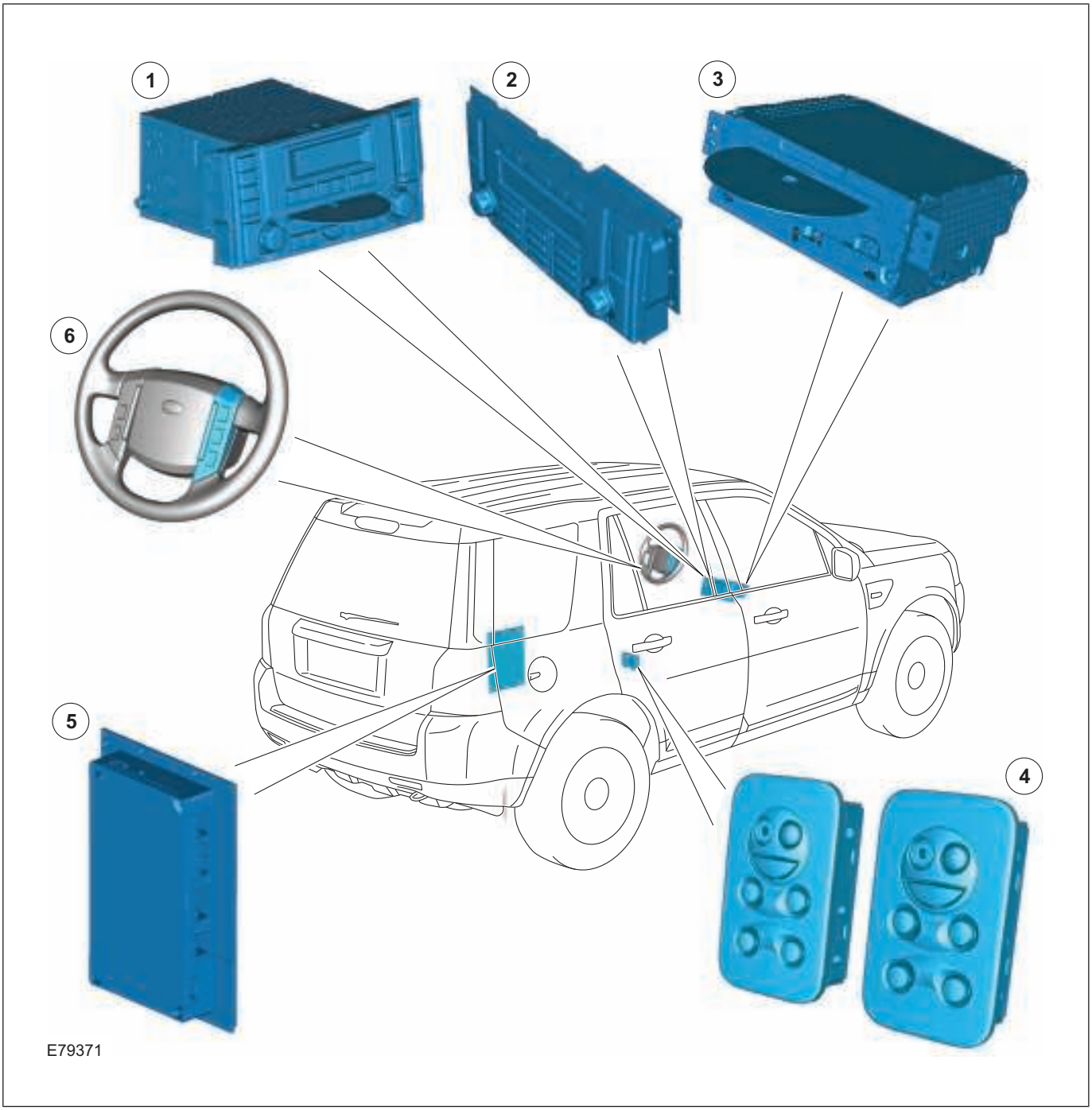
Audio System

Component Location



1 Audio head unit
2 Infotainment Control Module (ICM)
3 Integrated Audio Module (IAM)
4 Rear headphone sockets and audio control
5 Audio amplifier
6 Steering wheel remote audio controls

The audio system contains the following functions:

- CD player
- AM / FM tuner
- DAB/SDARS radio systems (where available)

There are three audio options available

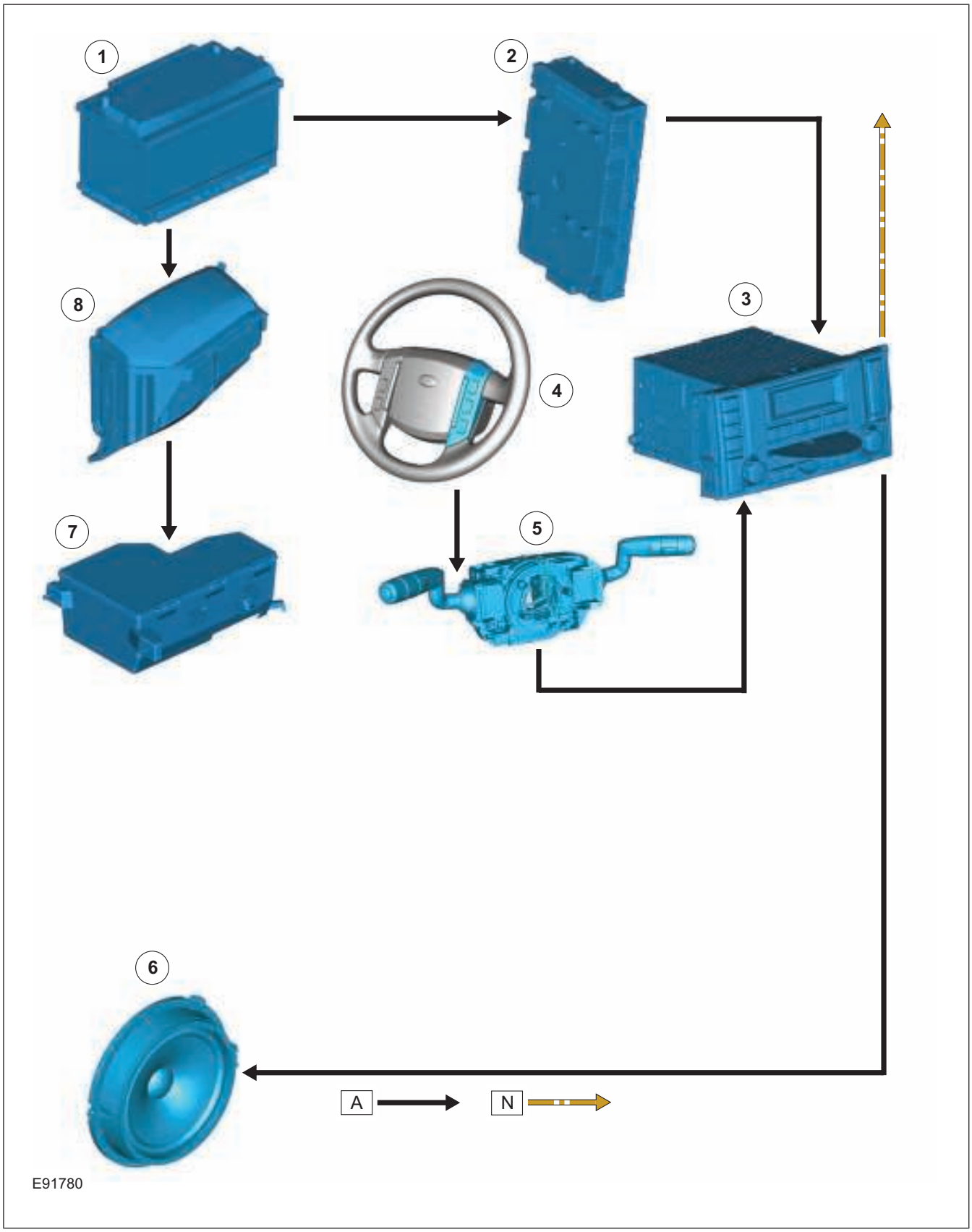
- Standard
- Hi-line
- Premium

The three audio options are derived from two audio systems; Standard and Hi-line/Premium.

Standard Audio System

The Standard audio system is connected to the MS CAN network and uses an internal amplifier which directly drives the system speakers. It is available with either a single disc or a multi six disc CD player. The Standard audio system is controlled purely from the head unit and the remote steering wheel controls. The head unit is connected to the vehicle on the medium speed CAN bus. This allows the unit to be interrogated for diagnostic purposes and also allows audio output from the parking aid system to be transmitted to the vehicle speakers.

