

**AVoIP HDMI/
VGA Encoder(Tx)/
Decoder(Rx)/Controller
LBN-MST/LBN-MSR/LBN-MSC**

QUICK INSTALL GUIDE



BROADDATA
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AVoIP HDMI/VGA Encoder(Tx), Decoder(Rx) & Controller

This quick install guide provides step-by-step instructions on how to set up the AVoIP Encoder/Decoder and Controller for the first time. The guide will show you::

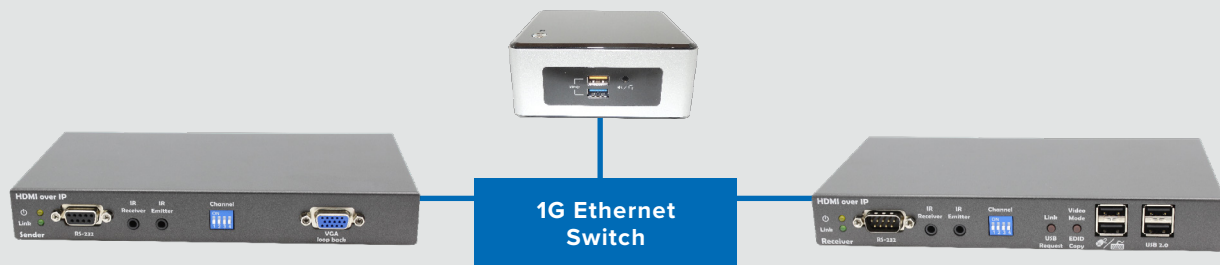
- A) How to Connect the Hardware
- B) How to access the Main Configuration Pages
- C) How to route your displays and sources using the Android App
- D) How to connect a USB-Serial Adapter from the controller to a control system using the RS232 or RJ45 Connector

Required Products

- 1- AVoIP HDMI/VGA Encoder (Tx)- LBN-MST
- 1- AVoIP HDMI/VGA Decoder (Rx)- LBN-MSR
- 1- AVoIP Matrix Switching Controller w/ Power Supply- LBN-MSX
- 1- USB to RS232 Converter
- 1- USB to Gigabit Ethernet Converter
- 1- Gigabit Ethernet Switch w/ Power Supply (not included)
- 3- 3 FT CAT6 PATCH CABLE (not included)
- 1- PC/Laptop Computer (not included)
- Certified Gigabit Ethernet Switch Quick Start Guide
- BCI Product Configuration Tool (via E-mail)

A) Connecting the Hardware

Connect the Controller, Encoders (Tx) & Decoders (Rx) to a Gigabit Ethernet Switch



*** Do not connect a DHCP server (router, or LAN connection) to the Ethernet switch. The system works under both Auto-configured IP and Static IP settings.**

- 1) Connect the Encoder(s)/Tx (LBN-MST) and Decoder(s)/Rx (LBN-MSR) into any available port on the Ethernet switch
- 2) Connect the the Controller (LBN-MSX) to any available port on the Ethernet switch
- 3) Configure Gigabit Ethernet Switch (refer to Gigabit Switch Quick Start Guide)

B) Accessing the Main Configuration Page

1) Connect the Controller, the Encoder (Tx)/Decorder (Rx) and the Ethernet switch to the power supply. In most cases, if the Ethernet switch is PoE (Power over Ethernet) capable, the switch must finish initializing to supply power.

2) By factory default, the Controller will power up in **hotspot mode**. Use a PC or Laptop to connect to the hotspot. Search for “**lbn1g-xxxx-hotspot**” as the SSID.
default password: **broadata**

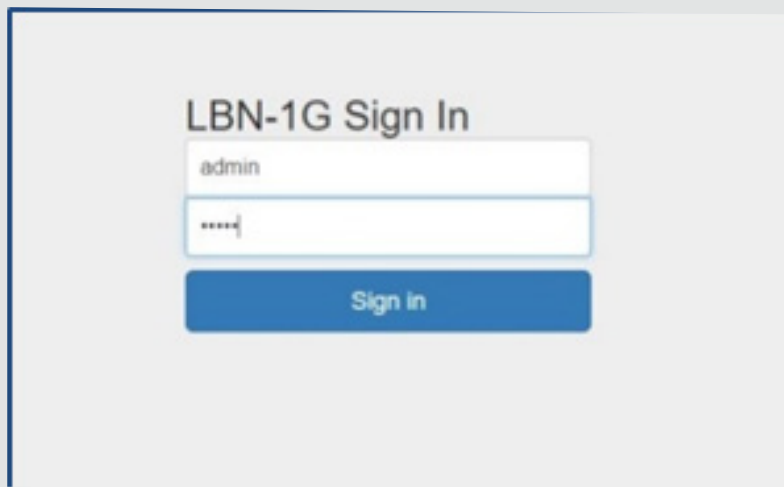
*If the PC requires an 8 digit PIN rather than a password, select “Connect using a security key instead”

