

Full-Color LED Display Unit

User Manual

Legal Information

©2021 Hangzhou Hikvision Digital Technology Co., Ltd. All rights reserved.

About this Manual

The Manual includes instructions for using and managing the Product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version of this Manual at the Hikvision website (<u>https://</u><u>www.hikvision.com/</u>).

Please use this Manual with the guidance and assistance of professionals trained in supporting the Product.

Trademarks

HIKVISION and other Hikvision's trademarks and logos are the properties of Hikvision in various jurisdictions.

Other trademarks and logos mentioned are the properties of their respective owners.

Disclaimer

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, THIS MANUAL AND THE PRODUCT DESCRIBED, WITH ITS HARDWARE, SOFTWARE AND FIRMWARE, ARE PROVIDED "AS IS" AND "WITH ALL FAULTS AND ERRORS". HIKVISION MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY, SATISFACTORY QUALITY, OR FITNESS FOR A PARTICULAR PURPOSE. THE USE OF THE PRODUCT BY YOU IS AT YOUR OWN RISK. IN NO EVENT WILL HIKVISION BE LIABLE TO YOU FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL, OR INDIRECT DAMAGES, INCLUDING, AMONG OTHERS, DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION, OR LOSS OF DATA, CORRUPTION OF SYSTEMS, OR LOSS OF DOCUMENTATION, WHETHER BASED ON BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE), PRODUCT LIABILITY, OR OTHERWISE, IN CONNECTION WITH THE USE OF THE PRODUCT, EVEN IF HIKVISION HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OR LOSS.

YOU ACKNOWLEDGE THAT THE NATURE OF THE INTERNET PROVIDES FOR INHERENT SECURITY RISKS, AND HIKVISION SHALL NOT TAKE ANY RESPONSIBILITIES FOR ABNORMAL OPERATION, PRIVACY LEAKAGE OR OTHER DAMAGES RESULTING FROM CYBER-ATTACK, HACKER ATTACK, VIRUS INFECTION, OR OTHER INTERNET SECURITY RISKS; HOWEVER, HIKVISION WILL PROVIDE TIMELY TECHNICAL SUPPORT IF REQUIRED.

YOU AGREE TO USE THIS PRODUCT IN COMPLIANCE WITH ALL APPLICABLE LAWS, AND YOU ARE SOLELY RESPONSIBLE FOR ENSURING THAT YOUR USE CONFORMS TO THE APPLICABLE LAW. ESPECIALLY, YOU ARE RESPONSIBLE, FOR USING THIS PRODUCT IN A MANNER THAT DOES NOT INFRINGE ON THE RIGHTS OF THIRD PARTIES, INCLUDING WITHOUT LIMITATION, RIGHTS OF PUBLICITY, INTELLECTUAL PROPERTY RIGHTS, OR DATA PROTECTION AND OTHER PRIVACY RIGHTS. YOU SHALL NOT USE THIS PRODUCT FOR ANY PROHIBITED END-USES, INCLUDING THE DEVELOPMENT OR PRODUCTION OF WEAPONS OF MASS DESTRUCTION, THE DEVELOPMENT OR PRODUCTION OF CHEMICAL OR BIOLOGICAL WEAPONS, ANY ACTIVITIES IN THE CONTEXT RELATED TO ANY NUCLEAR EXPLOSIVE OR UNSAFE NUCLEAR FUEL-CYCLE, OR IN SUPPORT OF HUMAN RIGHTS ABUSES.

IN THE EVENT OF ANY CONFLICTS BETWEEN THIS MANUAL AND THE APPLICABLE LAW, THE LATER PREVAILS.

Regulatory Information

FCC Information

Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC compliance: 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.

FCC Conditions

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- 1. This device may not cause harmful interference.
- 2. This device must accept any interference received, including interference that may cause undesired operation.

EU Conformity Statement



This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the EMC Directive 2014/30/EU, the RoHS Directive 2011/65/EU.



2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: <u>http://www.recyclethis.info</u>.



2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point. For more information see: <u>http://www.recyclethis.info</u>.

Industry Canada ICES-003 Compliance

This device meets the CAN ICES-3 (A)/NMB-3(A) standards requirements.

Preface

Applicable Models

This manual is applicable to the models listed below.

Series	Model	Name
DS-D42XXFI-GW	DS-D4212FI-GW	Full-Color LED Display Unit
	DS-D4215FI-GW	
	DS-D4219FI-GW	
DS-D42XXFI-CW	DS-D4225FI-CW	
DS-D42XXFI-GWF	DS-D4212FI-GWF	
	DS-D4214FI-GWF	
	DS-D4225FI-CWF	

Symbol Conventions

The symbols that may be found in this document are defined as follows.

