

Retrofit Instructions for Tower Dryer Moisture Sampler Blower Kit

Installation Manual

PNEG-1982

Date: **09-29-20**



PNEG-1982

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Cautionary Symbol Definitions

Cautionary symbols appear in this manual and on product decals. The symbols alert the user of potential safety hazards, prohibited activities and mandatory actions. To help you recognize this information, we use the symbols that are defined below.



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



This symbol indicates a potentially hazardous situation which, if not avoided, **may result in serious injury or death.**



This symbol indicates a potentially hazardous situation which, if not avoided, **may result in minor or moderate injury.**



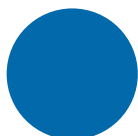
This symbol indicates a potentially hazardous situation which, if not avoided, **may result in property damage.**



This symbol indicates a general hazard.



This symbol indicates a prohibited activity.



This symbol indicates a mandatory action.

Safety Instructions

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.

Follow Safety Instructions

- Carefully read and follow all safety messages in this manual and safety signs on your machine. Keep signs in good condition. Replace missing or damaged safety signs. Replacement safety signs are available from the manufacturer.
- Learn how to operate the machine correctly. Do not operate without instruction.
- If you do not understand any part of this manual or need assistance, contact your dealer.



Install and Operate Electrical Equipment Properly

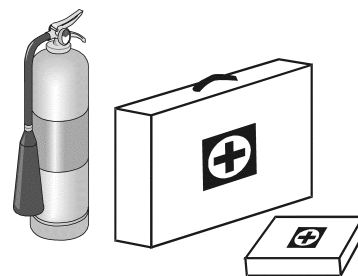
- Electrical controls should be installed by a qualified electrician and must meet the standards set by the National Electric Code, Canadian Electrical Code and all local and state codes.
- Disconnect and lock out all power sources before installing wires/cables or servicing equipment.



1. Safety

Prepare for Emergencies

- Be prepared if fire starts.
- Keep a first aid kit and fire extinguisher handy.
- Keep emergency numbers for doctors, ambulance service, hospital, and fire department near your telephone.



**Keep Emergency Equipment
Quickly Accessible**

Use Personal Protective Equipment

- Use appropriate personal protective equipment:

Eye Protection



Head Protection



Hearing Protection



Foot Protection



Hand Protection



Fall Protection



Respiratory Protection



- Wear clothing appropriate to the job.
- Remove all jewelry.
- Tie long hair up and back.

2. Installing a Moisture Sampler Blower to a Tower Dryer

These instructions cover the Moisture Sampler Blower Retrofit Kits for 220V, 440V and 575V Tower Dryers.

Replacing the Front Panel on a Moisture Sampler Blower Assembly

1. Remove the moisture sensor from the front panel. *(See Figure 2A.)*
2. Remove the existing front panel (A) from the moisture sampler assembly.
3. Remove the finger guard (B) from the front panel (A). *(See Figure 2B.)*

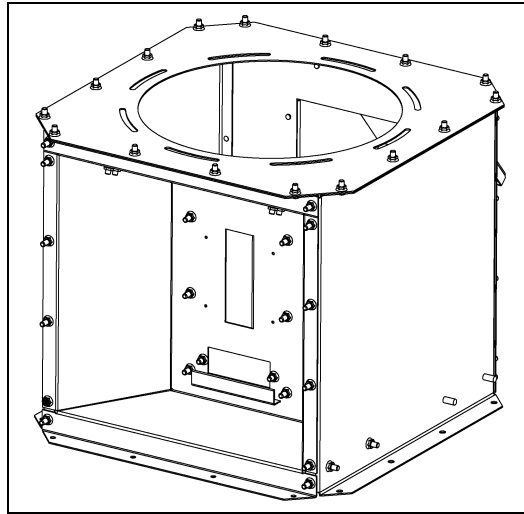


Figure 2A *Moisture Sensor Removed*

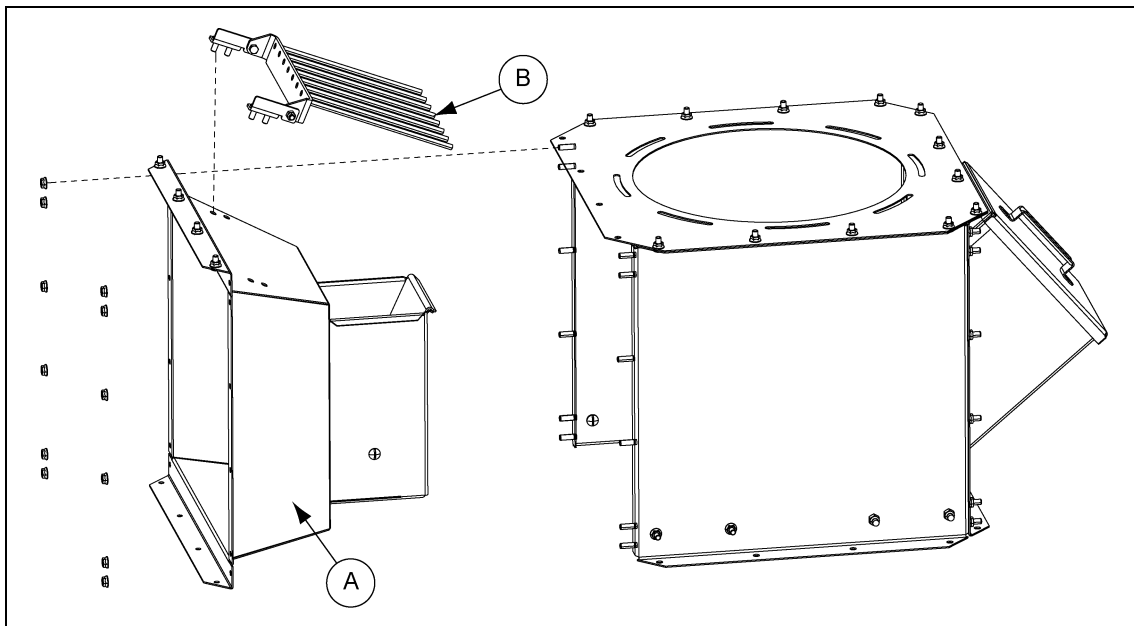


Figure 2B *Front Panel and Finger Guard Removed*

Ref #	Part #	Description
A	GT4-1541	Panel, Front Dryer Master Box
B		Finger Guard

2. Installing a Moisture Sampler Blower to a Tower Dryer

4. Re-install the finger guard (B) and moisture sensor to the new front panel assembly (A).
5. Install the new front panel (A) to the moisture sampler assembly. ([See Figure 2C.](#))

