

D48 Quick Start Guide

V3 2025-10

1. Product Introduction

CELTO D48 is a premium 4in x 8out Loudspeaker Management System with top-of-the-line SHARC floating point DSP, high-end sound quality and extended feature set.

D48 features linkable gain control with always visible Vu Meters, 16 programable filters per input and per output, 3 Dynamic EQ per input, 512-taps FIR filters per output, Full Matrix routing, Feedback suppressors, noise gates, TrueRMS limiters, built-in signal generator, up to 48dB/oct crossovers, extra long delays (6400 meters total), embedded CELTO speaker presets, and advanced security management to handle the most demanding projects.

Main features:

- SHARC 21489 floating point DSP with large external memory
- 96kHz sampling rate
- Ultra low noise opamps and audiophile grade long life capacitors
- ESS SABRE Reference 32-bit 120dB dynamic range converters
- Easy to use front panel interface
- 2 AES stereo digital inputs
- 100M Ethernet interface with auto switch between DHCP and Fixed IP
- Intuitive PC software with Network Auto Discovery
- Advanced password management
- Preset library for CELTO and generic speakers
- Fast copy of channel parameters
- Firmware update by user
- 32 user memories

2. Documentation and Software

Scan the QR Codes below:



Quick Start Guide
(PDF format)



D48 Software For Windows
Portable format
No installation required

3. Technical Specifications

Parameters	D48
Maximum input level	+20dBu
Maximum output level	+20dBu
Default output level	0dBu
Harmonic distortion THD+N	<0.005% @+4dBu 20Hz ~ 20kHz
Frequency response	20Hz ~ 20kHz ± 0.3 dB
Noise floor	-92dBu
Input-Output dynamic range	110dB
Signal-to-noise ratio	-110dB
DSP	SHARC 21489 at 400MHz
Sampling frequency	96kHz
Quantization	32bit
Accumulators	64bit double precision floating point
User Memories	32
Network Interface	RJ45 Ethernet 100M
Connection mode	DHCP or direct link with Fixed IP
Control software language	English
Noise gate	Yes
Feedback suppressor	Yes
Signal generator	Yes
TrueRMS Limiter	Yes
FIR	Out 1~8 : 512 taps
Delay	In 1~4 : 1000ms / 340m Out 1~8 : 2000ms / 680m
PEQ Low Shelf High Shelf Allpass	16 filters per input and per output
Dynamic EQ	3 filters per input
Crossover (HPF/LPF) Bessel Butterworth Linkwitz-Riley	6-12-18-24-36-48 dB/oct
Digital Input	AES IN-A (1-2) AES IN-B (3-4)

4. Software operation

CELTO D48 Control software runs on Windows 7 / 10 / 11 (32 and 64 bit versions)

The software uses 50MB of storage and 2MB of RAM

Network environment: 100M LAN or wireless router

- The software is available from CELTO Cloud in a ZIP archive that you must decompress on any folder of your computer. No installation is needed and you can even run it from a USB key. Simply double click “CELTO D48 Control.exe” to launch the software (see *Illustration1* below).

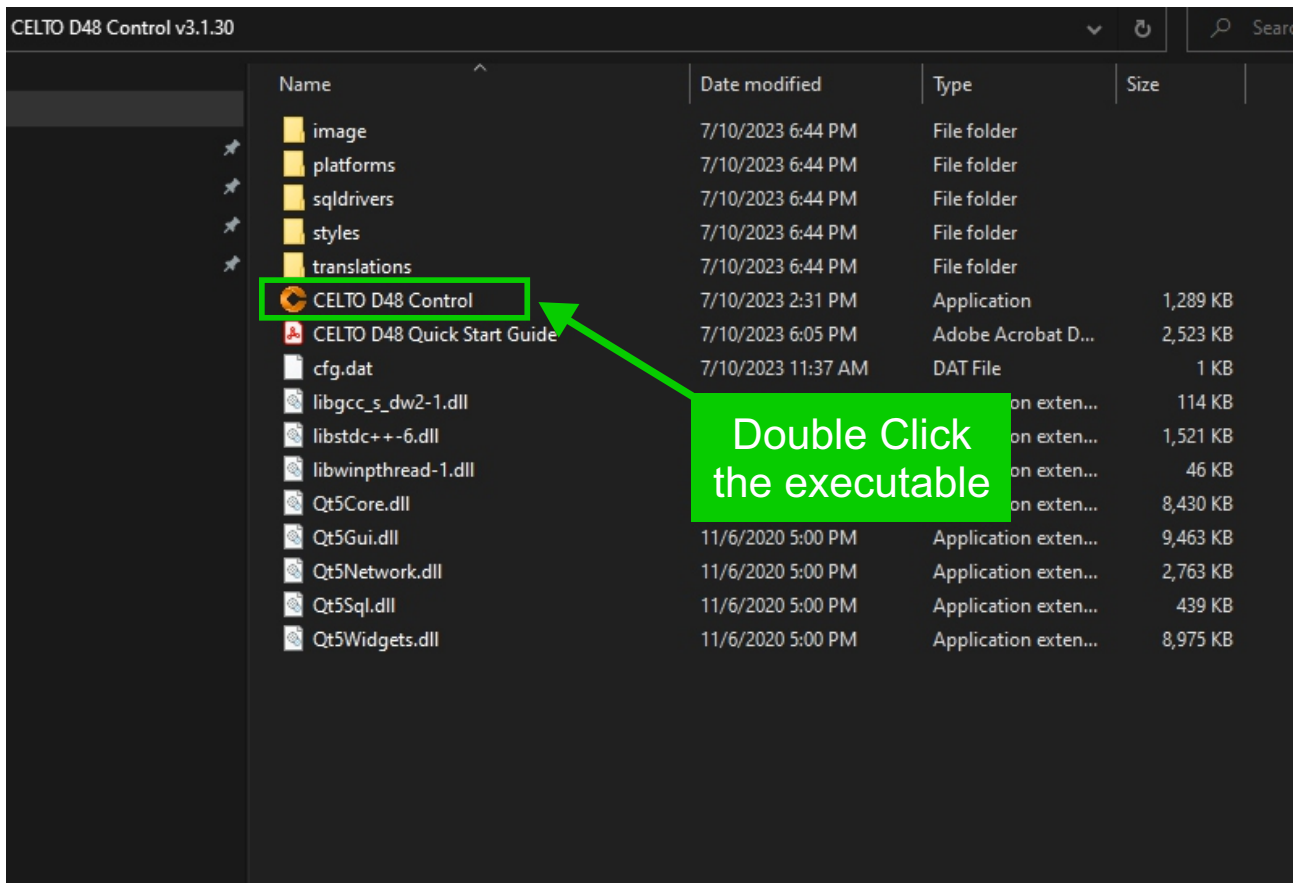


Illustration1: Folder structure after after UnZipping the archive

Once the software is running, Power ON the D48 unit and connect it to the network using the provided cable (or any standard RJ45 network cable)

The unit must be on the same Subnet mask than the computer running the software (same switch/router). Once the unit is connected to the network, the software automatically detects it and the unit appears in the device list.

