D.A.S.

digital signal processors series

DSP-226

!

Antes de utilizar el equipo, lea la sección "Precauciones de seguridad" de este manual. Conserve este manual para futuras consultas.

Before operating the device, please read the "Safety precautions" section of this manual. Retain this manual for future reference.

GARANTÍA

Todos nuestros productos están garantizados por un periodo de 24 meses desde la fecha de compra.

Las garantías sólo serán válidas si son por un defecto de fabricación y en ningún caso por un uso incorrecto del producto.

Las reparaciones en garantía pueden ser realizadas, exclusivamente, por el fabricante o el servicio de asistencia técnica autorizado.

Otros cargos como portes y seguros, son a cargo del comprador en todos los casos.

Para solicitar reparación en garantía es imprescindible que el producto no haya sido previamente manipulado e incluir una fotocopia de la factura de compra.

WARRANTY

All our products are warrantied against any manufacturing defect for a period of 2 years from date of purchase.

The warranty excludes damage from incorrect use of the product.

All warranty repairs must be exclusively undertaken by the factory or any of its authorised service centers.

To claim a warranty repair, do not open or intend to repair the product.

Return the damaged unit, at shippers risk and freight prepaid, to the nearest service center with a copy of the purchase invoice.

DECLARACIÓN DE CONFORMIDAD
DECLARATION OF CONFORMITY

DAS Audio Group, S.L.
C/ Islas Baleares, 24 - 46988 - Pol. Fuente del Jarro - Valencia. España (Spain).

Declara que *DSP-226*:
Declares that *DSP-226:*

Cumple con los objetivos esenciales de las Directivas:
Abide by essential objectives relating Directives:

- De Baja Tensión / Low Voltage   2014/35/UE

- EMC   2014/30/UE

  RoHS   2011/65/UE

- RAEE (WEEE)   2012/19/UE

Y es conforme a las siguientes Normas Armonizadas Europeas:
In accordance with Harmonized European Norms:

- EN 60065:2014.- Audio, video and similar electronic apparatus. Safety requirements.

- EN 55032:2012.- Electromagnetic compatibility of multimedia equipment. Emission requirements.

- EN 55103-2:2009.- Electromagnetic compatibility. Product family standard for audio, video, audio-visual and entertainment lighting control apparatus for professional use. Part 2:Immunity.

- EN 50581:2012.- Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances.

Please read the basic protective measure as below 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.
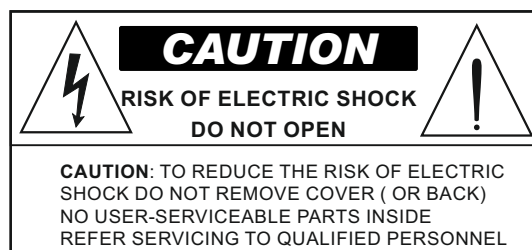
3. To reduce the risk of injury, close supervision is necessary when the product is used near children.
4. Do not use this product near water-for example, near a bathtub, washbowl, kitchen sink, in wet basement or near a swimming pool or the lake.
5. This product may be capable of producing sound levels 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.**

15. The power-supply cord should be unplugged from the outlet when the products is completely power off from the electric power sources and electric networks .

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER (OR BACK) NO USER-SERVICEABLE PARTS INSIDE REFER SERVICING TO QUALIFIED PERSONNEL

The lightning flash with arrowhead synbol 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 maintenace (servicing) instruction in the literature accompanying the appliance.
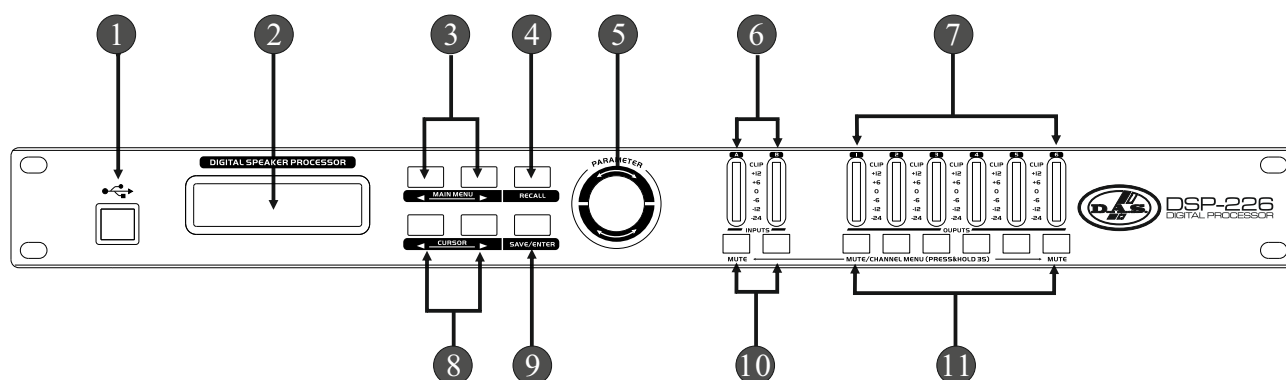
Only use it below the altitude of 2000 m for safety application.

