i-SERIES

DSPControl SOFTWARE

CAMCO

MADE IN GERMANY

User manual for the DSPControl software

TDA30XDSPCGBD

Revision D, 2015-01-07

Please visit our website www.camcoaudio.com for the latest version of this user manual. Please note that the leading version of **CAMCO** manuals is always the English one.

Contents

1. WELCOME!

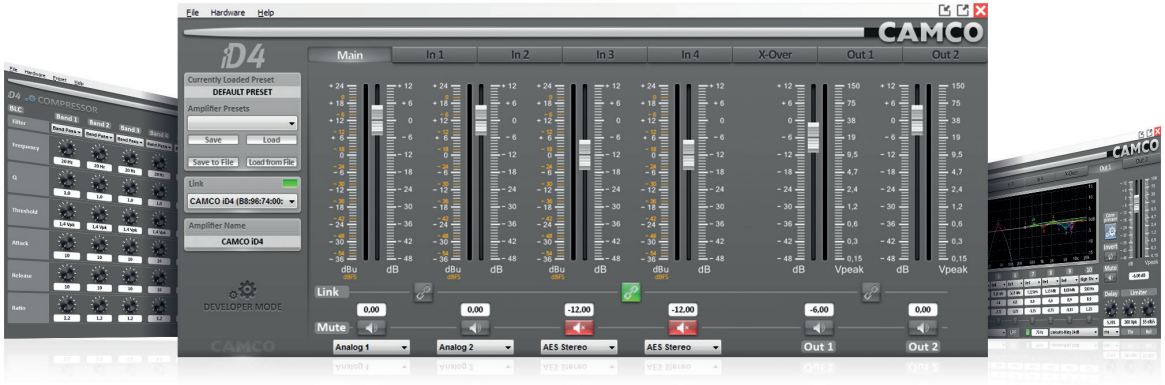
Welcome to the DSPControl remote application for your ***iD4***/***iD7*** amplifier!

This manual will guide you through the user interface elements and will explain how to organise, backup and restore your Presets and amplifier settings.

Additionally, it will describe the ***iD4***/***iD7*** Preset and amplifier protection concept. This can be used for example to efficiently keep your Preset's EQ and limiting settings safe, or if you simply want to prevent normal User's from changing any important amplifier settings they shouldn't touch.

We assume that you are familiar with basic Pro Audio signal processing options, so the functionning and available parameters of the rich EQing, filtering and limiting settings will not be outlined in detail in this manual. But be assured that you have purchased a product featuring the latest state-of-the-art DSP performance with full 96 kHz/24 Bit resolution. Especially the 6-channel multiband-compressor in the output section gives you an outstanding tool to control and protect your loudspeakers.

Efficient loudspeaker excursion control and long-term RMS power limiting for low, mid and high frequency are the key benefits of the powerful limiting section, thus allowing you to create tailored Presets with full loudspeaker protection and at the same time maximum output power performance.



DSPControl software installation instructions

This chapter describes the installation of the DSPControl software and updating of the amplifier's firmware. For installing the DSPControl software there is no need to have an amplifier connected. But for updating the firmware on your ***iD4*** / ***iD7*** amplifier, those units have to be connected via Ethernet of course.

Installation requirements

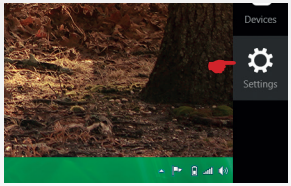
The following operating systems are supported:
– Windows XP with Service Pack 2
– Windows 7 (32 bit and 64 bit)
– Windows 8 (32 bit and 64 bit)
– Mac OS X 10.5.8 or higher

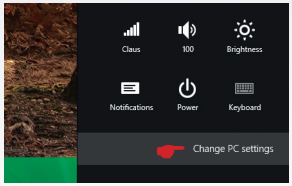
Windows

Download the installation package for your Windows version from our website and open it. The installer will guide you through the installation procedure. It is not needed to remove any older versions, they will be removed automatically. You will need administrator privileges for installation.

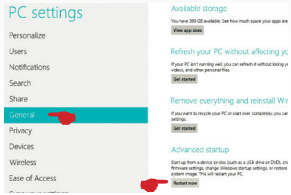
Windows 8 (Disabling Signed Driver Enforcement)

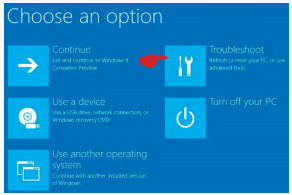
Unlike previous versions of the Windows, Windows 8 imposes strict limitations on driver signing. Because of this, unsigned drivers require some extra steps for installation. You will need to restart your computer several times throughout the course of these instructions.





❶ Hold down the Windows key on your keyboard and press the letter "C to open the Charm menu, then click on "Settings".
❷ Click "Change PC Settings".



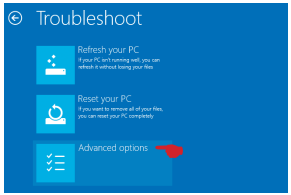


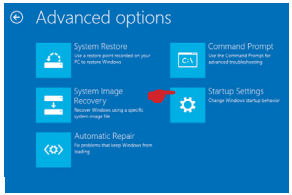
❸ Click "General" und then under Advanced startup click "Restart Now".

Note

In Windows 8.1, the "Restart Now" button has moved to "PC Setting → Update & Recovery → Recovery".

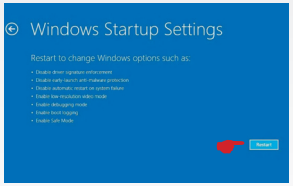
❹ After restarting, click "Troubleshoot".

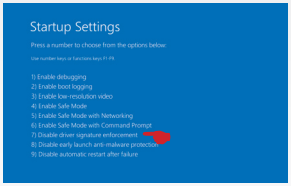




❺ Click "Advanced options" and afterwards "Startup Settings".

2. INSTALLATION INSTRUCTIONS





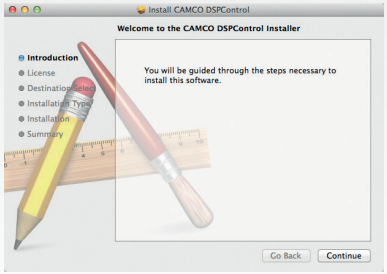
❻ Click “Restart”.

❼ After restarting your computer a 2nd time, choose “Disable driver signature enforcement” from the list by typing the number 7 on your keyboard. Your computer will restart automatically.

