POWER WINDOWS

1993 Mitsubishi Montero

1993 ACCESSORIES & EQUIPMENT
Mitsubishi Power Windows

Montero

DESCRIPTION & OPERATION

With the ignition switch in RUN position, battery voltage is applied to the master power window switch located on the driver's door. The master power window switch provides power and ground for all power window switches and motors. The master power window switch offers one-touch operation of driver's window. A solid state control unit, incorporated in the master switch, fully lowers driver's window when switch is completely depressed. Master switch also includes lock-out feature to prevent passengers from operating any of the other power window door switches.

TROUBLE SHOOTING

POWER WINDOWS INOPERATIVE

Check for faulty sub fusible link No. 10, faulty power window relay or faulty power window switches.

ONE WINDOW FAILS TO OPERATE

If one window does not operate, even if both master and passenger side power window switches are pressed, check for faulty master power window switch or power window motor that is inoperative. If one window does not operate, only when either master or passenger side power window switch is pressed, but does operate when both switches are pressed, check power window switch that is inoperative.

ONE-TOUCH SWITCH FUNCTION INOPERATIVE

Replace master power window switch.

TESTING

CIRCUIT BREAKER TEST

Press UP switch to fully close window. Continue to press switch for 10 seconds. Release UP switch and immediately press DOWN switch. If window begins to open within 60 seconds, circuit breaker is okay. Circuit breaker is part of window motor.

POWER WINDOW RELAY TEST

1) Remove power window relay from fuse/relay block, located in engine compartment. See Fig. 1. Check continuity between power window relay terminals No. 2 and No. 4. Continuity should be present.

2) Connect positive lead of a 12-volt battery to power window relay terminal No. 2, and negative lead of test battery to terminal No. 4. See Fig. 2. Continuity should be present between terminals No. 1 and No. 3 with voltage applied. Replace power window relay if continuity is not as specified.

