GECKO® DESTINY EQ 260

OWNER'S MANUAL

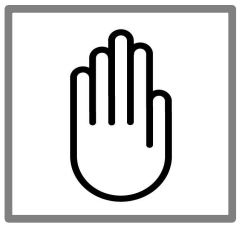
www.geckomusicgroup.com

GECKO®

SAFETY INSTRUCTIONS & SYMBOLS GUIDE

For your own safety and to avoid invalidation of the warranty, all text marked with these symbols should be read carefully.

SYMBOLS:



NOTES
Contain important information and useful tips on the operation of your equipment.

WARNING
The lightning flash with arrowhead symbol within an equilateral triangle, is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.

CAUTIONS
The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance. Please read the manual carefully.

HEADPHONES SAFETY WARNING
Contain important information and useful tips for headphones outputs and monitoring levels.

SAFETY INSTRUCTIONS:

- To reduce the risk of electrical shock, do not remove covers. No user-serviceable parts inside. Please refer servicing to qualified personnel.
- To reduce the risk of electrical shock or fire, do not expose the equipment to rain or moisture.
- Do not impose unnecessary stress on your equipment (i.e. placing heavy objects on it, over screwing its mounting, etc).
- Read and keep the instruction manuals in a safe place for future references.
- Do not attempt to clean the equipment with chemical solvents as this may damage the finish. Clean only with a dry cloth.
- Do not block any ventilation openings.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus that produce heat.
- Do not defeat the 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 grounding prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for the 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.
- Unplug the apparatus during lightning storms or when it is not in use for a long period of time.

- Use only attachments/accessories specified by the manufacturer.
- Always shut down power supply when not in use to save energy and for a prolonged lifespan.
- Exposure to extremely high noise levels may cause permanent hearing loss. Individuals vary considerably in susceptibility to noise-induced hearing loss, but nearly everyone will lose some hearing if exposed to sufficiently intense noise for a period of time. The U.S. Government's Occupational Safety and Health Administration (OSHA) and the Singapore Workplace Safety and Health Council (WSHC) has specified the permissible noise level exposures shown in the following chart. According to OSHA and WSHC, any exposure in excess of these permissible limits could result in some hearing loss. To ensure against potentially dangerous exposure to high sound pressure levels, it is recommended that all persons exposed to equipment capable of producing high sound pressure levels use hearing protectors while the equipment is in operation. Earplugs or protectors in the ear canals or over the ears must be worn when operating the equipment in order to prevent permanent hearing loss if exposure is in excess of the limits set forth here:

Duration/Day (Hours)	dB, Sound Pressure Level (SPL)	Descriptions
	Below 90dB	Safe zone
8.00	90	Hearing damage
6.00	92	
4.00	95	
3.00	97	
2.00	100	Serious hearing damage
1.50	102	
1.00	105	
0.50	110	
0.25 or less	115	Human pain threshold

GECKO MUSIC GROUP
Singapore | Malaysia | Taiwan | Philippines | Canada
Email: info@geckomusicgroup.com • Website: www.geckomusicgroup.com

FOREWORD

Dear Friends,

Thank you very much for purchasing quality products by **GECKO MUSIC GROUP**. I am very grateful that we have journeyed this far, since 2002! We have set new audio standards in the industry and we have touched and changed lives along the way! I believe our journey will not stop but continue to pursue more breakthrough findings and improvements that will change our lives for the better.

At **GECKO MUSIC GROUP** we focus on developing nothing but the best professional audio equipment and premium grade audiophile products you ever need! Our engineering team is constantly doing R&D to meet this goal. I thank God that by His grace, we have succeeded in developing the revolutionary C.R.I.S.T.A.L.® technology that has changed and is changing the way how audio is captured, encoded, reproduced and managed!

On behalf of **GECKO MUSIC GROUP**, I would like to pledge our continuing commitment to uphold our traditions in serving the music and audio communities around the world with more value-added premium quality GECKO® professional audio equipment and premium grade audiophile products!

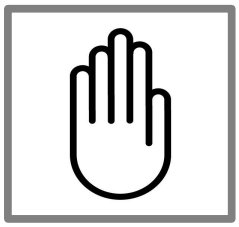
Once again, thank you very much for your support. We trust you will love what you hear!

Yours truly,

Daniel Foo
Founder/Director (R&D)
GECKO MUSIC GROUP

TABLE OF CONTENTS

INTRODUCTION	**3**
CHAPTER 1. GETTING STARTED	**4**
CHAPTER 2. EDITING FUNCTIONS	**7**
CHAPTER 3. SYSTEM SECURITY	**14**
CHAPTER 4. DETAILED PARAMETERS	**21**
SPECIFICATION	**41**
WARRANTY	**42**



NOTES: Congratulations on purchasing the GECKO® DESTINY EQ 260 speaker management system! We recommend that you take a moment and read through the manual as it provides information that will aid you in using your unit to its fullest potential.

INTRODUCTION

The GECKO® DESTINY EQ 260 is a complete equalization and speaker management system which offers a redefined high standard audio signal processing; delivering the best out of your quality sound system.

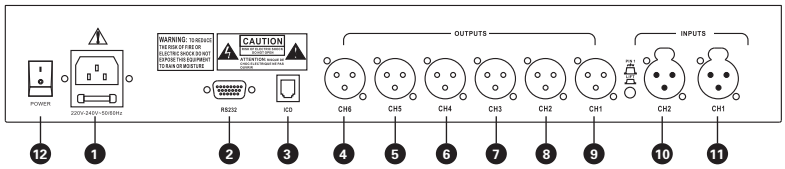
Equipped with forty carefully pre-designed programs, the DESTINY EQ 260 is purpose-built to accommodate virtually any sound reinforcement and installation application through quality, state-of-the-art, 24-bit, 48kHz processor, while all editing functions and configuration possibilities of the EQ 260 can be performed by utilizing the onboard user-friendly and intuitive function buttons. Coupled with the user interface LCD display, complete and flexible editing performance is achieved in a simple and convenient way.

Apart from the 24-bit, 48kHz codec, the GECKO® DESTINY EQ 260 also offers two independent channels of highly-precise 28-bit DSP processing power with a linkable 28-band graphic equalizer, incorporating GECKO® Stereo Compressor Module (GSCM)™, notch filters, feedback eliminator, parametric equalizers, limiters, bandpass filters, noise gates, automatic gain control, and alignment delay functions.

In order to protect all your detailed parameter editing and configuration modification settings of your GECKO® DESTINY EQ 260, the unit is equipped with a robust Security System Setup (SSS), incorporating security features such as program locking, account changing, system locking and password changing.

Chapter 1 Getting Started

1.1Rear Panel Connections



1. Power Cord Receptacle
2. PC Connection
3. ICD Connection
4. Outputs 6
5. Outputs 5
6. Outputs 4
7. Outputs 3
8. Outputs 2
9. Outputs 1
10. Inputs 2
11. Inputs 1
12. Power Switch

IEC Power Cord Receptacle

The 260™ comes with a power supply that will accept voltages ranging from 100V-120V at frequencies from 50Hz-60Hz. An IEC cord is included. EU and Chinese version accepts 220V-240V at frequencies from 50Hz-60Hz.

PC Connection

This RS232 connection is used to send and receive information to and from the GUI interface.

ICD Connection

This connection is appropriative for factory testing.

Outputs 1-6

The output section of the 260™ offers six electronically balanced XLR connectors.