Symbol	Description
Danger	Indicates a hazardous situation which, if not avoided, will or could result in death or serious injury.
Caution	Indicates a potentially hazardous situation which, if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.
i Note	Provides additional information to emphasize or supplement important points of the main text.

Contents

Chapter 1 Product Introduction	1
1.1 Overview	1
1.2 Main Feature	1
Chapter 2 Device Activation and Login	2
2.1 Activate the Device	2
2.2 Add Power Distribution Cabinet	4
2.3 Login	4
Chapter 3 Client Configuration and Operation	5
3.1 Wizard	5
3.1.1 Display Attribute Configuration	5
3.1.2 Configure Signal Cable	6
3.2 Signal Input Type Configuration	8
3.3 Display Adjustment	8
3.3.1 Correct Screen/Seam	8
3.3.2 Configure Screen Color 1	11
3.3.3 Configure Brightness 1	11
3.3.4 Configure Image Enhancement 1	12
3.3.5 Input Capability 1	13
3.4 Add Device Alias 1	14
3.5 Configure Message 1	14
3.6 Configure OSD 1	15
3.7 Configure Network 1	15
3.8 Configure No-Signal Screensaver 1	16
3.9 Configure Multicast Control 1	17
Chapter 4 Device Maintenance 1	18
4.1 Screen Defective Pixel Detection 1	18

4.2 Test Screen Color 1	8
4.3 Configure Dehumidification 1	19
4.4 Detect Screen Status 1	19
4.5 View Device Information 2	20
4.6 View Receiving Card Information 2	20
4.7 Upgrade 2	21
4.7.1 Upgrade Receiving Card/Multi-functional Card 2	21
4.7.2 Upgrade Sending Card 2	22
Chapter 5 System Maintenance 2	23
5.1 Import/Export Configuration File 2	23
5.2 Export Configuration File 2	23
5.3 Search and Export Logs 2	23
5.4 Sync Time 2	24
5.5 Remote Reboot	24
5.6 Restore Factory Settings	24
5.6 Restore Factory Settings 2	25
5.6 Restore Factory Settings	25 25
5.6 Restore Factory Settings 2 Chapter 6 Local Configuration and Operation 2 6.1 Multi-functional Card (Optional) 2	25 25 25
5.6 Restore Factory Settings 2 Chapter 6 Local Configuration and Operation 2 6.1 Multi-functional Card (Optional) 2 6.2 Remote Control Functions 2	25 25 25 25
5.6 Restore Factory Settings 2 Chapter 6 Local Configuration and Operation 2 6.1 Multi-functional Card (Optional) 2 6.2 Remote Control Functions 2 Chapter 7 FAQ 2	25 25 25 27
5.6 Restore Factory Settings 2 Chapter 6 Local Configuration and Operation 2 6.1 Multi-functional Card (Optional) 2 6.2 Remote Control Functions 2 Chapter 7 FAQ 2 7.1 Full Screen is Unlit 2	25 25 25 27 27
5.6 Restore Factory Settings 2 Chapter 6 Local Configuration and Operation 2 6.1 Multi-functional Card (Optional) 2 6.2 Remote Control Functions 2 Chapter 7 FAQ 2 7.1 Full Screen is Unlit 2 7.2 Image is Incomplete or in Wrong Position 2	25 25 25 27 27 27 28
5.6 Restore Factory Settings2Chapter 6 Local Configuration and Operation26.1 Multi-functional Card (Optional)26.2 Remote Control Functions2Chapter 7 FAQ27.1 Full Screen is Unlit27.2 Image is Incomplete or in Wrong Position27.3 Full-screen Image Flashes or Vibrates2	25 25 25 27 27 27 28 28
5.6 Restore Factory Settings2Chapter 6 Local Configuration and Operation26.1 Multi-functional Card (Optional)26.2 Remote Control Functions2Chapter 7 FAQ27.1 Full Screen is Unlit27.2 Image is Incomplete or in Wrong Position27.3 Full-screen Image Flashes or Vibrates27.4 Spots/Strips Exist in Full-screen Image2	 25 25 25 27 27 27 28 28 28 28
5.6 Restore Factory Settings2Chapter 6 Local Configuration and Operation26.1 Multi-functional Card (Optional)26.2 Remote Control Functions2Chapter 7 FAQ27.1 Full Screen is Unlit27.2 Image is Incomplete or in Wrong Position27.3 Full-screen Image Flashes or Vibrates27.4 Spots/Strips Exist in Full-screen Image27.5 Certain Unit Image Flashes or Has Spots2	 25 25 27 27 27 28 28 28 28 28 28 28 28 28
5.6 Restore Factory Settings2Chapter 6 Local Configuration and Operation26.1 Multi-functional Card (Optional)26.2 Remote Control Functions2Chapter 7 FAQ27.1 Full Screen is Unlit27.2 Image is Incomplete or in Wrong Position27.3 Full-screen Image Flashes or Vibrates27.4 Spots/Strips Exist in Full-screen Image27.5 Certain Unit Image Flashes or Has Spots27.6 Certain Unit Screen is Unlit2	 25 25 25 27 27 28 28 28 28 28 29

