ENGINEERED TARPING SOLUTIONS

P/N 1123499 Rev. A

# INSTALLATION INSTRUCTIONS

## Proximity Sensor Add-On for SMART2™ ProTrap® on StrapTrap™ Hoppers

*READ BEFORE INSTALLING*

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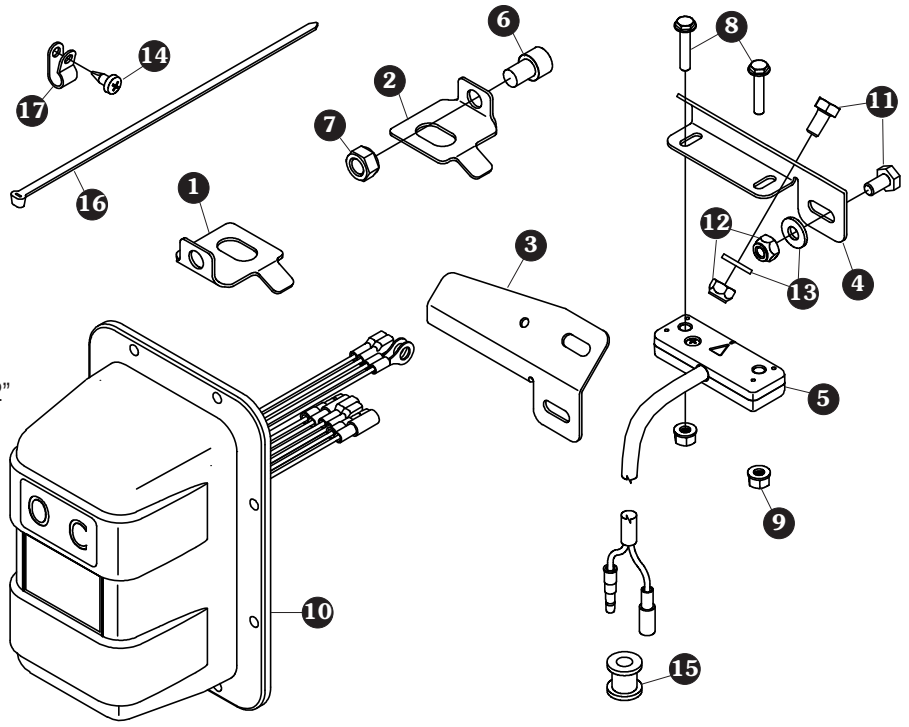
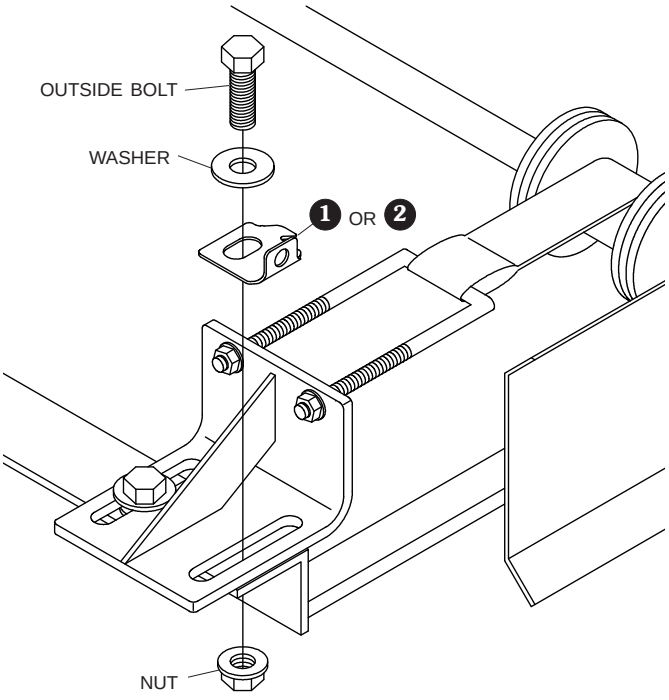



