



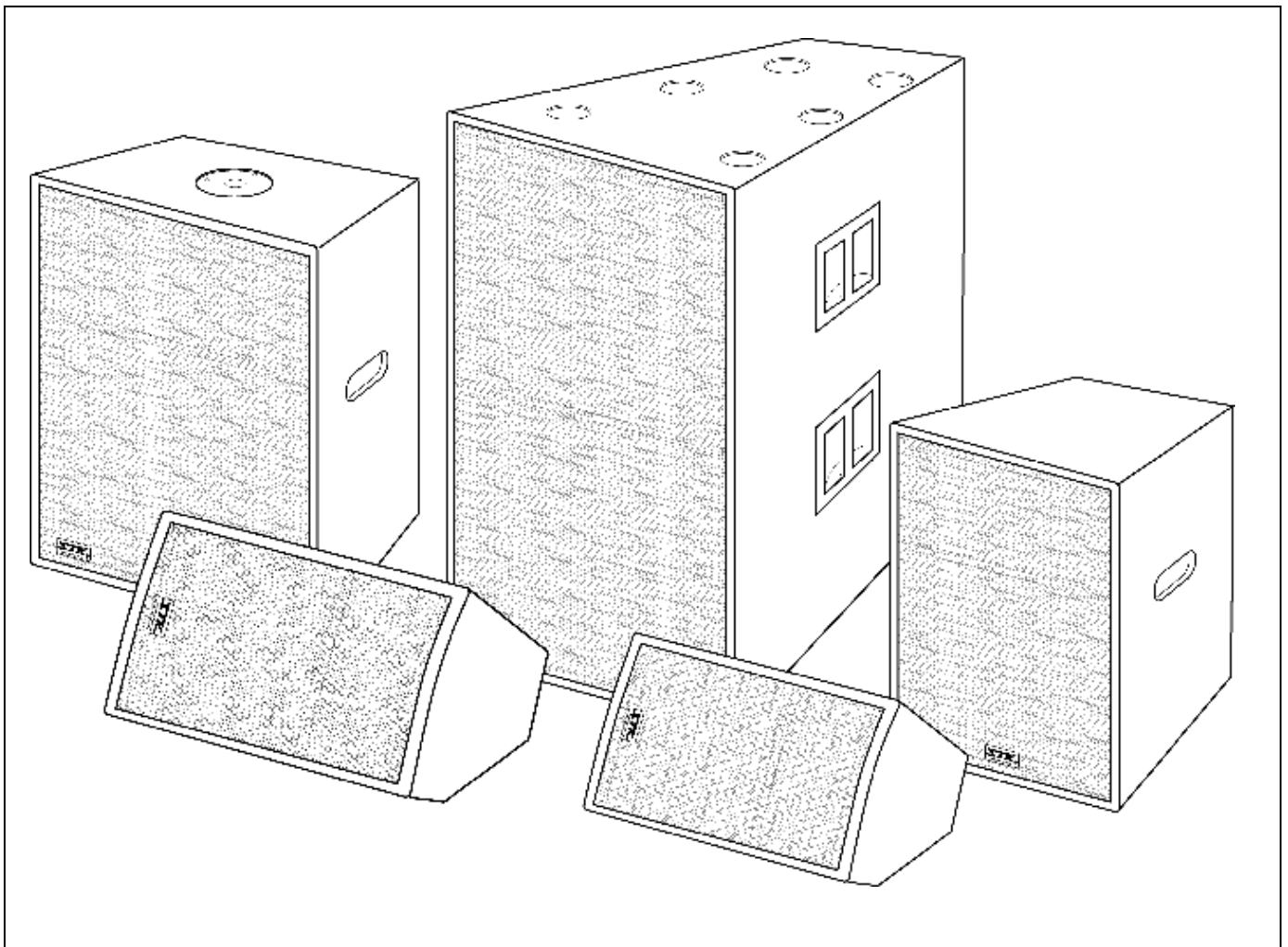
PROFESSIONAL AUDIO
ENGINEERING AND MANUFACTURING

Active. SPEAKER SYSTEMS

SPM-122AP/152AP/155AP

OWNER'S MANUAL

ENGLISH



1. Important Safety Instruction

UNPACKING

As a part of our system of quality control, every STK product is carefully inspected before leaving the factory to insure flawless appearance. After unpacking, please inspect for any physical damage. Save the shipping carton and all packing materials, as they were carefully designed to reduce the possibility of transportation damage should the unit again require packing and shipping. In the event that damage has occurred, immediately notify our dealer so that a written claim to cover the damage can be initiated with the carrier. The right to any claim against a public carrier can be forfeited if the carrier is not promptly notified and if the shipping carton and packing materials are not available for inspection by the carrier. Save all packing materials until the claim has been settled.

