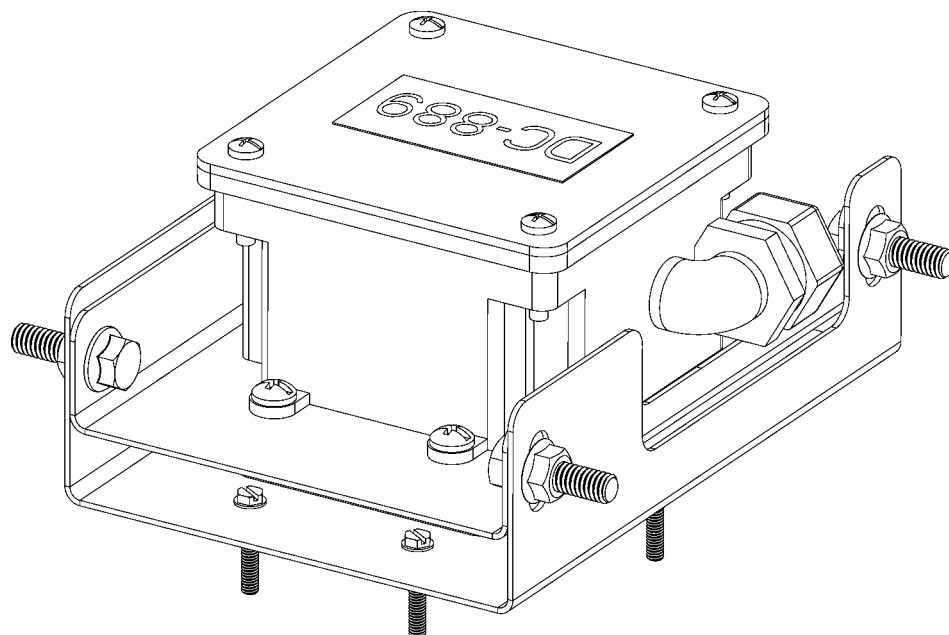




# Grain Flow Overload Switch Service Kit

Assembly Instructions

**PNEG-1642**

Date: 11-06-13

GSI GROUP



PNEG-1642



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### Safety Guidelines

This manual contains information that is important for you, the owner/operator, to know and understand. This information relates to protecting **personal safety** and **preventing equipment problems**. It is the responsibility of the owner/operator to inform anyone operating or working in the area of this equipment of these safety guidelines. To help you recognize this information, we use the symbols that are defined below. Please read the manual and pay attention to these sections. Failure to read this manual and its safety instructions is a misuse of the equipment and may lead to serious injury or death.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



**DANGER** indicates a hazardous situation which, if not avoided, will result in death or serious injury.



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



**CAUTION**, used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.



**NOTICE** is used to address practices not related to personal injury.

## Safety Instructions

Our foremost concern is your safety and the safety of others associated with this equipment. We want to keep you as a customer. This manual is to help you understand safe operating procedures and some problems that may be encountered by the operator and other personnel.

As owner and/or operator, it is your responsibility to know what requirements, hazards, and precautions exist, and to inform all personnel associated with the equipment or in the area. Safety precautions may be required from the personnel. Avoid any alterations to the equipment. Such alterations may produce a very dangerous situation where **SERIOUS INJURY** or **DEATH** may occur.

This equipment shall be installed in accordance with the current installation codes and applicable regulations, which should be carefully followed in all cases. Authorities having jurisdiction should be consulted before installations are made.

### Operate Motor Properly

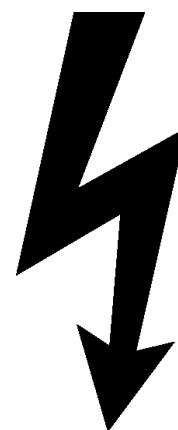
In an emergency, shut down the power source.

Turn OFF and lock out all power sources before performing any maintenance.

Do not operate electric motor equipped units until motors are properly grounded.

Disconnect power on electrical driven units before resetting motor overloads.

Do not repetitively stop and start the drive in order to free a plugged condition. Jogging the drive in this manner can damage the equipment and/or drive components.



**Electric Shock Hazard**

### Install and Operate Electrical Equipment Properly

Electrical controls should be installed by a qualified electrician and must meet the standards set by the National Electrical Code and all local and state codes.

Disconnect and lock out all power sources before installing wires/cables or servicing equipment.