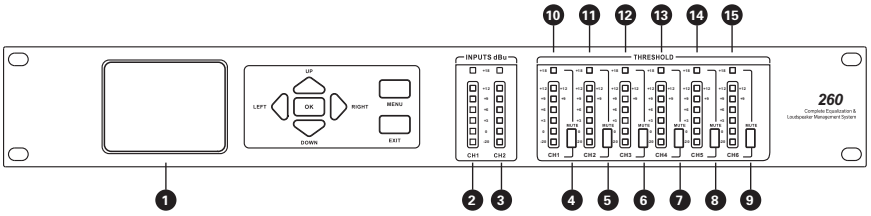
Inputs 1-2

The input section of the 260™ offers two electronically balanced XLR connectors.

Power Switch

The Power Switch turns the 260™ on and off. Note: it is recommended that power amplifiers connected to the 260™ should be powered down prior to cycling the power on the 260™.

1.1Front Panel



1. LCD Display	6. Output Mutes 3	11. Output Meters 2
2. Input Meters 1	7. Output Mutes 4	12. Output Meters 3
3. Input Meters 2	8. Output Mutes 5	13. Output Meters 4
4. Output Mutes 1	9. Output Mutes 6	14. Output Meters 5
5. Output Mutes 2	10. Output Meters 1	15. Output Meters 6

LCD Display

The true color LCD display of the 260™ provides the user with all of the vital processing information of the 260™ including: signal routing, configuration modes and effect unit editing.

Function Buttons

The function buttons of the 260™ allow direct access to all editing functions of the 260™. The buttons include <LEFT>, <RIGHT>, <UP>, <DOWN>, <MENU>, and < EXIT >. As to their functions, please refer to Chapter 2.

Input Meters

The 260™ provides the user with two independent, six-segment input meters that range from -20~ +18 dBu. These meters monitor the signal level right after the input module.

Output Mutes

The six output mute buttons are used for independently muting each output on all six outputs of the 260™.

Output Meters

The 260™ provides the user with six independent six-segment output meters that range from -20~+18dBu.

Chapter 2 Editing Functions

The 260™ has been carefully designed to ensure that all aspects of operation are intuitive and logical. Simply stated, the 260™ operating system was designed with user's best interest in mind. All editing functions of the 260™ are performed via the function buttons. This chapter has been created to act as a tutorial about the function buttons and the menus, which represent the advantages of 260™.

2.1 Effect Button Array Overview

There are all together 13 buttons on the front panel, which include Up, Down, Left, Right, OK, Menu, Exit, Mute1, Mute2, Mute3, Mute4, Mute5 and Mute6. A complete description of each button's functionality is listed below.

<Up>-is used to increase the value of the parameters being edited on the unit setting interface and to select the unit to be processed by going up on the main interface.

<Down>-is used to decrease the value of the parameters being edited on the unit setting interface and to select the unit to be processed by going down on the main interface.

<Left>-is used to select the parameters to be edited by going left on the unit setting interface;

to move the cursor leftward when editing the character string;

to select the unit to be processed by going left on the main interface.

<Right>-is used to select the parameters to be edited by going right on the unit setting interface;

to move the cursor rightward when editing the character string;

to select the unit to be processed by going right on the main interface.

<OK>-is used to enter the unit parameter editing mode on the main interface;

to exit or enter the character string editing mode when editing the character string.

<Menu>-is used to present a menu (the content of the menu depends on the selected item);

to insert an empty string when editing the text.

<Exit >-is used to return to the program title, namely the program number at the top right corner, when processing the unit on the main interface;

to return to the main menu in the unit parameter editing mode, and the changes you have made have come into effect the moment they are made;

to delete the character strings when editing the text.

<Mute1>- is to mute output channel 1; to serve as the key of the number 1 when entering the password.

<Mute2>- is to mute output channel 2; to serve as the key of the number 2 when entering the password.

<Mute3>- is to mute output channel 3; to serve as the key of the number 3 when entering the password.

<Mute4>- is to mute output channel 4; to serve as the key of the number 4 when entering the password.

<Mute5>- is to mute output channel 5; to serve as the key of the number 5 when entering the password.

<Mute6>- is to mute output channel 6; to serve as the key of the number 6 when entering the password.

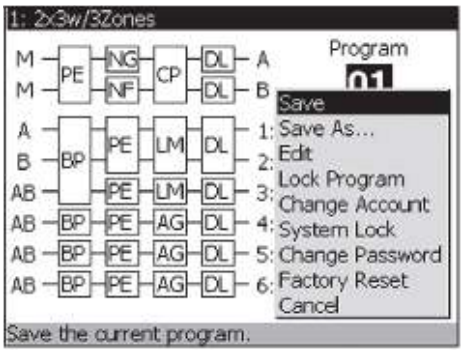
2.2 Introduction to the Menu

Select a program number on the main interface and the number will be displayed on a blue background. When a unit is selected, the unit will be displayed on a blue background. When a unit parameter is being edited, the parameter selected or being edited will be displayed on a blue background, too. When a dialog box is being operated, the selected button will be highlighted.

2.2.1 Program Menu

Select a program number on the main interface by pressing Up /Down. There are 40 factory programs available. When you have selected any unit on the main interface, press the button "Exit", or choose the item "Select Program" on the menu of the unit, then you can return to the program number.

Select a program number, and press the button "Menu". Then the menu will appear as follows, and the selected item will be displayed on a blue background:



Factory Reset: if you want to set all the parameters of all the programs to the original factory settings, please choose the item "Factory Reset". Then a menu will appear to warn that "All parameters and settings will be defaulted. Do you still want to reset?" Choose "Yes" to complete the factory reset; choose "No" to cancel the operation.

2.2.2 Basic Operations of the Menu

Save: is to save the changes made to the parameter settings of each unit in the program.

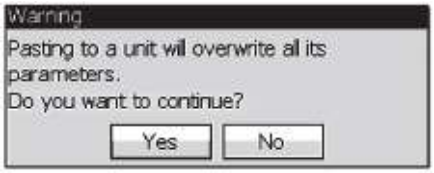
Save as: Choose the item "Save as" and press the button "OK". Then a dialog box will appear as follows. Use "Up" or "Down" to select the number of the program you intend to deal with. If you want to rename the program, press the button "OK" to enter the editing of "New Name". Select the character you want to revise by pressing "Left" or "Right"; change the character by pressing "Up" or "Down"; insert an empty string before the character by pressing "Menu"; cancel the chosen character by pressing "Exit"; complete and exit the revision by pressing "OK". Choose "Save" to save the renamed program; press "Cancel" to cancel the operation.

Edit: is to edit the parameters of each unit of a program.

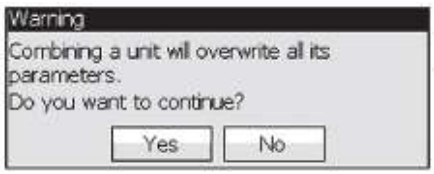
Cancel: is to cancel operation on the menu of the program.

Copy: is to replicate the parameter settings of the current unit.

