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NEO X 简介

NEO X 是一款集成了 4K UHD 媒体播放器，音乐流媒体播放器，音视频媒体中心，高保真耳放，高保真音乐解码器，高保真蓝牙解码器，全功能于一体的音响设备。

作为 4KUHD 媒体播放器，可支持目前更先进的 4K 60Hz 12Bit HDR10+/Dolby vision 格式的解码与输出。

高清音频播放支持播放来自多种输入源的音乐，例如：接在 NEO X 上的硬盘，局域网连接的电脑、NAS 服务器等本地文件，强大的音乐数播不仅支持市面上几乎所有超高采样母带音乐文件 MQA、SACD ISO、DFF、DSF、FLAC、WAV、APE 等格式，还可以帮我们智能管理本地音乐资源。兼顾了音乐网播功能，支持在线流媒体应用以及 DLNA 等网络流媒体串流方式推送的内容播放，并以出色的音质解析与回放。

NEO X 音频解码采用发烧级 ES9038Pro DAC 芯片，支持无损蓝牙、同轴、AES/EBU 和异步 USB 音频输入，可作为一台独立高保真音频解码器使用。支持 XLR 平衡、RCA 两声道前级输出以及高性能耳放输出，不论是本地文件播放还是外部音频输入，经过本机 DAC、全平衡运放电路及发烧器件的解码处理，可获得出色的音频指标。最高可解析 22.5792 MHz 采样的 DSD 文件（DSD512 Native 模式）与采样频率为 768 kHz 32 位的 PCM 无损母带格式的文件。

NEO X 支持智能 APP 控制，在移动设备上安装芝杜专属控制 APP，可非常便捷的对机器进行全局控制；机身配置 5 英寸 OLED 高清显示屏，可直观显示常规设置菜单，音乐库数据，播放状态，输入源采样规格等。支持屏幕触控，物理音量与多功能控制旋钮，可获得更便利的操控体验。

使用 NEO X 将帮助我们解决各种繁琐的设备连接与器材搭配问题，是一款追求卓越性能且易用的发烧音响器材。

性能参数

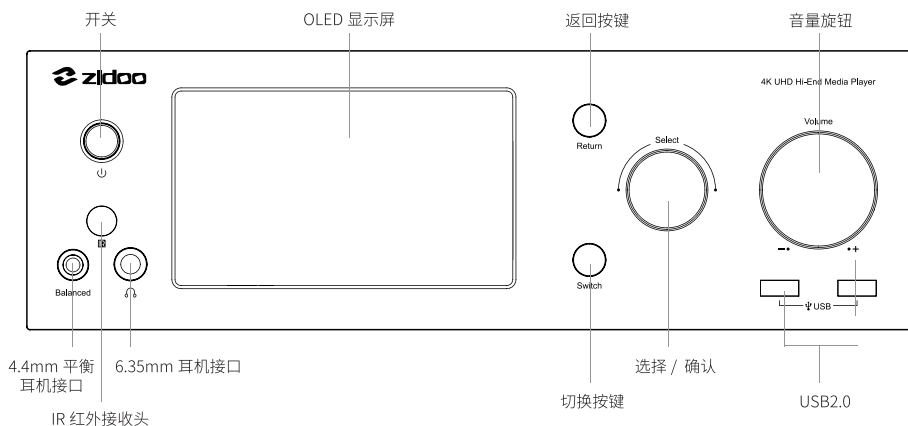
机身材质	铝合金
显示屏	5 英寸 OLED 高清触控屏
操作系统	Android 9.0
CPU 型号	Realtek RTD1619DR ARM Cortex-A55(六核)
GPU	ARM Mali-G51 MP3
内部存储	2GB DDR4 内存 +16GB eMMC 闪存
音频 DAC	ES9038Pro
蓝牙	BT 4.2
WiFi 网络	2.4G+5G 双频 WiFi, 802.11 a/b/g/n/ac; 2T2R MIMO 867Mbps
有线网络	1*RJ-45(10/100/1000Mbps)
HDMI 输出	2.0a (4K@60fps/12Bit/HDR/BT2020/YCbCr 4:4:4 输出) 支持音频源码透传
视频解码	4K@60p HEVC/H.265 12Bit HDR10, HDR10+, 杜比视界
音频解码	支持次世代高清音频源码直通, 解码立体声 PCM; 内置音频 DAC 解码: 最高支持立体声 DSD512、PCM 768KHz 32Bit、MQA 格式
蓝牙音频输入	CSR8675 旗舰蓝牙音频模组, 支持 SBC/AAC 等无损音频协议
USB 音频输入	支持 Windows 系统 (7, 10), Mac 系统, Android 系统 最高支持立体声 DSD512、PCM 768KHz 32Bit、MQA 格式
数字音频输入	USB DAC 输入 *1、AES/EBU 输入 *1、同轴输入 *1
数字音频输出	光纤输出 *1、同轴输出 *1
模拟音频输出	前级输出: XLR(平衡)*1、RCA*1; 耳放输出: 4.4mm 平衡 *1、6.35mm 单端 *1
推荐耳机阻抗	16-300Ω (低增益模式: 16-32Ω/ 高增益模式 32-300Ω)
USB 接口	USB3.0*1, USB2.0*2
内置 SATA	内置 SATA3.0 (3.5 寸硬盘仓, 不含硬盘)
控制接口	IR 红外输入 *1, RS-232*1, TRIGGER (12V 触发)IN/OUT TCP/IP 控制 (支持网络唤醒)
电源	100 - 240V ~ 50/60Hz (内置双线性电源)
机身尺寸	长 395mm* 宽 291mm* 高 110mm
包装清单	遥控器 *1, 电源线 *1, 天线 *3, 用户手册 *1

性能参数

模拟音频特性	<p>XLR(平衡)输出</p> <p>输出电平 (Vrms): 4.1 Vrms 总谐波失真 (THD+N): -110dB (0.00031%) 底噪 (Noise): 2uVrms 信噪比 (SNR): 118dB(20Hz-20kHz) 频率响应 (frequency response): ± 0.25dB(20Hz-20kHz) 通道分离度 (CROSSTALK): -126dB(1kHz,Fs=44.1kHz) 动态范围 (DNR): 118dB</p>
	<p>RCA输出</p> <p>输出电平 (Vrms): 2.2 Vrms 总谐波失真 (THD+N): -109dB (0.00035%) 底噪 (Noise): 2.6uVrms 信噪比 (SNR): 115dB(20Hz-20kHz) 频率响应 (frequency response): ± 0.258dB(20Hz-20kHz) 通道分离度 (CROSSTALK): -132dB(1kHz,Fs=44.1kHz) 动态范围 (DNR): 114dB</p>
	<p>耳机 4.4mm 平衡输出</p> <p>输出电平 (Vrms): 3.0 Vrms 输出功率: 410mW/32Ω 总谐波失真 (THD+N): -110dB (0.00032%) 底噪 (Noise): 1.7uVrms 信噪比 (SNR): 120dB(20Hz-20kHz) 频率响应 (frequency response): ± 0.25dB(20Hz-20kHz) 通道分离度 (CROSSTALK): -131dB(1kHz,Fs=44.1kHz) 动态范围 (DNR): 118dB</p>
	<p>耳机 6.35mm 单端输出</p> <p>标准低增益模式</p> <p>输出电平 (Vrms): 1.5Vrms 输出功率 / 耳机阻抗: 110mW/32Ω 总谐波失真 (THD+N): -108dB (0.0004%) 底噪 (Noise): 3.2uVrms 信噪比 (SNR): 112dB(20Hz-20kHz) 频率响应 (frequency response): ± 0.25dB(20Hz-20kHz) 通道分离度 (CROSSTALK): -128dB(1kHz,Fs=44.1kHz) 动态范围 (DNR): 110dB</p> <p>高增益模式</p> <p>输出电平 (Vrms): 2.6Vrms 输出功率 / 耳机阻抗: 42mW/300Ω 总谐波失真 (THD+N): -108dB (0.0004%) 底噪 (Noise): 3.3uVrms 信噪比 (SNR): 114dB(20Hz-20kHz) 频率响应 (frequency response): ± 0.25dB(20Hz-20kHz) 通道分离度 (CROSSTALK): -132dB(1kHz,Fs=44.1kHz) 动态范围 (DNR): 108dB</p>

硬件端口介绍

1. 前面



NEOX 除了支持屏幕触摸控制，前面板也设计了物理功能控制按键，从而更好的配合机身屏幕的常规功能操控。

① 功能旋钮 (Select)

Select 旋钮为多功能控制旋钮，可进行左右旋转和按压操作。

横向菜单显示页面：顺时针旋转 Select 旋钮，光标向右位移，逆时针旋转旋钮光标向左位移，按压旋钮为确认选择。

纵向菜单显示页面：顺时针旋转 Select 旋钮，光标向下位移，逆时针旋转旋钮光标向上位移，按压旋钮为确认选择。

② 音量旋钮 (Volume)

对整机音量大小进行调节，顺时针旋转增加输出音量，逆时针旋转减小输出音量。

*DAC 输出模式下，可根据需要在 DAC 设置中，自定义音量递增调节的幅度 (0.5 dB~3dB)。

③ 返回 (Return)

Return 为返回键，在任意页面每按下一次为返回上一级菜单，任意页面长按“返回”键直接返回到屏幕首页。

④ 转换按键 (Switch)

Switch 为转换键，在任意页面，按此键将直接跳转为当前音乐播放状态页面。

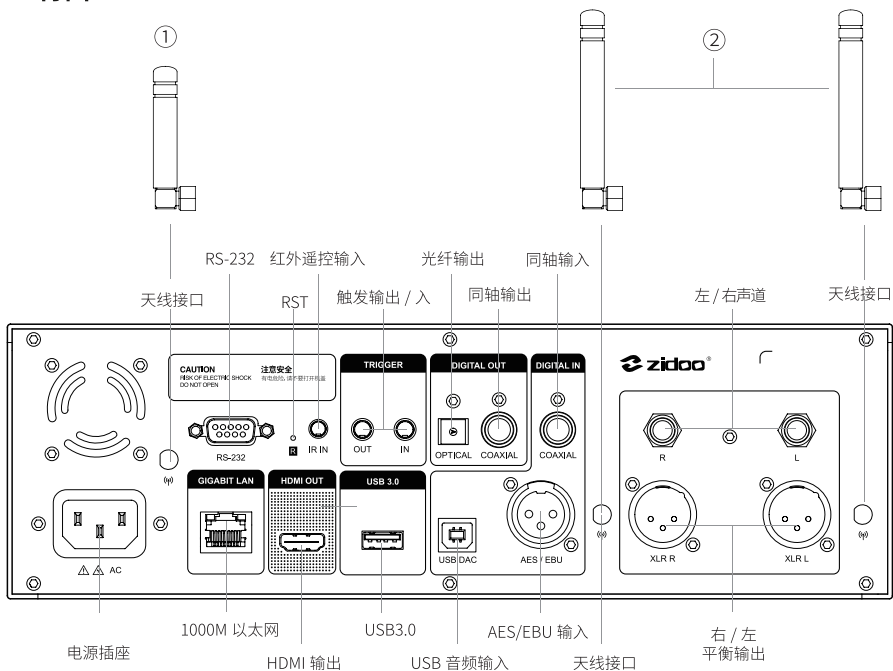
⑤ 电源键 (Power)

