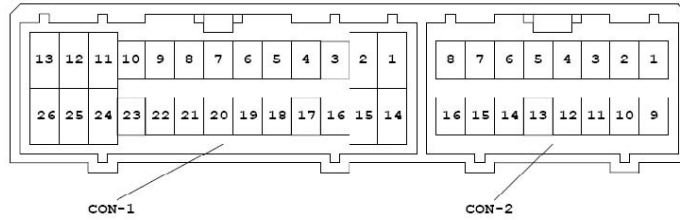


5E-FHE EXY10 TOYOTA SERA ECU phase I (march 1990 to may 1991)



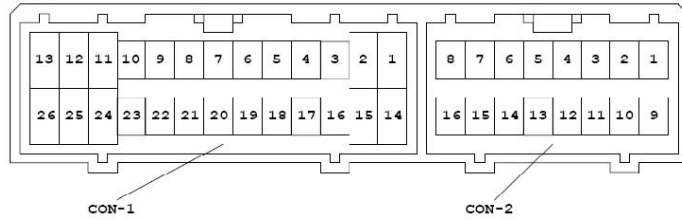
26 pin plug

1	~	~
2	NSW	Neutral Starter Switch
3	THW	Water Temperature Signal
4	PIM	Pressure Intake Manifold
5	THA	Intake Air Temperature
6	IGT	Ignition Timing
7	IGF	Ignition Feedback from the Ignitor-Coil
8	G1	Distributor
9	G-	Distributor Crank Angle
10	OX	Oxygen Sensor (Lambda Sensor)
11	STA	Engine Cranking Signal (Starter Switch)
12	#10	Injector Pulse 1 & 3
13	E01	Computer Ground
14	DISC	Aux. Control Valve or Idle-Up System Vacuum Switching Valve
15	~	~
16	E2	Sensor Ground
17	PSW	Throttle Position Sensor
18	VC	
19	IDL	Throttle Position Sensor (Signals ECU throttle position is at idle)
20	G2	Distributor
21	NE	Part of the IIA (Intergrated Ignition Assembly) (RPM)
22	E21	Sensor Ground
23	KNK	Knock Sensor
24	E1	Computer Ground
25	#20	Injector Pulse 2 & 4
26	E02	Computer Ground

16 pin plug

1	+B1	Switched Battery Power (12V)
2	BATT	Switched Battery Power (+12V) (EFI Main Relay)
3	CCO	Check Connector Outputs
4	FC	Circuit Opening Relay (Fuel Cut)
5	ELS	Electrical Load Signal System Taillight Relay
6	AC2	12V To Aircon Computer
7	~	~
8	T	
9	+B	Switched Battery Power (12V)
10	W	Warning Light
11	EGW	Catalytic Converter Temperature Warning Light (Combination Meter)
12	~	~
13	SPD	Speed Signal
14	ACT	A/C Cut Control System
15	AC1	A/C Switch Signal System (12V to Aircon Computer)
16	VF	Check Connector Outputs

5E-FHE EXY10 TOYOTA SERA ECU phase II & III (may 1991-June 1992 / June 1992 – December 1995)



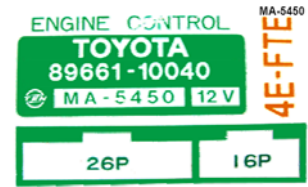
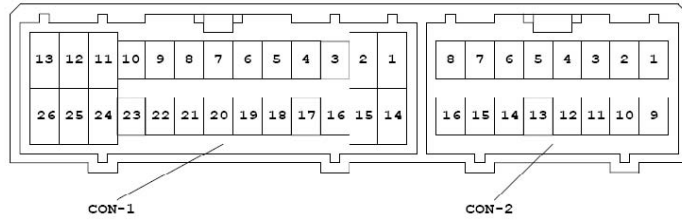
26 pin plug

