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2020.0 DEFENDER (LE), 501-10

SEATING

SEATS - [+] 5 SEAT CONFIGURATION (G2342573)

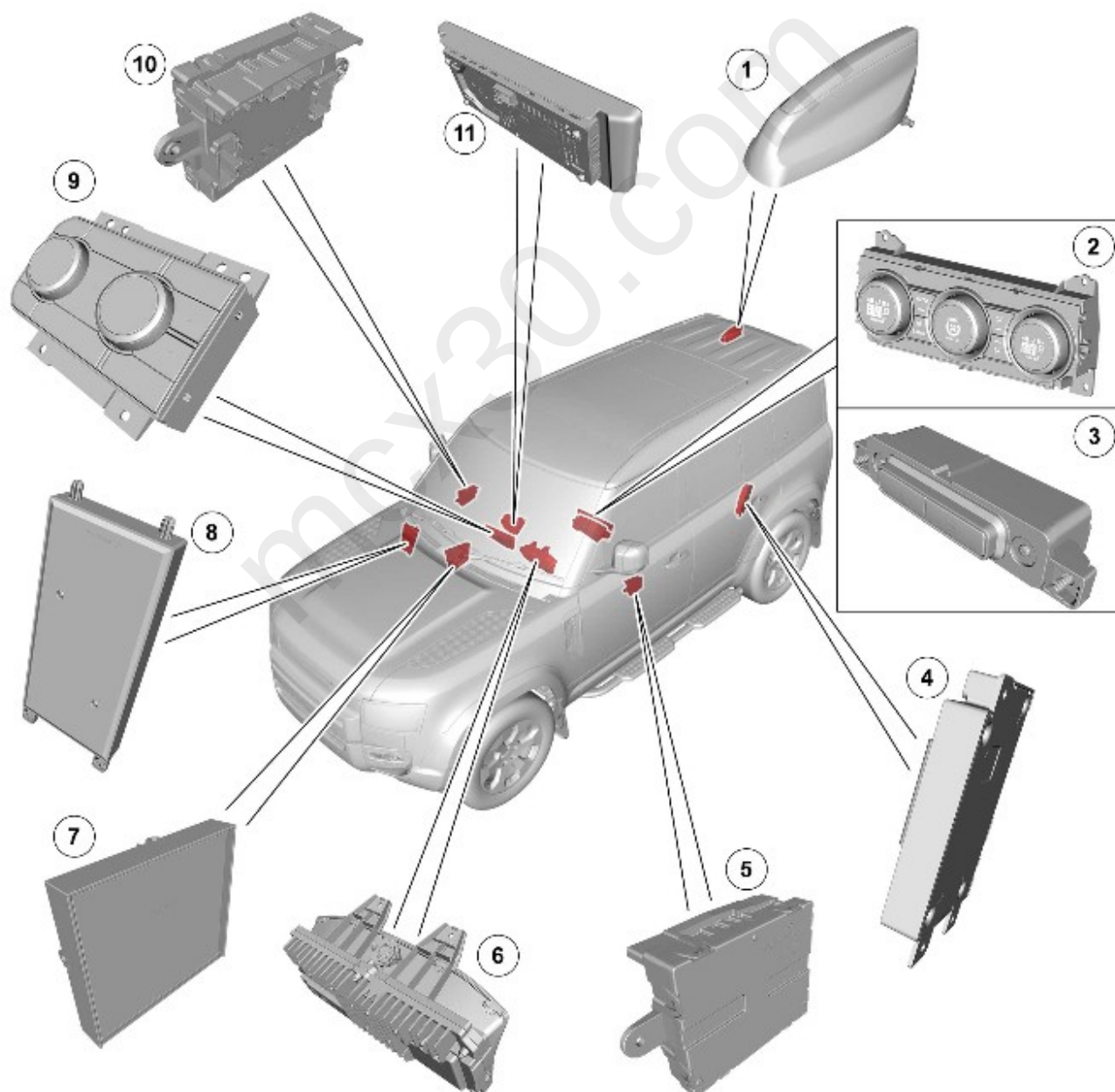
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COMPONENT LOCATION

COMPONENT LOCATION - 1 OF 7 - SEAT ADJUSTMENT CONTROL MODULES

 NOTES:

- Vehicle with 5 doors is shown, vehicle with 3 doors is similar.
- Left Hand Drive (LHD) vehicle is shown, Right Hand Drive (RHD) vehicle is similar.



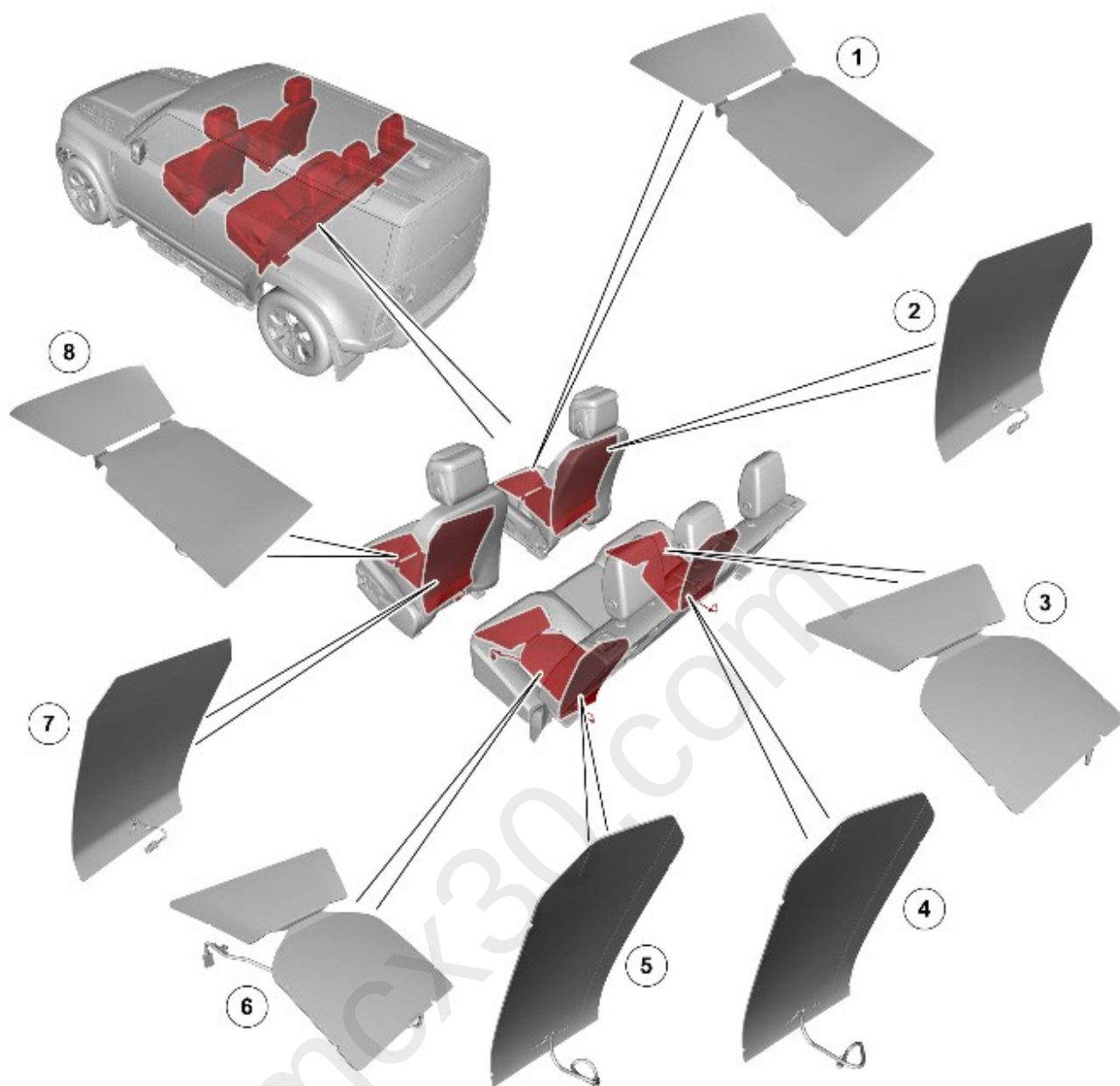
ITEM	DESCRIPTION
1	Roof pod
2	Rear Integrated Control Panel (FCIMB) (if equipped)
3	Second row seat heater switch (if equipped)
4	Telematics Control Module (TCU)
5	Driver Door Control Module (DDM)
6	Instrument Panel Cluster (IPC)
7	Heating, ventilation, and air conditioning (HVAC) control module
8	Body Control Module (BCM)/ Gateway Control Module (GWM)
9	Integrated Control Panel (FCIM)
10	Passenger Door Control Module (PDM)
11	Touch Screen (FCDIM)

COMPONENT LOCATION - 2 OF 7 - SEAT HEATER - IF EQUIPPED



NOTE:

Vehicle with 5 doors is shown, vehicle with 3 doors is similar.



E251227

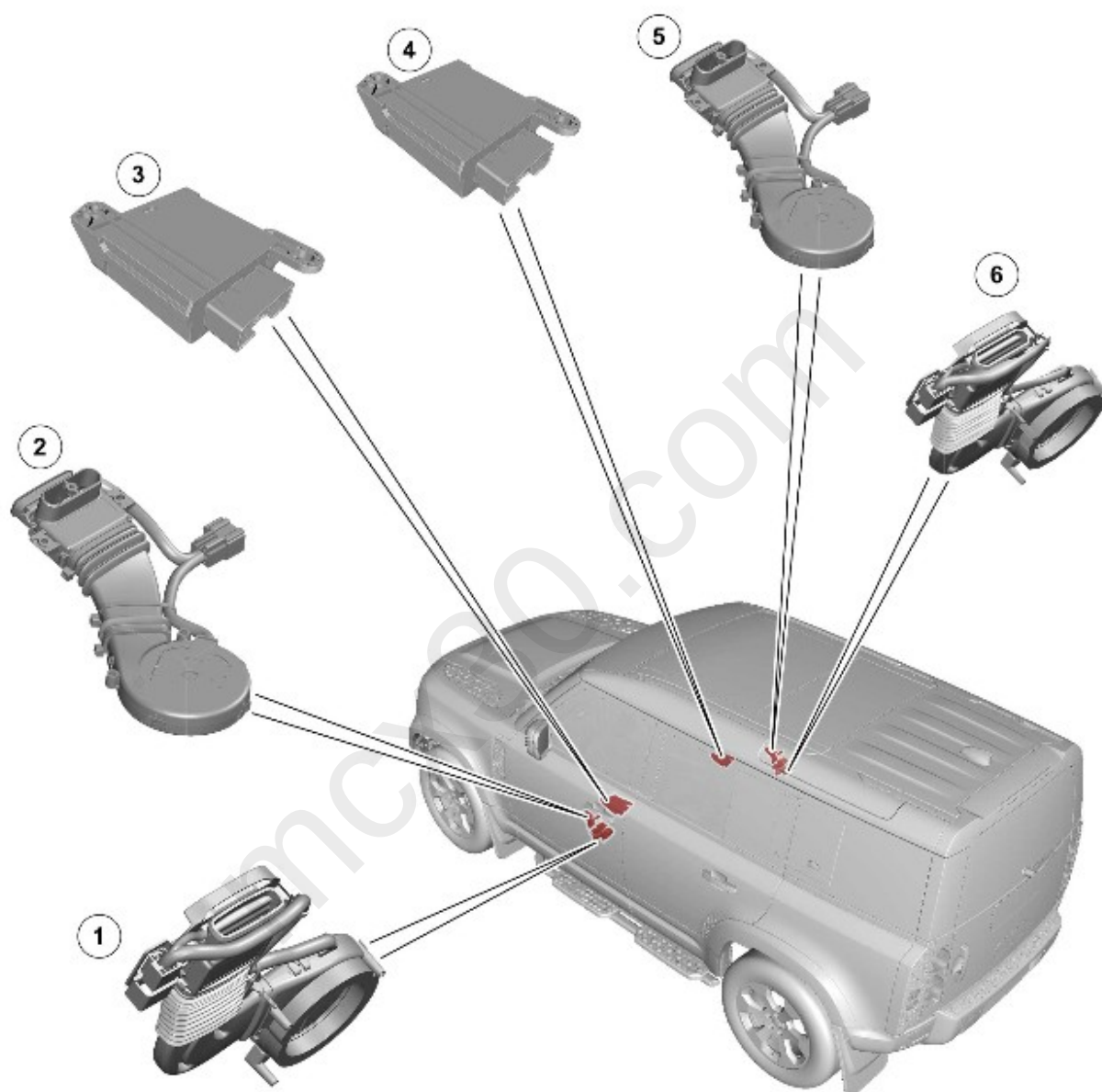
ITEM	DESCRIPTION
1	Front row seat heated cushion - Right
2	Front row seat heated backrest - Right
3	Second row seat heated cushion - Right
4	Second row seat heated backrest - Right
5	Second row seat heated backrest - Left
6	Second row seat heated cushion - Left
7	Front row seat heated backrest - Left
8	Front row seat heated cushion - Left

COMPONENT LOCATION - 3 OF 7 - FRONT ROW CLIMATE SEAT

NOTE:

Vehicle with 5 doors is shown, vehicle with 3 doors is similar.

LHD vehicle is shown, RHD vehicle is similar.

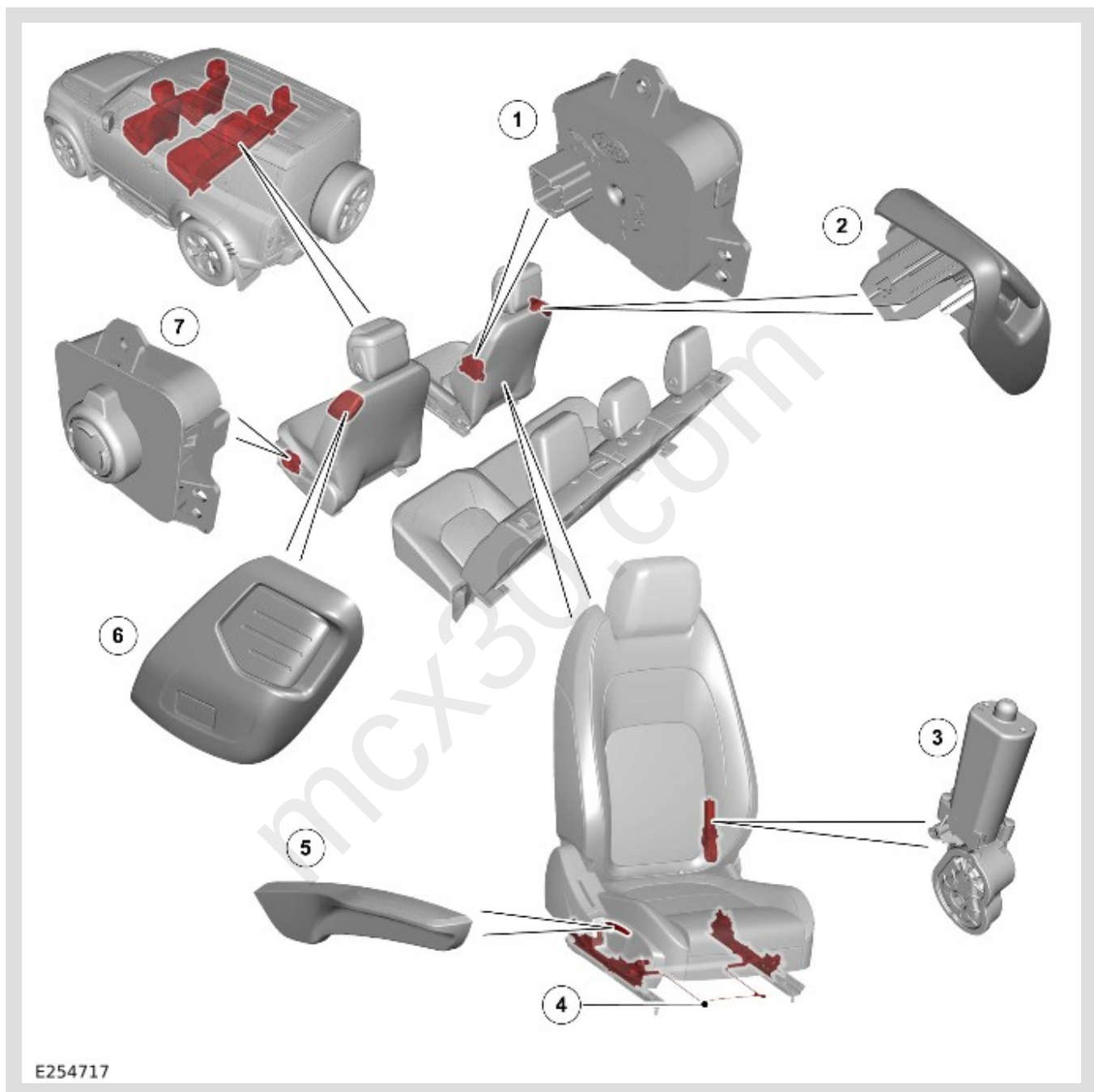


E254716

ITEM	DESCRIPTION
1	Front row climate seat backrest - Left
2	Front row climate seat cushion - Left
3	Seat Climate Control Module (SCME) - Left
4	SCME - Right

ITEM	DESCRIPTION
5	Front row climate seat cushion - Right
6	Front row climate seat backrest - Right

