

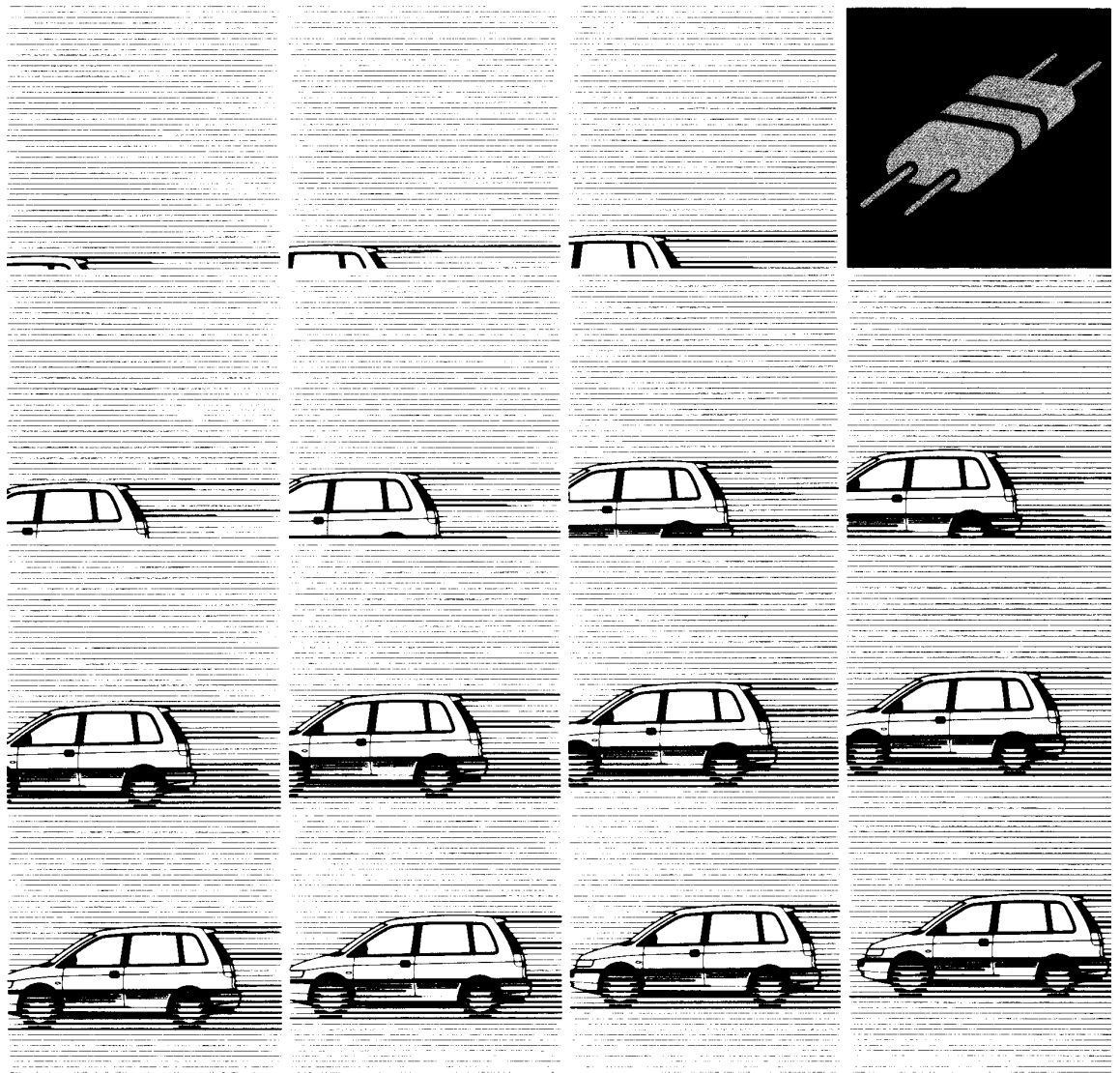


Workshop Manual

electrical wiring

SUPPLEMENT

SPACE RUNNER '97 SPACE WAGON '97



Pub. No. PHDE9214-E

MITSUBISHI SPACE RUNNER SPACE WAGON

ELECTRICAL WIRING SUPPLEMENT

FOREWORD

This publication is a supplement to the Electrical Wiring Manual Pub. No. PHDE9214 and contains only additions and changes to the original issue. It is recommended that all service mechanics engaged in the servicing of the vehicle refer to the following publications as well as this manual.

TECHNICAL INFORMATION MANUAL	PYDE9107 PYDE9107-1 (Supplement)
WORKSHOP MANUAL	
Chassis group	PWDE9104 (Loose-leaf edition) PWDE9104-E PWDE9104-F PWDE9104-G (Supplement)
Engine group	PWEE□□□□ (Loose-leaf edition)
Electrical wiring	PHDE9214 (Loose-leaf edition) PHDE9214-C PHDE9214-D (Supplement)
PARTS CATALOGUE	B608D507A□ B608E507A□

All information, illustrations and product descriptions contained in this manual are current as at time of publication. We, however, reserve the right to make changes at any time without prior notice or obligation.



GROUP INDEX

OUTLINE OF CHANGES	■
HOW TO READ THE WIRING DIAGRAMS	1
WIRING HARNESS CONFIGURATION DIAGRAMS	2
SINGLE PART INSTALLATION POSITION	3
CIRCUIT DIAGRAM	4

HOW TO USE THIS MANUAL

CONTENTS

The preceding page contains GROUP INDEX which lists the group title and group number.

PAGE NUMBERS

All page numbers consist of two sets of digits separated by a dash. The digits preceding the dash identify the number of the group. The digits following the dash represent the consecutive page number within the group. The page numbers can be found on the top left or right of each page.

OPERATION AND TROUBLESHOOTING HINTS

In the GROUP 4 circuit diagrams, the operation and troubleshooting hints are given on the previous page or following page for each circuit where necessary.

OUTLINE OF CHANGES

CONTENTS

WIRING HARNESS CONFIGURATION DIAGRAMS	2	CIRCUIT DIAGRAM	3
SINGLE PART INSTALLATION POSITION ...	2	TABLE OF CIRCUIT DIAGRAMS	4



WIRING HARNESS CONFIGURATION DIAGRAMS

Wiring harness configuration diagram				Description of changes
Connector Symbol	Name		Reference page	
A	ENGINE COMPARTMENT	L.H. drive vehicles with Diesel engine <SPACE RUNNER>	2-2	<ul style="list-style-type: none"> • Special wiring harness configuration diagrams have been established to correspond to the adoption of electronically-controlled diesel engines.
		R.H. drive vehicles with Diesel engine <SPACE RUNNER>	2-4	
B	ENGINE AND TRANSMISSION	Diesel engine <SPACE RUNNER>	2-6	
C	DASH PANEL	L.H. drive vehicles	2-8	
		R.H. drive vehicles	2-10	

SINGLE PART INSTALLATION POSITION

Location of change	Reference page	Description of changes
RELAY	3-2	The following relays have been added. <ul style="list-style-type: none"> • Fuel pump relay • Electromagnetic spill valve relay
CONTROL UNIT	3-2	<ul style="list-style-type: none"> • Engine control unit has been added.
SENSOR	3-3	The following sensors have been added. <ul style="list-style-type: none"> • Accelerator position sensor • Air temperature sensor • Boost sensor • Crank angle sensor • Fuel temperature sensor • Pump revolution sensor
SOLENOID VALVE	3-4	The following solenoid valves have been added. <ul style="list-style-type: none"> • EGR solenoid valve • Fuel cut solenoid valve • Electromagnetic spill valve • Throttle solenoid valve • Timing control valve

CIRCUIT DIAGRAM

Circuit diagrams			Description of changes
Main title	Subtitle	Ref. page	
STARTING SYSTEM	Diesel-powered vehicles <SPACE RUNNER>	4-2	<ul style="list-style-type: none"> The shape of the front wiring harness and control wiring harness combination connector (A-63) has been changed.
GLOW SYSTEM	SPACE RUNNER	4-3	<ul style="list-style-type: none"> Special circuit diagrams for electronically-controlled diesel engines have been added.
MPI SYSTEM	4G93 <L.H. drive vehicles>	4-4	<ul style="list-style-type: none"> The engine control relay has been divided into a fuel pump relay for controlling fuel pump and an engine control relay for controlling the fuel injection.
	4G93 <R.H. drive vehicles>	4-10	
	4G93 <Vehicles with immobilizer system>	4-16	
	4G63 <L.H. drive vehicles>	4-22	
	4G63 <R.H. drive vehicles>	4-28	
	4G63 <Vehicles with immobilizer system>	4-34	
ENGINE CONTROL SYSTEM	4D68 <SPACE RUNNER>	4-40	<ul style="list-style-type: none"> Special circuit diagrams for electronically-controlled diesel engines have been added.
COOLING SYSTEM	4D68 <SPACE RUNNER>	4-45	<ul style="list-style-type: none"> Special circuit diagrams for electronically-controlled diesel engines have been added.
METER AND GAUGE	4D68 <SPACE RUNNER>	4-46	<ul style="list-style-type: none"> Special circuit diagrams for electronically-controlled diesel engines have been added.
BRAKE WARNING LAMP	4D68 <SPACE RUNNER>	4-48	<ul style="list-style-type: none"> The shape of the instrument panel wiring harness and control wiring harness combination connector (D-07) has been changed.
FUEL FILTER WARNING LAMP	4D68 <SPACE RUNNER>	4-48	<ul style="list-style-type: none"> The shape of the instrument panel wiring harness and control wiring harness combination connector (D-07) has been changed.
ENGINE COOLANT TEMPERATURE WARNING LAMP	4D68 <SPACE RUNNER>	4-48	<ul style="list-style-type: none"> The shape of the instrument panel wiring harness and control wiring harness combination connector (D-07) has been changed.
HEATER AND AIR CONDITIONER	4D68 <SPACE RUNNER>	4-50	<ul style="list-style-type: none"> Special circuit diagrams for electronically-controlled diesel engines have been added.
ANTI-LOCK BRAKE SYSTEM (ABS)	-	4-54	<ul style="list-style-type: none"> The shape of the G sensor <4WD> connector (E-53) has been changed. The terminal numbers of the hydraulic unit connectors (A-24 and A-25) have been changed to correspond to changes in the hydraulic unit.
SUPPLEMENTAL RESTRAINT SYSTEM (SRS)	L.H. drive vehicles	4-58	<ul style="list-style-type: none"> The circuit diagram has been changed to correspond to changes in the SRS-ECU.
	R.H. drive vehicles	4-60	
IMMOBILIZER SYSTEM	Petrol-powered vehicles	4-62	<ul style="list-style-type: none"> The colour of the wiring harness which connects the engine control relay and the immobilizer-ECU has been changed.
	Diesel-powered vehicles <SPACE RUNNER>	4-64	<ul style="list-style-type: none"> Special circuit diagrams for electronically-controlled diesel engines have been added.

TABLE OF CIRCUIT DIAGRAMS

This table of circuit diagrams indicates those circuits in which changes and/or additions, etc. have been made; the circuits are here listed in the sequence in which they are presented in the wiring diagrams. Please use this table for reference when following maintenance or repair procedures.

NOTE

1. A (Added) :This circuit has been newly added in this manual.
2. R (Revised) :This circuit has been changed, and is included in this manual.
3. D (Deleted) :This circuit has been deleted in this manual.
4. I (Included) :This circuit is included in this manual.
5. N (Not included) :This circuit is not included in this manual.
6. P (Previous manual) :This circuit is not included in this manual, because it has not been changed. Refer to this previous manuals.

Main circuit	Circuit classifications	Pub. No. PHDE9214 (Basic)	Pub. No. PHDE9214-C (Supplement)	Pub. No. PHDE9214-D (Supplement)	Pub. No. PHDE9214-E (Supplement)
POWER DISTRIBUTION SYSTEM	-	I	R	R	P
STARTING SYSTEM	Petrol-powered vehicles	I	R	P	P
	Diesel-powered vehicles	I	P	P	P
	Diesel-powered vehicles <SPACE RUNNER>	N	N	N	A
IGNITION SYSTEM	-	I	R	P	P
CHARGING SYSTEM	4G93	I	R	P	P
	4G63, 4G64, 4D68	I	R	P	P
GLOW SYSTEM	-	I	R	R	P
	SPACE RUNNER	N	N	N	A
MPI SYSTEM	4G93 <L.H. drive vehicles>	I	R	P	R
	4G93 <R.H. drive vehicles>	I	R	P	R
	4G93 <Vehicles with immobilizer system>	N	N	A	R
	4G63 and 4G64 <L.H. drive vehicles>	I	R	P	D
	4G63 <L.H. drive vehicles>	N	N	N	A
	4G63 <R.H. drive vehicles>	I	R	P	R
	4G63 <Vehicles with immobilizer system>	N	N	A	R
ENGINE CONTROL SYSTEM	4D68 <SPACE RUNNER>	N	N	N	A
COOLING SYSTEM	4G93	I	R	P	P
	4G63 and 4G64	I	R	P	P
	4D68	I	R	P	P
	4D68 <SPACE RUNNER>	N	N	N	A
ELC 4-SPEED AUTOMATIC TRANSMISSION	L.H. drive vehicles	I	R	P	P
	R.H. drive vehicles	I	R	P	P

OUTLINE OF CHANGES – Table of Circuit Diagrams

5

Main circuit	Circuit classifications	Pub. No. PHDE9214 (Basic)	Pub. No. PHDE9214-C (Supplement)	Pub. No. PHDE9214-D (Supplement)	Pub. No. PHDE9214-E (Supplement)
HEAD LAMP	Vehicles with daytime running lamp <with SRS>	I	P	P	P
	Vehicles with daytime running lamp <without SRS>	I	P	P	P
	L.H. drive vehicles without daytime running lamp <with SRS>	I	P	P	P
	L.H. drive vehicles without daytime running lamp <without SRS>	I	R	P	P
	R.H. drive vehicles with SRS	I	R	P	P
	R.H. drive vehicles without SRS	I	P	P	P
HEAD LAMP LEVELING SYSTEM	-	I	P	P	P
TAIL LAMP, POSITION LAMP AND LICENCE PLATE LAMP	Vehicles with SRS	I	P	P	P
	Vehicles without SRS	I	P	P	P
FRONT FOG LAMP	L.H. drive vehicles	N	A	P	P
	R.H. drive vehicles	N	A	P	P
REAR FOG LAMP	Vehicles with daytime running lamp <with SRS>	I	P	P	P
	Vehicles with daytime running lamp <without SRS>	I	P	P	P
	L.H. drive vehicles without daytime running lamp <with SRS>	I	P	P	P
	L.H. drive vehicles without daytime running lamp <without SRS>	I	R	P	P
	R.H. drive vehicles with SRS	I	R	P	P
	R.H. drive vehicles without SRS	I	P	P	P
ROOM LAMP AND CARGO ROOM LAMP	L.H. drive vehicles with door lamp	I	P	P	P
	L.H. drive vehicles without door lamp	I	P	P	P
	R.H. drive vehicles with door lamp	I	P	P	P
	R.H. drive vehicles without door lamp	I	P	P	P
DOOR LAMP	L.H. drive vehicles	I	P	P	P
	R.H. drive vehicles	I	P	P	P
CLUSTER SWITCH ILLUMINATION LAMP	-	I	R	P	P
TURN SIGNAL LAMP AND HAZARD LAMP	Vehicles with SRS	I	R	P	P
	Vehicles without SRS	I	R	P	P
STOP LAMP	Vehicles with high-mounted stop lamp	I	P	P	P
	Vehicles without high-mounted stop lamp	I	P	P	P
BACK-UP LAMP	-	I	P	P	P

OUTLINE OF CHANGES – Table of Circuit Diagrams

Main circuit	Circuit classifications	Pub. No. PHDE9214 (Basic)	Pub. No. PHDE9214-C (Supplement)	Pub. No. PHDE9214-D (Supplement)	Pub. No. PHDE9214-E (Supplement)
LIGHTING MONITOR BUZZER	Vehicles with SRS	I	P	P	P
	Vehicles without SRS	I	P	P	P
HORN	Vehicles with SRS	I	P	P	P
	Vehicles without SRS	I	P	P	P
METER AND GAUGE	-	I	R	P	P
	4D68 <SPACE RUNNER>	N	N	N	A
BRAKE WARNING LAMP	-	I	R	P	P
	4D68 <SPACE RUNNER>	N	N	N	A
FUEL WARNING LAMP	-	I	R	P	P
OIL PRESSURE WARNING LAMP	-	I	R	P	P
FUEL FILTER WARNING LAMP	-	I	R	P	P
	4D68 <SPACE RUNNER>	N	N	N	A
ENGINE COOLANT TEMPERATURE WARNING LAMP	4D68	I	P	P	P
	4D68 <SPACE RUNNER>	N	N	N	A
LOW ENGINE OIL LEVEL WARNING LAMP	SPACE WAGON	I	P	P	P
POWER WINDOWS	SPACE RUNNER <L.H. drive vehicles>	I	P	P	P
	SPACE RUNNER <R.H. drive vehicles>	I	P	P	P
	SPACE WAGON <L.H. drive vehicles>	I	P	P	P
	SPACE WAGON <R.H. drive vehicles>	I	P	P	P
CENTRAL DOOR LOCKING SYSTEM	SPACE RUNNER <L.H. drive vehicles>	I	R	P	P
	SPACE RUNNER <R.H. drive vehicles>	I	R	P	P
	SPACE WAGON <L.H. drive vehicles>	I	R	P	P
	SPACE WAGON <R.H. drive vehicles>	I	R	P	P
TAILGATE LOCKING SYSTEM	SPACE RUNNER	I	D	N	N
	SPACE WAGON	I	D	N	N
HEATER AND AIR CONDITIONER	4G93	I	R	P	P
	4G63 and 4G64	I	R	P	P
	4D68	I	R	P	P
	4D68 <SPACE RUNNER>	N	N	N	A
WINDSHIELD WIPER AND WASHER	Vehicles with SRS	I	R	P	P
	Vehicles without SRS	I	R	P	P
REAR WIPER AND WASHER	-	I	P	P	P
HEAD LAMP WASHER	-	I	P	P	P
DEFOGGER AND DOOR MIRROR HEATER	-	I	P	P	P

OUTLINE OF CHANGES – Table of Circuit Diagrams

Main circuit	Circuit classifications	Pub. No. PHDE9214 (Basic)	Pub. No. PHDE9214-C (Supplement)	Pub. No. PHDE9214-D (Supplement)	Pub. No. PHDE9214-E (Supplement)
REMOTE CONTROLLED MIRROR	Vehicles with door mirror heater	I	P	P	P
	Vehicles without door mirror heater	I	P	P	P
CIGARETTE LIGHTER	-	I	R	P	P
CLOCK	-	I	P	P	P
RADIO AND TAPE PLAYER	-	I	P	P	P
SUNROOF	-	I	R	P	P
HEATED SEAT	-	I	P	P	P
ANTI-LOCK BRAKE SYSTEM (ABS)	-	I	R	P	R
SUPPLEMENTAL RESTRAINT SYSTEM (SRS)	L.H. drive vehicles	I	R	P	R
	R.H. drive vehicles	N	A	P	R
IMMOBILIZER SYSTEM	Petrol-powered vehicles	N	N	A	R
	Diesel-powered vehicles	N	N	A	P
	Diesel-powered vehicles <SPACE RUNNER>	N	N	N	A

HOW TO READ THE WIRING DIAGRAMS

CONTENTS

MODELS 1-2



MODELS**<SPACE RUNNER>**

Model code		Engine model	Transmission model	Fuel supply system
N11W	SNJEL6/R6	4G93 (1, 834 mℓ)	F5M22 (2WD-5M/T)	MPI
	SNUEL6/R6		F4A22 (2WD-4A/T)	
	SRUEL6/R6			
N18W	SNJTL6/R6	4D68 with a turbocharger (1, 998 mℓ)	F5M31 (2WD-5M/T)	Fuel Injection Pump
	SNUTL6/R6			
N21W	SNUEL6/R6	4G93 (1, 834 mℓ)	W5M31 (4WD-5M/T)	MPI

<SPACE WAGON>

Model code		Engine model	Transmission model	Fuel supply system
N33W	LNUEL6/R6	4G63 (1, 997 mℓ)	F5M22 (2WD-5M/T)	MPI
	LRUEL6/R6		F4A22 (2WD-4A/T)	
	LNSEL6		F5M22 (2WD-5M/T)	
	LRSEL6		F4A22 (2WD-4A/T)	
N38W	LNUTL6/R6	4D68 with a turbocharger (1, 998 mℓ)	F5M31 (2WD-5M/T)	Fuel Injection Pump
	LNSTL6			
N43W	LNUEL6/R6	4G63 (1, 997 mℓ)	W5M31 (4WD-5M/T)	MPI
	LRUEL6/R6		W4A32 (4WD-4A/T)	
	LNSEL6		W5M31 (4WD-5M/T)	
	LRSEL6		W4A32 (4WD-4A/T)	

WIRING HARNESS CONFIGURATION DIAGRAMS

CONTENTS

ENGINE COMPARTMENT **A**

L.H. drive vehicles with Diesel engine <SPACE RUNNER>	2-2
R.H. drive vehicles with Diesel engine <SPACE RUNNER>	2-4

ENGINE AND TRANSMISSION **B**

Diesel engine <SPACE RUNNER>	2-6
------------------------------------	-----

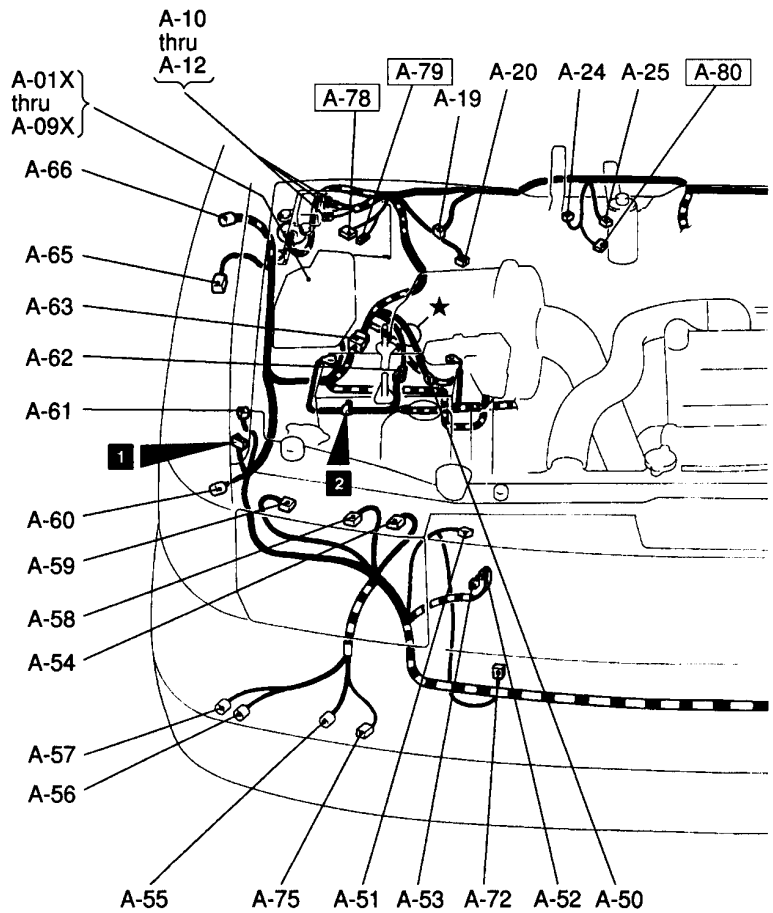
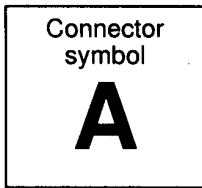
DASH PANEL **C**

L.H. drive vehicles	2-8
R.H. drive vehicles	2-10

2-2 WIRING HARNESS CONFIGURATION DIAGRAMS – Engine Compartment

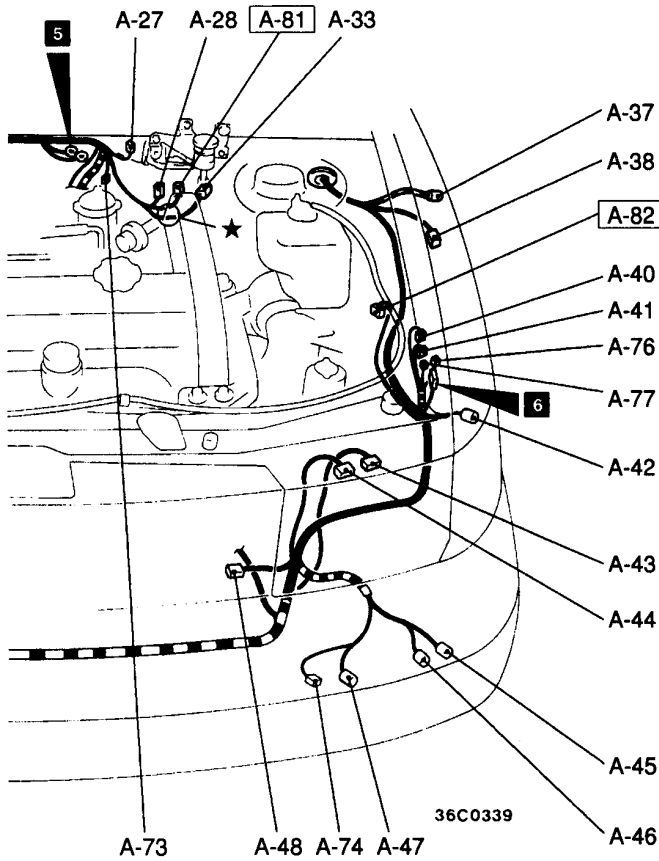
ENGINE COMPARTMENT

L.H. drive vehicles with Diesel engine <SPACE RUNNER>

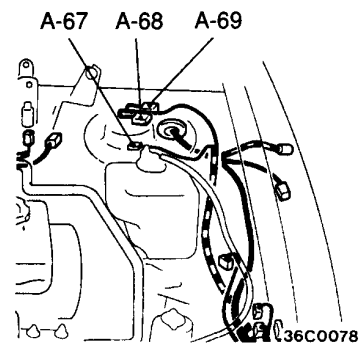


- A-01X } Refer to CENTRALIZED JUNCTION
- thru } -
- A-09X } -
- A-10 } Glow plug relay
- thru } -
- A-12 } -
- A-13 } -
- thru } -
- A-18 } -
- A-19 } Brake fluid level sensor
- A-20 } Vacuum switch
- A-21 } -
- thru } -
- A-23 } -
- A-24 } Starter relay
- A-25 } Water level switch
- A-26 } -
- A-27 } Idle-up solenoid valve <A/C>
- A-28 } EGR solenoid valve
- A-29 } -
- thru } -
- A-32 } -
- A-33 } Windshield wiper motor

- A-34 } -
- thru } -
- A-36 } -
- A-37 } Side turn signal lamp (LH)
- A-38 } ABS speed sensor (Front: LH)
- A-39 } -
- A-40 } ABS hydraulic unit
- A-41 } -
- A-42 } Front combination lamp (LH)
- A-43 } Headlamp leveling unit (LH)
- A-44 } Headlamp (LH)
- A-45 } Horn (LH)
- A-46 } -
- A-47 } Front turn signal lamp (LH)
- A-48 } Condenser fan motor
- A-49 } -
- A-50 } Back-up lamp switch <M/T>
- A-51 } Radiator fan motor
- A-52 } Windshield washer motor
- A-53 } Rear washer motor
- A-54 } Headlamp (RH)
- A-55 } Front turn signal lamp (RH)



Vehicles with daytime running lamp



- A-56 } Horn (RH)
- A-57 }
- A-58 Headlamp leveling unit (RH)
- A-59 Headlamp washer motor
- A-60 Front combination lamp (RH)
- A-61 Headlamp washer relay
- A-62 Control wiring harness and battery cable combination
- A-63 Front wiring harness and control wiring harness combination
- A-64 -
- A-65 ABS speed sensor (Front: RH)
- A-66 Side turn signal lamp (RH)
- A-67 Daytime running lamp control unit
- A-68 Daytime running lamp relay 1
- A-69 Daytime running lamp relay 2
- A-70 -

- A-71 -
- A-72 Thermo switch and resistor (Radiator fan)
- A-73 A/C refrigerant capacity control solenoid valve
- A-74 Front fog lamp (LH)
- A-75 Front fog lamp (RH)
- A-76 ABS valve relay
- A-77 ABS motor relay
- A-78 Accelerator position sensor
- A-79 Idle position switch
- A-80 Boost sensor
- A-81 Throttle solenoid valve
- A-82 Dual pressure switch

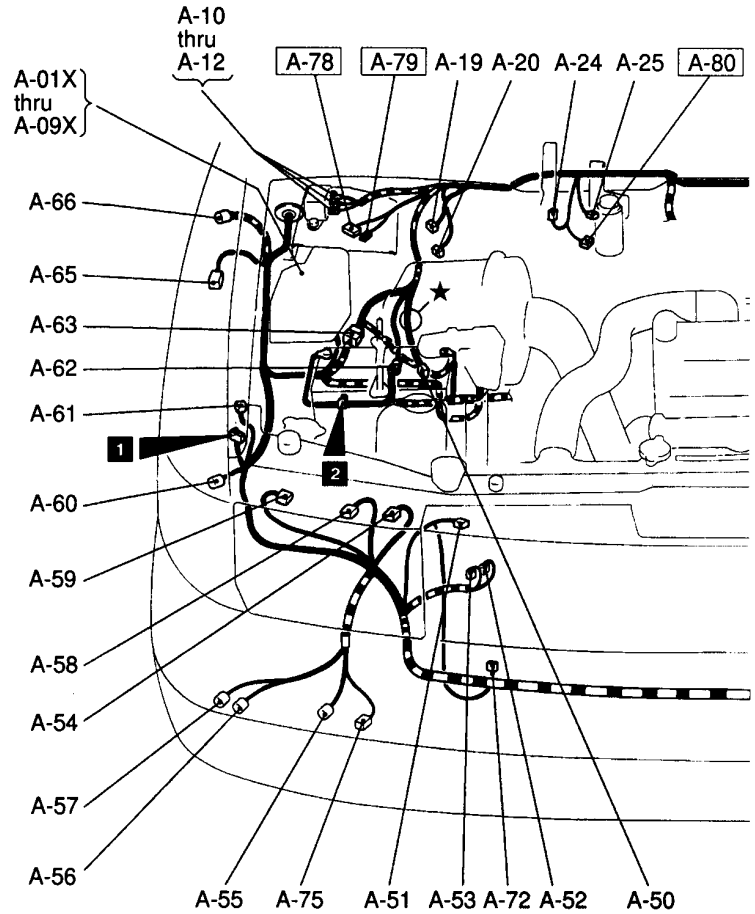
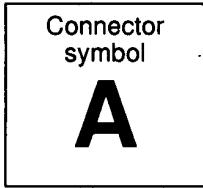
Remark

Connector numbers enclosed by a frame are newly added connectors.

2-4 WIRING HARNESS CONFIGURATION DIAGRAMS – Engine Compartment

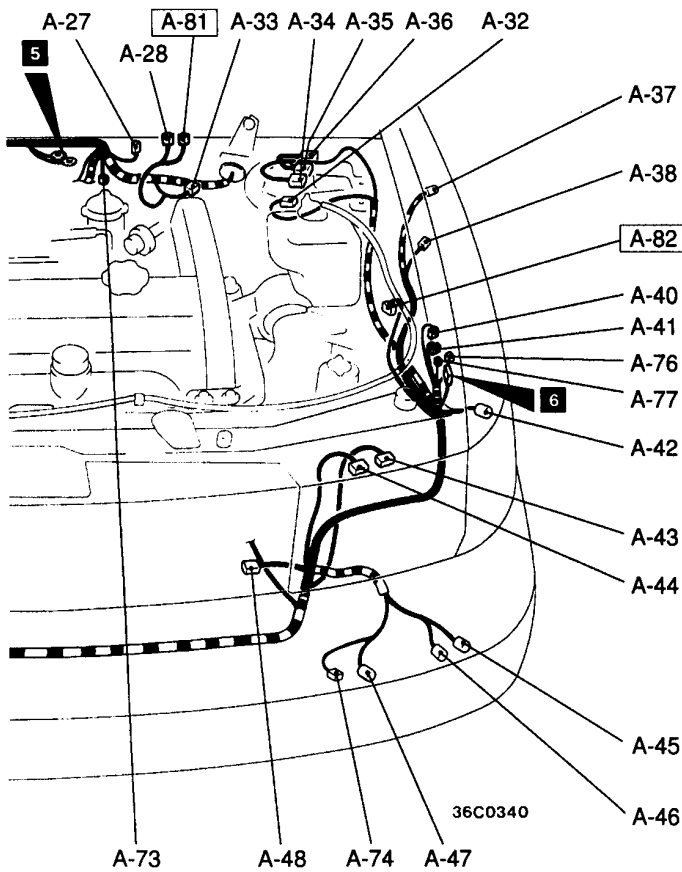
ENGINE COMPARTMENT

R.H. drive vehicles with Diesel engine <SPACE RUNNER>



- A-01X thru A-09X } Refer to CENTRALIZED JUNCTION
- A-10 thru A-12 } Glow plug relay
- A-13 thru A-18 } -
- A-19 } Brake fluid level sensor
- A-20 } Vacuum switch
- A-21 thru A-23 } -
- A-24 } Starter relay
- A-25 } Water level switch
- A-26 } -
- A-27 } Idle-up solenoid valve <A/C>
- A-28 } EGR solenoid valve
- A-29 thru A-31 } -
- A-32 } Resistor

- A-33 } Windshield wiper motor
- A-34 } Dim-dip lamp relay 1
- A-35 } Dim-dip lamp relay 2
- A-36 } Dim-dip lamp relay 3
- A-37 } Side turn signal lamp (LH)
- A-38 } ABS speed sensor (Front: LH)
- A-39 } -
- A-40 thru A-41 } ABS hydraulic unit
- A-42 } Front combination lamp (LH)
- A-43 } Headlamp leveling unit (LH)
- A-44 } Headlamp (LH)
- A-45 thru A-46 } Horn (LH)
- A-47 } Front turn signal lamp (LH)
- A-48 } Condenser fan motor
- A-49 } -
- A-50 } Back-up lamp switch <M/T>
- A-51 } Radiator fan motor
- A-52 } Windshield washer motor
- A-53 } Rear washer motor
- A-54 } Headlamp (RH)
- A-55 } Front turn signal lamp (RH)



- A-56 } Horn (RH)
- A-57 } Horn (RH)
- A-58 Headlamp leveling unit (RH)
- A-59 Headlamp washer motor
- A-60 Front combination lamp (RH)
- A-61 Headlamp washer relay
- A-62 Control wiring harness and battery cable combination
- A-63 Front wiring harness and control wiring harness combination
- A-64 -
- A-65 ABS speed sensor (Front: RH)
- A-66 Side turn signal lamp (RH)
- A-67 } -
- thru } -
- A-71 } -

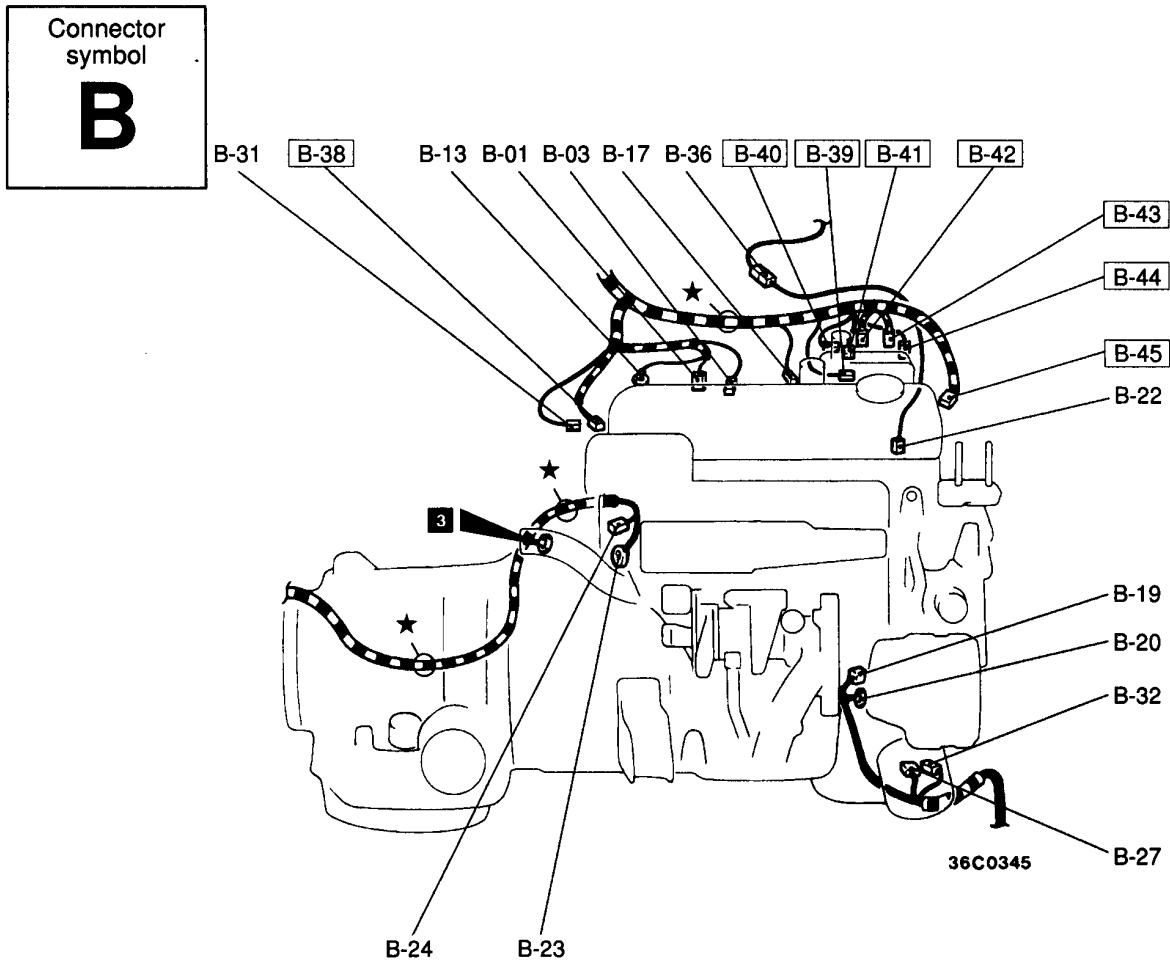
- A-72 Thermo switch and resistor (Radiator fan)
- A-73 A/C refrigerant capacity control solenoid valve
- A-74 Front fog lamp (LH)
- A-75 Front fog lamp (RH)
- A-76 ABS valve relay
- A-77 ABS motor relay
- A-78 Accelerator position sensor
- A-79 Idle position switch
- A-80 Boost sensor
- A-81 Throttle solenoid valve
- A-82 Dual pressure switch

Remark

Connector numbers enclosed by a frame are newly added connectors.