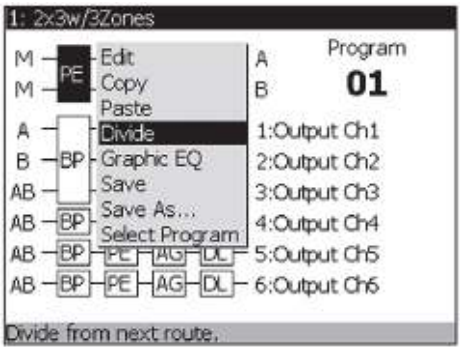
Paste: is to copy the replicated parameters to the new unit. This operation can only be carried out between units of the same type. If you choose the item "Paste", a dialog box will appear to warn that "Pasting to a unit will overwrite all its parameters. Do you want to continue?" Choose "Yes" to complete the pasting; choose "Cancel" to cancel the operation. This is illustrated as follows:



Combine: is to combine the current unit and the unit below it. Select a unit on the main interface and press the button "Menu". When a menu appears, choose the item "Combine". Then a dialog box will appear to warn that "Combining a unit will overwrite all its parameters. Do you want to continue?" Choose "Yes" to complete the combining and then the parameter settings will be same as those of the above unit; choose "Cancel" to cancel the operation.

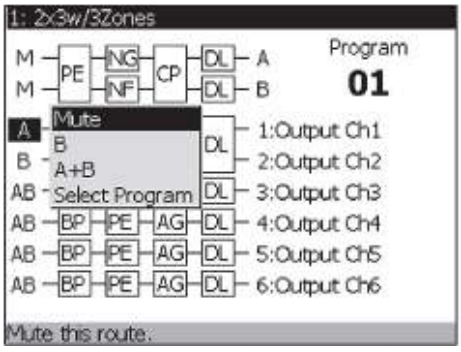


Divide: When it is necessary to set different parameters for the combined units, or set the combined units into different types, please select the unit, and press the button "Menu". Choose the item "Divide" on the popup menu to divide the unit into two, and then set their parameters respectively.



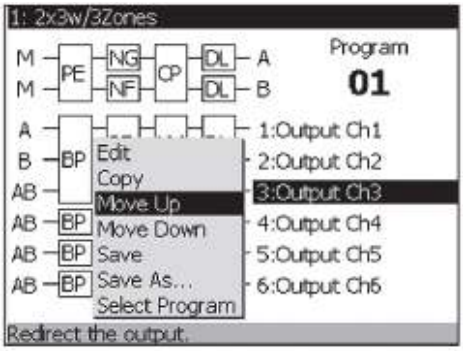
2.2.3 Input and Output Menu

Select an input unit and press the button "Menu". A menu will appear as follows:



If you choose "Mute", no input signal will enter the unit; if you choose "B", signal B will enter the unit; if you choose "A", signal A will enter the unit; if you choose "A+B", both signal A and signal B will enter the unit simultaneously.

Select an output channel and press the button "Menu". A menu will appear as follows:

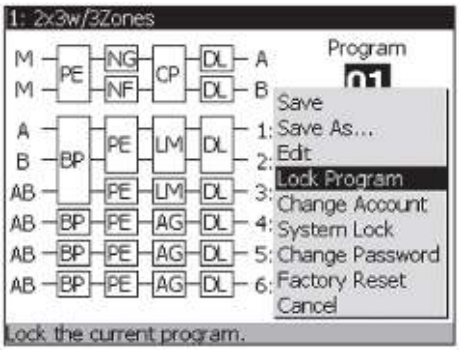


Choose "Move Up" or "Move Down" to move the selected channel up or down, so as to adjust the output channels.

Chapter 3 System Security

To protect all detailed parameter editing and configuration modification settings of your 260™ unit, the 260™ system includes a complete security system set-up. This security system allows you to set such security measures as program locking, account changing, system locking and password changing. The following information is provided to help you set all security parameters.

Select a program number on the main interface, and press "Menu" to enter the menu. It will appear as follows:



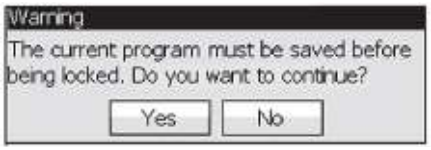
3.1 Program Locking

No password is needed when locking the program; it is needed when unlocking the program.

3.1.1 Locking the Program

Select a program number on the main interface, and press "Menu". Then select the menu item "Lock Program" and press the button "OK" to enter the program locking menu. Then the program is locked. After the locking, an "L" will appear on the left of "Program" on the main interface as the sign of "locking". It will appear as follows:

If the program has not been saved when it is locked, a dialog box will appear to warn that "The current program must be saved before being locked. Do you want to continue?" If you choose "Yes", the program will be saved and locked; if you choose "No", the operation will be cancelled.



After the program is locked, the item "Lock Program" on the menu turns into the item "Unlock Program", and the data of all the units in the program cannot be modified. If the user changes the data, a dialog box will appear to warn that "This program is locked by XXX.(XXX is the current account. Refer to 3.2) It can't be edited before you unlock it." Press "OK", and exit the dialog box.

3.1.2 Unlocking the Program

When the program is locked, select a program number on the main interface, and press the button "Menu". Choose the item "Unlock Program", press the button "OK", and enter the password. The password is composed of the Arabic numbers from 1 to 6, with the longest being a six-digit number. The six "Mute" buttons can work as the keys of the numbers from 1 to 6. For example, when you press "Mute 1", you are entering the number "1". Should any error occur in the entering, press "Exit" to cancel the entered numbers one by one, or choose "Unlock" to clear the numbers entered. Reenter the correct password. Upon the completion of entering the password, choose "Unlock" to complete the unlocking, or press "Cancel" to cancel the operation.

3.2 Account Changing

Since the security system has three levels (high, middle and low), there can be three different levels of users accessing the unit. The level of users goes like this: Operator(1) < Advanced User(2) < Expert User(3)

Changing the account: the password has to be entered if a lower level account is changed into a higher level account. The password will not be entered if the operation goes the other way round.

Changing a lower level account into a higher level account: if the current account is "Operator", and it will be changed into "Advanced User" or "Expert User", or if the current account will be changed from "Advanced User" into "Expert User", press the button "Menu" after selecting a program number on the main interface, and then choose the item "Change Account". After that, press "OK" and a dialog box appears. Use "Left/ Right" to select an account which will be highlighted in green accordingly. Then press the button "OK", and enter the password. The

password is composed of the Arabic numbers from 1 to 6, with the longest being a six-digit number. The six "Mute" buttons can work as the keys of the numbers from 1 to 6. For example, when you press "Mute 1", you are entering the number "1". Should any error occur in the entering, press "Exit" to cancel the entered numbers one by one, or choose the button "OK" to clear the numbers entered. Reenter the correct password. Upon the completion of entering the password, select "OK" to complete the account changing, or select "Cancel" to cancel the operation.

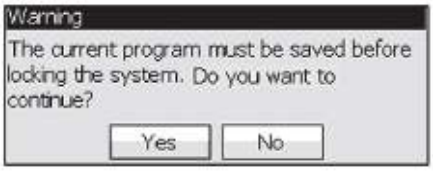
Changing a higher level account into a lower level account: if the current account is "Expert User", and it will be changed into "Operator" or "Advanced User", or if the current account will be changed from "Advanced User" into "Operator", press the button "Menu" after selecting a program number on the main interface, and then choose the item "Change Account". After that, press "OK" to enter the "Change Account" menu. When a dialog box appears, use "Left/ Right" to select an account which will be highlighted in green accordingly. Then press the button "OK" to complete the account changing, or select "Exit" to cancel the operation.

3.3 System Locking

No password is needed when locking the system; it is needed when unlocking the system.

