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MODULE COMMUNICATIONS NETWORK

COMMUNICATIONS NETWORK – 110 (G2342562)

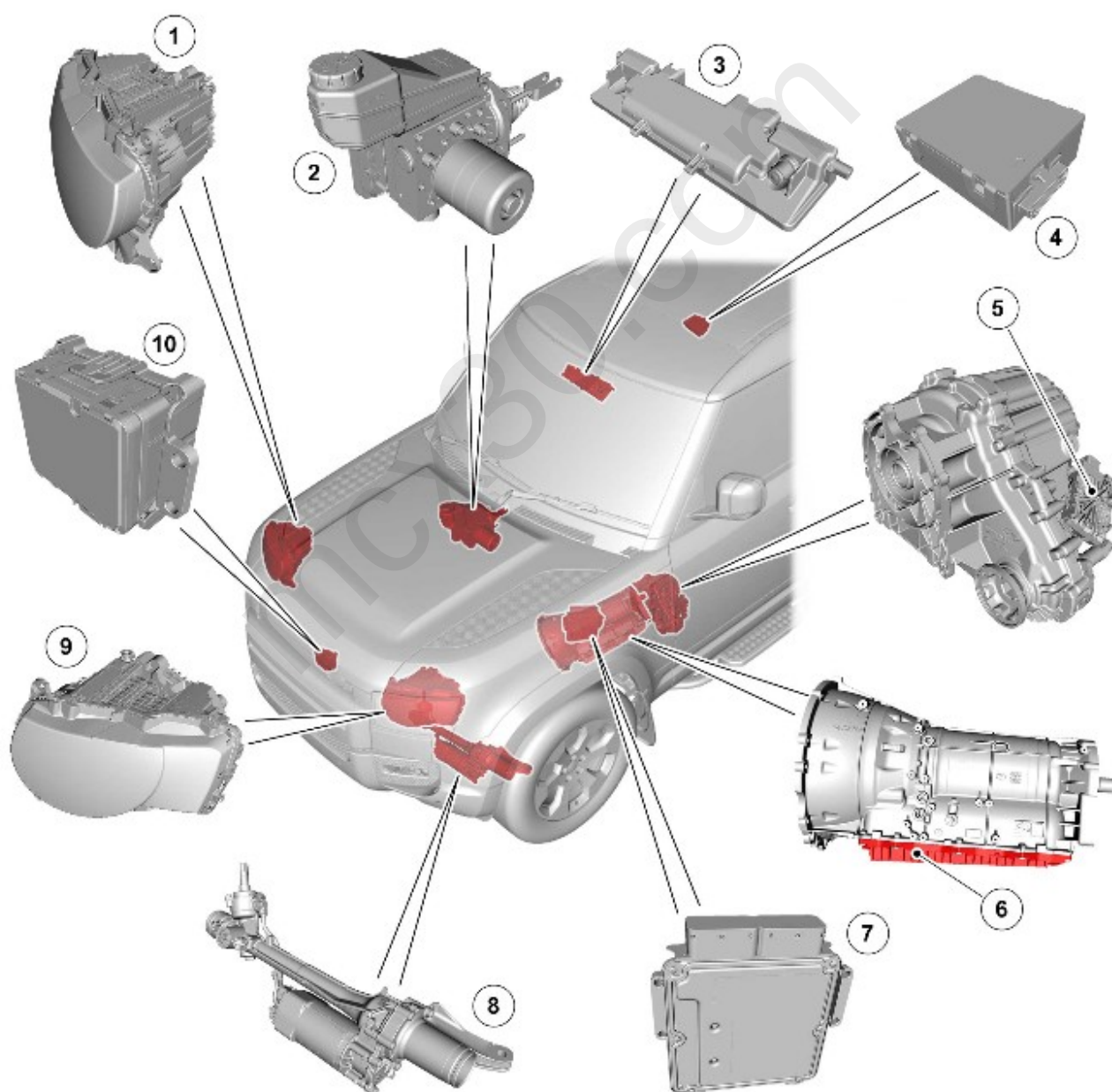
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COMPONENT LOCATION

COMPONENT LOCATION - 1 OF 3

 NOTE:

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



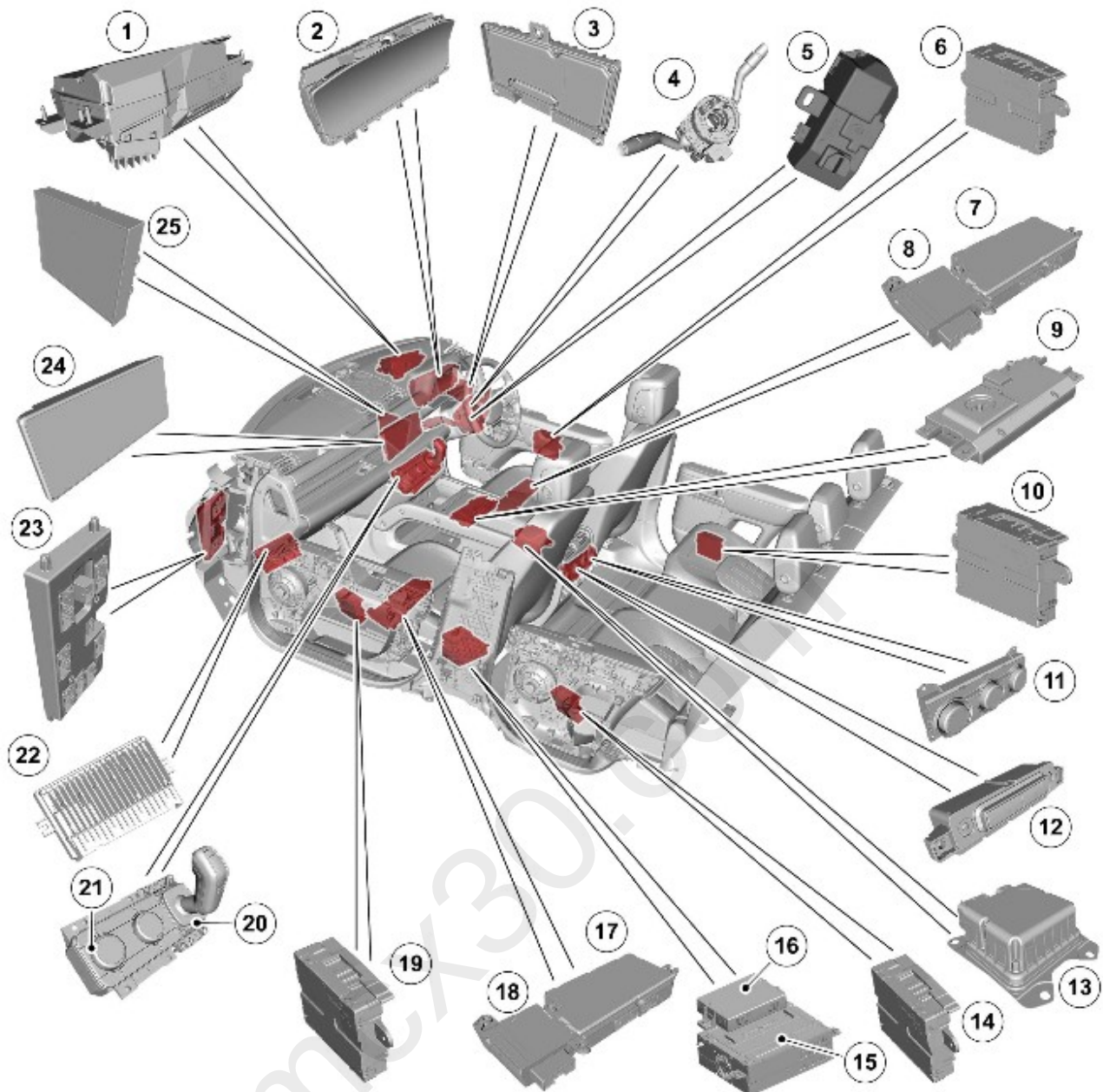
ITEM	DESCRIPTION
1	Headlamp Control Module B (HCMB)
2	Anti-Lock Brake System Control Module (ABS)
3	Image Processing Module (IPMA)
4	Tire Pressure Monitoring System Control Module (TPM)
5	Transfer Case Control Module (TCCM)
6	Transmission Control Module (TCM)
7	Powertrain Control Module (PCM)
8	Power Steering Control Module (PSCM)
9	Headlamp Control Module A (HCM)
10	Cruise Control Module (CCM)

COMPONENT LOCATION - 2 OF 3



NOTE:

RHD vehicle is shown, LHD vehicle is similar.



E249781

ITEM	DESCRIPTION
1	Head Up Display (HUD)
2	Instrument Panel Cluster (IPC)
3	Driver Assistance Domain Controller (DADC)
4	Steering Wheel Module (SWM)
5	Electric Steering Column Lock Control Module (VIM)
6	Driver Door Control Module (DDM)
7	Seat Module - Driver/Passenger/Rear - Left/Right (DSM)
8	Driver Seat Climate Control Module (DSCCM)

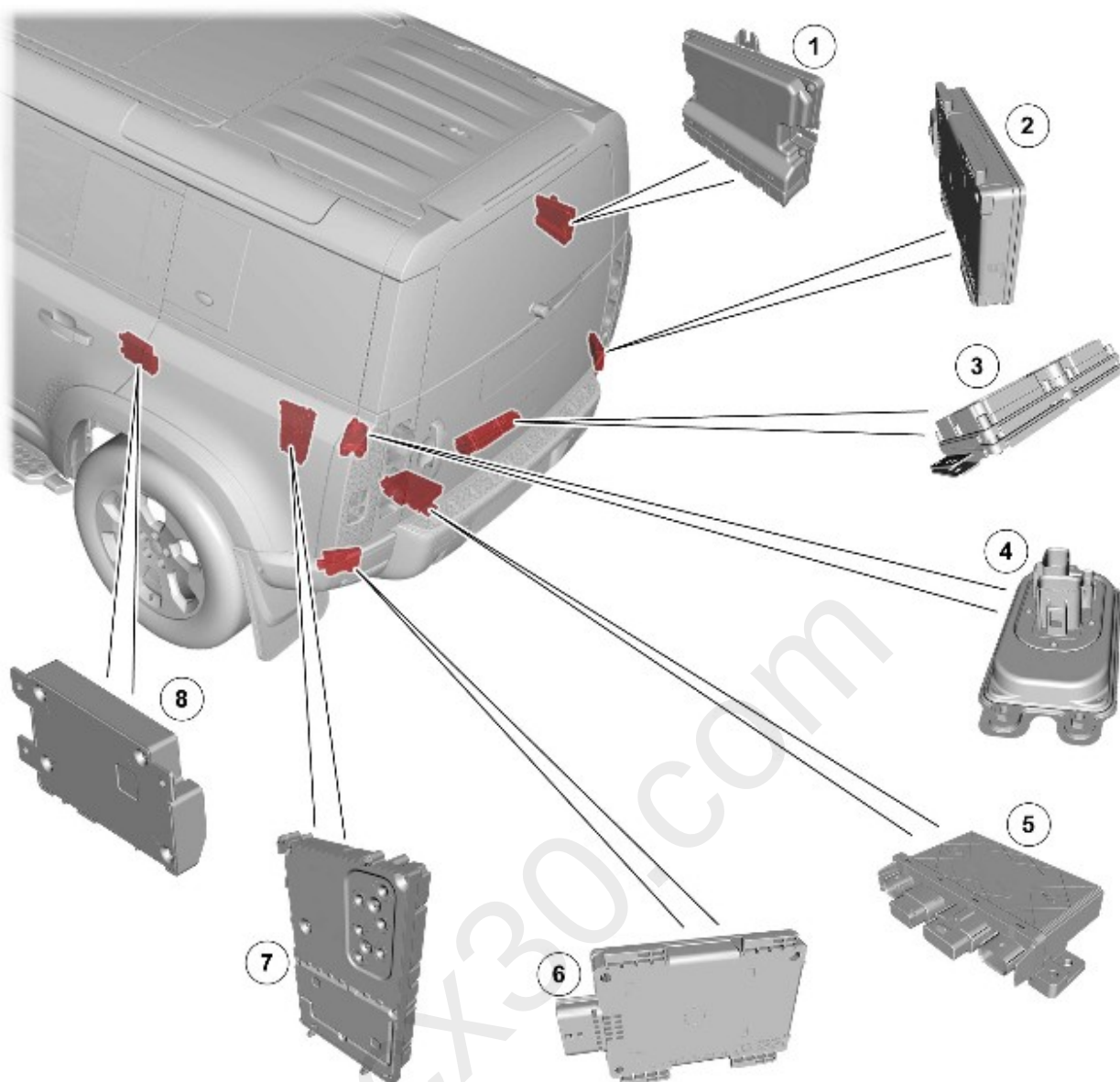
ITEM	DESCRIPTION
9	Wireless Device Charger Module (WDCM)
10	Driver Rear Door Module (DRDM)
11	Rear Integrated Control Panel (FCIMB) (if equipped)
12	Second row seat heater control (if equipped)
13	Restraints Control Module (RCM)
14	Passenger Rear Door Module (PRDM)
15	Front Infotainment Control Module (IGM / ICCM)
16	Remote Function Actuator (RFA)
17	Seat Module - Driver/Passenger/Rear - Left/Right (PSM)
18	Passenger Seat Climate Control Module (PSCCM)
19	Passenger Door Control Module (PDM)
20	Transmission Control Switch (TCS)
21	Integrated Control Panel (FCIM)
22	Near Field Sensing Module (NFSM)
23	Body Control Module (BCM)/ Gateway Control Module (GWM)
24	Touch Screen (FCDIM)
25	Heating, ventilation, and air conditioning (HVAC) control module

COMPONENT LOCATION - 3 OF 3



NOTE:

RHD vehicle is shown, LHD vehicle is similar.



