FSC640-000
4K60 BYOD Presentation Switcher

User Manual

Important Safety Instructions
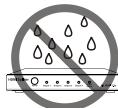
1. Do not expose this apparatus to rain, moisture, dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

2. Do not install or place this unit in a bookcase, built-in cabinet or in another confined space. Ensure the unit is well ventilated.

3. To prevent risk of electric shock or fire hazard due to overheating, do not obstruct the unit's ventilation openings with newspapers, tablecloths, curtains, and similar items.

4. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

5. Do not place sources of naked flames, such as lighted candles, on the unit.

6. Clean this apparatus only with dry cloth.

7. Unplug this apparatus during lightning storms or when unused for long periods of time.

8. Protect the power cord from being walked on or pinched particularly at plugs.

9. Only use attachments / accessories specified by the manufacturer.

10. Refer all servicing to qualified service personnel.

Table of Contents

Introduction

Overview

The switcher is a high-performance BYOD presentation switcher with wireless presentation capability. It equips built-in Wi-Fi modules and offers multiple access approaches, including Airplay Mirroring, Miracast, Dongle and physical HDMI and USB-C ports, with which you can project the screen contents of your computers (Mac/Windows) or mobile devices (iPhone /iPad/Android phone) to the display in dual view.

Multiple features like automatic signal switching, USB switcher, CEC, Guide Screen, and OSD are also included. The switcher is a collaboration terminal used for meeting room or workgroup discussion.

Features

- Provides one USB-C input, one HDMI input, one HDMI output and one HDBT output that mirrors the HDMI output.
- USB-C Input supports USB-C input, charging up to 60W, Ethernet connection, and USB 3.0.
- Video outputs support dual view presentation.
- Supports input resolutions up to 4K@30Hz 4:4:4.
- Supports output resolutions up to 4K@60Hz 4:4:4 (4:2:0 for HDBT output).
- Fast seamless switching for both single and dual view layouts.
- Independent analog audio output.
- Built-in Wi-Fi modules for wireless connectivity with devices over Airplay Mirroring, Miracast, Dongle and Chromecast[1].
- Supports wireless conference (using Dongle for connecting between the host PC and USB conference peripherals wirelessly).

- Built-in triple USB 3.0 switcher allows for USB switching among three USB hosts.
- Two Ethernet ports for networking flexibility and security.
- Detailed and friendly OSD information.
- Flexible control approaches of Web UI, Telnet API, RS232.

*Note: Chromecast[1] feature will be available in further firmware version soon.

Package Contents

- 1 x Presentation Switcher
- 4 x Wi-Fi Antennas
- 1 x DC 20V 6A Power Adapter
- 1 x AC Power Cord with US Pins
- 1 x 3.5mm 3-Pin Phoenix Male Connector
- 1 x 3.5mm 5-Pin Phoenix Male Connector
- 4 x Mounting Brackets
- 4 x Screws

Specifications

Video	
Input Video Port	• 1 x USB-C, 1 x HDMI • 2 x LAN, 2 x Wi-Fi
Input Video Signal	• HDMI: HDMI 1.4, HDCP 1.4 • USB-C: DisplayPort 1.1, HDCP 1.4 • LAN/Wi-Fi: H.264
Input Resolutions	**USB-C/HDMI:** $640x480^8$, $720x480^8$(480p), $720x576^6$(576p), $800x600^8$, $1024x768^8$, $1280x768^8$, $1280x800^8$, $1280x1024^8$, $1360x768^8$, $1366x768^8$, $1440x900^8$, $1400x1050^8$, $1600x1200^8$, $1680x1050^8$, $1920x1200^8$, $1280x720^5$(720p30), $1280x720^6$(720p50), $1280x720^8$(720p60), $1920x1080^2$ (1080p24), $1920x1080^3$ (1080p25), $1920x1080^5$(1080p30), $1920x1080^6$(1080p50), $1920x1080^8$(1080p60), $3840x2160^5$(2160p30) **Miracast (Wi-Fi):** $640x480^8$, $720x480^8$ (480p), $720x576^6$ (576p), $1280x720^2$, $1280x720^3$, $1280x720^5$(720p30), $1280x720^6$(720p50), $1280x720^8$ (720p60), $1920x1080^2$ (1080p24), $1920x1080^3$ (1080p25), $1920x1080^5$(1080p30), $1920x1080^6$(1080p50), $1920x1080^8$(1080p60) **Airplay Mirroring (LAN/Wi-Fi):** Up to $1920x1080^8$(1080p60) **ChromeCast* (LAN/Wi-Fi):** Up to $1920x1080^5$(1080p30) **USB-C Dongle:** $1920x1080^8$(1080p60), $3840x2160^5$(2160p30) 1 = at 23.98 Hz, 2 = at 24 Hz, 3 = at 25 Hz, 4 = at 29.97 Hz, 5 = at 30 Hz, 6 = at 50 Hz, 7 = at 59.94 Hz, 8 = at 60 Hz
Output Video Port	1 x HDMI, 1 x HDBT
Output Video Signal	• HDMI OUT: HDMI 2.0, HDCP 2.2 • HDBT: HDCP 1.4
Output Resolutions	**HDMI OUT:** $640x480^8$, $720x480^8$(480p60), $720x576^6$(576p60), $800x600^8$, $1024x768^8$, $1280x720^6$(720p50), $1280x720^8$(720p60), $1280x800^8$, $1280x1024^8$, $1366x768^8$, $1440x900^8$, $1600x1200^8$, $1680x1050^8$, $1920x1200^8$, $1920x2160^5$, $2560x1440^5$, $2560x1440^8$, $2560x1600^8$, $1920x1080^2$(1080p24), $1920x1080^3$ (1080p25), $1920x1080^5$(1080p30), $1920x1080^6$(1080p50), $1920x1080^8$(1080p60), $3840x2160^3$(2160p25), $3840x2160^5$ (2160p30), $3840x2160^6$(2160p50), $3840x2160^8$(2160p60) **HDBT:** $640x480^8$, $720x480^8$(480p60), $720x576^6$(576p60), $800x600^8$, $1024x768^8$, $1280x720^6$(720p50), $1280x800^8$, $1280x1024^8$,

