

Chapter 12

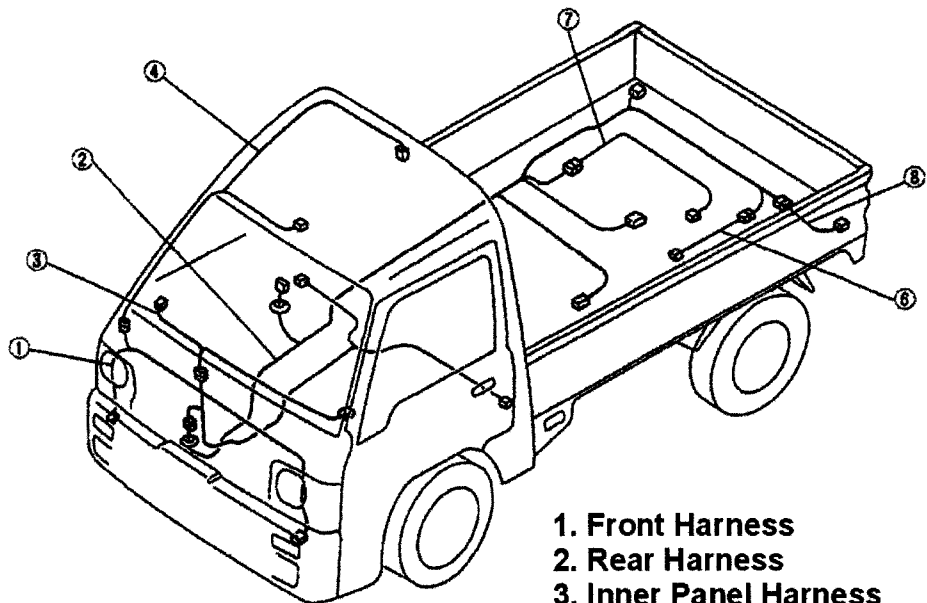
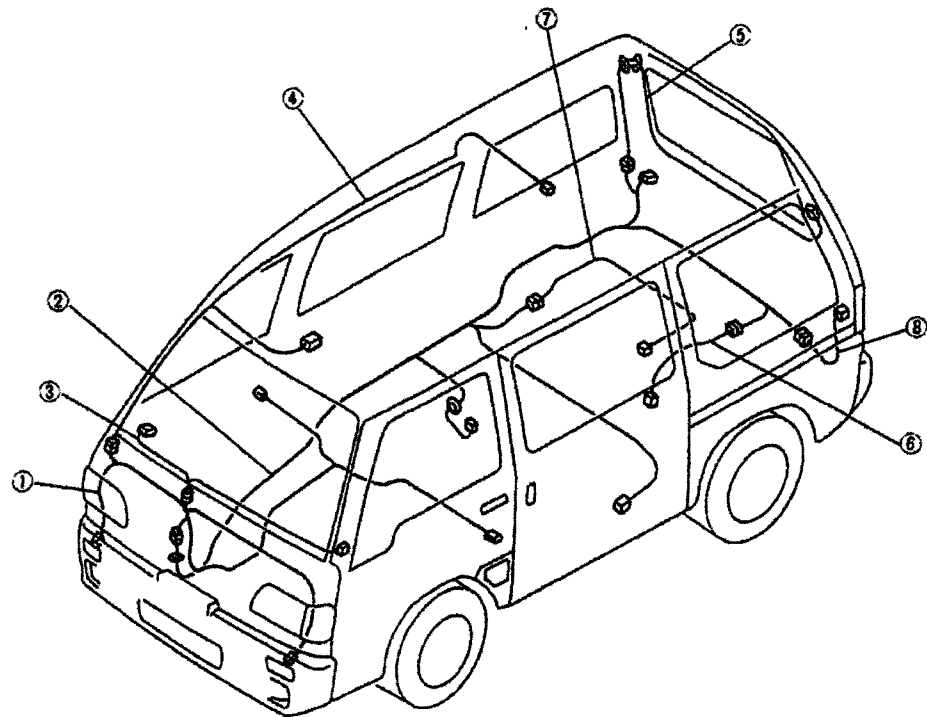
Harness Diagrams

- 1. General Harness Locations**
- 2. Truck Full Main Harness and Connection Codes**
- 3. Connection Codes Explained (Truck-Van)**
- 4. Van Full Main Harness and Connection Codes**
- 5. Engine & Transmission Harness and Connections**
- 6. Engine & Transmission Harness Code Breakdown**
- 7. Front Component (Main) Harness Dash-Front Lighting**
- 8. Front Component (Main) Connector Breakdown**

Electrical Schematic Breakdowns

- 9. Turn Signal & Hazard**
- 10. Stop Lamp Circuit**
- 11. Lighting Circuit (Headlights-Running Lights)**
- 12. Lighting Circuit Tail Assemblies & Illumination Lamps**
- 13. Engine Control and Fuel Pump Circuits**
- 14. Charging System**
- 15. Engine Room and Radiator Fan (Van & Special Trucks)**
- 16. Engine Radiator Fan (Basic Vehicle)**
- 17. Radio (Audio) Circuits and Cigarette Lighter**
- 18. Fuel Gage & Sending Unit**
- 19. Full Time 4WD Control Circuits**
- 20. Selective 4WD Control Circuits**
- 21. Diff-Lock Control Circuits**
- 22. EMPi Engine Control Management System Part 1 (Fuel Injection)**
- 23. EMPi Engine Control Management System Part 2 (Fuel Injection)**
- 24. Windshield Wiper System Front and Rear**
- 25. Rear Defogger Circuit**

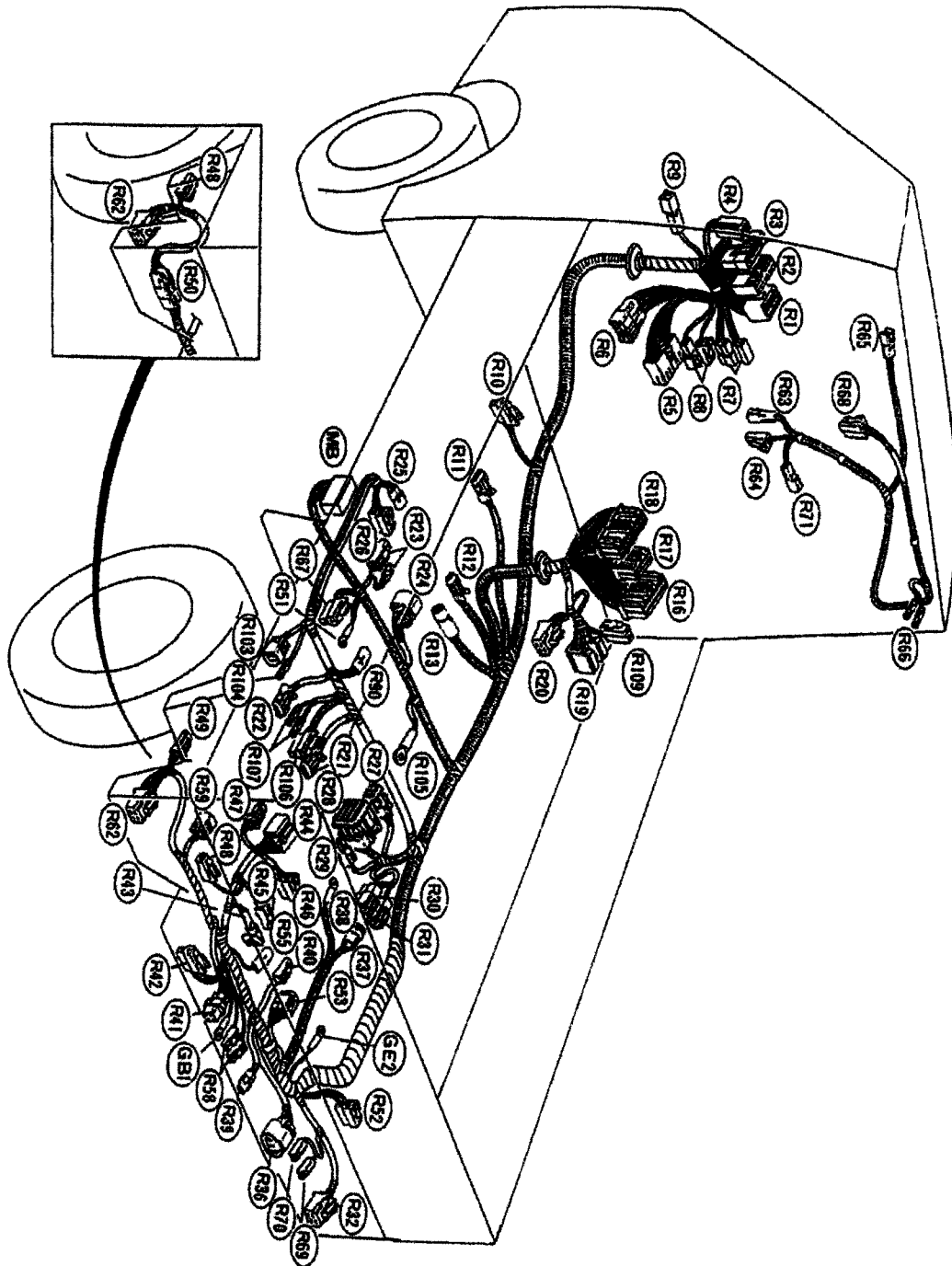
General Information



- 1. Front Harness
- 2. Rear Harness
- 3. Inner Panel Harness
- 4. Roof Hrness
- 5. Back door Harness
- 6. Transmission Line
- 7. Engine Harness
- 8. Rear Combination

