USC™

Seed Treating **Solutions**

Dry Additive Feeder

2011

Operators Manual

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INTRODUCTION

Thank you for choosing USC, LLC for your equipment needs. We appreciate your business and will work diligently to ensure that you are satisfied with your choice.

OVERVIEW

The purpose of this manual is to provide you with the basic information needed to operate and maintain the Dry Additive Feeder. It does not hold USC, LLC liable for any accidents or injuries that may occur.

OPERATOR RESPONSIBILITIES

As the purchaser/owner/operator of this equipment and control system, you have an obligation to install, operate, and maintain the equipment in a manner that minimizes the exposure of people in your care to any potential hazards inherent in using this equipment. It is critical that the owner of this equipment:

- Has a clear and documented understanding of the process this machine is being used in and of any resulting hazards or special requirements arising from this specific application.
- Allow only properly trained and instructed personnel to install, operate, or service this equipment.
- Maintain a comprehensive safety program involving all who work with this machine and other associated process equipment.
- Establish clear areas of staff responsibility (e.g. operation, setup, sanitation, maintenance, and repairs).
- Provide all personnel with necessary safety equipment.
- Periodically inspect the equipment to insure that the doors, covers, guards, and safety devices are in place and functioning, that all safety instructions and warning labels are intact and legible, and that the equipment is in good working order.
- In addition to the operating instructions, observe and enforce the applicable legal and other binding regulations, national and local codes.

As the person with the most to gain or loose from working safely, it is important that you work responsibly and stay alert. By following a few simple rules, you can prevent an accident that could injure or kill you or a co-worker.

- Do not operate, clean, or service this equipment until you have read and understood the contents of this manual. If you do not understand the information in this manual, bring it to the attention of your supervisor, or call your local USC dealer for assistance.
- Any operator who is known or suspected to be under the influence of alcohol or drugs should not be allowed to operate the equipment.
- Understand and follow the safety practices required by your employer and this manual.
- **PAY ATTENTION** to what you and other personnel are doing and how these activities may affect your safety.
- **Failure to follow these instructions may result in serious personal injury or death.**

RECEIVING YOUR EQUIPMENT

As soon as the equipment is received, it should be carefully inspected to make certain that it has sustained no damage during shipment and that all items listed on the packing list are accounted for. If there is any damage or shortages, the purchaser must immediately notify your USC dealer. Ownership passes to purchaser when the unit leaves the USC, LLC. premises. The purchaser is responsible for unloading and mounting all components of the equipment.

Document the serial number of the machine for future reference. The serial number is located under the main control panel.

SERIAL NUMBER:_____

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SAFETY INSTRUCTIONS

SECTION A

Every year accidents in the work place maim, kill, and injure people. Although it may be impossible to prevent all accidents, with the right combination of training, operating practices, safety devices, and operator vigilance, the number of accidents can be significantly reduced. The purpose of this section is to educate equipment users about hazards, unsafe practices, and recommended hazard avoidance techniques.

SAFETY WORDS AND SYMBOLS

It is very important that operators and maintenance personnel understand the words and symbols that are used to communicate safety information. Safety words, their meaning and format, have been standardized for U.S. manufacturers and published by the American National Standards Institute (ANSI). The European Community (E.C.) has adopted a different format based on the International Standards Organization (I.S.O.) and applicable machinery directives. Both formats are presented below. Graphic symbols are not standardized, but most manufacturers will use some variation of the ones seen in this manual.

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

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

Indicates a potentially hazardous situation which, if not avoided, **may** result in minor or moderate injury and/or property damage.

Provides additional information that the operator needs to be aware of to avoid a potentially hazardous situation.

Mandatory Lockout Power Symbol. Disconnect, lockout, and tagout electrical and other energy sources before inspecting, cleaning, or performing maintenance on this panel.

International Safety Alert Symbol. The exclamation point (!) surrounded by a yellow triangle indicates that an injury hazard exists. However, it does not indicate the seriousness of potential injury. The exclamation point (!) is also used with the DANGER, WARNING, and CAUTION symbols so the potential injury is indicated.

Electrocution Hazard Symbol. This symbol indicates that an electrocution hazard exists. Serious injury or death could result from contacting high voltage.

International Electrocution Hazard. This symbol indicates that an electrocution hazard exists. Serious injury or death could result from contacting high voltage.

Mandatory Read Manual Action Symbol. (I.S.O. format) This symbol instructs personnel to read the Operators Manual before servicing or operating the equipment.

Mandatory Read Manual Action Symbol. This symbol instructs personnel to read the Operators Manual before servicing or operating the equipment.

Notice is used to notify people of important installation, operation, or maintenance information which is not hazard related.

LOCKOUT / TAGOUT PROCEDURES

Lockout/Tagout is the placement of a lock/tag on an energy isolating device in accordance with an established procedure. When taking equipment out of service to perform maintenance or repair work, always follow the lockout/tagout procedures as outlined in ANSI Z344.1 and/or OSHA Standard 1910.147. This standard "requires employers to establish a program and utilize procedures for affixing appropriate lockout devices or tagout devices to energy isolating devices and to otherwise disable machines or equipment to prevent unexpected energizing, start-up, or release of stored energy in order to prevent injury to employees."

CONTROLLED STOP

This is the stopping of machine motion by reducing the electrical command signal to 0 (zero) once the stop signal has been recognized.

HAZARD REVIEW

Electrocution Hazard

Electrocution accidents are most likely to occur during maintenance of the electrical system or when working on or near exposed high voltage wiring. This hazard does not exist when the electrical power has been disconnected, properly locked, and tagged out.

Automatic Start Hazard

This seed treating system is usually controlled by an automated system and may start without warning. Failure to properly disconnect, lockout, and tagout all energy sources of remotely controlled equipment creates a very hazardous situation and could cause injury or even death. PLEASE STAY CLEAR AND BE ALERT.

