

iBasso Audio

In Pursuit of Perfection

OXI70

High Performance Digital Audio Player

USER GUIDE

<http://www.iBasso.com>

Contents

Package Components	2
Main Features	4
Specifications	6
Names of Parts & Functions	7-12
Android Basic Features Introduction	13-24
WiFi Connection/Bluetooth Connection	13-14
Application (APP) Installation/App, to Uninstall/USB Connections	15-17
System Settings	18-23
Power Off/Reboot	24
iBasso Mango Music Player Application	25-56
Playback Screen (home screen)	25-27
Music Screen	28-36
Settings Screen	37-56
MQA	57

Package Components



DX170 Player



Clear TPU
Protection Case



USB C Cable



Screen Protector



Quick Start Guide



Warranty Card

USB C Cable:

Connect the USB C cable to a computer for charging, data transfer, and USB–DAC function.

Clear TPU protection case:

Use the Clear TPU protection case to protect the DX170's chassis from scratches.

Screen Protector:

Use the screen protector to protect the DX170's screen from scratches.

Warranty Card:

The warranty card will be requested at the time of warranty repair. Please retain the warranty card.

Quick Start Guide:

This reviews the basic functions of the DX170.

Main Features

- Dual Cirrus CS43131 DAC Chips.
- Bit for Bit Playback With Support up to 32bit/384kHz.
- Support of Native DSD up to 256x.
- 5.0" (1080*1920) IPS Full Screen with On Cell Capacitive Touch Panel.
- CNC Aluminum Frame, With Curved Glass Rear Panel.
- Support of QC3.0, PD2.0, & MTK PE Plus Quick Charge.
- Allows for USB-DAC Mode.
- 4.4mm Balanced OutPut, 3.5mm Single Ended Output That Functions as Single Ended Phone Out, Line Out, and Coaxial Out.
- Quad-core ARM Cortex-A55 SoC.
- 2GB LPDDR4.
- 32GB of Internal Memory.
- 5G WiFi and Bluetooth 5.0.
- Support SDXC and SDHC Micro SD Cards.
- Audio Formats Supported: MQA, APE, FLAC, WAV, WMA, AAC, ALAC, AIFF, OGG, MP3, DFF, DSF and DXD.

- Support for M3U Playlists.
- 3200mAh 3.8V Li-Polymer Battery.
- 11 Hours Play Time.

Specifications

4.4mm Balanced Output :

Output Level :	6.4Vrms
Frequency Response :	10Hz~40kHz+/-0.15 dB
S/N :	130 dB
THD+N :	0.00022% (no load) 0.00022% (32Ωload, 3Vrms)
Crosstalk :	-125dB

3.5mm Headphone Out :

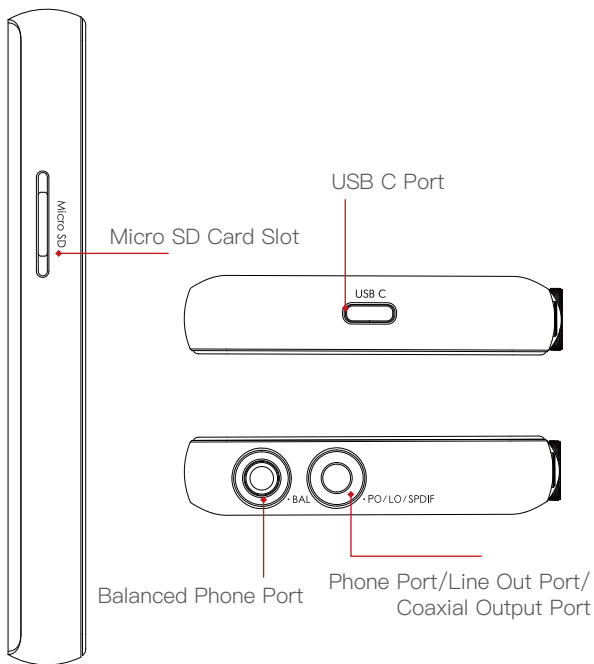
Output Level :	3.2Vrms
Frequency Response :	10Hz~40kHz+/-0.15 dB
S/N :	125dB
THD+N :	0.0004% (no load) 0.0007% (32Ωload, 3Vrms)
Crosstalk :	-115dB

Line Out :

Output Level :	3.2Vrms
Frequency Response :	10Hz~40kHz+/-0.15dB
S/N :	125dB
THD+N :	0.00035% (no load)
Crosstalk :	-113dB

Average Play Time: 11 hours.
(The play time varies with different resolutions and headphone/IEM loads.)

Names of Parts & Functions



Coaxial Output Port:

Use a mini coaxial cable to play music stored in the DX170 on an external device with a coaxial input port. Before using the coaxial output, make sure SPDIF is selected on the 3.5 interface of the drop-down notification bar.

USB C Port:

Connect the DX170 to a computer or a USB charger to charge the DX170. Connect the DX170 to a computer to allow the DX170 to work as a card reader or an external storage. Connect the DX170 to an OTG storage device to play music files. Connect the DX170 to a PC or a Mac computer to work as a USB DAC.