STK LIMITED 1 YEAR WARRANTY

STK electronics are warranted to be free from defects in materials and workmanship under normal use for a period of 1 year from date of original purchase. During that period, STK will at its option, repair or replace materials at no charge if product has been delivered to STK by an STK dealer or STK Service Center together with the original sales receipt or other proof of purchase. Warranty excludes fuses, exterior finish, normal wear, failure due to abuse, or operation outside of specified ratings. Warranty applies to original purchaser only. This warranty gives you specifically rights which vary from state to state.

For more information about warranty repair, please contact:

Customer Service Dept., The STK Professional Audio.

FOR YOUR RECORDS

All of us at STK thank you for your expression of confidence in STK products. The unit you have purchased is protected by a limited 1 year warranty. To establish the warranty, be sure to fill out and mail the warranty card attached to your product.

STK Customer Service Department
369-2 KURAERI YANGCHON-MYUN KIMPO-CITY
KYOUNGGI-DO, KOREA.
TEL : +82-(0)31-981-1788
FAX : +82-(0)31-981-1784
E-mail : stkcom@stkpro.com
www.stkpro.com

1. Read Instructions- All the safety and operating instructions should be read before the appliance is operated.
2. Retain Instructions- The safety and operating instructions should be retained for future reference.
3. Heed Warnings- All warnings on this appliance and in the operating instructions should be adhered to.
4. Follow Instructions- All instructions should be followed.
5. Water and Moisture- This appliance should not be used near water- for example, near a bathtub, sink, laundry tub, in a wet basement, near a swimming pool, etc.
6. Heat- This appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
7. Power Sources- This appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance. if you are not sure of the type of power supply to your home, consult your appliance dealer or local power company. For appliances intended to operate from battery power, or other sources, refer to the operating instructions.
8. Polarization- If the appliance is equipped with a polarized alternating-current line plug (a plug having one blade wider than the other), this plug will fit into the power outlet only one way. This is a safety feature. if you are unable to insert the plug fully into the outlet, try reversing the plug. if the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
9. Grounding- If the appliance is equipped with a 3-wire grounding-type plug, a plug having a third (grounding) pin, this plug will only fit into a grounding-type power outlet. This is safety feature. if you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.
10. Power Cord Protection- Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
11. Damage Requiring Service- Unplug this appliance from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - a. When the power-supply cord or plug is damaged.
 - b. If liquid has been spilled, or objects have fallen into the appliance.
 - c. If the appliance has been exposed to rain or water.
 - d. If the appliance does not operate normally by following the operating Instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the appliance to its normal operation.
 - e. If the appliance has been dropped or the cabinet has been damaged.
 - f. When the appliance exhibits a distinct change in performance-this indicates a need for service.
12. Servicing- Do not attempt to service this appliance yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

For your own protection, fill out the information below for your own records.

Model Number _____ Serial Number _____

Dealer _____ Date Of Purchase _____

Salesman _____ Phone _____

Other Information _____



PROFESSIONAL AUDIO

ENGINEERING AND MANUFACTURING

SPM-122AP/152AP/155AP

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Introduction

Thank you for choosing STK sound reinforcement speaker systems.

STK active speakers are constituted two passive system and two active systems.

Each model is designed for capable of extremely high sound pressure levels, and to give you the best performance of any loud speaker in its class and price range.

Recent developments include an improved constant directivity horn for better off-axis response in the high frequency range.

It has built in fly points for hanging, and a socket in the bottom for mounting on a tripod stand.

The asymmetrical trapezoidal design of the cabinet makes it easy to use as a floor wedge for stage monitor systems.

- The crossover

The acoustic sum of the two drive responses is unity at the crossover frequency, resulting in perfect power response.

- The Active power amplifier

The internal power amplifier is designed for receive the correct frequency range for driver and speaker loud impedances. So they can provide maximum acoustic output from the speaker, yet minimize the danger of speaker damage due to over driving a lesser amplifier.

Panel Description

SPM-122AP/152AP

Easy Start For Active Speakers

Start with the following setting on the back of the active speakers.

