SAFETY COMPLIANCE TESTING FOR FMVSS NO. 103
WINDSHIELD DEFROSTING AND DEFOGGING SYSTEMS

VOLKSWAGEN AG GERMANY
2007 VOLKSWAGEN RABBIT, PASSENGER CAR
NHTSA NO. C75800

GENERAL TESTING LABORATORIES, INC.
1623 LEEDSTOWN ROAD
COLONIAL BEACH, VIRGINIA 22443

MARCH 3, 2008
FINAL REPORT
PREPARED FOR
U. S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
ENFORCEMENT
OFFICE OF VEHICLE SAFETY COMPLIANCE
1200 NEW JERSEY AVE. S.E.
WASHINGTON, D.C. 20590
This publication is distributed by the U.S. Department of Transportation, National Highway Traffic Safety Administration, in the interest of information exchange. The opinions, findings and conclusions expressed in this publication are those of the author(s) and not necessarily those of the Department of Transportation or the National Highway Traffic Safety Administration. The United States Government assumes no liability for its contents or use thereof. If trade or manufacturers' names or products are mentioned, it is only because they are considered essential to the object of the publication and should not be construed as an endorsement. The United States Government does not endorse products or manufacturers.
Compliance tests were conducted on the subject, 2007 Volkswagen Rabbit Passenger Car, in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure No. TP-103-13 for the determination of FMVSS 103 compliance. Test failures identified were as follows: None.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>SECTION</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Purpose of Compliance Test</td>
<td>1</td>
</tr>
<tr>
<td>2 Compliance Test Procedure and Results Summary</td>
<td>2</td>
</tr>
<tr>
<td>3 Compliance Test Data</td>
<td>4</td>
</tr>
<tr>
<td>4 Test Equipment List</td>
<td>8</td>
</tr>
<tr>
<td>5 Photographs</td>
<td>9</td>
</tr>
<tr>
<td>5.1 Left Side View of Vehicle</td>
<td></td>
</tr>
<tr>
<td>5.2 Right Side View of Vehicle</td>
<td></td>
</tr>
<tr>
<td>5.3 ¾ Frontal View From Left Side of Vehicle</td>
<td></td>
</tr>
<tr>
<td>5.4 ¾ Rear View From Right Side of Vehicle</td>
<td></td>
</tr>
<tr>
<td>5.5 Vehicle Certification Label</td>
<td></td>
</tr>
<tr>
<td>5.6 Vehicle Tire Information Label</td>
<td></td>
</tr>
<tr>
<td>5.7 Close-up View of Defroster Control Setting on Dash</td>
<td></td>
</tr>
<tr>
<td>5.8 Instrumentation Set-up</td>
<td></td>
</tr>
<tr>
<td>5.9 Windshield, Pre-Test Frosted State Test #1</td>
<td></td>
</tr>
<tr>
<td>5.10 Defrosted Area at 20 minutes Test #1</td>
<td></td>
</tr>
<tr>
<td>5.11 Windshield Vellum Pattern, Post Test #1</td>
<td></td>
</tr>
<tr>
<td>5.12 Windshield Pre-Test Frosted State Test #2</td>
<td></td>
</tr>
<tr>
<td>5.13 Defrosted Area at 20 minutes Test #2</td>
<td></td>
</tr>
<tr>
<td>5.14 Windshield Vellum Pattern, Post Test #2</td>
<td></td>
</tr>
<tr>
<td>6 Copy of Owner’s Manual Defroster Instructions</td>
<td>24</td>
</tr>
</tbody>
</table>
SECTION 1

PURPOSE OF COMPLIANCE TEST

1.0 PURPOSE OF COMPLIANCE TEST

A 2007 Volkswagen Rabbit Passenger Car was subjected to Federal Motor Vehicle Safety Standard (FMVSS) No. 103 testing to determine if the vehicle was in compliance with the requirements of the standard. All tests were conducted in accordance with NHTSA, Office of Vehicle Safety Compliance (OVSC) Laboratory Procedure, TP-103-13 dated 26 June 1996 and General Testing Laboratories, Inc. (GTL) Test Procedure, “Windshield Defrosting and Defogging Systems – Passenger Vehicles, Multpurpose Vehicles, Trucks and Buses”.

