E18 User Guide

The E18 is a multi-functional USB audio decoder, with headphone amplification function. It is mainly used to connect smart phones with USB OTG function (*Note Supported Models) to realize USB digital audio decoder function. It is a good partner for those who use smart phones as their portable music player while expecting higher sound quality. E18 also comes with mobile power bank function, to charge the phone when necessary. The E18 can also be used as an external USB sound card for computers, or simply as an independent headphone amplifier.

*Note Supported Models: Check the E18 product page on www.fiio.net (navigate to Products->Portable Amp & DAC->Kunlun-E18->Specification) to see the latest list of smartphones tested to work with the E18.

Other models are not guaranteed to work with the E18 as audio decoder. USB OTG function on the smartphone is a necessary condition but does not definitely ensure compatibility.
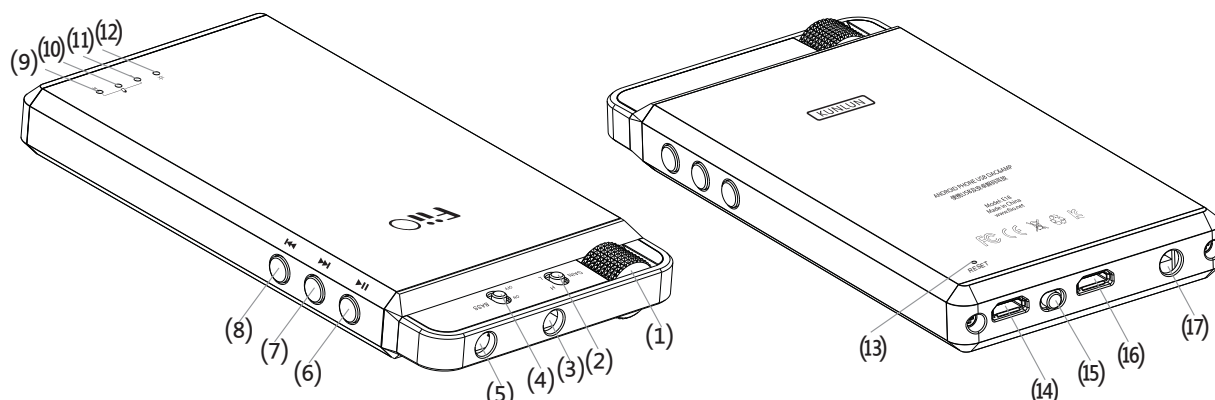
Specifications:

Power Adaptor	DC 5V/2A（recommended）; Micro USB port
Sample Rate	32K/44.1K/48K/96K(16/24bit)
Frequency Response	20Hz~20KHz
THD	Headphone output<0.005%；Line output<0.003%
Maximum Power Output	Headphone output＞280mW（32Ω load） Line output＞1.25V（10kΩ load）
Battery Charging Time	2A adaptor: About 4 hrs（when off）; USB port: About 10hrs（when off）
Battery Life	Amplifier only:＞25hrs;USB DAC:＞12hrs
Power Supply	Built-in rechargeable Li-ion polymer battery
Charging current(when used as power bank)	Max. 700mA
Suggested Headphone Impedance	16~300Ω
Dimension	130（L）×66.2（W）×14.6（H）mm
Weight	162g(Battery included)

List of items in the package (please verify)

E18	1pc	USB-micro USB cable（1m）	1pc
3.5mm to RCA coaxial cable	1pc	3.5mm to 3.5mm audio cable	1pc
Warranty Card	1pc	Quick guide	1pc
Rubber feet	6pcs	Silicon band	4pcs
Micro USB OTG cable (40mm)	2pcs	Dual-layer soft pouch	1pc

Introduction to buttons and ports:

(1)Power Switch/ Volume Adjusting Knob:
Turn clockwise to turn on the unit (indicator (12) will glow red), and indicators (9), (10) and (11) would glow according to the battery capacity. Volume continues to increase proportionally to turns on the volume knob, with the number on the knob bottom indicating the volume level. Turn counterclockwise to turn the volume down, turn down all the way past the click stop to turn off the unit.
(2)Gain Switch: provides High and Low gain options.
(3)Headphone Output Port: Fit for headphone with 3.5mm plug
(4)Bass Switch: ON (bass boost effect); OFF (bypass mode)
(5)Line I/O Port:
Used as line out port when a USB audio connection is established;
Otherwise used as line in port.
(6), (7), (8): When USB audio connection is established, these can be used as remote buttons to control music playback (with HID-compliant music player software) on the computer or mobile phone:
(6)Play/Pause: Plays or pauses the music.
(7)Previous: Switches to the previous track.
(8)Next: Switches to the next track.
(9), (10), (11): Battery status indicators. All 3 will light up when the battery is full whilst only (11) will light in case of low battery.
(9)Charge Indicator (H): Indicates full or near full battery. It can also be used as anomaly detection alarm: when there is any system error, this light would blink quickly for 5 seconds before the unit shuts off automatically.
(10)Charge Indicator (M): Indicates medium battery level or above.
(11)Charge Indicator (L): Indicates low battery level when only (11) is lit. (The indicator would flash slowly to give critical battery warning; please connect to power supply soon when this happens.)
(12)Power/ Working Indicator: Shows red when unit is on, red and blue when USB audio connection is established.
(13)RESET switch: In case of malfunction, please use a non-conductive rod (such as a toothpick) to reset the unit.
(14)Micro USB Charging Port: Charging port only. A power adapter with DC5V 2A output is recommended.
(15)PC IN/PHONE IN/CHG OUT Function Switch: To switch between the computer DAC, smartphone DAC and power-bank charger function.

⒃Micro USB Port:
1. When function switch (15) is at the PC IN position, the unit serves as a USB digital audio DAC&AMP when connected to a computer, and charges itself through this USB port at the same time.
2. When function switch (15) is at the PHONE IN position, the unit serves as a USB digital audio DAC&AMP when connected to a smartphone (*Note supported models). It does not draw power from this USB port in this mode, preserving the smartphone's battery.
3. When function switch (15) is at the CHG OUT position, the unit serves as a mobile external power supply. (Maximum charging current is 700mA; the unit would stop supplying charge if total output exceeds 700mA.)
⒄Coaxial Out: When USB audio connection is established with a computer or smartphone, the decoded audio signal is relayed through this port in S/PDIF compatible format. Devices with digital coaxial input, such as other outboard DACs and DAC/amp combos, can be connected to the E18 via this port.

Introduction to basic operation:

1. Smartphone + short Micro USB OTG cable + E18
Put function switch (15) in the PHONE IN position, connect smartphone (*Note Supported Models) with E18 via the short Micro USB OTG cable (refer to below connecting diagram 2), and turn on E18 by turning the volume knob.

Under normal connecting condition, the speaker on the phone would be muted when playing music. Connect the headphone to the E18, and adjust to suitable volume to enjoy high quality music.

