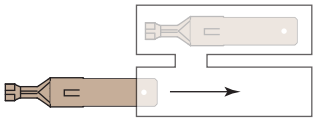
1970-1971 Bus Export Model Complete Wiring Harness

This wiring harness kit is designed for a 1970-1971 export Bus models with a Type 1 engine. If your Bus is a European model 1970-1979, or some electrical upgrades have been performed (such as an alternator, or additional equipment), some modifications will be required.
Basic automotive electronic knowledge is essential for proper installation of this wiring harness. Thoroughly read these installation instructions and study the diagrams to familiarize yourself with the basic layout of your vehicle's electrical system.
Document the routing of the old wiring harness prior to removal. A digital camera is a useful tool for this step.

Component List

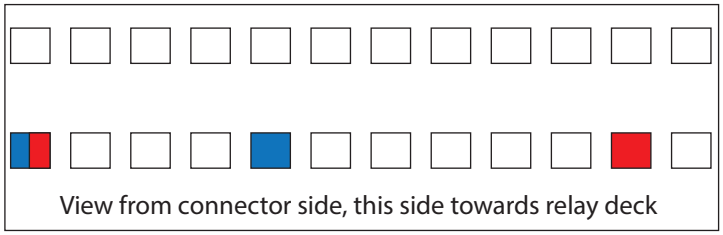
- Main Harness (1)
- Dome Light Harness (1)
- Headlight Harness (1)
- Brake Light Harness (1)
- Miscellaneous Wires/Sub Harnesses (30)
- Grommet (1)
- Male push-on connectors (5 x 4)
- Main Harness 8 pin plug (1)
- Dash Harness 8 pin plug (1)

Installation of male push-on connector sleeve.



Sleeves are provided in the kit and easily slide into position on the male connector.

Within the following pages we use the illustration below with a red or blue marking to indicate the exact position of the wire connection on the fuse box. The blue color will be the position if the harness is being installed in a 1970 Bus and the Red position will be used if you have a 1971 Bus. If both 1970 and 1971 we use the same location the terminal will be marked with Blue/Red.



View from connector side, this side towards relay deck

Installation

1. Disconnect negative cable from battery. Review the instructions, and identify the various sub-harnesses and supplemental wires.

2. Now the fun begins!

Access to the wires behind the dash panel will be greatly improved by removing the speedometer dash panel. Unfortunately the heat and fresh air vent knobs situated on the right side of the panel are difficult to remove. You will find that they are held in with a plastic pin that is accessed from the radio opening. With the removal of the knobs you can unscrew the four Philips screws in the corners, un screw the speedo cable and release the remaining wires from fuel gauge and indicator lights. You now have clear and easy access to the dash wiring. Take a few pictures to document your current layout and then disconnect everything less the wiper motor wiring. Unclip the fuse box from its mounting bracket and disconnect all the wires running to it less the wires going to the relay deck. With all the wires disconnected behind the dash move to the engine compartment and disconnect the wires from the voltage regulator, engine and taillights. Attach a dragline onto the rear portion of the wiring harness (fish tape or heavy cord material) that is a minimum of 15 ft long. Overlap the dragline and main harness for about one foot and use duct tape or plastic tape to attach the dragline securely to the main harness. Wrap the tape tightly as to create a strong, streamlined bundle. The main harness travels along the right side frame member. Release the sheet metal tabs holding the harness to the member. With the dragline securely attached to the old main harness, pull the harness from the front as an assistant helps guide the dragline from the rear. Pull the complete main harness through the hole in the floor releasing it completly from the vehicle.

With the old harness removed attach the rear of the new main harness onto the dragline making sure

that the wires are secured properly. Coat the new harness liberally with wire lube (surgical lube works well, KY Jelly, Astroglide, etc.) and pull the new harness into place from the rear while an assistant helps guide the harness from the front. Be sure to keep lubricating the new harness as it is being fed while keeping the harness bundle as straight as possible. If the harness becomes stuck, do not force the issue. Reverse the procedure and observe the path of travel and remedy any obstacle. With the harness pulled into position fasten it the side member with the existing tabs. Feed the front end of the harness through the underside of the floor. Note that a grommet was not used here originally but instead a putty type sealer was applied. Do not forget to install the grommet, part # 311971907, into the passenger side of the firewall before feeding the harness through.
See diagram on page (4) for proper connections on the main harness.

3. Install the dome light harness and dome light ground wires, see diagram on page (11). If your Bus currently has a headliner installed this will be difficult. If your old harness is still intact, it's best to use the harness already present in lieu of replacement. If installing in a double cab you will not be using the wires for the rear dome light.

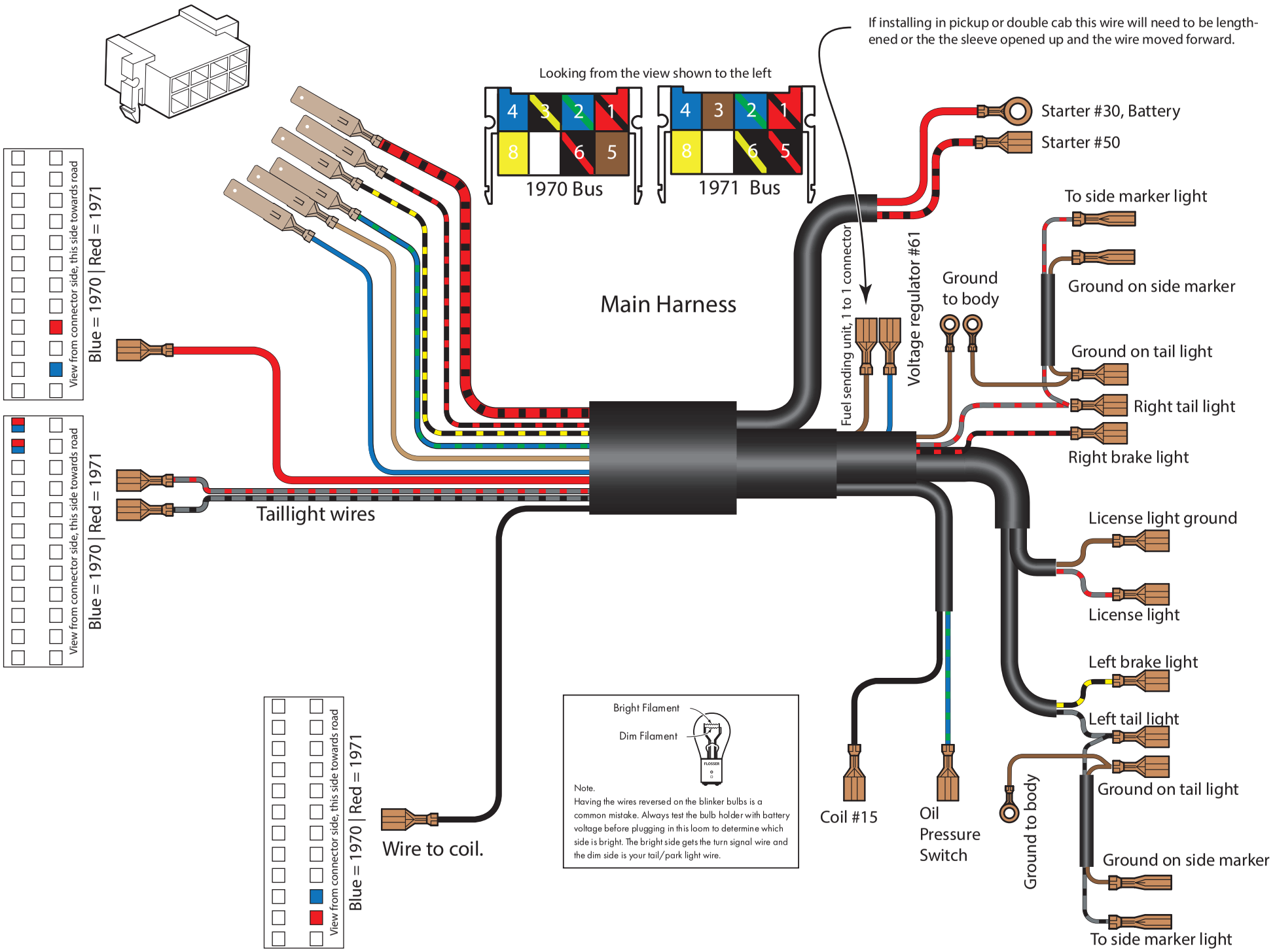
4. Install new headlight harness, see diagram on page (5) using the supplied grommets for the headlight buckets. Use the supplied headlight plugs and refer to the diagram on page (5) to correctly locate the wires into the plug. When plugging in the turn signal/ park light wires make sure that you connect the black wire to the brighter side of the bulb (see note in lower portion of page (4) for more info).

