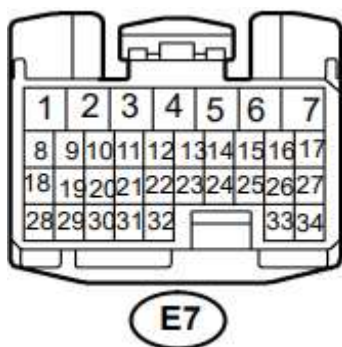
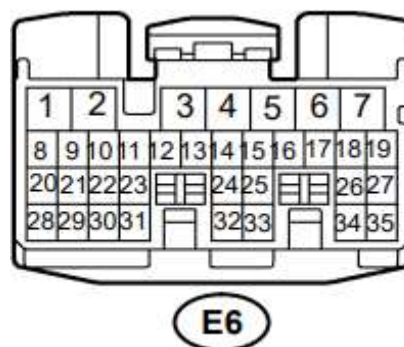




2002-2005 IS300
ECU/Sensor Pinouts
2002 Manual Trans.

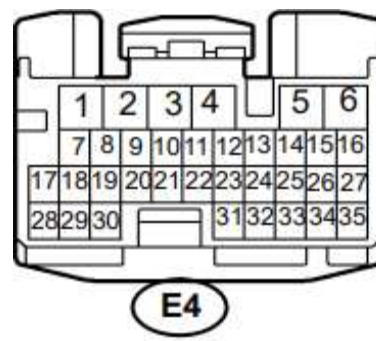
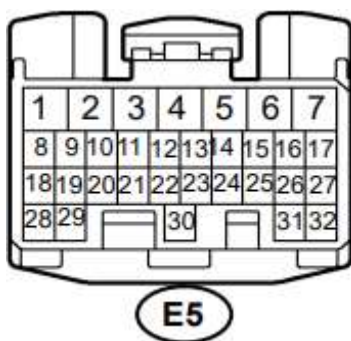


Pin	Color	Purpose
1	B-W	Shield for TCM M-,M+ (tape covered)
2	R	Throttle (TCM M-) (CAUTION! See pin 15)
3	W	Throttle (TCM M+)
4	BR	Gnd, center intake (joins E5-3)
5	Y-B	VVTi- (looks tan)
6	R-Y	VVTi+
7	GR	Oil Press Sw
8	L-B	From Rad Fan
9	Y	Throttle (TCM C-)
10	R-W	Throttle (TCM C+)
11	W-G	VSV #4 Evap
13	L-R	Injector 5
14	V	Injector 3(discolored looks L-brown)
15	R	Injector 1 (CAUTION! See pin 2)
24	G-Y	TPS VTA2
25	W-R	TPS VTA1
26	B-Y	Igniter pin5. IN3.to IGNpin 10
27	B-R	Igniter pin6. IN2.to IGNpin 2
29	(G)	Cam Sensor
31	(B-W)	Crank Sensor
32	(L)	Cam/Crank (-) joined
34	W-L	Not on diagram. On 02 M/T IS300

E7 Connector "E on diagram"

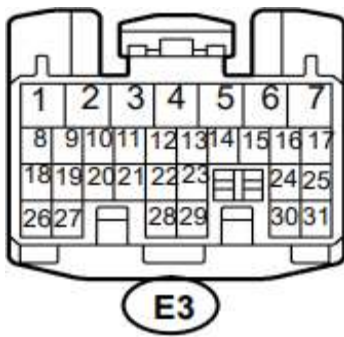
Pin	Color	Purpose
1	(B)	Knock 1
2	(W)	Knock 2
5	R-B	A/T Reverse Position.(Not on 02 M/T)
7	BR	Gnd Front Intake (shield gnd) Joins E5-1)
9	LG	O2 B1S1 heater (light green)
14	W-R	Oil Level Sensor
15	L-R	Not on diagram. On 02 M/T IS300
28	(W)	O2 B1S1 signal (discolored, looks pink)

E6 Connector "D on diagram"



Pin	Color	Purpose
1	W-B	Gnd. F. Intake (joins E6-7 BR)
2	W-B	
3	BR	
7	B-L	Igniter pin4. IGF
13	GR-B	Igniter pin7. IN1 (<i>looks light brown</i>)
15	B-W	Injector 6
16	R-W	Injector 4
17	L	Injector 2
21	Y-G	VSV #2 ACIS(discolored looks L-Brown)
22	Y-R	VSV #3 Cannister closed(discolored as above)
23	V	P/S pressure signal
24	R-W	Coolant temp sensor
26	L-W	MAF
27	G-B	MAF (<i>looks blue</i>)
28	(B)	O2 B2S1 signal
30	P	O2 B2S1 heater
32	L-B	MAF

