

Lit. No. 64118
November 15, 2002



Chevy/GMC C4500/5500 2003 & LATER VEHICLE SPECIFIC ELECTRICAL INSTALLATION INSTRUCTIONS

Model No. 3539

Straight Blade

Hydraulic Box No. 56588
Harness Kit No. 64125
Headlamp Kit 9-Pin No. 61540-1

MVP® Blade

Hydraulic Box No. 56777
Harness Kit No. 64170
Headlamp Kit 12-Pin No. 66640-2

⚠ CAUTION

Read this document before installing the snowplow.

⚠ CAUTION

See your WESTERN® outlet for application recommendations. The Selection List has specific vehicle and snowplow requirements.

SAFETY

SAFETY DEFINITIONS

WARNING

Indicates a potentially hazardous situation that, if not avoided, could result in death or serious personal injury.

CAUTION

Indicates a situation that, if not avoided, could result in damage to product or property.

NOTE: Identifies tips, helpful hints and maintenance information the owner/operator should know.

BATTERY SAFETY

CAUTION

Batteries normally produce explosive gases which can cause personal injury. Therefore, do not allow flames, sparks or lit tobacco to come near the battery. When charging or working near a battery, always cover your face and protect your eyes, and also provide ventilation.

Batteries contain sulfuric acid which burns skin, eyes and clothing.




Disconnect the battery before removing or replacing any electrical components.

TORQUE CHART

CAUTION

Read instructions before assembling. Fasteners should be finger tight until instructed to tighten according to the torque chart. Use standard methods and practices when attaching snowplow including wearing proper safety equipment.

Recommended Fastener Torque Chart (Ft.-Lb.)

Size	 SAE Grade 2	 SAE Grade 5	 SAE Grade 8
1/4-20	6	9	13
5/16-18	11	18	28
3/8-16	19	31	46
3/8-24	24	46	68
7/16-14	30	50	75
1/2-13	45	75	115
9/16-12	66	110	165
5/8-11	93	150	225
3/4-10	150	250	370
7/8-9	202	378	591
1-8	300	583	893

Metric Grade 8.8 (Ft.-Lb.)

Size	Torque	Size	Torque
M 6	7	M 12	60
M 8	17	M 14	95
M 10	35	M 16	155

These torque values apply to fasteners except those noted in the instruction.

UNDER HOOD INSTALLATION

VEHICLE HARNESS AND MOTOR RELAY

Except as noted, parts to be installed are found in hydraulics box.

