



Blue&Me™

Live life while you drive

Introduction

Blue&Me is an innovative system that allows you to use your Bluetooth® mobile phone in the car and to listen to music in digital format. Blue&Me can be controlled either by voice or by the buttons on the steering wheel, which means that your attention is not distracted from driving and the road.

What it consists of:

- Controls on the steering wheel.
- Hands-free kit with Bluetooth® technology.
- High level voice recognition.
- Compatibility with most Bluetooth® mobile phones.
- USB port in the glove compartment.
- Compatibility with most media players with a USB connection.

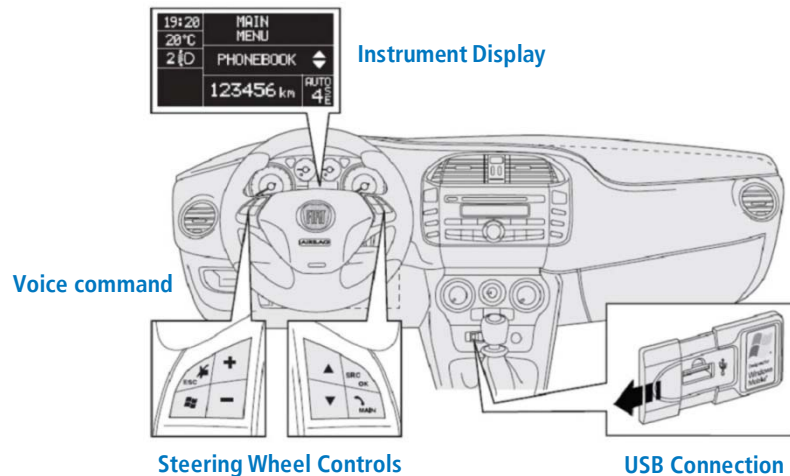
What you can do:

- Make and receive phone calls: mobile phones registered with the car connect automatically when you get in the car.
- See the names and numbers of your phone book on the display of the instrument panel.
- Use voice controls to call a name or number from the phone book without taking your hands off the steering-wheel.
- Listen to MP3, WMA and WAV audio files loaded on a device with a USB connection. You can choose the categories (Artist, Album, etc) by using voice control and you can scroll through the list of songs shown on the display of the instrument panel by using the steering-wheel controls.

Blue&Me is standard on all Grande Punto, Fiat 500 Sport and Lounge versions and Bravo Dynamic and Sport versions. It is optional on the other versions of the 500 and Bravo.



Hardware



Steering Wheel Controls

If you prefer to use buttons to control the system, there are 8 buttons on all steering wheels in Blue&Me equipped cars. The functionality of these is detailed later in this document.

USB Connection

This is a standard USB port and enables you to connect an MP3 music player to the car. In the Grande Punto, the USB port is in the glove compartment. In the Bravo and 500 it is at the bottom of the centre console near the cupholders. In the Grande Punto, some USB pendrives can stop the glove compartment door closing if plugged directly into the port, so we provide a USB extension cable with each car. The USB port also provides power to the device, so it will charge any internal batteries whilst the device is connected and the ignition is on.

Instrument Display

The digital display in the instrument panel is used by Blue&Me to show the system options and status. There are a series of symbols and information which are displayed, including incoming calls, new text message, the fact that a phone is connected, playlist and music track information, etc.

Voice command

Voice command can be used for the handsfree phone system and to control the music played by the MP3 player connected to the USB port. Voice commands can be pronounced by the driver, who does not need to change his/her normal driving position to be heard by the system, since the microphone is properly located and oriented for this purpose. The hands-free phone system recognizes and responds to a preset list of voice commands. The list of available voice commands depends on the system level that you are currently on, and you can always hear a list of all possible commands by saying "Help".

Blue&Me™ also recognizes personalized versions of voice commands like the name of a contact in your phonebook. There is no voice training required for using voice commands with this system.

To issue a voice command to the system, you simply press the steering wheel button and wait for the tone indicating that voice recognition is active. You then speak the command in your natural voice at a moderate pace. When the system recognizes the command, it will acknowledge your command by speaking a response or acting on your command. The car's normal audio system (radio and CD player) cannot be controlled using voice commands.





Phone functionality

Bluetooth

The basic characteristic of this hands-free kit is voice recognition with Bluetooth® wireless technology. With this system you can make and receive calls safely and securely using either voice commands or buttons on the steering wheel under any driving condition without having to take your eyes off the road or removing your hands from the steering wheel, as required by current legislation.

