SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2000	
GROUP	
Body Electrical System	General

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SPECIFICATIONS

MULTIFUNCTION SWITCH

Rated Voltage: DC 12V

Operating temperature range: -30° - +80°C (-22 - +176°F)

Rated load

Items	Specifications
Dimmer & Passing switch	High: 15 A (Lamp load)
	Low: 10 A (Lamp load)
	Passing: 15 A (Lamp load)
Lighting switch	Lighting: 0.22 ± 0.05A (Relay load)
Turn signal switch	6.6 ± 0.5A (Lamp load)
Wiper switch	Low, Hi: 4 A (Motor load)
	Int.: 0.22 ± 0.05 A (Relay load)
	Lock: Max. 23 A (Motor load)
Washer switch	4 A (Motor load)
Cruise control switch	0.2 ± 0.1A
Horn switch	7 A (Inductive load)
Variable int. volume switch	Max. 25 mA

INSTRUMENTS AND WARNING SYSTEM

Type: Package type (flexible P.C.B. with push connection)

Illumination lamps: 12V 3.4W x 5, 14V 3W x 1

Illumination color: White

Indicator and warning lamps	Bulb wattage (W)	Illumination color
Turn signal lamps	1.4	Green
Cruise	1.4	Green
High beam	3.0	Blue
ABS	1.4	Amber
Low fuel	3.0	Amber
Trunk lid open	1.4	Amber
Air bag	1.4	Red

Parking brake	1.4	Red
Seat belt	1.4	Red
Door ajar	1.4	Red
Battery charge	1.4	Red
Oil pressure	1.4	Red
MIL	1.4	Red

SERVICE SPECIFICATIONS

SPEEDOMETER

Speed (MPH)	Tolerance (MPH)	Speed (km/h)	Tolerance (km/h)
10	+3.0 0	20	+4.4 0
20	+2.0 0	40	+4.4 0
40	+3.0 0	60	+5.4 +1.0
60	+3.8 0	80	+6.5 +1.0
80	+4.1 +0.3	100	+7.5 +2.0
100	+4.1 +0.3	120	+8.5 +3.0
120	+4.1 +0.3	140	+9.5 +4.0
|	|	160	+10.5 +5.0
|	|	180	+11.5 +6.0
|	|	200	+12.5 +7.0

* Tap the tachometer with hand to prevent hysterisis effects when inspected.

TACHOMETER-Cross coil type

Revolution (RPM)	Tolerance (RPM)
750	±100
2,000	±125
3,000	±150
4,000	±150
5,000	±150
6,000	±180
7,000	±210

* Tap the tachometer with hand to prevent hysterisis effects when inspected.

FUEL GAUGE - Cross coil type (pointer remaining type)

Fuel level	E (Empty)	1/2	F(Full)
Angle of angle	-40 °	0°	+40 °
Tolerance	±2.5°	± 5°	±2.5°
Tolerance when assembled with fuel	+0.2° -5.6°	±10°	+7.1 ° -0.2°

sender			
Resistance (OHM)	96	32.5	7

TEMPERATURE -Cross coil type

Temperature (°C)	50	85-110	RED ZONE 125-
Angle of angle	-40°	-7°	123°
Tolerance	|	+2° -3°	30±5°
Tolerance when assembled with temperance	|	+3° -2°	+7° -4°

CLOCK

Items	**Specifications**
Operating voltage range	DC6V - DC16V
Operating temperature range	-30° - +80°
Current consumption	Max. 150mA (with display illuminated)
	Max. 150mA (with display illuminated)
Illumination color	White
Brightness of color	Reduced to 1/8 when tail switch is turned on.

LIGHTING SYSTEM

Headlamp	W	Hi, Low : 55
Front position (side mark) lamp	W	8
Front turn signal lamp	W	28

Rear combination lamp

Tail and stop lamp	W	27/8x2, 8
Turn signal lamp	W	21
Back up lamp	W	21

Interior lamp

Luggage compartment lamp	W	10
High mounted stop lamp	W	27 or 3, 4
Map lamp	W	8

License plate lamp	W	5

Flasher unit

Turn signal blinking frequency	Cycle/Min	85 ± 10 at 12.8V
Hazard warning blinking	Cycle/Min	85 ± 10 at 12.8V

frequency		

AUDIO

Item	H810	H820, H827
Rated output	Max. 22w x 2	Max. 25w x 4
Receiving band	AM/FM-General	AM/FM
Display system	LCD	VFD
Load impedence	4 OHMx4	4 OHMx4
Normal operating temperature	-20°+65°C	-20°+65°C
Dark current	Max. 2mA	Max. 2mA

ANTENNA

Items	Specifications
Type	Telescopic rod
Operating force	0.3 - 5.5 kg.f
Insulating resistance	Min, 100M OHM (with DC 500V Megger Tester)

WINDSHIELD WIPER AND WASHER

Wiper motor

Items	Specifications
Speed/current at 10kg.cm load test (1.0 Nm, 0.7 lb.ft)	Low: 44-52 rpm/3.5A or less High: 64-78 rpm/4.5A or less
Speed/current at 40kg.cm load test (3.9 Nm, 2.9 lb.ft)	Low: 39-47 rpm/5.5A or less High: 56-68 rpm/7A or less
Current when locking	Low: 22.5A or less High: 27A or less

Wiper arm and blade

Items	Specifications
Arm spring type	Tension type
Arm pressure (Driver side)	800 ± 50g or less
Arm pressure (Passenger side)	600 ± 50g or less
Blade rubber length (Driver side)	520 mm
Blade rubber length (Passenger side)	485 mm
Wiping angle (Driver side)	80.5° ± 1°
Wiping angle (Passenger side)	93.5° ± 1°

Windshield washer

Items	Specifications
Motor type	DC ferite magnet type

Pump type	Centrifugal type
Current	3.8A
Discharge pressure	1.2 kg/cm2 or more
Flow rate	1,320 cc/min. or more
Overload capacity (Continuous operation) With water	60 sec. or less
Overload capacity (Continuous operation) Without water	20 sec. or less

REAR WASHER AND WIPER SWITCH

Rated load

Items	Specifications
Wiper switch	DC 12V, 4A
Washer switch	DC 12V, 4A
Operating effort	0.3 - 0.7 kg.f
Operating temperature range	-30°C - 80°C

CIGARETTE LIGHTER

Items	Specifications
Rated voltage	DC 12V
Maximum consumption power	120W
Insulation resistance	Min. 5MOHM (with DC 500V Megger Tester)
Return time	13 ± 5 sec. (after pushing the lighter in)
Break temperature of fuse	138 - 151°C (278.4 -303.4°F)

HORN

Items	Specifications
Type	Plate
Rated voltage	DC 12V
Current consumption	Max. 3.5A (at DC 12V)
Sound level	110 ± 5dB (at DC 12V)
Operating voltage	DC 10 - 15V (First sound voltage: 9V)
Operating temperature range	-40°C - +80°C (-104°F - +176°F)
Insulation resistance	Min. 1MOHM (with DC 500V Megger Tester)
Fundamental frequency (High pitch)	430 ± 20 Hz (at DC 12V)
Fundamental frequency (Low pitch)	370 ± 20 Hz (at DC 12V)

POWER DOOR LOCK SYSTEM

Door lock actuator

Items	Specifications
Rated voltage	DC 12V
Operating voltage range	DC 9V - 15V
Lock current	Max. 5A (at DC 12V)
Manual operating force	3.2 kg.cm (at DC 9V)
Operating temperature	-30°C - 80°C
Stroke	21.8mm

Door lock control switch

Items	Specifications
Rated voltage	DC 12V
Operating voltage range	DC 9V - 15V
Consumption current	Max. 1A

POWER WINDOW

Power window motor

Items	Specifications
Rated voltage	DC 13.5V
Rated currant	6A or less
Temperature	-40 - 80°C (-40 - +176°F)
Electrical source (Motor terminal voltage)	DC 11-15V

Power window relay

Items	Specifications
Rated voltage	DC 12V
Range of voltage used	DC 9 - 15V
Rated load current	20A
Exciting coil rated current	Max. 160mA (at 20 ± 5°C)
Voltage drop between terminal	0.2 V or less

Power window switch (Main)

Items	Specifications
Rated voltage	DC 12V
Range of voltage used	DC 9 - 16V
Operating temperature	-30 - +70°C (-22 - +158°F)
Rated load current	10A (at DC 13V)

Voltage drop	0.4V or less
Insulating resistance	5 M OHM or more (with DC 500V Megger Tester)

Power window switch (Sub.)

Items	Specifications
Rated voltage	DC 12V
Rated load current	10A (at DC 13V)
Voltage drop	0.3V or less
Operating temperature	-30 - +70°C (-22 - +158°F)
Operating voltage range	DC 9 - 16V
Insulating resistance	1 M OHM or more (with DC 500V Megger Tested)

POWER DOOR MIRROR

Power door mirror actuator

Items	Specifications
Operating voltage	DC 9.5 - 15V
Operating current	Max. 0.2A
Locked current	Max. 0.5A
Current consumption	Max. 1.5A
Operation speed	3° + 1°/sec
Operating temperature range	-30 - +80°C (-22 - +176°F)

Power door mirror switch

Items	Specifications
Rated voltage	DC 12V
Rated current	0.2A (Max. 0.5A)

TIME AND ALARM CONTROL SYSTEM (TACS)

Items	Specifications
Rated voltage	DC 12V
Operating voltage range	DC 9-16V
Operating temperature range	-30° - +80°C (-22° - +176°F)

Rated load

Items	Specifications
Variable intermittent wiper	DC 12V, 200 mA (Inductance load)
	DC 12V, 200 mA

Rear defogger timer	(Inductance load)
Seat belt warning	DC 12V, 1.2W (Lamp load)
Chime bell	DC 13.5V, 350 mA (Inductance load)

REAR DEFOGGER GLASS

Rear window defogger switch

Items	Specifications
Rated voltage	DC 12V
Operating force	0.3 - 0.7 kg.f
Insulating resistance	Min. 5MOHM (with DC 500V Megger Tester)
Operating temperature range	-30°C +80°C
Indicator lamp	1.2W

Rear window defogger glass

Items	Specifications
Rated voltage	DC 12V
Power consumption	200 ± 10% (at DC 12V, 20°C)
Width of line	Max. 1 mm

AUTOMATIC TRANSAXLE AND KEY LOCK CONTROL SYSTEM

Control unit

Items	Specifications
Rated voltage	DC 12V
Operating voltage range	DC 10 - 18V
Operating temperature range	-30°C - 80°C (22°F - +176°F)
Rated load	Max. 1A (A/T solenoid)
	Max. 0.9A (Key lock solenoid)

A/T solenoid

Items	Specifications
Rated voltage	DC 12V
Rated current	1A (at DC 12V)
Operating voltage range	DC 9 - 16V
Operating temperature range	-30°C - 80°C (22°F - +176°F)
Operating force (Initial pull in force)	0.4 kg.cm (at 12V, 20°C)
Operating force	0.2 kg.cm (at 12V, 20°C)

(Spring force)	
Operating force (Holding force)	1 kg.cm (at 12V, 20°C)

Key lock solenoid

Items	Specifications
Operating voltage range	DC 9 - 16V
Operating temperature range	-30°C - 80°C (22°F - +176°F)
Exciting current	Max. 0.9A
Operating force (Pull in force)	Min. 0.17 kg.cm (at DC 7.5 ± 0.1V)
Operating force (Pull in force)	Min. 0.25 kg.cm (at DC 6 ± 0.1V)

Parking position switch

Items	Specifications
Rated load	1A (resistance load, at DC 12V)
Operating force	0.8 ± 0.2 kg.f
Operating temperature range	30°C - +80°C (22°F - +176°F)

ETACS

Items	Specifications
Rated voltage	DC 12V
Operating voltage range	DC 9-16V
Operating temperature range	-30° - +80°C (-22° - +176°F)

Rated load

Items	Specifications
Variable intermittent wiper	DC 12V, 200 mA (Inductance load)
Rear defogger timer	DC 12V, 200 mA (Inductance load)
Seat belt warning	DC 12V, 1.2W (Lamp load)
Chime bell	DC 13.5V, 350 mA (Inductance load)

DAY TIME RUNNING LIGHT

Items	Specifications
Rated voltage	DC 12V
Operating voltage range	DC 8-16V

Operating temperature range	-30° - -95°C
Rated load	7.5A (lamp load)
Insulation resistance	Min. 1 M OHM (with 500V Megger Tester)
Dark current	0 mA (ignition switch OFF)

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TROUBLESHOOTING

Symptom	Possible cause	Remedy
Tachometer does not operate	No.10 fuse (10A) blown	Check for short and replace fuse
	Tachometer faulty	Check tachometer
	Wiring faulty	Repair if necessary
Fuel gauge does not operate	No.10 fuse (10A) blown	Check for short and replace fuse
	Fuel gauge faulty	Check gauge
	Fuel sender faulty	Check fuel sender
	Wiring faulty	Repair as necessary
Low fuel warning lamp does not light	No.10 fuse (10A) blown	Check for short and replace fuse
	Bulb burned out	Replace bulb
	Fuel level sensor faulty	Check sensor
	Wiring or ground faulty	Repair as necessary
Water temperature gauge does not operate	No.10 fuse (10A) blown	Check for short and replace fuse
	Water temperature gauge faulty	Check gauge
	Water temperature sender faulty	Check sender
	Wiring or ground faulty	Repair as necessary
Oil pressure warning lamp does not light	No.10 fuse (10A) blown	Check for short and replace fuse
	Bulb burned out	Replace bulb
	Oil pressure sender faulty	Check sender
	Wiring or ground faulty	Repair as necessary
Low brake fluid warning lamp does not light	No.10 fuse (10A) blown	Check for short and replace fuse
	Bulb burned out	Replace bulb
	Brake fluid level warning switch faulty	Check switch
	Parking brake switch faulty	Check switch
	Wiring or ground faulty	Repair as necessary
Open door warning lamp does not light	Audio fuse (10A) blown	Check for short and replace fuse
	Bulb burned out	Replace bulb

	Door switch faulty	Check switch
	Wiring or ground faulty	Repair if necessary
Seat belt warning lamp does not light	No.10 fuse (10A) blown	Check for short and replace fuse
	Bulb burned out	Replace bulb
	Buckle switch faulty	Check switch
	Wiring or ground faulty	Repair if necessary

LIGHTING SYSTEM

Symptom	Possible cause	Remedy
Only one lamp only does not light (all exterior)	Bulb burned out	Replace bulb
	Socket, wire or ground faulty	Repair as necessary
Headlamps do not light	Bulb burned out	Replace bulb
	Fusible link (20Ax2) blown	Replace fusible link
	Headlamp relay faulty	Check relay
	Lighting switch faulty	Check switch
	Wiring or ground faulty	Repair as necessary
Tail and license lamp do not light	Tail fuse (10A) blown	Replace fuse and check for short
	Fusible link (40A) blown	Replace fusible link
	Taillamp relay faulty	Check relay
	Lighting switch faulty	Check switch
	Wiring or ground faulty	Repair as necessary
Stop lamps do not light	No.3 fuse (15A) blown	Replace fuse and check for short
	Stop lamp switch faulty	Adjust or replace switch
	Wiring or ground faulty	Repair as necessary
Stop lamps stay on	Stop lamp relay faulty	Replace relay
	Stop lamp switch faulty	Adjust or replace switch
Instrument lamps do not light (taillamps light)	Lamp control rheostat faulty	Check rheostat
	Wiring or ground faulty	Repair as necessary
Turn signal does not flash on one side	Bulb burned out	Replace bulb
	Turn signal switch faulty	Check switch
	Wiring or ground faulty	Repair as necessary
Turn signal does not operate	No.9 fuse (10A) blown	Replace fuse and check for short
	Turn signal flasher faulty	Check flasher
	Turn signal switch faulty	Check switch
	Wiring or ground faulty	Repair as necessary

Symptom	Possible cause	Remedy
Hazard warning lamps do not operate	No.4 fuse (10A) blown	Replace fuse and check for short
	Hazard warning flasher faulty	Check flasher
	Hazard switch faulty	Check switch
	Wiring or ground faulty	Repair as necessary
Flasher rate too slow or too fast	Lamps are of a wattage smaller or larger than is specified for use	Replace lamps
	Defective flasher unit	Replace unit
Back up lamps do not light	No.9 fuse (10A) blown	Check for short, replace fuse
	Back up lamp switch faulty	Check switch
	Damaged wiring or poor grounding	Repair as necessary
Overhead console map and luggage lamp do not light	Sub-fusible link (50A) blown	Replace fusible link
	No.6 fuse (15A) blown	Check for short and replace fuse
	Wiring or ground faulty	Repair as necessary

AUDIO

There are six areas where a problem can occur: the wiring harness, the radio, the cassette tape deck, the CD player, the speaker, and the antenna. Troubleshooting enables you to isolate the problem to a particular area.

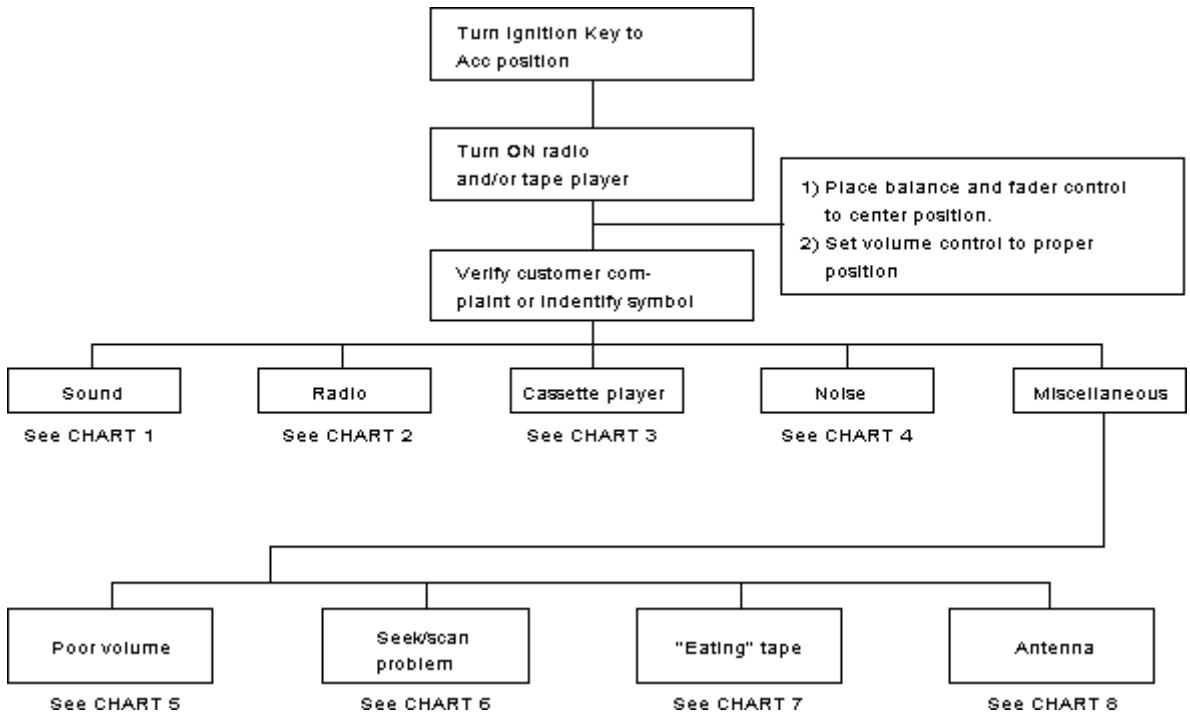
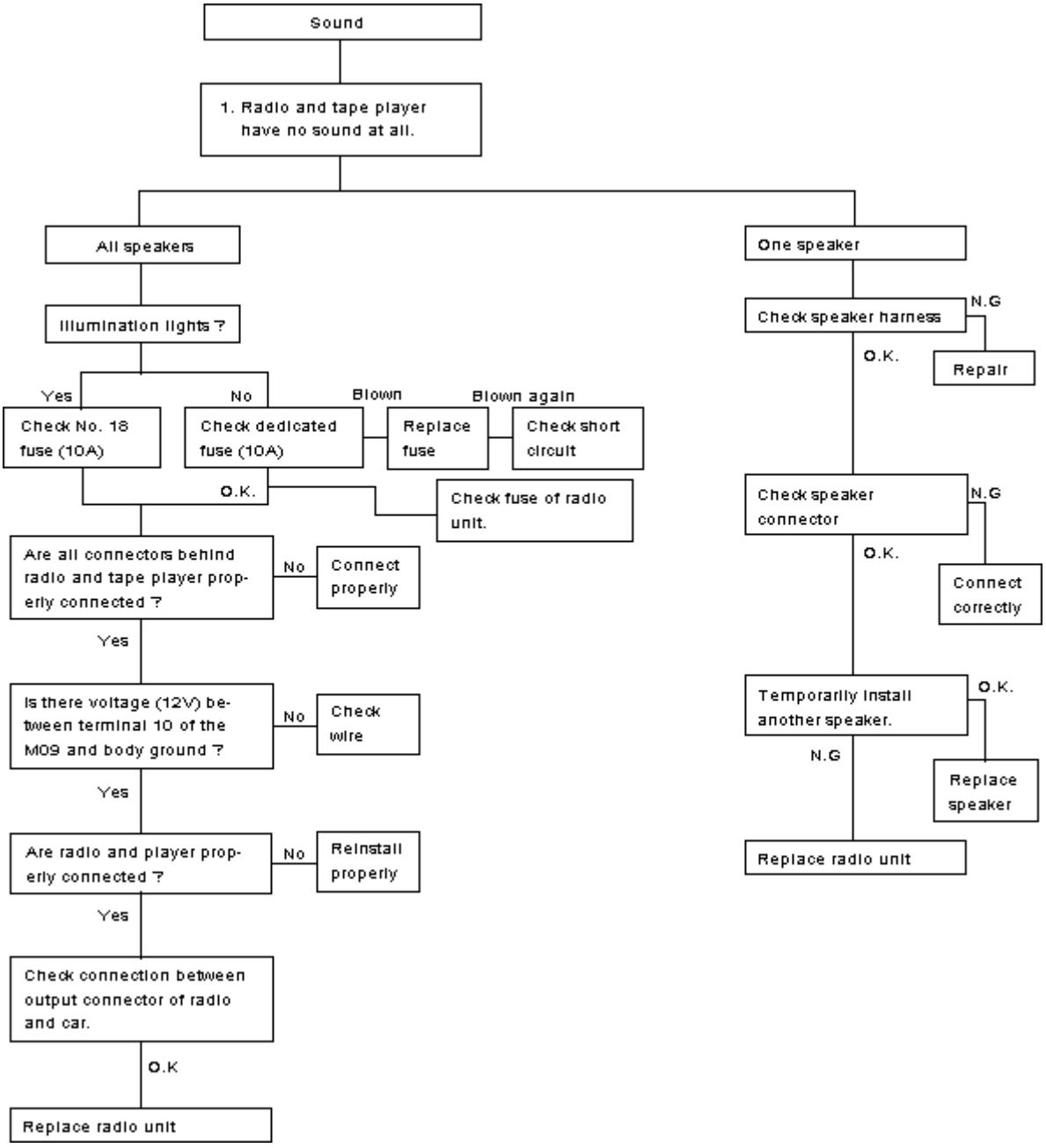


CHART 1


Sound
1. Radio and tape player have no sound at all.
All speakers
One speaker
Illumination lights ?
Yes
No
Blown
Blown again
Check No. 18 fuse (10A)
Check dedicated fuse (10A)
Replace fuse
Check short circuit
O.K.
Check fuse of radio unit.
Are all connectors behind radio and tape player properly connected ?
No
Connect properly
Yes
Is there voltage (12V) between terminal 10 of the M09 and body ground ?
No
Check wire
Yes
Are radio and player properly connected ?
No
Reinstall properly
Yes
Check connection between output connector of radio and car.
O.K
Replace radio unit
Check speaker harness
N.G
O.K.
Repair
Check speaker connector
N.G
O.K.
Connect correctly
Temporarily install another speaker.
O.K.
N.G
Replace speaker
Replace radio unit

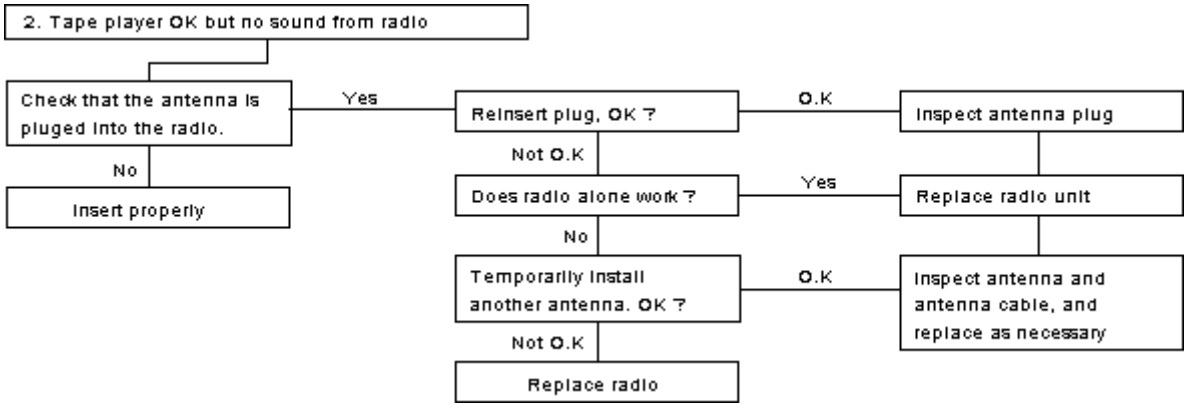

2. Tape player OK but no sound from radio
Check that the antenna is pluged into the radio.
Yes
No
Insert properly
Reinsert plug, OK ?
O.K
Inspect antenna plug
Not O.K
Does radio alone work ?
Yes
Replace radio unit
No
Temporarily install another antenna. OK ?
O.K
Inspect antenna and antenna cable, and replace as necessary
Not O.K
Replace radio

CHART 2

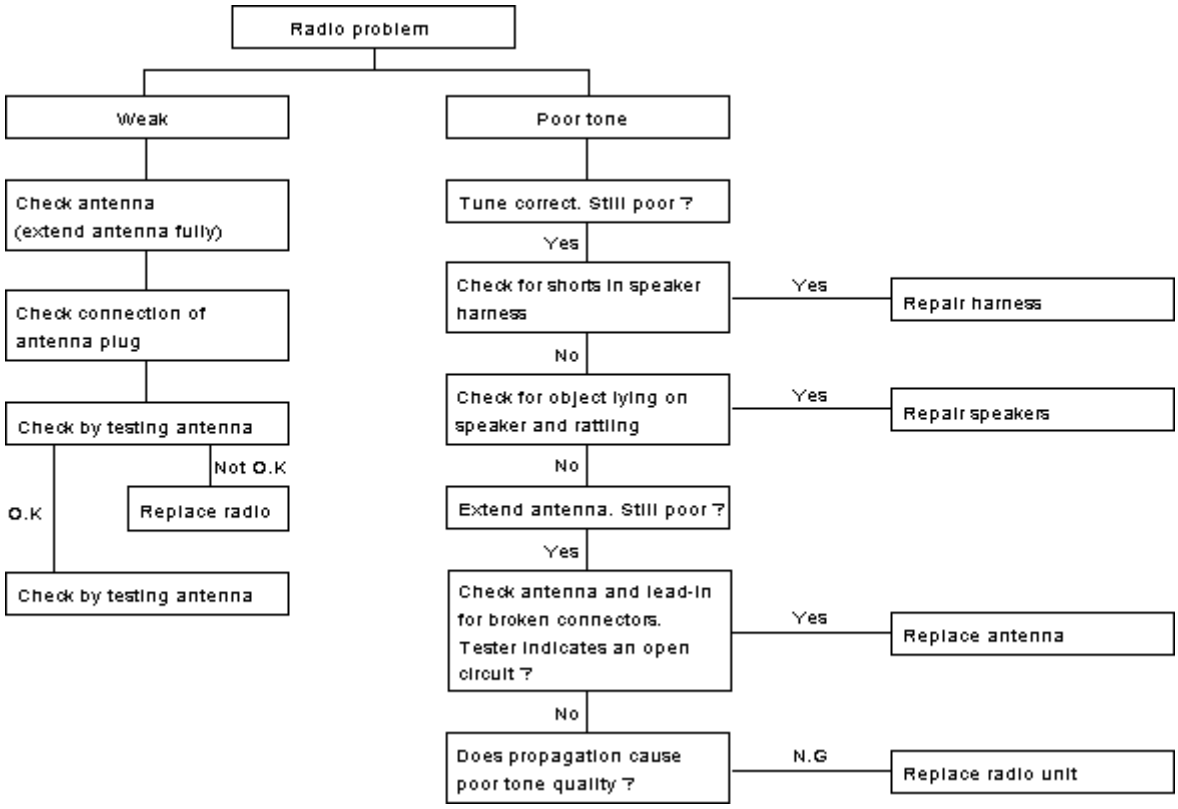

Radio problem
Weak
Poor tone
Check antenna
(extend antenna fully)
Check connection of
antenna plug
Check by testing antenna
Not O.K
O.K
Replace radio
Check by testing antenna
Tune correct. Still poor ?
Yes
Check for shorts in speaker
harness
Yes
Repair harness
No
Check for object lying on
speaker and rattling
Yes
Repair speakers
No
Extend antenna. Still poor ?
Yes
Check antenna and lead-in
for broken connectors.
Tester indicates an open
circuit ?
Yes
Replace antenna
No
Does propagation cause
poor tone quality ?
N.G
Replace radio unit