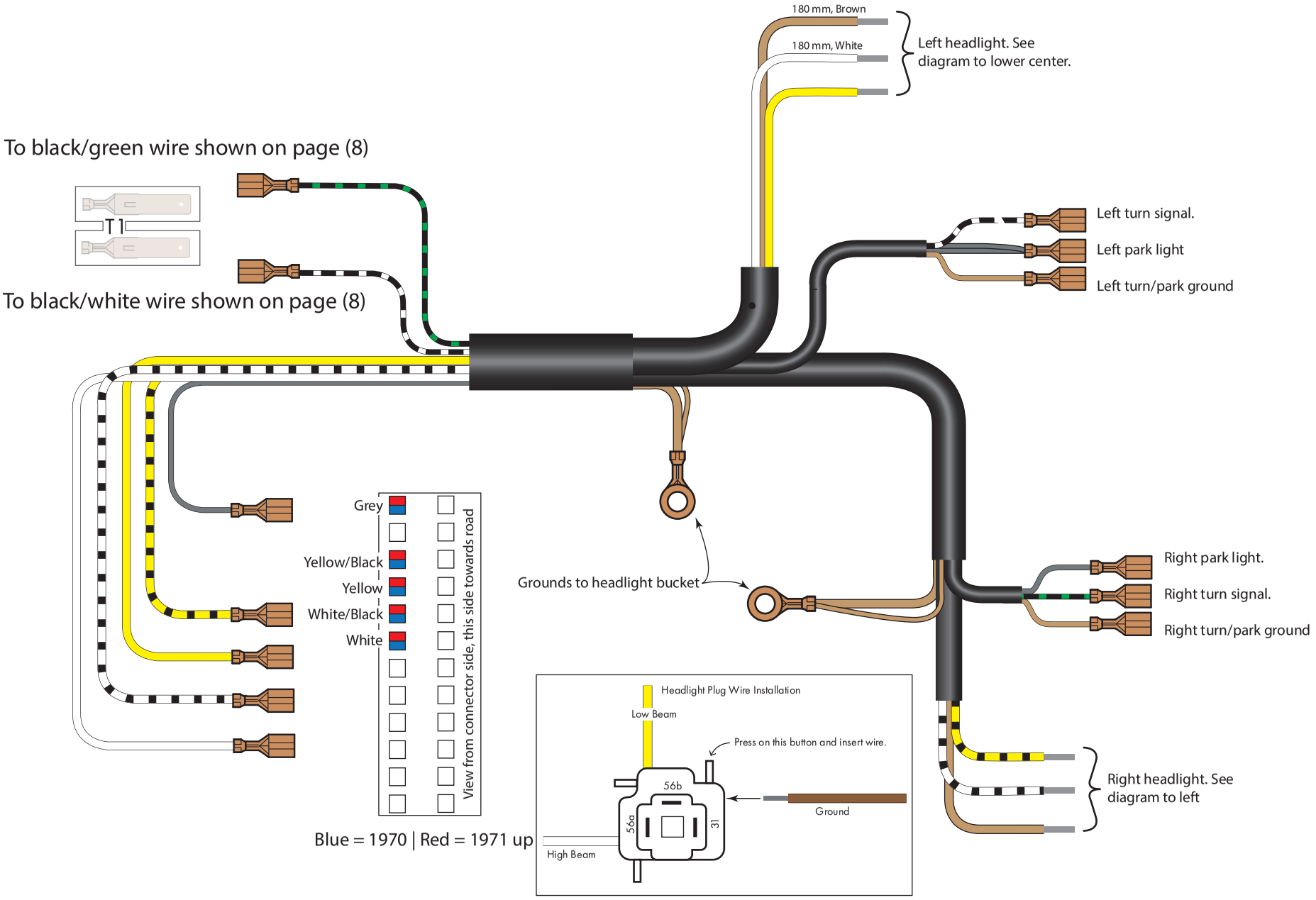
Install brake light switch and horn harness, see page (6) and install steering shaft coupler to horn button wire.

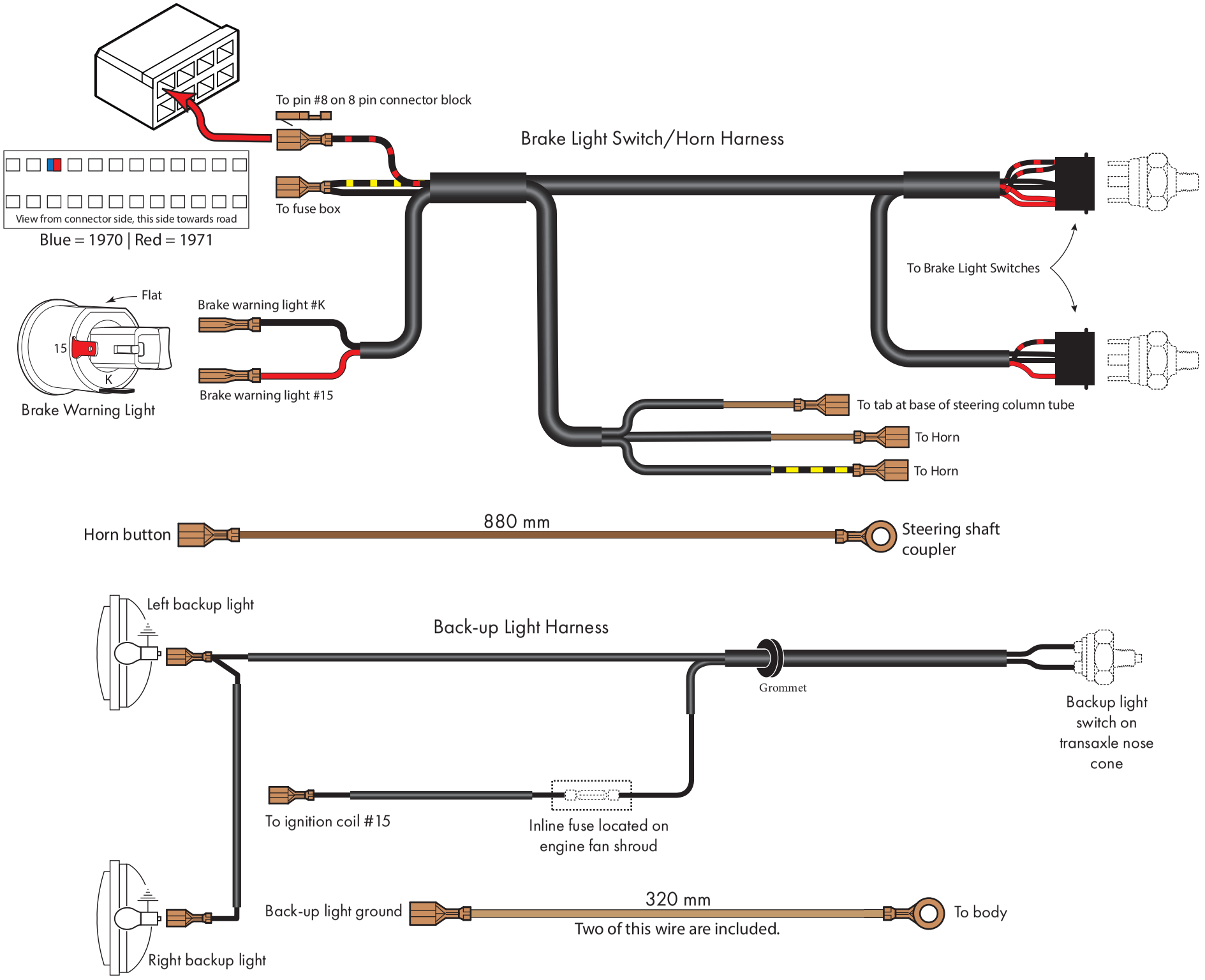
Install reverse light harness, see page (6).

