

Section XXIV

VEHICLE WIRING

114. DESCRIPTION.

a. General.

(1) All electrically operated units on the vehicle, except the ignition coil and the horn, are constantly grounded to the vehicle chassis through their mounting. The coil is intermittently grounded to the chassis when the breaker points in the distributor are closed. The horn is grounded when the horn button is depressed. The negative post of the battery is also constantly grounded to the chassis.

(2) A single cable, connected to the positive post of the battery, runs directly to the feed post on the starter switch. When the switch is closed, current flows from the battery through the starter to ground. No other wiring is involved in the starting circuit.

(3) From the feed post on the starter switch and the generator regulator, single feed wires run through the radio interference filter to the ammeter. From the ammeter, single feed wires, which are built into assemblies, run indirectly through switches to all electrically operated units, except the starter. When the switch which controls any unit, except the starter, is closed, current flows from the battery through the ammeter, through the switch and single wire in the wiring assemblies, then through the unit to ground.

b. Wiring Assemblies.

(1) **LOWER WIRING ASSEMBLY** (fig. 96). This assembly contains a group of single-feed wires which run from the engine side of the junction block on the dash to all road lights, dimmer switch, and fuel gage tank unit. Only the road lights or fuel gage can be affected by this wiring assembly.

(2) **UPPER WIRING ASSEMBLY** (figs. 97 and 98). This assembly contains a group of single-feed wires which run from the blackout switch, headlight beam indicator, and fuel gage, on the instrument panel, to the driver's side of the junction block on the dash. Only the road lights or fuel gage can be affected by this wiring assembly.

(3) **BODY WIRING ASSEMBLY** (figs. 97 and 98). This assembly contains two feed wires which run from the radio interference filter to the ammeter; also feed wires which run from the ammeter to the blackout switch, instrument light switch, ignition switch, fuel gage; and a wire which runs from the ignition switch to the radio interference filter. Any electrical unit on the vehicle, except the starter, can be affected by this wiring assembly.

(4) **GENERATOR TO REGULATOR WIRING ASSEMBLY** (figs. 99 and 100). This assembly contains two wires which run from the generator

to the generator regulator. Only the charging rate of the generator will be affected by this assembly.

c. **Words "Right" and "Left."** Use of these words in this section to designate location of wires and terminals is defined as follows:

(1) **"RIGHT."** The side of vehicle opposite driver's side where the steering gear is mounted. For example, "right post of ignition switch" means the post on the side of the ignition switch opposite the steering gear side of the vehicle when the switch is installed in its normal position on the vehicle. The word "right" is not used in this manual to refer to positions or locations in relation to the body of the mechanic doing the work.

(2) **"LEFT."** The driver's side of the vehicle where the steering gear is mounted: the side opposite the right side. For example, "left light upper socket" means the upper socket of the taillight on the driver's side (steering gear side) of the vehicle when the taillight is installed in its normal position on the vehicle. The word "left" is not used in this manual to refer to positions or locations in relation to the body of the mechanic doing the work.

115. LOWER WIRING ASSEMBLY (JUNCTION BLOCK TO LIGHTS).

a. **Description** (fig. 96). This assembly contains only lighting system wires and a wire to the fuel gage tank unit. Feed wires from the junction block to all road lights are built into the assembly.

b. **Removal** (fig. 96).

(1) **DISCONNECT WIRES.** Disconnect all wires from engine side of the junction block. Then open wire clips on dash and steering gear housing. Remove dimmer switch and disconnect wires (par. 108 d). Pull wire connector straight up and off post on stop light switch.

(2) **REMOVE REAR SECTION OF WIRING ASSEMBLY.** Open clips which hold wire assembly to frame side member. Remove fuel tank to get to clip opposite the end of fuel tank (par. 76). Remove two clips which hold right taillight wires, and two clips which hold fuel gage wire to frame crossmember. Open clip which holds left taillight wires to end of frame crossmember. Turn taillight wire connectors clockwise, and pull them out of lights. Disconnect ground wire from frame. Remove cap from connector and disconnect wires.

