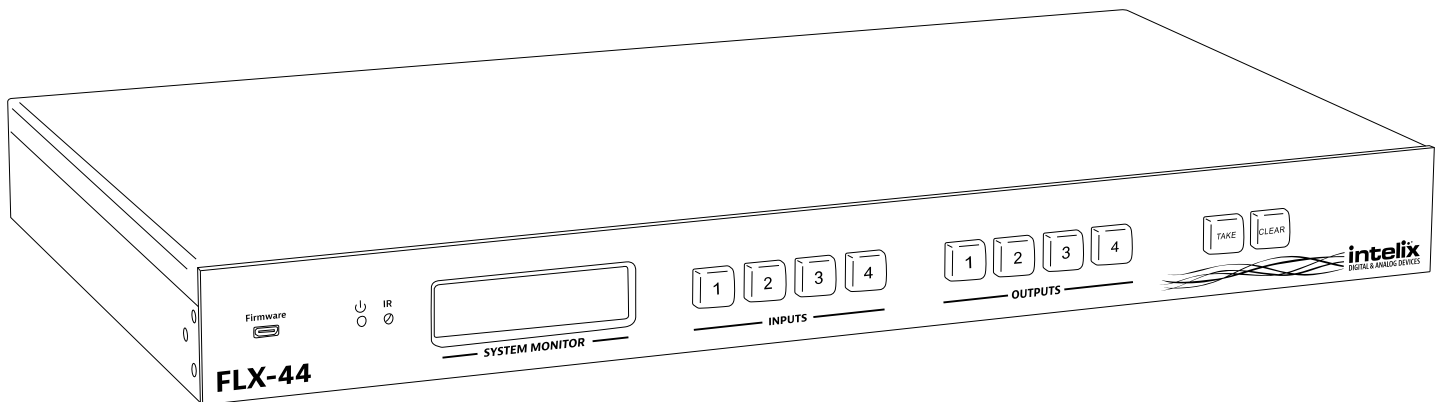


FLX-44 Installation and Operation Guide



Important Safety Instructions

- » Please completely read and verify you understand all instructions in this manual before operating this equipment.
- » Keep these instructions in a safe, accessible place for future reference.
- » Heed all warnings.
- » Follow all instructions.
- » Do not use this apparatus near water.
- » Clean only with a dry cloth.
- » Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- » Use only accessories specified or recommended by Intelix.
- » Explanation of graphical symbols:
 - ◊ Lightning bolt/flash symbol: the lightning bolt/flash and arrowhead within an equilateral triangle symbol is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product enclosure which may be of sufficient magnitude to constitute a risk of shock to a person or persons.
 - ◊ Exclamation point symbol: the exclamation point within an equilateral triangle symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.
- » **WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE AND OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHOULD NOT BE PLACED ON THIS APPARATUS.**
- » Use the mains plug to disconnect the apparatus from the mains.
- » **THE MAINS PLUG OF THE POWER CORD MUST REMAIN READILY ACCESSIBLE.**
- » Do not defeat the safety purpose polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of your obsolete outlet. **Caution! To reduce the risk of electrical shock, grounding of the center pin of this plug must be maintained.**
- » Protect the power cord from being walked on or pinched particularly at the plugs, convenience receptacles, and the point where they exit from the apparatus.
- » Do not block the air ventilation openings. Only mount the equipment per Intelix’s instructions.
- » Use only with the cart, stand, table, or rack specified by Intelix or sold with the equipment. When/if a cart is used, use caution when moving the cart/equipment combination to avoid injury from tip-over.
- » Unplug this apparatus during lightning storms or when unused for long periods of time.
- » **Caution! Shock Hazard.** Do not open the unit.
- » Refer to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



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Product Overview

The Intelix FLX-44 is a four input by four output HDBaseT/HDMI matrix switcher. The Intelix FLX-44 matrix improves the ease of installation similar to previous Intelix HDMI matrix switchers.

The FLX-44 features HDBaseT twisted pair extension for each output, and simultaneous HDMI on the first two outputs, allowing the same signal to be routed to the HDMI connector and a remote destination with an HDBaseT receiver. The HDBaseT ports support 1080p HDMI video with audio, bidirectional wide-band IR, matrix control via IR, RS232 tunneling, and HDCP up to 60 meters (196 feet). Each HDBaseT output port supplies power to the attached extender, eliminating the need for a power supply at the display end. Each output features stereo audio de-embedding for connection to amplifiers or DSPs.

The FLX-44 can be controlled via front panel buttons, front panel IR, external IR, remote IR through HDBaseT extenders, RS232, and Ethernet. Clear button caps provide legible text on the front panel, which can be customized for each installation. The matrix includes a simple IR remote control to allow IR switching. This IR remote control can be learned into universal remotes and IR based control systems. An IR All In port is provided, which allow one IR connection to control all four remote displays.

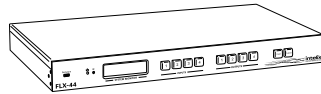
The matrix also features a full command set for RS232 and Ethernet control with third party control systems, plus control via a web browser. RS232 commands to remote displays can also be embedded in the control stream through the matrix from both the RS232 and Ethernet control ports, which will reduce the number of serial ports required for the control system.

The FLX-44 is HDMI compatible and supports up to 2K resolutions, Deep Color, and full 3D capabilities. The matrix features advanced EDID and HDCP handling, including the ability to turn HDCP compliance ON and OFF to ensure maximum functionality with a wide range of sources.

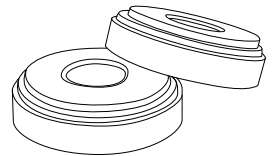
Package Contents

Please verify the following items are in the shipping box prior to installation of the FLX-44.