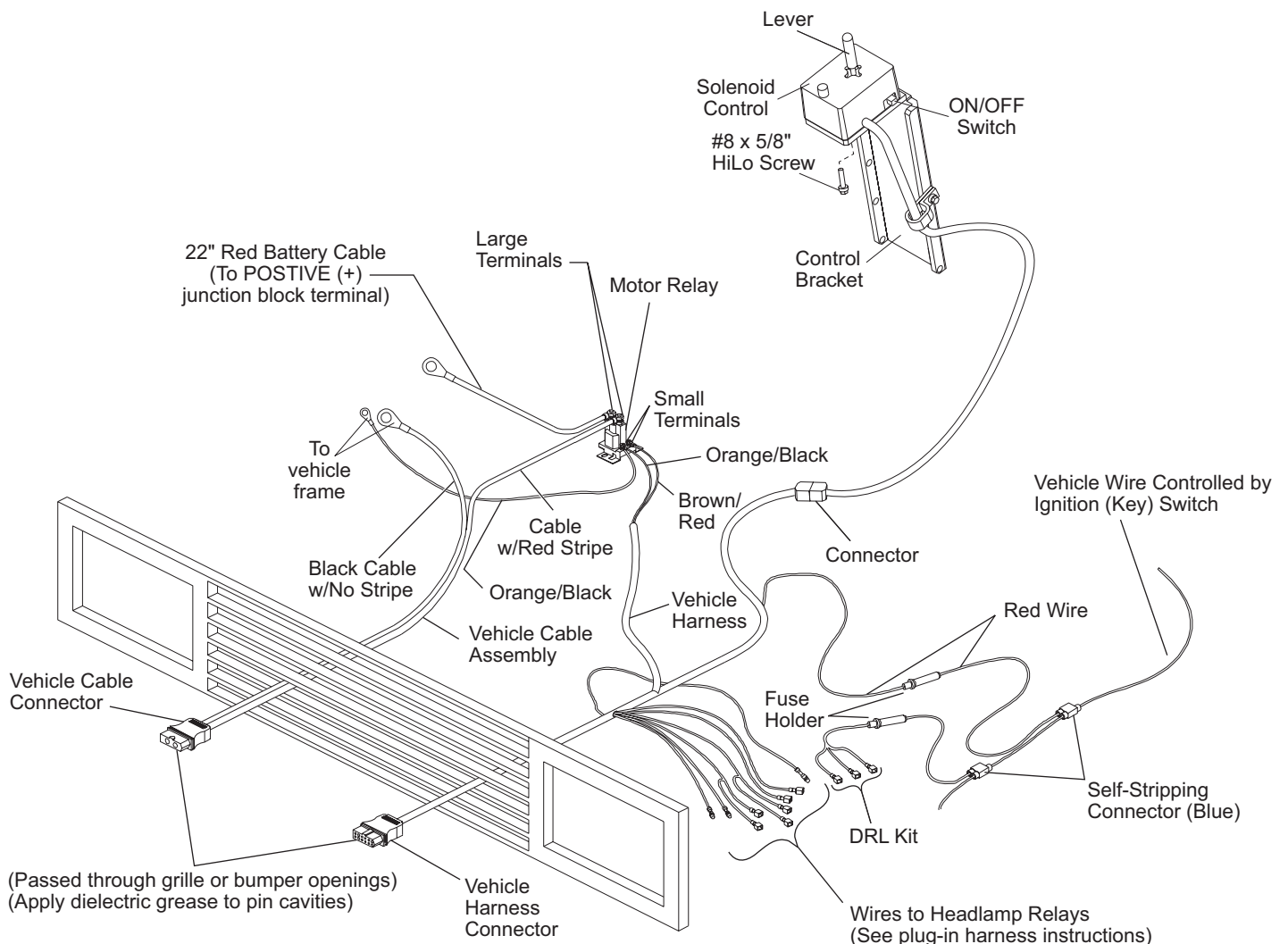
NOTE: Use dielectric grease to prevent corrosion on all under hood electrical connections. Fill receptacles and lightly coat ring terminals and blades before assembly.

Snowplow may be removed from vehicle for installation of electrical components.

1. Turn off vehicle ignition.
2. Disconnect both the NEGATIVE (–) and POSITIVE (+) battery cables.
3. Mount the motor relay on the motor relay bracket, found in the harness kit, using 1/4" x 3/4" cap screws, washers, and locknuts.

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Harness, Solenoid Control & Motor Relay Installation Diagram



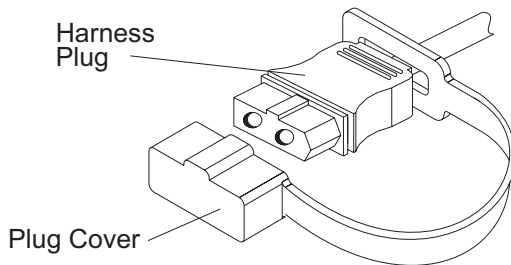
UNDER HOOD INSTALLATION

VEHICLE HARNESS AND MOTOR RELAY (Continued)

- On the passenger side of the radiator bulkhead, mount the motor relay bracket with the motor relay attached to an existing bolt in the bulkhead using the 8mm nut and 3/8" lock washer from the harness kit. **Refer to photo A on page 8 for specific location.**

NOTE: Motor relay terminals must be up or horizontal

- Route the 22" battery cable between a large motor relay terminal and the bottom of the junction block located near the maxi fuse center. **Refer to photo B on page 8 for more details.** Be sure to avoid sharp edges and hot or moving parts.
- Attach cable to motor relay terminal with a lock washer and a 5/16"-24 jam nut. Attach cable to the lower terminal of the junction block. Trim junction block cover as necessary to close.
- Stretch rectangular openings of plug cover straps (found in harness kit) over harness connector ends of vehicle cable assembly (found in hydraulics box) and vehicle harness (found in harness kit). Place plug covers over harness ends.
- Find a location in the vehicle grille on the passenger side for mounting the vehicle cable assembly connector. The best location is at least 10-1/2" from the center of the grille and at a convenient height for connecting the plow plugs.



- Allow connector of each harness to hang out in front of grille. Allow enough cable so it is easy to mate and remove connector. Secure with cable ties (found in harness kit).

