





# **Operation Manual**

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## Introduction

Thank you for purchasing the JBL<sup>®</sup> Intonato DC Desktop Controller. The Intonato DC is a dedicated hardware controller for the JBL Intonato 24—a powerful, sophisticated speaker management processor and monitor controller for audio recording, post production, and broadcast facilities. With support for mono up to immersive surround formats, the Intonato 24 and Intonato DC provide the centerpiece for a scalable audio production monitoring system.

## **Features**

- System volume, mute, and dim control
- Aux output volume control
- Solo and mute control for each speaker output, with support for muting and soloing multiple channels simultaneously
- Bass management on/off button
- Scene recall (scenes can be used to select a different input source to monitor, select an alternate monitoring system for reference, or select alternate monitor fold-down mixes)
- Momentary talkback enable button (enables the mic input on the Intonato 24 for talkback)
- SPL readout for reliable monitor level reference
- Adjustable button LED and display brightness
- Powered via PoE

#### Overview

## **Overview**



#### 1. HiQnet<sup>®</sup> Port

This RJ45 port provides power and network connectivity to the Intonato DC. PoE (Power over Ethernet) is required to power the Intonato DC controller via this port. If connecting to a network router or switch that does not provide PoE, an inline PoE power supply must be used. See **"Supplying Power to the Intonato DC" on page 6** for more information.



**NOTE:** A DHCP server is required on the network to assign the Intonato DC an IP address.

#### 2. LCD & OPTION Buttons

When performing certain Intonato DC functions, such as muting or soloing specific speaker outputs or recalling scenes, options will appear in the LCD and the corresponding **OPTION** buttons are used to make selections. Additionally, when the **SCENE** button is illuminated, the **OPTION** buttons may be held to modify the order of scenes in the display.

#### 3. PREV & NEXT Buttons

Pressing these buttons will navigate to the next or previous screen of available options in the LCD, where applicable. The **PREV** and **NEXT** button LEDs will light when other screens of options are available for selection.

#### 4. Recessed Button

Press and hold this recessed button upon power-up to enter the Boot menu. See **"Using the Boot Menu" on page 19** for more information.

#### 5. ROTARY (VOLUME) Control

Adjusting this rotary control will attenuate the volume of all Intonato 24 output channels configured for master volume control. This control adjusts volume in the following increments:

- The top 30 dB range is adjusted in 0.5 dB increments
- The next 30 dB down is adjusted in 1 dB increments
- The remaining lower range is adjusted in 5 dB increments

**NOTE:** When the Volume encoder is turned quickly, control incrementation will be accelerated. This allows for precise volume control when turning the encoder slowly, or large (yet smooth) jumps in volume control when turning the encoder quickly.

#### 6. INFO Button

Pressing this button at any time will return to the Info ("Home") screen. The Info screen displays monitor volume, aux volume, individual speaker solo/mute indication, clock source, sample rate, and controller status (clipping, clock source errors, etc.).

#### 7. BASS MGMT Button

This is a global bass management on/off button. When enabled, the incoming signal will be split at the configured bass management crossover frequency: the upper frequencies will be sent to the satellite speakers configured for bass management, and the lower frequencies will be sent to the subwoofer(s).

When disabled, the satellite speakers configured for bass management will receive a full-range signal, and the subwoofer(s) will not receive any bass managed signal. Note that assigned LFE channels will still be routed to the subwoofer(s).

**NOTE:** The state of the Bass Management button is stored to the profile. After a power cycle, the profile will be loaded and this button will return to its stored state.

#### 8. MASTER DIM Button

Pressing this button will dim (attenuate) the speaker system by the dim level amount configured in the Intonato 24 device. The aux outputs will not be affected by the **MASTER DIM** button.

#### 9. MASTER MUTE Button

Pressing this button will mute all speaker outputs configured for master volume control in the intonato 24 device. The aux outputs will not be affected by the **MASTER MUTE** button.

#### **10. SCENE Button**

Scenes are used to select between sources or speaker systems for monitoring, or for monitoring fold-down mixes. Press the **SCENE** button then use the **NEXT**, **PREV**, and **OPTION** buttons to select the desired scene for recall. When the **SCENE** button is illuminated, the **OPTION** buttons may be held to modify the order of scenes in the display. See "**Modifying the Scene Order**" on **page 17** for more information.

#### 11. SPKR SOLO Button

Press this button to bring up all available speaker outputs in the LCD. Each speaker output can then be soloed using the corresponding **OPTION** buttons. When a channel is soloed, all non-soloed channels will be muted. Pressing the **PREV** and **NEXT** buttons will navigate screens to display additional speaker outputs. Multiple channels can be soloed simultaneously.