1	IPV	
2	NSW	Neutral Starter Switch
3	THW	Water Temperature Signal
4	PIM	Pressure Intake Manifold
5	THA	Intake Air Temperature
6	IGT	Ignition Timing
7	IGF	Ignition Feedback from the Ignitor-Coil
8	G1	Distributor
9	G-	Distributor Crank Angle
10	OX	Oxygen Sensor (Lambda Sensor)
11	STA	Engine Cranking Signal (Starter Switch)
12	#10	Injector Pulse 1 & 3
13	E01	Computer Ground
14	DISC	Aux. Control Valve or Idle-Up System Vacuum Switching Valve
15	~	~
16	E2	Sensor Ground
c17	PSW	Throttle Position Sensor
18	VC	
19	IDL	Throttle Position Sensor (Signals ECU throttle position is at idle)
20	G2	Distributor
21	NE	Part of the IIA (Intergrated Ignition Assembly) (RPM)
22	E21	Sensor Ground
23	KNK	Knock Sensor
24	E1	Computer Ground
25	#20	Injector Pulse 2 & 4
26	E02	Computer Ground

16 pin plug

1	+B1	Switched Battery Power (12V)
2	BATT	Switched Battery Power (+12V) (EFI Main Relay)
3	CCO	Check Connector Outputs
4	FC	Circuit Opening Relay (Fuel Cut)
5	ELS	Electrical Load Signal System Taillight Relay
6	AC2	12V To Aircon Computer
7	~	~
8	T	
9	+B	Switched Battery Power (12V)
10	W	Warning Light
11	EGW	Catalytic Converter Temperature Warning Light (Combination Meter)
12	~	~
13	SPD	Speed Signal
14	ACT	A/C Cut Control System
15	AC1	A/C Switch Signal System (12V to Aircon Computer)
16	VF	Check Connector Outputs

4E-FTE EP82 ECU 89661-10040 GREEN STICKER ma-5450



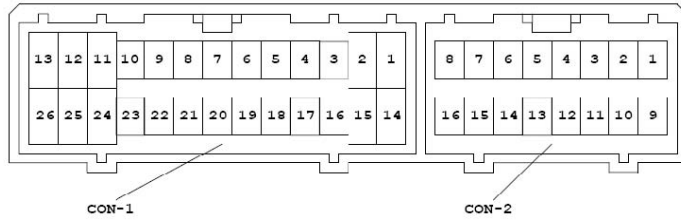
26 pin plug

1	~	~
2	NSW	Neutral Starter Switch
3	THW	Water Temperature Signal
4	PIM	Pressure Intake Manifold
5	THA	Intake Air Temperature
6	IGT	Ignition Timing
7	IGF	Ignition Feedback from the Ignitor-Coil
8	G1	Distributor
9	G-	Distributor Crank Angle
10	OX	Oxygen Sensor (Lambda Sensor)
11	STA	Engine Cranking Signal (Starter Switch)
12	#10	Injector Pulse 1 & 3
13	E01	Computer Ground
14	DISC	Aux. Control Valve or Idle-Up System Vacuum Switching Valve
15	VSV1	Air Control Vacuum Switching Valve
16	E2	Sensor Ground
17	PSW	Throttle Position Sensor
18	VC	
19	IDL	Throttle Position Sensor (Signals ECU throttle position is at idle)
20	G2	Distributor
21	NE	Part of the IIA (Intergrated Ignition Assembly) (RPM)
22	E21	Sensor Ground
23	KNK	Knock Sensor
24	E1	Computer Ground
25	#20	Injector Pulse 2 & 4
26	E02	Computer Ground

16 pin plug

1	+B1	Switched Battery Power (12V)
2	BATT	Switched Battery Power (+12V) (EFI Main Relay)
3	CCO	Check Connector Outputs
4	FC	Circuit Opening Relay (Fuel Cut)
5	ELS	Electrical Load Signal System Taillight Relay
6	AC2	12V To Aircon Computer
7	BC	Boost Control
8	T	
9	+B	Switched Battery Power (12V)
10	W	Warning Light
11	EGW	Catalytic Converter Temperature Warning Light (Combination Meter)
12	~	~
13	SPD	Speed Signal
14	ACT	A/C Cut Control System
15	AC1	A/C Switch Signal System (12V to Aircon Computer)
16	VF	Check Connector Outputs

