



HS689 Feed Line Control Unit Switch Assembly – 230V Single Phase

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.

Unless otherwise specified, all Feed Delivery Systems (Diameters) are installed similarly.

Note: Control Unit Switch Assembly is to be wired in accordance with all applicable local and national electrical wiring codes. All wiring sizes and fuse capacities are to be sized according to applicable electrical code specifications or other regulations.

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.

Overview:

The HS689 Control Unit Switch Assembly is designed for use with a flexible auger feed system where control of an auger drive motor is required. Power to the auger drive motor is done through feed pressure being applied to a diaphragm coupled to an electrical switch internal to the control unit housing. This switch in conjunction with a multi pole relay is used to control the auger drive motor by turning off the power when feed is present and turning on the power when feed has been removed from the control unit housing. Auxiliary switch inputs provide a series circuit that allows the Control Unit Switch Assembly to be controlled by a variety of methods including hopper level, drop tube, proximity and various other control devices found in feed systems.

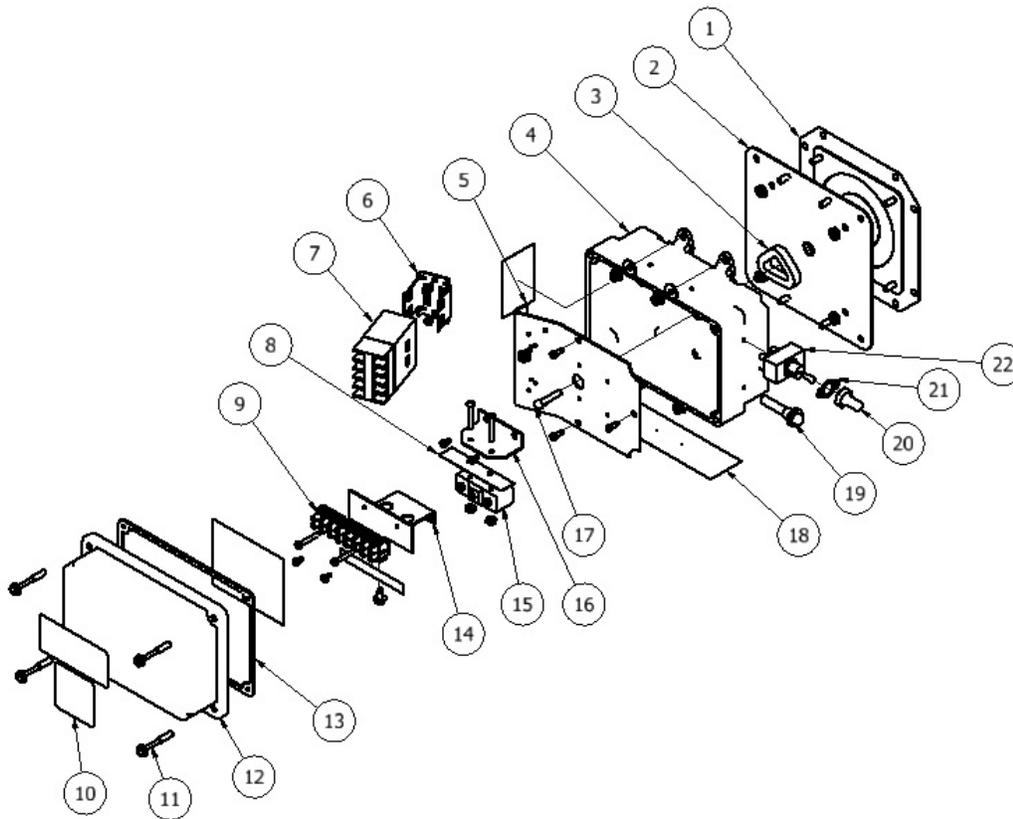
The sensitivity of the electrical switch is not adjustable.

ELECTRICAL RATING : 1 ½ HP @ 230VAC MAX, 1 PHASE

A red indicator light on the side of the switch housing will illuminate when the diaphragm has been pressed (MOTOR OFF) and the switch has been activated.

