FORD/MAZDA
F4A-EL / F4EAT
UPSHIFTS 1-3 IN DRIVE

MAZDA MX6 / 626G4A-EL

1986 - 1987 The O.D. Cancel light will begin to flash if transmission related trouble codes are being stored.
LOCATION: The 6 pin diagnostic connector is located 6 - 10 inches away from the ECAT main computer connector which is located at the left of the steering column. (See Location 1 in Figure 1).
PROCEDURE: Codes may be retrieved by using the ECAT tester. The codes will read in numerical order. To advance to the next code, cycle the O.D. Cancel button twice. (See Code Chart 1 in Figure 2).

1988 - 1989
90-92 TURBO The HOLD light will flash if transmission related trouble codes are being stored.
LOCATION: The BLUE diagnostic connectors are located 6-10 inches from the ECAT main computer connector which is located at the left of the steering column NOTE: The diagnostic connectors may be taped to the main computer harness and may be difficult to find. (See Location 1 in Figure 1).
PROCEDURE: Codes may be retrieved simply by inserting a jumper wire into the BLUE single \pin connector, located next to the BLUE six pin connector. Ground the jumper wire and turn on the ignition. The codes will begin to flash over the HOLD light and will read in numerical order. The first digit of the code u-ill flash longer than the second digit. EXAMPLE: 6 long flashes a 1.5 second pause followed by 2 short flashes= CODE 62. There will be a 4 second pause between codes, if any others exist. The codes will repeat themselves until the jumper wire is removed or the ignition is turned off. (See Code Chart 2 in Figure 3).

1990 - 1992
NON TURBO The HOLD light will to flash if transmission related trouble codes are being stored.
LOCATION: The GREEN diagnostic connectors are located in the engine compartment near the windshield wiper motor and the driver side strut tower. (See Location 2 in Figure 1).
PROCEDURE: Codes may be retrieved simply by inserting a jumper wire into the GREEN single pin connector, located next to the GREEN 6 pin connector. Ground the jumper wire and turn on the ignition. Because the Engine and Transmission Computer are all in one, the codes will begin to flash over the M.I.L. (Malfunction Indicator Lamp) another word for the Check Engine Light. The first digit of the code will flash longer than the second digit. EXAMPLE: 6 long flashes a 1.5 second pause followed by 2 short flashes= Code 62. There will be a 4 second pause between codes if any others exist. The codes will repeat themselves until the jumper wire is disconnected or the ignition is turned off. NOTE: The Check Engine Light will give us both transmission and engine codes. (See Code Chart 3 in Figure 4).

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MAZDA: 323 & PROTEGE F4A-EL

1990 - 1991
LOCATION: The Hold light will flash if transmission related trouble codes are being stored. The multiple pin diagnostic connector is located behind the battery below the windshield wiper motor. (See Location 3 in Figure 1).

PROCEDURE: Codes may be retrieved simply by inserting a jumper wire between the TAT and GND terminals. The codes will begin to flash over the HOLD light and will read in numerical order when the ignition is turned on. The first digit of the code will flash longer than the second digit. EXAMPLE: 6 long flashes a 1.5 second pause followed by 2 short flashes= Code 62. The codes will repeat themselves until the jumper wire is disconnected or the ignition is turned off. (See Code Chart 2 in Figure 3).

1992 - 1993
LOCATION: The HOLD light will flash if transmission related trouble codes are being stored. The multiple pin diagnostic connector is located behind the battery below the windshield wiper motor. (See Location 3 in Figure 1).

PROCEDURE: Codes may be retrieved by inserting a jumper wire between the TEN and GND terminals. Because the engine and transmission Computer are all in one, the codes will begin to flash over the M.I.L. (Malfunction Indicator Lamp) another word for Check Engine Light. The fist digit of the code will flash longer than the second digit. EXAMPLE: 6 long flashes a 1.5 second pause followed by 2 short flashes= Code 62. There will be a 4 second pause between codes if any others exist. The codes will repeat themselves until the jumper wire is disconnected or the ignition is turned off. NOTE: The Check Engine Light will give us both transmission and engine codes. (See Code Chart 4 in Figure 5).

MAZDA: MPV R4A-EL

ALL MODELS
LOCATION: The HOLD light will flash if transmission related codes are being stored. The BLUE diagnostic connectors are located 6-10 inches from the ECAT main computer connector which is located at the left of the steering column.

PROCEDURE: (See Location 1 in Figure 1).
Codes may be retrieved simply by inserting a jumper wire into the BLUE single pin connector, located next to the BLUE 6 pin connector. Ground the jumper wire and turn on the ignition. The codes will begin to flash over the HOLD light and will read in numerical order. The frrst digit of the code will flash longer than the second digit. EXAMPLE: 6 long flashes a 1.5 second pause followed by 2 short flashes= Code 62. There will be a 4 second pause between codes if any others exist. The codes will repeat themselves until the jumper wire is disconnected or the ignition is turned off. (See Code Chart 5 in Figure 6).

