Operation manual

DeviceControl
NomadLink Network Control and Monitoring Software

NomadLink® network

LAB.GRUPPEN
INNOVATIVE POWER SOLUTIONS

1 CONTENTS

2.1 Overview

DeviceControl is a powerful tool for monitoring and controlling Lab.gruppen amplifiers equipped for use with the NomadLink network, including all C Series and FP+ Series models. To fully realize the power and flexibility of this program, we suggest that you refer to this manual during setup, and also keep it handy for reference until you are fully familiar with system configuration and all operating modes.

DeviceControl runs on a standard Windows PC equipped with an Ethernet interface. Supported operating systems are Windows 2000 and Windows XP with Service Pack 2 (SP2). Working in conjunction with the NomadLink Bridge & Network Controller (NLB 60E), DeviceControl allows detailed monitoring of amplifier parameters while controlling key functions such as power on/off, mute and solo. Although it is remarkably intuitive and easy to use, DeviceControl is a powerful system management tool. DeviceControl applications apply to systems of any size, from a few channels in a small venue to literally thousands of channels in the largest imaginable stadium or theme park system.

This manual is structured to serve as both a setup guide and a reference. The following two sections (2 and 3) will guide you through installation of the DeviceControl software program and setup of Ethernet connections to one or more subgroups of amplifiers, each group controlled by an NLB 60E (also referred to as a "subnet" in following text). Section 4 is a Quick Guide for accessing basic control and monitoring functions. Section 5 details all operating modes, menu options, offline system configuration, and match functions, along with the various warning and fault indications.

2.2 New features in DeviceControl 2.0.0

- ▸ Secure Connection restricts access to authorized computer(s)
- ▸ Power Groups allows grouping of selected devices for sequential powering on and off with a single button click
- ▸ Flexible Synchronization mode uploads data from the physical amplifiers to the configuration, or downloads from configuration to amplifiers
- ▸ New Settings dialog simplifies selection of modes and preferences
- ▸ "Select All" and "Deselect All" buttons speed uploading from subnets
- ▸ User interface improvements, including check-boxes for Channel Group selection

3.1 Computer system requirements

Operating system: Windows 2000 or Windows XP(SP2)
Processor: Intel Pentium 4 or XP-compatible equivalent (Celeron M, Athlon etc.)
RAM: 512 MB minimum
Hard drive free space: 20 MB
Monitor: 800 x 600 24-bit color
Network: Ethernet 10/100 Mbit

Screen resolution is fixed at 96 DPI. Altering this setting will impair the operation of DeviceControl so is not advised.

3.2 Software installation

Install the application by running the DeviceControl_Installer-2.0.0.exe application. The latest version is located on the Download Software page of our website at www.labgruppen.com. Follow the instructions as shown in the installation wizard.

The application installs all necessary components needed to run DeviceControl. A shortcut for quick access to DeviceControl will be placed on your desktop.

3.3 Software updates

If you have a previous version of DeviceControl already installed, the DeviceControl installer file will automatically upgrade your software by overwriting the older version.

NOTE If the software needs to be reinstalled for any reason, it is best to always reinstall the latest version (not a previous version) to maintain full compatibility with any existing configuration files or firmware versions. Lock Mode and Secure Connection passwords will remain after an update.

3.4 Uninstalling DeviceControl

Should you wish to uninstall the software for any reason, simply locate the DeviceControl program folder and select the Uninstall option.

4.1 Establishing a Nomadlink network

You must establish the NomadLink Network before you connect the DeviceControl host computer. If you have done so already, proceed to Section 4.2.

Connecting the NLB 60E to Lab.gruppen amplifiers in a NomadLink network is a simple and straightforward procedure. All connections are made with standard ("straight") Ethernet-type cables equipped with RJ45 connectors. Cable grade should be Cat-5 or better.

The NLB 60E connects to the amplifiers through the two rear panel ports labeled NOMADLINK IN and OUT. Using a standard ("straight") Ethernet cable, connect the OUT port on the NLB 60E to the IN port on the first amplifier in the network. Next, connect the OUT port of the first amplifier to the IN port of the second amplifier. Continue to "daisy chain" the amplifiers, connecting the OUT port to the IN port of the next amplifier, until all amplifiers are connected. Complete the network loop by connecting the OUT port of the last amplifier to the IN port on the NLB 60E (Figure 4.1).

The OUT port of the NLB 60E must be connected to the IN port of the first amplifier to allow the DeviceControl software to correctly identify devices on the network.

IMPORTANT NOTE: Within restricted cable distances, the NomadLink network will function as a single-ended daisy chain without closing the loop. (The loop is closed by connecting the last amplifier's OUT port back to the NLB 60Es IN port). However, it is strongly recommended that the loop be completed: doing so provides a redundant signal path and improves communication speed on the network
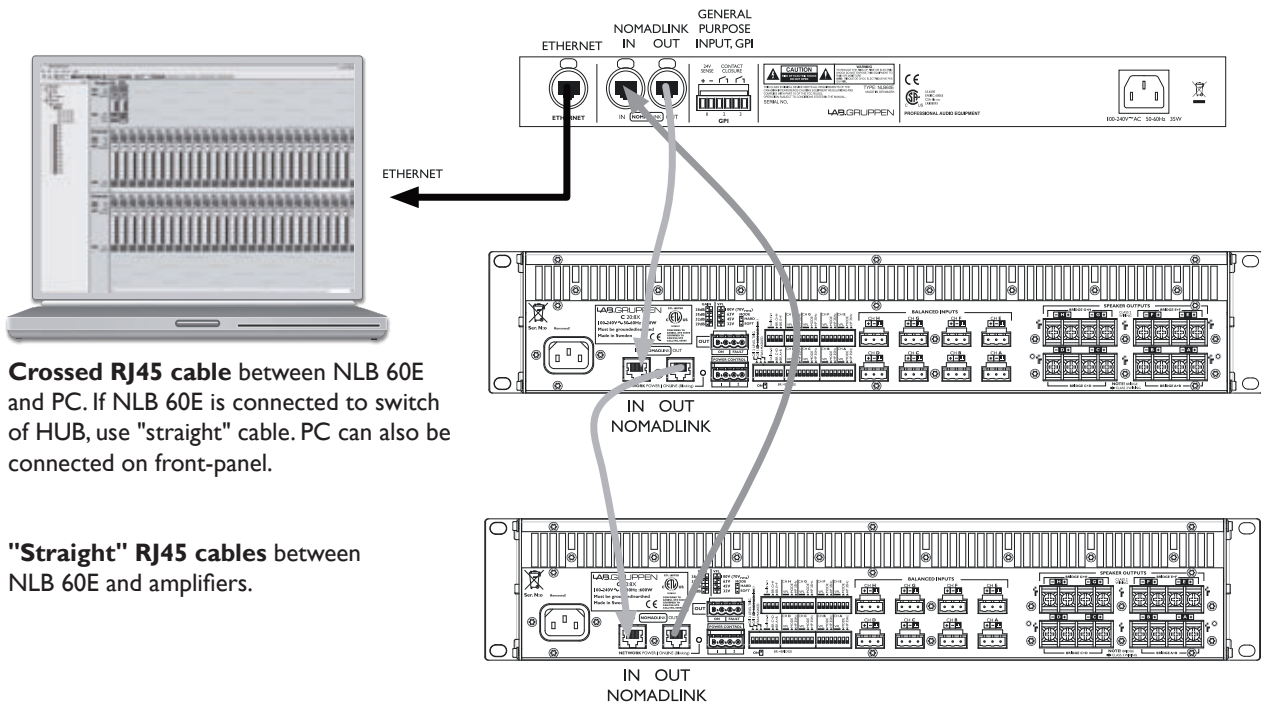
Crossed RJ45 cable between NLB 60E and PC. If NLB 60E is connected to switch of HUB, use "straight" cable. PC can also be connected on front-panel.

"Straight" RJ45 cables between NLB 60E and amplifiers.

Figure 4.1

4.2 Determining preferred connection type

You may connect your DeviceControl host computer to the NomadLink Network using either a direct (peer-to-peer) connection, or via a LAN (Local Area Network). A LAN requires inserting a router or network switch, with or without wireless (WiFi) capability. Either a peer-to-peer or a LAN connection will work with a single NLB 60E (one subnet); a LAN is normally required for connection to more than one NLB 60E (multiple subnets).

4.2.1 Peer-to-peer connection (using crossed RJ45 cable)

In this configuration, a dedicated TCP/IP connection is made directly to the NLB 60E using only an Ethernet cable. This type of connection may be preferable in these applications:

▶ Temporary connections for setup or maintenance of an NLB 60E when functioning as a self-standing unit; operation is via front panel or GPI

▶ Permanent connections between one NLB 60E and a computer dedicated to the DeviceControl application.

In this configuration, a dedicated TCP/IP connection is made directly to the NLB 60E. A peer-to-peer connection ensures that no other network devices are inserted between the computer and the NLB 60E.

NOTE If a dedicated connection is established, no other network connections will be available through the assigned Ethernet port. However, if the computer also has multiple Ethernet ports or a wireless LAN connection, these remain available for other uses such as Internet access.

4.2.2 LAN connection (wired via "straight" RJ45 cables or via wireless)

A LAN connection is required if the system configuration requires more than one subnet, as each subnet is controlled by a dedicated NLB 60E.

A LAN connection may be preferred in some applications even if only one subnet is required. If the host computer is needed for Internet access via the Ethernet port, or for controlling other networked devices, a LAN connection avoids any need to manually reset the TCP/IP configuration when switching from DeviceControl to another application. If the network router offers DHCP assignment (now common even in inexpensive models), then the NLB 60E can be set to automatically accept a network address from the router.

NOTE A separate, third-party network device must be accommodated in the system to create a LAN connection. This could raise reliability issues, particularly in touring applications. Any network devices should be chosen with this consideration in mind.

4.3 Establishing a peer-to-peer connection

4.3.1 Physical connection

Connect the PC to the NLB 60E using an Ethernet cable. A crossed cable should be used for peer-to-peer connections; however, many newer PCs may allow peer-to-peer connection using a standard ("straight") Ethernet cable (Figure 3.1).

Two Ethernet ports are provided on the NLB 60E: one on the front panel and one on the rear panel (the front panel port is primarily for temporary setup and service use). Both ports are active but only one can be used at a time.

4.4 Maximum cable lengths

Maximum cable length allowed between the DeviceControl host PC and the NLB 60E (or LAN network device) conforms to standard Ethernet specification of 100 meters.

The maximum cable length in between any interconnected NLB 60E and an amplifier may not exceed 300 meters. Total cable length for links in between all amplifiers in one subnet may not exceed 100 meters.

As a result, in a non-closed-loop daisy-chained subnet, the total maximum cable length is 400 meters (300 + 100), and in a closed loop subnet the maximum cable length is 700 meters (300 + 300 + 100).

4.5 TCP/IP setup

To establish direct (peer-to-peer) communication between the DeviceControl host PC and the NLB 60E, you first must set the TCP/IP address in your computer.