1. Turn the level control down (counter clock wise) before use. If not, you could be in for a starting surprise, especially if the last time you used it was with a microphone and now you want to connect a line level source.

2. Connect the output from your signal source to the input connector on the back of the active speakers.

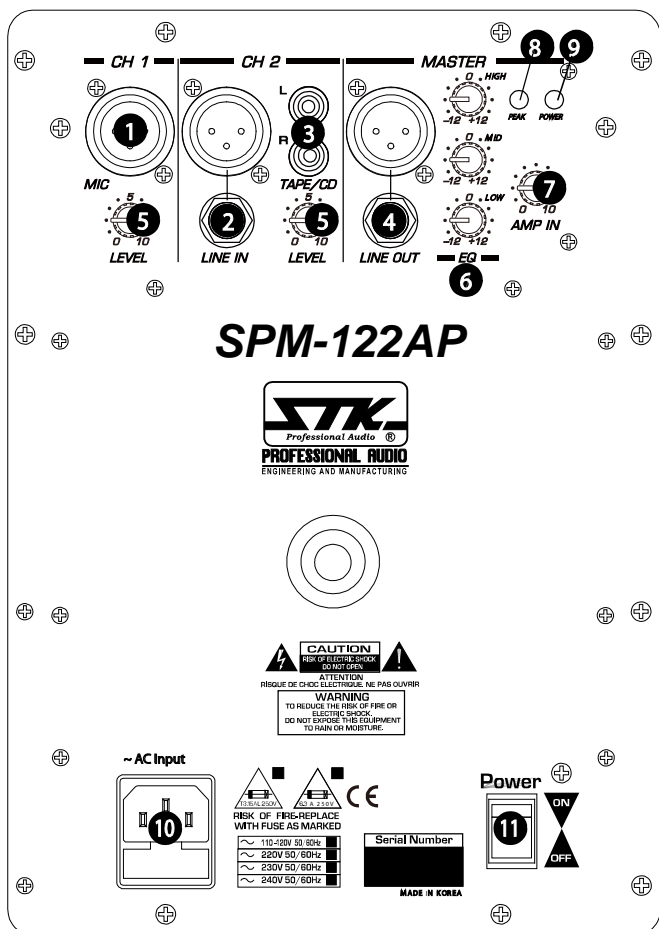
3. Connect the supplied AC Power Cord to the IEC socket on the back of active speakers.

4. Turn on your signal source. Adjust any volume controls on the signal source for normal operation.

5. Slowly turn up the level control on the back of the active speakers until the desired volume is reached (and the PEAK light does not come on).

6. If there is no sound, always turn down the active speakers level control before investigating.

※ Take great care to the point any microphones away from the active speakers otherwise you may get feedback..



1. Mic Input.(-50dBu)

This is female XLR-type connector that accept microphone.

2. Line In.(-10dBu)

1/4" unbalanced phone input connector that accept line input signal.

XLR INPUT is balanced input connector

3. Tape/CD Input

This stereo RCA jack is used for playback of tape machines and CD input that contain a preamp (such as an electronic keyboard)

4. Line Out (1/4" Unbal, XLR Bal)

These are used for playback of link connection or line source signal output.

5. Channel Level Control

This is used to adjust the input signal level going into the equalizer.

6. Equalizer

The equalizer utilizes three independent active filters providing 12dB of boost or cut at each center frequency. The graphic equalizer provides overall tonal contouring and acoustic feedback control.

7. Master level Control

This is used to adjust the signal level, going into the built-in power amplifier.

8. Peak Indicator LED

When the signal level at the amplifier output approach clipping, the peak LED lights.

9. Power Indicator LED (Green)

This LED illuminates whenever the power switch turn on.

10. IEC Socket

This is where you connect the supplied AC line cord to provide AC power to the active speakers's built-in power amplifiers. Plug the line cord into an AC socket properly configured for your particular model.

NOTE: If you happen to lose the AC line-cord replacements are readily available at any office or computer supply store. Always use a three-pin plug with a ground pin.