**Electric Shock Hazard**



GSI Group Inc. 217-226-4421



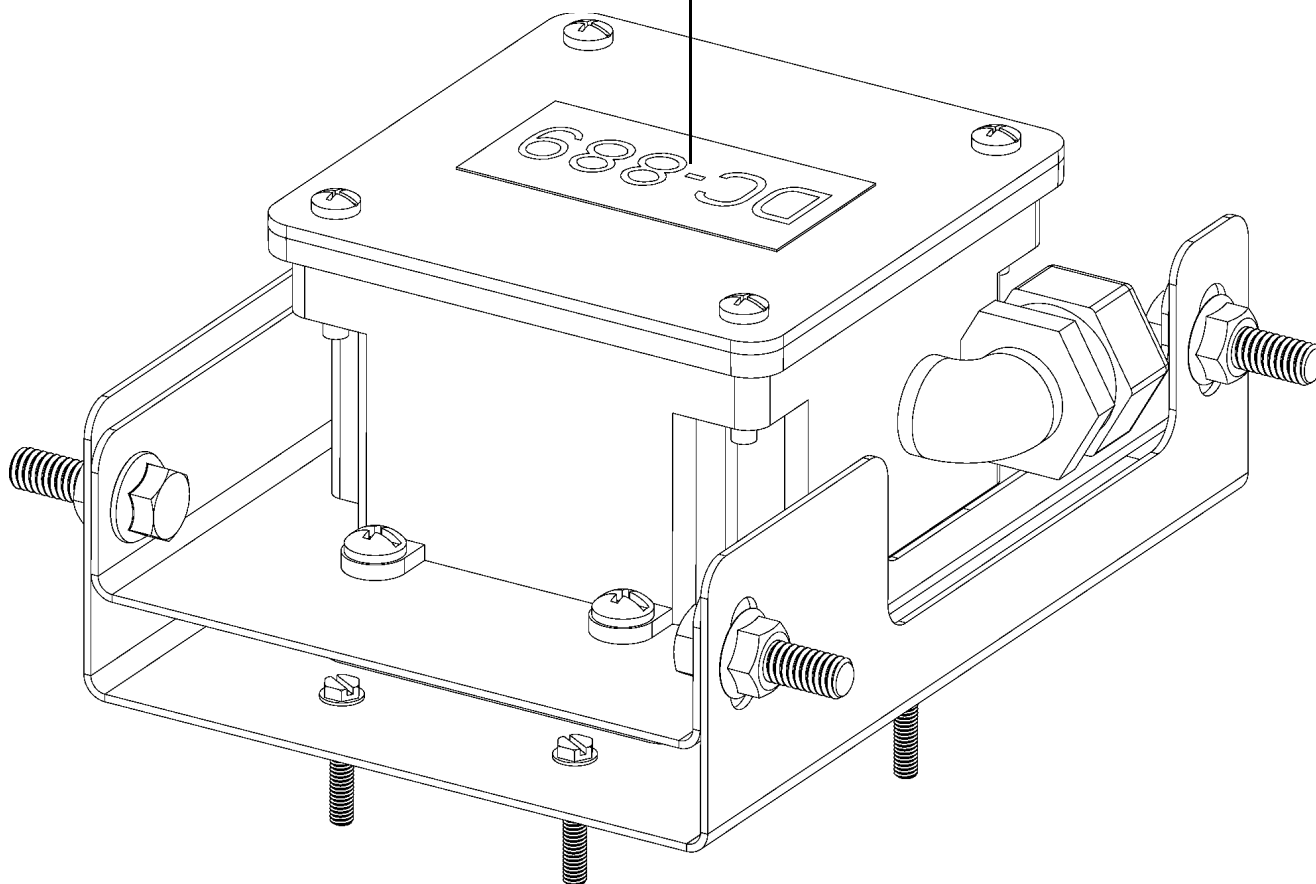
# DANGER

## HIGH VOLTAGE

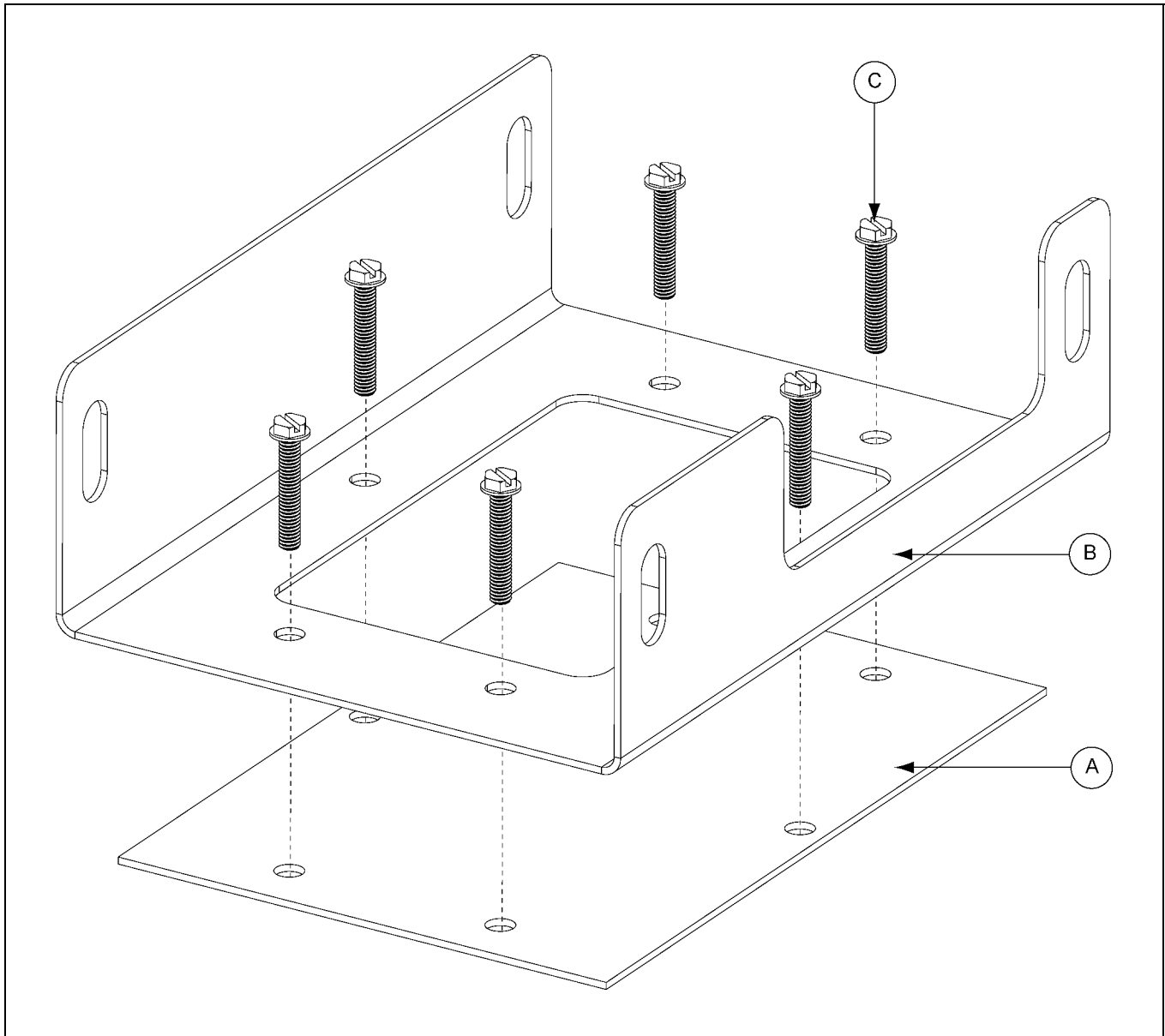
Will cause injury  
or death.

Lockout power  
before servicing.

DC-889



1. Disconnect and lock out the power supply.
2. Remove the mercury switch assembly and the old rubber diaphragm.
3. Replace the diaphragm (A) with the new one supplied in the kit and anchor it in place using the bracket (B) and screws (C). (*See Figure 3A.*)



**Figure 3A**

| Ref # | Part #  | Description                                  |
|-------|---------|----------------------------------------------|
| A     | 602A039 | Rubber Diaphragm Overload Switch             |
| B     | 602A100 | Grain Flow, Rubber Bladder Hold-Down Bracket |
| C     | S-7581  | Tek Screw, SDS #12-14 x 1" HWH ZN (6)        |

### 3. Switch Installation

4. Assemble the overload switch box assembly (D) to the diaphragm frame using the 5/16" flange bolts (E) and 5/16" nuts (F). (See Figure 3B.)

