SP Hi-End Active Speaker Serie

170.310 SP800A 8Inch
170.311 SP1000A 10Inch
170.313 SP1200A 12Inch
170.316 SP1500A 15Inch

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UK

ABS ACTIVE PA SPEAKERS

8 inch version order no. 170.310 *10 inch version order no. 170.311*
12 inch version order no. 170.313 *15 inch version order no. 170.316*

Congratulations on the purchase of this SkyTec active speaker box.
Please read this manual carefully prior to using the unit.

TO ENSURE MANY YEARS OF TROUBLEFREE USE, PLEASE OBSERVE THE FOLLOWING

- Hearing damage: Loudspeakers are easily capable of generating high 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.
- Do not overload the box to avoid damage to the speakers.
- Do not place an open fire (candle, etc.) on top or next to the box - FIRE HAZARD
- Only connect to an earthed mains outlet of 230Vac/50Hz.
- For indoor use only. If the box is used outdoors, you need to make sure that no humidity can enter the box.
- When not in use, unplug the unit from the mains.
- Unplug the unit from the mains prior to checking or replacing the fuse.
- Make sure that the box is placed on a stable, strong surface.
- The boxes can be stacked but do not put more than 60kg weight on the box.
- The boxes can be hung. Use only strong and approved mounting material. During the mounting, make sure that nobody is standing below the mounting area.
- Place the stand always on a flat, level, and stable surface and that the legs do not present a trip hazard.
- Use only stands which are designed to support the weight of the speaker. Do not attempt to place more than one speaker on a stand designed for a single speaker.
- Route cables so that peoples will not trip over them pulling the speaker over.
- Do not place liquids on the box and protect it against humidity. Humidity can shorten the life time considerably.
- Only use suitable means of transportation if you want to move the box – BEWARE OF YOUR BACK !!
- If the unit is damaged to an extent that you can see internal parts, do not plug the unit in a mains outlet. In this case, please contact SkyTronic UK.
- Always unplug the unit during a thunderstorm or when it is not in use.
- If the unit has not been used for a longer period of time, condensation can occur inside the housing. Please let the unit reach room temperature prior to use.
- Never try to repair the unit yourself. It does not contain any user serviceable parts.
- Run the mains lead in such a way that nobody can fall over it and nothing can be put on it.
- Only use the supplied mains lead or another lead recommended by SkyTec.
- Set the unit to the lowest volume prior to switching it on
- Keep the unit out of the reach of children.

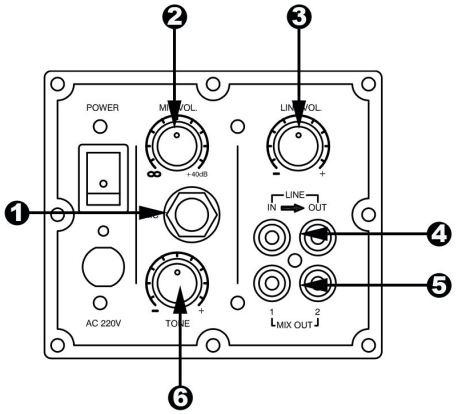
PRODUCT FEATURES

General

- Liquid cooled 35mm titanium-diaphragm compression driver;
- Molded one-piece baffle with integral 90°x60° constant directivity horn;
- Limiter protects the compression driver from overpowering;
- Multi-angle enclosure for flexibility in usage;
- Professional & sturdy ABS enclosure;
- Enclosure and baffle are molded of tough and durable co-polymer material. This range of speakers is able to withstand high powered impacts;
- A heavy-duty, perforated metal grill protects the woofer;
- Ergonomically designed balanced handle and lightweight enclosure for easy and comfortable carrying;
- Attachment points for wall or ceiling mount brackets;
- Integral 35mm pole mount receptacle with securing thumb screw.

