



PAW Gold
Reference Audio Player

User Manual

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<http://www.lotoo.cn>

Foreword

Dear customers:

We are honored to enjoy the incomparable charm of music brought with you by this device.

This is a HI-END portable music player at reference level with unique precise circuit design achieved by all of our designers with passionate devotion. We hope that this device may provide you with a truly pure sound, so that you can wander freely in the music world by this device.

This device is made of aerospace grade aluminum alloy, with exquisite and smooth hand feeling and the brightest shine from its gold-gilded parts. Each part of it is carefully crafted to meet our expectations. We hope that it is not only a music player, but also a work of art and that this device with beautiful appearance and delighting nature will provide you with most delighted enjoyment.

Now, let's open this manual and get a full understanding of its all functions.



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Notes

Disclaimer

- All rights are reserved. Without prior written approval from the Company, this manual or software contained herein, whether whole or partial, shall not be reproduced, translated or reduced to readable data of the device.
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Disposal of Electronic Device



- Electrical and electronic elements contained in this product may not be disposed of as household wastes.
- This product shall be dispatched to the waste recycle station provided by local government for disposal. This disposal mode will not bring any inconvenience with you.
- Lithium battery is used in this product and to be disposed of according to relevant laws as required.
- For more detailed information, please consult with local government or waste management authority.

Definition of Symbols used in This Manual



Tips

- To indicate important issues to be paid attention in the operation process.

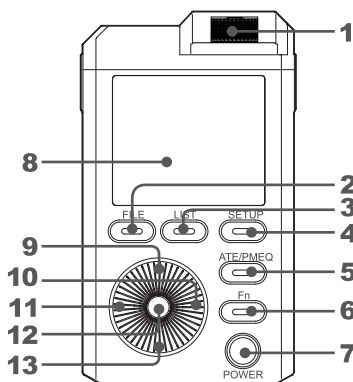


Attention

- To indicate very important issues or severe dangers. Operations not performed in line with the warnings may result in major injuries.

Learn about this Device

Introduction to Each Part



1 Volume knob: turn the knob to adjust the volume (directions user-definable)

2 <FILE> Click to enter File Management function

3 <LIST> Click to enter Playlist function

4 <SETUP> Click to enter Settings function

5 <ATE/PMEQ> Click to enter ATE and PMEQ Settings functions

6 <Fn> User-defined function: functions may be user-defined in the menu

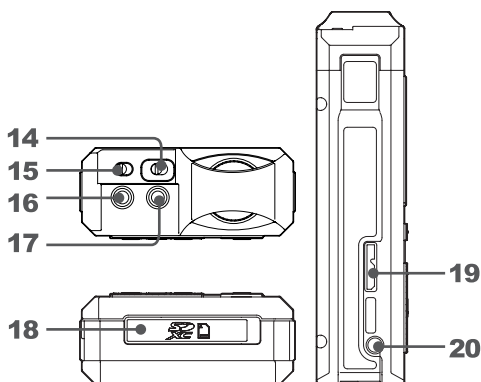
7 <POWER> Turn on or off

8 Liquid Crystal Display (LCD)

9 <▶II> Play/Pause/Up

10 <▶▶I> Next/Fast Forward/Right

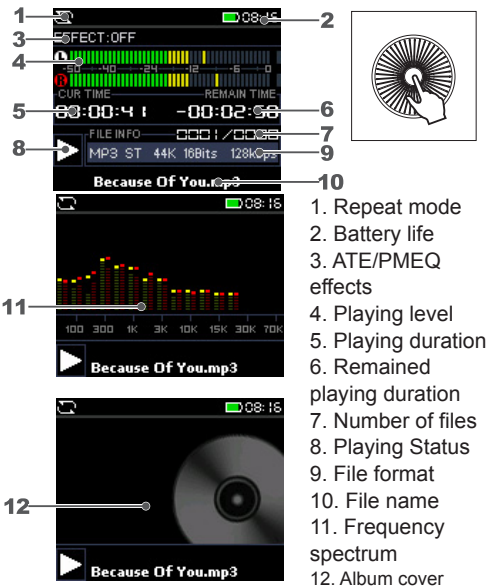
-
- 11** <⏮> Previous/Fast Reverse/Left
-
- 12** <OK> button OK/(Switch screen information or Play/Pause, to be user-defined)
-
- 13** <■> Stop/Down
-



-
- 14** <HOLD> Lock keyboard
-
- 15** <GAIN> Headphone output gain
-
- 16** 3.5mm plug-headphone interface
-
- 17** LINE OUT port
-
- 18** SD card slot: support SD/SDHC/SDXC
-
- 19** USB 3.0 port
-
- 20** Power port: to charge lithium battery or energize this device via power adapter
-

Description of Playing Screen

Press <OK> button to switch playing screens and check more detailed file information (when <OK> is set to "Screen Information").







