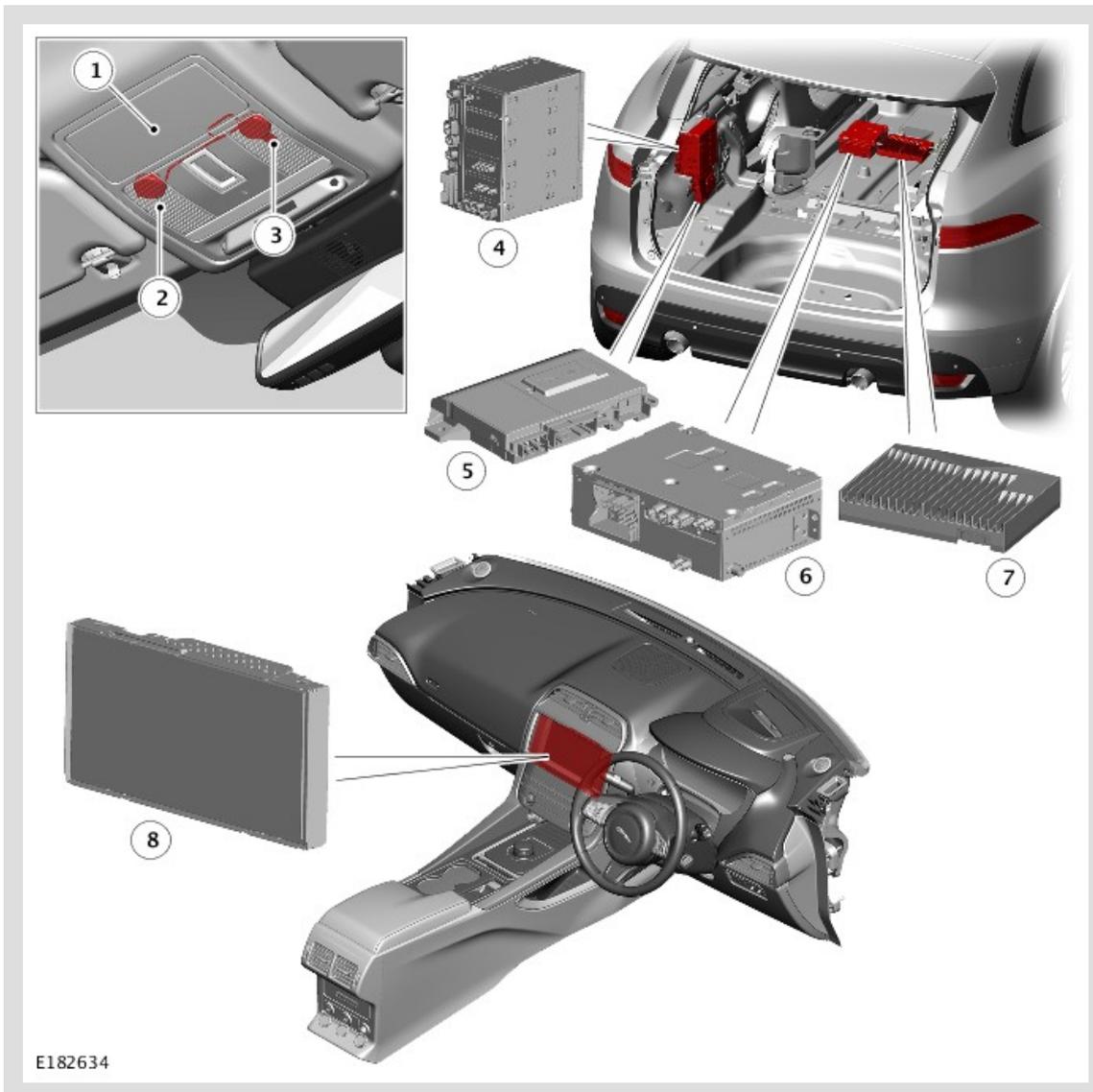


# INFORMATION AND ENTERTAINMENT SYSTEM - VEHICLES WITH: INCONTROL TOUCH PRO

## DESCRIPTION AND OPERATION

### COMPONENT LOCATION



ITEM	DESCRIPTION
1	Overhead console
2	Microphone - Left Hand Drive (LHD) vehicles
3	Microphone - Right Hand Drive (RHD) vehicles
4	Infotainment Master Controller (IMC)
5	Telematics Control Module (TCU)

6	Audio Head Unit (AHU)
7	Audio amplifier
8	Touch Screen (TS)

## OVERVIEW

The cellular phone system uses the customer's own Bluetooth® capable mobile phone in conjunction with the vehicle information and entertainment system. The system is controlled by the Audio Head Unit (AHU) or the Infotainment Master Controller (IMC) depending on vehicle specification. Both the AHU and the IMC have a Bluetooth® antenna incorporated into the unit.

