
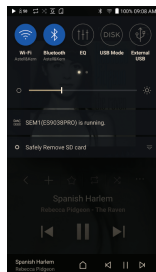


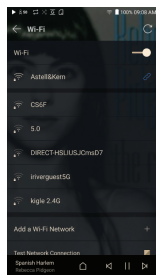
### Connecting to Wi-Fi

#### Connecting to a Wi-Fi Network

1. Press and hold [  ] from the Notification Bar or select [Menu - Settings - Wi-Fi] to display a list of available Wi-Fi networks.



2. Select the desired AP to connect to the wireless network.
  - Additional information such as Wi-Fi password may be required depending on Wi-Fi settings.



**Networks requiring browser or other additional certifications are not supported.**

**Wi-Fi Channels 1 through 13 supported, except in the USA, channels 12 and 13 are disabled.**


# Using Bluetooth

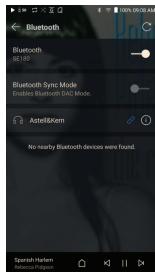
Configures two-way Bluetooth (RX/TX) to listen to music wirelessly using a device that supports Bluetooth.

### Turning Bluetooth On/Off

A Bluetooth device must be paired with the device prior to use.

Refer to the Bluetooth device's instruction manual for details.

1. Select [  ] from the Notification Bar menu or select [On/Off] from [Menu - Settings - Bluetooth].

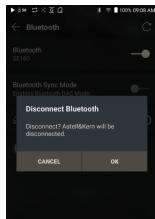


### Bluetooth Pairing

1. In the Settings Menu, select the appropriate Bluetooth device from the list of available devices.

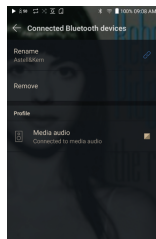
### Disconnect a Bluetooth Device

1. Press the connected Bluetooth device and confirm the message prompt to disconnect the device.



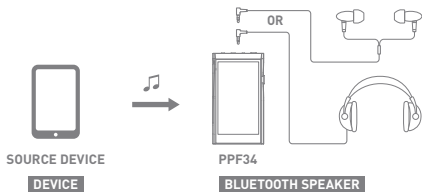
### Removing a Bluetooth Pairing

1. Press [ ⓘ ] to the right of the paired device to go to settings.
2. Select [Remove] to complete the process.



### Using Bluetooth Sink Mode

Similar to connecting to a Bluetooth speaker from a smartphone, music being played on an external device can be played on the PPF34 by connecting to the PPF34 from the external device.



1. Enable Bluetooth Sink Mode.
2. Search for and connect to the PPF34 from the Bluetooth menu of the external device.



3. Music will be outputted through the PPF34 when played on the connected device.



When Bluetooth Sink Mode is enabled, any device currently connected will be disconnected.

The Bluetooth codec can be set on the source device playing music. Bluetooth Support Specifications

- Profile: A2DP, AVRCP
- Supported Codecs: Qualcomm® aptX™ HD, LDAC, AAC, SBC
- Device performance may be affected during Hi-Res playback.

Do not turn off the device while connected to Bluetooth.

Turn the Bluetooth device off then on in case of issue.

Pairing methods may differ for each individual Bluetooth device. Always refer to the respective instruction manual for details.

When connecting the product to a Bluetooth device, the distance between the two must be within 20 cm.

Audio quality will degrade with longer distances and the pairing may disconnect at a distance of 2 m (6.5 ft.) or more. (Distances may vary depending on device and environment.)

Crosstalk may be heard while using Bluetooth.


For multipoint devices, make the necessary connections prior to use.

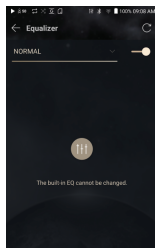
Malfunction, noise, and other undesirable effects may occur due to the device's battery level and the environment.

- If signal interference affects data transmission. (e.g., holding the device while wearing a Bluetooth device, holding the device while holding another electronic device, etc.)
- If the device or Bluetooth headset's radio transmitters are touching parts of the body.
- If the transmission strength is affected by walls, corners, partitions, etc.
- If devices using the same frequencies cause interference. (e.g., medical devices, microwave ovens, Wi-Fi, etc.)
- Areas with an excessive amount of interference or weak signals. (e.g., elevators, underground, etc.)