YOU are responsible for the **SAFE** operation and maintenance of your USC, LLC Seed Treating System. **YOU** must ensure that you and anyone else who is going to operate, maintain, or work around the Seed Treating System be familiar with the operating and maintenance procedures and related **SAFETY** information contained in this manual. This manual will take you step-by-step through your working day and alert you to good safety practices that should be adhered to while operating the Seed Treating System.

Remember, **YOU** are the key to safety. Good safety practices not only protect you, but also the people around you. Make these practices a working part of your safety program. Be certain that **EVERYONE** operating this equipment is familiar with the recommended operating and maintenance procedures and follows all the safety precautions. Most accidents can be prevented. Do not risk injury or death by ignoring good safety practices.

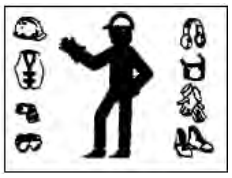
- Dry Additive Feeder owners must give operating instructions to operators or employees before allowing them to operate the machine, and at least annually thereafter per OSHA (Occupational Safety and Health Administration) regulation 1928.57.
- The most important safety device on this equipment is a **SAFE** operator. It is the operator's responsibility to read and understand **ALL** Safety and Operating instructions in the manual and to follow them. All accidents can be avoided.
- A person who has not read and understood all operating and safety instructions is not qualified to operate the machine. An untrained operator exposes himself and bystanders to possible serious injury or death.
- Do not modify the equipment in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the equipment.
- Think SAFETY! Work SAFELY!

GENERAL SAFETY

1. Read and understand the Operator's Manual and all safety signs before operating, maintaining, adjusting or unplugging the Dry Additive Feeder.

2. Only trained persons shall operate the seed treater. An untrained operator is not qualified to operate the machine.
3. Have a first-aid kit available for use should the need arise, and know how to use it.

1. Provide a fire extinguisher for use in case of an accident. Store in a highly visible place.
2. Do not allow children, spectators or bystanders within hazard area of machine.
3. Wear appropriate protective gear. This includes but is not limited to:



   - A hard hat
   - Protective shoes with slip resistant soles
   - Protective goggles
   - Heavy gloves
   - Hearing protection
   - Respirator or filter mask

7. Place all controls in neutral or off, stop motor, and wait for all moving parts to stop. Then disable power source before servicing, adjusting, repairing, or unplugging.
8. Review safety related items annually with all personnel who will be operating or maintaining the Dry Additive Feeder.

OPERATING SAFETY:

1. Read and understand the Operator's Manual and all safety signs before using.
2. Disconnect and disable electrical supply completely and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
3. Clear the area of bystanders, especially children, before starting.
4. Be familiar with the machine hazard area. If anyone enters hazard area, shut down machine immediately. Clear the area before restarting.
5. Keep hands, feet, hair and clothing away from all moving and/or rotating parts.
6. Stay away from overhead obstructions and power lines during operation and transporting. Electrocution can occur without direct contact.
7. Do not operate machine when any guards are removed.
8. Inspect welds and repair if needed.

PLACEMENT SAFETY

1. Move only with the appropriate equipment
2. Be familiar with machine hazard area. If anyone enters hazard areas, shut down machine immediately. Clear the area before restarting.
3. Operate the Dry Additive Feeder on level ground free of debris. Anchor the machine to prevent tipping or upending.

Before placement of the Dry Additive Feeder, be sure that ground is reasonably level. The machine may topple or work improperly if the ground is too uneven, damaging the equipment and/or causing personal injury.

MAINTENANCE SAFETY

1. Review the Operator's Manual and all safety items before working with, maintaining or operating the Seed Treating System.
2. Place all controls in neutral or off, stop motors, disable power source, and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
3. Follow good shop practices:

   Keep service area clean and dry.
   Be sure electrical outlets and tools are properly grounded.
   Use adequate light for the job at hand.
4. Keep hands, feet, hair and clothing away from all moving and/or rotating parts.
5. Clear the area of bystanders, especially children, when carrying out any maintenance and repairs or making any adjustments.
6. Before resuming work, install and secure all guards when maintenance work is completed.
7. Keep safety signs clean. Replace any sign that is damaged or not clearly visible.

SAFETY SIGNS

1. Keep safety signs clean and legible at all times.
2. Replace safety signs that are missing or have become illegible.
3. Replaced parts that displayed a safety sign should also display the current sign.
4. Safety signs are available from your Authorized Dealer.

How to Install Safety Signs:

- Be sure that the installation area is clean and dry.
- Be sure temperature is above 50°F (10°C).
- Decide on the exact position before you remove the backing paper.
- Remove the smallest portion of the split backing paper.
- Align the sign over the specified area and carefully press the small portion with the exposed sticky backing in place.
- Slowly peel back the remaining paper and carefully smooth the remaining portion of the sign in place.
- Small air pockets can be pierced with a pin and smoothed out using the piece of sign backing paper.

Located on the USC equipment you will find safety labels. Always be sure to read and follow all directions on the labels.

Guards provided with USC Seed treater are to remain in place during operation.

SECTION B INSTALLATION

HIGH VOLTAGE ~ Always disconnect the power source before working on or near the control panel or lead wires.

HIGH VOLTAGE ~ Use insulated tools when making adjustments while the controls are under power.

Permanent installation may require additional electrical cords, liquid hose, and air lines, since each installation is unique.

SET-UP

The following steps outline the initial set-up of the Dry Additive Feeder:

1. Clear the area of bystanders, especially small children, before moving.
2. Place the Dry Additive Feeder in the desired position on a level surface.

