SEAS PROFESSIONAL SOUND

Bygge- og monteringsveiledning
Construction and fitting instructions
Bau- und Einbauanleitung
Instructions de construction et de montage

KIT 503

Information

The new Seas Kits are divided into two groups:

One group: SEAS PROFESSIONAL SOUND, consists of four kits with rising quality, 203, 302, 303/303R and 503.
The two first numbers show the internal volume in litres, the last number shows if the kit is two- or three-ways. R means bassreflex.

The second group consists of the kits MINI and DISCO.
MINI is a small kit at a reasonable price. DISCO is a typical discotheque kit with extremely high efficiency and very high power handling capacity.

Radiation principle: All kits are so-called direct radiating with front mounted speakers whose axes are normal to the front baffle. This principle is the best way of bringing the important direct sound undistorted to the listeners ear. The direct sound is the very first sound arriving the ear, and it will reach the ear a tiny fraction of a second before the reflected sound from furniture, floor, walls and ceiling reaches the ear. Correct direct sound is very important for maximum fidelity.

Although the speakers are front mounted, good spacial distribution also in the high frequency region is secured by small tweeter elements.

Cabinet types: Most of the cabinets are so-called closed box types. Two of the kits, however, have woofer suited for bass reflex, making it possible to increase the efficiency in the low end. Kit 303 may alternatively be turned into a bass reflex box and is then called 303R. Additional mounting instruction is included. DISCO is also a bass reflex box.

Loudspeaker elements: All our loudspeaker elements are of the electrodynamic types. The motion of the cone is caused by a voice coil (on a coil former) attached to the cone, this voice coil working in a magnetic field. The most expensive kits (302, 303/303R, 503) are equipped with soft dome tweeters giving an excellent reproduction of transients.

Crossover networks: The crossover network is dividing the output signal from the amplifier frequency-wise into woofer range, midrange and tweeter range. Further, it provides compensation for the different sensitivities involved, giving a good over-all frequency response.
The steepness is 6 dB/oct.

Room placement: Care should be taken choosing the best placement in the listening room. This is important concerning both frequency response and optimal stereo image.

The frequency response shown in the lid of the carton is recorded in free acoustic field with no reflecting surfaces. Placing the loudspeaker close to a large wall will lead to a 6 dB increase in the bass region below appr. 150 Hz, decreasing gradually to zero somewhere between 500 and 1000 Hz.

Placing the loudspeaker on the floor at a wall or in a corner, will lead to further increase in bassresponse. This will often make the bass reproduction sound too heavy, except when the loudspeaker's free field response is gradually decreasing towards low frequencies from 2-300 Hz.

However, the increase in bassresponse may often be compensated by the amplifier's tone controls.

In order to obtain optimal stereo effect, one should place the loudspeakers in a symmetrical way, both with respect to each other, and to the room. The speakers should work under identical conditions. Therefore, placing just one of the speakers in a corner of the room is not recommended.

Further, the cabinet should stand upright so that the drivers will be positioned on a vertical line. If the cabinets must lie, they should be arranged symmetrically.

Finally, the cabinets should have a height above the floor of approx. 4 feet.

Mounting instructions

General: Your SEAS PROFESSIONAL SOUND KIT should be mounted in a rigid airtight cabinet. (Kit 303 may, however, with certain advantages be mounted in a bass reflex cabinet.)

Enclosures: You may buy a complete SEAS CABINET KIT which contains all necessary parts for assembling the cabinet and the front grill. Damping material and complete instructions for assembling the cabinet are included.

You may also make your own cabinets according to drawings supplied with this kit. In that case it is important to note the following.

Choice of internal volume: The internal volume of the cabinet should be chosen within the limits stated in the drawings. Too small volume may lead to reduced bassresponse. Too large volume may reduce the power handling capacity

Choice of materials: In order to avoid unwanted vibrations in the cabinet walls, you should not use thinner chipboard than stated in the drawings.

Assembling the enclosure: All joins between the cabinet walls must be glued well in order to avoid leakages which may result in unwanted noise and even reduced power handling capacity.

Damping material: In order to avoid resonances in the cabinet volume, it is necessary to introduce acoustic damping. The closed box systems shall have 3/4 of their internal volume filled with sound absorbing material. Mineral wool (which is used in buildings for thermal and acoustical insulation) is well suited. The damping material should be cut into mats with a width of approximately 3/4 of the cabinet's internal depth and of a length equal to the internal cabinet height.

The mats should be piled against rear wall in the cabinet like books in a book-shelf.

The bass reflex systems shall have back and side walls lined internally with sound absorbing material of 2 inches thickness.

The boxes behind the midrange units should also have 3/4 of their internal volume filled with the damping material.

Front grille: The front grille should be covered with an acoustically transparent material. (Like airy curtain textile).

There are also special loudspeaker front grille materials available.

N.B. Remove plastic stand offs from the loudspeakers before mounting.

