



THE UNIVERSE OF INSTALLATION

DIGITAL LOUDSPEAKER MANAGEMENT

User's Manual



DLM-206i



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SEIKAKU TECHNICAL GROUP LIMITED

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TROUBLE SHOOTING

Symptom	Likely Cause	What to do
No sound	Speaker not connected to active AC power Power not switched on	Verify that speaker is connected and that the circuit is on Switch on power and verify that power led is on
No sound, speaker is connected to working AC power but won't come on	Speaker power cable is faulty or improperly connected. Blown fuse	*Re-seat the power cable at both ends; *Substitute a known-good power cable *Check fuse & replace with same type "spare fuse in holder"
No sound Speaker comes on	Signal source (mixer, Amp instrument) is not sending Faulty cables & connections	*Check if the signal LED indicators are lit on *Verify that the tape or CD is playing; *Use headphones to verify that the instrument is actually sending an audio signal *Disconnect and re-seat signal cables; *Replace suspected cable with a known-good cable
No sound with microphone connected to MIC / LINE input	Microphone requires phantom power	The EON does not supply phantom power. Switch to a dynamic microphone, use a battery powered microphone (if possible), use an external phantom power supply for condenser type microphones.
Signal sounds distorted and very loud, LIMIT light is lit most of the time	Excessive input signal, trying to exceed the capabilities of the speakers	*Reduce the output level of the source; *Turn down the level controls on the speaker; *Use additional EON speakers *Make sure that the MIC / LINE switch is in the LINE (disengaged) position;
Lots of hiss in sound, mixer controls are at very low settings.	Improper gain structure	*Reduce the level settings at speaker. Review the Owner's Manual for your mixer and adjust controls as needed; *Input sensitivity (gain); *Channel faders; *Master faders;
Hum or Buzz	Improper A/C grounding, ground loops	*"Lift" audio ground by using XLR/F to XLR/M adapter on one end *Re-route audio cables away from AC power and lighting cables.
	Excessively long unbalanced cable run	*Use the balanced outputs (if available) of your mixer or source equipment to drive your EON speakers. *Use "DI" (direct injection) box to convert unbalanced equipment output to a balanced output.
	Improper system gain structure	Reduce the INPUT level controls and increase the output level of your source devices.

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IMPORTANT!
Please read this manual carefully before operating this unit for the first time.

TECHNICAL SPECIFICATIONS

System Specification	Frequency Response	20 Hz~20 kHz, +/-0.5 dB
	S/N Ratio	> 115 dBu
	Distortion (THD)	<0.01% at 1 kHz (-10 dBv)
	Cross-talk	< 100 dB below full scale
Input Section	Digital	AES/EBU
	Type	Balanced XLR
	Sensitivity	-20 dBu
	Max. Input level	+20 dBu
Output Section	Impedance	1 M Ω /Stereo; 500 k Ω /Mono
	Six Channels	
	Type	Balanced XLR
	Max. Output level (bypass)	+20 dBu
Digital Processing	Impedance	<500 Ω
	24-bit sigma-delta converters	
	48 kHz Sampling Rates	
	Bypass all the DSP function	
Display	16x2 LCD Display for parameters setting and function select	
	7x8 LED for Input and Output Level Display	
Control	9 buttons for different DSP functions selection	
	4/6 buttons for Outputs channels Muting	
Power Supply	RJ-45 connector for LAN PC software control	
	AC90-264V, 50/60Hz	
Dimension (WxDxH)	483x210x40 mm (19"x8.3"x1.6")	
Weight	DLM-206i: 2.5 Kg (5.51 lb)	

SAFETY RELATED SYMBOLS



The symbol is used to indicate that some hazardous live terminals are involved within this apparatus, even under the normal operating conditions.



The symbol is used in the service documentation to indicate that specific component shall be only replaced by the component specified in that Documentation for safety reasons.



Protective grounding terminal.



Alternating current /voltage.



Hazardous live terminal .

ON: Denotes the apparatus turns on.

OFF: Denotes the apparatus turns off, because of using the single pole switch, be sure to unplug the AC power to prevent any electric shock before you proceed your service.

WARNING: Describes precautions that should be observed to prevent the danger of injury or death to the user.



Disposing of this product should not be placed in municipal waste and should be separate collection.

CAUTION: Describes precautions that should be observed to prevent danger of the apparatus.

WARNING

• Power Supply

Ensure the source voltage matches the voltage of the power supply before turning ON the apparatus.

Unplug this apparatus during lightning storms or when unused for long periods of time.

• External Connection

The external wiring connected to the output hazardous live terminals requires installation by an instructed person, or the use of ready-made leads or cords.

• Do not Remove any Cover

There are maybe some areas with high voltages inside, to reduce the risk of electric shock, do not remove any cover if the power supply is connected.

The cover should be removed by the qualified personnel only.

No user serviceable parts inside.

• Fuse

To prevent a fire, make sure to use fuses with specified standard (current, voltage, type). Do not use a different fuse or short circuit the fuse holder.

Before replacing the fuse, turn OFF the apparatus and disconnected the power source.

• Protective Grounding

Make sure to connect the protective grounding to prevent any electric shock before turning ON the apparatus.

Never cut off the internal or external protective grounding wire or disconnect the wiring of protective grounding terminal.

• Operating Conditions

This apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on this apparatus.

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

Do not use this apparatus near water. Install in accordance with the manufacturer's instructions. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat. Do not block any ventilation openings.

No naked flame sources, such as lighted candles, should be placed on the apparatus.

IMPORTANT SAFETY INSTRUCTIONS

- Read these instructions.
- Follow all instructions.
- Keep these instructions.
- Heed all warnings.
- Only use attachments / accessories specified by the manufacturer.

Power Cord and Plug

Do not defeat the safety purpose of the polarized or grounding type plug.

A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

Cleaning

When the apparatus needs a cleaning, you can blow off dust from the apparatus with a blower or clean with rag etc.

Don't use solvents such as benzol, alcohol, or other fluids with very strong volatility and flammability for cleaning the apparatus body. Clean only with dry cloth.

