

Upfitter Wiring

2015 and After Ram 25/35/45/5500, 2021 and After Ram 1500

Part No. MSC07373

Part No. MSC10158

Part No. MSC25009

Part No. STB07374

Part No. STB10156

Part No. STB19155

Installation Instructions

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.

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 upfitter wires in the engine compartment under the vehicle fuse panel; refer to your vehicle *Owner's Manual*.
2. Locate the upfitter wires on the controller wire harness; refer to [Schematics \(page 4\)](#).
3. Connect the yellow wire from the wire harness to the white/brown park light upfitter wire on the vehicle.
4. Connect the violet wire from the wire harness to the white/violet left turn-signal upfitter wire on the vehicle.
5. Connect the pink wire from the wire harness to the violet/brown right turn-signal upfitter wire on the vehicle.



6. Connect the blue wire from the wire harness to the black/light blue high-beam upfitter wire on the vehicle.
7. Connect the red wire from the wire harness to the black/light green low-beam upfitter wire on the vehicle.
8. Connect the black wire from the wire harness to the black/violet enable upfitter wire on the vehicle.
9. Ensure that the vehicle firewall is clear of obstructions.

⚠ WARNING

Using a drill without wearing eye protection may allow debris to enter the eye, causing personal injury.

When drilling, always wear eye protection.

10. Drill a 3 cm (1-1/4 inch) diameter hole through the firewall on the driver side of the vehicle.

Note: The hole should be in an easily accessible area.

11. Insert the split rubber grommet into the hole.
12. Pull the plow controller connector, black/red wire, and 2 black wires into the vehicle cab through the hole in the firewall.

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

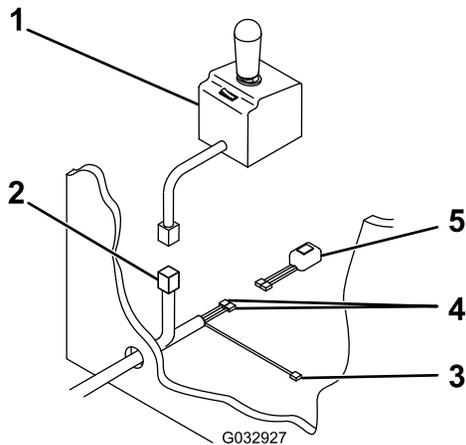


Figure 1

- | | |
|-------------------------|----------------------------|
| 1. Plow controller | 4. Black wires |
| 2. Controller connector | 5. Headlight toggle switch |
| 3. Black/red wire | |

13. Connect the 2 black wires to the headlight toggle switch.

14. Determine where you will mount the headlight toggle switch and clean the area thoroughly.

Note: Allow the area to dry completely after cleaning.

15. Remove the adhesive backing and press the toggle switch to the clean area of the dashboard for 30 seconds.
16. Plug the controller connector into the plow controller.
17. 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.

18. Connect the black/red wire to a keyed 12 V + ignition source.

Note: Connecting the wire to a source that is not keyed can cause the battery to drain.

19. Connect the white/black wire from the wire harness to the small post on the pump solenoid.

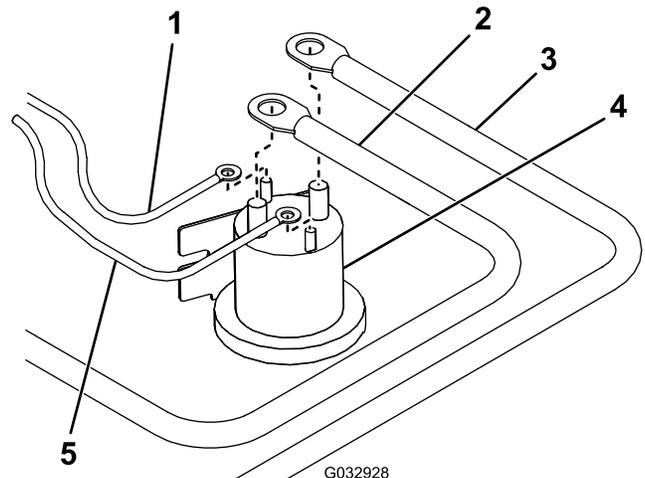


Figure 2

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

20. Connect the brown wire from the wire harness to the other small post on the pump solenoid.

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

21. 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.
22. Connect the red power/ground cable to the large post on the pump solenoid.
23. Connect the battery cable to the other large post on the pump solenoid.