✉Prompts:

- Please refer to "PLAY > Screen Information" in page 24.

Description:

1.Repeat modes

-  Sequence /  Single repeat /  Repeat all /  Random

2. Battery life

- Battery volume is displayed in terms of remained playing duration/percentage

3. ATE/PMEQ effects

- ATE: Brighter/Sweet/Dental/Style 701/Style 990/Diffuse field (continuously updated with the firmware)
- PMEQ: Classic/Pop/RockTechno/Dance/Headphone/Jazz/Full Bass/USER1/USER2/USER3

7. Number of files

- This device can only scan music files that can be played. Therefore, the number may be different from the number of files seen on your computer.
- cue files may be recognized as multiple files.

8. Status marks

-  Play/  Pause/  Stop/  Fast Backward/  Fast Forward

11. Frequency spectrum

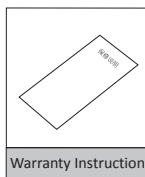
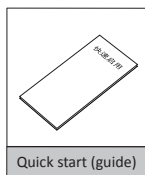
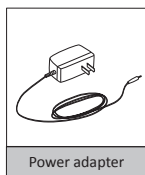
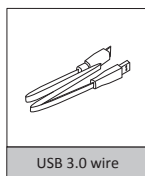
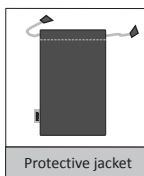
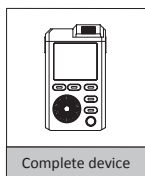
12. Album cover

- The pixel may be partially lost due to the image not in conformity to screen size.

Preparation

Packaging

The following accessories, one piece each, are contained in the package; please carefully verify them when unpackaged. In case of any loss, please contact the supplier.

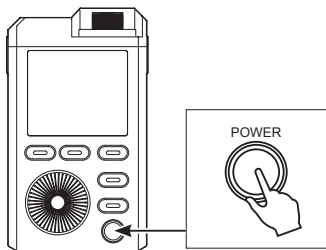


Tips:

When user manual or quick start (guide) is lost, log on the official website www.lotoo.cn to download it.

Turn On and Off

- When powered off, long press <POWER> to turn on the device.
- When power on, long press <POWER> to turn off the device.



HOLD status

If the <HOLD> “ON”, the keyboard is locked, turning on & off is inaccessible. Set the <HOLD> to “OFF” to retry.

Turn-off Timer

In case of the timing turn off function, the device will be automatically turned off upon the set time. Timing turn off is set in [SETUP>System Settings>Power off timer].

Automatic turn off

In case of the automatic turn off function, the device will, under stop status, automatically shut down upon the set time. Automatic turn off is set in [SETUP>System Settings>Auto power off].

✉Tips:

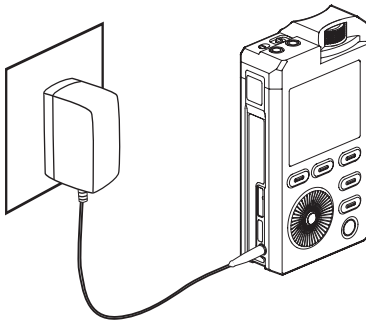
- *This device is very fast for turn-on.*
 - *The turn-on speed depends on internal memory data size of SD card; longer turn-on time may be needed when the SD card is relatively full.*
-

Charging

Charging Method

1. Connect the device to 110/220 VAC power supply via a power adapter, and the device begins automatic charging.

• This device is provided with a lithium battery having the capacity of 22Wh. Normal charging time is about 5 hours (from full discharge to power-off).



Notes:

- For the device, the lithium battery can not be charged via USB port.
 - For security reason, please use the power adapter supplied with the device. The Company will not be responsible for any breakdown caused by using other manufacturers' power adapters.
 - Please charge the lithium battery in room temperature; otherwise it may cause charging failure due to too high or low temperature.
 - Playing while charging: the externally connected power adapter can supply power to the device while charging lithium battery. Therefore, you can choose to play music when charging lithium battery, which has no influence on the charging performance.
-

Battery Life

1. Two methods for displaying power life.

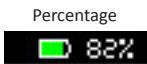
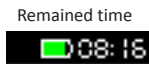
From the status bar of this device, two methods for displaying battery life are optional. Please adjust [SETUP>System Settings>Battery display].