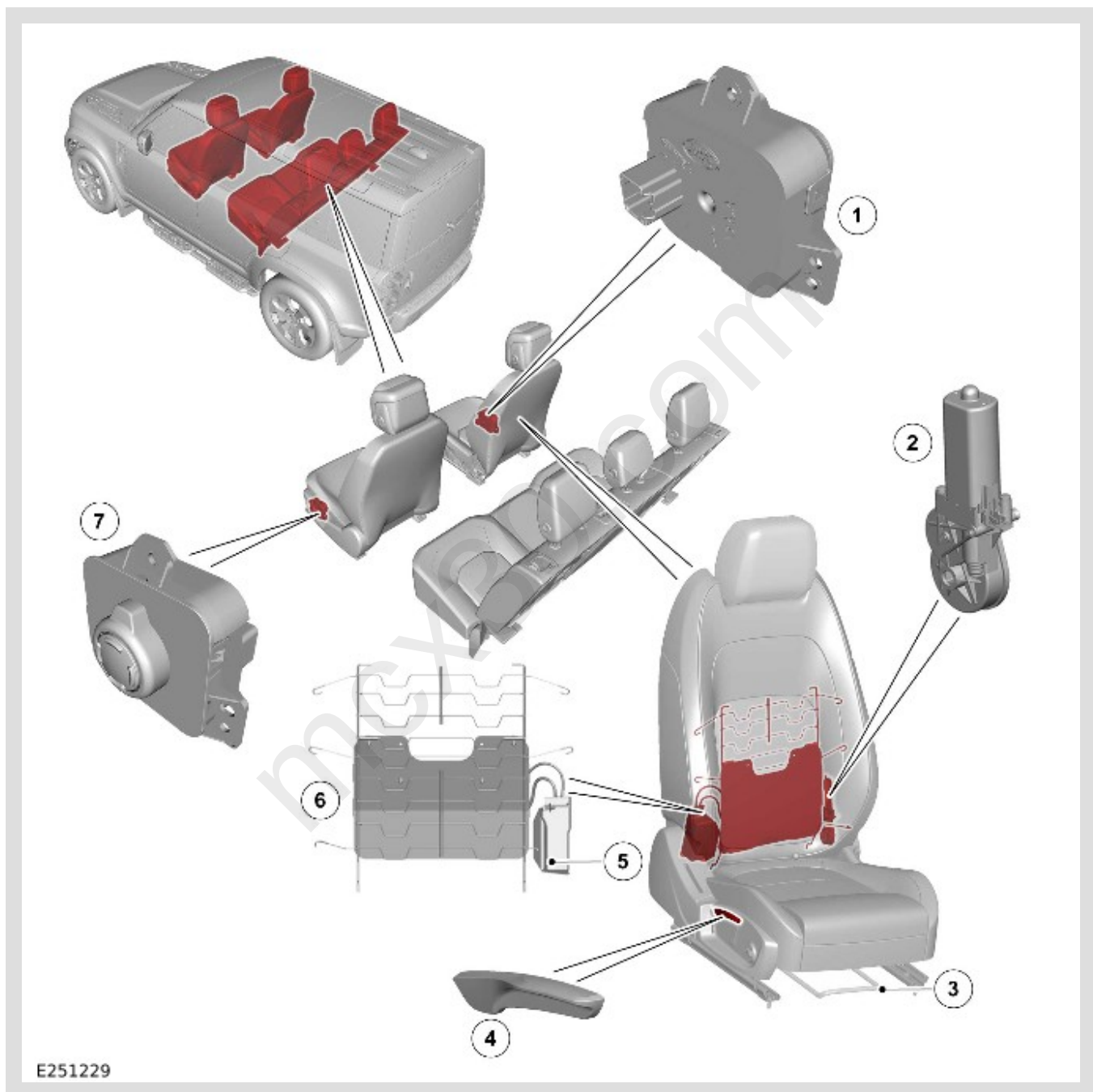
COMPONENT LOCATION - 4 OF 7 - FRONT ROW SEAT - VEHICLE WITH 3 DOORS ONLY



ITEM	DESCRIPTION
1	Front row seat switchpack - Right
2	Front row seat easy entry switch - Right
3	Front row seat backrest recline motor (quantity 2)
4	Front row seat forward/rearward adjustment lever (quantity 2)

ITEM	DESCRIPTION
5	Front row seat height adjustment lever (quantity 2)
6	Front row seat easy entry switch - Left
7	Front row seat switchpack - Left

COMPONENT LOCATION - 5 OF 7 - SEMI POWERED 12-WAY SEAT ADJUSTMENT - VEHICLE WITH 5 DOORS ONLY



ITEM	DESCRIPTION
1	Front row seat switchpack - Right
2	Front row seat backrest recline motor (quantity 2)
3	Front row seat forward/rearward adjustment lever (quantity 2)

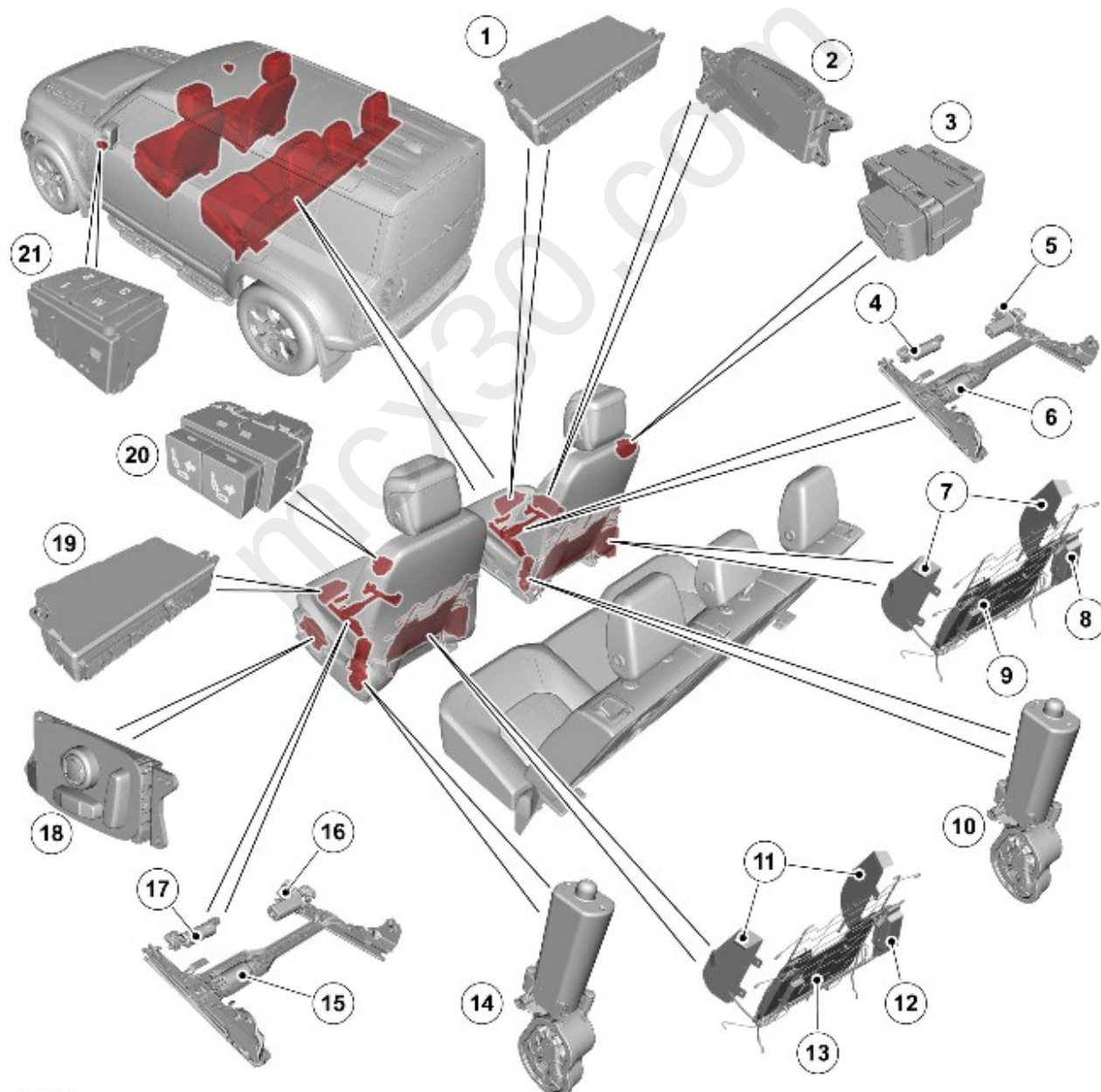
ITEM	DESCRIPTION
4	Front row seat height adjustment lever (quantity 2)
5	Front row seat lumbar air pump (quantity 2)
6	Front row seat lumbar system assembly (quantity 2)
7	Front row seat switchpack - Left

COMPONENT LOCATION - 6 OF 7 - POWER SEAT ADJUSTMENT WITH SEAT MEMORY SWITCHPACK - VEHICLE WITH 3 DOORS ONLY



NOTE:

Right Hand Drive (RHD) vehicle is shown, Left Hand Drive (LHD) vehicle is similar.



E251230

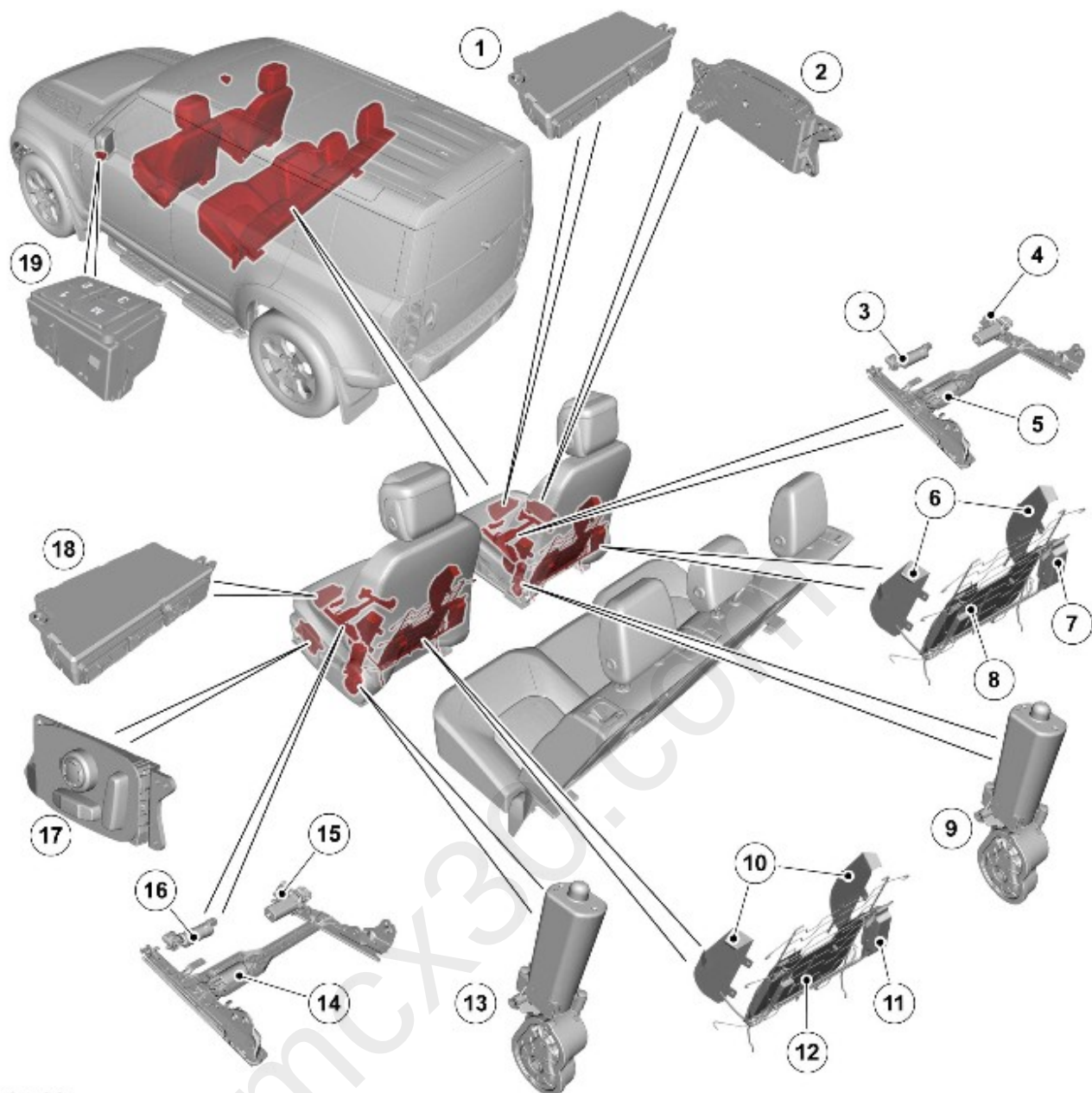
ITEM	DESCRIPTION
1	Seat Module - Driver/Passenger/Rear - Left/Right (DSM)
2	Front row seat switchpack - Right
3	Front row exit mode switch - Right
4	Front row seat cushion tilt motor - Right
5	Front row seat height motor - Right
6	Front row seat forward/rearward motor - Right
7	Inflatable bolsters - Right
8	Front row seat lumbar air pump - Right
9	Front row seat air reservoir valve block - Right
10	Front row seat backrest recline motor - Right
11	Inflatable bolsters - Left
12	Front row seat lumbar air pump - Left
13	Front row seat air reservoir valve block - Left
14	Front row seat backrest recline motor - Left
15	Front row seat forward/rearward motor - Left
16	Front row seat cushion tilt motor - Left
17	Front row seat height motor - Left
18	Front row seat switchpack - Left
19	Seat Module - Driver/Passenger/Rear - Left/Right (PSM)
20	Front row exit mode switch - Left
21	Seat memory switchpack (quantity 2)

COMPONENT LOCATION - 7 OF 7 - POWER SEAT ADJUSTMENT WITH SEAT MEMORY SWITCHPACK - VEHICLE WITH 5 DOORS ONLY



NOTE:

RHD vehicle is shown, LHD vehicle is similar.



E257365

ITEM	DESCRIPTION
1	DSM
2	Front row seat switchpack - Right
3	Front row seat cushion tilt motor - Right
4	Front row seat height motor - Right
5	Front row seat forward/rearward motor - Right
6	Inflatable bolsters - Right
7	Front row seat lumbar air pump - Right
8	Front row seat air reservoir valve block - Right

ITEM	DESCRIPTION
9	Front row seat backrest recline motor - Right
10	Inflatable bolsters - Left
11	Front row seat lumbar air pump - Left
12	Front row seat air reservoir valve block - Left
13	Front row seat backrest recline motor - Left
14	Front row seat forward/rearward motor - Left
15	Front row seat cushion tilt motor - Left
16	Front row seat height motor - Left
17	Front row seat switchpack - Left
18	PSM
19	Seat memory switchpack (quantity 2)

OVERVIEW

FRONT ROW SEAT



NOTE:

On vehicles with electric seat adjustment, both front row seats feature an:

- Easy entry on 3 door vehicles
- Exit mode on 3 or 5 door vehicles.

Depending on vehicle specification, various options are available for the front row seats with regard to temperature control and electrical adjustment.

Seats are manually or electrically operated with the following adjustment options:

- Semi powered 8-way adjustment on the driver and passenger seats.
- Semi powered 12-way adjustment on the driver and passenger seats (vehicle with 5 doors only).
- Electric 14-way adjustment on the driver and passenger seats.
- Electric 18-way adjustment on the driver and passenger seats.

The semi powered seat 8-way adjustment consists the following:

- Manual seat forward/rearward adjustment
- Manual seat height adjustment

- Power backrest recline adjustment
- Seat headrest manual height adjustment.

The semi powered seat 12-way adjustment consists the following (vehicle with 5 doors only):

- Manual seat forward/rearward adjustment
- Manual seat height adjustment
- Power backrest recline adjustment
- Seat headrest manual height adjustment
- The 4-way seat lumbar assembly adjustment.

The power seat 14-way adjustment consists the following:

- Seat forward/rearward adjustment
- Seat height adjustment
- Seat cushion tilt
- Backrest recline adjustment
- Seat headrest manual height adjustment
- The 4-way seat lumbar assembly adjustment.

The power seat 18-way adjustment consists the following:

- Seat forward/rearward adjustment
- Seat height adjustment
- Seat cushion tilt
- Backrest recline adjustment
- The 4-way seat headrest manual adjustment
- The 4-way seat lumbar assembly adjustment
- The 2-way seat bolsters adjustment.

Dependent on vehicle specification and trim level, the following features are available:

- Heated front row seats and second row seats.
- Front row climate seats - Except on manually operated front row seats.
- The 3-channel seat memory - Front row seats only.
- Storage pocket on the rear of each front row seat backrest - Except base trim levels.

Manually adjusted seats control at the front and on the side of the seat. The electric controlling for seat adjustment are installed in the outboard side shield of the related seat.

On vehicles with electric seat adjustment, the driver seat features an easy entry or exit mode.

When the easy entry or exit mode is enabled, the driver seat automatically lowers when:

- In Power Mode 0 (vehicle locked and security system armed.)
- The driver door is opened.

Upon returning to the vehicle, the driver seat returns to its previously set position when:

- The driver door is closed.
- In Power Mode 6 (ignition ON).

For additional information, refer to: [Steering Column](#) (211-04 Steering Column, Description and Operation).

The 3-channel memory provides easy recall of stored position settings for both seats, the steering column and the door mirrors. Controlling for the seat memory operation located in the related front door trim panel. Lumbar and backrest seat bolster settings are not included in the seat memory function.

On vehicles with heated front row seat, heater elements are incorporated into the seat cushions and the backrests. On vehicles with climate seat, climate assemblies are incorporated into the seat cushions and the backrests. Operation of the temperature settings for heated and climate seat are controlled through the menu of the FCDIM.

Operation of the temperature settings for heated and climate seats are controlled from:

- FCIM
- FCDIM.

A side airbag is installed in the outer side of each front seat backrest.

- For additional information, refer to: [Seatbelt System](#) (501-20A Seatbelt System, Description and Operation).
- For additional information, refer to: [Airbag and Safety Belt Pretensioner Supplemental Restraint System - \[+\] Front Row Seats Only](#) (501-20B Supplementary Restraint System, Description and Operation).

SECOND ROW SEAT

Dependent on vehicle specification the option of seat heater is available for the second row seat.

Operation of the temperature settings for heated second row seats is controlled by the following:

- FCIMB at the rear of the floor console.
- The second row seats heater switch at the rear of the floor console.
- The menu of the FCDIM.

ISOFIX fastening points are attached to the second row seat frame to provide secure fastening for compatible child seats in the second row seats.

- The second row seats have a 40/20/40 split which allows for the seating of 3 persons. The whole seat or partial seat can be lowered for additional luggage compartment capacity. The central 20% section can be released using a release latch on the top of the center seat.
- The second row seat on 3 door vehicle is a fixed cushion seat.
- The second row seat on 5 door vehicles is a flip-flop seat. The cushion flips up to allow for the backrest to fold down for a lower loadspace floor angle.

Dependent on vehicle specification and trim level, the following features are available:

- Second row seat armrest
- Heated second row seats.

On vehicles with heated second row seats, heater elements are incorporated into the seat cushions and the backrests. Operation of the temperature settings for heated second row seats are controlled through the second row seats heater switch or the FCIMB. The second row seats heater switch or the FCIMB is located on the rear of the floor console.

LEATHER SEAT COVERS



NOTE:

- Creasing and wrinkling does not represent a manufacturing defect.
- Damage from studs, zips and buckles do not represent manufacturing defects.
- Use only Jaguar Land Rover (JLR) approved products in accordance with the instructions for use.

Leather is a natural product, therefore it bears natural characteristics, such as grain variations, growth and bush marks. The non-weakening marks show the true nature of the hide and are the hallmarks of leather. In order to maintain the beauty of the vehicle natural leather upholstery it requires regular cleaning, which when neglected, may cause deterioration. Where dust and dirt are allowed to accumulate and become ingrained in the surface of the leather, the upholstery may become permanently damaged.

Light colored upholstery can be particularly susceptible to soiling and staining. vehicles should be taken to make sure that where there is evidence of any soiling or staining, the upholstery should be cleaned immediately. By using the JLR approved products, it supposed to be done . Failure to do this could lead to the stain becoming permanent.

Leather trimmed seats naturally exhibit areas of creasing and wrinkling over a period of time. The condition is a normal characteristic as the leather ages.

Particular care should be taken to prevent damage from studs, zips and buckles.

