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2020.0 DEFENDER (LE), 501-10

SEATING

SEATS - [+] 7 SEAT CONFIGURATION (G2342575)

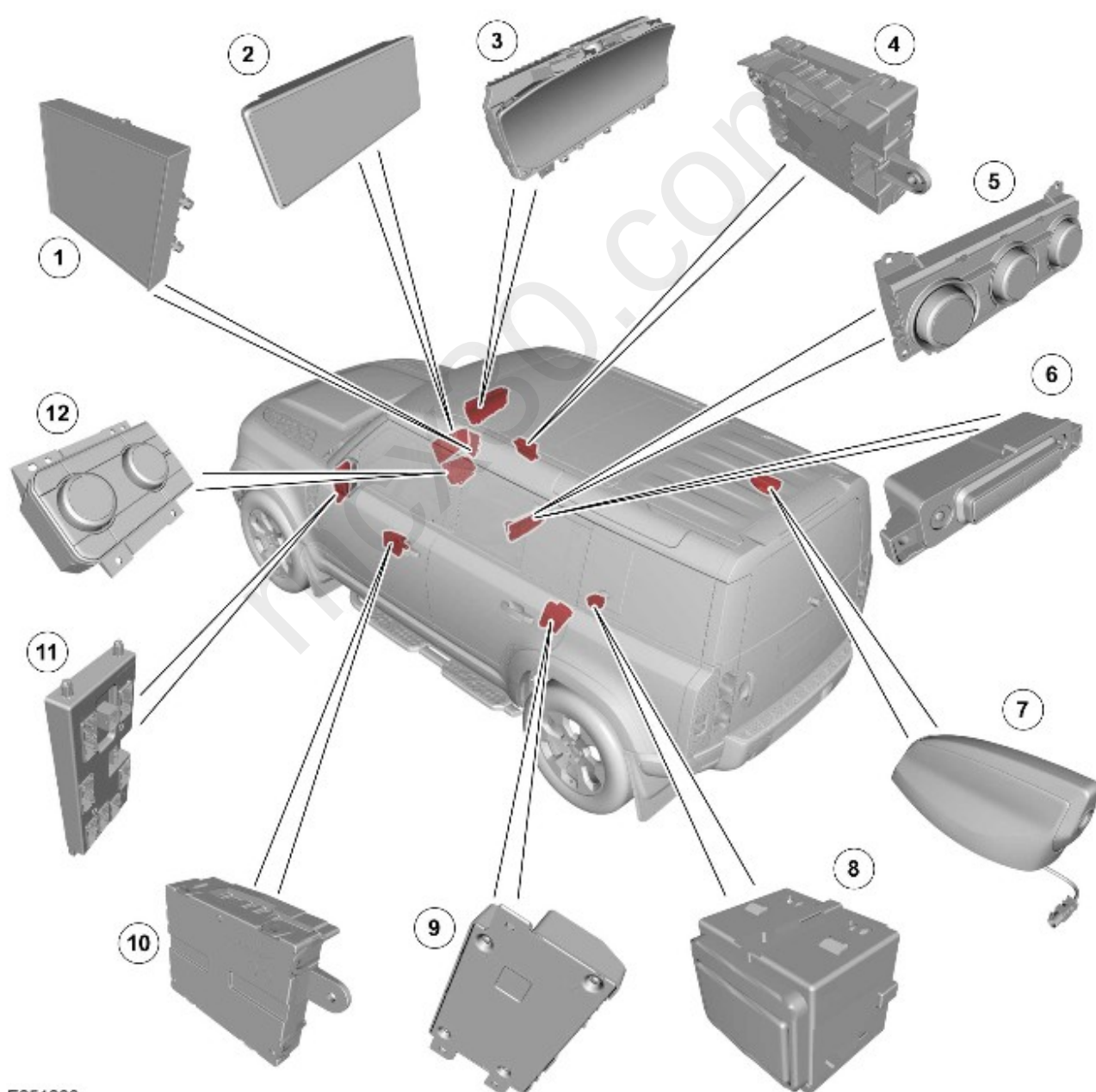
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COMPONENT LOCATION

COMPONENT LOCATION - 1 OF 5 - SEAT ADJUSTMENT CONTROL MODULES

 NOTE:

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



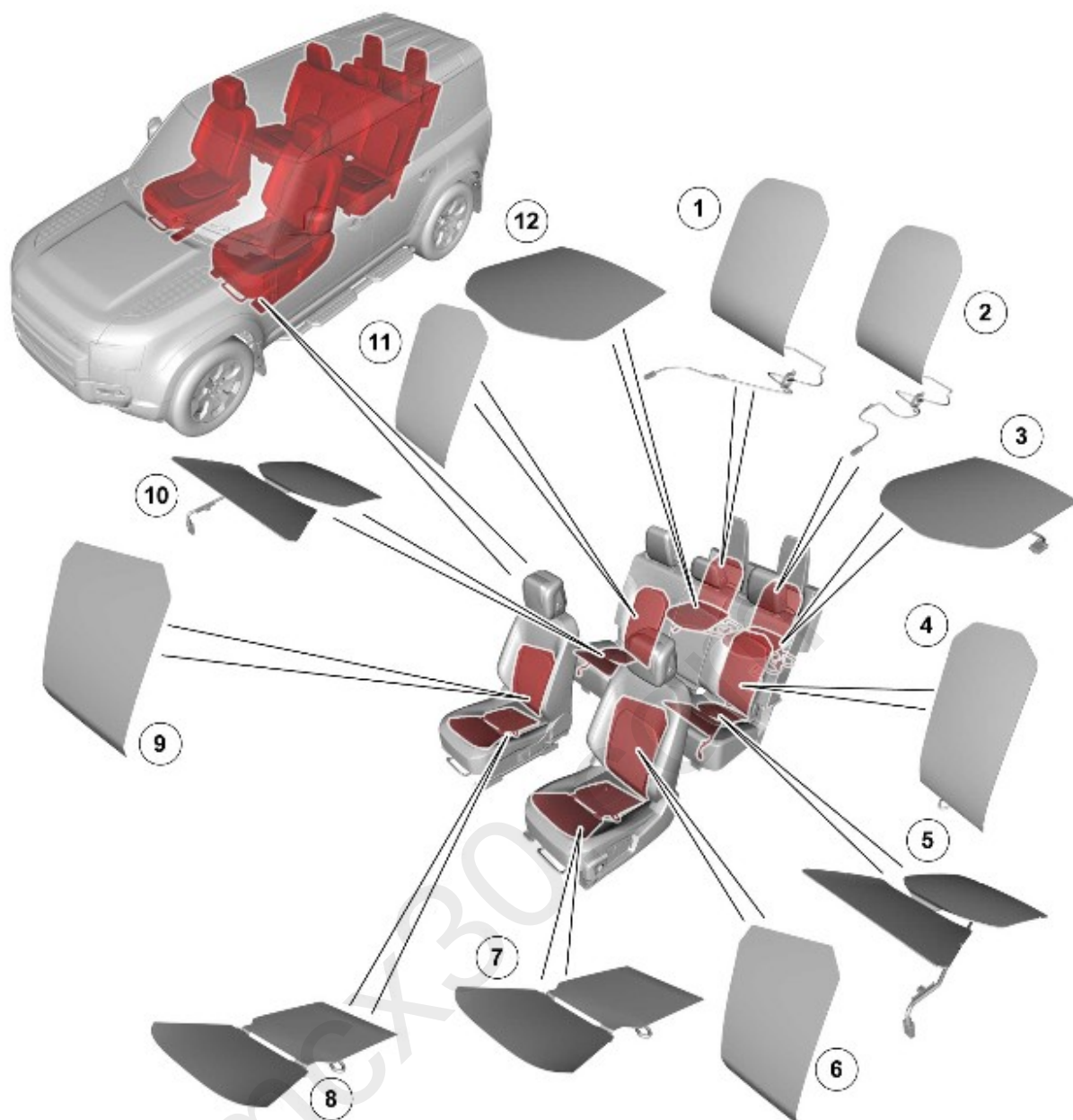
ITEM	DESCRIPTION
1	Heating, ventilation, and air conditioning (HVAC) control module
2	Touch Screen (FCDIM)
3	Instrument Panel Cluster (IPC)
4	Driver Door Control Module (DDM)
5	Rear Integrated Control Panel (FCIMB) (if equipped)
6	Rear seat heater switch (if equipped)
7	Roof pod
8	Third row seat heater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

COMPONENT LOCATION - 2 OF 5 - SEAT HEATER - IF EQUIPPED



NOTE:

RHD vehicle is shown, LHD vehicle is similar.



E251267

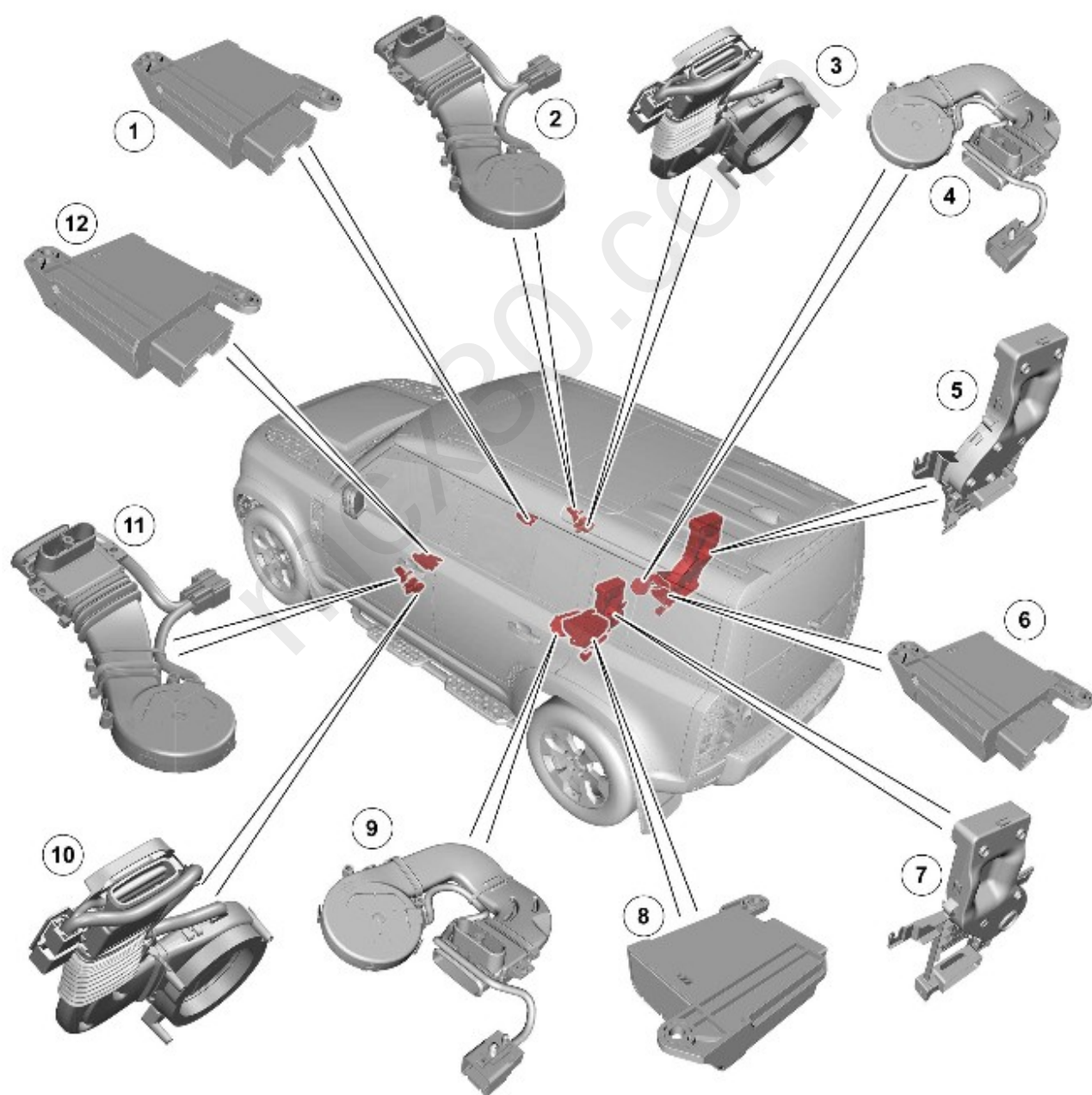
ITEM	DESCRIPTION
1	Thrid row seat heated backrest - Right
2	Thrid row seat heated backrest - Left
3	Thrid row seat heated cushion - Left
4	Second row seat heated backrest - Left
5	Second row seat heated cushion - Left
6	Front row seat heated backrest - Left
7	Front row seat heated cushion - Left
8	Front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

ITEM	DESCRIPTION
9	Front row seat heated backrest - Right
10	Second row seat heated cushion - Right
11	Second row seat heated backrest - Right
12	Third row seat heated cushion - Right

COMPONENT LOCATION - 3 OF 5 - CLIMATE SEAT - IF EQUIPPED

NOTE:

RHD vehicle is shown, LHD vehicle is similar.



E251228

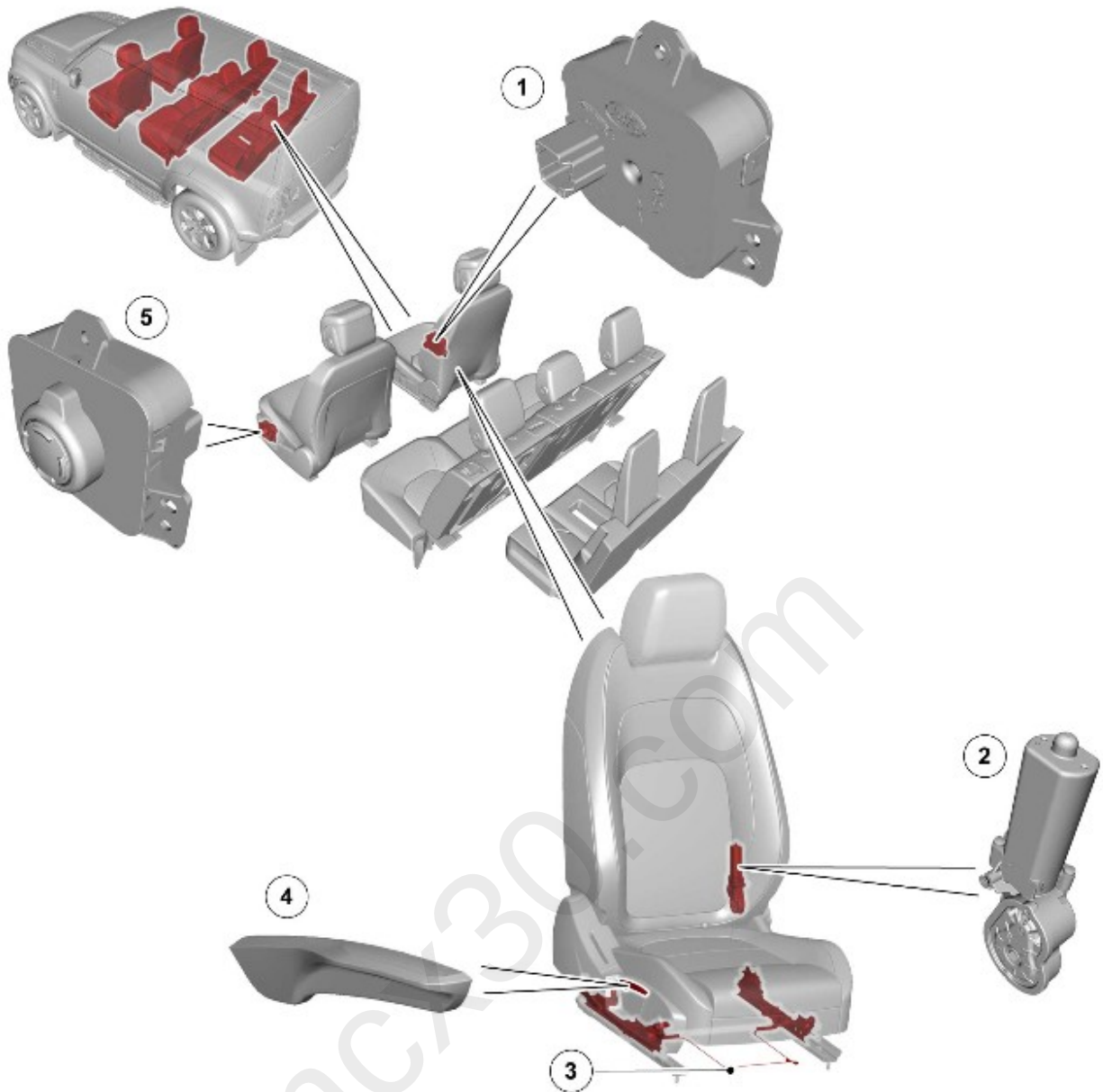
ITEM	DESCRIPTION
1	Seat Climate Control Module (SCME) - Right
2	Front row climate seat cushion - Right
3	Front row climate seat backrest - Right
4	Second row climate seat cushion - Right
5	Second row climate seat backrest - Right
6	SCME - Rear right
7	Second row climate seat backrest - Left
8	SCME - Rear left
9	Second row climate seat cushion - Left
10	Front row climate seat backrest - Left
11	Front row climate seat cushion - Left
12	SCME - Left

COMPONENT LOCATION - 4 OF 5 - SEMI-POWERED 8-WAY SEAT ADJUSTMENT



NOTE:

RHD vehicle is shown, LHD vehicle is similar.