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

24. Connect the black power/ground cable to the negative (-) battery terminal.

Note: For 2019 and newer vehicles, grounding to the engine block is recommended.

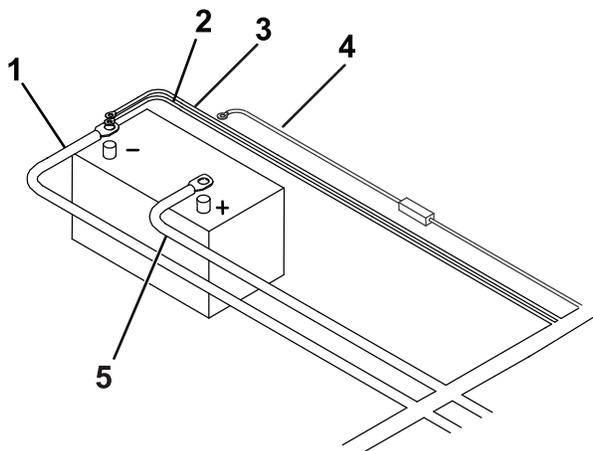


Figure 3

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|-----------------------------|---------------------------|
| 1. Black power/ground cable | 4. Red/white fused wire |
| 2. Brown wire | 5. Red power/ground cable |
| 3. White/yellow wire | |

25. Connect the brown wire to the negative (-) battery terminal.
26. Connect the white/yellow wire to the negative (-) battery terminal.
27. Connect the free end of the battery cable to the positive (+) battery terminal.

Note: All 2019 and newer Ram HD and Chassis Cab trucks contain a high amperage power point (HAPP) at the battery, rated for 300A.

28. Connect the red/white fused wire to the positive (+) battery terminal.
29. Mount the truck-side, wire harness plow connector to the lower part of the bumper using the control-harness mounting bracket.

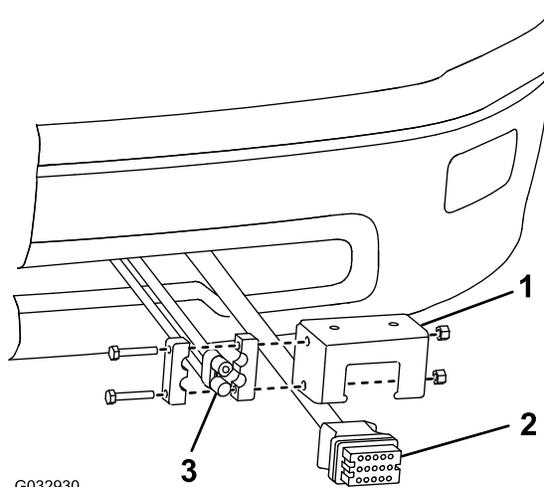


Figure 4

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

30. Mount the black and red power/ground connector to the control-harness mounting bracket.
31. Mount the relay pack to the inside of the engine compartment using 4 sheet-metal screws.

