SERVICE MANUAL

Datsun

MODEL 510 SERIES

CHASSIS and BODY

SECTION BE

BODY ELECTRICAL

ELECTRICAL WIRING DIAGRAM

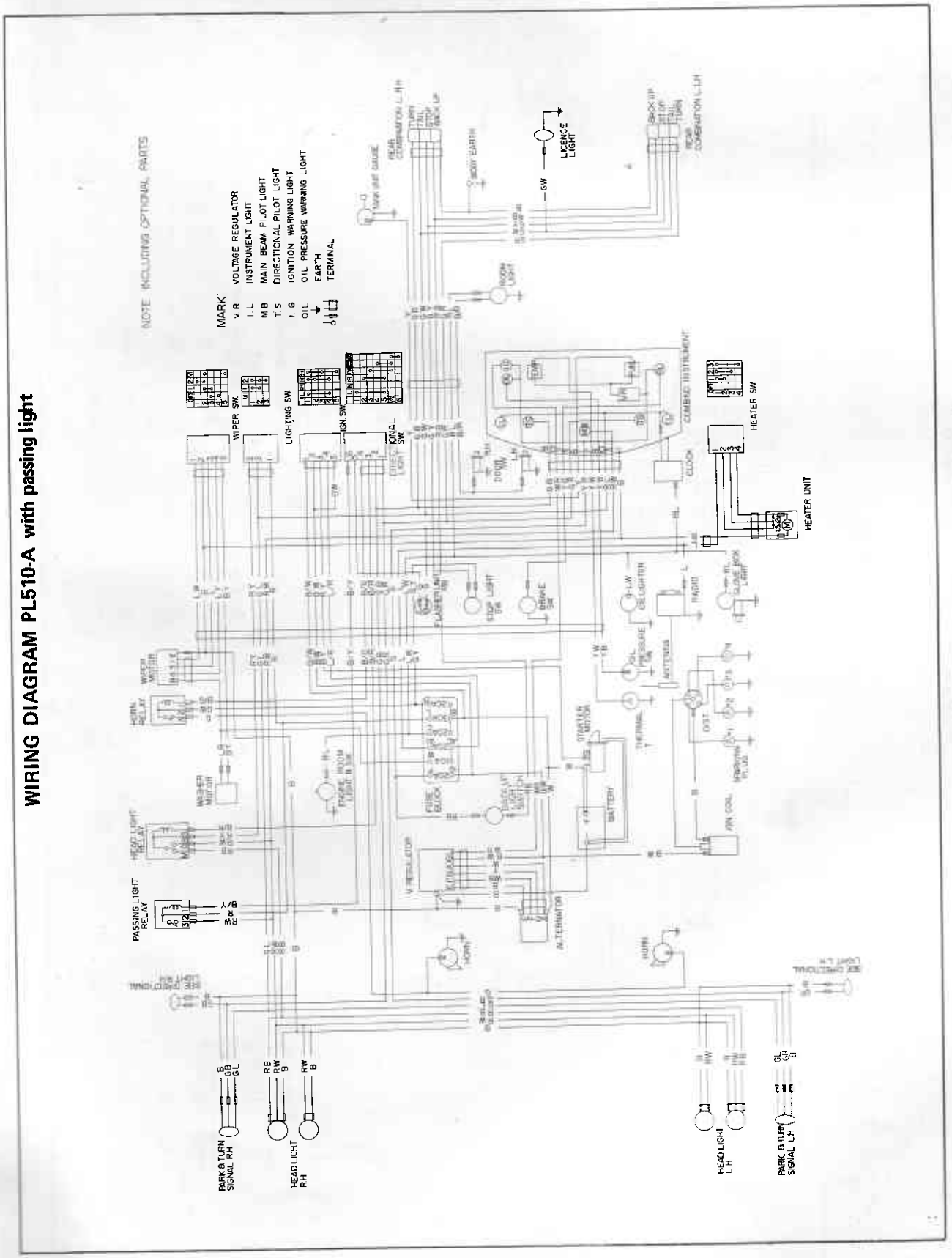

Fig. BE-1

WIRING DIAGRAM (P)(L)510-(U)(T)