Chapter 1 Product Introduction

1.1 Overview

Full-color LED display unit (hereinafter referred to as the device, the product, or the LED) is a highprecision product delivering clear and vivid images. It is featured by wide color gamut, stable performance, long service life, strong environmental adaption, cost effective and little cost to use. The device is applicable to scenes, such as radio and television stations, meeting room display, video security, information display, etc.

1.2 Main Feature

- Modular design supports seamless jointing into screens of any size at any direction.
- High brightness and high contrast ratio. Broadcast level greyscale processing provides more detailed image display.
- Color temperature and brightness of every pixel are controlled under certain limits to realize image consistency.
- High refresh rate and nanosecond response rate provide smooth and delicate image with no trailing or ghosting.
- Wide color gamut coverage with range larger than NTSC.
- Adopts PixMaster low-level image processing technology. Supports one-button optimization of pixel original image by improving definition, contrast ratio and saturation.
- Wide viewing angle provides high-quality visual effects in every angle.
- Low heating, superior cooling system and ultra-quiet design.
- Long service life, energy saving and environmental friendly.
- Firm structure design. Supports single-light maintenance and intelligent dehumidification.
- Low defect rate and operation cost.

Chapter 2 Device Activation and Login

2.1 Activate the Device

In order to protect personal account privacy and reinforce system/data security, you need to set login password and activate the device for your first login.

Before You Start

- The client software has been installed correctly.
- PC and the device are in the same network segment.

Steps

1. Run the client .

HIKVISION	_ ×
	User Login Online Device
	admin
	•••••
	Login
	Remember Password
	🗆 Auto Login
	Distribution Cabinet

Figure 2-1 Register

2. Click Online Device to show all online devices in the current network segment.



Figure 2-2 Activate Online Device

- **3.** Select the device to be activated and click **Activate**.
- 4. Enter Password and Confirm Password in the popup window.





Caution

We highly recommend you create a strong password of your own choosing (Using a minimum of 8 characters, including at least three of the following categories: upper case letters, lower case letters, numbers, and special characters.) in order to increase the security of your product. And we recommend you reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.

- **5.** Click **Apply** to activate the device.
- 6. Select the activated device in Online Device interface.
- 7. Modify network parameters and enter Password.
- 8. Click Modify to save the modifications.

iNote

If the network segment which device connected has DHCP function, it will allocate IP by default, please skip step 6, 7 and 8.

2.2 Add Power Distribution Cabinet

You can add a power distribution cabinet as needed. The client can turn on/off the screen remotely after adding the power distribution cabinet.

Steps

- 1. Double click LED Display Controller to run the client.
- 2. Click Power Distribution Cabinet Config.

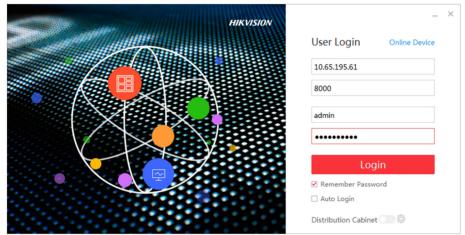


Figure 2-4 Login

- 3. Enter IP and port No. of power distribution cabinet.
- 4. Click OK.
- 5. Enable Power Distribution Cabinet Config.

2.3 Login

Before any operation, you need to log into the LED client server.

Steps

- 1. Run the client to enter the login interface.
- 2. Enter IP Address, Port No, User Name, and Password.
- **3. Optional:** Check **remember password** to remember the login password, so there is no need to enter password for the next login.
- 4. Optional: Check Auto Login to Log into the client automatically.
- 5. Click Login.

Chapter 3 Client Configuration and Operation

3.1 Wizard

For the first login, the client will pop up a wizard, including display attribute configuration and signal cable configuration. Set the parameters as needed, and the client can recognize the screen parameters automatically when you log in the next time.

3.1.1 Display Attribute Configuration

You can configure some basic parameters in the display attribute window, such as screen type, screen scale, screen resolution and other parameters.

Screen Configuration

Configure screen scale and type, select signal source type as needed.

Screen Scale	2	*	6		
Screen Type	DAILUTION MED	NB-3	648-12	-	Cure Para
Signal Source Zoom					
Screen Resolution	Custom Resolution	on		-	
Custom Screen Resolution	1440	*	540		

Figure 3-1 Display Attributes

Screen Scale

Set rows and columns of the screen according to the actual situation.

iNote

Each screen contains 2 receiving cards. If the actual screen size is 2×2 , you need to set the scale as 2×4 .

