

FT-1208

WideLine – 8 Line Array / Self - Powered
High power – to – size ratio
Integrayed DSP and remote control

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SECTION 1. INSTRUCTIONS TO THE FT-1208



INSTRUCTIONS

The FT-1208 is a self-power 2 way line array design speaker. In its ultra-compact sizes it has an incredible reserve of power that ensures very high pressure on its wide horizontal coverage, maintaining the sound quality constant. The FT-1208 is ideal for medium throw applications, like theatres, concert halls, churches. The FT-1208 low profile box allows also frontfill applications or corporate AV situations. The FT-1208 is designed to easily integrate with others products, for example with subwoofers or at the bottom of line array.

The FT-1208 user two 8" inches cone drivers for low-mid frequencies with 3" voice coil, powered by two power amplifier channels. The mid-high frequencies section uses two 1.75" voice coil compression drive, that drive 1"x4" constant directivity waveguides. The drives are integrated in the box with a fixed angle of 20°. The flying points with different degress allow the installation in curvilinear line arrays.

The transducers of FT-1208 are driven by an internal DSP module, a dedicated remote control software allows to control the speaker from PC. All the FT-1208 components are designed by LEESTAR R&D department and custom.



FEATURES

- Unique performance-to-size ratio.
- Self powered.
- Integrated DSP and remote control.
- Wide horizontal coverage.
- Very flat profile.
- Integrated flying hardware.
- Integrated 35mm pole adapter.
- Top quality components for outstanding Performances.
- Ultra fast set-up and dismantling system.
- For use in stand alone arrays or in combination with other systems.

APPLICATIONS

- Medium scale events.
- Front fill touring sound reinforcement.
- Stadiums, theatres, concert halls, conferences.
- Installations in low-load capacity situations.

TECHNICAL DATA

Acoustics	
Power handling	700 w + 160 w
Max power	1400 w + 250 w
Impedance	4Ω + 4Ω - 16Ω + 16Ω
Operating frequency range	60 Hz -19 KHz +/- 3dB (preset relating)
Frequency range	70 Hz - 20KHz +/- 3dB (preset relating)
SPL 1W/1mt	99 dB(low-mid) + 113 dB(high)
Maximum SPL	130 dB continuos -136 dB peak
Coverage	
Horizontal	120°
Vertical	15°
Cross over	
Type	DSP controlled preset relating
Frequency	1.2 KHz minimum (preset relating)
Transducers	
Low-Mid frequency	2 × 8" Neodymium speakers with 3" voice coil
High frequency	2 × 1" Neodymium planar wave drivers with 1.75" voice coil
Audio Input	
Connectors	male + female parallel 3 poles balanced XLR
Wiring	Pin1 = ground / Pin2 = hot / Pin3 = cold
Remote control Input	
Connectors	2 × female 8 poles RJ45  (NEUTRIK)
Power Input	
Connectors	2 × PowerCon IN/OUT  (NEUTRIK)
Amplifiers	
Type	1 modules class D - DSP controlled
Power	350 W × 2 channels on 4 ohm + 160 W on ohm
Proecyions	Dynamic limiter, over current, over temp, short circuits
AC power	
Operating range	Standard 210 – 240 Vac 50Hz (Standard) Optional 100 – 120 Vac 60Hz (optional)
Max continuos and burst current	Standard 6A(> 10 sec) – 12A (< 1sec) Optional 10A(> 10 sec) – 20A (< 1sec)
Physical	
Measures	56 × 25 × 16cm
Weight	12 Kg

SECTION 2. SAFETY INSTRUCTIONS

IMPORTANT SAFETY INSTRUCTIONS



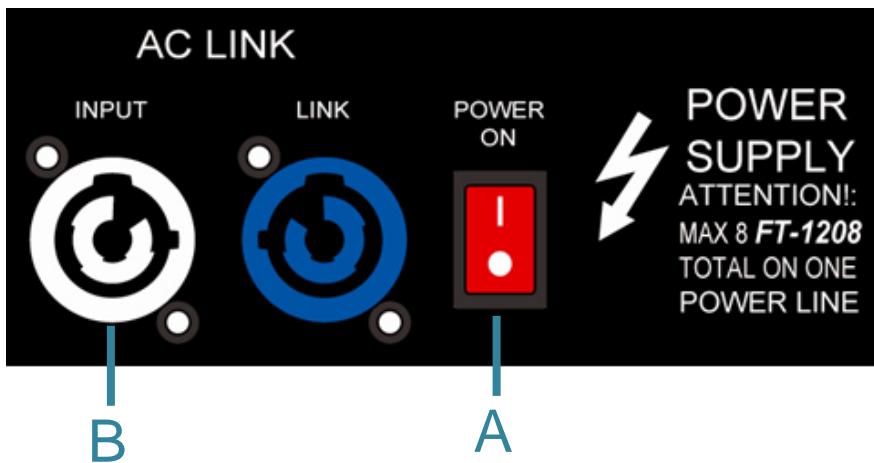
- The FT-1208 loudspeakers are not intended for fixed installation in outdoor or high moisture environments. Moisture can damage the speaker cone and surround and cause corrosion of electrical contacts and metal parts. Avoid exposing the speakers to direct moisture.
- Do not use this apparatus near water. To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Do not expose this equipment to dripping or splashing and ensure that no objects filled with liquids, such as vases, are placed on the equipment.
- Clean only with dry cloth.
- Keep loudspeakers out of extended or intense direct sunlight. The driver suspension will prematurely dry out and finished surfaces may be degraded by long-term exposure to intense ultra-violet (UV) light.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- When a cart is used, use caution when moving the cart /apparatus combination to avoid injury from tip-over.