Video	
	1366x768[8], 1440x900[8], 1600x1200[8], 1680x1050[8], 1920x1200[8], 1280x720[8](720p60), 1920x1080[2](1080p24), 1920x1080[3] (1080p25), 1920x1080[5](1080p30), 1920x1080[6](1080p50), 1920x1080[8](1080p60), 3840x2160[3](2160p25), 3840x2160[5] (2160p30), 3840x2160[6](4:2:0 2160p50), 3840x2160[8](4:2:0 2160p60)
	1 = at 23.98 Hz, 2 = at 24 Hz, 3 = at 25 Hz, 4 = at 29.97 Hz, 5 = at 30 Hz, 6 = at 50 Hz, 7 = at 59.94 Hz, 8 = 60 Hz

Note: Chromecast* will be available in further firmware version soon.

Audio	
Input Audio Port	1 x HDMI, 1 x USB-C, 2 x LAN, 2 x Wi-Fi
Input Audio Signal	RAW PCM 2.0, 16 bit, 32/44.1/48KHz sps
Output Audio Port	1 x HDMI, 1 x HDBT, 1 x Analog Audio Out
Output Audio Signal	• HDMI/HDBT: RAW PCM 2.0, 16bit, 48KHz sps • Analog Audio: Balanced stereo

| Wi-Fi	
Standard	IEEE 802.11 a/b/g/n/ac
Frequency	Dual bands, 2.4~2.4835GHz, 5.0~5.8GH
Throughout	2 x Wi-Fi, 2T x 2R, up to 867Mbps
Security	WEP, TKIP, AES, WPA, WPA2

Control	
Control Connector	• 2 x LAN (one of the two LAN ports) • 1 x RS232
Control Method	LAN (Web UI & Telnet API), RS232

| General	
Operating Temperature	0 to 45°C (32 to 113°F), 10% to 90%, non-condensing
Storage Temperature	-20 to 70°C (-4 to 158°F), 10% to 90%, non-condensing
ESD Protection	Human-body Model: ±8kV (Air-gap discharge)
Power Supply	20V 6A DC
Power Consumption	92W (Max)
Device Dimension (W x H x D)	215mm x 25mm x 160.2mm / 8.46" x 0.98" x 6.31" (Antennas not included)
Net Weight	• 0.93kg/2.05lbs (Antennas not included) • 1.0kg/2.20lbs (Antennas included)

Panel Description

Front Panel

#	Name	Description
1	Power LED	• On: The device is powered on. • Off: The device is powered off.
2	Status LED	• On: The switcher is working properly. • Off: The switcher is in standby state.
3	USB-C IN	• On: The corresponding video source is valid and being output.
4	HDMI IN	• Blinking: The corresponding video source is being output but not valid. • Off: The corresponding video source is neither being output nor valid.
5	USB 3.0	3 x USB 3.0 Type-A ports for the following two functions: (1) Connect to USB peripherals (e.g. keyboard, mouse, touch screen, camera, speakerphone, etc.) for USB expansion. **Tip:** Each USB-A port outputs up to 1A current. (2) Connect to a USB flash drive for firmware upgrade. More information, see Firmware Upgrade section.
6	AUDIO OUT	5-Pin 3.5mm phoenix connector. Connect to an audio receiver for balanced analog audio output.
7	RS232	3-Pin 3.5mm phoenix connector for the following two functions: • Connect to a peripheral (e.g. a projector) to control the peripheral. • Connect to a controller (e.g. a computer) to control this device.
8	PAIRING	USB-C port. Connect to Dongle for pairing or upgrading Dongle.
9	RESET	A recessed button that provides two functions: • Short press the button to show OSD (On-screen Display) on the attached display. • Press and hold the button for at least five seconds and then release, the device will automatically reboot and restore to its factory defaults.