ENGINE AND TRANSMISSION

Diesel engine <SPACE RUNNER>



- B-01 Engine coolant temperature sensor
- B-02 -
- B-03 Engine coolant temperature gauge unit
- B-04 } -
- thru } -
- B-12 } -
- B-13 Glow plug
- B-14 } -
- thru } -
- B-16 } -
- B-17 Fuel cut solenoid valve
- B-18 -
- B-19 } Alternator
- B-20 } -
- B-21 -
- B-22 Magnetic clutch <A/C>
- B-23 } Starter
- B-24 } -
- B-25 -
- B-26 -
- B-27 Oil pressure switch
- B-28 } -
- thru } -
- B-30 }

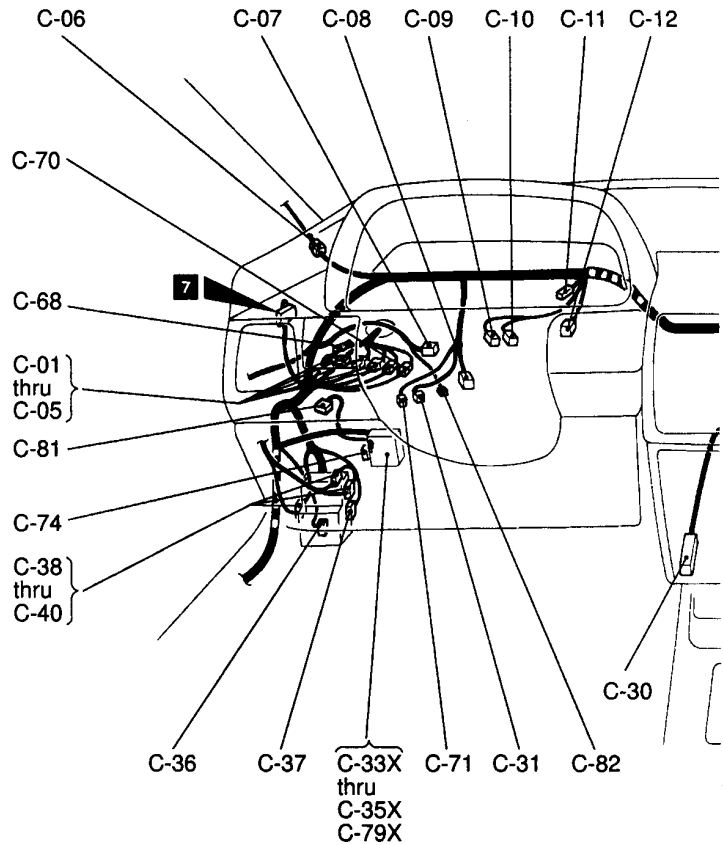
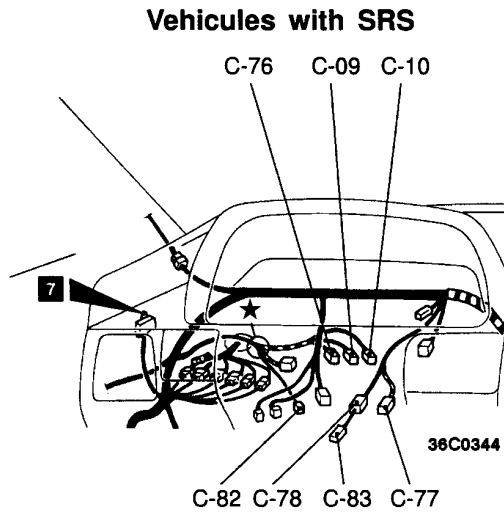
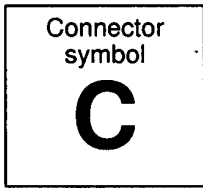
- B-31 Engine coolant temperature sensor (for water temperature alarm lamp)
- B-32 } -
- thru } -
- B-35 } -
- B-36 Control wiring harness and magnetic clutch joint wiring harness combination
- B-37 -
- B-38 Air temperature sensor
- B-39 Timing control valve
- B-40 Electromagnetic spill valve
- B-41 Injection amount compensation resistance
- B-42 Pump revolution sensor
- B-43 Fuel temperature sensor
- B-44 Injection timing compensation resistance
- B-45 Crank angle sensor

Remark
 Connector numbers enclosed by a frame are newly added connectors.

NOTES

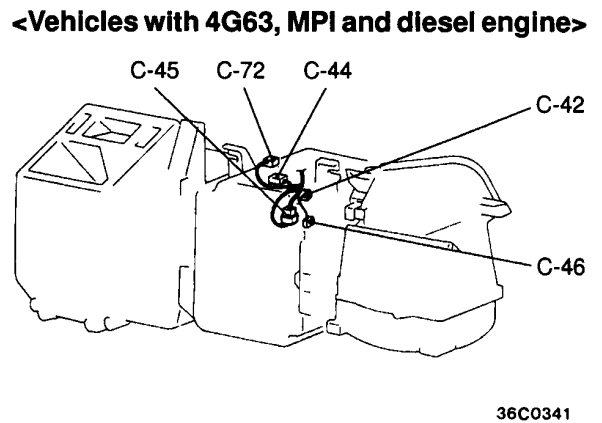
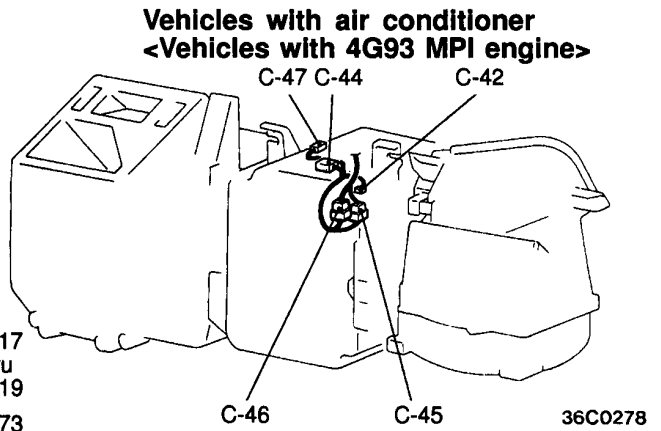
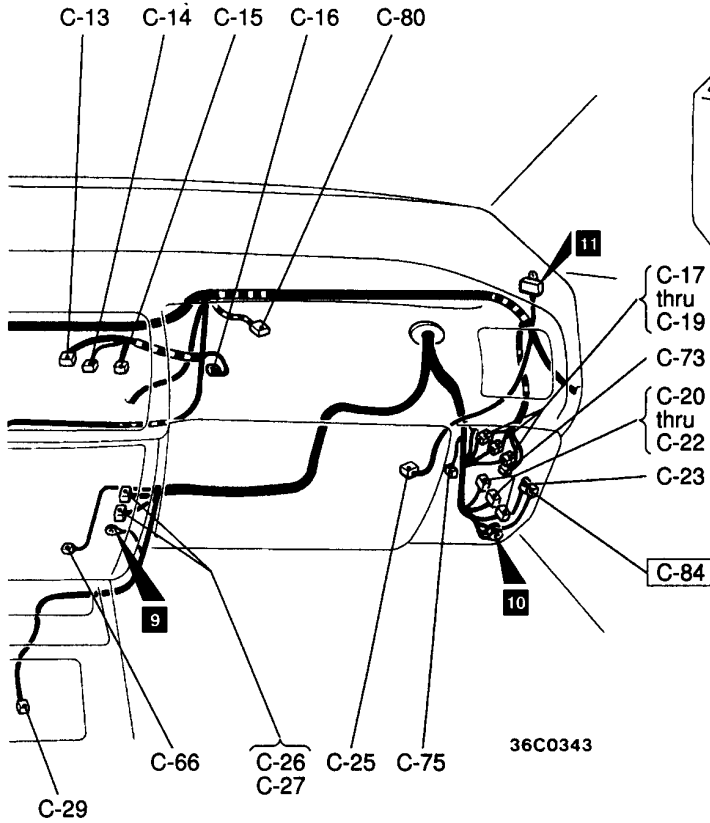
DASH PANEL

L.H. drive vehicles

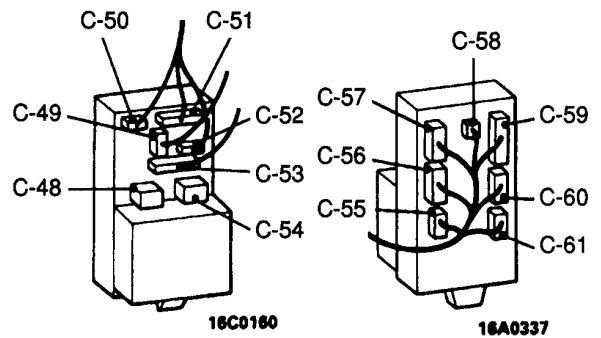


- C-01 thru C-05 } Front wiring harness and main wiring harness combination
- C-06 Main wiring harness and roof wiring harness combination
- C-07 Ignition switch
- C-08 Stop lamp switch
- C-09 } Column switch
- C-10 }
- C-11 Diode (for headlamp circuit)
- C-12 No connection
- C-13 A/C switch
- C-14 Heater control illumination lamp
- C-15 Blower switch
- C-16 Resistor
- C-17 thru C-19 } Control wiring harness and main wiring harness combination
- C-20 Engine control unit or glow control unit
- C-21 } Engine control unit
- C-22 }
- C-23 Engine control relay
- C-24 -
- C-25 Blower motor

- C-26 } ELC-4A/T control unit
- C-27 }
- C-28 -
- C-29 Overdrive switch
- C-30 ABS control unit
- C-31 Lighting monitor buzzer
- C-32X -
- C-33X Power windows relay
- C-34X Central door lock control unit or jumper connector
- C-35X Rear fog lamp relay
- C-36 Diagnosis connector
- C-37 Turn signal and hazard flasher unit
- C-38 thru C-40 } Main wiring harness and instrument panel wiring harness combination
- C-41 -
- C-42 Air thermo sensor
- C-43 -
- C-44 Automatic compressor control unit
- C-45 } Main wiring harness and A/C wiring harness combination
- C-46 }
- C-47 A/C belt lock controller <4G93>
- C-48 Defogger relay
- C-49 Roof wiring harness and junction block combination



**Junction block
(Front side) (Rear side)**



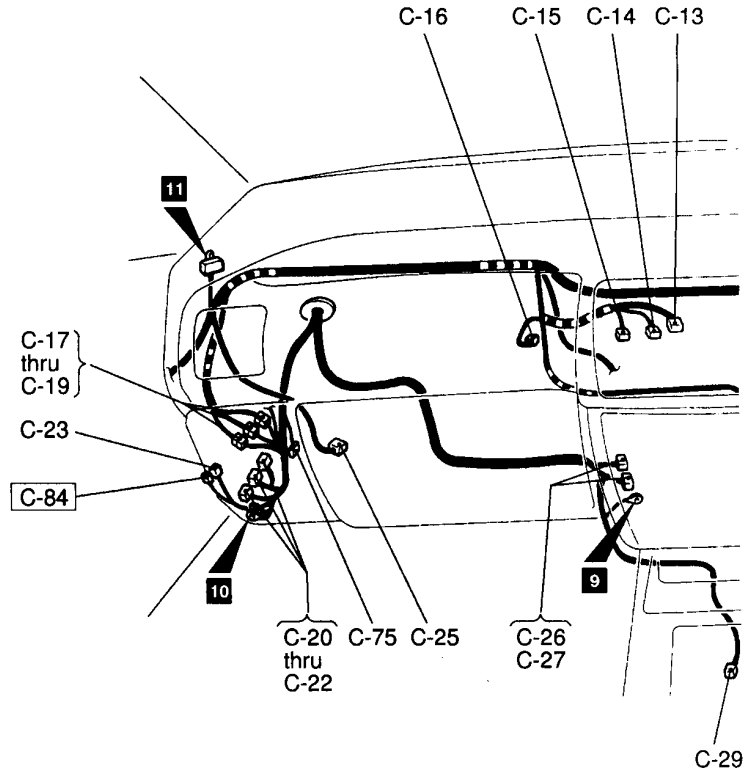
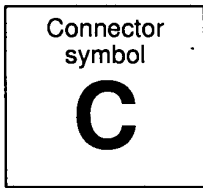
- C-50 } Front wiring harness and junction block combination
- thru } C-52 }
- C-53 Instrument panel wiring harness and junction block combination
- C-54 Heater relay
- C-55 } Main wiring harness and junction block combination
- thru } C-61 }
- C-62 } -
- thru } C-65 }
- C-66 Kick down switch <A/T>
- C-67 -
- C-68 Diode <Diesel (for A/C circuit)>
- C-69 -
- C-70 Front wiring harness and main wiring harness combination <Diesel (A/C)>
- C-71 Engine oil level relay
- C-72 A/C relay <Diesel (A/C)>
- C-73 No connection
- C-74 J/C (Jumper connector)
- C-75 J/C (Jumper connector)
- C-76 Column switch <SRS>

- C-77 } Clock spring <SRS>
- C-78 }
- C-79X Horn relay <SRS>
- C-80 Air bag module (Passenger's side)
- C-81 Immobilizer-ECU
- C-82 Ignition key ring antenna
- C-83 Air bag module (Driver's side)
- C-84 Fuel pump relay or electromagnetic spill valve relay

Remark
Connector numbers enclosed by a frame are newly added connectors.

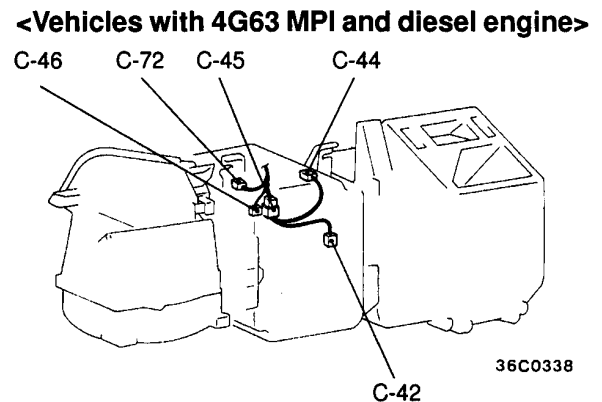
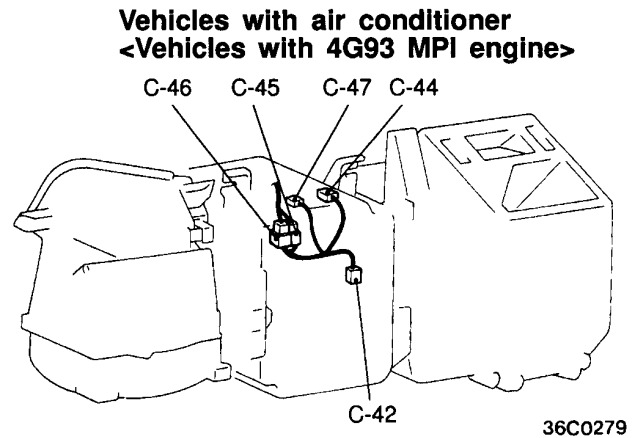
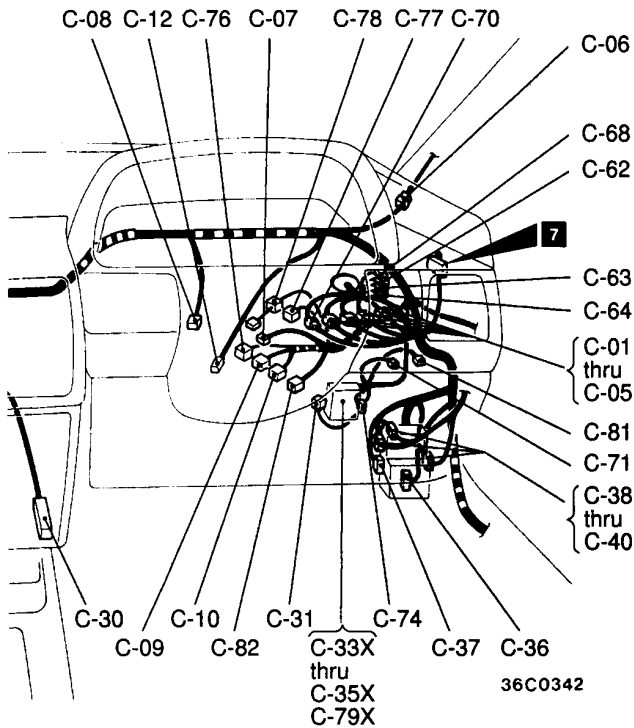
DASH PANEL

R.H. drive vehicles

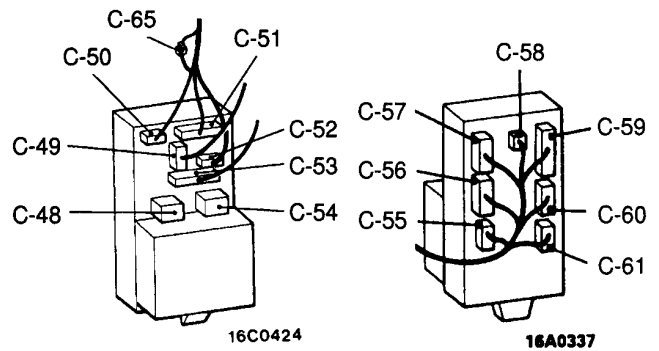


- C-01 } Front wiring harness and main wiring harness combination
- C-05 }
- C-06 Main wiring harness and roof wiring harness combination
- C-07 Ignition switch
- C-08 Stop lamp switch
- C-09 } Column switch
- C-10 }
- C-11 -
- C-12 No connection
- C-13 A/C switch
- C-14 Heater control illumination lamp
- C-15 Blower switch
- C-16 Resistor
- C-17 } Control wiring harness and main wiring harness combination
- C-19 }
- C-20 Engine control unit or glow control unit
- C-21 } Engine control unit
- C-22 }
- C-23 Engine control relay
- C-24 -
- C-25 Blower motor

- C-26 } ELC-4A/T control unit
- C-27 }
- C-28 -
- C-29 Overdrive switch
- C-30 ABS control unit
- C-31 Lighting monitor buzzer
- C-32X -
- C-33X Power windows relay
- C-34X Central door lock control unit or jumper connector
- C-35X Rear fog lamp relay
- C-36 Diagnosis connector
- C-37 Turn signal and hazard flasher unit
- C-38 } Main wiring harness and instrument panel wiring harness combination
- C-40 }
- C-41 -
- C-42 Air thermo sensor
- C-43 -
- C-44 Automatic compressor control unit
- C-45 } Main wiring harness and A/C wiring harness combination
- C-46 }
- C-47 -
- C-48 Defogger relay
- C-49 Roof wiring harness and junction block combination



**Junction block
(Front side) (Rear side)**



- C-50 } Front wiring harness and junction block combination
- thru } C-52 }
- C-53 Instrument panel wiring harness and junction block combination
- C-54 Heater relay
- C-55 } Main wiring harness and junction block combination
- thru } C-61 }
- C-62 } Diode (for dim-dip lamp circuit)
- thru } C-64 }
- C-65 Rear fog lamp connector
- C-66 -
- C-67 -
- C-68 Diode <Diesel (for A/C circuit)>
- C-69 -
- C-70 Front wiring harness and main wiring harness combination <Diesel (A/C)>
- C-71 Engine oil level relay
- C-72 A/C relay <Diesel (A/C)> or no connection
- C-73 -
- C-74 J/C (Jumper connector)
- C-75 J/C (Jumper connector)

- C-76 Column switch <SRS>
- C-77 } Clock spring <SRS>
- C-78 }
- C-79X Horn relay <SRS>
- C-80 -
- C-81 Immobilizer-ECU
- C-82 Ignition key ring antenna
- C-83 Air bag module (Driver's side)
- C-84 Fuel pump relay or electromagnetic spill valve relay

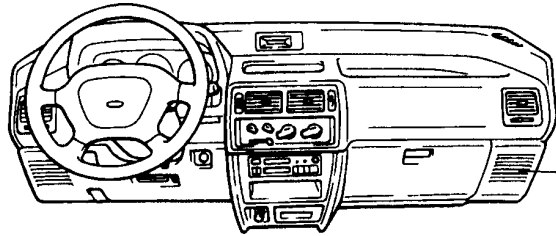
Remark
Connector numbers enclosed by a frame are newly added connectors.

SINGLE PART INSTALLATION POSITION

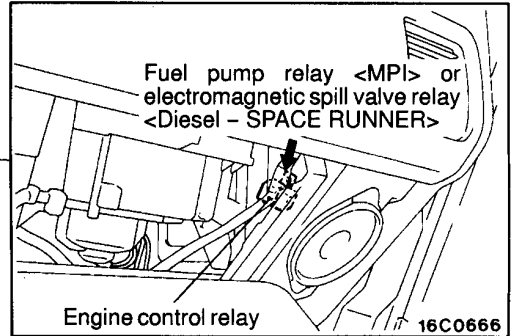
CONTENTS

RELAY	3-2	SENSOR	3-3
CONTROL UNIT	3-2	SOLENOID VALVE	3-4

RELAY

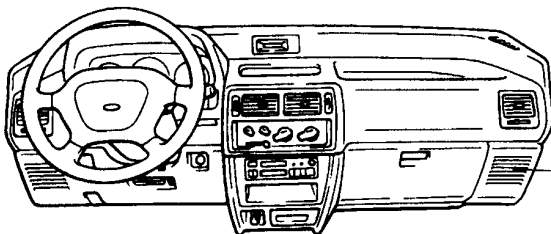


16C0172

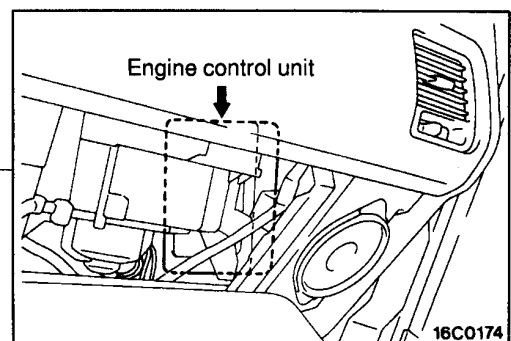


CONTROL UNIT

<4D68 – SPACE RUNNER>



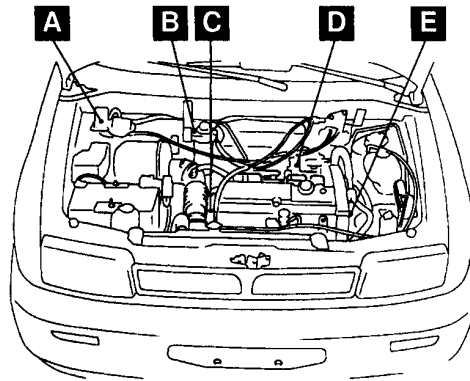
16C0172



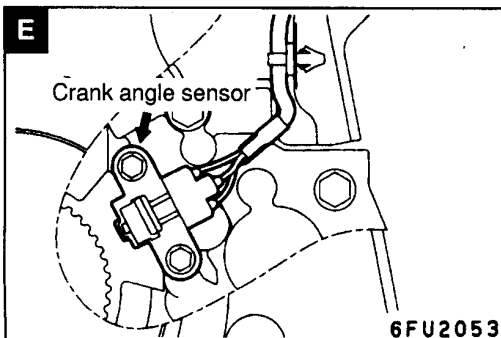
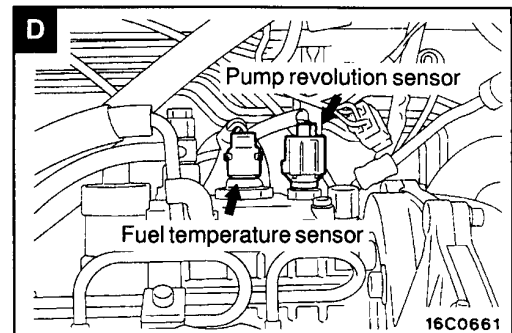
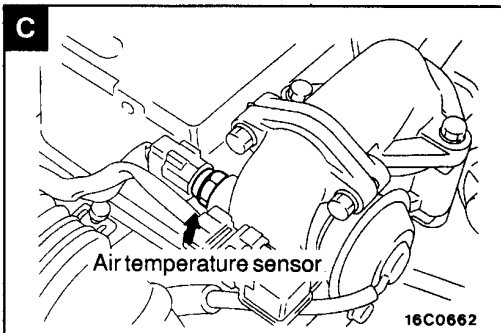
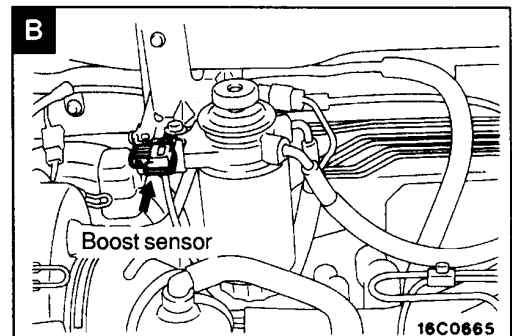
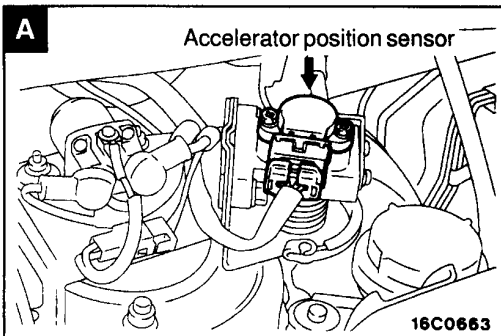
SENSOR

<4D68 – SPACE RUNNER>

Name	Symbol	Name	Symbol
Accelerator position sensor	A	Crank angle sensor	E
Air temperature sensor	C	Fuel temperature sensor	D
Boost sensor	B	Pump revolution sensor	D



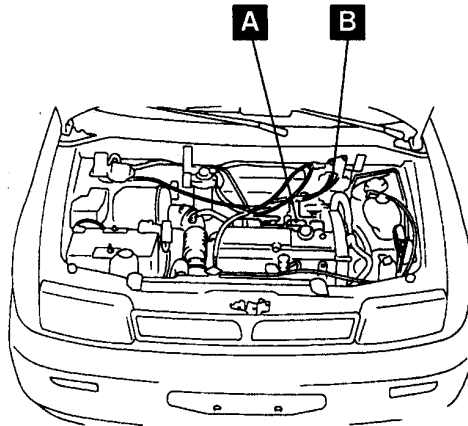
16C0544



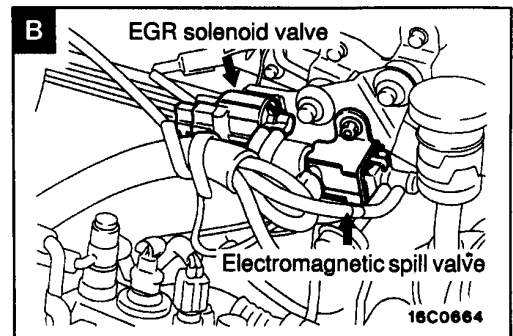
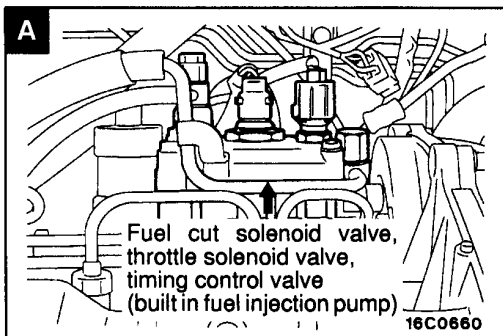
SOLENOID VALVE

<4D68 – SPACE RUNNER>

Name	Symbol	Name	Symbol
EGR solenoid valve	B	Throttle solenoid valve	B
Electromagnetic spill valve	A	Timing control valve	A
Fuel cut solenoid valve	A		



16C0544



CIRCUIT DIAGRAM

CONTENTS

STARTING SYSTEM

Diesel-powered vehicles
<SPACE RUNNER> 4-2

GLOW SYSTEM

SPACE RUNNER 4-3

MPI SYSTEM

4G93 <L.H. drive vehicles> 4-4

4G93 <R.H. drive vehicles> 4-10

4G93
<Vehicles with immobilizer system> 4-16

4G63 <L.H. drive vehicles> 4-22

4G63 <R.H. drive vehicles> 4-28

4G63
<Vehicles with immobilizer system> 4-34

ENGINE CONTROL SYSTEM

4D68 <SPACE RUNNER> 4-40

COOLING SYSTEM

4D68 <SPACE RUNNER> 4-45

METER AND GAUGE

4D68 <SPACE RUNNER> 4-46

BRAKE WARNING LAMP

4D68 <SPACE RUNNER> 4-48

FUEL FILTER WARNING LAMP

4D68 <SPACE RUNNER> 4-48

ENGINE COOLANT TEMPERATURE WARNING LAMP

4D68 <SPACE RUNNER> 4-48

HEATER AND AIR CONDITIONER

4D68 <SPACE RUNNER> 4-50

ANTI-LOCK BRAKE SYSTEM (ABS) 4-54

SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

L.H. drive vehicles 4-58

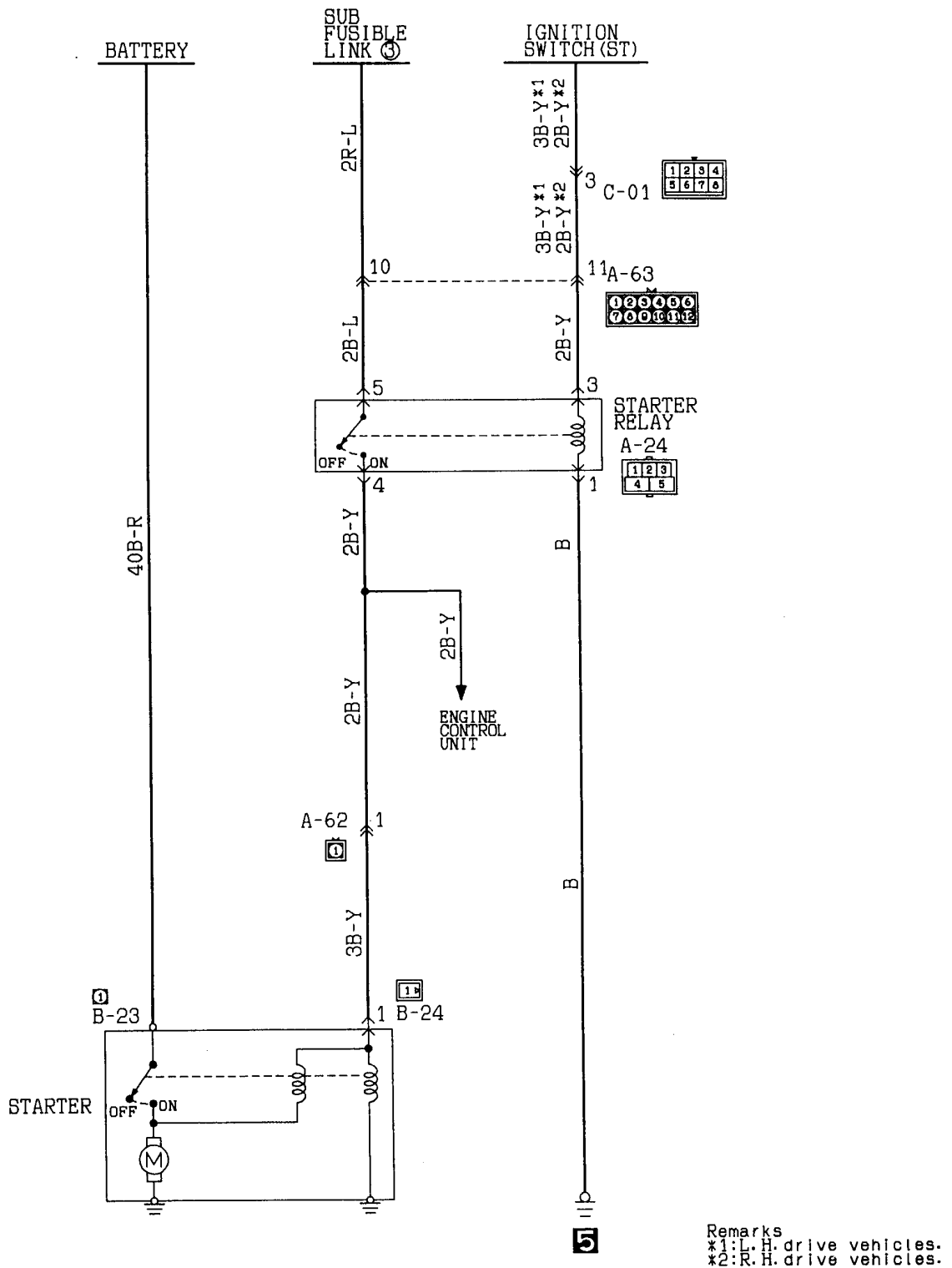
R.H. drive vehicles 4-60

IMMOBILIZER SYSTEM

Petrol-power vehicles 4-62

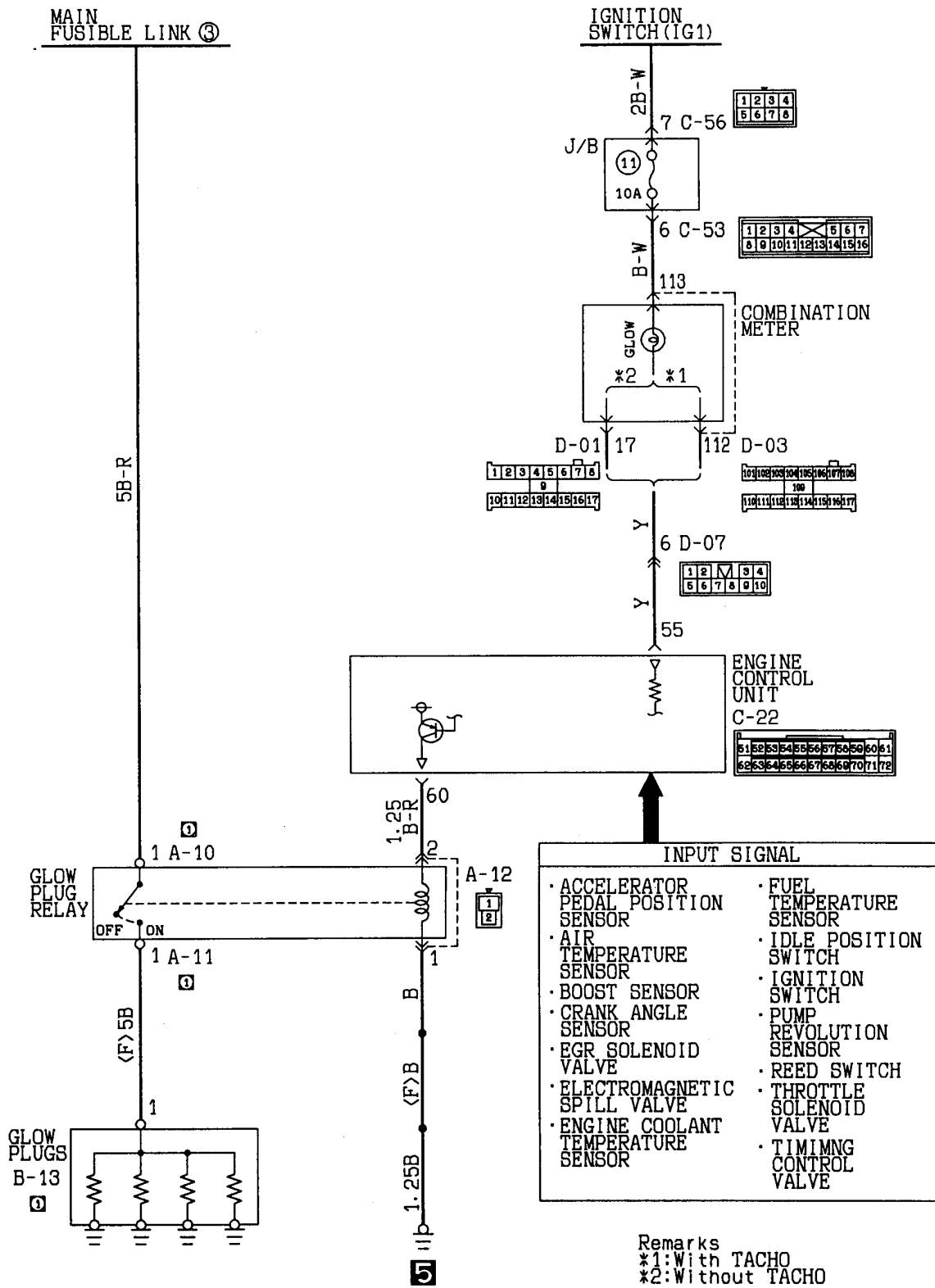
Diesel-powered vehicles
<SPACE RUNNER> 4-64

STARTING SYSTEM
Diesel-powered vehicles <SPACE RUNNER>



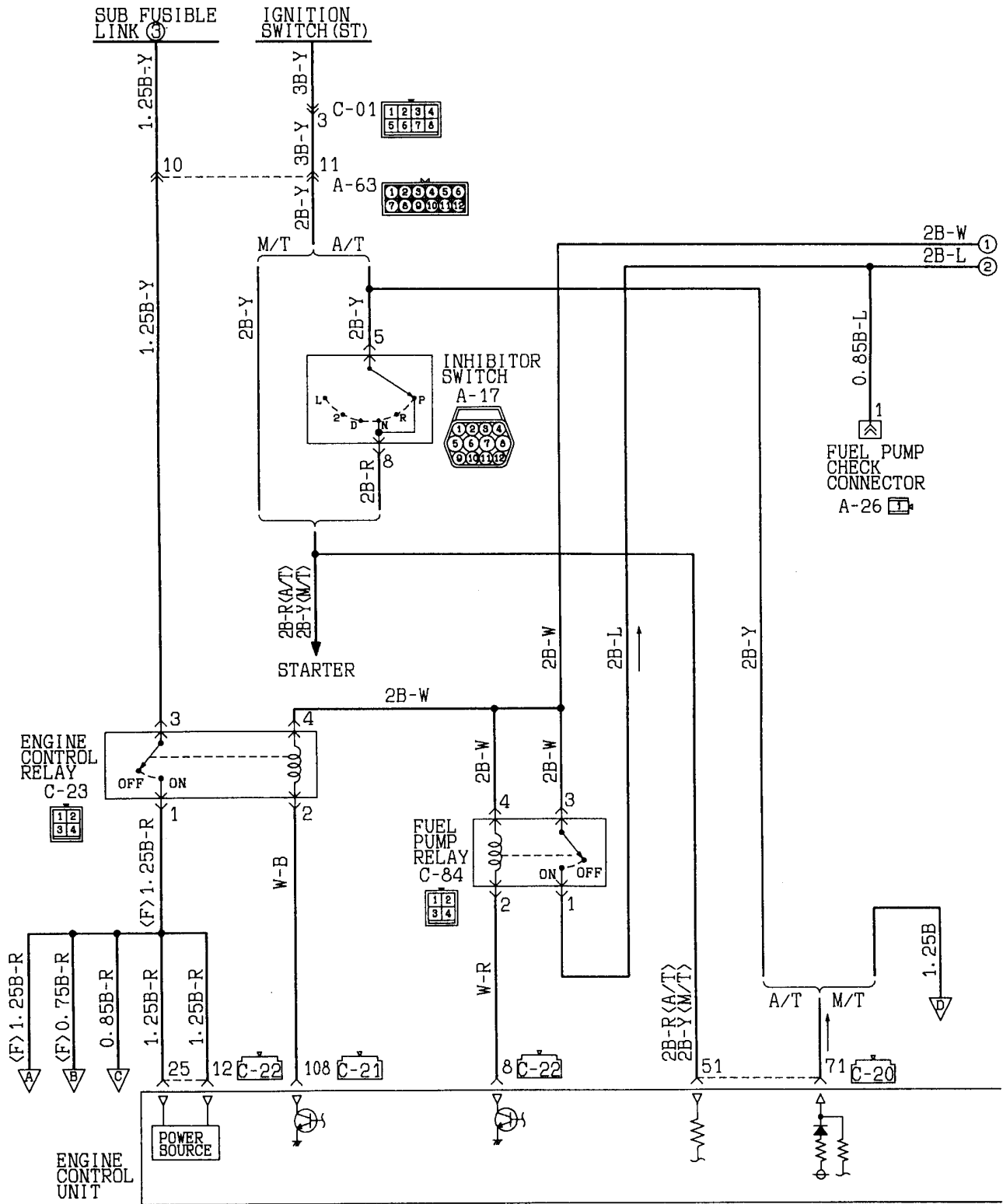
Wire colour code
 B:Black LG:Light green G:Green L:Blue W:White Y:Yellow BB:Sky blue
 BR:Brown O:Orange GR:Gray R:Red P:Pink V:Violet

GLOW SYSTEM
SPACE RUNNER



Wire colour code
B:Black LG:Light green G:Green L:Blue W:White Y:Yellow SB:Sky blue
BR:Brown O:Orange GR:Gray R:Red P:Pink V:Violet

