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2020.0 DEFENDER (LE), 415-01

INFORMATION AND ENTERTAINMENT SYSTEM

ANTENNA (G2401466)

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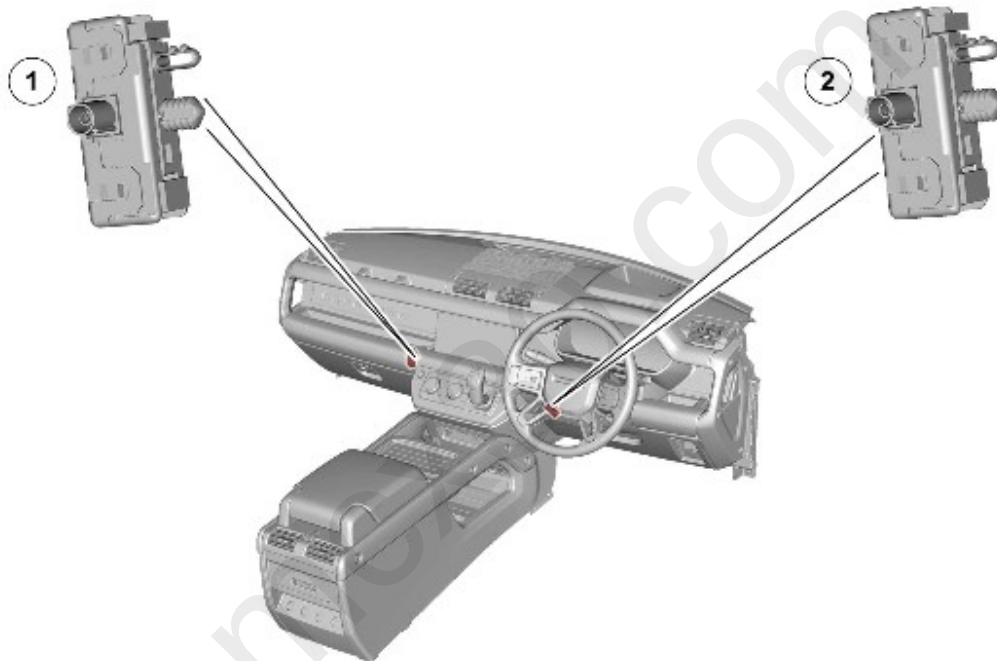
DESCRIPTION AND OPERATION

COMPONENT LOCATION

COMPONENT LOCATION - 1 OF 2

NOTE:

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



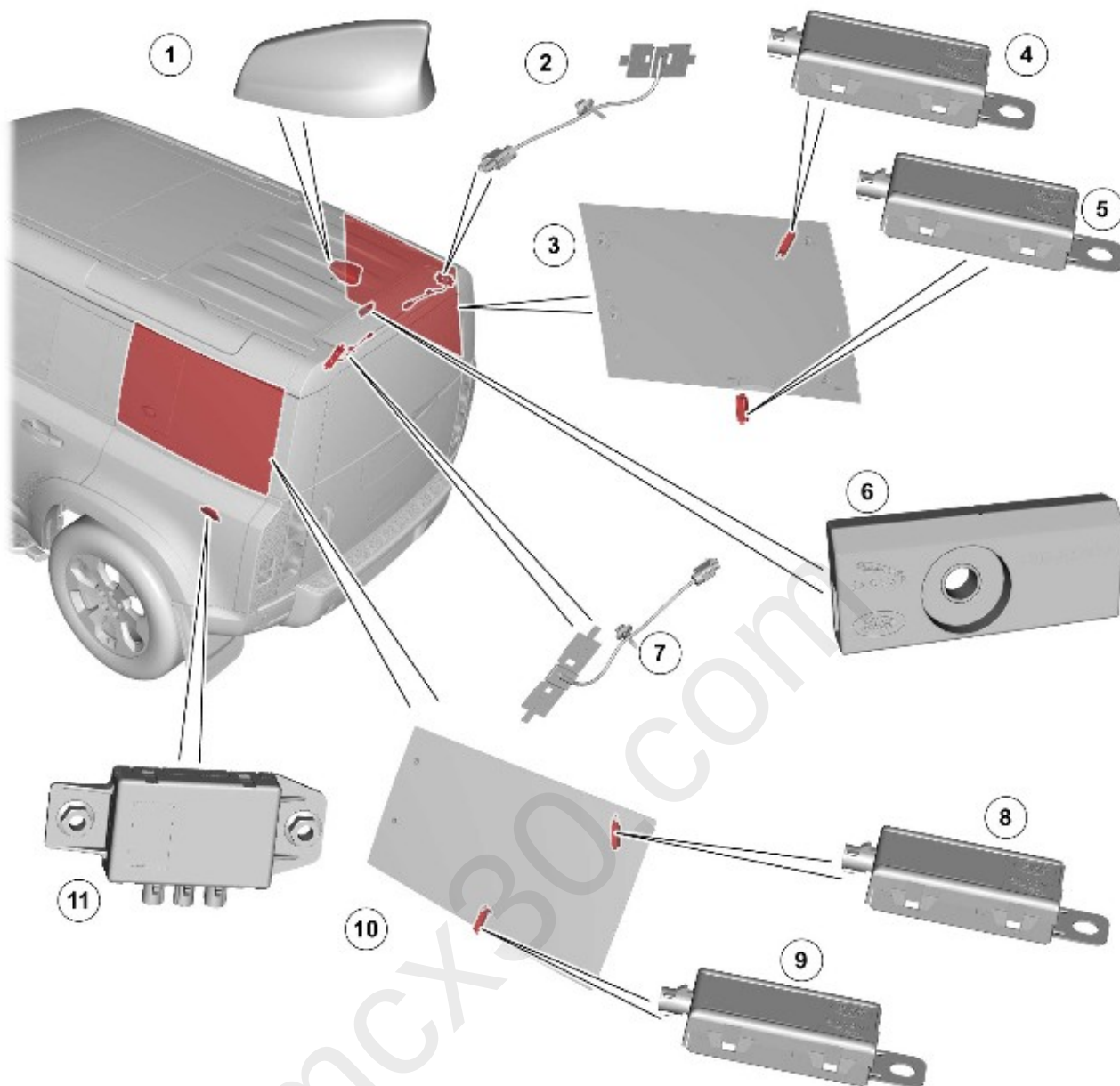
E249721

ITEM	DESCRIPTION
1	Bluetooth®/WiFi antenna
2	WiFi antenna

COMPONENT LOCATION - 2 OF 2

NOTE:

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



E249722

ITEM	DESCRIPTION
1	Roof pod
2	Software Over The Air (SOTA) 4G antenna - Right
3	Right antenna on the rear quarter window
4	Antenna amplifier - Frequency Modulation (FM) or FM/Digital Audio Broadcasting (DAB)
5	Antenna amplifier - Telestart
6	High Mounted Stop Lamp (HMSL) suppressor
7	SOTA 4G antenna - Left
8	Antenna amplifier - Amplitude Modulation (AM)/FM
9	Antenna amplifier - Amplitude Modulation (AM)/FM
10	Right antenna on the rear quarter window
11	Roof pod

ITEM	DESCRIPTION
9	Antenna amplifier - Left DAB
10	Left antenna on the rear quarter window
11	Global Navigation Satellite System (GNSS) signal splitter

VEHICLE INFORMATION AND COMMUNICATION SYSTEM (JAPAN ONLY)

For additional information, refer to: [Navigation System](#) (415-01 Information and Entertainment System, Description and Operation).

OVERVIEW

A number of antennas are used for the various frequency reception requirements of the infotainment system.

A roof pod is installed and contains antennas for:

- Global System for Mobile communications (GSM)
- GNSS
- Satellite Digital Audio Radio Service (SDARS) (North American Specification (NAS) only)
- External WiFi - Only on vehicles with telematics system.

The SOTA 4G antennas are located in the below of the HMSL.

There are 2 antennas located in the center console. The 2 antennas are used for vehicle WiFi and Bluetooth® reception.

