Mjölnir

High-End All-in-One portable Audio System

用户操作手册
User Manual

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肩带的使用

1. 将背带穿过机器两侧的背带孔，固定好双层粘扣。

2. 将机器塞入背包。

3. 将固定螺丝对准机身上的螺丝孔。

4. 旋转螺丝以固定。

包装内容

包装内包括如下附件各一件，购买产品时请认真核实。若有缺失，请联系产品供货商。

主机	背包	屏幕擦拭布
说明书及保修卡	USB 数据线	屏幕保护膜

✉ 提示：

• lotoo 官网提供电子版用户使用手册，请访问 www.lotoo.cn 下载。

电源

• 开机与关机

①. 播放器关闭时，将电源开关键拨动到右边保持两秒，可启动本机。

②. 播放器开启时，将电源开关键拨动到右边保持，可关闭本机。

• 屏幕操作

①. 开机后机身正面的屏幕将亮起，显示当前播放的音乐信息。

②. 如需更复杂的操作，可拨动锁定 / 上屏控制键到 TSC 端，上屏就会亮起。

③. 再次拨动锁定 / 上屏控制键到 TSC 端，上屏将会关闭。

④. 如一段时间内没有任何操作，两个屏幕都将熄灭以节省电量，熄屏时间可在设置中更改。

• 充电

①. 通过 USB Type-C 数据线将本机连接至符合 USB PD 标准的电源适配器，机器开始自动充电。建议使用支持 20V 输出电压，功率在 60W 以上的充电器以获得最快的充电速度。

②. 本机锂电池容量约为 97Wh, 使用 60W 的 PD 充电器，从 0-100% 正常充电时间约为 3-4 小时。

③. 充电时播放功能：本机外接电源适配器，可在播放音乐时同时给电池充电。注意请使用带有 PD 并支

持 60W 及以上输出功率的 PD 充电器。

④. 充电时，屏幕上将显示当前充电电压以及功率，如充电功率较低或者为 0，请检查以及更换符合要求的 PD 充电器。

• 安装 SD 卡

①. 装入 SD 卡

按壳体标识方向将 SD 卡插入卡槽，轻推至听到卡座锁定声后松手，SD 卡安装成功。

②. 取出 SD 卡

轻推 SD 卡至听到卡座声响后缓慢松手，SD 卡弹出约 3mm, 直接取卡即可。

✉ 提示：
• 本机本身无内存容量。
• 本机最大支持 2TB 的 SD 卡。

耳机和音量

• 本机正面有多个耳机接口，包括：

3.5mm 非平衡

6.35mm 非平衡

4.4mm 平衡

4-Pin XLR 平衡

请将耳机插入对应插孔中，并将输出通道选择旋钮旋转到对应的通道，相应的通道将会被激活。

注意：3.5mm 和 4.4mm 的输出在同一档，当选择了这一档输出时，如果同时插入了 3.5mm 和 4.4mm 两个耳机，4.4mm 接口的优先级将高于 3.5mm 接口。

