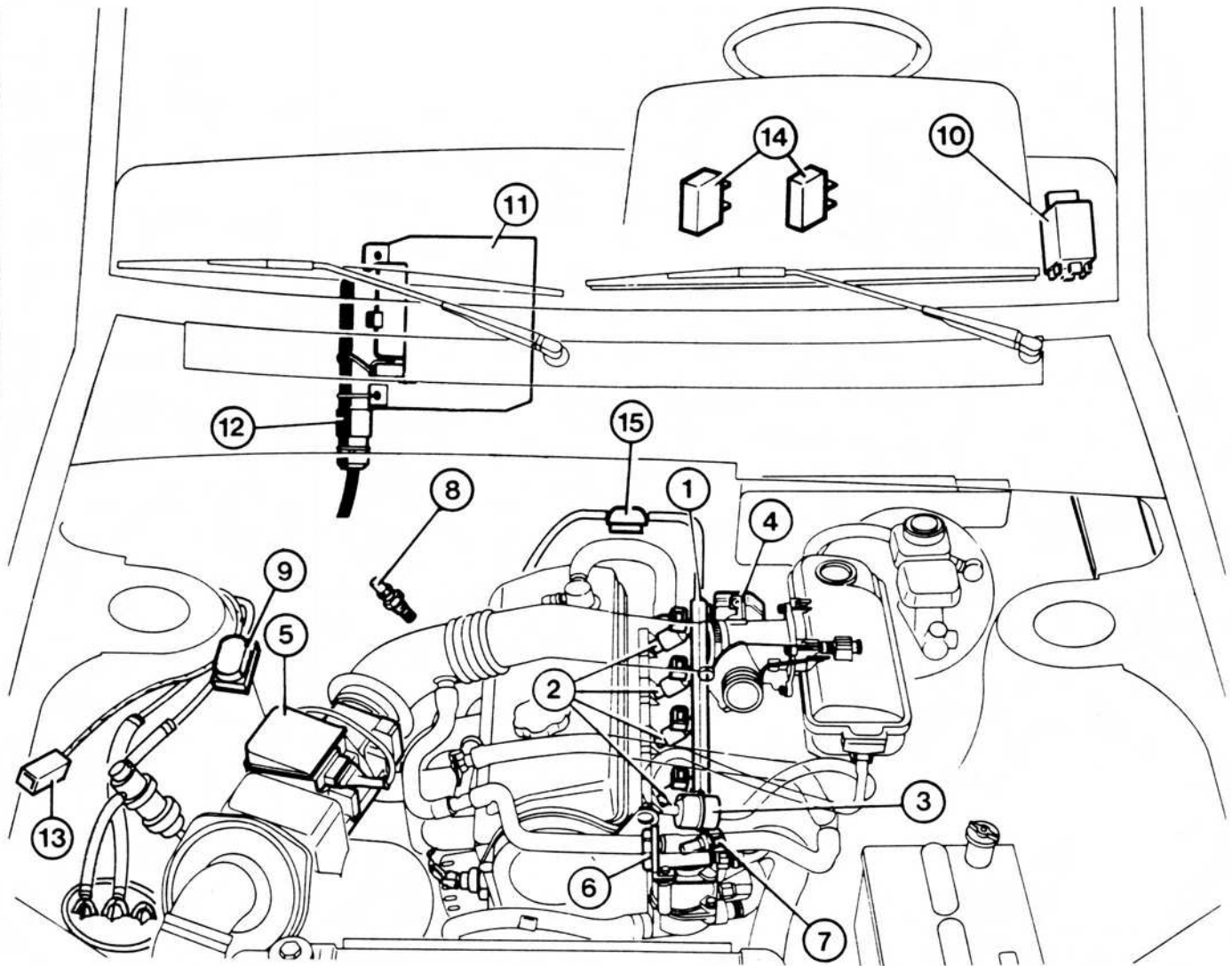


LU2 TEST SECTION

ZDJL



- | | |
|------------------------------|--|
| 1 Injector distribution pipe | 9 Altitude sensor |
| 2 Injectors | 10 Tachymetric relay |
| 3 Fuel pressure regulator | 11 Injection ECU (mounted on firewall behind glove box) |
| 4 Throttle switch unit | 12 Injection ECU connector |
| 5 Air flow sensor | 13 Test wire for checking richness at idle (wire 22 from injection ECU) |
| 6 Auxiliary air device | 14 15 amp fuse for fuel pump(s), 10 amp fuse for Lambda sensor, located behind ashtray |
| 7 Temperature sensor (NTC) | 15 Damper |
| 8 Lambda sensor | |