Remained time

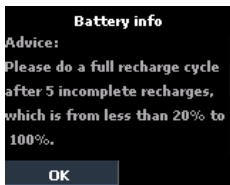
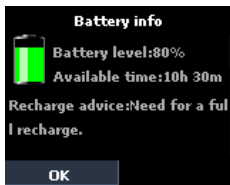
- Display remained battery life according to the remained duration

Percentage

- Display remained battery life in percentage



2. Click [SETUP>System Settings>Battery info] to view battery life and charging



✉Tips:

Please refer to the chapter of "Settings" in Page 35 for system setting methods.

Charging Advice

In order to develop a good habit and extend battery life as much as possible, it is recommended to conduct a full discharging and charging after many times' non-full charging. Meanwhile, we will give you a proper charging advice compatible with your using habit.

Advice:

- *Good habits.*
 - *Need for a full recharge.*
 - *Need for common charging.*
 - *Need for a complete discharge.*
-

Instruction:

Full charging:

charging from the battery volume of less than 20% to 100%

Normal charging:

charging for or after using

Full discharging:

discharging until the battery volume is less than 6%

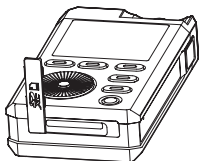
Tips:

Because of the special property of lithium battery, if full charging and discharging have not been done for a longer time, it may result in an inaccurate display of battery volume.

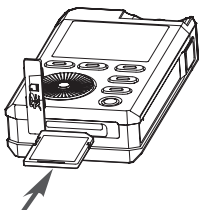
Using of SD card

Inserting SD card

1. Open the SD card cover.



2. As shown in the figure, keep the front SD card facing upward, insert it into the device, and push until locked.



3. Close the cover.

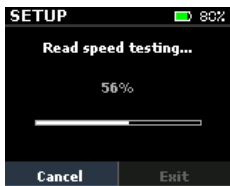
Pull out SD card

1. Open the SD card cover.
2. Push SD card till pop out, and horizontally pull out the SD card.
3. Close the cover.

SD Card Speed Test

It is recommended to use the SD card with a high read-write rate. Please measure the SD card speed via [SETUP>System Settings>SD speed] before using, and make sure whether the SD card can be normally used according to the test results.

1. Please enter [SETUP>System Settings>SD speed test], and click [Start] to test its read-write speed.



2. Check the results of SD card speed measurement.

The minimum speed is higher than 3MB/s

- It can be normally used.

The minimum speed is lower than 3MB/s

- It may cause problems when playing high-quality music files, so it is recommended to replace an SD card.

✉Tips:

- *Measuring SD card speed will create a temporary file of about 200M. If there is not sufficient space in your SD card, it is impossible to complete the test. Please delete part of files to re-test.*

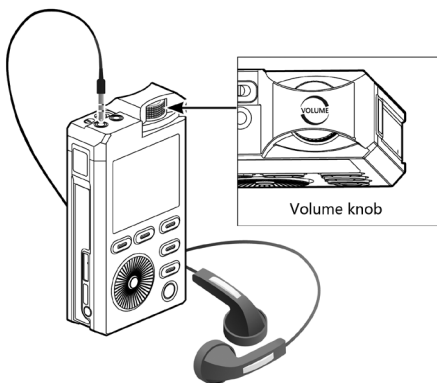
⚠Notes:

- *Since SD cards are of different types, some of which are not perfectly compatible with the device. Therefore, it is recommended to use SD cards manufactured by standard factories.*
- *Theoretically, the device can support SD card with 2T capacity.*
- *When inserting or pulling out the SD card, please be gentle, otherwise it may cause damage to the SD card.*

Using Headphones

A 3.5mm plug-in headphone is applicable to the device. Please insert the Headphones into the <PHONE> jack on the top.

In case of pulling out headphones during play, the device will automatically pause playing.



Volume Adjustment

As shown in above figure, rotate the volume knob to adjust the volume of headphones .

In default settings: rotate clockwise the volume knob to increase the volume; rotate anticlockwise to reduce the volume. (If it is necessary to change the rotating direction for increasing or reducing volume, setting can be available in [SETUP>Custom Settings>Volume knob direction])

Notes:

- Since no built-in speakers available in this device, music can only be listened through headphones .

GAIN Adjustment

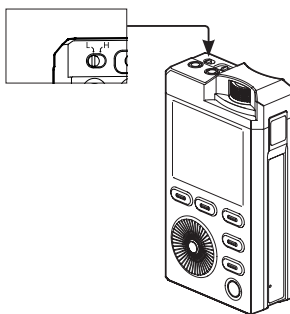
Please adjust the output power in line with demands and headphone types.