• 若播放过程中拔出耳机，本机将自动暂停播放。（仅限 3.5mm 和 4.4mm 接口）

• 正面旋转音量旋钮可以调节音量大小。（可以设置音量旋钮转动方向为顺时针或逆时针增大音量）

• 本机耳机输出分为 4 个增益档位，分别是 L（低） M（中） H（高） S（大耳模式），可以在下拉菜单中根据当前使用的耳机参数进行选择。

• 请在每次插入耳机前，将音量调整到较小（30 以下），以防止突然增大的音量对听力造成影响。

• 请不要长时间使用大音量收听音乐，以保护听力。

> ⚠ 注意：
> • 本机不具有内置扬声器，必须通过耳机才可以聆听音乐。

传输文件

• 本机具有 USB Type-C 传输接口。能够支持高速传输。

① . 打开 MAC 或 PC 机，同时打开本机。

② . 使用随机附带的 USB Type-C 数据线，将本机的 type C 接口（非 PD 接口）与计算器连接。

③ . 此时本机显示 USB 模式"存储"和"USB DAC"，选择"存储"。

④．将文件拷贝至弹出的 " 可移动磁盘 "。

⑤．传输完成，请点击任务栏中图示，断开本机与计算机的连接。

⑥．拔下 USB Type-C 数据线。

USB连接

检测到USB连接，请选择模式

USB DAC　　　存储

• 使用外部 USB 存储设备：本机具有 USB A 接口，可连接外置移动存储设备（优盘或移动硬盘）。

①．将移动存储设备通过 type A 连接到本机

②．在弹出的提示窗口确认

③．在文件夹中即可查看和播放外部设备中的音乐

无线连接功能

本机支持无线蓝牙、WiFi 功能，方便用户通过无线连接扩展功能。

• 蓝牙功能

本设备连接到新的蓝牙设备（如蓝牙耳机、蓝牙音箱等）时，需要先和蓝牙设备进行配对，步骤如下：

①．在上屏幕上下拉快捷菜单点击蓝牙，打开蓝牙开关；

②．在设置菜单的蓝牙项目中，本机将自动搜索并列出附近可用的蓝牙设备，并显示在可用设备栏；

③．点击连接到相应的设备，连接成功的设备将显示在已配对的设备栏。

• WiFi 功能

本设备支持连接到 WiFi 热点。本机连接到新的 WiFi 设备的步骤如下：

①．在上屏幕下拉快捷菜单点击 WiFi 开关；

②．在设置菜单的 Wi-Fi 项目中，本机将自动搜索并列出附近可用的 WiFi 连接；

③．点击 Wi-Fi 热点并输入正确的密码后，将连接到对应的设备。

前屏幕显示内容

01	XLR4：当前使用的输出通道
02	蓝牙图标
03	音量锁
04	H：当前使用的增益挡位
05	VOL：当前的音量
06	Wifi 信号
07	100%：当前剩余电量
08	电池充电状态

01	MQA：MQA 是否启用以及展开倍数
02	XRC 是否开启
03	循环模式

01	当前播放文件名
02	当前播放文件格式
03	当前播放文件艺术家名称
04	音量衰减是否开启

进度条

XLR4 VOL:50 100%
MQA • 16X XRC
Letting Go
FLAC 蔡健雅
MUTE-20dB
CUR: **02:45** ALL: **06:25**
PCM 192KHz 24Bits

XLR4 VOL:50 100%
MQA • 16X XRC
Letting Go
FLAC 蔡健雅
EFX: PMEQ **Headphone** 1/999
CUR: **02:45** ALL: **06:25**
PCM 192KHz 24Bits

01	播放状态
02	EFX：当前激活的音效
03	CUR：已播放时间
04	ALL：当前曲目全长
05	1/999：当前文件在列表中的位置 / 列表中音乐总数

XLR4 VOL:50 100%
MQA • 16X XRC
Letting Go
FLAC 蔡健雅
MUTE-20dB
EFX: PMEQ **Headphone** 1/999
PCM 192KHz 24Bits

01	当前音乐文件格式
02	当前音乐文件码率
03	当前音乐文件位深

上屏幕显示内容

在上屏幕顶端的状态栏可显示本机当前的各种状态信息，各图标含义如下：

11/3300 PMEQ 70%

01	当前歌曲数 / 歌曲总数
02	PMEQ 音效

03	当前增益
04	WiFi
05	蓝牙
06	当前使用的输出接口类型
07	音量锁
08	循环模式
09	电量显示

下拉快捷菜单

下拉菜单中包含一些快捷操作开关，可直接开关或切换相应的功能。

点击"更多选项"可以自定义快捷菜单上的功能图标。

顶部触屏界面

本设备顶部屏幕有多个功能图标，一屏可以显示六个图标，左右滑动屏幕可在更多功能之间切换。

• 播放音乐

在上屏幕的播放界面底端是当前播放歌曲，点击 < ▶ >，开始播放音乐。

- 暂停播放

    在播放界面底端，点击 < ‖ >，暂停播放音乐。

- 上一曲、下一曲

    在播放界面，播放或停止状态下，点击 < ◄◄ > 或 < ►► >，可以切换至上一曲或下一曲音乐。

- 播放进度

    在进度条区域内左右滑动，可以快速调节播放进度。

播放界面

点击歌曲名称进入播放界面，在播放界面中，左右滑动页面，可以循环切换屏幕文件信息。

- 专辑封面

    播放界面默认显示当前歌曲的专辑封面。

- 歌曲信息

    向左滑动页面，显示当前歌曲的全部信息包括： 歌曲名、歌手、专辑、格式、采样率、位数、大小和歌曲所属位置。

- 歌词信息

    向左滑动页面，显示当前歌曲的歌词信息。

- 专业音频播放界面

    向左滑动页面，进入专业音频播放界面。

文件管理

文件管理

点击上屏幕的文件夹图标，可以对 SD 卡上的音乐文件进行访问和管理。

- 浏览音乐文件

  点击文件夹列表，上下滑动页面，可以浏览音乐文件。

- 返回上级菜单

  单击 < 〈 >，返回上一级菜单。

```
10/23          ⑧⑤⓪ ※⊜⊕⊕⊙ 76% ▬

  〈        文件夹列表        ▤

              播放全部
                5项
  ▭  MobaXterm_Portable_v12.2
     0 文件夹, 0 歌曲
  ▭  music
     13 文件夹, 0 歌曲
  ▭  upgrade
     0 文件夹, 0 歌曲
  ▭  新建文件夹
     0 文件夹, 0 歌曲
  ♫  Machine_Test
     Machine_Test
```