MPI SYSTEM
4G93 <L.H. drive vehicles>



C-22

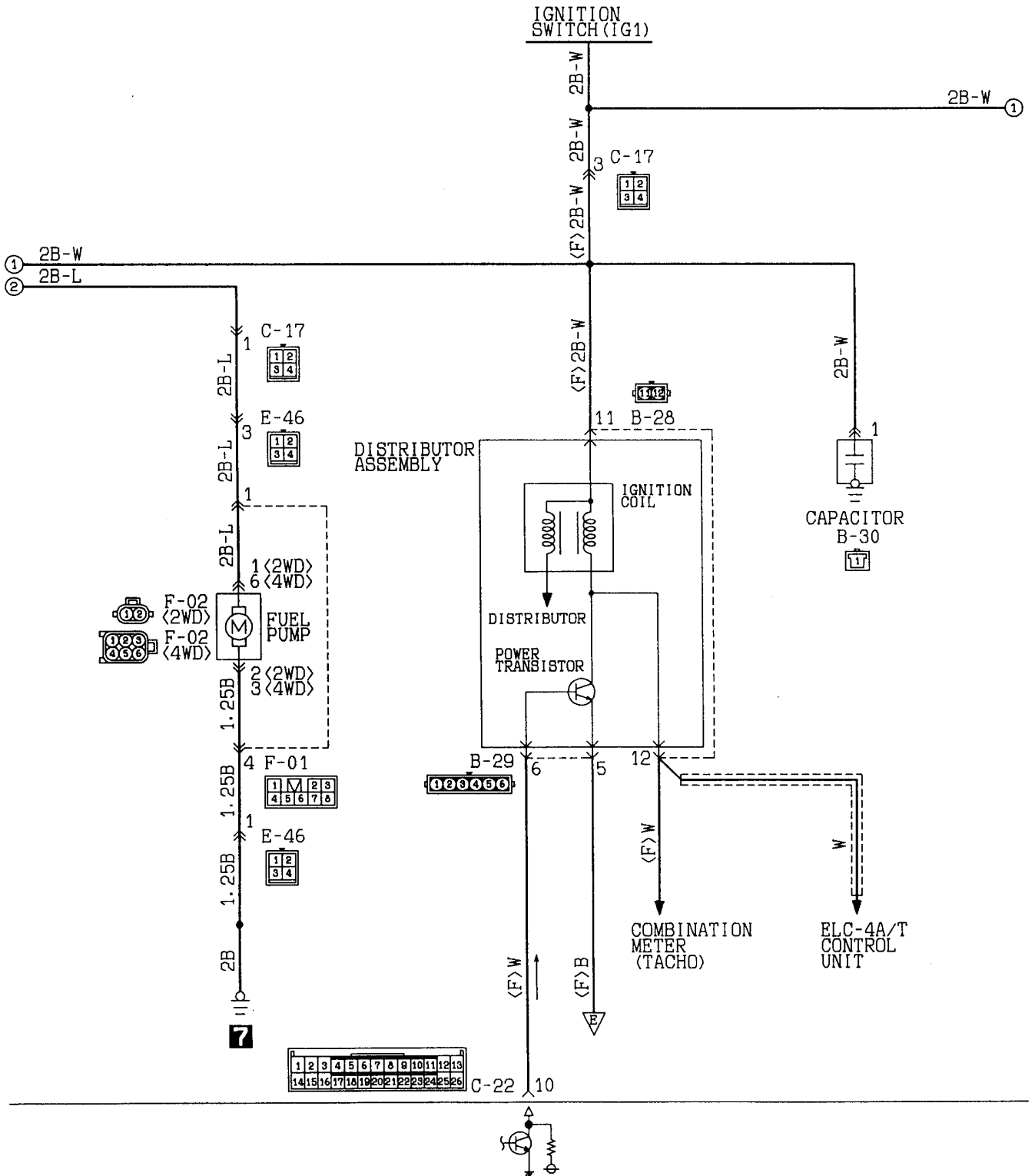
1	2	3	4	5	6	7	8	9	10	11	12	13
14	15	16	17	18	19	20	21	22	23	24	25	26

C-21

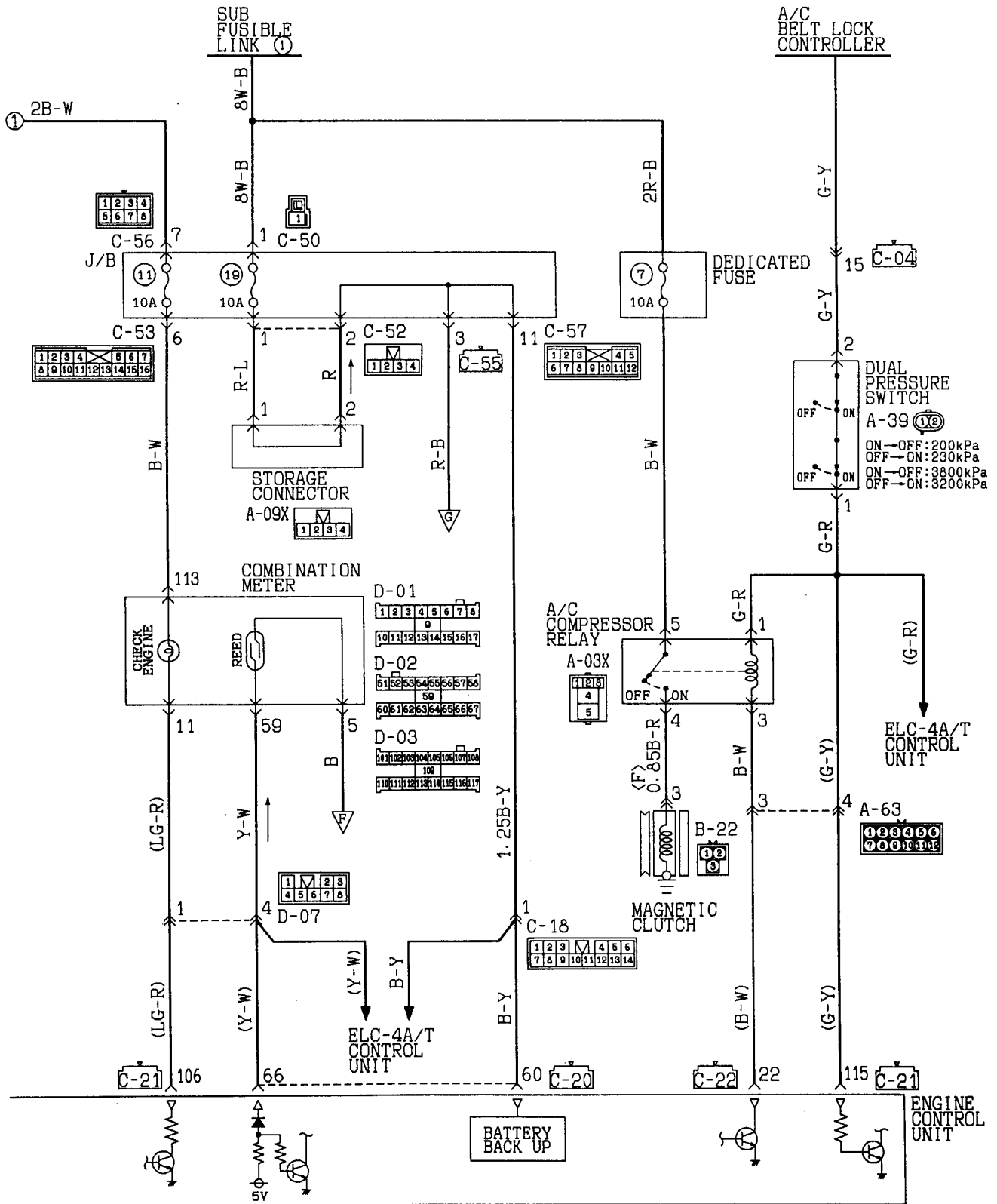
101	102	103	104	105	106	107	108
109	110	111	112	113	114	115	116

C-20

51	52	53	54	55	56	57	58	59	60	61
62	63	64	65	66	67	68	69	70	71	72



Wire colour code
 B:Black LG:Light green G:Green L:Blue W:White Y:Yellow SB:Sky blue
 BR:Brown O:Orange GR:Gray R:Red P:Pink V:Violet



C-22

1	2	3	4	5	6	7	8	9	10	11	12	13
14	15	16	17	18	19	20	21	22	23	24	25	26

C-21

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----

C-20

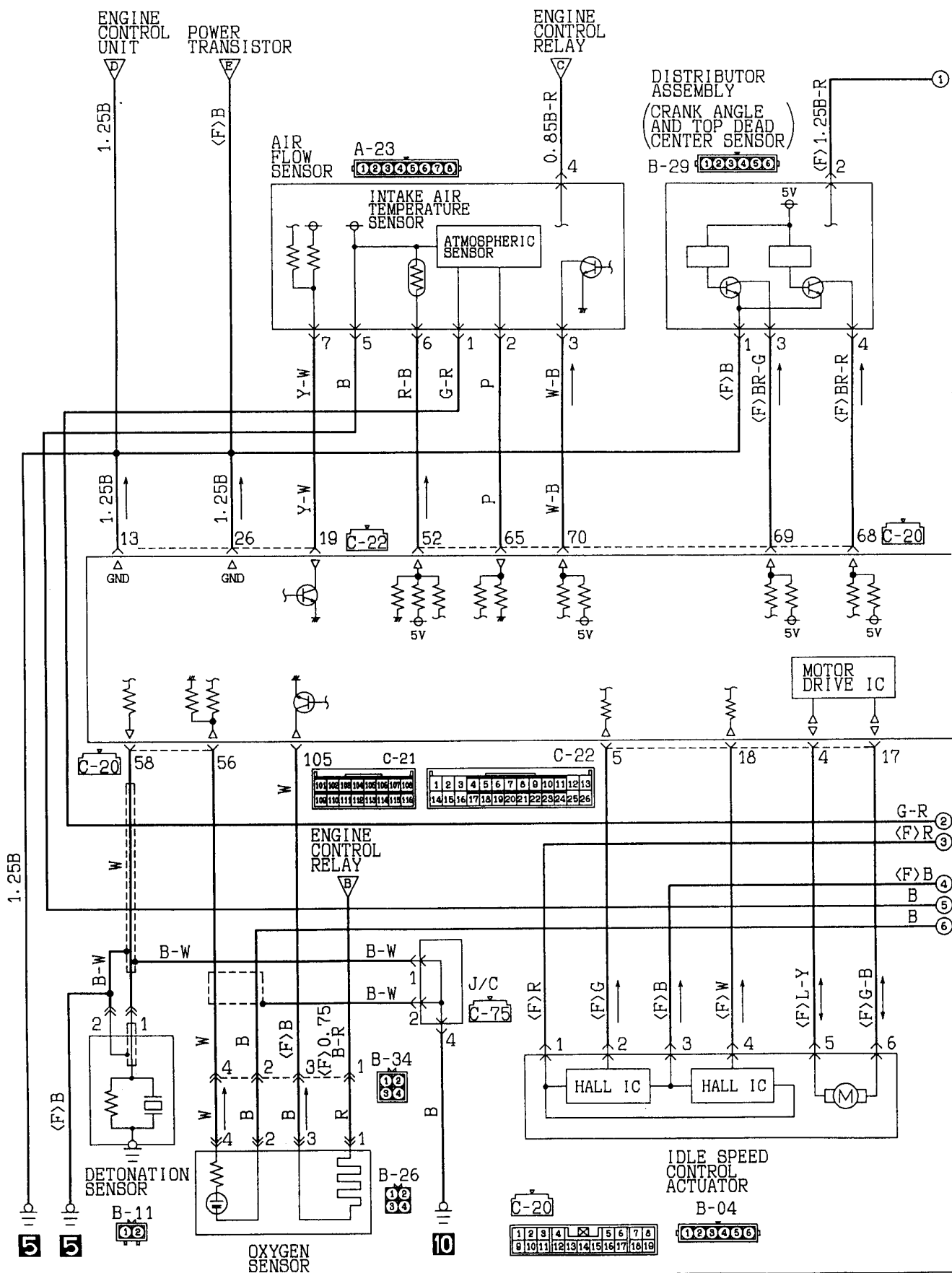
5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
---	---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

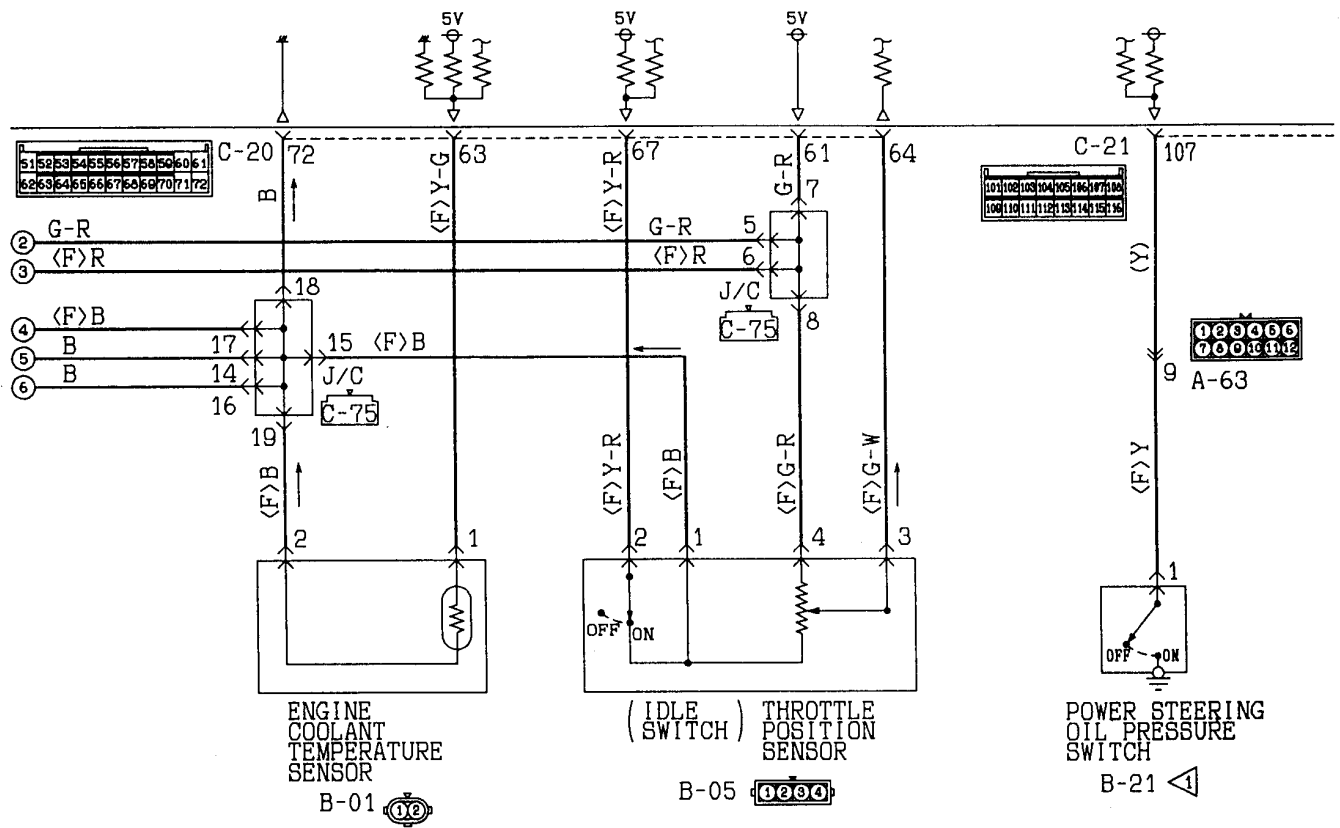
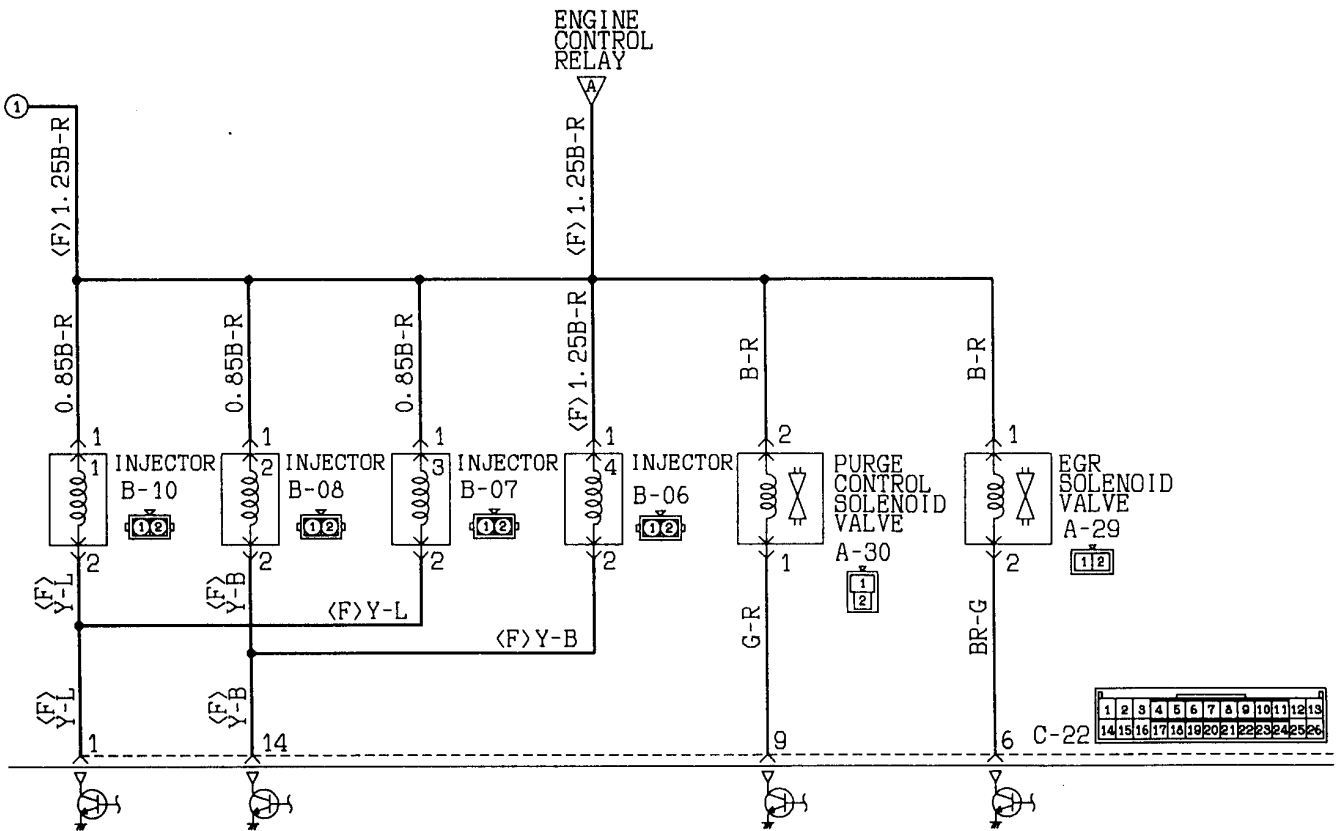
C-04

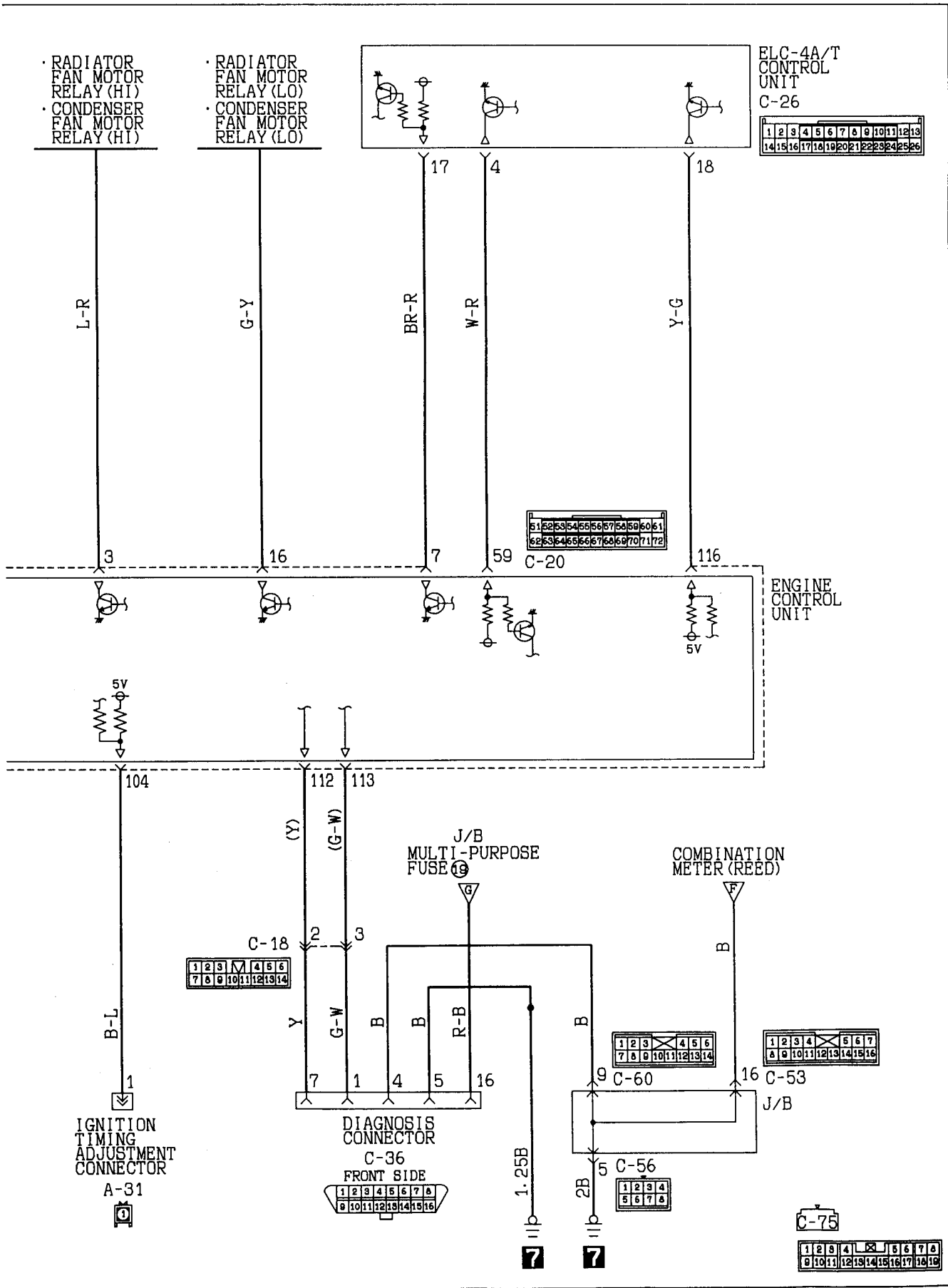
1	2	3	4	5	M	6	7	8	9	10	
11	12	13	14	15	16	17	18	19	20	21	22

C-55

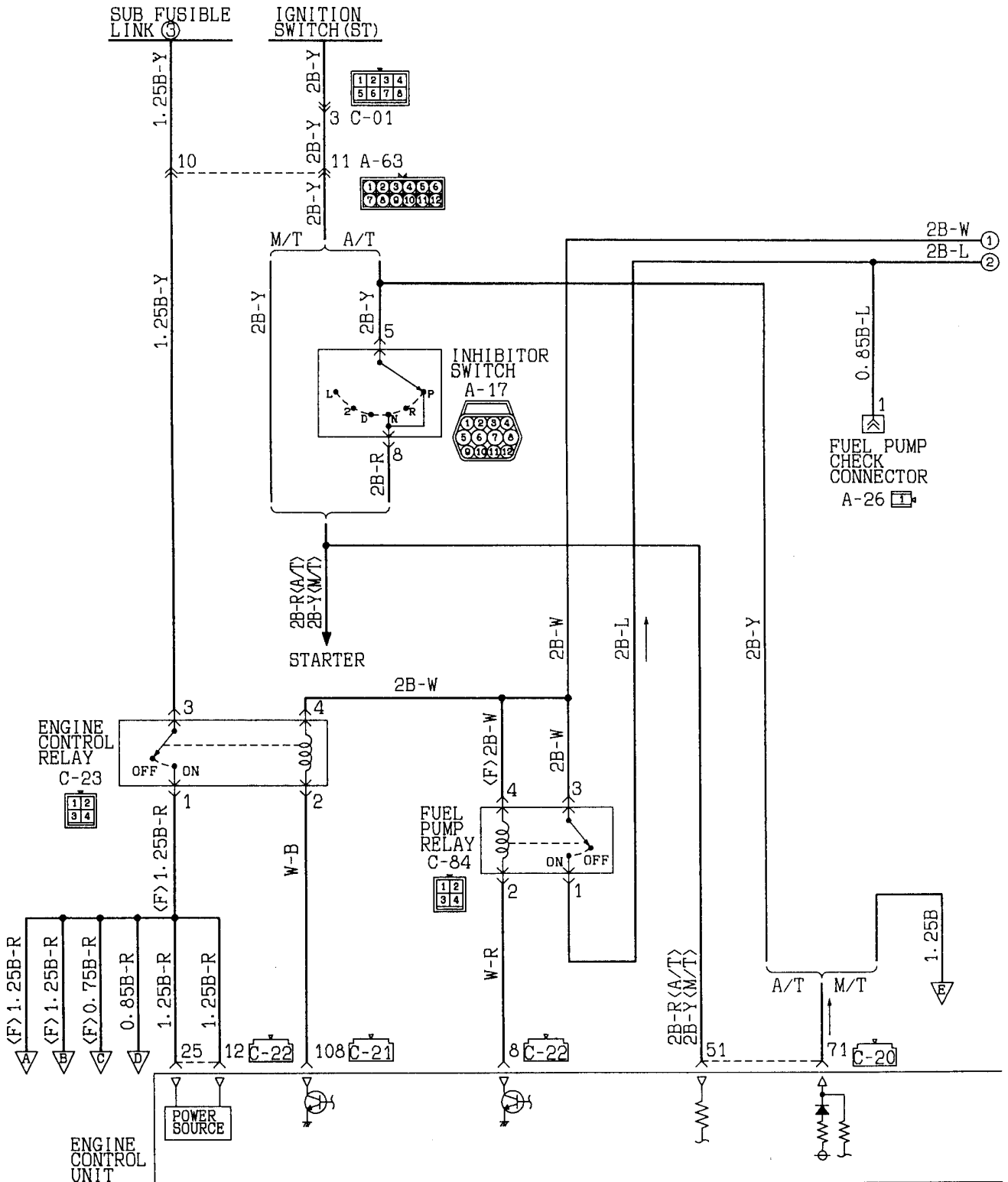
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20







MPI SYSTEM
4G93 <R. H. drive vehicles>



C-22

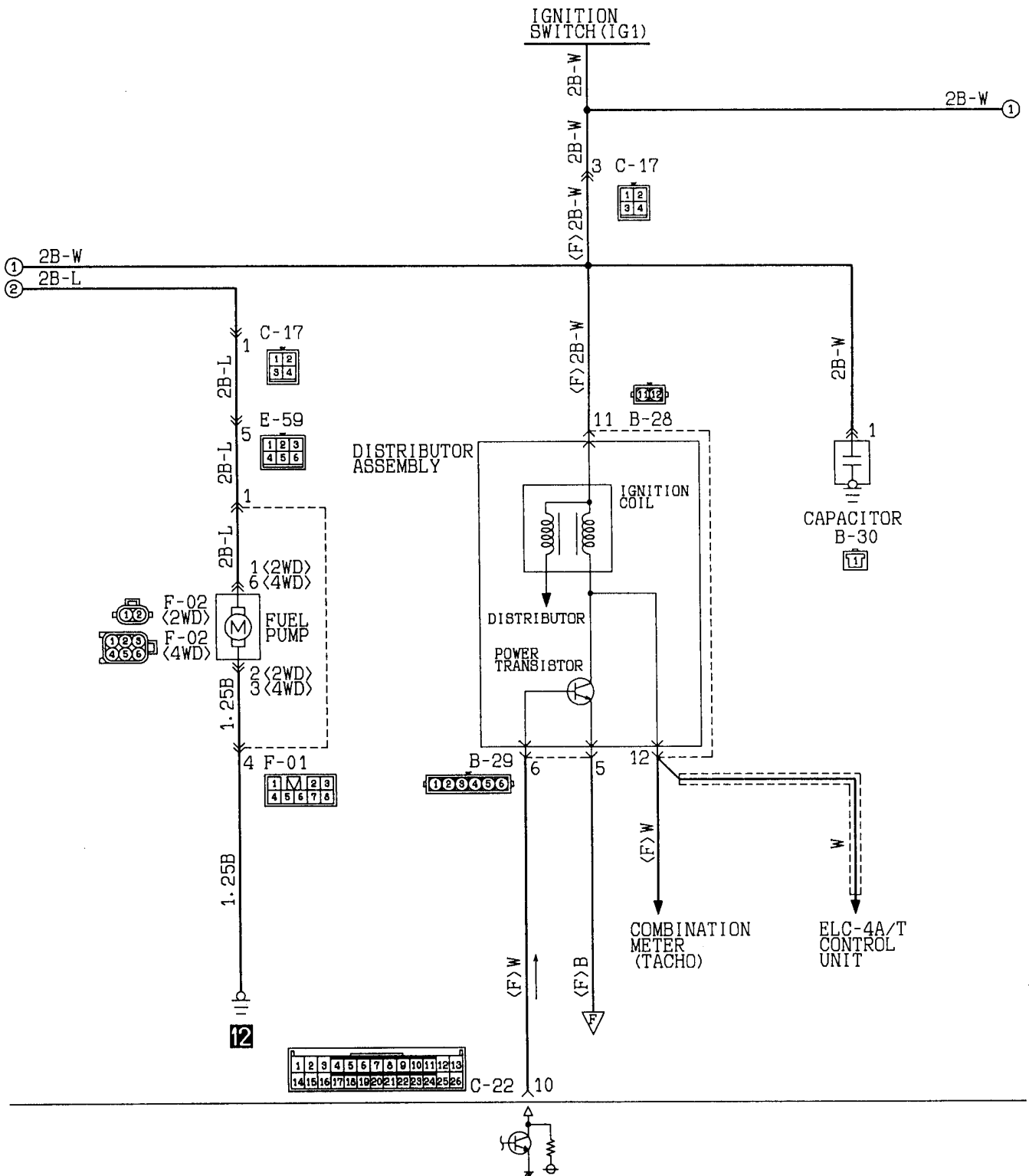
1	2	3	4	5	6	7	8	9	10	11	12	13
14	15	16	17	18	19	20	21	22	23	24	25	26

C-21

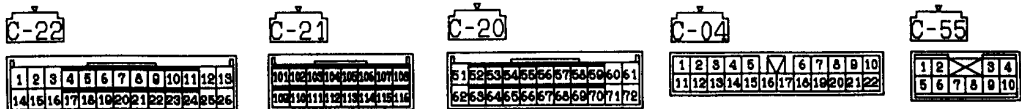
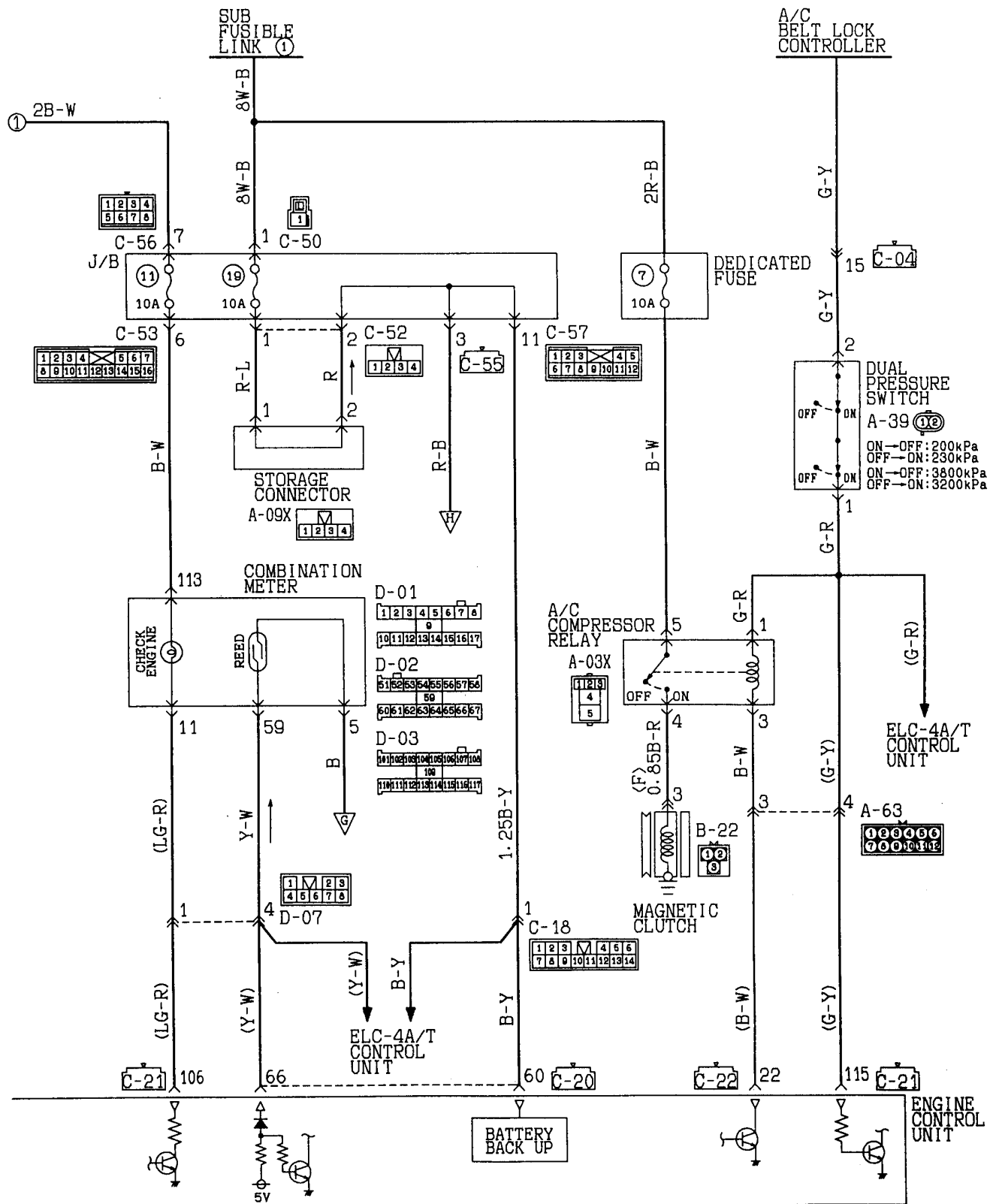
101	102	103	104	105	106	107	108
109	110	111	112	113	114	115	116

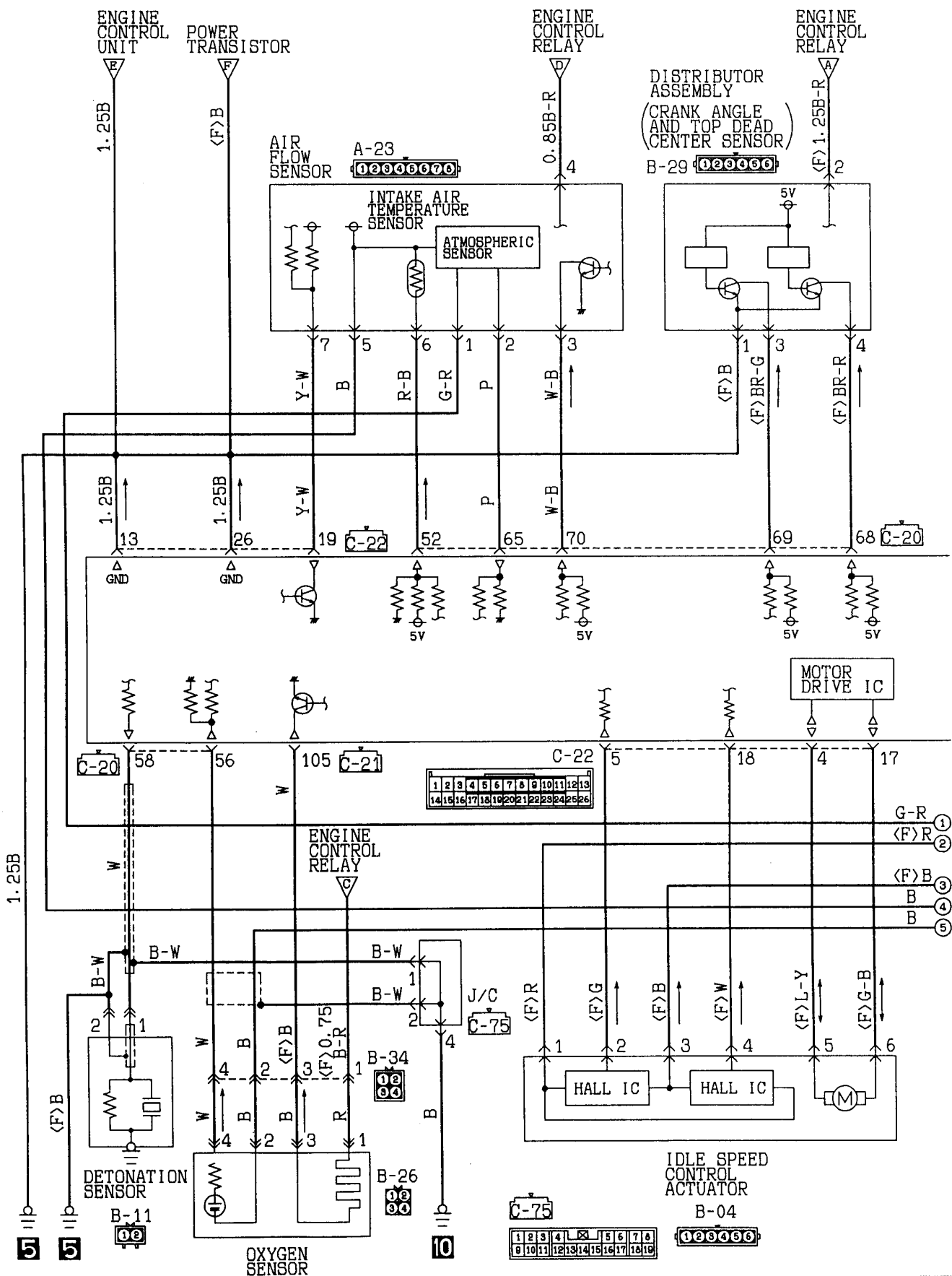
C-20

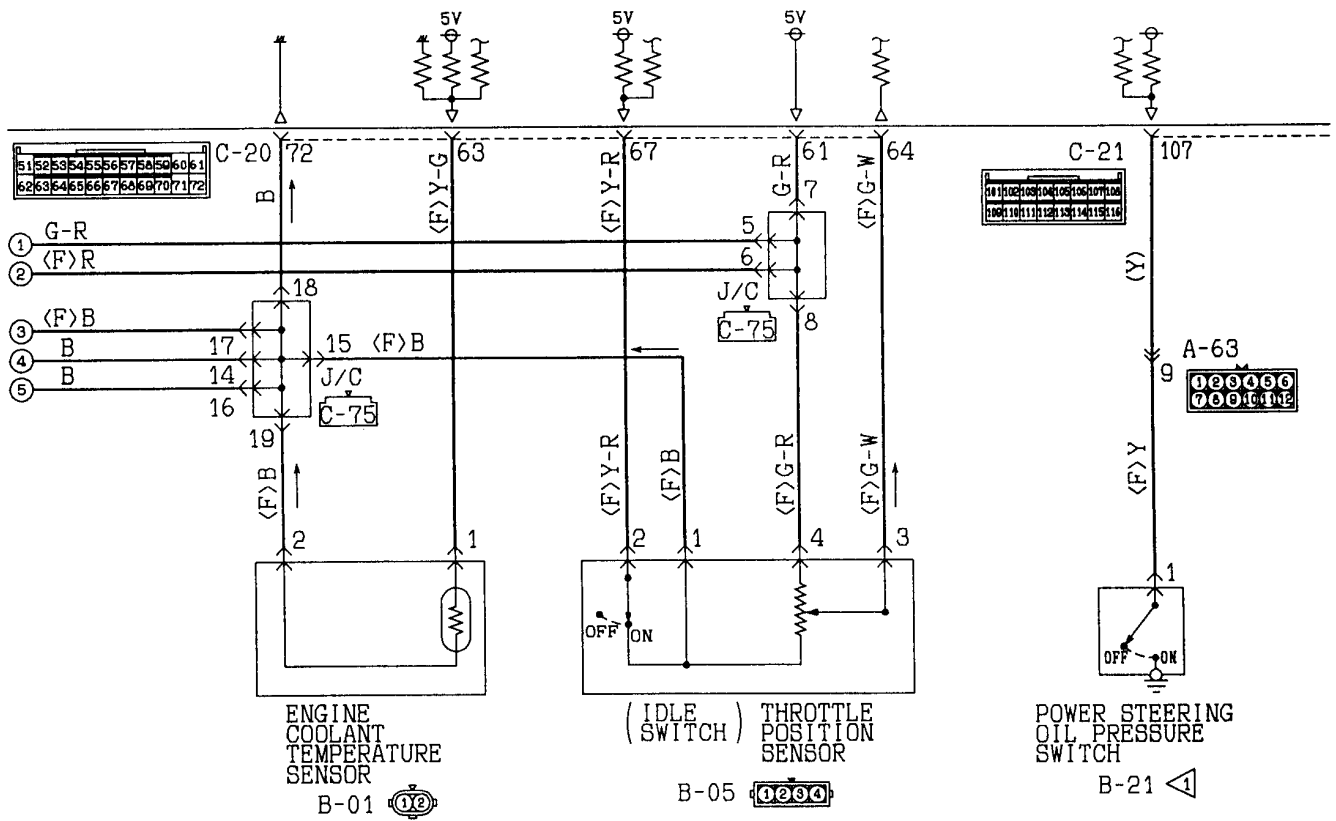
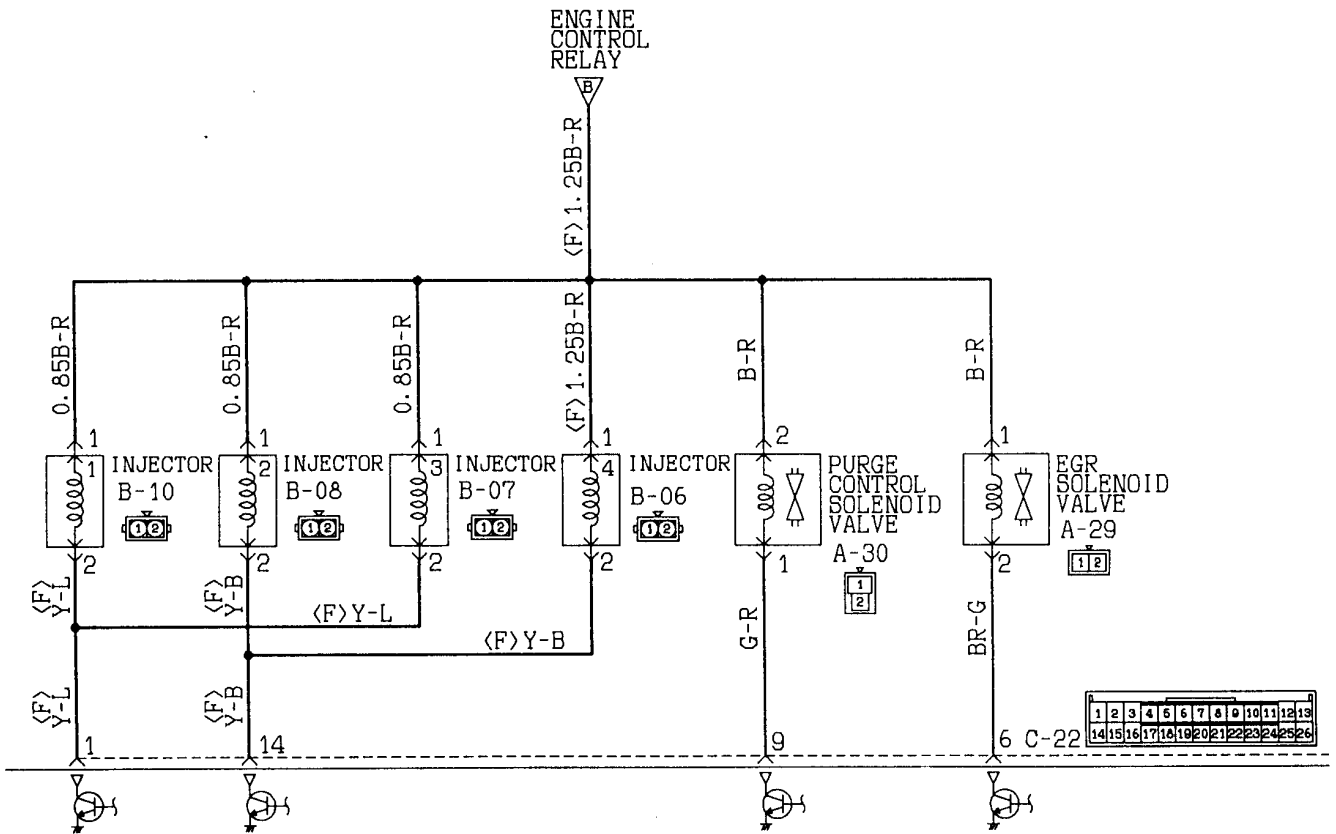
51	52	53	54	55	56	57	58	59	60	61
62	63	64	65	66	67	68	69	70	71	72

