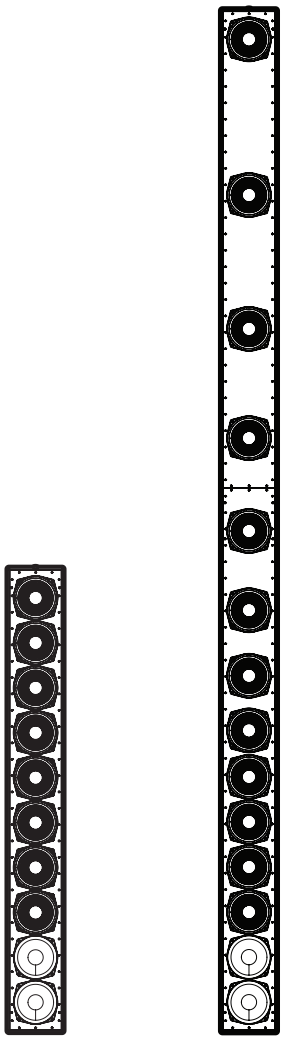
USER MANUAL

Intellivox

Intellivox HP Dante® Series Loudspeakers



HP-DS170D HP-DS370D

V3_120525

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 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 wider blade or the third prong are 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. CAUTION: Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over. Use with other equipment or carts may result in instability causing injury.
13. UNPLUG this apparatus during lightning storms or when unused for long periods of time.
14. 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.
15. To completely disconnect this apparatus from the AC Mains, disconnect the power supply cord plug from the AC receptacle.
16. Where the mains plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.
17. DO NOT overload wall outlets or extension cords beyond their rated capacity as this can cause electric shock or fire.
18. Follow all locally applicable laws, codes and regulations when installing, powering, operating or servicing the product.
19. Install and operate only as directed or a safety hazard could be created.

WATCH FOR THESE SYMBOLS:

The exclamation point, within an equilateral triangle, is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electrical shock to persons.

Read manual before use.

High sound pressure. Hearing damage risk. Do not listen at high volume levels for long periods.

WARNING: To reduce the risk of fire or electrical shock, do not expose this apparatus to rain or moisture.

WARNING: No naked flame sources – such as lighted candles – should be placed on the product.

WARNING: To be installed by instructed or skilled persons only.

This equipment is not suitable for use in locations where children are likely to be present.

WARNING: Equipment shall be connected to a MAINS socket outlet with a protective earthing connection.

CAUTION: To reduce the risk of electric shock, grounding of the center pin of this plug must be maintained.

WARNING: To avoid the risk of electric shock, do not connect the Live or Neutral conductor of power cord to the earthing terminal of the power connector.

WARNING: This product is intended to be operated ONLY from voltages that complies with local building and electrical codes listed on the back panel or the recommended or included power supply of the product. Operation from other voltages other than those indicated may cause irreversible damage to the product and void the products warranty. The use of AC Plug Adapters is cautioned because it can allow the product to be plugged into voltages in which the product was not designed to operate. If you are unsure of the correct operational voltage, please contact your local distributor and/or retailer. If the product is equipped with a detachable power cord, use only the type provided, or specified by the manufacturer or your local distributor.

WARNING: Do Not Open! Risk of Electrical Shock. Voltages in this equipment are hazardous to life. No user-serviceable parts inside. Refer all servicing to qualified service personnel.

Place the equipment near a main power supply outlet and make sure that you can easily access the power breaker switch.

FCC AND CANADA EMC COMPLIANCE INFORMATION:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

This device may not cause harmful interference, and

this device must accept any interference received, including interference that may cause undesired operation.

CAN ICES-3 (A) / NMB-3(A)

FCC SDOC SUPPLIER'S DECLARATION OF CONFORMITY:

HARMAN Professional, Inc. hereby declares that this equipment is in compliance with the FCC part 15 Subpart B.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if it is not installed and used in accordance with the instruction manual, it may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

WARNING: This product must not be used in residential areas. In a residential environment this equipment may cause radio interference.

CAUTION: Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this device.

WARNING: This equipment is compliant with Class A of CISPR 32. In a residential environment this equipment may cause radio interference.

NOTE: For interference purposes, the residential and domestic environments are defined as an environment within 10meters of radio or broadcast receiving equipment or home use.

WEEE NOTICE:

The WEEE Directive 2012/19/EU on Waste Electrical and Electronic Equipment (WEEE), which entered into force as European law on 14/02/2014, resulted in a major change in the treatment of electrical equipment at end-of-life.

The purpose of this Directive is, as a first priority, the prevention of WEEE, and in addition, to promote the reuse, recycling and other forms of recovery of such wastes so as to reduce disposal. The WEEE logo on the product or on its box indicating collection for electrical and electronic equipment consists of the crossed-out wheeled bin, as shown below.

This product must not be disposed of or dumped with your other household waste. You are liable of dispose of all your electronic or electrical waste equipment by relocating over to the specified collection point for recycling of such hazardous waste. Isolated collection and proper recovery of your electronic and electrical waste equipment at the time of disposal will allow us to help conserving natural resources. Moreover, proper recycling of the electronic and electrical waste equipment will ensure safety of human health and environment. For more information about electronic and electrical waste equipment disposal, recovery, and collection points, please contact your local city center, household waste disposal service, shop from where you purchased the equipment, or manufacturer of the equipment.

If you have questions about how to install or operate the product, please contact Harman Professional, Inc. Technical support:

Technical support in North America, please contact: HProTechSupportUSA@harman.com Phone: (844) 776-4899

Technical support outside North America, please contact your local distributor.

HARMAN Professional, Inc. 8500 Balboa Blvd. Northridge, CA 91325 USA

EU: HARMAN Professional Denmark ApS Olof Palmes Allé 44, 8200 Aarhus N, Denmark

UK: HARMAN Professional Solutions 2 Westside, London Road, Hemel Hempstead, HP3 9TD, UK

Section 1. Welcome

Thank you for choosing JBL Intellivox HP Dante series loudspeakers. This manual provides the recommended procedures for safe and effective installation of your system.

The Intellivox HP Dante product line features active, DSP-controlled loudspeaker arrays that employ multiple individually driven and controlled drivers arranged vertically. The advanced DSP utilizes Digital Directivity Synthesis™ beam shaping algorithms to precisely control sound coverage, allowing you to optimize performance for a wide range of acoustic environments.

It is strongly recommended that users review this manual in full before placing an order or beginning installation to ensure proper preparation and reliable operation.

INFORMATION IN THIS MANUAL

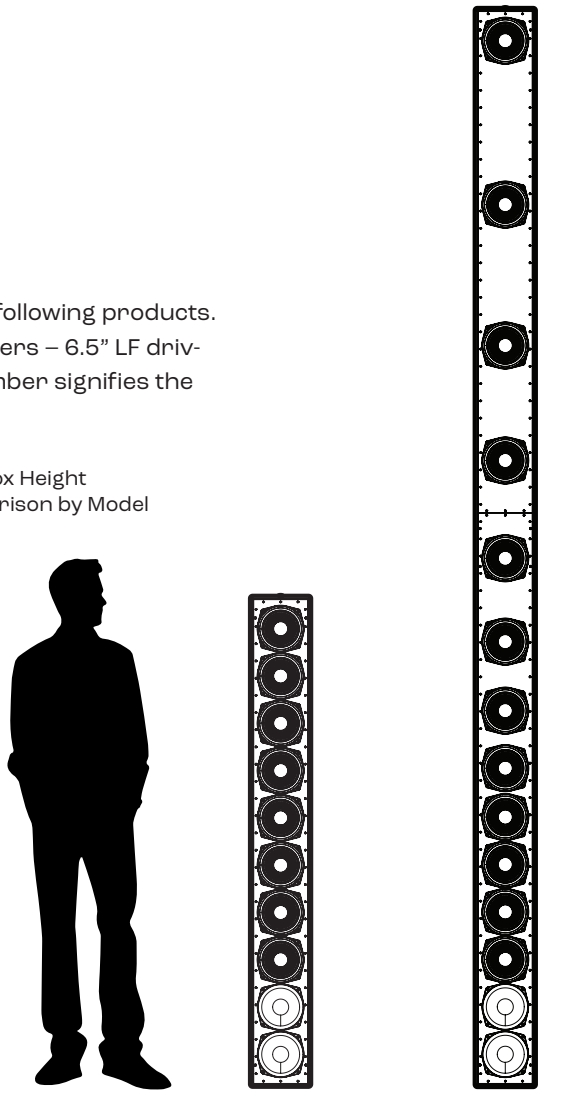
This manual describes the following aspects of installation:

- Preparing for installation
- Necessary cabling
- Connector wiring
- Mechanical installation
- Software Setup

APPLICABLE MODELS, AND VARIANTS

This manual contains installation instructions for the following products. All models in the HP range consist of two types of drivers – 6.5" LF drivers and 1" compression tweeters. The three-digit number signifies the height of the product (in centimeters).

Intellivox Height
Comparison by Model



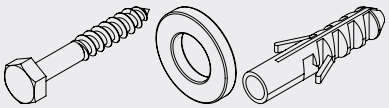
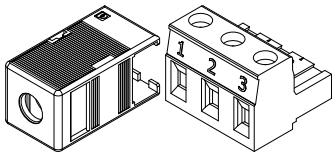
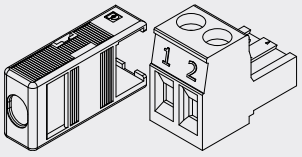
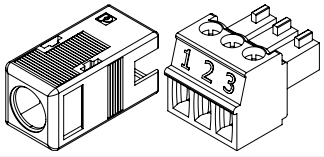
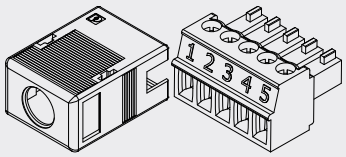
HP-DS170D HP-DS370D

Intellivox HD Dante Range

What's in the Packaging

In addition to the loudspeaker itself each loudspeaker ships with the following items (packed separately inside the main packaging):

- Installation manual
- Accessory Box containing:

ITEM	QTY	USE	PICTURE
45 mm hex-head screws with M8 washers and wall plugs	8	Mounting bracket fixings, wall	
M10 Eye Bolt	1	Lifting during installation	
Front grill removal tool	1	Front grill removal tool	
3-pole, 7.5mm screw, female Phoenix connector, with cover	1	AC Input	
2-pole, 5.08mm screw, female Phoenix connector with cover	1	100 V input	
3-pole,3.81mm screw, female Phoenix connector, with cover	3	Mating connector for audio and fault relay	
5-pole, 3.81mm screw, female Phoenix connector, with cover	1	Mating connector for RS-485	
Caution Label	1	Mains cable label	 Intellivox Connector Set Safety Notice Intellivox Connector Set Safety Notice Caution , to reduce the riskof electric shock , grounding ofthe centre pin of this plug must be maintained . DUR12710609 Intellivox Connector Set Safety Notice Caution , to reduce the riskof electric shock , grounding ofthe centre pin of this plug must be maintained . DUR12710609

Section 2. Preparing for Installation

Before installing the Intellivox Dante HP loudspeaker, several points should be considered.