- 删除音乐文件

  在歌曲上从右往左滑动，将显示删除选项，点击删除即可永久删除该文件。

- 播放文件夹：

  进入想播放的文件夹，点击上方的"播放全部"即可。

- 添加音乐或文件夹至播放列表

  在文件夹或者文件上从右往左滑动，选择"添加到播放列表"即可。

> **⚠ 注意：**
> • 文件管理系统只能显示可识别的音频文件，其他类型文件无法显示。

播放列表

播放列表

本机具有播放列表功能，内置＂我的最爱、最近播放、全部歌曲＂三个可编辑播放列表，来显示所有音乐文件。

- 我的最爱

  您可以在文件管理中将喜欢的歌曲添加至此播放列表。

- 最近播放

  最近播放过的歌曲列表。

- 全部歌曲

  显示数据库中所有音乐文件。

- 删除播放列表

  在播放列表上从右往左滑动，选择删除即可。播放列表中的文件全部被清除，但不会从 SD 卡中删除。

歌曲排序

在歌曲列表中，点击右上角的筛选按钮，即可进入筛选排序状态，此时可以按照质量和名称排序。

设置

播放设置

循环模式	列表循环
	随机播放
	单曲循环
	顺序播放
睡眠定时器	关 / 10-120 分钟
显示歌词	开 / 关
文件切换效果	结尾淡出 / 关闭 / 无缝播放

> ✉ 提示：
> • 下划线选项为出厂默认设置。

输出设置

耳机输出	LR 平衡	L3.0dB - R3.0dB
	输出增益	L / M / H / S

线路输出	输出增益	固定 / 非固定
蓝牙输出	蓝牙音量	固定 / 非固定
DSD 播放设置	增益	-12 / -6 / 0 / +6 / +12dB
数字音频输出	DSD	PCM / DoP
	MQA Passthrough	开 / 关
VU 电平表		推子前 / 推子后

> ⚠ 注意：
> • 耳机输出中 LR 平衡的出厂默认设置为 0。

播放器设置

呼吸灯	开 / 关
双击唤醒	开 / 关
屏幕翻转	开 / 关
音量旋钮方向	顺时针增大
	逆时针增大
电源	自动关机	禁止 / 1min / 5min / 10min / 15min / 30min
	屏幕关闭	10s / 30s / 1min / 2min / 3min / 5min

语言选择	简体中文
键盘	英文 / 中文 / 日文
UI 主题颜色	
Fn 自定义键	

音频设置

硬件解码	开启
	自动
均衡器设置	均衡器编辑
	我的声音方案
ATE	Brighter
	Sweet
	Dental
	Style 701
	Style 990
	Diffuse field (Near field)
	Diffuse field (Far field)

滤波器	PCM	Short delay sharp rolloff
		Sharp rolloff
		Slow rolloff
		Short delay slowrolloff
		Super slow rolloff
		Low dispersion short delay
	DSD	LPF:Normal
		LPF:Extended
升频设置	开 / 关	
Wi-Fi	无线网络	
蓝牙	蓝牙开关	
	蓝牙 DAC	
SD 卡	总容量	
	可用空间	
	歌曲总数	
	格式化 SD 卡	
本机信息	设备名称	
	型号	
	无线局域网地址	

版本	软件版本	
	硬件版本	
	无线版本	
	在线更新	
序列号		
法律信息		
恢复出厂设置		

> ⚠ **注意：**
> • 恢复出厂设置时，包括 ATE 在内的所有设置均会被恢复为出厂状态。

系统升级

请保持本机电量高于 20% 时进行升级。若电量低于 20%，请您先补充电量，再进行系统升级；

登陆乐图 lotoo 官网 www.lotoo.cn，进入下载页面。下载最新固件，并将压缩包内的文件拷贝到本机 SD 卡根目录下的 UPGRADE 文件夹下；

进入设置，点击【设置 > 软件版本 > 检测到新版本 > 确定更新软件最新版本】，等待 系统升级完成。正确的升级过程如下：

11/18		PTGD ✕ 88% 🔋
‹	设置	
本机信息		
设备名称		PAWGTH ›
型号		GT1605
版本		
软件版本		1.0.0.17 ⓘ
硬件版本		1.0
播放时间		12.7h
法律信息		
恢复出厂设置		

11/18		PTGD ✕ 88% 🔋
‹	版本	
当前版本		1.0.0.17
检测到新版本		1.0.0.18

确定更新软件最新版本么?

取消　　确定

软件系统是产品硬件运行的基础,并且提供了本机的操作功能。

正确升级后,机器自动关机。再次开机,您可以在【设置 > 软件版本】中查看最新的软件版本号。

⚠ 注意:
• 我们保留在不另行通知的前提下更改本产品的功能的权利。
• 固件升级不会自动删除文件,但若操作不当,有可能造成升级失败在特殊情况下,您有可能需要 格式化磁盘,因此请在固件升级前对本机内重要文件进行备份。
• 请在操作前详细阅读说明书,本机的固件不适用于其它产品。