CHART 3

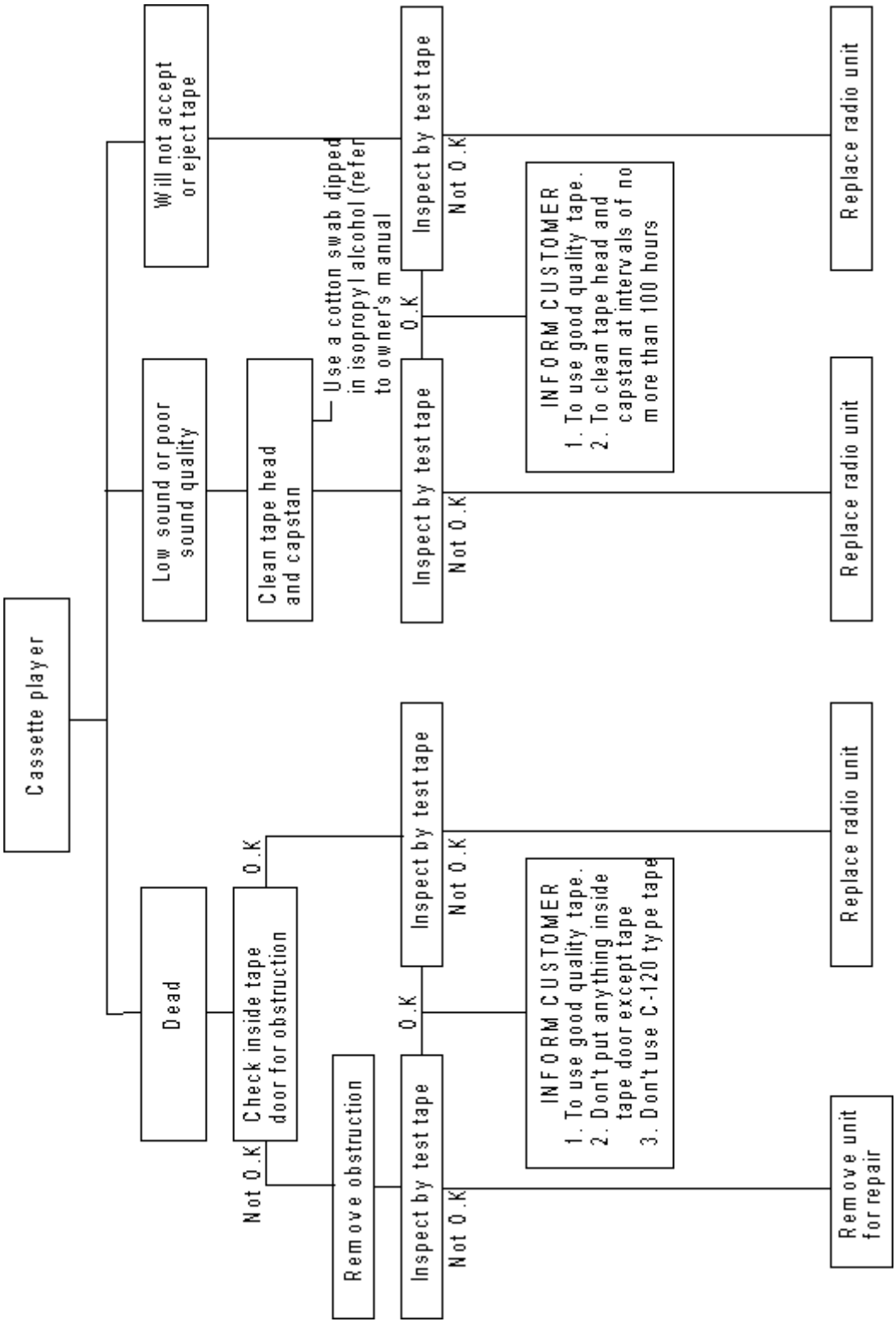
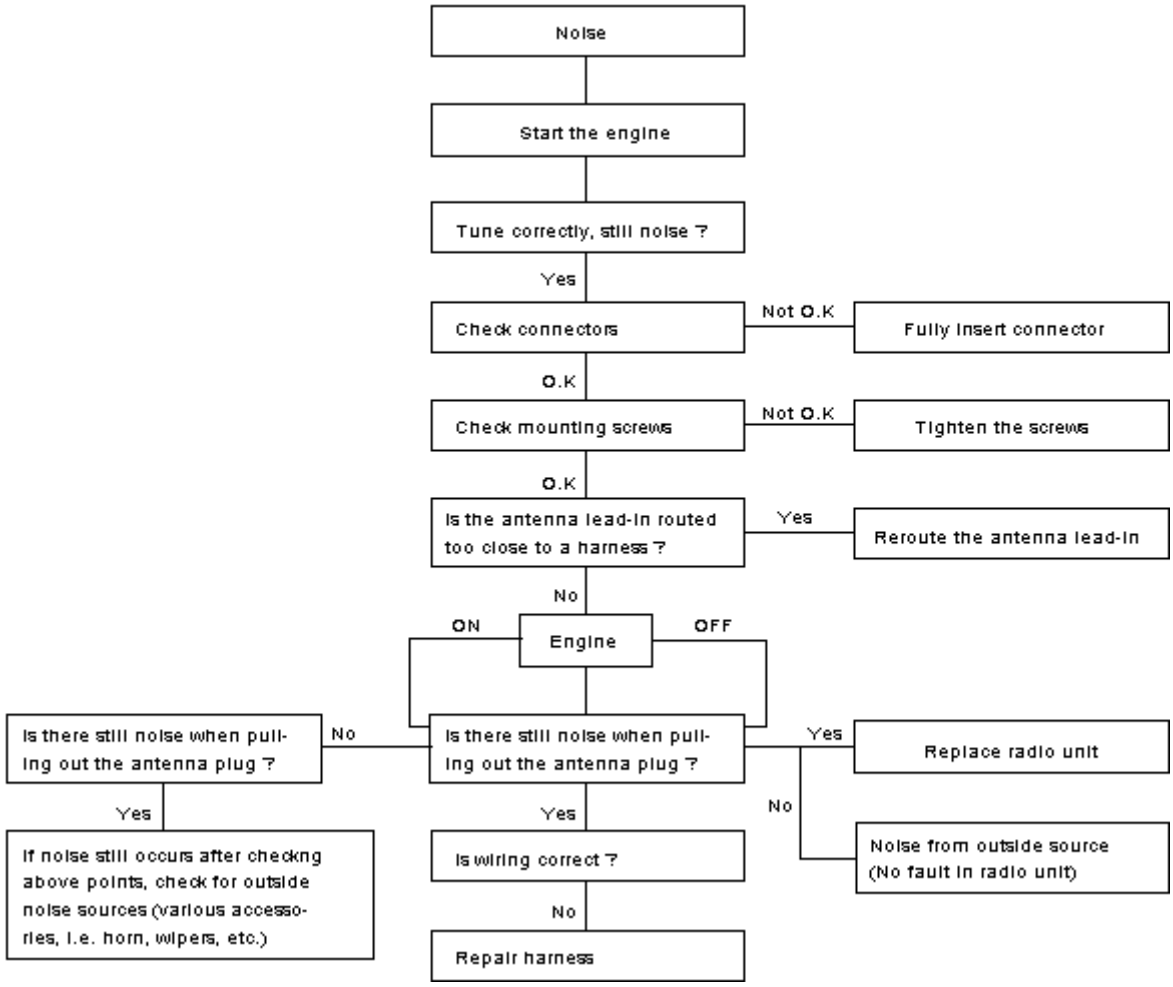


CHART 4

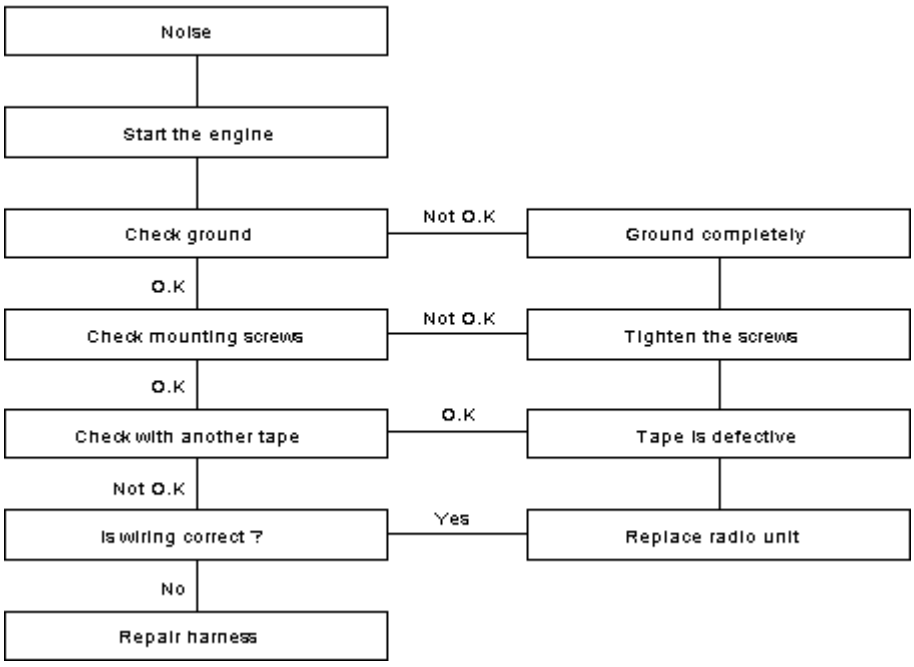
1. RADIO

1. RADIO



2. TAPE

2. TAPE



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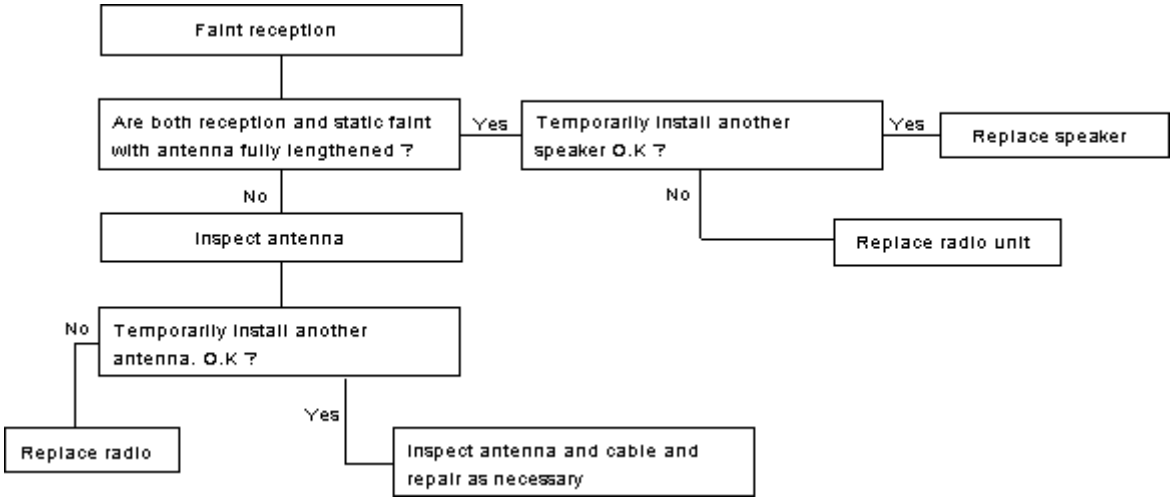

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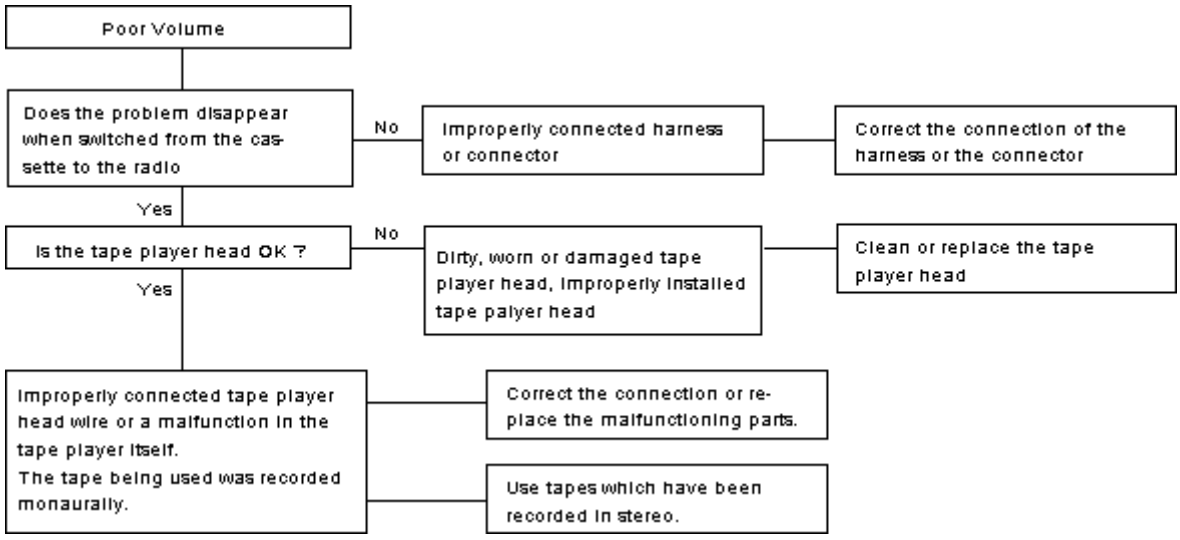


CHART 7

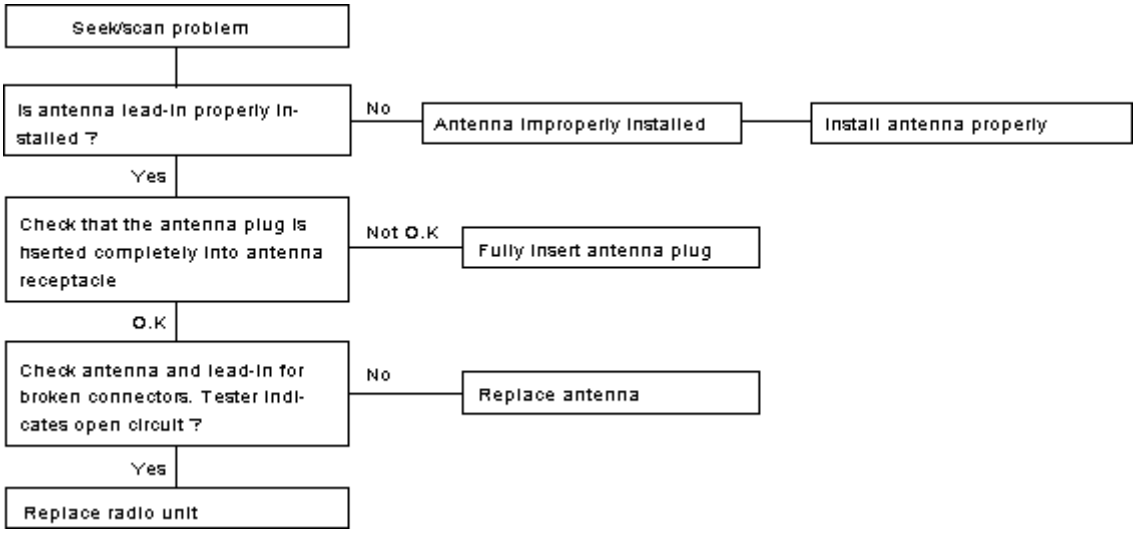
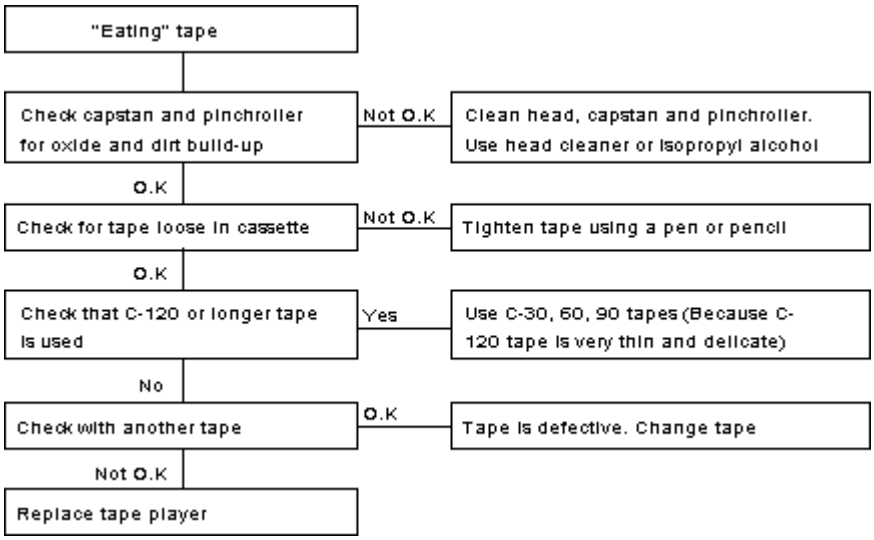


CHART 8



WINDSHIELD WIPER

Symptom	Possible cause	Remedy
Wipers do not operate or return to off position.	Wiper fuse (No.8; 15A) blown	Check for short and replace fuse
	Wiper motor faulty	Check motor
	Wiper switch	Check switch
	Wiring or ground faulty	Repair as necessary
Wipers do not operate in INT position	TACM faulty	Check TACM
	Wiper switch faulty	Check switch
	Wiper motor faulty	Check motor
	Wiring or ground faulty	Repair as necessary

POWER WINDOW

Symptom	Possible cause	Remedy
All window do not operate by main switch	Sub-fusible link (30A for IGN) blown	Replace the fusible link
	No.16 fuse (10A) blown	Check the circuit and replace fuse
	Poor ground (G01)	Clean and retighten the ground terminal mounting bolt
	Defective power window main switch	Check the switch Replace as necessary
	Open circuit in wires or loose or disconnected connector	Repair or replace
Driver's side window only does not operate	Defective power window main switch	Check for LH (RH in case of RHD vehicle) switch
	Defective LH (RH) motor or circuit breaker	Replace the motor
	Open circuit in wires or loose or disconnected connector	Check the harness and the connector

Passenger's side window only does operate	Defective power window subswitch	Replace the switch
	Defective motor or circuit breaker	Replace the motor
	Wiring faulty or disconnected connector	Repair as necessary

POWER DOOR MIRROR

Symptom	Possible cause	Remedy
All mirrors do not operate	Sub-fusible link (30A, for IGN) blown	Replace the fusible link
	No.13 fuse (15A) blown	Check the circuit and replace fuse
	Poor ground (G01)	Clean and retighten the ground terminal mounting bolt
	Defective mirror switch	Check the switch Replace as necessary
	Open circuit in wires or loose or disconnected connector	Repair or replace
One mirror do not operate	Defective mirror switch	Check the switch Replace as necessary
	Defective LH (RH) mirror actuator	Replace the actuator
	Open circuit wires or loose or disconnected connector	Repair or replace

ALARM

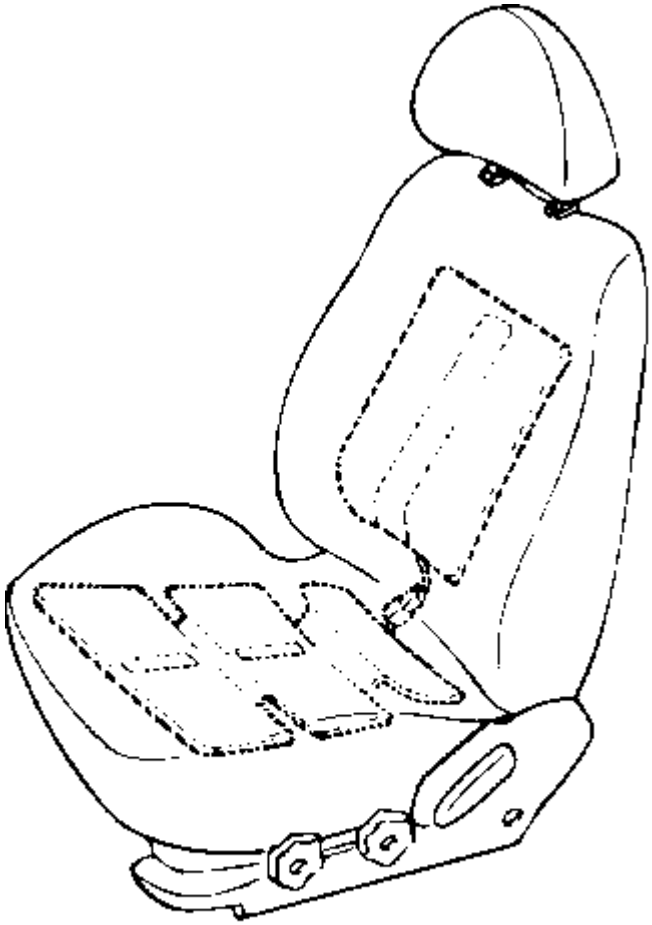
Symptom	Possible cause	Remedy
The system is not armed (The siren doesn't sound)	Transmitter faulty	Replace the transmitter
	Receiver faulty	Replace the receiver
	Damaged or disconnected wiring of door switch input circuit	Repair the harness
	ETACS module faulty	Replace the ETACS module
The siren sounds in error when a door or trunk lid is unlocked by using the key while the system is armed	Damaged or disconnected wiring of a door key cylinder and trunk lid key cylinder switch input circuit	Repair the harness or replace a door key cylinder and the trunk lid key cylinder switch
	ETACS module faulty	Replace the ETACS module
Engine does not start in disarm state	Burglar alarm relay faulty	Replace the burglar alarm relay
	Damage or disconnected wiring of burglar alarm relay activation circuit	Repair the harness
	Malfunction of the ETACS	Replace the ETACS module

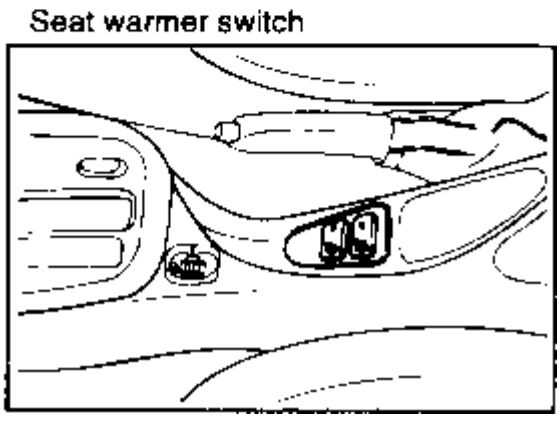
	module	
There is no alarm when, as an alarm test, a door is opened without using the key (The arming and disarming are normal, and the alarm is activated when the trunk lid or hood is opened.)	Damaged or disconnected wiring of door switch (all doors) input circuit	Repair the harness or replace the door switch
	Malfunction of the door switch	
	Malfunction of the ETACS module	Replace the ETACS module
There is no alarm when, as an alarm test, the trunk lid is opened without using the key. (The alarm is activated, however, by opening a door or the hood)	Damaged or disconnected wiring of luggage compartment light switch input circuit	Repair the harness or replace the luggage compartment light switch
	Malfunction of the luggage compartment light switch	
	Malfunction of the ETACS module	Replace the ETACS module
There is no alarm when, as an alarm test the hood is opened from within the vehicle (The alarm is activated, however, by opening a door or the lid)	Damaged or disconnected wiring of hood switch input circuit	Repair the harness or replace the hood switch
	Malfunction of the hood switch	
	Malfunction of the ETACS module	Replace the ETACS module

SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2000	
GROUP	
Body Electrical System	Heated Seats

Return to Main Menu(s): Mechanical Manual Electrical Manual

SEAT WARMER SYSTEM





Return to Main Menu(s): Mechanical Manual Electrical Manual

INSPECTION

SEAT WARMER SWITCH

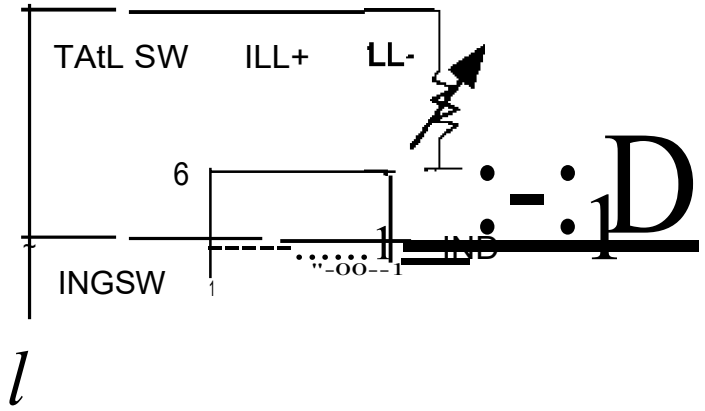
Check for the continuity between terminals at below table.

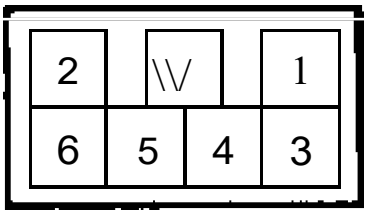
Terminal / Position	1	4	2	5	6
ON	⊗		⊗		
OFF					

NOTE

: Indicate that the symbol lamp lights up when tail switch is turned on.

®---0-(§) : Indicate that the symbol lamp lights up when seat warmer switch is turned on.

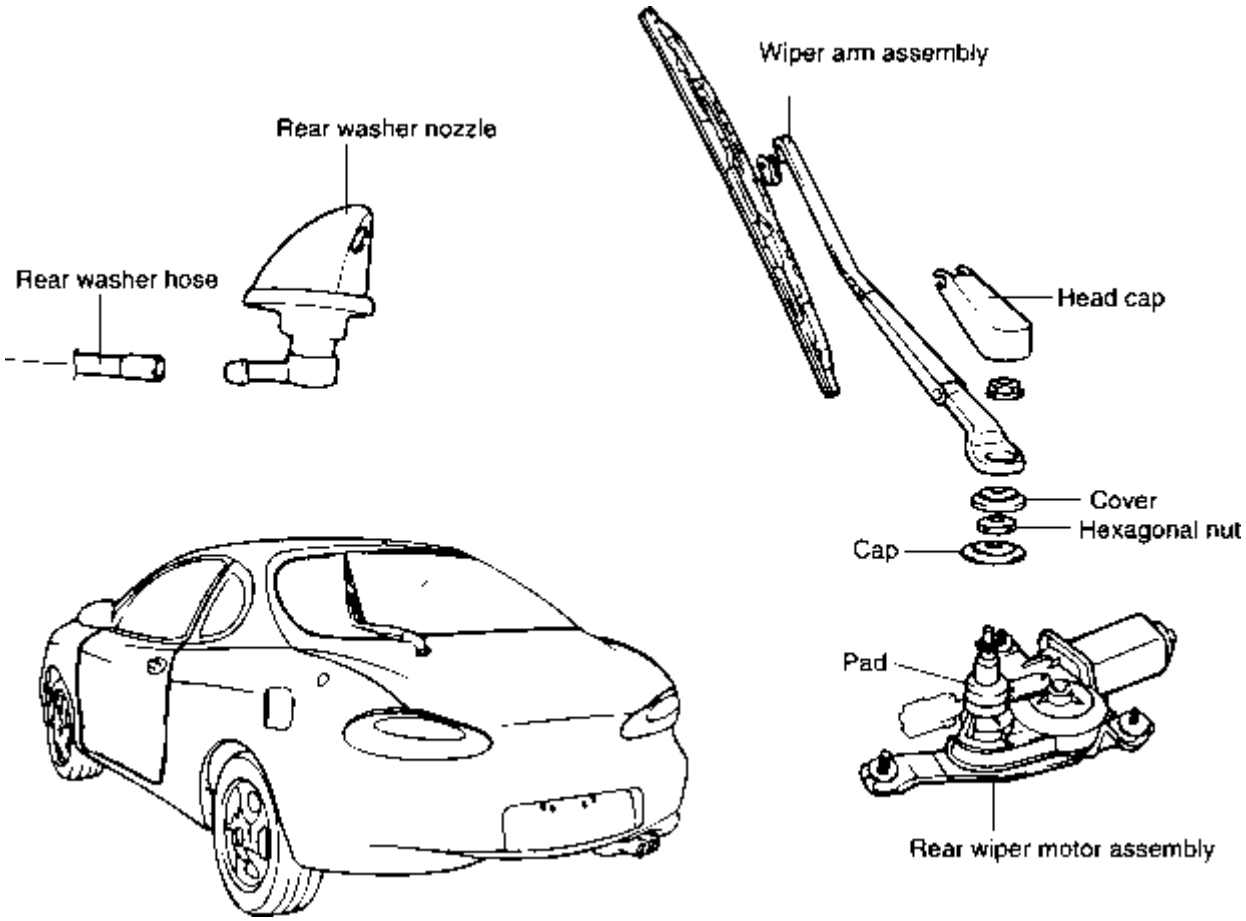




SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2001	
GROUP	
Body Electrical System	Rear Wiper/Washer

Return to Main Menu(s): Mechanical Manual Electrical Manual

COMPONENTS

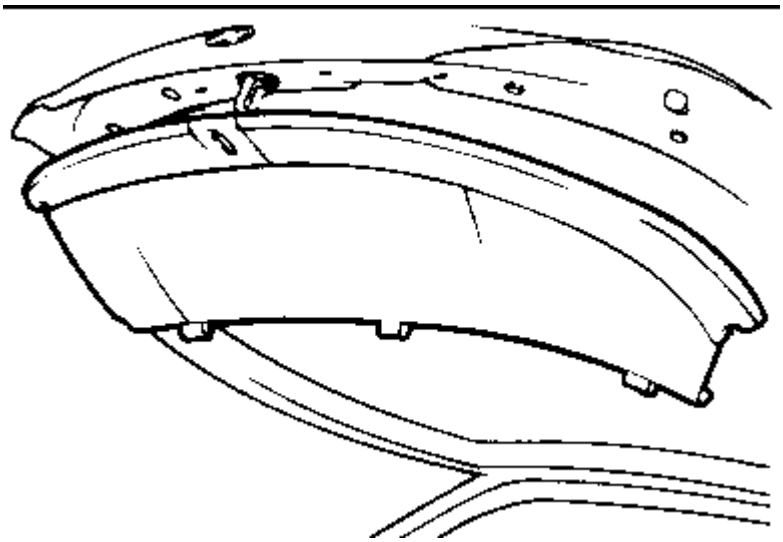


Return to Main Menu(s): Mechanical Manual Electrical Manual

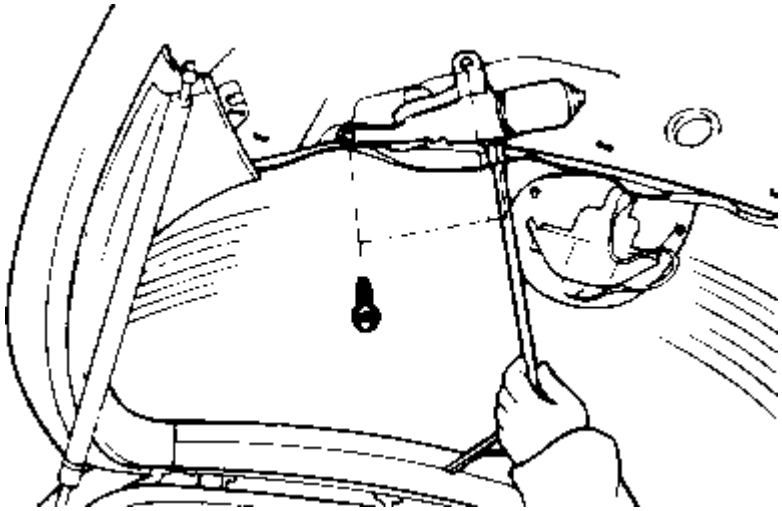
REMOVAL

Remove the rear wiper arm assembly.

Remove the tailgate trim.



Remove the rear wiper motor from the tailgate.

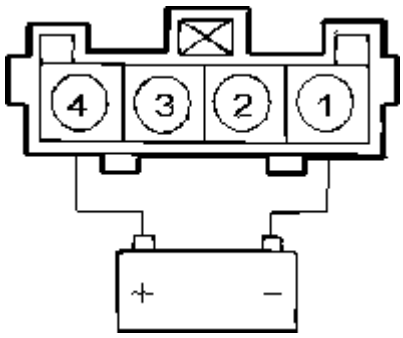


Return to Main Menu(s): Mechanical Manual Electrical Manual

INSPECTION

WIPER MOTOR

Remove the connector from the rear wiper motor.

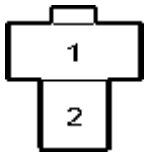


Attach the positive (+) lead from the battery to terminal 4 and the negative (-) lead to terminal 1.

Check that the motor operates.

WASHER MOTOR

With the washer motor installed to the washer tank, fill the washer tank with washer fluid.



Attach the positive (+) lead from the battery to terminal 2, and negative (-) lead to terminal 1.

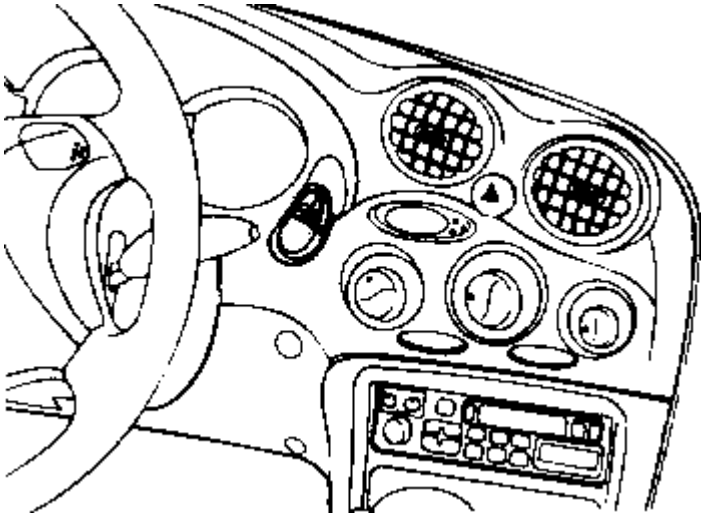
Check that the washer motor runs and washer fluid is ejected.

SWITCH

Remove the facia Panel.

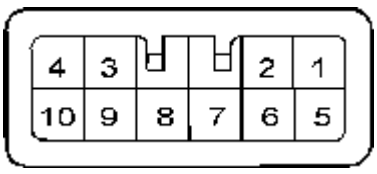
Disconnect the switch connector.

Remove the rear wiper and washer switch from the facia panel.



Check for continuity between terminals.