❽ After restarting, you will be able to install the DSPControl application normally; however, Windows will display a warning message. When the warning message appears, click “Install this driver software anyway”.

Note

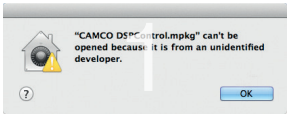
The next time you restart your computer, driver signature enforcement will be in effect again.

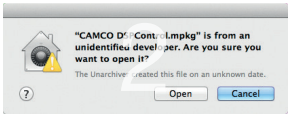


OS X

Download the installation package for OS X from our website, unpack and open it.

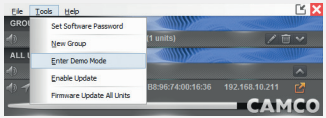
With OS X 10.7 or higher you might get a message (❶) that you can't open the installer due to the standard security settings under OS X.





If you see that message, just rightclick the installer icon and select “Open” from the context-menu. Then click the “Open”-button of the verification-dialog (❷) and there you go.

The installer will guide you through the installation procedure. During the installation process you will get asked to enter your system password, so it will be handy to have this ready. It is not needed to remove any older versions, they will be removed automatically.



Demonstration mode

Once installed, the DSPControl software offers a fully functional demonstration mode, which allows you to explore all features without having to connect an amplifier. In this mode it is possible to load and save Presets from and to your computer. The demonstration mode is limited to the User mode access level. It can be activated from the network window menu bar "Tools → Enter Demo Mode".

Backing-up Presets

Installing a new version of the DSPControl software will *not* touch any Presets stored on your ***iD4***/***iD7*** or computer.
But we recommend to create a backup of all amplifier Presets and settings in case you want to update the amplifier firmware.

Note that if the current access level doesn't have the access right to update the amplifier's firmware, you will not be able perform firmware updates of course.

Updating the *iD4*/*iD7* firmware

There are three ways to start the firmware update procedure:

❶ All at once via the network window's menu bar

By selecting "Tools → Firmware Update All Units" from the network window's menu bar, you have the possibility to update the firmware of all connected ***iD4***/***iD7*** amplifiers with just one click.
The update will only be carried out in case there is a newer version available.

❷ Via the network window's update button for a specific amplifier

From the network window's menu bar you can select "Tools → Enable Update" to display the update buttons. If the update button is shown orange, the unit's firmware can be updated, otherwise the button is greyed out (which means the firmware is already up-to-date or that you don't have the right to do the update). Simply click on the update button (orange) of the unit you want to update.

⚠ Attention

When updating the firmware from the network window, all connected amplifiers will be reset to factory settings and all amplifier Presets will be erased.

❸ Via the main control panel's menu bar

Open the amplifier's main control panel and select the menu "Unit → Firmware Update" to start the update.
Starting the firmware update from the amplifier's panel will always carry out an update, even if the firmware is already up-to-date.

If you perform a firmware-update on your ***iD4***/***iD7*** amplifier from the main control panel, the update process has the option to backup and restore the amplifier's Presets automatically (availbale from version v3.6.5 or higher – please see the release notes for details).

Update process

During the update process, ticks and pops may occur, dependig on the hardware. So please disconnect your loudspeakers to avoid discomfort or even damage. Make sure that no other units are power cycled during the update process, this may disturb the process.
If the update process is interrupted or fails for any reason (even in case your unit would not start up anymore) you can repeat the process at any time. Switch off your hardware and close the software, restart your unit and repeat the process.

The update of your ***iD4***/***iD7***'s firmware without the automatic backup and restoring should be finished in about one minute (depending on your hardware and connection speed).
Using the feature to automatically backup and restore the amplifier's Presets might increase the updating time considerably, depending on how much Presets are stored inside the ***iD4***/***iD7*** amplifier.

2. INSTALLATION INSTRUCTIONS

Uninstalling the DSPControl software

Windows

To uninstall the **CAMCO** DSPControl software from your computer, select "Start → All Programs → CAMCO → Uninstall DSPControl". Alternatively, you can run the installation setup again to repair or remove the application.

OS X

Just go to your applications folder (standard) or the folder in which you have the software installed and remove the DSPControl application by moving it to the trash.

Windows 7

On some Windows 7 installations, you have to run the program as administrator to connect to the hardware correctly.

New versions / updates

Please visit the downloads section of our website to check for new versions of the DSPControl software.

Release notes

This is a list of changes, bugfixes, and known issues since version v3.1.9 related to your DSPControl software and the firmware for your ***iD4***/***iD7***.

⚠ Important

Due to some changes in the Preset structure it is neccesary to follow a certain procedure to transfer your old Presets from version v3.1.9/v3.1.9.1 to the the new version v3.6.5 (or higher). Old Factory files created in these versions and prior are not compatible anymore and need to be re-created with the new version v3.6.5 (or higher).

How to transfer my old Presets from version v3.1.9/v3.1.9.1 to the new version v3.6.5 (or higher)?

1. Save your Presets with the old version v3.1.9 or v3.1.9.1 (one by one or use the Backup Presets option).
2. Install the new version v3.6.5 (or higher) on your computer.
3. Open the software and carry out a firmware update *without* creating an automatic backup of all amplifier settings.

Note

The automatic backup and restore function (available when doing a firmware update from the amplifier panel) will not work for transferring old Presets. This feature should only be used for updates from v3.6.5 to the same or higher versions.

4. Then manually load your Presets back into the amplifier (one by one or with the "Backup all Presets from Folder" option).

Optional:

5. Switch to Developer mode.
6. Set the new Preset level access rights (to lock/unlock input and output access) to your needs for *each* Preset individually by:
   - → Loading the Preset in the amplifier
   - → Setting the desired User and Admin access rights and Admin and Developer custom passwords (optional)
   - → Saving the Preset inside the amplifier

Note

Locking Input and Output channel access now is stored inside each Preset individually, not anymore inside the Unit access rights.

How to create a new Factory File?