Mobile phones must be paired with the AHU, requiring the input of a 4 digit Personal Identification Number (PIN) before they can be used with the vehicle system.

### NOTE:

PIN's can be as long as 16 digits, however, 4 digits is recommended.

Once paired, any mobile phone can be 'docked' to the vehicle without re-entering the PIN. In addition, the last connected mobile phone will dock automatically next time it is present in the vehicle and the ignition is in power mode 6 (ignition on) or power mode 7 (engine running).

Bluetooth® wireless technology allows electronic devices to communicate wirelessly through a short-range Radio Frequency (RF) network. Bluetooth® wireless technology can simultaneously handle data and voice transmissions which allows the vehicle's Bluetooth® telephone system to provide hands free operation of the users Bluetooth® telephone.

The Jaguar Bluetooth® system supports Bluetooth® Hands-Free Profile (HFP), Advanced Audio Distribution Profile (A2DP) and Audio Video Remote Control Profile (AVRCP).

Bluetooth® pairing of new mobile phones is achieved by selection of 'Search New' from the device list screen. The system has two pairing modes; 'vehicle to device' and 'device to vehicle'. Up to 8 Bluetooth® devices can be paired to the vehicle.

The system allows the driver to make, receive and end phone calls using the Touch Screen (TS) or the left steering wheel switchpack or voice control (where specified).

The cellular phone system incorporates a new Jaguar feature which enables the driver to access their mobile phone applications (Apps) via the TS. When driving, the driver can access phone, navigation, music and voice functions (including email and SMS if 'Text to Speech' is used); when stationary, all applications except video can be operated. The TS enables TS functions, as found on the latest mobile phones. The system is compatible with iPhone 5 and later (not earlier OS) and Android mobile phones using Android 4 or later.

On vehicles with the InControl Touch audio systems, the user interface of the mobile phone is displayed on the vehicle TS through software integral with the Audio Head Unit (AHU). The AHU

integral software reads the mobile phone data, displaying it on the vehicle TS. The AHU software is compatible for both Apple and Android mobile phones, enabling the AHU to have a standard connection to both devices by having a single data transfer USB port.

In order to present the user interface of a mobile phone touch screen onto the vehicle Touch Screen, a 'Launcher App' must be installed on the mobile phone to enable the transfer of the user interface from the mobile phone to the vehicle Touch Screen. The mobile phone must also be connected via the applicable Universal Serial Bus (USB) port in the portable media interface panel - front.

The InControl 'mobile phone App' allows the user to check vehicle related information, for example; fuel level, locating the vehicle in a car park and download journey logs using their Apple or Android mobile phone App. The InControl mobile phone App is downloaded from the Apple App Store or Google Play. The mobile phone App can be updated on a regular basis, adding new features and services as they become available. The Jaguar InControl App has three main areas; Remote, Secure and WiFi, which offer options providing safety, security, connectivity and convenience functions. The InControl App uses the vehicle Telematics system and WiFi for connectivity.

## DESCRIPTION

### AUDIO HEAD UNIT (AHU)

The system comprises:

- Audio Head Unit (AHU)
- Touch Screen (TS)
- Microphone
- Left steering wheel switchpack
- Audio Amplifier Module (AAM).

The AHU is located under the front left seat.

The AHU is connected to the TS via an APIX2 connection and to the Audio Amplifier Module (AAM) with hardwired connections in order to provide the phone features in the vehicle.

When the Bluetooth® mobile phone is specified, the AHU supports the Bluetooth™ mobile phone functionality and audio streaming. Bluetooth® mobile phone software and a Bluetooth® antenna are located within the AHU. The software within the AHU processes the Bluetooth® wireless signals from the users Bluetooth® mobile phone and allows audio output, voice input and data display on the TS.

A directional type microphone is fitted to the driver side of the overhead console so that it is directed towards the driver. The microphone is hardwired to the AHU. The microphone is also used by the voice control system for phone, navigation and audio system operation. The AHU has an integrated noise suppression and echo cancellation system for hands-free telephone use.

### Bluetooth® Pairing

A paired mobile phone or media device can be connected for different uses, telephone or music.

