

WIPER/WASHER SYSTEM

1991 Mitsubishi Montero

1991 ACCESSORIES & SAFETY EQUIPMENT
Chrysler Motors/Mitsubishi Wiper/Washer Systems

Dodge; Ram-50
Mitsubishi: Montero, Pickup

DESCRIPTION & OPERATION

All models are equipped with a 2-speed wiper motor with an optional intermittent wiper feature. Some models are equipped with a rear wiper/washer.

ADJUSTMENTS

FRONT WIPER ARM ADJUSTMENT

Ensure wiper motor is in park position. Position wiper arm and blade assembly so tip of blade is specified distance above front window trim. See FRONT WIPER ADJUSTMENT SPECIFICATIONS table.

FRONT WIPER ADJUSTMENT SPECIFICATIONS TABLE

Model	Driver Side: In. (mm)	Passenger Side: In. (mm)
Montero	1.5-1.9 (37-47)	1.5-1.9 (37-47)
Pickup & Ram-506 (15)	1.0 (25)

REAR WIPER ARM ADJUSTMENT

NOTE: Pickup and Ram-50 are not equipped with rear wipers.

Ensure wiper motor is in park position. Position wiper arm and blade assembly so tip of blade is specified distance from edge of window. See REAR WIPER ADJUSTMENT SPECIFICATIONS table.

REAR WIPER ADJUSTMENT SPECIFICATIONS TABLE

Model	In. (mm)
Montero	(2) *

(2) - Blade parallel with lower edge of window.

TESTING

FRONT WIPER MOTOR

Checking Wiper Motor Operation (Montero, Pickup & Ram-50)
Disconnect wiring connector from wiper motor. Connect battery voltage to appropriate wiper motor terminal, and ground other terminal. See WIPER MOTOR OPERATION CHECK table. See Fig. 1. Ensure wiper motor operates in both low and high speeds.

WIPER MOTOR OPERATION CHECK TABLE

Model & Application	Ground Terminal No.	Apply Voltage To Terminal No.
Low Speed Operation		
Montero	3	1
Pickup & Ram-50	1	3
High Speed Operation		
Montero	4	1
Pickup & Ram-50	2	3

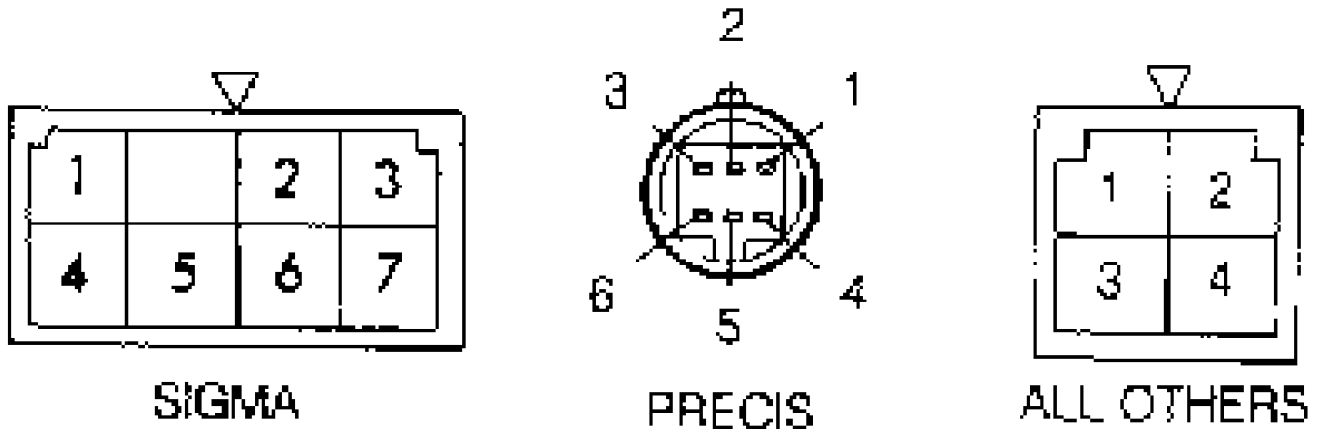


Fig. 1: Front Wiper Motor Terminal ID (Montero, Pickup & Ram-50)
 Courtesy of Mitsubishi Motor Sales of America.

Checking Automatic Stop (Montero, Pickup & Ram-50)

1) Operate wiper motor at low speed. See CHECKING WIPER MOTOR OPERATION. Disconnect battery voltage to stop motor in any position except park.