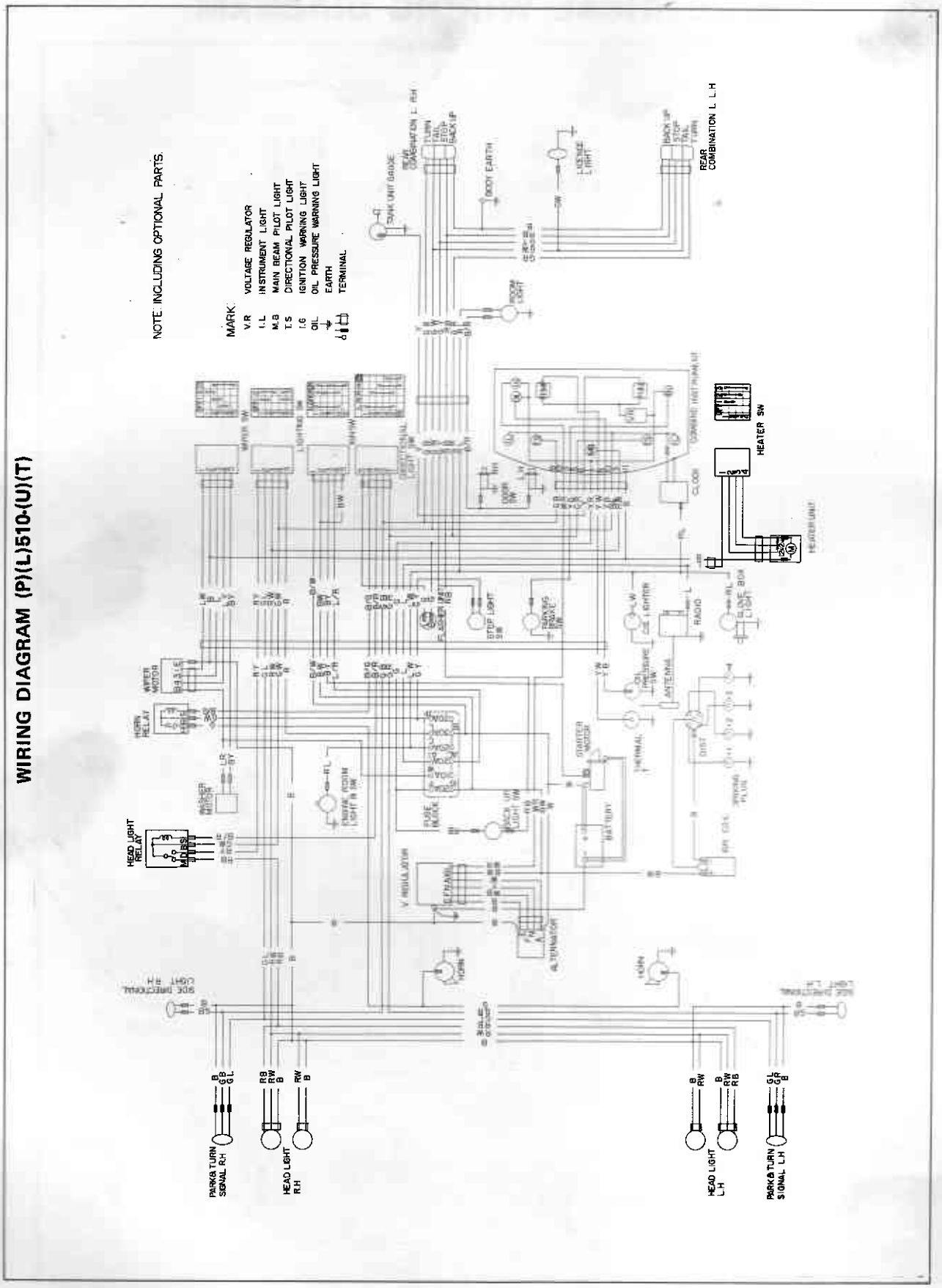

Fig. BE-2

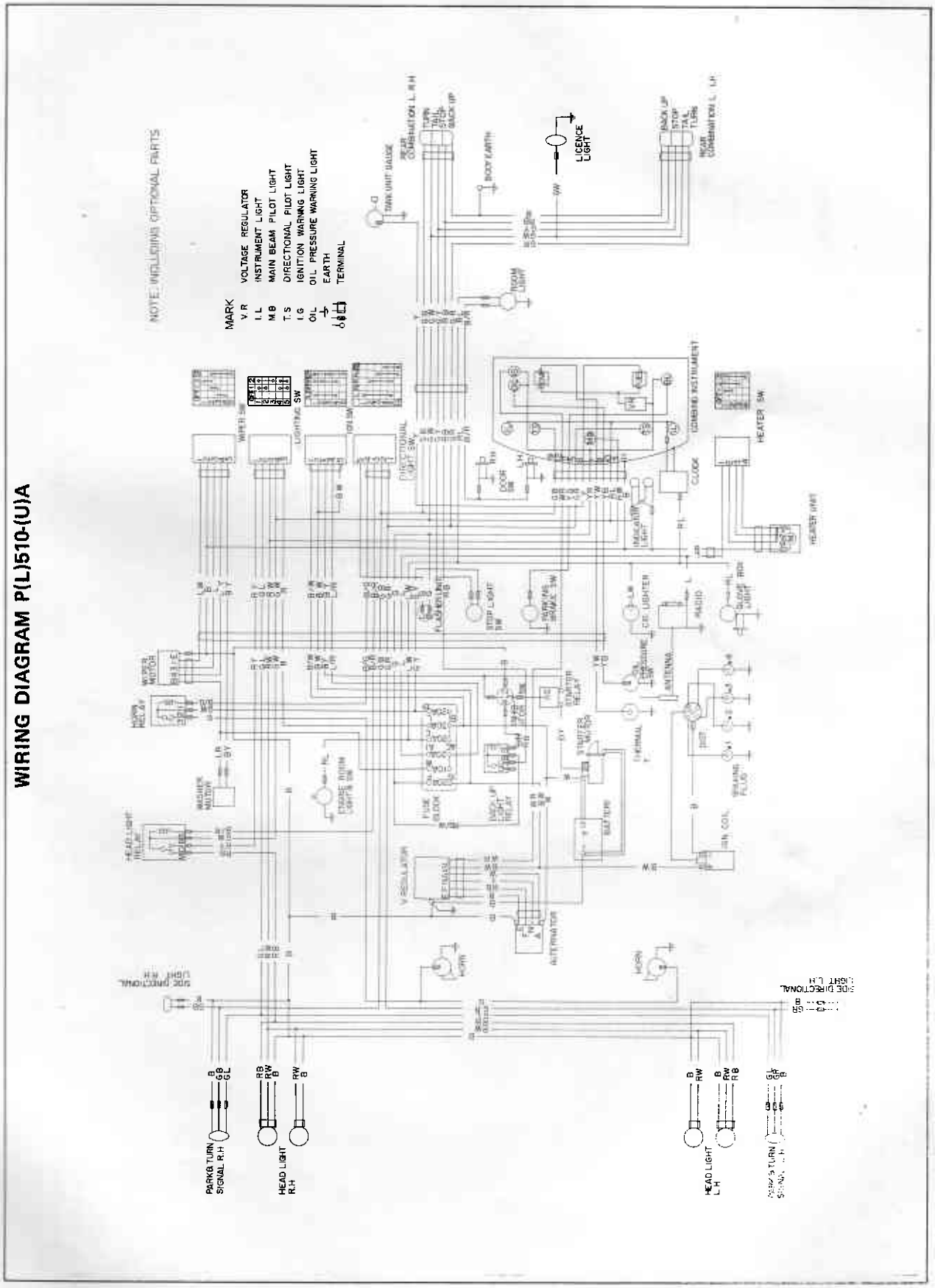
WIRING DIAGRAM P(L)510-(U)A
NOTE: INSULDING OPTIONAL PARTS
MARK
V R VOLTAGE REGULATOR
I L INSTRUMENT LIGHT
M B MAIN BEAM PILOT LIGHT
T S DIRECTIONAL PILOT LIGHT
I G IGNITION WARNING LIGHT
OIL OIL PRESSURE WARNING LIGHT
E EARTH
TERMINAL
TWIN UNIT GAUGE
REAR COMBINATION L.R.H
BODY EARTH
LICENCE LIGHT
REAR COMBINATION L.H
ROOM LIGHT
COMBINED INSTRUMENT
HEATER SW
HEATER UNIT
CLOCK
DOOR SW
WIPER SW
LIGHTING SW
DIRECTIONAL LIGHT SW
FLASHER UNIT
STOP LIGHT SW
REVERSE SIGNAL SW
CIG LIGHTER
RADIO
COURTESY LIGHT RH
COURTESY LIGHT LH
WIPER MOTOR
HORN RELAY
WASHER MOTOR
HEAD LIGHT RELAY
FUSE BLOCK
DOOR WARNING LIGHT SW
BACK UP LIGHT RELAY
STARTER RELAY
STARTER MOTOR
V REGULATOR
ALTERNATOR
IGNITION COIL
DISTRIBUTOR
SPARKING PLUG
ANTENNA
HORN
SIDE DIRECTIONAL LIGHT R.H
SIDE DIRECTIONAL LIGHT L.H
PARK& TURN SIGNAL R.H
HEAD LIGHT R.H
HEAD LIGHT L.H
PARK & TURN SIGNAL L.H

