper flight to ensure it is fully engaging with the lower flight.
- 3. Replace and secure lock collar on top bearing.

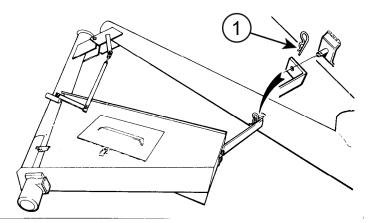


To prevent damage to the auger:

When the drill fill is in operating position, the upper flight must fully engage with the lower flight.

4. Pull upper tube into transport position with pin fitting through upper tube support brace. Lock into place with a hairpin. Because of the spring tension, one person should hold hopper while another pulls and locks upper tube into transport position.

Figure 9. Hairpin



Item	Description
1	Hairpin

4.8. Solenoid Valve & Unload Spout

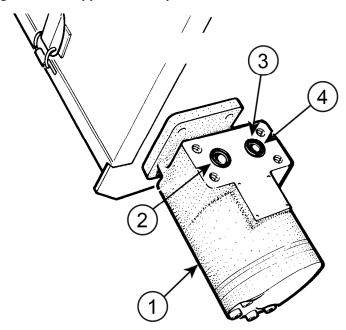
- 1. Remove protective cover plate from the hydraulic motor and discard.
- 2. Ensure the o-rings are properly seated in oil ports on hydraulic motor. Remove plastic hole covers from ports on solenoid.
- 3. Position solenoid with side marked "P" or "IN" over "Port A" on hydraulic motor and secure solenoid with four 5/16" x 2–3/4" bolts (Figure 10 on page 27 and Figure 11 on page 28).

Important

For correct rotation on the auger flight, connect the hydraulic input hose from truck to port marked "P" or "IN" on solenoid (Figure 11 on page 28), and the hydraulic return hose to the port on opposite side of solenoid.

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Figure 10. Hopper Assembly



Item	Description
1	Hydraulic Motor
2	Port "A"
3	Port "B"
4	O-Ring

4. Slip flexible portion of the telescopic unload spout over auger outlet. Secure with 3 concave washers and 1/4" x 3/4" self-tapping screws.

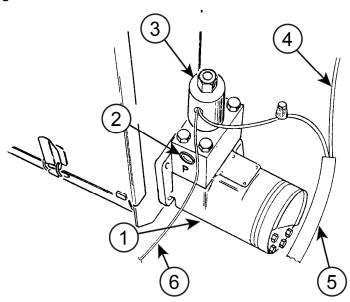
4.9. Electrical Hook-Up

1. Connect either of the two wires on the solenoid to one of the wires on the wiring harness and cover the connection with electrical tape.

Important

The other wire on solenoid is the ground wire. The solenoid must be properly grounded. See step 7 in Section 4.10 – Attaching Drill Fill to Truck Box on page 30.

Figure 11. **Motor Wires**



Item	Description
1	Hydraulic Motor
2	Input from Truck
3	Solenoid Valve
4	Use Fused Wire to Truck Ignition
5	Switch Wire
6	Ground Wire to Truck

2. Leaving some slack at the solenoid, route the wiring harness up the back side of hopper and tube sections, outside the pivot brackets. Secure with 7 nylon ties (Figure 12 on page 29).

NOTICE

Leave adequate slack in the wiring harness at the pivot point to ensure that wiring will not be damages when upper tube is raised and lowered.

MARNING Securely block truck box hoist if box is raised to install or service hydraulic or electrical lines to prevent unintentional lowering. Failure to heed will result in serious injury.

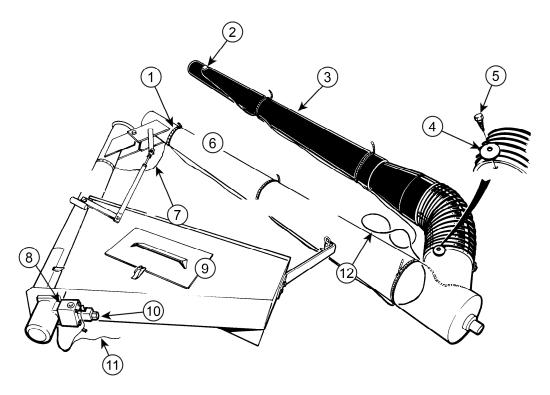
- 3. Mount OFF/ON switch to the pre-drilled holes near the telescopic unload spout handle with two 1/4" x 1/2" bolts and whiznuts (Figure 12 on page 29).
- 4. Secure the wiring harness to telescopic unload spout with nylon ties (Figure 12 on page 29).