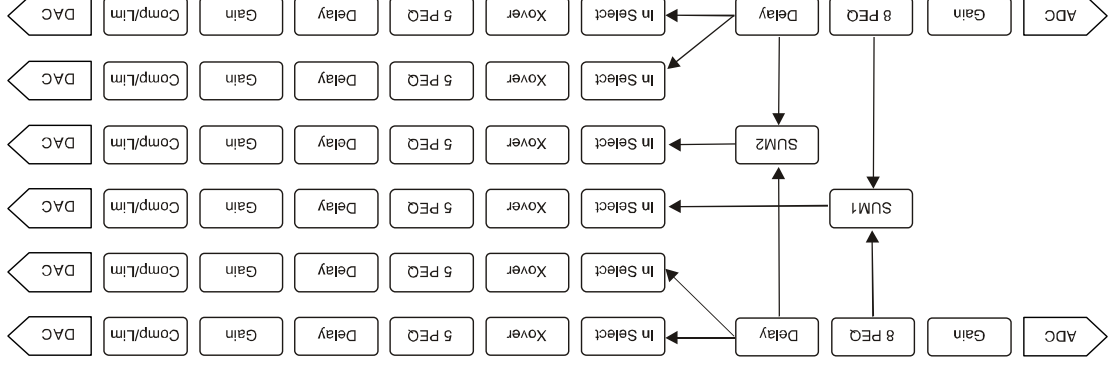
Serviceing

Refer all servicing to qualified personnel. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so .

Serviceing is required when the apparatus has been damaged in any way ,such as power supply cord or plug is damaged , liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

The mains plug is used as the disconnect device, the disconnect device shall remain readily operable.

BLOCK DIAGRAM



INTRODUCTION

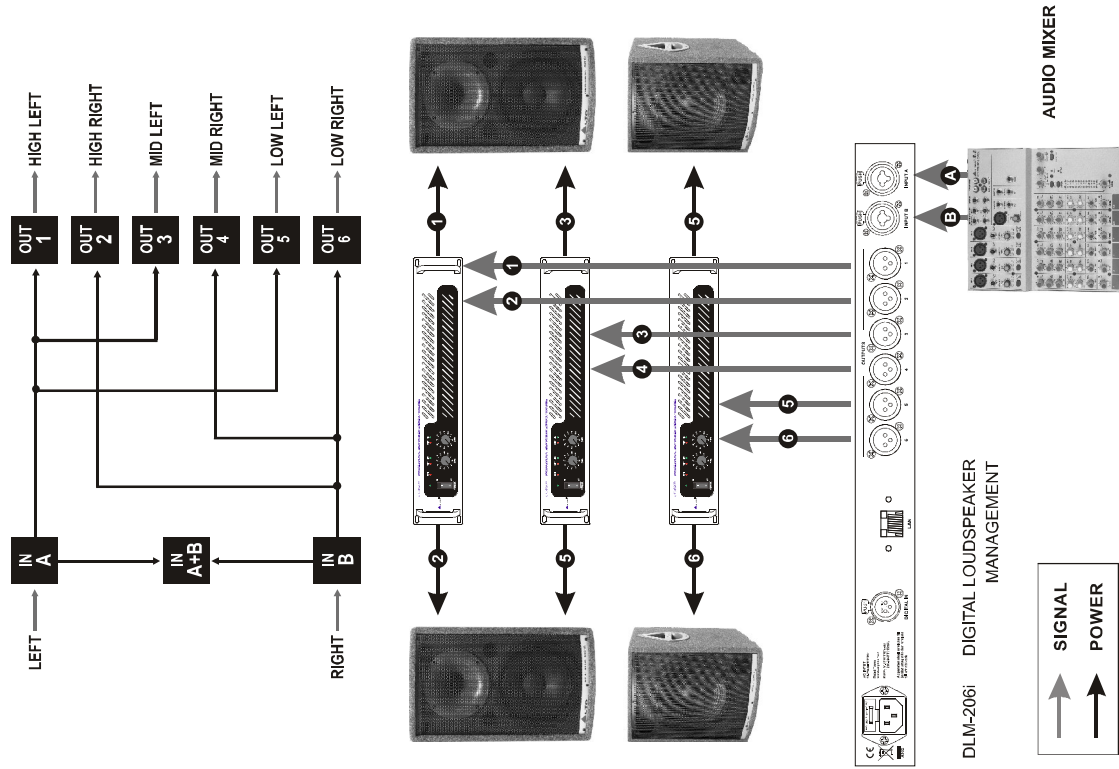
2. A135 B246 3-WAY STEREO [2X3WAY]

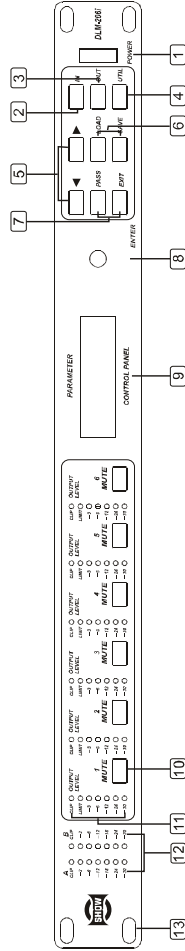
The DLM-206i is 2 In/6 Out Digital Signal Processor for speaker management with network control. For the input section, there are Input Gain, 8 bands Parametric Equalizer (PEQ) and delay functions for the stereo input signal processing. In the 6 output channels section, there are equipped with Input selection, 5-band Parametric Equalizer, Crossover, Delay, Gain, Limiter, and Mute. In order to make the users understand the ways of operation conveniently, it uses the LEDs and LCD to indicate the respective parameter settings. You can also control the DLM-206i remotely using AudioEditor software from connecting with PC by LAN.

Please read this manual carefully so you can take advantages of all the features of the DLM-206i. Thanks again for choosing SHOW.

FEATURES

- 2 balanced / unbalanced Inputs and 6 balanced Outputs
- 10 Factory Presets and 60 User Presets
- 7 LEDs for every Channel Level Display
- AES/EBU Digital Audio Input with Sample Rate Converter
- Bypass button
- Output Mute button for every output channel
- RJ45 user interface for network PC software control
- Input Gain Control from +12 to -40 dB
- 8-band Input parametric EQ with 1 / 32 Oct. Frequency step
- 5-band Output parametric EQ with 1 / 32 Oct. Frequency step
- 1364 ms Delay Line Support for Speaker Placement
- Re-routable input selection for the output management
- -3 dB to -48 dB Butterworth, Bessel, Link-Riley Crossover Types
- Output Volume Control from +12 to -40 dB
- Comp / Lim Function for every output channel
- 0.5 dB / step for Parametric EQ Boost and Cut
- Auto-detectable Digital Input enable



CONTROL ELEMENTS
FRONT PANEL

1. POWER ON / OFF

This switch is used to turn the main power ON / OFF.

2. INPUT

As the input gain control, the control range is from +12dB to -40 dB, it includes 8-band Parametric EQ and Delay for adjustment. Due to the Gain is adjusted by digital, user can set the input level to suit the application. But be careful not to set the volume too high to let the signal clipped.