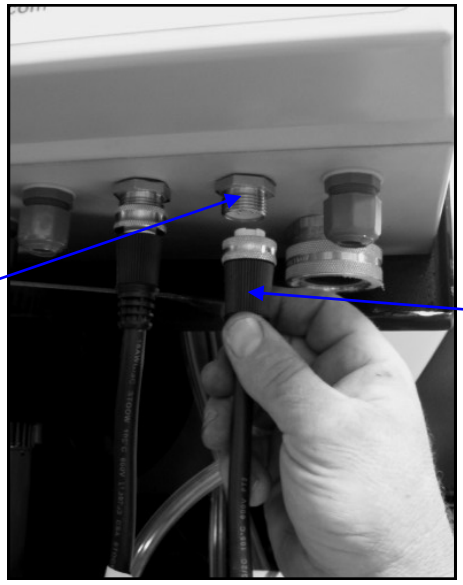
USC highly recommends that the equipment be set up inside a building or any covered structure to protect the machine from weathering.

3. The control panel must be connected to a 120-volt single phase source.
4. The Dry Additive Feeder can be installed in conjunction with a seed treater. This will allow the rotating drum to mix the dry product being applied with the seed. The top portion of the dry additive can be rotated and the height can be adjusted to accommodate most systems (page 13).

Dry Additive Feeder in Conjunction with Seed Treater

5. Connect the 2-wire cord coming from the Dry Additive Feeder control panel to the auxiliary receptacle located on the bottom of the seed treater control panel. This will allow the operator to control the dry additive feeder with the “Hand/Off/ Auto” switch, located on the seed treater control panel.

Auxiliary Receptacle on Seed Treater Main Control Panel



2-wire cord

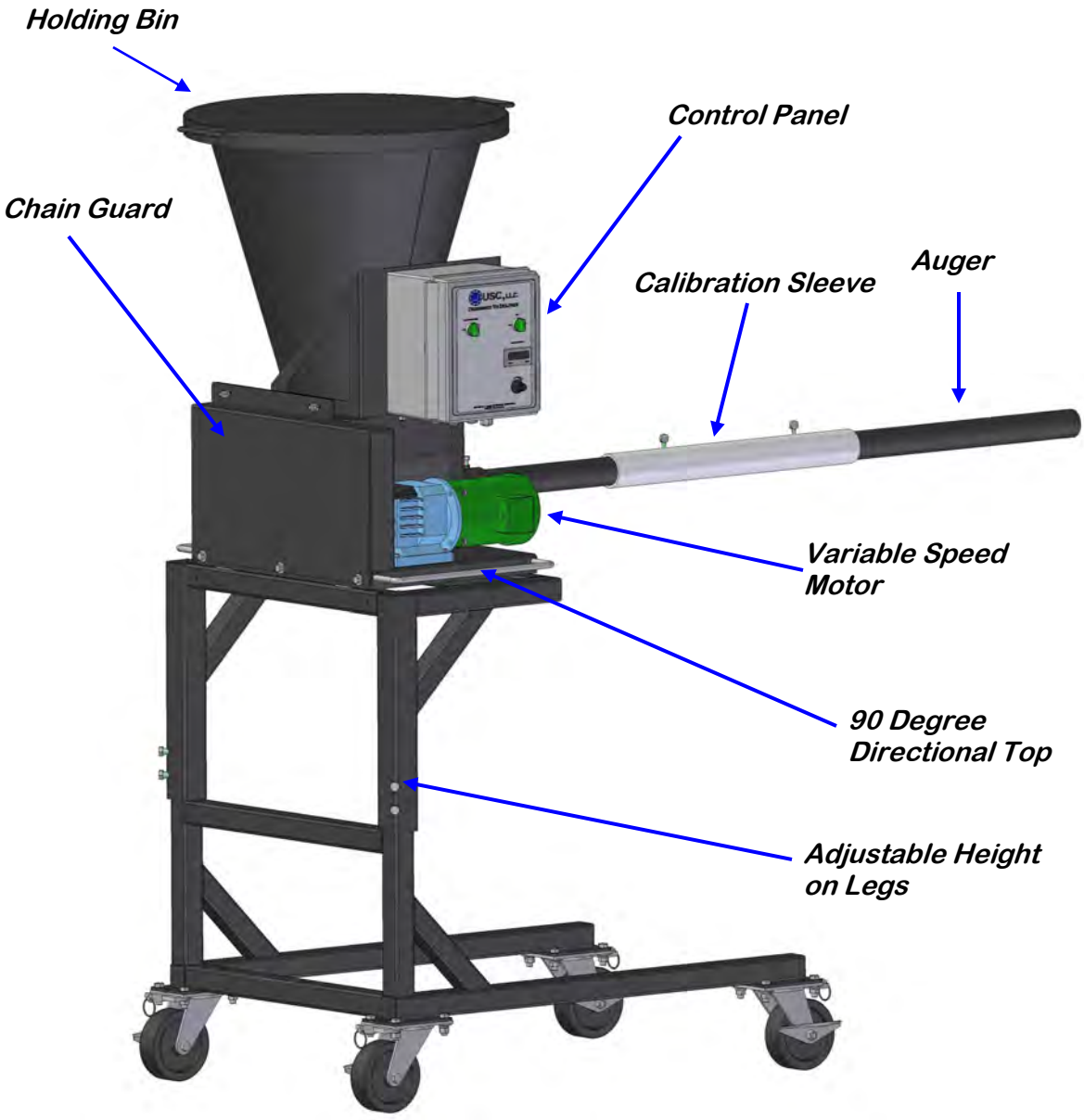
NOTICE

Some seed treaters may not be pre-wired with the auxiliary receptacle. Contact your local dealer for a kit to mount this receptacle in the seed treater control panel.

