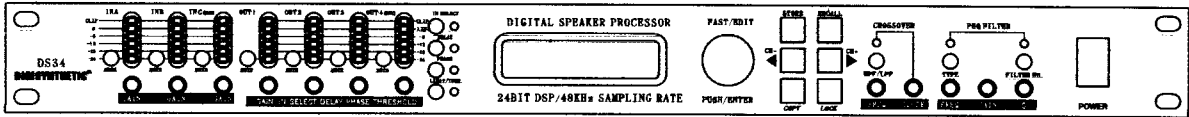
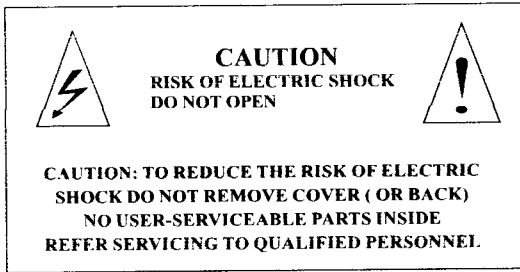


DIGISYNTHETIC[®]
DS34
DIGITAL SPEAKER PROCESSOR



USER MANUAL



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 to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operation and maintenance (servicing) instruction in the literature accompanying the appliance.

IMPORTANT SAFETY INSTRUCTION

Please read below basic protection proceeding before using:

1. Please read all the safety instruction before using the product.
2. This product must be earthed. If it should be malfunction or break down, grounding provides a path of least resistance for electric current to reduce risk of electric shock.

This product is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and earthed in accordance with all local codes and ordinance.

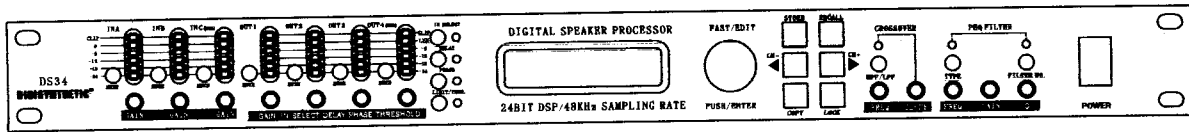
DANGER- Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or serviceman if you are in doubt as to whether the product is properly grounded. Do not modify the plug provided with the product - if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

3. To reduce the risk of injury, close supervision is necessary when the product is used near children.
4. Do not use this product near water-for example, near a bathtub, washbowl, kitchen sink, in wet basement or near a swimming pool or the lake.
5. This product may be capable of producing sound levels that cloud cause permanent hearing loss. Do not operate for a long period of time at high volume level or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should consult an audiologist.
6. This product should be located so that its location or position does not interfere with its proper ventilation.
7. This product should be located away from heat sources such as radiators, heat registers or other products that produce heat.
8. The product should be connected to a power supply only of the type described on the operation instructions or as marked on the product.
9. This product may be equipped with a polarized line plug (one blade wider than the other). This is a safety feature. If you are unable to insert the plug into the outlet, contact an electrician to replace your obsolete outlet. Do not defeat the safety purpose of the plug.
10. The power-supply cord of the product should be unplugged from the outlet when left unused for a long period of time. When unplugging the power-supply cord, do not pull on the cord, but grasp it by the plug.
11. Care should be taken so that object do not fall and liquid are not spilled into the enclosure through opening.
12. The product should be serviced by qualified service personnel when:
 - A. The power-supply cord or the plug has been damaged; or
 - B. Objects have been fallen, or liquid has been spilled into the product; or
 - C. The product has been exposed to rain; or
 - D. The product does not appear to operate normally or exhibits a marked change in performance; or
 - E. The product has been dropped or the enclosure damaged..
13. Do not attempt to service the product beyond that described in the user-maintenance instructions. All other servicing should be referred to qualified service personnel.
- 14 **WARNING-** Do not place objects on the product's power cord or place it in a position where anyone could trip over, walk on or roll anything over it. Do not allow the product to rest on or to be installed over power cords of any type. Improper installations of this type create the possibility of fire hazard and/or personal injury.

SAVE THESE INSTRUCTIONS

SPECIFICATION

—、SPECIFICATION



1. 3 INPUT CHANNEL

- ☆ 3 bands EQ on each channel.
- ☆ Volume adjustable and mute function on each channel.

2. 4 OUTPUT CHANNEL

- ☆ 5 bands EQ on each channel.
- ☆ Volume adjustable and mute function on each channel.
- ☆ HPF on each channel.
- ☆ LPF on each channel.
- ☆ Compression/limit on each channel.
- ☆ Delay on each channel.
- ☆ Phase on each channel.

