DXB-8i

1 Gang Decora® 8 Button Wall Plate Controller

Manual Number: 1801223

Firmware: v1.10 & above

SAFETY INSTRUCTIONS

Please review the following safety precautions. If this is the first time using this model, then read this manual before installing or using the product. If the product is not functioning properly, please contact your local dealer or Aurora for further instructions.

The lightning symbol in the triangle is used to alert you to the presence of dangerous voltage inside the product that may be sufficient to constitute a risk of electric shock to anyone opening the case. It is also used to indicate improper installation or handling of the product that could damage the electrical system in the product or in other equipment attached to the product.

The exclamation point in the triangle is used to alert you to important operating and maintenance instructions. Failure to follow these instructions could result in injury to you or damage to the product.

Be careful with electricity:

- **Power outlet**: To prevent electric shock, be sure the electrical plug used on the product power cord matches the electrical outlet used to supply power to the Aurora product. Use only the power adapter and power connection cables designed for this unit.
- **Power cord**: Be sure the power cord is routed so that it will not be stepped on or pinched by heavy items.
- **Lightning**: For protection from lightning or when the product is left unattended for a long period, disconnect it from the power source.

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Also follow these precautions:

- **Ventilation**: Do not block the ventilation slots if applicable on the product or place any heavy object on top of it.
  Blocking the air flow could cause damage. Arrange components so that air can flow freely. Ensure that there is adequate ventilation if the product is placed in a stand or cabinet. Put the product in a properly ventilated area, away from direct sunlight or any source of heat.
- **Overheating**: Avoid stacking the Aurora product on top of a hot component such as a power amplifier.
- **Risk of Fire**: Do not place unit on top of any easily combustible material, such as carpet or fabric.
- **Proper Connections**: Be sure all cables and equipment are connected to the unit as described in this manual.
- **Object Entry**: To avoid electric shock, never stick anything in the slots on the case or remove the cover.
- **Water Exposure**: To reduce the risk of fire or electric shock, do not expose to rain or moisture.
- **Cleaning**: Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.
- **ESD**: Handle this unit with proper ESD care. Failure to do so can result in failure.

FCC

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 interferences received, including interference that may cause undesired operation.

Trademarks
All trademarks in this document are the properties of their respective owners.

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PACKAGE CONTENTS

Please make sure the following items are included within your package. Contact your dealer if any items are missing or damaged.

- DXB-8i x 1
- 1 Gang Decora® Paintable White Wall Plate

Optional Accessories

- 48v DC power supply for stand-alone operation (PS0094-2)
- 48v POE Injector supply (PS0081-1)

Note: Go to www.auroramm.com for latest manual and firmware

INTRODUCTION

About

The DXB-8i is a low cost 8 button single gang button panel. Designed to work with just about any RS-232 device on the market, the DXB-8i allows any RS-232 string to be assigned to the press and release of each button. Advanced functionality is available like repeat on hold. Toggle, macro (delay between multiple commands), and interlocking buttons for transport controls, power on/off, etc.

The buttons can individually be lit red, green, or blue so in dimly lit areas it can be seen. There are over 60 different laser etched button types available as well as custom laser etching. Available in Decora® white or black, the DXB-8i is designed to match.

Low cost, low power, simplicity, and compatibility with just about any device on the market makes the DXB-8i the simple sweet solution of choice.

Features

- **8 backlit buttons (Red, Green, Blue)**

- **Fits in standard 1 gang Decora® style outlet**

- **1 LAN PoE**

- **1 RS-232 port**

- **1 IR port**

- **Buttons individually programmable for RS-232, IR, HTTP Post, TCP & Telnet.**

- **Programmable on Press, Release, Toggle, and Hold**

- **Macro functions and interlocking buttons**

- **9600 – 115k Baud Rate Selectable**

- **Customizable laser etched buttons**

- **Low Power**

- **48v DC Aux Power**

- **Low Depth .98" for Floor & Table Boxes**

Front DXB-8

Front

- Buttons – There are 8 backlit buttons, ON, OFF, VGA, HDMI, Up Arrow, Down Arrow, Speaker Mute, and Mic Mute. These laser etched buttons come as a default with the DXB-8. Other customizable buttons are available. The LED backlighting can be set to light red, green, or blue.

  The default scheme is to match the DXW-2 wall plate series to remotely select the inputs and to also control the display.

Rear DXB-8

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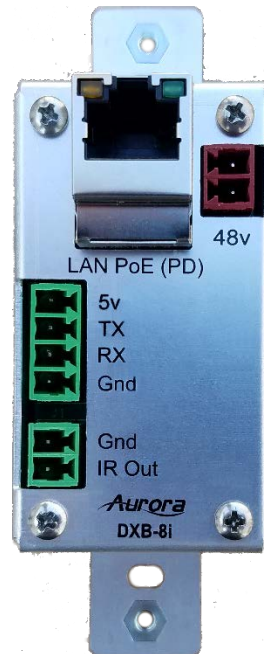
Rear Connections

- RS-232   – Connect RS-232 device up to 115k baud. Note there is a 5v line as it is designed to power the DXB-8 from the DXW-2, VLX or IPX wall plate or an optional 5v supply for stand-alone operation with any RS-232 device.
- LAN – For network and/or POE powering.
- IR – For IR control (via optional IR emitter).

BUTTON SPECIAL FUNCTIONS

Buttons are referenced 1-8 starting in upper left to lower left for 1-4 and upper right to lower right for 5-8.

1. **Factory Test 2 & 6:** Press-and-Holding buttons 2 & 6 down for 5 sec will do factory test. Factory test is light all buttons Red for 2 sec, Blue for 2 sec, & Green for 2 second. Next it will blink a red LED starting at button 1. When pressed next button in order will blink red and prior button will turn off until all 8 buttons are pressed. After button 8 is pressed unit will finish with RS-232 loop test from port 1 to port 2 to verify back and forth communications. LED 1 & 2 will light blue and pressing button 1 will send string from port 1 to 2 and pressing button 2 will send string from port 2 to 1. During both it checks for proper response. Send string !test<cr> to be responded with ~test<cr>. If it checks ok LED 4 will light Green for ok or Red for bad for port 1. Use LED 5 for port 2 indicator. Once Port 2 test is done light blue LED 8 and when pressed End factory test mode by turning on all 8 LEDs blue for 1 sec then off.

2. **Factory Reset 3 & 7:** Press-and-Holding buttons 3 & 7 down for 10 sec will do a factory reset. Factory reset will set RS-232 ports 1 & 2 to 96008N1, Unit address to 1, and assign strings on push for !1B1<cr> for button 1 and increment accordingly for all 8 button. The release will be set to !1R1<cr> for button 1 and increment accordingly for all 8 buttons. Hold will have nothing. All LED will be defaulted to blue for press and release.

3. **DXB-8i Button Lockout 4 & 8:** Press-and-Holding button 4 & 8 will toggle the button lockout feature.   Upon actuating, all buttons will flash RED, and unit is locked from user input.   All buttons flashing GREEN means unit is now unlocked for normal operation.

