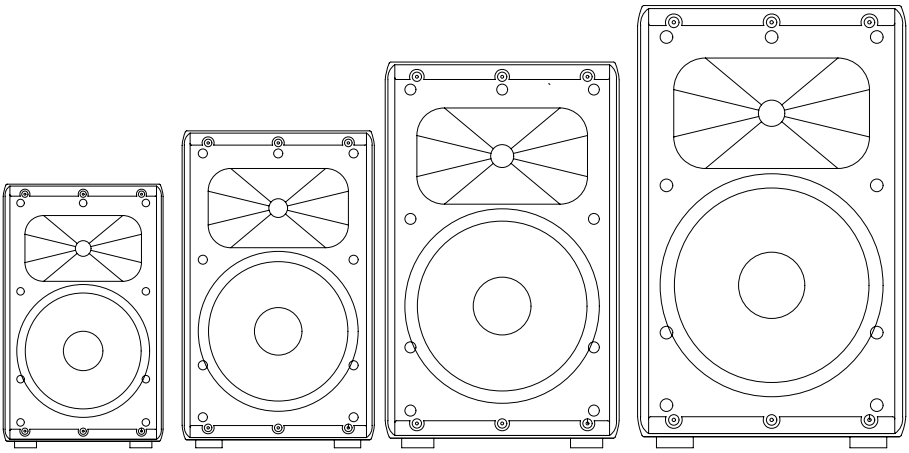
SONODYNE®

SPA 1200 SERIES

SPA 1208/1210/1212/1215

2 way professional speakers I owners manual



MADE IN INDIA
since 1970

Congratulations on your purchase of the SPA series, 2-way professional speaker. It can be used for live sound reinforcement, and permanent installation.

IMPORTANT SAFETY INSTRUCTIONS

1. The unit should be connected only to a wall outlet providing the correct mains voltage and frequency as printed on the product.
2. Connect the unit to the mains only with the mains cable supplied with the unit.
3. Ensure that the wall outlet is properly earthed, that is, the earth must be connected to a earth bus-bar which connects to other audio equipment and is not shared by noisy equipment like computers, air-conditioners, lighting appliances etc. The earth connection must be checked and certified by a qualified electrical engineer.
4. Do not place the unit on an unstable surface that may topple and cause the unit to fall, thereby causing injury to the user or other people.
5. Do not place the unit outdoors where it may be exposed to strong sunlight, rain or moisture. Do not place it near a water body or sprinkler.
6. Do not cover the unit. This may cause it to heat up.
7. Do not place the unit near heat radiating items like stoves, radiator etc.
8. Do not allow liquid or any chemical to spill on or into the product.
9. Do not open the unit or attempt to service it yourself. There is no user-serviceable part inside. Refer servicing to qualified service personnel only.
10. Replace only with the same type and rating of fuse as printed on the product.
11. Do not overload wall outlets that provide power to this unit.
12. Install the unit by following instructions provided by the manufacturer.

UNPACKING

To unpack the unit, open the carton by cutting along the edge of the flaps. Push the flaps wide open. Fold any one flap and tilt the carton on this edge taking care that the flap stays open. Gently turn the carton upside down so that all the 4 flaps stay open and spread out, and the unit comes to rest on the EPE buffer. You may need someone to help you with this. Next lift the carton from the unit. Remove the EPE buffer on the bottom of the unit, facing you.

Carefully lift the unit from the EPE buffer on which it is resting, remove the protective cover and place it in its intended location.

MOUNTING

The SPA series can be flown, mounted on tripods, fixed to wall with optional wall mounting bracket, or can be used as stage monitor.

For flying, the SPA 1208 is equipped with 5 x M8 hanging points – 2 on the top, 2 on the bottom and 1 at the back. The other models SPA 1210, SPA 1212, SPA 1215 have 6 x M8 hanging points – 3 on the top, 2 on the bottom and 1 at the back.