- Route vehicle cable assembly through the grille at the selected location and through or around the radiator bulkhead to motor relay taking care to avoid sharp edges and hot or moving parts.

NOTE: This vehicle is equipped with a tilt hood, so a service loop will be necessary when making the transition from the tilt hood to the frame. Check the cable installation for interference by raising and lowering the hood a number of times. Add anti-chafing material (installer-supplied) as needed.

- Attach cable with red stripe to the unused large terminal on the motor relay, and secure it with a lock washer and 5/16"-24 jam nut.
- Route black cable without a stripe to an existing hole in the vehicle frame. **DO NOT attach at this time.**
- Find a grille location on driver side for mounting the vehicle harness connector (similar position to vehicle cable assembly connector). See Steps 8 and 9 of this section for how to install. Route vehicle harness through grille and around, or through, radiator bulkhead into engine compartment.
- Route the wires that break out of the vehicle harness to the area near the motor relay. Route rest of harness to the fire wall.
- On the driver side, there is a hole in the fire wall with a rubber grommet in it. If the hole is not available, drill a 5/8" hole through the fire wall in a convenient place away from sharp, hot, or moving parts.

⚠ CAUTION

Before installing self-drilling screws or drilling mounting holes, check the selected mounting area for any wires, hoses, or other obstructions.

(Continued on next page)

UNDER HOOD INSTALLATION

VEHICLE HARNESS AND MOTOR RELAY (Continued)

16. Insert fuse holder on pink wire of DRL Adapter Kit (PN 61584 – included with plug-in harness kit) through fire wall first. Route end of pink wire with receptacles to an area near the motor relay.
17. Feed vehicle harness fuse holder through hole and then feed the plastic connector and harness through to the cab. Disassembly of the fuse holder may make it easier to pass through 5/8" hole. Use a grommet to protect the harness where it passes through the fire wall.
18. Route brown/red and orange/black wire loom to motor relay.
19. Attach the brown/red and orange/black wires small ring terminals to separate small terminals on motor relay using a lock washer and #10-32 nut for each connection.
20. Route the 24" long orange/black wire with 3/8" ring terminal to the same location on the vehicle frame as the black cable without a stripe from step 12. Attach both the wire and the cable to the vehicle frame using the 3/8" x 1-1/4" cap screw, washer, and locknut provided. Before attaching, clean away any paint or dirt from the vehicle frame to ensure a good ground connection.
21. Inside the cab, route vehicle harness connector to solenoid or CabCommand control and couple the connectors together. See instructions included with the control for mounting procedures.
22. Locate an accessory wire capable of carrying 6 Amps in addition to existing circuit loads that is also controlled by the ignition (key) switch. Route the red wire of the vehicle harness SFE-6 fuse holder to this location and trim off any excess wire (keep fuse holder in system).
23. Open blue, self-stripping connector and place the end of the red wire against the inner groove stop (end of wire must not extend from the closed connector), and the accessory wire in the outer groove. Close connector over the wires using a pair of pliers and snap the locking tab in place. Repeat with DRL pink wire from Step 16.

NOTE: Use dielectric grease to prevent corrosion on all under hood electrical connections. Fill receptacles and lightly coat ring terminals and blades before assembly.

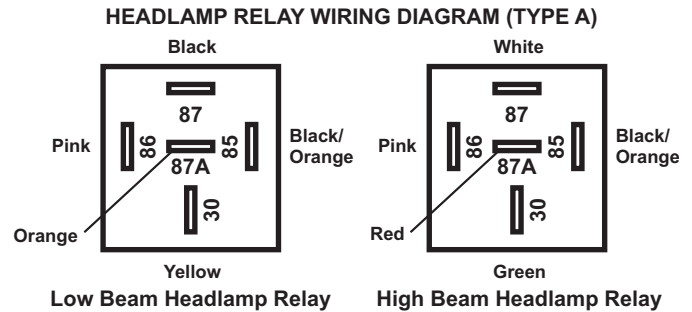
For MVP® blade installation, continue on page 6.