1.1 TEST VEHICLE

The test vehicle was a 2007 Volkswagen Rabbit Passenger Car. Nomenclature applicable to the test vehicle are:

A. Vehicle Identification Number: WVWCR71K67W131176
B. NHTSA No.: C75800
C. Manufacturer: VOLKSWAGEN AG GERMANY
D. Manufacture Date: 12/06

1.2 TEST DATE

The test vehicle was subjected to FMVSS No. 103 testing on October 17-18, 2007.
SECTION 2

COMPLIANCE TEST PROCEDURE AND SUMMARY OF RESULTS

2.0 GENERAL

The 2007 Volkswagen Rabbit 4-door passenger car, NHTSA No. C75800 was subjected to FMVSS No. 103 tests on October 17-18, 2007. Photographs of the test vehicle are shown in Figures 5.1 through 5.4. The manufacturer’s certification and tire information labels are shown in Figures 5.5 and 5.6. The test instrumentation and instrument panel setups are depicted in Figures 5.7 and 5.8. Figures 5.9 through 5.14 depict the windshield pre and post test defrost conditions.

2.1 TEST PROCEDURE

Prior to test the test vehicle was inspected for completeness, systems operability, and appropriate fuel and liquid levels, i.e., oil and coolant to include antifreeze protection. The vehicle was then photographically documented as required by the DOT/NHTSA test procedure. The windshield patterns for areas A, B, C, and D had been furnished prior to testing and these areas were outlined on the windshield with a marker. The vehicle was then installed in the cold chamber and pre-conditioned for a 14-hour minimum, 0º ±5º F temperature soak for the first test run. After the pre-condition, the hood was raised to assure engine coolant and lubricant were stabilized within the test temperature range for a minimum of 2 hours.

At the end of the 2-hour minimum stabilization period, the entire windshield was sprayed evenly with 0.010 ounces of water per square inch of glass area. Refer to Section 3, Compliance Test Data, for test specifics such as total amount of water sprayed, spray gun identification, and air pressure regulation. The vehicle soak continued for an additional 30 minutes minimum but no more than 40 minutes after the windshield was sprayed.

At the conclusion of the additional soak time the vehicle’s engine was started and operated at a target speed of 1500-1600 rpm or at the manufacturer’s specification if different as noted on data sheets. The defroster blower was turned on to the high speed setting with the heater selector in the de-ice (defrost) position, and the temperature control in the maximum temperature position. All doors and windows were closed. The heater air intake was fully open and the vehicle’s hood closed. At no time during the test were the windshield wipers used.
At start of testing and during test, at each 5-minute interval after engine start, cold chamber, engine coolant, heater coolant in and defroster air left/defroster air right temperatures were recorded. Likewise at each 5-minute interval the boundary of the defrosted area was marked on the inside surface of the windshield. The test was run for a maximum of 40 minutes from engine start, or until such time as 100 percent windshield clearance was achieved. Photographs were made of the windshield at the pre-test frosted state and 20-minute and 25-minute intervals. Post test actions included placing a vellum pattern on the windshield and tracing the windshield's 5-minute interval defrosted area boundary lines onto the vellum pattern.

After the traces were obtained, the windshield was again thoroughly cleaned and the vehicle engine coolant and lubricant stabilization period at 0º ± 5º F temperature commenced for a repeat of the procedure discussed. The windshield patterns for both tests were used subsequently to determine the cleared area percentages.

### 2.2 SUMMARY OF RESULTS

Based on the test performed, the test vehicle appears to be in compliance with the requirements of FMVSS 103.
SECTION 3

COMPLIANCE TEST DATA

3.0 TEST RESULTS

The following data sheets document the results of testing on the 2007 Volkswagen Rabbit.
SUMMARY DATA SHEET
FMVSS 103, WINDSHIELD DEFROSTING AND DEFOGGING SYSTEMS

VEH. MOD YR/MAKE/MODEL/BODY: 2007 VOLKSWAGEN RABBIT PASSENGER CAR
VEH. NHTSA NO: C75800; VIN: WVWCR71K67W131176
VEH. BUILD DATE: 12/06 TEST DATE: OCTOBER 17-18, 2007
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBSERVERS: GRANT FARRAND, JIMMY LATANE

