

NEO X7 **16GB**
Quad Core Media Hub
for Android™

Setup Guide

Android™ is a trademark of Google Inc.

Thank you for purchasing MINIX NEO X7.

Follow this guide to setup your device.

MINIX NEO X7 is a revolutionary smart media hub based on a Quad-core ARM Cortex-A9 processor with Quad-core Mali-400MP4 GPU and the latest Android™ OS. Sign into Google Play Store to download the favorite applications and install them directly into MINIX NEO X7.

YouTube™, Internet radio and lots of other applications are all readily available on Google Play Store. Alternatively, you could also download the applications through other third-party stores or to install the .apk files directly with the preloaded ApkInstaller.

MINIX NEO X7 comes with Ethernet, Bluetooth and Wi-Fi connection; you could connect to many of your devices within the same network and share the contents amongst them, such as videos, music and photos.

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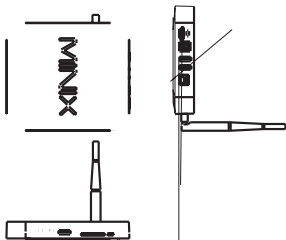
Chapter 1

Connect.

What's in the box

- MINIX NEO X7 x 1
- MINIX NEO X7 Antenna x 1
- 5V Power adapter x 1
- MINIX Remote x 1
- Micro-USB cable x 1 (connecting to a PC)
- OTG cable x 1 (extend one more USB port)
- HDMI cable x 1
- Setup guide x 1

MINIX NEO X7 at a glance



1. Power LED
2. Power button
3. Earphone jack
4. Microphone jack
5. USB port 1
6. SD/MMC card slot
7. OTG port (serves as USB port 2 also)
8. Recover button (for service and upgrade)
9. HDMI port
10. Optical audio port
11. USB 2.0 port 3
12. USB 2.0 port 4
13. Ethernet jack
14. DC 5V Power-in jack
15. Dual Band Antenna

Power LED

The LED glows when the MINIX NEO X7 is on.

Power button

To power on MINIX NEO X7, press and hold the power button for 2-3 seconds until the power LED glows. To power off MINIX NEO X7, press and hold the power button and the display will prompt out the confirmation dialogue for power off, select OK to confirm; OR hold the power button for 8 seconds to force power off, the LED will be off.

Earphone jack

Connect to an external audio output device such as earphone or speaker.

Microphone jack

Connect to a microphone for voice input.

SD/MMC card slot

Increase the storage size or read files directly from a SD/MMC card, support up to 32GB max.

OTG port

Connect the micro end of the Micro-USB cable to this port and the other end to the computer for synchronization and upgrade purpose. This port also serves as an extra USB port while used with the Micro-USB OTG cable bundled in the package.

Recover button

This button is to be used together with the OTG port when connecting to a computer for service/upgrade purpose. To upgrade manually, firstly connect the micro USB cable to a PC, then press and hold this button AND power up NEO X7 at the same time. Release this button once the PC detects NEO X7.

HDMI port

Connect MINIX NEO X7 to the HDMI port of a high-definition TV or PC monitor using an HDMI cable.

Optical audio port (S/PDIF Out)

Connect to the optical audio input of an external sound processing unit, such as an amplifier.

USB 2.0 ports

Connect an external USB device to MINIX NEO X7 such as USB flash drive, receiver of wireless keyboard and mouse, USB mouse, receiver of wireless headset...etc. (You may need connecting to 2 ports to get enough power for some external hard drives.)

Ethernet jack

Connect to the Ethernet cable for Internet access. If you need advanced setting such as PPPoE dial-up, go into the setting page at: **Settings ->More...** While connected with the Ethernet cable, MINIX NEO X7 can be used as a router and also a Wi-Fi hotspot; if you need to use the Wi-Fi hotspot feature, please make sure that the Wi-Fi feature is OFF before you enable the Wi-Fi hotspot service at:

Settings ->More...->Portable hotspot

DC 5V Power-in jack

Connect the 5V power adapter supplied in the package to this port. MINIX NEO X7 requires less than 1A to operate however we have supplied a 5V 3A adapter with consideration that you need to connect to other power-drawing external devices such as an external hard drive.

What you need

To start using MINIX NEO X7, you need the following:

High-definition TV/ PC monitor

A high-definition TV or PC monitor that can display 720p or 1080p video with at least one HDMI input.

Cable

An HDMI cable to connect MINIX NEO X7 to your TV.

Wireless network

A wired network cable or an 802.11 b/g/n, or n Wi-Fi wireless network (wireless video streaming requires 802.11g or n), your wireless network name and password.

Software and accounts

To play content (videos, photos, music) from a smartphone or PC on MINIX NEO X7, you need:

- A UPnP™/DLNA® software pre-loaded in your smartphone or PC. (e.g. **iMediaShare™**)
- A Google account to sign-in to Google Play Store to download the corresponding applications (e.g. **iMediaShare™**, **eHomeMediacenter**) necessary for streaming the content from a smartphone or PC.
- Other accounts may be required for full access to some Internet contents.

Setting up MINIX NEO X7

MINIX NEO X7 connects to your TV or PC monitor through an HDMI port that delivers both audio and video. Before you set up MINIX NEO X7, look at the ports on the side/back of your TV or PC monitor to make sure you have the right cable:

- An HDMI cable: You can connect MINIX NEO X7 to an HDTV or home theater receiver that has an HDMI port, using an HDMI cable for both video and audio.

Step 1: Connecting the cable

1. Connect one end of the HDMI cable to the HDMI port of your TV/ PC monitor.
2. Connect the other end of the cable to the HDMI port of MINIX NEO X7.

Step 2: Connecting the power

Connect the 5V power adapter supplied in the package to this port. Press and hold the power button for 2-3 seconds to power on MINIX NEO X7 and the blue power LED glows when done.

Step 3: Turn on your TV/ PC monitor and select the input

Simply turn on your TV or PC monitor and select the corresponding HDMI port connected to MINIX NEO X7.

Chapter 2

Basic Setup.