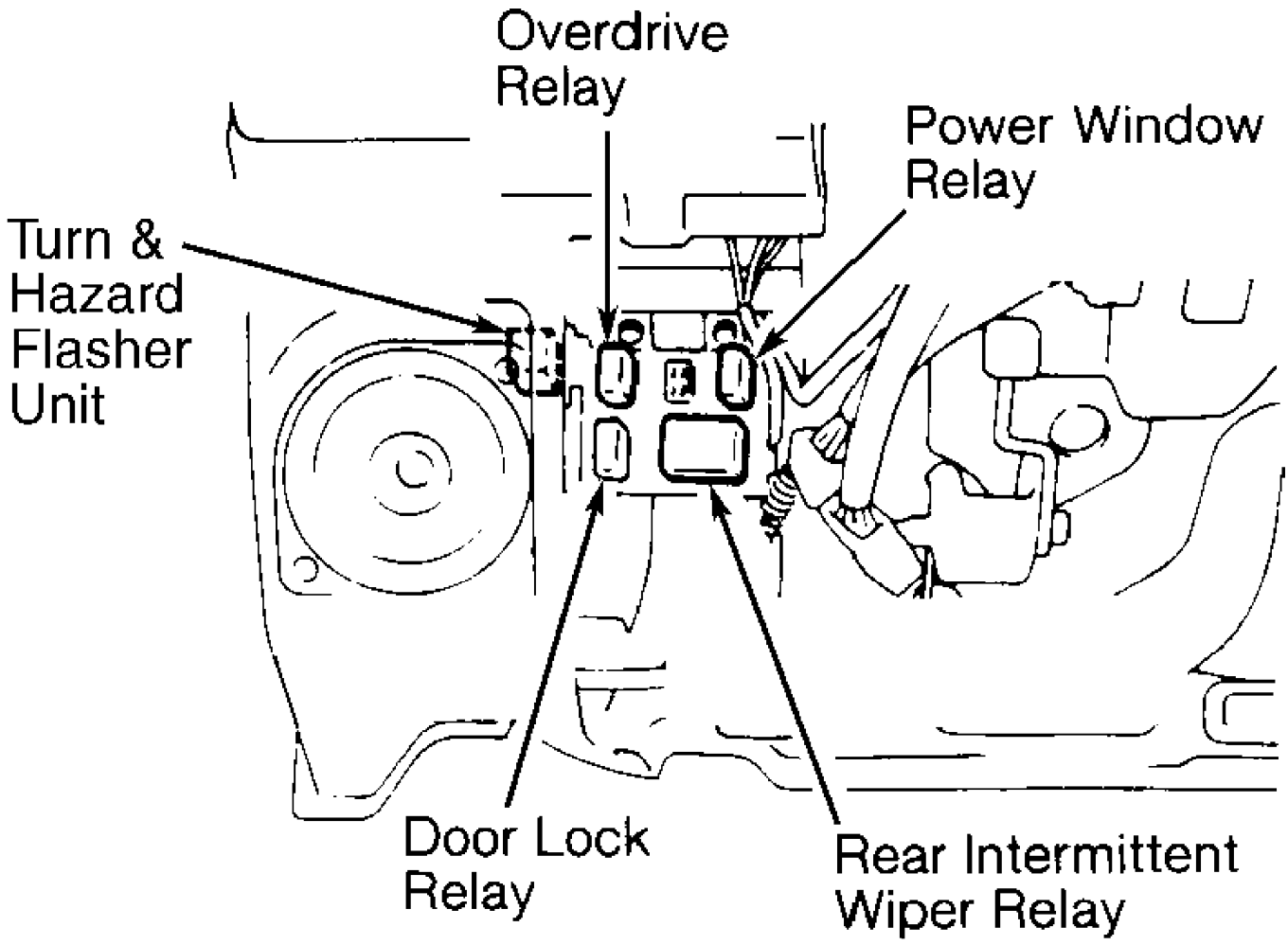

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Fig. 1: Locating Power Window Relay
Courtesy of Mitsubishi Motor Sales of America.

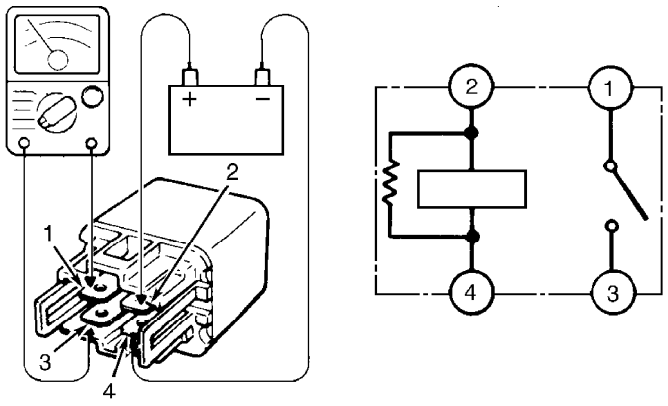

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Fig. 2: Power Window Relay Terminal ID
Courtesy of Mitsubishi Motor Sales of America.

POWER WINDOW MOTOR TEST

1) Remove appropriate door trim panel. Connect positive lead of a 12-volt test battery to either motor terminal. Connect negative lead of test battery to other motor terminal. Motor should operate, unless it is already at maximum travel.

2) Reverse test battery leads. Motor should operate in opposite direction. If motor does not operate, inspect wiring. If wiring is okay, replace motor. Reverse test battery leads again to complete full function test of motor.

POWER WINDOW SWITCH TEST

Remove control switch from trim panel. Using ohmmeter, check continuity of switch. See appropriate WINDOW SWITCH CONTINUITY CHART. See Figs. 3-5. Replace appropriate switch as necessary if switch continuity is not as specified.

MASTER WINDOW SWITCH CONTINUITY CHART

Switch Position (1)	Check Continuity Between
Normal Position	
Left Front OFF	Pins 2, 8 & 13
Left Rear OFF	Pins 4, 11 & 13
Left Front UP	Pins 2 & 9; Pins 8 & 13
Left Rear UP	Pins 4 & 9; 11 & 13
Left Front DOWN	Pins 2 & 13; Pins 8 & 9
Left Rear DOWN	Pins 4 & 13; Pins 9 & 11
Right Front OFF	Pins 1, 7 & 13
Right Rear OFF	Pins 5, 12 & 13
Right Front UP	Pins 1 & 9; Pins 7 & 13
Right Rear UP	Pins 5 & 9; Pins 12 & 13
Right Front DOWN	Pins 1 & 13; Pins 7 & 9
Right Rear DOWN	Pins 5 & 13; Pins 9 & 12
Lock Position	
Left Front OFF	Pins 2, 8 & 13
Left Rear OFF	Pins 4 & 11
Left Front UP	Pins 2 & 9; Pins 8 & 13
Left Rear UP	Pins 4 & 9
Left Front DOWN	Pins 2 & 13; Pins 8 & 9
Left Rear DOWN	Pins 9 & 11
Right Front OFF	Pins 1 & 7
Right Rear OFF	Pins 5 & 12
Right Front UP	Pins 1 & 9
Right Rear UP	Pins 5 & 9
Right Front DOWN	Pins 7 & 9
Right Rear DOWN	Pins 9 & 12