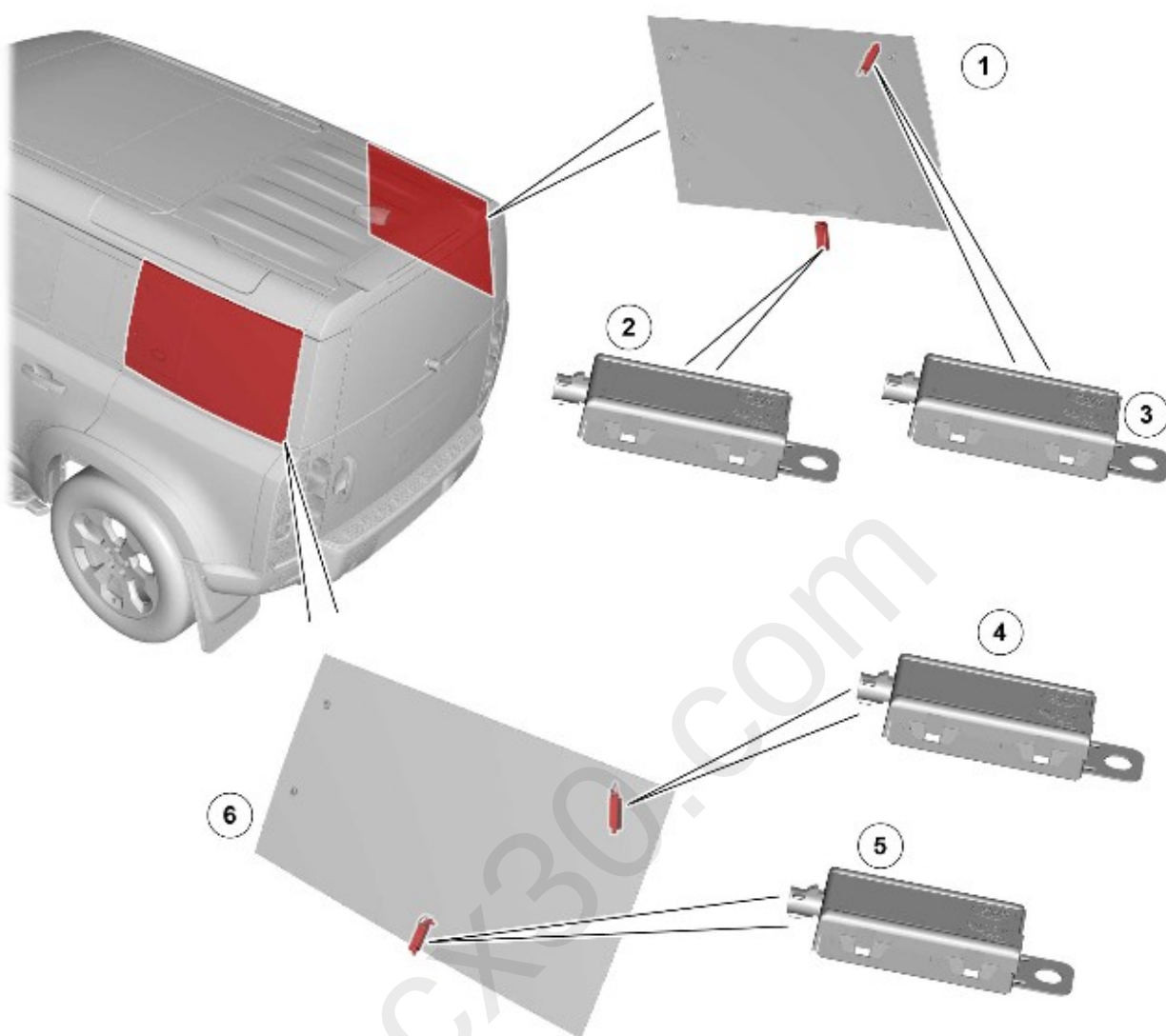
DESCRIPTION

ANTENNA AMPLIFIER AND ANTENNA ON REAR QUARTER WINDOW



NOTE:

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



E249723

ITEM	DESCRIPTION
1	Right antenna on the rear quarter window
2	Antenna amplifier - Telestart
3	Antenna amplifier - FM or FM/DAB
4	Antenna amplifier - AM/FM
5	Antenna amplifier - DAB
6	Left antenna on the rear quarter window

The antennas for the radio, DAB and Telestart (if equipped) are located in each rear quarter window.

The conductive antenna pattern is printed onto the inside surface of the rear quarter window. The pattern is divided into 2 individual antennas. The antenna is soldered to the rear quarter window and each antenna has 1 amplifier.

Co-axial cables from AM/FM, FM or FM/DAB and DAB antenna amplifier are connected to the Front Infotainment Control Module (IGM / ICCM).

The AM/FM antenna amplifier and the FM or FM/DAB antenna amplifier are located on the vehicle body at the top of the rear quarter windows. Each amplifier is secured to the body with a screw. Each amplifier has a single wire connected to the rear quarter window pattern using a button link lead.

The DAB antenna and the telestart antenna are located on the vehicle body below the rear quarter windows. Each amplifier is secured to the vehicle body with a screw. Each amplifier has a single wire to connect to the rear quarter window antenna pattern using a soldered connection on the glass.