1. Load the Factory File in to your amplifier with version v3.1.9 or v3.1.9.1
2. Transfer all your Presets to the new version and set the Preset access rights as decribed above
3. With v3.6.5 (or higher) restore all Unit level access rights and passwords to your previous settings manually
4. Create a new factory file (from Developer mode)

3. RELEASE NOTES

v3.7.0

Changes
- Support for ***iD7*** amplifiers
- Encryption of Presets, backups and factory files when storing to computer's hard drive for enhanced security
- Option to clear all user or factory Presets in Developer mode

⚠ Important

Presets, backups and factory files once stored with v3.7.0 (or higher) will not be readable with any previous versions. But stored files from previous software versions are fully compatible of course.

v3.6.6

Fixed issues
- Compatibility issue with OS X Mavericks: When restarting the application, previous versions would not reconnect without a restart of the system

v3.6.5

Changes
- Simplified Unit and Preset access rights options
- Automatic backup and restore of all amplifier settings when doing a firmware update (optional)
- Reorganised menu structure and renamed menu entries
- Possibility to erase all Presets in Developer mode

Fixed issues
- Improved Preset backup and restore functions. Now more robust even with bad network connection
- Several bugfixes and improvements

v3.5.6*

Changes
- GUI (Graphical User Interface) facelift
- Dual bargraph scaling in dBu and dBFS for all input bargraphs
- All parameters can be accessed and changed again from the amplifier display (Filters, PEQ's, Limiters ect.)
- BLC limiter improvement
- Threshold settings of output BLC now done in Vpeak

Fixed issues
- Auto Standby function now working correctly
- “Popping sound” at powerup removed

v3.5.4*

Changes
- Factory files and backups now support locked Presets
- Added trim gain for selected models

Fixed issues
- Setting Bridge Mode from the DSPControl software

** unpublished version*

v3.4.7*

Changes
- Unit panels are restored and brought to front when trying to launch them while they already exist
- Demo password does not need to be entered anymore after entering Demo mode from the network window
- When making factory files, the supported units can be selected

Fixed issues
- Making factory files did not work in version v3.3.X to v3.4.0
- Added “0” to choices of read-only Preset range
- Restored “Invalid Password” error dialog when entering an invalid password (this includes the Preset passwords)
- Removed low-level compressor distortion (audible in LF channels)

v3.3.8*

Changes
- Major performance improvements on all operating systems, especially when using more than 10 connected units with a Windows PC
- Major sound quality performance improvement on AES input
- Added “Firmware Update All Units” under “Tools”. This process simultaneously updates all connected units and can take several minutes.
- Mutes can be controlled even if a channel is locked
- In Developer mode, the number of factory Presets (write-protected Presets) can be set
- Units can be renamed in the network window
- Groups and units are alphabetically ordered in the network window
- When loading a Preset from computer, the progress dialog closes automatically
- Units are no longer indicated to be muted while they are in standby
- Clicking the icon of the minimized program in the dock in OS X restores the windows

Fixed issues
- Group power button
- Group mute
- Slope indication in PEQ Q text box corrected when changing between Bell and Shelf filters
- Group rename
- Many smaller bug fixes

v3.2.1*

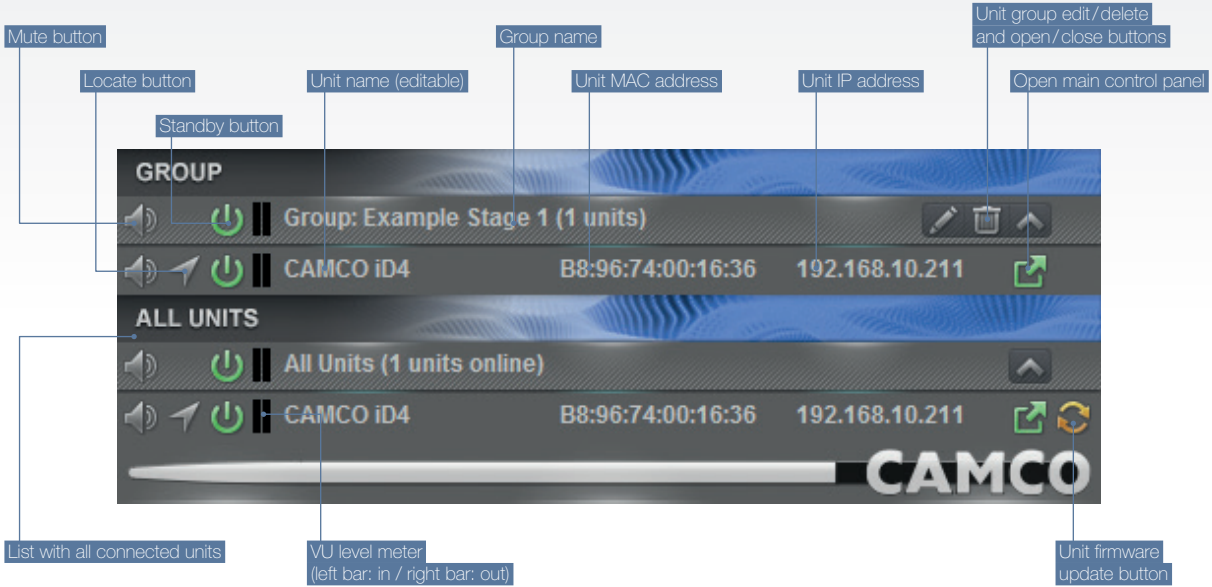
Changes
- Faster update of PC interface when changing values via front panel
- Possibility to set end user access rights per Preset