Fig. BE-3

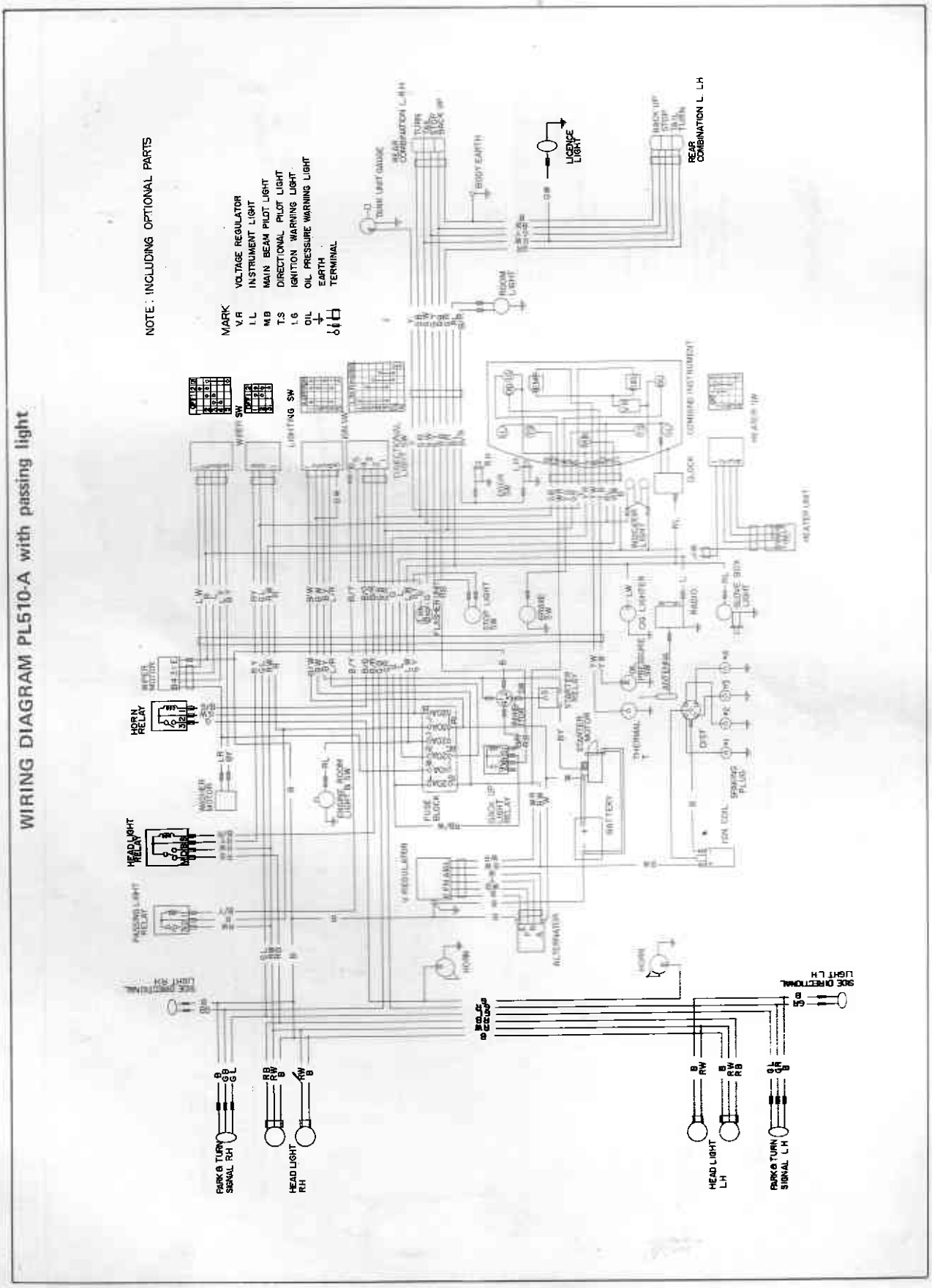
WIRING DIAGRAM PL510-A with passing light
NOTE: INCLUDING OPTIONAL PARTS
MARK
V.R VOLTAGE REGULATOR
I.L INSTRUMENT LIGHT
M.B MAIN BEAM PILOT LIGHT
T.S DIRECTIONAL PILOT LIGHT
I.G IGNITION WARNING LIGHT
OIL OIL PRESSURE WARNING LIGHT
⏚ EARTH
TERMINAL
REAR COMBINATION L.H
LICENCE LIGHT
HORN RELAY
HEAD LIGHT RELAY
PASSING LIGHT RELAY
WIPER SW
LIGHTING SW
DIRECTIONAL LIGHT SW
STOP LIGHT SW
REVERSE SW
COMBINED INSTRUMENT
HEATER UNIT
RADIO
CIGAR LIGHTER
SIDE DIRECTIONAL LIGHT RH
SIDE DIRECTIONAL LIGHT LH
PARK & TURN SIGNAL R.H
HEAD LIGHT R.H
HEAD LIGHT L.H
PARK & TURN SIGNAL L.H