WINDSHIELD AREA: 1851 in² AREA C = 248.0 in² AREA D = 248.0 in² AREA A = 1060 in²
MANUFACTURER’S WINDSHIELD PATTERN USED: Yes X No
ENGINE THERMOSTAT NOMINAL REGULATING TEMPERATURE: 185°F
HEATER-DEFROSTER SYSTEM INCLUDES AIR CONDITIONER: YES X NO

DESCRIBE UNUSUAL FEATURES OF DEFROSTING SYSTEM: Recommended best defrost fan speed is speed 3, not speed 4.
DESCRIBE UNUSUAL FEATURES OF TEST CAR: NONE

<table>
<thead>
<tr>
<th>DESIGNATION</th>
<th>AREA PERCENT DEFROSTED</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TEST 1</td>
</tr>
<tr>
<td>CRITICAL AREA C AT 20 MINUTES</td>
<td>100%</td>
</tr>
<tr>
<td>PASSENGER AREA D AT 25 MINUTES</td>
<td>100%</td>
</tr>
<tr>
<td>TOTAL AREA A AT 40 MINUTES</td>
<td>100%</td>
</tr>
</tbody>
</table>

REMARKS:

RECORDED BY: G. FARRAND DATE: 10/18/07
APPROVED BY: D. MESSICK
FMVSS 103 TEST DATA RECORD – TEST RUN NO. 1

VEH. MOD YR/MAKE/MODEL/BODY: 2007 VOLKSWAGEN RABBIT PASSENGER CAR
VEH. NHTSA NO: C75800; VIN: WVWCR71K67W131176
VEH. BUILD DATE: 12/06; TEST DATE: OCTOBER 17-18, 2007
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBSERVERS: GRANT FARRAND, JIMMY LATANE

If 1st Test Run, chamber conditioned 19 hours @ 0º ±5º F (14 hrs. min.)

Cold Soak Period: 19 HOURS

Time engine coolant and lubricant remained stabilized at 0º F: 14 hrs. 0 minutes

Water Spray Gun and Nozzle Type: BINKS #66 S

Spray Gun Pressure: 50 psi (50 psi ± 3 psi)

Water used: 18.5 fluid oz. (0.010 ounces per square inch of windshield area)

Soak Period Between Ice Application and Test Start: 35 minutes (30 to 40 minutes)

Engine Speed: 4000 rpm (first 5 minutes, then 1500-1600) (Target engine speed 1500 to 1600 rpm)

Wind at specified location in front of windshield: 1 mph (0 to 2 mph)

Number of Vehicle Occupants: 1 (2 maximum)

Describe window openings, if any: NONE

<table>
<thead>
<tr>
<th>TIME FROM START (minutes)</th>
<th>MOTOR VOLTAGE (volts)</th>
<th>TEMPERATURE, ºF</th>
<th>DEFROSTED AREA, %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>TEST ROOM</td>
<td>ENGINE WATER</td>
</tr>
<tr>
<td>0</td>
<td>13.5</td>
<td>-3.9</td>
<td>-2</td>
</tr>
<tr>
<td>5</td>
<td>14.7</td>
<td>-3.9</td>
<td>-2</td>
</tr>
<tr>
<td>10</td>
<td>14.6</td>
<td>.5</td>
<td>79.6</td>
</tr>
<tr>
<td>15</td>
<td>14.6</td>
<td>3.0</td>
<td>122.6</td>
</tr>
<tr>
<td>20</td>
<td>14.5</td>
<td>4.5</td>
<td>154.6</td>
</tr>
</tbody>
</table>

REMARKS: * Heater Water In Thermocouple is located on outside of heater hose.

RECORDED BY: G. FARRAND  DATE: 10/17/07
APPROVED BY: D. MESSICK
FMVSS 103 TEST DATA RECORD – TEST RUN NO. 2

VEH. MOD YR/MAKE/MODEL/BODY: 2007 VOLKSWAGEN RABBIT PASSENGER CAR
VEH. NHTSA NO: C75800; VIN: WVWCR71K67W131176
VEH. BUILD DATE: 12/06; TEST DATE: OCTOBER 17-18, 2007
TEST LABORATORY: GENERAL TESTING LABORATORIES
OBSERVERS: GRANT FARRAND, JIMMY LATANE

If 1st Test Run, chamber conditioned N/A hours @ 0º ±5º F (14 hrs. min.)