Language setup

You may choose the desired system language by the following steps:

Launcher Home Screen > Settings > Language & input > Language

The default language is English, you may choose your desired language and click to confirm.

Time zone setup

You should adjust the time zone according to your current location by the following steps:

Launcher Home Screen > Settings > Date & time > Select time zone

Choose your time zone and click to confirm.

Wi-Fi setup (basic)

Connect to your wireless network so that you could access to the Internet by the following steps:

Launcher Home Screen > Settings > Wi-Fi > ☒ Check the option “To see available networks, turn Wi-Fi on.”

Wi-Fi will turn on and automatically scan the wireless networks available, then select the wireless network that you want to connect to and confirm, key-in the password of the Wi-Fi network when the virtual keyboard prompts, finally, hit the “Connect” button.

Chapter 3

Google Play Store.

Sign-in to your Google Account

Launch the Google Play Store by the following steps:

Launcher Home Screen -> Google Play Store, hit and confirm.

To use Google Play Store you need a Google Account. If you already had a Google Account, select “Sign in” and login with your Google Account. If you don’t have a Google Account yet, select “Get a Google Account” and complete the rest of the process.

Upon completion of the sign-in process will bring you into the Google Play Store which allows you to download and install the applications you need.

Alternatively, if you cannot find the applications you need on Google Play Store because of language restriction, location restriction or some other reasons; you may look for and download the application files in the form of “.apk” from the Internet and install them through the “ApkInstaller” which is pre-loaded in the system.

Chapter 4

Control.

Different control methods

You may control your MINIX NEO X7 with the following input devices:

- 1.) RKRemoteControl App. (for Android Smartphone or tablet PC)
- 2.) Wired mouse;
- 3.) 2.4GHz USB wireless keyboard and mouse set;
- 4.) 2.4GHz USB wireless AirMouse remote control (MINIX NEO A1+, MINIX NEO A2, to be sold separately);
- 5.) MINIX infrared remote control(included).

Using your MINIX remote

Read on to learn about using your MINIX remote with MINIX NEO X7. This remote will be 100% functional when working with our customized user interface - **the GridShow launcher**

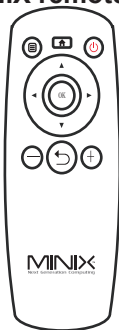
Note: The MINIX remote will still function if you are not using the GridShow launcher, however, some keys might become useless, e.g the STOP button.


To use the GridShow launcher:

Home -> Select “GridShow” launcher

Use the MINIX remote to control MINIX NEO X7 settings and navigate your content. Make sure there are no obstructions between the MINIX remote and MINIX NEO X7.


Functions of the MINIX remote



 **MENU** - Show menu options

 **HOME** - Return to Home Screen

 **POWER** - Enter/Exit sleep mode

 **BACK** - Return to previous screen/cancel action

⊖ **VOLUME DOWN** - Adjust the system volume down

⊕ **VOLUME UP** - Adjust the system volume up

- **UP** - Move upward
- **LEFT** - Move left
- **RIGHT** - Move right
- **DOWN** - Move downward

OK - To confirm a particular action, and as an “Enter” key

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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.
- Modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment under FCC rules.

FCC IDENTIFIER: WMFNEOX7



NEO X7 **16GB**
Quad Core Media Hub
for Android™

用户指南

感谢您选购MINIX NEO X7.

遵循此指南设置您的设备。

MINIX NEO X7是一款革命性的迷你电脑，基于瑞芯微RK3188四核ARM Cortex-A9处理器和四核Mali-400MP4 GPU以及最新的Android™操作系统，连接液晶电视或电脑显示器，即可成为一台功能完整的电脑、智能电视盒、高清播放机、网络机顶盒或者游戏机。登录任何安卓应用市场（如：百度应用等）即可下载喜欢的应用程序并直接安装到MINIX NEO X7.

MINIX NEO X7支持以太网，蓝牙及 Wi-Fi 连接；您可以用同一网络连接多个设备并在他们之间共享视频，音乐，图片等内容。

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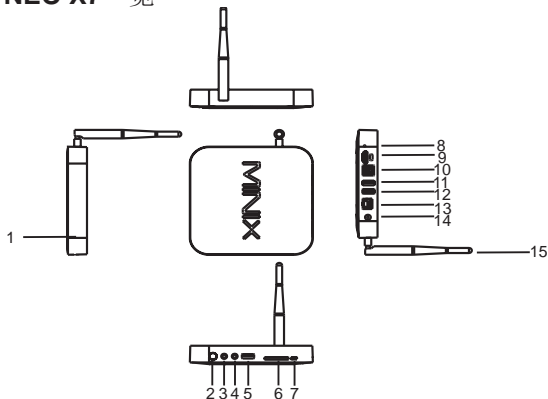
第一章

安装连接

包装及附件

- MINIX NEO X7 x 1
- MINIX NEO X7天线 x 1
- MINIX 遥控器 x 1
- 5V 电源适配器 x 1
- Micro-USB OTG 排线 x 1
- Micro-USB 数据线 x 1
- HDMI 排线 x 1
- 使用指南 x 1

MINIX NEO X7 一览



1. 电源指示灯
2. 电源键
3. 耳机接口
4. 麦克风接口
5. USB接口1
6. SD/MMC卡接口
7. OTG接口(也可作为USB接口2)
8. 复位键 (服务或更新时使用)
9. HDMI 接口
10. 音频光纤接口
11. USB 2.0 接口 3
12. USB 2.0 接口 4
13. 以太网接口
14. DC 5V充电接口
15. 双频天线

电源指示灯

MINIX NEO X7 开机状态下指示灯亮。

电源键

MINIX NEO X7开机时按住电源键保持**2-3**秒直到电源指示灯亮起。关机时按住电源键，显示器会提示出确认关闭对话框，选择**OK**确认关闭，或者长按电源键**8**秒强制关机，电源指示灯灭掉。

