WMF72
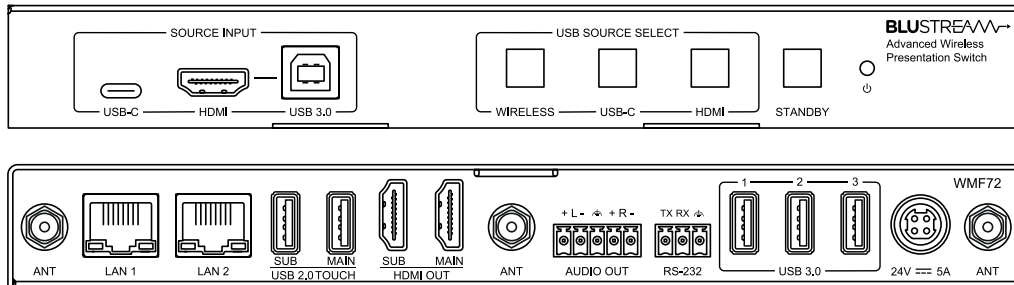## Quick Reference Guide

Introduction

The WMF72 is an advanced 4K multi-format presentation switch featuring wired HDMI and USB-C, AirPlay, Miracast® and Chromecast® inputs to dual HDMI outputs.

The WMF72 provides enhanced features including dual HDMI output for mirrored or managed source control with multiview presentation, video scaling and web-GUI for control and configuration, localised 2.4/5G WiFi hotspot, and dual LAN connection.
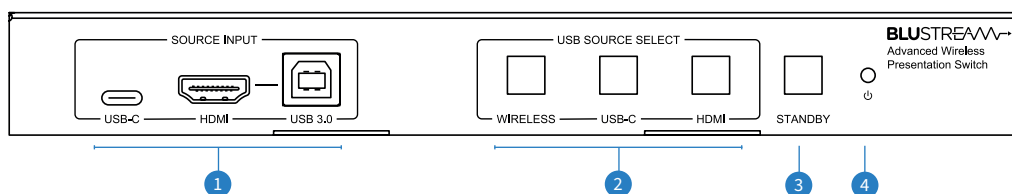
The WMF72 also features OSD control, USB camera and MIC over WiFi, USB touch-back to connected host device, whiteboard and screen overlay annotation, manual or automated source selection, and control via front panel, RS-232 and TCP/IP. The WMF72 is also compatible with Blustream WMF-USBC-D and WMF-HDMI-D plug & play wireless dongles, providing an ideal BYOD solution for your boardroom, classroom or huddle-space application.

FEATURES:

- 4K multi-format multi-view presentation switch
- Features HDMI, USB-C, AirPlay, Miracast®, Chromecast® and Blustream wireless dongle support which can be switched to Dual HDMI outputs
- Dual HDMI output supports mirror or desktop extension for managed source control within advanced video conferencing set-ups
- Multiview presentation with up to 5 concurrent video signals with configurable screen layout
- In-built video scaler with output timing up to 4K 60Hz 4:4:4
- USB-C connection for BYOM, with DP, USB, 1Gbps network and up to 65W power charging
- HDMI & USB Type B connection for BYOM, with USB and 1Gbps network via USB Type B connection
- Localised 2.4G/5G WiFi hotspot to host AirPlay, Miracast® and Chromecast® local point-to-point mode (up to 1080p)
- Dual LAN connection for integration to existing network infrastructures
- Supports USB camera and MIC over WiFi up (1080p 30Hz)
- Supports USB touch-back feature via WMF-USBC-D and WMF-HDMI-D dongles and Miracast®*
- Audio breakout to balanced/unbalanced analogue L/R audio
- Web interface module for control and configuration of unit
- OSD control with preview function
- Whiteboard and screen overlay annotation feature
- Control via front panel, RS-232 and TCP/IP with manual or auto source selection
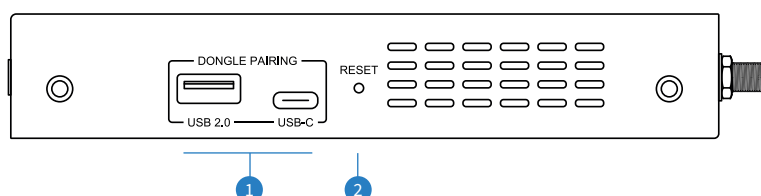
  *Miracast touch-back compatibility subject to Windows features
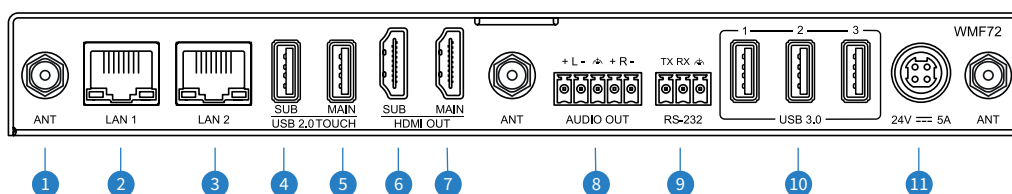
Front Panel Description