With HID compliant player software on the smartphone, users can start and pause the music, and switch to previous or next tracks using the corresponding buttons on the E18. **With non-compliant player software it is normal if the buttons have no response. (Note: Under some circumstances, the sound output on the phone may be muted after the E18 is connected to the phone and you would hear no sound on the headphones connected to the E18. In this case please try adjusting the volume on the smartphone manually.)
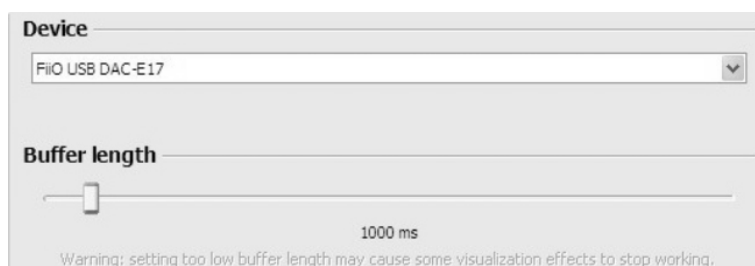
2. Computer+ USB connecting cable+E18
*Important note: before attempting to connect the E18 to the computer, please ensure that the function switch (15) is in the PC IN position and not the CHG OUT position. Put function switch (15) in the PC IN position, and connect the computer with the E18 via the USB-micro USB connecting cable (refer to below connecting diagram 1). Turn on the E18 by turning the volume knob.