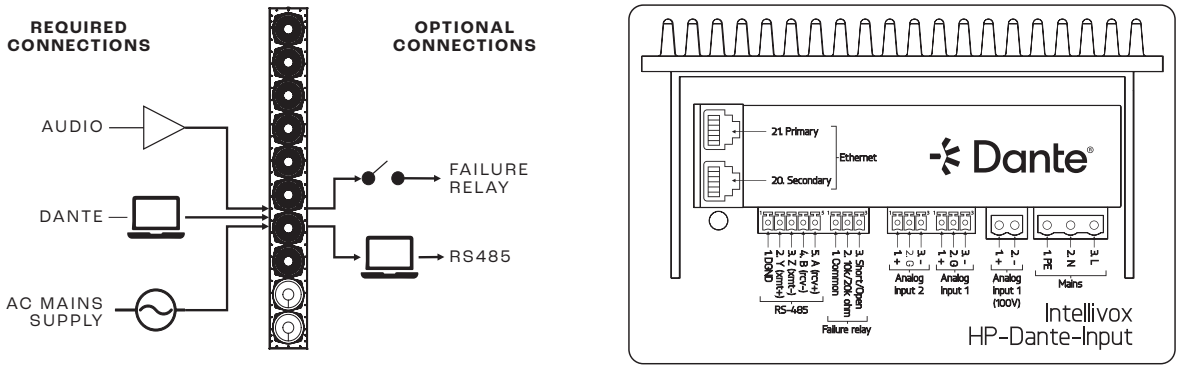
2.1 PHYSICAL INSTALLATION AND DIGITAL DIRECTIVITY ANALYSIS (DDA)

It is assumed that a Digital Directivity Analysis (DDA) has been conducted before installation. DDA is JBL's proprietary simulation and optimization software, used to determine the optimum loudspeaker location for accurate acoustic coverage. The analysis specifies the acoustic center (location and height above finished floor level). Confirm you have this information before starting installation.

- Unless otherwise specified by the system designer, install the Intellivox loudspeaker perpendicular to the listening plane (vertical if the floor is horizontal).
- For horizontal floors, verify that the mounting surface is vertical and that all mounting positions are in the same plane.

2.2 CONNECTIONS AND PLANNING

Depending on the installation design, some or all of the following connections will need to be provided at the loudspeaker position. All cables to the Intellivox units should pass through the glands or flexible conduit at the rear of the unit. In some cases, it is easier to run and terminate cables before mounting the loudspeaker.



- **AC Mains Supply:** Operates from 100–240 V AC. Provide an AC mains connection near the mounting location, ensuring it will not affect the specified mounting position. The supply must support full-load power consumption and in-rush current (see product datasheet). Ensure the AC mains connection is wired in accordance with local safety regulations.
- **Network (Dante) connection:** Two network connections provide loudspeaker control (via a PC running WinControl software), remote monitoring, and 8 channels of DANTE I/O. The ports ship configured as switched (for daisy-chaining of loudspeakers) and can be set for redundant operation. Once the loudspeaker is configured, settings are stored locally. The system designer should specify whether a permanent Dante connection is required during operation.
- **Network (RS-485) connection:** An RS-485 connection provides an additional method for setup, control, and monitoring of Intellivox HP Dante units. This interface allows for multiple units to be "daisy-chained" in parallel for control by the same PC, but does not provide any audio I/O.
- **Analog Audio Input:** Two-channels, balanced line-level input (0 dBV nominal).

- **100V Audio Input:** A 100V input connection is provided. The 100V input utilizes the same amplifier as channel 1 Analog Audio Input. Do NOT simultaneously connect a line level source to channel 1 Analog Audio Input and a 100V input.
- **Fault monitoring:** Provides a simple fault-detect output for installations without network monitoring.
- **Ambient Noise Sensing:** Utilizing an internal microphone, the DSP section of the Intellivox incorporates an autogain algorithm which can adjust the gain of the system in response to changing ambient noise levels.

Section 3. Wiring and Termination

This section contains details about each of the available connections. This includes wiring, termination, and other key details.

To maintain the units IP rating, ensure the cables in the following section are routed through the cable glands or in flex conduit. Some connectors may not pass through the cable glands and termination will need to be done after cables have been run through the cable glands.

3.1 AC MAINS

All Intellivox HP Dante loudspeakers are equipped with a 3-pole Pheonix connector for mains power. The mains cable should be routed through the far right PG11 cable gland. To maintain the loudspeaker's IP rating, the cables outer diameter should be within the range of 5 to 10mm, and individual conductor cross sections of 1.0 to 2.5mm. Follow the instructions and diagram below for termination.

1. Remove the rear cover plate to access the input connectors.
2. Feed the cable through the far-right cable gland.
3. Strip the ends of the cable.
4. Utilizing the female 3-pin, 7.5 mm-pitch screw terminal connector supplied with the unit, wire per the table below:

TERMINAL	USE	EURO	USA
1	PE (Ground)	Green/Yellow	Green
2	N (Neutral)	Blue	White
3	L (Live)	Brown	Black

WARNING: This Apparatus is a Class I device and must be connected to safety ground.

5. Fit the lower half of the connector cover to the connector, ensuring that the cable's outer insulation (not the three inner wires) is firmly retained under the strain relief bar. Fit screws to the strain relief bar, then clip the upper half of the cover in place.
6. Plug the wired connector into the male mains connector. Fit a cable tie to the right-hand cable tie base immediately behind the male connector to provide strain relief.
7. Fully tighten the cable gland. The unit's IP rating will be compromised if this is not done correctly.
8. The caution label contained in the Intellivox standard connector set must be placed on the mains cable near the cable entry gland, or immediately inside the connector bay if using flexible conduit.
9. After making the other connections (see next pages), refit the cover plate with its gasket. Take care not to damage the gasket and ensure that the plate is fully seated and fixed in place with all its screws to maintain the unit's IP rating. In addition, any unused cable glands should be permanently closed.

3.2 NETWORK / DANTE

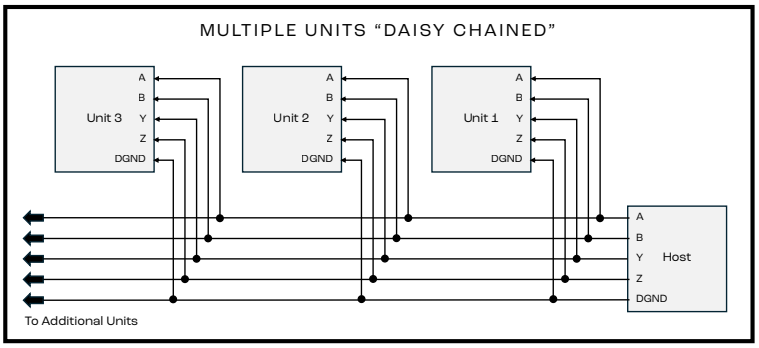
Intellivox HP Dante loudspeakers include two Ethernet ports for setup, control, monitoring, and Dante I/O. Ethernet ports ship configured as switched (for daisy-chaining of loudspeakers) and can be set for redundant operation via the Dante Controller software.

Use a high-quality CAT 5e cable or higher with RJ-45 connectors in straight-through configuration. The typical maximum cable length for CAT 5e is 100 meters.

For additional information about Ethernet standards please see IEEE 802.3 (this includes information about wireless and wired 10Base-T, 100Base-T, and 1000Base-T). For further details about Dante networks visit the Audinate Dante website.

3.3 NETWORK / RS-485

The RS-485 network connection can be used in place of the Dante connection for setup, control, and remote monitoring via WinControl software. The RS-485 interface permits multiple units to be "daisy-chained" in parallel, so that all units are controlled by the same PC. In such a system, each Intellivox must have its own unique network address; this is determined via WinControl. The network connection uses a 5-pole connector and should be wired as shown below:



PIN NO.	USE
1	DGND
2	Y (Data Tx +)
3	Z (Data TX -)
4	B (Data Rx -)
5	A (Data Rx +)

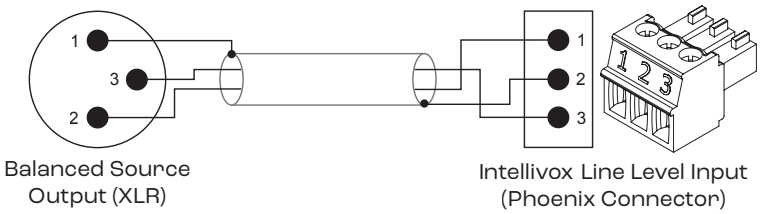
Note that a two-pair, individually-screened cable should be used for RS-485 communications. The transmit (Tx) and receive (Rx) balanced data lines must be wired via their own twisted pairs. Cat 5 (or better) type UTP or FTP cable is NOT suitable. Please refer to the Appendix section at the end of the manual for cable specifications. The maximum cable length depends on the cable type and the baud rate used. With good quality cable, a safe maximum figure (at 19.2 kbaud) is 2000 m. If the distance is significantly greater than this, a network repeater will be required.