Screen Type

Select it according to the product type and material number.

Cure Parameters

Save parameters in the receiving card to ensure your screen displays properly after next reboot.

Configure Screen Resolution

After configuring the screen resolution, the display image can match the actual screen resolution. It can reduce the image loss and partial black screen caused by resolution.

Steps

- 1. Enter Display Attribute interface.
- 2. Check Signal Resource Zoom.
- 3. Select Screen Resolution.
 - Select resolution in Screen Resolution.
 - If there is no appropriate resolution n the Screen Resolution, you can select *Custom Resolution* in Screen Resolution, and enter resolution in Custom Screen Resolution.

iNote

- The width of the custom resolution should be a multiple of 4.
- Uncheck Signal Resource Zoom in splcing and controlling scene.

What to do next

Click **Next** and configure signal cable.

3.1.2 Configure Signal Cable

Configure signal cable according to the actual receiving card connection between LED cabinets.

Steps

i Note

After configuring the screen scale, LED screen will show the signal cable connection. The connection of client signal cables must match the screen connection.

- 1. Go to the Signal Cable Configuration interface.
 - Click Next in the Display Attribute interface.
 - Click Screen Status → Connect Signal Line .
- 2. Check Display Actual Lines on Screen. You need to connect the cable according to the position prompt on the screen.
- 3. Select sending port below Please select sending port to connect.

iNote

The location prompt of each screen will indicates you to connect the signal cable. If the postion prompt is **2-1**, the screen is the first screen to connect to No.2 sending port.

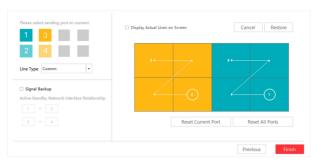


Figure 3-2 Signal Cable Configuration

- 4. Connect signal line.
 - Click the screen on the right side of the interface to connect signal line.
 - Select Line Type, and select starting port and end port on the right side of the interface.
- 5. Right-click on the right side of the interface after connection.
- 6. Select Complete Signal Cable Connection.
- 7. Click Finish.

Port configuration information set. will pop up after the signal cable is connected.

Other Operation

Supports some auxiliary operations to complete the signal cable connection.

Sending Port

Port of sending card is applied to communicate between sending card and receiving card. The receiving card connected by signal sending port is Card1, the receiving card connected to the first sending card is Card2, and so on.

Cancel

Cancel last operation.

Restore

Resume last operation.

Reset Current Port

Cancel all settings of current signal sending port.

Reset All Ports

Cancel settings of all signal sending ports.

Signal Backup

Input signals by two channels to ensure signal stability.

iNote

if Signal Backup checked, the relation between the main and sub ports should be the same as that of the client.

3.2 Signal Input Type Configuration

Select the signal source type in the upper right corner of **Display Status**. You should select the signal source according to the sending card resolution.

iNote

Different signal source may result in different resolution.

3.3 Display Adjustment

Screen can get best display effects by configuring image parameters, brightness and enhancement, screen display parameters, etc.

3.3.1 Correct Screen/Seam

You can correct screen and seam manually or in a batch to deliver better LED display effects.

Correct Screen Manually

Correct display parameters of LED screens to achieve the same display effects.

Steps

1. Click Screen Adjustment → Advanced Operation → Correction → Manual Correction .



Figure 3-3 Correct Screen Manually

- 2. Select Enable Correction.
- 3. Select Screen in Correction.
- **4.** Select area to correct.

- Check **Show Module** and select the module to correct.
- Uncheck **Show Module** and select the screen to correct.
- 5. Adjust RGB value.
 - Drag the bars.
 - Enter numbers in the text boxes.

i Note

You can check Simultaneous Adjustment to adjust RGB simultaneously.

- 6. Click **Preview** to check the effects.
- 7. Click Apply.

Operation	Description
Clear	Reset all parameters if needed.
Load Original Data	Load original correction data.

iNote

The function may vary with models. The parameters will not be displayed when the function not supported.

Correct Seam Manually

Steps

1. Click Screen Adjustment → Advanced Operation → Correction → Manual Correction .



Figure 3-4 Correct Seam Manually

- 2. Select Enable Correction.
- 3. Select Seam in Correction.
- 4. Select Calibration Range.

All

Correct all seams.

Vertical Line

Correct all vertical seams.

Horizontal Line

Correct all horizontal seams.

- 5. Select area to correct.
 - Check **Show Module** and select the module to correct.
 - Uncheck **Show Module** and select the screen to correct.
- 6. Adjust RGB value.
 - Drag the bars.
 - Enter numbers in the text boxes.