#### 12. SPKR MUTE Button

Pressing this button will bring up all available speaker outputs in the LCD. Each speaker output can then be muted using the corresponding **OPTION** buttons. Pressing the **PREV** and **NEXT** buttons will navigate screens to display additional speaker outputs. Multiple channels can be muted simultaneously.

#### 13. TALKBACK Button

When the Intonato 24 is configured for talkback functionality, pressing and holding this button will activate the talkback mic for as long as the button is held. When talkback is enabled, the signal from the Intonato 24's XLR mic input will be fed to the stereo aux output.

## **Supplying Power and Connecting to the Network**

## Supplying Power to the Intonato DC



To be powered by a certified PoE power adapter with rated output 44–57 VDC, 13 W. Wires used for external connection must be at least VW-1 rated.

**IMPORTANT:** Read the important safety instructions included in the box before installing and operating this product.

Both power and network connectivity are supplied to the Intonato DC via the RJ45 Ethernet port. Power must be supplied to the controller via an IEEE 802.3af-compliant PoE (Power over Ethernet) device.

**NOTE:** PoE+ (IEEE 802.3at-compliant) devices are backwards compatible with the IEEE 802.3af standard and can also be used with the Intonato DC.

There are two types of PoE/PoE+ devices that can be used to supply power to the Intonato DC:

- A PoE-enabled network switch (referred to as an "endspan" or "endpoint")
- An inline power injector (referred to as a "midspan")

Typical endspans with PoE-enabled ports include:

- Netgear<sup>®</sup> ProSafe<sup>™</sup> 24-Port Gigabit Smart Switch P/N: GS728TP
- Dell<sup>®</sup> PowerConnect<sup>™</sup> 3524P 24-Port PoE Switch P/N: 3524P

Typical midspan Ethernet powering devices include:

- 3Com<sup>®</sup> Single-Port 802.3at Gigabit PoE Midspan Solution P/N: 3CNJPSE
- 3Com<sup>®</sup> Power over Ethernet Multiport Midspan Solution P/N: 3CNJPSE24

#### **Connecting to a Wired Network Switch**

**NOTE:** The Intonato DC must be connected to a DHCP-enabled network for initial configuration and control via the JBL Intonato control app.

- Connect one of the LAN ports from a DHCP-enabled router to one of the LAN ports on the switch, or connect it to another switch on the network.
- **2.** Connect a CAT5, CAT5e, or CAT6 Ethernet cable (sold separately) to the Ethernet port on the Intonato DC.

**NOTE:** To prevent accidental disconnection, it is recommended to connect to the Intonato DC using a new, high-quality Ethernet cable.



- **3.** Connect the other end of the Ethernet cable to one of the switch's LAN ports.
- **4.** Connect your computer's Ethernet port to one of the other LAN ports on the switch using a CAT5, CAT5e, or CAT6 cable.
- 5. Give the Intonato DC time to negotiate with the network so it can be assigned an IP address this can take a few minutes. The Boot menu can be used to verify that the Intonato DC is being assigned an IP address by the DHCP server. See "Using the Boot Menu" on page 19 for more information.

**NOTE:** For more information on networking, including troubleshooting tips, see "**Networking**" on page 21.

**TIP:** Once connection to the network has been established using a DHCP server, the Netsetter application can be used to edit network and HiQnet address settings for all connected HiQnet devices. See **"Using HiQnet® NetSetter™" on page 24** for more information.

**NOTE:** The Intonato 24 can establish a network connection with the Intonato DC desktop controller and control app simultaneously.

**WARNING:** Only connect to networks that remain inside the building.

#### **Connecting to a Wired Network Router**

**NOTE:** The Intonato DC must be connected to a DHCP-enabled network for initial configuration and control via the JBL Intonato control app.

1. Connect a CAT5, CAT5e, or CAT6 Ethernet cable (sold separately) to the Ethernet port on the Intonato DC.

**NOTE:** To prevent accidental disconnection, it is recommended to connect to the Intonato DC using a new, high-quality Ethernet cable.

- 2. Connect the other end of the Ethernet cable to the Power + Data output port on the inline PoE injector.
- **3.** Connect the other port on the inline PoE injector to one of the router's LAN ports.



**Wired Network Router Connection** 

- **4.** Connect your computer's Ethernet port to one of the other LAN ports on the router or switch using a CAT5, CAT5e, or CAT6 cable.
- 5. Give the Intonato DC time to negotiate with the network so it can be assigned an IP address this can take a few minutes. The Boot menu can be used to verify that the Intonato DC is being assigned an IP address by the DHCP server. See "Using the Boot Menu" on page 19 for more information.