Standard Audio System Control Diagram



1 Battery
2 CJB
3 Audio Head Unit
4 Steering wheel controls
5 Clockspring
6 Speakers
7 AJB
8 BJB
A Hardwired connection
N Medium speed CAN bus

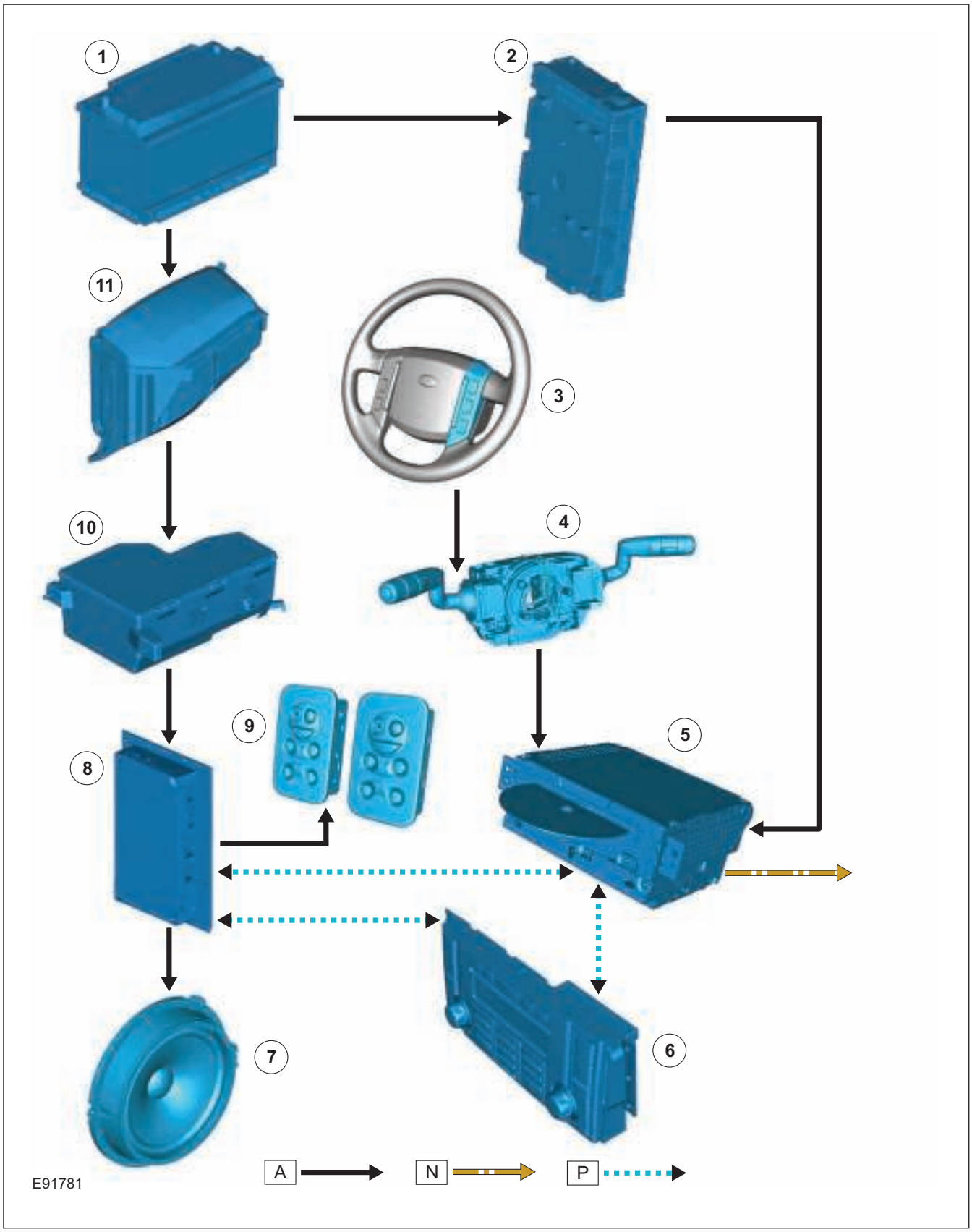
Hi-line/Premium Audio System

The Hi-line/Premium audio system is connected to the MOST network and comprises of the following components:

- Integrated Audio Module (IAM)
- Infotainment Control Module (ICM)
- Separate audio amplifier (two variants depending upon Hi-line or premium audio option)
- Rear seat audio control modules with head phone sockets
- Surround sound speaker system

Control of the system is through the ICM located in the center of the instrument panel. Control signals from the ICM are sent to the rest of the audio system on the MOST network. The ICM is the timing master for the MOST ring and also hosts a gateway function between the medium speed CAN bus and the MOST ring. Audio signals are sent on the MOST ring from the IAM to the amplifier.

Hi Line and Premium Audio System Control Diagram



1	Battery	8	Audio amplifier
2	CJB	9	Rear headphone sockets and audio control
3	Steering wheel controls	10	AJB
4	Clockspring	11	BJB
5	Integrated Audio Module (IAM)	A	Hardwired connection
6	Infotainment Control Module (ICM)	N	Medium speed CAN bus
7	Speakers	P	MOST

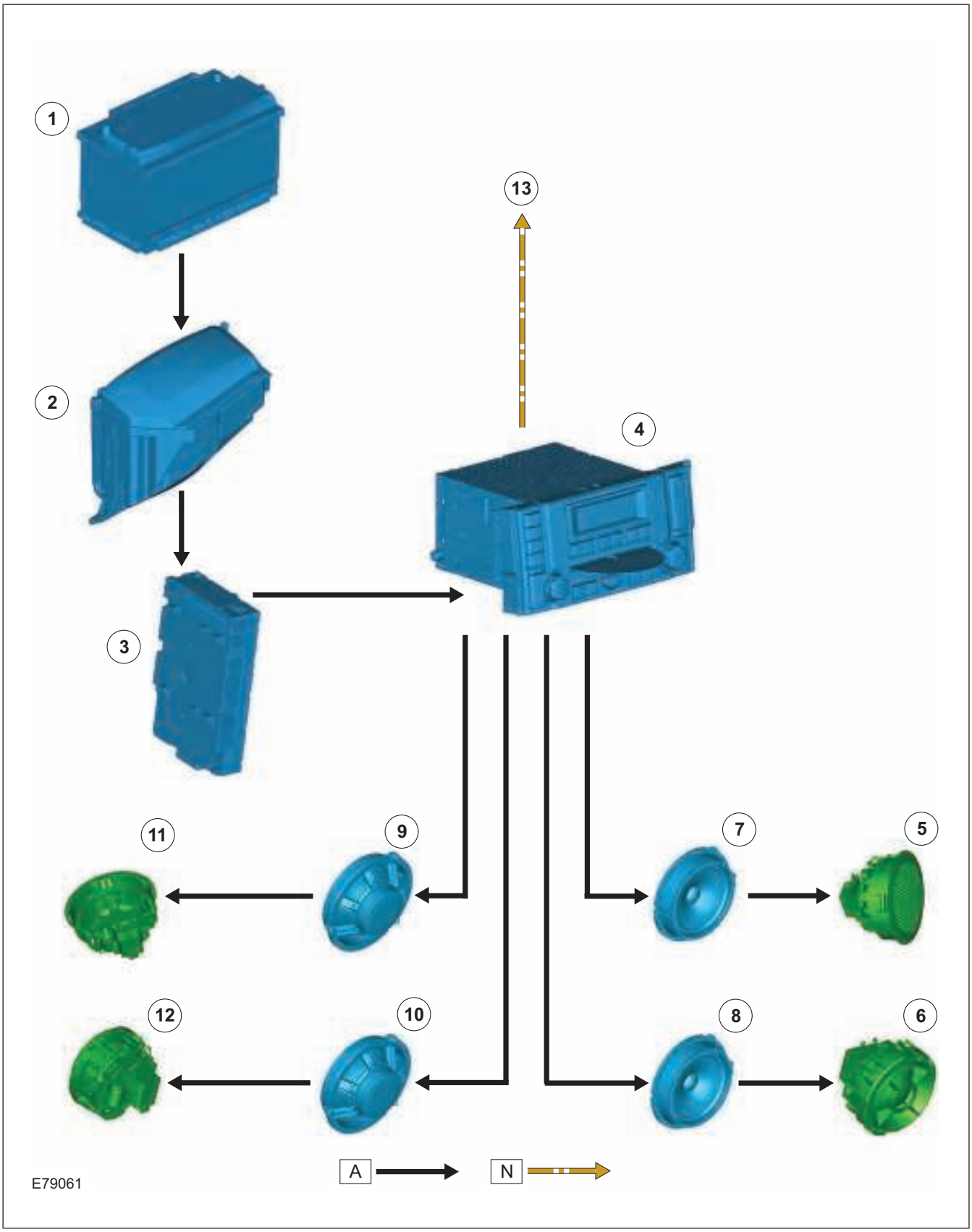
Speaker Systems

The number and type of speakers installed will be dependant upon which variant of audio system is installed.

Standard Audio System

- 2 Front door mounted mid/low range speakers
- 2 Front door mounted high range speakers (Tweeters)
- 2 Rear door mounted mid/low range speakers
- 2 Rear door mounted high range speakers (Tweeters)