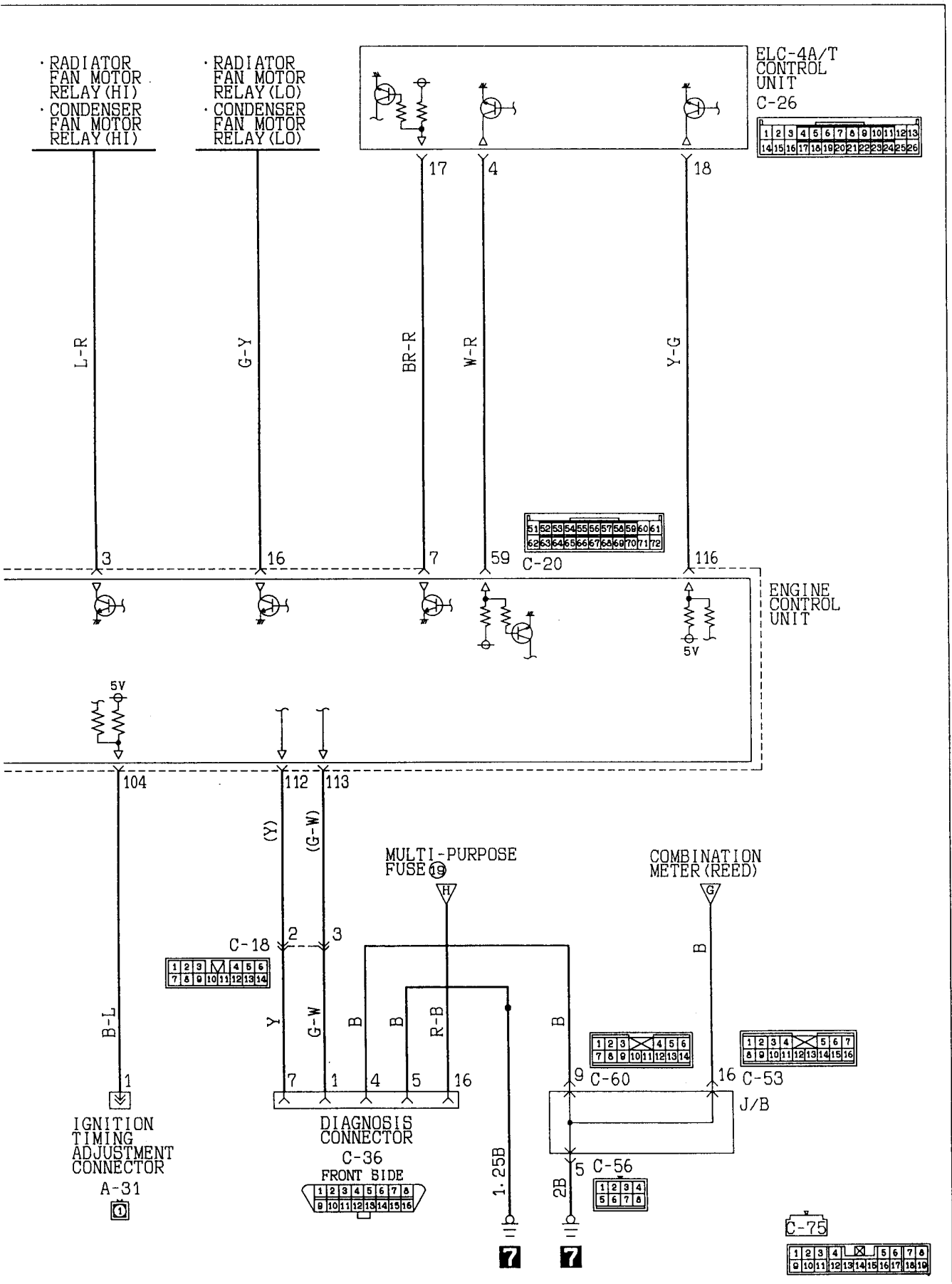


Wire colour code
 B:Black LG:Light green G:Green L:Blue W:White Y:Yellow SB:Sky blue
 BR:Brown O:Orange GR:Gray R:Red P:Pink V:Violet

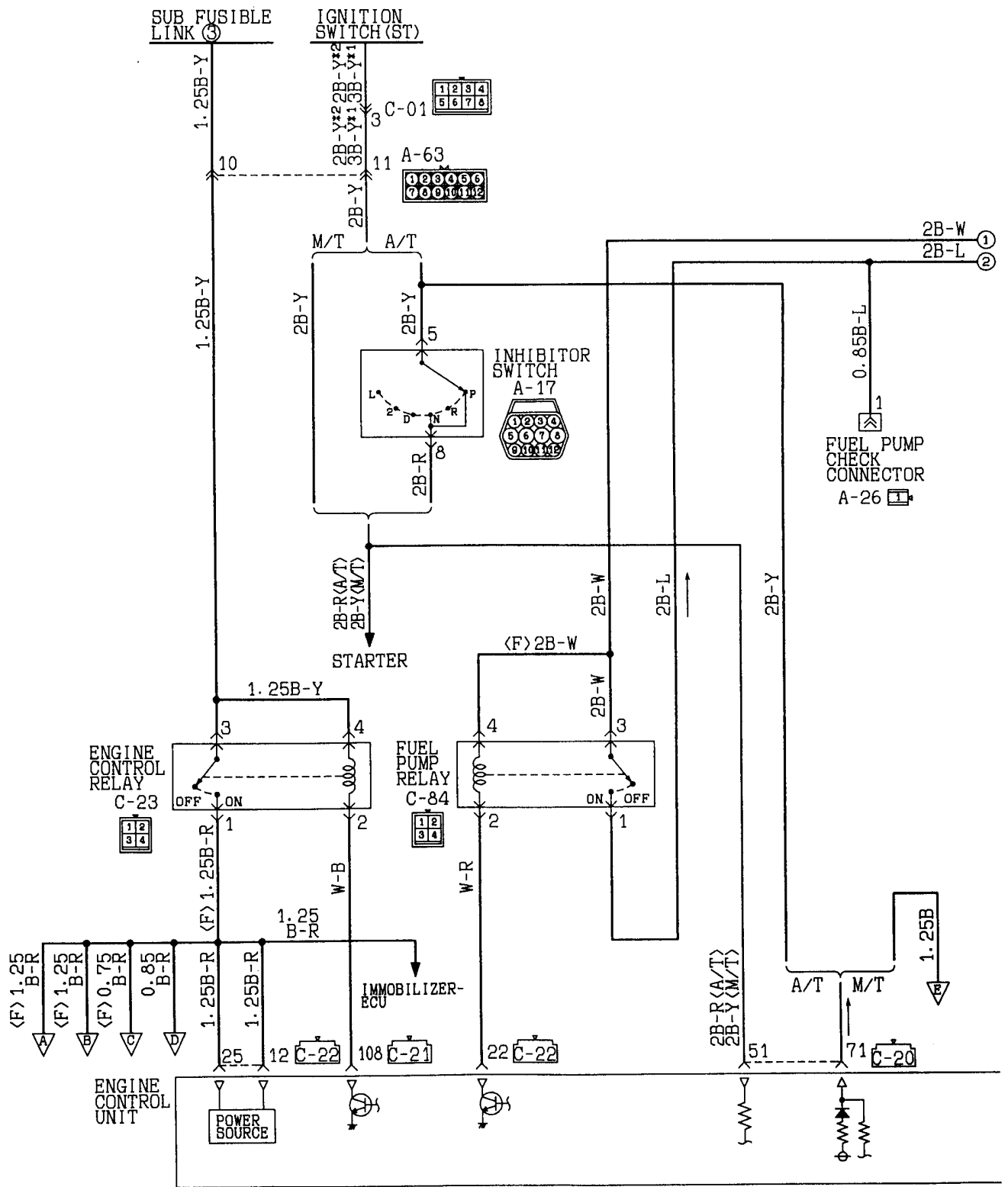








MPI SYSTEM
4G93 <Vehicles with immobilizer system>



Remarks
 *1: L.H. drive vehicles
 *2: R.H. drive vehicles

C-22

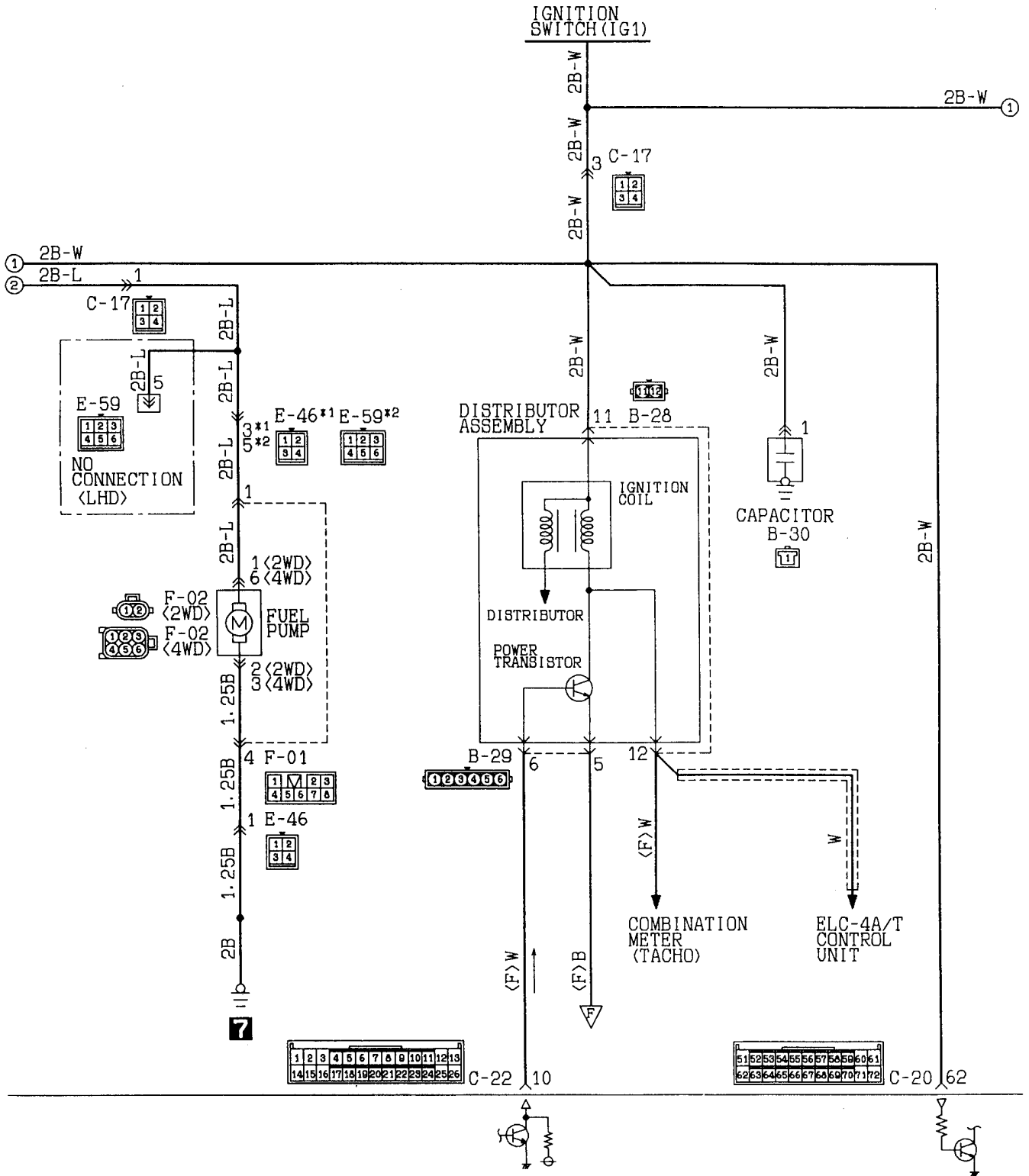
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24	25	26				

C-21

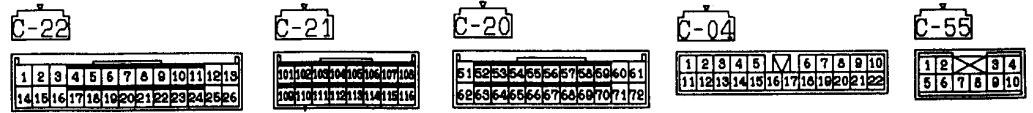
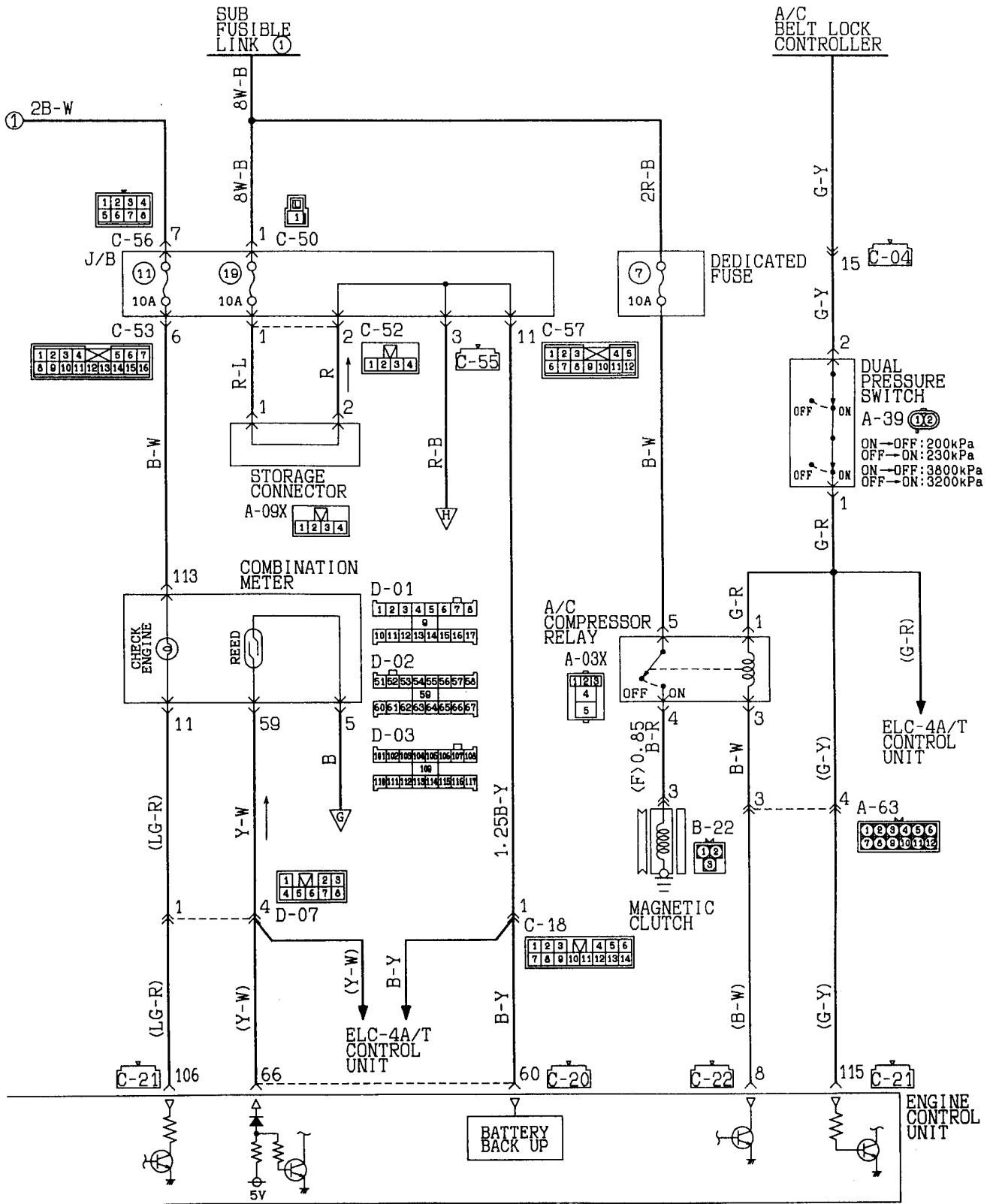
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116				

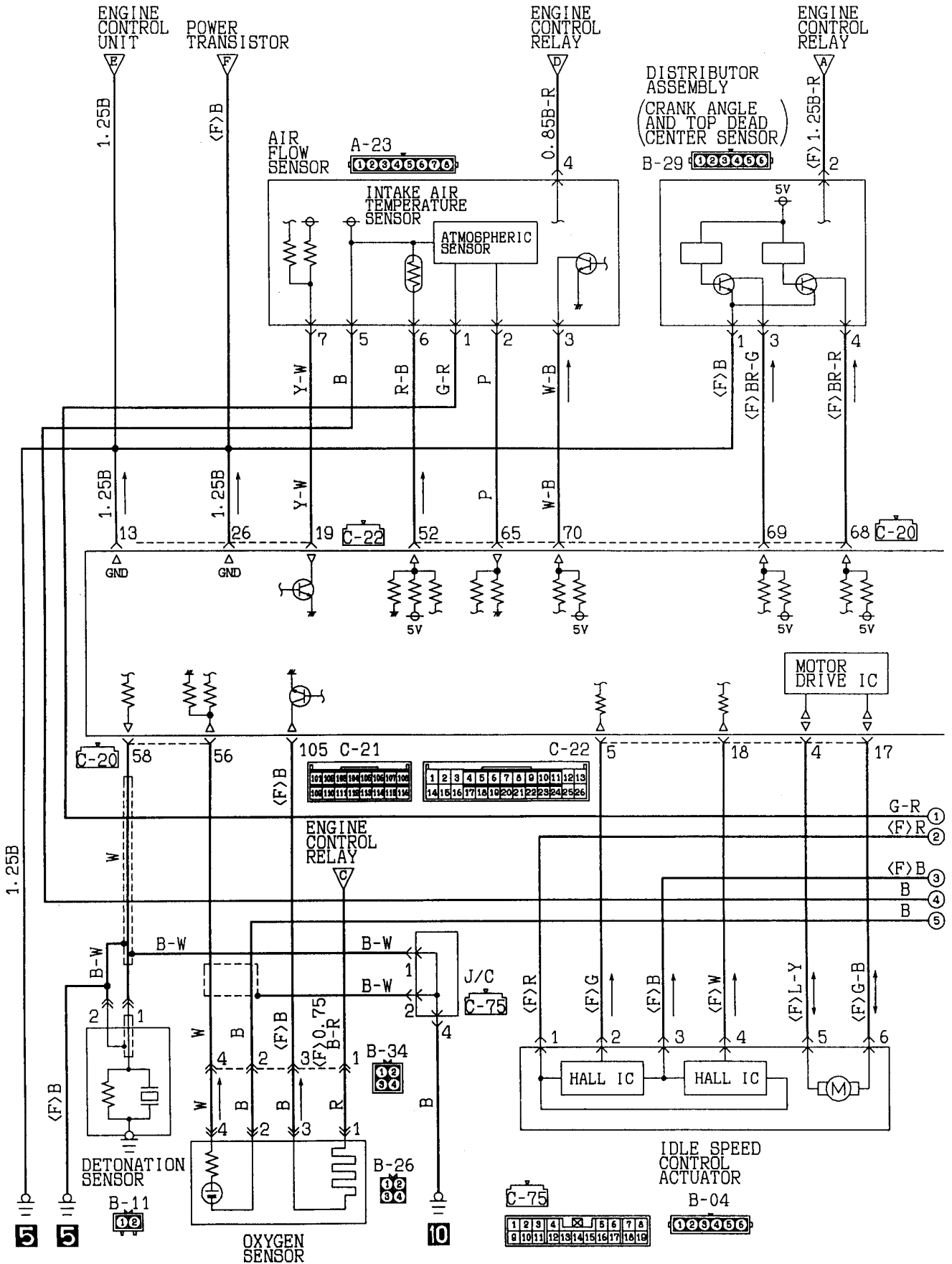
C-20

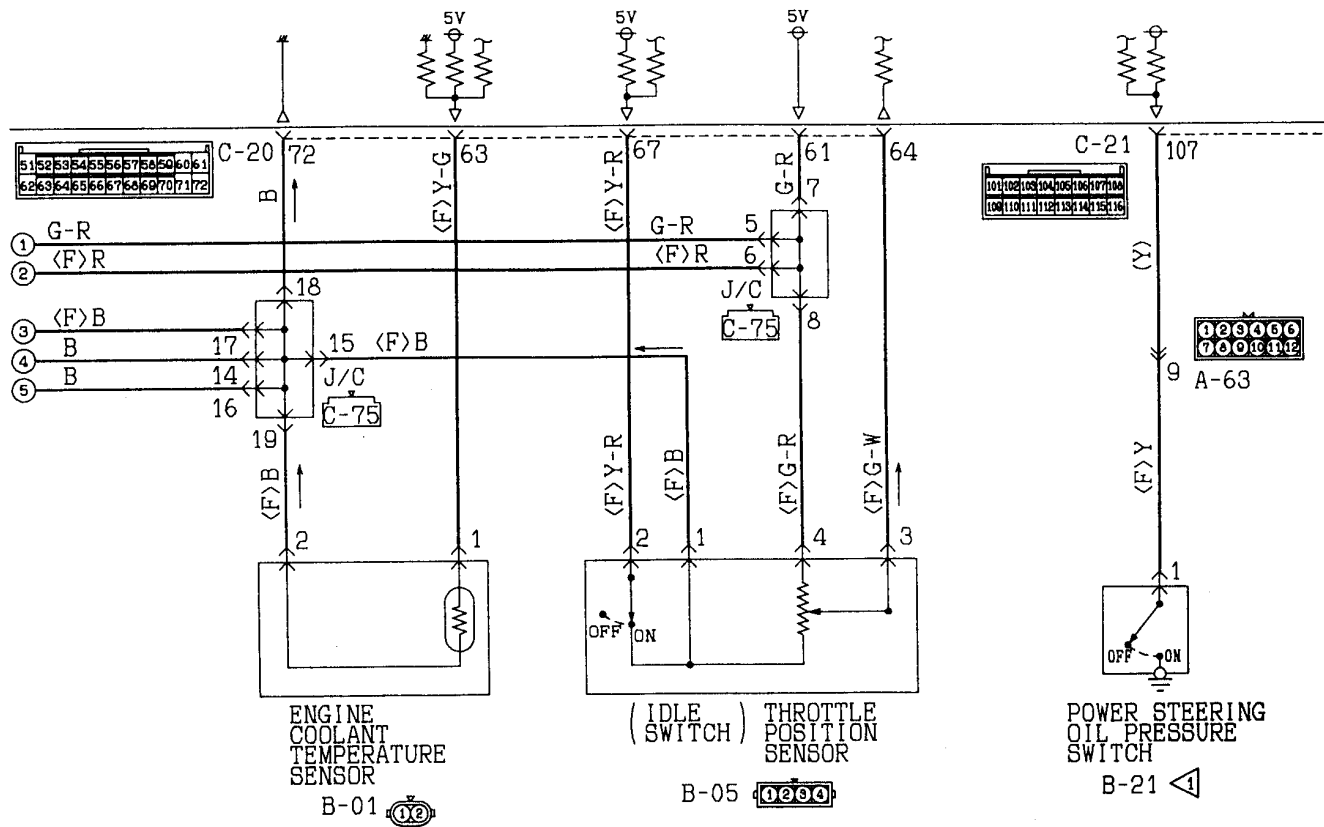
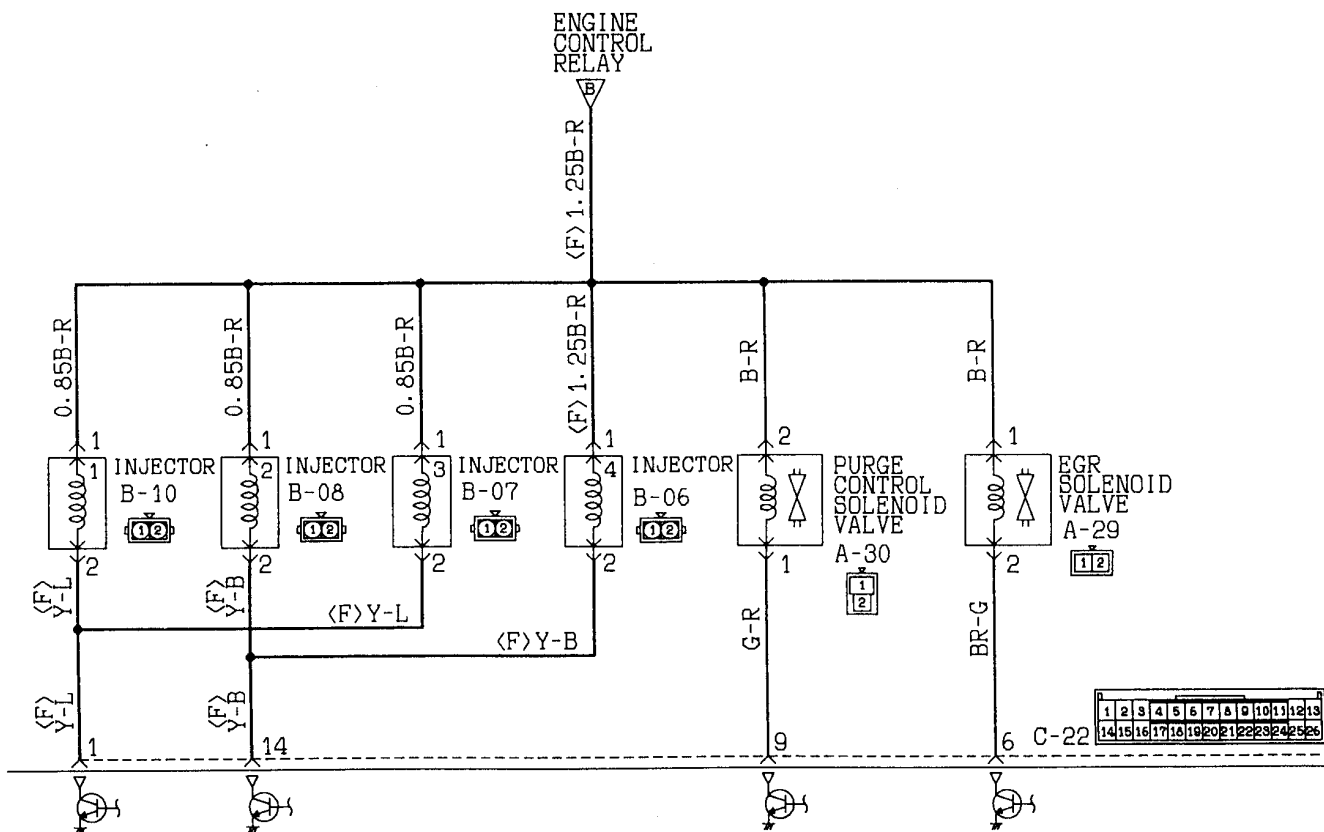
51	52	53	54	55	56	57	58	59	60	61
62	63	64	65	66	67	68	69	70	71	72

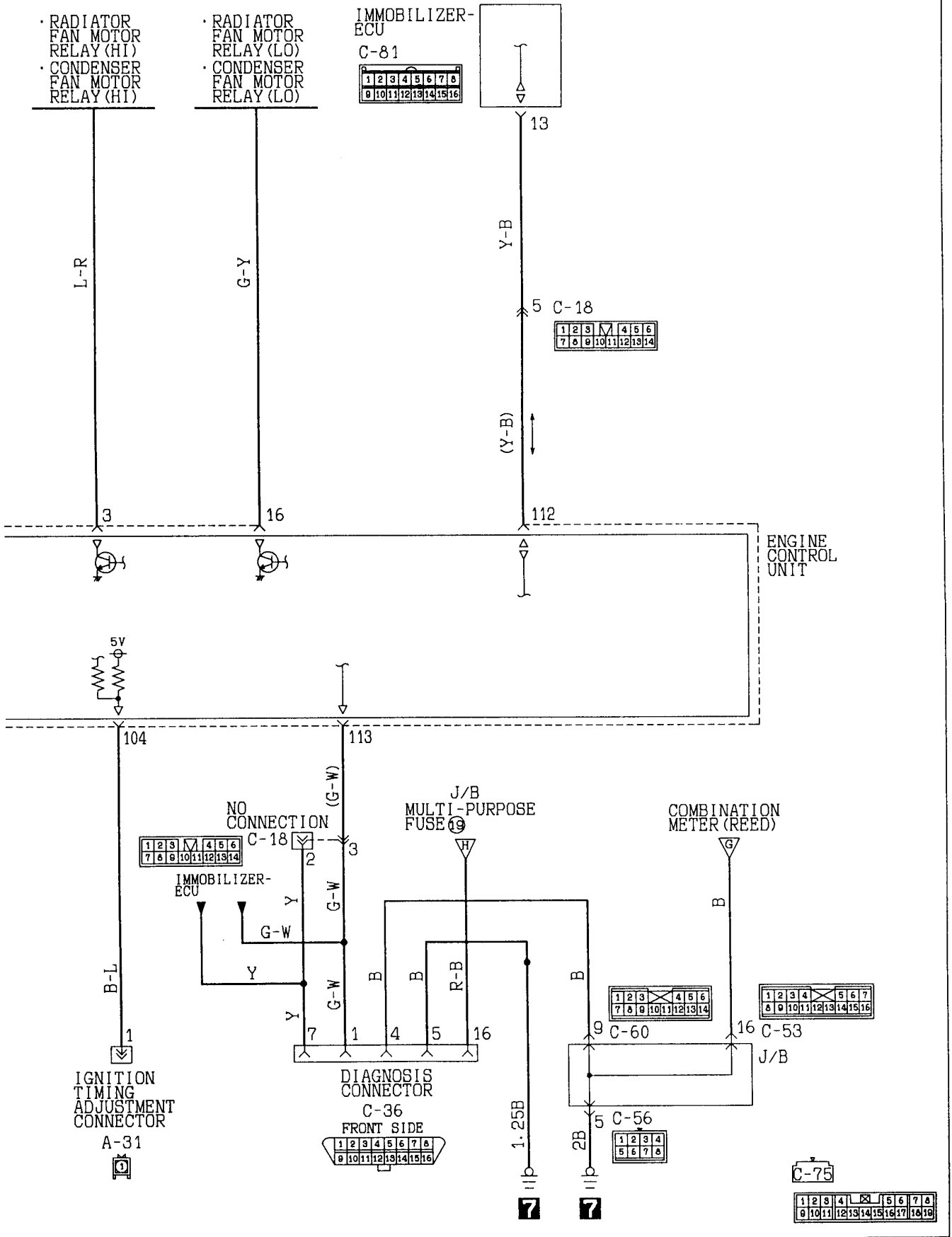


Wire colour code
 B:Black LG:Light green G:Green L:Blue W:White Y:Yellow SB:Sky blue
 BR:Brown O:Orange GR:Gray R:Red P:Pink V:Violet

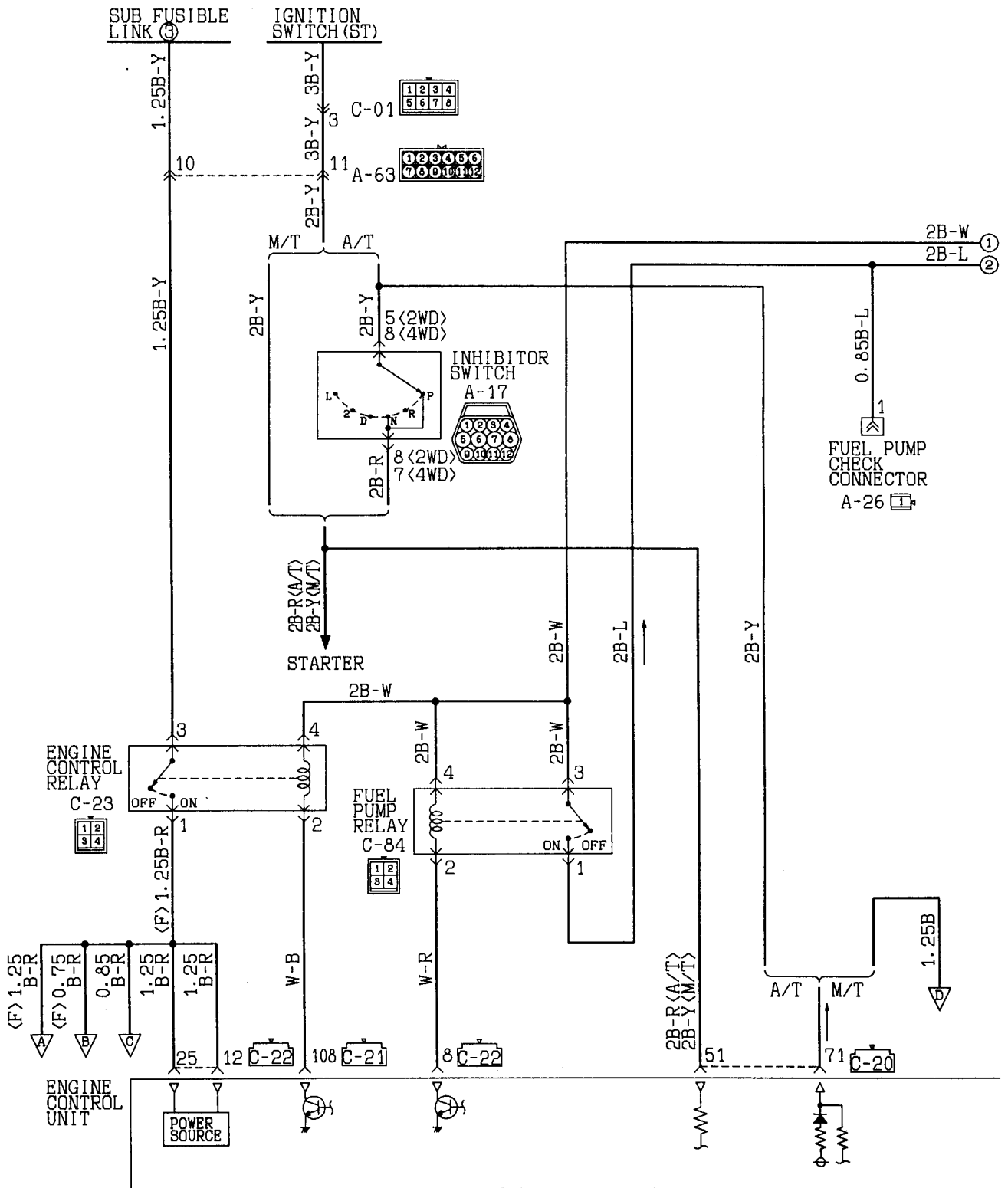








MPI SYSTEM
4G63<L.H. drive vehicles>



C-22

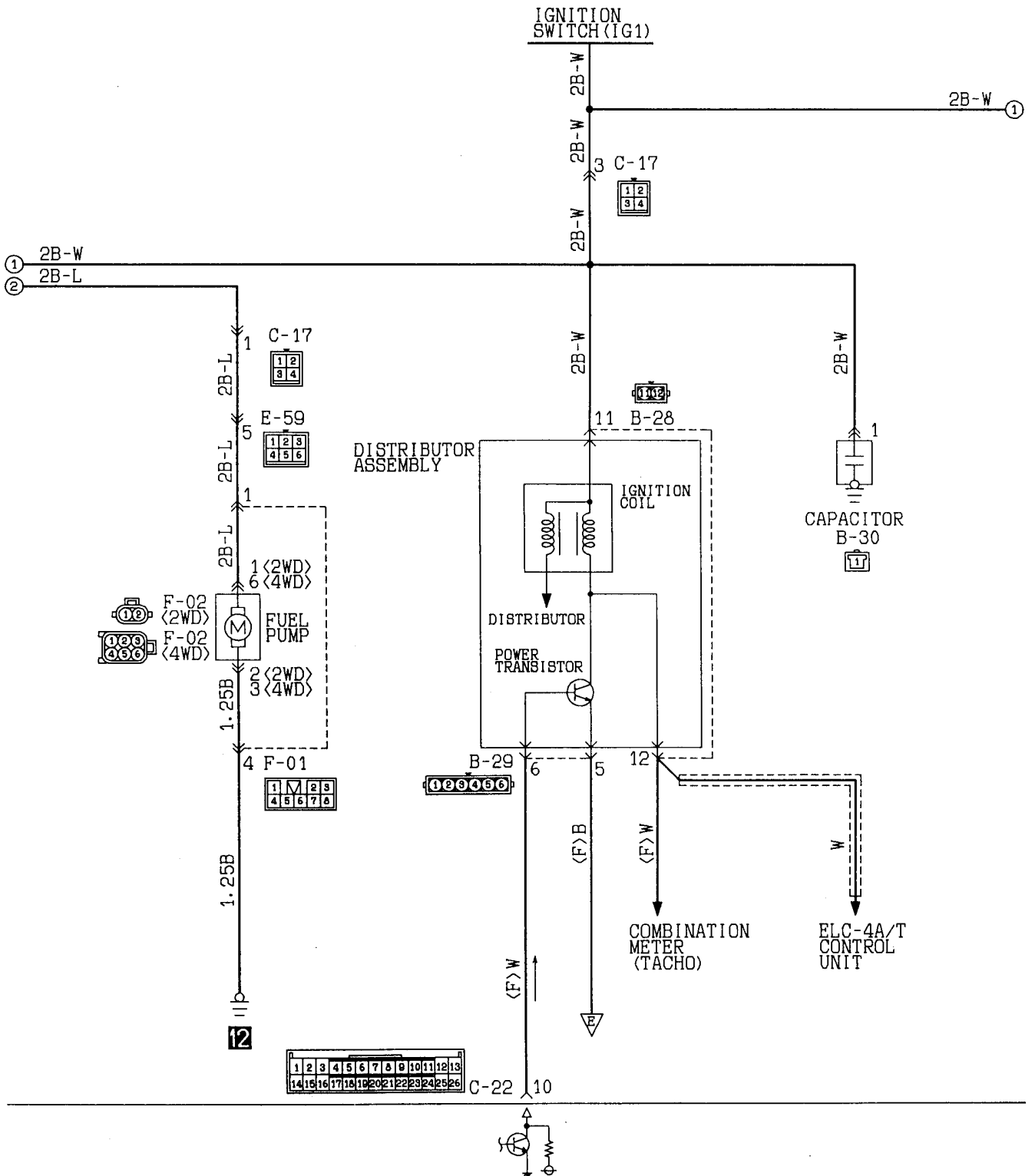
1	2	3	4	5	6	7	8	9	10	11	12	13
14	15	16	17	18	19	20	21	22	23	24	25	26