The NLB 60E has following default address:

IP: 192.168.1.166
Subnet mask: 255.255.255.0
Gateway: 0.0.0.0

The PC must be set manually to a compatible address, for example:

IP: 192.168.1.100
Subnet mask: 255.255.255.0
Gateway: 0.0.0.0

To establish a connection, use the following procedure:

1. XP Home - Open the Start menu in the lower left corner. Select "Connect to" and then "Show all connections"

    XP Professional - Open the Start menu in the lower left corner. Select "Settings", "Control Panel" and then (if in Classic view) "Network Connections". If the Control Panel is in Category view choose "Network and Internet Connections" and then "Network Connections."

2. Select "Local Area Connection". Select "Properties" from the File menu or by right-clicking on the selected icon. In the pop-up window, select (highlight) "Internet Protocol (TCP/IP)". Click on the "Properties" button to view TCP/IP Properties (Figure 4.2).

3. Select "Use the following IP address" and enter a desired address. (Figure 4.3).

4. Click in Subnet Mask. Keep the default 255.255.255.0 value.

5. Leave Default Gateway open. Do not enter any values.

6. Click on OK. The address is now set. You can verify that your settings are correct by double-clicking on "Local Area Connection" and selecting the Support tab.

7. The PC is now ready to connect to the NLB 60E. Refer to instructions in Section 5 .
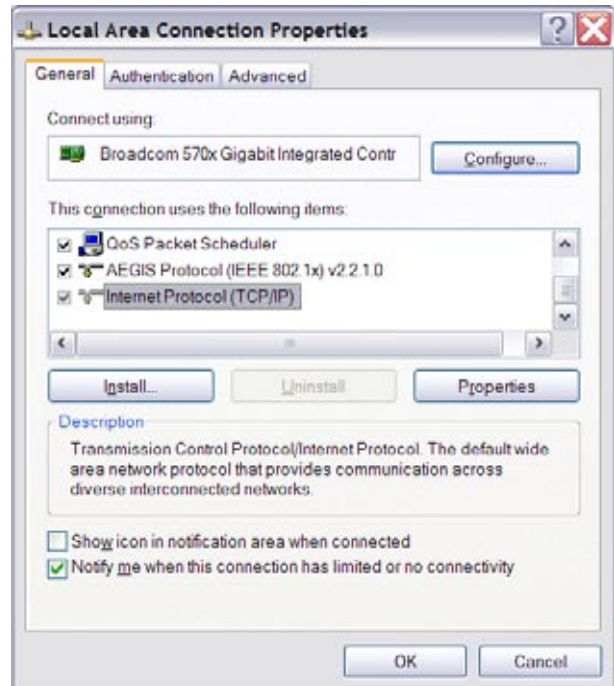

Figure 4.2

Figure 4.3

4.6 Establishing a wired or wireless LAN connection

It is recommended that you make your LAN connections using a network device (hub, switch or router) that includes a DHCP server function. This feature greatly simplifies network configuration. For use with non-DHCP devices, see Section 4.5.

Connect the host computer and one or more NLB 60Es to the network device using standard Ethernet cables.

To obtain an IP address automatically, each NLB 60E must be set to "DHCP On" This setting is accessed via the front panel navigation features of the NLB 60E under the "Bridge Info" section. Refer to the NLB 60E Operation Manual for more details.

The NLB 60E automatically re-boots after changing the setting. The front panel display then shows automatic acquisition of an IP address.

In most cases, no further configuration of the PC will be necessary. Because the default setting in Windows is to "Obtain an IP address automatically", the network connection will be established by the DHCP server. However, if the PC has been previously set to obtain a specific address, you may need to access the "Internet Protocol (TCP/IP) Properties" window and select the "Obtain an IP address automatically" option (Figure 4.3).

4.7 Multiple subnets without a DHCP server

It is possible to create networks with multiple subnets using either a computer equipped with multiple Ethernet cards, or with network devices requiring manual IP address setting. In these applications, each connection must be manually set with a TCP/IP address with the last three digits in the range of 1 to 255. Such applications are rare and therefore are not detailed here. However, standard procedures for TCP/IP networks apply.

The following section provides the basic information required to use DeviceControl in most common applications. Instructions are provided for uploading amplifier data from physical subnets, performing basic operations, monitoring faults and warnings, and creating groups of amplifiers (for power on/off) as well as grouping amplifier channels.

Make sure you have completed the steps in Section 4, and you are ready to run the application; Double click the DeviceControl shortcut on your Desktop or select DeviceControl in the Start menu. On opening, DeviceControl displays the Quick Start menu (Figure 5.1).

5.1   Uploading Subnet(s)

The Quick Start window (Figure 5.1) allows selection of three different DeviceControl startup alternatives. Available choices are:

1) Upload configuration from subnet(s)
2) Open a saved configuration
3) Create a new configuration

If you are working offline (no physical subnet is connected), select the second or third choice to access offline editing functions. See Section 6.3.
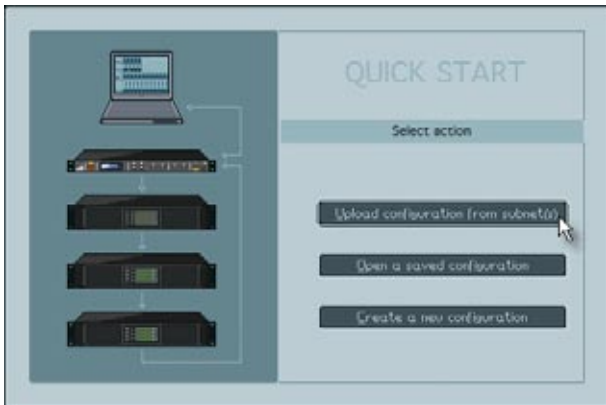

Figure 5.1

When a physical subnet is connected, you can automatically acquire data directly from the amplifiers by selecting "Upload configuration from subnet(s)". DeviceControl interrogates the NomadLink network interface, locating available subnets and listing them in a pop-up window.

The pop up window (Figure 5.2) displays the detected NLB 60Es along with their subnet numbers, secure connection status, IP Address, NLB 60E firmware version and the number of devices (amplifiers) connected to the subnet.

Select the subnet(s) you want to upload and click on the Upload button.
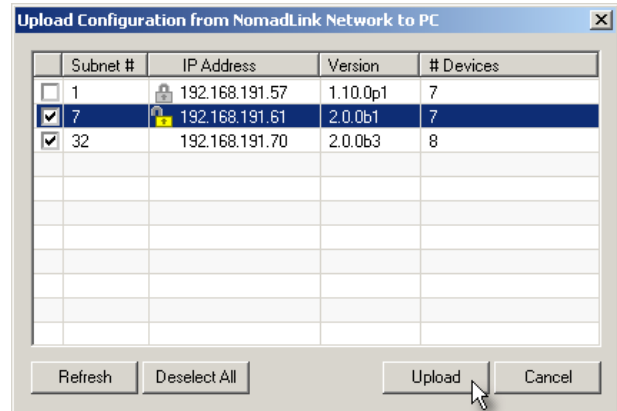

Figure 5.2

TIP All detected subnets are selected in the pop-up to be uploaded by default. Unselect subnets by clicking corresponding checkboxes. Or, you may use the "Deselect All" button and check the checkboxes for the subnets you wish to upload.

When Upload is clicked, DeviceControl interrogates the subnets. In the default synchronization mode, it uploads information from the subnets and automatically generates lists and default groups for the various display views.

Clicking on the Refresh button re-interrogates the network after initial uploading. Use Refresh to update subnet information when changes are made to connected subnets, or when network connection is temporarily lost due to inadvertent physical disconnection

NOTE As many as 60 subnets can be detected and uploaded simultaneously into DeviceControl on one host computer.

5.1.1 No Subnets found fault

If DeviceControl does not locate any available NLB 60E on the network, a pop-up window appears (Figure 5.3).

If you are certain that subnets have been connected, this could indicate a problem with a physical connection, the network configuration or the Windows Firewall,
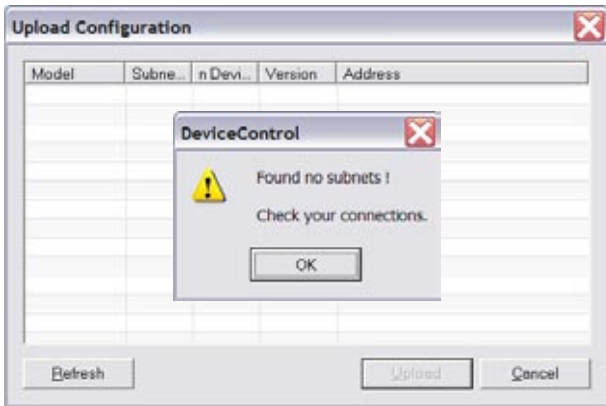
Check Connections and Configurations
Check your cable connections and your TCP/IP settings at both the PC and NLB 60E.

Check Windows Firewall
If this fault appears the first time you attempt to upload subnets, and your PC has Windows XP with SP2, your connection probably has been blocked by the Windows Firewall.

When you first click on "Upload configuration", a Windows pop-up asks whether you want to continue blocking or allow network communication by DeviceControl. Click on Unblock.

NOTE In some cases this pop-up window may be hidden behind the main window. However, you will see a "Windows Security Alert" below in the system tray. Minimize the main window or click on the Windows Security Alert in the system tray to access the pop-up and click on Unblock.

You can check to see if Windows Firewall is blocking

DeviceControl by accessing the Windows Security Center in the Control Panel (Figure 5.4).

Set the Firewall to "On (recommended)" and click on Windows Firewall in Manage Security Settings. Click on the "Exceptions" tab and confirm that DeviceControl Network Application is selected as an exception.
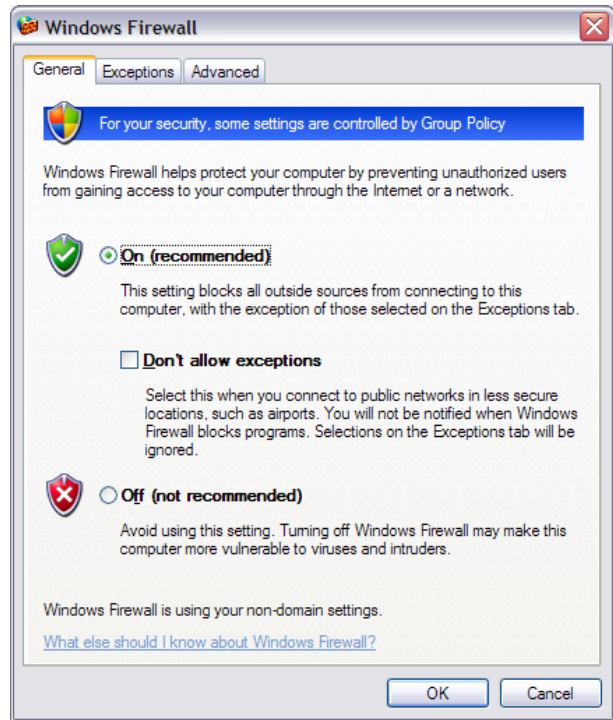
5.2 Toolbars overview

DeviceControl is organized around a set of views accessible by selecting buttons on the main toolbar. The different views access various configuration, operation, and monitoring functions. More detailed information is given in the Reference Section 6.

