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WARNING DEVICES (G2342531)

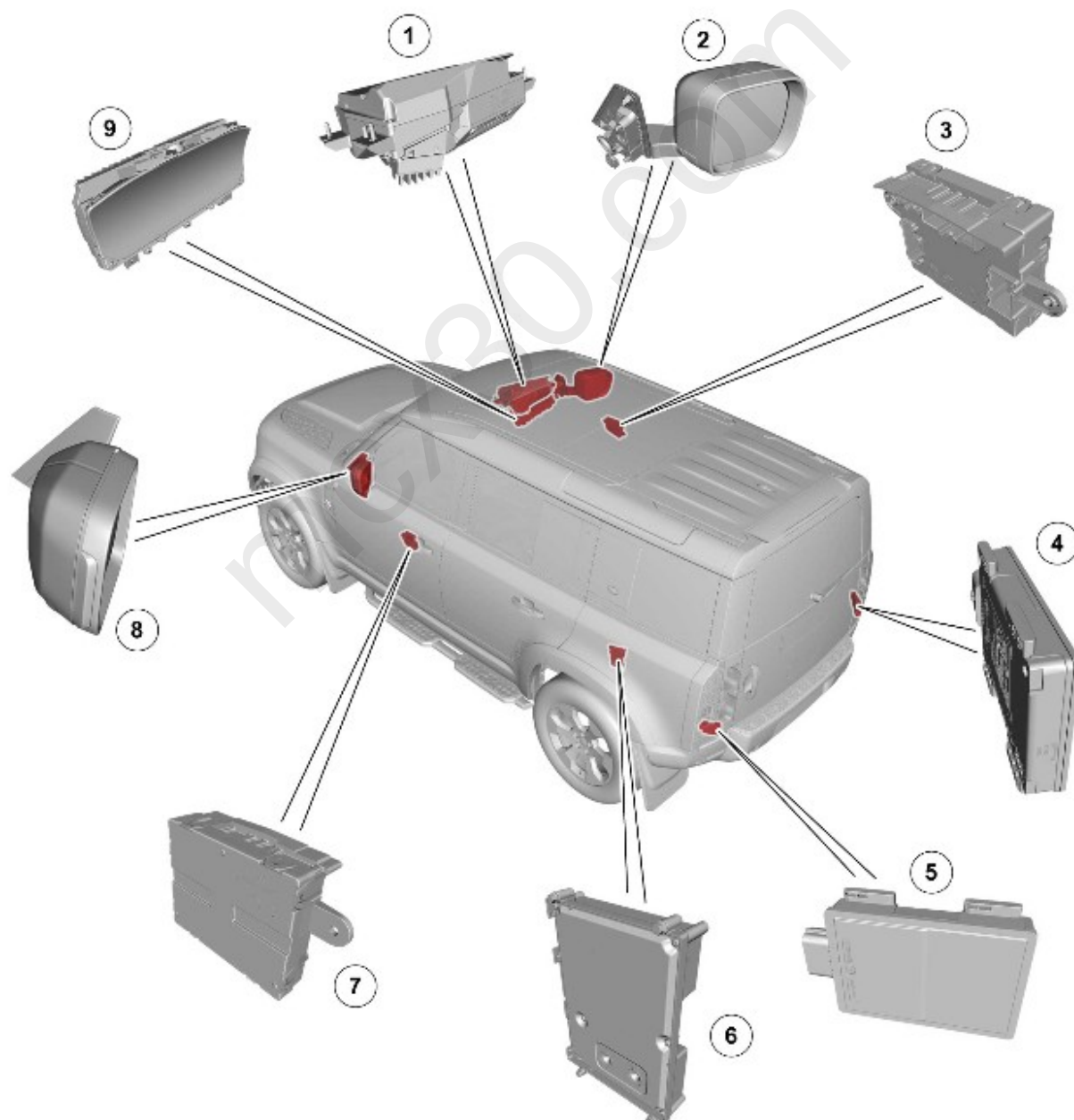
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COMPONENT LOCATION

COMPONENT LOCATION - 1 OF 6 - BLIND SPOT ASSIST

 NOTES:

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



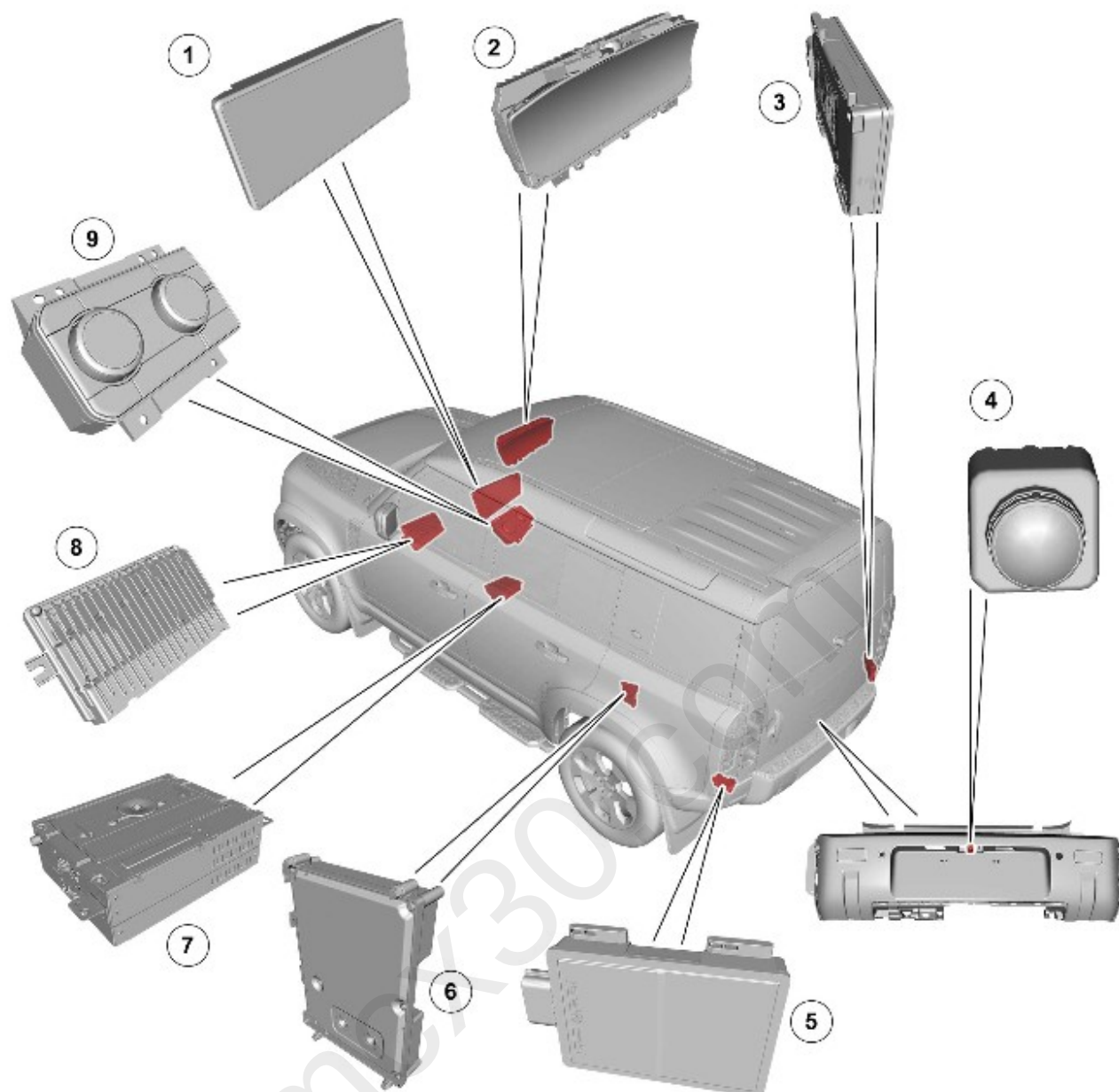
ITEM	DESCRIPTION
1	Head Up Display (HUD)
2	Approaching vehicle lamp - Right door mirror
3	Driver Door Control Module (DDM)
4	Side Obstacle Detection Control Module - Right (SODR)
5	Side Obstacle Detection Control Module - Left (SODL)
6	Audio Amplifier Control Module (AAM)
7	Passenger Door Control Module (PDM)
8	Approaching vehicle lamp - Left door mirror
9	Instrument Panel Cluster (IPC)

COMPONENT LOCATION - 2 OF 6 - REVERSE TRAFFIC DETECTION



NOTES:

- Vehicle with 5 doors is shown, vehicle with 3 doors is similar.
- RHD vehicle is shown, LHD vehicle is similar.



E247701

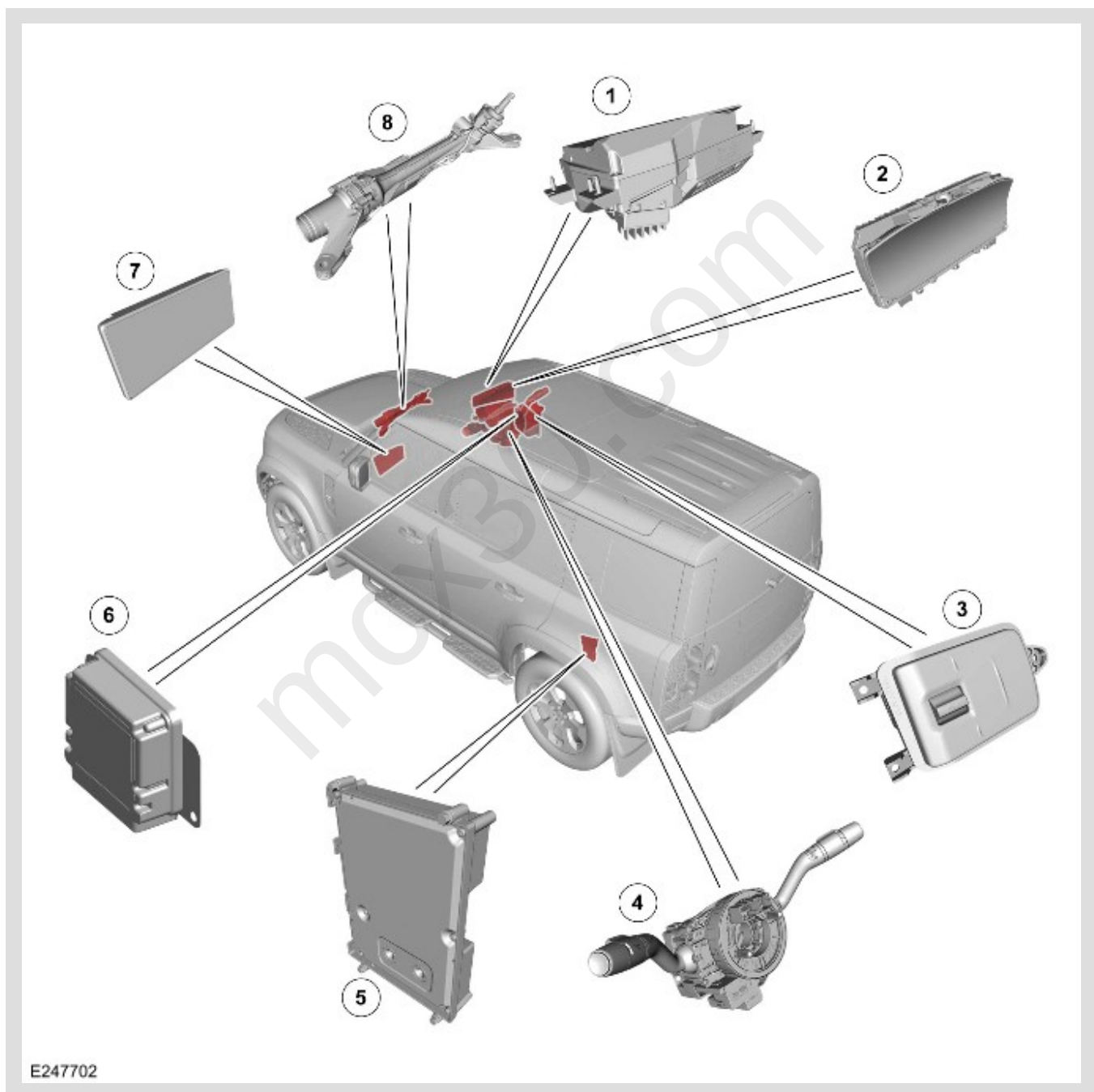
ITEM	DESCRIPTION
1	Touchscreen (TS)
2	IPC
3	SODR
4	Rear view camera
5	SODL
6	AAM
7	Front Infotainment Control Module (IGM / ICCM)
8	Near Field Sensing Module (NFSM)

ITEM	DESCRIPTION
9	Integrated Control Panel (FCIM)

COMPONENT LOCATION - 3 OF 6 - LANE KEEP ASSIST

NOTES:

- Vehicle with 5 doors is shown, vehicle with 3 doors is similar.
- RHD vehicle is shown, LHD vehicle is similar.