(3) **REMOVE FRONT SECTION OF WIRING ASSEMBLY.** Open clip which holds wiring assembly to frame side member just forward of stop light switch, and three clips which hold wiring assembly to frame front crossmember. Disconnect wires from headlight terminal blocks one at a time, and put wire from light back on post to facilitate installation. Disconnect blackout parking light wires by separating connectors in wires. Then remove wiring assembly.

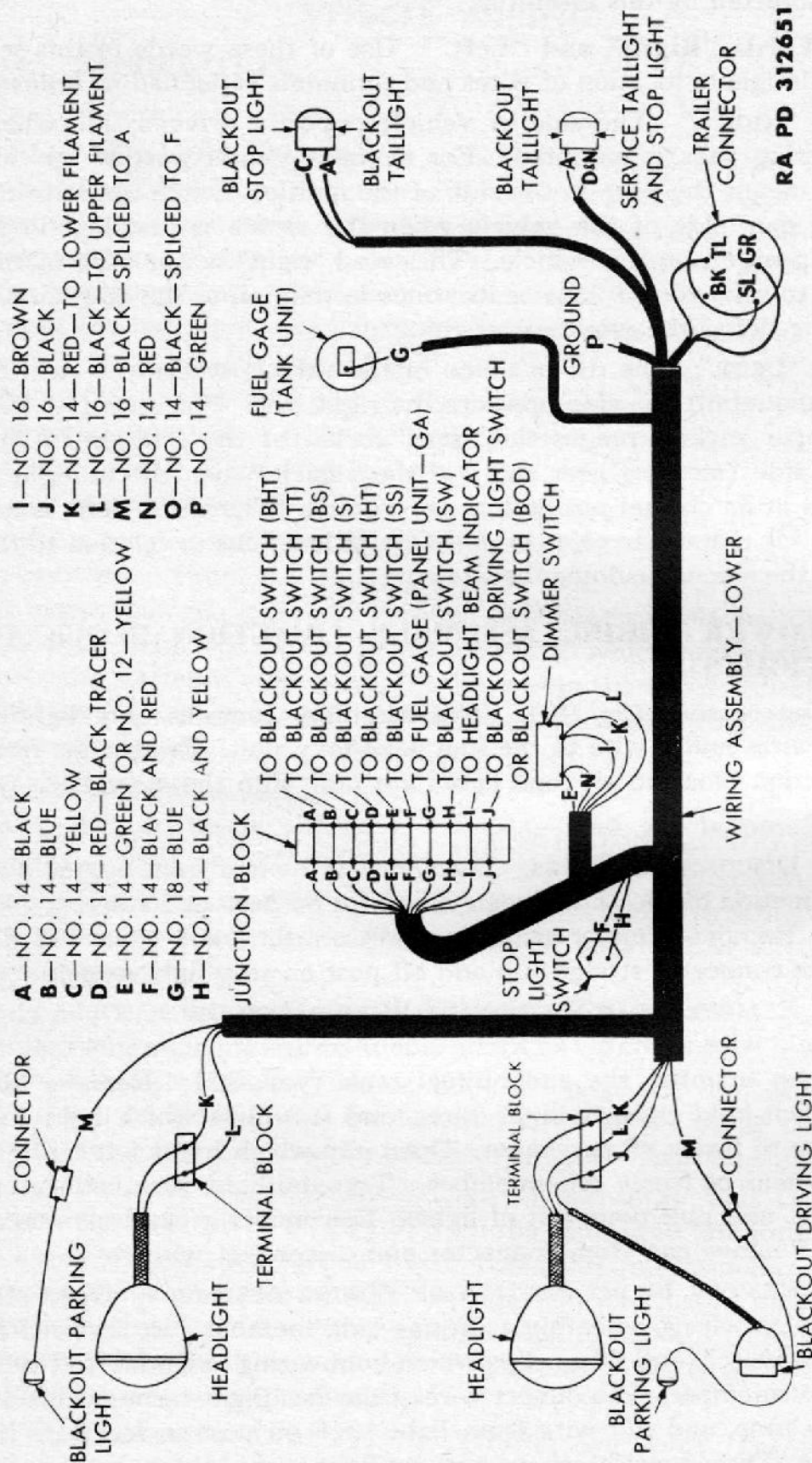


Figure 96 — Wiring From Junction Block to Lights and Fuel Gage

c. Installation (fig. 96).

(1) **INSTALL FRONT SECTION OF WIRING ASSEMBLY.** String shorter section of assembly forward through clip on frame side member and the three clips on frame crossmember, and close the clips. Connect wires to blackout parking lights. Connect headlight and blackout driving light wires to terminal block so that the color of each wire matches color of feed wire which runs to light.

(2) **INSTALL REAR SECTION OF WIRING ASSEMBLY.** String rear section of wiring assembly through clips on channel of frame side member, and close the clips. Install the two clips which hold right taillight wires and two clips which hold fuel gage wires to frame crossmembers, put left taillight wires through clip on end of frame side member, and close the clip. Connect taillight wires. Connect yellow wire to right light upper socket and black wire to lower socket. Connect the two red wires to left light upper socket and black wire to lower socket. Connect three wires which are taped together to trailer connector and install cap. Refer to paragraph 126 b, for position of wires.

(3) **INSTALL FUEL TANK.** See paragraph 76 b.

(4) **CONNECT WIRES AND INSTALL DIMMER SWITCH.** See paragraph 108 d.

(5) **CONNECT WIRES TO STOP LIGHT SWITCH AND JUNCTION BLOCK.** Push connector straight down on stop light switch post. Remove two screws which hold junction block in place, and pull block forward a few inches. Connect wires to junction block so that color of each wire matches color of wire on other end of block terminal (fig. 101). Install junction block in dash. Put wire assembly in clips on dash and steering gear housing, and close the clips.

