# Interface Introduction



Α	Display.
В	Power: Long press to power on/off; short press to turn ON / OFF the display.
С	Volume +: Short press to vol up by 1; long press to continuously vol up.

D	Volume -: Short press to vol down by 1; long press to
	continuously vol down.
E	Menu (M): Short press to Activate menu; long press to pause /
	play; short press to answer/hang up a call; long press to reject
	a call.
F	Previous track (1): Short press to the previous track during
	music playback; adjusts parameters upwards in the settings
	menu.
G	Next track (1): Short press to the next track during music
0	playback; adjusts parameters downwards in the settings menu.
н	Spdif out: 3.5mm optical & coaxial out (pin definitions shown in
	the image below).
1	USB Type-C charging or external power input.
J	USB Type-C decoding port.
K	Microphone.
L	4.4mm BAL. headphone out.
м	3.5mm headphone out.

### [Pin Definition for 3.5 mm Coaxial plug]



## **Display Information**

The display area is divided into the following four areas, and the information in each area is as follows:

Area1	Area2	Area3		
Area4				

[Display Area 1] input channel, showing the following information:

- USB : select USB channel as input source.
- BT... : select Bluetooth channel as input source, without connection to transmitter.
- BT : select Bluetooth channel as input source, connected to transmitter successfully.

**[Display Area 2]** output signal and settings, showing the following information:

- S/PDIF: Current is digital audio output.
- Current volume: Displays the current volume value from 0 ~ 100.
- Left channel fine-tuning: Displays the fine-tuning value for the left channel volume from -9 ~ +9. The digit "0" will not be displayed.
- Gain: L (Low), M (Mid), H (High), S (Super-High).
- DAC filter mode: F0 ~ F4.

**[Display Area 3]** This displays power (battery life) related information, showing the following:

Car mode	<b></b>
External power supply	~¢
Battery life indicator	
Charging in progress	
Charging completed	100
High temperature warning	НОТ

**[Display Area 4]** shows information such as input signal bitrate and menu settinas.

- Input bitrate
- · Volume display
- No Signal
- Menu page
- · Shutdown prompt : displays "goodbye!!".
- Charging status : charging, charging complete, high temperature warning.

#### Menu Settings

 First, short press the "M" button to activate menu, then use continuous short presses of the "M" button to choose the option that needs to be set, and finally use the "" v" button to select the corresponding parameter.

• Exit menu: If there is no button operation within 10 seconds, the menu page will automatically exit. Alternatively, continuously short press the "M" button until the main interface is returned. If there is no button operation within 30 seconds after modifying the parameter, the system will automatically save the changes.

#### [DAC Filter Mode] (FILTER):

(F0) Fast : Fast Roll-off.
(F1) Slow : Slow Roll-off.
(F2) LLFast : low-latency, Fast Roll-off.
(F3) LLSlow : low-latency, Slow Roll-off.
(F4) Nos : Nonoversampling .

#### [Gain Settings] (GAIN):

(L) Low : Low gain.	(M) MID : Mid gain.
(H) High : High gain.	(S) Super : Super-high gain.

#### [Volume Fine-tuning for left channel] (FINE):

The fine-tuning range is from -9 to +9, and fine-tuning 0 is not displayed.

Note : The above three menu settings can only be operated in "analog output" mode.

### [Output Mode] (OUTPUT):

- Analog : analog output, output analog signal via 3.5mm and 4.4mm headphone out.
- Digital : digital output, output coaxial and optical audio signal via SPDIF OUT port.

Note: Only one of analog and digital output modes can be selected, and they cannot be output at the same time. The system will automatically restart and switch outputs after changing the output modes.

### [Input Selection] (INPUT):

- USB : select USB as the audio source input.
- BT : select Bluetooth as the audio source input.

## [Car Mode] (CAR-M):

- Disable : turned off car mode.
- Enable : enabled car mode.

## [Charging Settings] (CHARGE):

Set the working range of external 5V power input in the power-on state, and ignore this setting in car mode.

- Disable : power only, no charging.
- Enable : charging and power supply.

### [Auto Power OFF] (AUTO-OFF):

After enabling this function, the system will automatically shut down when the conditions are met.

• Disable : disable auto power off. • Enable : enable auto power off.

#### **Common Operations**

#### [Power ON/OFF] :

• Hold the power button for 2~3 seconds to turn on or off the device.

 In car mode, the device will automatically turn on when there is 5V input, and turn off when there is no 5V input. However, the power on/off operation by long pressing the power button takes priority.

[Auto Power OFF] After enabling the "Auto-Off" function in the menu, the device will automatically shut down when one of the following conditions is met:

- No signal input, no button operation and no headphone insertion or removal for 10 minutes.
- In analog output mode, no headphones are inserted into both jacks, and there is no button operation for 10 minutes.

#### [Turn OFF/ON the Display]

- · Short press the power button to turn off the display.
- In display off status, short press either the power button or "M" button to turn on the display.

### [Volume Adjustment]

- For better sound quality, it is recommended to first turn the phone's volume to maximum and then adjust the volume in MUB1.
- Short press button "+"/"-" to volume up/down by 1; long press to continuously volume up/down.