FUEL PUMP TESTING

Voltage Checks:

1. At main pump (under left rear floor)
 No. 76 wire and ground - 12 volts
2. Ground at main pump (under left rear floor)
 No. 76 wire and No. M76 wire - 12 volts
3. At primer pump (at fuel tank in trunk)
 No. 76A and ground - 12 volts

Amperage Checks:

1. Remove 15 amp fuel pump fuse (behind ashtray)
2. Install ampmeter - series connection in place of fuse
3. Crank engine
4. Observe reading - should be = 10 amps
 - if more, defective pump
 - if less, resistance in pump electrical circuit too high
(refer to Class 12 Electrical Manual)

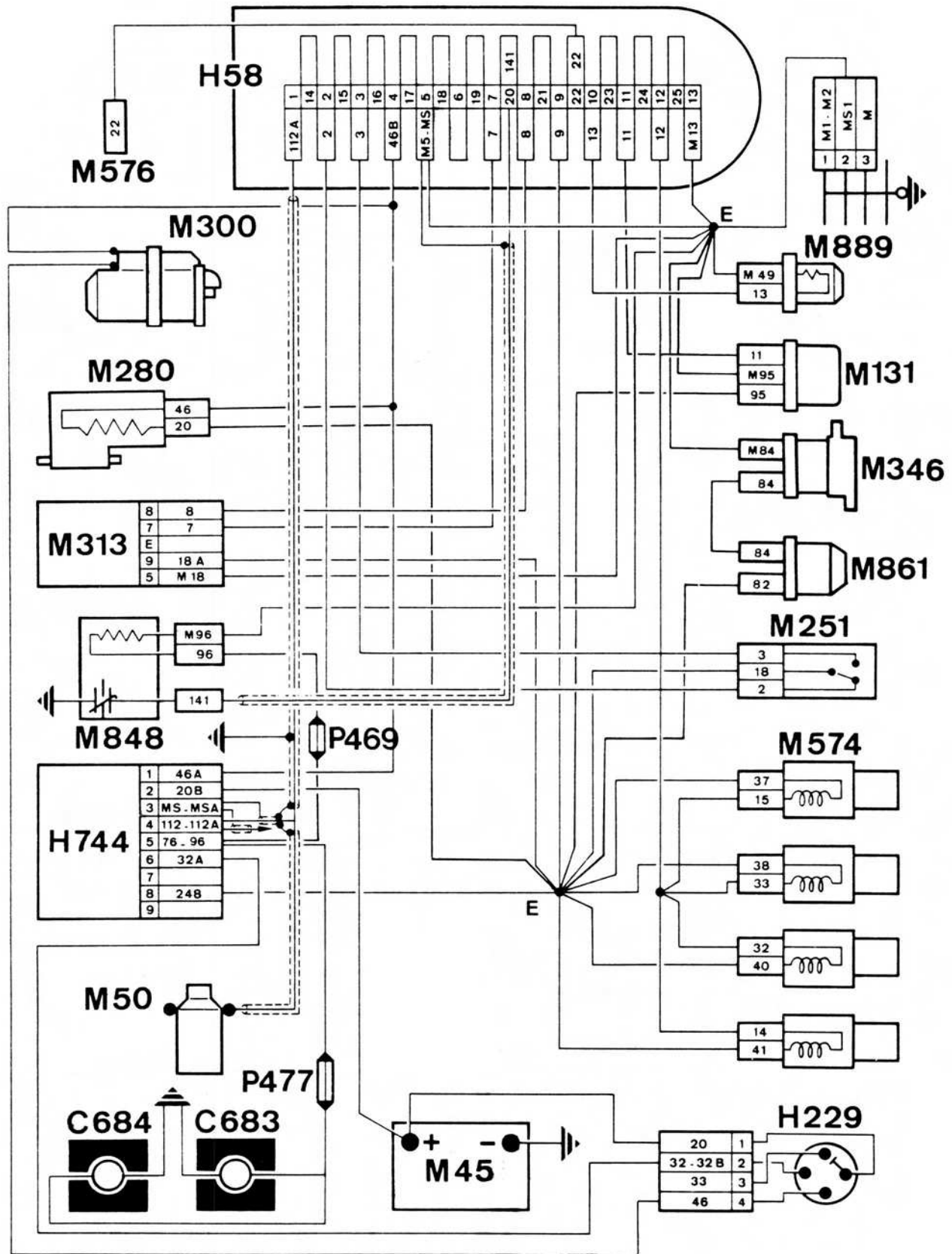