The process of pairing and connecting a Bluetooth® media device with the vehicle using the media device, will vary depending on the type of media device.

When the ignition is on (power mode 6), the AHU will automatically try to re-connect to a previously paired Bluetooth® mobile phone or media device if it is within range of the AHU. If the mobile phone or media device is not automatically connected or to connect a new mobile phone or media device, use the following method to pair a mobile phone or media device.

The pairing procedure using the mobile telephone or media device is as follows:

- •Switch on the ignition (power mode 6) and make sure the TS is active
- •Select 'General Settings' and then select 'Bluetooth®'
- •From the list, select 'Make System Discoverable'
- •Switch on the mobile phone or media device's Bluetooth® and make sure that the mobile phone or media device is in discoverable mode (refer to the mobile phone or media device operating instructions for information)
- •A passkey number will appear on the mobile phone or media device. If the number matches the number on the TS, select 'Yes' on the TS or press 'Pair' on the mobile phone or media device
- •Once the mobile phone or media device is paired it will appear on the connected device list on the TS.

The pairing procedure using the TS is as follows:

- •Switch on the mobile phone or media device's Bluetooth® and make sure that the mobile phone or media device is in discoverable mode (refer to the mobile phone or media device operating instructions for information)
- •Switch on the ignition (power mode 6) and make sure the TS is active
- •Select 'General Settings' and then select 'Bluetooth®'
- •The AHU will search for a mobile phone or media device and if found, the mobile phone or media device identification name will be displayed. If the mobile phone or media device is not found, 'No Devices Have been Found' will be displayed in the TS
- •A passkey number will appear on the mobile phone or media device. If the number matches the number on the TS, select 'Yes' on the TS.

## **INFOTAINMENT MASTER CONTROLLER (IMC) - INCONTROL TOUCH PRO AUDIO SYSTEMS**

The system comprises:

- • Infotainment Master Controller (IMC)
- • Touch Screen (TS)
- • Microphone
- • Left steering wheel switchpack
- • Audio Amplifier Module (AAM).

The InControl Touch Pro phone system has a number of additional features:

- • Conference calling
- • Usability and information online with mobile phones
- • Sort numbers from a range of popular choices, for example: contacts and recent calls
- • Settings to personalise mobile phone handling
- • Home screen integration, for example: missed call, text messages
- • Direct access to voice mail.

The IMC is located in the left side of the luggage compartment.

The IMC is connected to the TS with an APIX2 connection and to the Audio Amplifier Module (AAM) with a BroadR-Reach® ethernet connection in order to provide the phone features in the vehicle.

The IMC supports the Bluetooth™ mobile phone functionality and audio streaming. Bluetooth® mobile phone software is located within the IAM. The software within the IAM processes the Bluetooth® wireless signals from the users Bluetooth® mobile phone and allows audio output, voice input and data display on the TS. A Bluetooth® WiFi antenna is located behind the Integrated Control Panel (ICP) in the instrument panel. The Bluetooth® antenna is connected directly to the IMC.

A directional type microphone is fitted to the driver side of the overhead console so that it is directed towards the driver. The microphone is hardwired to the IMC. The microphone is also used by the voice control system for phone, navigation and audio system operation. The IMC has an integrated noise suppression and echo cancellation system for hands-free mobile phone use.

### **Bluetooth® Pairing**

Up to two mobile phones or a media device can be connected for different uses, telephone or music.