BUTTON CAP SELECTION

Button Caps

The DXB-8 buttons are removable and can be replaced with a variety of buttons listed on the chart below in white or black. For caps not listed on the chart custom laser etched button caps are available for a one time processing fee to accommodate any install. Check with sales@auroramm.com for more information.

DXB-8 Button Cap Selection Chart

	A	B	C	D	E	F	G	H	J	K
0	0	1	2	3	4	5	6	7	8	9
1	TV	TV1	TV2	HDMI	HDMI1	HDMI2	DVD	VIDEO	SAT	CBL
2	AUX	AUX1	AUX2	PROJ	PROJ1	PROJ2	DOC	PC	PC1	PC2
3	YPbPr	VCR	VTC	VGA	VGA1	VGA2	SCRN UP	SCRN DN	*	#
4	■	▶	‖	▶▶	▶‖	▲	ENTER	MENU	INPUT	EXIT
5	⏻	ON	OFF	🔊	🔊	🔇	🎤	.	●	●
BLANK BUTTON	☐									

Buttons can be reversed 180°

Note: Part Number = DXB-C[Row#][Column Letter]-B/W (B = Black / W = White)

4B = Play, Left, and Right, 4D = Fast Forward & Rewind, 4E= Next and Prev 4F = Up & Down

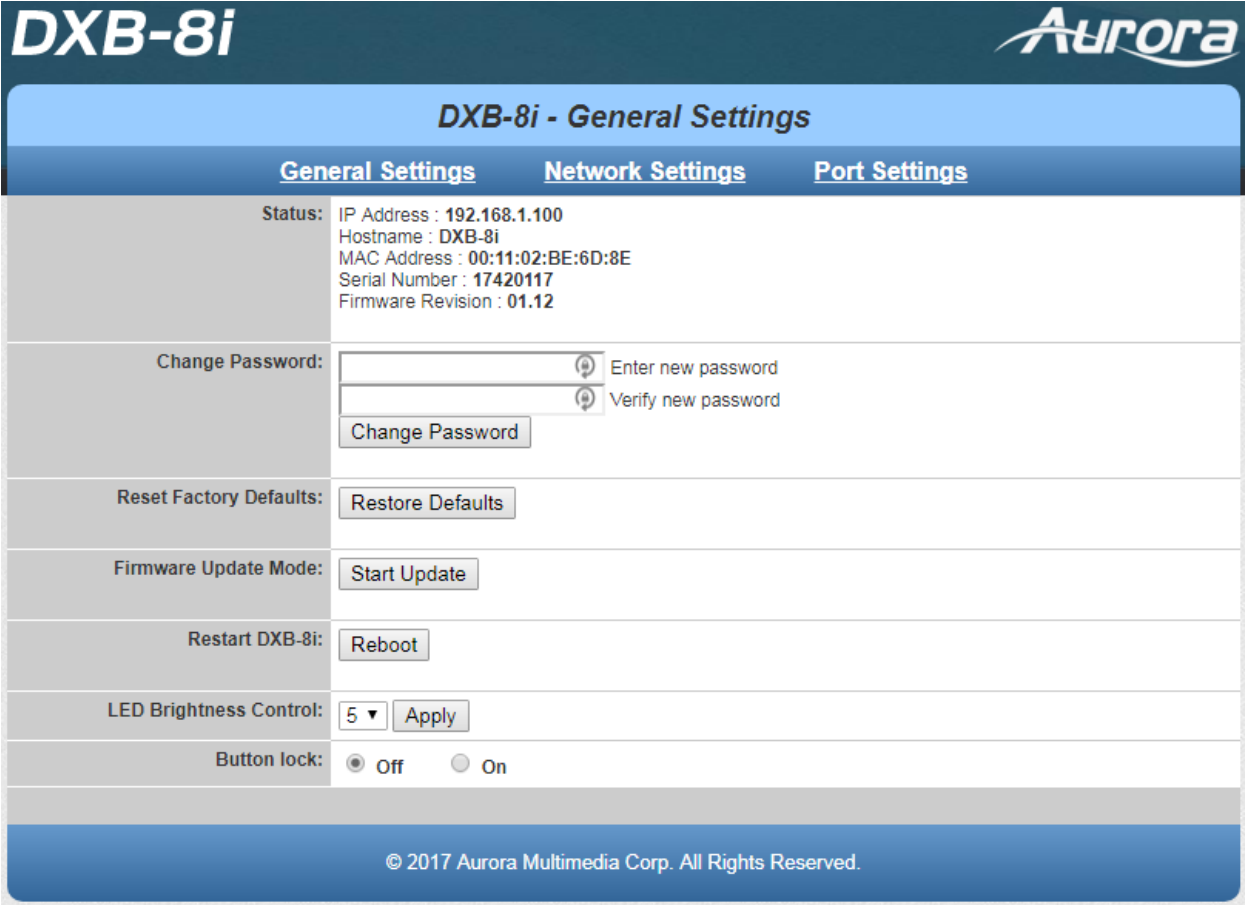Blank button (No LED backlight) Part Number = DXB-CB-B/W (B = Black / W = White)

Example: White PROJ Button PN# = DXB-C2D-W

DXB-8i WEB SETUP PAGES

The DXB-8i Web Setup Pages can be accessed via 192.168.1.100/setup (Default IP).

General Settings:

This General Settings tab allows user to change password, restore factory defaults, set unit into firmware update mode, reboot DXB-8i, set button backlight intensity, or Lock / Unlock button interface.

Network Settings:

The Network Settings tab shows current network configuration, and allows user to change these settings as needed.

Port Settings:

The Port Settings tab provides selection for RS232 baud rate parameters.   The Serial Test dialog window is used to send serial commands directly to the RS232 port.