Headphone <GAIN> is “L”

- It is recommended to adjust the GAIN to L for high-sensitivity headphones .

Headphone <GAIN> is “H”

- It is recommended to adjust the GAIN to H for low-sensitivity headphones .



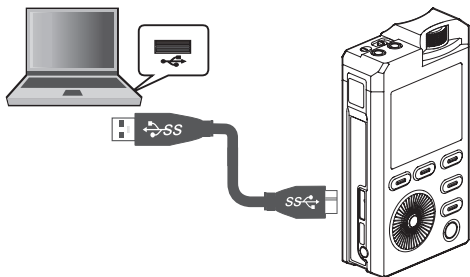
⚠Notes:

- *Before changing the <GAIN>, please reduce the headphone volume in advance to avoid damage to ears due to a large volume.*

File Transmission

The device is equipped with USB 3.0 transmission port, which supports high-speed transmission.

1. Open MAC or PC, meanwhile turn on the device.
2. Connect the device to computer using the attached USB 3.0 cables.



3. Copy the files to the pop-up "Removable Disk".

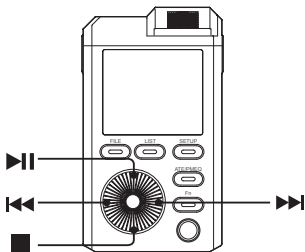
Disconnection

1. After transmission, please click the icon in the taskbar, to disconnect the connection between the device and computer.
2. Pull off the USB cable.

Play Music

Playing Functions

Firstly, select the music to be played. For music selection, please refer to sections of “File Browser” and “Playlist”.



1. Play music

- In the playing interface, press < ►► > to play music.

✉ Tips:

- In case of setting <OK> as the button of play/pause, the function of <OK> button is the same as that of < ►► > in the play interface. For definition of <OK> button function, refer to Page 40 for definition of OK button.

2. Pause

- In the play interface, press < ►► > during playing to pause music playing; in pause status, re-press < ►► > to continue playing.

3. Stop playing

- In the play interface, press < ■ > during playing to stop music playing.

4. Previous & Next

- In the play interface, short press < ◀◀ > or < ►► > under play or stop status to switch to previous or next music.

5. Fast Reverse & Fast Forward

- In the play interface, long press < ◀◀ > or < ►► > for fast backward or fast forward.

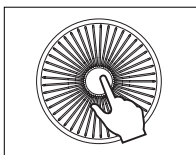
Switching Screen Information

Only by defining <OK> button with screen information switching function, the <OK> button may have the following functions.

✉ Tips:

• About how to set the OK button as screen information switching function, refer to Page 40 about definition of OK button.

In the play interface, during play, pause or stop, press <OK> to switch over the screen file information.



Normal mode

• Level of music, coded format of file, played duration and remained playing duration can be displayed in normal mode.

frequency spectrum

• Press <OK> to display information on frequency spectrum.

Album cover

• Re-press <OK> to display the album cover.



✉ Tips:

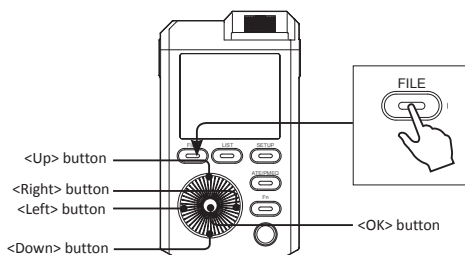
• After press <OK> to check other information, it will stay at current interface, until pressing <OK> again to switch to other interfaces.

• Upon turning-up, normal model is set as default.

• Please refer to Page 11, "Learning about This Device>Interface Element Description", for interface element introduction.

File Browser

Press <FILE> to enter File Browser, in order to visit and manage music files on the SD card.



1. Enter File Browser

- Press <FILE> to enter File Browser, and the device will be automatically located at the currently-selected file.

2. View music file

- Press <Up> and <Down> to view music files.

3. Return to previous menu

- Press <Left> to return to the previous menu.

4. Enter folder

- Select a folder via cursor, and press <OK> to enter the folder.

- Select a folder via cursor, and press <Right> and select "Open" in the pop-up menu.



5. Play selected music

- Select music file via cursor, press <OK>, and jump to the playing interface to play music.
- All the music files in the root directory under the current folder will be automatically loaded to the “Playing list” and played in sequence

6. Play whole directory: play all files in the folder

- Select the folder via cursor. Press <Right>, and select “Play the folder” in the pop-up menu.
- The music files in the root directories and sub-directories of the folder will be loaded to the “Playing list” and played according to the current repeat mode.