For tripod mounting, there is a twin 35mm dia pole- mount socket on the bottom. Depth of both the sockets is 72mm. The pole near the back end is used when you want the speaker to be at 90º with respect to the pole-mounting surface, while the pole near the front end is meant to be used when you need a 5º tilt. The optional wall mounting bracket can be used to have both the options. Please see FIG. 1 and FIG. 2 below

A pair of handles for models SPA 1210, SPA 1212 and SPA 1215 allow the speakers to be lifted. For the SPA 1208, one handle on the top is provided.

FIG. 1

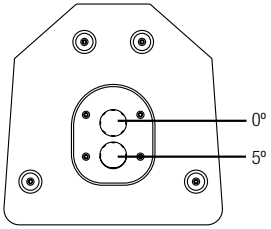
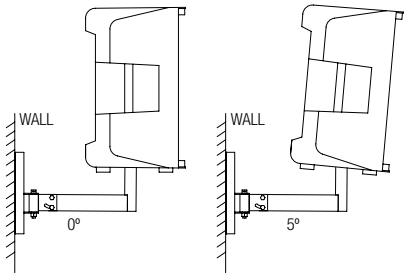


FIG. 2



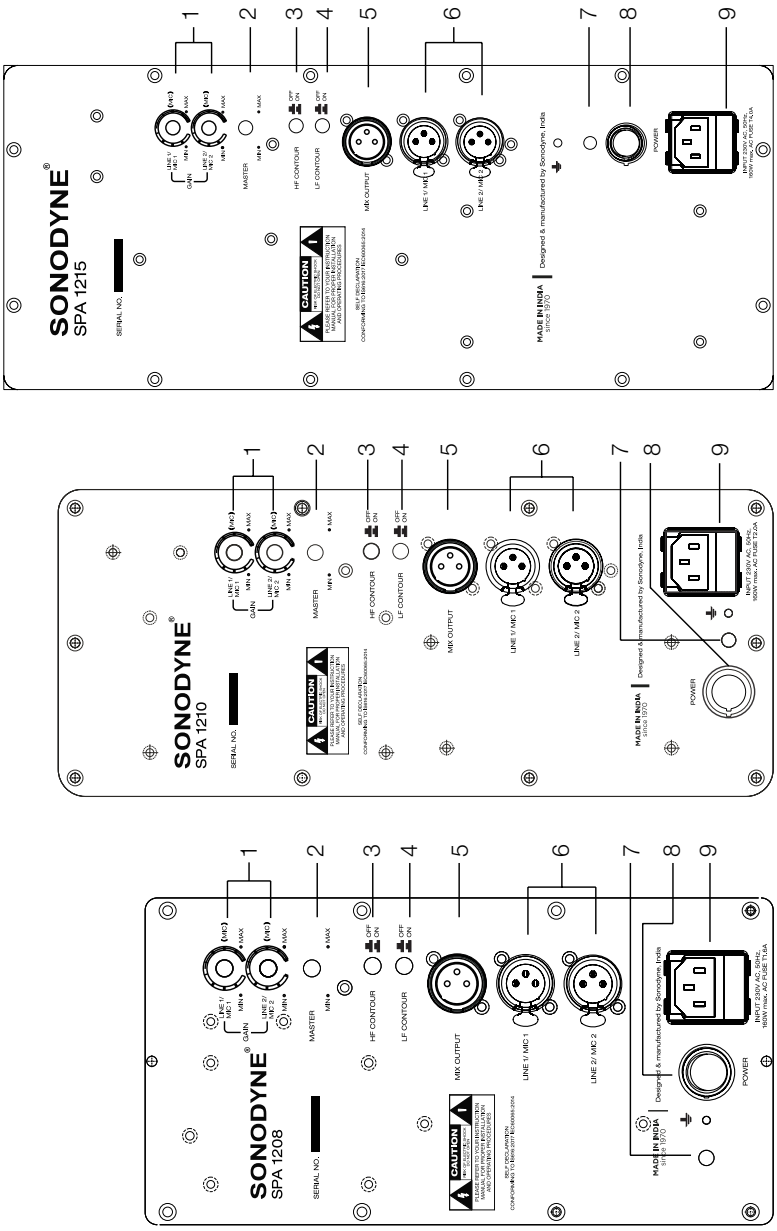
OPERATION

Connect the balanced output of your mixer or other source equipment to the balanced inputs marked LINE1/ MIC1 or LINE2/MIC2 (XLR female connectors) of your speaker. Pin connections are pin1-earth or ground, pin2 – hot or positive, and pin3- cold or negative. If the output of your source equipment is unbalanced, (which however is not recommended because of noise pick-up problems), short pin 3 and pin1.

Check that the utility outlet for powering your unit is of matching voltage and frequency printed on the back panel. Also ensure that it is capable of providing the required power, as printed on the back panel. Connect the mains cable supplied with the unit, to the utility wall outlet after you have connected all other equipment. Switch on the console or source equipment first. Switch on power to the monitor last. That way, you will not hear any nasty turn-on thumps generated by other equipment downstream which may be damaging to your ears and your speaker. The power indicator on the rear will light up. This indicates that your unit has powered up and is ready for use.

1. Note that the MIC/LINE inputs double as a microphone input or a line level input. With the gain control at center position, the gain is unity. When turned to minimum, the gain is -25dB and when turned to maximum, it is +30dB. The range of gain control setting for mic and for line inputs are shown in Fig3
2. The contour switches shape the frequency response. Detailed operation of these switches are given under Controls and Sockets.