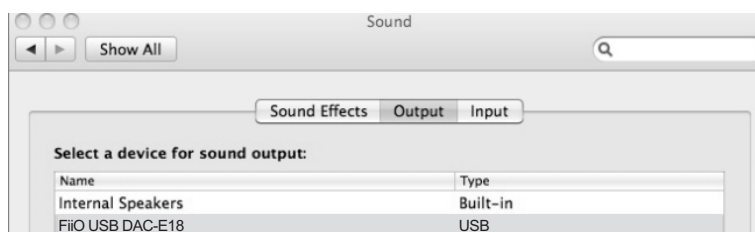
Under normal conditions, for the first time the E18 is connected to a computer, the computer would install the USB driver automatically, and display the device as "FiiO USB DAC-E18" after it is detected. Select the E18 as the sound output device on the computer (refer to below for examples), plug your headphones into the E18, and adjust to suitable volume to enjoy high quality music. You can also further connect the E18 to other audio DACs and amplifiers via the coaxial output and line out on the E18.
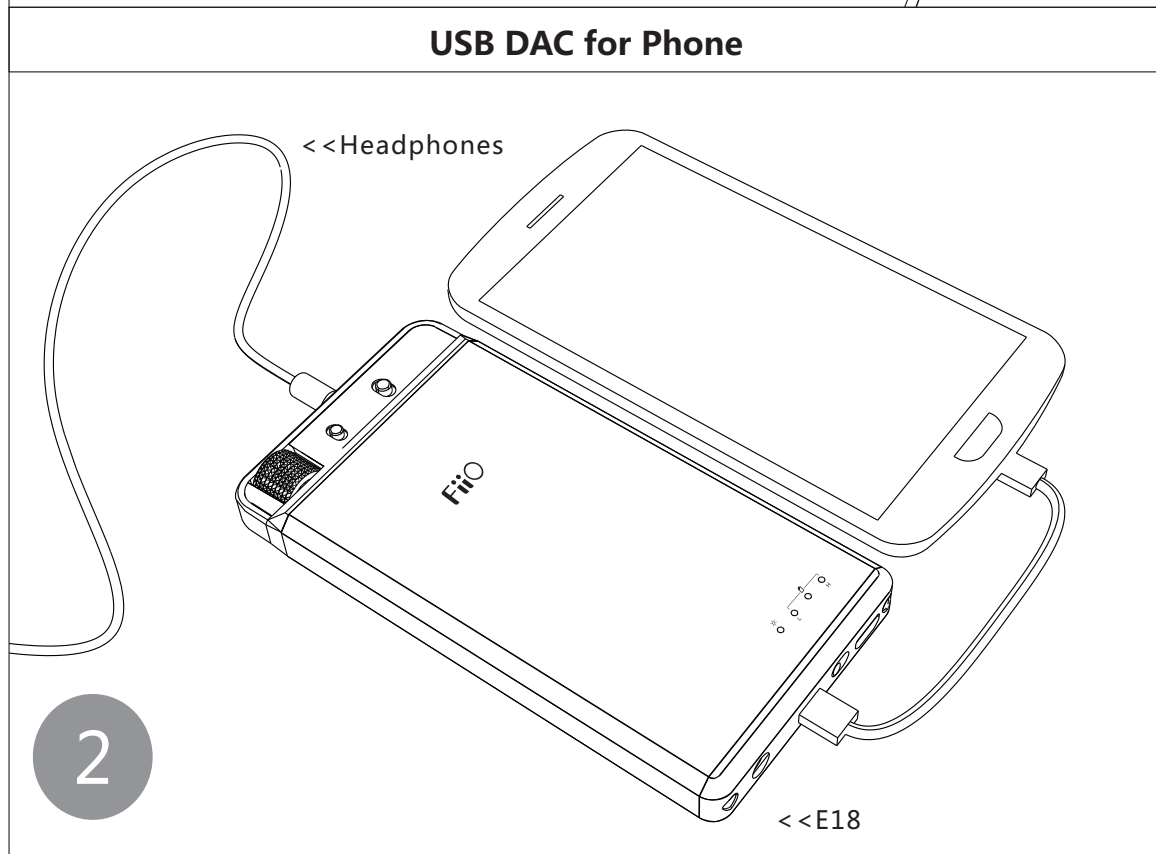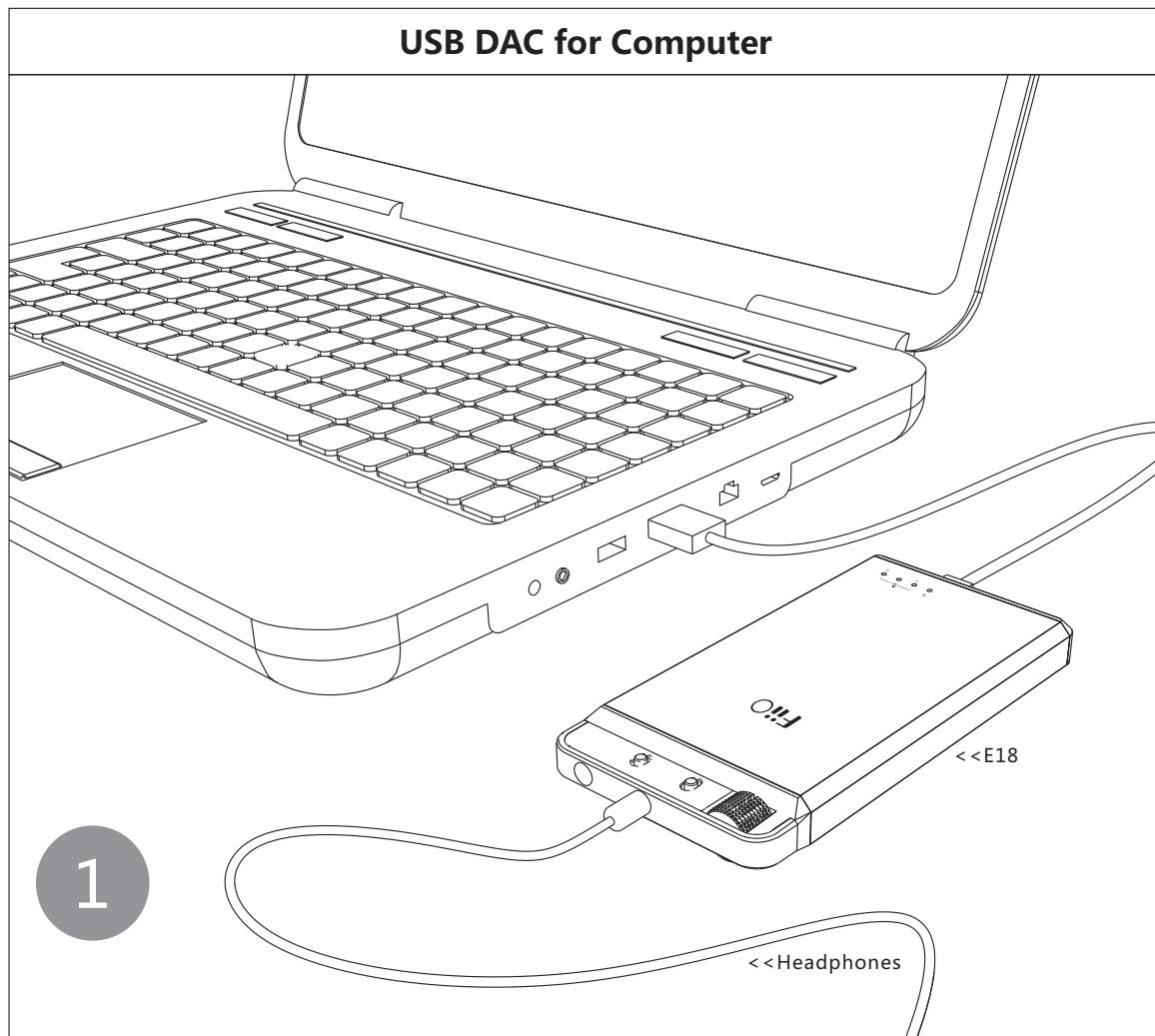
Selecting E18 as the sound output device:
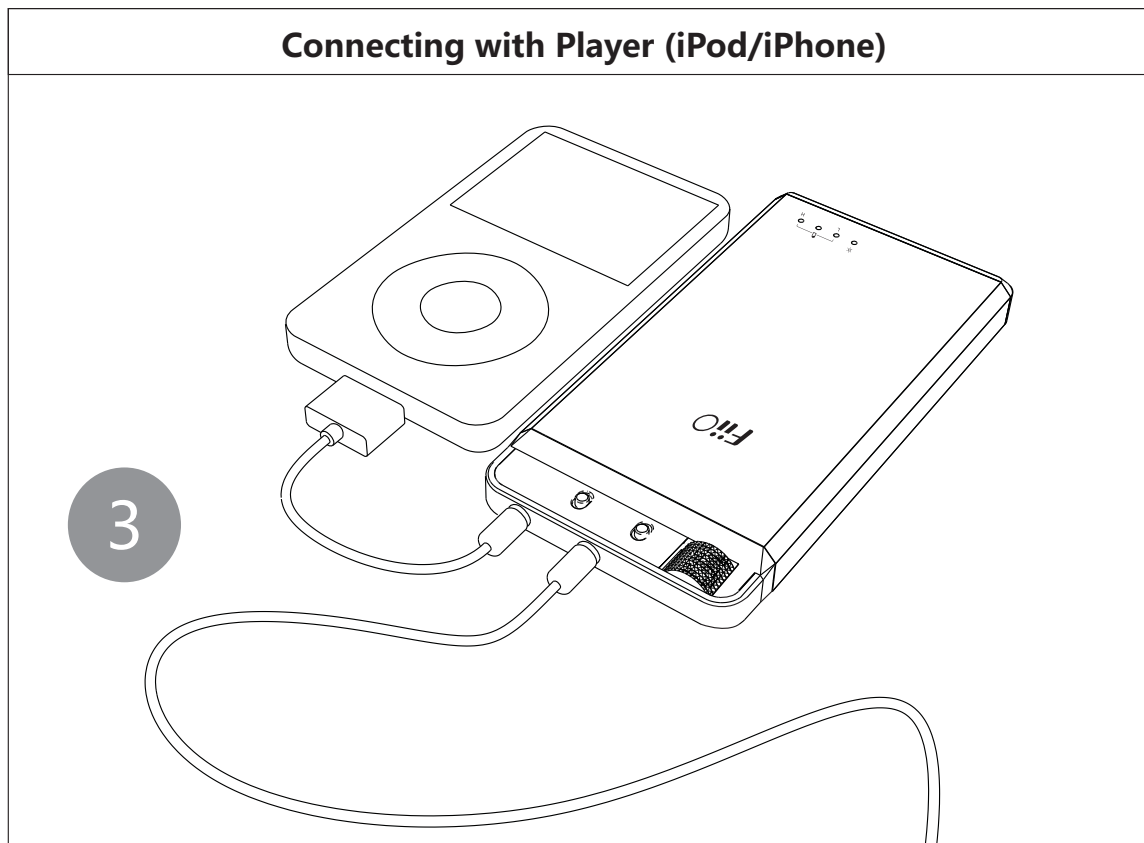In the audio player software (foobar2000 on windows as example)