耳机接口

连接到一个外部音频输出设备如耳机或喇叭。

麦克风接口

连接麦克风输出声音。

SD/MMC 卡接口

可增大存储容量或直接从 **SD/MMC** 卡读取文件，支持扩充到的最大容量为**32GB**。

OTG 接口

Micro-USB线较小的一端连接此接口，另一端连接电脑用于同步数据或升级。当与包装中的 **Micro-USB OTG**线配合使用时，此接口也可作为额外的**USB**接口。

复位键

当连接电脑服务或升级时，此按键与**OTG**接口配合使用。在连接到电脑**USB**接口之前按住此按键并保持，当**MINIX NEO X7**启动时释放按键。

HDMI 接口

用一根**HDMI** 线连接 **MINIX NEO X7**到高清电视或电脑显示器的**HDMI**接口。

音频光纤接口

连接到外部声音处理单元(如扬声器) 的音频光纤输入接口。

USB 2.0 接口

连接外部**USB**设备，如**USB**闪存驱动器、无线键盘鼠标接收器、**USB**鼠标、无线耳机接收器等到**MINIX NEO X7**。

以太网接口

连接网线接入互联网。如果您想做进一步设置如**PPPoE** 拨号，请进入设置页面：

设置→ 更多…

当连接网线时，**MINIX NEO X7**可作为路由器和**Wi-Fi**接入点使用；如果您需要使用**Wi-Fi**接入点功能，请确保在您通过：设置→ 更多…

启动**Wi-Fi**接入点服务之前，**Wi-Fi**功能是关闭状态。

DC 5V 充电接口

将包装内提供的**5V** 电源适配器连接到此端口。**MINIX NEO X7**操作所需电流低于1A, 但是考虑到您需要连接其他牵引功率的外部设备（如外接硬盘），故我们提供一个**5V 3A**的电源适配器。

您需要的

要使用MINIX NEO X7, 以下是您需要准备的:

高清电视/电脑显示器

一个高清电视或电脑显示器, 可以显示720p 或1080p 视频和至少一个HDMI输入接口。

排线

一根 HDMI排线用于MINIX NEO X7与电视连接。

无线网络

一个 802.11 b/g/n, 或者 n Wi-Fi 无线网络(无线视频流需要802.11g or n)
您的无线网络名称和密码。

软件和账户

在MINIX NEO X7上应用智能手机或电脑上的内容（视频，图片，音乐），您需要：

- 一个UPnP™/DLNA® 软件预装在您的智能手机或电脑上。
- 登录某个安卓应用市场下载您想使用的应用程序或游戏。
- 全面访问一些网站内容，可能还需要其他账户。

安装连接 MINIX NEO X7

通过HDMI端口将MINIX NEO X7与电视或电脑显示器相连接，传输音频、视频。在设置 MINIX NEO X7之前，查看您的电视或电脑显示器侧面/背面的端口，确保您有合适的排线：

- **HDMI 排线:** 用一根HDMI排线将MINIX NEO X7与有HDMI端口的高清电视或家庭影院接收器相连接传输视频或音频。

步骤1：连接排线

1. 将HDMI排线的一端与电视/电脑显示器的HDMI端口相连接。
2. 将排线的另一端与MINIX NEO X7的HDMI端口相连接。

步骤2：连接电源

将包装中提供的**5V**电源适配器与此端口相连，按住电源键**2-3**秒，当电源指示灯变亮时MINIX NEO X7开机完成。

步骤3：打开电视/电脑显示器并选择输入

打开电视或电脑显示器，选择对应的HDMI端口连接到MINIX NEO X7.

第二章

基础设置

语言设置

您可以通过以下步骤选择所需的系统语言：

开启主屏幕> 设置> 语言&输入>语言

默认语言是英语, 您可以选择您想要的语言并确认。

时区设置

您可以根据您的当前位置通过以下步骤调整时区：

开启主屏幕> 设置> 日期 & 时间 > 选择时区

选择您的时区并确认。

无线网络设置（基础）

通过以下步骤连接到无线网络, 您就可以访问互联网：

开启主屏幕 > 设置 > Wi-Fi > ☒ 选中该选项 “发现可用的网络开启Wi-Fi ”

wi - fi将打开并自动扫描可用的无线网络, 然后选择你想要的无线网络连接并确认, 当虚拟键盘提示时输入**wi - fi**密码, 最后, 点击“连接”按钮。

第三章

安卓应用市场

遵循以下步骤安装应用程序或游戏：

登录浏览器

搜索“安卓市场”

下载、安装您喜欢的“安卓市场”

打开“安卓市场”

搜索您想要安装的应用程序或游戏

下载并安装应用程序或游戏

打开并使用应用程序

（注：**MINIX**推荐使用正版软件）

第四章

操控

不同的操控方法

您可以通过以下输入设备操控 MINIX NEO X7:

- 1.) 下载**RKRemoteControl App**,将其安装在智能手机或平板上, 第一次使用这个功能, 需要打开X7上的**eHomeMediaCenter**软件;
- 2.) 有线鼠标;
- 3.) **2.4GHz USB 无线键盘和鼠标设备**;
- 4.) **MINIX 红外遥控 (包含)**;
- 5.) **2.4GHz USB 无线飞鼠**, 可以购买**MINIX NEO A1+**和**MINIX NEO A2**. 在开机之前, 请将飞鼠的USB接头插在X7上。

使用MINIX遥控器

请继续阅读, 学习使用**MINIX遥控器**和**MINIX NEO X7**. 当使用我们定制的用户界面-**GridShow**桌面启动器时, 遥控功能将达到**100%**.