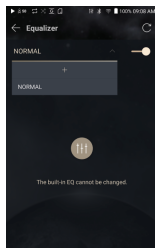
# Equalizer Setup

## Equalizer Setup

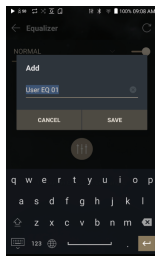
1. Press and hold [  ] on the Notification Bar or turn on [Menu - Settings - Equalizer].



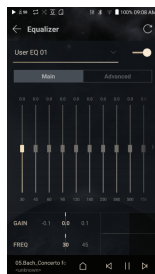
2. Press [NORMAL EQ], then select [+].



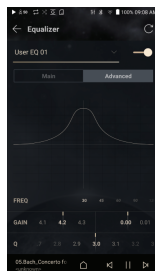
3. Enter a name for the custom EQ settings and select [SAVE].



4. Adjust the frequencies up and down according to the user's preferences.
5. The number values at the lower-left corner of the screen can be adjusted for fine-tuning.

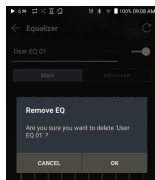


6. Press the [Advanced] tab on the top to display PEQ settings screen. Adjust Freq/Gain/Q.



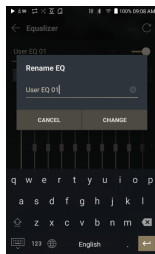
### Deleting a Custom Equalizer Setting

1. Press [the drop down menu] in the upper left of the equalizer.
2. Press [ ] next to the EQ name to be deleted.
3. Press [OK] to delete the selected EQ setting.



### Renaming a Custom Equalizer Setting

1. Press [the drop down menu] in the upper left of the equalizer.
2. Press [ ] next to the EQ setting name you wish to change and enter a new name for the selected EQ.
3. Press [CHANGE] to save.



### Safety Pre- Cautions

#### Device

- When a plug is inserted into the unbalanced, balanced, or USB port, do not apply any force or impact to the plug.
- Do not insert any metal objects (coins, hairpins, etc.) or flammable debris into the device.
- Do not put heavy objects on the device.
- If the device gets wet (rain, water, chemicals, medicine, cosmetics, sweat, moisture, etc.), allow the device to dry thoroughly before powering on. (Damage may not be repairable, however if deemed repairable, any damage due to liquid exposure will be repaired for an additional fee even if the device is under warranty.)
- Avoid exposing the device to direct sunlight or extreme temperatures (0°C - +40°C) such as the inside of a car during the summer.
- Do not store or use in hot and humid places such as saunas.
- Avoid places with excessive dust or smoke.
- Do not use for extended periods on blankets, electric blankets, or carpet.
- Do not place near a fire or in a microwave.
- Never disassemble, repair, or alter the product.
- Do not store for extended periods in a confined space with the power on.
- Do not place the device near magnetic objects (magnets, televisions, monitors, speakers, etc.).
- Do not let chemicals or detergents come in contact with the product since they may damage the surface and paint.
- Do not drop or expose the product to strong impacts (places where there is strong vibration, etc.).
- Do not press multiple buttons simultaneously.
- Do not disconnect the USB Type-C cable during data transfer.
- When connecting the device to a computer with the USB Type-C cable, use a USB port on the back of the computer for best results.



- Connecting the cable to a defective or damaged USB port on a computer may damage the device.
- Displaying one image for an extended period may cause screen burn-in (afterimage).
- Using poor quality protective films or adhesive stickers on the screen may cause damage.
- Do not insert any foreign objects into the device ports.
- The device may become warm while playing and charging, so handle it carefully.
- Product's corners may be sharp, so handle carefully.
- The PPF34 must be powered down completely prior to removing the module. If the module is removed while the device is powered on, serious damage to the device may occur.