| Item | Part # | Description |
|---|---|---|
| 1. | 1123495 | Magnet Screw Bracket - Right |
| 2. | 1123496 | Magnet Screw Bracket - Left |
| 3. | 1123497 | Sensor Bracket - Right |
| 4. | 1123498 | Sensor Bracket - Left |
| 5. | 1705217 | Proximity Sensor - SMART2™ |
| 6. | 1705222 | Potted Magnet Screw - 3/8" x 1/2" |
| 7. | 1701580 | Nylon Lock Nut - 3/8" |
| 8. | 1704905 | Flanged Cap Screw - #10 x 1" |
| 9. | 1704813 | Nylon Lock Nut - #10 |
| 10. | 1123404 | Solenoid Cover - SMART2™ - ProTrap® w/End Stop |
| 11. | 1703960 | Cap Screw - 1/4" x 1/2" |
| 12. | 1701543 | Nylon Lock Nut - 1/4" |
| 13. | 1201240 | Flat Washer - 1/4" - SS |
| 14. | 1704743 | Self-Drilling Screw - #10 x 1/2" |
| 15. | 1705236 | Rubber Grommet - 5/16" ID |
| 16. | 1703231 | Cable Tie - 8" |
| 17. | 1704698 | Nylon Wire Clip - 1/4" ID |

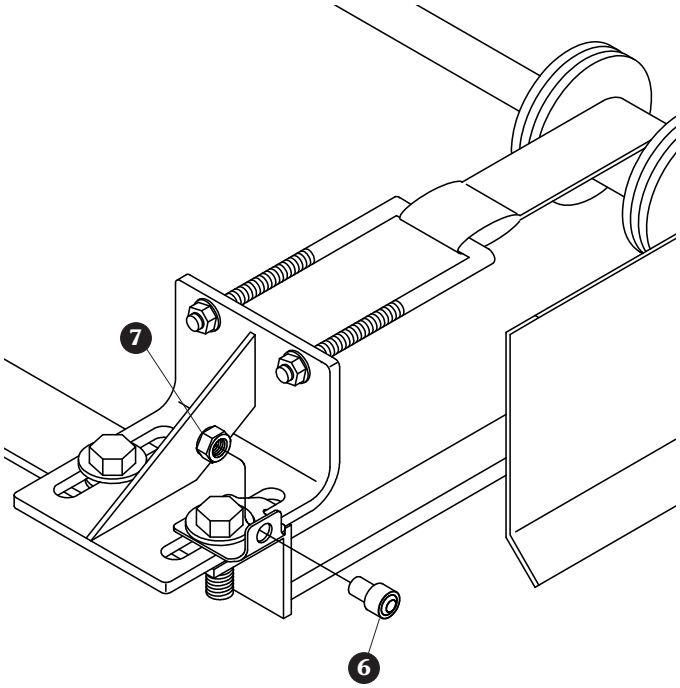
## INSTALL MAGNET BRACKET & MAGNET SCREW

STEP 1: Remove outside bolt on hopper strap bracket on side of trailer where hopper control box is mounted. Install magnet bracket ❶ or ❷ and finger tighten outside bolt.



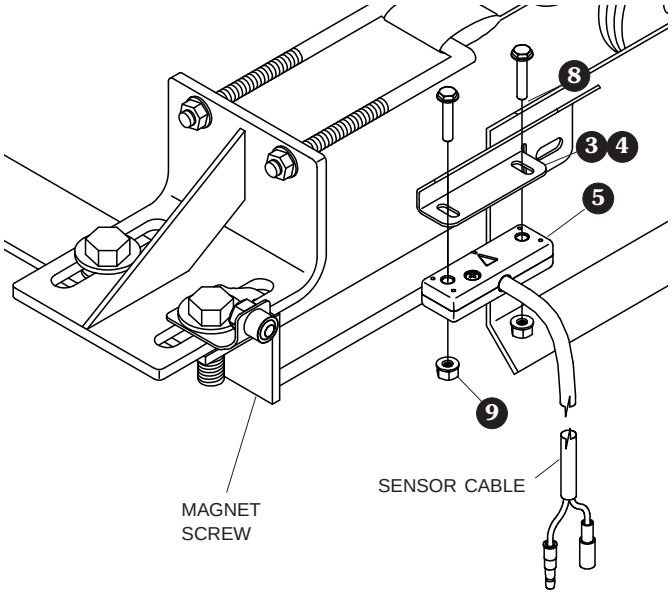

**HOPPER STRAP BRACKET SIDE OF TRAILER**

STEP 2: Install magnet screw ❻ and nut ❼, with head of magnet screw facing outward from trailer.