UNDER HOOD INSTALLATION

PLUG-IN HARNESS AND HEADLAMP RELAY INSTALLATION

1. On the passenger side, locate the OEM vehicle headlamp harness connector that is near the hinge for the hood. **Refer to photo C on page 8 for more details.**
2. Remove the small, light-gray connector lock by carefully sliding it back away from the connectors. Separate the connectors by pushing down on the locking tab and pulling them apart.
3. Join the female connector on the end of the plug-in harness nearest the breakout to the male connector from the OEM vehicle headlamp harness. Reinstall the small, light-gray connector lock. Join the male connector of the plug-in harness to the female connector of the OEM headlamp harness.
4. Route the plug-in harness along the OEM vehicle headlamp harness, and position the breakout in the plug-in harness underneath the motor relay.
5. Continue routing the plug-in harness to the driver side along the existing cables underneath the radiator and engine area. Repeat steps 2 and 3 with the plug-in connectors on the driver side.
6. Near the motor relay, connect the vehicle harness, plug-in harness, and pink wires from DRL kit to the two headlamp relays (found in harness kit) as shown in the following diagram. (Brown wires from vehicle harness and 1 pink wire from DRL kit are not used.)

NOTE: Use dielectric grease to prevent corrosion on all under hood electrical connections. Fill receptacles and lightly coat ring terminals and blades before assembly.