Pin	Color	Purpose
2	R-L	CEL (malfunction indicator)
3	R-W	Fm multifunction Fm airbag
4	G-W	Fm Stop Light SW
7	G-B	O2 B1S2 heater
8	R-W	O2 B2S2 heater
9	G	To Skid Control
10	P	VSV #8 pressure sw valve
11	W-L	To Speedo
13	Y-R	(GR-B A/T Drive Position. Y-R O2 M/T)
16	B	Tach, fm igniter pin9
17	(W)	O2 B2S2 signal
18	R-Y	Fm Skid ECU
19	P	To Skid Control (L-B[pin30] on O2 M/T)
20	O	Multiplex - Theft deter.
21	O	Multiplex - Theft deter.
22	LG	Datalink connector 3 pin15
23	P-B	Transponder key pin 4
24	V	Transponder key pin 3 (<i>looks brown</i>)
25	L-W	V# 7 Vapor Pressure sensor
28	(W)	O2 B1S2 signal
29	W-G	Fm Skid ECU
30	L-B	To Skid Control(P[pin19] on O2 M/T)
31	L-R	<i>Not on diagram. On O2 M/T IS300</i>
32	L-W	Pedal Position Sensor VPA2
33	P-L	Pedal Position Sensor VPA1
34	BR	Gnd: P/S press.TPS.PPS.MAF.Vapor
35	L-Y	P/S oil press. Positive?



MAF wiring		
ECU	Color	Purpose
A5	B-R	Switched power fm ECU. All VSV/O2/transponder/MAF
A6	B-R	
B34	BR	Gnd: P/S press.TPS.PPS.MAF.Vapor
C26	L-W	MAF
C27	G-B	MAF
C32	L-B	MAF

Pin	Color	Purpose
1	W-B	Gnd. Left Fender Apron
2	W-B	Gnd. Left Fender Apron
4	B-Y	Power. EFI Relay, pin 5
5	B-R	Switched power. All VSV/O2/transponder/MAF
6	B-R	
7	L-W	ETCS fuse
8	B-L	Not on diagram. On 02 M/T IS300
11	B-Y	to unlock warning
12	B	fm clutch start/park neutral
13	B-O	EFI relay signal (+) pin 1
14	G-Y	Circuit opening relay (-) pin2
15	G-R	Fuel Pump Relay signal (-)
16	L-W	From A/C comp relay
17	B-O	Ignition Switch 7.5A fuse
18	LG-R	Not on diagram. On 02 M/T IS300
20	L	Fm airbag sensor
25	L-Y	Not on diagram. On 02 M/T IS300
26	R-W	fm multi display/airbag sens
30	W	Security Indicator Light
31	G-B	Transponder key pin 2

Pin	ECU	Color	Purpose
1		B-R	Ignition coil 1
2		G	Ignition coil 2
3	D7	BR	Gnd F. Intake. For shields
4	C7	B-L	IGF
5	E26	B-Y	IN3.to IGNpin 10
6	E27	B-R	IN2.to IGNpin 2
7	C13	GR-B	IN1
9		B-W	Power from IGN Sw. Joins coil- Ignition coil 3
10		B	

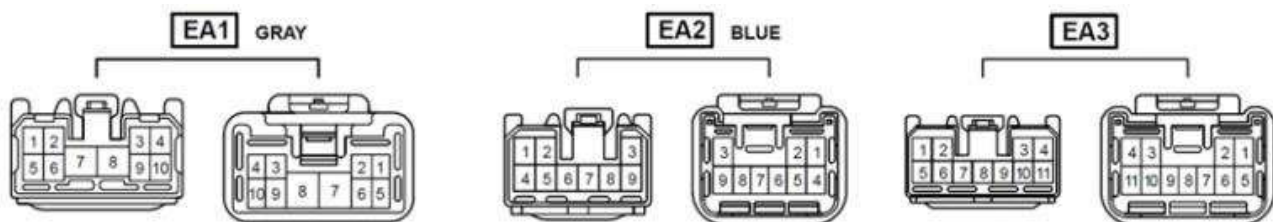
TPS wiring		
ECU	Color	Purpose
B35	L-Y	Positive?
E25	W-R	TPS VTA1
E24	G-Y	TPS VTA2
B34	BR	Gnd: P/S press.TPS.PPS.MAF.Vapor

Pin	ECU	Color	Purpose
1	E2	R	Throttle (TCM M-)
2	E3	W	Throttle (TCM M+)
3	E10	R-W	Throttle (TCM C+)
4	E9	Y	Throttle (TCM C-)

Pin	ECU	Power Steering Pressure sensor wiring			
		Color		Purpose	
1	B34	BR		Gnd: P/S press.TPS.PPS.MAF.Vapor	
2	C23	V		P/S pressure signal	
3	B35	L-Y		Positive?	