TIP1: During the first usage, you must allow the D48 Control software in the Windows Firewall for proper function.

TIP2: The software can run in direct point-to-point connection mode, without any router. Simply connect the provided RJ45 cable between your computer and the D48. The unit will fallback to fixed IP mode when it doesn't detect a DHCP server and the software will see it. You may need to change the unit IP (right click on the unit mini window from the Device list to change the IP settings)

Once one or multiple units are detected by the software, they appear on the Device List (left column).

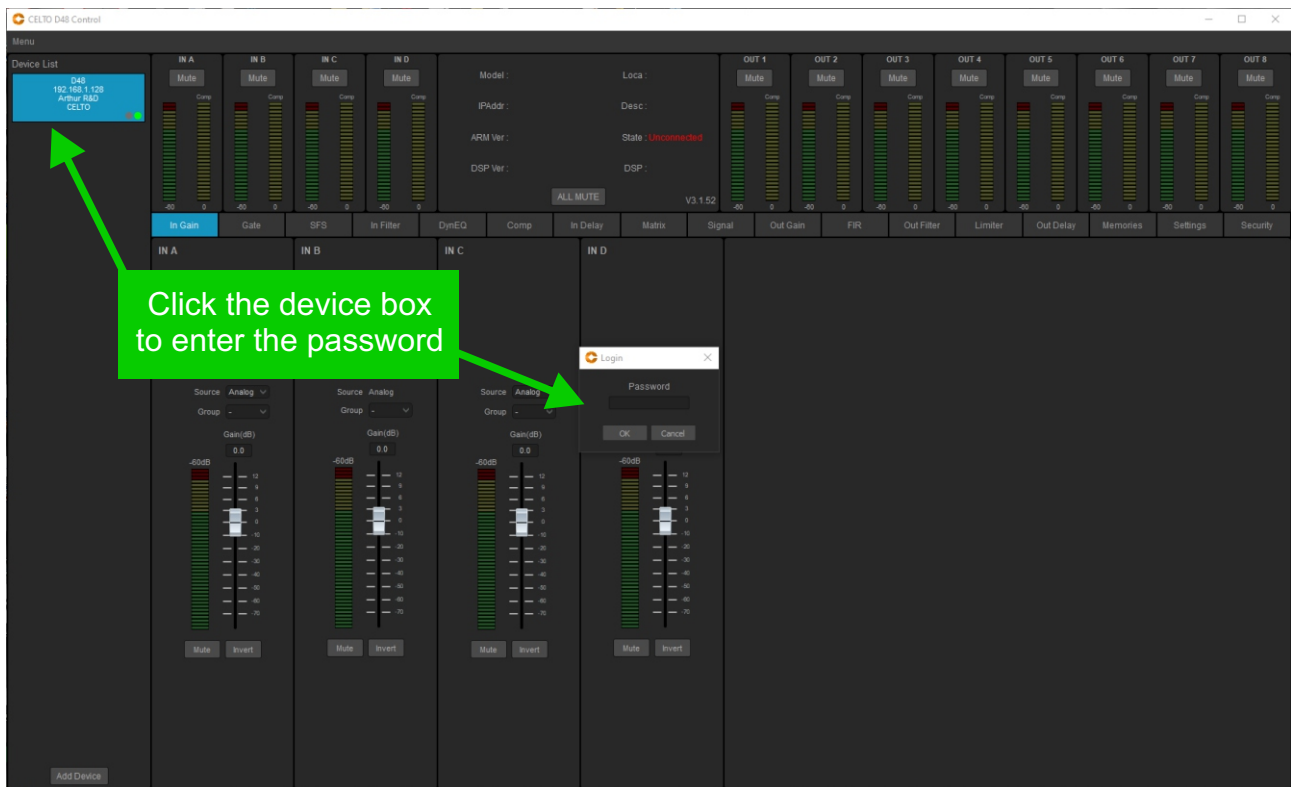


Illustration2: D48 Control main window after clicking the device box

Out of factory and after Reset, CELTO D48 comes with the following default values:

- Login password: admin
- Security password: ad123

The Login password is the password needed by the Control Software to connect to the unit.

The Security password is the password that protects user data.

TIP3: Click [Menu] then [Device List] to see the connected units (see *Illustration3* below)

Device list											
	IP Address	Device Model	ARM Ver	DSP Ver	Location	Description	Device SN	Link Status	Runing Time	Total Time	Device ID
1	192.168.1.60	D48	V3.1.34	V1.5.11	test	test	CN-0000-89E-1412	Connected	0day 00:02:02	0day 08:02:02	20258164551
											Delete

Illustration3: Device List Window

After entering the Login password, user can see the unit information and can access all the pages. By default, the software displays the **Input Gain** page. The navigation bar is under the bargraph meters. Click the navigation bar to access the indicated page. Everything is self explanatory and easy to understand.