v3.2.0*

Fixed issues
- Log in via amplifier display
- Preset save/reload issue

4. THE GUI ELEMENTS

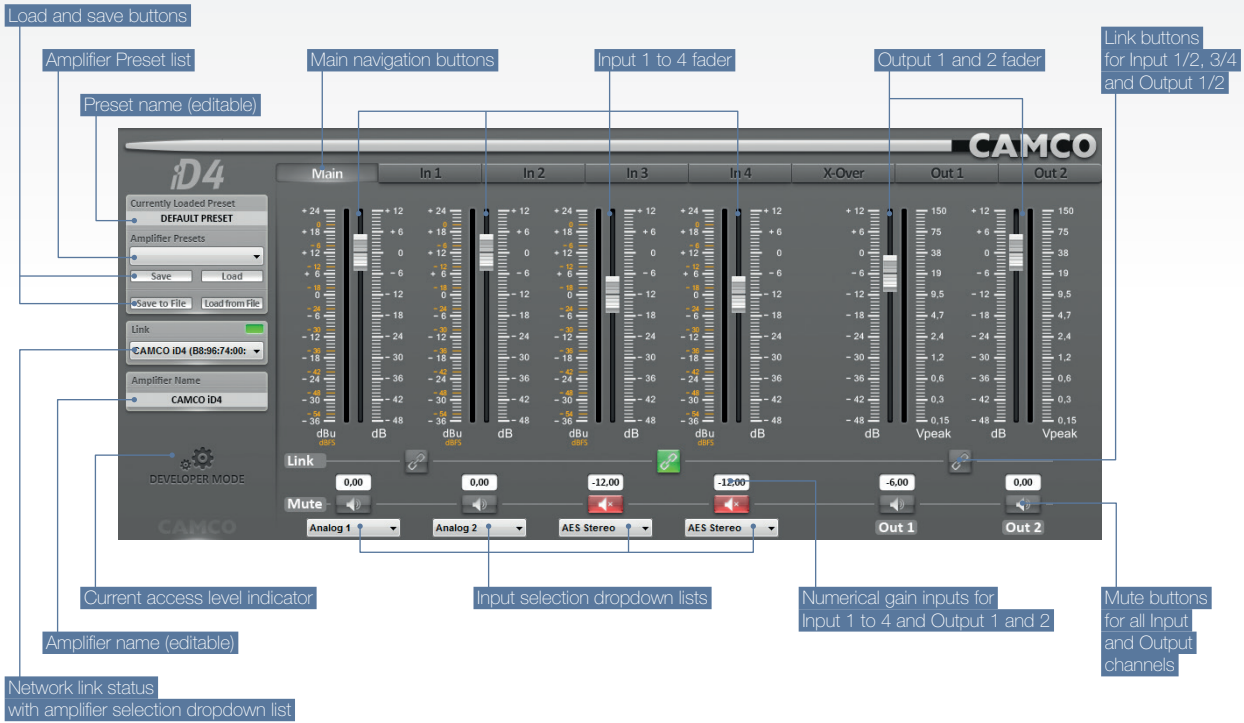
The network window



Caption of the icons states

Sound is not muted	Display in normal state	Unit is offline	Open panel disabled *(because unit is offline)*	Update not available
Sound is muted	Display is blinking	Unit is off	Open panel enabled	Update available
		Unit is on	Open panel locked *(panel already open)*	
		Unit is starting up		