E249782

ITEM	DESCRIPTION
1	Chassis Control Module (CHCM)
2	Side Obstacle Detection Control Module - Right (SODR)
3	Rear Differential Control Module (RDCM)
4	Voltage Quality Module (VQM)
5	Towbar Control Module (TBM)
6	Side Obstacle Detection Control Module - Left (SODL)
7	Audio Amplifier Control Module (AAM)
8	Telematics Control Module (TCU)

OVERVIEW

A number of different types of communication network are incorporated into the vehicle wiring harnesses for the transmission of commands and information between control modules. The configuration installed on a particular vehicle depends on the model and equipment level.



NOTE:

The control diagrams shown in this section are schematics reflecting communications networks installed to RHD vehicles only. For detailed layouts of the various communications networks installed to RHD and LHD vehicles refer to the electrical guide.

The communications networks available on the vehicle are shown below:

- Ethernet
- FlexRay
- High Speed (HS) Controller Area Network (CAN) diagnostic bus
- HS CAN Human Machine Interface (HMI) systems bus
- HS CAN body systems bus
- HS CAN power mode zero systems bus
- HS CAN Underbody (UN) systems bus
- HS CAN powertrain systems bus
- Private CAN bus
- Local Interconnect Network (LIN).

DIAGNOSTIC CONNECTOR

The Diagnostic Connector (J1962) is connected to the BCM/ GWM through the Diagnostic over Internet Protocol (DoIP) and the HS CAN diagnostic bus. The DoIP is the prime connection for the Jaguar Land Rover (JLR) approved diagnostic equipment.

DESCRIPTION

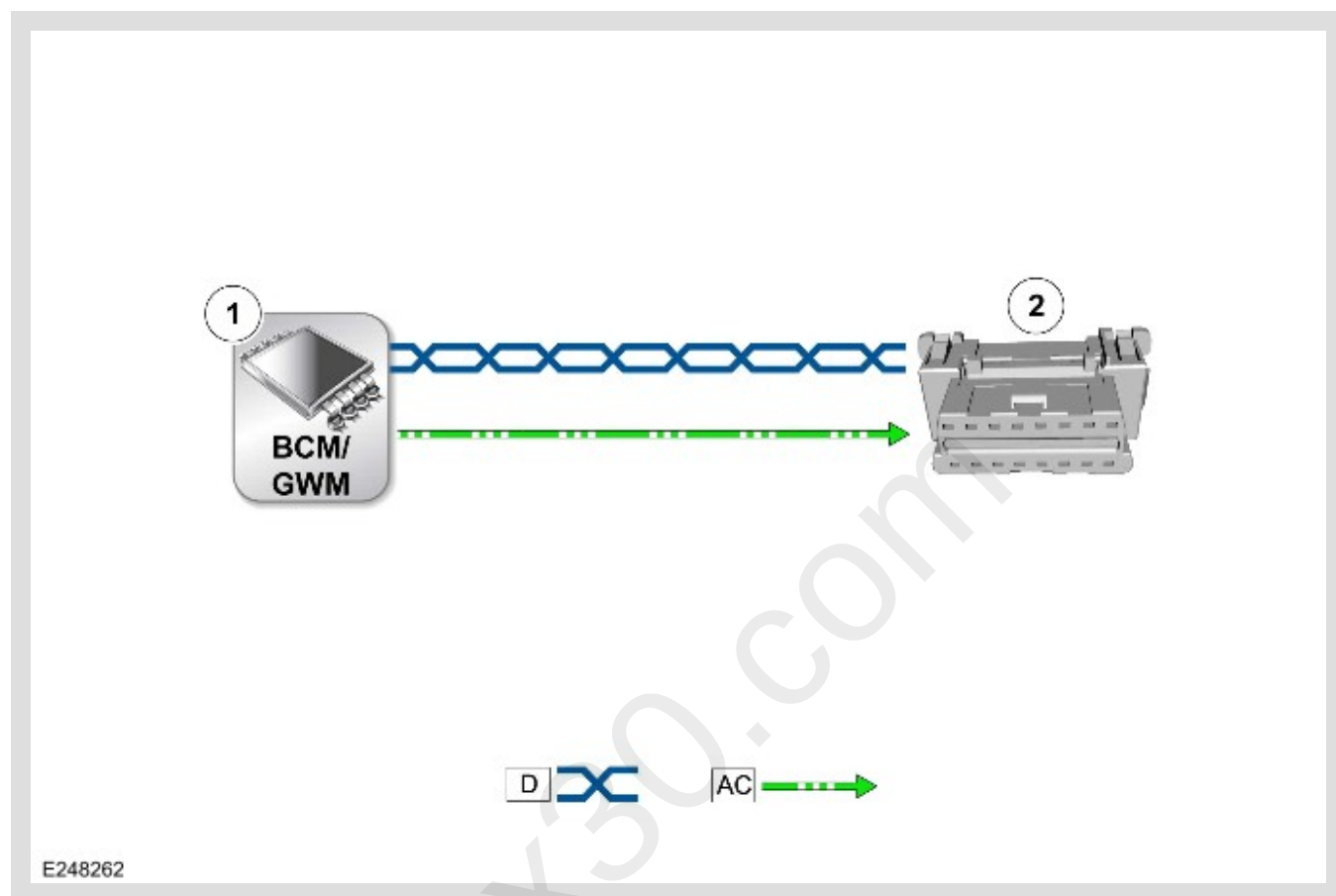
Refer to the relevant system section for details of system description.

OPERATION

Refer to the relevant system section for details of system operation.

CONTROL DIAGRAM

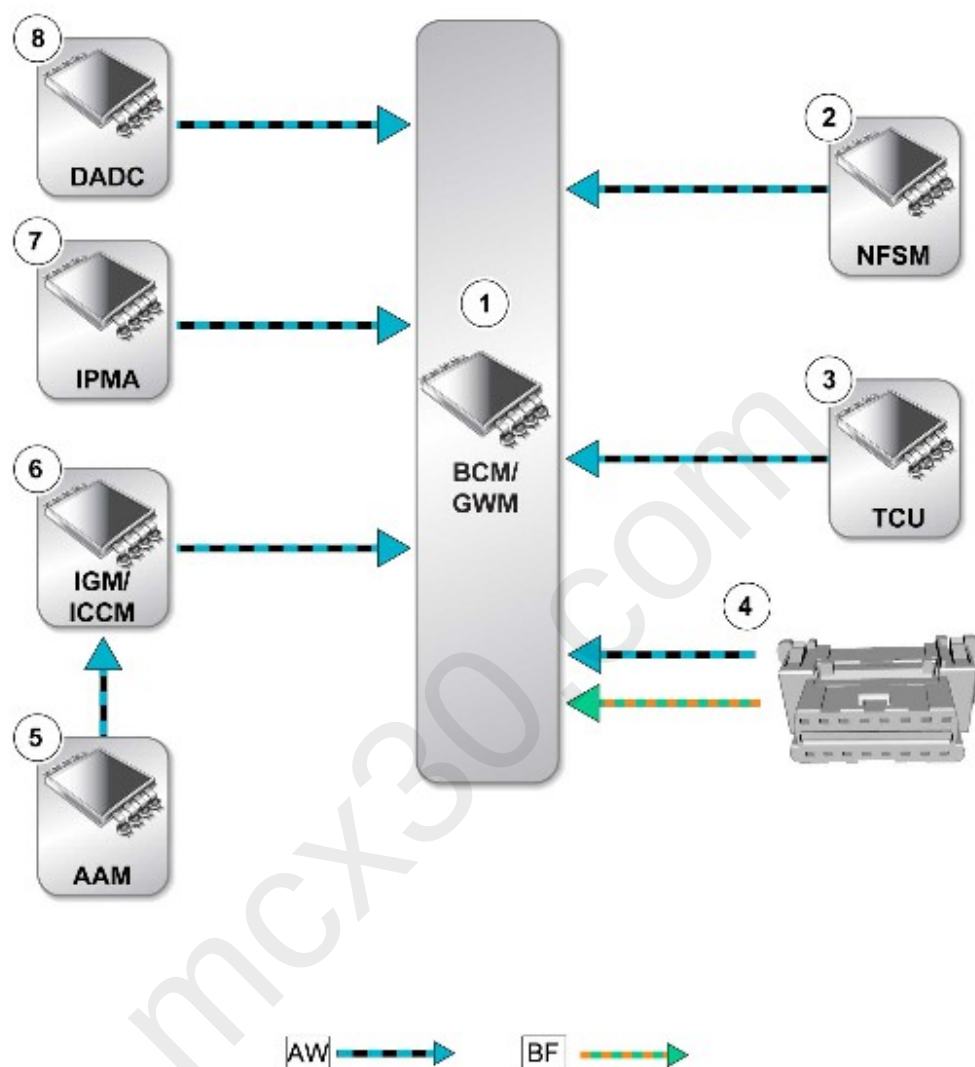
HIGH SPEED CONTROLLER AREA NETWORK DIAGNOSTIC BUS



D = HS CAN DIAGNOSTIC BUS: A C = DOIP.

ITEM	DESCRIPTION
1	BCM/ GWM
2	J1962

ETHERNET



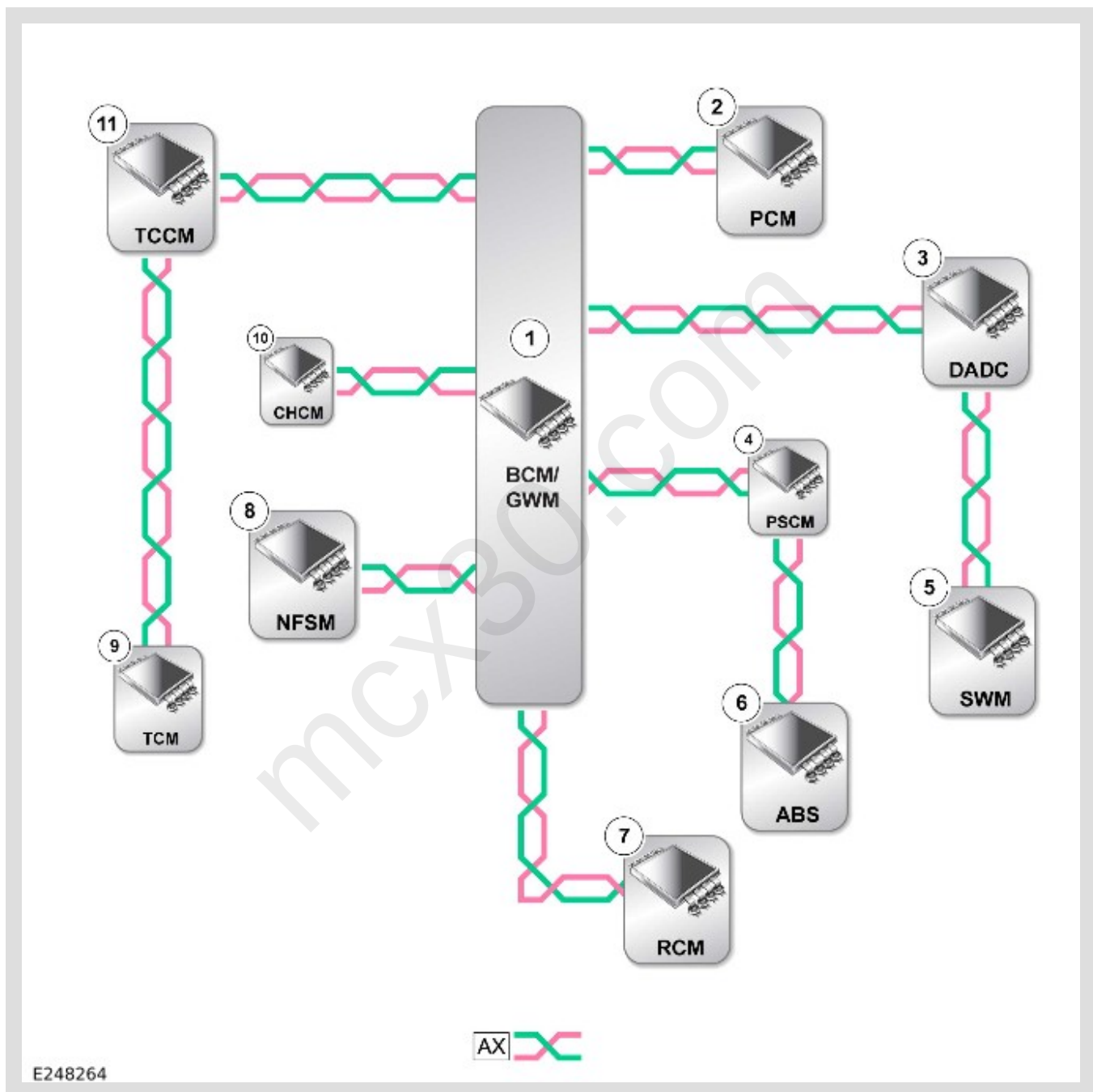
E248263

AW = ETHERNET: BF = ETHERNET WAKE-UP.