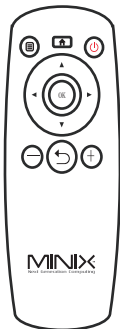
注意: 如果您没有使用**GridShow**桌面启动器**MINIX**遥控器仍然可以发挥功能, 但是一些按键可能无作用, 例如**STOP**按键。

使用GridShow 桌面启动器:

主页 → 选择“**GridShow**”桌面启动器

使用**MINIX**遥控器控制**MINIX NEO X7**的设置并操控内容。确保**MINIX**遥控器与**MINIX NEO X7**之间没有障碍物。

MINIX遥控器功能



☰ 菜单 - 为当前的屏幕或运行的应用程序调出选项菜单

🏠 主页 - 回到主屏幕（选择需要的桌面启动器）

🔌 电源 - 使MINIX NEO X7开启或进入睡眠模式

↶ 返回 - 返回上一界面或取消一个操作

OK - 确认一个特定的操作，相当于“**Enter**”按键

▸ 上 - 向上移动

▾ 下 - 向下移动

◀ 左 - 向左移动

▶ 右 - 向右移动

⊖ 音量减小 - 系统音量调小

⊕ 音量增大 - 系统音量调大

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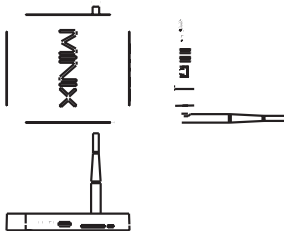
Google, Android, Gmail, Google Maps, Chrome, Google Play, YouTube, Google+, 和一些其他商标均为谷歌公司的财产。谷歌商标的列表可以在 <http://www.google.com/permissions/guidelines.html>中找到。MINIX和MINIX的标识是MINIX科技的商标。所有其他标志或商标均为它们各自所有者的财产。

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MINIX NEO X7



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 ÄÄÄÄÜ[!cÄGD

ÎÈÄÜ^&[Ç^!ÄDÄYä^ä^!@^!•c^||~}••ÈÄ
 ÄÄÄÄæ•c^ÄÇ->!ÄÜ^!Çä^ÄBÄW]*!æä^D
 JÈÄPÖTÖÄÇE}•&@|~••
 FÈÈÄU]cä•&@^!ÁÇ~ää[ÁÇ~•&@|~••
 FFÈÄWÙÓÁGÈÈÄÇE}•&@|~••ÄH
 FGÈÄWÙÓÁGÈÈÄÇE}•&@|~••ÄI
 FHÈÄÖc@^!}^cÄÇE}•&@|~••
 FIÈÄÖä}•æ}*ÄB^c:c^ä|æä^ÄÍX

15. Dual Band Antenna

Öä!SÖÖ!^~&@c^c!ä^ä!^ä} *^•&@æ|c^c^ { ÄTQBPQYÄPÖUÄYÄT

W { Ää^ } ÄTQBPQYÄPÖUÄYÄTÄä } : ~•&@æ|c^ } Ää!>&\^ } ÄÜä^Ä>!ÄGEHÄÜ^ \ ~ } ä^ } Ää^ } Ä
ÖQBPCEWÜÄÜ&@æ|c^!Ää!Ää!ÄÄÜ [~!ÄSÖÖ!^~&@c^cÄW { Ää^ } ÄTQBPQYÄPÖUÄYÄT
æ~• : ~•&@æ|c^ } Ää!>&\^ } ÄÜä^Ää^ } ÄÖQBPCEWÜÄÜ&@æ|c^!Ää!ÄÜä^Ä>ä^!Ääæ•Ä
Öä!] |æ~Äæ~*^~ [!ä^!cÄ ^!ä^ } Ää!Ä•Ä : ~Ää^•cêcä*^ } ÄÖÄ^•cêcä*^ } ÄÜä^Ää!Ä•Ä } ~ } Ä
UÖÖÜÄ@æ|c^ } ÄÜä^Ää^ } ÄÖQBPCEWÜÄÜ&@æ|c^!Ä>!ÄTÄÜ^ \ ~ } ä^ } Ä*^ä!>&\cÄ~ { Ääæ•Ä
CE~••&@æ|c^ } Ä : ~Ä! : ~ä } *^ } Ää!Ää!SÖÖ!^!|ä!•&@c

X^!ä!ä } ä^ } ÄÜä^Ää } Äc^! } ^•Ä~ä! [*^!êcÄÄ : ÉÖÉÄS [] ~@4!^!Ä [ä^!ÄSæ~c•] !^&@^!É

X^!ä!ä } ä^ } ÄÜä^Ää } ÄTä! [- [] |æ } Ää!Ä•^ { !Öä } *æ } *ÄÄ : ÉÖÉÄ>!ÄÜ] !æ&@^ä } *æä^É

Ö! : ~äc^! } ÄÜä^Ää } ÄÜ] ^ä&@^!] |æ : Ä [ä^!Ä*!^ä~^ } ÄÜä^Äæ~ÄÖæc^ä } Äæ~Ä^ä } ^!Ä
ÜÖÖT T ÖÄÜ] ^ä&@^! |æ!c^Ä : ~ÄÄ~ } c^!•c>c : cÄ ^!ä^ } ÄSæ!c^ } Ää!Ä { æcÄHGÖÖÉ

X^!āā}ā^}ĀŪā^Āā^}ĀTā&![ĒWŪÓĀŪc^&\^!Āā^•ĀTā&![ĒWŪÓĀSæā^]•Ā{ācĀā^ {Ā
 UVŌĀŪ[!cĀā^•ĀPŌUĀYĪĀ~}āāæ•Āæ}ā^!^ĀŌ}ā^Ā{ācĀā^ {ĀWŪÓĀĈE}•&@|~••Ā
 Q@!^•ĀŌ[{]~c^!•Ā->!Āāā^ĀŪ~}&@! []ā•æcā []Ā~}āĀ:~ {ĀZ, ^&\Āç []ĀW} *!æā^•ĒĀ
 Ōā^•^!ĀŪ[!cĀāā^}cĀæ~&@Āæ|•Ā ^āc^!^!ĀWŪÓĀŪ[!cĀā}ĀX^!āā}ā~} *Ā {ācĀā^ {Ā
 {āc^!ĵā^~!c^}ĀTā&![ĒWŪÓĀUVŌĀSæā^Ē

Ōā^•^!ĀVæ•cĀĀ, ā!āĀ:~•æ { { ^}Ā {ācĀā^ {ĀUVŌĀŪ[!cĀ->!ĀŪ!çā^&^ĒW} *!æā^Ē
 : ^&\^Āā^}~c:cĒĀŪ&@æ|c^}ĀŪāĀā^}Ā>ā^!Āā^}ĀUVŌĀŪ[!cĀ {ācĀā^ {ĀŪŌĀ
 ç^!ā~}ā^}^}ĀPŌUĀYĪĀā}ĒĀ, ē@!^}āĀŪāĀā^ĀĀŪŌŌUXŌŪĀVæ•cĀ^Ā^ā!>&\cĀ
 @æ|c^}ĒĀā•Āā^!ĀPŌUĀYĪĀ•cæ!c^cĒ