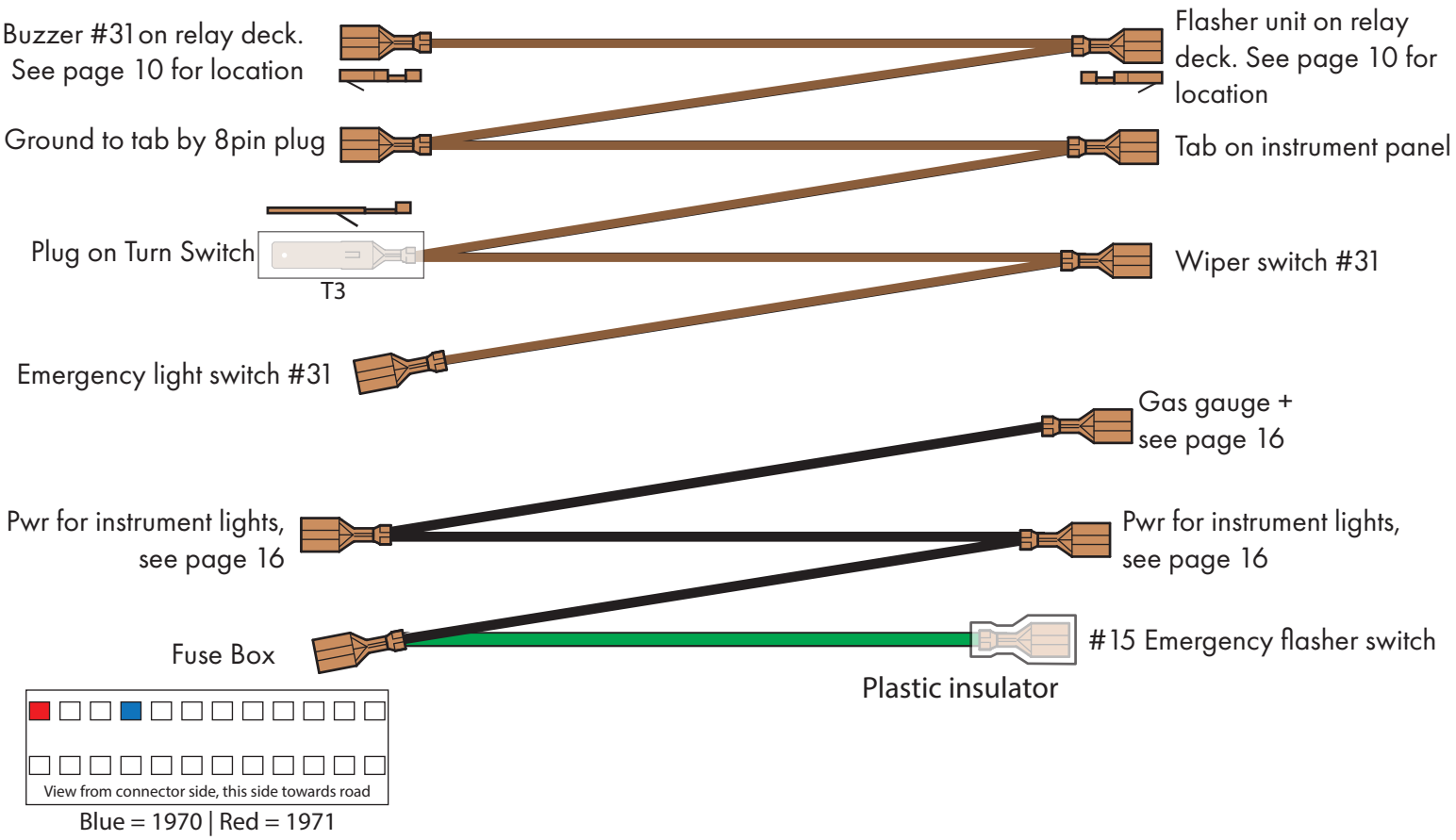
5. Install miscellaneous supplemental wires. It's best if you have the dash switches removed from the dash with their terminal identification in clear view when installing the balance of dash wiring. See pages (7-11) for illustrations:

6. In the engine compartment install the tail light wiring making sure again to attach the black with stripe wire to the bright side of the bulb. Use the supplied grommet (center portion has a closed membrane, use knife to open small slice in center) to route the backup harness from the backup switch through the left side of the firewall.
This completes the installation. Review your work to insure that you have not crossed any wires. Reconnect the battery cables and check all the electrical components for proper operation.

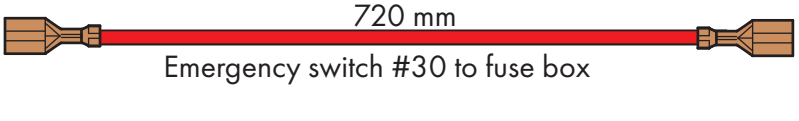

If installing in pickup or double cab this wire will need to be length-ened or the the sleeve opened up and the wire moved forward.
Looking from the view shown to the left
4 3 2 1
8 6 5
1970 Bus
4 3 2 1
8 6 5
1971 Bus
Starter #30, Battery
Starter #50
To side marker light
Ground on side marker
Ground on tail light
Right tail light
Right brake light
Ground to body
Voltage regulator #61
Fuel sending unit, 1 to 1 connector
Main Harness
Blue = 1970 | Red = 1971
View from connector side, this side towards road
Blue = 1970 | Red = 1971
View from connector side, this side towards road
Taillight wires
License light ground
License light
Left brake light
Left tail light
Ground on tail light
Ground on side marker
To side marker light
Ground to body
Coil #15
Oil Pressure Switch
Wire to coil.
Blue = 1970 | Red = 1971
View from connector side, this side towards road
Bright Filament
Dim Filament
Note.
Having the wires reversed on the blinker bulbs is a common mistake. Always test the bulb holder with battery voltage before plugging in this loom to determine which side is bright. The bright side gets the turn signal wire and the dim side is your tail/park light wire.

