FORD 4EAT PROBE
ELECTRONIC
CONTROL SYSTEM (MECS)
PROCEDURE TO PREVENT DAMAGE TO SCAN TOOLS

COMPLAINT: Cannot retrieve “Trouble Codes” with scan tools; cannot retrieve trouble codes at “Hold Light” by grounding the ST1 wire; or damage to scan tool after attempting to connect to the diagnostic connector.

CAUSE: Factory documentation as to the location of the diagnostic connector and ST1 wire is often confusing and conflicting. Damage to scan tools will result if the scan tool is connected to the single wire tach test connector. The tach test connector is similar to the single wire ST1 connector found in Ford Probes and some Mercury Capris.

CORRECTION: Use the following information to locate and identify the diagnostic connector, STI connector, and tach test connector.

1989 Probe (GL) 2.2 L. non-turbo
90 - 92 Probe (GT) 2.2 L. turbo.
The 4EAT diagnostic connector and ST1 connector are located under the instrument panel on the P- left side of the steering column near the 4EAT module. (Figure 1.)
3.0 L. Probes (LX).
The 4EAT and ST1 diagnostic connectors are under the instrument panel on the left side of the steering column. This model uses the EEC IV system for engine controls only.
90 - 92 Probe (GL) 2.2 L. non-turbo.
The 4EAT diagnostic connector and ST1 connector are integrated into the ECA diagnostic connector. It has no separate computer for transmission operation. The connectors are located on the drivers side of the engine compartment near the windshield wiper motor. (Figure 2.)

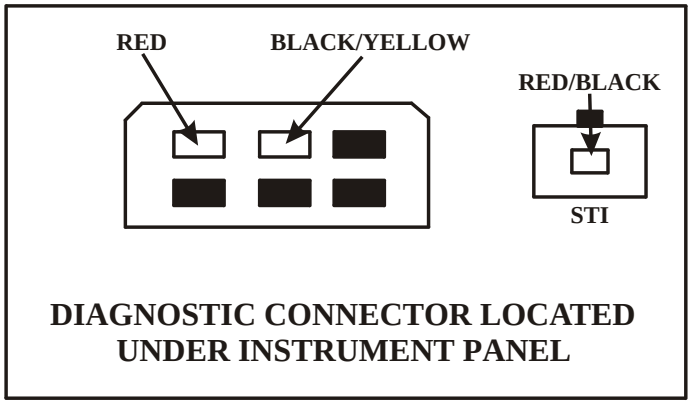

Figure 1

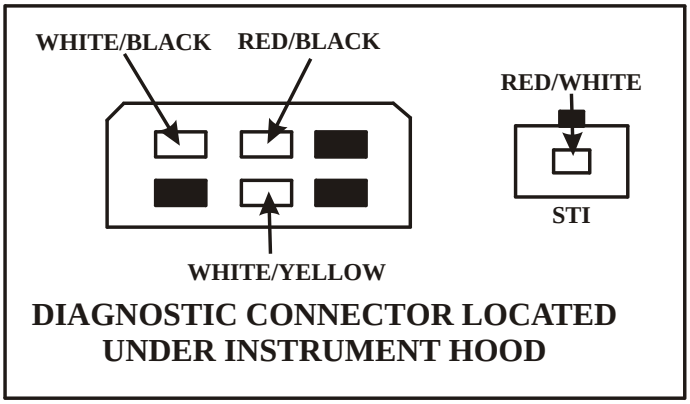

Figure 2

CAUTION: The wire colors for the tach test connector and for the ST1 connector can be found in the chart on page 3 of this bulletin.

90 - 93 Capri 1.6L.
The 4EAT diagnostic connector and ST1 connector are integrated into the ECA diagnostic connector. The 4EAT STI and ST0 connectors are located behind the glove box on the right side of the passenger compartment. (Figure 3 .)

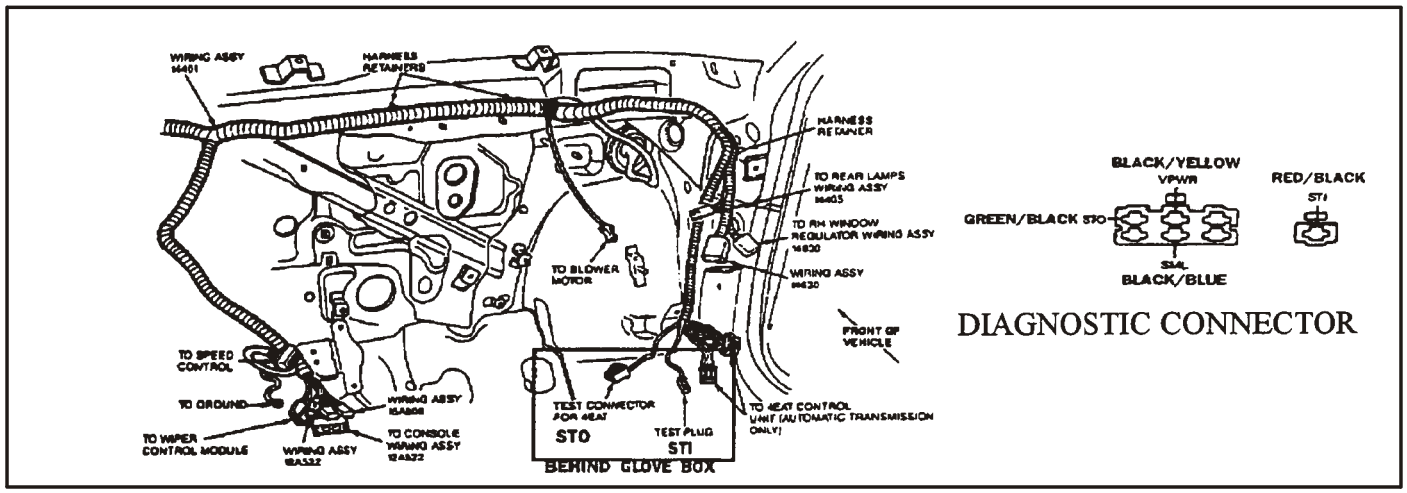

Figure 3

91-92 Escort/ Tracers with
1.8,2.0, and 2.5 L. engines.
These vehicles use a 17 pm MECS connector that serves both the engine and the transmission computer. The STI and ST0 pins are integrated in this connector. This connector may be found on the drivers side of the engine compartment. See Figure 4 to identify the the MECS connector.

91-92 Escort/Tracers
with 1.9 L. engine.
These vehicles do not have an STI connector. The 4EAT ST0 is located on the drivers side of the engine compartment. The ST1 for the 4EAT is always grounded within the PCM. See Figure 5 to identify the 6-pin MECS connector.

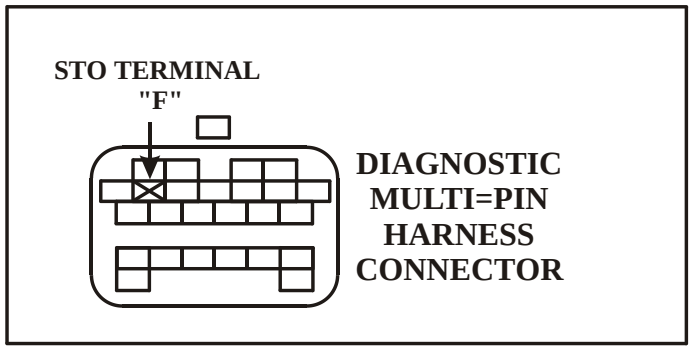

Figure 4

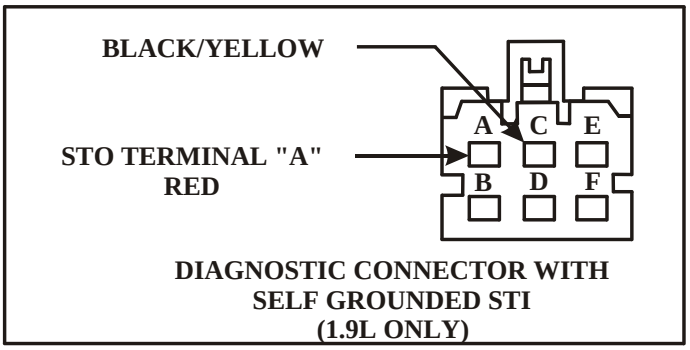

Figure 5

If you still are not sure which connector is for the STI, check in the following manor
Ground one end of a 12 volt test lamp and probe the suspected connector with the other end. Then crank the engine. If the test light doesn't flash, you should be connected to the STI. If you see any flashes, check again because you most likely have found the tach test connector.

STI and Tach Test wire identification chart

Vehicle	Year	Engine	Test Connector	Wire Color	Connector Color	Connector Location
PROBE	1989	2.2L TURBO	STI	RED/BLK	BLACK	NEAR STEERING COLUMN
			TACH	YEL/BL	WHITE	
PROBE	1989	2.2L NON-TURBO	STI	RED/WHT	BLACK	LEFT SIDE UNDER HOOD
			TACH	NONE	NONE	
PROBE	1990/ 1992	2.2L TURBO	STI	RED/BLK	BLACK	NEAR STEERING COLUMN
			TACH	YELLOW	BLACK	
PROBE	1990/ 1992	2.2L NON-TURBO	STI	RED/WHT	BLACK	LEFT SIDE UNDER HOOD
			TACH	YEL/BL	BLACK	
PROBE	1993	2.0L/2.5 L	MULTI	BLUE	—	NEAR BATTERY - 17 PIN
CAPRI	1991/ 1993	1.6L	STI	RED/BLK	GREEN	BEHIND GLOVE BOX
			TACH	YEL/BL	WHITE	
ESCORT/ TRACER	1991/ 1992	1.8L	MULTI	BLUE	—	UNDER HOOD - 17 PIN
ESCORT/ TRACER	1991/ 1992	1.9L	STO	RED	—	UNDER HOOD - 6 PIN

GLOSSARY OF ABBREVIATIONS USED IN THIS BULLETIN:
MECS = Mazda Electronic Control System
STI = Self Test Input
ST0 = Self Test Output
EEC-IV = Electronic Engine Control (4th Generation)
4EAT = 4 Speed Electronic Automatic Transmission