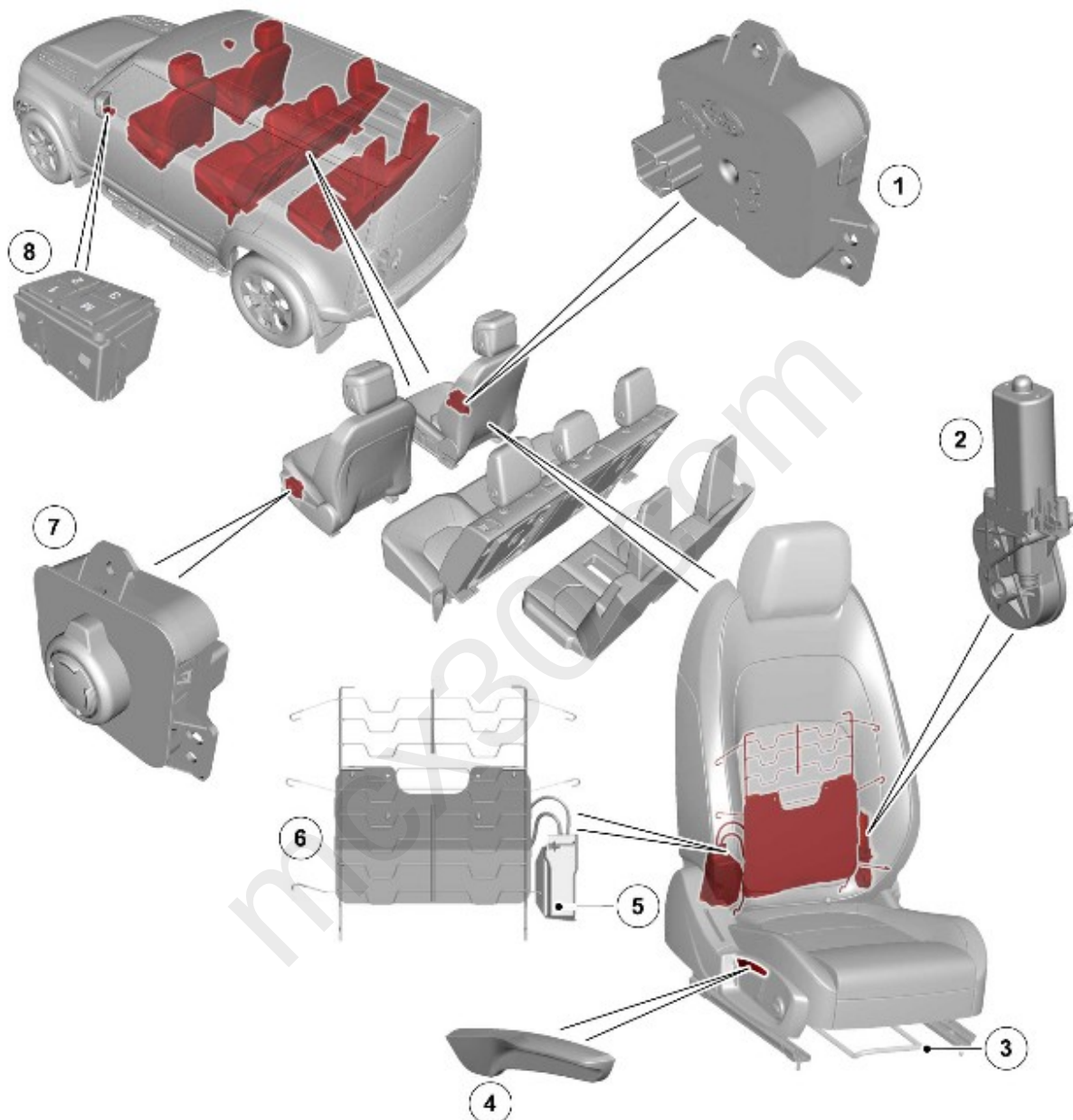
E257625

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)
4	Front row seat height adjustment lever (quantity 2)
5	Front row seat switchpack - Left

COMPONENT LOCATION - 5 OF 6 - SEMI-POWERED SEAT ADJUSTMENT

NOTE:

RHD vehicle is shown, LHD vehicle is similar.



E251268

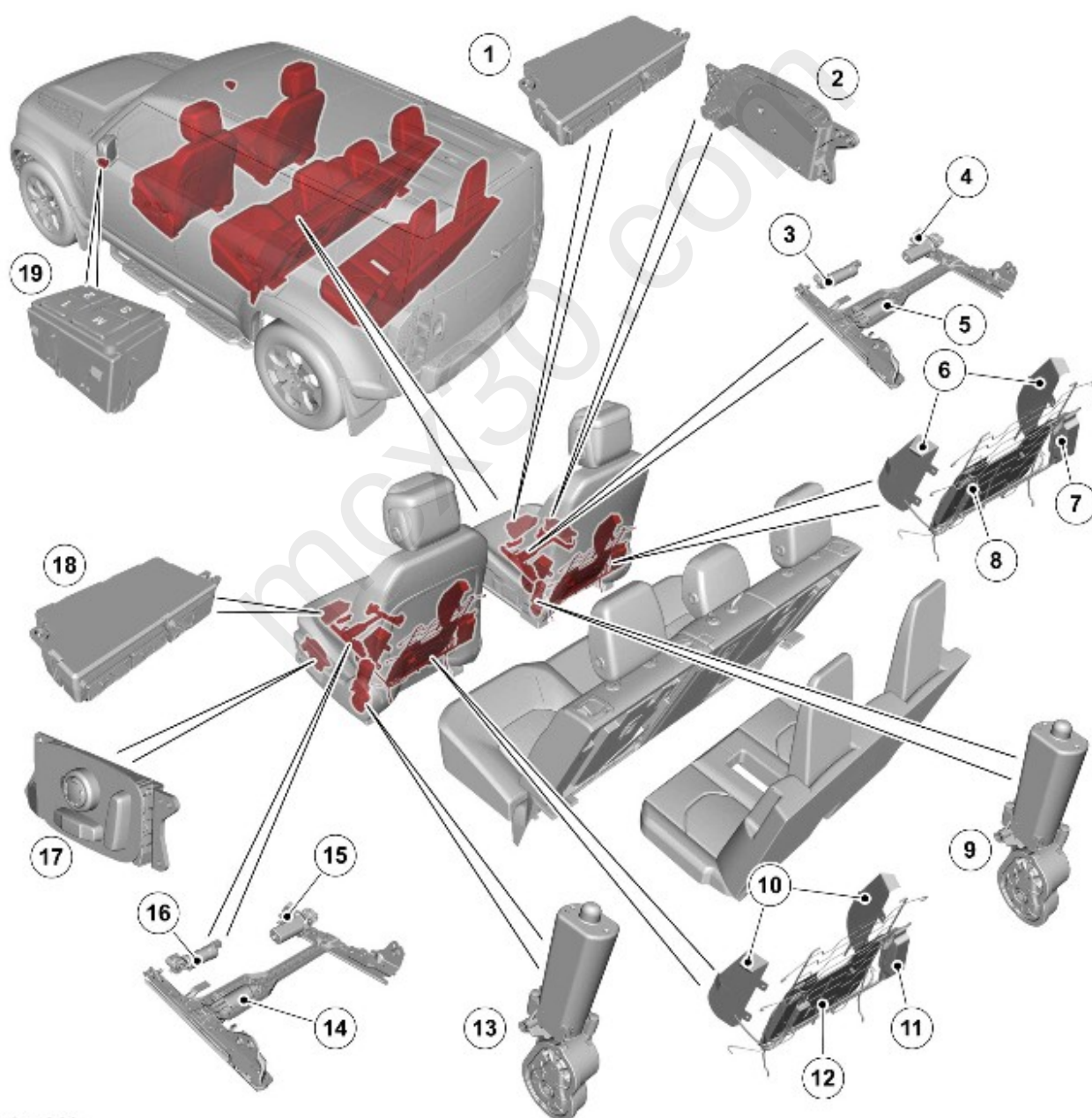
ITEM	DESCRIPTION
1	Front row seat switchpack - Right
2	Front row seat backrest recline motor (quantity 2)
3	Front row seat forward/rearward adjustment lever (quantity 2)
4	Front row seat height adjustment lever (quantity 2)

ITEM	DESCRIPTION
5	Front row seat lumbar air pump (quantity 2)
6	Front row seat air reservoir valve block (quantity 2)
7	Front row seat switchpack - Left
8	Seat memory switchpack (quantity 2)

COMPONENT LOCATION - 6 OF 6 - POWER SEAT ADJUSTMENT WITH SEAT MEMORY SWITCHPACK

NOTE:

RHD vehicle is shown, LHD vehicle is similar.



E251269

ITEM	DESCRIPTION
1	Seat Module - Driver/Passenger/Rear - Left/Right (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
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	Seat Module - Driver/Passenger/Rear - Left/Right (PSM)
19	Seat memory switchpack (quantity 2)

OVERVIEW

FRONT ROW SEAT

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.
- 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 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 on manually operated front row seats.

Manually adjusted seats control at the front and on the side of the seat. The electric controlling for seat adjustment is 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 (ignition OFF).
- 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 following options are available for the second row seats:

- Seat heater
- Climate 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.

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

- Second row seat armrest
- Heated second row seats
- Second row climate 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 rear seats heater switch or the FCIMB. The rear seats heater switch or the FCIMB is located on the rear of the floor console.

The climate seat backrest and seat cushion cool down depending on the current provided by the each rear SCME. Each climate seat cushion and seat backrest also contains a blower, which blows air to distribute the cooled air through liners. The blower is also controlled by the relate rear SCME.

THIRD ROW SEAT



NOTES:

- The head restraint must always be raised when using the third row seats.
- The luggage compartment cover must be removed before folding or raising the third row seats. This can be stored in the luggage compartment.

The 2 third row seats are available as an optional feature. The heated third row seats are available. The seats can be folded flat to optimize the luggage compartment space or raised to increase the seating capacity to 7 persons.

On vehicles with heated third row seats, heater elements are incorporated into the seat cushions and the backrests. Operation of the temperature settings for heated third row seats are controlled through:

- The third row seat heater switch
- Rear seats heater switch
- FCIMB
- FCDIM.

The third row seat heater switch is located in each side of loadspace trim panel. The rear 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. Care 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).

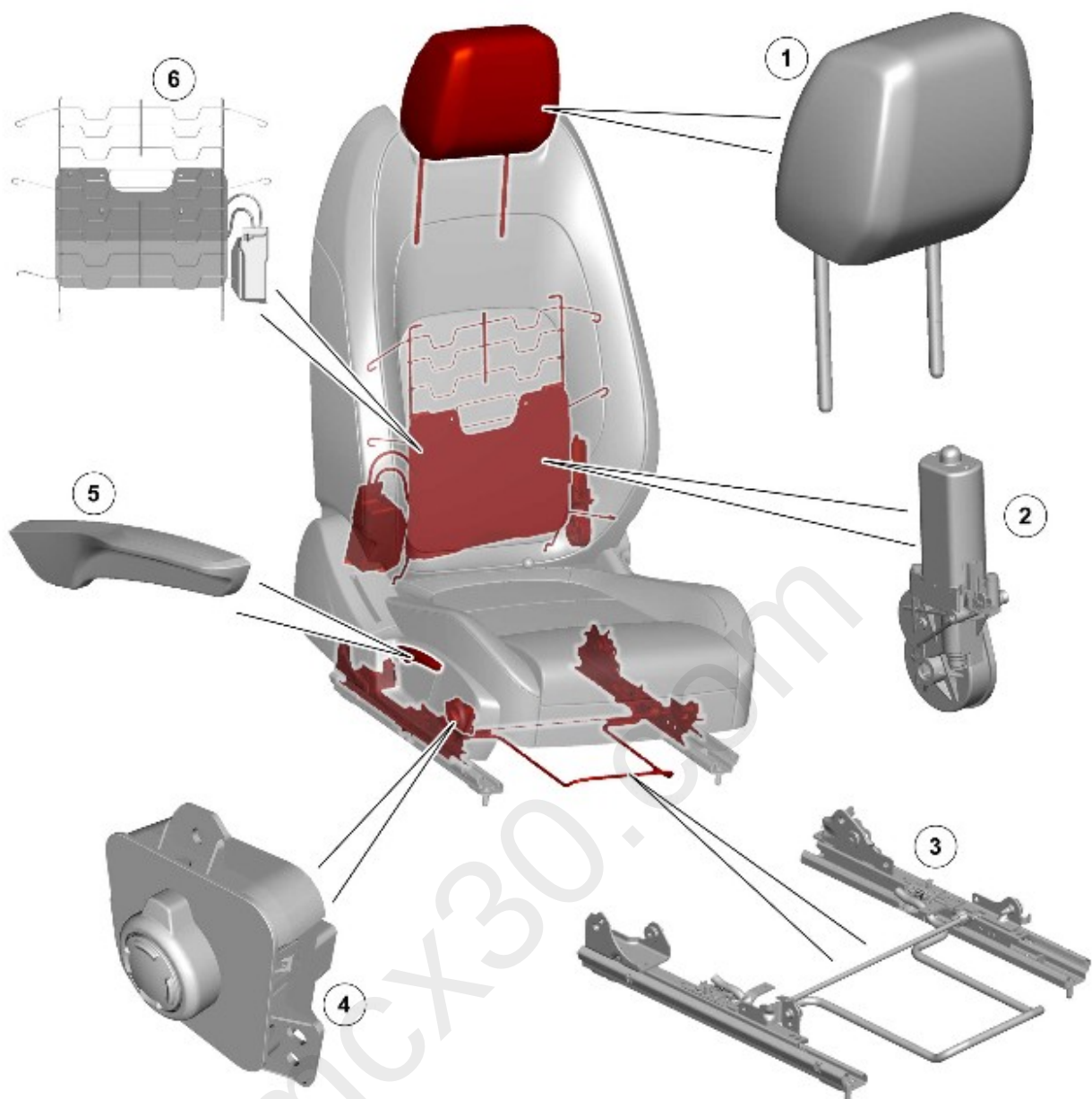
DESCRIPTION

FRONT ROW SEAT – SEMI POWERED MANUAL ADJUSTMENT



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	Air reservoir valve block

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 – SEAT SWITCHPACK

NOTE:

Right installation is shown, left installation is similar.