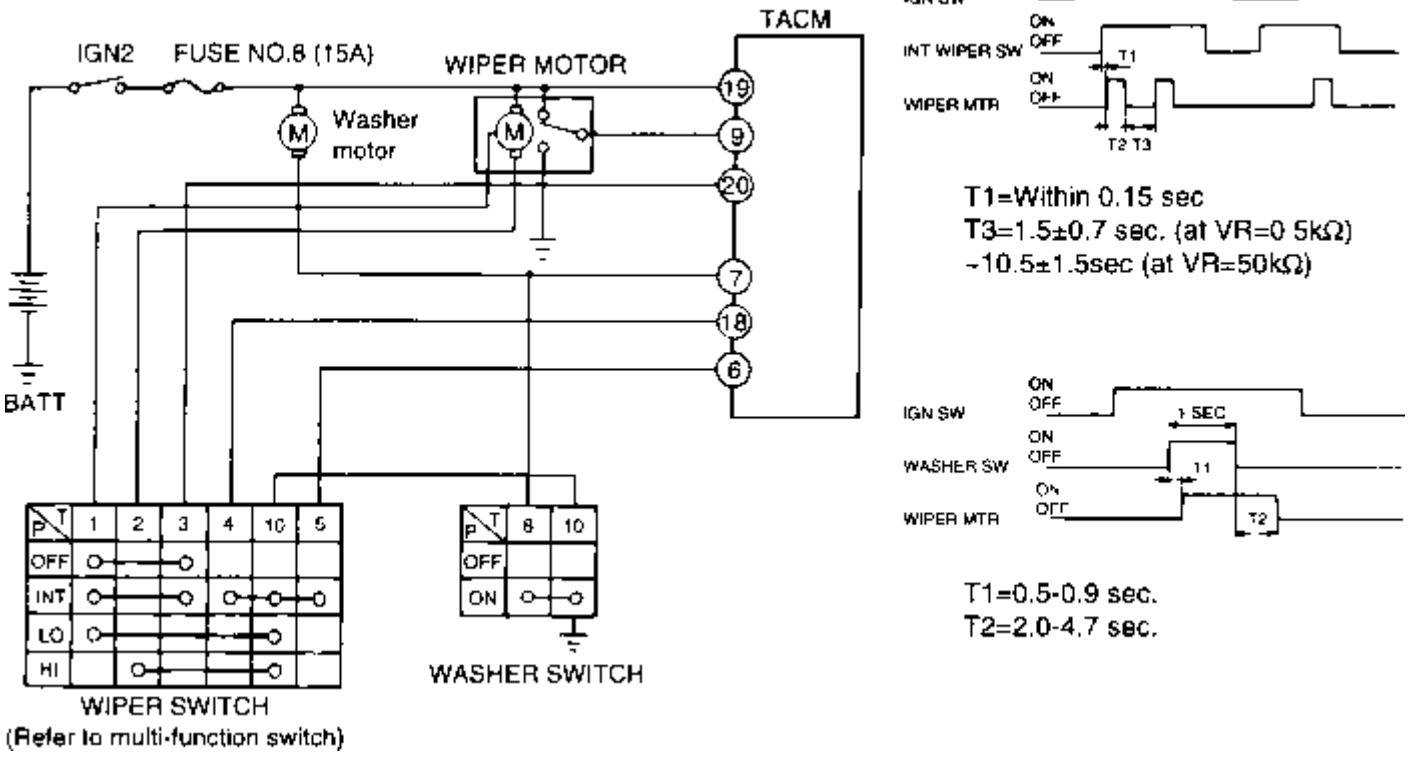
Mode \ Terminal		5	6	7	8	9	10
Wiper switch	ON			○—○			
	OFF			○—		—○	
Washer switch	ON		○—	—○—	—○		
Illumination lamp	Tail	○—		—⊗—			—○



SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2000	
GROUP	
Body Electrical System	Warning Indicators

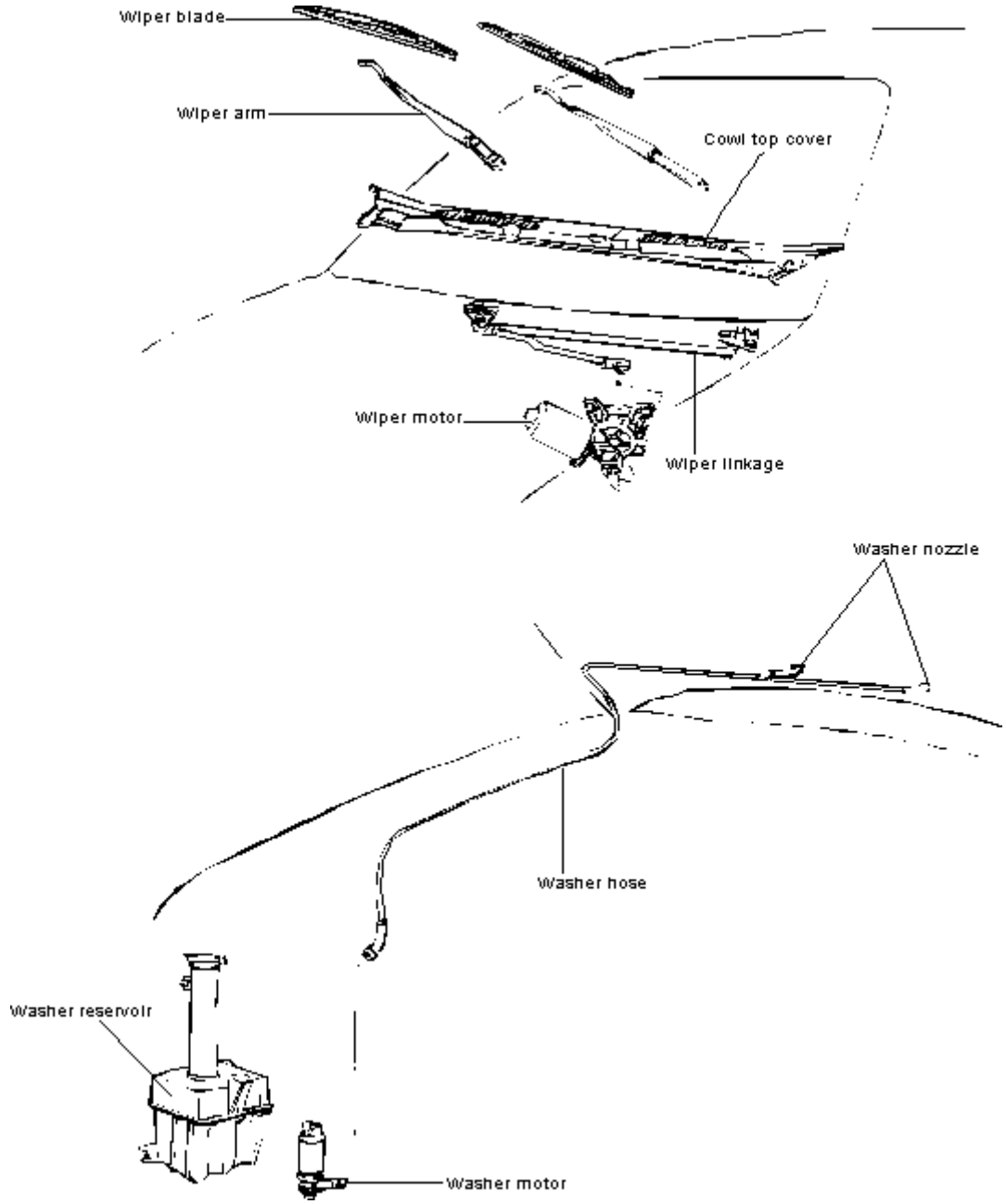
Return to Main Menu(s): Mechanical Manual Electrical Manual

CIRCUIT DIAGRAM



Return to Main Menu(s): Mechanical Manual Electrical Manual

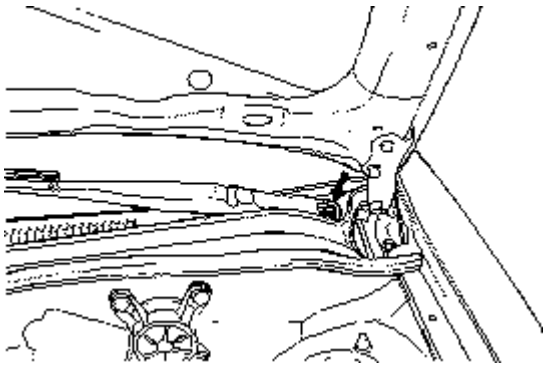
COMPONENTS



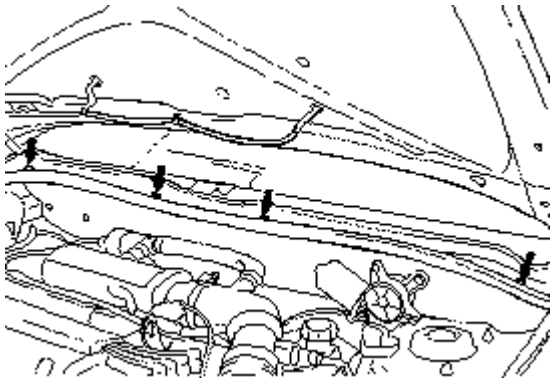
Return to Main Menu(s): Mechanical Manual Electrical Manual

REMOVAL AND INSTALLATION

Remove the wiper arm mounting nut and wiper arm and blade assembly. Be careful not to scratch the engine hood.

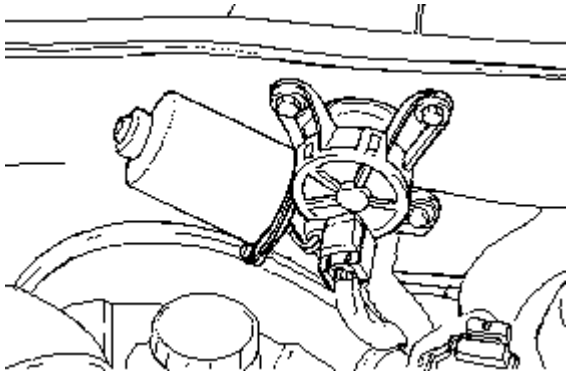


Remove the cowl top mounting screws (4EA) and the cowl top cover.

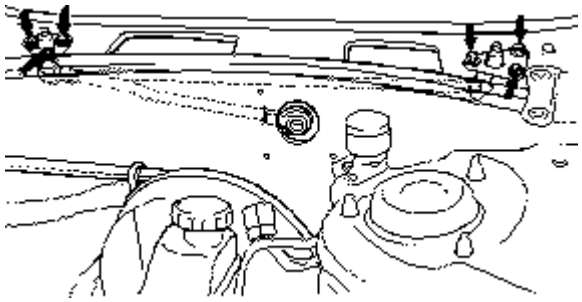


Remove the wiper motor connector and mounting bolts (4EA)

After disconnect the motor from the link, remove the motor assembly.



Remove the wiper link mounting bolts (6EA) and take out the wiper link assembly from the cowl top panel.



Installation is the reverse order of removal procedure.

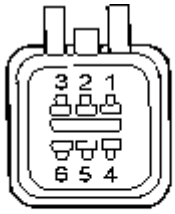
Return to Main Menu(s): Mechanical Manual Electrical Manual

SERVICE ADJUSTMENT PROCEDURES

WIPER MOTOR

SPEED OPERATION CHECK

Remove the connector from the wiper motor.



1. Ground
2. High
3. Low
4. Blank
5. Parking
6. Ignition

Attach the positive (+) lead from the battery to terminal 6 and the negative (-) lead to terminal 3.

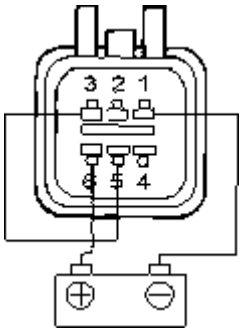
Check that the motor operates at low speed.

Connect the positive (+) lead from the battery to terminal 6 and the negative (-) lead to terminal 2.

Check that the motor operates at high speed.

AUTOMATIC STOP OPERATION CHECK

Operate the motor at low speed.



Stop the motor operation anywhere except the off position by disconnecting terminal 3.

Connect terminals 5 and 3.

Connect the positive (+) lead from the battery to terminal 6 and ground terminal 1.

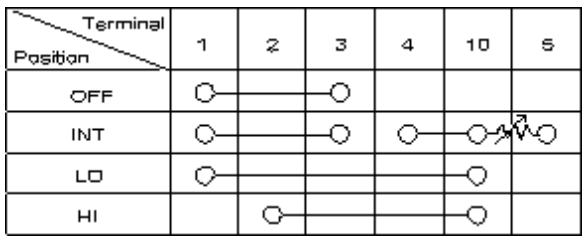
Check that the motor stops at the off position.

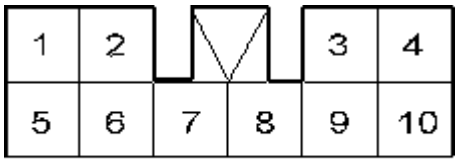
Return to Main Menu(s): Mechanical Manual Electrical Manual

INSPECTION

Check the switch for continuity between the terminals.

Wiper switch





M26-1

Washer switch

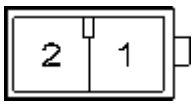
Terminal / Position	8	10
OFF		
ON	○———	———○

If continuity is not as specified, replace the switch.

WASHER MOTOR

With the washer motor connected to the washer tank, fill the washer tank with water.

Connect battery positive (+) and negative (-) cables to terminals 2 and I respectively to see that the washer motor operates and water is ejected.



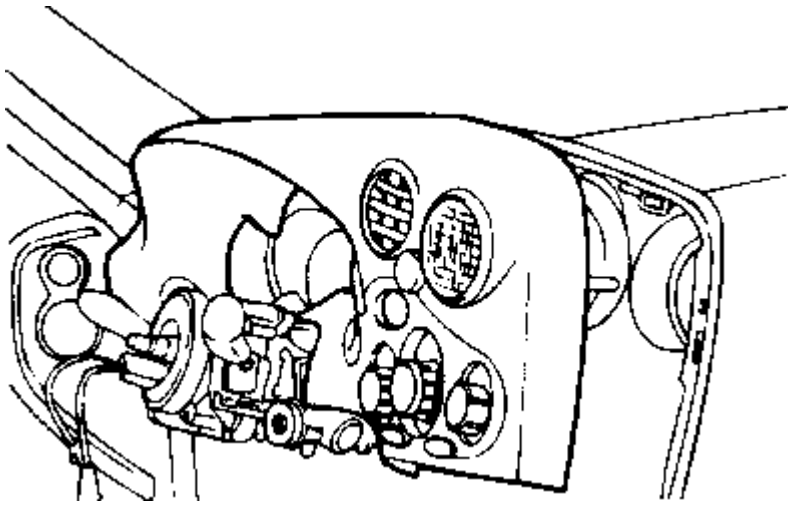
SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2000	
GROUP	
Body Electrical System	Rear Defogger

Return to Main Menu(s): Mechanical Manual Electrical Manual

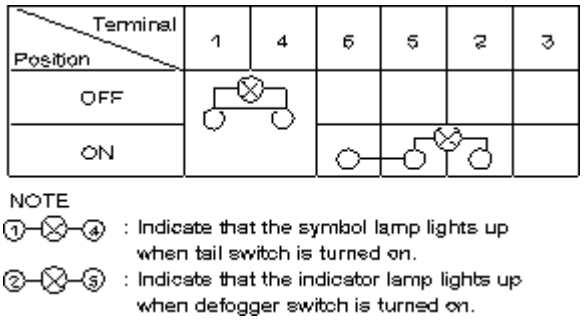
REAR DEFOGGER SWITCH

Remove the cluster facia panel.

Disconnect the defogger switch connector from the wiring harness.



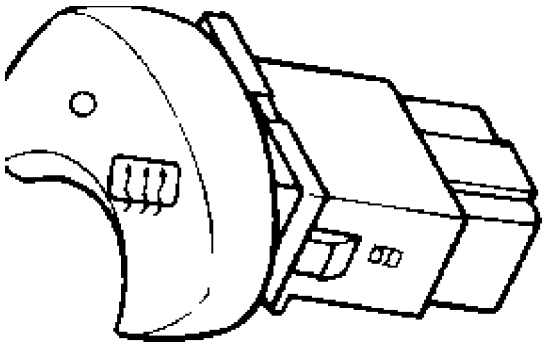
Check for the continuity between the terminals.

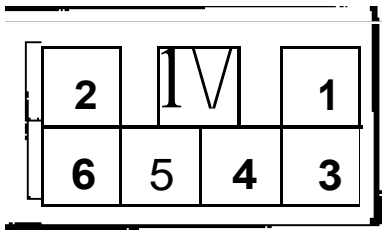


NOTE

① ⊗ ④ : Indicate that the symbol lamp lights up when tail switch is turned on.

② ⊗ ⑤ : Indicate that the indicator lamp lights up when defogger switch is turned on.

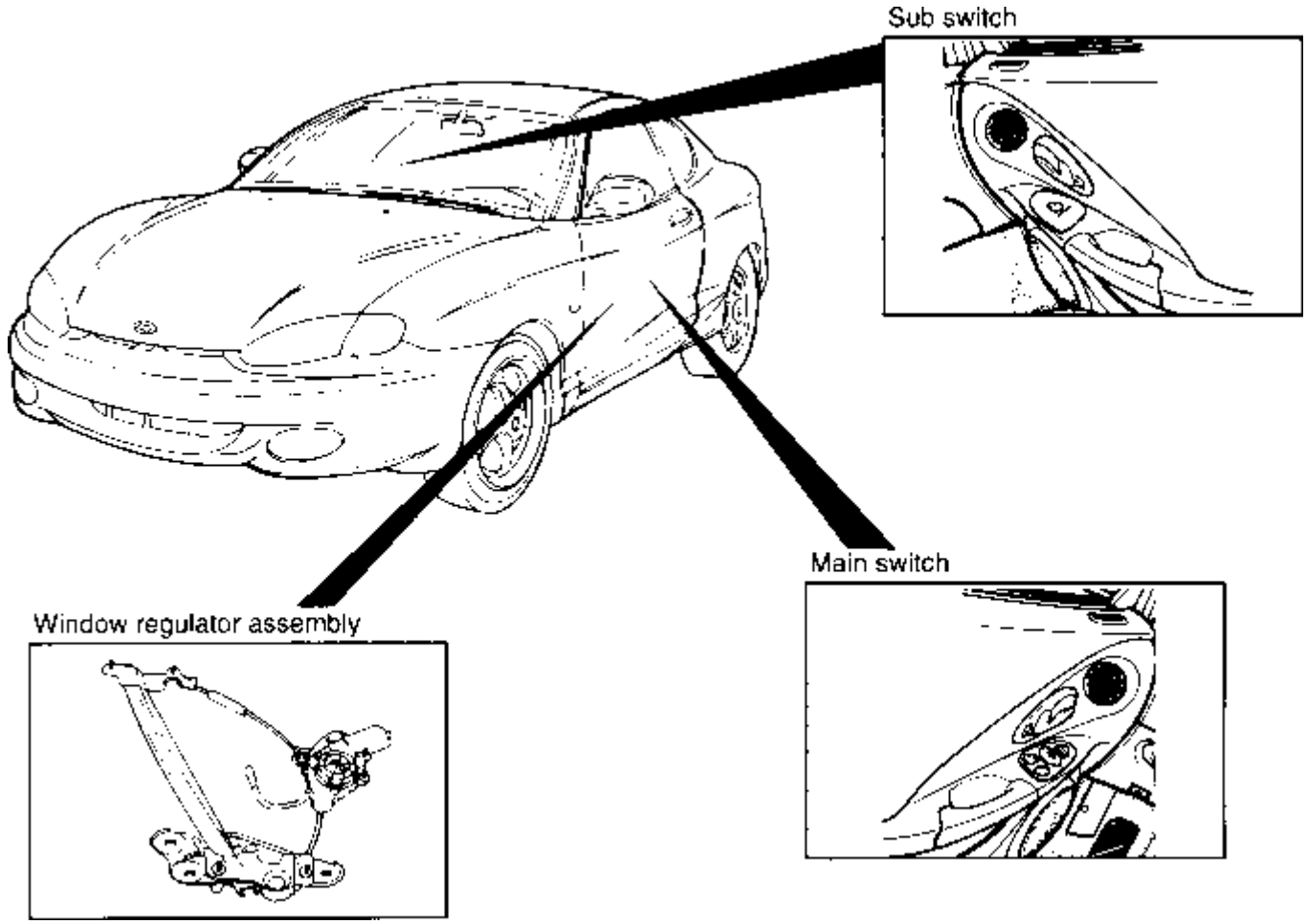



2
IV
1
6
5
4
3

SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2001	
GROUP	
Body Electrical System	Power Windows

Return to Main Menu(s): Mechanical Manual Electrical Manual

COMPONENTS

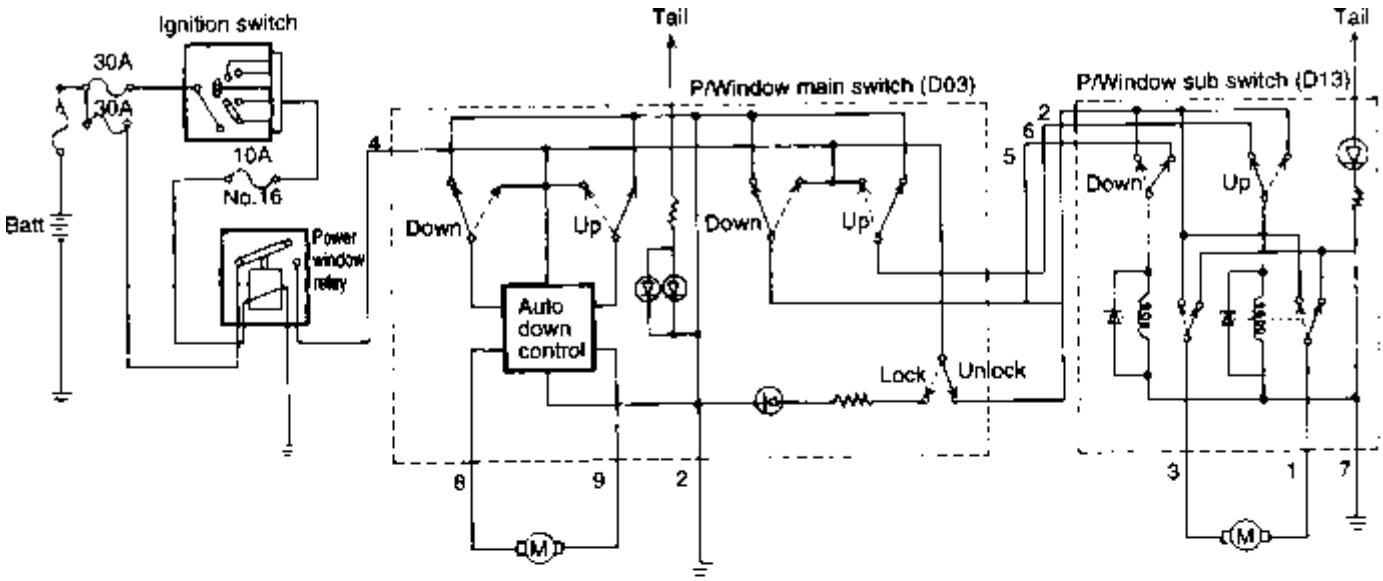


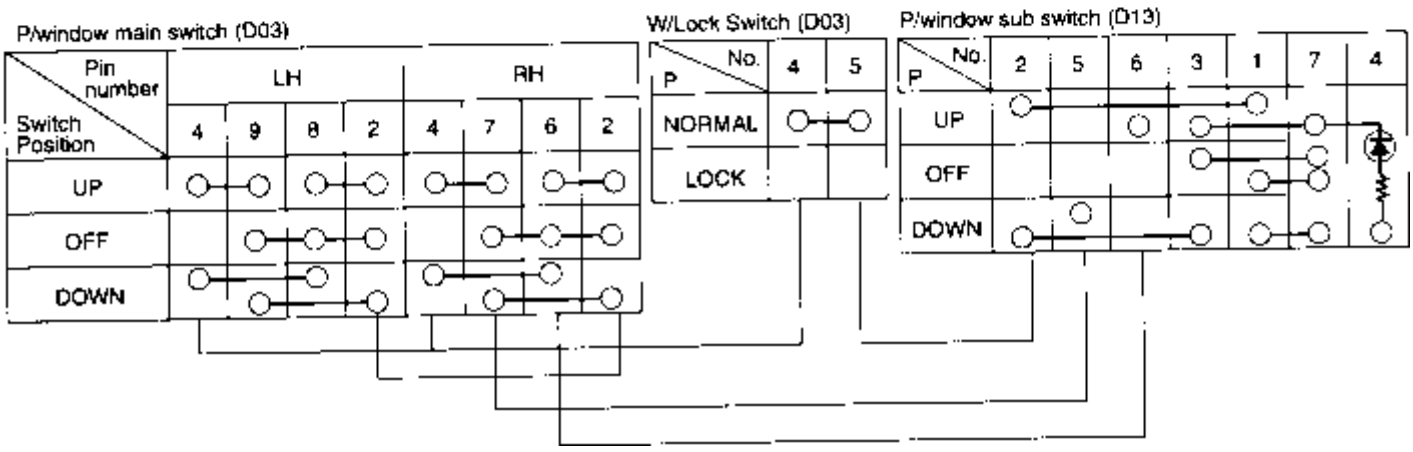
Return to Main Menu(s): Mechanical Manual Electrical Manual

INSPECTION

Check for the continuity of the switch using an ohmmeter. If the continuity is not as specified, replace the switch.

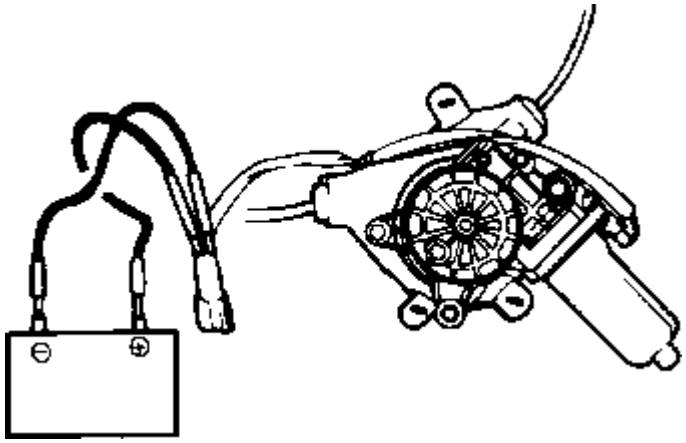
CIRCUIT DIAGRAM





MOTOR

Connect the motor terminals directly to the battery and check that the motor operates smoothly. Next reverse the polarity and check that the motor operates smoothly in the reverse direction. If the operation is abnormal, replace the motor.

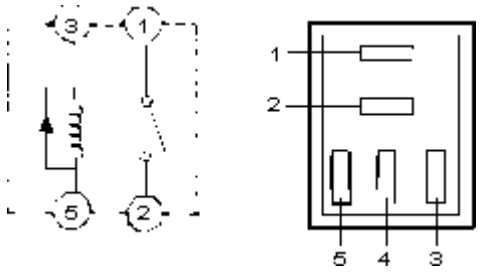


RELAY

Check the continuity between the terminals "3" and "5" with an ohmmeter.

Apply DC 12V to the terminal "3" and ground the terminal "5".

Check for continuity between the terminals "1" and "2".



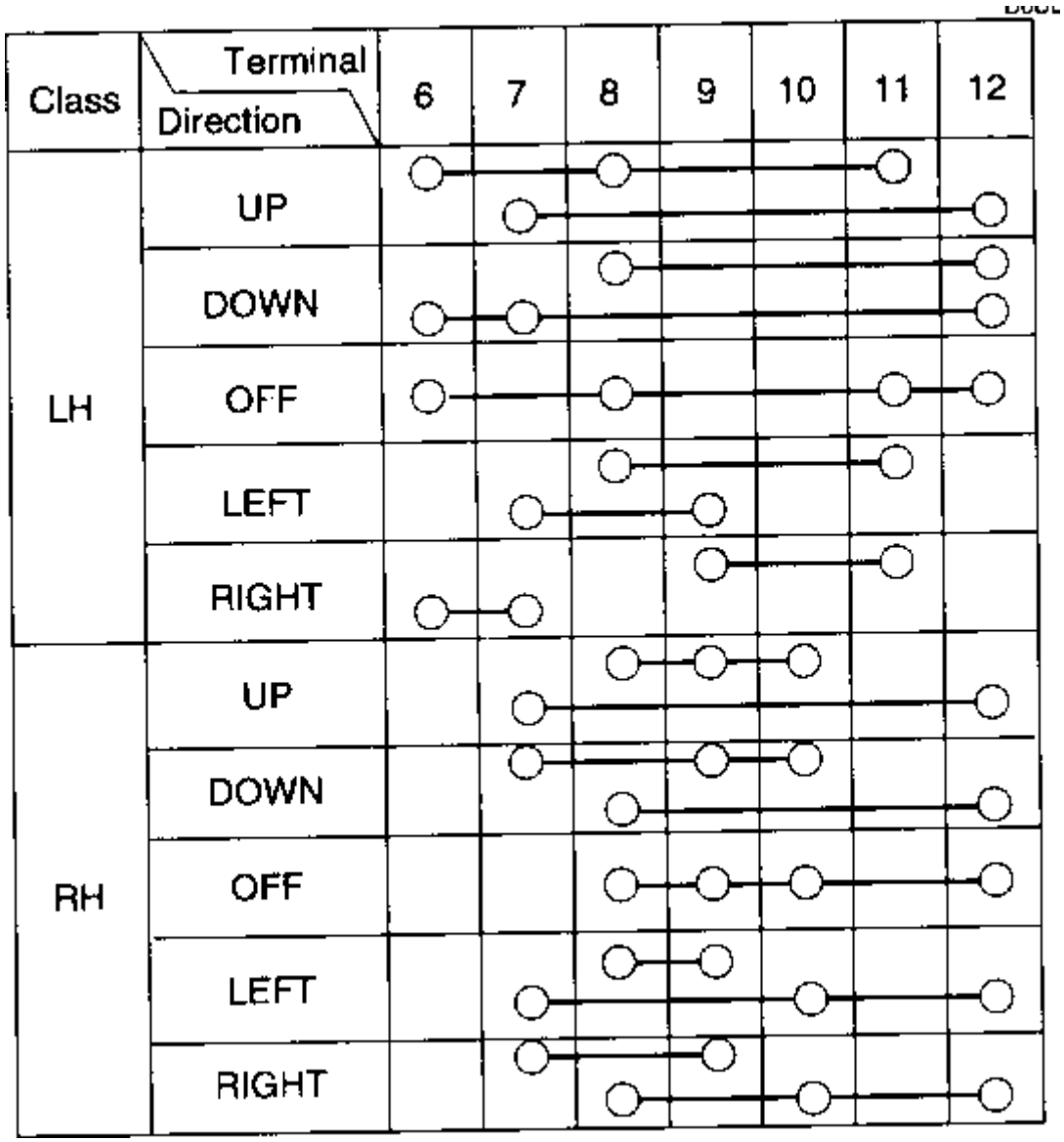
SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2000	
GROUP	
Body Electrical System	Power Mirrors

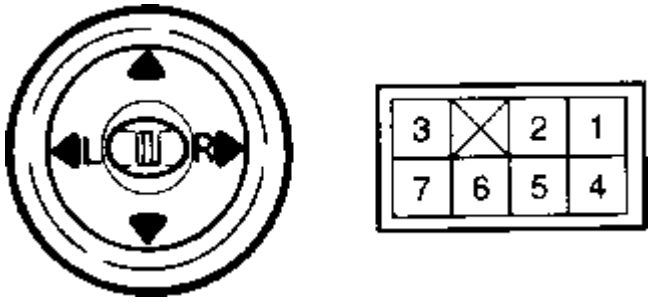
Return to Main Menu(s): Mechanical Manual Electrical Manual

INSPECTION

MIRROR SWITCH

Remove the remote control mirror switch from crash pad.





Check for continuity between the terminals in each switch position according to the table,

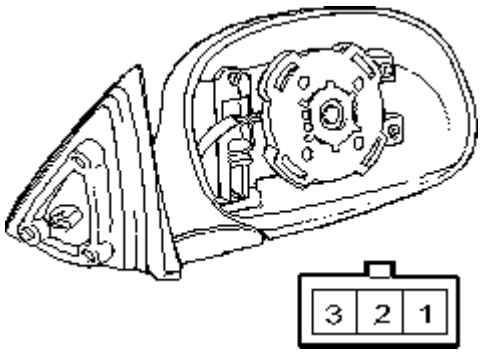
MIRROR ACTUATOR

Disconnect the connector from the mirror.

Check that the actuator operates correctly as below table.