Note

Leave some slack in the wiring harness at the flexible portion of unload spout with the spout fully extended.

- 5. Install dump cover and secure in place.
- 6. Loop the spout handle to welded hook on the clamp.

Figure 12. Switch



Item	Description		Description
1	Nylon Ties		Wiring Harness — Leave Slack at Pivot
2	Off/On Switch	8	Truck Input Port "A"
3	Telescoping Unloading Spout	9	Dump Cover
4	Concave Washer	10	Solenoid Valve
5	1/4" x 3/4" Self-Tapping Screw	11	To Truck Ignition
6	Upper Tube	12	Leave Enough Slack to Fully Extend Spout

4.10. Attaching Drill Fill to Truck Box

The drill fill weighs about 220 lb [99.79 kg]. Although it can be lifted in place by hand, it is not recommended. A looped rod welded to the upper tube is the lifting point for the drill fill.

- 1. Fasten a chain at the lifting point and hoist drill fill into position.
- 2. Insert pin on tube clamp into upper mounting bracket, then secure hopper section to lower mounting bracket with the long support pin and install hairpin.
- 3. Install rubber skirting at each hopper end with 5/16" x 3/4" bolts and whiznuts. To ensure a snug fit, trim the skirting if necessary.
- 4. Install a 3/8" hydraulic pressure line from truck hydraulic system to port marked "P" or "IN" on the solenoid, and a 3/8" return line from opposite solenoid port to the return port on truck hydraulic system.

Note

The 3/8" hydraulic hose, pipe, couplers, and 3/8" — 18 NPTF male fittings to be supplied by customer.

5. **Optional:** Install quick couplers in the pressure and return lines at back of truck box or frame. This will reduce time needed to attach and remove drill fill. Protect hydraulic fittings from dirt and dust when disconnected.

Important

Use teflon tape or pipe stick (not supplied) on all hydraulic fittings except where o-rings are used.

- 6. Run a 4 amp fused power wire (not supplied) from truck ignition to the loose wire on wiring harness. Cover connection with electrical tape.
- 7. Connect a ground wire from truck frame to loose wire on solenoid. Make sure wire connecting areas are free of pain, oil and dirt.
 - Drill Fill MUST be grounded. Connect a ground wire from truck frame to loose wire on solenoid. Ensure wire connecting areas are free of paint, oil and dirt. Do not ground to truck box: grease on hinge pins may prevent grounding.
- 8. **Optional:** Install quick-connect electrical connectors on both the power and ground wires. This will reduce time needed to attach and remove the drill fill. Protect wire ends and connectors to prevent electrical shorting.

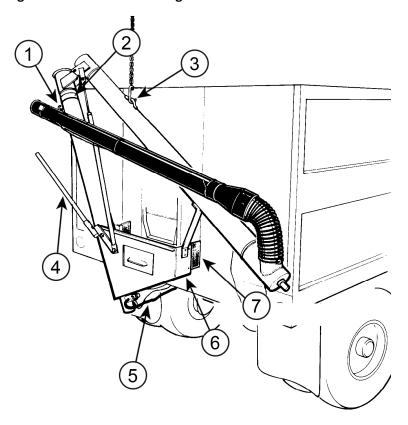
With drill fill mounted on truck, raise into operating position. Be aware of weight shift. Check that the overcenter lock is properly adjusted. Also ensure that upper and lower flights engage fully.

Important

Use only genuine AGI replacement parts or equivalent. Replacement parts must meet ASABE standards or serious injury may result. Use of unauthorized parts will void warranty. If in doubt, contact AGI or your AGI dealer. Do not modify any auger components.