Line Out Port:

Use a 3.5 to 3.5 interconnect cable to play music stored in the DX170 on an external amplifier with a line in port.

Phone Port:

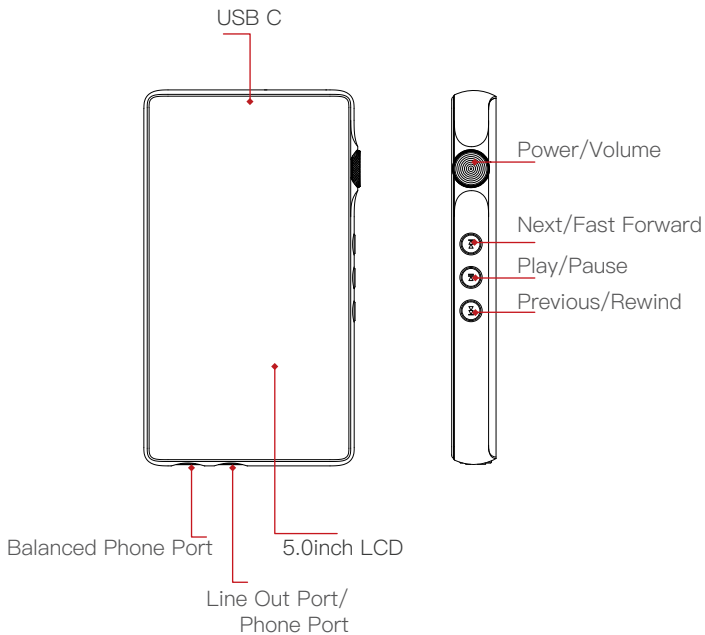
Plug in the single-ended earphone and output sound through the phone port.

Balanced Phone Port:

Plug in the 4.4mm balanced earphone and output sound through the Balanced phone port.

Micro SD Card Slot:

Insert a Micro SD card into the DX170 to access its stored files.



Power:

Short Press – Power the LCD screen on and off.

Long Press – To display the pop up window with two options that are Power off and Reboot.

Volume:

Rotate the wheel clockwise to increase the volume.

Rotate the wheel counter clockwise to decrease the volume.

Next/Fast Forward:

Short Press – Play the next track.

Long Press – Fast forward.

Play/Pause:

Short Press – Play/Pause.

Previous/Rewind:

Short Press – Replay previous track.

Long Press – Rewind.

Basic Operation:

Power on/off:

1. Press and hold the power button to power on.
2. After the DX170 is powered on, a long press of the Power button to display the pop up window, press Power Off button to power off the DX170.

Power on/off the screen:

Single press the power button to power on/off the screen after the DX170 has been powered on.

Reset:

If the DX170 stop unexpectedly during operation and the keys are no longer responsive, press and hold the power button for 10 seconds to reset the DX170.

Charging:

DX170 supports three quick charge protocols, QC3.0, PD2.0, and MTK PE Plus. Charging can be done with a standard 5V USB charger or with quick charger that is compliant the stated 3 protocols. A full charge takes about 1.5 hours with the aforementioned quick charge types.

Connecting to a computer to work as a USB DAC:

Connecting to a computer to work as a USB DAC:

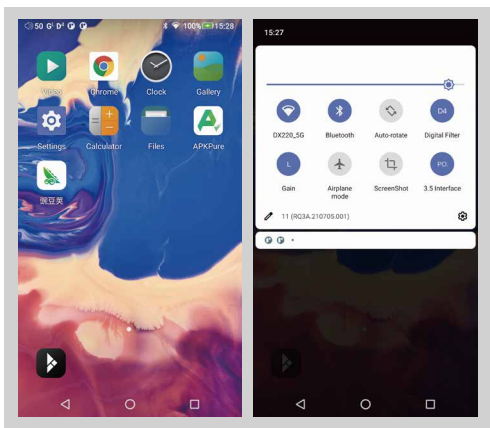
The DX170 can work as a USB DAC for Windows PC, Mac computer, and Linux computer. It is driver free on Windows PC, Mac computer, and Linux computer. For Windows PC, the DX170 supports WASAPI protocol.

The DX170 supports up to 32bit/384kHz PCM, and DSD DoP up to 128x when be used as a USB-DAC.

Android Basic Features

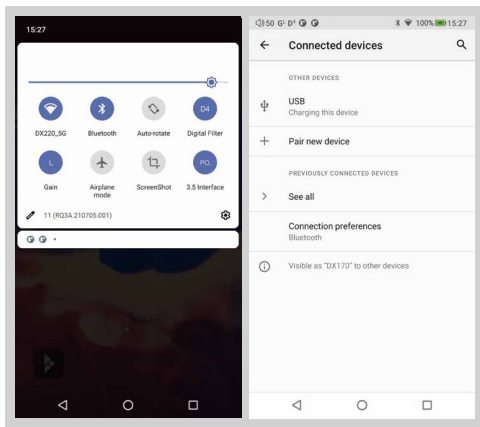
Introduction

WiFi Connection:



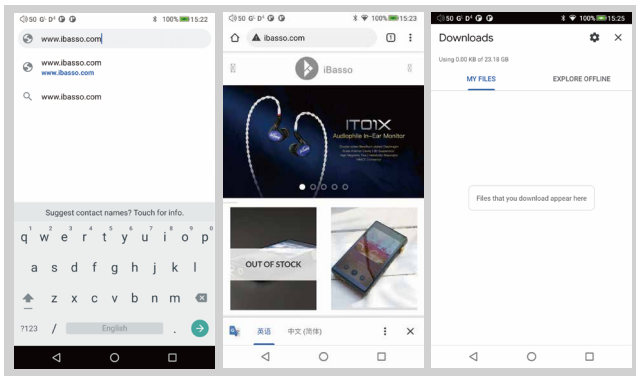
- ① On the Android desktop, from the top, swipe down the screen to display the notification bar.
- ② Press the Wireless local area network(WLAN) to turn on the WiFi function. The first time you enter the WLAN, you need to choose the hot spot you will be using and enter the password. From this point forward your password for this hotspot will be remembered and you simply press the WLAN icon to connect to the WiFi internet.

Bluetooth Connection:



- ① On the Android desktop, swipe down from the top of the screen to display the notification bar.
- ② Press the Bluetooth icon to turn on the Bluetooth function. The DX170 will automatically search for the nearby Bluetooth device. At the same time, the DX170 will be visible to the nearby devices. Choose the device that you would like to pair with. After the device has been paired, you can use the DX170 in the Bluetooth mode.

APP Installation:



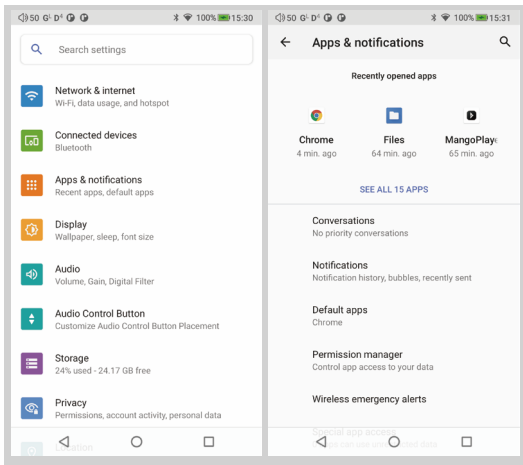
Method 1:

- ① APKPure is pre-installed on the DX170. It is similar to Play Store.
- ② Launch the APKPure.
- ③ Search for the APP that you would like to install.
- ④ Download the APP and install it.

Method 2:

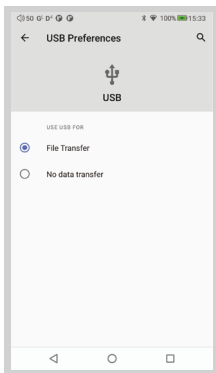
- ① Press the internet browser on the desktop.
- ② Enter the website address of the APP.
- ③ Find the download icon on the website and start the download.
- ④ Return to the desktop and open download manager.
- ⑤ Press the on downloaded app and install it.

App, to Uninstall:



- ① Press the internet browser on the desktop.
- ② Enter the website address of the APP.
- ③ Find the download icon on the website and start the download.
- ④ Return to the desktop and open the download manager.
- ⑤ Press the downloaded app and install it.

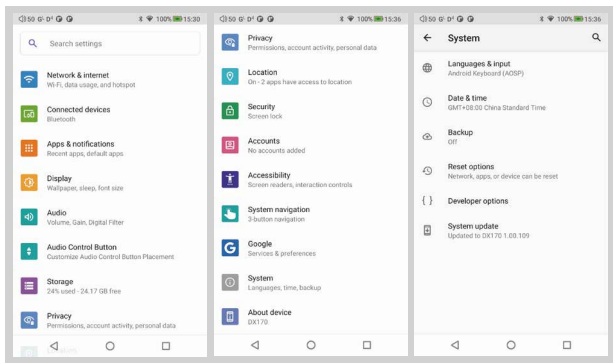
USB Connections:



Connect the DX170 to the computer using the furnished USB–C cable. The DX170 will show on the computer as an external storage. Users can transfer files by copying and pasting.

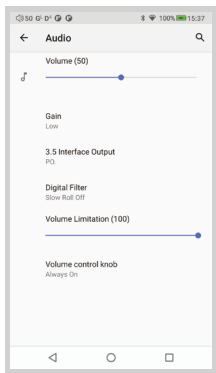
* If you are using a Mac computer, please make sure the MTP software Android File Transfer is installed.

System Settings:



Audio Settings:

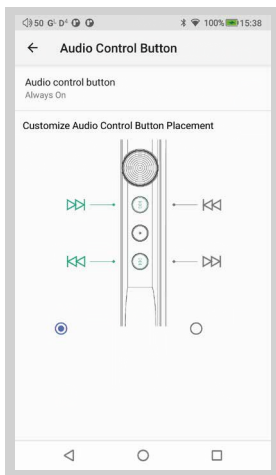
Press Settings Icon, then press Audio Settings.