The Toolbar is grouped into four segments; Toolbar, Select View, Mode and Edit bar. Each segment may be independently repositioned by clicking on and dragging to the respective end bars.

Toolbar segment:

Full screen: Toggles between full screen and reduced screen view.

Tree View: The Tree View is open by default on the left side of the screen when opening DeviceControl. This view shows the current network configuration (either as uploaded or created offline), including all subnets and groups.

**Lock:** Engages operational or configuration lock modes in DeviceControl

Blue icon indicates configuration lock only; yellow is both configuration and operational lock. Lock type can be set in the Settings dialog in the File menu. For detailed instruction see Section 6.2.

Select view bar:

Device View: The Device View shows the list of devices (amplifiers). The left side of the list displays the virtual configured devices, with the power on/off switch indicated for each device. The right side

(Physical) displays the detected devices in the subnets. Center "link" indicator between left and right shows Match status between configured and physical devices.
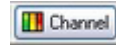
Channel View: The Channel View shows all configured channels as derived from the Device list. In this view you may add or delete Channel Groups, and assign channels to new or existing groups.
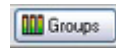
Groups View: The Groups View is generated from the selections made in the Channel list. The All and Subnet Groups are automatically generated during upload from the subnet(s) and cannot be modified. The Groups View is the primary screen for monitoring status, faults and warnings, as well as for controlling mute and solo functions.

Power View: The Power View displays all devices in the system and allows grouping of selected devices for powering on and off as a group with a single button click. The entire system and all connected subnets are default Power Groups.

Details View: The Details View shows parameter details for the selected channel or device (amplifier or NLB 60E), including DIP-switch settings, performance indicators such as level and temperature, and a sensitivity calculator for power and sensitivity calculation dependent on configured settings.

Mode bar:

Offline: When not connected to a physical subnet, editing of an offline configuration is possible. You may add devices, add groups, rename channels and devices, and set configured DIP-switches.

Online: When a configuration is created offline and subsequent connection to a physical subnet is required, selecting Online interrogates the network and uploads amplifier information. The type and position of available devices are compared to the configuration, and an indication of the "Match" status can be seen in the Device list view. DeviceControl must be in the Online state to perform operating functions (on/off, mute, solo) and to monitor amplifier status.

Edit bar:
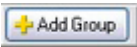
Add Group: Available Offline or Online when accessing the Channel or Power View. Clicking this button adds groups to a subnet configuration.
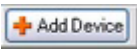
Add Device: Available Offline or Online when accessing the Device View. Clicking this button adds devices to a subnet configuration.

5.3 Start Here

The logical navigation structure and user-friendly graphical interface of DeviceControl make all operations intuitive and easy to learn. Nevertheless, it is suggested that you configure a physical NomadLink "learning system" in a non-critical environment to become thoroughly familiar with common operating and editing features.

NOTE Some operations outlined in this section can be performed in more than one view. To simplify the Quick Guide, only the most commonly used view is given here. See the Reference section for each view for more details.

5.3.1 Basic operations

The following three operations are available only when DeviceControl is in the Online state.

Power on/off

Amplifiers may be powered on and off in groups using the On and Off buttons in the upper pane of the Power View. For information on creating Power Groups, see Section 5.3.4.

NOTE Each NLB 60E may be programmed for sequential power On for all amplifiers in the subnet. Using the power On button for a subnet in Power Groups will activate the pre-programmed sequential power On. Also, if two or more amplifiers in a Power Group are in the same subnet with an NLB 60E set for sequential power On, the amplifiers will power up with the programmed delay interval.

Individual amplifiers may be powered on or off using the buttons in the lower pane. Click the On button to turn power on or off. The button illuminates to indicate the device is powered up. Power on/off functions for individual amplifiers are also accessible in the Device View.

Mute

Mute functions are most easily accessible in the Group View. Click on the Mute button at the bottom of the graphical module as appropriate. You may select All (all channels on all subnets), Subnet (channels in the selected subnet only), Group (channels in selected group), or any individual channel. The button illuminates to indicate mute status of the selected channel(s).

Solo

Solo functions are most easily accessed in the Group View. You may solo a subnet, a group, or an individual channel by clicking on the appropriate Solo button at the top of the graphical module. The yellow Solo button illuminates to indicate solo status of selected channel(s). All other channels show a mute indication.

NOTE Mute takes precedence over Solo. A channel that has been muted, either locally or as part of a group, cannot be soloed until it has been un-muted.

NOTE IMPORTANT NOTE: A Mute or Solo command for a subnet will affect all devices connected to the subnet, including those devices not in the current configuration or shown as "Unknown".

5.3.2 Lock mode

You may lock DeviceControl to prevent inadvertent changes or unauthorized use. To lock DeviceControl, click on the Lock icon in the toolbar. You may select either Configuration or Operation lock modes by clicking on the Locks tab of the Settings dialog, accessible from the File menu.

▸ Configuration lock prohibits changes to current and saved amplifier configurations. Operational changes (power on/off, solo, mute) are permitted.

▸ Operation lock blocks access to operating functions (power on/off, solo, mute) as well as prohibiting most changes to configuration. This is essentially a "monitor only" mode. Refer to Section 6.2.1 for more information.

You may block access to the Unlock mode by requiring a password. For details on setting and changing passwords, see 6.2.4.

NOTE DeviceControl can be shut down without exiting Lock mode, but it will restart ONLY with the same configuration and state (Offline or Online) as before exiting.

⚠ Be certain that you know the correct current password before locking DeviceControl with Password lock engaged. If you are unable to

unlock Operations lock, you will be unable to access amplifier operating functions.

5.3.3 Creating Channel Groups

DeviceControl offers a number of features for Online and Offline editing of amplifier configurations. For many users, the most powerful editing feature will be creating Channel Groups. You may assign any channel from any device to a specific group. Channel grouping is particularly useful when channels from several devices are assigned to the same function in the system, such as supplying power to the HF drivers in a line array.

To create Channel Groups, click on the Channel View button in the Toolbar. Groups may be created and edited in either the Offline or Online state.

To add a new group, click the "Add Group" button. Select the channels to be added to the new group by clicking in the box to the right of the device corresponding to that channel. You may assign the same channel to more than one group.

To access operating functions or status indications for a group, select the Groups View. All groups and subnets show in this view. All operations (mute, solo) selected on the group module will affect all channels in the group. Also, any fault or warning indications affecting a channel in the group will be indicated for the group as well. For detailed information on fault and warning indications, see Section 6.6.4.

5.3.4 Creating Power Groups

To create Power Groups, click on the Power button in the Toolbar. If no prior groups have been created, only the default System and Subnet(s) groups will show in the top pane. All devices (amplifiers) in the current configuration will be shown in the lower pane (as the System group is marked as default).

To create a new group, click on the Add Group button in the Toolbar. In the lower pane, click corresponding checkboxes to assign devices to the group. Uncheck checkboxes to remove devices from the group.

You may rename, delete, or clear Power Groups by right-clicking on a group (either in Tree View or the top pane of the Power view) and select the desired action from the pop-up menu. Alternatively, you may use the keyboard commands for rename (F2) and

delete (delete key). Similarly, you may right click on a device in a group to rename it or delete it, or use the keyboard commands.

Also, devices may be added to a Power Group using the drag and drop functionality in Tree View. See Section 6.9.

Group power on/off function is discussed in Section 5.3.1.

5.3.5 Naming (or renaming) Devices, Channels and Groups

Devices - You may rename devices to indicate function or physical location, e.g. "left rack 2". To rename a device, choose Device View and select the device and choose Rename from the Edit View. Alternatively, you may use a slow left click, right click and choose Rename, or use the F2 key. Enter the new name for the device.

Channels – Channels may be renamed in the Channels View using the same procedures given above.

Groups - After creating Channel or Power Groups, you can rename the group to indicate the function or location of the assigned groups, e.g. "Left HF". To rename a group, choose Channel or Power View as appropriate. Place the cursor over the group to be renamed, right-click and select "Rename".

Tree View - Renaming functions are also accessible in the Tree View. See Section 6.9.2.

For Channel Groups, the new name must be limited to six or seven characters to fit in the "label space" on the Group module graphic in Group View.

TIP You may use Copy and Paste functions in the Edit menu to replace the default name with a "template" name (e.g. "Stage L, rack X, amp X"). Then simply change the numbers as needed for each device or channel.

5.3.6 Saving the configuration file

You may save your configuration as a DeviceControl file by selecting Save or Save As… from the File menu. Also, a prompt window appears when you close DeviceControl asking if you wish to save the file, or any file changes.

Your saved file stores all data that was uploaded from the physical subnet as well as any changes you have made, including renaming of devices or groups.

5.3.7 Opening a saved system configuration file

To open a saved configuration, choose the "Open saved configuration" option when first booting DeviceControl. When DeviceControl is running, choose Open from the File menu.

To match your saved configuration to a physical network, click the Online button. DeviceControl will interrogate the network and attempt to match your configuration to any connected physical network. Devices that match will show the green Link icon. For devices that show match faults, see Section 6.4.2.

5.3.8 Reconnecting to a subnet

If connection to a subnet is lost (e.g. due to accidental disconnection of network cable), a Reconnect dialog window appears. Click on Reconnect to re-establish connection. If you inadvertently click Cancel, you may reopen the dialog window by right-clicking on the actual subnet in Tree View and selecting Reconnect.

5.3.9 Establishing Secure Connections

You may establish a Secure Connection between DeviceControl and one or more subnets. The Secure Connection feature allows only an authorized computer with a matching password setting to access the subnet(s). For details on setting up a Secure Connection, see Section 5.1.

5.3.10 Synchronization

Each time DeviceControl goes from the Offline state to the Online state, it interrogates the network and synchronizes the current configuration file with any physical amplifiers on the network. You may choose from two synchronization options:

▸ **Upload configuration from NomadLink network to PC –** With this option, the current active state of the physical amplifier(s) is uploaded to DeviceControl. The current Power On/Off, Mute, and Solo states of the amplifiers will be shown in DeviceControl. If the configured state is different (e.g. power off instead of on) from the physical device state, it will be changed in DeviceControl to the current state of the physical device. No

changes will be "pushed" to amplifiers on the subnet.

▸ **Download configuration from PC to NomadLink network –** With this option, any changes to operating states (power, mute, solo) made in the configuration while Offline will be changed in the physical amplifiers when going Online.

> **NOTE** The first option (upload physical device state to configuration) is the preferred "safe" mode during system operation. It will not allow any inadvertent changes to the configuration to be activated in the physical devices.

To select synchronization option
Choose the Settings dialog from the File menu and click on the Synchronization tab. Select a Default Direction.

Confirm Synchronization Direction

- ○ Upload physical device state to configuration
- ● Download configured state to physical devices
- ☐ Do not show this dialog again

OK

Figure 5.5

A checkbox in the Settings dialog window, allows selection of a confirmation dialog every time transition to Online occurs.