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Figure 13. Lower Mounting Bracket



Item	Description
1	Spout Hook
2	Half Clamp
3	Lifting Point
4	Lift Handle
5	Input from Truck
6	Lower Mounting Bracket
7	Rubber Skirting

5. Transport



Before continuing, ensure you have completely read and understood this manual's Safety section, in addition to the safety information in the section(s) below.

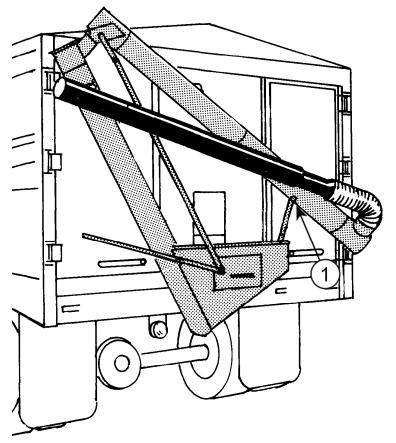
5.1. Transport Safety

- WARNING Fully lower the drill fill before transporting.
 - Empty the drill fill of all grain before transporting.

5.2. Transport Preparation

Prior to transporting, ensure the upper auger tube is seated on the upper tube support brace and hairpin is fastened to lock the auger into transport position, refer to Figure 14.

Figure 14. Hairpin Location



lt	em	Description
	1	Hairpin

6. Operation



Before continuing, ensure you have completely read and understood this manual's Safety section, in addition to the safety information in the section(s) below.

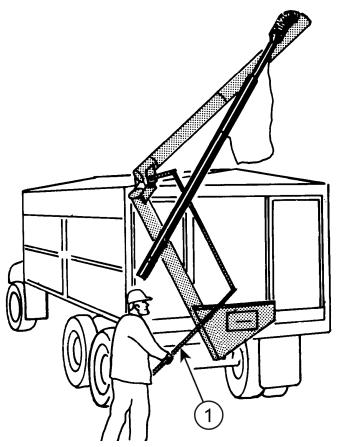
6.1. Operation Safety

- MARNING Keep away from rotating and moving parts, including the auger/mixer flighting, drive components, shafts, and bearings.
 - Do not enter the truck box or grain wagon while the drill fill is operating.
 - Always operate with guards, covers, and shields in place.
 - Have another trained person nearby who can shut down the equipment in case of accident.
 - Keep the work area clear of bystanders.
 - Keep the work area clean and free of debris.
 - Ensure maintenance has been performed and is up to date.

6.2. Positioning the Drill Fill

- 1. Drive close to seeding equipment.
- 2. Place equipment on reasonably level ground before operating.
- 3. Chock wheels after placement.
- 4. Close the cleanout cover and secure with a retaining pin. Position dump cover in place and secure.
 - MARNING Do not operate if the clean-out door is open or removed.
- 5. Remove hairpin, raise, and over-center lock drill fill into operating position.
- 6. Slip handle onto opposite end of welded rod and secure with hairpin to prevent bending when raising truck

Figure 15. Lift Handle



Item	Description
1	Lift Handle

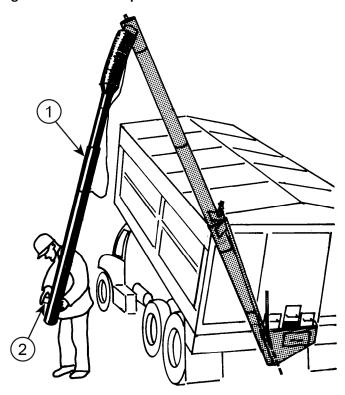
- 7. Switch on hydraulic power, raise truck box, and open end gate. On drill fill augers equipped with bristle flighting, reduce flow of material to hopper or plugging will occur.
- 8. Position telescopic unload spout and flick switch on.
- 9. Hold the downspout at no less than 45° to horizontal during operation to maintain proper grain flow.

NOTICE Holding the downspout at a shallow angle could plug and damage the equipment.

MARNING Do not allow the tube to drop, it will result in equipment damage and serious personal injury. Keep firm on lift handle.

