

INSTRUMENT PANEL

1998 Toyota Supra

1998 ACCESSORIES & EQUIPMENT
Toyota - Instrument Panels

Avalon, Camry, Celica, Corolla, Supra, Tercel

*** PLEASE READ THIS FIRST ***

WARNING: Deactivate air bag system before performing any service operation. See AIR BAG RESTRAINT SYSTEMS article. DO NOT apply electrical power to any component on steering column without first deactivating air bag system. Air bag may deploy.

DESCRIPTION & OPERATION

GAUGES

Standard instrument clusters contain fuel and temperature gauges with telltale warning lights. Some optional instrument panels are equipped with a tachometer, oil pressure gauge and voltmeter. Gauge internal operating components use either a 2-terminal bimetallic strip type, or a 3-terminal coil type. The 2-terminal type gauges are generally used on clusters without tachometers.

SWITCHES

All models contain hazard warning switch on instrument panel. All models use a combination switch for headlight, turn signal, wiper/washer, and cruise control switches. Combination switch is mounted on steering column. For testing and/or removal and installation procedures for combination switch components, see STEERING COLUMN SWITCHES article.

COMPONENT TESTS

BRAKE FLUID LEVEL SWITCH

Remove cap and strainer from brake fluid reservoir. Disconnect brake fluid level switch connector. Check for continuity between brake fluid level switch terminals. With reservoir full (float up), continuity should not exist. With reservoir empty (float down), continuity should exist. If continuity is not as specified, replace brake fluid level switch.

BRAKE WARNING LIGHT

Disconnect brake fluid warning switch connector. Release parking brake. Using a jumper wire, connect brake fluid warning switch connector terminals together. Start engine. Brake warning light should be on. If brake warning light is off, check bulb and wiring harness. Repair as necessary.

DOOR COURTESY SWITCH

Supra
Locate door courtesy switch in door jamb. Check for continuity between door courtesy switch terminals No. 1 (Red/White

wire) and No. 2 (White/Black wire). With switch pin released (switch ON), continuity should exist. With switch pin pushed in (switch OFF), no continuity should exist. If continuity is not as specified, replace door courtesy switch.

Except Supra

Locate door courtesy switch in door jamb. Check for continuity between door courtesy switch terminal and switch body. With switch pin released (switch ON), continuity should exist. With switch pin pushed in (switch OFF), no continuity should exist. If continuity is not as specified, replace door courtesy switch.

ENGINE COOLANT TEMPERATURE GAUGE & SENDER TESTS

NOTE: On Tercel, engine Coolant Temperature (ECT) sender testing is not available.

Wiring Harness Operational Test

1) Disconnect engine coolant temperature sender connector. Turn ignition switch to ON position. Temperature gauge should indicate COOL. Turn ignition switch to OFF position. Connect a 12-volt, 3.4-watt test light between coolant temperature sender harness connector terminal and ground.

2) Turn ignition switch to ON position. Test light should be on and temperature gauge should slowly move toward HOT. If gauge functions as specified, replace sending unit. If gauge does not function as specified, perform ENGINE COOLANT TEMPERATURE GAUGE RESISTANCE test.

Engine Coolant Temperature (ECT) Sender (Except Tercel)

1) Turn ignition off. Disconnect ECT sender 1-pin connector. Drain cooling system and remove ECT sender. Place probe end of ECT sender and thermometer in a container of water. Connect an ohmmeter between ECT sender terminal and ECT sender body.

2) Heat water and note resistance reading. See ENGINE COOLANT TEMPERATURE GAUGE SENDER RESISTANCE table. If resistance is not as specified, replace ECT sender.

ENGINE COOLANT TEMPERATURE GAUGE SENDER RESISTANCE TABLE

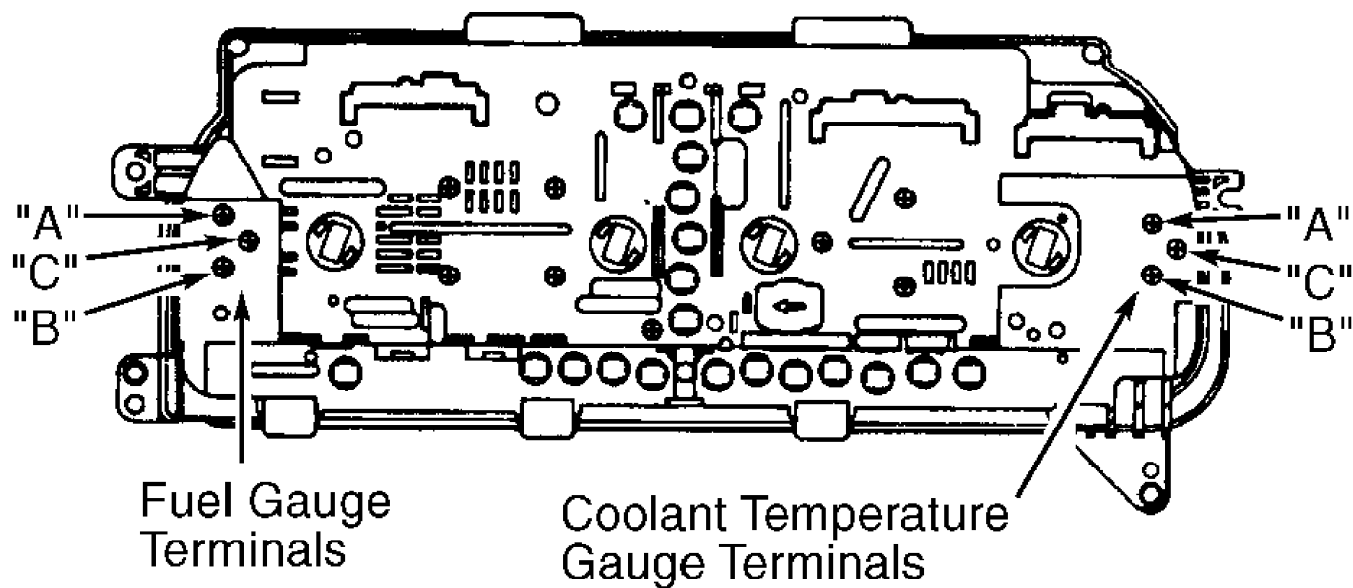
Application	Ohms
Avalon	
122°F (50°C)	234-314
248°F (120°C)	24-31
Camry	
122°F (50°C)	274
248°F (120°C)	27
Celica, Corolla & Supra	
122°F (50°C)	160-240
248°F (120°C)	17-21

Engine Coolant Temperature Gauge Resistance

Turn ignition off. Remove instrument cluster. Using ohmmeter, check gauge resistance between appropriate terminals on back of instrument cluster. See ENGINE COOLANT TEMPERATURE GAUGE RESISTANCE table. See Figs. 1-7. If resistance is not as specified, replace temperature gauge. If resistance is as specified, repair open or short circuit in wiring harness.

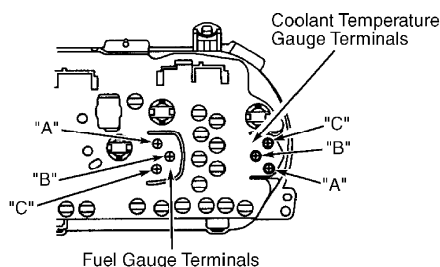
ENGINE COOLANT TEMPERATURE GAUGE RESISTANCE TABLE

Application	Ohms
Avalon & Corolla	
Terminals A & B	54
Terminals A & C	176
Terminals B & C	230
Camry	
Terminals A & B	176
Terminals A & C	54
Terminals B & C	230
Celica & Supra	
Terminals A & B	230
Terminals A & C	54
Terminals B & C	176
Tercel	
With Tachometer	
Terminals D & E	51
Terminals D & F	149
Terminals E & F	200
Without Tachometer	
Terminals A & B	54
Terminals A & C	176
Terminals B & C	230



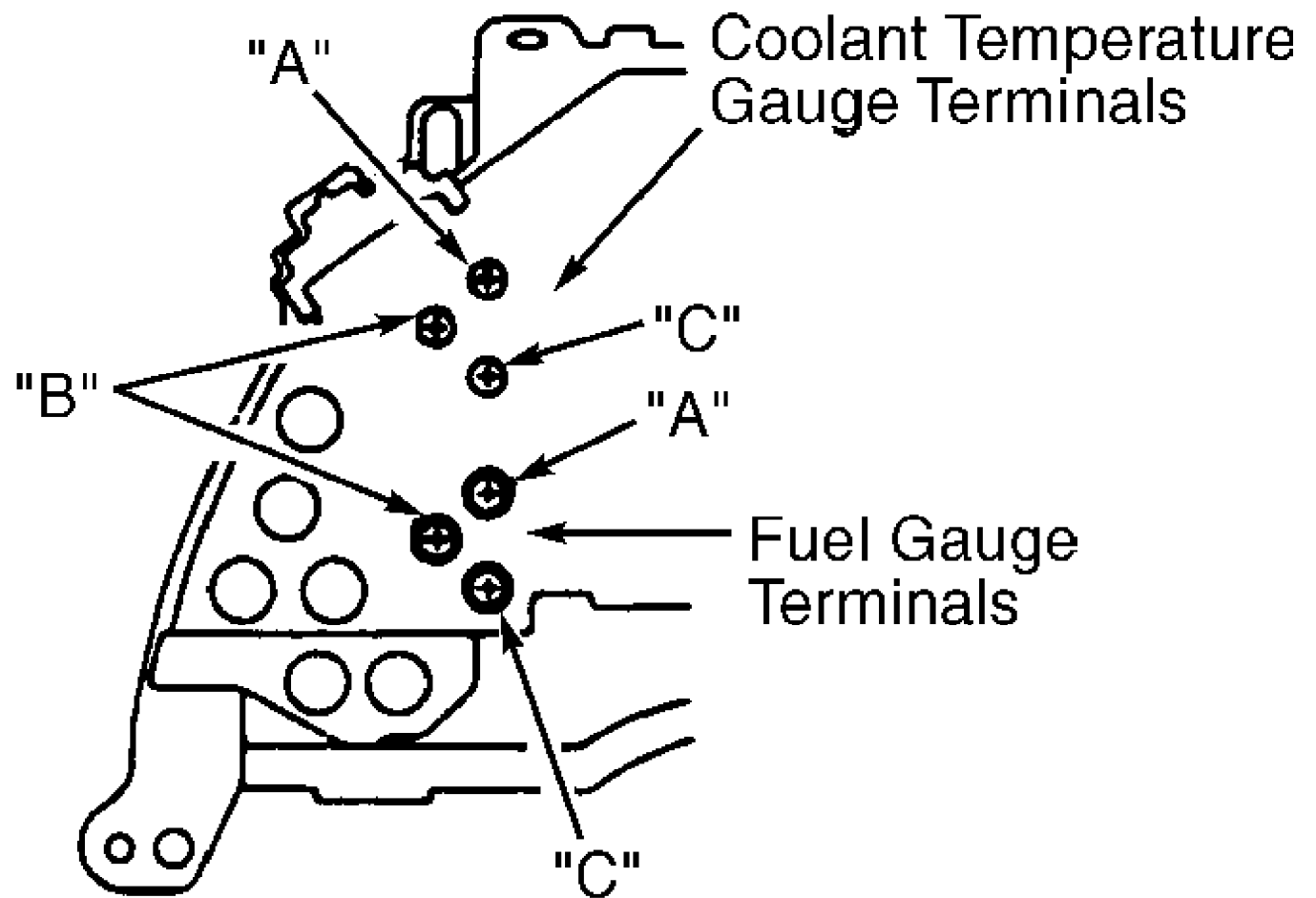
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Fig. 1: Identifying Fuel & Temperature Gauge Terminals (Avalon)
Courtesy of Toyota Motor Sales, U.S.A., Inc.