- Loudspeakers are easily capable of generating sound pressure levels (SPL) sufficient to cause permanent hearing damage to performers, production crew and audience members. Caution should be taken to avoid prolonged exposure to SPL in excess of 90 dB.

SECTION 3. FT-1208 HARDWARE INSTRUCTIONS

POWER SUPPLY

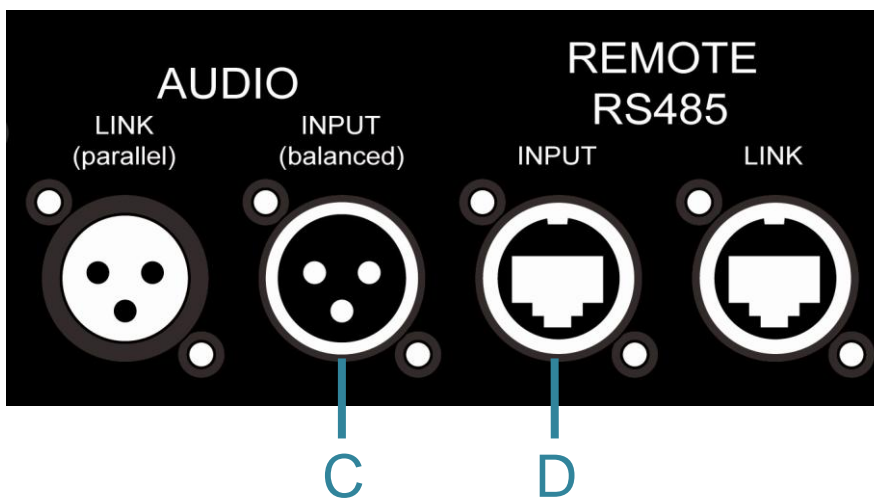


- Be sure the power switch (POWER ON “A”) is OFF when the power is connected to AC INPUT “B” (White PowerCon).

NOTE 1 、 Make sure the power voltage is correct.

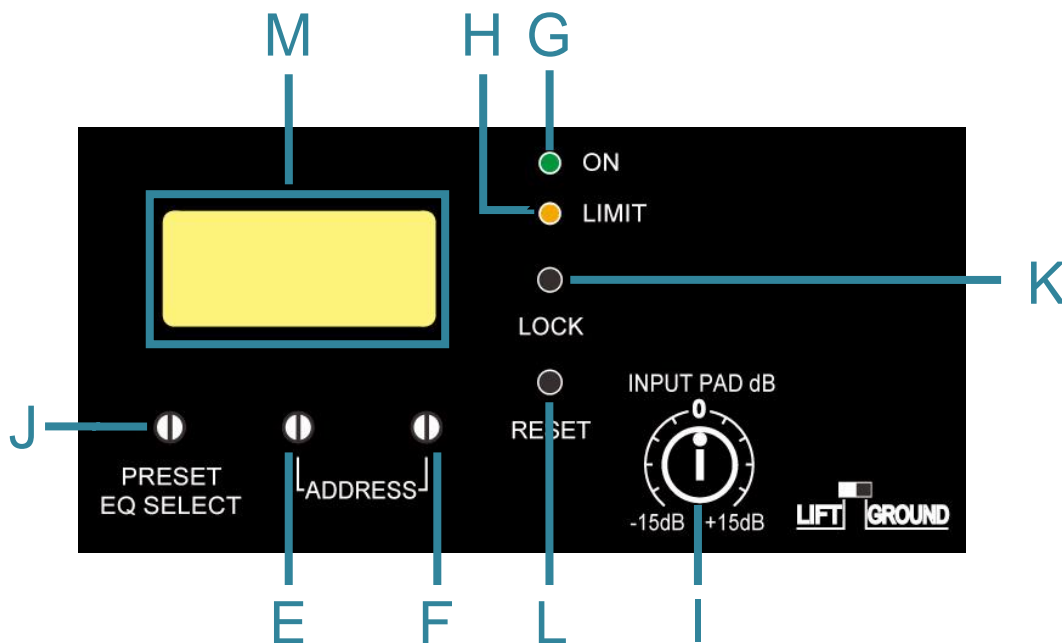
2 、 Maximum number of affordable power series is 8 FT-1208

AUDIO SECTION



- Please connect music signal line to the FT-1208's AUDIO INPUT “C” (Female Bal.XLR).
- Connect RS-485 signal line from USB >> RS-485 Adapter to REMOTE RS-485 INPUT “D” (Female RJ-45) of FT-1208.

DSP CONTROL & REMOTE CONTROL



- Adjust ADDRESS BCD, and set FT-1208's Device ID.

This setting can not be changed after power booting, this ID will be Address called when Remote.

(The left is set of ten digits “E” ; the right is set of single-digit “F” , Address range : 00 ~ 99)

NOTE Avoid set the same ADDRESS when using more than one FT-1208.

- POWER LED “G” (Green) will light up when FT-1208's power on.

- Inpute signal LEVEL Adapter :

If Limit LED “H” (Yellow) light up,meaning input too large (Clipping),

You can make the input music signal be suitable weaken throught this VR “I” (INPUT PAD dB).

- If you need to convert PRESET EQ, adjust PRESET EQ SELECT BCD “J”.(Preset EQ has 10 kinds.)

