



USBX Operation Manual



Obtaining Other Language Versions: To obtain information in another language about the use of this product, please contact your local Crown Distributor. If you need assistance locating your local distributor, please contact Crown at 574-294-8000.

This manual does not include all of the details of design, production, or variations of the equipment. Nor does it cover every possible situation which may arise during installation, operation or maintenance.

The information provided in this manual was deemed accurate as of the publication date. However, updates to this information may have occurred. To obtain the latest version of this manual, please visit the Crown website at www.crownaudio.com.



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Some models may be exported under the name Amcron®

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Telephone: 574-294-8000.



Important Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the 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 the obsolete outlet.
10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Unplug this apparatus during lightning storms or when unused for long periods of time.
13. Refer all servicing 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.
14. Use the mains plug to disconnect the apparatus from the mains.
15. **WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.**
-  16. **DO NOT EXPOSE THIS EQUIPMENT TO DRIPPING OR SPLASHING AND ENSURE THAT NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, ARE PLACED ON THE EQUIPMENT.**
17. **THE MAINS PLUG OF THE POWER SUPPLY CORD SHALL REMAIN READILY OPERABLE.**
-  **TO PREVENT ELECTRIC SHOCK DO NOT REMOVE TOP OR BOTTOM COVERS. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**

Important Safety Instructions



TO COMPLETELY DISCONNECT THIS EQUIPMENT FROM THE AC MAINS, DISCONNECT THE POWER SUPPLY CORD PLUG FROM THE AC RECEPTACLE. THE MAINS PLUG OF THE POWER SUPPLY CORD SHALL REMAIN READILY OPERABLE.

WATCH FOR THESE SYMBOLS:



The lightning bolt triangle is used to alert the user to the risk of electric shock.



The exclamation point triangle is used to alert the user to important operating or maintenance instructions.

IMPORTANT

USBX requires Class 2 output wiring.

MAGNETIC FIELD

CAUTION! Do not locate sensitive high-gain equipment such as preamplifiers or tape decks directly above or below the unit. Because this amplifier has a high power density, it has a strong magnetic field which can induce hum into unshielded devices that are located nearby. The field is strongest just above and below the unit.

If an equipment rack is used, we recommend locating the amplifier(s) in the bottom of the rack and the preamplifier or other sensitive equipment at the top.

FCC COMPLIANCE NOTICE

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



DECLARATION OF CONFORMITY

Issued By: Harman International.
1718 W. Mishawaka Rd.
Elkhart, IN 46517 U.S.A.

European Representative's Name and Address:

David Budge
10 Harvest Close
Yateley, GU46 6YS
United Kingdom

Equipment Type: Commercial Audio Power Amplifiers

Family Name: Crown USBX Server

Model Names: USBX

I certify that the product identified above conforms to the requirements of the EMC Council directive 2004/108/EC and the Low Voltage Directive 2006/95/EC.

Signed

Terry Davenport
Senior Director of Operations

Date of Issue: March 1, 2013

**Due to line current harmonics, we recommend that you
contact your supply authority before connection.**

Important Safety Instructions

The Crown USBX interface is a simple and compact unit designed to enable control and monitoring of Crown XTi, CDi, or DSi amplifiers via a wired or wireless Ethernet connection.

A built-in Wi-Fi access point allows USBX to become a powerful and convenient tool for managing Crown XTi, CDi, DSi devices via the Powered by Crown iOS application.

The primary intended use of USBX is as an interface to Crown USB-enabled amplifiers which connect either directly, or via a downstream USB hub, to a USB port on USBX. Then the amplifiers can be accessed via the RJ45 gigabit Ethernet port on USBX, or wirelessly via the wireless access point which is built into USBX.

Connections: 1GB/s wired Ethernet via RJ45 connector, 802.11b/g/n wireless Ethernet via built-in WAP

Power Input: 100-240VAC/50-60Hz Max 20W

Power Consumption: 5VDC/3.0A Max.

Size: 3.75" x 2.5" x 1.9"

(95mm x 65mm x 48.5mm)

Control: Supports fully featured monitoring and control of up to 8 USB-enabled Crown amplifiers. This includes XTi2, XTi, CDi, and DSi models.

Software Requirements: For control with Apple iOS devices, download the [Powered by Crown](#) application from the Apple App Store. For control via HiQnet System Architect or Audio Architect, see hiqnet.harmanpro.com to download the appropriate program.