对本机开关机控制。

注意：

机身面板控制按钮，除了开关机与音量调节键，只对机身屏幕和音乐播放控制生效。

2. 背面

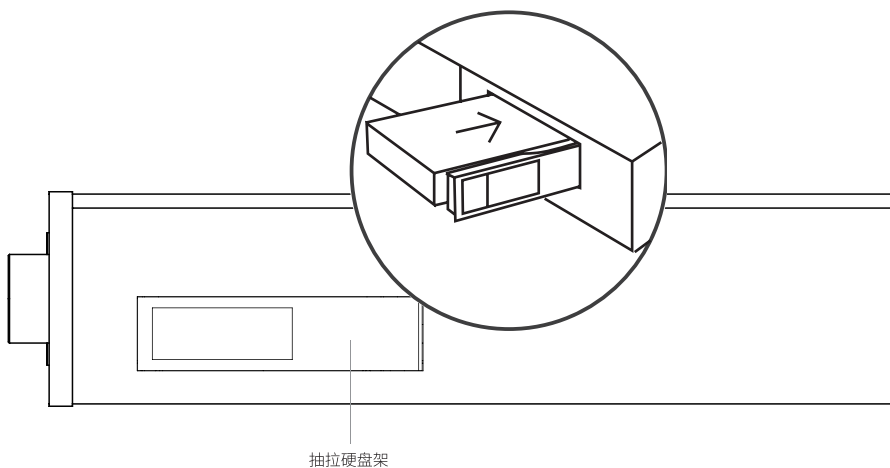


注意：

使用前，请安装好天线

3. 右侧面

NEO X搭载了3.5寸SATA 3.0高速硬盘仓，可以内置一枚硬盘，抽拉式硬盘仓无需借助任何工具，只需拉出仓门，将符合尺寸大小的SATA硬盘接口朝里轻松推入即可装载（硬盘最大支持16TB）。



注意：

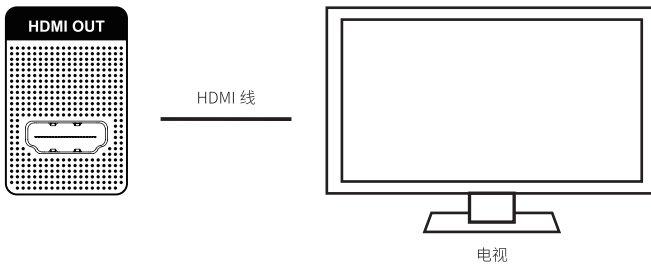
请勿在设备通电状态下安装或更换硬盘，以免造成设备或硬盘数据的损坏，如是购入的全新硬盘，请先将硬盘连接电脑格式化后再装载至设备，本机支持硬盘格式：EXT3、EXT4、NTFS、FAT32、EXFAT。

连接与安装

一. HDMI 设备的连接

1. HDMI 连接电视

确保电视和NEO X都处于断电状态，将HDMI线一头插入本设备的HDMI输出端口，另一头连接至电视机的HDMI 输入接口，设备开机再将电视的信号源设置切换至对应的端口。

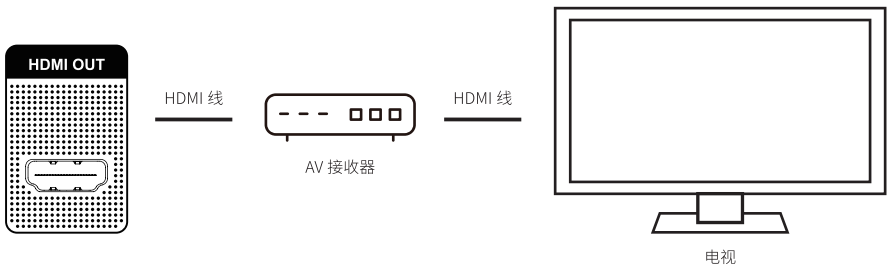


注意：

为了能够享受4K超高清HDR效果，请使用满足HDMI2.0以上版本的HDMI线、以及显示设备。

2. HDMI 连接 AV 接收器再连接电视

确保功放、电视、NEO X都处于断电状态，用一条HDMI线将本设备的HDMI输出端口与AV接收器的HDMI输入连接，另一条HDMI线将AV接收器的HDMI输出与电视机的HDMI输入接口连接。设备开机后，分别再将AV接收器和电视的信号源设置，切换至设备连接的对应端口。



注意：

* 为了能够获得4K超高清HDR效果，除了HDMI线和显示设备，请确保连接的AV接收器也可以满足相应的技术规格。

* HDMI音频输出与DAC模拟音频无法同时选择输出，以上连接需将音频源设置为数字输出，才会从HDMI通道输出音频。

设置方式：系统设置 — DAC音频 — 音频源 — 数字输出（关闭DAC）

* 本机HDMI 输出支持源码透传，如果AV接收器可以支持更先进的音频格式，请将HDMI音频设置输出模式设置为源码输出。

设置方式：系统设置 — 音频源设置 — HDMI音频 — 源码透传

二 . 音频输出的连接与安装

1. 数字音频输出连接音频接收器

本机数字音频输出，包括了HDMI音频输出、光纤、同轴、USB音频、蓝牙音频的输出，选择通过数字音频输出时，请将音频源选择为“数字输出”，DAC音频会关闭。

① 通过光纤/同轴连接解码器或AV接收器

使用光纤音频线或者同轴音频线，将本机的光纤或同轴输出接口连接至AV接收器的对应端口，再将连接的解码器或AV接收器的信号源，切换至对应端口。



注意：

光纤/同轴最高支持5.1 声道输出。

② USB音频输出连接解码器

使用USB音频数据线，将本机任意 USB Type-A接口连接到具备USB 音频输入的解码器接口。



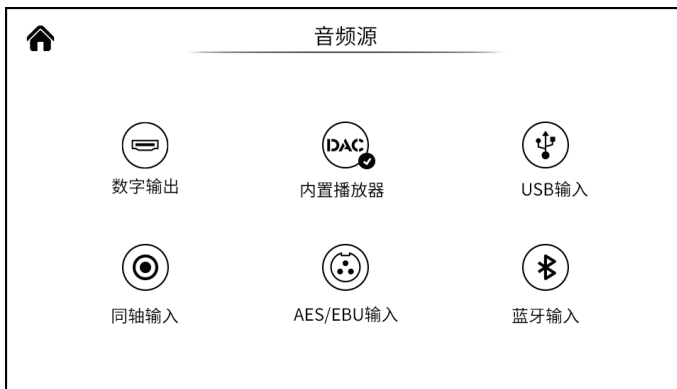
注意：

* 选择此通道输出本机，对应设置：**音频设置 —— USB音频**

* USB音频输出会因搭配解码器不同，兼容性会有差异，遇到无法兼容的解码器，请和我们技术支持联系反馈。

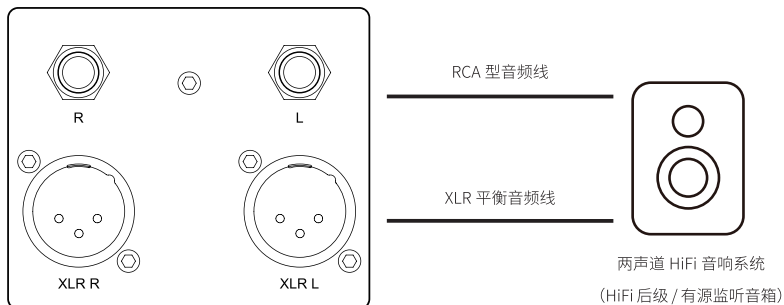
2. 模拟音频输出与设备的连接

本机模拟输出包括RCA、XLR、耳机接口，音频均经过本机ES9038Pro DAC解码输出，内置播放器播放需要打开音频源设置“DAC（内置播放器）”，外部音频输入需切换到对应的音频源输入，模拟输出时数字端口输出将会关闭。



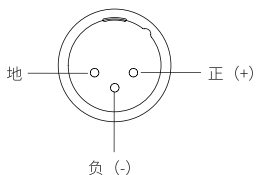
① RCA、XLR输出连接两声道后级功放或有源音箱

用一对RCA型或XLR平衡卡侬模拟音频线，将本机RCA或者XLR平衡输出端口与有源音箱或者HiFi后级设备对应的接口连接。

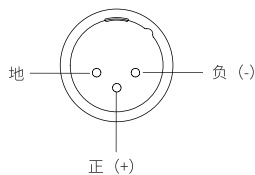


注意:

- * 本机配备了两组独立立体声输出端口：RCA型和XLR型平衡端口可同时输出音频信号，二者选择一种即可，建议优先选择XLR平衡端口连接，可获得更佳的噪音抑制和信号完整性。
- * NEO X的平衡输出为三插脚XLR公型端口，输出一对差分信号（正/负信号），后续电路可以通过比较这对信号的电压差值，抵消共模噪声，提升原始信号的完整性。
- * 在某些音频系统上，正负极性是对调的，NEO X默认为正向极性如下示意，如需对调极性，可以在**系统设置菜单 — DAC音频 — XLR极性设置为反向**



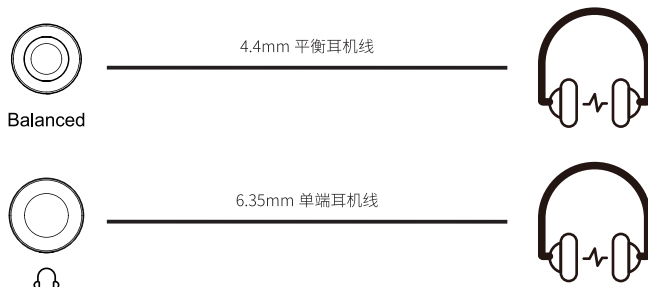
正向极性示意图 + 系统正向设置



反向极性示意图 + 系统反向设置

② 耳放输出连接耳机

本机具备耳放功能，前面板提供有两个耳机输出，6.35mm单端和4.4mm平衡输出接口，请将同标准的耳机插头连接至本机对应耳机接口。



注意：

* 本机推荐匹配耳机阻抗范围16-300Ω（低增益模式：16-32Ω/高增益模式32-300Ω）。

* 耳放增益模式切换：通过本机屏设置，**设置** —— **DAC设置** —— **耳机增益设置（低增益/高增益）**

* 模拟输出同时连接优先级：6.35mm耳机输出优先于4.4mm平衡耳机输出优先于XLR平衡/RCA输出。

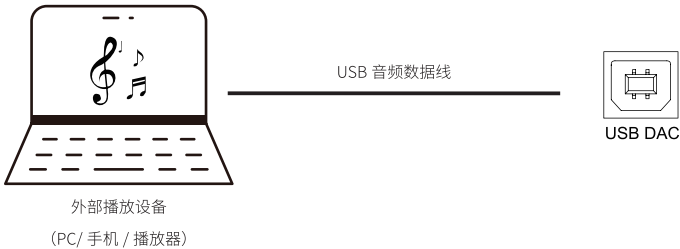
三. 数字音频输入源设备的连接

1. USB 音频输入设备的连接

使用一条USB Type-A型接口转USB Type-B型接口的连接线，可直接将NEO X与个人电脑、具备USB 音频输出的播放设备以及手机等连接。

这样的连接方式将NEO X作为一台高性能纯解码器来使用，外部播放器输入的数字信号经过本机ES9038PRO DAC解码芯片解码并输出，进而提供最优化的音频解码性能。