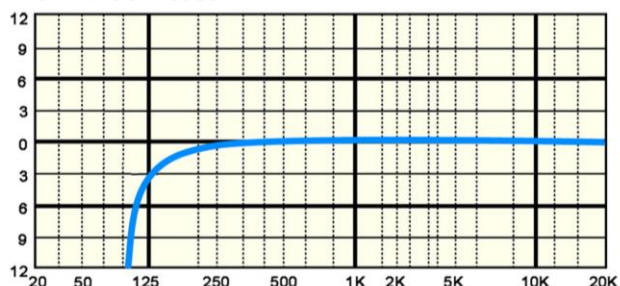
NOTE This feature will be stop when FT-1208 Remote Control is used.

- Lock FT-1208 Preset settings : When locked “K” (after click LOCK) , LCM will display “LOCKED”, then PRESET EQ SELECT will have no effect, untill you press LOCK button again to stop lock.
- When the FT-1208 abnormal, you can click RESET “L” button to reset DSP.
- FT-1208 has one LCM display “M” (8-word 2 rows), the first row display ID Address, the lower display Preset EQ state.

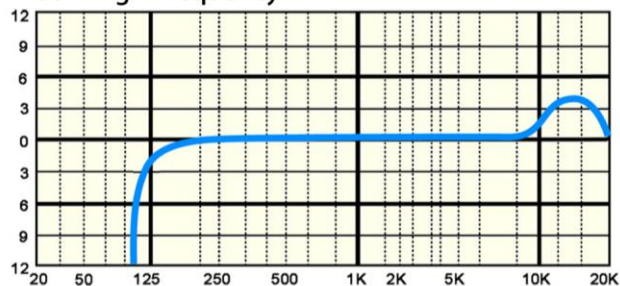
DEFAULT SPEAKERS PRESET EQ

FT-1208 PRESET EQ 10 models :

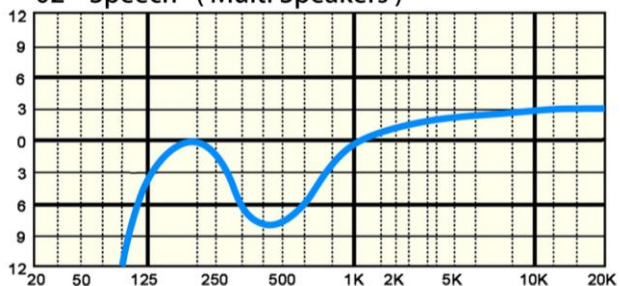
01 Flat Preset



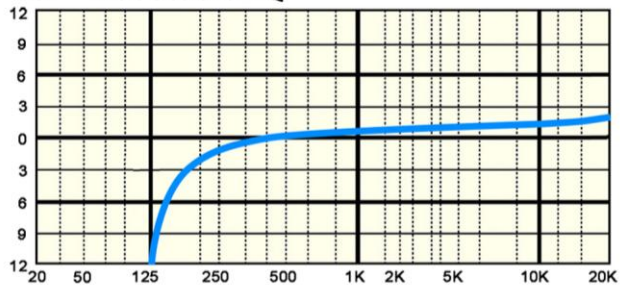
06 High Frequency



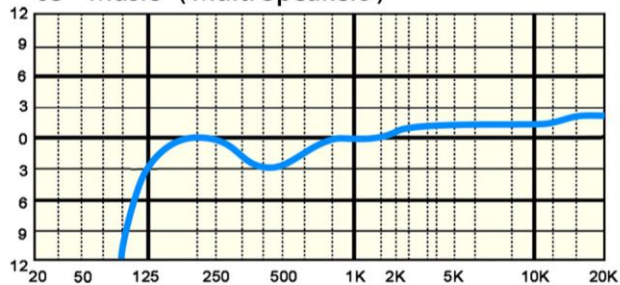
02 Speech (Multi Speakers)



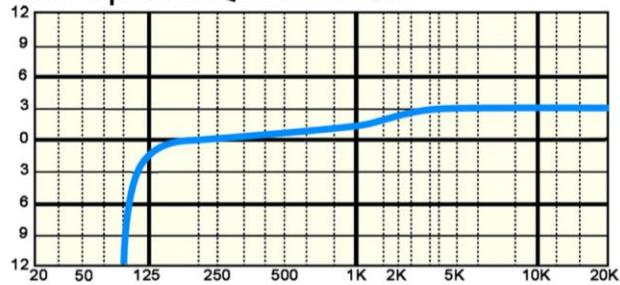
07 Flat Studio EQ



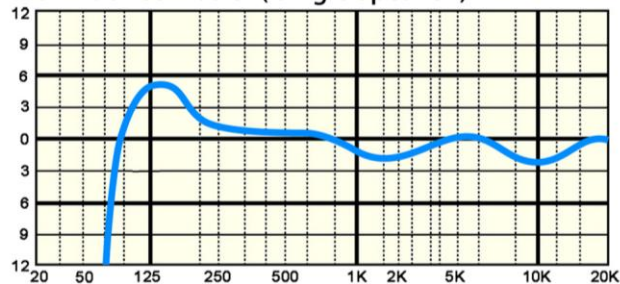
03 Music (Multi Speakers)