The Main control panel

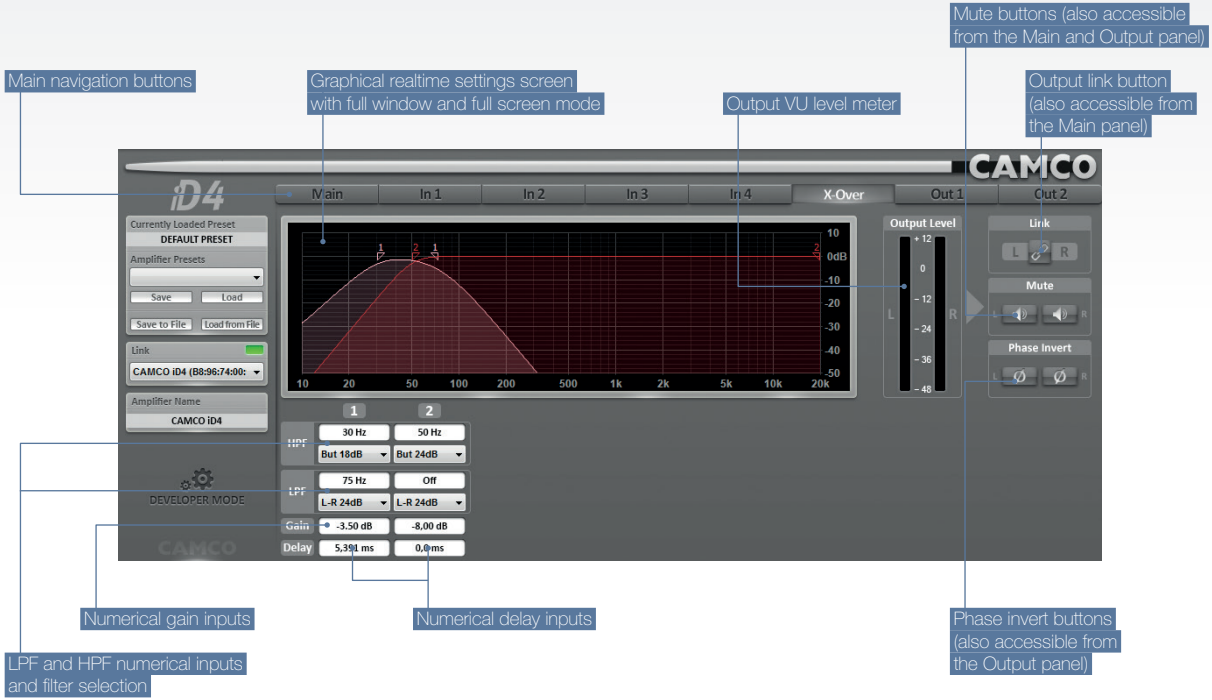


4. THE GUI ELEMENTS

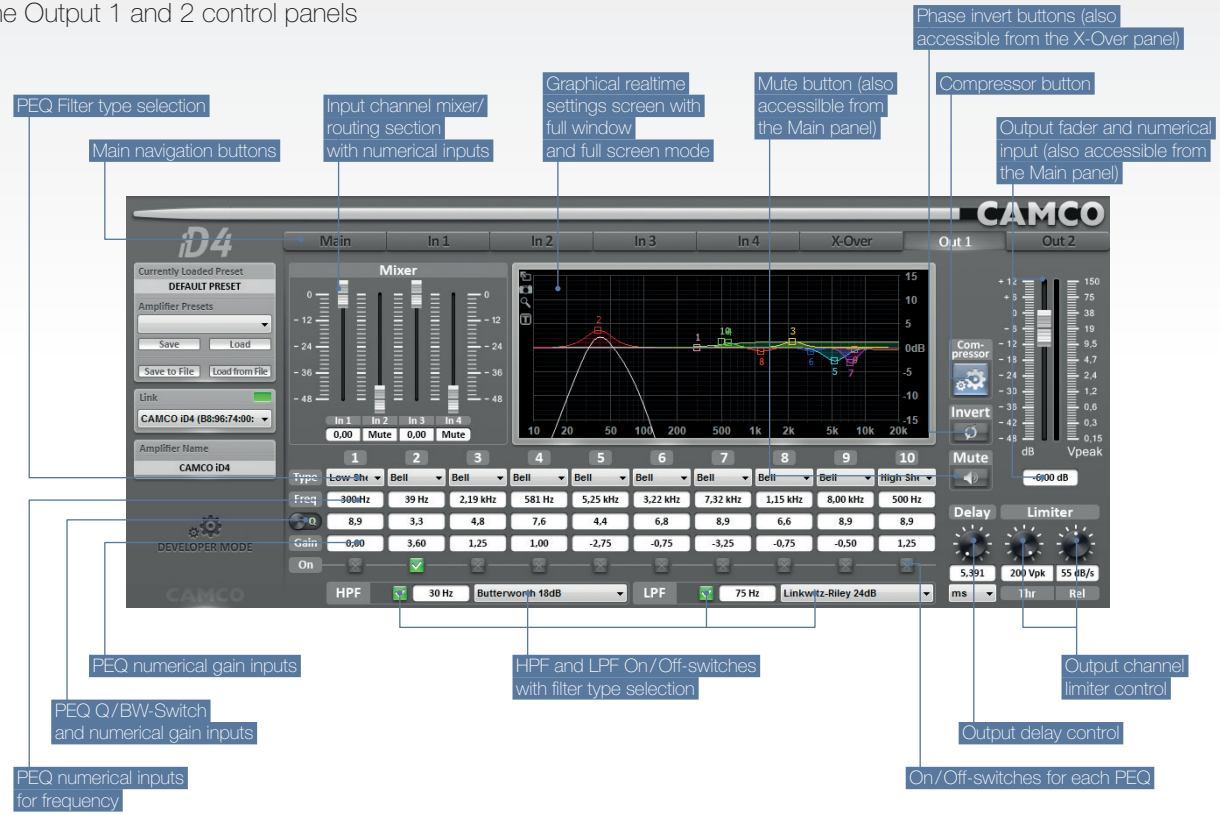
The Input 1 to 4 control panels

4. THE GUI ELEMENTS

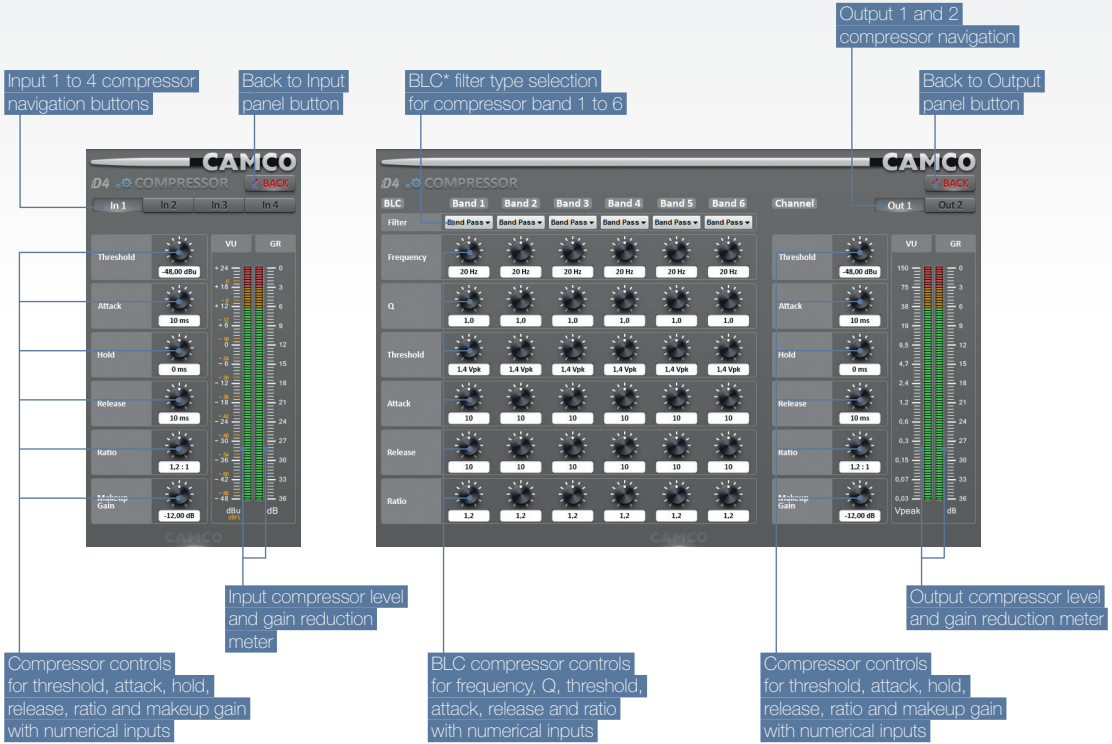
The Crossover control panel



The Output 1 and 2 control panels



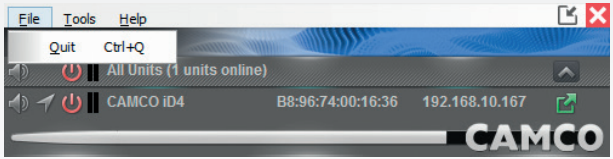
The compressor control panels



** BLC = Bandwidth Limited Compressor*

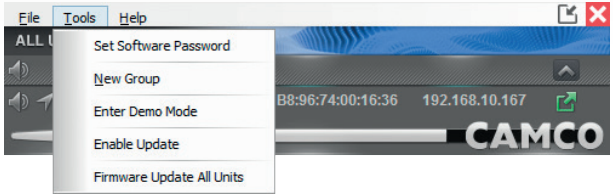
5. THE MENU STRUCTURE

The network window menu bar



“File”-menu

› Quit
Closes the application including all amplifier panel windows.



“Tools”-menu

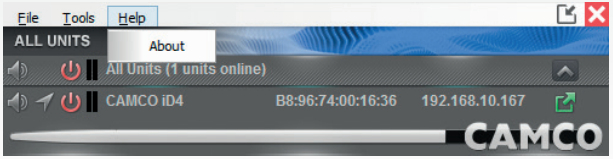
› Set Software Password
Set a password to prevent unauthorized execution of the DSPControl software.
To reset the software password just overwrite the old by leaving the input blank.

› New Group
Adds a new amplifier group.

› Enter Demo Mode
This menu item enables a virtual ***iD4*** and ***iD7*** demo-amplifier.

› Enable Update
Activates visibility of the firmware update button for the connected amplifiers.

› Firmware Update All Units
This will update all conneted amplifiers to the newest version in case they are still running an older firmware version.

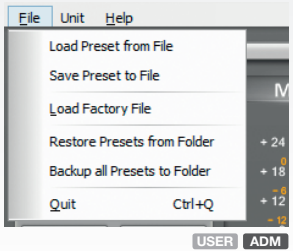


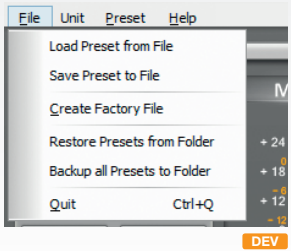
“Help”-menu

› About:
Shows the application information window with the application version and build number.