**NOTE:** For more information on networking, including troubleshooting tips, see "**Networking**" on page 21.

**TIP:** Once connection to the network has been established using a DHCP server, the Netsetter application can be used to edit network and HiQnet address settings for all connected HiQnet devices. See **"Using HiQnet® NetSetter™" on page 24** for more information.

**NOTE:** The Intonato 24 can establish a network connection with the Intonato DC desktop controller and control app simultaneously.

**WARNING:** Only connect to networks that remain inside the building.

#### Connecting to a Wi-Fi Network Router

NOTE: The Intonato DC must be connected to a DHCP-enabled network for initial configuration and control via the JBL Intonato control app.

1. Connect a CAT5, CAT5e, or CAT6 Ethernet cable (sold separately) to the Ethernet port on the Intonato DC.

> **NOTE:** To prevent accidental disconnection, it is recommended to connect to the Intonato DC using a new, high-quality Ethernet cable.

- 2. Connect the other end of the Ethernet cable to the Power + Data output port on the inline PoE injector.
- 3. Connect the other port on the inline PoE injector to one of the Wi-Fi router's LAN ports.
- 4. Connect to the Wi-Fi network using your Wi-Fi-equipped computer or device.
- 5. Give the Intonato DC time to negotiate with the network so it can be assigned an IP address this can take a few minutes. The Boot menu can be used to verify that the Intonato DC is being assigned an IP address by the DHCP server. See "Using the Boot Menu" on page 19 for more information.

**NOTE:** For more information on networking, including troubleshooting tips, see "Networking" on page 21.

**TIP:** Once connection to the network has been established using a DHCP server, the Netsetter application can be used to edit network and HiQnet address settings for all connected HiQnet devices. See "Using HiQnet® NetSetter™" on page 24 for more information.

**NOTE:** The Intonato 24 can establish a network connection with the Intonato DC desktop controller and control app simultaneously.

**WARNING:** Only connect to networks that remain inside the building.

## Intonato 24 Inline PoE Intonato DC Injector Mac<sup>®</sup> or Windows<sup>®</sup> Compatible Android<sup>®</sup> Wi-Fi Router w/DHCP

**Wi-Fi Network Router Connection** 

**Computer With Wi-Fi** or iOS® Device

## Installing the JBL Intonato Control App

The free JBL Intonato control app is used to pair the Intonato DC to the Intonato 24 for control. It is available for compatible Android, iOS, Mac, and Windows devices.

#### **Device Requirements**

Visit <u>http://www.jblpro.com/intonato24</u> for the latest information on device requirements for the JBL Intonato control app.

## Downloading and Installing the App

Download and install the JBL Intonato control app from the iTunes Store<sup>®</sup>, Google Play<sup>™</sup>, or from <u>http://www.jblpro.com/intonato24</u>.

## **Controlling an Intonato 24 Device**

Follow these steps to pair the Intonato DC with an Intonato 24 for control:

- **1.** Launch the JBL Intonato control app.
- 2. Press the Connect button for the Intonato 24 that will be controlled.



3. From the Main User Menu, select "Desktop Controller".

UBL Intonato	📕 JBL Intonato		
		Controls Mute / Solo	Profile : Profile 1 *
Main User Menu	Inputs	Outputs	Master Volume
Device Discovery	1 🕒 Input 1	1 Speaker 1	S Reference Level
Controls	2 🔘 Input 2	2 Speaker 2 M	S
Profile	3 🔘 Input 3	3 Speaker 3 M	s 85
	4 🍥 Input 4	4 Speaker 4 M	S dB SPL
Store / Recall	5 🔘 Input 5	5 🔘 Speaker 5	S
Edit Settings	6 🕒 Input 6	6 🔵 Speaker 6 🕅	s
Scene Builder	7 🔘 Input 7	7 Speaker 7 M	-20.0
Configuration	8 🔘 Input 8	8 Speaker 8 M	S
Speaker Lavout	9 🔘 Input 9	9 Speaker 9 M	s
	10 🔘 Input 10	10 Speaker 10 M	S Settings
(a) System Calibration	11 🔘 Input 11	11 Speaker 11 M	s
Global	12 💿 Input 12	12 Speaker 12 M	S Aux .10.
BLU Link Output	13 🔘 Input 13	13 🔍 Speaker 13	S
Deskton Controller	14 🔘 Input 14	14 O Speaker 14	S
Sattings	15 💿 Input 15	15 Speaker 15 M	Bass Mgmt -20 - 🔶
Settings	16 🔘 Input 16	16 Speaker 16 M	s
	17 🔘 Input 17	17 Speaker 17 M	S Reset 20
	18 🔘 Input 18	18 Speaker 18 M	s -50 -
	19 🔘 Input 19	19 Speaker 19 M	S Dim -40 -
	20 🔍 Input 20	20 Speaker 20	-50 -
	21 💿 Input 21	21 Sub 1	s Mute -70 -
	22 🔘 Input 22	22 🔘 Sub 2 🕅	S Tolked
	23 🔵 Input 23	23 🔍 Aux Left	Taikback -co -
	24 Calkback Microphone	24 🔘 Aux Right	