If this checkbox is checked a confirmation dialog (Figure 5.5) appears every time a transition occurs to Online.

It shows the selected synchronization option and requires confirmation before the Online transition takes effect. You may change the synchronization option in the confirmation dialog, and also select a "Do not show this dialog again" option.

> **NOTE** Configured DIP-switch settings are not changed when uploading from physical amplifiers to a saved configuration. This prevents any unintended changes to the

configuration. With either synchronization direction (uploading from the physical amplifiers or downloading from a configuration), both configured and physical DIP-switch settings are compared. Any mismatches are indicated as faults or warnings. See section 6.4.2.

5.3.11 Normal operation with devices matched and synchronized

By following the above Quick Guide instructions, you will be able to upload data from the network, create groups, name groups, rename devices, and save a configuration file. Under normal operating conditions, all devices in Device View will show a green "Match" indicator and a green "Status" indicator when you re-open the file and connect to the network. Data uploaded from the network will match the physical configuration by definition; a mismatched state will occur only if a physical change is made after uploading, such as changing a DIP-switch setting. No further manual data entry is required using this method.

For more detailed information, please consult the following Reference section. This additional information will help you recognize and troubleshoot anomalous conditions. It also gives more detailed instructions on how to create and edit new configuration files "from scratch" in the Offline state.

6.1 Secure Connections

The NLB 60E(s), connected to a NomadLink network, can be connected to only one PC running Device-Control. If the preferred or authorized computer is not connected, any computer with DeviceControl installed may access the NomadLink network as long as secure connection functionality is inactive. A secure connection restricts network access to a DeviceControl installation with a password setting that matches the password in the NLB 60E.

A secure connection may be preferred in two situations. First, a secure connection will prevent unauthorized access to the NomadLink network: only a DeviceControl application with a matching password will be able to connect to the network. Also, secure connections can simplify operation and monitoring of two or more completely separate NomadLink systems operating over the same LAN. Several host computers can use the same network, with each DeviceControl application accessing only those NLB 60Es programmed with respective matching passwords.

6.1.1 Enabling secure connections

Secure connection is available in DeviceControl version 2.0.0 and above, and with NLB 60E firmware version 2.0.0 and above. Both are required. Secure connection is disabled as default.

Enabling a secure connection is a two-step process. First, the secure connection option must be enabled manually on each NBL 60E using the front panel keypad. Then a password must be set in DeviceControl for both the host computer and all NLB 60Es with secure connection enabled.

NOTE Once a secure connection is established in DeviceControl, the secure connection will be retained automatically with future software upgrades.

To enable secure connection,
repeat the steps below for all NLB 60Es in the system. DeviceControl must be offline to allow access to front panel functions of the NLB 60E.

1. Press the Select key on the NLB 60E and continue pressing until the Configuration menu appears. Press OK.

2. Press Select and continue pressing until Security appears. Press OK. Press OK for Secure Conn.

NOTE After secure connection is enabled in the NLB 60Es, it is important to immediately enable secure connection in the Device-Control application. The connection is not secure until both steps are completed.

6.1.2 Set password

1. From the main window, select File menu and choose Settings.

2. Click on the Security tab.

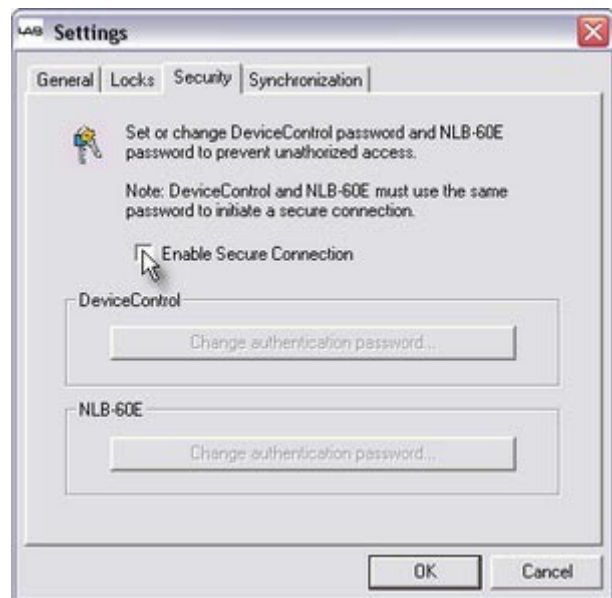3. Check the "Enable Secure Connection" (box Figure 6.1).

Figure 6.1

4. Fill in a password in the "New Password" and "Confirm New Password" fields (Figure 6.2). Press "Set".

5. A new pop up appears "Set NLB 60Es password?" Click on "Yes".

6. The "Set NLB 60E Password" dialog appears.

7. Leave "Old Password" field empty. (No password has yet been set in the NLB 60E).

Figure 6.2

8. Fill in "New Password" and "Confirm Password" with the same password set in step 4. These passwords must be identical to establish connection between DeviceControl and NLB 60Es.

9. Verify that all NLB 60Es are selected.

10. Press Set.

11. Press OK in the Settings dialog. The secure connection is enabled.

6.1.3 Adding additional subnets to a secure connection

Additional subnets may be added to an existing secure connection as follows:
1. Enable the secure connection physically in the additional NLB 60E as described in 6.1.1.
2. Start DeviceControl
3. Choose "Create a new configuration" in the Quick Start menu.
4. From the main window, select Settings from the File menu.
5. Click on the Security tab.
6. Click on "Change authentication password" for NLB 60E
7. The "Change NLB 60E Password" dialog pops up.
   a. Leave "Old Password" field empty. (No password has yet been set in the newly added NLB 60Es).
   b. "New Password" and "Confirm Password" are filled in with the same password set in step 8 in 6.1.2 above. These passwords need to be the same to establish connection

between DeviceControl and the NLB 60Es.
   c. Verify that all added subnets are visible. Press "Deselect All" and select the new (added) subnets only.
   d. Press "Set".
8. Press "OK" in the Settings dialog. Secure connection is now enabled in the additional NLB 60Es.

NOTE You can verify that a secure connection has been enabled by checking the NLB 60E information log via the front panel menu and display. Refer to the NLB 60E Operation Manual for more information.

6.1.4 Disabling secure connections

Use this procedure if you no longer wish to have a secure connection to the NomadLink network.

Disabling secure connection in the NLB 60E

The following steps must be repeated for each NLB 60E in the system.
1. Press the Select key on the NLB 60E front panel until the Configuration menu appears in the display. Press "OK".
2. Press Select until Security menu appears. Press "OK".
3. Press "OK" for "Secure Conn.".
4. Press on Adjust/Set until "Disable" appears. Press "OK" to confirm.

NOTE The previously set password in the NLB 60E is reset (deleted) when the secure connection is disabled. A new password must be set in the NLB 60E when re-enabling a secure connection.

Disabling secure connection in DeviceControl
1. Start DeviceControl
2. Choose "Create a new configuration" in the Quick Start menu.
3. Select "File" and then "Settings…" from the menu bar.
4. Click on the Security tab.
5. Uncheck the "Enable Secure Connection" box.
6. Type password in the "Disable secure connection" dialog.

NOTE Upon completing step 6 above, the password is reset (deleted). A new password

must be entered in this DeviceControl installation when re-enabling a secure connection.

6.1.5 Resetting passwords
Use the procedure below if you want to maintain a secure connection, but change the password.

Resetting the password in the NLB 60E
Repeat these steps for all NLB 60Es in the system:
1. Press the Select key on the NLB 60E front panel until "Configuration" appears on the display. Press "OK".
2. Press Select until "Security" appears. Press "OK".
3. Press on Adjust/Set until "Reset Password?" appears. Press "OK" to confirm.
4. Set new password following the procedure in 6.1.2 above.

Resetting the password in DeviceControl
The password in DeviceControl is deleted (disabled) when Secure Connection is disabled by the procedure described above. Authorization with the old (existing) password is required before a new password can be entered.

The password also is reset when DeviceControl is uninstalled and reinstalled. Entry of the old password is not required. However, depending on the Windows configuration, uninstalling may require authorization from the system administrator.

6.1.6 Verify Secure Connection
To verify the status of secure connection on the NLB 60Es the easiest way is to look at the upload dialog (Figure 6.3).

1. Start DeviceControl
2. Choose "Upload configuration from network" in Quick Start menu.
3. Verify the information in the "Upload Configuration" dialog according to information below

This information is also available in the "Set NLB 60E password" and "Change NLB 60E password" dialogs.

Indicates that secure connection is enabled in this NLB 60E

Indicates that secure connection is enabled and that the password is NOT set in this NLB 60E. This is not a secure connection!
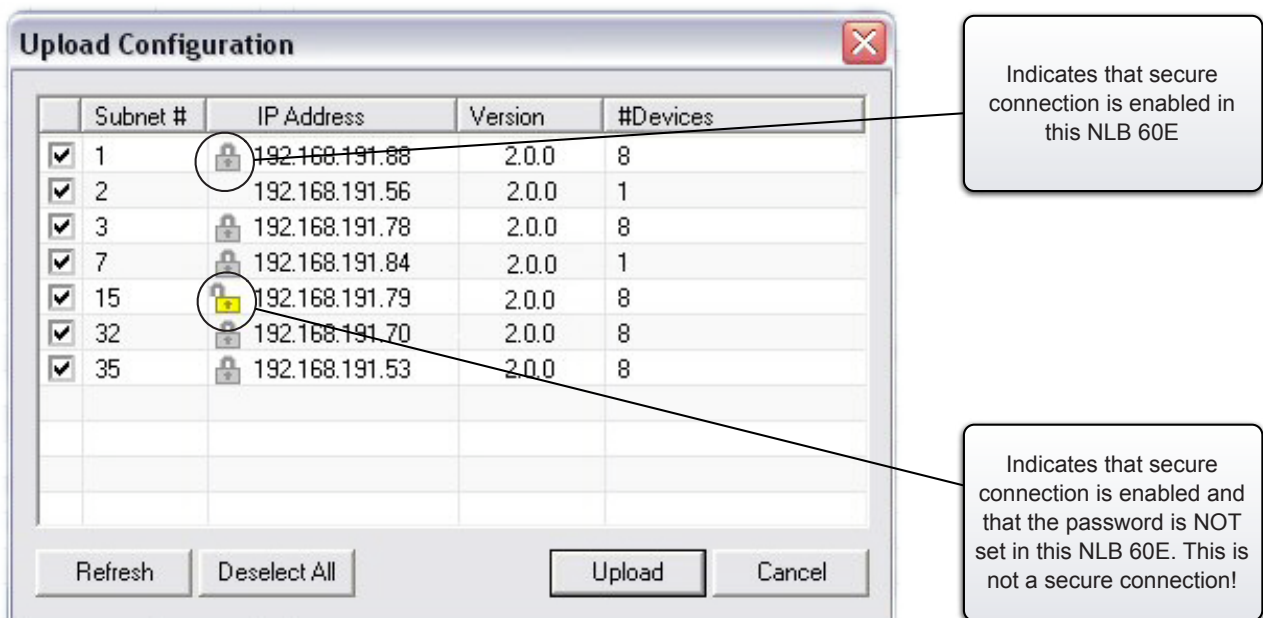
Figure 6.3

6.2 Lock Mode

6.2.1 Overview

DeviceControl functions may be locked to prevent unauthorized or inadvertent changes to either the currently loaded configuration or to the operating status of amplifiers on the network. Two different Lock Modes are provided:

▶ Lock Configuration (blue icon) – No changes to the currently loaded configuration are allowed. Operate functions (power on/off, solo and mute) remain enabled when DeviceControl is Online.