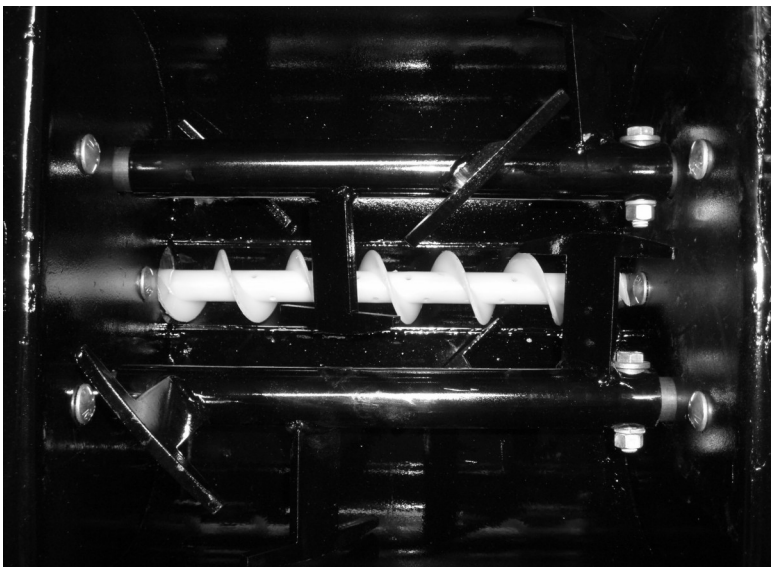
Part number: 03-12-0014.

SECTION C MECHANICAL OPERATION

SYSTEM OVERVIEW



The USC dry additive feeder is equipped with a holding bin, with a capacity of 3.25 cubic feet. A 2-in. by 7-ft long auger is used to apply the dry products. Agitation paddles keep the product sifted so it feeds better into the auger. A variable speed motor drives the feeder auger and agitation paddles. The dry products are dispensed through openings toward the last 22" of the auger tube.



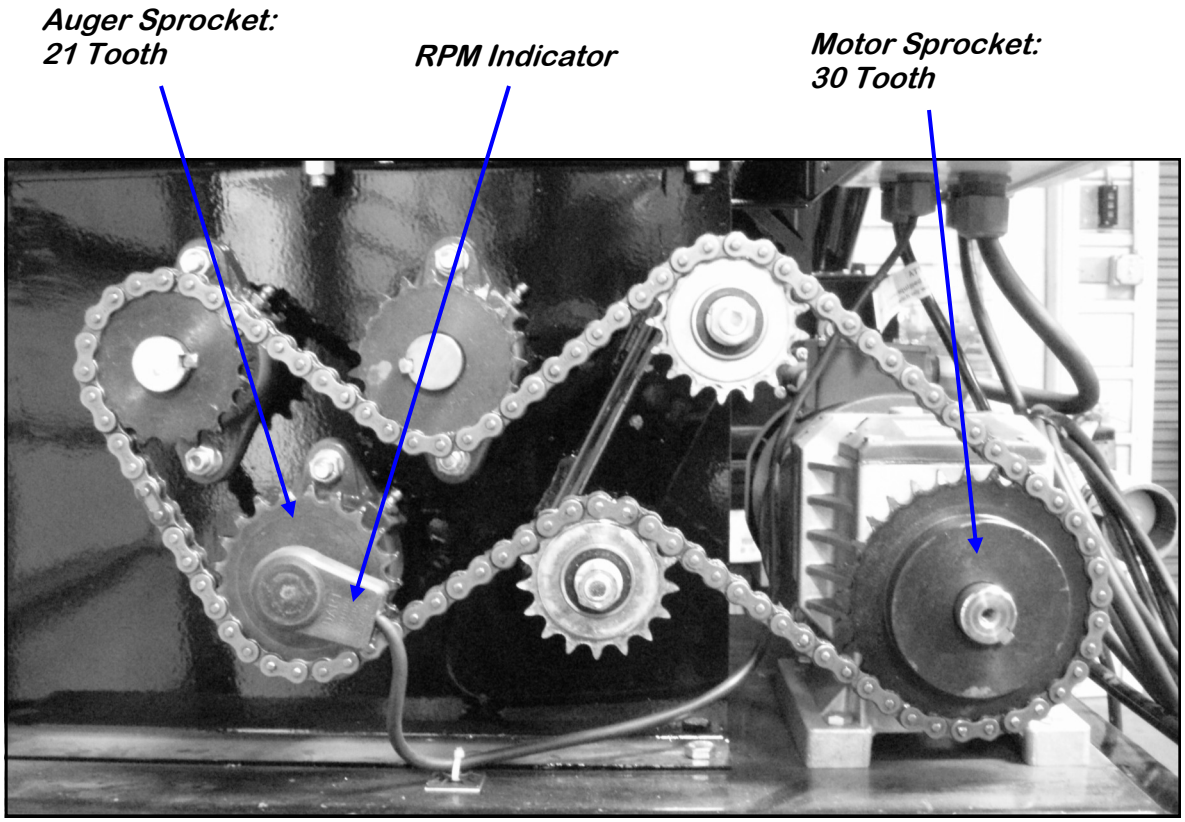
Agitation Paddles and Auger

The dry product is dispensed through small openings in the auger tube to create a curtain affect when the dry products are applied. The tube can be rotated to accommodate more or less coverage area.