3) When connected, use a web browser to access the configuration page by entering the default IP address: **10.42.0.1**

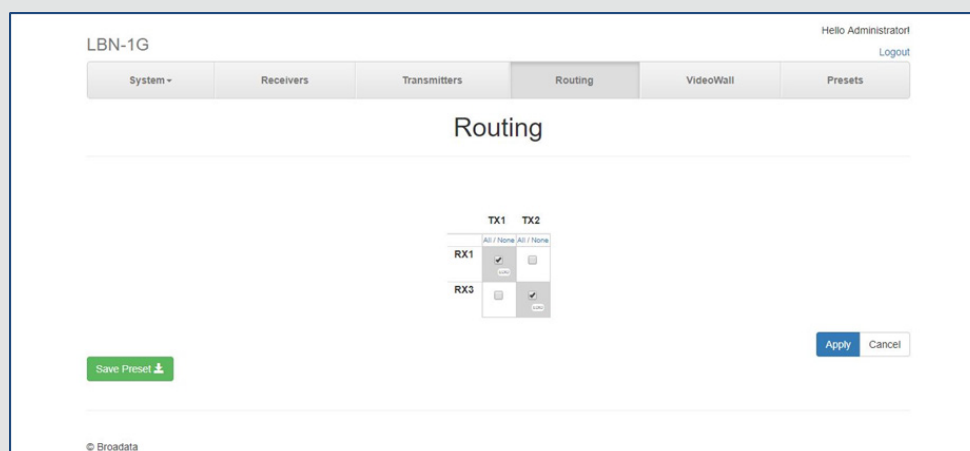
4) Use the following default credentials to log-in:

default user name: **admin**


default password: **admin**



5) The routing page will be displayed:









	TX1	TX2
RX1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
RX3	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- 6) You are ready to configure the Encoders/Decoders. Select the menu icon  for each Encoder (Tx)/Decoder (Rx) to edit its settings.

LBN-1G Hello Administrator!
Logout

System ▾ Receivers Transmitters Routing VideoWall Presets

Receivers

Name	MAC Address	IP Address	State	Connected to	
RX1	82568E933329	169.254.4.197	Unreachable	TX1	  
RX3	82525D63BA7A	169.254.7.128	Unreachable	TX2	  

C) ROUTING FROM THE BROADATA AVoIP ANDROID APP

INSTALLATION

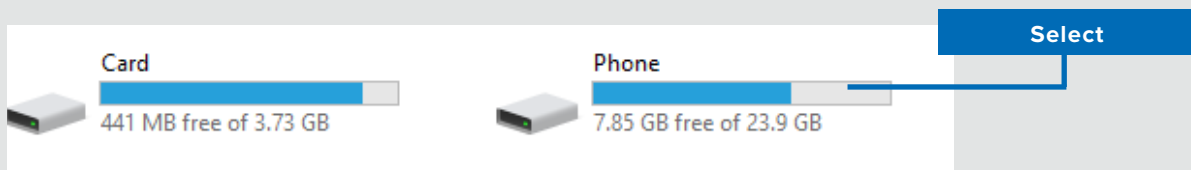
- 1) Install the BCI Controller Android App (.apk file) on any Android device with firmware version 5.0 (Lollipop) or above. Below are two ways to install the app.

Method #1:

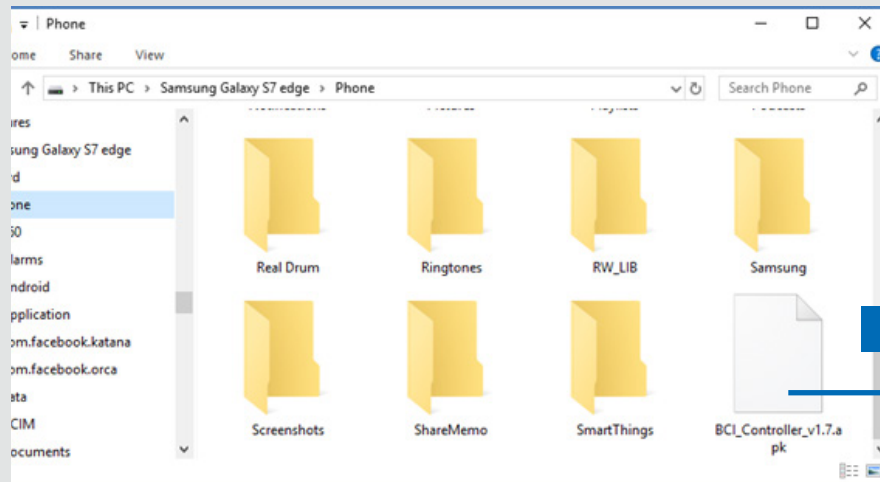
- Open the .apk file from an email attachment from your Android device. Then follow the on-screen instructions to install.

