

**1954-1955 Bug Wiring Harness Kit.** This wiring harness kit fits 6-volt and 12-volt 1954-1955 Bug sedan models equipped with semaphores. If your Bug has electrical upgrades, 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 and sub-harnesses prior to removal. A digital camera is a useful tool for this step.

If your car was recently painted, you will need to address certain areas of the body/chassis in order to achieve proper electrical continuity. Use a file, sandpaper or emery cloth to remove paint from the mounting locations of the headlights, taillights, semaphores, negative battery strap, transmission to chassis strap, etc. Use touch-up paint or nail polish to seal the surrounding areas of the connection to prevent corrosion.

#### **Component List**

- Main Harness (1)
- Dome Light Harness (1)
- Headlight Harness (1)
- Semaphore/Instrument Harness (1)
- Miscellaneous Wires/Sub Harnesses (6)
- Grommets (6)
- Headlight Plugs (2)
- 1-1 Screw Connectors, small (7)
- 1-1 Screw Connectors, large (1)

## Installation

1. Disconnect negative cable from battery. Review the instructions, and identify the various sub-harnesses and supplemental wires.
2. Now the fun begins! Disconnect the main harness connections from their respective locations. Use the main harness diagram on page (4) of this manual for reference. Note that the main harness and dome light harness travel through the roof member at the right-hand side of the Bug (disregard the illustration in case you're paying attention). Unfold the metal banded clips securing the main harness as it routes above the glove box and under the speaker grill. Gather the loose wires from the front of the main harness and tape them together to create a streamlined bundle. Open the engine lid and remove any insulation material that may be present within the cavity located at the upper right corner of the compartment (where main harness exits). Now we're ready to pull the old harness out. Attach a dragline onto the front portion of the wiring harness (fish tape or heavy cord material). 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.

With the dragline securely attached to the old main harness, pull the harness from the rear as an assistant helps guide the dragline at the front. Using the same technique, attach a dragline to the dome light/semaphore harness at the dome light opening in the roof. Pull the dome light harness out from the front of the car. Connect the front end of the dome light dragline to the new dome light harness making sure that it is secure and streamline. Pull the dragline from the dome light opening until the new dome light harness appears. Follow the above step for the right side semaphore harness.