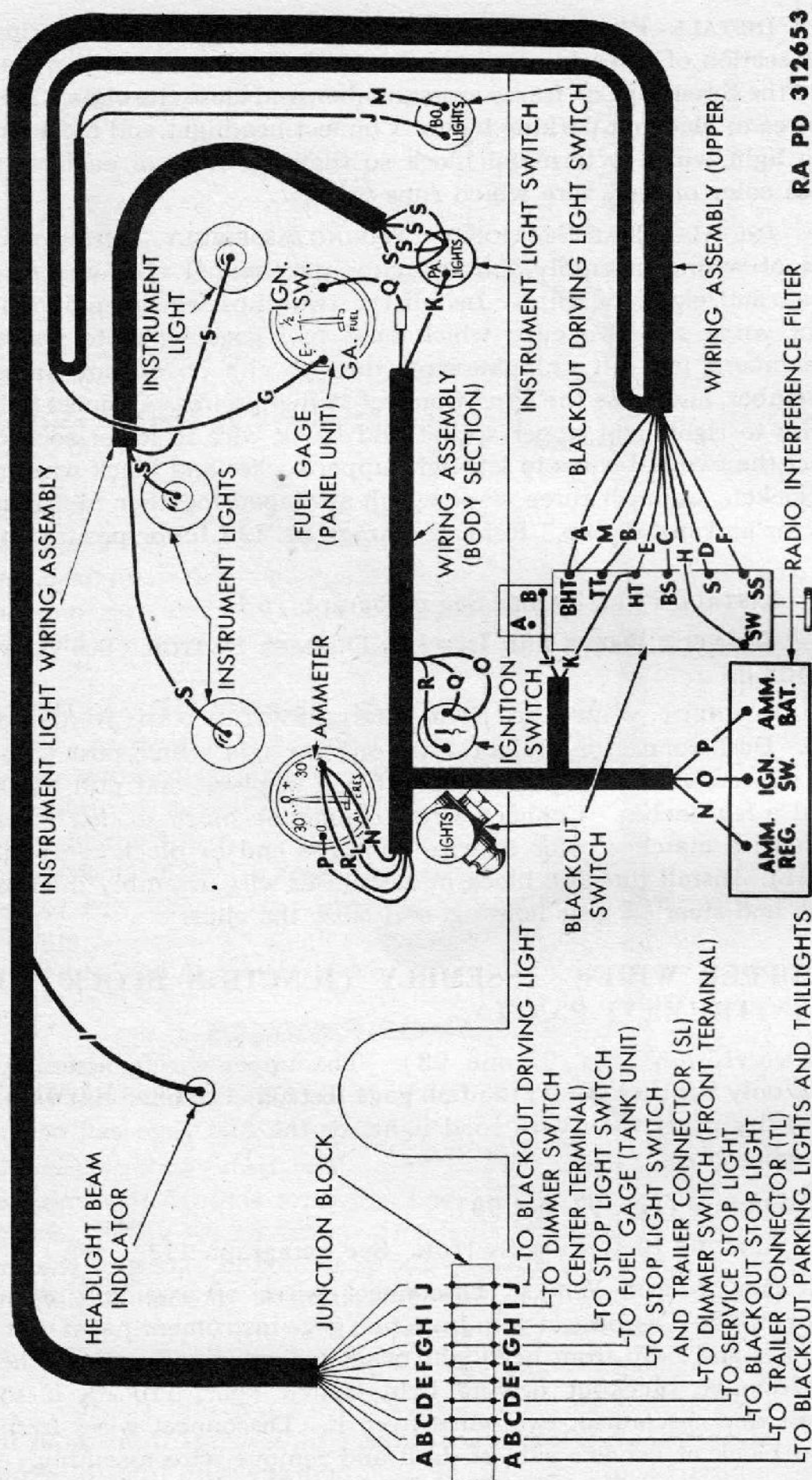
116. UPPER WIRING ASSEMBLY (JUNCTION BLOCK TO INSTRUMENT PANEL).

a. Description (figs. 97 and 98). The upper wiring assembly contains only light wires and the fuel gage instrument panel unit wire. No difficulty other than with road lights or the fuel gage can occur in this assembly.

b. Removal (figs. 97 and 98).

(1) **REMOVE BLACKOUT SWITCH.** See paragraph 113.

(2) **DISCONNECT WIRES.** Disconnect wires of assembly from blackout switch. Disconnect wire from fuel gage instrument panel unit. Pull socket and bulb from headlight beam indicator and remove the bulb. Remove blackout driving light switch (par. 110 c), if so equipped, and disconnect two wires from it. Disconnect wires from junction block at driver's side of dash and remove wire assembly.



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Figure 97 — Instrument Panel Wiring (Early Vehicles)

A —NO. 14—BLACK	K —NO. 16—RED
B —NO. 14—BLUE	L —NO. 12—BROWN
C —NO. 14—YELLOW	M —NO. 14—BLACK
D —NO. 14—RED—BLACK TRACER	N —NO. 10—BLACK
E —NO. 14—GREEN OR NO. 12 YELLOW	O —NO. 14—BLACK
F —NO. 14—BLACK AND RED	P —NO. 10—RED
G —NO. 18—BLUE	Q —NO. 12—GREEN
H —NO. 14—BLACK AND YELLOW	R —NO. 12—BROWN
I —NO. 16—BLUE	S —NO. 16—BLACK
J —NO. 16—BLACK	

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Legend for Figure 97 — Instrument Panel Wiring (Early Vehicles)

c. Installation (figs. 97 and 98).

(1) **CONNECT WIRES TO JUNCTION BLOCK** (fig. 101). Remove two screws which hold junction block to engine side of dash, and pull block away from dash. Insert end of wire assembly through dash, and connect wires to junction block so that color of each wire matches color of wire on other end of terminal, then install junction block in dash.