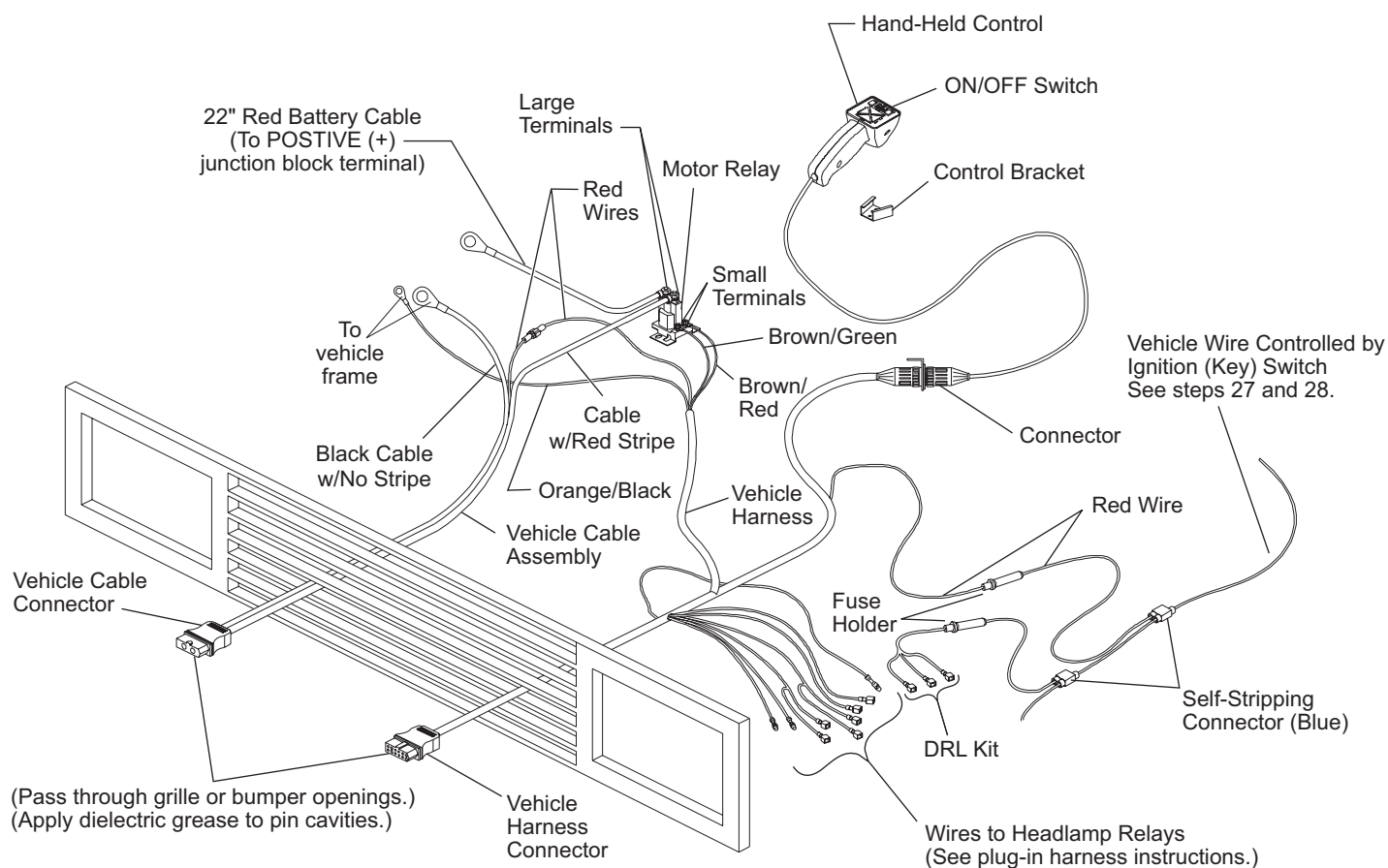


7. Use cable ties (found in harness kit) to secure harnesses, relays, and wires away from sharp edges and hot or moving engine parts as well as to prevent accidental grounding of connections.
8. Lubricate terminal cavities of both harness connectors with dielectric grease.
9. Reconnect the vehicle POSITIVE (+) battery cables to the POSITIVE (+) battery terminal.
10. Reconnect the vehicle NEGATIVE (–) battery cable to the NEGATIVE (–) battery terminal.

NOTE: This vehicle is equipped with a tilt hood, so a service loop will be necessary when making the transition from the tilt hood to the frame. Check the cable installation for interference by raising and lowering the hood a number of times. Add anti-chafing material (installer-supplied) as needed.

MVP® IN-CAB INSTALLATION INSTRUCTIONS

VEHICLE HARNESS AND VEHICLE CABLE INSTALLATION

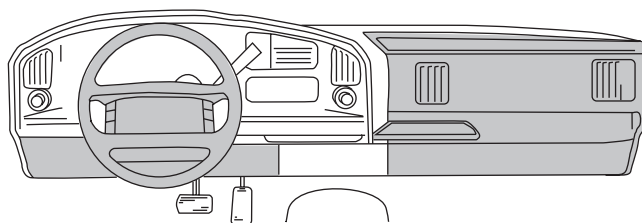


(Continued from page 4.)

21. Remove the packing material from the end of the harness near the fuse. This will expose 10 socket-type terminals. Push the fuse holder through the fire wall hole and then carefully feed the end of the harness with the 10 terminals through to the cab.
22. Locate a connector bracket mounting position under the dash where it will not interfere with other equipment. Mount the connector bracket using #8 x 5/8" tapping screws and washers.

⚠ CAUTION

Do not alter, modify, or install additional components in shaded areas of the illustration below. Failure to comply may cause damage to the product or property.



(Continued on next page)

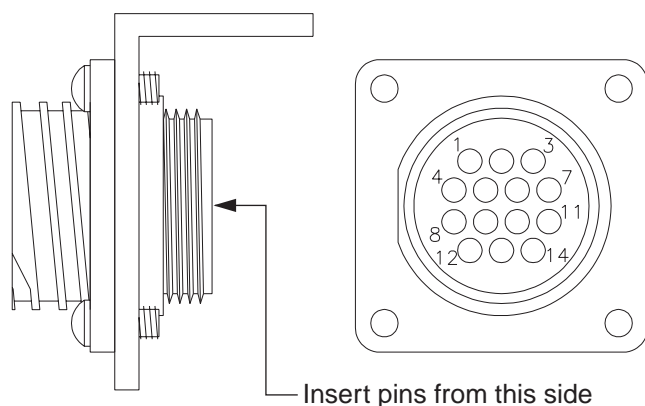
MVP® IN-CAB INSTALLATION INSTRUCTIONS

VEHICLE HARNESS AND VEHICLE CABLE INSTALLATION (Continued)

23. Feed the vehicle harness through the bracket.
24. Insert each of the 10 socket-type terminals into the connector housing. **(See figure below.)**

Refer to the Table 1 below for under-dash vehicle harness connector pin assignments.

NOTE: A "snap" will be felt as the terminals are successfully inserted. An extraction tool is provided for removal of pin terminals if necessary.