▶ Lock Operations and Configuration (yellow icon) – DeviceControl essentially functions in a "monitor mode". All status, warning and fault indications remain available, but no changes are allowed to the configuration or to any operational function.

6.2.2 Selecting Lock Type

To select the desired Lock Type, open the Settings dialog in the File menu and choose the Locks tab. Select either Operations or Configuration (Figure 6.4).
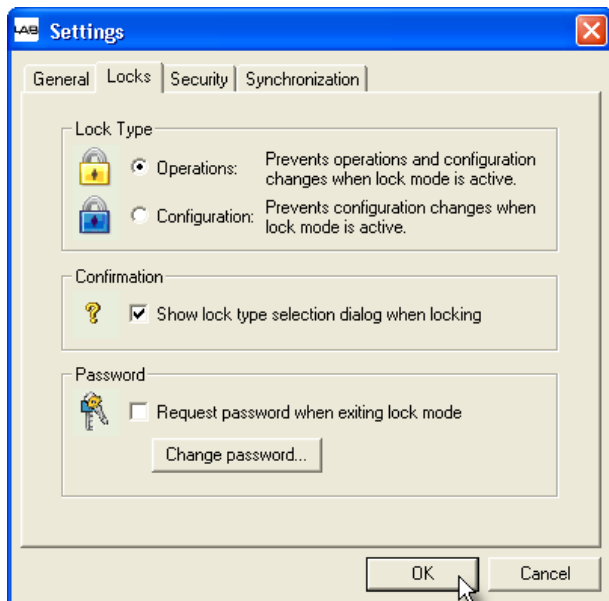
Figure 6.4

6.2.3 Confirmation

A check box on the Locks tab of the Settings dialog allows you to select a confirmation of the Lock Type whenever the DeviceControl application is locked. If checked, the Confirm Lock Type dialog appears each time the Lock function is initiated (Figure 5.5).
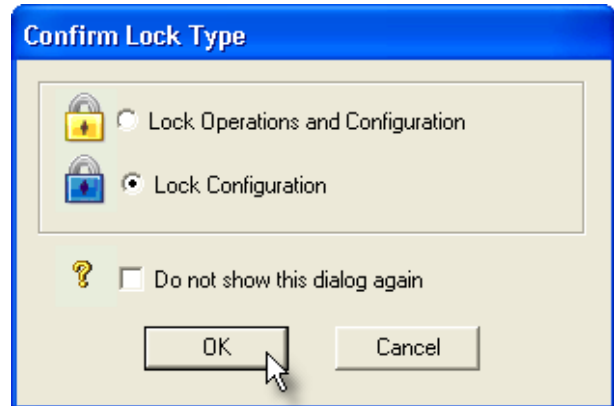
Figure 6.5

DeviceControl can be shut down without exiting Lock Mode. However, it will restart ONLY with the same configuration and state (Offline or Online) as before exiting.

NOTE

6.2.4 Password protection

You may use password to unlock DeviceControl when it is locked in either mode. To enable the password protection feature, click in the checkbox in the Password panel on the Locks tab. If no password has been set, you will be requested to enter one. Entry of the old (existing) password is required to change the password.

⚠ Be certain that you know the correct current password before locking DeviceControl with Password Lock engaged. If you are unable to unlock Operations lock, for example, you will be unable to access amplifier operating functions. You can confirm that you have the correct password by using the Change Password function and entering the same password in both the Old Password and New Password fields.

If you are unable to enter the correct password for any reason, and you must reset it in order to resume operations, your only option is to uninstall and reinstall the DeviceControl application. All other passwords and

NOTE

settings will be lost, including DeviceControl's Secure Connection password.

6.3 Offline and Online states

DeviceControl functions in two basic states: Offline and Online. In the Online state, the application is actively connected to a physical network (one or more subnets) via Ethernet. In the Offline state, the application is not connected to the network.

6.3.1 Selecting Online and Offline states

You may select Offline or Online states using the dedicated buttons on the toolbar. Alternatively, you may select the desired state in the Action menu, or by using function keys F7 (Go Offline) or F8 (Go Online).

6.3.2 Functions allowed in Offline and Online states

Different functions are available in the Offline and Online states. Allowed functions are given in tabular form in Figure 6.6.

Editable Operations	Offline	Online
New	Yes	No
Open file	Yes	No
Save	Yes	Yes
Save as	Yes	Yes
Exit	Yes	Yes
Add device	Yes	Yes
Reassign association, drag n' drop	No	Yes
Rename device	Yes	Yes
Delete device	Yes	Yes
Copy device	Yes	Yes
Cut device	Yes	Yes**
Paste device	Yes	Yes**
Insert	Yes	Yes
Replace with new device	Yes	Yes**
Insert new device	Yes	Yes
Disconnect physical device	No	Yes
Add to configuration	No	Yes
Rename group	Yes	Yes
Delete group	Yes	Yes
Add group	Yes	Yes
Clear group	Yes	Yes
Assign to group (marking)	Yes	Yes
DIP-switches	Yes	Yes
Rename channel	Yes	Yes
Delete Subset	Yes	Yes
Reconnect Subset	No	Yes
Power	Yes*	Yes
Mute	Yes*	Yes
Solo	Yes*	Yes

*Editable on devices in the configuration
**Not available when Online

Figure 6.6

6.4 Device View

6.4.1 Overview

Device View displays a list of all amplifiers (devices) included in the currently loaded configuration file. In the Offline state, only the Configuration is shown. In the Online state, all devices uploaded from the physical network are paired with corresponding devices in the Configuration.

NOTE If the Configuration file is originally created by uploading data from the network, and if no changes are made to either the configuration data or the physical amplifiers (e.g. changing DIP-switches or position in the subnet), then the corresponding fields for Configuration and Physical devices will be identical and matched.

6.4.2 Device View columns

Device name	▲	On	Model	Serial #	Position	Status	Match	Position	Serial #	Model
AF1			C28:4	00000146	32 : 1			32 : 1	00000146	C28:4
AF2			C28:4	00000147	32 : 2			32 : 2	00000147	C28:4
AF4			C28:4	00000149	32 : 3			32 : 4	00000149	C28:4
AF5			C28:4	00000150	32 : 4			32 : 5	00000150	C28:4
AF6			C28:4	00000151	32 : 5			32 : 6	00000151	C28:4
AF7			C28:4	00000152	32 : 6			32 : 7	00000152	C28:4
AF8			C48:4	00000153	32 : 7			32 : 8	00000153	C48:4
AF8			C28:4	00000148	32 : 8			32 : 3	00000148	C28:4

Device name

A default device name is assigned when uploading data from the subnet, or when configuring a new subnet file in Offline state. (Default name for subnet 1 is the letter A plus numbers assigned in order; for subnet 2 default name is letter B plus succeeding numbers, etc.). Devices may be renamed as discussed in Section 5.3.5.

NOTE After synchronizing a saved configuration with a physical network, any amplifiers not in the configuration will show in Device View as "Outside Configuration". Amplifier(s) will be identified in the Physical column. Mute and Solo commands to the subnet will apply to these amplifiers as well, but not power on/off commands.

Power on/off control and indicator

This button toggles amplifier power on and off. Appearance of the button depends on current DeviceControl mode and amplifier status, as shown in Figure 6.7.

Unconnected (Offline state and Edit mode)

The configured setting is power on and physical status unknown.

The configured setting is power off and physical status unknown.

Connected and synced (Online state and Operate mode)

Connected and synced (Online state and Operate mode)

The configured setting is power off and device is power off.

The configured setting is power on and device is power off.

The configured setting is power off and device is power on.

Unknown device

The device is unknown and its settings are not changeable or readable

Figure 6.7

Model and Serial Number
The model number is entered automatically when uploading a subnet into the configuration, or when creating or editing a configuration. Serial numbers are uploaded from the network only, and are entered on the Configuration side when a match is established.

Status
This column indicates the status on devices in the Configuration and on the Physical network. Status indications are as follows:

⬤	Not connected but associated with physical device
⬤	Device outside configuration (Online state)
⬤	Not connected to physical device
⬤	Connected with a physical device but parameters not synchronized
⬤	Connected with a physical device with parameters synchronized
⬤	Device is firmware uncontrollable, possible firmware fault

DIP-switch Match
DIP-switch Match is active only in the Online state. The indicator color represents the status of detected Physical DIP-switch settings when compared to the corresponding Configuration settings.

🟩	DIP-switch match OK
🟨	DIP-switch mismatch warning
🟥	DIP-switch mismatch fault

DIP-switch status warnings and faults are discussed in Section 6.7.3.

6.4.3 Editing Functions in Device View

Overview
DeviceControl provides tools for creating an offline configuration "from scratch", or for editing an existing configuration. With these tools, you can create a "virtual amplifier system" for a specific application. The pre-configured "virtual system" then can be matched

to the new physical configuration. DeviceControl's match function ensures that the physical amplifier racks were configured correctly.

Add Device
To add a device to the configuration, click on the Add Device button on the toolbar. Alternatively, you may select "Add new device" from the Edit menu, right-click and select from pop-up menu, or press the Alt+D keys. An "Add Device" command displays this pop-up window (Figure 6.8).

Select the amplifier type. If the device is to be placed in a new subnet, select this option. A new subnet will be created automatically. The device will be placed in the first open position in the existing subnet or in the new subnet.

Figure 6.7

Insert Device
This function is similar to Add Device, except the new device is inserted immediately before the currently selected device. The position numbers of succeeding devices are increased by one.

Replace Device
This function is similar to Add Device, except the new device replaces the currently selected device.

Copy, Paste, and Paste to subnet…
You may select any device and use the Copy and Paste functions to replace another device with the copied device type and name. Use the "Paste to subnet" menu command to paste the selected and copied device into a new subnet.

NOTE If a subnet is full, the Add, Insert and Paste functions will be disabled for that subnet.

Drag and Drop assignment and reassignment

You also may assign and reassign channels to groups using drag and drop in the Tree View. See Section 6.9.3.

6.4.4 Matching to the physical subnet

A transition from the Offline state to Online state automatically initiates the match function. Device-Control checks the network for physical subnets (NLB 60Es) to match the subnet configuration. If no matching subnet is detected, the "connect to subnet" dialog box is presented.

When the subnet is matched, DeviceControl compares the configured devices to the physical devices in the same position. Match status is then shown for each configured and physical pair as described in Section 6.4.2.