ITEM	DESCRIPTION
1	BCM/ GWM
2	NFSM
3	TCU
4	J1962
5	AAM

ITEM	DESCRIPTION
6	IGM / ICCM
7	IPMA
8	DADC

FLEXRAY



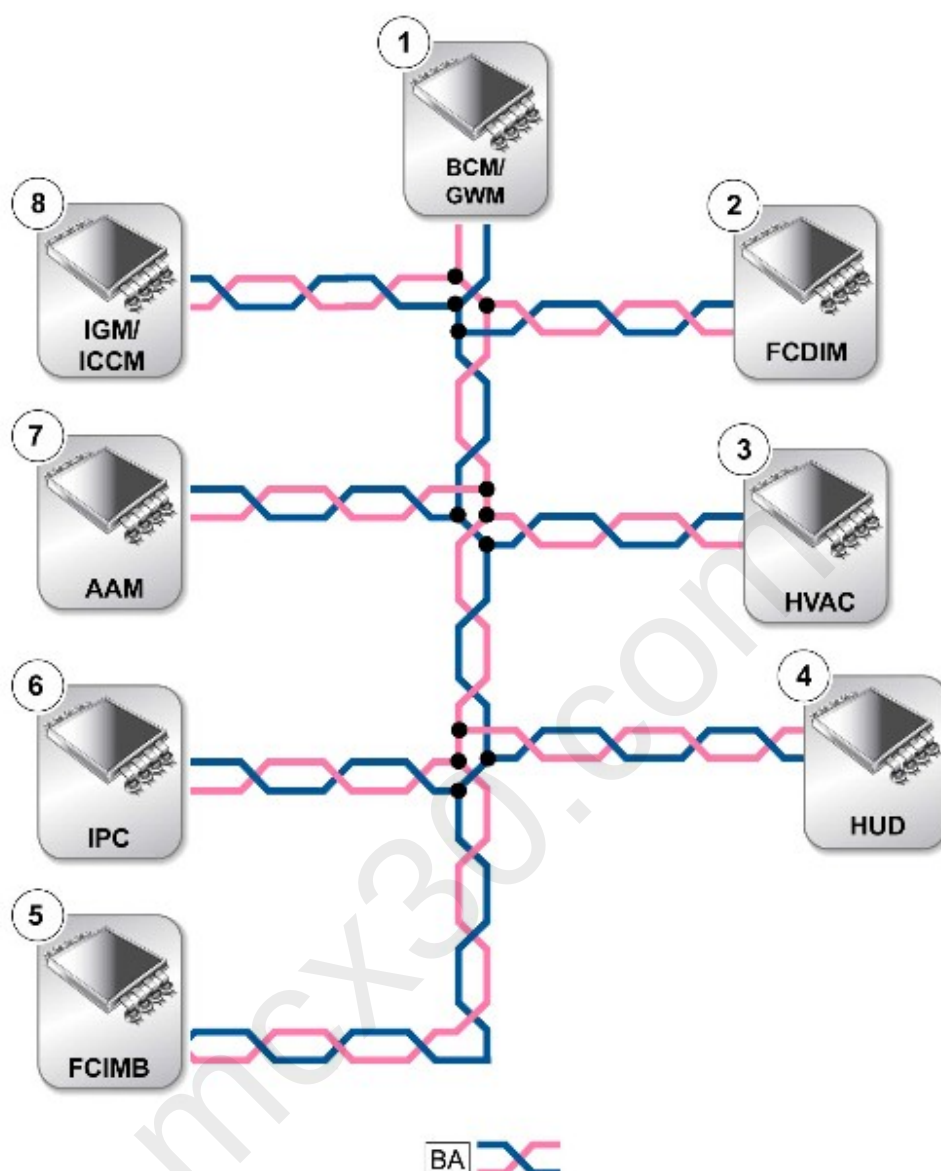
AX = FLEXRAY.

ITEM	DESCRIPTION
1	BCM/ GWM

ITEM	DESCRIPTION
2	PCM
3	DADC
4	PSCM
5	SWM
6	ABS
7	RCM
8	NFSM
9	TCM
10	CHCM
11	TCCM

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HIGH SPEED CONTROLLER AREA NETWORK HUMAN MACHINE INTERFACE SYSTEMS BUS



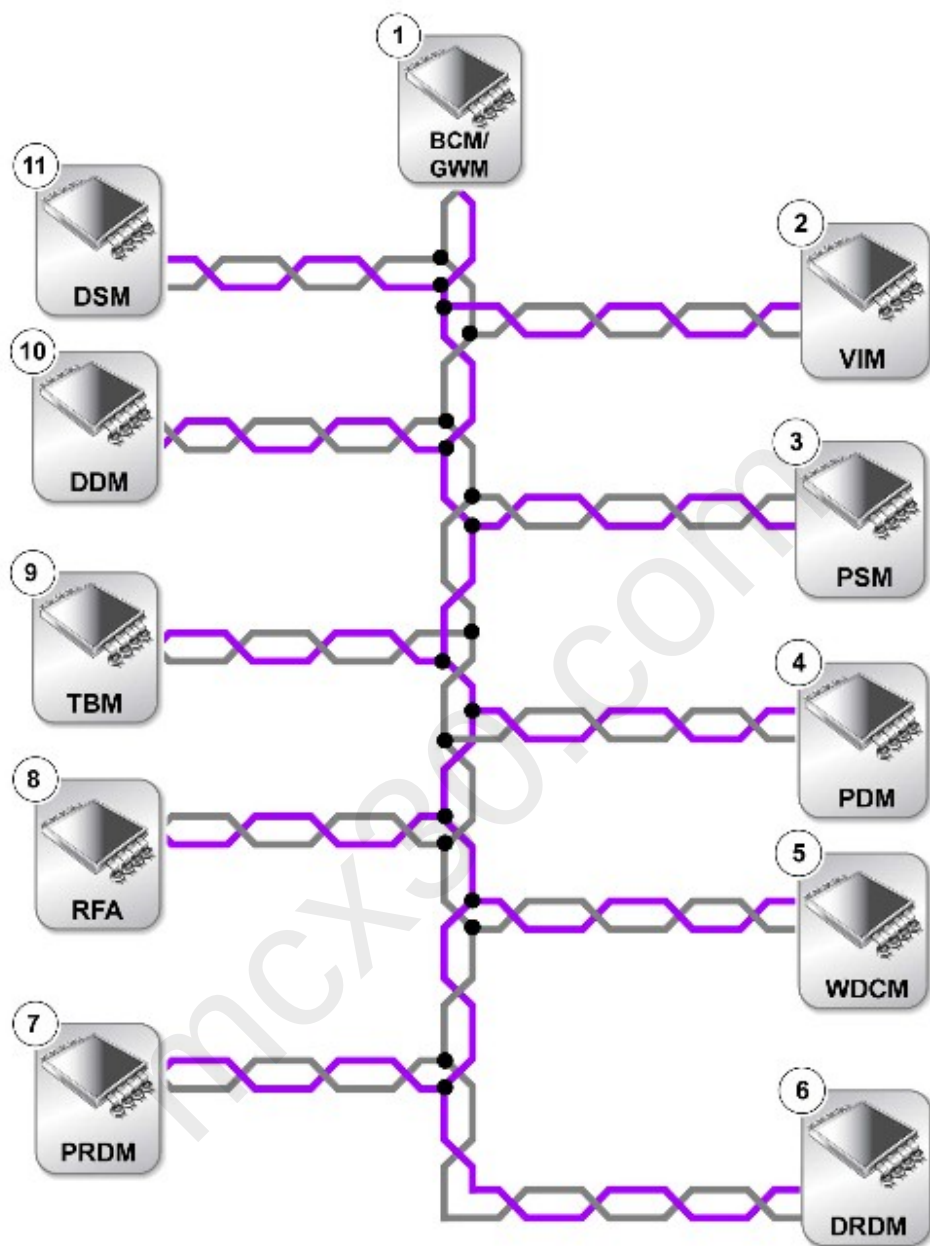
E248265

BA = HS CAN HMI SYSTEMS BUS.

ITEM	DESCRIPTION
1	BCM/ GWM - Terminator module
2	FCDIM
3	HVAC control module
4	HUD
5	FCIMB

ITEM	DESCRIPTION
6	IPC - Terminator module
7	AAM
8	IGM / ICCM

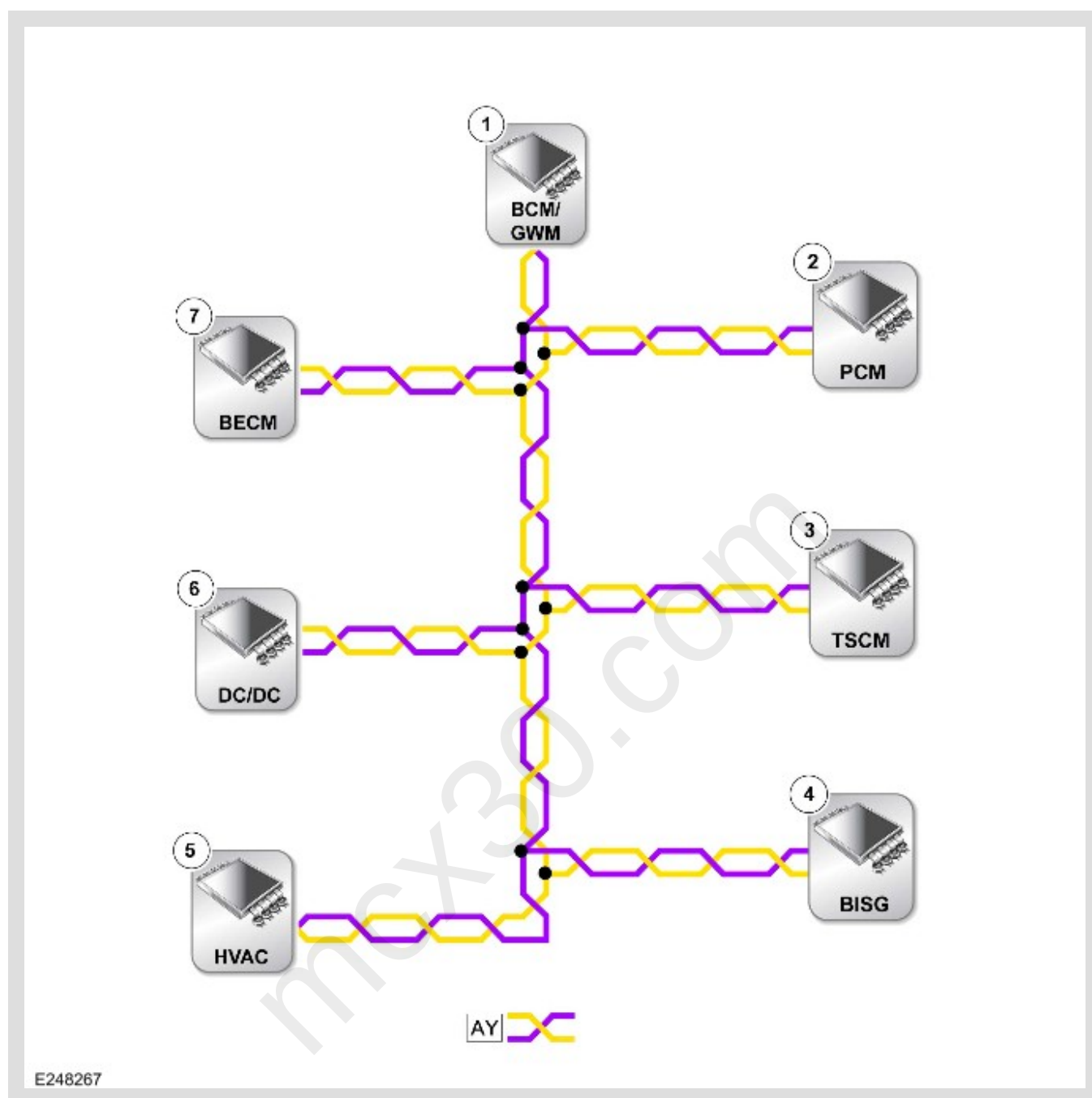
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AZ = HS CAN BODY SYSTEMS BUS.