RPC PROTOCOL

Command	Description	Usage
GetFirmwareVersion	Returns the firmware Version	method=GetFirmwareVersion
GetSerialNumber	Returns the Serial Number of Device	method= GetSerialNumber
Net_GetIPAddress	Returns the IP address	method= Net_GetIPAddress
Net_GetSubnetMask	Returns the Subnet Mask	method= Net_GetSubnetMask
Net_GetMac	Returns Mac Address	method= Net_GetMac
Serial_GetSettings	Returns Serial configuration	method= Serial_GetSettings
Serial_ConfigSettings	Set the serial configuration Param1- Serial config format	method=Serial_ConfigSettings&Param1=115200,8,NONE,1
SetDefaultConfig	Set the device to default configuration	method=SetDefaultConfig
SetSerialString	Set the string to be send via serial on button press/release/hold Param1-button no Param2- delay Param3 - press/release Param4- string Delay Delimiter - # is used with a single digit after for delays between commands in a string to create a "Macro". A 0-F (0 - 15) will follow the #. Each number is a multiple of 100ms delay so #8 is 800ms, #D is 1300ms. If # character is required to be sent for none delay purpose then a ## must be used. Delay can only be specified in between telnet commands separated by commas.	method=SetSerialString&Param1=1&Param2=0&Param3=1&Param4=<string>
SetTelnetString	Sets the string to be send via telnet on button press/release/hold Param1 - button no. Param2- delay Param3 - press/release Param4 - string (should contain IP, port and timeout separated by colon enclosed in angle brackets, the given IP should be in same domain, timeout is an optional parameter). To send multiple telnet commands to different devices use comma as separator. Delay Delimiter - # is used with a single digit after for delays between commands in a string to create a "Macro". A 0-F (0 - 15) will follow the #.	method=SetTelnetString&Param1=2&Param2=0&Param3=1&Param4=<string> Example usage - method=SetTelnetString&Param1=2&Param2=0&Param3=1&Param4=<192.168.1.99:6970>Aurora Multimedia For sending multiple telnet commands and adding delay parameter – method=SetTelnetString&Param1=2&Param2=0&Param3=1&Param4=<192.168.1.99:6970>Aurora Multimedia,#5,<192.168.1.101:6970>Aurora Multimedia For adding a timeout between sending telnet command and closing connection – method=SetTelnetString&Param1=2&Param2=0&Param3=1&Param4=<192.168.1.99:6970:500>Aurora Multimedia For keeping a persistent connection to a device –

	Each number is a multiple of 100ms delay so #8 is 800ms, #D is 1300ms. If # character is required to be sent for none delay purpose then a ## must be used. Delay can only be specified in between telnet commands separated by commas.	method=SetTelnetString&Param1=2&Param2=0&Param3=1&Param4=<192.168.1.99:6970:1000>Aurora Multimedia
GetSerialString	Returns the string on press/release Param1 - button no. Param2 - Press/Release	method=GetSerialString&Param1=4&Param2=1
GetTelnetString	Returns the string on press/release Param1 - button no. Param2 -Press/Release	method=GetTelnetString&Param1=4&Param2=1
SetLedColor	Sets the LED colour on Press/release of a single button Param1 -button no Param2 -Press Colour Param3 -ReleaseColour Param4 – Enable/disable toggle	method=SetLedColor&Param1=1&Param2=R&Param3=G&Param4=0
SetLedColorAll	Sets the LED colour of all the buttons Param1 – Presscolour, release colour separated by commas for 8 buttons	method=SetLedColorAll&Param1=B,B,B,B,B,B,B,B,B,B,B,B,B,B,B,B
GetLedColor	Returns the LED colour of the queried button on press/release Param1 - button no.	method=GetLedColor&Param1=1
GetLedColorAll	Gets the LED Colour of all the buttons on the device	method=GetLedColorAll
SetBtnCommand	Sets the command to be send on button press Param1 - button no. Param2 - (any of the RPC commands)	method=SetBtnCommand&Param1=1&Param2= method=SetLedColorAll&Param1=B,B,B,B,B,B,B,B,B,B,B,B,B,B,B,B (here any RPC command can be given as the value of Param2)
SetHostname	Sets the hostname of device Param1=Hostname string	method=SetHostname&Param1=<string>
GetHostname	Returns the hostname of device	method=GetHostname
SetPresetBtn	Set two buttons as preset buttons Param1=Button no.1 Param2= Button no. 2 Param3 = Enable / Disable Preset Param4 = Delay Param5 = port (via Serial/Telnet) Button 1 and Button 2 values should be distinct values	Serial -method=SetPresetBtn&Param1=5&Param2=6&Param3=1&Param4=10&Param5=1 Telnet - method=SetPresetBtn&Param1=5&Param2=6&Param3=1&Param4=10&Param5=2
SetPresetCommand	Set the commands to be send on pressing preset button	Serial - method=SetPresetCommand&Param1=volume1,volume2,volume3,volume4

	Param1 = Preset String(all preset commands should be included in the string separated by comma). Maximum number of preset commands – 12. Param2=<IP:Port> This is an optional parameter ie used only when preset butoons are configured to output via telnet port.	Telnet -method=SetPresetCommand&Param1=volume1,volume2,volume3,volume4&Param2=192.168.1.130:23
SetLedBrightness	Set the brightness of the LED(valid values are from 1-5) Param1- Brightness value	method=SetLedBrightness&Param1=1
SendIR	Send IR signal for the specified command in group via the IR port	method=SendIR&Param1=TEST8_IR&Param2=VOLDWN
IR_ListAllGroups	Returns all IR groups ie present in the device	method=IR_ListAllGroups
IR_ListAllCommandsInGroup	Returns all the IR commands in the specified group	method=IR_ListAllCommandsInGroup&Param1=WN_LG.WIR
SetButtonLock	Toggle button lock ON and OFF	method=SetButtonLock&Param1=ON
ButtonState	RPC command to simulate button press Param1=button no Param2=state(PRESSED/RELEASED)	method= ButtonState&Param1=1&Param2=PRESSED
GetPresetBtnPort	Returns the port in which preset buttons are set to output (1 – Serial, 2 - telnet).	method=GetPresetBtnPort
GetPresetBtn	Returns the tags (1 - 8) of button's configured in preset state.	method=GetPresetBtn
GetPresetCommandIP	Returns the IP and port ie assigned for preset commands when configured in telnet mode (valid command only in telnet mode).	method=GetPresetCommandIP
GetPresetCommand	Returns set of preset commands, separated by comma(Maximum number of commands is 12).	method=GetPresetCommand
GetLedBrightness	Returns led backlight brightness(Range 1 - 5).	method=GetLedBrightness
GetBtnCommand	Returns the local command configured for the button. Param1 – button no:	method=GetBtnCommand&Param1=5