- ① Gain:
One of the two gains can be selected.
- ② Digital Filter:
A total of five filters are available for user setting. These are designed by the chip manufacturer and are included as an option.
- ③ Volume Limitation:
This sets the volume to a maximum preset point.
- ④ Volume Control Knob:
A total of four options are available for user setting, always on, only when screen on, only when screen off, and always off.

Audio Control Button Settings:

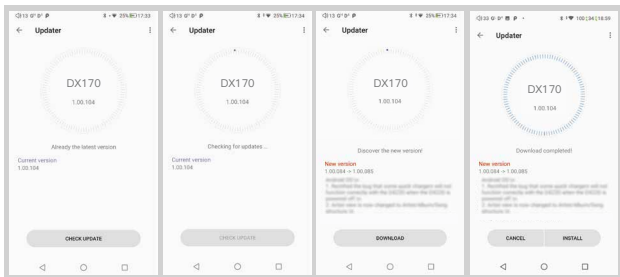
Press Settings Icon, then press Audio Control Button Settings.



- ① Audio Control Button:
A total of four options are available for user setting, always on, only when screen on, only when screen off, and always off.
- ② Customize Audio Control Button Placement:
customize the placement of previous button and next button.

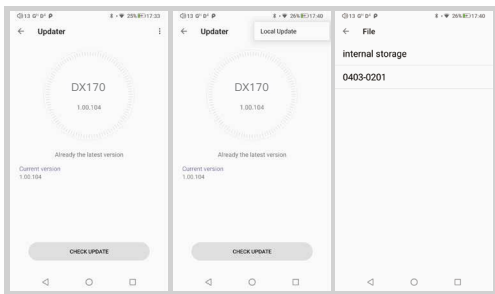
Firmware Update:

- 1: Press Settings Icon, System, Updater.
- 2: Select Online Update or Local Update.



Online Update:

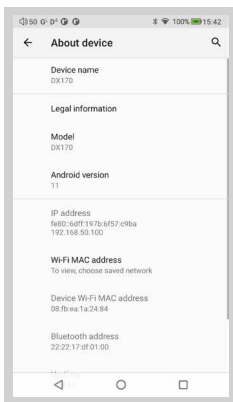
- ① Make sure the DX170 is connected to WiFi.
- ② After online update is selected, press Check Update.
- ③ Press Download, the DX170 will start downloading the available update package.
- ④ After the download complete, press Update Now to start the firmware update.



Local Update:

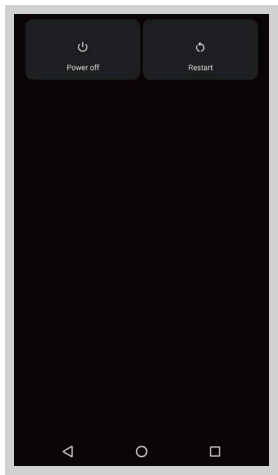
- ① Download the firmware file from our website.
If it is a rar file, extract it.
- ② Press the icon located on the top right corner,
then press Local Update.
- ③ Browse the folder where the firmware file is saved,
and select the firmware file.
- ④ Press Update Now to start the firmware update.

Firmware Version:



- ① Press Settings icon, System, About DX170.
- ② Scroll down the page, the Build number is the firmware version.

Power Off, Reboot:



- ① Long press the power button for 3 seconds.
- ② There is a pop up window with two options.

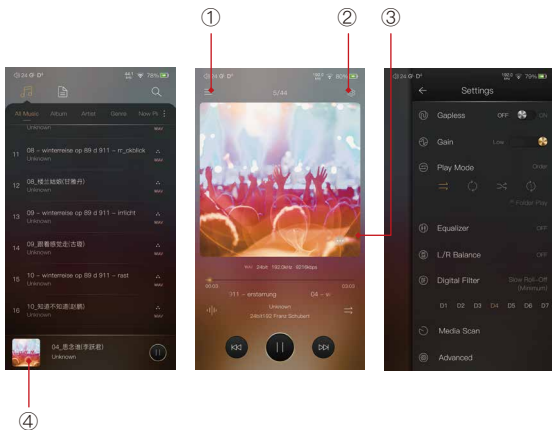
iBasso Mango Music Player Application

iBasso Audio Mango music player is composed of the Playback screen (home screen), Music screen and Settings.

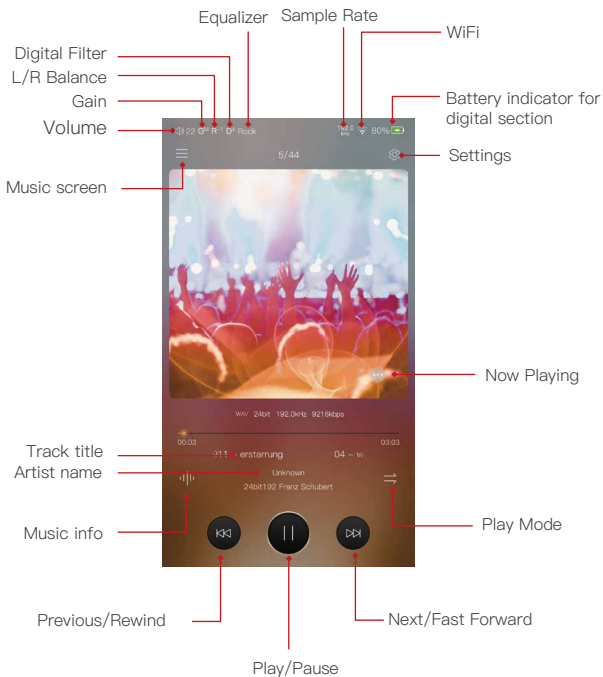
When on the playback screen, one can swipe left and right on the Album artwork area ③ to switch a song: Press the icon on the top left corner ① to go into Music Screen.