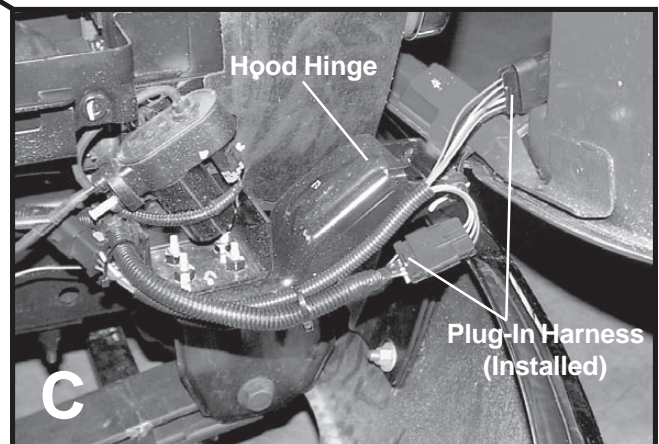
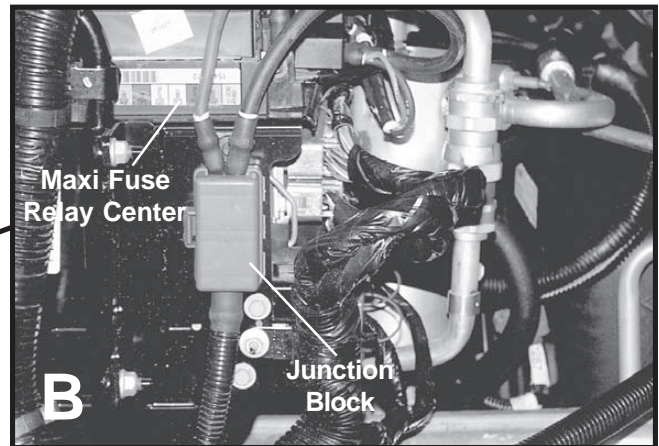
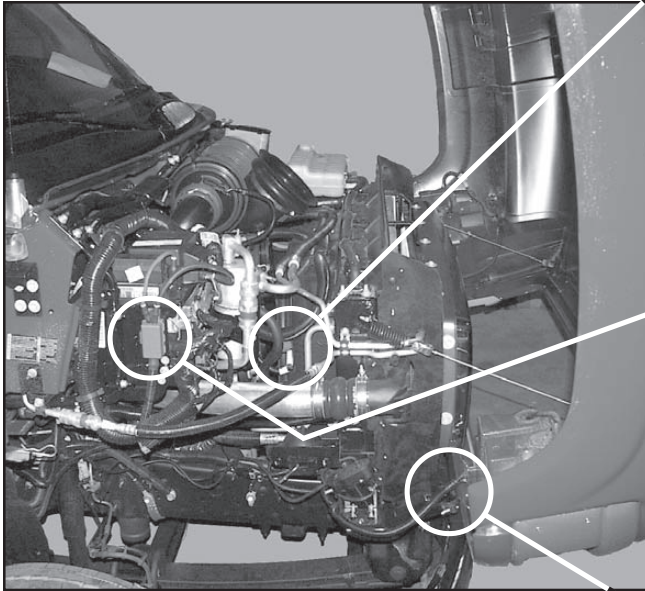
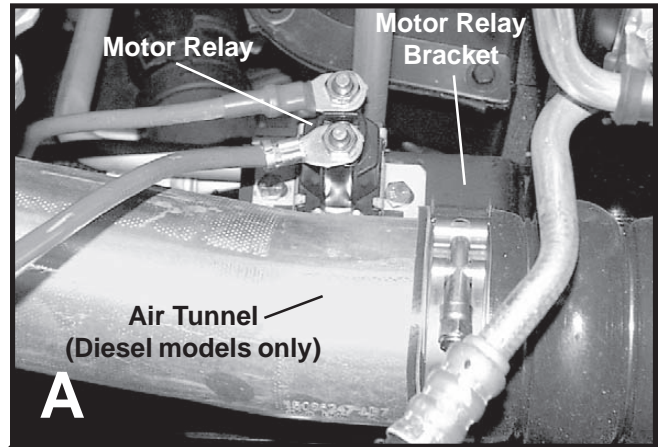
25. Secure the connector to the bracket with the provided #6-32 x 1/4" tapping screws and lock washers.
26. Locate an accessory wire capable of carrying 10 Amps in addition to existing circuit loads that is also controlled by the ignition (key) switch. Route the red wire of the vehicle harness 10-Amp fuse holder to this location and trim off any excess wire (keep fuse holder in system).
27. Open blue, self-stripping connector and place the end of the red wire against the inner groove stop (end of wire must not extend from the connector when it is closed), and the accessory wire in the outer groove. Close the connector over the wires using a pair of pliers and snap the locking tab in place. Repeat with DRL pink wire.
28. Under hood near motor relay, connect the female spade terminal on the small red wire from the vehicle cable to the male spade terminal on the red wire from the vehicle harness.
29. Install plug-in harness and relays as shown on page 5 of these instructions.