C-21

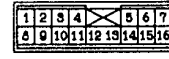
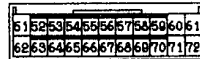
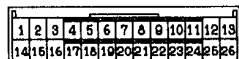
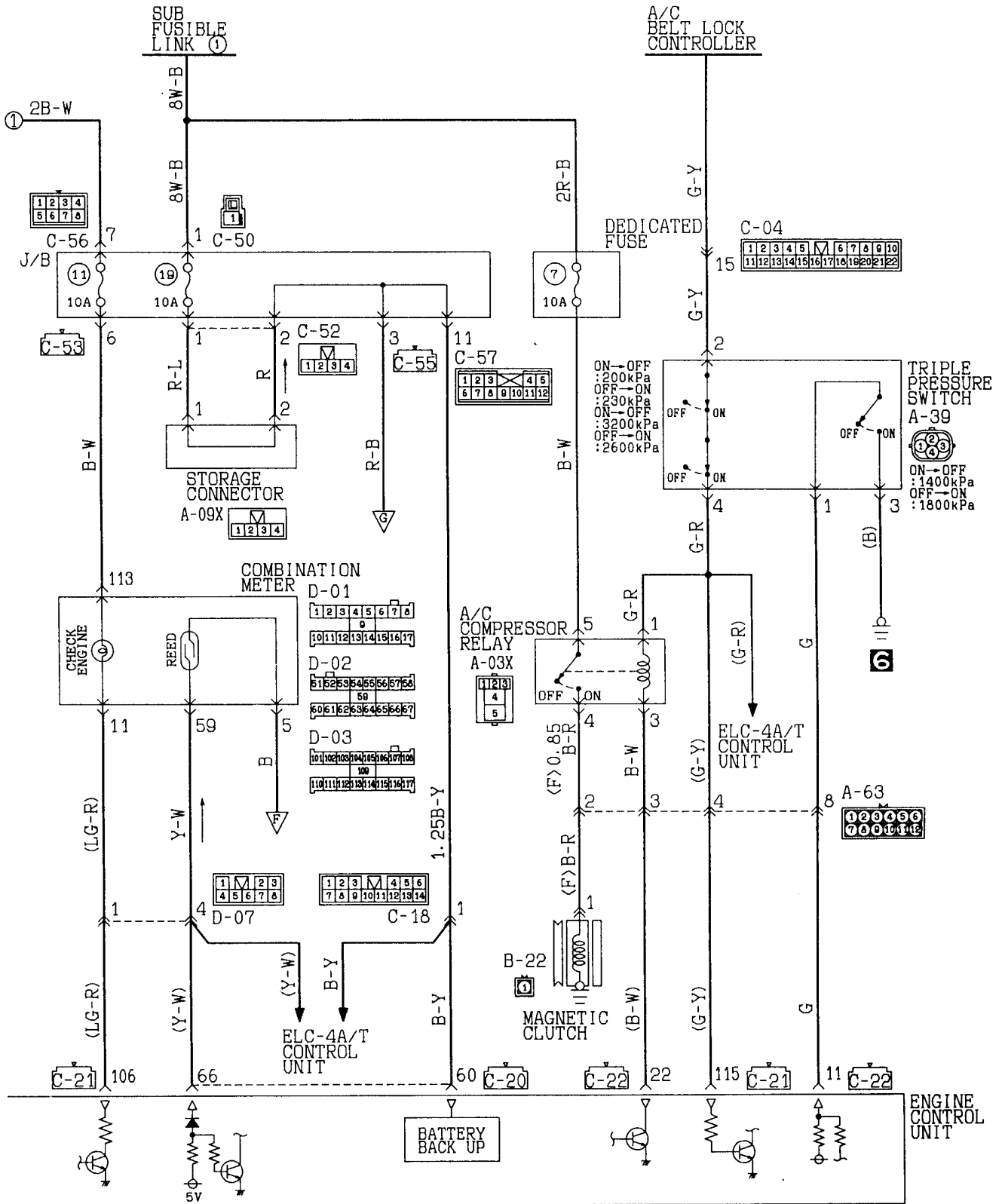
101	102	103	104	105	106	107	108
109	110	111	112	113	114	115	116

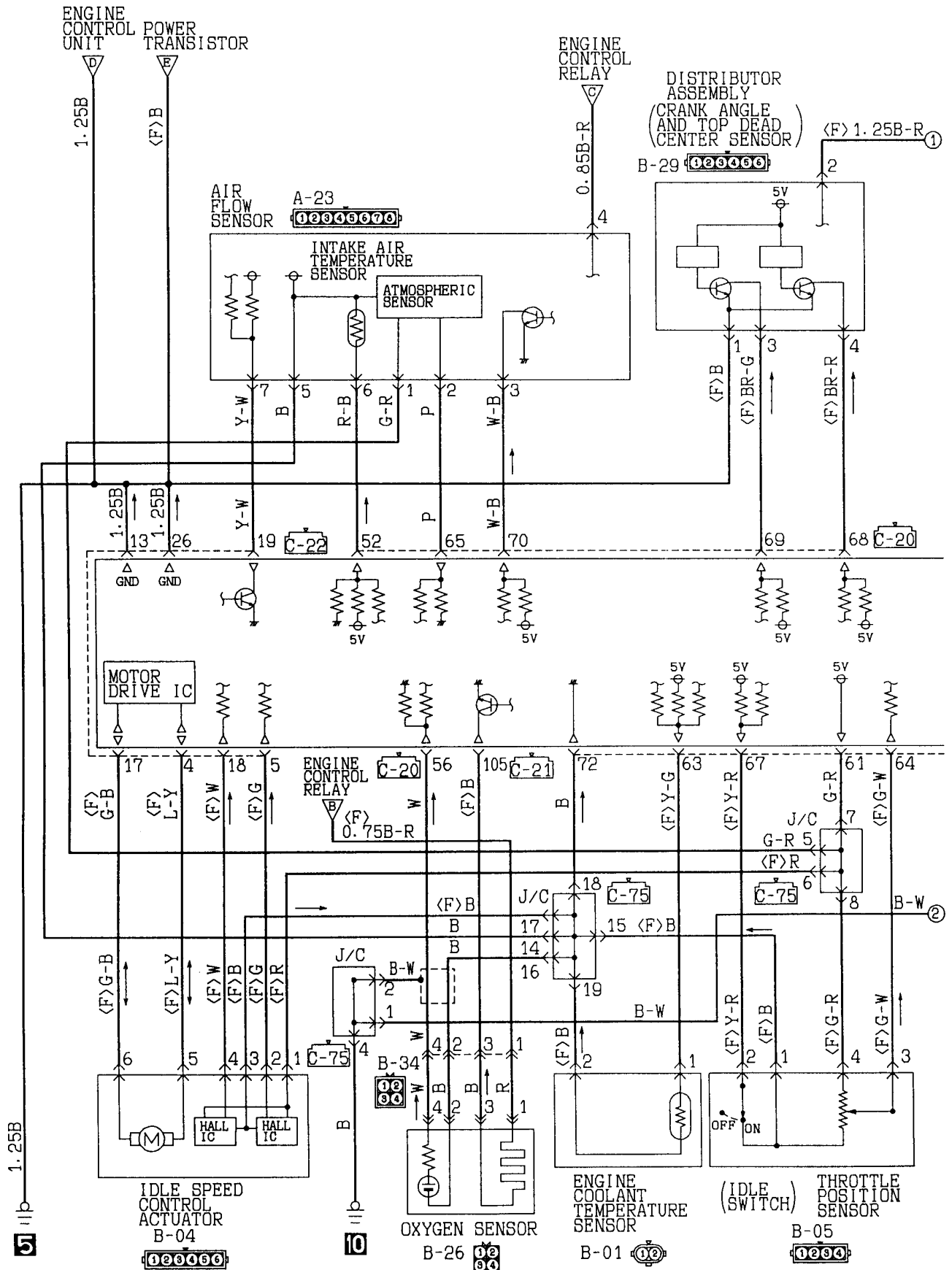
C-20

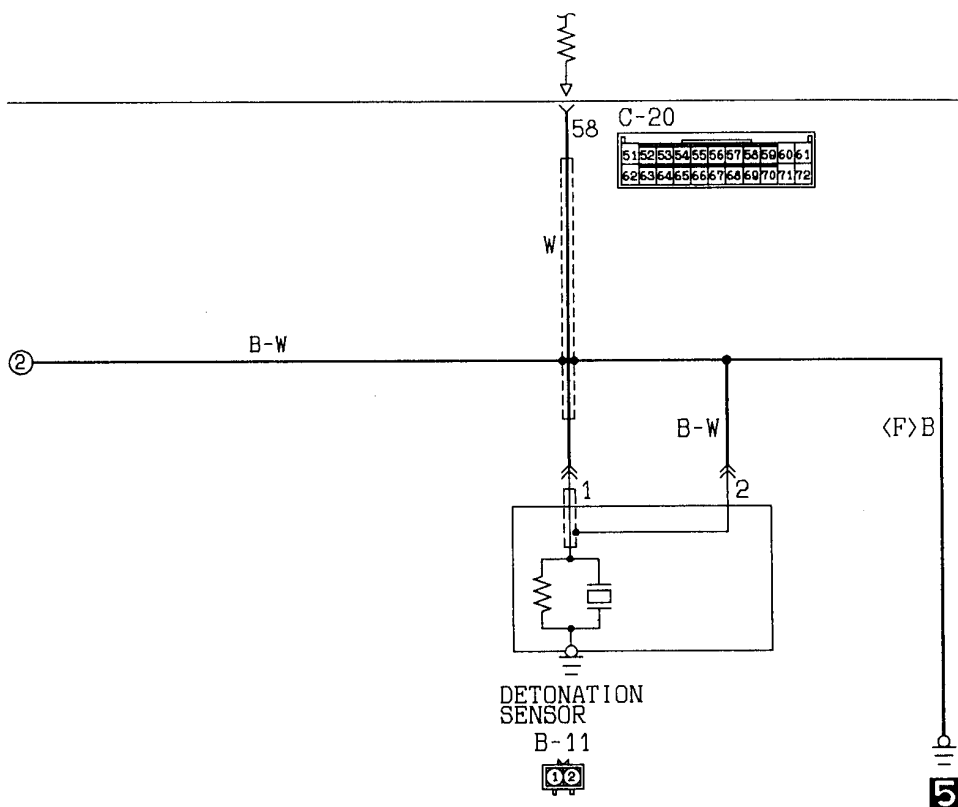
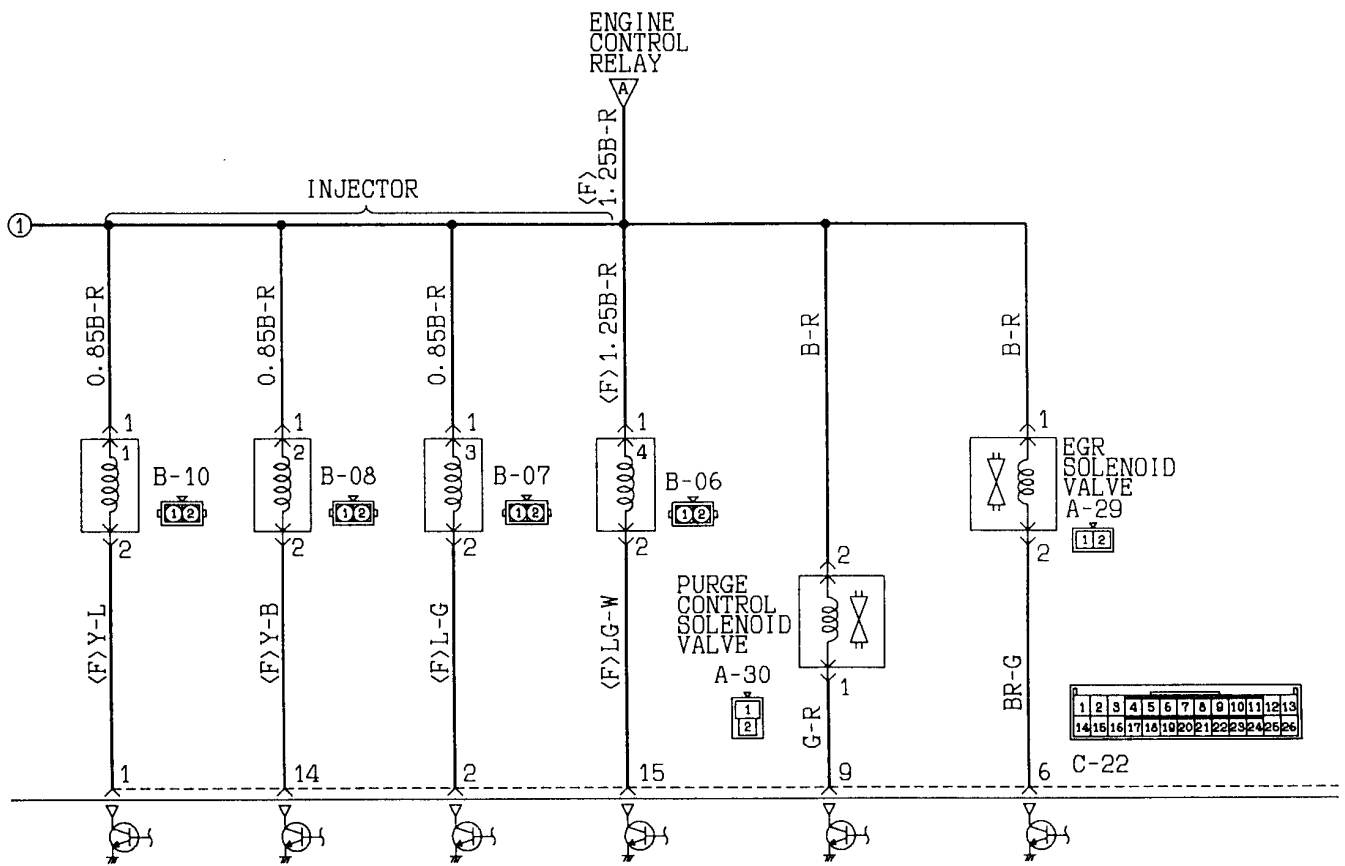
51	52	53	54	55	56	57	58	59	60	61
62	63	64	65	66	67	68	69	70	71	72

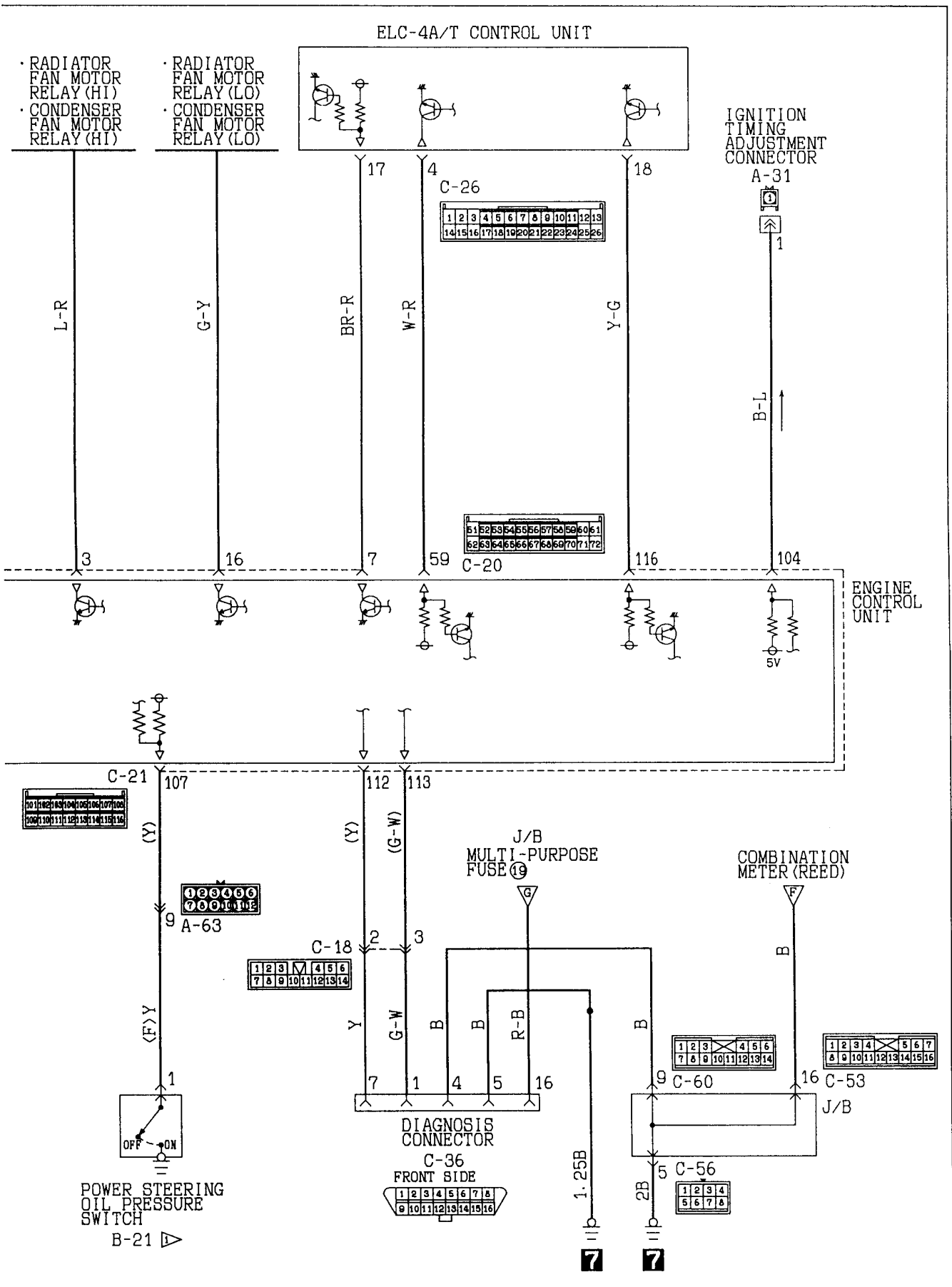


Wire colour code
 B:Black LG:Light green G:Green L:Blue W:White Y:Yellow SB:Sky blue
 BR:Brown O:Orange GR:Gray R:Red P:Pink V:Violet

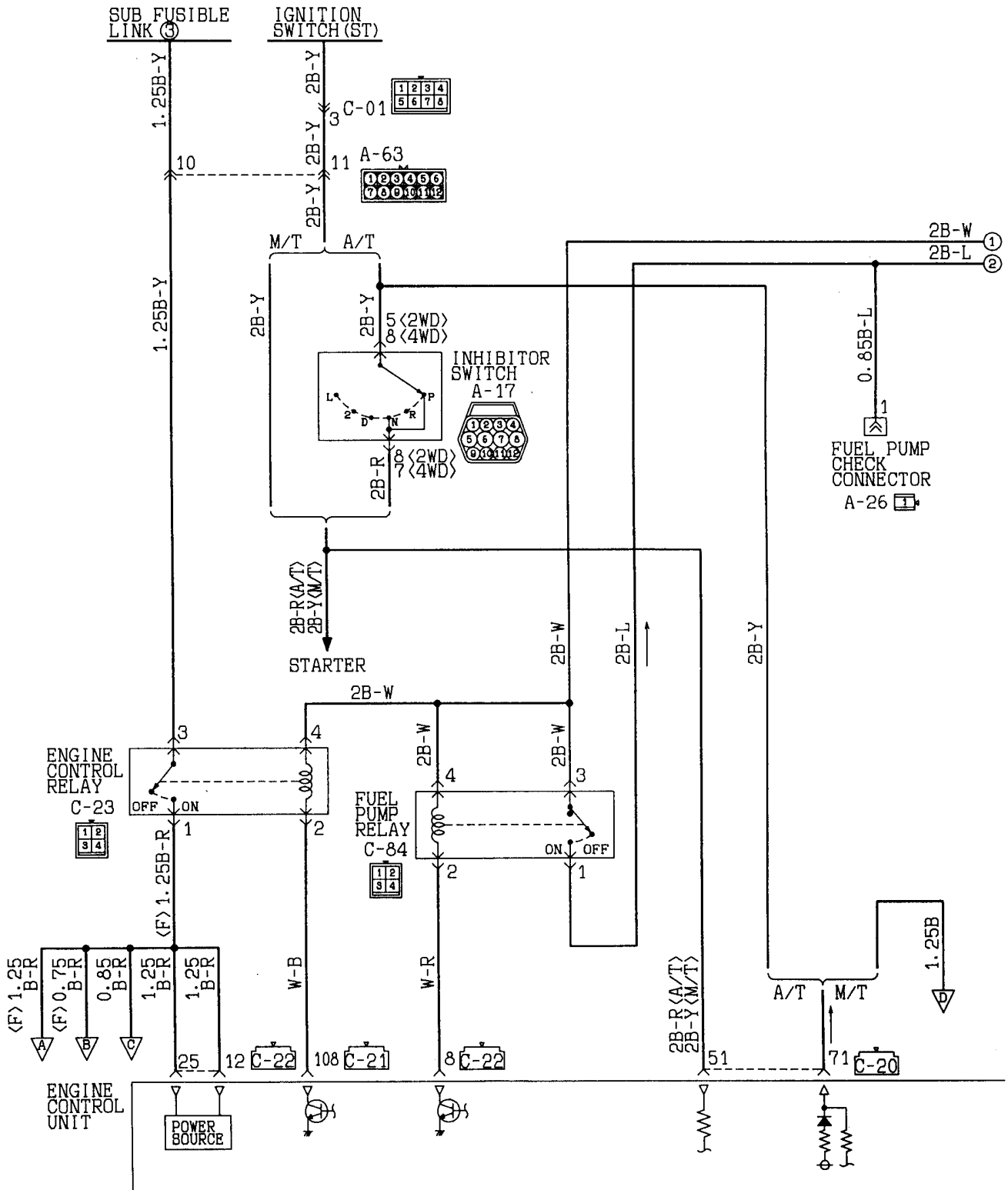








MPI SYSTEM
4G63 <R. H. drive vehicles>



C-22

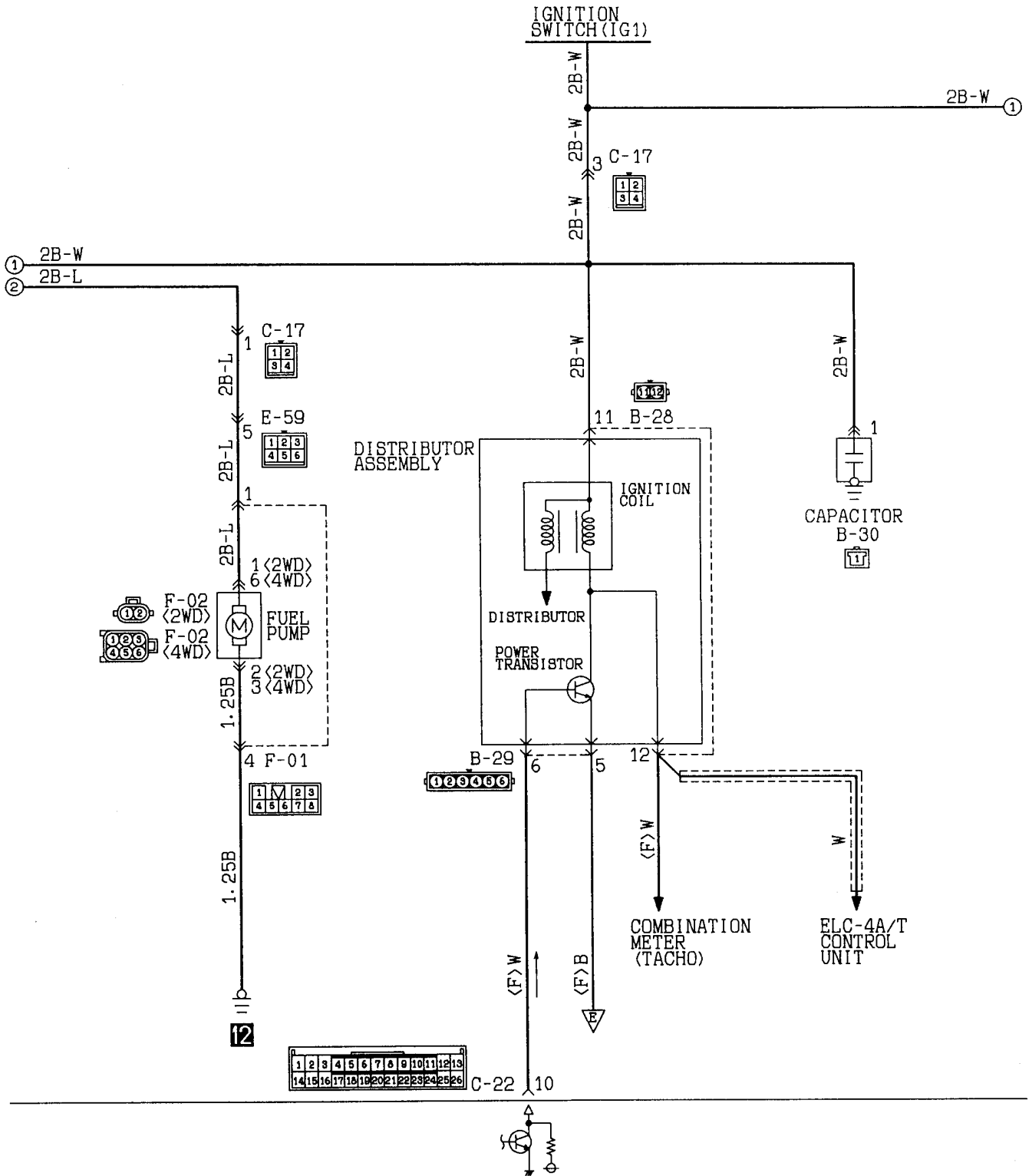
1	2	3	4	5	6	7	8	9	10	11	12	13
14	15	16	17	18	19	20	21	22	23	24	25	26

C-21

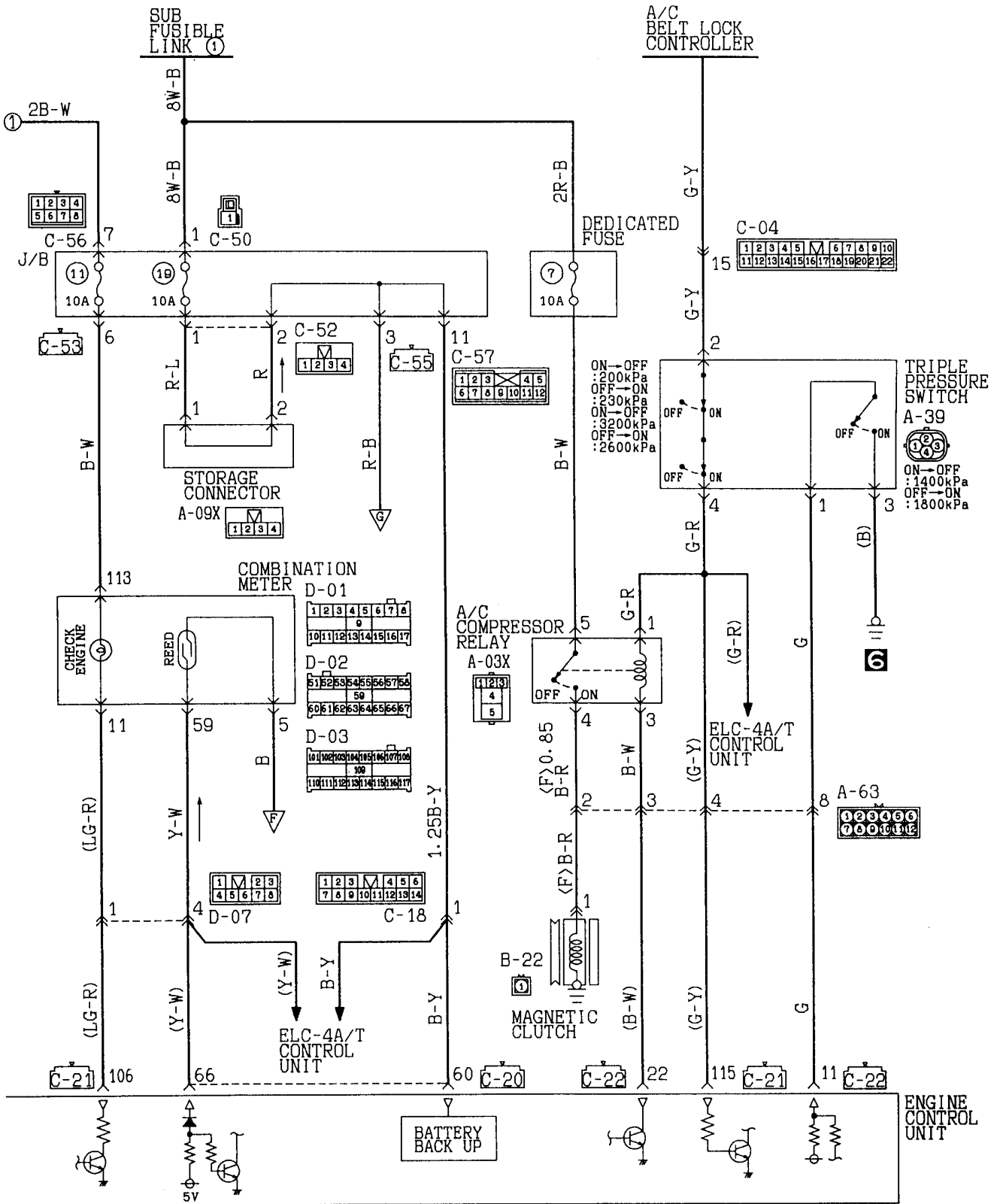
101	102	103	104	105	106	107	108
109	110	111	112	113	114	115	116

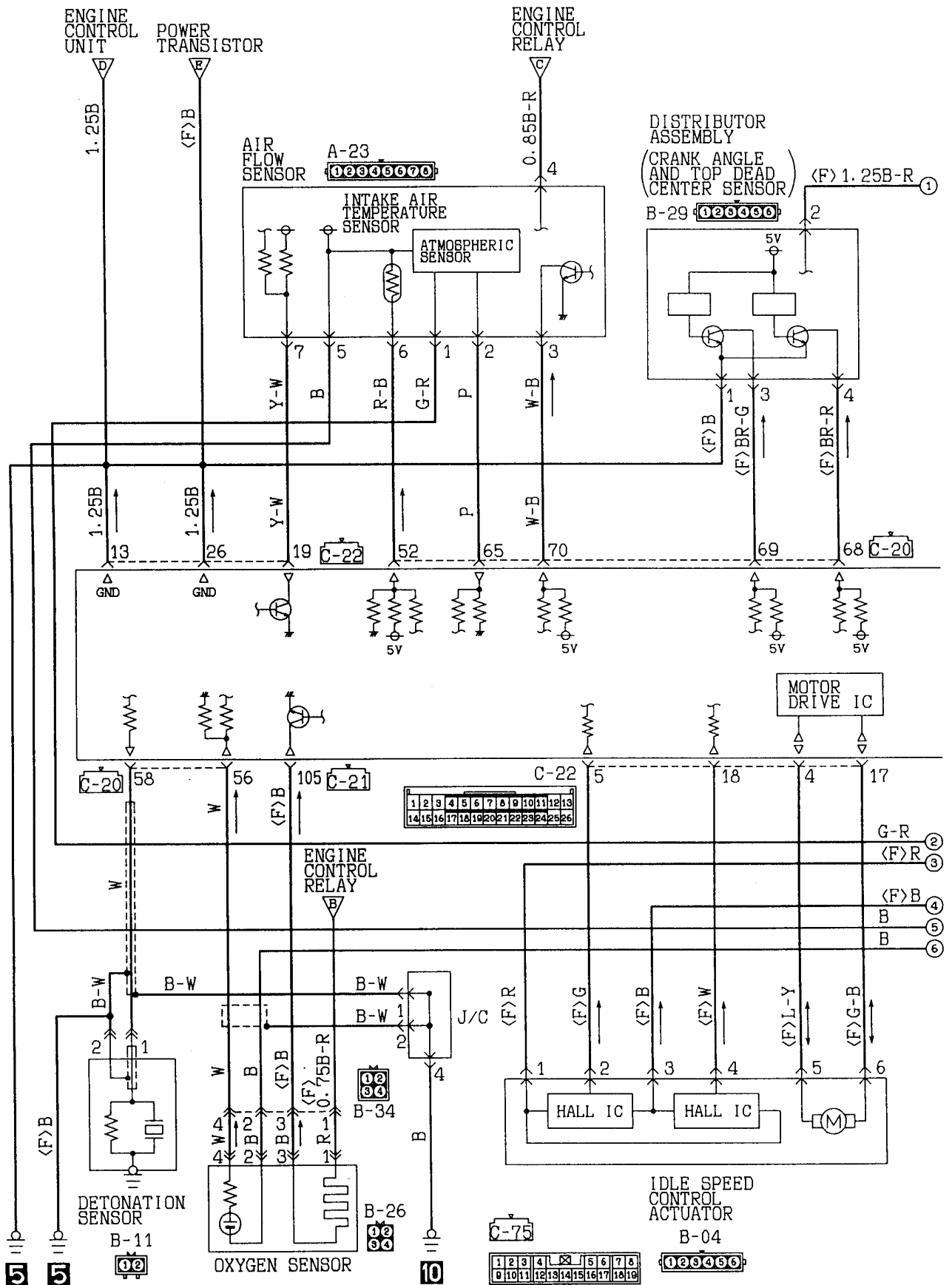
C-20

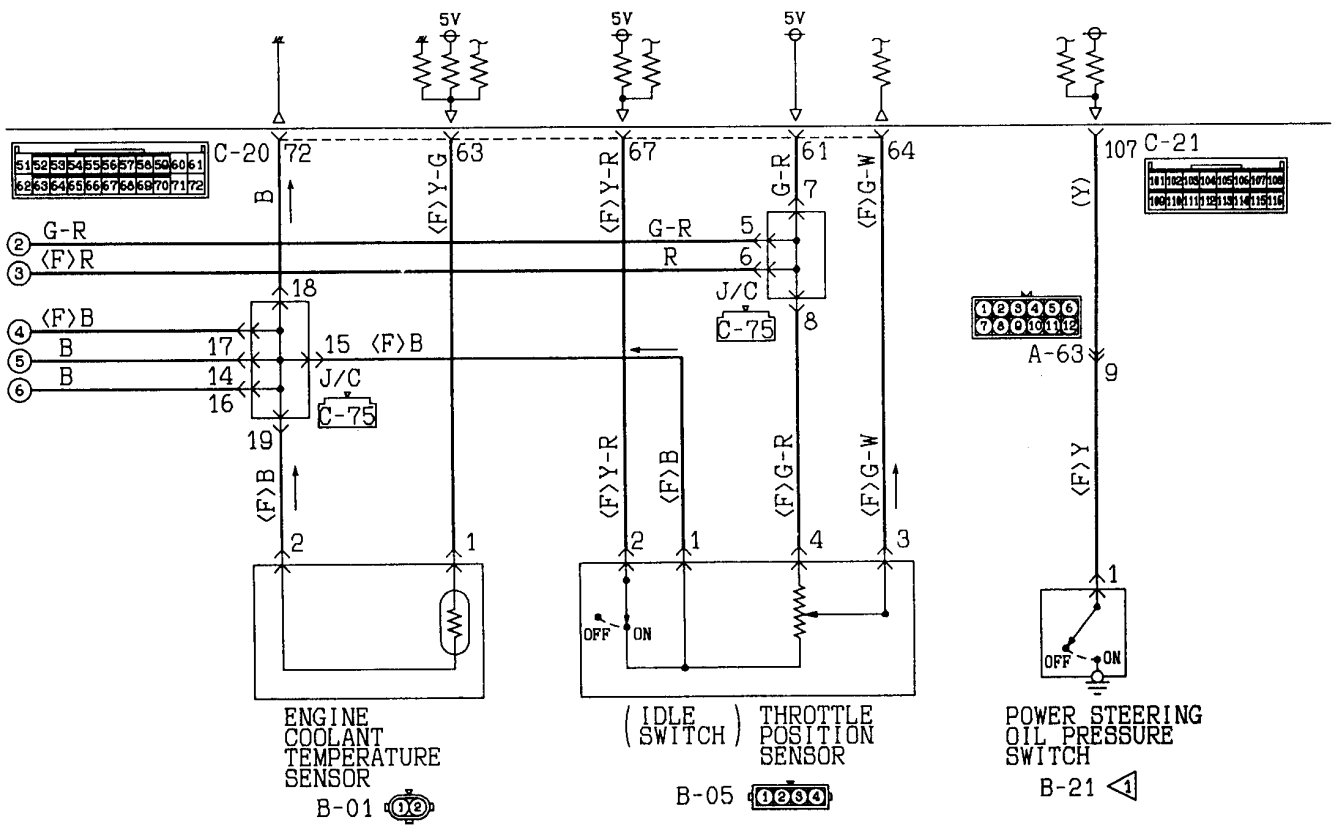
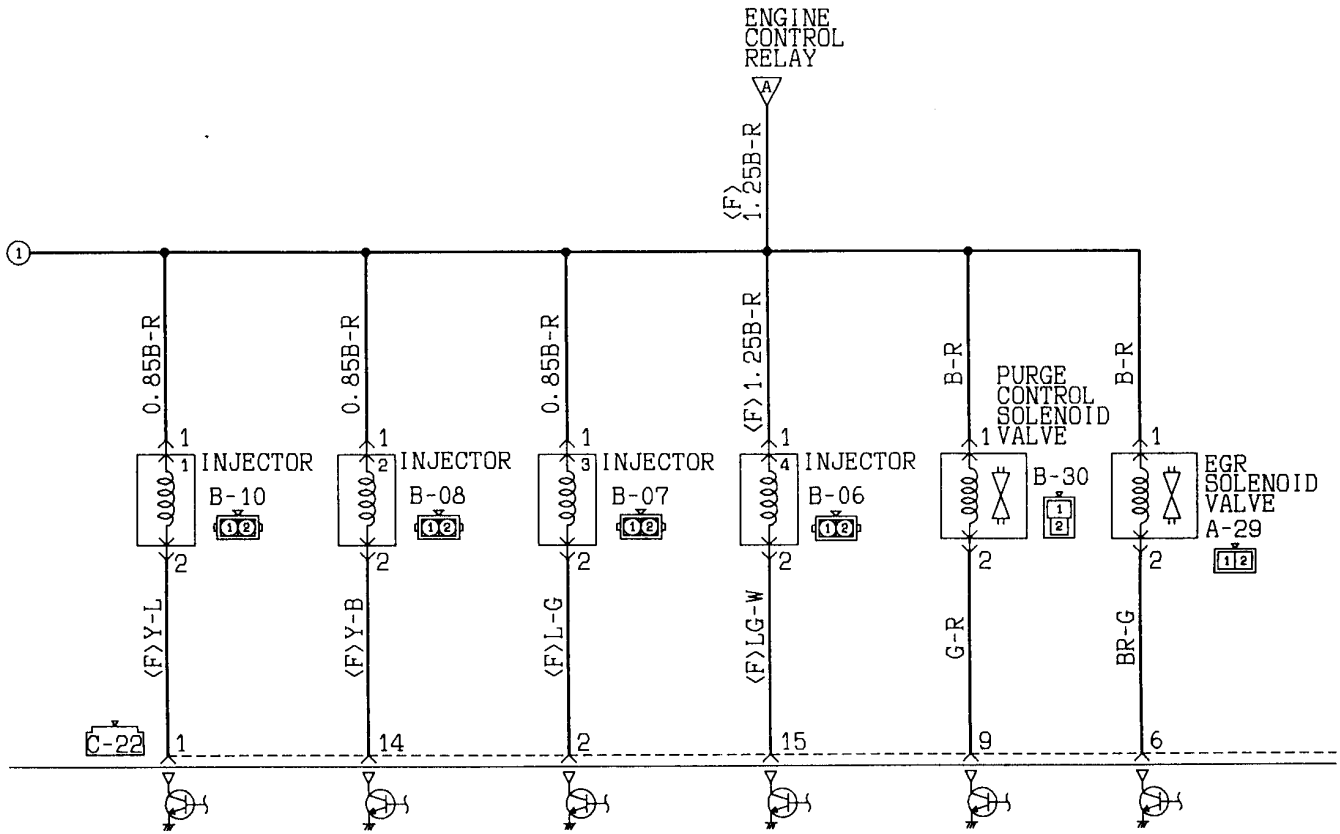
51	52	53	54	55	56	57	58	59	60	61
62	63	64	65	66	67	68	69	70	71	72