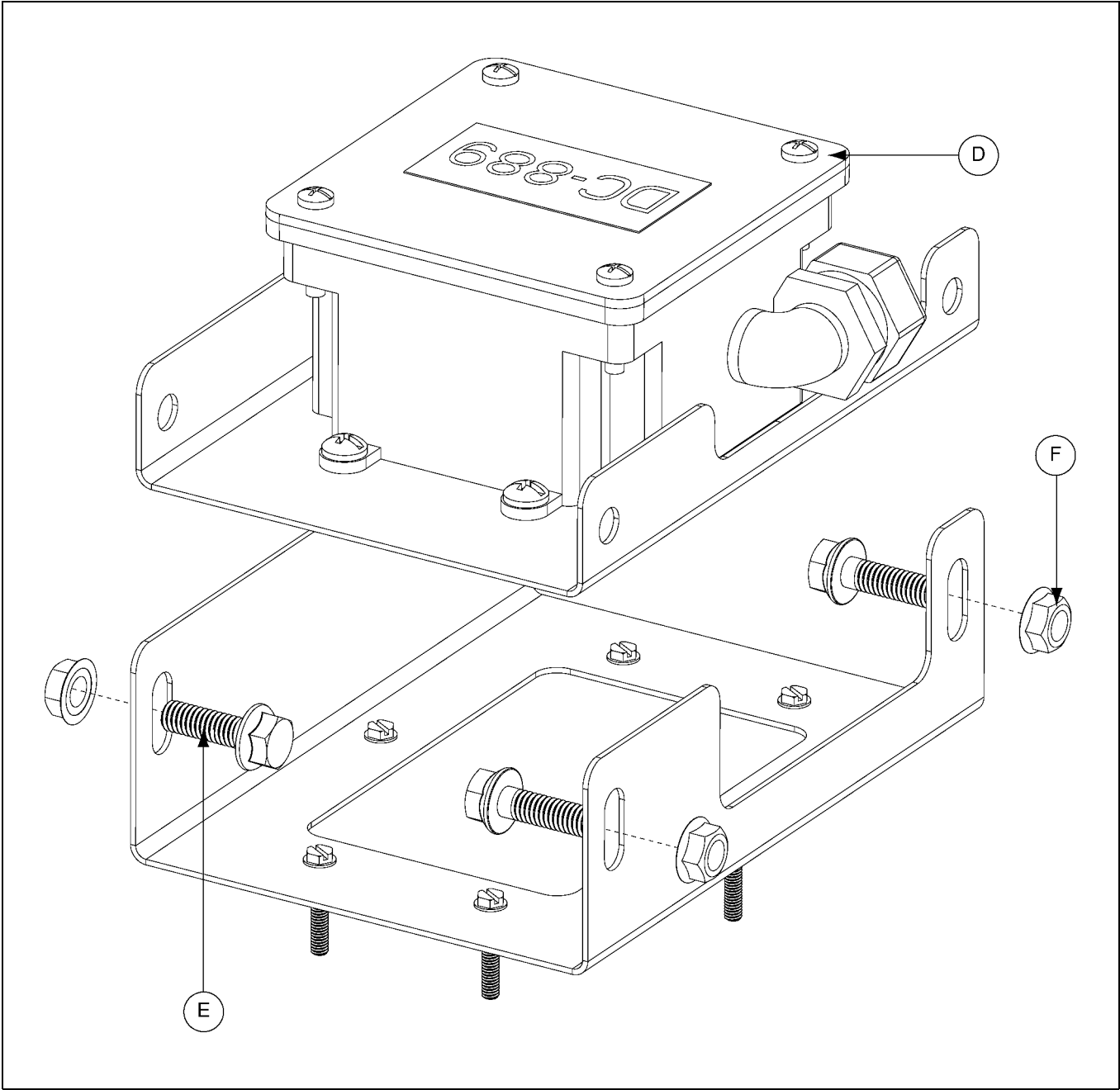


Figure 3B

| Ref # | Part #  | Description                              |
|-------|---------|------------------------------------------|
| D     | 602A055 | Grain Flow Overload Switch Box Assembly  |
| E     | S-7470  | Flange Bolt 5/16"-18 x 1" ZN Grade 5 (4) |
| F     | S-3611  | Flange Nut 5/16"-18 YDP Grade 2 (4)      |