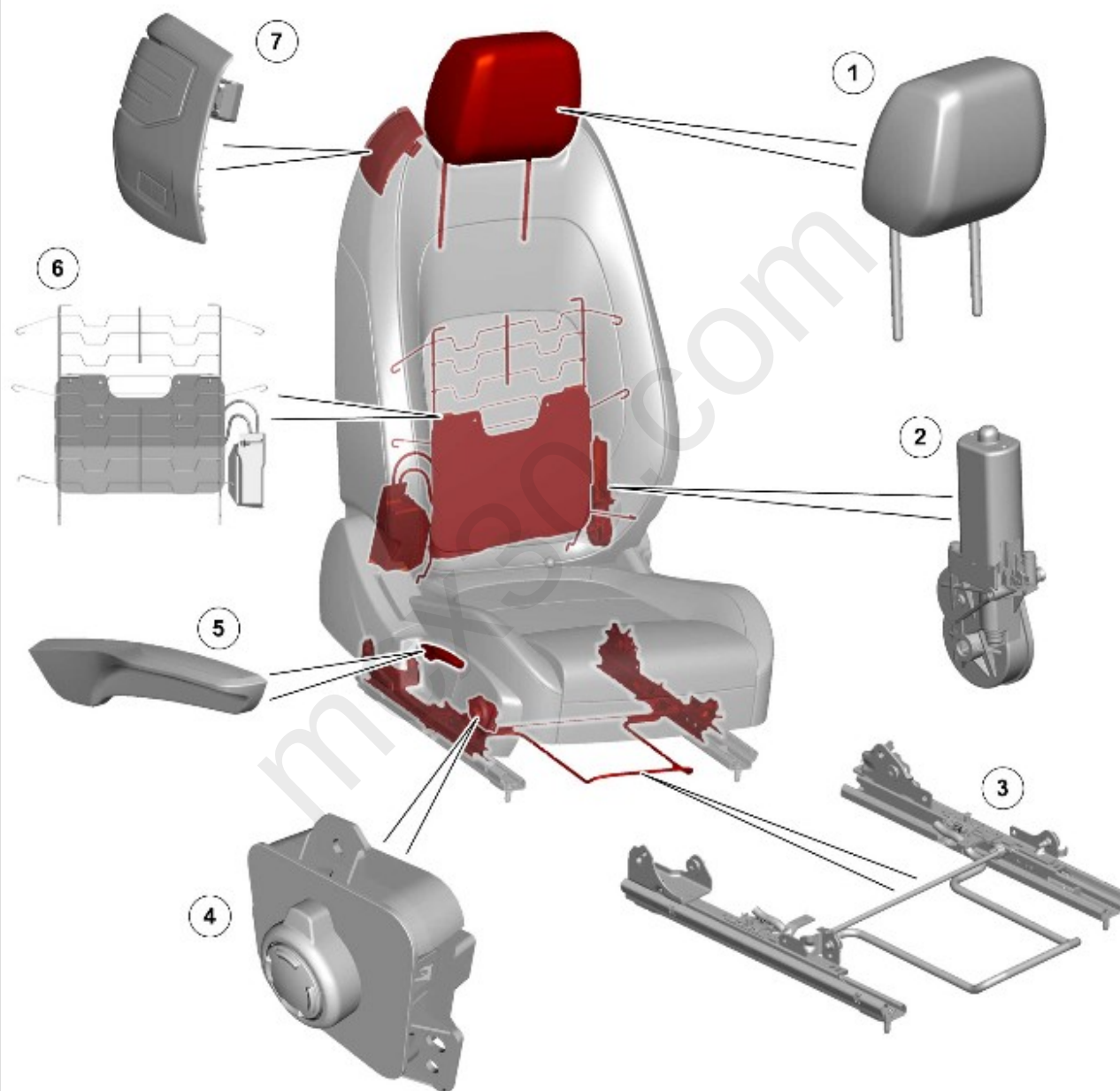
For additional information, refer to:Seat Cover Inspection (501-10 Seating, Description and Operation).

DESCRIPTION

FRONT ROW SEAT - MANUAL EASY ENTRY ADJUSTMENT (VEHICLE WITH 3 DOORS ONLY)

NOTE:

Right installation is shown, left installation is similar.



E254718

ITEM	DESCRIPTION
1	Head restraint - Manual
2	Seat backrest recline motor

ITEM	DESCRIPTION
3	Seat forward/rearward lever
4	Front seat switchpack
5	Seat height adjustment lever
6	Easy entry switch

The seat frame is installed with a fabricated sprung framework in the seat base and backrest. The sprung framework supports the seat foam and increases occupant comfort.

The easy entry release latch on the front backrests, the front backrests can be tipped forward for easier access to the rear seats.

The seat frame provides location for the seat foam for the cushion and backrest. The seat foam is covered with a tailored seat cover.

The front row seat are each installed on rails which allow the seat position to be adjusted forward or rearward. The rails are secured to the floorpan with brackets and screws.

A lever on the side of seat allows the seat height to be adjusted. The lever releases a catch and the seat height is spring assisted in the raise position. The occupants weight against the spring provides controlled lowering the seat to the required position.

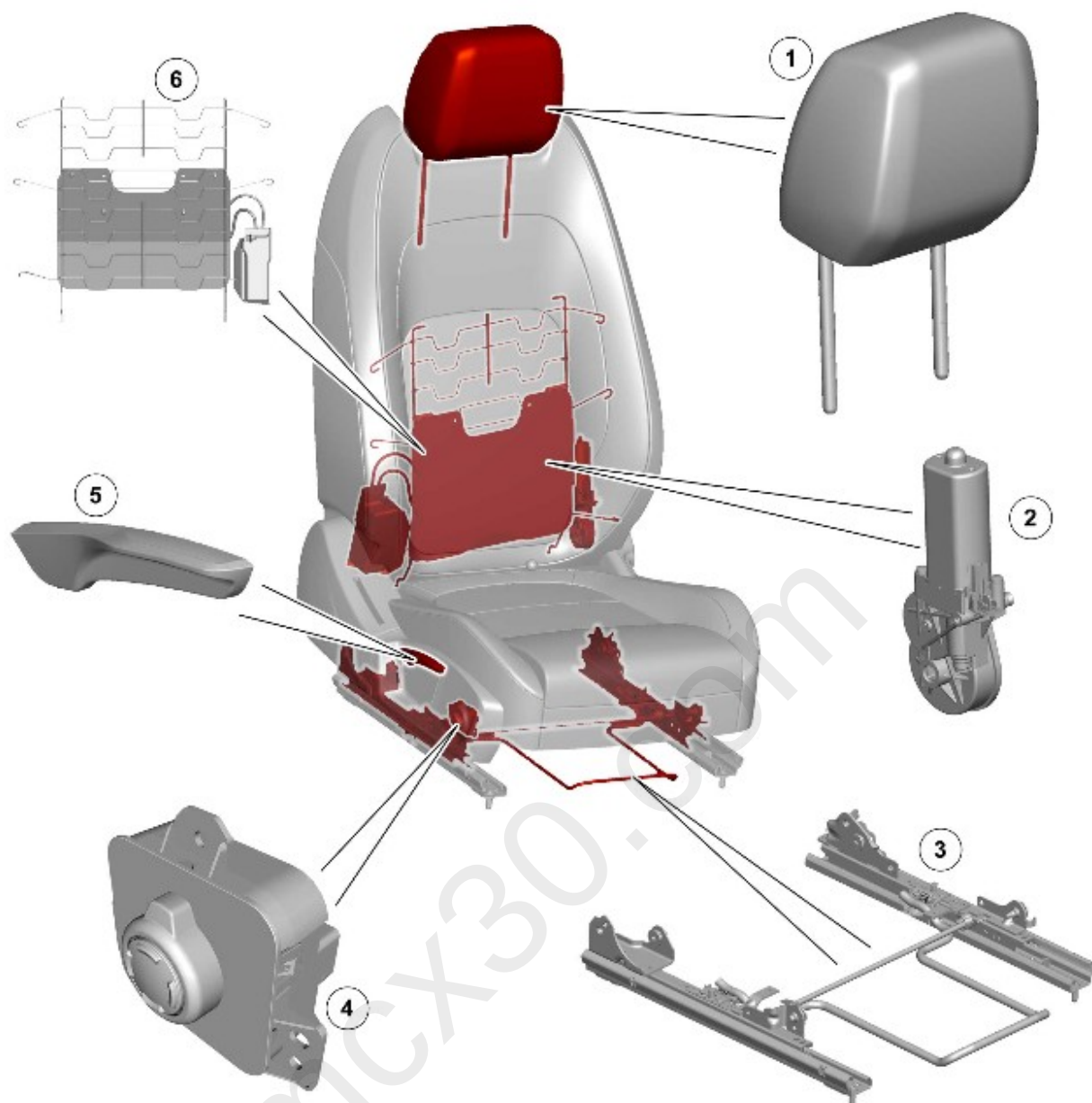
A backrest recline motor on the side of the seat provides for adjustment of the seat backrest position.

FRONT ROW SEAT - 12-WAY SEMI POWERED ADJUSTMENT (VEHICLE WITH 5 DOORS ONLY)



NOTE:

Right installation is shown, left installation is similar.



E251231

ITEM	DESCRIPTION
1	Head restraint - Manual
2	Seat backrest recline motor
3	Seat forward/rearward lever
4	Front seat switchpack
5	Seat height adjustment lever
6	Lumbar system assembly with air pump

The seat frame is installed with a fabricated sprung framework in the seat base and backrest. The sprung framework supports the seat foam and increases occupant comfort.

The seat frame provides location for the seat foam for the cushion and backrest. The seat foam is covered with a tailored seat cover.

The front row seat are each installed on rails which allow the seat position to be adjusted forward or rearward. The rails are secured to the floorpan with brackets and screws.

The partial electric front row seats have 3 manual adjustments available. On vehicles without seat memory, the control switches are connected directly to the seat backrest recline motor and 4-way lumbar support.

A lever on the side of seat allows the seat height to be adjusted. The lever releases a catch and the seat height is spring assisted in the raise position. The occupants weight against the spring provides controlled lowering the seat to the required position.

A backrest recline motor on the side of the seat provides for adjustment of the seat backrest position.

The 4-way lumbar support provides lumbar adjustment for the seat backrest. The air reservoir valve block is attached to the back side of the lumbar support.

FRONT ROW SEAT – MANUAL ADJUSTMENT



NOTE:

Right installation is shown, left installation is similar.

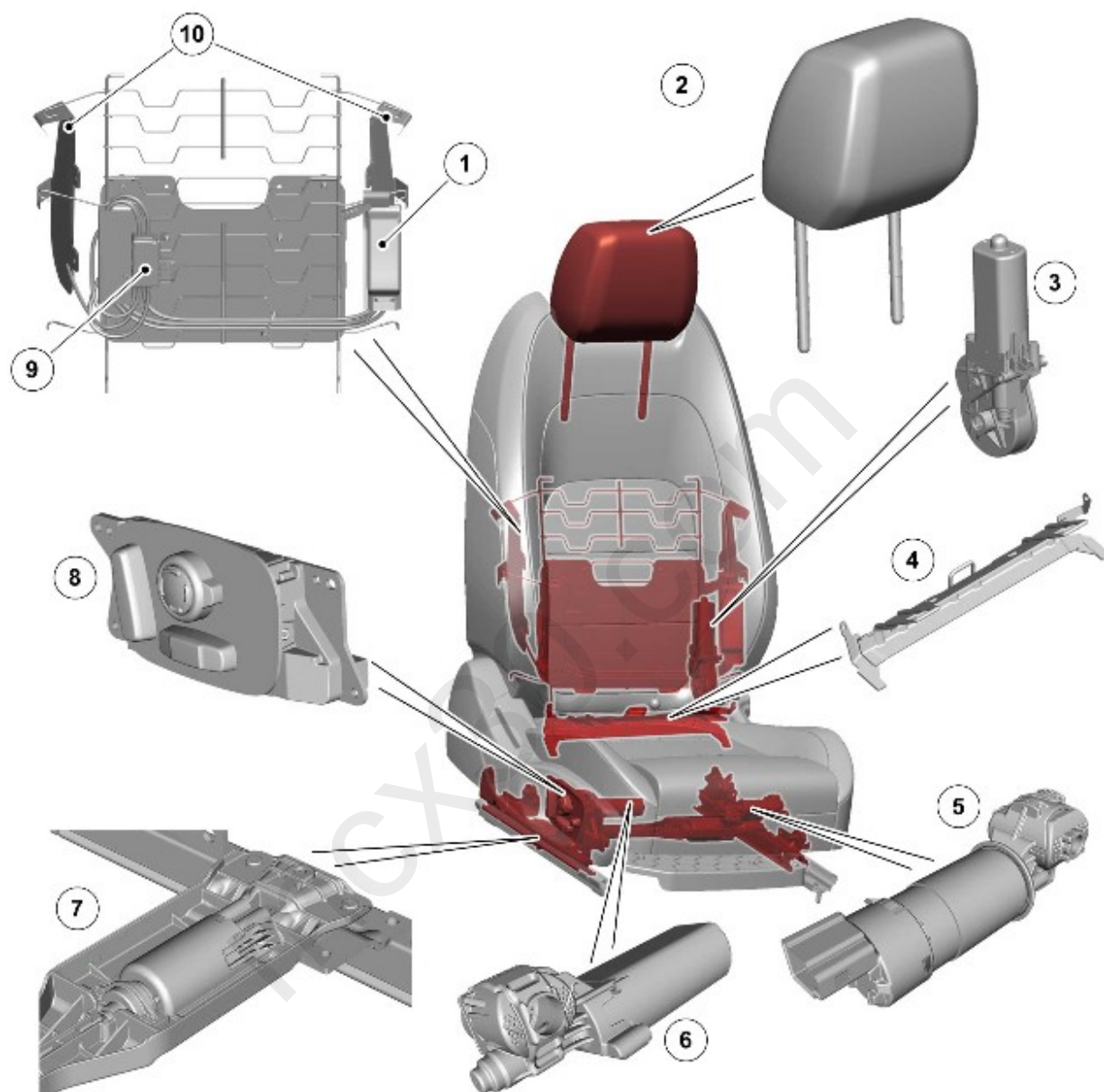


ITEM	DESCRIPTION
1	Forward and rearward adjustment
2	Height adjustment
3	Backrest angle adjustment

FRONT ROW SEAT - POWER MEMORY SEAT

NOTE:

Right installation is shown, left installation is similar.



E251232

ITEM	DESCRIPTION
1	Lumbar air pump
2	Head restraint - Manual
3	Seat backrest recline motor
4	ISOFIX on passenger side - 110 memory seats only (If equipped)
5	Seat cushion tilt motor

ITEM	DESCRIPTION
6	Seat cushion height motor
7	Seat forward/rearward motor
8	Front seat switchpack
9	Air reservoir valve block
10	Inflatable bolsters

Electric motors are used to provide adjustment for the following:

- Seat forward/rearward adjustment
- Seat height
- Backrest recline
- Cushion tilt

All of the seat adjustments are controlled from the seat switchpack on the outside of the seat cushion. The control switches are connected to the adjustment motors through the DSM and/or the PSM.

The seat forward/rearward motor is an integral component of the cushion frame. The motor drives a gear on a worm drive lead screw, which is integral with the floor rail. The lead screw has a stop at each end to limit the forward and rearward seat movement.

The seat height motor is located below the seat. The motor drives a gear on a lead screw. The lead screw moves a lever mechanism, which raises or lowers the seat cushion.

The backrest recline motor is located in the backrest frame. The recline motor rotates a shaft connected to the backrest frame, which changes the angle of the backrest.

The cushion tilt motor is located below the seat. The cushion tilt motor drives a gear on a lead screw to extend or to raise the front of the seat cushion.

On vehicles with seat memory function each adjustment motor contains a Hall effect position sensor. The sensors provide position feedback signals to the seat modules which are used for memory store and recall operation.

FRONT ROW SEAT – ELECTRIC ADJUSTMENT



NOTE:

- Example is shown, other variant is similar.

Left installation is shown, right installation is similar.



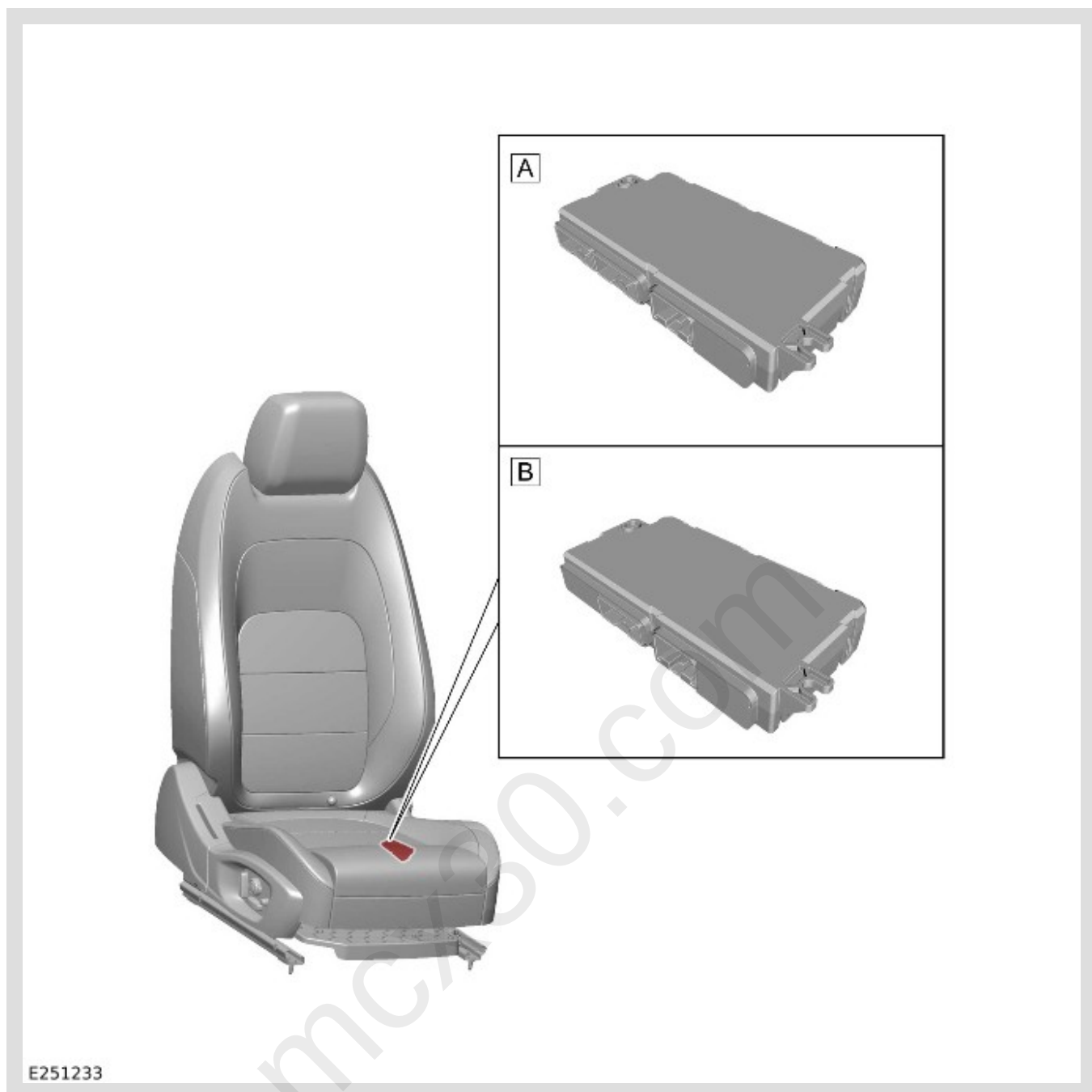
ITEM	DESCRIPTION
1	Bolster inflate and deflate
2	Lumbar support
3	Seatback angle
4	Seat height
5	Forward and rearward position
6	Cushion tilt

SEAT MODULES



NOTE:

Right installation is shown, left installation is similar.