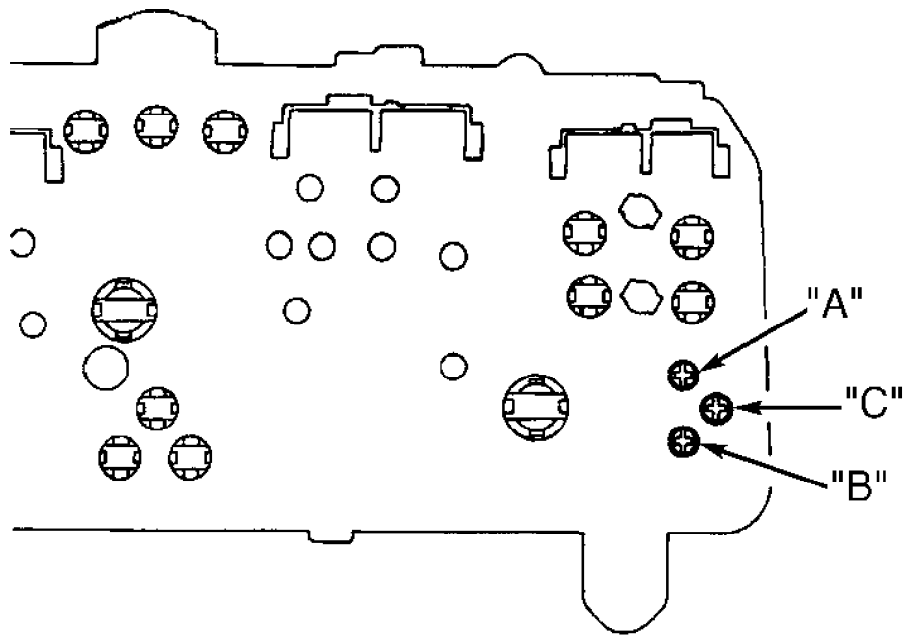
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Fig. 2: Identifying Fuel & Temperature Gauge Terminals (Camry)
Courtesy of Toyota Motor Sales, U.S.A., Inc.

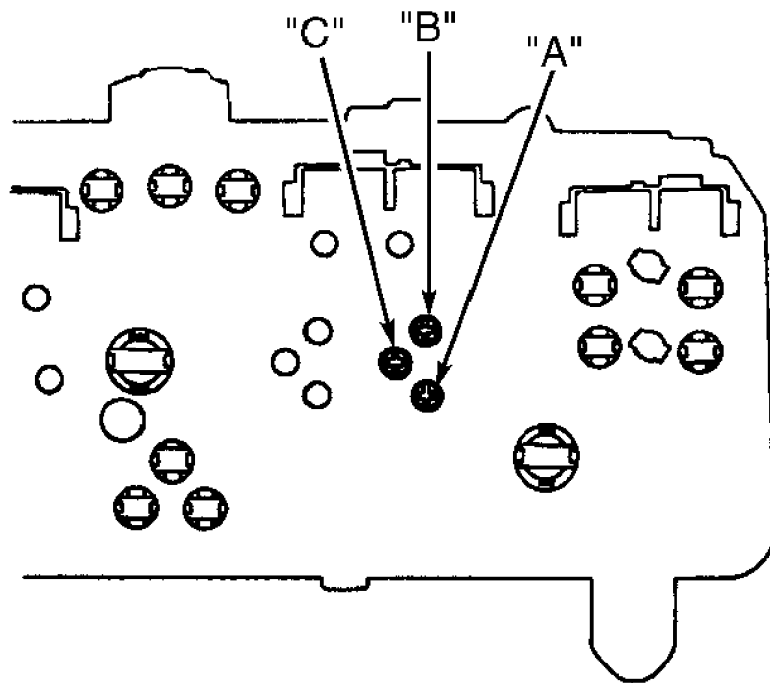


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Fig. 3: Identifying Fuel & Temperature Gauge Terminals (Celica)
Courtesy of Toyota Motor Sales, U.S.A., Inc.



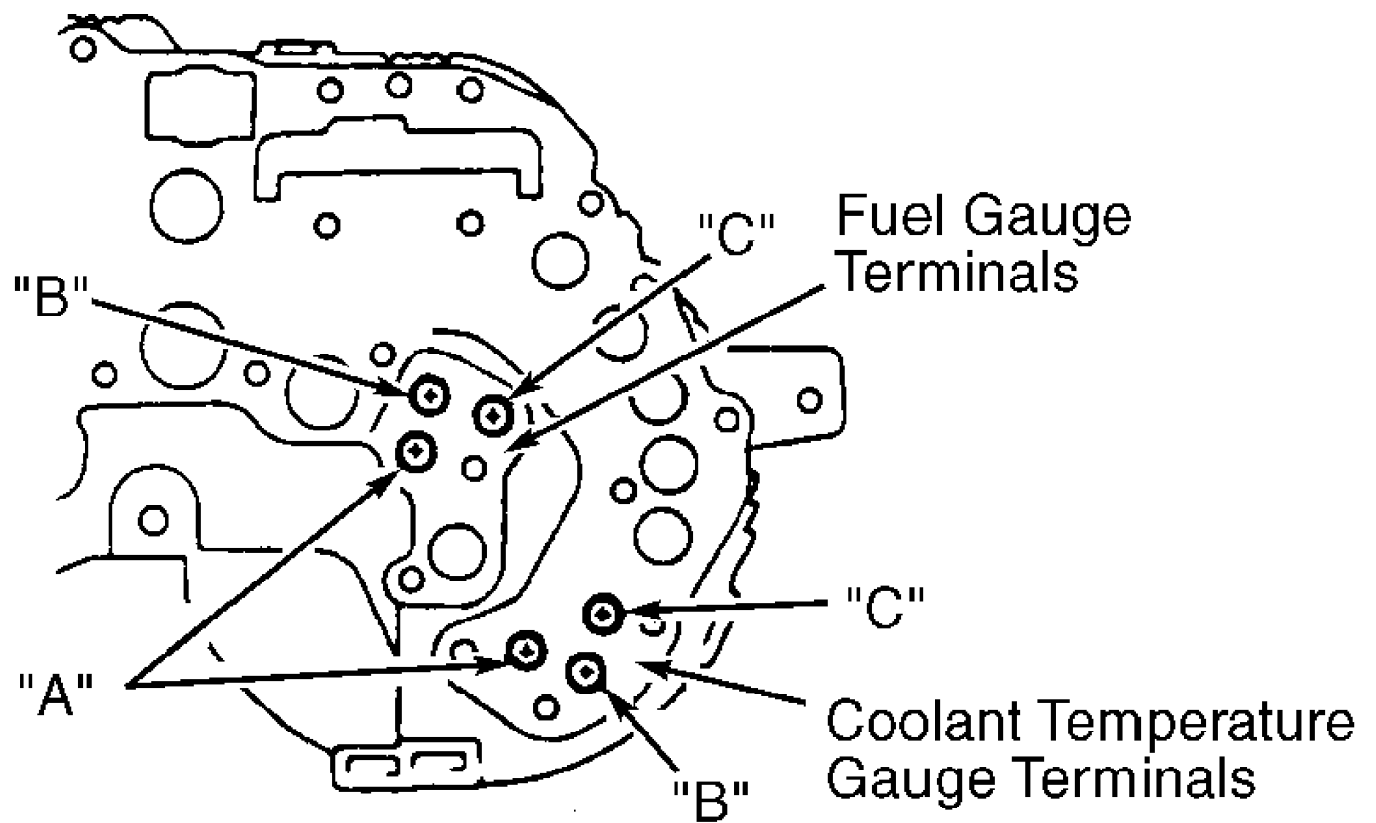
WITH TACHOMETER



WITHOUT TACHOMETER

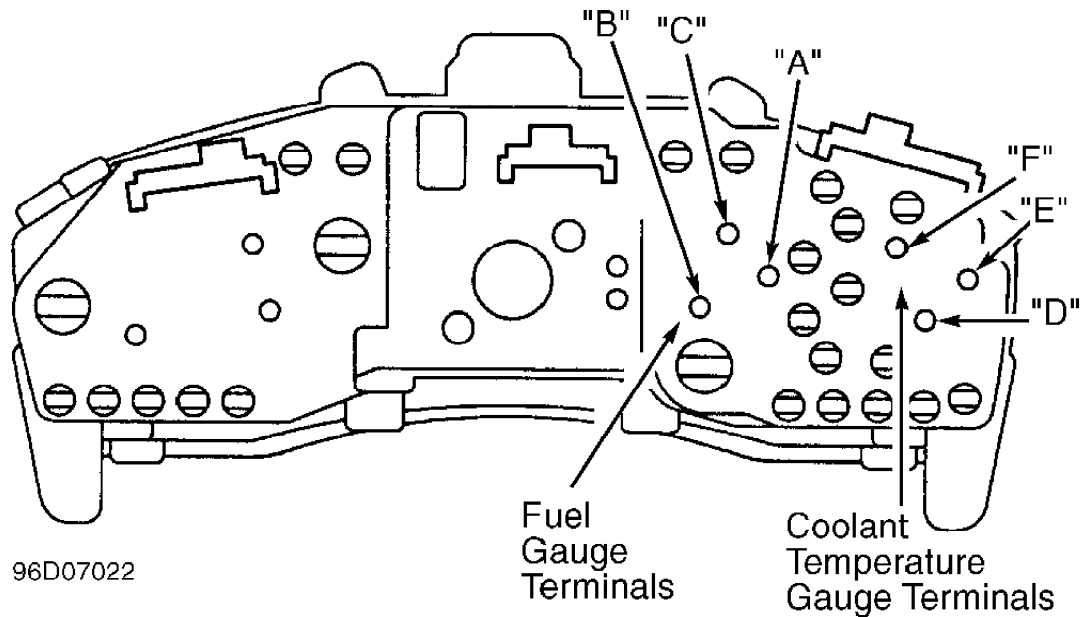
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Fig. 4: Identifying Temperature Gauge Terminals (Corolla)
 Courtesy of Toyota Motor Sales, U.S.A., Inc.



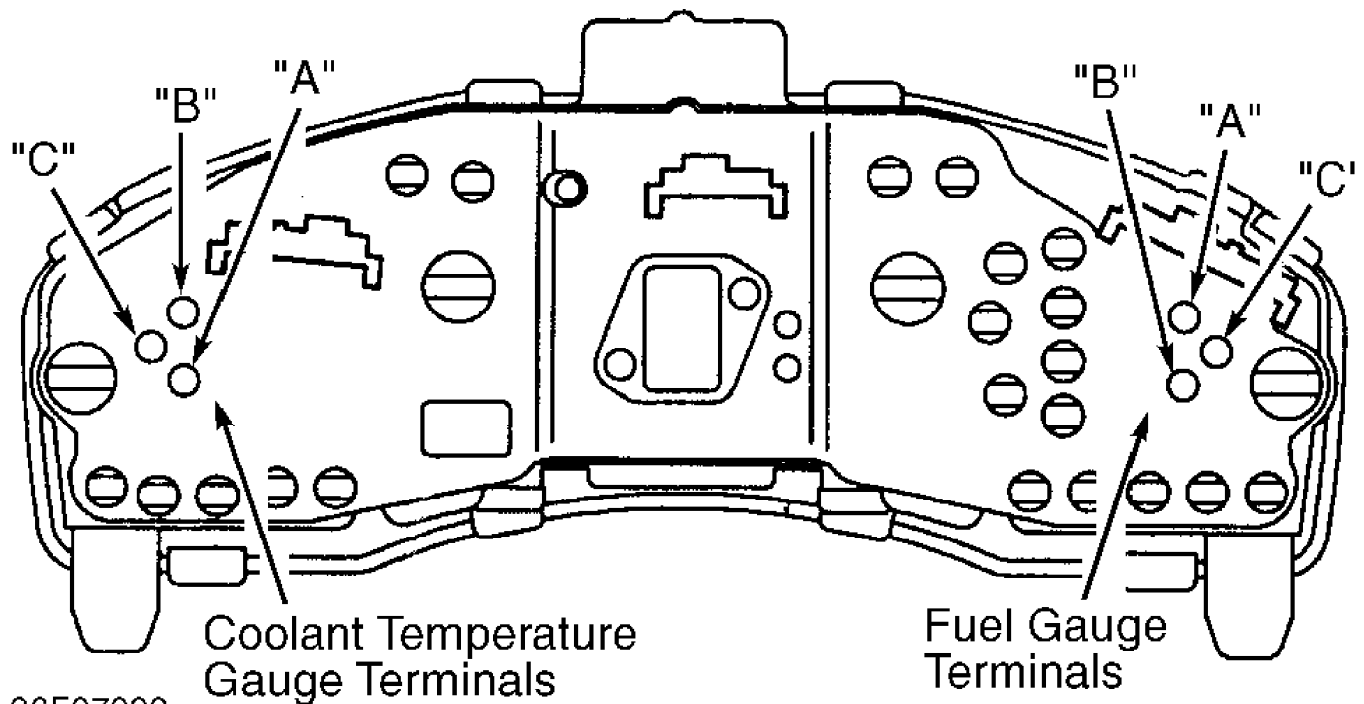
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Fig. 5: Identifying Fuel & Temperature Gauge Terminals (Supra)
 Courtesy of Toyota Motor Sales, U.S.A., Inc.



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Fig. 6: Identifying Fuel & Temperature Gauge Terminals (Tercel - With
 Tachometer)
 Courtesy of Toyota Motor Sales, U.S.A., Inc.



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Fig. 7: Identifying Fuel & Temperature Gauge Terminals (Tercel - Without Tachometer)

Courtesy of Toyota Motor Sales, U.S.A., Inc.