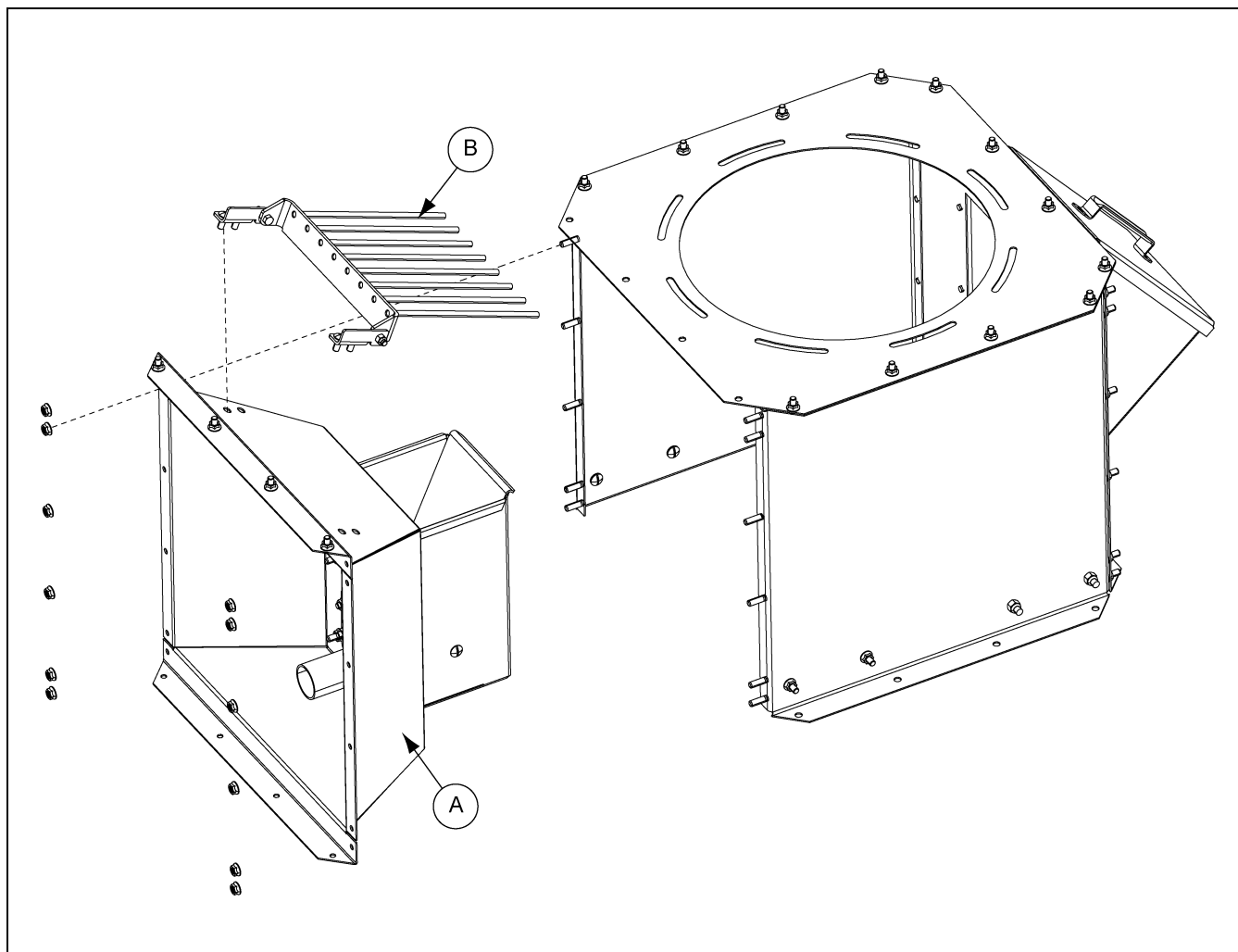


Figure 2C *Installing New Front Panel*

Ref #	Part #	Description
A	GT4-1541	Panel, Front Dryer Master Box
B		Finger Guard

Installing the Blower to the Moisture Sampler Housing

1. Install the left and right blower mounting plates (A and B) to the moisture sampler housing flanges, using the existing hardware.
2. Install the blower mounting bracket (C and D) to the left and right blower mounting plates (A and B) using 5/16" x 3/4" bolts and nuts.
3. Install the blower cover weldment (D04-1017-BK) to the blower mounting brackets (C and D) using 5/16" nuts. (*See Figure 2D.*)

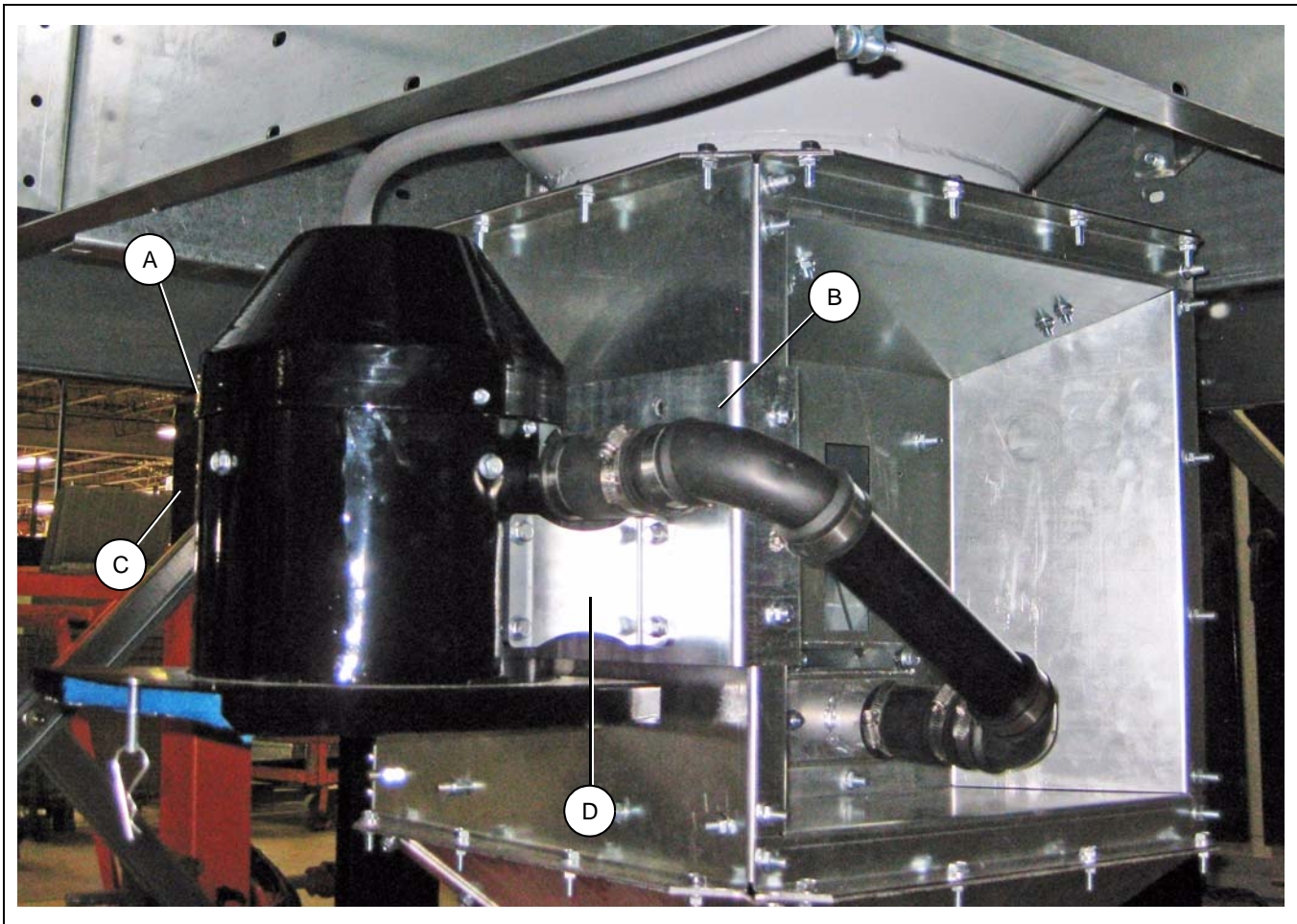


Figure 2D

Ref #	Part #	Description
A	GT1-2385	Blower Mounting Plate L.H.
B	GT1-2389	Lower Mounting Plate R.H.
C	D01-2952	Bracket, Moisture Sampler Blower Housing
D	D01-2959	Bracket, Blower Mount, Short