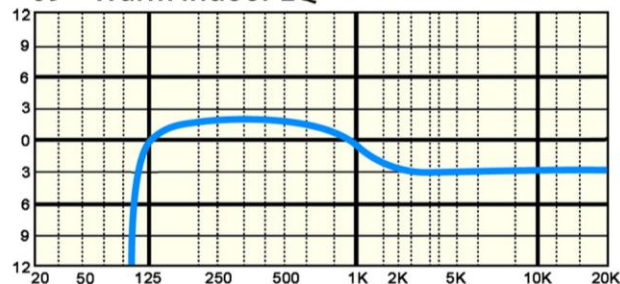
08 Speech EQ or BG music



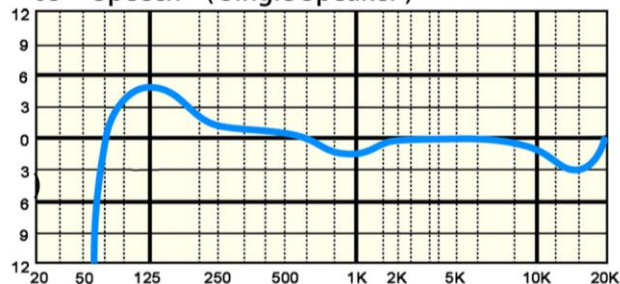
04 Dance Music (Single Speaker)



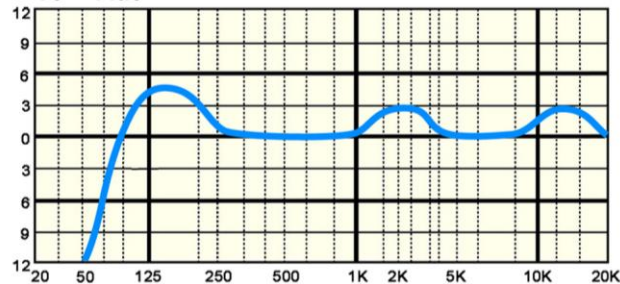
09 Warm Indoor EQ



05 Speech (Single Speaker)



10 Flat



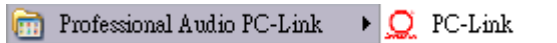
SECTION 4. SOFTWARE 『PA PC-Link』 GUI USER MANUAL

A. SET UP

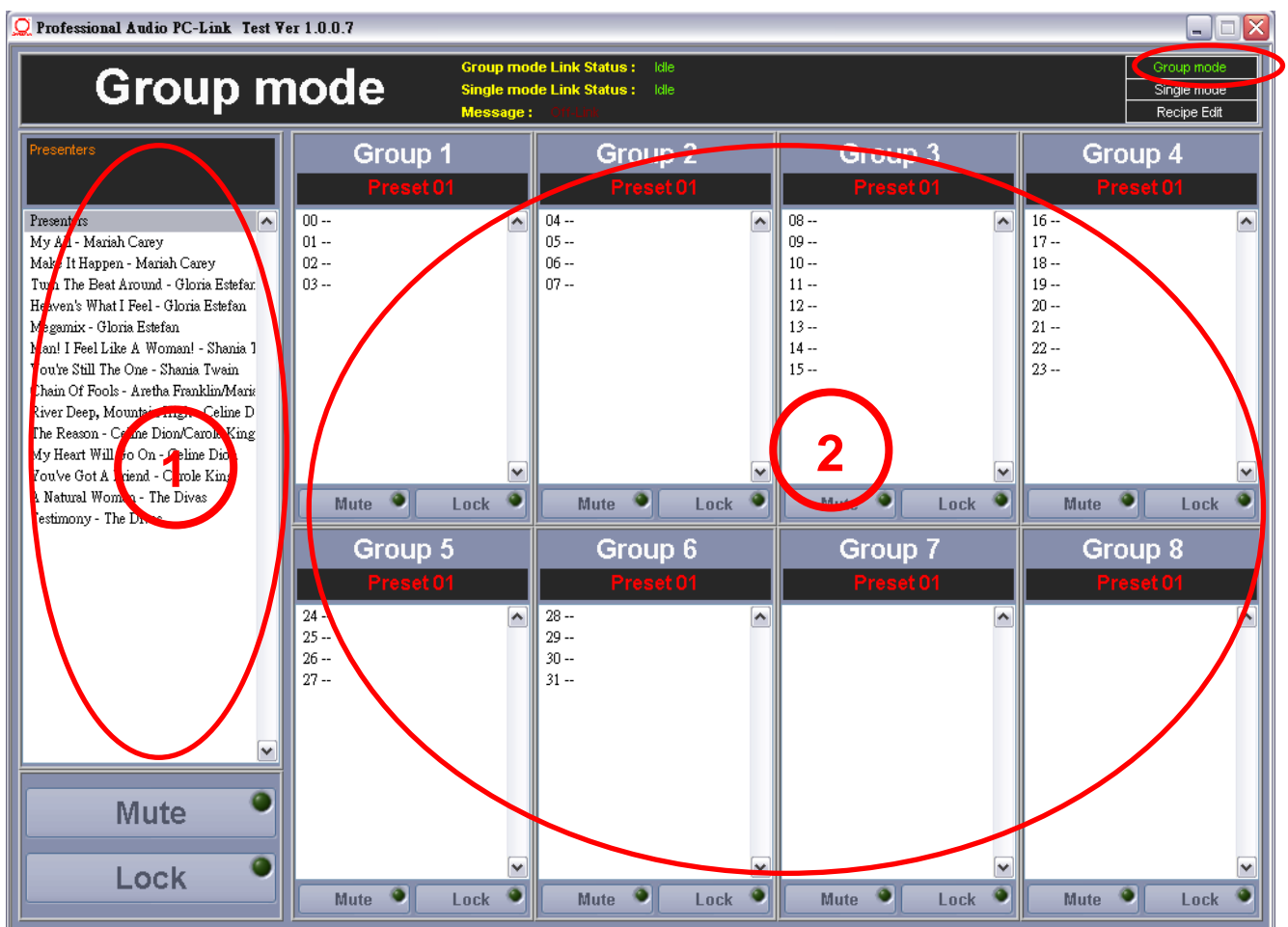
- 1) Install “ USB To RS-485 Adapter ” Driver
- 2) Install “ Professional Audio PC Link ” Software

B. START GUI

Start Menu >> Programs >> Professional Audio PC-Link >> PC-Link



C. GROUP MODE



More detail information about (1) Index Select 、(2) Group Status will be described on next Page.