FUEL GAUGE & LOW FUEL WARNING LIGHT TESTS

Fuel Gauge & Wiring Harness Operational Test

1) Disconnect fuel tank sending unit connector. Turn ignition switch to ON position. If fuel gauge indicates EMPTY, go to next step. If fuel gauge does not indicate EMPTY, repair short circuit in wiring harness. See WIRING DIAGRAMS.

2) Connect a 12-volt, 3.4-watt test light between sending unit wiring harness connector terminals No. 2 and 3. See Fig. 8. With ignition switch in ON position, test light should be on and gauge needle should move toward FULL. If test light is off and gauge needle does not move, check wiring harness for open circuit. Repair as necessary. If wiring harness is okay, perform FUEL GAUGE RESISTANCE test.



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Fig. 8: Fuel Sending Unit Wiring Harness Connector Terminals

Courtesy of Toyota Motor Sales, U.S.A., Inc.

NOTE: Tercel is not equipped with a low fuel warning light or low fuel warning light switch.

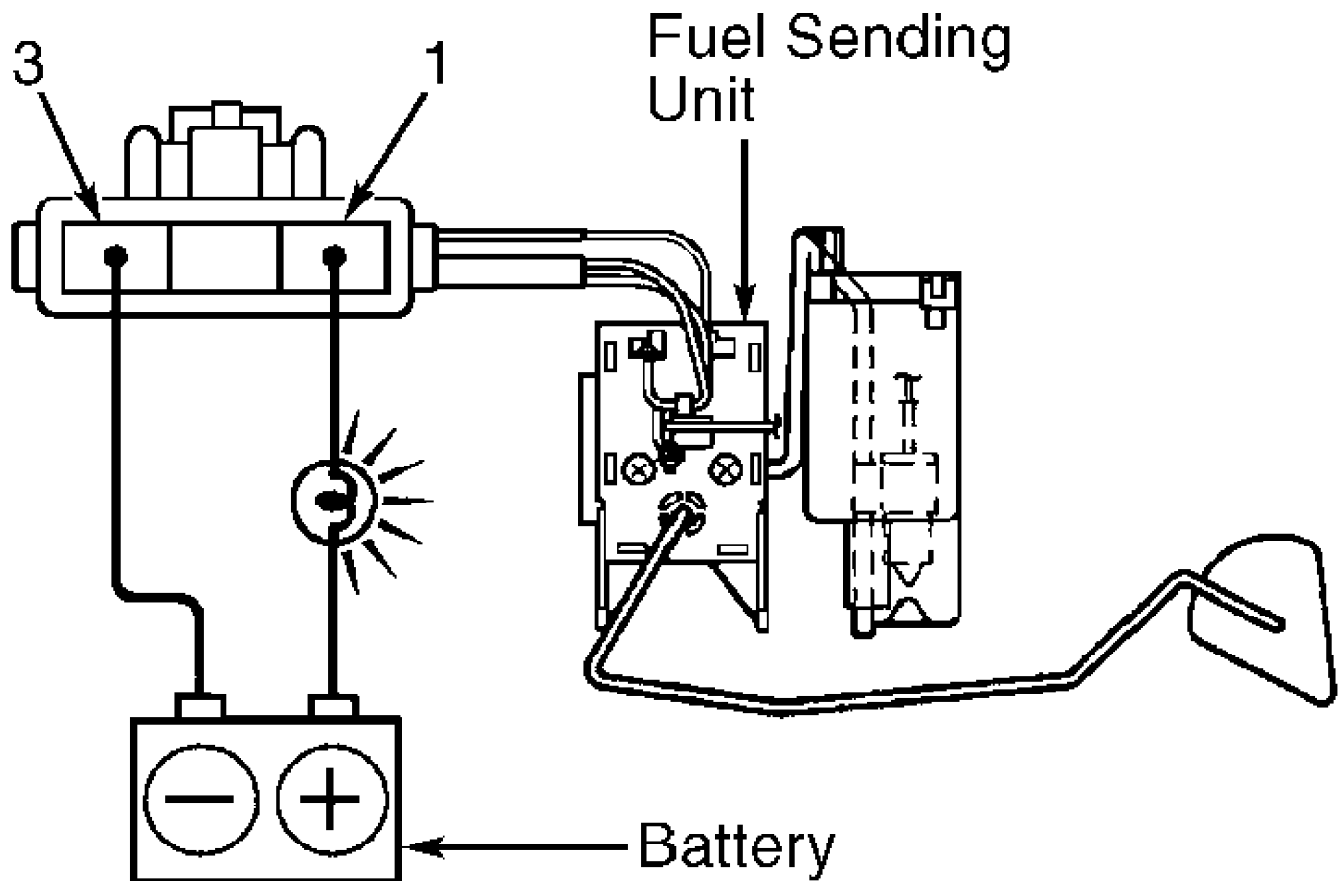
Low Fuel Warning Light

Disconnect connector from fuel sending unit at fuel tank. Connect a jumper wire between fuel sending unit wiring harness connector terminals No. 1 and 3. See Fig. 8. Turn ignition switch to ON position. Instrument cluster low fuel warning light should be on. If low fuel warning light is off, check bulb or wiring harness. Repair as necessary.

Low Fuel Warning Light Switch

1) Remove fuel sending unit from gas tank. Using a jumper wire, connect negative battery terminal to fuel sending unit terminal No. 3. See Fig. 9. Using another jumper wire, connect a 12-volt, 3.4-watt test light between positive battery terminal and fuel sending unit terminal No. 1.

2) With sending unit float/sensor dry, test light should come on within about 40 seconds. With sending unit float/sensor submerged in gasoline or water, test light should turn off. If test light does not function as specified, replace fuel gauge sending unit.



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Fig. 9: Testing Low Fuel Level Warning Switch (Avalon Shown; Others Similar)
Courtesy of Toyota Motor Sales, U.S.A., Inc.

Fuel Gauge Resistance

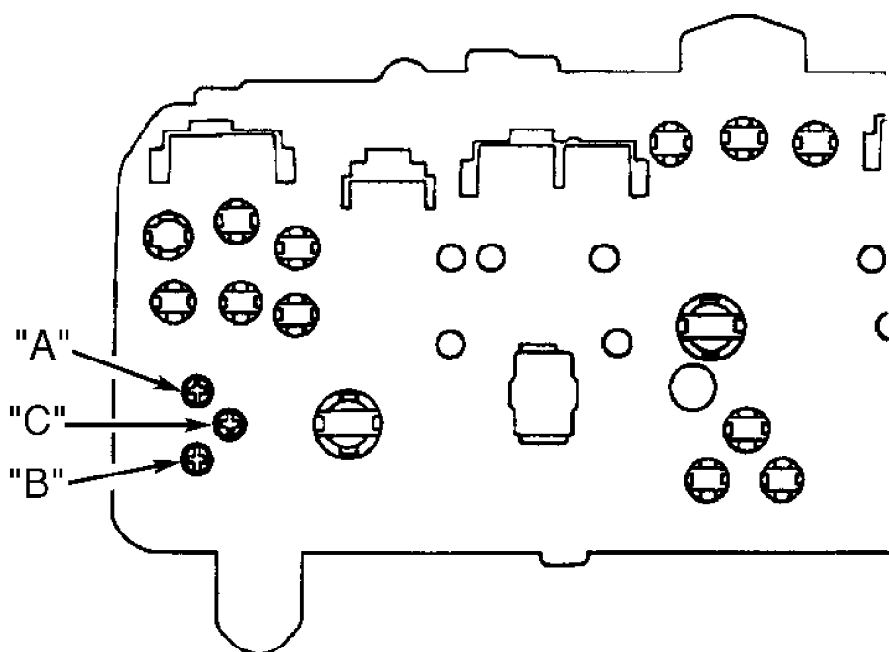
Remove instrument cluster. Disconnect cluster connector(s). Using an ohmmeter, measure resistance between appropriate fuel gauge

terminals at instrument cluster. See Fig. 1, 2, 3, 5, 6, 7 or 10. See FUEL GAUGE RESISTANCE table. Replace fuel gauge if resistance is not as specified.

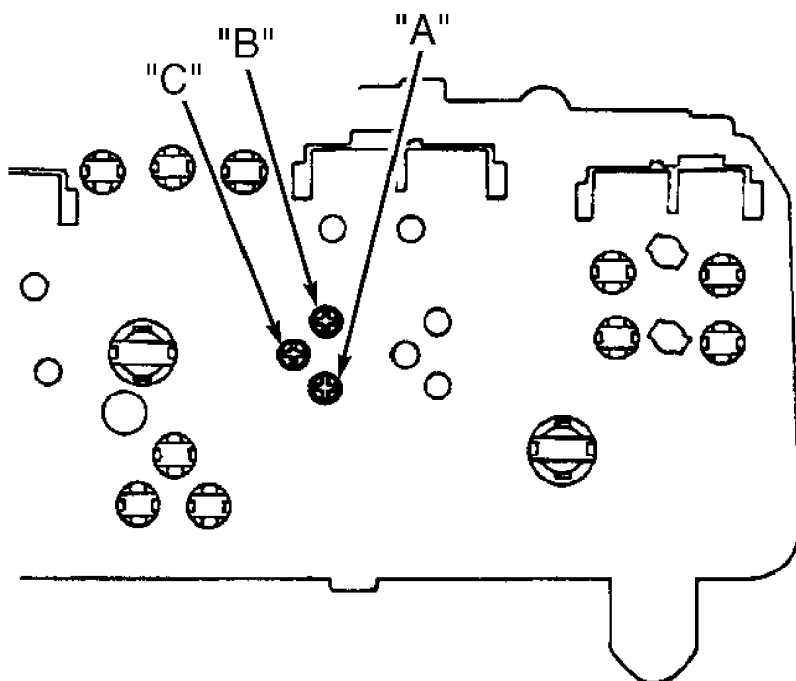
FUEL GAUGE RESISTANCE TABLE

Application & Terminals	(1) Ohms
Avalon	
Terminals A & B	151
Terminals A & C	306
Terminals B & C	154
Camry	
Terminals A & B	126
Terminals A & C	281
Terminals B & C	154
Celica	
Terminals A & B	154
Terminals A & C	126
Terminals B & C	281
Corolla	
With Tachometer	
Terminals A & B	108
Terminals A & C	233
Terminals B & C	125
Without Tachometer	
Terminals A & B	106
Terminals A & C	256
Terminals B & C	1150
Supra	
Terminals A & B	270
Terminals A & C	124
Terminals B & C	146
Tercel	
With Tachometer	
Terminals A & B	116
Terminals A & C	177
Terminals B & C	61
Without Tachometer	
Terminals A & B	171
Terminals A & C	273
Terminals B & C	102

(1) - Specification is approximate.



WITH TACHOMETER



WITHOUT TACHOMETER

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Fig. 10: Identifying Fuel Gauge Terminals (Corolla)
 Courtesy of Toyota Motor Sales, U.S.A., Inc.

FUEL SENDING UNIT TESTS

Fuel Sending Unit Resistance

1) Turn ignition switch to OFF position. Remove fuel sending unit from fuel tank. Connect ohmmeter between fuel sending unit terminals No. 2 and 3. See Fig. 8.

2) Move fuel sender arm and ensure resistance is as specified. See FUEL SENDING UNIT RESISTANCE table. If resistance is not as specified, replace fuel sending unit.

FUEL SENDING UNIT RESISTANCE TABLE

Float Position	(1) Ohms
Full	
Avalon, Camry & Celica	3
Corolla	3-5
Supra	4
Tercel	7
Half	
Avalon	31
Camry & Celica	32
Corolla	53
Supra	55
Tercel	33
Empty	
Avalon, Camry & Celica	95
Corolla	106-108
Supra	107
Tercel	102-118

(1) - Resistance reading is approximate.

HAZARD WARNING SWITCH

1) Ensure HAZARD and TURN fuses are good. Ensure flasher is good. For turn signal flasher testing, see STEERING COLUMN SWITCHES article. For turn signal flasher location, see TURN SIGNAL FLASHER LOCATION table. With hazard warning switch removed from instrument panel, ensure battery voltage exists at switch wiring harness connector terminals No. 8 and 10 (Avalon, Camry, Celica and Supra) or terminals No. 6 and 7 (Corolla and Tercel). See Fig. 11. If battery voltage does not exist, check/repair fuses and wiring harness circuits. If battery voltage exists, go to next step.

2) Using DVOM, ensure switch continuity exists between indicated terminals with switch in specified position. See HAZARD WARNING SWITCH CONTINUITY table. If continuity is not as specified, replace switch. If continuity is as specified, check wiring circuits. See WIRING DIAGRAMS.