In some installations, it is normal practice to disconnect the RS-485 network at the XLR5 connector on the USB to RS-485 converter. Disconnecting from the converter in this way leaves the Rx lines of the devices unterminated. In most situations this does not present any problems, but with a large network in a hostile EMC environment, it is recommended that the host Y and Z lines (host device Tx/ Intellivox Rx) are terminated with a 100 Ohm resistor. (If there is any doubt about which pins should be terminated, shorting all five pins will generally be equally effective.)

3.4 ANALOG AUDIO INPUT

Each loudspeaker features two 3-pole Phoenix connectors for the analog audio inputs (included in the accessory box). The audio source should be a low impedance balanced output. Use a high-quality twisted pair, with a shield cable. Follow the instructions and diagram below for termination.

- Strip 5 mm (about 3/16 inch) of insulation removed to provide for proper connection.
- Insert bare end of the wire and tighten the screws using a small flathead screwdriver.
- Double-check that the wires are not frayed, and that bare wire is not exposed (either of which can lead to shorting between the wires).



XLR OUTPUT	INTELLIVOX INPUT
Pin 2, + (hot)	Pin 1, - (cold)
Pin 3, – (cold)	Pin 2, SCN/GND
Pin 1, SCN/GND	Pin 3, + (hot)

WARNING: Do NOT simultaneously use channel 1 analog audio input and 100 V input.

3.5.1 100V AUDIO INPUT

Each loudspeaker features a 2-pole Phoenix connector for the 100V audio input (included in the accessory box). Follow the instructions for termination.

- Strip 5 mm (about 3/16 inch) of insulation removed to provide for proper connection.
- Insert bare end of the wire, positive wire pin 1 and negative wire pin 2, and tighten the screws using a small flathead screwdriver.
- Double-check that the wires are not frayed, and that bare wire is not exposed (either of which can lead to shorting between the wires).

3.5.2 100V FAILURE MONITORING

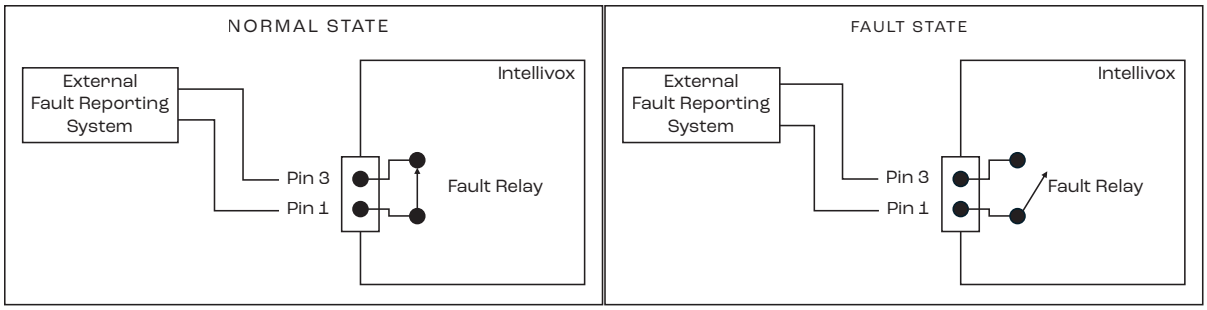
The Intellivox 100V input can be used for failure monitoring based on impedance switching. Configuring this feature is done in WinControl. The amplifier driving this input should be capable of detecting changes in its load impedance.

- Normal: high impedance (> 500 kOhm @ DC)
- Fault: low impedance (≈ 2.2 kOhm @ DC)

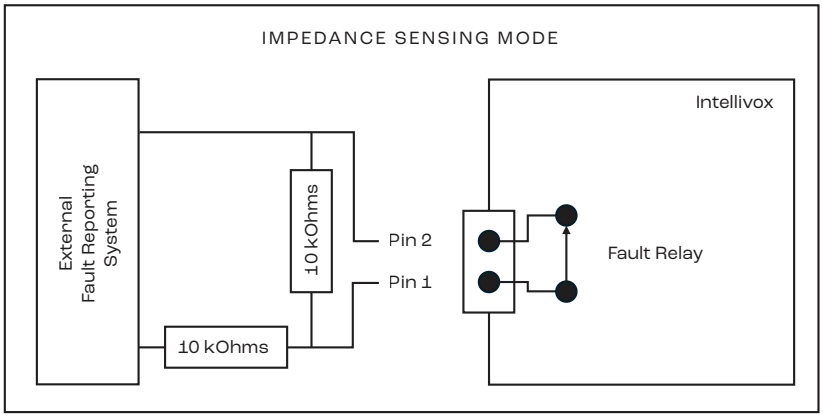
3.6 FAULT DETECTION

A 3-way Phoenix connector (included in the accessory box) provides fault monitoring and can be configured for volt-free or impedance-sensing mode. The conditions under which the relay operates is part of the Intellivox configuration in WinControl. The relay contacts support up to 125 mA at 24 V.

For volt-free mode use the following diagram. Note that pin 2 is not used in this configuration.



For impedance-sensing mode use the following diagram. During normal state the resistance between common (pin 1) and pin 2 is 10 kOhms. When a fault occurs the resistance rises to 20 kOhms. Note that pin 3 is not used in this configuration.



Follow the instructions for termination.

- Strip 5 mm (about 3/16 inch) of insulation removed to provide for proper connection.
- Insert bare end of the wire and tighten the screws using a small flathead screwdriver.
- Double-check that the wires are not frayed, and that bare wire is not exposed (either of which can lead to shorting between the wires).

3.7 AMBIENT NOISE SENSING

The Intellivox HP Dante series of products has a built-in microphone for its autogain algorithm. This signal can be routed to a Dante output via the WinControl software.

Section 4. Physical Installation

Mounting an Intellivox loudspeaker is a straightforward procedure, but several critical points should be considered.

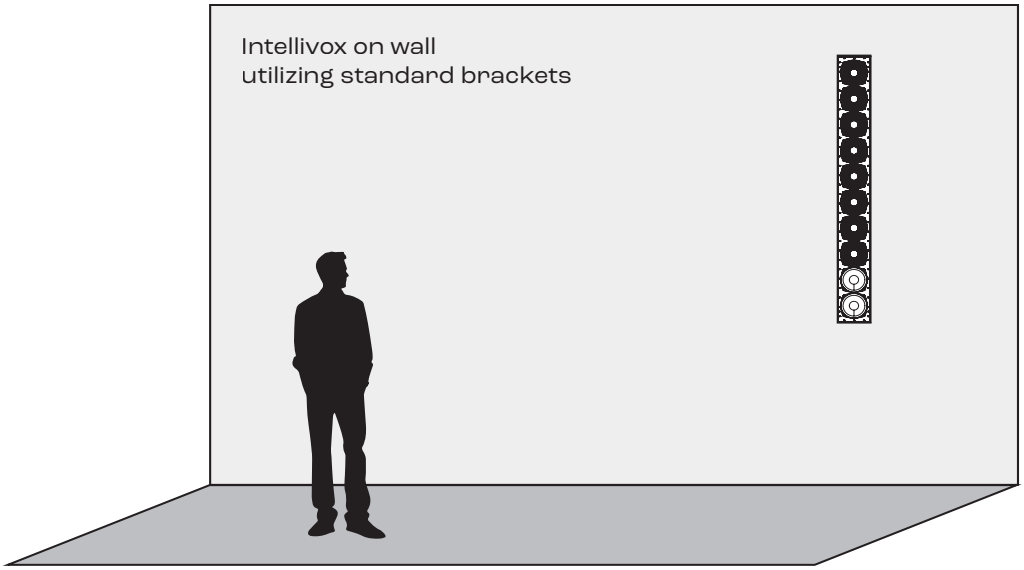
4.1 ACOUSTIC CENTER

The loudspeaker's height relative to the floor is critical. The operational height is defined during the acoustic design process and corresponds to the position of the acoustic center. This position is marked with a yellow sticker on the front of the unit when shipped.

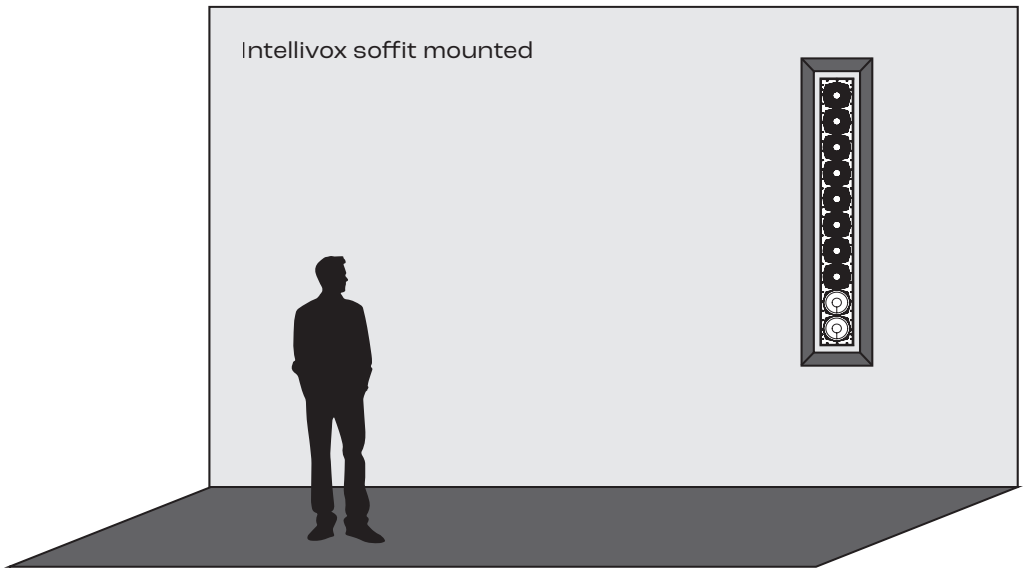
4.2 MOUNTING OPTIONS

There are two options for mounting the Intellivox column:

1. Standard mounting brackets (supplied): For flat walls or curved surfaces (e.g., pillars). Leaves a 95 mm (3.75") gap between unit and wall. The standard bracket allows for the Intellivox to be rotated up to 90 degrees in either direction.