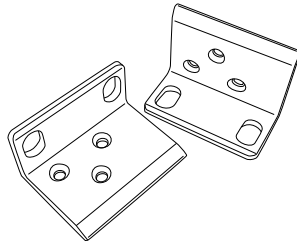
FLX-44 Matrix Switcher
1 ea



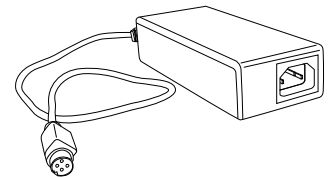
Shelf Feet with Screws
4 ea



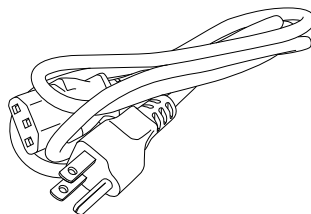
Rack Ears with Screws
2 ea



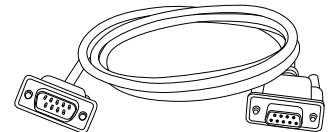
48V DC 1.6A Power Supply
1 ea



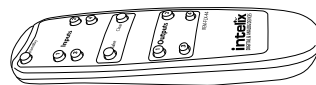
US Power Cable
1 ea



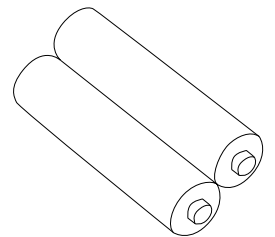
RS232 Cable
1 ea



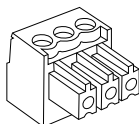
Infrared Remote Control
1 ea



AAA Batteries
2 ea



Removable 3-pole
Terminal Blocks
(installed on matrix)
8 ea

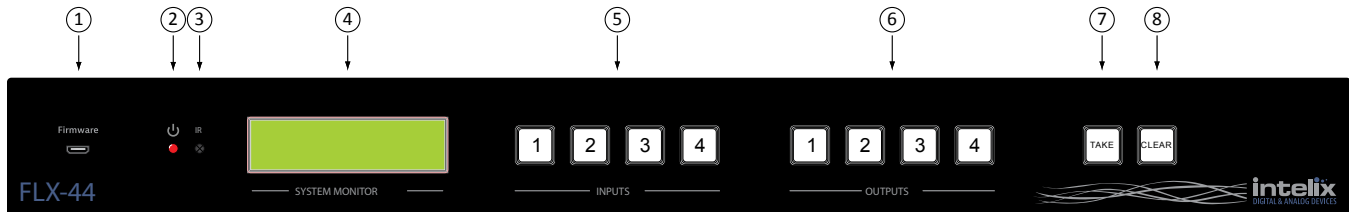


FLX-44 Installation and
Operation Guide
1 ea



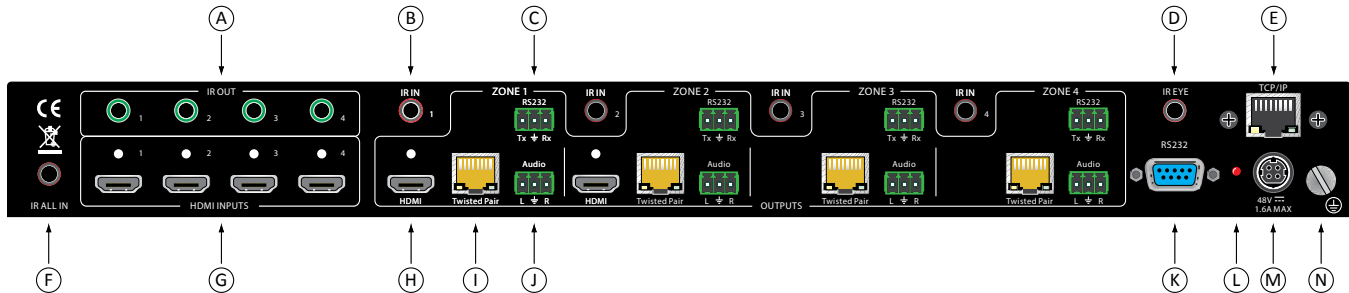
Front and Rear Panels

Front Panel



1. Micro USB port for firmware updating
2. Power indicator LED
3. IR receiver for matrix control via IR remote
4. LCD screen
5. Input select buttons
6. Output select buttons
7. Take button – confirms route changes and applies new route
8. Clear button – cancels current routing selection before change is applied

Rear Panel



- A. IR output ports for each HDMI source
- B. IR input ports for each HDBaseT output
- C. RS232 input for each HDBaseT output
- D. IR input for matrix when front is covered or matrix is located in a concealed location
- E. TCP/IP (Ethernet) control input; also allows control via web browser
- F. IR input for all HDBaseT outputs
- G. HDMI inputs
- H. HDMI outputs (outputs 1 and 2 only)
- I. HDBaseT outputs with PoE support
- J. Analog audio output
- K. RS232 control input
- L. Power LED
- M. 48V DC power input
- N. Ground screw

IR Remote

The included IR remote performs all of the functions available on the front panel of the FLX-44. Please see page 19 for information on controlling the matrix from the front panel and the IR remote.

The remote control requires two AAA batteries, which are included.



Installation Instructions

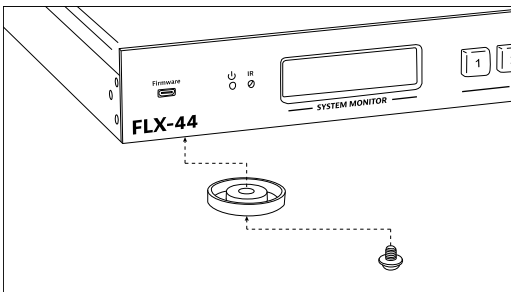
Quick Start

1. Mount the matrix
2. Connect ground (optional)
3. Connect sources
4. Connect displays
5. Connect audio outputs (optional)
6. Connect control (optional)
7. Apply power

Mount the Matrix

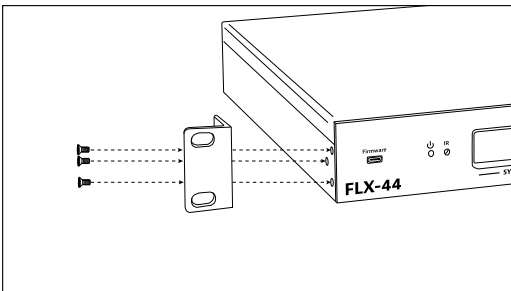
At least 2 inches of free air space is required on both sides of the FLX-44 for proper side ventilation. Avoid mounting the FLX-44 near a power amplifier or any other source of significant heat.