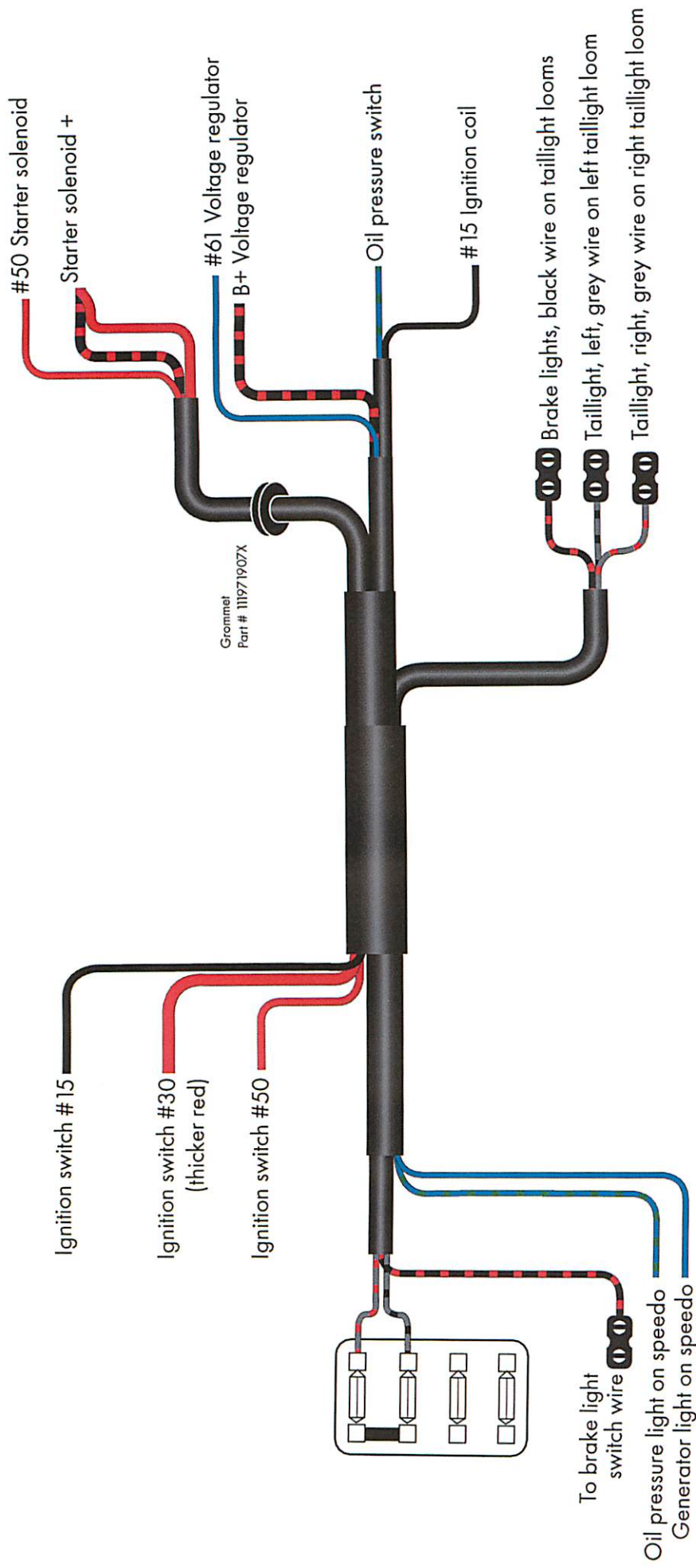
With the new dome light/semaphore harness installed attach the new main harness to the dragline at the rear of the car and in the same fashion as prior. Coat the new harness liberally with wire lube (surgical lube works well, KY Jelly, Astroglide, etc.) and pull the new harness into place from the front while an assistant helps guide the new harness from the rear. 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.

Once the harness is through, secure it to the band clamps. See diagram on page (4) for proper connections of the wires.

3. *Install new headlight harness, see diagram on page (5).* When routing the wires through the metal headlight wiring conduit, use lubricant to ease the wires through. Use the supplied grommet # 111971907X and route the high/low wire bundle through journal in trunk (left side of the trunk, near the fuel tank). Next route the brake light wire bundle through the trunk area (smaller hole near headlight high/low wiring hole). Route the brown wire near the fuse box through hole in the lower dash using the supplied grommet and connect to the horn brush on the side of the steering column. Pay close attention to the parking light connections. The grey wire should connect to the center lug only. The lug located at the end is for ground, which typically is not required as the unit will ground to the assembly via the mounting screw. In the event a clean ground is not achieved (newly painted models, for example), use an 18-gauge wire and attach one end to this lug, and the other to terminal 31 of the headlamp plug. Install the headlight wires onto their respective location as per the diagram onto the supplied headlight plugs.

4. Connect previously installed dome light harness, see page (6) for connection locations.
5. Install miscellaneous supplemental wires, see page (7) for illustrations:
  - Install taillight harnesses, (two wires, bundled in white conduit). Left side is the longer one and it feeds inside of the rear apron. Using the diagram on page (4) and the supplied connector blocks connect the taillight harnesses to the main harness. Use the supplied grommets to route the wires through the holes in the quarter panels. These grommets have a thin center membrane that needs to be opened up slightly using a knife. See the note in the lower right corner of page (7) to help determine the correct placement of the wire to the taillight bulb holder.
  - Install license light harness (grey/red wire with black conduit, 1370mm length). The license light wire connects to the right taillight connector block that houses the grey/red wire. Route the wire to the license light assembly while observing its proximity to the fan. Keep the slack of the wire as far away from the fan as possible.
  - Attach speedo light wire (grey/red, 3 connectors) from terminal 58b of the headlight switch to speedometer illumination bulbs on each side of speedo.
  - Attach windshield wiper motor wires (black/purple and black wires in PVC sleeve, 230mm long) from wiper motor to wiper switch.
  - Attach wiper motor ground wire (brown). Ring connector fits under center support bolt on wiper assembly.
6. With installation now complete, double check all connections. Carefully connect battery and test each system for proper operation. Screw terminal fuse boxes are notorious for allowing wires to become loose. After the initial road test, check the connections again at the fuse box, as well as any other screw terminal connection.