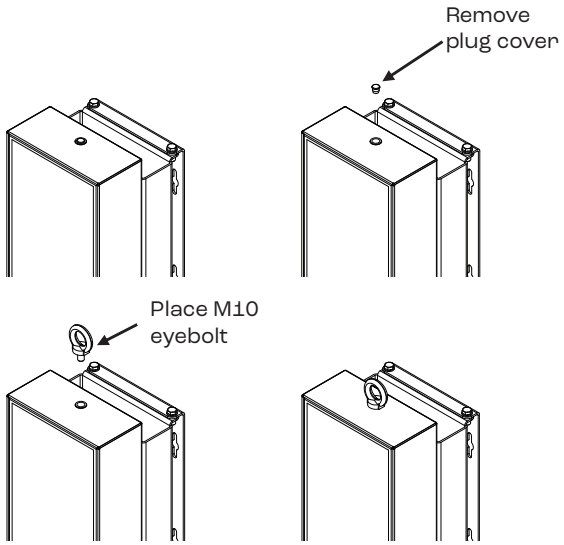
2. Recessed mounting: For flush installation in walls or panels. Care should be taken for this special situation to ensure cables can be routed and terminated. Additionally, wall cavities may resonate at one or more frequencies, degrading the audio performance significantly. Installers are advised to insert rockwool or similar sound-absorbing material into the cavity, while ensuring sufficient airflow around the rear mounted heatsink.



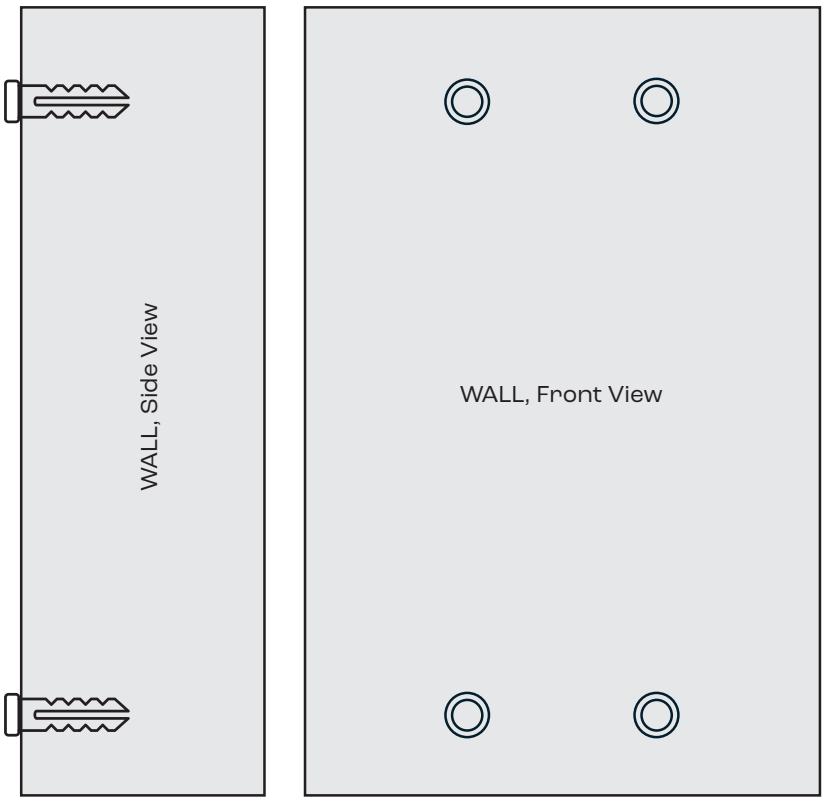
4.3 MOUNTING PROCEDURE

The general mounting procedure using the standard brackets is described below. Once mounted, the hinge brackets allow access to the connector bay on the rear of the unit.

1. A M10 lifting point is provided on the top of the unit for use during installation/maintenance. Use the supplied eye bolt or an M10 eye bolt with a thread length no longer than 20mm.

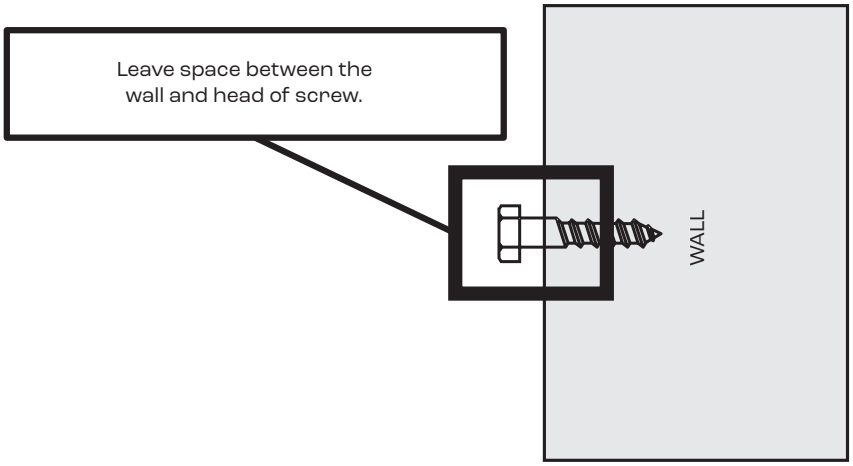


2. See the model's spec sheets for dimensions and to determine locations for the wall plugs. Mark the wall for the wall plugs. Allow for the offset between the acoustic center and the top/bottom of the unit when marking mounting positions. Drill the holes (Ø 10 mm).



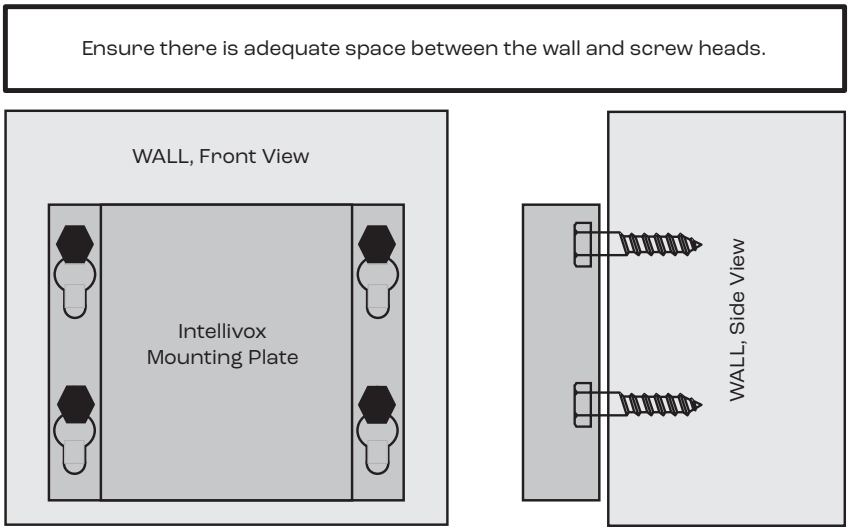
Follow specifications from design process and models data sheet for specific location and spacing of wall anchors.

3. Insert the plugs and screws into the holes. Tighten the screws with a wrench/spanner, but stop with a few mm of screw shaft visible between the head and the wall.

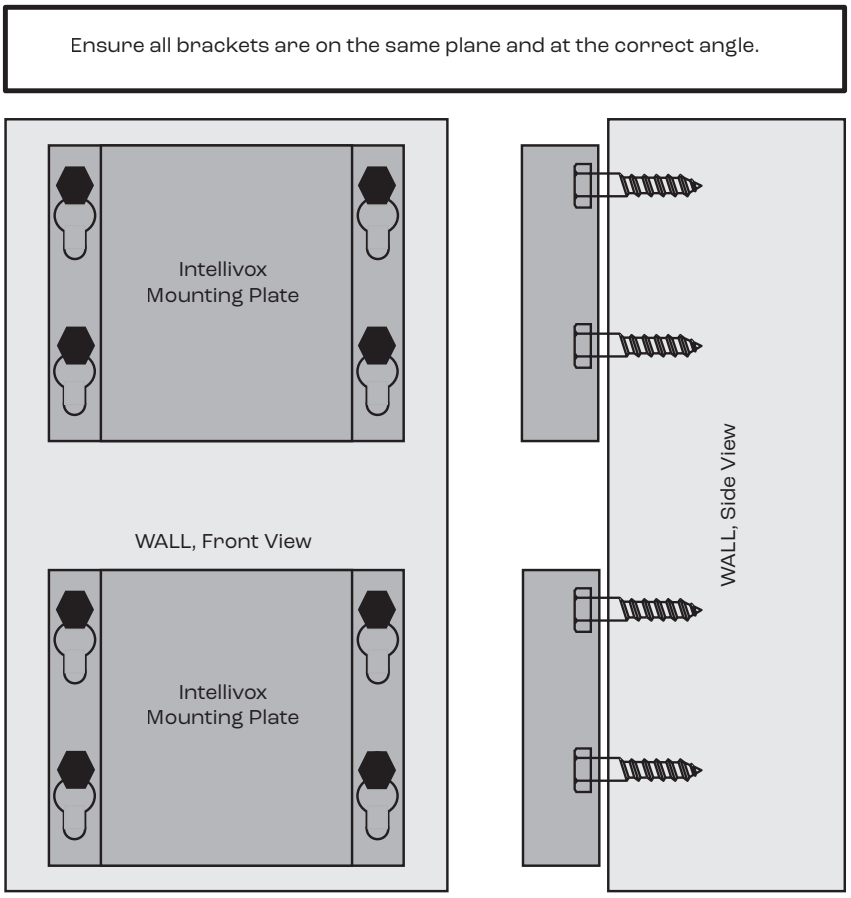


Wall anchor omitted for clarity.

