Introduction

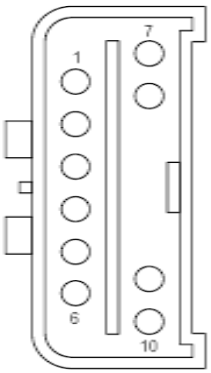
Component testing procedures are provided to determine whether a component is good or bad.

Testing information for each component includes a schematic, a view of the terminal locations and step-by-step test procedures. Terminal locations are identified by numbers or letters that may be on the component or next to it.

Terminals

C1

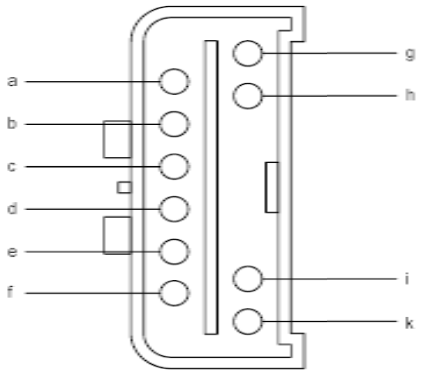
With molded identifiers



MALE

C1

Without molded identifiers



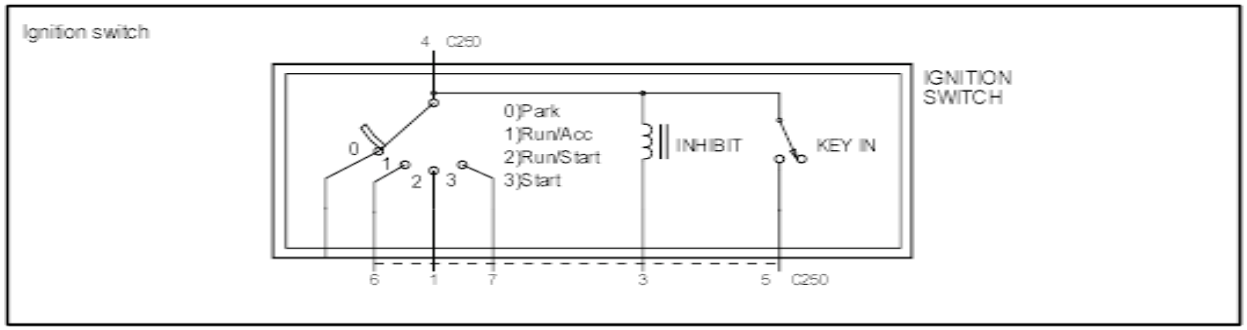
MALE

The component connector MUST BE REMOVED before testing. To test a single circuit within the component, select that circuit under the column "Circuit to test". If you wish to test the complete component, perform all tests.

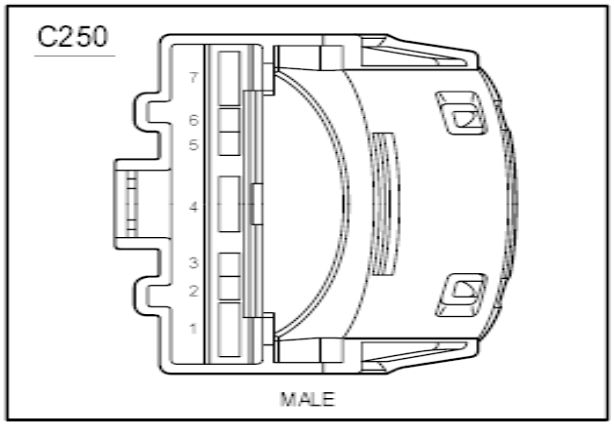
Connect the tester to the terminals shown in the second column and operate the component as shown in the third column.