TURN SIGNAL FLASHER LOCATION TABLE

Model	Location
Avalon & Tercel	Behind Instrument Cluster
Camry	In Relay Block No. 1, Behind Left Kick Panel
Celica	Top Left Relay In Relay Block No. 1, Behind Left Kick Panel
Corolla ..	In Junction Block No. 1, Behind Left Kick Panel
Supra	Center Relay In Relay Block No. 4, Behind Left Kick Panel

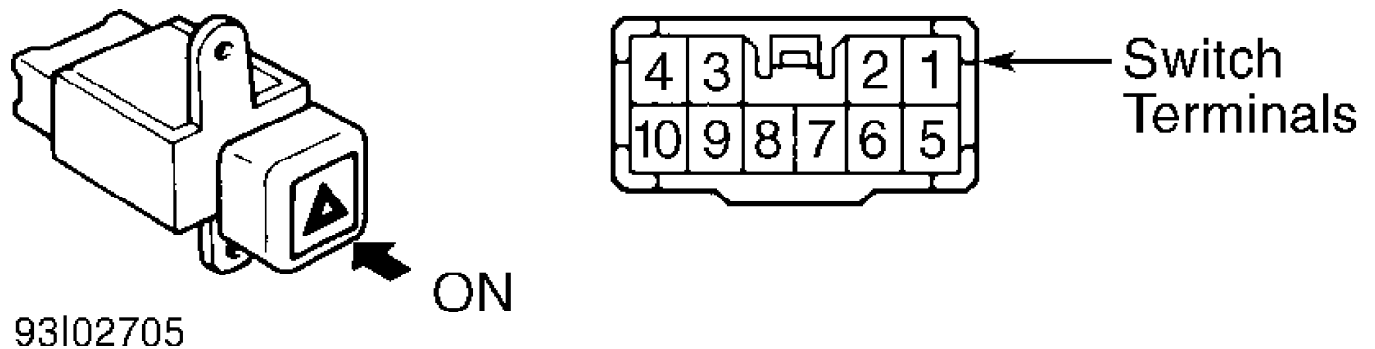


Fig. 11: Identifying Hazard Warning Switch Terminals
 Courtesy of Toyota Motor Sales, U.S.A., Inc.

HAZARD WARNING SWITCH CONTINUITY TABLE

Switch Position	Terminals No.	Continuity
Avalon, Celica & Supra (1)		
Off	7 & 10	Yes
On	4, 5, 6 & 9; 7 & 8	Yes
Camry (1)		
Off	7 & 10	Yes
On	5, 6 & 9; 7 & 8	Yes
Corolla & Tercel (2)		
Off	5 & 7	Yes
On	1, 2 & 4; 5 & 6	Yes

- (1) - Continuity should exist between terminals No. 2 and 3.
 Terminals are for switch illumination bulb.
 (2) - Continuity should exist between terminals No. 8 and 9.
 Terminals are for switch illumination bulb.

LIGHT FAILURE SENSOR CIRCUITS

Avalon & Supra

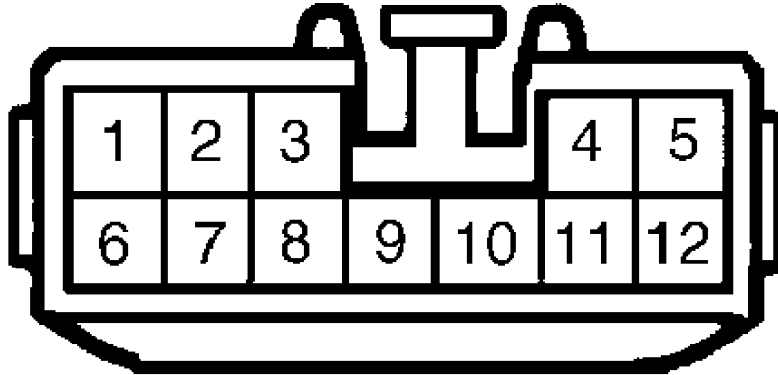
Disconnect light failure sensor 12-pin connector. Light failure sensor is located behind left rear quarter trim panel. Check for continuity or voltage between ground and light failure sensor wiring harness connector terminals. See LIGHT FAILURE SENSOR CIRCUIT table. See Fig. 12. If continuity or voltage is not as specified, check and repair wiring harness as necessary.

LIGHT FAILURE SENSOR CIRCUIT TABLE

Terminal (1)	Condition	Value
1	Always	(2) Continuity
2	Always	(2) Continuity
9	Always	(2) Continuity
10	Always	(2) Continuity
11	Always	(2) Continuity
12	Always	(2) Continuity
3	Light Control Switch Off	Zero Volts
	Light Control Switch On	Battery Voltage
4	Ignition Switch Lock Or ACC	Zero Volts
	Ignition Switch On	Battery Voltage
7	Stoplight Switch Off	Zero Volts
	Stoplight Switch On	Battery Voltage
8	Ignition Switch Lock Or ACC	Zero Volts

Ignition Switch On Battery Voltage

- (1) - Check for resistance or voltage between ground and light failure sensor wiring harness connector terminal listed.
 - (2) - Continuity exists because circuit is grounded through bulb.
-



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Courtesy of Toyota Motor Sales, U.S.A., Inc.

Fig. 12: Identifying Light Failure Sensor Wiring Harness Connector
Terminals (Avalon & Supra)
Courtesy of Toyota Motor Sales, U.S.A., Inc.

LIGHT FAILURE WARNING LIGHT

Avalon & Supra

Disconnect light failure sensor 12-pin connector. Light failure sensor is located behind left rear quarter trim panel. Connect a jumper wire between ground and terminal No. 4 at light failure sensor wiring harness connector. See Fig. 12. Start engine. Light failure warning light should be on. If light failure warning light is off, check bulb and wiring harness. Repair as necessary.

LIGHT CONTROL RHEOSTAT

Avalon, Camry, Celica & Supra

1) Remove light control rheostat. Light control rheostat is located on left side of instrument panel. Using jumper wires, connect positive battery terminal to light control rheostat terminal No. 1 and negative battery terminal to terminal No. 3. See Fig. 13.

2) Connect voltmeter positive lead to terminal No. 2 and negative lead to terminal No. 3. Note voltage reading. Rotate light control rheostat knob or thumbwheel and observe voltage reading. Voltage should change as knob or thumbwheel is rotated. If voltage does not change, replace light control rheostat.

Corolla

1) Remove light control rheostat. Light control rheostat is located on left side of instrument panel. Using jumper wires, connect positive battery terminal to light control rheostat terminal No. 1 and negative battery terminal to terminal No. 2. See Fig. 14.

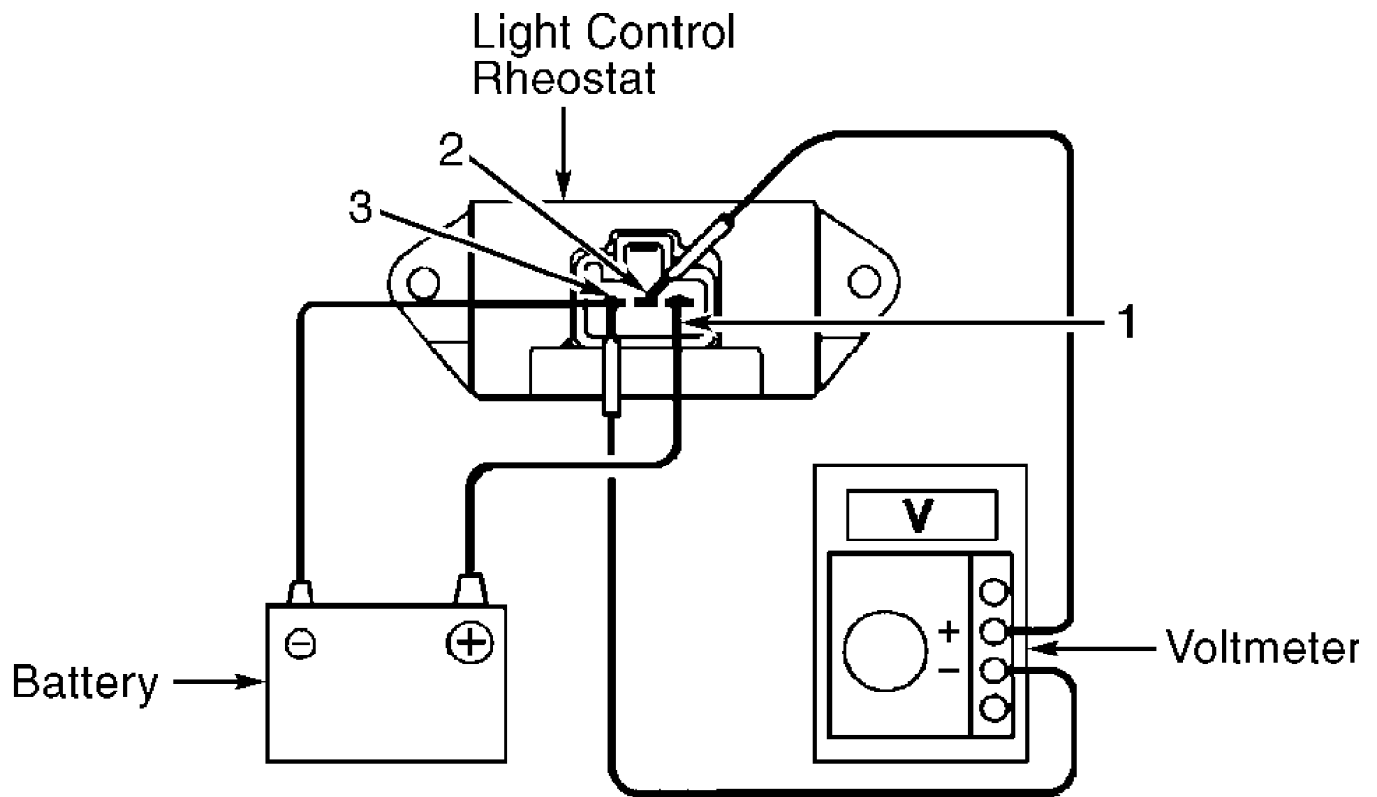
2) Connect a 12-volt, 3.4-watt test light between light control rheostat terminals No. 1 and 3. Slowly rotate light control

rheostat knob from bright side to dark side. See Fig. 14. Test light brightness should change from bright to dark. If operation is not as specified, replace light control rheostat.

Tercel

1) Remove light control rheostat. Light control rheostat is located on left side of instrument panel. Turn rheostat knob to OFF position (fully counterclockwise). Check for continuity between rheostat terminals. If continuity does not exist, go to next step. If continuity exists, replace rheostat.

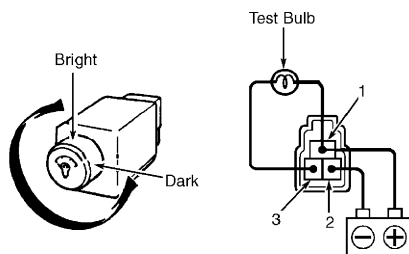
2) Measure resistance between rheostat terminals while slowly rotating rheostat knob from dark side to bright side. See Fig. 15. Resistance should change from about 10 ohms to infinite as knob is rotated.