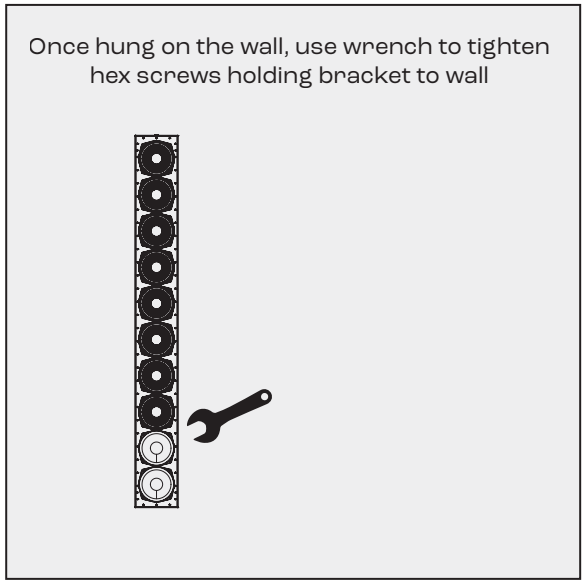
4. By removing the mounting plate of one bracket, check to ensure that the mounting screws are sufficiently spaced from the wall.



5. Check that the chosen mounting points will position the column in the correct vertical angle specified by the acoustic design (which is usually exactly perpendicular to the listening area). Use spacers on one or more of the brackets if necessary.



6. Lift the Intellivox and slide the brackets over the heads of the hex-head screws protruding from the wall.
7. Firmly fasten the screws securing the brackets to the wall. Re-check the verticality (or other angle if specified) with a spirit level or similar levelling device.



8. Remove hinge bolts from one side of brackets to allow rotation and access to the rear of the unit. Install all connections as described in 'Connector and Wiring Details'. Reinstall hinge bolts to secure unit in place.

Section 5. Unit Check and Connecting to Unit

Once the loudspeaker is physically installed, power applied, and connected to a network or computer, use WinControl software to verify operation and upload the settings file. For full details about the use of WinControl please see its user guide.

5.1 UNIT STATUS CHECK

The Intellivox HP Dante is equipped with an LED that can be configured to indicate the status of the failure relay. The LED is green in normal operation and turns red when a fault condition arises. Furthermore, the LED can be activated over the network to identify the unit. The single-digit display provides status information about the electronics section and various abnormal operating conditions that may arise.

DISPLAY	MEANING
0	Normal operation, all okay
1	DSP not running
2	Amplifier fault
3	Load monitoring fault
4	Pilot tone not detected, Input 1
5	Pilot tone not detected, input 2
6	Overtemperature
7	Ambient noise mic sensor fault
8	Internal module fault
9	Updating firmware

The dot on the display is lighted as soon as it is detected that the power supply is present.
A rotating progress indication is shown during initialization.

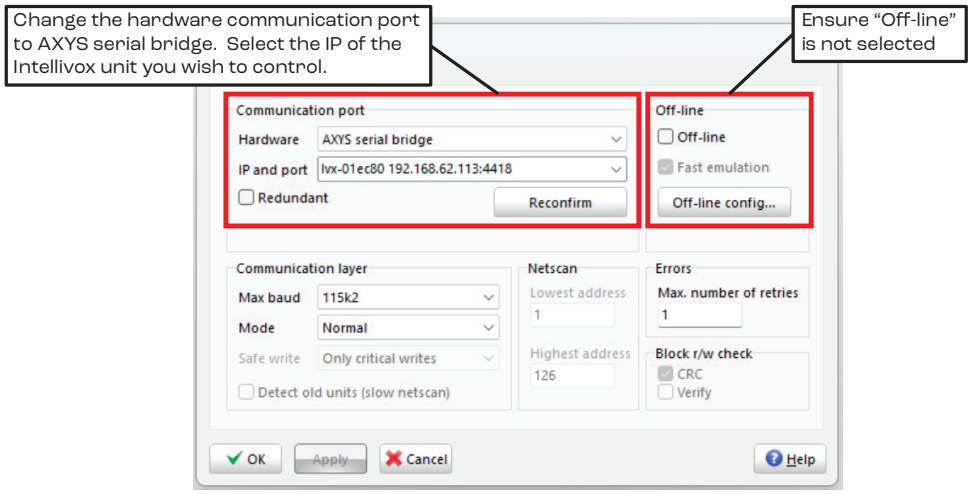
5.2 PREPARING FOR CONNECTION

Intellivox HP Dante loudspeakers utilize PC based WinControl software for device setup, control, and monitoring. Connecting to the loudspeaker can be done via an RS-485 interface, or Dante (which combines audio over IP and device control over a single cable). Follow the directions below for both RS-485 and Dante connections.

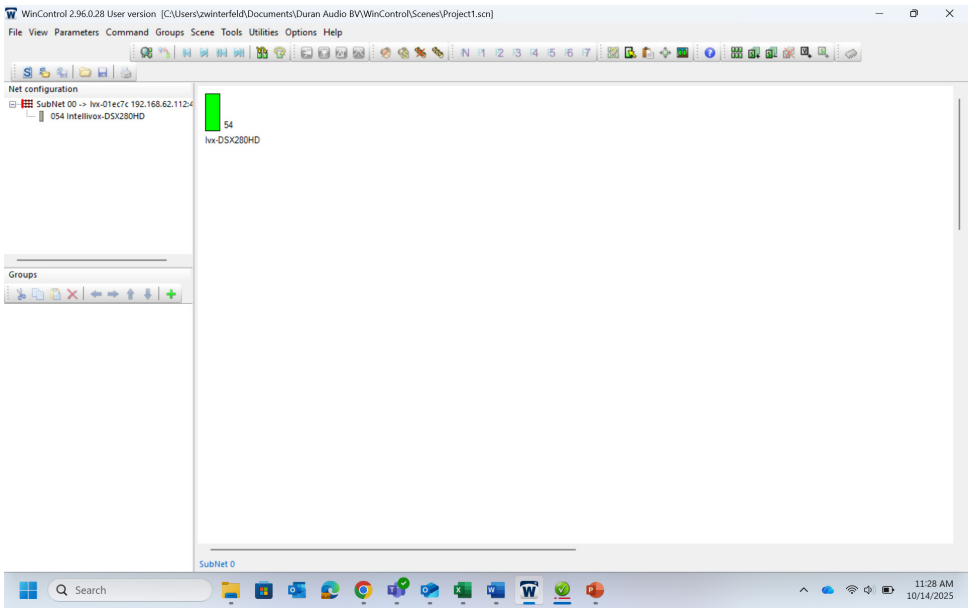
If using Dante, it is recommended to download and install Dante Controller software for routing and verifying network settings. Ensure the loudspeaker and computer are on the same subnet. If no DHCP server is present, the device defaults to Link Local with IP 169.254.*.* and subnet mask 255.255.0.0. By default, Intellivox Dante Loudspeakers use port 4418. Ensure your network/computer does not block traffic on that port.

5.3 CONNECTING TO THE LOUDSPEAKER

1. Apply power to the loudspeaker and allow 1 to 2 minutes for the loudspeaker to obtain an IP address.
2. Launch WinControl software from your computer.
3. Open **Options > Communication options** and confirm the **off-line** box is unchecked and the **AXYS serial bridge** is selected as the hardware. Use the IP and port dropdown to select the Intellivox unit you wish to control. After making selections, click the **Apply** and **Ok** buttons for the changes to take effect and exit the dialogue box.



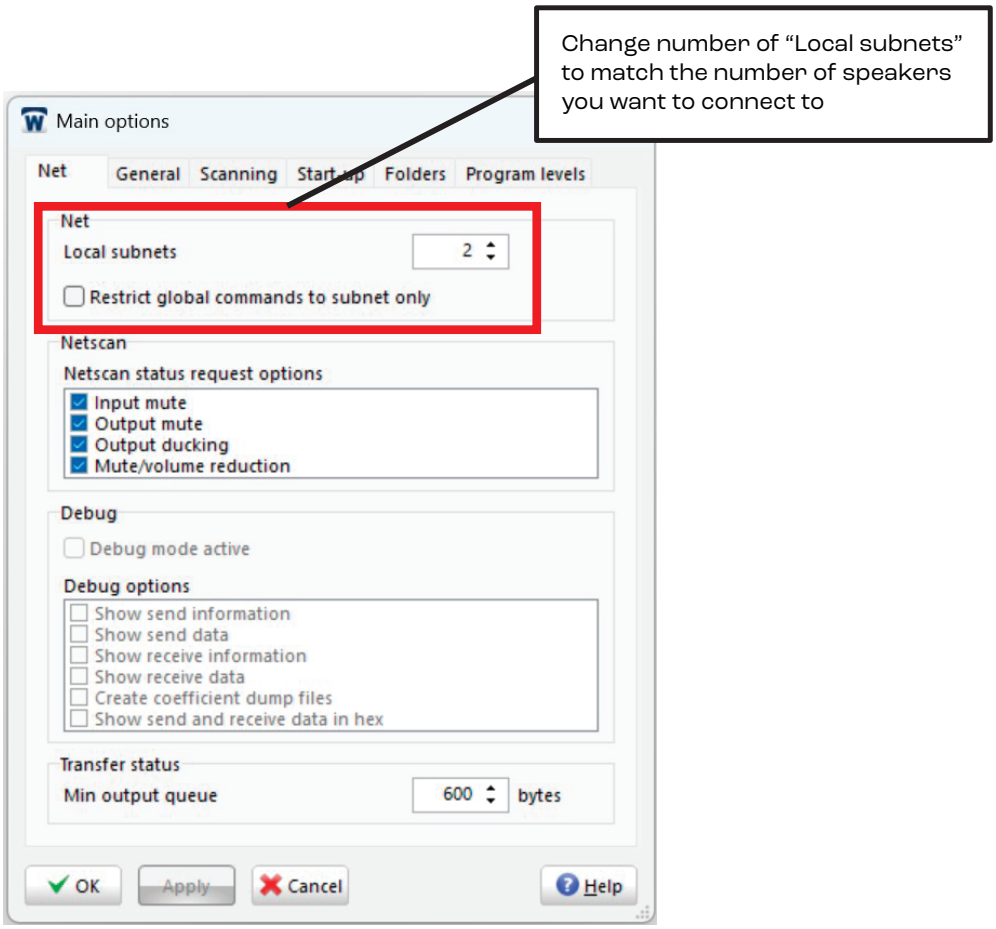
4. If the PC is connected to only one Intellivox unit, the screen should look similar to the image below. The green rectangle in the main page represents the Intellivox loudspeaker. The model number is shown below and the units network address shown to the right. (For a network with multiple Intellivox units see section 5.3 for instructions.)



