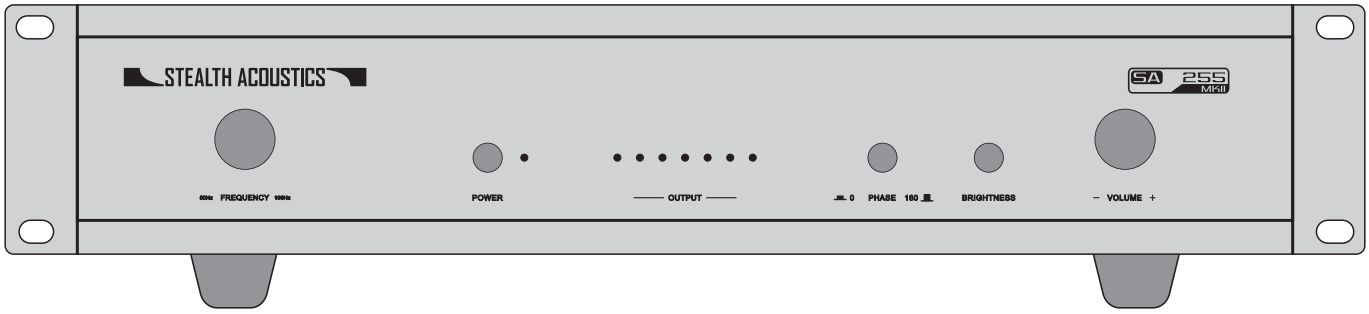
SA 255 MKII

250 Watt Monaural Amplifier with Low Pass Filter



User Manual

Important Safety Precautions:

1. Read these instructions and keep this guide for future reference.
2. Do not block ventilation openings.
3. Do not install near any heat sources such as radiating heat registers, or other apparatuses that produce heat.
4. Do not expose this equipment to rain or moisture.
5. Do not defeat the safety purposes of the polarization or grounding type plug.
6. Clean only with a soft dry cloth.
7. Refer all repairs to a qualified service professional.

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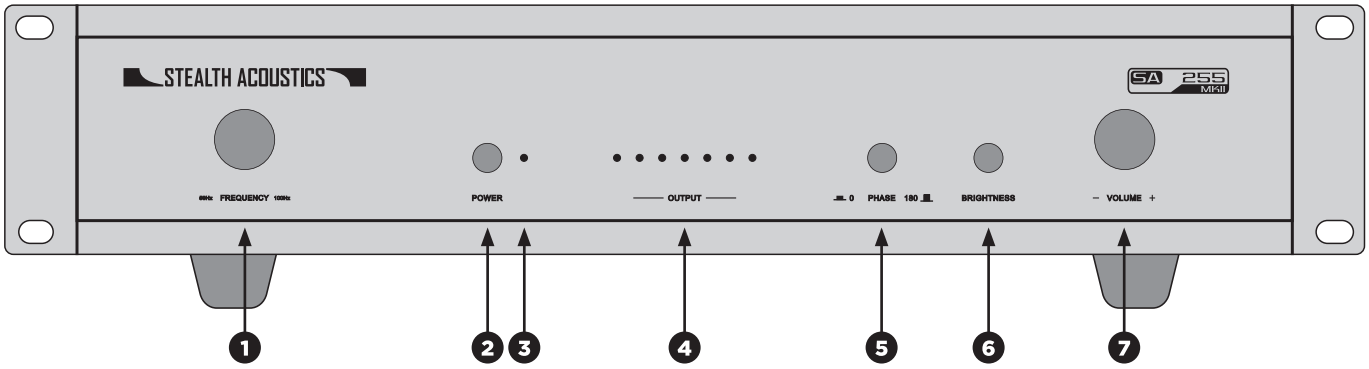
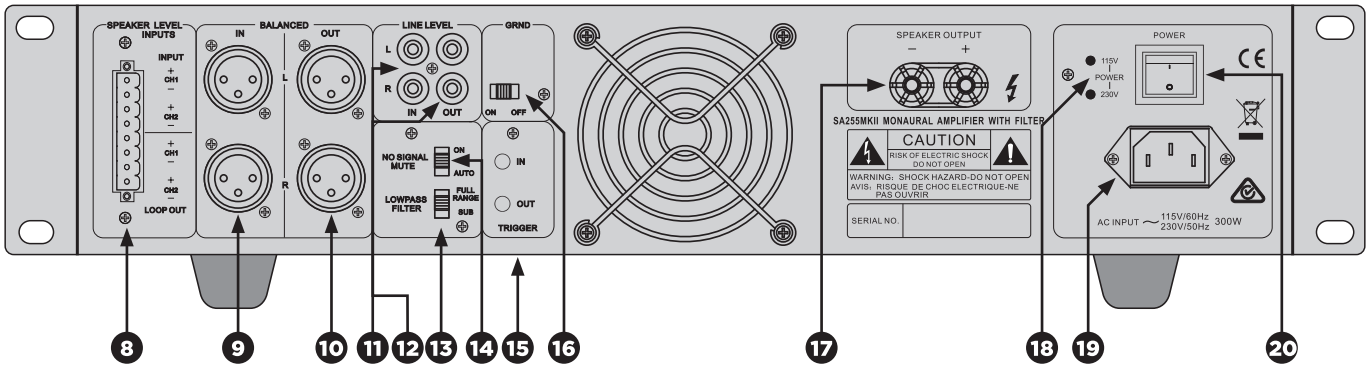