(2) **CONNECT WIRES TO SWITCHES, HEADLIGHT BEAM INDICATOR, AND FUEL GAGE.** String wiring assembly over steering column brace and the two longer wires, which are taped together (if so equipped), to blackout driving light switch. Connect two wires to blackout driving light switch and install switch in instrument panel (par. 110 d). Install bulb in socket on longest wire, and push socket into headlight beam indicator. Connect the next longest wire to fuel gage instrument panel unit. Connect remaining wires of approximately the same length to blackout switch. Refer to figures 94 and 95 for proper position of wires.

(3) **INSTALL BLACKOUT SWITCH.** See paragraph 113.

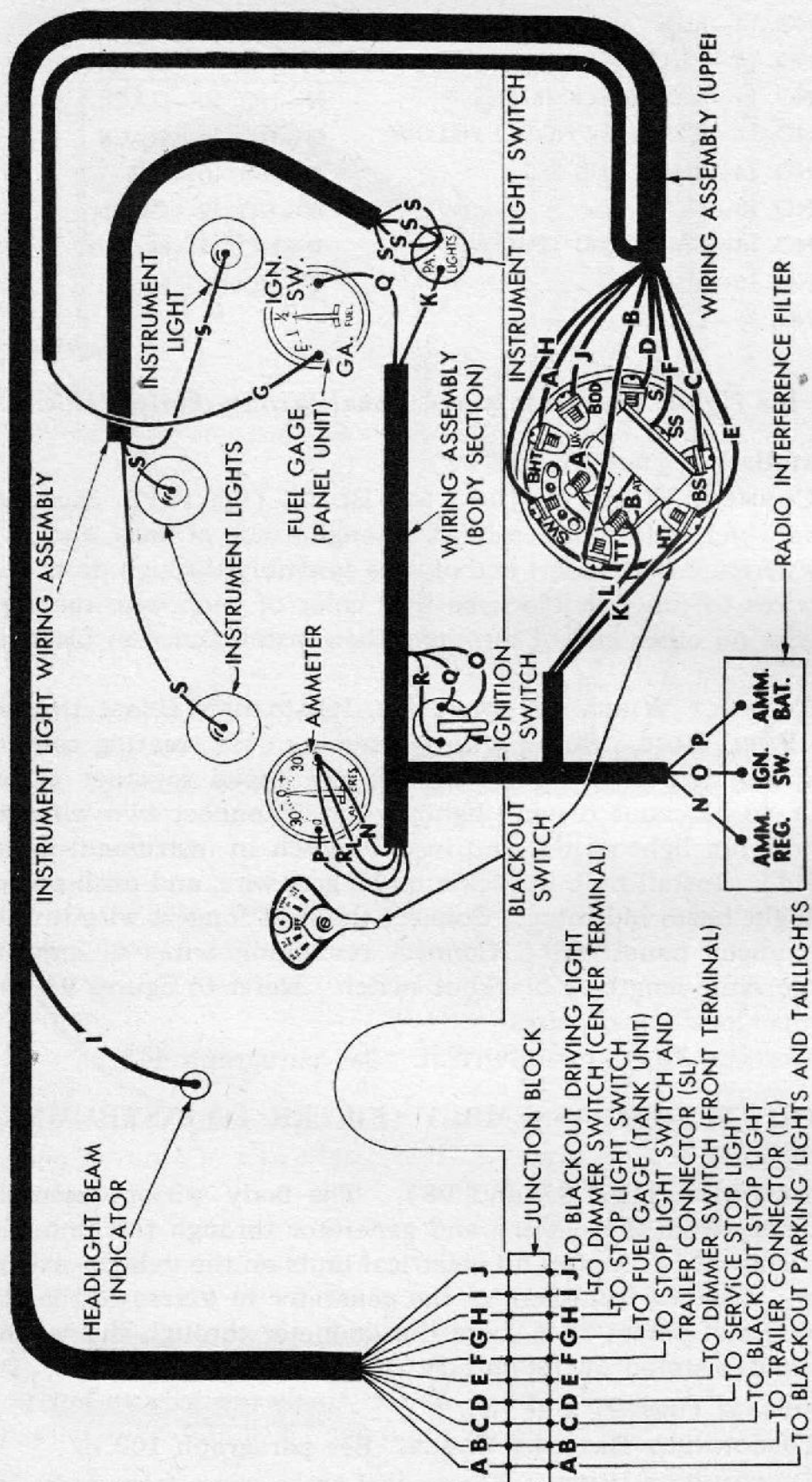
117. BODY WIRING ASSEMBLY (FILTER TO INSTRUMENT PANEL).