Fig. BE-4

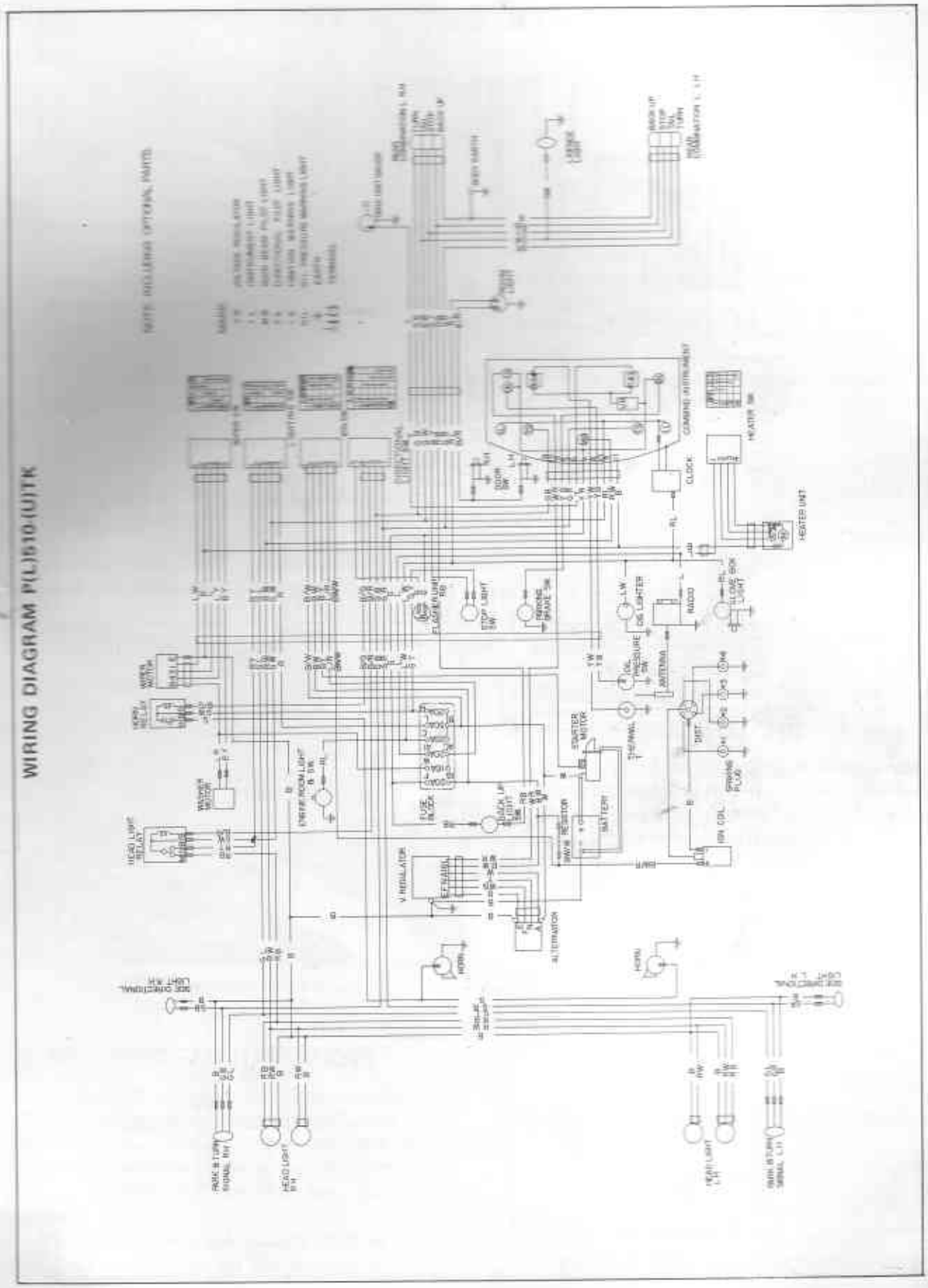

Fig. BE-5

WIRING DIAGRAM PL510-TK with passing light

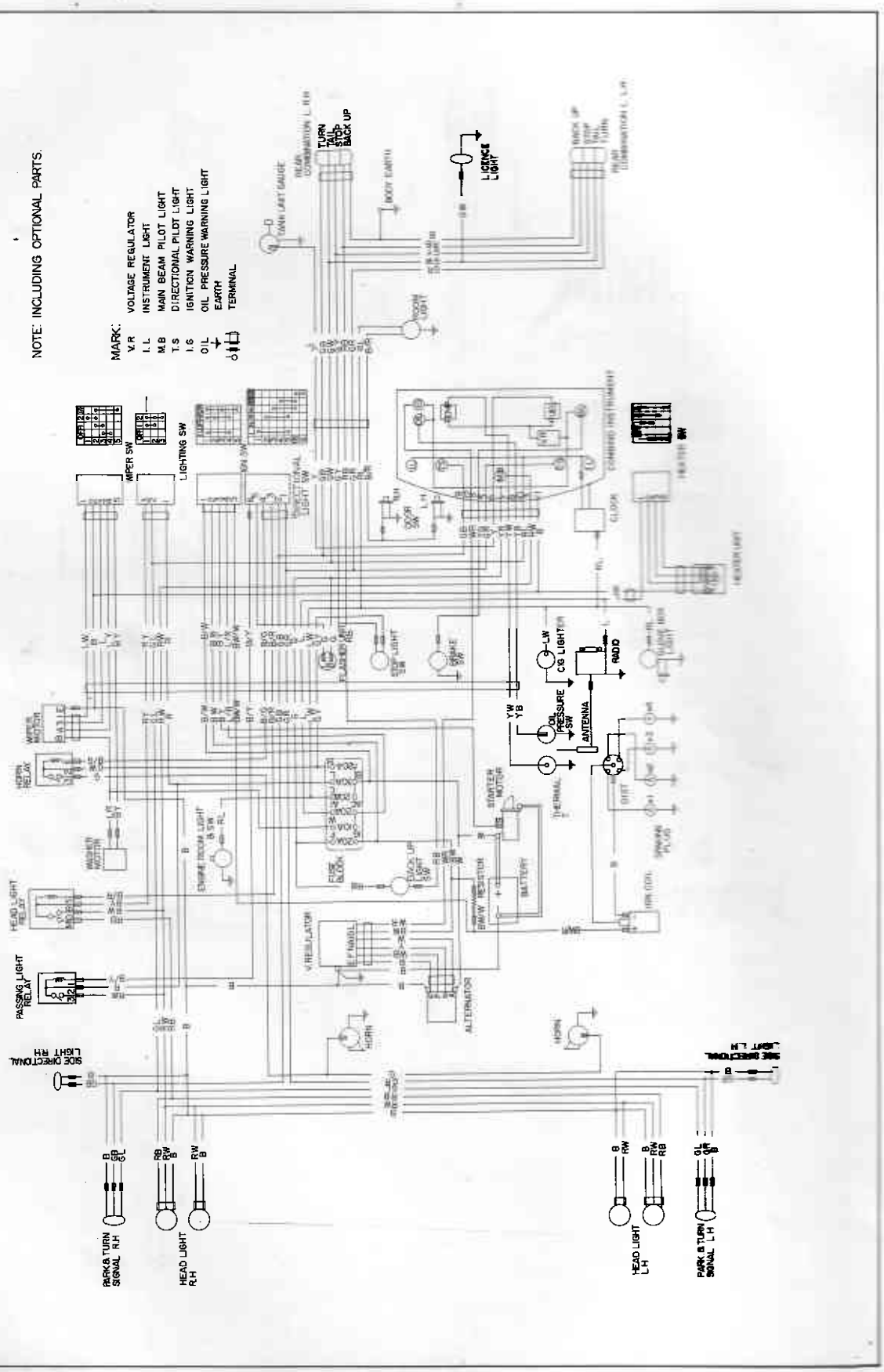

Fig. BE-6

LIGHTING SYSTEM

CONTENTS

HEAD LIGHT REMOVAL AND INSTALLATION

Remove head light finisher and head light rim then pull out sealed beam unit.

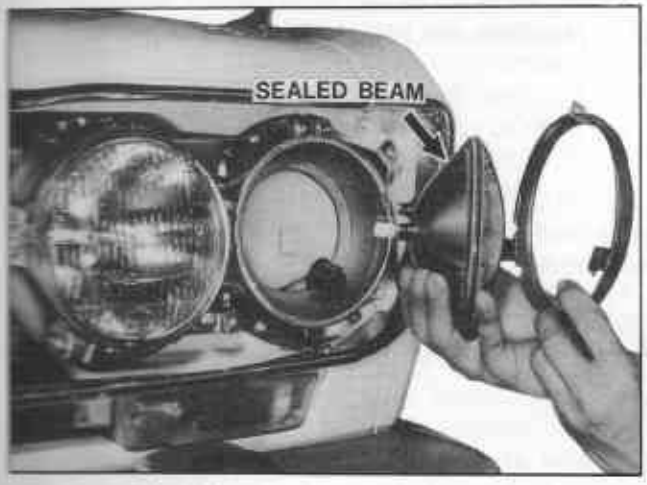

Fig. BE-7 Removing sealed beam

HEAD LIGHT ADJUSTMENT

Adjustment of beam direction may be made to agree with existing state of regulations by the method outlined below. For success to the adjustment screws of each sealed beam, it is only necessary to remove the head light finisher.

To obtain maximum results in road illumination and the safety that has been built into the head lighting equipment the head lamp beams must be properly aimed.

Preparation of vehicle for aiming

1. Before proceeding, equalize tire pressures.
2. Locate the vehicle on a flat, level surface.
3. Cars should be unloaded with no occupants in the car (except driver if required), no unusual load in luggage space and free of excessive accumulations of ice and mud.

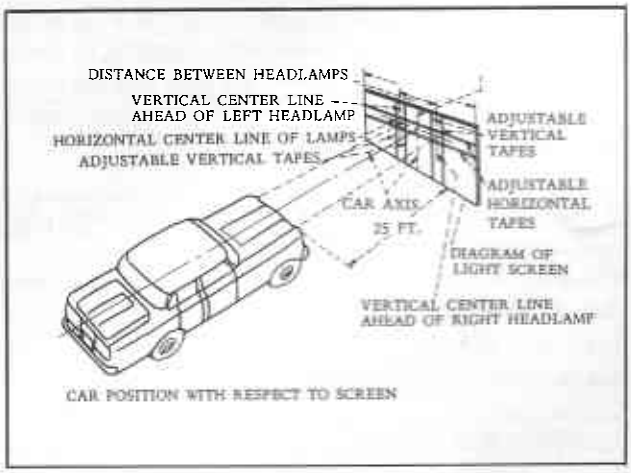

Fig. BE-8 Setting for headlight adjustment

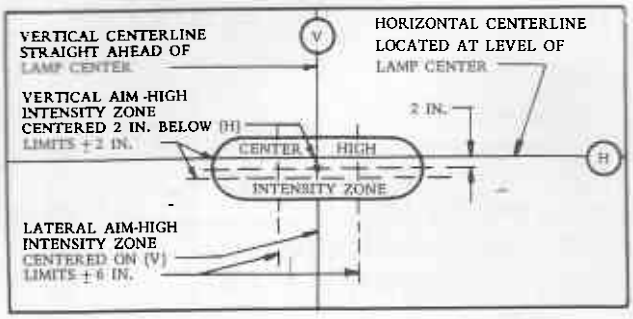

Fig. BE-9 Upper beam aiming

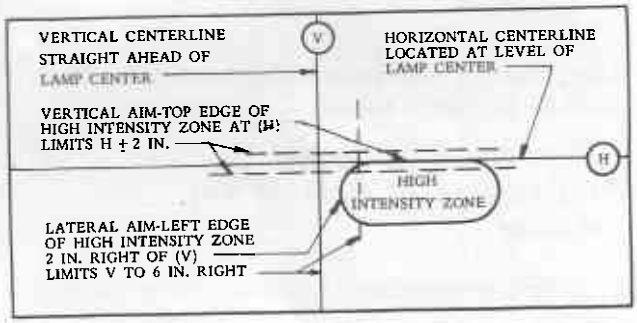

Fig. BE-10 Lower beam aiming

4. Clean head lamps, especially aiming pads if a mechanical aimer is used.

Where the recommended method of aiming the head lamps with mechanical aimers is used, be sure the aiming bosses on the sealed beam unit lenses have a flat surface, if damaged, replace.

5. Rock vehicle from side to equalize the springs and shock absorbers.

The 5 3/4 inches type 1, 2 unit have been designed with the aiming pads at such an angle that no change need be made in the aimed manufacturer's specified setting when aiming.

How to inspect head amps for proper aim

Where aim inspection, rather than adjusting and aiming, is undertaken, the objective is to make certain that the aim is within toleranced.

Followings are the toleranced specified in the SAE Recommended Practice "Lighting Inspection Code."

Aiming with optical machines

First locate the vehicle in a darkened area so that it is square with a screen or wall having a non-reflecting white surface and with the front of the head lamps directly over a reference line twenty-five feet from the screen.

Next, locate the middle of the aiming screen so that it is in line with the center of the vehicle. This can be done by marking the center of the front and rear windows with narrow strips of marking tape. Use these "sights" to locate the center of the aiming screen directly in line with vehicle axis.