Shelf Mounting Instructions



Attach the supplied shelf feet to the bottom of the FLX-44 matrix.

Rack Mounting Instructions

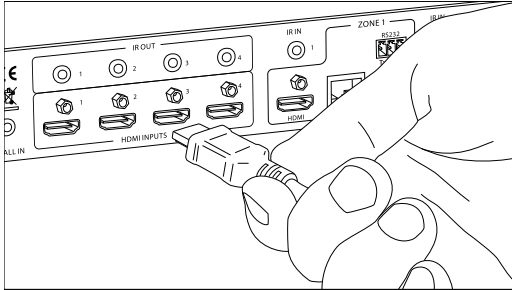


Attach the supplied rack ears to the sides of the FLX-44 matrix. The matrix requires one rack units (1 RU) of space. It is recommended that you leave an empty rack space above and below the FLX-44 for additional cooling.

Connect Ground

A ground screw is located on the bottom right rear of the matrix to help eliminate static shock during installation of the matrix. Connect a wire from the matrix to an earth ground.

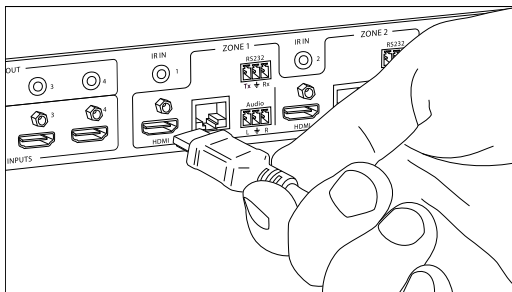
Connect Sources



Connect the source devices to HDMI inputs using HDMI cables that are less than or equal to 5 meters in length. For source devices that are further away, an HDMI extension device will be required to complete the connection.

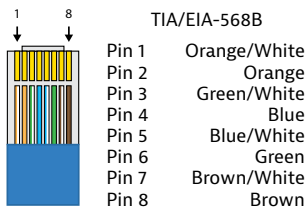
Connect Displays

HDMI Outputs



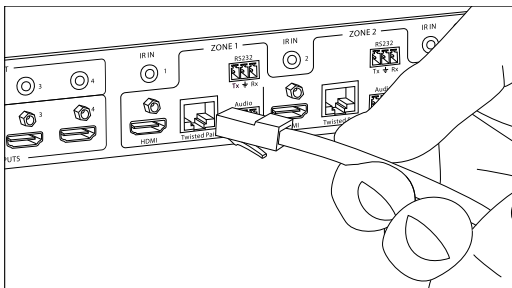
Connect the display devices to HDMI outputs using HDMI cables that are less than or equal to 5 meters in length. For display devices that are further away, it is highly recommended to utilize the HDBaseT outputs.

HDBaseT Outputs



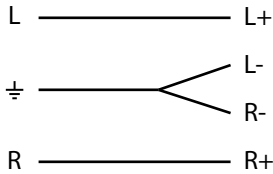
For all HDBaseT cabling, the EIA/TIA-568B crimp pattern must be used on Category 6 or greater cable. In areas with large amounts of electromagnetic (EM) or radio frequency (RF) interference, a shielded variety of Category 5e or greater cable is recommended with shielded connectors on both ends of the selected cable.

The HDBaseT outputs provide 15 watts of Power over Ethernet, which eliminates the need for a power supply with a compatible HDBaseT receiver. Intelix recommends using the DIGI-HD60C-R for installations which require remote power.

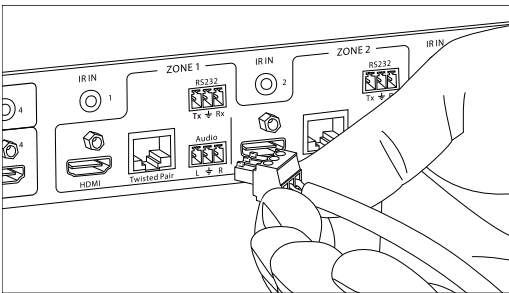


Connect the HDBaseT receiver to the display per the manufacturer's instructions. Connect the HDBaseT cable to the matrix and the HDBaseT receiver.

Connect Audio Outputs



If the analog audio outputs are to be used in the installation, connect the Left, Right, and ground reference wires to the removable 3-pole terminal block.



Insert the removable 3-pole terminal block to the appropriate output zone terminal.

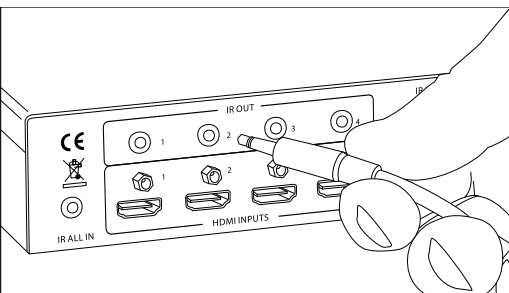
Connect IR Control

The FLX-44 has an advanced bidirectional IR control protocol through the HDBaseT output port, which allows for the control of the sources, displays, and matrix. Intelix recommends using the DIGI-HD60C-R for installations which require IR extension.

Only use DIGIB-EMT (IR transmitter) and DIGIB-EYE (IR receiver), which are sold separately, with the FLX-44. Third party 12V DC IR components are not compatible with the FLX-44.

Source Device and Matrix Control via Remote IR

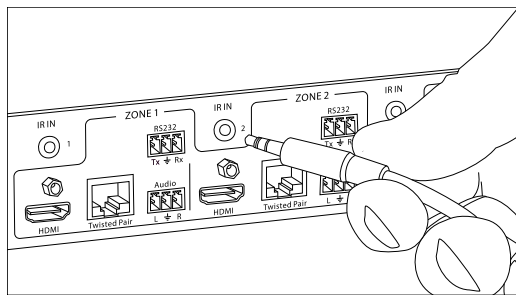
An IR signal passed from the display location through the HDBaseT connection can provide control of the source device. The IR signal from the remote display location can also control the switching of the matrix.



Attach the plastic end of the DIGIB-EMT to the IR receiver of the source device. Insert the TS 3.5 mm plug of the DIGIB-EMT to the IR output port (IR OUT) of the matrix for the source device to control.

