

Wiring diagram for a 1993-1994 Honda Civic EX 1.8L 4-cylinder engine with a 16-valve VTEC system. The diagram shows the electrical connections for the engine control system, including the 7.5A IGN fuse, 15A EFI fuse, C15 CRUISE CONTROL ECU, E2 ELECTRONICALLY CONTROLLED TRANSMISSION SOLENOID, and various sensors like the E4 ENGINE COOLANT TEMP. SENSOR and M1 MANIFOLD ABSOLUTE PRESSURE SENSOR. It also shows the E5 ENGINE CONTROL MODULE and the E6 ENGINE CONTROL MODULE. The diagram is color-coded by wire color: red for power, blue for ground, green for signal, and yellow for data link. The diagram is labeled with wire colors and terminal numbers, and includes a legend for the engine control module pins.

Legend for E5 ENGINE CONTROL MODULE pins:

- 12 C
- 12 F
- 16 E
- 14 A
- 14 D
- 13 A
- 13 D
- 26 A
- 26 D
- 9 E
- 4 B
- 4 E
- 2 B
- 2 E
- 1 B
- 1 E

Legend for E6 ENGINE CONTROL MODULE pins:

- 20 C
- 20 F
- 15 A
- 15 D
- 2 A
- 2 D
- 1 A
- 1 D

Legend for E2 ELECTRONICALLY CONTROLLED TRANSMISSION SOLENOID pins:

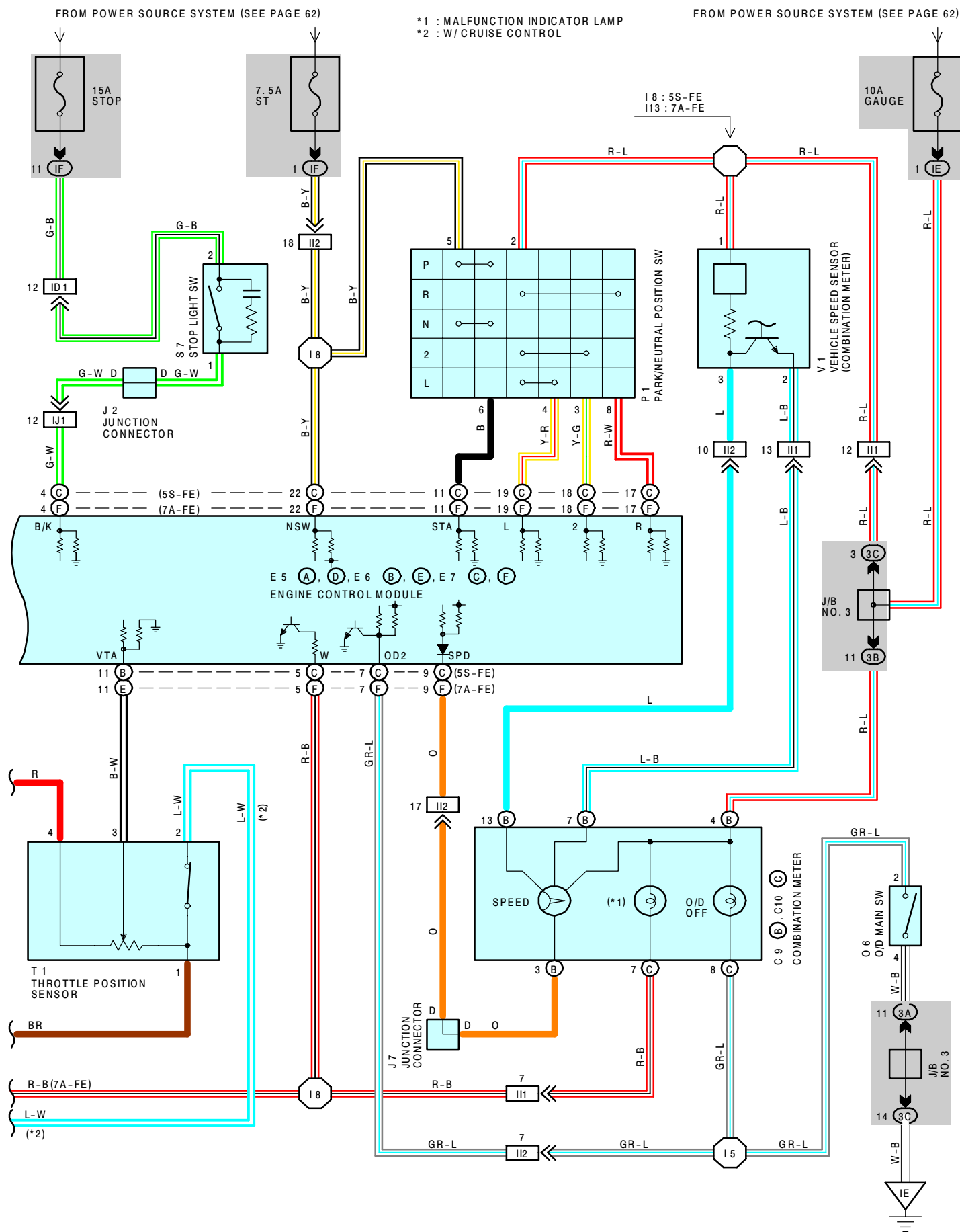
- 1 A
- 1 B
- 3 A
- 3 B
- 1 C
- 2 B
- 5S-FE
- 7A-FE