#### Controlling an Intonato 24 Device

4. Press the **Connect** button on the Intonato DC to pair it with the connected Intonato 24 for control.



5. Select the desired LCD and button brightness using the **Brightness** dropdown menu (4=brightest, 1=dimmest). In most cases, it is recommended that a high Brightness setting be used (e.g., 4), as this will allow a higher contrast between active and inactive LED states.

						· · · · · ·
	1	Desktop Contro Discovery	oller		Profile: Session 1 * Scene: Scene 26	0
			Processor IP	192.168.1.51		
HININE			Name	Intonato24MD		
0			Version	1.0.9.0		
			Processor Id	334		
Intonato Desktop Controlle	rs					C
Device Name	IP Address		Brightness	Current Version	Device Id	
IntonatoDC	192.168.1.58	Connected to 192.168.1.51	4 •	1.3.0	32419	Locate
		••				
L						

6. The Intonato DC is now ready for use.

## The Info Screen

The Info screen is the first screen displayed after boot up. Press the **INFO** button to return to the Info screen at any time.

The Info screen displays monitor volume, aux output volume, individual speaker solo/mute indication, clock source, clock sample rate, and device status (clipping, clock source errors, etc.).



## **Turning Bass Management On or Off**

Press the **BASS MGMT** button to toggle bass management on (LED lit) or off (LED off).

When turned off, the satellite speakers configured for bass management will receive a full-range signal, and the subwoofer(s) will not receive any bass managed signal. Note that assigned LFE channels will still be routed to the subwoofer(s).

**NOTE:** In order to use the bass management feature, one or more subwoofers must be connected to and configured in the Intonato 24 device. If no subwoofers have been configured for bass management in the Intonato 24 device, the **BASS MGMT** button should not be used.



## **Dimming the System**

Press the **MASTER DIM** button to dim the speaker system by the dim level amount configured in the Intonato 24 device.

**NOTE:** Only speakers configured for master volume control in the Intonato 24 will be controlled by the Master Dim button.



## **Dimming and Muting the System**

Press the **MASTER MUTE** button to mute the speaker system.

**NOTE:** Only speakers configured for master volume control in the Intonato 24 will be controlled by the Master Mute button.



#### **Adjusting System Volume**

From the Info screen, turn the **ROTARY** control to raise and lower the system's volume. The display will provide an SPL value in decibels.

**NOTE:** In order for this value to accurately represent the SPL value of the monitoring system, the SPL Display feature must be calibrated as part of the Intonato 24 set up procedure. Refer to the Intonato 24 Operation Manual for details.

**NOTE:** Only speakers configured for master volume control in the Intonato 24 will be controlled by the Rotary (Volume) control.



## **Adjusting Aux Output Volume**

From the Info screen, press the **OPTION** button next to the Aux level indication on the screen, and then turn the **ROTARY** control to raise and lower the aux output's volume. The display will provide a value in decibels.

When done, press the lit **OPTION** button again to exit Aux Volume Control mode.



#### **Muting Individual Speakers**

Press the **SPKR MUTE** button; then use the **PREV**, **NEXT**, and **OPTION** buttons to select the speaker outputs to mute.

Multiple speaker outputs can be muted simultaneously.

Press the **INFO** button to exit Speaker Mute mode.



## **Soloing Individual Speakers**

Press the **SPKR SOLO** button; then use the **PREV**, **NEXT**, and **OPTION** buttons to select the speaker outputs to solo.

Multiple speaker outputs can be soloed simultaneously.

Press the INFO button to exit Speaker Solo mode.



#### **Recalling Scenes**

Press the **SCENE** button; then use the **PREV**, **NEXT**, and **OPTION** buttons to select the desired scene to recall.

**NOTE:** It is possible to modify the order of scenes appearing in the display of the controller (see instructions below).

Press the **INFO** button to exit Scene mode.



## Modifying the Scene Order

Press the **SCENE** button (**SCENE** LED lit).

Navigate to the scene that will be moved (use the **PREV** and **NEXT** buttons if required).

Press and hold the **OPTION** button for the scene to move—once the display next to the **OPTION** button begins to flash, release the button.

Navigate to the location where the selected scene will be moved (use the **PREV** and **NEXT** buttons if required).

Press and hold the **OPTION** button for the location where the scene will be moved—once the display next to the **OPTION** button begins flashing, release the button.