3. PROGRAM MANAGEMENT

- ☆ 16 user memories.
- ☆ 5 preset program.

4. LOCK

- ☆ Operation lock.
- ☆ Program lock.

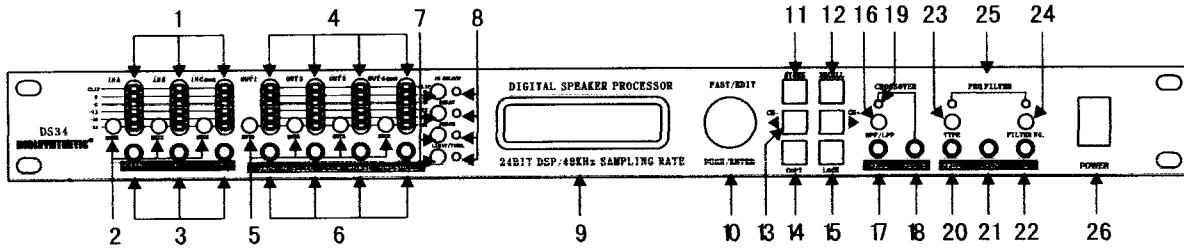
5. USB PORT

6. 2x16 LCD display with backlight.

7. 7x6 band level meter.

FRONT PANEL

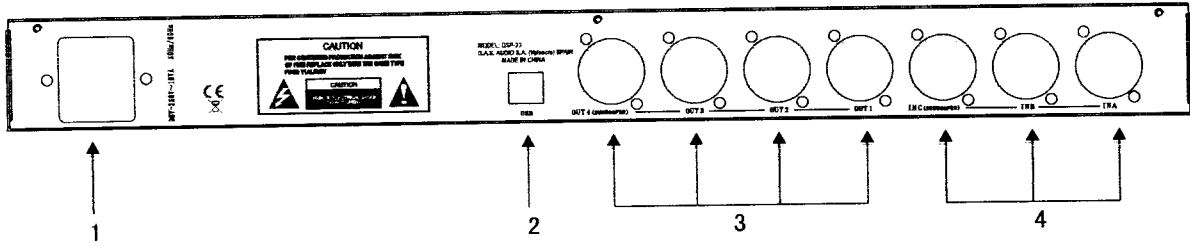
二、FRONT PANEL



1. INPUT METER.
2. INPUT MUTE.
3. INPUT GAIN.
4. OUTPUT METER.
5. OUPT MUTE.
6. GAIN/IN SELECT/DELAY/PHASE/THRESHOLD.
7. SHIFT BUTTON FOR IN SELECT/DELAY/PHASE/LIMIT.
8. INDICATOR LIGHT FOR IN SELECT/DELAY/PHASE/LIMIT.
9. LCD DISPLAY.
10. FAST EDIT / PUSH ENTER.
11. STORE BUTTON.
12. RECALL BUTTON.
13. CHANNEL SELECT BUTTON.
14. COPY BUTTON.
15. LOCK/UNLOCK BUTTON.
16. SHIFT BUTTON FOR HPF/LPF.
17. HPF/LPF FREQUENCY ADJUST.
18. HPF/LPF SLOPE ADJUST.
19. INDICATOR LIGHT FOR HPF/LPF FREQUENCY ADJUST.
20. EQ FREQUENCY ADJUST.
21. EQ GAIN ADJUST.
22. EQ Q ADJUST.
23. EQ TYPE SHIFT.
24. EQ SELECT.
25. EQ OPERATION INDICATOR LIGHT.
26. POWER ON/OFF.

BACK PANEL

三、BACK PANEL



1. POWER SOCKET.
2. USB PORT.
3. XLR OUTPUT.
4. XLR INPUT.

Operation Instruction

四、OPERATION

1. Parameter setting in input channel.

1.1 GAIN & MUTE:press [MUTE] to adjust MUTE or cancel MUTE.

Turn the small rotatory button to adjust the GAIN.

1.2 EQ:Press [TYPE] or [FILTER NO] to enter EQ menu. Press [FILTER NO] to shift EQ. Press [CH-]、[CH+] to shift channel.

Type:Press [TYPE] to shift EQ type:PEQ、Low-Shelf、High-Shelf、All-Pass.

NOTE:EQ type shift only can be operated when EQ and GAIN is 0dB,Otherwise, the LCD will return to current screen after display a caution.

