VXi-HUB

JLid-COMM & OPTICAL AUDIO NETWORK HUB

with

JL id™

CONNECTION GUIDE

Planning Your Installation

It is important that you take the time to read this manual thoroughly and that you plan your installation carefully. It is very easy to damage expensive vehicle systems in modern automobiles. Never assume that you have found appropriate wires without consulting a reliable wiring diagram or without analyzing with proper test equipment. If you are uncomfortable or unfamiliar with reading diagrams or testing methods, please enlist the services of your authorized JL Audio dealer to perform the installation. Your authorized dealer has the training, expertise and installation equipment to ensure optimum performance from this product.

What is Included

(1) VXI-HUB
(1) Connection Guide

Product Description

The VXI-HUB is an accessory designed to provide network connectivity of VXi amplifiers in a multi-amp system. Networking greatly simplifies the configuration process by permitting the setup and tuning of all amplifiers using a single TüN™ project file. Additionally, networking synchronizes DSP presets of all amplifiers and propagates DRC commands across the entire amplifier network, using a single DRC controller.

The VXi-HUB includes JLid-COMM connections to network six VXi amplifiers (one Master amplifier and five Slave amplifiers). Up to two VXI-HUBs can be daisy-chained allowing network connectivity for up to ten VXi amplifiers. All energy to power the VXi-HUB is derived from the connected VXi amplifiers.

For systems utilizing an optical digital signal source, a built-in S/PDIF digital repeater is also onboard to distribute optical digital audio signals to networked amplifiers (one S/PDIF digital input and five S/PDIF digital outputs).The digital audio outputs remain synchronized to avoid the timing and phase issues that can occur with daisy-chain style connections. Optical digital audio connections are capable of handling S/PDIF signals up to 24 bit/192 kHz.

A dedicated JLid-COMM accessory port is included for the connection of the optional VXi-BTC Bluetooth® Communicator (sold separately). The VXi-BTC permits the wireless configuration of an amplifier network using a compatible iOS® or Android® device running TüN™ Mobile or TüN™ Express apps.

Note: The VXi-HUB utilizes a proprietary JLid™ communication protocol via standard CAT5e network cables (not included). Use only CAT5e type network cables and keep cable lengths as short as possible for optimum performance. Audio signals are NOT transmitted via JLid-COMM connections.

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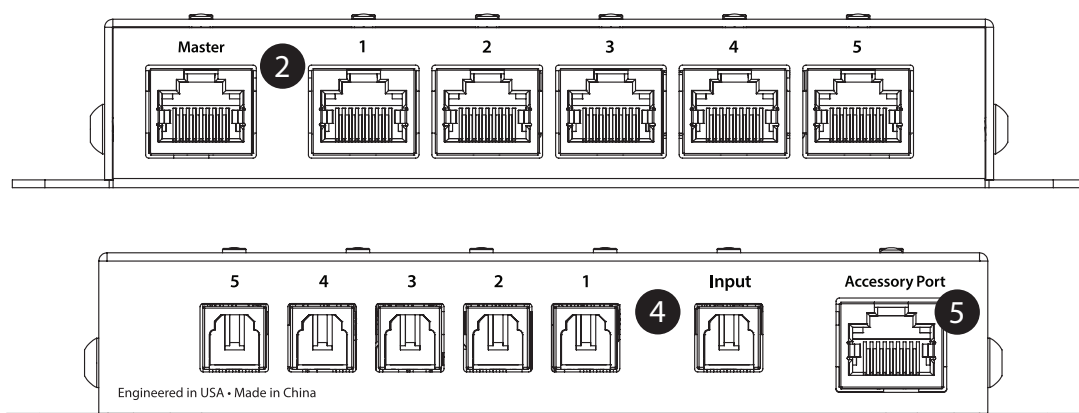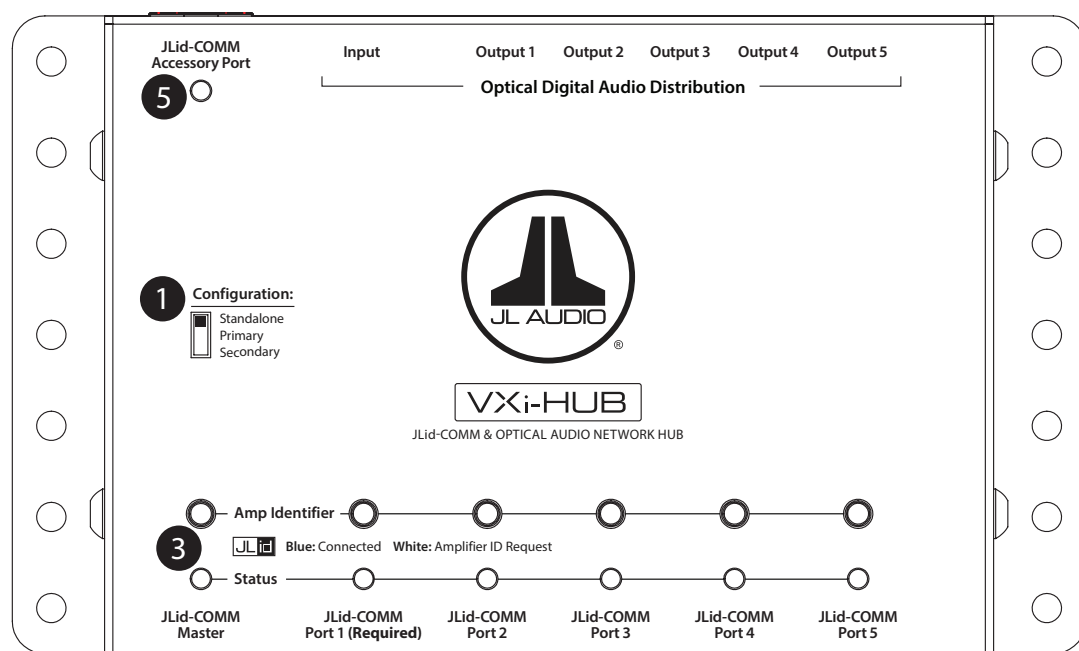
① Configuration Switch