ITEM	DESCRIPTION
1	BCM/ GWM - Terminator (quantity 2) module
2	VIM
3	PSM
4	PDM
5	WDCM
6	DRDM
7	PRDM
8	RFA
9	TBM
10	DDM
11	DSM

HIGH SPEED CONTROLLER AREA NETWORK POWER MODE ZERO SYSTEMS BUS

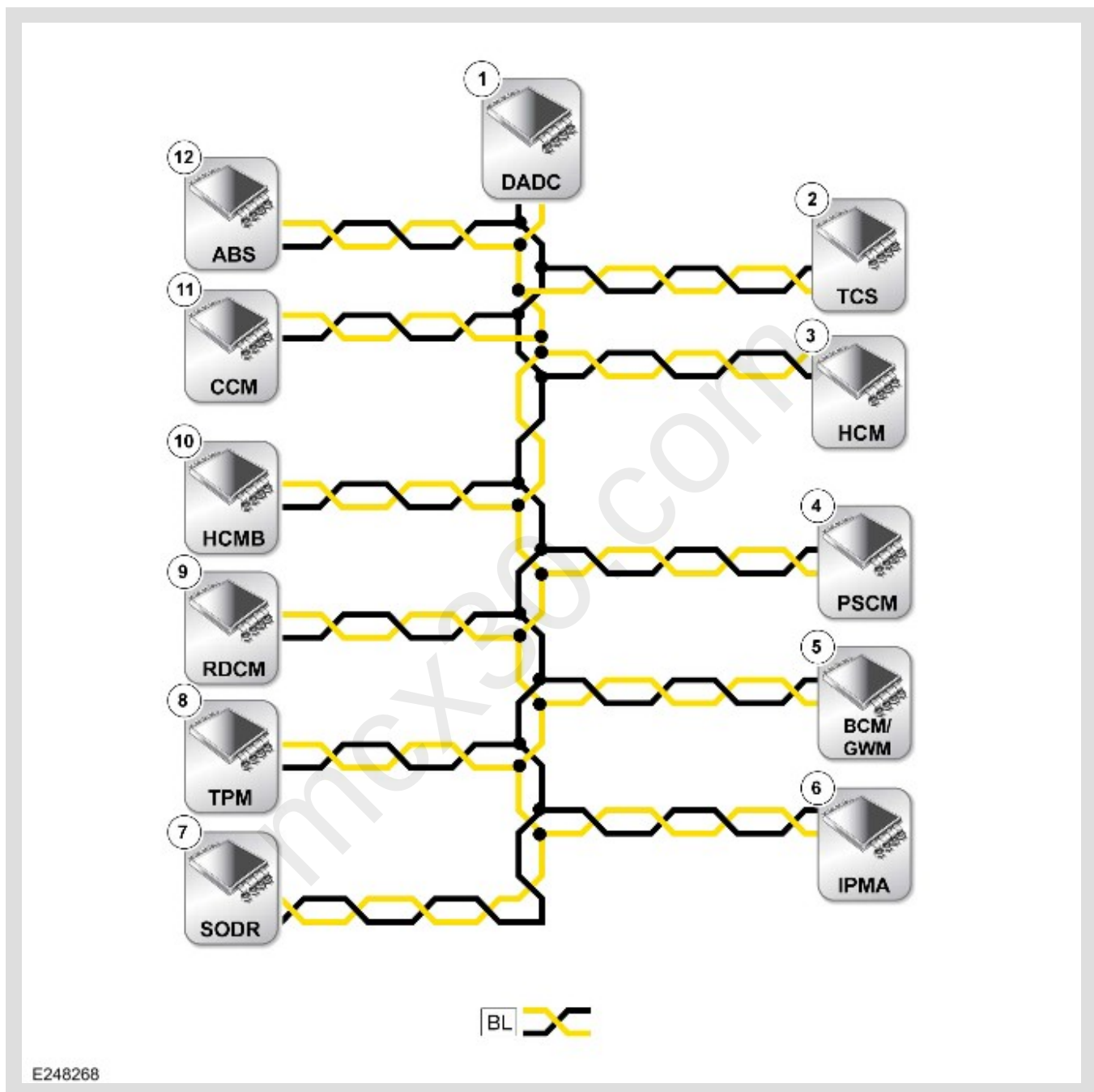


AY = HS CAN POWER MODE ZERO SYSTEMS BUS.

ITEM	DESCRIPTION
1	BCM/ GWM - Terminator module
2	PCM - Only Ingenium I6 3.0L petrol
3	Turbocharger / Supercharger Control Module (TSCM) (if equipped)
4	Belt Integrated Starter Generator (BISG) (if equipped)
5	HVAC control module - Terminator module

ITEM	DESCRIPTION
6	Direct Current to Direct Current converter (DC/DC) (if equipped)
7	Battery Energy Control Module (BECM) (if equipped)

HIGH SPEED CONTROLLER AREA NETWORK UNDERBODY SYSTEMS BUS

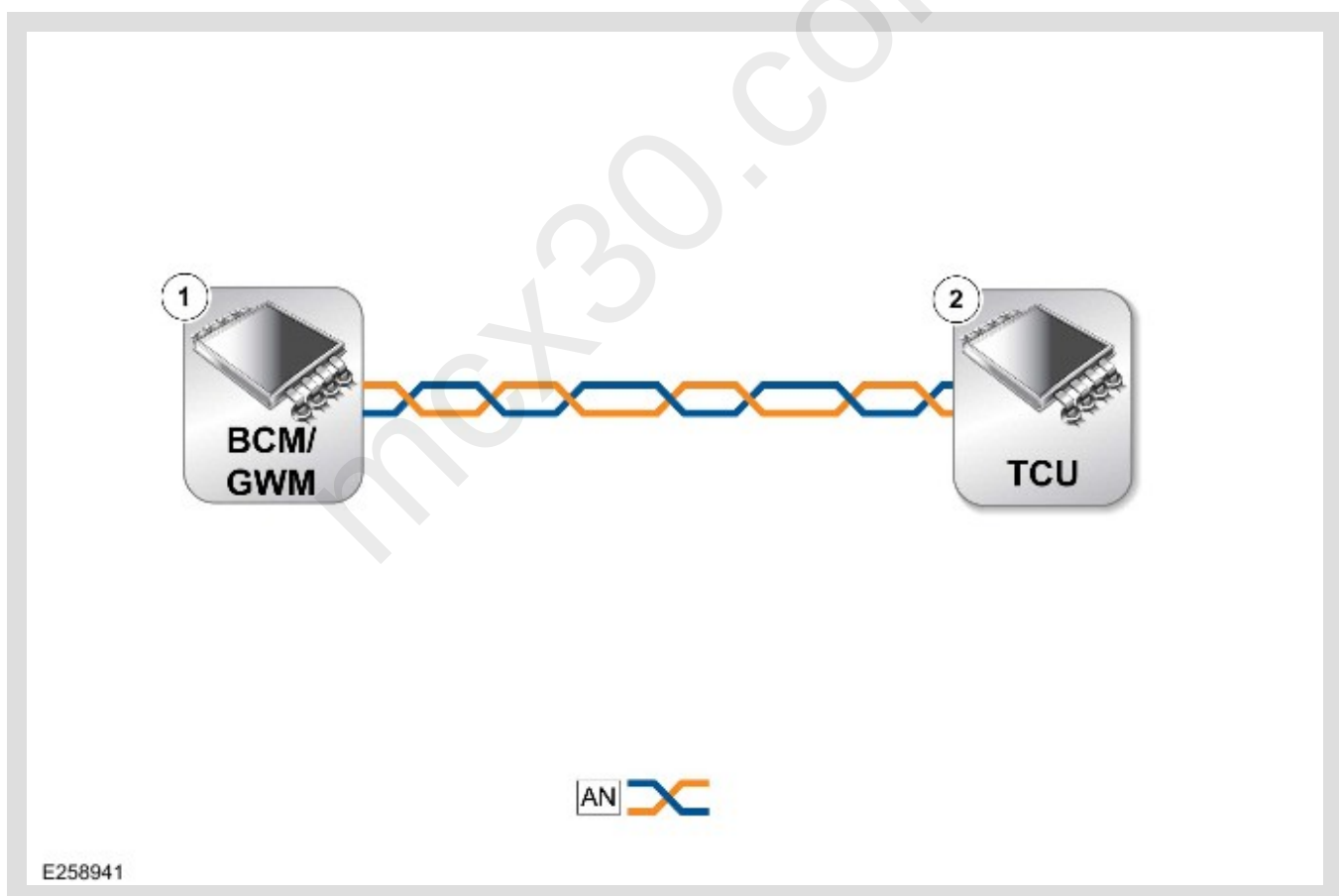


BL = HS CAN UN SYSTEMS BUS.

ITEM	DESCRIPTION
1	DADC - Terminator module
2	TCS

ITEM	DESCRIPTION
3	HCM
4	PSCM
5	BCM/ GWM
6	IPMA
7	SODR
8	TPM
9	RDCM
10	HCMB
11	CCM
12	ABS - Terminator module

HIGH SPEED CONTROLLER AREA NETWORK POWERTRAIN SYSTEMS BUS

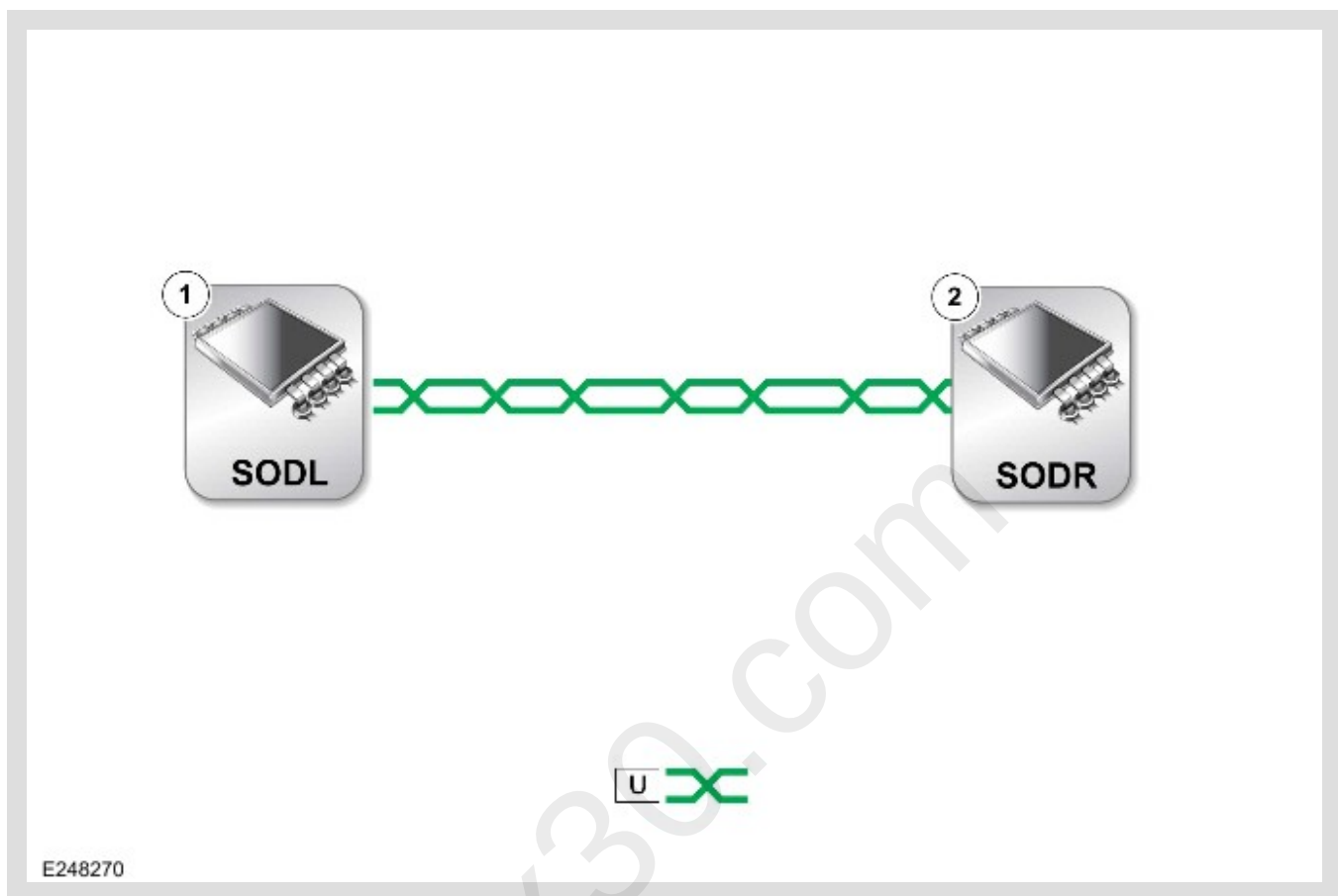


AN = HS CAN POWERTRAIN SYSTEMS BUS.