Sambar Main Harness

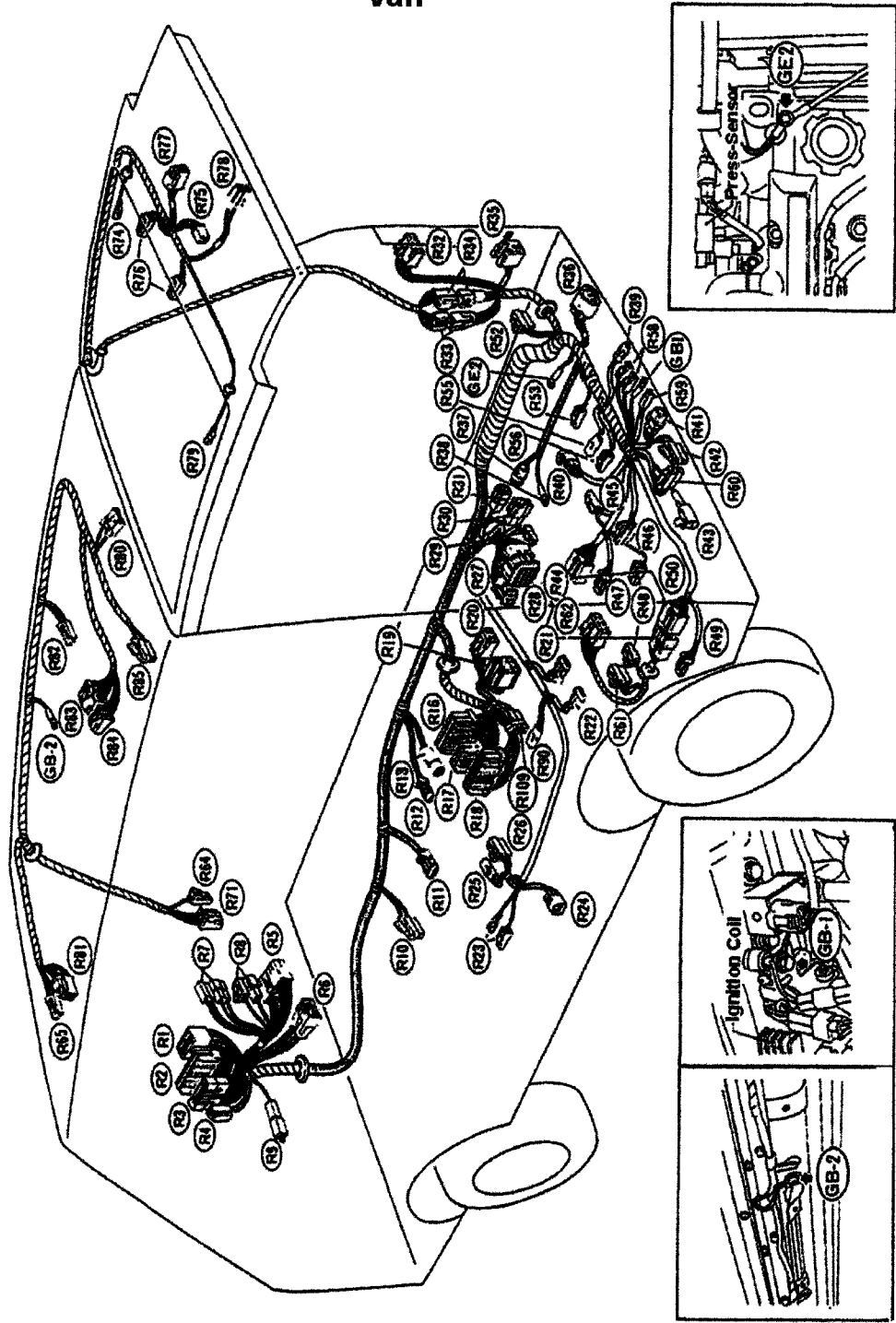
Pickup Truck



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Main Harness Location

Van



**Main Harness Connector Code
Breakdown
Truck & Van**

No.	Color	Function
R1	Black	Front Wiring Harness
R2	Black	Same
R3		Front wiring harness (SC)
R4		Front wiring harness
R5	Yellow	Select Monitor
R6	Blue	Front AC Harness
R7	Green	Test Mode Connector
R8	Black	Read Memory Connector
R9	Black	Diode (AC)
R10	Black	Radiator Fan
R11	Gray	Free Axel Solenoid
R12	Gray	High Press Cut Switch
R13	Black	Condenser Fan
R16	Yellow	EMPi Unit
R17	Yellow	EMPi Unit
R18	Yellow	EMPi Unit
R19	Brown	EMPi Main Relay
R20	Brown	Fuel Pump Relay
R21	Gray	4WD Solenoid
R22	Gray	Diff-Lock Solenoid
R23		Fuel Unit
R24		Fuel Pump
R25		Engine Room Fan
R26		VSV (Air-conditioning)
R27	Gray	Engine Harness
R28	Gray	Engine Harness
R29	Black	Thermo-Switch
R30	Black	Gas Temp Switch
R31	Black	Magnetic Clutch
R32		Rear Combination

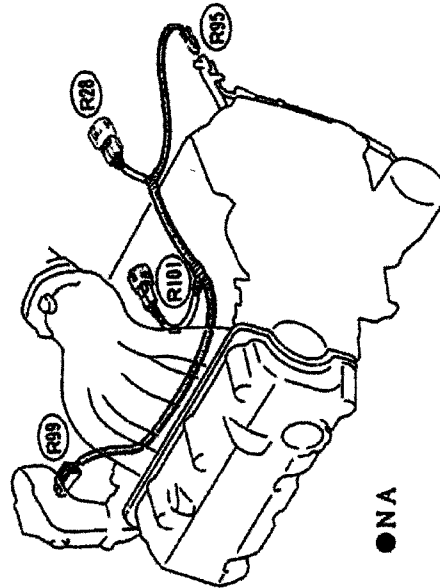
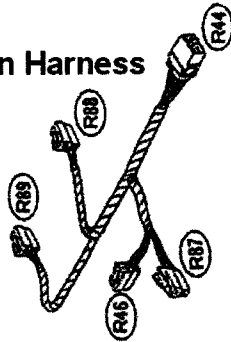
		Lamp(RH)
R33		Rear Gate Cord
R34		Rear Gate Cord
R35	Black	Rear Wiper Relay
R36	Green	Pressure Sensor
R37	Green	Alternator
R38		Alternator B
R39	Blue	ISC Valve
R40	Green	Distributor
R41	Gray	Igniter
R42	Black	Noise Condenser
R43		O2 Sensor
R44		Transmission Connector
R45		Starter Mg
R46		Back Switch
R47	Black	Electric Clutch
R48	Blue	Temp Sensor
R49	Gray	Thermostat
R50	Black	Rear Combination Connection
R52		Backup Warning Horn
R53	Black	Over speed cutoff
R55	Gray	Contact Breaker
R56	Black	Thermo Switch
R58		Resistor
R59	Black	Ignition Coil
R60		Ultra Heater Solenoid
R61		Rear Washer Motor
R62		Rear Combination Lamp (LH)
R64		Front Wiring Harness F6
R65		Room Lamp
R71	Green	Front Wiring Harness F8
R74		Rear Defroster
R75		Rear Wiper Motor

R76		License Lamp
R77		Back Door Opener
R78	Black	Back Door Switch
R79		Rear Defroster
R80	Black	Main Motor
R81		Sunroof Switch
R82	Gray	Luggage Compartment Lamp
R83		Sunroof Switch
R84		Sunroof Switch
R85		Limit Switch (Sunroof)
R90		Ds Range Solenoid
R109	Red	Jumper Wire (EMPi Unit)

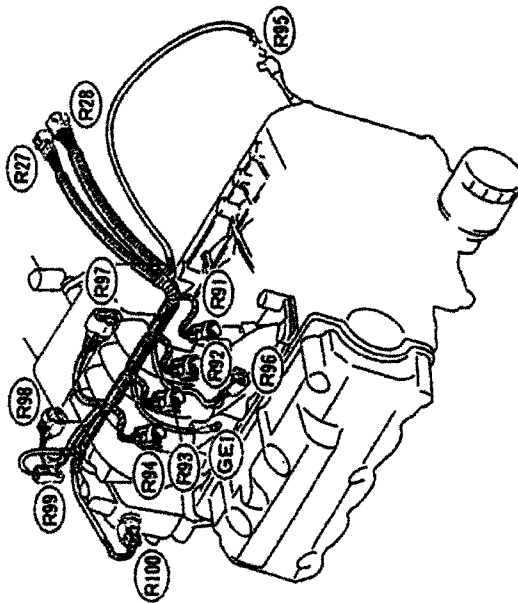
Complete Main Codes

Engine Harness & Transmission Harness

Trnasmission Harness



● NA



● SC

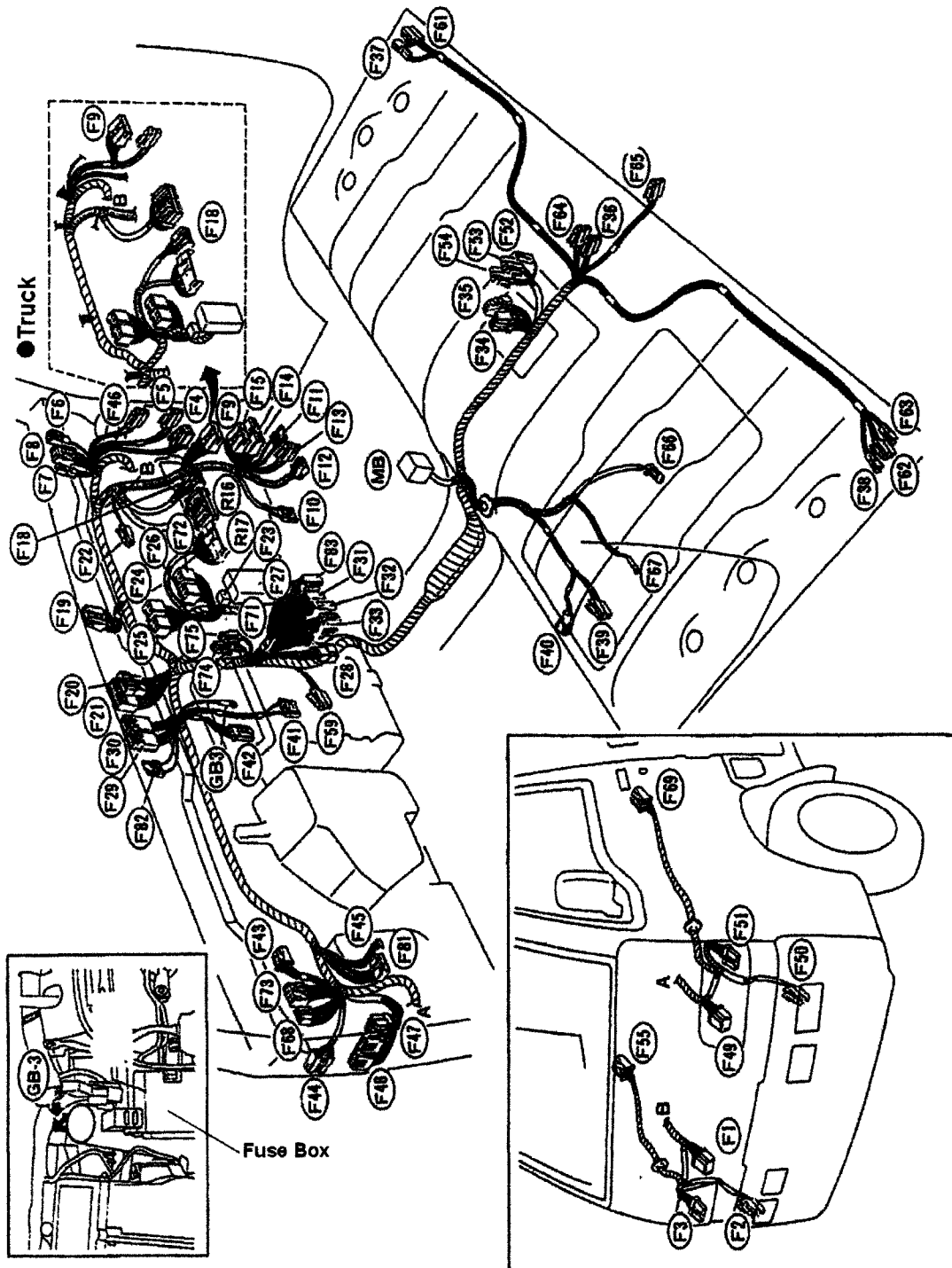


Engine & Transmission Harness Connector Codes

No.	Color	Description
R27	Gray	Rear Harness
R28	Gray	Rear Harness
R44		Rear Harness to Transmission Connection
R46		Backup Lamp Switch
R87	Brown	EL Switch (Selective 4WD)
R88	Brown	Diff-Lock Switch (Selective 4WD)
R89	Brown	2WD-4WD Switch (4WD)
R91	Gray	Injector #1
R92	Gray	Injector #2
R93	Gray	Injector #3
R94	Gray	Injector #4
R95		Oil Pressure Switch
R96	Brown	Knock-Sensor
R97	Gray	Throttle Sensor
R98	Black	Charge Sensor
R99	Black	Thermo-meter
R100	Green	Water Temp Sensor
R101	Gray	Carburetor IG Power

Complete Engine & Trans Connector Codes

Front Component (Main)



Front Component (Main) Harness

Truck & Van

Connector Code Breakdown

No.	Color Codes	Description (Function)
F1	Black	Headlight (RH)
F2		Front Turn signal Lamp (RH)
F3		Front Combination Lamp (RH)
F4		Accelerator SW (ECVT)
F5	Black	Brake Fluid
F6	Black	R64 Roof Wiring
F7	Blue	R63 Roof Wiring
F8	Green	R71 Roof Wiring
F9		Line End Check
F10	Black	Stop Lamp Switch
F11	Black	Key Lock Solenoid
F12	Pink	Ignition Key Switch
F13	Black	Key Switch
F14	Black	Combination Switch
F15	Black	Combination Switch
F16		Combination Meter
F17		Combination Meter
F18		Combination Meter
F19		(OP)
F20		Panel Harness
F21		Panel Harness
F22		Backup PWR (Clock)
F23		Fuse Box #2 (AC Fuse)
F24	Blue	4WD Relay
F25	Green	Diff-Lock Relay
F26	Black	Free Axel Relay
F27		Fuse Box #1
F28	Black	R4 rear Wiring Harness