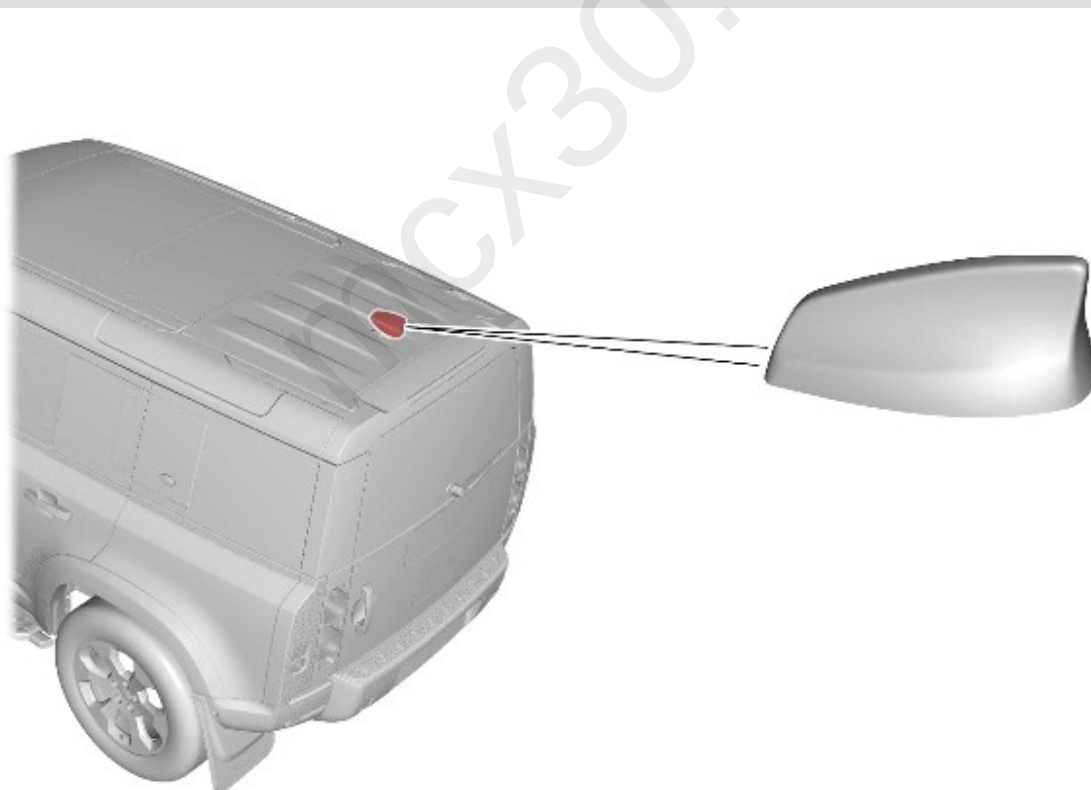
The antenna amplifiers and antennas can be used for multiple frequency reception dependant on market and features installed in the vehicle.

ROOF POD



NOTE:

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



E249724

The roof pod is installed externally at the rear of the roof panel. The roof pod is secured to the roof panel with 2 studs, a mounting bracket and 2 nuts. A seal between the roof pod and the outer surface of the roof panel prevents the ingress of water. Up to 5 co-axial connectors provide for the connection for the various system antennas.

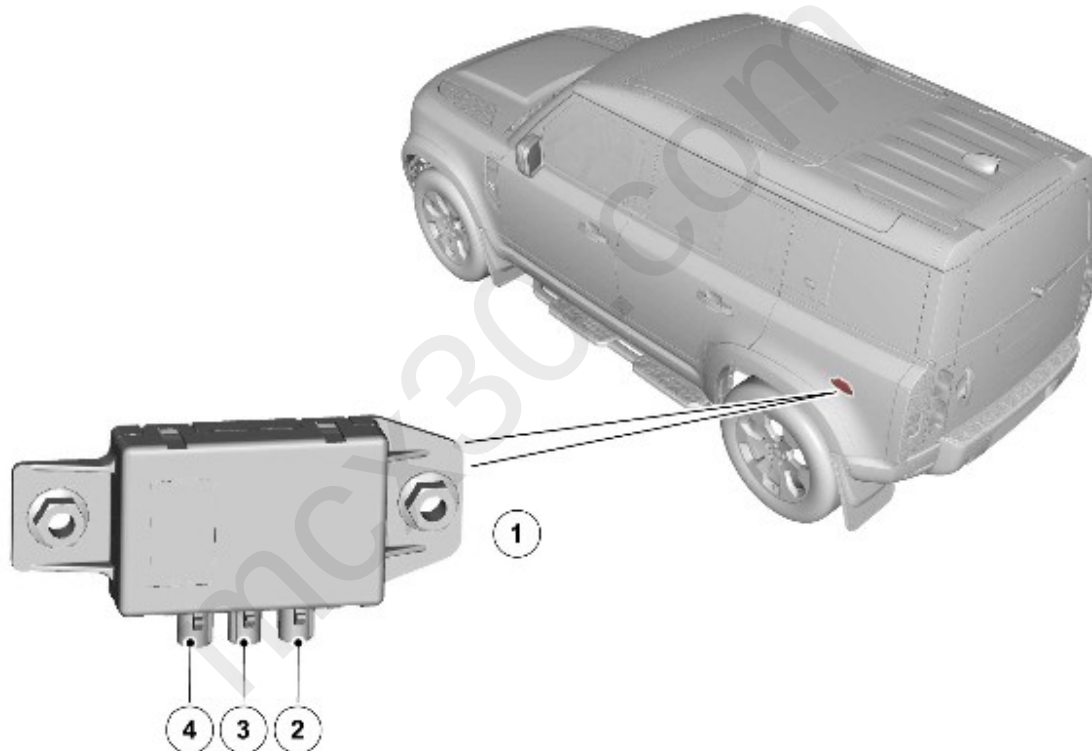
The roof pod contains antennas for:

- GSM
- GNSS
- SDARS (NAS only)
- External WiFi - Only on vehicles with telematics system.

GLOBAL NAVIGATION SATELLITE SYSTEM SIGNAL SPLITTER

NOTE:

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



E249725

ITEM	DESCRIPTION
1	GNSS signal splitter
2	Output to the Telematics Control Module (TCU)
3	Input from the roof pod
4	Output to the IGM / ICCM

The GNSS signal splitter is located behind the left trim panel in the loadspace. The GNSS signal splitter attaches to 2 studs on the left inner quarter panel with 2 nuts.

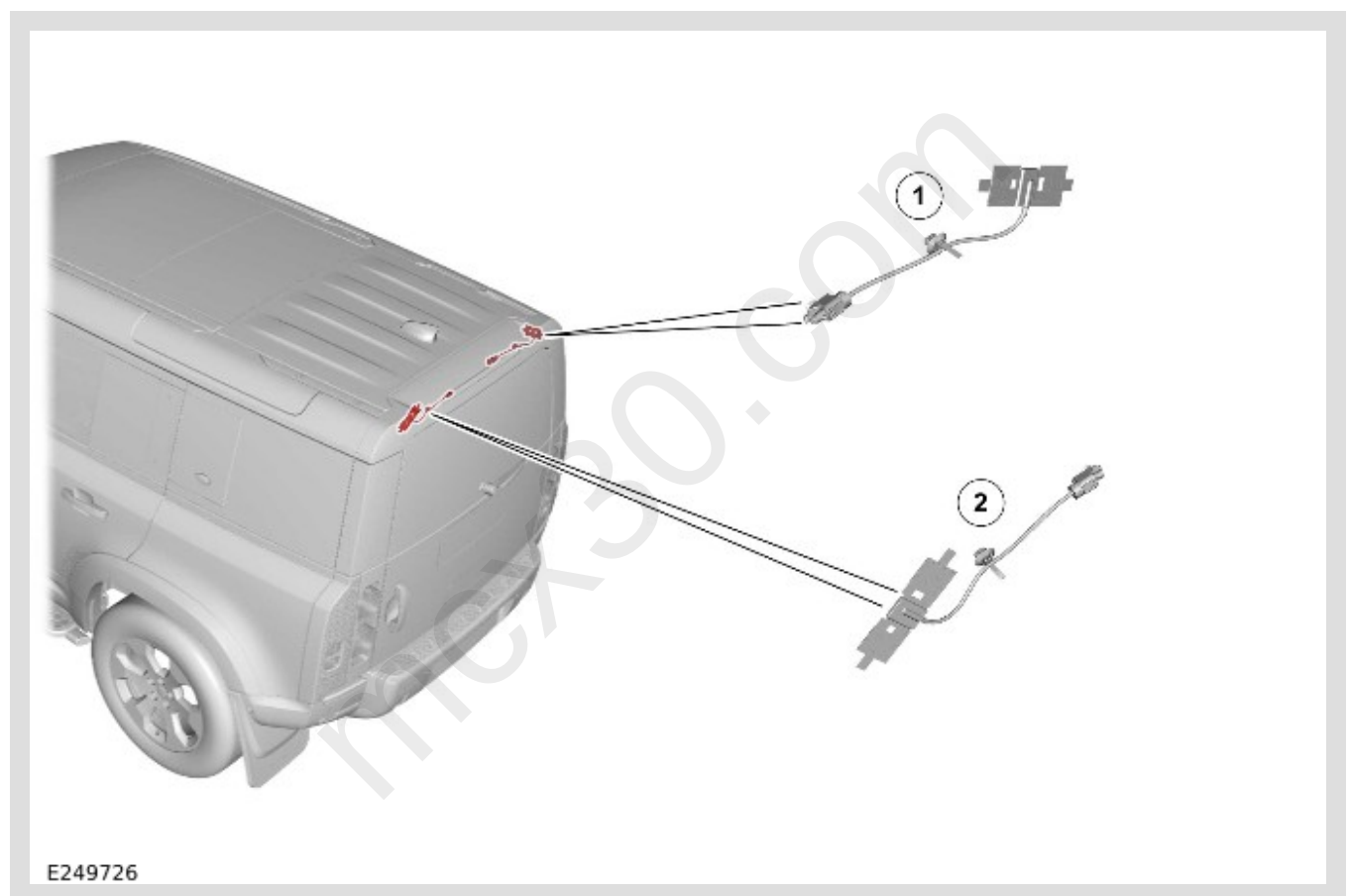
The GNSS signal splitter shares the GNSS signal from the roof pod antenna with:

- The TCU
- The IGM / ICCM.