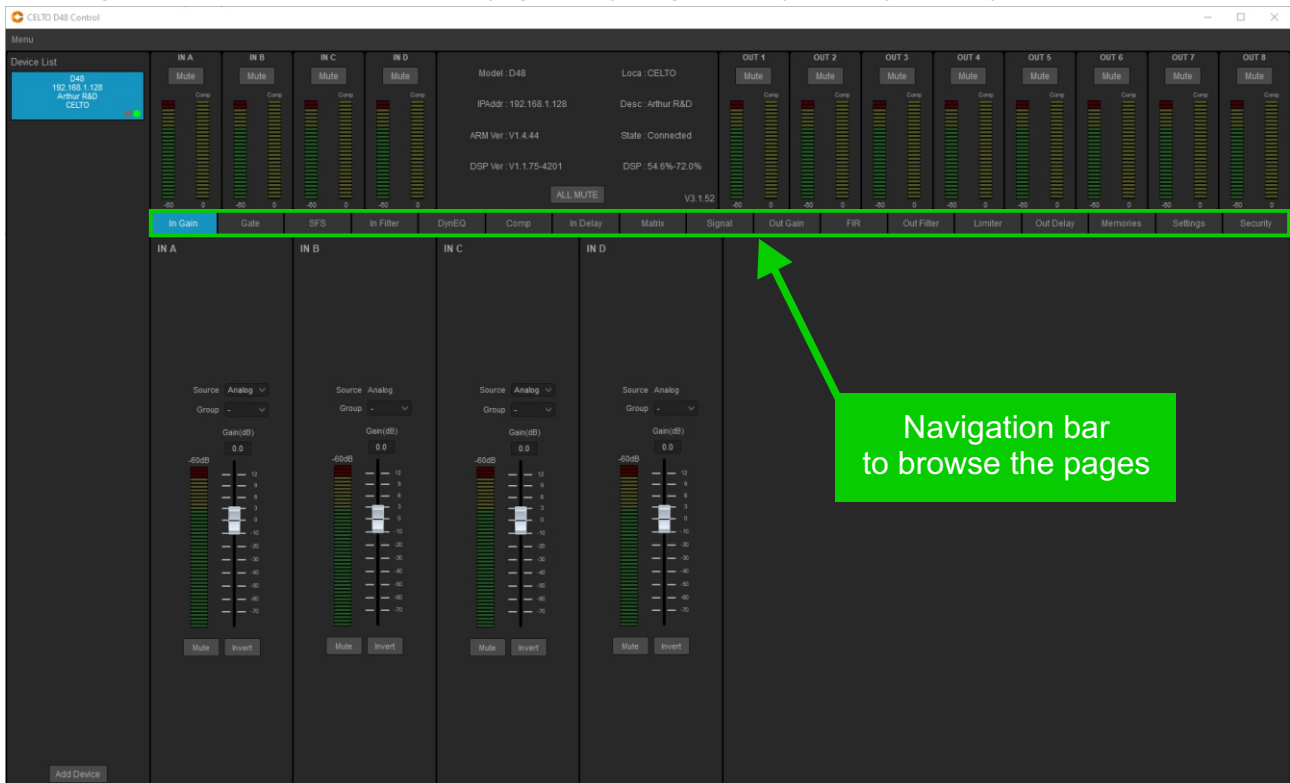


Illustration4: Main window after entering the Login password

TIP4: Double click on a fader or a knob to reset to its default value.

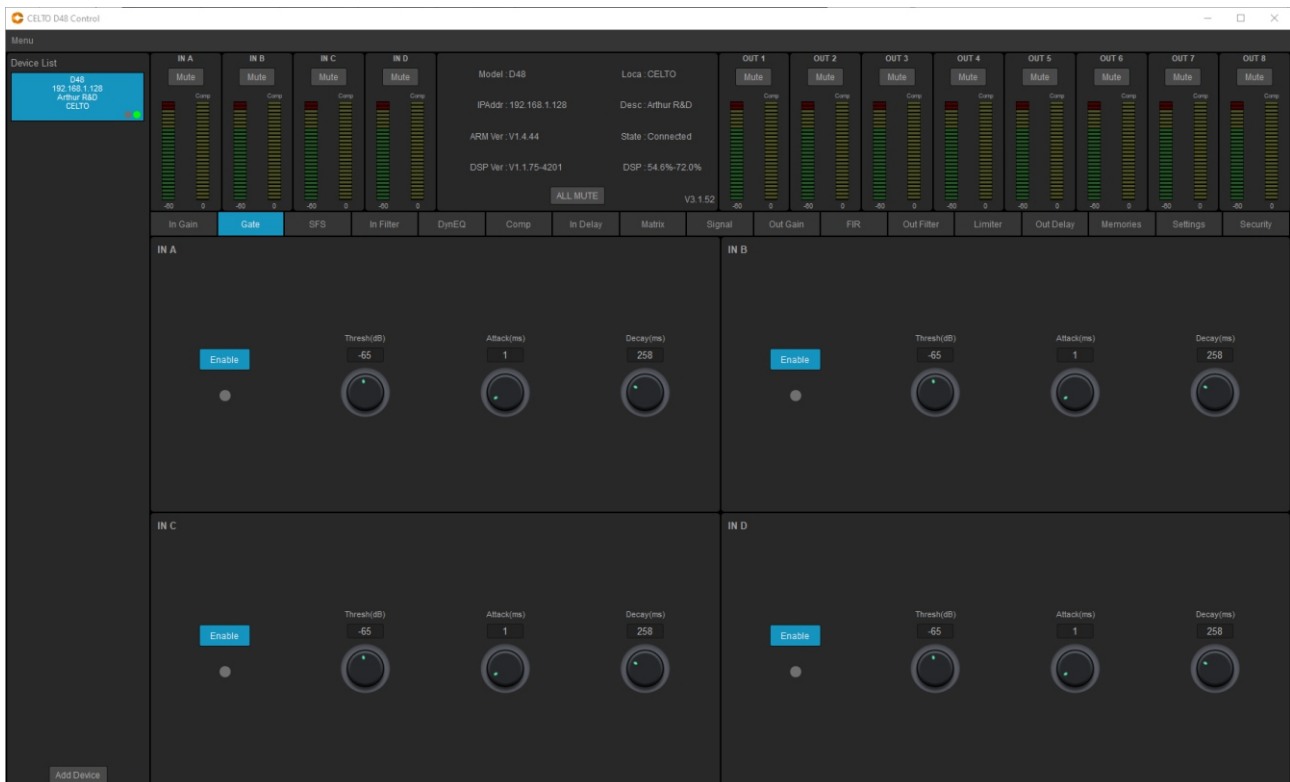


Illustration5: Input Gate page

TIP5: By default, noise gates are enable and set at -65dB.

CELTO SFS is a frequency shift method that mitigates the Larsen by introducing a slight frequency offset to the output signal.