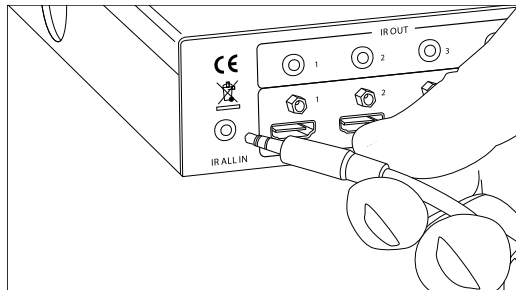
Remote Display Control via IR

An IR signal may be passed to a remote display location through the HDBaseT connection. There are two possible IR input connections for controlling a remote display: *IR In* for an individual output zone and *IR All In* for global IR signal distribution.



Zone Control via IR

Insert the TRS 3.5 mm plug of the DIGIB-EYE to the IR input port (IR IN) of the matrix for the output zone of the display device to control.

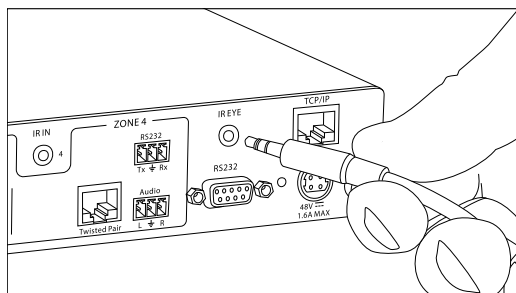


Global Control via IR

Insert the TRS 3.5 mm plug of the DIGIB-EYE to the global IR input port (IR ALL IN) of the matrix to control all remote display devices.

Concealed Matrix Control via IR

When the FLX-44 is installed in an equipment rack or other concealed location, access to the front panel for normal IR control may be difficult. The *IR EYE* input allows the IR remote to control the matrix via a connected DIGIB-EYE.



Insert the TRS 3.5 mm plug of the DIGIB-EYE to the matrix IR input port (IR EYE) of the matrix.

Connect RS232 Control

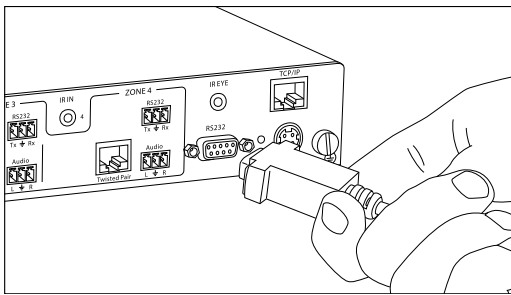
In addition to traditional RS232 control, the FLX-44 has an advanced RS232 control mechanism which allows RS232 tunneling and routing through the HDBaseT output port to control remote devices. Intelix recommends using the DIGI-HD60C-R for installations which require RS232 extension.

See page 27 for all available control commands for the FLX-44.

Matrix Control via RS232

The RS232 control port requires a standard straight-through serial cable for operation. The default settings for the RS232 port are:

- 9600 baud
- 8 Data Bits
- 1 Stop Bit
- Parity = none

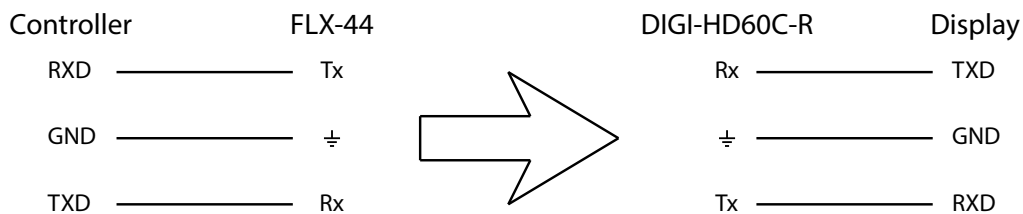


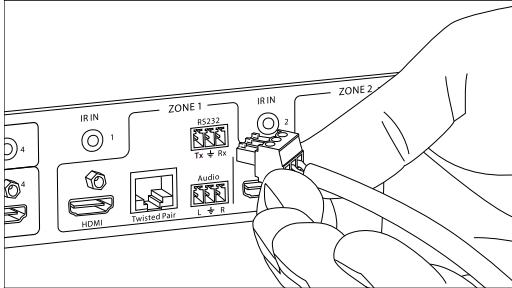
Connect a standard straight-through serial cable with DE9 connector between the RS232 port on the FLX-44 and the controller.

Remote RS232 Control via Tunneling

Discrete remote control of remote display devices is possible by connecting an RS232 output of a control system to the 3-pole terminal block on the output of the matrix. A compatible HDBaseT with control receiver is required to pass the control signals to the display devices.

To use the RS232 extension capabilities of the FLX-44, connect the TX, ground, and RX control signal wires to the removable 3-pole terminal block. Consult the manual of the control device(s) to determine which pins the TX/RX signals are carried on. Be sure to always connect TX to RX and RX to TX.





Insert the removable three-pole terminal block into the RS232 tunneling port for the output zone which requires remote RS232 control.

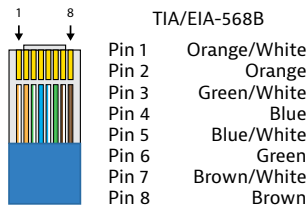
Remote RS232 Control via RS232 Routing

The FLX-44 has the logic to pass RS232 commands to remote devices through the DE9 RS232 port. Please see page 29 for more information on how to implement this feature in an installation.

Connect TCP/IP (Ethernet) Control

The FLX-44 may be controlled via Ethernet with a third party control system or through a web browser interface. Additionally, the FLX-44 has an advanced RS232 control mechanism which will transmit RS232 commands through the HDBaseT output port to control remote devices with a simple command string. Intelix recommends using the DIGI-HD60C-R for installations which require RS232 extension.

See page 27 for all available control commands for the FLX-44.