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Fig. 13: Testing Light Control Rheostat (Avalon Shown; Camry, Celica & Supra Are Similar)

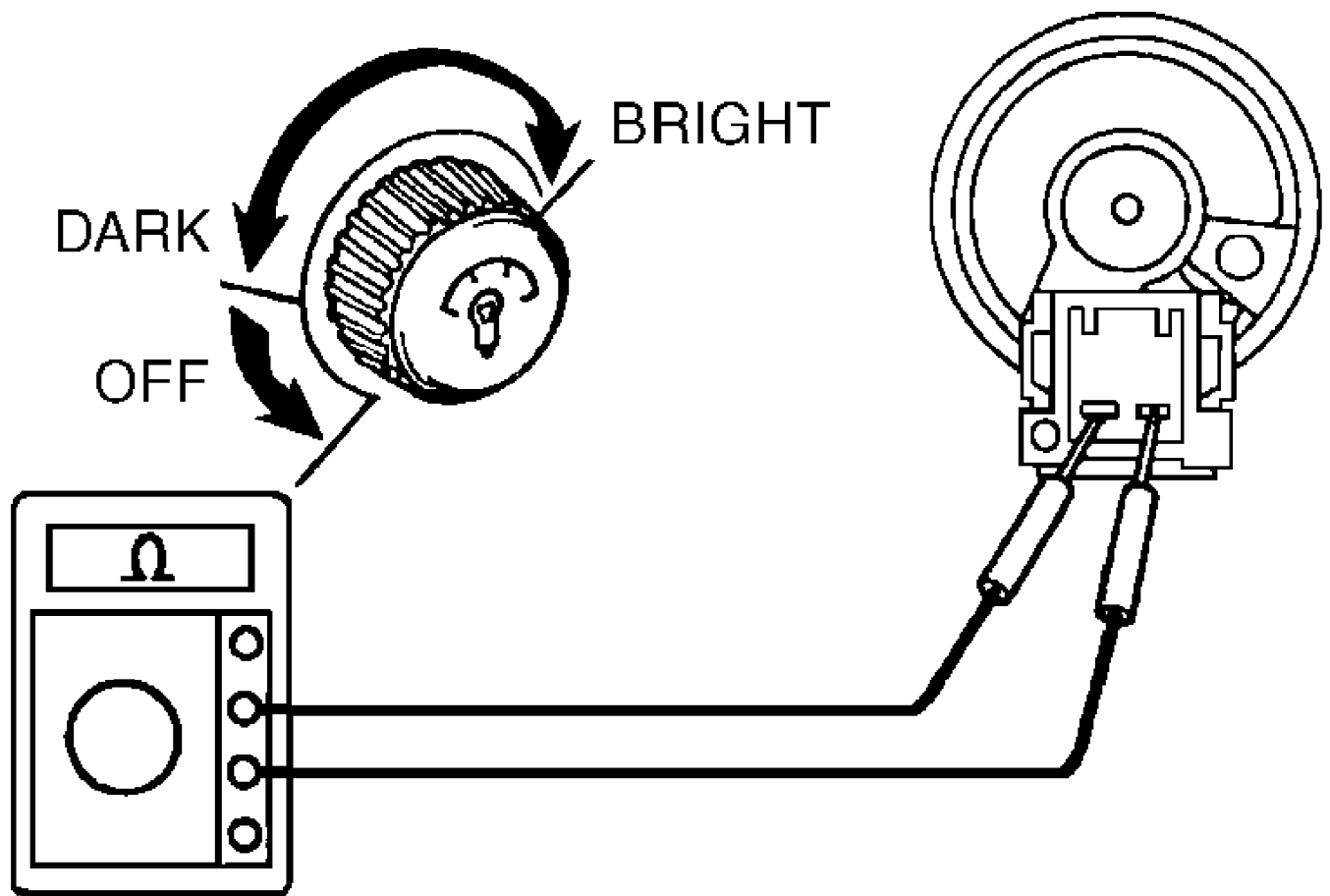
Courtesy of Toyota Motor Sales, U.S.A., Inc.



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Fig. 14: Testing Light Control Rheostat (Corolla)

Courtesy of Toyota Motor Sales, U.S.A., Inc.



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Fig. 15: Testing Light Control Rheostat (Tercel)
Courtesy of Toyota Motor Sales, U.S.A., Inc.

LOW OIL PRESSURE SWITCH & WARNING LIGHT TESTS

Low Oil Pressure Switch

Disconnect low oil pressure switch connector on engine. Using an ohmmeter, check for continuity between oil switch unit and ground. Continuity should exist with engine off. Continuity should not exist with engine running. If continuity is not as specified, replace low oil pressure switch.

Low Oil Pressure Warning Light

Disconnect low oil pressure switch connector on engine. Connect low oil pressure switch connector to ground. Turn ignition switch to ON position. Low oil pressure warning light should turn on. If low oil pressure warning light is off, check bulb or inspect wiring harness.

OPEN DOOR WARNING LIGHT

Except Supra

Locate door courtesy switch in door jamb. Disconnect door courtesy switch 1-pin connector. Ground door courtesy switch wiring harness connector terminal. Open door warning light should be on. If open door warning light is off, check bulb and wiring harness. Repair

as necessary.

Supra

Locate door courtesy switch in door jamb. Disconnect door courtesy switch connector. Connect a jumper wire between door courtesy switch wiring harness connector terminals. Open door warning light should be on. If open door warning light is off, check bulb and wiring harness. Repair as necessary.

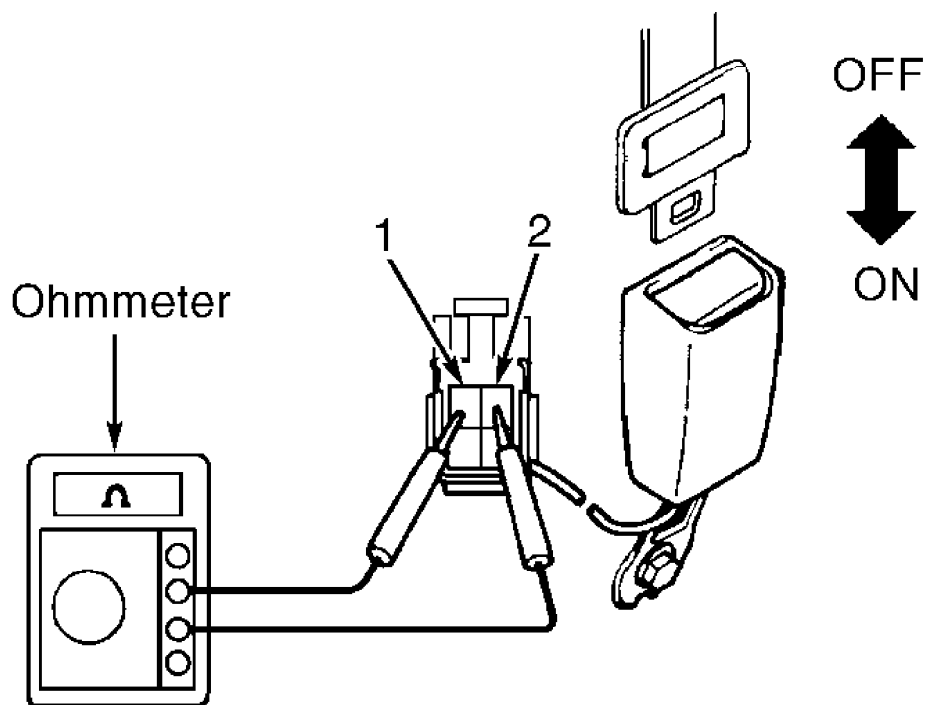
PARKING BRAKE SWITCH

Check for continuity between parking brake switch terminal and switch body. With parking brake switch on (switch pin released), continuity should exist. With parking brake switch off (switch pin pushed in), no continuity should exist. If continuity is not as specified, clean mounting area between switch and mounting bracket (poor ground). Recheck continuity. If continuity still is not as specified, replace parking brake switch.

SEAT BELT BUCKLE SWITCH

Avalon, Camry, Celica & Supra

Disconnect seat belt buckle switch 2-pin connector. See Fig. 16. Check for continuity between seat belt buckle switch terminals. With seat belt buckle switch on (belt fastened), continuity should exist. With seat belt buckle switch off (belt unfastened), no continuity should exist. If continuity is not as specified, replace seat belt.



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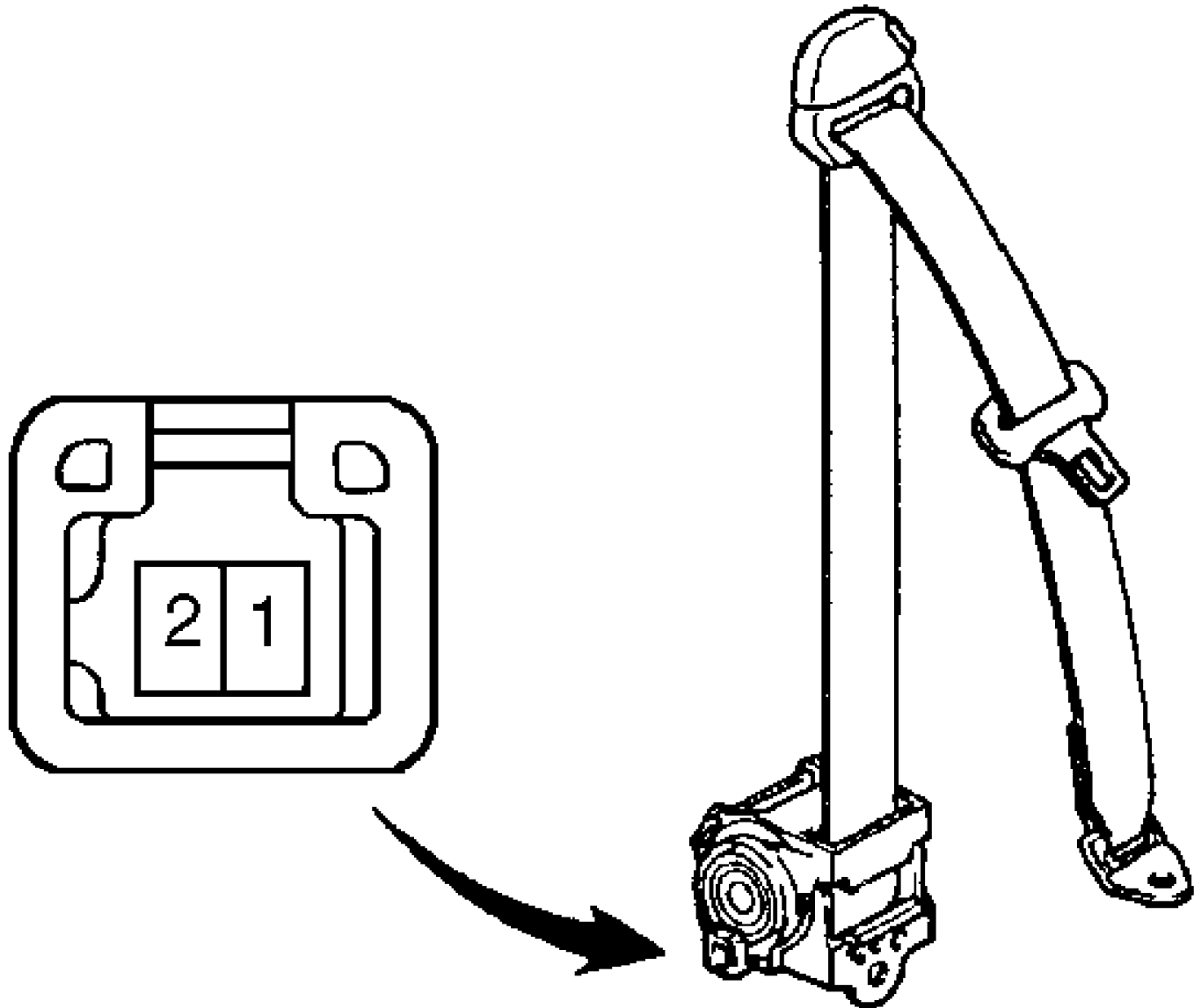
Fig. 16: Testing Seat Belt Buckle Switch (Avalon, Camry, Celica & Supra)

Courtesy of Toyota Motor Sales, U.S.A., Inc.

SEAT BELT RETRACTOR SWITCH

Corolla & Tercel

Disconnect seat belt retractor switch 2-pin connector. See Fig. 17. Check for continuity between seat belt retractor switch terminals. With seat belt retractor switch on (belt retracted), continuity should exist. With seat belt retractor switch off (belt fastened), no continuity should exist. If continuity is not as specified, replace seat belt retractor switch.



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Fig. 17: Testing Seat Belt Retractor Switch (Corolla Shown; Tercel Similar)

Courtesy of Toyota Motor Sales, U.S.A., Inc.

SEAT BELT WARNING LIGHT

Avalon, Camry & Celica

Turn ignition off. Remove integration relay from instrument

panel junction block, below left side of instrument panel. Using a jumper wire, ground integration relay terminal No. 9 in junction block. See Fig. 18. Turn ignition on. Seat belt warning light should be on. If seat belt warning light is off, check bulb and wiring harness. Repair as necessary.

Corolla & Tercel

Turn ignition off. Disconnect seat belt retractor switch 2-pin connector. See Fig. 17. Connect a jumper wire between seat belt retractor switch wiring harness connector terminals. Turn ignition on. Seat belt warning light should be on. If seat belt warning light is off, check bulb and wiring harness. Repair as necessary.