Legend for E4 ENGINE COOLANT TEMP. SENSOR pins:

- 1
- 2

Legend for M1 MANIFOLD ABSOLUTE PRESSURE SENSOR pins:

- 1
- 2
- 3



SYSTEM OUTLINE

THIS SYSTEM ELECTRONICALLY CONTROLS THE GEAR SHIFT TIMING, LOCK-UP TIMING, THE CLUTCH AND BRAKE HYDRAULIC PRESSURE, AND THE ENGINE TORQUE DURING SHIFTING TO ACHIEVE OPTIMUM SHIFT FEELING. ACCORDING TO THE VEHICLE DRIVING CONDITIONS AND ENGINE OPERATING CONDITIONS AS DETECTED BY VARIOUS SENSORS.

1. GEAR SHIFT OPERATION

DURING DRIVING, THE ENGINE CONTROL MODULE SELECTS THE SHIFT FOR EACH GEAR WHICH IS MOST APPROPRIATE TO THE DRIVING CONDITIONS, BASED ON INPUT SIGNALS FROM THE ENGINE COOLANT TEMP. SENSOR TO **TERMINAL THW** OF THE ENGINE CONTROL MODULE, AND ALSO THE INPUT SIGNALS TO **TERMINAL SPD** OF THE ENGINE CONTROL MODULE FROM THE VEHICLE SPEED SENSOR DEVOTED TO THE ELECTRONICALLY CONTROLLED TRANSMISSION. CURRENT IS THEN OUTPUT TO THE ELECTRONICALLY CONTROLLED TRANSMISSION SOLENOIDS. WHEN SHIFTING TO 1ST SPEED, CURRENT FLOWS FROM **TERMINAL S1** OF THE ENGINE CONTROL MODULE TO **TERMINAL 3** OF THE ELECTRONICALLY CONTROLLED TRANSMISSION SOLENOID → **GROUND**, AND CONTINUITY TO THE NO.1 SOLENOID CAUSES THE SHIFT.

FOR 2ND SPEED, CURRENT FLOWS FROM **TERMINAL S1** OF THE ENGINE CONTROL MODULE TO **TERMINAL 3** OF THE ELECTRONICALLY CONTROLLED TRANSMISSION SOLENOID → **GROUND**, AND FROM **TERMINAL S2** OF THE ENGINE CONTROL MODULE TO **TERMINAL 1** OF THE ELECTRONICALLY CONTROLLED TRANSMISSION SOLENOID → **GROUND**, AND CONTINUITY TO SOLENOIDS NO.1 AND NO.2 CAUSES THE SHIFT.