Bluetooth® wireless technology enables wireless connection between your mobile phone and the hands-free kit installed on your car. To use the hands-free kit, you need a Bluetooth® wireless technology enabled mobile phone. This hands-free kit gives you the possibility of interacting vocally with your mobile phone while driving, even if your mobile device does not feature this capability. You can also interact with your mobile phone manually and visually using the steering wheel controls and the instrument panel multifunction display.

Inbound calls

When your phone is connected to the car and you receive an incoming call, your radio/CD will be muted (should it be playing at the time) and the ring tone will be produced through the loudspeakers of the car's sound system. You can answer simply by pressing the button on the steering wheel. The volume of the speakers can be adjusted as normal (either the buttons on the steering wheel, or those on the radio) whilst the conversation progresses.

Outbound calls

You can make an outbound call in a number of ways. If you have copied your phonebook into the car, you can view it and select one of the names (numbers) by using the buttons on the steering wheel. You can perform the same process by voice control.

You can also verbally dial a number using the voice commands, or you can dial a number using the keypad on your mobile phone. You can also call recently dialed numbers, recently received calls, recently missed calls or the sender of a recently received SMS message.

Text Messages

If your phone supports text message reading (it needs to be able to transfer text messages via Bluetooth), when you receive a new message you will hear a tone and see a visual message on the display (you can choose the type of alert used). You will be asked whether you wish the system to read out your message. You can accept/decline this either using the buttons or voice commands.

The system can store up to 20 recently received messages and these can be browsed and listened to. Only messages received whilst the phone is connected to the car can be stored and read, not messages in the memory of the phone. It also has an intelligent 'text recognition' system which allows it to interpret and convert to speech the more commonly used abbreviations such as "c u l8r" and "r u up 4 2nite".

Phonebook

The phonebook-download from the phone to the vehicle system is one of the most powerful features of Blue&Me, and enables the driver to use the digital instrument display instead of the screen on the phone. Blue&Me can store up to 1000 contacts for every single one of up to five different user profiles. You can then scroll through the names and numbers on the dashboard, or call them using voice control by saying their name.





MP3 music player functionality

Compatibility

Music files in the following formats can be recognised by Blue&Me:

- .wma
- .mp3
- .wav

Files with digital rights (DRM) and .aac and .mp4 formats are not supported.

Most MP3 players and USB memory sticks will work with the system (USB 1.0, 1.1 or 2.0). It is not recommended to use devices with a 'password' function enabled, since this can cause problems.

Managing the Media Library

The Blue&Me system builds a media library when a device is connected to the USB port. It only supports one media library. Blue&Me does not download the music onto the car, it builds a media library of the music held on the USB device. You can play in continuous or random mode, or search by 'Artists', 'Albums' or 'Genres'.

It charges your device whilst it is plugged in to the USB port.

Apple iPod / iPhone

From a hardware point-of-view the iPod is compatible with Blue&Me.

However, since Blue&Me does not recognise .aac or .mp4 format files, the music on the iPod needs to be in .mp3 format. Apple iPhone and iPod touch are not currently compatible with Blue&Me.

Upgradability

Language

You can change the language used by the system to give commands, and the language the system recognises commands in by downloading the relevant file.



Technical Details

Developed jointly by Microsoft and Fiat, Blue&Me uses Microsoft's Windows Mobile for Automotive telematics platform and Connected Car technology.

The Windows Mobile for Automotive platform supports a broad range of automotive, communication and computing standards – CAN bus, Bluetooth, and USB, among others. By using common protocols like ActiveSync, MTP (Media Transfer Protocol) and SyncML, the car synchronizes with the address book and plays music files stored on pendrives, PDAs, Smartphones or MP3 / WMA portable devices. The same applies for the Connected Car technology: common Internet standards like Web Services and XML (eXtended Markup Language) assure easy, safe information exchange processes.

On the hardware side, Microsoft and FIAT Auto jointly defined a standard reference design, which is modular and cost-efficient to produce. Automotive partners are contributing to this standardized hardware platform: Magneti Marelli, the components arm of the FIAT Group, builds the devices.

The processor is supplied by the semiconductor division of Samsung Electronics, supplemented by a unit from programmable logic supplier Xilinx.

A chipset from SiRF adds GPS functionality to the system. The GSM/GPRS radio module with integrated Bluetooth access to the SIM card of the mobile phone comes from the Siemens Communications division. Last, but not least, ScanSoft delivers the voice recognition and speech engine.