ITEM	DESCRIPTION
A	DSM with seat memory
B	PSM with seat memory

The seat modules are located under the driver and passenger seats, rely upon a number of inputs to control various outputs. Operation of the driver seat is controlled by the DSM. Operation of the passenger seat is controlled by the PSM.

Depending on vehicle configuration, the DSM controls the following functions:

- Driver seat adjustment
- Driver seat lumbar function

- Driver seat memory store and recall (if equipped).

Depending on vehicle configuration, the PSM controls the following functions:

- Passenger seat adjustment
- Passenger seat lumbar function
- Passenger seat memory store and recall (if equipped).

The DSM and the PSM have a fused permanent power supply from the Passenger Junction Box (PJB) and the Rear Junction Box. The driver/passenger seat switchpack sends operating requests to the PSM and DSM through Local Interconnect Network (LIN) connection.

The DSM and the PSM are connected to the High Speed (HS) Controller Area Network (CAN) body systems bus. The system allows the DSM to monitor the position of the door mirrors when storing and recalling memory settings. The signals are provided by the DDM and the PDM. The signals for the memory store and recall functions are received from the BCM/ GWM through the HS CAN body systems bus. The HS CAN body systems bus connection also allows the DSM and the PSM to transmit memory information. The confirmation chimes and display messages on the IPC message center are activated.

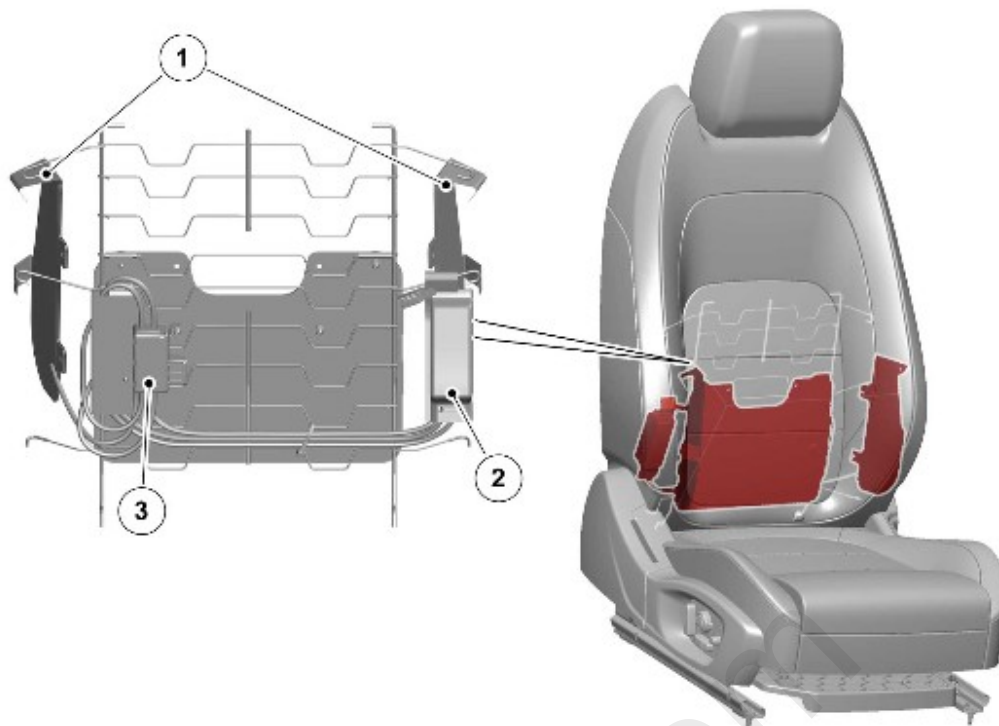
For additional information, refer to: [Message Center](#) (413-08 Message Center, Description and Operation).

4-WAY LUMBAR SUPPORT WITH 2-WAY BOLSTER



NOTE:

Right installation is shown, left installation is similar.



E251234

ITEM	DESCRIPTION
1	Inflatable bolsters
2	Air pump
3	Lumbar solenoid valve block

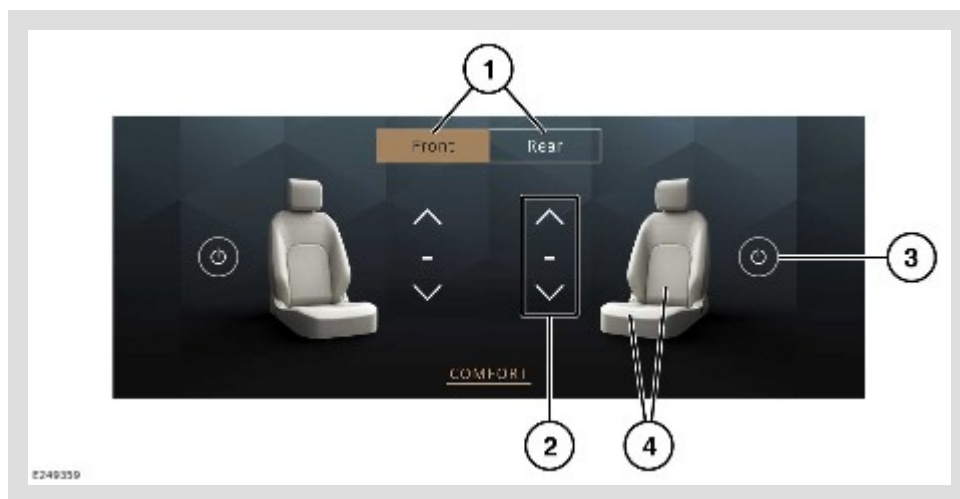
Lumbar adjustment is provided by a lumbar support and air pump installed in the backrest. The lumbar assembly consists of an inflatable cushion with dual air cells. A solenoid valve controls the air pump for the inflation or deflation of the lumbar cushion.

The 4-way lumbar assembly provides lumbar adjustment for the seat backrest and also for the side seat bolsters.

Bolster adjustment is provided by inflatable cushions on the inside faces of the backrest bolsters. The inflatable cushions are operated simultaneously by a separate solenoid valve block and the air pump of the lumbar assembly.

SEAT HEATING AND CLIMATE CONTROL

Touchscreen



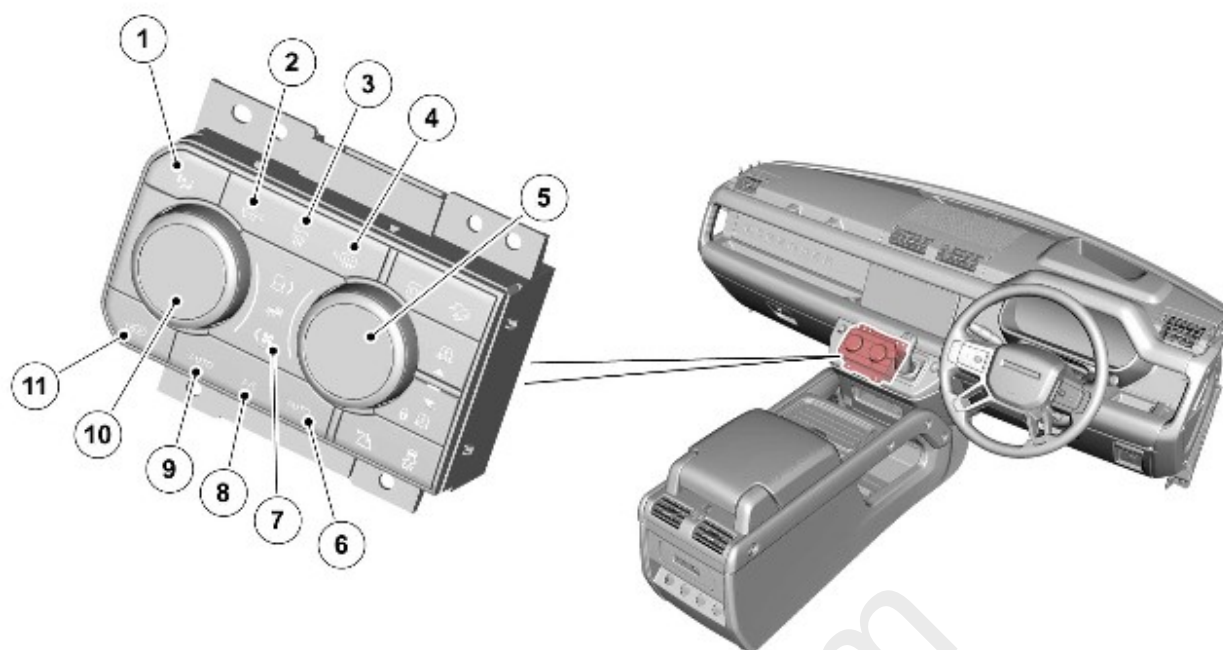
ITEM	DESCRIPTION
1	Front or second row seats selection
2	Temperature adjustment
3	Power
4	Seat zone

Integrated Control Panel



NOTE:

RHD vehicle is shown, LHD vehicle is similar.



E248882

ITEM	DESCRIPTION
1	Climate control switch
2	Heated windshield
3	Maximum windshield defrost
4	Heated rear window
5	Temperature setting - Right
6	Auto switch
7	Blower speed switch
8	Maximum Air Conditioning (A/C) switch
9	Auto switch
10	Temperature setting - Left
11	Recirculation switch

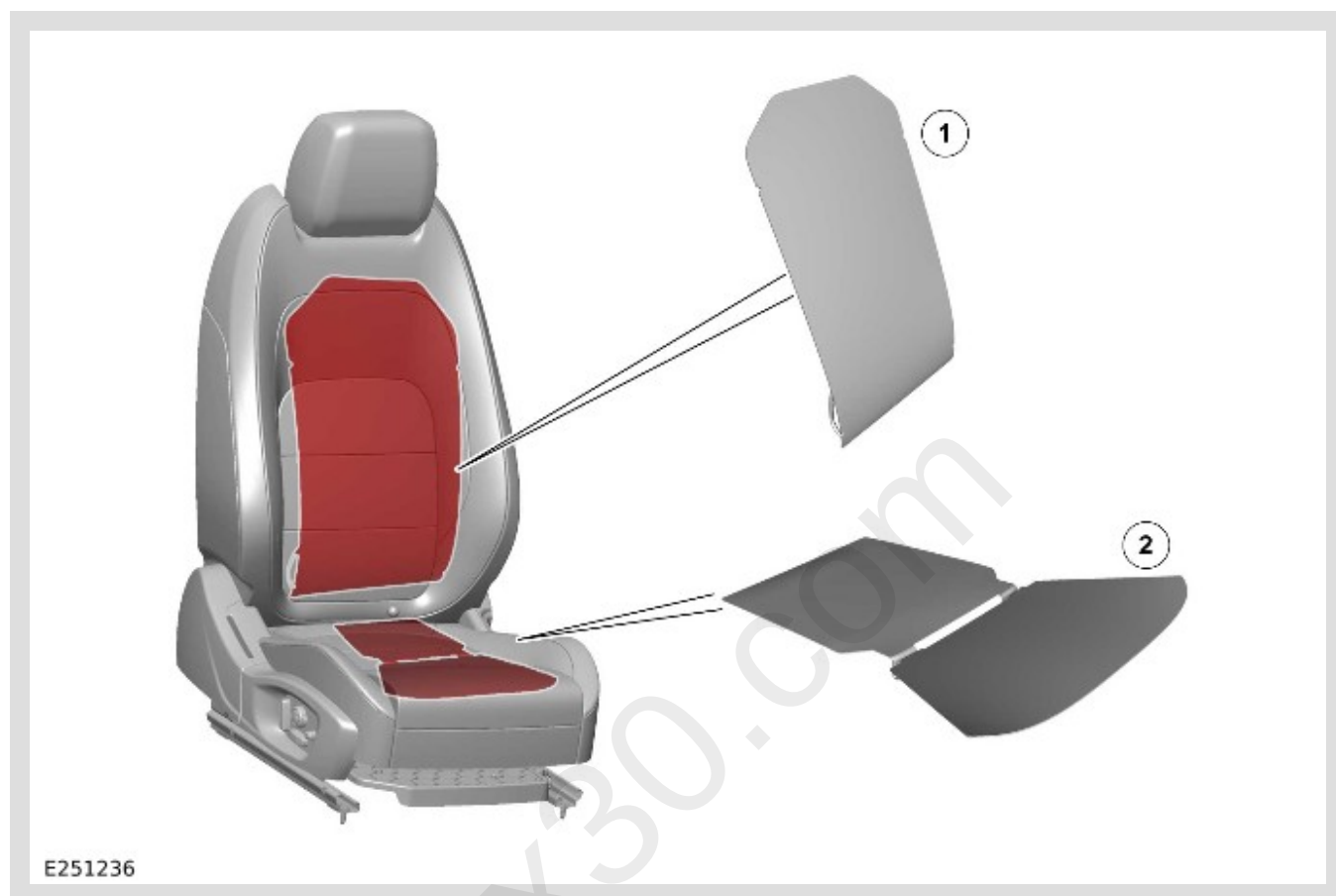
The front seat heater or climate control selections made on the FCIM or on the FCDIM in the climate menu. The seat icon on the FCDIM indicates when heating is selected. The FCIM is connected to the HVAC control module through a private CAN bus.

For additional information, refer to: [Control Components](#) (412-01 Climate Control, Description and Operation).

FRONT ROW SEAT HEATER – IF EQUIPPED

NOTE:

Right installation is shown, left installation is similar.



ITEM	DESCRIPTION
1	Seat backrest heater element
2	Seat cushion heater element

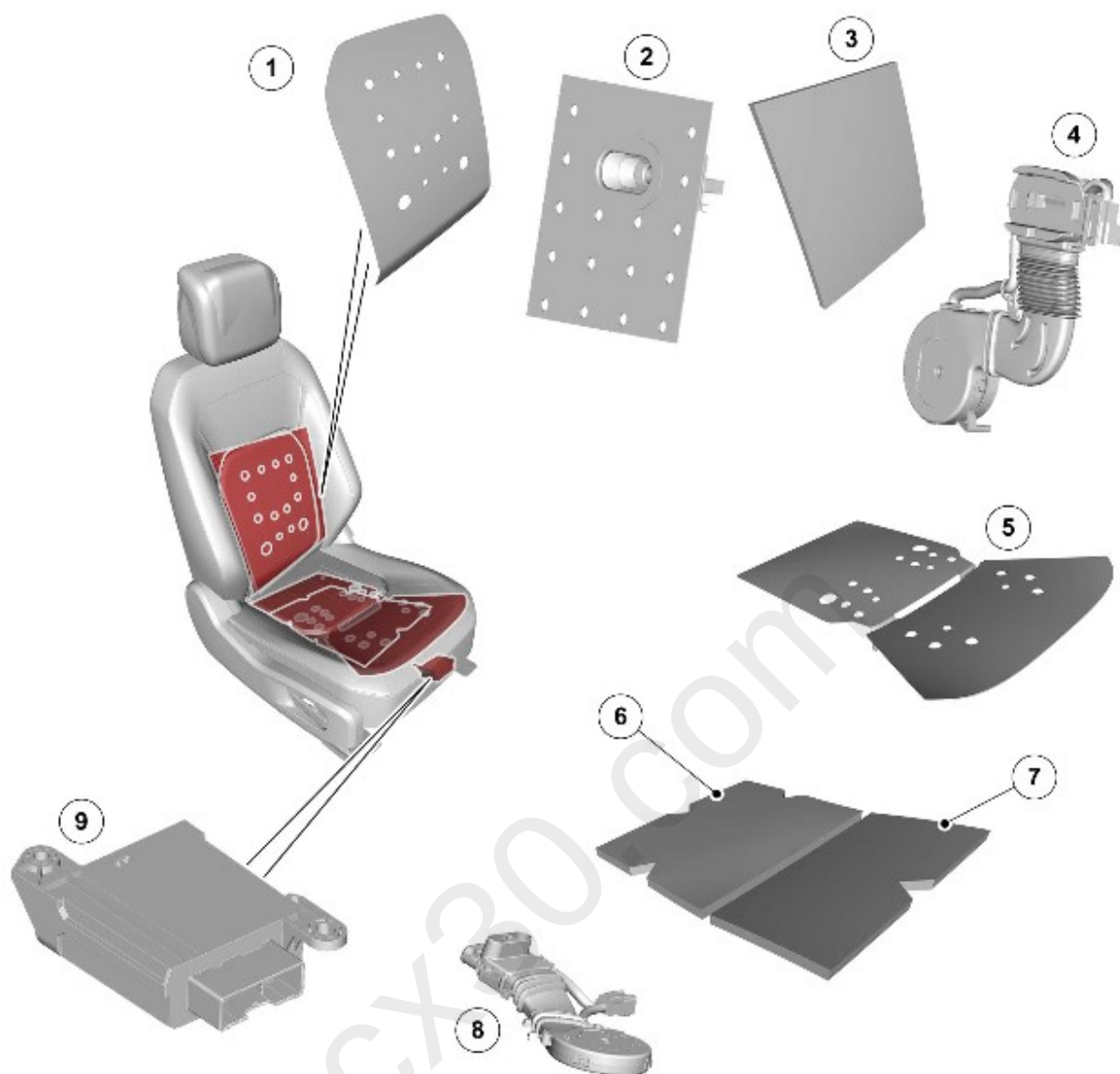
Seat heater elements are installed in the seat cushion and backrest. The seat heaters comprise a resistive element which is located within a pad. The pad is located between the foam of the cushion or backrest and the outer trim.

The seat cushion heater element is equipped with a thermostat which maintains the element at a temperature set by the user. The heater elements are controlled by HVAC control module. The switches in the FCIM which is located in the center console or on the FCDIM in the 'EXTRA FEATURES' menu.

CLIMATE FRONT ROW SEATS – IF EQUIPPED

NOTE:

Right installation is shown, left installation is similar.



