

# MBOX600

## Industrial Controller

V1.3.2



User Manual

## Change History

Version	Release Date	Description
V1.3.2	2020-07-07	Updated applications.
V1.3.1	2020-04-02	Updated rear panel diagram.
V1.3.0	2020-02-20	None
V1.2.2	2020-01-15	Updated the descriptions related to VNNOX.
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

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# 1 About This Document

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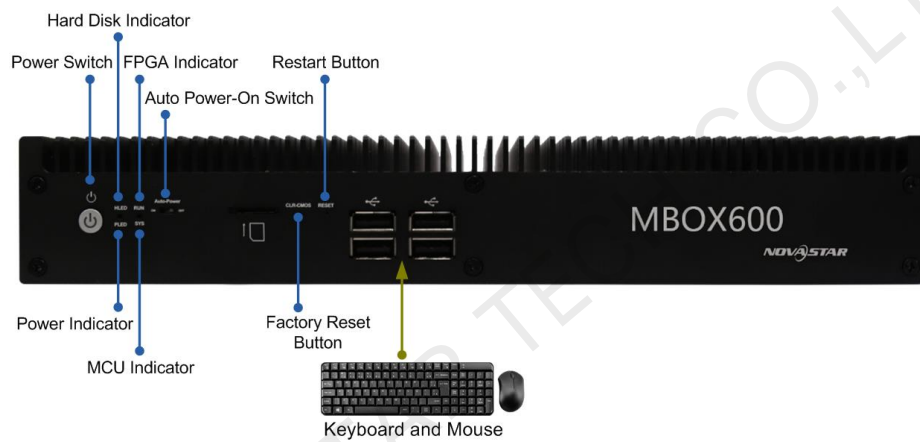
The MBOX600 is an independent sending device from NovaStar, featuring big loading capacity. It is applicable to the scenarios where no PC is used to control LED displays, for example, outdoor fixed displays.

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.

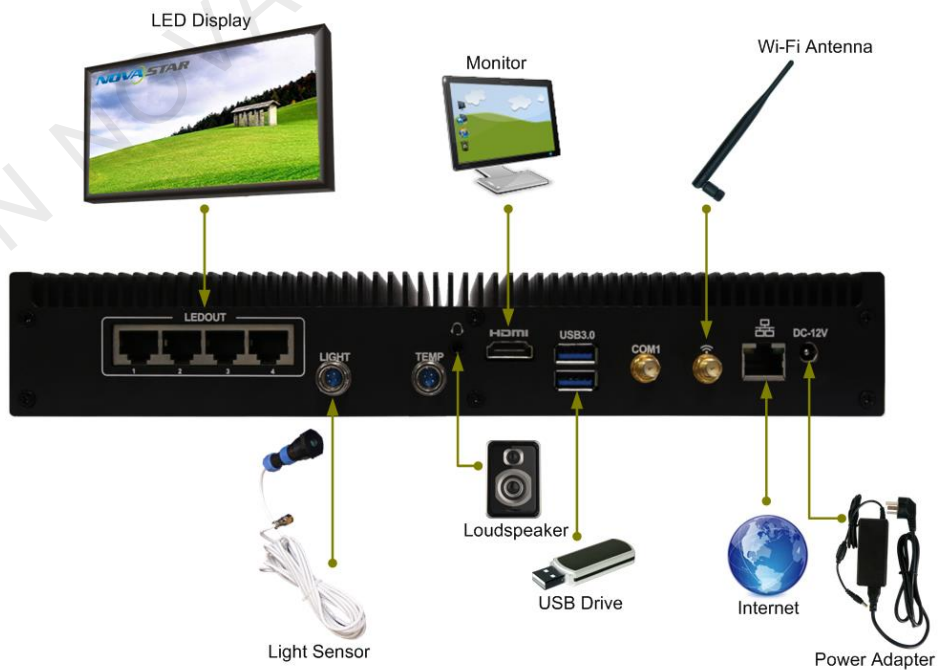
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# 2 Hardware Connection

## Front Panel



## Rear Panel



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	<a href="http://www.novastar.tech">www.novastar.tech</a>
VPlayer	Playback software, used to play programs from VNNOX and preview and play programs from ViPlex Express	<a href="http://www.en.vnnox.com/#downloadSyn">http://www.en.vnnox.com/#downloadSyn</a>
ViPlex Express	LAN-based screen management software, mainly used for screen management, program editing and publishing	<a href="http://www.en.vnnox.com/#downloadT">http://www.en.vnnox.com/#downloadT</a>
NovaLCT	Screen configuration software, used to adjust the screen to the optimal display condition	<a href="http://www.novastar.tech">www.novastar.tech</a>
NovaStudio	Playback software, mainly used for multi-screen, multi-program and multi-window playback	<a href="http://www.novastar.tech">www.novastar.tech</a>

## 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


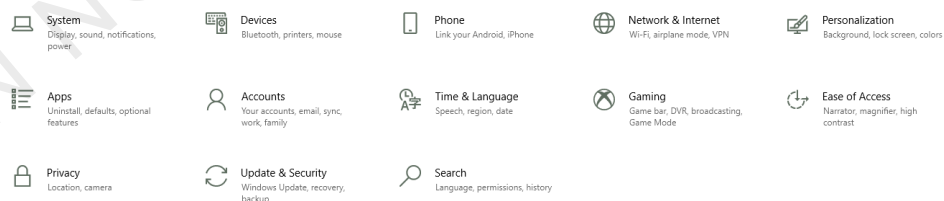
Click  in Windows Start menu to enter the menu page as shown in [Figure 3-1](#).