4E-FTE EP82 ECU 89661-10100 BLACK STICKER 211000-0550 12v
4E-FTE EP82 ECU 89661-10100 GREEN STICKER ma-5970

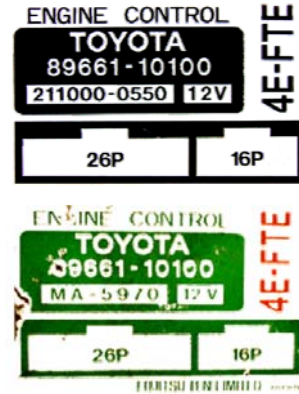


26 pin plug

1	IPV	Vacuum Switching Valve
2	NSW	Neutral Starter Switch
3	THW	Water Temperature Signal
4	PIM	Pressure Intake Manifold
5	THA	Intake Air Temperature
6	IGT	Ignition Timing
7	IGF	Ignition Feedback from the Ignitor-Coil
8	G1	Distributor
9	G-	Distributor Crank Angle
10	OX	Oxygen Sensor (Lambda Sensor)
11	STA	Engine Cranking Signal (Starter Switch)
12	#10	Injector Pulse 1 & 3
13	E01	Computer Ground
14	DISC	Aux. Control Valve or Idle-Up System Vacuum Switching Valve
15	VSV1	Air Control Vacuum Switching Valve
16	E2	Sensor Ground
17	PSW	Throttle Position Sensor
18	VC	
19	IDL	Throttle Position Sensor (Signals ECU throttle position is at idle)
20	G2	Distributor
21	NE	Part of the IIA (Intergrated Ignition Assembly) (RPM)
22	E21	Sensor Ground
23	KNK	Knock Sensor
24	E1	Computer Ground
25	#20	Injector Pulse 2 & 4
26	E02	Computer Ground

16 pin plug

1	+B1	Switched Battery Power (12V)
2	BATT	Switched Battery Power (+12V) (EFI Main Relay)
3	CCO	Check Connector Outputs
4	FC	Circuit Opening Relay (Fuel Cut)
5	ELS	Electrical Load Signal System Taillight Relay
6	AC2	12V To Aircon Computer
7	TE2	Check Connector
8	TE1	Check Connector
9	+B	Switched Battery Power (12V)
10	W	Warning Light
11	EGW	Catalytic Converter Temperature Warning Light (Combination Meter)
12	AC1	A/C Switch Signal System (12V to Aircon Computer)
13	SPD	Speed Signal
14	ACT	A/C Cut Control System
15	BC	Boost Control
16	VF	Check Connector Outputs

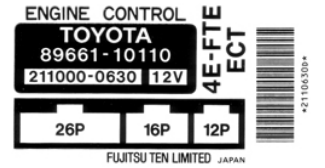


4E-FTE EP82 automatic ECU / part no. 89661-10110 / code. 211000-0630

26 PIN PLUG													16 PIN PLUG								12 PIN PLUG					
13	12	11	10	9	8	7	6	5	4	3	2	1	8	7	6	5	4	3	2	1	6	5	4	3	2	1
26	25	24	23	22	21	20	19	18	17	16	15	14	16	15	14	13	12	11	10	9	12	11	10	9	8	7

26 pin plug

1	IPV	Vacuum Switching Valve
2	STA	Engine Cranking Signal (Starter Switch)
3	IGF	Ignition Feedback from the Ignitor-Coil
4	NE	Part of the IIA (Intergrated Ignition Assembly) (RPM)
5	G1	Distributor
6	L	ECT "L" Selection Signal. Shift Position Switch
7	2	ECT "2" Selection Signal. Shift Position Switch
8	SL	ECT Solenoid
9	S2	ECT Solenoid
10	DISC	Aux. Control Valve or Idle-Up System Vacuum Switching Valve
11	VSV1	Air Control Vacuum Switching Valve
12	#10	Injector Pulse 1 & 3
13	E02	Computer Ground
14	~	~
15	NSW	Neutral Starter Switch
16	SP2	No. 2 Vehicle Speed Sensor ECT in Auto-Transmission
17	G-	Distributor Crank Angle
18	G2	Distributor
19	DG	Check Connector
20	BC	Boost Control
21	S1	ECT Solenoid
22	IGT	Ignition Timing
23	OD2	Cruise Control Computer
24	E1	Computer Ground
25	#20	Injector Pulse 2 & 4
26	E01	Computer Ground