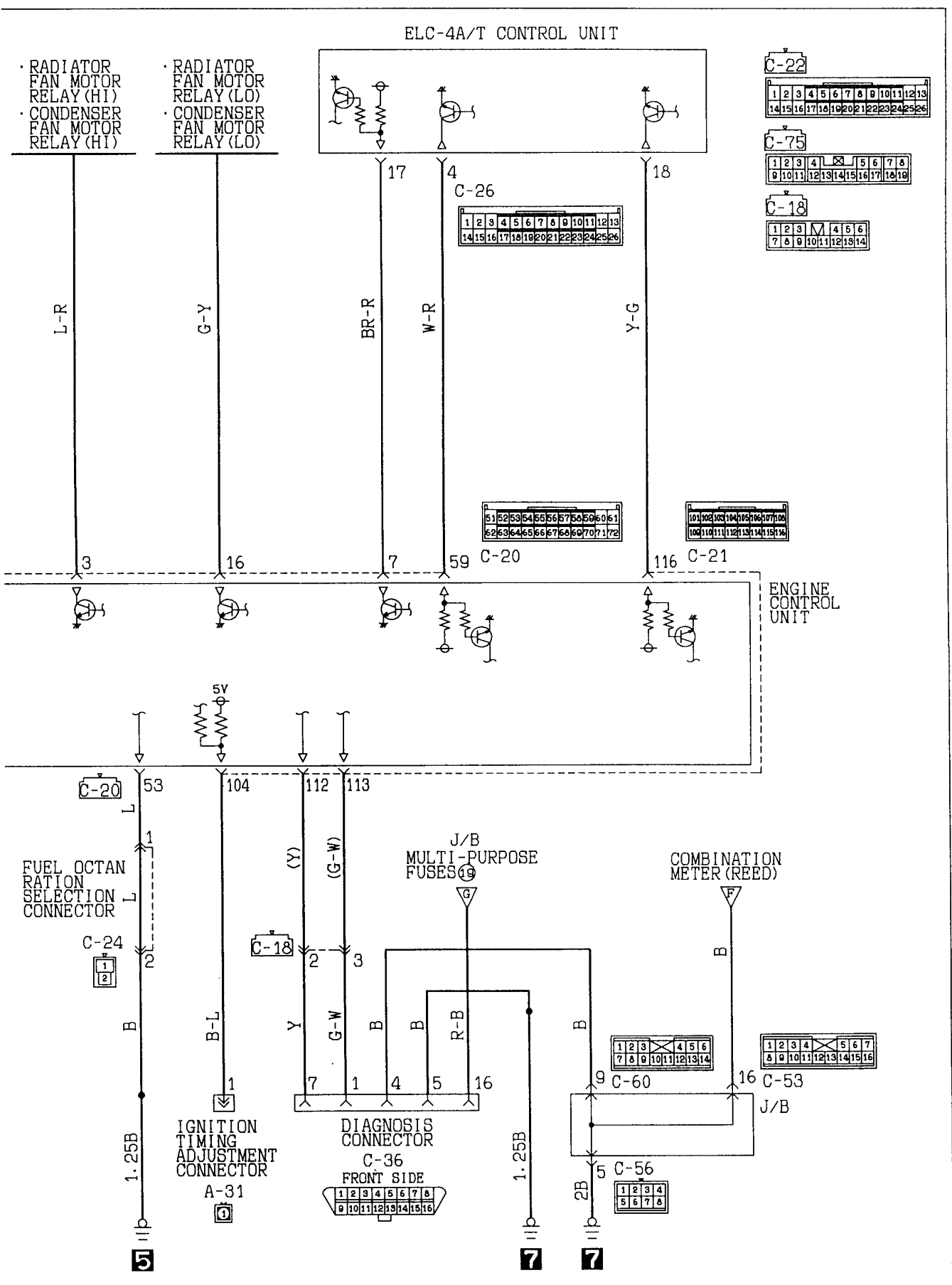


Wire colour code
 B:Black LG:Light green G:Green L:Blue W:White Y:Yellow SB:Sky blue
 BR:Brown O:Orange GR:Gray R:Red P:Pink V:Violet

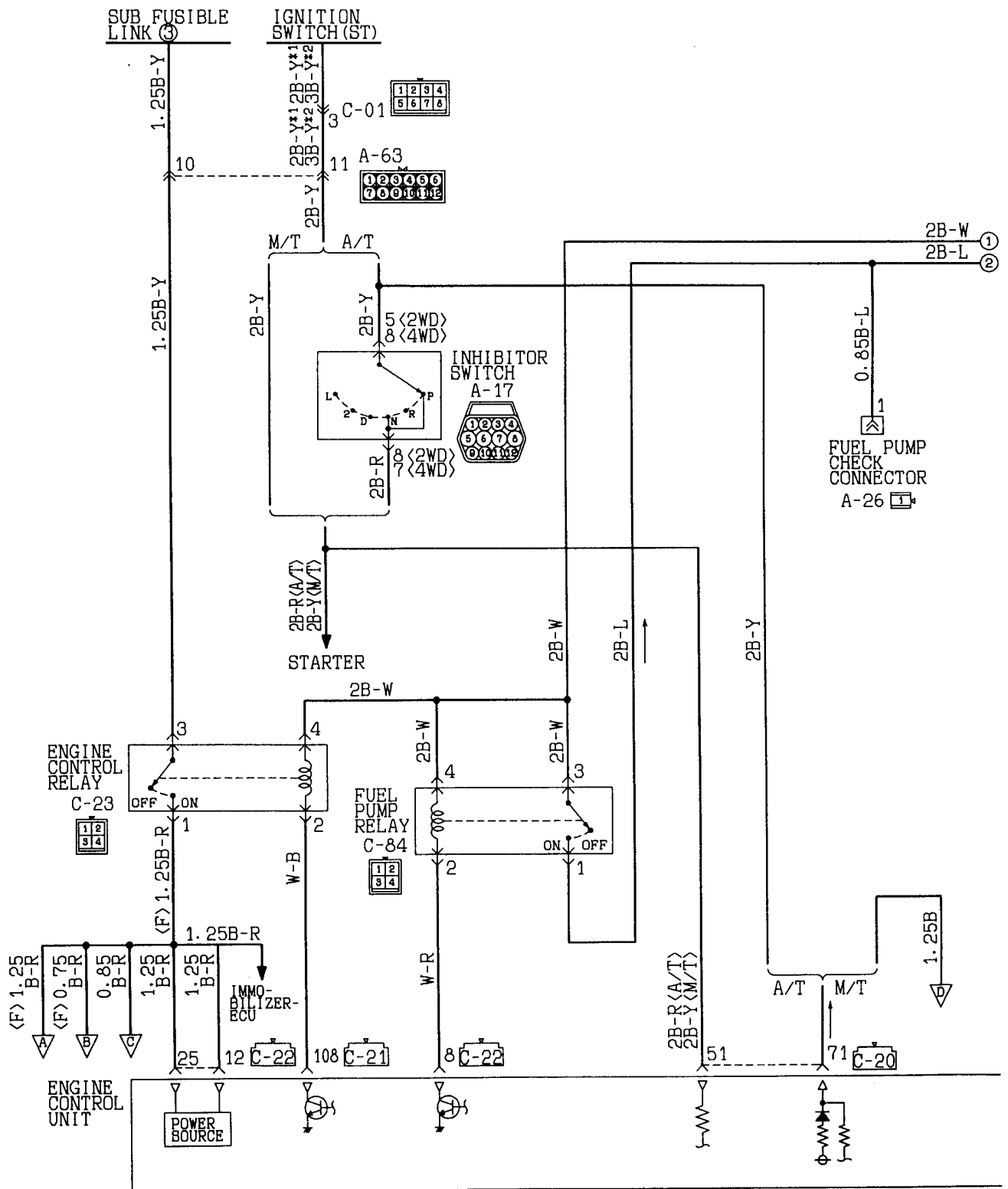








MPI SYSTEM
4G63 (Vehicles with immobilizer system)



Remarks
*1: R. H. drive vehicles
*2: L. H. drive vehicles

C-22

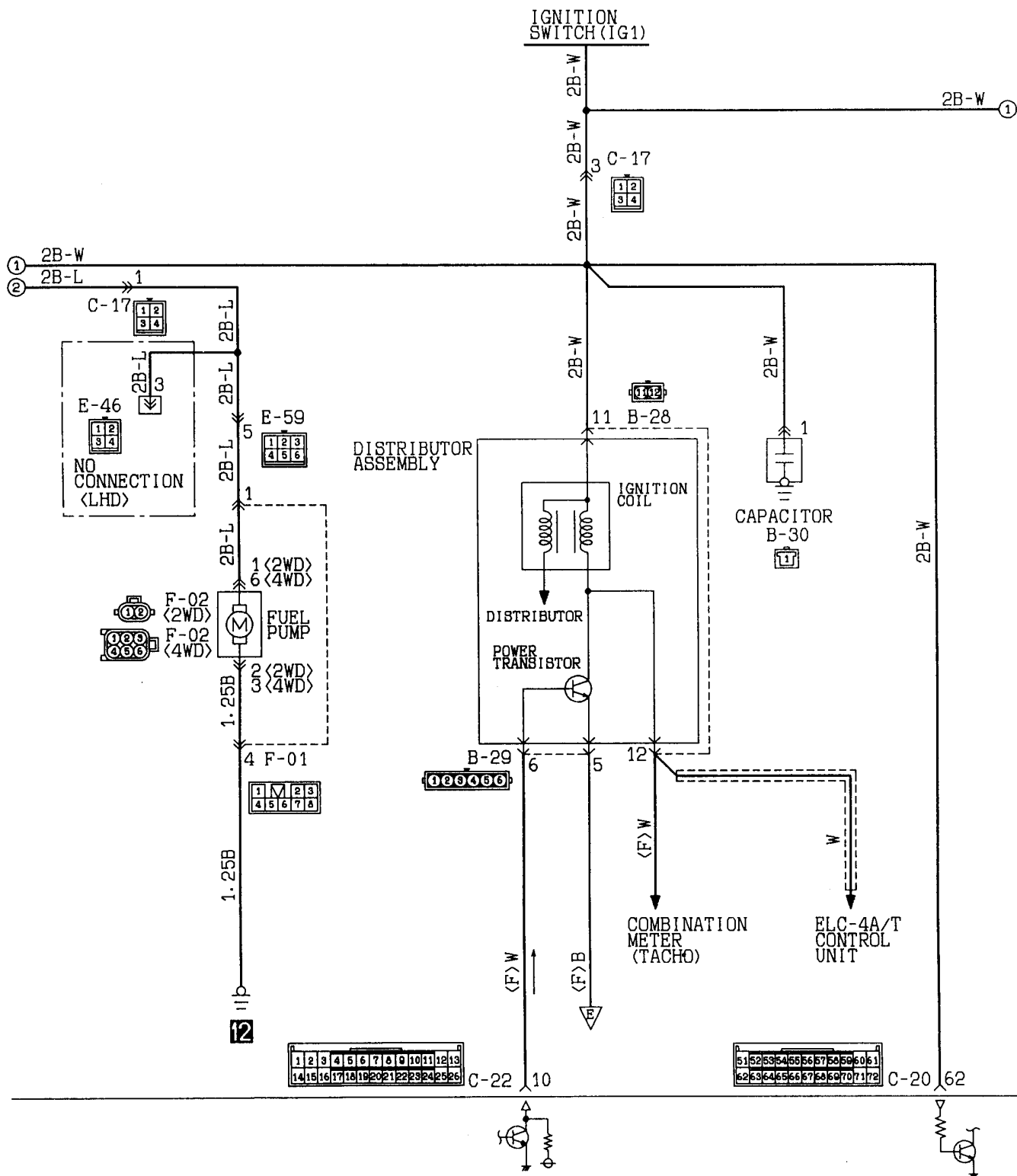
1	2	3	4	5	6	7	8	9	10	11	12	13
14	15	16	17	18	19	20	21	22	23	24	25	26

C-21

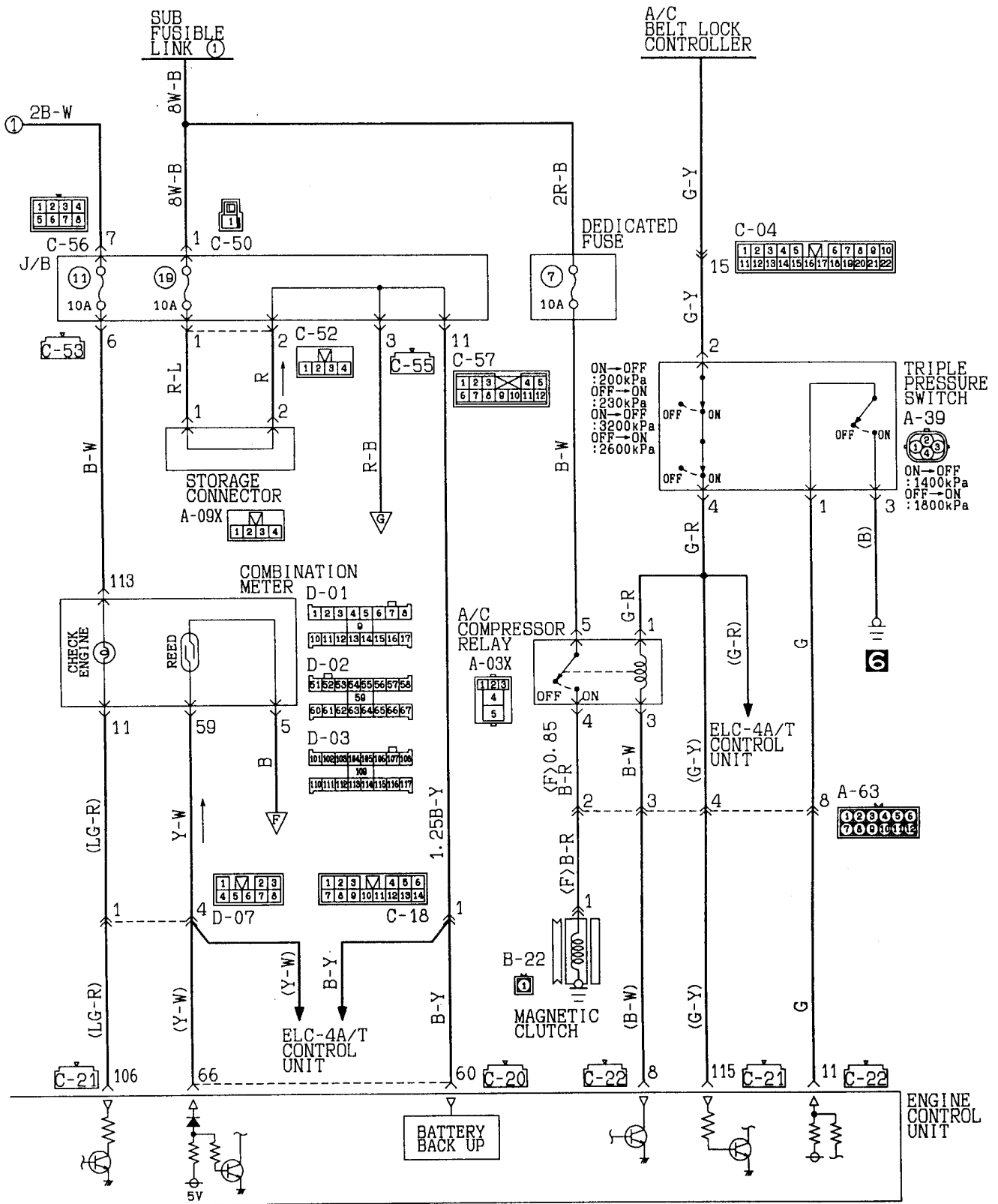
101	102	103	104	105	106	107	108
109	110	111	112	113	114	115	116

C-20

51	52	53	54	55	56	57	58	59	60	61
62	63	64	65	66	67	68	69	70	71	72



Wire colour code
 B:Black LG:Light green G:Green L:Blue W:White Y:Yellow SB:Sky blue
 BR:Brown O:Orange GR:Gray R:Red P:Pink V:Violet



C-22

1	2	3	4	5	6	7	8	9	10	11	12	13
14	15	16	17	18	19	20	21	22	23	24	25	26

C-21

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----

C-20

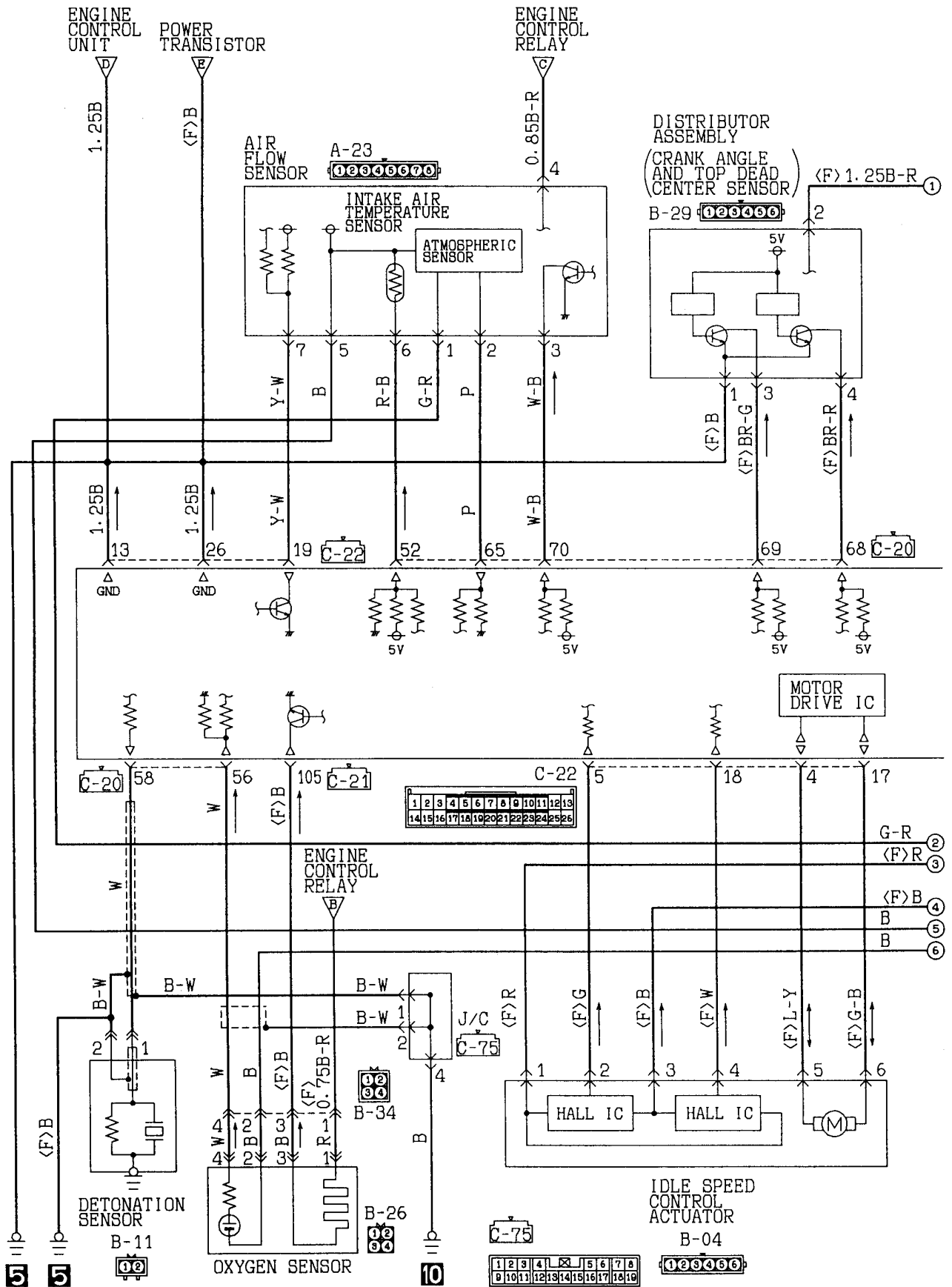
5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
---	---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

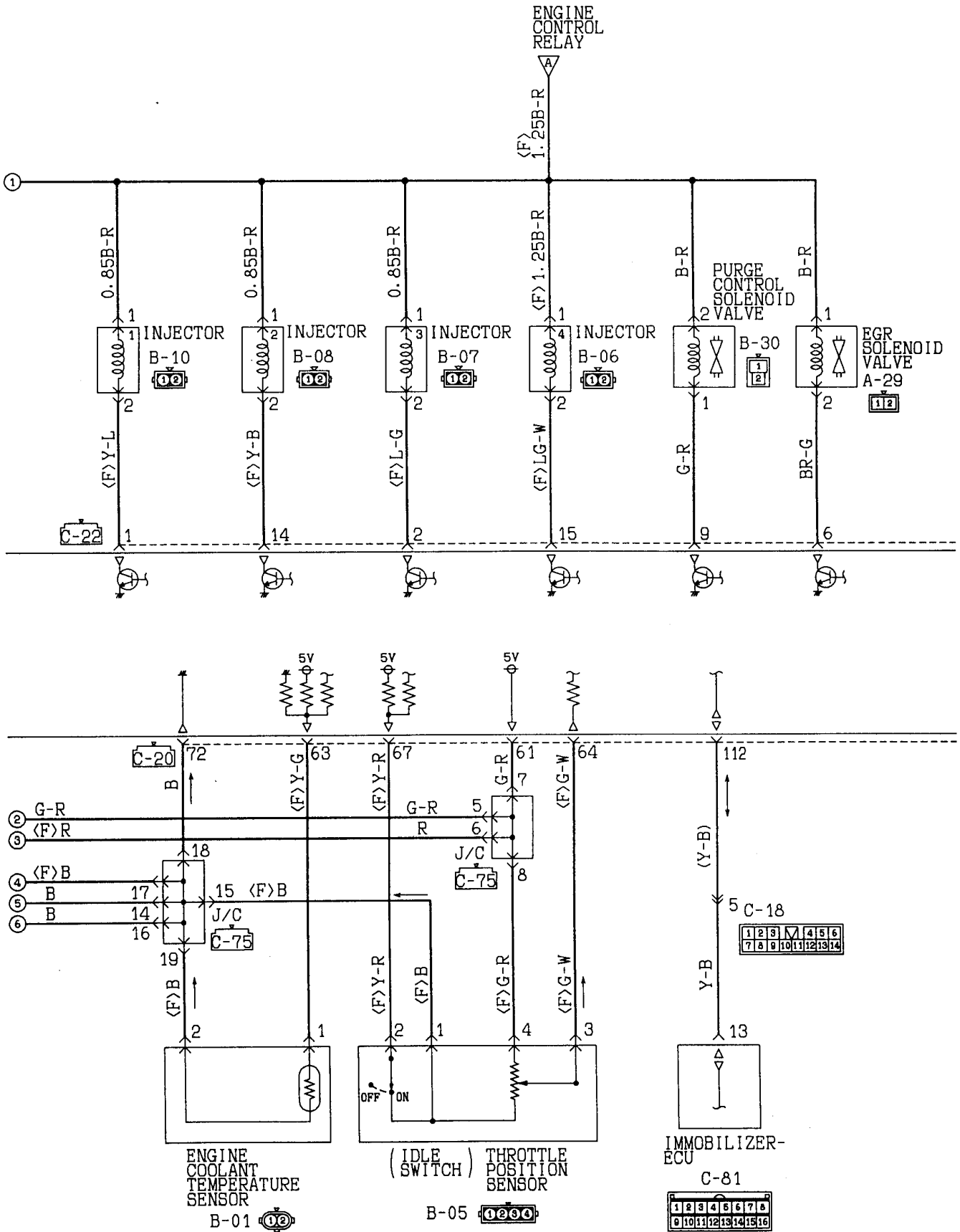
C-53

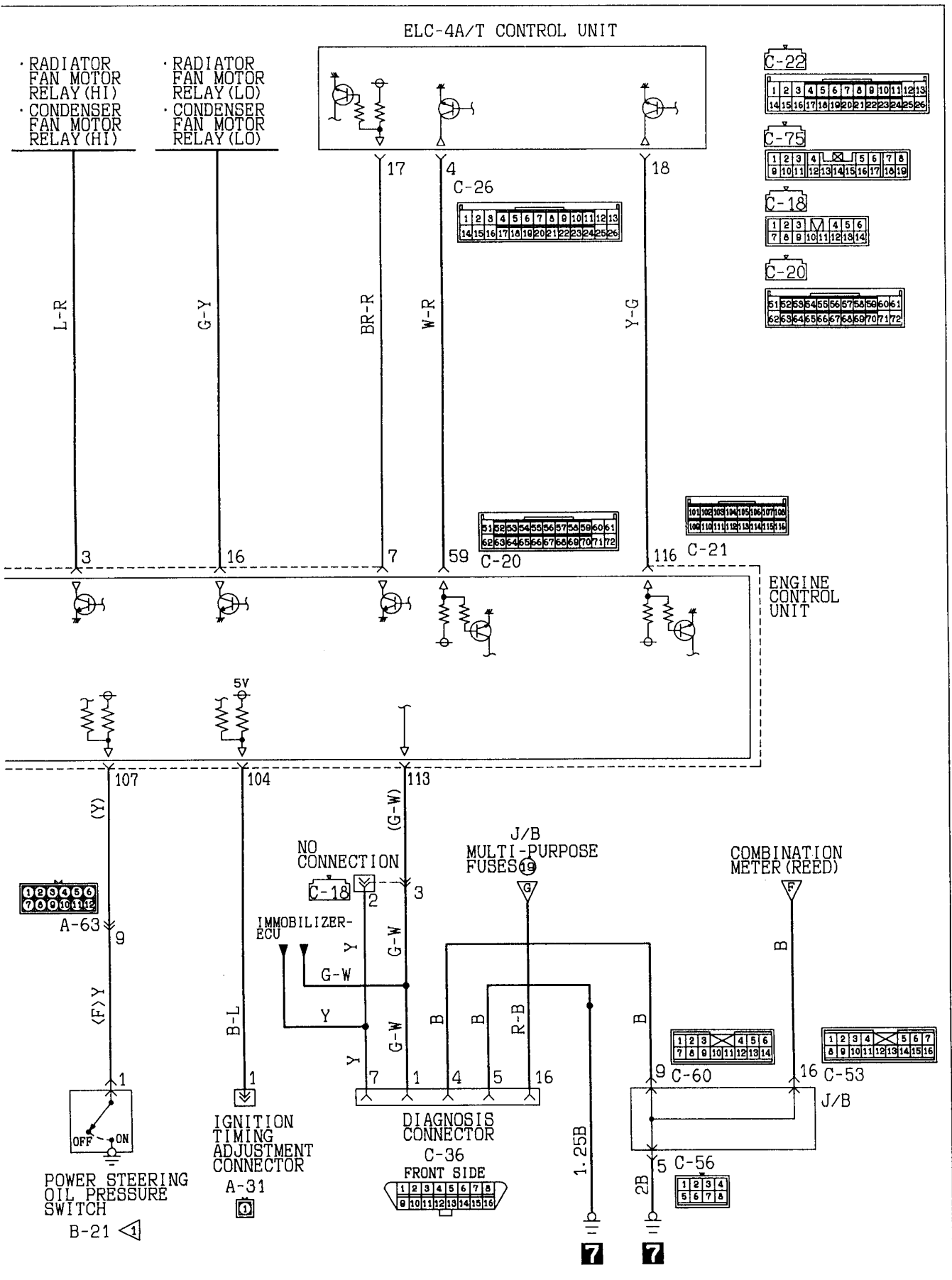
1	2	3	4	5	6	7		
8	9	10	11	12	13	14	15	16

C-55

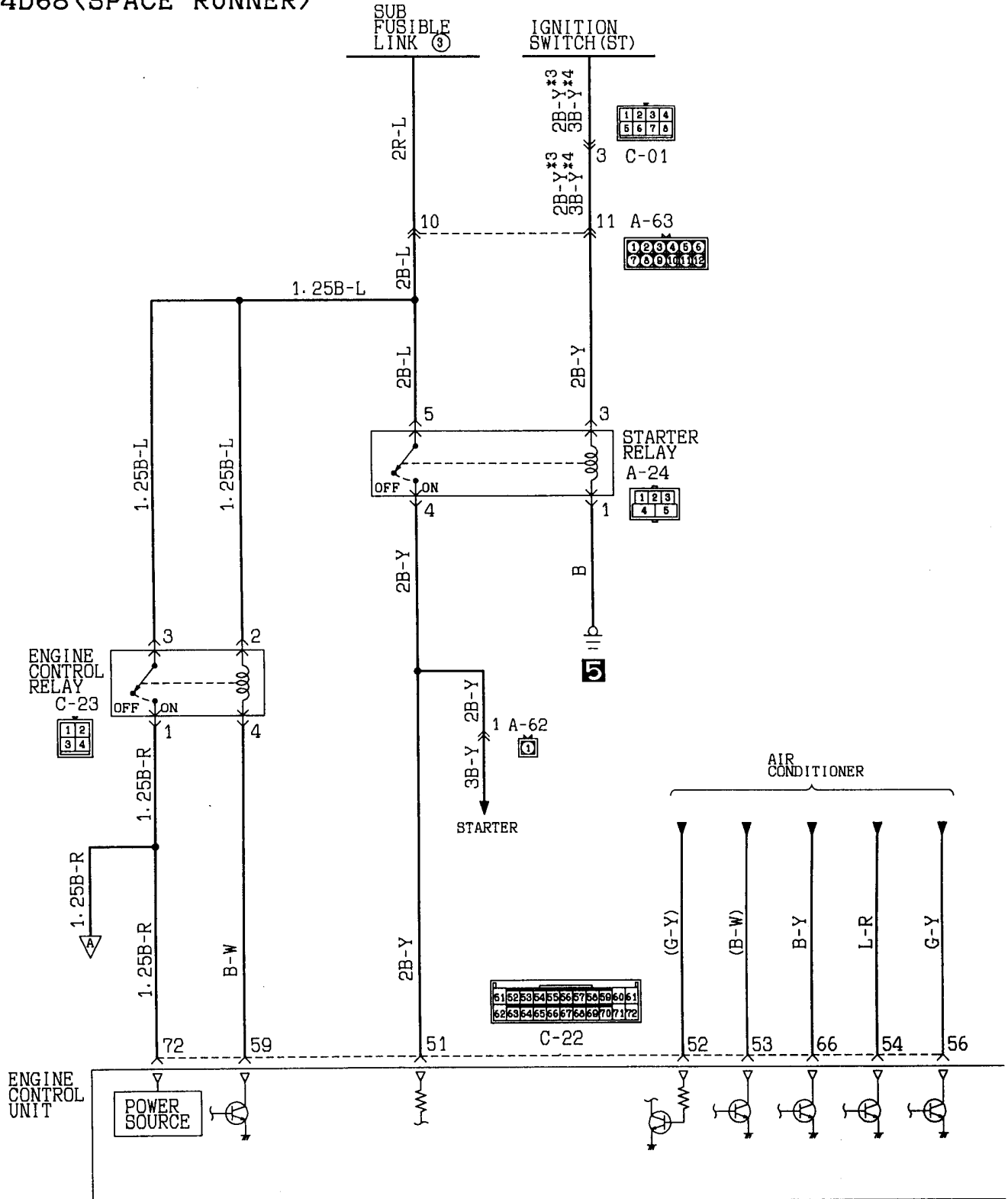
1	2	3	4		
5	6	7	8	9	10



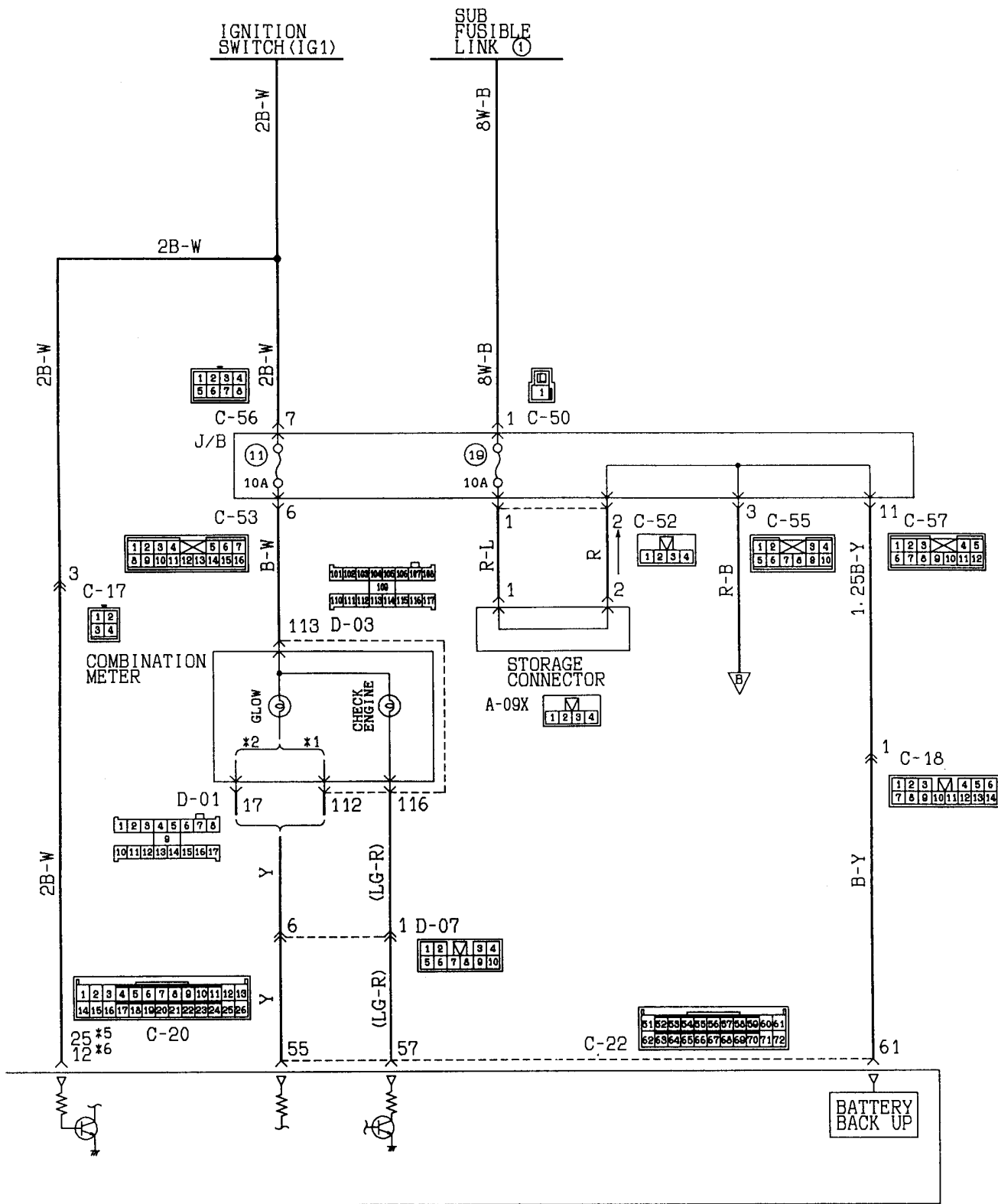




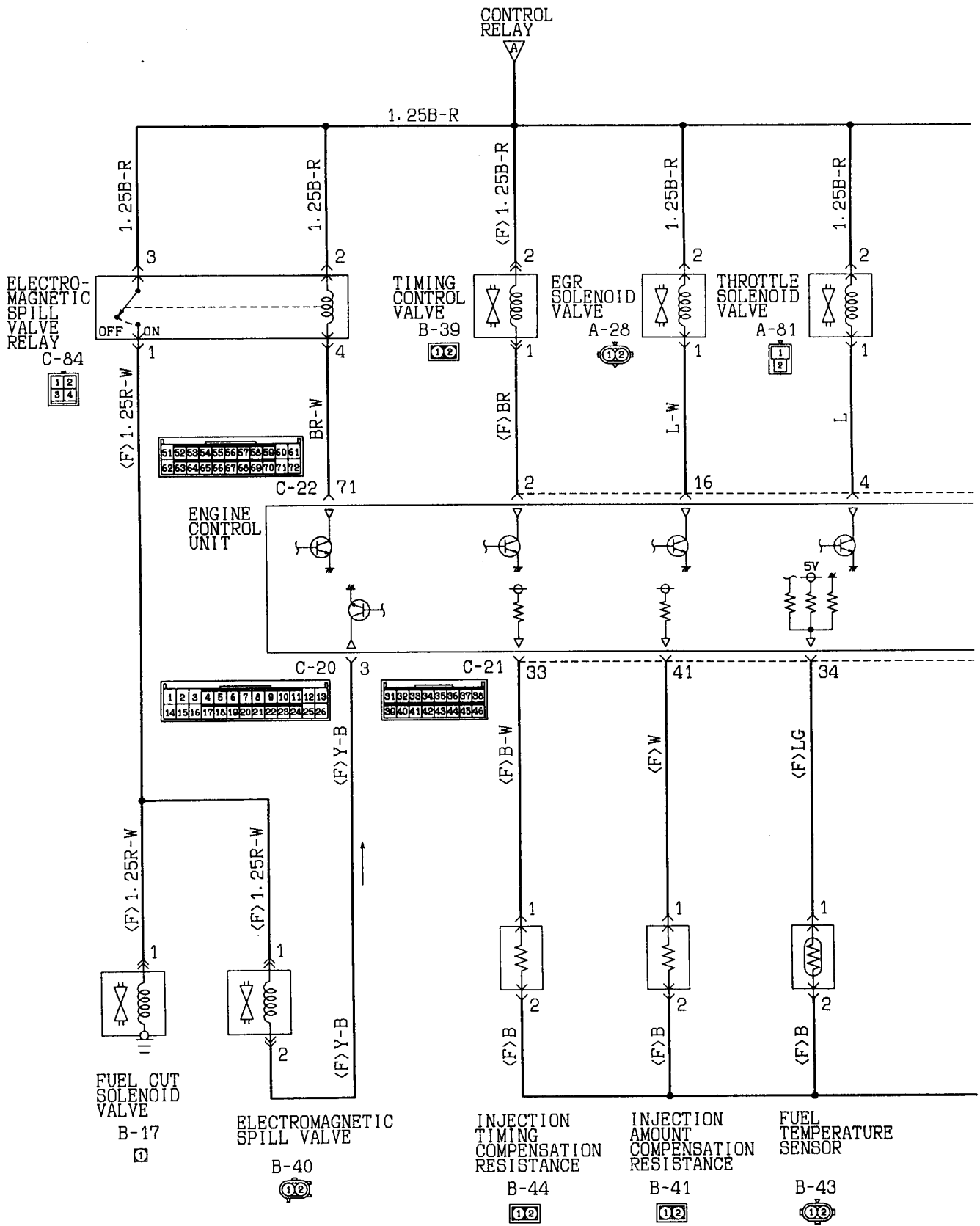
ENGINE CONTROL SYSTEM 4D68<SPACE RUNNER>