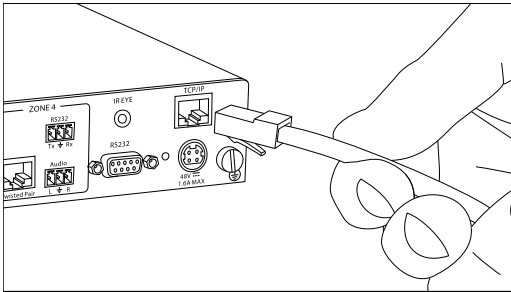
The TCP/IP port requires a standard straight-through Category 5 or greater cable with the TIA/EIA-568B crimp pattern for operation.

The default settings for the TCP/IP port are:

IP address: 192.168.0.178

Port: 8080

Matrix Control via TCP/IP (Ethernet)



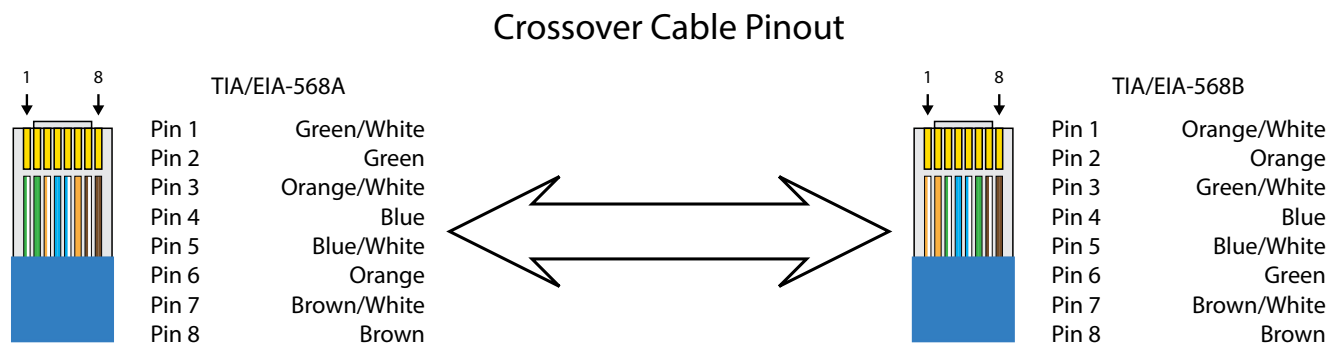
Connect the Ethernet cable between to the matrix and a router with a straight-through cable or between the matrix and a computer with a crossover cable.

Router Connection

1. Configure the router to use the same IP range as the matrix, such as 192.168.0.1.
2. Connect the computer to the router.
3. Connect the FLX-44 to the router

Crossover Cable Connection

1. Configure the computer to use the same network prefix as the IP address assigned to the matrix. *For example, the IP address of the matrix is 192.168.0.178. Set the computer to use a static IP address within the same network range, such as 192.168.0.42.*
2. Connect the network crossover cable to the computer and to the TCP/IP port on the FLX-44.



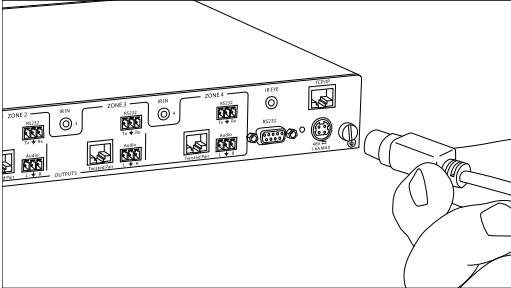
Web Browser Control

The FLX-44 includes a web portal to allow control of the matrix via a standard web browser. The IP address is the same address that is used for TCP/IP control. See page 21 for detailed information regarding the web browser interface, including customization.

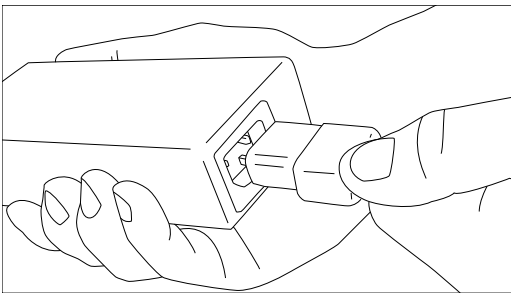
Remote RS232 Control via TCP/IP Routing

The FLX-44 has the logic to pass RS232 commands to remote devices through the TCP/IP port. Please see page 29 for more information on how to implement this feature in an installation.

Apply Power



Plug the power supply into the power input port on the rear of the matrix.



Connect the IEC power cable into the power supply. The matrix will turn on once the IEC cable is plugged into AC power.

LCD Panel Boot-up Information

While the matrix is booting up, the front LCD panel will show the IP address of the matrix and the current version of firmware. After five seconds, it will show Intelix FLX-44. The backlight will go dark after five seconds.

See page 23 on how to customize the information displayed on the LCD panel.

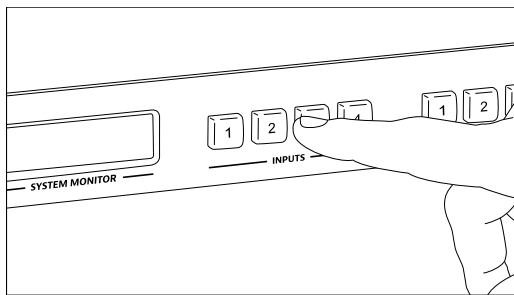
Front Panel and IR Remote Operation

Basic Routing

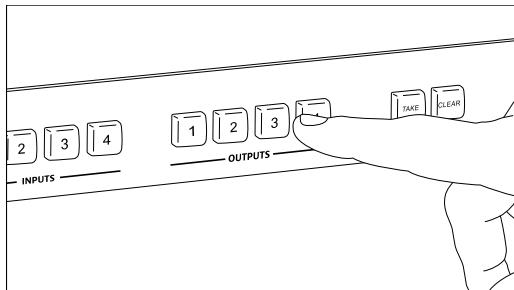
To set a route using the front panel of the FLX-44:

1. Press the desired input button (source).
2. Press the desired output button (display).
3. Press the TAKE button. All the selected buttons will flash then go dark indicating a routing change.