Method #2:

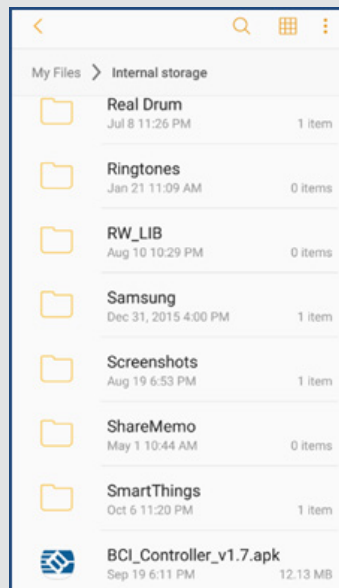
- Connect the Android device to a PC through a USB cable. Open the system folder on the Android device. Select and open the Phone drive if the device is a cell phone.



- Drag and drop the .apk file into the Android system folder.

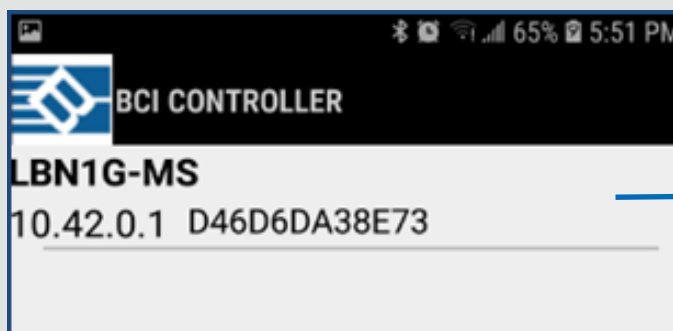


- On the Android device, navigate to the “My Files” folder App and locate the BCI Controller Android App (.apk file)

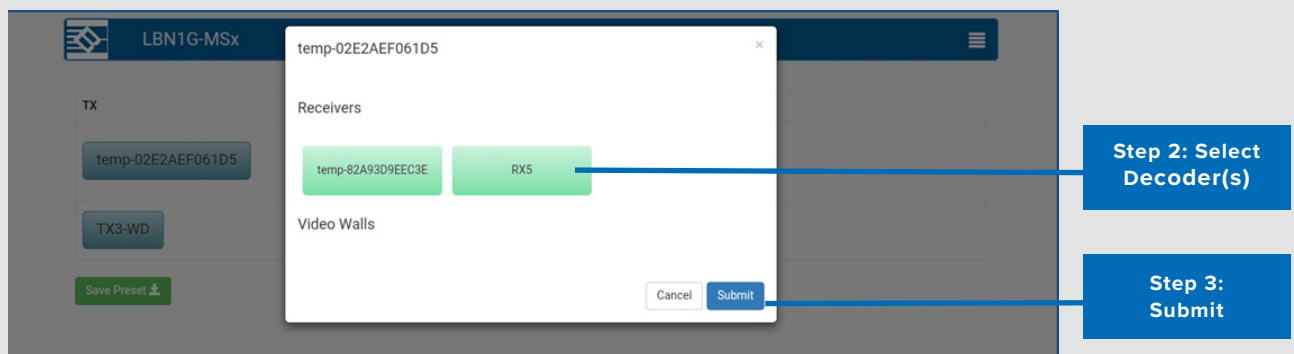
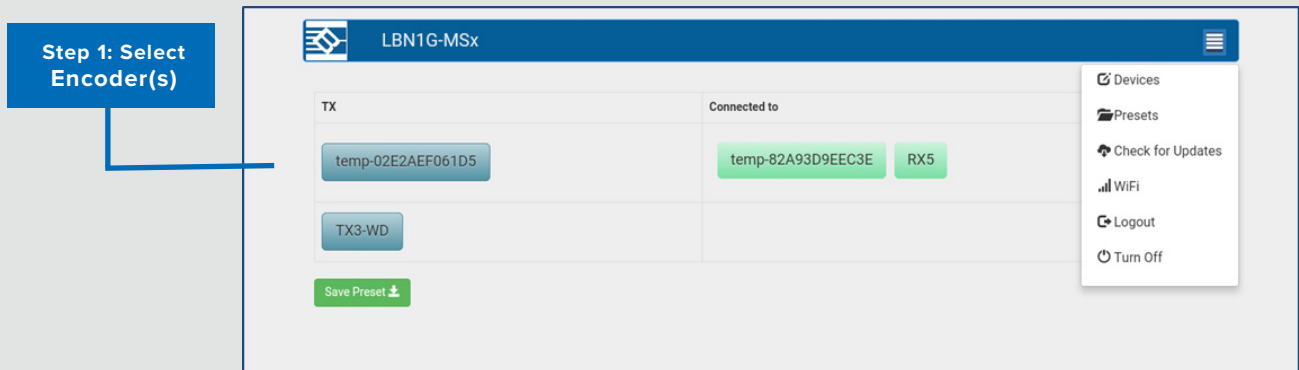