Standard Audio System Control Diagram

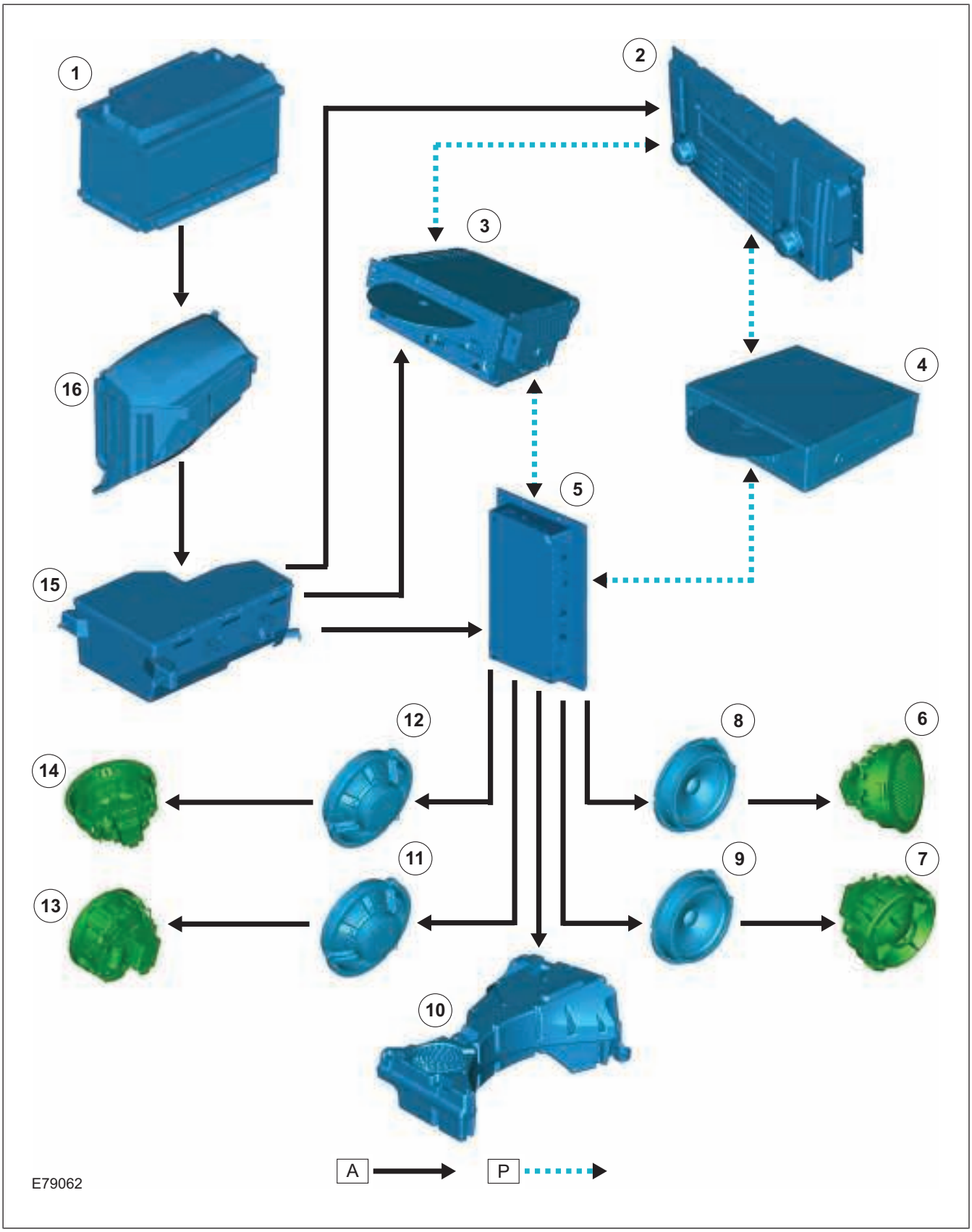


1 Battery
2 BJB
3 CJB
4 Audio head unit
5, 6, 11, 12. Door Tweeters (High range)
7, 8, 9, 10. Mid/Low range door speakers
A Hardwired
N MS CAN

Hi-line Audio System

- 2 Front door mounted mid/low range speakers
- 2 Front door mounted high range speakers (Tweeters)
- 2 Rear door mounted mid/low range speakers
- 2 Rear door mounted high range speakers (Tweeters)
- Rear loadspace mounted subwoofer

Hi-line Audio System Control Diagram

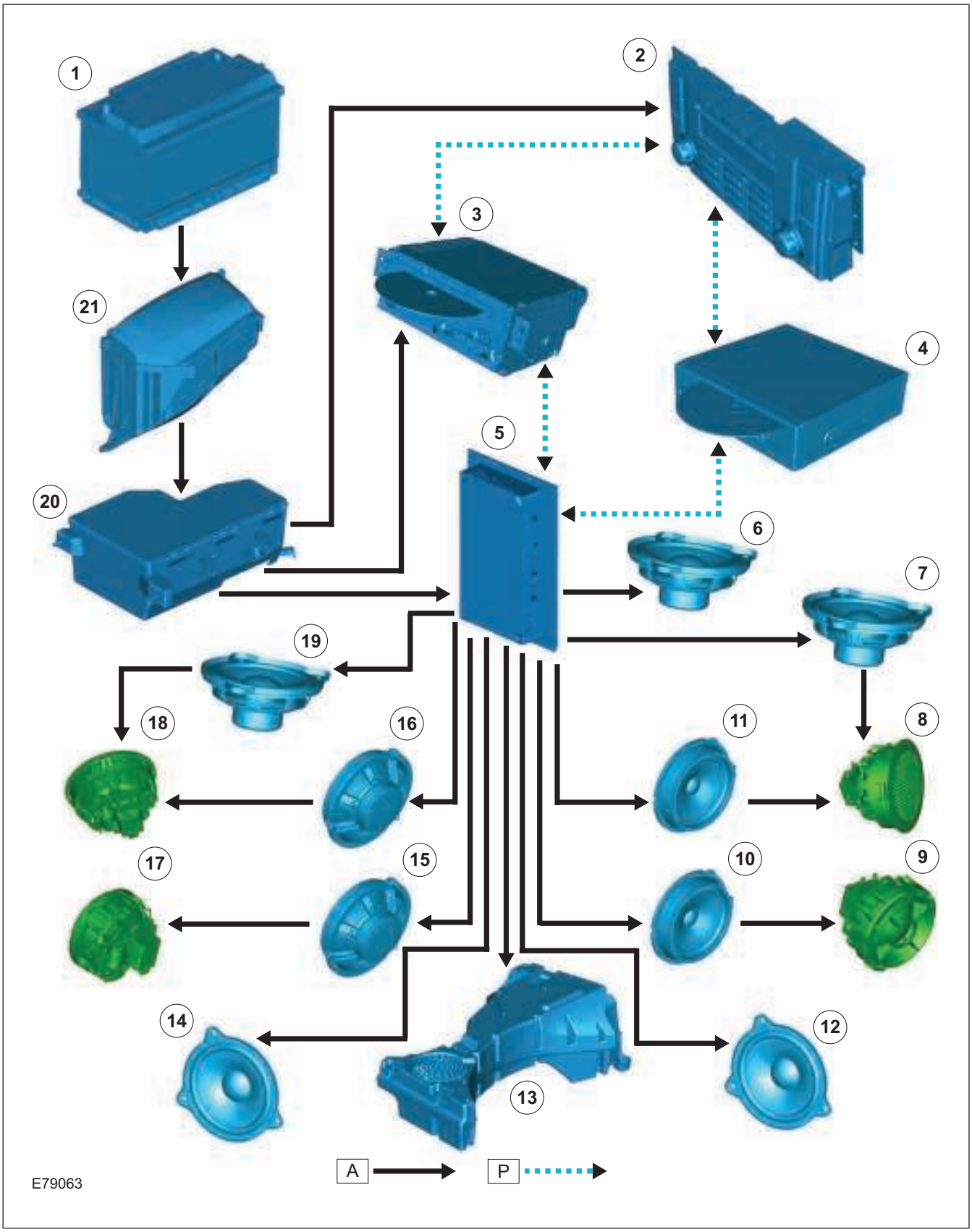


1 Battery
2 Infotainment control module
3 Integrated audio module
4 Navigation computer
5 Audio amplifier (8 channel - 320 Watts)
6, 7, 13, 14. Door Tweeters (High range)
8, 9, 11, 12. Mid/Low range door speakers
10 Subwoofer
15 AJB
16 BJB
A Hardwired
P MOST

Premium Audio System

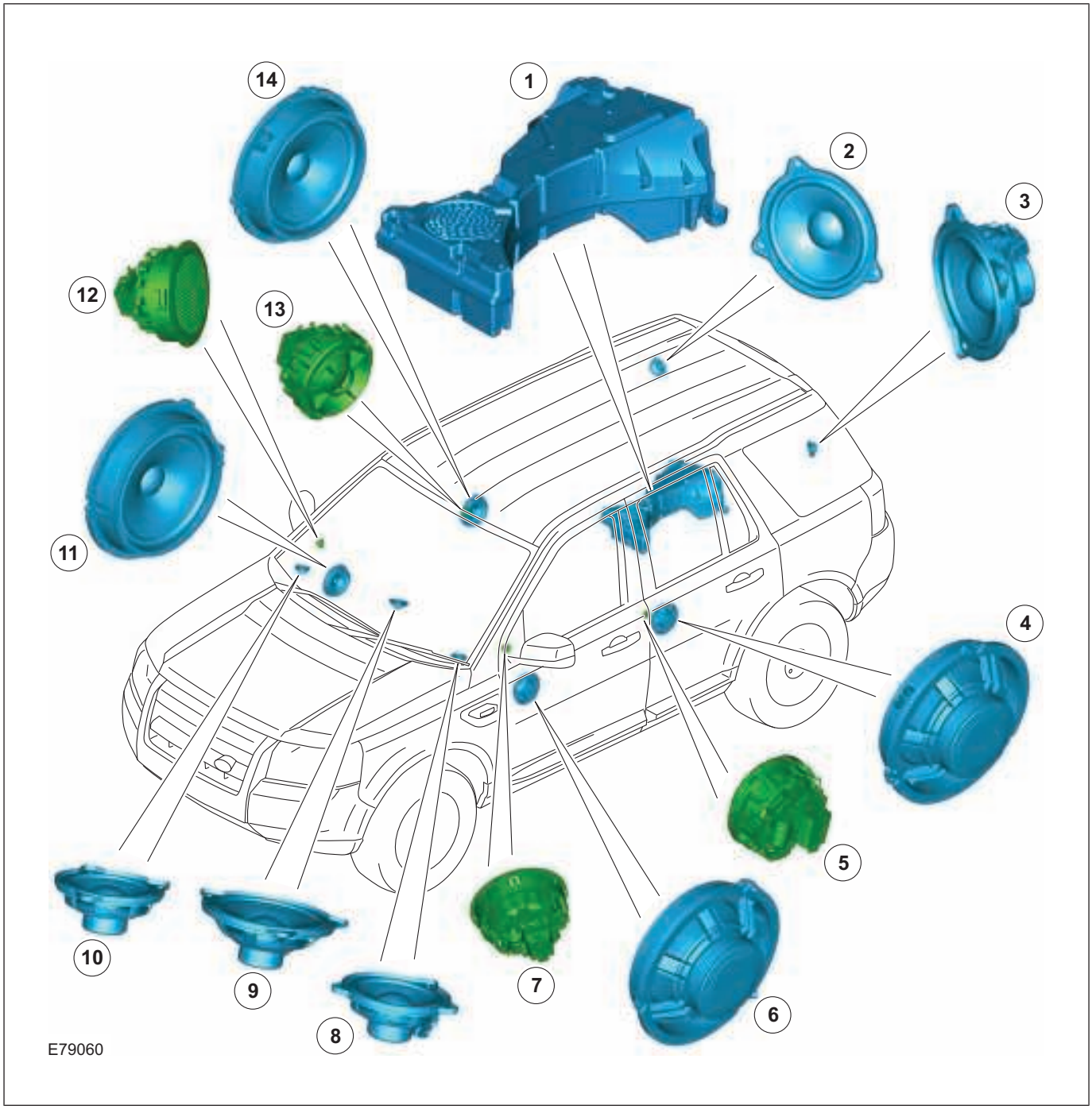
- 2 Front door mounted low range speakers
- 2 Front door mounted high range speakers (Tweeters)
- 2 Rear door mounted mid/low range speakers
- 2 Rear door mounted high range speakers (Tweeters)
- Rear loadspace mounted subwoofer
- 2 Mid range speakers mounted on the instrument panel
- 1 center fill speaker centrally located in the instrument panel
- 2 rear surround speakers mounted in the rear D pillars