REAR MOUNT DRILL FILL - DF614-3

Figure 16. Unload Spout



Item	Description
1	Telescopic Unload Spout
2	Off/On Switch

10. Close truck end gate just before seeding equipment is full and empty drill fill of seed or fertilizer back into truck box. Shut off auger and open cleanout door to remove final excess material. Do not use hands to clean out, use a stick or other tool.

DANGER Rotating flighting can cause severe injury or death.

- 11. Upon completion, lower and lock drill fill in transport position.
- 12. After use with fertilizer, use pressurized water to wash out auger and hopper.

6.3. Start-up and Break-in

Check the following during the first hours of operation.

1. Check that the drill fill intake and discharge areas are free of obstructions.



Foreign objects can damage the drill fill. Remove any obstructions from the intake and discharge areas before operating the drill fill.

- 2. Visually inspect the drill fill, see Visual Inspection in Maintenance Section.
- 3. Check tightness of all bolts/nuts, fasteners, and hardware (re-torque if necessary).
- 4. Ensure adequate power is supplied to operate the drill fill, see Section 9. Specifications on page 43.
- 5. Start the drill fill and operate normally.
- 6. Be aware of unusual sounds. If any are heard, determine the source and stop the drill fill. Lock out the power and correct the problem before resuming work. If you are unsure of the problem or procedure, contact your local dealer.

Note

The auger may run rough until the tube is polished.

- 7. Do not run the drill fill for long periods of time without material because it increases wear. Try to run only when moving material.
- 8. Stop the drill fill when it is empty of grain, lower fully and lockout power.

Important

After the initial start-up and inspection, the drill fill should be shut down and visually inspected (see Maintenance Section) after approximately ten hours of operation.

6.4. Storage/Removal of Drill Fill

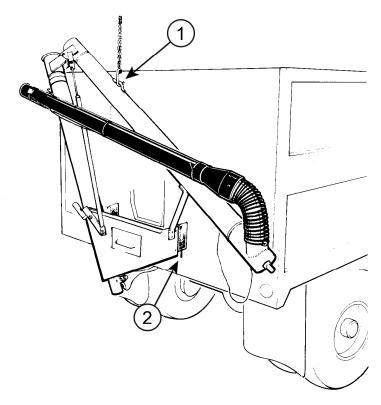
Lock drill fill in transport position before removing from or attaching to truck box.

Note

To attach the drill fill, see Section 4.10 – Attaching Drill Fill to Truck Box on page 30.

- 1. Before removing drill fill, use pressurized water to thoroughly wash inside auger tube and hopper. Allow water to drain and dry.
- 2. Disconnect hydraulic and electrical lines. Place protective covers over connections.

Figure 17. Support Pin Location



Item	Description
1	Lifting Point
2	Support Pin

- 3. Using a suitable hoist, connect chain hook to lift point on upper tube.
- 4. Remove the long support pin at bottom of hopper. Swing bottom of drill fill away from truck box, then raise drill fill until welded pin on half clamp clears the upper mounting bracket.
- 5. Move drill fill away from truck and store in the flat position.

7. Maintenance



Before continuing, ensure you have completely read and understood this manual's Safety section, in addition to the safety information in the section(s) below.

7.1. Maintenance Safety



- Keep components in good condition. Follow the maintenance procedures.
- Ensure the service area is clean, dry, and has sufficient lighting.
- Do not modify any components without written authorization from the manufacturer. Modification can be dangerous and result in serious injuries.
- Shut down and lock out power before maintaining equipment.
- After maintenance is complete, replace all guards, service doors, and/or covers.
- Use only genuine AGI replacement parts or equivalent. Use of unauthorized parts will void warranty. If in doubt, contact AGI or your local dealer.



7.2. Maintenance Schedule

Proper maintenance habits mean a longer life, better efficiency, and safer operation. Please follow the Maintenance Schedule below. Keep good records of the hours the drill fill has been operated and the maintenance performed.

Daily:						
Section 7.3 – Visual Inspection on page 39						
Weekly:						
Section 7.4 – Lubricate the Equipment on page 39						
Annually:						
Section 7.7 – Clean and Wash the Equipment on page 40						
As Needed:						
Section 7.6 – Broken Spring Replacement on page 40						

7.3. Visual Inspection

⚠ WARNING

Lock out power before inspecting.