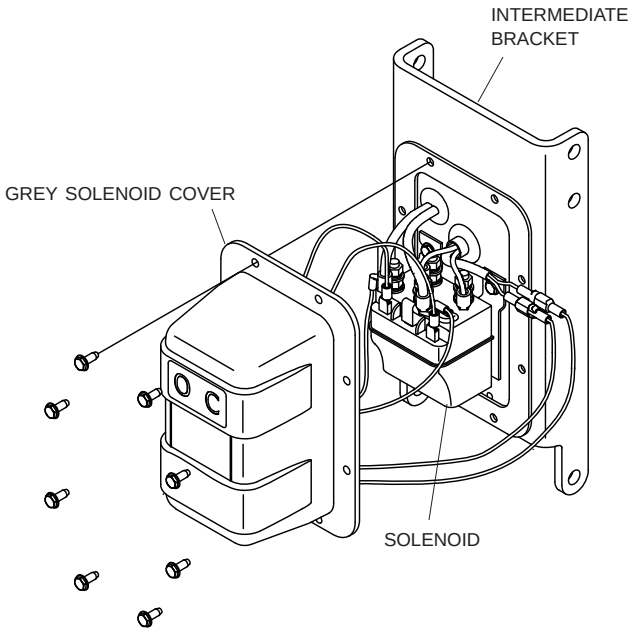


## INSTALL PROXIMITY SENSOR

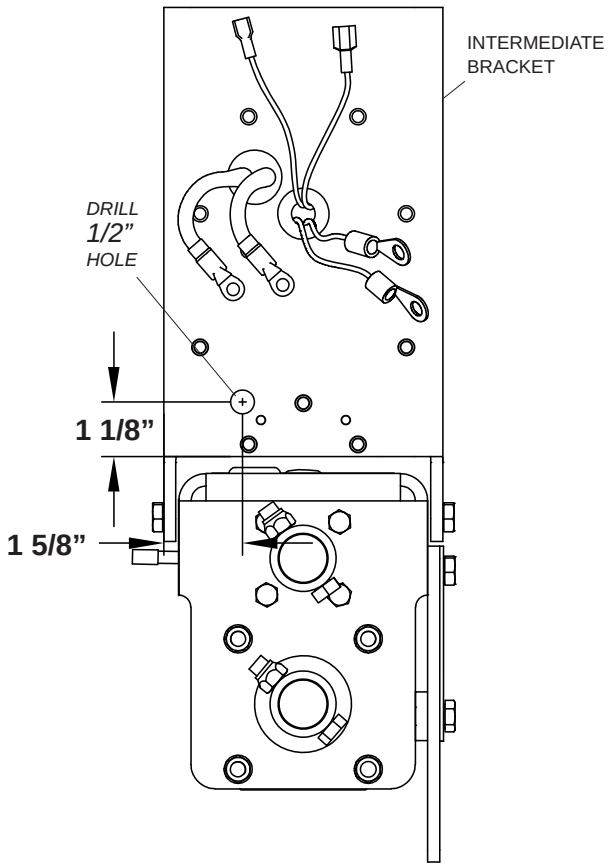
STEP 3: Clamp sensor bracket ❸ or ❹ onto hopper frame in location shown. Fasten proximity sensor ❺ to sensor bracket with screws ❽ and nuts ❾. Adjust sensor so center of sensor housing will maintain 1/8" gap from head of magnet screw when hopper door closes. To ensure head of screw does not catch on sensor housing while closing hopper door, angle sensor housing about 1/4" to increase gap while screw approaches sensor.