5. Remove the box lid (G) and connect the wires to the N/C contact (H) inside the box. (See Figure 3C.)

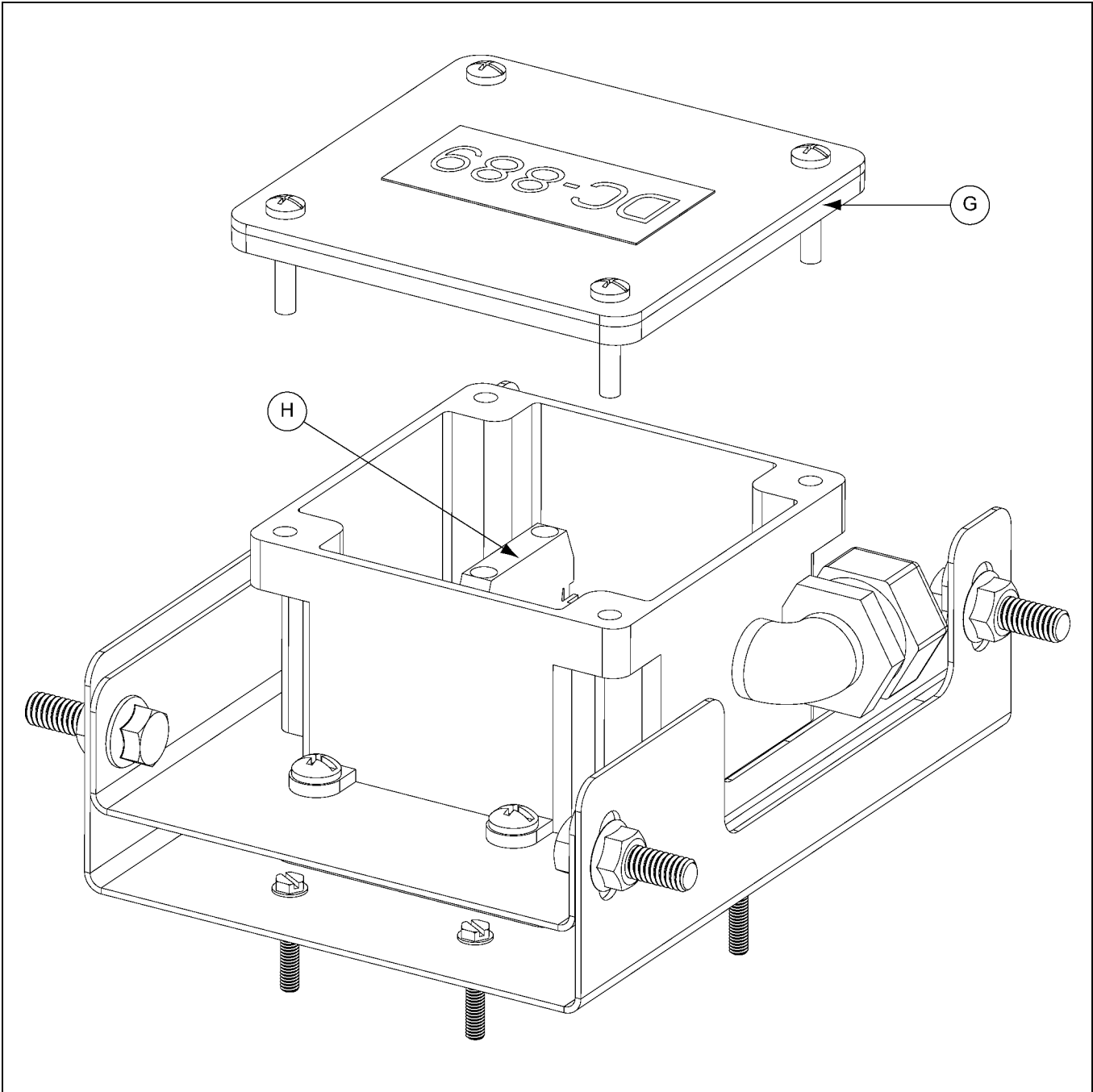


Figure 3C

| Ref # | Description |
|-------|-------------|
| G     | Box Lid     |
| H     | N/C Contact |

### 3. Switch Installation

6. Re-attach the box lid and test the overload switch (I). When the overload switch is actuated, the system should shut down. *(See Figure 3D.)*