ITEM	DESCRIPTION
1	HUD

ITEM	DESCRIPTION
2	IPC
3	Steering wheel switch - Right
4	Steering Wheel Module (SWM)
5	AAM
6	Driver Assistance Domain Controller (DADC)
7	TS
8	Power Steering Control Module (PSCM)

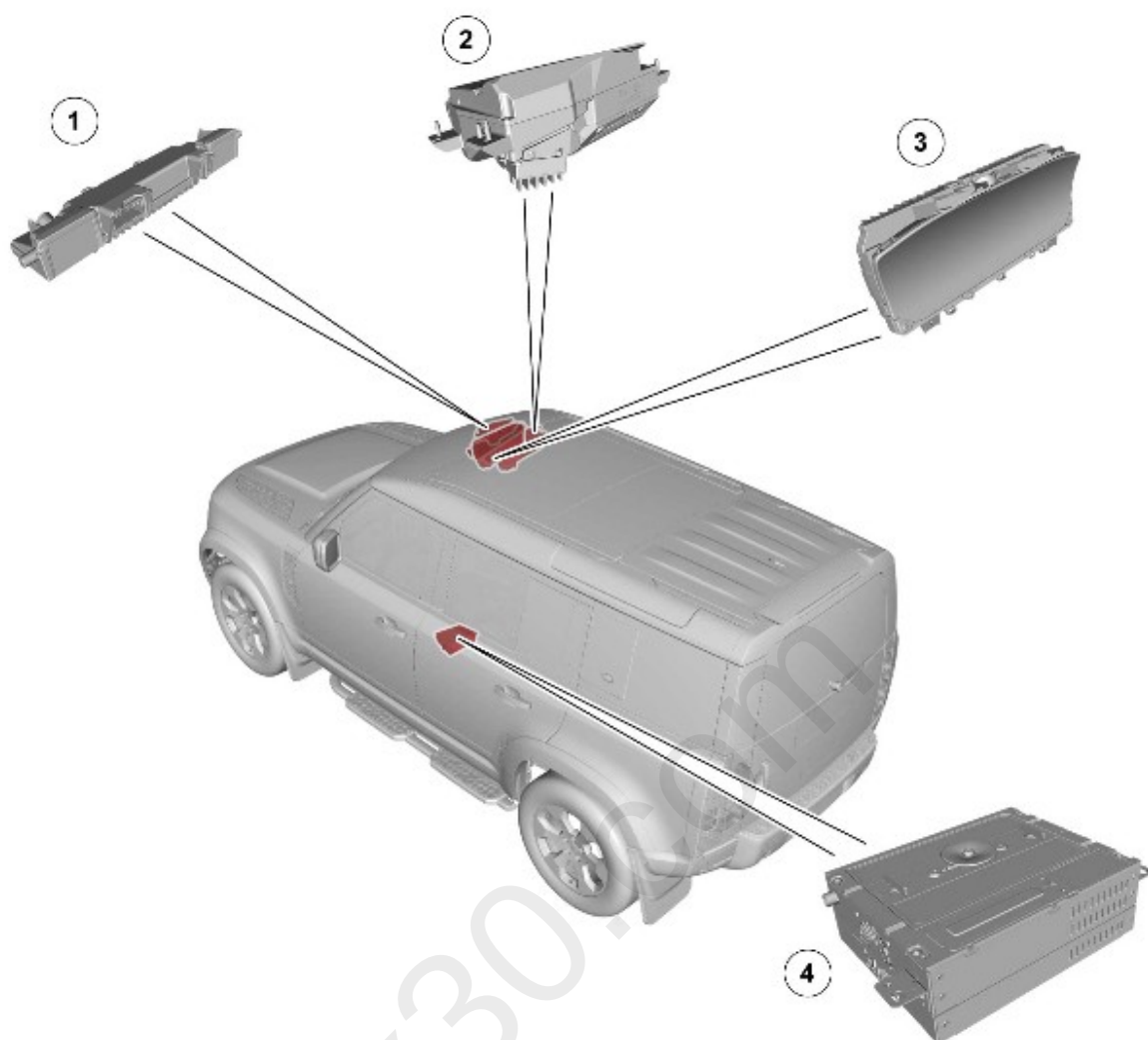
COMPONENT LOCATION - 4 OF 6 - TRAFFIC SIGN RECOGNITION



NOTES:

- Vehicle with 5 doors is shown, vehicle with 3 doors is similar.
- RHD vehicle is shown, LHD vehicle is similar.

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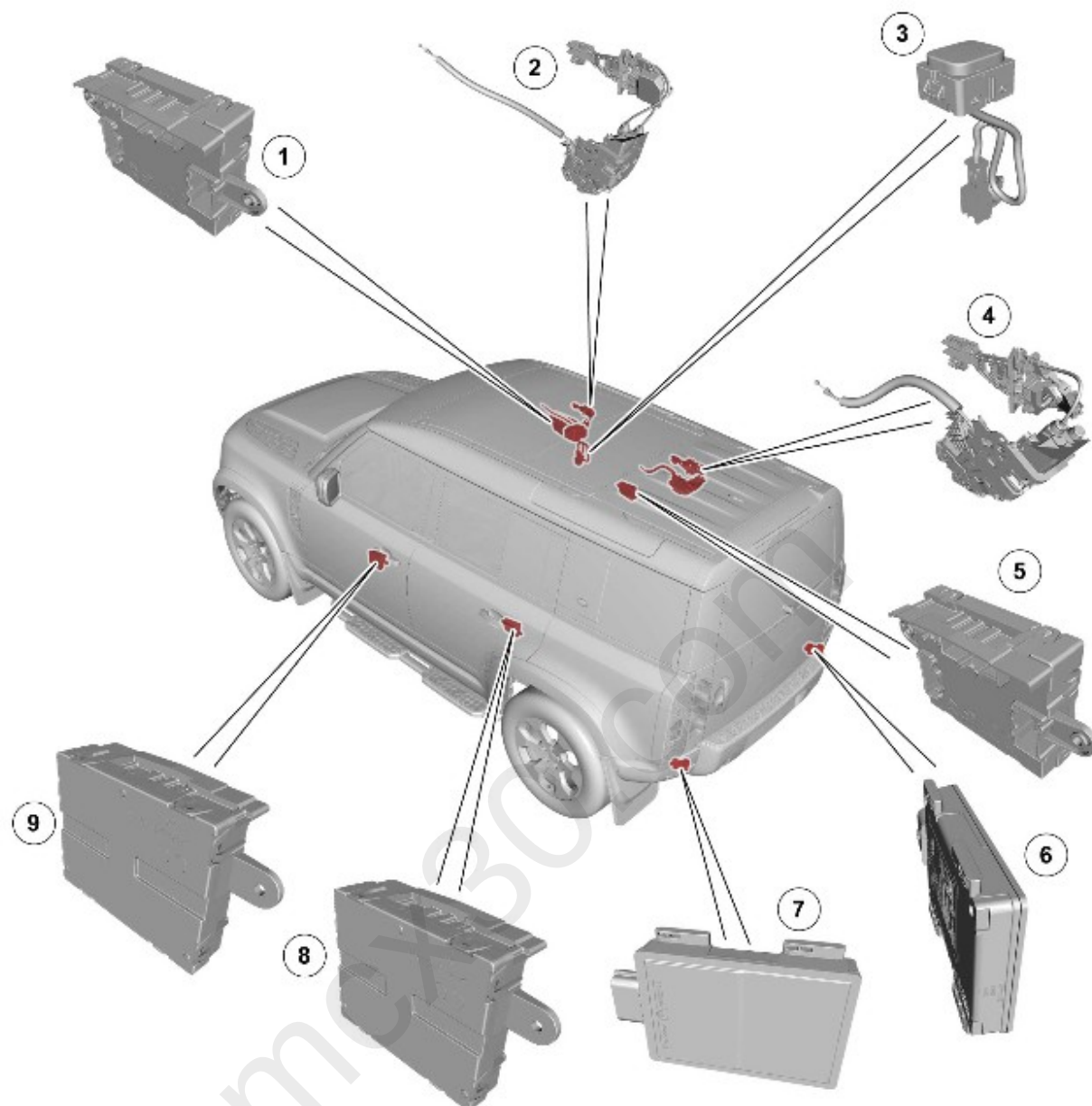
E247703

ITEM	DESCRIPTION
1	Image Processing Module 'A' (IPMA)
2	HUD
3	IPC
4	IGM / ICCM

COMPONENT LOCATION - 5 OF 6 - CLEAR EXIT DETECTION SYSTEM

NOTES:

- Vehicle with 5 doors is shown, vehicle with 3 doors is similar.
- RHD vehicle is shown, LHD vehicle is similar.



E247704

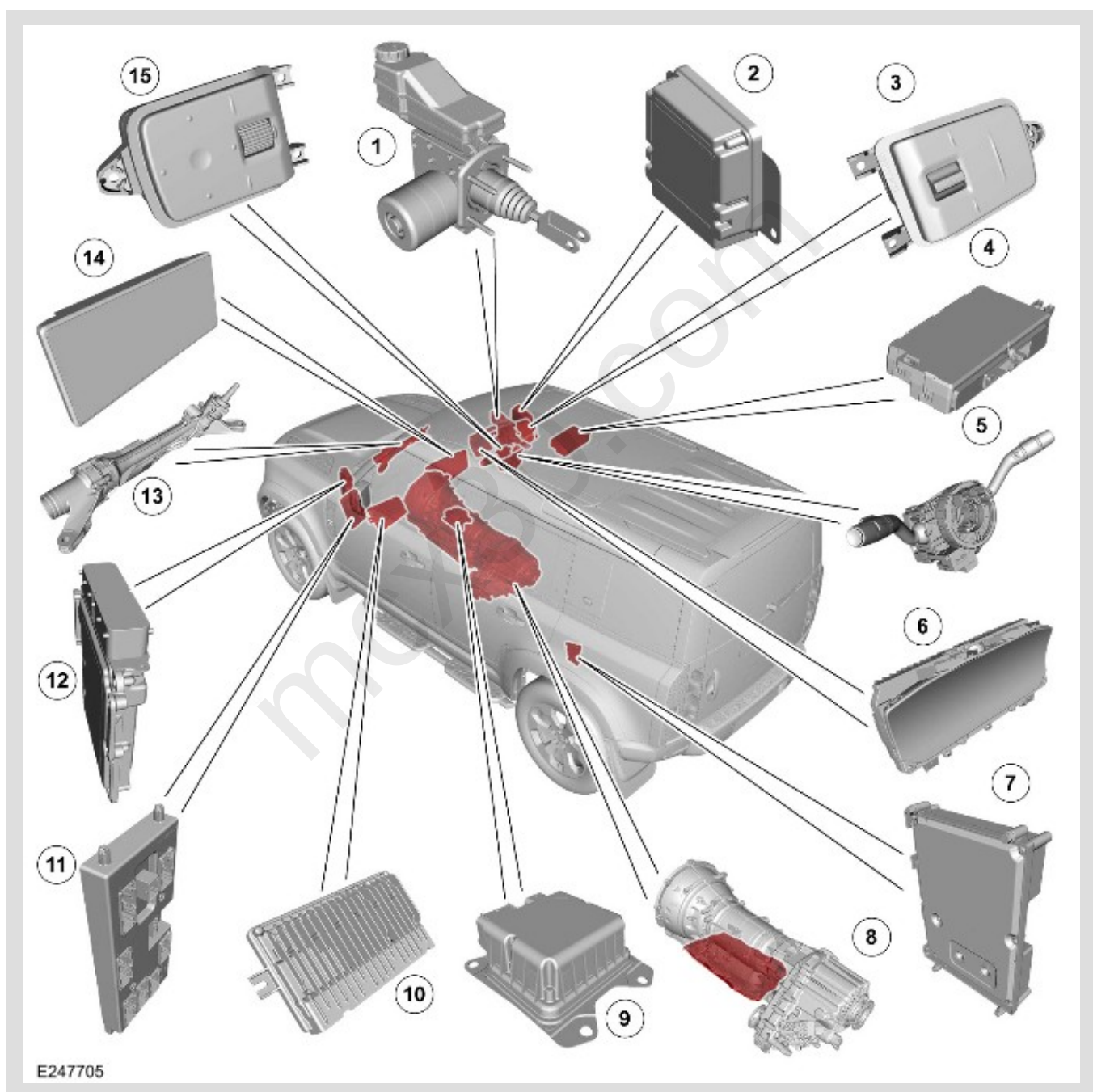
ITEM	DESCRIPTION
1	DDM
2	Front door ajar switch (quantity 2)
3	Clear Exit Detection System (CEDS) Light Emitting Diode (LED) indicator (quantity 4) (If equipped)
4	Rear door ajar switch (quantity 2) (If equipped)
5	Driver Rear Door Module (DRDM)
6	SODR
7	SODL
8	Passenger Rear Door Module (PRDM)

ITEM	DESCRIPTION
9	PDM

COMPONENT LOCATION - 6 OF 6 - DRIVER CONDITION MONITOR

NOTES:

- Vehicle with 5 doors is shown, vehicle with 3 doors is similar.
- RHD vehicle is shown, LHD vehicle is similar.



ITEM	DESCRIPTION
1	Integrated power brake

ITEM	DESCRIPTION
2	DADC
3	Steering wheel switch - Right
4	Seat Module - Driver/Passenger/Rear - Left/Right (DSM)
5	SWM
6	IPC
7	AAM
8	Transmission Control Module (TCM)
9	Restraints Control Module (RCM)
10	NFSM
11	Body Control Module (BCM)/ Gateway Control Module (GWM)
12	Powertrain Control Module (PCM)
13	PSCM
14	TS
15	Steering wheel switch - Left

OVERVIEW

BLIND SPOT ASSIST



WARNING:

The blind spot assist system is a driver aid and not a safety device. The driver must always exercise due care and attention while driving.

The blind spot assist is an enhancement to the following features:

- Blind Spot Monitoring (BSM)
 - To help the driver to safely crossover in moving traffic and default ON.
- Approaching Vehicle Sensing (AVS).
 - To view a larger area to the rear of the vehicle. AVS warns the driver that a vehicle is approaching but is not in the blind spot area.

The blind spot assist is designed to help prevent a collision. If the system detects a vehicle and the driver attempts to change lane, a counter torque is applied to the steering. The system is designed to guide the vehicle away from the approaching vehicle.

LANE KEEP ASSIST SYSTEM



WARNING:

The Lane Keep Assist (LKA) system is designed as a driver aid not a safety device. The driver must always exercise due care and attention while driving.

The LKA helps the driver to keep the vehicle in the current road lane by applying a gentle steering wheel torque. The LKA only applies this torque when the vehicle unintentionally drifts out of the road lane.

The DADC and Electric Power Assisted Steering (EPAS) components determine the trajectory of the host vehicle to pull back parallel to the lane to avoid:

- Crossing the lane.
- Road edge.
- An oncoming vehicle in the adjacent lane.

The Emergency Lane Keep Assist (ELKA) system is the sub system which belongs to LKA.

REVERSE TRAFFIC DETECTION

The Reverse Traffic Detection is split into 2 features:

- **Rear Traffic Warning**
 - The feature detects cross traffic moving target objects from speeds of approximately 5 km/h (3 mph) up to 55 km/h (34 mph).
 - If activated, the TS displays the collision impact alert icon on the relevant side(s) of the screen. The collision impact alert icon informs the driver the vehicle is about to reverse into the path of a moving object.
 - If a detected object is calculated to be a collision threat, it is displayed as red colored blocks.
 - An audible warning also sounds when collision threat is detected.
- **Rear Traffic Braking**
 - In the event of an imminent collision, the feature applies the brakes to try and prevent an accident. All emergency braking warnings are displayed through the IPC.

REAR PROTECTION MONITOR

The rear protection monitor system helps identify any potential collision risks from the rear of the vehicle. The system:

- Monitors an area of approximately 80 meters behind the vehicle for threats from other vehicles that are approaching the rear at high speeds.
- Warns the driver of the vehicle approaching behind, of any potential collision by flashing the hazard warning lamp rapidly.
- The default mode is ON and the driver cannot switch the system OFF.

CLEAR EXIT DETECTION SYSTEM



WARNING:

Clear exit monitor is a user aid only. The user is responsible for making sure that the door is opened with necessary care and attention. The user must make sure the door is opened in a manner which is safe for the vehicle, its occupants, and other road users. Failure to operate the doors in a safe manner could lead to serious injury or death.

Clear exit monitor warns of a possible threat when opening any door from the inside. Sensors in the rear bumper monitor nearby traffic and determine if opening a door could pose a threat.

DRIVER CONDITION MONITOR



WARNING:

The feature default setting is ON, and always returns to the default setting after every ignition cycle.

The feature continuously evaluates driving technique for signs of fatigue. The feature determines fatigue in 2 levels:

- Fatigued
- Highly fatigued.

TRAFFIC SIGN RECOGNITION SYSTEM



NOTE:

A reduced speed limit is also displayed if an approved Jaguar Land Rover (JLR) trailer socket is connected to the vehicle.

The traffic sign recognition system uses a forward facing camera located above the rear view mirror and the vehicle navigation map data.