Only use it in nontropical climate condition for safety application.

Front Panel

1. USB interface
2. 132*32 lattice LCD display
3. MAIN MENU ◄ and ►
4. RECALL
5. PARAMETERE encoder
6. 7 band input level indicator light
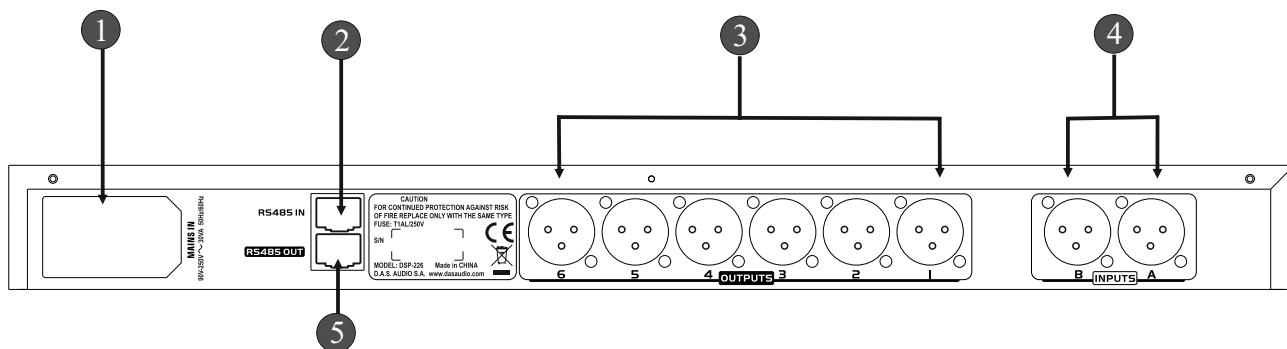7. 7 band output level indicator light
8. CURSOR ◄ and ►
9. SAVE / ENTER keystroke
10. Input MUTE keystroke and MUTE display LED light
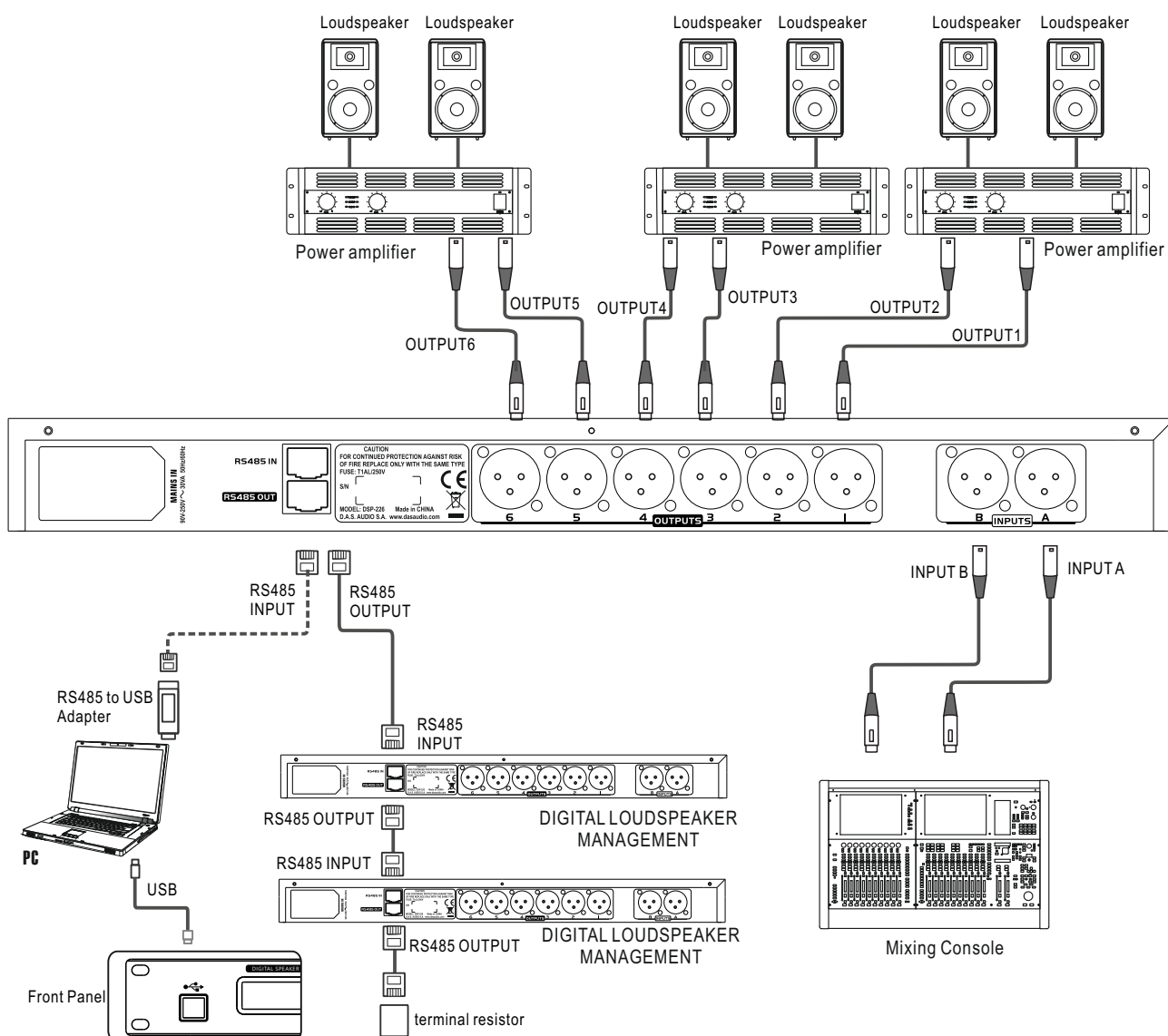11. Output MUTE keystroke and MUTE display LED light