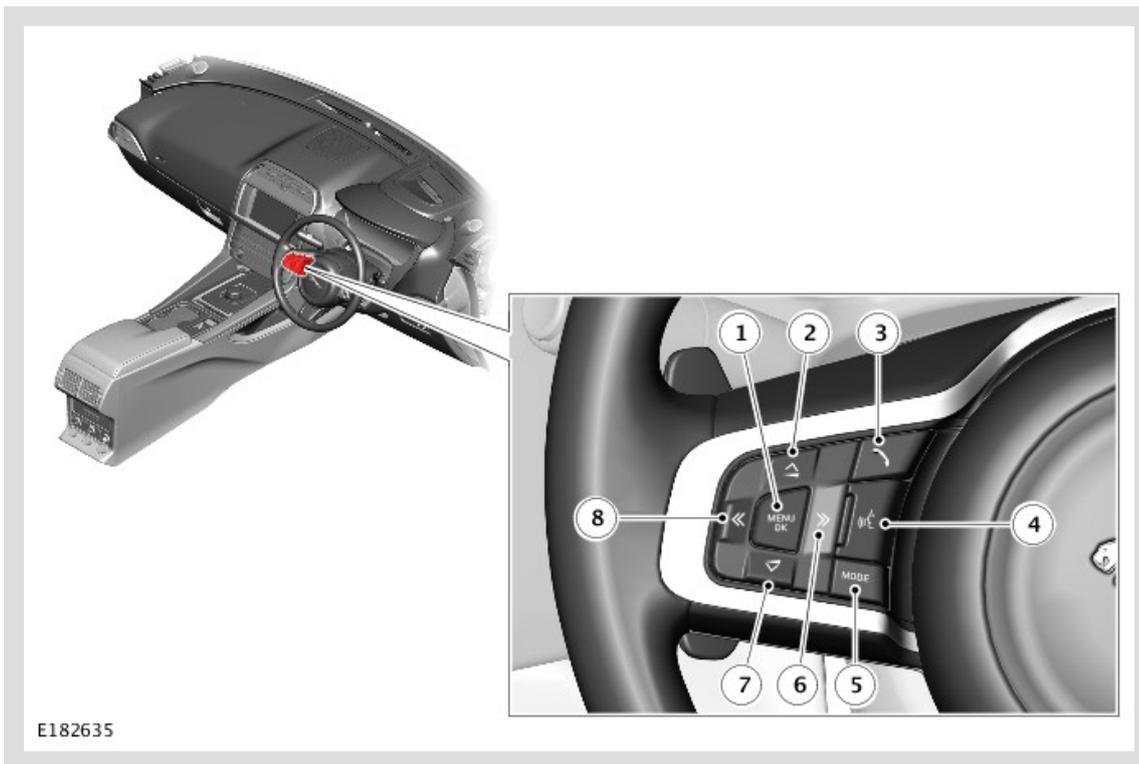
#### NOTE:

The process of pairing and connecting a Bluetooth® media device with the vehicle using the media device, will vary depending on the type of media device.

When the ignition is on (power mode 6), the IMC will automatically try to re-connect to a previously paired Bluetooth® mobile phone or media device if it is within range of the Bluetooth® WiFi antenna. If the mobile phone or media device is not automatically connected or to connect a new mobile phone or media device, use the following method to pair a mobile phone or media device.

Refer to the owners handbook for the pairing procedure.

### **LEFT STEERING WHEEL SWITCHPACK**



E182635

ITEM	DESCRIPTION
1	Menu/OK switch (instrument cluster menu control)
2	Volume increase switch
3	Telephone answer/end call switch
4	Voice control switch
5	Mode switch
6	Seek, next radio preset, next track, scroll up telephone list switch
7	Volume decrease switch
8	Seek, previous radio preset, previous track, scroll down telephone list switch

**On the InControl Touch systems** , the switches are a resistive ladder type which apply a different voltage via a Local Interconnect Network (LIN) bus to the Audio Head Unit (AHU) in response to different switches being pressed.

The left steering wheel switchpack controls the following telephone switch functions:

- TELEPHONE - press to answer or end a call.
- MODE - Press repeatedly to scroll through all audio/video sources
- » Short press up:
  - when telephone is in use, press to scroll up lists of calls or phonebook entries.

- « Short press down:
  - when telephone is in use, press to scroll down lists of calls or phonebook entries.
- Volume increase for any audio source
- Volume decrease for any audio source.

The MENU/OK switch is for use with the instrument cluster menu. For additional information, refer to: Instrument Cluster (413-01 Instrument Cluster, Description and Operation).

For further details on the audio switches refer to Audio system. For additional information, refer to: Audio System (415-01 Information and Entertainment System, Description and Operation).