The camera detects:

- Speed signs
- No over-taking signs
- Variable overhead speed signs
- Pedestrian and children warning signs.

SPEED LIMITER



NOTE:

Speed limiters are not available when cruise control or adaptive cruise control is in operation. When the vehicle is first switched ON, the vehicle reverts to whichever system was used previously.

The speed limiter allows the driver to manually restrict the maximum vehicle speed. When a maximum speed limit is set, the vehicle responds normally until the set speed is approached. At this point, the vehicle stops accelerating.

The adaptive speed limiter works in conjunction with the traffic sign recognition system and the navigation system to restrict the maximum vehicle speed. If the system cannot determine a valid maximum speed, the last known set speed limit is used.

CRUISE CONTROL



NOTE:

- Do not use cruise control when driving off-road.
- The cruise control cancels if the accelerator pedal is pressed to override the system for more than 1 minute.

Cruise control allows the vehicle to automatically maintain a set vehicle speed. The cruise control switch installed on the steering wheel is used to operate the system. The driver can also intervene, at any time, by using the brake or accelerator pedals.

ADAPTIVE CRUISE CONTROL OVERVIEW



NOTE:

- The adaptive cruise control system illuminates the brake lights when it applies the brakes. A noise may also be heard.
- The adaptive cruise control is not available when the speed limiter is in operation. When the vehicle is first switched ON, the vehicle reverts to whichever system was used previously.

The adaptive cruise control allows the driver to set a cruising speed for the vehicle. The vehicle speed is automatically reduced if a slower moving vehicle is detected in the lane ahead. The system then maintains a constant gap to the vehicle ahead. If the system detects that the slower moving vehicle is no longer present, it automatically raises the vehicle speed back to the set speed. In some scenarios, adaptive cruise control also brings the vehicle to a standstill, if required.

AUTONOMOUS EMERGENCY BRAKING



WARNING:

If Autonomous Emergency Braking (AEB) brings the vehicle to a stop, the brakes continue to hold the vehicle stationary for a few seconds. After this period, the driver must resume full control of the vehicle. Failure to take back full control of the vehicle could result in an accident, leading to serious injury or death.



NOTE:

Not all vehicles are equipped with AEB.

The AEB uses the forward facing camera located above the rear view mirror and forward facing radars located on the front bumper. The camera and radars are used to help identify an imminent risk of collision with:

- Another vehicle traveling in front.
- An oncoming vehicle from an adjacent lane while the host vehicle is turning left or right.
- A crossing pedestrian.
- A pedestrian moving in the same direction as the vehicle.
- An oncoming pedestrian from the opposite direction while the host vehicle is turning left or right.
- A crossing cyclist.
- A cyclist traveling in the same direction as the vehicle.
- An oncoming cyclist from the opposite direction while the host vehicle is turning left or right.

For additional information, refer to: [Speed Control](#) (310-03A Speed Control - INGENIUM I4 2.0L Petrol/INGENIUM I4 2.0L Petrol - PHEV, Description and Operation).

For additional information, refer to: [Speed Control](#) (310-03B Speed Control - INGENIUM I6 3.0L Petrol, Description and Operation).

For additional information, refer to: [Speed Control](#) (310-03C Speed Control - INGENIUM I4 2.0L Diesel, Description and Operation).

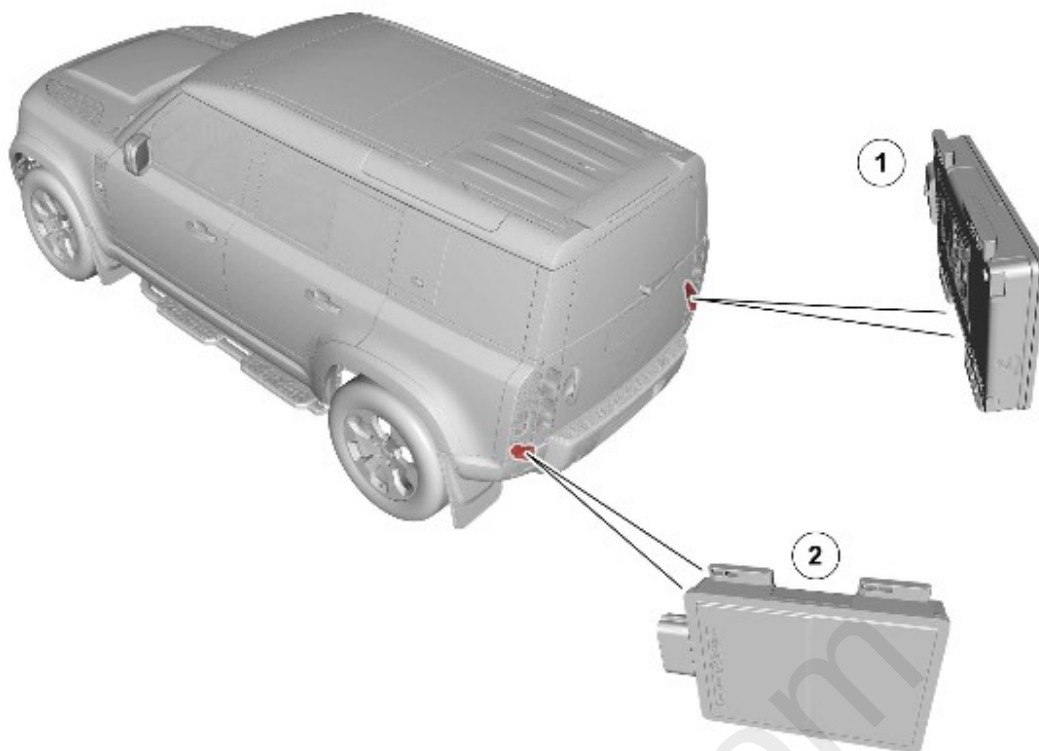
DESCRIPTION

SIDE OBSTACLE DETECTION CONTROL MODULE



NOTE:

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



E247706

ITEM	DESCRIPTION
1	SODR
2	SODL

There are 2 side obstacle detection control modules installed in the corner of the rear bumper, 1 on each side.

The SODR has the following connections:

- Power
- Ground
- High Speed (HS) Controller Area Network (CAN) Underbody (UN) systems bus
- Private CAN bus.

The SODL does not have a HS CAN UN systems bus connection.

The SODR and SODL exchange data on the private CAN bus. The SODR communicates the data on the HS CAN UN systems bus to the BCM/ GWM.

The following systems are hosted in SODL/ SODR:

- BSM

- The blind spot monitoring system monitors an area adjacent to the vehicle.
- Reverse Traffic Detection
 - The rear traffic detection feature assists the driver when carrying out a reversing maneuver.
- Rear protection monitor.
 - The rear protection monitor system helps identify any potential collision risks from the rear of the vehicle.

They are incorporated in each of the SODL/ SODR and are connected by a Private CAN bus to exchange information.

Each SODL/ SODR does an auto-alignment self-check every time when in use. The auto-alignment self-check can take up to an hour in some environments. However the BSM continues to operate as normal.

The SODR receives vehicle speed on the HS CAN UN systems bus.

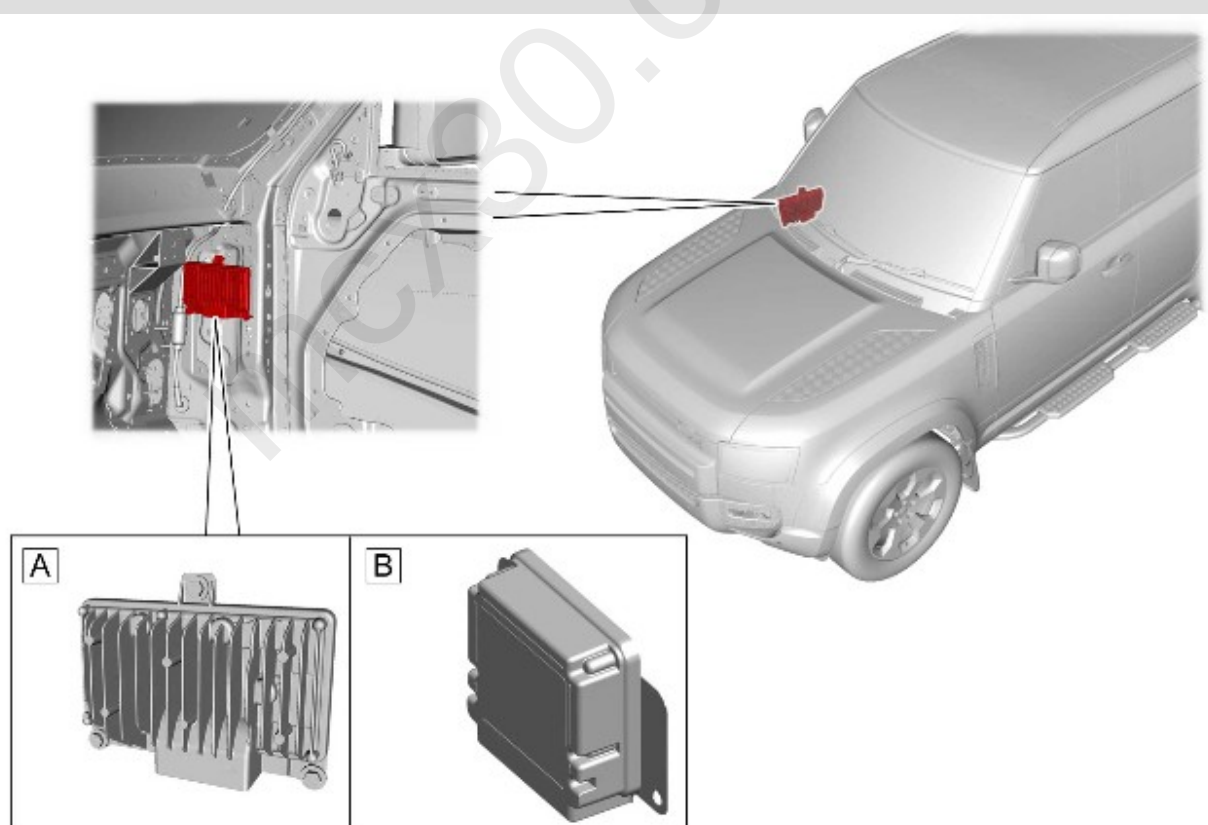
DRIVER ASSISTANCE DOMAIN CONTROLLER

NOTE:

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

RHD vehicle is shown, LHD vehicle is similar.

The DADC 'A' is not available on L663 20MY.



E259178

ITEM	DESCRIPTION
A	DADC 'A'

ITEM	DESCRIPTION
B	DADC 'B'

The DADC is located behind the right of the instrument panel.

The following features are hosted in DADC:

- LKA
- Blind Spot Assist.
- Speed Limiter
- Adaptive Speed Limiter
- Cruise Control
- Adaptive Cruise Control
- Traffic Sign Recognition and many others.

For additional information, refer to: [Speed Control](#) (310-03A Speed Control - INGENIUM I4 2.0L Petrol/INGENIUM I4 2.0L Petrol - PHEV, Description and Operation).

For additional information, refer to: [Speed Control](#) (310-03B Speed Control - INGENIUM I6 3.0L Petrol, Description and Operation).

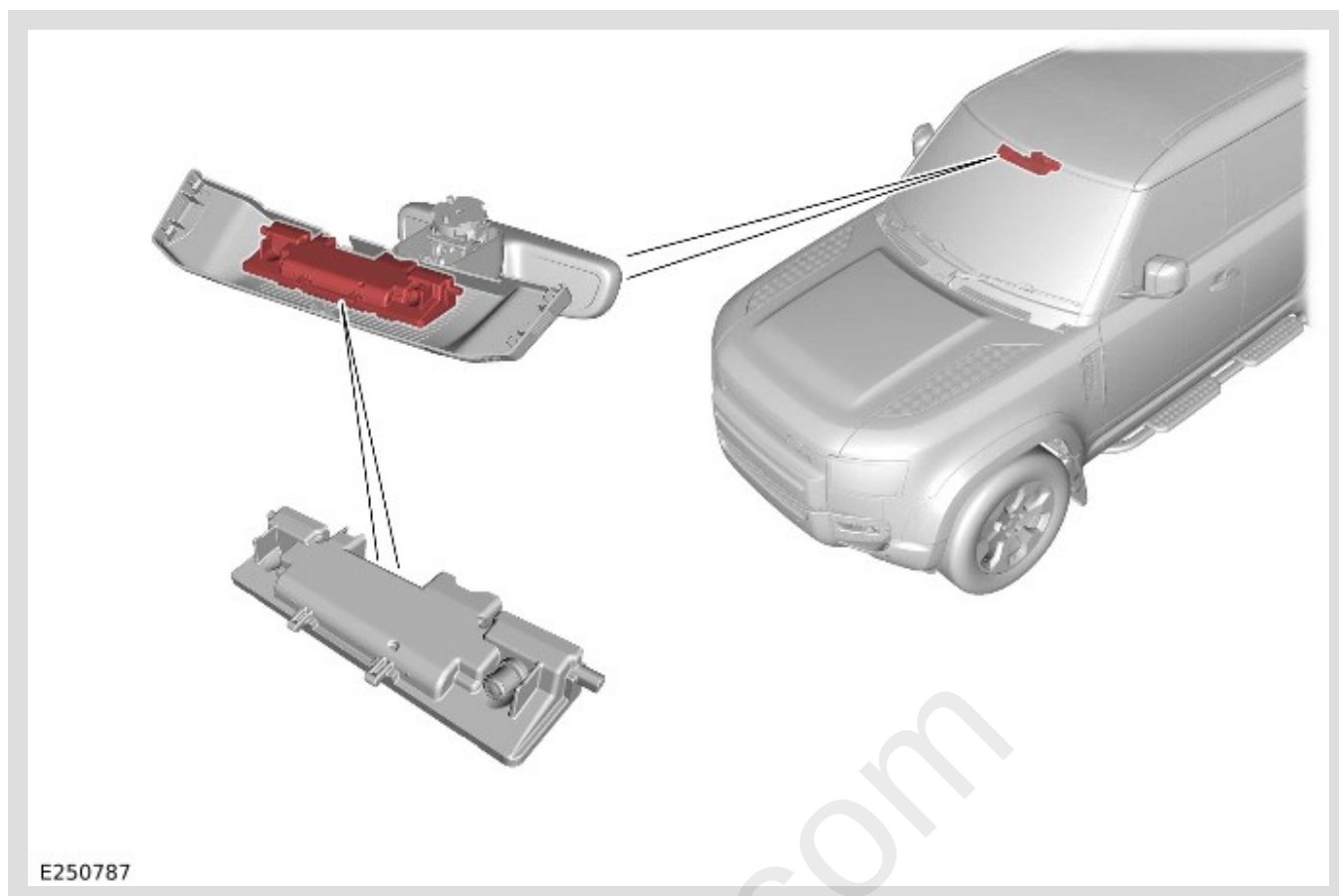
For additional information, refer to: [Speed Control](#) (310-03C Speed Control - INGENIUM I4 2.0L Diesel, Description and Operation).