ITEM	DESCRIPTION
1	BCM/ GWM - Terminator module

ITEM	DESCRIPTION
2	TCU - Terminator module

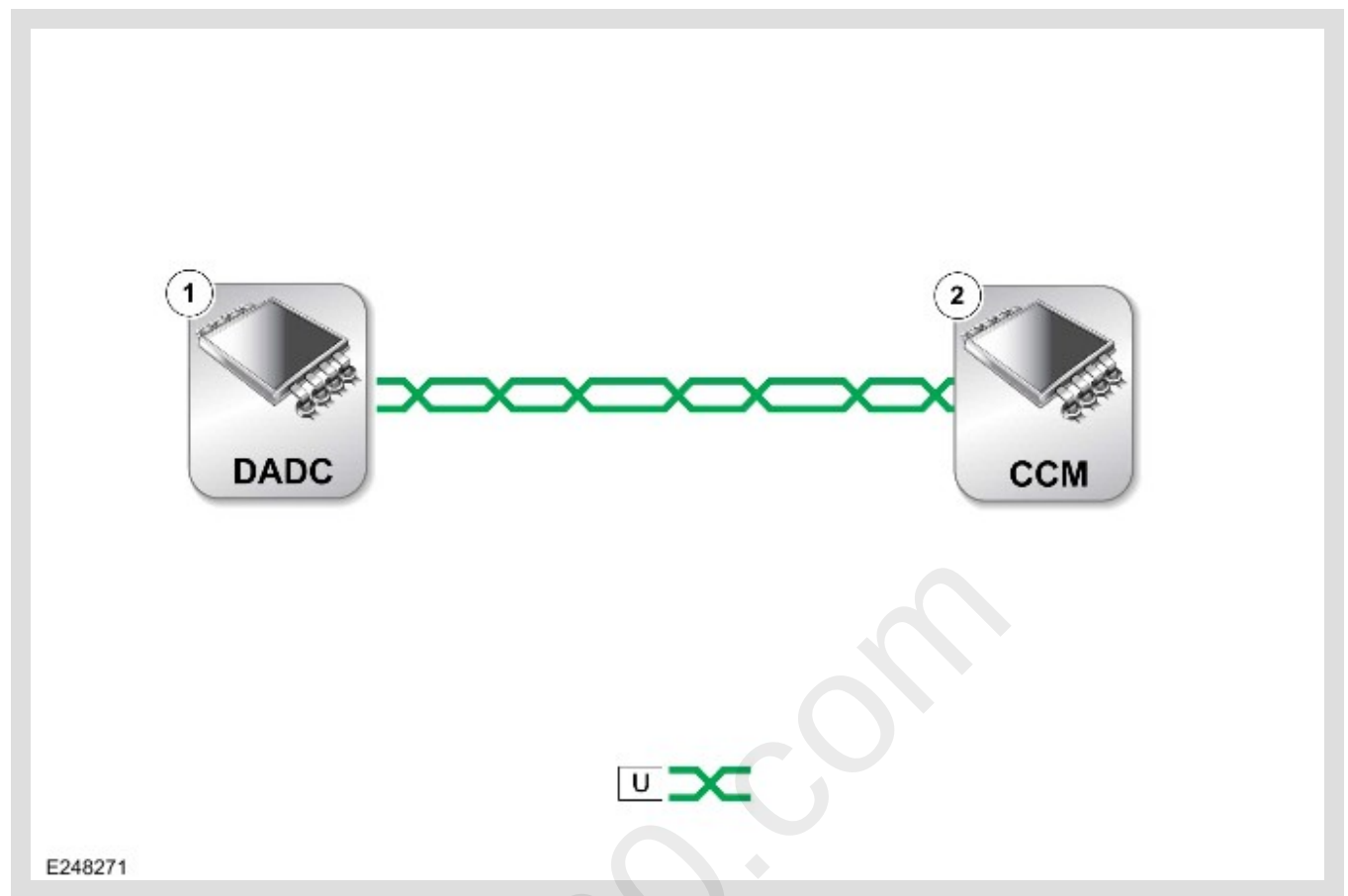
PRIVATE CONTROLLER AREA NETWORK BUS - 1 OF 4 - BLINDSPOT MONITORING CONTROL CIRCUIT



U = PRIVATE CAN BUS.

ITEM	DESCRIPTION
1	SODL
2	SODR

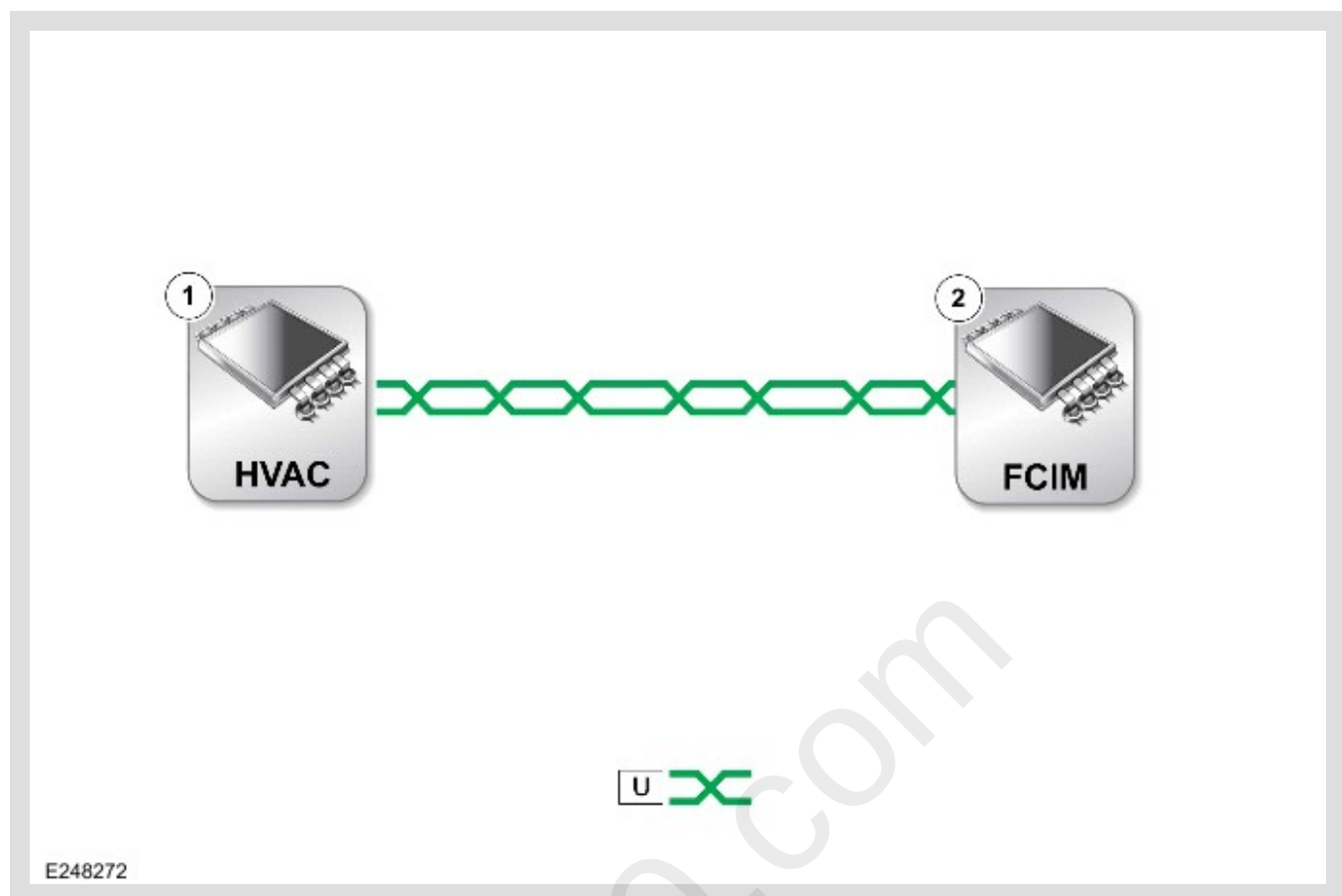
PRIVATE CONTROLLER AREA NETWORK BUS – 2 OF 4 – DRIVER ASSISTANCE DOMAIN CONTROLLER CONTROL CIRCUIT



U = PRIVATE CAN BUS.

ITEM	DESCRIPTION
1	DADC
2	CCM

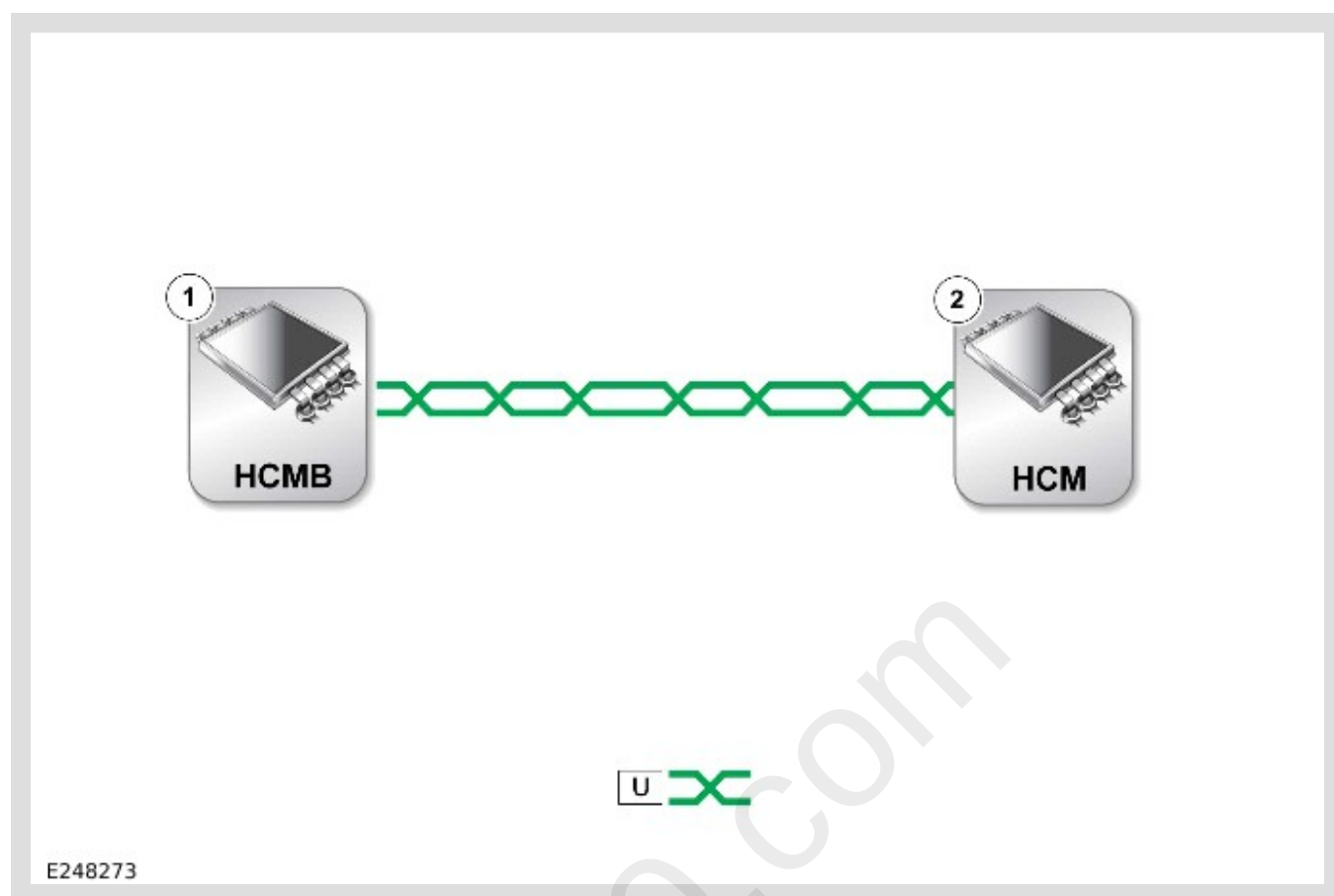
PRIVATE CONTROLLER AREA NETWORK BUS – 3 OF 4 – HVAC CONTROL CIRCUIT



U = PRIVATE CAN BUS.