5. THE MENU STRUCTURE

The amplifier panel menu bar





"File"-menu

› Load Preset from File
Load a Preset from your computer into the amplifier.

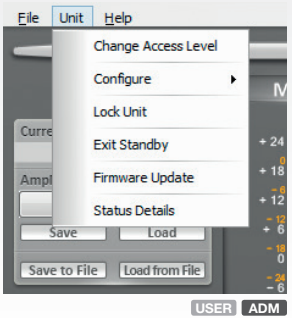
› Save Preset to File
Save the currently loaded Preset from the amplifier to your computer.

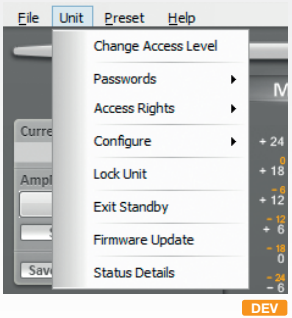
› Load Factory File USER ADM **/ Create Factory File** DEV
Load a factory file from your computer into the amplifier in User or Administrator mode or create a factory file with the current configuartion of the amplifier and save it to your computer in Developer mode.

› Restore Presets from Folder
Load a backup-folder with multiple Presets at once into the amplifiers memory.

› Backup all Presets to Folder
Save a backup of all Presets from the amplifiers memory to your computer.

› Quit
Close the amplifier panel window.





"Unit"-menu

Note
Please note that not all menu entries might be available depending on the current access level and access right settings.
Also the menu structure (i.e. where to find the menu entries) is a little different in User, Admin and Developer mode.

› Change Access Level
Change the access level of the Amplifier to User, administrator or Developer mode by using the appropriate passwords.

› Change Password
Change the default unit password of the current access level.

› User Password
Change the default unit User level password.

› Admin Password
Change the default unit Administrator level password.

USER *= User mode* ADM *= Administrator mode* DEV *= Developer mode*

5. THE MENU STRUCTURE

› Developer Password
Change the default unit Developer level password.

› Network Settings
Configure the network IP settings from automatic (DHCP) to manual.

› Power on Preset
Choose the Preset which will be loaded automatically on startup of the amplifier.

› Read-Only Preset Range
Set the range of Presets which are read-only in User and Administrator access level.

› Locked Access Rights
Configure the unit access rights for the locked-state of the amplifier.

› User Access Rights
Configure the unit access rights for the user-state of the amplifier.

› Admin Access Rights
Configure the unit access rights for the administrator-state of the amplifier.

› Auto Standby
Set the delay time after which the amplifier will go to standby automatically if no signal is present.

› Output Mode
Set the amplifier stage output mode to “Stereo” or “Bridge Mono”.

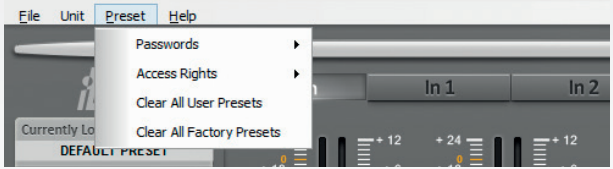
› Display
Change the state of the display-backlight between “On”, “Delayed Off” or “Dimmed”.

› Lock Unit
The unit will be set to the locked-state and can only unlocked with a correct access level password.

› Go to Standby / Exit Standby
Enters or exits standby mode.

› Firmware Update
Performs a firmware update (even if you have the newest firmware already) with the options to restore a previous backup (if available) and restore your current settings and Presets after the firmware update.
Updating the firmware also can be used to reset the ***iD4***/***iD7*** amplifier to a blank state with default passwords and access rights. Also all Presets will be erased after firmware update.

› Status Details
Opens a window with the current amplifier status (temperature per channel, load impedance and possible faults).



"Preset"-menu DEV

› Admin Password
Change the Administrator password of the currently loaded Preset. This password will override the default unit Administrator password.

› Developer Password
Change the Developer password of the currently loaded Preset. This password will override the default unit Developer password.

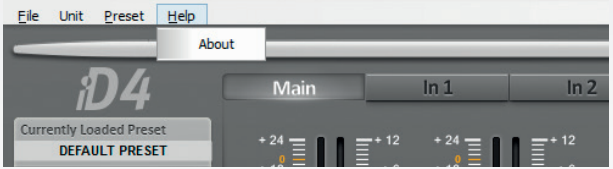
⚠ Important
If set, Preset passwords always have a higher priority then the unit passwords! For details see chapter "7. ACCESS RIGHTS & PASSWORDS".

› User Access Rights
Set the User access rights for input- and output channel.

› Admin Access Rights
Set the Administrator access rights for input- and output channel.

› Clear All User Presets
Deletes all Presets from the amplifiers memory that are not set as ready-only Presets.

› Clear All Factory Presets
Deletes all Presets from the amplifiers memory that are set as read-only Presets (Factory Presets).



"Help"-menu

› About
Shows unit and application information (name, serial number, IP address, MAC address, firmware version, interface version, application version and build number).

USER = *User mode* ADM = *Administrator mode* DEV = *Developer mode*

6. BACKUP & RESTORE PRESETS

For managing your Presets the DSPControl software allows you to …

› "Save" – Save all Preset-related stuff inside the amplifier
The Preset is then stored to the Preset location currently selected in the Preset list, with the name typed in the "Currently Loaded Preset"-field in the upper left corner. Any previous Preset stored at this location will be lost when overwriting it with a new Preset.

› "Load" – Load a Preset from the amplifier's Preset list
Loads the selected Preset into the amplifier. Any unsaved changes to the previous Preset will be lost.

› "Save to File" – Save all Preset-related stuff to your computer's hard drive
Pressing this button does *not* automatically store the Preset inside the amplifier. So if you want to store any changes both on your hard drive *and* inside the amplifier don't forget to press the **"Save"** button as well.

› "Load from File" – Load a single Preset from your computer's hard drive into the amplifier
Pressing this button will *not* automatically store the Preset inside the amplifier. So if you want to store the freshly loaded Preset permanently inside the amplifier don't forget to choose a location from the amplifier's Preset list and to press the **"Save"** button.

› "Backup all Presets to Folder" (accessible in the "File"-menu)
Creates a backup of all Presets stored inside the amplifier to a folder on your computer's hard drive. This procedure can take some time depending on the amount of Presets to be backuped. Only the Preset-related settings will be stored, not the Unit level settings. See the chapter "11. PRESET SETTINGS" for details.

› "Restore all Presets from Folder" (accessible in the "File"-menu)
Restores a previously created backup from a folder on your computer's hard drive. This procedure can take some time depending on the amount of Presets to be restored. Only the Preset-related settings will be restored, not the Unit level settings.