Freq: turn [FREQ] in PEQ FILTER to adjust EQ frequency, turn [FAST/EDIT] to adjust fastly.

Gain:turn [GAIN] in PEQ FILTER to adjust EQ gain,it's unavailable while EQ type is All-Pass.

Q:turn [Q] in PEQ FILTER to adjust EQ Q value, it's unavailable while EQ type is HIGH-SHELF、LOW-SHELF.

2. Parameter setting in output channel.

2.1 GAIN & MUTE: press [MUTE] to adjust MUTE or cancel MUTE.

Turn the small rotatory button to adjust the GAIN.

2.2 Limit:press [LIMIT] to enter/quit LIMIT set,meanwhile the indicator light up/off press[PUSH/ENTER] to shift Limit Threshold、Limit

Attack Time、Limit Hold Time、Limit Release Time。turn the small rotatory button to adjust parameter value.

2.3 Delay:press [DELAY] to enter/quit Delay set, meanwhile the indicator light up/off turn the small rotatory button to adjust parameter value.

2.4 Phase:press [PHASE] to enter/quit Phase set, meanwhile the indicator light up/off, turn the small rotatory button to adjust parameter value.

2.5 HPF & LPF:press [HPF/LPF] to enter HPF set, press[HPF/LPF] again to shift HPF and LPF. Turn [FREQ] in CROSSOVER to adjust HPF and LPF frequency, turn [SLOPE] in crossover to adjust HPF and LPF slope.

2.6 EQ:Operational means with Parameter setting in input channel.

3. Function operation

3.1 Store

Press [STORE] to enter program store menu. If the program locked, show as Fig.1 and then return to main menu.

**Program sector
locked**

Fig 1

Operation Instruction

(1) Select store file: turn [FAST/EDIT] to select user memories 1~16, press [PUSH/ENTER] confirm. If the selected memories already stored program, show the program name with "?", If the selected memories is empty, show "Unused".

See Fig. 2



Fig 2

(2) Edit program name: press [CH-], [CH+] to move the cursor position, press [FAST/EDIT] to select character. Press [PUSH/ENTER] confirm. Max 10 characters for the program name.

(3) Confirm store: See below picture Fig. 3.

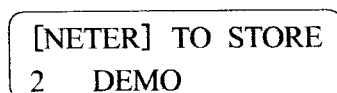


Fig 3

Press [PUSH/ENTER] confirm, press other button to return main menu.

3.2 Recall

Press [RECALL] to enter program recall menu. If the program locked, show as Fig 4.

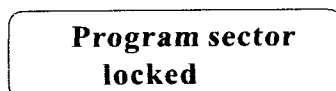


Fig 4

And then return to main menu.

(1) Select recall program type: turn [FAST/EDIT] to select program type, press [PUSH/ENTER] confirm.

- A. PRESET: preset program;
- b. USER: user memories program;



Fig 5

(2) Select recalled program: turn [FAST/EDIT] to select program type, press [PUSH/ENTER] confirm.

A. If the program type is PRESET, total 5 presets can be selected. They are: 2*2 Way, 1*3 Way+Sub, 2Way mon Sub, 4 Way, All Flat. And 2*2Way, 2Way mon Sub has LINK function.

B. If the program type is USER, show the programs which the user stored, see Fig 6.

Operation instruction

**RECALL
2 DEMO**

Fig 6

If no program, show as Fig 7 below and then return to main menu.

**No Stored
Program**

Fig 7

(3) LINK set: turn [FAST/EDIT] to select link or not, press [PUSH/ENTER] confirm.
When recall PRESET 2*2Way or 2Way mon Sub, can choose link or not.

After select LINK, adjust either channel parameter, then another channel parameter will changed accordingly OUT1&OUT3 link, OUT2&OUT4 link.

(4) Confirm Recall: See Fig 8.

**[ENTER] TO RECALL
2 DEMO**

Fig 8

Press [PUSH/ENTER] confirm, press other button to return main menu.

3.3 Channel Copy

Press [COPY] to copy input channel to output channel or copy output channel to input channel. Turn [FAST/EDIT] to select, press [PUSH/ENTER] confirm.

(1) Input/output channel select

**COPY
[INPUT]** **COPY
[OUTPUT]**

Fig 9

(2) Source channel select:

**INPUT COPY
Source:A** **OUTPUT COPY
Source:1**

Fig 10

(3) Target channel select:

**INPUT COPY
Target:B** **OUTPUT COPY
Target:2**

Fig 11

Operation Instruction

(4) Operation confirm



Fig 12

3.4 Lock

Press [LOCK] to enter menu.

