

Patent: www.ttcopats.com.

Safety

Installing this kit will change the weight of your vehicle. Ensure that your vehicle does not exceed the front gross-axle-weight rating (FGAWR), at any time. You may need to weigh the vehicle and add ballast or limit the payload of the vehicle to compensate.

This manual contains instructions for 2 wiring kits:

- MSC25002 for 2020 through 2022 Ford Super Duty models only.
- MSC25012 for 2023 and After Ford Super Duty models only.

Installation

⚠ DANGER

Vehicle engines contain moving parts and can become extremely hot, capable of causing severe burns and serious bodily harm.

Shut off the engine and allow it sufficient time to cool down before installing this kit.

⚠ DANGER

Vehicle batteries can cause dangerous electrical shocks that could lead to severe burns or death.

Disconnect your battery before installing this kit.

Note: Apply dielectric grease to all electrical connections.

Determine the left and right sides of the machine from the normal operating position.

1. Locate the vehicle snowplow connector inside the passenger side fender; refer to your vehicle *Owner's Manual*.
2. Connect the vehicle snowplow connector to the wire harness ([Figure 1](#)).

Note: The connector location may be rotated or more inboard on the vehicle harness bundle.

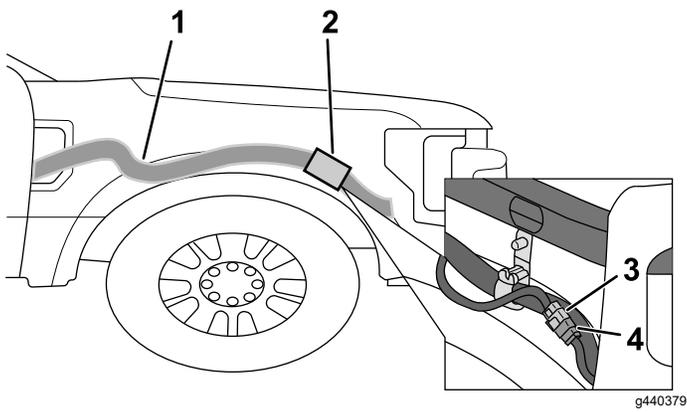


Figure 1

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|-----------------------------|-------------------------------|
| 1. Vehicle wire harness | 3. Vehicle snowplow connector |
| 2. Connector area in fender | 4. Wiring kit connector |

3. Disconnect the 16 pin black Molex MX150 snowplow connector and connect the kit harness; refer to [Schematics \(page 5\)](#).
4. Ensure that the vehicle firewall is clear of obstructions.
5. Pull the plow controller connector, the black wire, and the black/red wire into the vehicle cab through the existing hole (with grommet) on the in the firewall ([Figure 2](#)).

Important: Ensure that all wiring is secured in a position that avoids hot or moving parts to prevent damage to the vehicle or plow.

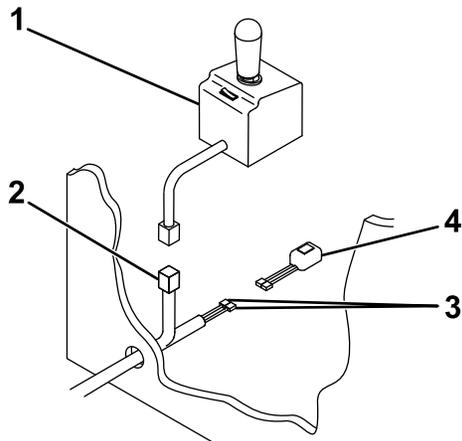


Figure 2

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|-------------------------|------------------------------|
| 1. Plow controller | 3. Black and black/red wires |
| 2. Controller connector | 4. Headlight toggle switch |

6. Connect the black and black/red wires to the headlight toggle switch ([Figure 2](#)).
7. Determine where you will mount the headlight toggle switch and clean the area thoroughly.

Note: Allow the area to dry completely after cleaning.

8. Remove the adhesive backing and press the toggle switch to the clean area of the dashboard for 30 seconds.
9. Plug the controller connector into the plow controller.
10. Mount the plow controller.

Note: Mount the controller in the cab in a dry area where it does not interfere with vehicle operation or visibility.

⚠ DANGER

The controller could cause serious injury if contacted during a crash.

Mount the controller in a location that vehicle occupants will not contact during a crash.

11. Connect the white/black wire from the wire harness to the small post on the pump solenoid ([Figure 3](#)).

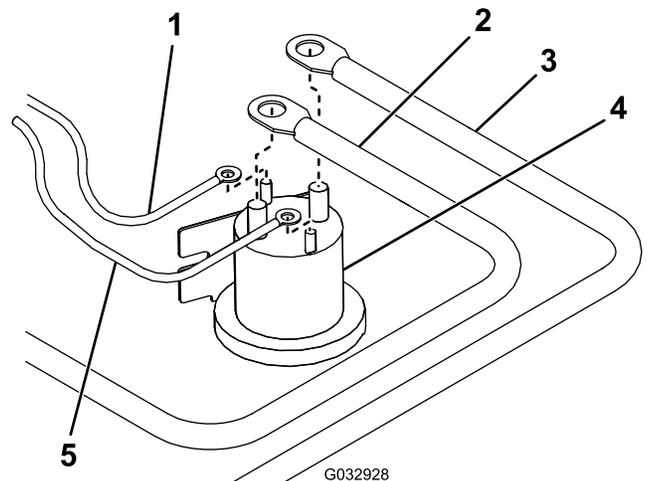


Figure 3

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|---------------------------|------------------|
| 1. White/black wire | 4. Pump solenoid |
| 2. Battery cable | 5. Brown wire |
| 3. Red power/ground cable | |

12. Connect the brown wire from the wire harness with the small ring terminal (#10) to the other small post on the pump solenoid ([Figure 3](#)).