Or select the E18 as the systemwide default output device (Mac OS as example)
Mac os:system preferences-Sound-Output select "FiiO USB DAC-E18"

Connecting Diagram

USB DAC for Computer

1

<<E18

<<Headphones

USB DAC for Phone

<<Headphones

2

<<E18

Connecting Diagram

Connecting with Player (iPod/iPhone)

3. E18 charging smartphone via short USB OTG cable

•Turn on E18 by turning the volume knob.

•Put function switch (15) in the CHG OUT position. If it was already in this position before the unit was turned on, flip the switch to the PHONE IN position and back to the CHG OUT position.

•Connect the middle micro USB port (16) of the E18 to the smartphone via the short USB OTG cable to charge the smartphone.

Precautions / Notes on usage

This section includes important safety precautions and guide to proper usage. Please read this section carefully to avoid misuse.

★Before attempting to connect the E18 to a computer, please ensure that function switch (15) is in the PC IN position, and do not move the switch to the CHG OUT position while connected.

★Do not use under extremely hot, cold, dusty or humid environments.

★It is normal to find the unit slightly hot when being charged or when being used as a power bank due to the high charging / discharging current.

★In order to protect your hearing and your headphones / sound system from damage, please set the unit to a proper volume. Turn down the volume first before plugging in headphones or line output and do not use headphones for too long.

★In case the unit should be left unused for long periods, please remember to get it recharged periodically to protect the battery.

★The charging indicator lights would blink continuously when charging, with the three levels of light to show the battery capacity until all lights stay on steadily when the unit is fully-charged.

★If a charger with insufficient current is used, the charge indicator light would die out after 15s (or just stop blinking); please use a charger with more current capacity.

★The power bank function can't be used when the device itself is charging.

★Please do not use the power bank function in case of low battery capacity.

★As a safety precaution, the external charger function does not work immediately if the E18 is turned on with function switch (15) in the CHG OUT position. Flip the switch to the PHONE IN position, then back to CHG OUT and the charging function will work.

★There would be sound mixing at the headphone if the E18 receives input from the USB and Aux inputs simultaneously. It is suggested not to connect the Aux I/O port to other inputs (such as music players) when USB audio is connected.

Troubleshooting:

●Unit won't power on? Please get it recharged and try again.

●In case of system failure, please push the reset button with e.g. a toothpick and try again.

●Otherwise if there's no sound or there's noise in the playback, please check to see whether the input device (e.g. computer / phone / device connected to line in) and the audio file are in good condition or not.

●Other sound artifacts may be caused by a bad connection at the headphone output port, please unplug and replug the cable and try again. If problems persist try wiping the headphones' plug with a piece of tissue or contact cleaner.

●In order to ensure proper output, please use original or suitable audio and USB cables.

●Failed to connect with the computer / smartphone? Please check to see whether the USB cable is in good condition and the two ends are plugged in securely.

●If there's no sound when connected to a smartphone, please make sure the smartphone model is supported by the E18 and function switch (15) is in the PHONE IN position.

●If there's no sound when connected to computer as DAC, please make sure "FiiO USB DAC-E18" is chosen as the audio output device in the player software or the computer operating system's sound control panel.

●If the power bank function doesn't work, check function switch (15) and put it in the CHG OUT position.