Rear Panel
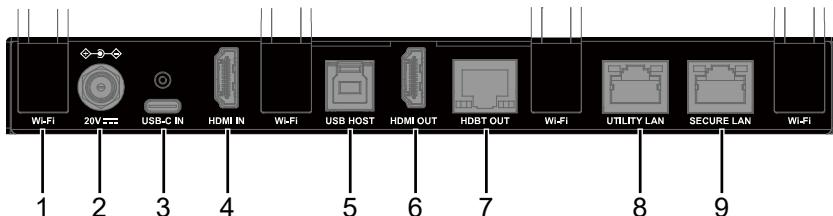
| #	Name	Description
1	Wi-Fi	Connect to the four Wi-Fi antennas for the access to Miracast and soft AP function.
2	20V	Connect to the DC 20V power adapter and the AC power cord provided.
3	USB-C IN	USB-C port that supports USB-C video input, charging (up to 60W), 1000BASE-T Ethernet connection and USB 3.0 host.
4	HDMI IN	HDMI Type-A port. Connect to an HDMI source.
5	USB HOST	USB 3.0 Type-B port. Connect to a USB host device.
6	HDMI OUT	HDMI Type-A port. Connect to an HDMI display.
7	HDBT OUT	RJ-45 port. Connect to an HDBT receiver (EX0101-N614 series receiver is recommended).
8	UTILITY LAN	2 x RJ-45 ports. Connect to network devices for LAN control, network access and Airplay Mirroring signal input.
9	SECURE LAN	Tip: For more information about the usage of two Ethernet ports, refer to the Network Mode Configuration section.

Installation and Application

Installation

Note: Before installation, please ensure the device is disconnected from the power source.

Attaching Antennas

1. Attach an antenna provided to the threaded connector, and screw it down in clockwise.
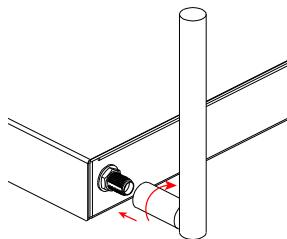
2. Repeat the above step for another antenna.

Attaching Installation Brackets

1. Attach the installation bracket to the enclosure using the screws provided in the package. The bracket is attached to the enclosure as shown.
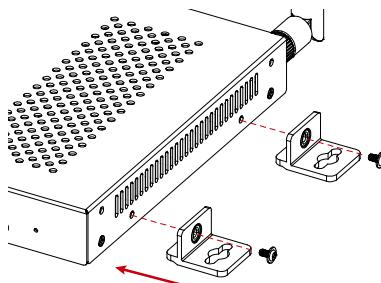
2. Repeat step 1 for the other side of the device.
3. Install the brackets on the position as required using screws (screws are not included in the package).

Application

IMPORTANT:

- Before wiring, disconnect the power from all devices.
- During wiring, connect and disconnect the cables gently.
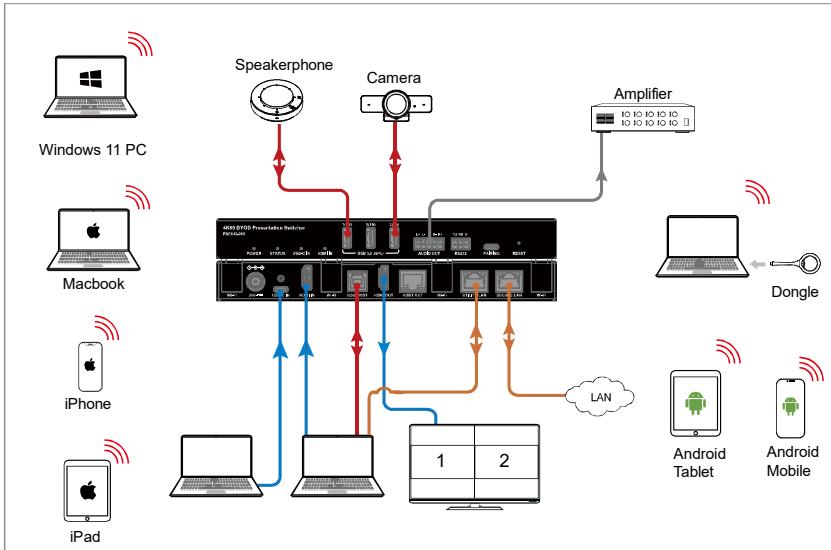
Features:

- Two PCs are connected to the USB-C IN and HDMI IN.
- Two wired PCs can access the USB camera and speakerphone through the built-in USB switcher.
- Two wired PCs can access the LAN through the built-in Ethernet switch.
- Apple devices can access the device by Airplay Mirroring.
- Android mobiles and Windows 10 PCs can access the device by Miracast.
- Any devices with USB-C video output can access the device by a USB-C Dongle.

Key Functions

Screen Mirroring

If you're working on a PC and want its apps and content to be shown on another screen, you'll want to consider mirroring your PC's screen to that screen.

With screen mirroring support, the device allows you to share your mobile devices' content wirelessly on any HDMI displays over Airplay Mirroring, Miracast and Dongle. In this manual, mobile devices available for screen mirroring are referred to as "screen mirroring source", which include Apple devices (iPhone/iPad/Mac), Android phones, Windows PCs and Dongles.

(1) Screen Mirroring over Airplay (for Apple Devices)

1. Connect your iPhone/iPad/Mac to the soft AP of the device.
    - ⇨ **Soft AP SSID**: as same as the switcher's device name and can be obtained from OSD at the upper right of the display screen. By default, it is set as **FSC640**.
    - ⇨ **Password**: set through Web UI or Telnet API and can be obtained from OSD at the bottom right of the display screen. By default, it is set as **12345678**.