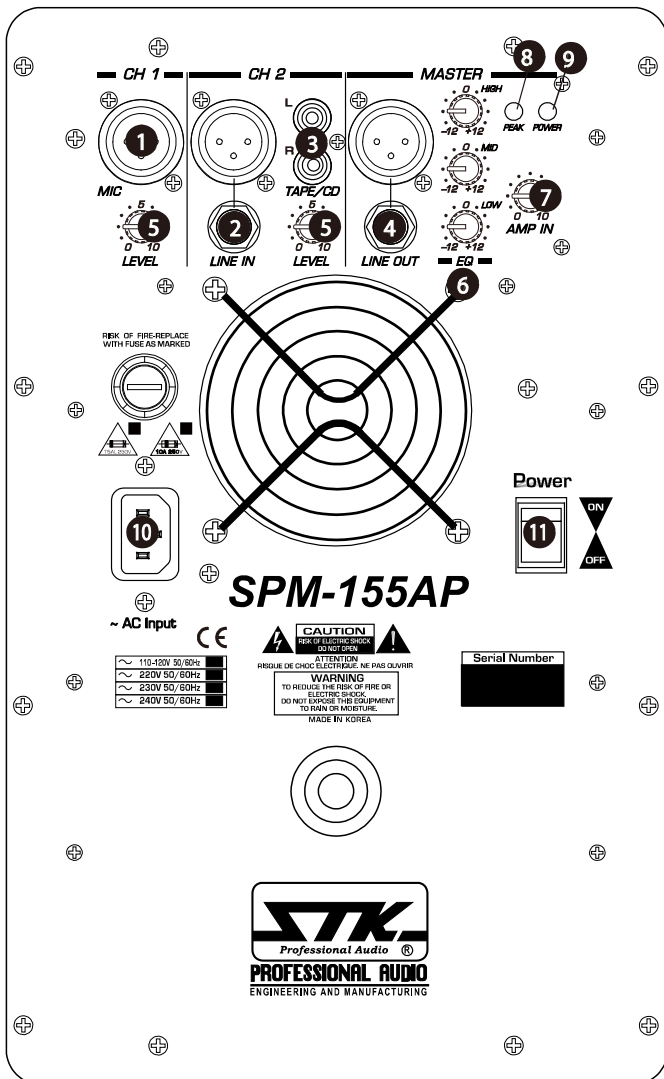
Don't use an outlet that is wired improperly! This is to protect yourself as well as your equipment. Never remove the ground pin on the power cord of the active speaker systems or any other component. This is very dangerous.

11. Power Switch

Switch up to turn the active speakers on, and switch down to turn it off. Make sure the level control is down before you turn it on.



The all speaker systems generates magnetic field. Do not place them closer than two or three feet (60-100 cm) from TV or computer monitors. Check the screen for any change in color or distortion. Do not place any magnetic audio or video tapes or computer discs near the active systems.



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12. Fuse Holder

For prevent risk of fire- Replace with as marked fuse rate.

Placement Tips & Hum

Placement Tips

*Avoid placing loudspeaker into the corners of a room. This increases the low-frequency output and can cause the sound to be muddy and indistinct.

*Avoid placing loudspeakers against a wall. This, too, increases the low frequency output, through not as much as corner placement. However, if you do need to reinforce the low frequencies, this is a good way to do it.

*Avoid placing the active speakers directly on a hollow stage floor. A hollow stage can resonate at certain frequencies, causing peaks and dips in the frequency response of the room. It's better to place the active speakers on a sturdy table or tripod stands.

*Position the active speakers so the high frequency drivers are two to four feet above ear level for the audience (make allowances for a standing/dancing in the aisles audience).

High frequencies are highly directional and tend to be absorbed much easier than lower frequencies. By providing direct line-of-sight from the active speakers to the audience, you increase the overall brightness and intelligibility of the sound system.

*High reverberant rooms, like many gymnasiums and auditoriums, are a nightmare for sound system intelligibility.

Multiple reflections off the hard walls, ceiling, and floor play havoc with the sound.

Depending on the situation, you may be able to take some steps to minimize the reflections, such as putting carpeting on the floors, closing draperies to cover large glass windows, or hanging tapestries or other materials on the walls to absorb some of the sound.

*However, in most cases, these remedies are not possible or practical. So what do you do? Making the sound system louder generally doesn't work because the reflections become louder, too.

The best approach is to provide as much direct sound coverage to the audience as possible.

The farther away you are from the speaker, the more prominent will be the reflected sound.

*Use more speakers strategically placed so they are closer to the back of the audience.

If the distance between the front and back speaker is more than about 100 feet, you should use a delay processor to time-align the sound. (Since sound travels about foot per millisecond, it takes about 1/10 of a second to travel 100 feet)

HUM

*Turn the LEVEL control all the way down.