FOR 3RD SPEED, THERE IS NO CONTINUITY TO NO.1 SOLENOID, ONLY TO NO.2, CAUSING THE SHIFT.

SHIFTING INTO 4TH SPEED (OVERDRIVE) TAKES PLACE WHEN THERE IS NO CONTINUITY TO EITHER NO.1 OR NO.2 SOLENOID.

2. LOCK-UP OPERATION

WHEN THE ENGINE CONTROL MODULE JUDGES FROM EACH SIGNAL THAT LOCK-UP OPERATION CONDITIONS HAVE BEEN MET, CURRENT FLOWS FROM **TERMINAL SL** OF THE ENGINE CONTROL MODULE TO **TERMINAL 1** (5S-FE), **2** (7A-FE) OF THE ELECTRONICALLY CONTROLLED TRANSMISSION SOLENOIDS → **GROUND**, CAUSING CONTINUITY TO THE LOCK-UP SOLENOID AND CAUSING LOCK-UP OPERATION.

3. STOP LIGHT SW CIRCUIT

IF THE BRAKE PEDAL IS DEPRESSED (STOP LIGHT SW ON) WHEN DRIVING IN LOCK-UP CONDITION, A SIGNAL IS INPUT TO **TERMINAL B/K** OF THE ENGINE CONTROL MODULE, AND THE ENGINE CONTROL MODULE OPERATES AND CONTINUITY TO THE LOCK-UP SOLENOID IS CUT.

4. OVERDRIVE CIRCUIT*** O/D MAIN SW ON**

WHEN THE O/D MAIN SW IS TURNED ON (SW POINT IS OPEN), A SIGNAL IS INPUT TO **TERMINAL OD2** OF THE ENGINE CONTROL MODULE, AND ENGINE CONTROL MODULE OPERATION CAUSES GEAR SHIFT WHEN THE CONDITIONS FOR OVERDRIVE ARE MET.

*** O/D MAIN SW OFF**

WHEN THE O/D MAIN SW IS TURNED OFF (SW POINT IS CLOSED), CURRENT THROUGH THE O/D OFF INDICATOR LIGHT FLOWS THROUGH THE O/D MAIN SW TO **GROUND**, CAUSING THE INDICATOR LIGHT TO LIGHT UP. AT THE SAME TIME, A SIGNAL IS INPUT TO **TERMINAL OD2** OF THE ENGINE CONTROL MODULE AND ENGINE CONTROL MODULE OPERATION PREVENTS SHIFT INTO OVERDRIVE.

SERVICE HINTS

E5 (A), (D), E6 (B), (E), E7 (C), (F) ENGINE CONTROL MODULE

BATT	-E1	: 9.0-14.0 VOLTS (ALWAYS CONTINUITY)
+B	-E1	: 9.0-14.0 VOLTS (IGNITION SW AT ON POSITION)
VTA	-E2	: 0.3-0.8 VOLTS (IGNITION SW ON AND THROTTLE VALVE FULLY CLOSED) 3.2-4.9 VOLTS (IGNITION SW ON AND THROTTLE VALVE OPEN)
PIM	-E2	: 3.3-3.9 VOLTS (IGNITION SW AT ON POSITION)
VC	-E2	: 4.5-5.5 VOLTS (IGNITION SW AT ON POSITION)
SPD	-E1	: 4.5-5.5 VOLTS (IGNITION SW AT ON POSITION)
THW	-E2	: 0.2-1.0 VOLTS (IGNITION SW ON AND COOLANT TEMP. 80°C (176°F))
B/K	-E1	: 9.0-14.0 VOLTS (BRAKE PEDAL DEPRESSED)
S1, S2	-E1	: 9.0-14.0 VOLTS WITH THE IGNITION SW AT ON POSITION (ENGINE RUNNING)
OD1	-E1	: 9.0-14.0 VOLTS
OD2	-E1	: 0-3.0 VOLTS WITH THE O/D MAIN SW TURNED ON 9.0-14.0 VOLTS WITH THE O/D MAIN SW TURNED OFF
2	-E1	: 7.5-14.0 VOLTS WITH THE SHIFT LEVER AT 2 POSITION 0-1.5 VOLTS WITH THE SHIFT LEVER AT EXCEPT 2 POSITION
L	-E1	: 7.5-14.0 VOLTS WITH THE SHIFT LEVER AT L POSITION 0-1.5 VOLTS WITH THE SHIFT LEVER AT EXCEPT L POSITION
R	-E1	: 7.5-14.0 VOLTS WITH THE SHIFT LEVER AT R POSITION (7A-FE) 0-1.5 VOLTS WITH THE SHIFT LEVER AT EXCEPT R POSITION (7A-FE)