Ignition switch

Schematic



Terminal locations

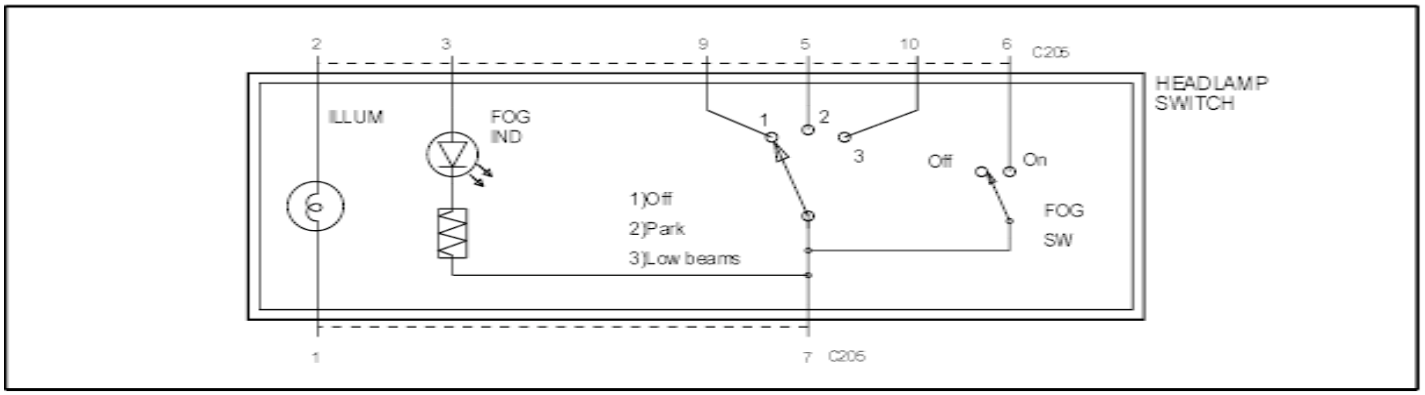


Component testing procedure

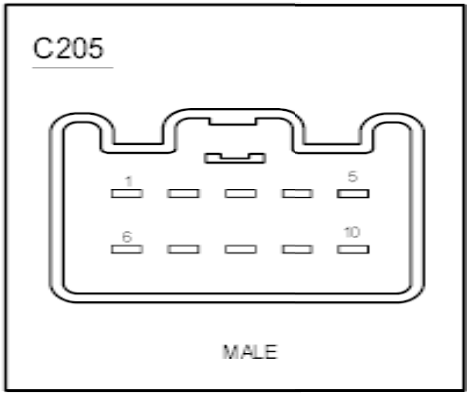
Circuit to test	Connect self-powered test light or ohmmeter to terminals	Move switch to these positions	A good switch will indicate
Starter relay circuit	4 and 7	Off	Open circuit
		Acc	Open circuit
		Run	Open circuit
		Start	Closed circuit
Run/Start power circuit	4 and 1	Off	Open circuit
		Acc	Open circuit
		Run	Closed circuit
		Start	Closed circuit
Run/Acc power circuit	4 and 6	Off	Open circuit
		Acc	Closed circuit
		Run	Closed circuit
		Start	Open circuit
Key reminder circuit	4 and 5	Key In	Closed circuit
		Key Out	Open circuit
Key removal inhibit circuit	4 and 3		65 - 75 ?

Headlamp switch

Schematic



Terminals

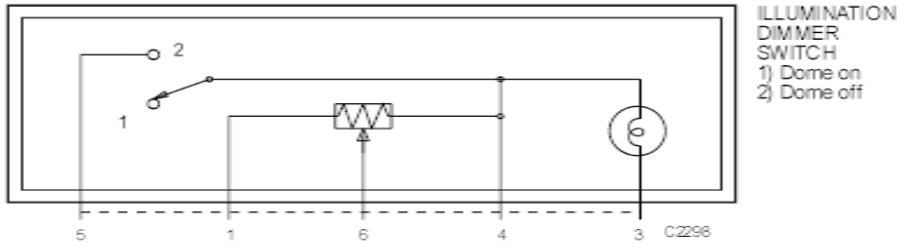


Component testing procedure

Circuit to test	Connect self-powered test light or ohmmeter to terminals	Move switch to these positions	A good switch will indicate
Parking lights circuit	7 and 5	Off	Open circuit
		Park	Closed circuit
		Low beams	Open circuit
Headlamp circuit	7 and 10	Off	Open circuit
		Park	
		Low beams	Closed circuit
Fog lamps Circuit	7 and 6	Fog lamps	Closed circuit
		Off	Open circuit