SPROCKET CONFIGURATION

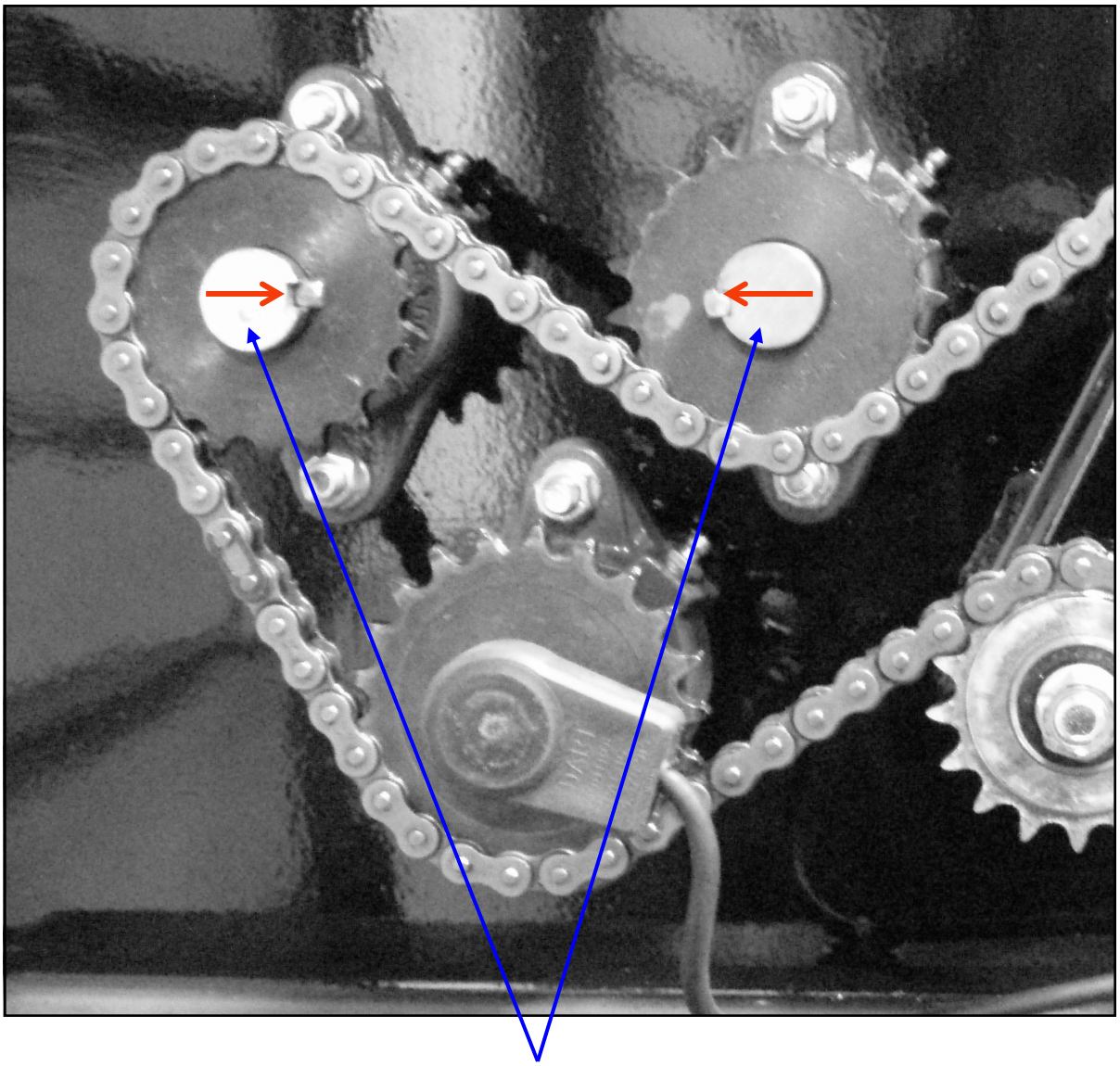
Proper calibration of the system is critical to achieve a proper application. The feeder auger is controlled by a variable speed motor. Controls on the main panel include a counting dial which controls the auger speed and a RPM indicator that displays the RPM of the auger. Use the calibration sleeve and measuring cup to determine the amount of dry product being dispensed. Rates should be determined in QTY/TIME. This will allow for proper mixtures.

The drive portion of the dry additive feeder can be re-configured to allow the motor to operate at a higher speed when the rate of product needed is low. For higher rates, the larger sprocket (30 tooth) should be mounted to the motor, and the smaller sprocket (21 tooth) should be mounted on the auger. Interchange the two sprockets if a very low rate is desired. For example, when using the dry additive feeder with a seed treater such as a LP800, the smaller sprocket should be mounted to the motor. And when using the dry additive feeder in conjunction with a LP2000, the larger sprocket should be mounted to the motor (see picture below).



Sprocket configuration set up for use with LP2000 seed treater

⚠ WARNING Before interchanging sprockets, be sure and mark the two agitation paddle shafts with arrows as illustrated below. Line the arrows back up when reinstalling the sprockets. Failure to line shafts back in original positions can cause the agitation paddles to collide and damage the machine.



Agitation Paddle Shafts

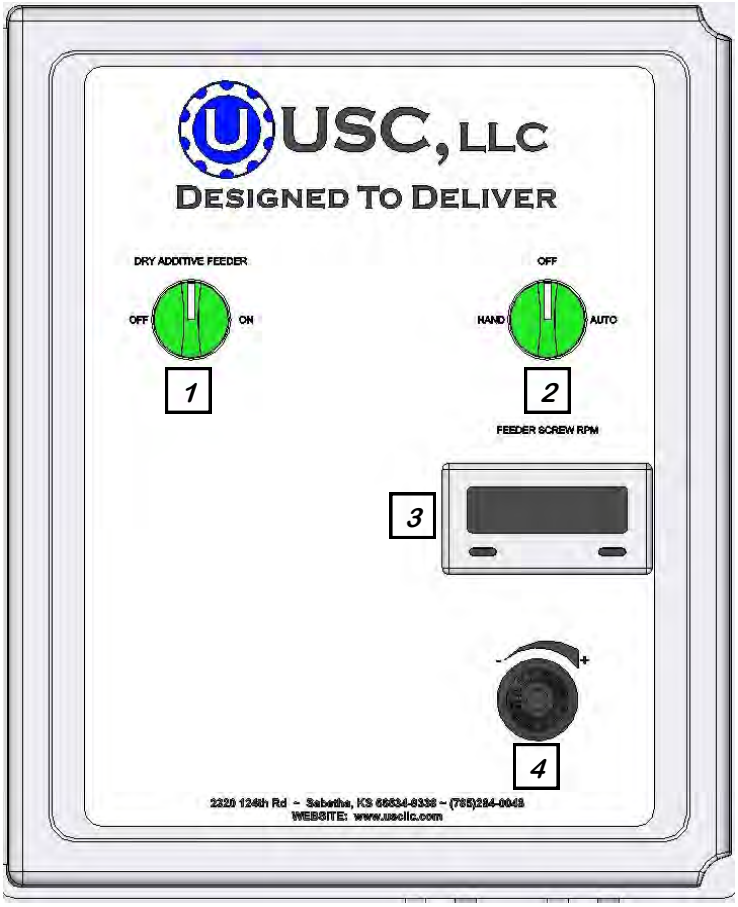
SECTION D ELECTRICAL OPERATION

HIGH VOLTAGE ~ Always disconnect the power source before working on or near the control panel or lead wires.