› "Create Factory File" (accessible in the "File"-menu in Developer mode only)
Creates a complete backup of *all* amplifier settings into a single file. This includes all Unit level access rights, passwords and settings, the amplifier name and all amplifier's Presets with their specific access rights and passwords. Only the amplifier's display backlight setting cannot be stored inside a factory file.
The Factory File should only be used if you want to create an image or clone of all amplifier settings. This gives you the option to easily set up your rolling stock of amplifier's to a defined state, without having to worry about configuring every amplifier individually.
Please do *not* use the Factory-File if you only want to publish a set of Presets for your customers. This should be done with the backup/restore Presets function.

› "Load Factory File"
Loads a previously created Factory File into your amplifier. Note that loading a factory file will automatically change all access rights, passwords and settings to the values stored inside the factory file.
But be aware that a certain combination of deactivated Unit access rights can effectively lock you out of the unit permanently if you don't know the new passwords! So please make sure to only load factory files from trusted sources, which either:

- → will allow at least a firmware update in User mode (which gives you the option to effectively reset the ***iD4***/***iD7*** amplifier to a blank state with all access rights granted) or …
- → will have their specific Administrator and Developer passwords published.

The best way to load a Factory File would be to carry out a firmware update first, in order to erase all old Presets. Otherwise all Presets stored to locations not included in the new Factory File will *not* be deleted.

Note
It is possible to lock some or all of those load, save, backup and restore options in User and Administrator mode through the Unit Access Rights. For details see the chapter "10. Unit Settings" below.

How are the access rights and passwords managed?

In order to understand how the access rights are managed in the ***iD4***/***iD7*** amplifier, it is important to know that all passwords and access right settings are always stored and checked inside the amplifier.
This means that everytime you will for example switch to Developer mode in the software, the password is transferred to the amplifier and validated there. If the password is correct, the amplifier (and in turn also the DSPControl software) will switch to Developer mode, thus giving full access to all functions and settings. If the password was wrong, the amplifier will deny Developer access and the software will show the message "Invalid Password".

› Example 1

If you are not allowed to access the output settings of the currently loaded Preset, it will not be possible to change any output settings on the amplifier's LCD screen either.
Once entered the correct password in the DSPControl software, both the amplifier's display and the software will allow full access to the output settings.

› Example 2

If you enter Developer mode from the amplifier's display (through "▶"-MENU → Access Level), the DSPControl software (if connected) will also automatically switch to Developer mode.

Secondly it is important to know that the Administrator and Developer password *can* be different for each Preset individually.
This means for example that if you load a Preset which has custom Admin and/or Developer passwords you will need those passwords to access Admin or Developer mode. The default password stored at Unit level will *not* work anymore as long as this preset is active.
By loading any another Preset without custom passwords (or an empty preset) you will again be able to access Admin or Developer Level with your well-known default Unit level passwords.

8. ACCESS RIGHTS HIERARCHY

What are the access levels?

DEVELOPER MODE

DEV The Developer mode always gives access to all functions of the ***iD4*** / ***iD7*** amplifier. Especially setting individual Preset access rights and passwords can only be done in Developer mode. The Developer always has the right to change all access rights and passwords for the lower access levels (Admin, User and Locked).
The default Developer mode password is: **CamcoDev**
The default access rights are: **all active** (cannot be restricted)

ADMINISTRATOR MODE

ADM The Administrator mode (abbreviation 'Admin') gives the option to allow a configurable intermediate access level which has less rights that the Developer level but more than the User level. It's up to the system Developer to decide which access rights are granted to system Administrators.
Setting Admin access rights can only be done in the higher Developer mode, changing the default Admin password can be done directly in Admin mode (and in Developer mode of course).

The Administrator is normally allowed to change all access rights and passwords for the lower access levels (User and Locked).
The default Admin mode password is: **CamcoAdm**
The default access rights are: **all active**

USER MODE

USER This is the default access level when powering up the ***iD4*** / ***iD7*** amplifiers. So the amplifier will typically be operated in User mode. Setting the User access rights can only be done in the higher Admin or Developer mode, changing the default User password can be done directly in User mode (and in the higher Admin or Developer levels of course).

The User can be allowed to change all access rights for the lower Locked level, provided the User himself has been granted the specific access right.

› Example
If the User has not the right to change the amplifier name, he cannot in turn give the right to change the amplifier name in the locked state. The option will then not be available.
The default User password is: **User**
The default access rights are: **all active**

LOCKED MODE

LOCK This mode is typically used to prevent any intentional or unintentional changes both inside the DSPControl software and the amplifier's display, when for example leaving the DSPControl computer unsupervised.
Once entered, a password for any higher access level (User, Admin or Developer) is needed to exit the locked mode.
The default access rights are: **all inactive** (locked)

Note

It is basically possible to restrict the Administrator and User access rights to *less* than the lower access mode. But then the lower access level would have *more* rights then the higher level, which might be confusing. This is up to the Developer or Administrator to decide.

9. ACCESS RIGHT OPTIONS

These are the Unit and Preset level access right options

		Developer mode	Admin mode	User mode	Locked mode
Stored inside UNIT	**Load Presets** Select if it's allowed to load any Presets from the amplifier's Preset list or from your computer's hard drive	always allowed	configurable in DEV	configurable in DEV & ADM	configurable in DEV, ADM & USER
	Save Presets Select if it's allowed to save any Presets inside the amplifier or to your computer's hard drive	always allowed	configurable in DEV	configurable in DEV & ADM	configurable in DEV, ADM & USER
	Enable Display Lock Control Select if it's allowed to lock the Unit from the amplifier's display	always allowed	configurable in DEV	configurable in DEV & ADM	not available
	Change User Access Rights Select if it's allowed to change the User access rights in Admin mode	available	not available	not available	not available
	Change Locked Access Rights Select if it's allowed to change the Locked access rights in Admin or User mode	always allowed	configurable in DEV	configurable in DEV & ADM	not available
	Change Unit Name Select if it's allowed to change the amplifier's name	always allowed	configurable in DEV	configurable in DEV & ADM	configurable in DEV, ADM & USER
	Change Unit Configuration Select if it's allowed to change the network settings, the auto-standby time and the power-on Preset	always allowed	configurable in DEV	configurable in DEV & ADM	configurable in DEV, ADM & USER
	Load an Empty Preset Select if it's allowed to load an empty Preset from the amplifier	always allowed	configurable in DEV	configurable in DEV & ADM	configurable in DEV, ADM & USER
	Update the Unit firmware* Select if it's allowed to update the Unit firmware	always allowed	configurable in DEV	configurable in DEV & ADM	configurable in DEV, ADM & USER
Stored inside PRESET	**Access Input channel**	always allowed	configurable in DEV	configurable in DEV	always locked
	Acess X-Over and Output channels	always allowed	configurable in DEV	configurable in DEV	always locked

** Updating the firmware also can be used to reset the **iD4**/**iD7** amplifier to a blank state with default passwords and access rights. Also all Presets will be erased after firmware update.*

USER = User mode ADM = Administrator mode DEV = Developer mode LOCK = Locked mode = Always locked

10. UNIT SETTINGS

These are the settings which are stored at Unit level

Meaning that those are always the same no matter which Preset currently is loaded, with one exception for the passwords, please see below.