## Main Harness



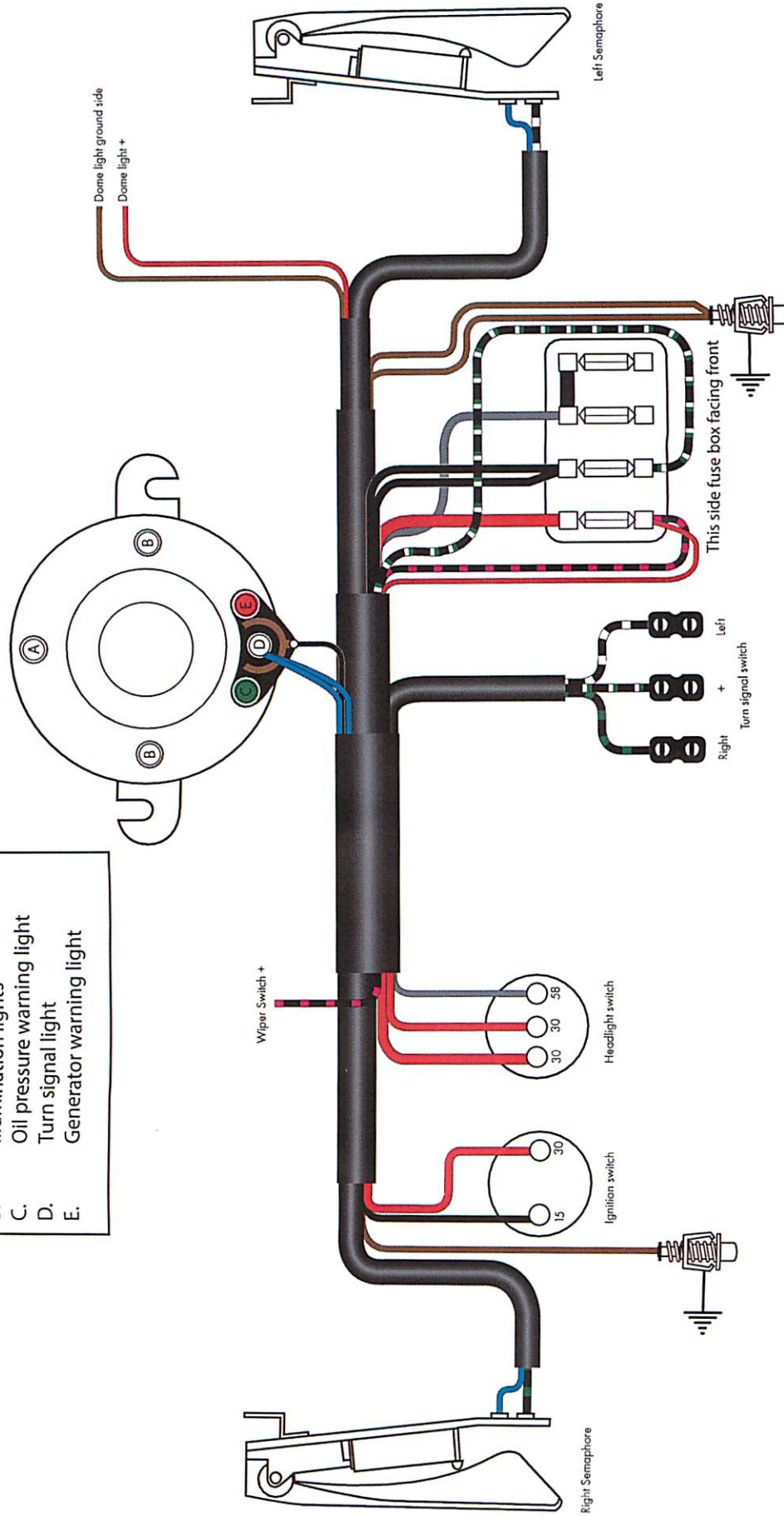
Note: Main harness routes through right side of roof