16 pin plug

1	STP	Stop Light Switch
2	PIM	Pressure Intake Manifold
3	THA	Intake Air Temperature
4	THW	Water Temperature Signal
75	P	Shift Position Switch (Parking)
6	OX	Oxygen Sensor (Lambda Sensor)
7	TE2	Check Connector
8	VF	Check Connector Outputs
9	E2	Sensor Ground
10	VTA/PSW	Throttle Position Sensor
11	VCC	Throttle Position Sensor (pin 1)
12	IDL	Throttle Position Sensor (Signals ECU throttle position is at idle)
13	M	Shift Position Switch
14	KNK	Knock Sensor
15	TE1	Check Connector
16	E21	Sensor Ground

12 pin plug

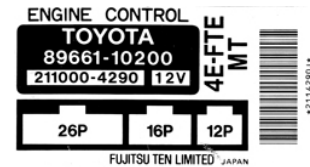
1	+B1	Switched Battery Power (12V)
2	BATT	Switched Battery Power (+12V) (EFI Main Relay)
3	CCO	Check Connector Outputs
4	FC	Circuit Opening Relay (Fuel Cut)
5	AC2	12V To Aircon Computer
6	ACT	A/C Cut Control System
7	+B	Switched Battery Power (12V)
8	W	Warning Light
9	EGW	Catalytic Converter Temperature Warning Light (Combination Meter)
10	AC1	A/C Switch Signal System (12V to Aircon Computer)
11	SPD	Speed Signal
12	ELS	Electrical Load Signal System Taillight Relay

4E-FTE EP91 ECU pinout / part no. 89661-10200 / code. 211000-4290

26 PIN PLUG													16 PIN PLUG								12 PIN PLUG					
13	12	11	10	9	8	7	6	5	4	3	2	1	8	7	6	5	4	3	2	1	6	5	4	3	2	1
26	25	24	23	22	21	20	19	18	17	16	15	14	16	15	14	13	12	11	10	9	12	11	10	9	8	7

26 pin plug

1	IPV	Vacuum Switching Valve
2	STA	Engine Cranking Signal (Starter Switch)
3	IGF	Ignition Feedback from the Ignitor-Coil
4	NE	Part of the IIA (Intergrated Ignition Assembly) (RPM)
5	G1	Distributor
6	L	ECT "L" Selection Signal. Shift Position Switch
7	2	ECT "2" Selection Signal. Shift Position Switch
8	SL	ECT Solenoid
9	S2	ECT Solenoid
10	DISC	Aux. Control Valve or Idle-Up System Vacuum Switching Valve
11	VSV1	Air Control Vacuum Switching Valve
12	#10	Injector Pulse 1 & 3
13	E02	Computer Ground
14	~	~
15	NSW	Neutral Starter Switch
16	SP2	No. 2 Vehicle Speed Sensor ECT in Auto-Transmission
17	G-	Distributor Crank Angle
18	G2	Distributor
19	DG	Check Connector
20	BC	Boost Control
21	S1	ECT Solenoid
22	IGT	Ignition Timing
23	OD2	Cruise Control Computer
24	E1	Computer Ground
25	#20	Injector Pulse 2 & 4
26	E01	Computer Ground



16 pin plug

1	STP	Stop Light Switch
2	PIM	Pressure Intake Manifold
3	THA	Intake Air Temperature
4	THW	Water Temperature Signal
5	P	Shift Position Switch (Parking)
6	OX	Oxygen Sensor (Lambda Sensor)
7	TE2	Check Connector
8	VF	Check Connector Outputs
9	E2	Sensor Ground
10	VTA/PSW	Throttle Position Sensor
11	VCC	Throttle Position Sensor (pin 1)
12	IDL	Throttle Position Sensor (Signals ECU throttle position is at idle)
13	M	Shift Position Switch
14	KNK	Knock Sensor
15	TE1	Check Connector
16	~	~