7. Add music or whole folder to playlist

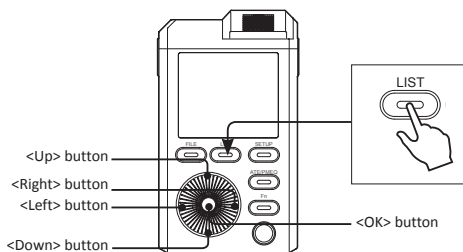
- Select music file or the whole folder via cursor. Press <Right> and select “Add to LIST 1”, “Add to LIST 2” or “Add to LIST3” in the pop-up menu.
- The music files or all files in the folder will be automatically added to the playlist.

Notes:

- *File browser can only display audio files which are identifiable, rather than other types of file.*

Playlist

The device has playlist function, built-in with three editable playlists, “LIST1/LIST2/LIST3”, and “ALL” displaying all the music files.



Playing list

- Display all files in playing.
- This playlist can not be edited.

LIST1/LIST2/LIST3

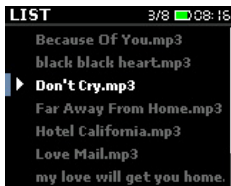
- Three editable playlists.
- You can select files to add into the three playlists through File Browser.

ALL

- Display all music files in the database.
- This playlist is non-editable.

⚠ Notes:

• All music files in the database are displayed in “ALL”. In case of updating files in SD card, please timely update database to ensure that the files in “ALL” comply with actual situation. Otherwise, it may cause play error.



1. Enter playlist

- Press <LIST> to enter the Playlist function.

2. Play music

- Select a playlist, click <OK> to enter, and press <Up> and <Down> to view music files.
- Click <OK> to play.

3. Empty playlist

- Select LIST1/LIST2/LIST3 via cursor, press <Right>, and select “Empty” in the pop-up menu.
- All files in playlist will be emptied, but not deleted from the SD card.

4. File removal

- Enter LIST1/LIST2/LIST3, and select the file via cursor.
- Press <Right>, select “Remove” in the pop-up menu, and delete the file from the current playlist, but not from SD card.

5. File sorting

- Enter LIST1/LIST2/LIST3, and select the file via cursor.
- Press <Right> to elect “Sorting” in the pop-up menu.
- Press <Up> or <Down> to place the file in proper position.
- Press <OK> to complete sorting.

6. Update database

- Please update the database timely, and refer to “Settings>System Setting>Database update” in Page 38 for more details.

ATE/PMEQ

A special circuit design is used in this device with powerful music reducing capacity, bringing about authentic enjoyment. Besides, it is provided with two different playing effectors of ATE and PMEQ, providing you with unique audio experience of different music effects.

ATE

ATE (Acoustic Timbre Embellisher), which is originally used for master processing in the recording studio, is now transplanted into this device along with DSP hardware platform. With flexible and powerful timbre processing, it may be downloaded for expansion or updating.

ATE Options

The following are the available ATE modes, which are subject to subsequent change due to update.

- **Brighter**
- **Sweet**
- **Dental**
- **Style 701**
- **Style 990**
- **Diffuse field**

PMEQ

The PMEQ function is provided with multiple classic preset parameter sets and 3 user-defined parameter sets. Please select and set based on your preference, to enjoy different music styles.

Built-in PMEQ

The following modes are the available for PMEQ, which are subject to subsequent change due to updates.

Built-in PMEQ options

- Classic: classical mode
- Pop: pop music mode
- Rock: rock and roll mode
- Techno: industrial dance mode
- Dance: dance music mode
- Headphone : headphone mode
- Jazz: Jazz mode
- Full Bass: bass mode

User-defined PMEQ

The device is provided with 3 user-defined EQs: USER1, USER2 and USER3.

The rich detail adjustments provide you a variety of audio enjoyment.

5-band filter

Each user-defined EQ can be divided into 5 bands for adjustment.