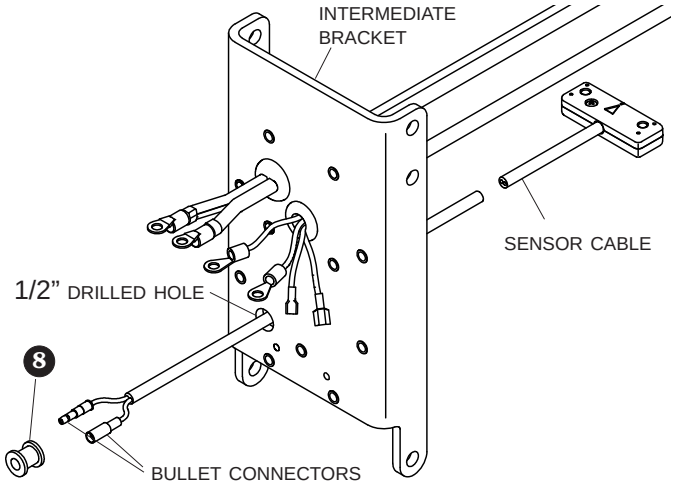

STEP 4: Route sensor cable to hopper control box. Disconnect power to trailer. Remove grey solenoid cover from intermediate bracket. Make note of wire connections, then disconnect and discard grey solenoid cover assembly. Unfasten and remove solenoid from bracket.



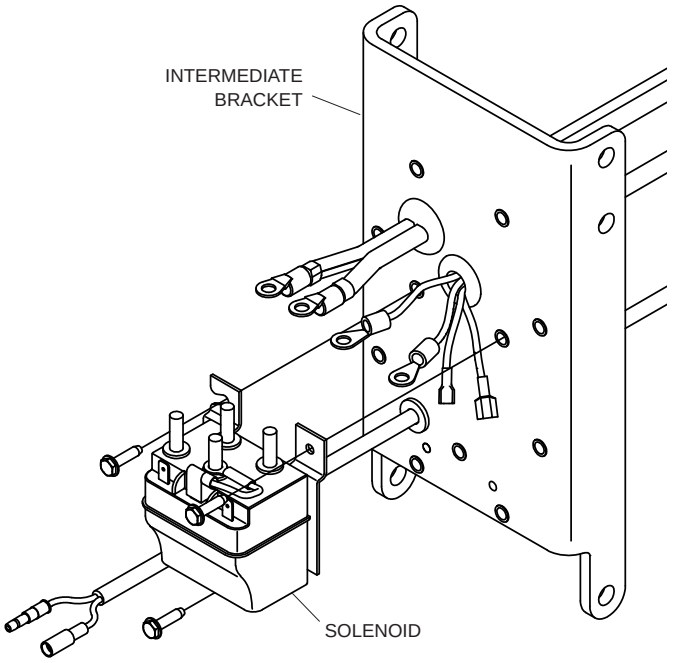

STEP 5: Drill 1/2" hole in lower corner of bracket as shown.