Illumination dimmer switch

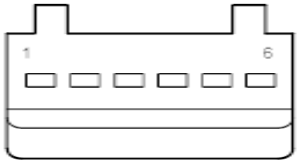
Schematic



ILLUMINATION
DIMMER
SWITCH
1) Dome on
2) Dome off

Terminals

C2298



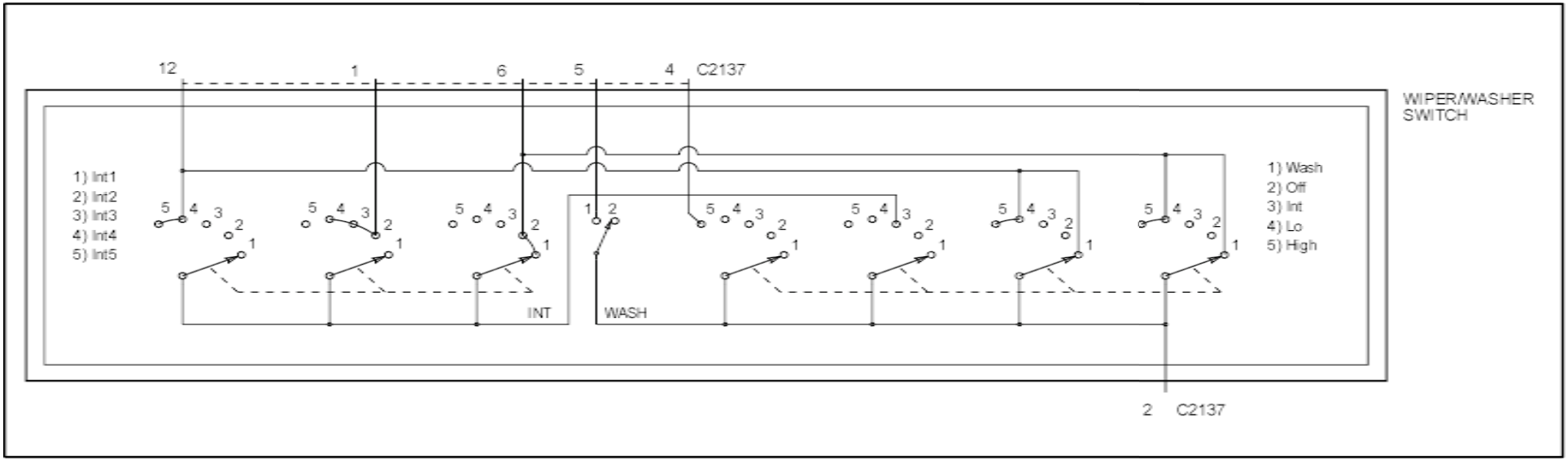
MALE

Component testing procedure

Circuit to test	Connect self-powered test light or ohmmeter to terminals	Move switch to these positions	A good switch will indicate
Interior lamps Circuit	4 and 5	Interior lamps	Closed circuit
		Off	Open circuit
Illumination dimmer resistor	4 and 1	Rotate knob clockwise	Ohmmeter will show smoothly increasing resistance

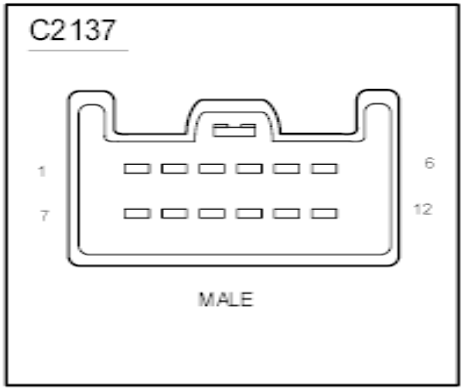
Wiper/washer switch

Schematic



Component testing procedure

Circuit to test	Connect ohmmeter to terminals	Move switch to these positions	A good switch will indicate
Washer switch circuit	2 and 5	Washer switch depressed	Closed circuit
Wiper switch circuit, high/low	12 and 2	Low	Closed circuit
	6 and 2		
	4 and 2	Low	Open circuit
	1 and 2		
	6 and 2	High	Closed circuit
	12 and 2		
	4 and 2		
	1 and 2	High	Open circuit



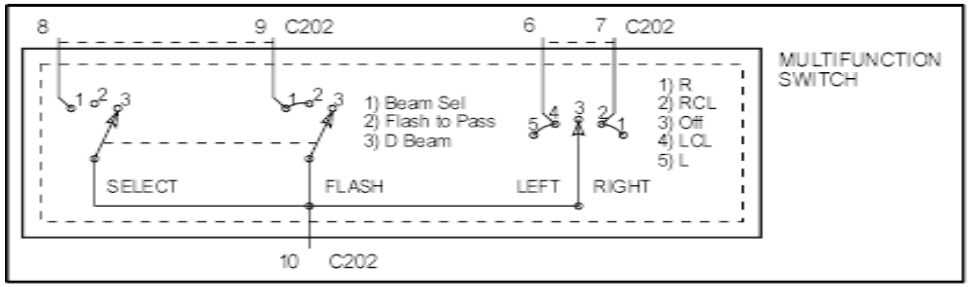
Wiper/washer switch

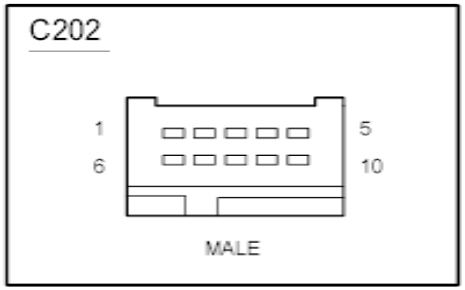
Component testing procedure

Circuit to test	Connect self-powered test light or ohm-meter to terminals	Move switch to these positions	A good switch will indicate
Intermittent wiper circuit	6 and 2	Detent 1	Closed circuit
	1 and 2		Open circuit
	12 and 2		Open circuit
	6 and 2	Detent 2	Closed circuit
	1 and 2		Closed circuit
	12 and 2		Open circuit
	6 and 2	Detent 3	Open circuit
	1 and 2		Closed circuit
	12 and 2		Open circuit
	6 and 2	Detent 4	Open circuit
	1 and 2		Closed circuit
	12 and 2		Closed circuit
	6 and 2	Detent 5	Open circuit
	1 and 2		Open circuit
	12 and 2		Closed circuit
	4 and 2	Off	Open circuit
	6 and 2		
	1 and 2		
	12 and 2		