Table 1

Wire Color	Pin No.
Light Blue With Orange Stripe	1
Blue With Orange Stripe	2
Black With White Stripe	3
Light Green	4
Light Blue	5
White With Yellow Stripe	6
Brown With Red Stripe	7
Red	8
Orange With Black Stripe	9
Brown With Green Stripe	10

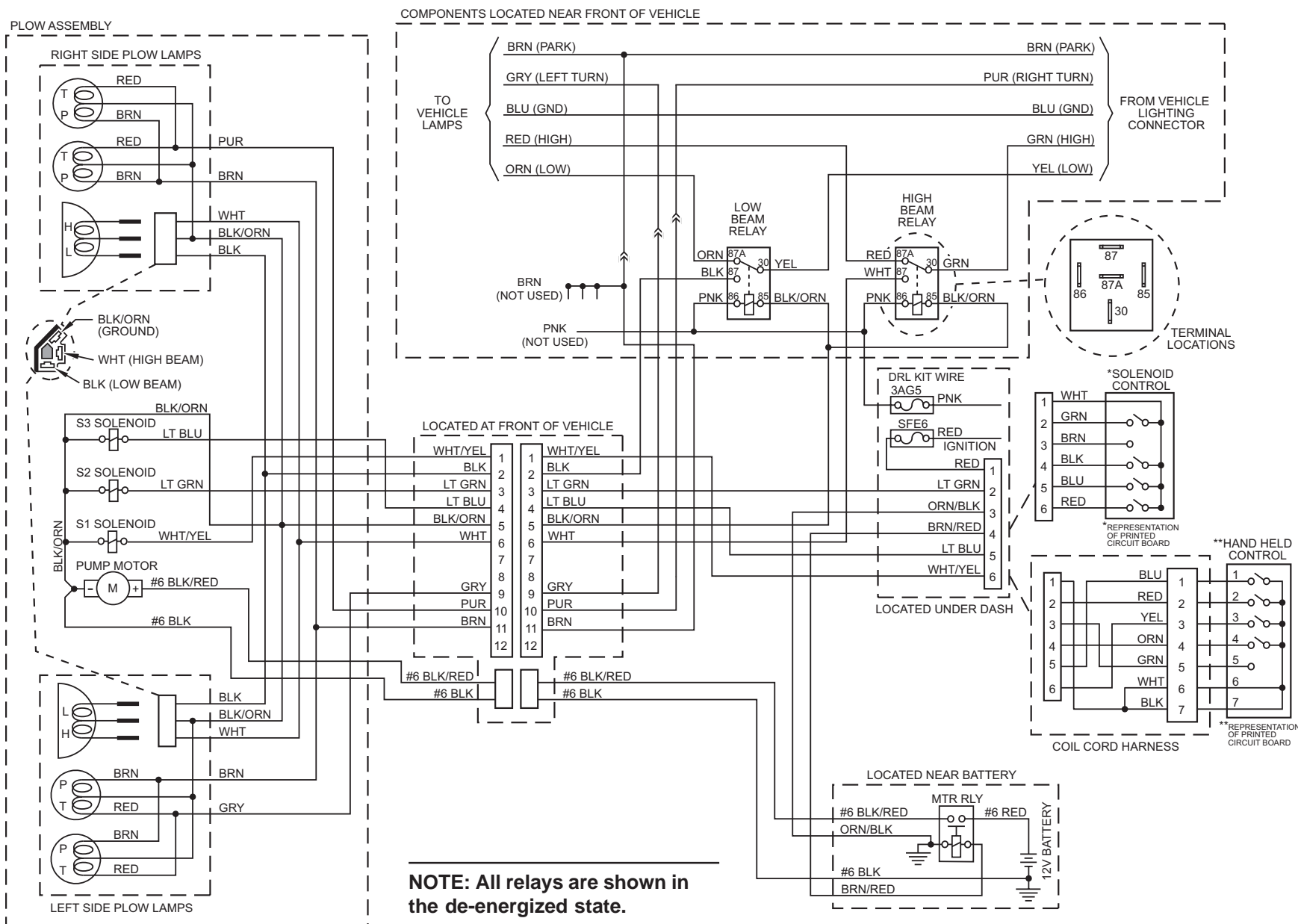
INSTALLATION PHOTOS

NOTE: These photos are a supplement to the installation instructions contained in this document. Please see the previous pages for a more detailed description of how to install this product. All photos are from the passenger side of the vehicle.