F29	Black	4WD Diode
F30		Diff-Lock Diode
F31		Rear Wiring Harness
F32	Black	Rear Wiring Harness
F33		Rear Wiring Harness(SC)
F34		Inhibitor Switch
F35		4WD Switch
F36		Parking Brake Switch
F37		Door Switch (RH)
F38		Door Switch (LH)
F39		Front Washer Motor
F40		Horn
F41		Heater Blower
F42	Brown	Heater Resister
F43		Front Wiper Motor
F44		Engine Room Fan (SC)
F45	Blue	AC Harness
F46	Blue	Accelerator Switch AC
F47	Black	Shift Lock Unit
F48	Yellow	ECVT Unit
F49	Black	Headlamp (LH)
F50		Front Turn Signal Lamp(LH)
F51		Front Combination Lamp (LH)
F52	Black	Parking Switch
F53	Black	Shift Lock Solenoid
F54	Blue	Injector
F55		Side Door Lock
F59		Switch
F61		Side Door SW (RH)
F62		Side Door (LH)
F63		Side Door Switch (Room Light)
F64	Brown	Rear Heater Switch
F65	Black	Plug Socket
F66	Gray	Rear Heater Blower
F67		Battery

F68		Side Door Lock Unit
F69		Side Door Lock (LH)
F71	Black	AC Harness
F72		Starter Relay
F73		(OP)
F74		IG PWR
F75	Black	ACC PWR
F81		AC Harness Connection
F82	Black	Resister
F83	Blue	Rear Harness AC

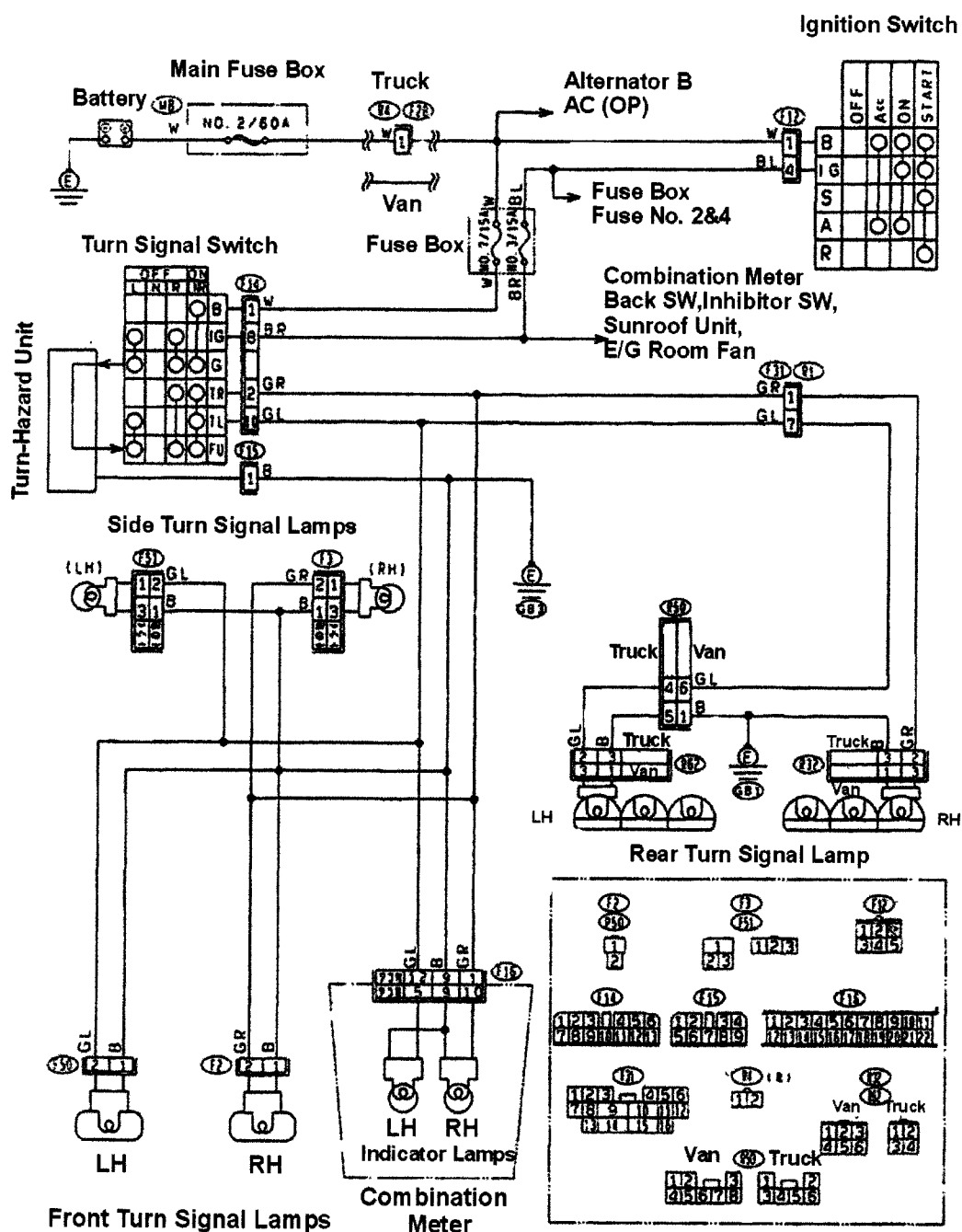
Completed

Electrical Schematics

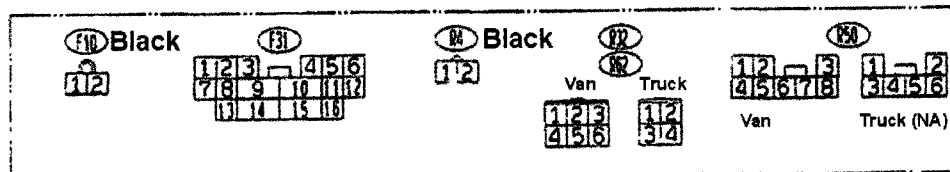
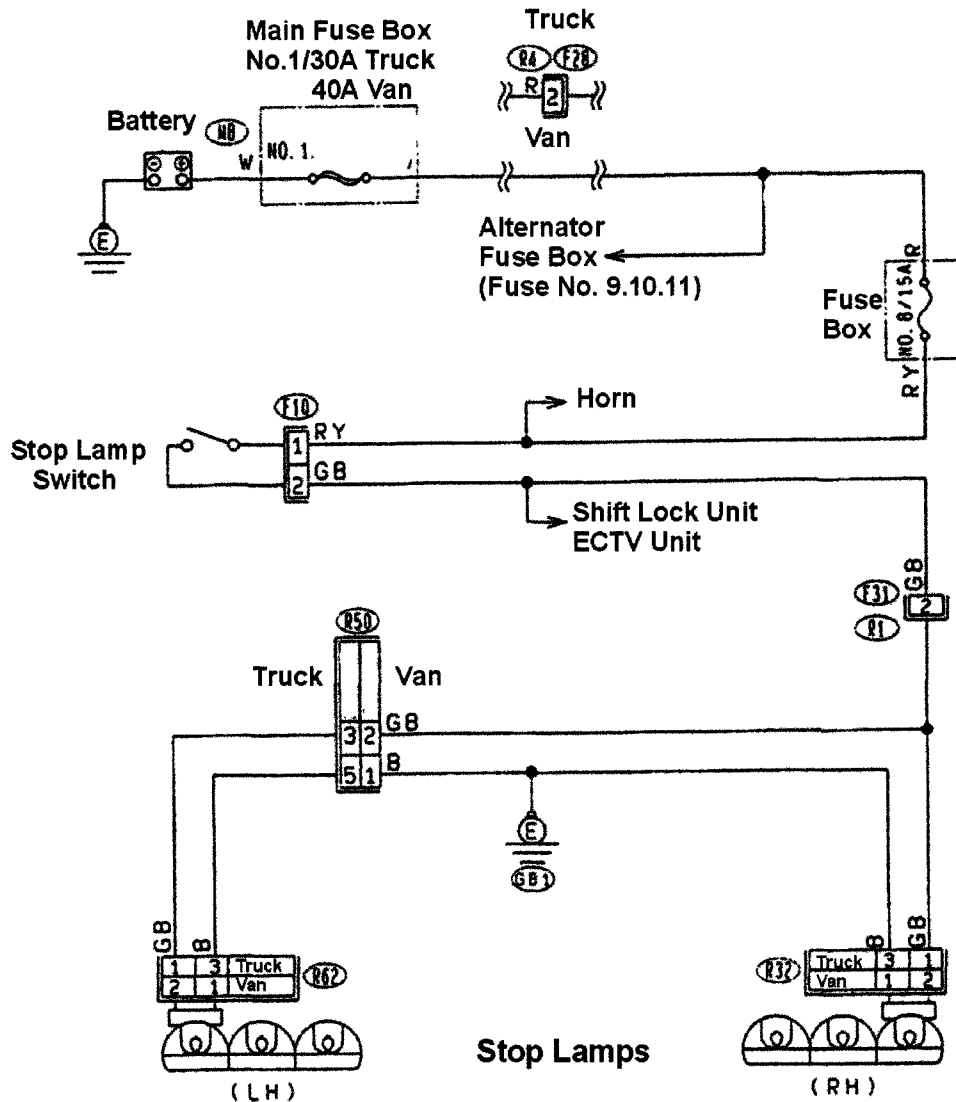
Use the following Color Codes that will be used thought this section.

Color Symbol	Color Name
L	Blue
B	Black
Y	Yellow
G	Green
R	Red
W	White
Br	Brown
Lg	Light Green
Gr	Gray
P	Pink
Or	Orange
Lb	Light Blue
SA	Shielded Line (Inner)
SB	Shielded Line (Outer)

