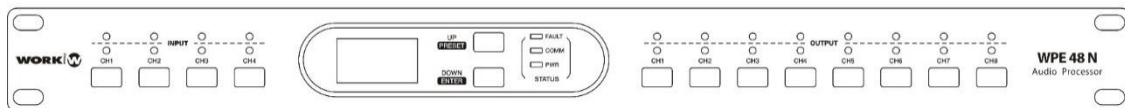


WPE 48N

USER MANUAL

Version 1.1



Security instructions

1. Read this manual carefully.
2. Follow all instructions and warnings.
3. Only use accessories specified by WORK PRO.
4. Follow the safety instructions of your country.
5. Be careful with sound levels.

Symbols

The following symbols are used in this document:



This symbol indicates a potential risk of harm to a person or damage to the product. You can also notify the user of the instructions that must be followed strictly to ensure the installation or safe operation of the product.



This symbol notifies the user about the instructions that must be followed strictly to ensure the correct installation or operation of the product.



This symbol notifies the user about additional information or optional instructions.

WELCOME TO WORK PRO

Thank you for choosing the WPE 48N system from WORK PRO.

This document contains essential information on the use of the system. Read this document carefully to become familiar with the system.

Please check the WORK PRO website regularly to download the latest version of the document and software updates: <https://www.workpro.es/>

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1. INTRODUCTION

WPE 48N is an audio processor able to create a matrix with 4 inputs and 8 outputs. It incorporates a high definition LCD screen to show the status in real time. It also has LAN Ethernet connectivity for the processor management through native software or through RS232 external commands.

FEATURES:

- Digital audio processor.
- Matrix with 4 inputs (balanced) and 8 outputs (balanced).
- Each input/output with signal and peak LED and MUTE button.
- LCD screen.
- 24 presets selected by software or frontal buttons.
- All inputs include: EXP/Gate, Crossover, PEQ, Compressor, Delay.
- All outputs include: Crossover, PEQ, Compressor, Delay.
- 8 equalization filters for each input/output with frequency adjustment, Q factor, Gain and filter type.
- High-pass, low-pass filters of 20 types (Bessel, Butterworth, Linkwitz-Riley).
- LAN Ethernet connectivity to configure a network of devices.
- RS232 connectivity for executing external commands.
- Configuration software.
- Configurable through Web interface.

2. TECHNICAL SPECIFICATIONS

Inputs

Type Electronically balanced
Frequency response 20 Hz – 20 kHz to 0dBu +1/-3dB
Distortion (THD/N)..... < 0.01% @ 0dBu 1kHz

Outputs

Type Electronically balanced
Maximum output level +20 dBu
SNR 108 dB

System Crosstalk

Input to Output..... -90 dBu
Adjacent channels..... - 90 dBu

Noise Gate

Threshold range - 80 dBu - +20 dBu
Attack time 0.5 ms – 200 ms
Release time 5 ms – 2s

Compressor

Threshold range - 30 dBu - +20 dBu
Attack time 10 ms – 150 ms
Release time 10 ms – 1s
Ratio 1:1 to 24:1
Gain +24 dB

Equalizer

8 parametric filters per input, Peak and Shelving (Low and High) type.
8 parametric filters per output, Peak and Shelving (Low and High) type.

Crossover

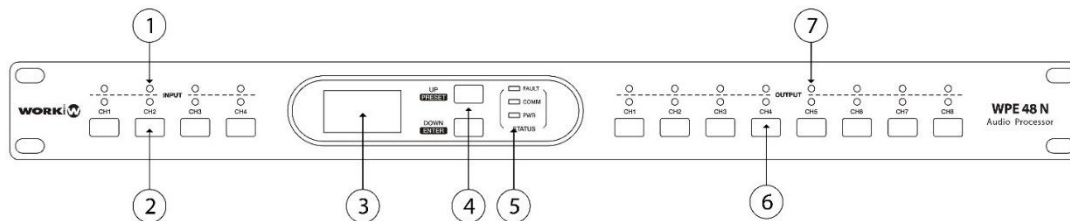
20 high-pass filters (Butterworth, Bessel and Linkwitz-Riley of different order).
20 low-pass filters (Butterworth, Bessel and Linkwitz-Riley of different order).

Other features

Main supply 100 – 240V AC
Consumption 30W
Dimensions 483 x 44 x 252 mm
Weight 3.4 Kg

3. FUNCTION BUTTONS AND INDICATORS

FRONTAL PANEL



1. Input LED indicators

They show the status of the input connection with the following values:

Red LED: CLIP. It blinks when the input signal saturates, lighting up when exceeding 15 dB.

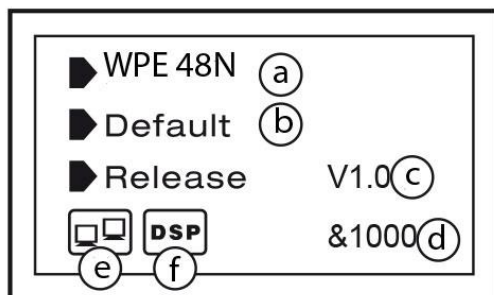
Green LED: SIG. It lights when an input signal level higher than -30 dB is detected.

2. Input MUTE buttons

Press the backlight buttons CH 1 to CH 4 to mute the corresponding input. In this state, the button will be on.

3. LCD display

It displays device information, such as device name, port name, preset, etc.



a) Name of the device.

b) Current Preset.

c) Current version.

d) Current ID. When you connect to the device, the ID is obtained automatically.

e) It indicates the connection between the PC and the WPE 48N. When the connection occurs, it will flash.

f) It indicates that the DSP connection is correct, if it

fails "DSP" will be displayed!

[List of presets](#)

4. UP/PRESET and DOWN/ENTER buttons

These 2 buttons allow you to activate functions on the display and navigate

PRESETS:

Press the UP/PRESET key for 3 seconds to enter the "Recall Preset" page, where you can see all of the 24 device presets. Each preset can be configured using the included software.

To exit this page, press the PRESET key for 3-4 seconds to exit to the main page.

Load a preset:

Use the keys to select the preset. Press the DOWN/ENTER key to load the preset on the device.

When the preset is empty, press DOWN/ENTER for 3 seconds, no preset will be loaded and the system will exit this page and return to the initial page.

Presets by default:

Press the UP/PRESET and DOWN/ENTER keys simultaneously for 8 seconds to clear all the settings and load the default values (empty presets).



NOTE: Keep in mind that, if no key is pressed within 5 seconds then the device returns to the initial page.

SYSTEM:

Press the DOWN/ENTER key for 3 seconds to show the system version and firmware.

5. LEDS STATUS

COMM (green): It lights up when the WPE 48N is connected to a PC and the link is established via the control software, shutting down when this connection is removed.

FAULT (red): It lights up when the operation of the DSP is wrong. **DSP** will appear on the screen! Check the device configuration.

PWR (blue): It lights up when the device is powered on and turned on.

6. Output MUTE buttons

Press the backlight button CH 1 to CH 8 to mute the corresponding output. In this state, the button will be on.

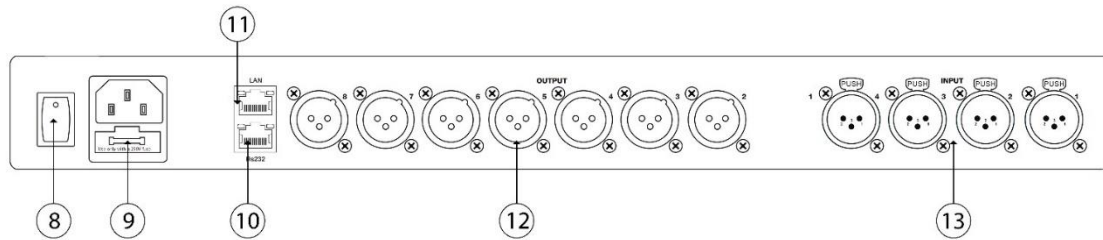
7. Output LED indicators

It shows the status of the output connection with the following values:

Red LED: CLIP. It blinks when the output signal saturates, lighting up when exceeding 15 dB.

Green LED: SIG. It lights when an output signal level higher than -30 dB is detected.

REAR PANEL



8. Power switch

9. Power supply

Connect the IEC cable to a 100-240V AC 50-60 Hz socket.

10. RS232 connector

You can connect external devices which send RS232 commands to control different functions of the device such as channel selection, mute certain inputs/outputs, etc. (*See Annex WPE 48N – RS232 Commands*).

The baudrate used is 9600.

11. LAN Ethernet port

WPE 48N allows to connect to Ethernet through this port. 2 LEDs in the connector indicate the status of the connection (green) and the transmitted signal indicator (yellow).

If the yellow LED is off, it means there is no transmission signal. If the yellow LED is on but the green LED is off, it means that the device detects the network but there is no connection.

If the green LED is on, there is connection to the network.

12. Output connectors 1-8

Balanced XLR3 connectors used for connecting devices such as amplifiers or speakers.

13. Input connectors 1-4

Balanced XLR 3 connectors used for connecting audio sources such as microphones or line devices.

4. DSP (CONFIGURATION SOFTWARE)

In the following link on our website <https://www.workpro.es/products/wpe-48-n> you can download the configuration software for the WPE 48N.

4.1. PREVIOUS CONSIDERATIONS



Disable the WiFi adapter in your computer.

WPE 48N can operate with static IP address or dynamic IP address. Both options are explained below.

WPE 48N operating with static IP:

In the case of networks that do not have DHCP server, WPE 48N has a static IP address. The values are the following:

IP address: 192.168.2.1

Subnet mask: 255.255.255.0

Therefore, in this case, you simply have to manually modify the network configuration of the computer connected to the processor and assign an IP address in the same subnet. For example:

IP address: 192.168.2.100

Subnet mask: 255.255.255.0

WPE 48N working with dynamic IP:

In the case in which the network has a DHCP server to manage and assign IP addresses to all the elements connected to this network, WPE 48N can work with dynamic IP address.

Connect the processor to the same network where the computer with the software running is connected, and the DHCP server of the network will assign to the processor a valid IP address within the same subnet.



