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# ML-20U Stereo Bluetooth Speakerphone with FM radio

**User Manual** version 1.0





前视图 Top View



顶视图 Front View



侧视图 Side View

## ML-20U 操作说明

产品型号：ML-20U  
产品名称：蓝牙音箱  
产品尺寸：215x67x70mm  
常规颜色：黑色/白色/红色

### 一、功能特点

[蓝牙音频] Bluetooth 3.0+EDR，最大接收距离 10 米。

[蓝牙通话] 语音清晰、无回声。

[MP3 播放] 直接播放 TF 卡或 USB 记忆棒内存储的 MP3, WAV 文件。

[FM 收音机] FM 数字立体声收音机。

[音频输入] 立体声音频输入接口，轻松连接电脑、数码音乐播放器、手机等音源设备。

[断点记忆] 自动记忆上次退出时的曲目和音量。

### 二、技术规格

额定功率：3W + 3W  
标称功率：2.5W + 2.5W  
工作电压：DC5V  
频率响应：100Hz-20KHz  
信噪比：≥80dB  
失真度：<1%  
蓝牙音频通道：立体声  
音频输入：蓝牙、line in  
扬声器单元：40mm, 4Ω, 3W  
声音系统：2.0 声道  
输入电源：外部 DC5V/1200mA  
调节形式：按键调节  
输入灵敏度：800mV±50mV  
重量：约 374g

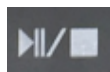
### 三、播放音乐操作

本机开机时自动检测识别外接设备，开机后进入蓝牙模式，插入 TF 卡，USB 记忆棒内或 AUX 自动识别播放，后者优先原则。也可以通过音频模式键（MODE）来进行切换。

### 四、产品的按键能定义



[ON/OFF]：长按切换电源开关。



[PLAY]：播放/暂停。

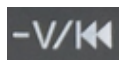
短按：蓝牙/TF/AUX 模式下，播放/暂停/停播；FM 收音模式下，自动搜索和记忆电台。



[CALL]：接听电话/挂断电话。

短按：蓝牙模式下，来电时短按接听电话，通话状态时短按挂机。

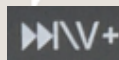
长按：蓝牙模式下，当有来电时拒接来电。



[VOL-]：音量调节小/上一曲/上一个电台。

短按：蓝牙/TF 模式下为上一曲；FM 模式自动搜索至上一个电台。

长按：蓝牙/TF/FM/AUX 模式下为调节音量减小。



[VOL+]：音量调节大/下一曲/下一个电台。

短按：蓝牙/TF 模式下为下一曲；FM 模式自动搜索至下一个电台。

长按：蓝牙/TF/FM/AUX 模式下为调节音量增大。



[MODE]：音频模式切换

短按：蓝牙/TF/FM/AUX 几种模式下切换。

### 五、产品的插孔功能定义

[DC5V]：本机供电接口

电源输入插孔，可使用本机配送的专用 USB 电源线，接驳电脑的 USB 接口或外部 DC5V 适配器进行供电。FM 收音模式下，可使用 USB 电源线做外置天线，收台灵敏度更佳。

[TF]：插入 TF 卡，可播放 MP3, WAV 音乐。

[USB]：插入 USB 记忆棒，可播放 MP3, WAV 音乐。

[AUX]：插入音频线，可播入外部设备的音乐。

[耳机]：插入立体声耳机，可听正在播放的音乐。此时音箱会静音。

[MIC]：通话咪头,通话时正对咪头可增强通话效果。（不可插入。）

## 六、指示灯介绍

红色指示灯：充电指示灯,正在充电灯常亮，完全充满后灯灭。

蓝色指示灯：蓝牙指示灯，蓝牙配对时快闪烁，配对成功灯常亮；正常工作慢闪烁。

绿色指示灯：开机时常亮。

## 七、蓝牙连接方法:

- 1、开机或按音频模式键切换进入蓝牙模式，蓝色与绿色指示灯轮流闪烁。配对前会发出语音提示 “The Bluetooth device is ready to pair” 。
- 2、打开移动设备（手机、电脑等）蓝牙功能，搜索蓝牙设备 “ML-20U” 。
- 3、手动点击，设备自动配对、连接，连接成功会发出语音提示 “The Bluetooth device is connected successfully ”。
- 4、已配对成功的设备，下次开机会自动连接。

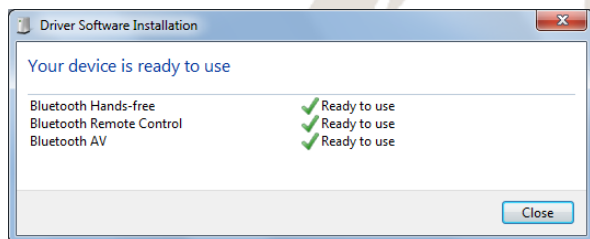
## 备注：

进入蓝牙模式 10 分钟内，蓝牙会自动寻找设备并配对连接，10 分钟后要通过手动连接。

TF 卡 也指 microSD 卡。

TF 卡和 USB 记忆棒内同时插入, TF 卡优先播放。

确保 ML-20U 被列举为蓝牙 AV 才能有声播放。这可能需要一些时间，让 Windows 搜索所需的驱动程序联机。



## ML-20U OPERATING INSTRUCTIONS

Model Number: ML-20U  
Product Name: Bluetooth Speakerphone  
Product Dimension: 215x67x70mm  
Standard Color: Black/White/Red

### 1. Key Feature

[Bluetooth Audio] Bluetooth 3.0+EDR, maximum distance 10m.