The scene has now been moved to the new location.

Press the **INFO** button to exit Scene mode.



## **Using Talkback**

Press and hold the **TALKBACK** button to enable talkback. This is a momentary button, so the talkback mic will remain active for as long as the **TALKBACK** button is held.

**NOTE:** Talkback functionality is only available if the Intonato 24 has been configured for talkback control.



## **Using the Boot Menu**

The Boot menu displays the controller's MAC address, IP address, subnet mask, and current firmware version. From the Boot menu, the controller can also be factory reset or placed in demo mode (used for sales/demo applications).

#### Follow these steps to access the Boot menu:

- 1. Apply power to the device.
- **2.** While the device is booting, press and hold the recessed button using a pointed object (such as a paper clip or pin) for approximately 10 seconds.



3. Select the desired menu option using the **OPTION** buttons to the left of the display.



**NOTE:** When performing the factory reset, all settings in the Intonato DC will be reset (i.e., any static IP address settings and connection to the Intonato 24 device). This means that the controller will need to be reconnected to the Intonato 24 device using the JBL Intonato control app. However, note that performing this factory reset will not affect the programming in the Intonato 24 device.

## **Updating Firmware**

Intonato DC firmware can be updated via the JBL Intonato control app and an Internet connection.

#### Follow these steps to update the firmware:

1. From the Main User Menu in the JBL Intonato control app, select "Desktop Controller".

IBL Intonato	🥮 JBL Intonato		
		Controls Mute / Solo	Profile: Profile 1 * () 4) Scene: Scene 1
Main User Menu	Inputs	Outputs	Master Volume
Device Discovery	1 Input 1	1 Speaker 1	Reference Level
o Controls	2 Input 2	2 Speaker 2	S
Profile	3 🔘 Input 3	3 Speaker 3	\$ 85
	4 🔘 Input 4	4 Speaker 4 M	S dB SPI
Store / Recall	5 🔘 Input 5	5 🔘 Speaker 5	s
Edit Settings	6 🔍 Input 6	6 Speaker 6 M	S
Scene Builder	7 🔘 Input 7	7 🔘 Speaker 7 🛛 🕅	-20.0
Configuration	8 🜒 Input 8	8 🔘 Speaker 8	S
Spoaker Lavout	9 🔘 Input 9	9 Speaker 9 Mil	s
	10 🔍 Input 10	10 O Speaker 10 M	S Settings
(: 1) System Calibration	11 🔘 Input 11	11 Speaker 11 M	5
Global	12 💿 Input 12	12 Speaker 12 M	S Aux -10 -
BLU Link Output	13 🔘 Input 13	13 💿 Speaker 13 🔤 Mile	S
Besktop Controller	14 🔘 Input 14	14 Speaker 14 M	S
A sattings	15 💿 Input 15	15 Speaker 15 🕅	Bass Mgmt -20 - 🜳
Securitys	16 🔘 Input 16	16 Speaker 16 🕅	S
	17 🔍 Input 17	17 Speaker 17 M	S Reset
	18 🔍 Input 18	18 Speaker 18	S
	19 🔍 Input 19	19 Speaker 19	S Dim -40 -
	20 💿 Input 20	20 Speaker 20	-50 -
	21 🔘 Input 21	21 Sub 1 M.	s Mute -70 -
	22 Input 22	22 Sub 2	S Talkback
	23 Input 23	23 O Aux Left	-00 -
	24 Talkback Microphone	24 Aux Right	

2. Ensure the Intonato DC is connected. If the Connect button is visible, press it.

Intonato Desktop Con	trollers					C
Device Name	IP Address		Brightness	Current Version	Device Id	
IntonatoDC	192.168.1.58	Connect	1	1.3.0	32419	Locate

**3.** Navigate to the second screen by swiping left or selecting the second bubble at the bottom, then press the **Check for Updates** button. If an update is available, the update can be downloaded and installed.



## Networking

This section of the manual provides basic information on network settings, network security, and network troubleshooting. It also covers the HiQnet NetSetter application, which is a PC-compatible software application used to edit network settings for all connected HiQnet devices on a network from one central location.

## **Networking Overview**

Below is a brief description of the most common network settings.

#### IP Address

An IP address is an identifier for a computer or device on a TCP/IP network. Each device in a network has its own IP address to identify it (e.g., 126.126.17.42). Networks using the TCP/IP protocol route messages based on the IP address of the destination. An IP address is made of four numbers separated by periods. Each number can be 0 (zero) to 255. The last number should not be a 0 (zero) or 255. For example, 126.126.17.1 could be an IP address. 126.126.17.0 would not be a valid IP address.