Premium Audio System Control Diagram



1	Battery
2	Infotainment control module
3	Integrated audio module
4	Navigation computer
5	Audio amplifier (12 channel - 480 Watts)
6	Front center fill speaker
7, 19	Front mid range speakers
8, 9,	17, 18. Door Tweeters (high range)
10,15	Rear mid/low range door speakers
11,16	Front low range door speakers
12,14	Rear surround sound speakers
13	Subwoofer
20	AJB
21	BJB
A	Hardwired
P	MOST

Speaker Location (All variants)



1 Subwoofer enclosure
2 Rear RH surround speaker
3 Rear LH surround speaker
4 Rear LH mid range speaker
5 Rear LH high range speaker
6 Front LH mid/low range speaker
7 Front LH high range speaker
8 Front LH mid range speaker
9 Center fill speaker
10 Front RH mid range speaker
11 Front RH mid/low range speaker
12 Front RH high range speaker

13 Rear RH high range speaker

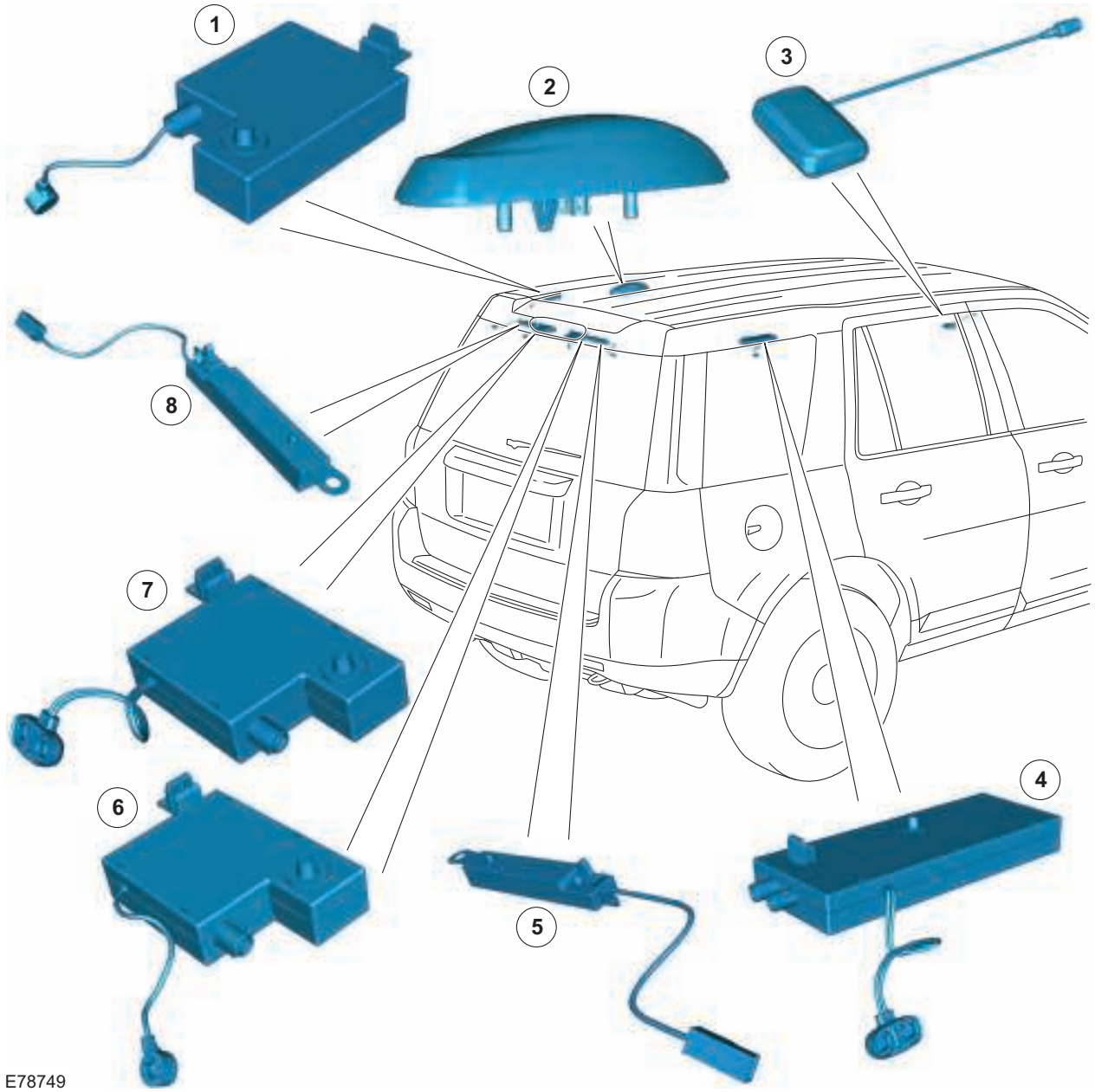
14 Rear RH mid range speaker

There are two variants of the separate audio amplifier (MOST). The Hi-line system uses an 8 channel amplifier having an output of 320 Watts. The Premium system uses a 12 channel amplifier having an output of 480 Watts.

The standard audio system amplifier is a 4 channel amplifier having an output of 17 Watts per channel.

Antenna

Component Location



1 DAB band III amplifier (where fitted)
2 GPS/SDARS/DAB L band antenna pod
3 VICS beacon antenna
4 AM/FM antenna amplifier (non diversity system) or AM/FM diversity antenna amplifier
5 RH RF filter
6 VICS/TMC antenna amp
7 Twin FM antenna amp for diversity tuning
8 LH RF filter

Overview

The antenna systems fitted to the vehicle comprise:

- AM/FM screen mounted antennae or AM/FM diversity system
- FM diversity antenna
- GPS antenna (where fitted)
- SDARS antenna (NAS only) (NAS only, roof pod mounted) or DAB antenna (where fitted, roof pod)
- VICS beacon antenna (Japan only)
- Digital Audio Broadcasting (DAB) system antenna (side screen or roof pod mounted depending on system)

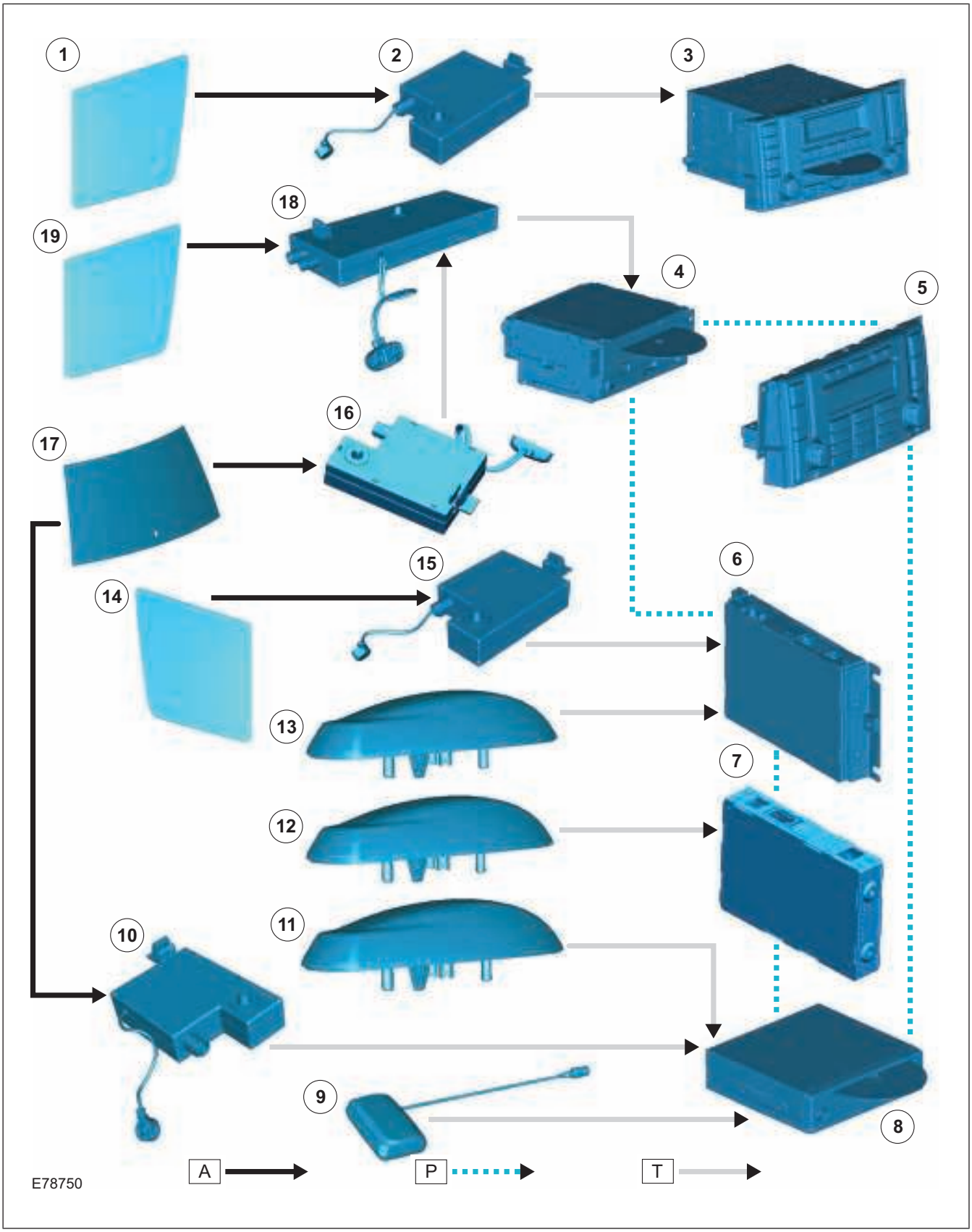
The AM/FM antenna is etched onto the RH side window glass. The antenna has an amplifier located just above the window. This amplifier will vary upon the entertainment and information system fitted to the vehicle. High line systems will have a larger amplifier for diversity tuning.