2. Installing a Moisture Sampler Blower to a Tower Dryer

Installing the Blower Hose

1. Install the flexible pipe coupler (A) to the blower and to the blower moisture tube weldment (GT4-1532).
2. Connect a black ABS pipe (C) to the end of each of the flexible pipe couplers (A).
3. Connect a flexible pipe elbow (B) to the end of each of the black ABS pipe (C).
4. Install the black ABS pipe (D) between the flexible pipe elbows (B).
5. Fasten all hose connections using a hose clamps (AP-0583). *(See Figure 2E.)*

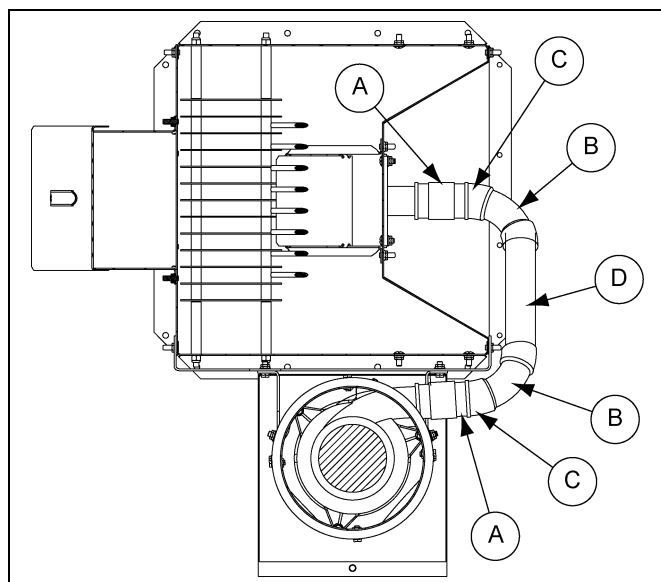


Figure 2E

Ref #	Part #	Description
A	D03-1205	Fitting, Flexible Pipe Coupler, 1-1/2" x 3-7/16" Long
B	D03-1203	Fitting, Flexible Pipe Elbow, 1-1/2" 90°
C	GT1-2390	Pipe, Black ABS 1-1/2" x 2-1/4"
D	GT1-2391	Pipe, Black ABS 1-1/2" x 9-3/4"

6. Install electrical components and wire according to the electrical schematic. *(See Pages 17-19.)*

NOTE: *If using 440V, install the transformer on the tower leg.*



Figure 2F

3. Control Panel Modifications

PLC Controlled dryers require an additional timer, not included. Dryers using vision controls, follow the instructions below.