B6BE085C

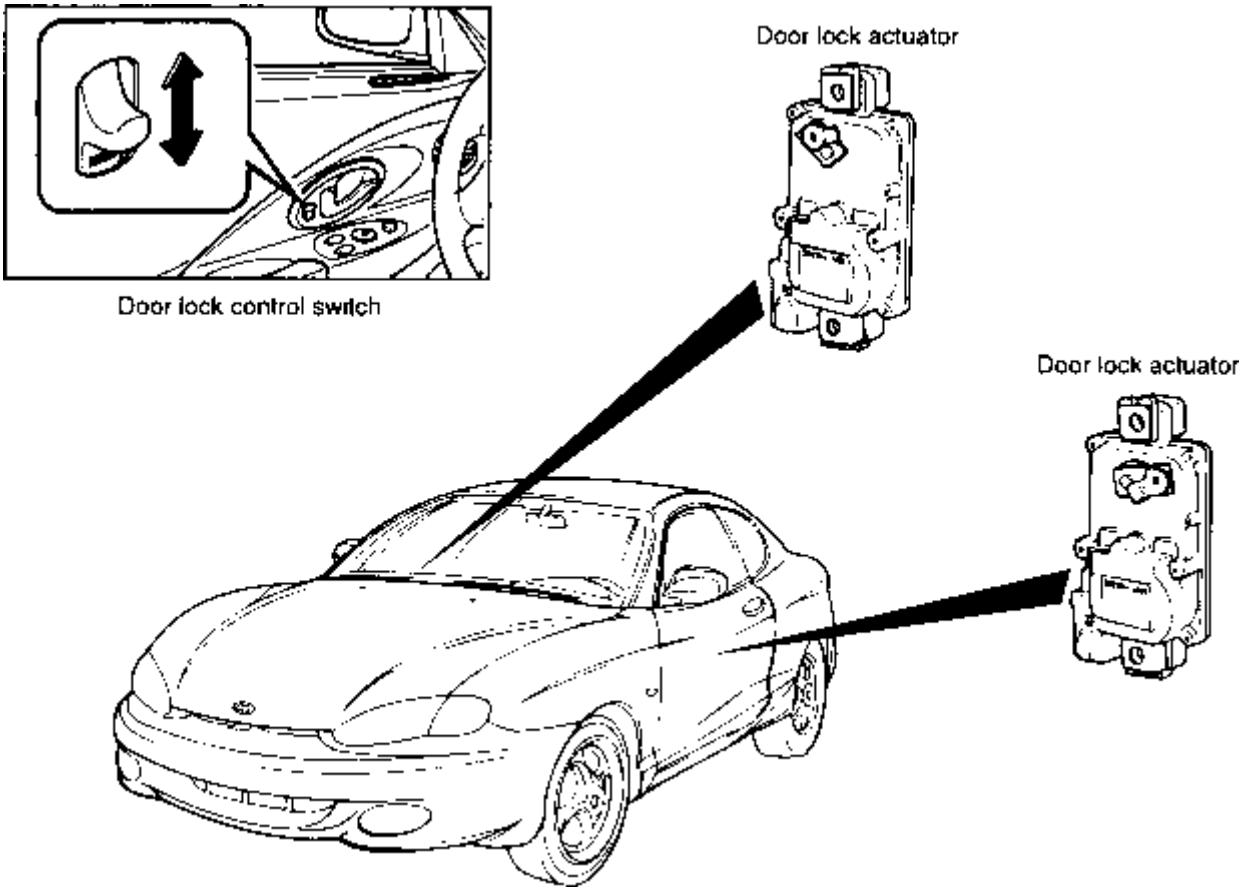
Position \ Terminal	Power supply	Ground	1	2	3
UP	○	○	○	○	
DOWN	○	○		○	○
LEFT	○	○		○	○
RIGHT	○	○		○	○



SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2001	
GROUP	
Body Electrical System	Power Door Locks

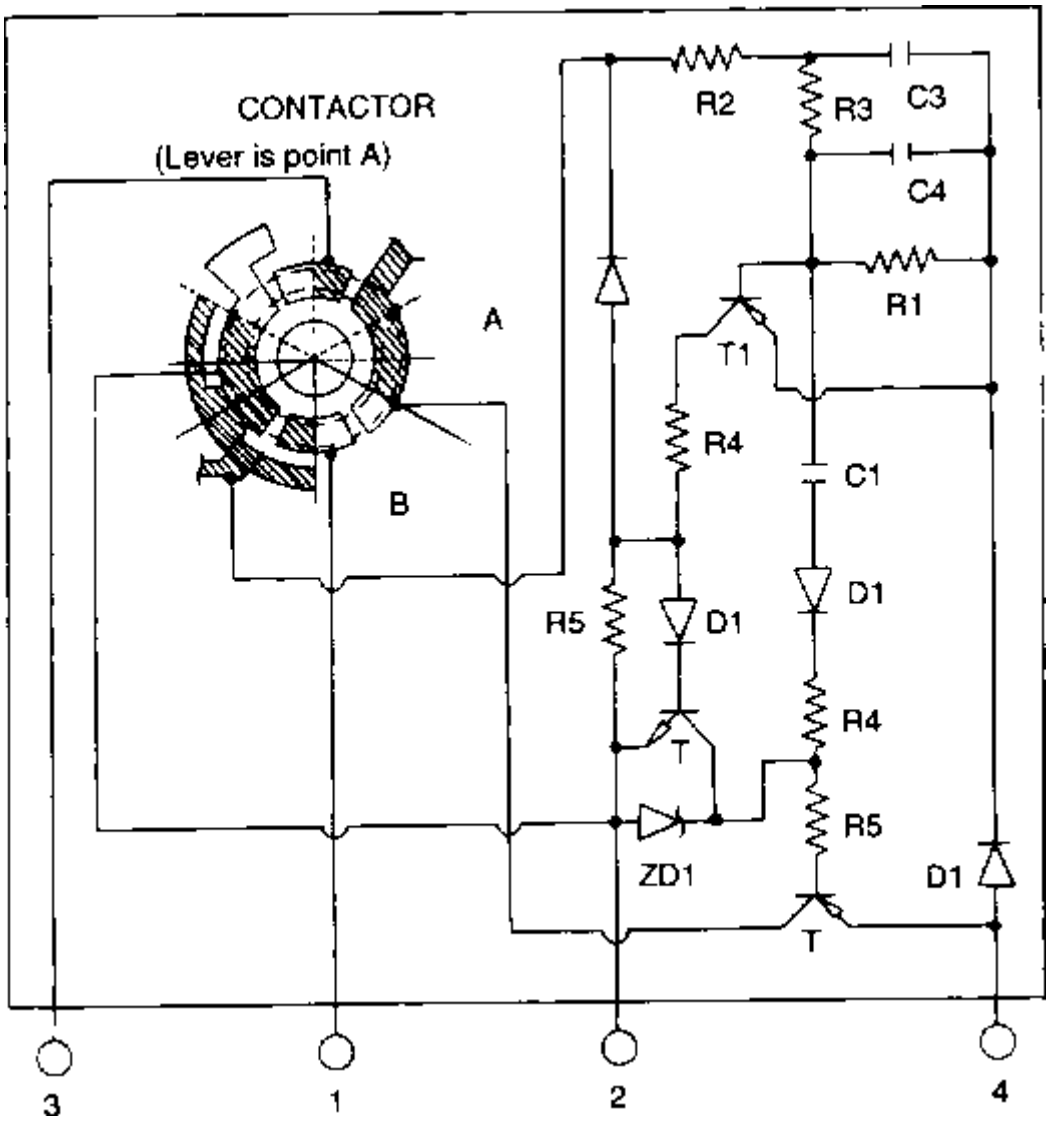
Return to Main Menu(s): Mechanical Manual Electrical Manual

COMPONENTS



Return to Main Menu(s): Mechanical Manual Electrical Manual

CIRCUIT DIAGRAM



Return to Main Menu(s): Mechanical Manual Electrical Manual

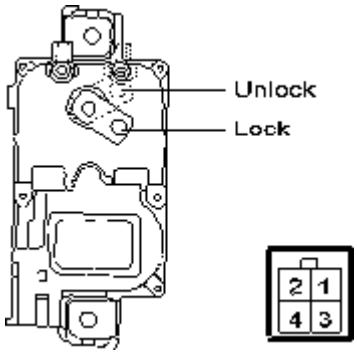
INSPECTION OF COMPONENTS

DOOR LOCK CONTROL ACTUATOR

Disconnect the actuator connector from the wiring harness.

Apply battery voltage (DC 12 V) to each terminal as shown in the table and confirm that the actuator makes corresponding operation.

Terminal / Position	1	3
Unlock	⊕	⊖
Lock	⊖	⊕

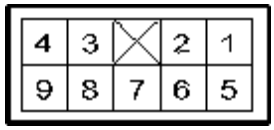


DOOR LOCK CONTROL MODULE

Remove the door lock control module.

Check for continuity between the terminals. If continuity is not as specified, replace the door lock control module.

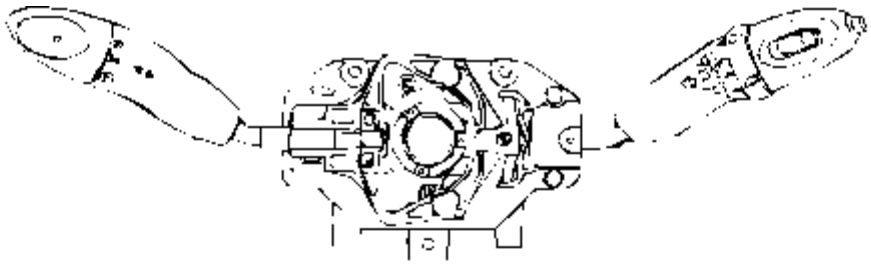
Terminal	1	2	3	4	5	6	7	8	9
Condition	○—○			○		○—○—○			○

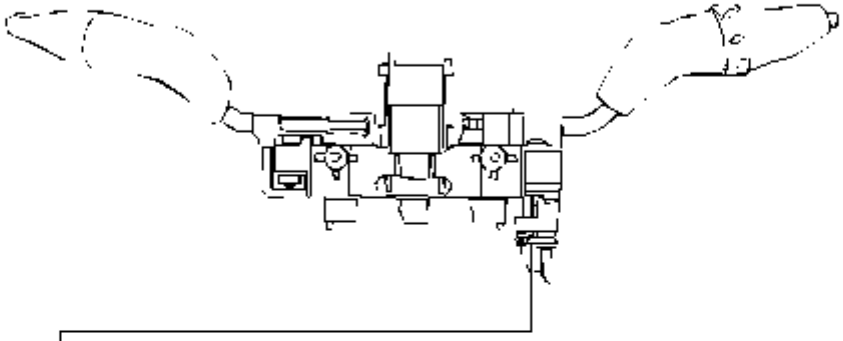


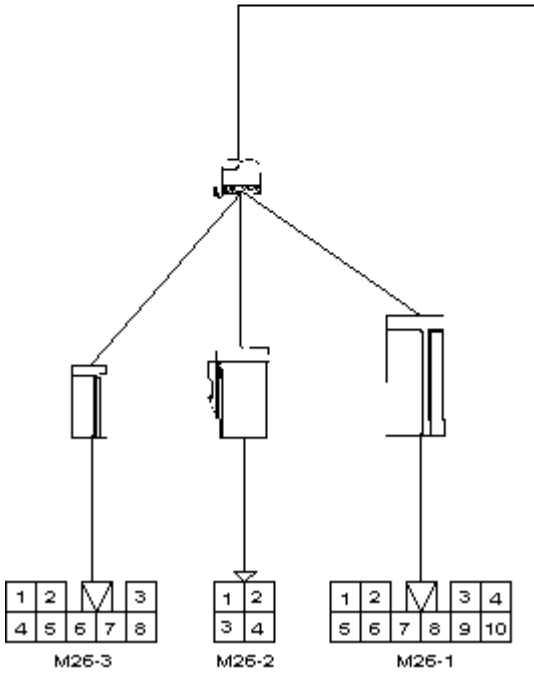
SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2000	
GROUP	
Body Electrical System	Indicators

Return to Main Menu(s): Mechanical Manual Electrical Manual

COMPONENTS (WITHOUT AIR BAG)



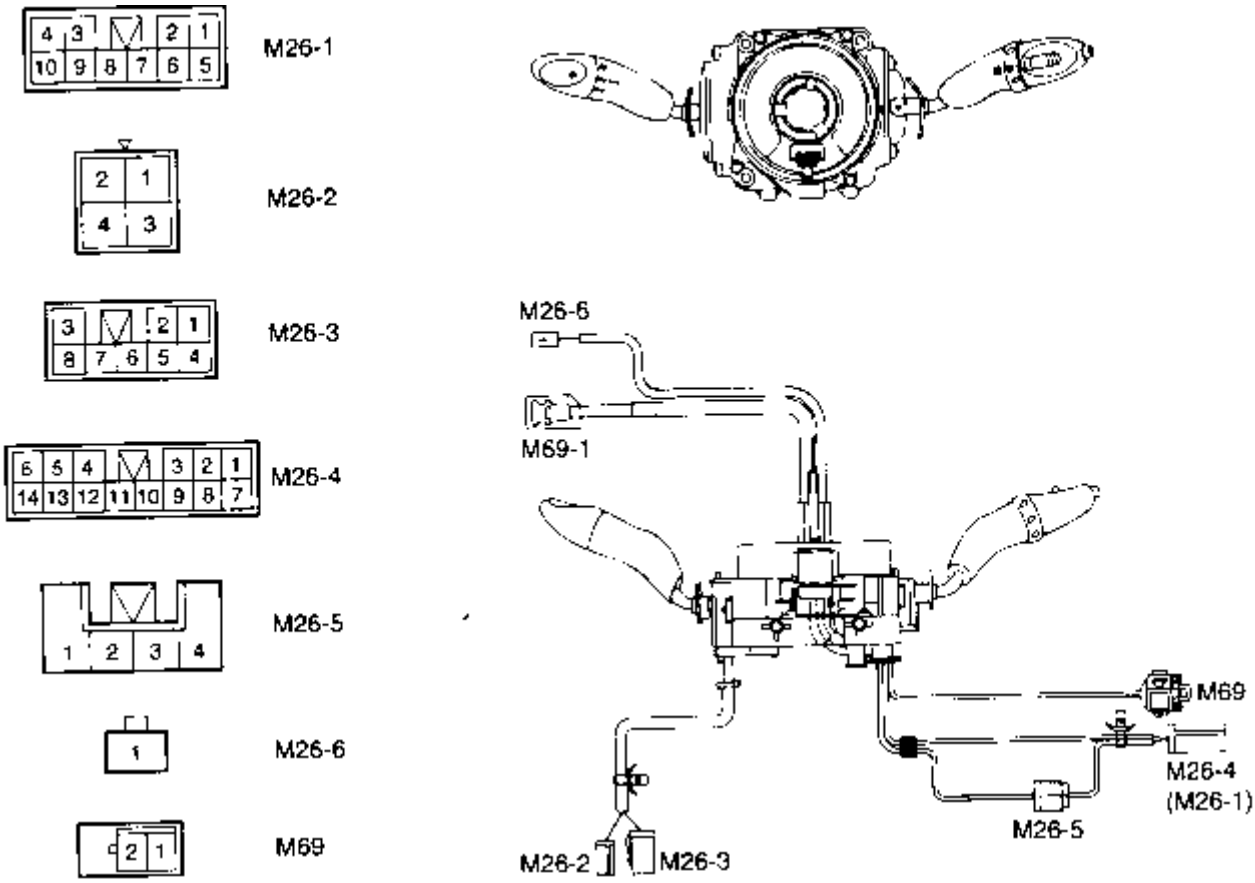




Circuit connection

Connector No.	Termina No.	Wire size & color	Description
M26-1	1	0.85LO	Wiper low speed
	2	0.85LR	Wiper high speed
	3	0.85LW	Wiper parking
	4	0.3BY	Intermittent wiper
	5	0.3BR	Intermittent wper
	6	0.3LY	Speed set coast
	7	0.3LgY	Resume accel
	8	0.5BW	Washer switch
	9	0.85GB	Horn
	10	0.85B	Wiper & washer ground
M26-2	1	2.0B	Dimmer & passing ground
	2	2.0RW	Head lamp lower beam power
	3	1.25YW	Head lamp switch passing
	4	2.0R	Head lamp upper beam power
M26-3	1	0.3GY	Tail lamp switch
	2	0.3RY	Head lamp switch
	3	0.3LgW	Rear fog lamp
	4	No Connection	
	5	0.3B	Lighting switch ground
	6	0.85GR	Flasher unit power
	7	0.5GY	Left turn signal lamp switch
	8	0.5G	Right turn signal lamp switch

COMPONENTS (WITH AIR BAG)



Circuit connection

Connector No.	Terminal No.	Wire size & color	Description
M26-2	1	2.0 B	Earth (Dimmer & passing)
	2	2.0 RW	Head lamp low beam power
	3	1.25 YW	Head lamp switch passing
	4	2.0 R	Head lamp upper beam power
M26-3	1	0.3 GY	Tail lamp switch
	2	0.3 RY	Head lamp switch
	3	0.3 LgW	Rear fog lamp
	4		Not used
	5	0.3 B	Lighting switch earth
	6	0.85 GR	Flasher unit power
	7	0.5 GY	Turn signal switch (RH)
	8	0.5 G	Turn signal switch (LH)
M26-6	1	0.5 GR	Horn
M69	1	0.5 Br	Driver initiator low
	2	0.5 L	Driver initiator high
M69-1	1	0.5 Br	Driver initiator high
	2	0.5 L	Driver initiator low

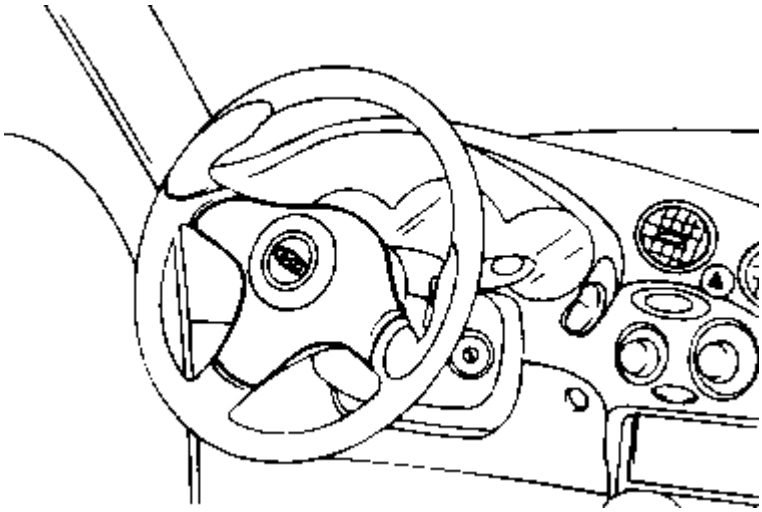
Connector No	Terminal No.	Wire size & color	Description
M26-4 (with EPS) (M26-1) (without EPS)	1	0.3 G	Angular velocity (SIG)
	2 (1)	0.85 LO	Wiper low speed
	3 (2)	0.85 LR	Wiper high speed
	4 (3)	0.85 LW	Wiper parking
	5 (4)	0.85 BY	Intermittent wiper
	6 (5)	0.3 BR	Intermittent wiper
	7	0.3 YL	Angular velocity (SIG)
	8	0.3 B	Angular velocity (-)
	9	0.3 L	Angular velocity (+)
	10 (7)	0.3 LgY	Resume switch
	11 (8)	0.5 BW	Washer switch
	12 (9)	0.5 GR	Horn
	13 (10)	2.0 B	Earth
	14 (6)	0.3 LY	Speed set coast
M26-5 (with EPS)	1	0.3 G	Angular velocity (SIG)
	2	0.3 YL	Angular velocity (SIG)
	3	0.3 B	Angular velocity (-)
	4	0.3 L	Angular velocity (+)

* EPS : Electrical Power Steering

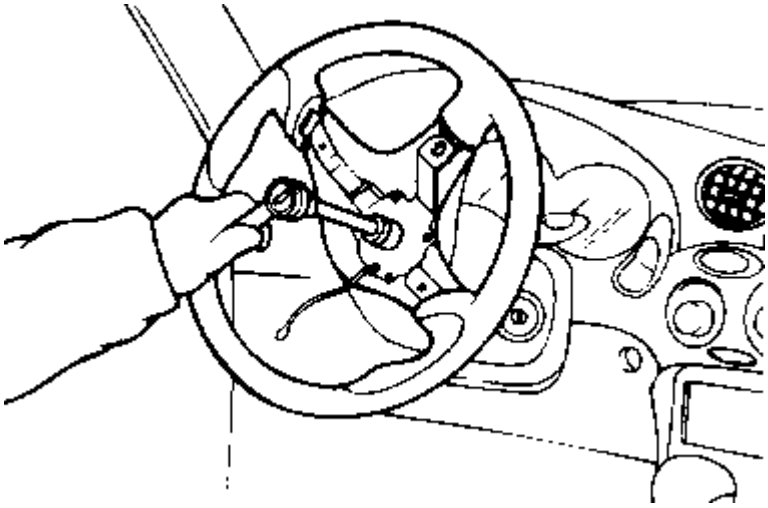
Return to Main Menu(s): Mechanical Manual Electrical Manual

REMOVAL AND INSTALLATION (WITHOUT A/BAG)

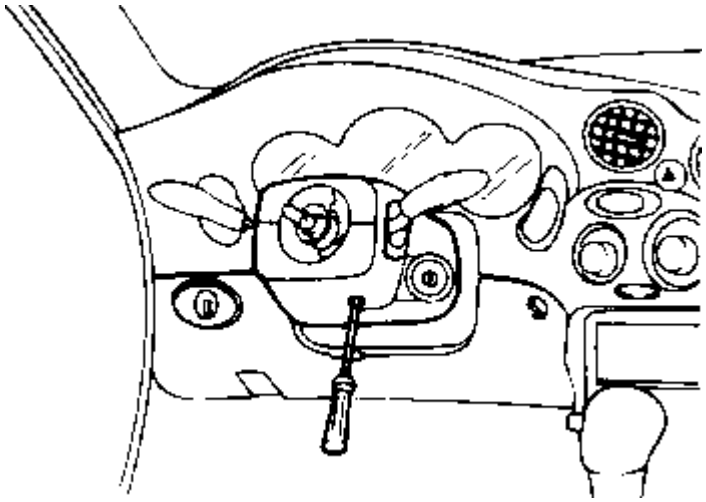
Remove the horn pad mounting screws (2EA) and the horn pad.



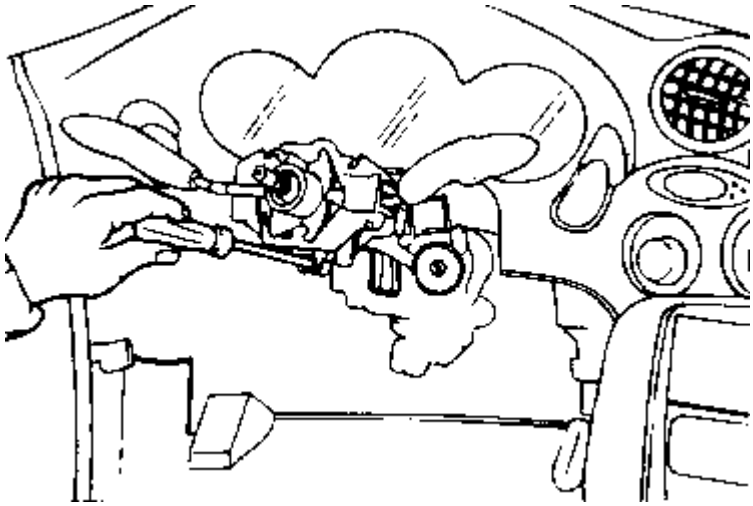
Remove the steering wheel mounting nut and the steering wheel.



Remove the steering column upper shroud using a (-) driver and the steering column lower shroud by removing the mounting screws (3EA) as shown in the illustration.



Remove the multifunction switch assembly mounting screws (3EA) and the multifunction switch assembly.



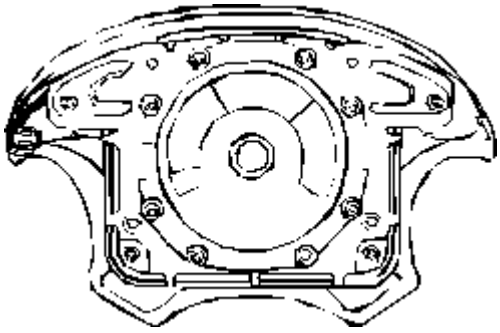
Installation is the reverse order of removal procedure.

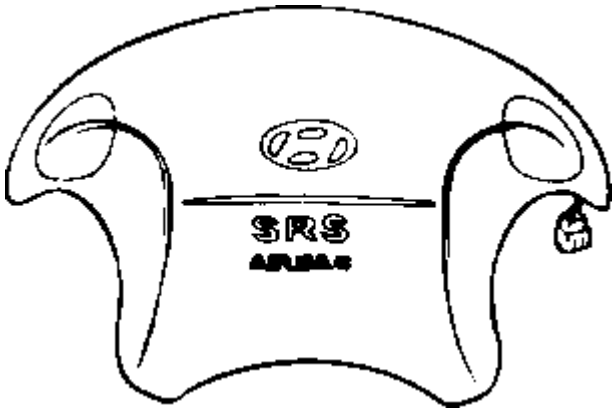
REMOVAL AND INSTALLATION (WITH A/BAG)

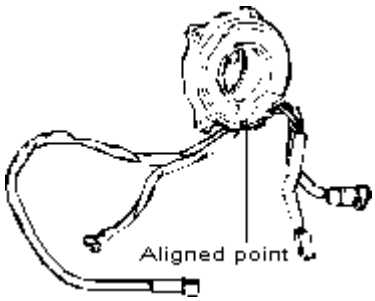
Prior to removing the multifunction switch assembly equipped with air bag, be careful to keep following items.

CAUTION

- **Never attempt to disassemble or repair the air bag module or clock spring. If faulty, replace it.**
- **Do not drop the air bag module or clock spring or allow contact with water, grease or oil. Replace it if a dent, crack, deformation or rust are detected.**
- **The air bag module should be stored on a flat surface and placed so that the pad surface is facing upward. Do not place anything on top of it.**
- **Do not expose the air bag module to temperature over 93°C (200°F).**
- **After deployment of an air bag, replace the clock spring with a new one.**
- **Wear gloves and safety glasses when handling an air bag that has already deployed.**
- **An undeployed air bag module should only be disposed of in accordance with the procedures.**
- **When you disconnect the air bag module-clock spring connector, take care not to apply excessive force to it.**
- **The removed air bag module should be stored in a clean, dry place.**
- **Prior to installing the clock spring, align the mating mark and "NEUTRAL" position indicator of the clock spring, and, after turning the front wheels to the straight-ahead position, install the clock spring to the column switch. If the mating mark of the clock spring is not properly aligned, the steering wheel may not be completely rotational during a turn, or the flat cable within the clock spring may be severed, obstructing normal operation of the SRS and possibly leading serious injury to the vehicle's driver. To inspect clock spring, refer to air bag group.**



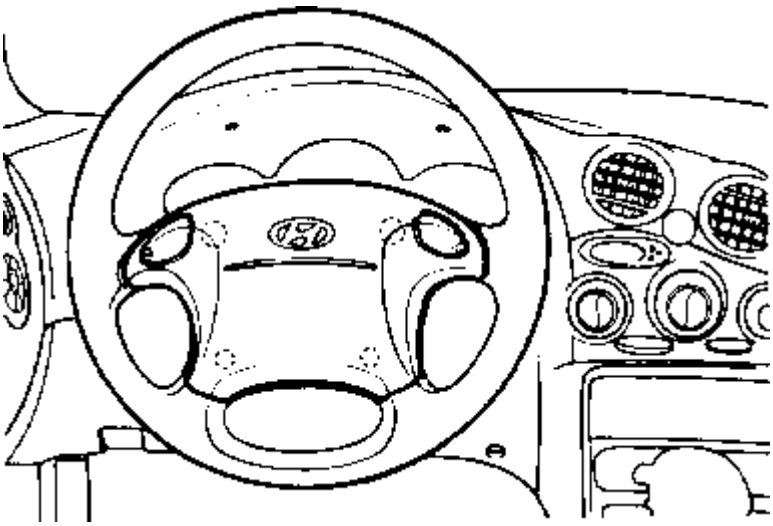




Disconnect the battery negative terminal.

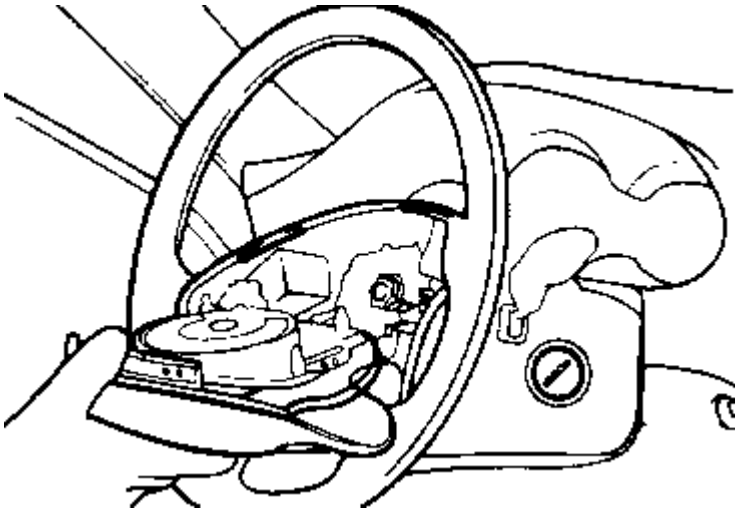
NOTE

Prior to doing any further work after disconnection of the battery cable, wait at least 30 seconds.

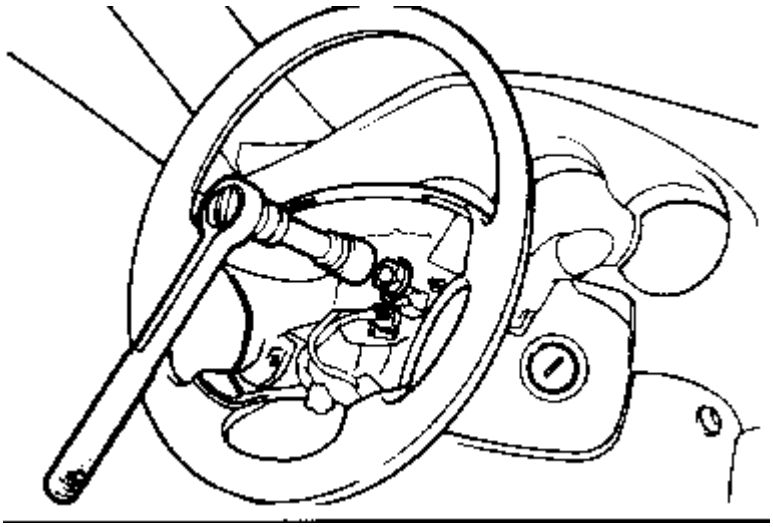


Remove the air bag module mounting nuts (4EA) using a socket wrench.

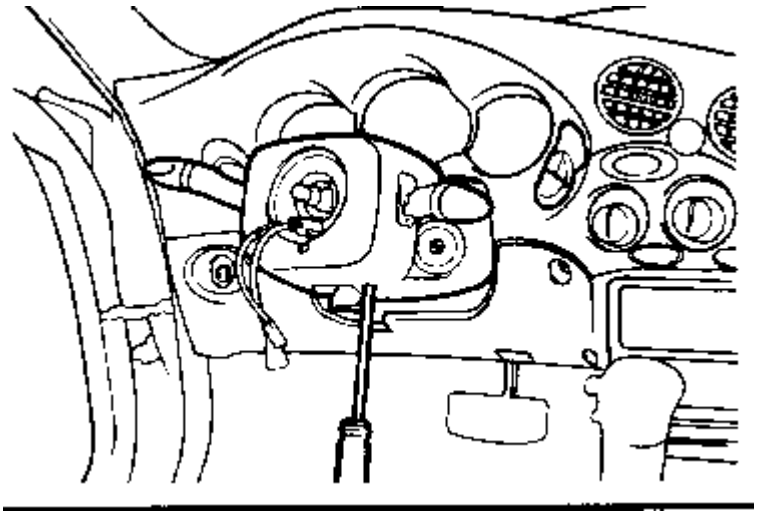
Disconnect the horn connector and the air bag module connector using (-) driver, and remove the air bag module using (-) driver and remove the air bag module.