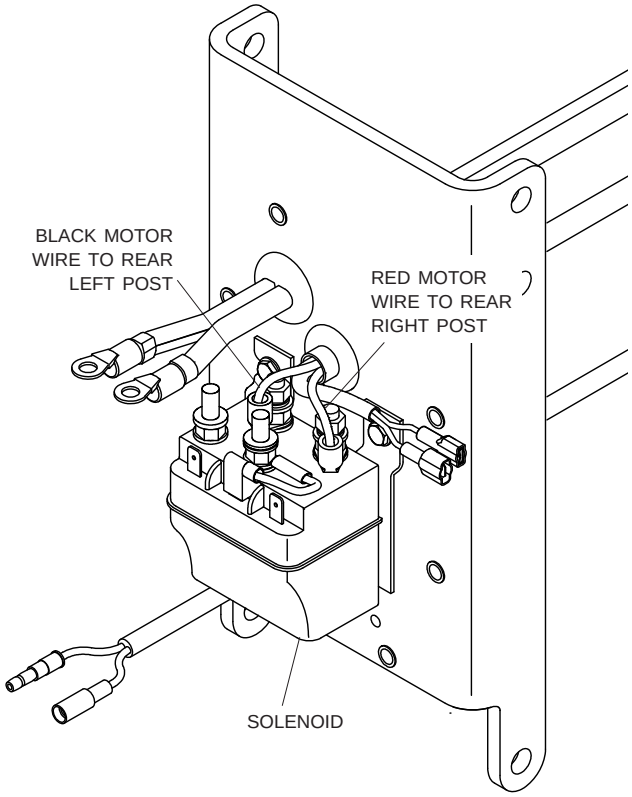

STEP 6: Route sensor cable through 1/2" drilled hole. Slide grommet ❽ over cable and fit into hole.



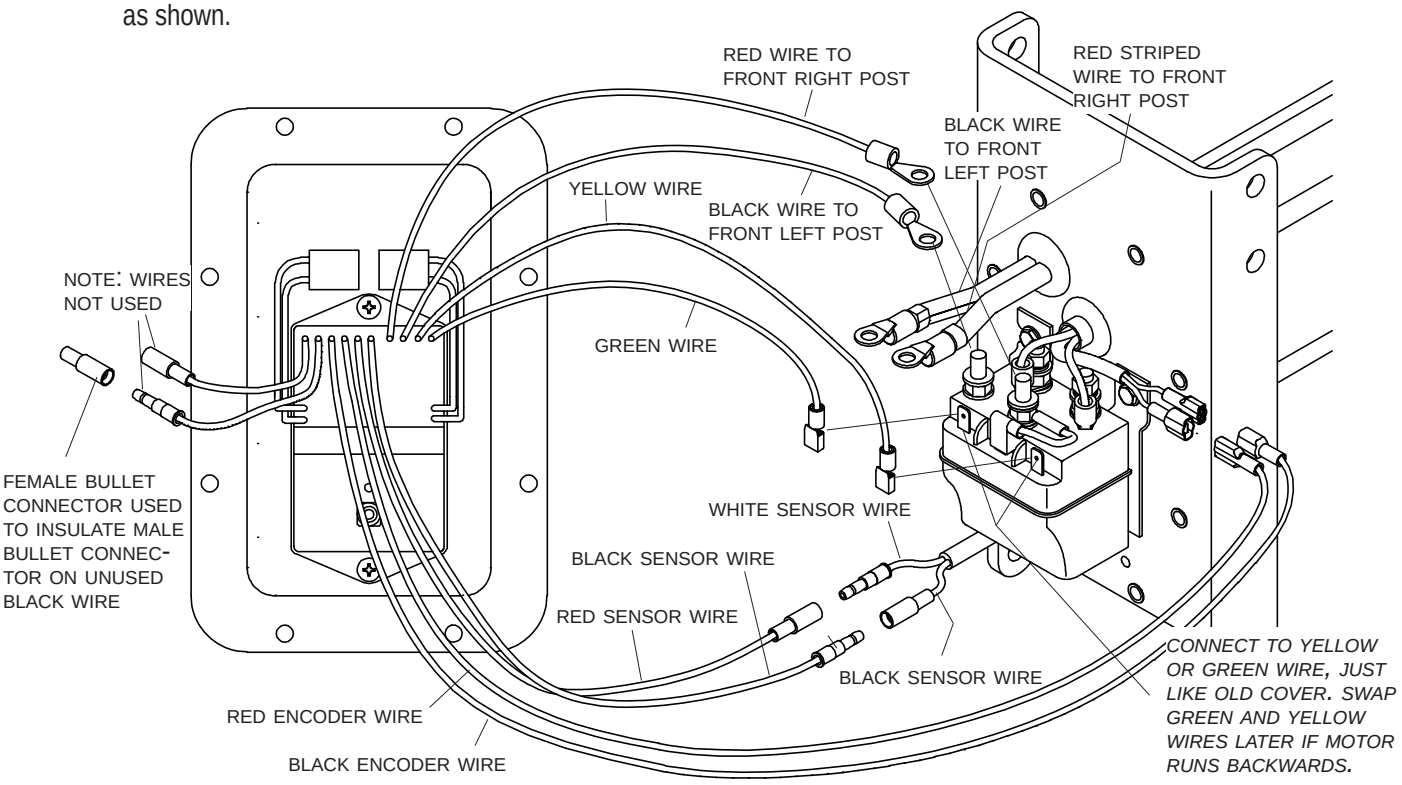
STEP 7: Refasten solenoid to intermediate bracket.