6.4.5 Device Sorting

Devices may be sorted in the list by selecting any column heading (Device name, Model, etc.) by clicking in it. An arrow will indicate sorting in ascending or descending order. Clicking on the same column heading again will reverse the sort order.

6.4.6 Disconnecting devices for drag-and-drop reassignment

You may disconnect a physical device from its corresponding configured device by using the "Disconnect physical device" option in the Action menu. This moves the physical device outside the configuration. Disconnection only breaks the association between a configured device and the physical amplifier in DeviceControl; the operating status of the physical amplifier is not affected.

Disconnecting a physical device removes it from the configuration and allows it to be added to the configuration as a new device, moved elsewhere in the configuration. Using drag-and-drop, it may be assigned to a different configured device (of the same model number) if that configured device is not currently assigned to another physical device.

Disconnection allows quick, drag-and-drop swapping or replacement of configured devices if an inadvertent

mismatch shows on Synchronization. This can occur when a configured amplifier system does not match the physical amplifier system, as in this example:

1. A configuration is created offline using the Add Device command. Different devices in the configuration are configured with different group assignments and DIP-switch settings.
2. When going online, it is evident that devices (amplifiers) A and C in the configuration are not properly matched to the corresponding physical devices on the network, those occupying positions 1 and 3 in the network. Instead, configured amplifier A corresponds to physical amplifier 3, and vice versa.
3. To correct the problem, simply select device A and choose "Disconnect physical device". Repeat for device C. Both now show as "Outside configuration".
4. Using drag-and-drop, place the two physical devices in their proper positions. A green "match" icon will show. When the configuration is saved, the devices will be assigned to the correct positions by matching serial numbers.

NOTE A device currently outside the configuration may be added back into the configuration as a new device. Select the device, right click, and choose "Add to configuration" (Figure 6.8).

6.5 Channel View

6.5.1 Overview

Channel View (Figure 6.9) displays all channels of all amplifiers included in the current DeviceControl configuration. Channels A-D are shown for four-channel models, and A-H for eight-channel models. Bridged channels will show as adjacent pairs, from A/B (two-channel amplifiers) up to A/B through G/H for eight-channel amplifiers. Channels may be re-named as described in Section 5.3.5.

6.5.2 Forming Channel Groups

The primary function of Channel View is to allow formation of Channel Groups. Any number of Channel Groups may be formed using the Add Group command. Any number of channels may be assigned to each Channel Group. A selected channel may be assigned to multiple Channel Groups, if desired.

To add a new Channel Group, click on the Add Group button in the toolbar. Alternatively, you may select Add New Group from the Edit menu, or use the Alt+G keyboard command. New Channel Groups may be re-named as described in Section 5.3.5.

To assign a channel to a Channel Group, click in the checkbox to the right of the channel in the column of the desired Channel Group assignment.

NOTE The System group (all channels in the configuration) and Subnet Group (all channels in the subnet) are not shown here as no options are available for reassignment.

Configuration					Channel groups		
Channel name ▲	Ch	Model	Serial #	Position	PreF A	PreF B	Restrooms
AP1 - A1:A1	A	C16:4	00075837	1 : 1	✔	☐	☐
AP2 - A1:B1	B	C16:4	00075837	1 : 1	✔	☐	☐
AP3 - A1:C1	C	C16:4	00075837	1 : 1	✔	☐	☐
BP1 - A1:D1	D	C16:4	00075837	1 : 1	☐	✔	☐
BP2 - A2:A2	A	C16:4	00075838	1 : 2	☐	✔	☐
BP3 - A2:B2	B	C16:4	00075838	1 : 2	☐	✔	☐
BP4 - A2:C2	C	C16:4	00075838	1 : 2	☐	✔	☐
AR1 - A2:D2 Restroom	D	C16:4	00075838	1 : 2	☐	☐	✔
AR2 - A3:A3 Restroom	A	C10:4X	00075945	1 : 3	☐	☐	✔
BR1-2 - A3:B3 Restroom	B	C10:4X	00075945	1 : 3	☐	☐	✔
BR3 - A3:C3 Restroom	C	C10:4X	00075945	1 : 3	☐	☐	✔
BR4 - A3:D3 Restroom	D	C10:4X	00075945	1 : 3	☐	☐	✔

Figure 6.9

6.6 Group View

6.6.1 Overview

Group View (Figure 6.10) is the primary view used for real-time operation and monitoring when a system configuration is online. The intuitive graphical presentation of groups and channels allows quick recognition of warning and fault conditions, and allows immediate access to Mute and Solo commands for all channels on the network as well as for all subnets, groups and individual channels.
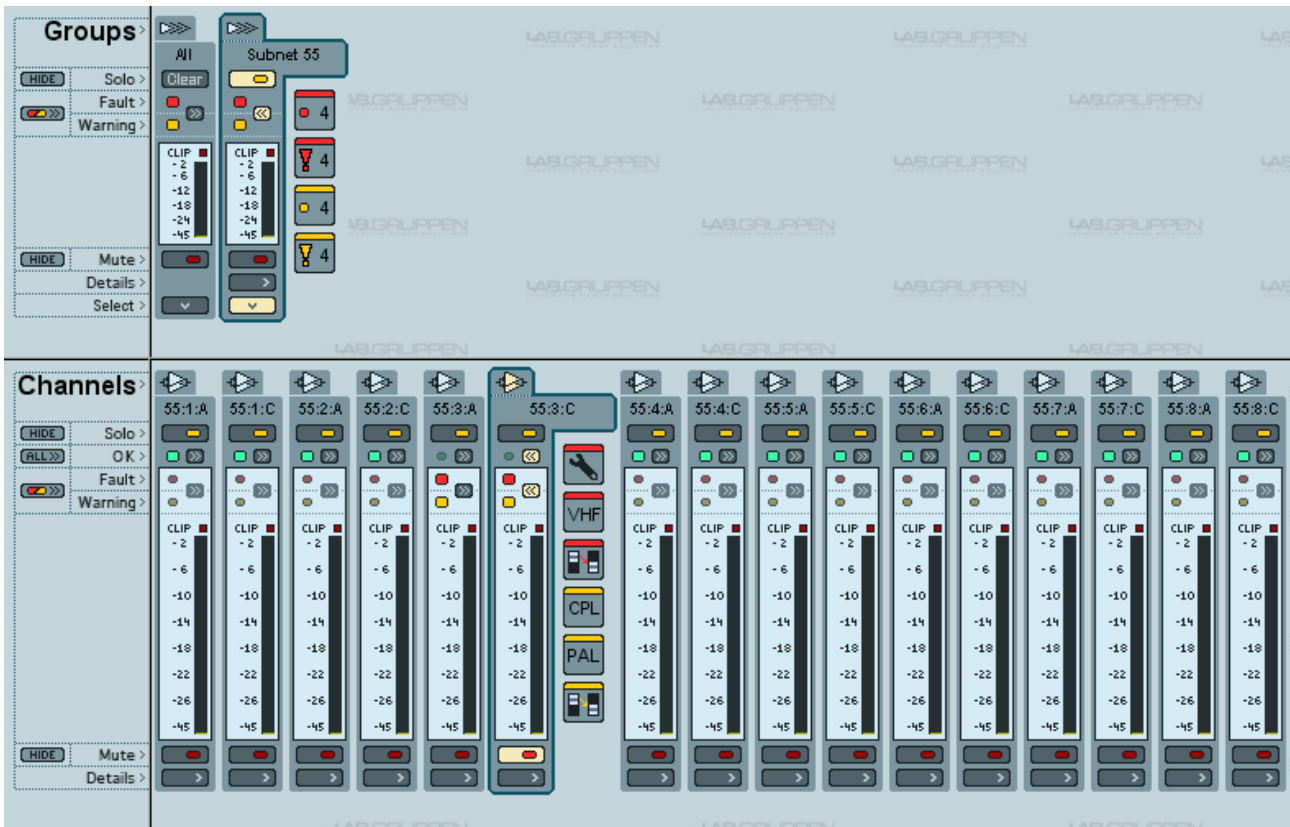
Figure 6.10

6.6.2 Group View buttons and functions

⟫	Press to display current fault and warning icons for the Group or Channel
⟪	Press to hide current fault and warning icons for the Group or Channel
ALL⟫	Press to display any current faults or warnings on all channels
Clear	Press to clear Solo on any Group or Channel (All module only)
⟫	Press to show all currently active fault and warning icons by expanding all modules to show a fault/warning detail row
⟪	Press to hide all current faults and warnings
■	Press to Mute an individual channel or all channels in the Group. Toggles with ■
▬	Press to Solo an individual channel or only channels assigned to the Group soloed. Toggles with ▭
HIDE	Press to hide (disable) Solo or Mute button functions. Toggles with SHOW
SHOW	Press to enable Solo or Mute button functions. Toggles with HIDE
>	Press to display Details view for Subnet, Group or Channel
✓	Selects which group of channels is shown

6.6.3 Group View fault and warning indicators

🟩	No fault or warning conditions for the Channel or Group
🟨	Warning condition for the Channel or Group
🟥	Fault condition for the Channel or Group

6.6.4 Channel faults and warnings

Faults

OFF	Off fault	Device is off but should be on
🔧	Service	Fuse blown in device. Service required
Temp	Temp fault	Muted from over-temperature
VHF	VHF fault	Muted due to excessive Very High Frequency output
Lo-Z	Short circuit	Muted due to short circuit
📟	Wrong DIP-switch setting	Verification fault on DIP-switches (critical)

Warnings

	Offline	Offline warning (no network connection)
	DIP-switch not read	Not verified (present when amplifier not turned on)
	On warning	Amplifier on, configured power off
	Temp warning	High but not muted
	High impedance	Possible wiring disconnect
	Current limit	Current Peak Limiter (CPL) active
	Power Average Limiter	Power Average Limiter (PAL) engaged
	Wrong DIP-switch settings	Verification warning – DIP-switches (non-critical)

6.6.5 Group and Subnet warning and fault icons

When expanded (Figure 6.10) the Group module indicates any current faults and warnings in any Group channels with the following icons:

Faults (red)

	→			Fault(s) in number of channels indicated. If more than 8, >8 is displayed
	→			Match fault(s) in number of channels indicated. If more than 8 channels, >8 is displayed

Warning (yellow)

	→			Warning(s) in number of channels indicated. If more than 8, >8 is displayed
	→			Match warning(s) in number of channels indicated. If more than 8 channels, >8 is displayed

When expanded (Figure 6.10), the Subnet module indicates any additional Subnet faults or warnings with the following icons:

Faults (red)

	Communication errors	
	Subnet current limited	

Warning (yellow)

	Not closed loop	

6.6.6 Level meters and clip LEDs

Channel module level meters and clip LEDs indicate level for that channel. Level meters and clip LEDs on the Group and Subnet modules indicate highest meter value of any channel in the Group or Subnet.

6.7   Power Groups View

6.7.1 Overview

The Power Groups View displays Power Groups in the upper pane and all included devices in each selected group in the lower pane. Size of the upper pane may be adjusted by clicking and dragging on the bar between the upper and lower pane.