Cold Soak Period: 15.0 HOURS

Time engine coolant and lubricant remained stabilized at 0º F: 11 hrs. ___ minutes

Water Spray Gun and Nozzle Type: BINKS #66S

Spray Gun Pressure: 50 psi (50 psi ± 3 psi)

Water used: 18.5 fluid oz. (0.010 ounces per square inch of windshield area)

Soak Period Between Ice Application and Test Start: 35 minutes (30 to 40 minutes)

Engine Speed: 4000 rpm (first 5 minutes, then 1500-1600) (Target engine speed 1500 to 1600 rpm)

Wind at specified location in front of windshield: 1 mph (0 to 2 mph)

Number of Vehicle Occupants: 1 (2 maximum)

Describe window openings, if any: NONE

<table>
<thead>
<tr>
<th>TIME FROM START</th>
<th>MOTOR VOLTAGE (volts)</th>
<th>TEMPERATURE, ºF</th>
<th>DEFROSTED AREA, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>(minutes)</td>
<td>TEST ROOM</td>
<td>ENGINE WATER</td>
<td>HEATER WATER IN</td>
</tr>
<tr>
<td>0</td>
<td>13.5</td>
<td>-1.6</td>
<td>-1.7*</td>
</tr>
<tr>
<td>5</td>
<td>14.7</td>
<td>1.6</td>
<td>64.9</td>
</tr>
<tr>
<td>10</td>
<td>14.6</td>
<td>1.5</td>
<td>118.5</td>
</tr>
<tr>
<td>15</td>
<td>14.6</td>
<td>3.9</td>
<td>141.3</td>
</tr>
<tr>
<td>20</td>
<td>14.5</td>
<td>5.0</td>
<td>153.2</td>
</tr>
</tbody>
</table>

REMARKS: * Heater Water In Thermocouple is located on outside of heater hose.

RECORDED BY: G. FARRAND DATE: 10/18/07
APPROVED BY: D. MESSICK
### TABLE 1 - INSTRUMENTATION & Equipment List

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Description</th>
<th>Model/Serial No.</th>
<th>Cal. Date</th>
<th>Next Cal. Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timer</td>
<td>Accu-Split</td>
<td>ACT1</td>
<td>10/07</td>
<td>10/08</td>
</tr>
<tr>
<td>Tac/Recorder</td>
<td>Monarch</td>
<td>1444664</td>
<td>08/07</td>
<td>08/08</td>
</tr>
<tr>
<td>Temperature Recorder</td>
<td>OMEGA</td>
<td>B/55662</td>
<td>06/07</td>
<td>06/08</td>
</tr>
<tr>
<td>Spray Gun</td>
<td>Binks</td>
<td>66S</td>
<td>BEFORE USE</td>
<td>BEFORE USE</td>
</tr>
<tr>
<td>Anemometer</td>
<td>OMEGA</td>
<td>53668</td>
<td>06/07</td>
<td>06/08</td>
</tr>
<tr>
<td>Air Pressure Gage</td>
<td>Binks</td>
<td>0-160</td>
<td>10/07</td>
<td>10/08</td>
</tr>
<tr>
<td>Scale</td>
<td>Mettler</td>
<td>H315/445951</td>
<td>BEFORE USE</td>
<td>BEFORE USE</td>
</tr>
<tr>
<td>Graduated Beaker</td>
<td>Photax</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Event Recorder</td>
<td>Computer</td>
<td>GEO1</td>
<td>BEFORE USE</td>
<td>BEFORE USE</td>
</tr>
</tbody>
</table>
SECTION 5

PHOTOGRAPHS
2007 VOLKSWAGEN RABBIT
NHTSA NO. C75800
FMVSS NO. 103

FIGURE 5.1
LEFT SIDE VIEW OF VEHICLE
FIGURE 5.2
RIGHT SIDE VIEW OF VEHICLE
2007 VOLKSWAGEN RABBIT
NHTSA NO. C75800
FMVSS NO. 103