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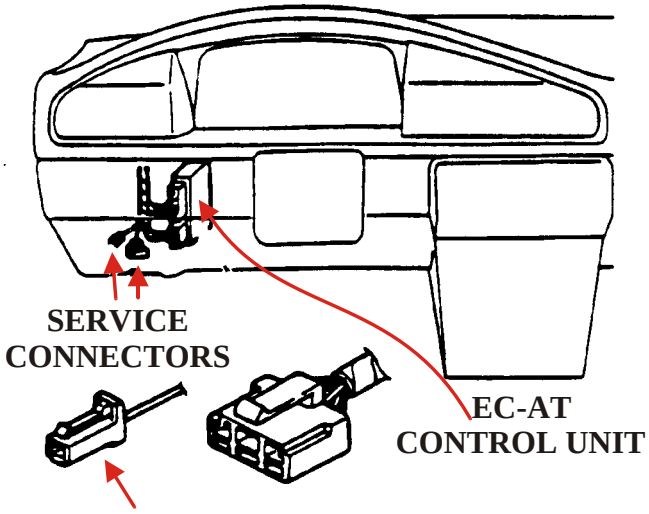
MAZDA: 929 R4A-EL

1992 - UP The HOLD light will flash if transmission related codes are being stored.
LOCATION: The BLACK multiple pin datalink connector is located by the drivers side fender well.

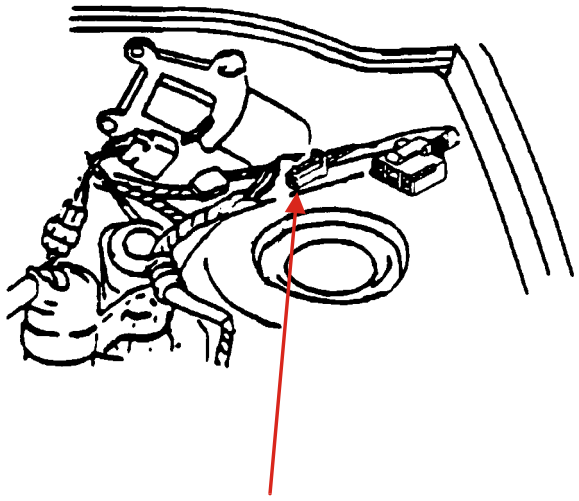
PROCEDURE: Codes may be retrieved simply by inserting a jumper wire between the TAT and GND terminals. (See Figure 1). The codes will begin to flash over the HOLD light, and will read in numerical order when the ignition switch is turned on. The frost digit of the code will flash longer than the second digit. EXAMPLE: 6 long flashes, a 1 .S second pause followed by 2 short flashes = Code 62 (See Code Chart 5 in Figure 6).