Index Select、Group Status of Group Mode：

1) Index Select

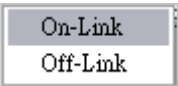


Selected Index Display

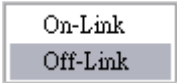
Index List

1. Index can be sorted

2. Click Mouse Right Button and select "ON-Link" to set all devices status



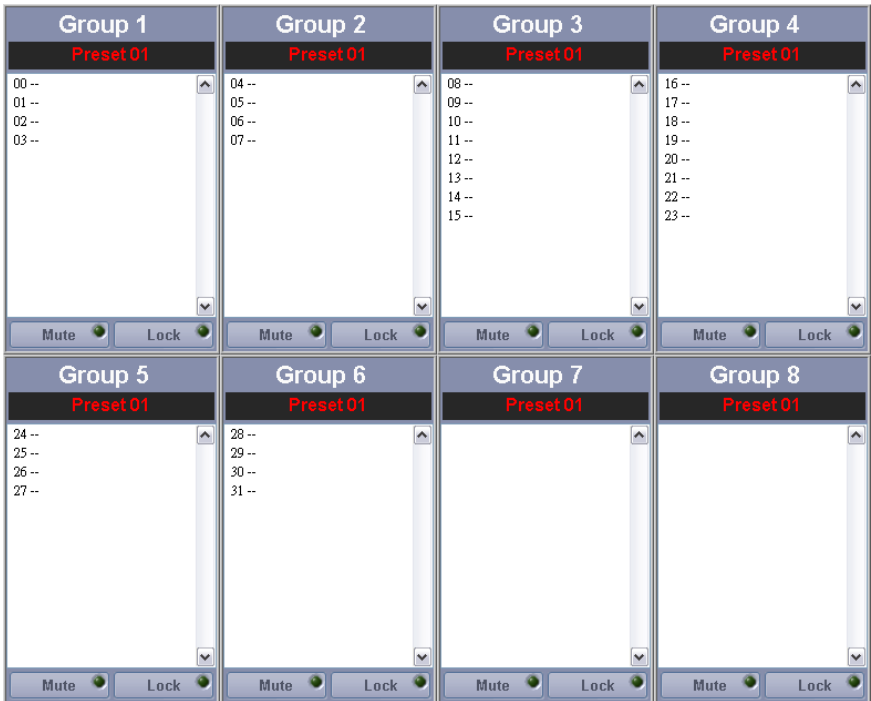
3. Click Mouse Right Button and select "OFF-Link" to reject group mode



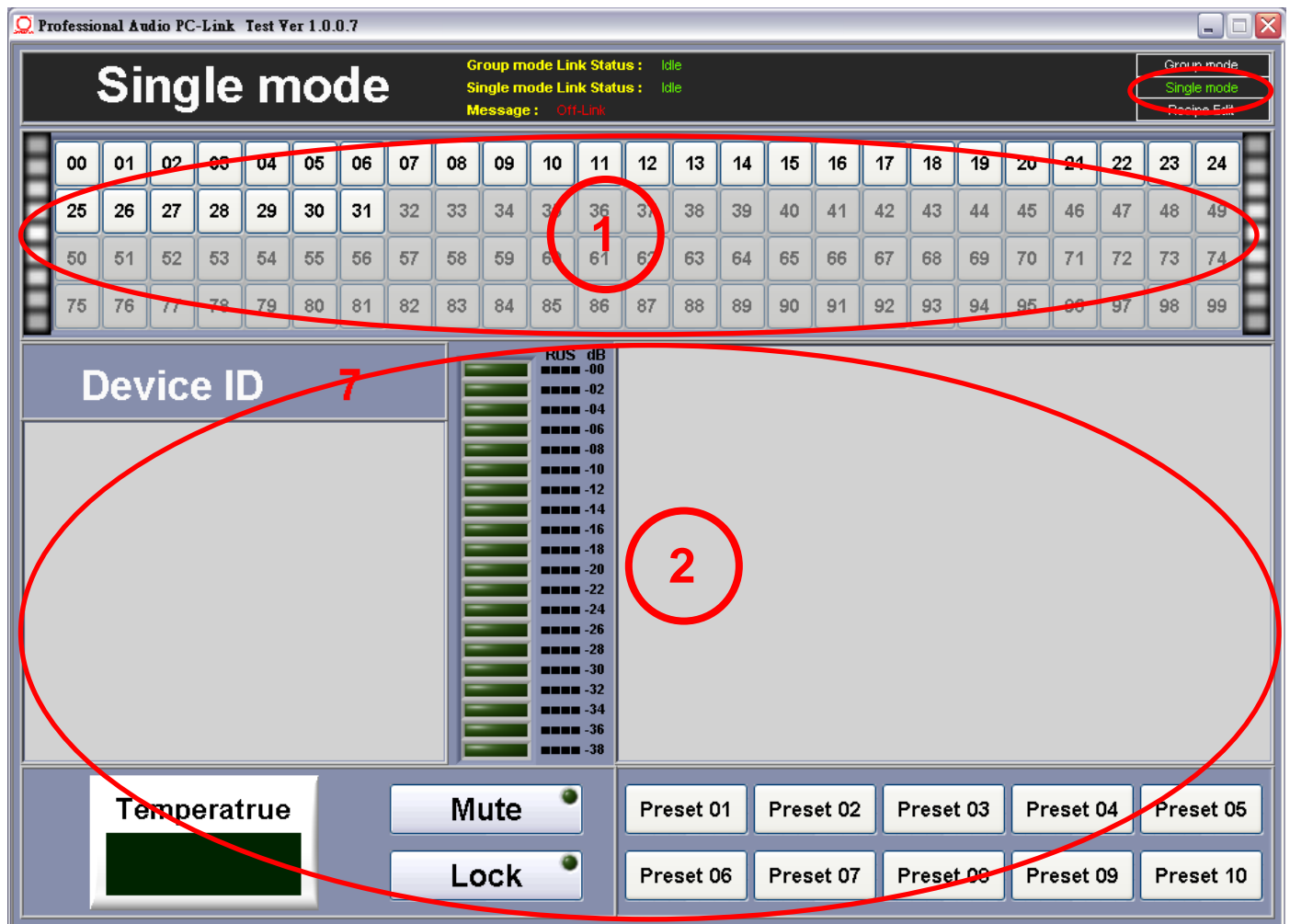
4. Index List can be "Add New Index", "Save Index",