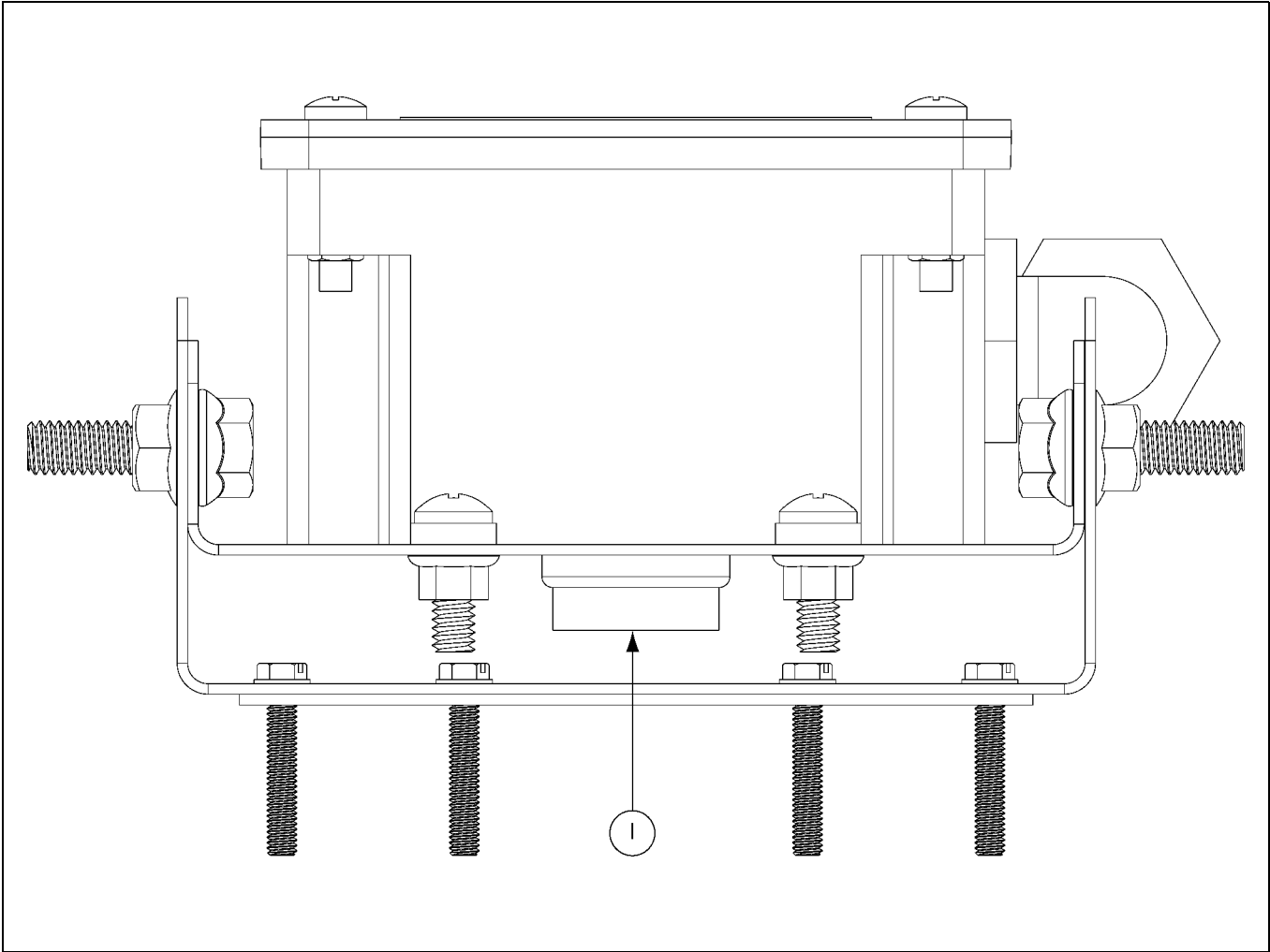
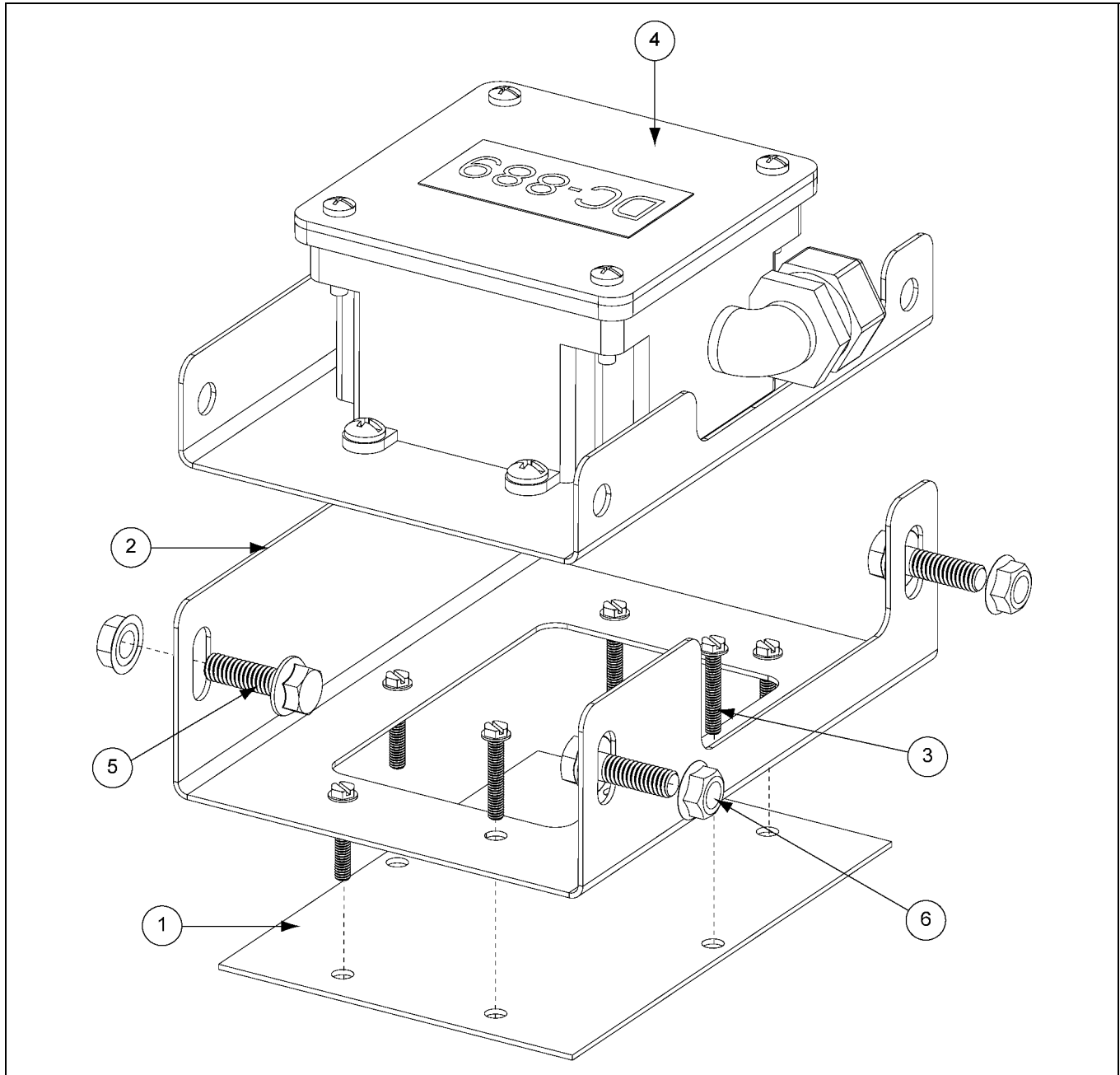


Figure 3D

| Ref # | Description     |
|-------|-----------------|
| I     | Overload Switch |