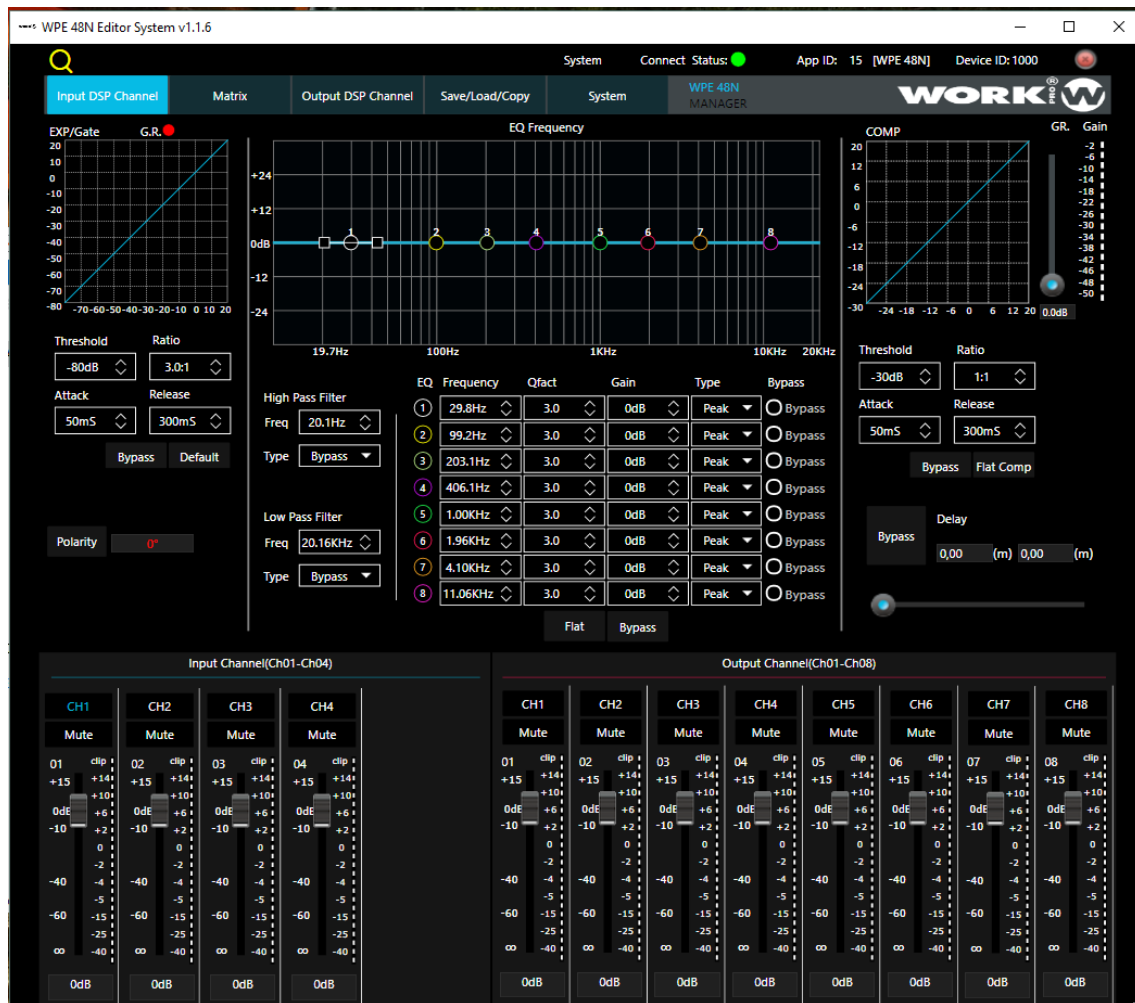
NOTE: WPE 48N has both IP addressing modes enabled by default. To change the configuration related to the network parameters go to the Web configurator and follow the steps shown in section 4.9 .



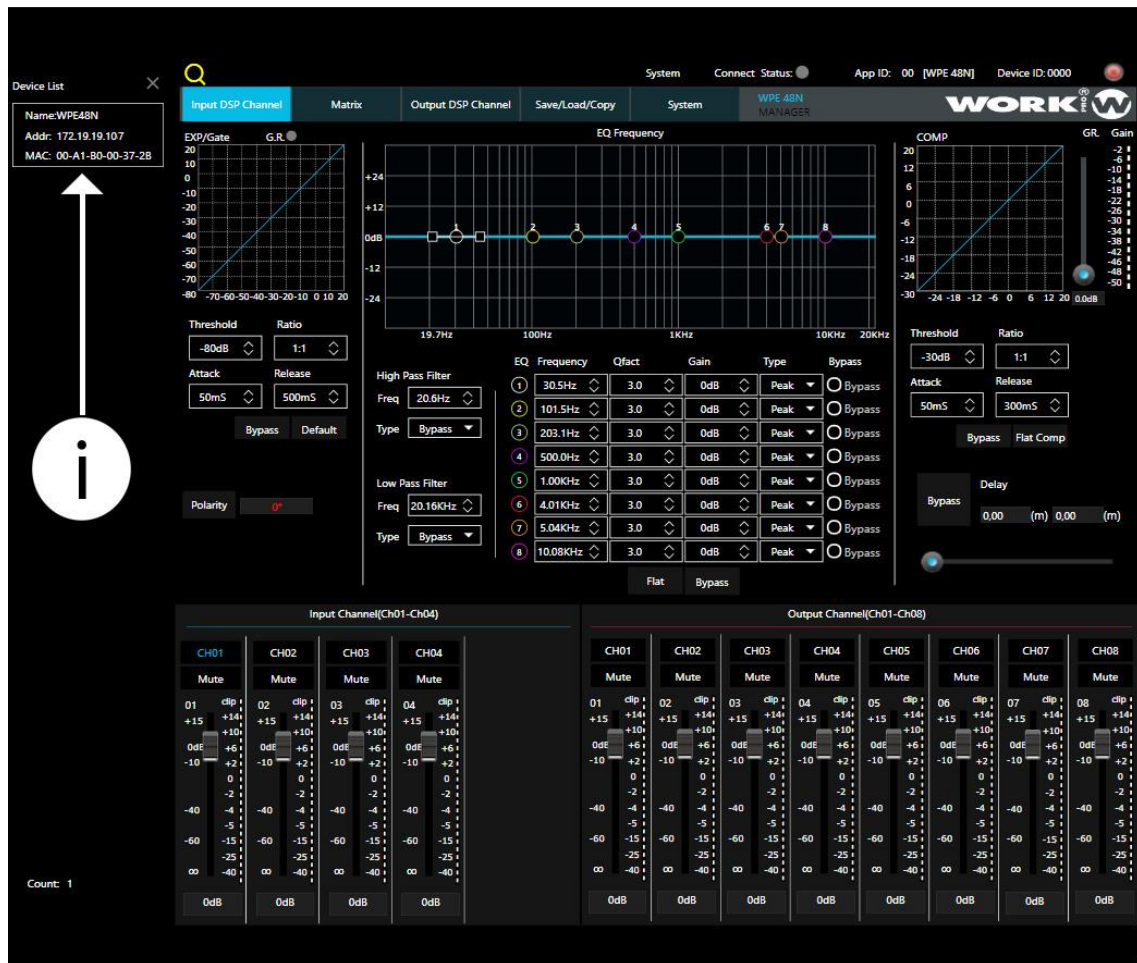
Advanced technical knowledge is required to modify values in this section. If you do not know some of the parameters to replace, do not do it and consult a specialized technician.

4.2. EXECUTING THE CONTROL SOFTWARE

1. Connect the computer and the processor to the same LAN network.
2. Turn on the processor and run the software on the PC.
3. The following screen and a "SEARCHING" warning will appear, while the software is searching the processor in the network.



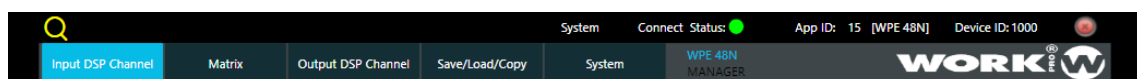
4. Once the processor is found, the software will show a label with all the information: device name, assigned IP address and MAC address.



5. Click on the label to link the software to the processor. The LED next to **Connect Status** will change from grey to green.

4.3. MAIN SCREEN AND BLOCKS

The tabs at the top row correspond to the different blocks to configure:



Input DSP channel

Matrix

Output DSP channel

Select/Load/Copy

System

When clicking on each one, it will highlight in blue and will show the corresponding window.

4.4. INPUT DSP CHANNEL

This screen allows to configure different elements of the input block. First, select the input to modify by pressing on CH1 to CH4. The selected input will be highlighted in blue.

The screenshot displays the 'Input DSP Channel' configuration interface. At the top, there are navigation tabs: 'Input DSP Channel' (selected), 'Matrix', 'Output DSP Channel', 'Save/Load/Copy', and 'System'. The 'WPE 48N MANAGER' logo is visible in the top right.

EQ Frequency Section: A central graph shows the EQ frequency response with a flat line at 0dB. Below the graph is a table of EQ parameters:

EQ	Frequency	Qfact	Gain	Type	Bypass
1	29.8Hz	3.0	0dB	Peak	<input type="radio"/>
2	99.2Hz	3.0	0dB	Peak	<input type="radio"/>
3	203.1Hz	3.0	0dB	Peak	<input type="radio"/>
4	406.1Hz	3.0	0dB	Peak	<input type="radio"/>
5	1.00KHz	3.0	0dB	Peak	<input type="radio"/>
6	1.96KHz	3.0	0dB	Peak	<input type="radio"/>
7	4.10KHz	3.0	0dB	Peak	<input type="radio"/>
8	11.06KHz	3.0	0dB	Peak	<input type="radio"/>

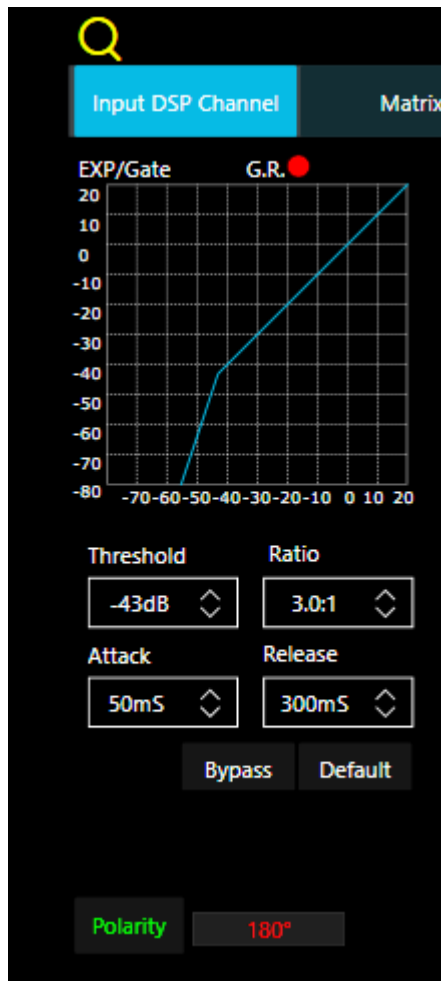
COMP Section: On the right, the COMP section includes a graph and controls for Threshold (-30dB), Ratio (1:1), Attack (50mS), and Release (300mS). There are also buttons for Bypass, Flat Comp, and Delay.