- Filter1: adjustable f0/GAIN/TYPE/Q
- Filter2: adjustable f0/GAIN/TYPE/Q
- Filter3: adjustable f0/GAIN/TYPE/Q
- Filter4: adjustable f0/GAIN/TYPE/Q
- Filter5: adjustable f0/GAIN/TYPE/Q
- Filter Group Gain: filter group gain

SETUP		08:16
Filter1	30.0Hz/+0.0dB/LSF/1.0	>
Filter2	33.0Hz/+0.0dB/BPF/1.0	>
Filter3	200.0Hz/+0.0dB/BPF/1.0	>
Filter4	500.0Hz/+0.0dB/BPF/1.0	>
Filter5	750.0Hz/+0.0dB/HSF/1.0	>

SETUP		08:16
FO	30.0Hz	
GAIN	+0.0dB	
TYPE	LSF	
Q	1.0	

Instructions:

F0: center frequency

- This option setups the center frequency of filter on such band.



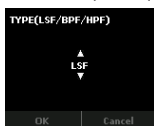
GAIN: center frequency gain

- This option regulates the gain of center frequency.

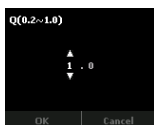


TYPE: filter type

- LPF (low pass filter)/LSF (low shelf filter)/HSF (high shelf filter)/BPF (band pass filter)/HPF (high pass filter)



Q: Q value of the frequency



Filter1 parameter range

F0: 30.0Hz-200.0Hz

GAIN: -12.0dB~+12.0dB

TYPE: LSF / BPF / HPF

Q: 0.2~1.0

Filter1 parameter range

F0: 33.0Hz-5400.0Hz

GAIN: -12.0dB~+12.0dB

TYPE: BPF

Q: 0.2~1.0

Filter1 parameter range

F0: 200.0Hz-18000.0Hz

GAIN: -12.0dB~+12.0dB

TYPE: BPF

Q: 0.2~1.0

Filter1 parameter range

F0: 500.0Hz-20000.0Hz

GAIN: -12.0dB~+12.0dB

TYPE: BPF

Q: 0.2~1.0

Filter1 parameter range

F0: 750.0Hz-15000.0Hz

GAIN: -12.0dB~+12.0dB

TYPE: HSF / BPF / LPF

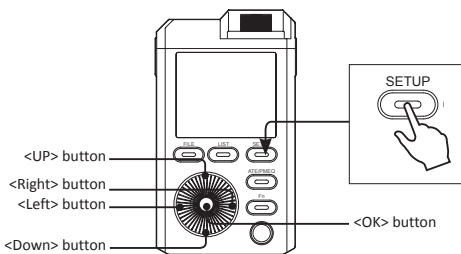
Q: 0.2~1.0

Filter Group Gain parameter

Group Gain: -15.0dB~0dB

Settings

The content in Settings is modifiable in accordance with individual needs.



1. Enter Settings

- Press <SETUP> to enter Settings.

2. View options

- Press <UP>, <Down>, <Left>, <Right> to move cursor, to view the menu options.
- Normally, press <Left> to return to previous menu, and press <Right> to enter next menu.

3. Confirm options

- Press <OK> to confirm the selected options.

Playing Settings

Repeat mode

Set the play mode of music files.

- Sequence: play in sequence to the last song and stop.
- Single Repeat: repeatedly play the selected music file.
- Repeat all: play all music files in “Current Playlist” in sequence.
- Random: randomly play all music files in “Current Playlist”.

Time display

Set the time format of the currently playing music

- Current time: display the elapsed time for current track
- Remaining time: display the remained duration of current track

User-defined PMEQ

Set the parameters for the three user-defined EQs.

- Please refer to “ATE/PMEQ> User-defined PMEQ” in page 32 for more details.

DSD gain

- -12dB/-6dB/0dB/+6dB/+12dB

Lineout level switch

- OFF/ON

System Settings

Power turn-off

Set the on-off time of timing turn off.

- Timer switch: OFF/ON
- Power off timer : 00h00m-23h45m

Auto power off

Set the automatic turn off time without any operation of the device.

- 5m/10m/15m/30m

Language

Set the language of the current system.

- ENGLISH/Simplified Chinese (based on sales region)

Display distinction

Set the automatic turn off time screen backlight without any operation of the device.

- OFF/30s/1m/3m/5m

Breathing LED

Set the on-off of breathing lights around the power button.

- OFF/ON

Battery display

Set the display mode of remained battery volume in the status bar.

- Remain time: display the remained battery volume by the remained play duration.
- Percent: display the remained battery volume by percentage.

Tips:

- *When displaying the remained battery volume by the remained playing duration, changes may occur due to different modules or current power supply requirements.*
-

Battery info

Display the current battery volume, charging advice, use recommendation and other information.

- Battery level: display the percentage of remained

battery volume.

- Available time: display the available duration in terms of remained battery volume under such condition as current power consumption for the complete device.
- Charging advice: please refer to “Preparation>Charging>Advise on Charging” in page 17.
- Use recommendation: a full charging is recommended after non-full charging for many times, charging from less than 20% of the battery volume to full charge.