2) Group Status

Show the index setting, when ON-Link success, preset row will blinking.



D. SINGLE MODE



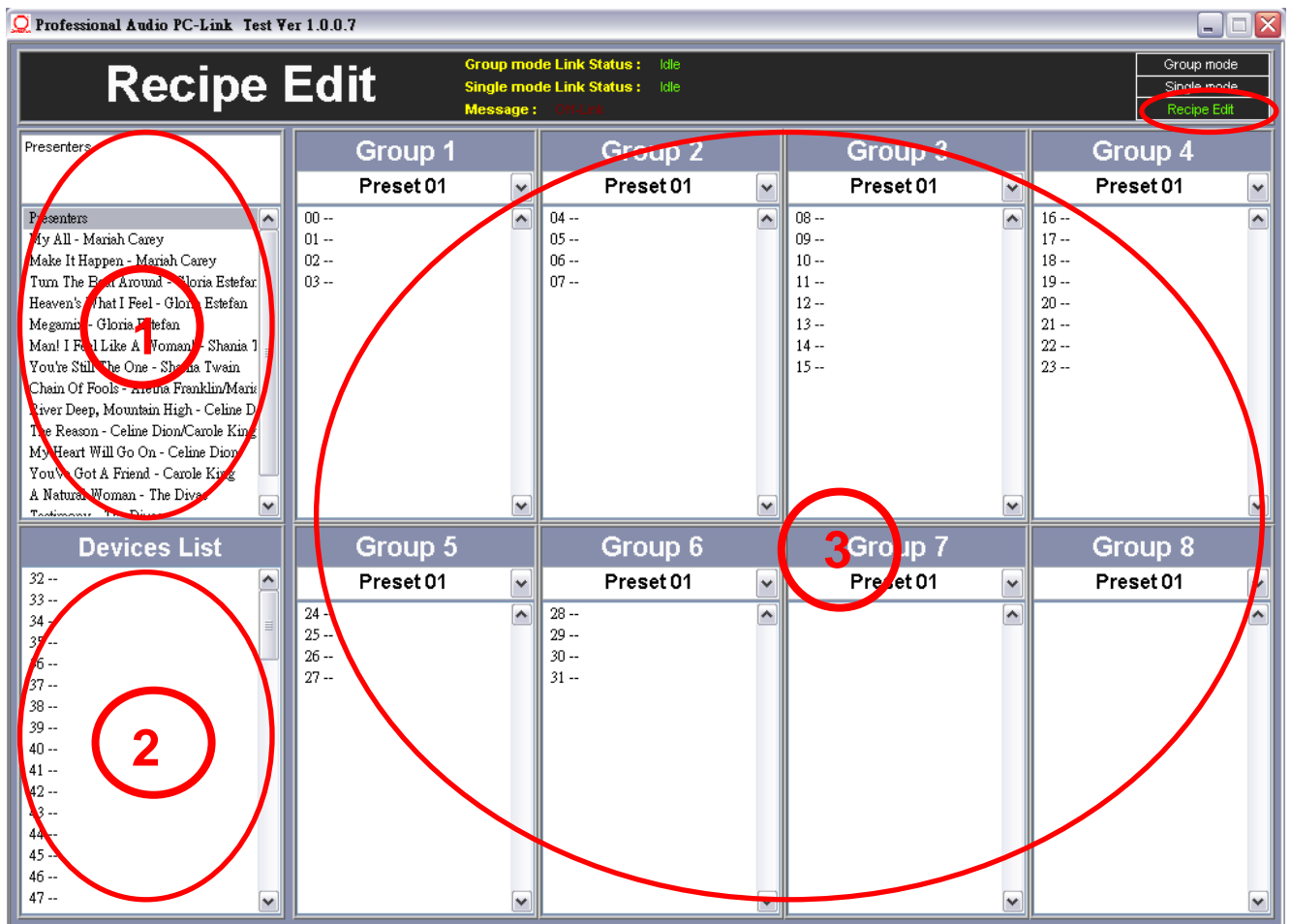
1) Device Select:

Monitor the device status, ID is follow index setting.