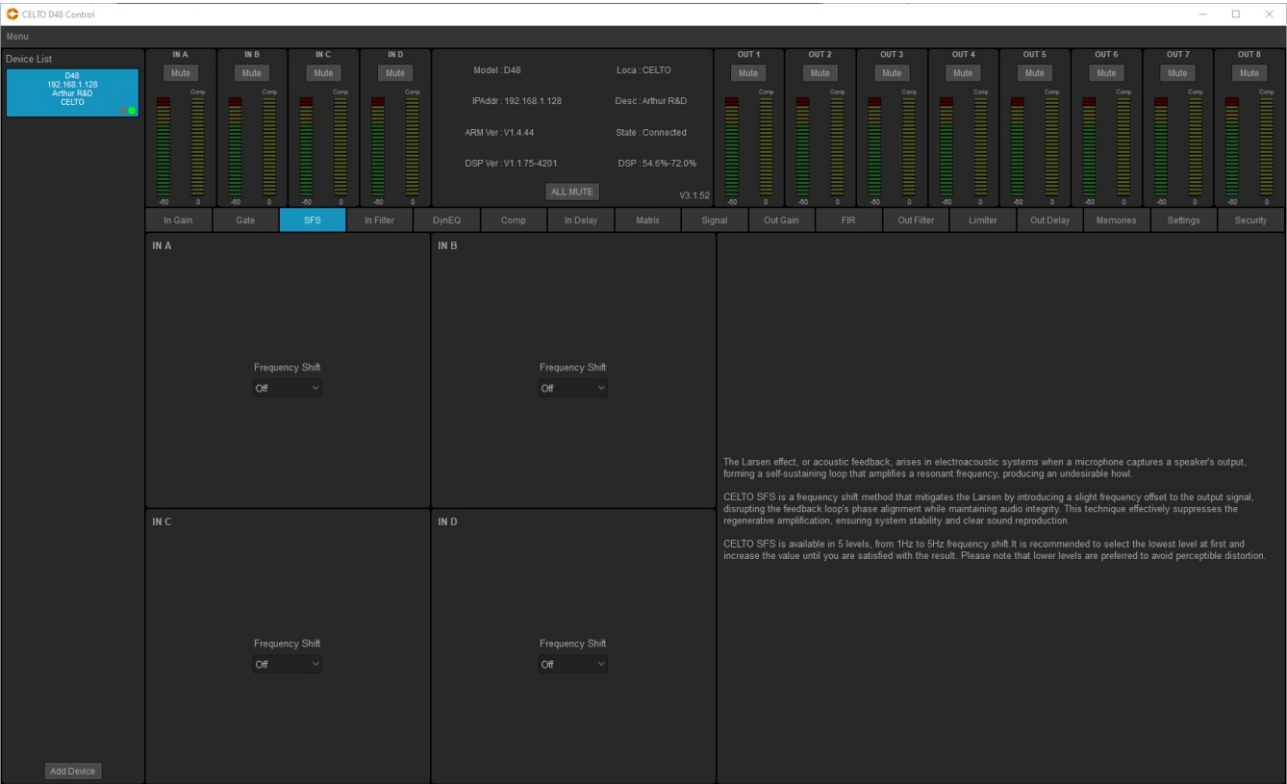


Illustration6: Input SFS Page

High-pass, Low-pass filters and 16 PEQ filters are available per input and per output

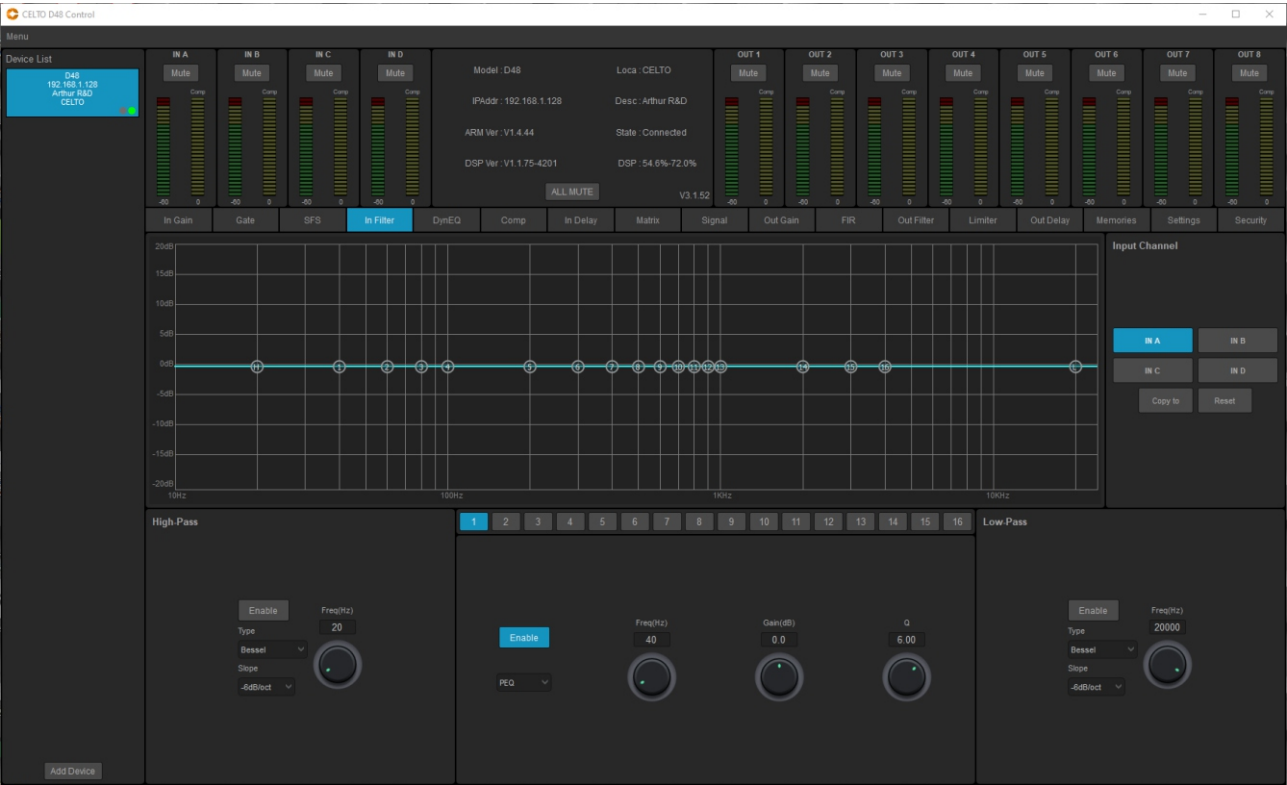


Illustration7: Input Filter Page

TIP6: The Copy function allows multiple targets in a single operation.