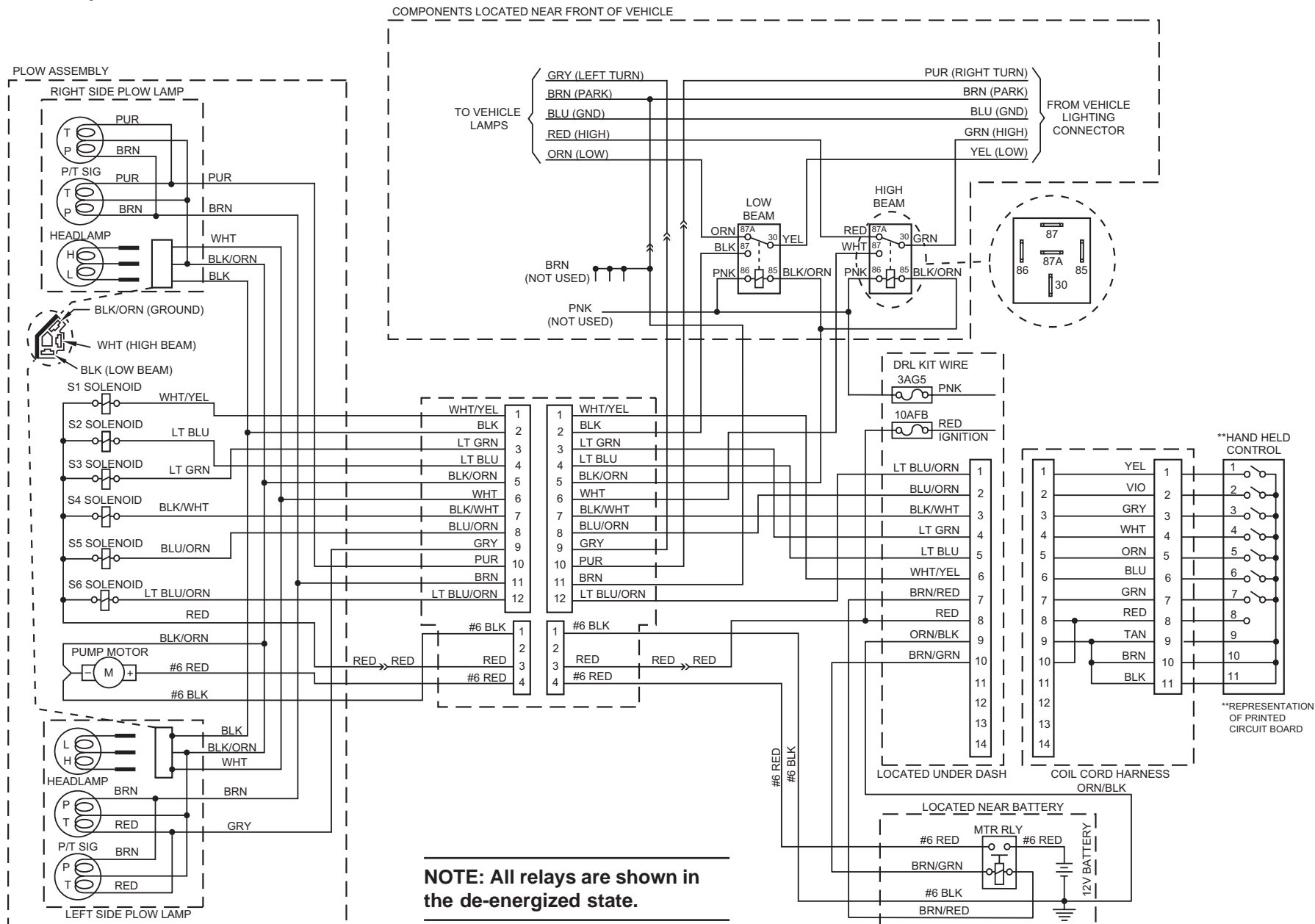
Harness Type - A **With 9-Pin Headlamp Kit** **& Chevy/GMC C4500/5500**

ELECTRICAL SCHEMATIC – STRAIGHT BLADE



Harness Type - A **With 12-Pin MVP Headlamp Kit** **& Chevy/GMC C4500/5500**

ELECTRICAL SCHEMATIC – MVP® BLADE





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