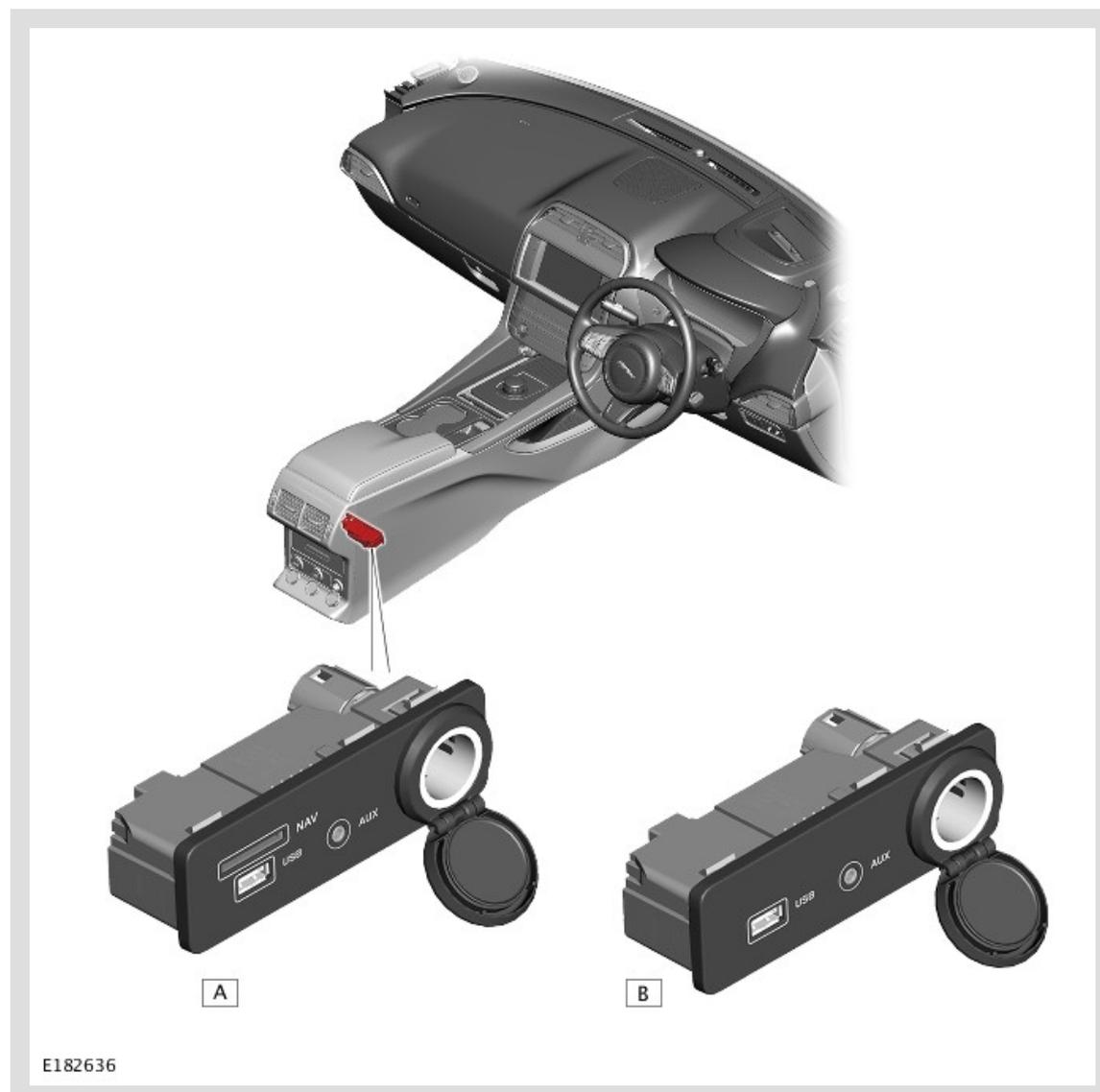
For further details on the voice switch refer to Voice Control. For additional information, refer to: Voice Control (415-01 Information and Entertainment System, Description and Operation).

## MICROPHONE

The directional type microphone is fitted to the driver's side of the overhead console so that it is directed towards the driver.

It is connected to the AHU for hands free telephony and voice control systems. The AHU has an integrated noise suppression and echo cancellation system for hands-free telephone use.