Pin	ECU	Cam Position Sensor wiring		
		Color		Purpose
E29	(G)			Cam Sensor
E32	(L)			Cam/Crank (-) joined

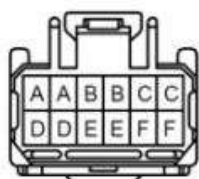
Pin	ECU	Crank Position Sensor wiring	
		Color	Purpose
E31	(B-W)		Crank Sensor
E32	(L)		Cam/Crank (-) joined



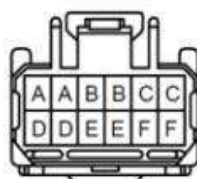
Plug	Pin	Wire Colour	Signal	Function	Connects to:	
					Location	Pin
EA1	1	Brown		OBD2 Port Ground (Center side of the intake manifold)	Ground	-
	2	Black/White	ST2	Starter Signal via 7.5A Fuse to ECT P/N Switch	Gearbox	B41-9
	3	Black/White		Power to Ignition Coils 1-3 and Ignitor	Coils	-
	4	Black/Red		Power to VSV(ACIS), VSV(EVAP), MAF, O2 Heater x 3	Many	-
	5	Pink		Power to AC Magnetic Clutch	AC	-
	6	Black	STA	Starter Signal post P/N Switch	Gearbox	B41-6
	7	Black/Red	-	Power to Injectors 1-6	Injectors	-
	8	Black/Yellow		To Starter Solenoid	Starter	-
	9	White/Blue	ALT-S	Alternator Battery Voltage (7.5A Sense Wire)	Alternator	-
	10	White/Black		Engine Oil Level Sensor to Ground (Left fender apron)	Oil Level	-
EA2	1	Green		(2004+ only) A/T Park (P) Position Switch to Power Seat ECU	-	-
	2	/	/	/	/	/
	3	Blue/Yellow		VC (5V Supply to TPS, APPS, Power Steering Pressure Sensor)	Many	-
	4	/	/	/	/	/
	5	White		OX1B O2 Sensor to ECU	ECU	E4-28
	6	Red		SE from vehicle speed sensor (M/T)	VCC	-
	7	Red/Blue		IG+ for vehicle speed sensor (M/T)	VCC	-
	8	Red/Yellow		SI from vehicle speed sensor (M/T)	VCC	-
	9	Green/Black		HT1B O2 Sensor to ECU	ECU	E4-7
EA3	1	/	/	/	/	/
	2	Pink/Blue	VPA	VPA1 return from APPS to ECU	ECU	E4-33
	3	Blue/Yellow	VC	5V Supply to Vapor Pressure Sensor	VPS	-
	4	Black/Red		12V Switched to Canister Closed Valve (CCV)	CCV	-
	5	/	/	/	/	/
	6	Blue/White	VPA2	VPA2 return from APPS to ECU	ECU	E4-32
	7	/	/	/	/	/
	8	Blue/Black		To fan relay #1 coil from ECU	ECU	E7-8
	9	/	/	/	/	/
	10	Brown	E2	Vapor Pressure Sensor Ground from J1-A	VPS	-
	11	/	/	/	/	/

Junction Connector

J 1



J 2



Colours are connected in the junction connector.

Engine side

J 1 (A)

	Wire Colour	Symbol	Function	Connects to: Location	Pin
1 A	Brown	E2	Vapor Pressure Sensor Ground	Engine	-
2 A	Brown	E2	Sensor ground to MAF, Coolant Temp, Power Steering Pressure Se	Engine	Many
3 B	Red/Black	R	A/T Reverse (R _L) Position Switch	Gearbox	B41-2
4 B	Red/Black	R	A/T Reverse (R _L) Position Switch to ECU (R)	ECU	E6-5
5 C	Grey	D	A/T Drive (DL) Position Switch	Gearbox	B41-7
6 C	/	/	/		
7 D	Brown	EA	Ground (Front side of the intake manifold)	Engine	Ground
8 D	/	/	/		
9 E	/	/	/		
10 E	Yellow/Green 2		A/T 2nd (LL) Position Switch	Gearbox	B41-4
11 F	Red/Blue	IG	Alternator (IG) Power	Alternator	-
12 F	Red/Blue	IG	A/T ECT Position Switches	Gearbox	B41-3

Body Side

J 2 (B)

	Wire Colour	Symbol	Function	Connects to: Location	Pin
1 A	Grey/Black	D	A/T Drive (DL) Position Switch to ECU (D)	ECU	E4-13
2 A	Grey/Black	D	A/T Drive (DL) Position Switch to Shift Lock Control ECU	Body	-
3 B	/	/	/		
4 B	Red/Black	R	Back-Up Light Switch	Body	-
5 C	Brown	E2	Ambient Temp Sensor Ground	Body	-
6 C	Brown	E2	Sensor Ground From ECU (E2)	ECU	E4-34
7 D	Red/Blue	IG	Ignition Switched Power	Body	-
8 D	/	/	/		
9 E	Yellow/Green 2		A/T 2nd (LL) Position Switch to ECU (2)	ECU	E4-12
10 E	Yellow/Green 2		A/T 2nd (LL) Position Switch to Transmission Switch (L-2) to ECU (1)	Body	-
11 F	Bare/tape	EA	Shield on wire (OX2B) from Oxygen Sensor (Bank 2 Sensor 2)	Body	-
12 F	Brown/Yellow	EA	Ground Wire (E1) to J7 Junction Connector (O2 Sensor, Shift Button)	Body	-