The ON/OFF switch is used to enable or disable the Control Unit. **DO NOT USE THIS SWITCH AS DISCONNECTING MEANS FOR SERVICING.**

HS689 Control Unit Switch Assembly



Parts List of serviceable components

REF #	PART #	DESCRIPTION	REF #	PART #	DESCRIPTION
1	HS582	DIAPHRAGM ASSEMBLY	12	HS589-2	COVER, SWITCH HOUSING
2	HS589-8	ASSY-PLATE, MOUNT CONTROL BOX	13	HS589-3	GASKET
3	HS529-45	PLUNGER SEAL	14	HS689-6	BRACKET, TERMINAL MOUNT OFFSET
4	HS589-1	BOX, SWITCH HOUSING	15	EL1052M	SNAP ACTION 20A @ 250VAC SWITCH
5	HS589-4	COMPONENT MOUNT PLATE	16	HS589-5	SWITCH MOUNT
6	EL1081	RELAY BRACKET	17	HS589-6	SWITCH PIN
7	EL1080	RELAY, MULTIPOLE, NO 208-240V, 25A	18	HSLABEL-104	LABEL, LIQUID TIGHT CONNECTOR LOCATION
8	HS529-50	INSULATOR, SWITCH-MYLAR	19	EL1079	INDICATOR LAMP, RED, 250 VAC
9	EL1161	Terminal Strip 8 Position 10 AWG Max	20	EL1083	TOGGLE SWITCH BOOT COVER
10	HSLABEL-008	WARNING- SHOCK HAZARD DECAL	21	EL1082	LEGEND PLATE
11	60932	Screw #10-16 x 1-1/4" SS	22	EL1011	SWITCH, TOGGLE DPST, 20A @ 250V, 1 ½ HP

Installation:

1. (Figure 1) Illustrates a typical installation example of the HS689 Control Unit Switch Assembly to a HS693 or other OEM Control Units.
 - a. Mount tube anchor to one side using (4) 5/16" x 3/4" bolts with (4) flat washers.
 - b. Mount auger power drive unit gear box secured with (4) 5/16" x 3/4" bolts and (4) flat washers.

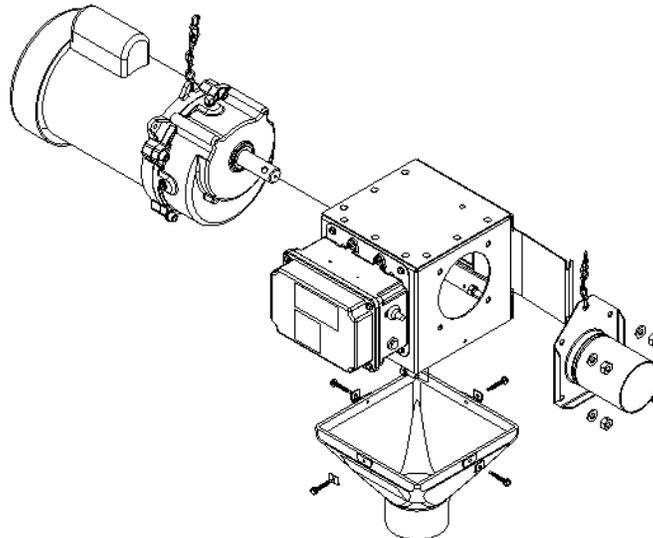
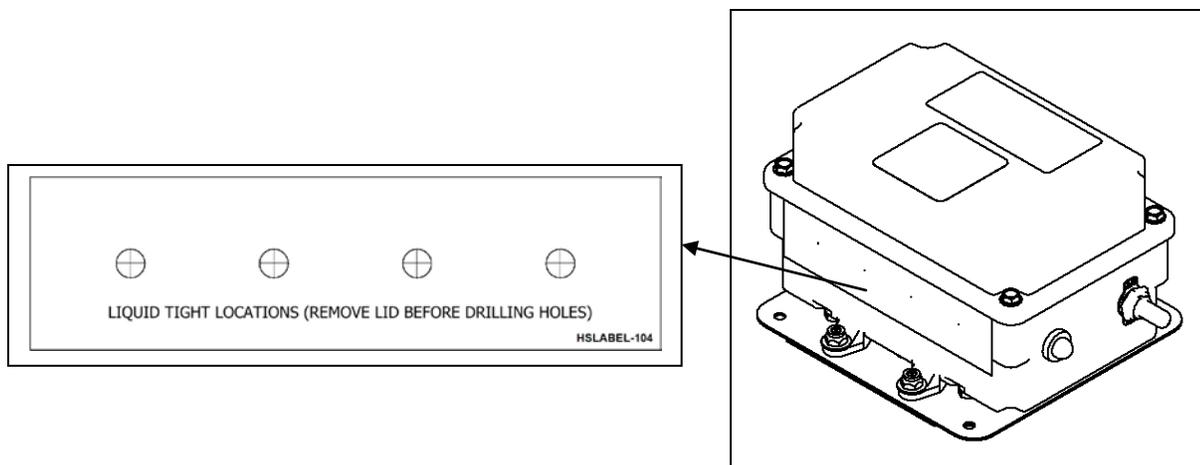
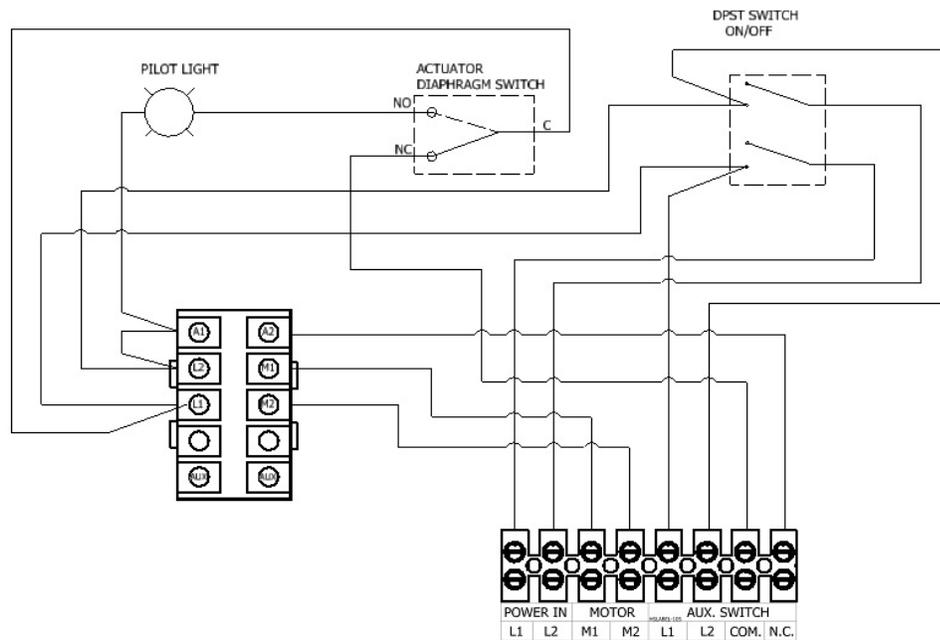