❶ Source Input Ports - Connect local HDMI and USB-C source device. **Please note:** USB-B port is paired with HDMI source input

❷ USB Source Selection - Press to switch USB routing

❸ Standby Button - Press to turn on or off the WMF72

❹ Power LED Indicator - Illuminates when the device is powered on

Side Panel Description

❶ USB-A / USB-C Dongle Pairing Ports - Connect Blustream WMF-HDMI-D or WMF-USBC-D wireless dongles to corresponding port to pair with the WMF51. WMF51 video output will display information regarding the automatic pairing and firmware update process. **Please note:** wireless dongles sold separately

❷ Reset button - Press and hold reset button for 10 seconds to return the WMF72 to factory default settings

Rear Panel Description

❶ WiFi Antenna Connection (x3) - Connect supplied WiFi antennas

❷ TCP/IP Port 1 - 1Gbps RJ45 connector to connect to LAN for TCP/IP control of device and to access web-GUI

❸ TCP/IP PoE Port 2 - 1Gbps RJ45 connector to connect to LAN for TCP/IP control of device and to access Web GUI

❹ USB 2.0 Touch Connector Sub Zone - Connect to Sub-Zone Touchscreen/USB mouse/keyboard for control of source devices

❺ USB 2.0 Touch Connector Main Zone - Connect to Main Zone Touchscreen/USB mouse/keyboard for control of source devices

❻ HDMI Output Sub Zone - Connect to HDMI display equipment (secondary output) Supports up to 1080p

❼ HDMI Output - Connect to HDMI display equipment (main output) Supports up to 4K 60Hz 4:4:4

❽ Balanced/unbalanced Analogue L/R Output - 5-Pin Phoenix connector for audio break out (2ch PCM audio only)

❾ RS-232 Port - 3-pin Phoenix connector for control of the WMF72

❿ USB 3.0 Connectors - Connect USB devices such as Camera, Microphone etc

⓫ Power Port – Use included 24V/5A DC adaptor

NOTE: The distance between user and products should be no less than 20cm.   *WARNING: 5.2 GHz band is restricted to indoor use only.*

La distance entre l'utilisateur et le produit ne doit pas être inférieure à 20 cm.   *La bande de 5.2 GHz est réservée à l'usage intérieur.*

Configuration and Web-GUI Control

The WMF72 features an in-built web-GUI which is required for control and configuration of the device. This configuration includes features such as source EDID management, output scaler resolution, network / WiFi configuration, and user control.

You can connect to the WMF72 either via hardwired LAN connection, or via local WiFi hotspot.

Connecting via LAN:

By default this device is set to DHCP, however if a DHCP server (eg: network router) is not installed, or connect directly from a PC to the WMF72, the IP address will revert to the below details:

Default **Username** is: admin   Default **Password** is: @Bls1234   Default **IP Address** is: 192.168.0.200

If the WMF72 is connected to a pre-existing network then it will be provided an IP Address via DHCP. There are several ways in which you can find the IP address of the device as follows:

- The On Screen Display shows the IP address of the product in the lower left corner of the screen (item A in the image below).
- Use a 3rd party IP scanning tool on your PC to find the IP address of the WMF72.

Connecting via Local WiFi Hotspot:

This device can broadcast its own local WiFi hotspot which users can connect to in order to stream content to the device, or control and configure it. The default local WiFi hotspot settings are as follows:

Default **Device ID / SSID** is: WMF72-xxxx where xxxx is bound to MAC address of the unit.

Default **SSID Password** is set to dynamic by default and displayed on screen.

Default **BYOD PIN** is an 8 digit code displayed on screen that by default automatically changes every 5 minutes

It is also possible to disable the local WiFi hotspot and hardwire the WMF72 into a pre-existing data network. You would then use the pre-existing WiFi access points to connect to the network and communicate with the WMF72.

BYOD (Bring Your Own Device) Connectivity

The on screen display shows a connection guide when no input devices are being viewed. This illustrates how to connect your laptop, wireless dongles, tablet or smartphone (BYOD device) to the unit. There are various technologies utilised to ensure your smart device is capable of broadcasting a video to the WMF72 without any apps required. These are:

- AirPlay (Apple devices)
- Miracast®, SmartView or ScreenCast (Android devices)
- Chromecast® (Google devices)
- Wireless Display Sharing (Windows 10 devices)

For further information please see the WMF72 User Manual - available to download from the Blustream website.