Input Channel (Ch01-Ch04): At the bottom left, four channels (CH1-CH4) are shown. Each channel has a 'Mute' button and a gain slider. Channel 1 is highlighted in blue. The gain sliders are currently set to 0dB.

Output Channel (Ch01-Ch08): At the bottom right, eight channels (CH1-CH8) are shown. Each channel has a 'Mute' button and a gain slider. All gain sliders are currently set to 0dB.

4.4.1. Expansor and noise gate

In this area you can adjust the parameters of the EXP/Gate. The curve will be consistent with the values of the modified parameters.



Threshold

Press the <> icons to modify the threshold value of the noise gate of the previously selected input. Any audio signal that exceeds this threshold level will pass. The range is between -80 dB and -20 dB.

Ratio

This element controls the ratio value between the signal before and after applying the noise gate.

Attack

Press the <> icons to set the interval time that a signal takes over the threshold to open the noise gate. This time can be set between 10 and 150 ms.

Audio signals that increase slowly need low attack times, since noise "clicks" can occur when configuring high times.

Release

Press the <> icons to set the time that the noise gate remains open. It can be set between 0.01 and 1 second.

Bypass

Press this button, it will light up in red and the bypass function will be disabled in all its parameters, preventing modification while this state is activated.

Default

Press this button to get a flat response on all the parameters of the noise gate.

Polarity

Press this button to invert the phase of the signal of the selected channel (invert the phase 180°). If the phase is inverted, it appears highlighted. The polarity control can be used to correct input signals that are out of phase or to cancel/reinforce the others.

4.4.2. Crossover and input equalization filters

Each input has 8 parametric filters to which the frequency, Q factor, gain and type can be configured.

It is also possible to set the frequency and type of the high-pass and low-pass filter. The curve resulting from the application of these filters is shown at the top.



High Pass filter

Press the <> icons to select a minimum frequency value below which the signal will be attenuated. This attenuation is done by selecting among the 20 different types of crossover filter (Butterworth, Bessel and Linkwitz-Riley of different order). In the graphic, the insertion point will appear as HPF.

NOTE: The number next to the filter name indicates the attenuation in dB, e.g. BW6 (Butterworth of 1st order and 6 dB of attenuation)

Low Pass filter

Press the <> icons to select a maximum frequency value above which the signal will be attenuated. This attenuation is done by selecting among the 20 different types of crossover filter (Butterworth, Bessel and Linkwitz-Riley of different order). In the graph, the insertion point will appear as LPF.

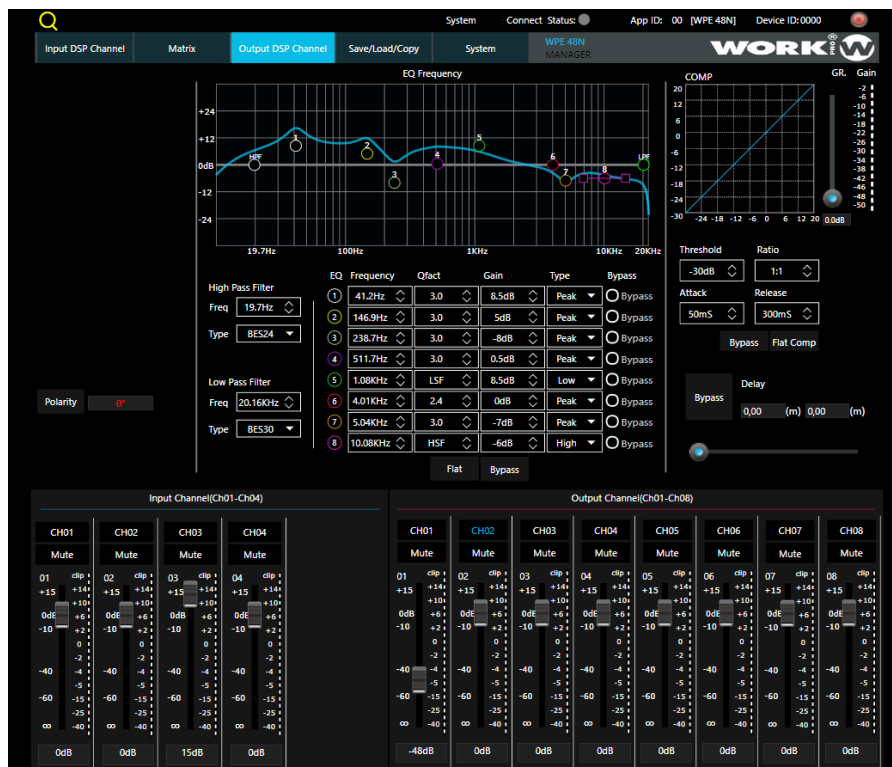
NOTE: The number next to the filter name indicates the attenuation in dB, e.g. BW6 (Butterworth of 1st order and 6 dB of attenuation)

EQ Filters

Each input has 8 filters. These filters have an identification and color code to easily locate them in the resulting graph. Any change in the parameters of each filter will be reflected in the graph, and the union of the different points will create the resulting curve.

It allows to modify the following parameters:

- Frequency: Sets the center frequency of the filter. The range can be set between 19.7 Hz and 20 kHz.
- Qfact: It allows to configure the Q factor of the filter, that is, the ratio between the central frequency and the bandwidth. If the center frequency is constant, the bandwidth is inversely proportional to the Q value, which means that if the Q value is increased, the bandwidth narrows. Its range oscillates between 0.4 and 128.
- Gain: It allows to control the attenuation gain or boost of the center frequency. Its value can be set between -18 dB and +18 dB.
- Type: Select the type of filter: Peak, Low or High. The last 2 of shelving type.
- Bypass: Each filter has its own bypass key to disable that particular filter. The bottom bypass button is general. Press this key so that the settings of the equalizer and crossover filters have no effect. In bypass mode the boxes do not light up and it is not possible to change their values until you exit this mode.
- Flat: Press to leave the values at their default levels (flat response).



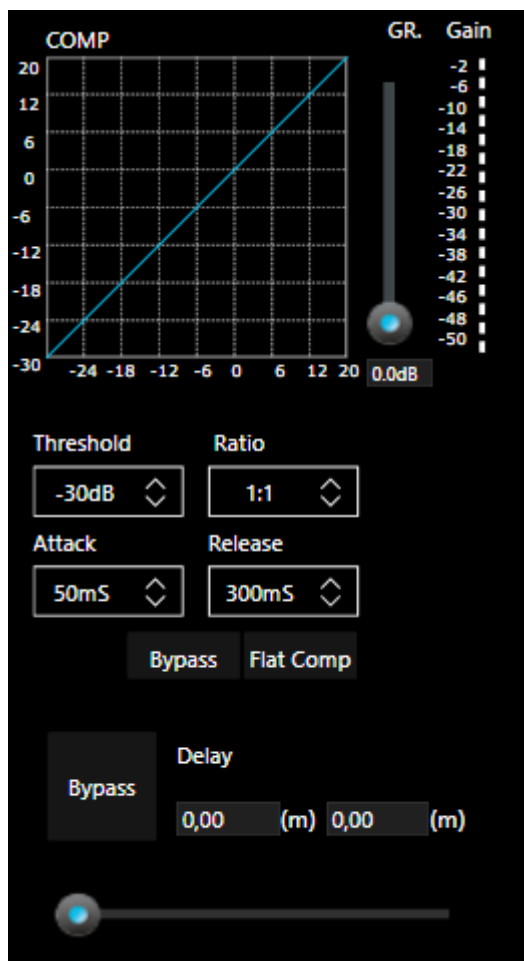
Example of response curve obtained after applying the equalization and crossover filters



Note: The values of the equalizer filters can also be modified by clicking and dragging with the mouse on the marked points in the graphic. These changes will be reflected in the corresponding boxes.

4.4.3. Compressor

In this area you can adjust the compressor parameters. The compressor compresses the signal that exceeds the specified threshold and with the selected ratio. The curve shows the result of varying the parameters.



- Threshold: Allows to adjust the compressor threshold. If the amplitude of a signal exceeds that threshold, the compressor will reduce the signal level to the specified ratio.

If the amplitude of the signal is below the threshold, the compressor does not act. The threshold can be set between -30 dB to +20 dB.

- Ratio: Controls the compression ratio of the signal of the selected input. The ratio determines the amount of profit reduction. For example, a ratio of 4: 1 means that if the input level is 4 dB above the threshold, the output level will be 1 dB above that threshold.

NOTE: The Limit value implies that the processor enters the limiter mode.

- Attack: Controls the time attack of the compressor. Attack sets the period that the compressor needs to reduce the gain until it reaches the level determined by the ratio. You can set this time between 10 and 150 ms.

- Release: Controls the time it takes for the compressor to return to the normal gain level, once that gain has fallen to the threshold level. You can set this time between 10 ms and 1 s.