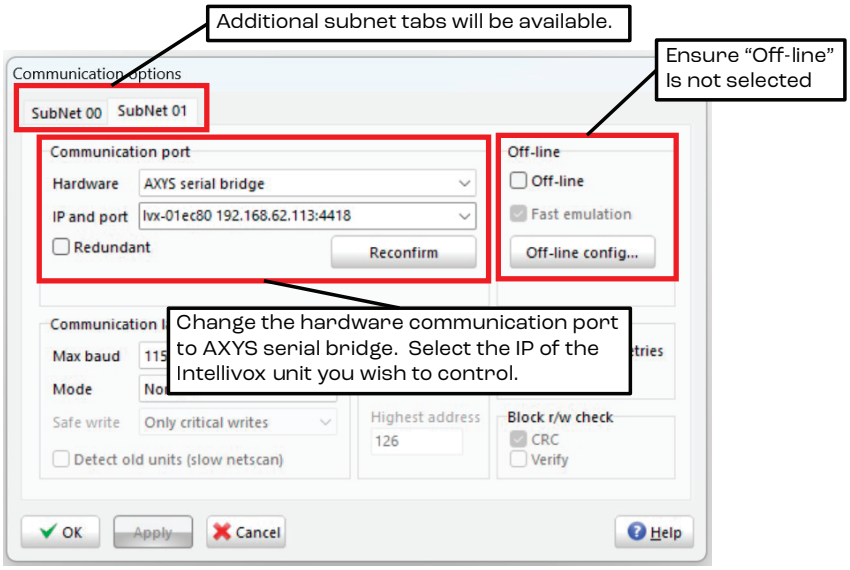
5. If the WinControl software does not show any Intellivox units, click on **Command > Netscan** to force the PC to re-scan the network. If the rescan fails to see units please check all network connections, and the correct port on the PC is selected (see step 3).

5.4 CONNECTING TO MULTIPLE UNITS

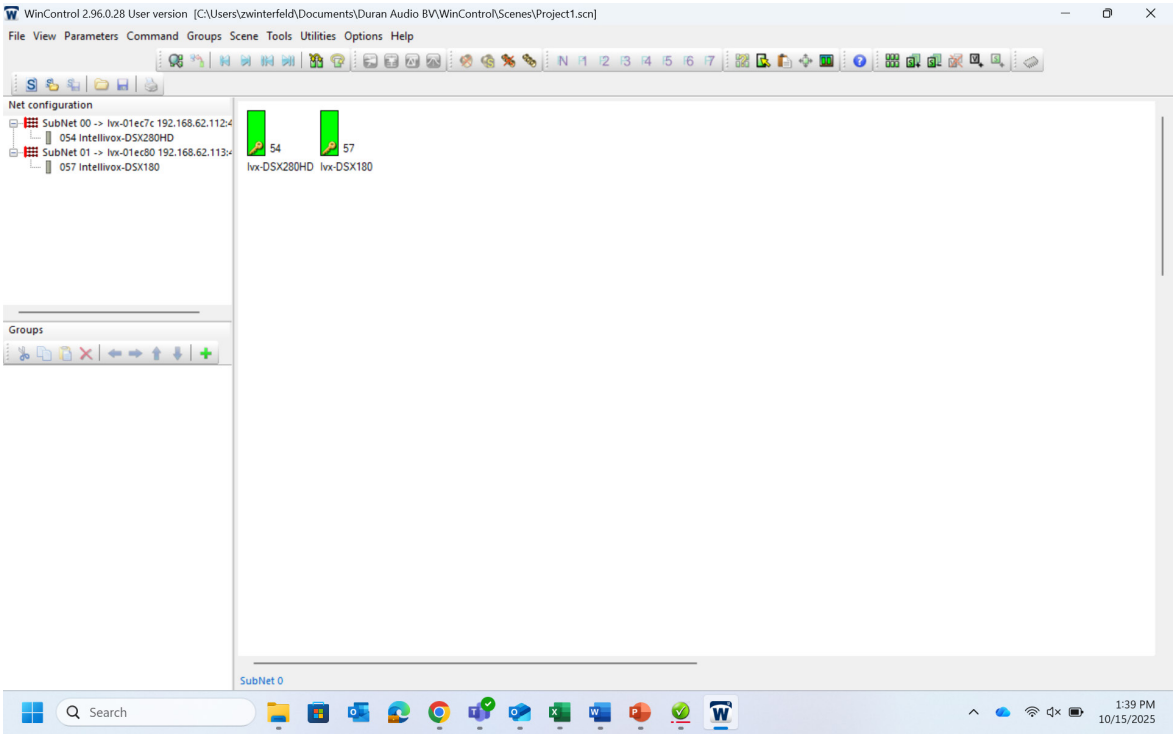
1. Apply power to the loudspeakers and allow 1 to 2 minutes for the loudspeaker to obtain an IP address.
2. Launch WinControl from your computer.
3. To connect to multiple units, click on **Options > Main Options** to bring up the Main options dialogue box. Under the Net tab, increase the number of local subnets to match the number of units you wish to connect to. After making selections, click the **Apply** and **Ok** buttons for the changes to take effect and exit the dialogue box.



4. After selecting the number of subnets, open **Options > Communication** options to configure. Each subnet tab will connect to a different unit and will need to be configured separately. For each unit confirm the off-line box is unchecked and the **AXYS serial bridge** is selected as the hardware. Use the IP and port dropdown to select the Intellivox unit you wish to control. After making selections, click the **Apply** and **Ok** buttons for the changes to take effect and exit the dialogue box.



5. Multiple units should now appear on the main page. The green rectangles in the main page represents the Intellivox loudspeakers. The model number is shown below and the units network address shown to the right.

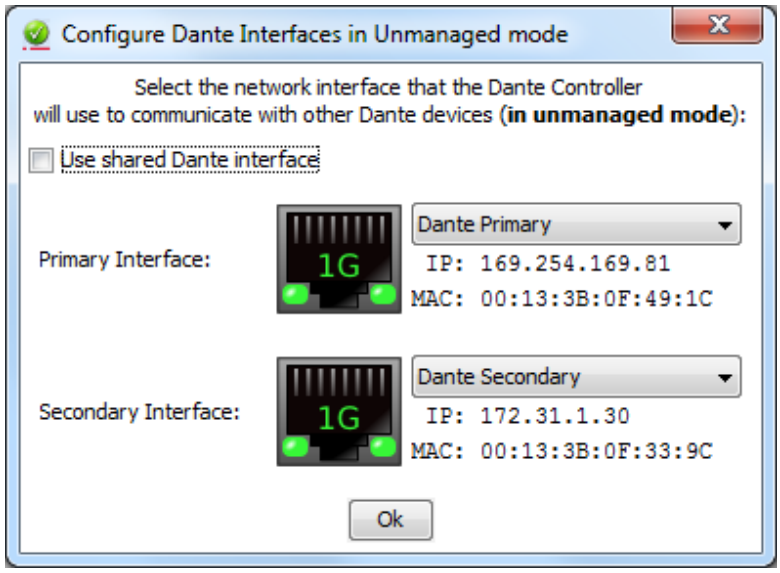


6. If the WinControl software does not show any Intellivox units, click on **Command > Netscan** to force the PC to re-scan the network. If the rescan fails to see units please check all network connections, and the correct port on the PC is selected (see step 3).

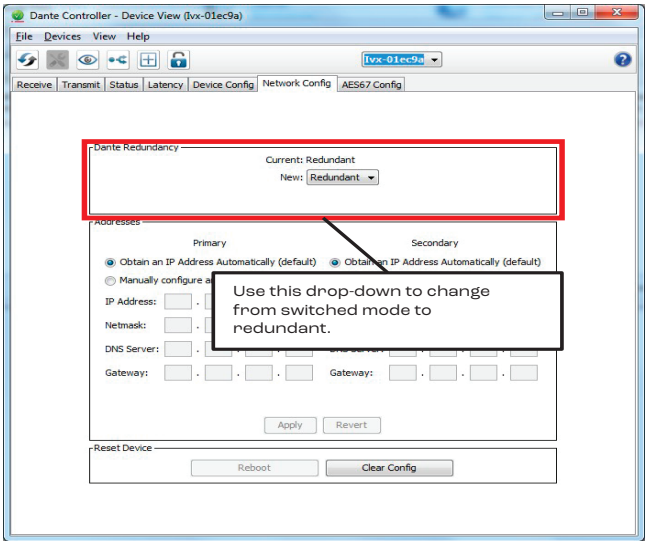
5.5 DANTE REDUNDANT OPERATION

The following directions detail how to change the Dante mode from switched to redundant.

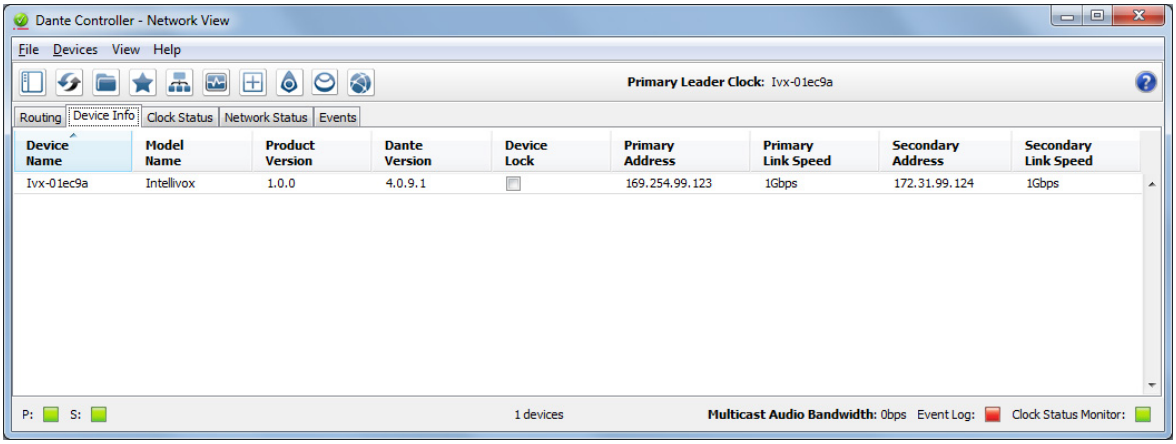
1. Open **Dante Controller** software.
2. Open the **Configure Dante Interfaces** window and ensure the primary interface is connected to the Dante primary network and the secondary interface is connected to the Dante secondary network. Once configured, click the **Ok** button to close the window.