Multifunction switch

Schematic



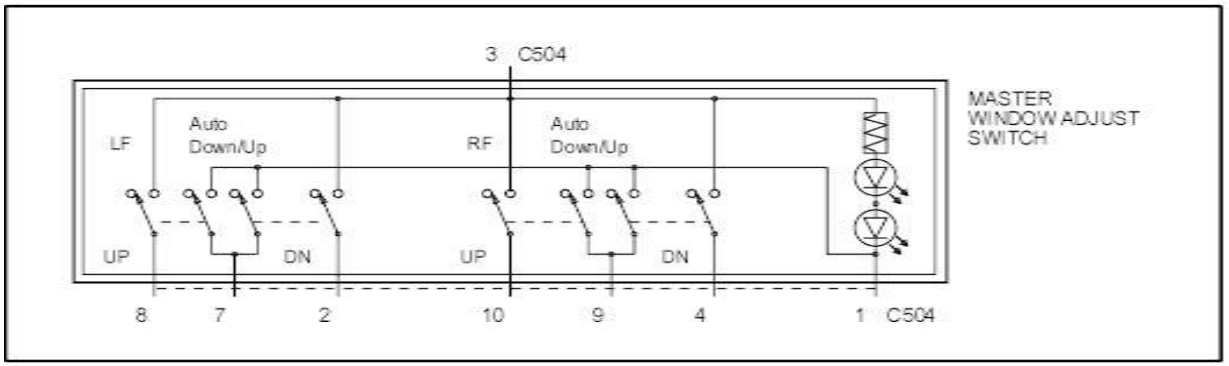


Component testing procedure

Circuit to test	Connect self-powered test light or ohmmeter to terminals	Move switch to these positions	A good switch will indicate
Turn signal	6 and 10	Left turn	Closed circuit
	7 and 10	Right turn	Closed circuit
Flash-to-pass	8 and 10	Pull and hold lever stalk toward steering wheel	Open circuit
	9 and 10		Closed circuit
High beam / Low beam	8 and 10	Lever stalk in detent toward steering wheel	Closed circuit
	9 and 10		

Master window adjust switch

Schematic

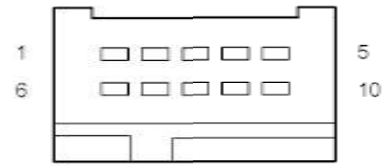


Component testing procedure

Circuit to test	Connect self-powered test light or ohmmeter to terminals	Move switch to these positions	A good switch will indicate
Power and Ground Checks Before Any Other Tests	3 and 2, 3 and 8, 3 and 4, 3 and 10, 1 and 7, 1 and 9	All window switches, at rest	Open circuit
Left front window circuit	3 and 8, 1 and 7	Up	Closed circuit
	3 and 2, 1 and 7	Down	Closed circuit
Right front window circuit	3 and 10, 1 and 9	Up	Closed circuit
	3 and 4, 1 and 9	Down	Closed circuit