- Bypass: Press this key so that the compressor

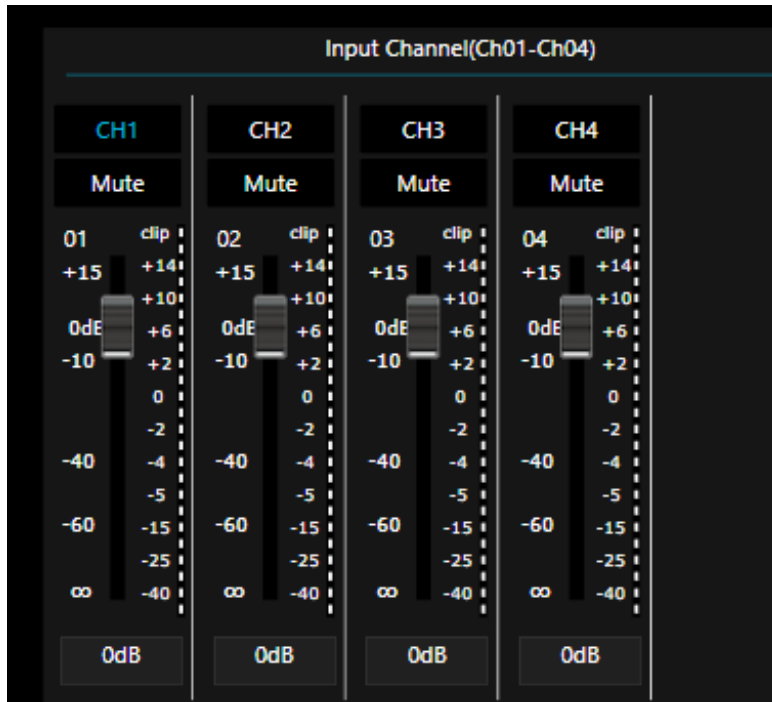
configuration has no effect. In bypass mode the boxes do not light up and it is not possible to change their values until you exit this mode.

- Flat: Press to leave the values at their default levels (flat response).

- Delay: Press to enable or disable a delay on the channel. Move the fader to set this delay. You can only do it if the option is active. If the Bypass function is active, you cannot adjust the delay. The units shown are milliseconds (left value) and meters (right value).

4.4.4. Input channel (CH01-CH04)

In this section you can adjust the gain level of each input channel in two different ways:



- Pressing the fader button and dragging up or down until you reach the desired value.

- Double click on the lower box that marks the numerical gain value and write the desired value.

In both cases, using one of the methods implies that the other one synchronizes the selected value.

Mute: It is possible to mute any of the inputs, either through the software by clicking the corresponding box (it will change to red), or by pressing the physical button of the processor.

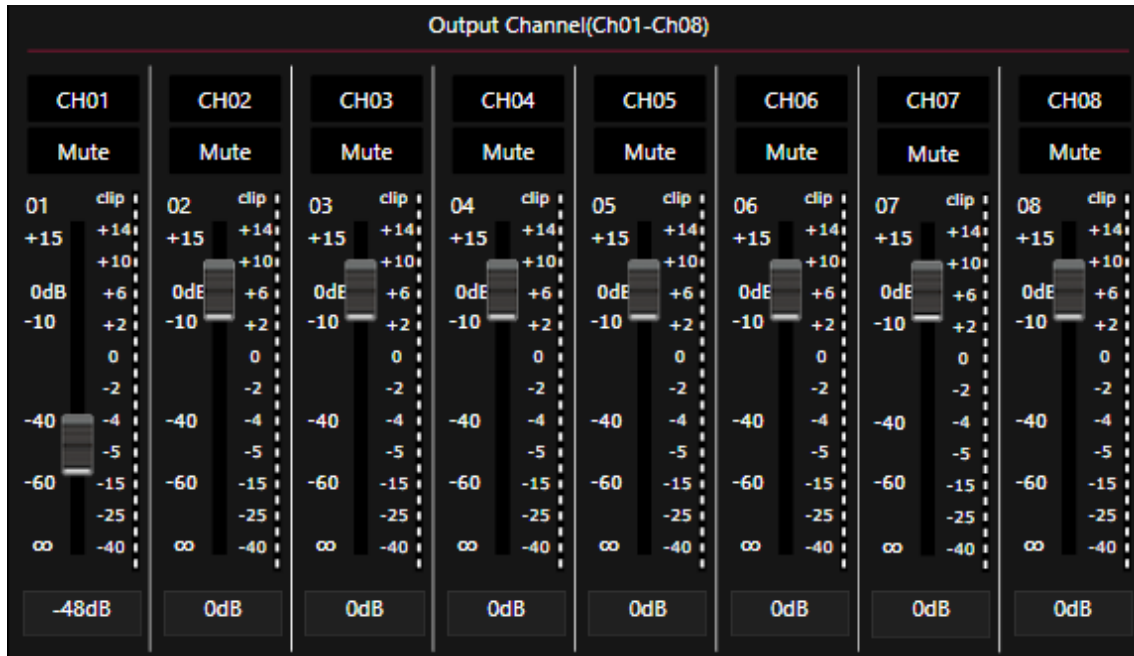
Channel name: Double click on CH1 to CH4 to write a name for that channel.



If in this section (Input DSP channel) you change any option of the OUTPUT controls, the software will immediately jump to the Output DSP channel tab, with its own sections.

4.4.5. Output channel (CH01-CH08)

In this section you can adjust the gain level of each output channel in two different ways:



- Pressing the fader button and dragging up or down until you reach the desired value.
- Double click on the lower box that marks the numerical gain value and write the desired value.

In both cases, using one of the methods implies that the other one synchronizes the selected value.

Mute: It is possible to mute any of the outputs, either through the software by clicking the corresponding box (it will change to red), or by pressing the physical button of the processor.

Channel name: Double click on CH1 to CH8 to write a name for that channel.



If in this section (Output DSP channel) you change any option of the INPUT controls, the software will immediately jump to the Input DSP channel tab, with its own sections.

4.5. MATRIX

This tab allows to create a matrix of inputs and outputs. Mark the points of intersection between the inputs (rows) and outputs (columns). When they turn blue, the input and output corresponding to the crossing point are derived.

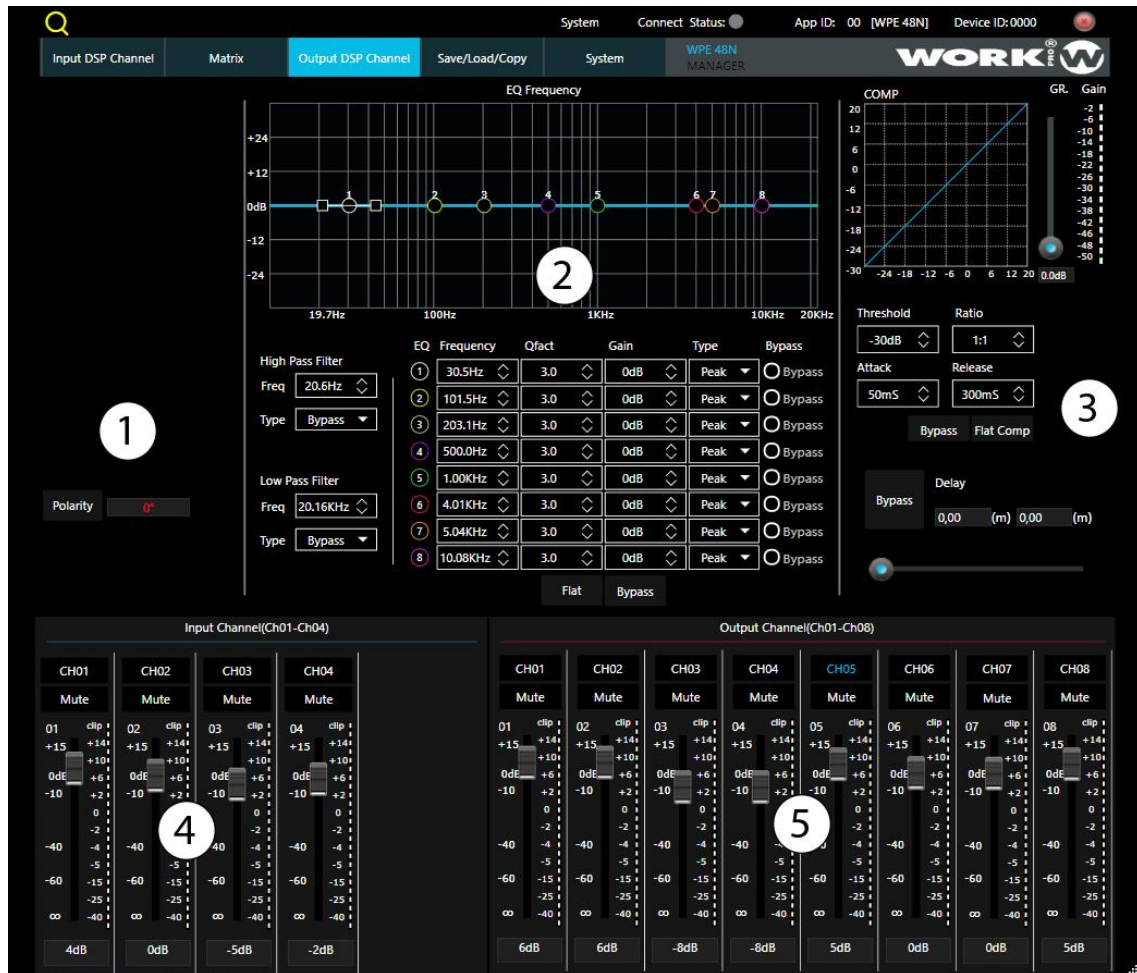
It is possible to send the same input signal to several outputs.

The screenshot shows the Matrix configuration interface. At the top, the 'Matrix' tab is selected. Below the navigation bar, there is a grid representing the matrix. The grid has 4 rows labeled 'in 1' through 'in 4' and 8 columns labeled 'Out 1' through 'Out 8'. Blue circles at the intersections indicate active connections: (1,1), (1,4), (1,8), (2,2), (2,5), (3,3), (3,6), (4,4), and (4,7). Below the grid, there are two sections: 'Input Channel(CH01-CH04)' and 'Output Channel(CH01-CH08)'. Each section contains 4 channels with various controls like 'Mute', 'clip', gain sliders, and dB values.

In this example, input 1 is directed to outputs 1, 4 and 8; input 2 to outputs 2 and 5; input 3 to outputs 3 and 6; and input 4 to outputs 4 and 7.

4.6. OUTPUT DSP CHANNEL

This screen allows to configure different magnitudes of the input block. First, the input to modify should be selected by pressing on CH1 to CH4. The selected input will highlight in blue.



4.6.1. Polarity

Press this button to invert the phase of the signal of the selected channel (invert the phase 180°). If the phase is inverted, it appears illuminated. The polarity control can be used to correct input signals that are out of phase or to cancel/reinforce the others.