Kit 503

1. In order to mount the crossover network and the speaker units in the cabinet, you will need a Phillips-head screwdriver. A sharp knife for cutting the damping-material, and a hammer for the fixing of the front frame, will also be useful.
2. Put DIN-cable through the hole in the rear wall and tie a knot approx. 10 cm from the end of the wire. Pull the knot tightly against the wall and seal it with glue.
3. Fix crossover network to the rear wall inside the cabinet with four screws. Connect brown and grey wire from crossover network to the DIN-cable using the «fast on» connectors. Place the two pieces of insulation over the connections.
4. Connect white wire from crossover network to the redmarked terminal of tweeter, 86H. Connect blue wire to the unmarked terminal.
5. Mount 86H with gasket, and fasten it with four screws.
6. Pull yellow and green wire from crossover network through the hole in the midrange box. Tie a knot on the wire approx. 25 cm from the end. Pull the knot tightly against the bottom and seal with glue. Put damping material in the box as specified.
7. Connect yellow wire in the box to the redmarked terminal of midrange unit, 13F-GM. Connect green wire to the unmarked terminal.
8. Mount midrange unit in the plastic cup with gasket and make sure that fixing holes are corresponding. Fasten the assembly with four screws.
9. Put damping material in the cabinet as specified.
10. Fix foam gasket around hole for woofer.
11. Connect red wire from crossover network to the redmarked terminal of woofer, 35F-WK. Connect black wire to unmarked terminal.
12. Mount woofer with gasket and fasten it with eight screws.
13. Fasten front frame with six to eight headless nails.
14. The completed loudspeaker cabinet is now ready for use.

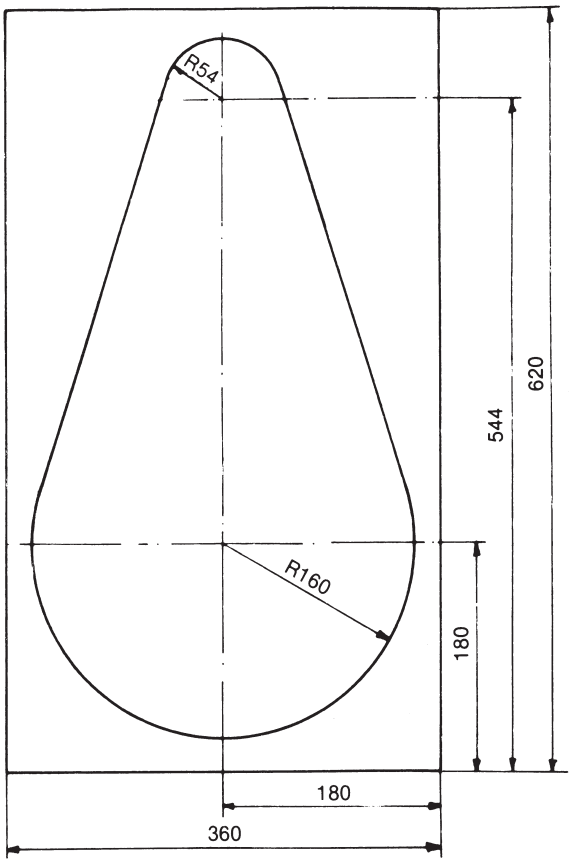
Happy listening!