ITEM	DESCRIPTION
1	HVAC control module
2	FCIM

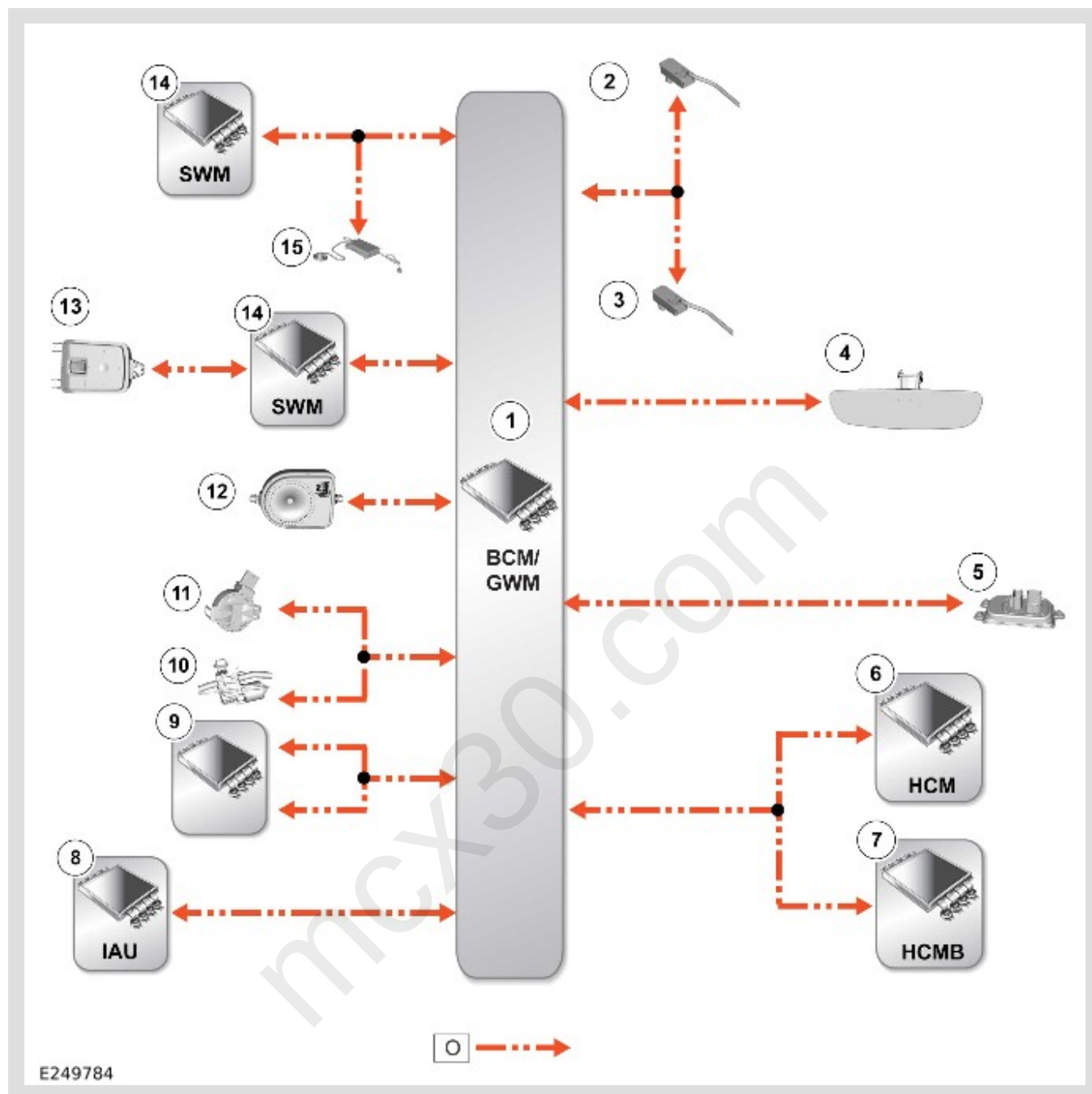
PRIVATE CONTROLLER AREA NETWORK BUS – 4 OF 4 – HEADLAMP CONTROL CIRCUIT



U = PRIVATE CAN BUS.

ITEM	DESCRIPTION
1	HCMB
2	HCM

LOCAL INTERCONNECT NETWORK - 1 OF 11 - BODY CONTROL MODULE/GATEWAY CONTROL MODULE CONTROL CIRCUIT

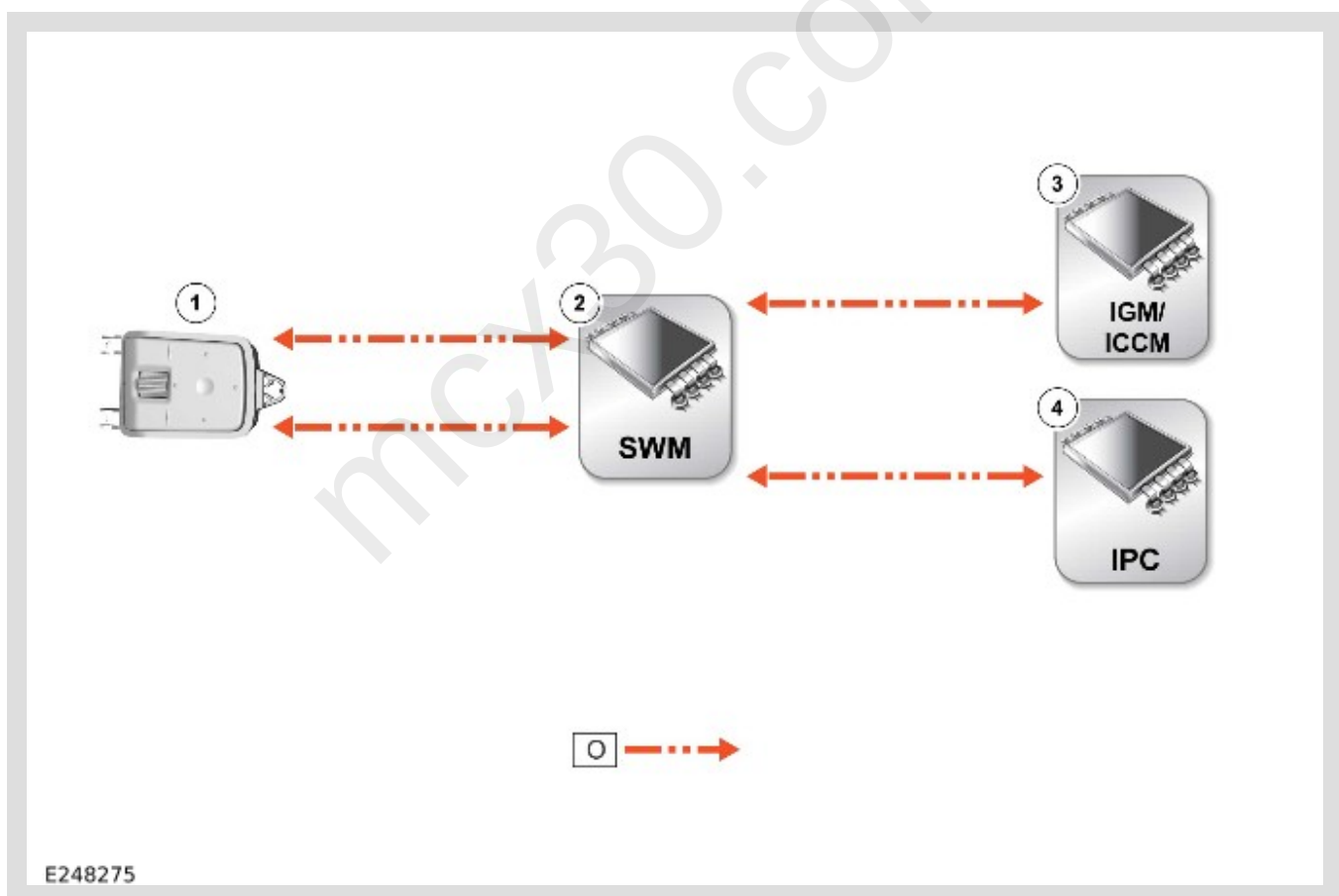


O = LIN.

ITEM	DESCRIPTION
1	BCM/ GWM
2	Ambience lighting Light Emitting Diode (LED) - Instrument panel
3	Ambience lighting LED - Console
4	Rear View Mirror (RVM)
5	VQM

ITEM	DESCRIPTION
6	HCM
7	HCMB
8	Immobilizer Antenna Unit (IAU)
9	Roof opening panel control module (glass roof has 1 node, canvas roof has 2 nodes)
10	Wiper motor - Front window
11	Rain/light sensor
12	Battery Back-Up Sounder (BBUS)
13	Right steering wheel switch
14	SWM
15	Volumetric sensor

LOCAL INTERCONNECT NETWORK - 2 OF 11 - LEFT STEERING WHEEL SWITCH

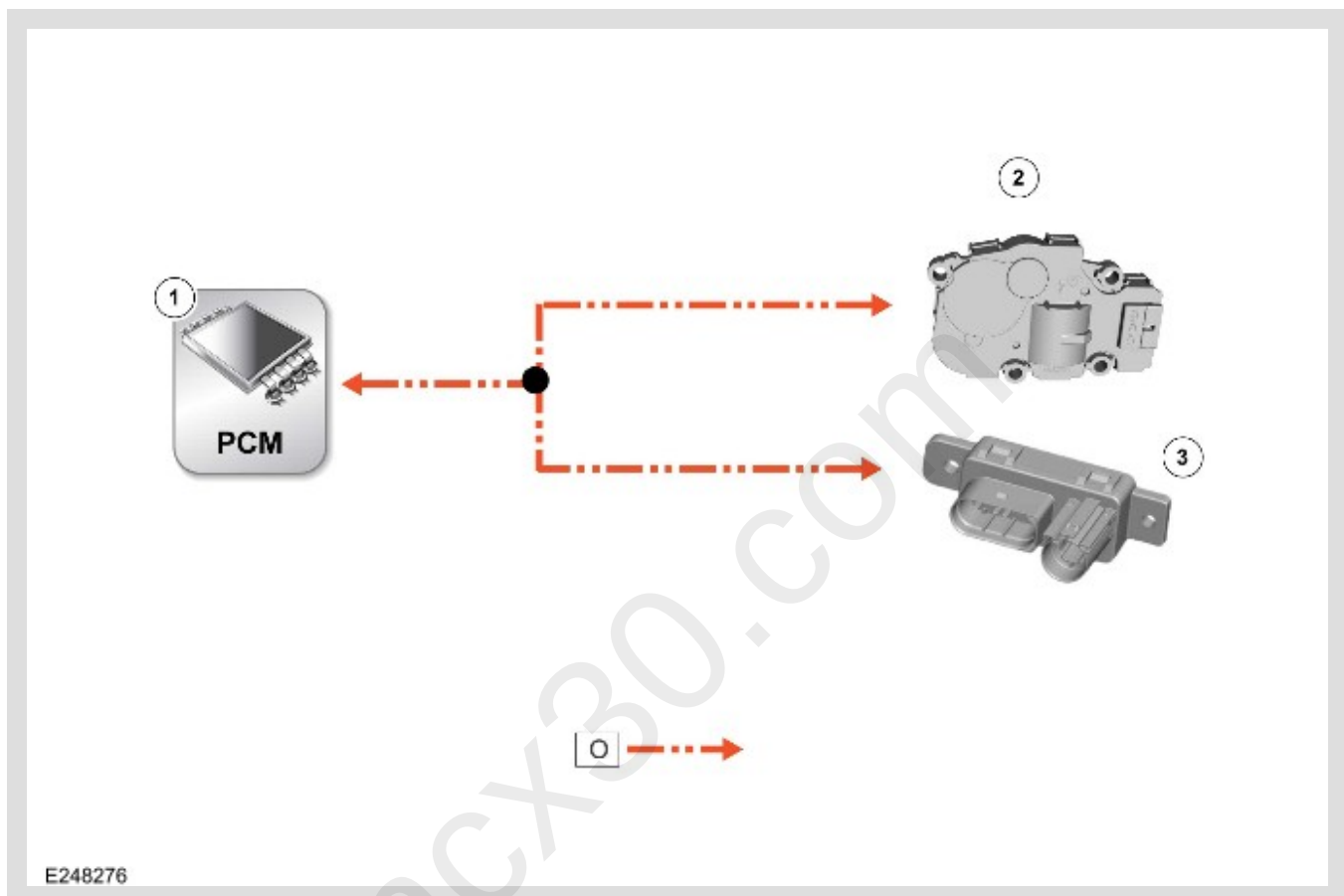


O = LIN.