If the noise disappears, it's coming from the signal source. If not, try disconnecting the cable connected to the INPUT jack. If the noise disappears, it could be a "ground loop", rather than a problem with the active speakers.

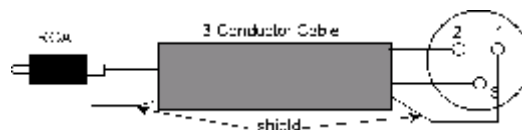
Try some of the following troubleshooting ideas:

*Use balanced connections throughout your system for the best noise rejection.

*Whenever possible, plug all the audio equipment's line cords into outlets which share a common ground. The distance between the outlets and the common ground should be as short as possible.

*The hum may appear when using an unbalanced source (consumer preamps, CD player, VCR, etc.). This is caused by the unbalanced-to-balanced interface between the devices (and exacerbated by the fact that most consumer audio equipment have a two-wire line cord, without the third-pin safety ground).

Use an interconnect cable wired as shown below. The important point is that the shield and wire from the XLR pin 3 are jointed at the RCA (source) end.



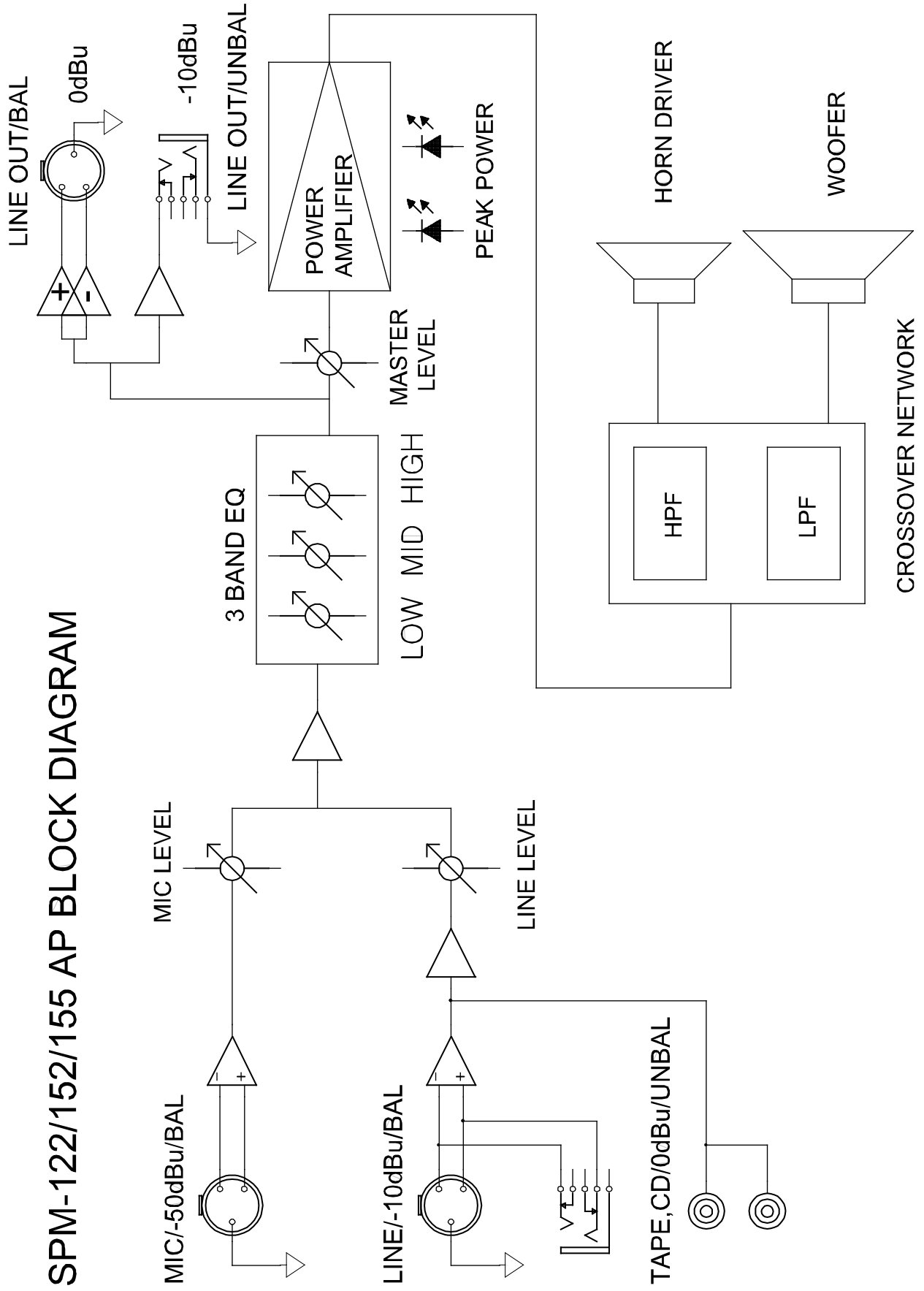
*The baluns are threaded at one end (75 ohm) to fit TV coax cable and have two wires at the other end (300ohm). They will not affect the video quality.