Use the Configuration switch to set the VXi-HUB's functionality. A single VXi-HUB can network a total of six VXi amplifiers, consisting of one Master amplifier and up to five Slave amplifiers. A second VXi-HUB can be daisy-chained to network ten VXi amplifiers, comprising of one Master amplifier and up to nine Slave amplifiers. A maximum of two VXi-HUBs may be used in a single network. Refer to the table below for a description of each switch setting and select according to your specific system.

Setting	Function / Description
Standalone	Select for Single-HUB systems
Primary	Select for the first VXi-HUB in Two-HUB systems
Secondary	Select for the second VXi-HUB in Two-HUB systems

② JLid-COMM Amplifier Port Connections

The VXi-HUB is equipped with one Master and five numbered JLid-COMM ports to connect to the JLid-COMM port on VXi amplifiers. JLid-COMM connections are made using standard CAT5e network cables (not included). For optimum performance, use only CAT5e type network cables and keep cable lengths as short as possible. Refer to the tables below for detailed connection info for your specific system.

Single-HUB System:

JLid-COMM Ports on VXi-HUB	Connection	Note
JLid-COMM Master Port	JLid-COMM Port of the Master VXi Amplifier	
JLid-COMM Ports 1 to 5	JLid-COMM Port of Slave VXi Amplifiers	If using the VXi-HUB's built-in Optical Digital Audio Distribution, a Slave VXi amplifier connection to Port 1 is required.

Two-HUB System:

	JLid-COMM Ports on VXi-HUB	Connection	Note
Primary HUB	JLid-COMM Master Port	JLid-COMM Port of the Master VXi Amplifier	
	JLid-COMM Ports 1 to 4	JLid-COMM Port of Slave VXi Amplifiers	If using this VXi-HUB's built-in Optical Digital Audio Distribution, a Slave VXi amplifier connection to Port 1 is required.
	JLid-COMM Port 5	JLid-COMM Master Port of the Secondary VXi-HUB	
Secondary HUB	JLid-COMM Master Port	JLid-COMM Port 5 of the Primary VXi-HUB	
	JLid-COMM Ports 1 to 5	JLid-COMM Port of Slave VXi Amplifiers	If using this VXi-HUB's built-in Optical Digital Audio Distribution, a Slave VXi amplifier connection to Port 1 is required.

③ Amp Identifier and Status LEDs

Each JLid-COMM amplifier port is equipped with a status LED that will illuminate solid blue when connected to a VXi amplifier. Pressing an Amp Identifier button on the VXi-HUB will change its status LED to white and cause the LED badge on the connected VXi amplifier to flash white. This functionality may be useful to identify specific amplifiers, after installation.