(1) - Left side of vehicle refers to driver's side.

RIGHT FRONT SIDE WINDOW SWITCH CONTINUITY CHART

Switch Position	Check Continuity Between
OFF	Pins 1 & 7; Pins 2 & 5
UP	Pins 2 & 5; Pins 6 & 7
DOWN	Pins 1 & 7; Pins 5 & 6

REAR DOOR SIDE WINDOW SWITCH CONTINUITY CHART

Switch Position	Check Continuity Between

OFF	Pins 1 & 2; Pins 3 & 5
UP	Pins 1 & 2; Pins 3 & 4
DOWN	Pins 2 & 4; Pins 3 & 5

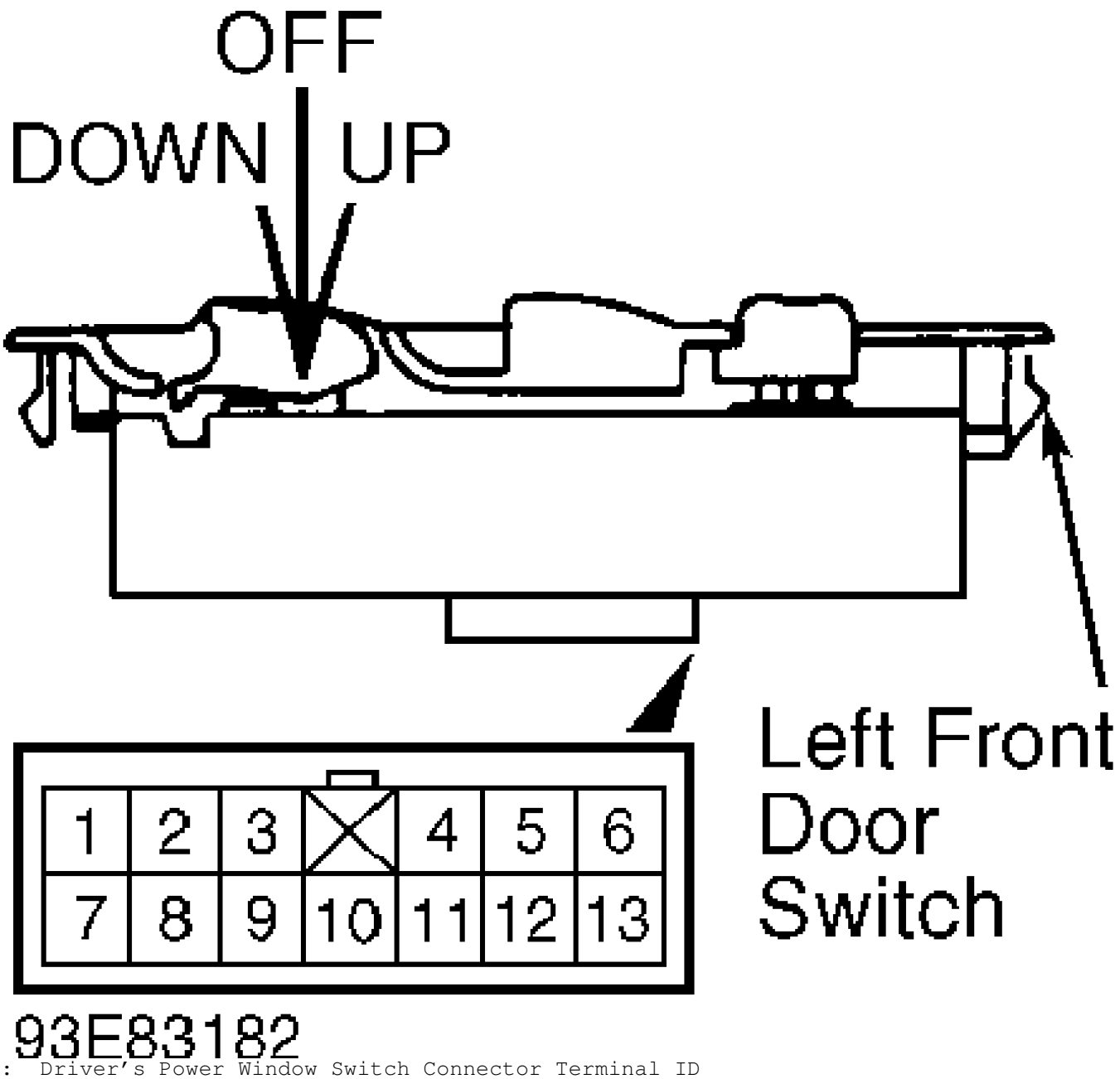

Fig. 3: Driver's Power Window Switch Connector Terminal ID
Courtesy of Mitsubishi Motor Sales of America.