IMAGE PROCESSING MODULE 'A'



NOTE:

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



The IPMA is located above the rear view mirror.

The IPMA has 1 forward facing camera. The IPMA receives an ignition supply from the Engine Junction Box (EJB). Information can be exchanged from the IPMA through an ETHERNET connection to the GWM which then re-directs the necessary signals to each ECU. The IPMA is also connected to the HS CAN UN system from which it receives necessary information to compute object detection correctly.

For additional information, refer to: [Speed Control](#) (310-03A Speed Control - INGENIUM I4 2.0L Petrol/INGENIUM I4 2.0L Petrol - PHEV, Description and Operation).

For additional information, refer to: [Speed Control](#) (310-03B Speed Control - INGENIUM I6 3.0L Petrol, Description and Operation).

For additional information, refer to: [Speed Control](#) (310-03C Speed Control - INGENIUM I4 2.0L Diesel, Description and Operation).

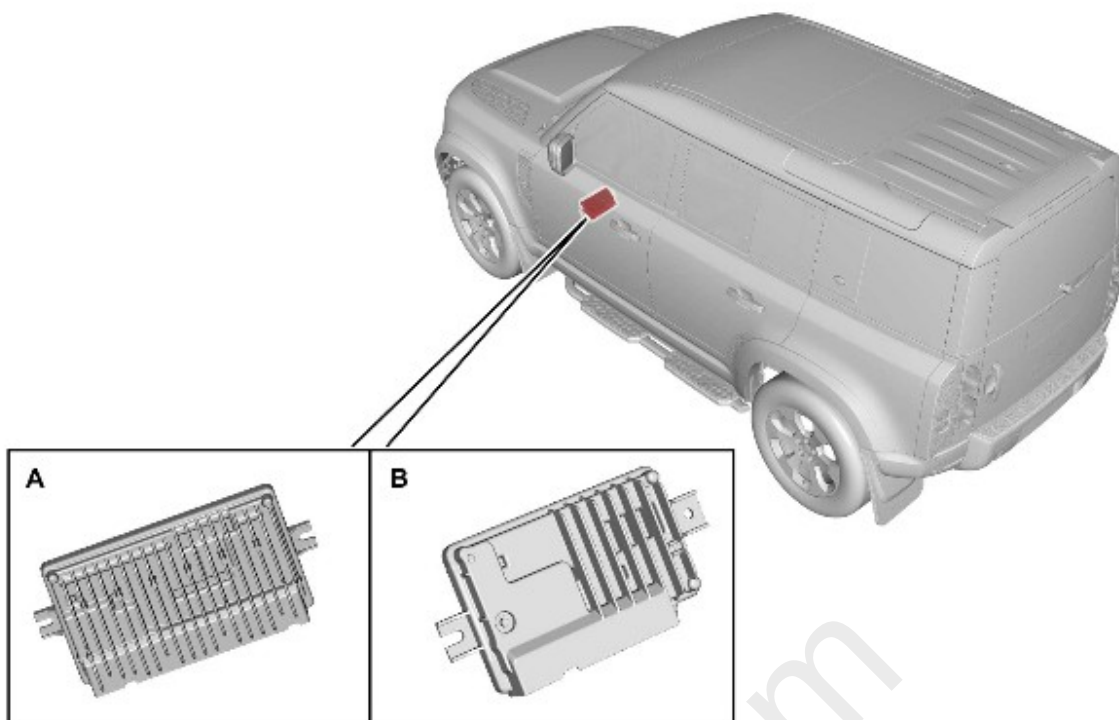
NEAR FIELD SENSING MODULE AND NEAR FIELD SENSING MODULE 'B'

NOTE:

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

RHD vehicle is shown, LHD vehicle is similar.

The NFSM 'B' is not available on L663 20MY.



E249819

ITEM	DESCRIPTION
A	NFSM
B	NFSM 'B'

The NFSM/ NFSM 'B' is located below the instrument panel. The NFSM is equipped on vehicles with a proximity camera system, the NFSM 'B' is equipped on vehicles with a rear view camera system.

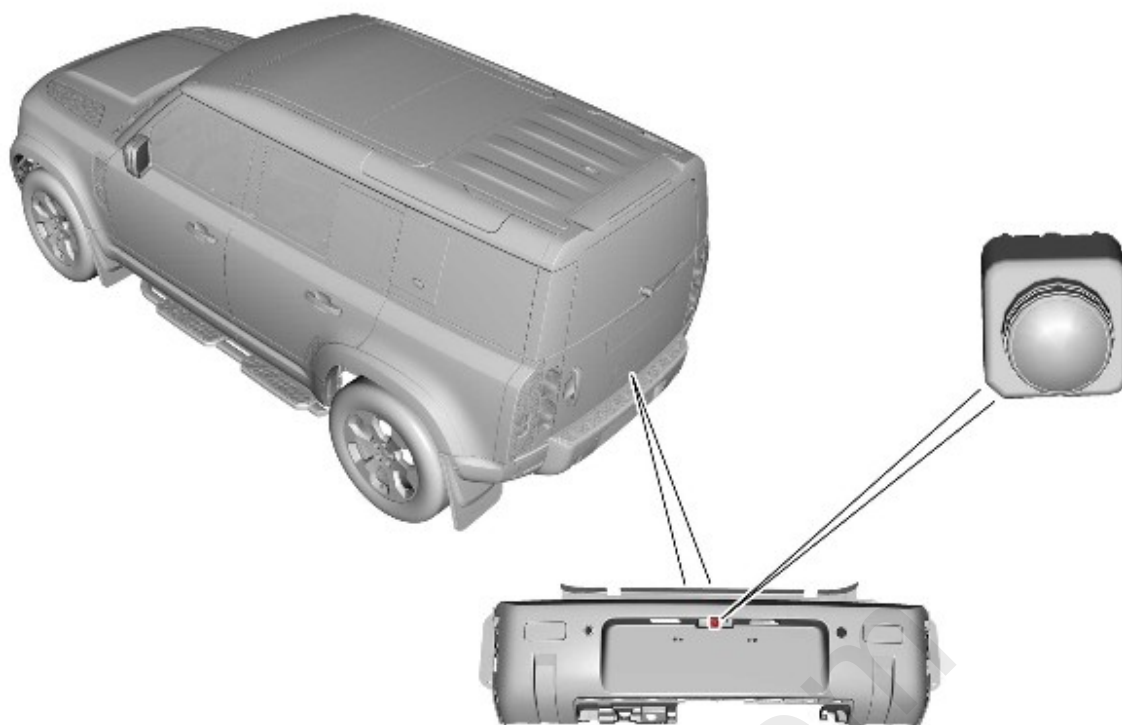
For additional information, refer to: [Parking Aid](#) (413-13 Parking Aid, Description and Operation).

REAR VIEW CAMERA



NOTE:

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



E247713

The rear view camera is located in the center of the rear bumper, above the license plate.

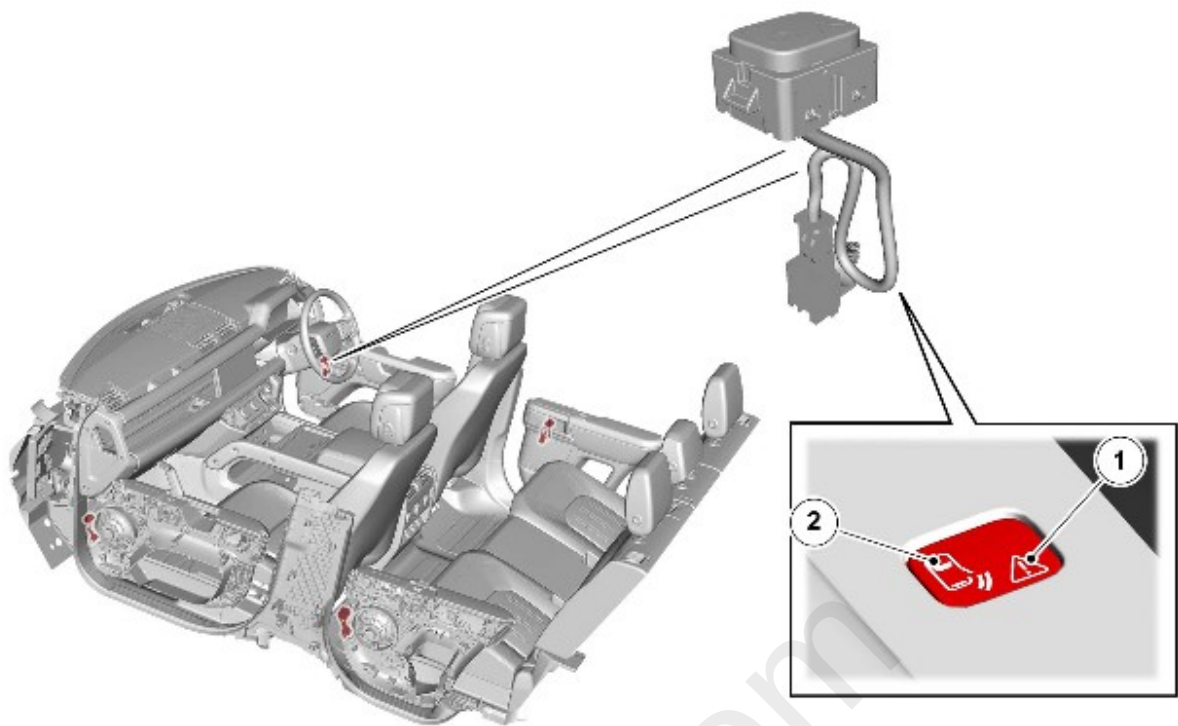
For additional information, refer to: [Parking Aid](#) (413-13 Parking Aid, Description and Operation).

CLEAR EXIT DETECTION SYSTEM INDICATOR



NOTE:

RHD vehicle is shown, LHD vehicle is similar.



E247711

ITEM	DESCRIPTION
1	Traffic alert
2	Status LED

The CEDS indicator is located adjacent to the door inner handle.

The CEDS system does not inhibit the opening of the door.

The status LED illuminates when the CEDS system is active.

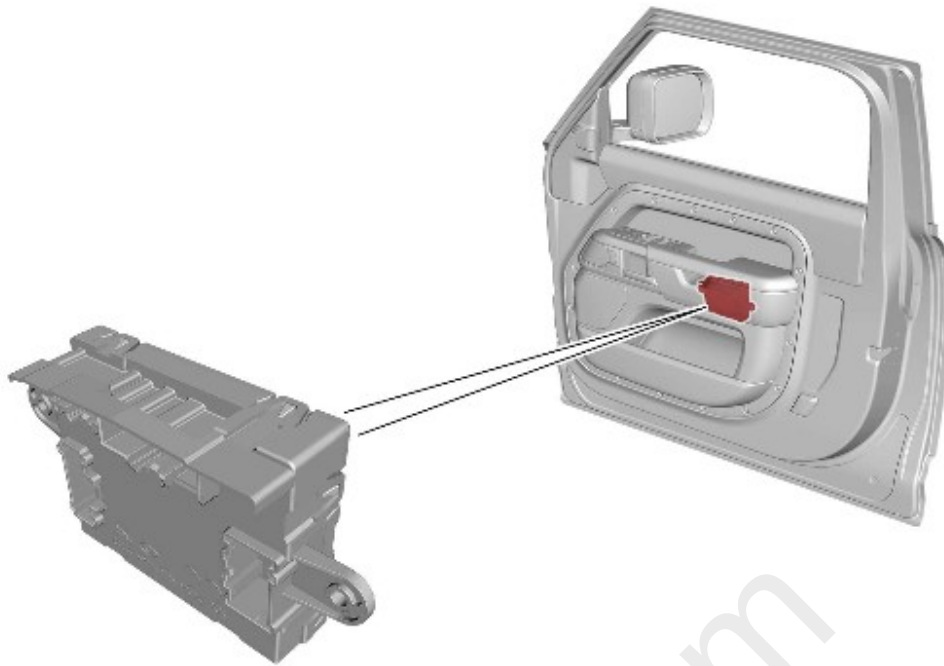
When a perceived threat approaches the host vehicle the amber traffic alert LED illuminates as a warning to the occupant. A perceived threat is a cyclist or other road users approaching from the rear of the vehicle.

DOOR MODULE



NOTES:

- The DDM is shown. The others are similar.
- RHD vehicle is shown, LHD vehicle is similar.



E250777

The door modules require a number of inputs to send the correct message to the CEDS:

- 'Backlight status'
- 'Child Lock Cmd (from the door latch)'
- 'Power Mode'
- 'Door Status'
- 'Alert' 'Left RED Alert/Right RED Alert'.

To assess the CEDS indicator and send the correct software message the door modules also requests the following software information from the CEDS indicator:

- 'CEDSHMIStatus'
- 'PartNo'
- 'PartNoBlkNo'.

The door modules then sends the correct software message to the CEDS indicator from the following messages:

- 'Status' ('StatusLED')
- 'Traffic' ('TrafficLED')
- 'Backlight' ('BacklightStatus').

DOOR AJAR SWITCH

The following components incorporate an ajar switch:

- Each door latch
- The left hood latch
- Tailgate latch.

The door ajar switch sends the door status message to the BCM/ GWM. The status message is then sent to the relevant door module. The each door module uses the information to either illuminate or extinguish the CEDS LEDs. If the door is still open, the LEDs remain illuminated.

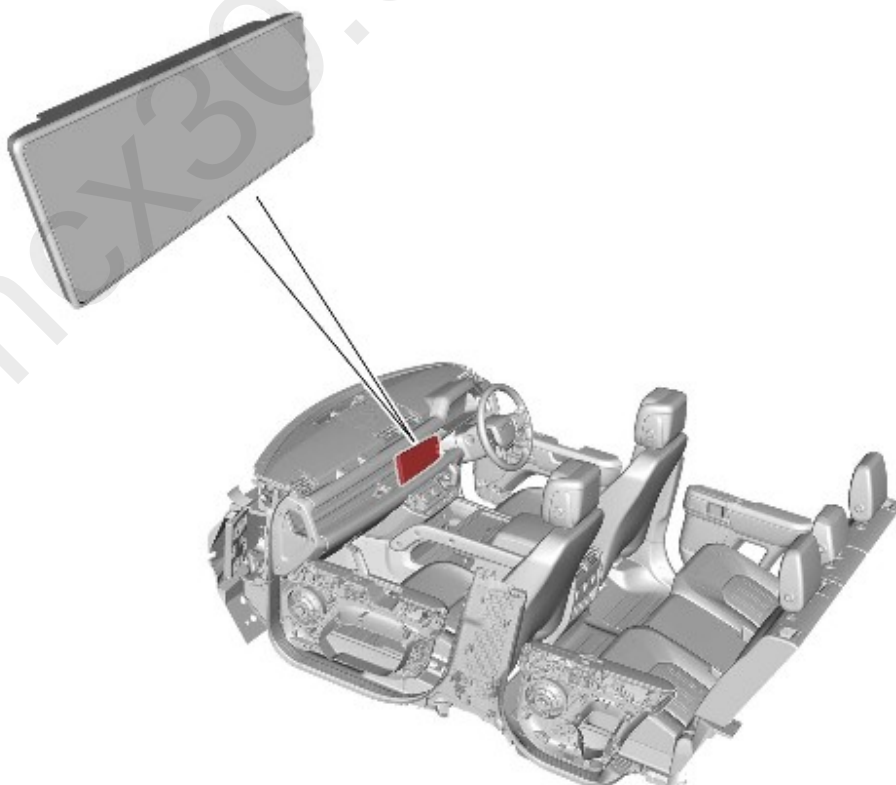
For additional information, refer to: [Handles, Locks, Latches and Entry Systems](#) (501-14 Handles, Locks, Latches and Entry Systems, Description and Operation).