## PORTABLE MEDIA INTERFACE PANEL - FRONT



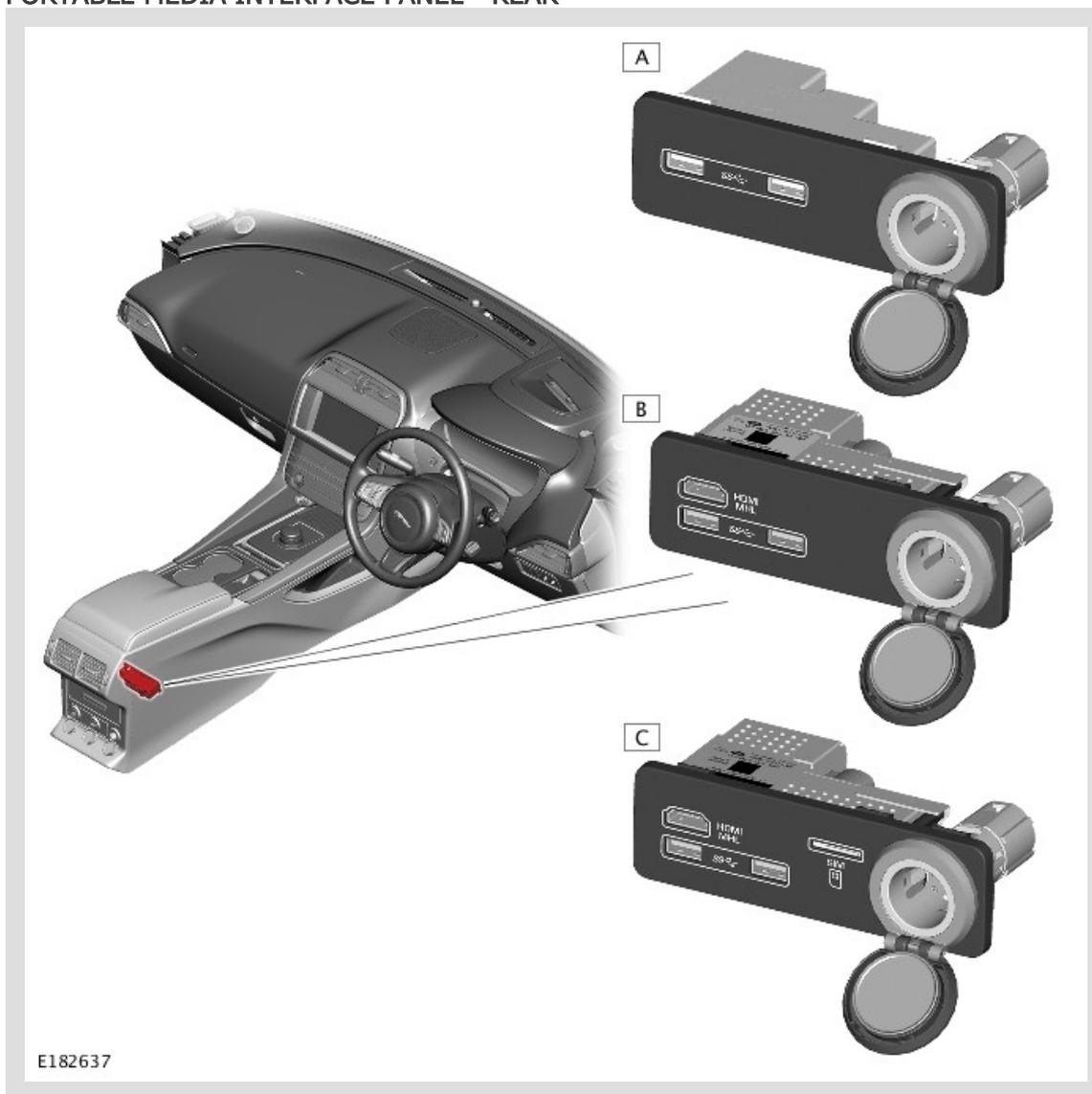
ITEM	DESCRIPTION
A	For InControl Touch systems with Navigation, voice control or telephone
B	For InControl Touch system with Level B AHU

The portable media interface panel - front is located in the floor console below the stowage compartment lid. The portable media interface panel - front has a Universal serial Bus (USB) port for connection of a mobile telephone to the audio system AHU. The USB port is identified by a yellow coloured symbol adjacent to the port.

The portable media interface panel - front is located in the front floor console stowage compartment.

Two versions of the portable media interface panel - front are available dependent on vehicle specification. The versions have combinations of a SD memory card slot, a 3.5mm auxiliary media input socket, a Universal Serial Bus (USB) 1.0/2.0 socket and a 12V accessory socket.

#### PORTABLE MEDIA INTERFACE PANEL - REAR



ITEM	DESCRIPTION
A	Standard panel - two USB 3.0 sockets
B	InControl Apps panel - two USB 3.0 sockets and one HDMI/MHL socket
C	InControl Apps Connect Pro panel - two USB 3.0 sockets, one HDMI/MHL socket and a SIM card socket.

The portable media interface panel - rear is located in the floor console for use by the rear seat passengers.

Three versions of the portable media interface panel - rear are available dependent on vehicle specification. The versions have combinations of two USB 3.0 sockets, one High Definition Multimedia Interface (HDMI) / Mobile High-Definition Link (MHL) socket, a SIM card socket and a 12V accessory socket.

The portable media interface panel - rear includes two USB 3.0 sockets (which also support USB 2.0) and are connected to the IMC through a USB 3.0 signal booster.