Press the icon on the top right corner ② to go into Settings.

No matter which sub screens of the Music Screen you are browsing, press the thumbnail icon on the bottom left to return to the playback screen.



Playback Screen (home screen):



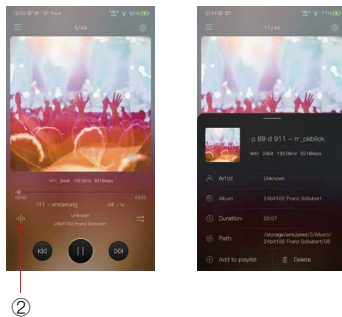
Now Playing Screen:

Press the icon located on the bottom right to display the now playing screen. One can swipe a song to the left to display the Delete button. Press the delete button to remove it from this now playing list.

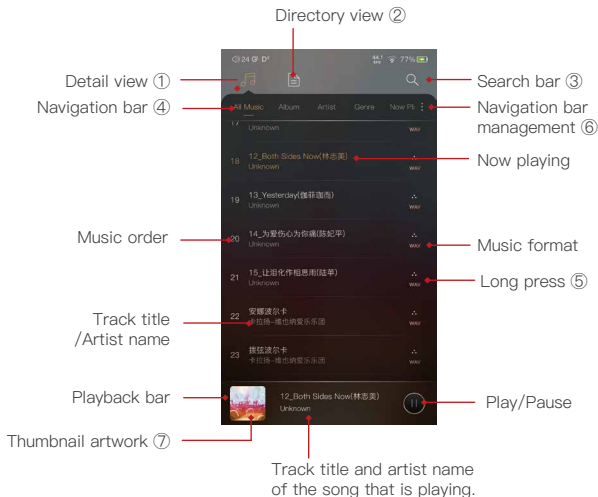


Music Info Screen:

Press the Music info icon ②, the album artwork will show the music info. Press the music info icon again, it will return to album artwork.



Music Screen:



Detail View:

Press the detail view icon to browse the scanned library.

Directory View:

Press the directory view icon to browse in file structure.

Search bar:

Press the search bar to go into the search page to search the desired music or album.

Navigation Bar:

One can swipe it left or right to choose: All Music view, Album view, Artist view, Genre view, Now Playing view, or Playlist view.

Long Press:

Long pressing a song will pop up a window with more options.

Navigation Bar Management:

To customize the navigation bar and music screen.

Thumbnail artwork:

Press to return to the playback screen.

Long Press Pop-up:



Further Options:

Long Press of a song will pop up a window with further options that allows to play this song, add this song to a playlist, or delete this song.

Album View:

Thumbnail view



Artwork view



Artist View:

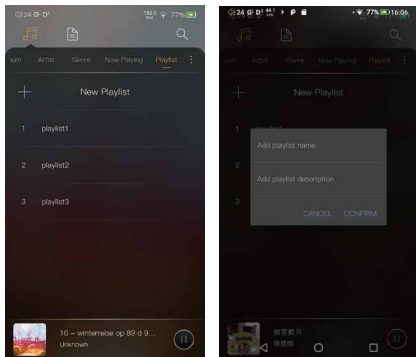
Thumbnail view



Artwork view



Playlist View:



New Playlist:

Press the New Playlist to create a playlist. On the pop-up window, one can name the playlist and add playlist description.

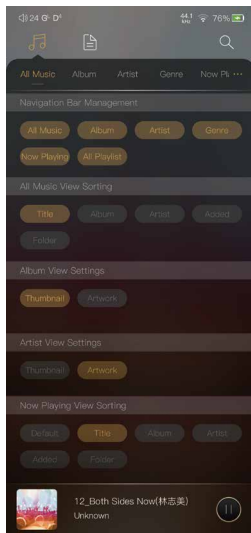
Further Options:

A Long press of the playlist will popup a window with further options, which allows renaming the playlist, exporting the playlist, or deletion of the playlist.

The playlist can be found on the internal storage of the iBasso /mango player folder, after the playlist has been exported.

Navigation Bar Management Screen:

Press the icon located on the right side of the navigation bar to go into the navigation bar management and music sorting screen.



Navigation Bar Management:

One can customize the navigation bar. When selected, the icon is highlighted. Press the icon again to unselect. The selected icon will be shown on the navigation bar. Otherwise, it will not be shown.

All Music View Sorting:

One can sort the all music view by title, album, artist, added time, or folder.

Album View Settings:

One can choose between the thumbnail view and artwork view.