3. Open the **Device View** window for the Intellivox unit you wish to control. Under the **Network Config** tab, use the drop-down menu to change from **switched** (default) to **redundant**. The device will need to be power cycled for the change to take place.

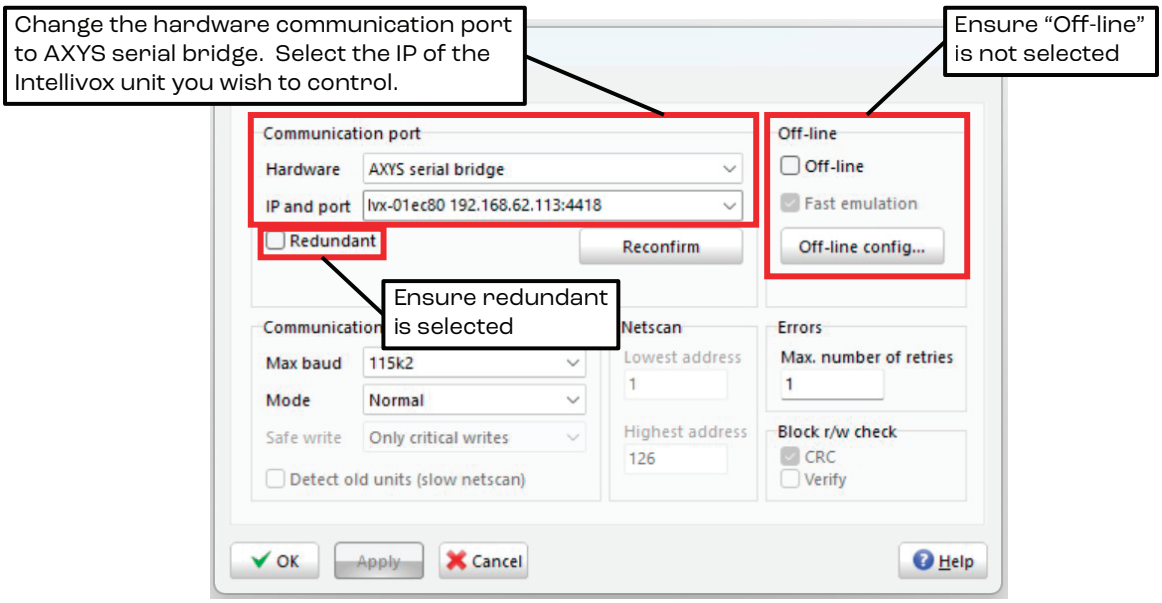


4. After rebooting the Dante Controller software should show the IP address for both the primary and secondary Dante interface.

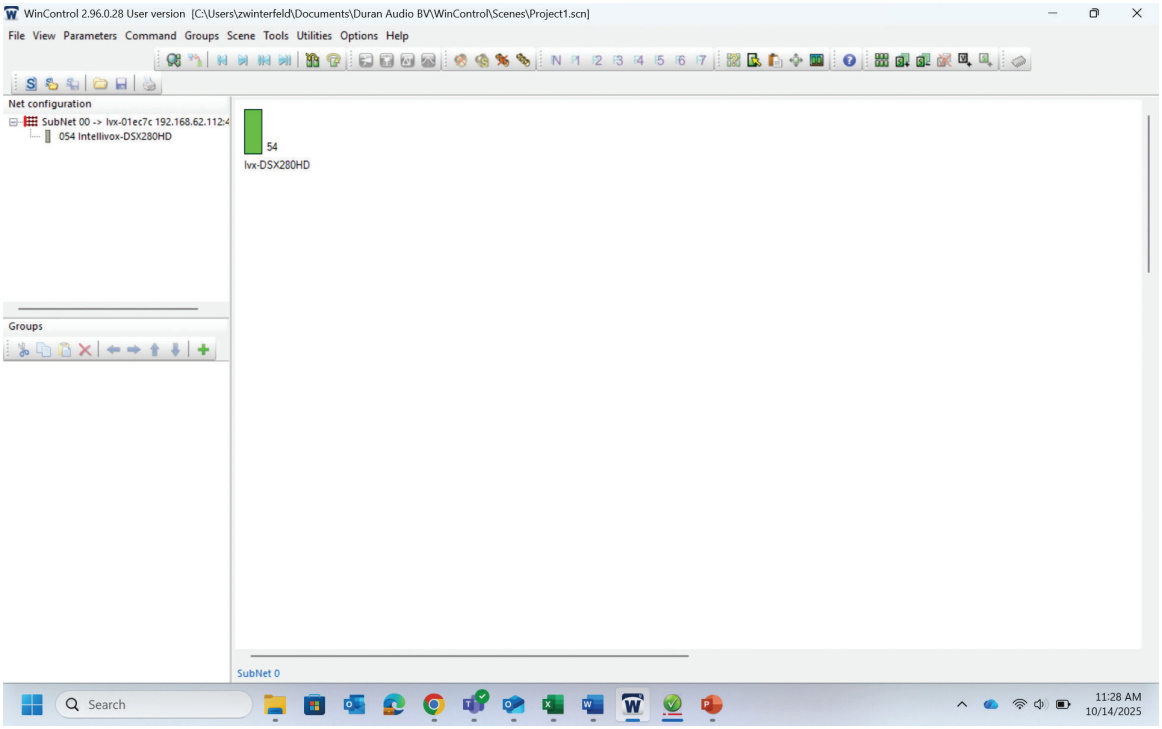


5. Launch WinControl from your computer.

6. Open **Options > Communication options** and confirm the off-line box is unchecked and the **AXYS serial bridge** is selected as the hardware. Ensure the redundant box is selected and use the IP and port dropdown to select the primary port of the Intellivox unit you wish to control. After making selections, click the **Apply** and **Ok** buttons for the changes to take effect and exit the dialogue box.



7. If the PC is connected to only one Intellivox unit, the screen should look similar to the image below. The green rectangle in the main page represents the Intellivox loudspeaker. The model number is shown below and the units network address shown to the right.

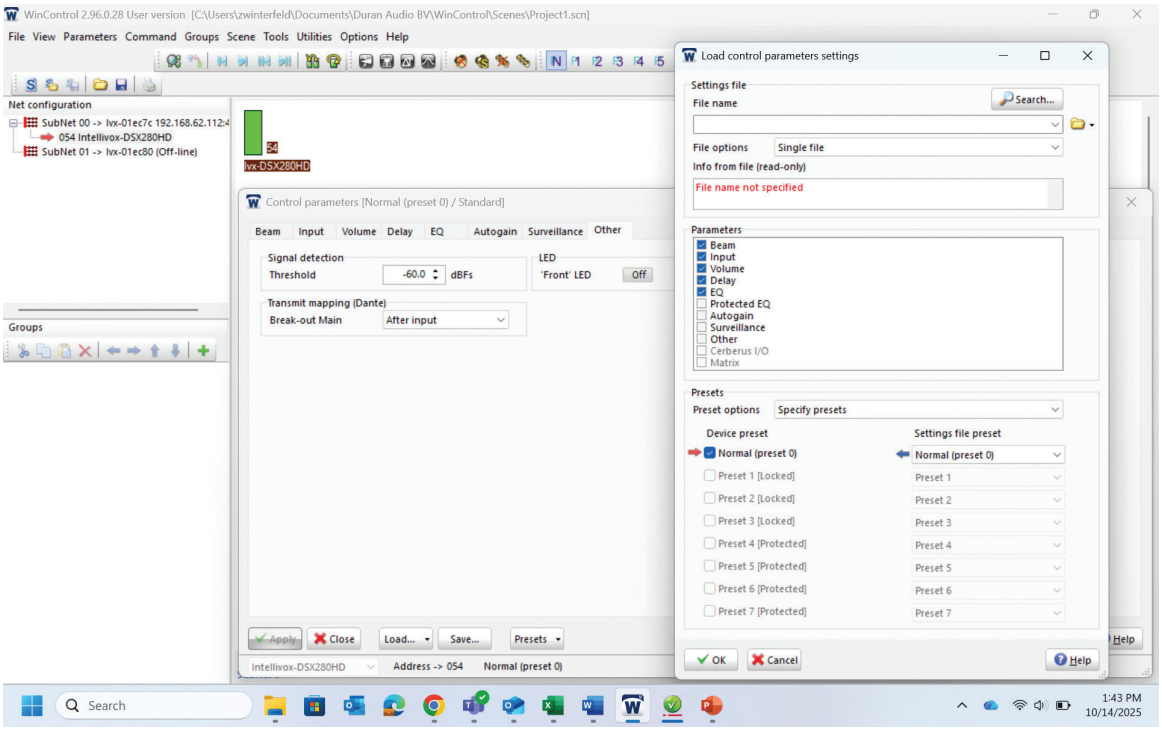


8. If the WinControl software does not show any Intellivox units, click on **Command > Netscan** to force the PC to re-scan the network. If the rescan fails to see units please check all network connections, and the correct port on the PC is selected (see step 6).

