



- **MAMBO2**

- *VOICE COMMUNICATION VIA **BLUETOOTH***

- ***HEADSET OR HAND-FREE SET***



Preliminary

VERSION HISTORY:

This table provides a summary of the document revisions.

Version	Author	Changes	Change date
1.0.0	F. Beqiri	- Initial version	16/05/2008

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Preliminary

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NOTE

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1 ABOUT THIS DOCUMENT

This manual provides information how to make a connection to Bluetooth headset or hands-free kit and to receive voice calls on them. Detailed information about the function of the PFAL commands given in this document can be found in a separate manual called "**Mambo2_PFAL_Commands_Reference_Guide_new.pdf**". How to get started with MAMBO2 and how to connect your MAMBO2 to a PC (via USB or Bluetooth) is given in a separate manual called "**MAMBO2_EvalKit_getting_started.pdf**".

Below is an example of how to pair a *Bluetooth Headset (type BTE050) or Hands-free kit (type BT-33A1)* and receive voice calls on them. Remember, some *Bluetooth Headsets and Hands-free kits* devices can vary in their procedure but the steps in the next chapter will give a good foundation in understanding the concept.

1.1 Pairing a Bluetooth headset or hands-free kit to the MAMBO2 device and receive voice calls on them

Pairing a Bluetooth Headset or Hands-free kit device to a MAMBO2 usually requires seven steps. These steps are listed below:

1. Turn the Bluetooth Headset or Hands-free kit device off
2. Turn the MAMBO2 device on.
3. Connect the MAMBO2 to a PC via either USB or Bluetooth.
4. Start the **FALCOM Workbench** software (see **Fig.** below) and make a connection to the COM port assigned for the MAMBO2. Open a new **Console** and a new **Editor**. Thereafter, go to the **Connection view** and connect **Console** to **COMPort** as well as **Editor** to the **Console**.

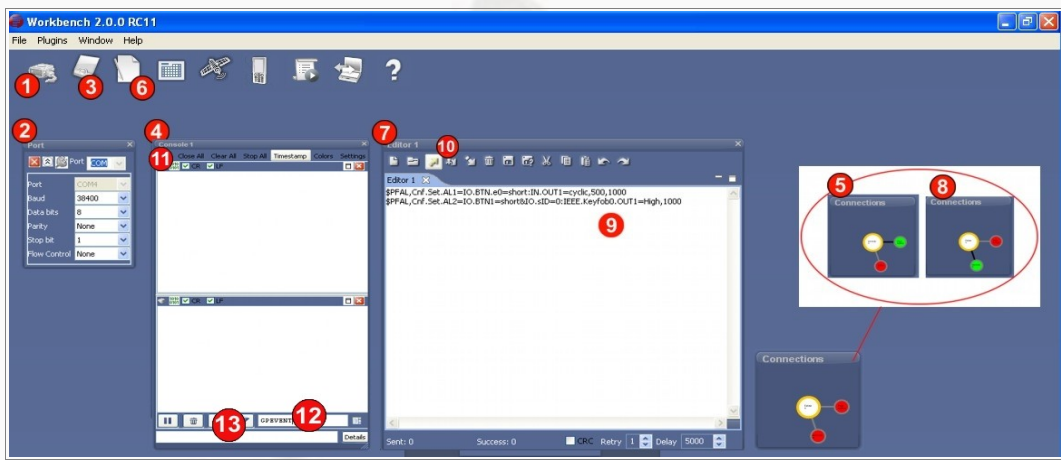


Figure 1: FALCOM Workbench software.

5. Set the MAMBO2 device in the discovery mode by entering the MAC address (first entry in the commands below) and correct pass-code (second entry) of the device to be connected. Depending on the Bluetooth audio device to be used, copy the corresponding the PFAL command given below:

\$PFAL,Cnf.Set,DEVICE.BT.AUDIOGW=0013EF19C369,8888 // for BTE050 headset

\$PFAL,Cnf.Set,DEVICE.BT.AUDIOGW=000D18A0C583,0000 // for BT-33A1 hands-free kit

// to get the MAC address, just connect the audio headset to a Bluetooth-enabled PC or Laptop, go to the audio headset icon, right click on it, and start "Properties". Copy the device address given on this dialog box (e.g. 00:13:EF:19:C3:69) and enter it in the configuration without colon:". The Mac address uses only Hexadecimal characters 0-9 and A-F).

and past it on the **Editor**, and send it to the MAMBO2 by double click with left mouse on this command. Because this command changes the pass-code of the Bluetooth used for serial data (by default = 0000) and resets the Bluetooth stack inside the MAMBO2, to reconnect your MAMBO2 to the PC **enter the new pass-code** (e.g. **8888** - if the command for **BTE050** headset is used) and **NOT the default one** when you are prompted.

6. Turn the Bluetooth Headset or Hands-free kit device on and place it into the "pairing" mode. Pairing is a process that is intended to be done one time for a device. Therefore, switch on the unit by pressing and holding the **ON/OFF button** until the LED indicator flashes **blue** and **red** alternately (**Don't release the button when you will hear a tone and the LED indicator will flash only blue, but when it flashes blue and red alternately**). This process is different from device to device.
7. When the headset is set into the pairing mode (LED indicator flashes **blue/red** quickly), copy the PFAL command (**\$PFAL,BT.Audio.Bound**) and send it to the MAMBO2. Pairing is completed when the LED indicator will on for a second and then flashes blue. **After the devices are paired they enter into a connected state.**

To receive voice calls on a Bluetooth headset or Hands-free set, execute the following PFAL commands:

\$PFAL,GSM.Audio.AudioRingPath=2

\$PFAL,GSM.Audio.AudioPath=2

\$PFAL,GSM.Audio.ActiveProfile,1

\$PFAL,BT.Audio.Disconnect // Because after the devices are paired they enter into a connected state (pairing and connecting is done automatically), you have to set that connection into the "bound" state (event **BT.Audio.eBound** occurs)

\$PFAL,CNF.Set,AL25=BT.Audio.eConnected&GSM.VoiceCall.sRingCounter>0:GSM.VoiceCall.Accept

\$PFAL,CNF.Set,AL26=BT.Audio.eBound&GSM.VoiceCall.sInside:GSM.VoiceCall.Hangup

\$PFAL,CNF.Set,AL27=GSM.Voicecall.eHangup&BT.Audio.sConnected:BT.Audio.Disconnect

// AL indices 25, 26 and 27 should be changed, if they already exist in your configuration.

Now, to answer or end a voice call, press the **ON/OFF button** on the Bluetooth audio device respectively. When answering a voice call, be sure that the Bluetooth audio connection is into the bound mode.

If the headset or hands-free kit and MAMBO2 are already connected to each other and you press **ON/OFF button** on Bluetooth audio device, the MAMBO2 will disconnect that connection and set it in the bound mode.

Disconnection also occurs when one or both of the devices are turned 'off' or move out of the designated Bluetooth operating range.

For detailed information, please refer to the user manual of the used Bluetooth audio device.