Terminals

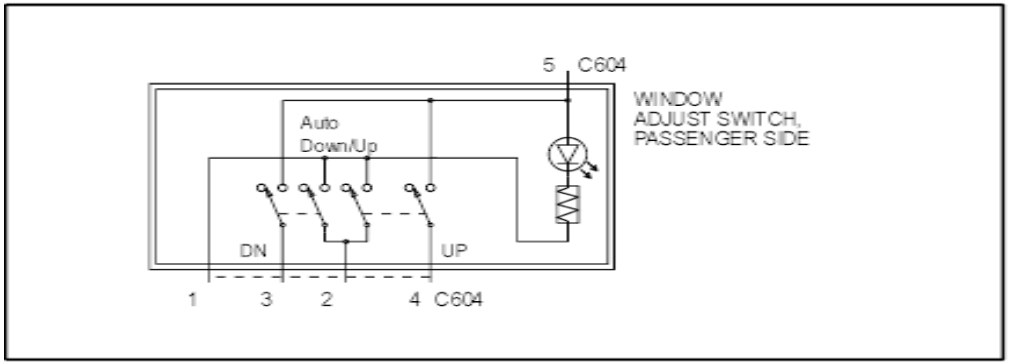
C504



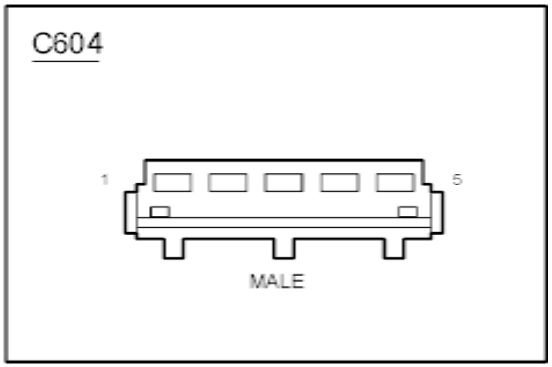
MALE

Window adjust switch, passenger side

Schematic



Terminals

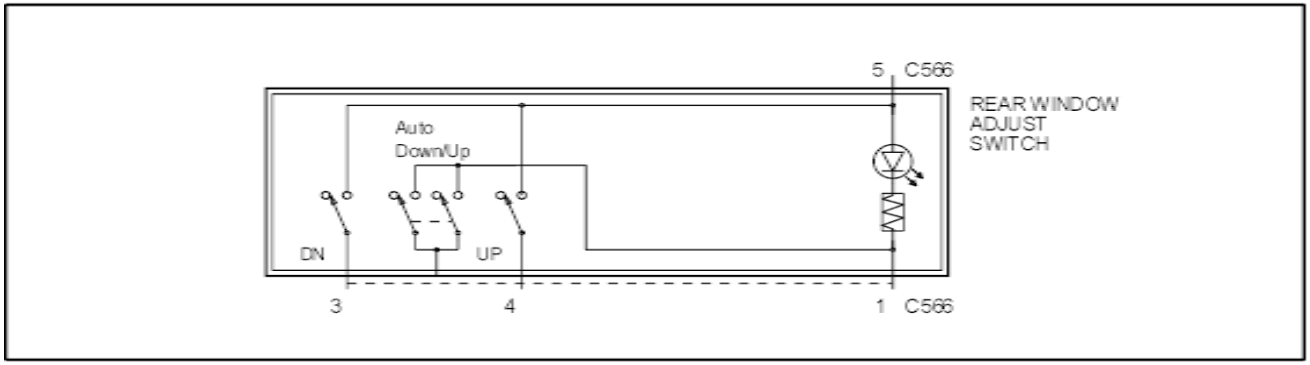


Component testing procedure

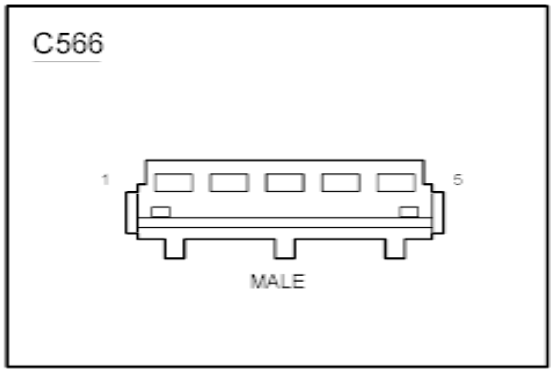
Circuit to test	Connect self-powered test light or ohmmeter to terminals	Move switch to these positions	A good switch will indicate
Power and Ground Checks Before Any Other Tests	1 and 2 5 and 4 5 and 3	Window switch, at rest	Open circuit
Right front window circuit	1 and 2 5 and 4	Up	Closed circuit
	1 and 2 5 and 3	Down	Closed circuit

Rear window adjust switch

Schematic



Terminals

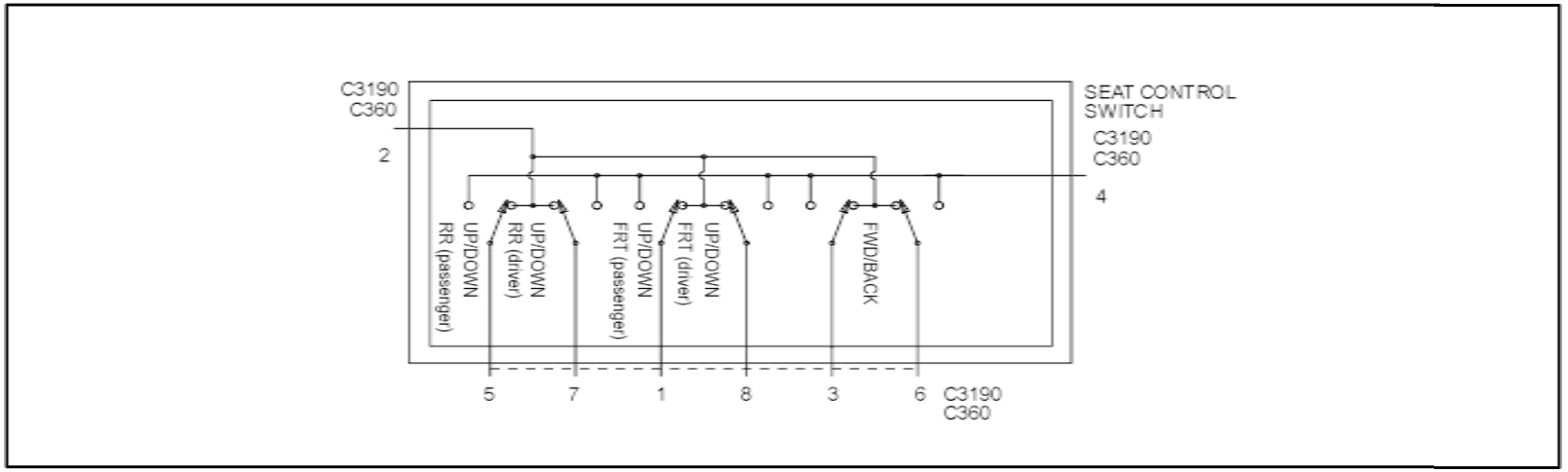


Component testing procedure

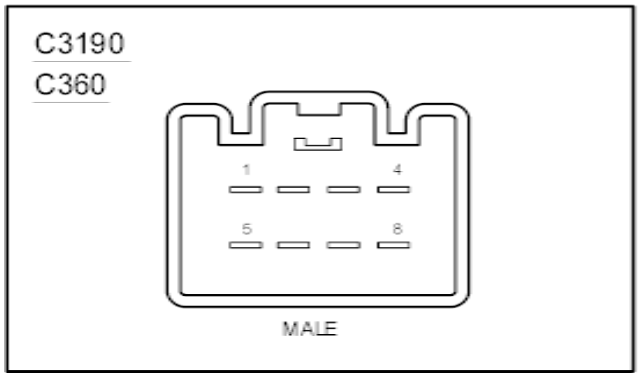
Circuit to test	Connect self-powered test light or ohmmeter to terminals	Move switch to these positions	A good switch will indicate
Power and Ground Checks Before Any Other Tests	5 and 3 5 and 4	Window switch, at rest	Open circuit
Rear window circuit	5 and 3	Up	Closed circuit
	5 and 4	Down	Closed circuit