E251237

ITEM	DESCRIPTION
1	Climate air diffuser backrest
2	Inlet duct - Climate seat backrest
3	Insulator foam - Climate seat backrest
4	Climate fan backrest
5	Climate air diffuser cushion
6	Insulator foam - Climate seat cushion - Rear
7	Insulator foam - Climate seat cushion - Front
8	Climate fan cushion

ITEM	DESCRIPTION
9	SCME

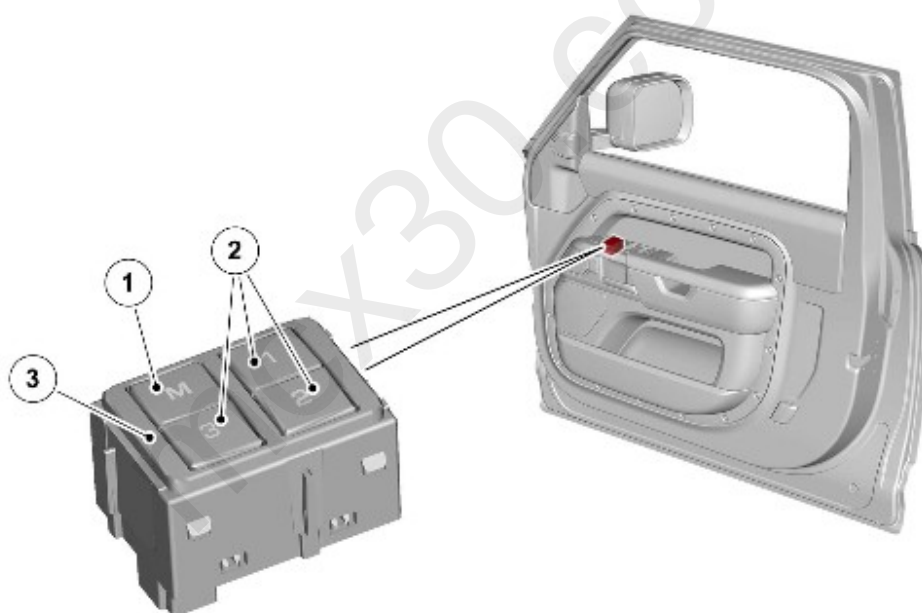
Front row climate seat are controlled by the SCMEs. The SCMEs are located below the seat cushion on a plastic tray.

The climate seat backrest and cushion contain climate assemblies. The climate assemblies are thermal electric devices which operate on the Peltier principle. The components are heated up or cooled down depending on the current provided by the SCMEs. Each climate assembly in the seat cushion and backrest each contain a blower. The blower blows air over the Peltier effect devices to distribute the heated or cooled air through liners. The blower is also controlled by the SCMEs.

SEAT MEMORY SWITCHPACK

NOTE:

Right installation is shown, left installation is similar.



E250779

ITEM	DESCRIPTION
1	Seat memory store switch
2	Seat memory preset switches
3	Seat memory switchpack

The seat memory switchpack is located in the front door trim panel.

The selected memory position is transmitted from the seat memory switchpack to the DDM or the PDM. The DDM connects with the DSM. The PDM connects with the PSM. Both modules connect with the HS CAN body systems bus. The switches on the seat memory switchpack are resistive ladder type.

The switches apply a different voltage to the DDM or the PDM in response to different switches being operated. The related seat module then operates the seat adjustment motors to the correct positions associated with that memory preset position.

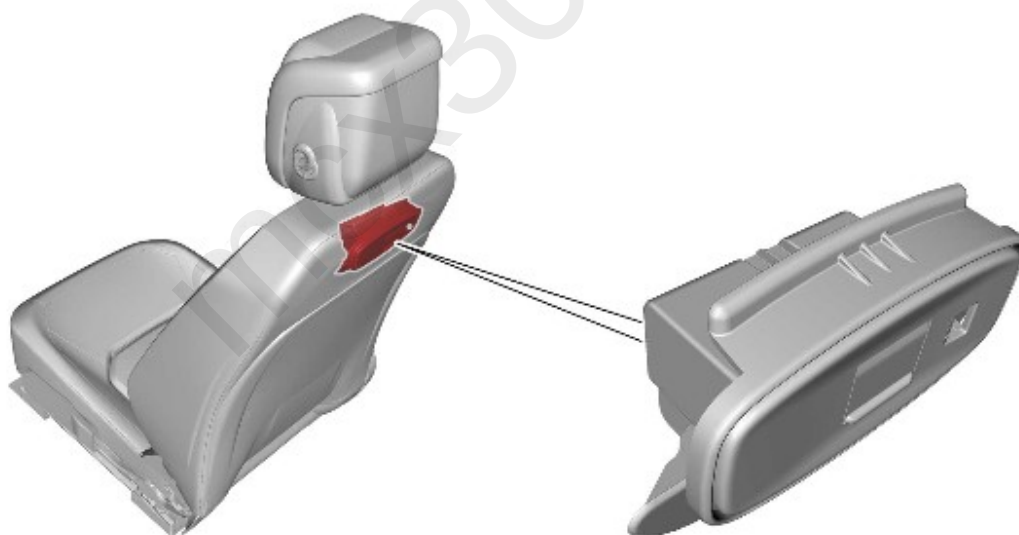
To store a memory position, move the seat and the door mirrors to the required positions, press the 'M' switch on the seat memory switchpack. Then press the memory preset switch 1 to 3 to store the position against the selected memory switch preset number.

The memory function also stores the door mirror positions associated with the selected memory preset switch 1 to 3.

CLICK AND GO SYSTEM - IF EQUIPPED

NOTE:

Right installation is shown, left installation is similar.



E251238

The Click and Go System is a multi-purpose seat-back system for second row passengers.

The Click and Go System base unit is installed between the head restraint rails through spring tension.

The following attachments can be added:

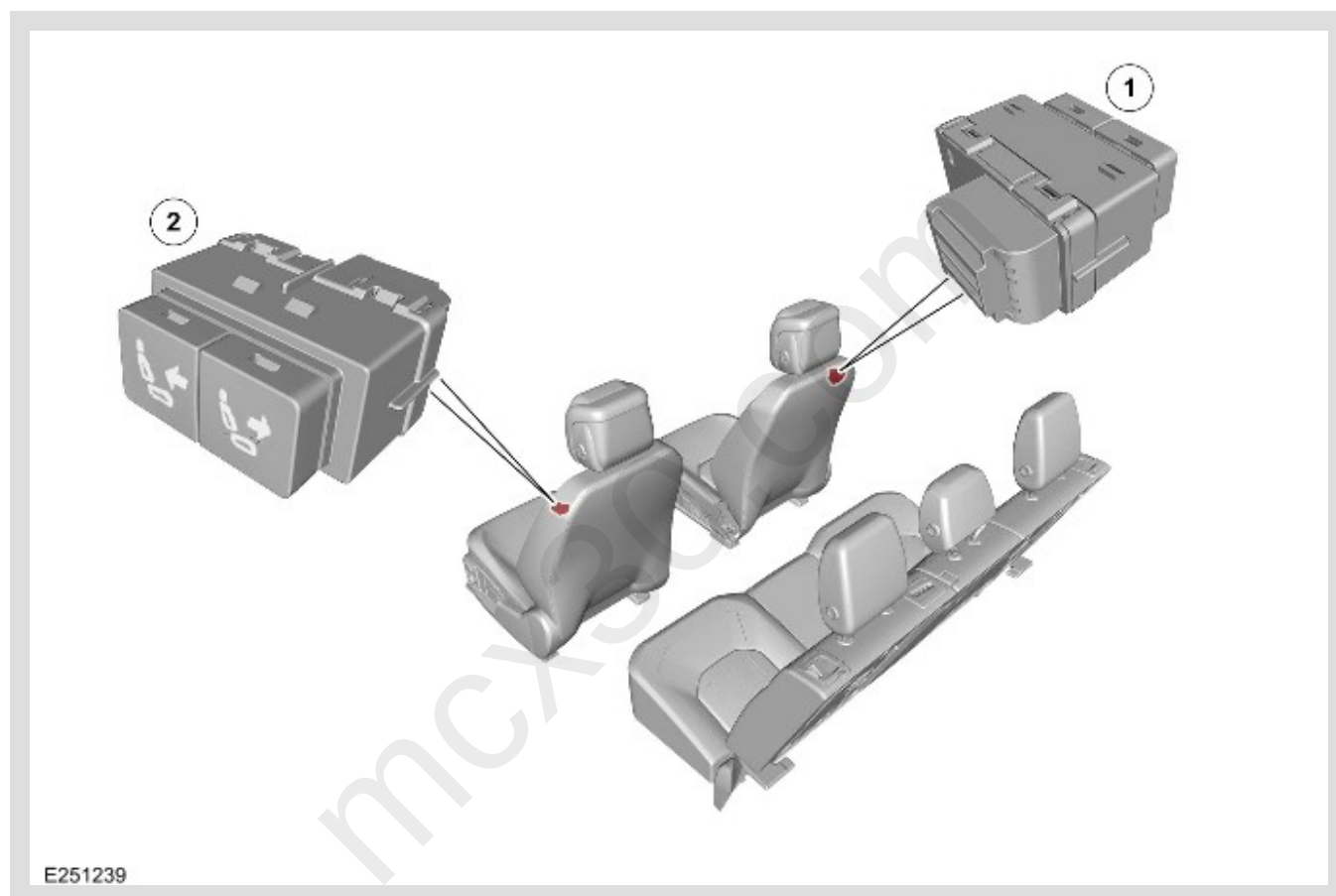
- Click and Play Tablet Holder - Fixing for tablet holder with integrated Universal Serial Bus (USB) charging port
- Click and Work - Folding table with plastic latch on the top of the unit.

EASY ENTRY SWITCH – VEHICLE WITH 3 DOORS ONLY

NOTE:

Easy entry function does not operate when the seatbelt is fastened.

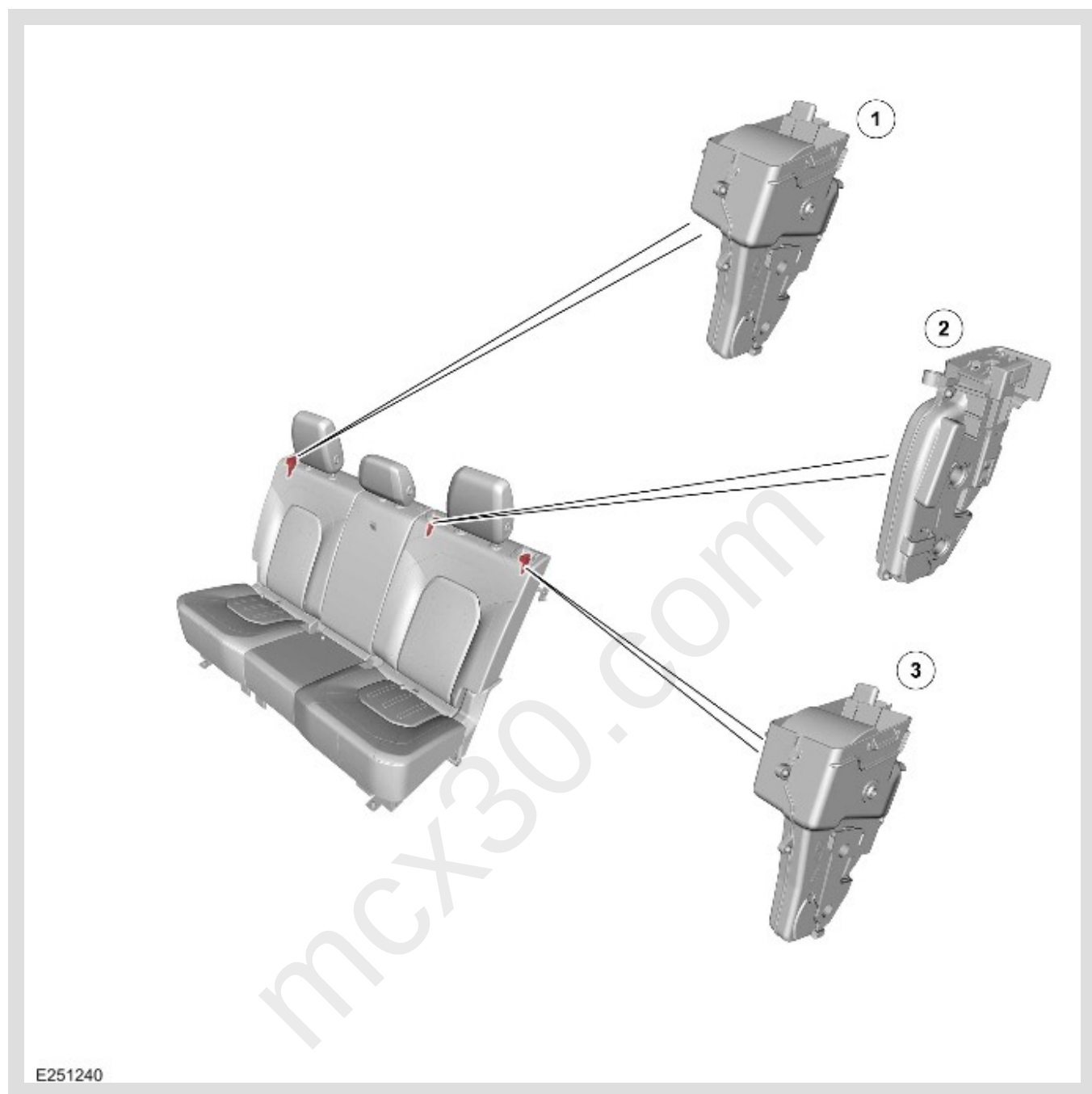
RHD vehicle is shown, LHD vehicle is similar.



ITEM	DESCRIPTION
1	Easy entry switch - Driver
2	Easy entry switch - Passenger

The easy entry switch is located on inside of the both front row seats. The switch allows for the front row seats to be moved forward independently to give access to the second row seats.

SECOND ROW FIXED SEAT (VEHICLE WITH 3 DOORS ONLY)



ITEM	DESCRIPTION
1	Second row seat latch release assembly - Right
2	Second row seat latch release assembly - Center
3	Second row seat latch release assembly - Left

The second row fixed seat has a cushion frame bolted onto the floorpan. The seat cushion is not adjustable.

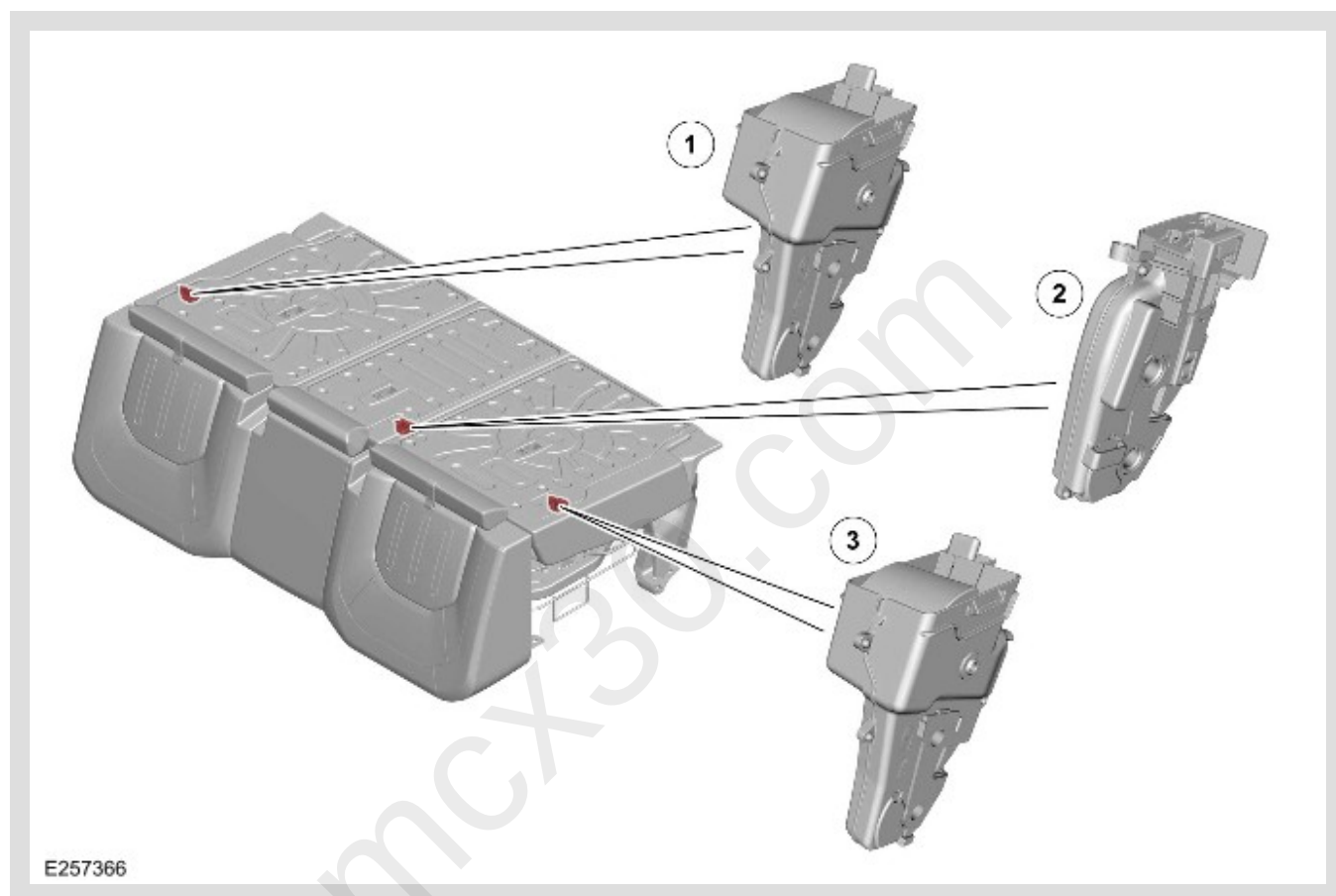
The second row fixed seat is a 40/20/40% configuration. The backrests can fold individually by the release latch, located on the top of the backrest.

The second row fixed seat comprises:

- A 40/20/40% split backrests.
- A non adjustable seat cushion.
- The 3 manual head restraints.

There is heat option available on all second row seats.

