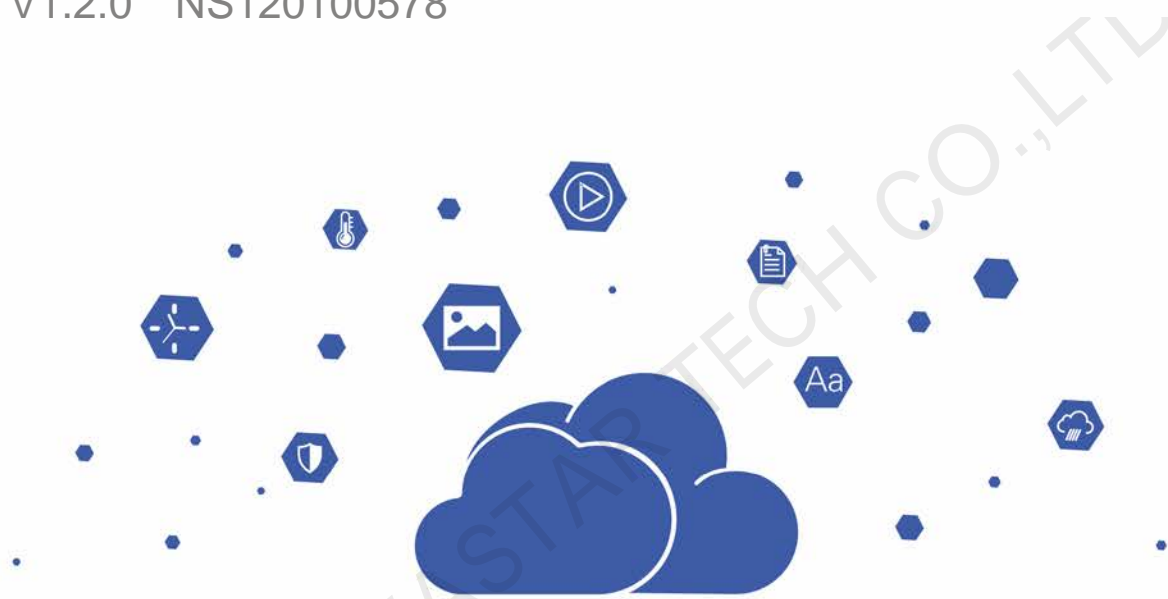# MBOX600

Multimedia Player for Transportation

V1.2.0   NS120100578

User Manual

Change History

Version	Release Date	Description
V1.2.0	2019-06-15	Updated the cover and back cover.
V1.1.9	2019-04-12	None.
V1.1.8	2019-03-15	None.
V1.1.7	2019-03-10	Added descriptions of changing system language.
V1.1.6	2019-03-04	Updated hardware connection diagram and description of the front panel.
V1.1.5	2019-03-01	First release

Contents

1 About This Document

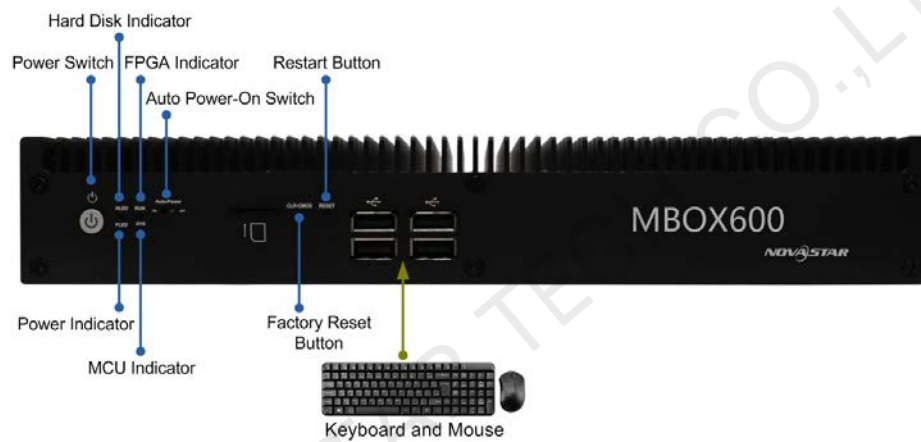The MBOX600 is an independent sending device from NovaStar, featuring big loading capacity. It is applicable to the scenarios where no PC is used to control LED displays, for example, outdoor fixed displays.