TELNET PROTOCOL

Sl no:	Function	Description	Example usage
1	set push_string <btn> <port> <string>	Configure the string that is to be send through the serial port (port 0) or telnet(port 1) when a button is pressed. For sending data to telnet port, specify IP port and timeout separated by a colon enclosed in angle brackets along with the string parameter. To send multiple telnet commands to different devices use comma as separator. Delay Delimiter - # is used with a single digit after for delays between commands in a string to create a "Macro". A 0-F (0 - 15) will follow the #. Each number is a multiple of 100ms delay so #8 is 800ms, #D is 1300ms. If # character is required to be sent for none delay purpose then a ## must be used. Delay can only be specified in between telnet commands separated by commas	Serial - set push_string 1 1 dxb Telnet - set push_string 1 2 <192.168.1.102:6970>Aurora Multimedia For sending multiple telnet commands and adding delay parameter – set push_string 1 2 <192.168.1.99:6970>Aurora Multimedia,#5,<192.168.1.101:6970>Aurora Multimedia For adding a timeout between sending telnet command and closing connection – set push_string 1 2 <192.168.1.99:6970:500>Aurora Multimedia For keeping a persistent connection to a device – set push_string 1 2 <192.168.1.99:6970:1000>Aurora Multimedia
2	set release_string <btn> <port> <string>	Configure the string that is to be send through the serial port (port 0) or telnet(port 1) when a button is released. For sending data to telnet port, specify IP, port and timeout separated by a colon enclosed in angle brackets along with the string parameter. To send multiple telnet commands to different devices use comma as separator Delay Delimiter - # is used with a single digit after for delays between commands in a string to create a "Macro". A 0-F (0 - 15) will follow the #. Each number is a multiple of 100ms delay so #8 is 800ms, #D is 1300ms. If # character is required to be sent for none delay purpose then a ## must be used. Delay can only be specified in between telnet commands separated by commas.	Serial - set release_string 1 1 dxb Telnet - set release_string 1 2 <192.168.1.102:6970>Aurora Multimedia For sending multiple telnet commands and adding delay parameter – set release_string 1 2 <192.168.1.99:6970>Aurora Multimedia,#5,<192.168.1.101:6970>Aurora Multimedia For adding a timeout between sending telnet command and closing connection – set release_string 1 2 <192.168.1.99:6970:500>Aurora Multimedia For keeping a persistent connection to a device – set release_string 1 2 <192.168.1.99:6970:1000>Aurora Multimedia
3	set hold_string <btn> <port> <repeat_time> <string>	Configure the string that is to be send through the serial port or telnet when a button is held. Repeat time/10 will be the delay in seconds.	set hold_string 1 1 10 dxb
4	set local_cmd <btn> <string>	Configure the local command i.e. executed when a button is pressed. (For eg: to generate an LED pattern when a	set local_cmd 5 set led_all B,B,G,G,G,G,G,G,G,G,G,G,G,G,G

		button is pressed by mimicking set led all telnet command)	
5	set preset_btn <btn1> <btn2> <ENABLE/DISABLE> <delay> <port>	Configure buttons as preset up and down buttons. Repeat time is the time interval in which multiple button presses are registered during long press of the button. Preset commands can be send via both serial and telnet port. The last parameter in this command defines the port through which the preset commands should be send (1 – serial, 2-telnet).	Serial - set preset_btn 5 6 ENABLE 10 1 Telnet - set preset_btn 5 6 ENABLE 10 2
6	set preset_cmd <string> <ip:port>	Configure strings of each discrete volume level. Max no of levels is 12. Parameter <string> should contain cmds for each discrete separated by comma. Last parameter (ip and port) for this command is optional and is used only when the preset buttons are configured as telnet.	Serial - set preset_cmd v1,v2,v3,v4,v5,v6,v7,v8 Telnet - set preset_cmd v1,v2,v3,v4,v5,v6,v7,v8 192.168.1.100:23
7	set baudrate <baud,parity>	Configure baudrate and parity of serial port.	set baudrate 115200,8N1
8	set ip <mode> <ip> <subnet> <gateway>	Configure network parameters of the device.	set ip STATIC 192.168.1.100 255.255.0.0 192.168.1.1 set ip DHCP
9	set hostname <hostname>	Set/change the hostname of the device.	set hostname DXB-8i
10	set led <btn> <led_press_color> <led_release_color> <TOGGLE_ENABLE/TOGGLE_DISABLE>	Configure button backlight color individually (R - Red, G - Green, B - Blue, C – Cyan, Y -yellow, M – Magenta, W – White, N- none). Last parameter is used to change button mode to toggle	set led 1 B B TOGGLE_ENABLE
11	set led_all <all button colours separated by comma>	Configure Button backlight color of all buttons (R - Red, G - Green, B - Blue, C – Cyan, Y -yellow, M – Magenta, W – White, N- none).	set led_all B,B,G,G,G,G,G,G,G,G,G,G,G,G,G,G
12	get version	Returns the firmware version.	get version
13	get push_string <btn> <port>	Returns the string stored for push of the button. (port 1 for serial string and port 2 for telnet string).	get push_string 1 2
14	get release_string <btn> <port>	Returns the String stored for the release functionality of the button. (port 1 for serial string and port 2 for telnet string).	get release_string 1 2
15	get led_all	Returns colour of all LEDS.	get led_all

16	get led <btn>	Returns the Back Light colour of the LED.	get led 1
17	get baudrate	Returns the baud rate of the serial port.	get baudrate
18	get ip	Returns network parameters of the device.	get ip
19	get hostname	Returns the hostname of the device.	get hostname
20	factory_reset	Resets the DXB - 8i settings to factory default.	factory_reset
21	reboot	Reboots the device.	reboot
22	send ir <group> <ir_cmd>	Send IR signal for the specified command in group via the IR port	send ir TEST8_IR VOLUP
23	get ir_groups	Returns all IR groups ie present in the device	get ir_groups
24	get ir_commands	Returns all the IR commands in the specified group	get ir_commands WN_LG.WIR
25	set button_lock <ON/OFF>	Toggle button lock on device.	set button_lock ON
26	bootloader_update	Device will go into bootloader update mode. Bootloader update file can be send via TFTP.	bootloader_update
27	set button_state <button> <PRESSES/RELEASED>	Telnet command to simulate button press.	set button_state 1 PRESSED
28	set led_brightness <level>	Command to set backlight brightness. Brightness level value range 1-5.	set led_brightness 3
29	get led_brightness	Returns led backlight brightness.	get led_brightness
30	get preset_cmd	Returns set of preset commands, separated by comma(Maximum number of commands is 12).	get preset_cmd
32	get preset_cmd_ip	Returns the IP and port ie assigned for preset commands when configured in telnet mode (valid command only in telnet mode).	get preset_cmd_ip
33	get preset_btn	Returns the tags (1 - 8) of buttons configured in preset state. Example o\p - Status:Success,Response:6,7 button 6 - preset up state, button 7 preset down state.	get preset_btn
34	get preset_btn_port	Returns the port in which preset buttons are set to output (1 – Serial, 2 -	get preset_btn_port

		telnet).	
35	get local_cmd <btn>	Returns the local command configured for the button.	get local_cmd 5
36	get serial_number	Returns the serial number of the device.	get serial_number

Note: Minimum firmware version : 1.10

DXB-8i is listening for telnet commands in 6970.

<btn> value ranges from 1- 8

<port> - 1 for serial out and 2 for telnet.

<string> - for push_string, release_string, hold_string and local_cmd   command spaces can also be included in <string>.

String is in ASCII and can have non-printable as ASCII characters as well. To send non-printable ASCII (Hexadecimal) use a % in front of the 2 ASCII digits. To send "%" then use %%. Example: Line Feed = 0x0A Hex will be %0A.

For telnet messages IP and port should be provided (separated by colon enclosed in angle brackets along with string. For sending telnet message both client(DXB-8i) and server(device listening for telnet messages) should be in same domain.

White backlight for buttons seems to have a slight pink tint on our devices.

Permissible Values (RPC / Telnet)

Button no   - 1 -8

Delay – 1 -99   (1 represents 0.1 seconds)

Brightness value- 1-5 (1 is the lowest brightness and 5 is the highest brightness)

Hostname string length = 15

Press/Release colour – R,G,B,N,C,M,Y,W or r,g,b,n,c,m,y,w for Red , Green , Blue, None, Cyan, Magenta, Yellow and White.