FIGURE 5.3
¾ FRONTAL VIEW FROM LEFT SIDE OF VEHICLE
FIGURE 5.4
¾ REAR VIEW FROM RIGHT SIDE VIEW OF VEHICLE
MFD BY VOLKSWAGEN AG GERMANY 12/06
GVWR 4145 GAWR FRONT 2227/REAR 2029 LBS
THIS VEHICLE CONFORMS TO ALL APPLICABLE U.S.
FEDERAL MOTOR VEHICLE SAFETY, BUMPER AND
THEFT PREVENTION STANDARDS IN EFFECT ON
THE DATE OF MANUFACTURE SHOWN ABOVE.

WVWCR71K67W131176  PASSENGER CAR

FIGURE 5.5
VEHICLE CERTIFICATION LABEL
### TIRE AND LOADING INFORMATION

**Seating Capacity:** Total 5, Front 2, Rear 3

The combined weight of occupants and cargo should never exceed 440 kg or 970 lbs.

<table>
<thead>
<tr>
<th>Tire</th>
<th>Size</th>
<th>Cold Tire Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front</td>
<td>195/65 R15</td>
<td>230 kPa, 34 PSI</td>
</tr>
<tr>
<td>Rear</td>
<td>195/65 R15</td>
<td>230 kPa, 34 PSI</td>
</tr>
<tr>
<td>Spare</td>
<td>195/65 R15</td>
<td>230 kPa, 34 PSI</td>
</tr>
</tbody>
</table>

See Owner's Manual for additional information.

*Figure 5.6: Vehicle Tire Information Label*
FIGURE 5.7
CLOSE-UP VIEW OF DEFROSTER CONTROL SETTING
ON DASH
FIGURE 5.9
WINDSHIELD, PRE-TEST FROSTED STATE TEST #1
2007 VOLKSWAGEN RABBIT
NHTSA NO. C75800
FMVSS NO. 103

FIGURE 5.10
DEFROSTED AREA AT 20 MINUTES TEST #1
2007 VOLKSWAGEN RABBIT
NHTSA NO. C75800
FMVSS NO. 103

FIGURE 5.12
WINDSHIELD PRE-TEST FROSTED STATE TEST #2
FIGURE 5.13
DEFROSTED AREA AT 20 MINUTES TEST #2
2007 VOLKSWAGEN RABBIT
NHTSA NO. C75800
FMVSS NO. 103

FIGURE 5.14
WINDSHIELD VELLUM PATTERN, POST TEST #2
Air conditioning

Climatic

Controls

The air conditioning system (compressor) only works when the engine is running and the fan is switched on.

- Use controls ①, ② and ③ in the center console to set and adjust temperature, air distribution and fan speed ⇒ fig. 66.
- Press the appropriate button ④, ⑤ or ⑥ to switch the air conditioning, rear window defogger and air recirculation mode on or off. When switched on, a light in the button comes on.

① Temperature setting ⇒ page 68.
② The 8 button – switches the air-conditioning (compressor) on. When the button indicator light comes on, the air-conditioning is on.
③ 9 button – Rear window defogger. It is switched off automatically about 10 minutes after you switch it on. It can also be switched off by pushing the button again.
④ 0 button – Air recirculation mode ⇒ page 70.
⑤ Air distribution control – Use it to direct the air flow where you want it ⇒ page 68.
   - ⑦ – Directs air towards the windshield (defrost). With this setting, the recirculation function is switched off for safety reasons. It can be switched back on again by pressing the ⑤ button.
   - ⑧ – Directs air to the upper instrument panel outlets.
   - ⑨ – Directs air to the footwells.
   - ⑩ – Directs air towards the windscreen and the footwells.
⑥ Fan – The fan has four speeds. The fan should always be set to the lowest speed “1” when driving slowly, and if outside air quality permits.

⚠️ WARNING
Poor visibility increases the risk of collisions and other accidents that cause serious personal injuries.
- Always make sure all windows are clear of ice, snow and condensation for good visibility through the windscreen, side and rear windows.