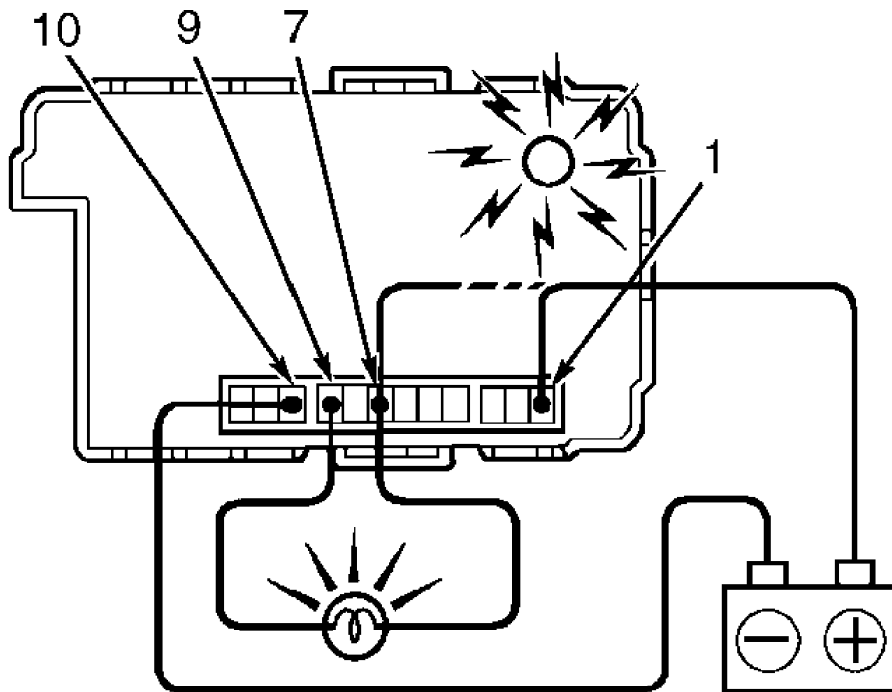
SEAT BELT WARNING SYSTEM

Integration Relay Operation (Avalon, Camry, Celica & Supra)

1) Turn ignition off. Remove integration relay from instrument panel junction block, below left side of instrument panel.

2) Using a jumper wire, connect positive battery terminal to integration relay terminals No. 1 and 7. See Fig. 18. Connect a 12-volt, 3.4-watt test light between integration relay terminals No. 7 and 9. Using a jumper wire, connect negative battery terminal to integration relay terminal No. 10. Test light should be on and chime should sound for 4-8 seconds.

3) Repeat step 2) and operate chime again. With chime on, connect a jumper wire between negative battery terminal and integration relay terminal No. 8. Chime noise should stop. If operation is not as specified, replace integration relay.



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Fig. 18: Testing Integration Relay (Avalon Shown; Camry & Celica Are Similar)

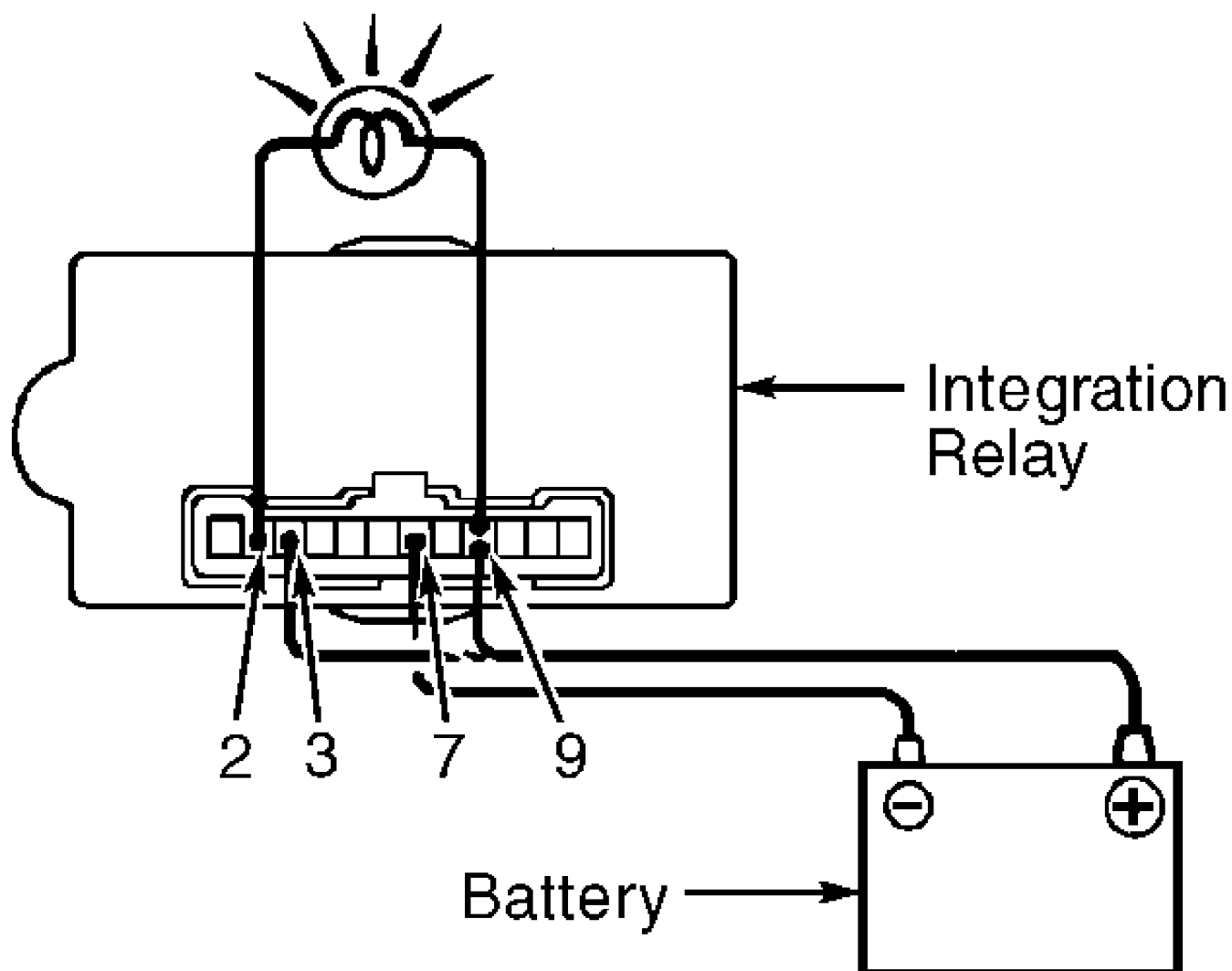
Courtesy of Toyota Motor Sales, U.S.A., Inc.

Integration Relay Operation (Corolla & Tercel)

1) Turn ignition off. Remove integration relay from instrument panel junction block, below left side of instrument panel.

2) Using a jumper wire, connect positive battery terminal to integration relay terminals No. 3 and 9. See Fig. 19. Connect a 12-volt, 3.4-watt test light between integration relay terminals No. 2 and 9. Using a jumper wire, connect negative battery terminal to integration relay terminal No. 7. Test light should be on and chime should sound for 4-8 seconds.

3) Repeat step 2) and operate chime again. With chime on, connect a jumper wire between negative battery terminal and integration relay terminal No. 5. Chime noise should stop. If operation is not as specified, replace integration relay.



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Fig. 19: Testing Integration Relay (Tercel Shown; Corolla Similar)
Courtesy of Toyota Motor Sales, U.S.A., Inc.

SPEEDOMETER TEST

Ensure tires are correct size and inflated properly. Place vehicle on standard speedometer tester. Compare tester with speedometer readings. See SPEEDOMETER TEST table. If vehicle speedometer readings are not within allowable range, replace

speedometer. If speedometer does not operate at all, check vehicle speed sensor. See I - SYSTEM/COMPONENT TESTS article in the ENGINE PERFORMANCE section.

SPEEDOMETER TEST TABLE

Standard Indication (MPH)	Allowable Range (MPH)
Avalon, Camry, Corolla & Supra	
20	18-24
40	38-44
60	56-66
80	78-88
100	98-110
120	118-132
Celica & Tercel	
20	19-22
40	39-43
60	60-64
80	80-85
100	100-106
120	120-126

TACHOMETER TEST

Connect a tune-up test tachometer and start engine. Compare vehicle tachometer RPM reading against test tachometer. If vehicle tachometer reading is outside allowable range, replace tachometer. See TACHOMETER TEST table.

TACHOMETER TEST TABLE

Vehicle RPM Reading	Allowable Range (RPM)
Avalon, Camry, Celica & Corolla	
700	630-770
1000	900-1100
2000	1850-2150
3000	2800-3200
4000	3800-4200
5000	4800-5200
6000	5750-6250
7000	6700-7300
Supra	
700	630-770
1000	915-1115
2000	1920-2220
3000	2890-3350
4000	3940-4400
5000	5025-5425
6500	6650-6950
7000	7025-7625
Tercel	
700	610-750
3000	2850-3150
5000	4850-5150
7000	6790-7210

VEHICLE SPEED SENSOR

For vehicle speed sensor testing procedures, see I -

SYSTEM/COMPONENT TESTS article in the ENGINE PERFORMANCE section.

WASHER LEVEL WARNING LIGHT

Avalon, Camry & Corolla

Disconnect washer level switch 2-pin connector. Connect a jumper wire between washer level switch wiring harness connector terminals. Turn ignition switch to ON position. Washer level warning light should be on. If washer level warning light is off, check bulb and wiring harness. Repair as necessary.

WASHER LEVEL WARNING SWITCH

Avalon, Camry & Corolla

Disconnect washer level warning switch 2-pin connector. Check for continuity between washer level warning switch connector terminals. With washer level warning switch off (float up), no continuity should exist. With washer level warning switch on (float off), continuity should exist. If continuity is not as specified, replace washer level warning switch.

REMOVAL & INSTALLATION

* PLEASE READ THIS FIRST *

WARNING: Deactivate air bag system before performing any service operation. See AIR BAG RESTRAINT SYSTEMS article. DO NOT apply electrical power to any component on steering column without first deactivating air bag system. Air bag may deploy.

HAZARD WARNING SWITCH

NOTE: On Tercel, hazard warning switch removal and installation procedures are not available.

Removal & Installation (Avalon)

Hazard warning switch is mounted to center cluster finish panel, above radio. Carefully remove center cluster finish panel. Disconnect switch connector and remove switch. To install, reverse removal procedure.

Removal & Installation (Camry)

Hazard warning switch is mounted to center air duct register. Using flat-blade screwdriver, carefully remove hazard warning switch from register and disconnect connector. To install, reverse removal procedure.

Removal & Installation (Celica & Corolla)

Hazard warning switch is mounted to center cluster finish panel, to left of clock. Using flat-blade screwdriver, carefully remove switch from center cluster finish panel and disconnect connector. To install, reverse removal procedure.

Removal & Installation (Supra)

Hazard warning switch is mounted to center cluster finish panel, above center A/C vent. See Fig. 22. Switch is snapped into panel. Carefully pry switch out from panel and disconnect connector. To install, reverse removal procedure. Ensure switch is bottomed in dash panel.

INSTRUMENT CLUSTER

WARNING: Deactivate air bag system before performing any service operation. See AIR BAG RESTRAINT SYSTEMS article. DO NOT apply electrical power to any component on steering column without first deactivating air bag system. Air bag may deploy.

Removal & Installation (Avalon)

- 1) Disable air bag system, remove driver's air bag and steering wheel. See AIR BAG RESTRAINT SYSTEMS article.
- 2) Remove center cluster finish panel. Remove retaining screws from instrument cluster finish panel. Carefully remove large one-piece instrument cluster finish panel away from dash. Disconnect electrical connectors and A/C-heater ducts as necessary.
- 3) Remove instrument cluster retaining screws. Pull cluster outward from dash enough to disconnect wiring harness connectors. Remove instrument cluster. To install, reverse removal procedure. Before installing steering wheel, center spiral cable. See AIR BAG RESTRAINT SYSTEMS article.

Removal & Installation (Camry)

Disable air bag system, remove steering column covers and steering wheel (if necessary). See AIR BAG RESTRAINT SYSTEMS article. Remove instrument cluster finish panel. Remove 4 screws and pull cluster outward enough to disconnect wiring harness connectors. Remove instrument cluster. To install, reverse removal procedure. Before installing steering wheel (if removed), center spiral cable. See AIR BAG RESTRAINT SYSTEMS article.

Removal & Installation (Celica)

- 1) Disable air bag system, remove driver's air bag and steering wheel. See AIR BAG RESTRAINT SYSTEMS article. Remove steering column covers. Remove plastic screw cover from instrument panel lower finish panel and remove 7 retaining screws. See Fig. 20. Pry off lower finish panel from around ignition key bezel and steering column.
- 2) Remove 4 upper cluster finish panel retaining screws. Pull upper cluster out far enough to disconnect wiring harness connectors. Remove 4 screws and instrument cluster. To install, reverse removal procedure. Before installing steering wheel, center spiral cable. See AIR BAG RESTRAINT SYSTEMS article.

Removal & Installation (Corolla)

Disable air bag system, remove driver's air bag and steering wheel. See AIR BAG RESTRAINT SYSTEMS article. Remove screws retaining instrument panel cluster finish panel and remove panel. See Fig. 21. Remove instrument cluster retaining screws. Disconnect wiring harness connectors from rear of instrument cluster. Remove instrument cluster. To install, reverse removal procedure. Before installing steering wheel, center spiral cable. See AIR BAG RESTRAINT SYSTEMS article.