## Grain Flow Overload Switch Service Kit (602A056)

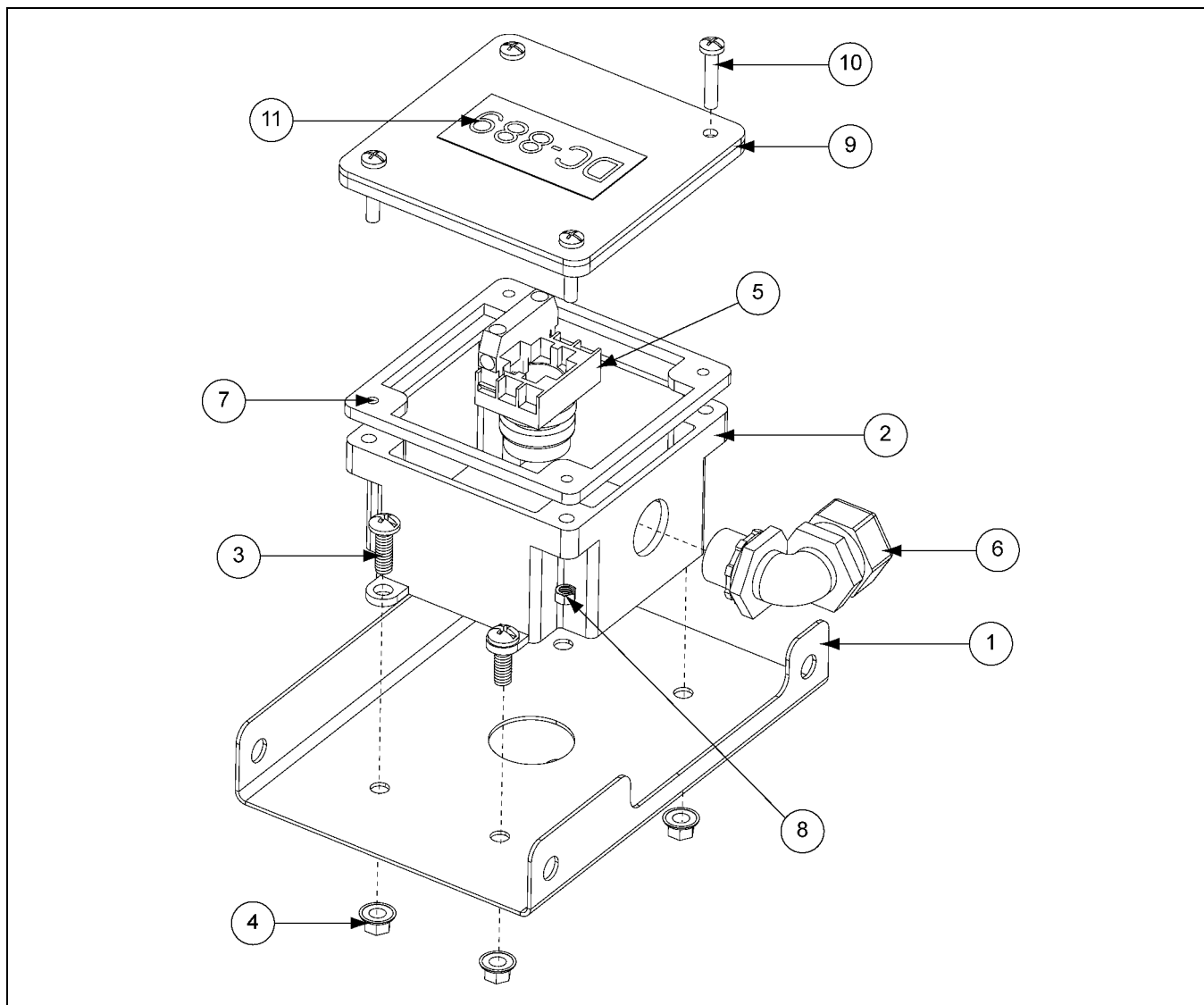


**Grain Flow Overload Switch Service Kit (602A056) Parts List**

| Ref # | Part #  | Description                                  | Qty |
|-------|---------|----------------------------------------------|-----|
| 1     | 602A039 | Rubber Diaphragm Overload Switch             | 1   |
| 2     | 602A100 | Grain Flow, Rubber Bladder Hold-Down Bracket | 1   |
| 3     | S-7581  | Tek Screw, SDS #12-14 x 1" HWH ZN            | 6   |
| 4     | 602A055 | Grain Flow Overload Switch Box Assembly      | 1   |
| 5     | S-7470  | Flange Bolt 5/16"-18 x 1" ZN Grade 5         | 4   |
| 6     | S-3611  | Flange Nut 5/16"-18 YDP Grade 2              | 4   |

## 4. Parts List

### Grain Flow Overload Switch Box Assembly (602A055)



**Grain Flow Overload Switch Box Assembly (602A055) Parts List**

| Ref # | Part #   | Description                                  | Qty |
|-------|----------|----------------------------------------------|-----|
| 1     | 602A101  | Grain Flow, Shut Off Switch Mounting Bracket | 1   |
| 2     | 602A054  | Box, Grain Flow Overload Switch (Bottom)     | 1   |
| 3     | S-8789   | Screw, MS 1/4"-20 x 3/4" RHP ZN              | 4   |
| 4     | S-7215   | Flange Nut 1/4"-20 Zinc                      | 4   |
| 5     | C-8052   | Switch, P.B. Red Ext                         | 1   |
| 6     | 1EL0442  | Elbow, Connector, Liquid Tite, 90°, 1/2"     | 1   |
| 7     | FLX-2690 | Gasket, Electrical Box 4 x 4                 | 1   |
| 8     | S-7931   | Hex Nut #10-24 SS                            | 4   |
| 9     | FLX-2689 | Electrical Box Cover                         | 1   |
| 10    | S-7377   | Screw, MS #10-24 x 1" RHP ZN Grade 2         | 4   |
| 11    | DC-889   | Decal, Danger High Voltage                   | 1   |

