

COMPONENTS

DESCRIPTION

AIR MASS METER
 AIR PUMP
 AMPLIFIER
 DIODE—LSD7
 ENGINE MANAGEMENT ECU
 FUEL INJECTORS
 FUEL PUMP
 IDLE SPEED ACTUATOR
 IGNITION COIL
 LINEAR GEAR POSITION SWITCHES
 RELAY—AIR PUMP (LS33)
 RELAY—FUEL PUMP (LI5)
 RELAY—MAIN (LI4)
 SENSOR—AIR TEMP.
 SENSOR—COOLANT TEMP
 SENSOR—CRANKSHAFT
 SENSOR—OXYGEN
 SOLENOID VALVE
 SUPPLEMENTARY AIR VALVE
 THROTTLE POTENTIOMETER

LOCATION

ENGINE COMPARTMENT, LEFT FRONT
 ENGINE, LEFT FRONT
 INBOARD OF RIGHT FRONT INNER FENDER
 LEFT RADIATOR SUPPORT
 PASSENGER FOOTWELL
 INLET MANIFOLD, ABOVE
 REAR SUBFRAME, LEFT
 INLET MANIFOLD, CYLINDERS 2,3, TOP
 INBOARD OF RIGHT FRONT INNER FENDER
 'J' GATE
 LEFT RADIATOR SUPPORT
 COMPONENT PANEL
 COMPONENT PANEL
 AIR INTAKE ELBOW
 THERMOSTAT HOUSING
 ENGINE FRONT COVER
 FRONT, CATALYTIC CONVERTER
 INLET MANIFOLD, CYLINDER 1
 OUTBOARD OF INLET MANIFOLD, CYLINDERS 2,3, LEFT
 BELOW THROTTLE BODY

ACCESS

ENGINE COMPARTMENT
 ENGINE COMPARTMENT
 ENGINE COMPARTMENT
 ENGINE COMPARTMENT
 RIGHT DASH UNDER PANEL
 ENGINE COMPARTMENT, LEFT
 REAR SUBFRAME, BELOW
 ENGINE COMPARTMENT
 ENGINE COMPARTMENT
 CONSOLE SKI SLOPE PANEL
 ENGINE COMPARTMENT
 RIGHT DASH UNDER PANEL
 RIGHT DASH UNDER PANEL
 ENGINE COMPARTMENT, LEFT
 LEFT, FRONT OF CYLINDER HEAD
 ENGINE COMPARTMENT, ABOVE
 ENGINE COMPARTMENT, RIGHT
 ENGINE COMPARTMENT, LEFT
 ENGINE COMPARTMENT, LEFT

CONNECTORS

CODE DESCRIPTION

FP1 EYELET
 FP2 EYELET
 LB27 6-WAY PMHD (YELLOW)
 LB28 6-WAY PM4 (YELLOW)
 LB35 15-WAY PMHD (GREEN)
 LI2 25-WAY AMP SOCK (BLACK)
 LI3 25-WAY AMP SOCK (BLACK)
 LI4 RELAY BASE (RED)
 LI5 RELAY BASE (YELLOW)
 LI6 6-WAY PM4 (BLACK)
 LI8 2-WAY RWC SOCKET (GREY)
 LI9 2-WAY RWC SOCKET (GREY)
 LI10 2-WAY RWC SOCKET (GREY)
 LI11 2-WAY RWC SOCKET (GREY)
 LI12 2-WAY RWC SOCKET (GREY)
 LI13 2-WAY RWC SOCKET (GREY)
 LI14 SPADE (WHITE)
 LI15 3-WAY PM4 (BLUE)
 LI16 3-WAY PM4 (YELLOW)

LOCATION / INTERFACE

REAR SUBFRAME, LEFT / FUEL PUMP
 REAR SUBFRAME, LEFT / FUEL PUMP
 RIGHT DASH UNDER PANEL / LI HARNESS
 RIGHT DASH UNDER PANEL / LI HARNESS
 CENTER CONSOLE / LINEAR GEAR SWITCH
 RIGHT DASH UNDER PANEL / ECU
 RIGHT DASH UNDER PANEL / ECU
 RIGHT DASH UNDER PANEL / MAIN RELAY
 RIGHT DASH UNDER PANEL / FUEL PUMP RELAY
 RIGHT DASH UNDER PANEL / SERIAL OUTPUT
 ENGINE COMPARTMENT / INJECTOR 6
 ENGINE COMPARTMENT / INJECTOR 5
 ENGINE COMPARTMENT / INJECTOR 4
 ENGINE COMPARTMENT / INJECTOR 3
 ENGINE COMPARTMENT / INJECTOR 2
 ENGINE COMPARTMENT / INJECTOR 1
 ENGINE COMPARTMENT, RIGHT / LAMBDA SENSOR
 UNDER AIR MASS METER / THROTTLE POT
 INLET MANIFOLD, LEFT FRONT / SUPPLEMENTARY AIR VALVE