This document introduces the main operations of the MBOX600, including hardware connection, software installation, screen configuration and program playback, to help users get started with the product.

2 Hardware Connection

Front Panel

Hard Disk Indicator
Power Switch FPGA Indicator Restart Button
Auto Power-On Switch
MBOX600
NOVASTAR
Power Indicator Factory Reset Button
MCU Indicator
Keyboard and Mouse

Rear Panel

LED Display
Monitor
Wi-Fi Antenna
LEDOUT
LIGHT TEMP HDMI USB3.0 COM1 DC-12V
Loudspeaker
USB Drive
Internet
Light Sensor
Temperature Sensor
Power Adapter
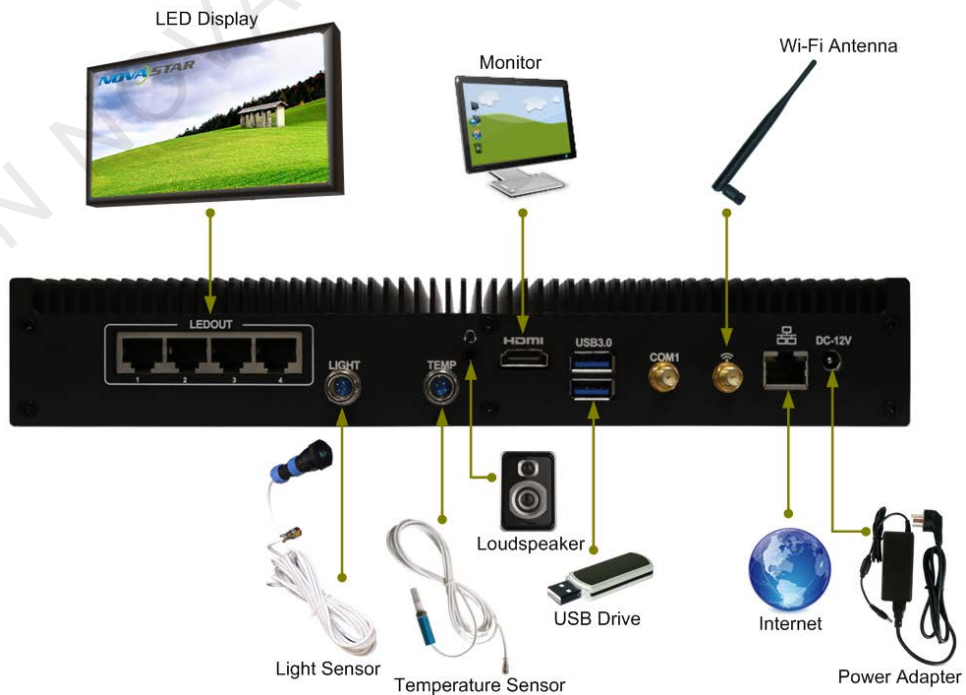
Note: The COM1 is a reserved interface that is not used.

3 Software Installation

3.1 Preinstalled with Linux

For the MBOX600 preinstalled with Linux, if necessary, install Windows and required applications according to the description in this section.

3.1.1 Installing Windows

Please buy Windows from official channels and install it.

3.1.2 Installing Applications

Required Software

Table 3-1 Applications

Name	Description	Where to Get
.NET Framework 4.6.x	Software operating environment	www.novastar.tech
VPlayer	Playback software, used to play programs from VNNOX and preview and play programs from ViPlex Express	http://www.en.vnnox.com/#downloadSyn
ViPlex Express	LAN-based screen management software, mainly used for screen management, program editing and publishing	http://www.en.vnnox.com/#downloadT
NovaLCT	Screen configuration software, used to adjust the screen to the optimal display condition	www.novastar.tech
NovaStudio	Playback software, mainly used for multi-screen, multi-program and multi-window	www.novastar.tech

Name	Description	Where to Get
	playback	

Installation

Please note that ".NET Framework 4.6.x" must be installed first.

3.1.3 Checking Configuration Options

To ensure stable playback of MBOX600, please check the Windows configuration options according to the description in this section.

Configuration Options

The configuration options to be checked are shown in Table 3-2. If a configuration option does not conform to the target status, please change it.