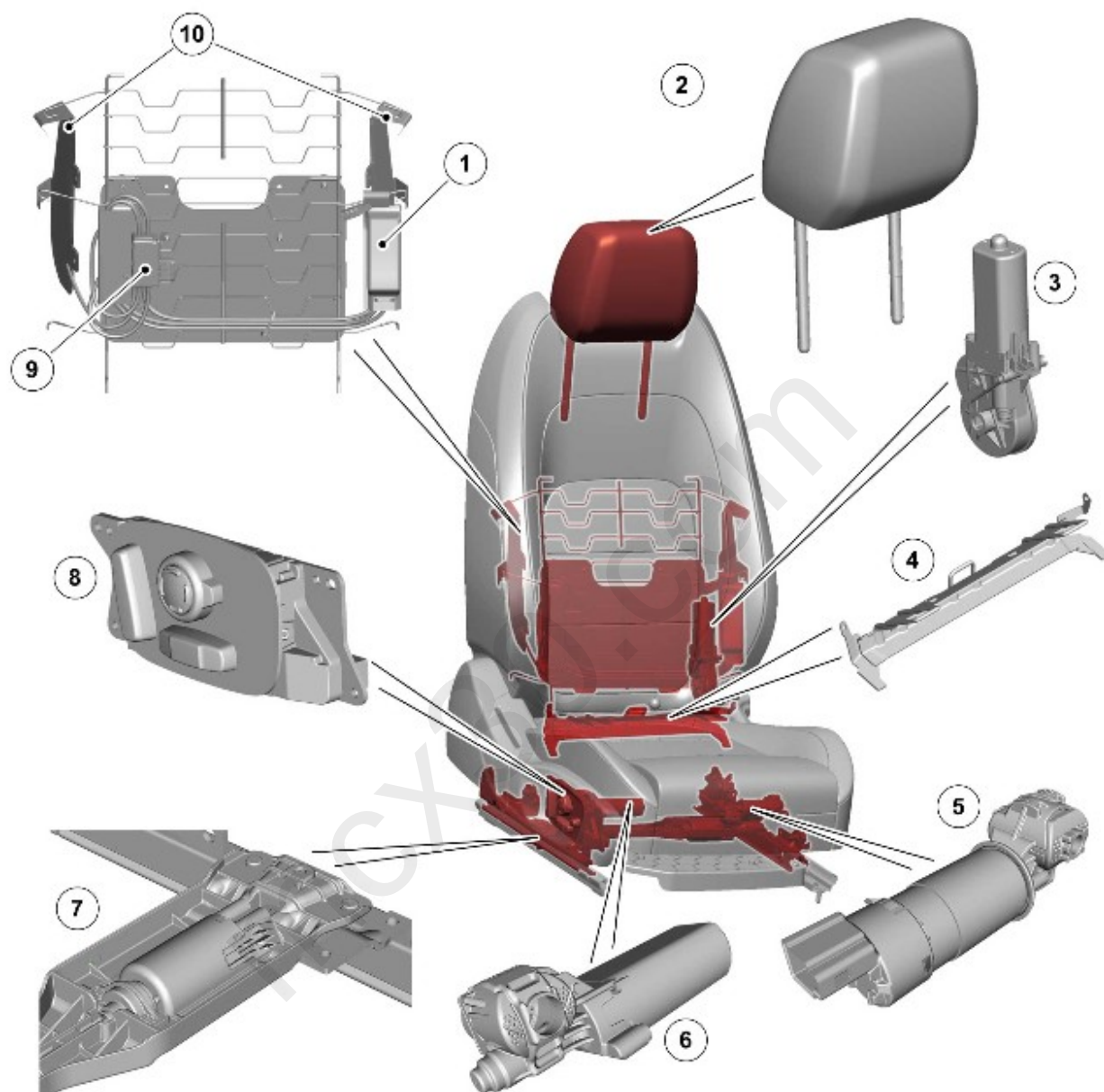


ITEM	DESCRIPTION
1	Forward and rearward adjustment
2	Height adjustment
3	Backrest angle adjustment

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.



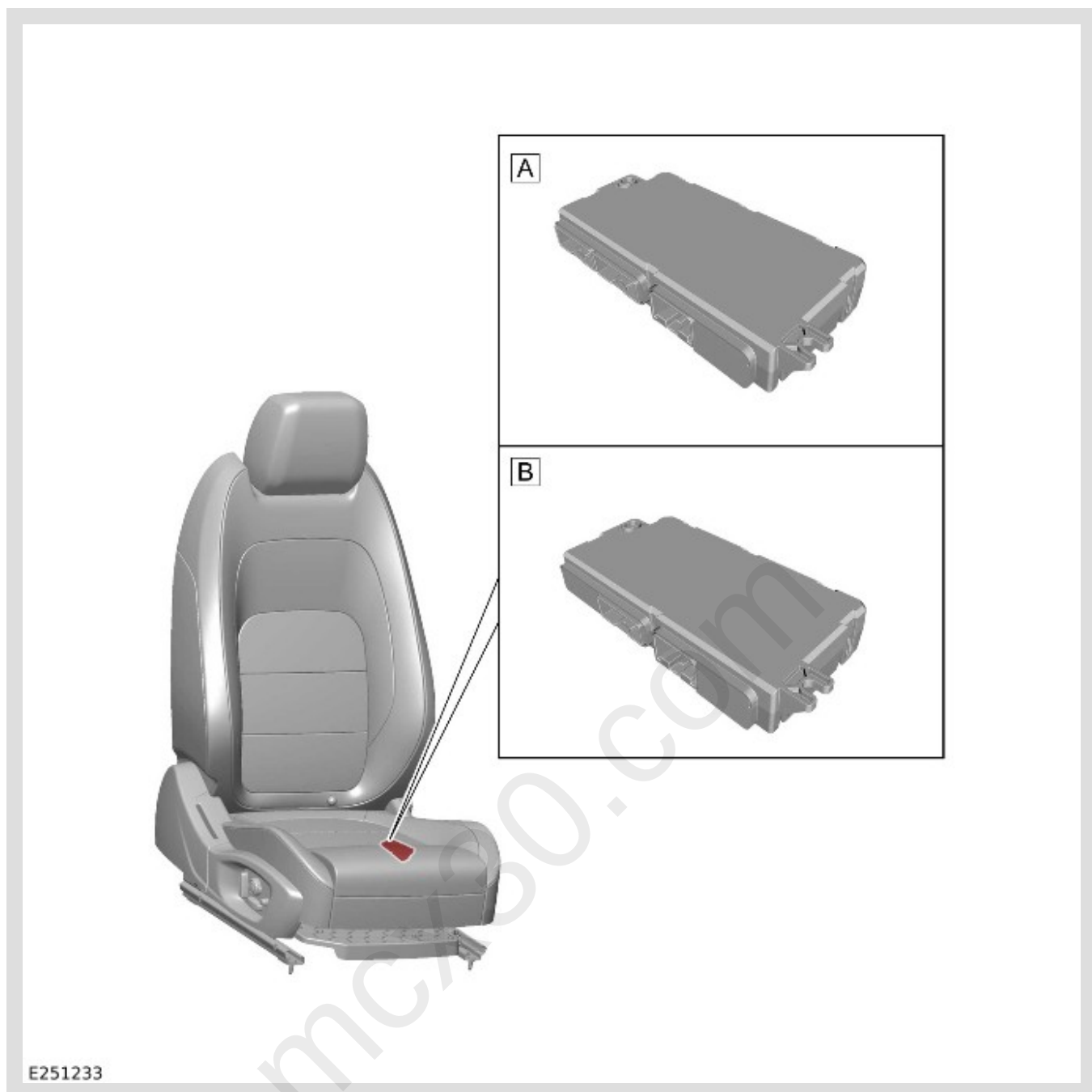
ITEM	DESCRIPTION
1	Bolster inflate and deflate
2	Lumbar support
3	Seatback angle
4	Seat height
5	Forward and rearward position
6	Cushion tilt

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.

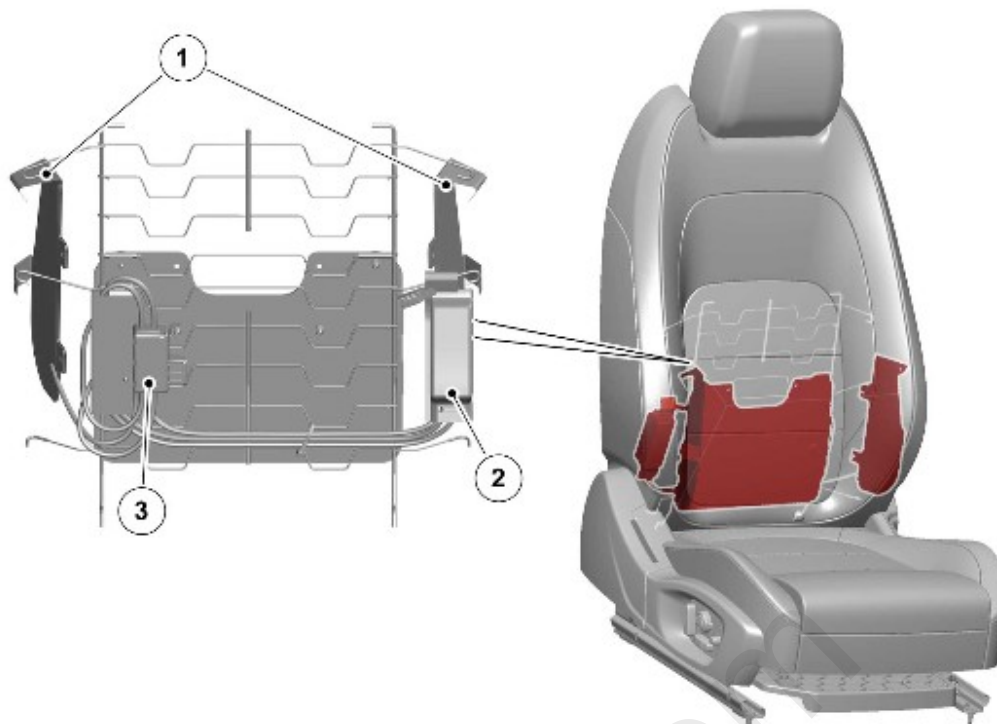
For additional information, refer to: [Message Center](#) (413-08 Message Center, Description and Operation).

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

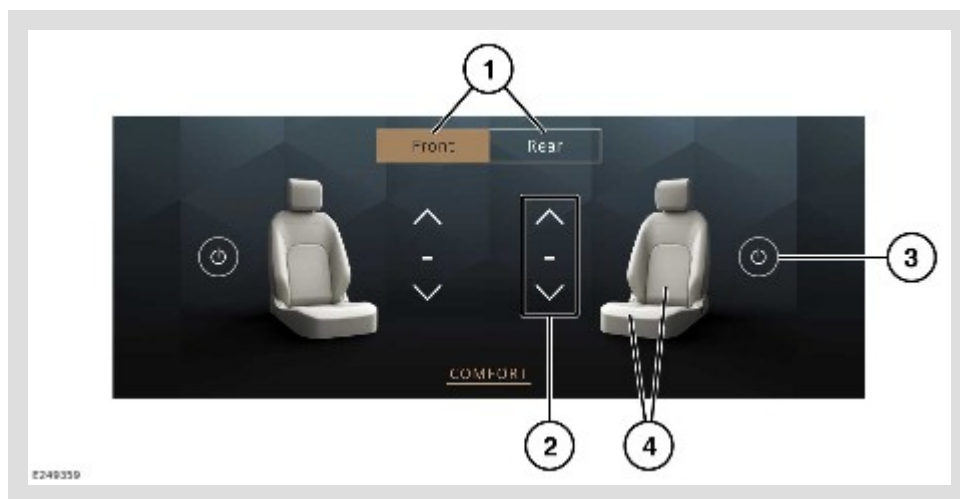
Lumbar adjustment is provided by a lumbar support and air pump installed in the backrest. The lumbar assembly consists of an inflatable cushion with dual air cells. A solenoid valve controls the air pump for the inflation or deflation of the lumbar cushion.

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



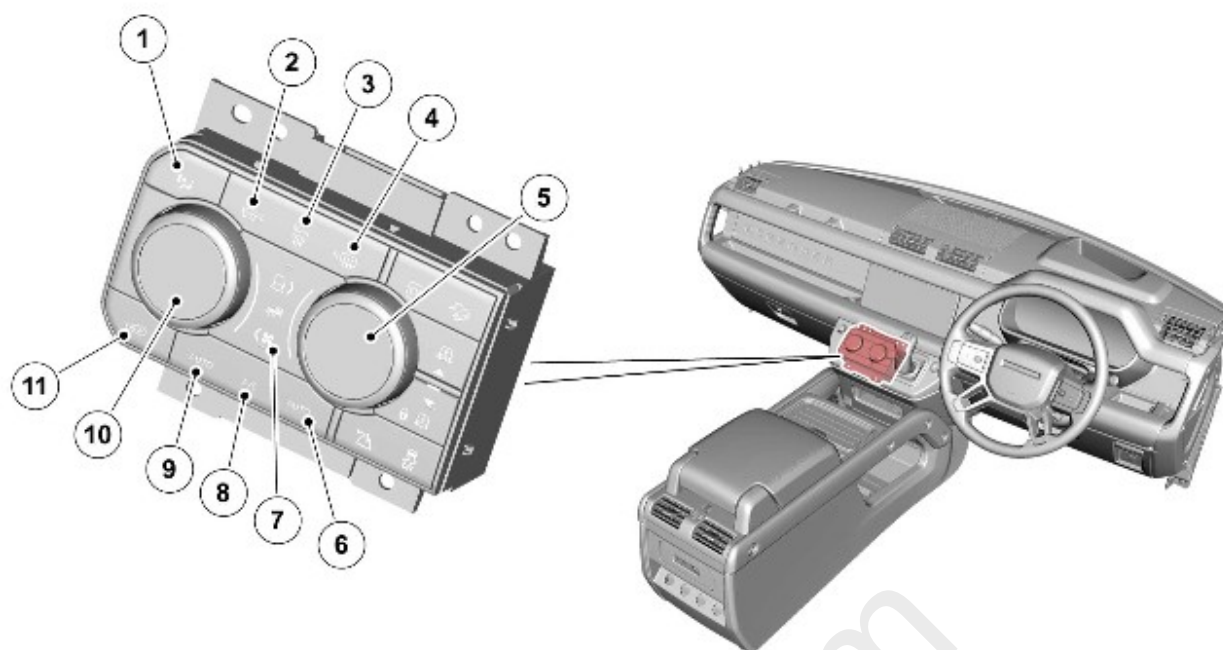
ITEM	DESCRIPTION
1	Front or second row seats selection
2	Temperature adjustment
3	Power
4	Seat zone

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

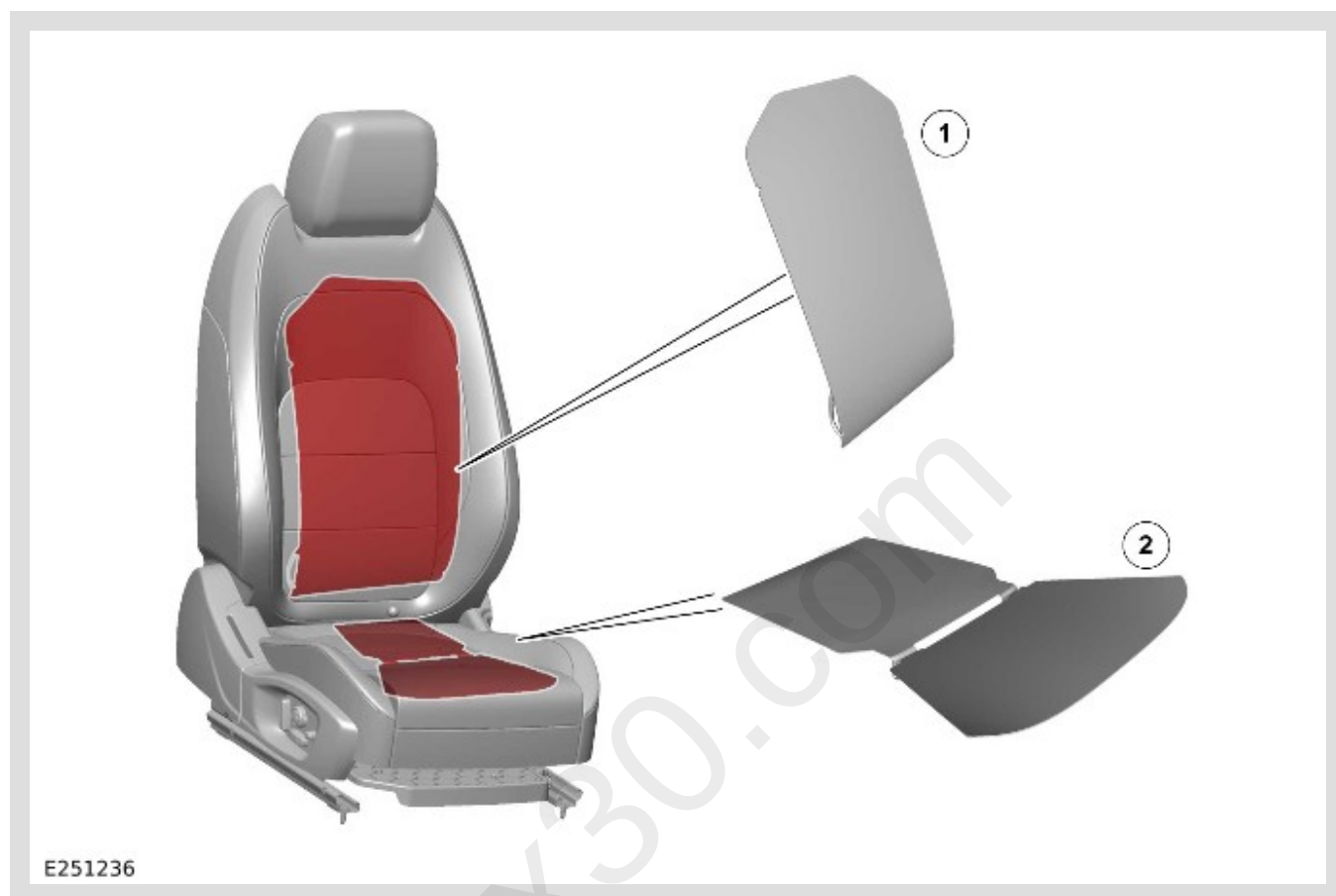
The front seat heater or climate control selections made on the FCIM or on the FCDIM in the climate menu. The seat icon on the FCDIM indicates when heating is selected. The FCIM is connected to the HVAC control module through a private CAN bus.