### Other

- Do not use earphones/headphones or use the device while operating any type of vehicle. It is not only dangerous, but may be a violation of the law in certain regions.
- Do not use the product during physical activities (driving, walking, hiking, etc.).
- Always use in a safe environment to avoid the risk of an accident.
- When using the device while moving, make sure the area is free of obstacles.
- Avoid using the device during thunderstorms to reduce the possibility of electric shock.
- If there is a ringing in the ears, reduce the volume or stop using the device.
- Do not listen to music at excessive volumes for extended periods.
- Do not use earphones/headphones at excessive volumes.
- Make sure that the headphone/earphone does not get stuck in another object or get caught between other objects.
- Do not sleep with earphones in your ears or leave them in for extended periods.

### Trouble-shooting

#### Solutions to Common Issues

1. The device won't turn on.
  - The battery may need to be recharged. Charge the device for at least one hour and try again.
  - Reset the device. (See Page 5)
2. The device will not charge when connected to a computer via USB cable.
  - Connect to the computer using the provided USB Type-C cable. Charging may not occur depending on the condition and specifications of your computer.  
(In this case, charging via computer is not recommended.)
  - Connect the device to a USB wall adapter using the provided USB Type-C cable to charge directly from a wall outlet.
3. The computer won't recognize the device or an error occurs when connected.
  - Use a USB port on the back of the computer.
  - Check if the USB Type-C cable is connected correctly.
  - For Mac, check to ensure the MTP program is installed properly.
  - Check if the device connects properly on a different computer.
4. The screen turns off repeatedly.
  - The screen turns off automatically after a defined period to reduce battery consumption. Set the time at [Menu-Settings - Timer Settings - Screen Timeout].
5. The screen does not display images properly.
  - Check the screen for debris.
6. There is no sound or there is static/interference.
  - Check that the volume setting is above [0].
  - Check that the earphones are plugged in properly and make sure nothing is obstructing the port connection.
  - Verify that the music file is not corrupt.
  - Verify that the audio settings have been set properly.  
(Balanced out, line out, etc.)

7. A file does not play or the product becomes unstable when a certain file is played.
- File may be damaged or corrupt if the following occurs:
    - Playback stops or freezes.
    - Device may act erratically or freeze.
    - File may sound different on another device.
    - There may be a difference in the performance of playback or other functions.
    - There may be differences in the file specs.
  - Converting the file to a different format or use of a different file is recommended.

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### Certifications

KC / FCC / CE / TELEC

Class B Device (Communication equipment for residential use): This is a Class B Device and is registered for EMC requirements for residential use. This device can be used in residential areas and all other areas.

Check information about KC/FCC/CE TELEC certification at [settings - system information - regulations]



**FCC ID: QDMPPF34**

This device complies with Part 15 of the FCC Rules, Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

### Instruction of E-Label

You can view the FCC ID of the device. To view the FCC ID, tap Settings → System Information → Regulatory

(b) For a Class B digital device or peripheral, the instructions furnished to the user shall include the following or similar statement, placed in a prominent location in the text of the manual: NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

### **Body-Worn Operation**

This device was tested for typical body-worn operations with the back of the portable music player kept 5mm from the body. To maintain compliance requirements, use only belt-clips, holsters or similar accessories that maintain a 5mm separation distance between the user's body and the back of the portable music player, including the antenna. The use of belt-clips, holsters and similar accessories should not contain metallic components in its assembly. The use of accessories that do not satisfy these requirements may not comply with CE RF exposure requirements and should be avoided.

Body-worn accessory exposure conditions "Specific information must be included in the operating manuals to enable users to select body-worn accessories that meet the minimum test separation distance requirements. Users must be fully informed of the operating requirements and restrictions, to the extent that the typical user can easily understand the information, to acquire the required body-worn accessories to maintain compliance. Instructions on how to place and orient a device in body-worn accessories, in accordance with the test results, should also be included in the user instructions. All supported body-worn accessory operating configurations must be clearly disclosed to users through conspicuous instructions in the user guide and user manual to ensure unsupported operations are avoided. All body-worn accessories containing metallic components must be tested for compliance and clearly identified in the operating manual. The instruction must inform users to avoid using other body-worn accessories containing metallic components to ensure RF exposure compliance."

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LDAC and LDAC logo are trademarks of Sony Corporation.



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Qualcomm is a trademark of Qualcomm Incorporated, registered in the United States and other countries.