SA255 MKII - FRONT PANEL

1. **CROSSOVER FREQUENCY CONTROL** – The crossover frequency is variable from (far left) 50 Hz to 100 Hz (far right).
2. **POWER** – Push on, push off
3. **WORKING STATUS LED** – When the power is on, the LED lights red. When power is first turned on the amplifier enters a self-check mode followed by a standby mode. When audio signal is detected the amplifier automatically turns on and the LED turns blue. When the amplifier is in protection mode the LED will show red.
4. **OUTPUT SIGNAL LEVEL LED'S** - As output increases the LED's will light from left to right. Right red LED indicates clipping.
5. **PHASE CONTROL** – Push on, push off. Will reverse phase of output 180 degrees.
6. **DISPLAY BRIGHTNESS** – Adjusts the front panel display lighting.
7. **VOLUME CONTROL** – Clockwise increase, counter clockwise decrease.

Some Words of Caution:

- Do not attempt to service this product yourself, as opening or removing the cover may expose you to dangerous voltage or other hazards.
- Do not block intake or exhaust (rear) vents.
- Do not cycle power switch on front panel on and off quickly and repeatedly. Allow 5 seconds for amplifier to complete it's startup routine.



SA255 MKII - REAR PANEL

8. **SPEAKER LEVEL INPUT** - Speaker level input / output terminal block
9. **BALANCED LINE INPUT** – XLR-F balanced line input
10. **BALANCED LINE OUTPUT** - XLR-M balanced line pass-through output
11. **LINE LEVEL INPUT** – RCA unbalanced input.
12. **LINE LEVEL OUTPUT** – RCA unbalanced pass-through output
13. **LOW PASS FILTER** - This switch will turn off the low pass filter allowing the amplifier to run full bandwidth.
14. **NO SIGNAL MUTE SWITCH** – This is a 2 position slide switch. In the "ON" position, the amplifier is in a powered up mode. The power LED on the front panel will glow blue. In the "AUTO" position, the amplifier will monitor signal input and power up automatically when signal is received. The LED on the front will glow red until it senses an audio signal, then blue when it is activated. In auto mode the amplifier will power down automatically after 10 to 20 minutes with no audio activity.
15. **12V TRIGGER**
16. **GROUND LIFT SWITCH**
17. **AMPLIFIER OUTPUT** - Binding posts provide output to speaker(s). (Minimum 4 ohm load.)
18. **VOLTAGE INDICATOR** - 115v-230v 50Hz/60Hz (auto selected.)
19. **POWER SOCKET** – AC power cord plugs into this socket. Appropriate IEC power cord is provided.
20. **POWER SWITCH**

Functions and Features:

- Rack Mountable - Requires (2) Spaces (3.5")
- Variable Low Pass Filter
- Auto On/Standby Function
- Speaker Level Inputs and Outputs
- Line Level Inputs and Outputs
- Balanced Line Inputs and Outputs
- DC Protected Fixed High Pass Filter
- Status LED: Red = Standby, Blue = Active
- 12v Trigger Function
- Output Monitor LEDs
- 115 VAC and 230 VAC Input Voltages (auto selected)
- Fan Cooled - 8 Speed Stages
- Phase Switch