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

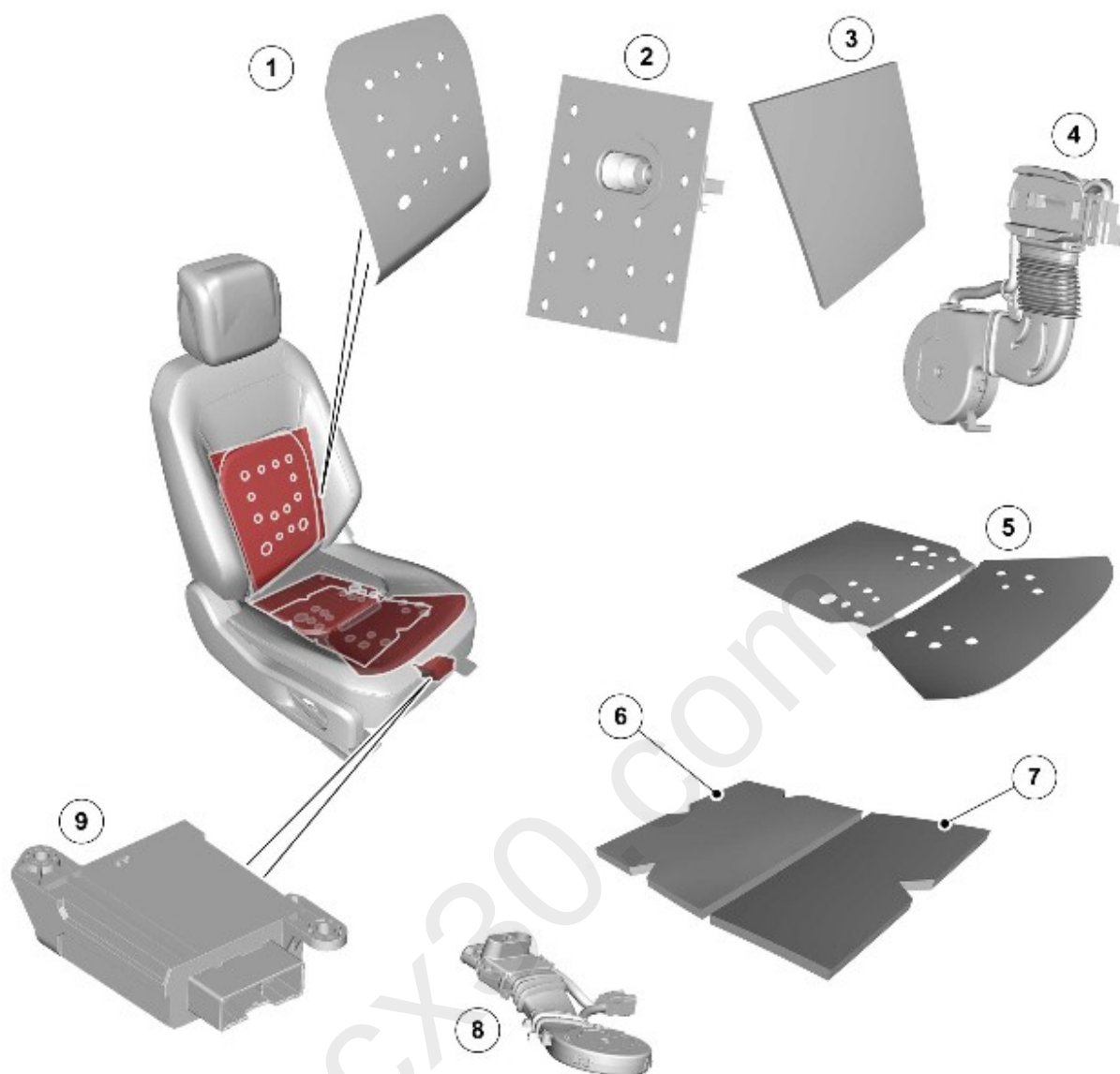
Seat heater elements are installed in the seat cushion and backrest. The seat heaters comprise a resistive element which is located within a pad. The pad is located between the foam of the cushion or backrest and the outer trim.

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

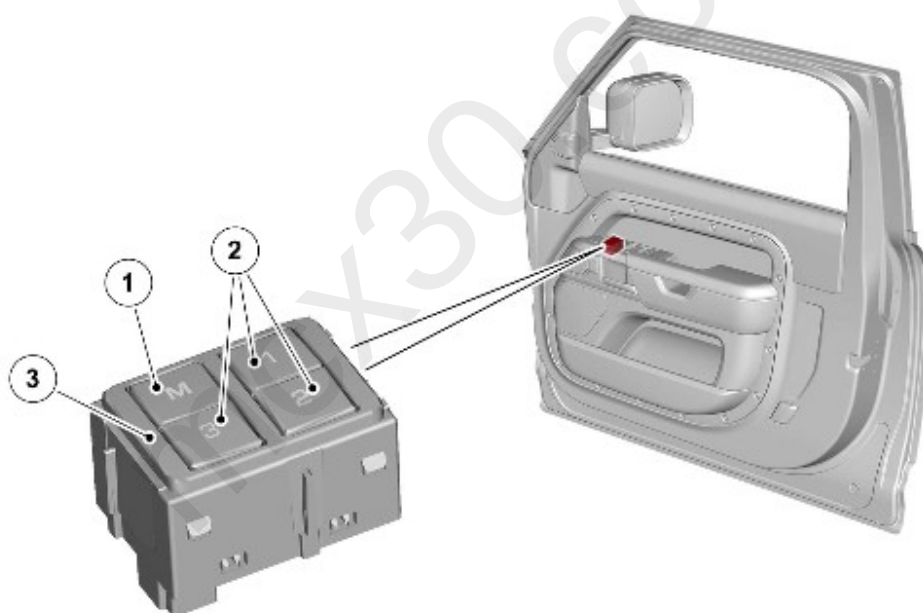
Front row climate seat are controlled by the SCMEs. The SCMEs are located below the seat cushion on a plastic tray.

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 - IF EQUIPPED

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 each 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, the door mirrors and the steering wheel column 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.

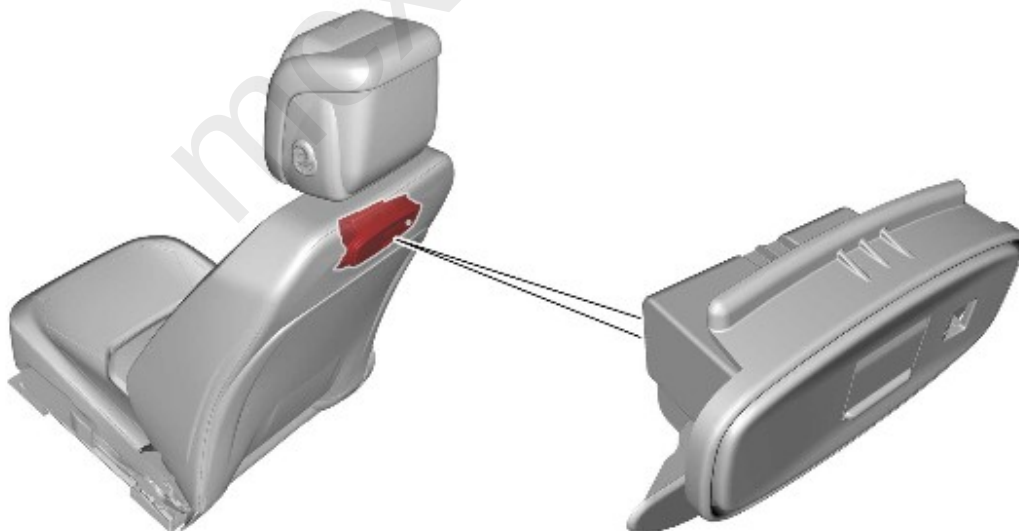
The memory function also stores the door mirror and the steering wheel column positions associated with the selected memory preset switch 1 to 3.

For additional information, refer to: [Rear View Mirrors](#) (501-09 Rear View Mirrors, Description and Operation).

CLICK AND GO SYSTEM - IF EQUIPPED

NOTE:

Right installation is shown, left installation is similar.



E251238

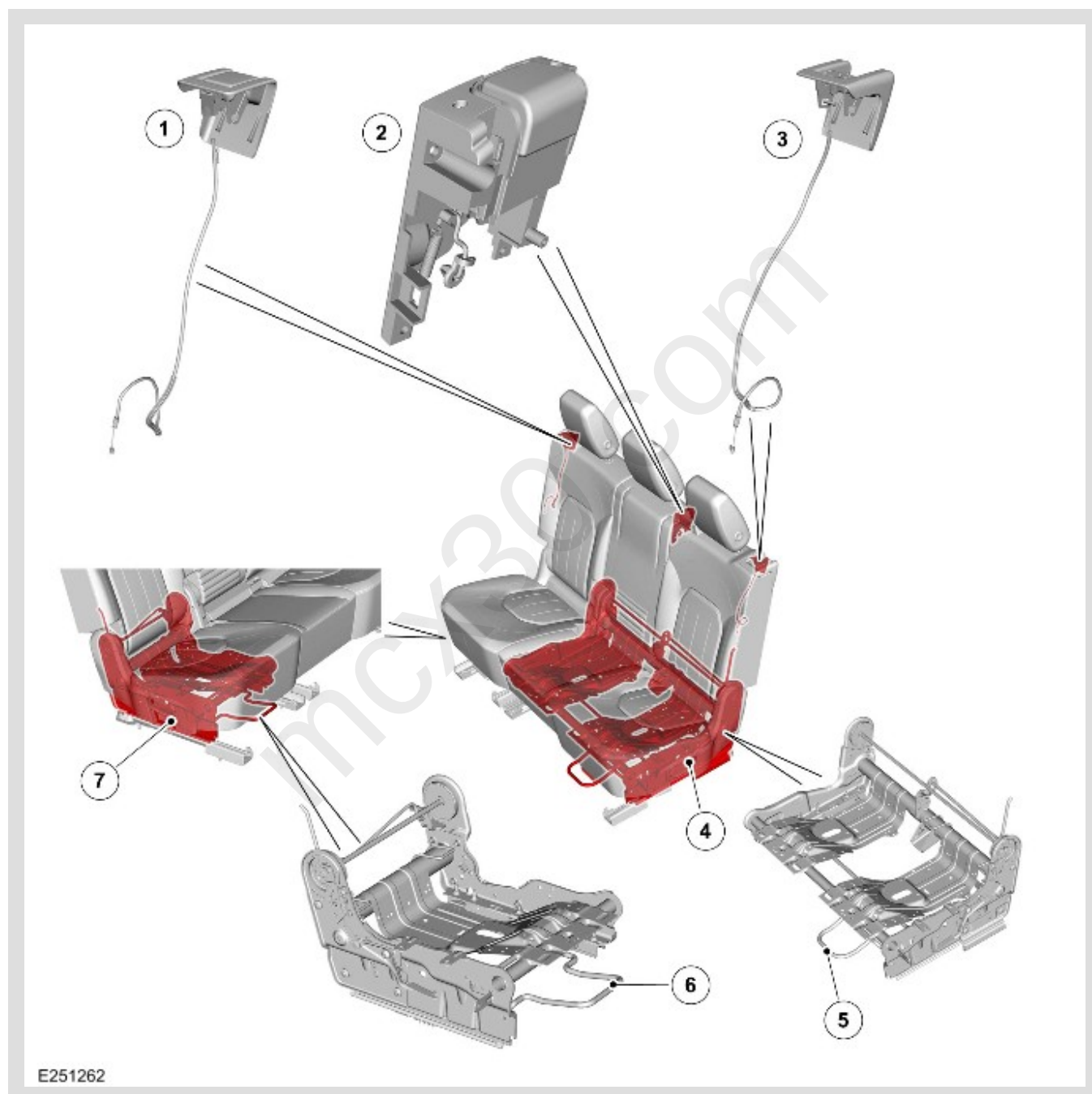
The Click and Go System is a multi-purpose seat-back system for second row passengers.

The Click and Go System base unit is installed between the headrest 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.

SECOND ROW MOVEABLE SEAT



ITEM	DESCRIPTION
1	Latch release assembly - Second row right seat backrest
2	Latch release - Center section

ITEM	DESCRIPTION
3	Latch release assembly - Second row left seat backrest
4	Release lever - Second row left seat
5	Adjustment lever - Second row left seat forward/rearward
6	Adjustment lever - Second row right seat forward/rearward
7	Release lever - Second row right seat

The second row seat is manufactured from high strength steel extrusions that are joined at each end with a high strength steel bracket and pivot. 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 second row seat has a 40/20/40 split configuration and is designed to fold completely flat to the floor, in order to increase loadspace capacity.

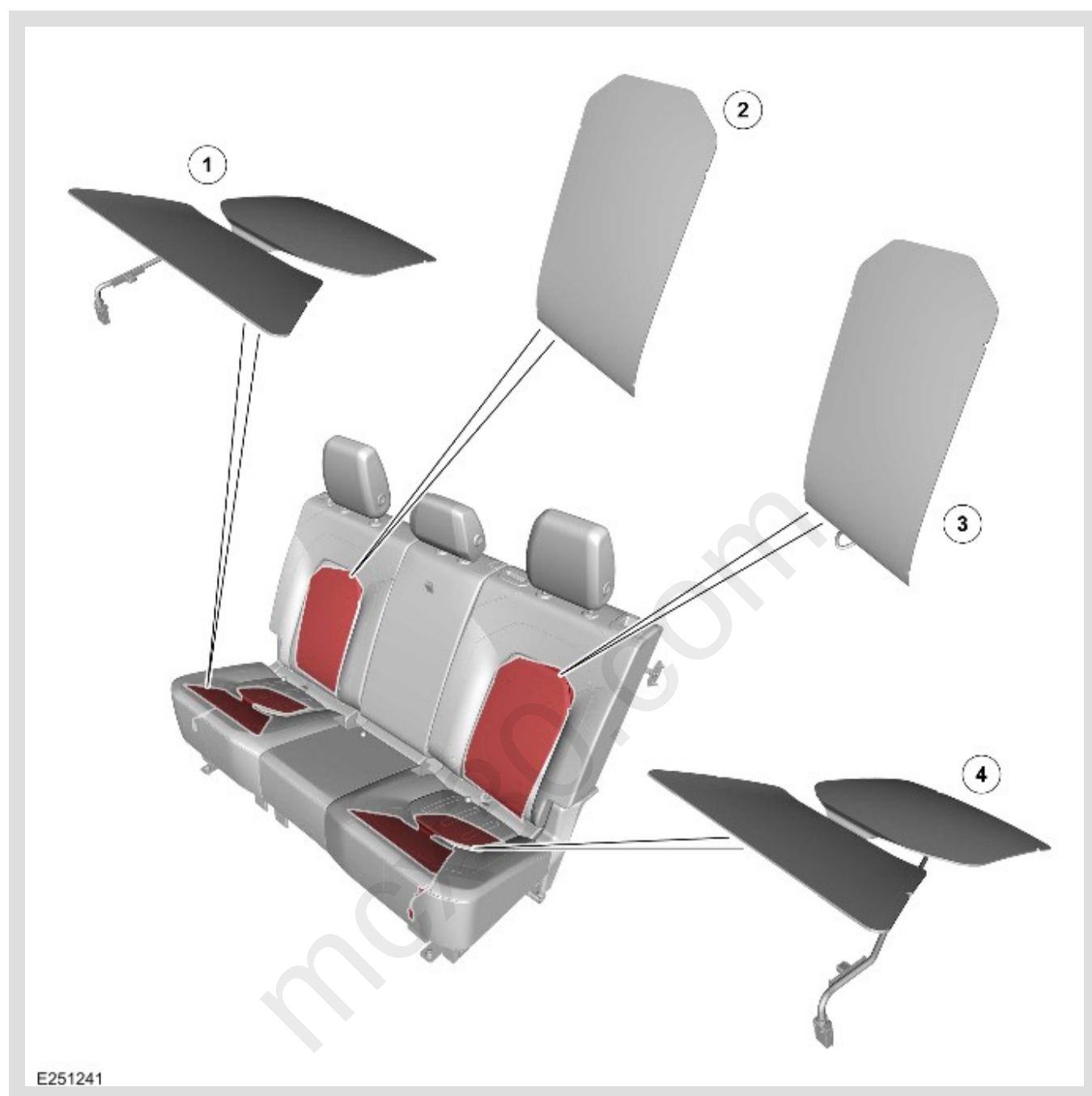
The adjustable second row seat has the following options:

- Forward/rearward adjustment by the adjustment lever.
- Backrest fold and maximum forward position by the release lever.
- Backrest fold by release latch.
- Backrest fold and maximum forward position by the release switch. - Optional on vehicles with third row seat only.