Rear Panel

1 Mains connector and power switch   4 2 channel input terminal

2 RS485 IN interface   5 RS485 OUT interface

3 6 channel output terminal

System connection diagram

Features

✪ 24-bit DSP technology, high performance AD/DA, simple operation and excellent performance.

✪ 2 in 6 out multi-kinds of crossover mode for flexible configuration.

✪ Input /output volume control with the range -40dB - +12dB and the minimum step 0.1dB.

✪ 7 band PEQ for each input and output, each band PEQ has various EQ choice as Parametric, L-Shelf 6dB, L-shelf 12dB, High-Shelf 6 dB, High-Shelf 12dB.

✪ PEQ frequency range: 19.7Hz to 21.9Hz, Gain range: -30dB to 15+dB , bandwidth 0.017 to 4.750 octave.

✪ Output high-pass and low-pass filter, each filter has multi-kinds of slopes and types. Filter slope: -12dB - 24dB -36dB - 48dB. Filter type: Butterworth, Bessel, Linkwitz-Riley.

✪ The maximum 1000.00ms delay for each input/output channel with delay switch.

✪ The compressor in each input / output can adjust the threshold, ratio, attack time, release time, close,hard knee. Five step soft knee.

✪ Phase reversal function is set in each input / output channel.

✪ Channel setting copy function makes the adjusting much easier.

✪ Multi channel parameters can be set simultaneously via Multi-channel linking function .

✪ Friendly and intuitive PC interface. USB, RS485 can be connected with PC.

✪ Multi processor network function. One computer can be connected with 3 kinds of processors (2 in 6 out) with the max 32 PCS for each model.

✪ 132X32 lattice LCD display.

✪ 7 band input/output level LED display.

✪ Mute LED light, keystroke indicator LED.
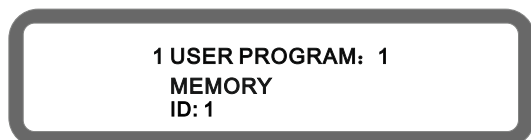
✪ Switch power: AC90V-250V, 50Hz-60Hz

Operation

1 Power on

1.1 Plug in the power cable, press the power switch on the panel, then the LCD shows the brand, model and the version.

```
        *** ***
          .
        ***
```
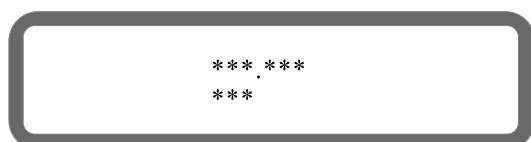
1.2 When the loading is completed, the LCD shows the present program number, name and the processor ID.

```
    1 USER PROGRAM： 1
      MEMORY
      ID: 1
```

2 FRONT PANEL KEYSTROKE AND THE FUNCTION

2.1 MUTE

2.1.1 Quickly press MUTE
Function: Switch between the state of mute or not for each channel.
Operation: Press MUTE button within 2 second and then release it. The states of mute or not is switchable for each channel.

2.1.2 Keep pressing MUTE
Function: enter in the parameter setting menu of some channel.
Operation: Keep pressing MUTE (about 3 seconds) of some channel till the channel parameter set gets displayed on LCD screen. Then release it. The parameter set menu of this channel is entered in.

2.2 PARAMETER encoder

2.2.1 Rotary encoder
Function: Change the parameters. Rotate clockwise to enlarge the parameters. Rotate anticlockwise to deduct the parameters.
Operation: Rotate the encoder clockwise or anticlockwise.

2.2.2 Press encoder
Function: lock and unlock. Press it for lock all button including encoder rotation, press it again to unlock.
Operation: Press the encoder and release it.

2.3 MAIN MENU < and >
Function: A Switch to different parameter set of the same channel at the channel parameter set display.
B Switch to different menus at the display of program management and function set.
Operation: Press it and then release it.

2.4 CURSOR < and >
Function: Move the cursor position to revise the parameter at the cursor.
Operation: Press the button and then release.

2.5 RECALL
Function: A Enter into user program menu.
B Return to the upper menu.
Operation: Press the button and then release it.