The rear window incorporates 2 FM antennae and a VICS/TMC antenna etched onto the glass. The 2 FM antennae are used in the diversity tuning system along with the respective antenna amplifiers.

The LH side window antenna is used for DAB band III signal reception.

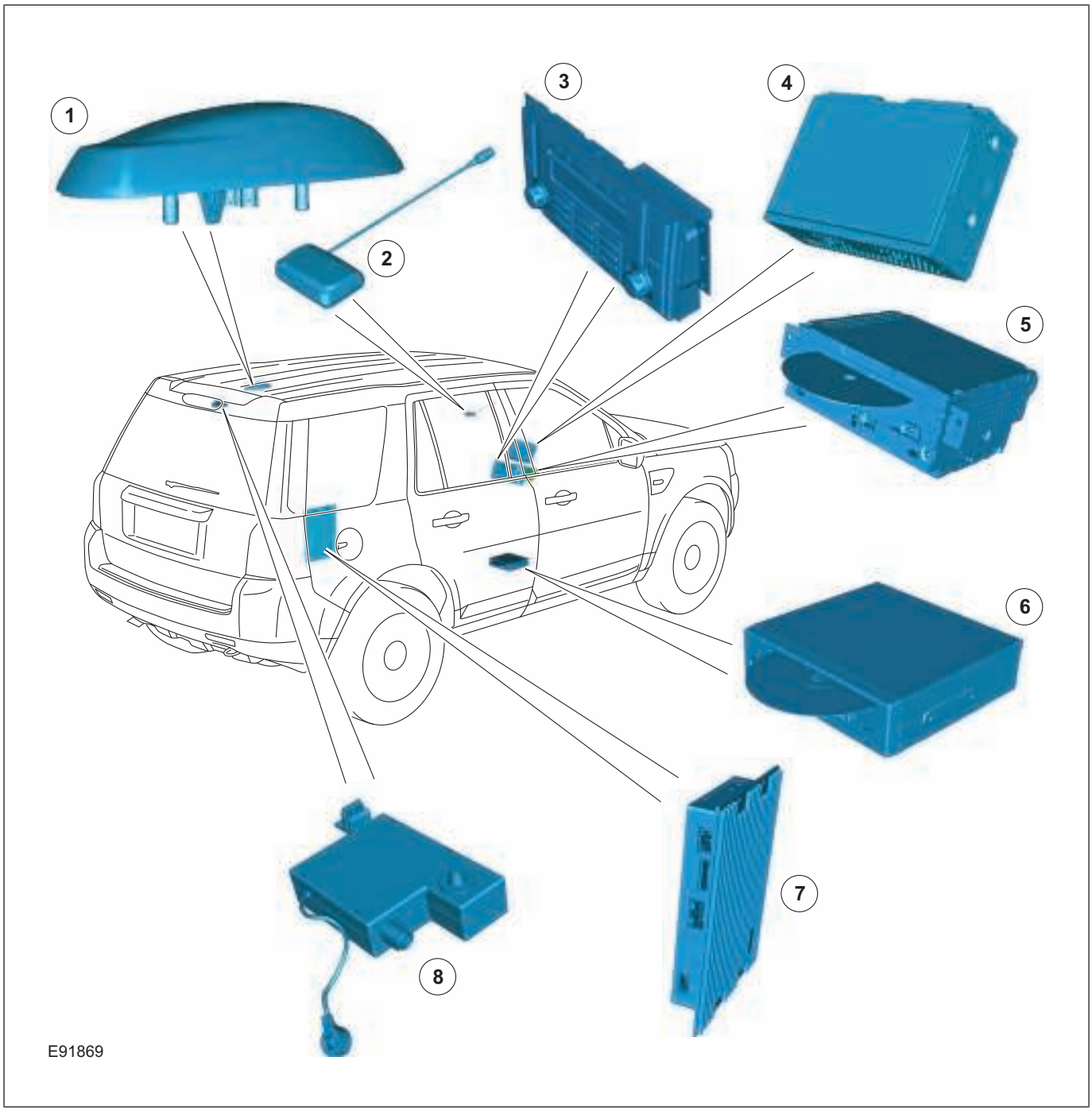
NOTE: The telephone control module incorporates a Bluetooth antenna. This is integral to the module and as such is not serviceable.

Control Diagram



1 Rear RH screen AM/FM antenna
2 AM/FM antenna amplifier
3 Low line head unit
4 Integrated audio module
5 ICM
6 DAB tuner
7 SDARS tuner
8 Navigation computer
9 VICS beacon antenna
10 TMC antenna amplifier
11 GPS antenna
12 SDARS antenna
13 DAB L band antenna
14 Rear LH side screen DAB antenna
15 DAB antenna amplifier
16 Diversity antenna amplifier
17 Rear screen FM antenna
18 Diversity antenna amplifier
19 Rear RH screen AM/FM antenna
A Hardwired
P MOST
T CoAxial

Component location



1 Global positioning system (GPS) antenna

2 Vehicle Information and Communication System (VICS) beacon antenna - Japan only

3 Control panel and infotainment control module

4 Touch screen display

5 Integrated audio module

6 Navigation computer

7 Audio amplifier

8 VICS/TMC antenna amp

Overview

The navigation system provides audible and visual route guidance information to enable the driver to reach a desired destination. The system allows the driver to choose the desired route using minor or major roads or highways with the option of three routes. Directions to hospitals, museums, monuments and hotels are also available. The computer uses map information stored on a DVD to determine the best route for the journey and provide the driver with details of directions and approaching junctions.

The navigation system is controlled by the driver from the touch screen display. Control signals from the touch screen display are sent on the Media Orientated System Transport (MOST) ring to the infotainment control module where they are then transmitted on the MOST ring to the navigation computer. The navigation computer uses a dedicated Gigabit Video Interface (GVIF) to transmit video signals to the touch screen display.

Vehicles with navigation systems also incorporate additional traffic information systems. These are market dependant and are as follows:

- Europe - Traffic Message Channel (TMC).
- Japan - Vehicle Information and Communication System (VICS).
- NAS - No additional system.

Navigation Module


E86751

The navigation computer located under the right-hand front seat, houses the DVD drive that reads the map data from the region specific DVD. Access to the DVD slot is from the rear of the seat.

A button, located adjacent to the DVD slot, is provided to eject the DVD from the unit. Prior to ejecting the disc the slot protection has to be slid to the side. If the ignition is on, or the entertainment system is in 1-hour mode, one press of the button will eject the DVD.

Connected to the MOST bus, the navigation computer generates its own graphics and transmits them to the touch screen display on a dedicated Gigabyte Video Interface (GVIF) bus.

The navigation computer also incorporates the following:

- GPS receiver
- VICS receiver (Japan only)
- Traffic Message Channel (TMC) receiver

The GPS receiver receives information from between 1 and 8 satellites at any one time. This information is received from the GPS antenna. The built in GPS receiver is used for calculating the position (i.e. latitude, longitude and height), direction and speed.

The navigation computer contains a solid state piezo gyro which measures the motion of the vehicle around its vertical axis. The gyro operates on the principle known as the Coriolis force. The Coriolis force is the

force that appears to accelerate a body moving away from its rotational axis against the direction of rotation of the axis.

To calculate the vehicle's current position, direction and speed, the navigation computer uses:

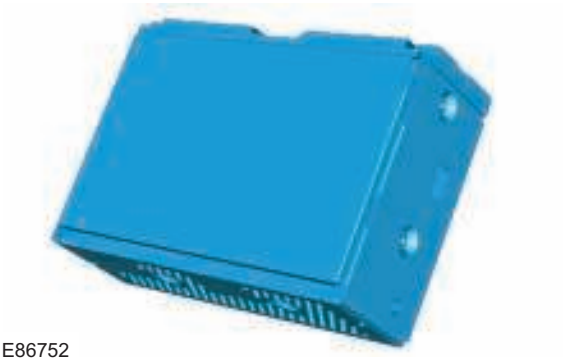
- speed signals transmitted on the high-speed CAN from the ABS module to the MOST ring,
- and signals transmitted from the GPS antenna and the gyro sensor.

For the Japanese market the navigation computer incorporates a VICS receiver. The VICS receiver, receives information from the VICS beacon antenna in the center of the instrument panel and the electric Frequency Modulation (FM) antenna. Using this information the VICS system monitors information regarding traffic conditions from roadside transmitters, and if necessary, adjusts the navigation instructions accordingly to avoid traffic congestion.

For certain European markets the navigation computer incorporates the Traffic Message Channel (TMC) receiver. The TMC receiver decodes TMC data. The navigation computer then displays this information on the touch screen display and re-routes the navigation guidance system to avoid traffic congestion. The TMC data is received through the electric FM antenna.

The navigation computer uses non-volatile memory to store settings and configuration information when it is powered down. This process takes place just before the computer turns off.