需在系统对应音频源设置中选择该输入源：



注意：

* 由操作系统与播放软件的差异，您可能需要安装对应的驱动程序或进行软件设定来支持电脑，或者外部播放设备向NEO X传输音乐。如：Windows系统需要在PC上安装音频驱动才可食用，驱动程序请在官网服务中心下载或联系技术人员获取，Mac OS系统与Android系统无需安装驱动。

* USB输入最高支持立体声 DSD512、PCM 768KHz 32Bit、MQA格式，但也需要外接的播放硬件设备和软件支持相应规格。

2. 同轴与 AES/EBU 音频输入

① 同轴音频输入

同轴数字音频输入，用一条75欧姆同轴线可将一台播放设备的同轴输出连接到本机的数字同轴音频输入接口，通过此通道输入信号。

需在系统对应音频源设置中切换输入源为：

音频源设置 —— 选择  同轴音频输入



② AES/EBU音频输入

AES/EBU用一条75欧姆数字卡侬音频线，可将一台播放设备的AES/EBU输出连接到本机的AES/EBU平衡数字音频输入接口。

需在系统对应音频源设置中切换输入源为：

音频源设置 —— 选择  AES/EBU输入



3. 蓝牙音频输入

本机内置了一枚独立CSR8675旗舰蓝牙音频模组，支持SBC、AAC等无损音频协议，可接收来自移动设备无损发送蓝牙音频信号，本机作为高品质蓝牙解码器使用。

需在系统对应音频源设置中切换输入源为：

音频源设置 —— 选择  蓝牙输入，在移动端打开蓝牙搜索设备“NEOX”，配对即可。

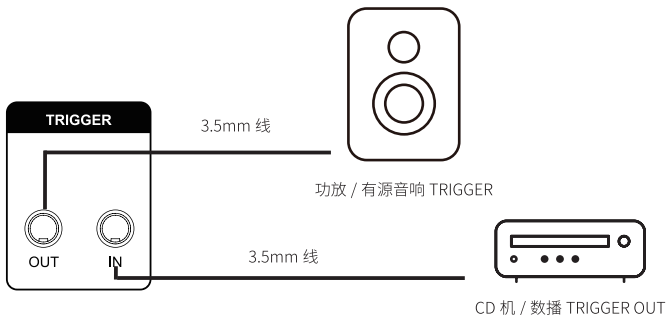
四 . 智能控制

1. RS-232 控制

NEO X提供了RS232控制端口，可以配合中控系统整合到大多数定制的家庭影院控制系统中，官方仅提供相应控制代码，中控驱动程序制作请扫描本手册第24页RS-232控制二维码或官网下载中心获取代码文档。与中控相关的安装与调试，请与经销商或者中控服务商联系。

2. 触发 TRIGGER 控制

NEO X配备了3.5mm标准的12V TRIGGER 输入、输出接口，采用3.5mm触发线可将本机的TRIGGER IN接口与前端设备（CD机、数播机）TRIGGER OUT接口串连，本机TRIGGER OUT与后端的设备（有源音响、功放等）的TRIGGER IN接口串联，可以实现设备联动开关机的控制。



注意：

TRIGGER线为2 Pin 3.5mm线，也可以使用3Pin的音频对录线代替。

3. IR 控制接口

本机后面板3.5mm IR红外控制输入接口，对于影音系统集成商而言，可作为中控备选控制入口；个人用户，如需将整机放入不可视机柜里，因障碍阻挡红外控制信号，可以自行配备外部红外接收延长装置使用。



4. 智能手机 APP 控制

用户在移动手机端安装ZIDOO Controller 控制APP，可以通过手机控制Zidoo播放器的所有功能，包含文件管理器、应用、音乐播放器、海报墙数据的浏览控制以及对本机系统的设置。

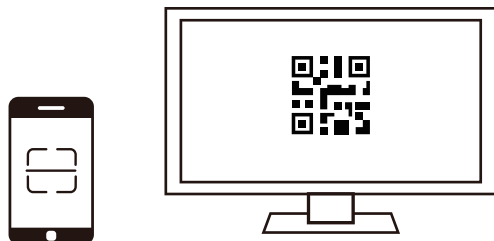
① 应用安装

请参照电视屏幕打开设备“**所有应用程序——控制中心**”或者进入机身屏幕，“**设置——控制中心**”，扫描对应系统平台的二维码，下载安装。应用支持安卓与苹果系统，也可以在本手册第24页，扫描对应二维码下载安装。ISO系统在手机“Apple Store”搜索“Zidoo”下载安装。

② 设备的连接

应用安装完成后，确保设备连接网络，且移动设备与播放器处在同一个局域网内，按照以下步骤添加设备。

连接步骤：打开手机控制APP“**+ 添加——扫描设备控制中心二维码或点扫描**”，在设备屏幕弹出控制授权，点击确认即可连接。



开机与初始化设置

NEOX在正式使用前，首次开机屏幕将会先进入系统的初始化配置，初始化设定分为大屏（HDMI输出到显示设备的画面）与小屏（机身显示屏），机器将会根据实际设备的连接情况来自动选择初始化页面从大屏或小屏呈现，即：如果HDMI连接大屏，将会仅通过大屏来完成初始化，反之没有连接HDMI大屏的情况下，将会通过机身屏幕来完成初始化。请按照系统流程与指引来设置您的设备，以获得更佳的使用体验。