**Heating and cooling the interior**

**Climatic controls air temperature so that the selected temperature is reached as quickly as possible and then kept constant.**

---

**Cooling the interior**

- Turn the air-conditioning on by pressing the A/C button 6. The indicator light on the button goes out ⇒ Fig. 67.
- Turn the temperature selector 1 to the right until you reach the desired temperature setting ⇒ Fig. 67. We recommend 72°F (22°C).
- Turn the fan switch 2 to one of the fan speed settings (1-4).
- Use the air distribution control 3 to direct the airflow where you want it: 4 (to the windshield), 5 (to the upper instrument panel outlets), 6 (to the footwells) or 7 (to the windshield and the footwells) ⇒ page 70, “Air recirculation mode.”

---

**Heating the interior**

- Turn off the air-conditioning by pressing the A/C button 6. The indicator light on the button goes out ⇒ Fig. 67.
- Turn the temperature selector 1 to the right until you reach the desired temperature setting ⇒ Fig. 67. We recommend 72°F (22°C).
- The engine is not running.
- The fan is switched off.
- Outside temperature is lower than about +40°F (+5°C).

---

**Tips**

The arrangement of controls may vary depending on equipment and options on your vehicle. The symbols and labels on the buttons are the same.

---

**WARNING**

Stale air causes driver fatigue and reduces driver alertness, which can cause accidents, collisions and serious personal injuries.

- Never use air recirculation for long periods of time because no fresh air will come into the passenger compartment.
- Always switch off recirculation mode when it is not needed.

---

**WARNING**

Stale air causes driver fatigue and reduces driver alertness, which can cause accidents, collisions and serious personal injuries.

- Maximum heating output and fast defrosting will only be possible after the engine has reached normal operating temperature. Wait until you have good visibility before driving off.
- Always make sure you know how to properly use the heating and ventilation systems as well as the rear window defogger that you will need for good visibility.

---

**WARNING**

Stale air causes driver fatigue and reduces driver alertness, which can cause accidents, collisions and serious personal injuries.

- Always make sure all windows are clear of ice, snow and condensation for good visibility through the windshield, side and rear windows.
- Maximum heating output and fast defrosting will only be possible after the engine has reached operating temperature. Wait until you have good visibility before driving off.
- Always make sure you know how to properly use the heating and ventilation systems as well as the rear window defogger that you will need for good visibility.
- Never use air recirculation for long periods of time because no fresh air will come into the passenger compartment. When the air conditioning is on and recirculation mode is on, condensation can quickly form on the windows and greatly reduce visibility.
- Always switch off recirculation mode when it is not needed.
- Always read and heed the information and all WARNINGS ⇒ page 71, “Important notes.”
Air recirculation mode helps keep fumes or unpleasant smells from entering the vehicle.

- Press the button to switch the air recirculation mode on or off as fig. 68. When it is switched on, a yellow indicator light in the button comes on.

Air recirculation mode helps keep strong outside odors from getting into the vehicle, such as when driving through a tunnel or in heavy traffic.

When the outside temperature is very low, using the air recirculation mode for a short time will provide more effective heating by heating warmer air from inside the vehicle instead of cold air from outside.

When the outside temperature is very high, using the air recirculation mode for a short time will provide more effective cooling by cooling the air from inside the vehicle instead of warm air from outside.

For safety reasons, air recirculation is switched off when the air distribution control is set to the position. The air recirculation mode can be switched back on by pressing the button again.

If you shift into Reverse while the windshield wipers are working, Climatic will temporarily switch on the air recirculation mode. This keeps outside air (exhaust fumes from other vehicles) from entering the vehicle.

**WARNING**

Poor visibility increases the risk of collisions and other accidents that cause serious personal injuries.

- Always make sure all windows are clear of ice, snow and condensation for good visibility through the windshield, side and rear windows.
- Maximum heating output and fast de-frosting will only be possible after the engine has reached operating temperature. Wait until you have good visibility before driving off.
- Always make sure you know how to properly use the heating and ventilation systems as well as the rear window defogger that you will need for good visibility.
- Never use air recirculation for long periods of time because no fresh air will come into the passenger compartment. When the air conditioning is off and recirculation mode is on, condensation can quickly form on the windows and greatly reduce visibility.
- Always switch off recirculation mode when it is not needed.
- Always read and heed the information and all WARNINGS on page 74."Important notes".