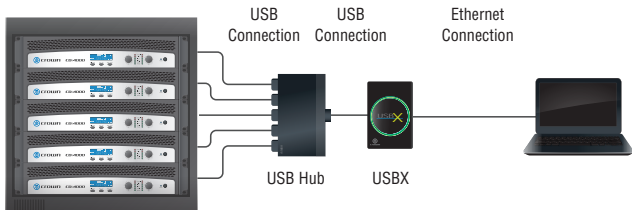
Features

- Completely self-contained unit easily integrates into existing systems that include Crown XTi, CDi, and DSi amplifiers
- Perfect for mobile PA systems, movie theaters, small to medium fixed installations and more
- For quick access to adjusting levels and monitoring I/O meters, use an iDevice with the Powered by Crown app to instantly communicate with attached amplifiers over Wi-Fi with USBX
- For power users, use the built-in wireless access point or the 1Gbps wired Ethernet connection on USBX to control USB-connected amplifiers via a computer running System Architect or Audio Architect

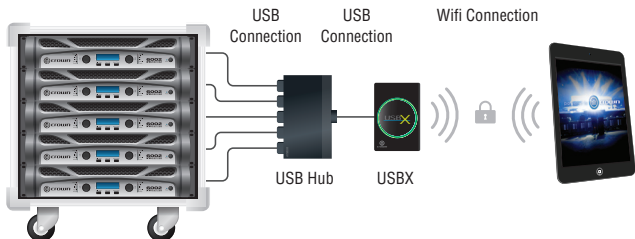


Example Applications

Small-to-medium Fixed Install:



High-powered Portable Sound System:



For support regarding USBX and Powered by Crown, please see www.crownaudio.com

Get Started

Quick-start Steps

1. Un-box the USBX unit. Note that a power attachment (included) must be snapped into place on the back of the unit. There is an attachment to plug directly into the wall, and an IEC C7 attachment for plugging into the wall via an included country-specific extension cord.
2. Plug XTi/CDi/DSi amplifiers into a USB hub, then plug the hub into USBX. Any standard multi-port powered USB hub will work, as long as no more than 8 amplifiers are plugged into it at any time.
3. Power up the USBX unit, and wait 3-4 minutes for it to finish booting. The left side green LED ring will begin blinking to indicate the unit is booted and the wireless access point is active.
4. Download Powered by Crown V2.0 or later from the Apple App Store.
5. Configure controller wireless settings: On an iOS or PC device, connect to the wireless network, broadcasting openly, that's listed on the back of the USBX device.
6. When prompted, enter the wireless network password as it is shown on back of the USBX device. The password from the factory defaults to 'Crown123'. Ensure that DHCP is enabled in your wireless network settings to make connection as hassle-free as possible.
7. Close out of iOS or PC network settings, and open the Powered by Crown app or HiQNet software chosen for system control.
8. Once the software is open, power on amplifiers sequentially until each one is powered up.
9. In Powered by Crown, tap the Devices list to see connected amps, and use the refresh button in the bottom left corner of the device list to recycle the devices list and see any new devices on the network. Tap on an amplifier in order to see its pre-installed factory control panel. These factory control panels are the default set of controls for each device, and enable quick access to a variety of frequently used features.
10. In HiQNet Audio Architect or System Architect, the amplifiers will populate in addition to the USBX device in the venue view.



Frequently Asked Questions

Can I use more than one wireless iOS controller? *Yes, but performance might be negatively impacted. Crown has verified performance to be acceptable with 2x iOS controllers running on the same USBX server.*

How many amplifiers can I connect to the USB port on USBX? *Up to 8.*

Can I hook multiple units together via wired Ethernet? *Yes. Each USBX can serve up to 8 amplifiers, then multiple USBX units can be connected to an Ethernet router.*

Can I connect to other amps wirelessly through the USBX? *No. USBX is designed as a server, not a wireless access point.*

How do I configure the wireless SSID and PW and other network settings? *This is generally for advanced users but there are settings in Powered by Crown and in Audio Architect which allow adjustment of all relevant network settings.*

What version of Powered by Crown works with USBX? *Version 2.0 and above.*

Can I update amplifier firmware thru USBX? *No.*

How do I set HIQNET address on the connected amplifiers? *Amplifier HiQnet addresses can be set via Powered by Crown – the recommendation is to turn on and address one device at a time since duplicate addresses can cause communication conflicts. HiQnet addresses can also be set via SA/AA*

HiQnet addresses can also be set from the amplifier front panel on XTi/CDi/DSi:

- Press all three buttons
- Press up/next (right button) until address displayed
- Press set (left button)
- Press up/down (right or middle buttons) to select address
- Press set (left button) to store the new address.
- Do not power down for at least 10sec so the address can be stored.

How do I update USBX firmware? *Connect via wired Ethernet to PC running SA or AA or Netsetter.*

Can I have wireless control with Powered by Crown simultaneously with wired control from SA/AA?
No, only one type of control is available per connected USBX device.