2.6 SAVE/ENTER
Function: A Enter in the menu of saving user program.
B Enter in the next submenu or confirm the function.
Operation: Press the button and then release it.

3 FRONT PANEL MENU OPERATION PART ONE CHANNEL PARAMETER SETTING

3.1 Common operation for channel parameter set
■ Keep pressing MUTE (about 3 seconds) of some channel and enter into the parameter set menu of this channel.
■ Press MAIN MENU < or > button to switch between different types of parameters in the same channel.
■ Press CURSOR < or > to move cursor position, and then rotate the rotary encoder to adjust the parameters.

3.2 Input/output channel parameter set

3.2.1 Input / output MUTE set
■ Press MUTE button of some channel within 2 seconds and release it. The state of mute or not is switchable in the channel.
■ LED for MUTE will be on at the mute state. LED for MUTE will be off at the non-mute state.

3.2.2 Input / Output GAIN set
■ Press MAIN MENU < or > to switch to GAIN display.
■ Rotate the rotary encoder to change the parameters with the step of 1dB.
■ Press CURSOR < or >, then rotate the encoder to change the parameters with the step of 1dB or 0.1dB.

```
    1 IN-A GAIN: -10.3dB

    ████████████
```
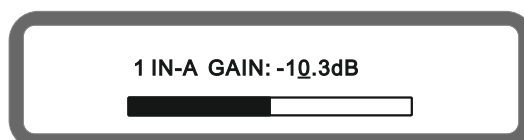
3.2.3 Input/output DELAY set
- Press MAIN MENU < or > to switch to DELAY display.
- Rotate the rotary encoder to change the parameters with the step of 0.021ms.
- Press CURSOR < or >, then rotate the encoder to change the delay parameters with the step of 105ms, 10.5ms. 1.05ms, 0.105ms, 0.021ms, or adjust the delay switch.
- 3 kinds of delay set unit as ms, m and ft.

```
2 IN-A DELAY:          933.35mS
                        321.47m
  [████▭▭] ON           2241.21ft
```

3.2.4 Input / output PEQ set
- Press MAIN MENU < or > to switch to PEQ display.
- Press CURSOR < or > to move the cursor position.
- Rotate the rotary encoder to adjust the parameters at the cursor position.
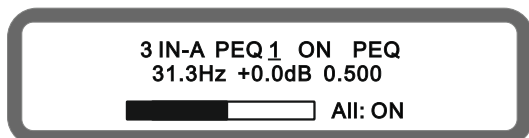- The frequency, gain of PEQ can be adjusted generally or detailedly at the cursor position.
- ON / OFF beside ALL is the on or off control of all input or output EQ.
- As to different kindsof PEQ, PEQ, LS1, LS2, HS1, HS2 correspond to Parametric, Low-shelf 6dB, Low-shelf 12dB, High-shelf 6 dB, High-shelf 12dB.

```
3 IN-A PEQ 1  ON  PEQ
  31.3Hz +0.0dB 0.500
  [████▭▭]       All: ON
```

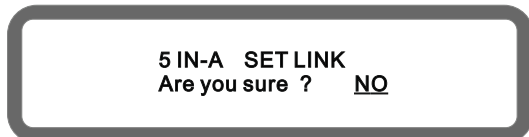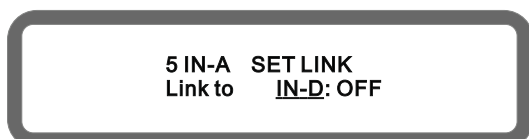### 3.2.5 Input / output COMPRESS setting
- Press MAIN MENU < or > to switch to COMPRESS display.
- Press CURSOR < or > to move the cursor position.
- Rotate the rotary encoder to adjust the parameters at the cursor postion.
- On the different kinds of COMPRESS, OFF、 H-KN、 S-KN1~S-KN5 correspond to OFF, Hard Knee, Soft Knee 1-5.
- AT means Attach time, RT means Release Time.

```
6 IN-A  COMPRESS  OFF
 +3.5dBu  4:1      AT: 25mS
  [████▭▭]         RT:  200mS
```
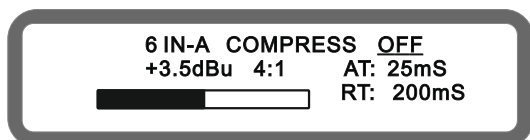
3.2.6 Input / output LINK set
- Press MAIN MENU < or > to switch to LINK set.
- Press CURSOR < or > to move the cursor position.
- Rotate the rotary encoder to adjust the parameters at the cursor position.
- Press SAVE/ENTER into the link confirming display.
- The default is NO, no link set. Rotate the encoder to change to YES or NO.
- Press SAVE/ENTER again to confirm the link set.

Note: OFF is chosen as link set, the source channel parameters will be copied to the target channel.

```
5 IN-A   SET LINK
  Link to    IN-D: OFF
```

```
5 IN-A   SET LINK
  Are you sure ?    NO
```

3.2.7 Input / output data COPY
- Press MAIN MENU < or > to switch to COPY display.
- Rotate the rotary encoder to change the target channel.
- Press SAVE / ENTER to enter into COPY set.
- The default is NO, no copy. Rotate the encoder to change to YES or NO.
- Press SAVE/ENTER again to confirm the copy .