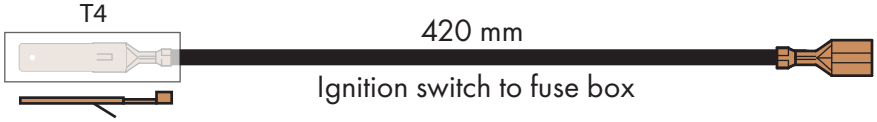

180 mm, Brown
180 mm, White
Left headlight. See diagram to lower center.
To black/green wire shown on page (8)
T1
To black/white wire shown on page (8)
Left turn signal.
Left park light
Left turn/park ground
Grey
Yellow/Black
Yellow
White/Black
White
View from connector side, this side towards road
Grounds to headlight bucket
Right park light.
Right turn signal.
Right turn/park ground
Blue = 1970 | Red = 1971 up
Headlight Plug Wire Installation
Low Beam
Press on this button and insert wire.
56b
56a
31
Ground
High Beam
Right headlight. See diagram to left

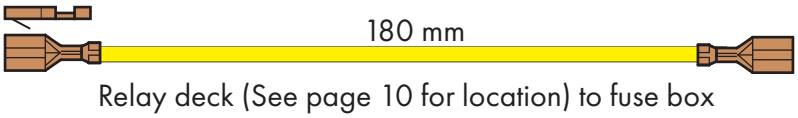

To pin #8 on 8 pin connector block
Brake Light Switch/Horn Harness
To fuse box
View from connector side, this side towards road
Blue = 1970 | Red = 1971
Flat
15
K
Brake Warning Light
Brake warning light #K
Brake warning light #15
To Brake Light Switches
To tab at base of steering column tube
To Horn
To Horn
Horn button
880 mm
Steering shaft coupler
Left backup light
Back-up Light Harness
Grommet
Backup light switch on transaxle nose cone
To ignition coil #15
Inline fuse located on engine fan shroud
Back-up light ground
320 mm
Two of this wire are included.
To body
Right backup light

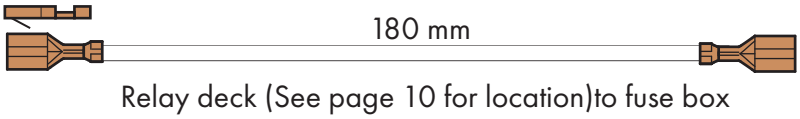

Buzzer #31 on relay deck. See page 10 for location
Flasher unit on relay deck. See page 10 for location
Ground to tab by 8pin plug
Tab on instrument panel
Plug on Turn Switch
T3
Wiper switch #31
Emergency light switch #31
Gas gauge + see page 16
Pwr for instrument lights, see page 16
Pwr for instrument lights, see page 16
Fuse Box
#15 Emergency flasher switch
Plastic insulator
View from connector side, this side towards road
Blue = 1970 | Red = 1971