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

The central 20% section of the seat backrest can be lowered using a latch release on the top of the seat. This provides additional loadspace capacity.

SECOND ROW SEAT HEATER - IF EQUIPPED



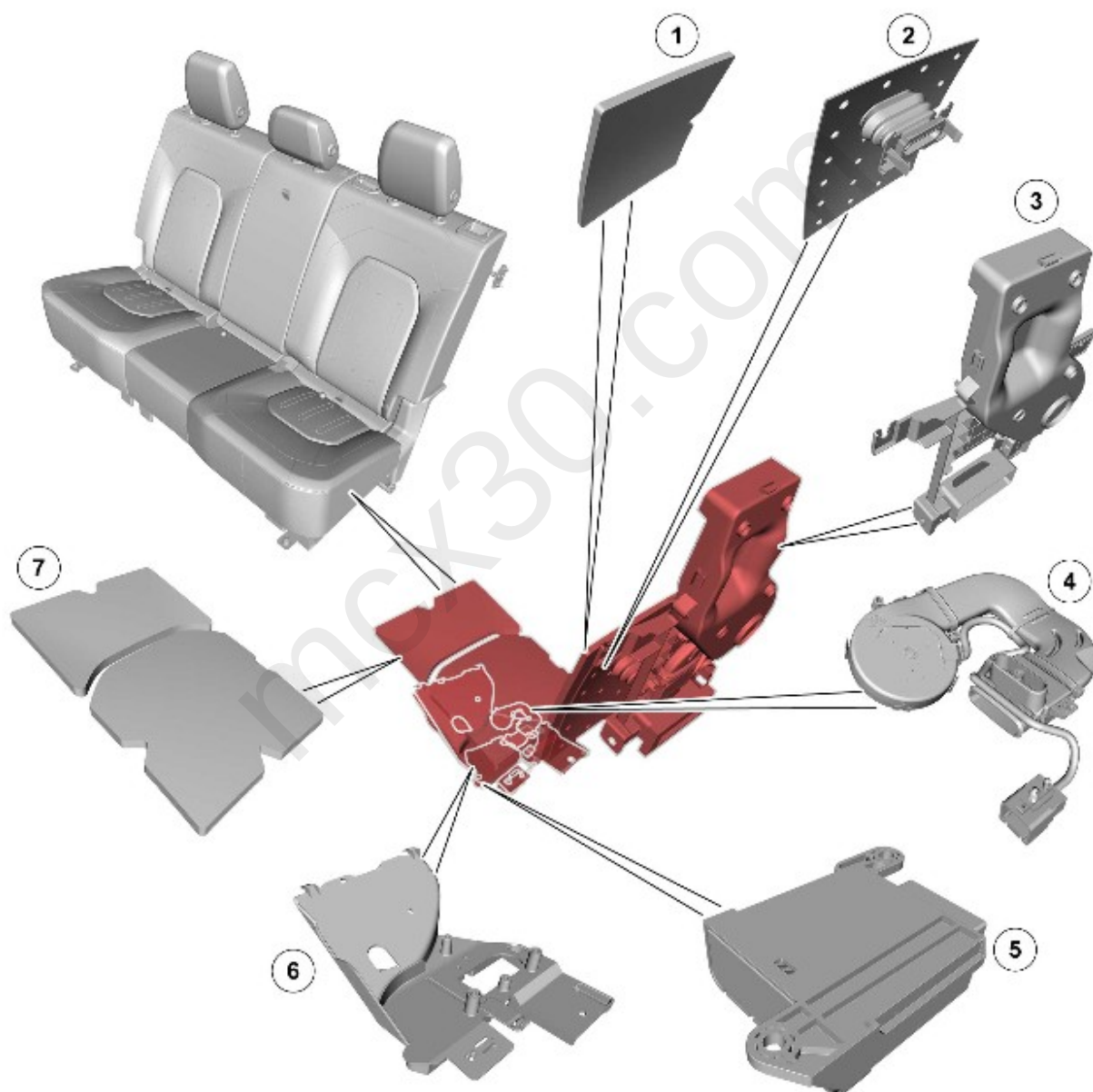
ITEM	DESCRIPTION
1	Second row seat cushion heater - Right
2	Second row seat backrest heater - Right
3	Second row seat backrest heater - Left
4	Second row seat cushion heater - Left

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 the 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 FCIMB or rear seat heater switch or FCDIM which indicates the selected heat setting requested.

SECOND ROW CLIMATE SEAT - IF EQUIPPED

NOTE:

Liquid spillages on heated and cooled seats are not covered under warranty. Fluid ingress into the heated or climate seat cushion or seat backrest causes serious damage to the system.



E251242

ITEM	DESCRIPTION
1	Second row climate seat backrest insulator foam

ITEM	DESCRIPTION
2	Second row climate seat backrest inlet duct
3	Second row climate seat backrest assembly
4	Second row climate seat cushion assembly
5	SCME - Rear left
6	Plastic tray
7	Second row climate seat cushion assembly insulator foam

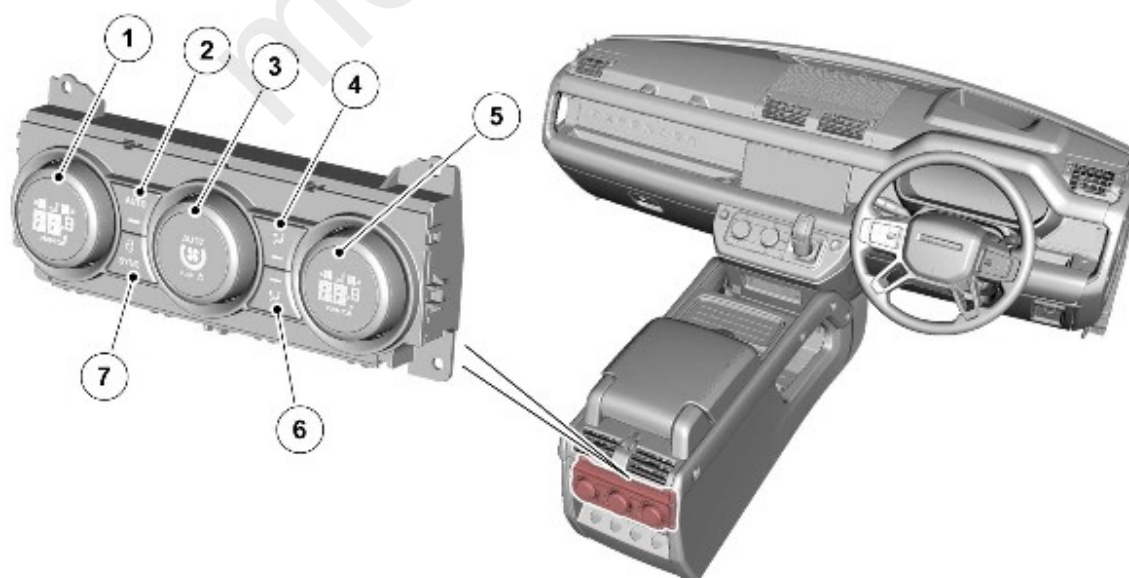
The climate seat are controlled by a rear SCME. For the front row and second row seats heating and cooling can be selected with the FCIM or FCDIM . The rotary switch can be adjusted to the required level.

The climate seat backrest and climate seat cushion contain thermal electric devices. The devices operate on the Peltier principle, which heat up or cool down depending on the current provided by the rear SCME. Each climate seat cushion and climate seat backrest also contains a blower. The blower blows air over the thermal electric devices to distribute the heated or cooled air through liners. The blower is also controlled by the rear SCME.

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
7	Synchronize switch

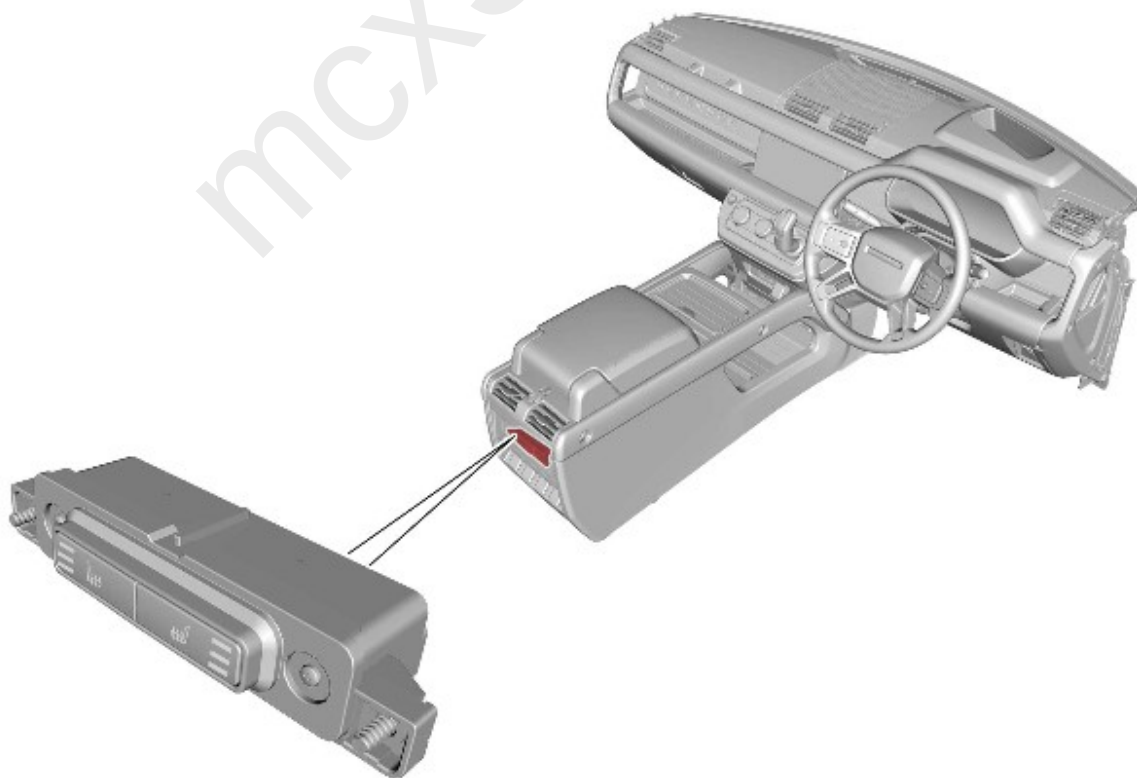
When the vehicle is equipped with climate second row seats, the heater/climate control selections made on the FCIMB . The FCIMB is located on the rear of the floor console. The second row seats temperature selections are transmitted to the HVAC control module. The signals pass through the HS CAN Human 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.



E251243

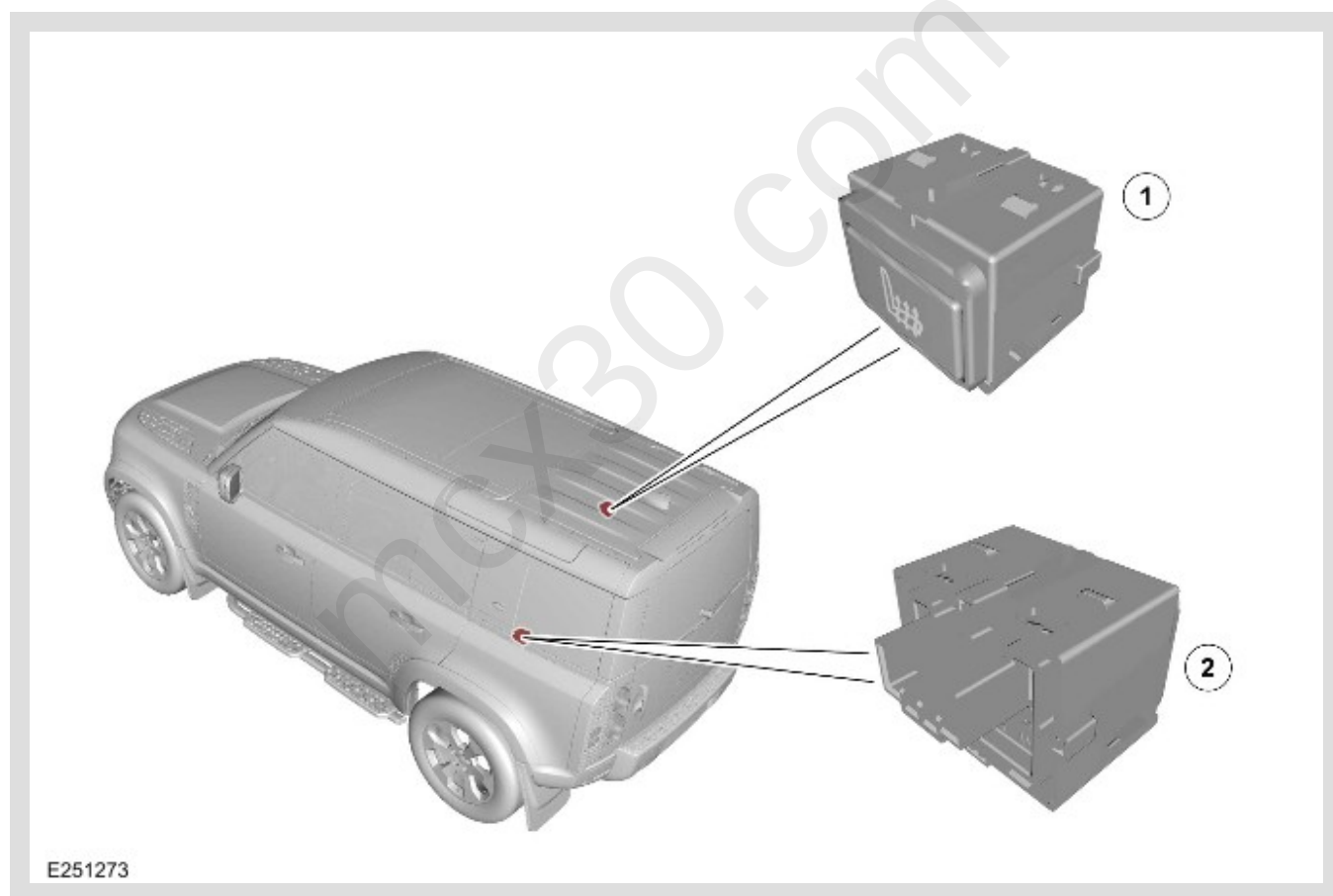
The second row seats heater control selections made on the rear seat heater switch. The rear seat heater switch is located on the rear of the floor console. The second row seat heater of the outer second row seats are controlled by rear seat heater switch for each seat.

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.

THIRD ROW SEAT HEATER SWITCH



ITEM	DESCRIPTION
1	Third row seat heater switch - Right
2	Third row seat heater switch - Left

The third row seat heater switches for the third row seat are located in the loadspace trim panel, adjacent to the rear quarter window. The seat heater operation of the third row seats are controlled by a separate 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. LEDs on each switch indicate the selected heat setting requested.

Depending on vehicle configuration, the third row seat heater switches have hardwired to the rear seat heater switch or the FCIMB. The heater control signals are transmitted to the HVAC control module through the HS CAN HMI systems bus.