3. OUTPUT

As the output gain control, the control range is from +12 dB to -40 dB, it includes Input selection, Crossover, 5-band Parametric EQ, Delay, Gain and Compress / Limit functions. Due to the Gain is adjusted by digital, user can adjust the output level to appropriate situation. The output level display was useful to the gain setting, as it can avoid the volume too high to let the signal clipped.

4. UTILITY

Several functions parameters setting, such as ID number setting, Digital and Analog Input selection are used for different application.

5. Edit Controls

These two buttons allow you to turn over the pages and / or a variable number of parameters.

6. LOAD & SAVE

These buttons are used to load and save the user's presets. Up to 70 presets can be used for parameters setting. (10 Factory Presets and 60 User's Presets)

7. PASS / EXIT

The button "PASS" is used to bypass the DSP PEQ, HP / LP, and Volume functions, also send the input signal to the DLM-206i outputs directly. The button "EXIT" is used to return to previous operation

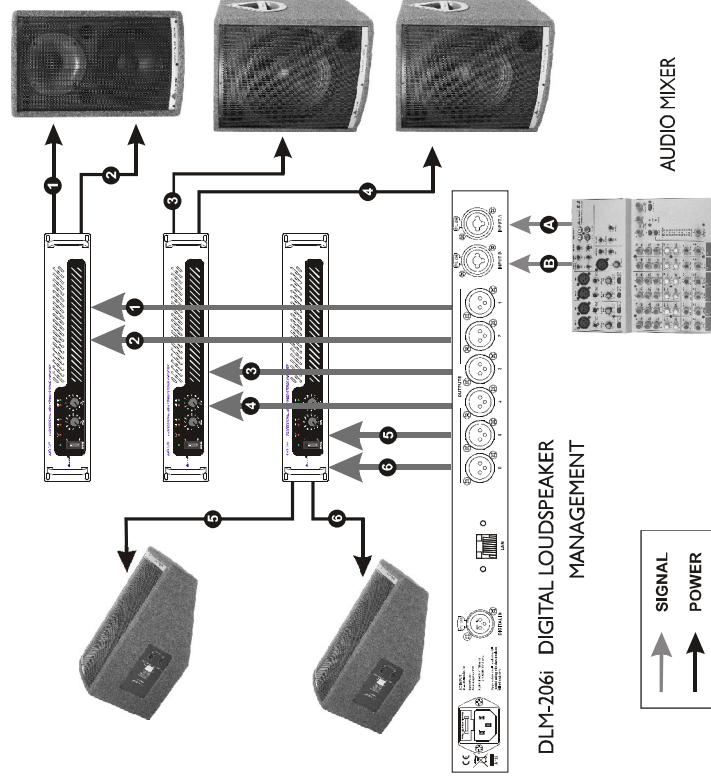
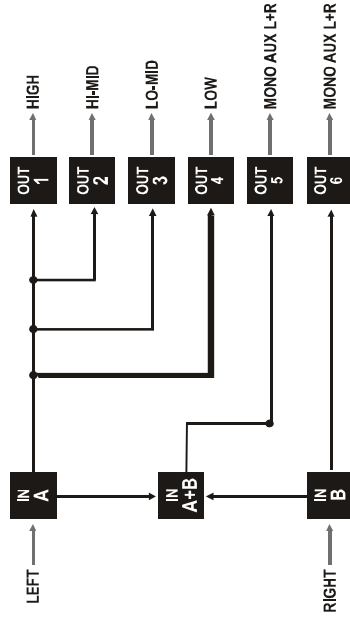
8. ENTER Control

This control is used to select the preset and modify the parameter's value.

9. Parameter Display

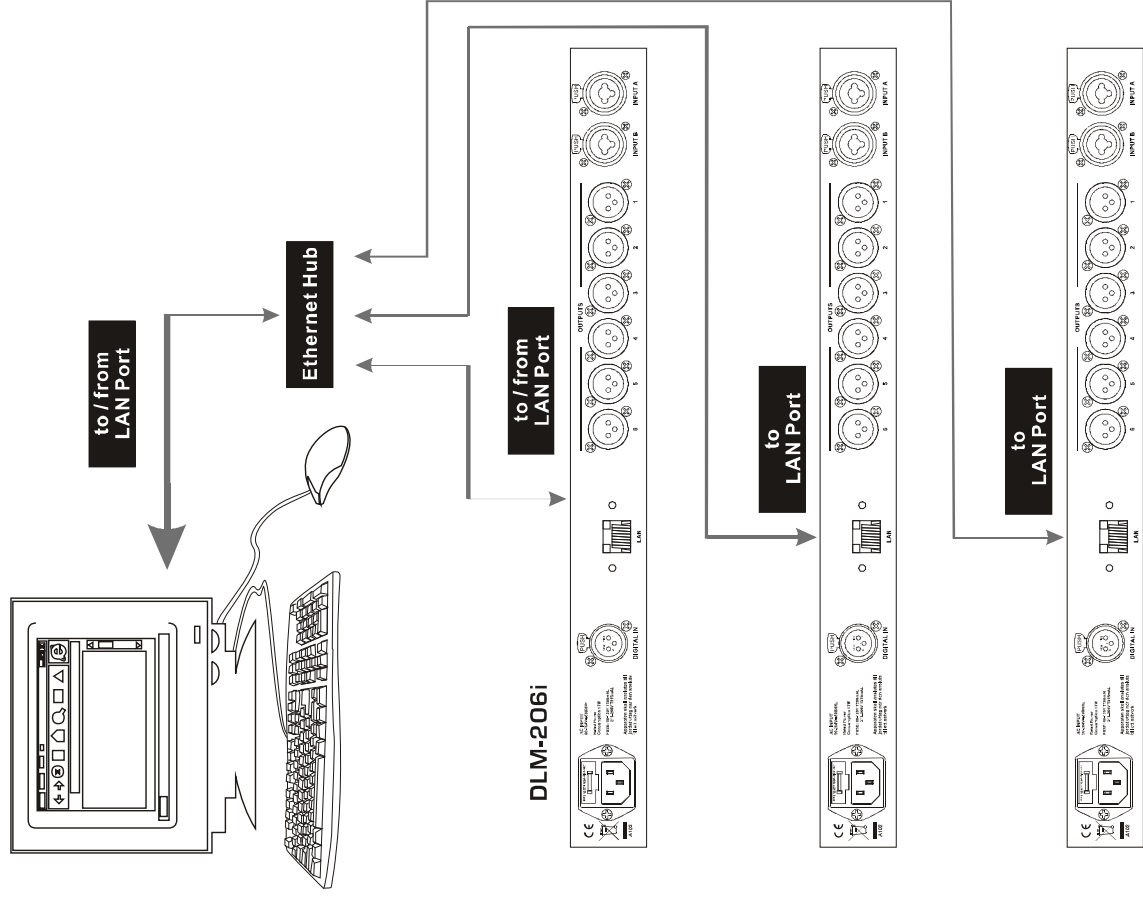
All the functions' parameters setting are showing on the 2x16 characters LCD display. User can combine Enter control and function buttons for different channels and parameters setting.