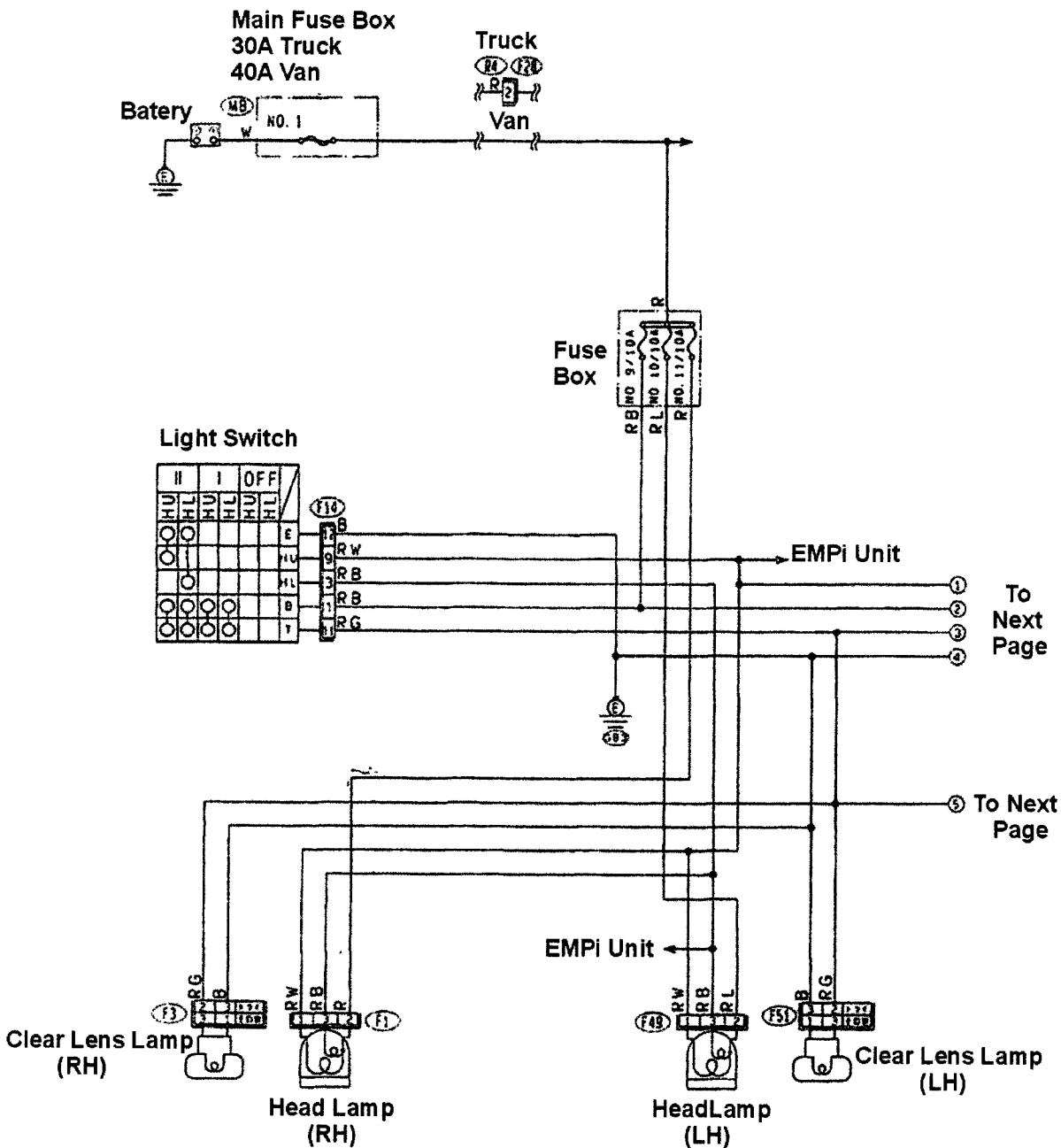
Turn Signal & Hazard Diagram



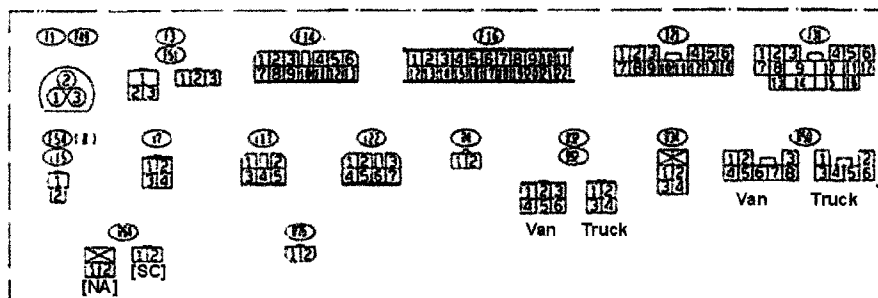
Stop Lamp Circuit



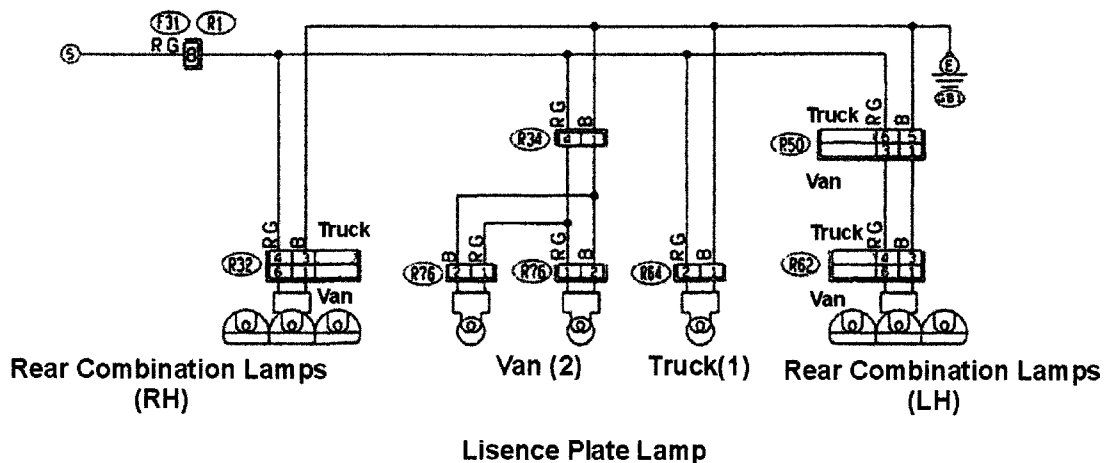
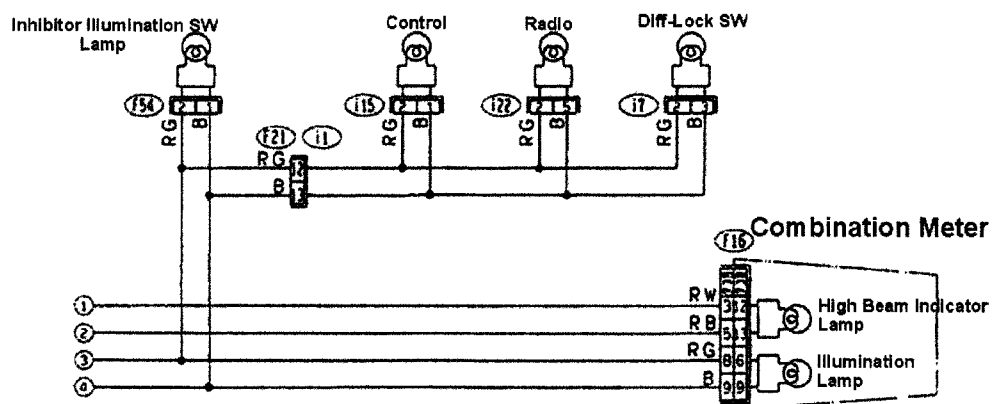
Lighting Circuit Part 1