ITEM	DESCRIPTION
1	Left steering wheel switch

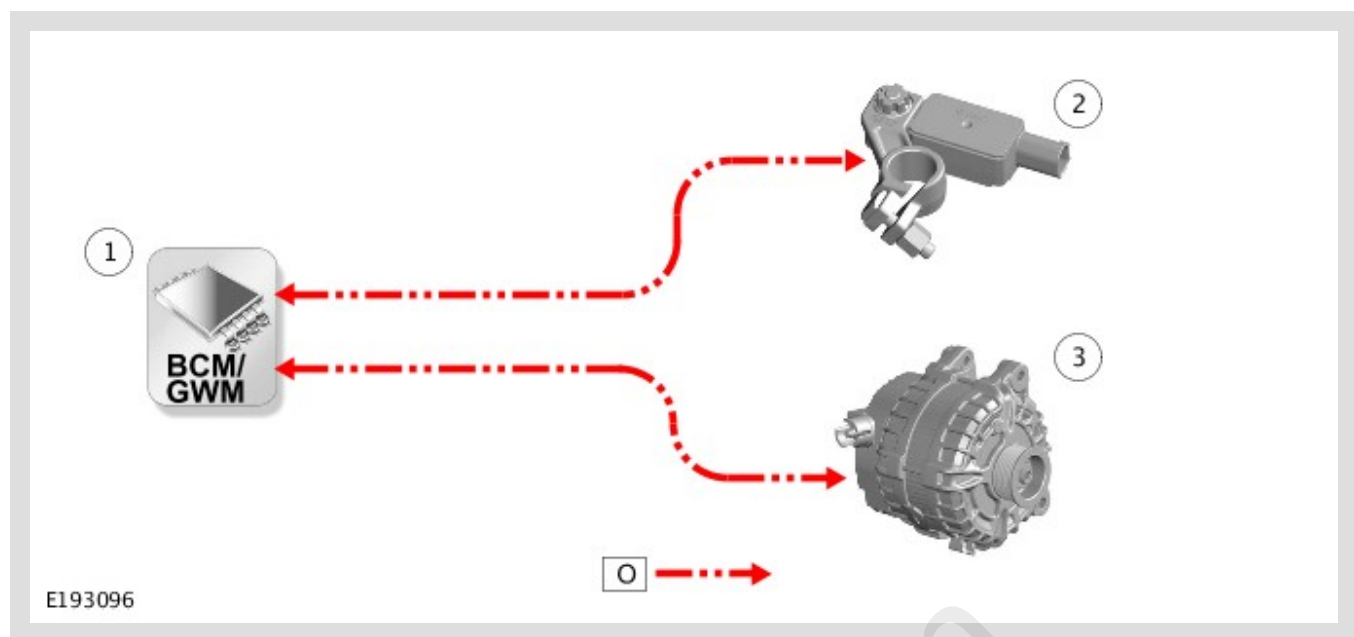
ITEM	DESCRIPTION
2	SWM
3	IGM / ICCM
4	IPC

LOCAL INTERCONNECT NETWORK – 3 OF 11 – POWERTRAIN CONTROL MODULE CONTROL CIRCUIT



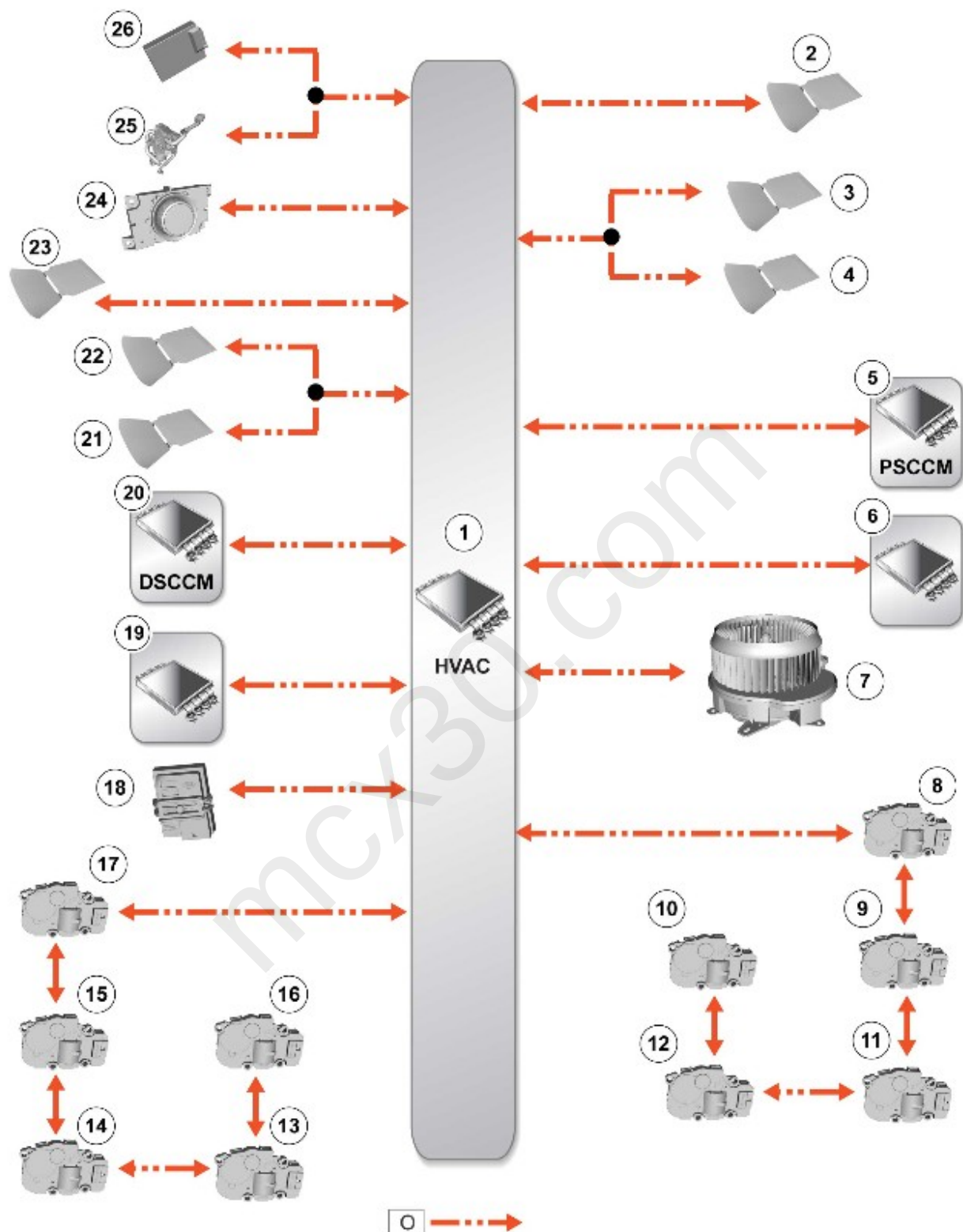
O = LIN.

ITEM	DESCRIPTION
1	PCM
2	Active grille air shutter motor
3	Glow plug control module (diesel vehicles only)



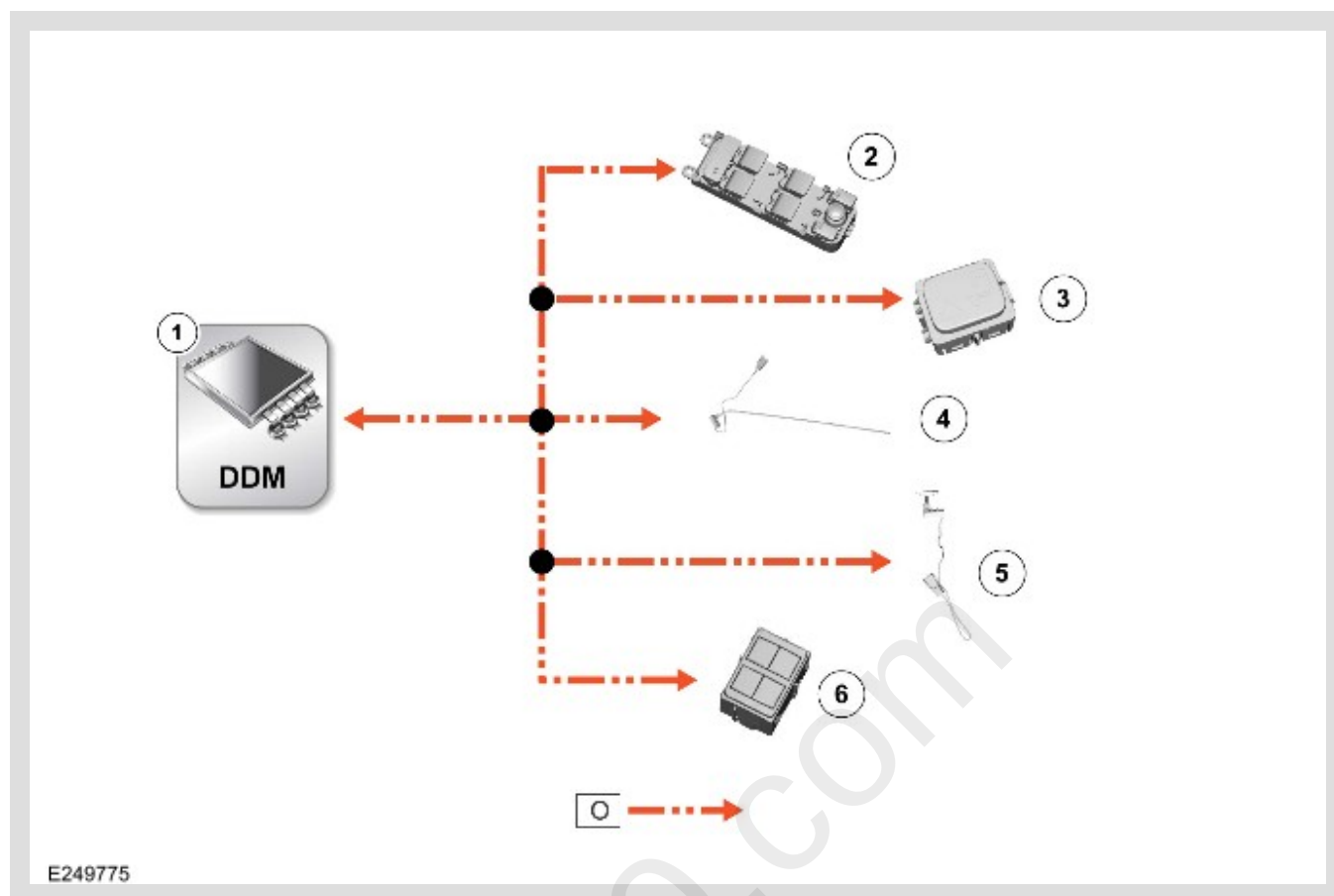
O = LIN.

ITEM	DESCRIPTION
1	BCM/ GWM
2	Battery Monitoring System (BMS) control module
3	Generator



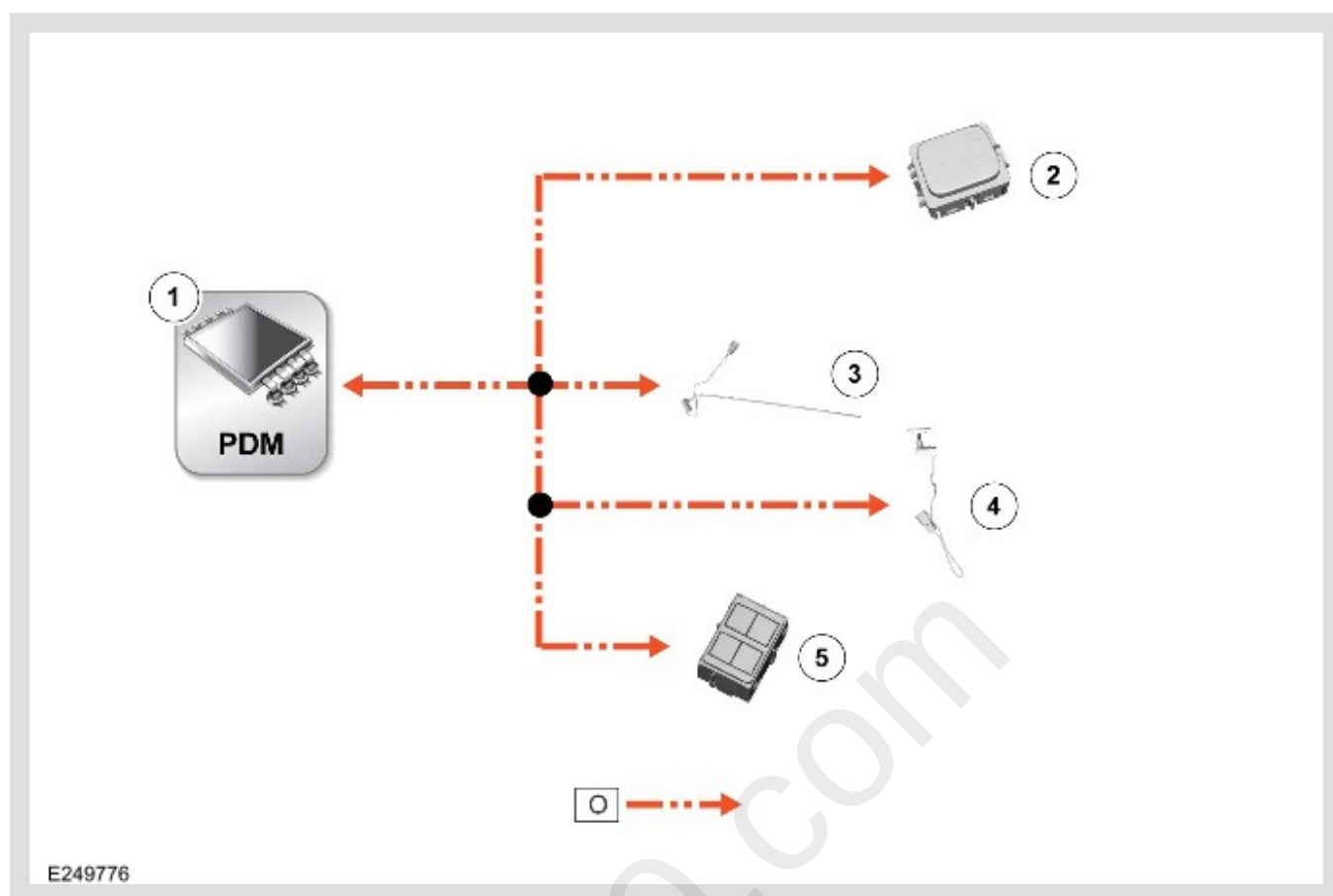
O = LIN.