故障排除

当本机出现以下故障时,您可以尝试自行解决。若故障仍然存在,请与售后维修部门联系。

• 无法开机
　　——电池电量过低,无法开机。请充电后再重新尝试开机。

• 耳机没有声音
　　——音量旋钮被设置到最低。

　　——耳机已经损坏或接触不良。请更换耳机。

　　——音乐文件电平过低。

• SD 卡中的文件无法在本机识别
　　——本机只能识别可播放的音乐类型,某些音乐文件是本机不支持的格式,因此无法识别。

　　——音乐文件已被损坏。

• 文件名没有后缀
　　——某些 cue 文件解析后会出现多个没有后缀的音乐文件。

- 播放列表中文件播放出错

  ——更新 SD 卡中音乐文件后，需要更新数据库，否则播放列表中的已移除的文件，会导致播放错误。

- SD 卡插入后提示格式化

  ——SD 卡格式不符合播放要求，因此需要格式化，以便提升播放效果。

使用安全

- 产品安全

  请勿将重物放置于本机上。
    ——否则可能会导致损坏或故障。

  请勿在湿气过重的环境中使用本机。
    ——否则可能会造成电路损坏。

  请勿在尘土或烟雾较多的地区使用本机。
    ——否则可能会导致损坏或故障。

  请勿将本机靠近强磁性的物质。
    ——否则可能会导致损坏或故障。

请勿摔打本机以及其附件产品。
  ——否则可能造成严重损坏或故障。

请勿用化学溶剂或洗涤剂清洁本机。
  ——否则可能造成损坏。

请勿在雷电天气里使用本机。
  ——否则可能会造成伤害。

请勿自行拆卸本机。
  ——否则可能会导致损坏。

- 电池安全

  请勿将本机置于火中，或加热本机。
    ——否则可能会造成电池爆炸。

  若电池有高温发热的现象，请立即停止使用。
    ——否则可能造成伤害。

规格

主要规格

播放格式	DSD 64/128/256/512 DFF / DSF / ISO
	WAV / MP3 / FLAC / APE / OGG / M4A / AAC
播放采样率	DSD 最高支持 DSD512 PCM 最高支持 768KHz
主控芯片	NXP iMXN6LL ADI Blackfin BF706 DSP Ingenic X1000
上屏幕	800x480 4 英寸触摸液晶屏
前屏幕	480x360 2.2 英寸液晶屏
DAC 芯片	AK4499EQ x 1
耳放芯片	LME49600 x 8
耳机接口	3.5mm / 6.35mm（非平衡） 4.4mm / 4pin XLR（平衡）
线路输出	XLR（平衡）/ RCA（非平衡）

数字输出	XLR (AES/EBU) 同轴 (SPDIF) 光纤 (SPDIF)
数字输入	XLR (AES/EBU) 同轴 (SPDIF) 光纤 (SPDIF)
USB 接口	Type-C OTG 数据传输 / DAC x 1 Type-C PD 充电 x 1 Type-A USB Host 数据传输 x 1
存储	UHS-II SD 4.0 最大支持 2TB 容量 最大读写速度 300M/s
电池	10.8V / 9000mAh (97.2Wh) 锂离子电池
充电规格	PD 3.0 20V 3A
蓝牙无线音频	SBC, AAC, LDAC
Lotoo 无线音频	LTTP (Lotoo tele-transport protocol)
Wi-Fi	支持
流媒体	DLNA
尺寸	18x18x6.3cm（不包含突出部分）
重量	约 2700g
固件升级	支持

音频规格

音频 - 耳机输出 - 3.5 mm/6.35mm 接口

最大输出功率	1.2 W @ 32 ohm
分离度	122 dB
频响	+-0.03 dB (20-20KHz)
信噪比	130 dB
动态范围	131 dB
最小底噪	-119dBu
THD+N	0.0004%

音频 - 耳机输出 - 4.4 mm/4pin XLR 接口

最大输出功率	2.5 W @ 32 ohm
频响	+-0.01 dB (20-20KHz)
分离度	123 dB
信噪比	130 dB
动态范围	134 dB
最小底噪	-119 dBu
THD+N	0.0003%

音频 - 线路输出 - RCA 接口

最大输出电平	+18 dBu
频响	+-0.01 dB (20-20KHz)
分离度	124 dB
信噪比	130 dB
动态范围	130 dB
最小底噪	-121 dBu
THD+N	0.0004%

音频 - 线路输出 - XLR 接口

最大输出电平	+24 dBu
频响	+-0.01 dB (20-20KHz)
分离度	130 dB
信噪比	132 dB
动态范围	134 dB
最小底噪	-120 dBu
THD+N	0.0003%

音频 - 数字输出
AES/EBU 接口 光纤 / 同轴接口

采样率	44.1KHz / 88.2KHz / 176.4KHz
	48KHz / 96KHz / 192KHz

Table of Contents

Appearance

Preparation

Music Playback

Appearance

Key Definition

Touch Screen

01	6.35mm unbalanced Headphone output
02	4-pin XLR balanced Headphone output
03	3.5mm unbalanced Headphone output
04	4.4mm balanced Headphone output
05	Screen
06	Output select knob
07	SD card slot
08	Hold / Top screen control
09	Power
10	F1/F2 user-definable keys
11	Play / Pause
12	Previous / Next
13	Volume knob

01	USB C port (for USB DAC/Storage)
02	USB C port (for PD recharge)
03	USB A port（for external USB storage）
04	AES/EBU balanced Digital input
05	Coaxial digital input
06	Optical digital input
07	AES/EBU balanced Digital output
08	Coaxial digital output
09	Optical digital output
10	Balanced Line output R
11	Balanced Line output L
12	Unbalanced Line output R
13	Unbalanced Line output L

To utilise the shoulder strap

1. Thread the strap through the holes located on the sides of the bag. Securely fasten the Velcro tape to ensure the strap stays in place.