Note: At the copy set, the source channel parameters will be copied to the target channel.

```
6 IN-A   CHANNEL COPY
  COPY TO:   IN-B
```

```
6 IN-A   Copy data to  IN-B
  Are you sure ?   NO
```
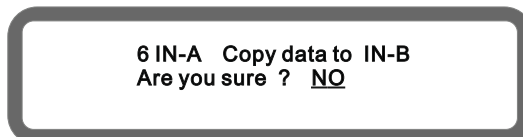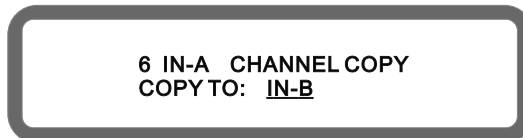
3.2.8 Output HIGH/LOW PASS FILTER SET
- Press MAIN MENU < or > button to switch to high/low pass filter set display.
- Press CURSOR < or > to move the cursor.
- Rotate the rotary encoder to adjust the parameters at the cursor position.
- The frequency of high/low pass filter can be adjusted generally or detailedly, at the cursor position.

```
4  OUT1 HIGH_PASS_FILTER
  1620Hz  12 dB Linkriley
```
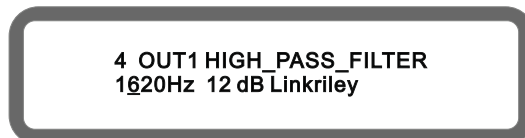
3.2.9 Output PHASE set
- Press MAIN MENU < or > to switch to PHASE SET display.
- Rotate the rotary encoder to change PHASE parameter.

```
2 OUT1   SET PHASE
  Phase: 180°
```

3.2.10 SOURCE SET
- Press MAIN MENU < or > button to switch to SOURCE SET display.
- Rotate the encoder to change SOURCE parameter.

```
7 OUT1   SET SOURCE
  Source: IN-A+IN-B
```
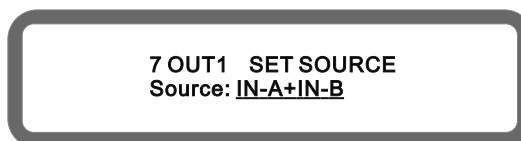
3.3 PART TWO PROGRAM MANAGMENT AND MENU OPERATION OF FUNCTION SETTING

3.3.1 LOAD USER PROGRAM
- ■ Press RECALL button till the menu (LOAD USER PROGRAM) as the lower left picture displays.
- ■ Rotate the encoder to change the program number.
- ■ Press SAVE/ENTER to complete user program operation.

```
3 LOAD USER PROGRAM: 1
MEMORY
```

```
Loading  User  Program
Please Wait. . . . . .
```

3.3.2 STORE USER PROGRAM
- ■ Press SAVE / ENTER or press RECALL to return to program management and function set menu till the menu (STORE USER PROGRAM) as the lower left picture displays.
- ■ Press CURSOR < or > to move the cursor.
- ■ Rotate the encoder to change program number or program name.
- ■ Press SAVE / ENTER to complete saving user program operation.
- ■ Press SAVE / ENTER to get into the confirming state of saving user program.
- ■ The default is NO. (No program saving). Rotate the encoder to change to Yes or NO. Press SAVE / ENTER to complete saving user program operation.

Note: Regarding to changing program name, please press CURSOR < or > to move the cursor to the position of program name, then rotate the encoder to change the name.

```
4STORE USER PROGRAM: 1
MEMORY
```

```
4 STORE USER PROGRAM: 1
Are you sure ? NO
```

```
Storing  User  Program
Please Wait. . . . . .
```

3.3.3 LOAD PRESER PROGRAM
- ■ Press RECALL to return to program management and function setting menu at the channel parameter set display. Then press MAIN MENU < or > till the menu (LOAD PRESET PROGRAM) as the lower left picture displays.
- ■ Press MAIN MENU < or > till the menu (LOAD PRESET PROGRAM) as the lower left picture displays when program management and function set menu displays.
- ■ Rotate the encoder to change the preset program number.
- ■ Press SAVE/ENTER and complete the operation of loading preset.

```
1 LOAD PRESET PROGRAM: 1
4x2Way Crossover
```

```
Loading Preset
Please Wait. . . . . .
```

3.3.4 ERASE USER PROGRAM
- ■ Press RECALL to return to program management and function set menu at the channel parameter set display. The press MAIN MENU < or > till the menu (ERASE USER PROGRAM) as the lower left picture displays.
- ■ Press MAIN MENU < or > till the menu (ERASE USER PROGRAM) as the lower left picture displays at the program management and function set menu.
- ■ Rotate the encoder to change the preset program number.
- ■ Press SAVE / ENTER to enter into the confirming menu of erasing program.
- ■ The default is NO. (No erasing program). Rotate the encoder to change to Yes or NO. Press SAVE / ENTER to complete erasing user program operation.