Press/ Release – 1 & 2

Enable /Disable Toggle– 0 (disable toggle),1(Enable Toggle)

Enable/Disable Preset – 0(Disable preset), 1 (Enable Preset)

Baudrate   – 115200,57600,38400,19200,14400,9600, 4800, 2400.

Data_size – 8,7

Parity – NONE, EVEN, ODD

Stop bit – 1, 2

Serial Config Format – baudrate,data_size,parity,stopbit   -Eg: 9600,8,NONE,1

DXI PROGRAMMING SOFTWARE

DX Interface

DX Interface is a free utility for programming the buttons with the various functions. It allows a user to assign Telnet, RS-232, IR and LED color selection to the different button states. These assignments can be applied to the push, release, and holding of the buttons. Refer to Appendix 2 for cable connection to a PC. DX Interface is designed to run on a Windows® PC.
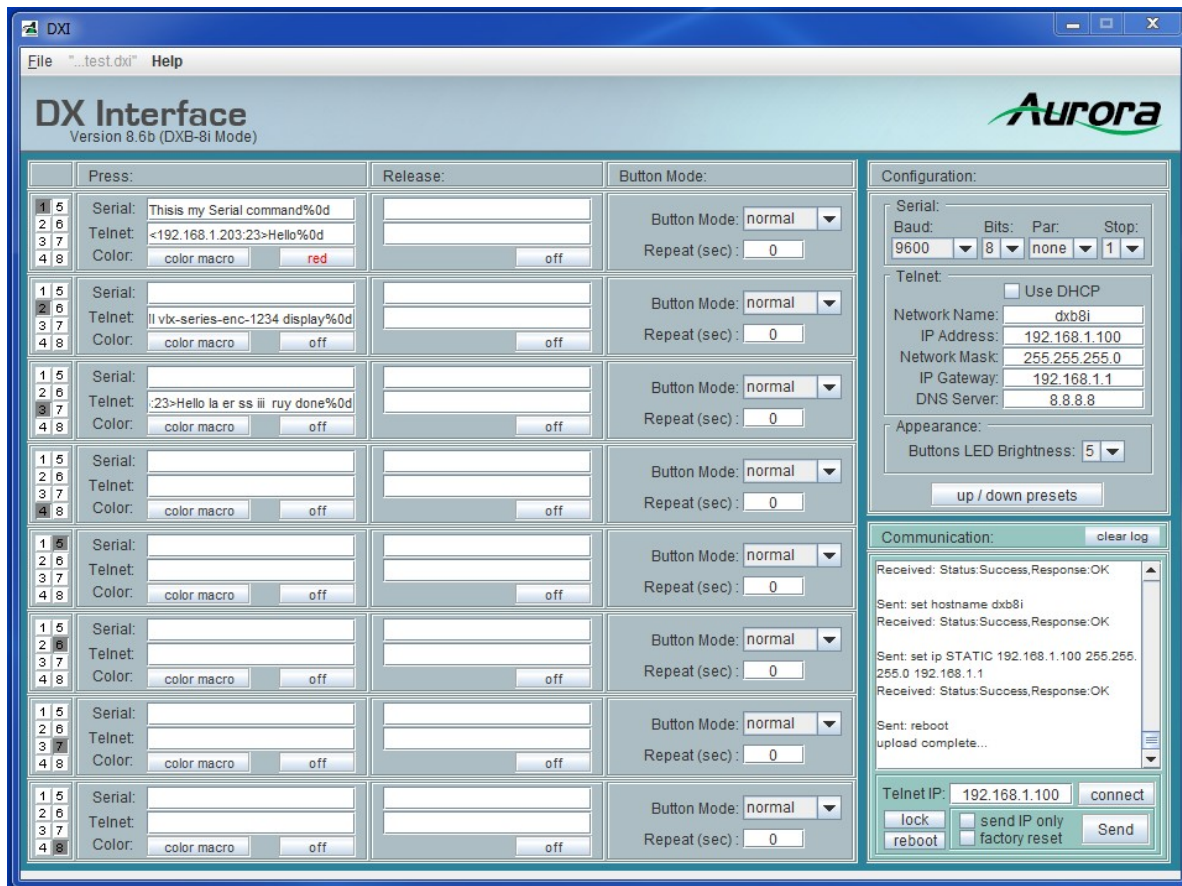The latest versions of DX Interface can be downloaded from:

http://portal.auroramultimedia.com/login

You can also access the DXI Software Quick Start Guide here.
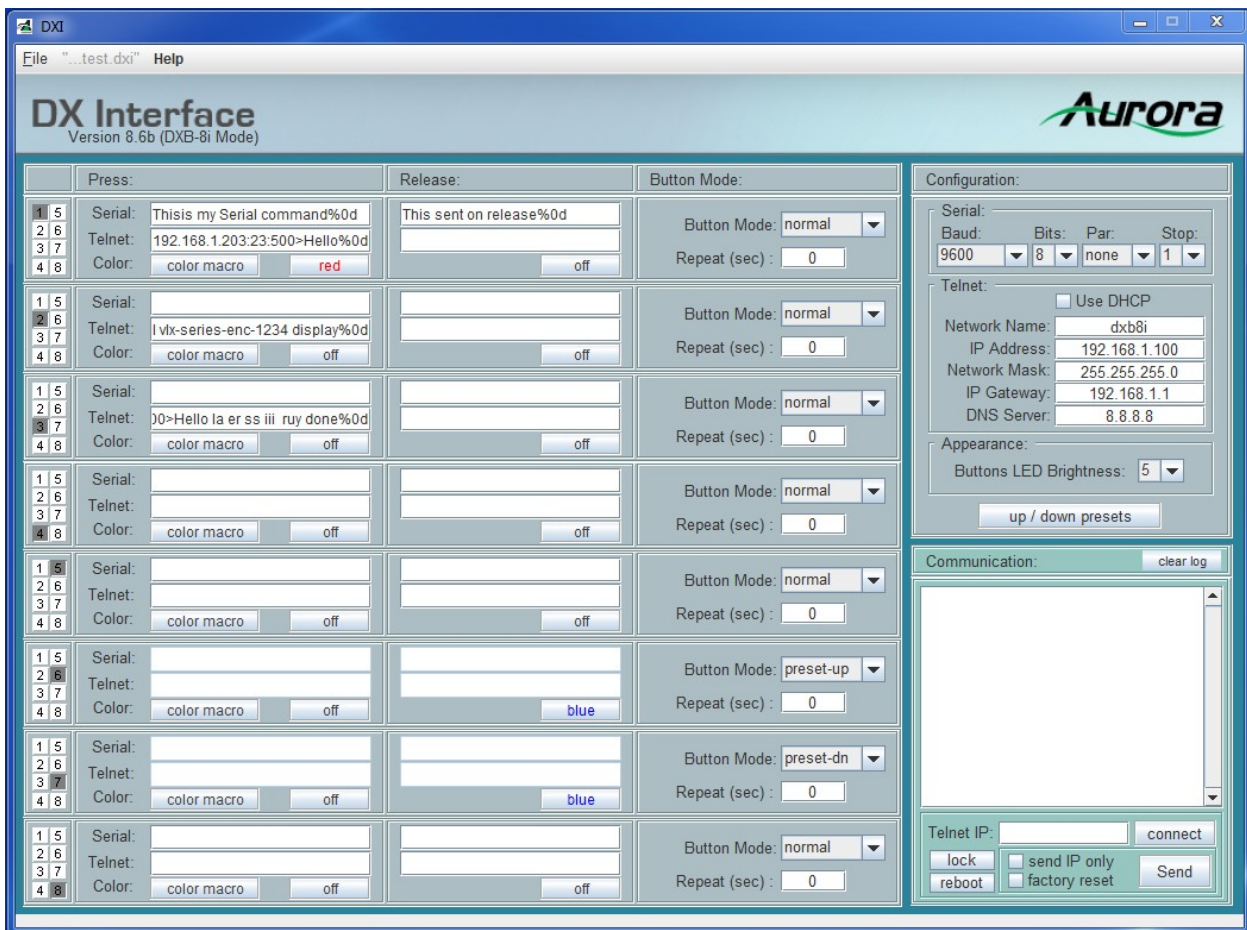
DXI Software Overview