2. Open Control Center on your Apple device, tap [Screen Mirroring] to select appropriate mirroring device (default device name is FSC640) from the pop-up menu.

3. To disconnect Apple device from the switcher: click **Stop Mirroring**, the display stops displaying your device's screen.

(2) Screen Mirroring over Miracast (for Android Phones & Windows PCs)

For Android mobiles (take Samsung Galaxy series for example):

1. Enable the Wi-Fi or WLAN feature of your mobile device.

2. On your mobile device, swipe down from the top and tap SmartView or Wireless Projection to select appropriate mirroring device from the pop-up CONNECT menu.

3. To disconnect mobile phone from the switcher: click "DISCONNECT" on your mobile phone's screen.

Note:

*   The icon, instruction and entrance of the Miracast function may vary on different Android mobiles, please refer to your mobile's manual to get accurate instruction.

*   If you fail to use Miracast function, please disable the mobile's Wi-Fi and enable it later, or restart the mobile if necessary.

For Windows PC (Window 10 or higher):

1. Enable the Wi-Fi or WLAN feature of your PC.

2. On your PC, press the combination keys "⊞ + K" to select appropriate mirroring device from the pop-up menu.

3. To disconnect PC from the device: click **Disconnect**, the display stops displaying PC's screen.

Note:

*   The icon and interface of the Miracast function may vary on different computers.

*   Some Windows 10/11 computers may fail to perform screen mirroring over Miracast due to compatibility issues.

Tip: Both the Airplay mirroring and Miracast support access code. If you see the PIN entry window appears on your devices, input the access code which can be obtained through OSD. (See "OSD" section for more information.)

(3) Screen Mirroring over Dongle

A Dongle enables users to share laptop's content on a display wirelessly without even installing an application.

To pair a Dongle:

1. Pair a Dongle with the device.

   Connect a Dongle to the PAIRING port of the device for pairing. Once pairing is completed, "Pairing successful" appears on the display screen.

2. Connect the Dongle to a laptop.

   Connect the Dongle to the laptop, it will start running and connecting to the device's soft AP. Once the Dongle connects to the device successfully, the Dongle LED stops blinking and starts lighting constantly.

3. Now press the Dongle's projecting button, you can share your laptop's screen on the display immediately. Press and hold the button for at least 5 seconds, you will have your laptop's screen displayed in full screen.

Projecting Button
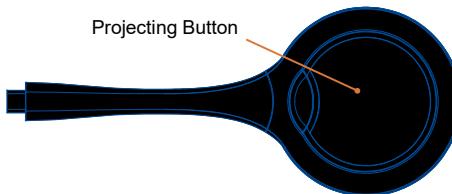
Note: For more information about the Dongle, see its user guide.

Wireless Conference

Wireless Conference function enables a laptop to access the USB conference peripherals (such as a USB camera, a USB speakerphone, etc.) attached to the switcher wirelessly through a Dongle.

Here is how to use this feature:

1. Connect USB conference peripherals to the USB-A ports of the switcher.
2. Pair between the switcher and the Dongle.
   Connect the Dongle to the switcher's PAIRING port to pair two devices. Once pairing is complete, remove the Dongle from the switcher.
3. Plug the Dongle into the laptop.
    Connect the Dongle to the laptop's USB-C port. The Dongle will be ready to transmit and receive signals in a few seconds.
   Note: Please make sure the USB-C port of the laptop supports audio and video output.
4. Press the Wireless Conference button on the Dongle to connect between the laptop and the USB devices wirelessly.

Wireless Conference Button
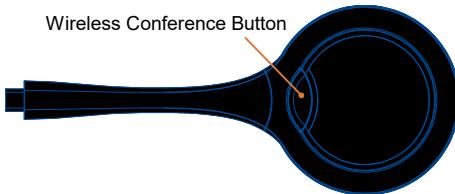
Now you can access the USB camera and the USB speakerphone through the laptop as you wish.
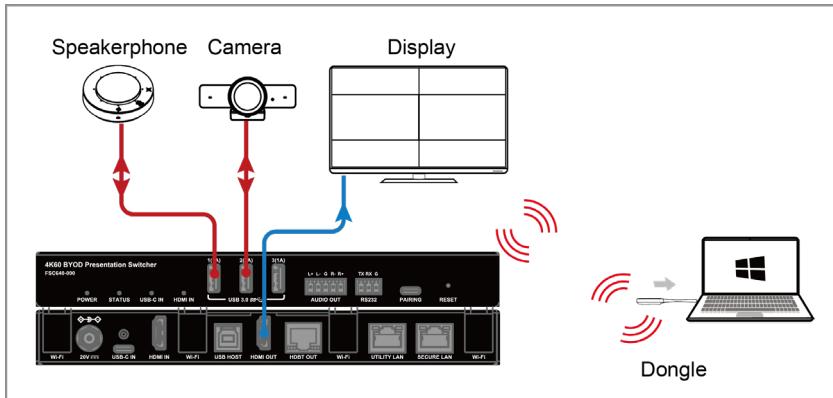
Dual View Display