X^!āā}ā^}ĀŪā^Āā^}ĀTQBPQYĀPŌUĀYĪĀ{ācĀā^ {ĀPŌTQĀŪ[!cĀā}^•ĀPŌĒ-ē@ā^*^}Ā
 VXAŌ^!ēc•Ā[ā^!ĀT []āc [!•Ā {ācc^!•Āā}^•ĀPŌTQĀSæā^|•Ē

X^!āā}ā^}ĀŪā^Āā^•^!ĀĈE~••æ} *Ā {ācĀā^ {Ā []cā•&@^}ĀĈE~āā[ĀŌā} *æ} *Āā}^•Ā
 ^çc^!}^}ĀYāā^! *æā^•^!ēc^•ĒĀ:ĒŌĒĀā}^•ĀX^!•cē!\^!•Ē

X^!āā}ā^}ĀŪā^Ā^çc^!}^ĀWŪÓĀŌ^!ēcĀĀ {ācĀā^ {ĀTQBPQYĀPŌUĀYĪĒĀ, ā^ĀWŪÓĒĀ
 Ū]^ā&@^!•cā&\•ĒĀŌ {]-ē} *^!Ā->!Āāā^|| [•^ĀVæ•cæc~!Ā~}āĀTæ~•ĒWŪÓĀTæ~•ĒĀ
 Ō {]-ē} *^!Āç []Āāā^|| [•^}ĀS []-@4!^!}ĒĀc&ĒĒĒ

CE|c^|}æcāçĀ:~{ĀYāĒØāACE}•&@|~••Ā\4}}^}ĀŪāĀāā^•^}ĀŠCEĤĀCE}•&@|~••Ā{ācĀ
 Q@!^{\ĀĤ^c:~^|\Ā}^ĀŠCEĤĒSæā^Ā~>Āā^}AZ~*æ}*Ā:~{ĀQ}c^|}^cĀç^!āā}ā^}ĒĀ
 Ø>ĀĀ!~^āc^!c^ĀŌā}•c^||~}*^}ĒĀ,āĀ^c,æĀŪŪŪ[ŌĀŌā},æ@|ĒĀ}æçā*ā^!^}ĀŪāĀ:~Ā
 ā^}ĀŌā}•c^||~}*^}ĀāĀĀ
 Yē@!^}āĀāĀĀTQĤQYĀĤŌUĀY7Ā}^ĀŠCEĤĒSæā^Ā{ācĀā^{\ĀQ}c^|}^cĀç^!ā~}ā^}Ā
 ā•cĒĀ\æ}}Āā^!ĀĤŌUĀY7Āæ|ĀŪ[~c^!ā~}āĀæ|ĀYāĒØāĀP[c•][cĀ*^}~c:cĀ,^!ā^}ĒĀ
 Y^}}ĀŪāĀāāĀYāĒØāĀP[c•][cĀŌā*^}•&@æ-cĀ}~c:^}Ā{4&c^}ĒĀ{~••Āā^!ĀYāĒØāĀ
 Ō{]-æ}*Āā^•ĀĤŌUĀY7ĀĒWŪŌŌŪŌPĒŠVŌVĀ•Ā}ĒĀā^ç[!ĀŪāĀā^}ĀYāĒØāĀ
 P[c•][cĀāāĀ~^}Āā&c^}ĒĀ

X^!āā}ā^}ĀŪāĀāæ•Āā{ĀŠā~^!~{-æ}*Ā^}c@æ|c^|}ĀÍXĀĤ^c:c^āĀ{ācĀāā^•^{\Ā
 Ōā}*æ}*ĒĀŌ^!ĀTQĤQYĀĤŌUĀY7Āā^}4cā*cĀ•^!ā•cĀ,^}ā*^!Āæ|ĀFCEĒĀā^}}[&@Ā
 @æā^}Ā,āĀĀĀ}Āāā•ĀHCEĀæ~*^!^*c^•ĀÍĀX[|cĀĤ^c:c^āĀāā^*~>*cĒĀ~{Āæ~&@Ā
 ^çc^!}Ā^c![[@~}*Āā*ĀŌ^!ēcĒĒ,āĀ:ĒŌĒĀĀ^c|]æcc^}ĒĀ{ācĀ*^}>*^}āĀŪ[,^!Ā
 :~cĀç^!•[!^*^}Ē

W { áâ } Á T Q P Q Y Á Þ Ò U Á Y 7 Á : ~ Á â ^ } ~ c : ^ } É á ! æ ~ & @ ^ } Á Ü â ^ Ø [| ^ ^ } á ^ • K

Ò â } Á P Ö È - é @ â * ^ • Á V X Á Õ Á ! é c Á [á ^ ! Á Ú Ô Á T [] æ [! É Á , ^ ! & @ ^ • Á ! G €] Á [á ^ ! Á F € ! €] Á X á â Á [Á , á ^ á ^ ! * ^ á ^ } Á \ æ } } Á { á c Á á ^ } ^ { Á ! á ^ } Á P Ö T Q Ò â } * æ } * È

Ò â } Á P Ö T Q Á S æ à ^ | É Á ~ { á â ^ } Á T Q P Q Y Á Þ Ò U Á Y 7 Á { á c Á Q @ ! ^ { Á V X Á : ~ á ^ ! á â } á ^ } È

Ò â } Á Þ ^ c : , ^ ! \ \ æ à ^ | æ | • X Á ! á â } á ~ } * Á : ~ Á Q @ ! ^ { Á Ü [~ c ^ ! Á [á ^ ! Á á } Á ! € G È F F æ É á É Á * É Á } Á Y á È Ø á Á Þ ^ c : , ^ ! \ Á Ç Y á ! ^ | ^ • • Á X á á ^ [Á Ü c ! ^ æ { á } * á â ^ } 4 c á * c Á ! € G È F F Á * Á [á ^ ! Á } D É Á á ^ } Á Þ æ { ^ } Á ~ } á á æ • Á Ü æ • • , [! c Á Q @ ! ^ • Á Y Š È Þ • È