The following examples will help you better use and connect the unit.
 I.A| 324 S56 4-WAY4 MONO + 2 MONO AUX [4WAY +BP]



REMOTE CONTROL

Communications: PC & one or more DLM-206i connection



10. MUTE Button

All the output channels have mute button with on / off LED display for the quick silence function. The default mute function was enabled when power on the unit.

12. Input Level Meter

These 2 LED lines are used to display the level of Input A / B connectors. In order to get an up-front distortion

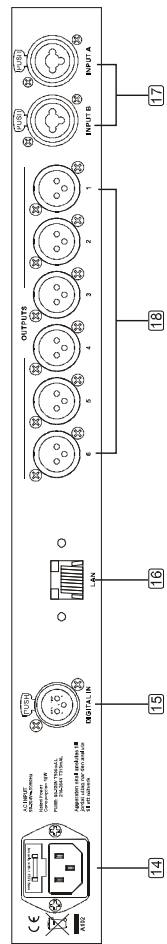
11. OUTPUT LEVEL Meter

The entire outputs' channels have level display to indicate the signal level on the panel. The output limiter function also display on it when it was enabled.

13. Mounting Ear

This detachable mounting ear is used for your convenient installation.

REAR PANEL



14. AC Inlet and Fuse holder

This inlet is used to connect the supplied power cord. Please check the voltage accepted by the unit and the voltage (90V ~264V AC) from your AC sockets before connecting the unit to the Mains.

17. INPUT A / B Connectors

These are balanced XLR connectors, which are used to connect devices such as the channel inserts of a mixing console.

15. DIGITAL IN

AES / EBU Digital input selection, it can receive standard digital signal input by the interface. And it has Sample Rate Convert inside, it can receive digital input of different sampling ratios.

18. OUTPUT Connectors

These are balanced XLR connectors, which are used to connect source such as the channel inserts of a mixing console or power amplifier's inputs.

16. LAN Port

The common LAN Port can be used to connect Ethernet Hub; it is the interface for PC Software to control the parameter settings.

CONFIGURATION & FUNCTIONS

GETTING STARTED

The powerful versatile signal processor DLM-206i is mainly designed for use with audio systems. Its routing configurations of the input and output can be only set by recalling one of the PRESETS included in the internal memory. So the user must be very clear about the main function of the unit in order to get best operation of DLM-206i. Before you start your operation, please read the follows carefully:

I. Configuration of the system

At first, switch off the equipment, carry out the audio and power connection from the various components of your sound system. Then, connect the main cord and only switch on the DLM-206i. The display will show the data regarding with the operating system release for a few seconds.

D	L	M	-	2	0	6	i			1	.	0
+	R	e	l	e	a	s	e			1	.	0

Meanwhile, the system will restore the exact operating conditions at the time of switching off. And the system will enter into default status, showing the main operating information on the display.

A	1	2	B	3	4	D	5	6				
F	0	1	2	x	2	W	a	y	+	D		

- Press **LOAD** key
- Load the **configuration** you've found.
- Use the **DIAL** to select the **PRESET**.

The display will show the **Load PRESET** page:

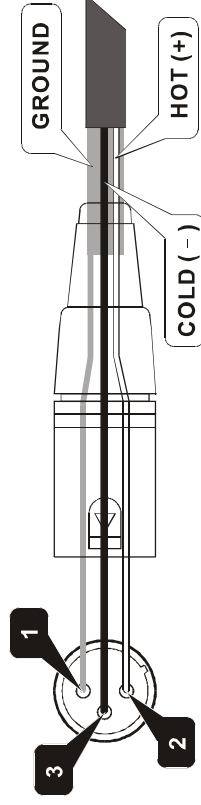
L	o	a	d	P	r	e	s	e	t				
F	0	4		4	W	a	y	+	B				

(example)

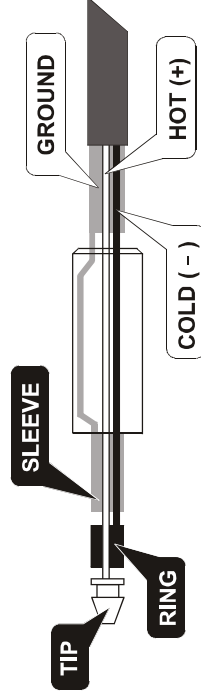
CONNECTIONS

The adapter that meets all the international safety regulations is supplied with your SHOW DLM Series. Before power on the DLM Series, please make sure all connections have been made correctly and the volume controls of the amplifier or mixer are turned down completely. The following diagrams show the schemes of the recommended cables and some connection examples referred to various system configurations.

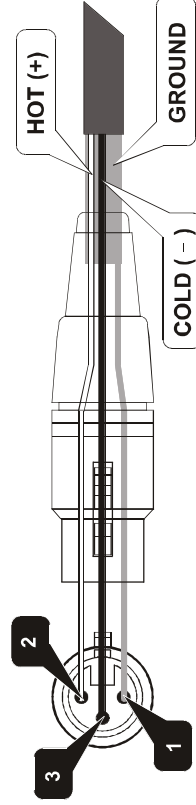
BALANCED XLR-M (Inputs A & B, RS-485 IN)



BALANCED JACK (Inputs A & B)



BALANCED XLR-F (Outputs 1~2, RS485 OUT)



USB Connection



I	N	A	G	a	i	n					
							0	.	0	d	B

I	N	B	G	a	i	n					
							0	.	0	d	B

Use the **DIAL** to change the gain value and watch the level of the signal on the LED meter until the ideal values are reached.

3. First Setup

At this point, the first custom setup can be prepared.

The following is only the description of setup procedure.

The detailed specifications of each parameter are shown in the respective paragraphs of the manual.

- Firstly, set the following parameters shown in order:

Output Pol. Polarity of the outputs

Output Delay Alignment of the speaker enclosure components

Output Gain Levels of the outputs

Note: The regulation of the DLM-206i's parameters is closely related to the characteristics of the components of the sound system. So if you're not the expert, please refer to the documentation and technical specifications of your power amplifiers, loudspeaker enclosures, monitors, etc.. This will enable you to work faster and safely.

- Disable the **MUTE** function on the outputs you intend using and listen the sound, carry out instrumental checks (if you have the necessary equipment) and any corrections required.