1. Locate dipswitch on display I/O board. (See Figure 3A.)

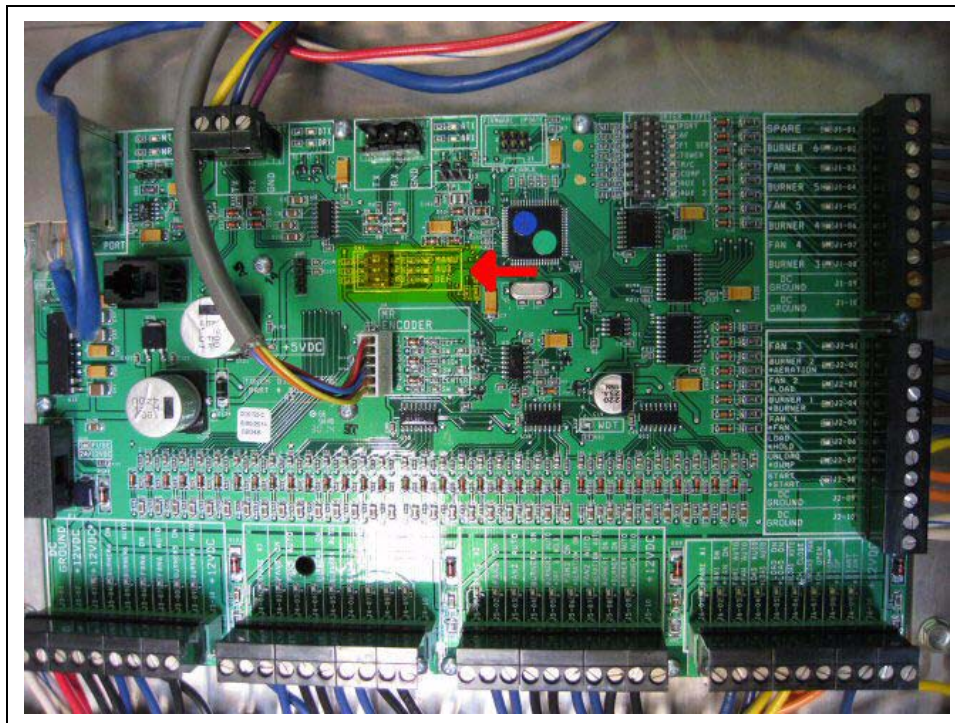


Figure 3A

2. Set AUX dipswitch closeup. (See Figure 3B.)

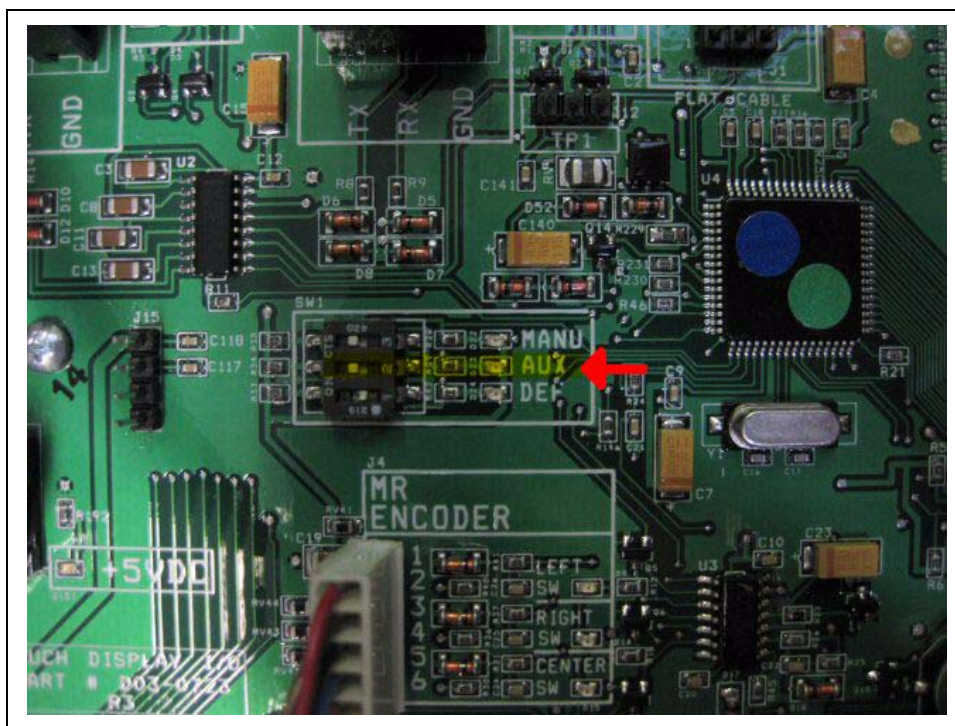


Figure 3B

3. Control Panel Modifications

3. Select Setup on main screen. (See Figure 3C.)

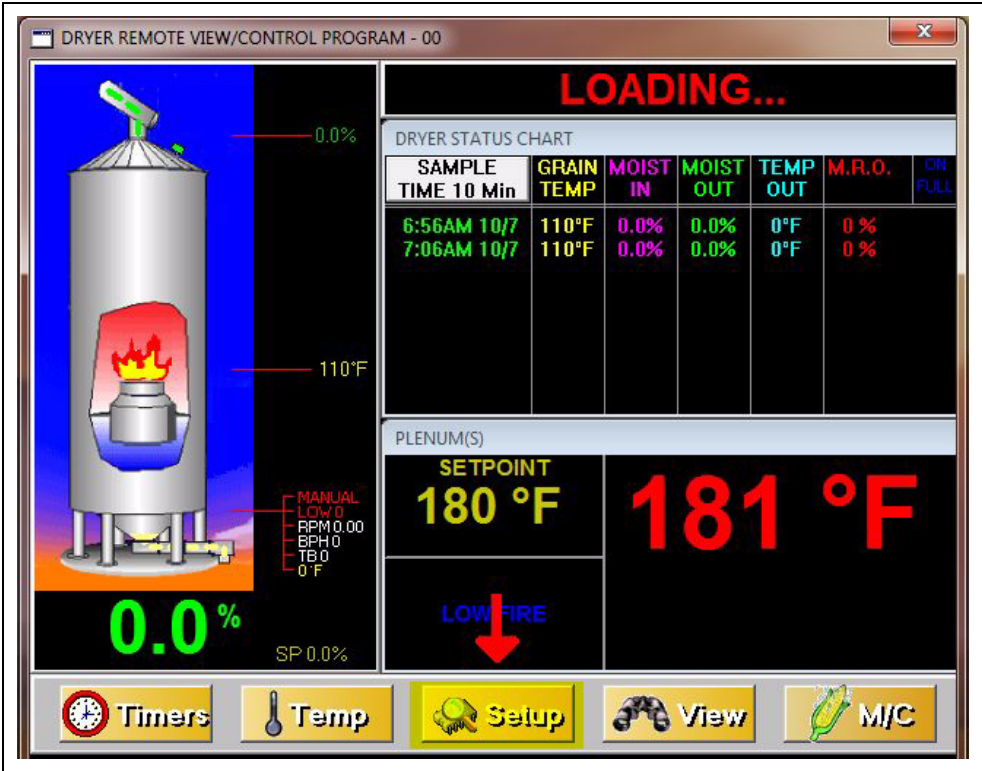


Figure 3C