④ Optical Digital Audio Distribution

The VXi-HUB is equipped with a built-in S/PDIF digital repeater to distribute a single optical (Toslink) input signal to five optical (Toslink) outputs, at up to 24 bit/192 kHz. Digital audio outputs retain absolute synchronization to avoid timing and phase irregularities that can occur with daisy-chain style connections. **Note: The five digital audio outputs are unaltered replicas of the digital input, with no processing applied. Optical Digital Audio Distribution functionality requires a Slave amplifier connection to JLid-COMM Port 1.**
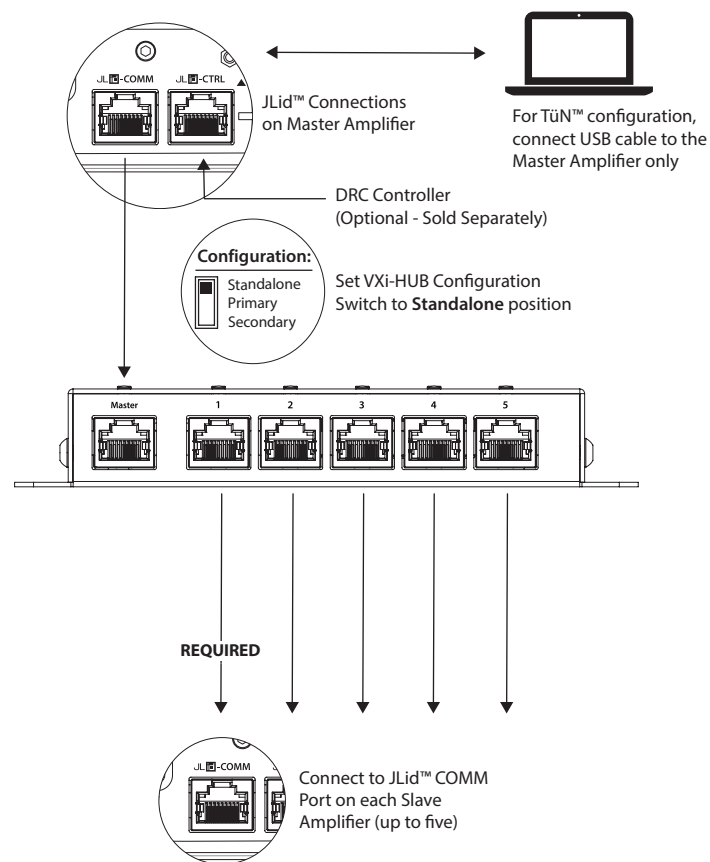
⑤ JLid-COMM Accessory Port and LED

The JLid-COMM Accessory Port is used to connect an optional VXi-BTC Bluetooth® Communicator (sold separately) to deliver wireless setup and tuning control of VXi amplifiers, using a compatible handheld device running TüN™ Mobile and TüN™ Express applications. **Note: The VXi-BTC provides a control interface only and does NOT support audio streaming.**

This connection is made using a standard CAT5e cable (included with the VXi-BTC Bluetooth® Communicator). When a VXi-BTC is connected, the JLid-COMM Accessory Port LED will illuminate blue to indicate a valid connection. An amber LED indicates an incompatible connection. **Note: JLid-COMM Accessory Port functionality requires an amplifier connection to the JLid-COMM Master Port. When used in Two-HUB System applications, the VXi-BTC should be connected to the Primary VXi-HUB only.**

JLid-COMM Accessory Port — ⑤

Input — Output 1 — Output 2 — Output 3 — Output 4 — Output 5
Optical Digital Audio Distribution

① Configuration: Standalone / Primary / Secondary

VXi-HUB
JLid-COMM & OPTICAL AUDIO NETWORK HUB

Amp Identifier
JL id Blue: Connected White: Amplifier ID Request — ③
Status
JLid-COMM Master — JLid-COMM Port 1 (Required) — JLid-COMM Port 2 — JLid-COMM Port 3 — JLid-COMM Port 4 — JLid-COMM Port 5

Master — 1 — 2 — 3 — 4 — 5 — ②

5 — 4 — 3 — 2 — 1 — Input — Accessory Port — ④ ⑤
Engineered in USA • Made in China

JLid™ Network Connections for a single VXi-HUB
Supports One Master Amplifier and
up to Five Slave Amplifiers

JL-COMM   JL-CTRL

JLid™ Connections
on Master Amplifier

For TüN™ configuration,
connect USB cable to the
Master Amplifier only

DRC Controller
(Optional - Sold Separately)

Configuration:
Standalone
Primary
Secondary

Set VXi-HUB Configuration
Switch to **Standalone** position

Master 1 2 3 4 5

REQUIRED

JL-COMM

Connect to JLid™ COMM
Port on each Slave
Amplifier (up to five)

Note:
- JLid™ Network Connections are made via CAT5e Network Cables (not included)
- JLid™ Network Connections support data communication only - No Audio
- Power and Audio Input connections (not pictured) are required for each VXi amplifier.
- Components pictured may not be to scale.