You can check Simultaneous Adjustment to adjust RGB simultaneously.

- 7. Click Preview to check the effects.
- 8. Click Apply.

Batch Correct Screen

You can correct screen display in a batch by importing correction file.

Before You Start

- The correction file has been obtained from the supplier.
- Select a screen as the start of the batch correction in the Manual Correction .

Steps

1. Click Screen Adjustment → Advanced Operation → Correction → Batch Correction .

Manual Correction	Batch Correction	
	Correction File:	
	···· Upload	
	··· Download	

Figure 3-5 Batch Correction

- 2. Click --- to select correction file.
- 3. Click Upload. The screens/seams will be corrected based on the uploaded file.

Operation Description

DownLoad Download the correction file as the backup files. You can also upload this correction file to correct other devices.

3.3.2 Configure Screen Color

You can adjust color temperature and color standard as needed.

Before You Start

Connect the signal source to the device before configuring the image contrast and saturation.

Steps

1. Go to Screen Adjustment → Basic Control → Image Adjustment .

Image Adjustment	
Color Temp 〇 Standard 〇 Warm Color	Cool ColorCustom
Color Stan O BT.2020	O DCI.P3 O sRGB

Figure 3-6 Image Adjustment

2. Select Color Temperature .

3. Select Color Standard.

BT.2020

Applicable to UHD (Ultra High Definition) devices.

DCI.P3

Applicable to digital cinemas and high-end displays.

BT.709

Applicable to HDTV(High Definition Television) and other common video devices.

sRGB

Applicable to general displays.

3.3.3 Configure Brightness

Configure LED screen brightness.

Steps

1. Click Screen Adjustment → Basic Control → Basic Configuration .

Basic Configuration	
Brightness	8
Eye Protecti	

Figure 3-7 Brightness Adjustment

- 2. Adjust the brightness. Brightness ranges from 1 to 8. Brightness of energy saving mode ranges from 1 to 2. Brightness of balanced mode ranges from 3 to 4. Brightness of high light mode ranges from 5 to 6. Brightness of sport mode is from 7 to 8.
 - Slide the slider.
 - Enter numbers in the text box.

Brightness

Brightness is a photometric measure of the luminous intensity per unit area of light traveling in a given direction. It describes the amount of light that passes through, is emitted or reflected from a particular area, and falls within a given solid angle. The SI unit for luminance is candela per square metre (cd/m2).

iNote

If the device has configured multi-functional card, you can check **Auto** to enable auto brightness adjustment.

3. Enable Eye Protection Mode as needed.

3.3.4 Configure Image Enhancement

You can enhance image display effects by client.

Before You Start

Connect the signal resource to the device correctly.

Steps

1. Go to Screen Adjustment \rightarrow Basic Control \rightarrow Image Enhancement .

Image Enhancement	
Clarity 🔘	0
Contrast 🔘	0
Saturation	0
TEST	

Figure 3-8 Image Enhancement

- 2. Slide the slider to adjust Clarity, Contrast and Saturation.
- **3. Optional:** Check **Test** to view the image effect on the screen. Screen on the left side shows the image before enhancement, while the screen on the right side shows the image after enhancement.

3.3.5 Input Capability

You can enable 4K signal input, 3D video processing, input signal auto detection, and resolution self-adaption, and select input format as needed.

Steps

- **1.** Click Screen Management → Advanced Operation → Input Capability .
- 2. Set parameters as needed.

4K Signal Input

If you disable 4K signal input, we recommend you using 1080p signal input.

3D Video Processing

Check Enable when there is need for 3D video playing.

Input Signal Auto Detection

Check Enable to detect input signal automatically.

Best Resolution Self-Adaption

Check Enable, and the input and output resolution will be the same automatically.

Input Format Support

The input standard is RGB by default. Select **Auto Recognition** when the signal standard is not RGB.

iNote

Before enabling 3D function, you need to install mulch-functional card first.

3. Click OK.

3.4 Add Device Alias

Device alias is used to distinguish devices from each other.

Steps

- **1.** Click \square on the **Display Status**.
- 2. Edit device alias.
- 3. Click OK to save the device alias.

3.5 Configure Message

Release rolling/static meaasge to terminal by the client.

Before You Start

No-signal screensaver is in custom mode. Refer to Configure No-Signal Screensaver .

Steps

1. Click Screen Adjustment → Advanced Operation → Message Configuration .

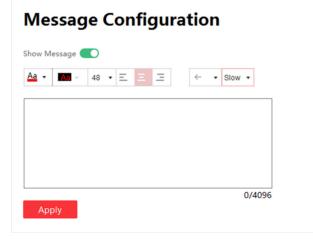


Figure 3-10 Message Configuration

- 2. Enable Show Message.
- 3. Enter message in the text box.
- **4.** Configure text style, including font color, font size, position and rolling speed.

iNote

Background color is black by default and is not adjustable.