Removal & Installation (Supra)

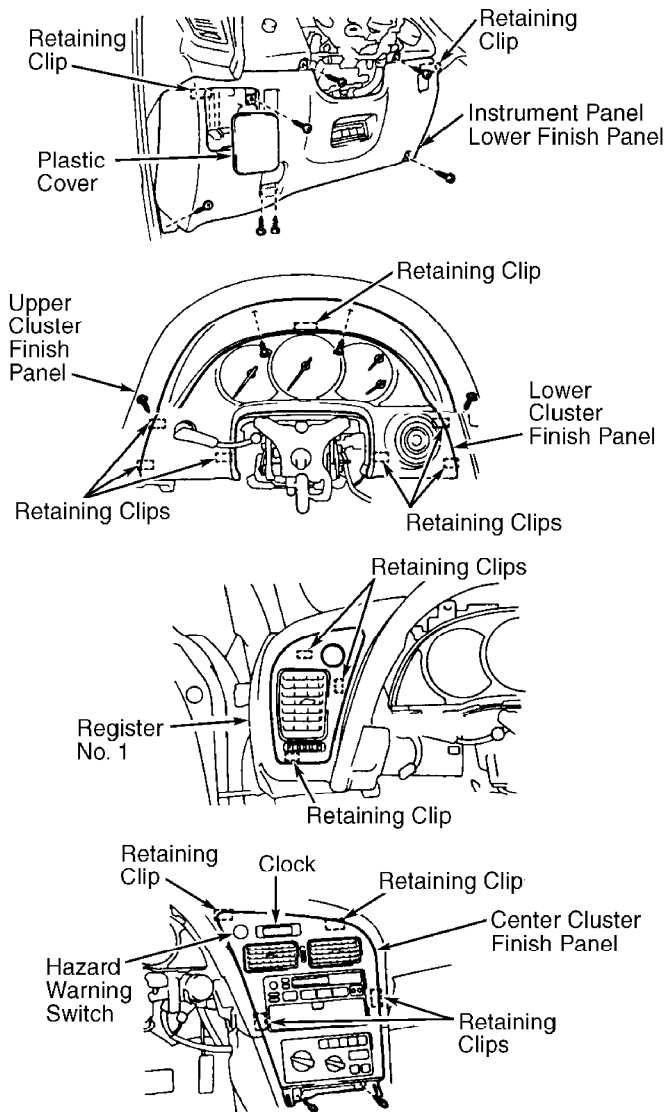
- 1) Disable air bag system, remove driver's air bag and steering wheel. See AIR BAG RESTRAINT SYSTEMS article. Remove steering column covers. Remove hood release lever and retaining screw covers from instrument panel lower finish panel. Remove 2 bolts and 2 retaining screws to remove instrument panel lower finish panel and panel pad behind finish panel. See Fig. 22.
- 2) Remove 5 screws retaining instrument cluster finish panel and remove panel. Pry center cluster finish panel and left and right cluster finish panels from instrument panel. Pull instrument cluster out far enough to disconnect harness connectors. Remove instrument cluster. To install, reverse removal procedure. Before installing

steering wheel, center spiral cable.

Removal & Installation (Tercel)

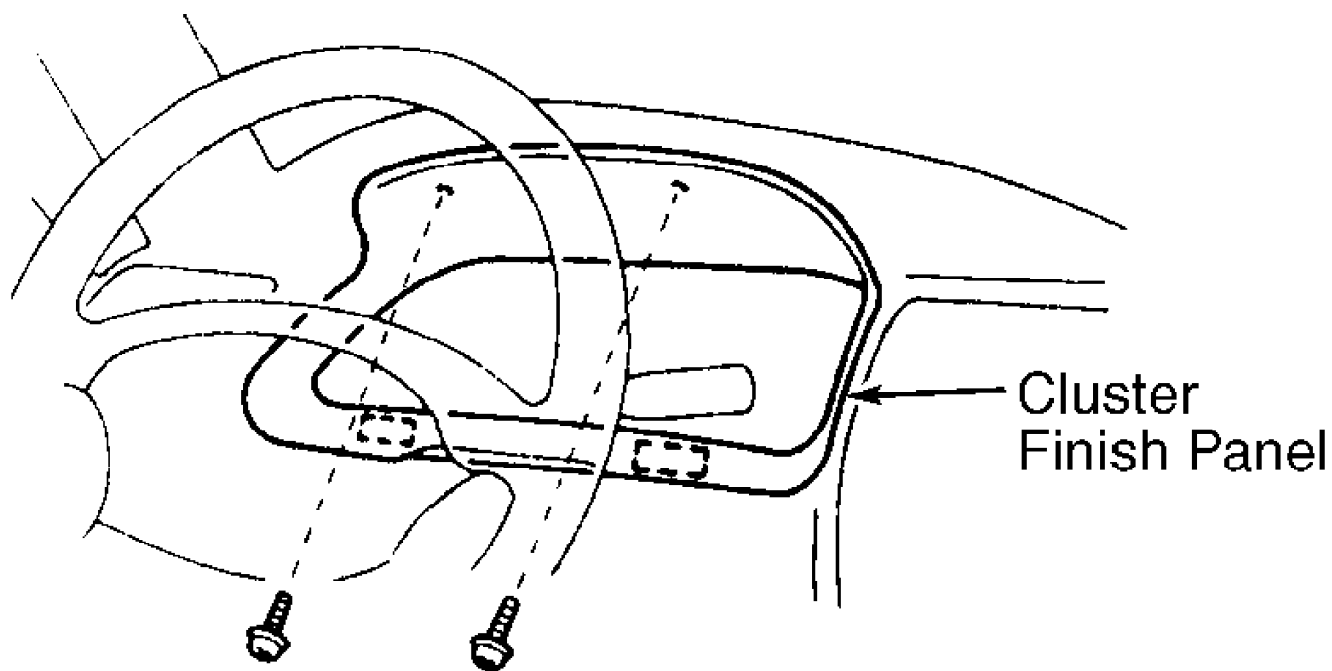
1) Disable air bag system, remove driver's air bag and steering wheel. See AIR BAG RESTRAINT SYSTEMS article. If necessary, remove combination switch from steering column. Remove screws from instrument cluster finish panel. Pull cluster finish panel away clips just enough to disconnect electrical connectors on rear of panel. Remove panel.

2) Remove instrument cluster retaining screws. Pull cluster outward enough to disconnect wiring harness connectors. Remove instrument cluster. To install, reverse removal procedure. Before installing steering wheel, center spiral cable (if removed). See AIR BAG RESTRAINT SYSTEMS article.



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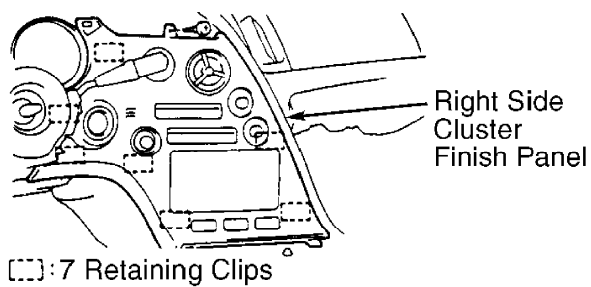
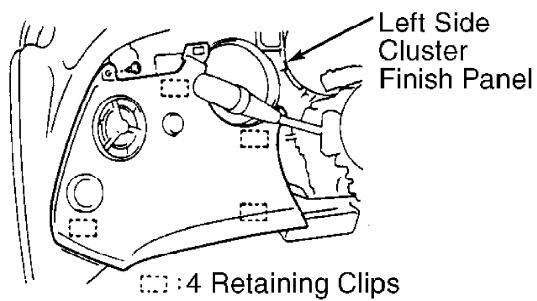
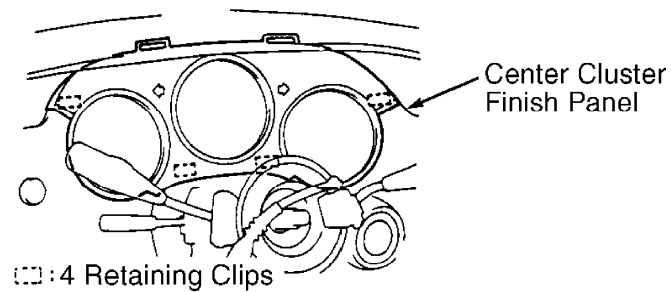
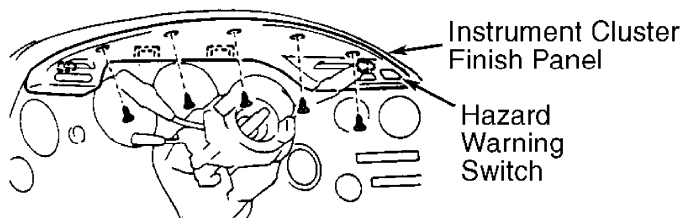
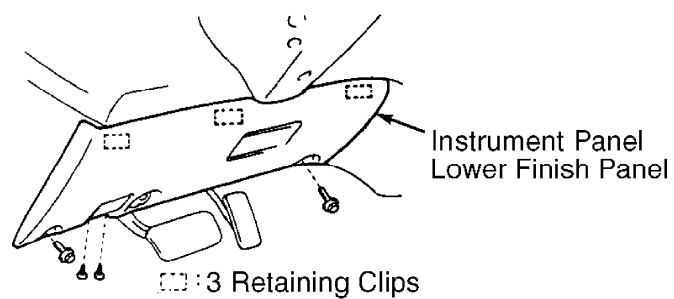
Fig. 20: Removing Instrument Cluster (Celica)
Courtesy of Toyota Motor Sales, U.S.A., Inc.



 : 2 Retaining Clips

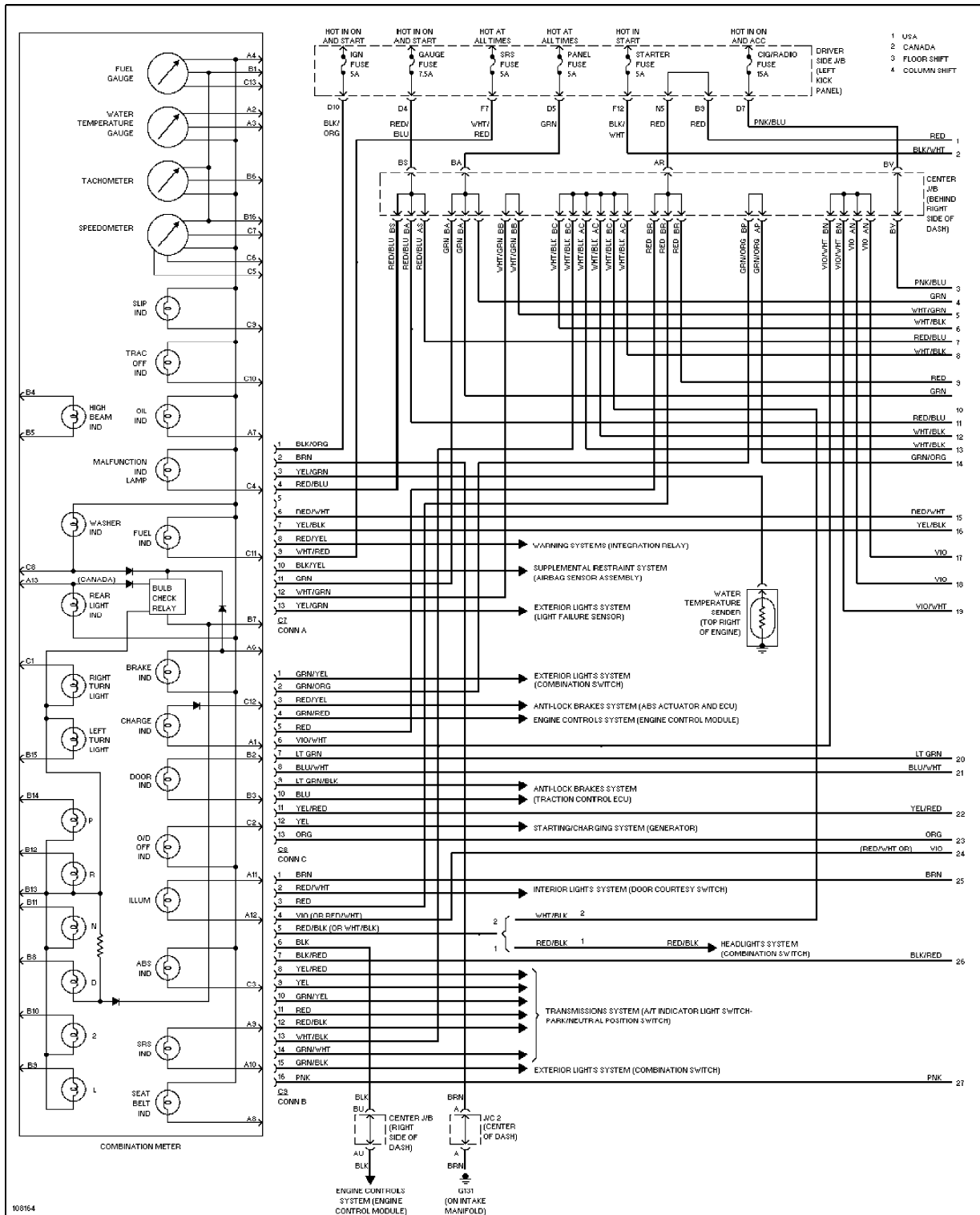
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Fig. 21: Removing Instrument Cluster (Corolla)
Courtesy of Toyota Motor Sales, U.S.A., Inc.



