

CHORE-TIME Proximity Level Switch Assembly



CAUTION



The equipment may start automatically.

Disconnect electrical power prior to servicing the equipment.

Keep hands and tools clear of the auger at all times.

The Chore-Time Proximity Level Switch Assembly is designed to provide reliable feed sensing in confinement poultry and livestock applications.

The Level Switch may be used with a wide variety of feed types, including high-moisture corn.

Three versions of the Proximity Level Switch are available.

1. **Part No. 47831 Proximity Level Switch Assembly** includes an External Relay (Part No. 34654) and a 1 second to 10 minute internal delay.

The Proximity Switch requires a constant 230 volt power supply between the black and the white wires.

2. **Part No. 47830 Proximity Level Switch Assembly** includes an External Relay (Part No. 34654) and a 1 second to 60 minute internal delay.

The Proximity Switch requires a constant 230 volt power supply between the black and the white wires.

3. **Part No. 47832 Proximity Level Switch Assembly**, which is primarily used in ULTRAFLO applications, does not include an external relay, but does include a 1 second to 10 minute internal delay.

The Proximity Switch requires a constant 230 volt power supply between the blue and the brown wires.

WARNING: Make sure ALL power sources supplying your system are disconnected at the circuit breakers before performing any service work.

Installation

The Proximity Switch is installed in the Control Unit Drop Switch Base on the side of the plastic Drop Assembly.

The Proximity Switch should be installed so that approximately 1/8" (3 mm) extends into the feed flow area, as shown in Figure 1. The "ribs" on the Switch Base hold the Proximity Switch securely in the Control Unit Drop Assembly.

An adjustable band clamp is provided to secure the Proximity Switch into the Switch Base.

The Level Switch Assembly should be installed directly below the 46800-0 Control Unit Body. This will require removing

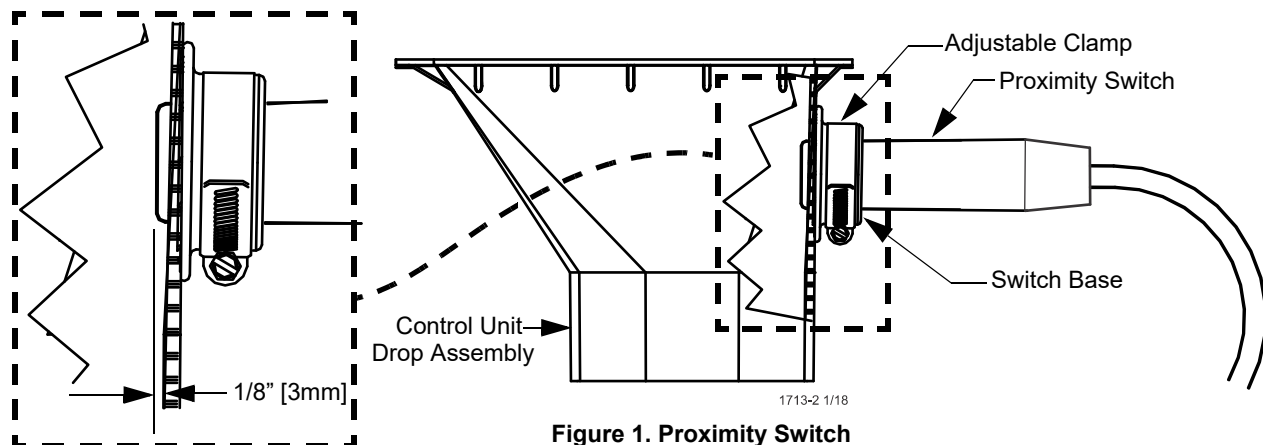


Figure 1. Proximity Switch

the Outlet Drop shipped with the Control Unit.

If the feeder is not directly below the funnel, a section of flexible tube (not supplied) may be used to create an angle (not more than 30 degrees) to reach the feeder.

Use the #8 x 1/2" screws supplied with the Control Unit to fasten the Flexible Tube or Drop Tube to the funnel.