### [Volume Fine-tuning for Left Channel] (FINE)

• Purpose: to improve the sound quality problems caused by headphone imbalance or different sensitivity in left and right ears.

• The fine-tuning range is +9~-9, where a value less than 0 means the left channel output is smaller and a value greater than 0 means the left channel output is larger.

# [Gain Setting] (GAIN)

- Please select the appropriate gain based on headphone sensitivity and personal listening preferences to obtain the best sound experience.
- Because the gain of MUB1 is switched by a relay, there may be a click sound from the device's internal relay when entering or exiting high gain or super-high gain.
- Super-high gain will increase power consumption and heat generation, so please pay attention to heat dissipation. If the device overheats, the Super-high gain will automatically be reduced to high gain.

### [Playback Control]

For most smartphones, you can control playback through the buttons on MUB1.

- Play/Pause : Long press the "M" button about 3~5 seconds.
- Previous track : Short press the "^" button.
- Next track : Short Press the "v" button.

Note : MUB1 uses the line control function of the smartphone to control playback. Because some smartphones default line control function is for adjusting volume, it may be necessary to set it to switch tracks. For example, on Xiaomi phones, open "Settings" and search for "Line Control", then select the "Control previous/next track" function.

### [Phone Call Control]

When using MUB1 in Bluetooth mode, you can control a phone calls with the device. This function is not available in USB mode.

- Answer : Short press the "M" button.
- Reject : Long press the "M" button about 3~5 seconds.
- Hang up : Short press the "M" button.

## [USB Input Selection]

· Select USB input through the "INPUT" function in the menu.

### [Bluetooth Mode]

- · Select BT input through the "INPUT" function in the menu.
- When using Bluetooth for the first time, pairing is required. Search for Bluetooth devices on the mobile phone and select "Quloos MUB1 V1.0" to connect.
- Subsequently, the device will automatically connect to the previously paired mobile phone. To connect a new mobile phone, you need to disconnect/unpair the currently connected mobile phone, otherwise, MUB1 will not be discoverable by the new device.
- Switching output modes may cause the Bluetooth connection to be disconnected, in which case manual reconnection is required.
- The display shows "BT..." if not connected to the transmitting device, and "BT" when it is successfully connected.
- Force the device to enter pairing mode: After the device was successfully connected, hold button "^" for about 5 seconds, Do not release the button "^", and then short press the button vol"-", The display will show "BT...".

# [Car Mode]

After the car mode is enabled, the system will automatically turn on and off by detecting the 5V power input in the charging port. Therefore, the power supply needs to be inserted into the car cigarette lighter, and the MUB1 will automatically turn on when the car is started and the power is connected. After the car is turned off, the power is disconnected and MUB1 will automatically shut down. However, the power on/off operation by long pressing the power button takes priority.

- In car mode, if there is a 5V power input in the charging port, it will be used to supply power to MUB1.
- In car mode, the internal battery cannot be charged in the on state, but it can be charged when turned off.

## [UAC1.0 Mode]

In USB input mode, connect MUB1 to the front-end device via a USB cable, and hold button "M",Do not release the button "M", and then long press the power button to turn on the device to switch MUB1's USB to the UAC1.0 mode. which is convenient for compatibility with older devices that do not support UAC2.0.

### [LINE / AUX Out Mode]

• When MUB1 is set to mid-gain, the headphone amplifier is actually a buffer circuit, so the headphone port can be used as a line output. Set the gain to "M" mid-gain, adjust the volume to 100, and MUB1 can output 2V standard level 3.5 LO and 4V standard level 4.4 balanced LO.

 Most car's AUX IN can only accept lower input levels, so it is necessary to adjust the volume to 92 in mid-gain, so that the 3.5mm headphone port can output 1V level to meet the needs of car's AUX IN.

### **Battery Charging**

• The MUB1 can be charged through the "Typc-C charging port". You can use a standard 5V 2A charger (or higher current), but the input voltage should not exceed 5.5V, otherwise it may damage the device.

 The device generates significant heat during charging. Please pay attention to heat dissipation to avoid triggering an internal temperature protection mechanism that suspends charging (charging will resume after the temperature drops to a safe level).

• Charging time depends on the remaining battery power. After charging is completed, the device will automatically stop charging and display the "charging complete" icon.

• When the device is turned off, you can charge it by plugging in the charger. However, to charge the device when it is turned on, you need to disable the "CAR-M" and enable the "Charge" in the menu.

#### Installing USB Drivers

• When using UAC2.0 for Windows computers, you need to install the USB driver. The driver file can be download from the website http://www.qlshifi.com/en.

 For smartphones, tablets, MAC computers, and most Linux computers, there is no need to install the driver. but it requires selecting the MUB1 as the default device for audio output.

#### **Notes and Precautions**

- 1. Please use the device in a well-ventilated environment.
- 2. Please do not place the devide in circumstances of excessive high/low temperature(above  $45^{\circ}$ C or below  $0^{\circ}$ C).
- 3. please keep the device away from liquids, so to avoid and damage to it.
- 4. if the device is to be left unused for a long time, please recharge it periodically to preserve its battery life.
- 5. When using Bluetooth connection, to obtain a better experience, try to minimize the distance between MUB1 and the transmission source.

# Contact US

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