Specifications:

- Mono Output Power:
  250 watts at 8 ohms<0.05 THD
  350 watts at 4 ohms<0.05 THD
- THD <0.05 @ 1 watt 4 ohms/100Hz
- S/N 86db Below Rated Output
- Crossover Section:
  High Pass Filter: 18 Hz/30db/octave (fixed)
  Low Pass Filter: 50 Hz to 100 Hz/
  41db/octave (variable)
- Current Draw: 6.2Amps @
  350W/4ohms/115VAC/60Hz
- Dimensions: 19" Wide, 3.5" High, 13.625" Deep
- Shipping Weight: 31 lbs./14 kg.

SA255 MKII - TIPS

SPEAKER OUTPUT CONNECTION:

To use the binding-post speaker terminals *(Rear Panel Detail #17)* with bare wire, unscrew the collar until the hole through the center post is visible under the collar. Insert the bare end of the wire through the hole in the post, then screw the collar back down until the connection is tight. The holes in the center of the collars are intended for banana-type connectors.

SPEAKER LEVEL INPUT CONNECTION:

Use this installation method where the receiver/processor does not have a subwoofer output or a volume controlled preamp line-level output. Connect you receiver or amplifier's front left and right speaker terminals to the left and right terminals on the SA255 that are marked "Speaker Level Input" *(Rear Panel Detail #8)*. Connect the left and right terminals on the SA255 that are marked "Speaker Level Output" *(#8)* to the corresponding terminals on the back of your front left and right speakers. This method will also work for whole house audio distribution systems since some multi-channel whole house audio amplifiers do not have a line level subwoofer output. If the amp speaker level input is after a speaker volume control, the SA255 volume will track with the volume control.

LINE LEVEL CONNECTION:

Use this method where the receiver/processor is equipped with a subwoofer output or a volume-controlled preamp line level output. Use RCA-type patch cords to connect the line-level inputs on the SA255 *(Rear Panel Detail #11)*. If your receiver or amplifier only has one subwoofer output jack, then you may connect the subwoofer output on your receiver/preamplifier to either the left or right line-level input on the SA255. It makes no difference which jack you choose.

BALANCED LINE CONNECTION:

This method is used when the SA255 is placed between a preamplifier and power amplifier that connect with 3-pin XLR type connectors *(Rear Panel Detail #19 & #10)*.

PHASE CONTROL:

The Phase switch *(Front Panel Detail #5)* determines whether the subwoofer's piston-like action moves in and out in phase with the main speakers or opposite the main speakers. There is no correct or incorrect setting. Proper phase adjustment depends on several variables such as subwoofer placement and listener position. Adjust the Phase switch to maximize bass output at the listening position.

Remember, every system, room and listener is different. There are no right or wrong settings; this switch offers the added flexibility to adjust your subwoofer for optimum performance for your specific listening conditions. If at some time in the future you happen to rearrange your listening room, you should experiment with the Phase switch in both positions, and leave it in the position that maximizes bass performance.

CROSSOVER ADJUSTMENTS:

The crossover Frequency control *(Front Panel Detail #1)* determines the highest frequency at which the subwoofer reproduces sounds. If your main speakers can comfortably reproduce some low-frequency sounds, set this control to lower frequency setting, between 50Hz – 80Hz. This will concentrate the subwoofer's efforts on the ultra deep bass sounds required by today's films and music. If you are using smaller bookshelf speakers that do not extend to the lower bass frequencies, set the low-pass crossover control to a higher setting, between 80Hz – 100Hz.