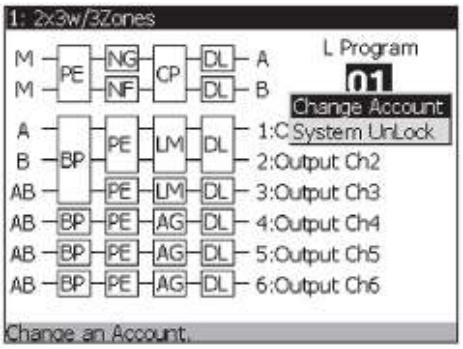
3.3.1 Locking the System

Select a program number on the main interface and press the button "Menu". When the menu appears, select the item "System Lock" and press the button "OK" to complete the locking of the system. When the whole system is locked, if the current program has not been saved, a dialog box will appear to warn that "The current program must be saved before locking the system. Do you want to continue?" If you choose "Yes", the program will be saved and locked; if you choose "No", the operation will be cancelled.



When the whole system is locked, an "L" will appear on the left of "Program" on the main interface as the sign of "locking", which appears like this:

No other operation will be possible when the system is locked, except unlocking the system and changing the account. Select a program number on the main interface and press the button "Menu". Then the menu composed of "Change Account" and "System Unlock" will appear as follows:



If the user want to execute any other operation, a dialog box will appear to warn that "The system is locked by XXX." Press "OK" to exit the dialog box.

3.3.2 Unlocking the System

Unlocking the system: when the system is locked, select a program number on the main interface and press the button "Menu". Then select the item "System Unlock" and enter the password. The password is composed of the Arabic numbers from 1 to 6, with the longest being a six-digit number. The six "Mute" buttons can work as the keys of the numbers from 1 to 6. For example, when you press "Mute 1", you are entering the number "1". Should any error occur in the entering, press "Exit" to cancel the entered numbers one by one, or choose "Unlock" to clear the password entered. Reenter the correct password. Choose "Unlock" to complete the unlocking of the system, or choose "Cancel" to cancel the operation.

Changing the account: Refer to 3.2. If the system is locked by a higher level account, it cannot be unlocked by a lower level account. Instead, it has to be changed into an account of the same level or of a higher level. A higher level account can unlock the system locked by a lower level account.

3.4 Password Changing

If you want to change the password of the current account, select a program number on the main interface and press the button "Menu". Then select the item "Change Password". The password is composed of the Arabic numbers from 1 to 6, with the longest being a six-digit number. The six "Mute" buttons can work as the keys of the numbers from 1 to 6. For example, when you press "Mute 1", you are entering the number "1". You have to enter the initial password first. Should any error occur in the entering, press "Exit" to cancel the entered numbers one by one, or choose the button "OK" to clear the numbers entered. Reenter the correct initial password. Choose "OK" to complete the changing of the password, or choose "Cancel" to cancel the operation.

Chapter 4 Detailed Parameters

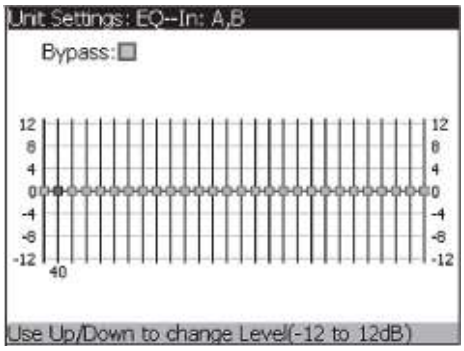
The 260™ offers complete editing flexibility, by offering effective control over every parameter within each unit. The following chapter will provide you with descriptions and explanations of all parameters within the 260™.

4.1 Pre-Crossover EQ (PE)

The 260™'s Pre-Crossover EQ section may be configured as a single or linkable 28 band graphic EQ or 9-Band PEQ.

GEQ(GE)

The parameter setting interface is as follows:

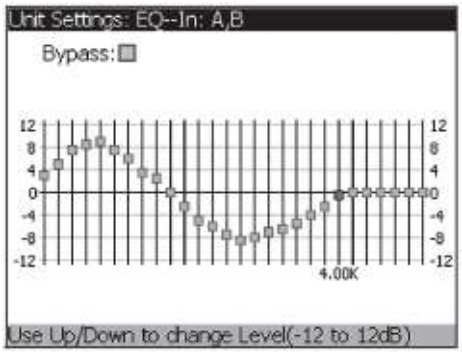


Bypass

When "Bypass" is "on", the box behind it is highlighted in green; when the box is in white, it means that "Bypass" is off. When "Bypass" is "on", the GEQ is turned off; when "Bypass" is "off", the GEQ is turned on.

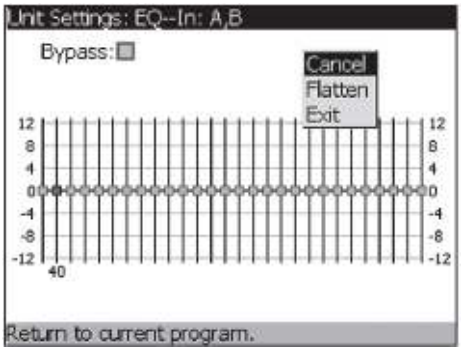
Frequency (F) and Gain

There are 28 sliders for you to set the gains of the 28 frequencies on the parameter setting interface. The selected slider will be highlighted, and the value of the frequency will be shown under the slider. The position (raising or lowering) of the slider represents the gain of the frequency, which ranges from -12 to +12 dB. The buttons "Up" and "Down" can be used to adjust the gain of any center frequency of the 28 bands of the GEQ in 0.5 dB increments.



Flatten

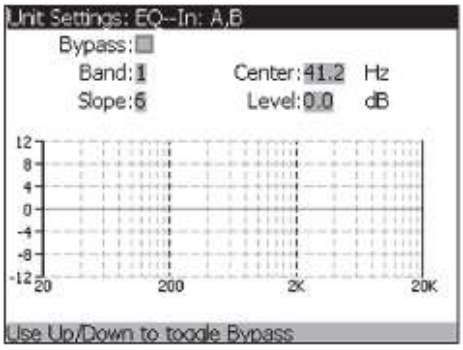
Press the button "Menu" on the interface, and a menu will appear as follows. Choose "Flatten" to return all the parameter settings to zero.



This parameter returns the GEQ to zero. The menu item "Flatten" allows you to clear all the parameter settings, to restore all the parameters to zero so as to reset them.

PEQ(PE)

The parameter setting interface is as follows:

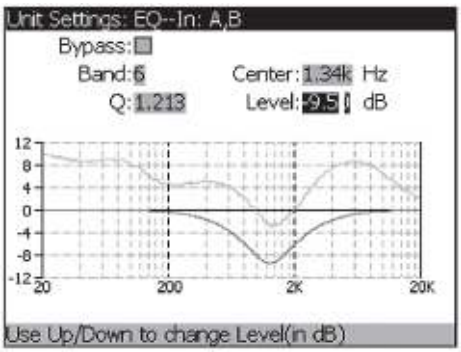


Bypass

When "Bypass" is "on", the box behind it is highlighted in green; when the box is in white, it means that "Bypass" is off. When "Bypass" is "on", the PEQ is turned off; when "Bypass" is "off", the PEQ is turned on.

Band Center 20.1Hz to 20.7 kHz

There are all together 9 bands of PEQ, the frequency scopes of which are all from 20.1Hz to 20.7 kHz. Band 1 is the Low Shelf, while band 9 is the High Shelf. Select the band to set, and then it will be highlighted in red. In the following diagram, the red curve stands for the band being set. The green curve stands for the frequency response curve of the PEQ.