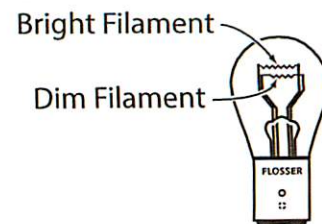
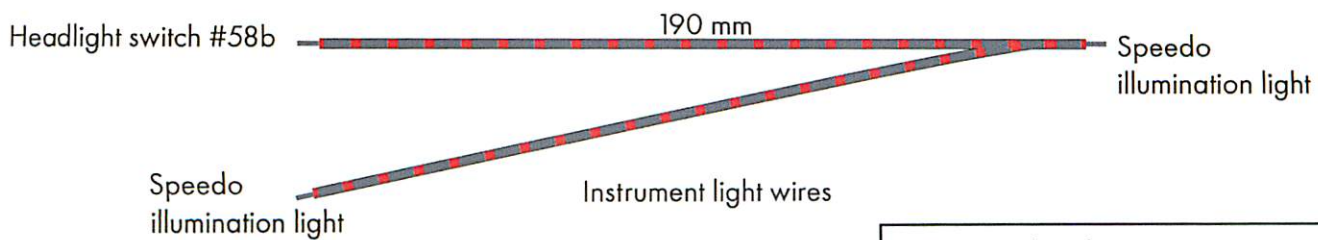
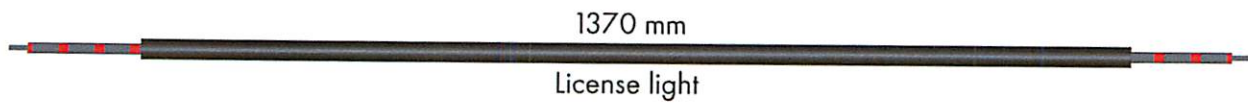
Make sure your connections to the parking light bulb holder are correct. This circuit and the headlight low beam circuit are not fused.

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- A. Headlight high beam indicator  
 B. Illumination lights  
 C. Oil pressure warning light  
 D. Turn signal light  
 E. Generator warning light