- Then, if necessary, adjust the values of the following functions:

Output EQ Output equalizers

Output Limiter Output limiters

Note: In this first phase of setting up your sound system, the adjustment of these functions (which if not indispensable during installation) can wait. But do remember that adjusting the equalizers can also affect the single Level. If considerable equalization changes are made, remember to check & adjust the output levels too.

Explanations of letters

	A	1	2	3	4	B	5	6		
F	0	4	4	W	a	y	+	B		

(E) DHCP

Display or modify the DHCP STATUS of machine . The options include ;

Modify
use ENTER key to set MAC Address

M	A	C	A	d	r	e	s					
0	0	A	I	-	B	0	-	F	F	-	F	F

Display
current DHCP Status

D	H	C	P										
							D	I	S	A	B	L	E

Modify
use ENTER key to set IP MASK

D	H	C	P										
							D	I	S	A	B	L	E

Note: by means of this way to unlock the system, the user's memory will be eliminated, that is, all the user presets will be lost. Please use carefully!

PASS key

Press **PASS** key to go into system bypass status.

(C) IP Gateway

Display or modify the current IP Gateway of machine . The options include :

 Display
current IP Gateway

I	P	G	a	t	e	w	a	y						
1	9	2	.	1	6	8	.	0	5	0	.	0	0	1

Modify

use ENTER key to set IP Gateway

I	P	G	a	t	e	w	a	y						
1	9	2	.	1	6	8	.	0	5	0	.	0	0	1

(D) MAC Address

Display or modify the current MAC Address of machine . The options include :

 Display
current MAC Address

M	A	C	A	d	r	e	s								
0	0	A	I	-	B	0	-	F	4	-	F	F	-	F	F

The letters indicate the inputs:

- A = Input A
- B = Input B
- S = SUM(sum of inputs A and B)
- D = post Delay(Sum 1)
- P = post PEQ (Sum 2)
- Numbers 1, 2, 3, 4, 5 and 6 indicate the respective outputs.
- In the example:
- The signal connected to Input A is assigned to outputs 1, 2, 3 and 4.
- The signal connected to Input B is assigned to outputs 5 and 6.

4. THE MENU MAP CONFIGURATION DESCRIPTION

 The control software is organized in **IN, OUT, LOAD, SAVE** and **UTILITY** menus, each of which contains the relative types of parameters and functions.

Load & Save PRESET
1) Load PRESET

This menu page allows the required PRESET to be loaded and made operatively.

L	o	a	d	P	r	e	s	e	t					
F	0	1		2	x	2	W	a	y	+	D			

To load a PRESET:

- Use the **DIAL** to reach the required PRESET.
- 10 Factory PRESETS, 60 User PRESETS are available.

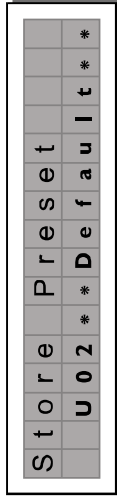
Note: since the system must always be configured, there are no empty memory areas. All the User areas unused by custom **PRESETS** are automatically occupied by the ***Default* PRESET**, which contains a standard start configuration with all the values of the various parameters at zero.

L	o	a	d	P	r	e	s	e	t						
U	6	3		*	*	D	e	f	a	u	i	t	*	*	*

A	1	3	5	B	2	4	6								
U	6	3		*	*	D	e	f	a	u	i	t	*	*	*

2) Store & Naming PRESET

Use **SAVE** key to create new PRESETS, i.e. to save all the current system settings.

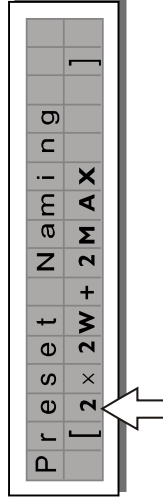


To save a PRESET:

Use **DIAL** to reach the memory area in which the PRESET is to be saved.

Note: In this procedure, the **Factory PRESET** areas aren't available, since the **Factory PRESETS** can not be permanently remember that it is possible to load a **Factory PRESET**, modified. Nevertheless save it in a **User PRESET** area, modify it as required and then store it again in the same **User**.

Press **DIAL**. The **PRESET Naming** page appears, by means of which it is possible to edit the name of the PRESET to be saved. The name of the start PRESET (i.e. of the PRESET currently loaded) is proposed as default. The cursor takes up position on the first of the twelve character spaces available.



At this point:

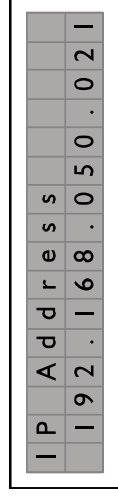
- If you decide to accept and confirm the name suggested, press **ENTER**.
- If you want to abort **Naming** procedure (for example because you've chosen the wrong memory area) and return to **Store PRESET** procedure, press **EXIT**.
- If you want to assign a new name to the **PRESET** you're storing:
 - use the **◀** and **▶** keys to position the cursor on the required character
 - use **DIAL** to enter the alphanumeric value wanted
 - after finishing, press **ENTER**.

5. Function Keys

IN key

Modify

use ENTER key to set IP Address

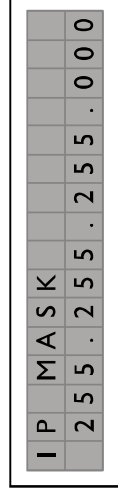


(B) IP MASK

Display or modify the current IP MASK of machine . The options include :

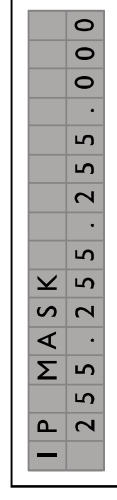
Display

current IP MASK



Modify

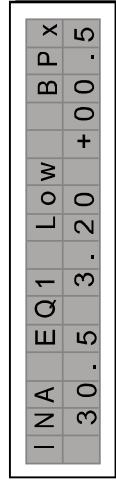
use ENTER key to set IP MASK



2) Input EQ

8-band Input parametric EQ with 1 / 32 Oct. Frequency step allows to alter the overall tone of the signal connected to the respective input.
This component's characteristic quality and programmability enable it to be used so effectively and flexibly as to make the use of graphic equalizers often unnecessary.

Press **IN** key and use **DIAL**, **PREV** & **NEXT** to adjust **Input EQ**



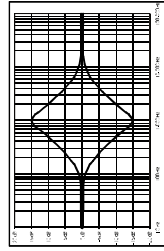
Each equalizer has 5 pages (one for each filter), showing the name of the input it affects & the number of the filter.