12 pin plug

1	+B1	Switched Battery Power (12V)
2	BATT	Switched Battery Power (+12V) (EFI Main Relay)
3	CCO	Check Connector Outputs
4	FC	Circuit Opening Relay (Fuel Cut)
5	AC2	12V To Aircon Computer
6	ACT	A/C Cut Control System
7	+B	Switched Battery Power (12V)
8	W	Warning Light
9	EGW	Catalytic Converter Temperature Warning Light (Combination Meter)
10	AC1	A/C Switch Signal System (12V to Aircon Computer)
11	SPD	Speed Signal
12	ELS	Electrical Load Signal System Taillight Relay

as you can see pin 16 on 16 pin connector isn't used. That's the only difference between the two ecus except the size of them.

1995 US Paseo 5E-FE (AUTOMATIC) CALIFORNIA

26 PIN PLUG

13	12	11	10	9	8	7	6	5	4	3	2	1
26	25	24	23	22	21	20	19	18	17	16	15	14

16 PIN PLUG

8	7	6	5	4	3	2	1
16	15	14	13	12	11	10	9

12 PIN PLUG

6	5	4	3	2	1
12	11	10	9	8	7

26 pin plug

- 1 SL
- 2 STA
- 3 IGF
- 4 NE+
- 5 ~
- 6 ~
- 7 S2
- 8 ~
- 9 RSC
- 10 RSO
- 11 HT2
- 12 #10
- 13 E01
- 14 HT1
- 15 NSW
- 16 EGR
- 17 NE-
- 18 G2
- 19 2
- 20 L
- 21 IGT2
- 22 IGT1
- 23 SP2
- 24 E1
- 25 #20
- 26 S1

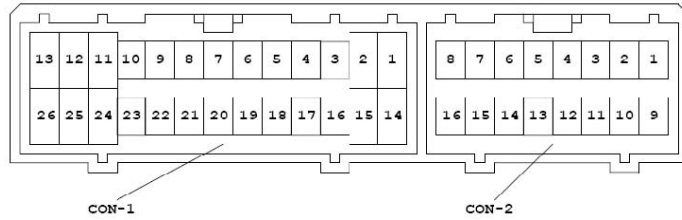
16 pin plug

- 1 DG
- 2 PIM
- 3 THA
- 4 THW
- 5 OX2
- 6 OX1
- 7 TE2
- 8 VF
- 9 E2
- 10 VTA
- 11 VCC
- 12 IDL
- 13 THG
- 14 KNK
- 15 TE1
- 16 ~

12 pin plug

- 1 STP
- 2 BATT
- 3 OD1
- 4 FC
- 5 ~
- 6 ACT
- 7 +B
- 8 W
- 9 OD2
- 10 AC1
- 11 SPD
- 12 ~

1995 US Paseo 5E-FE (MANUAL) CALIFORNIA



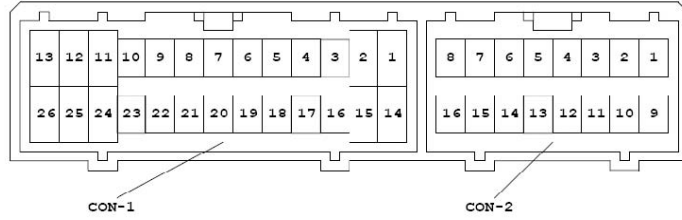
26 pin plug

- | | | |
|----|------|---|
| 1 | RSC | |
| 2 | ~ | |
| 3 | THW | Water Temperature Signal |
| 4 | PIM | Pressure Intake Manifold |
| 5 | IGT2 | |
| 6 | IGT1 | |
| 7 | IGF | Ignition Feedback from the Ignitor-Coil |
| 8 | KNK | Knock Sensor |
| 9 | ne- | |
| 10 | ox1 | |
| 11 | sta | |
| 12 | #10 | |
| 13 | e01 | |
| 14 | rso | |
| 15 | THA | |
| 16 | E2 | |
| 17 | VTA | |
| 18 | VCC | |
| 19 | IDL | |
| 20 | G2 | |
| 21 | NE+ | |
| 22 | THG | |
| 23 | OX2 | |
| 24 | E1 | |
| 25 | #20 | |
| 26 | ~ | |

