

Headlamp Electrical Schematics for Straight Blades

Minute Mount
SYSTEM

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Headlamp Type	Harness Type	DRLs (Yes/No)	Page No.
2E	9-Pin, C	No	16
2E	9-Pin, C	Yes	20
2E	12-Pin, B	Yes	27*
HB1	7-Pin, A	No	12
HB1	7-Pin, A	Yes	13
HB1	9-Pin, A	No	15
HB1	9-Pin, A	Yes	21
HB1	9-Pin, C	No	16
HB1	9-Pin, C	Yes	20
HB1	12-Pin, A	No	25
HB1	12-Pin, A	Nissan w/ and w/o DRLs; Toyota w/DRLs)	31
HB3/HB4	9-Pin, A	No	17
HB3/HB4	9-Pin, A	Yes	19
HB3/HB4	12-Pin, B	Yes	28
HB3/HB4	12-Pin, D	Yes (Automatic, DRL kit not required)	26
HB5	7-Pin, A	No	12
HB5	7-Pin, A	Yes	13
HB5	9-Pin, A	No	15
HB5	9-Pin, A	Yes	21
LF/UF	12-Pin, B	Yes	29

* Early GM applications used two harnesses spliced together.

INTRODUCTION

The purpose of this book is to provide the trained mechanic with a comprehensive reference to assist in diagnosis and repair of FISHER® Minute Mount® snowplow electrical systems. It contains schematics, diagrams and charts which supply information for the various types of vehicle and plow headlamp systems. Although intended primarily as a diagnostic tool for headlamp systems, the straight blade hydraulic system circuitry is also included to show the complete electrical system.

HOW TO USE THIS BOOK

Use the information in the Table of Contents to locate the electrical schematic for the vehicle. All headlamp harnesses are tagged with the harness part number. The schematic is an abstract drawing showing the purpose of each component in the system. Where possible, component locations are indicated by enclosures on the schematic. The Lamp Type, Wire Color and Connector Identification charts and diagrams will give specific wire colors, their function and locations in connectors. Any special notes are found in the upper right corner of the schematic. Further information and a specific troubleshooting guide may be found in the Mechanic's Guide for the SEHP system.

The 9- and 12-pin Vehicle Side schematics contain all vehicle headlamp and harness types. The 7-pin Vehicle Side Schematics show only a few representative applications. For other 7-pin vehicle headlamp and harness types, refer to the corresponding 9-pin Vehicle Side schematic and use only the headlamp circuitry.

EARLY REVISION VEHICLE HARNESSSES

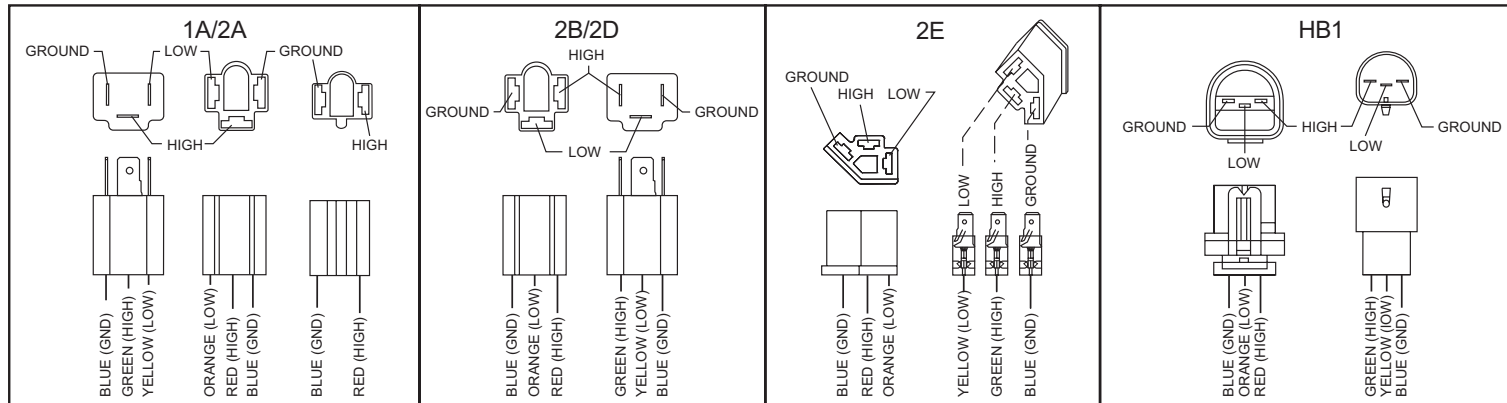
All 9- and 12-pin vehicle harnesses are labeled with a white tag indicating the harness part number and revision level. Early 9-pin harness revisions 1-9 and 12-pin harness revisions 1-7 have a ground circuit in which the control, motor relay, and headlamp relays all ground through the 9- or 12-pin connector. Some of these early revision harnesses also have a diode in the ground wire to the headlamp relays. Complete 9- and 12-pin system schematics showing this early revision ground configuration are included in the front of the book. These schematics are for early revision harnesses using **only** the solenoid control. If a hand-held control has been installed, the ground circuit has been modified into the later revision configuration, in which only the headlamp relays ground through the 9- or 12-pin connector and the control and motor relay ground separately to the battery. Early revision harnesses may be easily identified by a single black/orange wire on one of the motor relay primary terminals which does not continue on to the negative battery terminal. All vehicle side schematics in this book show only the later revision circuitry.

NOTE: To verify the correct light kit/plug-in harness on a particular vehicle, refer to the appropriate Kit Selection Guide.

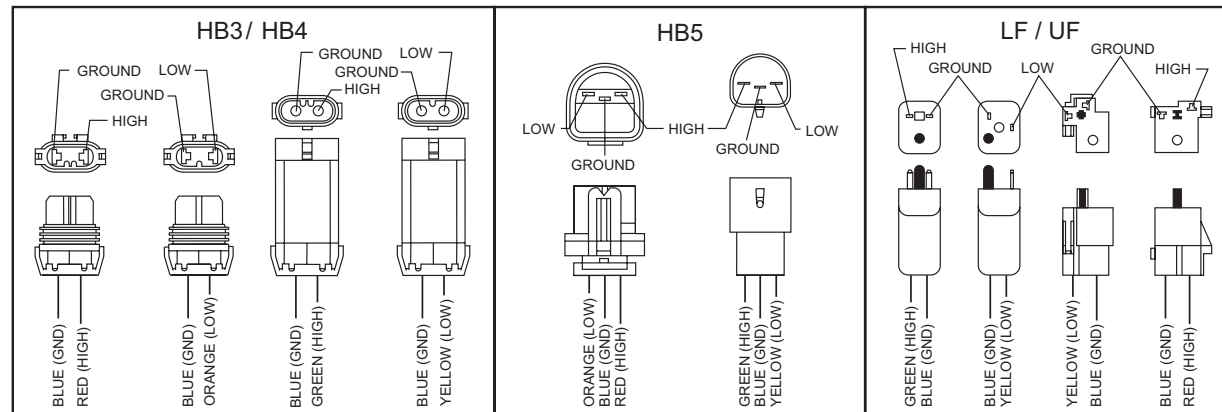
Lamp Types and Harness Connectors

NOTE: The lamp type is usually embossed in the headlamp lens.



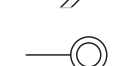

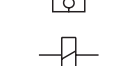
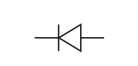
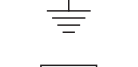
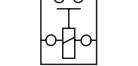
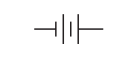
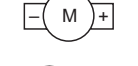

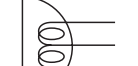
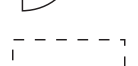
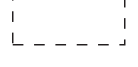
LAMP TYPE	LAMP SIZE	CONFIGURATION	DESCRIPTION
1A / 2A	4" x 6.5"		Quad Rectangular Lamp
2B	5.5" x 7.88"		Dual Rectangular Lamp
2D	7" DIA.		Dual Round Lamp
2E	4" x 6.5"		Dual Rectangular (Small Halogen Lamp)
HB1	Can Vary		Dual Rectangular Halogen Lamp
HB3 / HB4	Can Vary		Quad Composite Halogen Lamp
HB5	Can Vary		Dual Rectangular Halogen Lamp
LF / UF	3.64" x 5.93"		Quad Rectangular Halogen Lamp



NOTE: Blue ground wires may be LT or DK BLU, w/ or w/o WHT stripe, depending on harness.



Electrical Legend and Wire Colors

Electrical Legend	
	CROSSING WIRE
	WIRE SPLICE
	IN LINE CONNECTOR
	RING TERMINAL
	FUSE
	SOLENOID { S1 = SV08-2004 S2 = SV08-30 S3 = SV08-40
	DIODE
	CIRCUIT GROUND
	MOTOR RELAY
	BATTERY
	MOTOR
	PARK/TURN LAMP
	HEADLAMP
	COMPONENT ENCLOSURE

Wire Color Code			
BLK	Black	LTBLU	Light Blue
BLK/ORN	Black w/ Orange	LTBLU/ORN	Light Blue w/ Orange
BLK/RED	Black w/ Red	LTBLU/WHT	Light Blue w/ White
BLK/WHT	Black w/ White	LTGRN	Light Green
BLU	Blue	ORN	Orange
BLU/ORN	Blue w/ Orange	ORN/BLK	Orange w/ Black
BRN	Brown	PNK	Pink
BRN/RED	Brown w/ Red	PUR	Purple
DKBLU	Dark Blue	RED	Red
DKBLU/ORN	Dark Blue w/ Orange	TAN	Tan
DKBLU/WHT	Dark Blue w/ White	WHT	White
GRN	Green	WHT/YEL	White w/ Yellow
GRN/WHT	Green w/ White	YEL	Yellow
GRY	Gray		

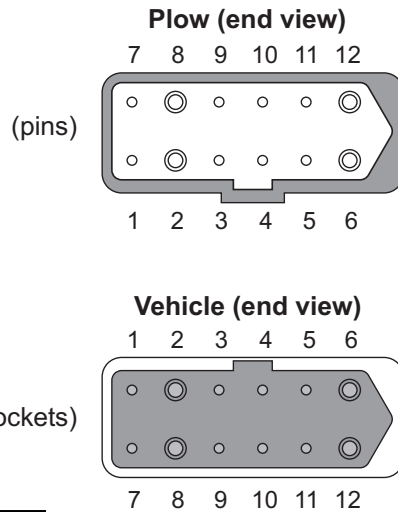
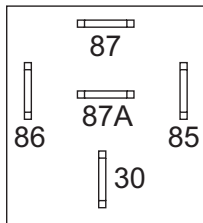
Abbreviations	
DRL	Daytime Running Lights
MTR RLY	Motor Relay

Harness Type	Description
A	Common Ground to headlamps
B	GM DRL system
C	Independent Ground to headlamps
D	GM Enhanced DRL system

Electrical Connectors

Harness Connectors

Headlamp Relay Terminal Locations



NOTE: The 7-, 9- and 12-pin harness connector pin #'s are embossed in the molded plug.

Pin #	Wire Color			Control Function
	7-Pin	9-Pin	12-Pin	
1	—	White/Yellow	White/Yellow	Valve S1(2W)
2	Black ^a	Black ^a	Black	Low Beam 9/12-Pin Rt
3	—	Lt Green	Lt Green	Valve S2(3W)
4	—	Lt Blue	Lt Blue	Valve S3(4W)
5	Black/Orange ^c	Black/Orange ^{c,d}	Black/Orange ^{c,d}	Ground
6	White	White	White	High Beam
7	—	—	Black/White	Low Beam 12-Pin Lt
8	—	—	Dk Blue/Orange	Gnd Low Beam 12-Pin Rt
9	Gray	Gray	Gray	Left Directional
10	Purple	Purple	Purple	Right Directional
11	Brown	Brown	Brown	Parking Lights
12	Orange/Black ^b	—	Lt Blue/Orange	Gnd Low Beam 12-Pin Lt

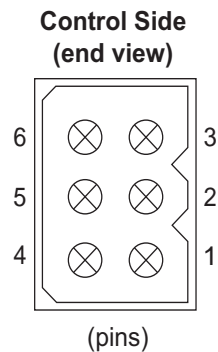
^a LEFT AND RIGHT SIDES.

^b 7-PIN SYSTEM — MAIN GROUND.

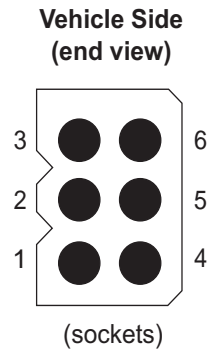
^c GROUND FOR HEADLIGHT RELAYS ONLY.

^d ON EARLY REVISION HARNESSSES, BLACK/ORANGE WIRE IS GROUND FOR MOTOR RELAY, CONTROL AND HEADLIGHT RELAYS.

Control Connectors

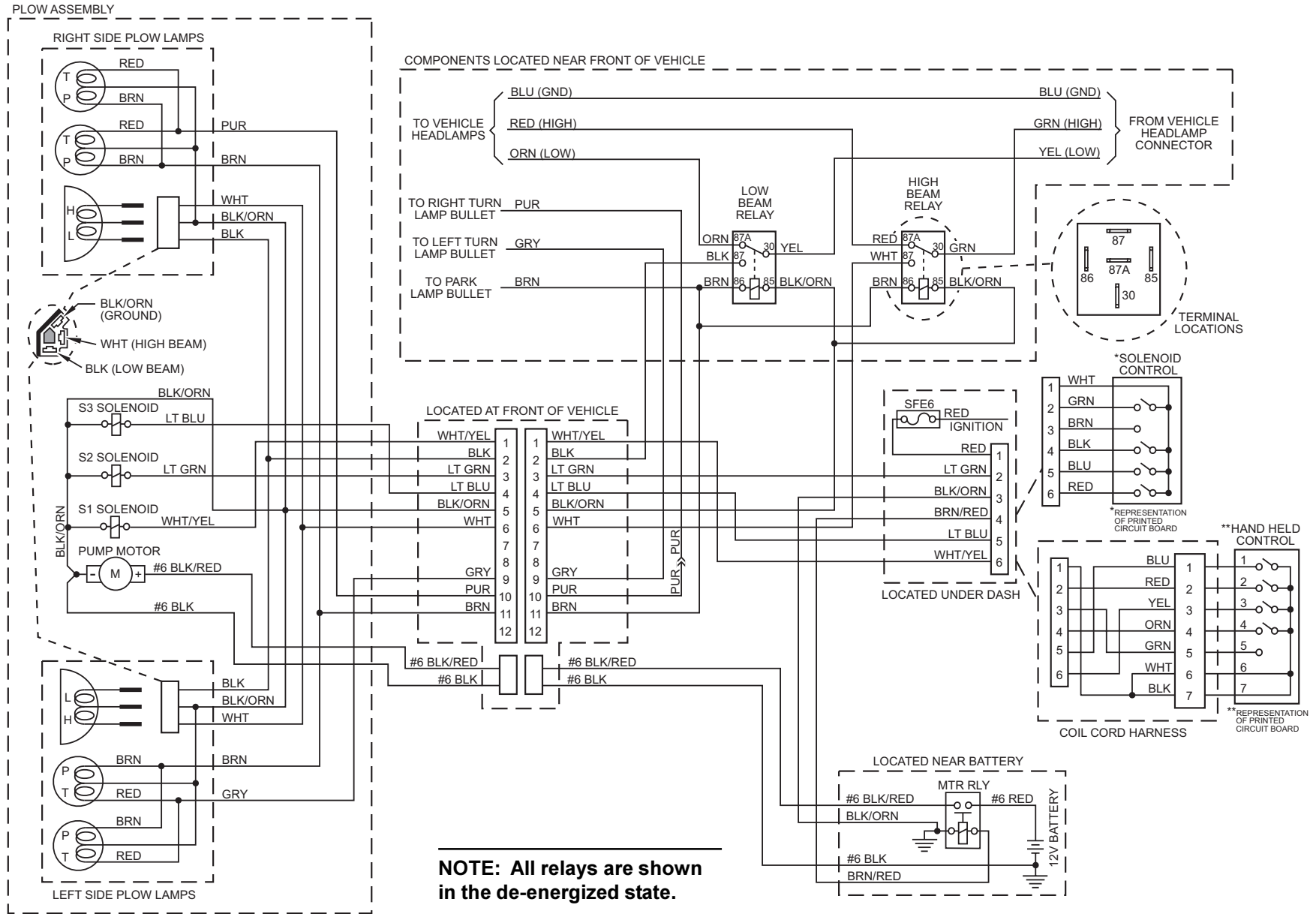


Pin #	Solenoid Control Wire Color Only
1	White
2	Green
3	Brown
4	Black
5	Blue
6	Red

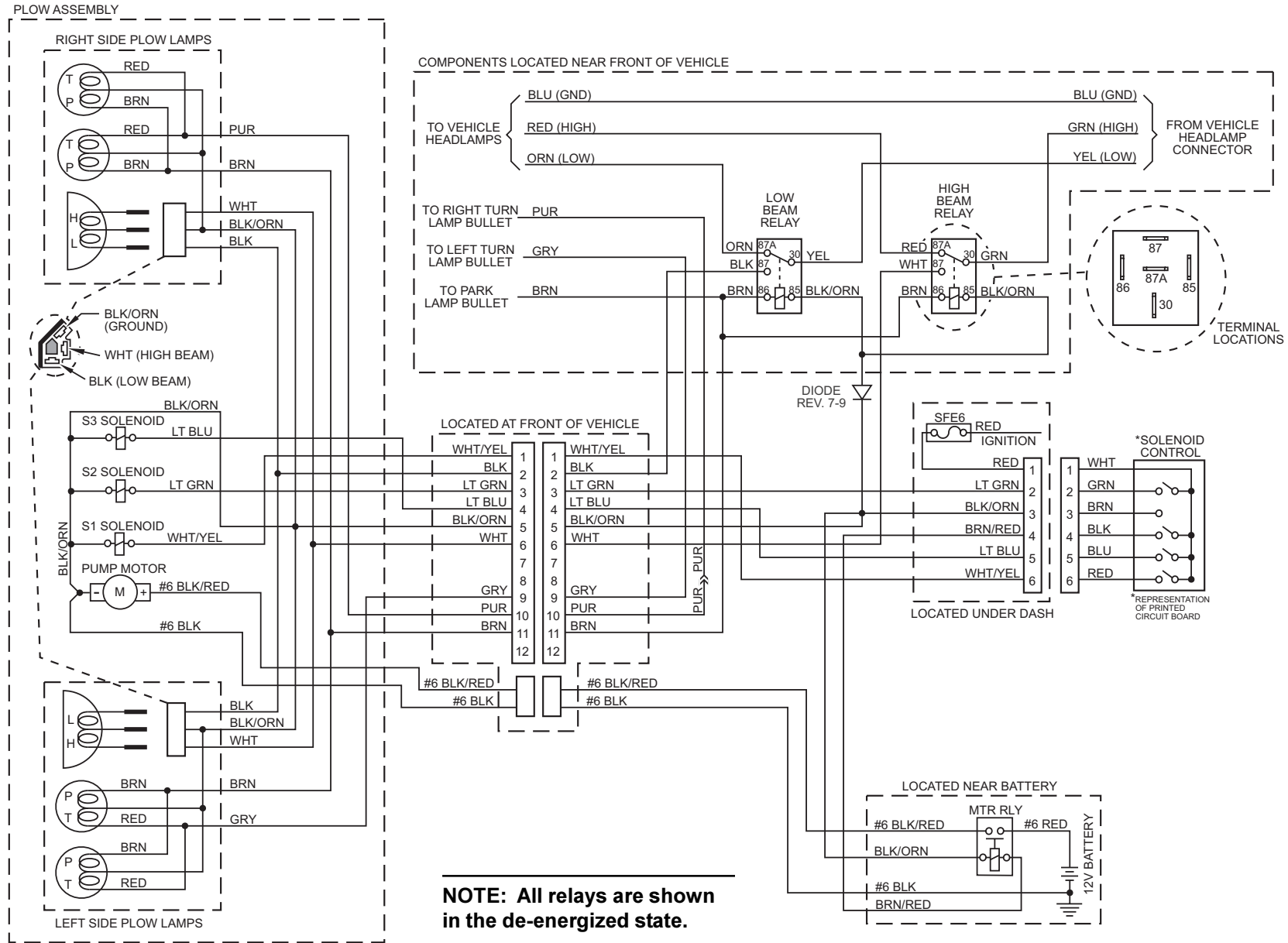


Pin #	Wire Color	Control Function
1	Red	+12V
2	Lt Green	S2(3W)
3	Orange/Black	Ground
4	Brown/Red	Motor Relay
5	Lt Blue	S3(4W)
6	White/Yellow	S1(2W)

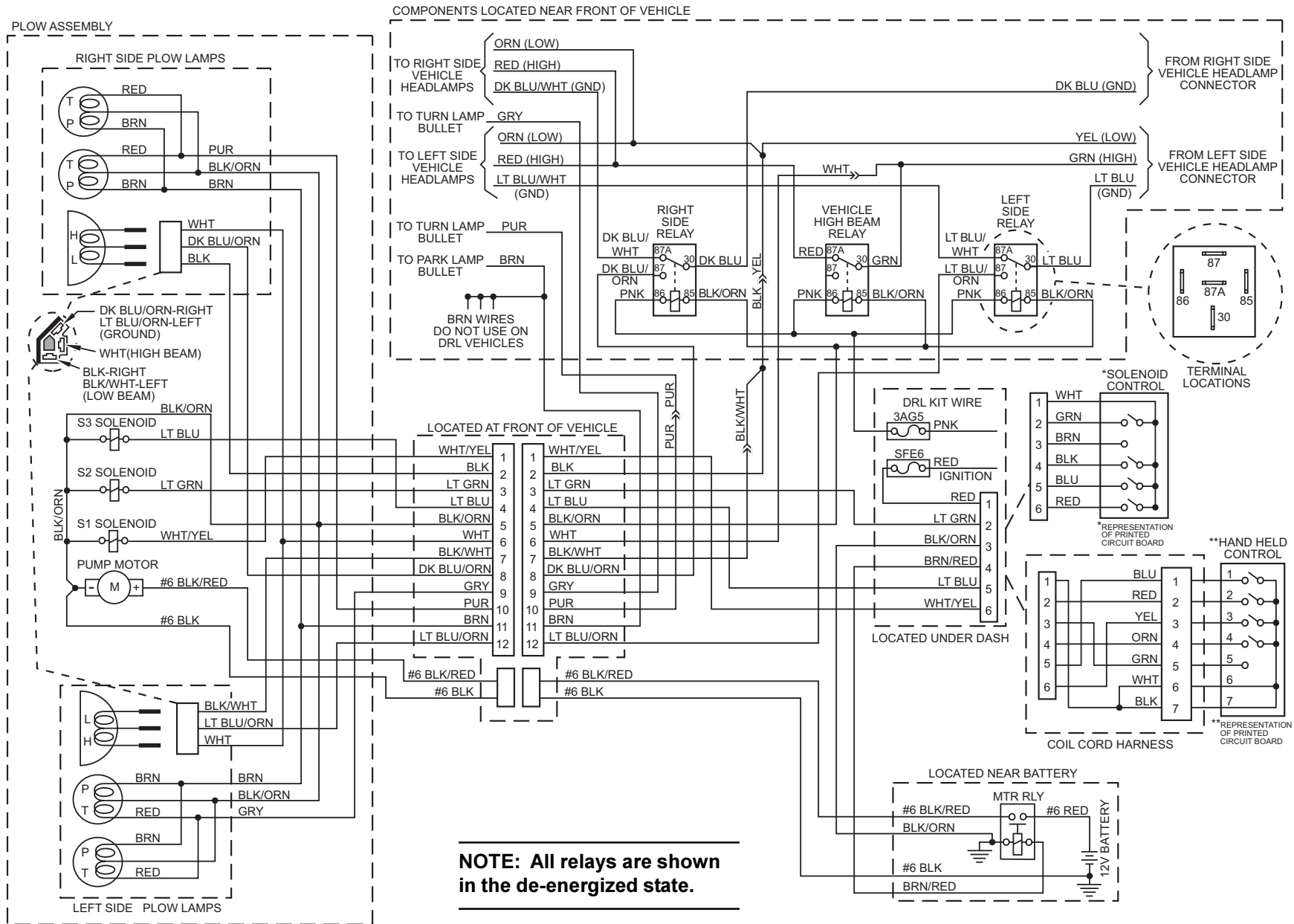
Electrical Schematic – 9-Pin Vehicle Harness



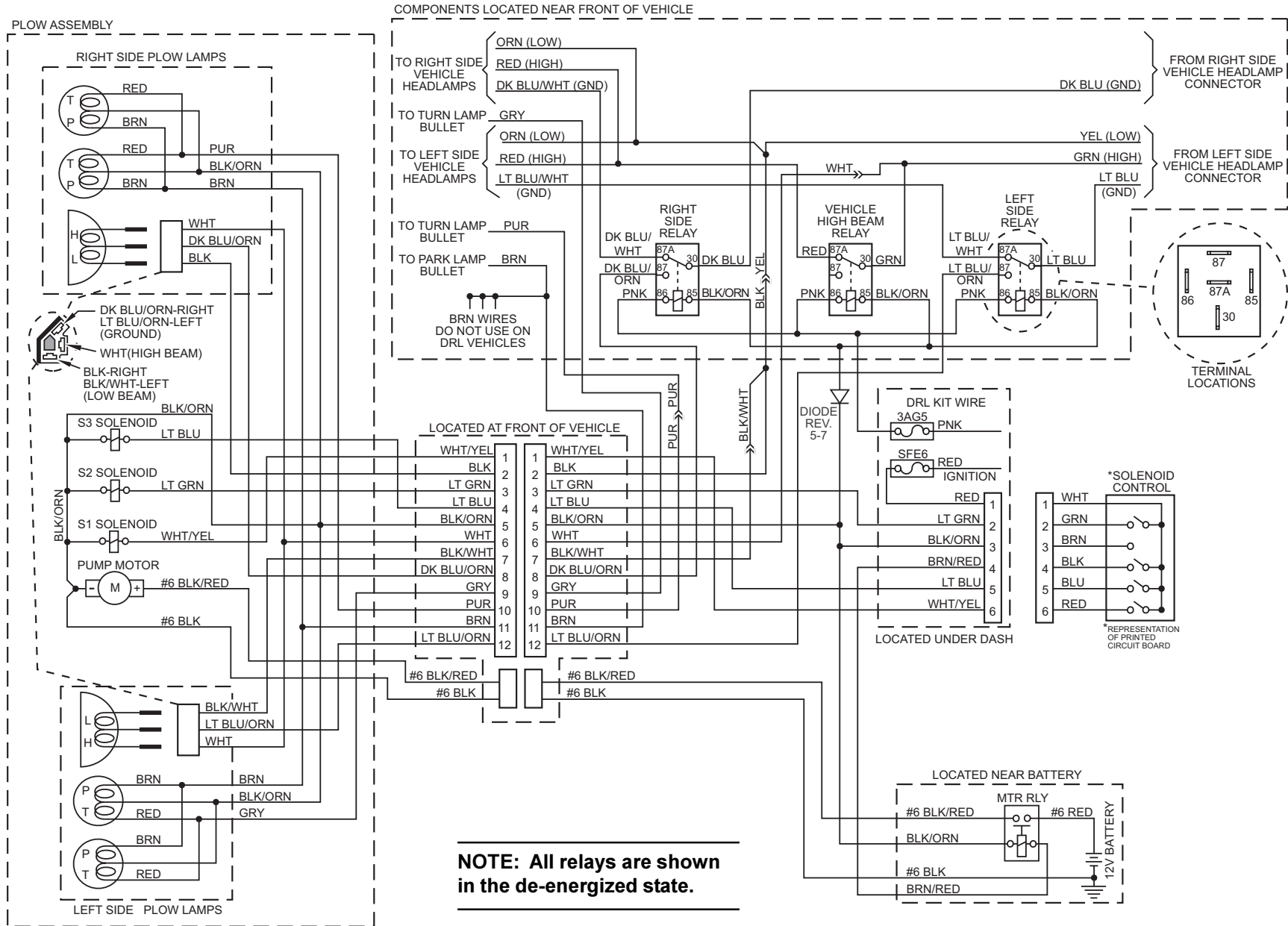
Electrical Schematic – 9-Pin Vehicle Harness – Revision 1-9



Electrical Schematic – 12-Pin Vehicle Harness



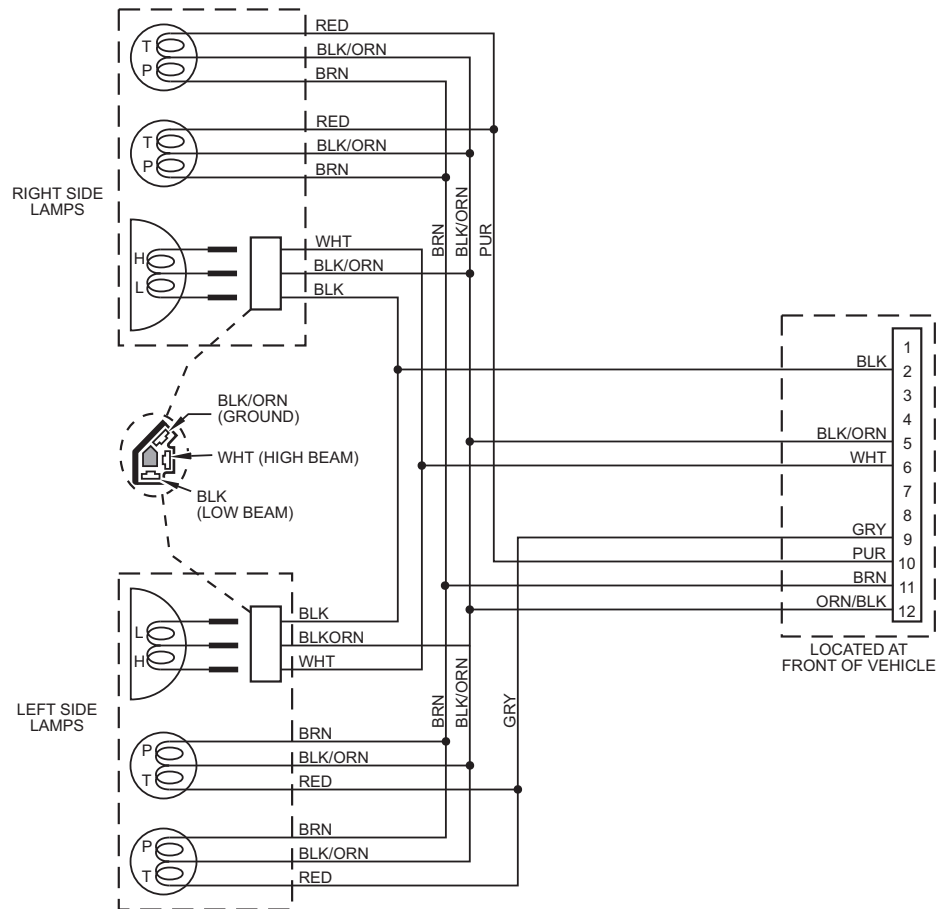
Electrical Schematic – 12-Pin Vehicle Harness – Revision 1-7



7-Pin Harness

PLOW SIDE

HEADLAMP KIT: 7 PIN



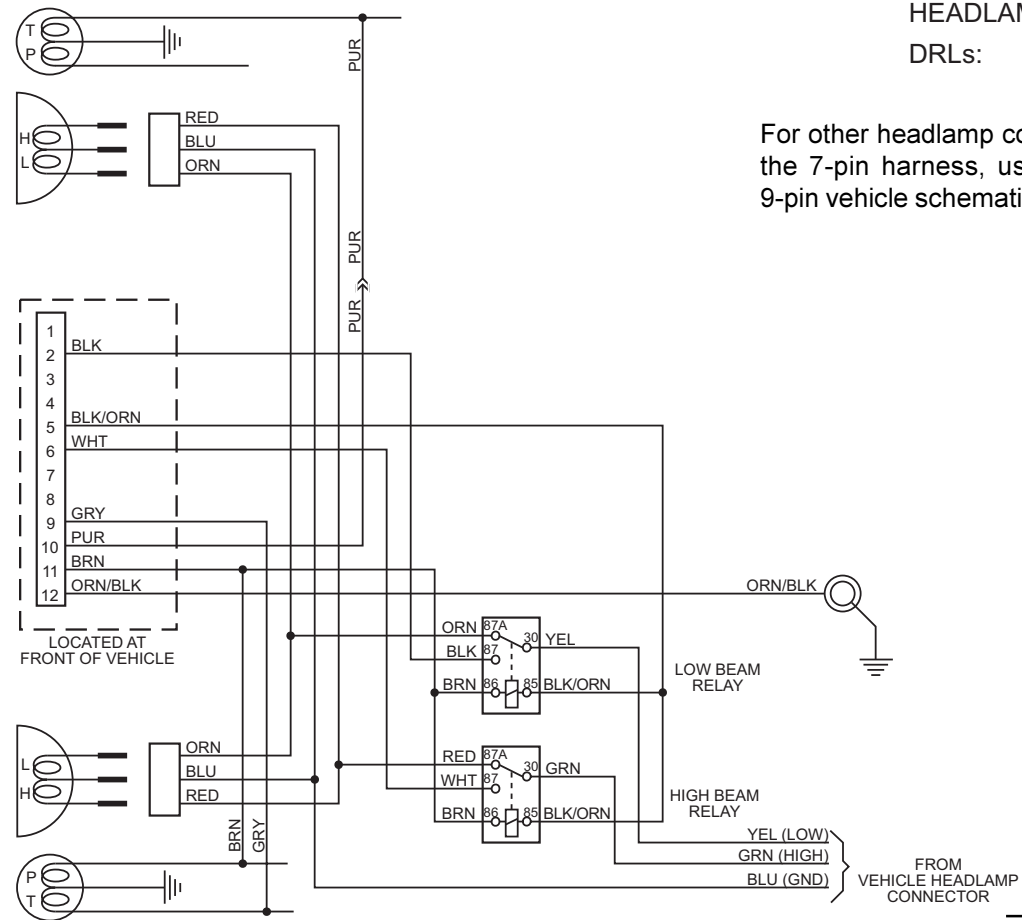
13775-90
13775-95

7-Pin Harness

VEHICLE SIDE

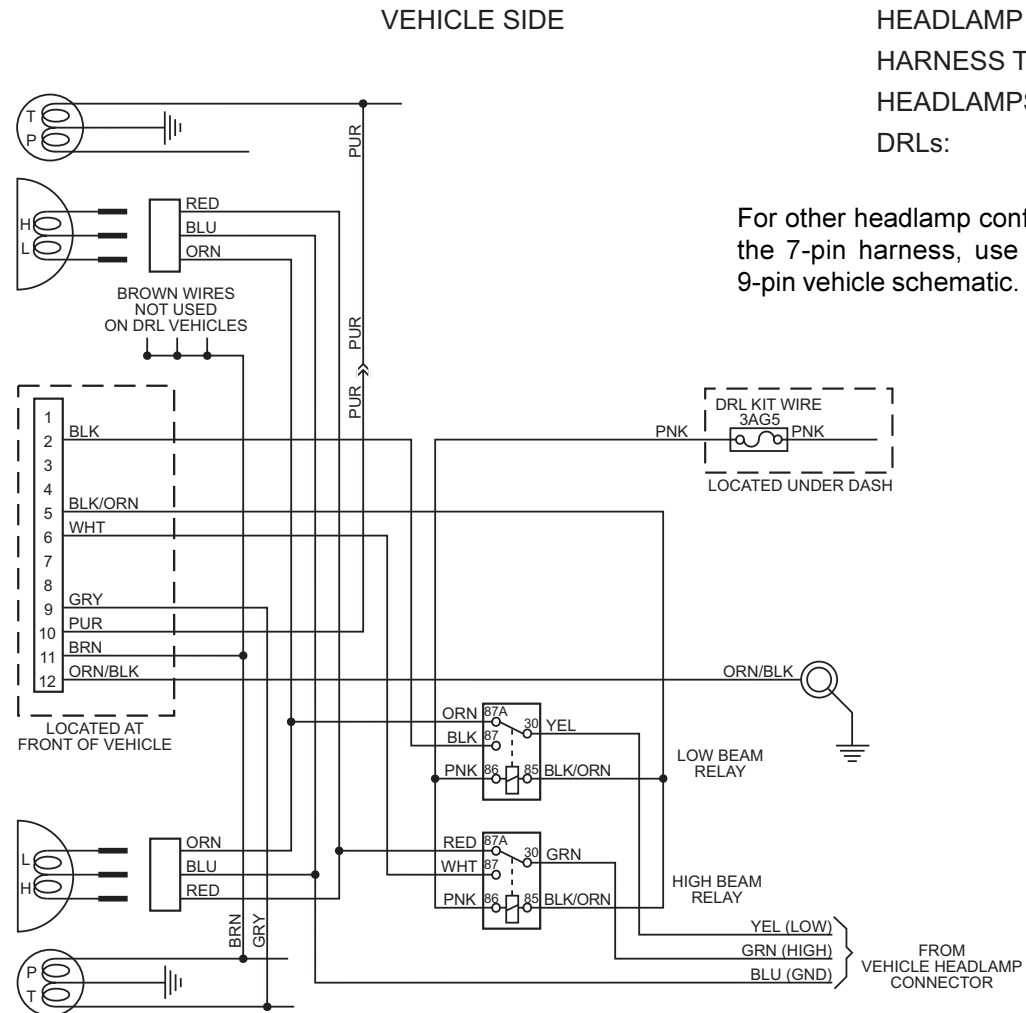
HEADLAMP KIT: 7 PIN
 HARNESS TYPE: A
 HEADLAMPS: HB1/HB5
 DRLs: NO

For other headlamp configurations using the 7-pin harness, use the appropriate 9-pin vehicle schematic.



NOTE: All relays are shown in the de-energized state.

7-Pin Harness

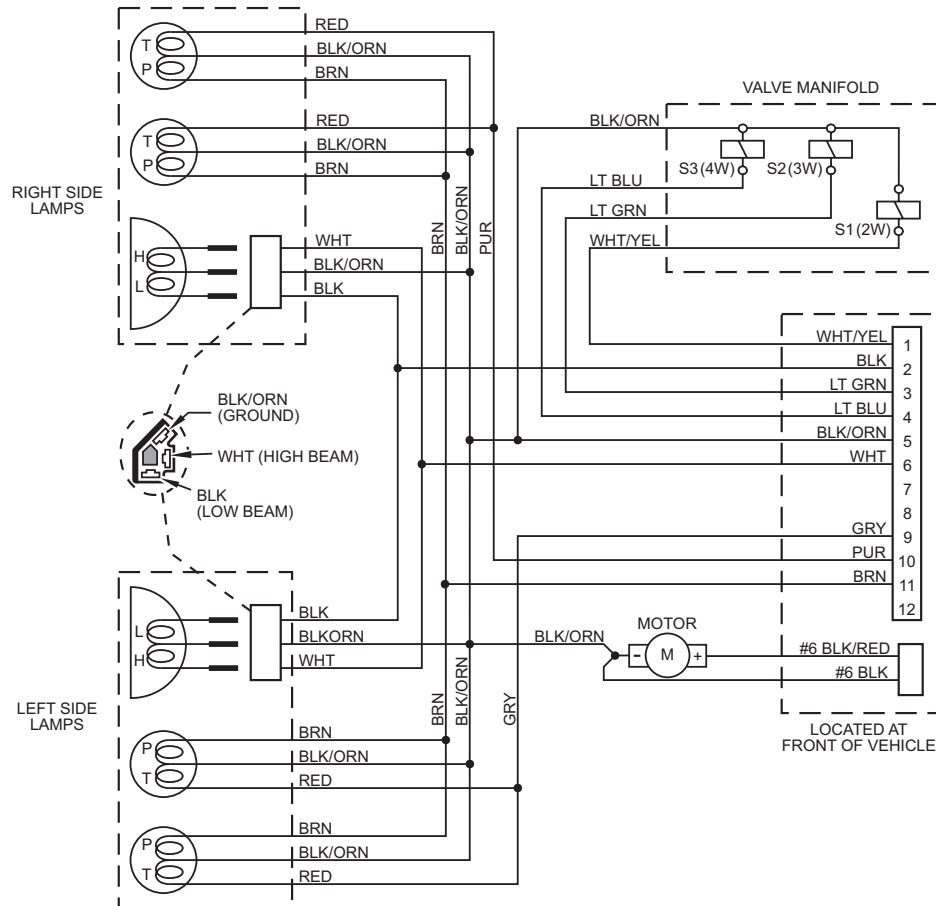


NOTE: All relays are shown in the de-energized state.

9-Pin Harness

PLOW SIDE

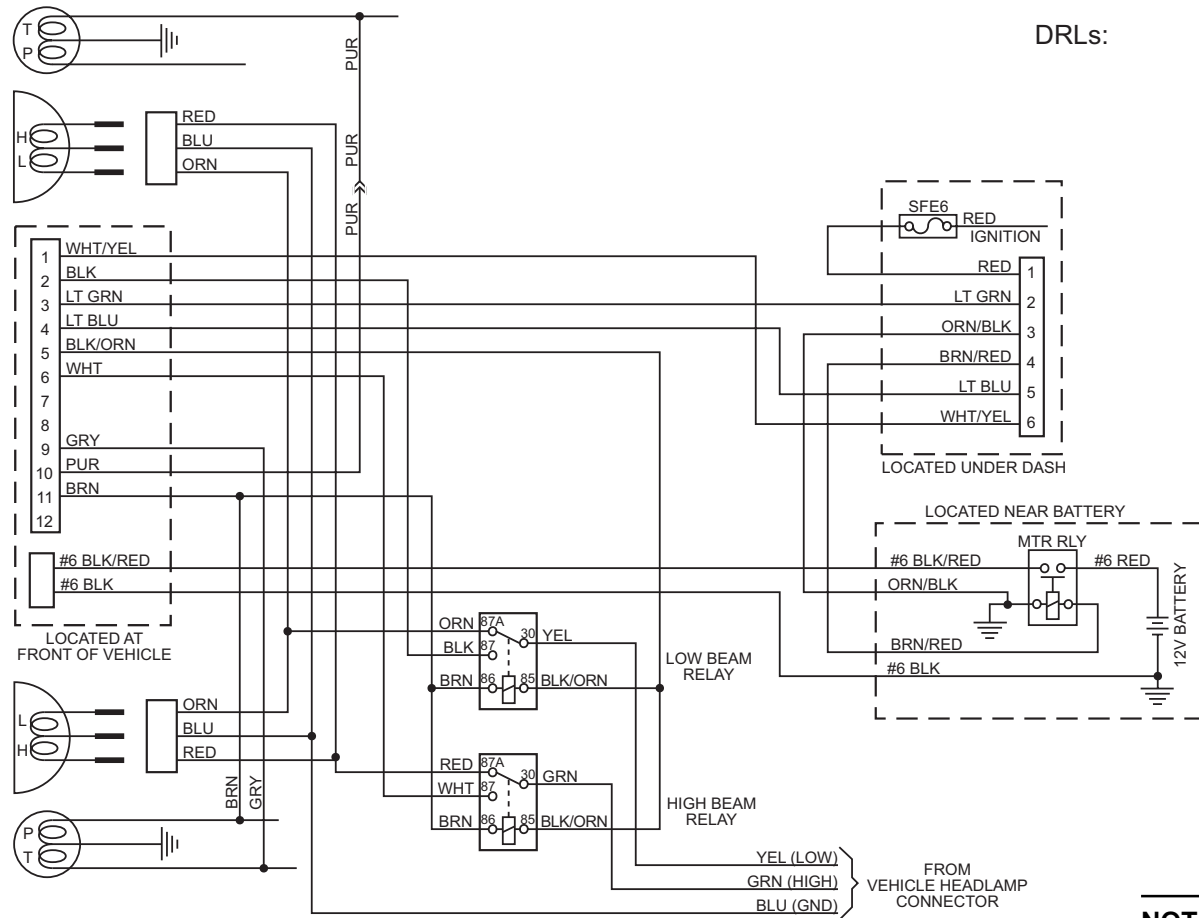
HEADLAMP KIT: 9 PIN



9-Pin Harness

VEHICLE SIDE

HEADLAMP KIT: 9 PIN
 HARNESS TYPE: A
 HEADLAMPS: 2B/2D
 HB1/HB5
 DRLs: NO

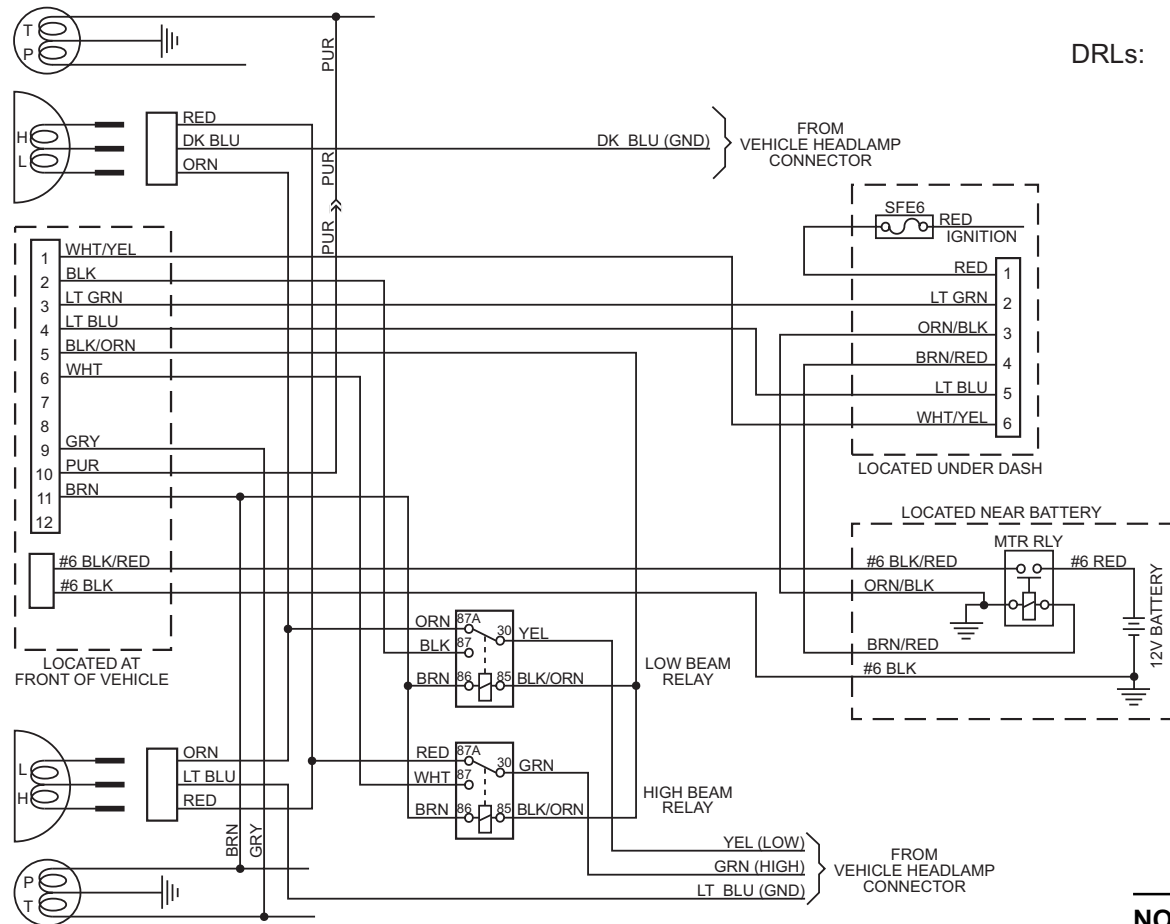


NOTE: All relays are shown in the de-energized state.

9-Pin Harness

VEHICLE SIDE

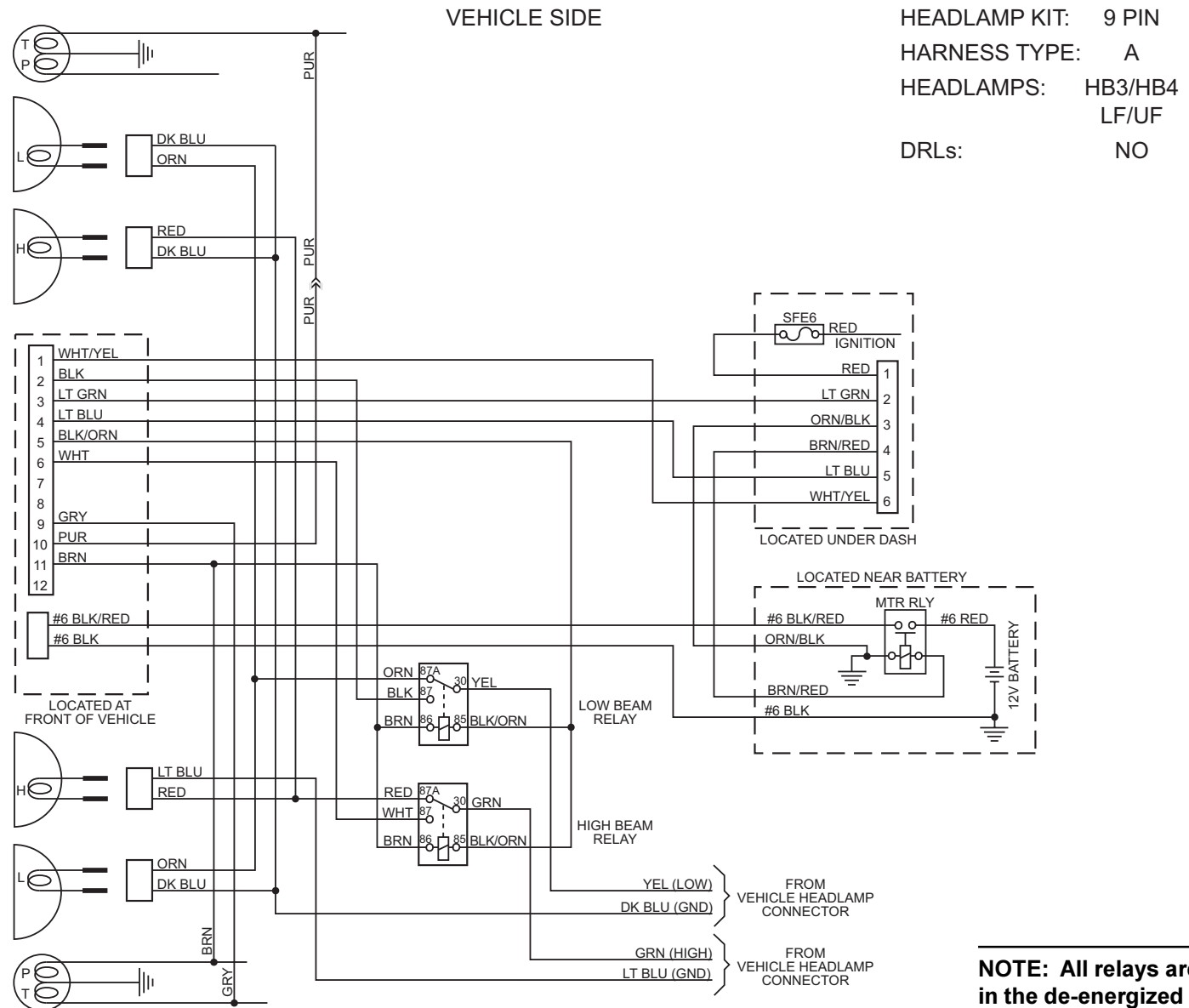
HEADLAMP KIT: 9 PIN
 HARNESS TYPE: C
 HEADLAMPS: 2B/2D
 2E
 HB1
 DRLs: NO



NOTE: All relays are shown in the de-energized state.

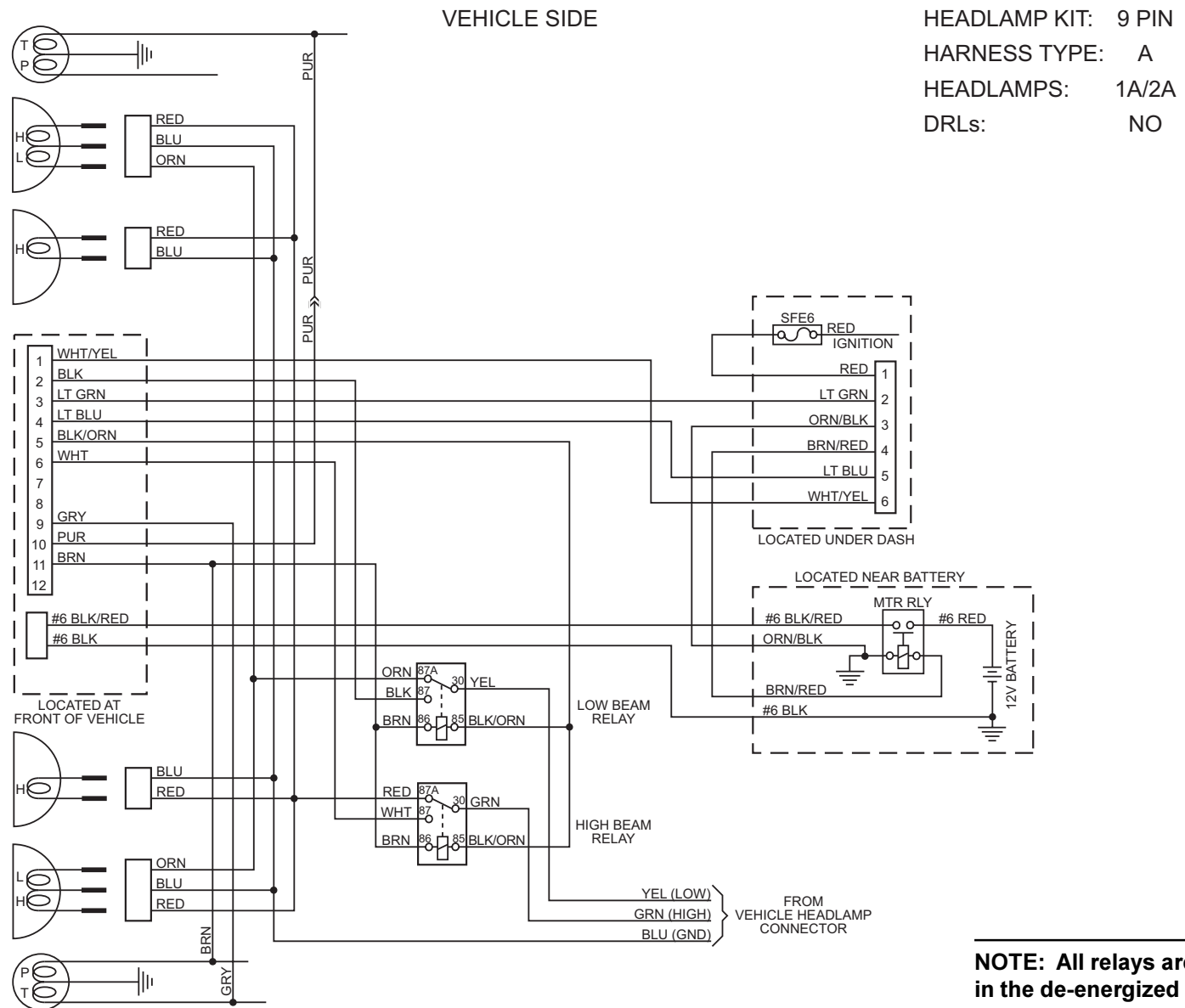
13607-98
 63103-91

9-Pin Harness



13637-97

9-Pin Harness

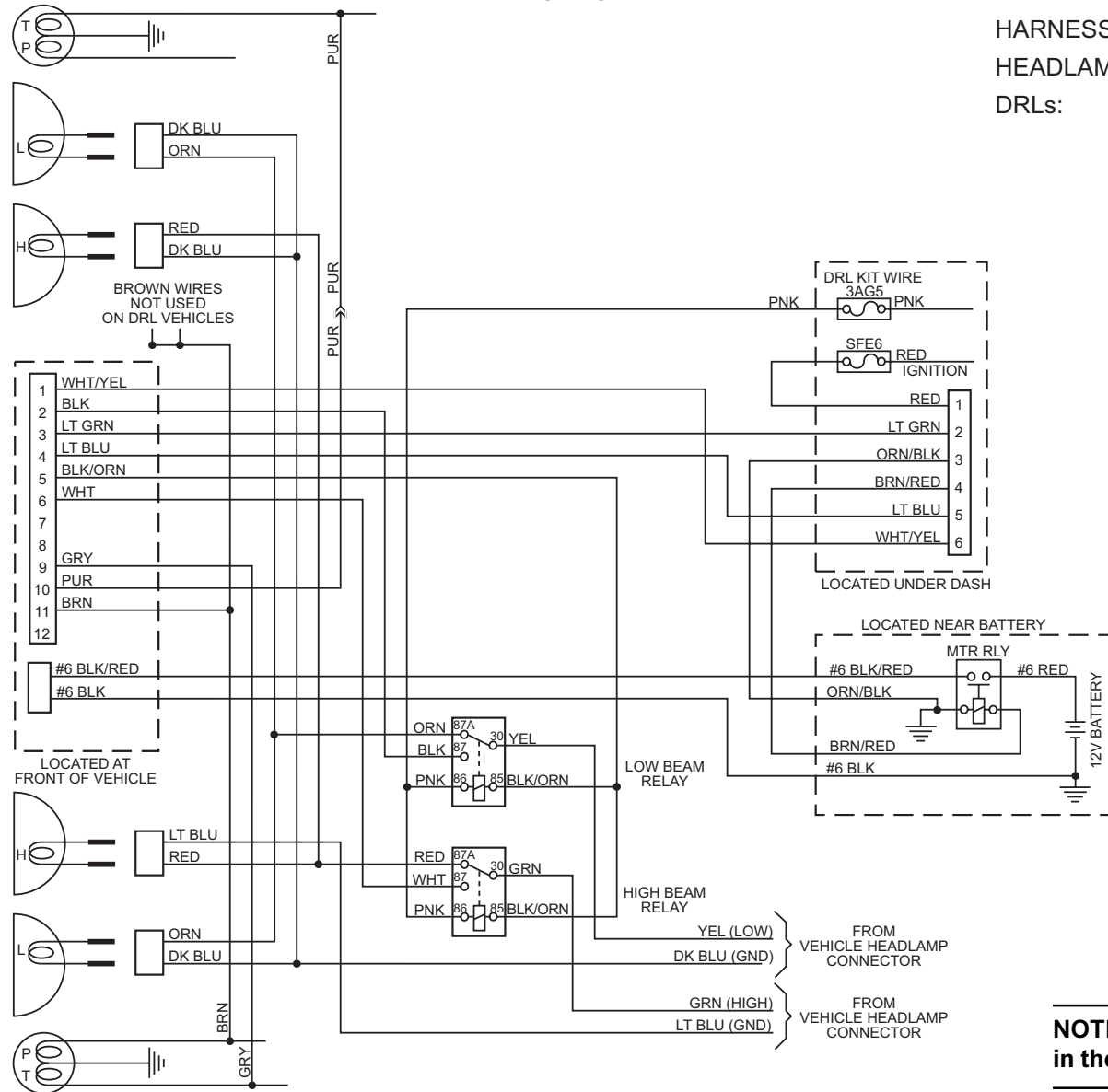


13597-97

9-Pin Harness

VEHICLE SIDE

HEADLAMP KIT: 9 PIN
 HARNESS TYPE: A
 HEADLAMPS: HB3/HB4
 DRLs: YES



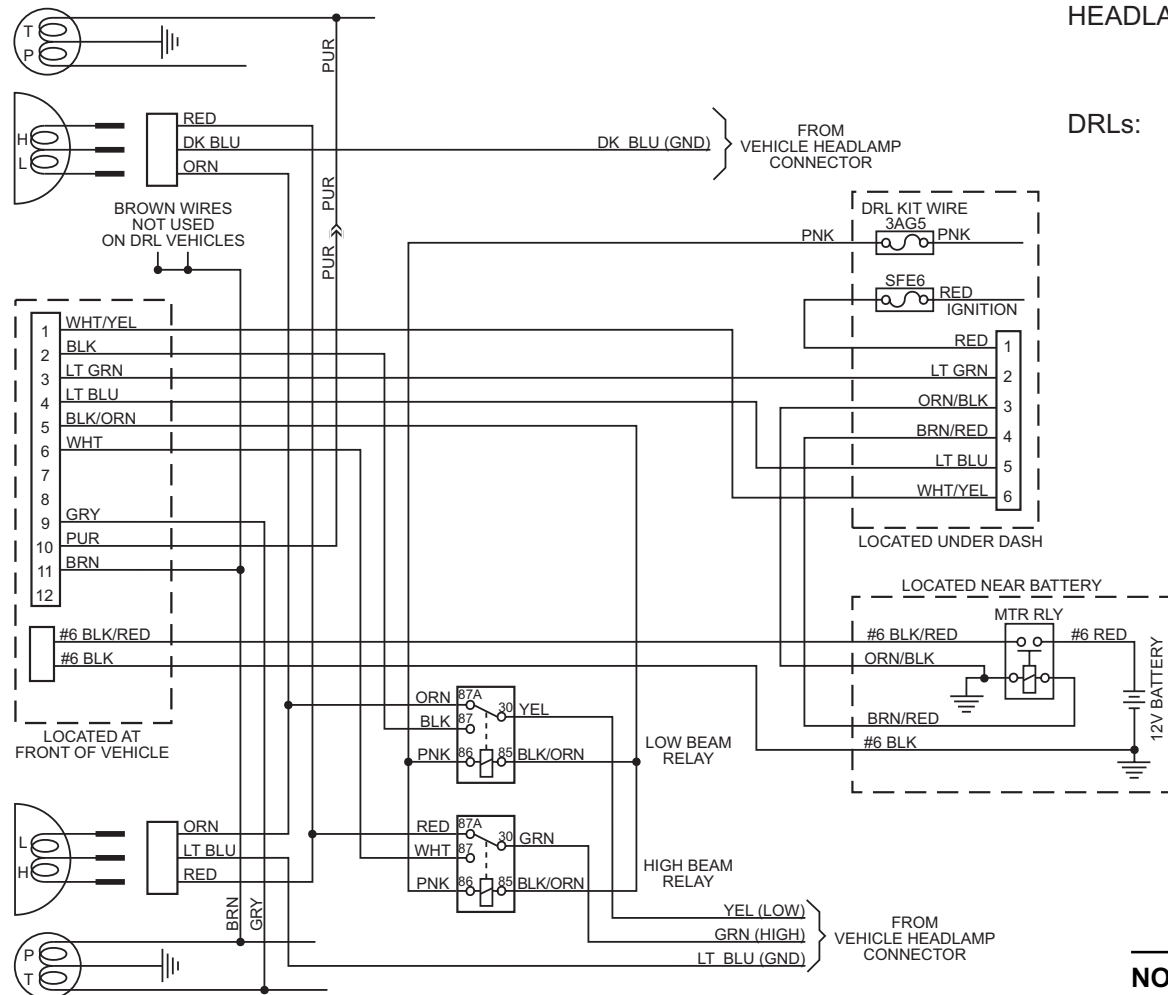
NOTE: All relays are shown in the de-energized state.

13637-92

9-Pin Harness

VEHICLE SIDE

HEADLAMP KIT: 9 PIN
 HARNESS TYPE: C
 HEADLAMPS: 2B/2D
 2E
 HB1
 DRLs: YES



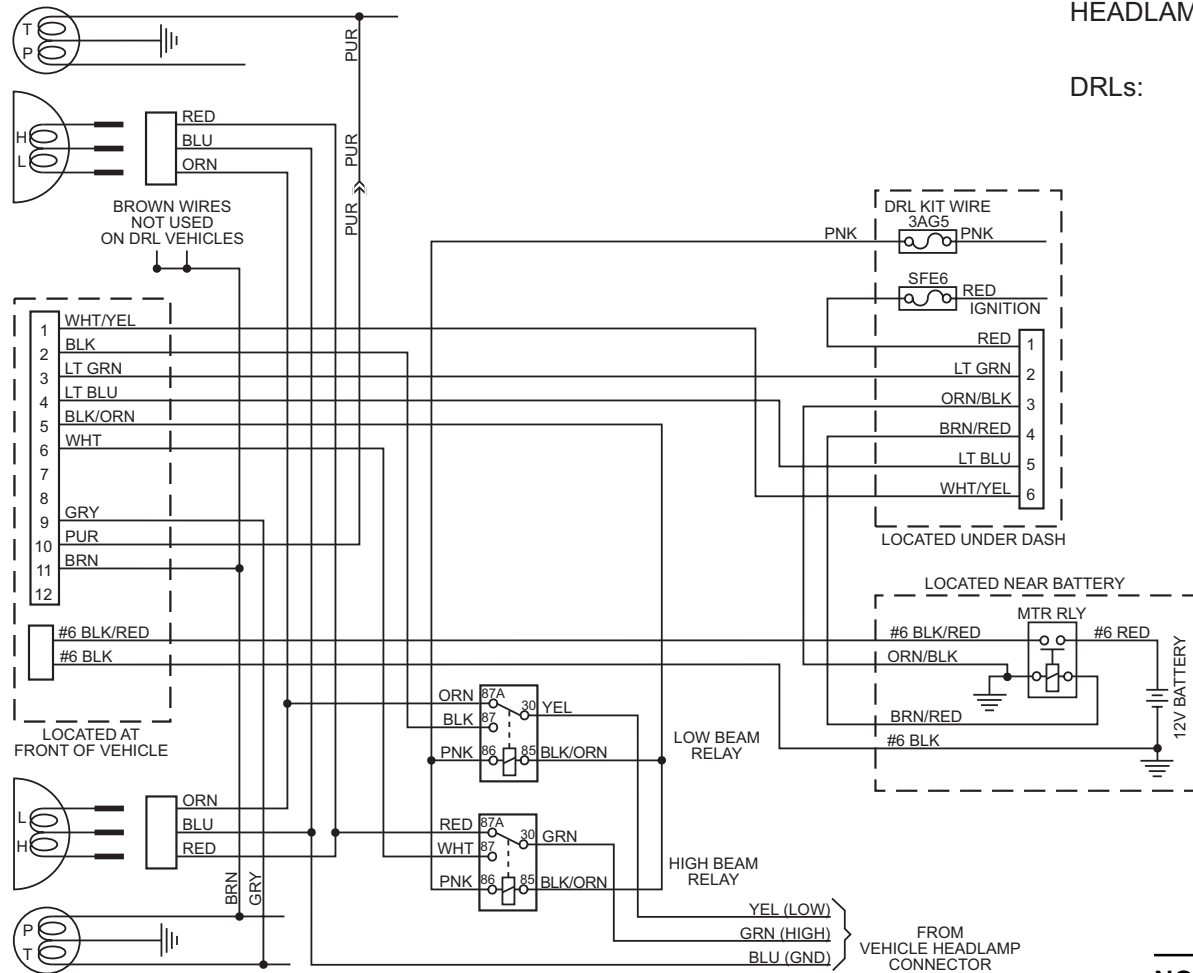
NOTE: All relays are shown in the de-energized state.

13607-92
 63103-92

9-Pin Harness

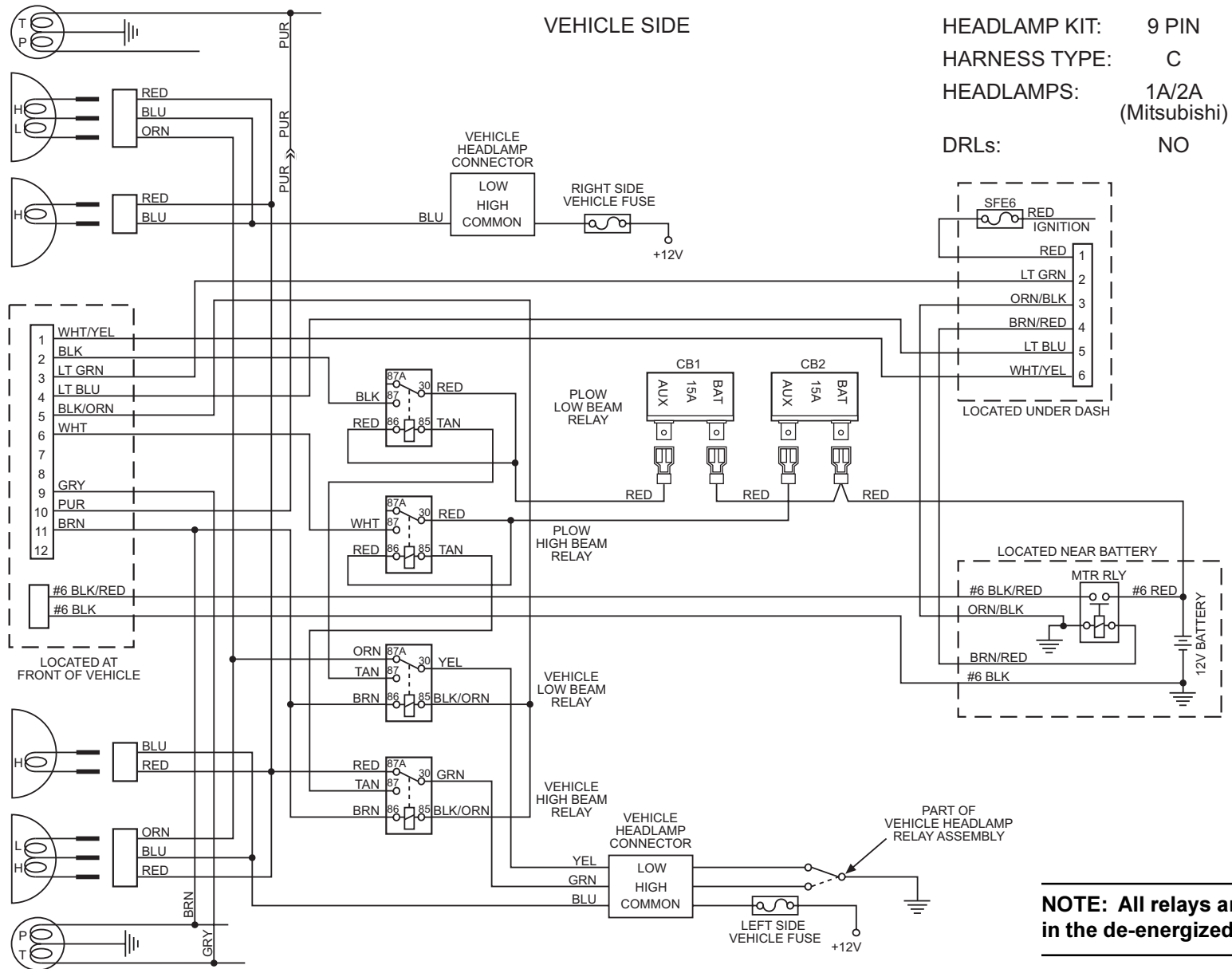
VEHICLE SIDE

HEADLAMP KIT: 9 PIN
 HARNESS TYPE: A
 HEADLAMPS: 2B/2D
 HB1/HB5
 DRLs: YES



NOTE: All relays are shown in the de-energized state.

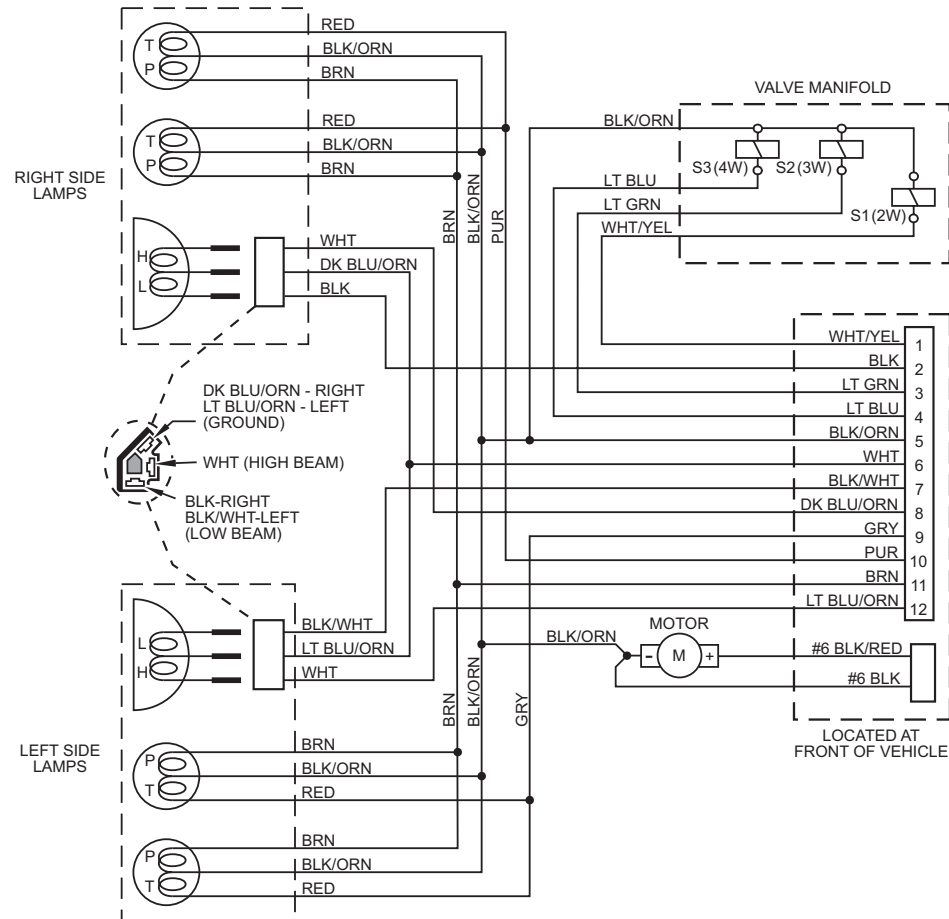
9-Pin Harness



12-Pin Harness

PLOW SIDE

HEADLAMP KIT: 12 PIN
 For All Vehicles Except:
 Nissan w/ and w/o DRLs
 Toyota w/DRLs



12-Pin Harness

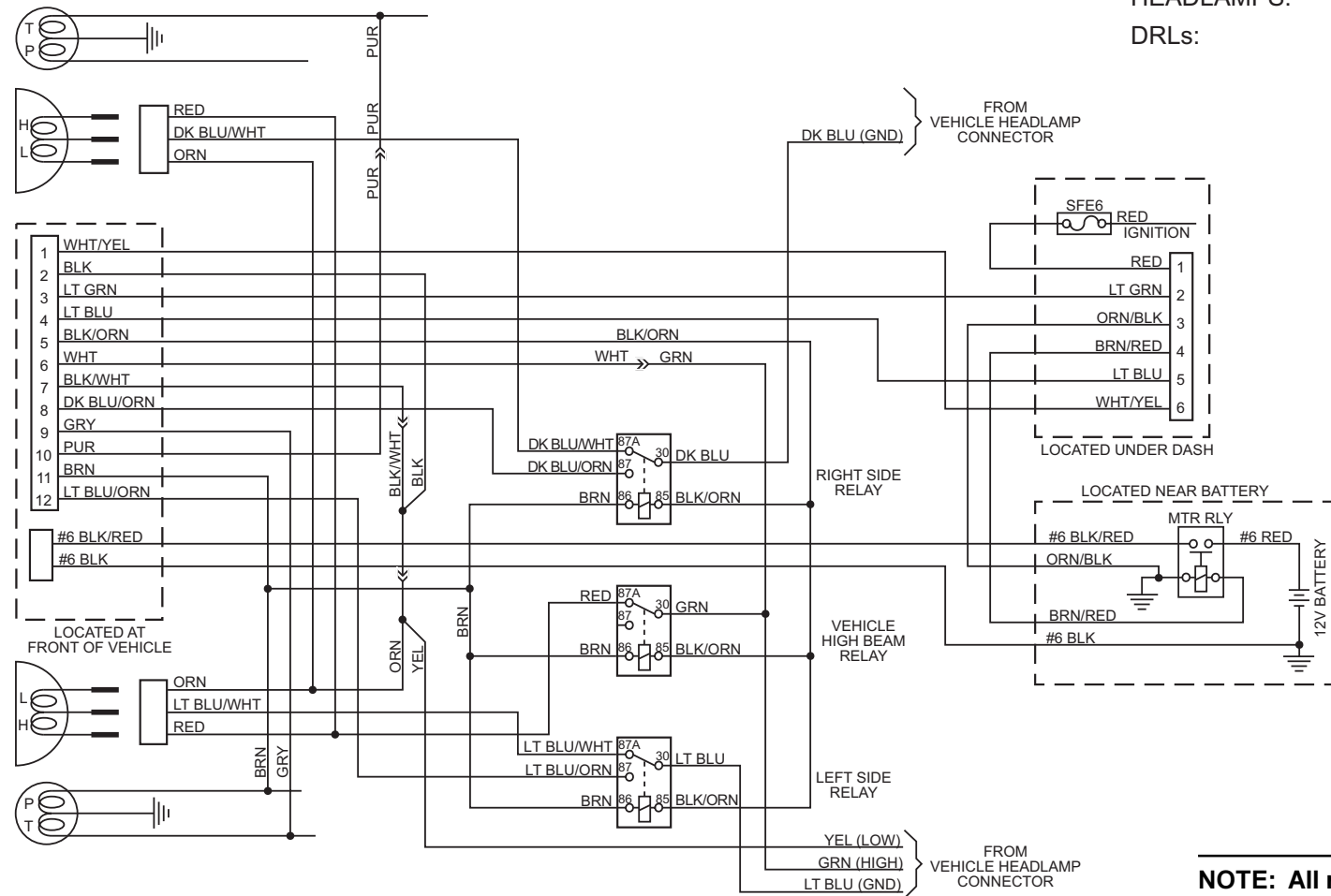
VEHICLE SIDE

HEADLAMP KIT: 12 PIN

HARNESS TYPE: B

HEADLAMPS: 2B/2D

DRLs: NO

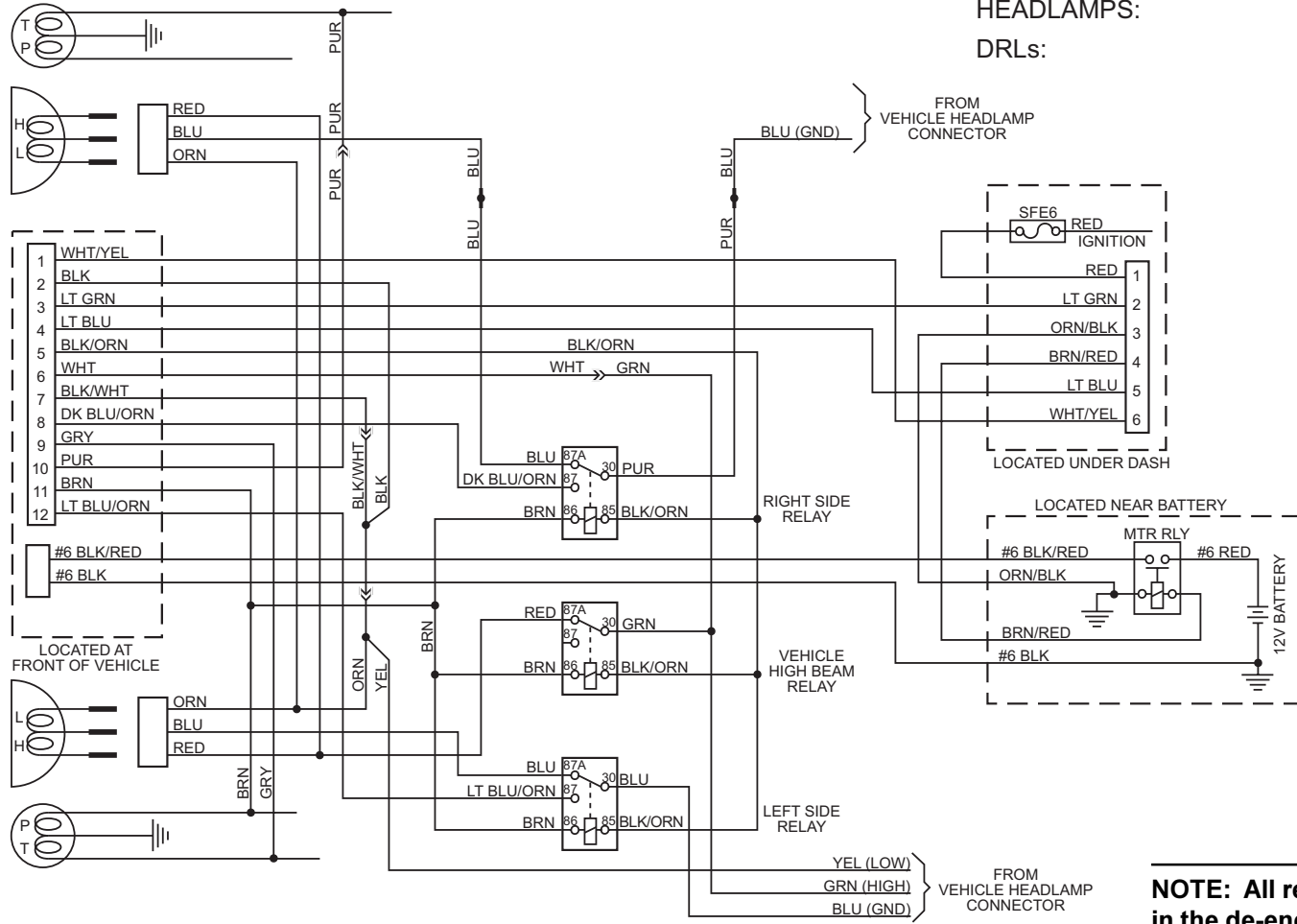


NOTE: All relays are shown in the de-energized state.

12-Pin Harness

VEHICLE SIDE

HEADLAMP KIT: 12 PIN
 HARNESS TYPE: A
 (combines 2 harnesses)
 HEADLAMPS: HB1
 DRLs: NO

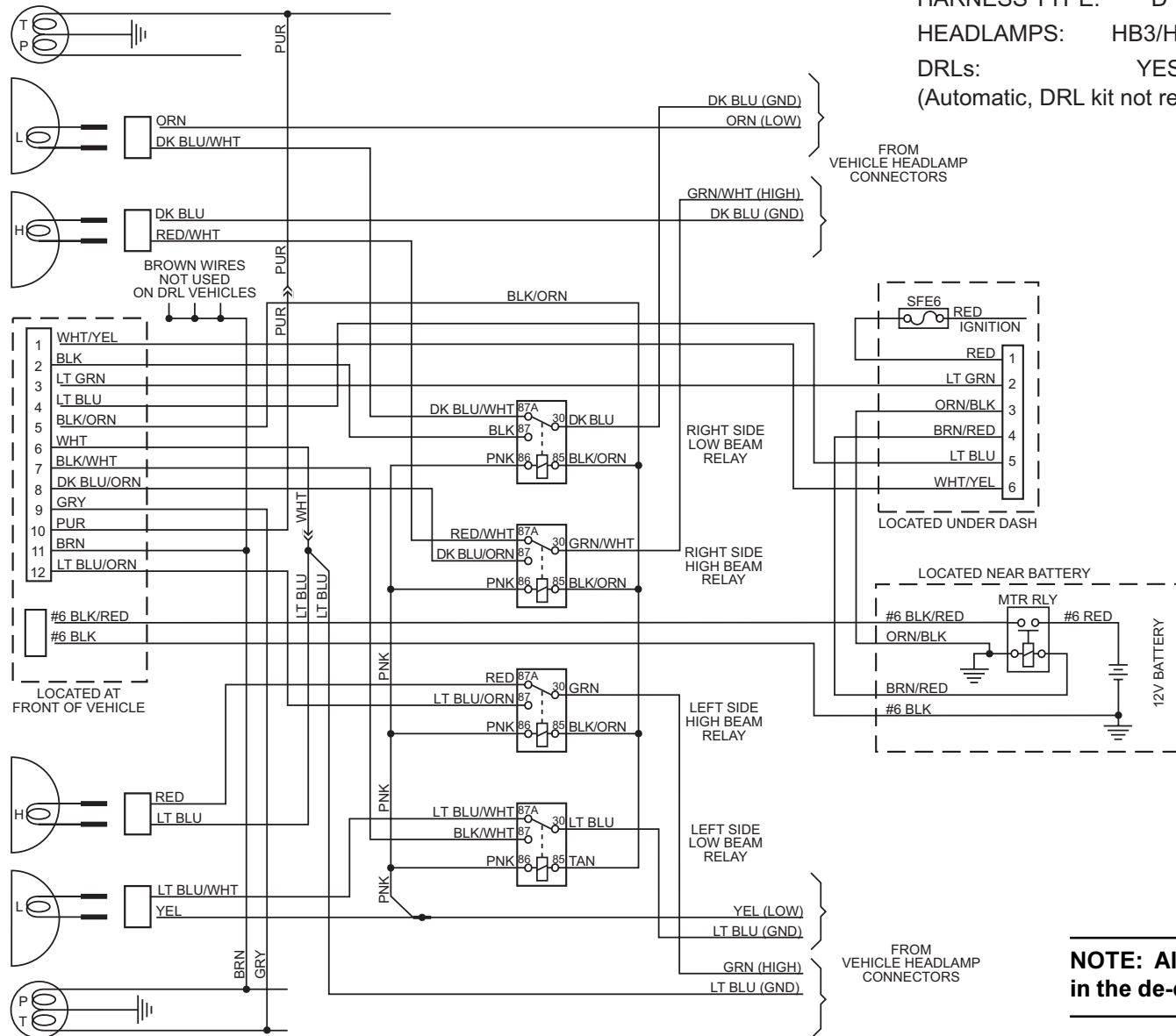


NOTE: All relays are shown in the de-energized state.

12-Pin Harness

VEHICLE SIDE

HEADLAMP KIT: 12 PIN
 HARNESS TYPE: D
 HEADLAMPS: HB3/HB4
 DRLs: YES
 (Automatic, DRL kit not required)



62914-97

12-Pin Harness

VEHICLE SIDE

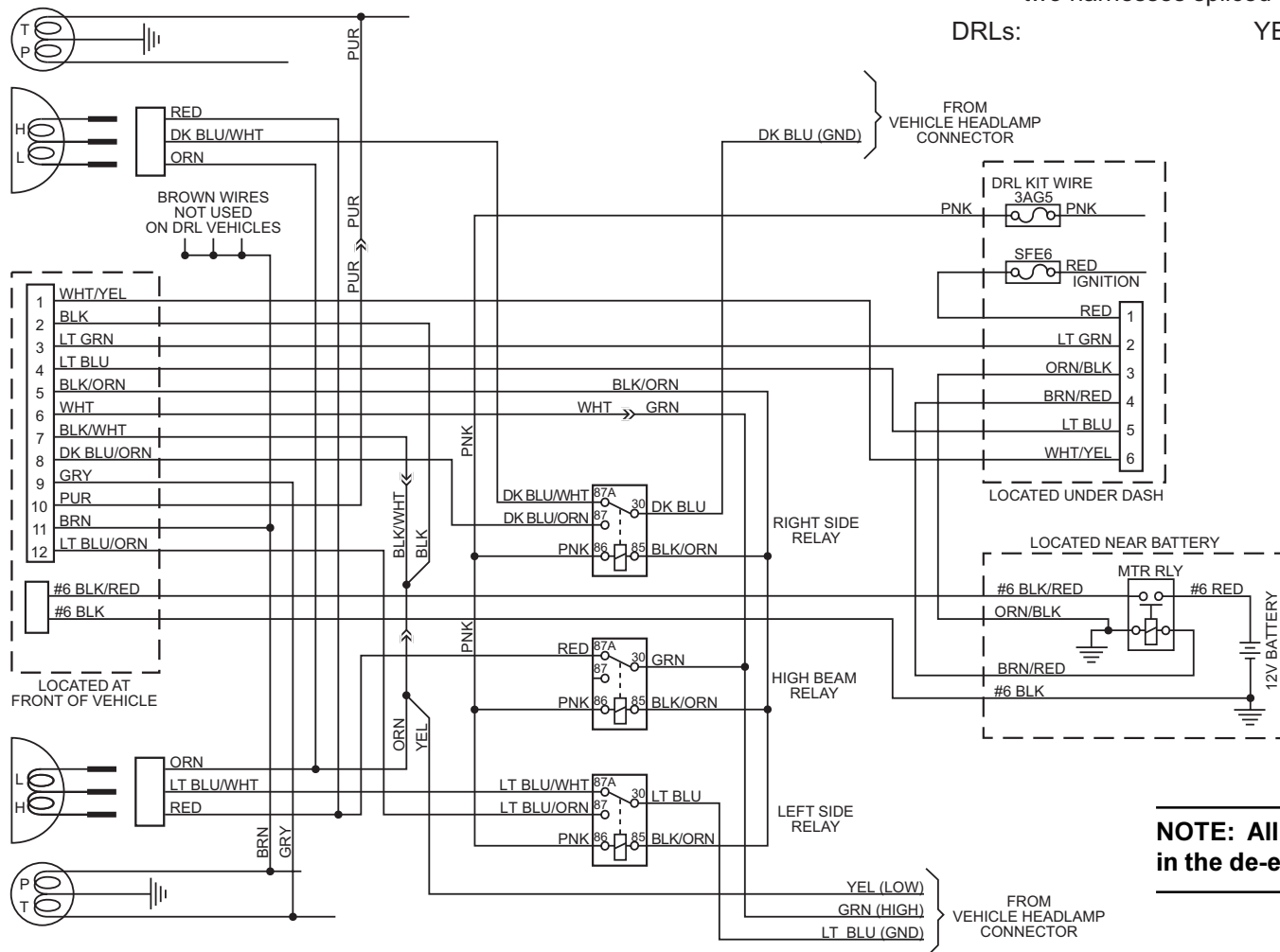
HEADLAMP KIT: 12 PIN

HARNESS TYPE: B

HEADLAMPS: 2B/2D
2E

(Early GM applications used
two harnesses spliced together)

DRLs: YES



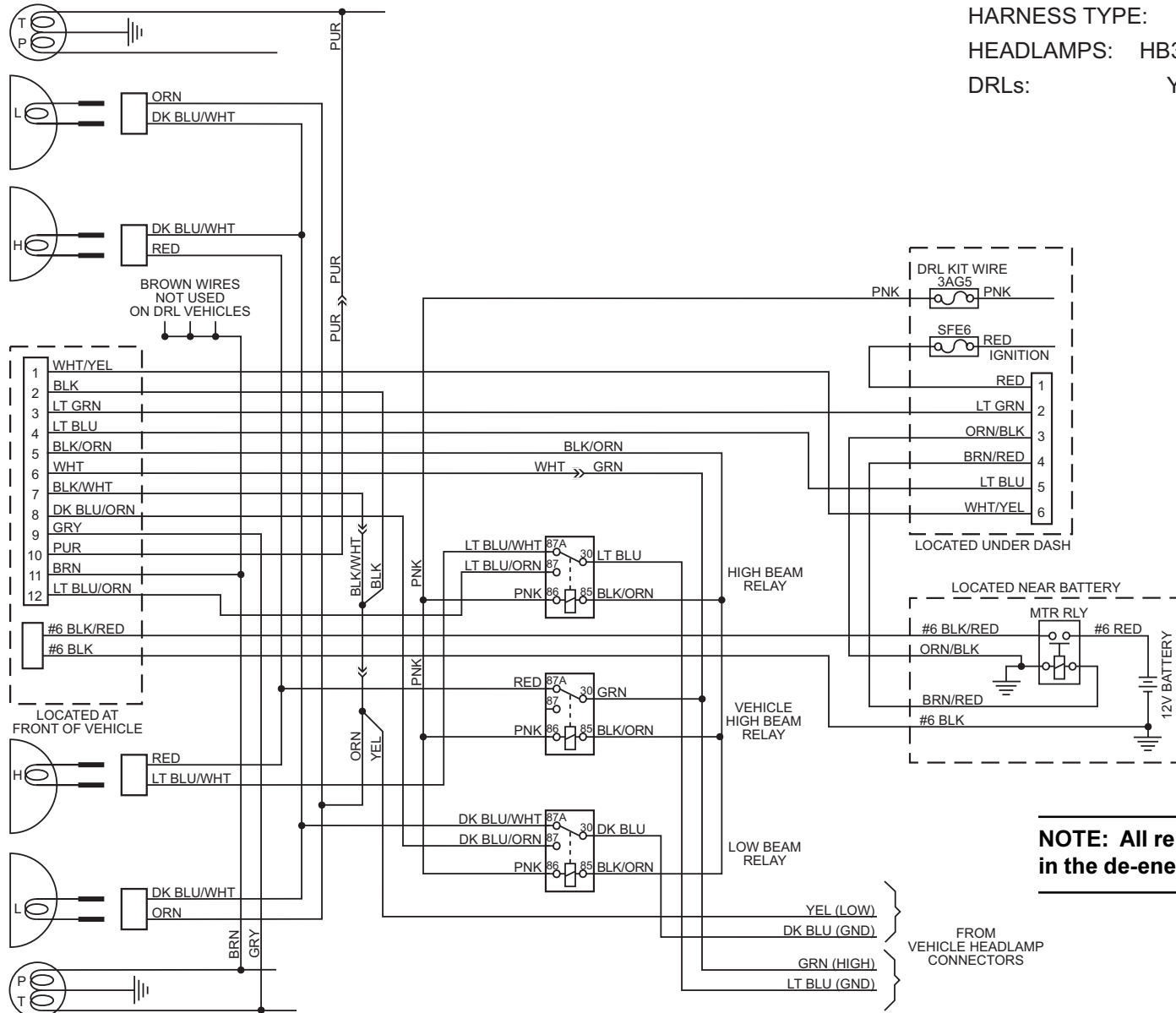
**NOTE: All relays are shown
in the de-energized state.**

13604-91

12-Pin Harness

VEHICLE SIDE

HEADLAMP KIT: 12 PIN
 HARNESS TYPE: B
 HEADLAMPS: HB3 /HB4
 DRLs: YES



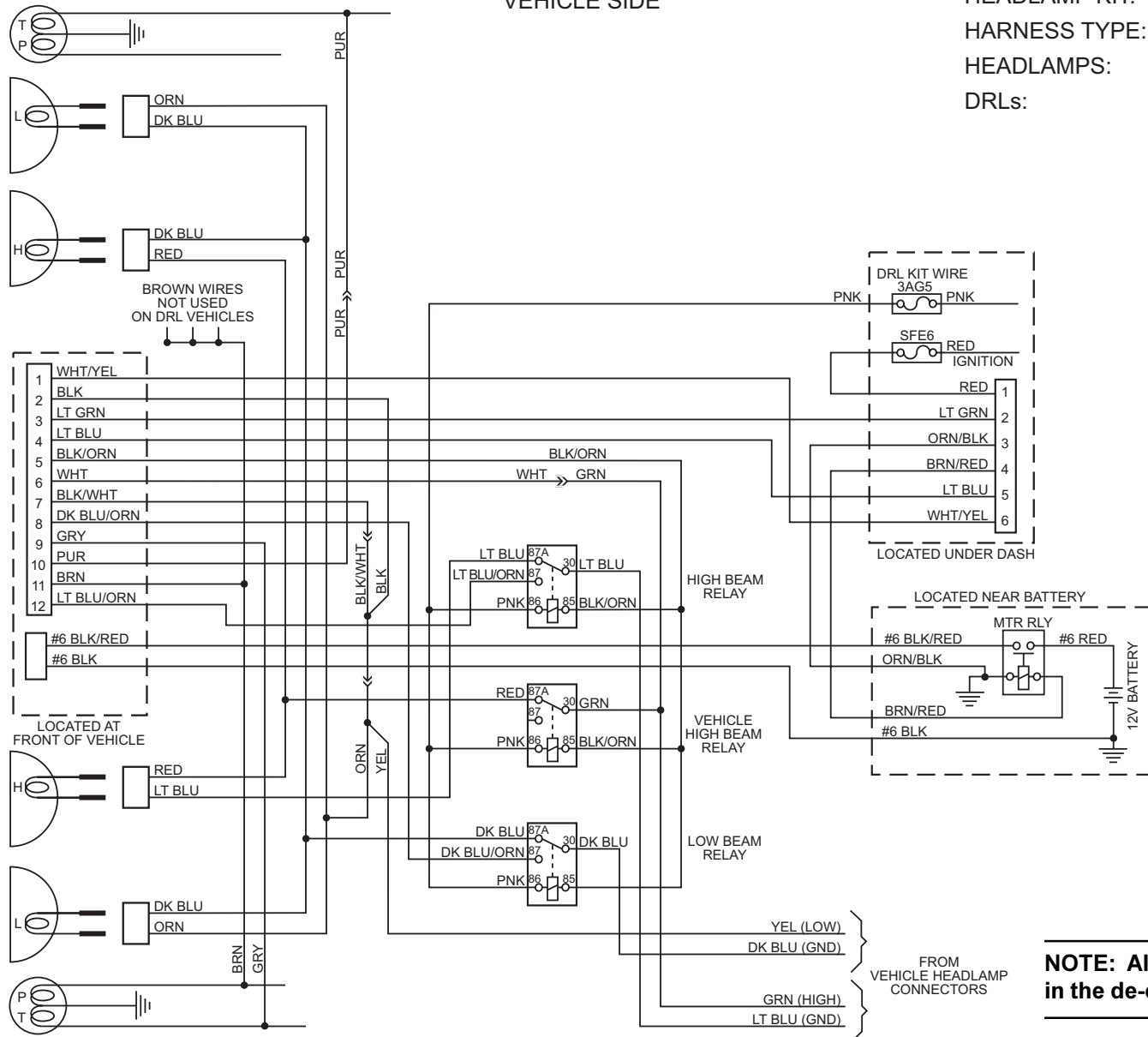
NOTE: All relays are shown in the de-energized state.

13604-98

12-Pin Harness

VEHICLE SIDE

HEADLAMP KIT: 12 PIN
 HARNESS TYPE: B
 HEADLAMPS: LF/UF
 DRLs: YES

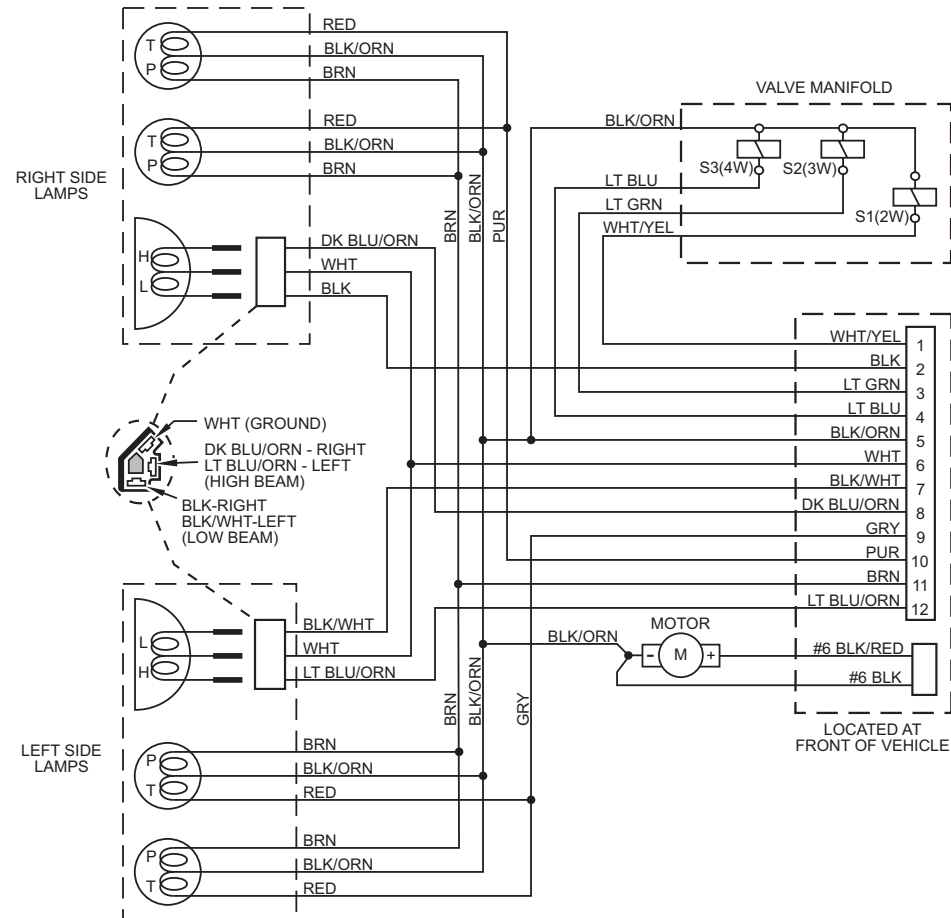


13609-98

12-Pin Harness

PLOW SIDE

HEADLAMP KIT: 12 PIN
Nissan w/ and w/o DRLs
Toyota w/DRLs



12-Pin Harness

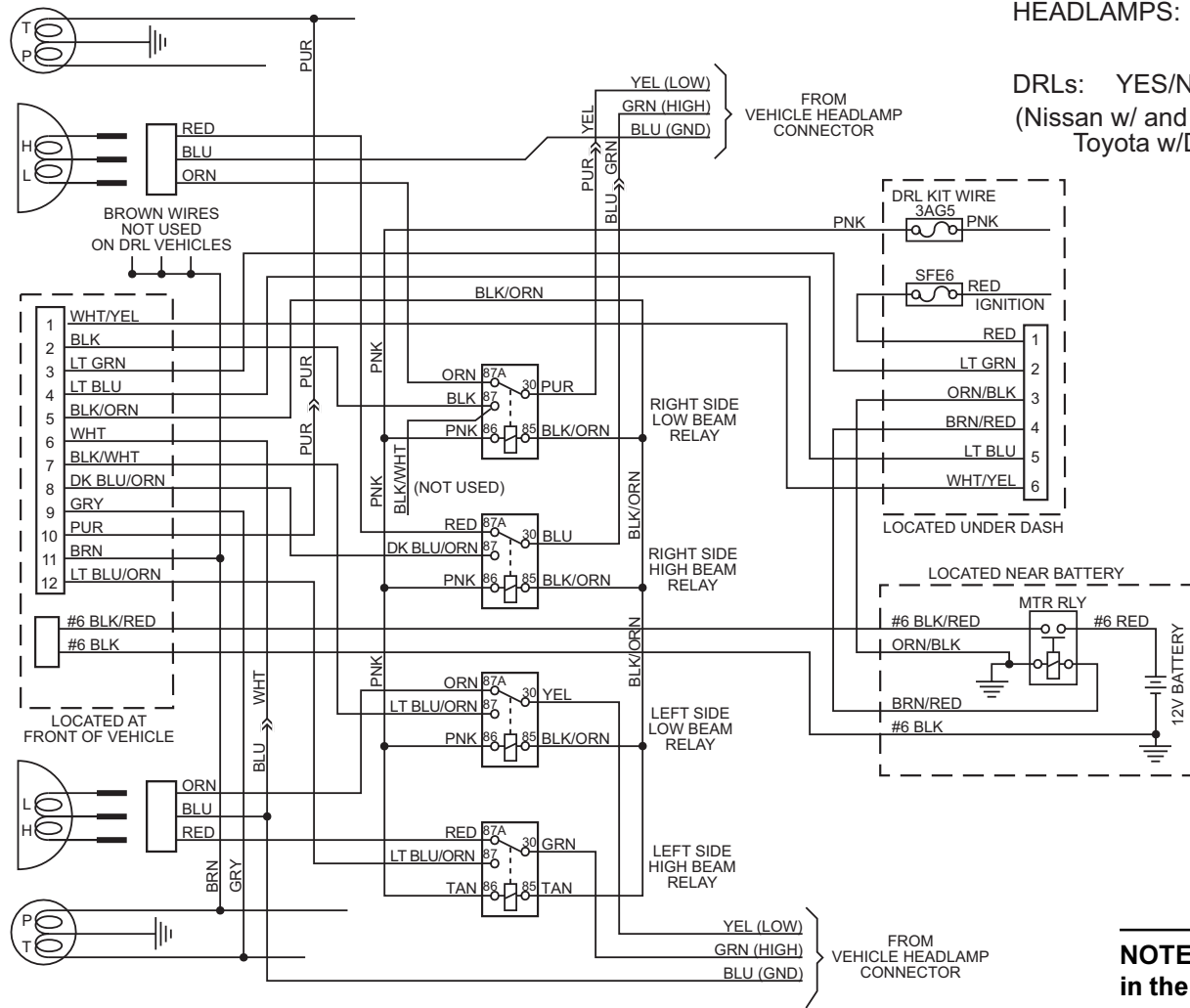
VEHICLE SIDE

HEADLAMP KIT: 12 PIN

HARNESS TYPE: A
(combines 2 harnesses)

HEADLAMPS: 2B/2D
HB1

DRLs: YES/NO
(Nissan w/ and w/o DRLs;
Toyota w/DRLs)



NOTE: All relays are shown in the de-energized state.



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