A number of Power Groups are created by default. These include a group containing all of the Subnets in the configuration (System) and groups that correspond to each individual Subnet.. Additional Power Groups may be created by the user. Power Groups may be renamed, and the same device may be assigned to more than one Power Group. To access the Power Group View, press the Power button on the Toolbar.

6.7.2 The Groups pane

The upper pane (Figure 6.11) shows the default groups and all groups created for the configuration. The On and Off buttons control power for all devices in the group. If power sequencing is selected in the NBL 60E for the subnet, then power on will be sequenced as programmed.

Configuration		
Group name ▲	On	Off
▷ System	▭	▭
▷ ACP05 Subnet 5	▭	▭
▷ GBR	▭	▭
▷ PreF and Support	▭	▭

Figure 6.11

6.7.3 The Configuration pane

Each selected Power Group's devices are shown in the lower pane (Figure 6.12). New groups are formed using the Add Group button in the toolbar. Devices are assigned to groups by clicking in the checkboxes. Individual amplifiers may be turned on and off using the On button.

Configuration						Power groups	
Device name ▲	On	Model	Serial #	Position	Status	GBR	PreF and Support
▷ 17 GBR G1-4	▭	C16:4	00066779	5 : 1	⊕	☑	☐
▷ 18 GBR G5-8	▭	C16:4	00066621	5 : 2	⊗	☑	☐
▷ 19 GBR G9-12	▭	C16:4	00066778	5 : 3	⊗	☑	☐
▷ 20 GBR G13-16	▭	C16:4	00066792	5 : 4	⊗	☑	☐
▷ 21 GBR G17-20	▭	C16:4	00066634	5 : 5	⊗	☑	☐
▷ 22 GBR G21-24	▭	C16:4	00066782	5 : 6	⊗	☑	☐
▷ 23 GBR G25-28	▭	C16:4	00066794	5 : 7	⊗	☑	☐
▷ 24 GBR G29-32	▭	C16:4	00066625	5 : 8	⊗	☑	☐
▷ 25 GBR G33-36	▭	C16:4	00066630	5 : 9	⊗	☑	☐
▷ 26 GBR 37-40	▭	C16:4	00066787	5 : 10	⊗	☑	☐
▷ 27 GBR G41-44	▭	C16:4	00075836	5 : 11	⊗	☑	☐
▷ 28 GBR G45-48	▭	C16:4	00066791	5 : 12	⊗	☑	☐
▷ 29 GBR Rooms	▭	C20:8X	00075907	5 : 13	⊗	☐	☑
▷ 30 GBR PF GP1-4	▭	C28:4	00080808	5 : 14	⊗	☐	☑
▷ 31 GBR PF GP5-8	▭	C28:4	00080807	5 : 15	⊗	☐	☑

Figure 6.12

6.8 Device View

6.8.1 Overview

The Details View displays detailed information on the selected Device, Channel or Subnet. Details View can be accessed as follows:

▸ Press Details button on toolbar while in Device or Power View. Details of the selected device will be shown.

▸ Press Details button on toolbar while in Channels View. Details of selected channel will be shown.

▸ Press Details button on any Subnet or Channel module in the Group View. Details of selected subnet or channel will be shown. Alternatively, Details are accessible by double-clicking on any Subnet or Channel in the Tree View.

6.8.2 Subnet details

The NLB 60E Info tab (Figure 6.13) displays information on the NLB 60E controlling the subnet. Normally this information is uploaded from the network and matches by default. Status of Secure Connection (enabled or disabled) is shown.

Figure 6.13

6.8.3 Device details

The Device Info tab displays the status of the configured device and the physical device. Matched devices will have identical information in corresponding fields (Figure 6.14)
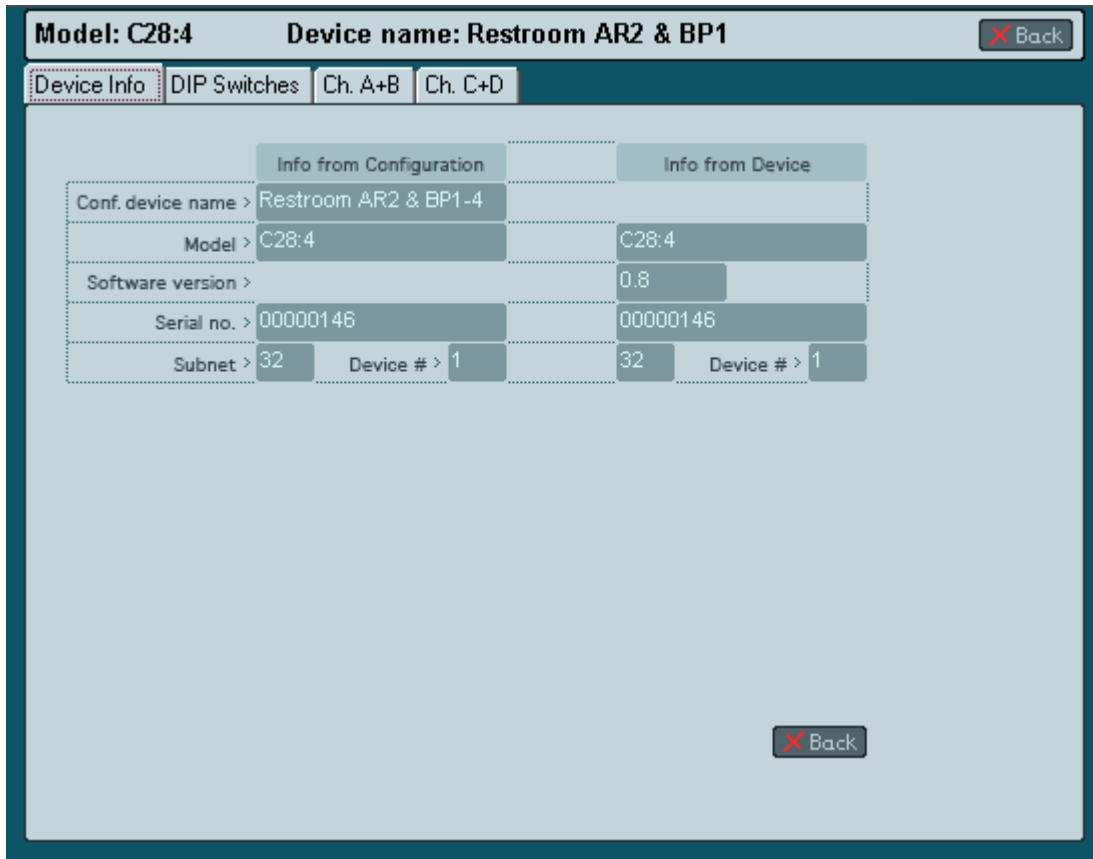

Figure 6.13

The DIP-switches tab (Figure 6.14) displays DIP-switch positions of the configured device and the matched physical device, if any. Physical device status is shown only when power is on. Positions of DIP-switches may be changed on a configured "virtual" device by clicking on them. Any resulting mismatch is indicated by a red fault or yellow warning LED. The Power and sensitivity calculator shows output power and input sensitivity for the configured DIP-switch settings. Refer to specific amplifier Operation Manuals for more information.
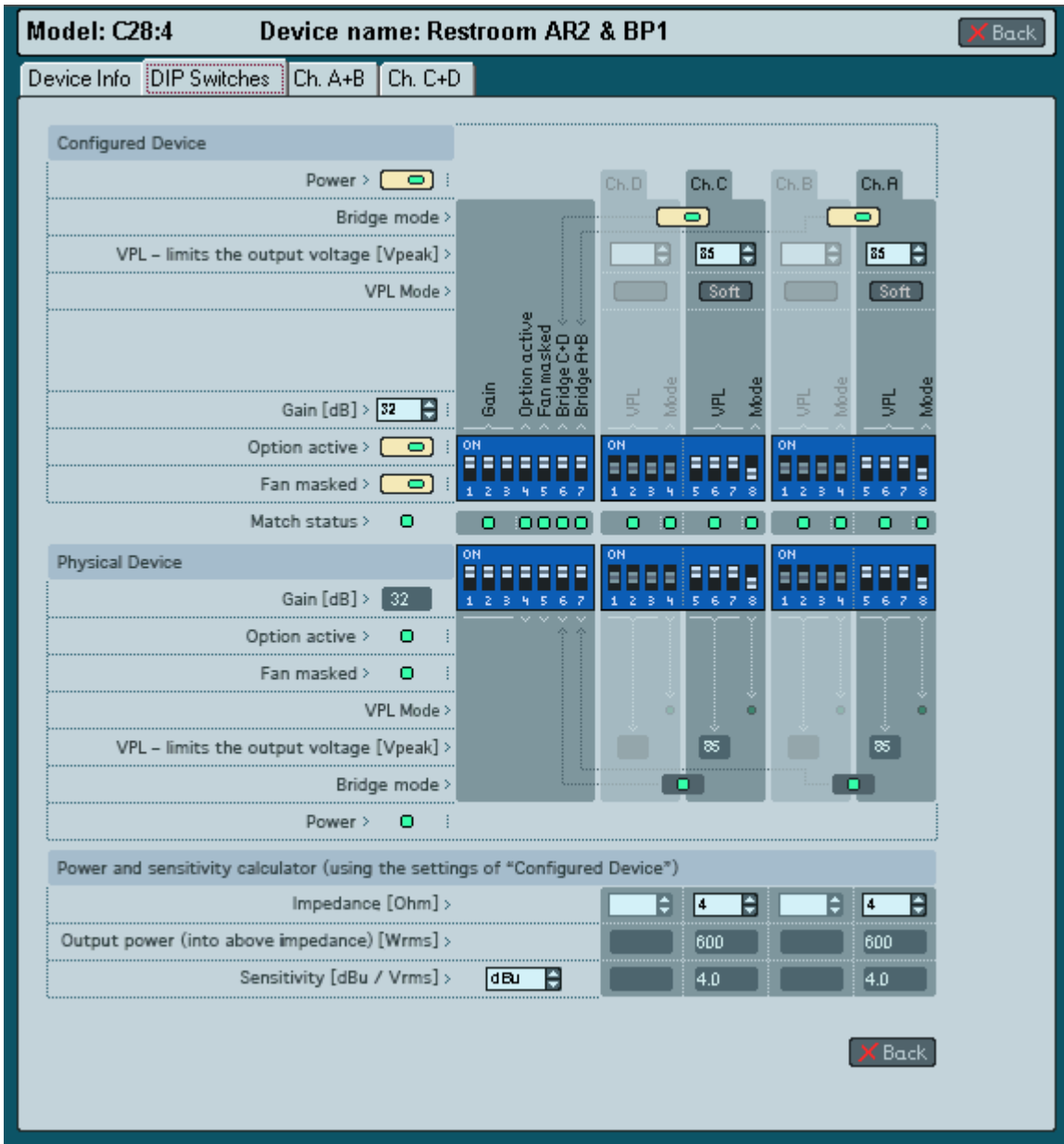

Figure 6.14

NOTE Position of physical amplifier DIP-switches cannot be changed by DeviceControl.

