

GrowerSELECT® HS676 Control Unit for HSSD-CU – 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.

Do not connect rigid conduit to the enclosure (box switch housing).

Overview:

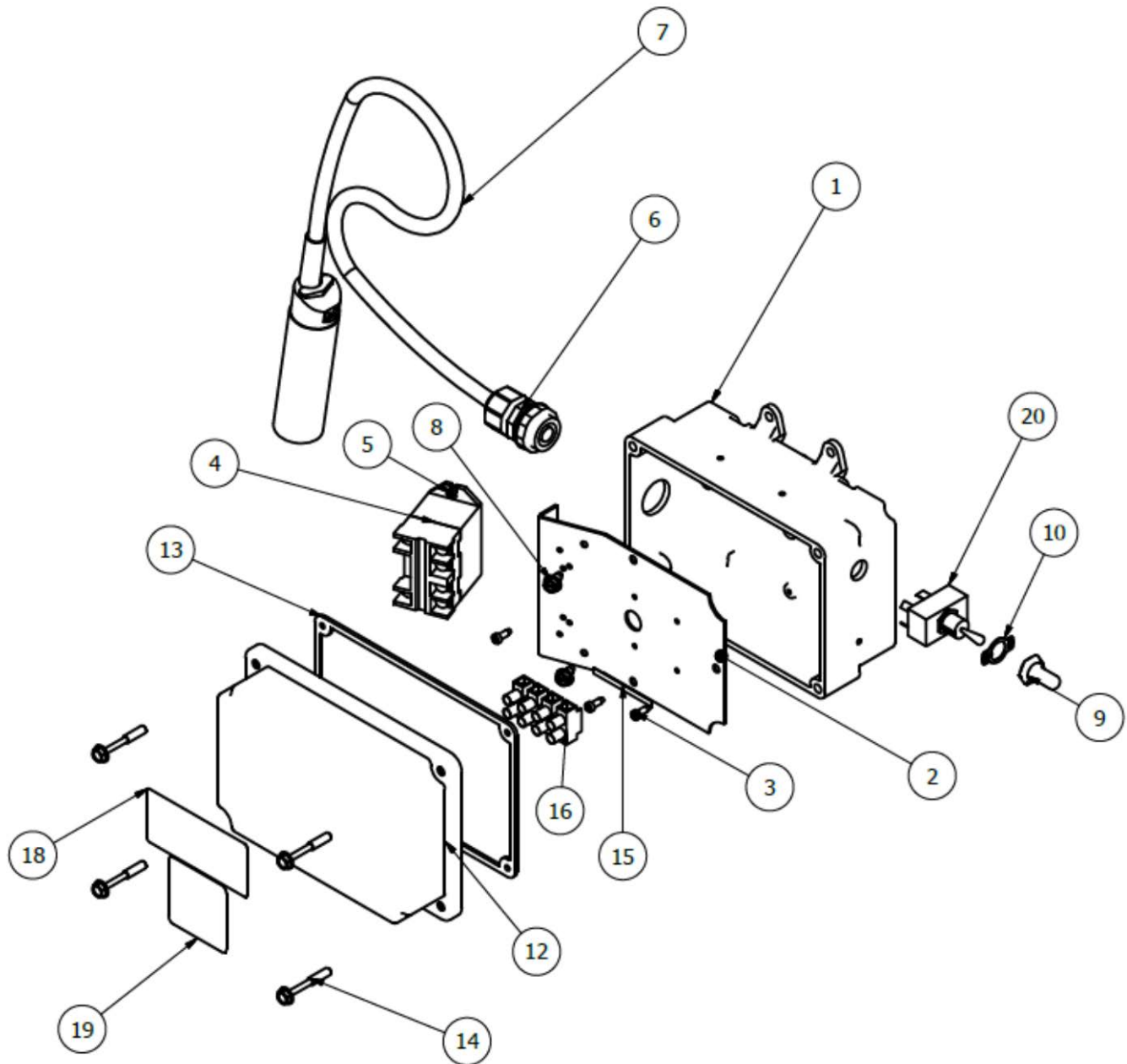
The HS676 Sow Drop Control Unit is designed for use with a flexible auger and chain disk feed systems where control of an auger drive motor is required. Power to the auger drive motor is controlled by a built-in proximity feed sensor coupled to a relay to provide non-contact feed sensing with built-in adjustable start up delay.

The sensitivity of the electrical switch is not adjustable.

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

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

HS676 Control Unit Switch Assembly

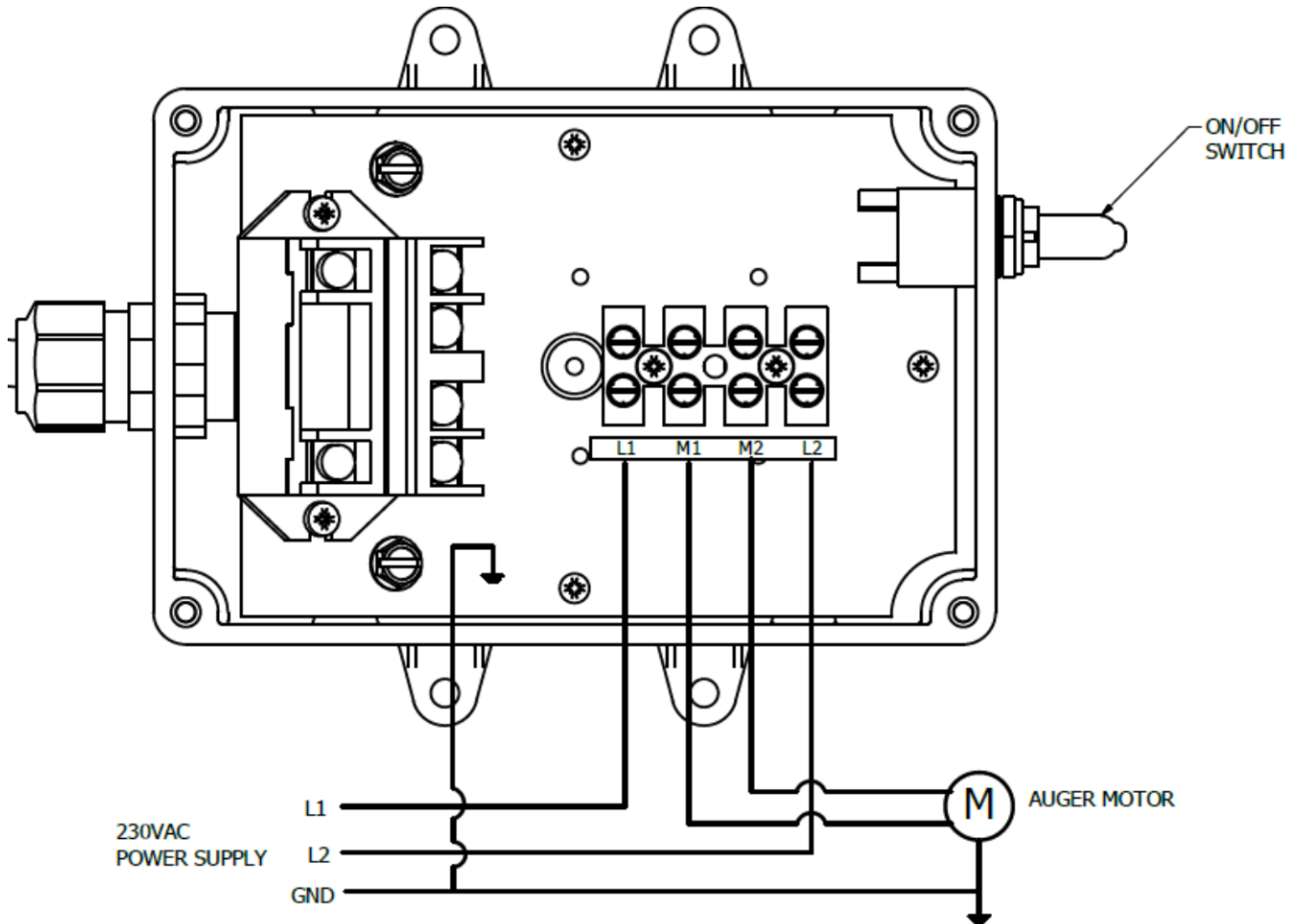


Parts List of serviceable components

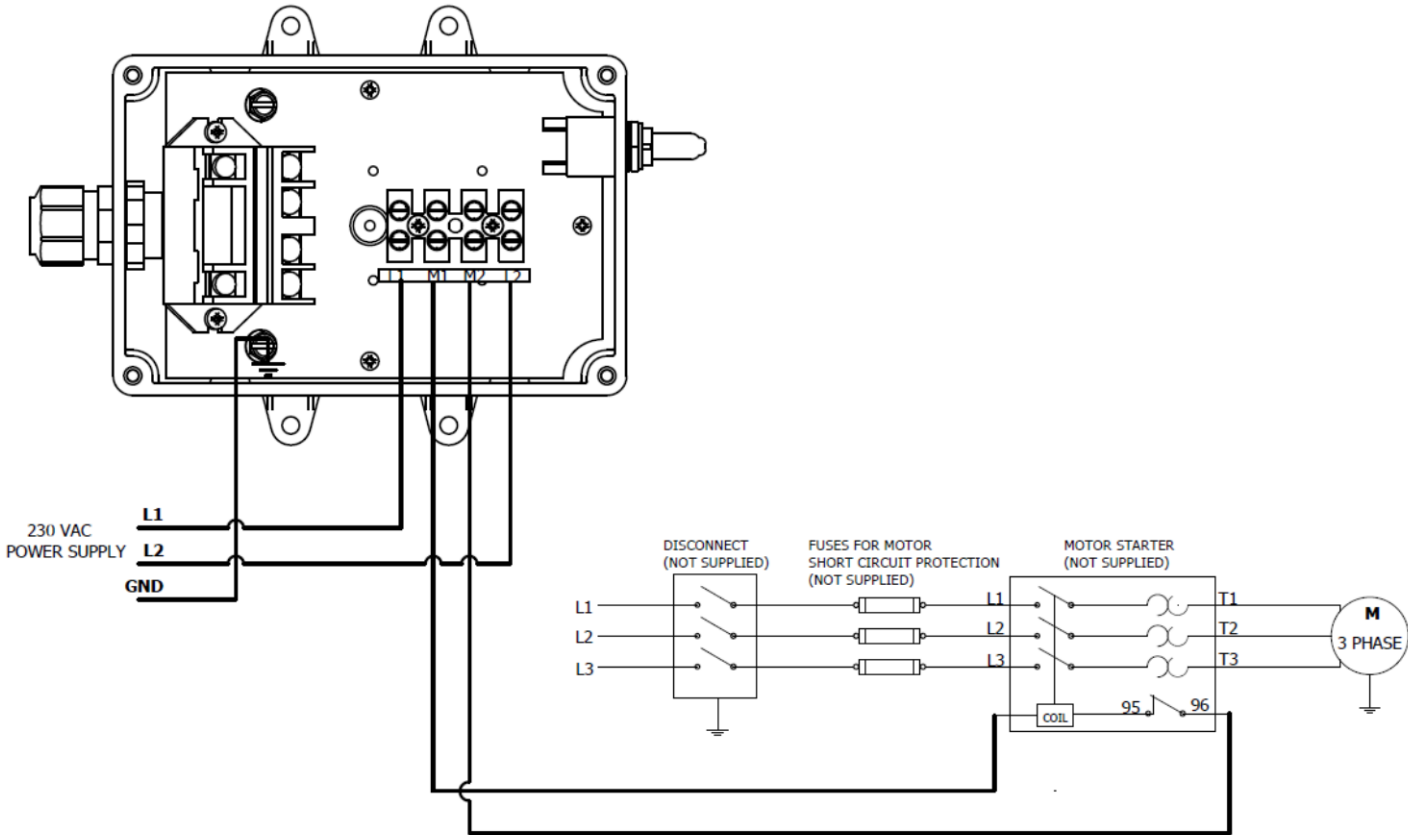
PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	HS589-1 for HS676	BOX, SWITCH HOUSING, HS589
2	1	HS589-4	COMPONENT MOUNT PLATE, HS589
3	3	609160	Screw Phillips Pan Head Tapping Type BT #6-20 X .375"
4	1	EL1008	RELAY,GP,SPST NO,220V 25A
5	2	60914	6-32 X 0.25", ZINC PLATED - TYPE F
6	1	61646	Connector Liquid Tight Nylon 1/2"
7	1	HS10	Sensor Feed 90/250 Volt w/Push Button Settings Yellow
8	2	30-3194	THREAD FORMING COMBO HEAD, #10 X 3/8" GROUNDING SCREW
9	1	EL1083	Cover Toggle Switch
10	1	EL1082	PLATE,LEGEND,VERTICAL,ON-OFF
12	1	HS589-2	COVER, SWITCH HOUSING, HS589
13	1	HS589-3	GASKET,COVER, SWITCH HOUSING HS589
14	4	60932	Screw Self Tap #10-16 x 1-1/4" Type B Hex Head SS
15	1	HSLABEL-036	LABEL, 2 POLE RELAY TERMINAL ID
16	1	391001204	
17	2	ANSI B18.6.4 - No. 6-20 - 5/8	Cross Recessed Pan Head Tapping Screw - Type AB - Type IA
18	1	HSLABEL-111	LABEL, CONTROL UNIT HS676, SOW DROP
19	1	HSLABEL-008	LABEL,WARNING-SHOCK HAZARD (ENGLISH)
20	1	EL1011	SWITCH, TOGGLE DPST, 20A @ 250V, 2HP