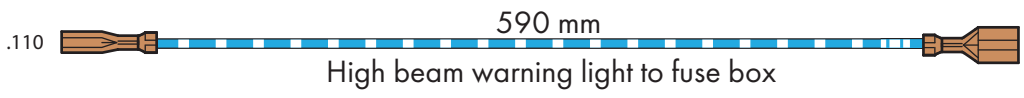

670 mm
Dome Switch to Fuse Box

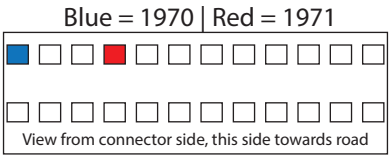

720 mm
Emergency switch #30 to fuse box

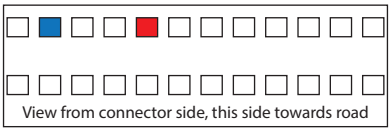

T4
420 mm
Ignition switch to fuse box

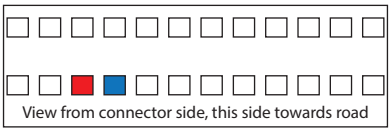

180 mm
Relay deck (See page 10 for location) to fuse box

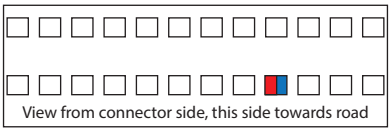

180 mm
Relay deck (See page 10 for location)to fuse box

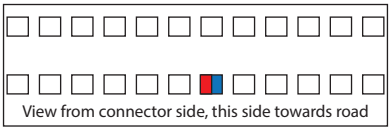

.110
590 mm
High beam warning light to fuse box

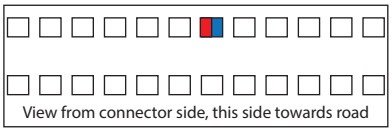

Blue = 1970 | Red = 1971
View from connector side, this side towards road


View from connector side, this side towards road

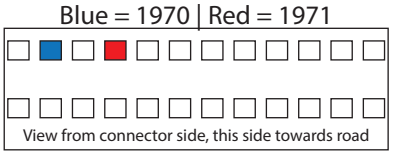

View from connector side, this side towards road

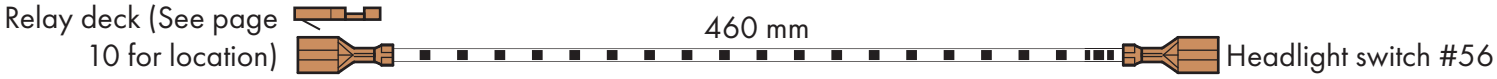

View from connector side, this side towards road


View from connector side, this side towards road

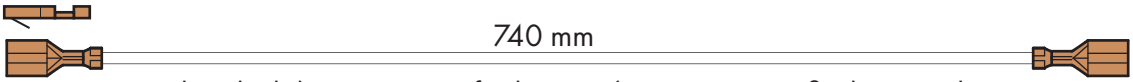

View from connector side, this side towards road

Relay deck (See page 10 for location) to fuse box

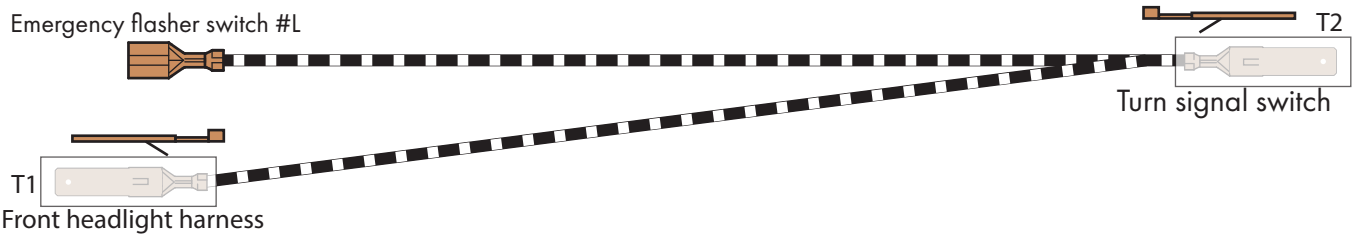


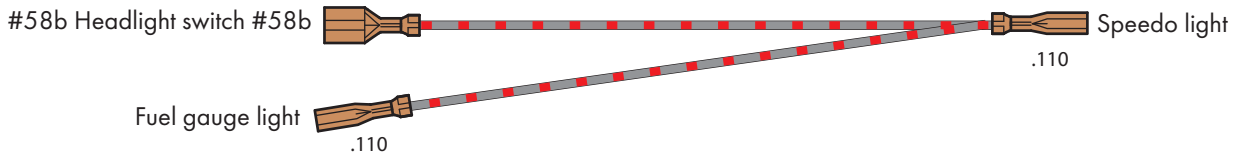


Relay deck (See page 10 for location) to left dome light switch

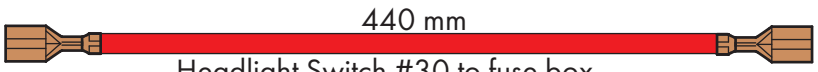


Relay deck (See page 10 for location) to emergency flasher switch #+

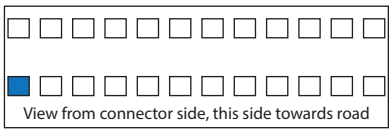




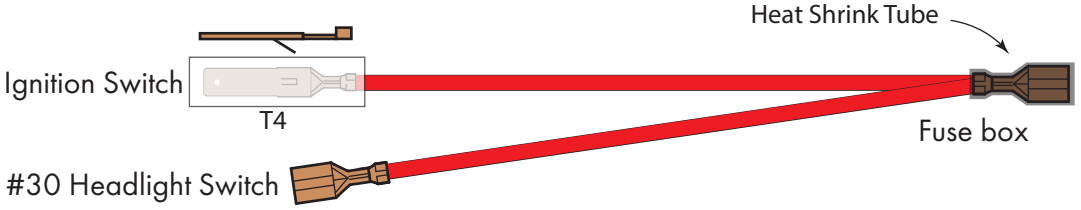
1970 Only

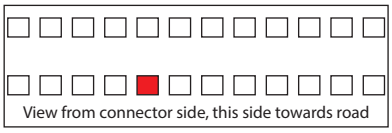


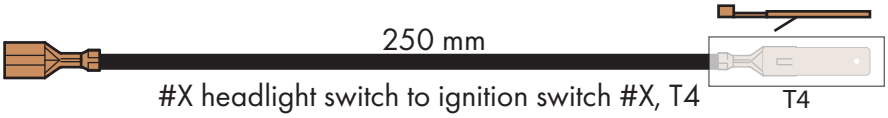
Headlight Switch #30 to fuse box



1971 Only







#X headlight switch to ignition switch #X, T4

550 mm
Oil pressure warning light to 8 position plug

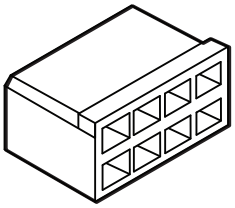
550 mm
Generator warning light to 8 position plug

T4
380 mm
#50 ignition switch to 8 position plug

T2
420 mm
Turn signal switch to 8 position plug

T2
420 mm
Turn signal switch to 8 position plug

620 mm
Fuel gauge #G to 8 position plug



8 Position Plug

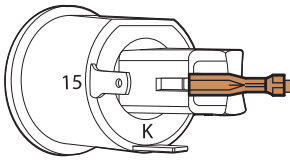
Looking from the view shown below

1970 Bus

1971 Bus

400 mm .110
#57 headlight switch to parking indicator light on instrument cluster (see page 16)

550 mm
Ignition switch #S to left dome light switch



Brake Warning Light

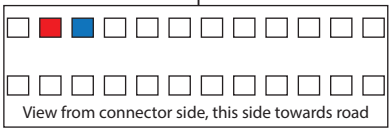
440 mm
Defrost switch #31

Ground tab on Instrument Cluster, see page 16

Left dome switch
280 mm
Ground tab on body near 8 position plug

1000 mm
Plastic insulator
#15 Defrost switch to fuse box

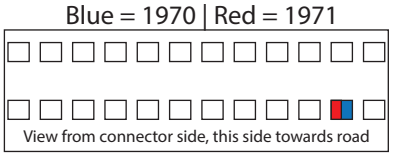
Blue = 1970 | Red = 1971

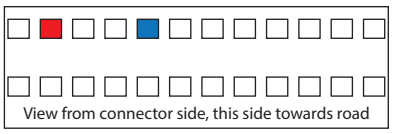


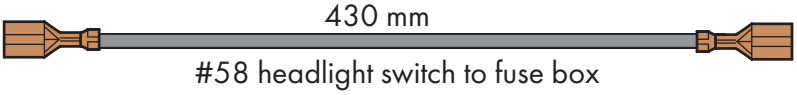
View from connector side, this side towards road

650 mm
Fuel sending unit to plug by right side of engine
T5

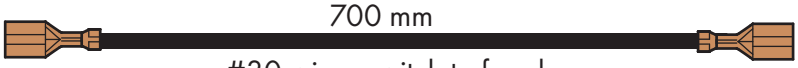
Blue = 1970 | Red = 1971







#58 headlight switch to fuse box

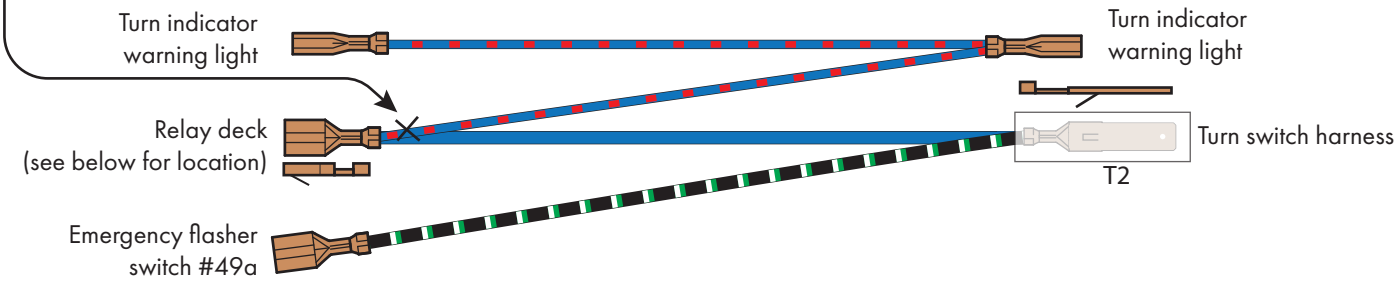


#30 wiper switch to fuse box

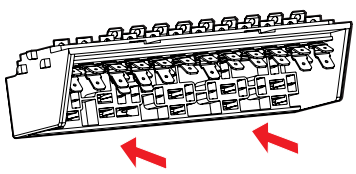
Relay deck (See bottom of this page for location) to turn signal switch

#8 8 position plug to emergency flash switch #54

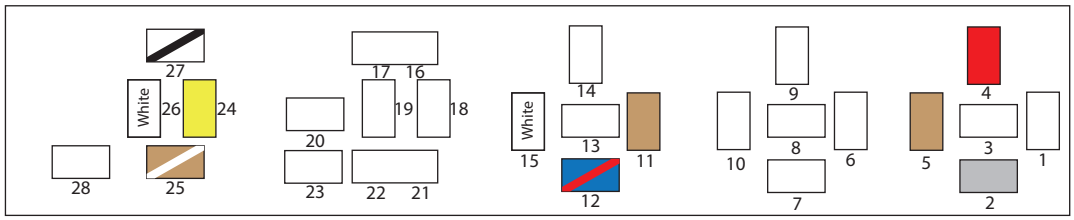
If installing on a 1970 Bus using the original 4 pin relay that plugs into the fuse panel you will need to cut the wire here. Install a .250 terminal with locking tab to the cut end. This wire (blue/red) will now go to the KBL position on the relay deck.