By default, the switcher allows up to two video sources to be displayed on a single screen.
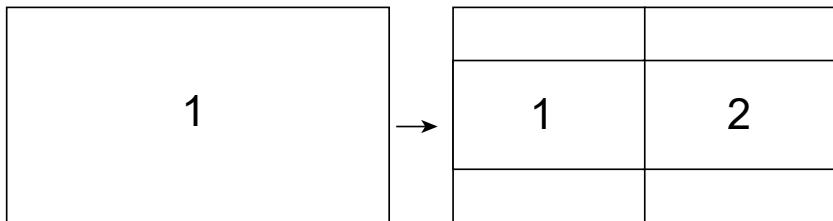
Switching mechanism of the dual view display:

- If there's only one video source is connected to the switcher, the video source will be displayed in full screen mode.
- When the second video source is being input, the switcher automatically changes to the dual view layout so that two video sources can be displayed on the screen simultaneously.
- In the case that two video sources are being played in dual view mode, connect an additional video source input to the switcher, the latest input source will replace the source that is present longer on the screen.

Note: The Dual View Display function can be disabled by API commands. For more information, see the separate API documentation.

Network Mode Configuration

The device equips two Ethernet ports for networking flexibility and security, which support the following two network modes:

(1) Transparent Mode (Default Setting)

In this mode, two Ethernet ports are interconnected with each other, and each one can be used for device control by connecting to the LAN where the controller resides, for BYOD communication, and for the attached device (e.g. room PC) to access network.

(2) Isolated Mode

When the configuration item "Secure Ethernet Mode" on web UI is set to Enable, Isolated mode is activated. For more information about enabling "Secure Ethernet Mode", refer to Wired Network section.

In Isolated mode, the SECURE LAN port is used for controlling the device; the UTILITY LAN port is for BYOD communication and for the attached device to access network.

Automatic Signal Switching

The device supports automatic signal switching function, allowing you to easily and quickly output desired sources. It follows Last-In-First-Out rule:

1. When only one video source is connected to the device, HDMI OUT will automatically output this video source to the display screen.

2. When a video source is to be input in the case that two video sources are being played in dual view on one display screen, this latest input source will displace the source that is present longer.

3. When no active video source is connected to the device, the output display shows the Guide Screen finally.

The device also provides two methods to select specific video source manually:

1) Using web UI.

2) Using API commands. For more information, please see the separate API documentation.

Guide Screen

The device outputs Guide Screen image when no video source is selected or being output. The Guide Screen can be personalized on the device's Web UI page to convey customized connection instructions.
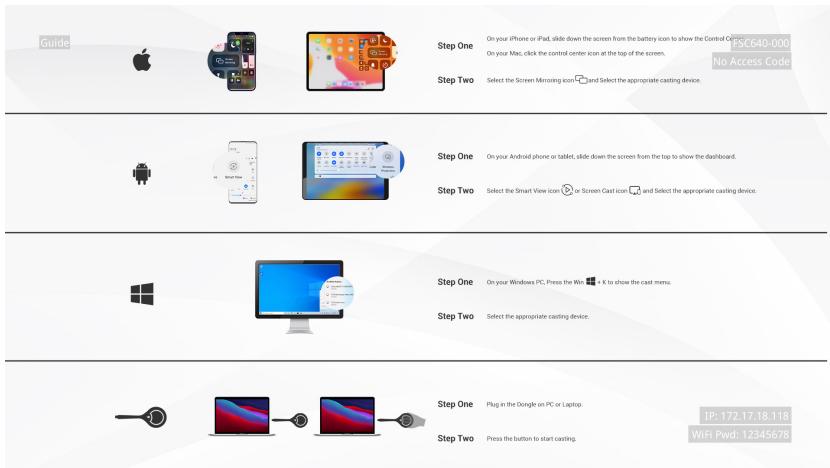
The Guide Screen is accessible in the following cases:

- Automatic switching: disconnect all video sources from the device, the Guide Screen appears automatically.
- Manual switching:
    ➔ Log on to the web UI page to select Guide Screen for the HDMI outputs. For more information see the State & Switch section.
    ➔ Send API command through telnet to the device to show the Guide Screen. For more information see the separate API documentation.

Tips:

- This Guide Screen image can be changed though Web UI, for more information refer to Guide Screen section.

- By default, if the device is outputting Guide Screen for 60 seconds, a 60-second OSD countdown will appear on the Guide Screen. When the countdown reaches zero, the device will enter standby status.

OSD

The device comes with OSD (On Screen Display) support, enables users to view basic information of the device, including video source channel, access code, device name and IP address, etc. Here are two different OSD examples:

Example 1: Full screen mode

Example 2: Dual view mode

Video source name

Device name of the switcher

Access code

IP address of the switcher

WiFi password of the switcher

Note:

• When the device outputs Guide Screen image, the OSD is shown all the time.

• When the switcher outputs specific video sources, the OSD will display on the display device for 10 seconds and then disappear.

• By default, the access code is set as blank, therefore the OSD doesn't display the access code. If you want to set access code, please see BYOD > Access Code section for more information.