Note: The wires may go on either small post, but should not share a post.

13. Mount the pump solenoid inside the engine compartment of the vehicle, ensuring that it stays in an upright position and does not contact the body, hood, or other conductive material on the vehicle.

14. Connect the red power/ground cable to the large post on the pump solenoid (Figure 3).
15. Connect the battery cable to the other large post on the pump solenoid (Figure 3).

Note: The wires may go on either large post, but should not share a post.

16. Connect the black power/ground cable to the chassis ground terminal on the vehicle.
17. Connect the brown wire with the large ring terminal (3/8 inch) to the chassis ground terminal on the vehicle.
18. Connect the free end of the battery cable to the positive (+) battery terminal.
19. Mount the truck-side, wire harness plow connector to the lower part of the bumper using the control-harness mounting bracket (Figure 4).

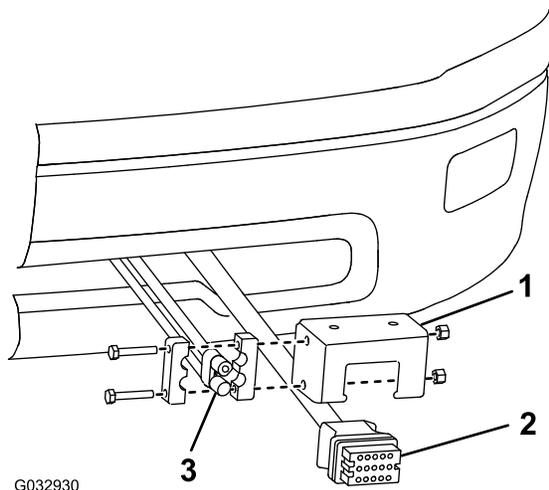


Figure 4

1. Control-harness mounting bracket
2. Plow connector
3. Power/ground connector

20. Mount the black and red power/ground connector to the control-harness mounting bracket (Figure 4).
21. **For 2023 and After Ford Super Duty models only (MSC25012):** Connect the red wire with large ring terminal (3/8 inch) from the relay pack to the positive (+) battery terminal.
22. Mount each of the relay packs to the inside of the engine compartment using 2 sheet-metal screws (Figure 5).

Note: Ensure that the relay pack is mounted in the upright position.

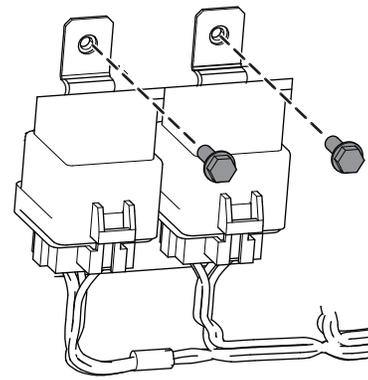


Figure 5

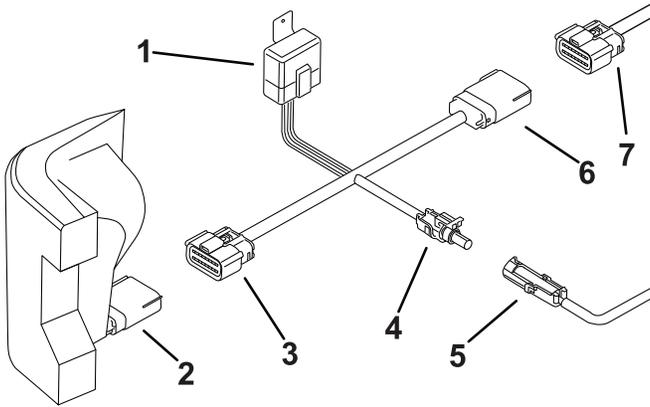
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23. For vehicles with LED headlights, install the adapter wire harness; refer to [Installing the Adapter Wire Harness \(page 4\)](#).
24. Secure the wire harness with cable ties.

Installing the Adapter Wire Harness

For Vehicles with LED Headlights

1. Remove the fender liner.
2. Disconnect the passenger side head light connector.
3. Connect the male light adapter 16-way plug into the vehicle wire harness.



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Figure 6

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|---|--|
| 1. Relay | 5. Male single way plug on the plow wire harness |
| 2. Male head light connector | 6. Male light adapter plug |
| 3. Female light adapter plug | 7. Female vehicle wire harness plug |
| 4. Female light adapter single way plug | |

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4. Connect the female light adapter 16-way plug into the head light connector.
 5. Connect the female light adapter single way plug into the plow main harness male single way plug.
 6. Mount the relay pack in a suitable location away from moving or hot vehicle components.
 7. Replace the fender liner.
 8. Repeat on the drivers side of the vehicle.

Notes:

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S N O W P L O W