## GSI Group, LLC Limited Warranty

The GSI Group, LLC ("GSI") warrants products which it manufactures to be free of defects in materials and workmanship under normal usage and conditions for a period of 12 months after sale to the original end-user or if a foreign sale, 14 months from arrival at port of discharge, whichever is earlier. The end-user's sole remedy (and GSI's only obligation) is to repair or replace, at GSI's option and expense, products that in GSI's judgment, contain a material defect in materials or workmanship. Expenses incurred by or on behalf of the end-user without prior written authorization from the GSI Warranty Group shall be the sole responsibility of the end-user.

### Warranty Extensions:

The Limited Warranty period is extended for the following products:

|                                            | Product                                                       | Warranty Period |                                                                                                                                                                                         |
|--------------------------------------------|---------------------------------------------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>AP Fans and Flooring</b>                | Performer Series Direct Drive Fan Motor                       | 3 Years         | * Warranty prorated from list price:<br>0 to 3 years - no cost to end-user<br>3 to 5 years - end-user pays 25%<br>5 to 7 years - end-user pays 50%<br>7 to 10 years - end-user pays 75% |
|                                            | All Fiberglass Housings                                       | Lifetime        |                                                                                                                                                                                         |
|                                            | All Fiberglass Propellers                                     | Lifetime        |                                                                                                                                                                                         |
| <b>Cumberland Feeding/Watering Systems</b> | Feeder System Pan Assemblies                                  | 5 Years **      | ** Warranty prorated from list price:<br>0 to 3 years - no cost to end-user<br>3 to 5 years - end-user pays 50%                                                                         |
|                                            | Feed Tubes (1-3/4" and 2.00")                                 | 10 Years *      |                                                                                                                                                                                         |
|                                            | Centerless Augers                                             | 10 Years *      |                                                                                                                                                                                         |
|                                            | Watering Nipples                                              | 10 Years *      |                                                                                                                                                                                         |
| <b>Grain Systems</b>                       | Grain Bin Structural Design                                   | 5 Years         | † Motors, burner components and moving parts not included. Portable dryer screens included. Tower dryer screens not included.                                                           |
| <b>Grain Systems Farm Fans Zimmerman</b>   | Portable and Tower Dryers                                     | 2 Years         |                                                                                                                                                                                         |
|                                            | Portable and Tower Dryer Frames and Internal Infrastructure † | 5 Years         |                                                                                                                                                                                         |

GSI further warrants that the portable and tower dryer frame and basket, excluding all auger and auger drive components, shall be free from defects in materials for a period of time beginning on the twelfth (12<sup>th</sup>) month from the date of purchase and continuing until the sixtieth (60<sup>th</sup>) month from the date of purchase (extended warranty period). During the extended warranty period, GSI will replace the frame or basket components that prove to be defective under normal conditions of use without charge, excluding the labor, transportation, and/or shipping costs incurred in the performance of this extended warranty.

### Conditions and Limitations:

THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE LIMITED WARRANTY DESCRIPTION SET FORTH ABOVE. SPECIFICALLY, GSI MAKES NO FURTHER WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE IN CONNECTION WITH: (I) PRODUCT MANUFACTURED OR SOLD BY GSI OR (II) ANY ADVICE, INSTRUCTION, RECOMMENDATION OR SUGGESTION PROVIDED BY AN AGENT, REPRESENTATIVE OR EMPLOYEE OF GSI REGARDING OR RELATED TO THE CONFIGURATION, INSTALLATION, LAYOUT, SUITABILITY FOR A PARTICULAR PURPOSE, OR DESIGN OF SUCH PRODUCTS.

GSI shall not be liable for any direct, indirect, incidental or consequential damages, including, without limitation, loss of anticipated profits or benefits. The sole and exclusive remedy is set forth in the Limited Warranty, which shall not exceed the amount paid for the product purchased. This warranty is not transferable and applies only to the original end-user. GSI shall have no obligation or responsibility for any representations or warranties made by or on behalf of any dealer, agent or distributor.

GSI assumes no responsibility for claims resulting from construction defects or unauthorized modifications to products which it manufactured. Modifications to products not specifically delineated in the manual accompanying the equipment at initial sale will void the Limited Warranty.

This Limited Warranty shall not extend to products or parts which have been damaged by negligent use, misuse, alteration, accident or which have been improperly/inadequately maintained. This Limited Warranty extends solely to products manufactured by GSI.

Prior to installation, the end-user has the responsibility to comply with federal, state and local codes which apply to the location and installation of products manufactured or sold by GSI.

**This equipment shall be installed in accordance with the current installation codes and applicable regulations, which should be carefully followed in all cases. Authorities having jurisdiction should be consulted before installations are made.**

G S I G R O U P



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