Note: The current loading program can not be erased.

```
5 ERASE USER PROGRAM: 1
MEMORY
```

```
5 ERASE USER PROGRAM: 1
Are you sure ? NO
```

```
Erasing  User  Program
Please Wait. . . . . .
```

3.3.5 SET MACHINE ADDRESS
- ■ Press RECALL to return to program management and function set menu at the channel parameter set display. Then press MAIN MENU < or > till the menu(SET MACHINE ADDRESS) as the lower left picture displays.
- ■ Press MAIN MENU < or > till the menu (SET MACHINE ADDRESS) as the lower left picture displays at the program management and function set menu.
- ■ Rotate the encoder to change the machine address.
- ■ Press SAVE/ENTER and complete the operation of setting machine address.

Note: The machine address setting should be the same with PC interface ID address for on-line communication.

```
6 SET MACHINE ADDRESS
   Machine ID: 1
```

```
Setting Machine address
Please wait. . . . . .
```

3.3.6 LOCK/UNLOCK MACHINE
- ■ Press RECALL to return to program management and function set menu at the channel parameter set display. Then press MAIN MENU < or > till the menu(LOCK MACHINE) as the lower left picture displays.
- ■ Press MAIN MENU < or > till the menu (LOCK MACHINE) as the lower left picture displays at the program management and function set menu.
- ■ Press CURSOR < or > to move cursor.
- ■ Rotate the encoder to change the lock type and password.
- ■ Press SAVE/ENTER, complete the lock operation.
- ■ The default is NO. (No lock on machine). Rotate the encoder to change to Yes or NO. Press SAVE / ENTER to complete LOCK/UNLOCK cooperation.

```
┌─────────────────────────────────┐
│  7 LOCK MACHINE                 │
│  TYPE：Change&View              │
│  Password:12345678              │
└─────────────────────────────────┘

┌─────────────────────────────────┐
│  7 LOCK MACHINE                 │
│  TYPE：Change&View              │
│  Are you sure ? NO              │
└─────────────────────────────────┘

┌─────────────────────────────────┐
│                                 │
│      Lock succeed               │
│                                 │
└─────────────────────────────────┘
```

3.3.7 LOCK/UNLOCK THE KEY and ENCODER

Operation: Press the encoder to lock all buttons including the rotary encoder. Press it again to unlock the button.
Note: When no operation on pannel lasts five minutes, the keys and the encoder will be locked automatically. Please press the encoder again for unlock.

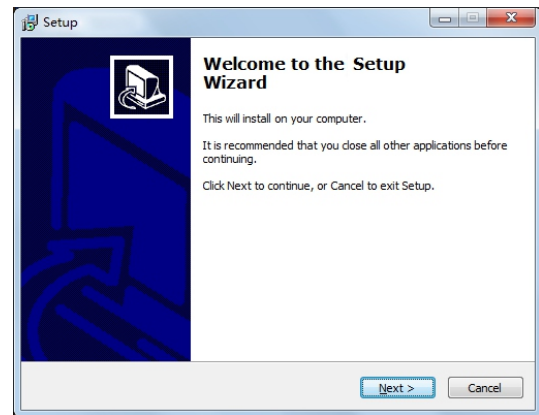### 3.4 PART THREE CHANNEL PARAMETER SET RANGE

ITEM	SET RANGE	STEP
GAIN	-40dB~+12dB	1dB / 0.1dB
DELAY	ON/OFF 0ms~1000.00ms	105ms/10.5ms/1.05ms/ 0.105ms/ 0.021ms
PEQ number	1~7	
PEQ switch	ON/OFF	
PEQ type	PEQ Low-Shelf6dB, Low-Shelf12dB, High-Shelf6dB, High-Shelf12dB,	
PEQ frequency	19.7Hz~21.9kHz	General/ detailed
PEQ GAIN	-30dB~+15dB	1dB /0.1dB
PEQ bandwidth	0.017~4.750 Oct	
COMPRESS switch	OFF/Hard knee/ soft knee 1 / soft knee 2 / soft knee 3 / soft knee 4 / soft knee 5	
COMPRESS threshold	-20dB~+20dB	0.5dB
COMPRESS ratio	1.2,1.5,2,3,4,6,10, 20,40,128	
COMPRESS attach time	0 ms ~100ms	1ms
COMPRESS release time	50 ms ~1000ms	50 ms
HIGH/LOW PASS FILTER	19.7Hz~21.9kHz	General/ detailed
HIGH/LOW PASS FILTER slope	Flat, 12dB Bessel, 12dB Butterworth, 12dB Linkwitz-Riley, 24dB Bessel, 24dB Butterworth, 24dB Linkwitz-Riley, 36dB Bessel, 36dB Butterworth, 36dB Linkwitz-Riley, 48dB Bessel, 48dB Butterworth, 48dB Linkwitz-Riley	
OUTPUT PHASE	0° / 180°	

