

**WS-54SBDLA** Wind Storm 54" Galvanized Slant Wall Fan Installation and Operation Manual

---





## Table of Contents

**GrowerSELECT General Page.....3**

**Safety .....4**

    Warning Labels .....4

    Installation .....5

    Operation Safety .....5

    Maintenance Safety .....5

**Installation .....6**

    Framing .....6

    Assembly.....7

    Wiring..... 11

    Pre-Operation Assessment..... 11

**Operation..... 12**

**Maintenance ..... 12**

**Performance..... 12**

**Troubleshooting ..... 13**

**Exploded Diagrams/Replacement Parts ..... 14**

**Hog Slat Limited Warranty..... 15**



## GrowerSELECT General Page

---

### General Installation Notes:

Make sure that power is disconnected from system prior to servicing.

Installation of this equipment and related OEM equipment should be in accordance with these instructions, OEM's installation instructions and local codes (if applicable). Failure to follow specified instructions may cause damage to equipment and/or personal injury or death.

Take special note of any Warnings or Safety Decals on the equipment and in manuals.

Always wear protective clothing and any applicable Personal Protective Equipment (Safety Glasses and/or Ear Plugs) when working with the equipment.

Discarded materials, equipment and boxes should be recycled in accordance with local and national codes.

### Safety Instructions:

Read all safety messages in this manual and on equipment safety decals. Follow recommended precautions and safe operating practices.

Ground all electrical equipment for safety.

Ground all non-current carrying metal parts to guard against electrical shock.

Always keep safety decals in good condition and replace missing or damaged decals.

## Safety

### Warning Labels

Warning Decals have been placed on the equipment to warn of potentially dangerous situations. Care should be taken to keep this information intact and easy to read at all times. Replace missing or damaged safety signs.

#### Safety–Alert Symbol

This is a safety–alert symbol. When you see this symbol on your equipment, be alert to the potential for personal injury. GrowerSelect equipment is designed to be installed and operated as safely as possible...however, hazards do exist.



Safety decals should be read and understood thoroughly by individuals within the local area of the fan. Safety decals should be visible from both the front and back of the fan. Should a decal be missing or damaged, please contact Hog Slat Inc. for a free replacement:

**Hog Slat Inc.**  
 206 Fayetteville St.  
 Newton Grove, NC 28366  
 Toll Free: 800-949-4647  
 Local: 910-594-0219

The below safety decal should be represented and visible on both the front and back sides of the fan. This label is identified by the HSLABEL-080 part number in the lower right corner.

#### WARNING – FLYING OBJECTS AND ROTATING PARTS

Ensure fan guards are in place during operation.  
 Securely tighten propeller to shaft to avoid slipping.  
 Disconnect power supply for inspection or service when guards are removed and personnel are exposed to propeller.

#### WARNING – HIGH VOLTAGE

Disconnect electrical power before inspecting or servicing equipment unless maintenance instructions specifically states otherwise.  
 Ground all electrical equipment for safety.  
 All electrical wiring must be done by a qualified electrician in accordance with local and national electrical codes.  
 Ground all non-current carrying metal parts to guard against electrical shock. With the exception of motor overload protection, electrical disconnects and over current protection are not supplied with the equipment.





## ***Installation***

Prior to any installation product should be inspected for any damage caused during shipping. Any damage found should be documented and communicated to liable parties.

## ***Operation Safety***

When fan is in operation no attempt should be made to service or interact with parts from the fan. Any attempt to interact with fan parts while the fan is operating could result in injury. Inlet and exit guards and or shutters are in place to help prevent foreign objects from entering inside the outer perimeter of the housing. If maintenance to the fan is required, interrupt the source of power to the motor and allow propeller to come to a complete stop before moving forward with any efforts to service.

## ***Maintenance Safety***

Wind Storm Fans are designed and built with operator safety in mind. Some safeguards must be disassembled or removed for the parts to be serviced or replaced. As this fan does have moving parts and is supplied with electrical power, steps must be taken to ensure safety around these presented hazards.

### READ THESE INSTRUCTIONS BEFORE SERVICE OR PART REPLACEMENT

1. Read and understand the operating manual before trying to install or operate Wind Storm Fans.
2. Power supply should be turned OFF and LOCKED OUT for service to motor and electrical components. Use **CAUTION** in checking voltage or other procedures requiring power to be ON.
3. DO NOT attempt to bypass any safety features or devices to operate the fan.
4. Keep fan clean of all debris that may collect the motor, prop, and any bearings, belts, or pulleys.
5. Use **CAUTION** is working around all moving parts of the fan.

Fan guards or shutters must be in place before fan can be safely started and operational.

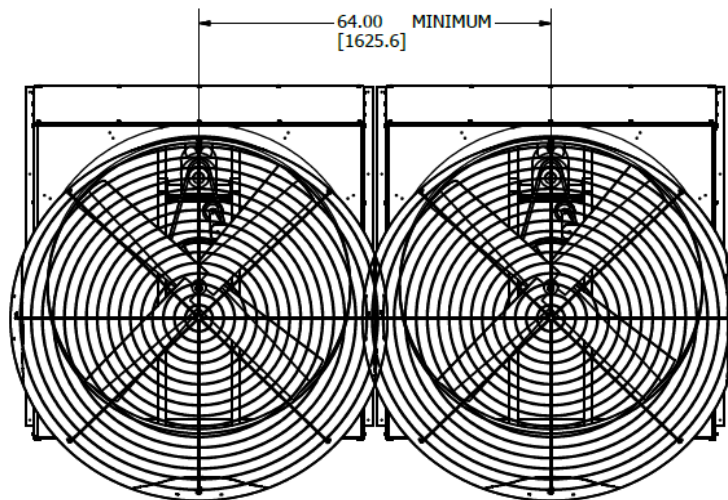
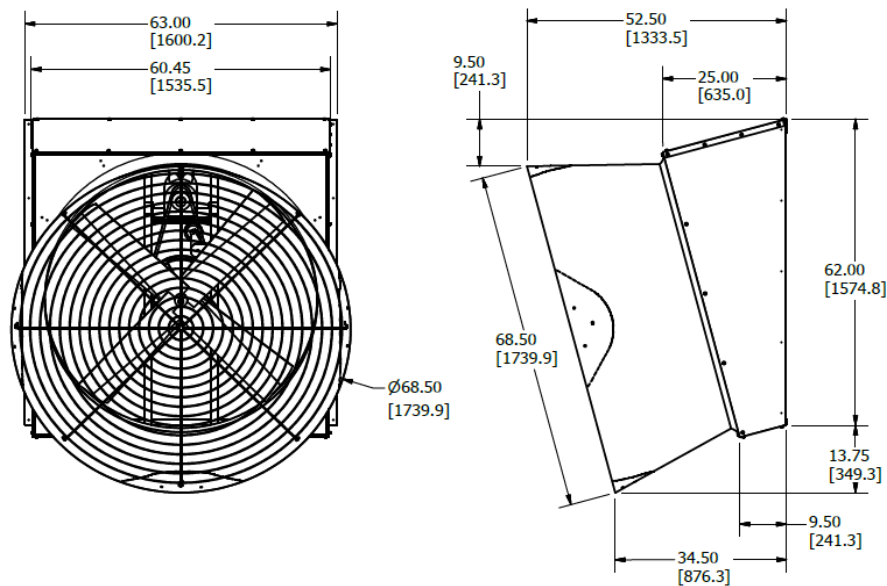


# Installation

## Framing

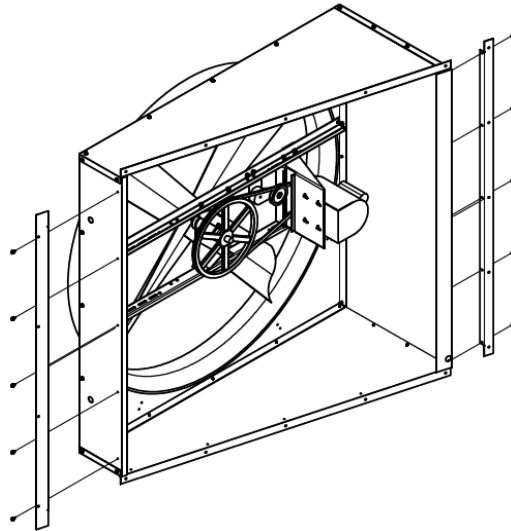
The rough in opening for the fan is an exact measurement that accounts for the heads of fasteners and openings for fan. Ensure there is proper clearance for installation or rough opening may require larger measurements.

Fan Model	Rough Opening (Width x Height)
<b>54" Galvanized Slant Wall</b>	<b>60 3/4 " X 63 1/2"</b> (154.3 cm x 161.3 cm)

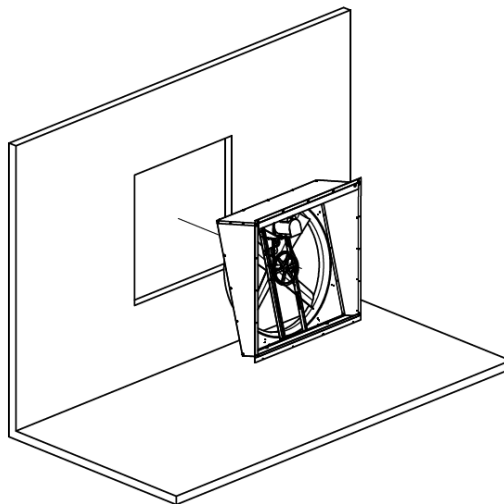


## Assembly

1. Remove packaging from fan and cone if applicable.
  - Locate hardware kit(s) and supplied literature and store for later use.
  - Ensure not to damage the fan or components during this step.
2. Remove shutter, guard, and top and bottom retainers. Place fan on its side being careful not to damage the mounting flanges. Install the top and bottom supports using supplied sheet metal screws (805057). The retainers should be parallel to the interior face of the fan housing.

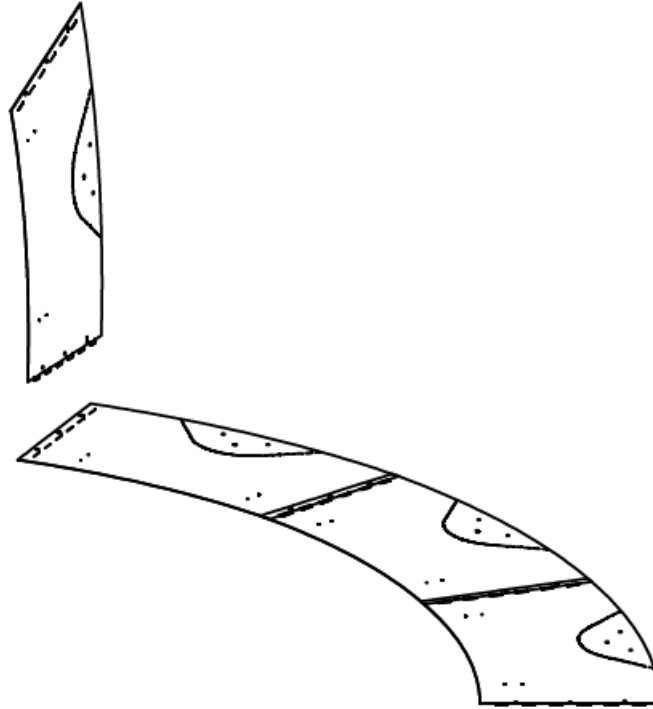


3. Insert Housing assembly into framed opening and secure with #14 Stainless Sheet Metal screws (805060). (2) installers are required for this step.



MOVE TO THE EXTERIOR OF THE HOUSE FOR THE NEXT STEP.

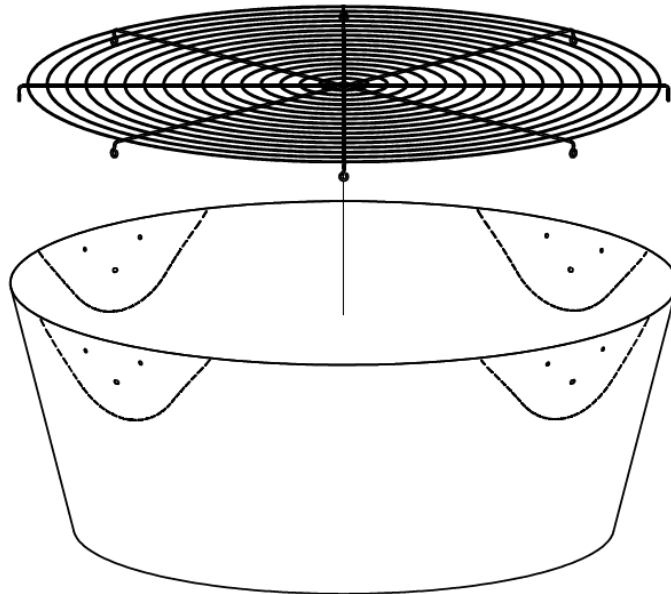
4. Assemble cone. This step requires (2) installers. Begin by placing one cone panel on the ground with the end with connection slots slightly elevated. Insert the connection tabs into the connection slots and rotate to parallel. Continue for all 4 panels.



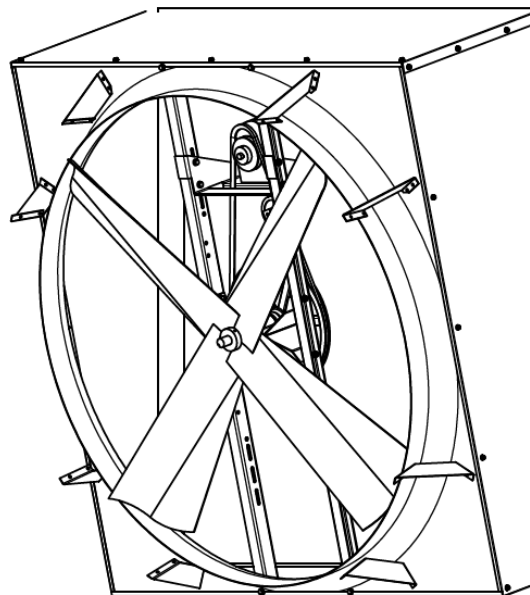
5. Connect cone panels to form round shape. This step requires (2) installers. Stand the cone upright with the larger diameter on the ground and force the cone to bend to allow the final connection tabs to insert into the remaining connection slots. Secure round connections with 5/16" serrated bolts (605095) and serrated nuts (606240) leaving the slots closest to the larger diameter open at this time.



6. Invert the cone so the smaller diameter is facing the ground. This step requires (2) installers. Install the grill guard and secure with 5/16" X 1" serrated bolts (605096) and serrated nuts (606240)



7. Install Cone mounting brackets using Sheet Metal screws (805057).





8. Attach assembled fan to cone housing. This step required 2 installers. Begin by “hooking” the top of the venture with the top of the cone. Rotate cone to align mounting holes with mounting brackets. Use supplied sheet metal screws (805057) to secure cone to brackets.
9. This step is optional. If an on center spacing distance of 68” or greater was chosen move to step 10.

In the event on center spacing of less than 68” was chosen cone panels can be deformed along perforated line and bolted to each other provide uniform airflow and to eliminate opposing vibration.

MOVE BACK TO INTERIOR OF HOUSE TO INSTALL SHUTTER

10. Insert shutter into fan housing by sliding the shutter under the top retaining lip until bottom of shutter can insert into bottom of housing retainer.