SOFTWARE OVER THE AIR 4G ANTENNA

NOTE:

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



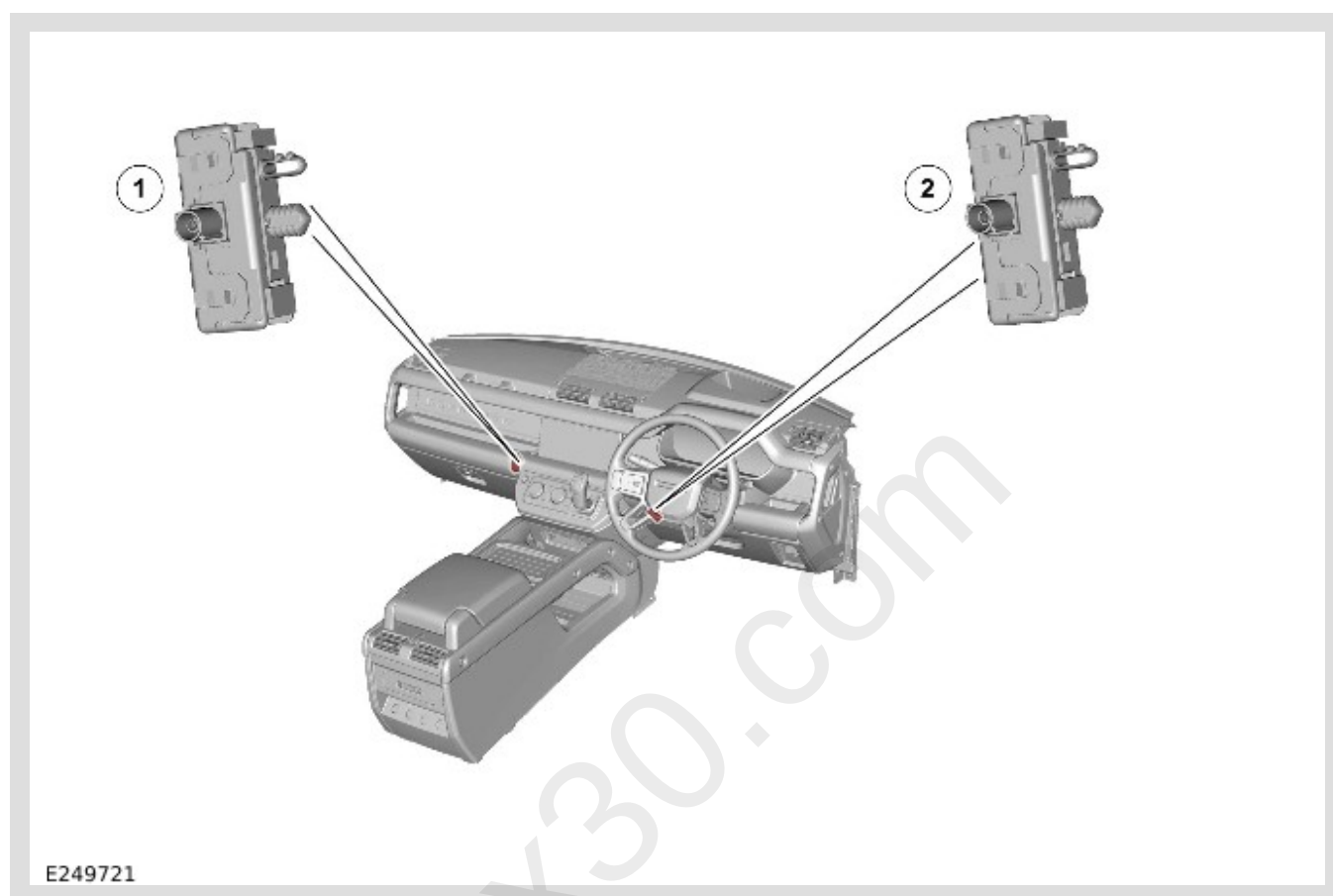
ITEM	DESCRIPTION
1	SOTA 4G antenna - Right
2	SOTA 4G antenna - Left

The SOTA 4G antennas are located in the behind of the HMSL. The antenna is used for 4G data transmission. The antenna is also GSM antenna.