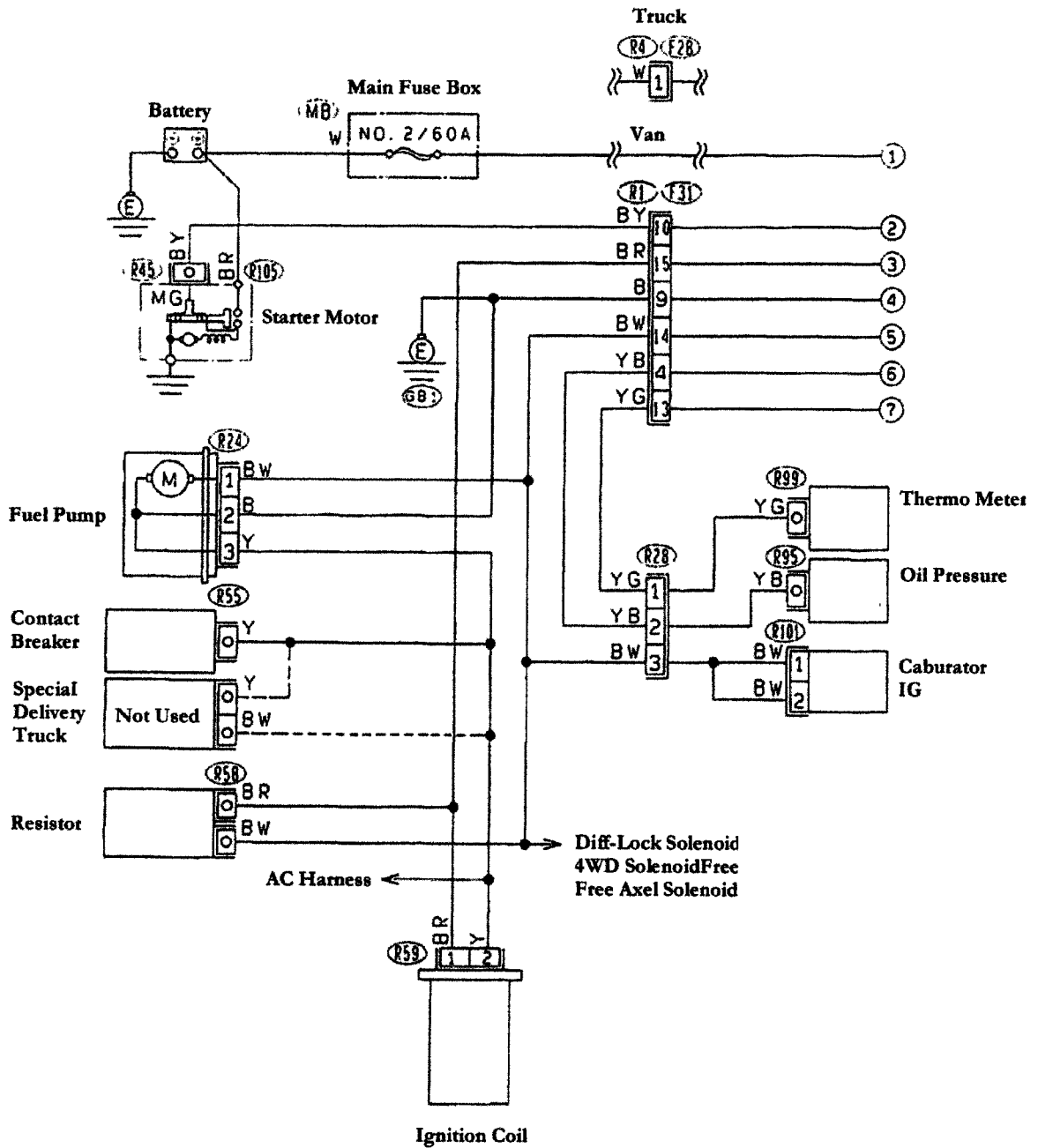
Lighting Circuit Part 2



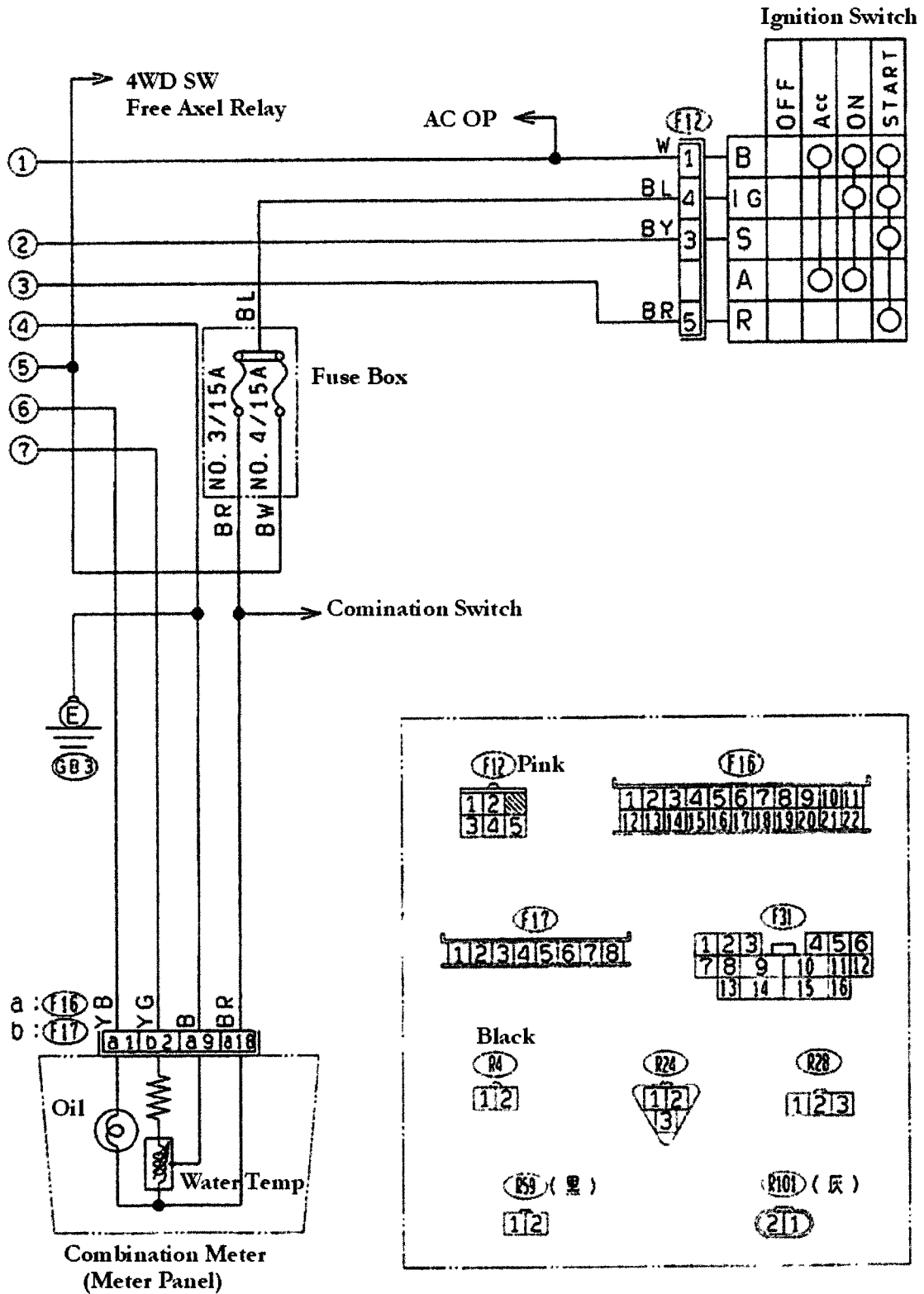
Illumination Lamps



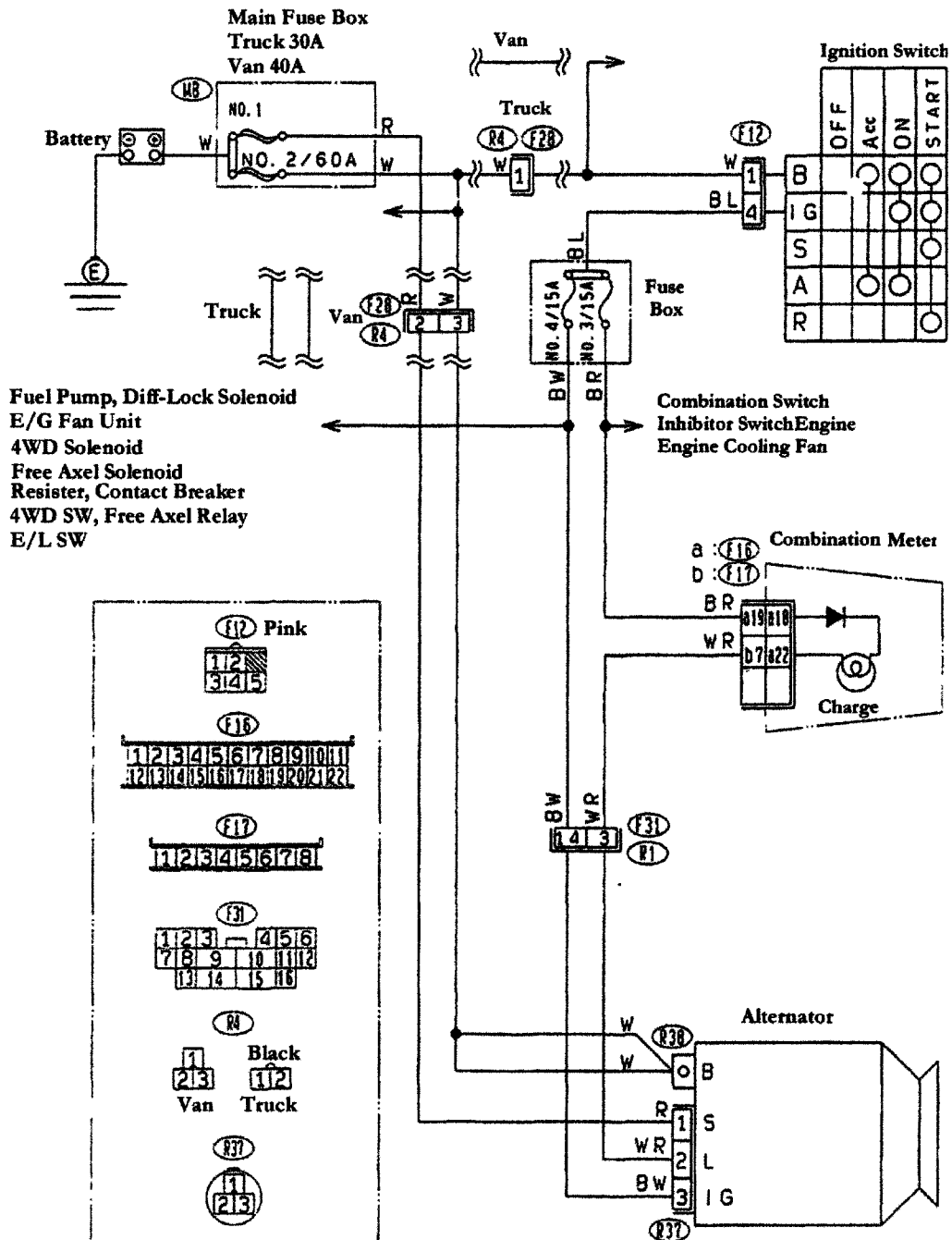
Engine Control & Fuel Pump System



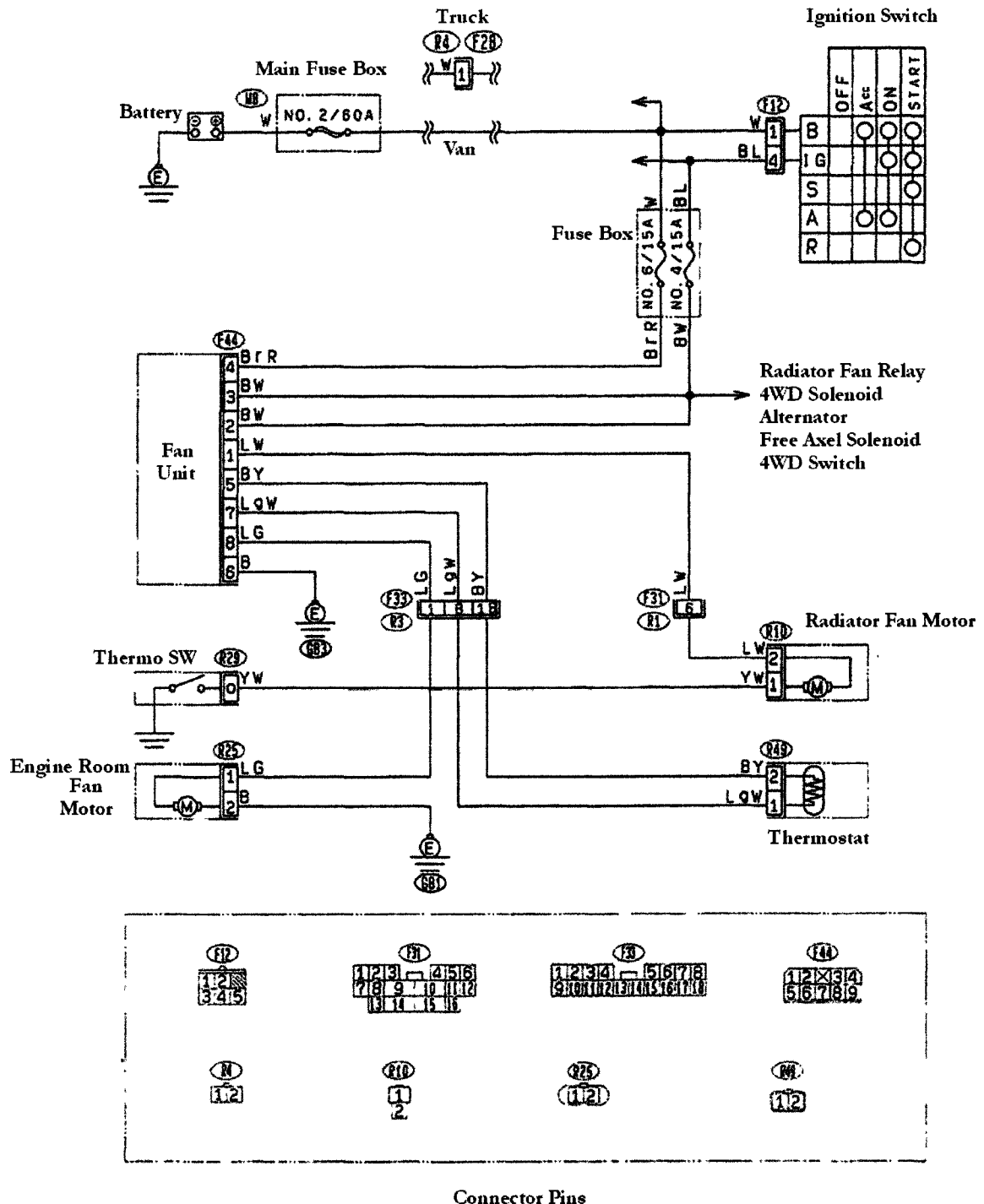
Engine Control Sensor Circuits Continued