CODE DESCRIPTION

LI17 4-WAY PACKARD PLUG (BLK)
 LI18 6-WAY PM4 (YELLOW)
 LI19 6-WAY BOSCH SOCKET (BLK)
 LI20 2-WAY BOSCH SOCKET (BLK)
 LI21 3-WAY PM4 (BLACK)
 LI22 3-WAY PM4 (BLACK)
 LI25 7-WAY BOSCH SOCKET (BLK)
 LI26 EYELET (RED)
 LI27 EYELET (BLACK)
 LI33 EYELET
 LI37 2-WAY BOSCH SOCKET (BLK)
 LI39 2-WAY BOSCH SOCKET
 LI41 3-WAY ECONOSEAL (BLACK)
 LI42 2-WAY BOSCH SOCKET (BLK)
 LS1 36-WAY PMHD (BLACK)
 LS3 9-WAY PM4 (BLACK)
 LS33 RELAY BASE (GREEN)
 RS7 9-WAY PM4 (YELLOW)

LOCATION / INTERFACE

INLET MANIFOLD, CYL 2,3, TOP / IDLE SPEED ACTUATOR
 UNDER AIR CLEANER HOUSING / LS HARNESS
 ENGINE COMPARTMENT, LEFT / AIR MASS METER
 THERMOSTAT HOUSING / COOLANT TEMP SENSOR
 ENGINE, FRONT / ENGINE SPEED SENSOR
 ENGINE, LEFT FRONT / AIR PUMP CLUTCH
 ENGINE COMPARTMENT, RIGHT / IGNITION AMPLIFIER
 ENGINE COMPARTMENT, RIGHT / IGNITION COIL
 ENGINE COMPARTMENT, RIGHT / IGNITION COIL
 AIR MASS METER STUD / POWER GROUND
 ENGINE COMPARTMENT / LAMBDA SENSOR HEATER
 ENGINE, LEFT FRONT / VACUUM SOLENOID VALVE
 BATTERY TRAY, LEFT SIDE / FEEDBACK MONITOR
 AIR INTAKE ELBOW / AIR TEMP. SENSOR
 LEFT 'A' POST, UNDER DASH PANEL / LB HARNESS
 LEFT 'A' POST, UNDER DASH PANEL / LB HARNESS
 LEFT RADIATOR SUPPORT / AIR PUMP RELAY
 ENGINE COMPARTMENT, ABOVE IGNITION COIL / LI HARNESS

GROUNDS

CODE DESCRIPTION

LBG72 EYELET
 LIG30 EYELET
 LIG31 EYELET

LOCATION / INTERFACE

DRIVER FOOTWELL, LEFT 'A' POST / POWER GROUND
 ENGINE COMPARTMENT BULKHEAD, RIGHT / POWER GROUND
 ENGINE COMPARTMENT BULKHEAD, RIGHT / POWER GROUND

CODE DESCRIPTION

LIG32 EYELET
 LSG37 EYELET

LOCATION / INTERFACE

INLET MANIFOLD, #2 CYLINDER FIRING STUD / POWER GROUND
 ENGINE COMPARTMENT, LEFT FRONT / POWER GROUND

INPUTS / OUTPUTS

AIR MASS METER

CODE IN / OUT CIRCUIT

LI19-1 IN TRANSDUCER GROUND
 LI19-2 IN TRANSDUCER GROUND
 LI19-3 OUT LOAD SIGNAL
 LI19-5 IN IGNITION ON POWER
 LI19-6 OUT IDLE TRIM ADJUSTMENT
 LI33 IN POWER GROUND