Web UI

The Web UI is an intuitive software interface for users to manage and control the device with ease, which can be accessed through a web browser, e.g. Chrome, Safari, Firefox, Microsoft Edge, etc.

To access the Web UI:

1. Connect the SECURE LAN port (or the UTILITY LAN port in Transparent Network mode) of the device to a local area network.
   Tip: Ensure there's a DHCP server in the network so that the device can obtain a valid IP address.

2. Connect the PC to the same network as the device.

3. Input the device's IP address in the browser and press Enter, the following window pops up.
   To quickly view the IP address, see OSD section.
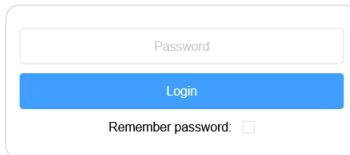
4. Input the password (default password: **admin**) and click **Login**.
   Tip: For the first login, you need to set up a new login password in the following dialog box and **Save and Continue** to enter the main page. The new password must be alphanumeric only with 4 to 16 characters in length.

The main page comprises of the General, Video Source and Display pages.

General Tab

Device Name

UI Element	Description
Device Name	Define the device name to an easy-to-remember one. This name also acts as the name for soft AP and for the receiver of Airplay and Miracast. **Note:** The name must be 1~20 characters in length, including letters, numbers, "_" or "-". By default, it's set as **FSC640**.

UI Element	Description
Apply	Click to perform current settings.

Wired Network

This section is for network settings of the device's Ethernet ports.

For Primary (SECURE LAN) port:

UI Element	Description
IP Mode	Select IP addressing mode between DHCP and Static. Default setting: **DHCP**
IP Address	Set IP address manually for the device when Static mode is selected.
Netmask	Set subnet mask manually for the device when Static mode is selected.
Gateway	Set gateway address manually for the device to communicates with another network when Static mode is selected.
DNS Server 1 **DNS Server 2**	Set DNS server manually for the device to ensure normal network communication.
Apply	Click to save and perform current settings. Note: After the IP settings are changed, please refresh the Web UI page to log back in.

For Secure Ethernet Mode:

UI Element	Description
Secure Ethernet Mode	To enable or disable the Secure Ethernet Mode. • Enable: Select to activate Isolated mode. In Isolated mode, the SECURE LAN port is used to control this device, the UTILITY LAN port is used for BYOD communication and network access. • Disable: Select to activate Transparent mode. In Transparent mode, two Ethernet ports are interconnected with each other. Default setting: **Disable** **Note:** For more information about the two network modes above, refer to <u>Network Mode Configuration</u> section.

BYOD
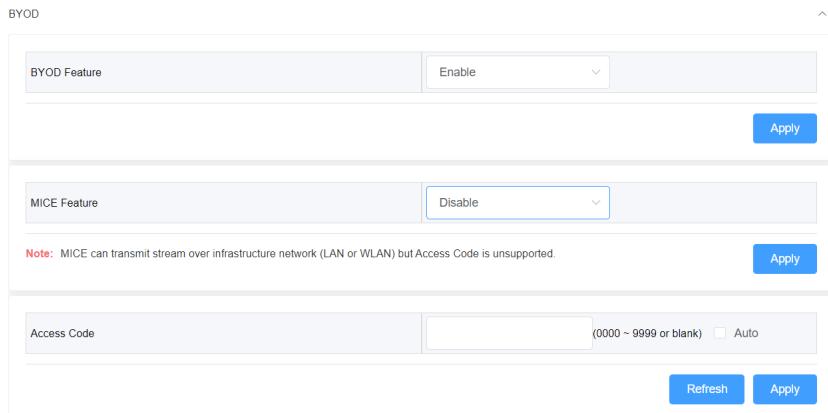
UI Element	Description
BYOD Feature	Select to enable/disable the device's BYOD feature. Note: This feature is available for Airplay and Miracast, not for Dongle.
MICE Feature	Select to enable/disable the device's MICE Feature. MICE refers to the Miracast over Infrastructure Connection Establishment protocol, which is developed by Microsoft and perceived as the upgraded version of

UI Element	Description
	Miracast. • Enable: Windows will only select infrastructure network when connection between Miracast source and Miracast receiver is through Ethernet or a secure Wi-Fi network; if not, Windows will retrieve to use Miracast P2P instead of MICE. • Disable: Windows selects Miracast to wirelessly send screencasts based on the Wi-Fi peer-to-peer (P2P) connection. Default setting: Disable
Access Code	Enter a four-digit access code to help prevent users from accidentally connecting to an unintended device and protect from an unauthorized access. • When an access code is set, it will appear on the upper right corner of the attached display. • If you don't want to set access code, you can enter nothing here. By default, it's set as blank.
Apply	Click to perform current settings.

Soft AP

UI Element	Description
Soft AP	Click to enable/disable the device's soft AP function. Default setting: **Enable**

UI Element	Description
Soft AP Password	Configure the soft AP password. Default setting: **12345678**
Soft AP Router	• **Enable**: Enable the device's soft AP router function so that wireless devices connected to soft AP are able to access the internet (verify the Ethernet port of the device is connected to the internet). Note: When the device's IP mode is set as Static, you must configure the Ethernet port's gateway and DNS correctly so that soft AP router runs properly. • **Disable**: Disable the device's soft AP function to prevent wireless devices connected to soft AP from accessing the internet. Default setting: **Enable** **Note:** Before you intend to use this feature, ensure the soft AP function is enabled.
Apply	Click to perform current settings.