○ : PARTS LOCATION

CODE	SEE PAGE	CODE	SEE PAGE	CODE	SEE PAGE
C 9	B 32	E5	A 32 (5S-FE)	J7	33
C10	C 32		D 32 (7A-FE)	M1	29 (5S-FE), 31 (7A-FE)
C15	32	E6	B 32 (5S-FE)	O6	33
D1	28 (5S-FE), 30 (7A-FE)		E 32 (7A-FE)	P1	29 (5S-FE), 31 (7A-FE)
E2	A 28 (5S-FE)	E7	C 32 (5S-FE)	S7	33
	B 30 (7A-FE)		F 32 (7A-FE)	T1	29 (5S-FE), 31 (7A-FE)
E3	C 28 (5S-FE)	J2	33	V1	29 (5S-FE), 31 (7A-FE)
E4	28 (5S-FE), 30 (7A-FE)	J3	33		

○ : RELAY BLOCKS

CODE	SEE PAGE	RELAY BLOCKS (RELAY BLOCK LOCATION)
2	26	ENGINE COMPARTMENT LEFT

○ : JUNCTION BLOCK AND WIRE HARNESS CONNECTOR

CODE	SEE PAGE	JUNCTION BLOCK AND WIRE HARNESS (CONNECTOR LOCATION)
ID		
IE	20	INSTRUMENT PANEL WIRE AND INPANE J/B (LEFT KICK PANEL)
IF		
1A	22	ENGINE ROOM MAIN WIRE AND J/B NO. 1 (LEFT KICK PANEL)
1C	22	INSTRUMENT PANEL WIRE AND J/B NO. 1 (LEFT KICK PANEL)
3A		
3B	24	INSTRUMENT PANEL WIRE AND J/B NO. 3 (BEHIND THE INSTRUMENT PANEL CENTER)
3C		

□ : CONNECTOR JOINING WIRE HARNESS AND WIRE HARNESS

CODE	SEE PAGE	JOINING WIRE HARNESS AND WIRE HARNESS (CONNECTOR LOCATION)
EA1	38 (5S-FE)	ENGINE WIRE AND ENGINE ROOM MAIN WIRE (INSIDE OF R/B NO. 2)
	40 (7A-FE)	
ID1	42	INSTRUMENT PANEL WIRE AND COWL WIRE (LEFT KICK PANEL)
II1		
II2	44	ENGINE WIRE AND INSTRUMENT PANEL WIRE (NEAR THE ENGINE CONTROL MODULE)
IJ1	44	ENGINE WIRE AND COWL WIRE (INSTRUMENT PANEL CENTER)

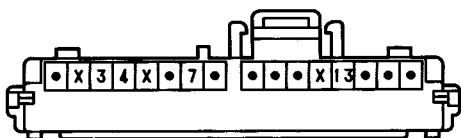
▽ : GROUND POINTS

CODE	SEE PAGE	GROUND POINTS LOCATION
EB	38 (5S-FE)	FRONT SIDE OF LEFT FENDER
	40 (7A-FE)	
EC	38 (5S-FE)	INTAKE MANIFOLD
	40 (7A-FE)	
IE	42	INSTRUMENT PANEL BRACE LH