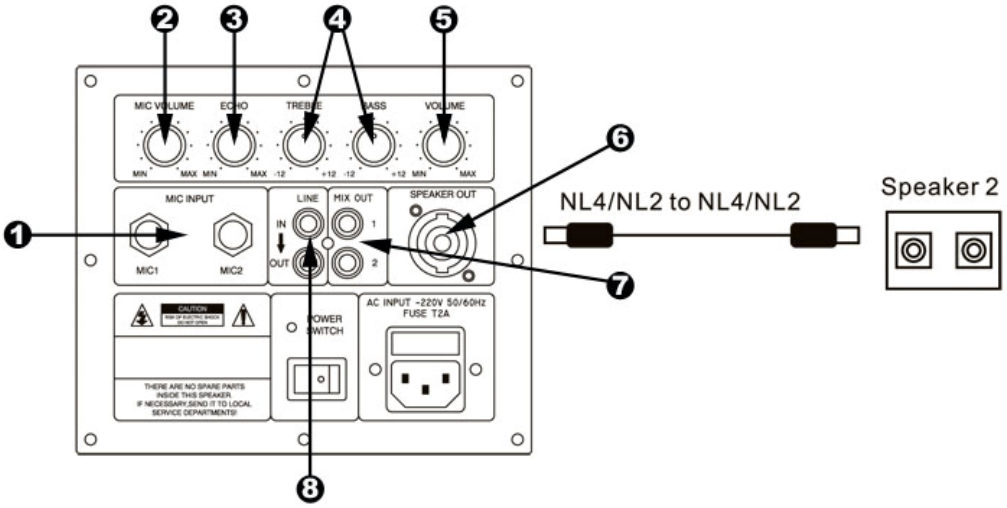
About the enclosure
The enclosure and baffle of this range of speakers are made of polypropylene co-polymer. The use of co-polymer allows features such as stand mounting sockets, handholds, ports and high frequency horns to be molded directly into the cabinet. Not only do you get contemporary appearance, you also get lots of functionality.

INPUT PANEL
8" & 10" Versie:



1. Input connector for microphone
2. Volume control for the microphone
3. Volume control for the line input
4. Line input connector for the audio input source e.g. mixer, CD player, etc.
5. Output connector to a second box
6. Tone control for the output

12" & 15" Versie:



1. Input connector for 2 microphones
2. Volume control for the microphone
3. Echo control for microphone
4. Tone control for the output
5. Volume control for the output
6. Output connector to a pasive box (8 Ohm)
7. Output connector to a second box
8. Line input connector for the audio input source e.g. mixer, CD player, etc.

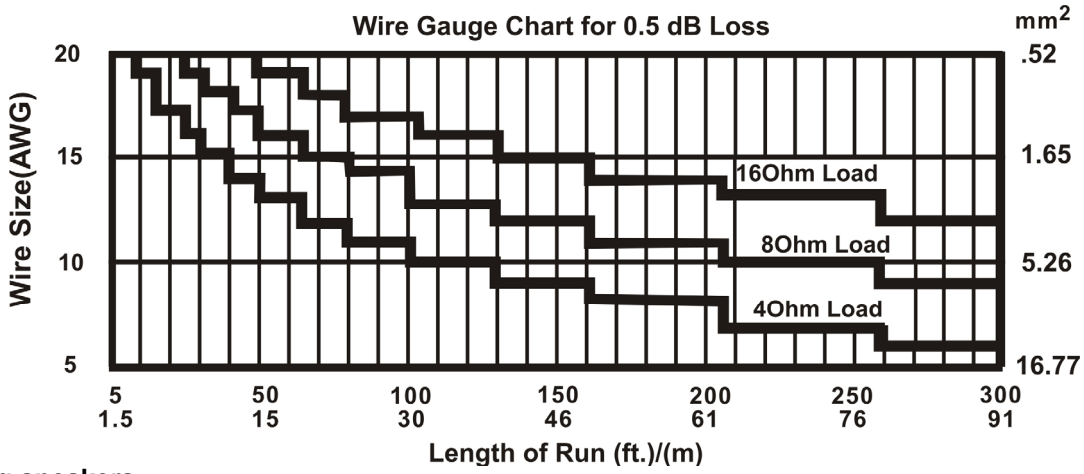
CABLE CONNECTIONS (6)
(12" and 15" versions only)

This range of speakers features 4-p loudspeaker connectors. These connectors are hooked in a parallel "loop-through" configuration for connection to additional speakers. For optimum performance it's important to use cables specifically designed for speaker use. Do not use shielded "guitar" signal cables for connection to these speakers.

Selection of the appropriate wire gauge is important for system operation. A cable that is too light will result in amplifier power being wasted due to the series resistance of the cable. In addition, loss of low-frequency performance may be experienced due to a degraded damping factor. The chart below

illustrates the appropriate minimum wire gauge for various cable lengths and speaker impedance combinations.

When using this chart, keep in mind that two 8 Ohm parallel linked speakers will equal a 4 Ohm load (see “looping speakers”).