- Open the file, and follow the on-screen instructions to install
- 2) Connect your Android device Wi-Fi to "lbn1g-xxxx-hotspot" as the SSID using the default password
 - 3) Open the App and the LBN 1G-MSx controller will automatically be detected.

Select LBN1G-MS to view the routing pages.



4) Routing: Now you are ready to route Encoders(Tx)/Decoders(Rx)!
Select an Encoder and then select a desired receiver(s) for routing.



RS232 API Interface - Connections

1) Using a USB-Serial Adapter, connect the controller to a control system using the RS232 connector.



2) Using a terminal console program or 3rd party control processor, make a connection using the following default settings:

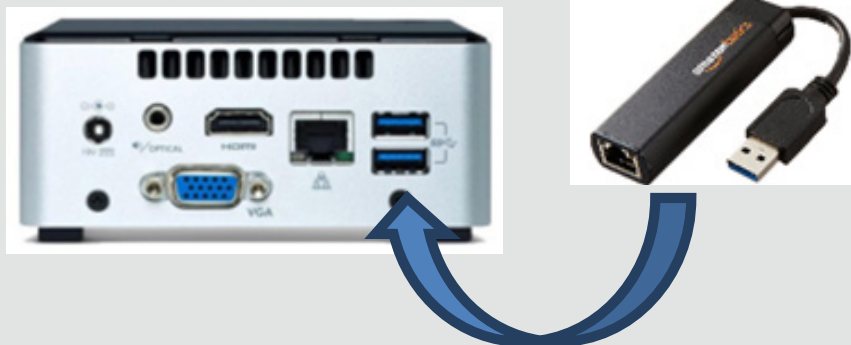
- Baudrate: 19200**
- Data Bits: 8**
- Parity: None**
- Stop Bits: 1**
- Flow Control: None**
- Termination: Carriage Return CR (0x0D)**

3) Type help to obtain a list of commands and their description

```
help
Commands:
  help                usage information
  route <output> <input> route input to output
  get_route <device>  get input or output connections
  get_video_active <device> show device's video status
  uart <device_name> <baud_rate> <data_bits> <parity> <stop_bits> Set UART data with given parameters.
  , 4800, 9600, 14400, 19200, 38400, 57600, 115200, 128000, 256000 Baud rate : Supported baud rates:1200, 2400
  get_uart <device_name> Get device UART information.
  get_outputs         List all receivers in the network.
  get_inputs         List all transmitters in the network.
  rename_device <old_name> <new_name> Rename a device.
  default <device_name> Set device to default settings.
  get_version <device_name> Get firmware version for device.
  video_scaler <output> <mode> Set scaler mode: 0=bypass, 1=auto, 2=1080p5
  0, 3=1080p60, 4=2160p25, 5=2160p30, 6=1366x768, 7=1440x900, 8=1920x1200, 9=1400x1050
  get_video_scaler <output> Get scaler mode
  scanwifi           Lists all available WiFi networks
  setupwifi <SSID> <password> Set WiFi credentials
  setupspot         Set Hot Spot
```

Network Control API Interface

1) Using a USB-Serial Adapter, connect the controller to a network or directly to a control system via Ethernet. This adapter is used to access the Network API Interface.



2) IP Address Discovery: On a PC connected to the network, open the BCI Configuration Tool Windows application. Select Next to display the IP address of the LBN-1G-MSC Network Interface.

3) Accessing the API: Connect to the IP address found above using port 23.

- Default Username: broadata
- Default Password: broadata

4) Type lbn -h to view the list of commands. Each command under the network API requires lbn as a prefix.



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