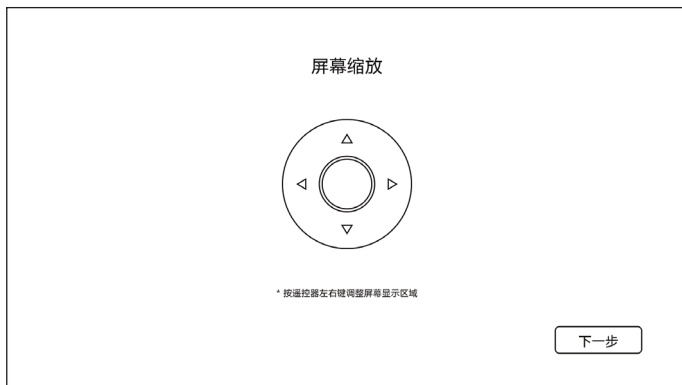
一 .HDMI 大屏系统初始化配置

1. 系统语言选择、屏幕缩放、时区设置

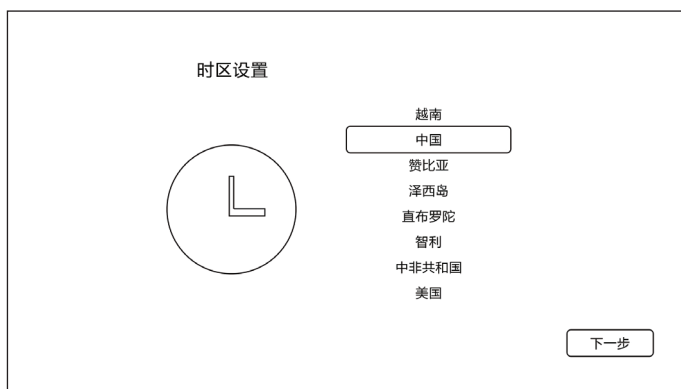
按照您的语言习惯选择系统语言。



按遥控器左右方向键调节合适的屏幕显示大小。

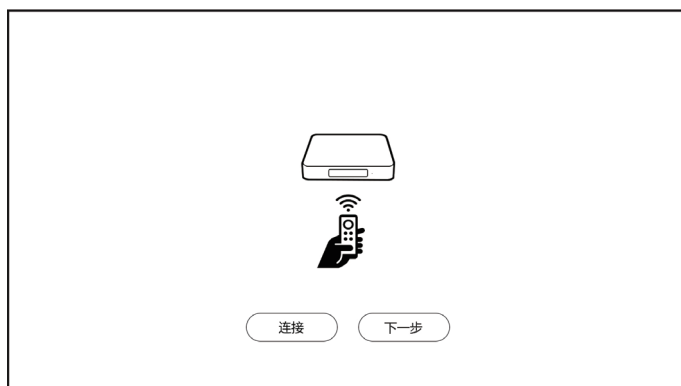


根据您所处地区选择对应系统显示的时区。



2. 蓝牙遥控配对

遥控器对准机器，距离30厘米以内，同时按住翻页下键与菜单键至指示灯闪烁，进行配对，配对完成之后指示灯熄灭。

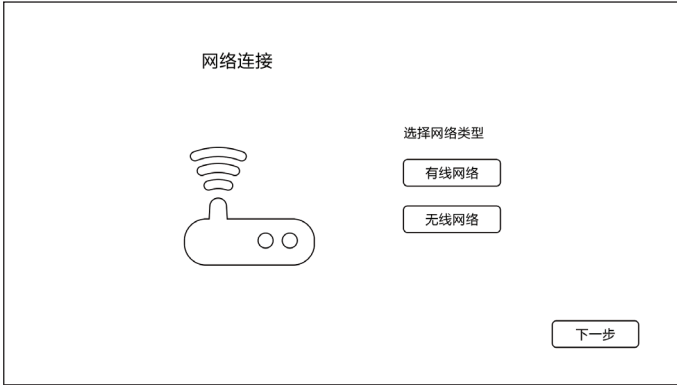


注意：

- * 蓝牙配对前请务必先安装好蓝牙天线
- * 本机HDMI连接大屏时，遥控器仅支持大屏控制

3. 网络设置

设置相关网络配置，让机器快速连接网络。



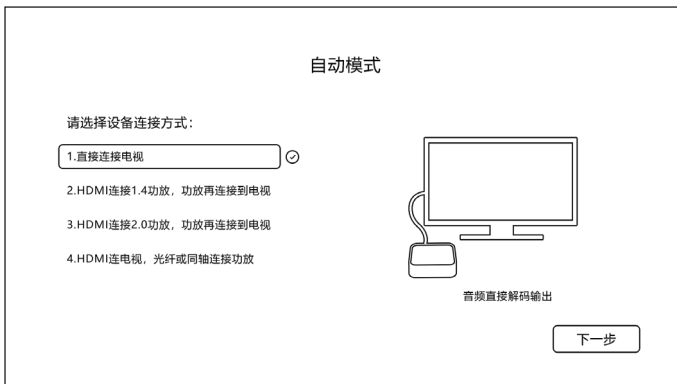
无线网络 (Wi-Fi)：选择网络 SSID，输入密码，连接 Wi-Fi。

有线网络：只需插入网线即可自动连接网络。

4. 选择输出模式

请根据需求选择相应的模式来完成设备输出参数的设置。

向导模式：根据您的使用环境和设备连接情况选择对应的选项。

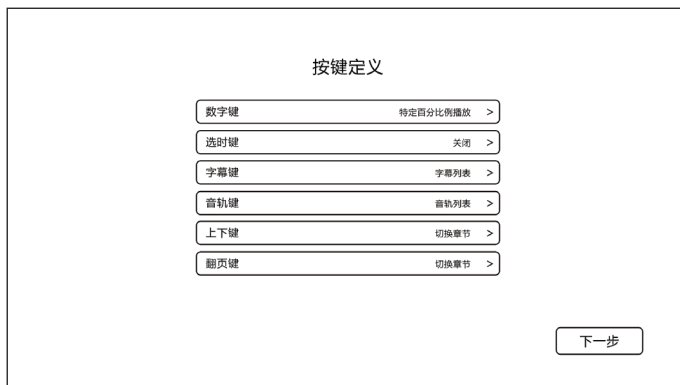


专家模式：音视频输出为自定义选择模式，可根据设备连接和支持的规格选择相应的音视频输出，此模式建议专业人员操作。



5. 按键定义

根据您的使用习惯定义遥控器上的数字键，选时键，字幕键，音轨键，上下键，翻页键对应的功能。

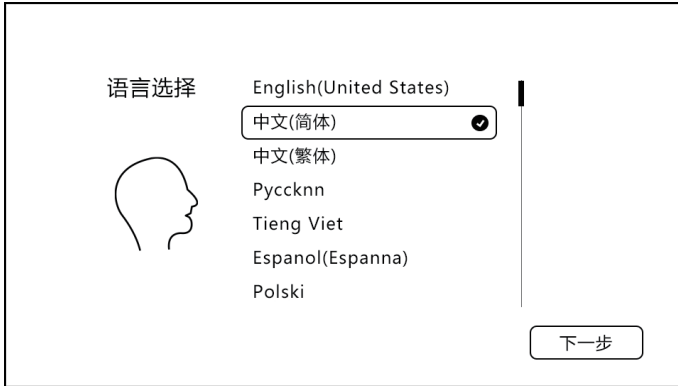


完成以上设置后，按照提示点下一步完成整个设备的初始化设置，即可享受芝杜产品给您带来的影音盛宴。

二. 机身屏幕初始化配置

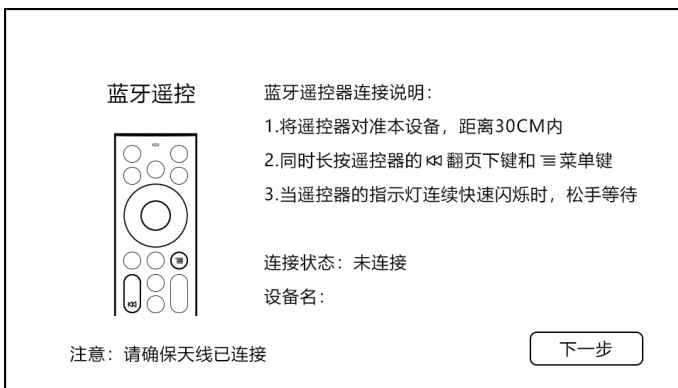
1. 系统语言选择

根据需要，选择系统显示语言。



2. 蓝牙遥控配对

遥控器对准机器，距离30厘米以内，同时按住翻页下键与菜单键至指示灯闪烁，进行配对，配对完成之后指示灯熄灭。

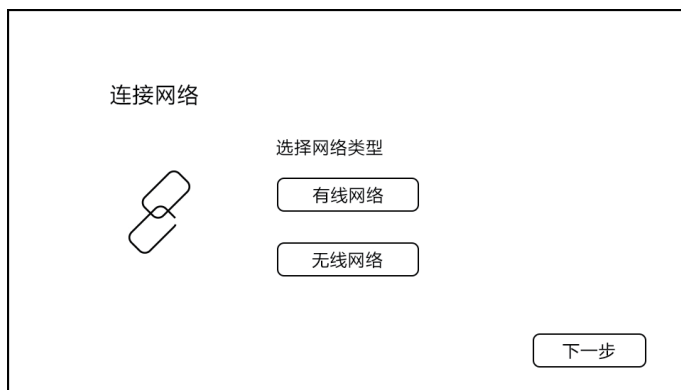


注意：

- * 蓝牙配对前请务必先安装好蓝牙天线
- * 本机HDMI未连接显示设备时，遥控器仅支持小屏控制

3. 网络设置

设置相关网络配置，让机器快速链接网络。网络分为无线网络和有线网络，请选择其中一种方式连接成功即可。

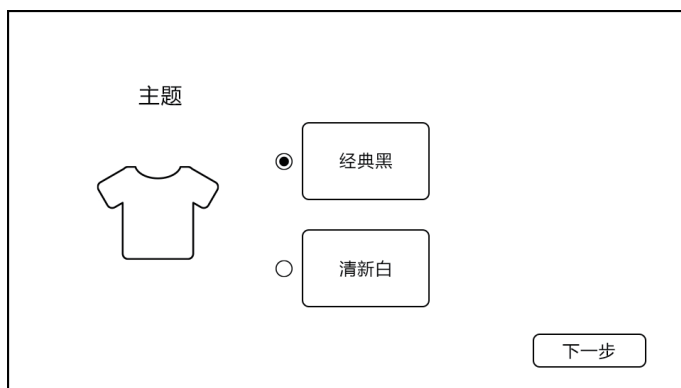


无线网络 (WI-FI)：选择网络 SSID，输入密码，连接 Wi-Fi。

有线网络：只需插入网线即可自动连接网络。

4. 主题模式选择

本机系统提供两种小屏主题选择，请根据个人喜好选择相应的主题。



OTA 系统升级

芝杜 Zidoo 会不定期对机器系统进行固件升级。新固件发布后，可以通过 OTA 系统升级，获得新的功能体验。NEO X OTA 系统升级，通过大屏或者小屏均可进行升级操作，并支持在线网络升级与本地升级两种方式。

一. 通过大屏升级系统

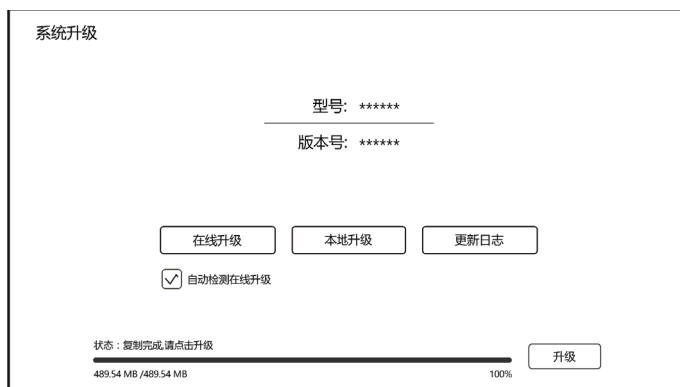
1. 在线升级

在升级页面，点“在线升级”选项，将通过网络获取最新升级信息，按照屏幕提示完成升级，等待升级完成机器自动重启。



2. 本地U盘升级

通过官方公众号或者官网等渠道手动下载本机升级文件包至U盘中，将含新版升级文件的U盘接入机器，升级页面点击“本地升级”选项，选择升级文件包（无需解压），按照屏幕提示完成升级操作，待升级完成机器重启即可。



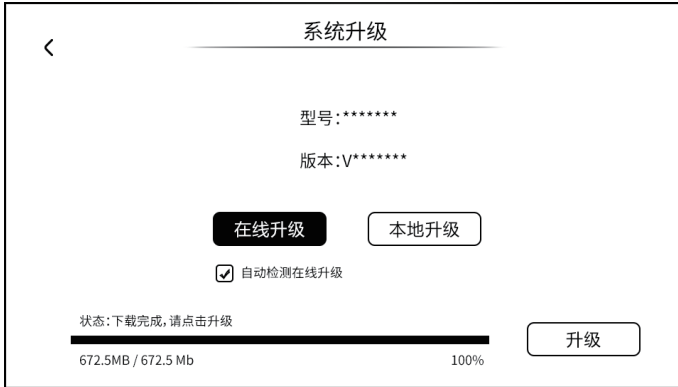
二. 通过本机屏幕升级系统

在机器屏幕，选择：**设置** —— **通用设置** —— **系统升级**



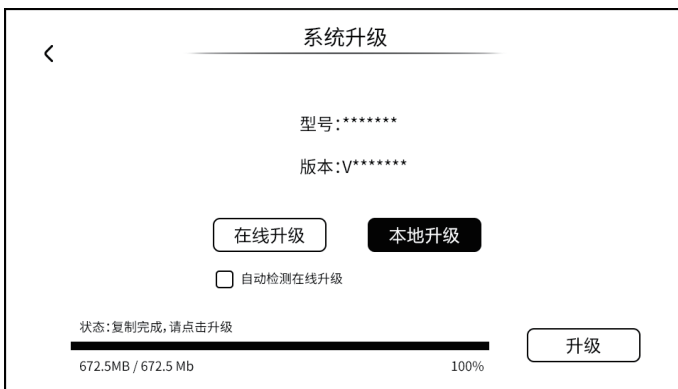
1. 在线升级

在升级页面，点“在线升级”选项，将通过网络获取最新升级信息，按照屏幕提示完成升级，等待升级完成机器自动重启。



2. 本地U盘升级

通过官方公众号或者官网等渠道手动下载本机升级文件包至U盘中，将含新版升级文件的U盘接入机器，升级页面点击“本地升级”选项，选择升级文件包（无需解压），按照屏幕提示完成升级操作，待升级完成机器重启即可。



资源下载：

* 推荐使用手机浏览器扫描二维码。



IOS 控制 APP



Android 控制 APP



RS232 协议代码

特别说明：

为了提升用户体验，芝社会不定期对产品固件进行更新。因此，本说明书内容，可能会与产品实际使用有所出入的情况。更多新功能的使用，请在官网下载电子档新版说明书。

安全警示：

1. 本设备不得遭受水溅或水滴，不得在设备上放置类似花瓶一类装满液体的物品。
2. 本产品断开装置为输入插座，配备给本产品使用的插座应当装在本产品附近，且应当便于操作，不能被其他物体阻挡。
3. 本产品为I类设备，使用时机箱内部必须要有接地措施。



* 仅适用于在海拔 2000m 以下安全使用

NEO X Introduction

NEO X is an all-in-one device integrating 4K UHD media player, music streaming media player, audio and video media center, high-fidelity headphone amplifier, music decoder and Bluetooth decoder.

As a 4K UHD media player, it can decode and output advanced 4K 12Bit HDR10+/Dolby vision.

NEO X supports playing music from a variety of input sources, such as hard disk, computer and NAS server. Not only supporting almost all high-sampling master-tape music files such as MQA, SACD ISO, DFF, DSF, FLAC, WAV, APE etc., but also supporting managing local music resources and music streaming. Live streaming media app and DLNA streaming all can get good audio quality.

NEO X adopts ES9038Pro DAC chip for audio decoding and supports lossless Bluetooth, Coaxial, AES/EBU and asynchronous USB audio input, which can be used as an independent high-fidelity audio decoder. XLR balance, RCA stereo preamplifier output and high-performance headphone amplifier output are supported. No matter for local file playback or external audio input, excellent audio index can be obtained with the decoding processing of DAC, fully balanced operational amplifier circuit and audio components. It can parse lossless master-tape format files up to 22.5792 MHz DSD files (DSD512 Native mode), 768 kHz 32-bit PCM.