CONTROLS & SOCKETS



CONTROLS & SOCKETS

1. GAIN CONTROL – This is a gain control for the MIC/LINE input. There are 2 such gain controls – one for each input. With the gain control at center position, the gain is unity. When turned to minimum, the gain is -25dB and when turned to maximum, it is +30dB. The range of gain control setting for mic and for line inputs are shown in Fig 3

2. MASTER LEVEL - This control allows you to change the master level. At the extreme anti-clockwise position, the output is totally muted.

3. HF CONTOUR – This switches on a high shelving filter between 1kHz to 13kHz, providing a maximum boost of 5dB. Please see Fig 4 – Fig 7 for effect of HF Contour

4. LF CONTOUR – This switches on a low shelving filter between 80Hz to 1kHz, providing a maximum boost of 5dB. Please see Fig 4 – Fig 7 for effect of LF Contour

5. MIX OUT - This is a combined output of the 2 inputs post the gain control stages but preceding the master level control. This is a balanced output and can be connected to the LINE IN on another SPA Powered speaker to expand the system. Pin connections are 1 ground, 2 hot or positive, and 3 cold or negative.

6. MIC IN1/LINE IN1 and MIC IN2/LINE IN2 - These are MIC/LINE inputs. Pin connections are 1 ground, 2 hot or positive, and 3 cold or negative. Both microphone and source equipment with line level outputs can be connected to these inputs.

7. POWER INDICATOR – This lights up when power is switched on

8. POWER SWITCH - This is a rocker type power switch which turns on power to the system. The ON position is indicated with a mark on the switch.

9. IEC AC SOCKET - This is a fused 3-pin IEC AC receptacle for connecting to a wall outlet with the cable supplied. Ensure that the wall outlet is properly earthed, that is, the earth must be connected to a earth bus-bar which connects to other audio equipment and is not shared by noisy equipment like computers, air-conditioners, lighting appliances etc. The earth connection is also required in the interests of your own safety, should any fault occur. Please check that the wall outlet is capable of providing the current requirement of the product, printed on the back panel near the IEC AC socket.

