Mercedes-Benz

Group 91

Objectives

Students will be able to:

- identify seat components and special tools
- answer questions pertaining to the AIRSCARF
- identify new SRS components
- explain function of the 2 stage belt force limiter

Contents

R171 – Seats

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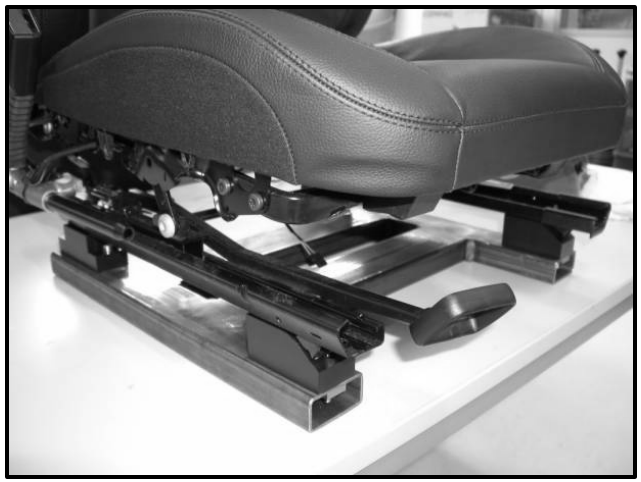
What has changed on the R171 seats ?

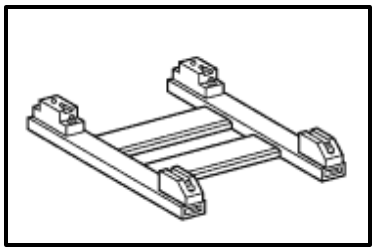
- Leather covering designed to wrinkle with time
- All seats over time will wrinkle differently
- Seat backrest painted magnesium
- If magnesium becomes damaged (scratches) must be replaced due to corrosion (creates fatigue)
- Seat adjuster/memory buttons outboard side of seat

R171 – Seats Service Tip

Service tip on the manual seats

- Manual operated seats must be placed on special tool W171 589 00 31 00 when removing backrest frame or dismantling the seat frame
- Aids in pretension of seat height adjustment
- Seat frame twists without magnesium backrest frame installed



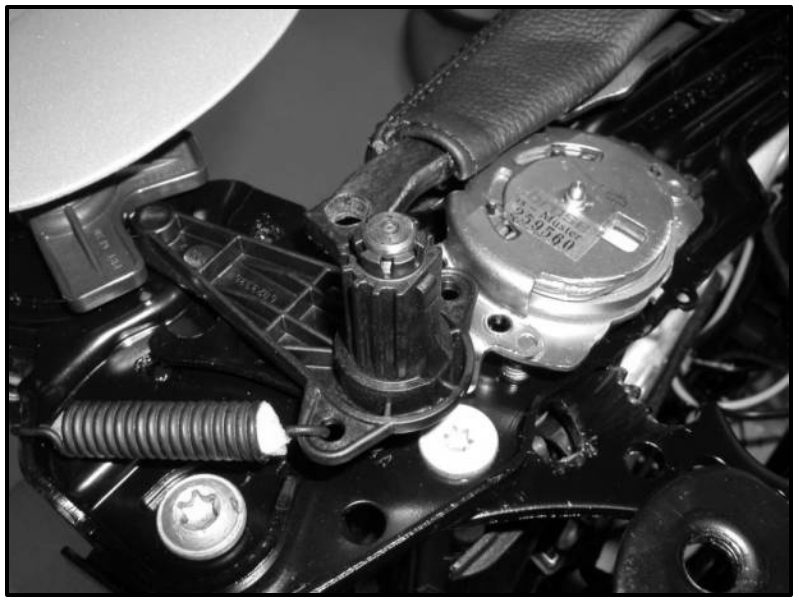


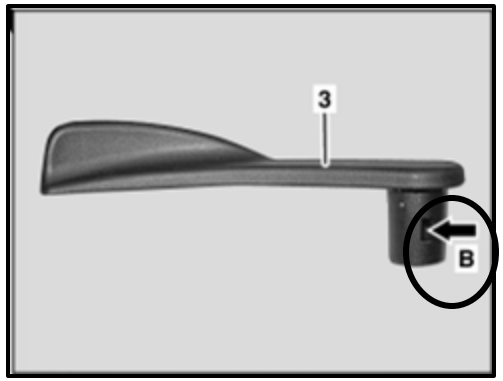
W171 589 00 31 00

R171 – Seats Service Tip

Service tip for manual backrest

- Engaging pin of manual seat backrest adjustment may brake if lever is removed incorrectly
- Adjuster not available separately !
- Insert screwdriver in slot B to release





Head Rest Ventilation (AIRSCARF) (Optional)