FIGURE 1

2. The HS689 Control Unit must be hardwired. See (Figure 2) for factory wiring diagram.
3. See "Wiring Instructions" for external wiring for various connection options.
4. When using external control switches such as a **Hopper Level Control Switch**, switch should be wired as "Normally Closed" contact.
5. A jumper wire between "COM" and "N.C." at the AUX. SWITCH input terminal is provided. Leave in place if no external control switch is to be used.
6. A temporary drill template is affixed on the outside of the enclosure indicating where to install up to (4) 1/2" non-metallic liquid tight strain relief cord connectors. Location of template provides bottom entry into the enclosure and allowing sufficient clearance to internal components. Care should be taken (including removing enclosure lid /cover) when drilling holes to ensure no internal components are damaged during drilling. **DO NOT USE RIGID CONDUIT.**

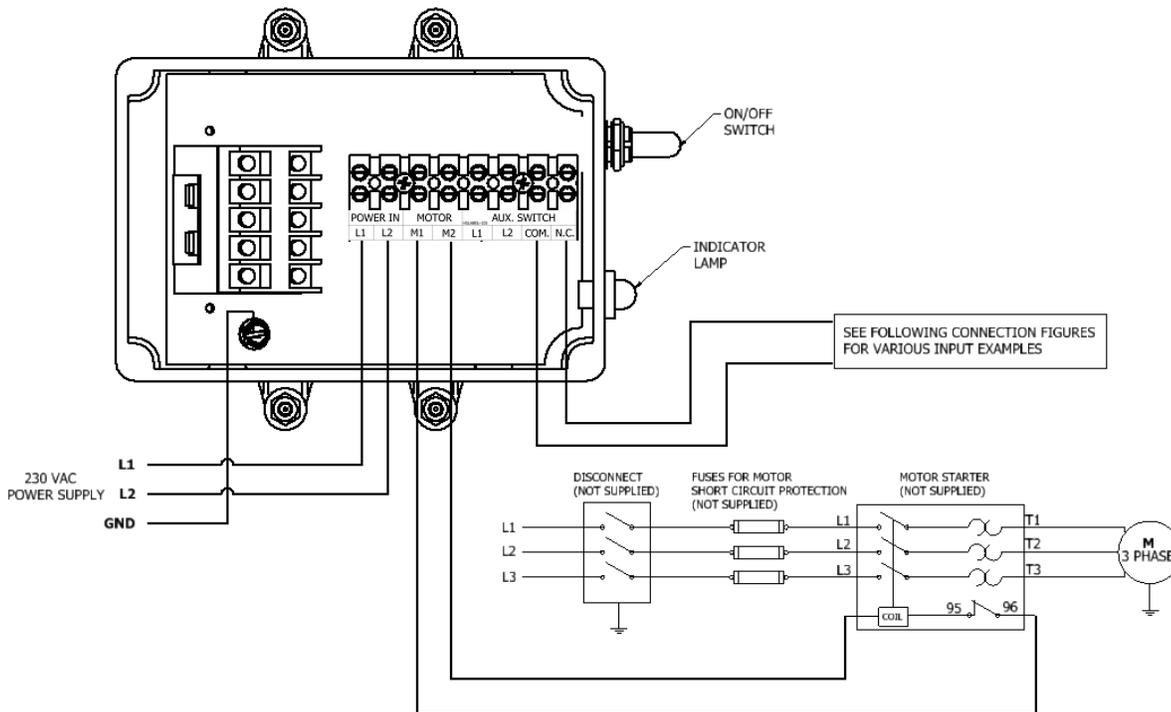


FACTORY WIRING DIAGRAM – FIGURE 2



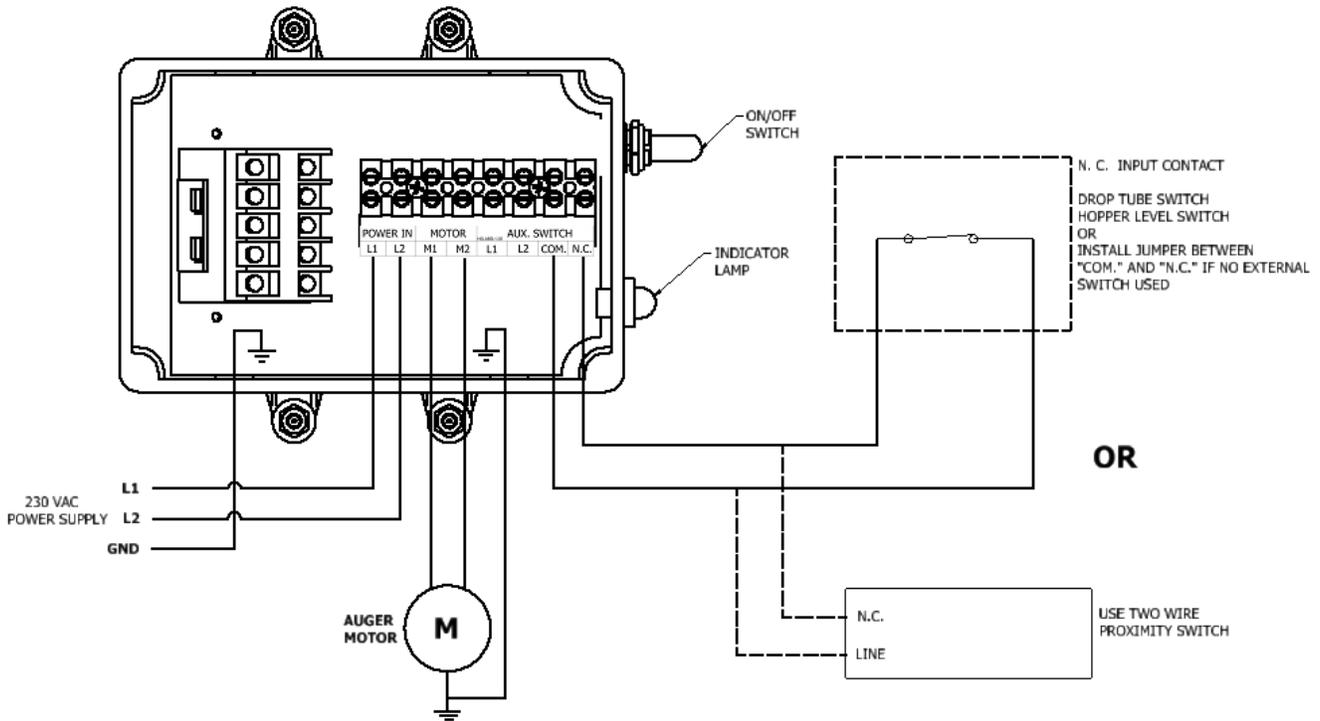
WIRING INSTRUCTIONS

THREE PHASE – 50/60Hz WITH MOTOR STARTER:

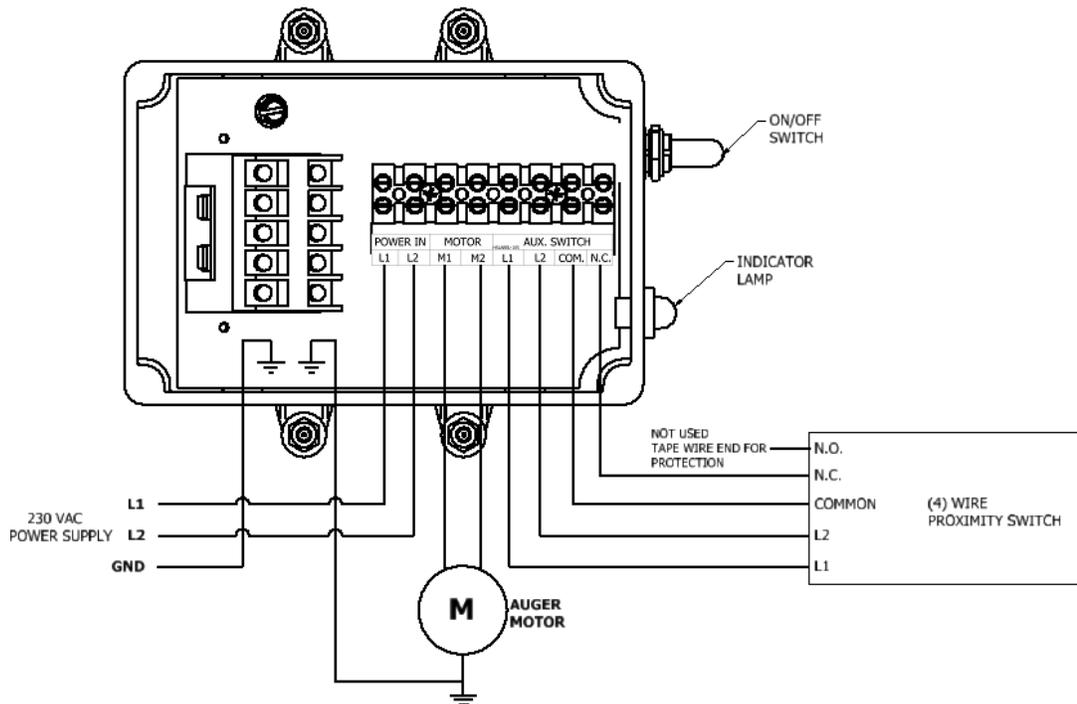


SINGLE PHASE 50/60 Hz MOTORS WITH VARIOUS INPUT CONNECTIONS:

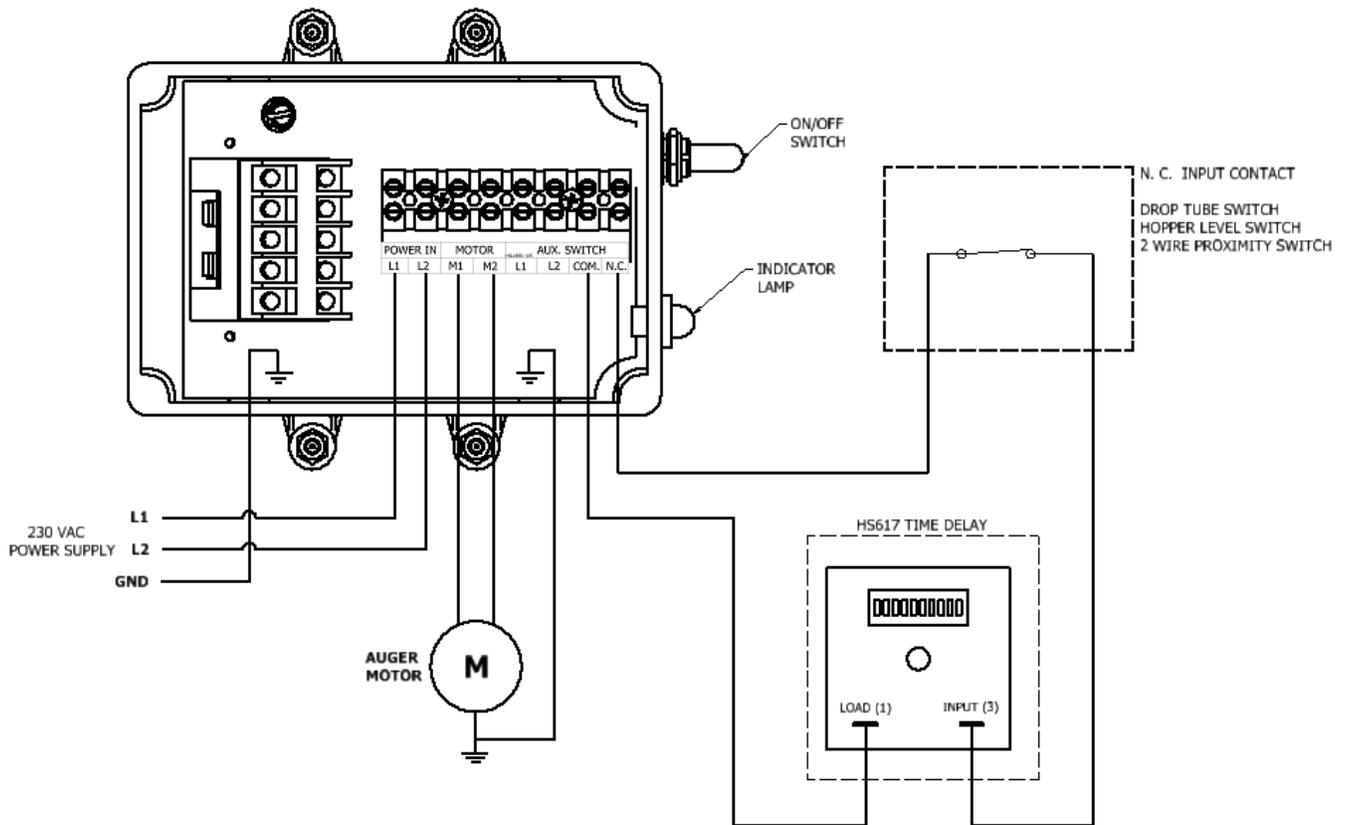
TWO WIRE SWITCH (N.C. CONTACTS):