2. Carefully position the device inside the bag.

3. Insert the screws into the designated holes on the device.

4. Firmly tighten the screws by rotating them until they are securely fastened.

Contents in the package

The package contains following items. If anything is missing, please contact your supplier.

| Player | Leather bag with shoulder strap | Cleaning cloth |
| User Manual Warranty card | USB Type-C cable | Screen protection film |

☒ Notice：
• Please note that an updated version of the user manual is available for download at www.lotoo.cn.

Power

• Power on & off

① . When the player is powered off, Press and hold the "Power" key to turn on the device.

② . When the player is powered on, Press and hold the "Power" key to turn off the device.

• Screen On/Off

① . After powering on, the front screen will display information about the current music file.

② . To access additional functions and settings, switch the "Hold/TSC" key to the "TSC" side. This will activate the top screen.

③ . Switch the "Hold/TSC" key to the "TSC" position again to turn off the top screen.

④ . Both screens will automatically turn off to conserve battery life if there is no activity for a certain period. The duration before the screens turn off can be adjusted in the settings.

• Recharge

① . To initiate charging, connect the player to a PD charger via the USB PD port. The recharge process will commence immediately. For optimal charging speed, it is recommended to use a charger with a power output higher than 60W and a 20V output.

② . The battery capacity of the player is approximately 97Wh. Under normal circumstances and with a 60W charger, the typical charging time is around 4 hours.

③ . It is possible to play music on the player while it is being recharged. Simply keep the power adapter connected, and the player will continue playing music seamlessly while charging.

④ . When the player is in the power-off state and undergoing recharging, the top screen will display the power and voltage information of the ongoing recharge process. If the charging rate is very low or shows as zero, it is advised to check the PD charger being used. Ensure that the PD charger is functioning correctly and providing sufficient power output for efficient recharging.

• SD Card Mounting

①. SD Card Mounting

Open the cover located at the front side of the player.

Insert the SD card into the slot until it is securely locked in place.

②. SD Card Ejecting

Push the SD card all the way to the end of the slot.

Release the card, and it will be ejected from the player.

> ✉ Notice：
> • Please note that the player does not have any internal storage.
> • The maximum supported capacity for an SD card is 2 terabytes.

Headphones / Volume

• The player features multiple headphone outputs：

3.5mm unbalanced

6.35mm unbalanced

4.4mm balanced

4-Pin XLR balanced

• To use the headphone outputs, please follow these steps:

①. Insert the headphone plug into the desired output port.

②. Locate the output select knob and switch it to the corresponding channel for the headphone output you have connected.

③. Once the channel is selected, it will be activated and ready for use.

> ✉ Notice：
> • When the "3.5&4.4mm" output is chosen, and both the 3.5mm and 4.4mm ports have headphones connected simultaneously, the 4.4mm port will take priority over the 3.5mm port.

• Please note that for the "3.5&4.4mm" ports only, if the headphones are pulled out during playback, the player will automatically pause. This feature is designed to ensure uninterrupted playback and prevent any audio interruptions when the headphones are disconnected.

• To adjust the volume on the player, simply rotate the volume knob. You can turn the knob either clockwise or counter-clockwise to increase or decrease the volume, respectively. If you prefer a specific rotation direction for volume control, you can customize this setting in the setup menu.

• The player offers four selectable gain levels, which can be found in the drop-down menu: L (Low), M (Mid), H (High), and S (Super). It is important to choose the appropriate gain level based on the specifications and sensitivity of your headphones.

• To ensure the safety of your hearing, it is recommended to lower the volume to below 30 before changing headphones. Listening to music at high volume for an extended period can be detrimental to your hearing, so please avoid doing so.

• Please do not listen to music at high volume for extended periods of time to protect your hearing.

⚠ Notice：
•Please be aware that the player does not have a built-in speaker, meaning music can only be listened to through headphones.

File Transfer

• The player is equipped with a USB Type-C port, which enables high-speed file transfers. To transfer files, follow these steps:

① . Connect the player (not the PD port) to your computer (Mac or PC) using the provided USB Type-C cable.

② . On the player's screen, select the "Storage" icon.

③ . A pop-up window labeled "Removable Disk" will appear. Copy the desired files to this disk.

④ . Once the file transfer is complete, safely eject the "Removable Disk" from your computer.

⑤ . Finally, disconnect the USB cable to complete the process.