LOCATION 1



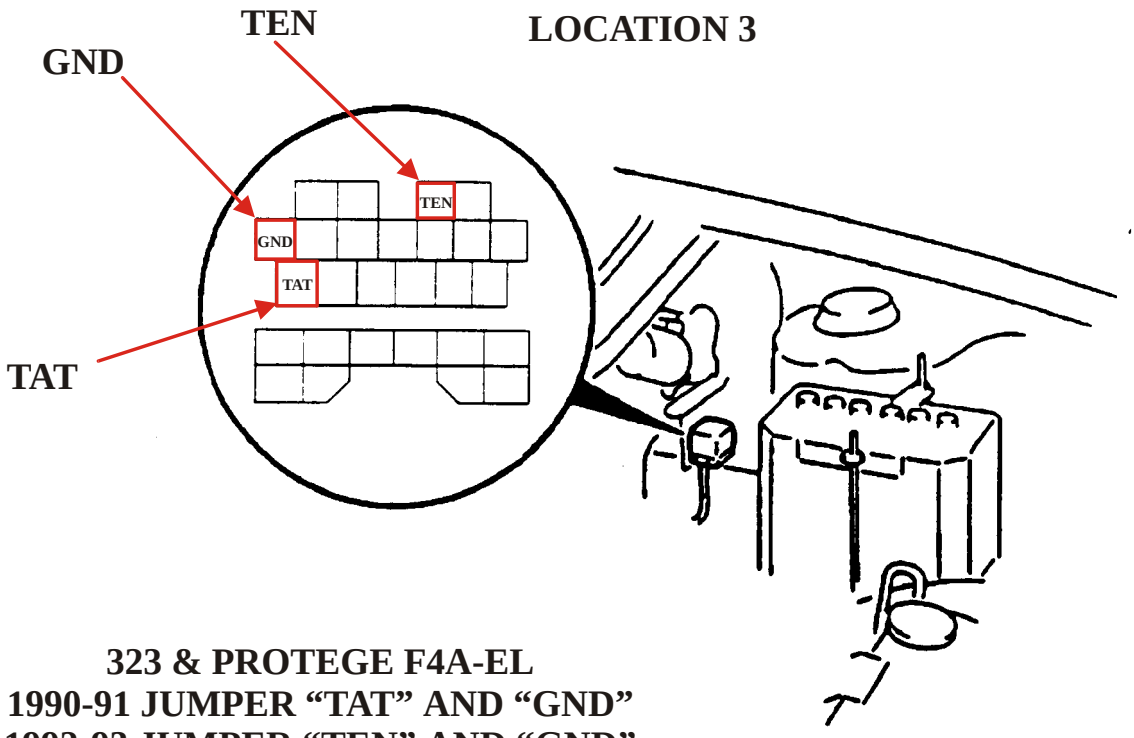
BLUE SINGLE PIN CONNECTOR

LOCATION 2



GREEN SINGLE PIN CONNECTOR

LOCATION 3



323 & PROTEGE F4A-EL
1990-91 JUMPER "TAT" AND "GND"
1992-93 JUMPER "TEN" AND "GND"

929 R4A-EL
1992-UP JUMPER "TAT" AND "GND"

Figure 1

CODE CHART 1

ECAT TESTER CODE #	LOCATION OF MALFUNCTION
6	THROTTLE POSITION SENSOR
11	PULSE GENERATOR
13	VEHICLE SPEED SENSOR
16	1-2 SOLENOID
17	2-3 SOLENOID
18	3-4 SOLENOID
19	LOCKUP SOLENOID

Figure 2

CODE CHART 2

CODE NO.	LOCATION OF MALFUNCTION	HOLD INDICATIOR LAMP FLASH CYCLE
06	VEHICLE SPEED SENSOR	
12	THROTTLE SENSOR	
55	PULSE GENERATOR	
57	SHIFT SIGNAL *	
60	1-2 SHIFT SOLENOID	
61	2-3 SHIFT SOLENOID	
62	3-4 SHIFT SOLENOID	
63	LOCKUP SOLENOID	

* - NOT USED ON ALL MODELS

Figure 3

CODE CHART 3

CODE NO.	LOCATION OF MALFUNCTION	CHECK ENGINE LIGHT
1	IGNITION PULSE	
8	AIRFLOW METER	
9	WATER THERMOSENSOR	
10	INTAKE AIR THERMOSENSOR	
12	THROTTLE SENSOR	
14	ATMOSPHERIC PRES. SENSOR (IN ECU)	
15	OXYGEN SENSOR	
16	EGR POSITION SENSOR	
17	FEEDBACK SYSTEM	
25	SOLENOID VALVE (PRESSURE REGULATOR)	
26	SOLENOID VALVE (PURGE CONTROL)	
28	SOLENOID VALVE (EGR)	
34	ICS VALVE	
55	PULSE GENERATOR	
60	1-2 SHIFT SOLENOID	
61	2-3 SHIFT SOLENOID	
62	3-4 SHIFT SOLENOID	
63	LOCKUP SOLENOID	

Figure 4

CODE CHART 4

CODE NO.	LOCATION OF MALFUNCTION	CHECK ENGINE LIGHT
2	NE SIGNAL	
6	VEHICLE SPEED SENSOR	
8	AIRFLOW METER	
9	WATER THERMOSENSOR	
10	INTAKE AIR THERMOSENSOR	
12	THROTTLE SENSOR	
14	ATMOSPHERIC PRESSURE SENSOR (IN ECU)	
15	OXYGEN SENSOR (INACTIVATION)	
17	OXYGEN SENSOR (INVERSION)	
25	SOLENOID VALVE (PRESSURE REGULATOR)	
26	SOLENOID VALVE (PURGE CONTROL)	
34	ICS VALVE	
55	PULSE GENERATOR	
60	1-2 SHIFT SOLENOID	
61	2-3 SHIFT SOLENOID	
62	3-4 SHIFT SOLENOID	
63	LOCKUP SOLENOID	

Figure 5

CODE CHART 5

CODE NO.	LOCATION OF MALFUNCTION	HOLD INDICATOR LAMP FLASH CYCLE
1	ENGINE RPM SENSOR	
6	SPEED SENSOR NO. 1	
7	SPEED SENSOR NO. 2 (IN SPEEDOMETER)	
12	THROTTLE SENSOR	
56	ATF THERMOSENSOR	
60	SHIFT SOLENOID A	
61	SHIFT SOLENOID B	
62	OVERRUN CLUTCH SOLENOID	
63	LOCKUP SOLENOID	
64	LINE PRESSURE SOLENOID	

Figure 6