This innovation extends your convertible car season

Front headroom heating enables open driving even when outside temperatures are lower

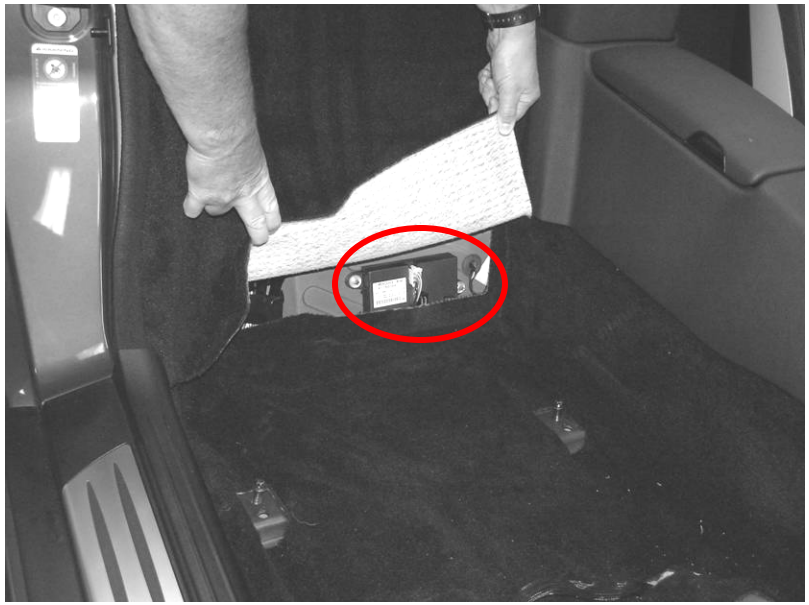
Head Rest Ventilation (AIRSCARF) (Optional)

- Provides additional heating in driver and passenger head area
- Integrated into the backrest of the driver and passenger seat
- Seat heater and seat ventilation control module (N25/7) regulates heating element and blower
- Heating element and blower depend on selected setting (1, 2, and 3), Blower speed varies by vehicle speed and vario roof position

AIRSCARF Control

The front HS, head area ventilation and steering wheel heater control unit (N25/7) controls the following functions:

- Heated seats
- AIRSCARF system



N25/7 - Front HS [SIH], head area ventilation control unit

AIRSCARF Prerequisites

Prerequisites:

Ignition 15 “On”

Interior temperature < 104°F

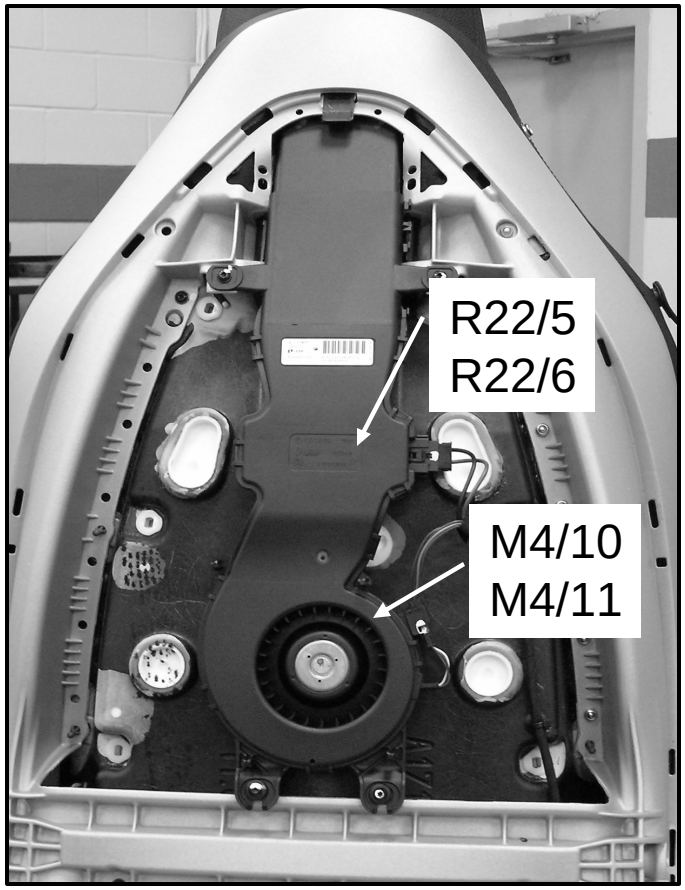
Switch activation

- 3 stage switch, High, Medium, Low and off (no time out)
- Information received by Upper Control Panel (UCP)
- Function displayed via 3 LED’s

AIRSCARF Heating Element

Heating element:

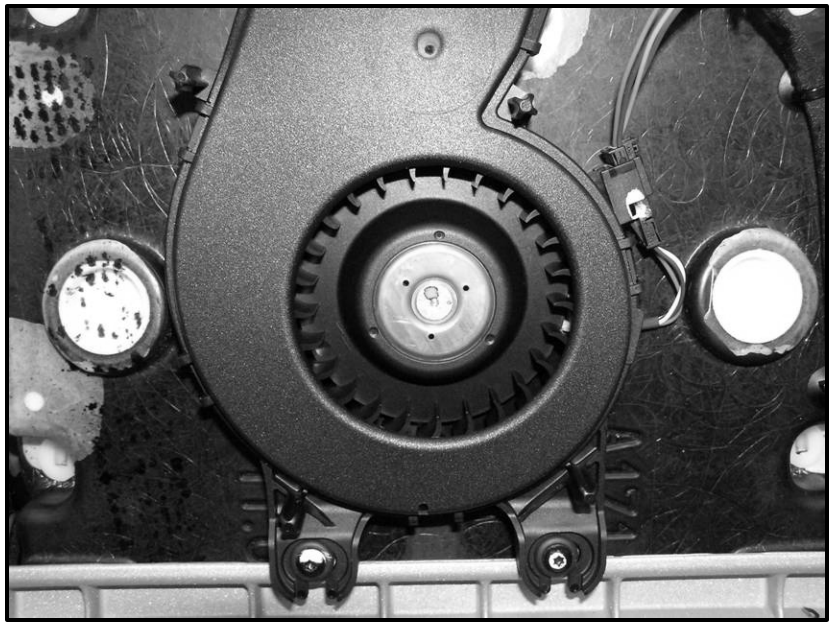
- Controlled via PWM signal from front heating and AIRSCARF module
- If AIRSCARF blower is inoperative heater will not activate
- Only available as assembly
  blower motor, heating element, air ducting



R22/5,R22/6 – Heater element
M4/10,M4/11 – Blower motor

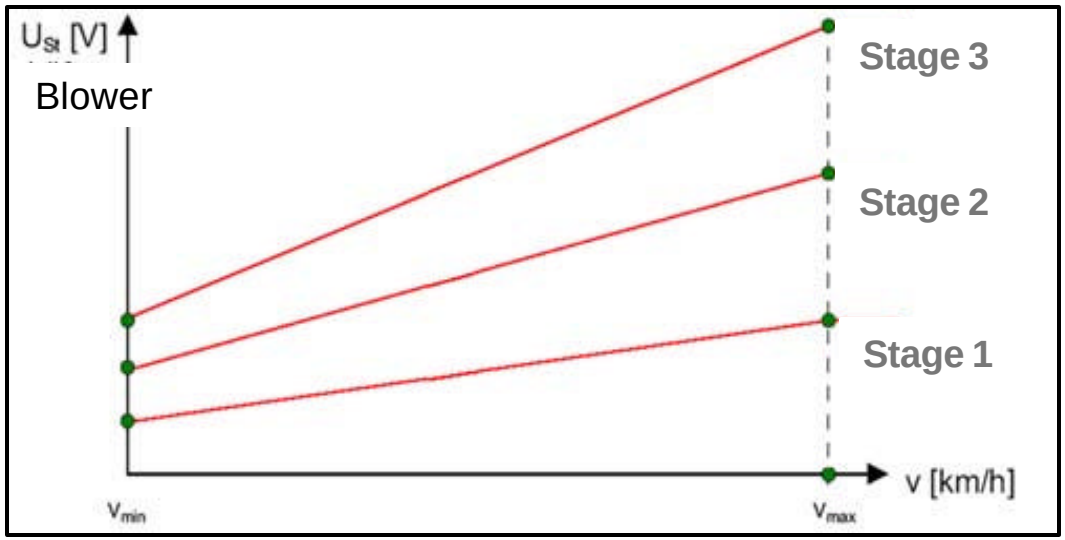
AIRSCARF Blower Motor

- Air for blower drawn in from bottom of seat (no additional vents)
- Voltage regulated between 2 to 8 volts via N25/7
- Active 10 seconds after heating element activated (prevents cold air)
- Active at lowest speed ~ 5 seconds when system is shut off (reduces heating element temperature)
- Sends feedback signal (square wave) to N25/7



AIRSCARF Blower Speed

- Blower motor
  - Blower speed determined by vehicle speed and Vario Roof position
  - Vario Roof closed → each stage fixed
  - Vario Roof open → Speed increased based on vehicle speed
    - Blower speed in each stage is increased in 8 steps up to maximum at 50mph



AIRSCARF

Heating Stage	Heat level	Modulation Heater	Voltage blower	Status Indicator
1	low	~ 30 %	2.5 – 3.5V	1 LED
2	medium	~ 60%	3.0 – 5.5V	2 LED´s
3	high	~ 90 %	3.5 – 7.5V	3 LED´s