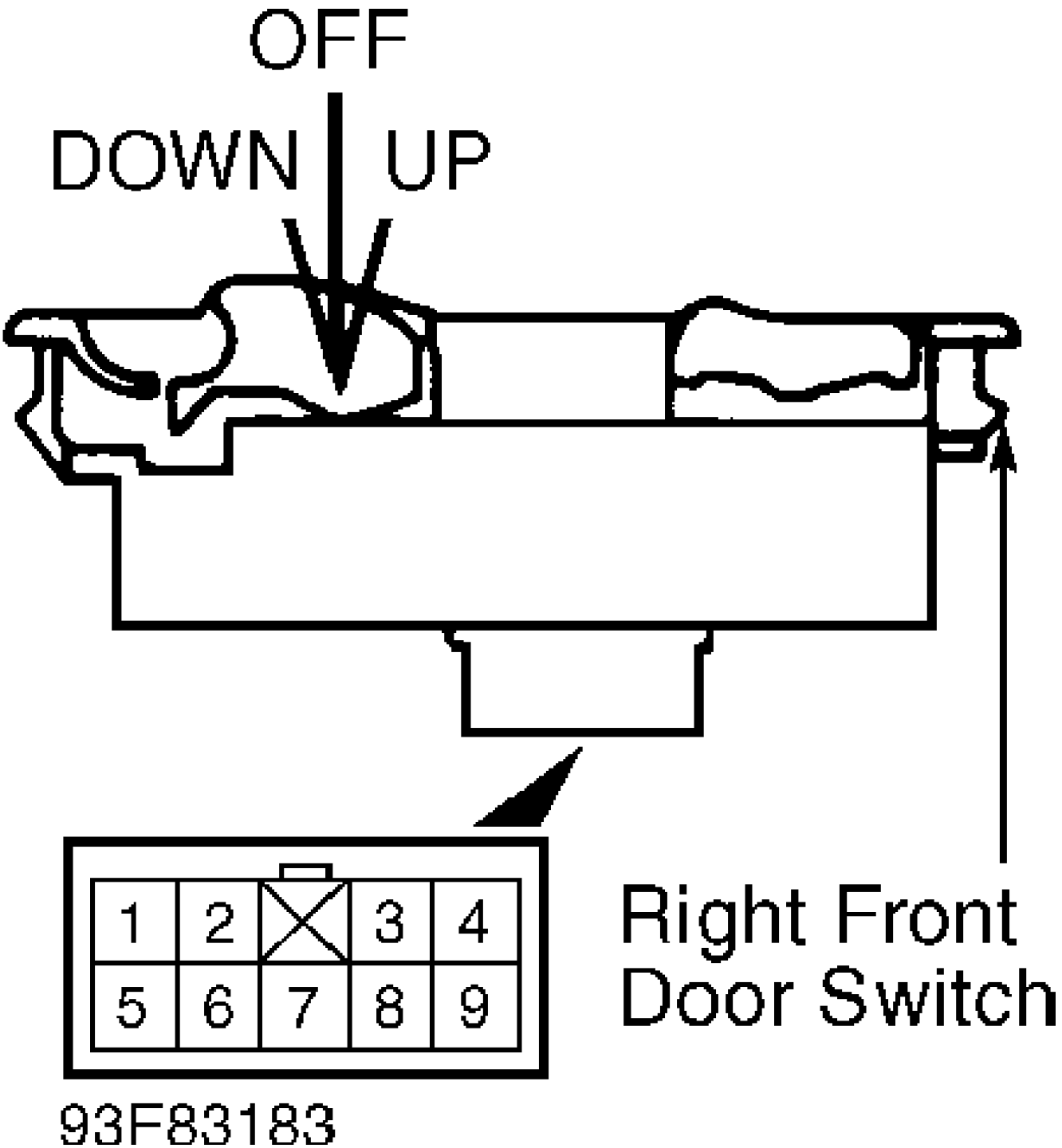

Fig. 4: Right Front Power Window Switch Connector Terminal ID
Courtesy of Mitsubishi Motor Sales of America.

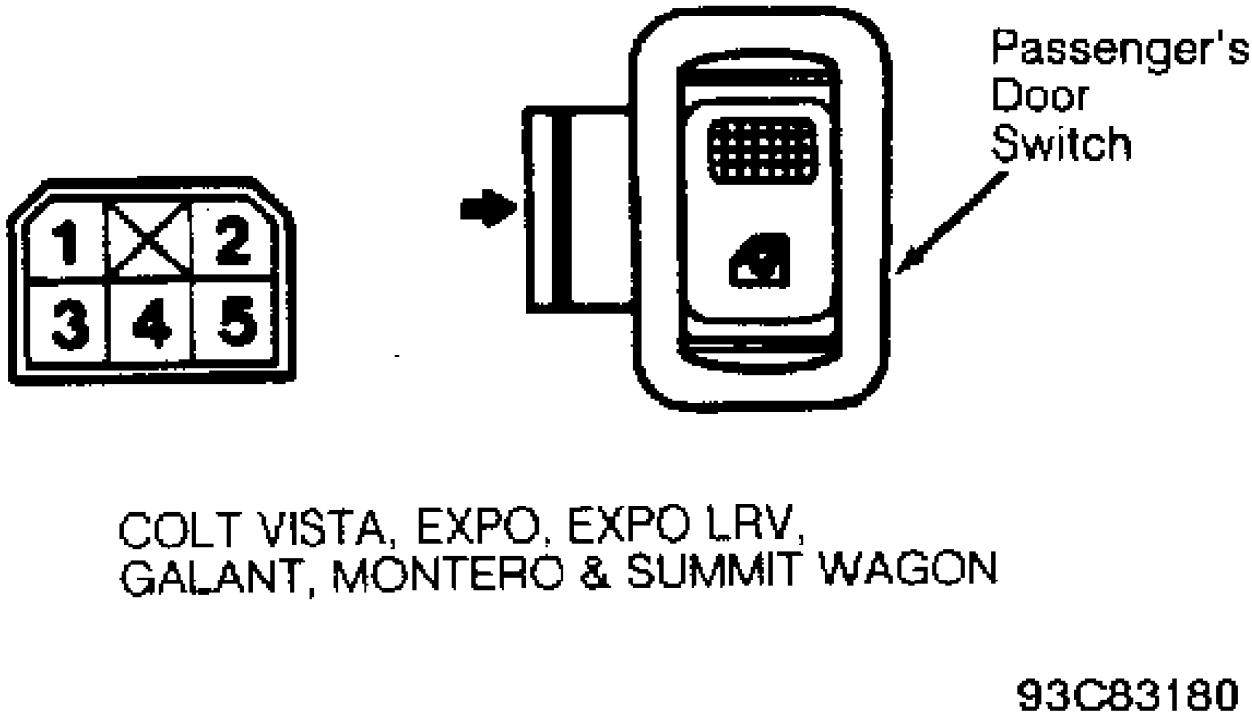

Fig. 5: Rear Door Power Window Switch Connector Terminal ID
Courtesy of Mitsubishi Motor Sales of America.

REMOVAL & INSTALLATION

POWER WINDOW MOTOR

Removal & Installation

Remove door trim panel and waterproof shield. Remove glass retaining screws and glass. See Fig. 6. Remove motor and slider assembly retaining bolts and remove motor and slider assembly from door. To install, reverse removal procedure.