2) Using a jumper wire, connect 2 terminals indicated. See AUTOMATIC STOP CHECK table. See Fig. 1. Connect 12 volts to terminal indicated in table, and ground wiper motor bracket. Ensure motor parks wiper arm.

AUTOMATIC STOP CHECK TABLE

Model	Jumper Pin Nos.	Apply Voltage To Pin Nos.
Montero	3 & 2	1
Pickup & Ram-50	1 & 4	3

FRONT WIPER RELAY

NOTE: On Pickup, Ram-50, intermittent wiper relay is incorporated into wiper switch. See STEERING COLUMN SWITCHES article in the ACCESSORIES/SAFETY EQUIP Section. Precis does not have a front wiper relay.

Continuity Check (Montero)

Remove relay. Relay is located behind driver's kick panel. Make sure continuity is present between terminals No. 2 and 5. See Fig. 2.

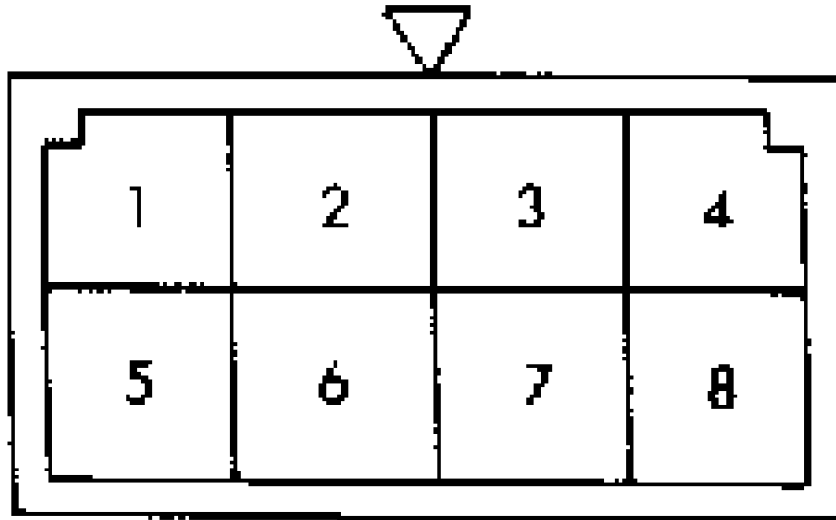


Fig. 2: Identifying Front Wiper Relay Terminals (Montero)
 Courtesy of Mitsubishi Motor Sales of America.

Intermittent Operation Check (Montero)

1) Connect battery voltage to terminal No. 1 and ground terminal No. 6. See Fig. 2. Connect a jumper wire with test light between battery positive and terminal No. 2.

2) Connect one end of a jumper wire to terminal No. 3 and touch the other end to negative terminal on battery. Test light should illuminate briefly and then go out after terminal No. 3 is touched to battery ground.

FRONT WIPER SWITCH

NOTE: Front wiper switch is located on steering column.
 See STEERING COLUMN SWITCHES article in the ACCESSORIES/SAFETY EQUIP Section.

REAR WIPER MOTOR

Operation Check (Montero)

Disconnect wiring connector from wiper motor. Connect battery voltage to one terminal and ground to other terminal to ensure automatic operation. See REAR WIPER MOTOR OPERATION CHECK table for terminal numbers and model application. See Fig. 3.

REAR WIPER MOTOR OPERATION CHECK TABLE

Model	Ground Pin No.	Apply Voltage To Pin Nos.
Montero	3	1

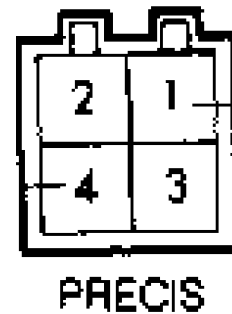
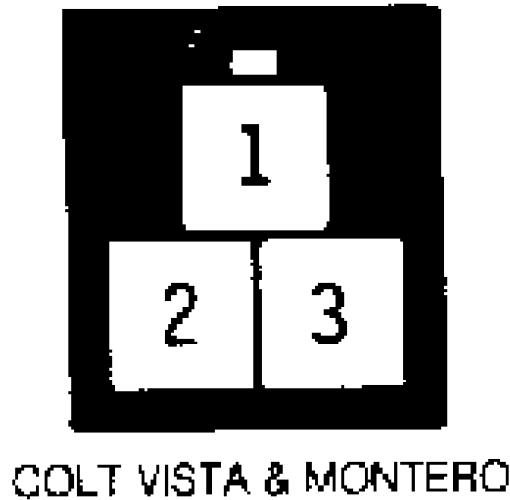


Fig. 3: Identifying Rear Wiper Motor Terminals (Montero)
 Courtesy of Mitsubishi Motor Sales of America.