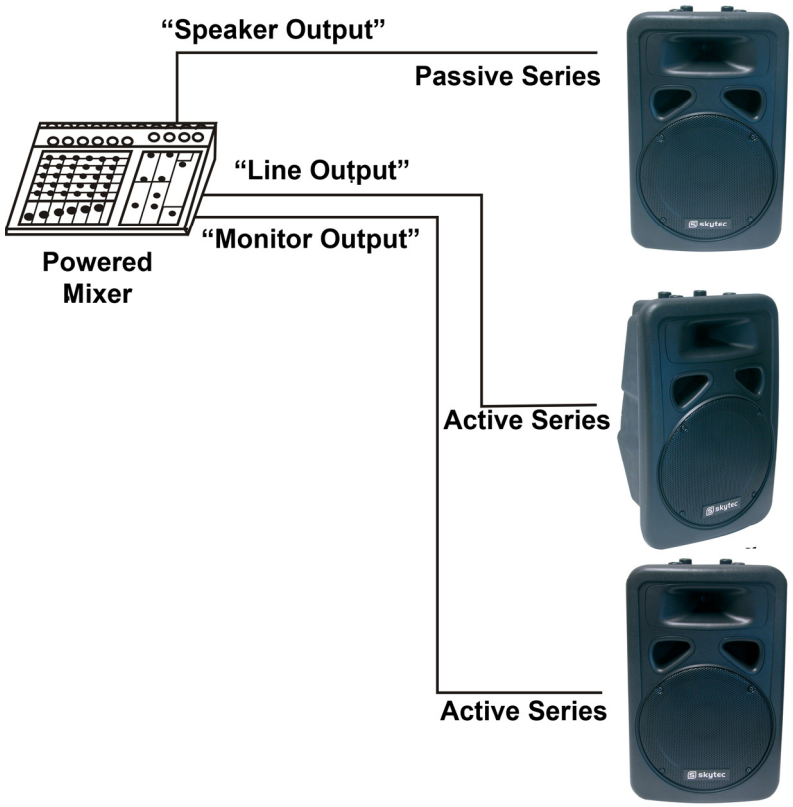
Looping speakers

Running too many speakers from a single amplifier channel may result in damage to the amplifier and/or in degraded audio performance. To calculate the combined impedance of multiple identical speakers in parallel, please use the formula below:

$$\frac{\text{Impedance of a single speaker}}{\text{Number of speakers connected in parallel}} = \text{Amplifier load}$$

Refer to your power amplifiers owners manual, for information on minimum recommended load impedance.

SYSTEM CONFIGURATIONS



TROUBLESHOOTING

One certain method of determining if a speaker is faulty is to substitute a speaker that is known to work correctly for the suspected problem speaker. If the “normally correct speaker” is experiencing the same difficulties or problems as the suspected problem speaker, use the information below to isolate the problem.

No output

Possible cause	*Action*
Speaker cables	Reseat all connectors Substitute known good speaker cables Check solder joins Tighten set-screws on the banana connectors or 4-p connectors Inspect cable for damage Inspect wire or connector for stray strand that may short
Amplifier	Make sure the amplifier channel is being fed a signal. Most amps have a “signal input” LED to indicate the presence of a signal. Re-patch the speaker to an amplifier channel that is known to work.

Intermittent

Possible cause	*Action*
Poor connections	While it is possible for a faulty speaker to exhibit intermittent output, it’s more likely that an output cable/connector is the problem. Check the soldering on your connectors. Tighten the set-screws on the banana connectors or 4-p connectors.

Constant noise, buzzing and/or humming

Possible cause	*Action*
Faulty electronic device in the signal chain	Any constant noise originates in the amplifier, mixer, signal processing, source devices, or line-level wiring. Check and correct system grounding as required. check for noisy sources or electronic components. Check wiring for shielding.

Poor low-frequency output

Possible cause	*Action*
Improper polarity	When two speakers in close proximity to each other are connected out-of-polarity, they can partially cancel each other out, especially at low frequencies. Check your speaker cables to be sure they are all identically wired and connected. Check the balanced line signal cables to be sure they are all correctly wired.

SPECIFICATIONS

Item	**170.310**	**170.311**	**170.313**	**170.316**
Output power	80W	200W	300W	400W
Output power (peak)	160W	400W	600W	800W
Max SPL	107dB	109dB	126dB	129dB
Sensitivity	85dB	85dB	99dB	100dB
Frequency Range	55-18.000Hz	55-18.000Hz	45 - 20.000Hz	40 - 20.000Hz
Input(s)	1 Line/Mic	1 Line/Mic	1x Line + 2x Mic	1x Line + 2x Mic
Woofer (inch)	8"	10"	12"	15"
Dimensions	440 x 250 x 280mm	530 x 280 xc 330mm	630 x 430 x 395mm	755 x 510 x 460mm
Weight	7 kg	14 kg	17 kg	24 kg

Do not attempt to make any repairs yourself. This would invalid your warranty. Do not make any changes to the unit. This would also invalid your warranty. The warranty is not applicable in case of accidents or damages caused by inappropriate use or disrespect of the warnings contained in this manual.
SkyTronic UK cannot be held responsible for personal injuries caused by a disrespect of the safety recommendations and warnings. This is also applicable to all damages in whatever form.