**THIS COMPLETES THE HOUSING ASSEMBLY OF THE FAN**



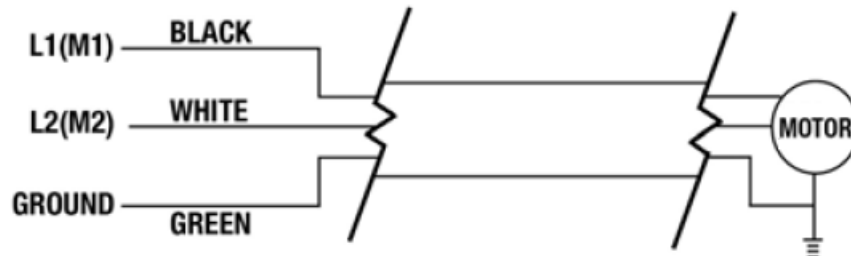
## Wiring

To access motor remove shutter.

Wire should be directed through 1" hole on the top interior face of the fan. This allows the shutter to operate and be removed without striking power cord.

**Again, make sure that power is disconnected from system prior to servicing.**

This Power Unit is supplied prewired for 230 volt operation with the proper rotation direction for correct auger rotation. If 115 volt operation is required please see wiring instruction on Motor Data Label for converting to 115 volt operation. Black wire should connect to L1(M1) and White wire should connect to L2(M2). Green should be connected to Ground



### **ELECTRICAL SHOCK HAZARD!**

- Motor replacement and the associated wiring changes should only be made by qualified and properly trained individuals.
- Failure to follow the above warning can cause improper equipment function, premature failure of equipment or electrical shock, leading to property damage or personal injury.

## Pre-Operation Assessment

Before beginning fan operation, please follow the below checklist to ensure that:

- ✓ Fan power cord securely connected to a good power supply.
- ✓ All safety labels are visible to personnel that will work in the area.
- ✓ Exit wire guard and inlet shutter are in place and secured to the fan housing.
- ✓ No foreign objects are protruding through the fan housing.



## Operation

At all times during operation fan orifice should be free of debris. In the event any component of the fan is compromised discontinue use immediately and contact your local Hog Slat representative.

During operation shutter doors should open completely and rotate a full 90 degrees. In the event shutter doors are not opening completely force door open 90 degrees. (Slight deformation of the corner of the shutter door lip is expected and will not affect the performance and or life of the shutter)

## Maintenance

In order to begin any maintenance or service to the fan, power must be turned OFF and all moving parts must come to a complete STOP before accessing. All parts inside of the fan housing are accessed by removing the exit wire guard and inlet shutter.

Once service is complete, clean excessive build-up from parts. Excessive dust and dirt on parts can cause vibration in the propeller and overheating of the motor. Before beginning operation again, ensure that all safeguards are back in place and all foreign objects are free from the area.

## Performance

**Hog Slat Inc. takes great pride in supplying our customers with fans that meet or exceed their performance numbers. This is achieved by testing fans from the production line and continually working to maintain consistency in test data.**

**BESS LABS TEST NUMBER 14344 JUNE 19, 2014**

**With Cone**

Static Pressure (in.H2O)	Airflow (cfm)	Rpm	Volts	Amps	Watts	cfm/Watt
0.00	28400	475	231.6	5.56	1203	23.6
0.05	27100	473	230.0	5.87	1261	21.5
0.10	25400	471	229.6	6.17	1322	19.2
0.15	23400	469	229.4	6.45	1381	16.9
0.20	20400	467	231.4	6.71	1447	14.1
0.25	17100	465	231.0	7.01	1510	11.3
0.30	12200	462	229.0	7.28	1553	7.8