THIRD ROW SEAT



E251274

ITEM	DESCRIPTION
1	Right head restraint latch release cable
2	Left head restraint latch release cable
3	Release strap
4	Latch release assembly
5	Left seat backrest latch release cable
6	Right seat backrest latch release cable
7	Latch release assembly

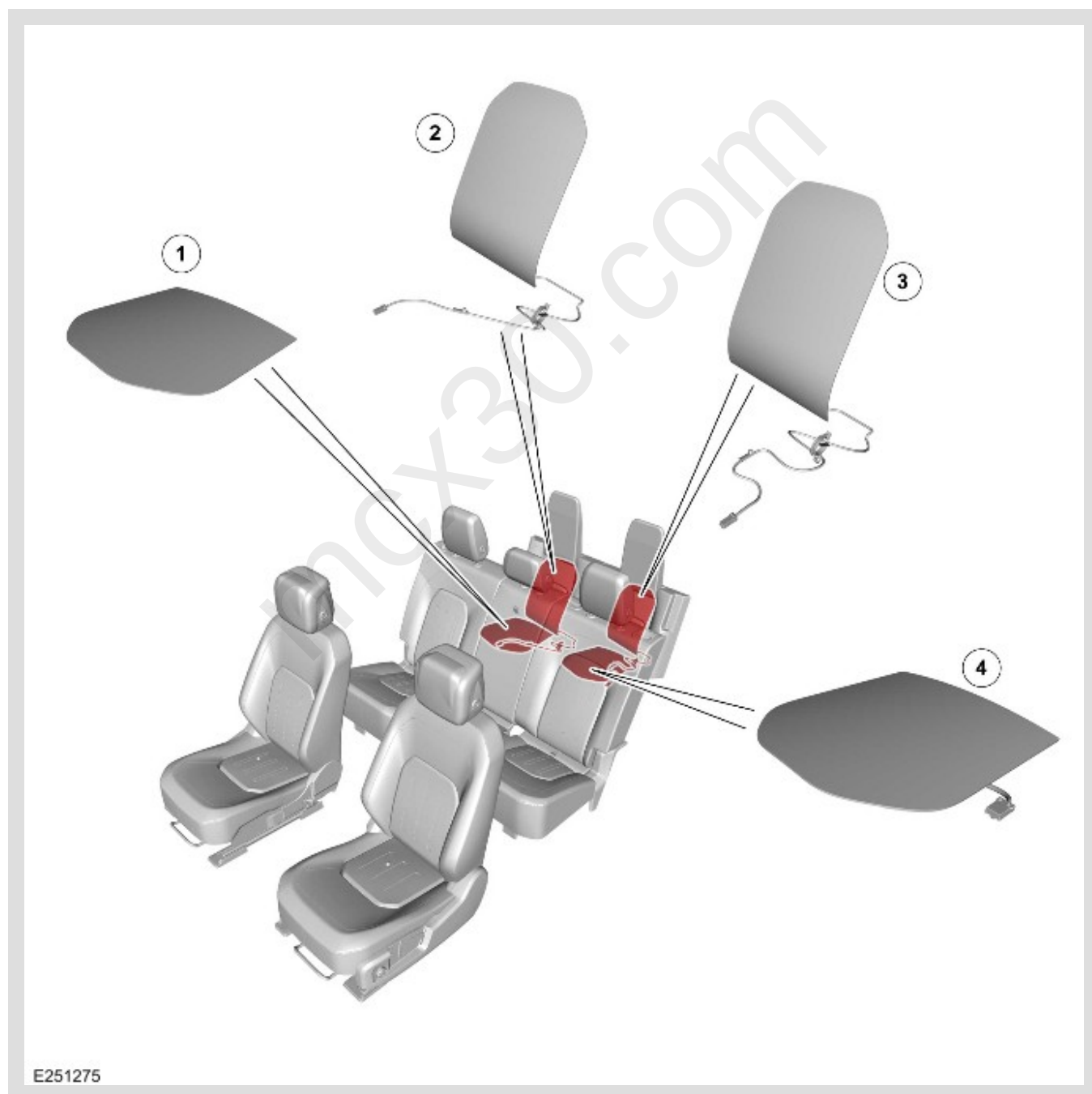
The third row seat is a 50/50 configuration. The third row seat has a fixed frame therefore the cushion cannot be adjusted.

The third row seat head restraints are a part of the seat backrest. To fold the backrest, the head restraint must be folded onto the backrest.

To fold/unfold the third row seat backrest, there is a release strap on the back of each seat backrest.

Backrest release latch is the only single way to release second row seat backrest for leave the vehicle from the third row seats.

THIRD ROW SEAT HEATER - IF EQUIPPED



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

There are 4 ways can control the third row seat heater:

- FCIMB
- Rear Seat Heater Switch
- Third Row Seat Heater Switch
- FCDIM.

There are 3 LEDs to indicate the temperature. The control signal is on the LIN. The heater elements receive a supply from the Rear Junction Box. Each third row seat heater can be operated separately.

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 wheel 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 in Power Mode 6 (ignition 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 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 operates 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' position, power is supplied to the solenoid valve. The purpose operates to open the valve to deflate the lumbar assembly air cell.

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 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 and second 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
- SCME - Rear right
- SCME - Rear 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 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 MANUAL SECOND ROW SEATS



WARNING:

Make sure the locking mechanism is fully engaged when the seatback is raised. During an accident or sudden maneuver an unsecured seatback could cause an injury to the seat occupant.



NOTES:

- Before folding or raising rear seats, make sure any rear installed screens are not in the movement path of the folding seat. Damage may occur to the seat or the screen as a result of the two colliding.

Before folding or raising a rear seat, make sure the rear seatbelt(s) are fully retracted and positioned against their respective D pillars.

- 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 if resets the feature when:

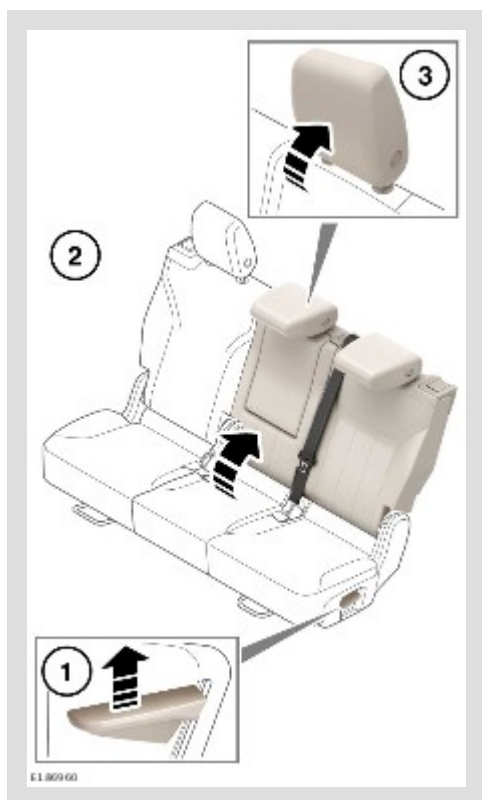
- 1 Return the backrest to the upright position.
- 2 Extract the seatbelt webbing until it stops.
- 3 Return the seatbelt webbing a small amount.



To fold a second row backrest:

- 1 Push the button on the side of each head restraint. Fold the head restraints forward.
- 2 Lift the lever on the side of the seat and pull the backrest forward until it locks into the lowered position.

Raising and reclining the second row seats



To raise a second row backrest:

- 1 Lift the lever on the side of the seat.
- 2 Raise the backrest into the upright, locked position. Make sure that the backrest firmly locks into the upright position.
- 3 Raise the head restraints to the upright, locked position.

To recline the second row backrest: Lift the lever on the side of the seat and push the backrest into the reclined position.

To reset the backrest into the upright position: Lift the lever and pull the backrest forward into the upright position. Make sure the backrest firmly locks into the upright position.

Third row seat access position

WARNING:

- The vehicle must not be driven with the second row seats in the access position. Vehicle motion could cause the seatback to fall forward suddenly, potentially causing injury.

Make sure nothing is trapped beneath a seat when returning it from the access position. During an accident or sudden maneuver an unsecured seatback could cause an injury to the seat occupant.

When the seat and seatback are returned from the access position, make sure the locking mechanisms are fully engaged. Physically test to make sure that the seat and seatback are secure before driving. During an accident or sudden maneuver an unsecured seatback could cause an injury to the seat occupant.



To access or exit the third row seats:

- 1 Pull the lever on the top of the backrest upward to release the locking mechanism. Move the backrest forward into the tilt position.
- 2 Pull the seat into the fully forward position.

Sliding the second row seats (7 seat vehicle)



To slide the seat forward:

- 1 Pull up on the lever at the front of the seat.
- 2 Pull the seat forward into the required position and release the lever.

FOLDING THE CENTER BACKREST



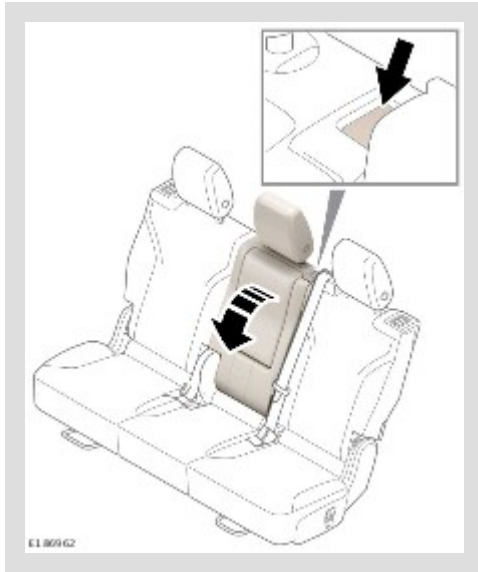
WARNING:

Make sure that you have read and fully understood the relevant warnings before using any of the features in this section.



NOTE:

In an emergency, use the centre seatback to exit the third row seats.



To fold the center backrest: Press the release button on the top of the backrest. Fold the center backrest forward into the lowered position.

To raise the center backrest: Lift the center backrest until it firmly locks into the upright position.

FOLDING AND RAISING THE THIRD ROW SEATS



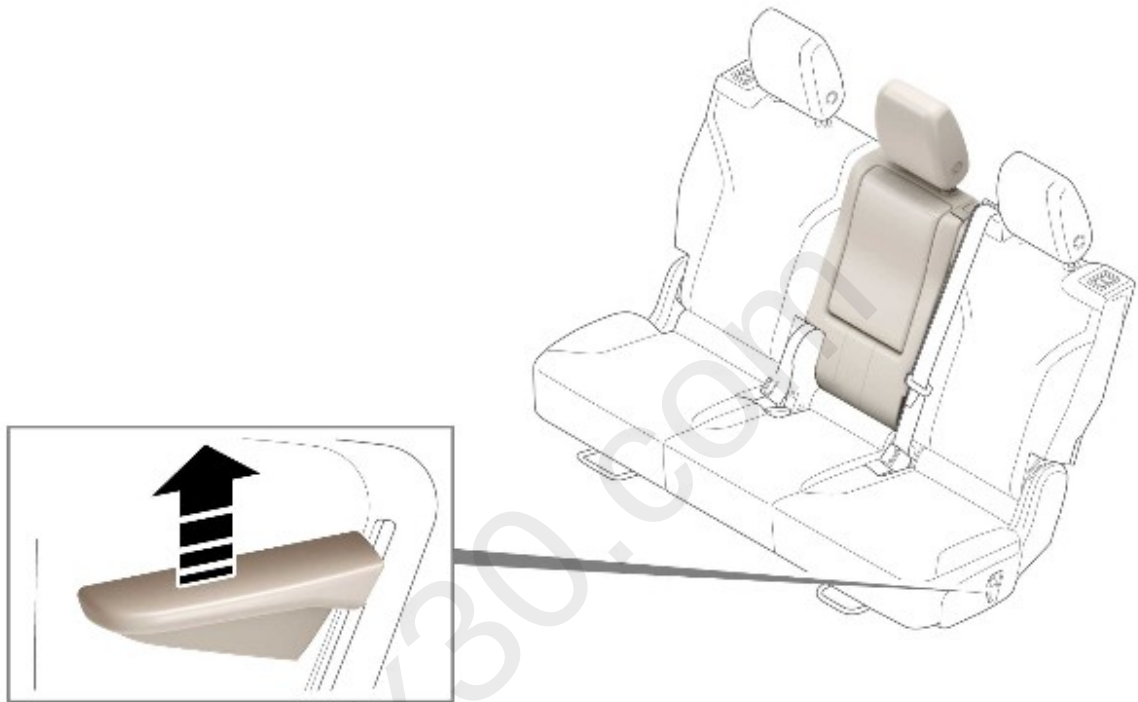
WARNING:

- Make sure that you have read and fully understood the relevant warnings before using any of the features in this section.
- The head restraint must always be raised when using the third row seats. The head restraint must be positioned correctly to restrain rearward movement of the head in a collision or sudden stop.
- Do not allow passengers to travel in the third row seats when the second row seats are in the folded or third row access position.
- Make sure the seatbelts are correctly routed and not trapped behind the seats when raising the rear seatbacks. An incorrectly routed seatbelt may not properly restrain an occupant during a collision or sudden stop.
- Beware of trapping fingers when raising and lowering a third row seat. Failure to do so creates a risk of entrapment and serious injury.

- Take care when retrieving items that have fallen down the side, back, front or underneath the seat. Sharp objects may be present in these areas, which could present a risk of injury. Always stop the vehicle before retrieving items.

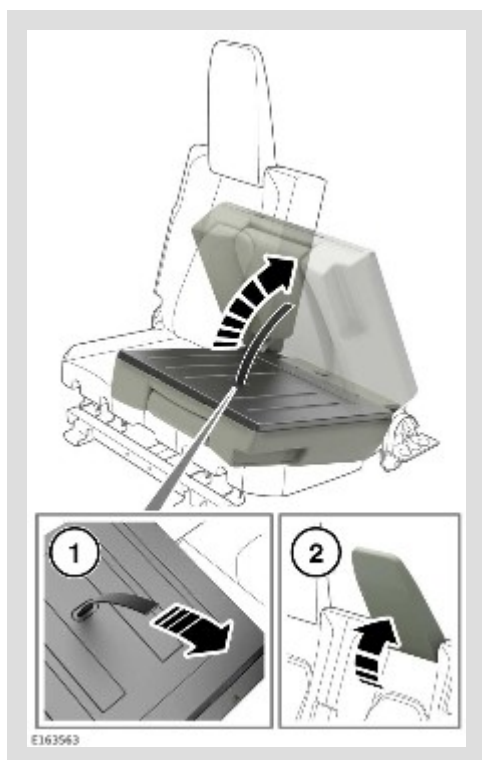
⚠ CAUTION:

The seat is heavy, so care should be taken when raising the seat.



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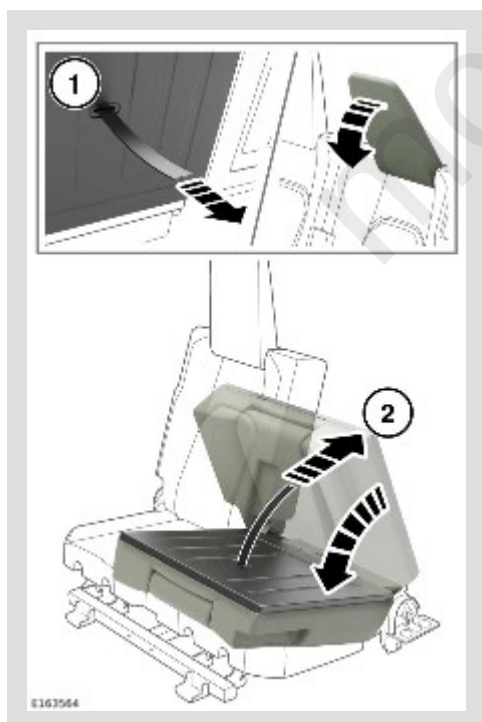
- Check the second row seats are not fully reclined, if they are, then rotate forward using side handle.
- To recline the second row backrest: Lift the lever on the side of the seat and push the backrest into the reclined position.



- 1 From inside the loadspace, pull the strap on the rear of the backrest. Lift the seat into the raised position.
- 2 From inside the passenger compartment, lift the head restraint, until it locks in the upright position.

⚠ CAUTION:

The seat is heavy, so care should be taken when lowering the seat.



To fold a third row seat:

- 1** From inside the loadspace, pull the strap on the rear of the seat to release the head restraint locking mechanism. Fold the head restraint forward.
- 2** Pull the strap to release the seat locking mechanism. Fold the seat forward.