• Connecting External USB Storage Device:

The player is equipped with a USB Type-A port, which allows you to connect external USB storage devices such as USB disks or USB HDDs. To connect an external USB storage device, follow these steps:

① . Connect the USB storage device to the USB Type-A port on the player.

② . A pop-up window will appear to confirm the connection.

③ . Once confirmed, you can access the files stored on the external USB storage device using the "Folder" function on the top screen.

Wireless Connectivity

The player supports both Bluetooth and Wi-Fi connections. Here are the instructions for utilising these wireless features:

• Bluetooth (connecting to Bluetooth headphones or speakers)

To connect to a new Bluetooth device, follow these steps:

① . In the setup menu, switch on the "Bluetooth" option. The player will initiate a search for new devices.

② . From the list of available devices, select the device you want to connect to. Continue with the pairing process until the connection is successfully established.

• Bluetooth DAC (connecting to smartphones or computers)

To establish a Bluetooth DAC connection, follow these steps:

① . Access the "Bluetooth DAC" option in the setup menu. The player will be ready to receive a Bluetooth connection.

② . On your smartphones or computers, search for Bluetooth devices. Choose the device named "MJOLNIRxxxxxx" to establish the connection, where "xxxxxx" represents the last 8 digits of the player's serial number (S/N).

• Wi-Fi Connection

To connect to a Wi-Fi network, please follow these steps:

① . Go to the setup menu and enable Wi-Fi by switching it on.

② . From the available Wi-Fi access points (AP), select the one you want to connect to.

③ . If the network is secured, enter the correct password for the selected AP.

④ . Once the password is entered, the player will attempt to establish a connection to the Wi-Fi network.

Front Screen Contents

01	XLR4：Output channel
02	Bluetooth
03	Volume lock
04	H：current gain level
05	VOL：volume
06	Wifi
07	100%：Battery life
08	Recharge status

01	MQA：MQA status and unfolding level
02	XRC：XRC status
03	Repeat mode

01	Current file name
02	FLAC：file format
03	NAME：artist name
04	Mute -20dB：volume mute or dim

Progress bar

01	Playback status
02	EFX：effect activated
03	CUR：current play time
04	ALL：total time length of current file
05	1/999：current index/total songs

01	Current file format
02	Current file bitrate
03	Current file bit depth

Top Screen Contents

Status Bar

01	Current / Total track
02	PMEQ / ATE effects
03	Gain

04	WiFi
05	Bluetooth
06	Output Type
07	Volume Lock
08	Repeat Mode
09	Power Display

Drop-down Menu

To access the drop-down menu, simply pull down from the top of the screen. This action will activate the drop-down menu, allowing you to view and access various options and settings available on the player.

If you wish to customize the icons displayed in the drop-down menu, you can click on the "more..." option. This will allow you to customise and select the specific icons you prefer to be visible in the menu.

Function Icons

The top screen of the player displays multiple function icons, with a maximum of 6 icons visible on one page. To navigate between pages and access additional icons, simply slide left or right on the screen. This allows you to switch between different pages of function icons and access a wider range of available features and options.

• Play Music

Click the "< ▶ >" button located at the bottom of the home screen to start playing music.

• Pause

While music is playing, click the "< ‖ >" button at the bottom of the home screen to pause the playback.

• Previous & Next

While music is playing, you can click the "< ◄◄ >" button to switch to the previous song, or click the "< ►► >" button to skip to the next song.

• Playing Progress Bar

To quickly navigate within a music file, slide your finger across the progress bar area. This allows you to locate specific sections of the song and control the playback position.

Playback Screen

You can slide the cover area to switch between different screen information. Here are the available options:

• Album Cover

This section displays the album cover associated with the currently playing song, providing a visual representation of the album or track.

• Song Info

The song info section provides detailed information about the currently playing song, such as the title, artist, album, and other relevant details.

• Lyrics

If available, this section displays the lyrics of the song being played. It allows you to follow along with the lyrics as the music plays.

• Pro Audio Mode

For professional users, the Pro audio mode section provides additional information. It includes a peak meter, which shows the audio levels, and a frequency spectrum, which visualizes the distribution of frequencies in the audio signal.

File Browser

To manage music files on the SD card, you can access the File Browser by clicking on the "Folders" icon on the home screen. Here's how you can navigate and perform various actions in the File Browser:

• View Music Files

Click on the folders listed to navigate through the directory structure. Slide the screen page up or down to view the music files within each folder.

- Return to Previous Level

  To go back to the previous level in the directory, click on the "< ❮ >" icon.

- Delete Music Files

  To delete a music file, slide the filename from right to left to reveal the delete option. Click on "Delete" to permanently remove the file.

- Play All Files in the Folder：

  Enter the folder containing the music files you want to play. Click on any of the files to start playing all the files in that folder.

- Add Music or Whole Folder to Playlist

  To add a specific music file or an entire folder to the playlist, slide the filename or folder from right to left and select "Add to Playlist.