HIGH VOLTAGE ~ Use insulated tools when making adjustments while the controls are under power.

AUTHORIZED PERSONNEL only shall work on the control panel. Never allow anyone who has not read and familiarized themselves with the owner's manual to open or work on the control panel.

Main Control Panel



1. Dry Additive Feeder: This switch allows the operator to turn the feeder on or off. When the "HAND/OFF/AUTO" switch is positioned to "HAND" or "AUTO" and the "DRY ADDITIVE FEEDER" switch is turned to "ON", the feeder is capable of running.

2. HAND/OFF/AUTO:

- When this switch is turned to "HAND", the feeder will run when the "DRY ADDITIVE FEEDER" switch is turned to "ON".
- When the switch is turned to "AUTO", the feeder will only run when the USC seed treater switch is turned to "HAND" or "AUTO". The 2-wire cord must be connected to the seed treater before this feature will work. When the seed treater switch is turned to "HAND", the feeder will run at any time. When turned to "AUTO", it will only run when the proximity switch located in the bottom of the seed treater supply hopper is covered and the atomizer is running. The proximity switch determines when seed is present in the hopper. When the proximity switch does not detect seed, a timer relay located inside the control panel will automatically shut off the feeder a pre-determined amount of time after the hopper has emptied. The timer relay (right) located in the seed treater control panel is set to Mode "D" and has an adjustable knob with settings from 0-6. Each number represents the number of seconds from the time the hopper empties until the pumps on the treater shut off. The time delay allows all seed in the hopper to have an equal coverage. This time delay also works with the feeder, but additional delay may be needed. A second timer is located in the Dry Additive Feeder control panel. This will allow the feeder to run a little longer than the seed treater pumps, which allows for ample coverage.

3. Feeder Screw RPM: The digital display monitors the RPM of the feeder auger.

4. Feeder Screw Speed Control: This dial controls the speed of the feeder auger and agitation paddles. As you turn the dial clockwise, the speed increases and you will also notice the "FEEDER SCREW RPM" increase as well.

SECTION E CALIBRATION

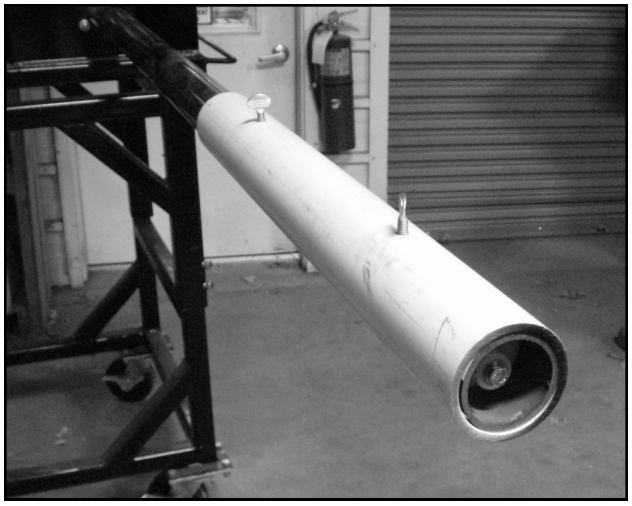
Calibration of both the seed flow and dry portions of the equipment is necessary for accurate treatment of seed.

NOTICE If you prefer metric measurements, please refer to the conversion chart on page 23.

DRY PRODUCT CALIBRATION

When calibrating the dry product, a small scale, a stop watch, and a measuring cup or bucket will be needed.

1. Calibrate the seed flow of the seed treater before calibrating the dry additive feeder. Seed flow calibrations should be done with at least 40 units or 2000 lbs of seed.
2. Fill the supply hopper with the dry product being applied.
3. Slide the calibration sleeve toward the end of the auger tube to cover the distribution slots. (right).
4. Place the “HAND/OFF/AUTO” switch in the “HAND” position.
5. Turn the “DRY ADDITIVE FEEDER” switch (1) to “ON”, and adjust the “FEEDER SCREW” to approximately 3/4 speed. This will allow product to fill the auger all the way to the end of the tube. Use the measuring cup or bucket to catch the product as it empties out the end of the tube. Continue running the auger until there is a consistent stream of product coming out the end. Then turn the “DRY ADDITIVE FEEDER” switch to “OFF”.



Calibration Sleeve at end of Auger Tube

6. Determine the number of ounces needed in one minute.

EXAMPLE: The product rate is 4 ounces per cwt.
The Seed Flow Rate = 876 lbs per minute or 8.76 cwt./min.
8.76 cwt./min x 4 oz. product/cwt. = 35 oz./min.
35 oz. is the rate the feeder auger should be applying in one minute.

8. Set the “FEEDER SCREW” speed. You can use the chart on page 22 to find a starting point. After the RPM is set, empty the product that was caught back into the feeder and go on to the next step.

EXAMPLE: The ounces needed in one minute = 35 oz/min.
Assume the weight of the product being used is approximately 40 pounds per cubic foot. A good starting point is approximately 27 RPM’s.

9. Place the measuring cup on the scale and zero the weight of the cup. Now, use the stop watch and measuring cup to determine the auger flow rate. Turn the “DRY ADDITIVE FEEDER” switch to “ON”. As soon as product begins flowing into the cup, begin timing for one minute. As soon as one minute is reached, turn the “DRY ADDITIVE FEEDER” switch back to “OFF”.
10. Place the cup of product on the scale to measure the amount of product that was dispensed in one minute. If the rate differs than what is desired, adjust the “FEEDER SCREW” speed accordingly and try again.