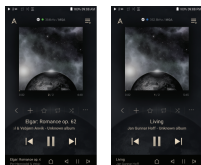
aptX is a trademark of Qualcomm Technologies International, Ltd., registered in the United States and other countries.



MQA (Master Quality Authenticated) is an award-winning British technology that delivers the sound of the original master recording. The master MQA file is fully authenticated and is small enough to stream or download. Visit [mqa.co.uk](http://mqa.co.uk) for more information. Astell&Kern PPF34 includes MQA technology, which enables you to play back MQA audio files and streams, delivering the sound of the original master recording.

The PPF34 Now Playing status shows a green or blue light to indicate that the unit is decoding and playing a MQA stream or file, and denotes provenance to ensure that the sound is identical to that of the source material. A blue light indicates it is playing a MQA Studio file, which has either been approved in the studio by the artist/producer or has been verified by the copyright owner.

MQA and the Sound Wave Device are registered trademarks of MQA Limited. © 2016



### Disclaimers

The manufacturer, importer, and distributor shall not be liable for damages including accidental and personal injury due to the improper use or operation of this product. The information in this user manual was written based on current product specifications. The manufacturer, Dreamus Company, regularly adds new features via OTA updates and will continue to apply new technologies in the future. Product specifications may be changed without prior notice. There is no warranty against data loss due to the use of this product.

**The device must be used a minimum of 5mm away from the body in normal use conditions.**

#### **CAUTION**

**RISK OF EXPLOSION IF BATTERY IS REPLACED  
BY AN INCORRECT TYPE.  
DISPOSE OF USED BATTERIES ACCORDING  
TO THE INSTRUCTIONS**

**The excessive sound pressure from earphones and headphones can cause hearing loss.**

## Specifications

### General Specifications

Product Name	SP2000T
Model	PPF34
Body Material	Aluminum
Body Color	Onyx Black
Display	5 inch 1920x1080 FHD
Supported Audio Formats	WAV, FLAC, WMA, MP3, OGG, APE, AAC, ALAC, AIFF, DFF, DSF, MQA
MQA Playback	Services (Tidal Masters), Local files, External USB, MQA-CD(ripped)
Input	USB Type-C input (for PC & MAC)
Charging	9V 1.67A / 5V 2A
Wi-Fi	802.11 a/b/g/n/ac (2.4/5GHz)
Bluetooth	V5.0 (A2DP, AVRCP, Qualcomm® aptX™ HD, LDAC)
Dimensions	3.13" [79.6mm] [W] x 5.57" [141.6mm] [H] x 0.68" [17.5mm] [D]
Weight	11.02oz [312.5g]
Feature Enhancements	Firmware upgrade supported(OTA)
SAR	TBD

### Audio Specifications

Frequency Response	±0.04dB [Condition : 20Hz~20kHz] Unbalanced / ±0.04dB [Condition : 20Hz~20kHz] Balanced ±0.07dB [Condition : 20Hz~70kHz] Unbalanced / ±0.06dB [Condition : 20Hz~70kHz] Balanced
S/N	122dB @ 1kHz, Unbalanced / 126dB @ 1kHz, Balanced
Crosstalk	138dB @ 1kHz, Unbalanced / -145dB @ 1kHz, Balanced
THD+N	0.0005% @ 1kHz, Unbalanced / 0.0004% @ 1kHz, Balanced
IMD SMPTE	0.0004%, 800Hz 10kHz [4:1], Unbalanced / 0.0004%, 800Hz 10kHz [4:1], Balanced
Output Impedance	3.5mm [1ohm] / 2.5mm [1.5ohm] / 4.4mm [1.5ohm]
Clock Jitter	25ps(Typ)
Reference Clock Jitter	800 Femto Secon

### Memory

Built-in Memory	256GB [NAND]
External Memory	microSD Card x1 (Max. 1TB)

### Battery

Capacity	4,200mAh 3.8V Li-Polymer Battery
Charge Time	About 3 hours [Standard - 9W/1.67A Fast charging] About 5 hours [Standard - 5V/2A General charging]

### Supported OS

Supported OS	Windows 8,10(32/64bit) Mac OS X 10.7 and up
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