a. Description (figs. 97 and 98). The body wiring assembly carries current from the battery and generator through the ammeter to the switches which control all electrical units on the vehicle, except the starter. Current furnished by the generator in excess of the immediate demand passes back from the ammeter through this wiring assembly and is stored in the battery.

b. Removal (figs. 97 and 98).

(1) **DISCONNECT BATTERY CABLE.** See paragraph 102 d.

(2) **DISCONNECT WIRES.** Disconnect three wires from radio interference filter on driver's side of dash and one wire from blackout



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Figure 98 — Instrument Panel Wiring (Later Vehicles)

Vehicle Wiring

A —NO. 14—BLACK	L —NO. 12—BROWN
B —NO. 14—BLUE	N —NO. 10—BLACK
C —NO. 14—YELLOW	O —NO. 14—BLACK
D —NO. 14—RED—BLACK TRACER	P —NO. 10—RED
E —NO. 14—GREEN	Q —NO. 12—BLUE OR NO. 12—GREEN
F —NO. 14—BLACK AND RED	R —NO. 12—BROWN
G —NO. 18—BLUE	S —NO. 16—BLACK
H —NO. 14—BLACK AND YELLOW	T —NO. 16—RED
I —NO. 16—BLUE	U —NO. 16—RED
J —NO. 16—BLACK	
K —NO. 16—RED	

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Legend for Figure 98 — Instrument Panel Wiring (Later Vehicles)

switch. Disconnect wire from circuit breaker and wire from fuel gage. Disconnect single wire from one side and double wire from the other side of ignition switch. Disconnect single wire from one side and group of wires from the other side of instrument light switch. Remove all instrument light lamps. Disconnect three-wire group from right side, and single wire from left side, of ammeter.