FIG. 3: Gain control setting for mic and line inputs

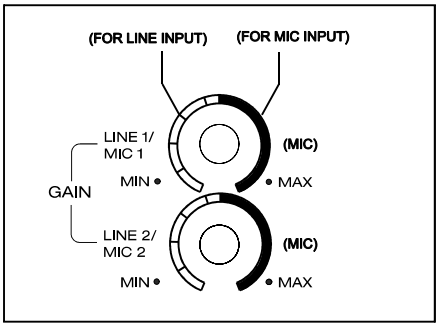


FIG. 4: Effect of LF Contour and HF Contour on frequency response, model SPA 1208

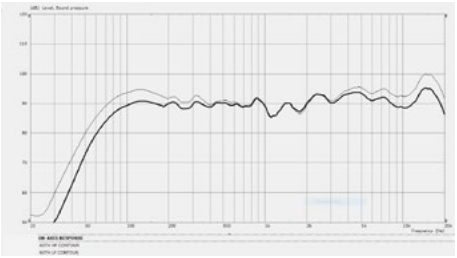


FIG. 5: Effect of LF Contour and HF Contour on frequency response, model SPA 1210

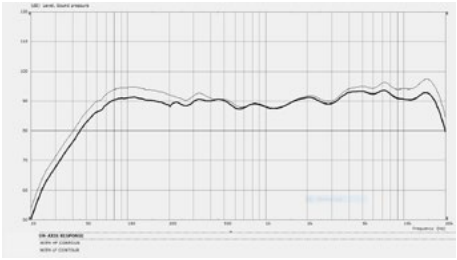


FIG. 6: Effect of LF Contour and HF Contour on frequency response, model SPA 1212

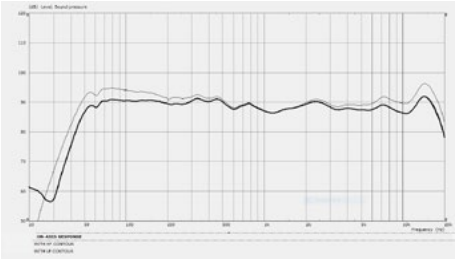
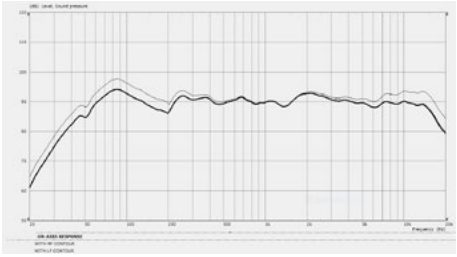


FIG. 7: Effect of LF Contour and HF Contour on frequency response, model SPA 1215