TSD



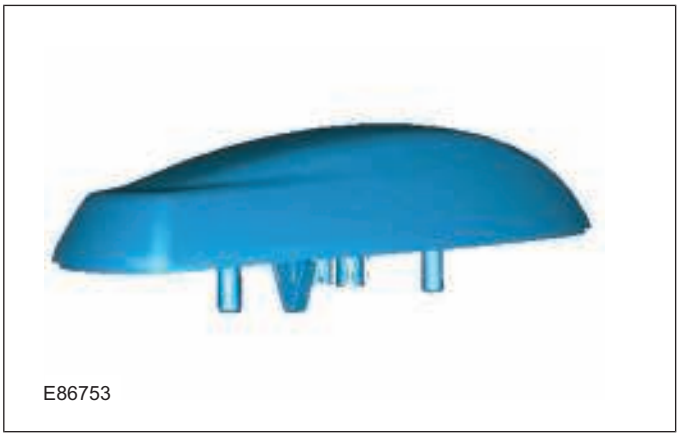
E86752

The touch screen display is located in the center of the instrument panel and is the dedicated interface with the navigation system. The touch screen display does not operate any other vehicle systems. The screen is a touch sensitive 7 inch liquid crystal display (LCD) screen containing 800 x 480 pixels in a 15:9 format. The touch screen display is connected to the Information and Entertainment system on the MOST ring. The MOST ring is a fiber optic communications data bus that allows high speed transfer of control instructions and audio around the system.

The touch screen display processes its own video for system operation but receives the navigation graphics from the navigation computer on a dedicated serial link called Gigabit Video Interface (GVIF).

The touch screen display navigation control signals are sent on the MOST ring to the navigation computer.

GPS Antenna


E86753

The Global Positioning System (GPS) antenna is located on the rear of the vehicle's roof. The GPS antenna is connected to navigation computer by a single co-axial cable and passes signals from the GPS satellites to the navigation computer's built in receiver for processing.

It is possible for the GPS antenna to lose the signal from the GPS satellites:

- In hilly or tree lined areas
- Built up areas with tall buildings
- In multi storey car parks
- In garages
- In tunnels
- In bridges
- During heavy rain or thunderstorms.

When the signal is lost the navigation computer will continue to give guidance using memory mapped data from the DVD map until the signal is restored.

VICS Beacon Antenna - Japan Only


E86754

The VICS beacon antenna is located on top of the instrument panel. The antenna receives infra red and RF signals from road side transmitters. The Antenna is connected to the navigation computer which incorporates a VICS receiver.

Control Panel and Infotainment Control Module

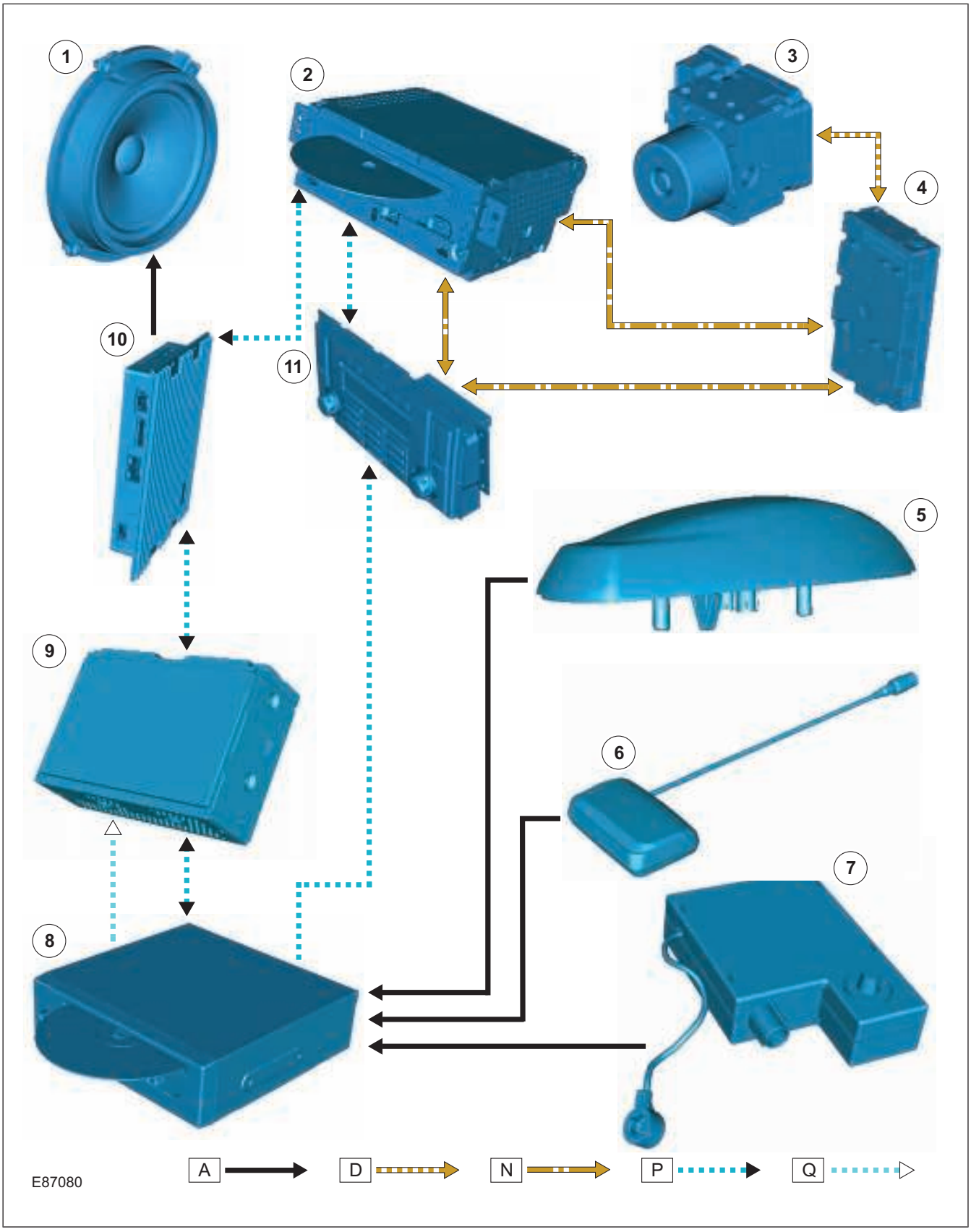
The control panel incorporates switches for audio system and telephone control. The navigation system is operated from the touch display screen through signals on the MOST ring. Hard switches on the control panel send CAN signals to the infotainment control module which transfers signals to the relevant module on the MOST ring.

The infotainment control module is the gateway between the medium-speed CAN bus and the infotainment system MOST bus.

Integrated Audio Module

Audio signals are sent on the MOST ring from the Integrated Audio Module to the amplifier.

Control Diagram



1 Speakers
2 Integrated audio module
3 Anti-lock brake system (ABS) control module
4 Central junction box (CJB)
5 Global positioning system (GPS) antenna
6 Vehicle Information and Communication System (VICS) beacon antenna - Japan only
7 Traffic Message Channel (TMC) antenna amplifier - Europe only
8 Navigation computer
9 Touch screen display (TSD)
10 Audio amplifier
11 Infotainment control module (ICM)
A Hardwired
D High speed CAN bus
N Medium speed CAN bus
p MOST
Q GVIF (Gigabyte Video Interface)

Principles of Operation

The system used to calculate the current position of the vehicle is called the Global Positioning System (GPS). The system utilizes satellites which are owned by the United States Department of Defense. A total of 24 satellites orbit the earth every 12 hours at a height of 20,000 km (12500 miles), and between 5 and 11 of these satellites can be seen from a single point at any given time. The orbits are tilted to the earth's equator by 55 degrees to ensure coverage of polar regions. Each satellite transmits radio signals to provide information about the satellite's position, for example the latitude, longitude, altitude, almanac data and an accurate time signal generated by an on-board atomic clock. Each satellite contains four atomic clocks.

Each GPS satellite transmits its encoded signal towards the earth using the civilian frequency of 1575.42 MHz. The coding contains information concerning the satellite's position and the time when the signal was transmitted. The signals transmitted from the satellites reach the earth at almost the speed of light and are received by the GPS antenna.

As the various satellites are at different distances from the ground location, the vehicle's position on the ground is determined on the basis of the transmission time of the signals. This is performed by the vehicle's navigation receiver, which performs a comparison (correlation) of the different signals.

The vehicle needs to receive data from at least four different satellites to give a three dimensional fix on its current position. Three satellites are required to determine the position of the GPS receiver (within the vehicle) and the fourth signal is used to calculate the distance (altitude) between the ground position and the satellites.

As the vehicle moves, this information is continually being updated. The computer determines which satellites are 'visible' to the system and their current position and relationship to each other. Using this information the computer can account for positional deviations of the satellites and compensate to enhance the accuracy of the navigation system.

The Global Positioning System (GPS) signal is also known as the Precision Positioning Signal (PPS).

PPS predictable accuracy is:

- 22 meters horizontal accuracy
- 27.7 meters vertical accuracy
- 200 nanoseconds time accuracy.

The navigation system receives GPS information from the GPS antenna. The GPS signals are used by the navigation computer to calculate the vehicle's position.

Once the driver has entered a destination, the navigation computer can calculate a route, based on the driver's pre-determined preferences or the default settings in the navigation computer.

The navigation system receives GPS (global positioning system) information from the GPS antenna. The GPS signals are used by the navigation computer to calculate the vehicles position. Once the driver has input a desired destination the navigation computer can calculate a route, based on the drivers pre-determined preferences or the default settings in the navigation computer.

The navigation system is accessed by pressing the navigation soft key on the touch screen display.

Navigation is initiated by the driver entering a destination. This can be achieved by:

- Entering in an address using the touch screen display.
- Entering a post code.
- Choosing a previous destination
- Choosing a point of interest from the map disc database.
- Choosing the home location.
- Choosing a memory stored location.

The driver is then guided to the destination by a scrolling map display and voice guidance. The display can be varied by scale and display type.

In addition to the navigation system there are two market dependant systems that supply extra information to the navigation system and the driver. These are:

- Traffic Message Channel (TMC) – Europe only.
- Vehicle Information and Communication System (VICS) - Japan only.

Traffic Message Channel (TMC)

The Traffic Message Channel (TMC) traffic data is currently broadcast in many European countries.

TMC is a function of the FM (frequency modulation) Radio Data System (RDS). The system broadcasts real-time traffic and weather information. TMC information is received from the normal FM radio antenna.