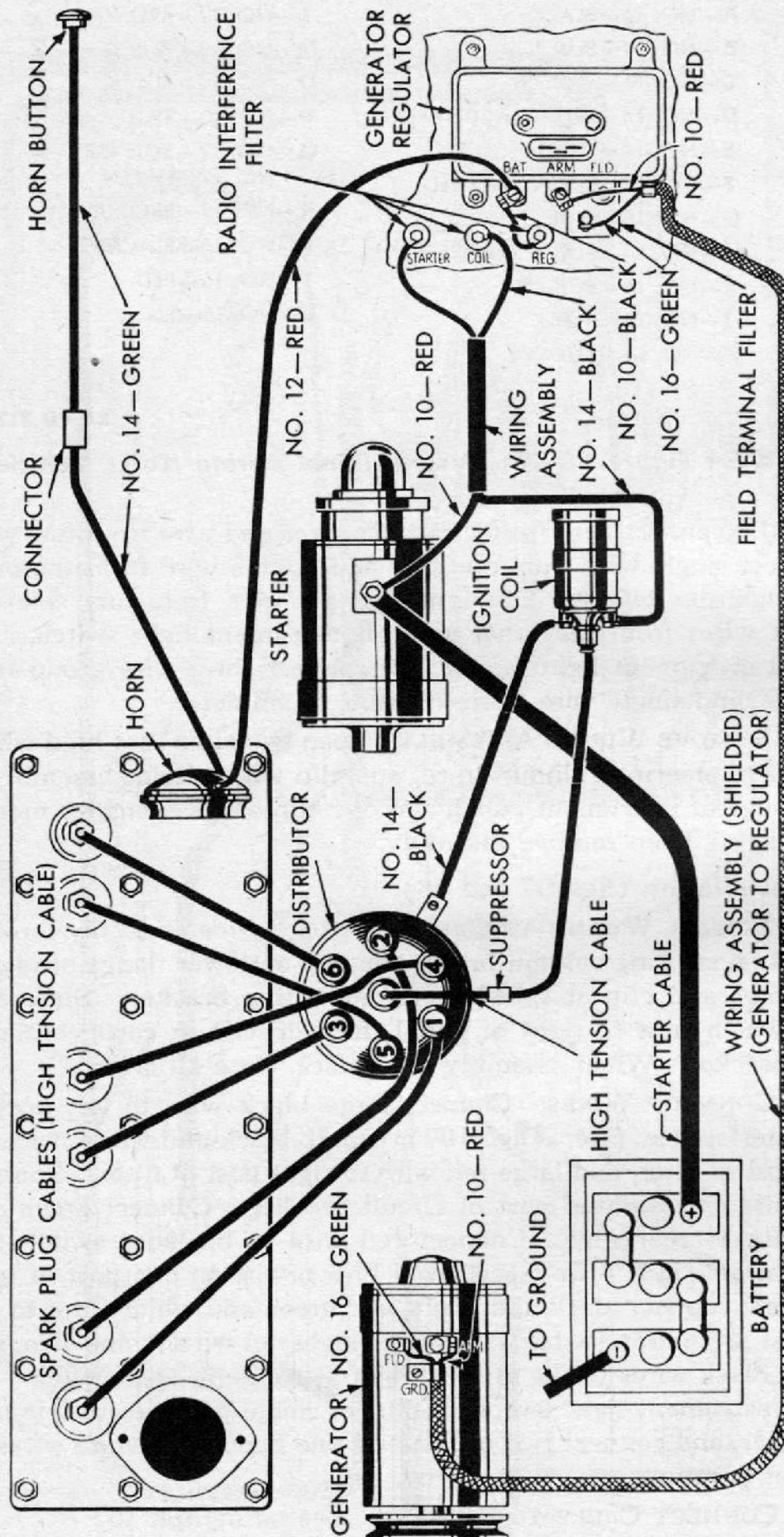
(3) **REMOVE WIRING ASSEMBLY.** Open two clips that hold wiring assembly to steering column brace, one clip which holds assembly to lower flange of instrument panel, and one clip at speedometer mounting bracket. Then remove assembly.

c. Installation (figs. 97 and 98).

(1) **INSTALL WIRING ASSEMBLY.** String wiring assembly through two clips on steering column brace; one clip on lower flange of instrument panel, and clip at speedometer mounting bracket. String the branch which runs to right of panel through hole in cowl ventilator handle bracket. When assembly is in place, close all clips.

(2) **CONNECT WIRES.** Connect large black wire to left post of radio interference filter (fig. 109), small black-and-white wire to center post of filter, and large red wire to right post of filter. Connect brown wire on insulated post of circuit breaker. Connect green and white wire to fuel gage. Connect red wire to blackout switch terminal marked "HT." Connect single brown wire to one post of ignition switch; connect black-and-white, and green-and-white wires to the other post of ignition switch. Connect single red wire to one side, and group of black wires to the other side of instrument light switch. Install all instrument light lamps. Connect single red wire to left post of ammeter, and connect two brown and one black-and-white wires to right post of ammeter.