Table 3-2 Configuration options

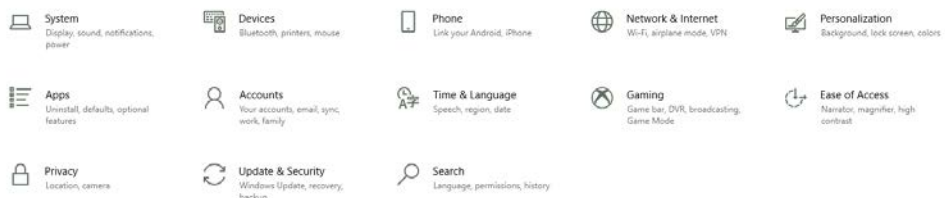| Configuration Options	Target Status
Windows automatic update	Off
Firewall	Off
Turn off screen	Never
Sleep	Never
Scaling size	100%
Multiple displays	Duplicate these displays

Operation Access

Click ⚙️ in Windows Start menu to enter the menu page as shown in Figure 3-1.

Figure 3-1 Windows settings

Checking Windows Automatic Update

Step 1   Choose **Update & Security**.

Step 2   On the **Windows Update** page, click **Advanced options**.

Step 3   Check whether Windows automatic update is turned off.

Check the Firewall

Step 1   Choose **Update & Security**.

Step 2   Choose **Windows Security**.

Step 3   Click **Open Windows Defender Security Center**.

Step 4   Check whether the firewall is turned off.
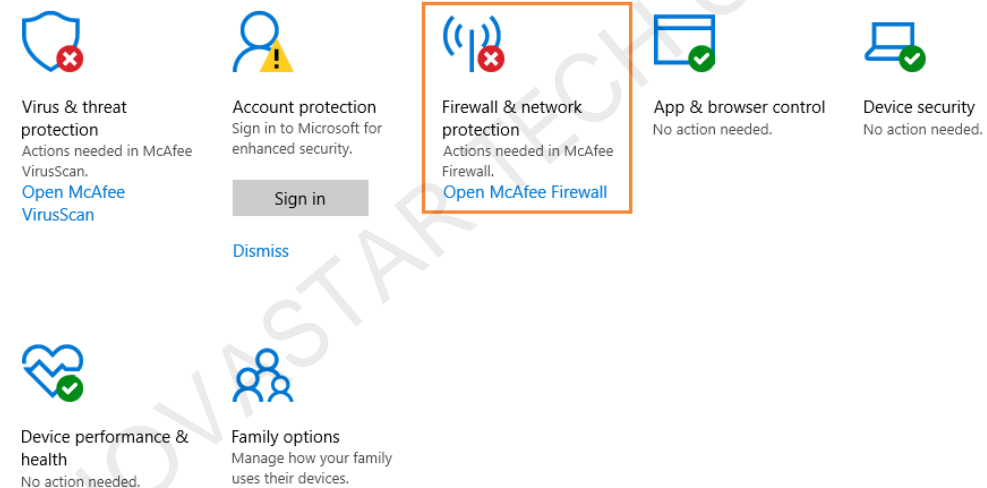
Checking Screen Off and Sleep

Step 1   Choose **System**.

Step 2   Choose **Power & sleep**.

Step 3   Check whether all the four configuration options are set to **Never**.

Power & sleep

Screen

On battery power, turn off after

| Never | ⌄ |

When plugged in, turn off after

| Never | ⌄ |

Sleep

On battery power, PC goes to sleep after

| Never | ⌄ |

When plugged in, PC goes to sleep after

| Never | ⌄ |

Checking Scaling Size and Multiple Displays

Step 1   Choose **System**.

Step 2   Check whether the scaling size is 100% and the option of multiple displays is set to **Duplicate these displays**.

Note: When multiple monitors are connected, the configuration option for multiple displays will appear.