View of underside of relay deck (shown to left). Colors represent wire color.

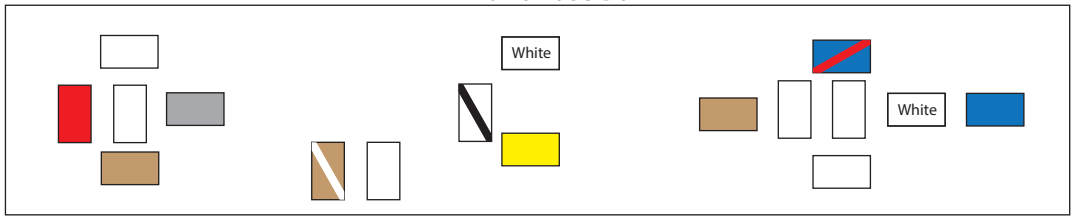


1971 Fuse Box



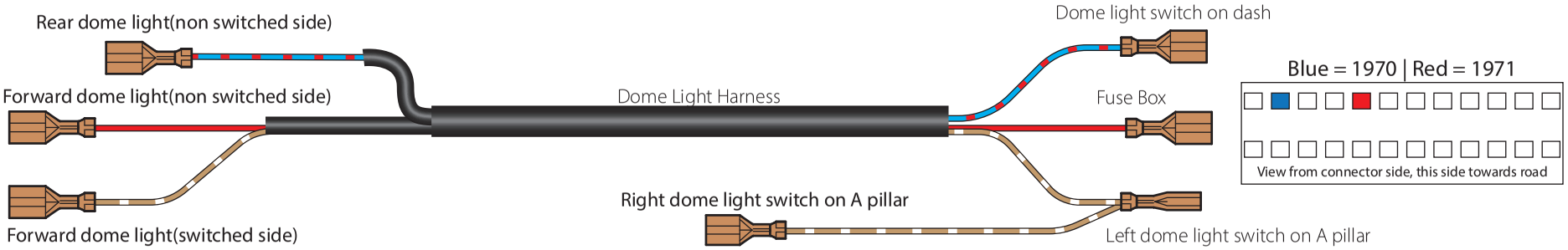
Headlight relay | Turn signal relay | Door buzzer

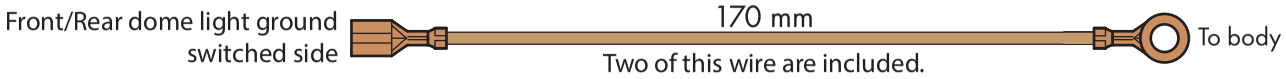
1970 Fuse Box

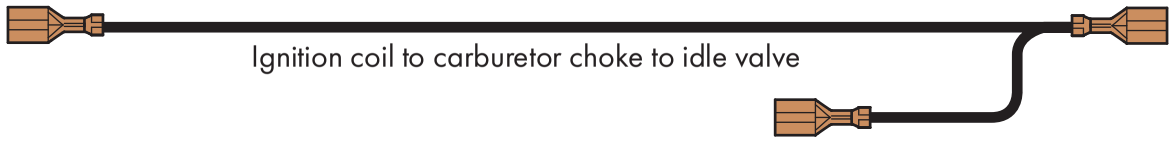


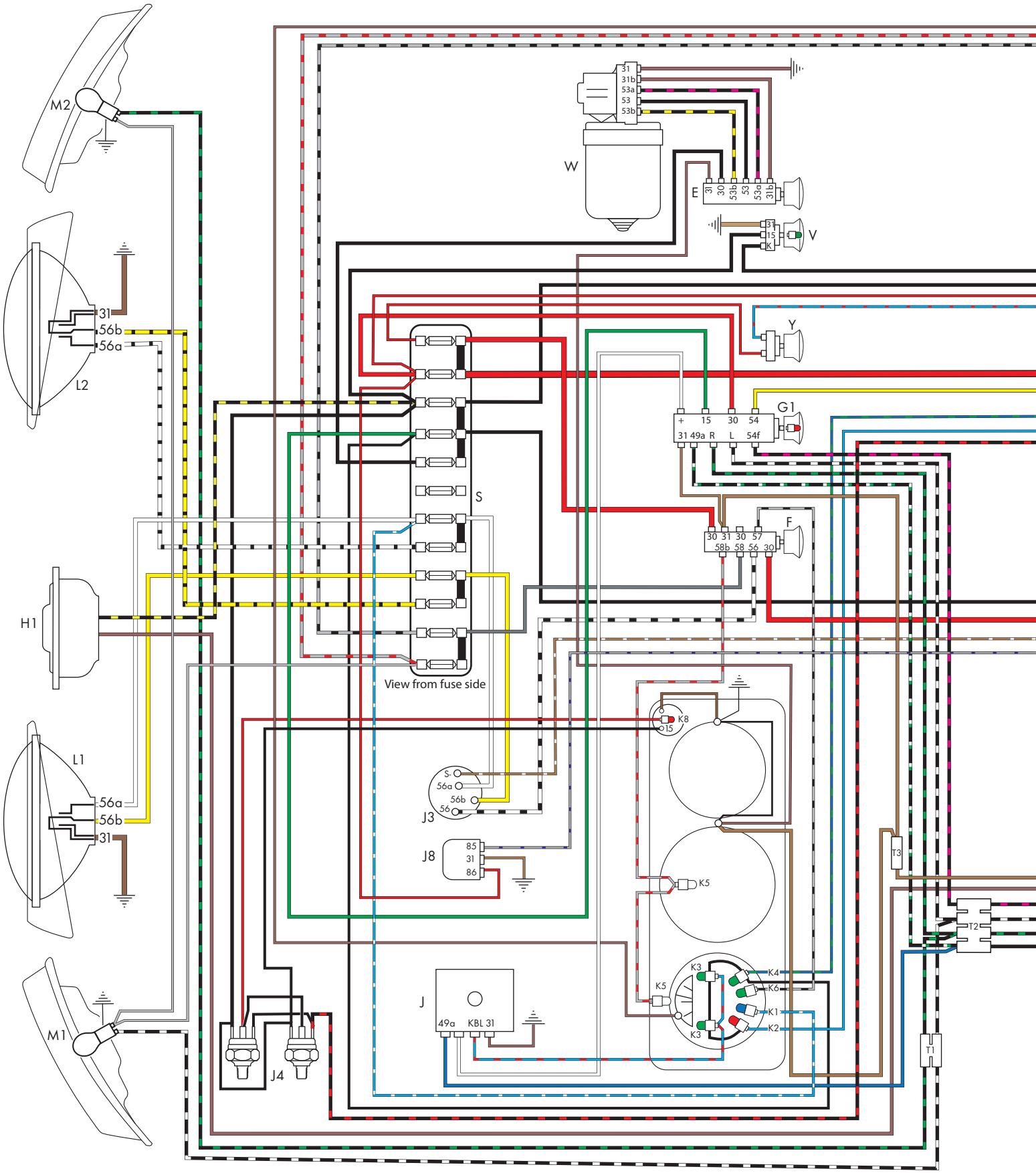
Door buzzer | Headlight relay | Turn signal relay