W { Á Q } @ æ | c ^ Á Ç X á á ^ [• É Á Ø [c [• É Á T ~ • á \ D Á Ç { } Á Á â } ^ { Á Ú { æ ! c } @ [] ^ Á [á ^ ! Á Ú Ô Á á ^ á ^ ! : ~ * ^ á ^ } É á ! æ ~ & @ ^ } Á Ü â ^ K
É Á Q } • c æ | á ^ ! c ^ Á W U } ^ Ú T Þ Ö Š Þ È Á Ú [- c , æ ! ^ á } • c æ | á ^ ! c æ ~ Á Ü { æ ! c } @ [] ^ Á [á ^ ! Á Ú Ô É Á Ö á } ^ } Á Ö [[* | ^ Á È & & [~ } c Á > ! á á ^ Á È } { ^ | á ~ } * á { Á Ö [[* | ^ Á Ü | æ ~ Á Ü c [! ^ É Á ~ { Á Á á á ^ Á } • } ! ^ & @ ^ } á ^ } Á È]] • Á Q ^ ! ~ } c ^ ! : ~ | æ á ^ } Á Ç : É Ö È F T Á á á æ Á Ü @ æ ! ^ É Á Á Á P [{ ^ T Á á á æ Ö ^ } c ^ ! D É Á á Á > ! á á æ • Á Ü c ! ^ æ { á } * Á á ^ Á Q } @ æ | c • á Ç { } Á Á Ü { æ ! c } @ [] ^ Á Ü Á Ü Ô á ^ } 4 c á * c Á , ^ ! á ^ } È É Á Ö * - É Á , ^ ! á ^ } Á , ^ á c ^ ! ^ Á Þ ^ c : ^ ! \ [] c ^ } Á > ! á á ^ } á Ç [| ^ } / Z ~ * æ } * Á : ~ Á , ^ á c ^ ! ^ Á } Á Á Y Á á á } @ æ | c ^ } á á ^ } 4 c á * c È

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Ö^!Á T Q B Q Y Á Þ Ö U Á Y 7 Á , á ! á > á ^ ! á á ^ } Á Þ Ö T Q Á Ú [! c á { á c á Q @ ! ^ { Á Þ Ö T Q E - é @ á * ^ } Á V X Á
[á ^ ! Á Ú Ö Á T [] á c [! á c ^ ! á ~ } á ^ } É Á , [á ^ á • [, [@ ! Á Ö á ! á æ | • á æ ~ & @ Á V [] Á { á c c ^ ! • Á ^ á } ^ • Á
Þ Ö T Q Á S æ à ^ ! • Á > á ^ ! c ! æ * ^ } Á , ^ ! á á ^ } É Á Ö ^ c [! Á Ú á ^ Á á ^ } Á T Q B Q Y Á Þ Ö U Á Y 7 Á
á ~ } ! á & @ c ^ } É Á ! ! > ^ } Á Ú á ^ Á á c c ^ Á á á ^ Á • ^ á c ! á & @ ^ } Þ @ á } c ^ ! ^ } Á C E } • & @ ! > • • Á Á Q @ ! ^ • Á V X Á Þ Á
Ú Ö Á T [] á c [! • É Á ~ { Á • á & @ ^ ! Á : ~ Á * ^ @ ^ } É Á á æ • • Á Ú á ^ Á á æ • Á ! á & @ c á * ^ ! S æ à ^ ! Á c æ à ^ } K

É Á Þ Ö T Q Á S æ à ^ ! K Á Ú á ^ Á \ 4 } } ^ } á á ^ } Á T Q B Q Y Á Þ Ö U Á Y 7 Á á æ { á c á { á c Á Á
Á ^ á } ^ { Á Þ Ö V X Á Ö ^ ! é c Á [á ^ ! Á Þ [{ ^ Á V @ ^ æ c ^ ! Á Ú á & ^ á c ^ ! { á c Á Þ Ö T Q Á
Á C E } • & @ ! ~ • • á c ^ ! á á } á ^ } É Á á æ • Á Þ Ö T Q Á S æ à ^ ! > á ^ ! c ! é * c á [, [@ ! Á
Á Á Ö á ! á æ | • á æ ~ & @ Á V [] É Á

Á F É Á X ^ ! á á } á ^ } Á Ú á ^ Á á } Á Ö } á ^ ! á á ^ • Á Þ Ö T Q Á S æ à ^ ! • Á { á c á á ^ { Á Þ Ö T Q Á C E } • & @ ! ~ • • Á
Á Á Á Á Á Q @ ! ^ • Á V X Á Þ Ú Ö Á T [] á c [! • É
Á G É Á X ^ ! á á } á ^ } Á Ú á ^ Á á æ • á æ } á ^ ! Á Ö } á ^ ! á á ^ • Á Þ Ö T Q Á S æ à ^ ! • Á { á c á á ^ { Á Þ Ö T Q Á
Á Á Á Á Á C E } • & @ ! ~ • • Á á ^ Á T Q B Q Y Á Þ Ö U Á Y 7 É

X ^ ! á á } á ^ } Á Ú á ^ Á á æ • Á { á c * ^ ! á ^ ^ ! c ^ Á ! X Á Þ ^ c : c ^ á ! Á { á c á á ^ { Á T Q B Q Y Á Þ Ö U Á Y 7 É Á
Ö ! > & \ ^ } Á Ú á ^ Á > ! Á G É Á Á Ú á ~ } á ^ } á á ^ } Á Ö Q Þ Ð C E W Á Ú á & @ æ | c ^ ! É Á { Á á ^ } Á T Q B Q Y Á Þ Ö U Á
Y 7 Á : ~ Á • c æ ! c ^ } É Á á á • á á á ^ Á á æ ~ ^ Á Ú [, ^ ! Á Ö Ö Á ^ ~ & @ c ^ C É É