LEGEND

Battery	M45
Ignition Coil	M50
Altitude Sensor	M131
Throttle Switch Unit	M251
Auxiliary Air Device	M280
Starter Motor	M300
Air Flow Sensor	M313
Fuel Vapor Recovery Electrovalve	M346
Injectors	M574
Test Lead for Richness Adjustment	M576
Lambda Sensor	M848
30°C Thermocontact	M861
Engine Temperature Sensor (NTC)	M889
Injection ECU	H58
Ignition/Key Switch Lock	H229
Tachymetric Relay	H744
Lambda Sensor Heater Fuse (10A)	P469
Fuel Pump Fuse (15A)	P477
Main Fuel Pump	C683
Primer Fuel Pump	C684

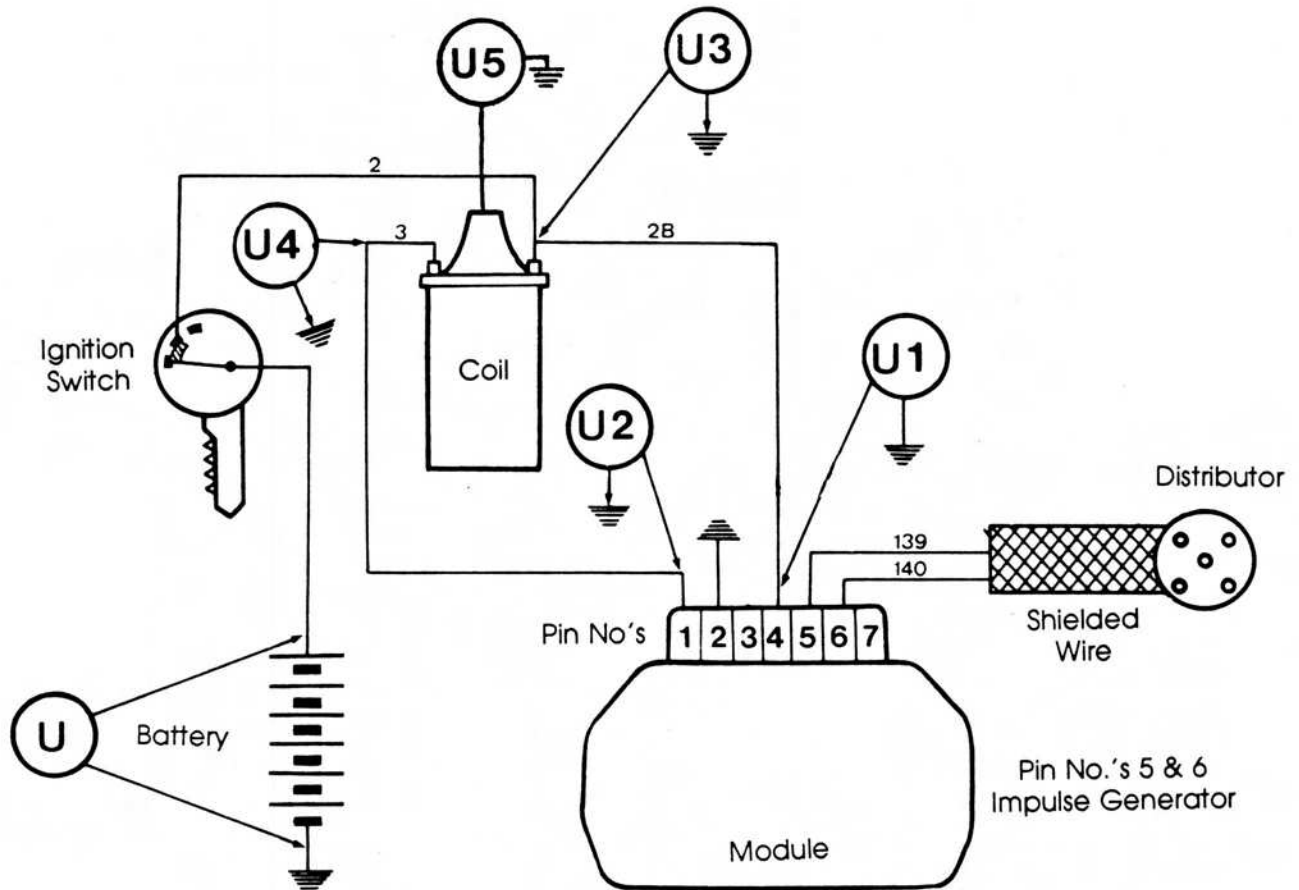
IDENTIFICATION OF LETTERS M - P - H - C - L:

The vehicle is divided into four compartments by letters placed before the component number reference, according to the geographic location of said component

M = Engine
 P = Dashboard
 H = Passenger Compartment
 C = Trunk
 L = Lamp



IGNITION CHECKS



VOLTMETER CHECKS - Ignition On

U	B + MINIMUM 12 VOLTS
U1	B + MINIMUM 12 VOLTS
U2	B + MINIMUM 12 VOLTS
U3	B + MINIMUM 12 VOLTS
U4	B + MINIMUM 12 VOLTS
U5	B + MINIMUM 12 VOLTS

If no voltage at U1, check U3

If no voltage at U2, check U4

TROUBLESHOOTING

Prior to performing any troubleshooting on the LU2-JETRONIC injection system, it is imperative that the conditions below be met.

Starting circuit

- Battery adequately charged
- Starter drives engine normally

Ignition

- Ensure that there is spark
- Spark timing is properly set
- Spark plugs are in good condition and the gap is correctly set

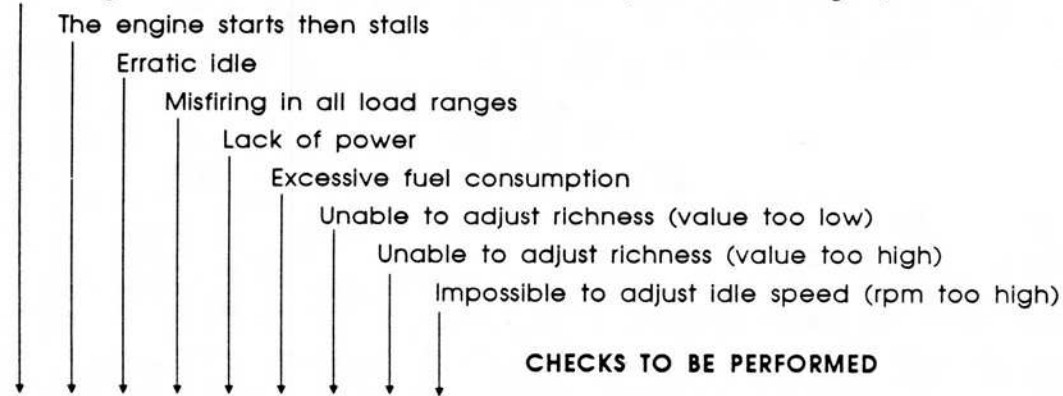
Air filter

- Air filter element is in good condition

DEFECT NOTED

For each defect, proceed by elimination: 1, 2, 3 etc... from top to bottom

The engine does not start or is hard to start (cold or hot engine)