*If the hum persists, try removing components one at a time from the back of the mixer or preamplifier, and check for hum each time (turn off your equipment before you undo any connections).

It is fairly common to find more than one problem.

*If your preamp or mixer are the only things connected to the active speaker and the hum is still there, try different connection cable, or move the preamp/mixer to another location.

SPM-122/152/155 AP BLOCK DIAGRAM



General Specifications

SPM-122AP/152AP/155AP

※ INPUT SECTION

INPUT	LEVEL	CONNECTOR
	Sensitivity	
MIC IN(CH1)	-50dBu	XLR JACK
CD/TAPE (CH2)	0dBu	STEREO RCA
LINE IN (CH2)	-10dBu	1/4" TRS PHONE JACK,XLR BALANCED
LINE OUT	-0dBu(BAL)/-10dBu(Unbal)	XLR BALANCED ,1/4" TS PHONE JACK
3 BAND EQUALIZER	HIGH : 10 kHz MID : 2.5 kHz LOW : 100 Hz	+/-12dB boost cut

NOTE : (1) Sensitivity is the lowest level that will produce a full power output

(2) XLR JACK are balanced. TRS 1/4" phone jack are unbalanced.

TEST CONDITION : (1) CHANNEL VOLUME, MASTER VOLUME@MAX

(2) MASTER EQ VOLUME@CENTER

※ POWER AMP& SPEAKER SECTION

SPECIFICATION	SPM-122AP	SPM-152AP	SPM-155AP
Output Power@THD+N=1% 8 Ohm	200W	300W	500W
EIA@THD+N=0.1%. f=1kHz 8 Ohm	180W	260W	430W
Power Bandwidth (Ref. 1kHz, THD+N=0.1%, +/-1dB)	20Hz - 20kHz		
THD+N (Ref. 1kHz, f=20Hz-20kHz)	≤0.05%		
Frequency Response (Ref. 1kHz, 1 watt output, +/-3dB)	20Hz - 30kHz		
IMD(SMPTE)(60Hz:7kHz, 4:1)	≤0.05%		
Residual-Noise (20Hz-22kHz LPF, Att. min)	≥70dB		
System configuration	2-Way Full Range	2-Way Full Range	2-Way Full Range
LF Components & Loading	One SK12200 12" woofer, vented	One SK15300 15" woofer, vented	One SK15500 15" woofer, vented
HF Components & Loading	One 1 inch compression driver on horn	One 1.75 inch compression driver on horn	One 1.75 inch compression driver on horn
Operating Mode	Active		
Frequency Response +/-3 dB -10 dB	55 Hz ~ 19 kHz 43 Hz ~ 20 kHz	55 Hz ~ 19 kHz 43 Hz ~ 20 kHz	55 Hz ~ 19 kHz 43 Hz ~ 20 kHz
Axial Sensitivity (dB SPL, 1 watt @ 1m)	98	98	98
Nominal Input Impedance(ohms)	8	8	8
Power Handling(watts, Continuous)	200	300	500
Power Handling(watts, Peak)	400	600	800
Calculated SPL Limit(Referenced to 1m)			
Peak	124	126	124
Long Term	108	111	108
Nominal Input(Referenced to 1m)			
Horizontal	85°	85°	85°
Vertical	65°	65°	65°
Cooling	Convection Extrusion/ SPM155AP(FAN COOLING)		
Power Requirements	120V(60Hz), 220/230/240V(50/60Hz)		
Dimensions(W x H x D)mm	426x590x326	452x690x348	452x690x348
Weight	19.16kg	29kg	32kg



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