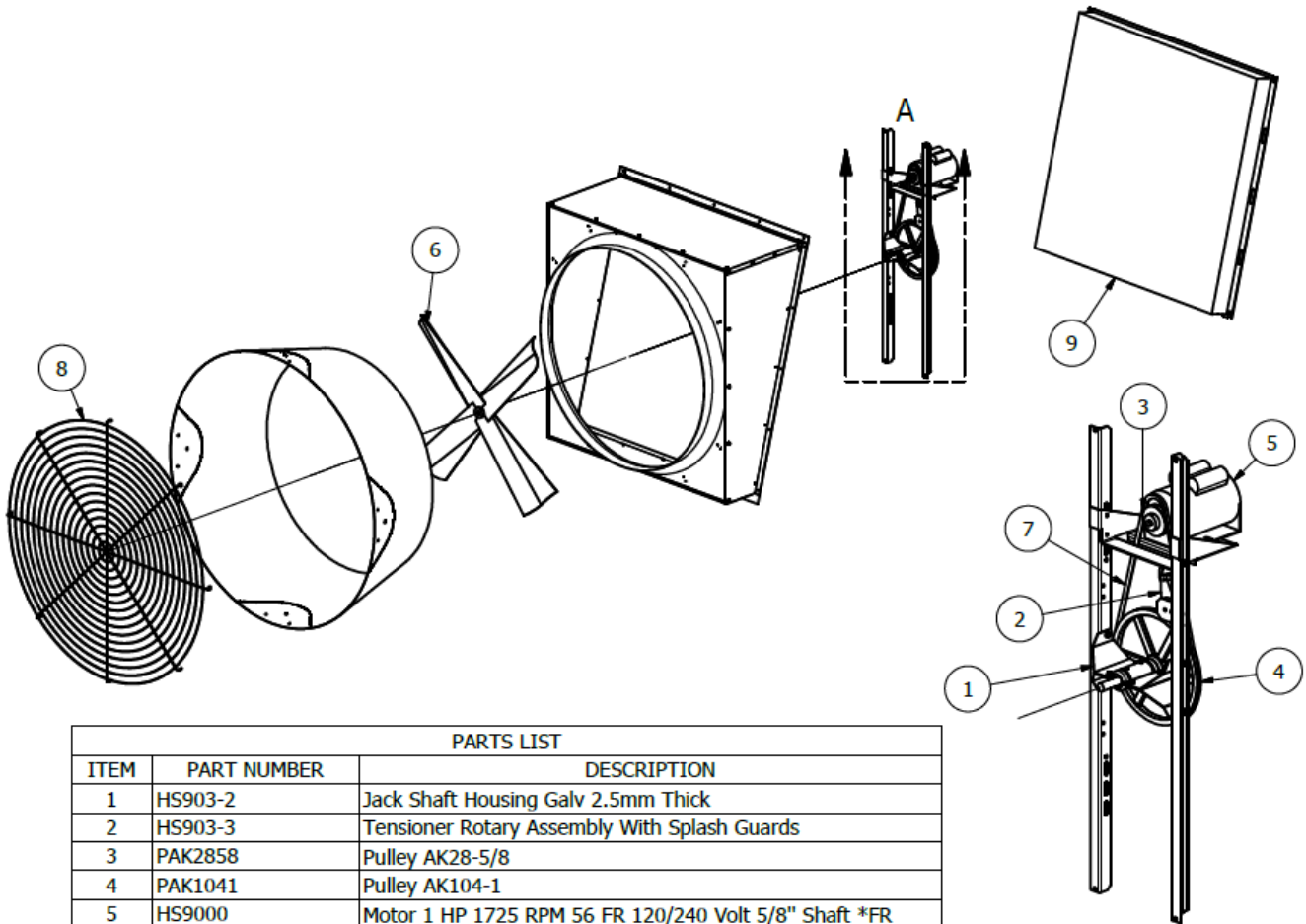


## Troubleshooting

Trouble	Possible Cause(s)	Corrective Action
<b>Excessive noise</b>	Worn motor bearing.	Replace
	Damage to fan blade	Replace prop
	Loose fasteners on motor or housing	Tighten fasteners
<b>Excessive vibration</b>	Fan blade is out of balance due to dirt build-up.	Clean entire unit
	Fan blade is out of balance due to damage	Replace prop
<b>Insufficient airflow</b>	Intake or exhaust guards clogged with debris	Clean entire unit
	Intake or exhaust blocked by foreign object	Remove object from airflow path
<b>Fan won't operate</b>	Open power supply circuit.	Check wiring and reset circuit breaker
	Defective motor	Reset motor, repair, or replace
<b>Motor overheats and nuisance trips</b>	Improper airflow due to clogged Inlet/Outlet	Clean entire unit
	Motor or Fan prop has excessive debris build-up	Clean entire unit