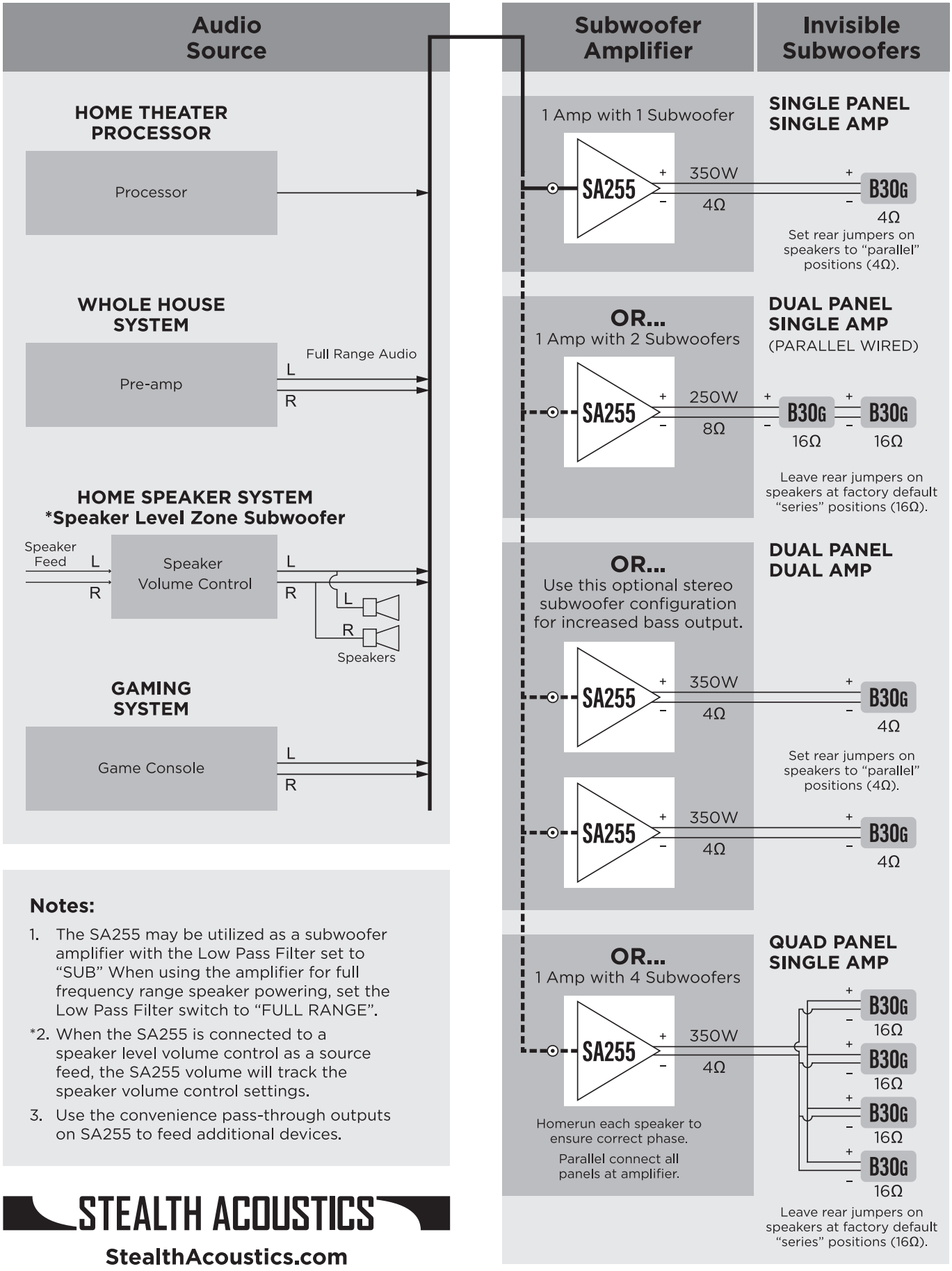
LEVEL CONTROL:

The Volume control *(Front Panel Detail #7)* will adjust the level of the subwoofer relative to the rest of the system. Proper level adjustment depends on several variables such as room size, subwoofer placement, type of main speaker and listener position. Adjust the subwoofer level so that the volume of the bass information is pleasing to you. The amplifier will track input level changes and adjust volume relative to input source level changes. Front panel level control determines the maximum level of output.

FULL RANGE OPERATION:

To bypass the low-pass filter, set the Low Pass Filter switch *(Rear Panel Detail #13)* to "FULL RANGE". The amplifier will then reproduce the full audio spectrum.

MODEL SA255 MKII SUBWOOFER AMPLIFIER – CONNECTION EXAMPLES



Notes:

1. The SA255 may be utilized as a subwoofer amplifier with the Low Pass Filter set to "SUB" When using the amplifier for full frequency range speaker powering, set the Low Pass Filter switch to "FULL RANGE".

*2. When the SA255 is connected to a speaker level volume control as a source feed, the SA255 volume will track the speaker volume control settings.

3. Use the convenience pass-through outputs on SA255 to feed additional devices.

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