STEP 8: Connect wires from motor to solenoid as shown.



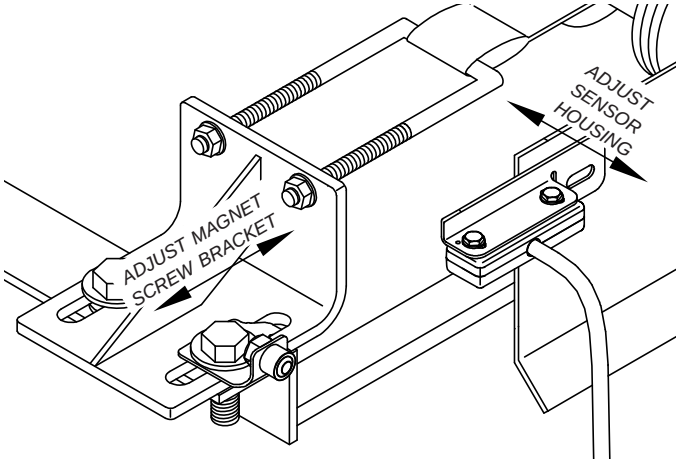

STEP 9: Connect wires from new grey solenoid cover to solenoid as shown. Fasten bullet connectors from sensor to control module as shown.



STEP 10: Turn on power to trailer. Pair SMART2™ remote to new receiver module. To pair remote to trailer, go to SETUP MENU on remote and select ADD DEVICE. Remote will display WAITING... . Press blue programming button on receiver for about five seconds and red light will start to flash. Let go of blue button and remote will display DEVICE FOUND. Reference remote instructions for more detailed information.

***NOTE:*** *Remote with version 10 or higher software is required to operate this receiver. To check version, go to* SETUP MENU *on remote and select* INFORMATION. *The version will be listed. Call Shur-Co® if you have version 9 or older.*

STEP 11: Use remote to open and close hopper several times. Verify correct operation by watching magnet screw approach sensor. Screw must clear sensor housing while hopper is closing. Hopper door must stop every time magnet screw approaches center of sensor. Adjust magnet screw bracket position as needed so hopper door closes adequately, but does not stall motor. Adjust sensor housing position to maintain 1/8" to 1/4" distance from magnet screw. Reduce gap if sensor does not consistently cause door to stop before door hits end of travel.




***NOTE:*** *If system will not turn off when magnet screw approaches sensor, verify sensor wires are connected to correct wires in grey solenoid cover.*

## PROCEDURE TO SET STOPS

STEP 12: Set travel stops with SMART2™ remote. Stops are set in similar manner to standard hopper systems.

***NOTE:*** *Setting travel stops is not required but setting stops will enable Express Mode and provide positional information.*

- On remote, go to SETUP MENU.
- Go to EDIT DEVICE.
- Select hopper you are working on from list of devices.
- Go to SET STOPS.
- Go to SET END STOPS.
- Accept message prompt.
- Open door about 6", then close. Door should stop when sensor detects magnet. Adjust sensor location if needed and cycle door open and closed to test. With DONE circled on remote, press SELECT.
- Open door to desired open position. Make sure door does not hit a mechanical stop on open side. With DONE circled on remote, press SELECT.
- Press SELECT on confirmation screen.
- Operate hopper and make sure door closes adequately every time. If needed, adjust magnet or sensor location and reset travel stops.

STEP 13: Tighten fasteners on all components. Weld sensor bracket in place or drill holes and fasten bracket in place. Secure sensor wire to trailer with cable ties or wire clips. Fasten grey solenoid cover assembly onto intermediate bracket. Verify operation.

## MAINTENANCE

- Check sensor for mud or ice accumulation as needed.
- Clean as needed.

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