RS-232 Configuration

The RS-232 port is used for control of source or display from the WMF51. The default RS-232 communication settings are:

Baud Rate: 57600   **Data Bit:** 8

Stop Bit: 1   **Parity Bit:** none

Specifications

- **Video Input Connectors:** 1 x HDMI Type A, 19-pin, female; 1 x USB Type C, female
- **Video Output Connectors:** 2 x HDMI Type A, 19-pin, female
- **Audio Output Connectors:** 5-Pin Phoenix connector (2ch balanced/un-balanced analogue audio)
- **RS-232 Serial Port:** 1 x 3-pin Phoenix connector
- **TCP/IP Control:** 2 x RJ45, female (1000Mbps x2)
- **USB Connectors:** 3 x USB3.0 Type A, female; 1 x USB3.0 Type B, female
- **USB Touchback Connectors:** 2 x USB2.0 Type A, female
- **USB Pairing Connectors:** 1 x USB 2.0 Type A, female; 1 x USB Type C, female
- **WiFi Antenna Connections:** 3 x SMA, female connector, MIMO antennas (2.4G & 5G, WiFi IEEE 802.11 b/g/n/ac/ax up to 1,200Mbps)
- **WiFi Encryption:** AES WPA PSK, WPA2 PSK
- **WiFi Specification for Europe only:** 2.4GHz EIRP < 20dBm
  5.150~5.250GHz EIRP < 23dBm
  5.725~5.850GHz EIRP < 13.98dBm
- **Dimensions (W x H x D):** 220mm x 27mm x 161mm (excluding antennas)
- **Shipping Weight:** 2kg
- **Operating Temperature:** 0°C to 45°C (32°F to +113°F)
- **Storage Temperature:** -20°C to 70°C (-4°F to +158°F)
- **Power Supply:** 24V/5A DC

> **NOTE:** Specifications are subject to change without notice. Weights and dimensions are approximate. For wall mounted installations, height may exceed 2m.

Package Contents

- 1 x WMF72
- 1 x 3-pin Phoenix Connector (RS-232)
- 1 x 5 -pin Phoenix Connector (Audio)
- 3 x Antenna
- 1 x Mounting Kit
- 1 x Quick Reference Guide
- 1 x 24V/5A DC Power Supply

Power Supply Specification
Model: TDX-2405000
Rated Input: 100-240VAC 50/60Hz 3.0A
Rated Output: 24.0V 5.0A 120.0W
Includes: Any 2 of US, UK, EU, AU power cords
Manufacturer: Shenzhen Teng Da Xing Electron Co.,Ltd.
Address: 3rd Floor, Building 1, Chaxi Industrial Zone, Sanwei Community, Hangcheng Street, Bao'an District, Shenzhen

⚠ 📖 Please read the entire manual carefully before operating this device.

Certifications

FCC NOTICE

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.

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

CANADA, Innovation, Science and Economic Development Canada **NOTICES**

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions: (1) This device may not cause interference. (2) This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: 1. L'appareil ne doit pas produire de brouillage; 2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

CORRECT DISPOSAL OF THIS PRODUCT

This marking indicates that this product should not be disposed with other household wastes. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmentally safe recycling.

FCC Radiation Exposure Statement:

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.

RF Exposure Statement:

The device is compliance with RF exposure guidelines, users can obtain Canadian information on RF exposure and compliance. The minimum distance from body to use the device is 20cm.

Le présent appareil est conforme Après examen de ce matériel aux conformité ou aux limites d'intensité de champ RF, les utilisateurs peuvent sur l'exposition aux radiofréquences et compliance d'acquérir les informations correspondantes. La distance minimale du corps à utiliser le dispositif est de 20cm.

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, and

(2)This device must accept any interference received, including interference that may cause undesired operation

AT	BE	BG	CZ	DK
EE	FR	DE	IS	IE
IT	EL	ES	CY	LV
LI	LT	LU	HU	MT
NL	NO	PL	PT	RO
SI	SK	TR	FI	SE
CH	UK(NI)	HR		

UK

This radio transmitter [IC: 27021-WMF72] has been approved byInnovation, Science and Economic Development Canada to operate with the antenna types listedbelow, with the maximum permissible gain indicated, Antenna types not included in this list thathave a gain greater than the maximum gain indicated for any type listed are strictly prohibited foruse with this device.
Operation Frequency
U-NII Band 1: 5180MHz to 5240MHz; U-NII Band 3: 5745MHz to 5825MHz; WIFI 2.4G: 2412MHz to 2462MHz
Antenna Type   :   External Antenna
Antenna Gain(Peak) :
WiFi 5.2G: 1.75dBi
WiFi 5.8G: 3.88dBi
WiF2.4G: 2.68dBi
Antenna impedance: 50Ω

Notes

www.blustream.com.au **|** www.blustream-us.com **|** www.blustream.co.uk