Measure the horizontal distance between the lamp centers.

Position a dark colored tape vertically to the right of car center-line at half this distance. Place another tape vertically to the left of the center-line a similar distance.

Measure distance from the center of each lamp to the surface on which the vehicle rests. Then provide a horizontal tape and locate each end to correspond with the respective height measurements of each lamp (to center of lamp).

Cover lamp not being aimed. Remove head lamp finishers. Turn vertical aiming screw located at top position of lamp housing counter-clockwise until beam has been considerably lowered. Then turn screw clockwise until the top edge of the high intensity portion of the lower beam is even with the horizontal line.

Turn the horizontal aiming screw located at the side of the lamp housing counter-clockwise, then clockwise, until left edge of high intensity area of lower beam is 2 inches to the right of the lamp center-line.

Note: **Always bring beam into final position by turning aiming screws clockwise so that unit is held under proper tension when operation is completed.**

Cover lamp that has been aimed and follow same procedure for the opposite lamp. Carefully install head lamp finisher.

HEAD LIGHT TROUBLE-DIAGNOSES AND CORRECTIONS

Troubles	Possible causes	Remedies
Head lamps dim (engine idling or shut off)	Partly discharged battery.	Charge battery.
	Defective cells in battery.	Replace battery.
	High resistance in light circuit.	Check head lamp circuit including ground connection. Make necessary repairs.
	Faulty sealed beam units.	Replace sealed beam units.
Head lamps dim (engine running above idle)	High resistance in light circuit.	Check lighting circuit including ground connection. Make necessary repairs.
	Faulty sealed beam units.	Replace sealed beam units.
	Faulty voltage control unit.	Test voltage control and generator. Make necessary repairs.
Lights flicker	Loose connections or damaged wires in lighting circuit.	Tighten connections and check for damaged wiring.
	Light wiring insulation damaged producing momentary short.	Check light wiring and replace or tape damaged wires.
Lights burn out frequently	High voltage regulator setting.	Adjust voltage regulator.
	Loose connections in lighting circuit.	Check circuit for loose connections.
Light will not light	Discharged battery.	Recharge battery and correct cause.
	Loose connections in lighting circuit.	Tighten connections.
	Burned out bulbs.	Replace bulbs or sealed beam unit.
	Open or corroded contacts in lighting switch.	Replace lighting switch.
	Open or corroded contacts in turn signal and lighting switches.	Replace turn signal and lighting switches.

Stop lamps will not light	Switch faulty.	Replace switch.
	Wires broken, disconnected or loose.	Make necessary repairs.
	Bulb burned out.	Replace bulb.
	Loose connection or poorly grounded lamp body.	Tighten loose connection or properly ground lamp body.
	Burned out fuse.	Check for shorts and replace fuse.
Turning signal lamps light without blinking	Faulty flasher unit.	Replace flasher unit.
	Burned out parking or tail lamp on that side.	Replace bulb.
Blinking on one side too fast	Loose contact of bulb.	Make necessary repair.
	Improper capacity of bulb.	Replace bulb.
Turn indicator lever does not return automatically	Faulty mechanism of turn signal switch.	Replace with new parts.

FRONT PARK AND DIRECTIONAL INDICATOR

Standard type

Replacement of bulb

Remove fixing screws and lens then replace bulb.

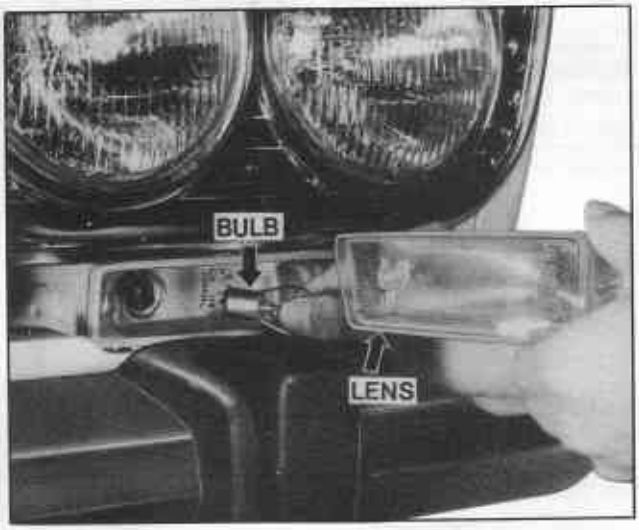

Fig. BE-11 Standard type

Removal of unit

Remove fixing nuts from radiator side and remove unit.

Separate type

Replacement of bulb and removal of unit is same procedure for standard type.

Fig. BE-12 Separate type

LIGHT SWITCH REMOVAL AND INSTALLATION

1. Remove light switch knob.
2. Unscrew light switch nut then remove light switch.

Fig. BE-13 Removing light switch

REAR COMBINATION LIGHT REMOVAL AND INSTALLATION

Sedan

To replace bulb, twist and pull out the socket with bulb then replace the bulb with new one. To remove combination lamp unit, remove fixing nuts.

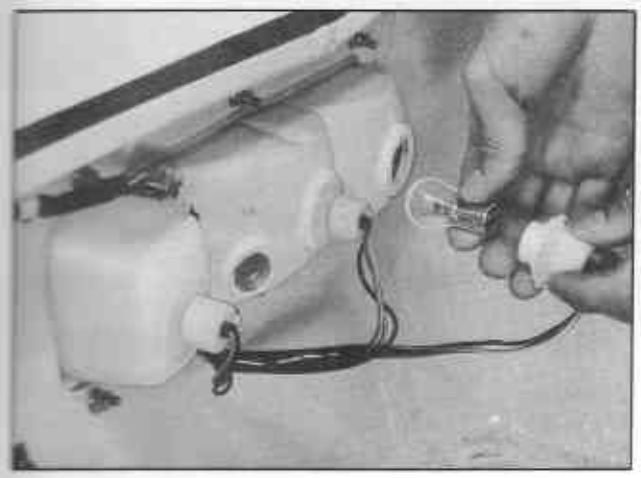

Fig. BE-14 Replacing the bulb (Sedan)

Wagon

To replace bulb, unscrew fixing screws from outside and remove lens and take out bulb. To remove lamp unit, release nuts from inside of cargo area and disconnect connector, then remove unit.