5. Click Apply.

3.6 Configure OSD

Screen will display prompts after configuring OSD (On-screen Display).

Steps

1. Click Screen Adjustment \rightarrow Advanced Operation \rightarrow OSD Configuration .

OSD Configuration				
Enable OSD				
OSD Text	•			
OSD Background Color	•			
	Apply Restore De			

Figure 3-11 OSD Configuration

- 2. Click Enable OSD.
- 3. Configure OSD Text and OSD Background Color.
- 4. Click Apply.

Operation	Configuration	
Destaus Default Cattings	Destave to default OCD setting	

Restore Default Settings Restore to default OSD settings.

3.7 Configure Network

The device will obtain IP automatically when the network segment of the device has changed.

Before You Start

The network segment connected by the device has DHCP (Dynamic Host Configuration Protocol) function.

Steps

- **1.** Click Screen Adjustment \rightarrow Advanced Operation \rightarrow Network Configuration .
- 2. Click Obtain IP Address Automatically.

iNote

This function is enabled by default.

3.8 Configure No-Signal Screensaver

The screen will display default no-signal screensaver when there is week input signal or no input signal.

Steps

iNote

You can choose default mode, custom mode, and black screen mode. Here we take custom mode as an example.

1. Click Screen Adjustment → Basic Control → No-Signal Screensaver .

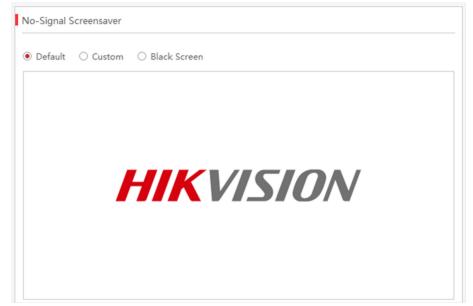


Figure 3-12 No-Signal Screensaver Configuration

- 2. Click Custom.
- 3. Click Select Picture to select the pictures.
- 4. Click Upload.

iNote

- The picture format only can be JPG and resolution should be between 320 * 240 and 3840 * 3840.
- If you upload more than one picture, the pictures will be auto switches automatically when the screensaver displays.

5. Optional: Check Random Play.

6. Optional: select Picture Auto-Switch Interval.

System will auto-switch pictures randomly according to the interval when there is no input signal.

3.9 Configure Multicast Control

Through multicast function, you can control and configure several devices simultaneously.

Steps Multicast

In computer networking, multicast is group communication where information is addressed to a group of destination computers simultaneously. Multicast can be one-to-many distribution.

- **1.** Click Screen Adjustment → Advanced Operation → Multicast Control .
- 2. Check Enable Multicast.

iNote

Items available for multicast control include brightness/white balance, signal input switch, dehumidification configuration, attribute configuration, system configuration, basic configuration, and advanced configuration. Check the items based on your needs.

- 3. Check the device you want to synchronize.
- 4. Click OK.

iNote

You can login to any checked IP to achieve multicast control.

Chapter 4 Device Maintenance

4.1 Screen Defective Pixel Detection

You can check the defective pixels of the screen.

You can hover over the virtual screen on **Display Status** to check the number of defective pixels on the screen.

lcon	Description
0	Show the position of defective pixels on the display.
<u></u>	Show the coordinates of the defective pixels on the client.

4.2 Test Screen Color

You can select different images to test if the LED screen can display normally.

Steps

1. Click Screen Adjustment → Advanced Operation → Screen Detection .

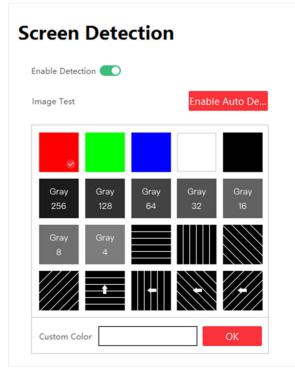


Figure 4-1 Screen Detection

- 2. Select Enable Detection.
- **3.** Select the image you want to test.
 - Click the image you want to test.
 - Click the white box beside **Custom Color** to customize colors, and click **OK**.
 - Click Enable Auto Detection, and the system will display default images to test.

4.3 Configure Dehumidification

Dehumidification function is to avoid potential LED screen damage caused by humid environment.

Steps

1. Click Screen Adjustment → Advanced Operation → Dehumidification Configuration .

Dehumidification Configuration Auto Dehumidification Area Low Humidity Area

Figure 4-2 Dehumidification Configuration

OK

Enable

- 2. Select Auto Dehumidification.
- 3. Select Area. High Humidity Area, Medium Humidity Area, Low Humidity Area are selectable.
- 4. Click OK.