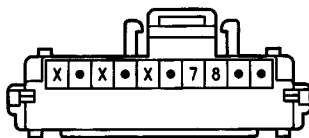
 : SPLICE POINTS

CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS	CODE	SEE PAGE	WIRE HARNESS WITH SPLICE POINTS
E 6	38 (5S-FE)	ENGINE WIRE	I 8	44	ENGINE WIRE
	40 (7A-FE)		I13		
I 5	44	INSTRUMENT PANEL WIRE			

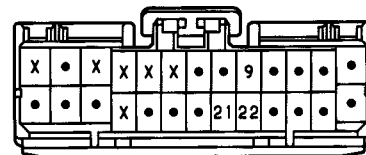
C 9 ⑧



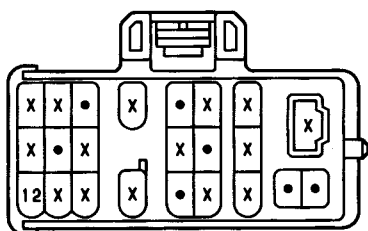
C10 ③ GRAY



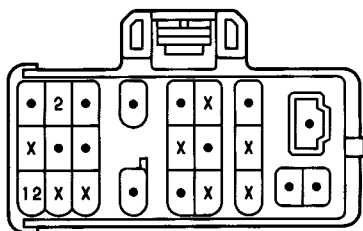
C15 GREEN



(5S-FE) D 1 BLACK



(7A-FE) D 1 BLACK



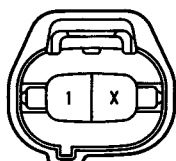
(5S-FE) E 2 ① BLACK



(7A-FE) E 2 ② BLACK



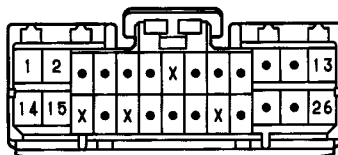
(5S-FE) E 3 ③ GRAY



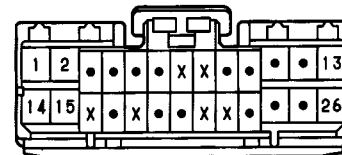
E 4 DARK GRAY



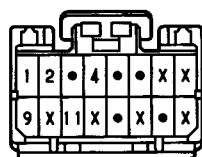
(5S-FE) E 5 ① DARK GRAY



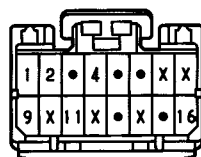
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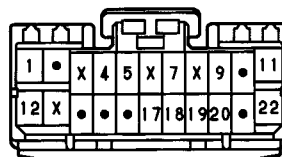
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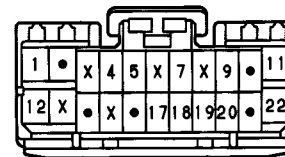
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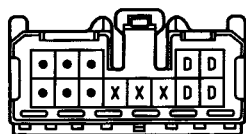
(5S-FE) E 7 ③ DARK GRAY



(7A-FE) E 7 ④ DARK GRAY



J 2



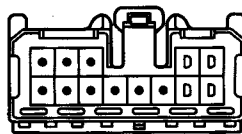
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J 3



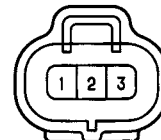
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J 7

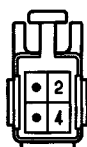


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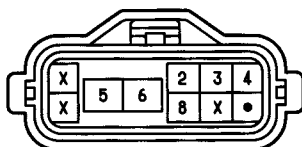
M 1 BLACK



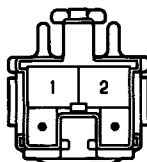
O 6 BLUE



P 1 GRAY



(W/ CRUISE S 7 CONTROL)



(W/O CRUISE S 7 CONTROL)