Is USBX a DHCP server? *Yes for wireless connection, no for wired connection. If connecting USBX to wired Ethernet user must provide DHCP server or setup system using static IP addresses.*

What are the (factory default) network settings for USBX as shipped from factory? *Wired: DHCP server required Wireless: 192.168.115.1 / 255.255.255.0*

Will BandManager work with USBX connected amps? *No.*

Can I restore the USBX to factory defaults? *Yes – USBX device settings can be configured via Powered by Crown or AA/SA, including 'Reset to Factory Defaults'. The unit will require full reboot to re-configure all settings.*

A Note on USB Connectivity:

While the connection from a PC or iOS device may be running at the high speeds that are normally associated with Ethernet-based connectivity (10/100/1000 Mbit/s) the communication between USBX and USB-connected amplifiers still runs at USB 1.1 speeds (~12.5 Mbit/s). When connecting to multiple USB-enabled amplifiers, always give the USB devices appropriate time to connect to USBX and the HiQNet control network.

More Information

Website

Please see www.crownaudio.com for more information on USBX and the Powered by Crown app, plus contact information for Crown technical support.

Warranty

SUMMARY OF WARRANTY

Crown International, 1718 West Mishawaka Road, Elkhart, Indiana 46517-4095 U.S.A. warrants to you, the ORIGINAL PURCHASER and ANY SUBSEQUENT OWNER of each NEW Crown product, for a period of three (3) years from the date of purchase by the original purchaser (the "warranty period") that the new Crown product is free of defects in materials and workmanship. We further warrant the new Crown product regardless of the reason for failure, except as excluded in this Warranty.

**Warranty is only valid within the United States of America. For information on Warranty outside of the U.S.A, please contact your local distributor.*

ITEMS EXCLUDED FROM THIS CROWN WARRANTY

This Crown Warranty is in effect only for failure of a new Crown product which occurred within the Warranty Period. It does not cover any product which has been damaged because of any intentional misuse, accident, negligence, or loss which is covered under any of your insurance contracts. This Crown Warranty also does not extend to the new Crown product if the serial number has been defaced, altered, or removed.

WHAT THE WARRANTOR WILL DO

We will remedy any defect, regardless of the reason for failure (except as excluded), by repair, replacement, or refund. We may not elect refund unless you agree, or unless we are unable to provide replacement, and repair is not practical or cannot be timely made. If a refund is elected, then you must make the defective or malfunctioning product available to us free and clear of all liens or other encumbrances. The refund will be equal to the actual purchase price, not including interest, insurance, closing costs, and other finance charges less a reasonable depreciation on the product from the date of original purchase. Warranty work can only be performed at our authorized service centers or at the factory. Warranty work for some products can only be performed at our factory. We will remedy the defect and ship the product from the service center or our factory within a reasonable time after receipt of the defective product at our authorized service center or our factory. All expenses in remedying the defect, including surface shipping costs in the United States, will be borne by us. (You must bear the expense of shipping the product between any foreign country and the port of entry in the United States including the return shipment, and all taxes, duties, and other customs fees for such foreign shipments.)

HOW TO OBTAIN WARRANTY SERVICE

You must notify us of your need for warranty service within the warranty period. All components must be shipped in a factory pack, which, if needed, may be obtained from us free of charge. Corrective action will be taken within a reasonable time of the date of receipt of the defective product by us or our authorized service center. If the repairs made by us or our authorized service center are not satisfactory, notify us or our authorized service center immediately.

Warranty

DISCLAIMER OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

YOU ARE NOT ENTITLED TO RECOVER FROM US ANY INCIDENTAL DAMAGES RESULTING FROM ANY DEFECT IN THE NEW CROWN PRODUCT. THIS INCLUDES ANY DAMAGE TO ANOTHER PRODUCT OR PRODUCTS RESULTING FROM SUCH A DEFECT. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATIONS OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

WARRANTY ALTERATIONS

No person has the authority to enlarge, amend, or modify this Crown Warranty. This Crown Warranty is not extended by the length of time which you are deprived of the use of the new Crown product. Repairs and replacement parts provided under the terms of this Crown Warranty shall carry only the unexpired portion of this Crown Warranty.

DESIGN CHANGES

We reserve the right to change the design of any product from time to time without notice and with no obligation to make corresponding changes in products previously manufactured.

LEGAL REMEDIES OF PURCHASER

THIS CROWN WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE. No action to enforce this Crown Warranty shall be commenced after expiration of the warranty period.

THIS STATEMENT OF WARRANTY SUPERSEDES ANY OTHERS CONTAINED IN THIS MANUAL FOR CROWN PRODUCTS. 07/12