JLid™ Network Connections for two VXi-HUBs
Supports One Master Amplifier and
up to Nine Slave Amplifiers
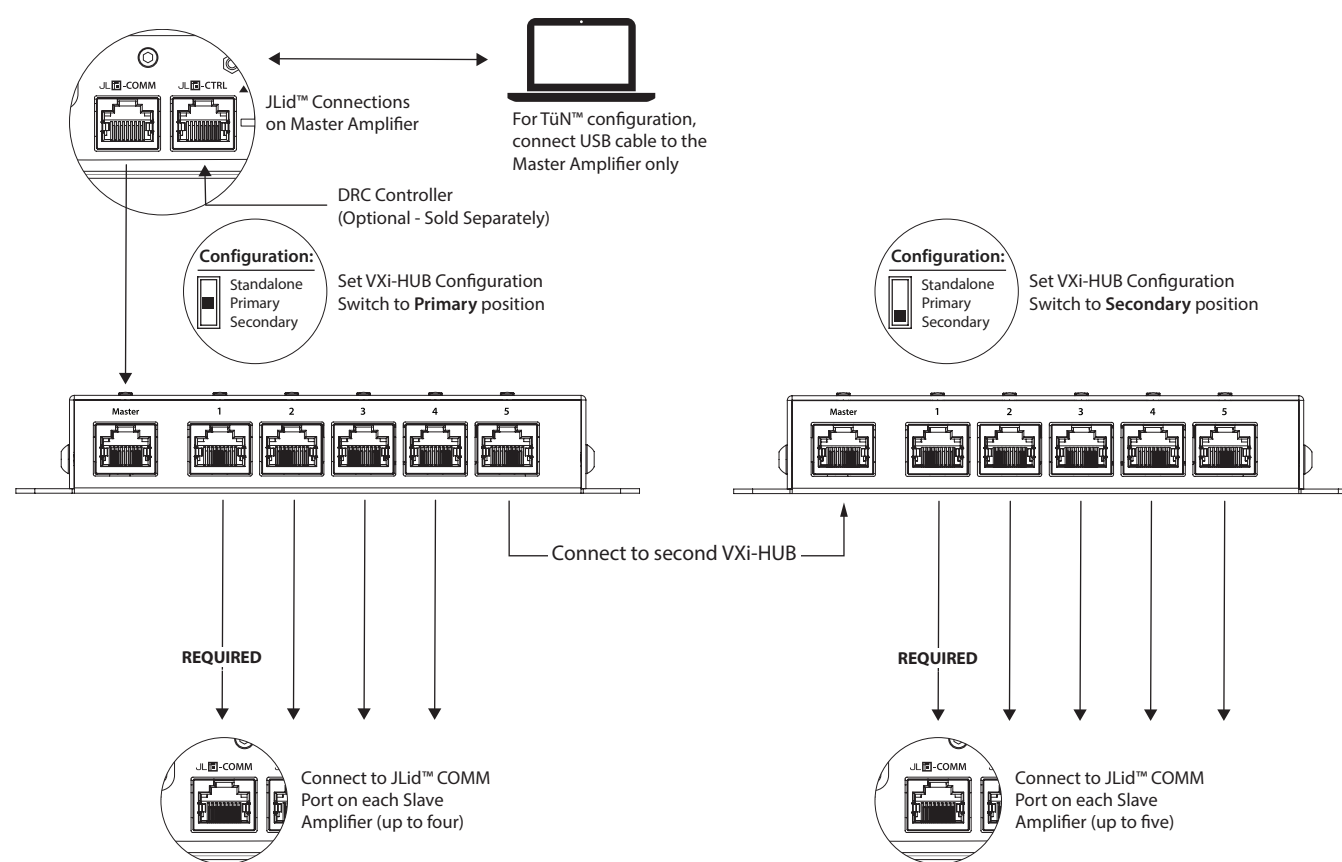
JL-COMM   JL-CTRL

JLid™ Connections
on Master Amplifier

For TüN™ configuration,
connect USB cable to the
Master Amplifier only

DRC Controller
(Optional - Sold Separately)

Configuration:
Standalone
Primary
Secondary

Set VXi-HUB Configuration
Switch to **Primary** position

Master 1 2 3 4 5

REQUIRED

JL-COMM

Connect to JLid™ COMM
Port on each Slave
Amplifier (up to four)

Connect to second VXi-HUB

Configuration:
Standalone
Primary
Secondary

Set VXi-HUB Configuration
Switch to **Secondary** position

Master 1 2 3 4 5

REQUIRED

JL-COMM

Connect to JLid™ COMM
Port on each Slave
Amplifier (up to five)

Note:
- JLid™ Network Connections are made via CAT5e Network Cables (not included)
- JLid™ Network Connections support data communication only - No Audio
- Power and Audio Input connections (not pictured) are required for each VXi amplifier.
- Components pictured may not be to scale.