SECOND ROW FLIP FLOP SEAT (VEHICLE WITH 5 DOORS ONLY)



ITEM	DESCRIPTION
1	Second row seat latch release assembly - Right
2	Second row seat latch release assembly - Center
3	Second row seat latch release assembly - Left

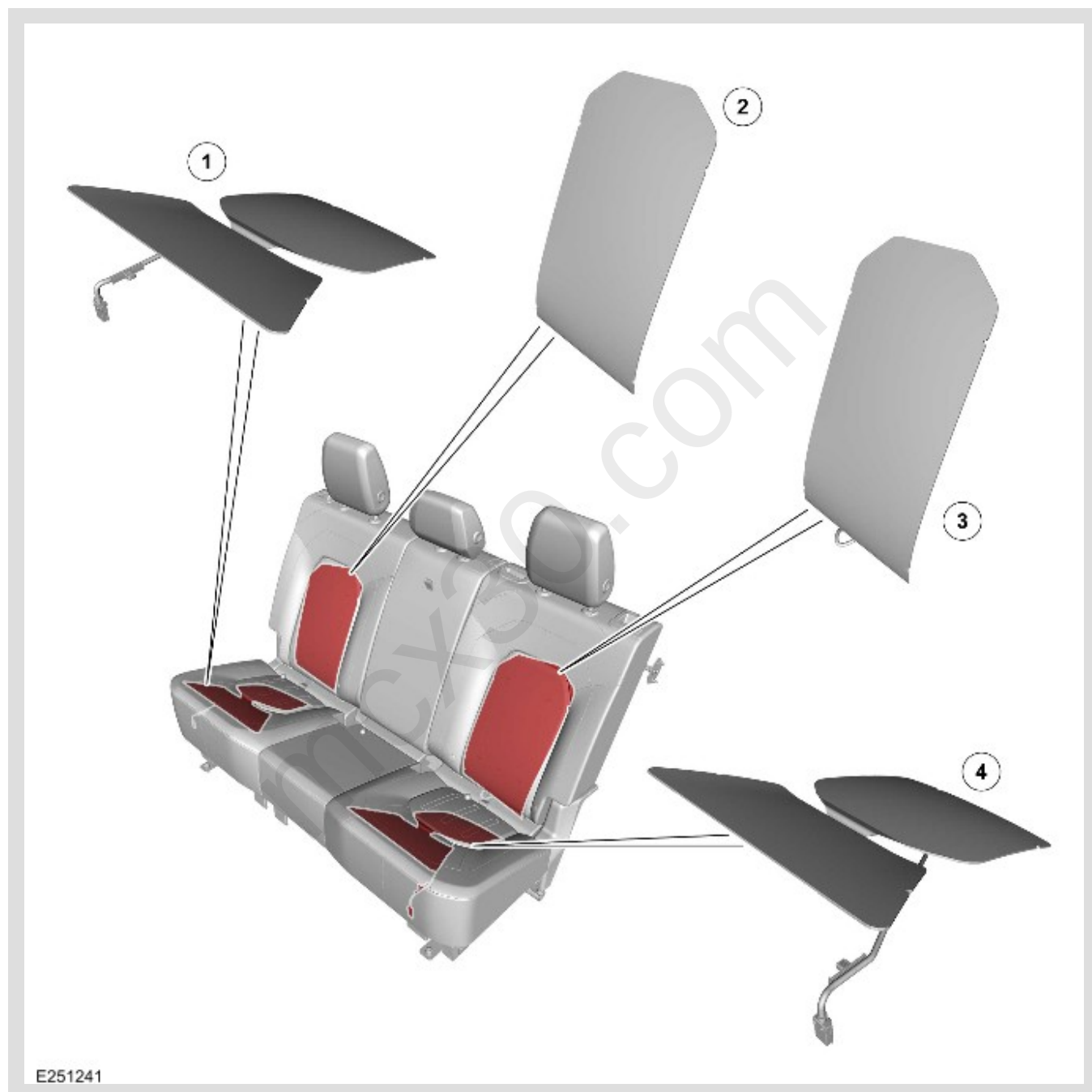
The second row flip flop seat has a cushion frame bolted onto the floorpan. The seat cushion is a 60/40% split and it's movable. It can be flipped up until it rests on the back of the front seat. This will allow for the backrest to be folded and sit directly on the cushion frame. The head restraints need to be removed if we desire a flatter loadspace floor. The backrests can fold individually by the release latch, located on the top of the backrest.

The second row flip flop seat comprises:

- A 40/20/40%split backrests
- A 60/40% split cushion
- The 3 manual removable head restraints.

Each second row seat have a 2-way manual head restraints.

SECOND ROW SEAT HEATER - IF EQUIPPED



ITEM	DESCRIPTION
1	Second row seat cushion heater - Right
2	Second row seat backrest heater - Right
3	Second row seat backrest heater - Left

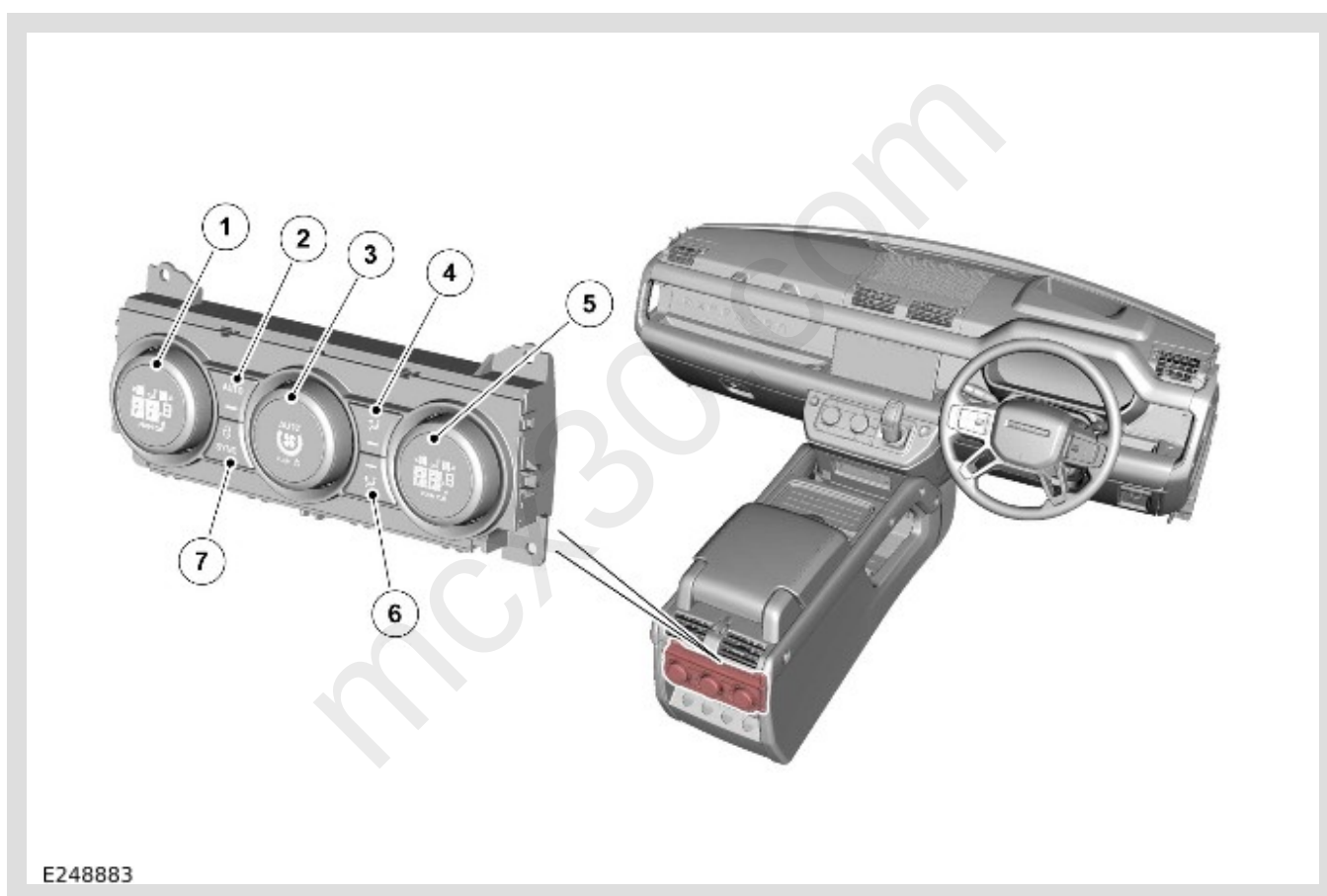
ITEM	DESCRIPTION
4	Second row seat cushion heater - Left

The cushion heater element is equipped with a thermostat which maintains the temperature set by the user. The second row seat heater elements are controlled by FCIMB or rear seat heater switch. The rear seat heater switches or FCIMB is connected through a LIN to the HVAC control module. The temperature can be selected by the FCIMB or the rear seat heater switch or the FCDIM which indicates the selected heat setting requested.

REAR INTEGRATED CONTROL PANEL - IF EQUIPPED

NOTE:

RHD vehicle is shown, LHD vehicle is similar.



ITEM	DESCRIPTION
1	Temperature setting - Left
2	Automatic mode switch
3	Blower speed control
4	Air distribution - Face
5	Temperature setting - Right
6	Air distribution - Feet

ITEM	DESCRIPTION
7	Synchronize switch

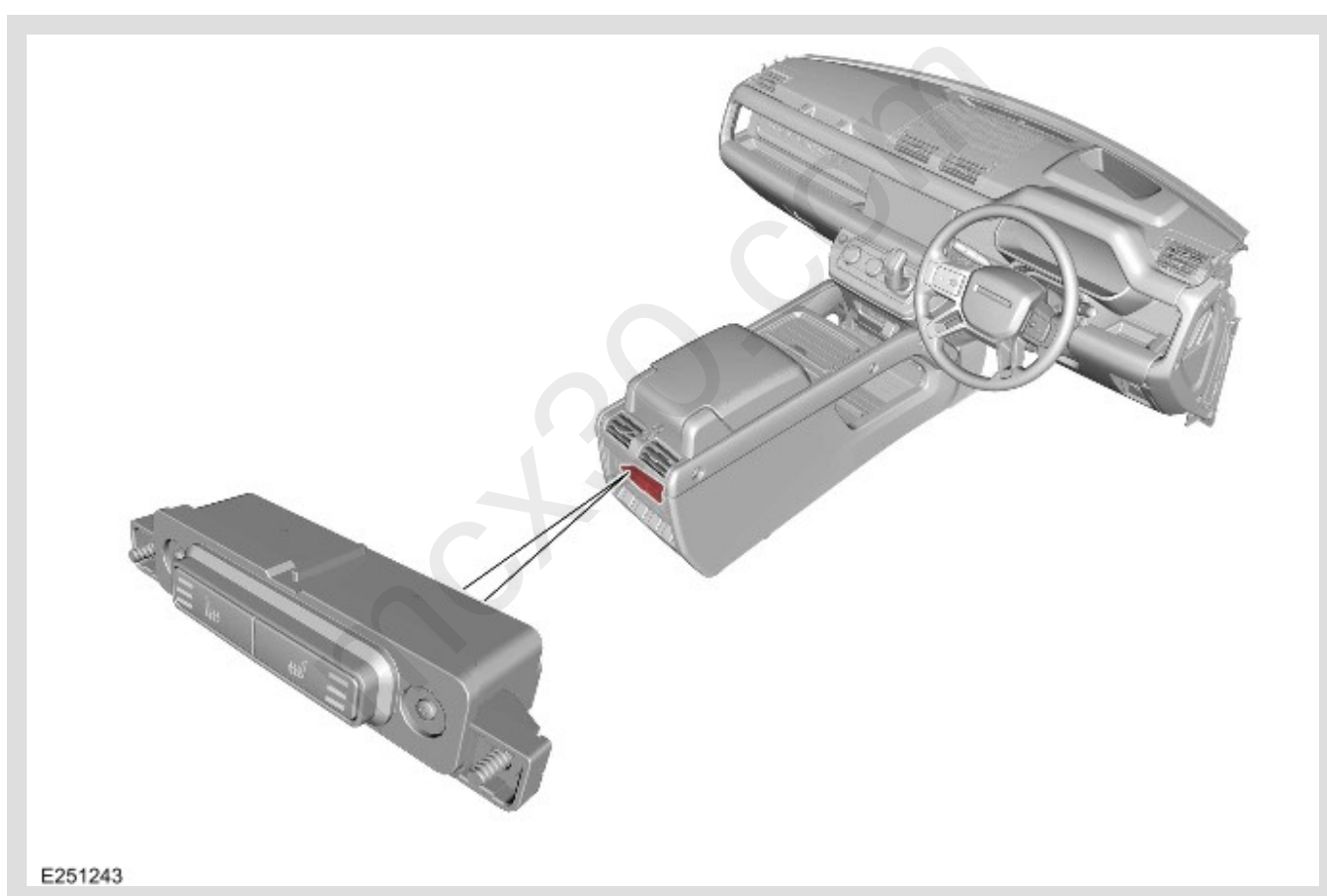
The heater/climate control selections made on the FCIMB. The FCIMB is located on the rear of the floor console. The second row seats temperature selections are transmitted to the HVAC control module. The signals pass through the HS CAN Human Machine Interface (HMI) systems bus.

For additional information, refer to: [Control Components](#) (412-01 Climate Control, Description and Operation).

REAR SEATS HEATER SWITCH - IF EQUIPPED

NOTE:

RHD vehicle is shown, LHD vehicle is similar.



The second row seats heater control selections made on the rear seat heater switch. The rear seat heater switch is located on the rear of the floor console. The second row seat heater of the outer second row seats are controlled by rear seat heater switch for each seat.

Each switch has 3 levels of heat setting:

- Low
- Medium
- High.

The levels can be selected by sequential presses of the switch. Light Emitting Diodes (LEDs) on each switch indicate the selected heat setting requested. The request is connected to the HVAC control module through HS CAN HMI systems bus.

OPERATION

FRONT ROW SEAT – VEHICLE WITHOUT SEAT MEMORY

A switched power supply from the Rear Junction Box is used to operate the front row seat switchpacks.

On vehicles without seat memory, the seat switchpacks are connected directly to the seat adjustment motors. Operating 1 of the adjustment switches on the seat switchpack initiates the corresponding motor for that axis until the switch is released. Only 1 seat motor can be driven at 1 time in Power Mode 6 (ignition ON).

FRONT ROW SEAT – VEHICLE WITH SEAT MEMORY

On vehicles with seat memory, the DSM or PSM receives 2 power supplies. The permanent power supply from the PJB is used to operate the adjustment motors. The switched power supply from the Rear Junction Box is used to operate the DSM.

A switched power supply is connected from the Rear Junction Box to the driver seat switchpack. The driver seat switchpack is connected to the DSM by a LIN to control the seat adjustment. Any selection for seat adjustment generates a message which is transmitted to the DSM through the LIN. The seat module processes the request and operates the applicable seat motor as required using the power supplies from the PJB.

The DSM is connected to the HS CAN body systems bus. The system allows the DSM to monitor the position of the door mirrors and the steering column. when storing and recalling seat memory settings, the DSM using the signals from:

- DDM
- PDM
- BCM/ GWM.

The HS CAN body systems bus allows modules to relay seat memory information to enable confirmation chimes and message display in the IPC.

Memory settings are stored in the DSM by pressing the seat memory switch and then, within 5 seconds, 1 of the channel switches. When the memory switch is pressed the seat memory switchpack status indicator illuminates in the switch. After the channel switch is pressed, the seat memory switchpack status indicator extinguishes and a chime sounds to confirm that the settings have been memorized. When the ignition is on, the message center displays a confirmation message. Any previously stored settings on the selected channel is over-written.

Seat memory settings are recalled by pressing the applicable channel switch.

4-WAY LUMBAR AND 2-WAY BOLSTER – IF EQUIPPED

The lumbar switch is a 4 way switch located in the seat switchpack. Power supply is provided for the lumbar assembly from the seat switchpack.

The 4 way lumbar switch controls both the lumbar air pump and the solenoid valve. When the switch is moved to the inflate position, power is supplied through the seat relay contacts to the air pump motor. The air pump motor will operate for as long as the switch is held in the 'inflate' position, or until the maximum pressure is achieved.

When the switch is moved to the 'deflate', power is supplied to the solenoid valve, operates to open the valve to deflate the lumbar assembly.

STALL DETECTION

A seat adjustment motor is deemed to have stalled when there is no change in the input from the corresponding motor position sensor for 200 ms.

When a stall condition is detected, the drive to the corresponding motor is:

- Canceled for the remainder of the memory recall operation.
- The switch is re-selected (manual movement).

The motor must be activated again, to move past the stall position, by operating the appropriate switch for more than 2 seconds. When feedback is detected from the motor position sensor, then the motor continues to operate until the switch is released. When feedback is not detected from the motor position sensor, the motor is operated only for 0.5 second. Then stops until the switch is released and pressed again, when a further 0.5 second of activation is permitted. Known as inch mode, which allows seat adjustment when feedback from the seat motor position sensors are lost.

INITIALIZATION

When the DSM or the PSM is replaced, it must be calibrated using JLR approved diagnostic equipment. The module can learn the positions of the adjustment motors.

STARTUP BATTERY MONITORING

When the startup battery voltage drops below 10.5V, the DSM ignores all requests for a memory recall. The back to normal until the startup battery voltage has reached 11.5V. The startup battery conserves as much power in the startup battery as possible to enable engine cranking.

SEAT HEATER – IF EQUIPPED

The seat heater operates when in the Power Mode 7 (engine running). Power for the heater is supplied from a comfort relay in the Rear Junction Box. The comfort relay is controlled by a hardwired signal from the BCM/ GWM. Each seat cushion heater is connected through a LIN to the HVAC control module. The seat cushion heater also controls the power supply to the backrest heater mat.

When the HVAC control module receives a seat heating request, it sends a LIN bus message to the appropriate seat cushion heater to request the heater elements to be powered on. The HVAC control module provides a target

temperature to the heated seat mat LIN node. The LIN node uses the thermal sensor in the seat cushion heater element to regulate the temperature of the heated seat mat against this target temperature.

CLIMATE SEAT – IF EQUIPPED

Depending on vehicle specification, climate controlled front row seats are available for the power operated seats. The climate assembly is incorporated within each climate seat cushion and backrest.

The SCMEs in vehicle comprise of:

- SCME - Right
- SCME - Left.

The modules are connected to the HVAC control module on the LIN. Power supply for the climate assemblies in the seats are supplied from the Rear Junction Box. The climate assemblies can only operate when in the Power Mode 7 (engine running).

The FCDIM request is transmitted to the HVAC control module through the HS CAN HMI systems bus. The HVAC processes the requests and transmits them to the related climate module on a LIN connection.

The climate module uses the signals from the sensors in the backrest and the cushion climate assemblies to regulate the seat at the selected temperature. When full seat heating/cooling is selected, both the backrest and the cushion climate assemblies are activated.

FOLDING AND RAISING THE SECOND ROW SEATS



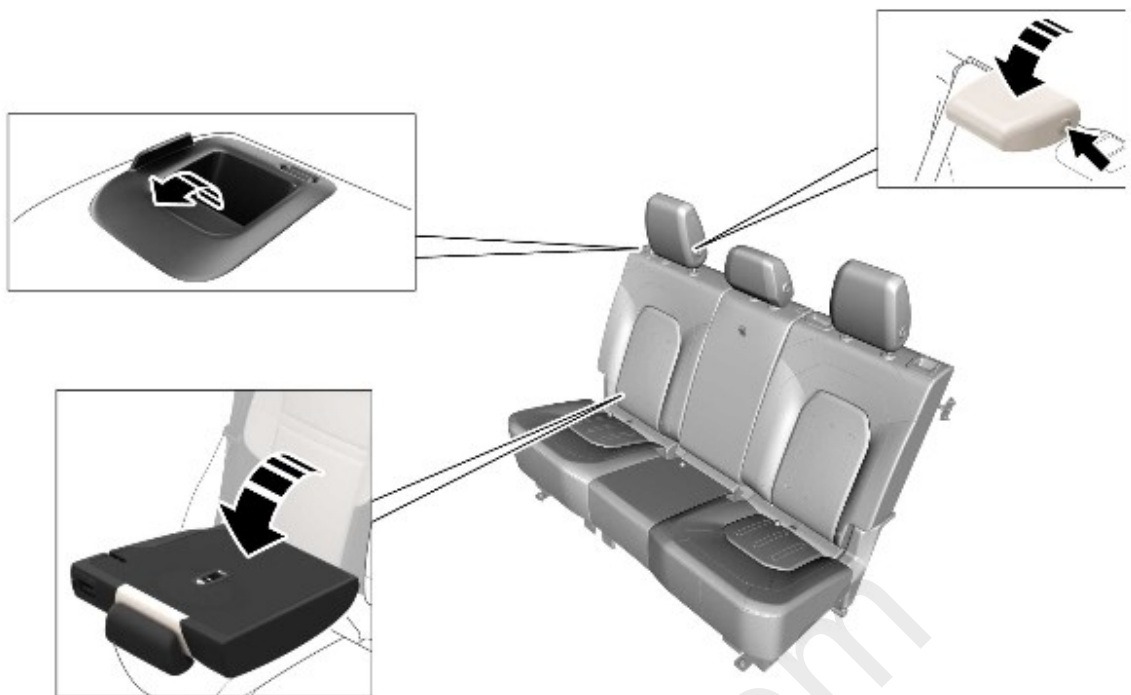
NOTE:

The second row center seatbelt incorporates a locking feature. The locking feature prevents the seatbelt from being pulled out too far when the backrest is folded flat.