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.

🏠 Advanced options

Update Options

Give me updates for other Microsoft products when I update Windows.

On

Automatically download updates, even over metered data connections (charges may apply)

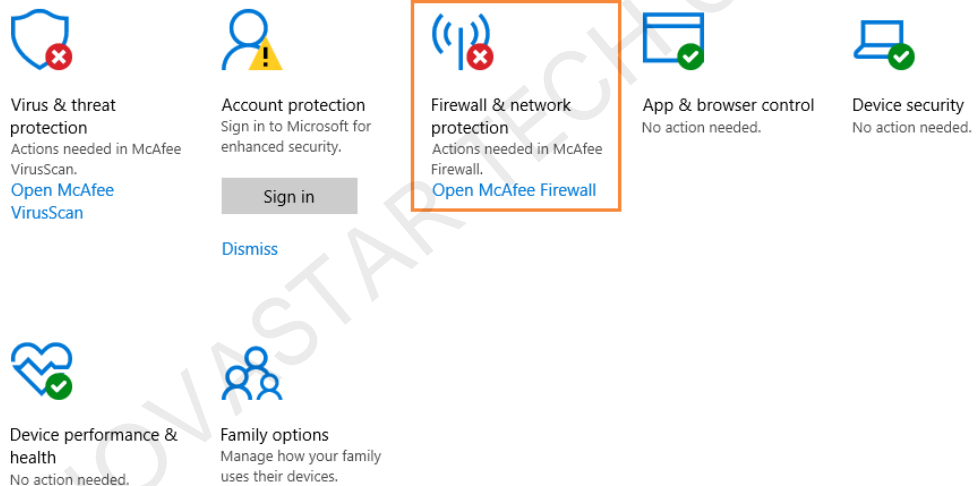
Off

We'll show a reminder when we're going to restart. If you want to see more notifications about restarting, turn this on.

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

When plugged in, turn off after

### Sleep

On battery power, PC goes to sleep after

When plugged in, PC goes to sleep after

## 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

Advanced scaling settings

Resolution

Orientation

### Multiple displays

Multiple displays

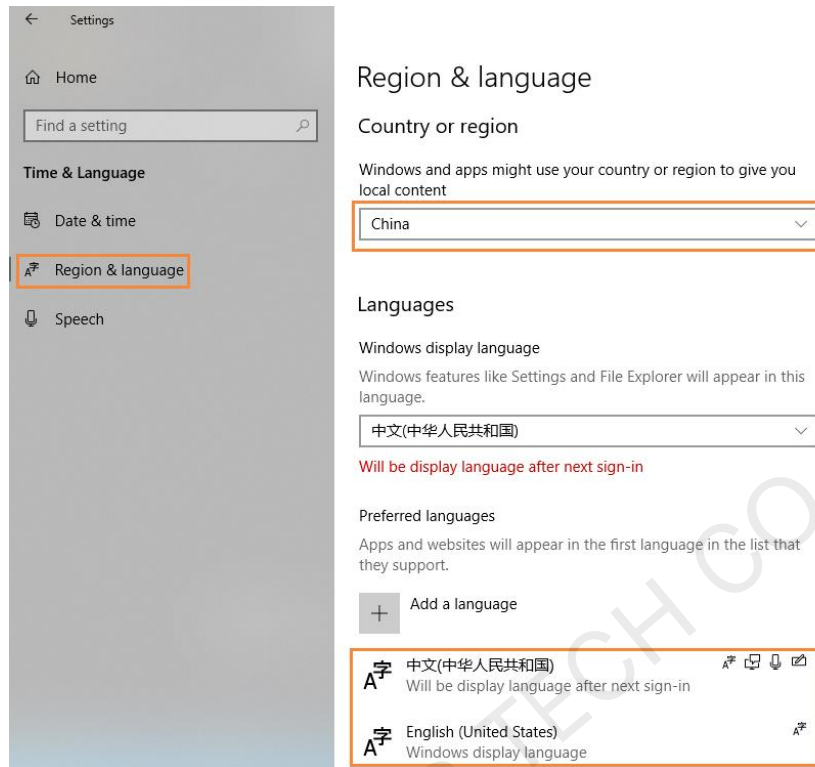
## 3.1.4 Changing System Language

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](http://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	<a href="http://www.novastar.tech">www.novastar.tech</a>
VPlayer	Playback software, used to play programs from VNNOX and preview and play programs from ViPlex	<a href="http://www.en.vnnox.com/#downloadSyn">http://www.en.vnnox.com/#downloadSyn</a>

Name	Description	Where to Get
	Express	
ViPlex Express	LAN-based screen management software, mainly used for screen management, program editing and publishing	<a href="http://www.en.vnnox.com/#downloadT">http://www.en.vnnox.com/#downloadT</a>
NovaLCT	Screen configuration software, used to adjust the screen to the optimal display condition	<a href="http://www.novastar.tech">www.novastar.tech</a>
GosuncnWelink/SIM Com Drivers	GosuncnWelink or SIMCom 4G module drivers Please choose the corresponding model according to your region.	Please contact the technical engineers.

### 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

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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 for Synchronous Control System User Manual* attached in the software.

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# 5 Program Playback

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

- Remote publishing  
Publish programs to VPlayer with VNNOX Standard or VNNOX AD remotely. 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 details, click the link below to see the online documentation of VNNOX.

<http://docs.vnnox.com:8090/display/VNNOXEN/5+Cloud+Platform+Service+Introduction>

## 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

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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.

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