Slope/Q

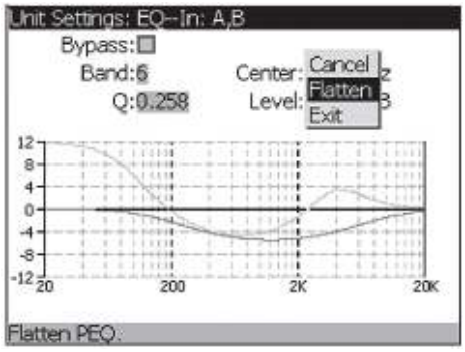
To set the slope and Q of PEQ. When Band 1 or Band 9 is selected, this parameter stands for the slope, which ranges from 3 to 12dB/Octave; when any band from Band 2 to Band 8 is selected, the parameter stands for Q, which ranges from 0.092 to 16.0.

Level -12 dB to 12 dB

To set the gain of the selected frequency of the PEQ.

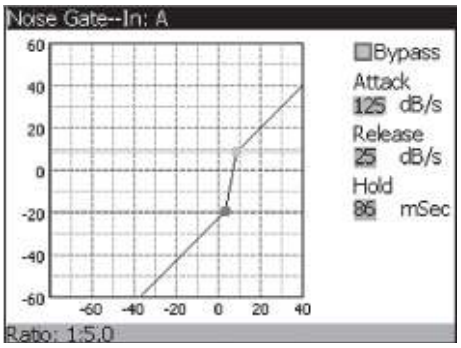
Flatten

Press the button "Menu" on the interface, and a menu will appear as follows. Choose "Flatten" to return all bands to zero.



4.2 Gate (NG)

The parameter setting interface is illustrated in the following diagram. There are two points on the curve and two parallel horizontal lines across the two points. The top one stands for Threshold, while the one below represents the Ratio. The two parallel lines stand for MAX Attenuation. If selected, the point or line is displayed in red. If not selected, the point or line is displayed in blue. The two parallel lines representing the MAX Attenuation are displayed in green when they are not selected.



Bypass

When "Bypass" is "on", the box behind it is highlighted in green; when the box is in white, it means that "Bypass" is off. When "Bypass" is "on", the noise gate is turned off; when "Bypass" is "off", the noise gate is turned on.

Attack 10 dB/S to 500 dB/S

As the signal reaches the threshold area, the Attack control sets the speed at which the gate opens. Use very fast attack times to catch the fronts of transient signals.

Release 360 dB/S to 5 dB/S

Release sets the speed at which the gate "closes" or attenuates when the end of the Hold time is reached.

Hold 0 to 500 m Sec

The Hold control sets the amount of time the gate is held open after the signal passes below the threshold point.

Threshold -50 dB to 22 dB

The threshold is the volume level at which the gate opens. Anything above the threshold passes, while signal that is lower than the threshold is attenuated. Beware, setting the threshold too high can cut off the tail end of signals as they fade out (the sustain of a guitar note, a held piano chord, a reverb tail, etc.).

Ratio 1:1.0 to 1:15

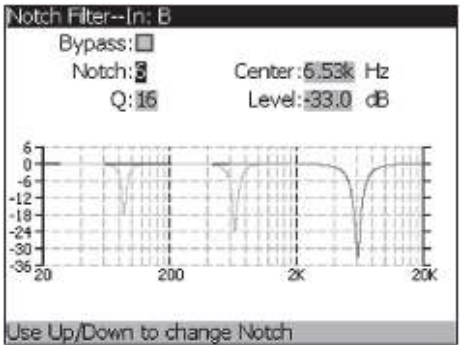
This is where you decide how much downward expansion you want. This ratio works opposite from that of the compressor or limiter. If a ratio of 1:4 is selected, a signal that is 1dB below the threshold will be reduced in gain so that it becomes 4dB below the threshold.

Max ATT 0 to Inf. dB

This sets the maximum amount of attenuation for the gate.

4.3 Notch Filters(NF)

The notch filter is the perfect tool for dropping out undesirable frequencies that may appear in the input signal. Up to six Notch filters are available for all six outputs. The curve of the selected notch filter will be highlighted in red, which can be illustrated by the red curve in the following diagram. The curves that are not selected are shown in different colors which stand for the different types of notch filters. The parameter setting interface is as follows:



Bypass

When "Bypass" is "on", the box behind it is highlighted in green; when the box is in white, it means that "Bypass" is off. When "Bypass" is "on", the Notch Filter is turned off; when "Bypass" is "off", the Notch Filter is turned on.

Notch

To select the notch filter to set. The frequency response curve of the selected one will be displayed in red.

Center (1 to 6) 20.1Hz to 20.7KHz

To select the desired notch filter frequency of the selected notch filter.

Q 16 to 128

To select the Q of the selected notch filter.

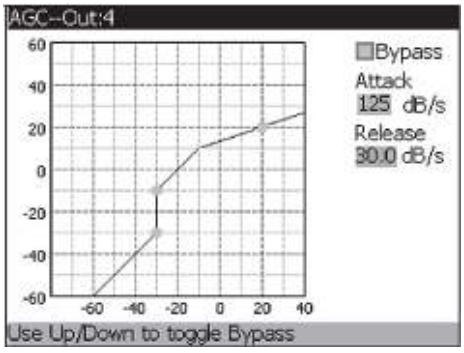
Level -36 dB to 6 dB

To set the level of the selected notch filter. Set to +6dB to help find unwanted feedback, then set to -3dB to -36dB to remove.

4.4 Automatic Gain Control(AG)

The AGC is used to keep the average level of a signal at a constant level. This is done by selecting a desired Target output level and Window. The AGC keeps the signal within the Window about the selected Target by slowly adjusting the gain. The maximum gain that can be applied to the signal is selected by the Gain parameter. When the input signal falls below the Low Threshold the AGC releases the gain and returns to unity. This prevents the AGC from adding gain when there is no signal present and raising the system noise floor. High level signals are reduced by a fast limiter to prevent distortion by clipping. The AGC Threshold meters show what region of the AGC the input signal is in.

The parameter setting interface is illustrated in the following diagram. There are three points and two parallel horizontal lines on the interface. The top point stands for the "Target", and the middle one stands for the "MAX Gain", while the bottom one represents the "Low Threshold". The area between the horizontal lines stands for the "Window". If selected, the point or line segment will ne displayed in red; if not, the point or line segment will ne displayed in green.



Bypass

When "Bypass" is "on", the box behind it is highlighted in green; when the box is in white, it means that "Bypass" is off. When "Bypass" is "on", the Automatic Gain Control is turned off; when "Bypass" is "off", the Automatic Gain Control is turned on.

Attack 10 dB/S to 500 dB/S

This adjusts how fast the AGC will increase the gain.

Release 30.0 dB/S to 1 dB/S

This adjusts how fast the AGC will reduce the gain.

Target (Targ) 0 to 20 dB

The Target parameter defines where you would like the average level of the AGC output to be. If the average level of the signal rises above the Target, the gain will be reduced. For signals with an average level below the Target, the gain will be increased.