CHECKS TO BE PERFORMED

			1						→ Check the charging circuit
1	1	3		2		2	2		→ Visually check all air and fuel hoses and connections
2	2			3	1				→ Check the supply voltage of fuel pumps
5	3	5	3	4	2	1	1		→ Check the fuel pressure
			4	5					→ Check the fuel flow (output volume)
		1			6				→ Check the mixture and idle speed adjustment
3	4	4				4		1	→ Check the auxiliary air device
4		7	5		5	3	3		→ Check the temperature sensor (NTC)
6		8	6	6	4	6	4		→ Check the air flow sensor
		6	7	7	3		5		→ Check the injectors
		2		1				2	→ Check the accelerator control adjustment
8	5	9		8		5			→ Check the air induction system under pressure
7	6	11	2	9	7	7	6		→ Check the injection ECU multipin connector
		10							→ Check that the throttle flap housing is clean
		12						3	→ Check the initial opening throttle flap angle
		13							→ Check the adjustment of throttle switch unit
9	7	14	8	10	8				→ Check the valve adjustment and compression
10	8	15	9	11	9				→ Retest vehicle with a new injection ECU
								7	→ Retest with a new Lambda sensor

PIN OUT BOX TESTING - Voltage Checks

Check battery voltage first before proceeding to any pin out box voltage checks (for correct voltage drop readings)

Remove connector (25-pin) from injection ECU and connect it to the male end of the 25-pin pin out box connector

Battery fully charged

All tests are done by connecting the appropriate meter between the pin numbers as indicated in the pin no. column

CHECK	TESTER	PIN NOS.	TEST CONDITION	READINGS	IF READINGS INCORRECT, CHECK:
Injection ECU Power Supply	Voltmeter	9 & Grnd	Energize starter	> 9 Volts	Electrical circuit continuity; Tachymetric relay and supply
Cranking Voltage	Voltmeter	4 & Grnd	Energize starter	> 9 Volts	Electrical circuit continuity; Ignition switch; Starter motor
INSTALL TACHYMETRIC BYPASS HARNESS (P/N 0091.94) BETWEEN WIRES 20R AND 248					
Ignition Signal & Grounds	Voltmeter	1 & Grnd	Harness switch on	> 12 Volts	Electrical circuit continuity; Primary circuit of coil (12V at terminal, key on)
		1 & 5	Ignition on		
		1 & 13			
Air Flow Sensor Air Flow Input Temperature Input	Voltmeter	7 & 13	Harness switch on	1 - 2 Volts	Electrical circuit continuity; Air flow sensor
		8 & 13		7 - 8 Volts	
Altitude Sensor	Voltmeter	11 & 13	Harness switch on	2-3 Volts at sea level (for altitude other than sea level see component section)	Electrical circuit continuity; Altitude sensor

PIN OUT BOX TESTING - Ohmmeter Checks

NOTE: Disconnect battery, remove tachymetric relay or bypass harness

CHECK	TESTER	PIN NOS.	TEST CONDITION	READINGS	IF READINGS INCORRECT, CHECK:
Grounds	Ohmmeter	5 & Grnd 13 & Grnd	Battery disconnected	Resistance < 1 Ohm	Electrical circuit continuity
Throttle Switch Unit	Ohmmeter	2 & 9	Accelerator pedal at rest Accelerator pedal all the way down	Resistance < 1 Ohm Resistance = ∞	Electrical circuit continuity; Throttle switch; Adjustment of throttle switch
		3 & 9	Accelerator pedal at rest Accelerator pedal all the way down; reconnect after checking	Resistance = ∞ Resistance < 1 Ohm	
Injectors	Ohmmeter	9 & 12	Injectors are wired in parallel, each injector has 16 ohms resistance	Resistance = 3.5 - 5 Ohms	
NTC Temp Sensor	Ohmmeter	10 & 13	-10°C (14°F) +20°C (68°F) +80°C (176°F)	Resistance = 8200 - 11,000 Ohms Resistance = 2280 - 2720 Ohms Resistance = 290 to 370 Ohms	Electrical circuit continuity; NTC Temperature Sensor
Air Flow Sensor	Ohmmeter	5 & 8	Disconnect: 30°C switch, tach. relay, auxiliary air device, altitude sensor	Resistance = 340 to 450 Ohms	Electrical circuit continuity; Air flow sensor
		8 & 9	As above	Resistance = 160 to 300 Ohms	
		5 & 7	As above (vary the position of air plate using a screwdriver) Note: air cleaner removed	Resistance = 60 to 1300 Ohms	

- Connect:
- 30°C Switch
 - Tachymetric Relay
 - Auxiliary Air Device
 - Altitude Sensor
 - Battery

NOTES