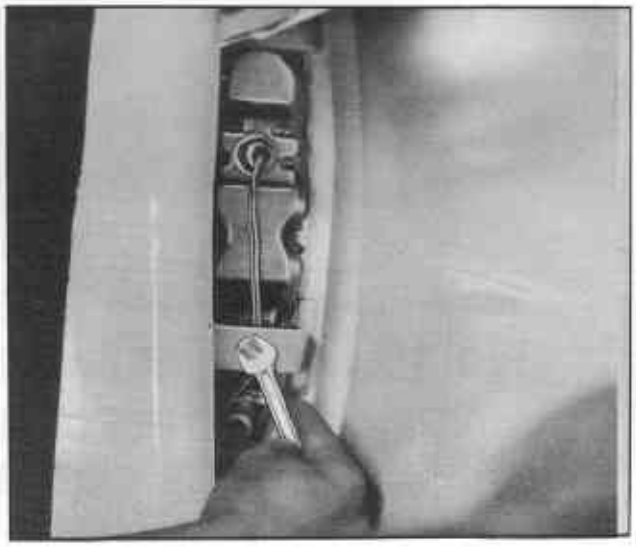

Fig. BE-15 Removing lamp unit (Wagon)

ROOM LIGHT

Fig. BE-16 Removing room light

To remove room lamp unit, unscrew fixing screws with screwdriver and disconnect lines.

LICENSE LIGHT

Remove lens and take out bulb.

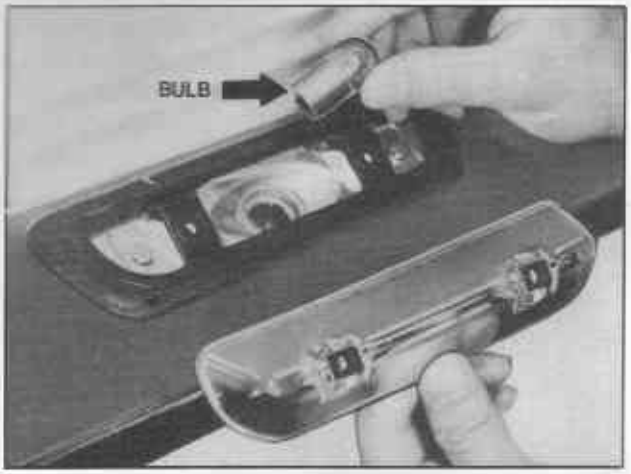

Fig. BE-17 Removing license light

LAMP SPECIFICATION

Type-1 Sealed beam unit	37.5W x 2
Type-2 Sealed beam unit	37.5/50W x 2
Parking lamp	8W x 2
Front directional lamp	25W x 2
Side directional lamp	6W x 2
Engine well lamp	8W x 1
Room lamp	10W x 1
Rear directional lamp	25/8W x 2
Tail and stop lamp	25/8W x 2
Back-up lamp	25W x 2
License plate lamp	8W x 1
Indicator on instrument panel upper directional, parking brake, oil pressure, ignition	3W x 6
Meter lamp	3W x 2

DIRECTIONAL AND DIMMER COMBINATION SWITCH

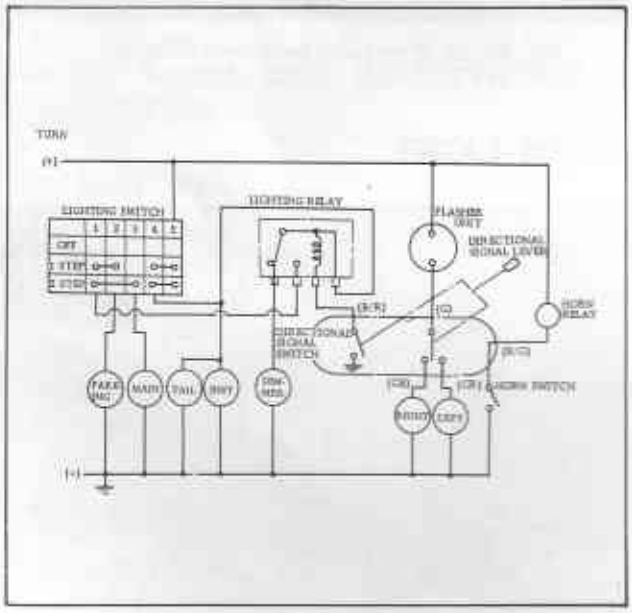

Fig. BE-18 Wiring

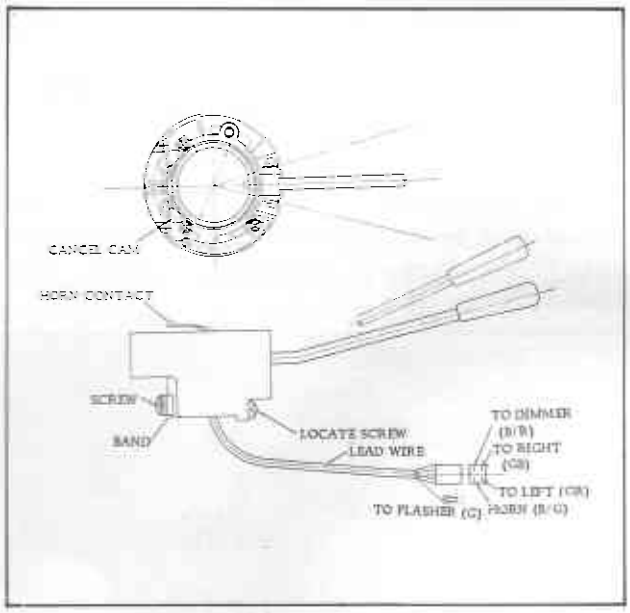

Fig. BE-19 Construction

REMOVAL AND INSTALLATION

1. Remove horn ring by pushing and turning.

2. Remove steering wheel fixing nut and remove steering wheel.

3. Remove shell cover by unscrewing fixing screws.

4. Unscrew locating screw and fixing screw, then remove switch unit.

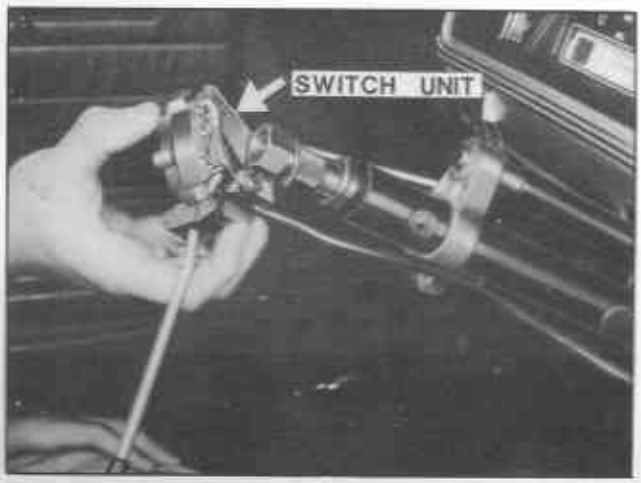

Fig. BE-20 Removal

IGNITION SWITCH AND STEERING LOCK

IGNITION SWITCH

To remove ignition switch, unscrew fixing screw and disconnect connector.