Data messages are received and decoded by the TMC receiver and passed onto the navigation system, which then delivers them through the navigation system interface. TMC messages can be filtered by the navigation computer so that only those relevant to the current journey are displayed, allowing the navigation system to offer dynamic route guidance - alerting the driver of a problem on the planned route and calculating an alternative route to avoid the incident. All TMC events on the map can be viewed not just the ones on the calculated route.

TMC traffic information systems conform to a global standard that has been adopted by:

- traffic data gatherers,
- information service providers,
- broadcasters, and
- vehicle/receiver manufacturers.

All TMC receivers use the same list of event codes, while the location database (on the map disc) contains both a country-specific set of location codes for the strategic European road network.

Vehicle Information and Communication System (VICS)

The Vehicle Information and Communication System (VICS) is broadcast in the Japanese market.

The VICS system supplies the navigation computer with information that enables the computer to inform the vehicle driver of traffic conditions in the vehicle's vicinity and calculate an alternative route if necessary. Information is transmitted to the navigation system through three routes:

1. Radio Frequency Transmission

Radio frequency transmission is generally transmitted from road side beacons mainly on highways. The information transmitted is as follows:

- Traffic congestion
- Travel time to next intersection
- Traffic conditions in surrounding areas and highway turn offs
- Traffic accidents
- Speed limits
- Lane regulations
- Tire change
- Parking availability at highway service areas and parking areas.

2. Infra-red Transmission.

Infra-red transmission is received by the beacon antenna mounted on the top of the instrument panel. Infra-red transmissions are transmitted from road side beacons on major trunk roads. The information transmitted is:

- Traffic congestion and travel time
- Traffic accidents
- Breakdowns
- Road works restrictions
- Parking availability.

3. FM (frequency modulation) Transmissions.

FM (frequency modulation) transmissions are received from the FM antenna, broadcast as part of the normal RDS FM transmission.

Information transmitted is:

- Traffic congestion and travel time for wide areas
- Traffic accidents, road works, speed limits and lane restrictions for a wide area
- Parking availability information.

Navigation System Terminology

There are several acronyms and terms which are often used when referring to navigation systems. Some of the acronyms may be seen in the satellite information screen of navigation system.

Navigation System Terminology / Acronyms

Acronym	Definition	Description
Pdop	Percent dilution of precision	Measure of the geometrical strength of the GPS satellite configuration. (Amount of error in vehicle position). Less than 4 gives the best accuracy (under 1 meter). Between 4 and 8 gives acceptable accuracy. Greater than 8 gives poor accuracy.
Hdop	Horizontal dilution of precision (Position)	Amount of error in vehicle position in horizontal plane
Vdop	Vertical dilution of precision (Position)	Amount of error in vehicle position in vertical plane

Acronym	Definition	Description
Azm Azi	Azimuth angle	This is the direction of the satellite measured in a clockwise direction (from north) around the GPS receivers horizon. Example: The GPS receiver is pointed due north and a satellite is located to the east at an angle of 67 degrees. The azimuth (or bearing) of the satellite is 67 degrees (East North East)
I.D	Identity	Satellite identity number
Elv	Elevation	Elevation angle of the satellite
Lev	Signal level	Signal strength of the satellite
St	Status	Reception status of the satellites: T - Tracking; signals being received by satellite are not being used for positioning P - Signals are being used for positioning — - Satellite is not being received
Meas Stat	Positioning status	2D - 2 dimensional positioning 3D - 3 dimensional positioning NG - Unable to use positioning data due to excessive error
ACC	Accuracy	Accuracy of the satellite data, scale 0 to 15 0 is most accurate. 15 is most inaccurate When satellite is in use value is approximately 2 to 3. Near 15 satellite cannot be used
VSP	Virtual stationary position	Vehicle movement status

Navigation Diagnostics

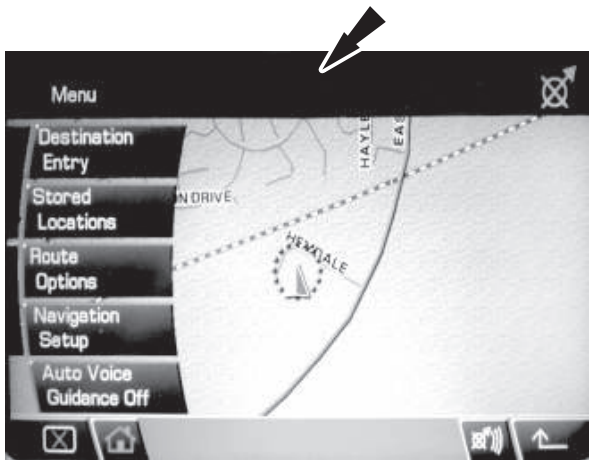
The Freelander 2 / LR2 navigation system incorporates on-board diagnostics to allow technicians to diagnose many faults without the need for an IDS. The only requirements for using the on-board diagnostics are that the TSD is fully functional and the navigation computer must be operational.

There are 3 modes to the navigation on-board diagnostics; each can be accessed by using a unique PIN code:

- PIN 660 – Diagnosis menu
- PIN 661 – System check
- PIN 662 – GPS information

To access the PIN entry screen, press the top center of the map screen (as indicated by the arrow in the illustration) and hold for longer than 5 seconds.

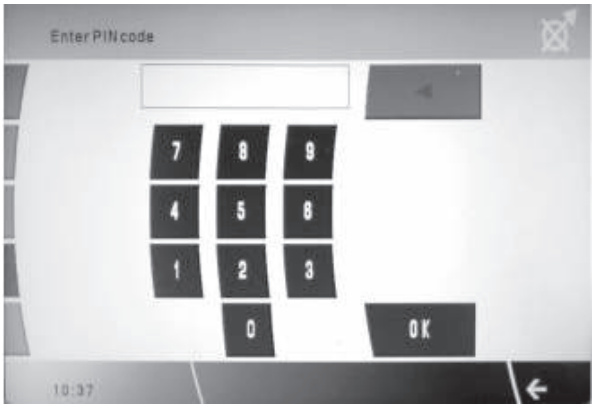
Press to access PIN entry screen:



E91313

When the PIN entry screen appears, enter the PIN number for the diagnostic routine required and then press ‘OK’.

PIN Entry Screen



E91314

DTCs

The following table shows the DTCs which are applicable to the navigation system and may be displayed by the TSD after carrying out a system self check.

DTC	Fault	Action	Probable Cause
8913	GPS antenna open circuit	Check antenna circuit	GPS antenna / cable / connections
8911	GPS antenna short circuit	Check antenna circuit	GPS antenna / cable / connections
891B	GPS receiving error	Check navigation system is correctly installed	Navigation module
0049	Abnormal Gyro voltage or fan speed	Check navigation system is correctly installed	Navigation module
0531	Abnormal speed signal	Check ABS system for DTCs. Check CAN / MOST networks	ABS fault Network fault ICM fault (CAN/MOST gateway
0316	Low voltage	Check for battery voltage at navigation module	Wiring fault to navigation module
0317	High voltage	Check for battery voltage at navigation module	Wiring fault to navigation module /charging system fault
0098	High temperature	Check ambient temperature at navigation module	Abnormally high temperatures Faulty navigation module
5514	GPS antenna open circuit (Normal on Freelander 2	None	None
5614	VICS beacon antenna open circuit (Japan only)	Check VICS antenna and associated wiring	Cable / connections / VICS antenna
0055	CCF data undetermined	Check configuration	Vehicle / navigation not configured correctly
0087	Faulty map disc / navigation module	Check map disc Check navigation module Check for high ambient temperature	Faulty map disc / navigation module / high ambient temperature

The prefix letters are displayed in hexadecimal format (and have been omitted from the table) and these are different to the prefix letters displayed by IDS. The last four digits will be the same.

The following is a conversion table for hexadecimal codes:

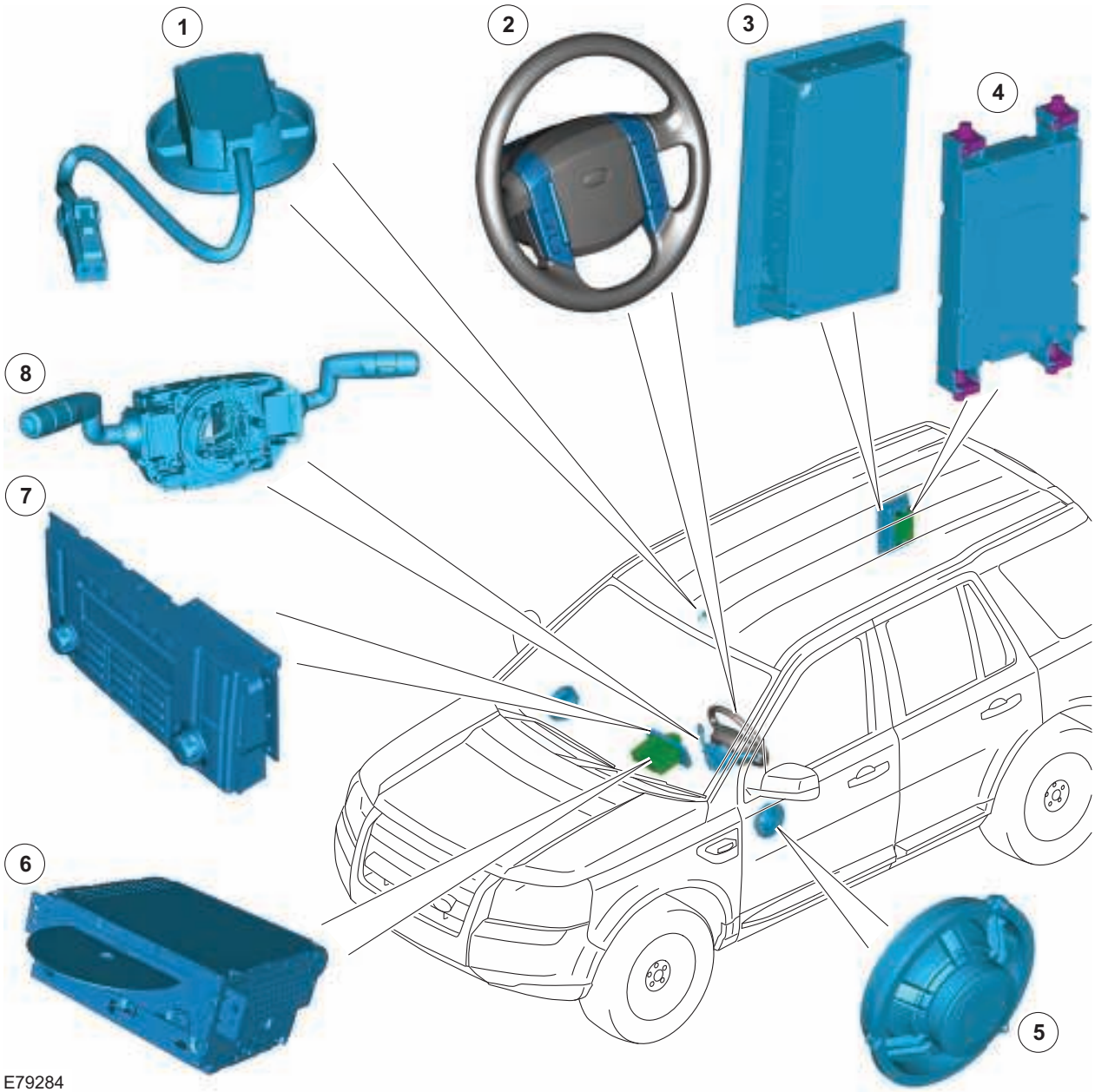
Hexadecimal Code	DTC
9AXXXX	B1AXX-XX
9DXXXX	B1DXX-XX
E0XXXX	U20XX-XX
F0XXXX	U30XX-XX