Secure the Junction Box (supplied only with the 47831 & 47830 Proximity Limit Switches) near the Level Switch Assembly.

Wire the Level Switch Assembly according to the applicable wiring diagram in this instruction.

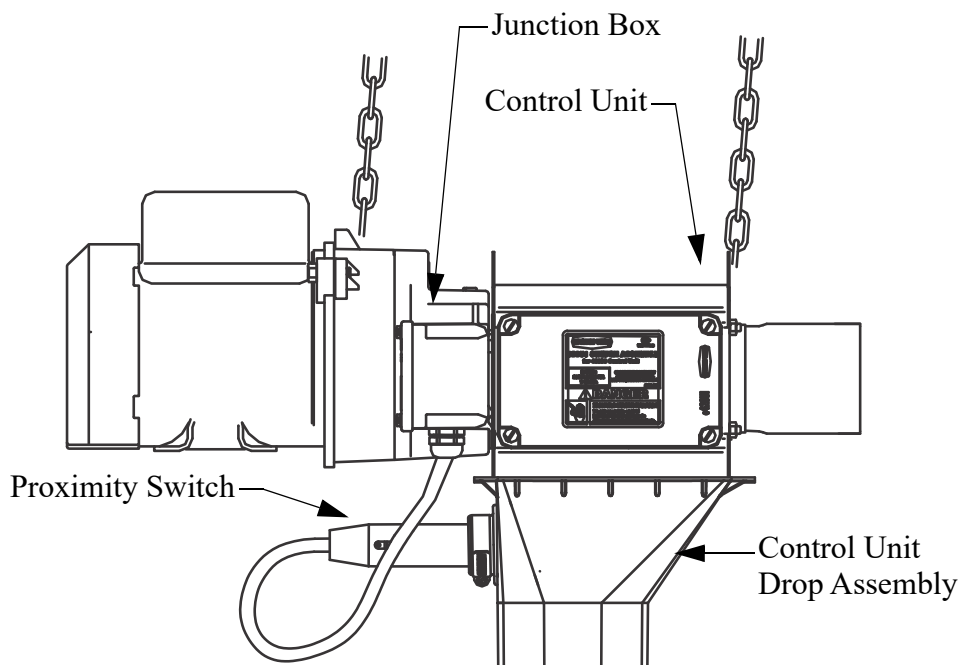


Figure 2. Control Unit Drop Assembly

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Operation

When the switch senses feed, the internal relay is activated immediately, stopping the system. When feed is removed, the delay is activated and prevents the system from starting until it has timed out.

Setting the Delay

The Proximity Switch includes an adjustable delay.

The delay on the Part No. **47831** and **47832** Switches may be set from 1 second to 10 minutes. The delay on the Part No. **47830** Switch may be set from 1 second to 60 minutes. The procedure for setting or adjusting the delay is the same for all three switches.

- A. Use a small screw driver provided to turn the Delay Adjustment Screw (see Figure 3). Turn the screw counterclockwise until the light stays on. This sets the Proximity Switch to the lowest setting (1 second).
- B. To increase the delay, turn the Delay Adjustment Screw clockwise.

Watch the indicator light; quick flashes = shorter time delay, slow flashes = longer time delay.

NOTE: From the 1 second setting, the Delay Adjustment Screw may be turned up to (25) revolutions clockwise. When setting extremely long delays, the indicator light will flash VERY slowly (approximately 20 - 30 seconds apart).

Adjusting the Sensitivity

The Proximity Switch is shipped with the sensitivity preset at the factory. This setting is adequate for most feed types and conditions. However if the sensitivity does need to be adjusted, carefully follow the instructions below.

Note: If the Proximity Switch is not supplied with constant 220 V., the sensitivity may not work properly.

- A. Allow power to be supplied to the switch for at least 15 minutes to properly warm the sensor. See the wiring diagrams in this manual.
- B. Set the Proximity Switch time delay to 1 second as specified above.
- C. Use a small screw driver to remove the caulk concealing the Sensitivity Adjustment Screw.
- D. Greater switch sensitivity is achieved by turning the Sensitivity Adjustment Screw clockwise.