16 pin plug

- | | |
|----|------|
| 1 | ~ |
| 2 | BATT |
| 3 | ~ |
| 4 | FC |
| 5 | HT2 |
| 6 | HT1 |
| 7 | TE2 |
| 8 | TE1 |
| 9 | +B |
| 10 | W |
| 11 | ~ |
| 12 | AC1 |
| 13 | SPD |
| 14 | ACT |
| 15 | EGR |
| 16 | VF |

1995 US Paseo 5E-FE (MANUAL) NOT CALIFORNIA



26 pin plug

- | | | |
|----|------|---|
| 1 | FPU | |
| 2 | NSW | |
| 3 | THW | Water Temperature Signal |
| 4 | PIM | Pressure Intake Manifold |
| 5 | THA | |
| 6 | IGT | |
| 7 | IGF | Ignition Feedback from the Ignitor-Coil |
| 8 | G | |
| 9 | G- | |
| 10 | OX | |
| 11 | STA | |
| 12 | #10 | |
| 13 | E01 | |
| 14 | DISC | |
| 15 | ~ | |
| 16 | E2 | |
| 17 | VTA | |
| 18 | VCC | |
| 19 | IDL | |
| 20 | NE- | |
| 21 | NE | |
| 22 | ~ | |
| 23 | ~ | |
| 24 | E1 | |
| 25 | #20 | |
| 26 | E02 | |

16 pin plug

- | | |
|----|------|
| 1 | ~ |
| 2 | BATT |
| 3 | ~ |
| 4 | FC |
| 5 | ELS |
| 6 | ~ |
| 7 | ~ |
| 8 | T |
| 9 | +B |
| 10 | W |
| 11 | AC1 |
| 12 | ~ |
| 13 | SPD |
| 14 | ACT |
| 15 | ~ |
| 16 | VF |

1995 US Paseo 5E-FE (AUTO) NOT CALIFORNIA

26 PIN PLUG											16 PIN PLUG						22 PIN PLUG														
13	12	11	10	9	8	7	6	5	4	3	2	1	8	7	6	5	4	3	2	1	11	10	9	8	7	6	5	4	3	2	1
26	25	24	23	22	21	20	19	18	17	16	15	14	16	15	14	13	12	11	10	9	22	21	20	19	18	17	16	15	14	13	12

26 pin plug

- 1 SL
- 2 S1
- 3 IGF
- 4 NE
- 5 G
- 6 2
- 7 TWS
- 8 TOV
- 9 FPU
- 10 DISC
- 11 #20
- 12 #10
- 13 E01
- 14 E1
- 15 S2
- 16 SP2
- 17 NE-
- 18 G-
- 19 L
- 20 IDL
- 21 ~
- 22 ~
- 23 EGR
- 24 ~
- 25 ~
- 26 E02

22 pin plug

- 1 BATT
- 2 ELS
- 3 ~
- 4 STP
- 5 W
- 6 ~
- 7 OD2
- 8 ~
- 9 SPD
- 10 AC1
- 11 STA
- 12 +B
- 13 ~
- 14 FC
- 15 ~
- 16 ~
- 17 ~
- 18 ~
- 19 ~
- 20 OD1
- 21 ACT
- 22 NSW

16 pin plug

- 1 VCC
- 2 PIM
- 3 THA
- 4 THW
- 5 ~
- 6 OX
- 7 DG
- 8 VF
- 9 E2
- 10 THG
- 11 VTA
- 12 IDL
- 13 ~
- 14 ~
- 15 T
- 16 ~

DATA SOURCES

TOYOTA SERA - JAPANESE WORKSHOP MANUALS BY ANDREW CLIFFE / WWW.TOYOTASERA.CO.UK

TOYOTA STARLET – FROM WWW.STREETLEGALSTARLET.NL AND WWW.TOYOTAGTTURBO.COM

TOYOTA PASEO – FROM US WORKSHOP MANUAL 1995 EDITION, ANDREW CLIFFE / WWW.TOYOTASERA.CO.UK