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

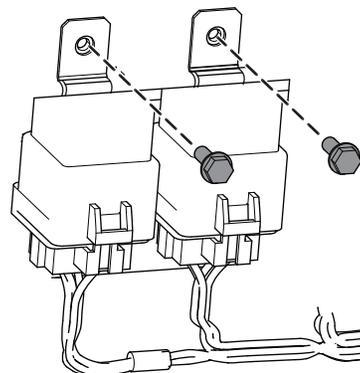


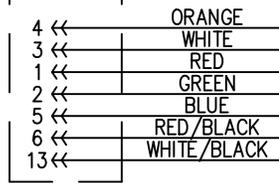
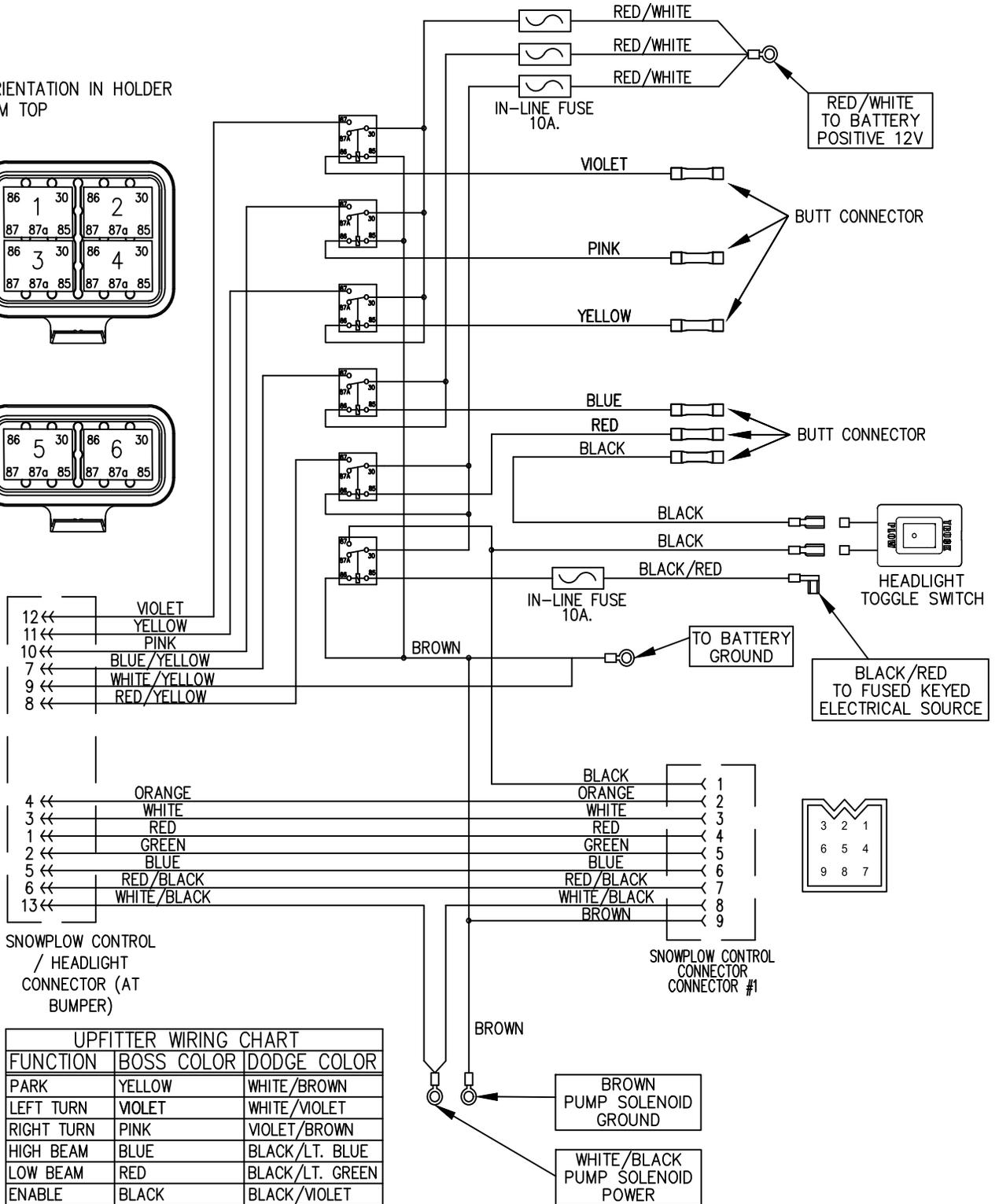
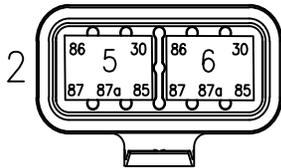
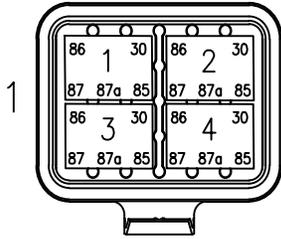
Figure 5

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32. Secure the wire harness with cable ties.

Schematics

RELAY ORIENTATION IN HOLDER
VIEW FROM TOP



SNOWPLOW CONTROL
/ HEADLIGHT
CONNECTOR (AT
BUMPER)

UPFITTER WIRING CHART		
FUNCTION	BOSS COLOR	DODGE COLOR
PARK	YELLOW	WHITE/BROWN
LEFT TURN	VIOLET	WHITE/VIOLET
RIGHT TURN	PINK	VIOLET/BROWN
HIGH BEAM	BLUE	BLACK/LT. BLUE
LOW BEAM	RED	BLACK/LT. GREEN
ENABLE	BLACK	BLACK/VIOLET

Truck Side Electrical Schematic (Rev. 0)

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