The seatbelt operates as normal when:

- Return the backrest to the upright position.
- Extract the seatbelt webbing until it stops.
- Return the seatbelt webbing a small amount.

Folding the second row seats



E253567

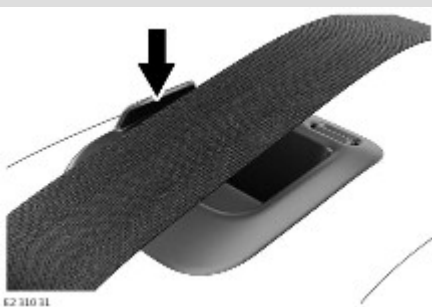
The split-folding rear backrests can both be folded to accommodate large loads, or partially folded to accommodate large loads and still retain seating for passengers.

To fold a second row backrest:

- 1 Push the button on the side of each head restraint. Fold the head restraints forward.
- 2 Pull the backrest release catch and manually lower the backrest.

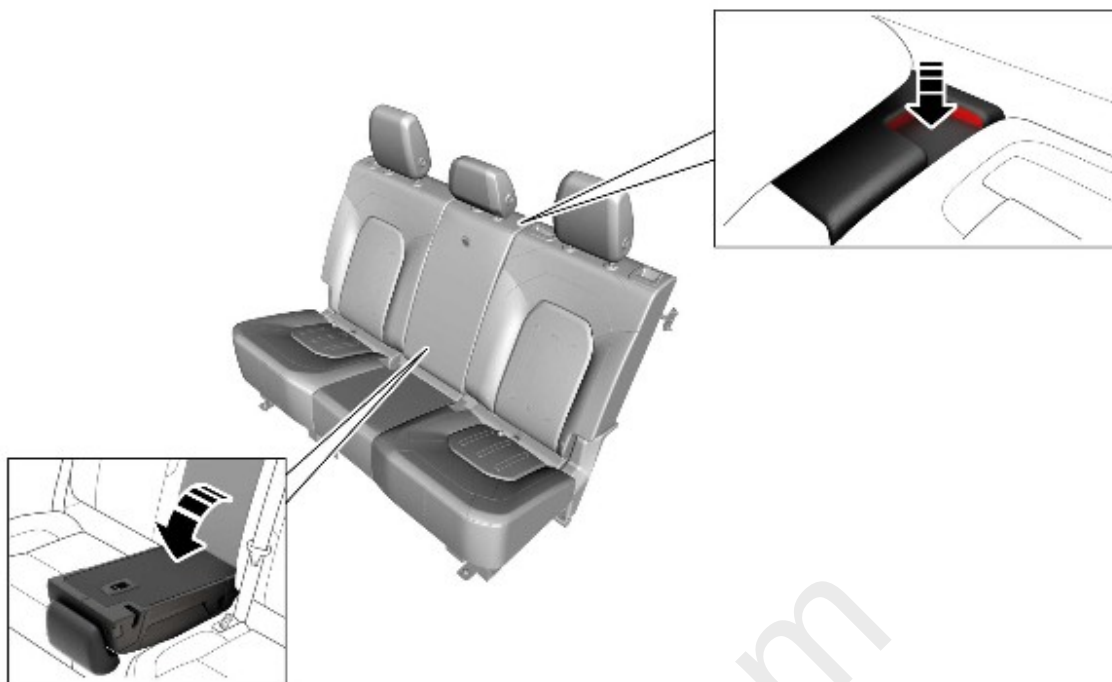
NOTE:

Head restraints need to be removed to achieve the maximum vehicle loadspace, when equipped on flip flop seat on 5 door vehicles.



E2 310 31

A latch hook is positioned beside the release catch to guide the seatbelt away from the seat edge when lowering and raising the backrest.



E253568

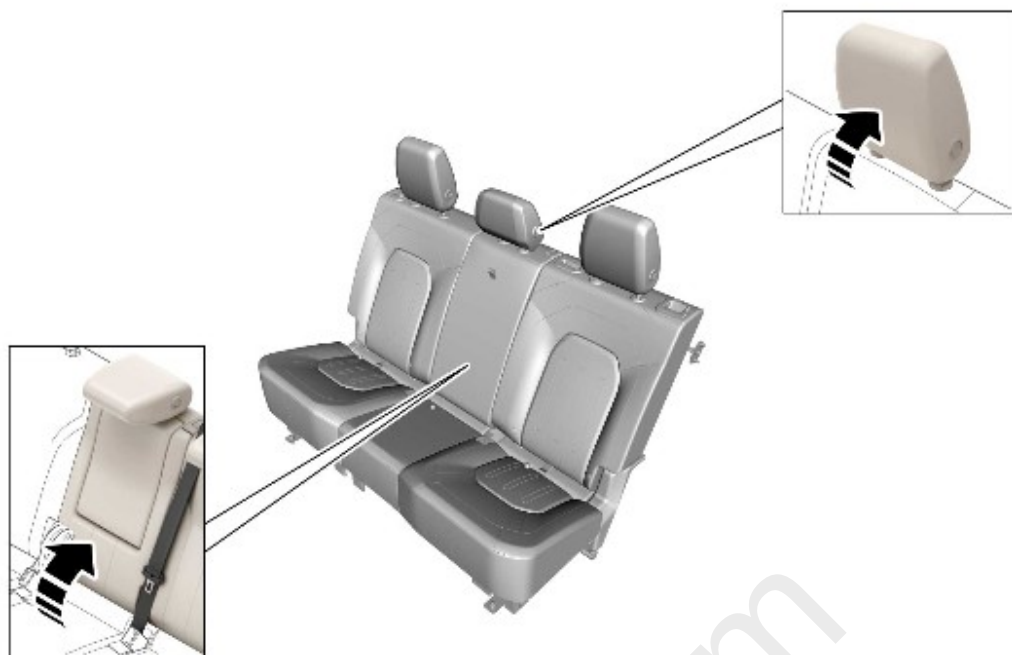
The center rear backrest can be released separately. To release the center rear backrest, press and hold the release button. Simultaneously fold the backrest forward.

NOTE:

To fold down the seats to fully horizontal level:

- For vehicle with 3 doors: Fold down the head restraint.
- For vehicle with 5 doors: Fold up the cushion and remove the head restraint and insert into the cushion.

Raising the second row fixed seats



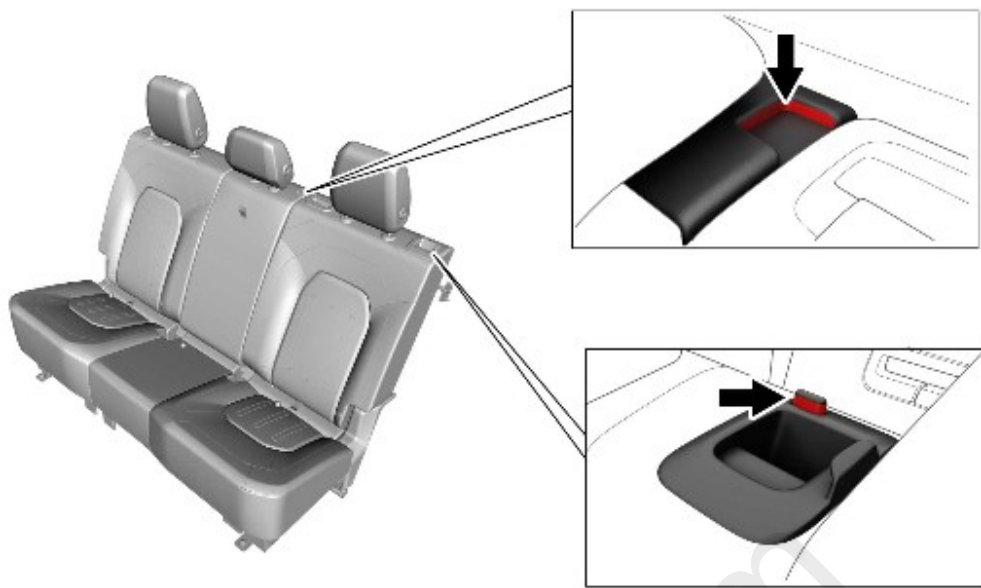
E253569

To return the second row backrest and reset the backrest into the upright position.

To raise a rear head restraint, manually lift the head restraint until it locks firmly into the upright position.

NOTE:

A red indicator is visible beside the release mechanism if either the rear or rear center backrest is not fully locked into place.

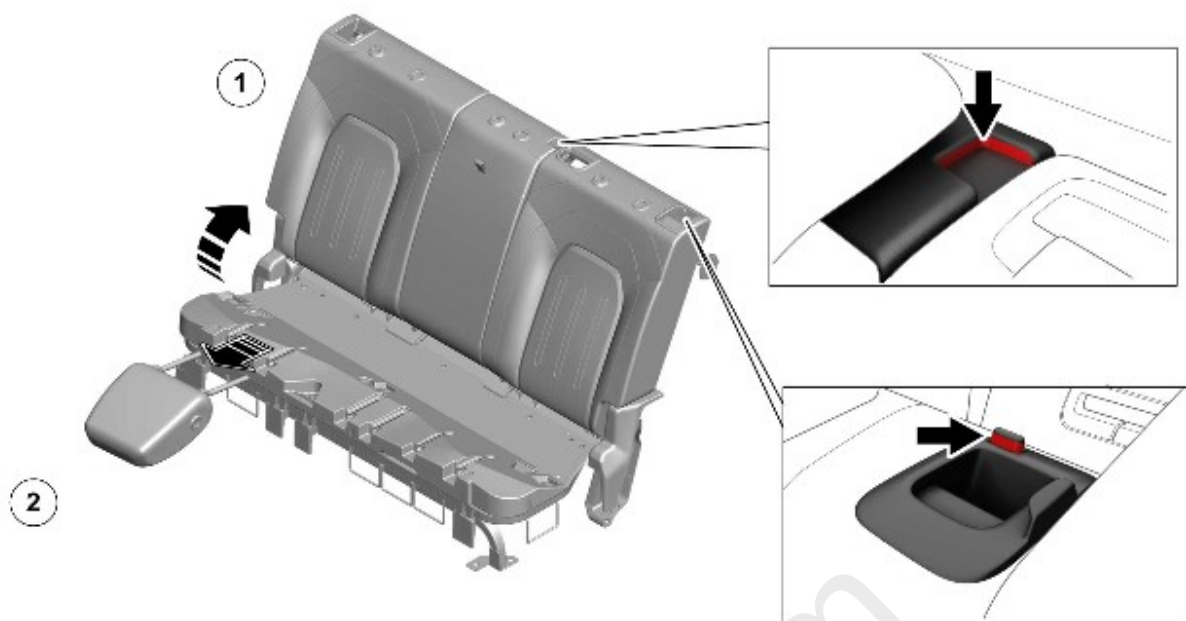


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RAISING THE SECOND ROW FLIP FLOP SEAT

NOTE:

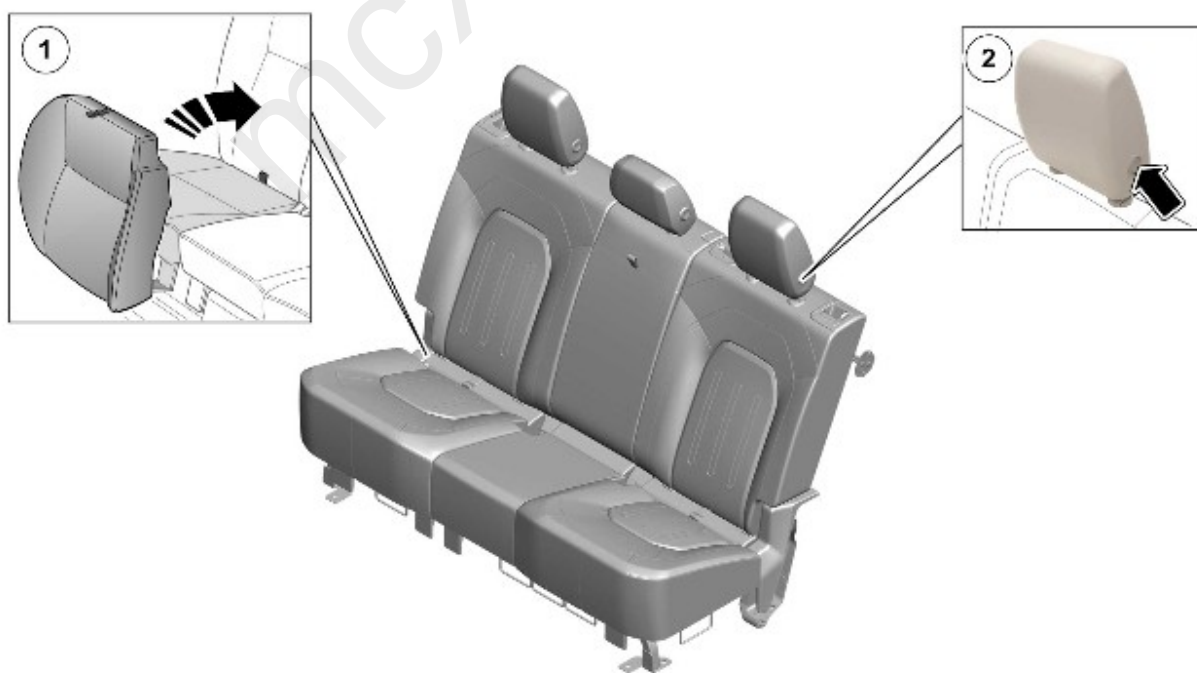
A red indicator is visible beside the release mechanism if either the rear or rear center backrest is not fully locked into place.



E257367

1 Return each backrest until in the fully upright position and it locks firmly.

2 Remove the head restraints from the locations in the cushion.



E257368

1 Flop the cushion in place and lock it onto the frame pan.

2 Mount the head restraints to the backrests and use the button on the side of each head restraint to raise the head restraints to the upright, locked position.

DIAGNOSTICS

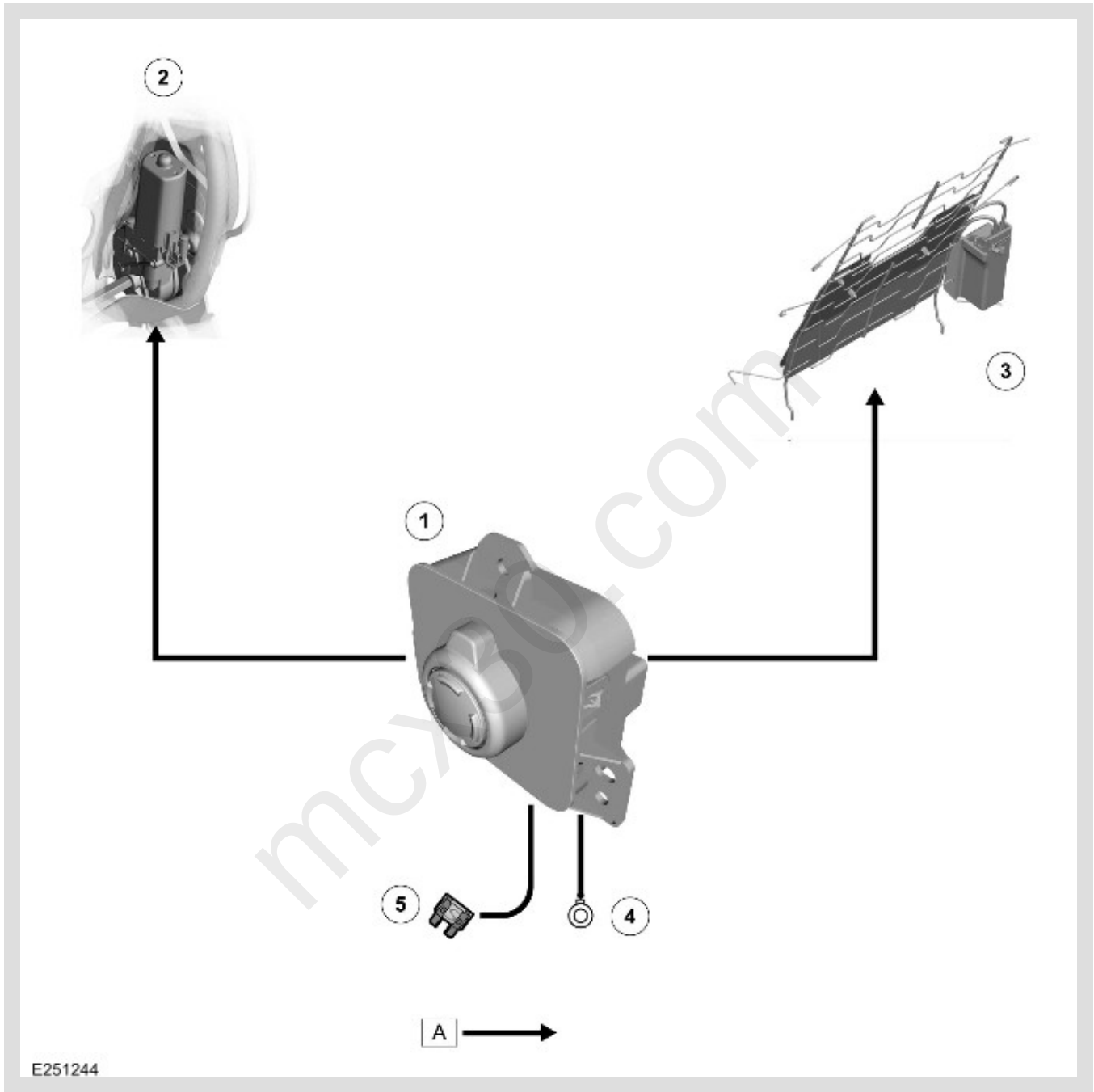
The BCM/ GWM records any Diagnostic Trouble Code(s) (DTC)s and related data. Read the DTCs and related data with the JLR approved diagnostic equipment.

The JLR approved diagnostic equipment enables certain components to be activated and also live data to be read.

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CONTROL DIAGRAM

CONTROL DIAGRAM - 1 OF 6 - MANUAL SEAT ADJUSTMENT



A = HARDWIRED.

ITEM	DESCRIPTION
1	Seat switchpack
2	Seat backrest recline motor
3	Air reservoir valve block

A = HARDWIRED: O = LIN: AZ = HS CAN BODY SYSTEMS BUS: BA = HS CAN HMI SYSTEMS BUS: BM = HS ISOLATED CONTROLLER AREA NETWORK (ISL CAN) SYSTEMS BUS.