A TCP/IP or IP address has two parts: the Network ID and the Host ID. The Network ID identifies the network, and the Host ID identifies either the subnet and device, or just the device if there is no subnet. The subnet mask is a code that indicates which part of the TCP/IP address is the Network ID and which part is the Host ID. In subnet-mask code, 255 identifies the part of the address that is the Network ID. For example, suppose the IP address of a device is 192.168.xx.yy and the subnet mask is 255.255.x.y. That means, "192.168" is the Network ID. The remaining set of numbers (xx.yy) is the Host ID. If the network stands alone (it is not part of a larger network) then the Host ID identifies each device in the network. If the network is part of a venue's larger network, the network is actually a sub-network or subnet.

#### Subnet

A subnet is a small network within a larger network. For example, a TCP/IP network in a single area might be a subnet of a venue's larger network, which could include computers throughout the building. Or, a network might be divided into multiple subnets. For example, a large installation may have one subnet per rack or room.

#### • DHCP (Dynamic Host Configuration Protocol)

DHCP is a protocol for automatically assigning IP addresses to devices on a network. With dynamic (DHCP) addressing, a device might have a different IP address every time it connects to the network. DHCP relies on a DHCP server to assign and manage IP addresses. Most network routers come equipped with a built-in DHCP server.

#### Gateway

A gateway is used to connect two different networks and allow packets to be passed between them. In a typical home network, the router provides the "gateway" connection between the local area network (LAN) and Internet (WAN) so they can communicate. A gateway can translate between one network system or protocol and another.

#### Networking

#### **Network Security**

Careful planning should be made before placing an Intonato DC on a network that is accessible by the public—for example, direct access to the device using an unsecured/weakly secured wireless network or a network jack in a public area.

It is highly recommended that the Intonato DC be placed on a protected, isolated network that does not have any connection to the public. This prevents unauthorized users from reconfiguring or controlling the device. Most routers have built-in functions which help protect the network from unauthorized users, such as MAC address filtering, encryption, and disabling the SSID broadcast. Check the documentation for the network router for information on configuring available security options.

#### **Network Troubleshooting**

The Intonato DC must be connected to a DHCP-enabled network for initial configuration and control. Connecting the Intonato DC to the network should be as easy as plugging it into the switch/router and waiting for it to get assigned an IP address. However, some additional configuration will be required if using static IP addressing and/or network security features. If a network connection cannot be established with the Intonato DC, try following these steps to resolve the issue:

#### 1. Ensure Networked Devices are Powered On

Ensure the control device (the device running the JBL Intonato control app), the Intonato 24, the Intonato DC, and all network peripherals (switches, routers, bridges, etc.) are powered on and wait a few minutes to allow all devices to boot and get assigned IP addresses. Look at the Intonato 24's back-panel LCD and ensure it has an IP address. Also, ensure the Intonato DC is being assigned an IP address by using the Boot menu (see **"Using the Boot Menu" on page 19**). If either the Intonato 24 or Intonato DC still do not have an IP address, or a network connection still cannot be established, go to the next step.

#### 2. Check Network Activity LEDs, Cables, and Connections

Ensure the yellow and green LEDs are lighting on the Intonato 24 Ethernet port. Also, ensure the port activity/link LEDs are lighting on the router (and switch, if applicable). If using a wired connection from a computer, ensure the Ethernet port LEDs light on the computer's Ethernet port. Note that the yellow LED may only flash occasionally; this is normal.

ETHERNET QHiQnet<sup>\*\*</sup>

If any of these activity/link LEDs are not lighting, try disconnecting then reconnecting the corresponding Ethernet cable. If the LEDs still don't light, try swapping out the connected Ethernet cable for another, known-working

cable. Also, make sure the correct type of Ethernet cable is used. If using a crossover cable, it may be causing the problem (depending on the capabilities of the router/switch) and the cable may need to be replaced with a straight-through Ethernet cable.

If an Ethernet port's LEDs begin lighting after reconnecting or swapping out cables, wait a few minutes and then try reconnecting with the JBL Intonato control app. If a network connection still cannot be established, go to the next step.

#### 3. Check IP Addresses and Network Settings

Ensure the control device's network connection is configured for DHCP, and that it doesn't have a static IP or Auto-IP (169.254.xx.yy) address. Check the IP addresses of the router, control device, Intonato 24, and Intonato DC and ensure they all have the same Network ID. Once all Network IDs are confirmed to match, try reconnecting with the JBL Intonato control app.

If the Intonato devices still don't have assigned IP addresses, and the Intonato 24's Ethernet port LEDs are lighting, this indicates the DHCP server may not be assigning the Intonato devices an IP address. This could indicate a problem with the DHCP server settings in the router. Go to the next step.

