2002-04 ENGINE COOLING

Electric Cooling Fans

DESCRIPTION & OPERATION

Cooling fan is controlled by Digital Motor Electronics (DME) control unit. Cooper S models also include a power steering cooling fan. See WIRING DIAGRAMS.

SYSTEM TESTS

NOTE: Testing information is not available from manufacturer.

REMOVAL & INSTALLATION

COOLING FAN & COWL

Removal & Installation

Remove radiator. See RADIATOR. Unclip fan housing on radiator and move upward. See Fig. 1. Remove fan cowl with electric fan. To install, reverse removal procedure.
Fig. 1: Unclipping Fan Housing On Radiator & Moving Upward  
Courtesy of BMW OF NORTH AMERICA, INC.

FRONT CARRIER

Remove front bumper trim. See FRONT BUMPER TRIM under REMOVAL & INSTALLATION in GENERATORS & REGULATORS - MINI article. Remove cable for outside temperature sensor from carrier. See Fig. 2. Remove nuts and bolts, and detach carrier for front bumper trim. See Fig. 3 - Fig. 4. To install, reverse removal procedure.
Fig. 2: Removing Cable For Outside Temperature Sensor
Courtesy of BMW OF NORTH AMERICA, INC.

1. Cable
2. Carrier
3. Air Distributor

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Fig. 3: Removing Carrier For Front Bumper Trim (Version "A")
Courtesy of BMW OF NORTH AMERICA, INC.

1. Nuts
2. Bolts

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Turn ignition off. Drain coolant. Remove front carrier. See FRONT CARRIER. Remove oil cooler, if equipped. Remove upper radiator hose. Remove condenser screws and lift condenser out of fixture/retaining lug. See Fig. 5. Remove upper radiator hose. Remove radiator retaining pins. See Fig. 6. Tilt upper radiator forward. Disconnect wiring harness from fan relay block. See Fig. 7. Lift radiator out of lower fixtures. See Fig. 8. To install, reverse removal procedure.
Fig. 5: Removing Condenser From Fixture/Retaining Lug
Courtesy of BMW OF NORTH AMERICA, INC.

1. Screws
2. Fixture/Retaining Lug

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1. Retaining Pins

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Fig. 6: Removing Radiator Retaining Pins
Courtesy of BMW OF NORTH AMERICA, INC.
1. Wiring Harness at Fan Relay Block

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Fig. 7: Disconnecting Wire Harness At Fan Relay Block
Courtesy of BMW OF NORTH AMERICA, INC.
1. Lower Fixtures

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Fig. 8: Lifting Radiator Out Of Lower Fixtures
Courtesy of BMW OF NORTH AMERICA, INC.

WIRING DIAGRAMS
Fig. 9: Cooling Fan System Wiring Diagram (Cooper)
Courtesy of BMW OF NORTH AMERICA, INC.
Fig. 10: Cooling Fan System Wiring Diagram (Cooper S)
Courtesy of BMW OF NORTH AMERICA, INC.