USC DRY ADDITIVE FEEDER AUGER SETTINGS

NOTICE ***NUMBERS ARE NOT EXACT; ONLY USE THESE NUMBERS AS A STARTING POINT OR FOR TROUBLESHOOTING.***

Ounces per Minute

	Feeder Screw RPM													
Pounds per Cubic Foot	5	10	15	20	25	30	35	40	45	50	55	60	65	70
10	1.6	3.2	4.8	6.3	7.9	9.5	11.1	12.7	12.7	15.9	17.4	19.0	20.6	22.2
15	2.4	4.8	7.1	9.5	11.9	14.3	16.7	19.0	19.0	23.8	26.2	28.5	30.9	33.3
20	3.2	6.3	9.5	12.7	15.9	19.0	22.2	25.4	25.4	31.7	34.9	38.1	41.2	44.4
25	4.0	7.9	11.9	15.9	19.8	23.8	27.8	31.7	31.7	39.6	43.6	47.6	51.5	55.5
30	4.8	9.5	14.3	19.0	23.8	28.5	33.3	38.1	38.1	47.6	52.3	57.1	61.9	66.6
35	5.6	11.1	16.7	22.2	27.8	33.3	38.9	44.4	44.4	55.5	61.1	66.6	72.2	77.7
40	6.3	12.7	19.0	25.4	31.7	38.1	44.4	50.8	50.8	63.4	69.8	76.1	82.5	88.8
45	7.1	14.3	21.4	28.5	35.7	42.8	50.0	57.1	57.1	71.4	78.5	85.6	92.8	99.9
50	7.9	15.9	23.8	31.7	39.6	47.6	55.5	63.4	63.4	79.3	87.2	95.2	103.1	111.0
55	8.7	17.4	26.2	34.9	43.6	52.3	61.1	69.8	69.8	87.2	96.0	104.7	113.4	122.1
60	9.5	19.0	28.5	38.1	47.6	57.1	66.6	76.1	76.1	95.2	104.7	114.2	123.7	133.2
65	10.3	20.6	30.9	41.2	51.5	61.9	72.2	82.5	82.5	103.1	113.4	123.7	134.0	144.3
70	11.1	22.2	33.3	44.4	55.5	66.6	77.7	88.8	88.8	111.0	122.1	133.2	144.3	155.4
75	11.9	23.8	35.7	47.6	59.5	71.4	83.3	95.2	95.2	118.9	130.8	142.7	154.6	166.5
80	12.7	25.4	38.1	50.8	63.4	76.1	88.8	101.5	101.5	126.9	139.6	152.3	164.9	177.6
85	13.5	27.0	40.4	53.9	67.4	80.9	94.4	107.8	107.8	134.8	148.3	161.8	175.2	188.7
90	14.3	28.5	42.8	57.1	71.4	85.6	99.9	114.2	114.2	142.7	157.0	171.3	185.6	199.8
95	15.1	30.1	45.2	60.3	75.3	90.4	105.5	120.5	120.5	150.7	165.7	180.8	195.9	210.9
100	15.9	31.7	47.6	63.4	79.3	95.2	111.0	126.9	126.9	158.6	174.5	190.3	206.2	222.0

Motor Sprocket: 21 Tooth
Auger Sprocket: 30 Tooth

Motor Sprocket: 30 Tooth
Auger Sprocket: 21 Tooth

Refer to page 16 for sprocket configuration instructions.

APPLYING DRY PRODUCTS.

1. Position the dry additive feeder, all conveyors, hoppers, wagons, or boxes in place.
2. Turn the HAND/OFF/AUTO switch to “AUTO”, turn the DRY ADDITIVE FEEDER SWITCH to “ON”. Turn the seed treater switch to “AUTO” and any other conveyor or seed treater switches to “ON”.
3. With all motors turned to the “ON” position, you are ready for seed.
4. Begin feeding seed into the seed treater. If you are using the “AUTO” function, the proximity switch in the seed treater will start the dry additive feeder automatically. If you are not using the “AUTO” function, you will need to start the dry additive feeder as soon as seed lands in the seed treater drum.
5. When all seed has passed by the proximity switch, the dry additive feeder will automatically shut off. If you are not using the “AUTO” function, you will need to turn the DRY ADDITIVE FEEDER to “OFF”.

Conversion Chart

1 ounce = 29.58 milliliters

1 gallon = 3.79 Liters

1 kilogram = 2.2 pounds

1 unit = 50 lbs or 22.73 kg

1 bushel = approx. 60 lbs or 27.27 kg

1 cwt = 100 lbs or 45.45 kg

SECTION F TROUBLESHOOTING

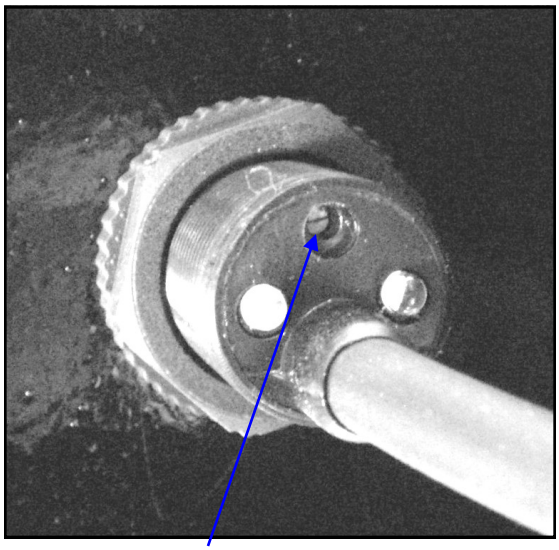
Below is a table describing the most frequent problems and solutions with the USC Seed Treater. For further assistance, contact your local USC dealer.