Window 1 dB to 10dB

This adjusts the amount of variation in the output

Max Gain 1 dB to 20dB

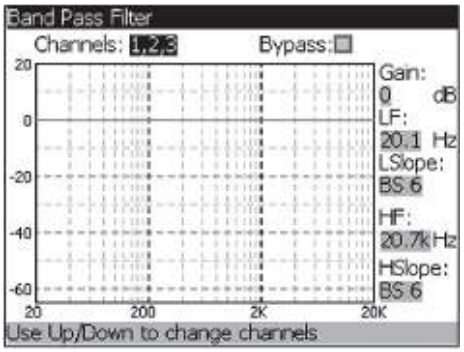
This adjusts the maximum amount of gain that can be added by the AGC.

Low Threshold -60 dB to -30dB

The Low Threshold sets a lower limit to the AGC. This prevents the AGC from adding gain to low level signals or noise.

4.5 Band Pass Filter(BP)

The BP is used to divide the input signal into several frequency bands. This allows the user to drive the speaker in its optimum frequency range and send each output separately for more efficient use of amplifier power. The parameter setting interface is as follows:

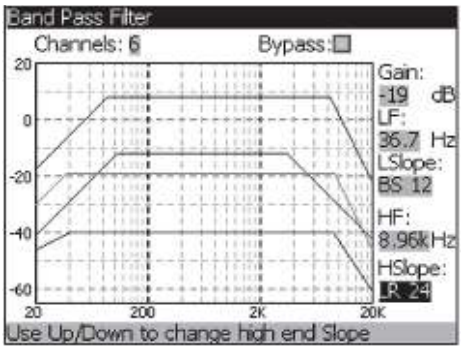


Bypass

When "Bypass" is "on", the box behind it is highlighted in green; when the box is in white, it means that "Bypass" is off. When "Bypass" is "on", the BP is turned off; when "Bypass" is "off", the BP is turned on.

Channels 1-6

There are all together six channels. The display of the channels depends on the setting of the BP unit on the main interface. The parameter of the combined BP unit channels is set together as one. As illustrated in the above diagram, Channels: 1,2,3 means that Channels 1, 2 and 3 of the BP unit on the main interface are combined. On the parameter setting interface, the selected channel will be highlighted, while the channel that is not selected is displayed in blue. This can be illustrated by the curves in the following diagram:



Gain -Inf to 20 dB

To set the level of the selected BP band. Range is from -Infinity to +20dB.

LF 19.5 Hz to 20.1KHz

To adjust the frequency of the Low Pass filter from 19.5Hz to 20.1 KHz.

LSlope

To select the filter type. Selections are: BS 6, 12, 18, 24 Bessel type filter, BW 6, 12, 18, 24 for Butterworth type filter with slope of 6, 12, 18 or 24 dB/Octave and LR12, 24,36,48 for Linkwitz-Riley type with slope of 12 or 24 dB/Octave.

HF 20.1 Hz to 20.7KHz

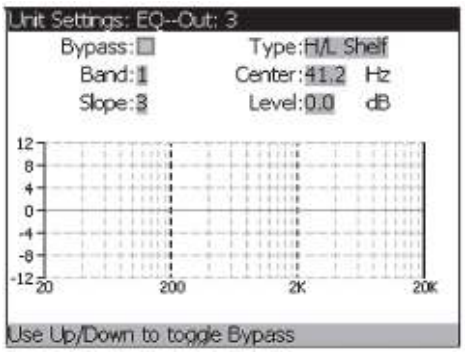
To adjust the frequency of the High Pass filter from 20.1 to20.7KHz

HSlope

To select the filter type. Selections are: BS 6, 12, 18, 24 Bessel type filter, BW 6, 12, 18, 24 for Butterworth type filter with slope of 6, 12, 18 or 24 dB/Octave and LR12, 24,36,48 for Linkwitz-Riley type with slope of 12 or 24 dB/Octave.

4.6 Post-Crossover PEQ(PE)

In addition to the pre-crossover EQ options within the signal path, the 260™ also offers a 4-band parametric EQ after the crossover section. The parameters for the post-crossover EQ are as follows and are user adjustable. The parameter setting interface is as follows:



Bypass

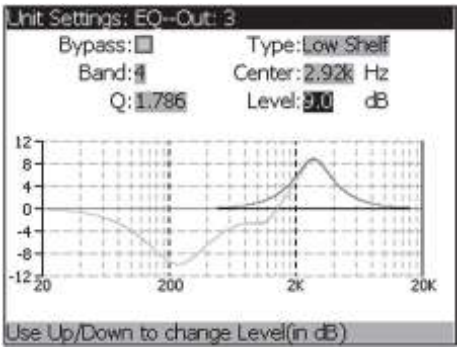
When "Bypass" is "on", the box behind it is highlighted in green; when the box is in white, it means that "Bypass" is off. When "Bypass" is "on", the PEQ is turned off; when "Bypass" is "off", the PEQ is turned on.

Type

This parameter selects the PEQ type. Types include: 1. Bell-All parameters are bell-shaped; 2.HShelf - One shelf is High, while all others are bell-shaped; 3. L Shelf - One shelf is Low, while all others are bell-shaped; 4. H/L Shelf - One shelf is High and one is Low, and the others are bell-shaped.

Band (1-4) Center 20.1Hz to 20.7kHz

To select the frequency of the selected band of the parametric EQ. The selected band will be highlighted in red on the parameter setting interface, which can be illustrated by the red curve in the following diagram. The green curve stands for the frequency response curve of the PEQ. It can be illustrated in the following diagram:



Center Q (1-4) 0.092 dB to 16 dB

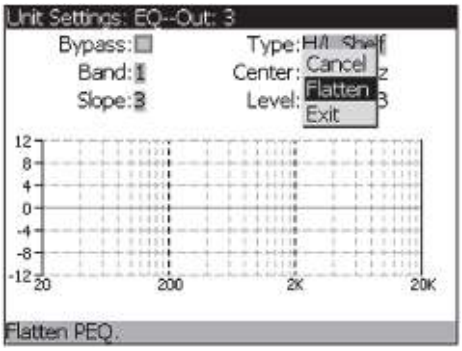
To set the Q or Bandwidth of the selected Parametric EQ.

Level (1-4) -12dB to 12dB

To set the peak level of the selected parametric EQ.

Flatten

This parameter returns the GEQ to zero. The menu item "Flatten" allows you to clear all the parameter settings, to restore all the parameters to zero so as to reset them. It can be illustrated in the following diagram:

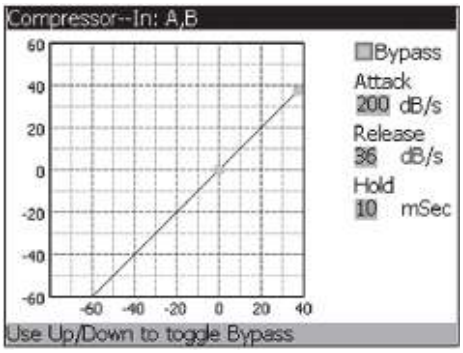


4.7 Compressor/Limiter(CP/LM)

The 260™ also offers Compression and Limiter modules. The Compressor is a full bandwidth Stereo Compressor inserted prior to the Crossover. The Compressor is the perfect tool for tightening uneven signal sources such as vocals and guitars. The Limiters are located on each output channel and have been strategically placed for speaker and amplifier protection. The parameters for the Compressor/Limiter are as follows and are user adjustable.