Note

Changes to any of these settings will be stored immediately inside the amplifier.

› Default User, Administrator and Developer Passwords

⚠ Attention

Password override possible inside each Preset if programmed!

› Locked, User and Administrator Access Rights

Please see dedicated access rights table at chapter "9. ACCESS RIGHTS HIERARCHY".

› Unit Name

Just type the desired name inside the text box on the left side of the amplifier panel or change it directly in the Network window (provided you have the right to change it).

› Network Settings

Either select automatic IP adress configuration through your DHCP server or select a fixed IP address and subnet mask.

› Power On Preset

Select which Preset shall be loaded automatically after powering up the ***iD4***/***iD7*** amplifier.

› Read-Only Preset Range (only accessible in Developer mode)

Set a range of Presets which cannot be overwritten in Admin, User or Locked mode. Saving to those Preset locations will not be possible.

› Auto-Standby

Set the time after which the amplifier will go to Standby mode if no analoge *and* digital input signal was fed to the amplifier.
If the amplifier has been set into standby through the auto-standby function, automatic wakeup will only work if digital AES input signal is applied again. Applying analogue signal again will *not* wakeup the amplifier.
When unsing analogue input signal, exiting the automatic standby mode must be done manually through the amplifier's display or the DSPControl application. So please consider this carefully before using this function with analogue input signal.

› Display

Set the amplifier's display backlight status:

- → On
- → Delayed Off
- → Dimmed

The display setting is the only parameter which cannot be stored inside a factory file or be restored after a firmware update!

These are the settings which are stored inside each Preset individually.

Meaning that those settings might change when another Preset is loaded.

Note

Changes to any of these settings are *not* automatically stored inside the currently loaded Preset. So please don't forget to save all changes inside the amplifier by clicking on the "Save" button. If you don't save, all settings and changes will be lost if you switch the unit off or if you load another preset.

› Custom Administrator and Developer passwords (only accessible in Developer mode)

→ Blank/empty = Unit default:
The Admin or Developer level can be accessed through the default Unit passwords.

→ Any custom password:
If this Preset is loaded, then the Admin or Developer level can only be accessed with the custom password.

› User and Administrator Access Rights (only accessible in Developer mode):

Please see dedicated access rights table at chapter "9. ACCESS RIGHTS HIERARCHY".

› Amplifier Output Mode (Stereo or Mono Bridged)

Accessible through the menu "Unit → Configure → Output Mode → …"

› And of course all settings configurable in the Main, Input, X-Over and Output panels

(e.g. input selection, volume, mute, EQ, delay, crossover, limiter settings and many more)

Unit Conversion Equations and Lookup Table

Unit Conversion Equations

Unit conversion		Equation
V_{RMS} → dBu		$Level\ in\ dBu = 20 * \log\left(\frac{Value\ in\ V_{RMS}}{0{,}7746}\right)$
V_{RMS} → dBV		$Level\ in\ dBV = 20 * \log\left(\frac{Value\ in\ V_{RMS}}{1{,}0000}\right)$
dBu → V_{RMS}		$Voltage\ in\ V_{RMS} = 0{,}7746 * 10^{\left(\frac{Level\ in\ dBu}{20}\right)}$
dBV → V_{RMS}		$Voltage\ in\ V_{RMS} = 10^{\left(\frac{Level\ in\ dBV}{20}\right)}$
V_{RMS} → V_{Peak}		$Voltage\ in\ V_{Peak} = 1{,}414 * (Voltage\ in\ V_{RMS})$
V_{RMS} → Output power	8 Ω	$Output\ power\ in\ W = \frac{(Voltage\ in\ V_{RMS})^2}{8\,\Omega}$
	4 Ω	$Output\ power\ in\ W = \frac{(Voltage\ in\ V_{RMS})^2}{4\,\Omega}$
	2 Ω	$Output\ power\ in\ W = \frac{(Voltage\ in\ V_{RMS})^2}{2\,\Omega}$

Lookup Table

VRMS	VPeak	dBu	dBV	Output power (in W / 8 Ω)	Output power (in W / 4 Ω)	Output power (in W / 2 Ω)
1	1,41	2,22	0	0,13	0,25	0,5
2	2,83	8,24	6,02	0,5	1	2
3	4,24	11,76	9,54	1,13	2,25	4,5
4	5,66	14,26	12,04	2	4	8
5	7,07	16,2	13,98	3,13	6,25	13
6	8,49	17,78	15,56	4,5	9	18
7	9,9	19,12	16,9	6,13	12	25
8	11,31	20,28	18,06	8	16	32
9	12,73	21,3	19,08	10	20	41
10	14,14	22,22	20	13	25	50
12	16,97	23,8	21,58	18	36	72
15	21,21	25,74	23,52	28	56	113
20	28,28	28,24	26,02	50	100	200
30	42,43	31,76	29,54	113	225	450
40	56,57	34,26	32,04	200	400	800
50	70,71	36,2	33,98	313	625	1 250
60	84,85	37,78	35,56	450	900	1 800
70	98,99	39,12	36,9	613	1 225	2 450
80	113,14	40,28	38,06	800	1 600	3 200
90	127,28	41,3	39,08	1 013	2 025	4 050
100	141,42	42,22	40	1 250	2 500	5 000
125	176,78	44,16	41,94	1 953	3 906	7 813
150	212,13	45,74	43,52	2 813	5 625	11 250
175	247,49	47,08	44,86	3 828	7 656	15 313
200	282,84	48,24	46,02	5 000	10 000	20 000

*Values in grey are calculated only. The **iD4** / **iD7** is not able to deliver these output powers.*

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i-Series DSP CONTROL

i-Series

DSPControl SOFTWARE

MADE IN GERMANY