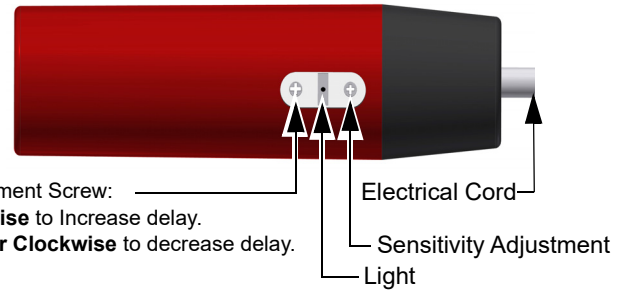


Figure 3. Proximity Switch

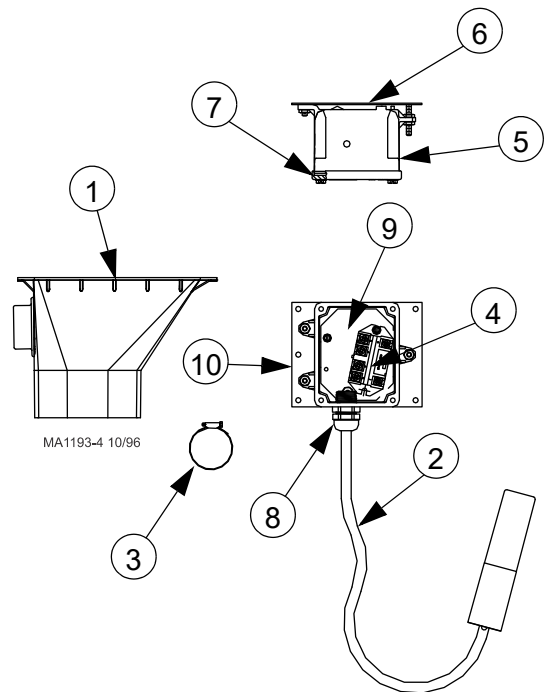
Less switch sensitivity is achieved by turning the Sensitivity Adjustment Screw counterclockwise.

Notice the screw orientation before beginning adjustment. Adjust the Sensitivity Adjustment Screw 1/4 turn, test switch, continue adjusting as required.

Proximity Level Switch Parts List

Proximity Level Switch w/Relay
Part No. 47831
(1 second to 10 minute Delay)

Item	Description	Part No.
1	Funnel Assembly	47829
2	Proximity Switch	34255
3	Adjustable Clamp	3527
4	240 VAC Relay	34654
5	Switch Box Cover	6776
6	Switch Box	24702
7	Gasket	6777
8	Liquid Tight Connector	23779
9	Box Plate	24321
10	Mounting Plate	28701
--	Danger Decal	2527-35



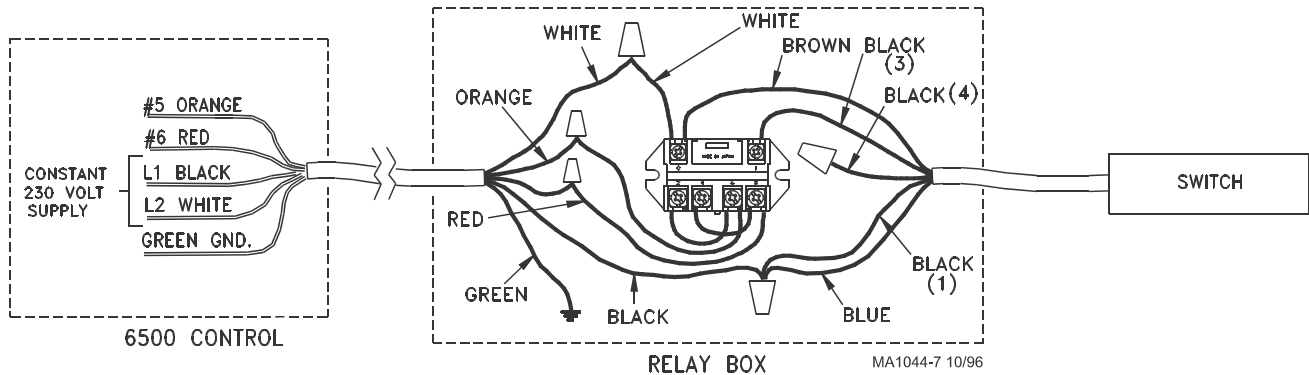
Proximity Level Switch w/Relay
Part No. 47830
(1 second to 60 minute Delay)