Problem	Possible Cause	Solution
Dry Additive Feeder will not turn off in "AUTO" when seed runs out.	1. Proximity Switch is Dirty 2. Proximity Switch is too Sensitive.	1. Clean Proximity Switch 2. Adjust Proximity Switch Sensitivity by turning Counter-clockwise.
Dry Additive Feeder will not turn on in "AUTO"	1. Proximity Switch is not covered 2. Atomizer is not on 3. Proximity Switch is not sensitive enough	1. Cover Proximity Switch 2. Turn on Atomizer 3. Adjust Proximity Switch Clockwise to make more Sensitive
Feeder Rate is Fluctuating	1. Product is not feeding into auger 2. Agitators are not working properly 3. Running auger too slow	1. Check product to make sure it is feeding into the auger. 2. Check tightness on chain 3. Interchange sprockets to force motor to run faster.
Auger will not turn	1. Agitation paddles are hitting each other 2. Chain is loose	1. Readjust agitation paddles so they do not collide when running. 2. Check tightness on chain

PROXIMITY SWITCH ADJUSTMENT GUIDE

The proximity switch located in the cone of the seed treater detect when seed is present. This will automatically shut off the dry additive feeder when all seed has left the supply hopper.

Sometimes the proximity switch does not properly work. This can be caused from wear, dust, or even moisture. The first step is to clean the lens of the proximity switch. If this does not solve the problem, the next step would be to adjust the sensitivity of the proximity switch.



Sensitivity Adjustment Screw

Using the small screwdriver provided inside the control panel, you can adjust the proximity switch by turning the adjusting screw on the back of the proximity switch.

- Turn Clockwise to make the proximity switch more sensitive.
- Turn Counterclockwise to make the proximity switch less sensitive.

Proximity Switch Screwdriver

SECTION G MAINTENANCE

Proper maintenance of the USC dry additive feeder is critical for peak performance, reliability and accuracy of this system. The following is a guideline for the type of maintenance and servicing that should be performed on this unit. Your environment and uses may require additional maintenance and service beyond this list to assure a reliable and safe unit. The operator of this unit has ultimate responsibility to identify areas of concern and rectify them before they become a hazard or safety issue. There is no substitute for a trained, alert operator.

Do not put this unit into operation with any questionably maintained parts. Poor performance or a hazard may occur.

SUPPLY HOPPER

- Check agitation paddles
- Check auger for wear or breaks
- Tighten and lubricate chain
- Check motor

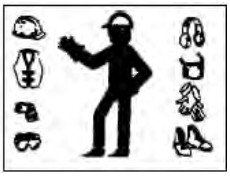
CONTROL PANEL

- Check and tighten wire connections
- Check starters and overloads
- Check timers and relays
- Check the front of the panel: switches, RPM indicator, potentiometer, etc.
- Inspect fuses and breakers
- Check and set the proximity switches

STORAGE

SECTION H

When storing the USC Dry Additive Feeder for long periods of time, the following procedure must be followed to reduce the chance of rust, corrosion and fatigue of the equipment. You can also use these steps when storing the machine for the winter.



A dust mask and protective rubber gloves shall be used when cleaning the machine.

1. Clean out the supply hopper of any debris (compressed air can be used).
2. Remove auger tube and clean the auger (compressed air can be used). Then reinstall the auger tube.
3. Tarp or cover the hopper to keep out any unwanted pests.
4. Remove the shields and clean out any material that may have fallen behind the guard.
5. Lubricate the chain to keep from corroding in storage.
6. Store the machine inside a protective building to keep it from being exposed to the weather.
7. Disconnect power to the machine.

SECTION LIMITED WARRANTY

USC, LLC, (Manufacturer) warrants its seed treating equipment as follows:

1. **Limited Warranty:** Manufacturer warrants that the Products sold hereunder will be free from defects in material and workmanship for a period of 12 months from date of shipment. If the Products do not conform to this Limited Warranty during the warranty period, Buyer shall notify Manufacturer in writing of the claimed defects and demonstrate to Manufacturer satisfaction that said defects are covered by this Limited Warranty. If the defects are properly reported to Manufacturer within the warranty period, and the defects are of such type and nature as to be covered by this warranty, Manufacturer shall, at its expense, furnish replacement Products or, at Manufacturer's option, replacement parts for the defective products. Shipping and installation of the replacement Products or replacement parts shall be at the Buyer's expense.

2. **Other Limits:** THE FOREGOING IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Manufacturer does not warrant against damages or defects arising from improper installation (where installation is by persons other than Manufacturer), against defects in products or components not manufactured by Manufacturer, or against damages resulting from such non-Manufacturer made products or components. Manufacturer passes on to the Buyer the warranty it received (if any) from the maker of such non-Manufacturer made products or components. This warranty also does not apply to Products upon which repairs and/or modifications have been effected or attempted by persons other than pursuant to written authorization by Manufacturer. Manufacturer does not warrant against casualties or damages resulting from misuse and/or abuse of product(s), acts of nature, effects of weather, including effects of weather due to outside storage, accidents, or damages incurred during transportation by common carrier.

3. **Exclusive Obligation:** THIS WARRANTY IS EXCLUSIVE. The sole and exclusive obligation of Manufacturer shall be to repair or replace the defective Products in the manner and for the period provided above. Manufacturer shall not have any other obligation with respect to the Products or any part thereof, whether based on contract, tort, strict liability or otherwise. Under no circumstances, whether based on this Limited Warranty or otherwise, shall Manufacturer be liable for incidental, special, or consequential damages.

4. **Other Statements:** Manufacturer's employees or representatives' oral or other written statements do not constitute warranties, shall not be relied upon by Buyer, and are not a part of the contract for sale or this limited warranty.

5. **Return Policy:** Approval is required prior to returning goods to USC, LLC. A restocking fee will apply.

6. **Entire Obligation:** This Limited Warranty states the entire obligation of Manufacturer with respect to the Products. If any part of this Limited Warranty is determined to be void or illegal, the remainder shall remain in full force and effect.