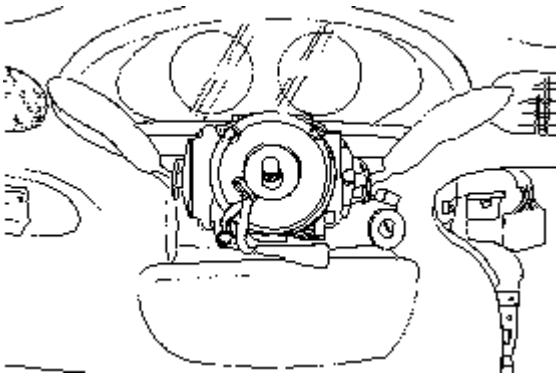
Remove the steering wheel mounting nut using a socket wrench and the steering wheel.



Remove the steering column upper shroud using a (-) driver and the steering column lower shroud by removing the mounting screws as shown in the illustration.



Remove the multifunction switch assembly mounting screws (3EA) and multifunction switch assembly after removal of the connectors.



Installation is the reverse order of removal procedure.

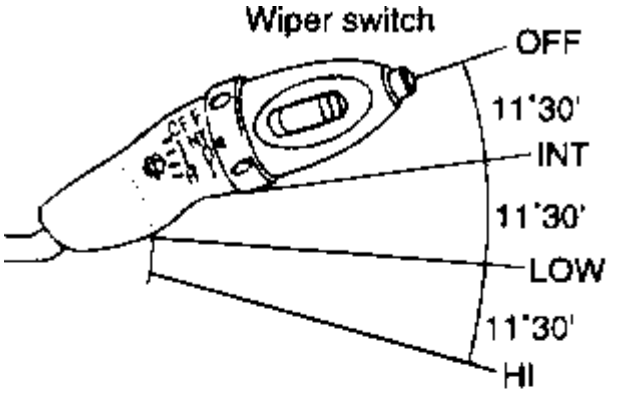
Return to Main Menu(s): Mechanical Manual Electrical Manual

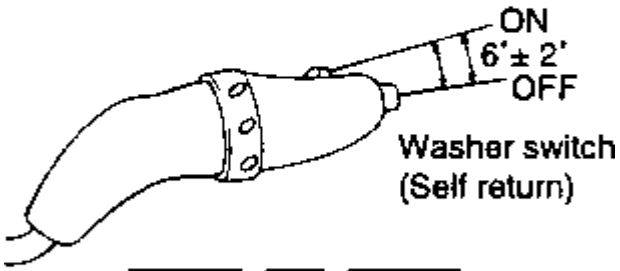
INSPECTION

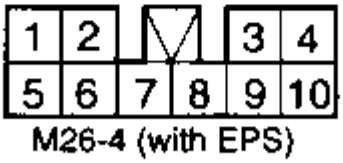
With the multifunction switch in each position, make sure that continuity exists between terminals below. If continuity is not as specified, replace the multifunction switch.

Lighting switch (Connector No.: M26-3)

Position \ Terminal	1	2	5	3
OFF				
I	○		○	
II	○	○	○	○







M26-4 (with EPS)

M26-1 (without EPS)

Dimmer and passing switch (Connector No.: M26-2)

Terminal / Position	1	2	4	3
HU	○		○	
HL	○	○		
P	○		○	○

HU: Head lamp upper beam

HL: Head lamp lower beam

P: Head lamp switch passing

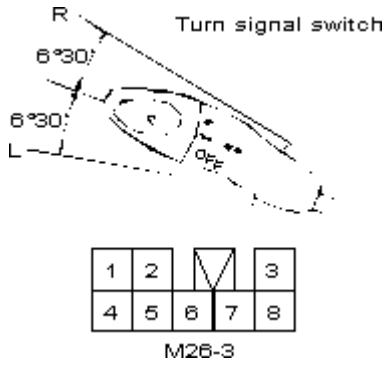
Turn signal switch (Connector No.: M26-3)

Hazard switch	Turn signal switch	6	8	7
OFF	L	○	○	
	N			
	R	○		○

HU: Head lamp upper beam

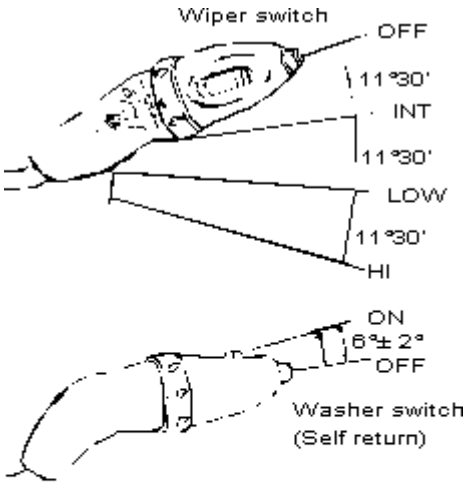
HL: Head lamp lower beam

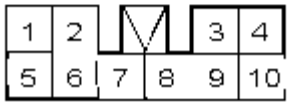
P: Head lamp switch passing



Wiper switch (Connector No.:M26-1-without EPS) (M26-4-with EPS)

Terminal / Position	1 (2)	2 (3)	3 (4)	4 (5)	10 (13)	5 (6)
OFF	○		○			
INT	○		○	○	○	○
LOW	○				○	
HI		○			○	

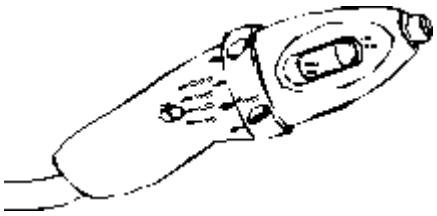




M26-1

Washer switch (Connector No.: M26-1 (M26-4))

Terminal / Position	8 (11)	10 (13)
OFF		
INT	○———	———○



Cruise control switch (Connector No.: M26-1 (M26-4))

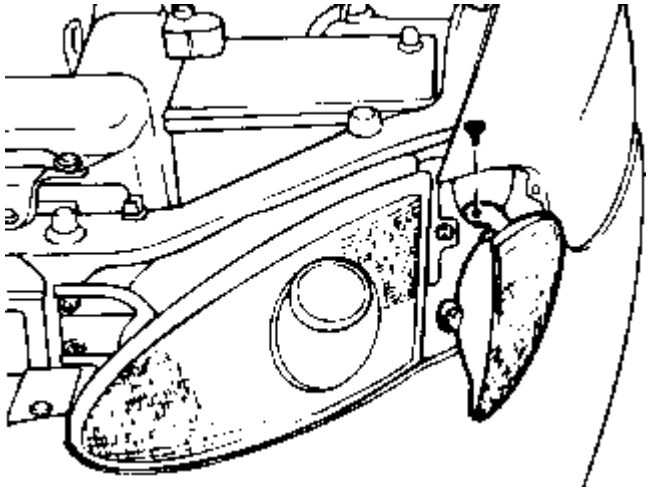
Terminal / Position	2 (3)	5 (6)	3 (4)
RESUME	○———	———	———○
OFF			
SET		○———	———○

SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2000	
GROUP	
Body Electrical System	Horns

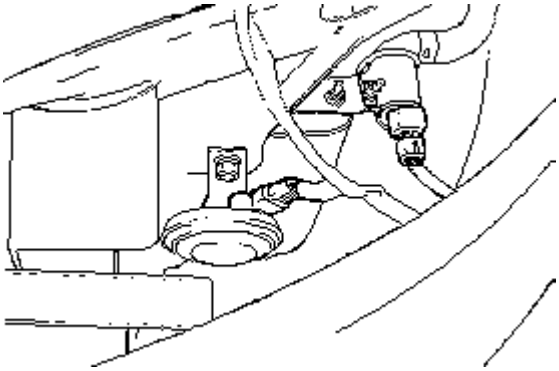
Return to Main Menu(s): Mechanical Manual Electrical Manual

REMOVAL AND INSTALLATION

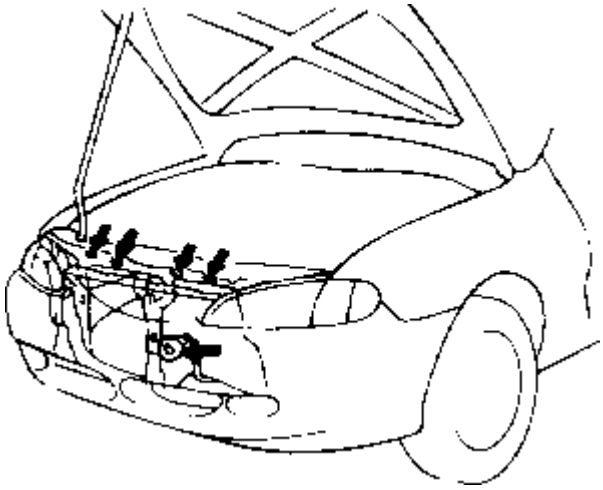
Remove the LH turn signal lamp mounting screw and the turn signal lamp.



Remove the horn mounting bolt and the horn.



Raise the vehicle and remove the horn. (Dual horn type only)



Installation is the reverse order of removal procedure.

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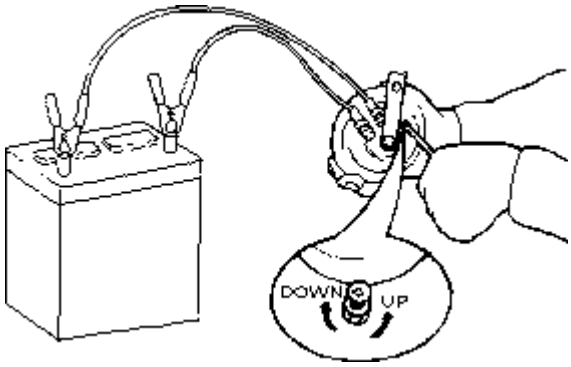
ADJUSTMENT

Operate the horn, and adjust the tone to a suitable level (by turning the adjusting screw).



CAUTION

After the adjustment, apply a small amount of paint around the screw head to keep it from loosening.

SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2000	
GROUP	
Body Electrical System	Gauges

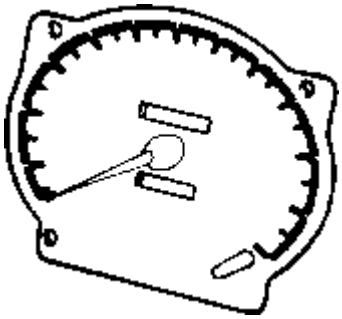
Return to Main Menu(s): Mechanical Manual Electrical Manual

INSPECTION OF COMPONENTS

SPEEDOMETER

Using a scan-tool, inspect the speedometer for tolerance and check for the operation of the odometer.

> **NOTE**
>
> **It should be noted that the excessive tire wear and tire over or under-inflation will cause indication errors.**



Speed (km/h)		20	40	60	80	100	120	140	160	180	200
Tolerance (km/h)	Max. 220 km/h	+4.4 0	+4.4 0	+5.4 +1.0	+6.5 +1.0	+7.5 +2.0	+8.5 +3.0	+9.5 +4.0	+10.5 +5.0	+11.5 +6.0	+12.5 +7.0

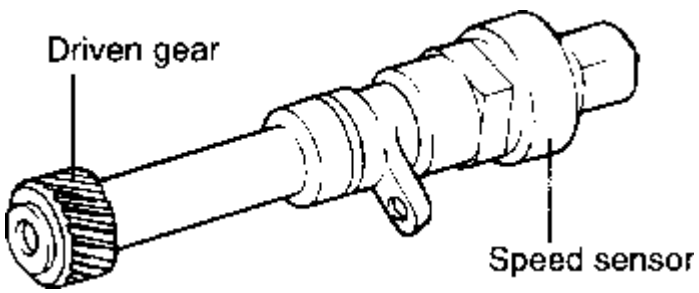
Speed (MPH)		10	20	40	60	80	100	200
Tolerance (MPH)	Max. 140 MPH	+3.0 0	+2.0 0	+3.0 0	+3.8 0	+4.1 +0.3	+4.1 +0.3	+4.1 +0.3

Check the speedometer for pointer fluctuation and abnormal noise.

> **NOTE**
>
> **Pointer fluctuations can be caused by a faulty reed switch.**

VEHICLE SPEED SENSOR

Disconnect the speed sensor connect and remove the speed sensor.



Connect the positive (+) lead from battery to terminal 3 and the negative (-) lead to terminal 2.

Connect the positive (+) lead from tester to terminal I and the negative (-) lead to terminal 2.

Turn the speed meter shaft.

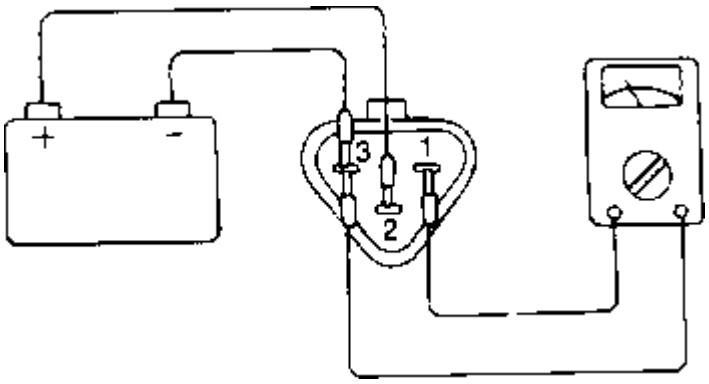
Check if there is voltage change from about 0V to 11V or more between terminal 1 and 2.

The voltage change should be 4 times per each revolution of the shaft.

TACHOMETER

Connect the Scan-tool to the diagnosis connector in the fuse box and install the tachometer.

With engine started, compare the readings of the tester with that of the tachometer. Replace tachometer if tolerance is excessive.

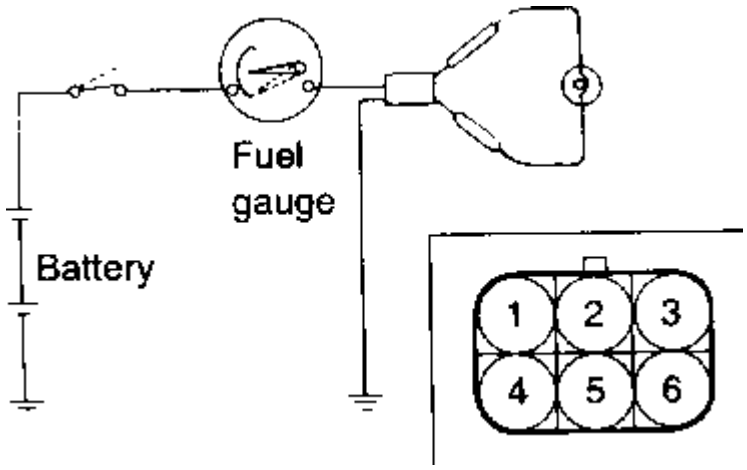


Revolution (RPM)		1000	2000	3000	4000	5000	6000	7000
Tolerance (RPM)	Max. 8000 RPM	±100	±125	±150	±150	±150	±180	±210

FUEL GAUGE

OPERATION CHECK

Disconnect the fuel sender connector from fuel sender.

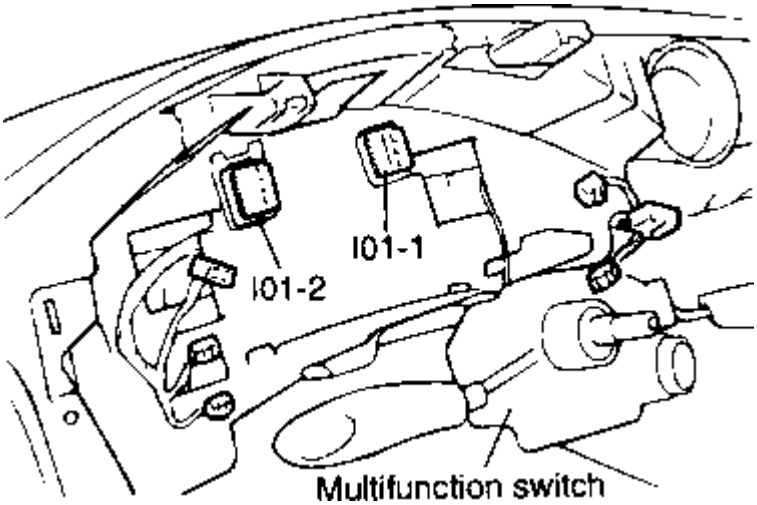


Connect terminals 1 and 6 on the wire harness side connector through a 3.4 watt, 12V test bulb.

Turn the ignition switch to the ON, and then check that the bulb lights up and fuel gauge needle moves to full.

RESISTANCE CHECK

Remove the instrument cluster.



Measure the resistance between terminals. (I01-1:13, I01- 2:11)

Standard resistance

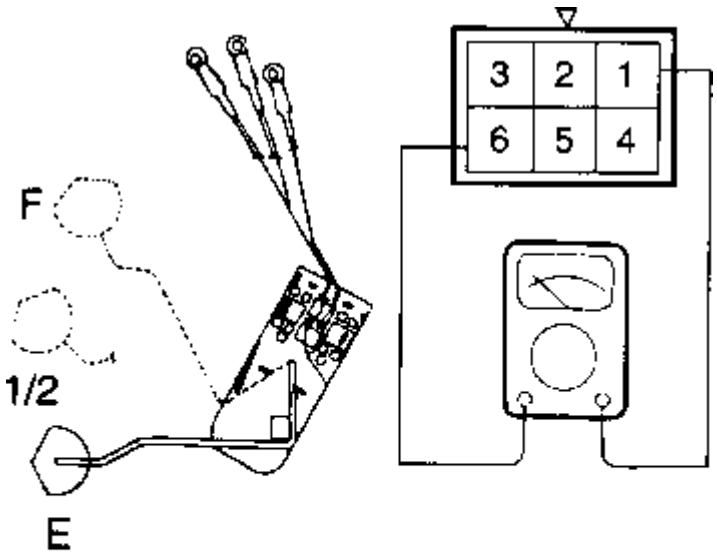
Fuel level F: Approx. 7OHM

Fuel level 1/2: Approx. 32.5OHM

Fuel level E: Approx. 95OHM

FUEL SENDER

Using a ohmmeter, measure the resistance between terminals 1 and 6 at each float level.



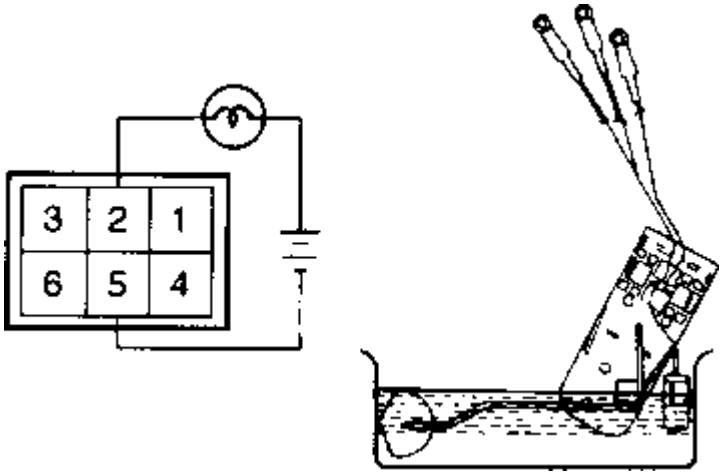
1. Gauge ground
2. thermister
3. Fuel pump
4. Not used
5. Ground
6. Fuel gauge

Float position	F	1/2	E
Resistance OHM	3 ± 1	32.5 ± 2	110 +1 -4

Also check that the resistance changes smoothly when the float moves from "E" to "F".

LOW FUEL LEVEL SENSOR

Connect the sender with a test lamp (12V, 3.4W) to the battery and immerse it in the water.



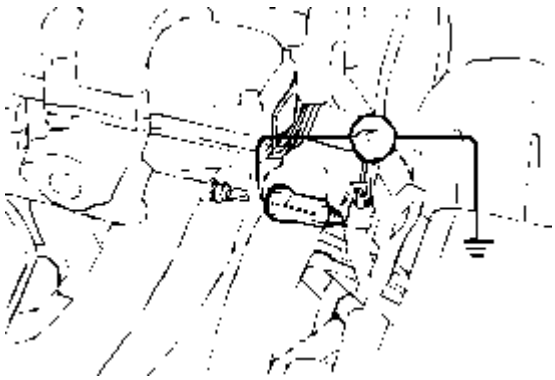
The lamp should be off while thermistor is submerged in the water and should illuminate when the sender is taken out of the water.

> **NOTE**
>
> **If there is a malfunction, replace the fuel sender as an assembly.**

> **CAUTION**
>
> **After completing this test, dry the sender and install in the fuel tank.**

ENGINE COOLANT TEMPERATURE GAUGE

Disconnect the wiring connector from the engine coolant temperature sender in the engine compartment.



Turn the ignition switch ON. Check the gauge's needle indicates cool and turn the ignition switch OFF.

Ground to the harness side connector via the 12V, 3.4 watt test bulb.

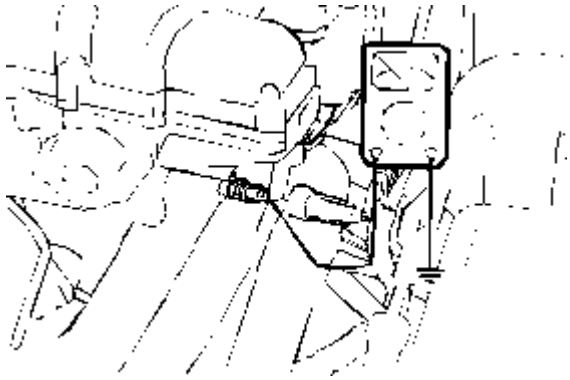
Turn the ignition switch ON.

Check to be sure that test bulb flashes and that the indicator moves to HOT,

If operation is not as specified, replace the sender. Then recheck the system.

ENGINE COOLANT TEMPERATURE SENSOR

Using an ohmmeter, measure the resistance between the terminal and ground.

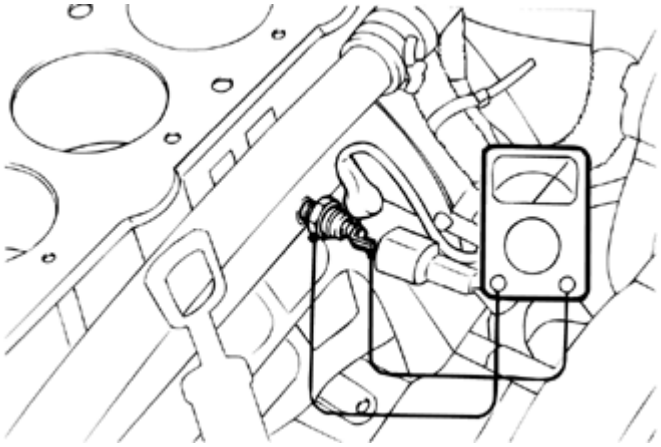


If the resistance value is not as shown in the below table, replace the temperature sender.

Temperature °C	55	85	110	125
Resistance OHM	157	48.4	24	15.2

OIL PRESSURE SWITCH

Check continuity between terminal and ground when engine stopped.



Check no continuity between terminal and ground when the engine running.

If operation is not as specified, replace the switch.

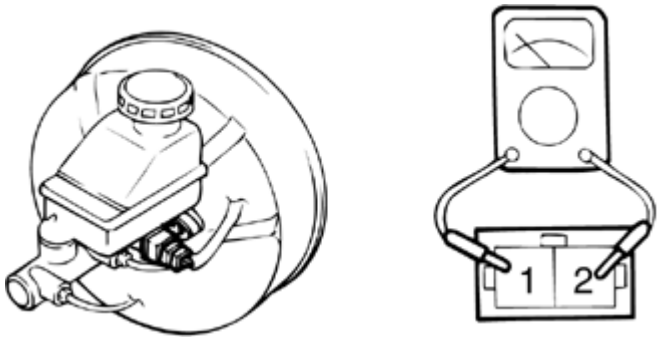
OIL PRESSURE WARNING LAMP

Disconnect the connector from the warning switch and ground terminal ON the wire harness side connector.

Turn the ignition switch ON, check that the warning lamp lights on. If the warning lamp doesn't light, test the bulb or inspect wire harness.

BRAKE FLUID LEVEL WARNING SWITCH

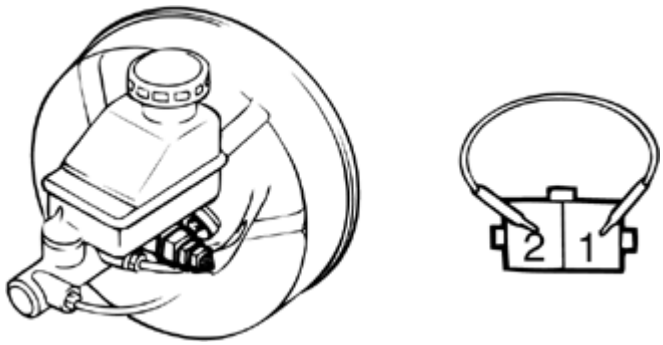
Remove the connector from the switch in the brake fluid reservoir.



Ensure that the continuity exists between switch terminals 1 and 2 while pressing down the switch (float) with a rod.

BRAKE FLUID LEVEL WARNING LAMP

Start the engine.



Release the parking brake.

Release the connector from the brake fluid level warning switch.

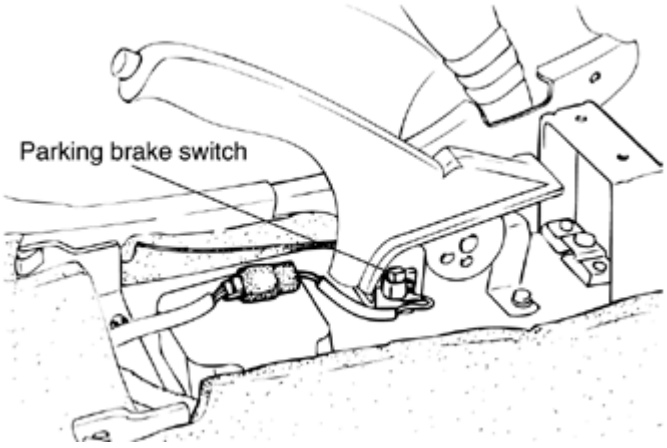
Ground the connector at the harness side.

Ensure that the warning lamp lights.

PARKING BRAKE SWITCH

The parking brake switch is a push type and located under the parking brake lever. To adjust, move the switch mount up and down with the parking brake lever released all the way.

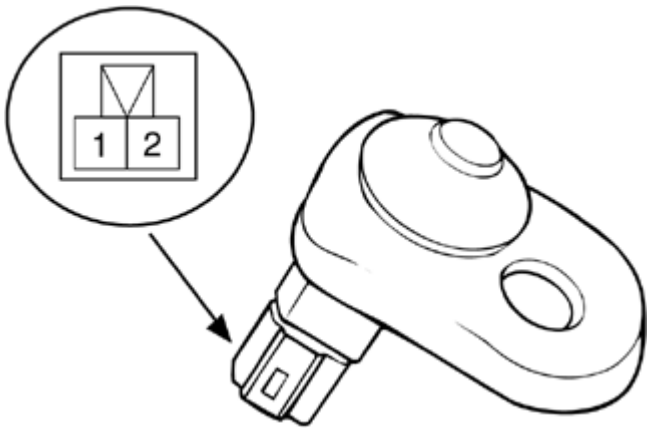
Check continuity between terminal and switch body with the switch ON (Lever is pulled).



Check no continuity between terminal and switch body with the switch OFF (Lever is released).

If continuity is not as specified, replace the switch or inspect ground point.

DOOR SWITCH

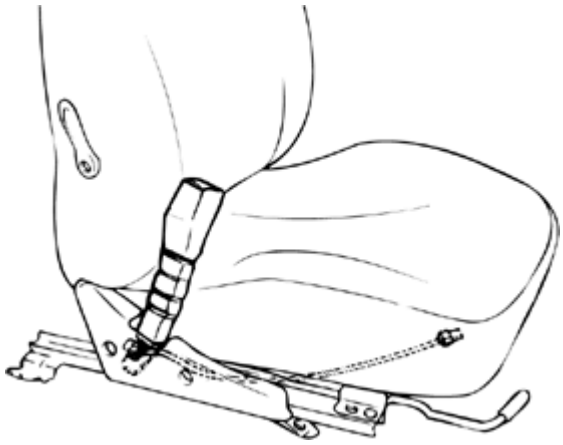


Remove the door switch and check continuity between the terminals.

Lead wire / Position	Ground (Body)	1	2
Free	○	○	○
Push			

SEAT BELT SWITCH

Remove the connector from the switch.



Check continuity between terminals.

Seat belt condition	Continuity
Fastened	Non-conductive
Not fastened	Conductive (0OHM)

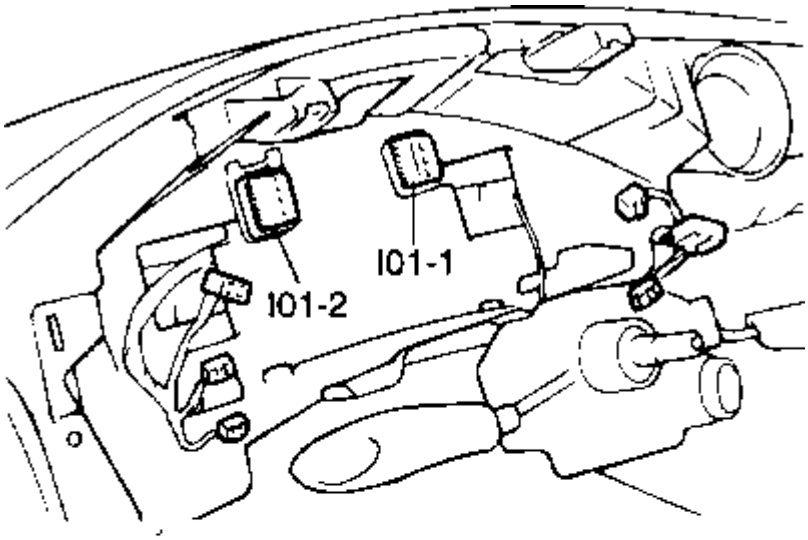
SEAT BELT WARNING LAMP

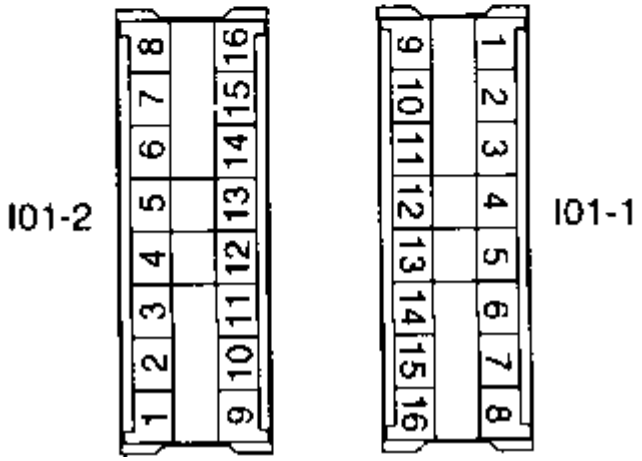
With the ignition switch turned ON, ensure the lamp on.

Seat belt condition	Warning lamp
Fastened	Off
Not fastened	Glows for about six seconds

INSTRUMENT CLUSTER

Remove the instrument cluster, check for the indication between each terminals (harness side) and ground.