COMPRESSOR(CP)

The parameter setting interface is illustrated in the following diagram. There are two points and two line segments on the interface. The top point stands for the "Ratio", while the one below represents the "Low Threshold". The lower line segment stands for the "Gain". If selected, the point or line segment will ne displayed in red; if not, the point or line segment will ne displayed in blue.



Bypass

When "Bypass" is "on", the box behind it is highlighted in green; when the box is in white, it means that "Bypass" is off. When "Bypass" is "on", the Compressor is turned off; when "Bypass" is "off", the Compressor is turned on.

Attack 10 dB/S to 500 dB/S

Attack is how fast the compressor starts to compress the signal after it passes the threshold. Fast attack is useful when dealing with lots of fast transients.

Release 360 dB / S to 5 dB / S

Release is how fast the 260 comes out of compression. The release is in dB per second. For example, if release is set to 5 dB /sec, and the signal is at 10dB of gain reduction, the release time is 2 seconds. Too fast a release time can result in an audible volume jump, while too slow a release time can result in the compression of signal that is not above the threshold. This can cause volume drops in your signal that may not be desired..

Hold 0 to 500 m Sec

Hold is the time the 260 remains in compression after the signal has dropped below the threshold. A longer hold time is useful in smoothing out the sound when compressing several fast peaks that are fairly close together in time. In general some hold time helps to make the compression sound more natural but too much can over-compress your signal, making for an unwanted drop in level.

Soft Knee Off to 10

There are ten levels of Soft Knee that can be used for the limiters. The point when the compressor starts to compress is the "knee". When the compressor starts to reduce the level of a signal abruptly as it passes over the threshold, this is called "hard knee" compression. Soft Knee is when the volume of the sound is compressed gradually. Soft Knee compression starts to compress before the level of the signal reaches the threshold and reaches full compression after the level has gone above the threshold. Soft Knee compression, by its very nature, sounds much smoother and more natural and will be used for most applications.

Threshold (T) -40 dBu to +20dBu

Threshold is the signal level at which the unit starts to compress the signal. If the level is set to -10 dBu, then any signal larger than -10 dBu is compressed while any signal that has a level that is lower than -10dBu is left at the same signal level. Light compression is where only the loudest parts of the signal go over the threshold. Very heavy compression can be achieved by setting the threshold low enough that almost the entire signal content is over the threshold. For most signals the most natural compression is achieved when most of the signal content remains just below the threshold and only the peaks cross the threshold.

Ratio (R) 1.0:1 to Inf:1

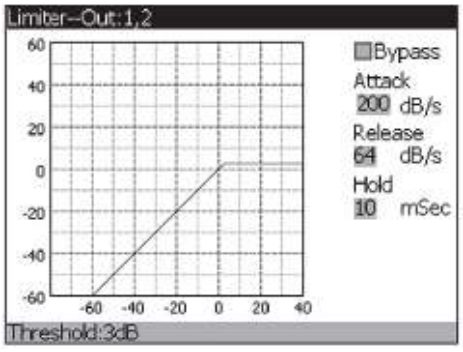
Ratio is the amount the unit reduces the signal level of the sound that is above the threshold. A 2:1 ratio means that if the incoming signal is 2dB over the threshold the unit will compress the signal, and outputs a signal that only goes 1dB over the threshold. For light compression choose a lower ratio, while a heavy compression requires a higher ratio. A setting of Inf:1 makes the compressor act a s a limiter.

Gain (G) -20 dB to +20 dBu

This parameter is used to compensate for the gain lost during compression. By using heavy compression on a signal and then boosting the signal with the output gain, the user can create a signal that sounds much louder than it actually is.

LIMITER(LM)

The parameter setting interface is illustrated in the following diagram. The horizontal line segment stands for the Threshold. If selected, it will be displayed in red; if not, it will be displayed in blue.



Bypass

When "Bypass" is "on", the box behind it is highlighted in green; when the box is in white, it means that "Bypass" is off. When "Bypass" is "on", the Limiter is turned off; when "Bypass" is "off", the Limiter is turned on.

Attack 10dB / S to 500 dB / S (per band or global)

This is the speed at which the 260 limiter starts to compress the signal once it has crossed the threshold. Set the attack time longer for lower frequency bands, and shorter for higher frequency bands.

Release 360dB / S to 5 dB / S (per band or global)

Just like the release time on the compressor, the limiter's release time controls how fast the limiter releases from gain reduction after the signal drops below the threshold. Set the release times longer for lower frequency bands and shorter for higher frequency bands.

Hold 0 to 500 m Sec (per band or global)

Hold is the time the limiter stays in gain reduction after the signal level has dropped below threshold. Hold is useful when you want the limiter to function for a period of time after it has been triggered. Be careful not to set the hold time too long as it will not release in time.

Soft Knee Off to 10

There are ten levels of Soft Knee that can be used for the limiters. The point when the compressor starts to compress is the "knee". When the compressor starts to reduce the level of a signal abruptly as it passes over the threshold this is called "hard knee" compression. Soft Knee is when the volume of the sound is compressed gradually. Soft Knee compression starts to compress before the level of the signal reaches the threshold and reaches full compression after the level has gone above the threshold. This Soft Knee compression, by its very nature sounds much smoother and more natural and will be used for most applications.

Threshold (T) -40dB to +20dB

Threshold is the signal level at which the unit starts to compress the signal. If the level is set to -10 dBu, any signal larger than -10 dBu is compressed while any signal that has a level that is lower than -10dBu is left at the same signal level. Light compression is where only the loudest parts of the signal go over the threshold. Very heavy compression can be achieved by setting the threshold low enough that almost the entire signal content is over the threshold. For most signals, the most natural compression is achieved when most of the signal content remains just below the threshold and only the peaks cross the threshold.

4.8 Alignment Delay(DL)

The 260™ offers alignment delay, which can be divided into pre-crossover delay post-crossover delay. The alignment delay is used for compensating signal delay that occurs due to internal speaker components such as horns, speakers and subwoofers within speaker cabinets. The alignment delay is also ideal to compensate for the difference in high and low frequency speed. The parameters for the alignment delay are as follows and are user adjustable. The parameter setting interface is as follows:

Bypass

When "Bypass" is "on", the box behind it is highlighted in green; when the box is in white, it means that "Bypass" is off. When "Bypass" is "on", the Delay is turned off; when "Bypass" is "off", the Delay is turned on.

Units – Seconds, Feet or Meters

To select the unit of measurement for the delay.

Step Coarse/Fine

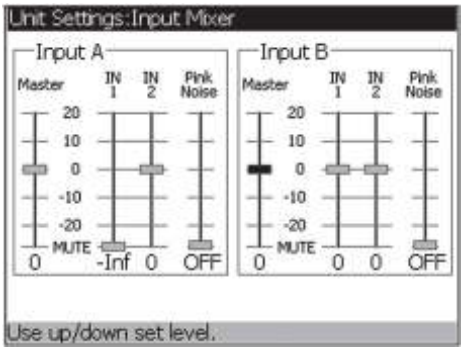
When the unit is based on seconds, coarse adjustments are made in 1.04ms increments, while fine adjustments are made in 0.02ms increments. When the unit is based on feet, coarse adjustments are made in 1.17ft increments, while fine adjustments are made in 0.02ft increments. When the unit is based on meters, coarse adjustments are made in 0.36m increments, while fine adjustments are made in0.01m increments.