> ⚠ Notice：
> • Please note that the File Browser will only display supported audio files. Other file types will not be shown in the browser.

Play List

The player provides three editable playlists: "My favorite," "Recent," and "All songs." Here's a breakdown of each playlist and additional features:

- My Favorite

  This playlist is intended for adding your favorite songs. You can manually add your preferred songs to this playlist for quick access.

- Recent Playlist

  The Recent playlist automatically includes the songs you have recently played. It allows you to easily revisit and listen to the tracks you've listened to most recently.

- All Songs

  The All Songs playlist displays all the songs available on the SD card. It provides a comprehensive view of your entire music collection.

• Delete Playlist

To delete a playlist, slide the playlist from right to left to reveal the delete option. Click on "Delete" to permanently remove the playlist.

Song Sorting

By clicking the button located in the top right corner, you can access the song sorting options. This allows you to sort songs based on quality, sample rate, or name, providing you with different ways to organize and browse your music.

Playback Setting

Repeat mode	List loop
	Shuffle
	Single repeat
	Sequence
Sleep Timer	OFF / 10-120 min
Show Lyrics	On / OFF
File Switching Effect	Fade out / Off / Gapless

✉ Notice：
• Please take note that options with underlines indicate the factory default settings. These settings are pre-configured by the manufacturer and can be restored if needed.

Output Setting

Headphone Output	LR balance	L3.0dB - R3.0dB
	Gain	L / M / H / S

Line Output	Gain	Fixed / <u>Unfixed</u>
Bluetooth Output	Bluetooth Volume	Fixed / <u>Unfixed</u>
DSD Play Setting	Gain	-12 / -6 / <u>0</u> / +6 / +12dB
Digital Output	DSD	<u>PCM</u> / DoP
	MQA Passthrough	On / <u>Off</u>
VU Meter		Pre fader / <u>Post fader</u>

> ⚠ <u>Notice</u>：
> •The default value for LR balance in the headphone output is set to zero. This means that the left and right audio channels are balanced equally when the device is initially used.

Volume Knob	<u>Clockwise</u>	
	Anti-Clockwise	
Power	Auto Power-off	Off / <u>1min</u> / 5min / 10min / 15min / 30min
	Screen Off	<u>10s</u> / 30s / 1min / 2min / 3min / 5min
Language	English	
Keyboard	English / Chinese / Japanese	
UI Theme Color		
Fn Keys setting		

Player Setting

Breathing LED	<u>On</u> / Off
Double Click	On / <u>Off</u>
Screen Flipping	On / <u>Off</u>

Audio Setting

Hardware decode	<u>On</u>
	Auto
EQ setting	PMEQ
	My Scheme

ATE	Brighter	
	Sweet	
	Dental	
	Style 701	
	Style 990	
	Diffuse field (Near field)	
	Diffuse field (Far field)	
Filter	PCM	Short delay sharp rolloff
		Sharp rolloff
		Slow rolloff
		Short delay slowrolloff
		Super slow rolloff
		Low dispersion short delay
	DSD	LPF:Normal
		LPF:Extended
XRC setting	On / Off	
Wi-Fi Setting		
Bluetooth	Bluetooth switch	
	Bluetooth DAC	

SD Card	Total space
	Free space
	Total songs
	Format
Information	Device name
	Model
Version	Software version
	Hardware version
	Wireless version
	Online-Update
Serial Number	
Legal	
Reset	

> **⚠ Notice:**
> •When doing factory reset, all settings included ATE will be reset to the original status.

Firmware Update

Firmware Update

To update the firmware of the player, please follow these steps:

Ensure Battery Power: Before initiating the firmware update, ensure that the battery power of the player is above 20%. This helps prevent any interruptions during the update process.

Download Firmware File: Visit www.lotoo.cn and download the firmware file. Once downloaded, copy the firmware file to a folder on the SD card.

Enter Settings: Access the Settings menu on the player. Click on the software version option, which will prompt the firmware update process to begin.

Follow On-Screen Instructions: Follow the instructions displayed on the screen to complete the firmware update:

After a successful update, the player will automatically shut down. Upon powering on again, you can check the latest software version number in "Settings > Software Version."

> ⚠ Notice：
>
> • Product Function Changes: Please be aware that the product's functions may be subject to change without prior notice. Stay updated with the latest information from the manufacturer.
>
> • File Preservation: While the firmware update process will not automatically delete files, improper operations may result in update failures. In exceptional cases, reformatting the SD card may be necessary. It is advised to back up all files on the SD card before initiating the firmware update.
>
> • Read the Manual: Prior to performing any operations, it is essential to thoroughly read and understand the user manual. The firmware designed for this device is not applicable to other products.

Troubleshooting

If you encounter any of the following issues, please refer to the suggested solutions below. If the problem persists, kindly reach out to our after-sales service for further assistance.

• Failure to Boot

——If the device fails to boot, it may be due to low battery voltage. Please recharge the battery and try again.

• No Sound from Headphones

——Ensure that the volume knob is not set to the minimum level. Adjust the headphone volume accordingly.