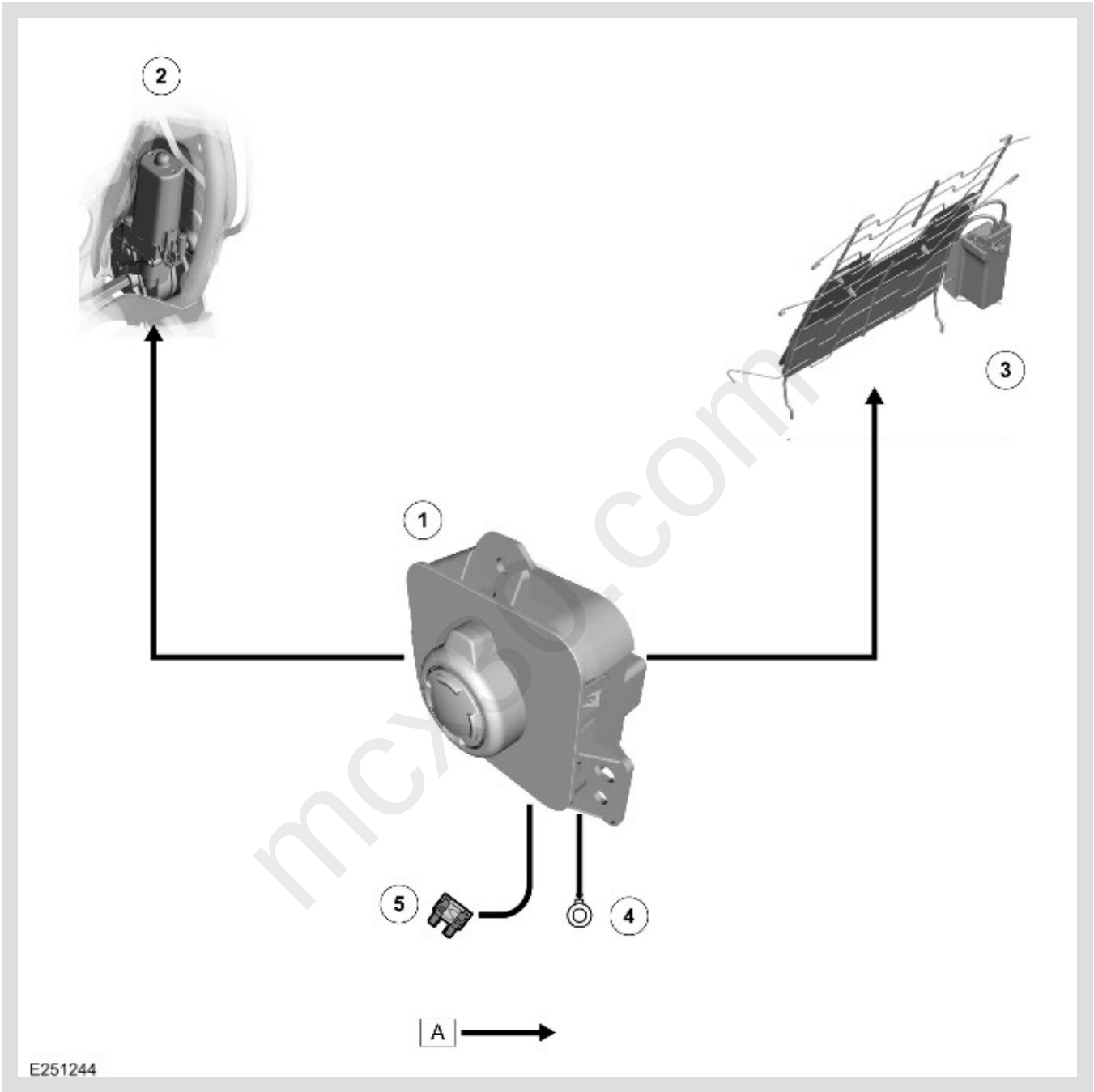
DIAGNOSTICS

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.

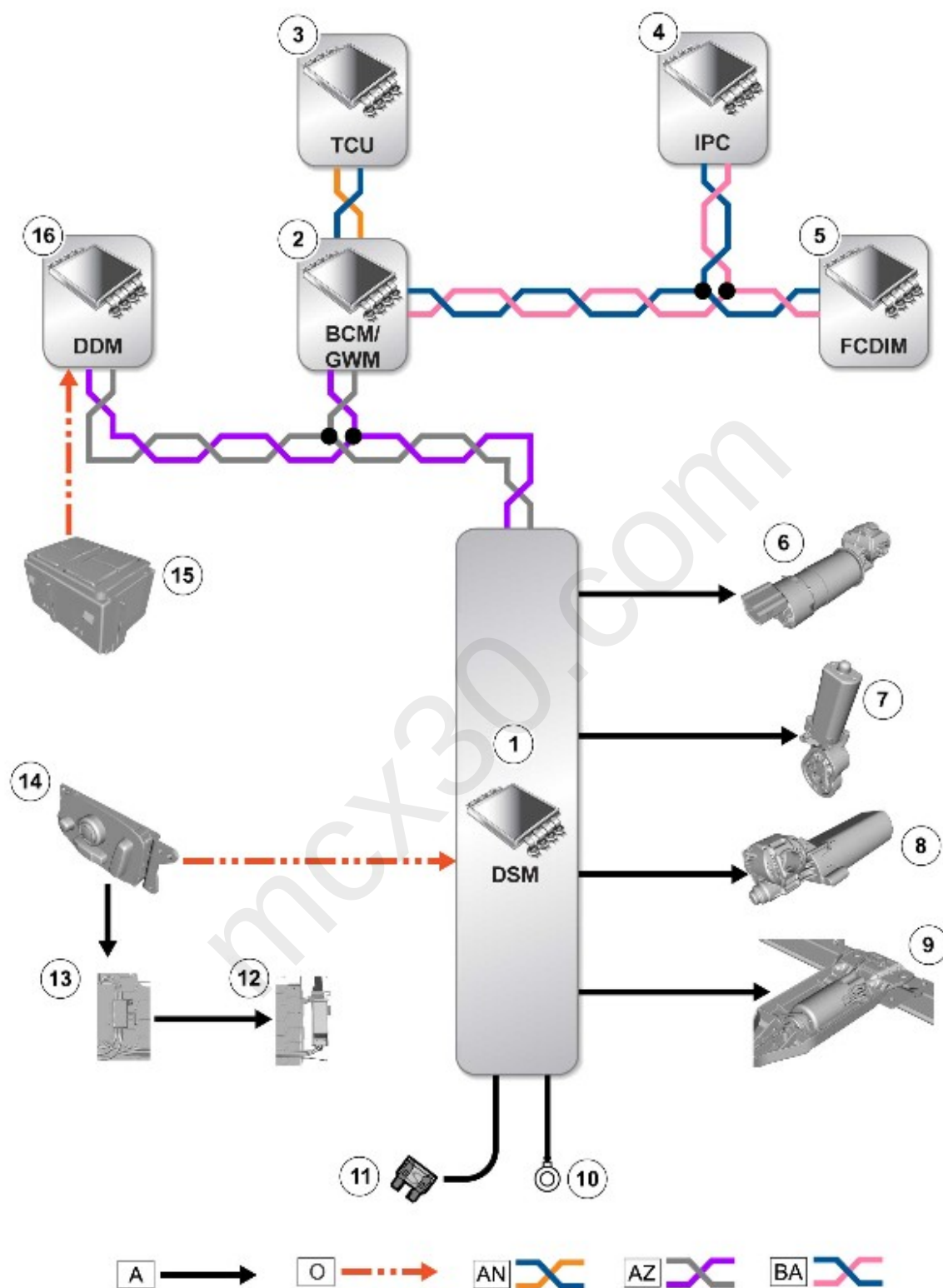
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CONTROL DIAGRAM - 1 OF 8 - SEMI POWERED SEAT ADJUSTMENT



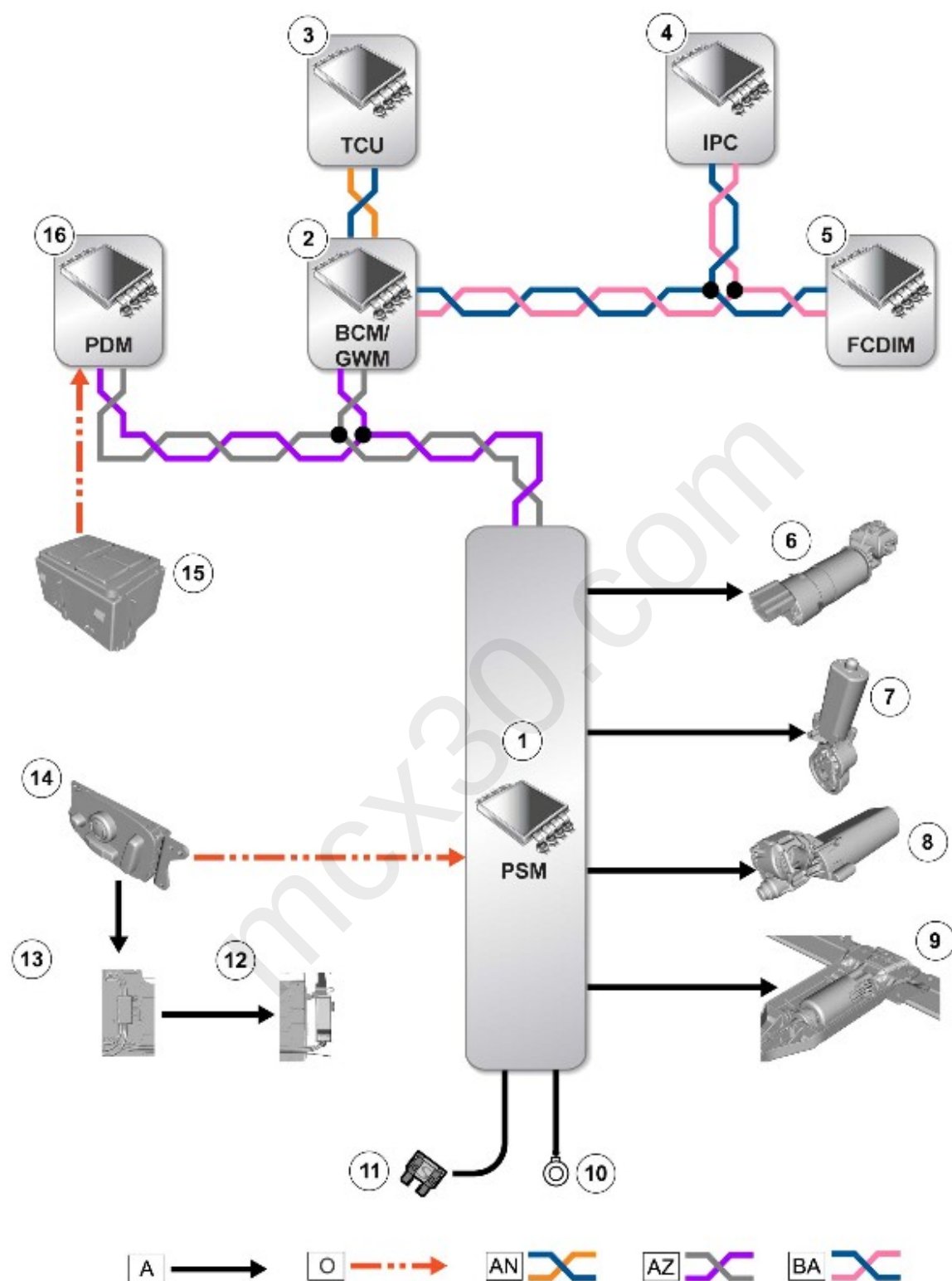
A = HARDWIRED.

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



A = HARDWIRED: O = LIN: AN = HS CAN POWERTRAIN SYSTEMS BUS: AZ = HS CAN BODY SYSTEMS BUS: BA = HS CAN HMI SYSTEMS BUS.

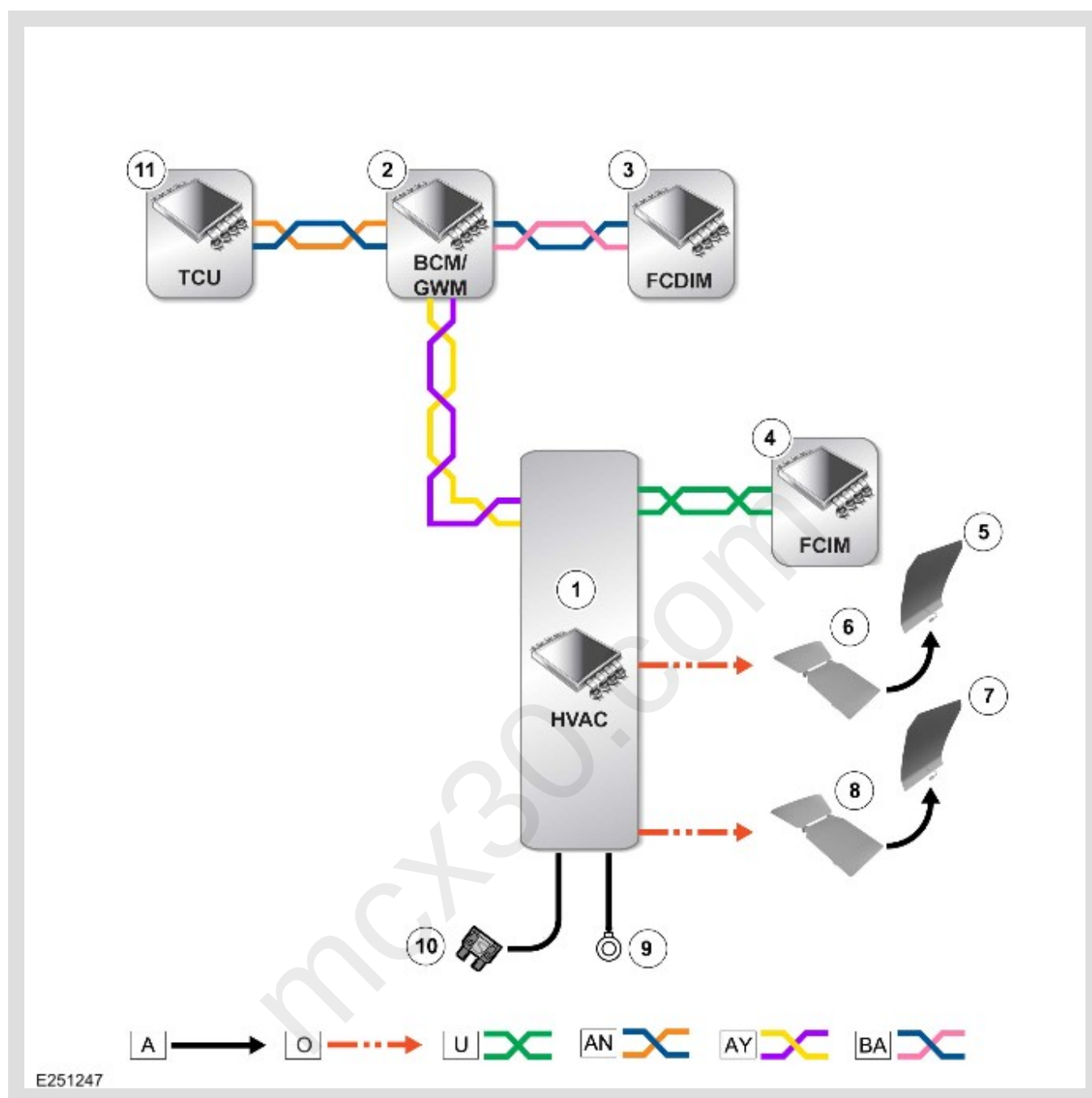
ITEM	DESCRIPTION
1	DSM
2	BCM/ GWM
3	TCU
4	IPC
5	FCDIM
6	Front row seat cushion tilt motor
7	Front row seat backrest recline motor
8	Front row seat height motor
9	Front row seat forward/rearward motor
10	Ground
11	Power supply
12	Lumbar air pump
13	Air reservoir valve block
14	Front row seat switchpack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



A = HARDWIRED: O = LIN: AN = HS CAN POWERTRAIN SYSTEMS BUS: AZ = HS CAN BODY SYSTEMS BUS: BA = HS CAN HMI SYSTEMS BUS.