Automatic Stop Check (Montero)

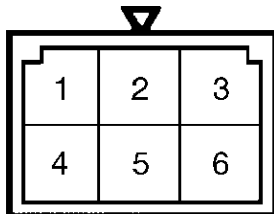
1) Start motor operation by connecting battery voltage to one terminal and grounding another terminal. See REAR WIPER MOTOR OPERATION CHECK table. See Fig. 3. Disconnect wires during operation to stop motor in mid-sweep.

2) Jumper terminals No. 2 and 3 together. Connect battery voltage to remaining terminal and ground wiper motor bracket. Ensure motor parks wiper arm.

REAR WIPER RELAY

Operation Check (Montero)

Relay is located to right of heater blower assembly. Leave intermittent relay connected to wiring harness. Operate rear wiper and check voltage at terminal No. 1. See Fig. 4. There should be 12 volts when rear wiper stops. Zero volts should be present when rear wiper is operating.



92J00207

Fig. 4: Identifying Rear Wiper Relay Terminals
 Courtesy of Mitsubishi Motor Sales of America.

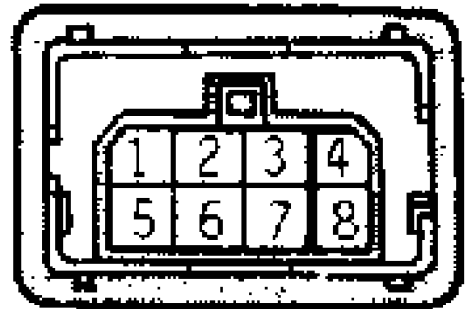
REAR WIPER SWITCH

Montero

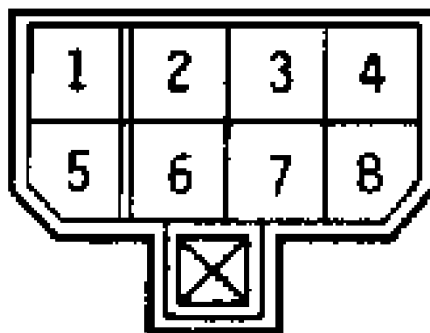
Remove wiper switch from instrument panel and disconnect wiring connector. Place wiper switch in OFF position. Continuity should exist between terminals No. 2 and 5. See Fig. 5. Place wiper switch in ON position. Continuity should exist between terminals No. 2 and 7. Place wiper switch in INT position. Continuity should exist between terminals No. 2 and 5, and 3 and 8. Depress washer switch. Continuity should exist between terminals No. 6 and 7.



COLT, COLT 200, ECLIPSE, MIRAGE,
STEALTH, SUMMIT & 3000GT



COLT VISTA



MONTERO

Fig. 5: Identifying Rear Wiper Switch Terminals
Courtesy of Mitsubishi Motor Sales of America.

REMOVAL & INSTALLATION

FRONT WIPER MOTOR

Removal & Installation

Remove wiper motor attaching bolts. Pull motor out just slightly. Disconnect wiper linkage from motor assembly and remove motor. To install, reverse removal procedure.

FRONT WIPER SWITCH

NOTE: Front wiper switch is integral with combination switch on steering column. See appropriate STEERING COLUMN SWITCHES

article in the ACCESSORIES/SAFETY EQUIP Section.

REAR WIPER MOTOR

Removal & Installation

Remove wiper blade and arm assembly. Remove tailgate trim, 2 bolts and wiper motor. To install, reverse removal procedure. Ensure grommet is in good condition.

REAR WIPER RELAY

Removal & Installation

Rear wiper relay (Except Montero), is located behind right rear quarter trim. On Montero, relay is located to right of heater blower housing.

REAR WIPER SWITCH

Removal & Installation

Using flat-bladed tool, pry rear wiper switch from instrument panel and remove wiring connector. To install, connect wiring connector, and push switch into instrument panel.

WIRING DIAGRAMS

See appropriate chassis wiring diagram in the WIRING DIAGRAMS section.