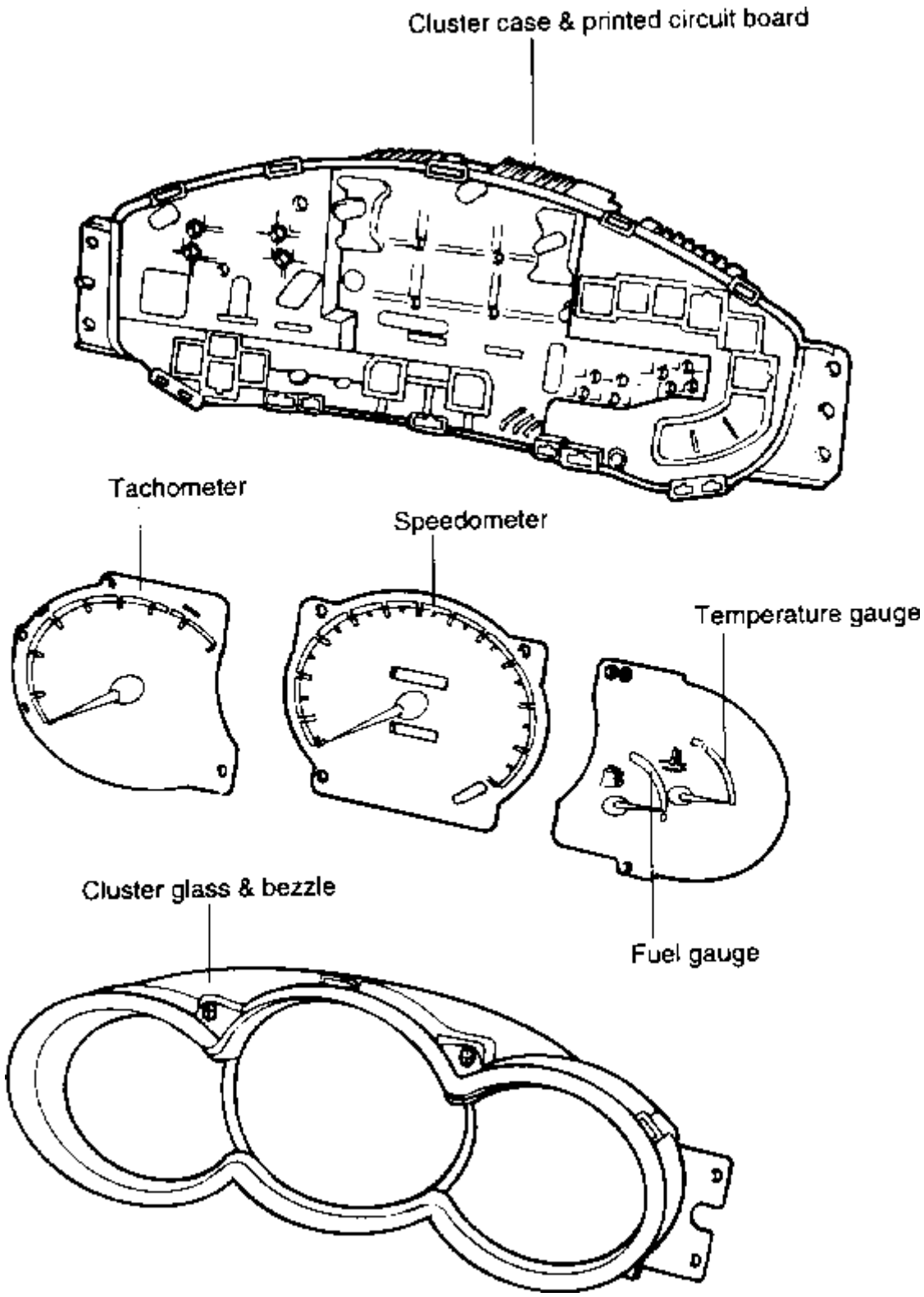


Connector	Terminal	Condition	Indication
I01-1	4	Constant	Battery Voltage
I01-2	11 6	Constant	Continuity
I01-2	2 15	Ignition switch is "ON"	Battery voltage
I01-1	1	Tail switch is "ON"	Battery voltage

SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2001	
GROUP	
Body Electrical System	Gauges

Return to Main Menu(s): Mechanical Manual Electrical Manual

COMPONENTS

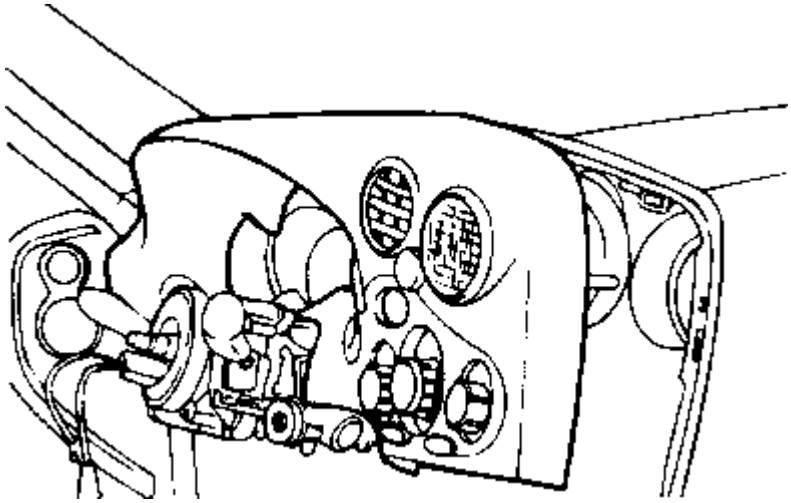


Return to Main Menu(s): Mechanical Manual Electrical Manual

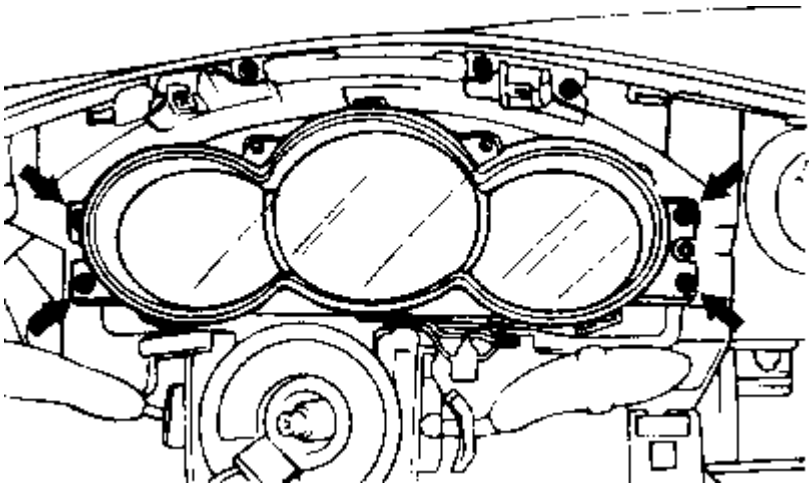
REMOVAL AND INSTALLATION

Disconnect the battery negative terminal.

Remove the mounting screws (5EA) and cluster facia panel. (Refer to BD section).



Remove the cluster mounting screws (4EA) and the instrument cluster.



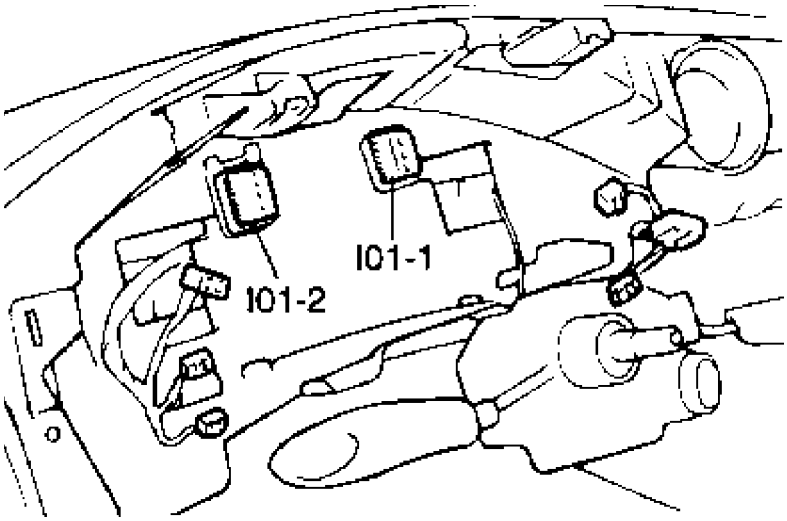
Installation is the reverse order of removal procedure.

Return to Main Menu(s): Mechanical Manual Electrical Manual

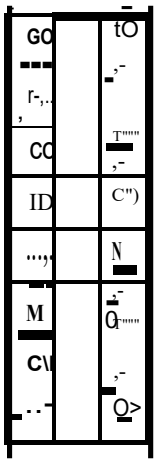
INSPECTION

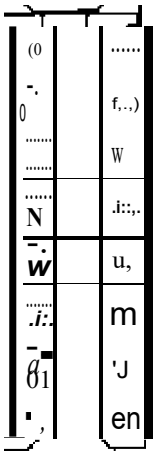
Remove the instrument cluster, check for the indication between each of the terminals (harness side) and ground.

Connector	Terminal	Condition	Indication
I01-1	4	Constant	Battery voltage
I01-2	11 6	Constant	Continuity
I01-2	2 15	Ignition switch is "ON"	Battery voltage
I01-1	1	Tail switch is "ON"	Battery voltage



I01-2



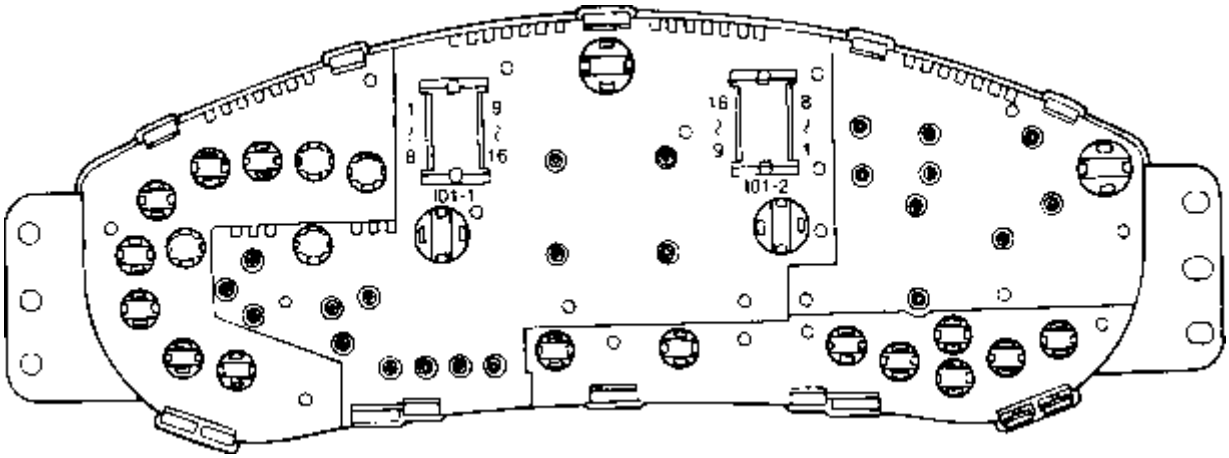


101-1

SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2000	
GROUP	
Body Electrical System	Gauges

Return to Main Menu(s): Mechanical Manual Electrical Manual

PRINTED CIRCUIT BOARD



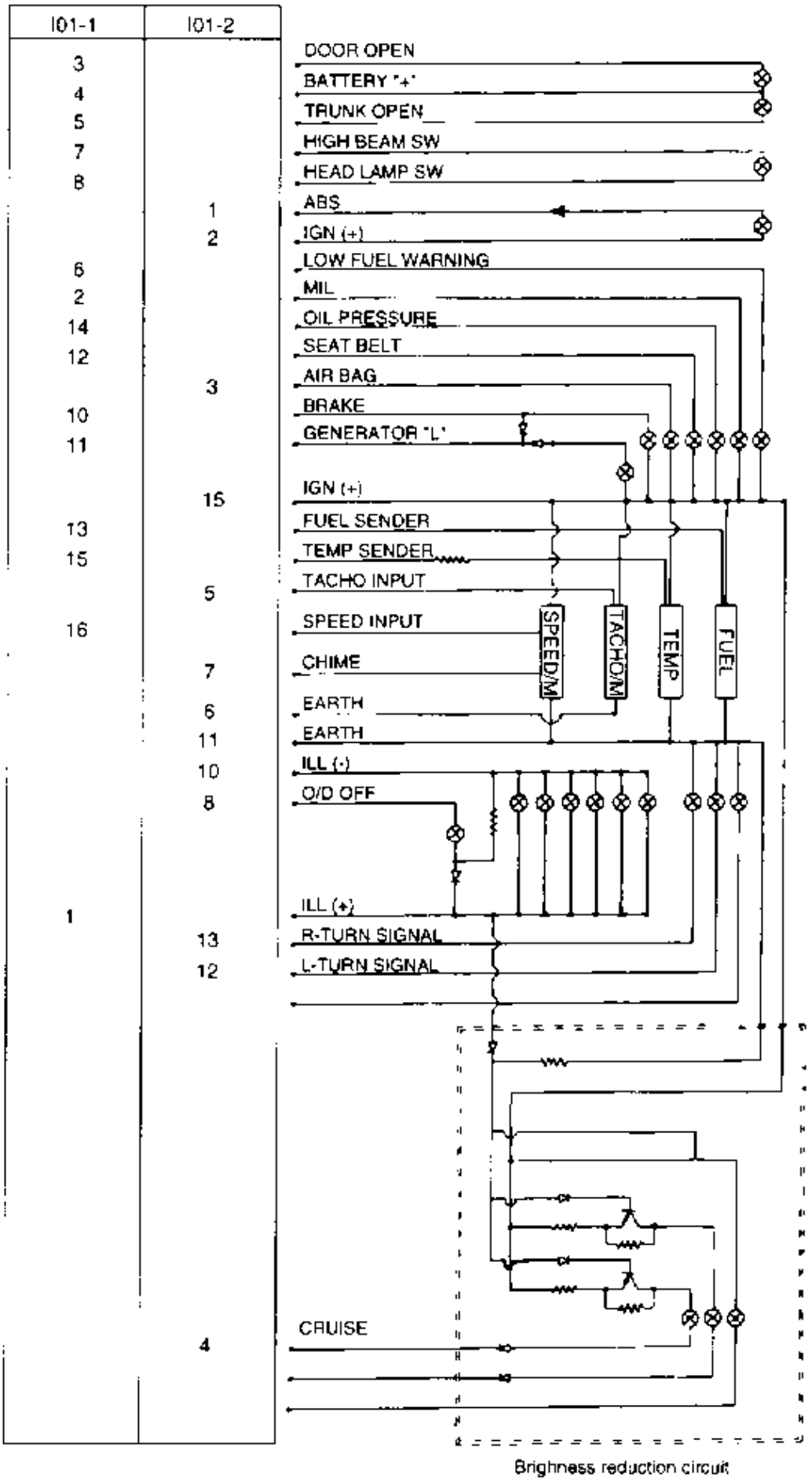
CONNECTOR INFORMATION

Connector	No.1	No.2
Connector No.	I01-1	I01-2
The number of pins	16 PIN	16 PIN

The most left terminal of each terminals in the illustration above is the first terminal.

Return to Main Menu(s): Mechanical Manual Electrical Manual

CIRCUIT DIAGRAM


I01-1
I01-2
DOOR OPEN
BATTERY "+"
TRUNK OPEN
HIGH BEAM SW
HEAD LAMP SW
ABS
IGN (+)
LOW FUEL WARNING
MIL
OIL PRESSURE
SEAT BELT
AIR BAG
BRAKE
GENERATOR "L"
IGN (+)
FUEL SENDER
TEMP SENDER
TACHO INPUT
SPEED INPUT
CHIME
EARTH
EARTH
ILL (-)
O/D OFF
ILL (+)
R-TURN SIGNAL
L-TURN SIGNAL
CRUISE
SPEED/M
TACHO/M
TEMP
FUEL
Brighness reduction circuit

SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2001	
GROUP	
Body Electrical System	Fuse/Relay Box Details

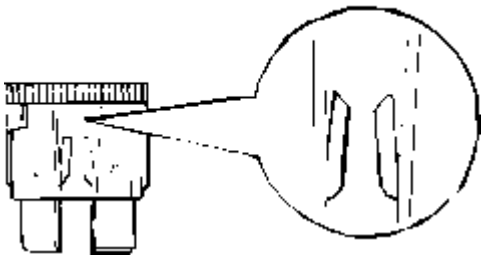
Return to Main Menu(s): Mechanical Manual Electrical Manual

INSPECTION

When a fuse is blown, there are two probable causes as follows. Which of the two causes is responsible can be easily determined by visual check after removing the fuses.

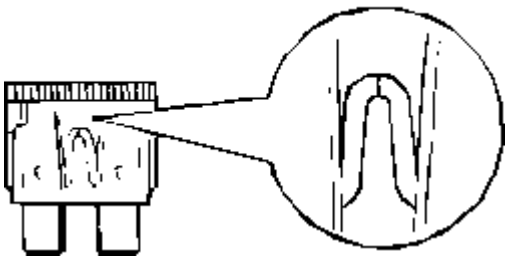
Fuse blown due to over-current. Prior to replacing the fuse with a new one, check the circuit for a short and the related parts for abnormal condition. Only after the correction of a short or replacement of abnormal parts, should a fuse with same ampere rating be installed.

Blown fuse due to overcurrent



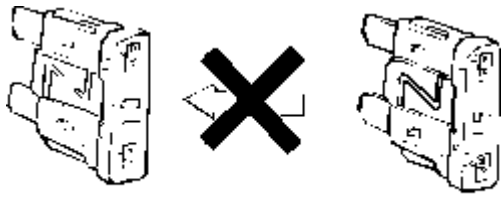
Fuse blown due to repeated current on-off. Normally, this type of problem occurs after fairly long period of use and hence is less frequent than the above type. In this case, you may simply replace with a new fuse of the same capacity.

Blown fuse due to thermal fatigue



CAUTION

A blade type fuse is identified by the numbered value in amperes. If the fuse is burnt-out, be sure to replace a fuse with the same ampere rating. If a fuse of higher capacity than specified is used, parts may be damaged and the danger of fire also exists. To remove or insert a fuse, please use the fuse puller in the fuse box.



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SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2000	
GROUP	
Body Electrical System	Fuse/Relay Box Details

Return to Main Menu(s): Mechanical Manual Electrical Manual

FUSIBLE LINK

ENGINE COMPARTMENT RELAY BOX

SPECIFICATIONS

|	Circuit	Rated Capa-city	Housing Color	|	Circuit	Rated Capa-city	Housing Color
A	Generator	100A	Cobalt Blue	G	Radiator	30A	Pink
B	ECM	20A	Blue	H	ABS	30A	Pink
C	Power window	30A	Pink	I	ABS	20A	Blue
D	Condenser	20A	Blue	J	Ignition	30A	Pink
E	Battery	50A	Red	K	Blower	30A	Pink
F	Lamps	30A	Pink	|	|	|	|

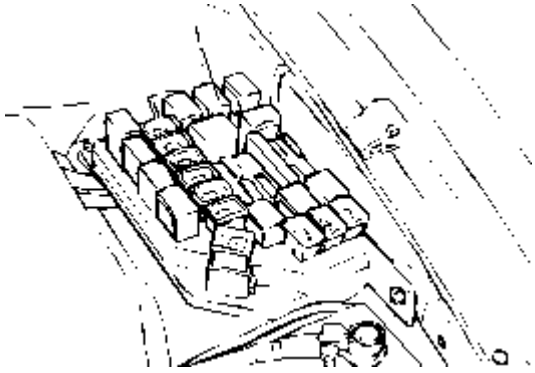
INSPECTION

Check for a burnt fusible link with an ohmeter.

If a fusible link burns out, there is a short or some other problem in the circuit. Carefully determine the cause and correct it before replacing the fusible link.

CAUTION

The fusible link will burn out within 15 seconds if a higher than specified current flows through the circuit.



SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2000	
GROUP	
Body Electrical System	Exterior Lamps

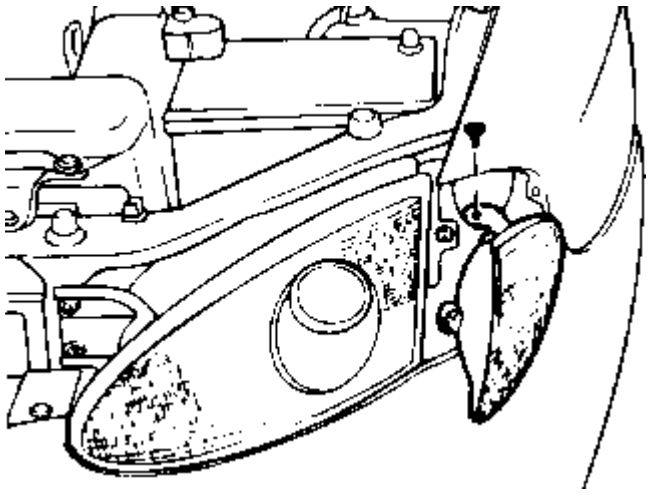
Return to Main Menu(s): Mechanical Manual Electrical Manual

REPLACEMENT OF LAMPS

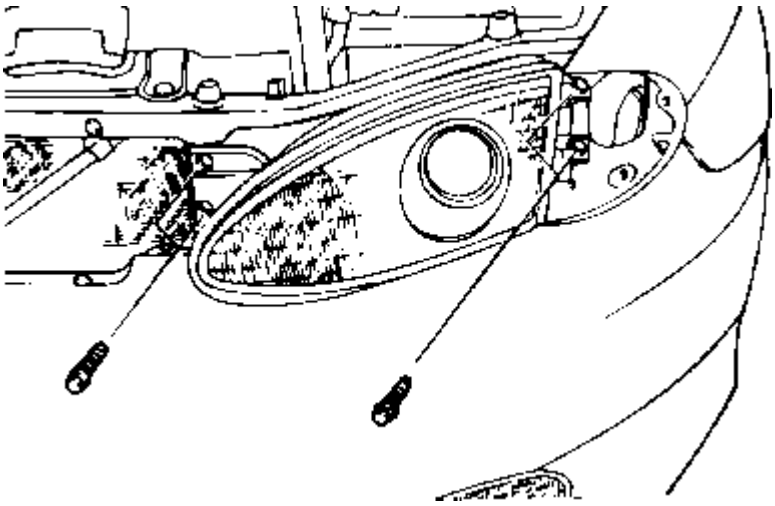
HEAD LAMP/TURN SIGNAL LAMP

Disconnect the battery negative terminal.

Remove the screw and the turn signal lamp.



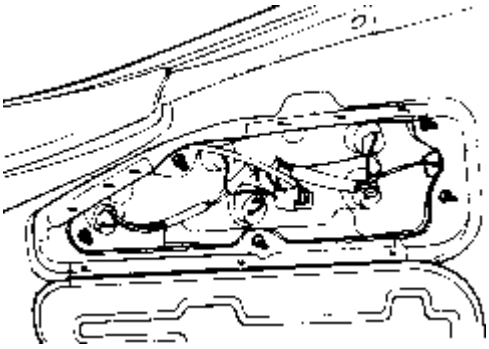
Remove the head lamp mounting bolts (4EA) and remove the head lamp assembly.



Installation is the reverse order of removal procedure.

REAR COMBINATION LAMP

Disconnect the negative terminal from the battery.



Open the trunk lid.

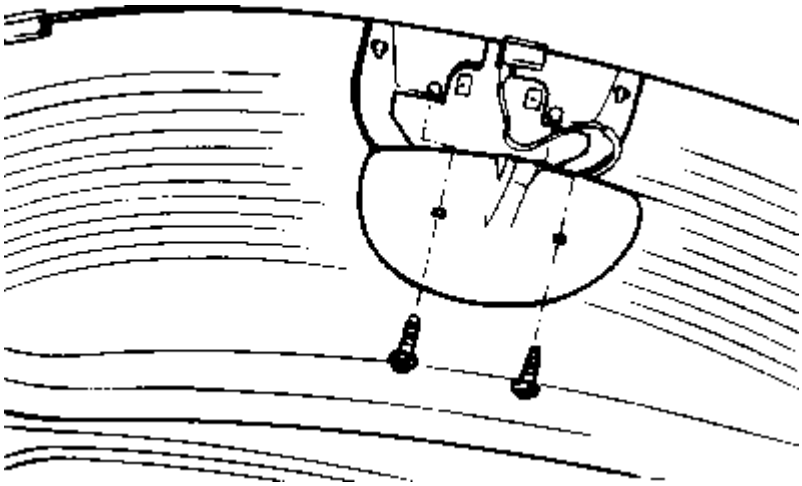
With rear luggage cover opened, remove the mounting nuts. (5EA)

Disconnect the connector, remove the lamp assembly.

Installation is the reverse order of removal procedure.

HIGH MOUNTED STOP LAMP

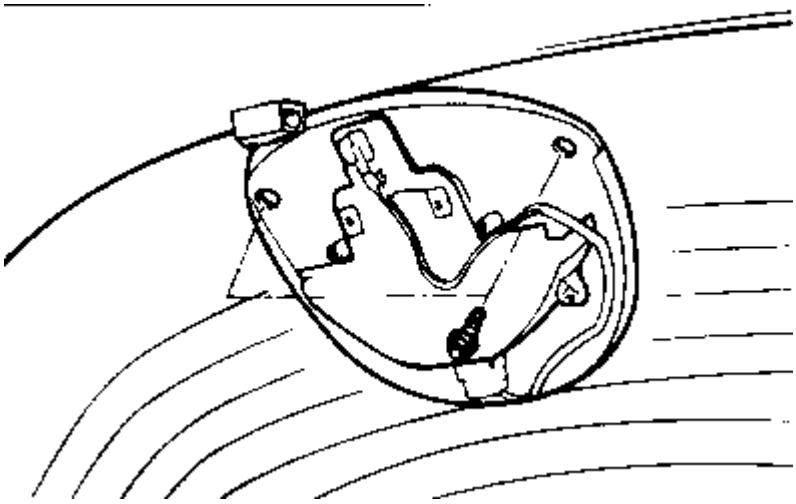
Disconnect the battery negative terminal.



Using a (-) driver, detach 2 blanking covers on both sides of the lamp.

Remove the mounting screws (2EA).

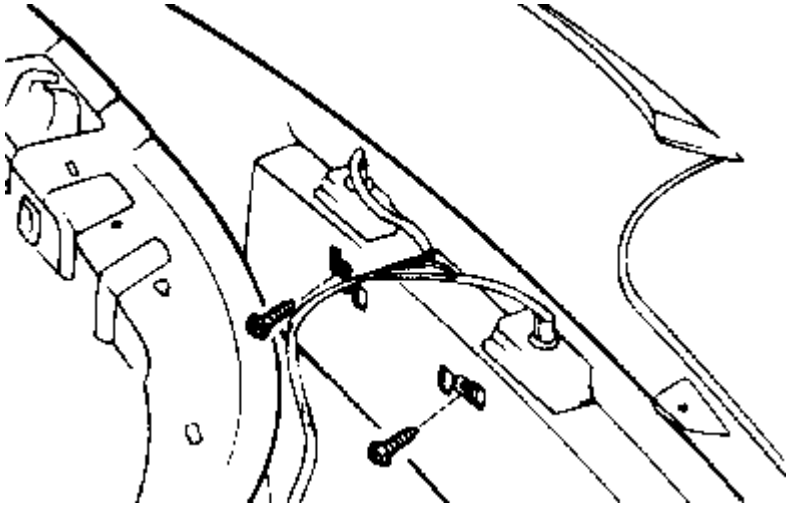
Disconnect the connector and remove the lamp assembly.



Installation is the reverse order of removal procedure.

LICENSE PLATE LAMPS

Disconnect the battery negative terminal.



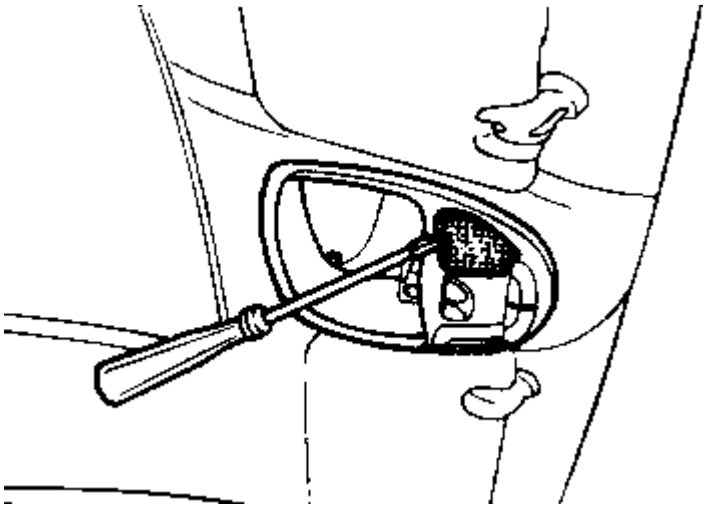
Remove the rear bumper. (Refer to BD section).

Remove the license plate lamp mounting screw and bulb from the lamp assembly.

Installation is the reverse order of removal procedure.

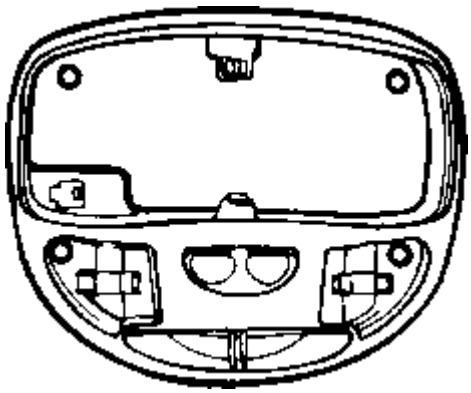
OVERHEAD CONSOLE LAMP

Disconnect the battery negative terminal.



Using a (-) driver, detach the map lamp lens.

Detach the lamp assembly from the head lining after removal of the screws (2EA).

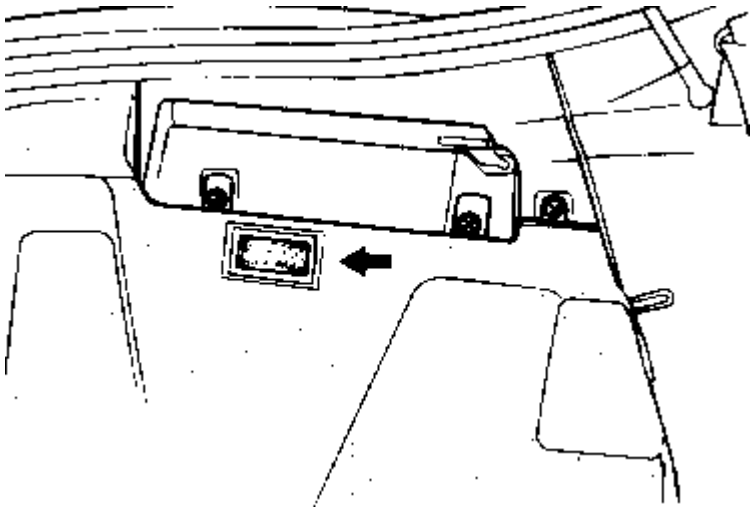


Disconnect the connector from the roof harness

Installation is the reverse order of removal procedure.

LUGGAGE LAMP

Using a (-) driver, detach the luggage lamp.



Disconnect the connector from the harness.

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INSPECTION OF COMPONENTS

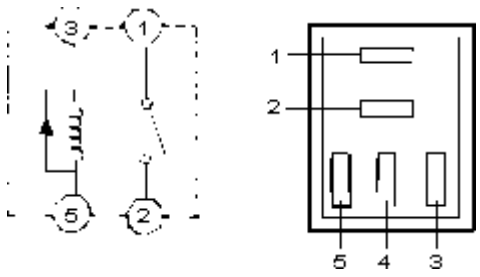
RELAY (HEADLAMP & TAILLAMP)

Pull out the headlamp relay from the relay box in engine compartment.

Check for continuity between terminals.

Terminal / Position	1	2	3	5
When de-energized			○	○
When energized	○	○	⊕	⊖

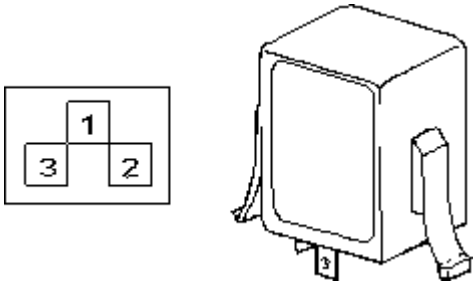
NOTE:
1. ○—○ : Indicates that there is continuity between the terminals.
2. ⊕—⊖ : Indicates that power is supplied.



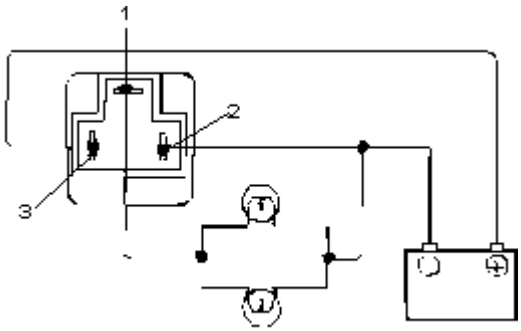
FLASHER UNIT

Remove the flasher unit from the relay box in passenger compartment.

Connect the positive (+) lead from the battery to terminal 3 and the negative (-) lead to terminal 2.



Connect the two turn signal lamps parallel to each other to terminal 1 and 2, check that the bulbs turn on and off.