ITEM	DESCRIPTION
1	HVAC control module
2	Seat heater - Passenger
3	Seat heater - Second row left
4	Seat heater - Third row left
5	PSCCM
6	Rear Seat Climate Control Module (RSCCM) - Left
7	Blower - Front
8	Recirculation motor
9	Cool air bypass motor
10	Distribution motor - Front left
11	Temperature blend motor - Front left
12	Temperature blend motor - Rear left
13	Temperature blend motor - Front right
14	Temperature blend motor - Rear right
15	Auxiliary climate control face/feet motor
16	Distribution motor - Front right
17	Distribution motor - Demist
18	Humidity sensor
19	RSCCM - Right
20	DSCCM
21	Seat heater - Second row right
22	Seat heater - Third row right
23	Seat heater - Driver
24	Auxiliary blower rotary control
25	Fuel Fired Booster Heater Control Module (AHCM)
26	AHCM receiver



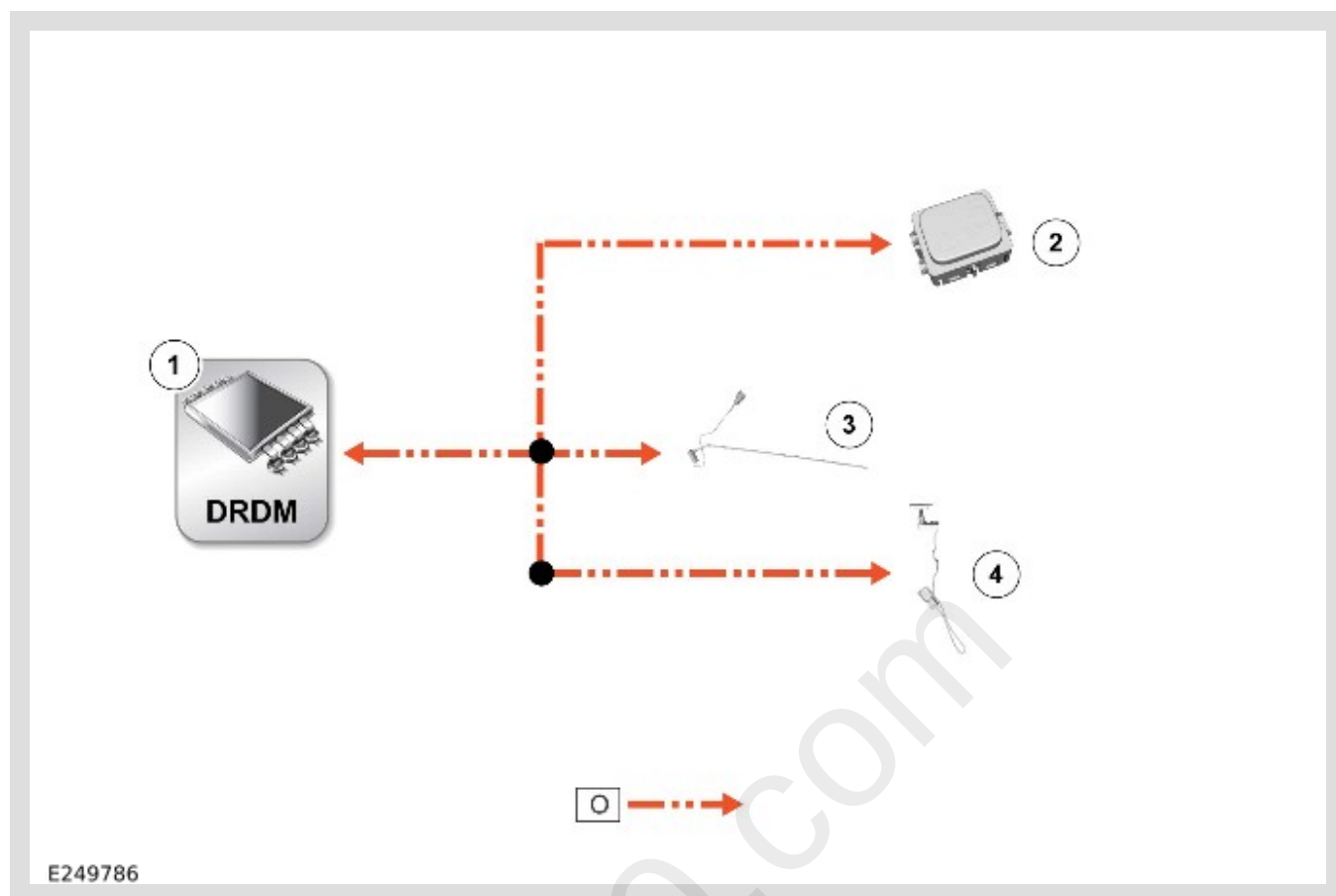
O = LIN.

ITEM	DESCRIPTION
1	DDM
2	Door switchpack - Driver
3	Clear Exit Detection System (CEDS) indicator
4	Ambience lighting LED - Driver door
5	Ambience lighting LED - Driver door handle
6	Seat memory switchpack - Driver



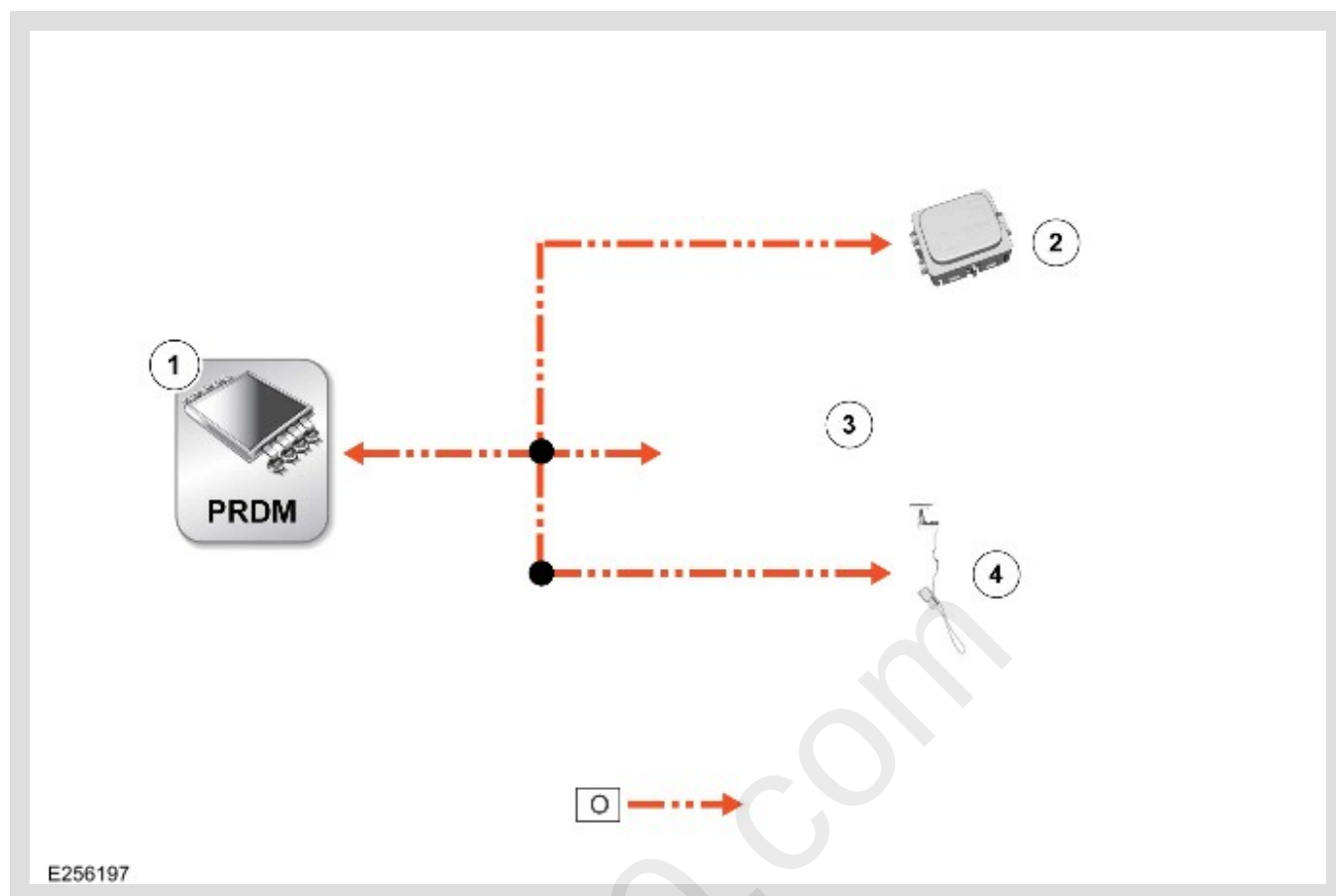
O = LIN.

ITEM	DESCRIPTION
1	PDM
2	CEDS indicator
3	Ambience lighting LED - Passenger door
4	Ambience lighting LED - Passenger door handle
5	Seat memory switchpack - Passenger



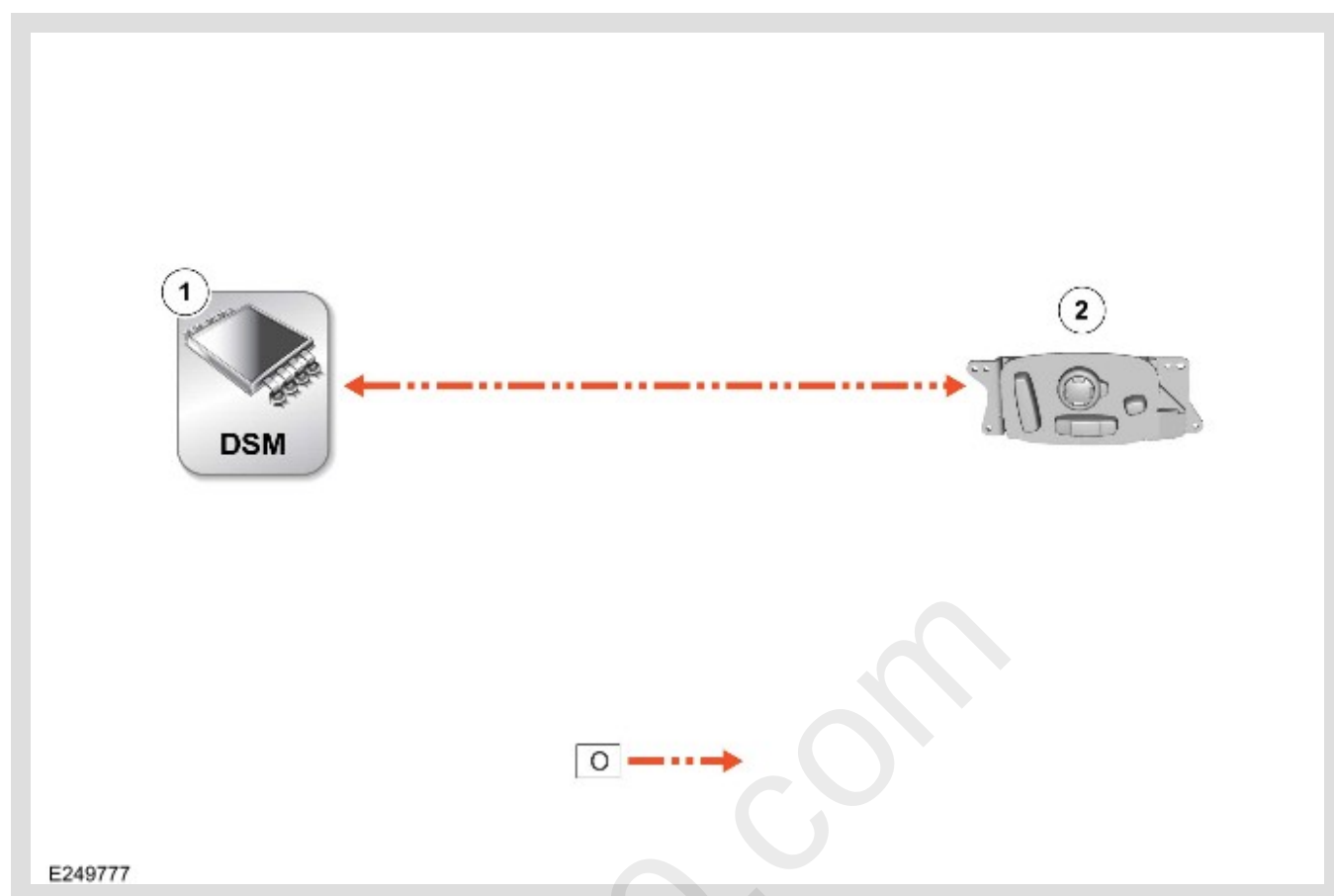
O = LIN.

ITEM	DESCRIPTION
1	DRDM
2	CEDS indicator
3	Ambience lighting LED - Rear right door
4	Ambience lighting LED - Rear right door handle



O = LIN.

ITEM	DESCRIPTION
1	PRDM
2	CEDS indicator
3	Ambience lighting LED - Rear left door
4	Ambience lighting LED - Rear left door handle



O = LIN.

ITEM	DESCRIPTION
1	DSM
2	Seat switchpack - Driver

ITEM	DESCRIPTION
1	PSM
2	Seat switchpack - Passenger