NEO X can be controlled easily by cell phone with exclusive Zidoo Controller APP. The large 5-inch OLED HD screen can intuitively display general settings menu, music library data, playback status and input source sampling rate etc. Touch screen, physical volume and multifunctional control knobs are very convenient to operate.

NEO X helps us solving devices connecting and matching problems, which is easy to use and pursuing for excellent performance.

Specification

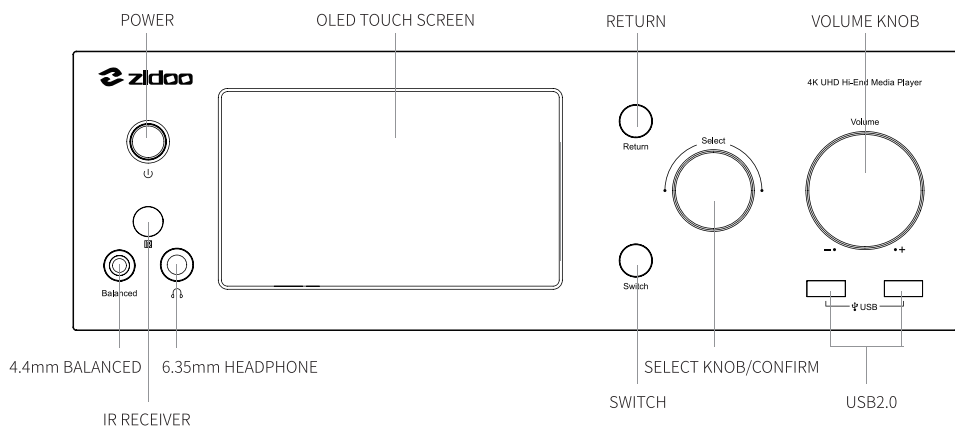
Chassis	Aviation aluminum alloy
Display	5-inch OLED HD touch screen
OS	Android 9.0
CPU	Realtek RTD1619DR ARM Cortex-A55(hexa-core)
GPU	ARM Mali-G51 MP3
Internal Storage	2GB DDR4 (RAM)+16GB eMMC
DAC	ES9038Pro
Bluetooth	BT 4.2
Wi-Fi	2.4G+5G dual band WiFi, 802.11 a/b/g/n/AC 2T2R MIMO 867Mbps
Ethernet	1*RJ-45(10/100/1000Mbps)
HDMI Output	2.0a (4K@60fps/12Bit/HDR/BT2020/YCbCr 4:4:4 output) support audio passthrough
Video Decoding	4K@60p HEVC/H.265 12Bit HDR10, HDR10+, Dolby Vision
Audio Decoding	Support true-hd HD audio passthrough, stereo PCM decoding; Built-in DAC audio decoding: support up to stereo DSD512, PCM 768KHz 32Bit, MQA
Bluetooth Audio Input	CSR8675 flagship Bluetooth audio module supports mainstream lossless audio protocols such as SBC/AAC
USB Audio Input	USB audio compatible system: Windows(7,10), Mac, Android Support up to stereo DSD512, PCM 768KHz 32Bit, MQA
Digital Audio Input	USB DAC IN*1, AES/EBU input*1, Coaxial input *1
Digital Audio Output	Optical output*1, Coaxial output*1
Analog Audio Output	Preamplifier output: XLR(balanced)*1, RCA*1 Headphone amplifier output: 4.4mm balanced*1 6.35mm single end*1
Headphone Impedance	16-300Ω (low-gain mode: 16-32Ω/ high-gain mode: 32-300Ω)
USB Ports	USB3.0*1, USB2.0*2
SATA	Internal SATA3.0 (3.5-inch HDD bay, hard drives are not included)
Control Ports	IR IN*1, RS-232*1, TRIGGER (12V) IN/OUT, TCP/IP control (WOL)
Power Supply	AC 110-240V 50/60Hz (dual linear power supply)
Dimensions	395mm*291mm*110mm
Packing List	Remote control*1, Power cable*1, Antennas*3, Product manual*1

Specification

<p>Analog Audio Characteristics</p>	<p>XLR(balanced) Output</p> <p>Output Level: 4.1 Vrms THD+N: -110dB (0.00031%) Noise: 2uVrms SNR: 118dB(20Hz-20kHz) Frequency response: ± 0.25dB(20Hz-20kHz) Crosstalk: -126dB(1kHz,Fs=44.1kHz) DNR: 118dB</p>
	<p>RCA Output</p> <p>Output level: 2.2 Vrms THD+N: -109dB (0.00035%) Noise: 2.6uVrms SNR: 115dB(20Hz-20kHz) Frequency response: ± 0.258dB(20Hz-20kHz) Crosstalk: -132dB(1kHz,Fs=44.1kHz) DNR: 114dB</p>
	<p>Headphone 4.4mm Balanced Output</p> <p>Output level: 3.0 Vrms Output power: 410mW/32Ω THD+N : -110dB (0.00032%) Noise: 1.7uVrms SNR: 120dB(20Hz-20kHz) Frequency response: ± 0.25dB(20Hz-20kHz) Crosstalk: -131dB(1kHz,Fs=44.1kHz) DNR: 118dB</p>
	<p>Headphone 6.35mm Single End Output</p> <p>Low-gain mode Output level: 1.5Vrms Output Power/ Headphone impedance: 110mW/32Ω THD+N: -108dB (0.0004%) Noise: 3.2uVrms SNR: 112dB(20Hz-20kHz) Frequency response: ± 0.25dB(20Hz-20kHz) Crosstalk: -128dB(1kHz,Fs=44.1kHz) DNR: 110dB</p> <p>High-gain mode Output level: 2.6Vrms Output Power/ Headphone impedance: 42mW/300Ω THD+N: -108dB (0.0004%) Noise: 3.3uVrms SNR: 114dB(20Hz-20kHz) Frequency response: ± 0.25dB(20Hz-20kHz) Crosstalk: -132dB(1kHz,Fs=44.1kHz) DNR: 108dB</p>

Hardware Introduction

1.Front



In addition to the touch screen of NEO X, the front panel is also designed with convenient control buttons to collaborate the operation of touch screen.

① Select Knob

The Select knob is multifunctional, it can be used to rotate left/right and press down.

Horizontal menu: rotate the Select Knob clockwise to move right, rotate the knob counterclockwise to move left, press down the knob to confirm.

Vertical menu: rotate Select Knob clockwise to move downwards, rotate the knob counterclockwise to move upwards, press down the knob to confirm.

② Volume Knob

Volume knob can be used to adjust the volume, rotate clockwise to increase output volume, and rotate counterclockwise to decrease output volume.

* Under the DAC IN mode, volume can be adjusted with step 0.5db~3db in DAC setting.

③ Return Button

Press Return Button will go back to previous menu. When long press Return Button, it will go back to Home page.

④ Switch Button

Press Switch Button will directly go to the current music playback page.

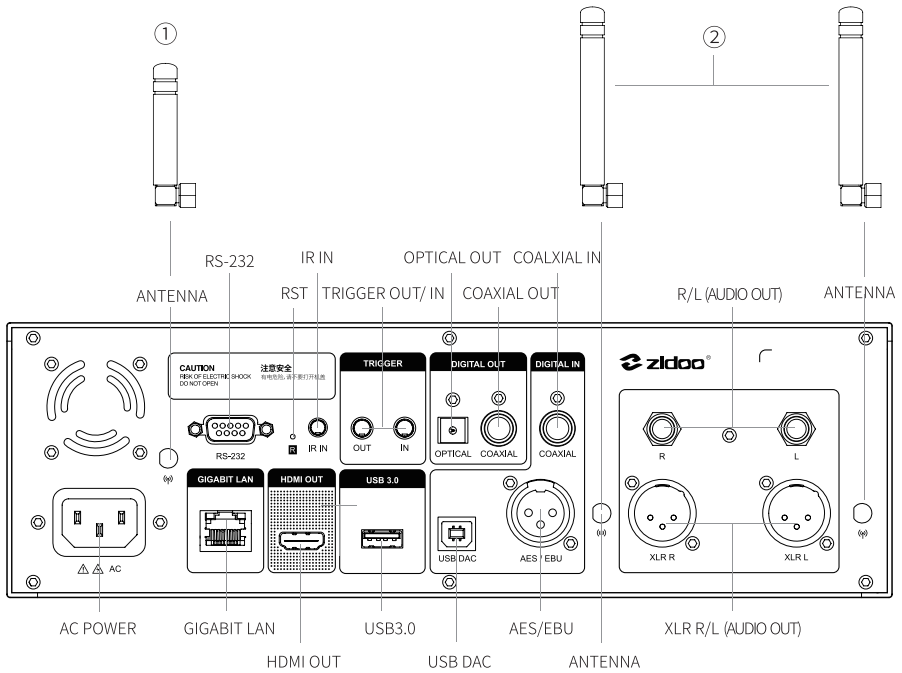
⑤ Power Button

Power on/off this device.

Note:

Except Power Button and Volume Knob, other buttons can only work for NEO X OLED touch screen (not for large screen of display device).

2.Back

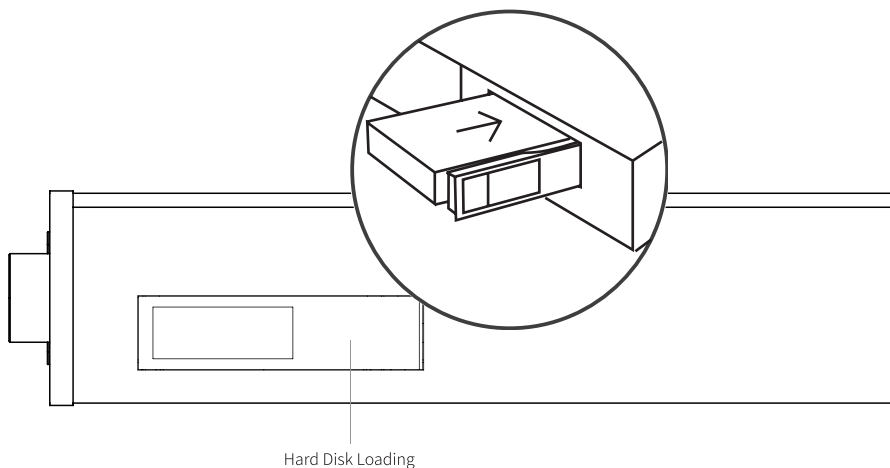


Note:

Please install antennas before using.

3.Right

NEO X is equipped with a 3.5-inch SATA 3.0 high-speed HDD bay, which can load a hard drive. Just pull out the door of HDD bay and push in hard drive with suitable size, no other tools are needed (support hard drive up to 16TB).