3.5 PART FOUR PARAMETER RANGE OF PROGRAM MANAGEMENT AND FUNCTION SET MENU

ITEM	SET RANGE	STEP
Load user program	1~30	1
Store user program	Program number：1~30 Program name：ASSII code	1
Load preset program	1~10	1
Erase user program	1~30	1
Set machine address	1~32	1
Lock/unlock machine	type：Change，Change＆View， Change&Mute, password: ASSII code	

4 SOFTWARE INSTALLATION

The attached CD is the software for installation. Open the file SETUP.EXE of the CD to load the software. When loading menu is showed, choose NEXT step by step till the installation is completed.

```
┌───────────────────────────────────────────┐
│ 🖳 Setup                       [_][□][✕]    │
│ ┌──────┐  Welcome to the Setup            │
│ │  🖥   │  Wizard                          │
│ └──────┘                                   │
│           This will install on your computer. │
│           It is recommended that you close all other applications before │
│           continuing.                      │
│           Click Next to continue, or Cancel to exit Setup. │
│                                            │
│                      [ Next > ]  [ Cancel ]│
└───────────────────────────────────────────┘
```

5 PC ONLINE OPERATION

5.1 one processor communication link with PC: multi types as USB, RS232, RS485 etc.

■ Use the cable to connect the machine and PC. Power on the machine.
■ Open the PC software, click "*Device-Find Online*" , The automatic search will begin till the machine that is connected with PC is found.
■ Click to choose the machine, then click CONNECTION to get on line.
Note: 1 The machine address setting should be the same with PC interface ID address for on-line communication.
2 Connecting the machine with the cable and power on the machine should be done before opening the software. Or PC can not find the communication port, and on-line connection can not succeed.

5.2 Multi processors communication link with PC: RS485

■ Use RS485 adaptor and Ethernet cable to connect PC with the first processor via RS485 IN interface of the processor.
■ Use Ethernet cable to connect RS485 OUT interface of the first processor with RS485 IN interface of the second processor.
■ Use Ethernet cable to connect RS485 OUT interface of the second processor with RS485 IN interface of the third processor.
■ As step 3, use Ethernet cabel to connect multi processors. One PC can be connected with three models of procesors (4 in 8 out, 2 in 6 out, 2 in 4 out) The max conected processor is 32pcs.

■ RS485 OUT of the last machine is connected with the terminal resistor via ethernet cable.
■ Power on all the processors and open the sofware. Click *Device->Find Online,* the automatic search will begin to find the processor connected with the machine.
■ Click to choose the processor that needs to get on-line, then click CONNECT.
Note: 1 The machine address setting should be the same with PC interface ID address for on-line communication.
2 RS485 adaptor and the ultimate resistance are optional accessories.
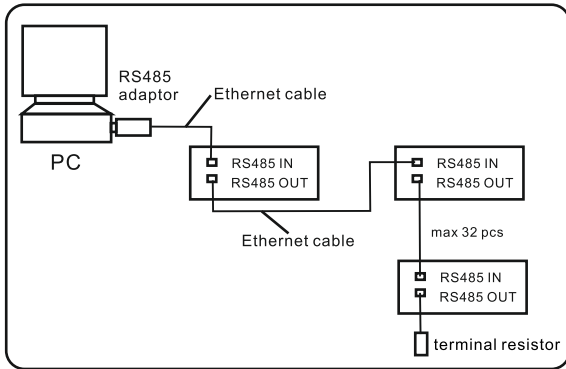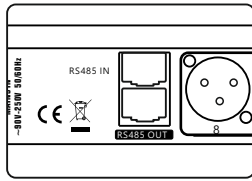
5.3 Regarding to PC interface operation, please take the opreating instruction of PC control software for reference.

6 Reset Function

Effect: recover the user program 1-30, processor address and lock state to the factory setting.

Operation: Power on the processor while keeping pressing SAVE / ENTER till LCD displays the following.

Reseting User Program
Please Wait...

7 FAULT RESOLUTION

FAULT	RESOLUTION
No display on LCD screen and LCD lights.	1 Check if the power cable is plugged in. 2 Check if the fuse is burned. 3 Make sure that the power switch is ON.
Single processor can not be connected with PC for PC control.	1 Check if the communication cable is correctly connected. 2 Close the software and connect the communication cable again, then open the software.
Multi processors can not be connected with PC for PC control.	1 Check if the communication cable is correctly connected. 2 Check if the ID addresses of the same model processors are set differently. 3 Close the software and reconnect PC with the first processor RS485 IN. Open the software again.
No signal output at the output channel	1 Check if the communication cable is correctly connected. 2 Check if MUTE LED is on. Quit mute function.