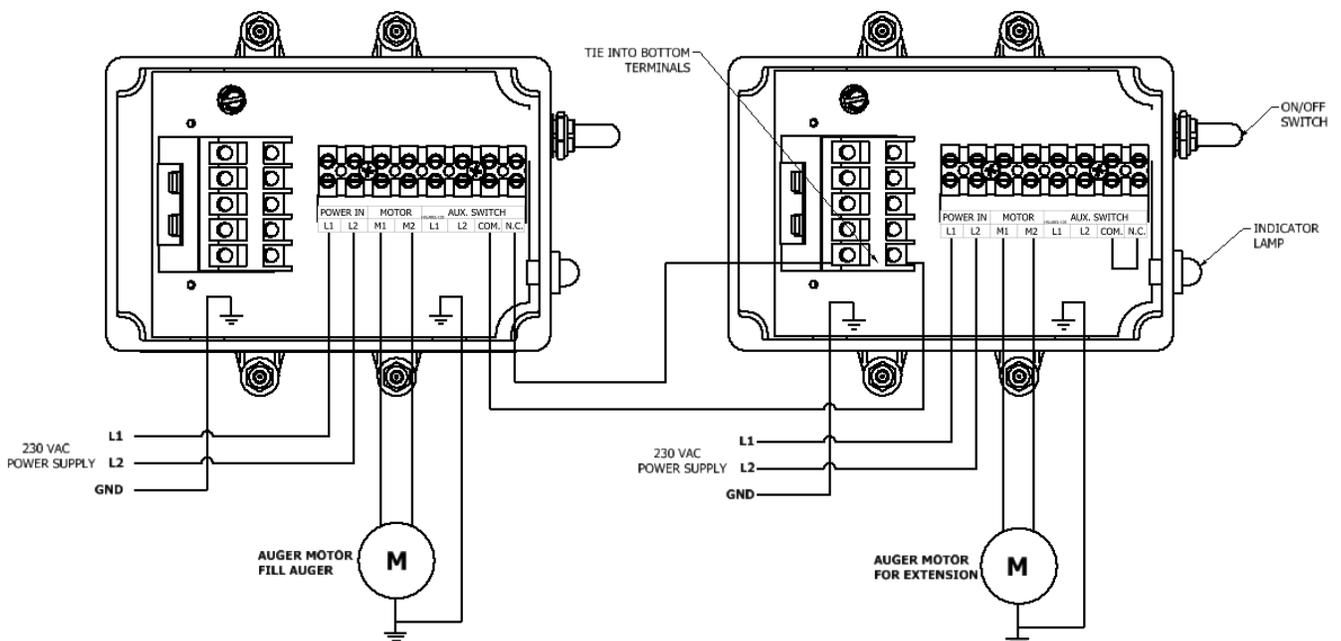
FOUR WIRE PROXIMITY SWITCH:



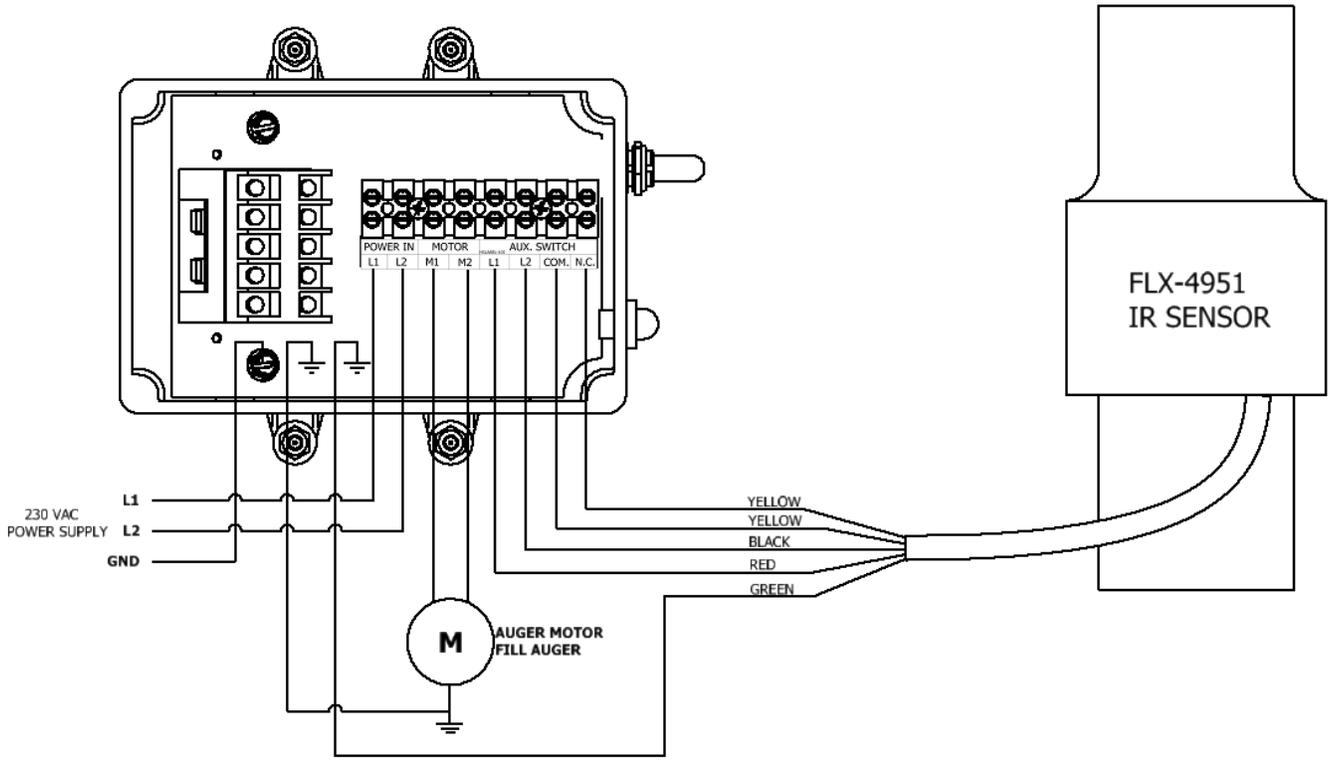
WITH OPTIONAL TIME DELAY:



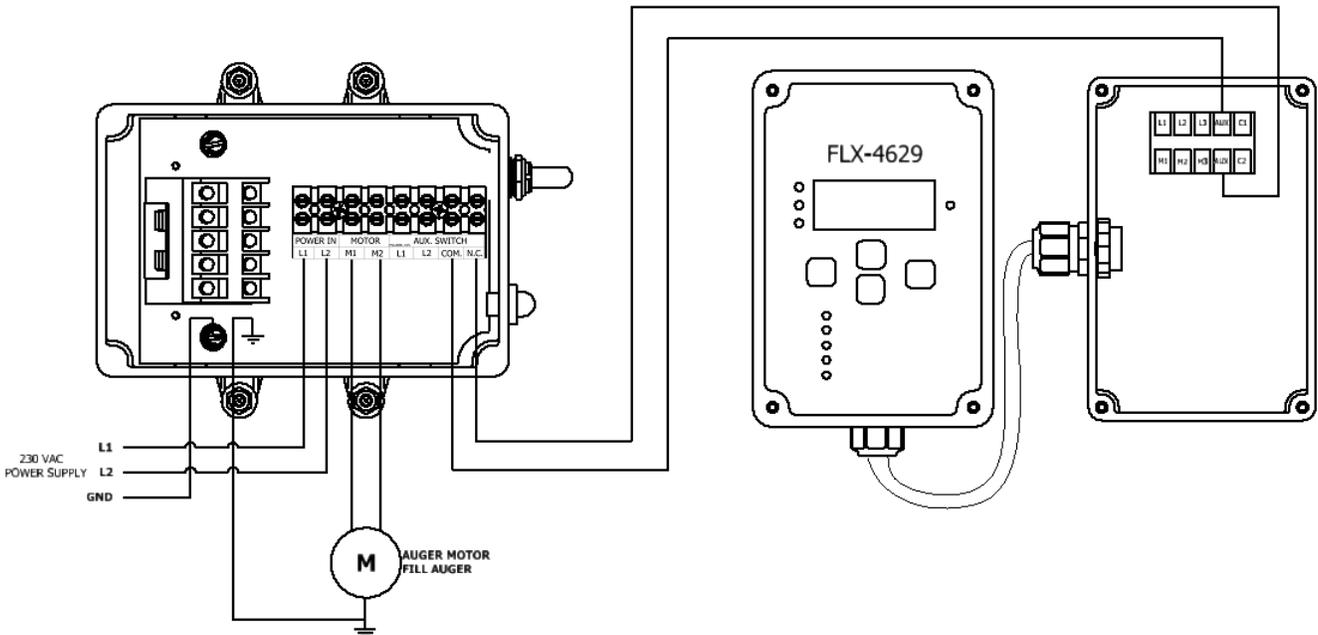
WITH EXTENSION GROW-FLEX™ AUGER USING TWO HS693 CONTROL UNITS



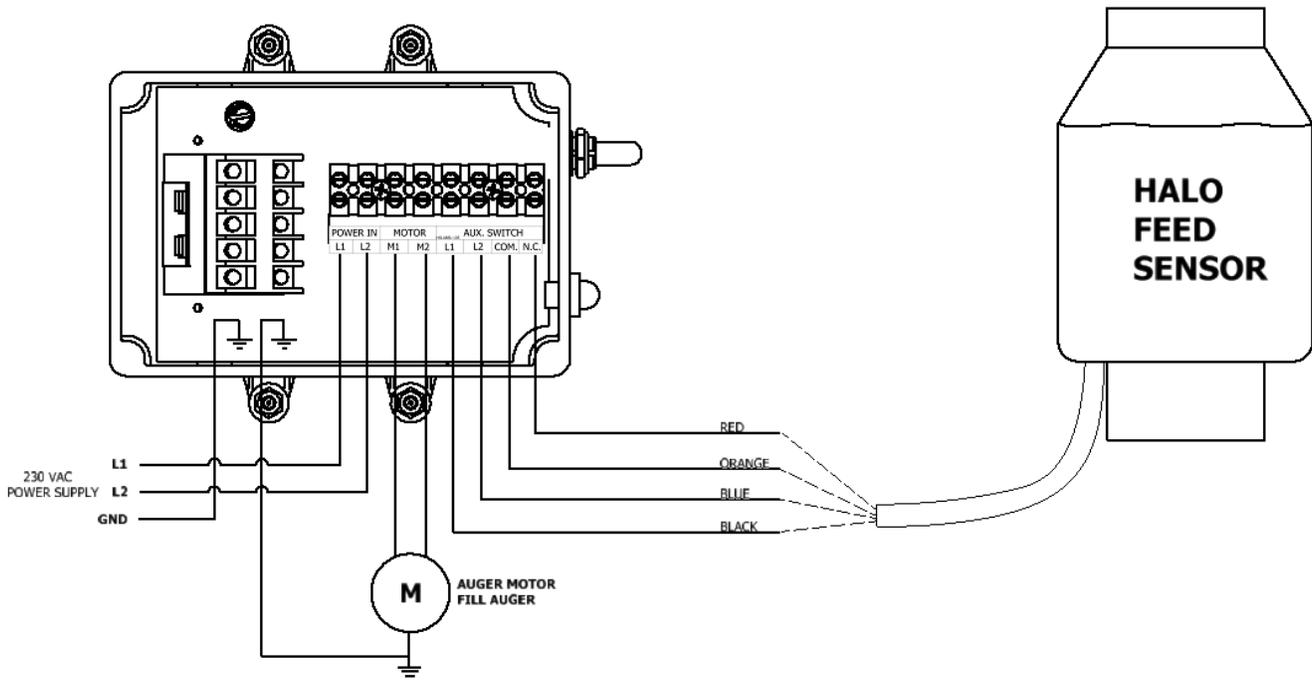
GSI SMART IR® SENSOR:



GSI SMARTFLEX® CONTROL



HALO JR MAX FEED SENSOR



NOTES



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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.

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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.



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