Artist View Settings:

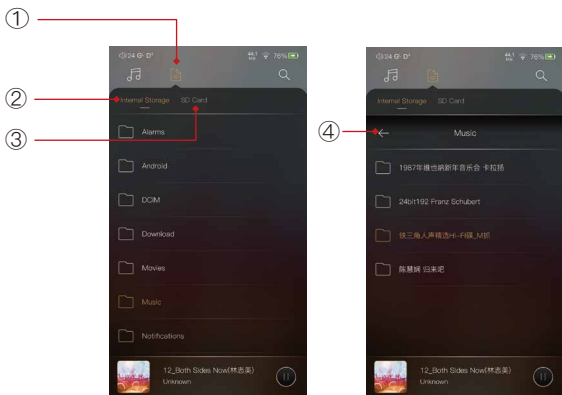
One can choose between the thumbnail view and artwork view.

Now Playing View Sorting:

One can sort the Now Playing by title, album, artist, added time, or folder.

Directory View:

Press the Directory View icon① to go into directory view.

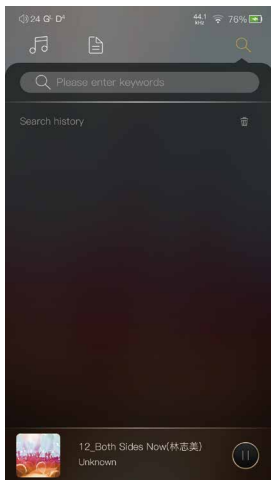


Press the Directory View icon① to go into directory view. One can browse the music files under internal storage and SD card via folder structure.

Press Internal Storage② to see music files under internal storage. Press SD Card③ to see music files under SD card. Press the return button④ will move back one page at a time.

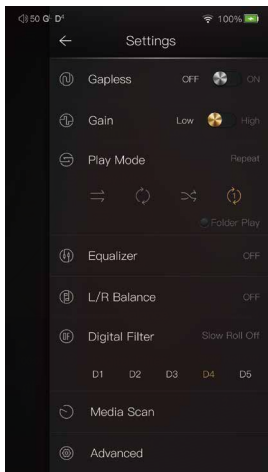
Search Screen:

Input the keywords to search a track, an album, or an artist.



Settings Screen:

Press the Settings icon to go into settings screen.



Gapless:

One can enable the gapless to eliminate the gap between two tracks.

Gain:

There are two gain settings. The low gain has the lowest noise floor, it is good for ultra sensitive IEMs.

Play Mode:

One can choose the desired play mode here.

Folder Play:

To enable the folder play function, tick the Folder Play, then select either the order play mode or loop play mode. After a full media scan, or rescan the library, you can go to Directory and select a song under a folder. After this folder is played, the DX170 will play the next folder.

L/R Balance:

Press to go into the L/R balance setting page.

Digital Filter:

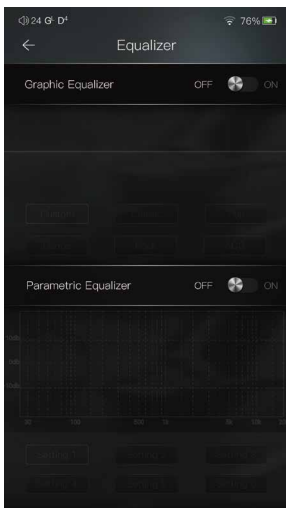
There are five filters, press the number to quickly choose a filter.

Advanced:

To access to more system settings.

Equalizer:

The DX170 has two types of Equalizers, Graphic EQ and Parametric EQ.



Graphic Equalizer:

Press the button of the Graphic Equalizer to enable the Graphic Equalizer.



Pre-set EQ:

There are 5 kinds of pre-set EQ and a custom option. One can quickly set the equalizer as desired by selecting them.

How to Adjust The EQ Settings:

Press on the response curve, the 10 band slide bars will show up. One can adjust the EQ settings by positioning the bars up or down.

Parametric Equalizer:

Press the button of the Parametric Equalizer to enable the it.



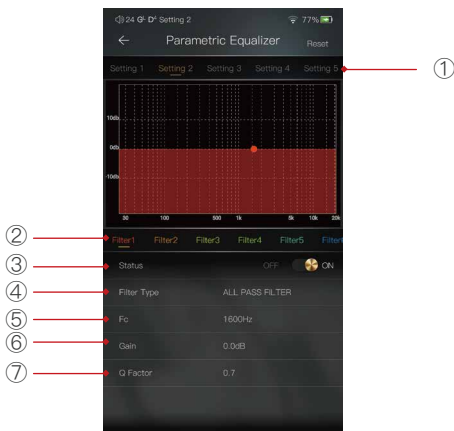
Parametric Equalizer:

Press the button of the Parametric Equalizer to enable the it.

How to Go Into The Parametric EQ Setting Screen:

Press the response curve to go into the parametric EQ setting screen.

Parametric Equalizer Setting Screen:



① Settings on the Selection Bar:

One can swipe left and right to select a setting.

② **Filter Navigation Bar:**

There are maximum of 6 filters allowed for each setting. One can swipe left and right to select a filter, then customize it.