The DXI-8i software is used to program the DXB-8i controller.   Here's a brief overview for the software.

File Menu:

Use the FILE menu to OPEN or SAVE / SAVE AS.   Currently CNTL-S is not supported, so be sure to save via menu.   The HELP option accesses this article.
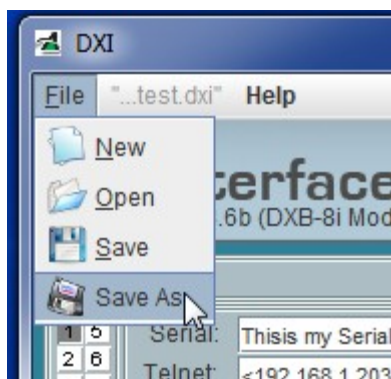
Programming DXI File:

Each DXB-8i button is represented by a PRESS / RELEASE & Serial / Telnet parameter.

Note: "%" and "#" are special programming characters. when you need to send these as part of a command, double encode as %% or ##.

- SERIAL:

Simply enter the desired command, using %XX to escape hex values as needed.

- Telnet: (Note: "< >" are required as shown below)

Commands are preceded by the target IP:Port:Timeout telnet values:

Format: <IP_Addr:Port:Timeout>Hello World%0d

Example: <192.168.1.83:23:1000>PON%0d

Note: For QX series controller communication, use timeout value of 1000

- IR Commands: (Via Telnet)

Currently, IR commands are called using Telnet, as formatted below:

<127.0.0.1:6970>send ir Onkyo.wir VOLUP%0d

Note: The IR file must be FTP'd onto the DXB-8i controller.

Button Mode:

Buttons have 3 modes: Normal, Toggle, Preset-up/dn.

NORMAL: Command are sent on PRESS/RELEASE as programmed.

TOGGLE: Button alternates between PRESS / RELEASE states, sending and coloring as programmed (Used for Mute on/off or similar applications).

PRESET-UP/DN: Used to call a range of absolute commands (See next section).
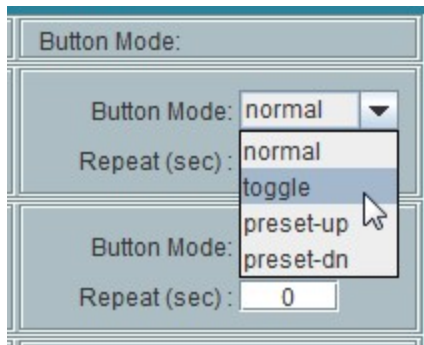
UP / DN PRESETS:

This dialog box provides 12 positions (Leave unused blank) for commands, Serial or Telnet.   A typical application might be volume commands. Here we've programmed 0-100% in increments of 10. You can see the output in the Hercules Terminal below.
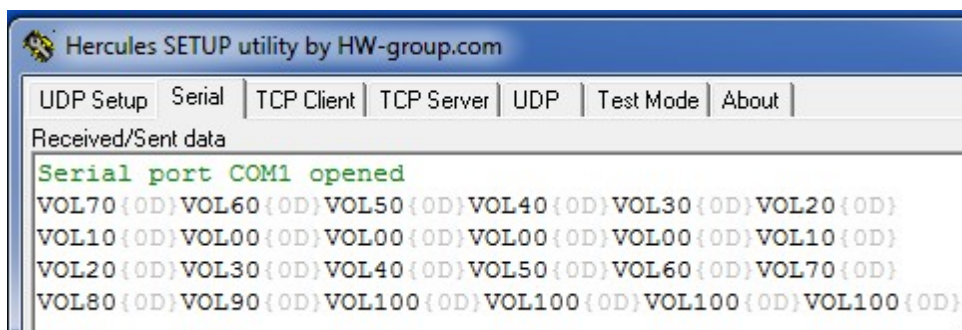
Color Macro:

The COLOR MACRO option, allows a button press-or-release to set the color of one, or many buttons.   A Typical application is having the ON button turn green, and the OFF button turn off...and then the OFF button turning red, and ON to off
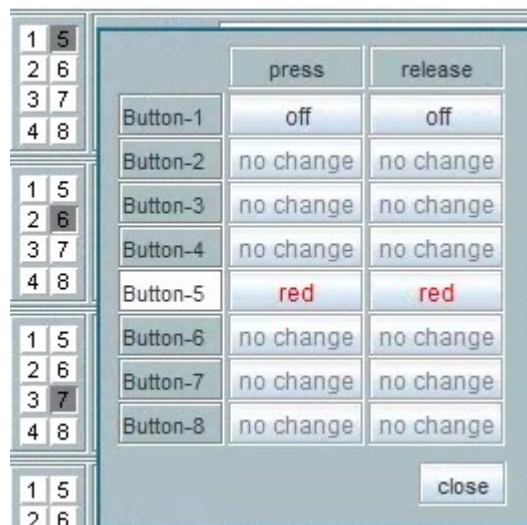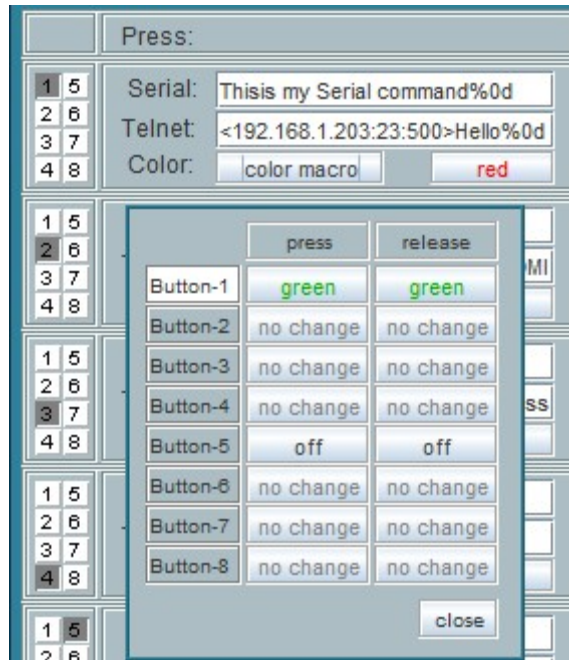
The other color option buttons simply set the Press/Release state if Macro function in not desired.