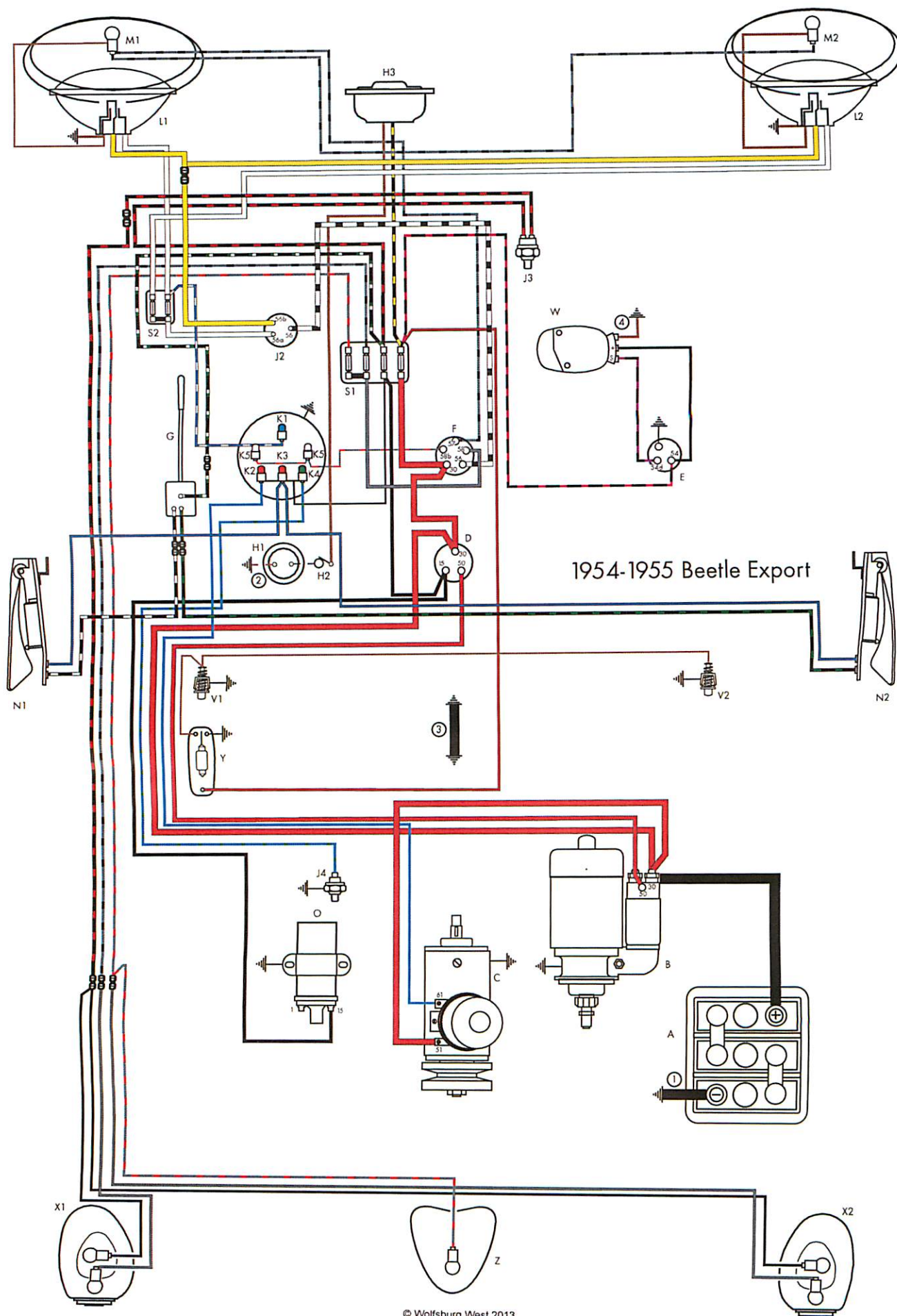


## Miscellaneous Wires



Note.

Having the wires reversed on the taillight bulbs is a common mistake. Always test the taillight 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 light wire.



- A Battery
- B Starter
- C Generator
- D Starter/Ignition switch
- E Windshield wiper switch
- F Light switch
- G Turn indicator switch
- H3 Horn
- H1 Horn button
- H3 Horn brush
- J2 Dimmer switch
- J3 Stop light switch
- J4 Oil pressure switch
- K1 High beam warning light
- K2 Generator warning light
- K3 Turn indicator warning light
- K4 Oil pressure warning light
- K5 Speedometer light
- L1 Sealed-beam unit, left
- L2 Sealed-beam unit, right
- M1 Parking light, left
- M2 *Parking light, right*
- N1 Semaphore, left
- N2 Semaphore, right
- O Coil
- S1 Fuse box, 4 fuse
- S2 Fuse box, 2 fuse
- W Windshield wiper motor
- X1 Stop/taillight, rear left
- X2 Stop/taillight, rear right
- Y Interior light
- Y1 Interior light switch, left
- Y2 Interior light switch, right
- Z License plate light
  
- ① Battery ground strap
- ② Steering column to steering box ground jumper
- ③ Chassis to transaxle ground strap