4. Select Extended Setup on setup screen. (See Figure 3D.)

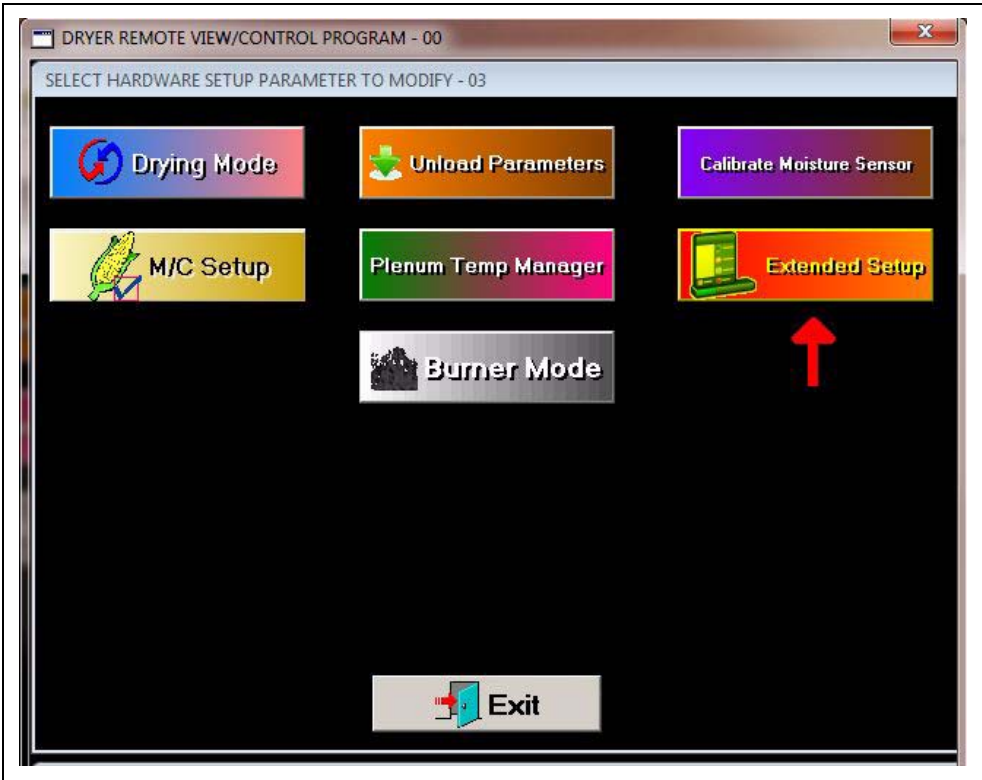


Figure 3D

5. Select Dryer Model on extended setup screen. (See Figure 3E.)

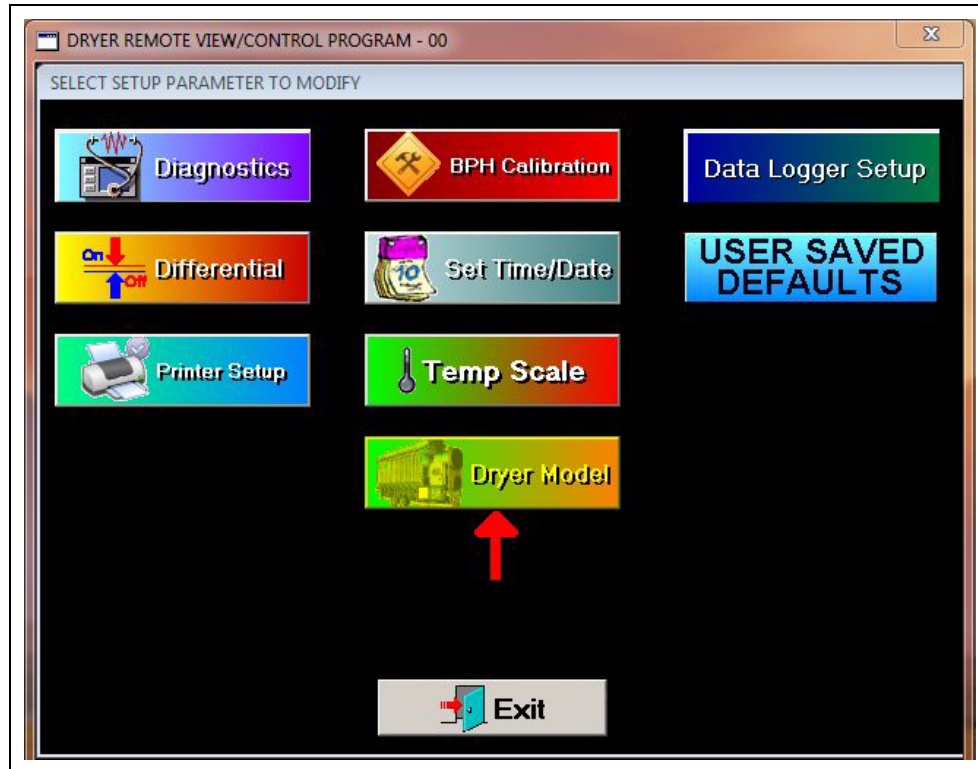


Figure 3E

6. Select enable moisture sampler cycled mode in dryer model setup. (See Figure 3F.)

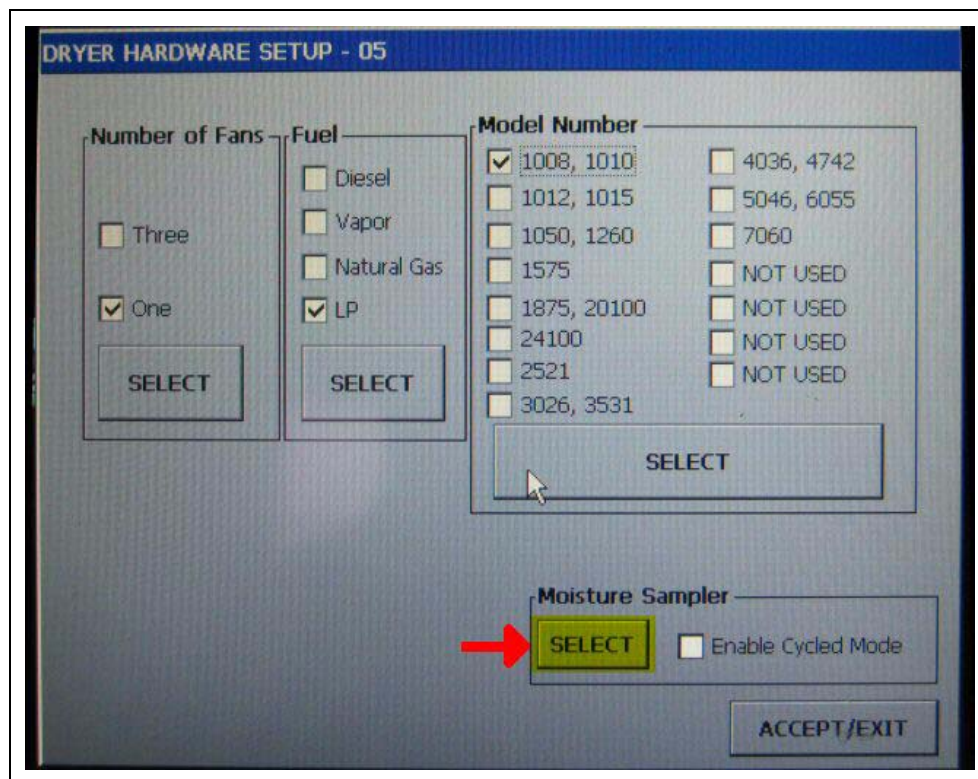
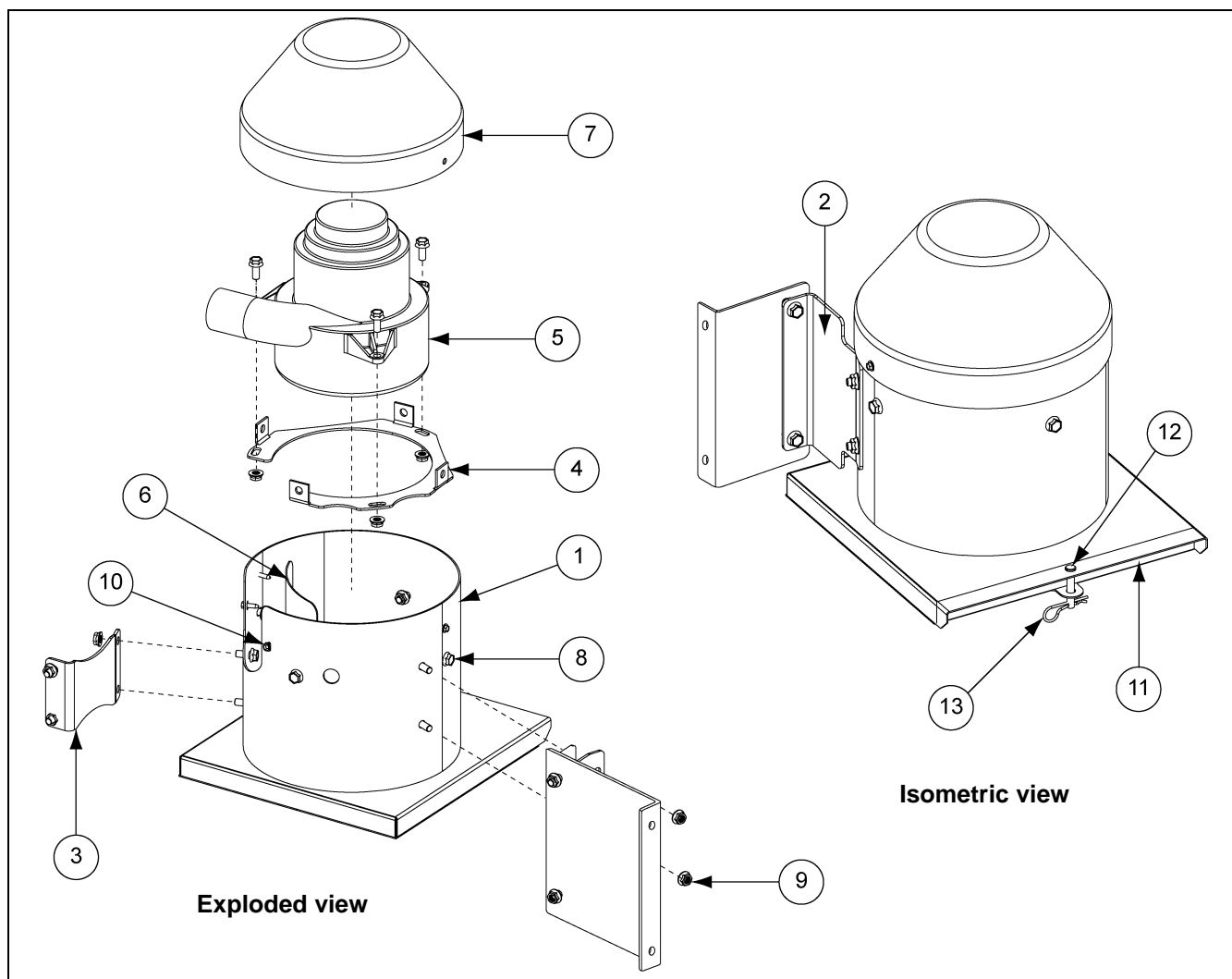