Enable Dehumidification Enable dehumidification manually.

Disable Dehumidification Disable dehumidification manually.

iNote

Operation

Disable dehumidification manually is valid for single time. Dehumidification function will be auto enabled after next startup.

4.4 Detect Screen Status

After enabling screen status detection, alarm information will be shown on the screen if the temperature, voltage, number of defective pixels of the screen and temperature of the sending card exceeded the limit.

Steps

- 1. Select System Settings → System Detection .
- **2.** Set the limitation of the screen voltage, screen temperature, seding card temperature and number of defective pixels on the screen.
- 3. Click Apply.
- 4. Enable Screen Display.

4.5 View Device Information

Select System Settings \rightarrow About to check client version information.

Select **Display Status** to check device version information, including **Controller Version**, **FPGA Version**, **Card Type**, and so on.

4.6 View Receiving Card Information

View receiving card information, including network interface, number of connected devices, whether the version is matched, and version number.

Steps

1. Select Display Status → Card Version .

Network In	terface Number of Conn	ected Devices Whether the V	ersion i Versio
1	1	Yes	V1.1
4			Þ

Figure 4-3 Receiving Card Version

- 2. Check receiving card details in the receiving card version interface for device maintenance.
- 3. Click OK.

4.7 Upgrade

Please use the latest firmware to obtain all possible security updates.

iNote

Do not disconnect the power supply during updating.

4.7.1 Upgrade Receiving Card/Multi-functional Card

You can upload upgrade patch to upgrade receiving card or multi-functional card.

Steps

- 1. Click System Settings → System Maintenance → Upgrade
- **2.** Click … to select upgrade patch.
- 3. Click Upgrade.

Operation	Description
Auto Update Receiving Card Version When Rebooting	When sending card reboots, it will detect receiving card version. System will update receiving card version by default if there is a new version.

iNote

If upgrading failed and the device cannot function correctly, please contact suppliers in time.

Result

The device will reboot automatically when upgrade finished.

4.7.2 Upgrade Sending Card

You can upload upgrade file to upgrade receiving card or multi-functional card.

Steps

1. Click System Settings → System Maintenance → Upgrade

- **2.** Click … to select upgrade patch.
- 3. Click Upgrade.

iNote

If upgrading failed and the device cannot function, please contact suppliers in time.

Result

The device will reboot automatically when upgrade finished.

Chapter 5 System Maintenance

This chapter mainly introduces importing/exporting configuration file, searching logs, restoring parameters, restoring default settings, and time synchronization.

5.1 Import/Export Configuration File

Configuration file can be imported to configure the system easily.

Steps

- 1. Click System Settings → System Maintenance → Import and Export .
- 2. Click ··· to select file path.
- 3. Click Import.

5.2 Export Configuration File

Configuration file can be exported for local backup.

Steps

- 1. Click System Settings → System Maintenance → Import and Export .
- **2.** Click ··· to select file path.
- 3. Click Export.

iNote

Exported configuration file is encryption mode to prevent information disclosure. For more details, please contact us.

5.3 Search and Export Logs

System operation logs can be searched and exported for backup.

Steps

- **1.** Click System Settings → Search Log .
- 2. Set search conditions, including Start Time and End Time.
- 3. Click Search.

iNote

Up to 2000 search results can display. Please narrow down the search scope if there too many search results.

The results will be displayed in list.

4. Optional: Click Export to export all the search results.

iNote

Logs can be exported in CSV or XML file format. A prompt window will pop up when the logs are exported successfully.

5.4 Sync Time

Steps

- 1. Click System Settings → System Maintenance → Sync Time .
- 2. Set time synchronization mode.
 - Select Local Time to synchronize the device time with the client.
 - Click i , setting display time manually, and click **OK**.
- 3. Click Time Sync.

5.5 Remote Reboot

Both sending card and receiving card can be rebooted remotely.

Steps

- 1. Click System Settings → System Maintenance → Others .
- 2. Select Sending Card or Receiving Card in the Remote Reboot.
- 3. Click Reboot.

5.6 Restore Factory Settings

All settings can be restored to factory by default.

Steps

- 1. Click System Settings → System Maintenance → Others .
- 2. Click Restore Factory Settings.
- **3.** Click **OK** in the pop-up window.

Chapter 6 Local Configuration and Operation

Use a combination of multi-functional card and remote control to operate the LED screen OSD menu.

Ensure the device is connected and activated before using the remote control.

Press **Menu** button to go to **Local Operation**. You can configure the parameters of input, output, image, system, sending card and receiving card in **Local Operation**.