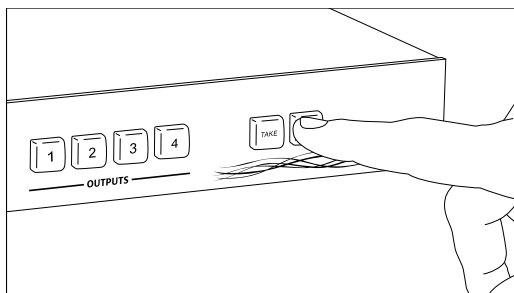
To route video and audio from input 2 to output 4:



Press input 2.



Press output 3.



Press TAKE.

Advanced Routing

To route video and audio from input 3 to all outputs:

1. Press input 3.
2. Press outputs 1, 2, 3, and 4.
3. Press TAKE.

IR Remote Operation

The buttons on the IR remote are identical to the buttons on the front panel of the FLX-44. The IR routing command sequences are identical to the front panel command sequences.

The Standby button will send the matrix to a low power state. Pressing the Standby button a second time will restore the FLX-44 to full power.



Web Browser Control

End User Login



Open a web browser and go to the IP address of the FLX-44. The default IP address is 192.168.0.178.



Select User from the UserName drop-down.



Enter the password to gain control of the matrix. The default password is "123456".

Press the Enter key on your keyboard or tablet to go to the matrix control screen.

Matrix Control



Click the input to output route and the button will turn green once the route has been changed.

Administrator Login



Open a web browser and go to the IP address of the FLX-44. The default IP address is 192.168.0.178.



Select Administrator from the UserName drop-down.



Enter the password to gain control of the matrix. The default password is “admin”.

Press the Enter key on your keyboard or tablet to go to the matrix control screen.

Matrix Control and Setup Access



Click the input to output route and the button will turn green once the route has been changed.

Click the Setup button in the top right corner of the matrix control screen to access the administrative controls.

Web Browser Customization

When changes are made on a setup tab, the Save button must be pressed for the changes to take effect.

Users Tab

The Users setup screen provides options to change the Administrator and User passwords. The front panel can also be locked to prevent tampering from this screen.

The screenshot shows the 'Users' tab in the 'FLX-44 Setup' web interface. The 'Credentials' section has two password fields: 'Admin password' with the value 'admin' and 'User password' with the value '123456'. The 'Front Panel' section has two radio buttons: 'Unlocked' (selected) and 'Locked'. At the bottom are 'Save' and 'Cancel' buttons.

Interface Tab

The Interface setup screen features options to customize the end user's experience with the matrix.

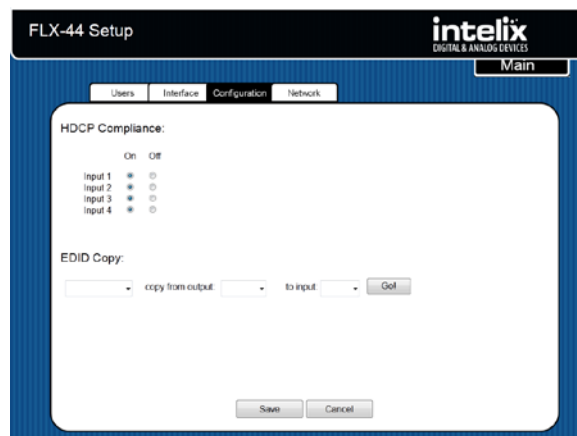
- » Title Bar Label
 - ◇ This changes the title that is shown on the Matrix Control screen.
- » LCD Readout
 - ◇ The LCD panel can be customized with a limit of 16 characters per line.
 - ◇ Apostrophe ('), comma (,), and backslash (\) are not supported characters.
- » Button Labels
 - ◇ Input and output labels can be changed to make routing signals easier for the end user.

The screenshot shows the 'Interface' tab in the 'FLX-44 Setup' web interface. The 'Title Bar Label' field contains 'FLX-44'. The 'LCD Readout' section has two fields, both containing 'Intelix'. The 'Button Labels' section has two columns: 'Input' and 'Output'. Each column has four fields labeled 'Input 1' through 'Input 4' and 'Output 1' through 'Output 4', with values 'in.1', 'in.2', 'in.3', 'in.4' and 'Out.1', 'Out.2', 'Out.3', 'Out.4' respectively. At the bottom are 'Save' and 'Cancel' buttons.

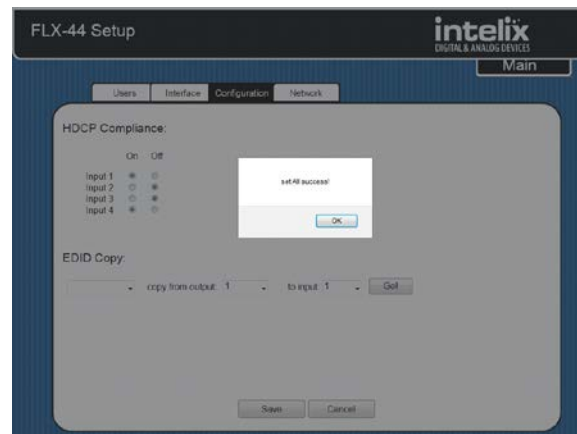
HDCP and EDID Configuration Tab

The Configuration setup screen has options to turn on and off the HDCP compliance flag for an input, which is ideal for laptops with signals going to a video conferencing system.

The EDID from a display can be copied to an input. A Full copy will copy all the video and audio capabilities of the display. A Hybrid copy will copy the video capabilities of the display and specify PCM two channel audio, which is ideal when using the analog audio outputs.

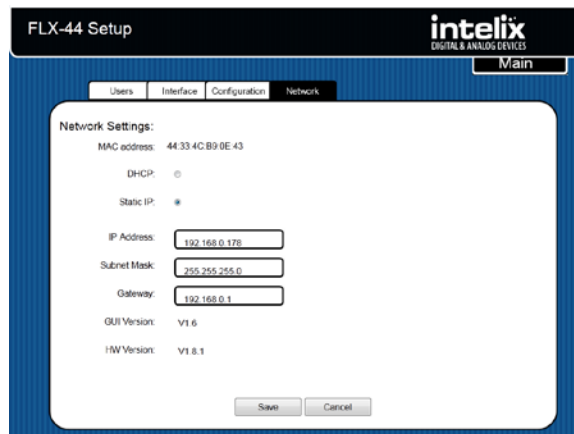


After the “EDID copy mode”, “output to copy from”, and “input to copy to” are selected, click the Go! button. You will be presented with an EDID copy success window after the changes are successfully applied to the matrix.



Network Tab (IP Address)

The Network setup screen features DHCP or Static IP settings for the matrix. This screen also shows the current version of software in the matrix.



The screenshot displays the 'FLX-44 Setup' application window. The title bar includes the Intelix logo and 'DIGITAL & ANALOG DEVICES'. The window has a navigation menu with tabs for 'Users', 'Interface', 'Configuration', and 'Network', with 'Network' currently selected. A 'Main' button is visible in the top right corner. The main content area is titled 'Network Settings:' and contains the following information:

- MAC address: 44.33.4C.B9.0E.43
- DHCP:
- Static IP:
- IP Address:
- Subnet Mask:
- Gateway:
- GUI Version: V1.6
- HW Version: V1.8.1

At the bottom of the settings area, there are 'Save' and 'Cancel' buttons.

EDID Management

The stock EDID for the inputs of the FLX-44 is 1280x1024 (computer video input) and 1080p with stereo audio (consumer video input). In order to change the EDID information for an input, the EDID copy command will need to be sent to the matrix via RS232 or TCP/IP or managed through the web browser setup interface (see page 24).

EDIDMyyBxx.	Copy video and audio EDID of output yy to input xx
EDIDHyxBxx.	Copy video EDID of output yy and specify 2 channel PCM to input xx
EDIDMInit.	Restore factory EDID information

Full EDID Copy

To copy the video and audio EDID information from output 3 to input 1, transmit the following command:

```
EDIDM03B01.
```

Hybrid EDID Copy

Hybrid EDID copy is the preferred command to use when the audio is going to be routed to an analog audio output of the matrix. To copy the video EDID information from output 2 and specify two channel PCM audio output to input 4, transmit the following command:

```
EDIDH02B04.
```

RS232 and TCP/IP Commands

RS232 Settings: 9600 baud, 8 Data bits, 1 Stop bit, Parity = None

TCP/IP Settings: User defined IP address (default IP address: 192.168.0.178), port 8080

There is either a period (.) or a semicolon (;) at the end of each command. These characters must be present for the command to process correctly.

There are no spaces between any of the characters in the command string.

xx = Input Number (input 2 would be 02)

yy = Output Number (output 3 would be 03)

<CR> = Carriage return (Hex 0D)

<LF> = Line Feed (Hex 0A)

Routing Commands

Description	Command	Response
Route input <i>xx</i> to output <i>yy</i>	<i>xxByy.</i>	<i>xxByy</i> <CR><LF>
Route input <i>xx</i> to all outputs	<i>xxAll.</i>	<i>xx To All</i> <CR><LF>
Route inputs to corresponding outputs	<i>All#.</i>	<i>All Through.</i> <CR><LF>
Turn off all outputs	<i>All\$.</i>	<i>All Closed.</i> <CR><LF>
Turn off specific output <i>yy</i>	<i>yy\$.</i>	<i>AV: yy Closed.</i> <CR><LF>
Output <i>yy</i> routing status (only 1 digit)	<i>Statusy.</i>	<i>xxByy</i> <CR><LF>
Routing status of all inputs.	<i>Status.</i>	<i>xxByy</i> <CR><LF> (Repeating sequence starting with output 1, output 2, etc.)

Examples:

02All .	Route Video and Audio from input 2 to all outputs
04\$.	Turn off Video and Audio for output 4
02B03 .	Route Video and Audio from input 2 to output 3
03B02 , 04 .	Route Video and Audio from input 3 to outputs 2 and 4

Preset Commands

Description	Command	Response
Save the current routing as a preset. Values range from 0 through 9	Save x .	Save to Fx<CR><LF>
Recall preset x	Recall x .	Recall From Fx<CR><LF>
Clear preset x	Clear x .	

Examples:

Save4 .	Save the current routing as preset 4.
Recall4 .	Recall preset 4
Clear4 .	Clear preset 4

System Commands

Description	Command	Response
Power full ON	PWON .	PWON<CR><LF>
Power off (Standby Mode)	PWOFF .	PWOFF<CR><LF>
Retrieve matrix model information	/*Type;	FLX-44<CR><LF>
Lock the front panel keys	/%Lock;	System Locked!<CR><LF>
Unlock the front panel keys	/%Unlock;	System Unlock!<CR><LF>
Retrieve matrix firmware version number	/^Version;	Vz.z<CR><LF>
Turn off matrix command feedback	/:MessageOff;	Closed the Message Return.<CR><LF>
Turn on matrix command feedback	/:MessageOn;	Enabled the Message Return.<CR><LF>

EDID Commands

Description	Command	Response
Copy EDID of output yy to input xx	EDIDMyyBxx .	EDIDMyyBxx.<CR><LF>
Copy Hybrid EDID of output yy to input xx	EDIDHyBxx .	EDIDHyBxx.<CR><LF>
Restore factory EDID information	EDIDMInit .	EDIDMInit<CR><LF>

Example:

EDIDM02B01 .	Copy EDID of output 2 to input 1
--------------	----------------------------------

HDCP Commands

Description	Command	Response
Turn HDCP Compliance off for input <i>xx</i>	<code>/%I/<i>xx</i>:0.</code>	<code>/%I/<i>xx</i>:0.<CR><LF></code>
Turn HDCP Compliance on for input <i>xx</i>	<code>/%I/<i>xx</i>:1.</code>	<code>/%I/<i>xx</i>:1.<CR><LF></code>

Example:

<code>/%I/04:0.</code>	Turn HDCP Compliance off for input 4
------------------------	--------------------------------------

Remote RS232 Control via Routing

The FLX-44 has the logic to pass RS232 commands to remote devices through the TCP/IP or DE9 RS232 ports. The destination command string is embedded in a command which includes the destination HDBaseT output port and baud rate. This is a bidirectional communication method. The maximum string length is 48 bytes (characters). In addition to immediate transmission, the FLX-44 can store commands to be broadcast when the matrix is powered on or off through the standby commands (`PWON.` and `PWOFF.`).

The format of the RS232 routing string is: `/+<Y>/:<$>.` (The period at the end of the string is required.) `<Y>` is the output code, `` is the baud rate, and `<$>` is the RS232 string. Output codes and baud rate codes are in the tables below.

Output	Code	Timing
1	1	Immediate TX
	A	PWON command
	E	PWOFF command
2	2	Immediate TX
	B	PWON command
	F	PWOFF command
3	3	Immediate TX
	C	PWON command
	G	PWOFF command
4	4	Immediate TX
	D	PWON command
	H	PWOFF command
ALL	5	Immediate TX

Baud	Baud Code
2400	1
4800	2
9600	3
19200	4
38400	5
57600	6
115200	7

Examples:

<code>/C+/4:PowerOn.</code>	Send the string <code>PowerOn</code> to output 3 at 19200 baud when the matrix is powered on.
<code>/C+/4:.</code>	Clear power on setting for output 3.

Troubleshooting

Matrix does not power on

- » Verify power outlet is active.
- » Verify continuity in power cable.

Cannot view 3D content

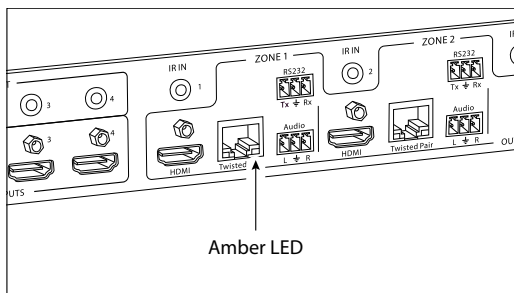
- » Copy EDID from output to input.
- » Verify display is 3D compatible.
- » Verify source device can output 3D content.
- » Verify twisted pair cable does not exceed 40 meters.

Cannot hear surround sound audio

- » Copy EDID from output to input.
- » Verify output can broadcast surround sound audio.
- » Verify source device is configured to output surround sound audio.

No video from HDBaseT output

- » Verify the amber link LED on the HDBaseT output is lit solid.



Technical Specifications

I/O Connections	
HDMI Inputs	Four (4) HDMI Type A Receptacle (1 per input)
HDMI Outputs	Two (2) HDMI Type A Receptacle (Outputs 1 and 2 only)
HDBaseT Outputs	Four (4) 8P8C port (Shielded RJ45) (1 per output)
IR Inputs	Four (4) 3.5 mm jack (TRS)
IR All In	One (1) 3.5 mm jack (TRS)
IR Outputs	Four (4) 3.5 mm jack (TS) (1 per output)
IR Eye	One (1) 3.5 mm jack (TRS)
RS232 Tunnel	Four (4) 3-pole Removable Euroblock Connector (3.5mm)
Audio Outputs	Four (4) 3-pole Removable Euroblock Connector (3.5mm)
48V DC Power	One (1) Amphenol 4pin CPC Female (11-4)
Control, Rear Panel	RS232 via DE-9, TCP/IP via 8P8C, IR via 3.5mm TRS
Control, Front Panel	Push Button, IR
Supported Audio, Video and Control	
Maximum Video Compatibility at 60 m	Deep Color 36/30/24 Bit at 1080p
Maximum Video Compatibility at 35 m	Deep Color 48 Bit at 1080p, 3D, and 4k x 2k
Supported 3D Formats	Field Alternative (interlaced), Frame Packing, Line Alternative Full, Side-By-Side Half, Side-By-Side Full, 2D + Depth, 2D + Depth + Graphics + Depth
Embedded Audio Compatibility	Up to PCM 5 channel, Dolby Digital TrueHD, and DTS-HD Master Audio
IR Carrier Frequency Range	33-55kHz at 5 volts
RS232 Baud Rate	Up to 115200 baud
HDBaseT Signal Characteristics	
Maximum Distance	70m (230 ft)
Cable Requirements	Solid core shielded Category 5e, Category 6 or greater with TIA/EIA-568B crimp pattern
Bandwidth	10.2 Gbps
Gain	0 dB – 10 dB at 100 MHz
Signal to Noise Ratio (SNR)	> 70 dB at 100 MHz over 100 m
Return Loss	< -30 dB at 5 KHz
Total Harmonic Distortion (THD)	< 0.005% at 1 KHz
Min-Max Signal Level	< 0.3 V – 1.45 Vp-p
Differential Phase Error	±10° at 135 MHz over 100 m
Chassis and Environmental	
Enclosure	Painted Aluminum
Dimensions	435 mm x 235 mm x 44 mm (17.13 in x 9.25 in x 1.73 in)
Rack Spacing	1 RU
Shipping Weight	2.27 kg (5 lbs)
Operating Temperature	0° to +40° C (+32° to +104° F)
Operating Humidity	20% to 90%, Non-condensing
Storage Temperature	-10° to +60° C (+14° to +140° F)
Storage Humidity	20% to 90%, Non-condensing
Power, ESD, and Regulatory	
Power Supply Input	100V-240VAC / 1.8A
Power Supply Output	48vDC / 5A
Power Consumption	150 watts (max)
ESD Protection	15kv
Device Regulatory	CE, RoHS
Power Supply Regulatory	UL, FCC, CCC, CE, RoHS
Other	
Warranty	2 years
Diagnostic Indicators	LCD output status and power LED
Included Accessories	Installation Guide, IR Remote, RS232 cable, US Power Cable and Power Supply, Two Mounting Brackets with screws, Four Rack Feet with screws, Eight 3-pole Removable Euroblock Connectors (installed on matrix)
Compatible IR Transmitter (IR Emitter)	DIGIB-EMT
Compatible IR Receiver (IR Eye)	DIGIB-EYE
Compatible Receivers (AV Only)	DIGI-HD70-R
Compatible Receivers (AV and Control)	DIGI-HDE-R
Compatible Receivers (AV, Control and Power)	DIGI-HD60C-R

Distances and picture quality may be affected by cable grade, cable quality, source and destination equipment, RF and electrical interference, and cable patches.

Thank you for your purchase.

Please contact us with your questions and comments.

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