SPECIFICATIONS

MODEL	SPA 1208	SPA 1210	SPA 1212	SPA 1215
DESCRIPTION	2 way active professional speaker	2 way active professional speaker	2 way active professional speaker	2 way active professional speaker
TRANSDUCERS HF	1 x 1" throat compression driver, 1.35" VC	1 x 1" throat compression driver, 1.35" VC	1 x 1" throat compression driver, 1.75" VC	1 x 1" throat compression driver, 1.75" VC
LF	1 x 8" woofer, 150W AES, 1.5" VC	1 x 10" woofer, 250W AES, 2.5" VC	1 x 12" woofer, 300W AES, 2.5" VC	1 x 15" woofer, 400W AES, 3" VC
CABINET MATERIAL	Industrial grade PP, Black	Industrial grade PP, Black	Industrial grade PP, Black	Industrial grade PP, Black
FORM FACTOR	Trapezoidal, can be used as stage monitor	Trapezoidal, can be used as stage monitor	Trapezoidal, can be used as stage monitor	Trapezoidal, can be used as stage monitor
CABINET TOPOLOGY	Bass-reflex, through twin front-firing vents	Bass-reflex, through twin front-firing vents	Bass-reflex, through twin front-firing vents	Bass-reflex, through twin front-firing vents
ACOUSTIC FREQ. RANGE (-10dB)	60Hz ~ 18kHz	55Hz ~ 18kHz	50Hz ~ 18kHz	50Hz ~ 18kHz
ACOUSTIC FREQ. RESPONSE (-3dB)	70Hz ~ 17kHz	65Hz ~ 17kHz	60Hz ~ 17kHz	60Hz ~ 17kHz
MAX SPL				
CONT. (HALF SP)	117dB	120dB	122dB	125dB
PEAK (HALF SPACE)	123dB	126dB	128dB	131dB
DIRECTIVITY	90º H x 50º V	90º H x 50º V	90º H x 50º V	90º H x 50º V
OUTPUT POWER				
CONT., BIAMPED	150W	200W	300W	500W
PROGRAM, BIAMPED	300W	400W	600W	100W
CROSSOVER FREQUENCY, ACTIVE	2.7kHz	2.2kHz	1.8kHz	1.5kHz
INPUTS	2 x MIC/LINE inputs (can be used as either MIC or LINE)	2 x MIC/LINE inputs (can be used as either MIC or LINE)	2 x MIC/LINE inputs (can be used as either MIC or LINE)	2 x MIC/LINE inputs (can be used as either MIC or LINE)
OUTPUT (LINE LEVEL)	MIX OUT	MIX OUT	MIX OUT	MIX OUT
CONTROLS				
GAIN	2 x Gain control for 2 inputs. Gain control range 55dB (+30dB to -25dB), 0dB at center	2 x Gain control for 2 inputs. Gain control range 55dB (+30dB to -25dB), 0dB at center	2 x Gain control for 2 inputs. Gain control range 55dB (+30dB to -25dB), 0dB at center	2 x Gain control for 2 inputs. Gain control range 55dB (+30dB to -25dB), 0dB at center
MASTER	Level control, -∞ to 0dB	Level control, -∞ to 0dB	Level control, -∞ to 0dB	Level control, -∞ to 0dB
SWITCHES				
HF CONTOUR	High shelving, corner frequencies 1kHz and 13kHz, +5dB boost	High shelving, corner frequencies 1kHz and 13kHz, +5dB boost	High shelving, corner frequencies 1kHz and 13kHz, +5dB boost	High shelving, corner frequencies 1kHz and 13kHz, +5dB boost
LF CONTOUR	Low shelving, break points at 1kHz and 80Hz, +5dB boost	Low shelving, break points at 1kHz and 80Hz, +5dB boost	Low shelving, break points at 1kHz and 80Hz, +5dB boost	Low shelving, break points at 1kHz and 80Hz, +5dB boost
PROTECTION	Overload, Short-circuit, Overheat, Mains Overvoltage	Overload, Short-circuit, Overheat, Mains Overvoltage	Overload, Short-circuit, Overheat, Mains Overvoltage	Overload, Short-circuit, Overheat, Mains Overvoltage
MOUNTING	2 x M8 inserts on top, 2 x M8 inserts on bottom and 1 x M8 insert at back, for flying Twin 35mm pole mounting 4 x plastic legs	3 x M8 inserts on top, 2 x M8 inserts on bottom and 1 x M8 insert at back, for flying Twin 35 mm pole mounting 4 x plastic legs	3 x M8 inserts on top, 2 x M8 inserts on bottom and 1 x M8 insert at back, for flying Twin 35 mm pole mounting 4 x plastic legs	3 x M8 inserts on top, 2 x M8 inserts on bottom and 1 x M8 insert at back, for flying Twin 35 mm pole mounting 4 x plastic legs
COLOUR	Black	Black	Black	Black
DIMENSIONS HxWxD				
PRODUCT	420 x 250 x 255 mm	500 x 305 x 310 mm	610 x 360 x 350 mm	700 x 445 x 375 mm
SHIPPING	490 x 326 x 326 mm	576 x 370 x 365 mm	682 x 410 x 415 mm	788 x 452 x 512 mm
NET WEIGHT	8.6kg	11.1kg	15.2kg	20.8kg
GROSS WEIGHT	9.9kg	12.8kg	17.3kg	23.7kg

NOTE: Due to continuous improvements, all specifications are subject to change

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SONODYNE, India • H.O.: 98 NB Block E New Alipore, Kolkata 700053

sonodyneofficial
1 800 31 31 035
+91 9830855260
response@sonodyne.com
sonodyneofficial
www.sonodyne.com