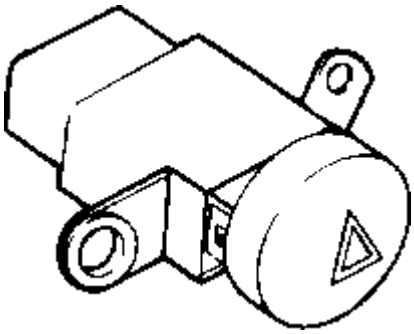
Turn signal lamp bulbs (27W)

NOTE

The turn signal lamps should flash 60 to 120 times per minute. If one of the front or rear turn signal lamps has an open circuit, the number of flashes will be more than 120 per minute. If operation is not as specified, replace the flasher unit.

HAZARD SWITCH

Disconnect the battery negative terminal.

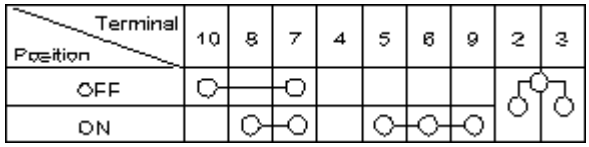


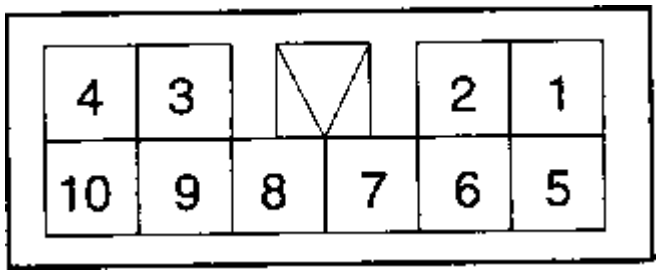
Remove the cluster facia panel and the switch mounting screw. (2EA)

Remove the hazard switch from the facia panel.

Disconnect the connector from crash pad harness.

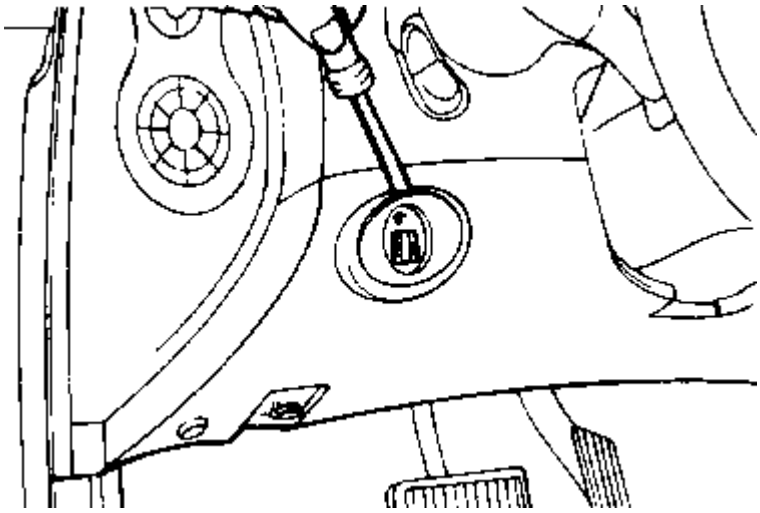
Operate the switch and check for continuity between terminals by using an ohmmeter.





RHEOSTAT

Disconnect the battery negative terminal.

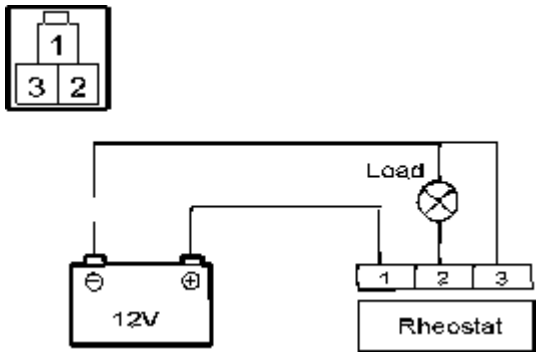


Pull out the rheostat assembly using a (-) driver.

Disconnect the connector from the harness.

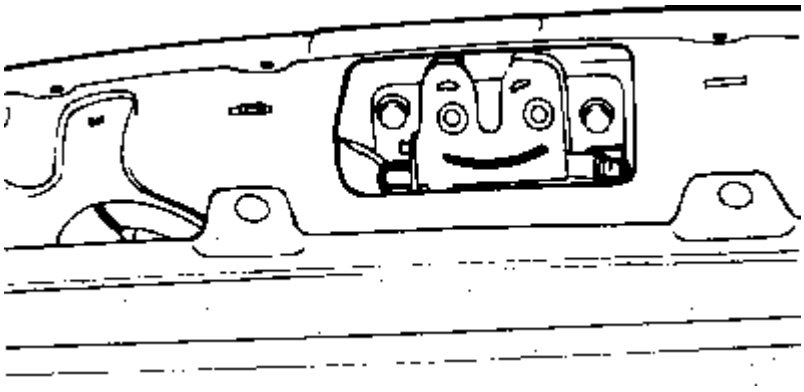
Remove the rheostat assembly.

Check for intensity of lamp load. If the light intensity of the lamps changes smoothly without any flickering when the rheostat is turned, the rheostat is normal.



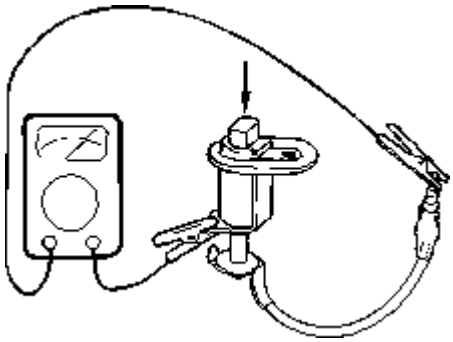
LUGGAGE COMPARTMENT LAMP SWITCH

Disconnect the battery negative terminal.



After opening the trunk, disconnect the connector from rear harness.

Check for continuity between terminal and body while pushing the rod.



Switch rod condition	Continuity
Pushed (OFF)	Non-conductive (INFINITE OHM)
Released (ON)	Conductive (0OHM)

SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2000	
GROUP	
Body Electrical System	Exterior Lamps

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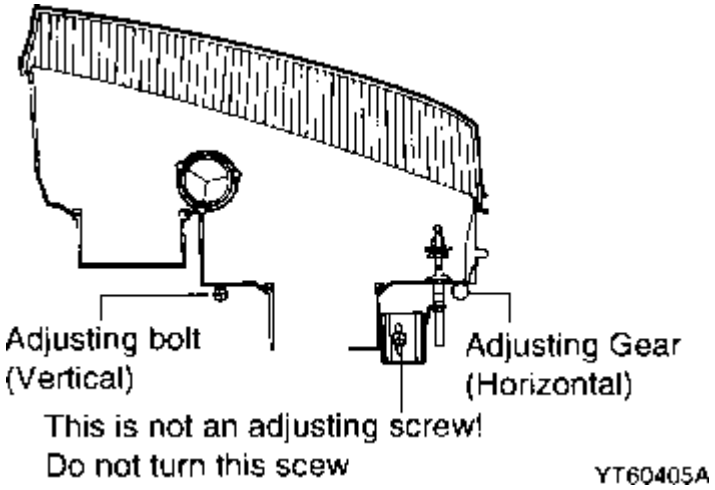
HEADLIGHT AIMING ADJUSTMENT

Before performing aiming adjustment, make sure of the following.

Keep all tires inflated to the correct pressure.



Place the vehicle on level ground and press the front bumper & rear bumper down several times.

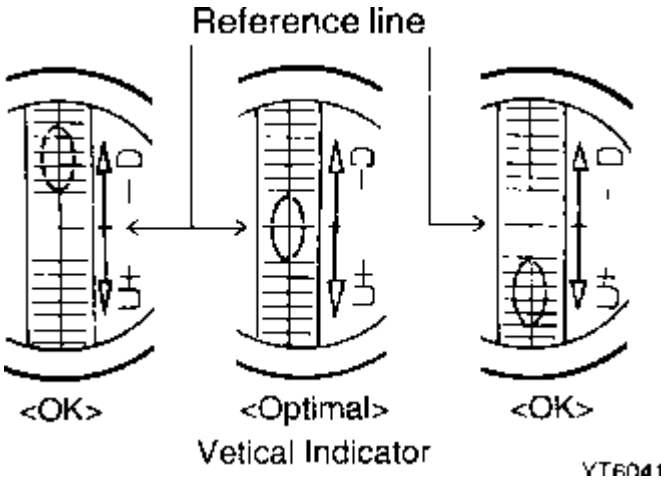
See that the vehicle is unloaded (except for full levels of coolant, engine oil and fuel, and spare tire, jack and tools).

Clean the head lights lens and turn on the headlight (Lower beam).

Open the hood.

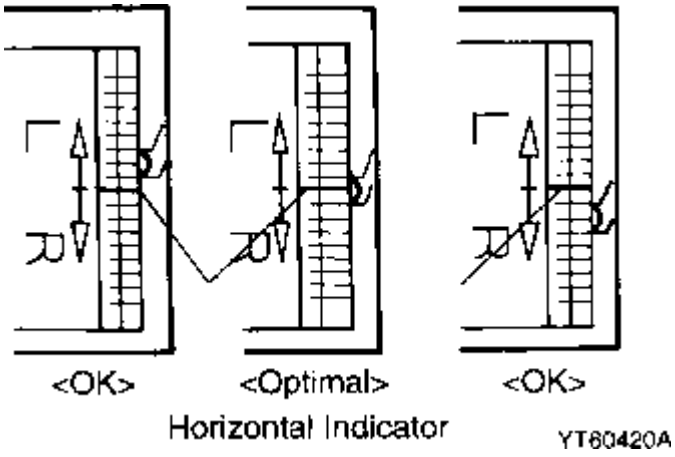
Adjust the vertical indicator by turning the adjusting bolt with a Phillips screwdriver.

The bubble in the gauge should be in line with the reference line.



Adjust the horizontal indicator by turning the adjusting gear with a Phillips screwdriver.

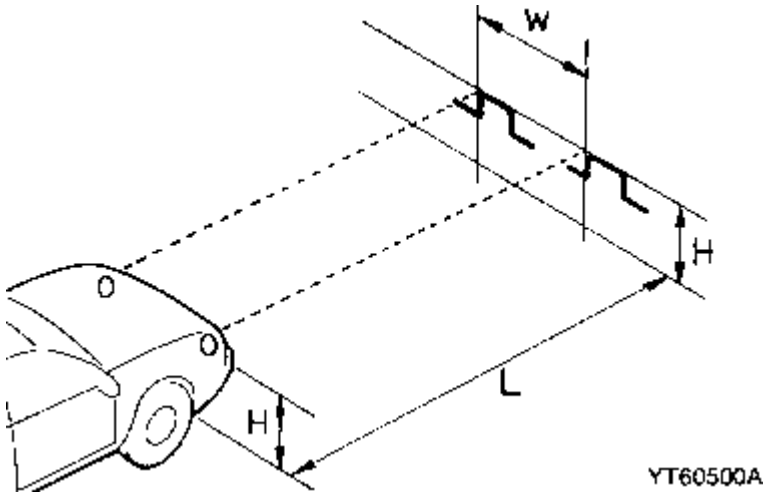
The indicator should be in line with the "O" line.



ADJUSTMENT AFTER HEADLIGHT ASSEMBLY REPLACEMENT

If the vehicle has had front body repair and the headlight assembly has been replaced, the headlight aiming should be checked using the timing chart as shown in the illustration. Turn on the headlight switch (Low Beam Position).

Adjust headlights so that main axis of light is parallel to center line of the body and is aligned with point P shown in the illustration.



Dotted lines in the illustration show center of headlights.

"H" : Horizontal center line of headlights from ground. 23.3 in (593 mm : With driver)

"W" : Distance between each headlight center. 42.1 in (1070 mm)

"L" : Distance between the headlights and the wall that the lights are tested against. 118.11 in (3,000 mm)

Even if the horizontal indicator does not align with the reference line or the vertical indicator bubble is not centered in the reference line after aiming by the chart, it is acceptable if they are within the O.K. ranges.

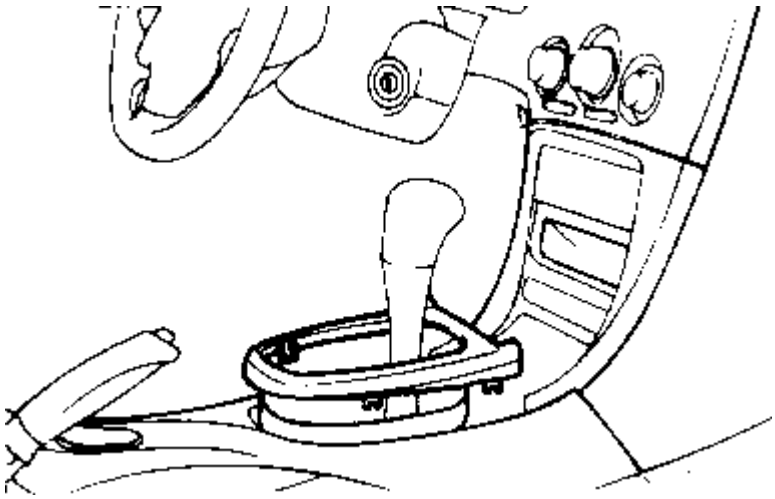
SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2001	
GROUP	
Body Electrical System	Electronic Time & Alarm Control System (ETACS)

Return to Main Menu(s): Mechanical Manual Electrical Manual

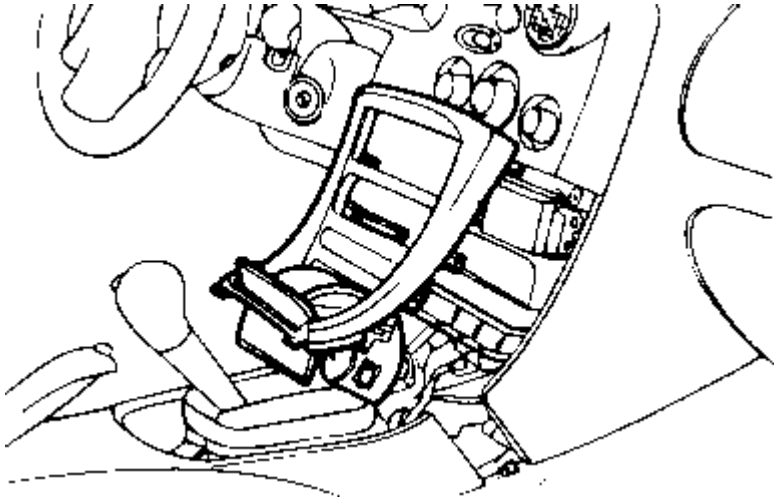
REMOVAL AND INSTALLATION

Disconnect the battery negative terminal.

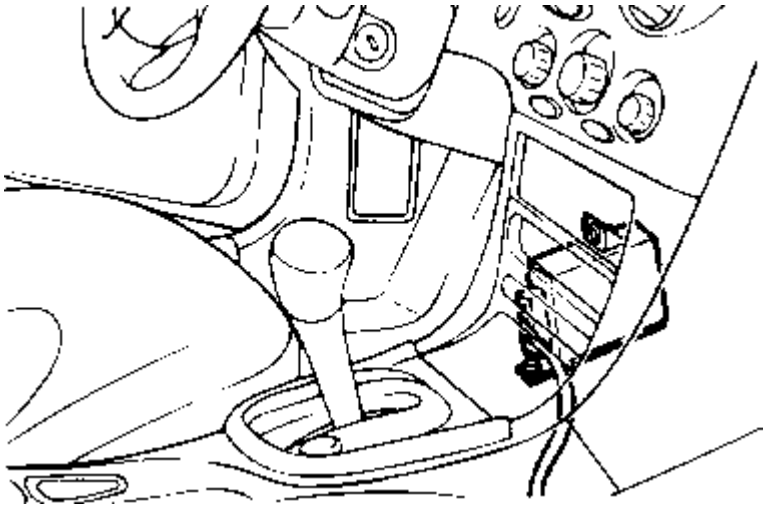
Remove the shift lever boot using a (-) driver.



Remove the center facia panel.



After removal of ETACM (Electronic Time and Alarm Control Module) mounting bolts (2EA), disconnect its connector.



Installation is the reverse order of removal procedure.

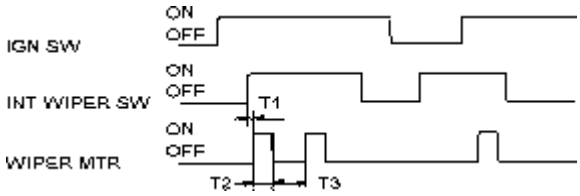
Return to Main Menu(s): Mechanical Manual Electrical Manual

INSPECTION

Check that the following components operates normally as timing chart.

VARIABLE INTERMITTENT WIPER

T1: 0.15 sec MAX.

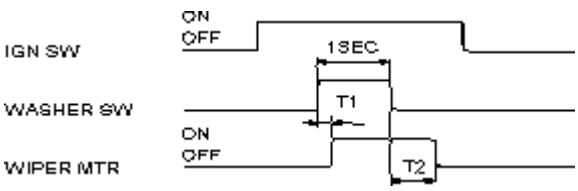


T2: 0.7 sec. (Time of wiper motor 1 rotation)

T3 : 1.5 ± 0.7 sec. (at VR=0 kOHM) ~ 10.5 ± 1 sec. (at VR=500 kOHM)

WIPER MOTOR RELATED TO WASHER

T1: 0.5 sec.

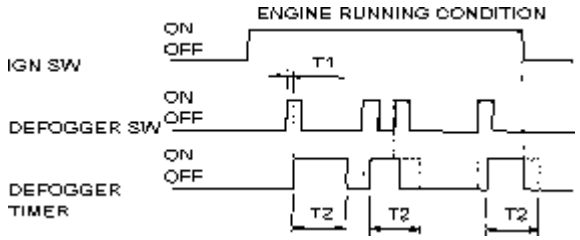


T2: 2.5 - 3.8 sec

This function should be operated preferentially even though the variable intermittent wiper is operating.

REAR DEFOGGER TIMER

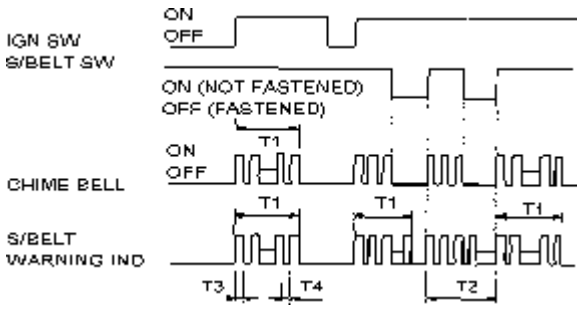
T1: 0.1 sec. MAX.



T2: 15 ± 3 min.

SEAT BELT WARNING

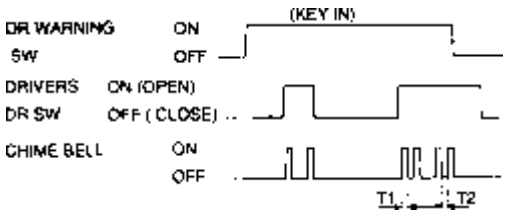
Operating characteristic:



T1:6 ± 1 sec. T2: MAX. 6 ± 1 sec. T3, T4: 0.3 ± 0.1 sec.

DOOR WARNING

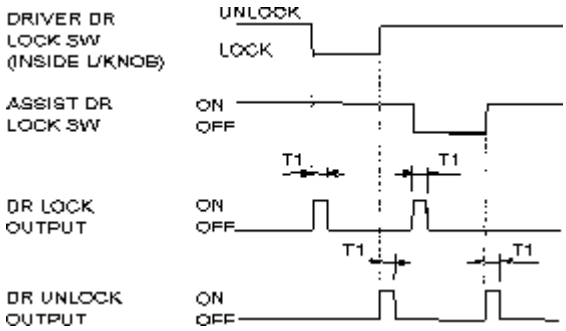
Operating characteristic:



T1, T2: 0.3 ± 0.1 sec.

CENTRAL DOOR LOCK/UNLOCK

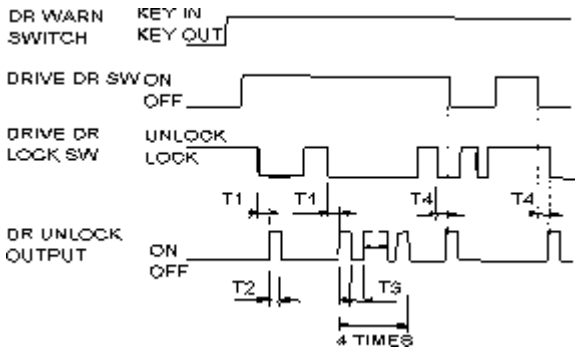
Operating characteristic:



T1: 0.5 ± 0.1 sec.

IGNITION KEY REMINDER

Operating characteristic:



T1: 0.5 sec. T2: 1 sec. T3: 0.5 sec. T4: Max. 0.5 sec.

SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2001	
GROUP	
Body Electrical System	Cigarette Lighter/Power Outlet

Return to Main Menu(s): Mechanical Manual Electrical Manual

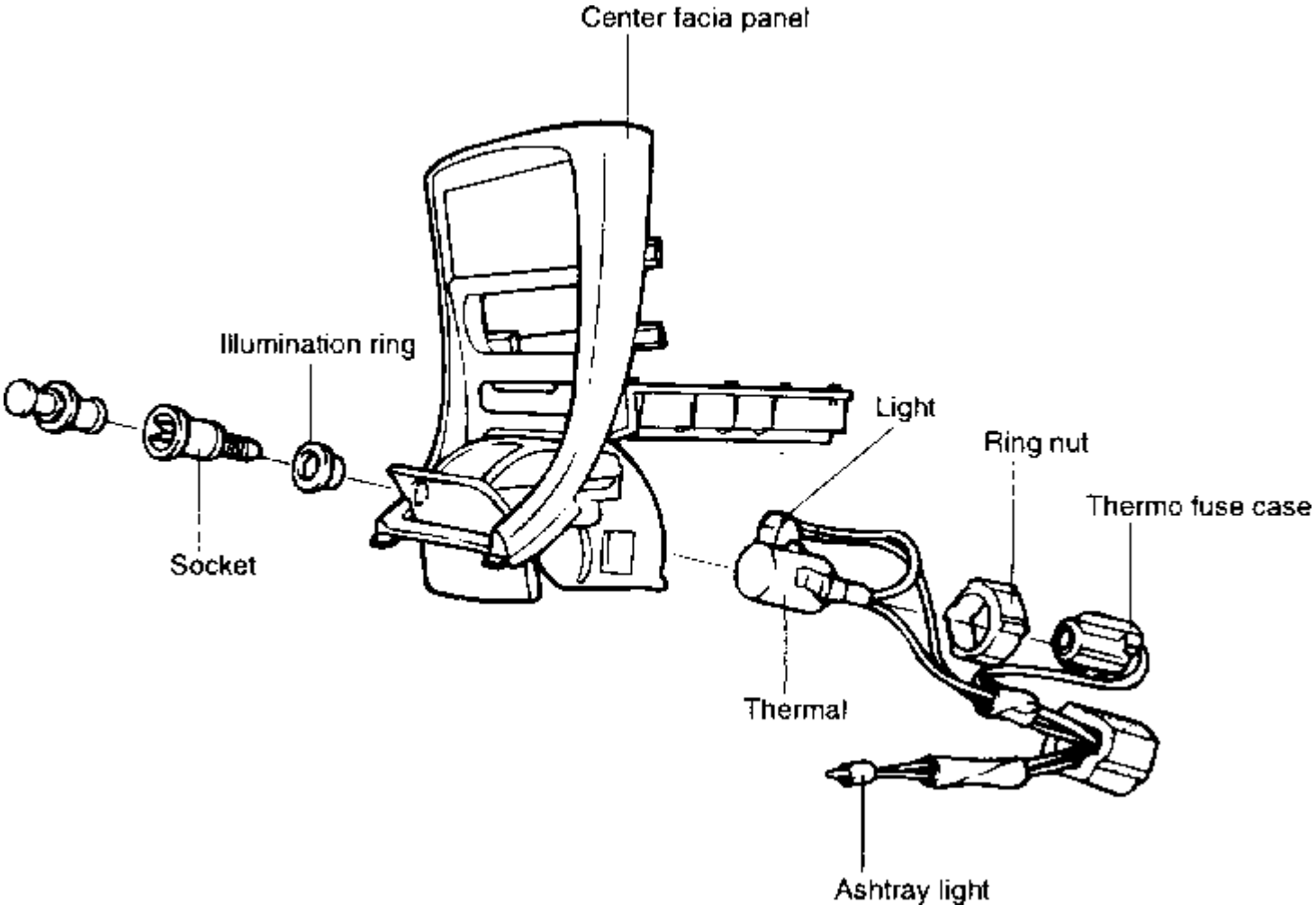
REMOVAL AND INSTALLATION

Remove the facia panel. (Refer to BD section)

Then disconnect the 3-p connector from the cigarette lighter.

Disconnect the thermal fuse case from the socket end.

Remove the ring nut and separate the cigarette lighter socket from the thermal protector.



NOTE

When installing the cigarette lighter, align each lug on the illumination ring and cigarette lighter socket with the groove of the hole, then position the bulb case on the thermal protector between the stoppers of the center facia panel.

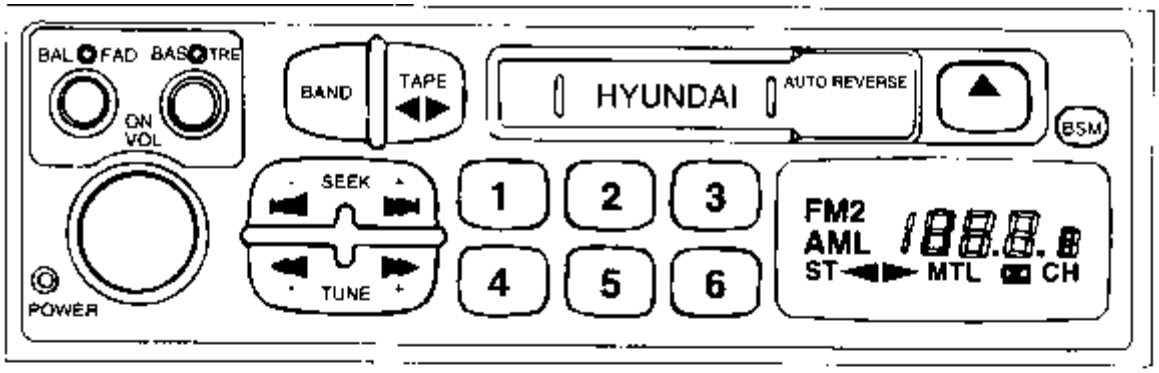
CAUTION

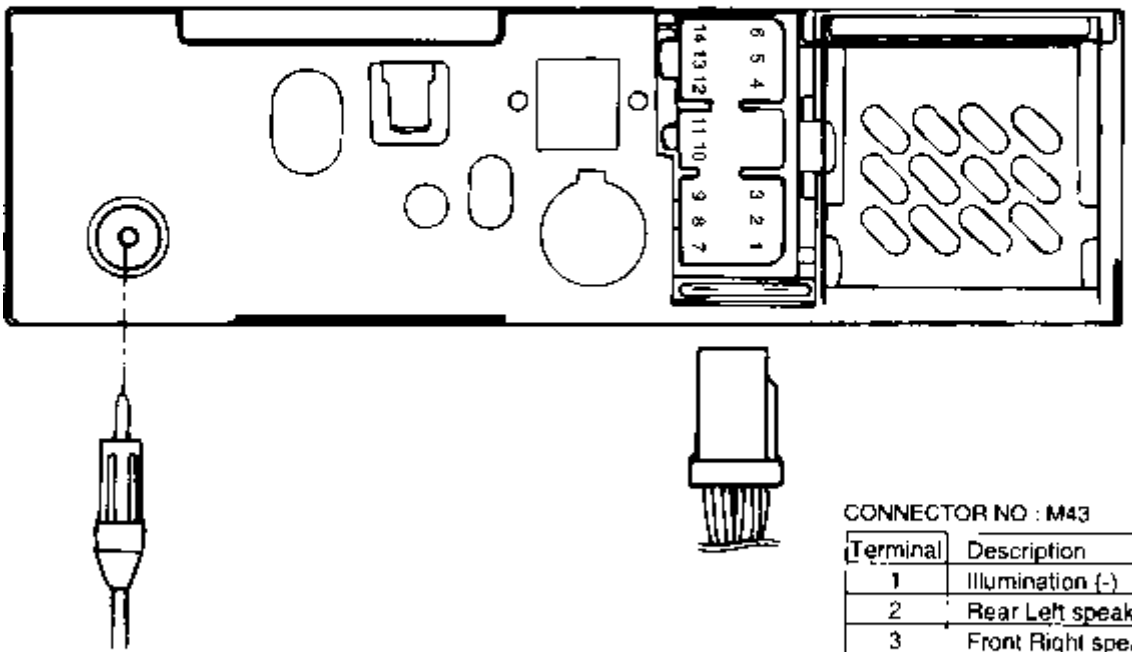
When the auxiliary power is used to cigarette lighter socket, don't use anything with a load of more than 120W. It is recommended that only the lighter be inserted into the holder.

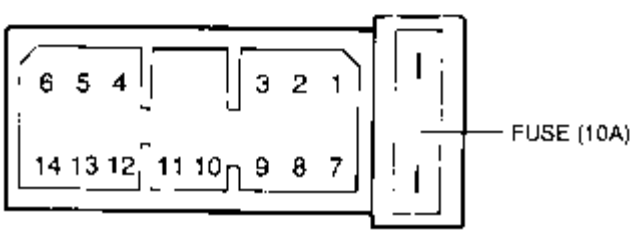
SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2000	
GROUP	
Body Electrical System	Audio & Antenna

Return to Main Menu(s): Mechanical Manual Electrical Manual

COMPONENTS







CONNECTOR NO : M43

Terminal	Description
1	Illumination (-)
2	Rear Left speaker (-)
3	Front Right speaker (-)
4	Front Left speaker (-)
5	Rear Left speaker (-)
6	Power antenna
7	Illumination (+)
8	Rear Right speaker (+)
9	Front Right speaker (+)
10	Acc (+)
11	Battery (+)
12	Front Left speaker (+)
13	Rear Left speaker (+)
14	Ground

SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2000	
GROUP	
Body Electrical System	Audio & Antenna

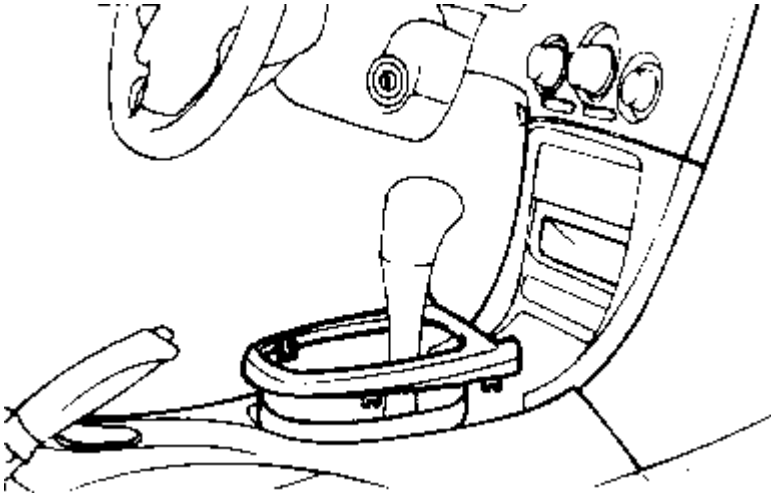
Return to Main Menu(s): Mechanical Manual Electrical Manual

REMOVAL AND INSTALLATION

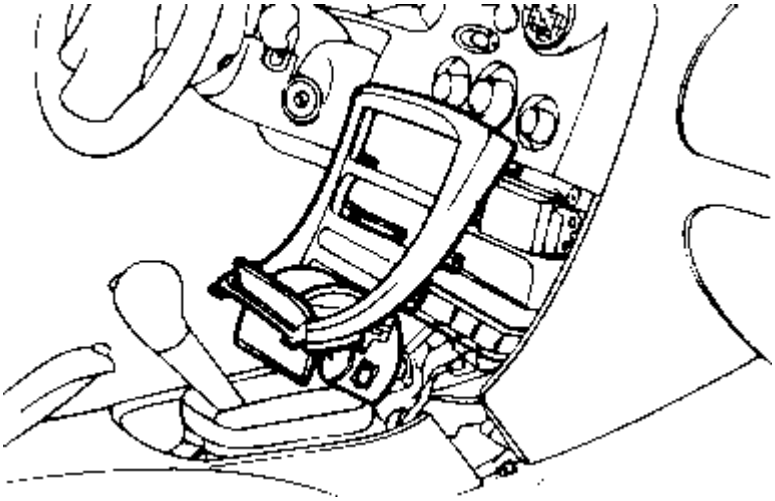
AUDIO

Disconnect the battery negative terminal.