#### 4. Check Router/Switch Configuration Settings

Check the settings in the network router/switch (consult the documentation that came with the network router/switch to see how to enter the utility used to configure it). Ensure the DHCP server is enabled and that the DHCP address range is properly configured. Once the DHCP server has been properly configured and enabled, wait a few minutes and then check to see if the Intonato devices have been assigned IP addresses.

If the DHCP server is properly configured and the Intonato DC, Intonato 24, and control device have compatible network settings but still won't communicate, traffic is likely being prohibited by a software or hardware firewall. If connecting using a router/switch that has an enabled hardware firewall, try disabling the firewall and then relaunching the JBL Intonato control app. If this fixes the problem, refer to the router/switch documentation on how to reconfigure the firewall to allow the JBL Intonato control app, or ports 19272 and 3804 (TCP and UDP) and port 21 (FTP), to pass through the firewall. If the control app still won't connect, go to the next step.

#### 5. Check Software Firewalls

If connecting using a Mac or Windows computer, check any enabled software firewalls in the computer. Try disabling the firewall and then relaunching the JBL Intonato control app. If this fixes the problem, refer to the firewall manufacturer's documentation on how to reconfigure the firewall to allow the JBL Intonato control app, or ports 19272 and 3804 (TCP and UDP) and port 21 (FTP), to pass through the firewall.

**NOTE:** All devices must also have a unique device ID (also known as a HiQnet "node address" or "node ID"). If a device ID conflict occurs, use the NetSetter software application to edit one of the device ID addresses to resolve the conflict. See "Using HiQnet® NetSetter™" on page 24 for more information.

#### Networking

#### Using HiQnet<sup>®</sup> NetSetter™

The Intonato devices must be connected to a DHCP-enabled network to be assigned IP addresses. Once IP addresses have been assigned, the HiQnet NetSetter application can be used to manually configure Intonato network settings if required for the application.

#### Configuring the Network Using NetSetter

NetSetter is a Windows-compatible software tool that detects HiQnet devices on a network and allows their network settings to be reconfigured in real time from one central location. Its function is to configure a system of devices to interoperate correctly on the same network and resolve conflicts quickly and easily. The latest version of NetSetter can be downloaded from <a href="http://hiqnet.harmanpro.com/software/">http://hiqnet.harmanpro.com/software/</a>.

The top of the NetSetter window displays overall operational functions that are available. At the bottom of the NetSetter window is an informational section that lists the number of discovered devices and the IP address of the DHCP server. There is also information regarding the PC HiQnet Address, IP Address, and Subnet Mask.

1	1 HiQnet NetSetter														
PC Adapter: 192.168.1.4    Display: All Devices    Note: If a device is not discovered within 30 seconds, its connection to the physical network should be checked.   Rescan Network Export Proxies Static Routes										4	<b>?</b>				
	MAC ADDRESS	DHCP / AUTO-IP	IP ADDRESS	SUBNET MASK	DEFAULT GATEWAY	DEVICE ID	RANDOM ID REBOOT	STATUS	DEVICE TYPE	DEVICE NAME	CONTAINER : POSITION				
	00-0F-D4-06-F0-15 👻		192.168.1.212	255.255.255.0	192.168.1.1	61461			🛄 Intonato24	Intonato24					
	Discovered devices: 1 DHCP Server Detected: 192.168.1.1 PC Configuration: HiQnet Address: 63513 IP Address: 192.168.1.4 Subnet Mask: 255.255.255.0														

#### Follow these steps to configure Intonato devices with static IP addresses:

- 1. Uncheck the DHCP/Auto-IP checkbox.
- 2. Click in the IP Address field and enter the desired IP address for each Intonato device. Note that each device must have a unique IP address.
- 3. Click in the Subnet Mask field and enter the desired subnet mask.
- 4. Click in the Default Gateway field and enter the gateway address.
- 5. Click the Apply Current Edits button to finalize the changes.

#### Follow these steps to configure Intonato devices to use DHCP addressing:

- 1. Check the DHCP/Auto-IP checkbox.
- 2. Click the Apply Current Edits button to finalize the changes.
- **3.** Wait a couple of minutes for the DHCP server to assign the Intonato devices IP addresses.

**NOTE:** All devices must have a unique device ID (also known as a HiQnet "node address" or "node ID"). If a device ID conflict occurs, edit one of the device ID addresses to resolve the conflict

For more information on using NetSetter, click on the help icon in the upper right-hand corner of the NetSetter window.