WIRING INSTRUCTIONS

SINGLE PHASE – 50/60 Hz MOTOR



THREE PHASE – 50/60Hz WITH MOTOR STARTER:



HS10 FEED SENSOR PROXIMITY SWITCH:

Specifications:

Operating Voltage: 90-250 VAC

Frequency: 50-60 Hz

Relay Contact Maximum Current Load: 5A Resistive and 2A Inductive (Motors and Relays)

Sensitivity: 0-9/16" (Factory Setting is for 1/4")

Time Delay Range: 0-4 Hours (Factory Setting is for 30 seconds)

Ambient Operating Temperature: -4°F-+158°F

Cord: 18-5 SJTW

Operating Instructions:

All settings should be made with Product (Grain or Feed) **not** in contact with sensor (Sensor is **not** Activated).

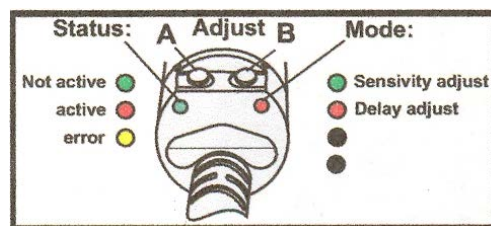


Figure 4

Setting Time Delay (Factory setting is 30 seconds)

1. Press Buttons "A" & "B" simultaneously twice (2) until Mode LED is Red
2. Press and Release Button A once for each minute of delay desired
3. Press and Release Button B once for each second of delay desired
4. To exit Time Delay Program Mode, Press Buttons "A" & "B" simultaneously once
5. Red Program Mode LED will go off

Setting Sensitivity (Factory setting is 1/4", for grain)

1. Press Buttons "A" & "B" simultaneously once until Mode LED is Green
2. Press and Release Button A will decrease sensitivity by 1/32"
3. Press and Release Button B will increase sensitivity by 1/32"
4. To exit Time Delay Program Mode, Press Buttons "A" & "B" simultaneously twice (2)
5. Green Program Mode LED will turn Red then go off.

Setting Special Functions

1. Reset to Factory setting for Sensitivity and Delay
 - Press Button "A" & "B" simultaneously and hold for 15 seconds until both LEDs turn "yellow."
2. Show Delay
 - Press and hold button "A" and then press button "B" twice (2).
Mode LED will flash Red once for each minute of delay, flash Green once for each second of delay and flash Yellow once for each hour of delay. (For example: 1 Red flash and 2 Green flashes indicate 1 minute and 2 second delay)
3. Switch Off Delay
 - Press and hold Button "A" and then press Button "B" seven (7) times

General Operating Considerations

When Product (Feed) is Detected

- NC Contacts—Open
- NO contacts— Close
- Status LED turns Red and stays on until Product is Removed

When Product (Feed) is Removed

- Time Delay Begins for programmed amount of time
- Status LED will flash Red until Delay expires.

When Time Delay expires

- NC Contacts—Close
- NO contacts—Open
- Status LED stops flashing and turns Green until Product is Detected

When Status LED is Yellow

- There is an Error in Sensor

Proxy Switch Attachment to Drop:



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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