Ú & @ æ | c ^ } Á Ú á ^ Á ^ á } - æ & @ Á Q @ ! Á V X Á Ö ^ ! é c Á [á ^ ! Á Q @ ! ^ } Á Ú Ö Á T [] á c [! á æ } Á ~ } á Á , é @ ! ^ } Á
Ú á ^ Á á ^ } Á ^ } c [] ^ á & @ ^ } á ^ } Á Þ Ö T Q Á Ú [! c á æ ~ • É Á æ } Á á á { Á Q @ ! Á T Q B Q Y Á Þ Ö U Á Y 7 Á
æ } * ^ • & @ ! [] • • ^ } á • C É Á

Ùà^Á \4}}^}Á äæ•Á Óc!âà••^•c^ { Á æ~^Á äâ^Á *^, >}•&c^Á Û^•c^ { •}!æ&@^Á
^â}•c^||^}Á, â^Á [|*cÁ

Öâ^Áç [!^â} *^•c^||c^ÁÛ]!æ&@^Áç^ÁÒ} *|â•&@ÉÁ@â^Á!Á\4}}^}Á Ûâ^Áäâ^Á*^, >}•&c^Á
Û]!æ&@^Áæ~•, ê@|^}Á~}ââ^Ácêç*^}E
Á

Ûc^||^}Á Ûâ^Áââ^ÁZ^âc: [}^ÁQ@!^•ÁÛcæ}â [!c^Áâ}Á, â^Á [|*cK

Y ê@|^}Á Ûâ^ÁQ@!^Á^}c•]!^&@^}â^ÁZ^âc: [}^Áæ~•É

X^!ââ}â^}Á Ûâ^ÁQ@!^}Á TQpQYÁpÔUÁY7Á { äcÁQ@!^ { Á Y ŠCEpÁ->!Áââ^ÁX^!ââ}â~} *Á
{ äcÁâ^ { ÁQ}c^!}^cÁ, â^Á [|*cK

☑
Ö^!Á TQpQYÁ pÔUÁ Y7Á •&æ}}c^ }~}Á äâ^Á ç^!->âæ!^}Á Y ŠCEpÁ p^c: , ^!\^ÉÁ
Y ê@|^}Á Ûâ^Áäæ•Á^}c•]!^&@^}â^Á p^c: , ^!\^Áæ~•Á~}ââ^Ácêç*^}Á Ûâ^Á äâ^Á
Ç^•, æ@ÉÁ*^â^}Á Ûâ^Áäæ•ÁÛæ••, [!cÁ->!ÁQ@!Á Y ŠCEpÁ p^c: , ^!\^Áâ}ÉÁ, ^} }Áââ^Á
çâ!c~^||^ÁVæ•cæç!Á!^•&@^â}cÉÁÇä•&@|â^!^}ââ^Ácêç*^}Á Ûâ^Á äâ^Á Û&@æ|c|ê&@^Á
sX^!ââ}â^}%É

CE\cāçā^!^}ÁÜâ^â^}ÁZ~*æ}*Á:~{ÁÕ[[*|^ÁÚ|æ^ÁÜc[!^Á,â^Á[|^cK

W{Áâ^}ÁÕ[[*|^ÁÚ|æ^ÁÜc[!^Á}~c:^}Á:~Á\4}}^}ÉÄâ:æ~&@^}ÁÜâ^Áâ^}ÁÕ[[*|^Á
 Þ~c:~!|\{ }c[ÉÄY^}}ÁÜâ^Áâ^!^âc^Áâ^}^}ÁÕ[[*|^Á&&[~}cÁ@æâ^}ÉÄ,ê@|^}ÁÜâ^Á
 %CE}{^!â^}%Á~}âÁ[[**^}ÁÜâ^Á•â&@{âcÁQ|^!^}ÁZ~*æ}*•âæc^}Áâ^}ÉÄY^}}ÁÜâ^Á
 }[&@^!^â}ÁÕ[[*|^ÁÞ~c:~!|\{ }c[Á @æâ^}ÉÄ,ê@|^}ÁÜâ^Á%Õ[[*|^ÁS[]c[Á
 â^}!â&c^}%Á~}âÁ[[*|^}ÁÜâ^Áâ^}ÁCE},^â•~}*^}É

Þæ&@Á^!~[[*|^â&@!^ÁCE}{^!â~}*Á,^!â^}ÁÜâ^Á:~{ÁÕ[[*|^ÁÚ|æ^ÁÜc[!^Á,^âc^!^Á
 ^!^âc^cÉÄ,[ÁÜâ^Áââ^Á^,>}•&c^}ÁCE]]•Áæ~••~&@^}Á~}âÁâ}•cæ||â^!^}Á
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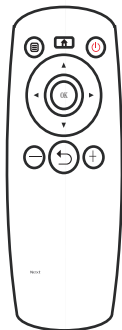
Øæ||•ÁÜâ^Áââ^Á*^,>}•&c^ÁCE]]Ä{ÁÕ[[*|^ÁÚ|æ^ÁÜc[!^Á}â&c^!^}â^}ÉÄ\4}}^}Á
 Üâ^Áæ|^!}æcāçÁæ~&@Á%Éæ]\%ÁCE]]•Áæ~•Áâ^}ÁQ{c^!}^cÁ|^!~}c^!|æâ^}Á~}âÁ{âcÁ
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Ûä^Ä \4}^}Ä Q@!^}Ä T QPQYÄ ÞÖUÄ Y7Ä { äcÄ -[|^}ä^}Ä Öä} *æä^!|ëc^}Ä
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 FÉÄÜSÜ^ { [c^Ô []ci []|CE]Ä->|CE} ä! [äÄÜ { æ!c]@ []^Ä [ä^!ÄVæä|cÄÜÔD
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 ÄÄÄÄÄ T QPQYÄ ÞÖUÄEF+ÉÄ T QPQYÄ ÞÖUÄGEÄ•^} æ!æc^!|@ê|c|ä&@D
 ÍÉÄ T QPQYÄ }~!æ! [cÄØ^!} ä^ää^} ~ } *Äc, ä!äÄ { äc^!|ä^!|cD