3 Dynamic EQ are available per input. Use it to create a bass loudness effect at low volume or to attenuate certain mid-high frequencies at high volume.



Illustration8: Input Dynamic EQ Page

Compressors are available on input and output. All calculations are done in 64-bit double precision to minimize audible compression artifacts. The second bargraph displays the amount of compression for precise monitoring of the effect.

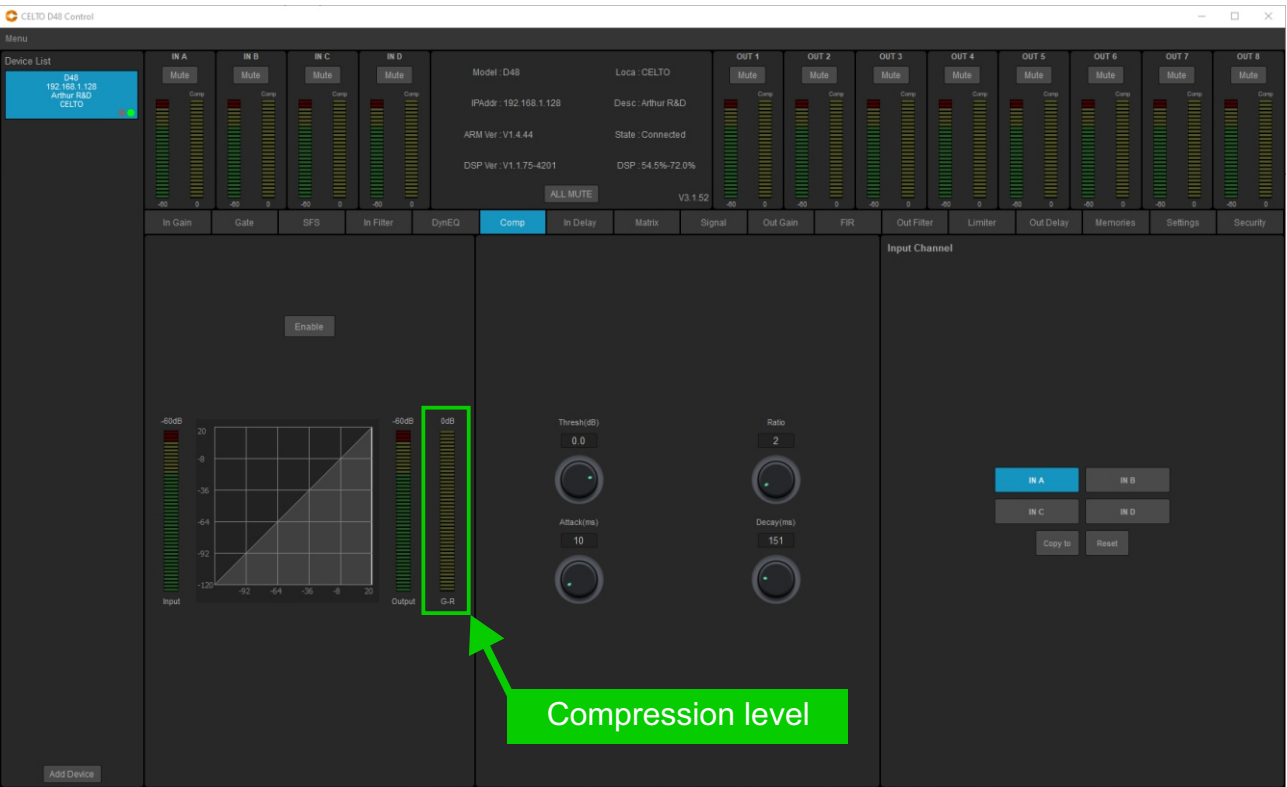


Illustration9: Input Compression Page

Thanks to the dedicated large memory chip, D48 offers extended delays up to 340ms / 1 second per input and 680ms / 2 seconds per output.