Figure 3F

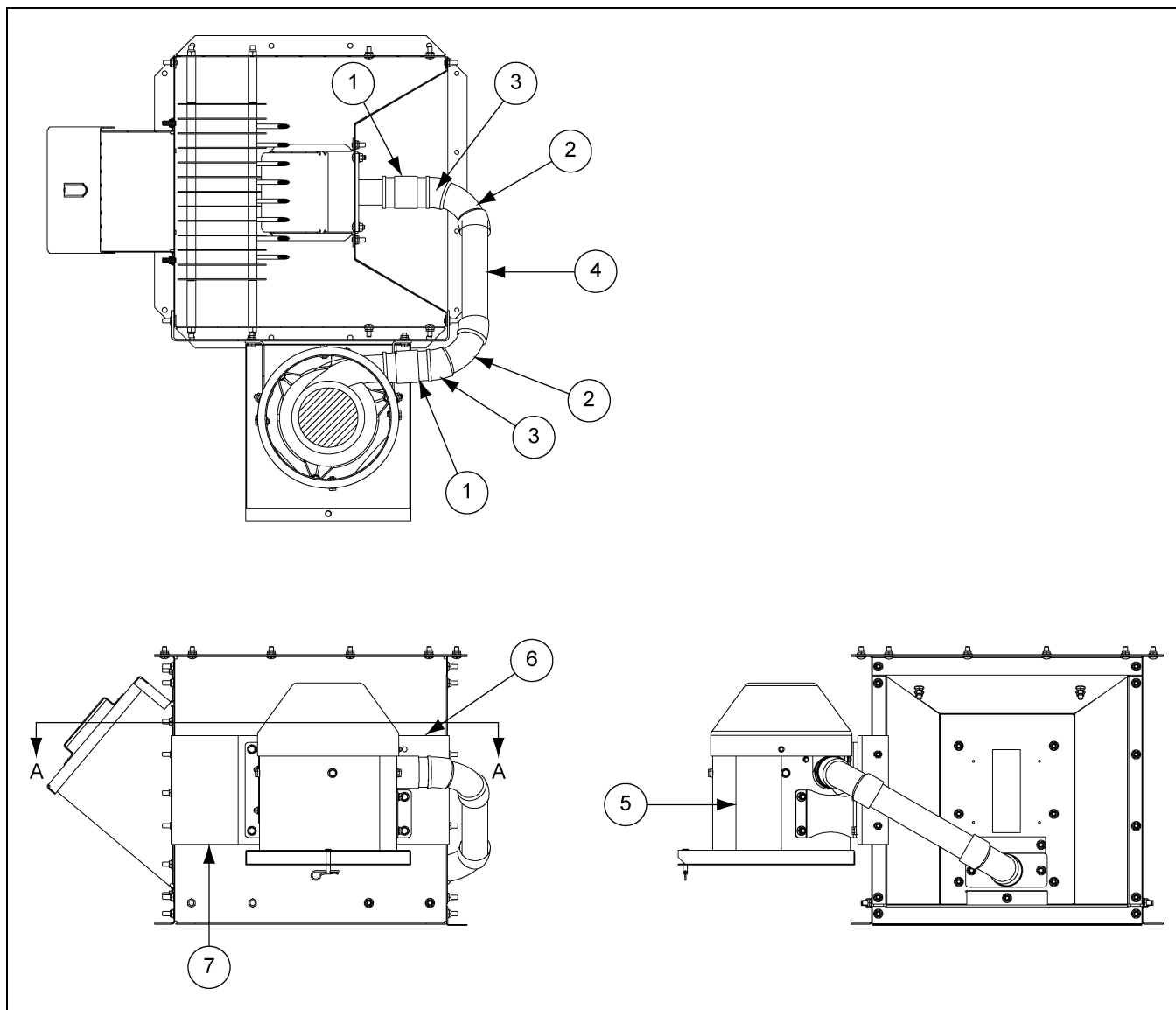
Blower Cover Assembly (D04-1016)



Blower Cover Assembly (D04-1016) Parts List

Ref #	Part #	Description	Qty
1	D04-1017-BK	Blower Cover Weldment	1
2	D01-2952	Moisture Sampler Blower Housing Bracket	1
3	D01-2959	Blower Mount Short Bracket	1
4	D01-2953	Blower Mount Bracket	1
5	D03-1181	Blower 120V VAC, 50/60 Hz	1
6	D01-2954	Seal Plate, Blower Housing	1
7	D04-1021-BK	10" Vertical Cap Black	1
8	S-6606	Flange Bolt 5/16"-18 x 3/4" ZN Grade 5	15
9	S-3611	Flange Nut 5/16"-18 YDP Grade 2	15
10	S-280	Screw, SDS #10-16 x 5/8" HWH ZN	4
11	D03-1189	Filter, Reusable Rigid Polyester Air, 12" x 12" x 1"	1
12	D02-0028	Clevis Pin 5/16" x 1-3/4" Long Zinc	1
13	S-7375	Cotter Pin, Hairpin 0.93" Wire Diameter	1

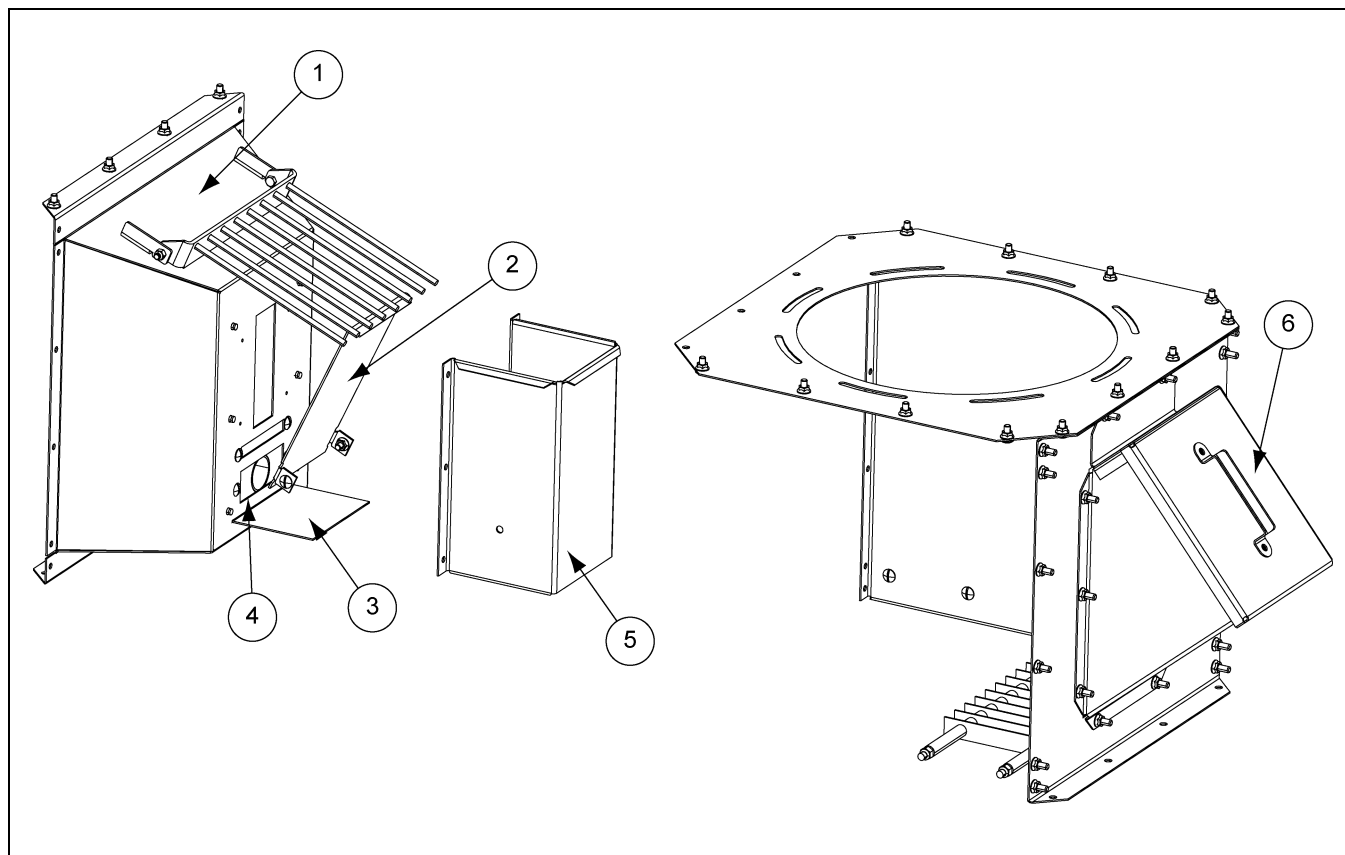
Moisture Sampler Hose Assembly



Moisture Sampler Hose Assembly Parts List

Ref #	Part #	Description
1	D03-1205	Fitting, Flexible Pipe Coupler, 1-1/2" x 3-7/16" Long
2	D03-1203	Fitting, Flexible Pipe Elbow, 1-1/2" 90°
3	GT1-2390	Pipe, Black ABS 1-1/2" x 2-1/4"
4	GT1-2391	Pipe, Black ABS 1-1/2" x 9-3/4"
5	D04-1016	Blower, Cover Assembly
6	GT1-2389	Lower Mounting Plate R.H.
7	GT1-2385	Blower Mounting Plate L.H.