4.6.2. Crossover and equalization filters

Each output has 8 parametric filters that can be set to frequency, Q factor, gain and type.

It is also possible to set the frequency and type of the high pass and low pass filter. The curve of the application of these filters is shown in the upper part.



High Pass filter

Press the <> icons to select a minimum frequency value below which the signal will be attenuated. This attenuation is done by selecting among the 20 different types of crossover filter (Butterworth, Bessel and Linkwitz-Riley of different order). In the graphic, the insertion point will appear as HPF.

NOTE: The number next to the filter name indicates the attenuation in dB BW6 (Butterworth 1st order and 6 dB attenuation)

Low Pass filter

Press the <> icons to select a maximum frequency value above which the signal will be attenuated. This attenuation is done by selecting among the 20 different types of crossover filter (Butterworth, Bessel and Linkwitz-Riley of different order). In the graph, the insertion point will appear as LPF.

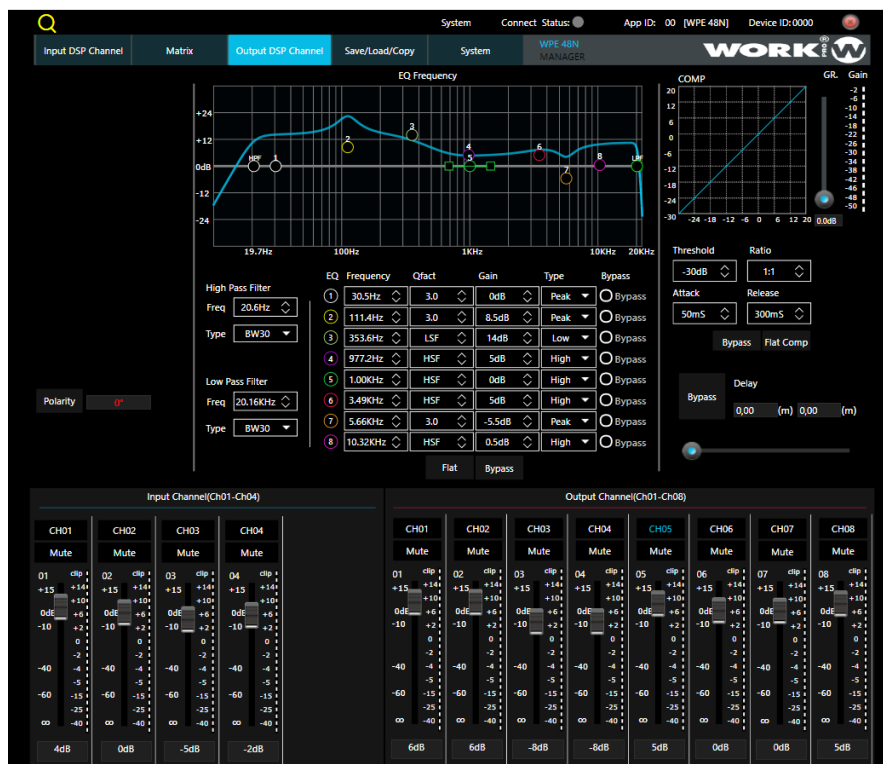
NOTE: The number next to the filter name indicates the attenuation in dB: BW6 (Butterworth 1st order and 6 dB attenuation)

EQ filters

Each output has 8 filters. These filters have an identification and color code to easily locate it in the resulting graph. Any change in the parameters of each filter will be reflected in the graph and the union of the different points will create the resulting curve.

It allows to modify the following parameters:

- Frequency: Sets the center frequency of the filter. The range can be set between 19.7 Hz and 20 kHz.
- Qfact: It allows to configure the Q factor of the filter, that is, the ratio between the central frequency and the bandwidth. If the center frequency is constant, the bandwidth is inversely proportional to the Q value, which means that if the Q value is increased, the bandwidth becomes narrower. Its range oscillates between 0.4 and 128.
- Gain: It allows to control the attenuation gain or boost of the center frequency. Its value can be set between -18 dB and +18 dB.
- Type: Select the type of filter: Peak, Low or High. The last 2 of shelving type.
- Bypass: Each filter has its own bypass key to disable that particular filter. The bottom bypass button is general. Press this key so that the settings of the equalizer and crossover filters have no effect. In bypass mode the boxes do not light up and it is not possible to change their values until you exit this mode.
- Flat: Press to leave the values at their default levels (flat response).



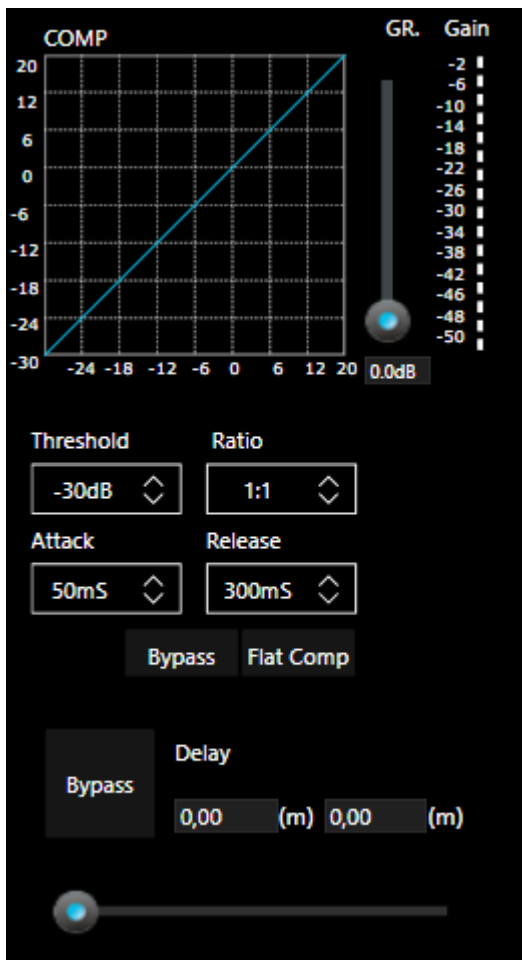
Example of response curve obtained after applying the equalization and crossover filters



The values of the equalizer filters can also be modified by clicking with the mouse and sliding on the handles on the graphic display. These changes will be reflected in the corresponding boxes.

4.6.3. Compressor

In this area you can adjust the compressor parameters. The compressor compresses the signal that exceeds the specified threshold and with the ratio marked. The curve shows the result of varying the parameters.



- Threshold: It allows to adjust the compressor threshold. If the amplitude of a signal exceeds that threshold, the compressor will reduce the level of the signal to the specified ratio.

If the amplitude of the signal is below the threshold, the compressor does not act. The threshold can be set between -30 dB to +20 dB.

- Ratio: It controls the compression ratio of the signal of the selected input. The ratio determines the amount of profit reduction. For example, a ratio of 4: 1 means that if the input level is 4 dB above the threshold, the output level will be 1 dB above that threshold.

NOTE: The Limit value implies that the processor enters the limiter mode.

- Attack: It controls the time attack of the compressor. Attack sets the period that the compressor needs to reduce the gain until it reaches the level determined by the ratio. You can set this time between 10 and 150 ms.

- Release: Controls the time it takes for the compressor to return to the normal gain level, once that gain has fallen to the threshold level. You can set this time between 10 ms and 1 s.

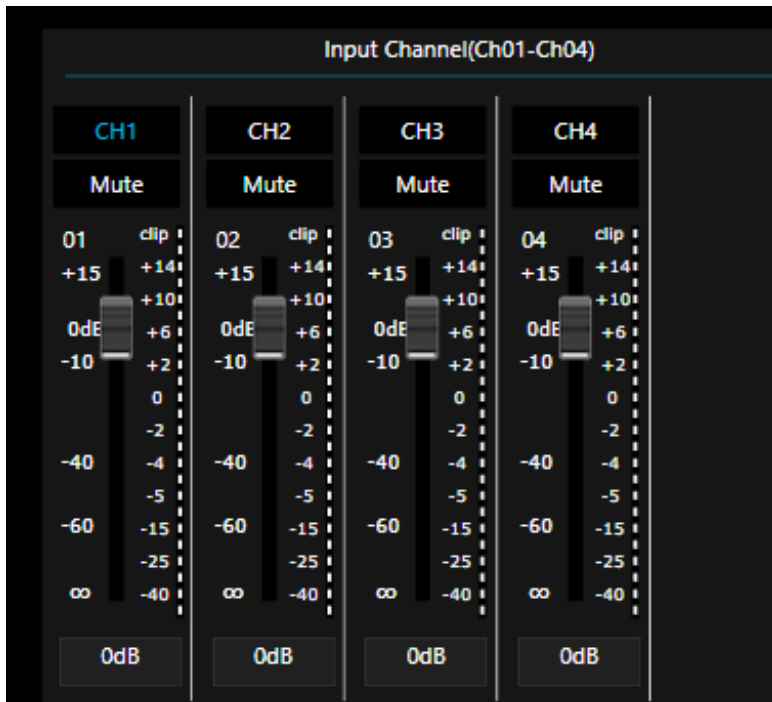
- Bypass: Press this key so that the compressor configuration has no effect. In bypass mode, the boxes do not light up and it is not possible to change their values until you exit this mode.

- Flat: Press to leave the values at their default levels (flat response).

- Delay: Press to enable or disable a delay on the channel. Move the fader to set this delay. It only can be done if the option is active. If the Bypass function is active, you cannot adjust the delay. The units shown are milliseconds (left value) and meters (right value).

4.6.4. Input channel (CH01-CH04)

In this section you can adjust the gain level of each input channel in two different ways:



- Pressing the fader button and dragging up or down until you reach the desired value.

- Double click on the lower box that marks the numerical gain value and write the desired value.

In both cases, using one of the methods implies that the other synchronizes the selected value

Mute: It is possible to mute any of the inputs, either through the software by clicking the corresponding box (it will change to red), or by pressing the physical button of the processor.