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Fig. 22: Removing Instrument Cluster (Supra)
Courtesy of Toyota Motor Sales, U.S.A., Inc.

WIRING DIAGRAMS



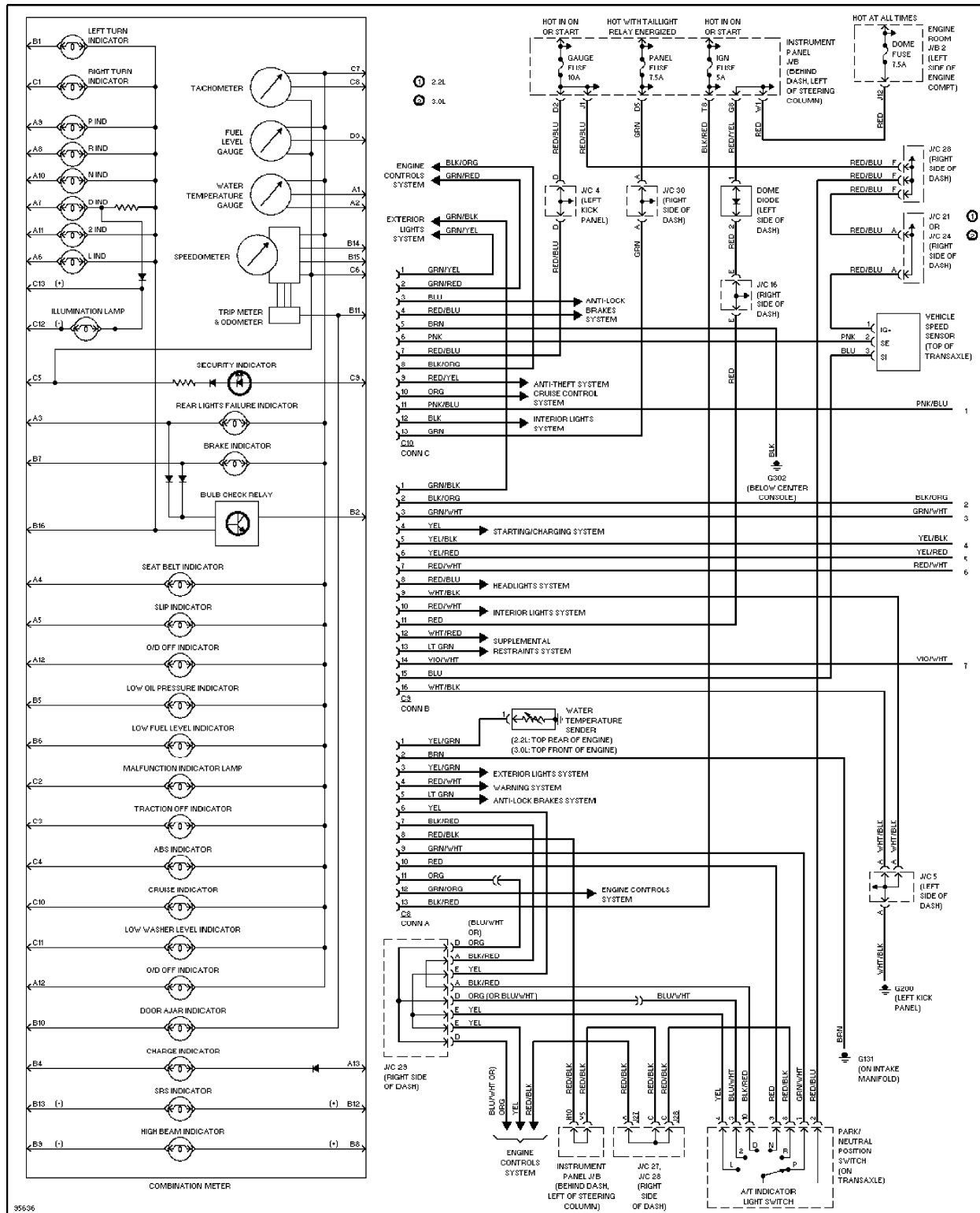


Fig. 25: Instrument Panel Wiring Diagram (Camry - 1 Of 2)

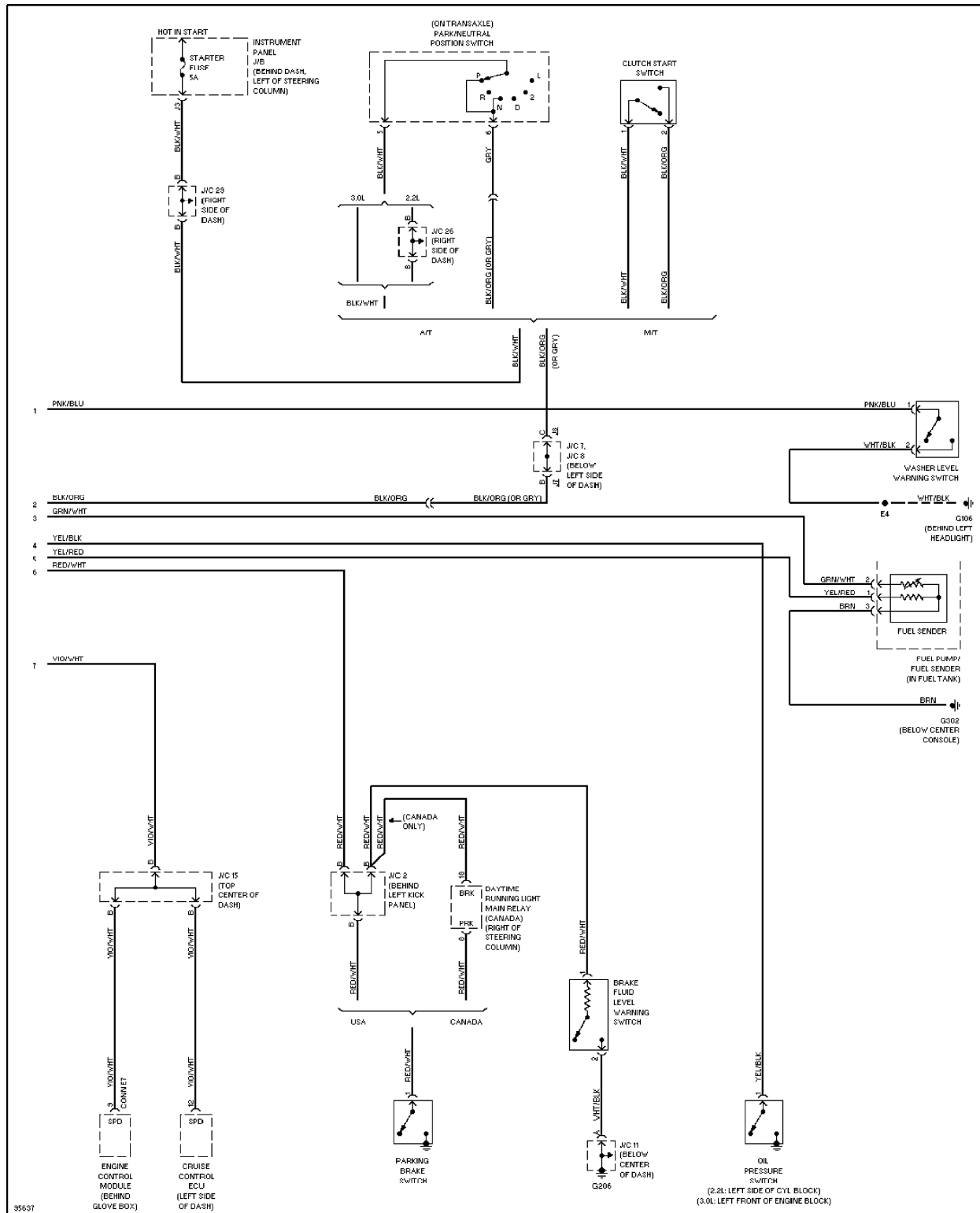
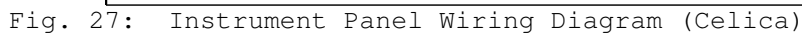


Fig. 26: Instrument Panel Wiring Diagram (Camry - 2 Of 2)



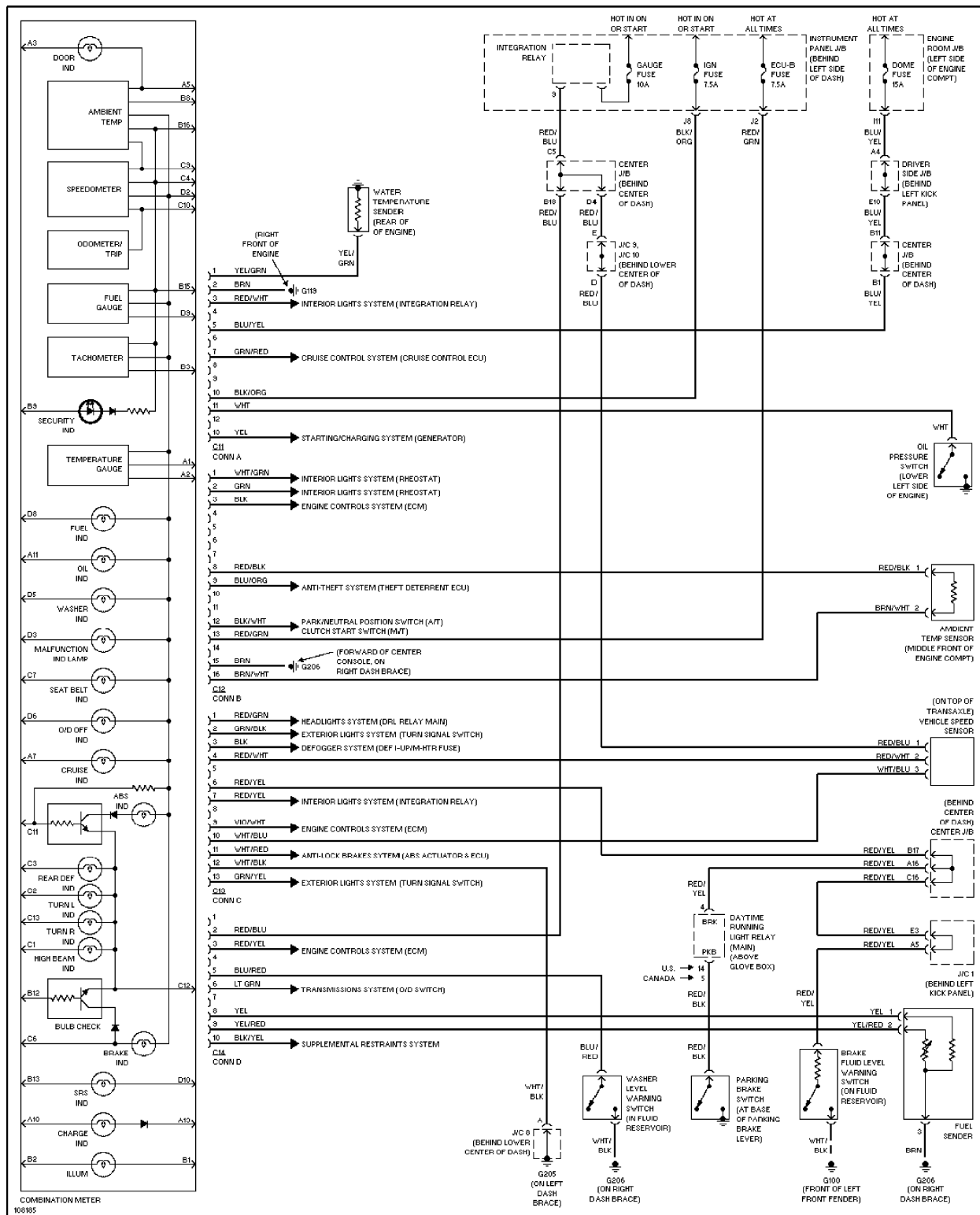


Fig. 28: Instrument Panel Wiring Diagram (Corolla)