TOUCHSCREEN



NOTE:

RHD vehicle is shown, LHD vehicle is similar.



The TS is located in the center of the instrument panel.

The TS is controlled by the user using touch icons located in the screen image.

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

OPERATION

BLIND SPOT ASSIST

The blind spot assist operates when following circumstances occur together:

- A vehicle is detected in the blind spot area.
- The driver tries to change lanes.

When blind spot assist operates it:

- Flashes the amber warning alert icon in the related door mirror or provides the solid warning.
- Applies a rotational force to the steering to keep the vehicle in the current road lane.
- An optical warning is displayed in the IPC.

Blind spot assist does not operate if REVERSE (R) or PARK (P) is selected.

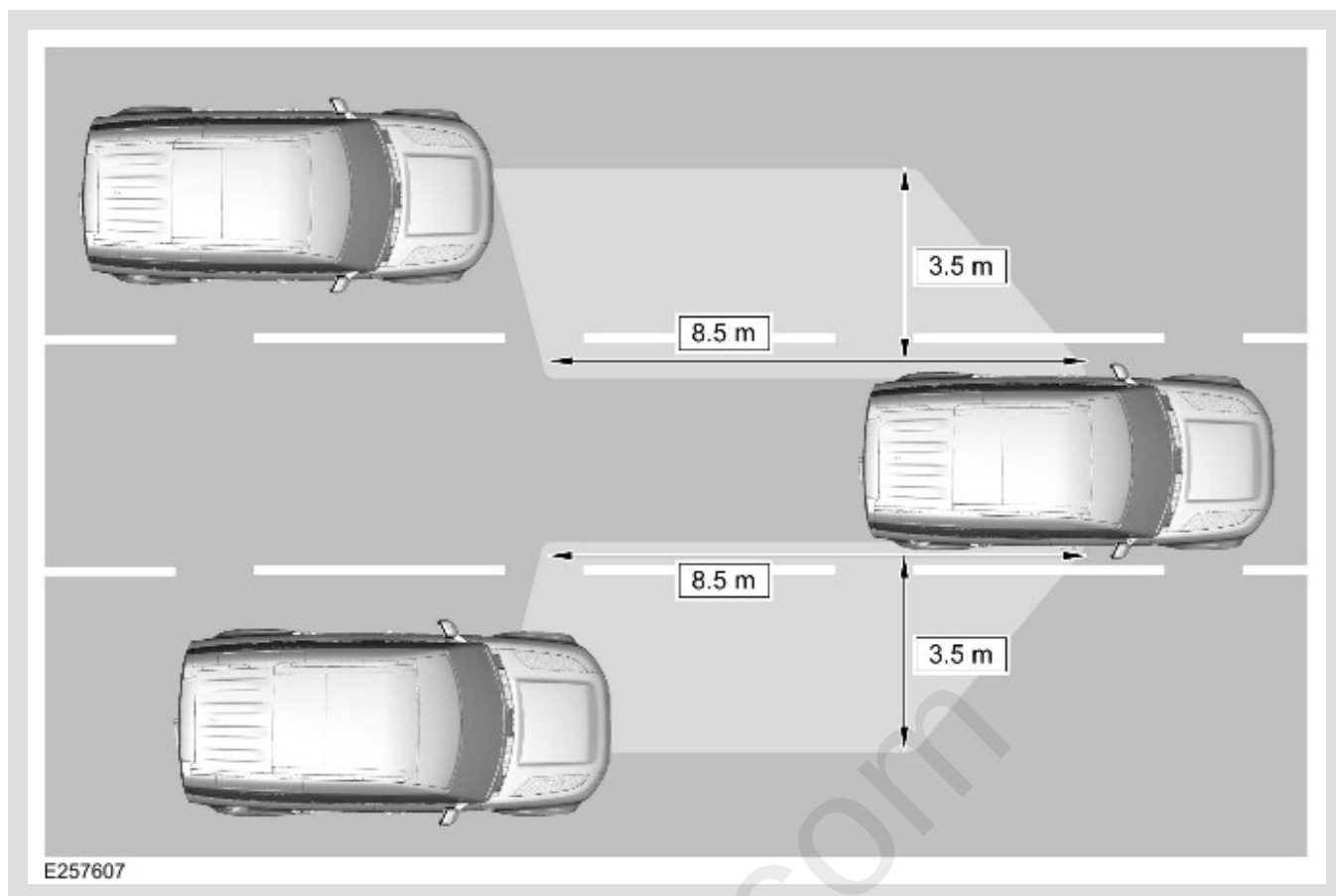
BLIND SPOT MONITORING

The blind spot assist is an enhancement of BSM.

The BSM uses rear corner radars to detect adjacent lane moving objects and provides the warning on the door mirrors.

The area monitored extends from the door mirrors rearward, to approximately:

- 8.5 meters from the driver see line (driver able to see the vehicle in the window).
- Up to 3.5 meters from the side of the vehicle.



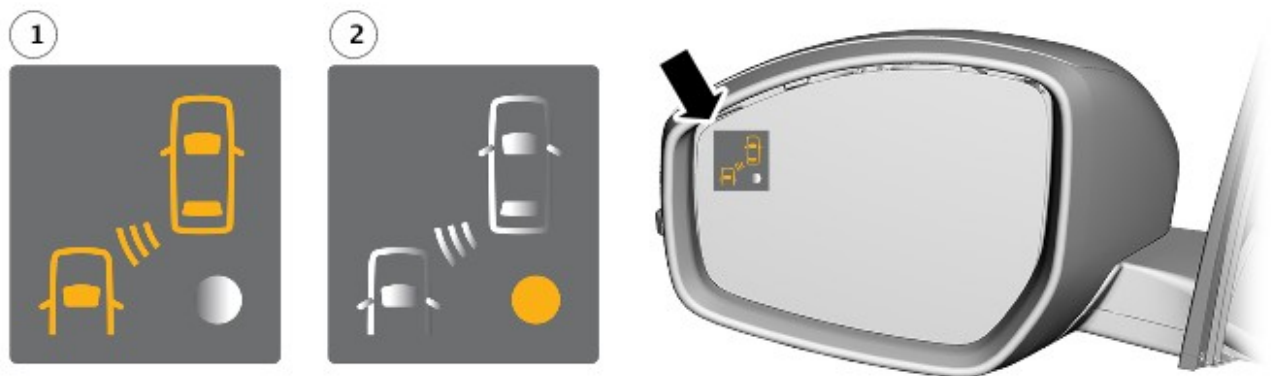
The driver is alerted with a warning alert icon in the relevant door mirror.



NOTE:

If an over-taking vehicle is detected on both sides of the vehicle simultaneously, the warning alert icons in both door mirrors illuminate.

The LEDs are located towards the outside extremity of the door mirror glass, within the peripheral view of the driver. They are not in any area of the door mirror where they could obscure or distract from the reflected image.



E168593

ITEM	DESCRIPTION
1	Warning alert icon
2	System status warning alert icon

The warning alert icon tells the driver if there is a vehicle in the blind spot area.

The system status warning alert icon tells the driver if there is a fault in the BSM.

The LEDs alerts are as follows:

LED STATUS	CAUSE
No LED ON	System active, no vehicle detected in blind spot area.
Amber warning alert icon permanently ON	System operational, vehicle detected in blind spot area.
Amber warning alert icon flashing	System operational, vehicle detected in blind spot area, turn signal indicator operated or when vehicle drifts to an adjacent line.
Amber system status warning alert icon permanently ON	System not active or faulty.

The BSM has operating limitations and automatically turns OFF under certain operating conditions. During these operating conditions, the amber system status warning alert icon is permanently ON.

The BSM operating limitations are as follows:

- The feature is inactive until the vehicle speed is greater than 10 km/h (6 mph).
- The feature is inactive if a trailer is connected to the vehicle.

- The feature is inactive when REVERSE (R) or PARK (P) is selected.

The BSM can sense a blockage, if either of the radar signals are blocked or distorted, for example:

- Water
- Mud
- Sleet
- Snow.

In this situation, the amber system status warning alert icon is permanently ON. A 'Clear rear bumper Driver Assistance feature performance limited' message also displays in the IPC message center. The BSM is disabled until the blockage is cleared.

If there is a fault in the BSM, only the LED alert icon in the door mirror is provided until fault is recovered.

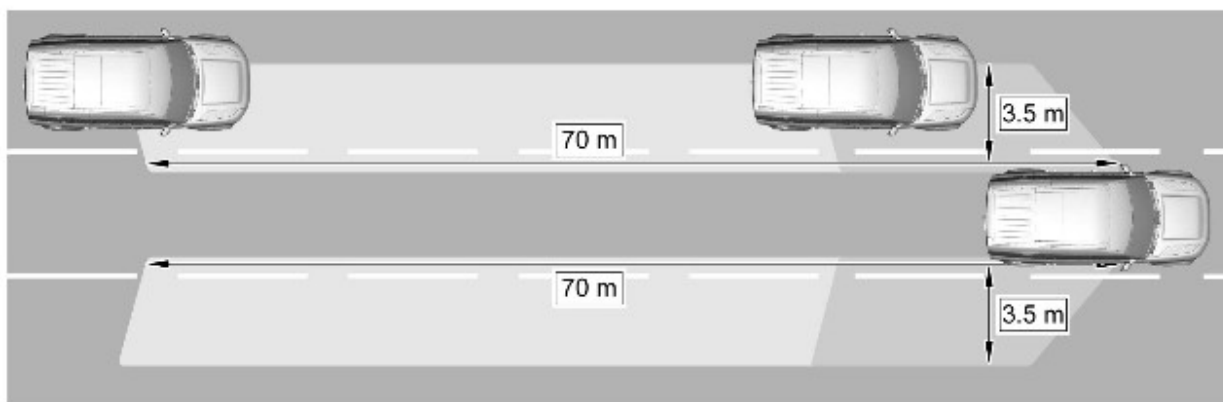
If the communication network fails, it is possible that the system status warning icon cannot be set to ON in the door mirror. The only way to find out is by checking the Diagnostic Trouble Code(s) (DTC). When faults are present in the BSM, DTCs are stored in the SODL and the SODR. If a SODL or a SODR is replaced it must be configured with the JLR approved diagnostic equipment.

APPROACHING VEHICLE SENSING

AVS system is an enhancement of the blind spot monitoring.

The AVS system operates in the same principle as BSM. However AVS monitors a larger area extending from the back of the BSM zone, to approximately:

- 70 meters behind the door mirrors.
- Up to 3.5 meters from the side of the vehicle.



E257608

The system alerts the driver to the presence of a vehicle approaching rapidly beyond the blind spot.

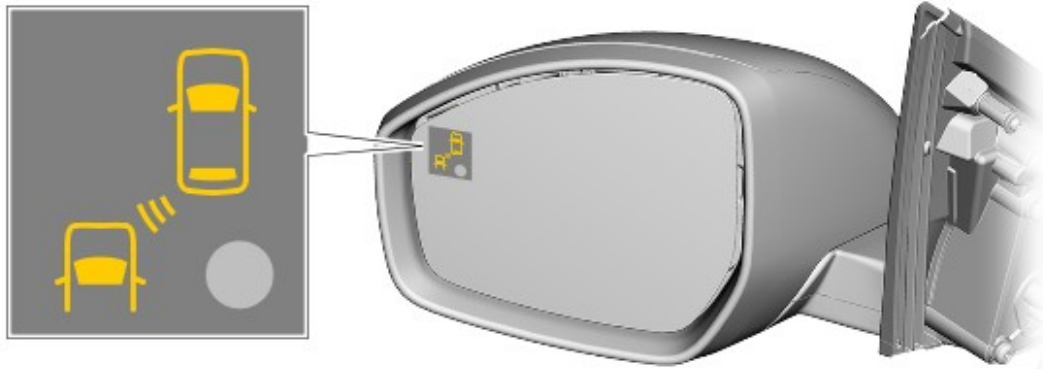
When a vehicle is detected by the AVS system, the following LED lighting sequence occurs:

AMBER WARNING ALERT ICON LED STATUS	EXPLANATION
Flashes	The detected vehicle enters the area monitored by the blind spot monitoring system, and the relevant turn signal indicator is being used.
Permanently ON	The detected vehicle enters the blindspot monitoring area but the relevant turn signal indicator NOT operated.



NOTE:

An amber warning icon is located in each door mirror.



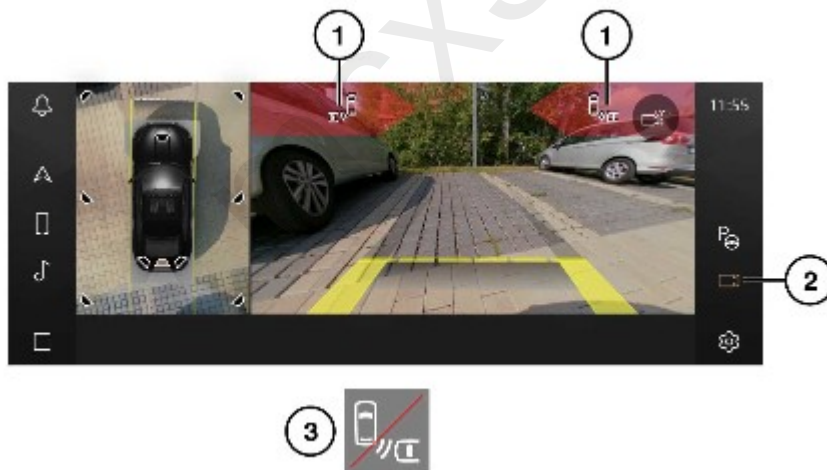
E168595

REVERSE TRAFFIC DETECTION



NOTE:

- If a fault in a single sensor is detected, the entire feature is disabled.
- If the rear sensors are blocked, the feature performance is reduced, or the feature may be disabled all together.



E246298

ITEM	DESCRIPTION
1	Collision impact alert
2	Camera icon
3	Rear traffic monitor unavailable

Rear Traffic Warning



NOTE:

If Rear Traffic Warning is switched OFF, the collision impact alert icon does not display, and no audio alerts sound.

The Rear Traffic Warning feature is active when in REVERSE (R). The feature also becomes active from a stationary position and remains active up to speeds of approximately 16 km/h (10 mph).

If required, the Rear Traffic Warning feature can be switched ON or OFF through the driver assistance menu. To switch the Rear Traffic Warning feature ON or OFF, complete the following steps:

- 1 Touch the settings icon from any screen
- 2 Select 'Vehicle'
- 3 Select 'Driver Assistance'
- 4 Select 'Collision avoidance'
- 5 Touch to switch toggle ON or OFF.