BLUETOOTH®/WIFI ANTENNAS

NOTE:

RHD vehicle is shown, LHD vehicle is similar.



ITEM	DESCRIPTION
1	Bluetooth®/WiFi antenna
2	WiFi antenna

There are 2 front antennas located on each side of the center console. Each antenna attaches with plastic clips to holes in the center console. Trim panel covers the antennas.

The front left Bluetooth®/WiFi antenna functions as a Bluetooth® or WiFi antenna depending upon system usage at the time. The front right WiFi antenna functions for the WiFi system only.

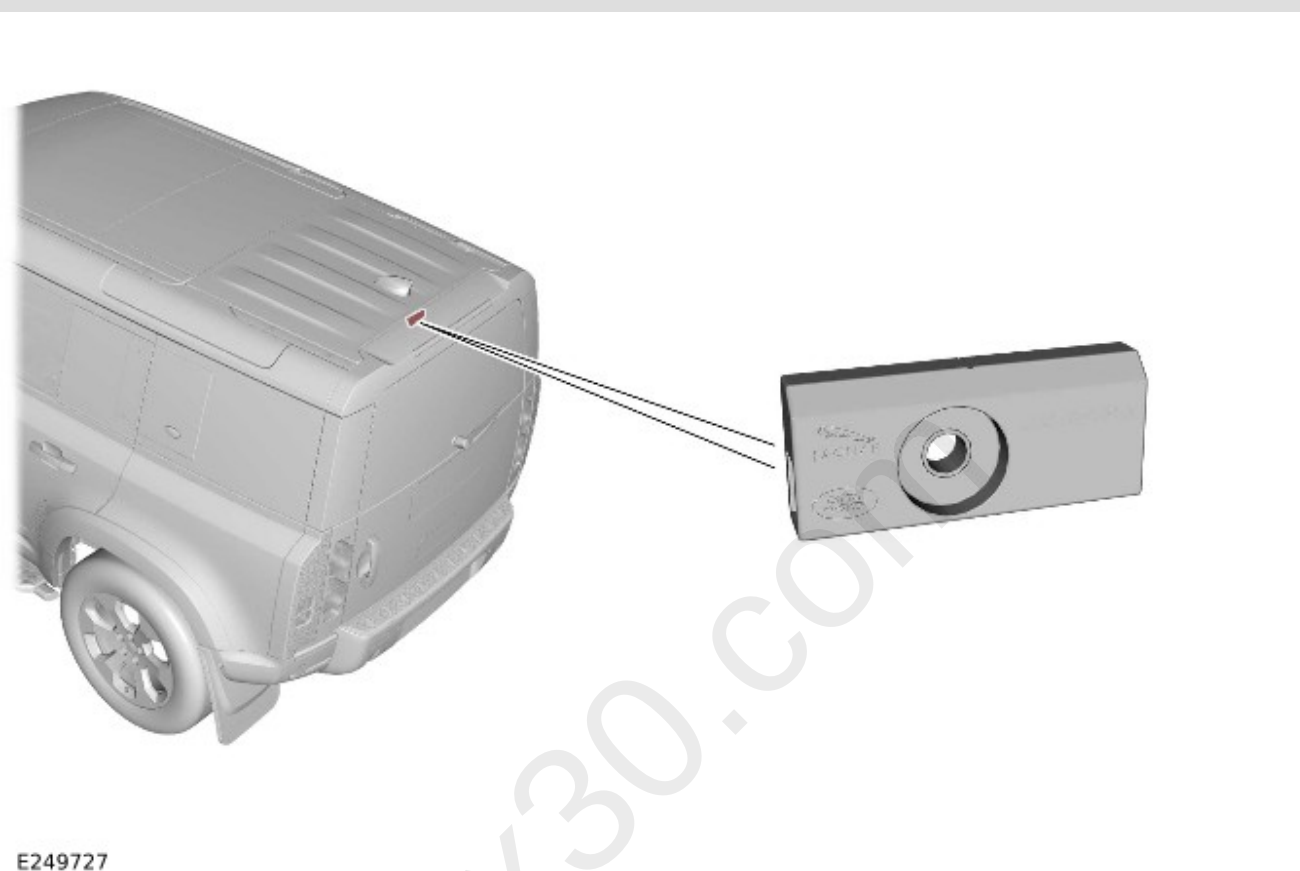
Each front antenna is connected to the IGM / ICCM with a co-axial cable.

The Bluetooth®/WiFi antenna is able to operate in the 2.4GHz and 5GHz bands, the Bluetooth® operation only uses the 2.4GHz band.