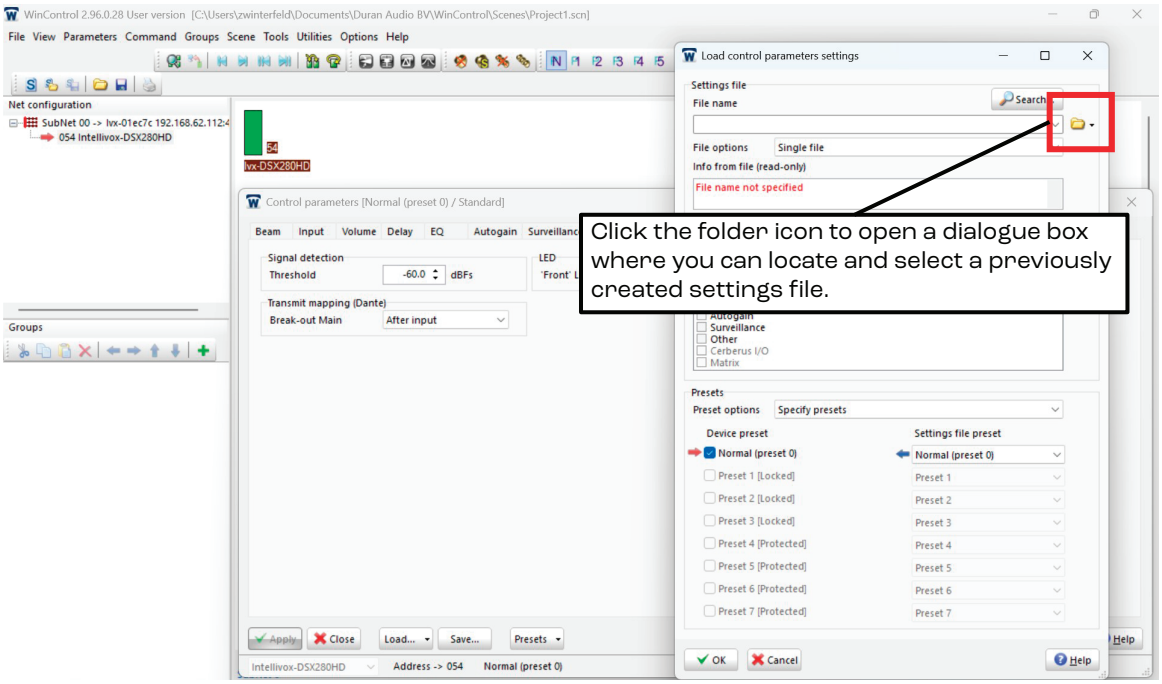
5.6 UPLOADING SETTINGS TO THE LOUDSPEAKER

1. Select the Intellivox you want to control by clicking once so its model number and IP address are highlighted.

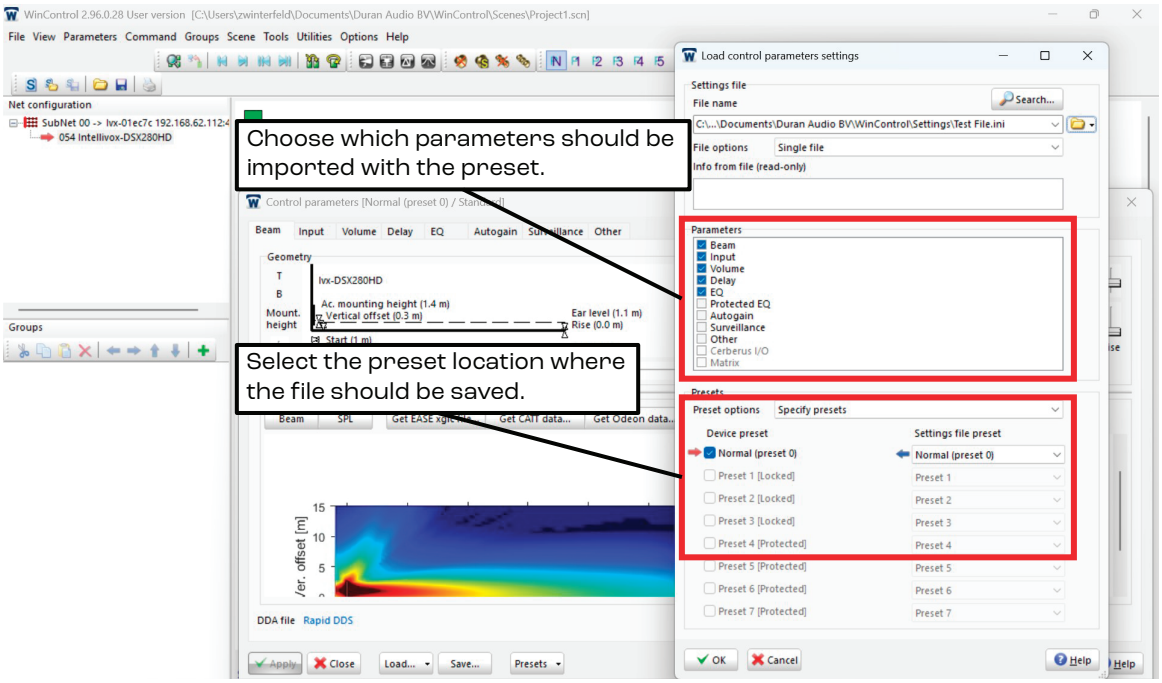
2. Click **File > Load Settings** to open the two dialogue boxes shown below.



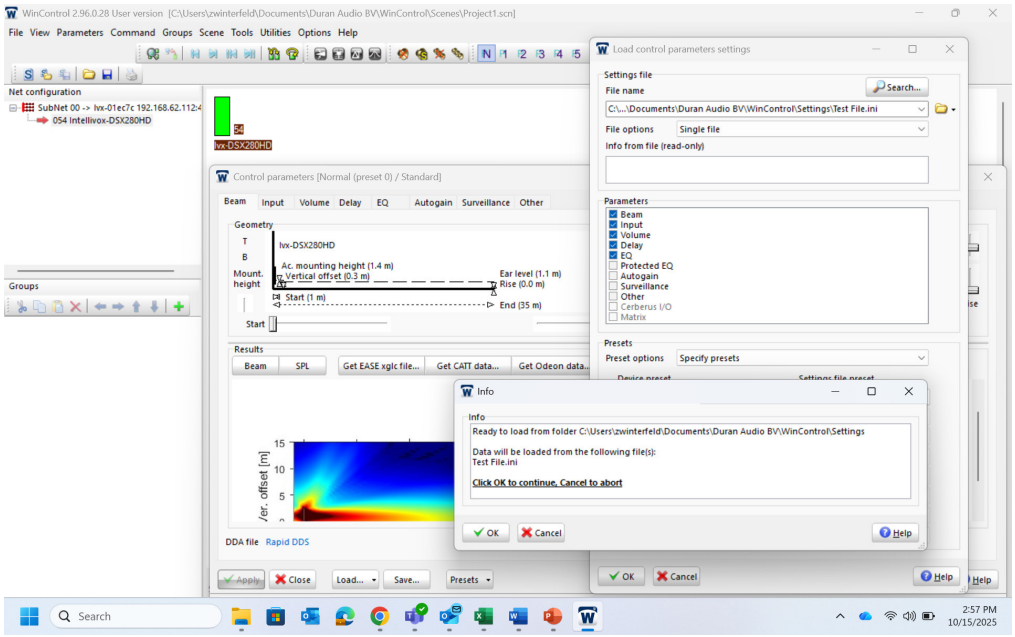
3. At the top of the **Load control parameters settings** window there is a **File name** box. To upload a previously created file, click the **Browse** button (to the right of the File name field), which will open a dialogue box where the appropriate Intellivox settings file can be selected. These files will always have a .ini file extension. After selecting the correct settings file, click **Open**, and the dialogue box will close.



4. After selecting the correct file, ensure the proper parameter groups are selected and specify which preset should be used. Select **Ok**.



5. An additional info dialogue box will open. Click **Ok** to start the upload process.



6. The Control parameters box can now be closed and the upload is complete.

7. Use this procedure for each loudspeaker on the network. To upload settings to several Intellivox's simultaneously see *Addresses and Groups* in the WinControl help file.

Section 6. Appendix

6.1 OPTIONAL ACCESSORIES

Listed below are a number of additional components which may be required for an individual installation.

DESCRIPTION	ORDER SKU
Intellivox wall bracket 25mm, 2 pcs includes fasteners	IVX-802225 (RAL9010) IVX-802227 (RAL9007)
Intellivox wall bracket 25mm, 3 pcs includes fasteners	IVX-802226 (RAL9010)
Intellivox wall bracket 35mm, 2 pcs includes fasteners	IVX-802235 (RAL9010)
Intellivox wall bracket 60mm, 3 pcs includes fasteners	IVX-802261 (RAL9010)
Intellivox hinge bracket 90°	IVX-802000 (RAL9010)
Intellivox swivel bracket 90°	IVX-806608 (RAL9010) IVX-806668 (RAL9007)
Intellivox swivel bracket 45°	IVX-806618 (RAL9010)
Cable cover plate, 2 x PG13.5, includes fasteners	IVX-802110 (RAL9010)
Cable cover box, 2 x M16, includes fasteners	IVX-802105 (RAL9010)
Cable cover box, 6 x XLR, pre-assembled	IVX-802120 (RAL9010)
Set of hinges (yellow passivated) for IVX DC/DS115/180/280	IVX-806602 (RAL9010)

6.2 SOFTWARE AND FIRMWARE UPDATES

The WinControl application is freely available and can be downloaded from http://www.jblpro.com. Installers, users, and engineers should regularly check for updates. Intellivox firmware and DSP software upgrades will also be made available through the website.

For further information about how to use WinControl please refer to the WinControl Help files.

6.3 RS-485 CABLE SPECIFICATIONS

The type of cable necessary for correct operation of the RS-485 network is twin twisted pair with each pair individually shielded. Numerous cables of this type are readily available and cables broadly meeting the specifications of the example cable given below are likely to be suitable. Example of a preferred cable type:

PARAMETER	VALUE
Type	Belden 'Datalene' series No. 9729 2-pair
Character	100 Ohms
Capacitance (core to core)	41 pF/m
Capacitance (core to screen)	72.5 pF/m
DC resistance (core)	78.7 Ohms/km
DC resistance (screen)	59.1 Ohms/km