Rear Traffic Braking



NOTE:

If Rear Traffic Braking is switched OFF, the system does not apply the brakes if a imminent collision is detected.

The Rear Traffic Braking feature is active when the vehicle detects reverse movement and remains active up to speeds of approximately 10 km/h (6 mph).

The Rear Traffic Braking feature can also be switched ON or OFF through the driver assistance menu. To switch the Rear Traffic Braking feature ON or OFF, complete the following steps:

- 1 Touch the settings icon from any screen
- 2 Select 'Vehicle'
- 3 Select 'Driver Assistance'
- 4 Select 'Collision avoidance'
- 5 Touch to switch toggle ON or OFF.

REAR PROTECTION MONITOR

The rear protection monitor system does not operate when:

- REVERSE (R) is selected.
- The relative speed between the host vehicle and threat vehicle is below 10 km/h (6 mph).

- The sensors in the rear bumper become blocked.
- A vehicle crash is detected.
- A trailer is attached and connected.

The rear protection monitor system:

- May register false targets if traveling along a narrow lane, or in stop and go traffic.
- Does not work accurately if the sensors are misaligned due to bumper modifications, impact damage, etc.

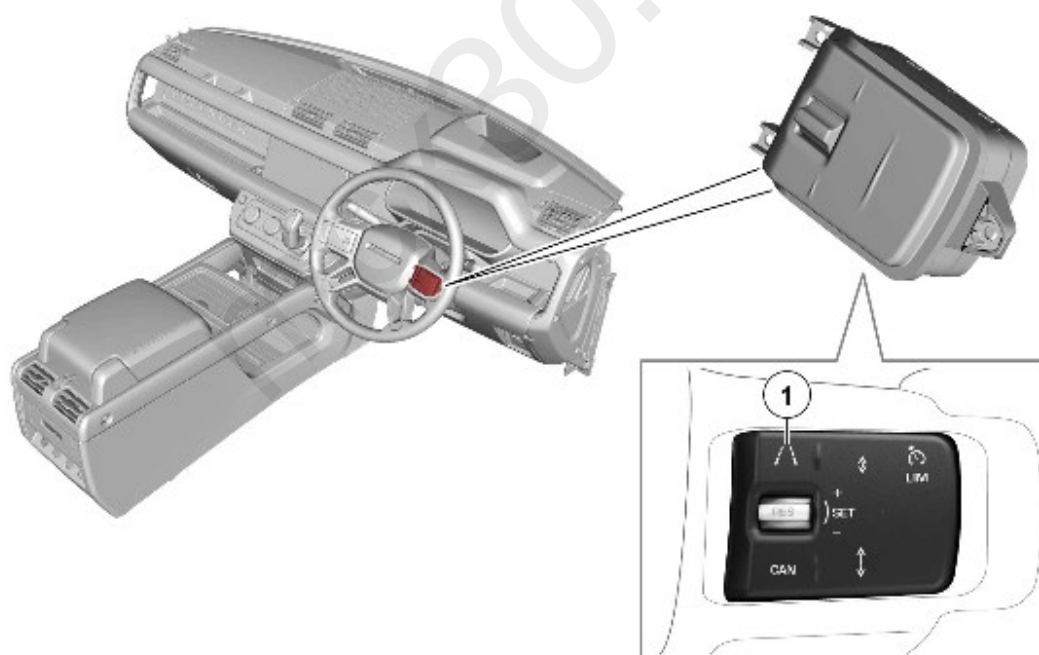
LANE KEEP ASSIST SWITCH

CAUTION:

Make sure the LKA system is disabled when connecting a trailer.

NOTE:

The blind spot assist feature selection is merged with the LKA switch on the right steering wheel switch.



E247710

ITEM	DESCRIPTION
1	LKA switch

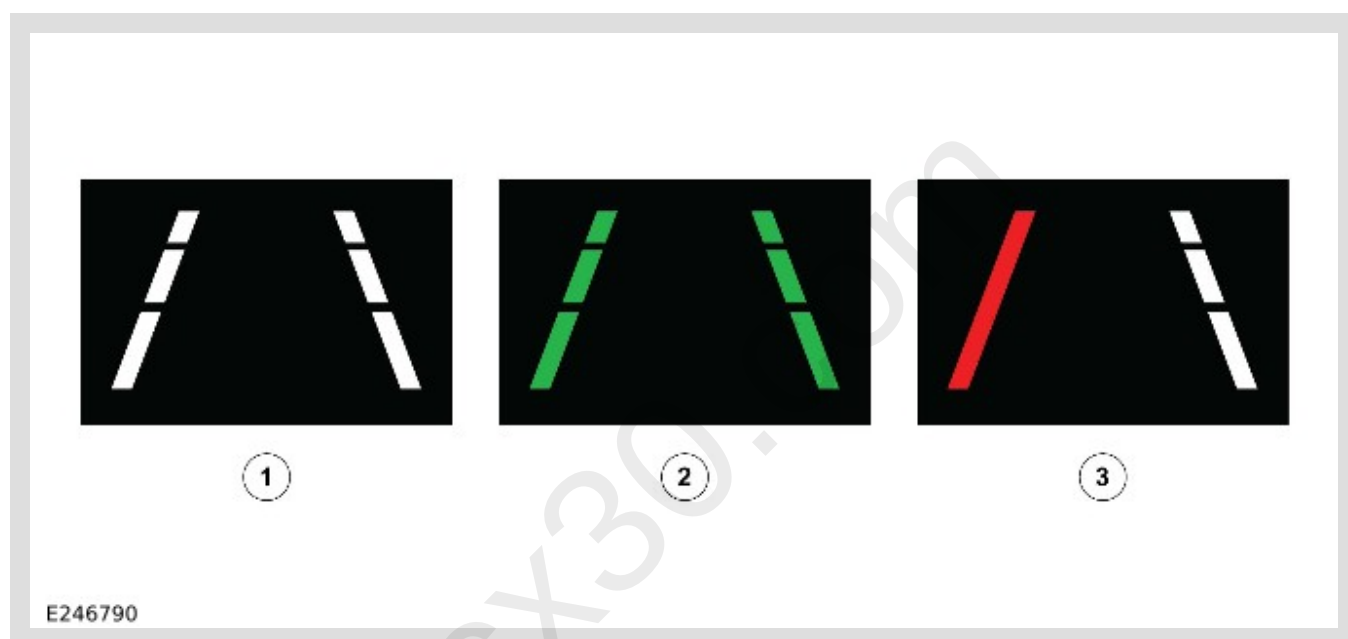
The LKA monitors the road lane markings in the event of an unintentional road lane departure. If the vehicle is about to cross a lane boundary, a rotational force is applied to the steering wheel to counter the lane boundary crossing. The IPC displays a warning icon when a rotational force is applied to the steering wheel.

The LKA system can be switched ON or OFF through the Steering Wheel Switch.

 NOTE:

The LKA switch also controls operation of the Blind Spot Assist system. The LKA system selection is retained across all ignition cycles.

Lane Keep Assist status



The IPC displays an icon when the LKA system is switched ON. The icon changes color as follows:

1 Gray lines indicate

- The lane boundaries are not being tracked.
- The driver is indicating on the same side. When indicating left, the left side only is grayed out. The same strategy applies when indicating right.
- One or more of the system limitations criteria may have been met.

2 Green lines indicate

- The lane boundaries are being tracked.

3 Red lines indicate.

- When the LKA feature is intervening.

LKA status can also be viewed through the 'Driver Assistance' IPC view. The HUD also displays a warning.

**NOTE:**

If a system fault has been detected with the IPC or HUD, the LKA continues to operate as intended.

The LKA system is not active when:

- REVERSE (R) or PARK (P) is selected.
- The brake pedal is pressed.
- A turn signal indicator is being used.
- The road lanes are not available or in poor condition.
- The road lane markings are not detected.
- The vehicle speed is approximately below 64 km/h (40 mph) or above 180 km/h (112 mph).
- Driving in lanes narrower than approximately 3 meters or wider than approximately 4 meters.
- Turning in tight road bends.
- Dynamic Stability Control (DSC) is active.
- An Anti-Lock Brake System Control Module (ABS) event has occurred.
- A fault occurs in the system.
- The driver has applied excessive steering force.

The LKA system does not operate if:

- The road edges are unmarked.
- The windshield area in front of the rear view mirror becomes blocked by stickers, mud, snow, debris, etc.
- Adverse weather conditions exist. For example, heavy fog, rain, or snow.
- The driver has applied a counter steering input that is greater than the steering input from the LKA system.

The IPC displays messages to inform the driver of any performance or system issues.

EMERGENCY LANE KEEP ASSIST**CAUTION:**

Make sure the ELKA system is disabled when connecting a trailer.

**NOTE:**

The ELKA system automatically switches ON every time the vehicle ignition is switched ON.

The ELKA system attempts to provide corrective steering inputs if it determines the following:

- The vehicle is getting too close to horizontal road edges. For example, grass, mud and snow.
- The vehicle is getting too close to vertical road edges. For example, cones, concrete barriers, walls and parked vehicles.
- The vehicle is drifting towards an adjacent lane where oncoming vehicles are detected.



NOTE:

ELKA operates irrespective of the use of the turn signal indicators.

The ELKA system can be switched ON or OFF through the TS. To switch the system ON or OFF, complete the following steps:

- 1 Touch the settings icon from any screen
- 2 Select 'Vehicle'
- 3 Select 'Driver Assistance'
- 4 Select 'Collision avoidance'
- 5 Touch the 'Emergency Steering' Switch to toggle ON or OFF.



NOTE:

Make sure the ELKA system is switched OFF before driving off-road.

The IPC displays visual warnings to inform the driver of the ELKA system status. The vehicle speakers also provides audio warnings.



NOTE:

ELKA feature detecting oncoming vehicles is only operational when detecting an oncoming vehicle in an adjacent road lane.

If a system fault has been detected with the IPC or HUD, the ELKA continues to operate as intended.

The ELKA system is not active when:

- REVERSE (R) or PARK (P) is selected.
- The brake pedal is pressed.
- The vehicle speed is approximately:
 - Below 64 km/h (40 mph) or above 180 km/h (112 mph) when ELKA is detecting road edges.
 - Below 64 km/h (40 mph) or above 120 km/h (75 mph) when ELKA is detecting oncoming vehicles.
- The road edges are not detected.
- Turning in tight road bends.
- The driver has applied excessive steering force.

- Driving in lanes narrower than approximately 3 meters or wider than approximately 4 meters.
- A fault occurs in the system.

The ELKA system does not operate if:

- The windshield area in front of the rear view mirror becomes blocked by stickers, mud, snow, debris.
- Adverse weather conditions exist. For example, heavy fog, rain, or snow.
- DSC is active.
- An ABS event has occurred.
- The driver has applied a counter steering input that is greater than the steering input from the ELKA system.

The IPC displays messages to inform the driver of any performance or system issues.

TRAFFIC SIGN RECOGNITION

The IPC displays symbols of recognized traffic signs. If no speed limit signs are visible, the IPC displays speed limit information taken from the navigation system.

The traffic sign recognition system is also able to detect traffic signs containing additional information. For example, the system is able to detect if a reduced speed limit is in place for wet conditions, and the wipers are switched on. In this instance, the reduced speed limit is displayed in the IPC.

The traffic sign recognition system does not operate to the optimum performance, if the windshield area in front of the rear-view mirror becomes blocked. For example, by stickers, mud, snow, debris.

The traffic sign recognition continues to operate using the vehicle navigation map information.

The traffic sign recognition system:

- Does not perform to the best of its ability in adverse weather conditions. For example, heavy fog, rain, or snow.
- May not perform, or may perform incorrectly, when the vehicle is traveling through an area not covered by the navigation system.
- May function incorrectly when driving toward bright lights.
- May not recognize concealed, covered, or non-conforming road signs.
- May not perform to the best of its ability if the navigation maps are out of date.

The IPC and TS display messages to inform the driver of any performance or system issues.

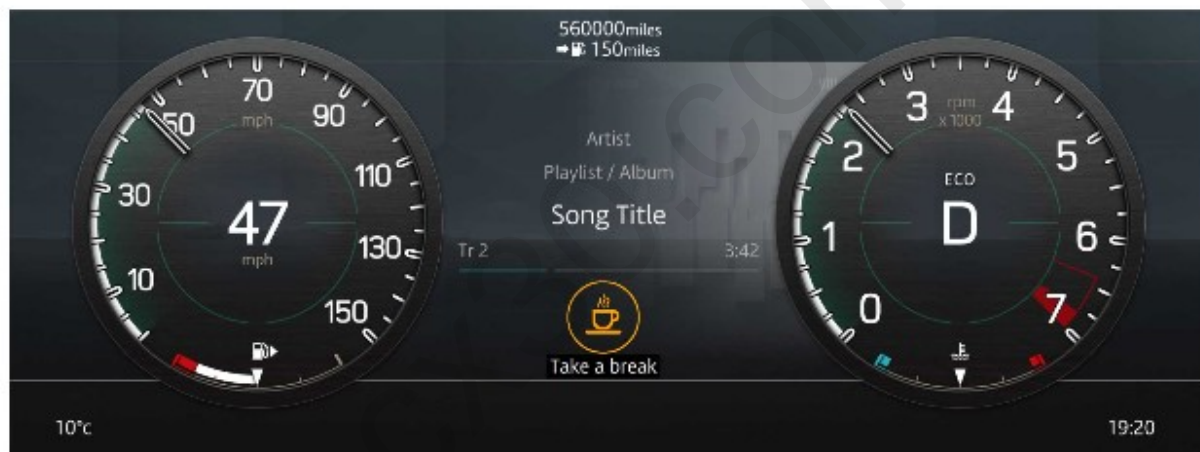
DRIVER CONDITION MONITOR

Driver fatigue alert

A



B



E258908

ITEM	DESCRIPTION
A	Fatigued - White
B	Highly fatigued - Amber

In the event of the driver becoming fatigued:

- The IPC displays a white icon. The IPC also emits a chime.
- The Driver Condition Monitor feature may warn the driver every 5 minutes if the driver continues to be fatigued.

In the event of the driver becoming highly fatigued:

- The IPC displays an amber icon. The IPC also emits a chime.

- The Driver Condition Monitor feature may warn the driver every 5 minutes if the driver continues to be highly fatigued.

**NOTE:**

The icon remains illuminated until the OK button on the steering wheel is pressed.