Generator
Housing Ground
Generator D+
Generator Df
Generator/Voltage Regulator Loom
Ground to regulator
mounting screw
Regulator D+
Regulator Df


Rear dome light(non switched side)
Forward dome light(non switched side)
Forward dome light(switched side)
Dome Light Harness
Dome light switch on dash
Fuse Box
Right dome light switch on A pillar
Left dome light switch on A pillar
Blue = 1970 | Red = 1971
View from connector side, this side towards road

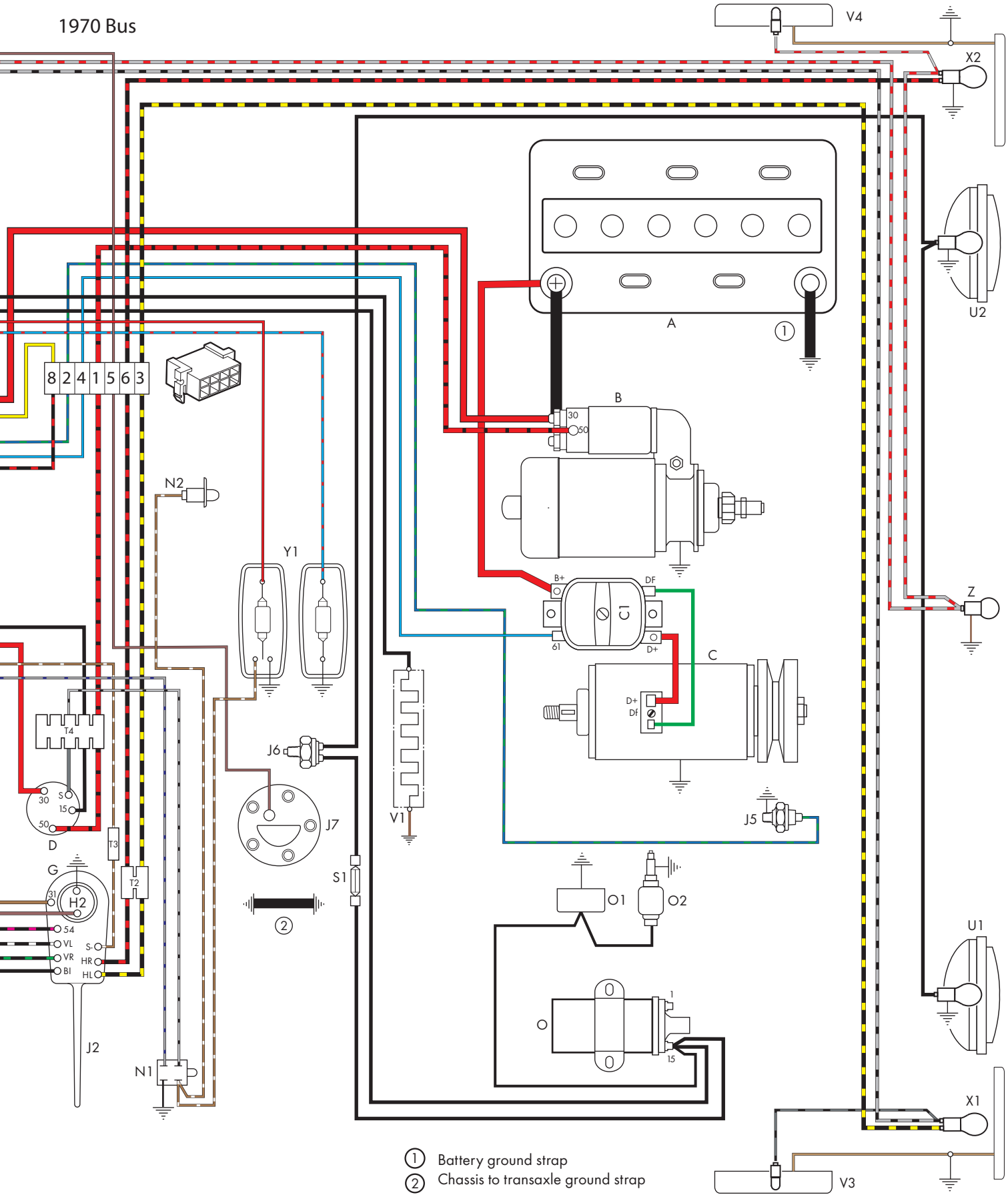

Front/Rear dome light ground
switched side
170 mm
Two of this wire are included.
To body


Ignition coil to carburetor choke to idle valve



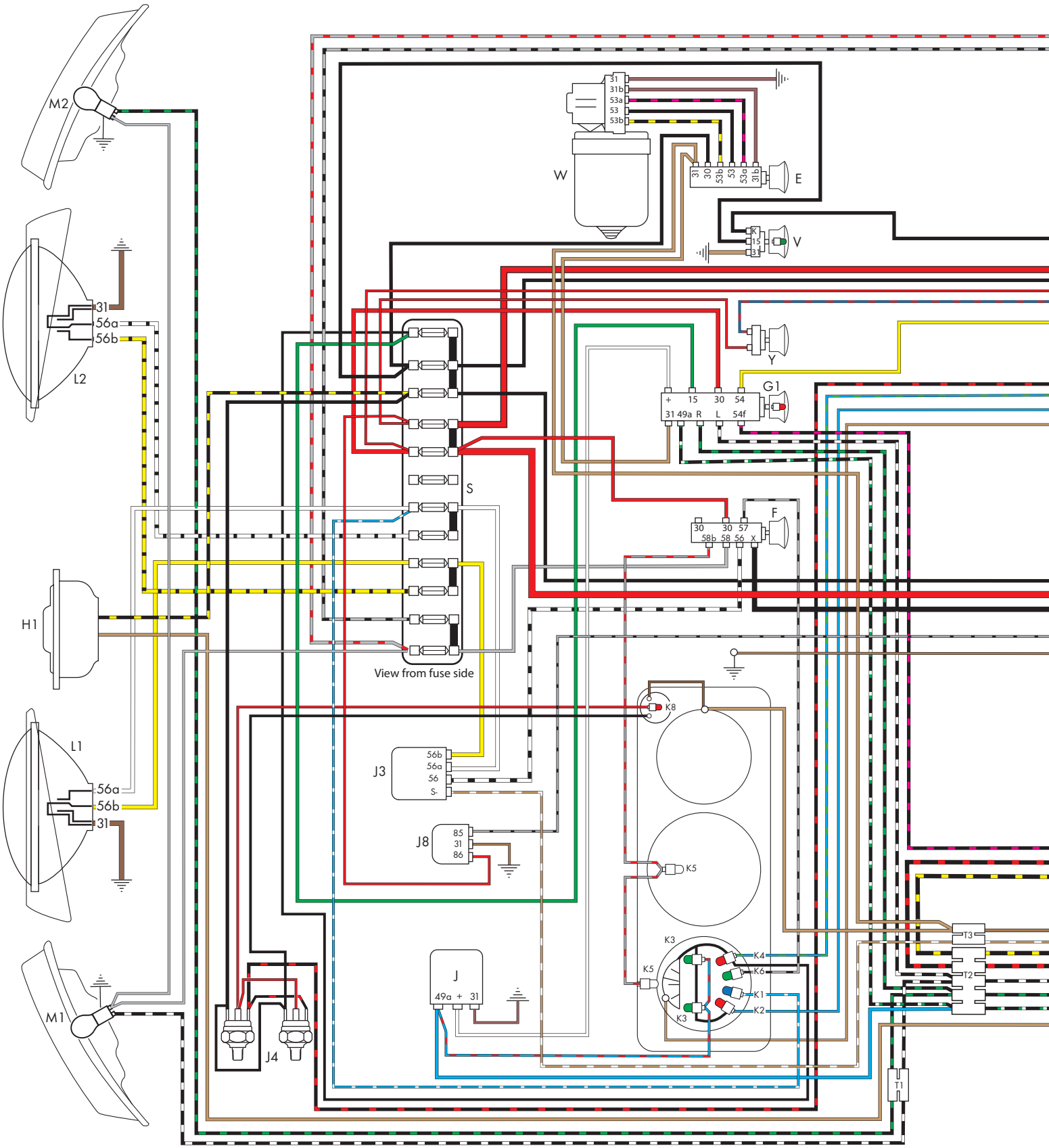
A	Battery	G	Turn indicator switch	J4	Stop light switch	K3	Turn warning light
B	Starter	G1	Emergency flasher switch	J5	Oil pressure switch	K4	Oil pressure warning light
C	Generator	H1	Horn	J6	Back-up light switch	K5	Instrument lights
C1	Voltage regulator	H2	Horn button	J7	Fuel gauge sending unit	K6	Parking indicator light
D	Starter/Ignition switch	J	Turn/Emergency relay	J8	Door buzzer	K8	Brake warning light
E	Windshield wiper switch	J2	Dimmer switch	K1	High beam warning light	L1	Sealed-beam unit, left
F	Light switch	J3	Dimmer relay	K2	Generator warning light	L2	Sealed-beam unit, right