ITEM	DESCRIPTION
1	PSM
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	Seat memory switch
16	PDM

CONTROL DIAGRAM – 4 OF 8 – FRONT ROW SEAT HEATER

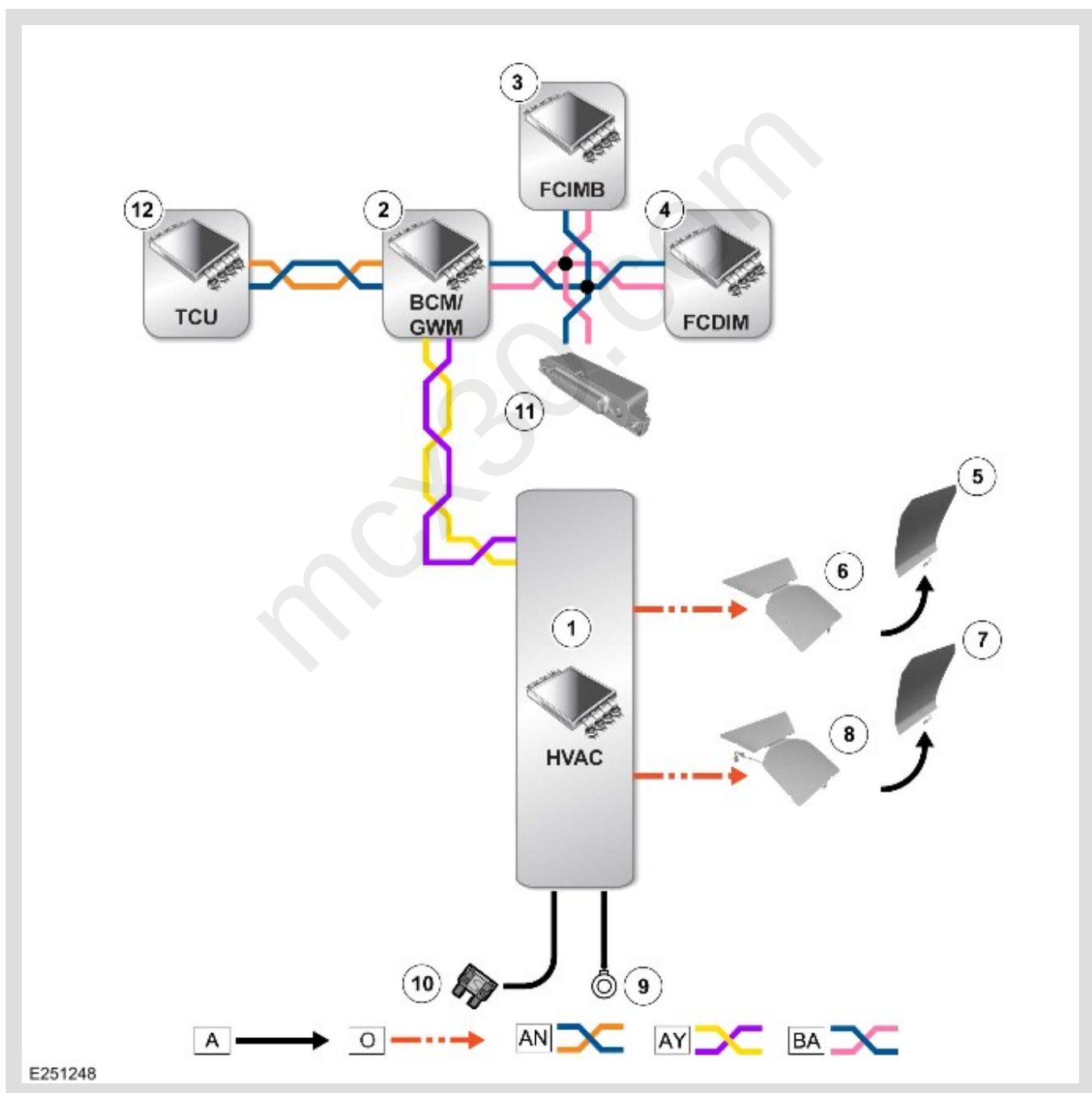


A = HARDWIRED: O = LIN: U = PRIVATE CAN: AN = HS CAN POWERTRAIN SYSTEMS BUS: AY = HS CAN POWER MODE ZERO SYSTEMS BUS: BA = HS CAN HMI SYSTEMS BUS.

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

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

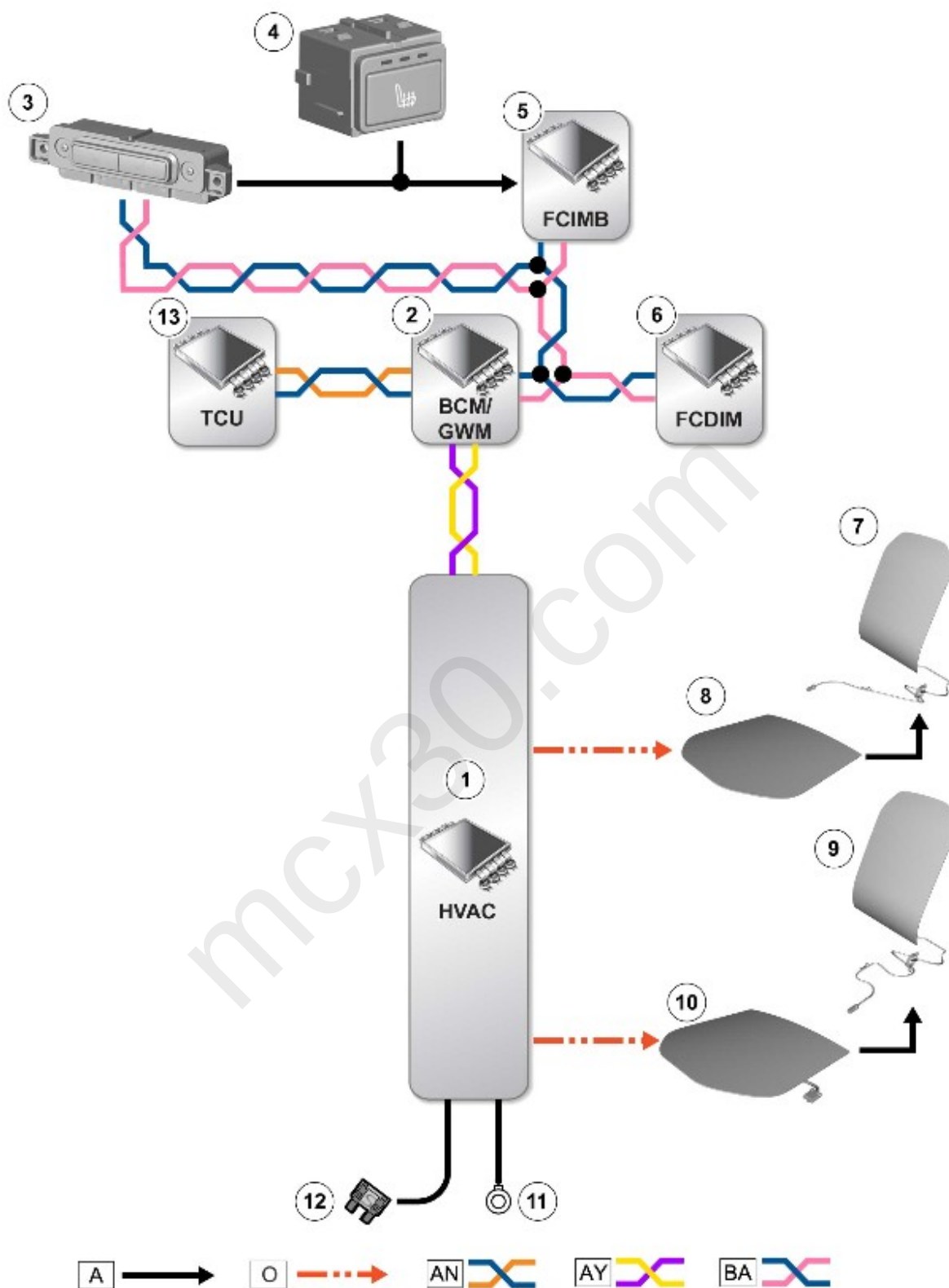
CONTROL DIAGRAM - 5 OF 8 - SECOND ROW SEAT HEATER



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 (if equipped)
4	FCDIM
5	Second row seat backrest heater - Right
6	Second row seat cushion heater - Right
7	Second row seat backrest heater - Left
8	Second row seat cushion heater - Left
9	Ground
10	Power supply
11	Rear seat heater switch (if equipped)
12	TCU

CONTROL DIAGRAM - 6 OF 8 - THIRD ROW SEAT HEATER

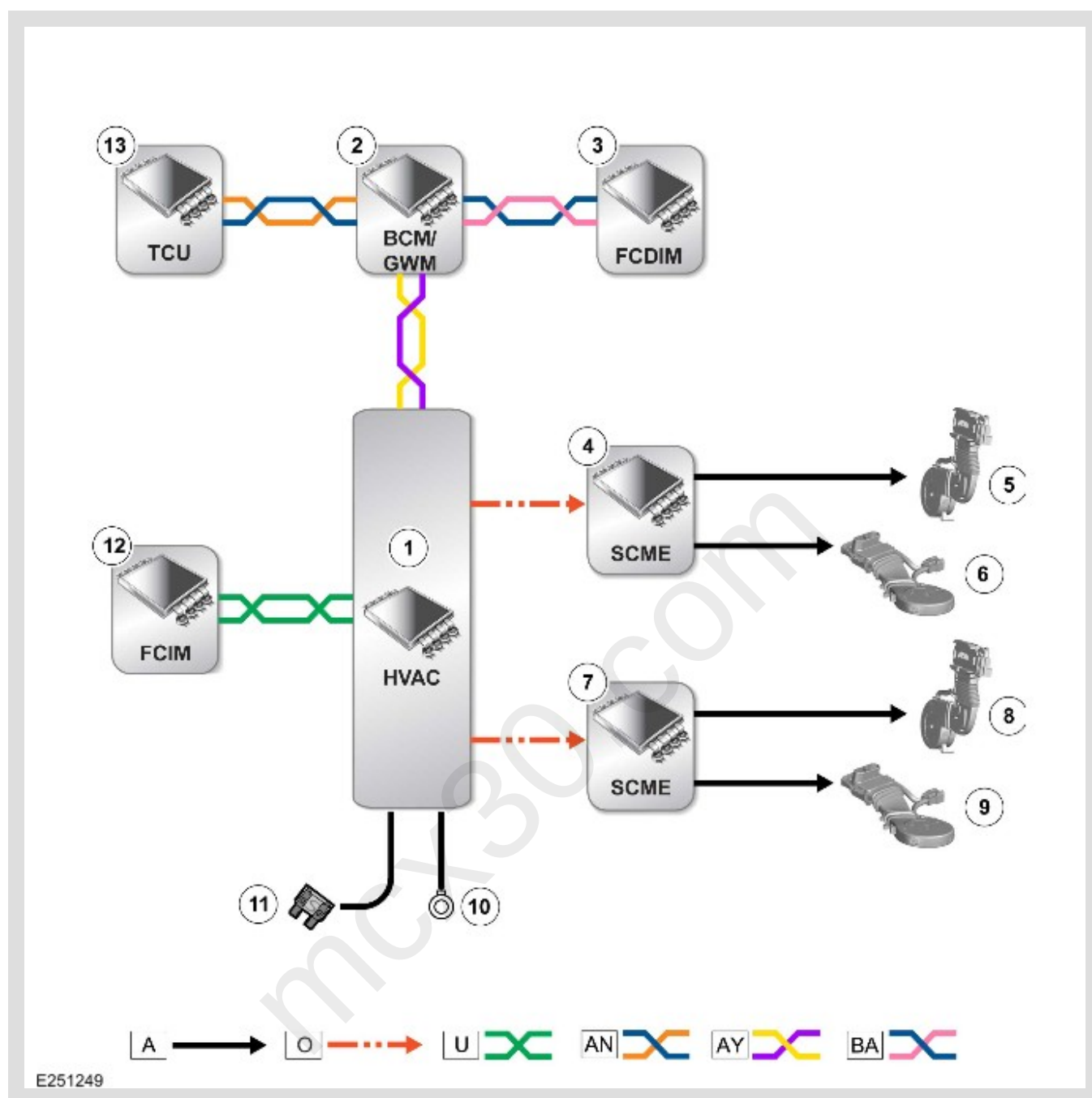


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A = HARDWIRED: O = LIN: AN = HS CAN POWERTRAIN SYSTEMS BUS: AY = HS CAN POWER MODE ZERO SYSTEMS BUS: BA = HS CAN HMI SYSTEMS BUS.

ITEM	DESCRIPTION
1	HVAC control module
2	BCM/ GWM
3	Rear seat heater switch (if equipped)
4	Third row seat heater switch
5	FCIMB (if equipped)
6	FCDIM
7	Third row seat backrest heater - Left
8	Third row seat cushion heater - Left
9	Third row seat backrest heater - Right
10	Third row seat cushion heater - Right
11	Ground
12	Power supply
13	TCU

CONTROL DIAGRAM – 7 OF 8 – FRONT ROW CLIMATE SEAT



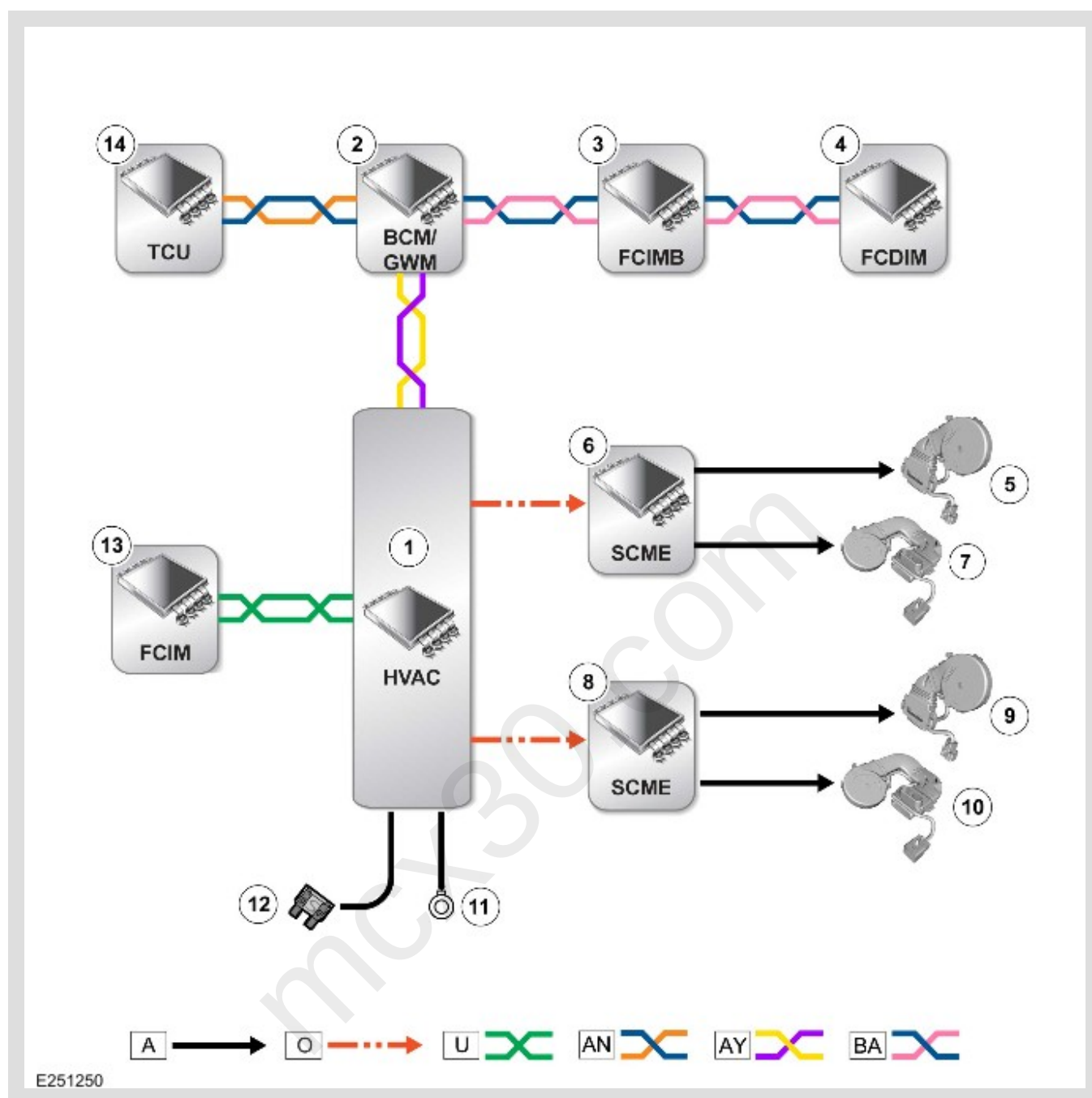
A = HARDWIRED: O = LIN: U = PRIVATE CAN: AN = HS CAN POWERTRAIN SYSTEMS BUS: AY = HS CAN POWER MODE ZERO SYSTEMS BUS: BA = HS CAN HMI SYSTEMS BUS.

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

ITEM	DESCRIPTION
6	Front row seat cushion climate assembly - Driver seat
7	SCME - Passenger
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

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CONTROL DIAGRAM – 8 OF 8 – SECOND ROW CLIMATE SEAT



A = HARDWIRED: O = LIN: U = PRIVATE CAN: 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 climate assembly - Right

ITEM	DESCRIPTION
6	SCME - Rear Right
7	Second row seat cushion climate assembly - Right
8	SCME - Rear Left
9	Second row seat backrest climate assembly - Left
10	Second row seat cushion climate assembly - Left
11	Ground
12	Power supply
13	FCIM
14	TCU

cmjjaGFyZG1vcnRvbjsyMDIwLTA5LTE4VDEyOjE3OjM2LjI2MVo7OTIuNDAuMTg5LjUwOw==

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