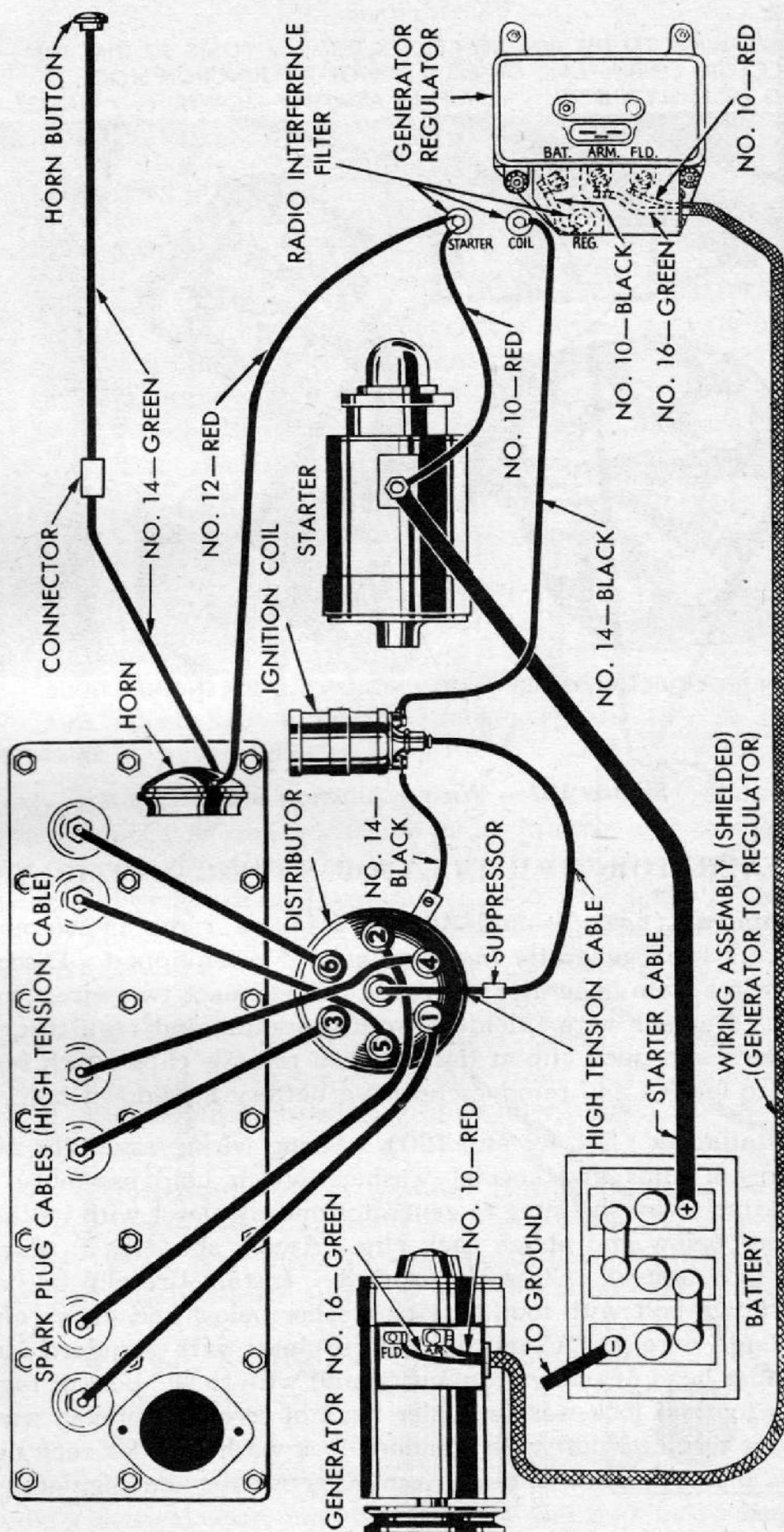
(3) **CONNECT CABLE TO BATTERY.** See paragraph 102 e.



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Figure 99 — Wiring Under Hood (Early Vehicles)

Vehicle Wiring



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Figure 100 — Wiring Under Hood (Later Vehicles)