ATTACHMENT
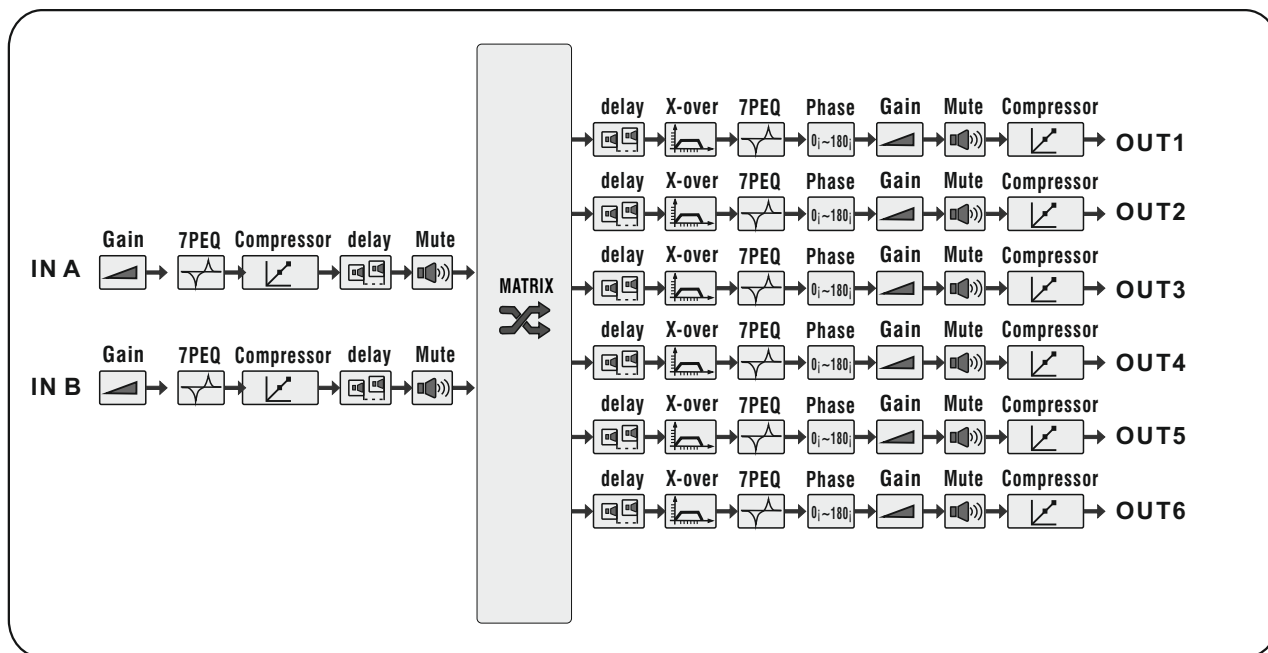
NAME	QUANTITY
Software disc	1
USB PC communication cable	1
User instruction	1

ACCESSORIES

NAME	QUANTITY
RS485 converter	1
Ultimate Resistance	1
Internet cable	Several

Signal Flow Chart

IN A — Gain → 7PEQ → Compressor → delay → Mute

IN B — Gain → 7PEQ → Compressor → delay → Mute

MATRIX

delay → X-over → 7PEQ → Phase $0_i \sim 180_i$ → Gain → Mute → Compressor → OUT1

delay → X-over → 7PEQ → Phase $0_i \sim 180_i$ → Gain → Mute → Compressor → OUT2

delay → X-over → 7PEQ → Phase $0_i \sim 180_i$ → Gain → Mute → Compressor → OUT3

delay → X-over → 7PEQ → Phase $0_i \sim 180_i$ → Gain → Mute → Compressor → OUT4

delay → X-over → 7PEQ → Phase $0_i \sim 180_i$ → Gain → Mute → Compressor → OUT5

delay → X-over → 7PEQ → Phase $0_i \sim 180_i$ → Gain → Mute → Compressor → OUT6

Specification

Input channel No.	2
Output channel Number	6
Input Impedance	10 kΩ
Output Impedance	50 Ω
Max Input level	19dBu
Max output level	19dBu
Sampling frequency	48kHz
Input gain	-40～+12dB,step 0.1dB
Output gain	-40～+12dB,step 0.1dB
Input delay	1S, step 21uS
Output delay	1S, step 21uS
Input PEQ number	7PEQ
Output PEQ number	7PEQ
Input/output PEQ gain	-30～+15dB,0.1dB/step
Input/output PEQ type	PEQ Low shelf 6dB/12dB High shelf 6dB/12dB
Input/output PEQ Frequency	19.7～21.9kHz
Input/output PEQ bandwith	0.017～4.750 OCT
High/Low Pass Filter Frequency	19.7～21.9kHz
High/Low Pass Filter Type	Bessel, Butterworth, Linkwitz-Riley
High/Low Pass Filter Slope	12dB,24dB,36dB,48dB
Compressor threshold	-20～+20dBu,step 0.5dBu
Compressor ratio	1.2,1.5,2,3,4,6,10,20,40,128
Compressor Attack time	1～100mS, step 1mS
Compressor release time	50～1000mS, step 50mS
Dynamic Range	116dB A Weighting
Frequency Response	20Hz～20kHz(±0.5dB)
CMRR	>50dB(30Hz～20kHz)
CROSSTALK	<-100dB
THD+N	0.003%(1kHz,0dBu)
Max user program number	30
Power	90-240VAC 50/60Hz
Fuse	T1AL 250V
Weight	2.0kg
Size	482*158*45mm

Above specification is subject to change without prior notice.

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UM_DSP226_02_EN

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