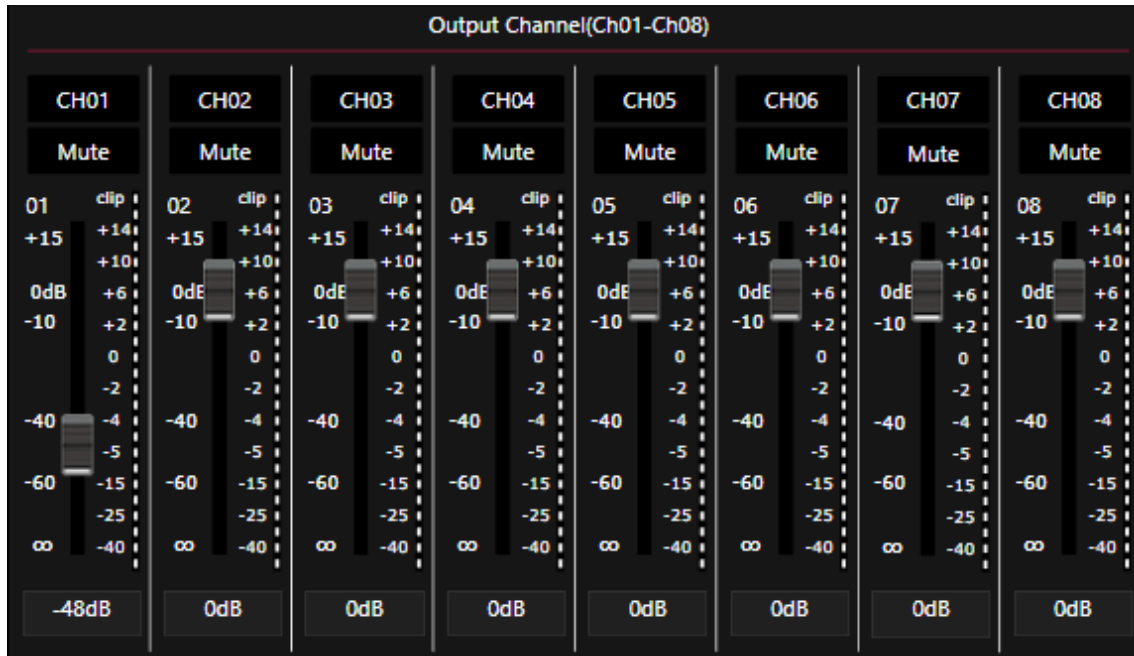
Channel name: Double click on CH1 to CH4 to write a name for that channel.



If in this section (Input DSP channel) you change any option of the OUTPUT controls, the software will immediately jump to the Output DSP channel tab, with its own sections.

4.6.5. Output channel (CH01-CH08)

In this section you can adjust the gain level of each input channel in two different ways:



- Pressing the fader button and dragging up or down until you reach the desired value.
 - Double click on the lower box that marks the numerical gain value and write the desired value.
- In both cases, using one of the methods implies that the other one synchronizes the selected value.

Mute: It is possible to mute any of the inputs, either through the software by clicking the corresponding box (it will change to red), or by pressing the physical button of the processor.

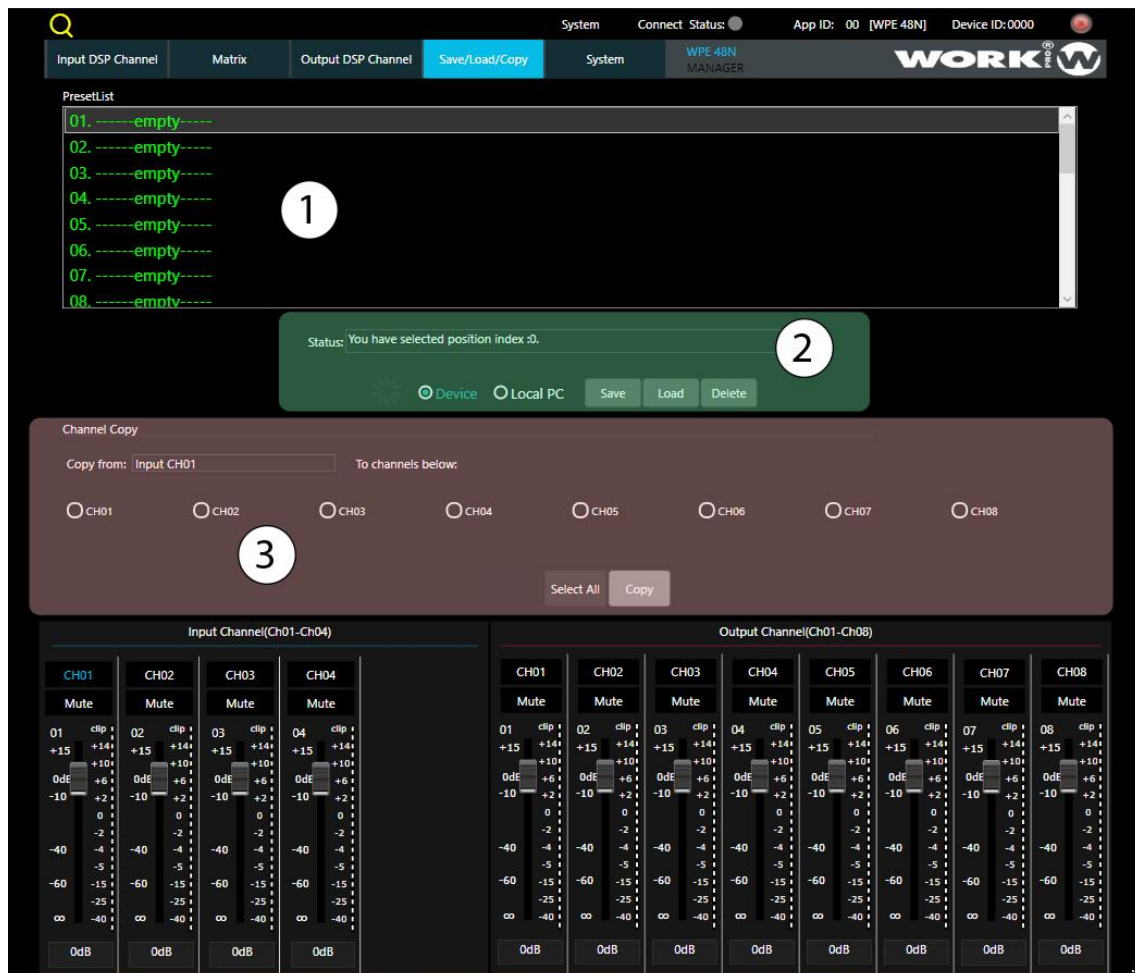
Channel name: Double click on CH1 to CH4 to write a name for that channel.



If in this section (Output DSP channel) you change any option of the INPUT controls, the software will immediately jump to the Input DSP channel tab, with its own sections.

4.7. SAVE/LOAD/COPY

This section allows to interact with the created configuration presets, allowing to store them as external files or upload them directly to the device if it is directly connected to the software. It is also possible to clone inputs and outputs, in order to avoid having to repeat the entire configuration process.



4.7.1. Preset List

It shows a sliding menu with the 24 possible presets to store in the processor. The name with which it was stored is shown next to the preset number. **Empty** indicates an empty preset position where a preset can be recorded.

4.7.2. Save/Load/Delete presets

The configuration software allows to interact with the presets (saving or deleting) in two different ways:

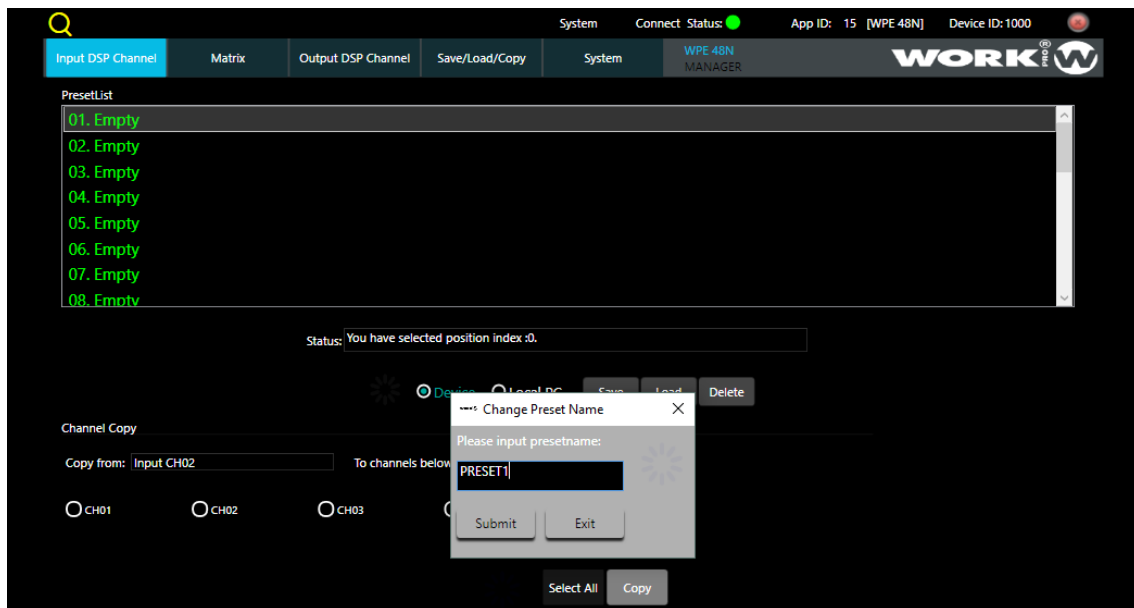
Device: Changes are made directly on the WPE 48N connected to the software, allowing changes to be made in live mode.

Local PC: Allows to make configurations without having a physical connection to the processor. It is a useful process to create the presets as files, store them in the computer and download them in the installation where the processor is located.

In the case of acting directly with the processor (DEVICE):

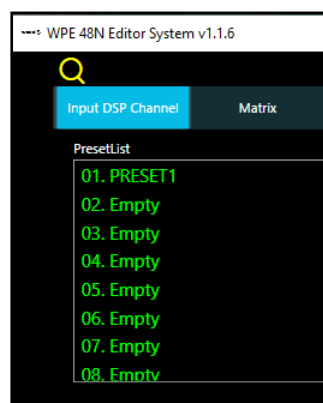
SAVE

1. Once the input and output configurations have been made (gain, EQ values, etc.), click on the upper tab Save/Load/Copy to access this window.
2. Press Device to act with the presets directly on the processor.
3. Select an empty preset position and press SAVE. The following window will appear.



Write the name of the preset to be recognizable in the list of presets, and press **Submit** to accept or **Exit** to exit without saving.

After a few seconds, the new preset will appear in the top list.