2) Device Status:

Device Status Information, Include Device Picture, Temperature, Output Level, Preset Curve. Also can control device Preset select, Mute, Lock.

E. RECIPE EDIT



1) Index List:

Select index can see the setting of each index status.

Click mouse right button to "Add", "Save" or "Delete" the Index.

2) Device List:

Unused device ID list can multi-select, drag-drop to group in.

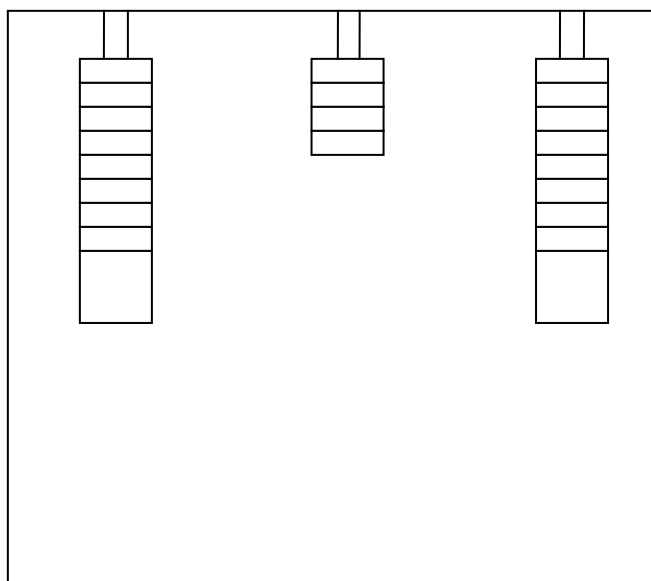
Drag-drop device ID from group to device list for cancel group in.

3) Index Group Setting:

Drag-drop device ID from device list to group, can set the device in to the group

Drag-drop device ID from group to device list for cancel group in.

SECTION 5. EXAMPLE OF REMOTE CONTROL ETTING



Left Array :

Full Range x 8 (ID : 0 ~ 7)

Sub x 1 (ID : 50)

Right Array :

Full Range x 8 (ID : 10 ~ 17)

Sub x 1 (ID : 60)

Center Array :

Full Range x 4 (ID : 20~ 23)

How to Create New Index ?

- 1) Select Recipe Edit
- 2) At Index List Click Right Button And Select "Add"
- 3) Key In Index Name to top of Index List Row
- 4) Drag-Drop Device ID 0 ~7 In To Group 1
- 5) Drag-Drop Device ID 10 ~17 In To Group 2
- 6) Drag-Drop Device ID 20 ~23 In To Group 3
- 7) Drag-Drop Device ID 50 and ID 60 In To Group 4
- 8) Set Group1、2、3、4 Preset
- 9) At Index List Click Right Button And Select "Save"

How to Modify The Index ?

- 1) Select Recipe Edit
- 2) Modify What You Want, Group In, Cancel Group, Change Preset
- 3) At Index List Click Right Button And Select "Save"