Scale and layout

Change the size of text, apps, and other items

| 100% (Recommended) | ⌄ |

Advanced scaling settings

Resolution

| 1920 × 1080 (Recommended) | ⌄ |

Orientation

| Landscape | ⌄ |

Multiple displays

Multiple displays

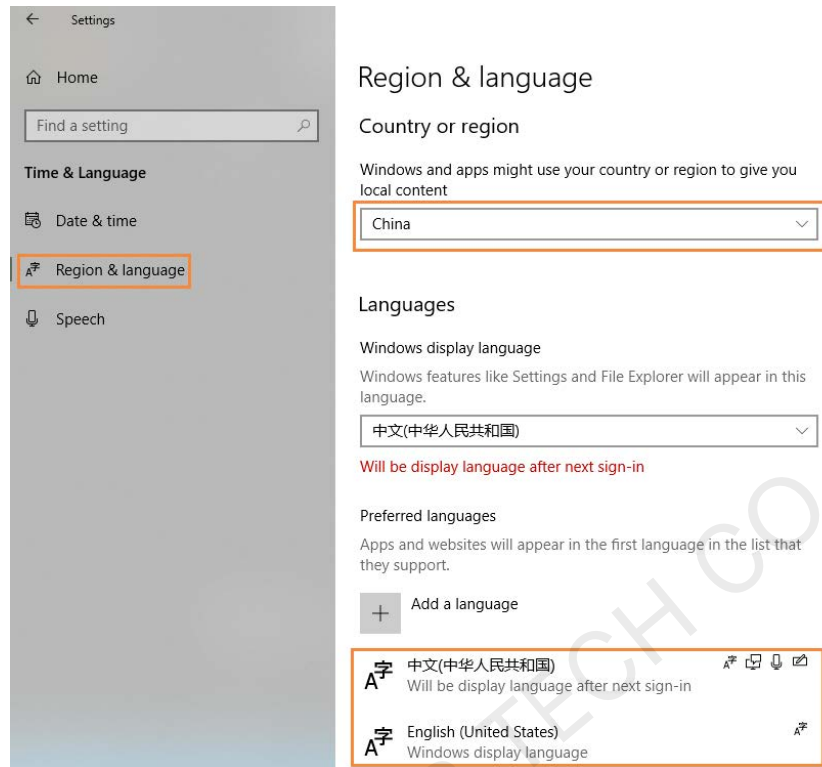| Duplicate these displays | ⌄ |

3.1.4 Changing System Language

If necessary, users can change the system language.

Step 1   Click ⚙ in Windows Start menu.

Step 2   Choose **Time & Language**.

Step 3 Choose **Region & language** and choose a language to set it as the system language.

3.2 Preinstalled with Windows

For MBOX600 preinstalled with Windows 10 IOT Enterprise, please activate Windows and install required applications according to the description in this section.

3.2.1 Activating Windows

View the registration code on the enclosure and activate Windows.

3.2.2 Installing Applications

MBOX600 is preinstalled with Windows and the applications shown in Table 3-3. NovaStudio is not preinstalled. If necessary, users can visit www.novastar.tech to get and install NovaStudio.

Table 3-3 Applications

Name	Description	Where to Get
.NET Framework 4.6.x	Software operating environment	www.novastar.tech
VPlayer	Playback software, used to play programs from VNNOX and preview and play programs from ViPlex	http://www.en.vnnox.com/#downloadSyn

Name	Description	Where to Get
	Express	
ViPlex Express	LAN-based screen management software, mainly used for screen management, program editing and publishing	http://www.en.vnnox.com/#downloadT
NovaLCT	Screen configuration software, used to adjust the screen to the optimal display condition	www.novastar.tech

3.2.3 Checking Configuration Options

For more information, see 3.1.3 Checking Configuration Options.

3.2.4 Changing System Language

For more information, see 3.1.4 Changing System Language.

4 **Screen Configuration**

NovaLCT is used to configure receiving card parameters. You can configure parameters manually or by loading configuration files. For more information, see *NovaLCT LED Configuration Tool Synchronous System User Guide* attached in the software.

5 Program Playback

When the MBOX600 is installed with VPlayer and NovaStudio, the following three playback solutions will be supported.

- Remote publishing

  VNNOX cloud-based publishing service publishes programs to VPlayer and then VPlayer downloads and plays the programs.

- Local playback

  Create and play programs with NovaStudio.

- Preview playback

  Use VPlayer to preview programs created in ViPlex Express.

5.1 Remote Publishing (VPlayer+VNNOX)

For more information, click the link below to see the online document *VNNOX Cloud-Based Publishing Service Quick Start Guide*.

http://docs.vnnox.com:8090/display/EN/3++Quick+Start+Guide

5.2 Local Playback (NovaStudio)

For more information, see *NovaStudio User Manual* attached in the software.

5.3 Preview Playback (VPlayer+ViPlex Express)

For more information, see the Quick Start Guide chapter of *ViPlex Express LAN-Based Screen Management Software User Manual* attached in ViPlex Express.

6 FCC Warning

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

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Trademark

NOVASTAR is a trademark of NovaStar Tech Co., Ltd.

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