Moisture Sensor Housing Parts



Moisture Sensor Housing Parts List

Ref #	Part #	Description
1	801-2377-1-MB	Panel, Front Dryer Master Box
2	GT1-2362	Cover Plate, Blower Moisture Sampler
3	GT1-2383	Moisture Sampler Blower Kit Cleanout Plate
4	GT1-2384	Window, Dryer Master Box
5	GT1-2364	Box, Inner for Blower Moisture Sampler
6		Access Door

220V Moisture Sampler Blower Wiring

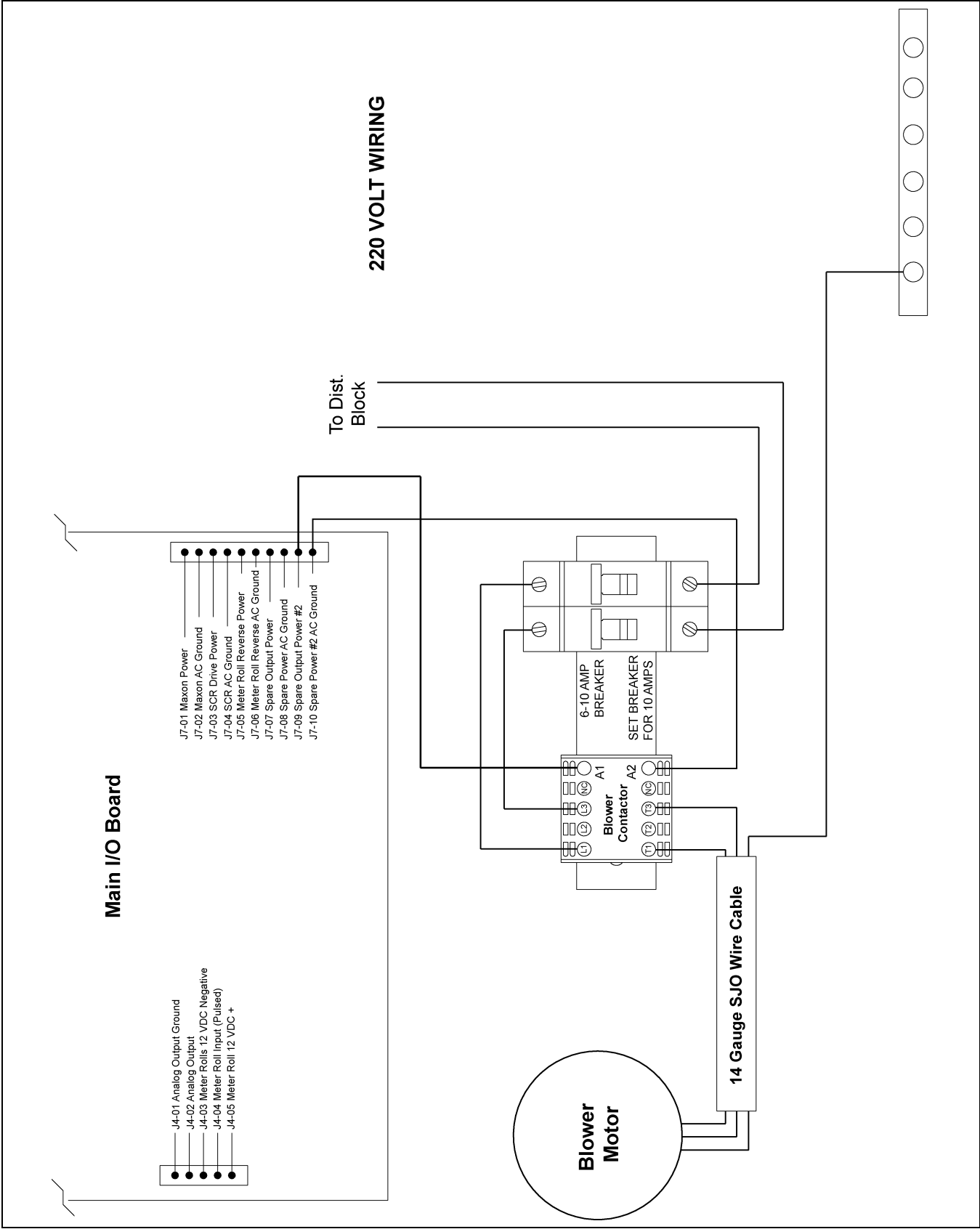


Figure 5A 220V Blower Motor Wiring

440V Moisture Sampler Blower Wiring

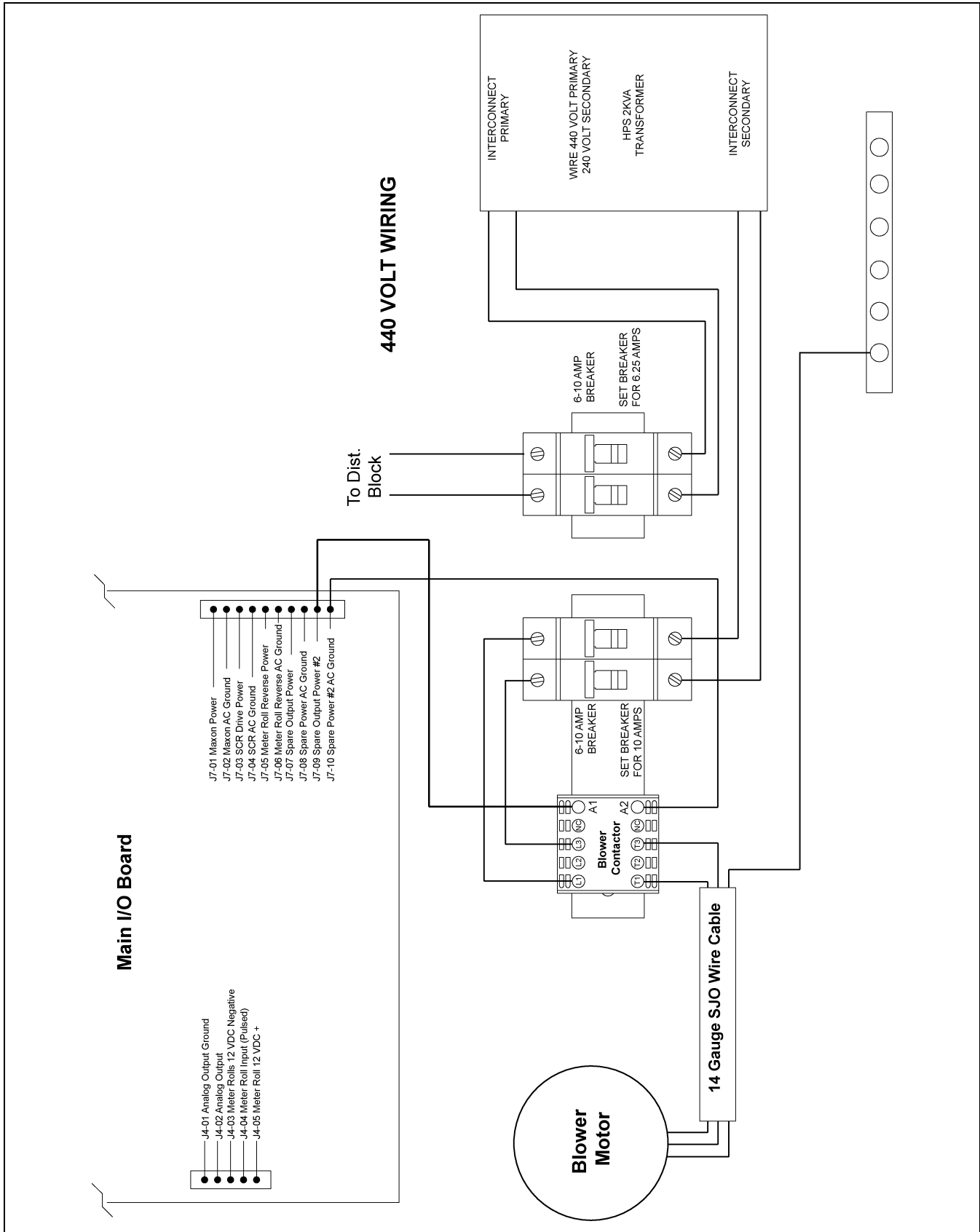


Figure 5B 440V Blower Motor Wiring

575V Moisture Sampler Blower Wiring

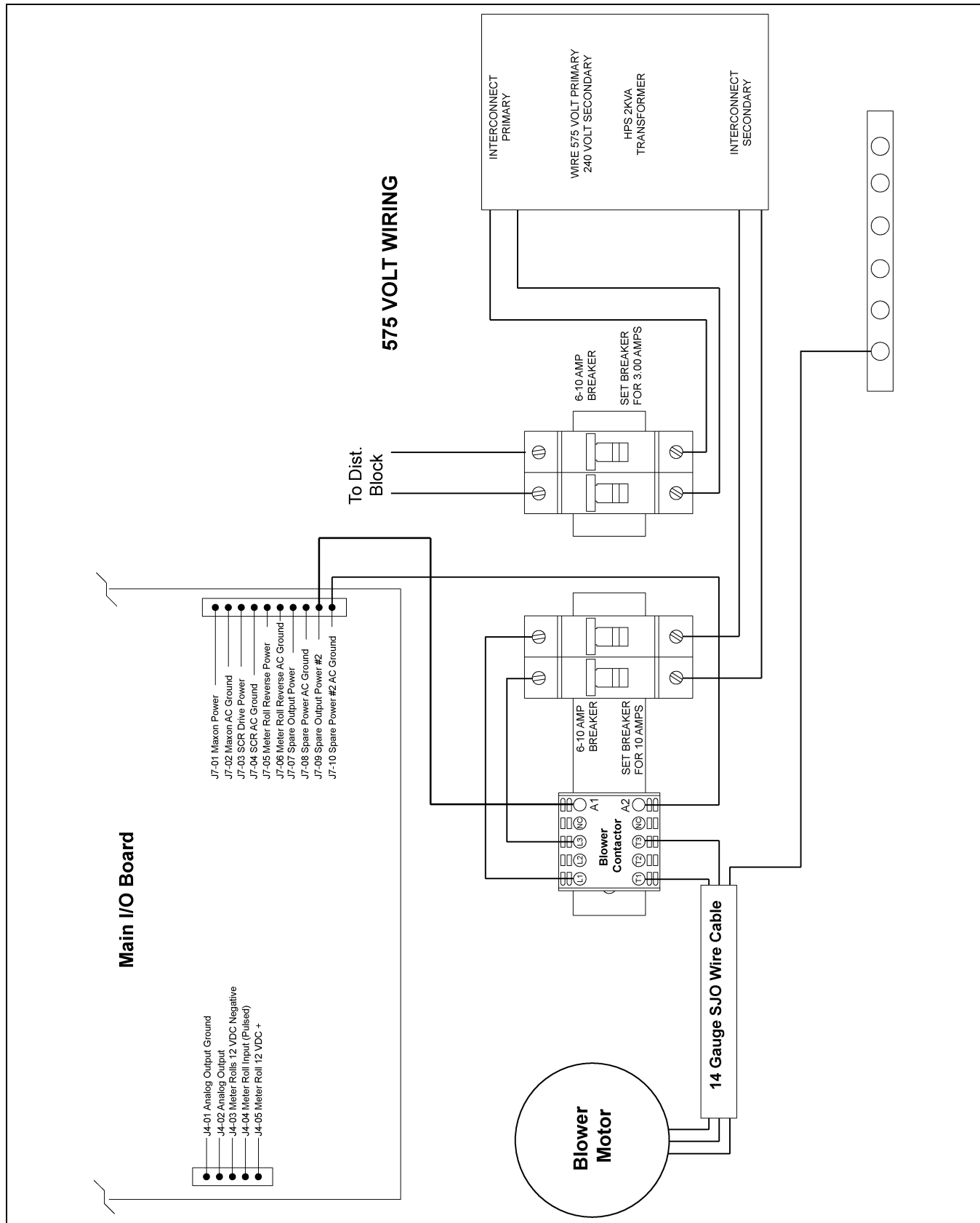


Figure 5C 575V Blower Motor Wiring

NOTES

Limited Warranty — N.A. Grain Products

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 from the date of shipment (or, if shipped by vessel, 14 months from the date of arrival at the port of discharge). If, in GSI's sole judgment, a product is found to have a defect in materials and/or workmanship, GSI will, at its own option and expense, repair or replace the product or refund the purchase price. This Limited Warranty is subject to extension and other terms as set forth below.

Warranty Enhancements: The warranty period for the following products is enhanced as shown below and is in lieu of (and not in addition to) the above stated warranty period. (Warranty Period is from date of shipment.)

	Product	Warranty Period
Storage	Grain Bin Structural Design	5 Years
	• Sidewall, roof, doors, platforms and walkarounds • Flooring (when installed using GSI specified floor support system for that floor) • Hopper tanks (BFT, GHT, NCHT, and FCHT)	
Conditioning	Dryer Structural Design – (Tower, Portable and TopDry) • Includes (frame, portable dryer screens, ladders, access doors and platforms)	5 Years
	All other Dryer parts including: • Electrical (controls, sensors, switches and internal wiring)	2 Years
	All Non-PTO Driven Centrifugal and Axial Fans	3 Years
	Bullseye Controllers	2 Years
Material Handling	Bucket Elevators Structural Design	5 Years
	Towers Structural Design	5 Years
	Catwalks Structural Design	5 Years
	Accessories (stairs, ladders and platforms) Structural Design	5 Years

Conditions and Limitations:

THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE LIMITED WARRANTY DESCRIPTION SET FORTH HEREIN; SPECIFICALLY, GSI DISCLAIMS ANY AND ALL OTHER WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE IN CONNECTION WITH: (I) ANY 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.

The sole and exclusive remedy for any claimant is set forth in this Limited Warranty and shall not exceed the amount paid for the product purchased. This Warranty only covers the value of the warranted parts and equipment, and does not cover labor charges for removing or installing defective parts, shipping charges with respect to such parts, any applicable sales or other taxes, or any other charges or expenses not specified in this Warranty. GSI shall not be liable for any other direct, indirect, incidental or consequential damages, including, without limitation, loss of anticipated profits or benefits. Expenses incurred by or on behalf of a claimant without prior written authorization from the GSI warranty department shall not be reimbursed. 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. Prior to installation, the end-user bears all responsibility to comply with federal, state and local codes which apply to the location and installation of the products.

This Limited Warranty extends solely to products sold by GSI and does not cover any parts, components or materials used in conjunction with the product, that are not sold by GSI. GSI assumes no responsibility for claims resulting from construction defects, unauthorized modifications, corrosion or other cosmetic issues caused by storage, application or environmental conditions. Modifications to products not specifically delineated in the manual accompanying the product at initial sale will void all warranties. 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.

Notice Procedure:

In order to make a valid warranty claim a written notice of the claim must be submitted, using the RMA form, within 60 days of discovery of a warrantable nonconformance. The RMA form is found on the OneGSI portal.

Service Parts:

GSI warrants, subject to all other conditions described in this Warranty, Service Parts which it manufactures for a period of 12 months from the date of purchase unless specified in Enhancements above.

(Limited Warranty - N.A. Grain Products_ revised 01 October 2020)

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.



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