## Exploded Diagrams/Replacement Parts



PARTS LIST		
ITEM	PART NUMBER	DESCRIPTION
1	HS903-2	Jack Shaft Housing Galv 2.5mm Thick
2	HS903-3	Tensioner Rotary Assembly With Splash Guards
3	PAK2858	Pulley AK28-5/8
4	PAK1041	Pulley AK104-1
5	HS9000	Motor 1 HP 1725 RPM 56 FR 120/240 Volt 5/8" Shaft *FR
6	HS900-54B	Prop 54" 4-Blade Galvanized WS Fan
7	AFH2053	Belt Link Red Fenner Drive A Belt 1/2" Power Twist Per Foot
8	HS902-1	54" FAN PROP GUARD 68" CONE MD
9	HS901-1	Shutter 54" WS SW Fan 58" X 59" X 2.5"
N/S	HSLABEL-080	Label Warning-High Voltage, Flying Objects, Rotating Blade

DETAIL A  
SCALE 1/15

*For OSHA compliant guards, contact your local Hog Slat representative.*

## Hog Slat Limited Warranty

Hog Slat warrants products to be free from defects in material or workmanship for a period of twenty-four (24) months from the date of **original purchase**. Hog Slat will credit, repair, or replace, at its option any product deemed defective within this time period. Labor costs associated with the replacement or repair of the product are not covered by the Seller/Manufacturer.

### Conditions and Limitations

1. The product must be installed by and operated in accordance with the instructions published by the **Seller/Manufacturer or Warranty will be void.**
2. Warranty is void if **all components** are not original equipment supplied by the **Seller/Manufacturer.**
3. This product must be purchased from and installed by an authorized retailer/distributor or certified representative thereof or the Warranty will be void.
4. Malfunctions or failure resulting from misuse, abuse, negligence, alteration, accident, or lack of proper maintenance shall not be considered defects under the Warranty.
5. This Warranty applies only to components/systems for the care of poultry and livestock. Other applications in industry or commerce are not covered by this Warranty.
6. This Warranty applies only to the Original Purchaser of the product.

The **Seller/Manufacturer** shall not be liable for any **Consequential or Special Damage** which any purchaser may suffer or claim to suffer as a result of any defect in 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.

THIS WARRANTY CONSTITUTES THE SELLER/MANUFACTURER’S ENTIRE AND SOLE WARRANTY AND THIS MANUFACTURER EXPRESSLY DISCLAIMS ANY AND ALL OTHER WARRANTIES, INCLUDING, BUT NOT LIMITED TO, EXPRESS AND IMPLIED WARRANTIES AS TO MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSES SOLD AND DESCRIPTION OR QUALITY OF THE PRODUCT FURNISHED HEREUNDER.

Hog Slat Retailers/Distributors are not authorized to modify or extend the terms and conditions of this Warranty in any manner or to offer or grant any other warranties for GrowerSelect products in addition to those terms expressly stated above. An officer of Hog Slat must authorize any exceptions to this Warranty in writing. The Seller/Manufacturer reserves the right to change models and specifications at any time without notice or obligation to improve previous models.



**This equipment must be installed in accordance with all State and Local Codes and applicable Regulations which should be followed in all cases. Authorities having jurisdiction should be consulted before installations are made.**



**Hog Slat, Inc.  
PO Box 300  
Newton Grove, NC 28366**

**Phone: (910) 594-0219  
Fax: (910) 594-1392**

**[www.hogslat.com](http://www.hogslat.com)**

**Copyright © 2015 by Hog Slat, Inc.**

Part Number: HSMannual-043 Rev A2  
HSART-358  
Market: Hog & Poultry