Length

To set the amount of Speaker Alignment delay time. The maximum length of pre-crossover delay is different from that of the post-crossover. The delay range of the pre-crossover is: Seconds: 0.00-59.58ms, feet: 0.00-67.15ft, meters: 0.00-20.44m. The delay range of the post-crossover is: Seconds: 0.00-19.89ms, feet: 0.00-22.42ft, meters: 0.00-6.82m.

4.9 Input Routing (IN)

The signal routing begins at the INPUT ROUTING block of the unit. These parameters are user adjustable on all programs. The parameter setting interface is illustrated in the following diagram. The slider of the parameter selected or being edited is highlighted in blue.



Master level -Inf to 20dB

This parameter is used to control the overall output level of the mixed input signals.

Input 1 Level -Inf to 20dB

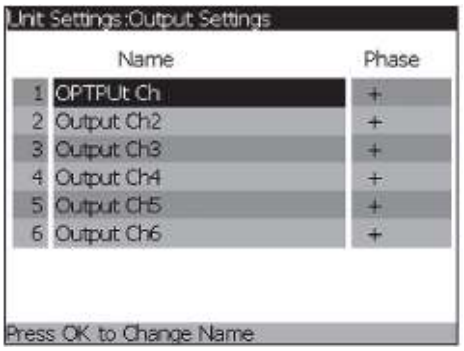
To adjust the input level of input 1.

Input 2 Level -Inf to 20dB

To adjust the input level of input 2.

Pink Noise OFF to 20dB

To control the level of the pink noise generator, or to turn it off.



4.10 Output

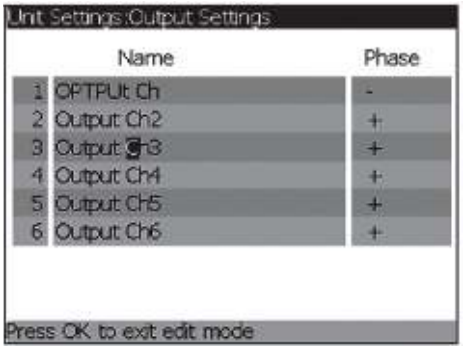
The output section provides the user with the ability to name the output and adjust phase compensation of loudspeakers. The parameter setting interface is as follows:

Phase +/-

This parameter is used to set the phase to be positive or negative. Use "Up" and "Down" to select "+" or "-" for the phase.

Changing the name of the output

The name of the output can be changed. Press the button "OK" to enter the editing of the name. Select the character you want to revise by pressing "Left" or "Right"; change the character by pressing "Up" or "Down"; insert an empty string before the character by pressing "Menu"; cancel the chosen character by pressing "Exit"; complete and exit the revision by pressing "OK". It can be illustrated in the following diagram:



SPECIFICATION

Display:
Screen: Full Color QVGA (320 x 420) TFT

Data Communication:
Ports: RS232 (1), ICD (1)

Inputs:
Connectors: XLR Female (2)
Type: Electronically Balanced
Impedance: 40kΩ
Input Level Range: -Infinity ~ +20dB

Outputs:
Connectors: XLR Male (6)
Type: Electronically Balanced
Impedance: 120Ω
Input Level Range: -Infinity ~ +20dB
Alignment Delay: 0:00 ~ 59.58ms (Pre-Crossover), 0:00 ~ 19.89ms (Post-Crossover)

A/D Performance:
Type: 24-Bit Codec
Dynamic Range: >106dB Unweighted, >110dB A-Weighted
Sample Rate: 48kHz

D/A Performance:
Type: 24-Bit Codec
Dynamic Range: 110dB Unweighted, 112dB A-Weighted
Sample Rate: 48kHz

System Performance:
Type: 28-Bit DSP (2)
Dynamic Range: 110 dB Unweighted, >106dB Weighted
THD+N: 0.002% Typical at +4dBu, 1kHz, 0dB Input Gain
Frequency Response: 20Hz ~ 20kHz, +/-0.5dB
Inter-Channel Crosstalk: >110dB, 120dB Typical
Crosstalk Input to Output: >100dB

Physical Properties:
Enclosure: Steel with Brushed Aluminium Faceplate
Color: Metallic Grey/Silver
Net Weight: 3.4kg
Dimension: (H) 65mm x (W) 483mm x (D) 204mm

Specifications subject to change without prior notice. Manufactured under ISO9000 certified management system.

WARRANTY

GECKO MUSIC GROUP warrants its GECKO® products for a period of one (1) year from the original date of purchase, in accordance to the warranty regulations described below.

What is Covered:
During the applicable warranty period, GECKO MUSIC GROUP warrants the product against defects in materials and workmanship and against malfunctions. GECKO MUSIC GROUP will remedy all such defects and malfunctions without charge for parts or labour if the warranty applies. In the case that other parts are used which constitutes an improvement, GECKO MUSIC GROUP may, at its discretion, charge the customer for the additional cost of these parts. Final determination of warranty coverage lies solely with GECKO MUSIC GROUP.

What is Not Covered:

1. If the product needs to be modified or adapted in order to comply with applicable technical or safety standards on a national or local level, in any country which is not the country where the product was originally developed and manufactured, this modification/adaptation shall not be considered a defect in material or workmanship;

2. Normal wear and tear, in particular, of faders, crossfaders, potentiometers, keys/buttons, valves, guitar/bass strings, machine heads, pick-up covers, PVC/PU/leather covers, illuminants, and similar parts are not covered by this Optional warranty;

3. Improper handling, neglect or failure to operate the unit in compliance with the instructions given in the user or service manuals;

4. Connection or operation of the unit in any way that does not comply with the technical or safety regulations applicable in the country where the product is used;

5. Damages/defects caused by force of nature or any other condition that is beyond the control of GECKO MUSIC GROUP;

6. Any repair or opening of the unit carried out by unauthorized personnel (user included) will void the warranty;

7. Modification or removal of serial numbers.

Obtaining Warranty Service:

To return a GECKO® product for warranty service, first fill out the Online Technical Report on this website and submit for an authorization/service number. Write the authorization/service number so that it is prominently displayed on the outside of the shipping carton. Any products received without an authorization/service number that is clearly visible upon arrival at the factory will be refused. Enclose proof of the original delivery date or a copy of the original sales receipt/invoice. Enclose a description of the suspected defect or malfunction and the condition, if any, which caused the problem. Return the product to either GECKO MUSIC GROUP or the GECKO® Store where the purchase was made. Note: Before sending back to GECKO MUSIC GROUP, you can first check with your local GECKO® Store or authorized reseller where you buy from for support.

Warranty Shipping:

You are responsible for prepaying shipping costs F.O.B. GECKO MUSIC GROUP, Singapore. Shipped product(s) must be properly packaged. Use original shipping cartons and packing materials where possible. GECKO MUSIC GROUP is not responsible for damages resulting from inadequate and or improper packing.

Products received with damages due to improper packaging will be deemed out of warranty.

Products which do not meet the terms of this warranty will be repaired exclusively at the buyer's expense. GECKO MUSIC GROUP will inform the buyer of such circumstance. If the buyer fails to submit a written repair order within six (6) weeks after notification, GECKO MUSIC GROUP will return the unit C.O.D. with a separate invoice for freight and packing. Such costs will also be invoiced separately when the buyer has sent in a written repair order.

Warranty Rights:

This warranty is exclusive and extended to the original buyer and is not transferable to anyone who may subsequently purchase this product. No other person (apart from authorized GECKO® Stores) shall be entitled to give any warranty promise on behalf of GECKO MUSIC GROUP.