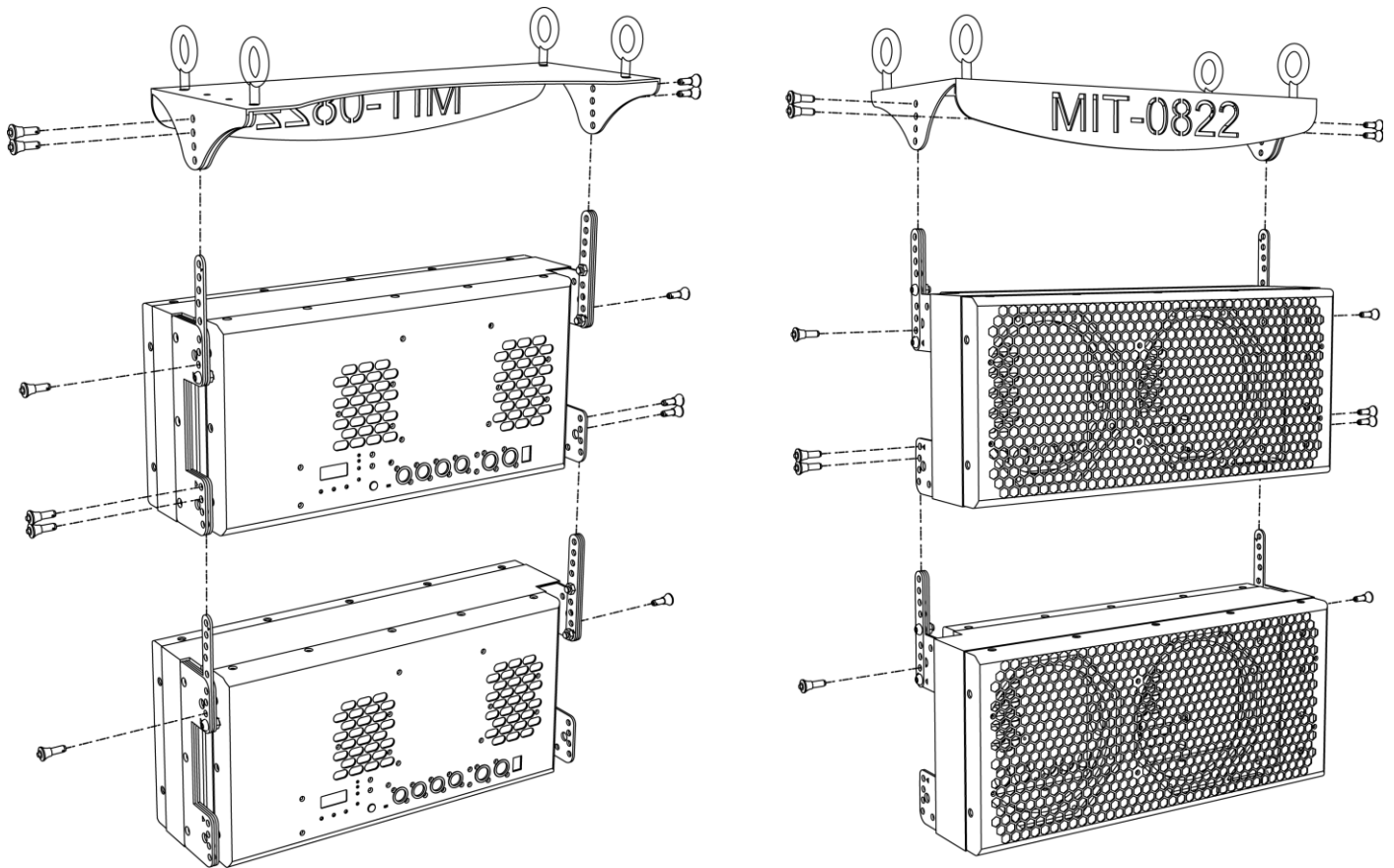
Use New Index

- 1) Create New Index
- 2) Select Group Mode
- 3) Select Index From Index List And Click Right Button Select "ON-Link"

Want To Monitor Left Subwoofer ?

- 1) Select Single Mode
- 2) Can Be Selected Device ID Buttons is 0~7, 10~17, 50 And 60
- 3) Click ID 50 Button To Monitor Left Subwoofer

SECTION 6. LINE ARRAY SYSTEM SUSPENSION SAFETY



SUSPENSION SAFETY WARNINGS



Speaker can be used with an optional accessory allowing mounting on a pole over subwoofers. When using, be sure to observe the following precautions:

- Inspect the pole and associated hardware before each use . Do not use equipment with worn, damaged, or missing parts. Correct use of all rigging hardware is required for secure system suspension.
- Check the pole specification to be certain the device is designed to support the weight of the speaker. Careful calculations should always be performed to ensure that all components are used within their Maximum Load Limit before the array is suspended. Never exceed the maximum recommended load ratings. Prior to suspending the system, an expert, trained and experienced in flying speaker systems should be consulted.

- Avoid attaching banners or similar items to any part of a speaker system. Such attachments could act as a sail and topple the system.
- Research and understand the codes, practices, and requirements in the venues where you intend to operate your sound system.
- Route cables so that performers, production crew, and audience will not trip over them and pull the speaker over.

INSPECTION & MAINTENANCE



- Before suspending or pole mounting any speaker system always inspect all components (enclosure, rigging frames, pins, eyebolts, track fittings, etc.) for cracks, deformations, corrosion, missing, loose or damaged parts that could reduce strength and safety of the array. Do not suspend or pole mount the speaker until the proper corrective action has been taken.
- Installed systems should be inspected at least annually. The inspection shall include a visual survey of all corners and load bearing surfaces for signs of cracking, water damage , de-lamination , or any other condition that may decrease the strength of the loudspeaker enclosure.

ELECTRICAL SAFETY PRACTICES

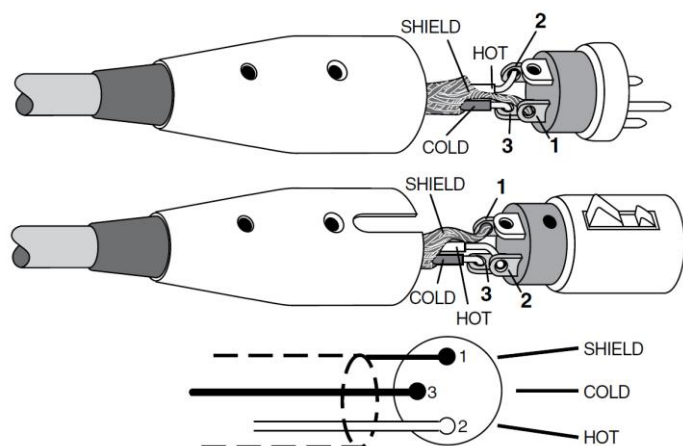


- In compliance with safety agency criteria and proper system operation, it is critical that the system installer observe all electrical safety practices at all times and provide proper earth grounding for all AC Power connections.
- Make sure the selected AC line voltage is correct.
- To completely disconnect this apparatus from the AC Mains, disconnect the power supply cord plug from the AC receptacle.
- Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- Check the signal cable between the mixer and the loudspeaker. Make sure all connections are secure. These problems usually produce crackling noises or hum.
- If you are using two or more powered loudspeakers, try plugging them all into the same AC outlet panel or outlet strip. The purpose for this is to connect them all to the same earth ground point and reduce the possibility of creating a ground loop.

XLR CONNECTOR



- XLR connectors are used to make balanced input and through connections to the loudspeaker. They are wired as follows, according to standards specified by the AES (Audio Engineering Society).



- If connecting an unbalanced output to the loudspeakers balanced input, make sure the shield is connected to the unbalanced ground and to pin 1 of the XLR.

FT-1208



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