③ **Status:**

Status of each filter. One can turn on or turn off the selected filter.

④ **Filter Type:**

There are eight kinds of filters. Select one of the filters.

⑤ **Central Frequency (Fc):**

This is the central frequency. Input a value between 33Hz to 16,000Hz.

⑥ **Gain:**

This is the gain for each central frequency. Input a value between -20dB to 20dB.

⑦ **Q Factor:**

This is the quality factor. Input a value between 0.3 to 20.

Parametric Equalizer Setting Instruction:

Central Frequency (F_c):

The central frequency of each filter setting.

Gain:

The gain for the central frequency.

Quality Factor:

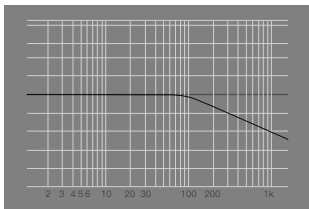
The range of effect of the filter.

As shown on the pictures below, the larger value of the Q factor, the smaller the effect compared the central frequency. The smaller value of the Q factor, the larger the effect in relation to the central frequency.

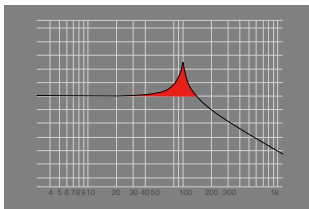
The following are the curves of the filters ($F_c=100\text{Hz}$, gain=4dB)

1. Low Pass Filter

The frequency higher than the central frequency will be affected. Gain setting is ineffective with low pass filter.



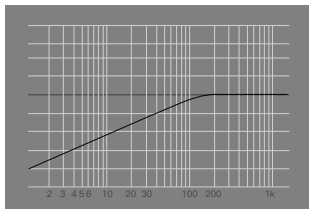
①. $Q=0.7071$



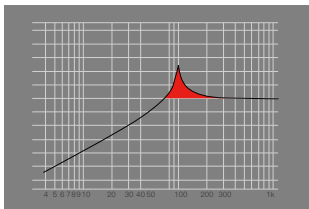
②. $Q=20$

2. High Pass Filter

The frequency smaller than the central frequency will be affected. Gain setting is ineffective with high pass filter.



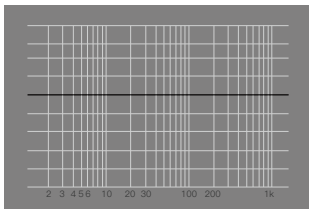
③. $Q=0.7071$



④. $Q=20$

3. All Pass Filter

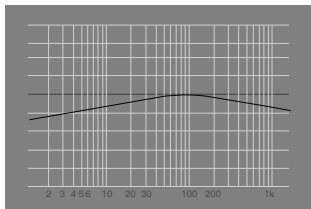
There is no effect, beside the central frequency. Gain setting is ineffective with all pass filter.



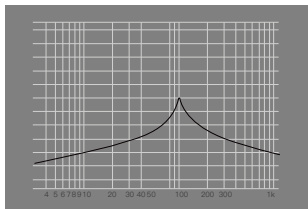
⑤.

4. Band Filter

There is not a large effect on the central frequency. The frequency beside the central frequency has similar effect. Gain setting is ineffective with band filter.



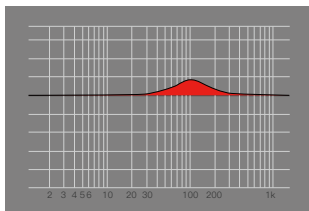
⑥. $Q=0.7071$



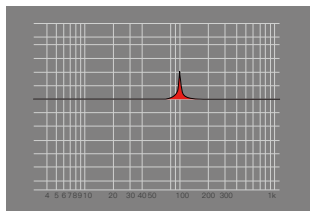
⑦. $Q=20$

5. Peak Filter

There is a large effect on the central frequency. The frequency beside the central frequency has similar effect.



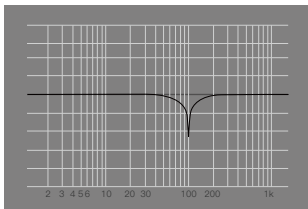
⑧. $Q=0.7071$



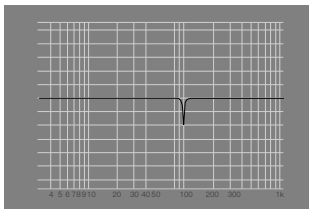
⑨. $Q=20$

6. Notch Filter

The central frequency has obvious reduction. The frequency beside the central frequency has similar effect. Gain setting is ineffective with notch filter.



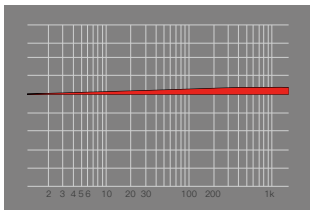
⑩. $Q=0.7071$



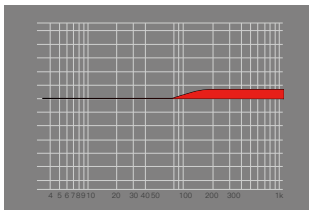
⑪. $Q=20$

7. High Shelf Filter

There is a wide effect on the frequency that is higher than the central frequency.