The following editable parameters are available for each filter:

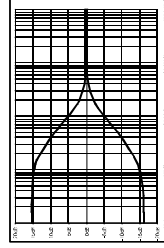
(A) Type of filter

Allows to choose among Peaking, Low or High Shelving with a slope of 6 or 12 dB per octave.

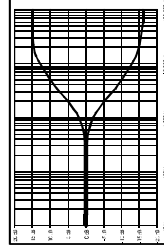
Peaking



Low Shelving

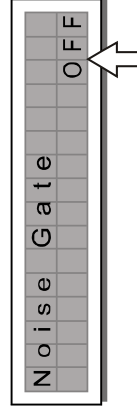
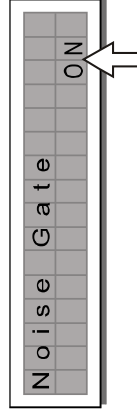
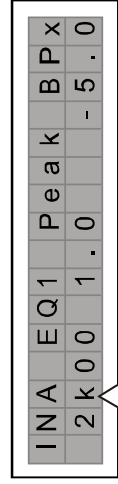


High Shelving



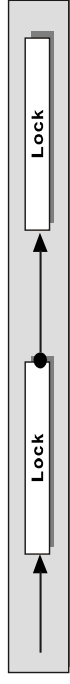
(B) Centre Frequency / Cutoff Frequency

Allows to choose the centre frequency of the Peaking curve, or the cutoff frequency of Shelving curves.



3) LOCK SUBMENU

Used to enable or disable the protection of the system against accidental or unauthorized changes.



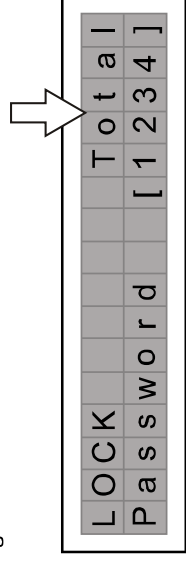
This function is very useful whenever even temporary changes or tampering with the settings stored in the system must be prevented. For example: fixed installations used by several operators (discotheques, clubs, conference halls, etc.), sound system rental, etc.

How to enable **protection**

- First of all, choose the protection mode:

Total:

all editing functions are blocked and access to the **PRESET** menu is disabled



- Then use the ◀ and ▶ keys and **DIAL** to access the area in which the **password** is entered. Also choose protection modes from U01-U64 with same operation procedures as Total.

IMPORTANT! The protection cannot be unlocked without the **password!** So write it down or at least choose a word that is easily remembered. The password is made up of four alphanumerical characters, obtainable using the ◀ and ▶ keys & editable with the **DIAL**.

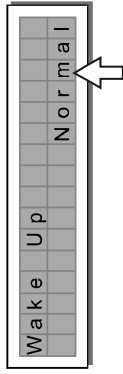
- After entering the password, press **ENTER**.

(B) Wake Up

Allows to choose the mode in which **MUTE** functions are restored when the DLM-206i is switched on. The options include:

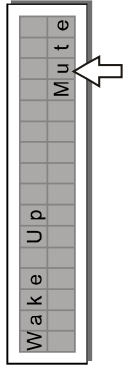
Normal

when switched on, the system restores the last MUTE configuration before switching off



Mute

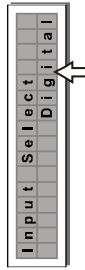
when switched on, the system automatically sets all the outputs in MUTE



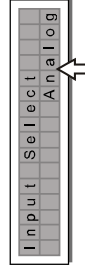
(C) Input Select

Used to choose inputs. The options include:

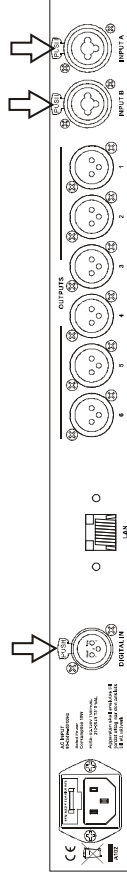
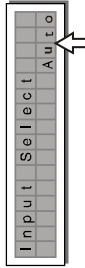
Digital Inputs



Analog Inputs



Auto Inputs

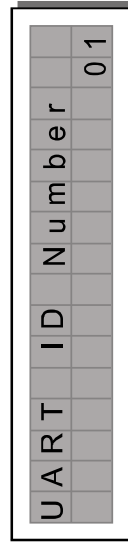


The inputs selected become **Input A** and **Input B**.

Any signal on the inputs not selected is ignored.

(D) UART ID Number

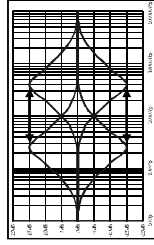
Range from 0 | to 31



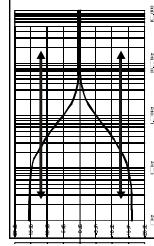
(E) Noise Gate

Controls the noise gate on / off.

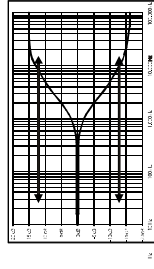
Peaking



Low Shelving

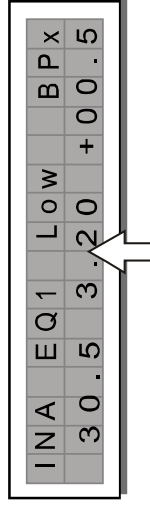


High Shelving

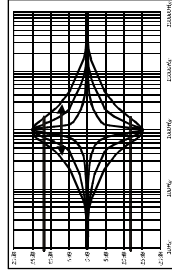


(C) Bandwidth

Allows to choose the width in octaves of the Peaking.

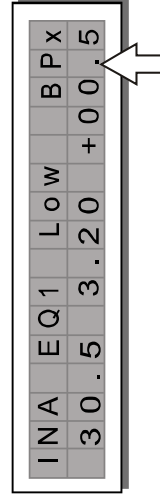


Peaking

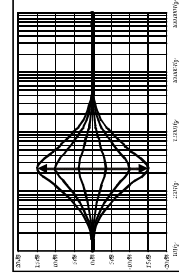


(D) Gain

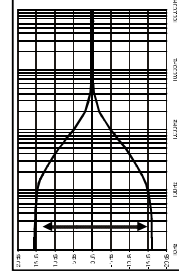
Allows to control the boost or cut of the selected frequencies.