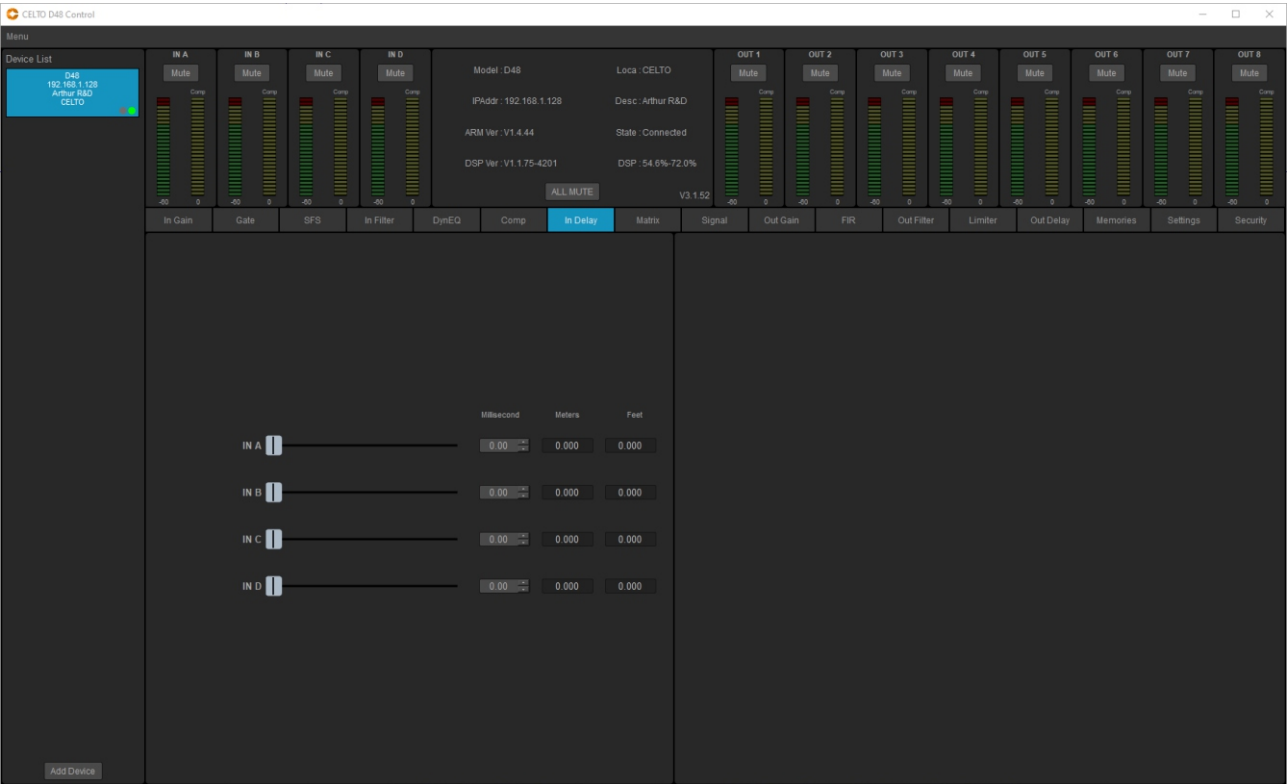


Illustration10: Input Delay

The full Matrix engine allows precise mixing of the sources.

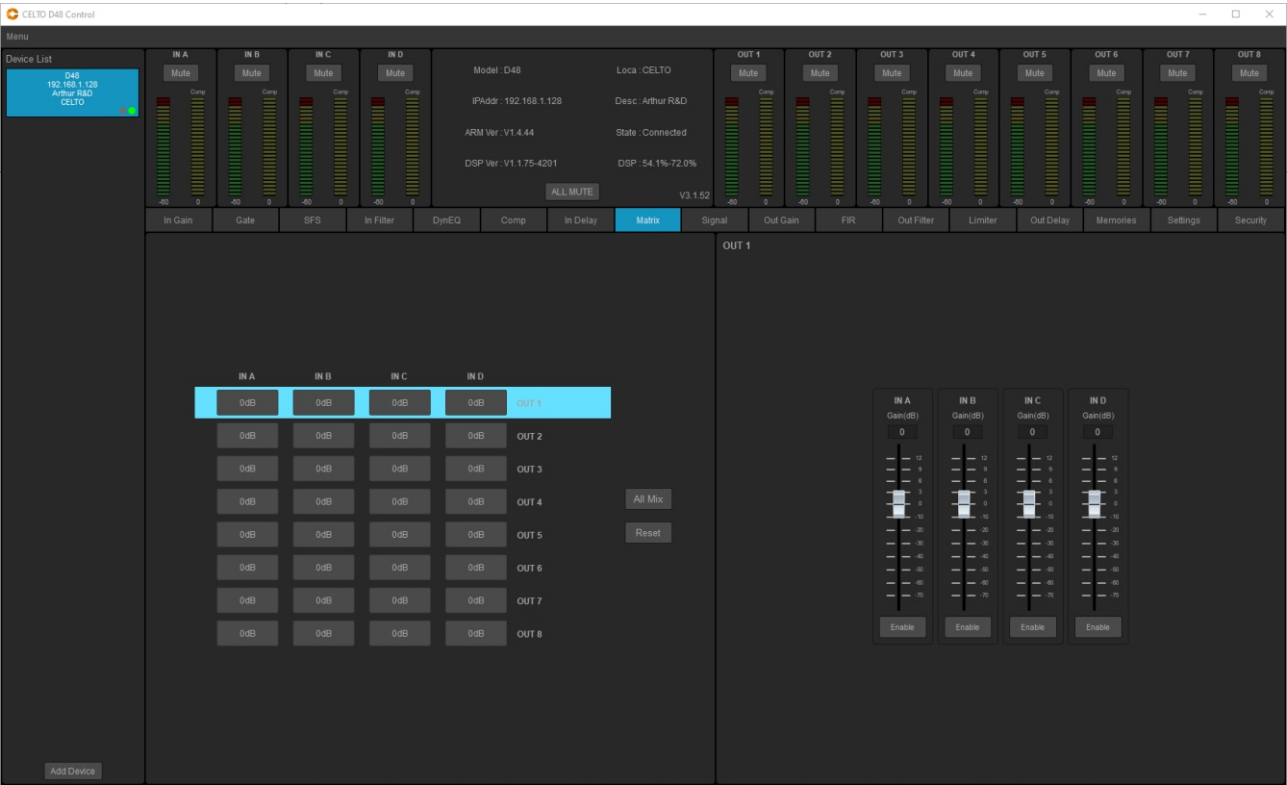


Illustration11: Matrix

D48 Control Software can generate Low/High pass and Bandpass FIR filters but also accepts external FIR filters with up to 512-tap in 96kHz 32/64 bits floats lines format.