Check the following during a visual inspection:

- Ensure all guards are in place and in good working order.
- Examine the drill fill for damage or unusual wear.
- Check tightness of bolts/nuts, fasteners, and hardware (re-torque if necessary).
- Inspect hydraulic hoses and fittings for leaks and wear. Fix or replace where necessary.
- Be sure all safety decals are in place and are legible.
- Check that the discharge and intake area are free of obstructions.
- Make sure access, service, and cleanout covers are in place and secure.
- Tube alignment is reasonably straight.

7.4. Lubricate the Equipment

Your equipment can operate at top efficiency only if clean fluids and lubricants are used. Use clean containers to handle all fluids and lubricants. Store them in an area protected from dust, moisture, and other contaminants.

- 1. Wipe the grease fittings with a clean cloth before greasing to avoid injecting dirt and grit.
- 2. Use a hand-held grease gun for all greasing.
- 3. If fittings will not take grease, remove and clean thoroughly.
- 4. Replace fittings if they are broken or will not accept grease.
- 5. If Intake Bushing is present in your auger, lubricate it.

Use SAE multi-purpose high-temperature grease with extreme pressure (EP) performance. SAE multi-purpose lithium-based grease is also acceptable.

7.5. Hydraulic Requirements

The hydraulic motor requires a minimum of 8 gpm [30.28 l/m] and a maximum of 12 gpm [45.42 l/min] at 1400 psi [9.65 MPa] to function properly.

Oil flow in excess of 12 gpm [45.42 l/min] will cause augers to creep when spout switch is shut off, and will required the installation of a flow control valve. See Section 4. – Assembly on page 19 for correct hook up of hydraulics.

7.6. Broken Spring Replacement

- 1. If it becomes necessary to replace springs, lock drill fill in transport position, remove from truck, and lay flat on the ground.
- 2. Place upper tube section halfway between the transport and operating positions. (See Section 4.5 Drill Fill Assembly on page 23).
- 3. With tension removed from springs, remove both 5/8" x 7–1/4" pins and separate upper and lower tube sections slightly. Remove broken springs.
- 4. Stack 3 good springs with large coil over spacer pipe and insert spring ends through end plate holes in upper pivot bracket (See Section 4.5 Drill Fill Assembly on page 23).
- 5. Align pivot holes. Insert a 5/8" x 7–1/4" pin through pivot holes and through the spacer pipe. Secure with cotter pins.
- 6. Insert other 5/8" x 7–1/4" pin through loop hole in lower-tube pivot bracket and through loops on the 3 springs. Secure with cotter pins.
- 7. Pull upper tube into transport position and lock into place with hairpin.

7.7. Clean and Wash the Equipment

- 1. Clean out excess grain from all areas of the drill fill.
- 2. Make sure water can drain from the drill fill tube and intake, then wash the tube with a water hose or pressure washer until all dirt, mud, debris, or residue is gone.

Important

Do not contact electronic controls with high pressure washer.

3. Provide sufficient time for the water to drain from the drill fill.

8. Troubleshooting

MARNING Shut down and lock out all power sources before diagnosing any of the causes or attempting any of the solutions below.

In the following section, we have listed some causes and solutions to some of the problems you may encounter.

If you encounter a problem that is difficult to solve, even after having read through this section, please contact your local dealer or distributor. Before you contact them, please have this operation manual and the serial number from your machine ready.