[Bluetooth Call] Clear voice, no echo.

[MP3/WAV Playback] Playback MP3, WAV files directly from TF card.

[FM Radio] Digital FM radio receiver.

[Audio Input] Stereo audio input socket, enable connection to PC, digital media player, mobile phone, etc..

[Breakpoint Memory] Auto memorized last playback track and volume.

### 2. Technical Specifications

Rated Power: 3W + 3W  
Nominal Power: 2.5W + 2.5W  
Operation Voltage: DC5V  
Frequency Response: 100Hz-20KHz  
S/N Ratio: >80dB  
THD: <1%  
Bluetooth Audio Channel: Stereo  
Audio Inputs: Bluetooth, line in  
Speaker Driver: 40mm, 4 Ω, 3W  
Sound System: 2.0 Channel  
Input Power: External DC5V/1200mA  
Control Mode: Button Control  
Input Sensitivity: 800mV±50mV  
Weigh: Approximately 374g

### 3. Music Playback Operation

The product powered up with automatic external source detection. After power up, product enter Bluetooth mode. If product detects is micro SD card or line in detected, it will playback from there. Could also use MODE button to change mode.

### 4. Button Definitions



[ON/OFF]: Long press to toggle power ON/OFF.



[PLAY]: Play/Pause/Stop.  
Short Press: In Bluetooth/TF/AUX mode, Play/Pause/Stop; In FM mode, auto search and memorize FM stations.



[CALL]: Off-Hook/On-Hook Call.  
Short Press: In Bluetooth mode, answer incoming call or end current call.  
Long Press: In Bluetooth mode, reject incoming call.



[VOL-]: Volume Decrease/ Previous Track/Previous FM Station.  
Short Press: In Bluetooth/TF mode, previous track; In FM mode, search for previous station  
Long Press: In Bluetooth/TF/FM/AUX mode, decrease volume.



[VOL+]: Volume Increase/Next Track/Next FM Station.  
Short Press: In Bluetooth/TF mode, next track; In FM mode, search for next station.  
Long Press: In Bluetooth/TF/FM/AUX mode, increase volume



[MODE]: Audio Mode Change.  
Change mode between Bluetooth/TF/FM/AUX.

### 5. Socket Definitions

[DC5V]: Power Input Socket.  
Connect power input socket using USB charging cable to PC's USB socket or external DC5V USB adaptor. In FM mode, use USB charging cable as FM antenna.

[TF]: Plug in TF card for MP3, WAV music playback.

[USB]: Plug in USB thumb drive for MP3, WAV music playback.

[AUX]: Plug in audio cable for external music playback.

[Headphone]: Plug in stereo headphone to listen to current played music. At this moment, speakers will be muted.

[MIC]: Voice microphone. Speaker directly to the microphone will enhance voice call quality. (Not for plug in)

### 6. Indicator Light Introduction

RED Indicator Light: Continuously lit when charging. Off when complete charging.  
BLUE Indicator Light: Bluetooth indicator light. Fast blink during Bluetooth pairing. Continuously lit when successful paired. Slow blink in normal operation.  
GREEN Indicator Light: Bluetooth indicator light. Blink alternatively with

BLUE indicator light during Bluetooth pairing. Continuously lit during playback.

7. Bluetooth Connection Method:

- a. Power up the product or pressed audio mode button to enter button mode. BLUE and GREEN indicator lights will blink alternatively. When starts pairing, there will be voice prompt "the Bluetooth device is ready to pair".
- b. Start Bluetooth function of the remote device (mobile phone, PC, etc.) and search for Bluetooth device "ML-20U".
- c. Manually select the device to auto pair and connect. Once connected, there will be voice prompt "the Bluetooth device is connected successfully".
- d. Device that paired previously will automatically connected the next the product power up.

Note:

After enter Bluetooth mode, Bluetooth will automatically search for paired device for 10 seconds, and connect. After 10 seconds, pairing has to be manually done.

TF card also refers to microSD card.

When TF card and USB thumb drive are both connected, TF card will has playback priority.

Make sure ML-20U is enumerated as Bluetooth AV in order to have playback. This might take some time for Windows to search for the necessary driver online.