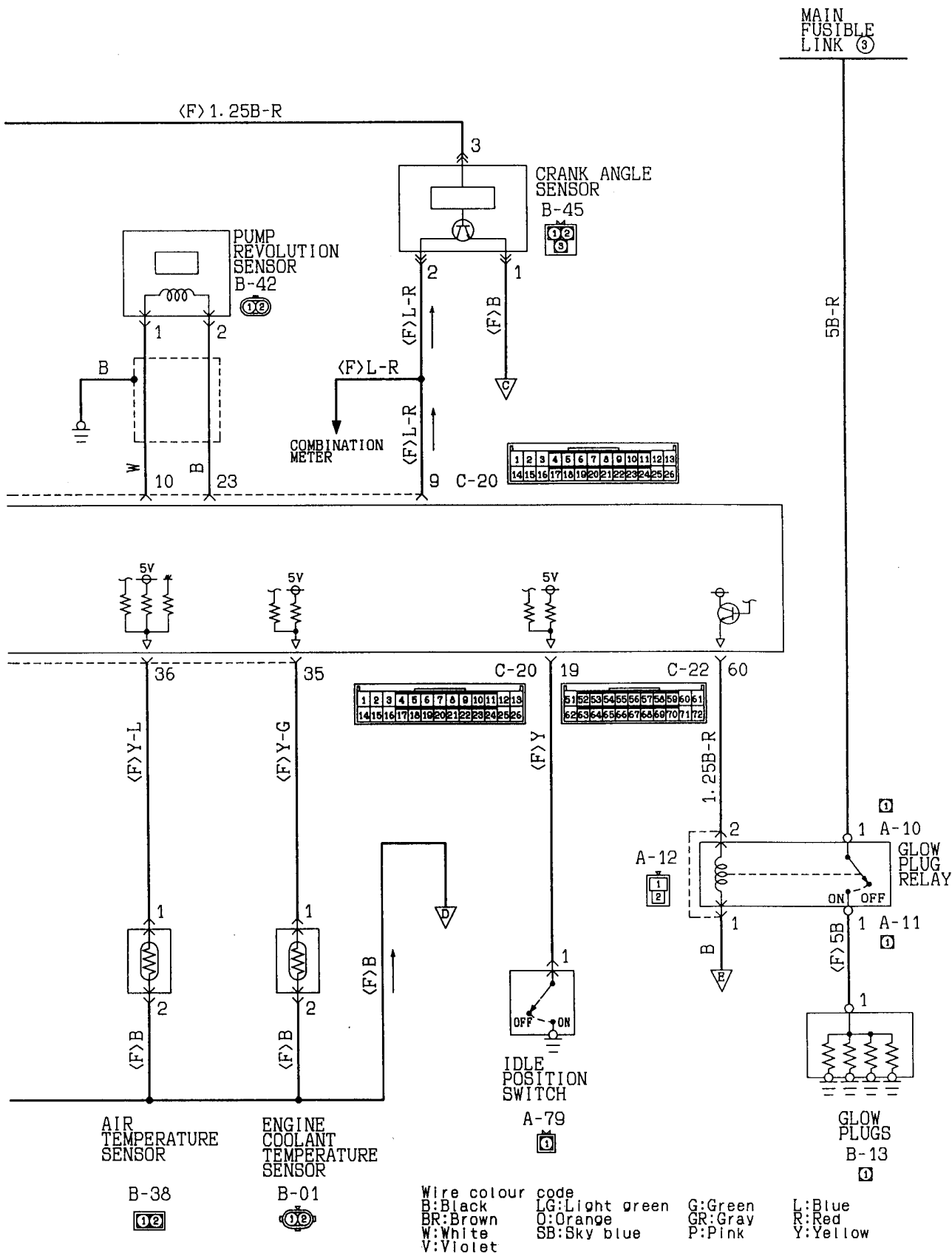


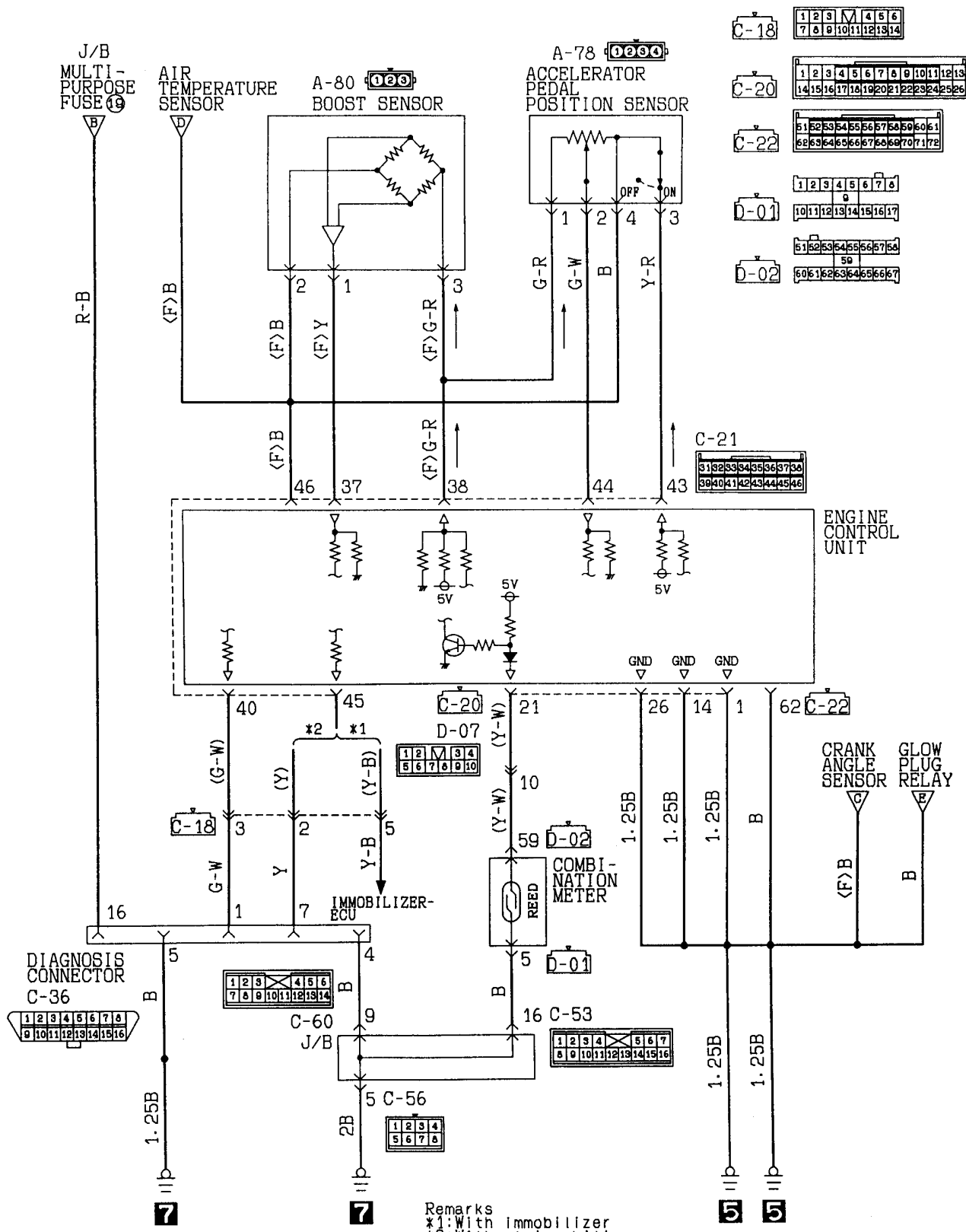
Remarks
 **1: With TACHO
 **2: Without TACHO
 **3: R. H. drive vehicles
 **4: L. H. drive vehicles
 *5: With IMMOBILIZER
 *6: Without IMMOBILIZER



Wire colour code
 B:Black LG:Light green G:Green L:Blue W:White Y:Yellow SB:Sky blue
 BR:Brown O:Orange GR:Gray R:Red P:Pink V:Violet



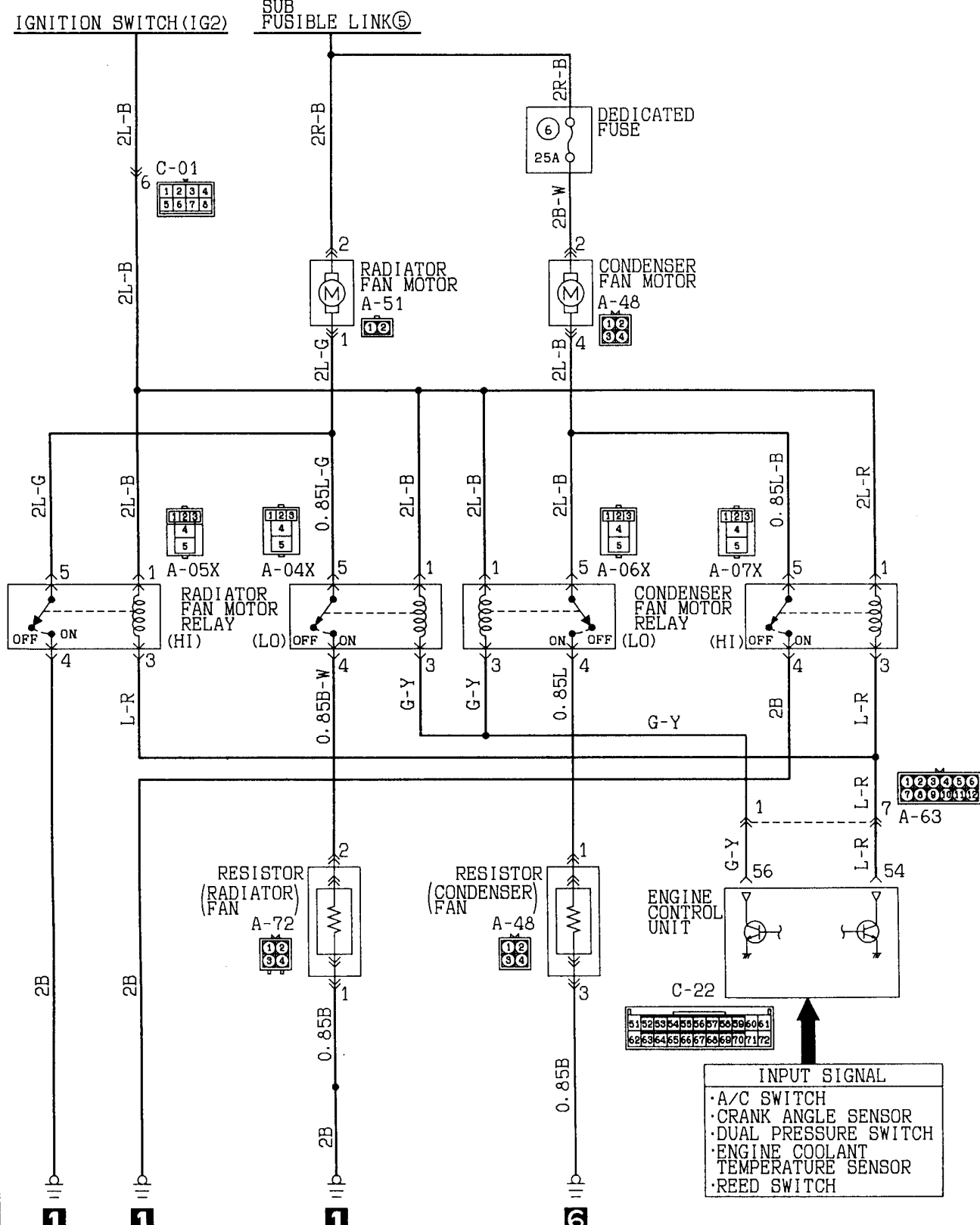




Remarks
 *1: With Immobilizer
 *2: Without Immobilizer

Wire colour code
 B:Black LG:Light green G:Green L:Blue W:White Y:Yellow SB:Sky blue
 BR:Brown O:Orange GR:Gray R:Red P:Pink V:Violet

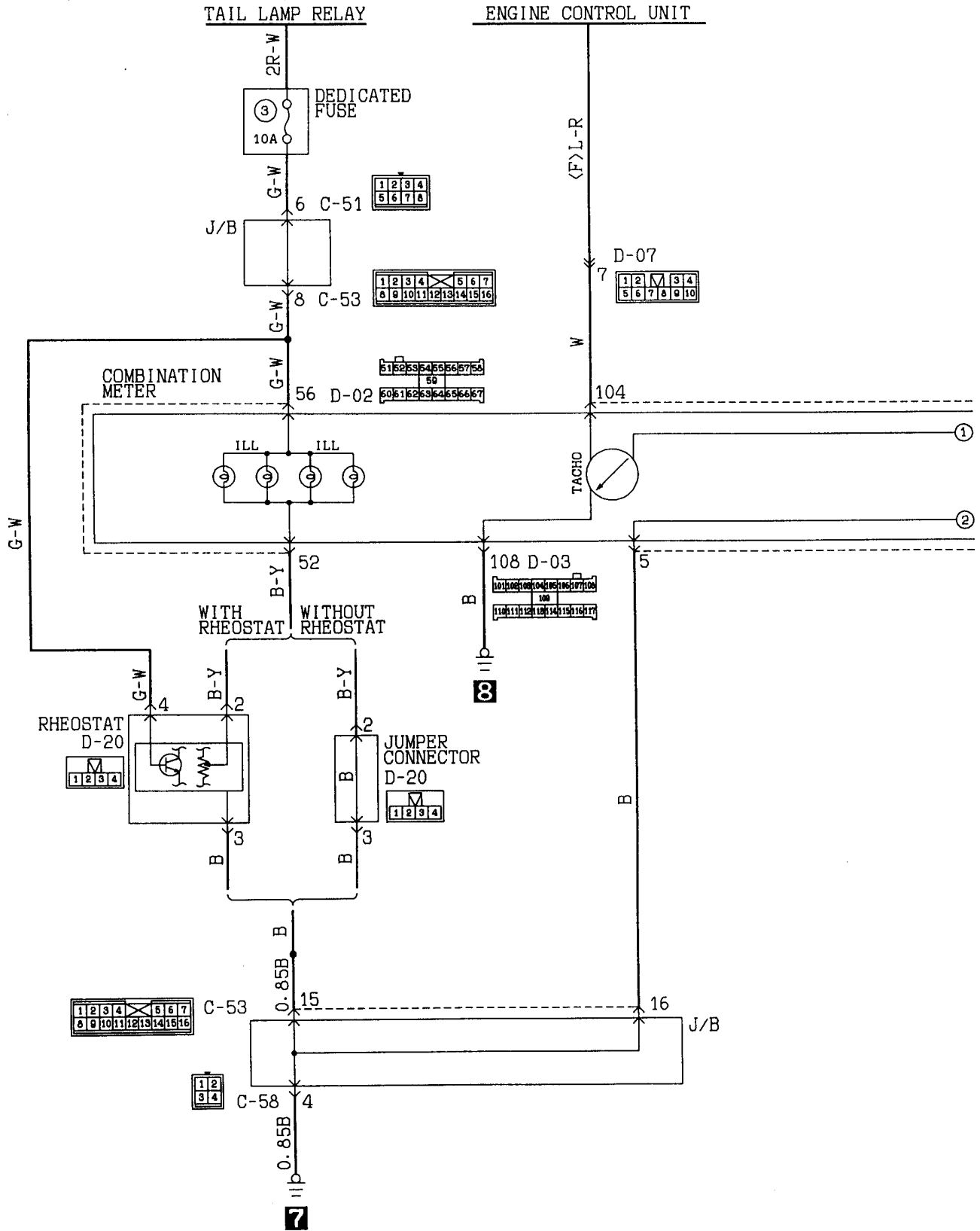
COOLING SYSTEM 4D68 (SPACE RUNNER)



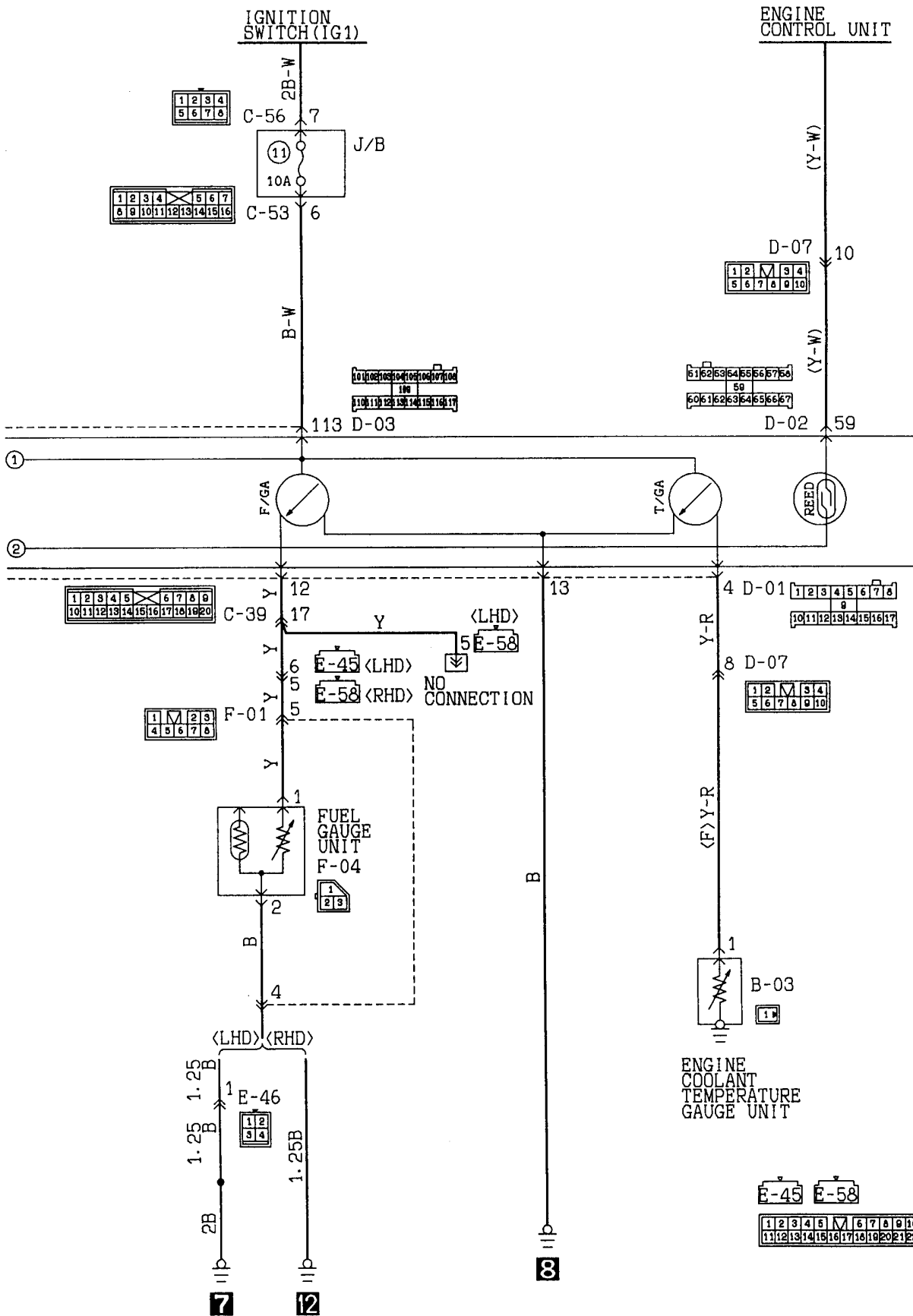
- INPUT SIGNAL**
- A/C SWITCH
 - CRANK ANGLE SENSOR
 - DUAL PRESSURE SWITCH
 - ENGINE COOLANT TEMPERATURE SENSOR
 - REED SWITCH

Wire colour code
 B:Black LG:Light green G:Green L:Blue W:White Y:Yellow SB:Sky blue
 BR:Brown O:Orange GR:Gray R:Red P:Pink V:Violet

METER AND GAUGE
4D68 <SPACE RUNNER>



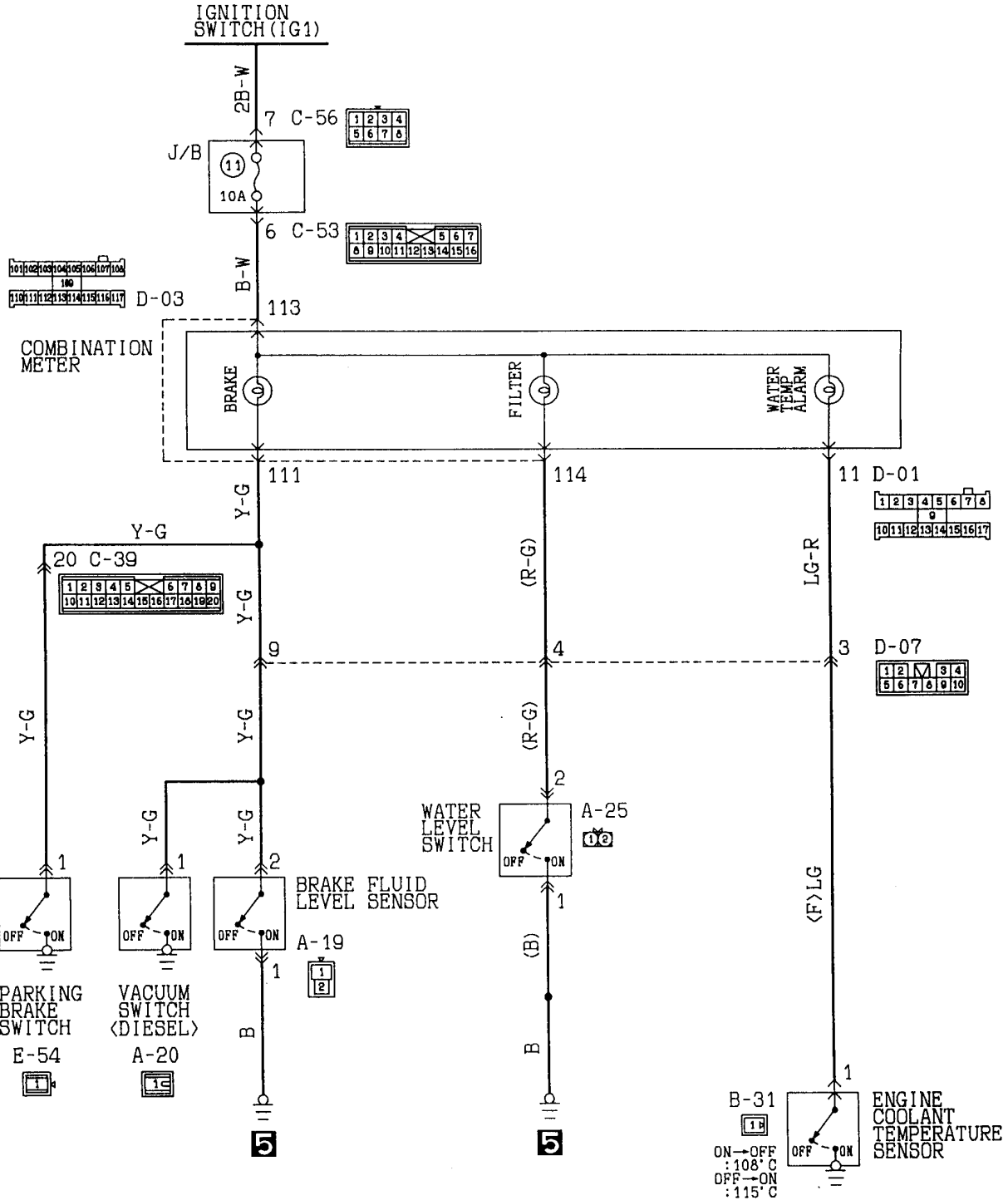
Wire colour code
 B:Black LG:Light green G:Green L:Blue W:White Y:Yellow SB:Sky blue
 BR:Brown O:Orange GR:Gray R:Red P:Pink V:Violet



BRAKE WARNING LAMP
4D68 <SPACE RUNNER>

FUEL FILTER WARNING LAMP
4D68 <SPACE RUNNER>

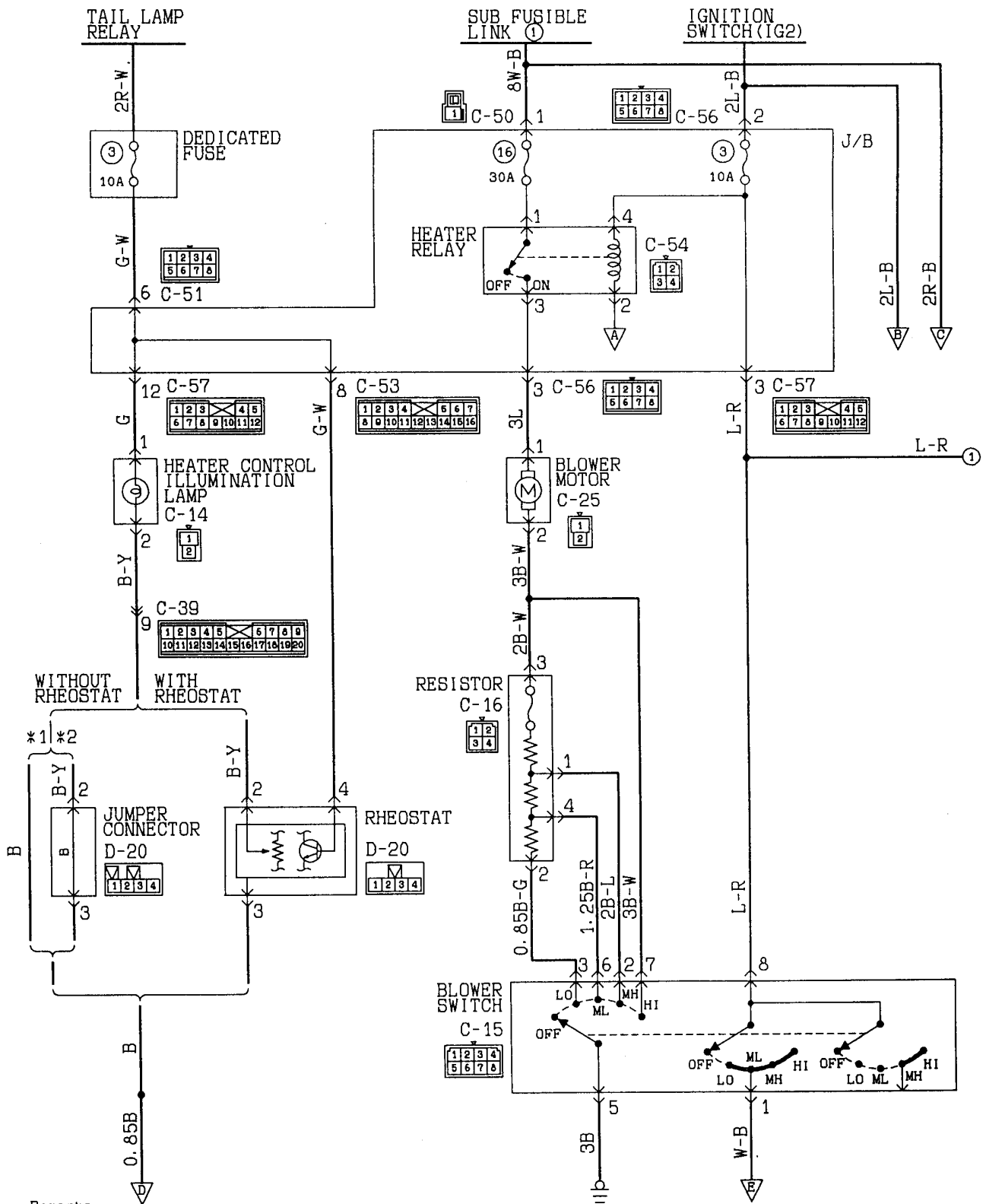
ENGINE COOLANT TEMPERATURE WARNING LAMP
4D68 <SPACE RUNNER>



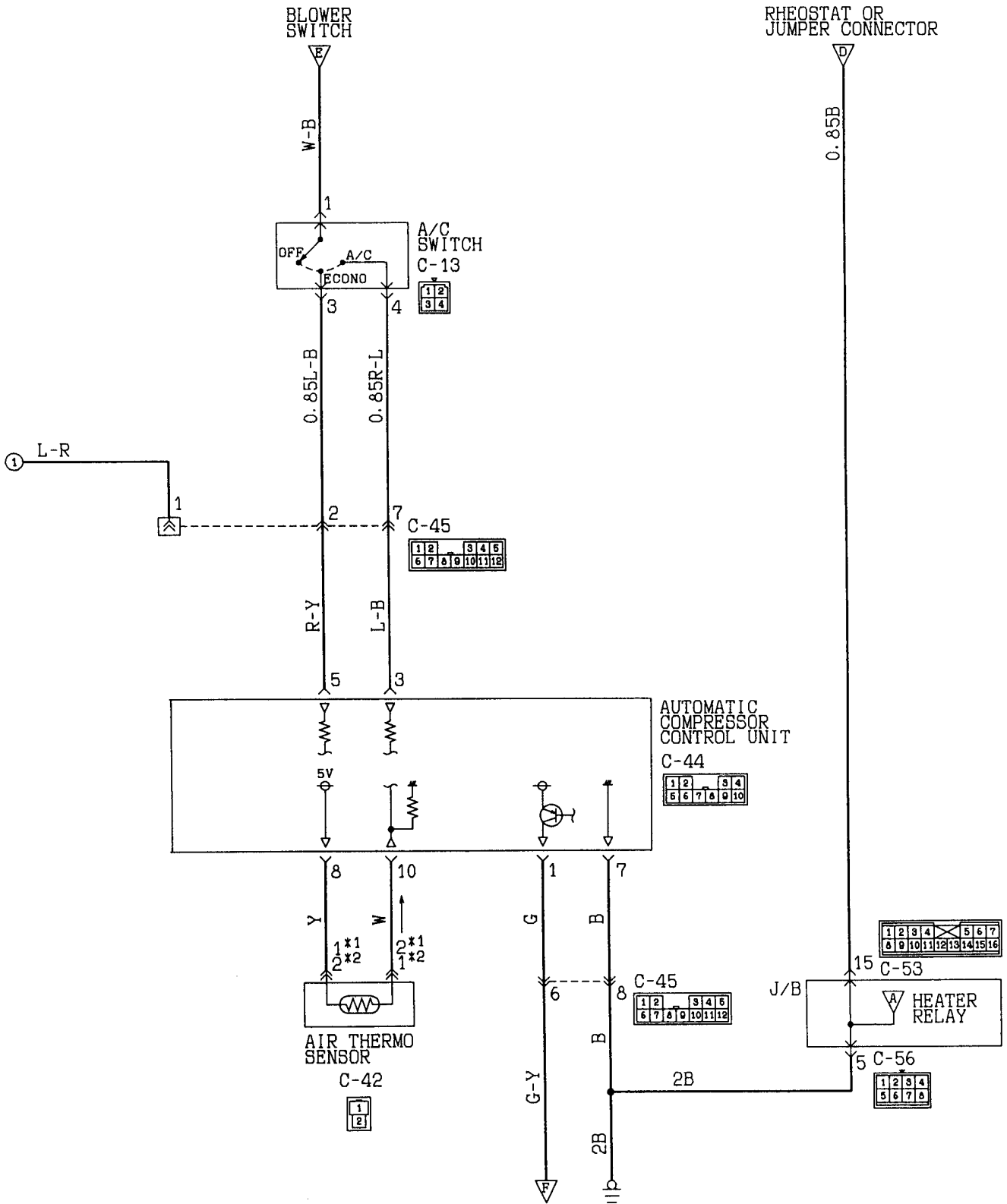
Wire colour code
 B:Black LG:Light green G:Green L:Blue W:White Y:Yellow SB:Sky blue
 BR:Brown O:Orange GR:Gray R:Red P:Pink V:Violet

NOTES

HEATER AND AIR CONDITIONER 4D68 (SPACE RUNNER)

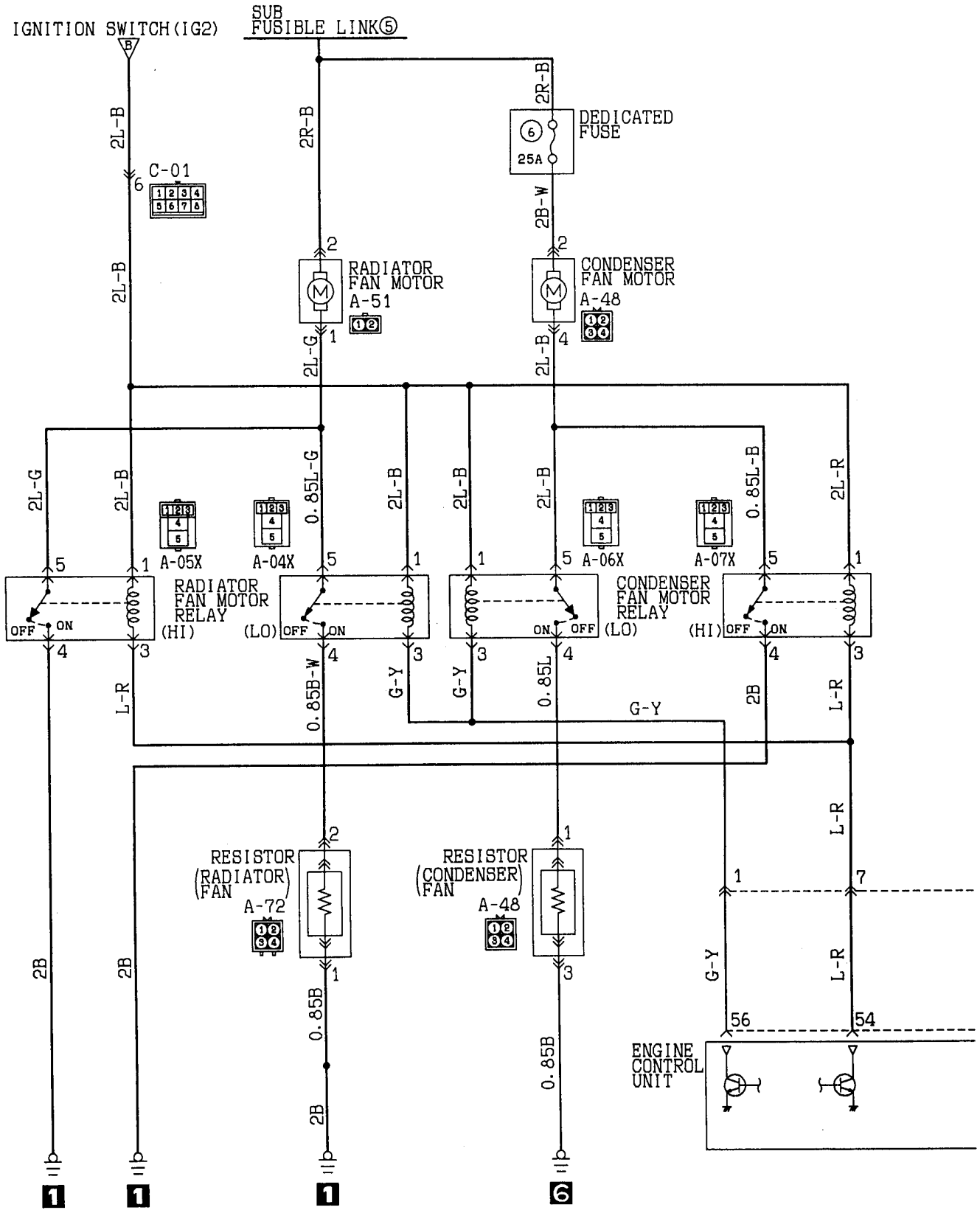


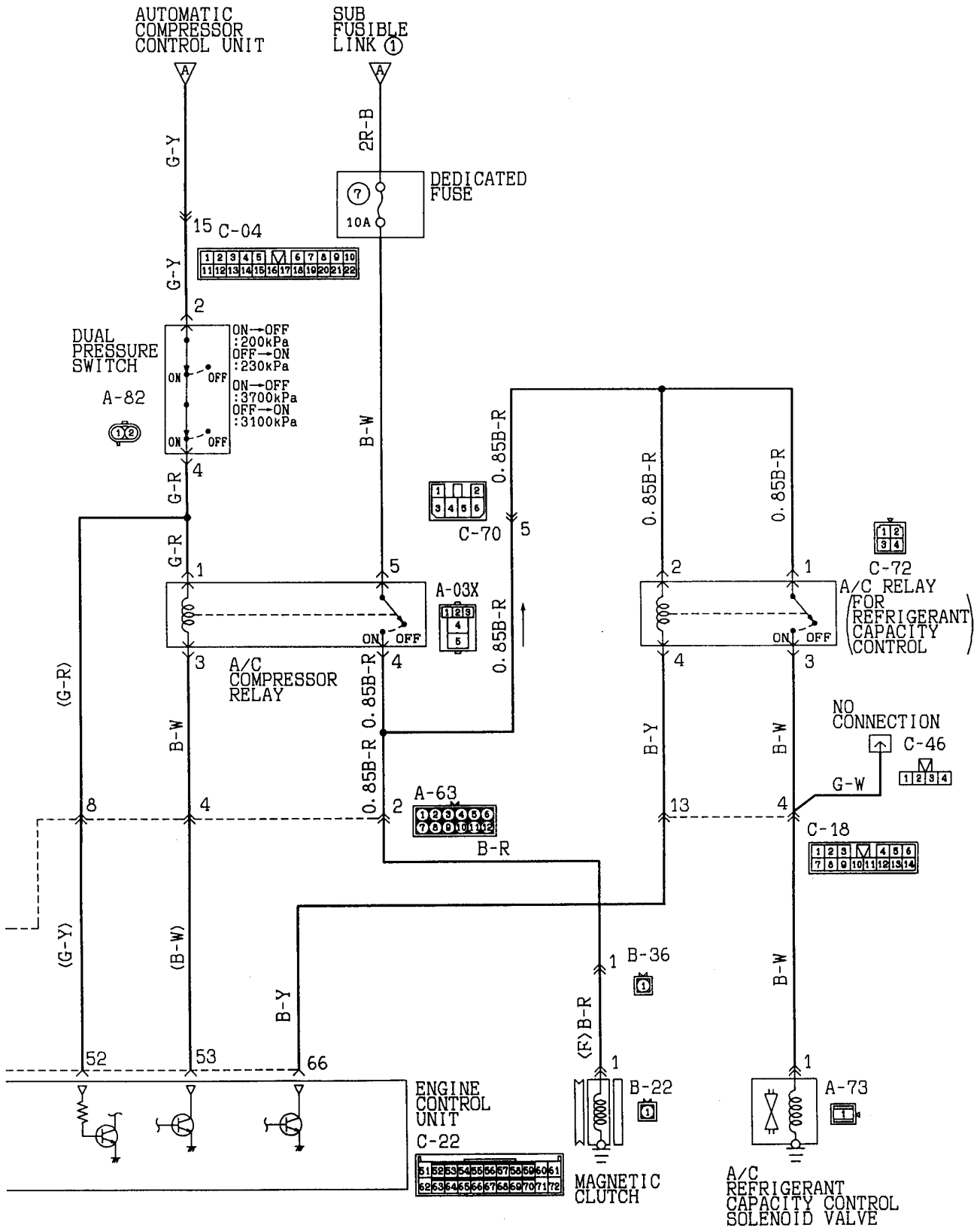
Remarks
 *1: Vehicles without Jumper connector (D-20)
 *2: Vehicles with Jumper connector (D-20)



Remark
 *1: LHD
 *2: RHD

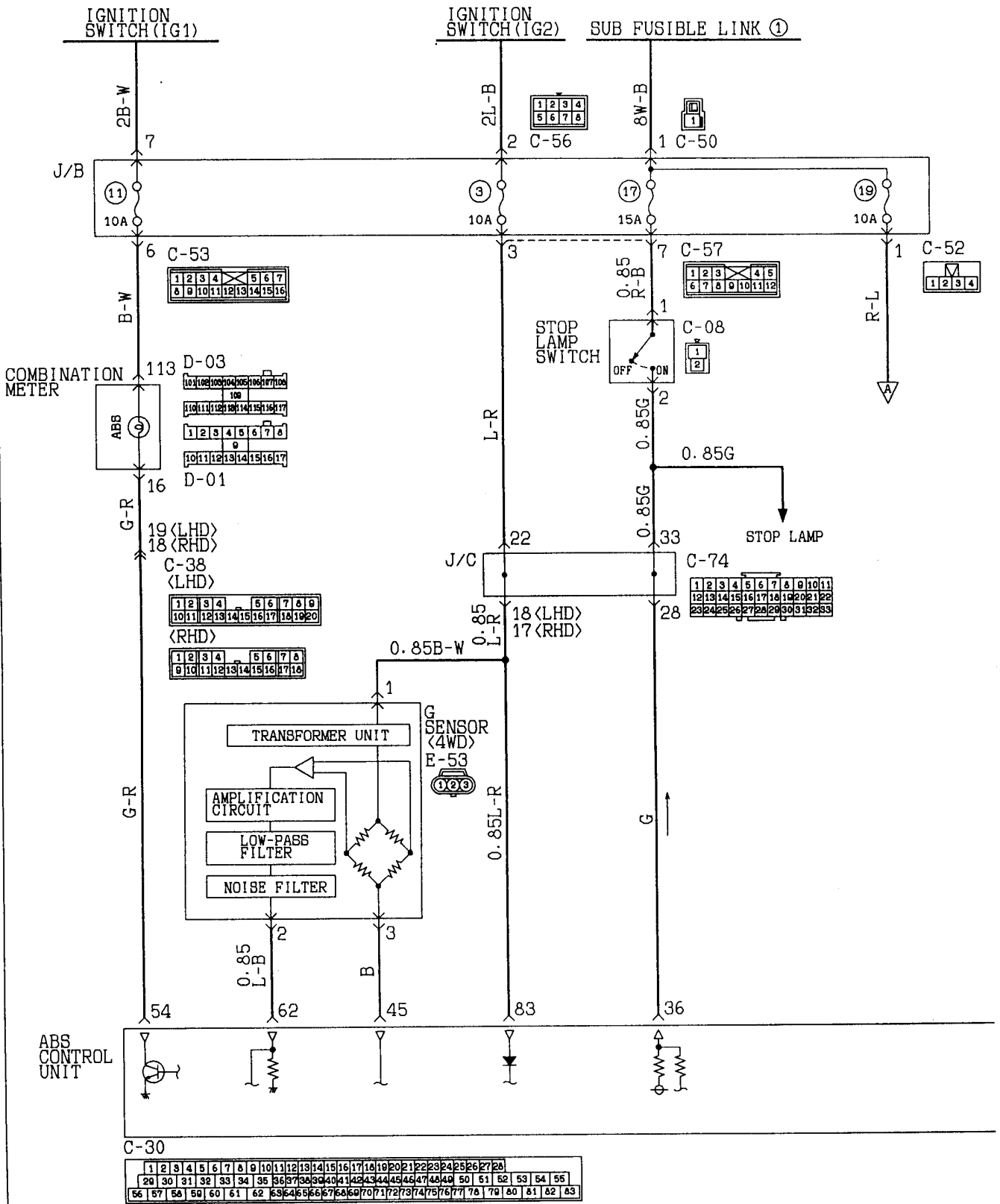
Wire colour code
 B: Black LG: Light green G: Green L: Blue W: White Y: Yellow SB: Sky blue
 BR: Brown O: Orange GR: Gray R: Red P: Pink V: Violet