Programmed IP Address:

The DXB-8i ships default: 192.168.1.100.   You can set the desired programmed network parameters in the upper-right configuration window.   During programming, the unit will change to the new address, so *you may need to adjust you PC network card accordingly*.

Sending Program:

The Communications (Lower-right) window is to be set to the current IP address of the DXB-8i (Default 192.168.1.100).   You can then press CONNECT and then SEND to program the DXB-8i.
NOTE: During programming, the unit will take the address as set in the configuration section, so *you may need to adjust your PC network card accordingly*.

GUI Size: (For those blind peeps like me ;-)

You can locate the SETTINGS.INI file where the DXI EXE is located, and open with a text editor.

Adjusting this MAGNIFICATION parameter from 1.0 to 5.0.   Default is 1.1, good for 1080p.

Once saved, relaunch DXI, and the GUI will resize.
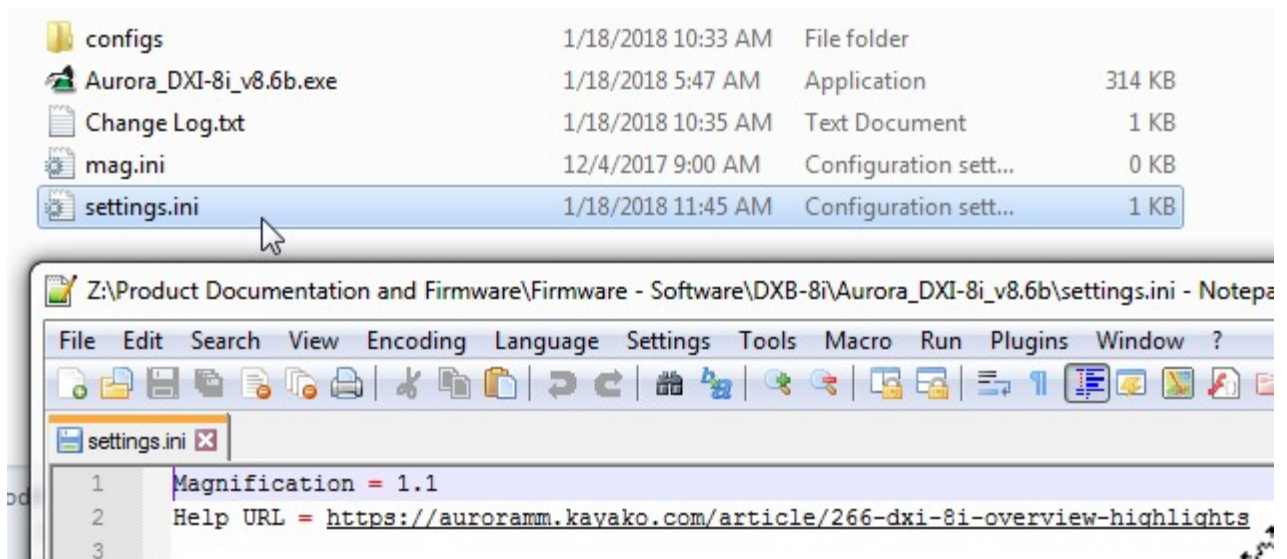
APPENDIX 1   Troubleshooting

Problem	Solution
1. LED is not lit on any buttons	a. Check 5v power supply is plugged in locally or if connected to DXW-2 make certain the DXW-2 has power. b. Check to see if Wall supply is plugged into wall outlet. c. Make certain wall outlet has power. d. Make certain RS-232 command for LED state is not set to none for the buttons.
2. RS-232 does not work	a. Check connection on RS-232 port. Make certain TX goes to RX and RX goes to TX of the device to be connected. Don't forget about ground. b. Check baud rate. c. Verify commands being sent are correct protocol. d. Each unit must have a unique address.
3. Some functions do not work	a. Make certain unit has latest firmware.

APPENDIX 2 Firmware Update

To update firmware, web into the controller. Example: 192.168.1.100/setup.

Note: User & Password default is admin / admin.

If IP or password is unknown, factory reset unit by press-n-hold buttons 3 & 7 >10 sec, which will revert unit back to default IP 192.168.1.100. See button order below:

<div align="center">

1   5

2   6s

3   **7**
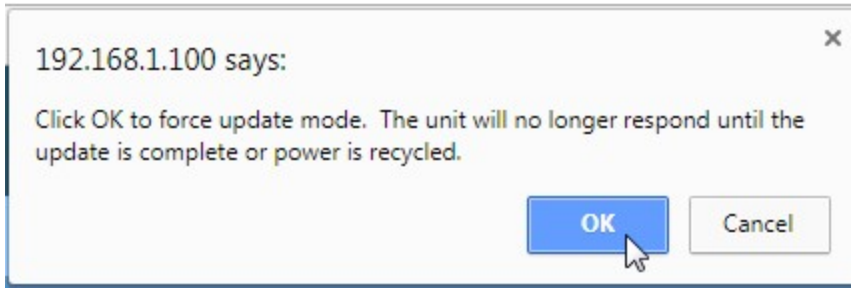
4   8

</div>

Once logged in, select START UPDATE:

Press OK to enter update mode:

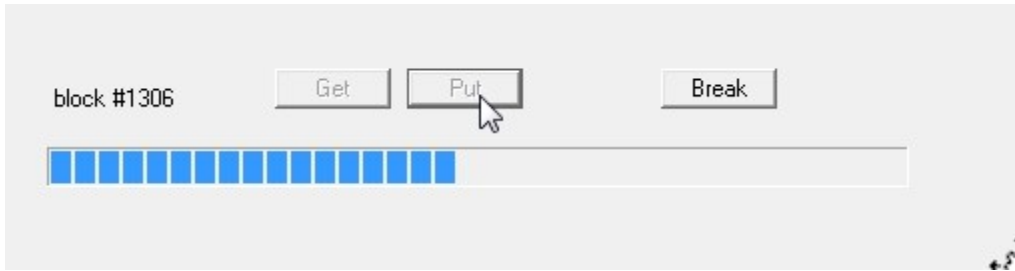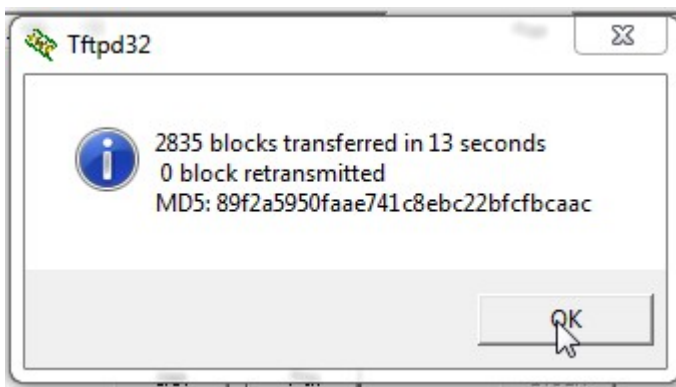

Download TFTPD program, found HERE.