Note:

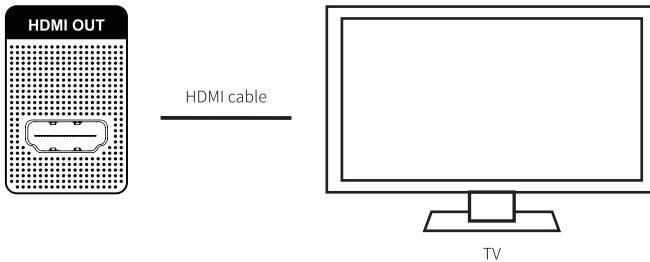
Do not install or replace the hard disk when the device is power-on, so as to avoid the damage of the device and data corruption of hard disk. Please format newly-purchased hard disk on the computer and then load it to the device. This device supports hard disk formats including EXT3, EXT4, NTFS, FAT32, EXFAT.

Connection and Installation

1. HDMI Device Connection

① Connect with TV

Make sure both TV and NEO X are power-off, connect these two devices by HDMI cable, from NEO X HDMI OUT port to TV HDMI IN port. And choose the correct signal source on TV after powering on.

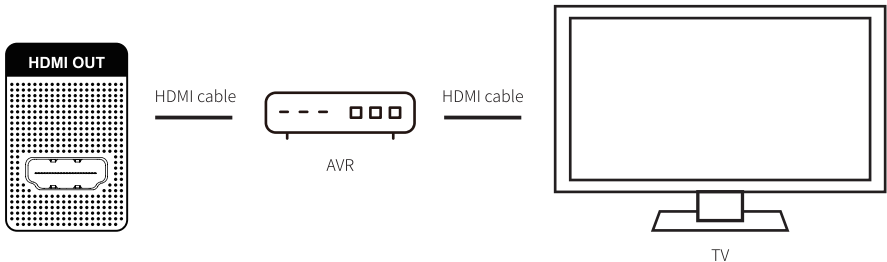


Note:

Please use HDMI 2.0 or higher-spec cable and display device to enjoy 4K UHD HDR experience.

② Connect with TV and AVR

Make sure AVR, TV, and NEO X are all power-off. Two HDMI cables are required in this process, one cable connect from NEO X HDMI OUT port to AVR HDMI IN port, another cable connect from AVR HDMI OUT port to TV HDMI IN port. Choose the correct signal source on AVR and TV respectively after powering on.



Note:

* In order to get wonderful 4K UHD HDR experience, please ensure that HDMI cable, display device and AVR all can meet the corresponding technical specifications.

* HDMI audio out and DAC analog audio cannot output at the same time. It is needed to turn off DAC to output audio from HDMI.

Settings > DAC Audio > Source In > Digital Output (Turn Off DAC)

* HDMI audio passthrough is supported by NEO X, if AVR supports more advanced audio formats, please set HDMI output mode to RAW.

Settings > Audio > HDMI Audio > RAW

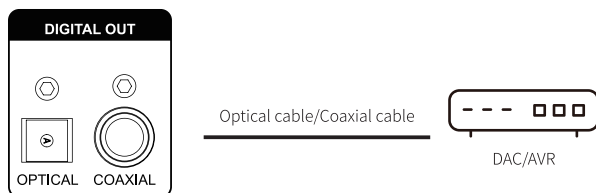
2. Audio Output Connection and Installation

Digital audio output includes HDMI audio output, Optical audio output, Coaxial audio output, USB audio output and Bluetooth audio output. Please select the audio source as "Digital Output", meanwhile the DAC audio will be turned off.

① Digital Output

① Connect DAC or AVR by Optical/Coaxial

Connect NEO X with AVR by Optical/Coaxial audio cable, switch to corresponding signal source on DAC or AVR.

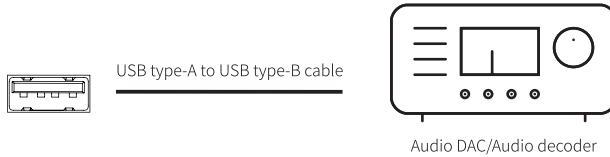


Note:

Optical/Coaxial supports up to 5.1 output.

② Connect DAC by USB Audio Output

Connect NEO X USB Type-A port with DAC USB DAC IN port by USB audio cable.



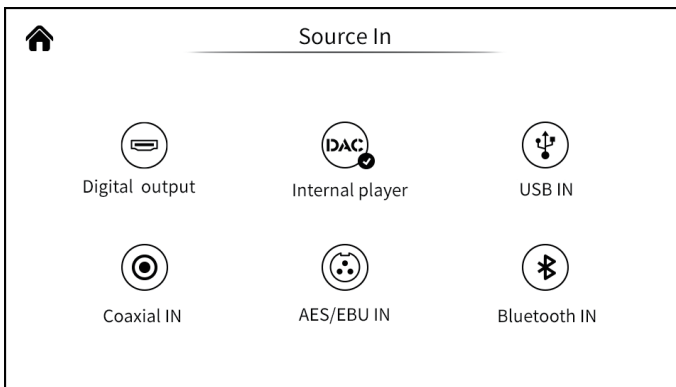
Note:

* Corresponding setting: **Settings > Audio > USB Audio**

* There might be incompatible situation when USB audio output to some DACs. If so, please contact with Zidoo tech support.

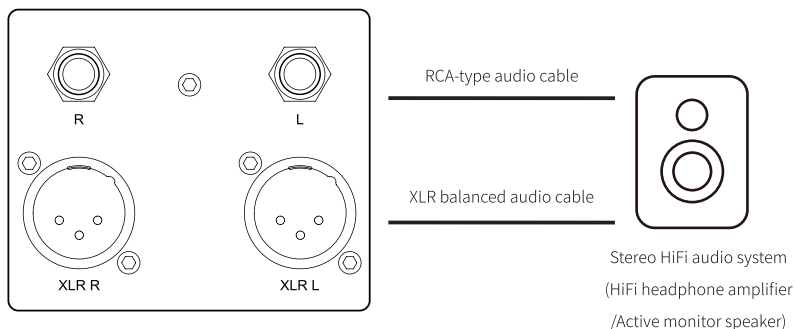
② Analog Output

Audios from analog output includes RCA, XLR, and headphone jacks all have been decoded and output by the ES9038Pro DAC. When playing from internal player, it's needed to turn on "Source In > DAC (internal player)". When playing from external player, please switch to relevant sources. The digital output will be closed when outputting from analog output.



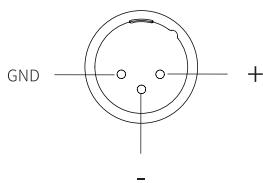
① RCA, XLR output

Using a pair of RCA or XLR balanced analog audio cables to connect NEO X with active speaker or HiFi amplifier.

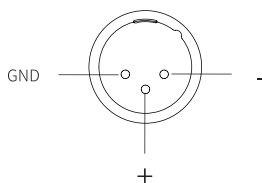


Note:

- * NEO X is equipped with two independent stereo output ports: RCA-type and XLR-type balanced ports can output audio signals simultaneously. Generally only choosing one of these ports is enough, and it is recommended to choose XLR balanced port to obtain better noise suppression and signal integrity.
- * NEO X's balanced output is a three-pin XLR male port, which will output differential signals pair (positive/negative signals). The amplifier circuit can compare the voltage difference of signals pair to cancel common mode noise and improve the integrity of the original signal.
- * In some audio systems, the positive and negative polarities are reversed. The default positive polarity are shown below. If you need to reverse the polarity, please set it in the system: **Settings > DAC audio > XLR Port Polarity > Reverse**



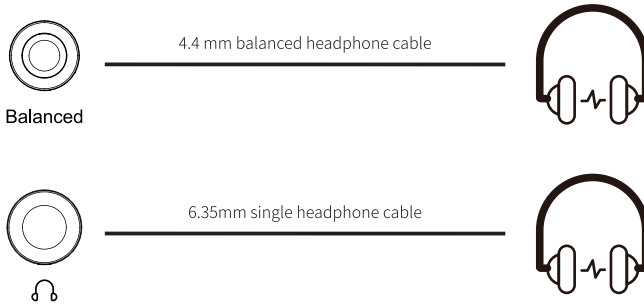
Positive polarity diagram + system positive setting



Negative polarity diagram + system negative setting

② Headphone Amplifier Output

There is two headphone ports including 6.35mm and 4.4mm balanced headphone amplifier output on NEO X front panel. Please connect to corresponding port according to your demand.



Note:

* This recommended headphone impedance range is 16-300Ω (low-gain mode: 16-32Ω/ high-gain mode: 32-300Ω).

* Switch headphone amplifier gain mode on NEO X OLED screen,

Settings > DAC settings > Headset gain > Low gain/High gain

* The output priority: 6.35mm headphone output > 4.4mm balanced headphone output > XLR balanced output = RCA output.

3. Digital Audio Input

① USB Audio Input

NEO X can connect with a PC, USB audio output device and mobile phone by using a USB Type-A port to USB Type-B port cable.

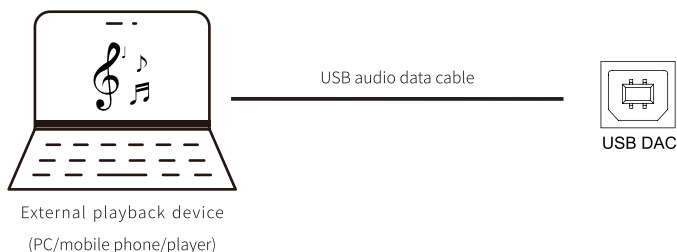
This connection method allows NEO X to be used as a high-performance pure DAC. The digital signal input by the external player has been decoded by ES9038PRO DAC decoding chip, so that it provides the best audio decoding performance.

* Corresponding setting

Settings > Source IN >



USB IN



Note:

* You may need to install drivers or make settings to support external playback device to transmit audio to NEO X. For example, audio driver is needed to be installed for Windows. Please download the driver on official website or contact technicians. No drivers are needed on Mac OS and Android.

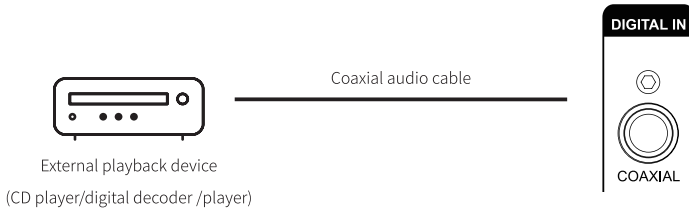
* NEO X USB input supports up to stereo DSD512, PCM 768KHz 32Bit and MQA, but external playback devices and software are also needed to support corresponding specifications.

② Coaxial Input and AES/EBU Audio Input

① Coaxial Audio Input

A 75 ohm coaxial cable is used to connect coaxial output port of a playback device to the digital coaxial in port of NEO X. Please don't forget to switch audio source input setting to:

Source In >  Coaxial IN



② AES/EBU Audio Input

A 75 ohm digital XLR audio cable is used to connect the AES/EBU output of a playback device to the AES/EBU balanced digital audio input port of NEO X. And it is needed to switch audio source input setting to:

Source In >  AES/EBU IN



③ Bluetooth Audio Input

A Independent CSR8675 flagship Bluetooth audio module has been built in NEO X, which supports SBC and AAC lossless audio protocols and can receive Bluetooth audio signals from mobile devices as a Bluetooth decoder.

Settings: **Source In >**



Bluetooth In

Open Bluetooth on mobile device and search "NEO X" and finish pairing.