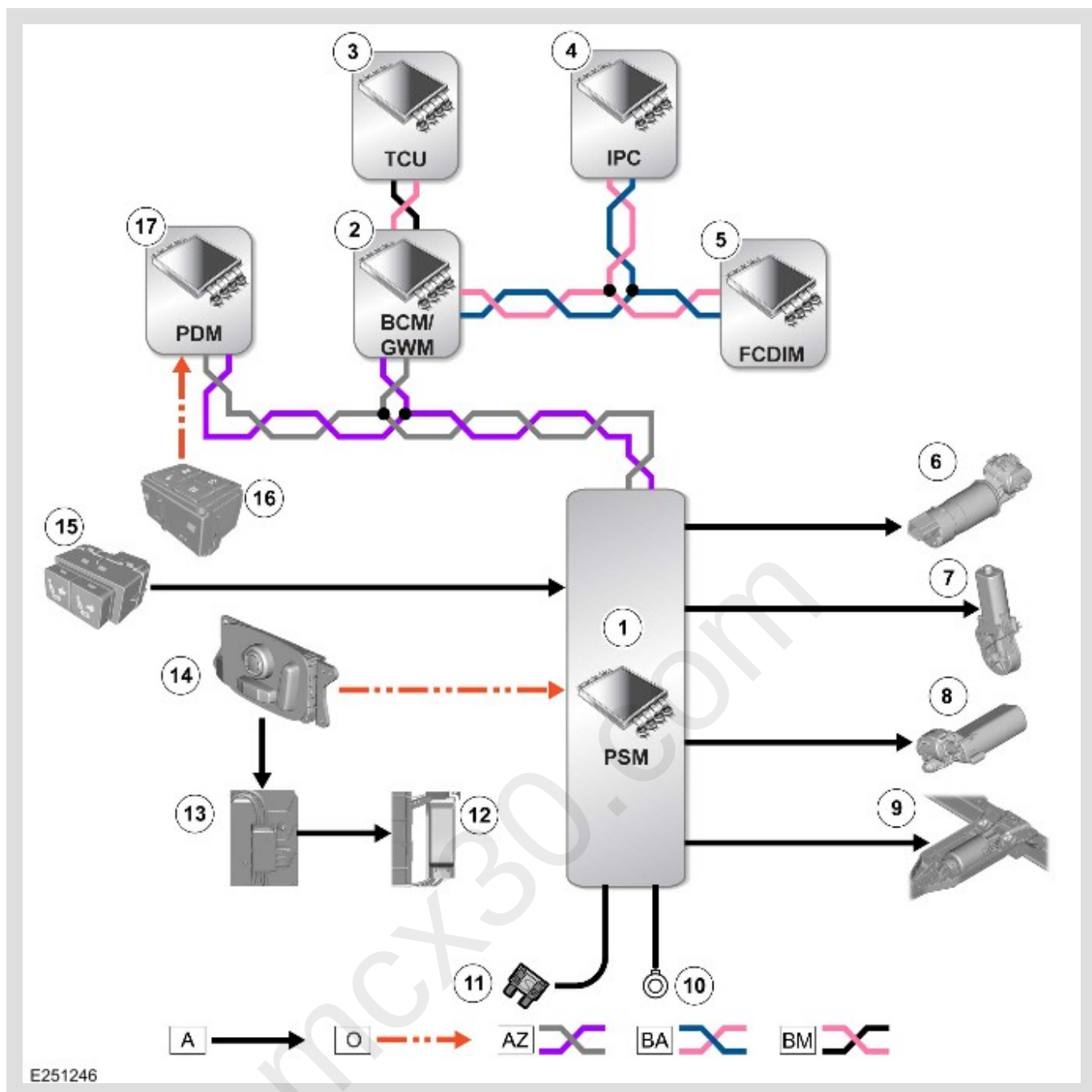
ITEM	DESCRIPTION
1	DSM
2	BCM/ GWM
3	TCU
4	IPC
5	FCDIM
6	Front row seat cushion tilt motor
7	Front row seat backrest recline motor
8	Front row seat height motor
9	Front row seat forward/rearward motor
10	Ground
11	Power supply
12	Lumbar air pump
13	Air reservoir valve block
14	Front row seat switchpack
15	Front row easy entry switch
16	Seat memory switch
17	DDM

CONTROL DIAGRAM - 3 OF 6 - PASSENGER SEAT ADJUSTMENT WITH SEAT MEMORY



NOTE:

Vehicle with 3 doors is shown, vehicle with 5 doors is similar.



A = HARDWIRED: O = LIN: AZ = HS CAN BODY SYSTEMS BUS: BA = HS CAN HMI SYSTEMS BUS: BM = HS ISL CAN SYSTEMS BUS.

ITEM	DESCRIPTION
1	PSM
2	BCM/ GWM
3	TCU
4	IPC
5	FCDIM
6	Front row seat cushion tilt motor

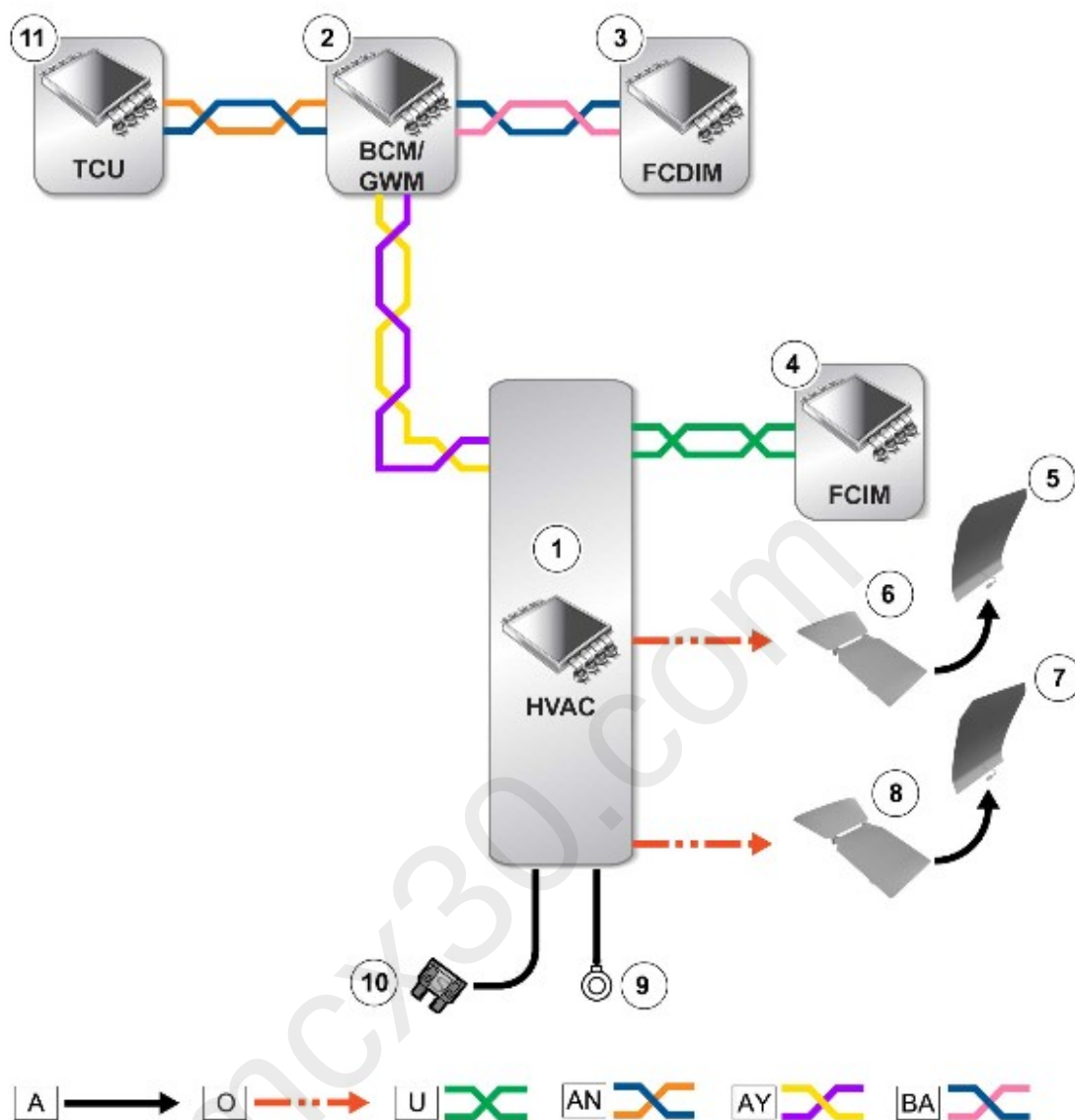
ITEM	DESCRIPTION
7	Front row seat backrest recline motor
8	Front row seat height motor
9	Front row seat forward/rearward motor
10	Ground
11	Power supply
12	Lumbar air pump
13	Air reservoir valve block
14	Front row seat switchpack
15	Front row easy entry switch
16	Seat memory switch
17	PDM

CONTROL DIAGRAM - 4 OF 6 - FRONT ROW SEAT HEATER



NOTE:

Vehicle with 5 doors is shown, vehicle with 3 doors is similar.



E251247

A = HARDWIRED: O = LIN: U = PRIVATE CAN BUS: AN = HS CAN POWERTRAIN SYSTEMS BUS: AY = HS CAN POWER MODE ZERO SYSTEMS BUS: BA = HS CAN HMI SYSTEMS BUS.

ITEM	DESCRIPTION
1	HVAC control module
2	BCM/ GWM
3	FCDIM
4	FCIM
5	Front row seat backrest heater - Right
6	Front row seat cushion heater - Right

ITEM	DESCRIPTION
7	Front row seat backrest heater - Left
8	Front row seat cushion heater - Left
9	Ground
10	Power supply
11	TCU

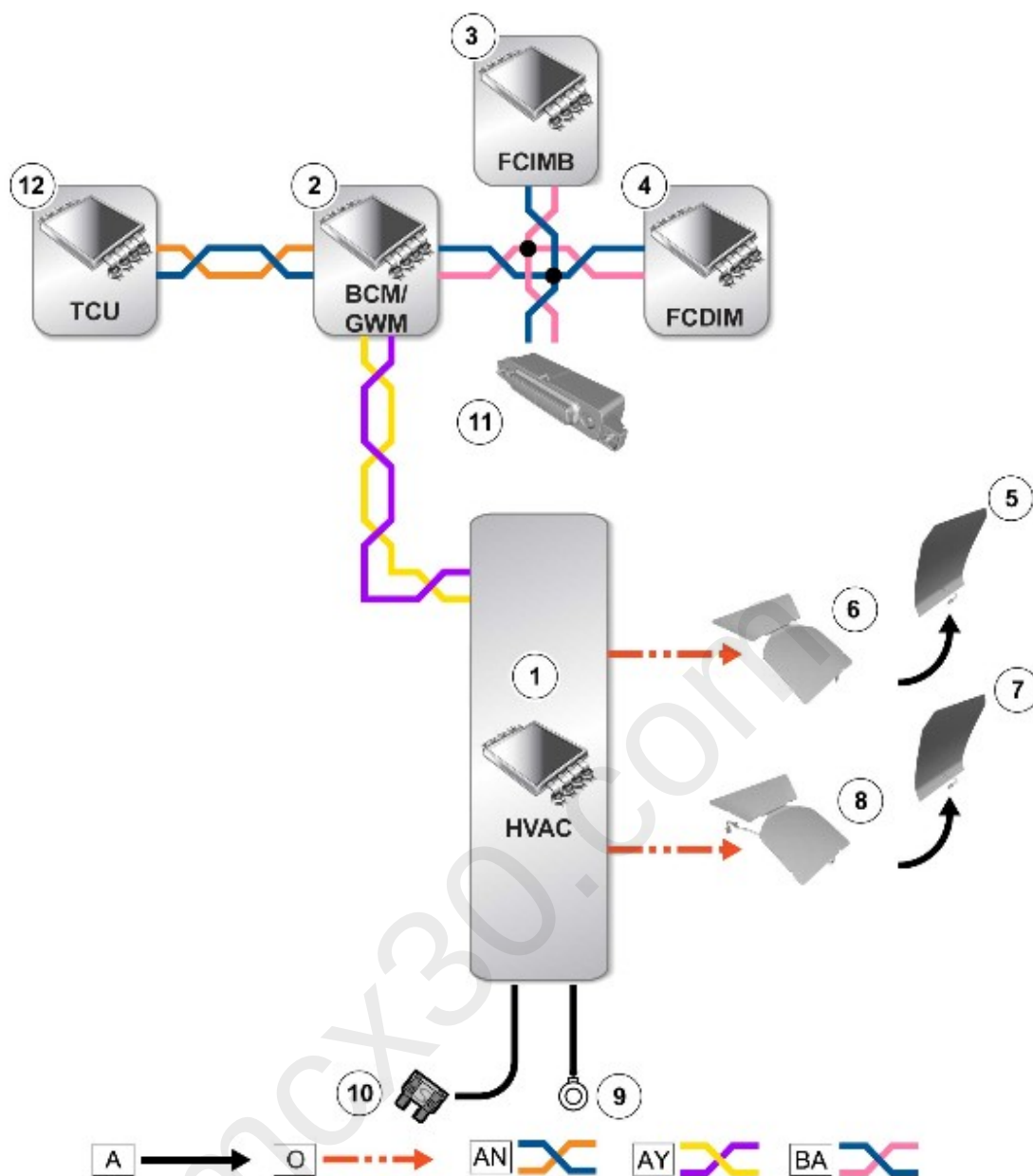
CONTROL DIAGRAM – 5 OF 6 – SECOND ROW SEAT HEATER



NOTE:

Vehicle with 5 doors is shown, vehicle with 3 doors is similar.

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E251248

A = HARDWIRED: O = LIN: AN = HS CAN POWERTRAIN SYSTEMS BUS: AY = HS CAN POWER MODE ZERO SYSTEMS BUS: BA = HS CAN HMI SYSTEMS BUS.

ITEM	DESCRIPTION
1	HVAC control module
2	BCM/ GWM
3	FCIMB
4	FCDIM
5	Second row seat backrest heater - Right
6	Second row seat cushion heater - Right

ITEM	DESCRIPTION
7	Second row seat backrest heater - Left
8	Second row seat cushion heater - Left
9	Ground
10	Power supply
11	Rear seat heater switch
12	TCU

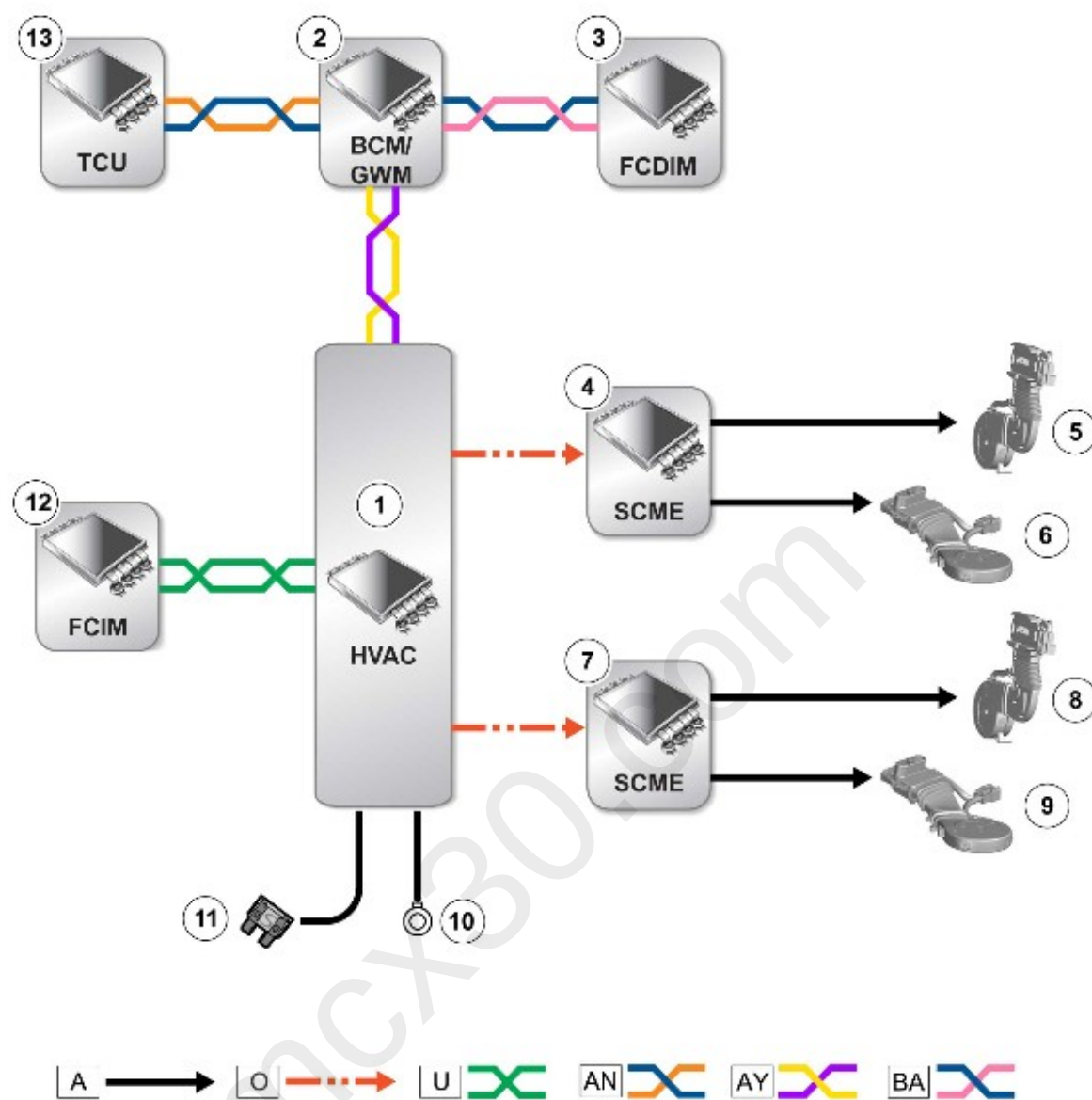
CONTROL DIAGRAM – 6 OF 6 – FRONT ROW CLIMATE SEAT



NOTE:

Vehicle with 5 doors is shown, vehicle with 3 doors is similar.

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E251249

A = HARDWIRED: O = LIN: U = PRIVATE CAN BUS: AN = HS CAN POWERTRAIN SYSTEMS BUS: AY = HS CAN POWER MODE ZERO SYSTEMS BUS: BA = HS CAN HMI SYSTEMS BUS.

ITEM	DESCRIPTION
1	HVAC control module
2	BCM/ GWM
3	FCDIM
4	Driver SCME
5	Front row seat backrest climate assembly - Driver seat
6	Front row seat cushion climate assembly - Driver seat

ITEM	DESCRIPTION
7	Passenger SCME
8	Front row seat backrest climate assembly - Passenger seat
9	Front row seat cushion climate assembly - Passenger seat
10	Ground
11	Power supply
12	FCIM
13	TCU

cmjjaGFyZG1vcnRvbjsyMDIwLTASLTE4VDEyOjE2OjU0Ljk2MFo7OTIuNDAuMTg5LjUwOw==

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