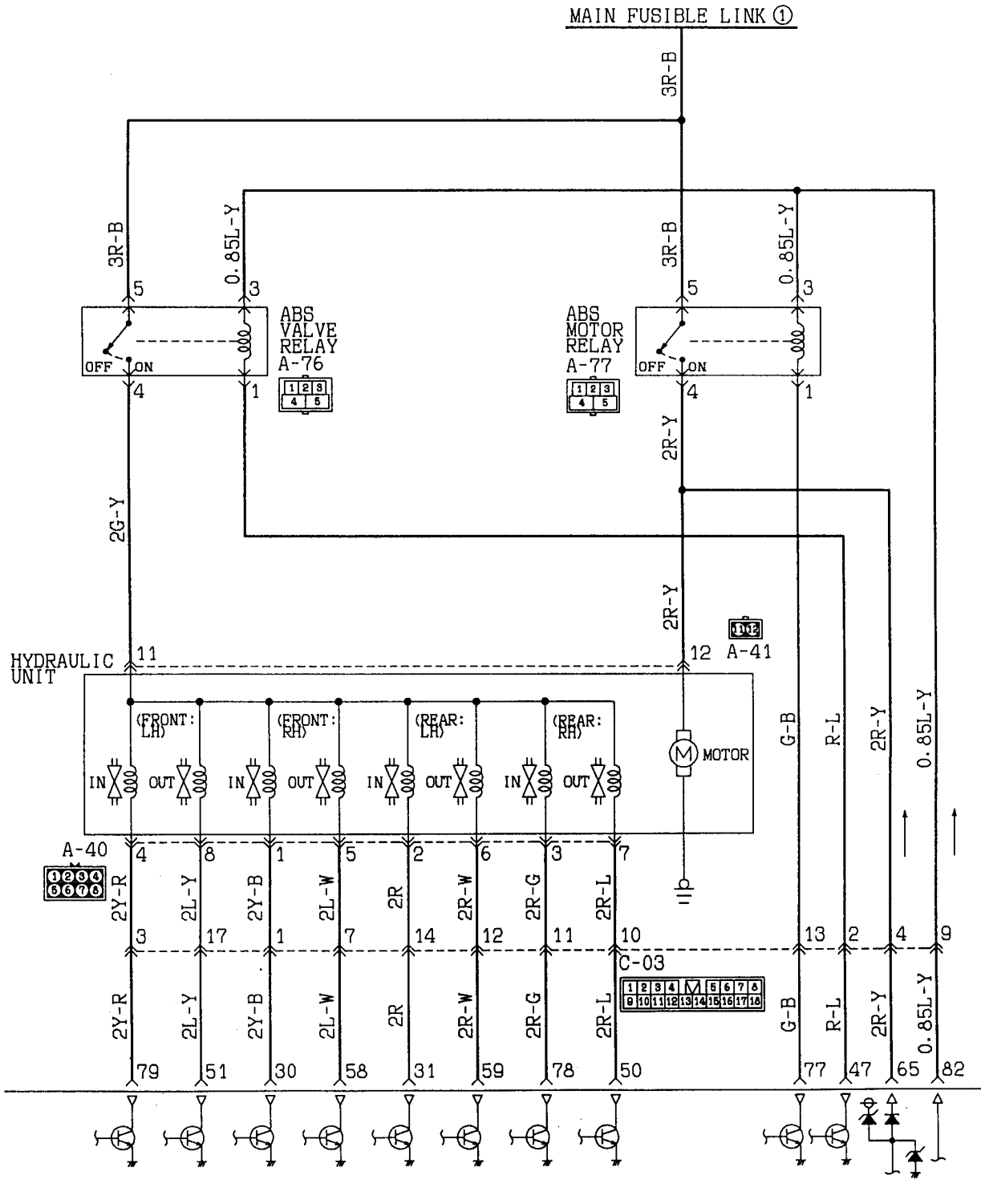




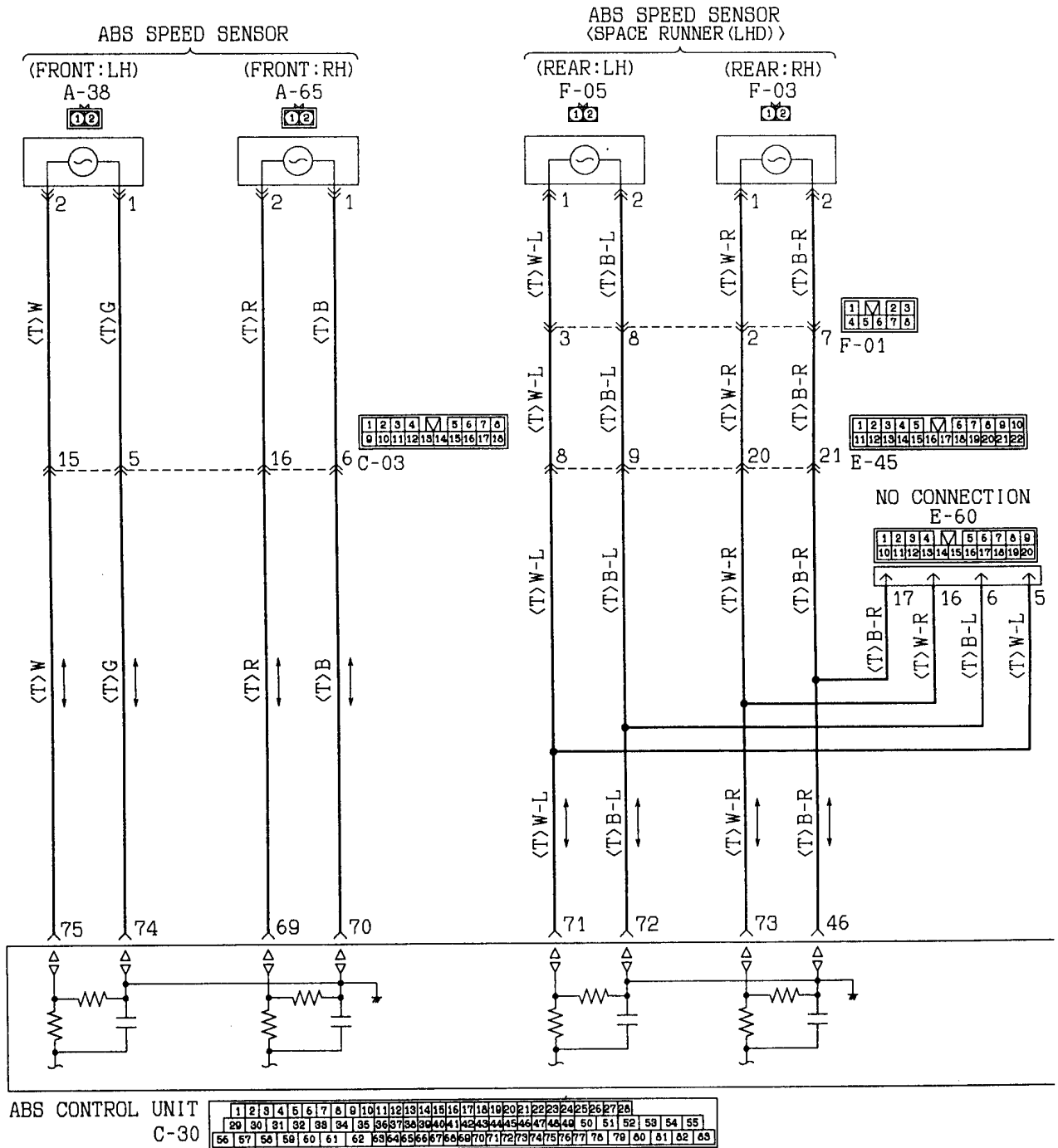
Wire colour code
 B:Black LG:Light green G:Green L:Blue W:White Y:Yellow SB:Sky blue
 BR:Brown O:Orange GR:Gray R:Red P:Pink V:Violet

ANTI-LOCK BRAKE SYSTEM (ABS)

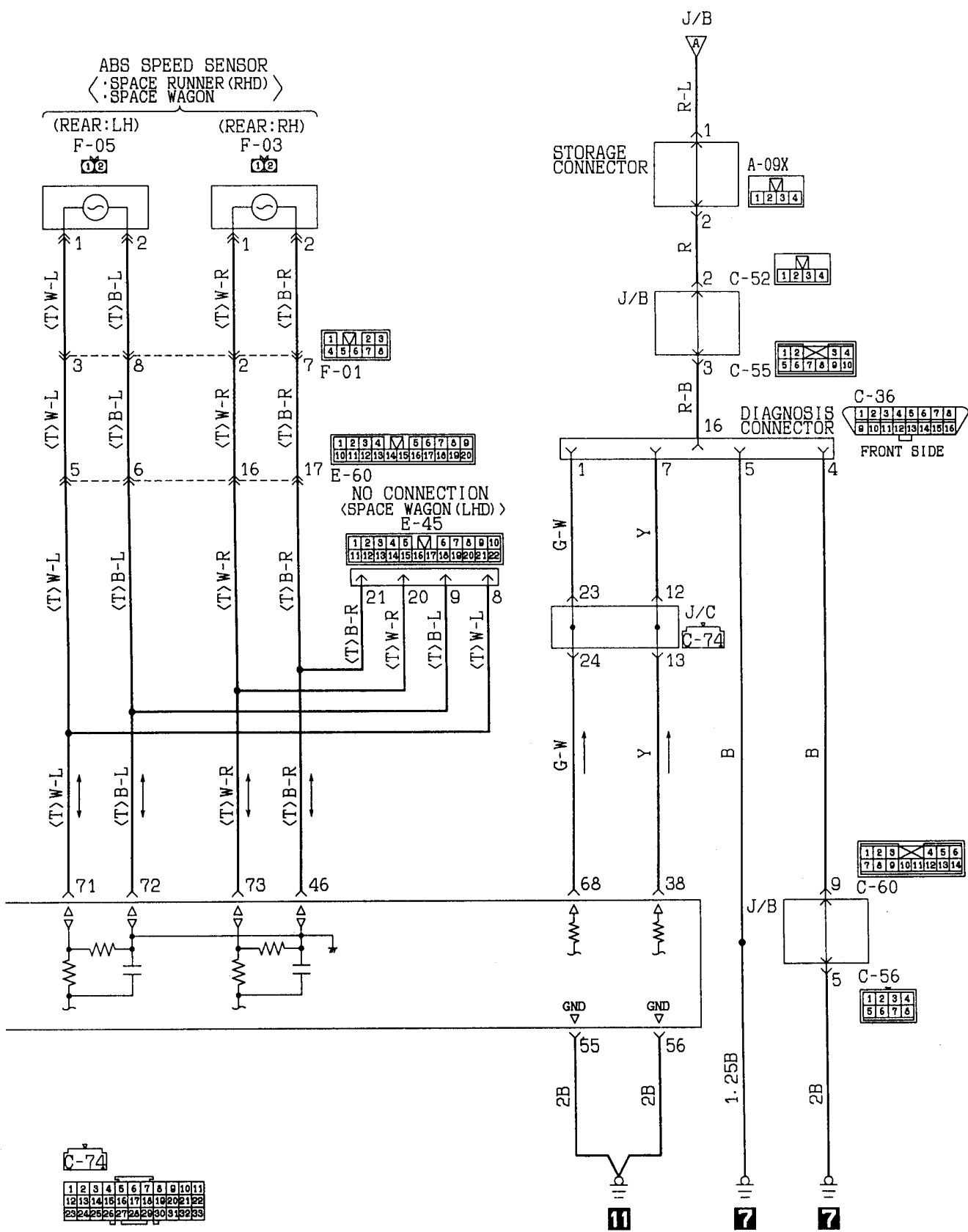




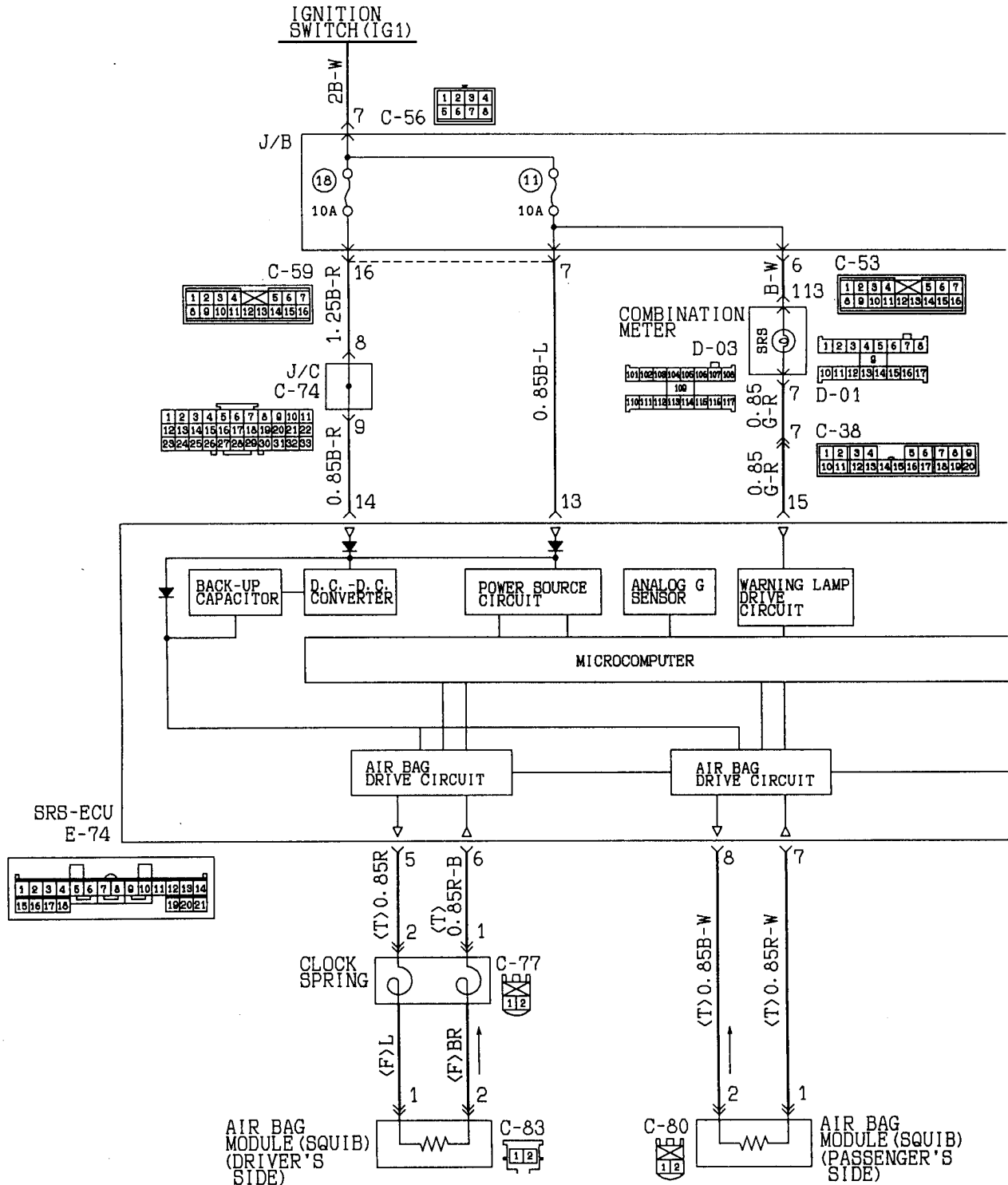
Wire colour code
 B:Black LG:Light green G:Green L:Blue W:White Y:Yellow SB:Sky blue
 BR:Brown O:Orange GR:Gray R:Red P:Pink V:Violet



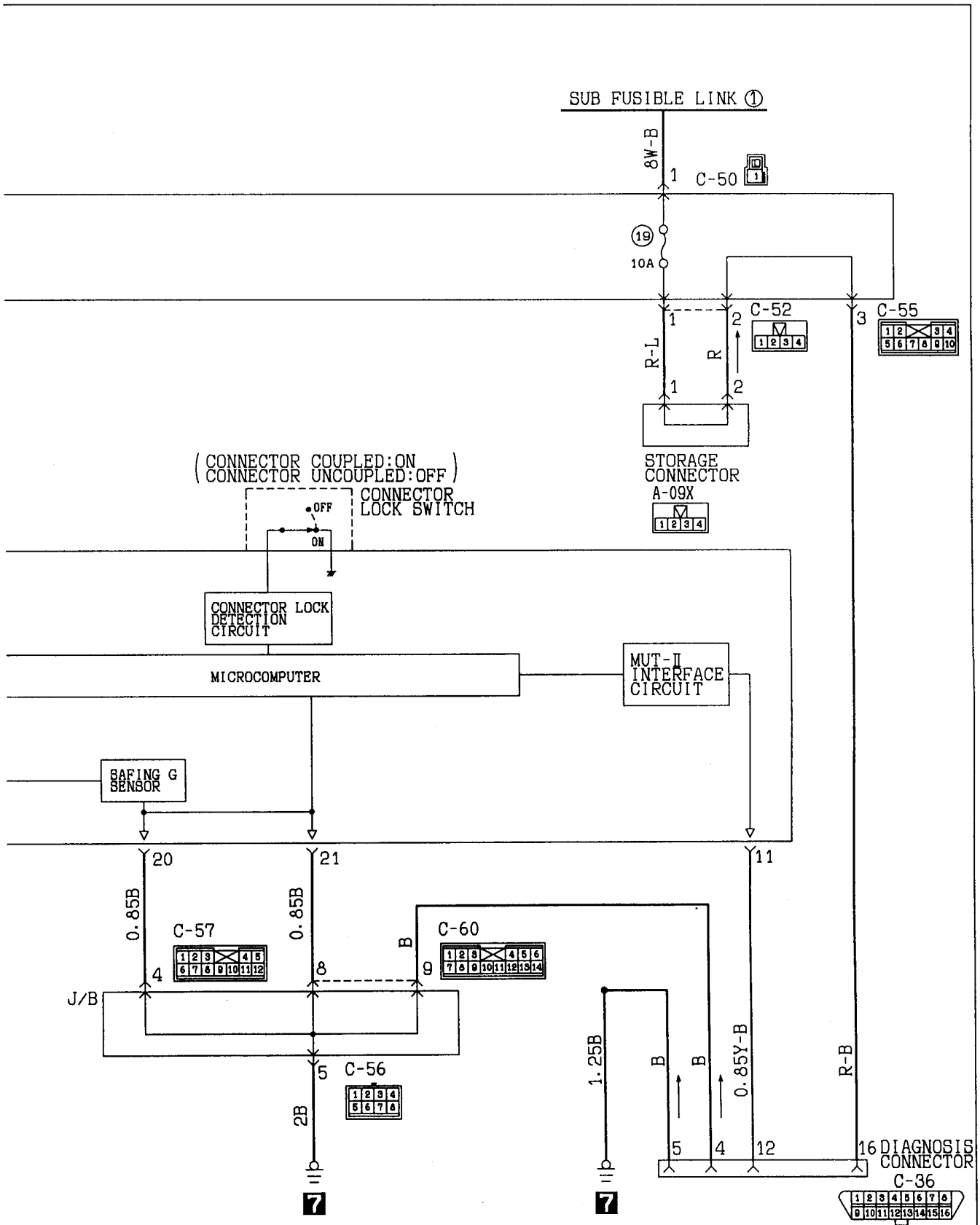
Wire colour code
 B:Black LG:Light green G:Green L:Blue W:White Y:Yellow SB:Sky blue
 BR:Brown O:Orange GR:Gray R:Red P:Pink V:Violet



SUPPLEMENTAL RESTRAINT SYSTEM (SRS)
L.H. drive vehicles

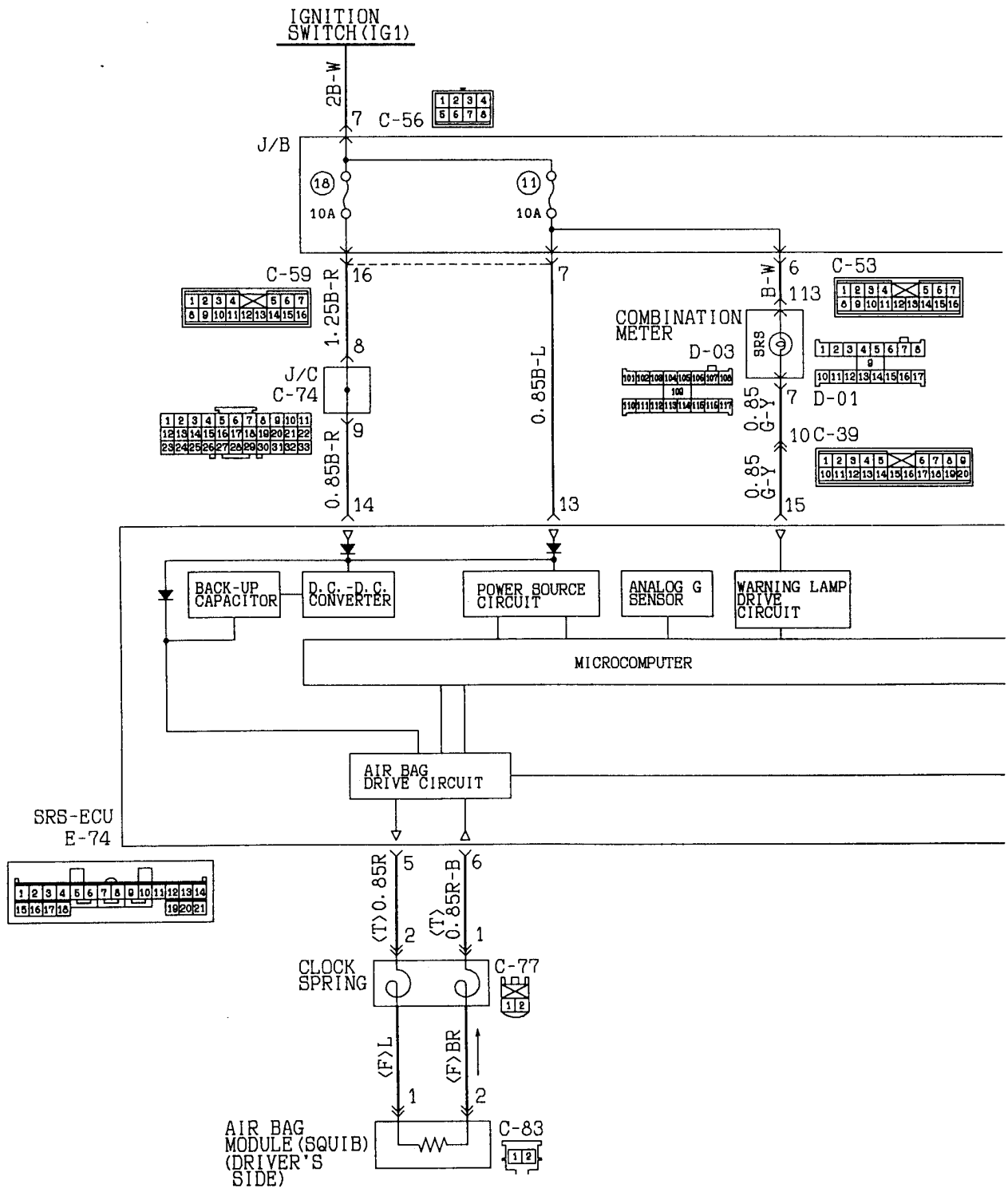


CAUTION
Carefully read and observe the SRS SERVICE PRECAUTIONS
(Refer to GROUP 52B SRS Service Precautions) prior to any service.

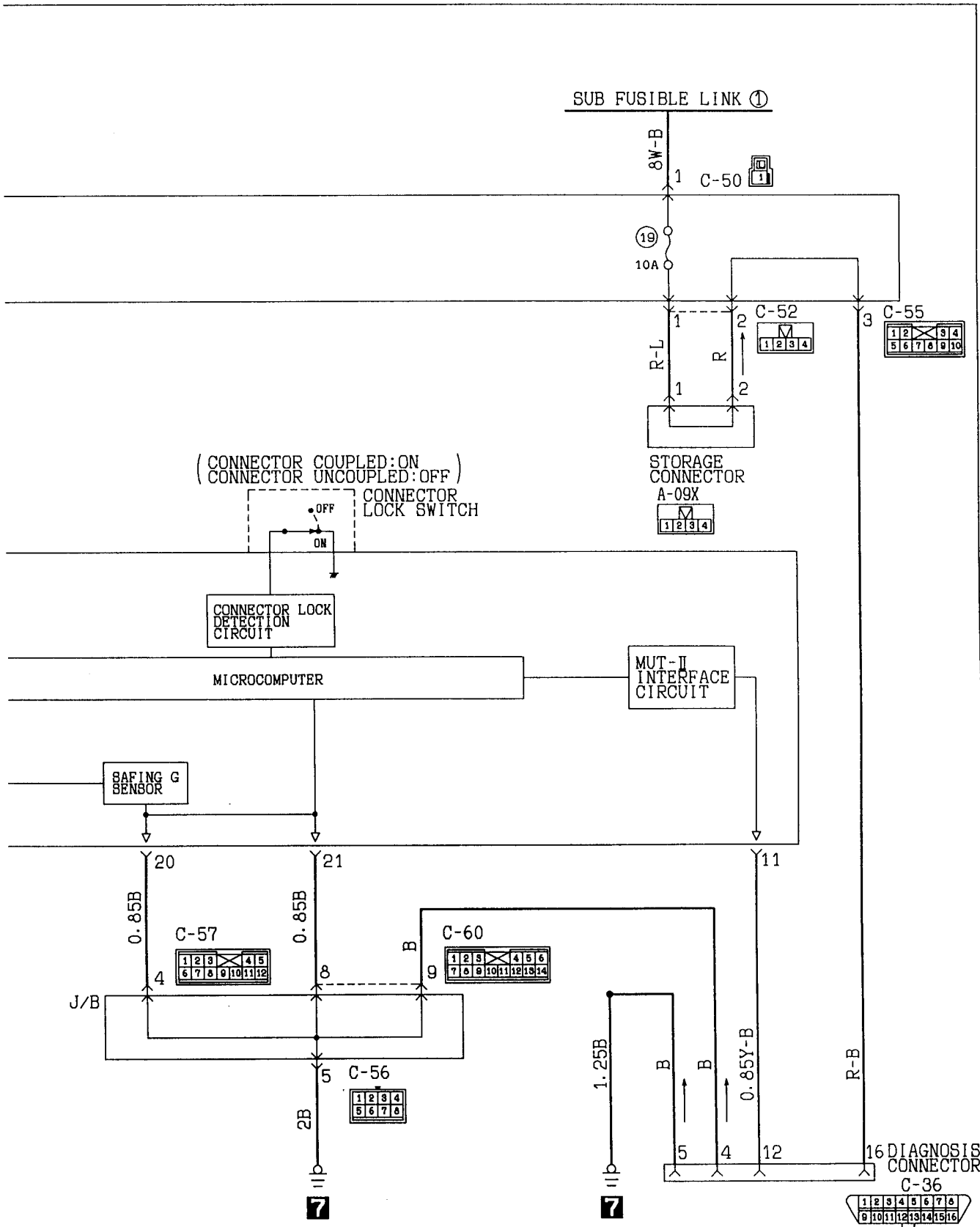


Wire colour code
 B:Black LG:Light green G:Green L:Blue W:White Y:Yellow SB:Sky blue
 BR:Brown O:Orange GR:Gray R:Red P:Pink V:Violet

SUPPLEMENTAL RESTRAINT SYSTEM (SRS)
R. H. drive vehicles



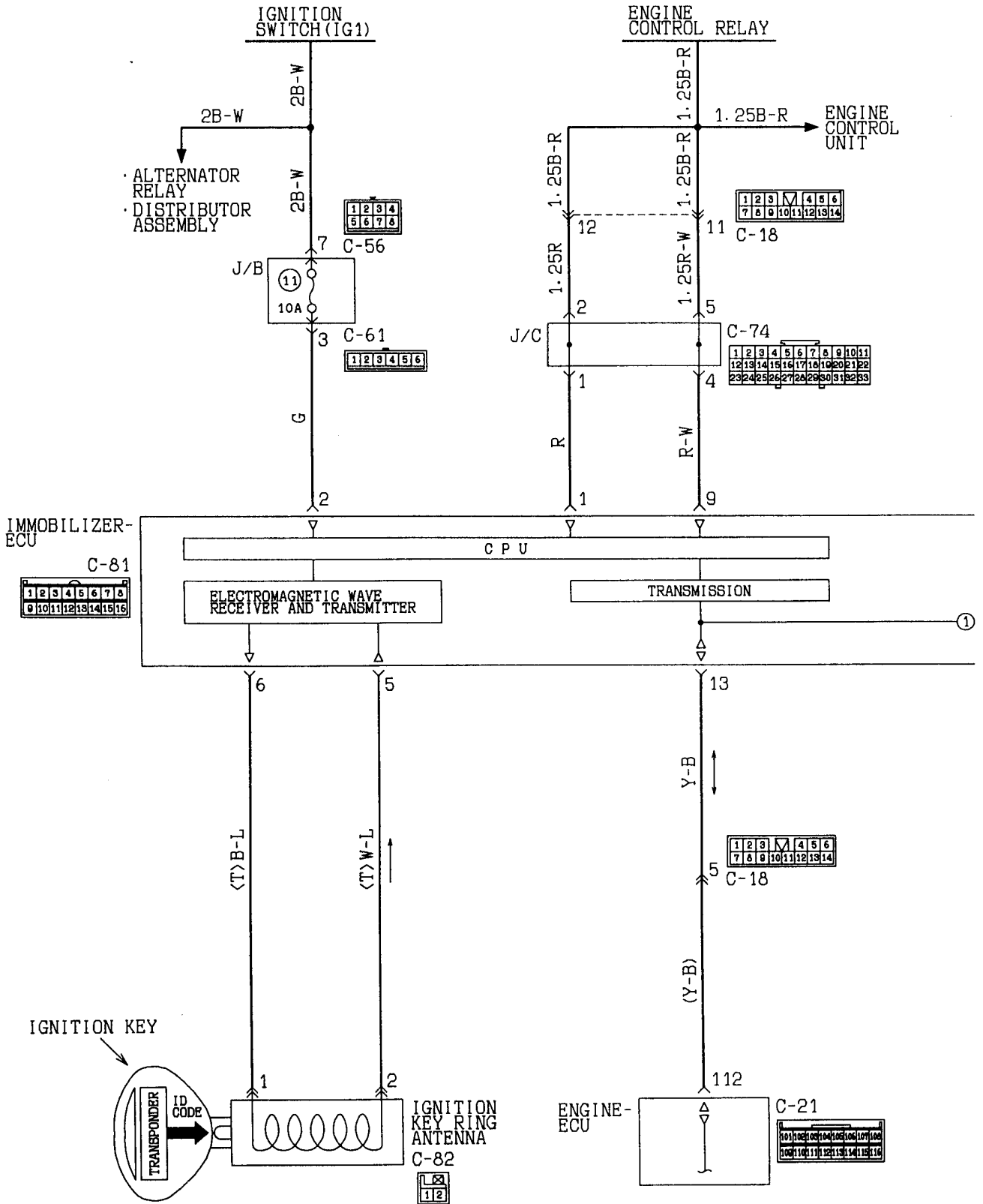
CAUTION
Carefully read and observe the BRS SERVICE PRECAUTIONS
(Refer to GROUP 52B BRS Service Precautions) prior to any service.



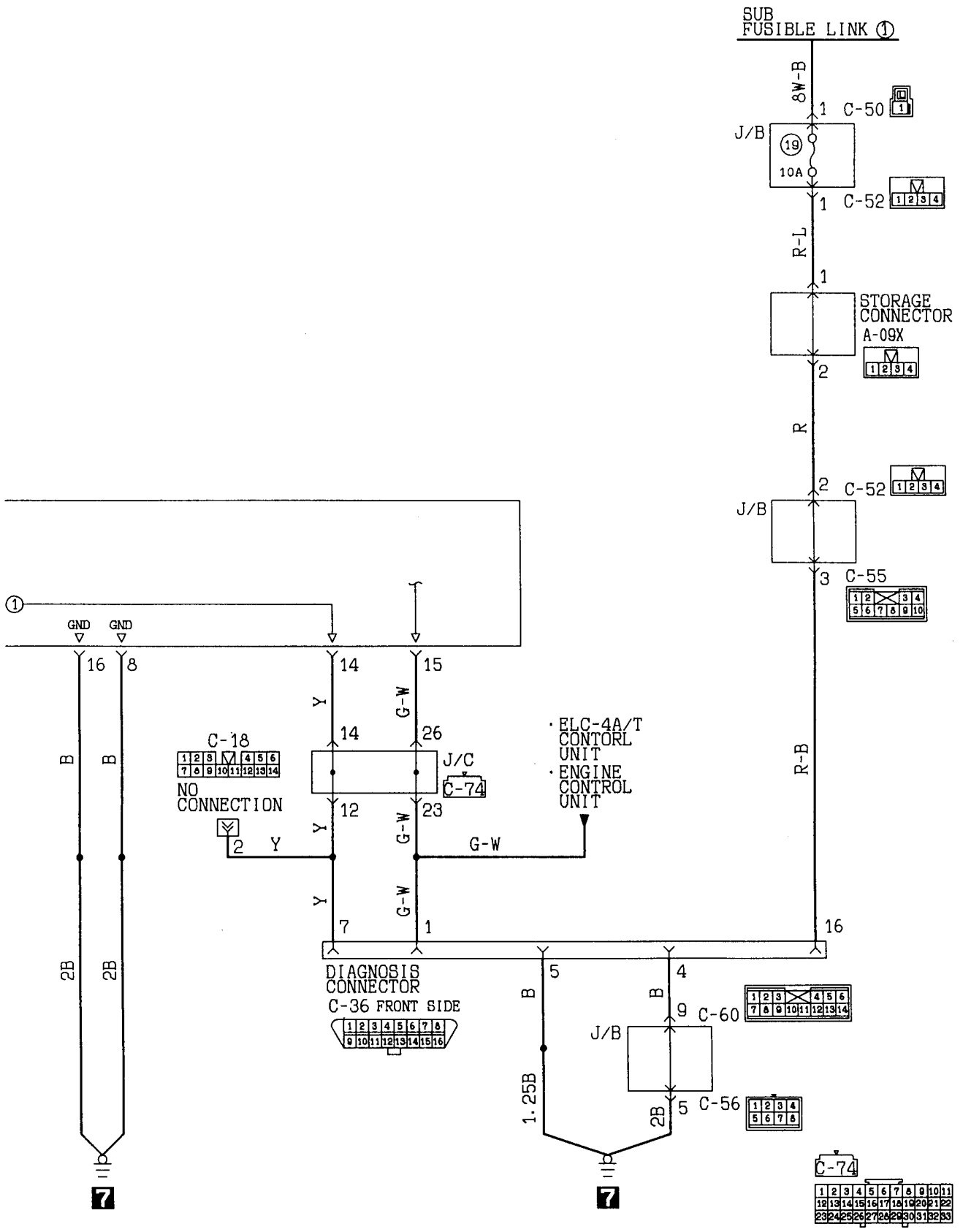
Wire colour code
 B:Black LG:Light green G:Green L:Blue W:White Y:Yellow SB:Sky blue
 BR:Brown O:Orange GR:Gray R:Red P:Pink V:Violet

IMMOBILIZER SYSTEM

Petrol-powered vehicles

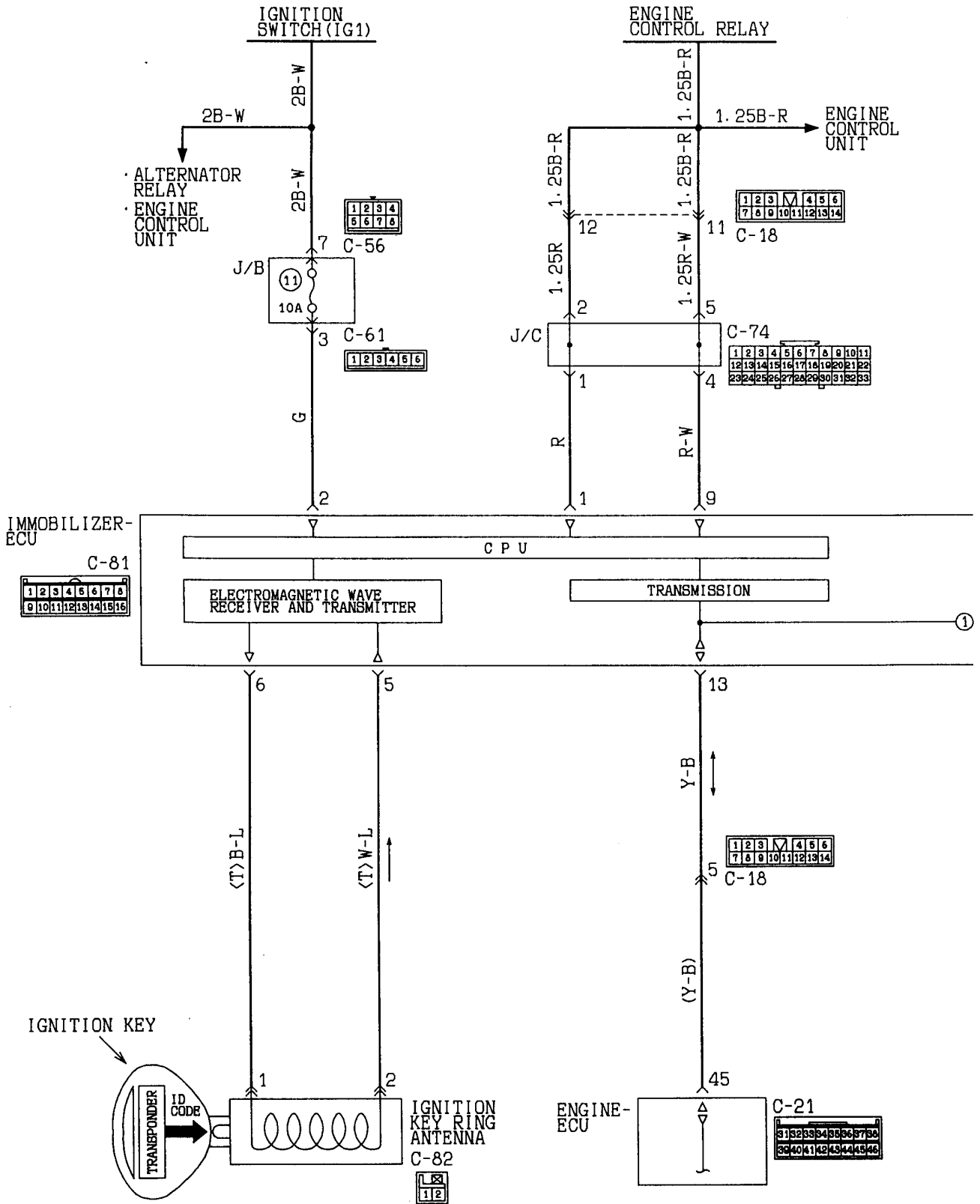


Wire colour code
 B:Black LG:Light green G:Green L:Blue W:White Y:Yellow SB:Sky blue
 BR:Brown O:Orange GR:Gray R:Red P:Pink V:Violet



IMMOBILIZER SYSTEM

Diesel-powered vehicles <SPACE RUNNER>



Wire colour code
 B:Black LG:Light green G:Green L:Blue W:White Y:Yellow SB:Sky blue
 BR:Brown O:Orange GR:Gray R:Red P:Pink V:Violet