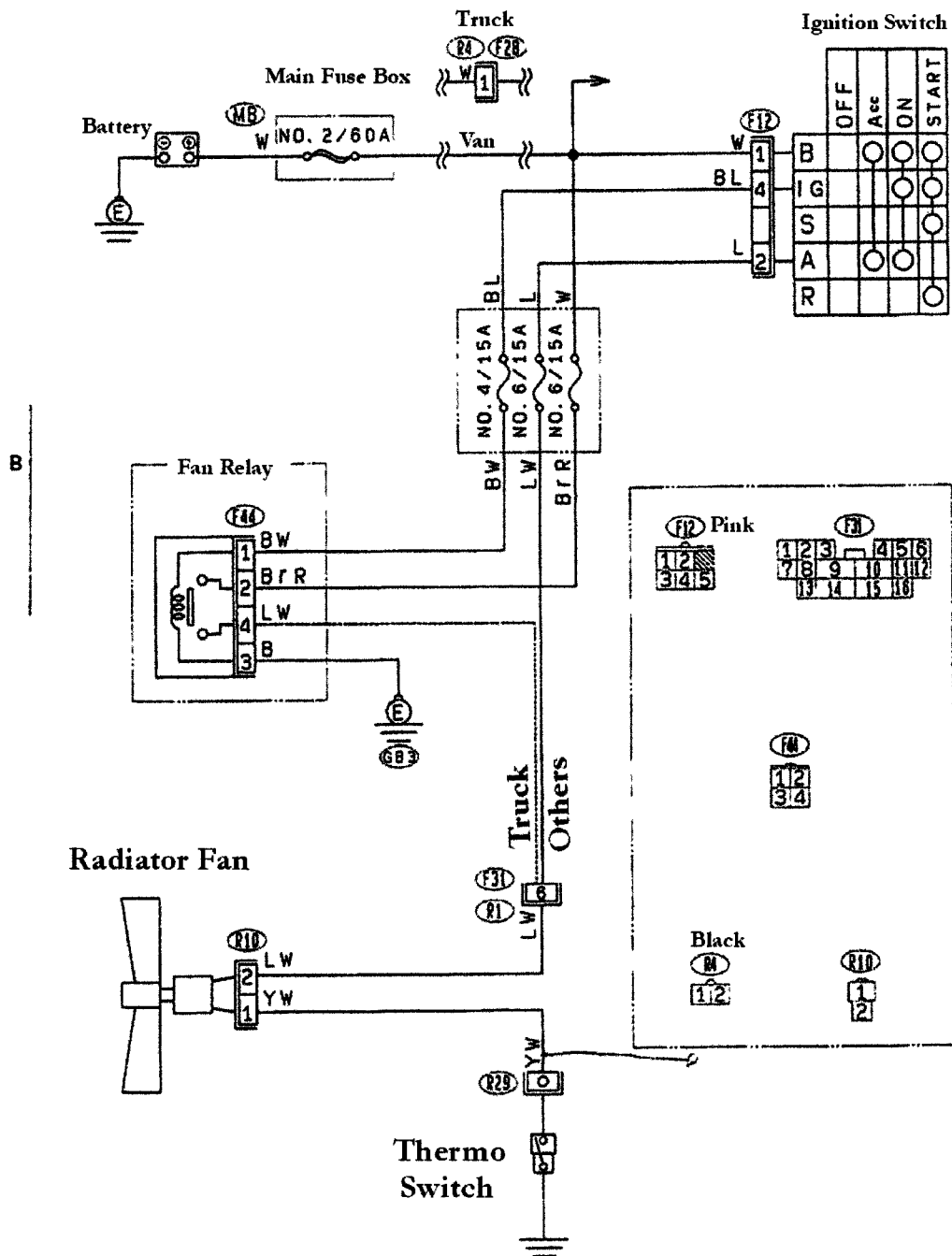
Charging System



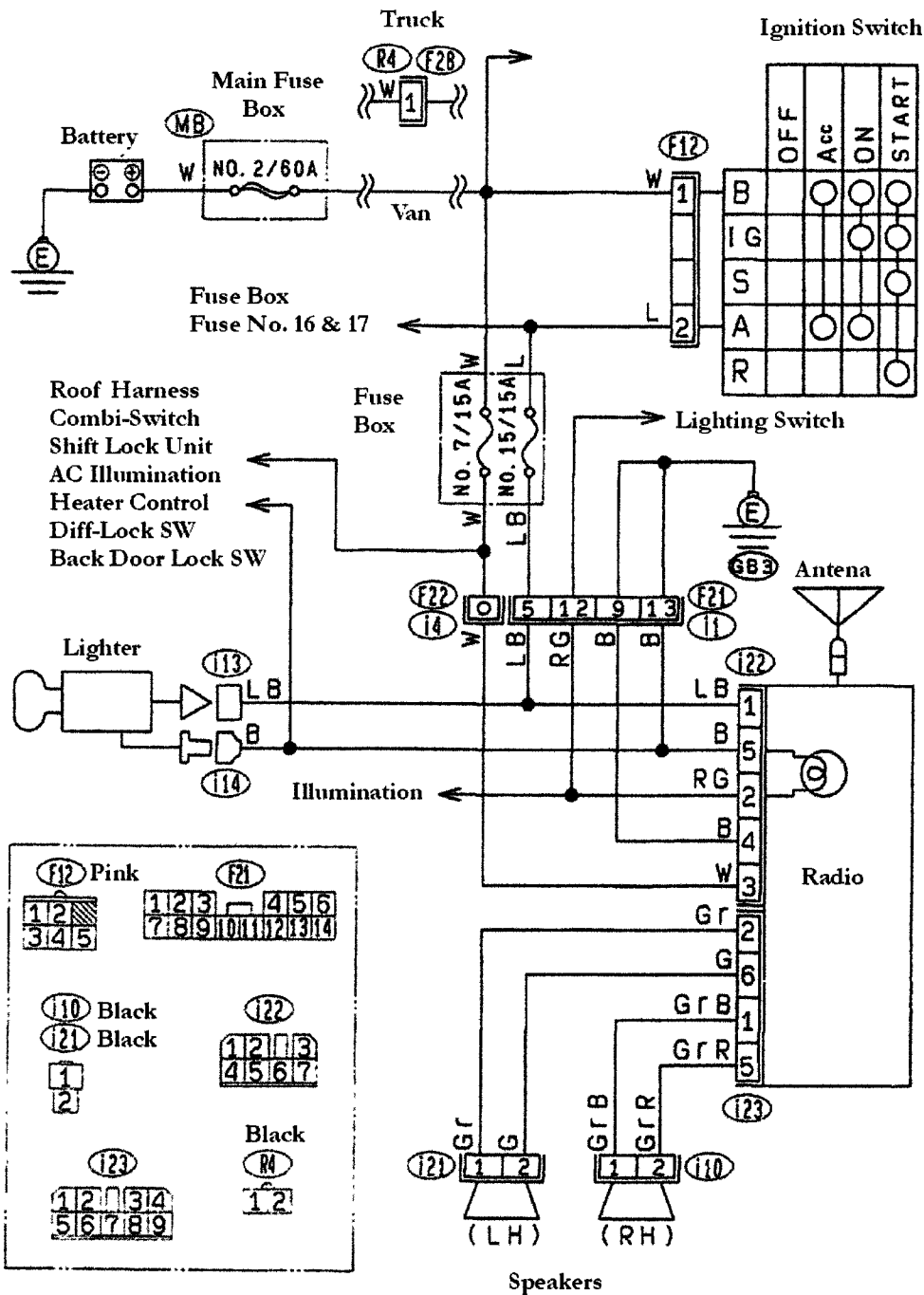
Engine Compartment Cooling Engine Room Fan Radiator Fan