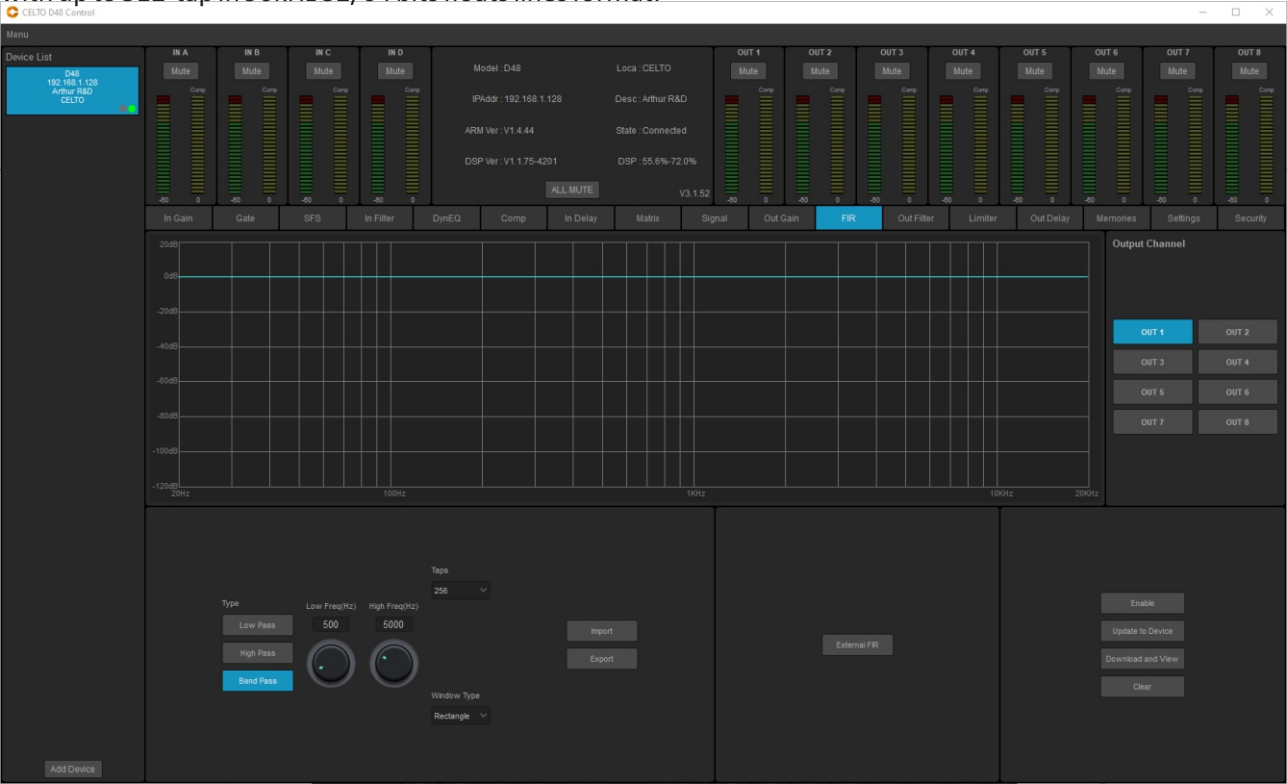


Illustration12: Output FIR Filters

In the **Memories** page, you can manage memories and speaker presets.

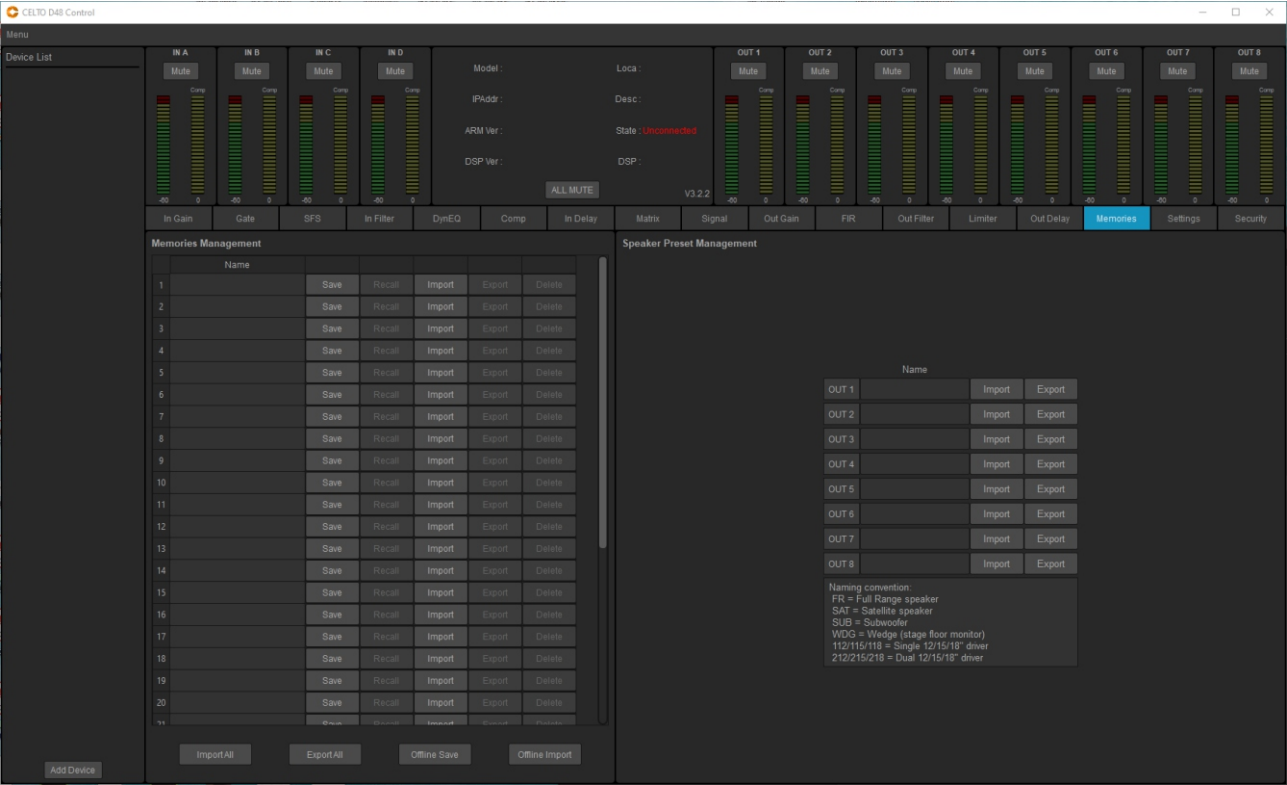


Illustration13: Memories and speaker presets management

TIP7: A Memory includes all inputs and all outputs when a Speaker Preset includes a single output channel parameters. The CELTO speaker preset library is included in the \Presets folder (from version 3.2.00 onwards)

The **Settings** page allows the user to label the channels, lock the front panel, see the unit information and the network parameters