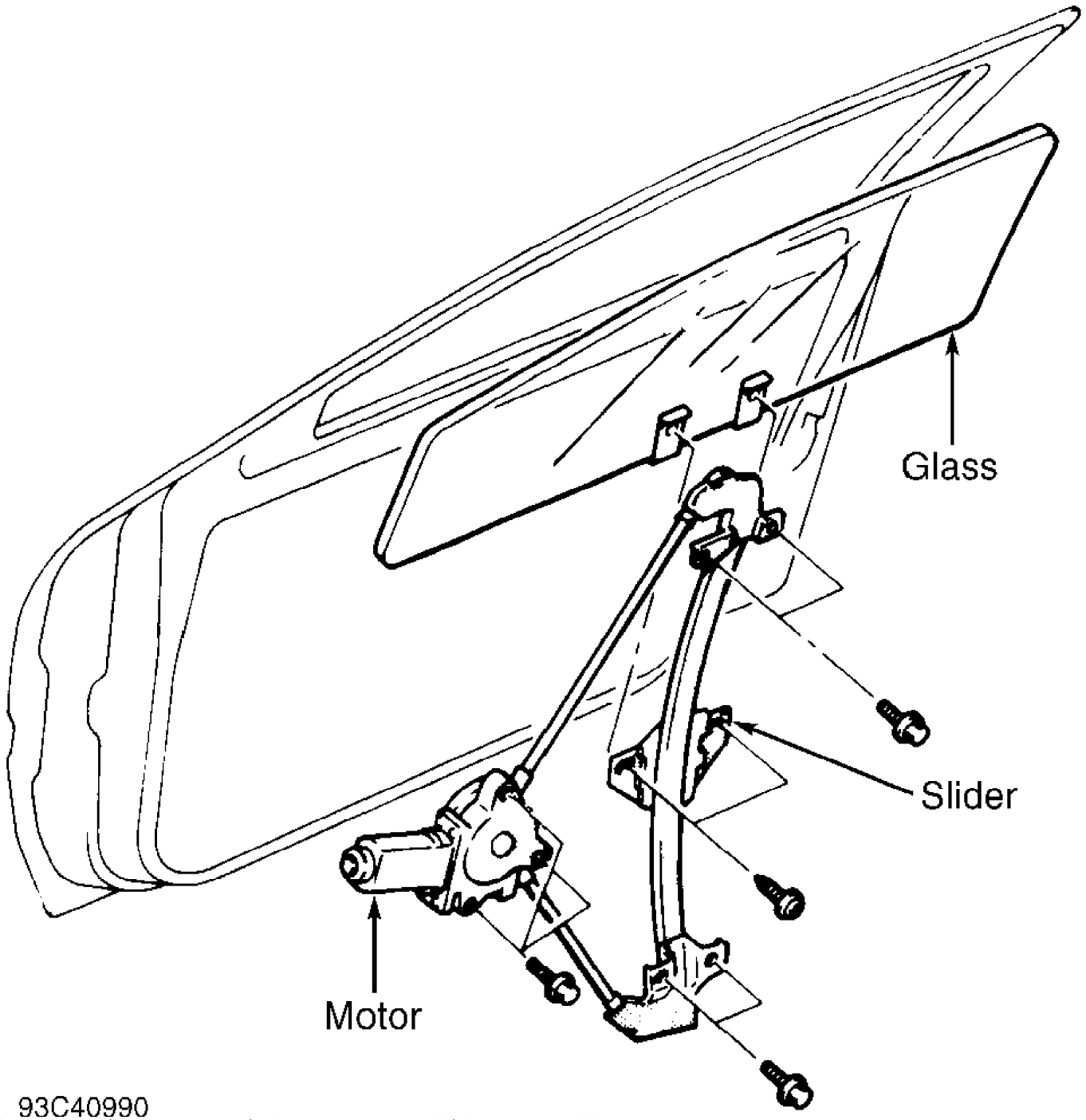

Fig. 6: Removing Power Window Motor & Slider Assembly
Courtesy of Mitsubishi Motor Sales of America.

WIRING DIAGRAMS

See appropriate chassis wiring diagram in the WIRING DIAGRAMS section.