Seat adjust switch

Schematic



Terminals



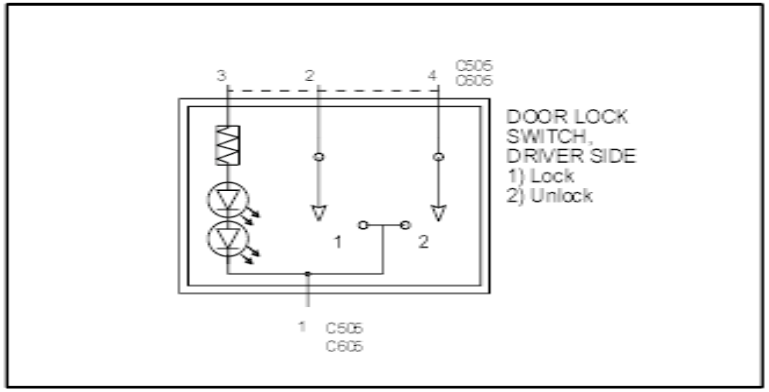
Seat control switch (continued)

Component testing procedure

Circuit to test	Connect self-powered test light or ohmmeter to terminals	Move switch to these positions	A good switch will indicate
Forward/Rearward circuit	4 and 6	Forward	Closed circuit
		Rearward	Open circuit
	4 and 3	Forward	Open circuit
		Rearward	Closed circuit
	6 and 2	Rest	Closed circuit
	3 and 2		
Driver Front up/down or Passenger Front up/down circuit	4 and 1	Up	Closed circuit
		Down	Open circuit
	4 and 8	Up	Open circuit
		Down	Closed circuit
	1 and 2	Rest	Closed circuit
	8 and 2		
Driver Rear up/down or Passenger Rear up/down circuit	4 and 5	Up	Closed circuit
		Down	Open circuit
	4 and 7	Up	Open circuit
		Down	Closed circuit
	5 and 2	Rest	Closed circuit
	7 and 2		

Door lock switch

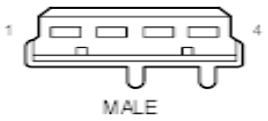
Schematic



Terminals

C505

C605

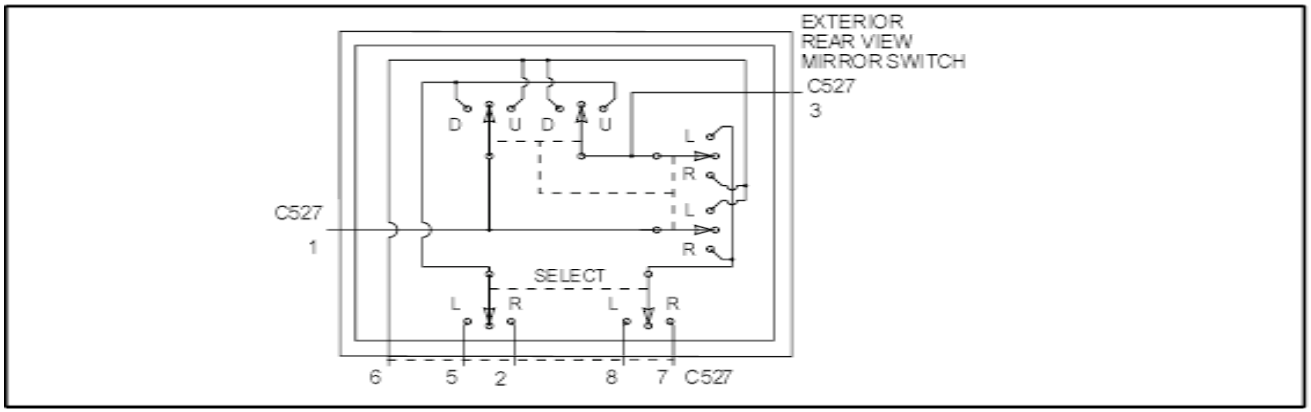


Component testing procedure

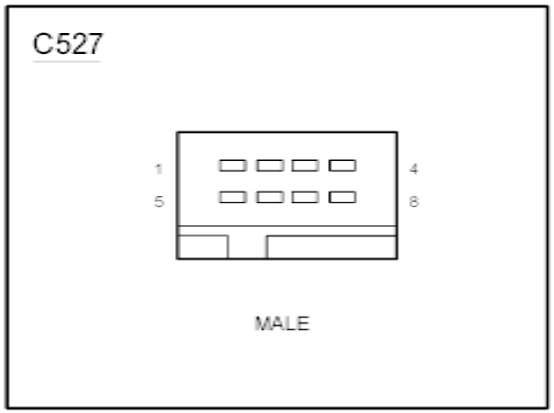
Circuit to test	Connect self-powered test light or ohm-meter to terminals	Move switch to these positions	A good switch will indicate
Lock Switch Circuit	2 and 1	Unlock	Closed circuit
		Rest	Open circuit
Unlock Switch Circuit	4 and 1	Lock	Closed circuit
		Rest	Open circuit