Item	Description	Part No.
1	Funnel Assembly	47829
2	Proximity Switch	38816
3	Adjustable Clamp	3527
4	240 VAC Relay	34654
5	Switch Box Cover	6776
6	Switch Box	24702
7	Gasket	6777
8	Liquid Tight Connector	23779
9	Box Plate	24321
10	Mounting Plate	28701
--	Danger Decal	2527-35

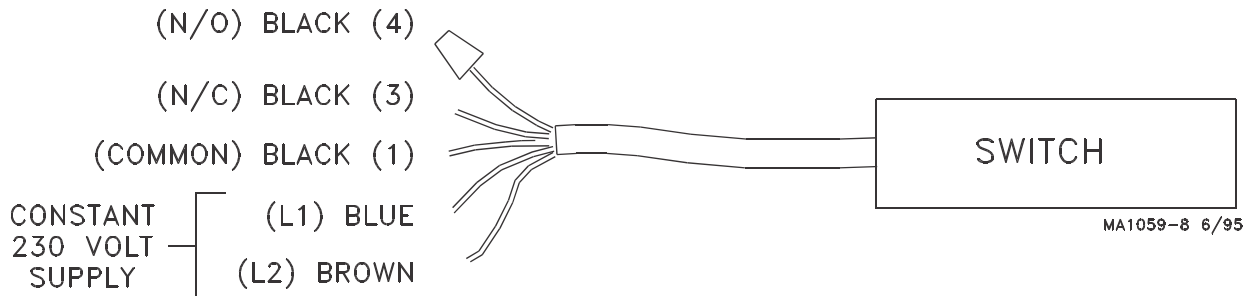
Proximity Level Switch w/o Relay
Part No. 47832
(1 second to 10 minute Delay)

Item	Description	Part No.
1	Funnel Assembly	47829
2	Proximity Switch	34255
3	Adjustable Clamp	3527
4 - 10	Not used with this switch - - -	

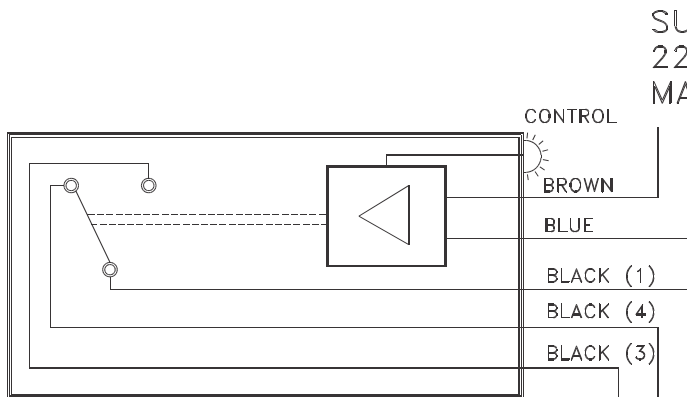
Wiring Diagram for Proximity Switch with External Relay (p/n 47831 & 47830)



Wiring Diagram for Proximity Switch without External Relay (p/n 47832)



Proximity Switch Schematic



Important:

This wiring schematic represents the switch in the non-powered condition. When power is applied the N.O. and N.C. contacts reverse.

Refer to the wiring diagrams, above, when wiring the Proximity Switch.