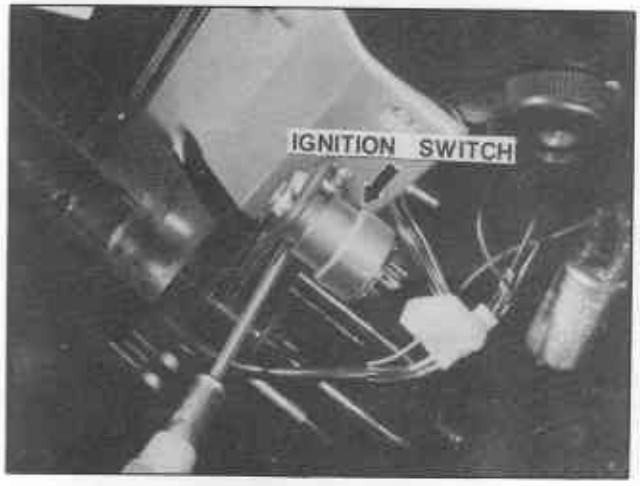

Fig. BE-21 Removal

IGNITION SWITCH AND STEERING LOCK COMBINED UNIT (Optional)

This lock has a construction in which the spindle projects into the steering shaft and locks the shaft perfectly.

After tightening fixing bolt at installation, the head portion of fixing bolt should be broken so as to insure against removal which may result in theft.
Therefore, if the unit must be removed due to damage, the clamp should be pried open by a lever.

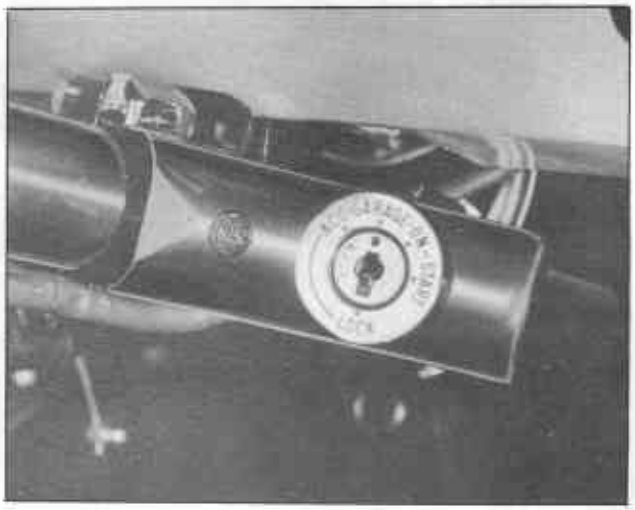

Fig. BE-22 Steering lock

ELECTIRC HORN

REMOVAL

Disconnect connector and release fixing screws then remove electric horn unit.

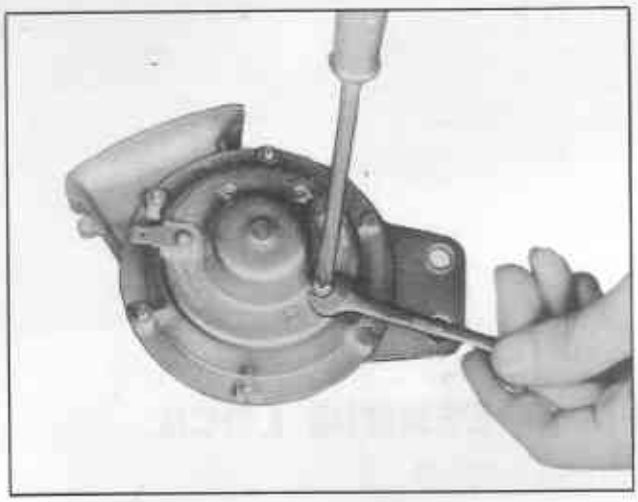

Fig. BE-23 Adjusting horn volume

HORN ADJUSTMENT

To increase horn volume turn adjusting screw clockwise. To decrease turn counter-clockwise.

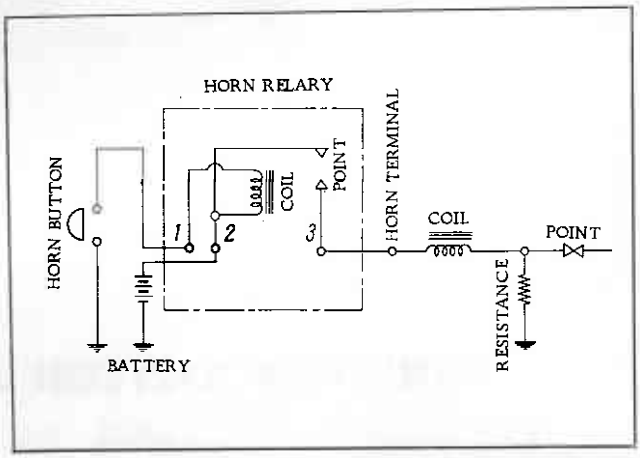

Fig. BE-24 Wiring

TROUBLE DIAGNOSES AND CORRECTIONS

Troubles	Possible causes	Remedies
Horn does not operate	Fuse is burned out.	Replace fuse.
	Improper contact of horn button.	Check and repair horn button.
	Open circuit of harness.	Repair or replace harness.
	Improper contact of each terminal.	Correct each terminal.
	Dead battery.	Charge battery.
	Improper contact of horn relay point.	Correct.
	Open circuit or wrong ground connection of horn interior.	Replace or repair horn.
	Wear of horn point.	Adjust adjusting screw.
Low volume, improper tone	Improper contact of fuse or connector.	Correct contact.
	Open circuit of harness.	Repair.
	Improper contact of horn point.	Correct horn point.
	Wear of horn point.	Adjust adjusting screw.
	Crack in diaphragm.	Replace horn.