ACTIVE

GROUND
 GROUND
 IDLE IN "N": APPROX 1.4V
 12V
 ADJUSTMENT RANGE: 0-5V
 GROUND

INACTIVE

GROUND
 GROUND
 KEY ON, ENGINE OFF: LESS THAN 1V
 0V
 KEY OFF: 0V
 GROUND

ENGINE MANAGEMENT ECU

CODE IN / OUT CIRCUIT

LI2-1 OUT IGNITION DRIVE
 LI2-2 OUT AIR PUMP RELAY
 LI2-3 OUT AIR MASS METER
 LI2-4 OUT IGNITION AMPLIFIER
 LI2-6 OUT SENSOR GROUND
 LI2-7 OUT FUEL PUMP RELAY
 LI2-8 IN STARTER SOLENOID
 LI2-10 IN IGNITION ON SUPPLY
 LI2-11 IN POWER GROUND
 LI2-12 OUT INJECTORS 1-2
 LI2-13 OUT INJECTORS 3-4
 LI2-14 IN BATTERY POWER
 LI2-15 OUT IDLE SPEED ACTUATOR
 LI2-16 OUT IDLE SPEED ACTUATOR
 LI2-17 IN POWER GROUND
 LI2-18 OUT IDLE SPEED ACTUATOR
 LI2-19 OUT IDLE SPEED ACTUATOR
 LI2-20 OUT SUPPLEMENTARY AIR VALVE
 LI2-23 IN POWER GROUND
 LI2-24 IN SIGNAL GROUND
 LI2-25 OUT INJECTORS 5-6
 LI13-1 IN BATTERY VOLTAGE CHECK AND IGNITION SENSOR
 LI13-2 IN COOLANT TEMP. SENSOR
 LI13-3 IN LINEAR GEAR SWITCH
 LI13-4 OUT LI6 SERIAL OUTPUT
 LI13-5 OUT LI6 SERIAL OUTPUT
 LI13-6 OUT FEEDBACK MONITOR
 LI13-8 OUT ROAD SPEED SIGNAL
 LI13-9 OUT LI6 SERIAL OUTPUT
 LI13-10 IN IDLE TRIM ADJUSTMENT
 LI13-12 OUT CHECK ENGINE SIGNAL TO VCM
 LI13-13 IN CRANKSHAFT SENSOR REF. TO PIN 24
 LI13-14 IN THROTTLE POT WIPER
 LI13-15 OUT FUEL USE AND FAILURE CODE
 LI13-16 IN AIR MASS METER LOAD
 LI13-17 IN LAMBDA SENSOR
 LI13-18 IN POWER GROUND
 LI13-19 OUT LI6 SERIAL OUTPUT
 LI13-20 IN AIR TEMP. SENSOR
 LI13-21 IN AC COMPRESSOR CLUTCH
 LI13-22 OUT THROTTLE POT. POWER
 LI13-24 IN CRANKSHAFT SENSOR REF. TO PIN 13

ACTIVE

PULSED SIGNAL APPROX 0.6V @ IDLE
 GROUND: 0V
 GROUND: 0V
 KEY ON: 5V
 GROUND: 0V
 GROUND: 0V
 12V
 12V
 GROUND
 PULSED GROUND
 PULSED GROUND
 12V
 12V
 PULSED SIGNAL
 PULSED SIGNAL
 GROUND
 PULSED SIGNAL
 PULSED SIGNAL
 GROUND: 0V
 GROUND
 GROUND: 0V
 PULSED GROUND
 12V
 12V
 SENSED VOLTAGE: APPROX 2.06V @ 30°C
 "P" AND "N": GROUND
 0-5V
 PULSED SIGNAL
 ADJUSTMENT RANGE: 0-5V
 GROUND, 0V
 PULSED SIGNAL: 2.4 V A.C. @ IDLE, 5 V A.C. @ 3000 RPM
 240 mV TO 4.9V
 SIGNAL
 IDLE IN "N": APPROX. 1.4V
 0-1V SWING
 GROUND
 SENSED VOLTAGE APPROX 2.32V @ 24°C
 12V
 5V
 GROUND: 0V

INACTIVE

0V
 12V
 GROUND: 0V
 KEY OFF: 0V
 GROUND: 0V
 12V
 OPEN CIRCUIT: 0V
 0V
 GROUND
 12V
 12V
 12V
 KEY ON, ENGINE OFF: 10V
 KEY ON, ENGINE OFF: LESS THAN 1V
 GROUND
 KEY ON, ENGINE OFF: 10V
 KEY ON, ENGINE OFF: LESS THAN 1V
 12V
 GROUND
 GROUND: 0V
 12V
 0V
 0V
 "D", "2", "3", "R": 5V
 2.5V
 KEY ON AT REST: APPROX 5V
 KEY OFF: 0V
 12V
 CRANKSHAFT SENSOR REF TO PIN 24
 0V
 0V
 KEY ON, ENGINE OFF: LESS THAN 1V
 ENGINE OFF: 0V
 GROUND
 0V
 0V
 0V
 GROUND: 0V



BATTERY POWER

FIG 1



IGNITION POWER

FIG 2



IGNITION SWITCHED GROUND

FIG 3



LOGIC GROUND

FIG 4



FIG NUMBER REFERENCE