Database update

Please update media information immediately after updating the music files in the SD card, to maintain the accuracy of media database.

Tips:

- *Any delay in updating the media information may result in reading error of files in the playlist.*
-

SD info

Display the total capacity, remained capacity and used capacity of the current SD card.

SD speed test

Measure the read-write speed. SD cards at low read-write speed are inappropriate to play music files in large bit rate.

Please refer to “Preparation>Using of SD Card>SD Card Speed Measurement” in page 19 or more details

Format

Format SD card, change the SD card file system to a format more suitable for high-quality music playback, and delete all files on it.

Notes

- *The formats of some SD cards fail to meet the playback requirements. Therefore, in order to assure of a better experience while listening to the music, the device will compulsively format such SD cards to a compatible form.*
 - *It is strongly recommended to format the SD card with the device, for better stability and compatibility.*
-

Factory settings

Restore all settings to defaults.

Notes:

- *All the settings including user-defined PMEQ will be restore to defaults.*
-

System info

You can view the serial number, software version, hardware version, boot version and start version.

Firmware upgrade

To upgrade its software version, please refer to “System Upgrade” section in page 41.

Custom Settings

Fn key definition:

- **Fn OFF**

Fn button was not set with any function.

- **MUTE -20dB**

Press Fn button to reduce the current volume by 20dB.
Press Fn button again to restore to the original volume.

- **MUTE**

Press Fn button, the device will be muted. Press Fn button again to restore to the original volume.

- **Repeat mode**

Press Fn button to adjust the repeat mode.

- **Screen information**

Press <Fn> in the playing interface to switch the screen information display.

- **Timer switch**

Press Fn button, to set the on or off status of timing turn off.(Adjust timing turn off, please refer to "SETUP>System Settings>Power off timer".)

- **Battery info**

Press Fn button to view battery volume.

- **Database update**

Press Fn button to pop out the updating media information window.

Center key:

- **Play/Pause**

Press <OK> in the playing interface to play/pause.

- **Screen information**

Press <OK> in the playing interface to switch the screen information display.

Volume knob direction:

- CW to increase
- CCW to increase

Lock volume when held

- Unlock
- Lock

System Upgrade

We will improve the product firmware on demand, to facilitate better operation of hardware and improve product performance, including the improvement and optimization of product functions.

Notes:

- *We reserve the right to change the product function without any further notice.*
 - *The firmware upgrade will not automatically delete files, but the improper operation may give rise to upgrade failure. In exceptional cases, you may be required to format the SD card; therefore, you are kindly requested to backup the important files in SD card before upgrading firmware.*
 - *Be sure to carefully read this manual prior to operation; the firmware of the device is inapplicable to other products.*
-

1. Maintain sufficient battery volume of the device.

- System upgrade is unfeasible if the battery volume is less than 15%. Please replenish the battery volume before upgrading.

2. Download “PAWGAPP.COE” firmware

- Log on the website www.lotoo.cn to access the download page.
- Download “PAWGAPP.COE” and save it in the computer.

3. Copy the firmware to the root directory of the SD card

- Connect the device to the computer via USB wire.
- Copy the downloaded firmware to the root directory of pop-up removable disk.

4. Upgrade firmware

- Enter Settings, click [SETUP> System Settings> Firmware Upgrade]. Wait for the completion of system upgrade.

Correct upgrade will execute the following procedures:



5. After correct upgrade, the device will be automatically turned off

- Re-start, and you can view the latest software version number in [SETUP> System Settings> System Info].

Others

Error Message

During the using of the device, information prompts or error prompts may appear, for which the reasons and solutions are as follows.

You can try to resolve them by yourself; if failed to resolve, please contact our technical staff.

SD card error

- An error occurs while reading the SD card.

Formatting failure

- SD card failure, formatting failed.

Unidentified SD card, please replace it

- SD card failure, access and use failed.

SD card is not formatted in the device

- An error occurs in the file systems for some SD cards, or the formats failing to meet the requirements, which are required to be formatted.

File error

- An unknown error occurs on the file while playing.

Slow disc access speed

- The SD card slows down in speed, which is unable to support the normal use and required to be replaced.

Data reading failure

- File errors occur during reading the SD card, please check whether the unreadable music file was damaged, or the SD card is faulted.

No file in the list

- No file is added to the playlist.

Too long directories

- This device supports directories at eight levels only.

Not found

- Upgrade file is not found.