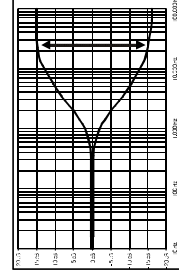
Peaking



Low Shelving

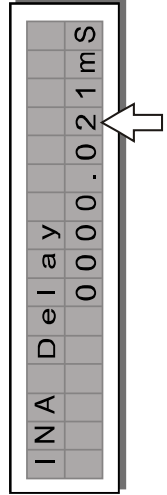


High Shelving

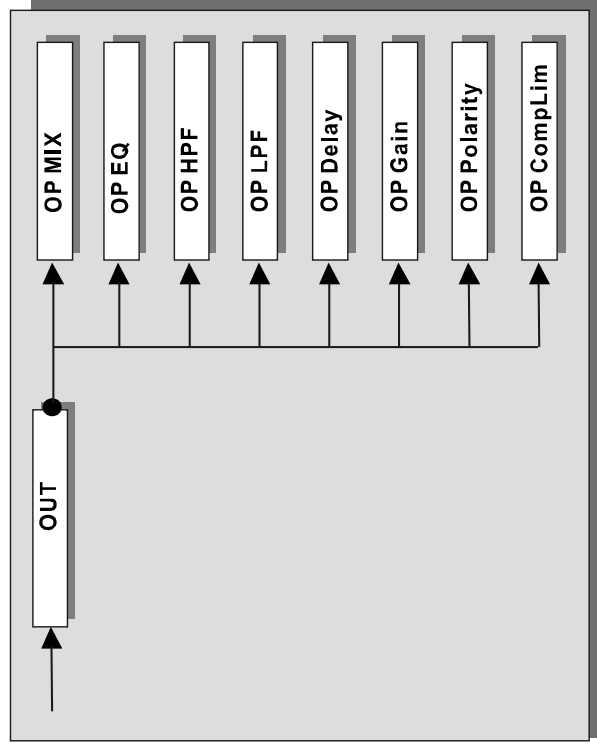


3) Input Delay

Press **IN** key and **PREV & NEXT** keys to adjust the delay lines of **Input A**, **Input B**.
Input delay ranges from 0 to |364mS with 0.02| step.

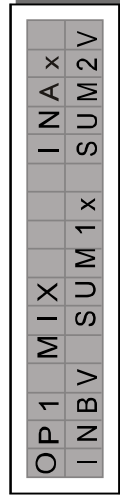


OUT key

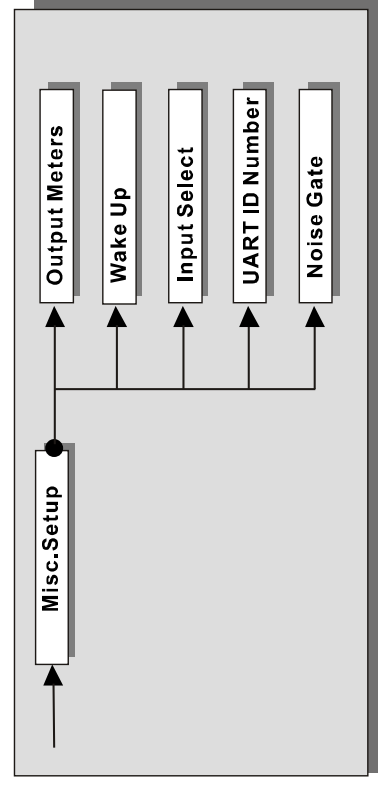


1) OP MIX

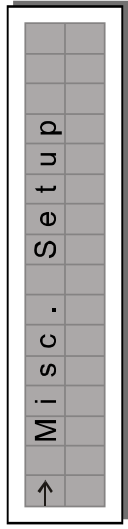
Press **OUT** key to access output mix page, use **ENTER**, **PREV & NEXT** and **DIAL** to adjust values.



2) Misc. Setup submenu



Use **ENTER** key to set a series of system options.

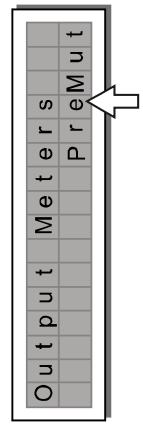


(A) Output Meters

Used to decide whether to display the outputs signal before or after **MUTE**. The options include:

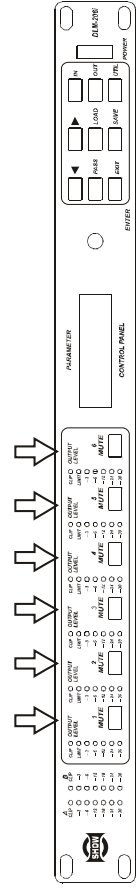
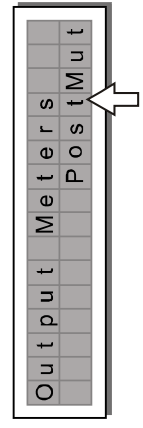
PreMute

the signal is always shown
no matter what the **MUTE** status



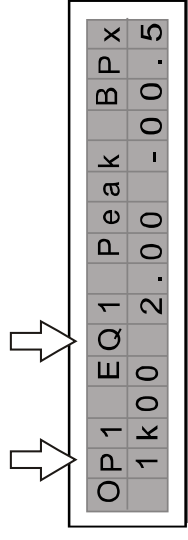
PostMute

the signal is only shown when
the output isn't in **MUTE**



2) OPEQ

Output equalizer with 5 parametric filters. Also called Channel EQ, allows to alter the tone of each individual output. The characteristics of quality & programmability are identical to those of the Input Equalizer & enable this unit to be used extremely effectively and flexibly. Each equalizer has 5 pages (one per filter), indicating the name of the output effects and the number of the filter.

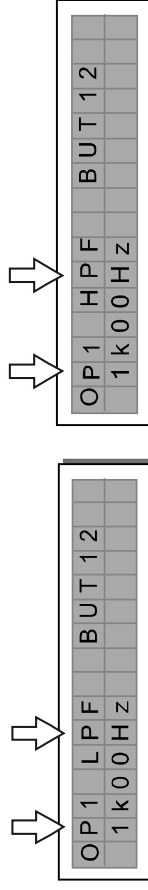


Example: Output 1 - Filter 1

Since technical specifications and editing fields of the **Output EQ** are identical to those of the **Input EQ**, please refer to **INPUT EQ** section for descriptions.

3) OP HPF & LPF

Each Xover has 2 slightly different pages (one for each filter), where the name of the output it affects and the type of filter are shown.