Launch TFTPD program, enter IP Address, and browse the DXB-8i Firmware file:
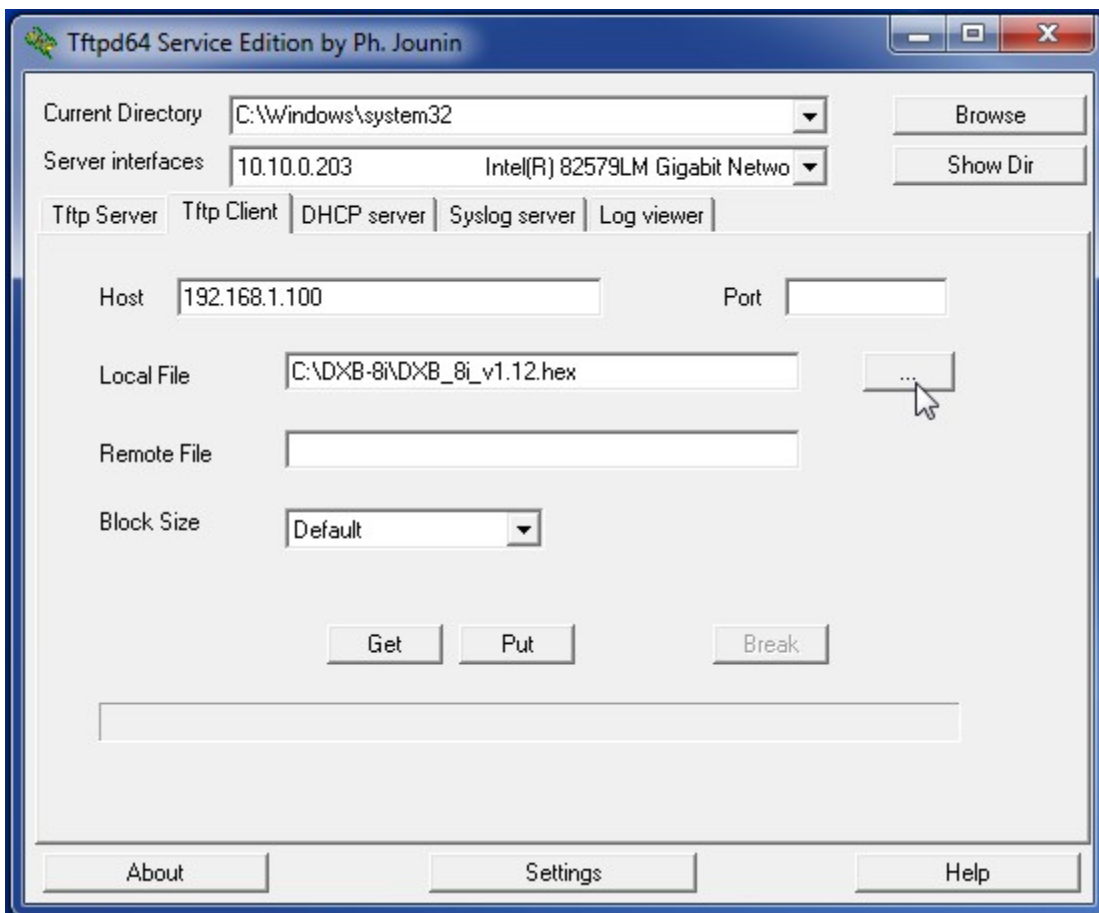
Press the PUT button to upload new FW:

Once complete, press OK, and your unit is now ready to go.

APPENDIX 3   Technical Specifications

Model Name	DXB-8
Technical	**DXB-8**
RS-232 Baud Rate	Max 115kbps (Factory default is 9600)
Front Selections	8 Backlit Buttons (Red, Green, Blue)
RS-232 Connector Port	4 pin 3.81mm Euro
IR Port	2 pin 3.81mm Euro
Mechanical	**DXB-8**
Housing	Plastic front with aluminum rear enclosure
Dimensions [L x W x D]	1.44″x4.331″x.76″ Note: Wall box portion depth .48″
Weight	.38lbs
Mounting	Wall-mounting Decora® 1 Gang
Power supply	POE or 48vdc
Power consumption	1 Watts [max]
Operation temperature	0~40°C [32~104°F]
Storage temperature	-20~60°C [-4~140°F]
Relative humidity	20~90% RH [no condensation]
Package Contents	1x DXB-8 1x Paintable White Wall Plate 1x User Manual
Options	48v DC power Supply for stand-alone operation (PS0081-1)

Specifications subject to change without notice.

APPENDIX 4   Warranty

Limited 3 Year Warranty

Aurora Multimedia Corp. ("Manufacturer") warrants that this product is free of defects in both materials and workmanship for a period of 3 years as defined herein for parts and labor from date of purchase. This Limited Warranty covers products purchased in the year of 2009 and after. Motorized mechanical parts (Hard Drives, DVD, etc), mechanical parts (buttons, doors, etc), remotes and cables are covered for a period of 1 year. Touch screen displays are covered for 1 year; touch screen overlay components are covered for 90 days. Supplied batteries are not covered by this warranty. During the warranty period, and upon proof of purchase, the product will be repaired or replaced (with same or similar model) at our option without charge for parts or labor for the specified product lifetime warranty period.

This warranty shall not apply if any of the following:

A. The product has been damaged by negligence, accident, lightning, water, act-of-God or mishandling; or,

B. The product has not been operated in accordance with procedures specified in operating instructions: or,

C. The product has been repaired and or altered by other than manufacturer or authorized service center; or,

D. The product's original serial number has been modified or removed: or,

E. External equipment other than supplied by manufacturer, in determination of manufacturer, shall have affected the performance, safety or reliability of the product.

F. Part(s) are no longer available for product.

In the event that the product needs repair or replacement during the specified warranty period, product should be shipped back to Manufacturer at Purchaser's expense. Repaired or replaced product shall be returned to Purchaser by standard shipping methods at Manufacturer's discretion. Express shipping will be at the expense of the Purchaser. If Purchaser resides outside the contiguous US, return shipping shall be at Purchaser's expense.

No other warranty, express or implied other than Manufacturer's shall apply.

Manufacturer does not assume any responsibility for consequential damages, expenses or loss of revenue or property, inconvenience or interruption in operation experienced by the customer due to a malfunction of the purchased equipment. No warranty service performed on any product shall extend the applicable warranty period. This warranty does not cover damage to the equipment during shipping and Manufacturer assumes no responsibility for such damage.

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