HIGH MOUNTED STOP LAMP SUPPRESSOR

NOTE:

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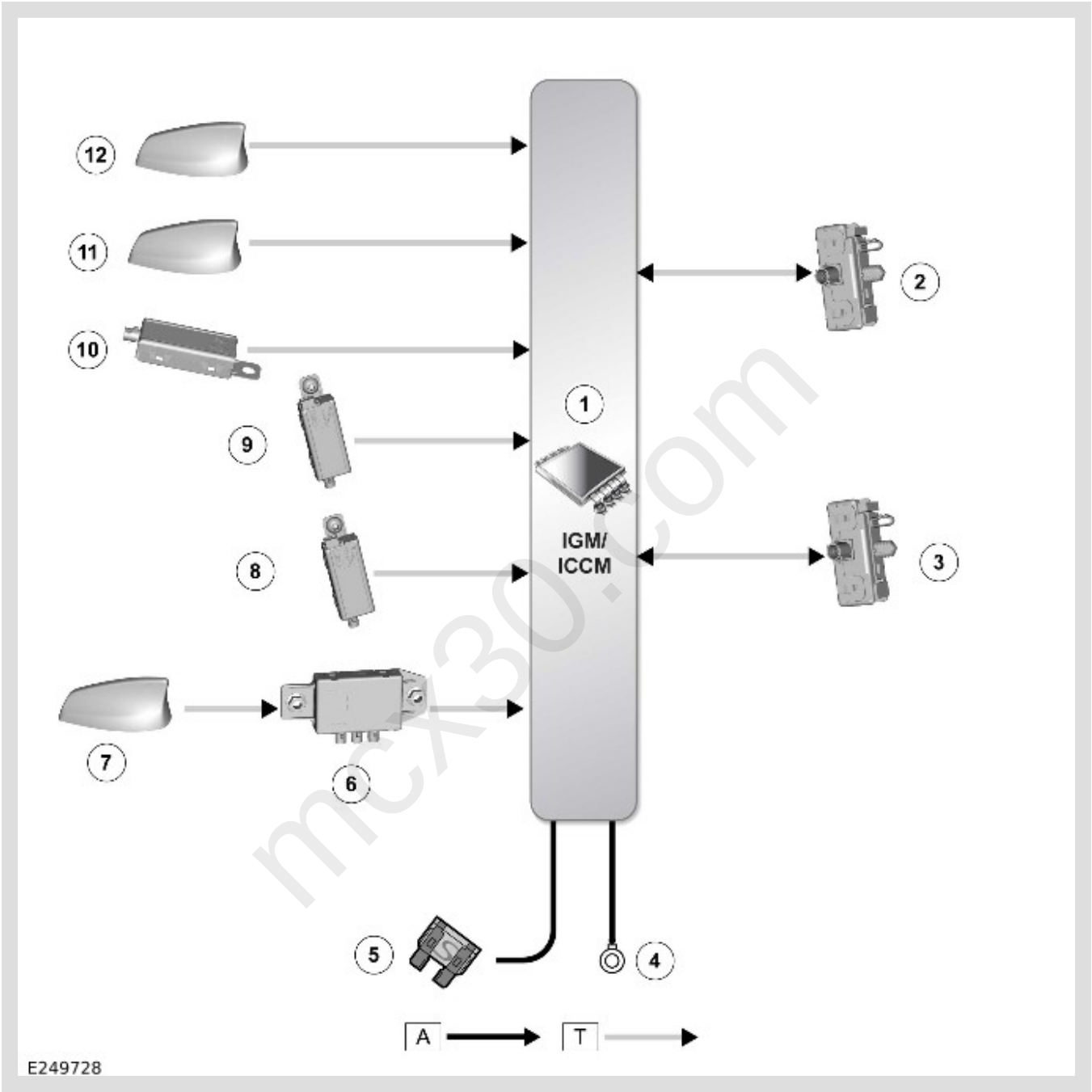
OPERATION

DIAGNOSTICS

The IGM / ICCM records any Diagnostic Trouble Code(s) (DTC) and related data. The DTC and related data are read using the Jaguar Land Rover (JLR) approved diagnostic equipment.

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

CONTROL DIAGRAM - 1 OF 1



A= HARDWIRED: T = COAXIAL.

ITEM	DESCRIPTION
1	IGM / ICCM
2	Bluetooth®/WiFi antenna
3	WiFi antenna

ITEM	DESCRIPTION
4	Ground
5	Power supply
6	GNSS signal splitter
7	Roof pod - GNSS antenna
8	Antenna amplifier - AM/FM
9	Antenna amplifier - FM or FM/DAB
10	Antenna amplifier - DAB (if equipped)
11	Roof pod - GSM antenna
12	Roof pod - SDARS (NAS only)

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