NOTE: 9D5514 (antenna open circuit) will usually always be displayed. this is because a 'ghost' voltage for the TMC antenna is not used on Freelander 2

The example above shows a hexadecimal code of 9D5514, which translates to B1D55-14 – antenna open circuit.

Cellular Phone

Component Location



1 Microphone
2 Steering wheel switches
3 Audio amplifier
4 Telephone control module
5 Speakers
6 Integrated audio module (IAM)
7 Infotainment control module (ICM)
8 Clockspring

Overview

The system allows the driver to use a Bluetooth equipped cellular phone handset through the vehicles Information and Entertainment system.

NOTE: There is no physical connection (cradle) between the phone handset and the telephone control module. Communications between the 2 components are purely Bluetooth. This can limit the available functions dependant on the handset used.

The cellular phone system comprises the following components:

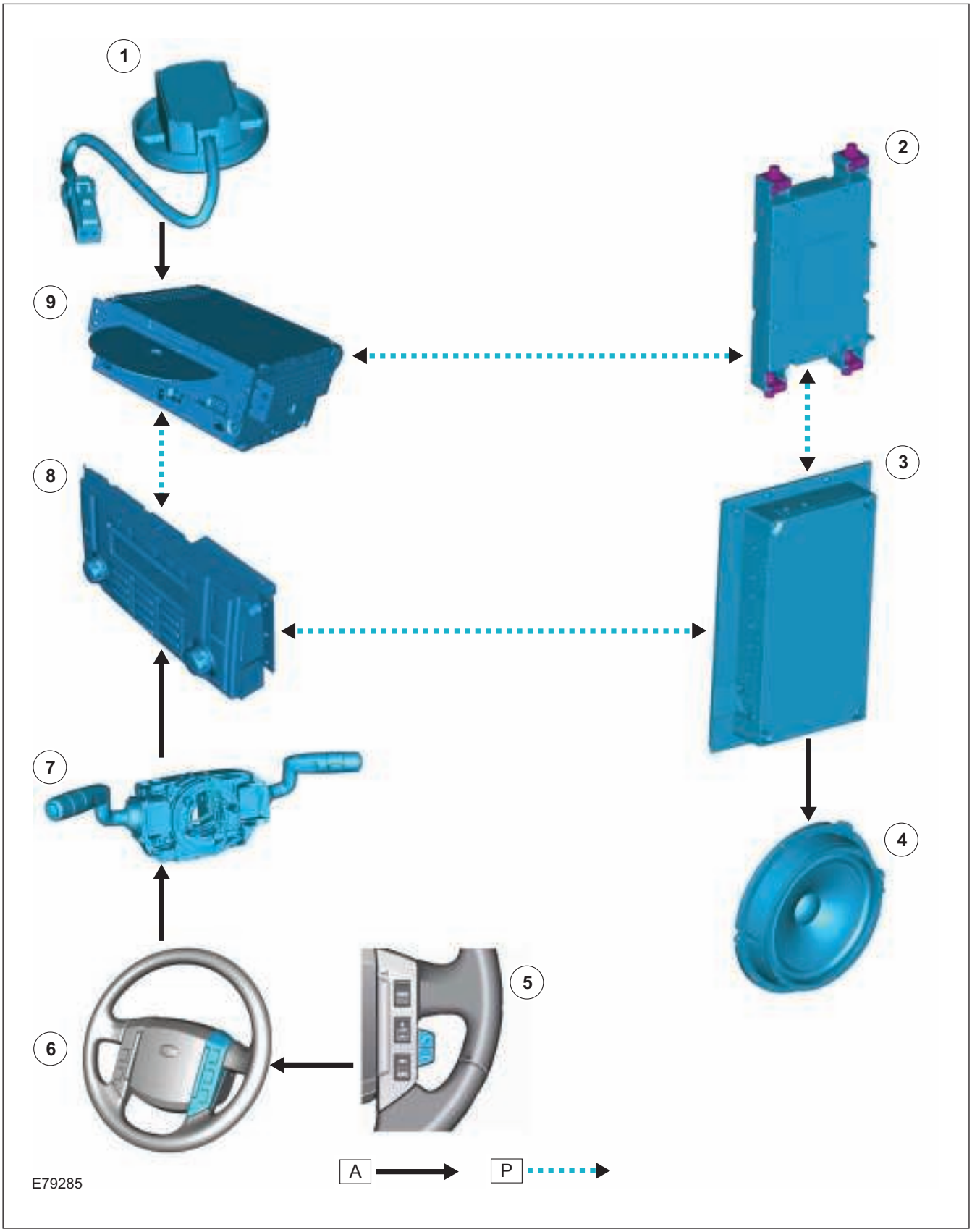
- Telephone control module
- Microphone

Phone dialing is achieved using one of the following methods:

- Dialing a number using the ICP keypad
- Selecting a number from the handset's phonebook through the ICM
- Selecting from the handsets call register, typically the last 10 calls made, received and missed.

The Telephone control module is connected to the Information and Entertainment system on the MOST ring. This allows audio and control signals to be routed to and from the telephone control module. The telephone control module has an integral Bluetooth antenna.

Control Diagram



1 Microphone
2 Telephone control module
3 Audio amplifier
4 Speakers
5 Steering wheel mounted call switches
6 Steering wheel mounted audio control switches
7 Clockspring
8 Infotainment control module (ICM)
9 Integrated audio module (IAM)
A Hardwired
P MOST

Bluetooth Setup

When pairing a Bluetooth telephone with the vehicle system, make sure that the telephone is switched on and its battery is fully charged, that Bluetooth is enabled and discoverable, and the telephone User's Handbook is available. Also, make sure there are no other phones in the area and turn off all Bluetooth devices (such as IDS).

Refer to the latest service bulletins for a list of approved phones. Note that non-approved phones may not pair or, if paired, may not operate as expected. There is no technical support for pairing non-approved phones.

NOTE: A maximum of five pairings can be made to the vehicle, but only one telephone can be used at any time.

Pairing a telephone to the system

Refer to the phone's handbook for specific pairing instructions for that model.

1. Make sure the telephone to be paired is within 10m (30 ft) of the vehicle.
2. With the vehicle ignition on, press the telephone mode button on the infotainment control module (ICM). The system will search for the last connected telephone. If a telephone is not detected, the system will ask if you want to pair. Briefly press the 'ENTER' button. If you do not want to pair a telephone, press the 'EXIT' button.
3. The ICM display will show a message to make sure that the Bluetooth telephone is switched on. Briefly press the 'ENTER' button. The system will then start a search for the telephone.
4. After the search is completed, a list of all telephones found will be displayed on the ICM screen. If more than one telephone is found, rotate the 'ENTER' button to move up or down the list to select your telephone and then press the 'ENTER' button.
5. The ICM will now display a Bluetooth access code number which must be entered into the telephone.
6. A message on the ICM display will confirm the system is connecting with the telephone. When it is successfully connected, the telephone will be paired and connected with the vehicle and can now be used with the vehicle telephone system.
7. If the pairing fails, a message will appear on the ICM display; press the 'ENTER' button to retry or press the 'EXIT' button and restart the process.
8. The last connected telephone will be available for use when the system and telephone are switched on again.
9. If you wish to pair additional telephones, repeat the process.

Adding or changing a telephone

1. Select the telephone main menu. See ‘Telephone Setup’ in the Owner’s Handbook.
2. Select ‘Bluetooth’, then select the option to ‘change a telephone’.
3. ‘Add new phone’ will appear at the top of the list. Repeat the procedure for pairing a telephone to the system.

If the maximum number of telephones are already paired to the system, a message will be displayed and you are given the option to remove one. This must be carried out before a new telephone can be paired.

Removing a telephone from the system

1. Select the telephone main menu. See ‘Telephone Setup’ in the Owner’s Handbook.
2. Select ‘Bluetooth’, then select the option to ‘remove a telephone’.
3. Select a telephone by rotating the ‘ENTER’ button, highlight the telephone to be removed then press the ‘ENTER’ button. A confirmation message to remove a telephone will appear on the audio unit display, press the ‘ENTER’ button.
4. The ‘remove telephone’ screen will be displayed, and if no further telephones are to be removed, press the ‘EXIT’ button.