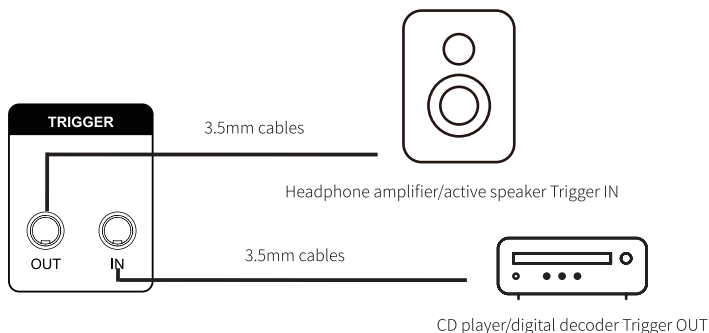
4. Smart Control

① RS-232

NEO X RS-232 port can be used for most home theater control system. RS-232 control protocol can be downloaded on Zidoo official website. If you want to integrate NEO X into control system, please contact with relevant distributors or AV installers.

② Trigger Port

There are 3.5mm standard 12V Trigger IN/OUT ports on NEO X. NEO X Trigger IN port is connected to Trigger OUT port of CD player/ digital decoder, and NEO X Trigger OUT is connected to Trigger IN port of active speaker/headphone amplifier. All of these devices can be connected by 3.5mm trigger cables.

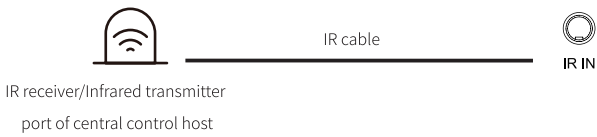


Note:

Trigger cables is 2-pin 3.5mm. You can also use a 3-pin AUX cables instead.

③ IR IN Port

For audio-visual system integrators, 3.5mm IR IN port is an optional port for control system;
For ordinary users, if NEO X is put into a cabinet, the infrared signal will be blocked, then it is suggested to connect with a external infrared receiver extension device.



④ Smart Phone APP Control

Users can control Zidoo media players by installing Zidoo Controller APP. File manager, applications, music player, poster wall and settings can all be controlled.

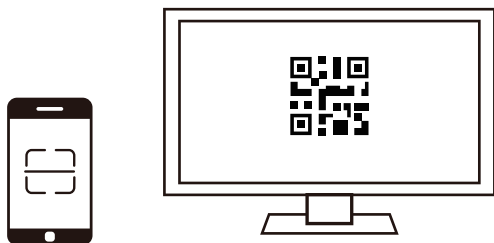
① Application Installation

Please find "**All APPs > Control Center**" on display device or "**Settings > Control Center**" on NEO X touch screen, then scan the QR code to download the APP. Zidoo Controller APP can be downloaded on iPhone by searching "Zidoo" in "Apple Store".

② Connection

After the APP is installed, please ensure devices are connected with network successfully and mobile device and Zidoo media player in same LAN. Then following steps below to add device:

Open Zidoo Controller APP and click "+" on the right-top corner then scan QR code in Media Center.



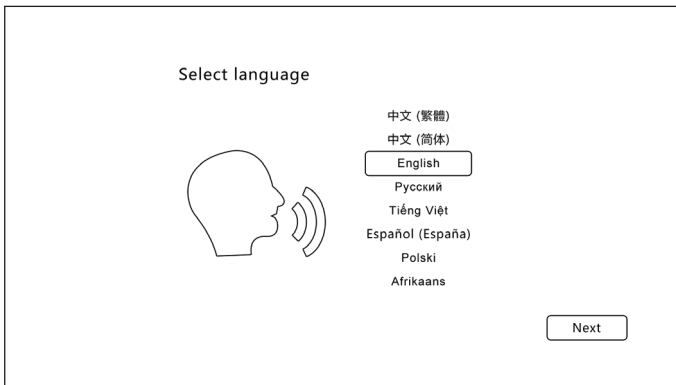
Boot and Initial Setup Wizard

NEO X will enter into initial setup wizard when it is booted for the first time, which will be displayed on large screen (display device) or small screen (NEO X OLED touch screen). If it is detected that NEO X has connected with display device by HDMI cable, initial setup wizard will show on large screen. Otherwise it will show on small screen. Please follow the system guidance to finish setting.

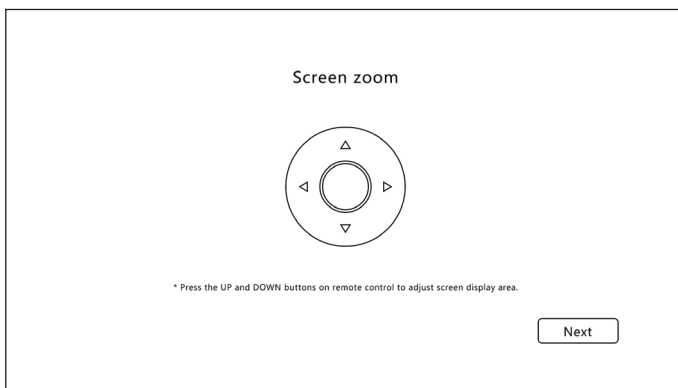
1. Initial Setup Wizard on Large Screen

① System language selection, screen zoom, time zone setting

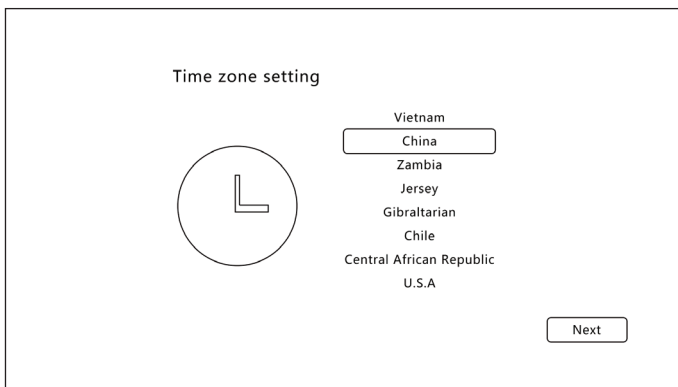
Choose the system language according to your language habit.



Press the UP and DOWN buttons on remote control to adjust screen display area.

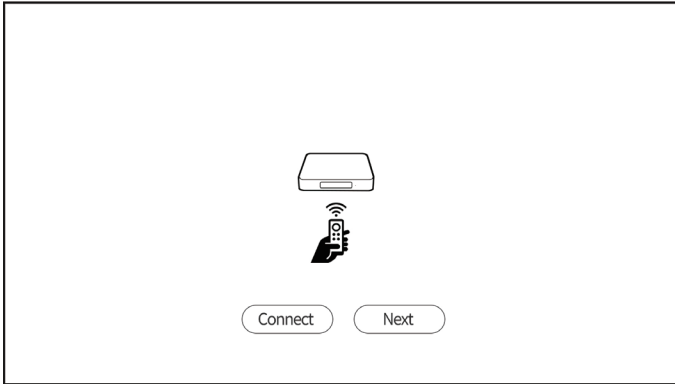


Select the time zone for the system according to your location.



② Bluetooth Match-Up

Let remote controller be aligned with media player and press Page-Down KEY and Menu KEY at the same time until indicator light blinking. The light will be off after matching successfully.

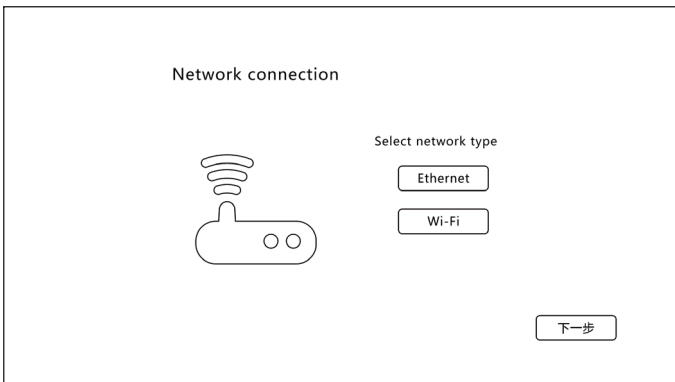


Note:

- * Make sure Bluetooth antenna is installed.
- * When large display device like TV connects with NEO X by HDMI cable, only large display screen can be controlled by the remote.

③ Network Setting

Configure network to connect device with network quickly.



4K UHD Hi-end Media player

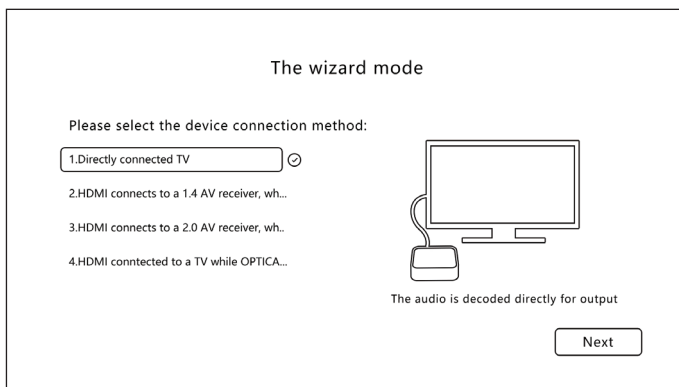
WI-FI: choose network SSID, input password and connect WIFI.

Ethernet: plug in the network cable to connect the network automatically.

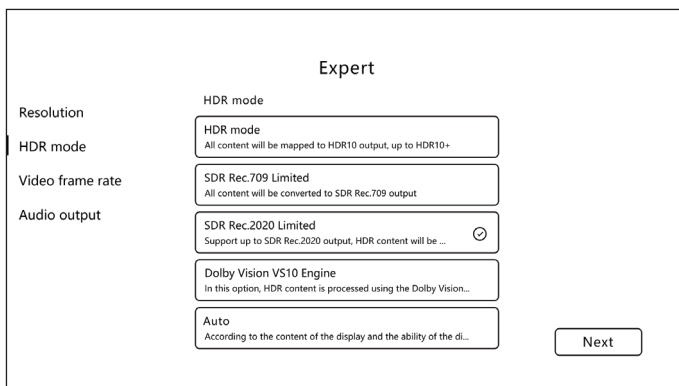
④ Select output mode

Please select the corresponding mode according to your needs, then it will finish relevant setting.

Wizard mode: select the corresponding option according to your usage environment and device connection.

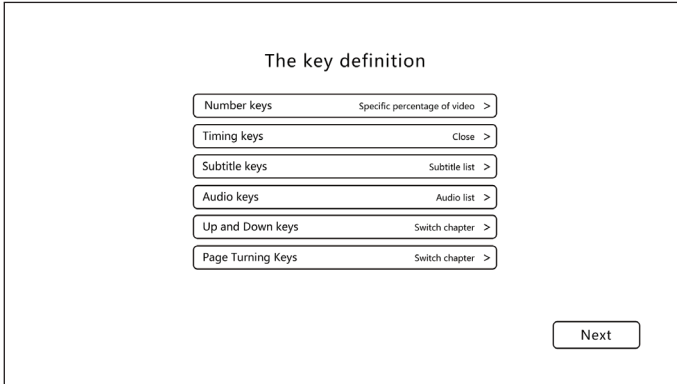


Expert mode: The audio and video output is customized by users, it is recommended for professionals.