If you press Submit and the screen is not closed, it means there is no connection between the processor and the software. Check the connection.

LOAD

Select the desired preset from the top list and press Load to load it directly onto the processor. The software will jump directly to the **Input DSP Channel** tab and the stored configuration will be executed immediately.

DELETE

Select the preset you want to delete and press Delete. It will automatically disappear from the list of presets and the name will change to **EMPTY**.

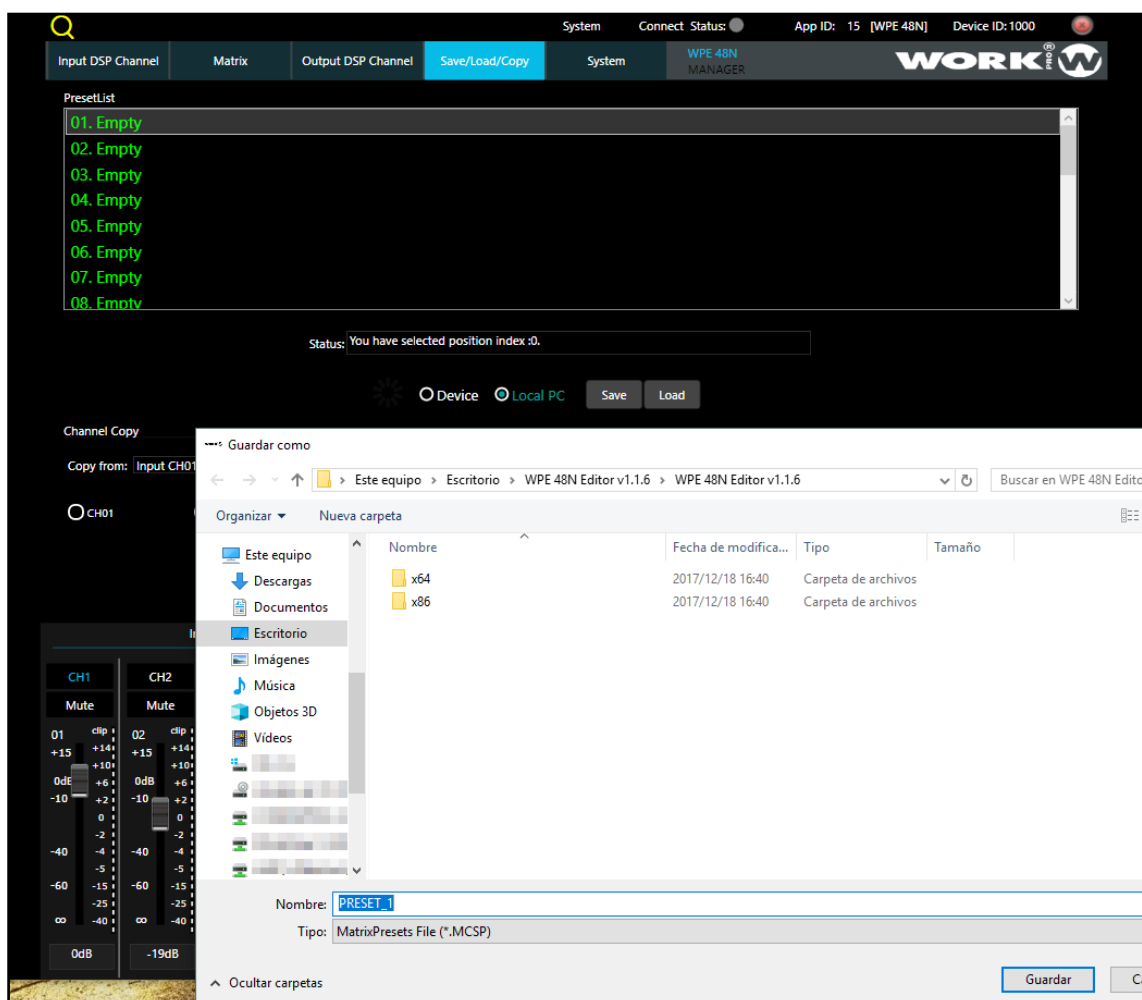
In the case of remotely store the presets as files (LOCAL PC):

SAVE

1. Once the input and output configurations have been made (gain, EQ values, etc.), click on the top tab Save/Load/Copy to access this window.

2. Press Local PC to store the presets as files.

3. Select an empty preset position and press SAVE. The following window will appear.



4. Save the file with the extension * .MCSP for its load on the processor.

LOAD

With the processor connected through the software, press the option Local PC and Load.

The following screen will appear, allowing to select one of the previously created and stored presets.

Nombre	Fecha de modifica...
x64	2017/12/18 16:40
x86	2017/12/18 16:40
preset_2.MCSP	2018/2/19 10:44
PRESET_1.MCSP	2018/2/19 9:50

Select the desired preset and press Open to load it. After a few seconds the preset will be executed.



Keep in mind that, at this moment, the loaded preset is not saved in the processor memory, therefore, if you want to keep it stored you must perform the SAVE steps in Device mode.

4.7.3. Save/Load/Delete channels

With this option it is possible to clone the configuration of an input in one or several of them in order to avoid having to repeat all the steps of creation of equalization filters or high-pass, low-pass filters.

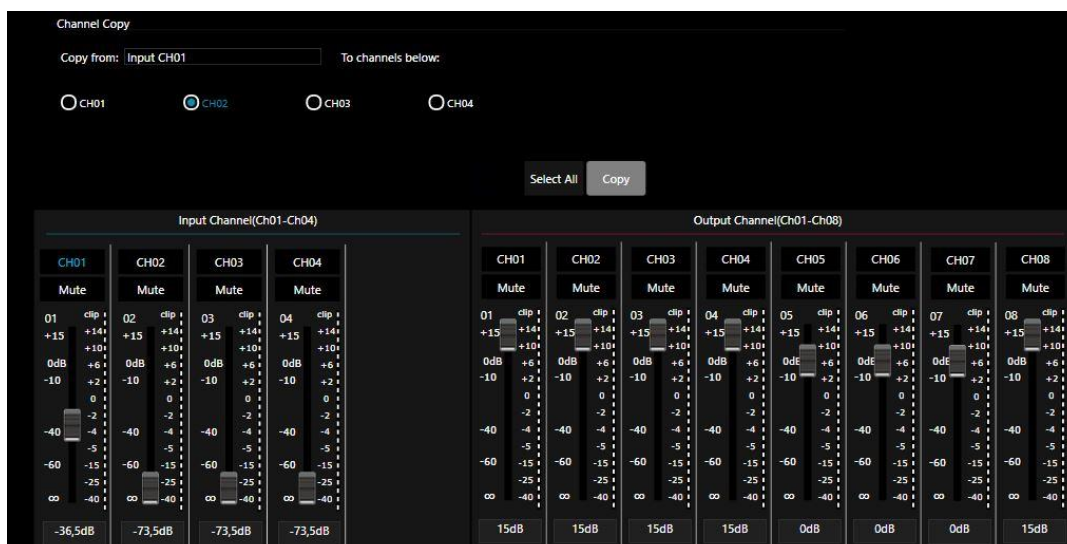
In the same way, it is also possible to clone the outputs.



The process of copying inputs and outputs can only be done when the processor is connected.

INPUTS

1. Once the input to be used as a base has been configured, click on the **Save/Load/Copy** tab and the following window will appear:

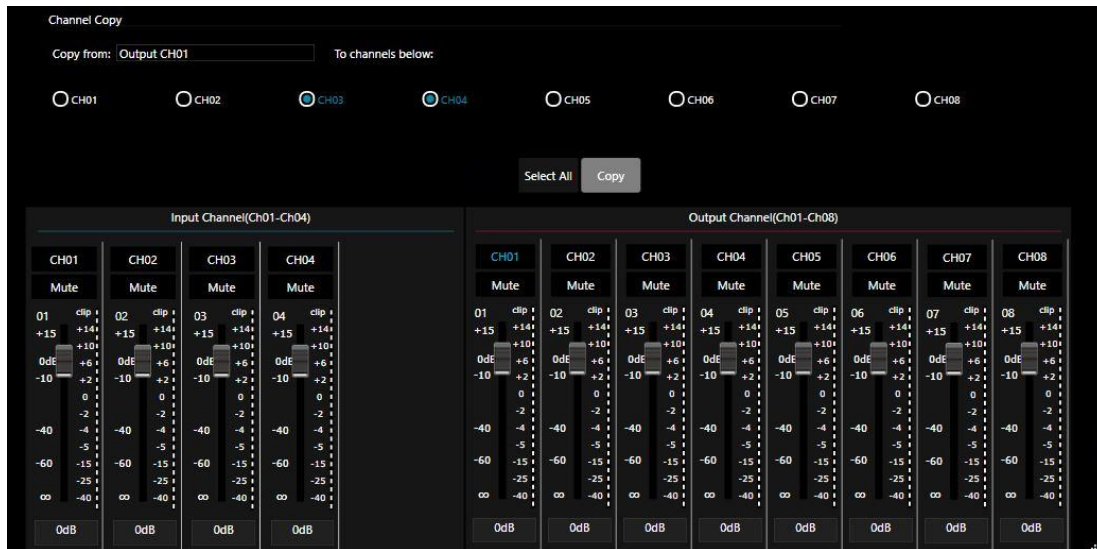


2. In the lower part are located the faders of the inputs and outputs.
3. Select the input to be copied by clicking on the name. (Red highlighted will appear).
4. In the drop-down box appears the marked input and 4 selection buttons with the 4 inputs.

5. Mark the input or inputs where you want to copy the information of the selected input as a base.
6. A window to confirm the copy will appear.
7. In this case, input 1 has been selected as the base for the copy and input 2 as the destination.