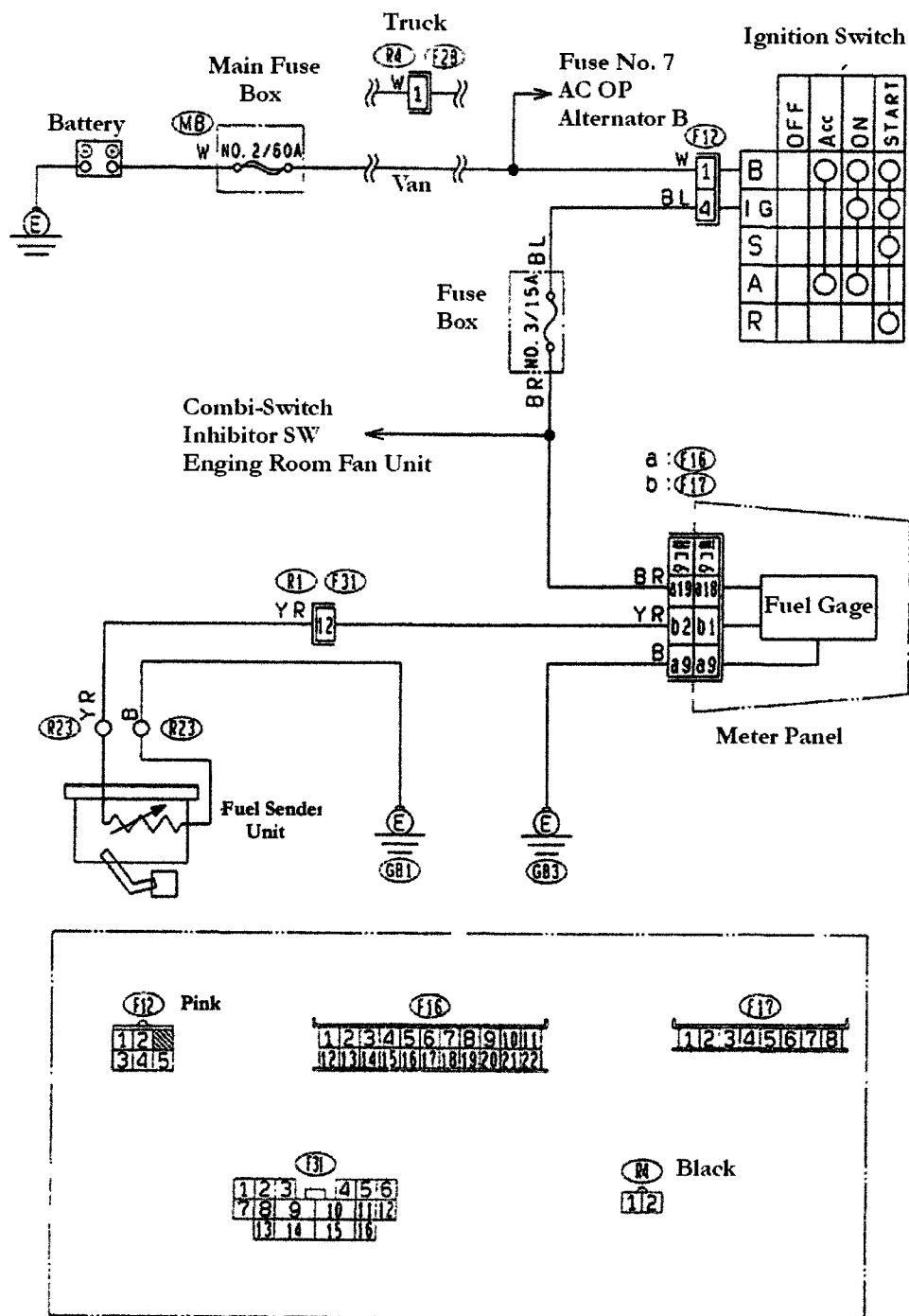
Radiator Fan Motor Circuit Basic Model



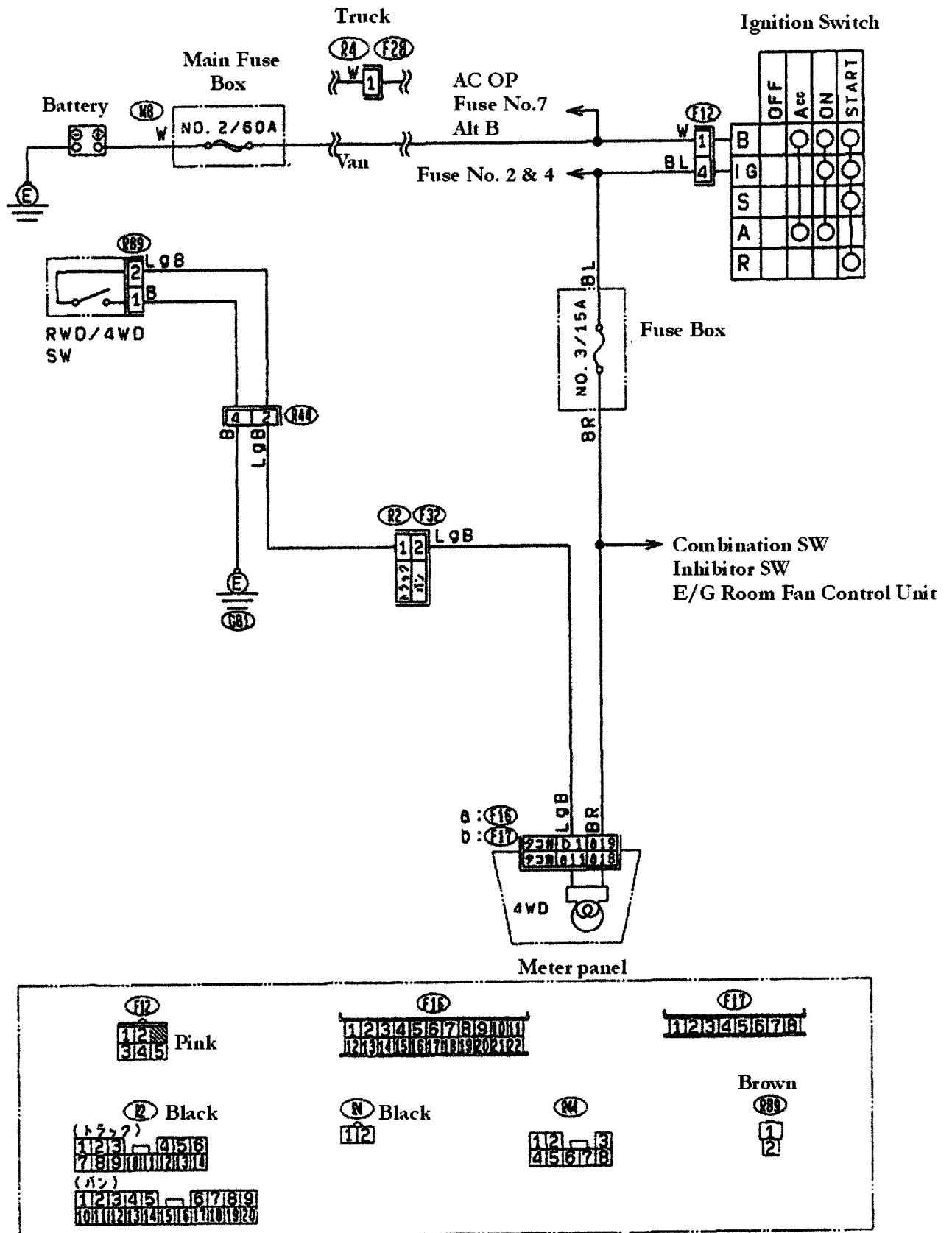
Radio (Audio) and Lighter Circuits



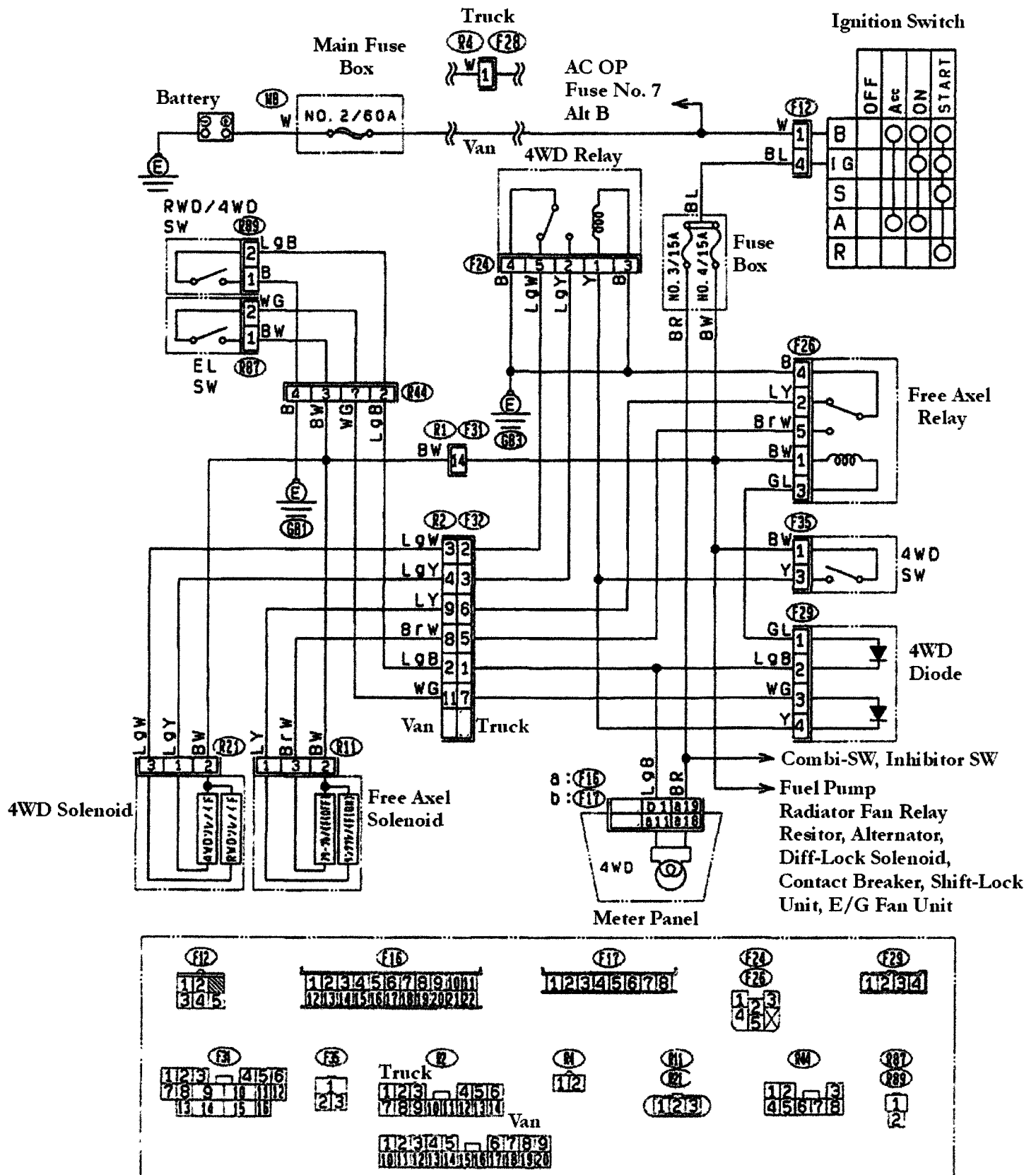
Fuel Gage & Sender Unit



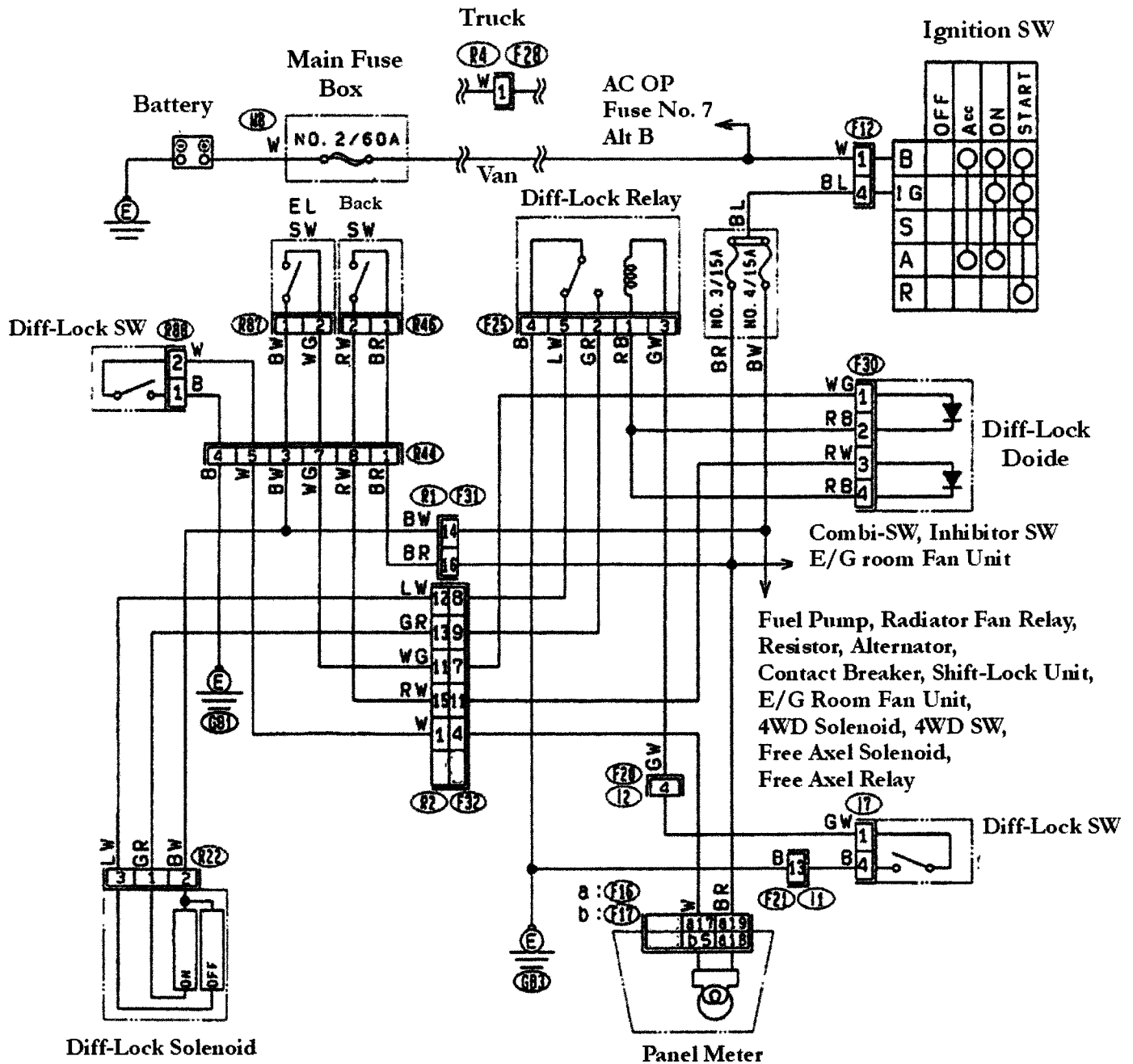
Full Time 4WD Control Circuit



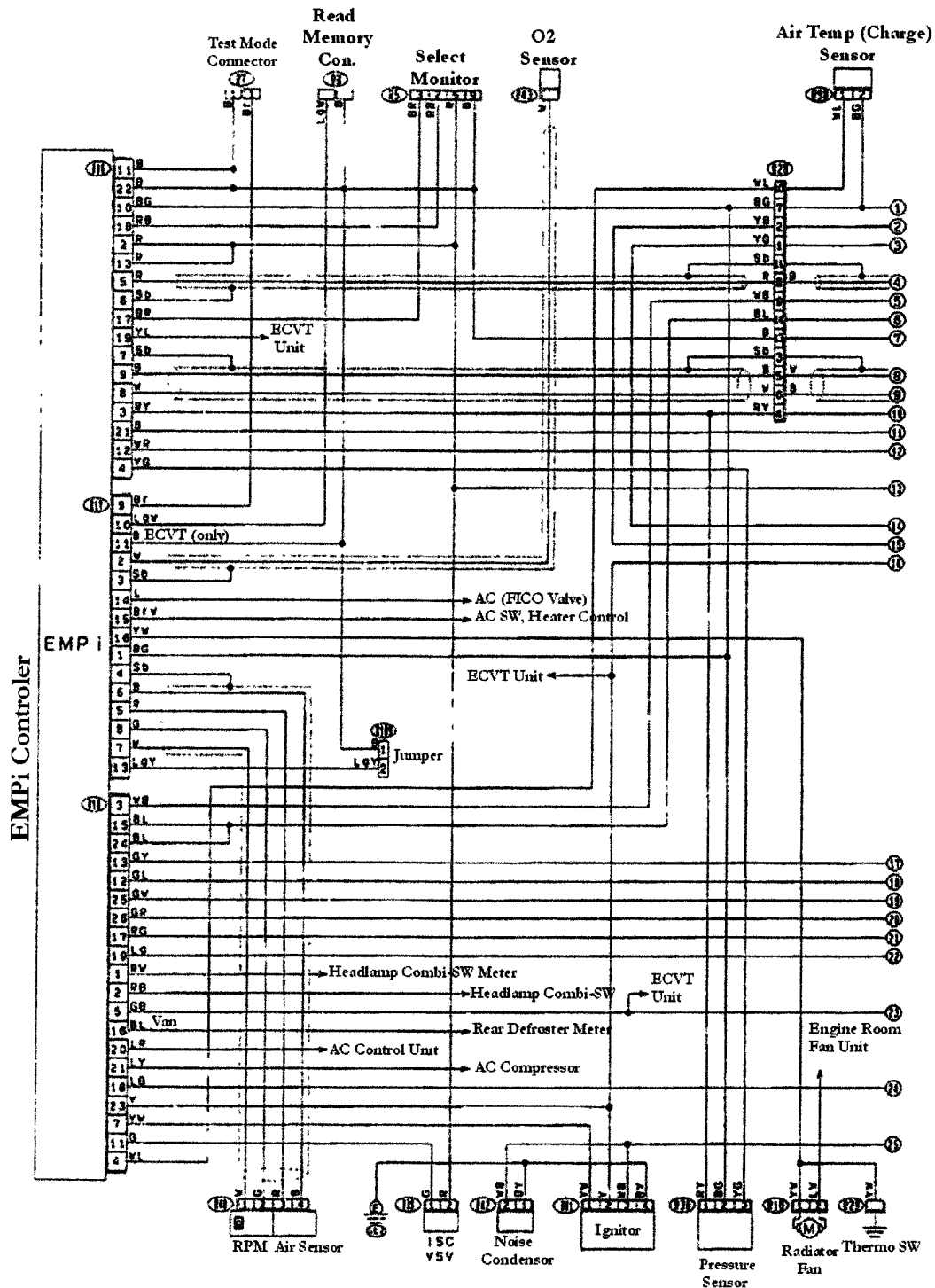
Selective 4WD Circuits



Diff-Lock Circuit

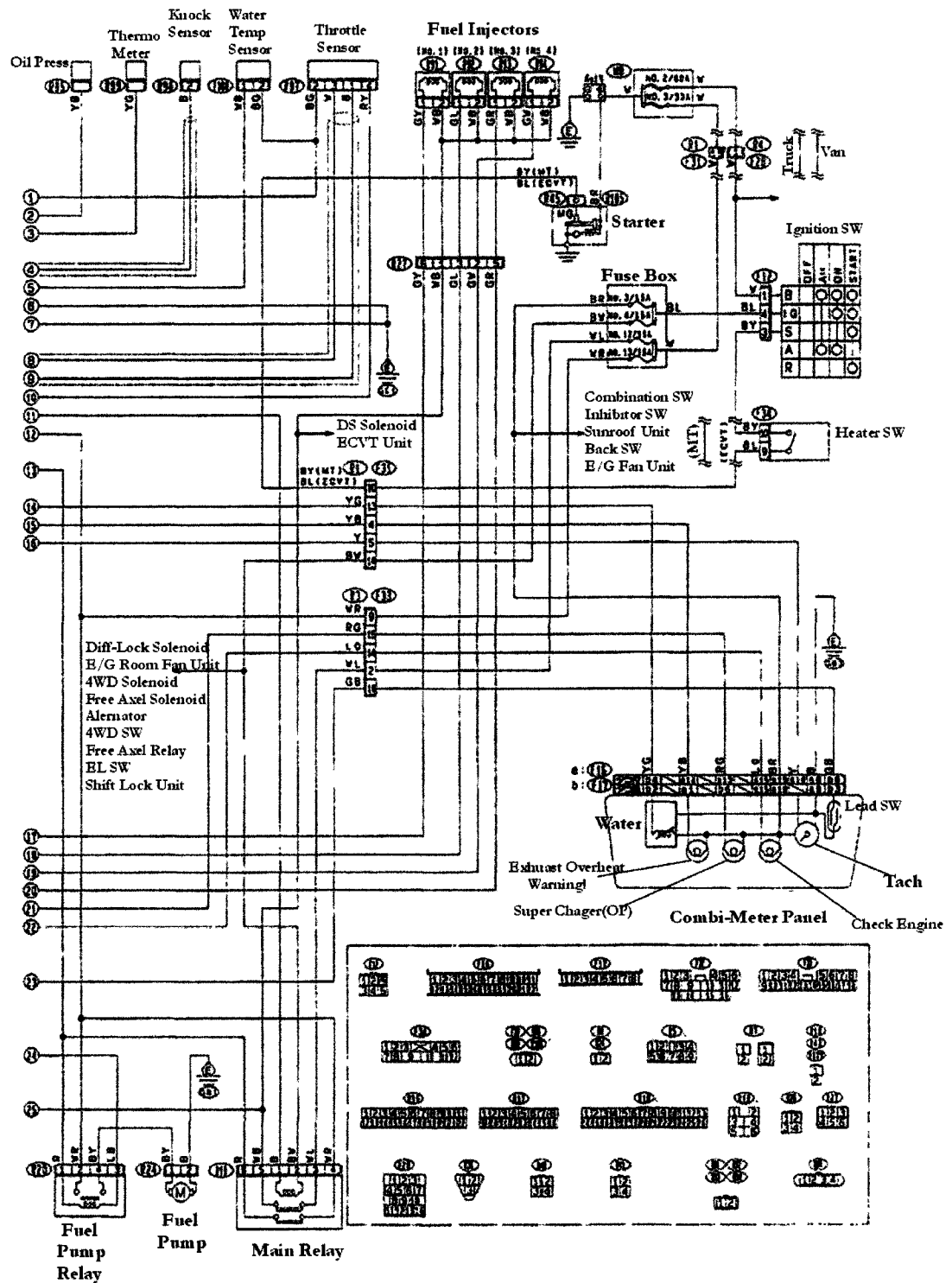


F12	F16	F17	F21	F25	F30
1 2 3 4 5	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7 8	1 2 3 4 5 6 7 8 9 10 11 12 13 14	1 2 3 4 5 X	1 2 3 4