Output 1 - low pass filter

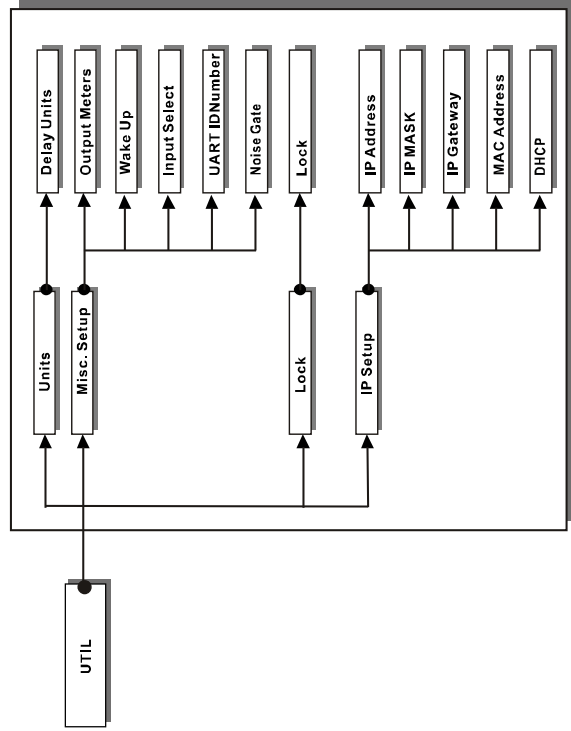
Output 1 - high pass filter

Low Pass Filter

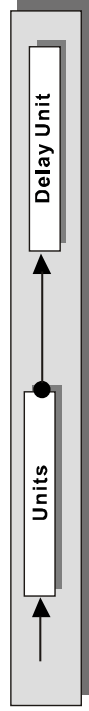
The low-pass filter allows all the frequencies below a specific frequency to pass, whereas it cuts all the frequencies above it.

High Pass Filter

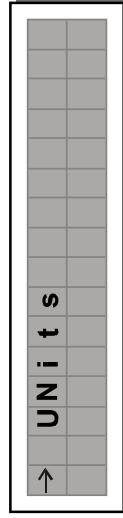
The high-pass filter allows all the frequencies above a specific frequency to pass, whereas it cuts all the frequencies below it.



1) Units



Used this submenu to choose the measurement units to be used with certain functions.

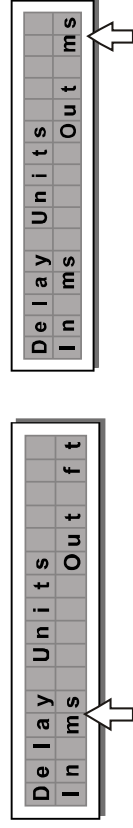


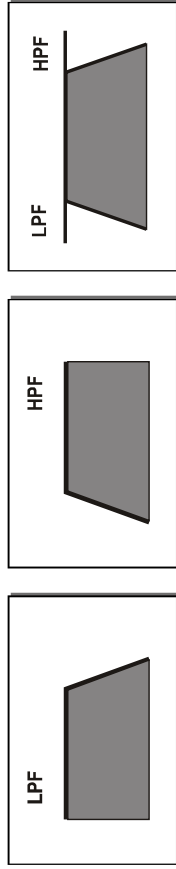
Delay Units

Used to set the measurement units in which Delays are expressed (DELAY menu).

The options include: m = meter - ms = milliseconds - ft = feet

Measurement units for Input Delay





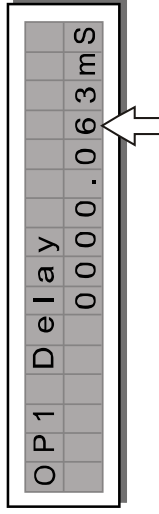
Signal segment obtained with the combination of **LPF** and **HPF**.

4) Output Delay

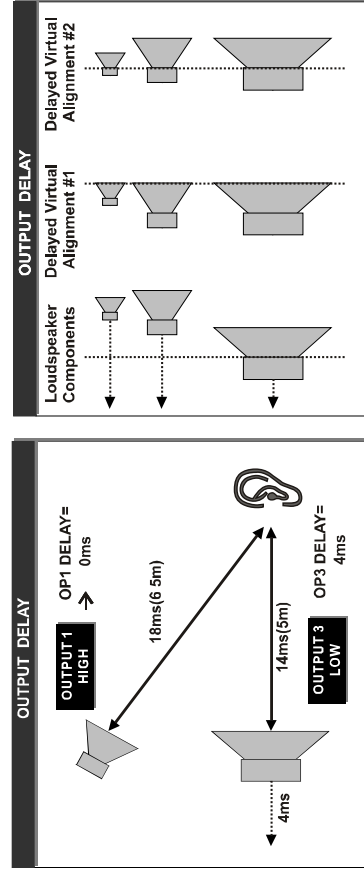
Only delays the signal of a specific output.

Internal alignment of a speaker enclosure components.

Use **OUT** key, **DIAL**, **PREV** and **NEXT** keys to adjust the delay lines of outputs 1, 2, 3, 4, 5, and 6.

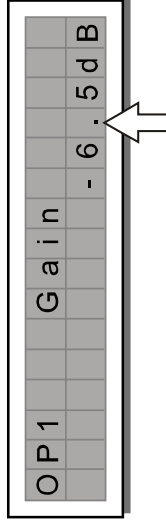


The values can be set in the following ranges:



5) Output Gain

Output level control. Allows to adjust the signal level of each individual output. Editing values are between +12dB ~ -40dB, with 0.5dB steps.



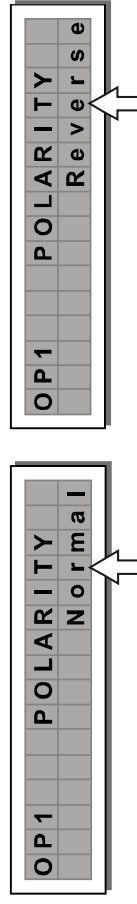
Note: The level of each output is shown by the respective **OUTPUT LEVEL LED** meter. To avoid distortion, don't let the red **CLIP LED** lights up. As automatic protection, you can also enable the **LIMITER** (EDIT menu) on the outputs that require it. In this case, remember that enabling the **LIMITER** changes the display mode on the relative LED meter: in fact, the level shown is no longer the absolute output level, but the level of the signal in relation to the **LIMITER** threshold.

6) Output Pol

Controls the output's polarity. Allows to invert the phase of the signal of individual outputs.

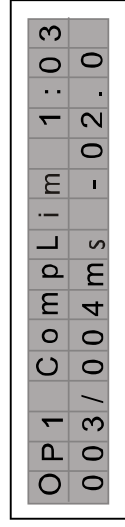
Press **OUT** key, use **DIAL** to adjust output polarity as shown in following

Normal: leaves the phase unchanged Reverse: shifts the phase through 180°, inverting it.



7) Output Complim

Allows to keep the signal of each individual output within a set level, which can be used effectively to protect the components of a sound system.



UTIL menu

This menu comprises a series of submenus that allow to set a series of system options and access certain utilities, such as the control of protection against accidental or unauthorized changes: