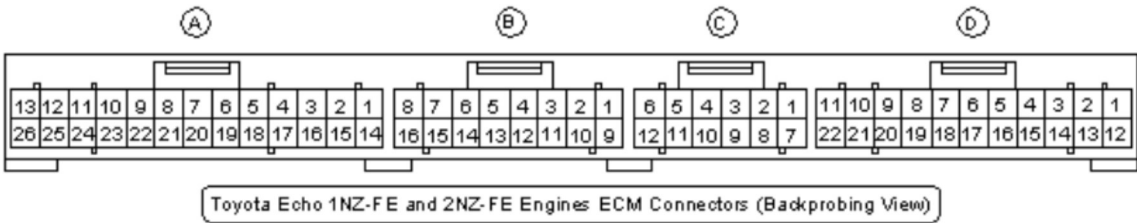


TOYOTA ECHO 1.3L (2NZ-FE Engine) 1999-04 Engine & Transmission Management System
TOYOTA ECHO 1.5L (1NZ-FE Engine) 1999-04 Engine & Transmission Management System

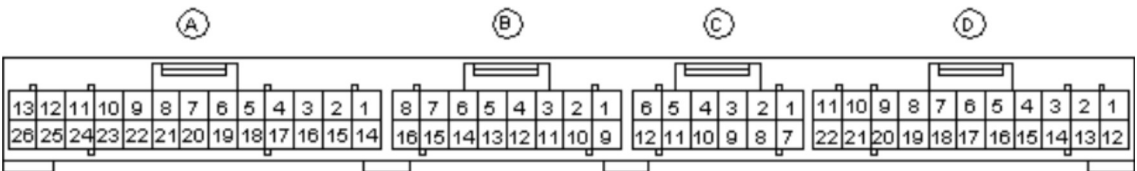
PCM

The 4 connector PCM is located behind the glove compartment.



PCM Voltage Table

Connector 'A'

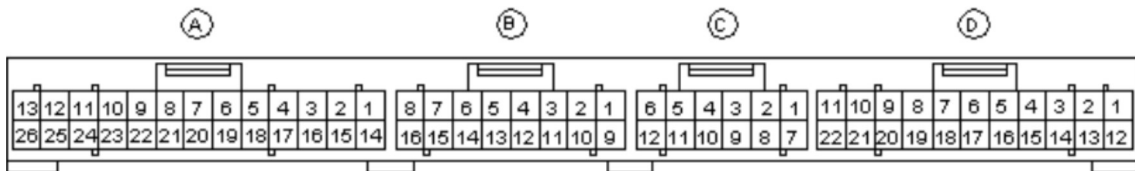


Pin #	Circuit and Status.....	Voltage
A1	Ground All Times.....	0 Volts
A2	Idle Air Control Valve Ignition ON ECM Connector C Disconnected.....	0 to 3 Volts
A3	Ignition Coil Feedback (IGF) Ignition ON..... Engine Idling.....	4.5 to 5.5 Volts Voltage Pulse
A4	Alternator M Terminal No Specifications Available.....	N/A
A5	Transmission Switch D Position Ignition ON Gear Selector in D Position..... Gear Selector in any other Position.....	Battery Volts 0 Volts
A6	Brake Lamp Switch Brake Pedal at Rest..... Brake Pedal Depressed.....	<1.5 Volts Battery Volts
A7	Power Steering Pressure Test Connector Engine Running Connector Not Bridged.....	High Volts

	Connector Bridged.....	<1 Volts
A8	Engine Cooling Fan Relay (Models without A/C) Ignition ON	
	Engine Cooling Fan OFF.....	Battery Volts
	Engine Cooling Fan ON.....	0 Volts
A8	Engine Cooling Fan Relay #2 (Models with A/C) Engine Running with A/C ON	
	Engine Cooling Fan on Low Speed.....	Battery Volts
	Engine Cooling Fan on High Speed.....	0 Volts
A9	Canister Purge Solenoid	
	Ignition ON.....	Battery Volts
A10	Camshaft Timing Oil Control Valve Positive	
	No Specifications Available.....	N/A
A11	Fuel Injector #2	
	Ignition ON.....	Battery Volts
	Engine Idling.....	Voltage Pulse
A12	Fuel Injector #1	
	Ignition ON.....	Battery Volts
	Engine Idling.....	Voltage Pulse
A13	Ground	
	All Times.....	0 Volts
A14	Ground	
	All Times.....	0 Volts
A15	Case Ground	
	All Times.....	0 Volts
A16	Camshaft and Crankshaft Position Sensor Negative	
	All Times.....	0 Volts
A17	Crankshaft Position Sensor Signal	
	Engine Idling.....	Voltage Pulse
A18	Camshaft Position Sensor Signal	
	Engine Idling.....	Voltage Pulse
A19	Ignition Coil #4	
	Engine Idling.....	Voltage Pulse
A20	Ignition Coil #3	
	Engine Idling.....	Voltage Pulse
A21	Ignition Coil #2	
	Engine Idling.....	Voltage Pulse

A22	Ignition Coil #1 Engine Idling.....	Voltage Pulse
A23	Camshaft Timing Oil Control Valve Negative No Specifications Available.....	N/A
A24	Fuel Injector #4 Ignition ON..... Engine Idling.....	Battery Volts Voltage Pulse
A25	Fuel Injector #3 Ignition ON..... Engine Idling.....	Battery Volts Voltage Pulse
A26	Ground All Times.....	0 Volts

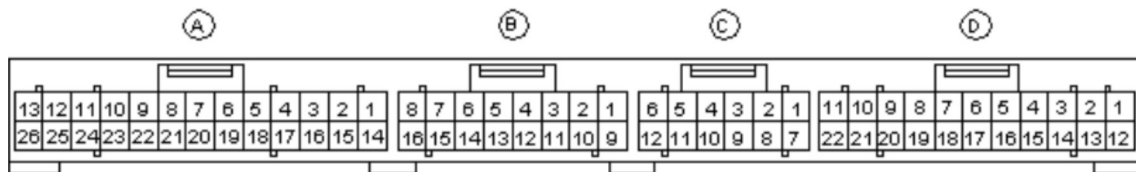
Connector `B`



Pin #	Circuit and Status.....	Voltage
B1	5 Volts Sensor Power Supply Ignition ON.....	4.5 to 5.5 Volts
B2	Mass Air Flow Meter Signal Engine Idling in Neutral A/C OFF.....	1.1 to 1.5 Volts
B3	Intake Air Temperature Sensor Signal Engine Idling Intake Air Temperature @ 20°C.....	0.5 to 3.4 Volts
B4	Engine Coolant Temperature Sensor Signal Engine Idling Engine Coolant Temperature @ 80°C.....	0.2 to 1.0 Volts
B5	ATCP Module (If Fitted) BUS Negative.....	Serial Data
B6	Oxygen Sensor Signal Engine @ Operating Temperature Engine speed steady @ 2500 RPM.....	0 to 1 Volts Switching
B7	ATCP Module (If Fitted) BUS Positive.....	Serial Data
B8	Oxygen Sensor Heater Control	

	Ignition ON.....	Battery Volts
	Engine Idling.....	<3 Volts
B9	Sensor Ground	
	All Times.....	0 Volts
B10	Mass Air Flow Meter Return	
	All Times.....	0 Volts
B11	Throttle Position Sensor Signal	
	Ignition ON	
	Throttle @ Idle Position.....	0.3 to 1.0 Volts
	Throttle @ Wide Open Position.....	3.2 to 4.9 Volts
B12	Power Steering Pressure Switch	
	Engine Idling	
	Power Steering Pressure @ 0 kPa.....	0.5 Volts
	Power Steering Pressure @ 3500 kPa.....	2.5 Volts
	Power Steering Pressure @ 7000 kPa.....	4.5 Volts
B13	Knock Sensor Signal	
	Engine Idling.....	Voltage Pulse
B15	Diagnostic Connector Terminal 13	
	No Specifications Available.....	N/A

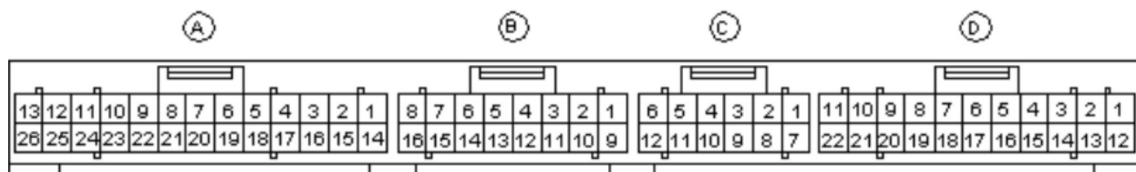
Connector 'C'



Pin #	Circuit and Status.....	Voltage
C1	Line Pressure Solenoid Positive (Auto)	
	Ignition ON.....	<1 Volt
	In Reverse Gear.....	Battery Volts
C2	ST Solenoid (Auto)	
	Ignition ON.....	Battery Volts
C3	Shift Solenoid 1 (Auto)	
	Ignition ON.....	Battery Volts
	In First or Second Gear.....	Battery Volts
	In Third or Overdrive Gear.....	<1 Volt
C4	Overdrive Off Switch (Auto)	
	Ignition ON	
	Switch ON.....	Battery Volts
	Switch OFF.....	<1 Volt
C5	Transmission Speed Sensor (Auto)	

	Engine Running.....	0 to 5 Volts Pulse
C6	Lock Up Solenoid (Auto)	
	Ignition ON.....	<1 Volt
	Under Lockup Conditions.....	Battery Volts
C7	Line Pressure Solenoid Negative (Auto)	
	Ignition ON.....	<1 Volt
C9	Shift Solenoid 2 (Auto)	
	Ignition ON.....	<1 Volt
	In First or Second Gear.....	Battery Volts
	In Third or Overdrive Gear.....	<1 Volt
C10	Transmission Fluid Temperature Sensor Positive	
	Ignition ON	
	Temperature @ 110°C.....	<1 Volt
C11	Transmission Speed Sensor (Auto)	
	Engine Running.....	0 to 5 Volts Pulse
C12	Kickdown Switch (Auto)	
	Ignition ON	
	Switch Open.....	Battery Volts
	Switch Closed.....	0 Volts

Connector 'D'



Pin #	Circuit and Status.....	Voltage
D1	Permanent Battery Supply	
	All Times.....	Battery Volts
D2	Ignition Feed	
	Ignition ON.....	Battery Volts
D3	Transponder Key Amplifier	
	No Specifications Available.....	N/A
D4	Transponder Key Amplifier	
	No Specifications Available.....	N/A
D5	Check Engine Lamp	
	Engine Idling	
	Lamp ON.....	<3 Volts
	Lamp OFF.....	Battery Volts
D6	Security Indicator LED	

	Ignition ON	
	Lamp Illuminated.....	Battery Volts
	Lamp Not Illuminated.....	0 Volts
D7	Unlock Warning Switch	
	Ignition ON	
	Switch Open.....	Battery Volts
	Switch Closed.....	0 Volts
D8	Tachometer Signal	
	Engine Idling.....	Voltage Pulse
D9	Vehicle Speed Signal	
	Ignition ON	
	Drive Wheels Rotating Slowly.....	Voltage Pulse
D10	Air Conditioner Amplifier (AC Circuit)	
	Engine Idling	
	Air Conditioner Switch ON.....	<1.5 Volts
	Air Conditioner Switch OFF.....	7.5 to 14 Volts
D11	Start Signal	
	Engine Cranking.....	>6 Volts
D12	ECM Power Supply	
	Ignition ON.....	Battery Volts
D13	Ignition Feed	
	Ignition ON.....	Battery Volts
D14	Fuel Pump Relay Control	
	Engine Cranking or Idling.....	0 Volts
D15	Transponder Key Amplifier	
	No Specifications Available.....	N/A
D16	Diagnostic Connector Terminal 7	
	No Specifications Available.....	N/A
D17	Transmission Switch R Position	
	Ignition ON	
	Gear Selector in R Position.....	Battery Volts
	Gear Selector in any other Position.....	0 Volts
D18	Transmission Switch 2 Position	
	Ignition ON	
	Gear Selector in 2 Position.....	Battery Volts
	Gear Selector in any other Position.....	0 Volts
D19	Transmission Switch L Position	
	Ignition ON	
	Gear Selector in L Position.....	Battery Volts
	Gear Selector in any other Position.....	0 Volts

D21 Air Conditioner Amplifier (ACT Circuit)

Engine Idling

Air Conditioner Switch ON..... Battery Volts

Air Conditioner Switch OFF..... <2 Volts

D22 Inhibitor Switch (Auto)

Ignition ON

Selector Lever in P or N Position.....0 to 3 Volts

Selector Lever in any other Position..... Battery Volts