——Check if the headphones are damaged or experiencing poor contact. Try using a different pair of headphones.

——If the music files have low volume levels, increase the volume on the player.

• Files on SD Card Cannot Be Seen

——Unsupported music files will not be displayed on the player. Ensure that the music files are in a supported format. If the music files are damaged, they may not be recognized. Consider obtaining a backup of the files and replacing or repairing the damaged ones.

• File Name Without Extension

——Music files accompanied by a ".cue" index file may not display file extensions. This is normal behaviour and does not indicate any issue with the files.

• Playlist Error

——If you encounter errors with playlists, try removing and reinserting the SD card to initiate a database rescan. This may resolve any issues with playlist recognition.

• SD Card Formatting Notice

——If the SD card is damaged or its disk format is not recognized, it is recommended to backup all files and reformat the SD card using the player's formatting function. This helps ensure proper functionality and compatibility.

If you have any further questions or concerns, please don't hesitate to contact our after-sales service for assistance.

Safety Notice

Please take note of the following safety precautions to ensure the safe use of the product:

• Product Safety

Avoid placing heavy objects on the device as it may result in damage or malfunction.

Do not use the device in a humid environment to prevent circuit damage.

Keep the device away from dusty or smoky areas as it may lead to damage or malfunction.

Avoid exposing the device to magnetic substances as it may cause damage or malfunction.

Do not subject the device and its accessories to physical impact or beating, as it may cause serious damage or malfunction.

Refrain from cleaning the device with chemical solvents or detergents, as it may result in damage.

Avoid using the device during thunder and lightning weather conditions to prevent the risk of injury.

Do not attempt to disassemble the device by yourself, as it may cause damage.

Specifications

• Battery Safety

Never place the device in fire or expose it to high heat, as it may lead to an explosion.

If the battery becomes hot, discontinue use immediately.

It is important to adhere to these safety guidelines to prevent accidents, damage, or harm. If you have any concerns or questions regarding the safety of the product, please contact our customer support for assistance.

General Specifications

Formats	DSD 64/128/256/512 DFF / DSF / ISO
	WAV / MP3 / FLAC / APE / OGG / M4A / AAC
Sample Rate	DSD up to DSD512 PCM up to 768KHz
Processor	NXP iMXN6LL ADI Blackfin BF706 DSP Ingenic X1000
Top Screen	800x480 4-inch touch screen
Front Screen	480x360 2.2-inch LCD
DAC Chip	AK4499EQ x 1
Headphone Amp chip	LME49600 x 8
Headphone ports	3.5mm / 6.35mm (Unbalanced) 4.4mm / 4pin XLR (Balanced)
Line Output	XLR (Balanced) RCA (Unbalanced)

Digital Output	XLR (AES/EBU) RCA (SPDIF) Optical (SPDIF)
Digital Input	XLR (AES/EBU) RCA (SPDIF) Optical (SPDIF)
USB Ports	Type-C OTG (USB Storage/DAC) x 1 Type-C PD (Recharge) x 1 Type-A USB Host (USB Ext.Storage) x 1
Storage	UHS-II SD 4.0 Max 2TB Capacity Max speed 300M/s
Battery	10.8V / 9000mAh (97.2Wh) Li-ion
Recharge	PD 3.0 20V 3A
Bluetooth Audio	SBC, AAC, LDAC
Lotoo Wireless Audio	LTTP (Lotoo tele-transport protocol)
Wi-Fi	Supported
Streaming	DLNA
Size	18x18x6.3cm (Excluding protrusions)
Weight	About 2700g
Firmware Update	Supported

Audio Specifications

Audio-Headphone- 3.5 mm/6.35mm

Max output power	1.2 W @ 32 ohm
Channel Isolation	122 dB
Freq Response	+-0.03 dB (20-20KHz)
SNR	130 dB
Dynamic Range	131 dB
Min Noise Level	-119dBu
THD+N	0.0004%

Audio-Headphone - 4.4 mm/4pin XLR

Max output power	2.5 W @ 32 ohm
Freq Response	+-0.01 dB (20-20KHz)
Channel Isolation	123 dB
SNR	130 dB
Dynamic Range	134 dB
Min Noise Level	-119 dBu
THD+N	0.0003%

Audio-Line out- RCA

Max Level	+18 dBu
Freq Response	+-0.01 dB (20-20KHz)
Channel Isolation	124 dB
SNR	130 dB
Dynamic Range	130 dB
Min Noise Level	-121 dBu
THD+N	0.0004%

Audio-Line out- XLR

Max Level	+24 dBu
Freq Response	+-0.01 dB (20-20KHz)
Channel Isolation	130 dB
SNR	132 dB
Dynamic Range	134 dB
Min Noise Level	-120 dBu
THD+N	0.0003%

Digital out
AES/EBU Coaxial Optical

Sample rate	44.1KHz / 88.2KHz / 176.4KHz
	48KHz / 96KHz / 192KHz

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