(1) Select lock/unlock type:

A. device operation Lock/Unlock



Fig 13

B. Program management Lock/Unlock



Fig 14

(2) Password: Press [CH-], [CH+] to move cursor, press [FAST/EDIT] to select characters, see Fig 15.

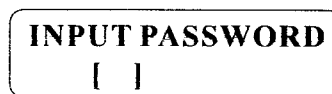


Fig 15

Press [PUSH/ENTER] confirm.

While operating KEY UNLOCK or PROGRAM UNLOCK, if the password is correct, show Unlock successful and return to main menu. If the password is wrong, show Unlock failed and return to main menu.

(3) Password confirm: if password enter two time is same while operating KEY LOCK or PROGRAM LOCK, then lock successful, meanwhile show lock successful or lock failed. After all return to main menu.

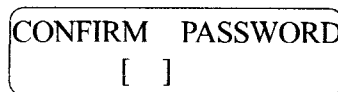


Fig 16

Operation Instruction

4. Small encoder auto unlock

When user no operate more than 1 mins, Small encoder will auto lock for error operation, Sametime return to main menu (see Fig17). The lock response small encoder only and it wouldn't effect other button and big encoder. after lock, It will return to mainmenu directly if user want to operate the small encoder regardless of whether what menu position.



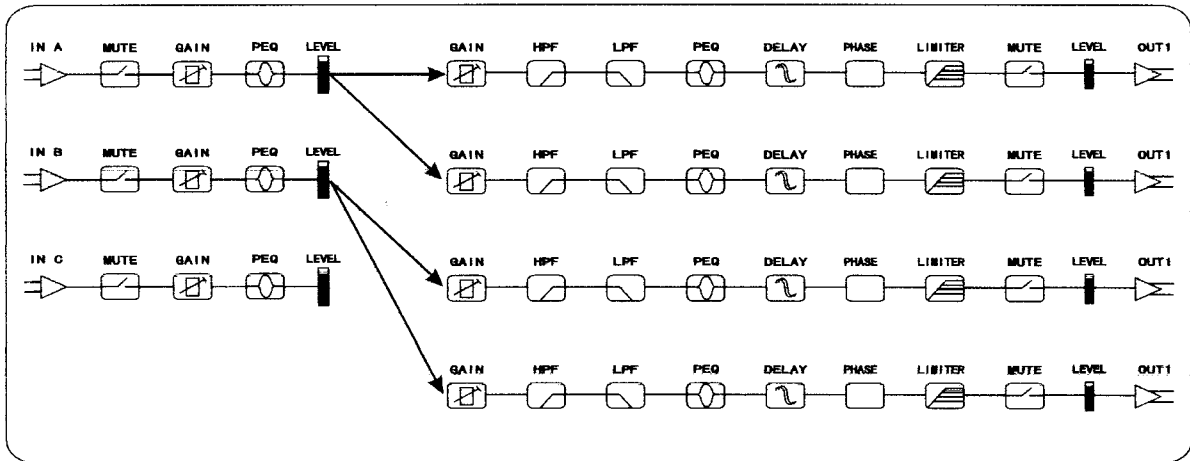
Fig 17

Unlock way:

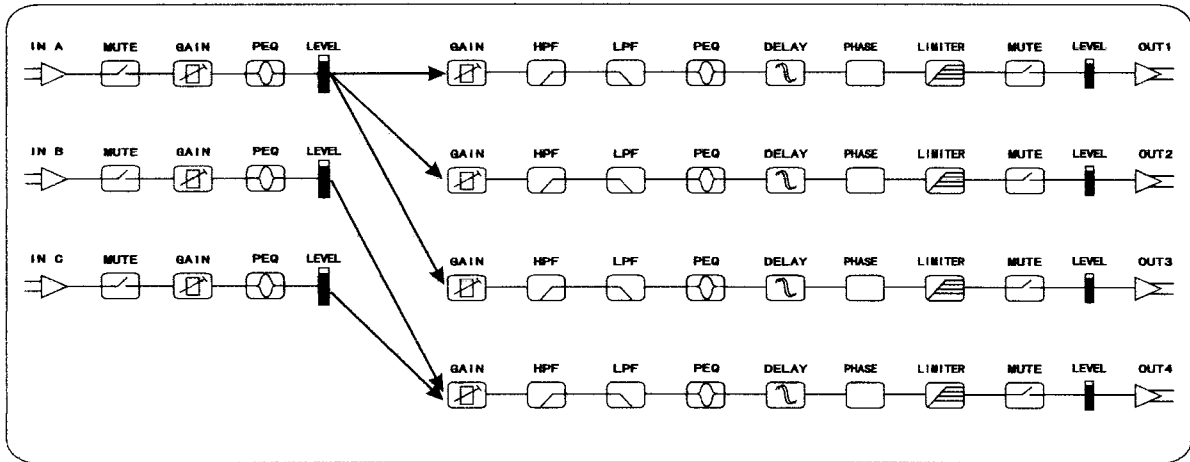
Press big encoder [PUSH/ENTER] and lock instantly.

Operation Instruction

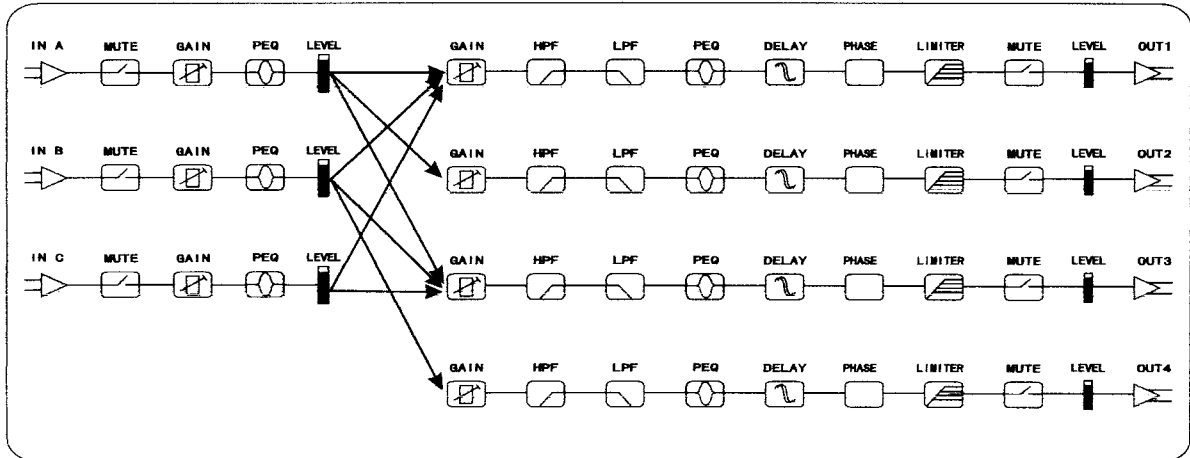
DS34 2 × 2WAY



DS34 1 × 3WAY+SUB

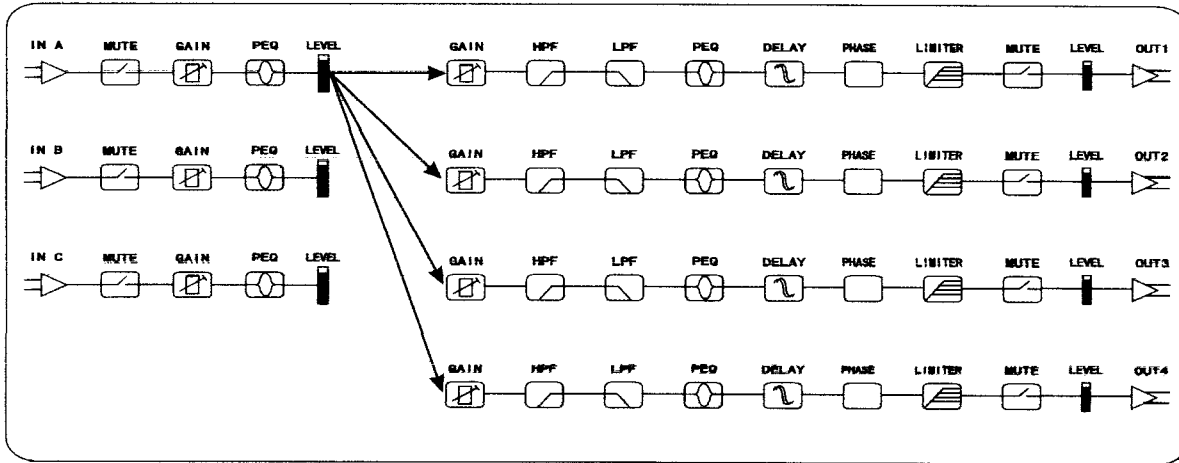


DS34 2WAY MONSUB

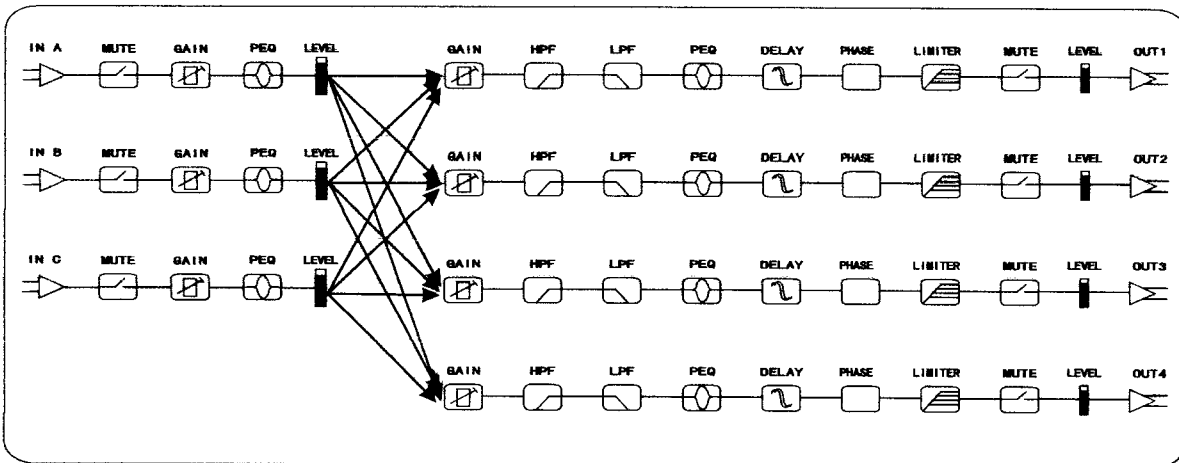


Operation Instruction

DS34 4WAY



DS34 ALL FLAT



Technology Parameter

五、Technology Parameter

1. INPUT CHANNEL:

● GAIN:

● EQUALIZER:

EQ TYPE: PEQ、Low-Shelf、High-Shelf、All-Pass

EQ FREQUENCY: RANGE: [19.7Hz~20.2KHz]

EQ GAIN: -12.0dB~+12.0dB, STEP: 0.5dB

EQ Q 0.4~128

2. OUTPUT CHANNEL

● SIGNAL INPUT SELECTION: OFF, InA, InB, InC, InA+B, InA+C, InB+C, InAll

● GAIN: -40dB~+6dB

● EQUALIZER

EQ TYPE: PEQ、Low-Shelf、High-Shelf、All-Pass

EQ FREQUENCY: RANGE [19.7Hz~20.2KHz]

EQ GAIN: -12.0dB~+12.0dB, STEP: 0.5dB

EQ Q 0.4~128

● HIGH PASS

HPF: 10.0Hz~16KHz

HP SLOPE:

FLAT THRU, 6dB But, 12dB/Q=0.5, 12dB/Q=0.6, 12dB/Q=0.7, 12dB/Q=0.8, 12dB/Q=0.9, 12dB/Q=1.0, 12dB/Q=1.1, 12dB/Q=1.2, 12dB/Q=1.3, 12dB/Q=1.4, 12dB/Q=1.5, 12dB/Q=1.6, 12dB/Q=1.7, 12dB/Q=1.8, 12dB/Q=1.9, 12dB/Q=2.0, 12dB Bessel, 12dB Butterworth, 18dB Butterworth, 18dB Bessel, 24dB Butterworth, 24dB Bessel, 24dB Link-Rily, 48dB Butterworth, 48dB Bessel, 48dB Link-Rily .

● LOW PASS

LPF: 35Hz~20.2KHz.

LPF SLOPE: SAME AS HPF

● COMPRESSION

LIMIT THRESHOLD: -40dBu~+10dBu, OFF. DEFAULT: OFF;

ATTACK TIME: 100~1000dB/s

HOLD TIME: 100~1000ms

RELEASE TIME: 100~1000dB/s

● DELAY: 0.00ms~8.00ms, 0.00m~2.75m, 0.00ft~9.01ft;

● PHASE: 0, 180

POWER SUPPLY: AC 90V~250V 18VA 50Hz/60Hz

FUSE: T1AL/250VAC

SIZE: 482mm×158mm×45mm

WEIGHT: 2. 1Kg (NET WEIGHT)

DIGISYNTHETIC CO. LTD

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Version: V1.0