1970 Bus



1 Battery ground strap
2 Chassis to transaxle ground strap

M1	Parking light/Turn light, left	N1	Dome light switch, left	V4	Side marker light, right
M2	Parking /Turn light, right	N2	Dome light switch, right	W	Windshield wiper motor
O	Coil	U1	Back-up light, left	X1	Stop/tail/turn light, rear left
O1	Automatic choke	U2	Back-up light, right	X2	Stop/tail/turn light, rear right
O2	Electric idle jet	V	Rear window defog switch	Y	Rear interior light switch
S	Fuse box, 12 fuse	V1	Rear window defog	Y1	Interior light
S1	Back-up light fuse	V3	Side marker light, left	Z	License plate light



A	Battery	G	Turn indicator switch	J4	Stop light switch	K3	Turn warning light
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C	Generator	H1	Horn	J6	Back-up light switch	K5	Instrument lights
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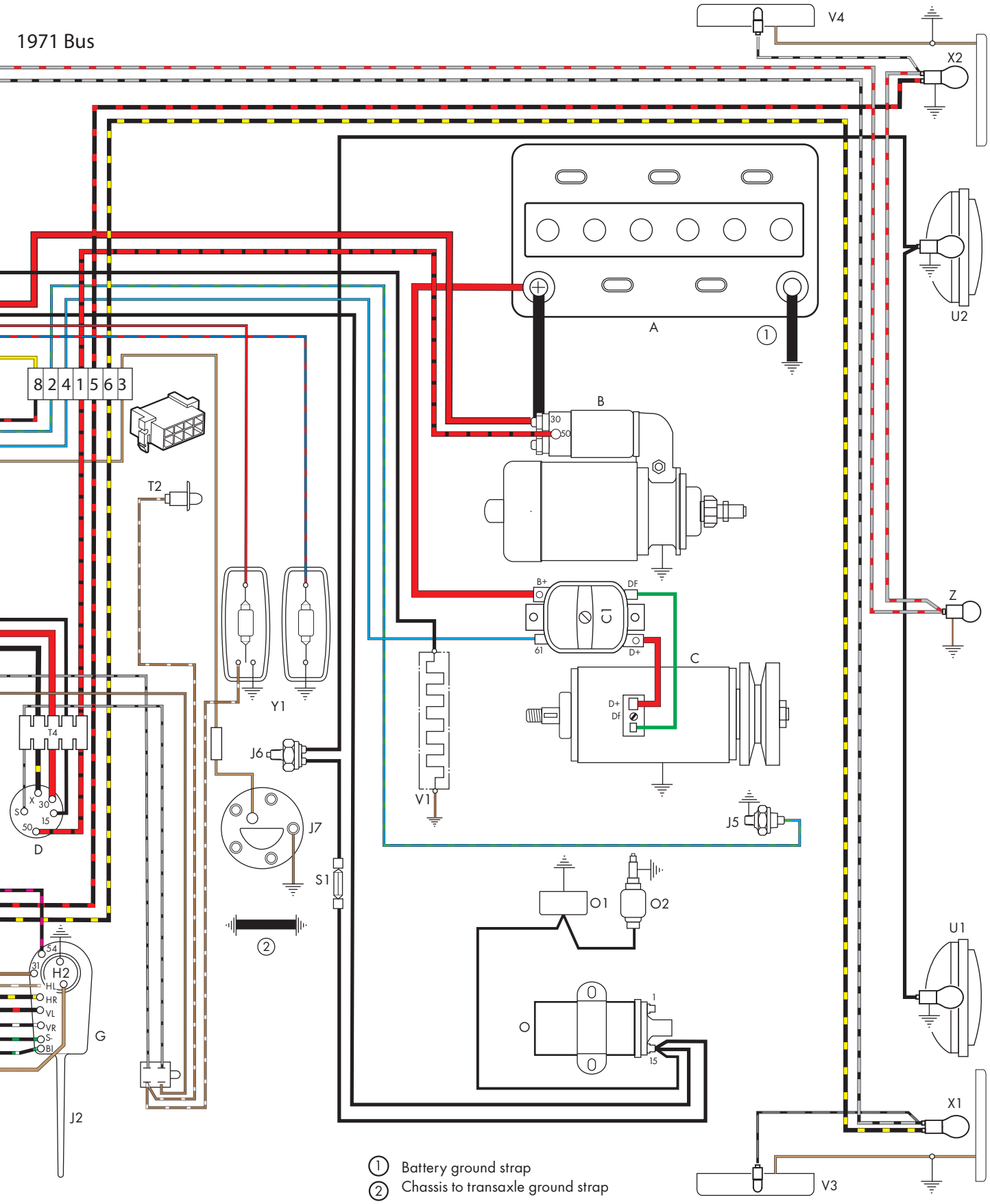
D	Starter/Ignition switch	J	Turn/Emergency relay	J8	Door buzzer	K8	Brake warning light
E	Windshield wiper switch	J2	Dimmer switch	K1	High beam warning light	L1	Sealed-beam unit, left
F	Light switch	J3	Dimmer relay	K2	Generator warning light	L2	Sealed-beam unit, right

1971 Bus



1 Battery ground strap
2 Chassis to transaxle ground strap

M1	Parking light/Turn light, left	N1	Dome light switch, left	V4	Side marker light, right
M2	Parking /Turn light, right	N2	Dome light switch, right	W	Windshield wiper motor
O	Coil	U1	Back-up light, left	X1	Stop/tail/turn light, rear left
O1	Automatic choke	U2	Back-up light, right	X2	Stop/tail/turn light, rear right
O2	Electric idle jet	V	Rear window defog switch	Y	Rear interior light switch
S	Fuse box, 12 fuse	V1	Rear window defogger	Y1	Interior light
S1	Back-up light fuse	V3	Side marker light, left	Z	License plate light

Use this back view of the instrument cluster to locate wires correctly.