## **Specifications**

#### **BUTTONS & CONTROLS**

Buttons:

Controls:

#### OTHER

Operating Temperature Range:

0° to 40° C (32° to 104° F)

Rotary volume control

#### POWER REQUIREMENTS

Voltage: Power Consumption: 44–57 VDC 13 Watts

#### PHYSICAL

Unit Weight: Shipping Weight: Unit Dimensions:

Shipping Carton Dimensions:

1.0 lb (0.45 kg) 1.7 lbs (0.76 kg) 2.84" (H) x 6.73" (L) x 4.70" (W) 72.0mm (H) 117.0mm (L) x 119.4mm (W) 5.75" (H) x 8.75" (L) x 7" (W) 146 mm (H) x 222.25 mm (L) x 177.8 mm (W)

Mute, Talkback, Next, Previous, Option (quantity 8)

Info, Bass Management, Master Dim, Master Mute, Scene, Speaker Solo, Speaker

Specifications subject to change without notice.

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## Warranty & Service

## Warranty & Service

The JBL Limited Warranty on professional loudspeaker products (except for enclosures) remains in effect for five years from the date of the first consumer purchase. JBL amplifiers are warranted for three years from the date of original purchase. Enclosures and all other JBL products are warranted for two years from the date of original purchase.

## Who is Protected by this Warranty?

Your JBL Warranty protects the original owner and all subsequent owners so long as: A.) Your JBL product has been purchased in the Continental United States, Hawaii or Alaska. (This Warranty does not apply to JBL products purchased elsewhere except for purchases by military outlets. Other purchasers should contact the local JBL distributor for warranty information.); and B.) The original dated bill of sale is presented whenever warranty service is required.

## What Does the JBL Warranty Cover?

Except as specified below, your JBL Warranty covers all defects in material and workmanship. The following are not covered: Damage caused by accident, misuse, abuse, product modification or neglect; damage occurring during shipment; damage resulting from failure to follow instructions contained in your Instruction Manual; damage resulting from the performance of repairs by someone not authorized by JBL; claims based upon any misrepresentations by the seller; any JBL product on which the serial number has been defaced, modified or removed.

## Who Pays for What?

JBL will pay all labor and material expenses for all repairs covered by this warranty. Please be sure to save the original shipping cartons because a charge will be made if replacement cartons are requested. Payment of shipping charges is discussed in the next section of this warranty.

## How to Obtain Warranty Service

If your JBL product ever needs service, write or telephone us at JBL Incorporated (Attn: Customer Service Department), 8500 Balboa Boulevard, PO. Box 2200, Northridge, California 91329 (818-893-8411). We may direct you to an authorized JBL Service Agency or ask you to send your unit to the factory for repair. Either way, you'll need to present the original bill of sale to establish the date of purchase. Please do not ship your JBL product to the factory without prior authorization. If transportation of your JBL product presents any unusual difficulties, please advise us and we may make special arrangements with you. Otherwise, you are responsible for transporting your product for repair or arranging for its transportation and for payment of any initial shipping charges. However, we will pay the return shipping charges if repairs are covered by the warranty.

#### **Limitation of Implied Warranties**

ALL IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE LENGTH OF THIS WARRANTY.

#### **Exclusion of Certain Damages**

JBL'S LIABILITY IS LIMITED TO THE REPAIR OR REPLACEMENT, AT OUR OPTION, OF ANY DEFECTIVE PRODUCT AND SHALL NOT INCLUDE INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS AND/OR DO NOT ALLOW THE EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS AND EXCLUSIONS MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS, WHICH VARY, FROM STATE TO STATE.

## **Contact Information**

#### Mailing Address:

JBL Professional 8500 Balboa Blvd. Northridge, CA 91329

#### **Customer Service:**

Monday through Friday 8:00am – 5:00pm Pacific Coast Time in the U.S.A. (800) 397-1881 www.jblproservice.com

#### **Product Registration:**

Register your product online at www.jblpro.com/registration

#### On the World Wide Web:

www.jblpro.com

#### **Professional Contacts, Outside the USA:**

Contact the JBL Professional Distributor in your area. A complete list of JBL Professional international distributors is provided at our U.S.A. website: <u>www.jblpro.com</u>

#### En Dehors des Etats-Unis:

Contacter votre Distributeur JBL Professional. Une liste complète de nos distributeurs internationaux est disponible sur le site web: <u>www.jblpro.com</u>

#### International:

Wenden Sie sich an Ihre örtliche JBL Professional Vertretung. Eine vollständige Liste der internationalen JBL-Vertretungen finden Sie auf unserer Website unter <u>www.jblpro.com</u>

#### Fuera de los Estados Unidos:

Comuníquese con el distribuidor de JBL Professional de su zona. En nuestro sitio web, <u>www.jblpro.</u> <u>com</u>, encontrará una lista completa de los distribuidores de JBL International.

## **INTONATO** DC Operation Manual

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