Öä^Ä { äc^!|ä^!|c^!ÄØ^!} ä^ää^} ~ } *Äæ!ä^äc^cÄ] ^!~^!cÄ { äcÄ^ } •^!|!|æ } *^} æ••c^}Ä
 Ö^ää^} ~ } *• [ä^!-|ê&@^ Ä: •æ { { ^}ÉÄ
 CE} { ÉKÄ Öä^Ä T QPQYÄ Ø^!} ä^ää^} ~ } *Ä ~ ~ \cä [} ä^!cÄ æ ^&@ÉÄ ^ } }Ä Ûä^Ä ä^}Ä
 Ö!äÄÜ@ [^Äæ ~ } &@^!Ä} ä&@cÄä^} ~ c: ^}ÉÄæ } Ä•ä} ä!æ||^!ää} *•Ää} ä^!ÄVæ•c^}Ä { äcÄ
 \ä^} ^!ÄØ^} \cä [} Ä^!|^*cÄ: ÉÖÉÄäÄÄVUÜÄVæ•c^É

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Þ^c: ^}Ä Ûä^ÄQ@!^Ä T QPQYÄØ^!} ä^ää^} ~ } *ÉÄ^ { ÄÖä} •c^|| ~ } *^} ÄÇ [!: ~ } ^@ { ^}Ä
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 Ö {]-æ } *Ä: , ä&@^}ÄØ^!} ä^ää^} ~ } *Ä^} äÄ T QPQYÄ ÞÖUÄY7Ä^!^ä} c!ê&@cä^}É



ÁĒÁĈ~!~^}Áâ^•ÁU]cā[]•{^}>•Áâ^•Áæ\c~^||^}ÁÛ&!^^}•Á[â^!Á
â^!Áæ~^}â^}ÁĈ]]

ÁĒÁZ~!>Á:~{ÁP[{^ÁÛ&!^^}Á{âĈĈ~•,æ@|Áâ^•ÁŠæ~}&@^!•

ÁĒÁPâ^!{âĈ,â!â!â^!ÁÛ||^}ÁT[â^Û&@|æ~{[â~•Áâ^•ÁTQÞQÝÁ
ÞÒUÁÝ7Áæ\cāĈ!cā:~ÉÁâ^æ\cāĈ!c

ÁĒÁZ~!>Á:~{ÁĈ[!â*^}Áæ\cāĈ^}ÁÛ
ĈĈ\cāĈâĈcā

⊖

⊕

^ . ÁĚÁǮæ&@Á[à^}Áà^,^*^}Á

.^ . . . ÁĚÁǮæ&@Á|ä}}\•Áà^,^*^}Á

‡ . . . ÁĚÁǮæ&@Á!^&@c•Áà^,^*^}Á

‡ . . . ÁĚÁǮæ&@Á~}c^}Áà^,^*^}Á

. . . ÁĚÁÓ^•cêcä*^}Á^ä}^•ÁÖäæ|[*•ĚÁ~}äÁsÒ}c^!ĐÒä}*æà^%ÁVæ•c^

Ô[]^îâ* @cĀî ĀGEFHĀT QĬPQYĀV^&@ĒĀCE||^ĀÜ^&c^Ĥç[!à^@æ|c^}ĒĀ

S^ā}Ā V^ā|Ā āā^••Ā Pæ}āā~&@•ĒĀ ^ā}•&@|ĵā i|ĵ&@Ā āā!Ā āæ!ā}Ā ā^•&@!ā^ā^}^}Ā
Ū! [ā~\c^Ā~}āĀŪ[-c, æ!^ĒĀāæ!-Āā}Āā!^*^}āā}^!ĀØ! [{ Ā [ā^!Ā { ācāā!^*^}ā, ^!&@^}Ā
Tācc^|}Ā ç^!Ā!-ē|cā~cĒĀ >à^!c!æ^*^}ĒĀ >à^!•&@!ā^ā^}ĒĀ ā}Ā ^ā}^ { Ā Ōæc^}Ē
æā-!æ^*^••c^Ā { Ā^*^•}^ā&@^!cĀ [ā^!Ā}Ā!^*^}āā}^ĀŪ!|æ&@^!>à^!•^c: cĀ, ^!ā^}ĒĀ
[@]^Āāā!Āæ~•ā!> & \ |ĵ&@^!•&@!ĵā-c|ĵ&@^!ĒĀ^}^@ { ā~ }^*Āç[]Ā Tā}āçĒĀæ~ i^!Āā~!&@Ā
ā^}Ā Sē~^!Ā: ~ { ĀZ, ^&Āā!Ā Ōæc^}•&@^!~ }^ĒĀ Ōā^•Ā S|æ~•^!Ā~ā|cĀ}ā&@cĀ->Ā!
• [!&@^Ā Ū[-c, æ!^ĒĀ āā^Ā~ }c^!Ā āā!Ā Ō^}^!æ|Ā Ū~ā|ĵ&Ā Šā^}•^Ā ÇĀŌŪSĀDĀ [ā^!Ā
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Šā: ^}: ā^āā}~*^}ĒĀ}āĒĀ, [Ā^!-!ā^!|ĵ&@ĒĀā}ĀCE}^*^Ā [cĒĀ~ { Āā^}Āb^, ^ā|ĵā^*^}Ā
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Yæ!^}: ^ā&@^}Āç[]Ā TQĬPQYĀV^&@ĒĀCE||^Āæ}ā^!^}Ā Tæ!^}ĒĒ~}āĀ Yæ!^}: ^ā&@^}Ā
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[ā^!Ā •Āā}^!Ā Ū[-c, æ!^Ā~}c^!•&@^!ā^}ĒĀ CE||^Ā Q}-! [{ æcā []^}Ā ā}Ā āā^•Ā { Ā
Ō[\~ { ^}cĀ\4} }^}Ā•i&@Ā [@]^Āç[!@^!ā^*^ĀCE} \> }āā~*^}Āē}ā^!}Ē

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