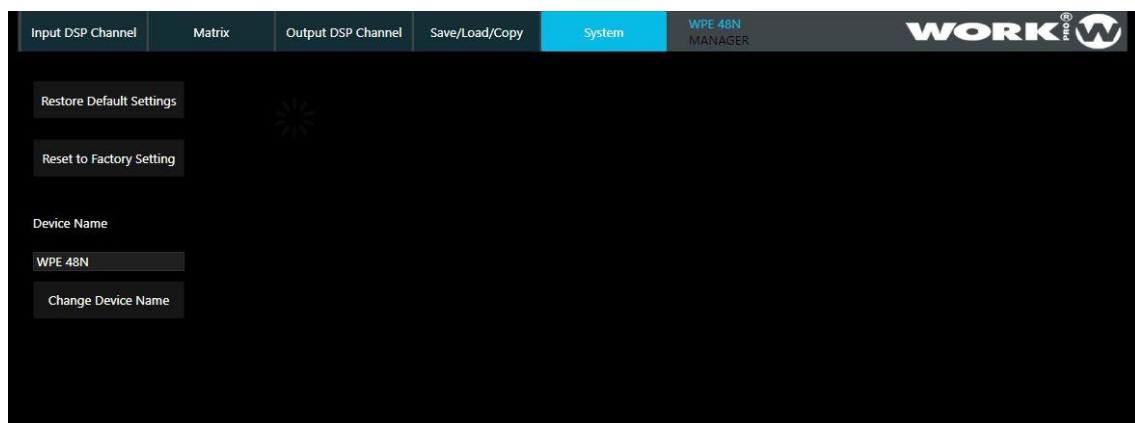
OUTPUTS

The process of copying the outputs is the same, appearing in this case 8 buttons corresponding to the 8 outputs of the processor. In this case, output 1 has been copied to outputs 3 and 4.



4.8. SYSTEM

In this section you can reset the device configuration in two different ways, as well as modify the name of the device.



Restore Default Settings: Restore the device keeping presets stored.

Restart to Factory Settings: Restore the device to the factory settings deleting the presets.

Device Name: You can change the device name.



* System

Clicking on the "System" tab at the upper side. It displays the menu to block the device from external manipulation, allowing to create a password for that block.

4.9. Configuration through Web Interface

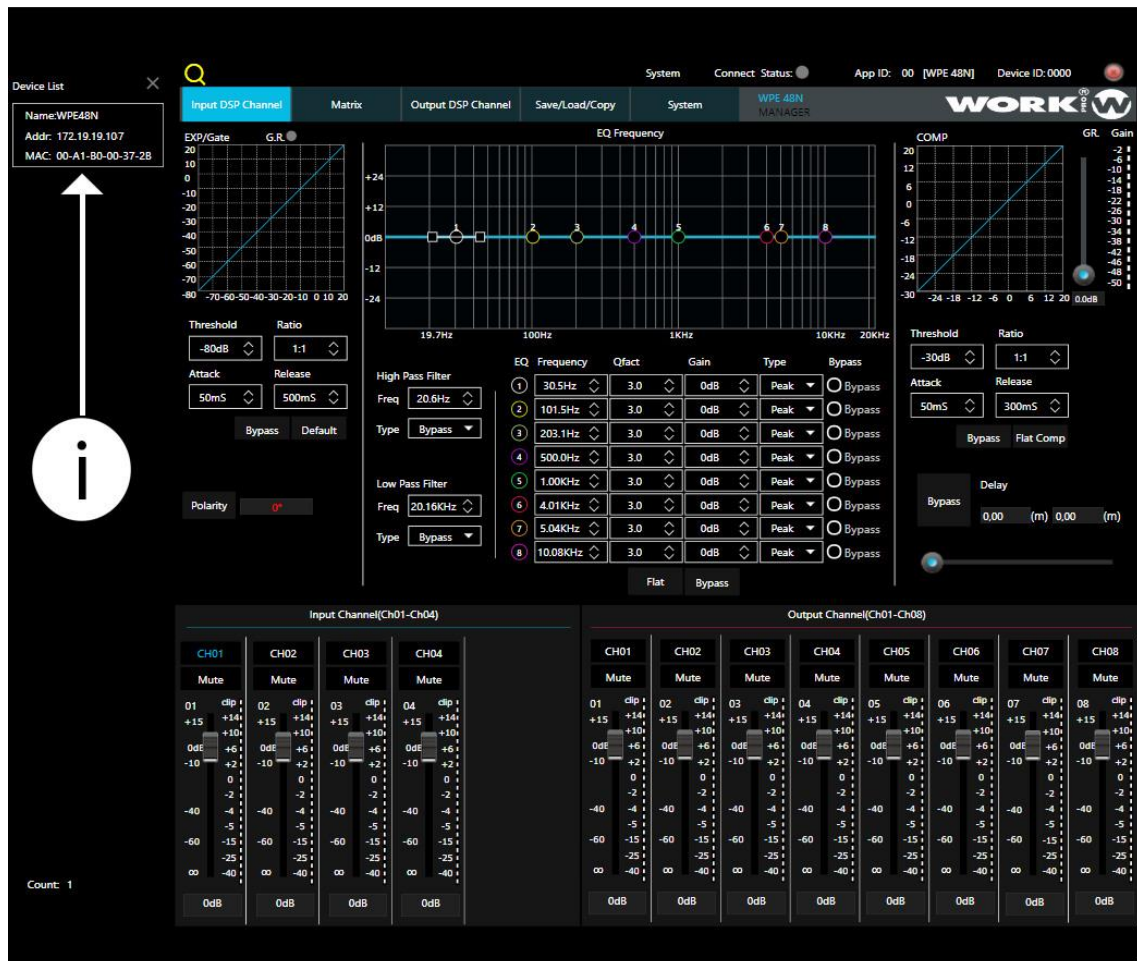
WPE 48N has an in-built Web configurator which allows to configure several advanced parameters using a Web browser.



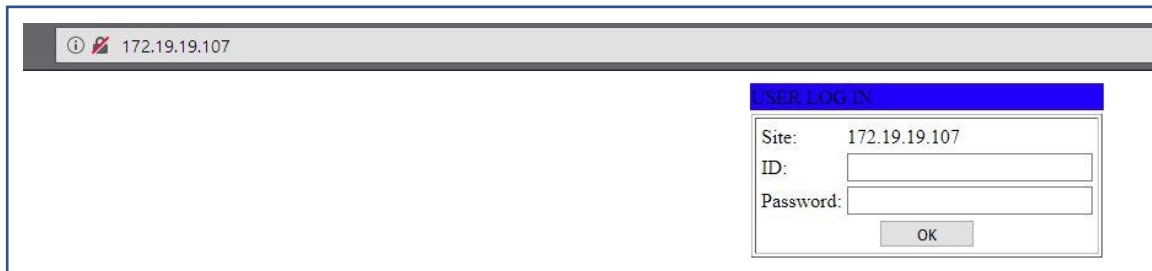
Advanced technical knowledge is required to modify values in this section. If you do not know some of the parameters to replace, do not do it and consult a specialized technician.

4.9.1. Access the Web configurator

To access the webserver of the WPE 48N, use any web browser and type the IP address of the processor that appears once the processor and the software are synchronized. In this example, the IP address is 172.19.19.107



Web browser:



The WPE 48N processor has an ID and a Password by default. These values can be modified in this section. Bear in mind that if you lose/forget that ID and/or Password, it will be not possible to access the Web configurator.

The default values are:

ID: admin

Password: system

After filling in these fields and pressing OK, the general administration window appears.

4.9.2. Administrator Setting

In this section it is possible to visualize the Kernel version and the MAC address of the device, as well as modify the name by which the processor will be recognized in the network.

It is also possible to modify the IP configuration of the device and whether it is static or obtained by DHCP.

We can also modify the user name (ID) and password to access the webserver.



Advanced technical knowledge is required to modify values in this section. If you do not know some of the parameters to replace, do not do it and consult a specialized technician.

Administrator Setting	
Kernel Version	V1.44.7 2014/08/22
MAC Address	00:A1:B0:00:37:2B
Nickname	WPE48N
IP Setting	
IP Address	192 . 168 . 2 . 1
Subnet Mask	255 . 255 . 255 . 0
Gateway	192 . 168 . 2 . 1
IP Configure	<input type="radio"/> Static <input checked="" type="radio"/> DHCP
Password Setting	
Username	admin max:15
Password max:15
Confirm
Update	
Load Default Setting to EEPROM	Load
Note: Nickname only can use "0-9","a-z","A-Z","_","-"	

4.9.3. Communication protocols

In the following sections it is possible to select the communication protocol and its parameters.



IMPORTANT: Advanced technical knowledge is required to modify values in this section. If you do not know some of the parameters to replace, do not do it and consult a specialized technician.

TCP Control

Item	Value
Telnet Server/Client	<input checked="" type="radio"/> Server <input type="radio"/> Client <input type="radio"/> Disable
Port Number	<input type="text" value="5000"/>
Remote Server IP Address	<input type="text" value="210"/> <input type="text" value="200"/> <input type="text" value="181"/> <input type="text" value="102"/>
Client mode inactive timeout	<input type="text" value="20"/> minute (1~99,0=Disable)
Server mode protect timeout	<input type="text" value="0"/> minute (1~98,0=Disable,99=Can't replace)

UART Control

Item	Setting
Mode	<input type="text" value="RS232"/>
Baudrate	<input type="text" value="57600"/>
Character Bits	<input type="text" value="8"/>
Parity Type	<input type="text" value="none"/>
Stop Bit	<input type="text" value="1"/>
Hardware Flow Control	<input type="text" value="none"/>
Delimiter	<input type="checkbox"/> Character 1: <input type="text" value="00"/> , <input type="checkbox"/> Character 2: <input type="text" value="FF"/> <input type="checkbox"/> Silent time: <input type="text" value="5"/> (1~255)*200ms <input type="checkbox"/> Drop Character

UDP

Item	Value																		
Status	<input type="radio"/> Enable <input checked="" type="radio"/> Disable																		
Local Port	<input type="text" value="21"/>																		
Remote Address	<table border="1"> <thead> <tr> <th>IP</th> <th>Port</th> </tr> </thead> <tbody> <tr> <td><input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/></td> <td><input type="text" value="0"/></td> </tr> <tr> <td><input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/></td> <td><input type="text" value="0"/></td> </tr> <tr> <td><input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/></td> <td><input type="text" value="0"/></td> </tr> <tr> <td><input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/></td> <td><input type="text" value="0"/></td> </tr> <tr> <td><input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/></td> <td><input type="text" value="0"/></td> </tr> <tr> <td><input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/></td> <td><input type="text" value="0"/></td> </tr> <tr> <td><input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/></td> <td><input type="text" value="0"/></td> </tr> <tr> <td><input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/></td> <td><input type="text" value="0"/></td> </tr> </tbody> </table>	IP	Port	<input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/>	<input type="text" value="0"/>
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