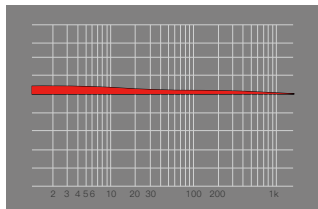
⑫. $Q=0.7071$



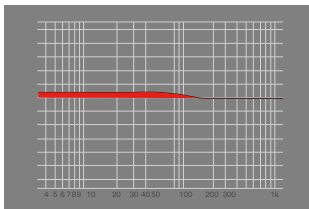
⑬. $Q=20$

8. Low Shelf Filter

There is a wide effect on the frequency that is lower than the central frequency.



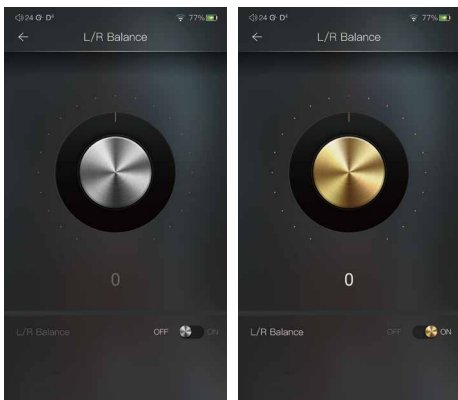
⑭. $Q=0.7071$



⑮. $Q=20$

L/R Balance:

Turn clockwise to decrease to volume in right channel.
Turn in the counterclockwise direction to decrease the volume in left channel.



Digital Filter:



Digital Filter:

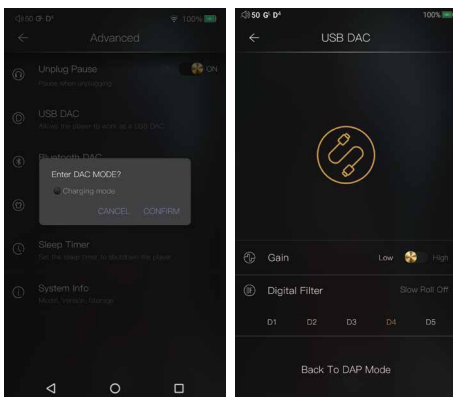
There are five digital filters available. Press a digital filter to unfold the figure.

Advanced

To access more system settings.

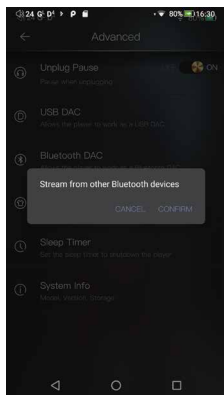


USB DAC:



The DX170 can work as a USB DAC for Windows PC, Mac computer, and Linux computer. It is driver free. Turn the DX170 into the USB DAC mode, connect the DX170 to a computer via the USB-C cable. After the DX170 is detected, the soundcard driver will be installed automatically. Now, you can select the DX170 as the audio output device and use it as the USB soundcard. The DX170 supports up to 32bit/384kHz PCM, and DoP DSD up to 128x when be used as a USB-DAC. On Windows OS, the USB DAC function supports WASAPI.

Bluetooth DAC:

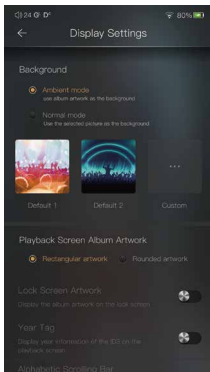


DX170 Bluetooth DAC.

After turning on the Bluetooth DAC, Bluetooth devices such as a mobile phone can be paired with the DX170. The DX170 can now stream from the connected Bluetooth device.

Note: When in Bluetooth DAC mode, the DX170 supports AAC and SBC.

Display Settings:



Ambient mode:

Use album artwork as the background picture.

Normal mode:

Use the selected picture as the background picture.

Playback screen album artwork, choose to display rectangular artwork or rounded artwork.

Lock screen artwork:

Display the album artwork on the lock screen.

Year tag:

Display year information of the ID3 on the playback screen.

Alphabetic scrolling bar:

Use alphabetic scrolling bar instead of the traditional scrolling bar.

Sleep Timer:



Set the count down sleep timer to power off the DX170. The left hand side is the value of hours. The right hand is the value of minutes. The DX170 will be powered off after the counter has completed. If there are any operations in the meanwhile, the DX170 will start the counter again after the last operation.

System Info:



One can see the firmware version on this screen. Also, one can see the space available of the internal memory and SD card.

MQA

MQA (Master Quality Authenticated)

DX170 includes MQA technology, which enables you to play back MQA audio files and streams, delivering the sound of the original master recording.

‘MQA’ or ‘MQA.’ indicates that the product is decoding and playing an MQA stream or file, and denotes provenance to ensure that the sound is identical to that of the source material. ‘MQA.’ indicates it is playing an MQA Studio file, which has either been approved in the studio by the artist/producer or has been verified by the copyright owner.

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