Output

UI Element	Description
Output timing	Set the output timing for the output video. Two operation methods are offered in the following: • **Auto**: Select to output the optimal resolution of the attached display based on the display's EDID. E.g. If the recommended resolution for the display is 4K@60Hz, the device will output 4K@60Hz video. • **Resolution range list**: select a desired output resolution from the dropdown menu to output this fixed resolution. Maximum supported output resolution is 4K@60Hz.

UI Element	Description
	Default setting: **Auto**
Output HDCP Support	Select to turn on/off HDCP encryption for output content. Two options are offered in the following: • **Enable:** To turn on HDCP encryption of the output. • **Disable:** To turn off HDCP encryption of the output. Default setting: **Enable**

USB Switcher

UI Element	Description
USB Host	Click to select the USB host port of the built-in USB 3.0 switcher: • **USB-C**: Select USB-C IN as the USB host. • **USB Host**: Select USB HOST as the USB host. • **Wireless**: Select Dongle as the USB host. • **Auto**: Select among the above USB host ports as the USB host automatically. In this mode, the latest connected USB channel (USB-C/USB HOST/Dongle) will be selected as the USB host automatically. Default setting: **Auto**
Apply	Click to perform current settings.

Wi-Fi Settings

UI Element	Description
Band	• **5G**: Configure the device's frequency band as 5GHz. • **2.4G**: Configure the device's frequency band as 2.4GHz. Default setting: **5G** Tip: If your wireless devices don't support 5GHz Wi-Fi, configures the frequency band as 2.4G before connecting them to the device via Miracast.
Channel	Configure the device's wireless channel. Default setting: **Auto** Auto means the device selects a wireless channel automatically for itself.
Apply	Click to perform current settings.

Web Password

Web Password

New Password	
Confirm new password	

Note: Password must be 4 to 16 characters in length, alphanumeric only.

Apply

UI Element	Description
New Password	Set a new password to log on to the device's web UI page. **Note:** The new password must be 4 to 16 characters in length, alphanumeric only.
Apply	Click to perform current settings.

Guide Screen

Guide Screen

File:

Browse

Apply

Note: You must upload an image in jp(e)g format that has 1920 x 1080 pixels.

• **Browse**: click to browse for the new Guide Screen image.

Note: Image in jp(e)g format with 1920x1080 pixels is recommended.

- **Apply**: click to upload the selected image to the device.

Maintenance

UI Element	Description
Browse	Click to browse for the local upgrade file.
Apply	Click to upload the firmware file to the device and perform firmware upgrade.
Reboot	Click to restart the device
Reset to Factory Default	Click to restore the device to its factory defaults. You can also perform this task by using the Reset button on front panel.
Export Log	Click to export system log.

Version Info

UI Element	Description
Version	Shows the device's firmware version.
Build Time	Shows the time and date when the device's firmware was built.

Video Source Tab
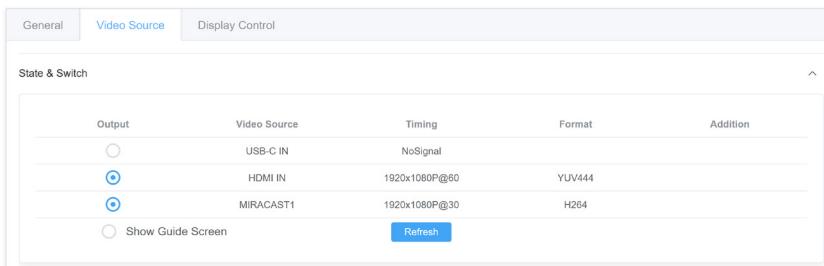
State & Switch

This section is used for switching among multiple input sources and displaying the sources' statuses, including video source names, input resolutions and format.

UI Element	Description
Output	Click the button to select (button turns from white to blue) or deselect (button turns from blue to white) the specified video source for HDMI OUT.
Show Guide Screen	Click the button to output the Guide Screen (button turns from white to blue).
Refresh	Click to refresh the current state information.

Manage Alias
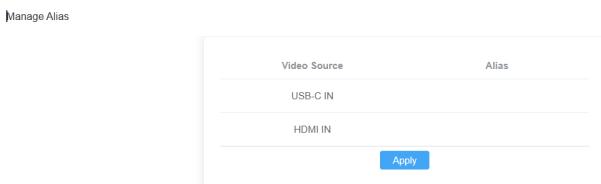
UI Element	Description
Video Source	Displays the video source name.
Alias	Enter a new alias name to change the video source name to a new one. **Note:** The alias name must be within the length of 1~20

UI Element	Description
	characters, including alphanumeric characters, underscores "_" and hyphens "-", but shall not start with "-" or be pure numbers. If you don't want to change the name, leave it blank here.
Apply	Click to perform the current settings.

EDID Settings

This section is used for EDID settings of input ports.