6.1 Multi-functional Card (Optional)

The multi-functional card has an infrared receiver and a light sensor. With a multi-functional card connected with a receiving card, you can control the device remotely.

Meanwhile, the light sensor allows the screen to adjust brightness automatically, that is, the screen brightness can change along with the light. The function will be disabled if you adjust the brightness manually.

iNote

- Multi-functional card 2.0 also supports 3D function.
- You need to upgrade the sending card first to enable the function. Refer to **Upgrade Receiving Card/Multi-functional Card** for more details.

6.2 Remote Control Functions

The Max. distance of remote control is 10 m. The Max. angle of remote control is 45°.

lab	le 6-1 Rem	ote Contr	ol Functio	ons	

Кеу	Description
Power	Turn on/off the screen.
Source	Switch the signal source.
Volume	Adjust the volume.
Scene	Select the scene.
Brightness	Adjust the brightness.
Up/Down/Left/Right	Select the menu.
Back	Back to the previous menu.
ОК	ОК

Full-Color LED Display Unit User Manual

Кеу	Description
Menu	Enter the menu.
Shortcut	 Press the shortcut key and press the number key to enable function quickly. Press the back key to disable the function. 0: Enable 3D function. 1: Enable dehumidification. 2: Enable image enhancement. 3: Enable image correction. 4: Enable auto-adaptive resolution. 5: Enable auto-switch screensaver. 6: Enable screen self-checking.
Help	Help
ID	Select the desired screen(s).

iNote

ID key of the remote control would take effect only if the corresponding sending card model is DS-D40C16.

Chapter 7 FAQ

7.1 Full Screen is Unlit

Reason

- No power supply for screen or control device.
- No input signal.
- The controlling computer is sleeping or the graphics card settings are incorrect.
- Incorrect receiving card configuration.

Solution

- Check if the computer is in sleep or screensaver mode. If yes, start the computer, go to Control Panel → Power Options → Change Plan Settings, and set the sleep time to Never; If not, check the connection of the DVI cable between computer and control card.
- Check the graphics card settings.
- Check the connection between receiving card and sending card, and the connection between receiving cards.
- Restore to default settings.

7.2 Image is Incomplete or in Wrong Position

Reason

- Incorrect screen configuration file.
- Incorrect signal cable connection.
- Incorrect screen size configuration.

Solution

- For incomplete image, check if the configured screen scale and the actual screen scale are the same.
- For image in wrong position, check if the configured display position and screen scale are the same as the actual. If not, adjust the parameters based on the difference until they are the same.
- Check if the signal cable connection and the receiving card connection among screen cabinets are the same.
- Check if the configured sending card output resolution and the actual receiving card input resolution are the same.

7.3 Full-screen Image Flashes or Vibrates

Reason

- DVI output of graphics card or other device fails.
- Receiving card number loaded by single network interface is larger than its load capacity.
- Signal cable is too long.

Solution

- Check system connection to see if the DVI cable or the network cable is loose, if the signal cable length exceeds the allowable transmission distance, etc.
- Reduce receiving card loading number of each network interface. Configure signal cable again on the client after changing connection mode.
- Check the resolution configurations of the graphics card, sending card, and video processor.

7.4 Spots/Strips Exist in Full-screen Image

Reason

Incorrect screen type configuration.

Solution

Check screen type configuration.

7.5 Certain Unit Image Flashes or Has Spots

Reason

- Loose connection of receiving card or HUB card.
- Incorrect receiving card program.
- Check the receiving card, HUB card, and data cable connection in the unit.
- Check if the receiving card program of the unit is correct, or if the receiving card functions well.

7.6 Certain Unit Screen is Unlit

Reason

- The power supply or the receiving card of the unit fails.
- The signal output of the pervious unit fails.

Solution

- Check if the power supply output of the unit is 5 VDC.
- Check if power supply indicator of the receiving card in the unit is solid red, or if the receiving card is operating normally.
- Check the receiving card, HUB card, and data cable connection in the unit.
- Check if the receiving card signal output of the previous unit is normal.

7.7 Certain Module or Row of Modules are Unlit in Unit

Reason

- The switching power output controlling the modules fails.
- The signal output controlling the modules fails.

Solution

- Check if the power supply output of the modules is 5 VDC.
- Check the connection of the data cable and the HUB card controlling the modules.

7.8 Screen Display Error When Smart Settings

Reason

Screen parameter is wrong.

Solution

- Check if the resolution of receiving card and output resolution of graphics card is the same.
- Check if the smart setting wizard parameter is correct.

7.9 Searching Online Device Fail

Reason

- The network cable of the sending card is not connected.
- Incorrect software installation (the winp plugin is not installed or its version is incorrect).

Solution

- Check network cable connection.
- Reinstall the winp plugin, or update the winp plugin directly.