Optical Digital Audio Connections & Accessory Port

S/PDIF Optical
Digital Audio Input

5 4 3 2 1   Input   Accessory Port

Engineered in USA • Made in China

S/PDIF Optical Digital Audio Outputs

Connect to
Digital Inputs
on Amplifiers or
other Components

VXi-BTC
Bluetooth® Communicator
(Optional - Sold Separately)
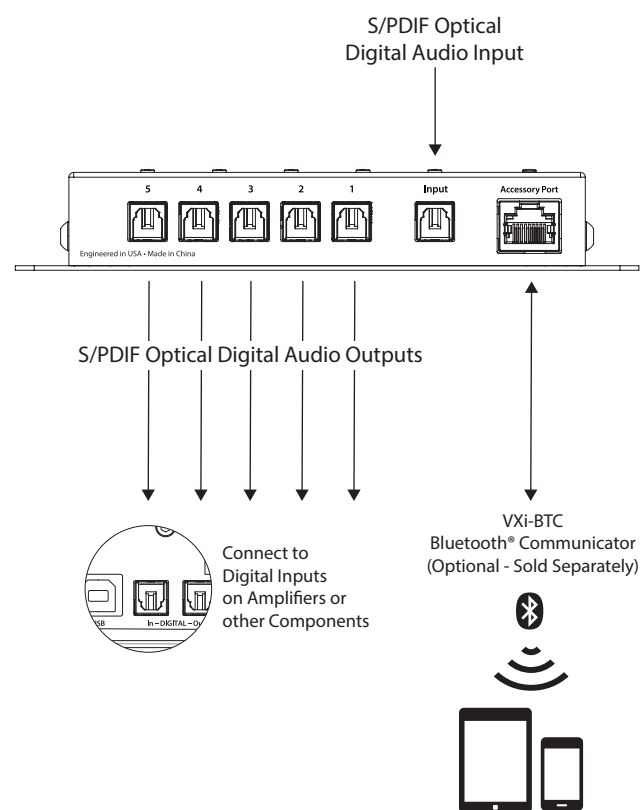
Note:
- Optical Digital Audio Distribution functionality requires a Slave amplifier connection
  to JLid-COMM Port 1.
- JLid-COMM Accessory Port functionality requires an amplifier connection to
  the JLid-COMM Master Port.
- In Two-HUB Systems, the JLid-COMM Accessory Port of the Secondary VXi-HUB is non-functional.
- The VXi-BTC provides a control interface only and does NOT support audio streaming.
- Components pictured may not be to scale.

APPENDIX A: FREQUENTLY ASKED QUESTIONS

"Do I still need to send audio input signals to my VXi amplifiers?"
Yes, audio input signals connections are required for each VXi
amplifier. For maximum versatility, each VXi amplifier is equipped
with analog and digital audio inputs.

"Where do I connect my DRC controller?"
Compatible DRC remote controllers should be connected to the
JLid™ CTRL Port of the Master VXi amplifier only.

"Where do I connect my USB A/B cable for TüN™ configuration?"
Compatible computers running TüN™ software should connect to
the USB Port of the Master VXi amplifier only.

"What if I don't have an optical output on my source/processor?"
The optical digital audio input and outputs of the VXi-HUB are
optional and not required for VXi network communication.

"Can I use the optical outputs for non-VXi amplifiers?"
Yes, the Optical Digital Audio Outputs of the VXi-HUB are
compatible with any S/PDIF optical digital (Toslink) input capable
of accepting signals up to 24 bit/192 kHz.

Specifications

	Host Interface	Proprietary VXi JLid™ protocol
	Input Operating Voltage	5 VDC
Digital Input	Type	S/PDIF Optical via chassis-mounted Toslink port
	Bit Depth/Sample Rate	Up to 24 bit/192 kHz
Digital Output	Type	S/PDIF Optical via chassis-mounted Toslink port x 5
	Bit Depth/Sample Rate	Up to 24 bit/192 kHz
	Dimensions L x W x H	6.50 in x 3.86 in x 1.05 in / 165 mm x 98 mm x 26 mm