UI Element	Description
USB-C IN / HDMI IN	Set input EDID for USB-C IN and HDMI IN. Configuration options are offered in the following: • 1 1080P@60Hz_Audio_2CH_PCM • 2 4K@30Hz_Audio_2CH_PCM • 3 720P@60Hz_Audio_2CH_PCM Default setting: **2 4K@30Hz_Audio_2CH_PCM**

Display Control

CEC

UI Element	Description
Wakeup Command	Enter the CEC wakeup command of the controlled display device in hex format. For more information about the command, see the user guide of your display device. Default setting: **40 04**
Standby Command	Enter the CEC standby command of the controlled display device in hex format. For more information about the command, see the user guide of your display device. Default setting: **ff 36**
Apply	Click to save and perform current settings.
Wakeup	Click to send the Wakeup command to wake the display up from standby mode.
Standby	Click to send the Standby command to set the display to standby mode.
Wakeup	Click to send the Wakeup command to wake the display up from standby mode.
Standby	Click to send the Standby command to set the display to enter standby mode.

RS232

RS232

Configure

RS232 parameter	9600-8n1	example: 115200-8n1
Wakeup Command		
Standby Command		
RS232 hex string enable	Enable	

Apply

Send

Wakeup   Standby

UI Element	Description
RS232 Parameter	Set the RS232 parameters for the controlled display. For more information about the parameters, see the user guide of your display device. | Parameter	Value	Abbreviation
---	---	---
Baud Rate	9600bps	9600	

UI Element	Description		
	Data Bits	8bits	8
	Parity	None	n
	Stop Bits	1	1
	Default setting: **9600-8n1**		
Wakeup Command	Enter the RS232 wakeup command of the controlled display device. For more information about the command, see the user guide of your display device. If you want to disable this function, you can enter nothing here. By default, it's set as blank.		
Standby Command	Enter the RS232 standby command of a controlled display device. For more information about the command, see the user guide of your display device. If you want to disable this function, you can enter nothing here. By default, it's set as blank.		
RS232 hex string enable	• **Enable**: select to use the RS232 standby and wakeup commands in hex string form to control your display devices. If this item is enabled, make sure standby and wakeup commands are manually converted to their equivalent hex forms first and then input the **RS232 Standby Command** and **RS232 Wakeup Command**. For example, RS232 wake up command in hex form may be: *50 57 52 20 4F 4E 0D 0A* • **Disable**: select to directly send the original standby or wakeup commands to control the attached display device. Default setting: **Disable**		
Apply	Click to perform current settings.		
Wakeup	Click to send the Wakeup command defined in Wakeup Command field to wake the display up from standby mode.		
Standby	Click to send the Standby command defined in Standby Command field to set the display to enter standby mode.		

Control Strategy

UI Element	Description
Auto Standby	• **Enable**: To enable auto standby function for the device. If enabled, when there's no valid signal output to the device during a specified period of time, the device will enter standby status automatically. • **Disable**: To disable auto standby function for the device. Default setting: **Enable**
Auto Standby Time (Second, ranges from 0 to 3600)	Set the standby timeout for the device to enter standby status. • If the standby timeout doesn't exceed 60 seconds, the 60-second OSD standby countdown of the device will appear on the display screen immediately once it outputs Guide Screen. • If the standby timeout is larger than 60 seconds, the 60-second OSD standby countdown of the device will appear on the display screen when the standby timeout has only 60 seconds left. • If Auto Standby Time is set to 0, it means the device will enter standby mode immediately once it outputs Guide Screen. For example, an 80-second auto standby time means when the device starts to output Guide Screen, 20 seconds later, a 60-second OSD countdown for the device to enter standby status begins; when the countdown reaches zero, the display enters standby

UI Element	Description
	mode. Default setting: **120**
Sink Power Mode	• **Both**: Enable both CEC and RS232 mode to manage the sink power. • **CEC**: Enable CEC to manage the sink power. • **RS232**: Enable RS232 to manage the sink power. Default setting: **Both**
Apply	Click to save and perform current settings.

Power On/Off Device

Power On/Off Device

> Power On   Power Off

UI Element	Description
Power On	Click to wake the switcher up from the standby mode.
Power Off	Click to set the switcher to enter standby mode.

Firmware Upgrade

The device supports firmware upgrade through Web UI and USB-A ports on rear panel.

To upgrade firmware through Web UI, see Maintenance section.

To upgrade firmware through USB-A port on front panel, perform the following:

1. Name the upgrade file package "FSC640-update.zip".
2. Create a new folder named "upgrade" under the root directory of a FAT32 or NTFS USB flash drive. Place the upgrade file in this folder.
3. Connect the USB flash drive to one of the switcher's USB-A ports. It will take about 1 minute for the switcher to read the USB flash drive. If the device detects the upgrade file is a newer version, it will start upgrading. When the upgrade process is complete, the device reboots automatically.

Note:

*   Before connecting a USB flash drive to the device, we recommend that you remove peripheral devices from this device's USB-C IN and USB-B HOST ports.
*   Do not cut off the power source of the device during the upgrade process.
*   If the device detects the upgrade file is not a newer version, it will not start upgrading.

FCC Statement
 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.

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

When using the product, maintain a distance of 20cm from the body to ensure compliance with RF exposure requirements.