Remove the shift lever boot using a (-) driver.

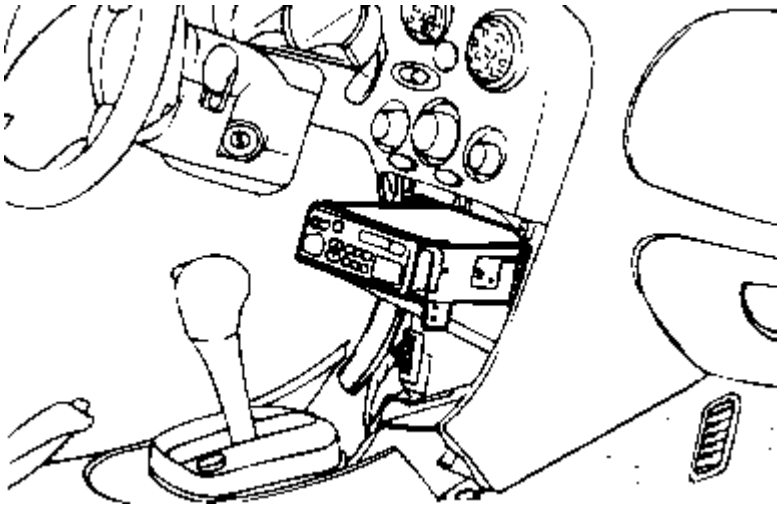


Remove the center facia panel.



Remove the audio mounting screws (4EA) and the audio.

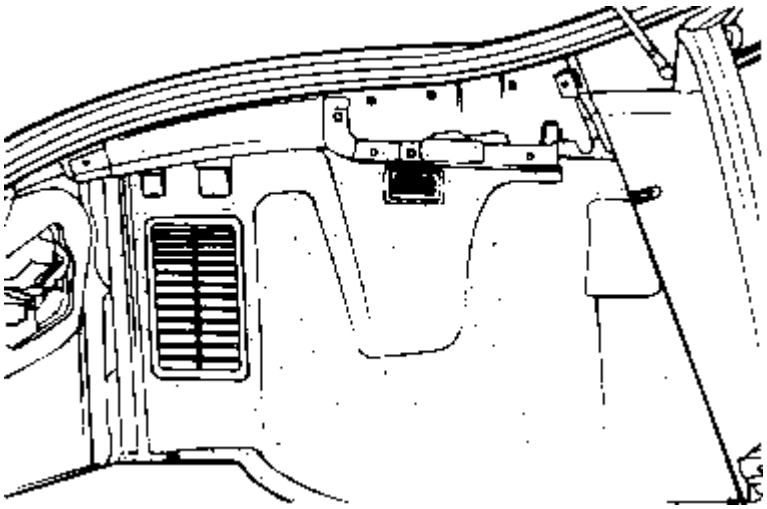
Installation is the reverse order of removal procedure.



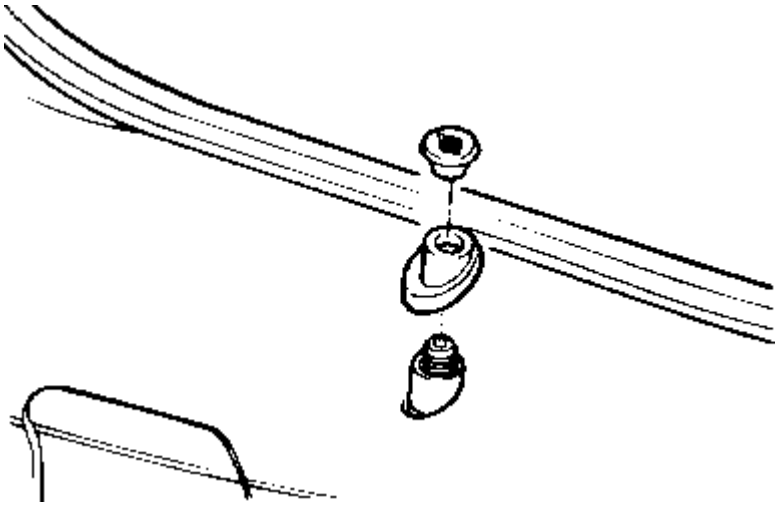
ANTENNA

Disconnect the battery negative terminal.

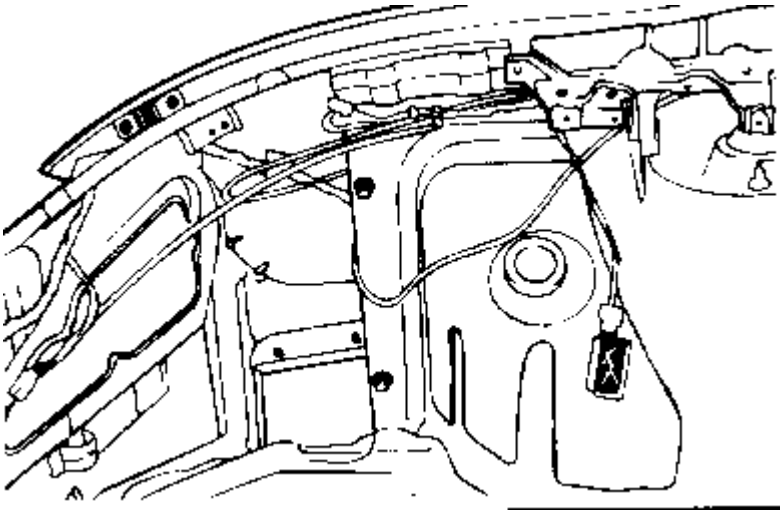
Remove the trim cover and LH luggage side trim.



Remove the antenna mounting nut and insulator.

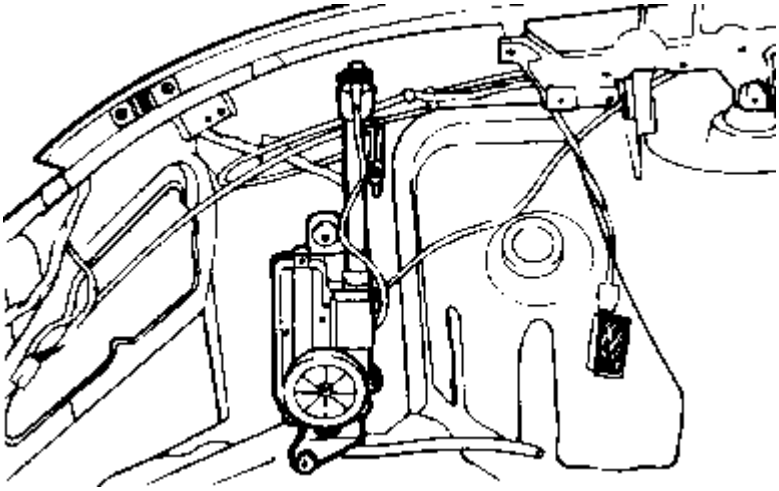


Remove the antenna mounting nuts (2EA: Manual 1EA).



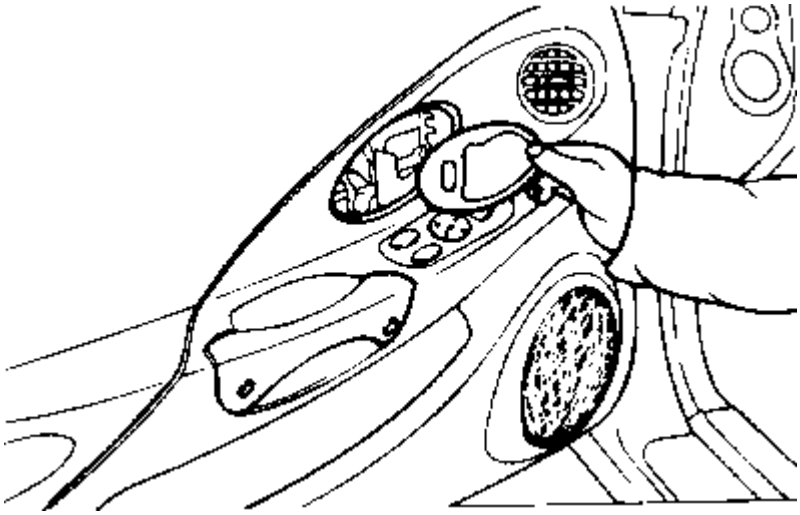
Remove the antenna cable and connector and the antenna assembly.

Installation is the reverse order of removal procedure.

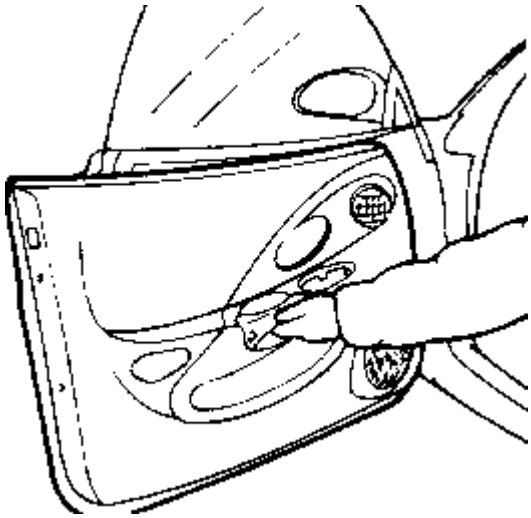


FRONT SPEAKER

Remove the inside handle mounting screw, and separate the inside handle assembly from the door latch mechanism by removing the handle's plastic hook.

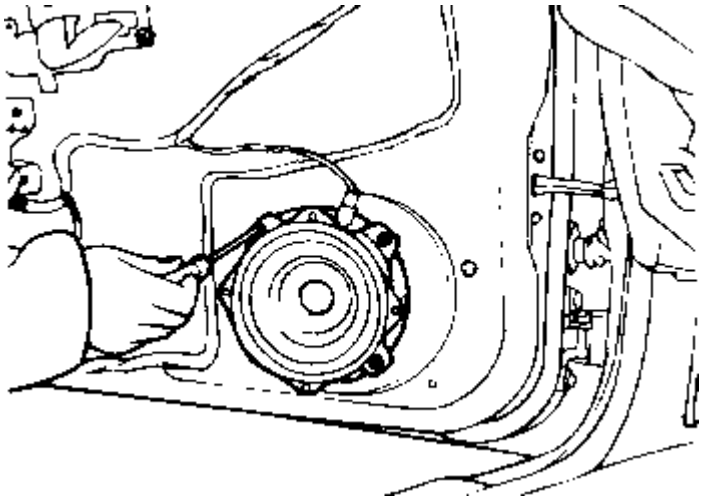


Remove the door trim by removing door trim mounting screws and fasteners.



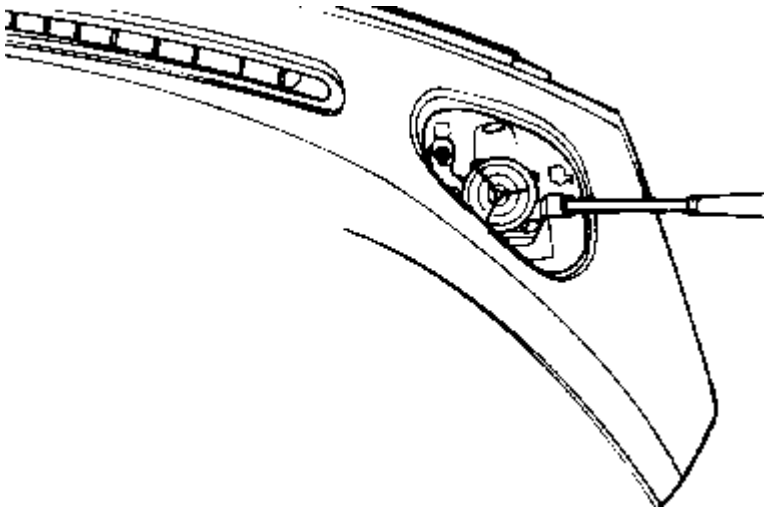
Remove the speaker mounting screws (3EA) and the speaker assembly.

Installation is the reverse order of removal procedure.

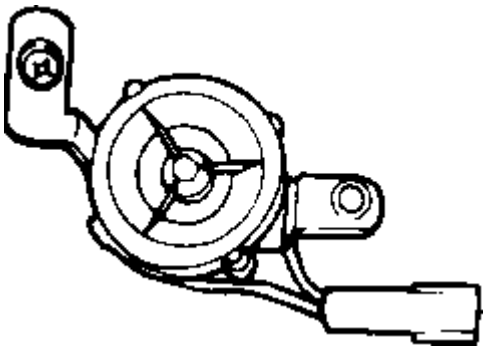


TWITTER SPEAKER

Remove the speaker grill and speaker mounting screw. (2EA)

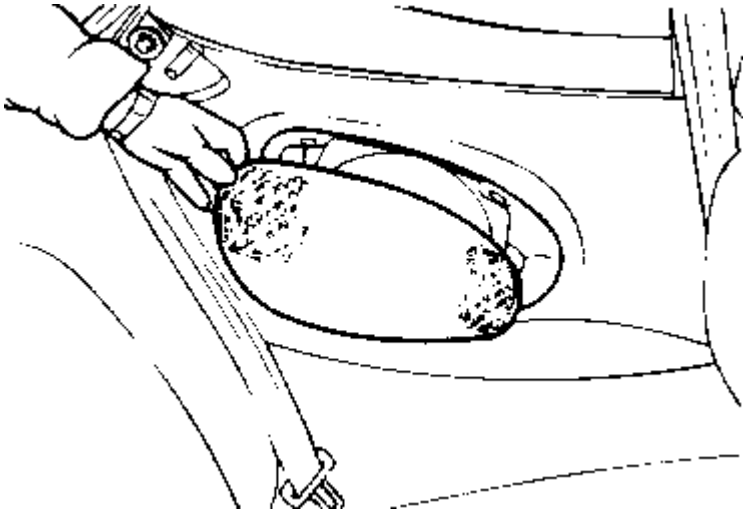


Remove the speaker.



REAR SPEAKER

Remove the speaker grill and mounting screw.



Remove the speaker.

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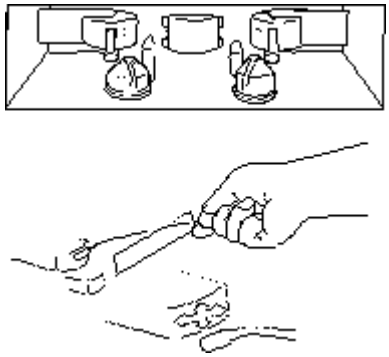
SERVICE ADJUSTMENT PROCEDURES

TAPE HEAD AND CAPSTAN CLEANING

To obtain optimum performance, clean the head and capstan as often as necessary, depending upon frequency of use and tape cleanness.

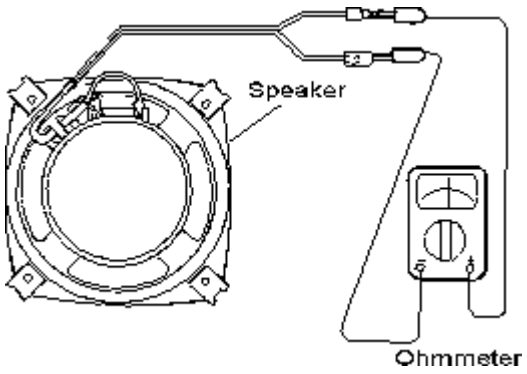
To clean the head and capstan, use a cotton swab dipped in ordinary rubbing alcohol. Wipe the head and capstan.



SPEAKER CHECKING

Check the speaker by using an ohmmeter. If an ohmmeter indicates the impedance of the speaker when checking between the speaker (+) and speaker (-) of the same channel, the speaker is normal.

If clicking sound is emitted from the speaker when the ohmmeter plugs touch the speaker terminals, the speaker is normal.

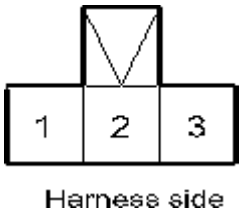


AUTOMATIC ANTENNA INSPECTION

Disconnect the connector from the antenna assembly.

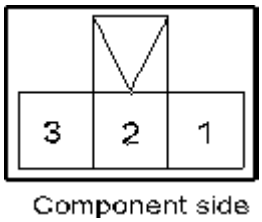
Check if the battery voltage is measured between terminal 1 and 3 of harness side at all time,

Check if the battery voltage is measured between terminal 1 and 2 of harness side when ignition switch and audio switch is turned on.



After connecting battery source to terminal 2 and 3 of component side, check if the motor operates (Antenna moves up.)

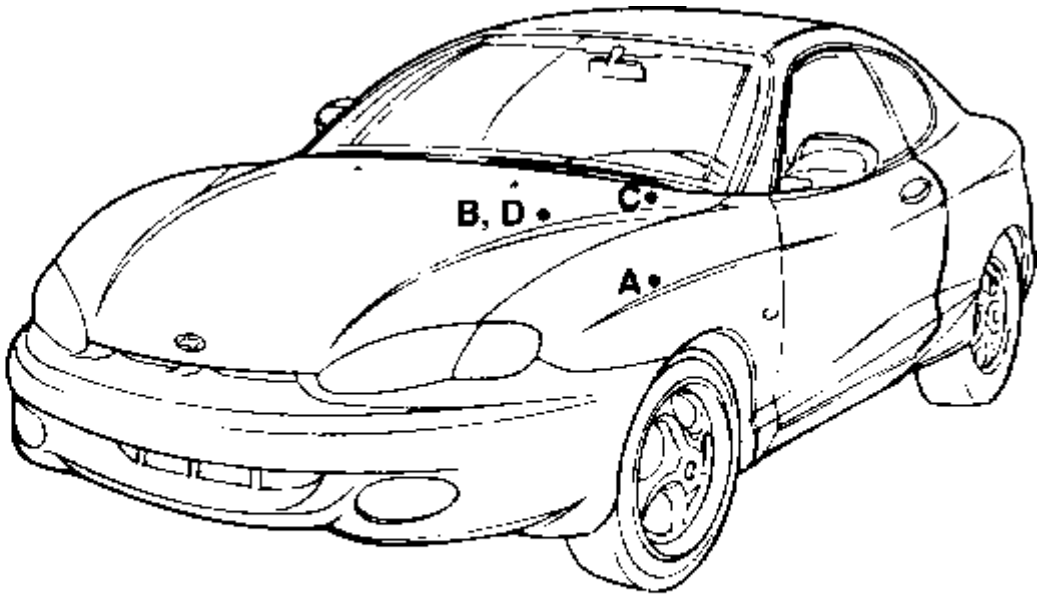
Check if the motor operates (Antenna moves down) when the terminal 2 is disconnected from battery source.



SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2001	
GROUP	
Body Electrical System	A/T & Key Lock Control System

Return to Main Menu(s): Mechanical Manual Electrical Manual

COMPONENT LAYOUT



A. A/T and key lock control unit
B. A/T solenoid
C. Key lock solenoid
D. P/position switch

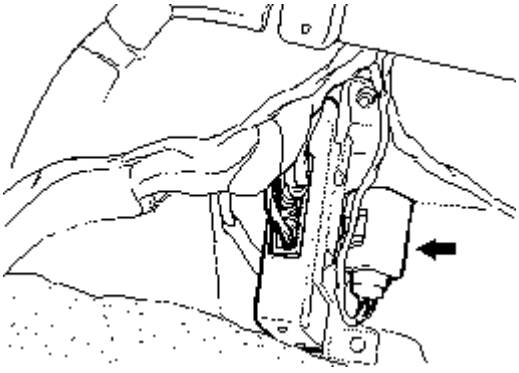
A. A/T and key lock control unit

B. A/T solenoid

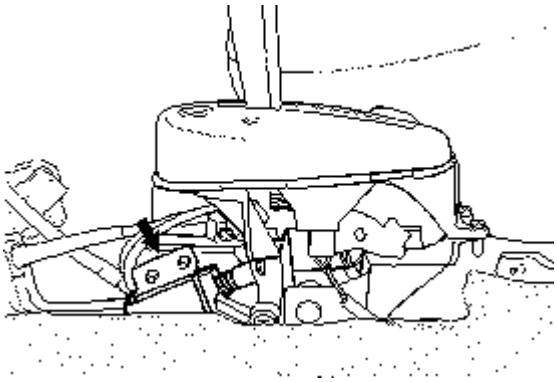
C. Key lock solenoid

D. P/position switch

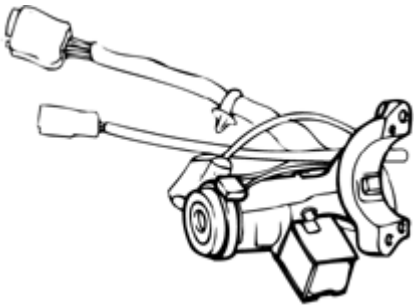
A. A/T and key lock control unit



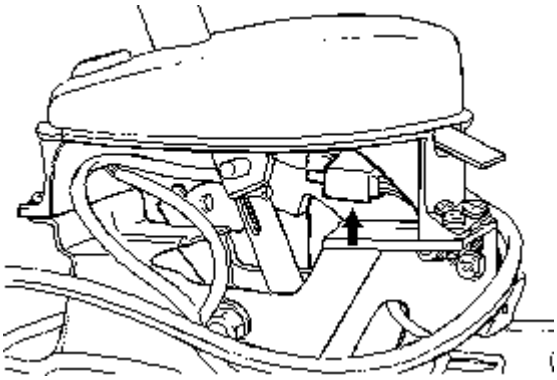
B. A/T solenoid



C. Key lock solenoid



D. P/position switch



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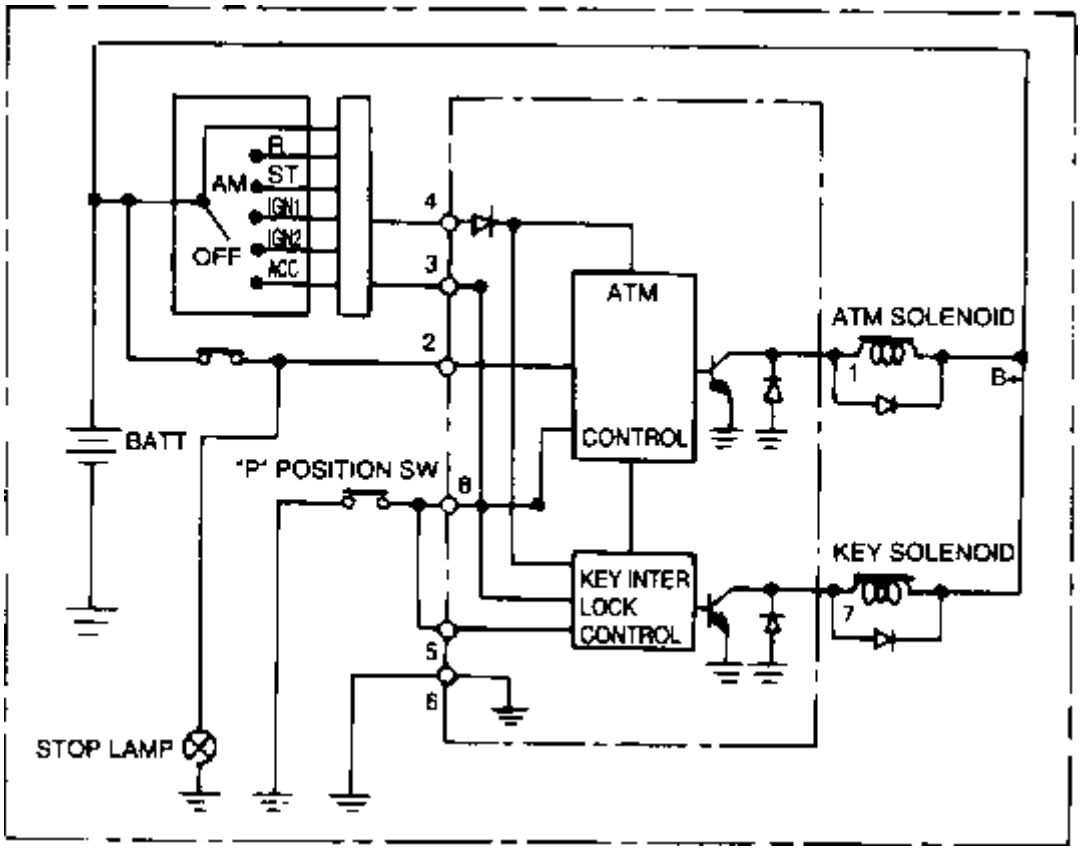
CIRCUIT DIAGRAM



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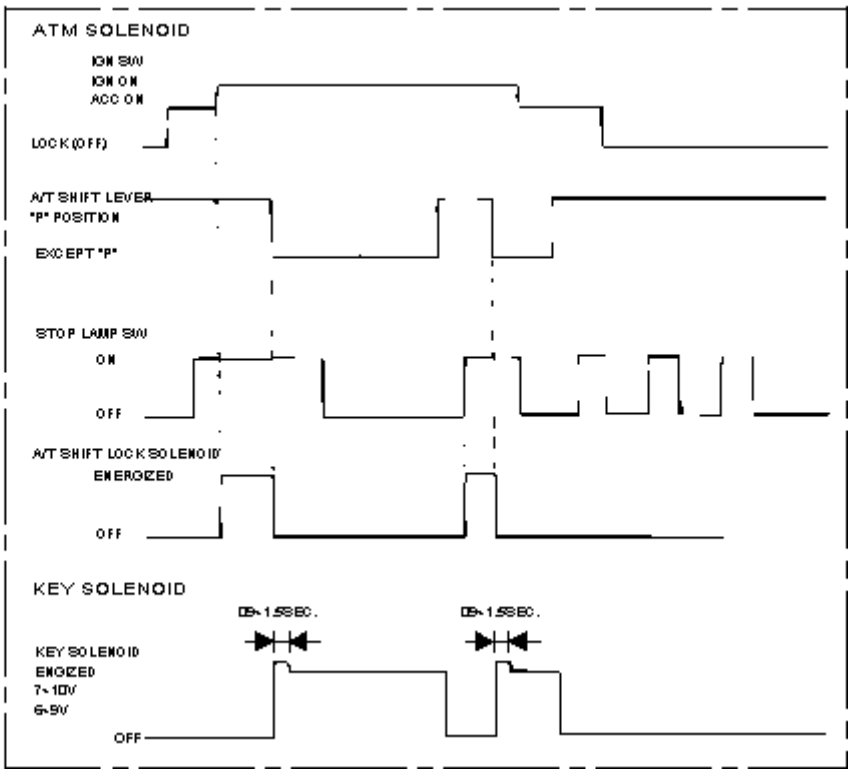
INSPECTION

TIMING CHART



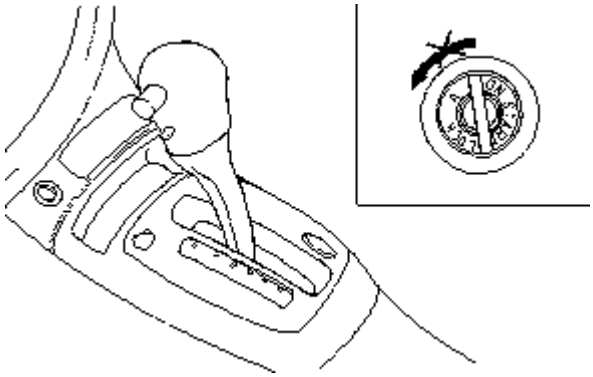
SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2001	
GROUP	
Body Electrical System	A/T & Key Lock Control System

Return to Main Menu(s): Mechanical Manual Electrical Manual

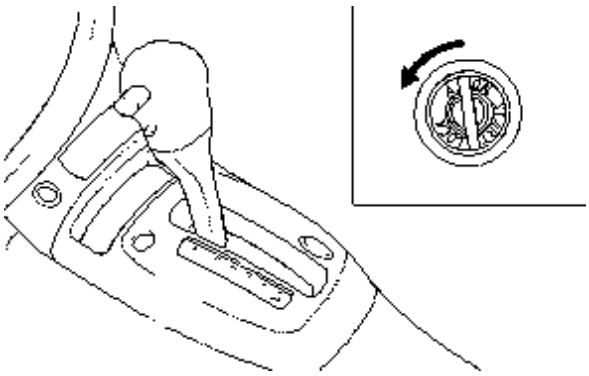
KEY LOCK SYSTEM

SYSTEM CHECK

Check that the ignition key cannot be turned to "LOCK (OFF)" position, when the position of the shift lever is not in "P" position.



Check that the ignition key turns to the "LOCK (OFF)" position, when the shift lever is set to the "P" position.



SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2001	
GROUP	
Body Electrical System	A/T & Key Lock Control System

Return to Main Menu(s): Mechanical Manual Electrical Manual

SHIFT LOCK SYSTEM

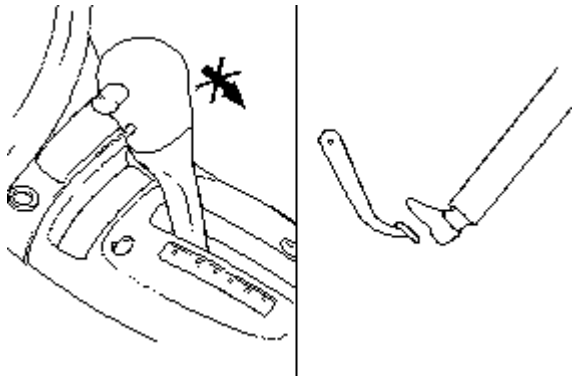
SYSTEM CHECK

Check that under the following conditions, the shift lever cannot be moved from the "P" position to any other position.

IGNITION KEY POSITION: "ON"

BRAKE PEDAL: NOT DEPRESSED

BUTTON: PRESSED

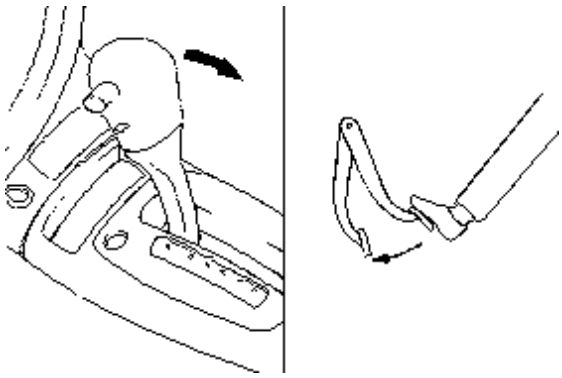


Check that under the following conditions, the shift lever can be moved from the "P" position to other position.

IGNITION KEY POSITION: "ON"

BRAKE PEDAL: DEPRESSED

BUTTON: PRESSED



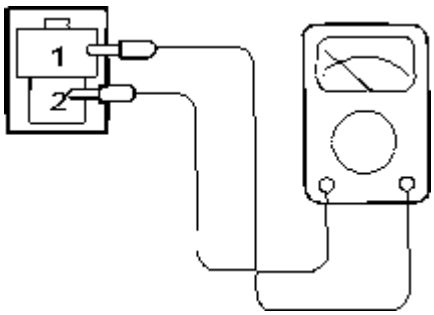
SERVICE MANUAL	
Applies to: **Hyundai Coupe/Tiburon** 1998-2001	
GROUP	
Body Electrical System	A/T & Key Lock Control System

Return to Main Menu(s): Mechanical Manual Electrical Manual

INSPECTION

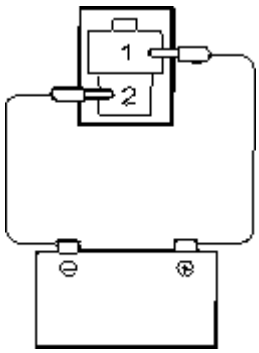
Remove the solenoid connector.

Using an ohmmeter, measure the resistance between terminals.



RESISTANCE SPECIFICATION	
Standard resistance:	12 - 16 O

Attach the positive (+) lead from the battery to terminal 1. and the negative (-) lead to terminal 2.



Check that an operation noise can be heard from the solenoid.