F31	12	17	Truck 2	8	82
1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4	1 2 3 4	1 2 3 4 5 6 7 8 9 10 11 12 13 14	1 2	84
1 2 3 4 5 6	5 6 7 8 9 10	1 2 3 4	1 2 3 4 5 6 7 8 9 10 11 12 13 14	1 2 3	86
			1 2 3 4 5 6 7 8 9 10 11 12 13 14		88
					1 2

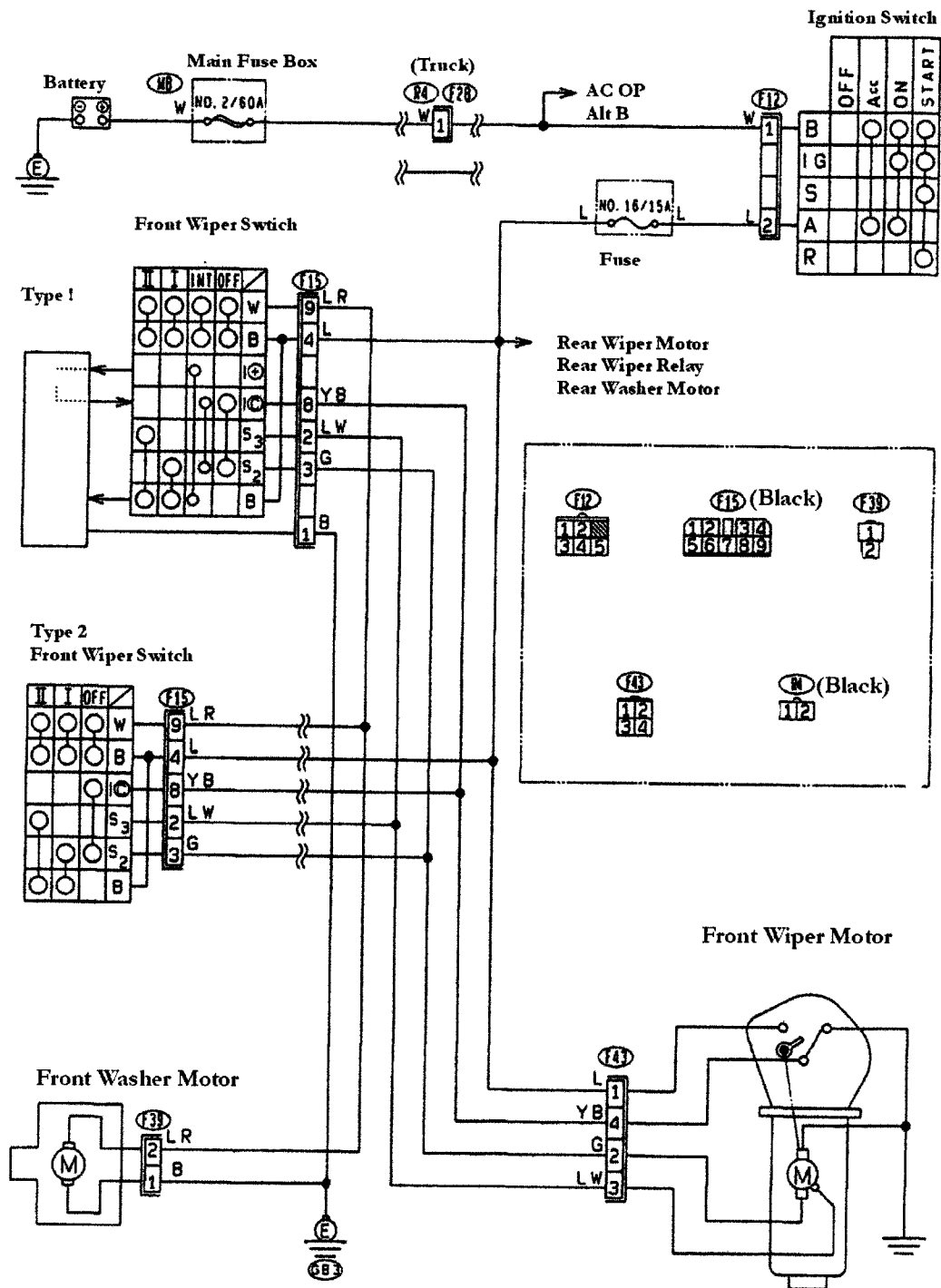


EMPi Engine Control Management System

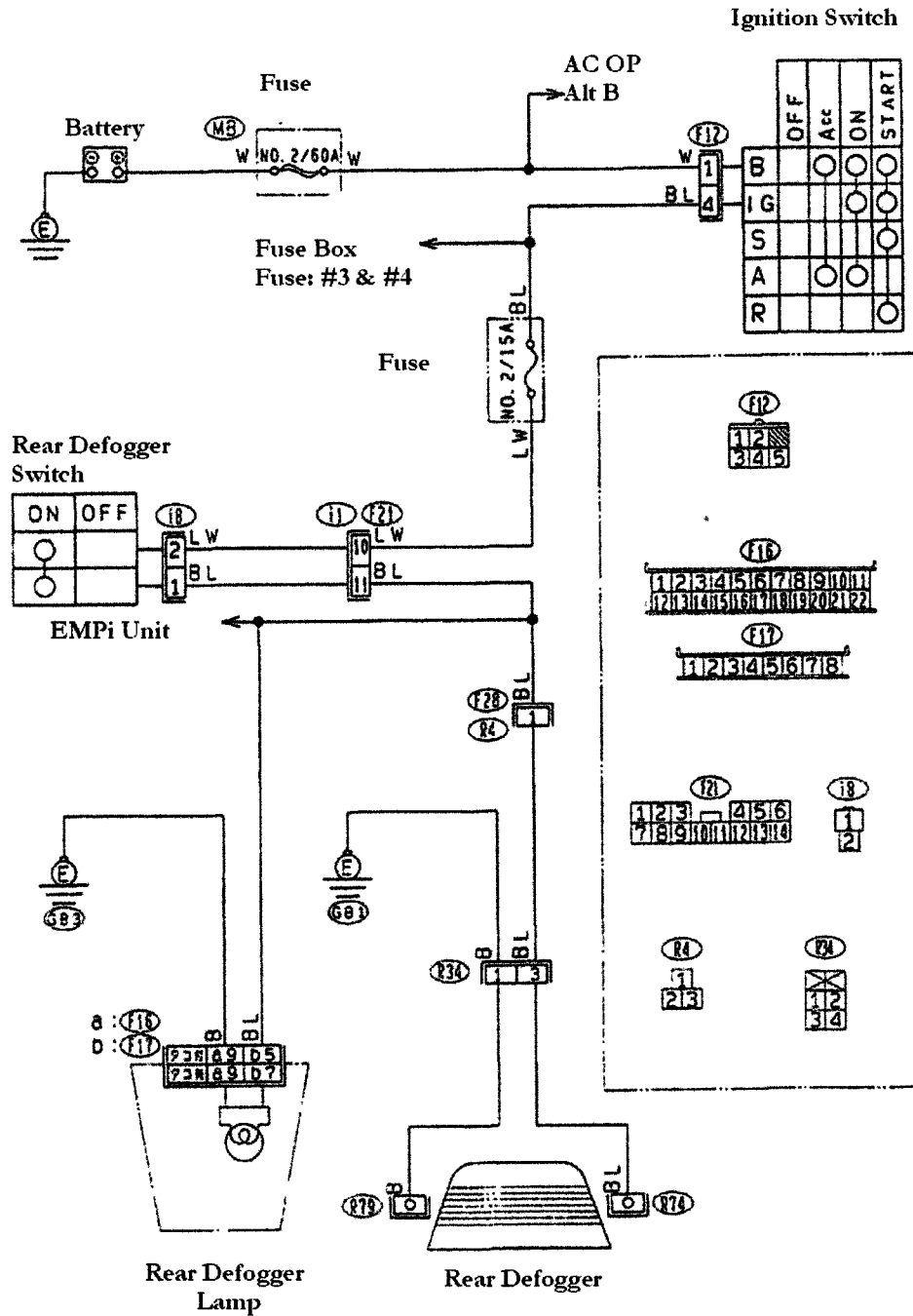
Part 2



Front Washer & Wiper Motor



Rear Defogger System



Rear Wiper & Washer