Exterior rear view mirror switch

Schematic



Terminals

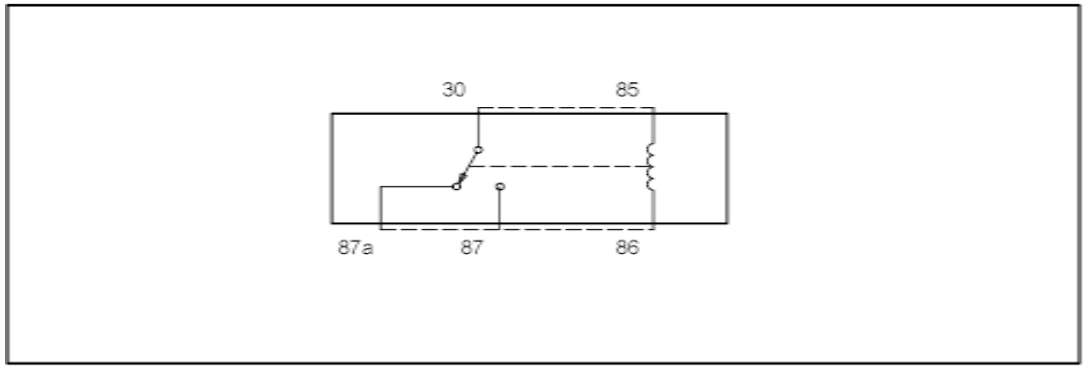


Component testing procedure

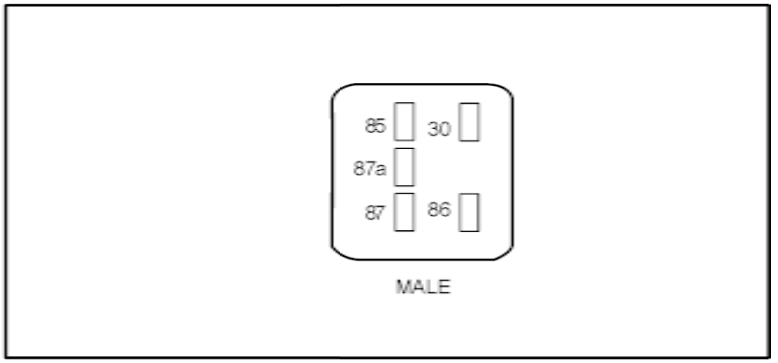
Circuit to test		Connect self-powered test light or ohmmeter to terminals	Move switch to these positions	A good switch will indicate
Left mirror	Up	3 and 5 6 and 1	Selector switch Left Adjuster Switch Up	Closed circuit
	Down	3 and 6 5 and 1	Selector switch Left Adjuster Switch Down	Closed circuit
	Left	3 and 8 6 and 1	Selector switch Left Adjuster Switch Left	Closed circuit
	Right	3 and 6 8 and 1	Selector switch Left Adjuster Switch Right	Closed circuit
Right mirror	Up	3 and 2 6 and 1	Selector switch Right Adjuster Switch Up	Closed circuit
	Down	3 and 6 2 and 1	Selector switch Right Adjuster Switch Down	Closed circuit
	Left	3 and 7 6 and 1	Selector switch Right Adjuster Switch Left	Closed circuit
	Right	3 and 6 7 and 1	Selector switch Right Adjuster Switch Right	Closed circuit

Relay - Mini ISO

Schematic



Terminals



Component testing procedure (no voltage applied)

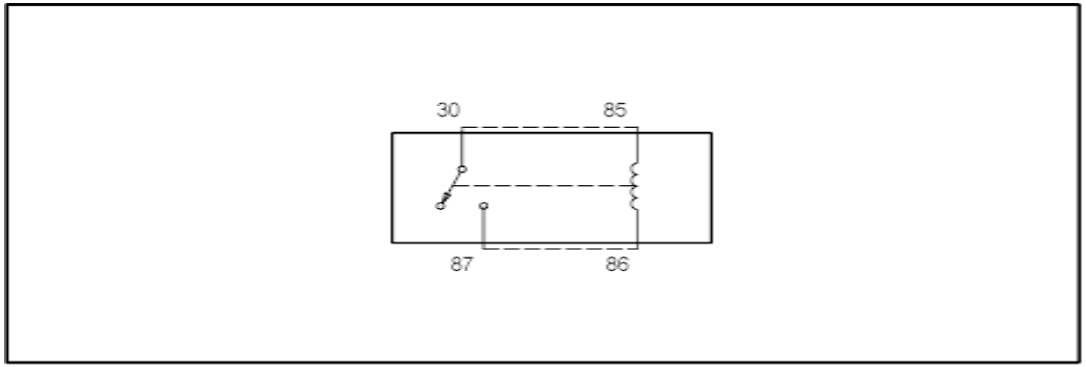
Circuit to test	Connect ohmmeter to terminals	A good relay will indicate
Coil	85 and 86	46 - 90 ?
Contact	30 and 87a	Closed circuit
	30 and 87	Open circuit
Coil - Contact	86 and 30	Open circuit
	86 and 87a	Open circuit
	86 and 87	Open circuit

Component testing procedure (voltage applied)