⑤ The key definition

Define the corresponding functions for number keys, timing key, subtitle key, audio key, up and down keys and page keys on the remote control according to your usage habits.

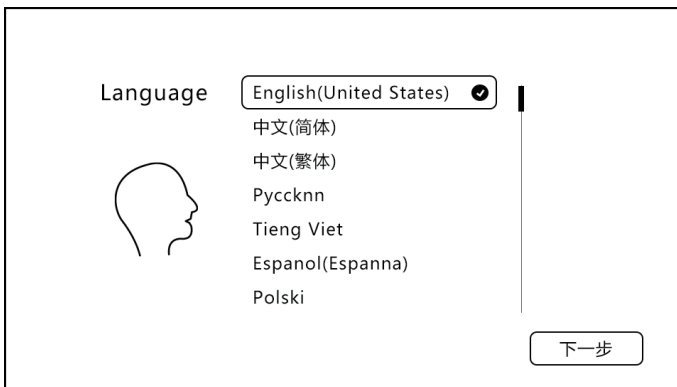


After completing settings above, please follow prompts and click "Next" to finish initial setup. Enjoy Zidoo audio visual feast!

2. Initial Setup Wizard on Small Screen

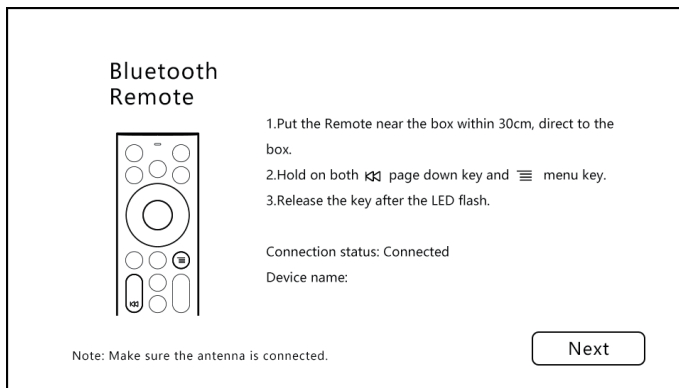
① System Language Selection

Select the system language according to your demand.



② Bluetooth Match-Up

Let remote controller be aligned with media player and press Page-Down KEY and Menu KEY at the same time until indicator light blinking. The light will be off after matching successfully.

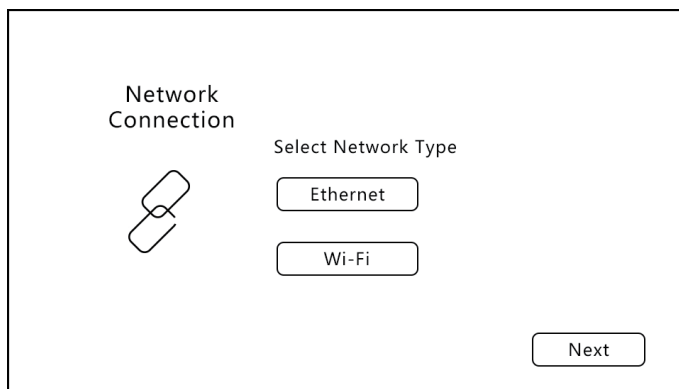


Note:

- * Make sure Bluetooth antenna is installed.
- * When no large display device like TV connects with NEO X, only OLED screen can be controlled by the remote.

③ Network Settings

Choose Ethernet or WiFi to connect the device with network quickly.

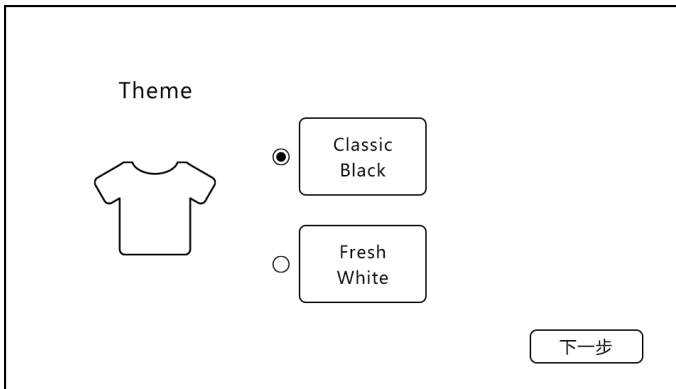


WI-FI: choose network SSID, input password and connect WIFI.

Ethernet: plug in the network cable to connect the network automatically.

④ Theme Selection

Two themes are supported, please choose the theme according to personal preference.



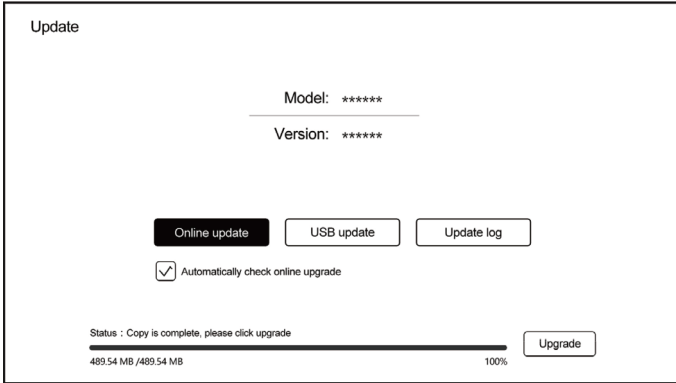
OTA Update

Zidoo will update firmware from time to time. After new firmware is released, it can be updated through the OTA to experience new functions. NEO X OTA update can be updated through large display screen or small NEO X OLED screen. Both online update and USB update are supported.

1.Update on Large Display Screen

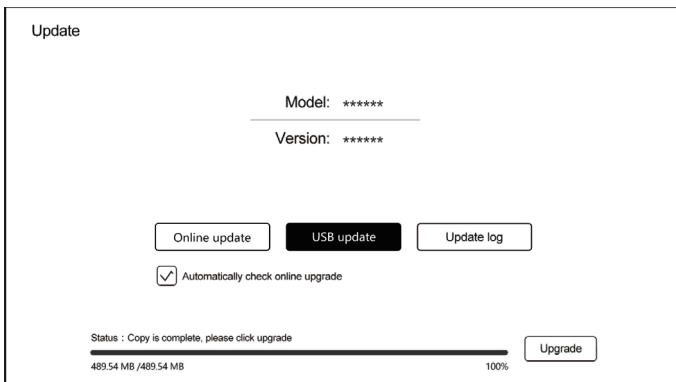
① Online Update

Click the "online update" option to obtain the latest firmware information through the network. Follow instructions to update and wait the device to restart automatically after the update is finished.



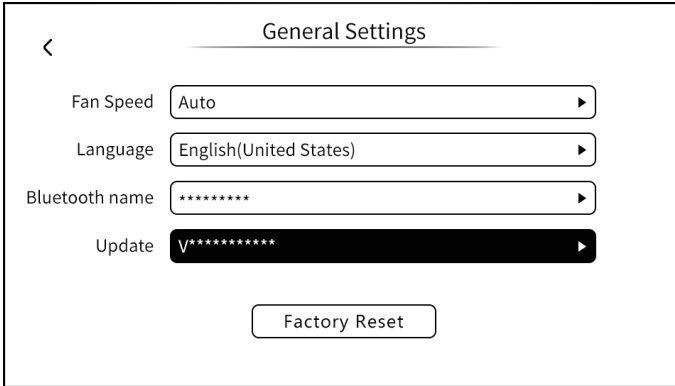
② USB Update

Download firmware from official website to a USB stick, insert the USB stick to the device, and then click "USB update" option. Follow instructions to update and wait the device to restart automatically after the update is finished.



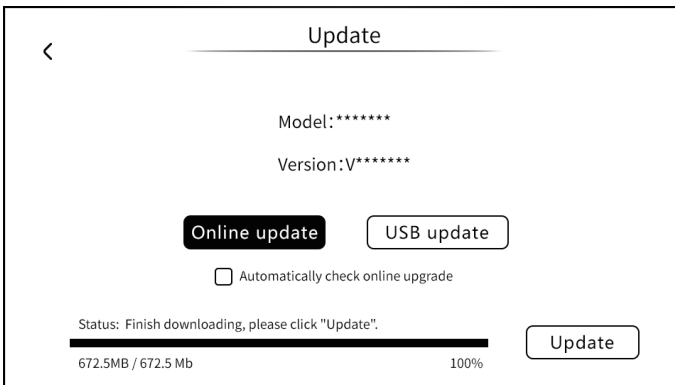
2.Update on NEO X OLED Screen

Firstly find "Settings > Generic Setting > Update " on NEO X OLED screen.



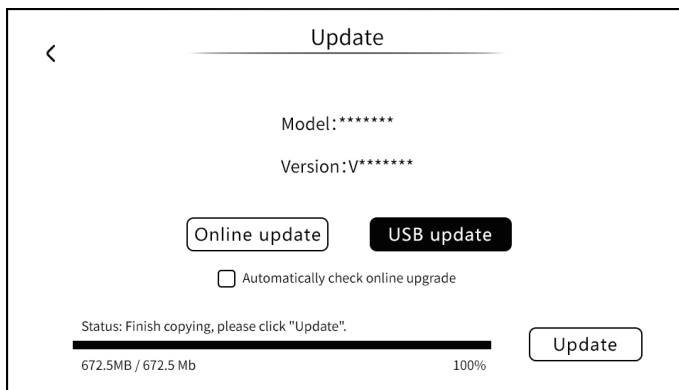
① Online Update

Click the "online update" option to obtain the latest firmware information through the network. Follow instructions to update and wait the device to restart automatically after the update is finished.



② USB Update

Download firmware from official website to a USB stick, insert the USB stick to the device, and then click "USB update" option. Follow instructions to update and wait the device to restart automatically after the update is finished.



Special Note:

In order to improve the user experience, Zidoo will update firmware from time to time. Therefore this product manual may differ from the actual setting menus of the product. Please download the latest version of product manual on Zidoo official website.

Safety Warning:

1. No water splashing or dripping, don't put objects with liquids like vases on the device.
2. The socket should be put aside the device, easy to operate and no occlusions.
3. It is a Class 1 device, there must be grounding measures inside the box when using.



* Safe using below 2000m altitude.

Guarantee

保修卡

User File

用户信息

User name 用户姓名		Sex 性别	
Address 回寄地址			
Telephone 联系电话		Zip 邮编	
Commodity name and specification 产品名称		Model NO. 型号	
Fault description 故障说明			

Guarantee Item

保修条款

- (1) One year guarantee from date of purchased. (not including fittings)
- (2) All of damage by man-made(tear open the housing,tear off the sticker,unnormally using),or losing this card,we will not guarantee.
- (1) 保修期限：本产品遵循国家三包条例，商品存在非人为损坏所引起的硬件故障，本公司将提供一年保修服务（配件除外）。
- (2) 如需寄回本公司维修，请与此保修卡一同寄回。
- (3) 一切人为因素造成的损坏（包括擅自拆机，撕毁标签，自行刷机等等），本公司将不予保修。



QUALIFIED
CERTIFICATE
合格证

CHECKER/检验员 _____

DATE/日期 _____