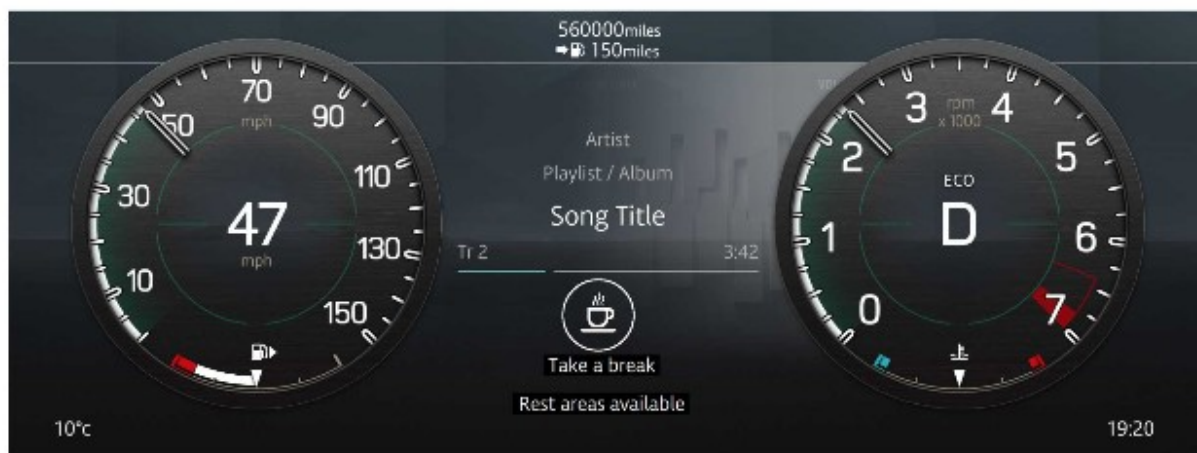
The Driver Condition Monitor feature can be switched ON or OFF through the TS. To switch the feature ON or OFF, complete the following steps:

- Touch the 'SETTINGS' icon from any screen.
- Select 'Vehicle'
- Select 'Driver Assistance'
- Select 'Driver condition monitor'
- Driver fatigue alert: Touch to switch toggle ON or OFF.

Find rest areas

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A



B



E258907

ITEM	DESCRIPTION
A	Fatigued - White
B	Highly fatigued - Amber

The Driver Condition Monitor feature can also find nearby rest areas, if selected, for when the driver becomes fatigued.

The IPC notifies the driver that rest areas are available nearby. The rest areas display on the TS.



NOTE:

The find rest areas feature selection is retained across all ignition cycles.

To switch the feature ON or OFF, complete the following steps:

- Touch the 'SETTINGS' icon from any screen.
- Select 'Vehicle'
- Select 'Driver Assistance'
- Select 'Driver condition monitor'
- Find rest areas: Touch to switch toggle ON or OFF.

The Driver Condition Monitor is not active when:

- The vehicle speed is below 60 km/h (37 mph) or above 180 km/h (112 mph).
- A fault occurs in the system.

CLEAR EXIT DETECTION SYSTEM

CAUTION:

Make sure that the warning icons on the door handle are not obscured. If the warning icons are not visible, the user may not notice a warning, which may cause damage to the vehicle.

Do not attach stickers or objects to the rear bumper. Stickers and other attachments may interfere with the operation of the clear exit detection sensors.

The clear exit detection system activates only when the door has been unlatched. The icons illuminate as follows:



E261077

1 Illuminates white to indicate that the system is active.

2 Illuminates amber to warn of a detected threat.

The amber icon illuminates when another vehicle or moving object is detected as approaching from behind. The system has calculated that opening the door could endanger the occupant, the vehicle or other road users. The system does not prevent the door from being opened. The icons extinguish after the door has been closed.

The CEDS may not be able to detect all approaching traffic in all circumstances. Operation of the system relies on the sensor ability to detect threats, which may be affected by road and weather conditions, but also if:

- Vehicles approach very quickly from behind.
- The sensors are impaired by mud, rain, frost, ice, snow, damage, accessories or stickers.
- The sensors are obscured by objects, such as towed items, or other vehicles close to the vehicle.

Under these circumstances, reduced warning times or loss of functionality may be experienced.

Clear exit monitor is only active below vehicle speeds of 5 km/h (3 mph). The CEDS remains active for 3 minutes after the ignition is switched OFF.

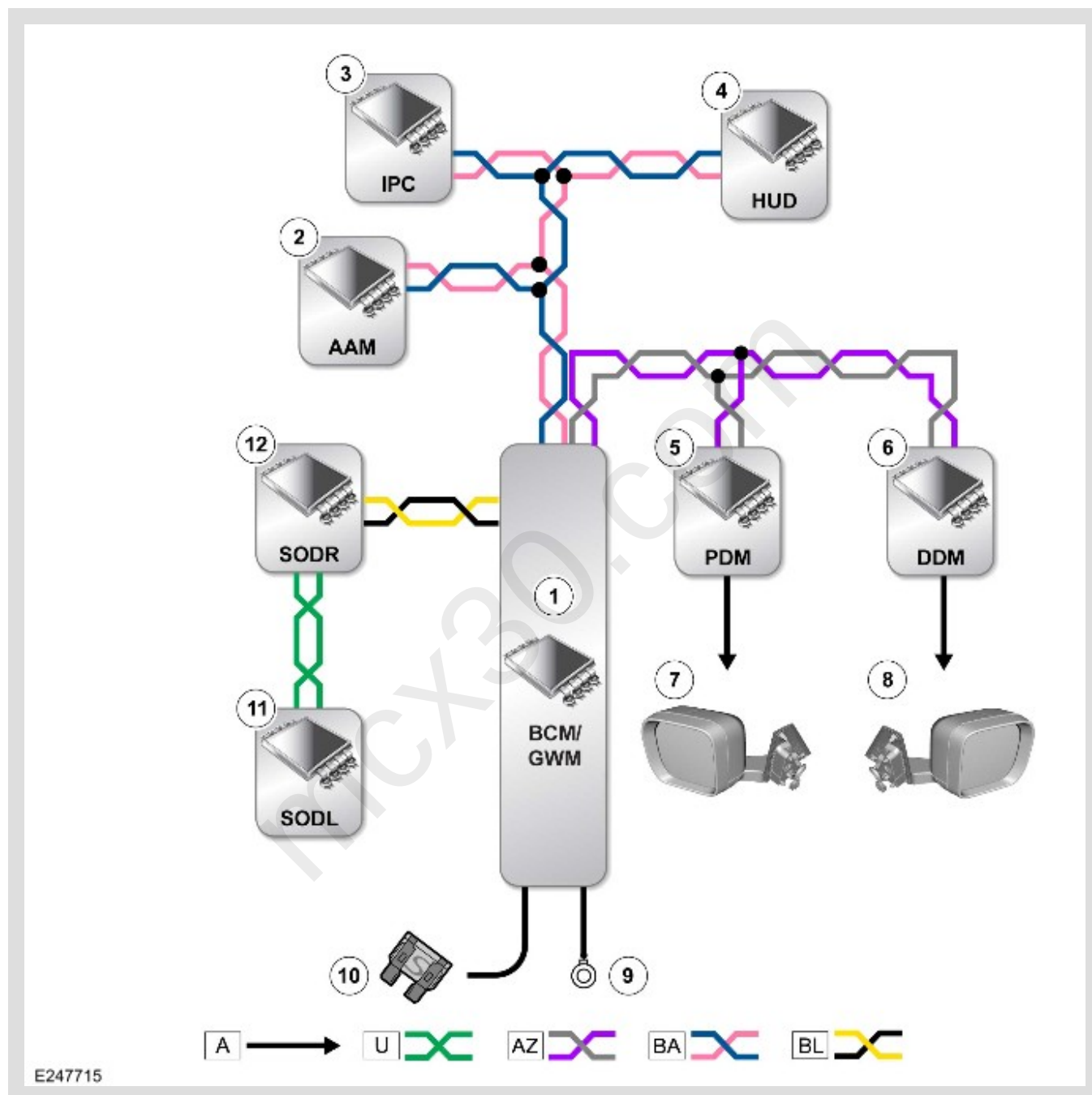
DIAGNOSTICS

The BCM/ GWM records any DTCs and related data. Read the DTCs and related data with the JLR approved diagnostic equipment.

The JLR approved diagnostic equipment can read live data and activate certain components.

CONTROL DIAGRAM

CONTROL DIAGRAM - 1 OF 6 - BLIND SPOT ASSIST



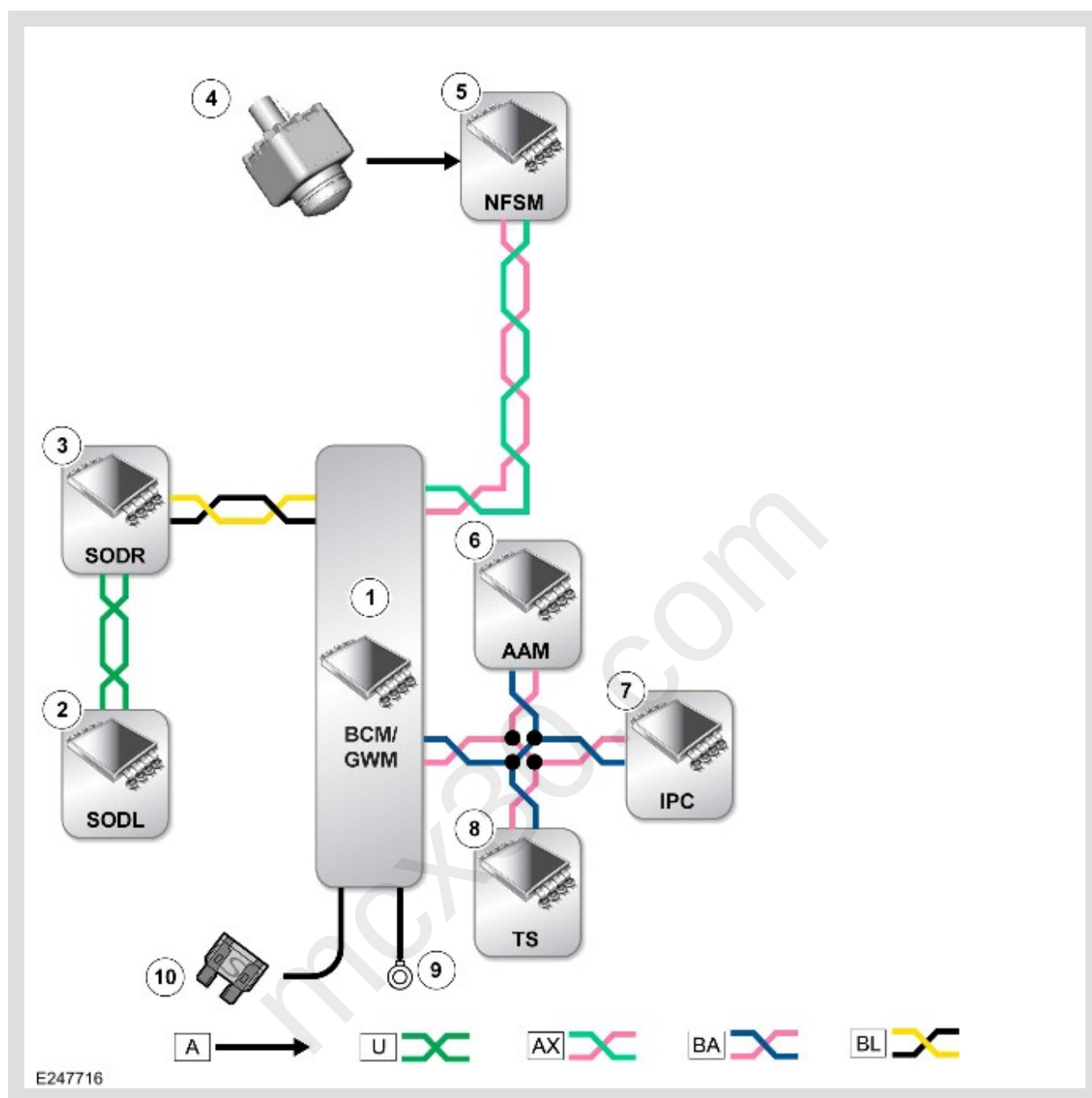
A = HARDWIRED: U = PRIVATE CAN BUS: AZ = HS CAN BODY SYSTEMS BUS: BA= HS CAN HUMAN MACHINE INTERFACE (HMI) SYSTEMS BUS: BL = HS CAN UN SYSTEMS BUS.

ITEM	DESCRIPTION
1	BCM/ GWM
2	AAM

ITEM	DESCRIPTION
3	IPC
4	HUD
5	PDM
6	DDM
7	Approaching vehicle lamp - Left door mirror
8	Approaching vehicle lamp - Right door mirror
9	Ground
10	Power supply
11	SODL
12	SODR

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CONTROL DIAGRAM – 2 OF 6 – REVERSE TRAFFIC DETECTION

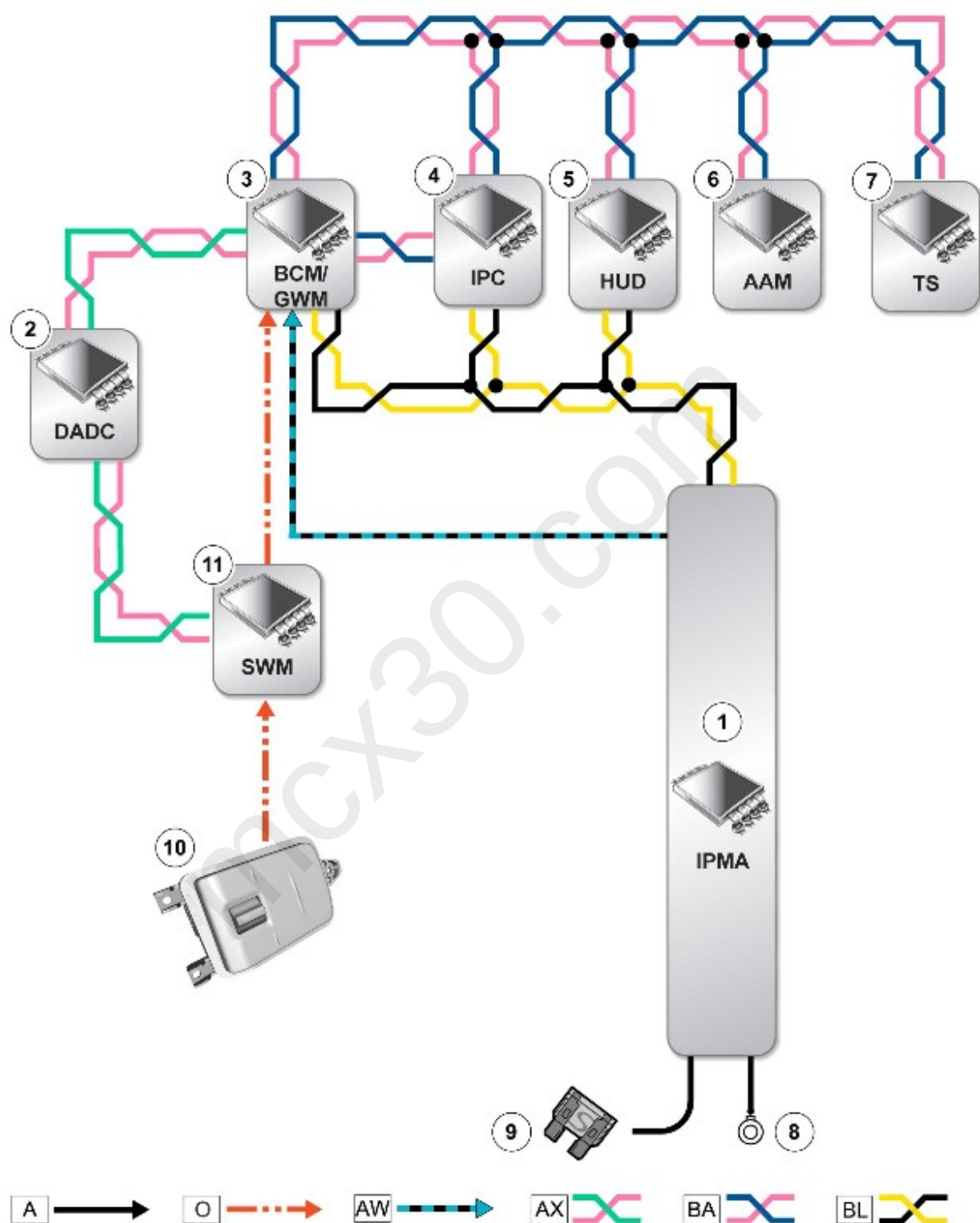


A = HARDWIRED: U = PRIVATE CAN BUS: AX = FLEXRAY: BA= HS CAN HMI SYSTEMS BUS: BL = HS CAN UN SYSTEMS BUS.