Problem	Possible Cause	Remedy				
Auger runs too slow.	Truck engine running too slow.	Increase engine speed.				
	Truck pump not producing minimum required flow and pressure.	Check pump capacity.				
	Hydraulic auger motor worn.	Repair or replace.				
	Solenoid incorrectly installed.	Follow instructions as per manual.				
	Hydraulic hoses too small.	Use minimum 3/8" hose.				
Auger won't run.	Auger jammed.	Shut down and lock out power. Clear obstructions, ensuring unload spout is clear.				
	Upper and lower flightings not meshing properly.	Check to see if flight engagement mechanism has been damaged. Adjust flighting as per manual.				
	No hydraulic pressure to motor.	Check for correct attachment of hydraulic hoses and routing.				
	No power to solenoid.	Check for burned fuse, poor ground to solenoid, or broken connections.				
	Ports between hydraulic motor and solenoid blocked.	Remove solenoid and clear out obstructions.				
	Solenoid mounted wrong.	Mount solenoid as per manual instructions.				
Oil leaking at motor	Solenoid bolts loose.	Tighten bolts.				
and solenoid connection.	O-rings damaged or not properly installed.	Remove solenoid and check that o-rings are correctly installed. Replace if damaged.				
Auger creeps when spout switch is shut off.	Oil flow is too high.	Decrease oil flow to hydraulic motor with use of a flow control valve. Flow must no exceed 12 gallons per minute.				
Solenoid won't function.	Poor ground.	Attach ground wire from solenoid to truck frame.				

Problem	Possible Cause	Remedy			
	Solenoid mounted incorrectly.	Mount solenoid as per manual instructions.			

9. Specifications

Specifications

Fold Down Auger	6" x 15–1/2 ft			
Hydraulic Motor (4.2 cubic inch)	12V Electric Solenoid Valve			
	8 gpm at 1400 psi			
Telescoping Spout	14–1/2 ft			
Tube Size	6" OD			
Hopper Opening	8-1/2" x 14"			

10. Appendix

10.1. Bolt Torque

Table 3 gives the correct torque values for various hardware. Tighten all bolts to the torque specified, unless otherwise noted. Check tightness periodically, using Table 3 as a guide. Replace the hardware with the same strength bolt, contact AGI if you are unsure.

Table 3. Recommended Bolt Torque¹

	Dry or Lubricated	Threads per inch (Course/ Fine)	Area of Bolt (sq in.)		Recommended Torque (ft-lb)							
Size					Grade 2		Grade 5		Grade 8		8.8 S/S	
			Coarse	Fine	Coarse	Fine	Coarse	Fine	Coarse	Fine	Coarse	Fine
1/4"	Dry	20/28	0.0318	0.0364	5.5	6.3	8	10	12	14	6.3	7.8
1/4	Lubricated				6.3	4.7	6.3	7.2	9	10	-	-
5/16"	Dry	18/24	0.0524	0.058	11	12	17	19	24	27	11	11.8
	Lubricated				8	9	13	14	18	20	-	-
3/8"	Dry	16/24	0.0775	0.0878	20	23	30	35	45	50	20	22
3/0	Lubricated	10/24			15	17	23	25	35	35	-	_
7/16"	Dry	14/20	0.1063	0.1187	32	36	50	55	70	80	31	33
7/10	Lubricated	14/20			24	27	35	40	50	80	-	-
1/2"	Dry	13/20	0.1419	0.1599	50	55	75	85	110	120	43	45
1/2	Lubricated	13/20			35	40	55	65	80	90	-	-
9/16"	Dry	12/18	0.182	0.203	70	80	110	120	150	170	57	63
3/10	Lubricated				55	60	80	90	110	130	-	-
5/8"	Dry	11/18	0.226	0.256	100	110	150	170	210	240	93	104
3/0	Lubricated				75	85	110	130	160	180	-	-
3/4"	Dry	10/16	0.334	0.373	175	200	260	300	380	420	128	124
<i>5</i> / .	Lubricated				130	140	200	220	280	310	-	-
7/8"	Dry	9/14	0.462	0.508	170	180	430	470	600	670	194	193
,,,	Lubricated				125	140	320	350	180	180	-	-
1"	Dry	8/14	0.606	0.679	250	280	640	720	910	1020	287	289
	Lubricated				190	210	480	540	680	760	-	-
1-1/8"	Dry	7/12	0.763	0.856	350	400	790	890	1290	1440	288	290
1 1/0	Lubricated				270	300	590	670	970	1080	-	-
1-1/4"	Dry	7/12	0.989	1.073	500	550	1120	1240	1820	2010	289	291
	Lubricated				380	420	840	930	1360	1510	-	-
1-1/2"	Dry	6/12	1.405	1.581	870	960	1950	2200	3160	3560	-	-
	Lubricated				650	730	1460	1640	2370	2670	-	-

^{1.} Torque value for bolts and cap screws are identified by their head markings. Established at 75% of yield strength of bolt given the cross-sectional area.