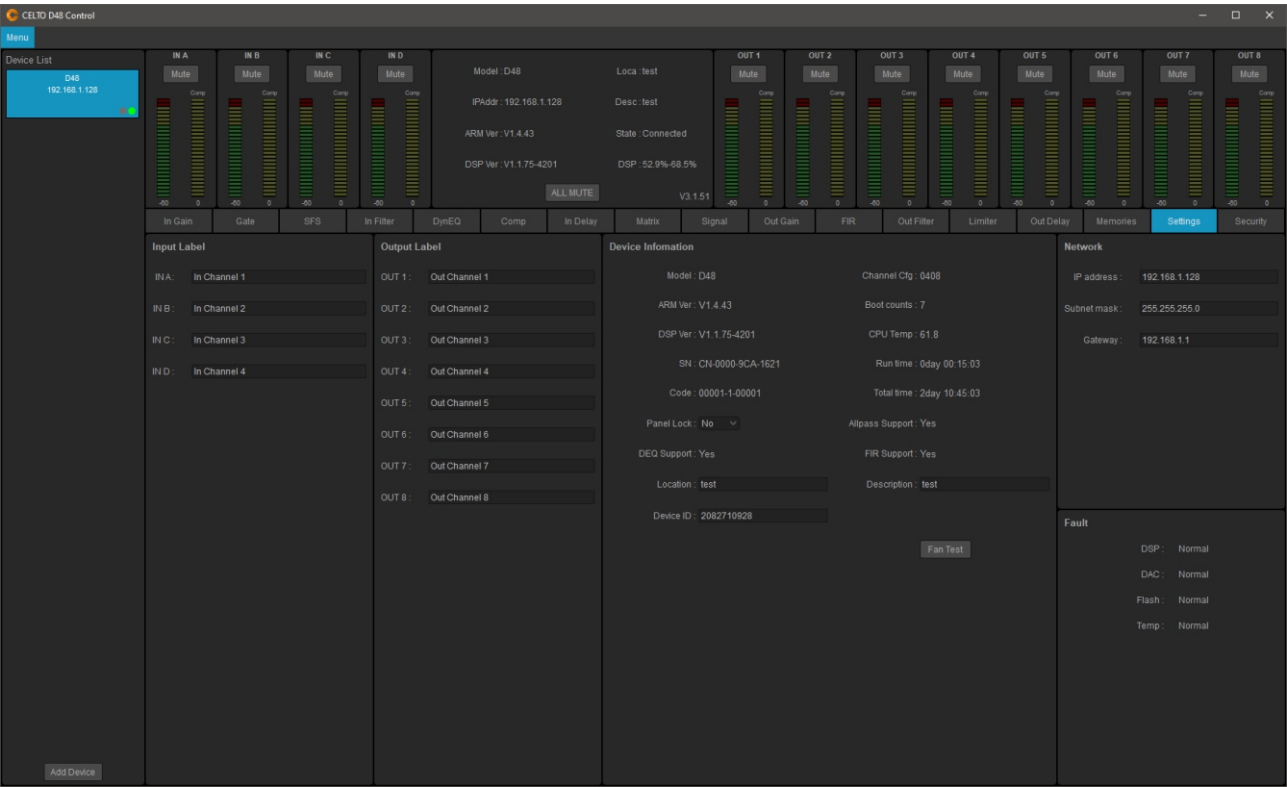


Illustration14: Settings page

The **Security** page allows the user to restrict access of every function individually. You can also change here the unit Security Password.

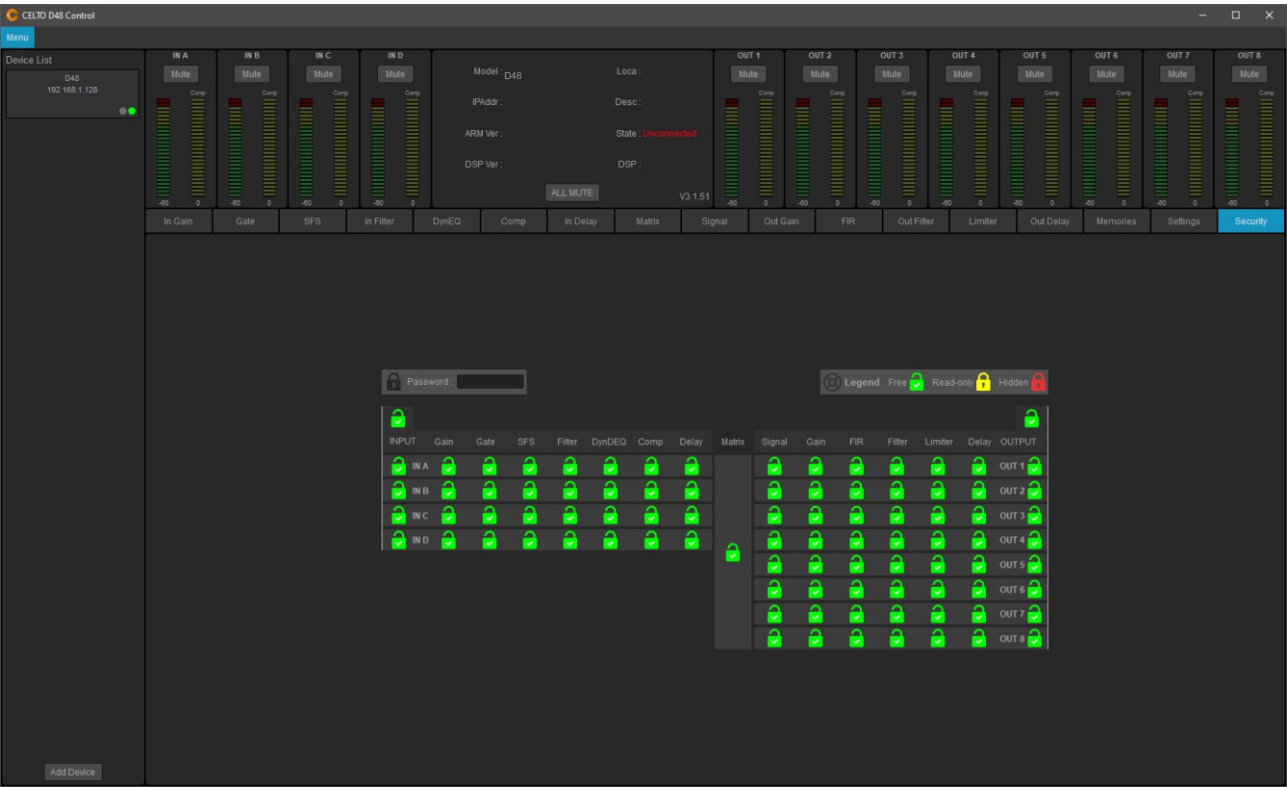


Illustration15: Security page



For more information and technical support
contact us at support@celtogroup.com

Software updates available in our cloud:
celtocloud.com/s/public