ITEM	DESCRIPTION
1	BCM/ GWM
2	SODL
3	SODR
4	Rear view camera
5	NFSM

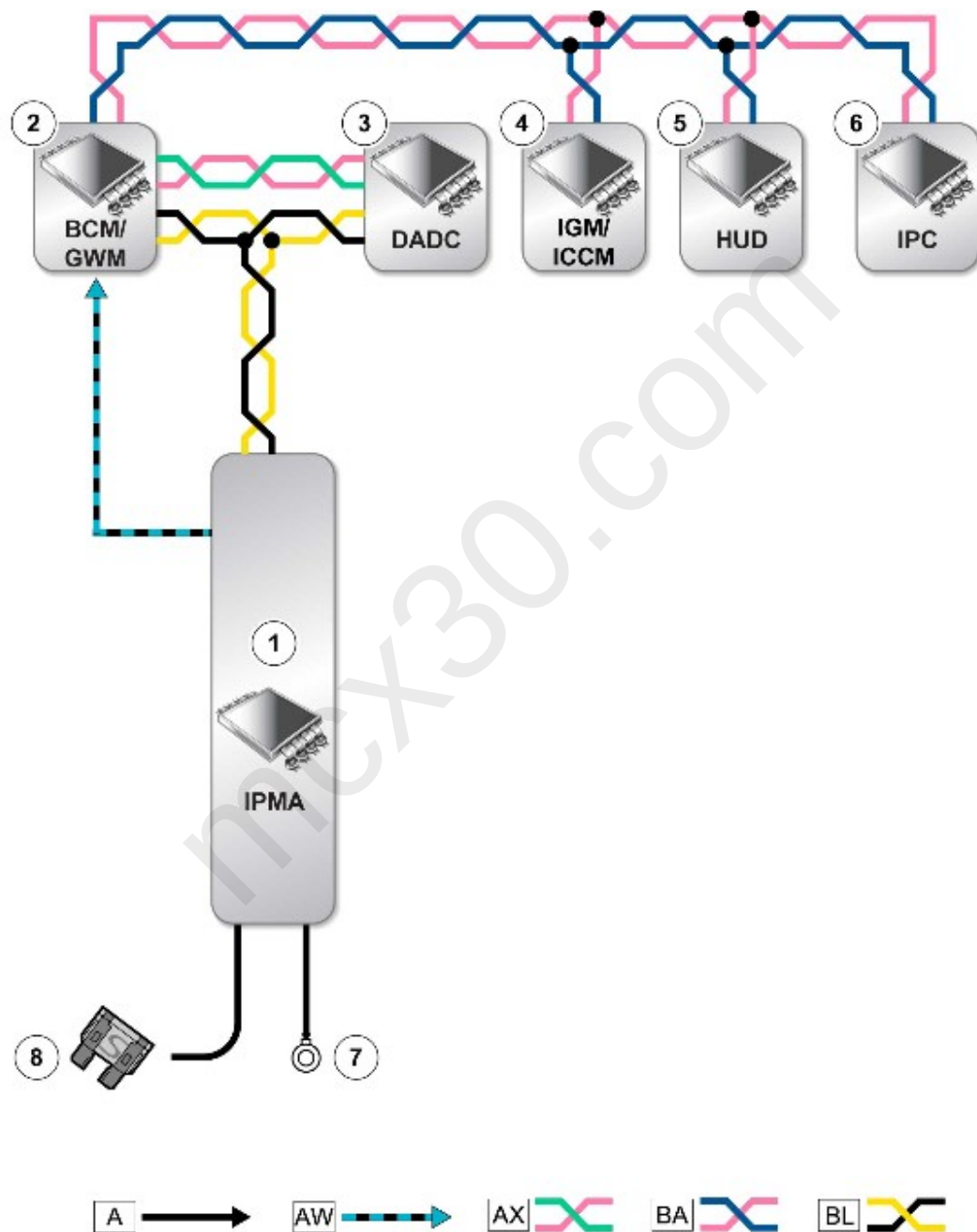
ITEM	DESCRIPTION
6	AAM
7	IPC
8	TS
9	Ground
10	Power supply

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A = HARDWIRED: O = LOCAL INTERCONNECT NETWORK (LIN): AW = ETHERNET: AX = FLEXRAY: BA= HS CAN HMI
SYSTEMS BUS: BL = HS CAN UN SYSTEMS BUS.

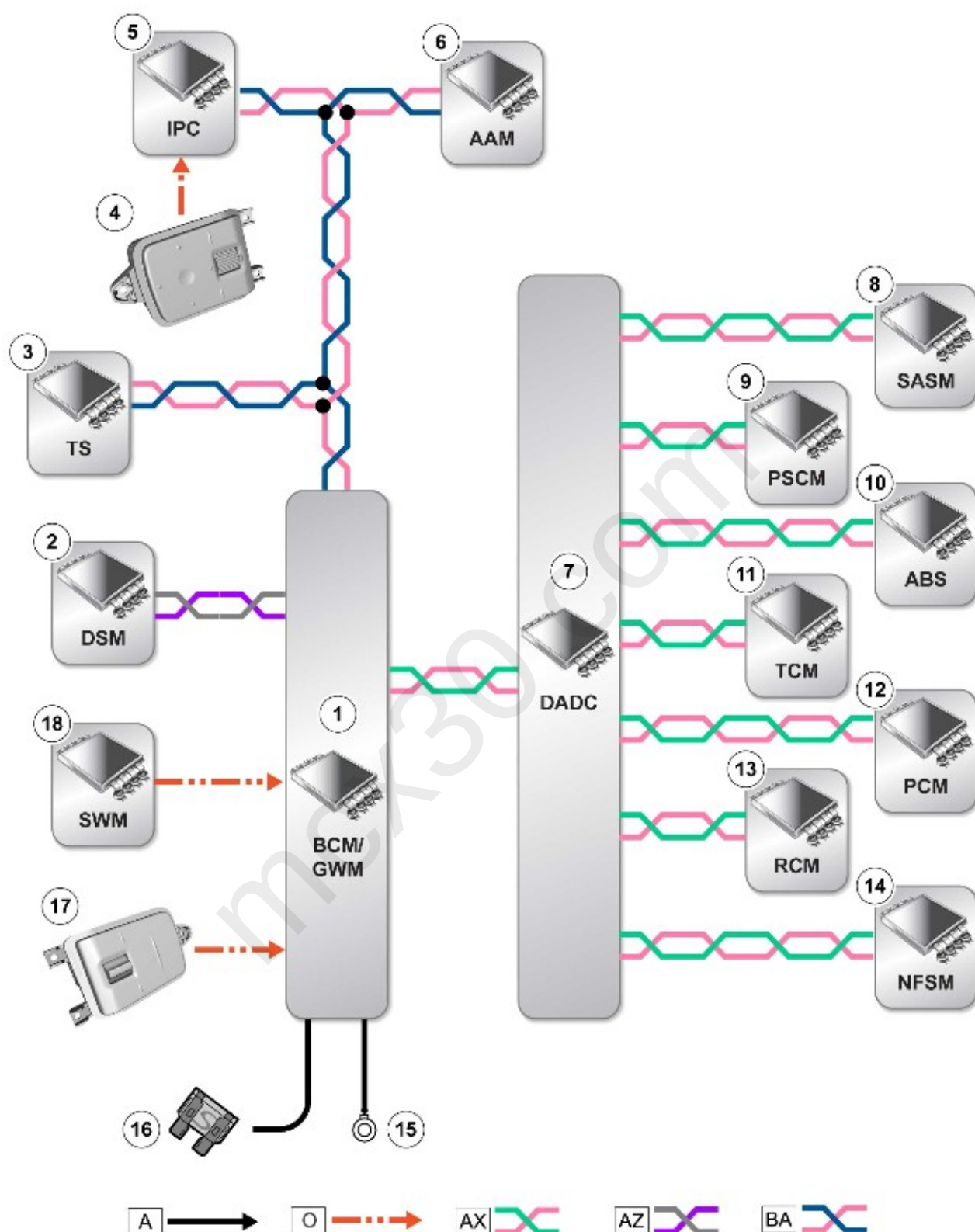
ITEM	DESCRIPTION
1	IPMA
2	DADC
3	BCM/ GWM
4	IPC
5	HUD
6	AAM
7	TS
8	Ground
9	Power supply
10	Steering wheel switch
11	SWM



A = HARDWIRED: AW = ETHERNET: AX = FLEXRAY: BA= HS CAN HMI SYSTEMS BUS: BL = HS CAN UN SYSTEMS BUS.

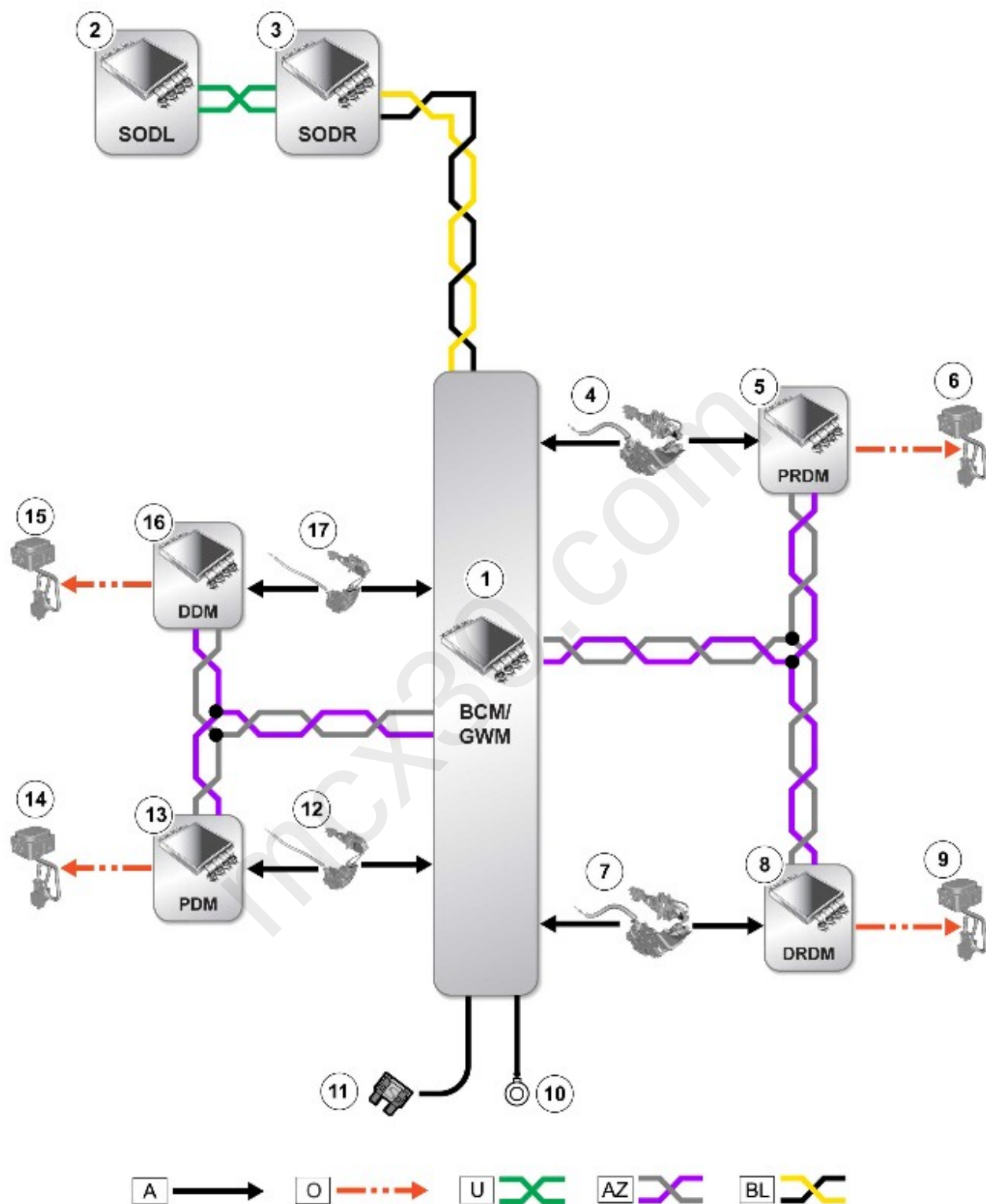
ITEM	DESCRIPTION
1	IPMA
2	BCM/ GWM
3	DADC
4	IGM / ICCM
5	HUD
6	IPC
7	Ground
8	Power supply

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A = HARDWIRED: O = LIN: AX = FLEXRAY: AZ = HS CAN BODY SYSTEMS BUS: BA= HS CAN HMI SYSTEMS BUS.

ITEM	DESCRIPTION
1	BCM/ GWM
2	DSM
3	TS
4	Steering wheel switch - Left
5	IPC
6	AAM
7	DADC
8	Steering Angle Sensor Control Module (SASM)
9	PSCM
10	ABS
11	TCM
12	PCM
13	RCM
14	NFSM
15	Ground
16	Power supply
17	Steering wheel switch - Right
18	SWM



A = HARDWIRED: O = LIN: U = PRIVATE CAN BUS: AZ = HS CAN BODY SYSTEMS BUS: BL = HS CAN UN SYSTEMS BUS.

ITEM	DESCRIPTION
1	BCM/ GWM
2	SODL
3	SODR
4	Door ajar switch - Rear left door
5	PRDM
6	CEDS LED indicator - Rear left
7	Door ajar switch - Rear right door
8	DRDM
9	CEDS LED indicator - Rear left
10	Ground
11	Power supply
12	Door ajar switch - Passenger door
13	PDM
14	CEDS LED indicator - Passenger door
15	CEDS LED indicator - Driver door
16	DDM
17	Door ajar switch - Driver door