File upgrade error

- Log on the website www.lotoo.cn to access the download page and download the upgrade file "PAWGAPP.COE".

Disc file access failure

- Access to the disc file failure.

File not found, please update the database

- The media information fails to be updated in time, resulting in a playing error. Click [SETUP> System Settings> Update Media Information].

File format unsupported

- The music file format is unsupported.

List file can not be opened

- "/playlist" list file error and unavailable.

Excessive database files

- The device supports up to 8192 files, open failure might be resulted from such number exceeded.

Database update failure

- An error is detected during updating the database.

Charging error

- The charging error may be resulted from the battery damage, and immediate repair is recommended.

Troubleshooting

In case of the following failures, you can try to resolve them by yourself. If any problem fails to be solved, please contact the after-sales service department.

Failure to boot

- Low battery volume makes boot unavailable. Please charge the battery and retry.

No sound from headphones

- The volume knob is set to the minimum. Adjust the headphone volume.
- The “MUTE” function of Fn is enabled. Press Fn button again to disable the “MUTE” function.
- The headphones have been damaged or in poor contact. Please replace the headphones .
- The level of music files is low.

Files in SD card fail to be identified by the device

- This device can only identify the playable music types; some music files are formats unsupported by the device, thus they can not be identified.
- Music files have been damaged.

File name without extension

- Multiple music files without extensions may turn up after the parsing of certain cue files.

Playlist file plays error

- Update the database after updating the music files in SD card; otherwise, the removed files in the playlist may result in playing errors.

Prompting formatting after SD card inserted

- SD card format does not meet the requirements of play, formatting is required.

Usage Safety

Product Safety

- Do not place any heavy objects on the device; otherwise, it may give rise to damage or malfunction.
- Do not use the device in humid environment; otherwise, it may cause damage to the circuit.
- Do not use the device in dusty or smoky areas; otherwise, it may give rise to damage or malfunction.
- Do not get the device close to magnetic substances; otherwise, it may give rise to damage or malfunction.
- Do not beat the device and its accessories; otherwise, it may cause serious damage or malfunction.
- Do not clean the device with chemical solvents or detergents; otherwise, it may cause damage.
- Do not use the device in thunder and lightning weather; otherwise, it may cause injury.
- Do not disassemble the device by yourself; otherwise, it may cause damage.

Battery Safety

- Do not place the device in a fire, or heat the device; otherwise, it may give rise to battery explosion.
- Stop using the battery immediately if high temperature and heat dissipation occur; otherwise, it may cause injury.

Specification

General Specification

Material	Aircraft-use aluminum alloy
Display	1.8-inch color OLED 160 * 128
Communication Interface	USB 3.0
Output Interface	Headphone jack (3.5mm) Line output (3.5mm)
Size	60 x 104 x 25.4 mm (W x H x D)
Weight	280g
Battery	22Wh lithium-polymer battery
Memory Card	SDHC/SDXC (Max. 2TB)
Clock Jitter	5ps (Typ)
Firmware Upgrade	Support

Play

Play Format	DSD64(2.8M,1BIT) / DSD128(5.6M,1BIT) File Format: DFF / DSF / ISO FLAC / APE / WAV / AAC / ALAC / MP3 / WMA / M4A / WavePack
Play Duration	About 12 hours
Sampling Rate	PCM 8kHz-192kHz / DSD 2.8MHz
Output Level	+15 dBu (headphone output, no load, high gain) 0 dBu (headphone output, no load, low gain) + 9 dBu (line output, no load)
DAC Chip	TI PCM1792
Amp Chip	TI LME49600
Processor	ADI Blackfin 514 DSP

Headphone Output

Frequency Response	$\pm 0.06\text{dB}$ (20~20kHz) $\pm 1\text{dB}$ (5~50kHz)
Total Harmonic Distortion + Noise (THD+N)	0.00058% @ 1kHz (20-20kHz, A-weighted, no load)
Dynamic Range	121dB @ 1kHz (20~20kHz, A-weighted)
Signal to Noise Ratio (SRN)	120dB (20 ~ 20kHz, A-weighted)
Channel Isolation	-119dB

Line Output

Frequency Response	$\pm 0.06\text{dB}$ (20~20kHz) $\pm 1\text{dB}$ (5~50kHz)
Total Harmonic Distortion + Noise (THD+N)	0.00036% @ 1kHz (20-20kHz, A-weighted, no load)
Dynamic Range	121dB @ 1kHz (20-20kHz, A-weighted)
Signal to Noise Ratio (SRN)	120dB (20~20kHz, A-weighted)
Channel Isolation	-119dB