The Channel tab (Figure 6.15) shows the level meter, temperature, and fault or warning indication. Solo and Mute buttons are active when the device is on and DeviceControl is active.
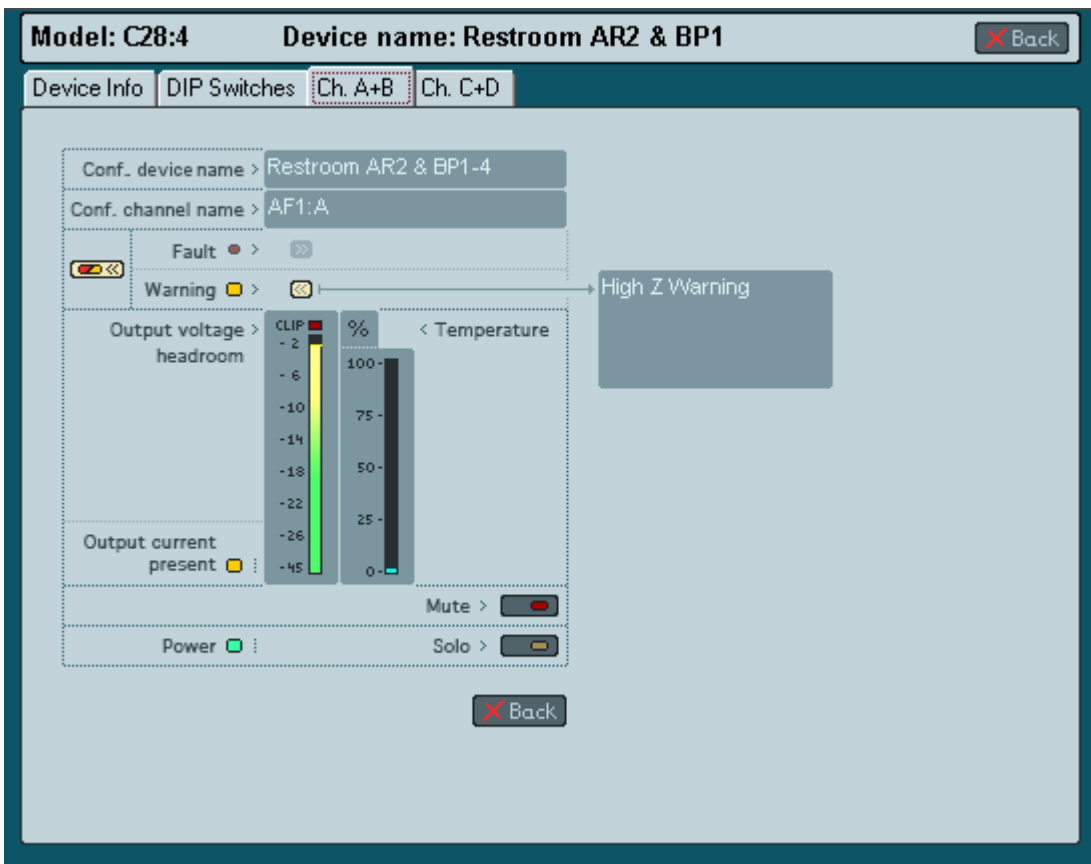

Figure 6.15

6.9 Tree View

6.9.1 Overview

The Tree window (Figure 6.16) provides an expandable and collapsible Tree View of the current configuration file. The Tree window may be opened or closed using the Tree View icon in the toolbar. The Tree in collapsed view shows three divisions: Channel Groups, Power Groups and NomadLink Network. Channel Groups shows the default (non-removable) All and Subnet, as well as any other configured groups. Power Groups shows the non-removable groups as well, along with the user defined Power Groups. NomandLink Network shows all configured subnets, even if no corresponding physical subnet is connected. Expanding a subnet by clicking on the icon displays all devices in the subnet configuration.

6.9.2 Functionality

Tree View provides quick access to details for any channel or subnet. Double click on the channel or subnet icon to bring up the Detail View. Groups, subnets, channels and devices may be renamed in Tree View. To rename, right-click on the default name or select it and press F2.

6.9.3 Drag-and-drop group assignment

You may assign channels to Channel Groups by using drag-and-drop in Tree View. Click on a channel of any device showing in the network and drag it into a group to assign it to that group. You may assign all channels of a device by dragging the device into the group. A channel or Channel Group may also be dragged into a Power Group to form a new Power Group with all devices included in the Channel Group.

You may assign devices to Power Groups using drag-and-drop in Tree View. Select the device from the list in a Subnet under Network and drag into the desired Power Group. A Power Group may be dragged into a Channel Group to form a Channel Group of all included channels from the devices in the Power Group.
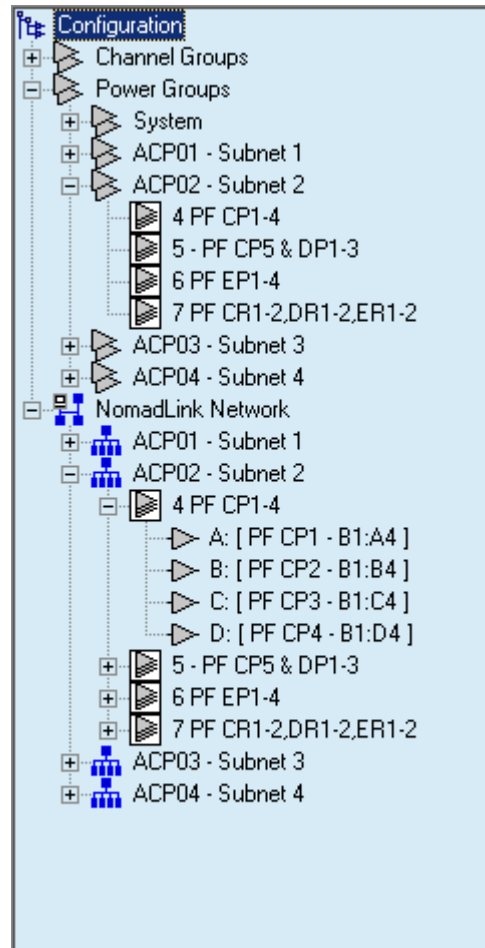

Figure 6.16

6.10 Settings Dialog

6.10.1 Overview

Click the General tab (Figure 6.17) to change the sorting method in Tree View, Group View and Power Group View. When new groups are created by users, they are listed in numeric order as created by default. Click in the checkbox if you wish to change to alphabetical sorting by name.

User defined Power Groups retain alphabetical order, even if the Subnet Groups are renamed.

6.10.2 Locks

The Locks tab enables Lock functions and password protection for Lock. See Section 6.2 for details on locking DeviceControl.

6.10.3 Security (Secure Connections)

Use the toolbar Lock icon to lock or unlock DeviceControl. Alternatively, you can click on Lock Device Control in the View menu, or use the keyboard command Ctrl+L.

6.10.4 Synchronization

Click on the Synchronization tab to select your preferred mode for synchronizing system configuration with physical devices. For more information, see Section 5.3.10.
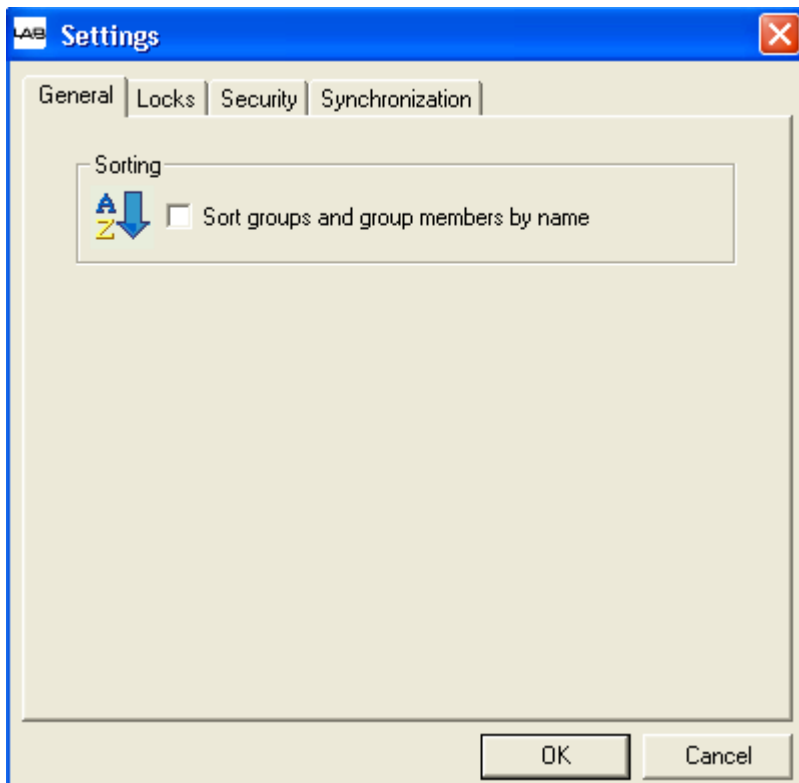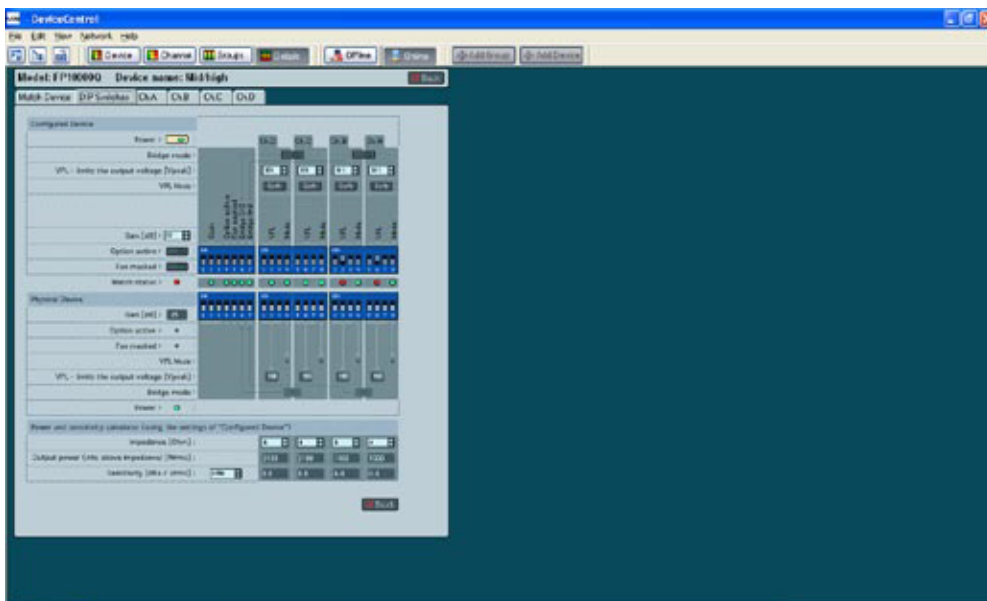

Figure 6.17