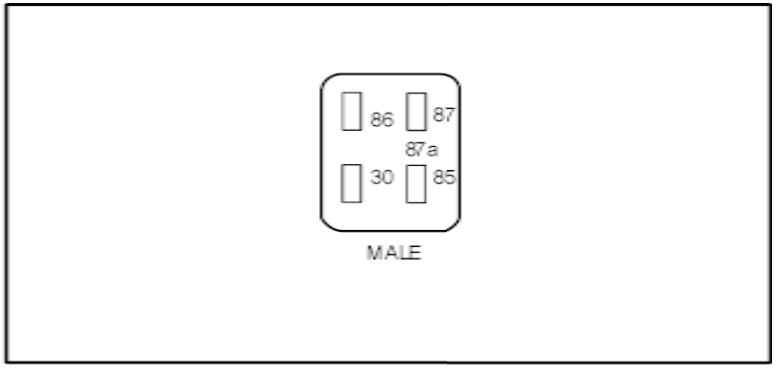
Disconnect the ohmmeter; connect pins 30 and 85 to 12V DC power and pin 86 to ground. Measure voltage between pin 87 and pin 86. If the voltage is 12V, continue with the test. If not, replace the relay. Disconnect power from pin 85 and measure voltage between pins 87a and pin 86. If the voltage is 12V, the relay is okay. If not, replace the relay.

Relay - Micro ISO

Schematic



Terminals



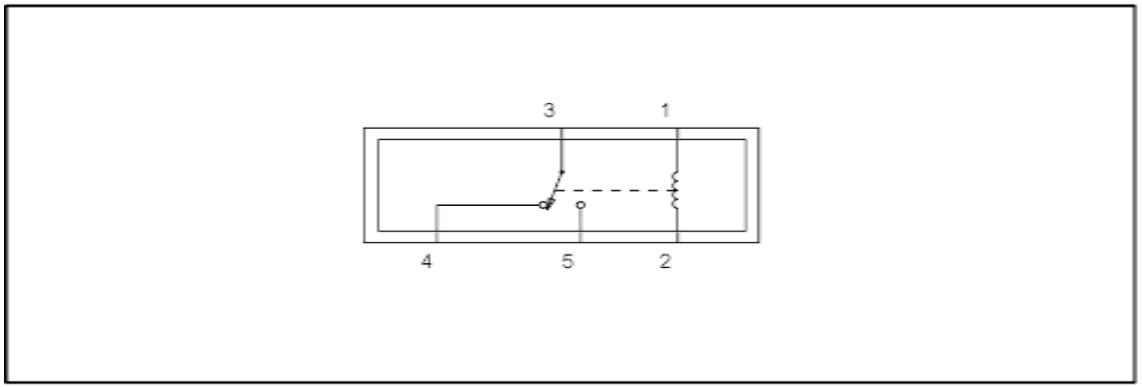
Component testing procedure (no voltage applied)

Circuit to test	Connect ohmmeter to terminals	A good relay will indicate
Coil	85 and 86	63 - 102 ?
Contact	30 and 87	Open circuit
Coil - Contact	85 and 30	Open circuit
	85 and 87	Open circuit

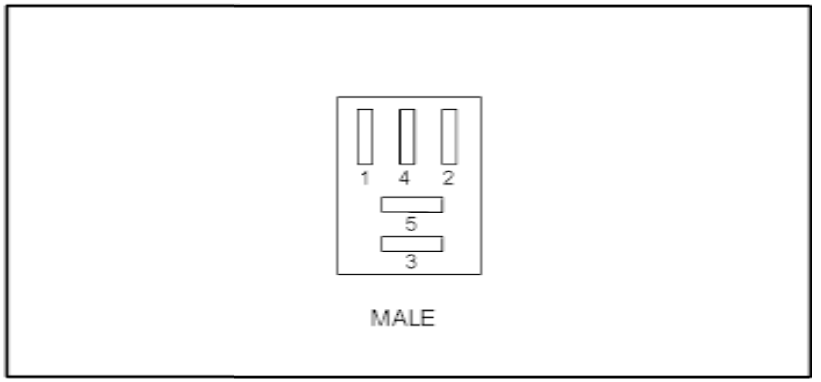
Component testing procedure (voltage applied)
Disconnect the ohmmeter; connect pins 30 and 85 to 12V DC power and pin 86 to ground. Measure voltage between pin 87 and pin 86. If the voltage is 12V, continue with the test. If not, replace the relay.

Relay - Micro ISO

Schematic



Terminals



Component testing procedure (no voltage applied)

Circuit to test	Connect ohmmeter to terminals	A good relay will indicate
Coil	1 and 2	63 - 120
Contact	3 and 4	Closed circuit
	3 and 5	Open circuit
Coil - Contact	1 and 3	Open circuit
	1 and 4	Open circuit
	1 and 5	Open circuit

Component testing procedure (voltage applied)

Disconnect the ohmmeter; connect pins 2 and 3 to 12V DC power and pin 1 to ground. Measure voltage between pin 5 and pin 1. If the voltage is 12V, continue with the test. If not, replace the relay. Disconnect power from pin 2 and measure voltage between pin 4 and pin 1. If the voltage is 12V, the relay is okay. If not, replace the relay.