Note

Torque figures in table are valid for non-greased or non-oiled threads and head unless otherwise specified. Therefore, do not grease or oil bolts or cap screws unless otherwise specified in this manual. When using locking elements, increase torque values by 5%.

11. AGI Limited Warranty

This warranty relates to AGI Augers (the "Product") sold by AGI, (referred to herein as the "Seller") and applies only to the first user of the Product (meaning a purchaser directly from the Seller or from an authorized dealer or distributor of the Product, referred to herein as the "Buyer").

This warranty shall only be effective if properly registered with the Seller in accordance with information provided to the Buyer at the time of sale.

- 1. The Seller warrants to the Buyer that the Product is free from defects in material and workmanship **under normal and reasonable use**.
- 2. This warranty applies only to defects in materials and workmanship and not to damage incurred in shipping or handling, through normal wear and tear, or damage due to causes beyond the control of the Seller such as lightning, fire, flood, wind, earthquake, excessive voltage, mechanical shock, water damage, or damage arising out of abuse, alteration, improper assembly, improper installation, improper maintenance or improper repair of the Product.
- 3. The warranty period for the Product shall be two years from delivery of the Product to the Buyer where the Product is used in a normal farm operation. First year of warranty coverage of parts and labour, second year warranty coverage of parts only. Warranty period for the Product shall be 90 days from delivery of the Product to the Buyer where the Product is used in a commercial operation. In the event that any part incorporated into the Product is manufactured and sold to the Seller by a third party vendor, such part is only warranted to the extent of the warranty given by that third party.
- 4. The obligations set forth in this warranty are conditional upon the Buyer promptly notifying the Seller of any defect and completing reasonably required documentation and, if required, promptly making the Product available for correction. The Seller shall be given reasonable opportunity to investigate all claims and no Product shall be returned to the Seller or part disposed of until after inspection and approval by the Seller and receipt by the Buyer of written shipping instructions, with transportation charges prepaid.
- 5. Upon return of the Product, or such part of the Product that requires correction, the Seller shall, at the Seller's option, either repair or replace the Product or such part. The Seller shall replace or attempt to repair and return the Product or such part within a reasonable period of time from receipt of an approved warranty claim from the Buyer. If the Seller is unable to repair or replace the Product, the Buyer shall be entitled to a credit note in the amount of the purchase price for the Product.
- 6. The total liability of the Seller on any claim, whether in contract, tort or otherwise, arising out of, connected with, or resulting from the manufacture, sale, delivery, repair, replacement or use of the Product or any part thereof shall not exceed the price paid for the Product and the Seller shall not be liable for any special indirect, incidental or consequential damages caused by reason of the installation, modification, use, repair, maintenance or mechanical failure of the Product. Consequential or special damages as used herein include, but are not limited to, lost or damaged products or goods, costs of transportation, lost sales, lost orders, lost income, increased overhead, labor and incidental costs and operational inefficiencies.
- 7. Notwithstanding anything contained herein to the contrary, the foregoing is the Buyer's sole and exclusive remedy for breach of warranty by the Seller in respect of the Product. The Seller, for itself, its agents, contractors, employees and for any parent or subsidiary of the Seller, expressly disclaims all warranties, either express or implied, written or oral, including implied warranties of merchantability or fitness for a particular purpose and undertakes no obligation with respect to the conformity of the Product except as set out in the purchase agreement, if any, or marketing materials.
- 8. The foregoing warranty is the entire warranty of the Seller to the Buyer and the Buyer shall not be entitled to rely upon any representation or warranty contained in any marketing material of the Seller in respect of the Product. The Seller neither assumes, nor authorizes any other person purporting to act on its behalf to modify or to change this warranty, nor to assume for it any other warranty or liability concerning the Product.

WARRANTY VOID IF NOT REGISTERED



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