SEAS PROFESSIONAL SOUND

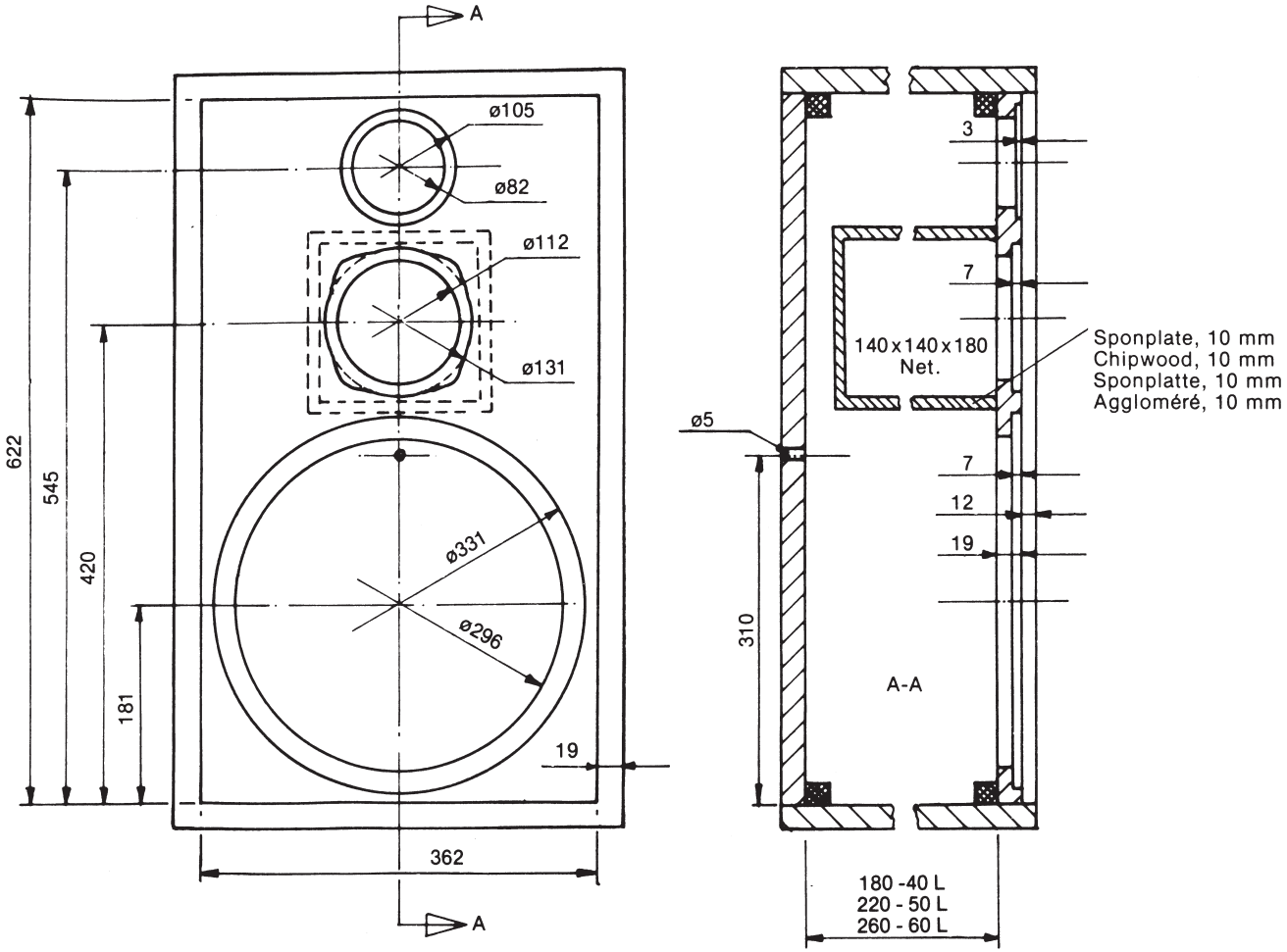
HIGH FIDELITY
DIN 45 500

KIT 503

VOLUM: 40 - 60 L



Ramme av 10 mm sponplate (eller kryssfiner) for stoff
Frame made of 10 mm chipwood (or plywood) for fabric
Rahmen aus 10 mm Sponplatte (oder Sperrholz) für Bespannstoff
Baffle en 10 mm contreplaqué ou aggloméré



Sponplate, 19 mm
Chipwood, 19 mm
Sponplatte, 19 mm
Aggloméré, 19 mm

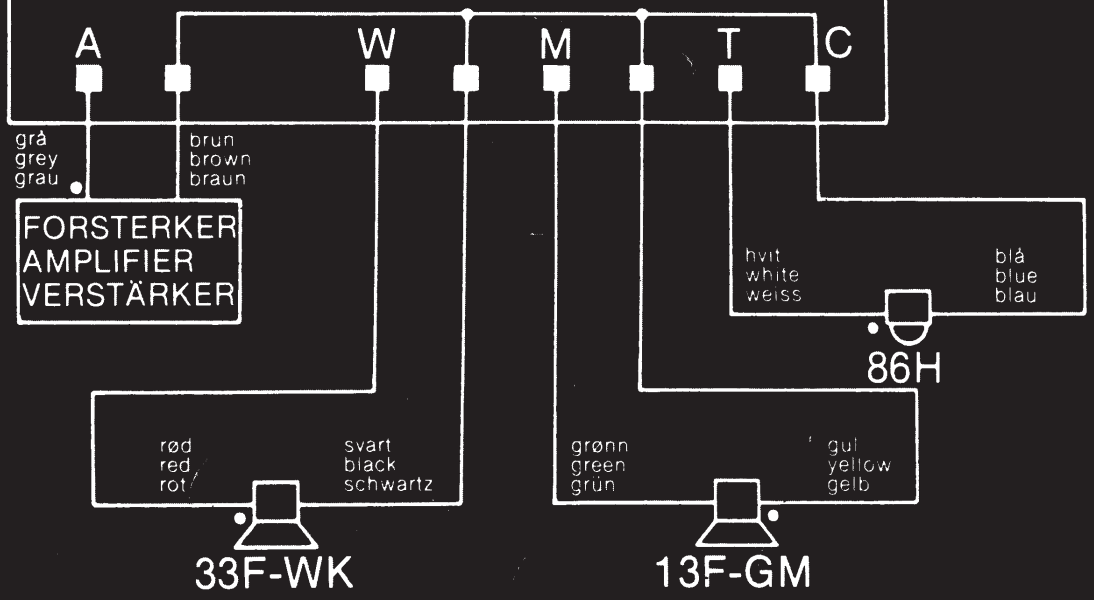
Trelister
Battens
Holzleisten
Entretoises

Alle mål i mm.
All measures in mm.
Alle Masse in mm.
Toutes mesures en mm.

SEAS 3-WAY CROSSOVER NETWORK TYPE D030

IMPEDANCE: 8 ohm
CROSSOVER FREQUENCIES: 700Hz and 3500Hz

MADE IN SCANDINAVIA



HØYTTALER FORBINDELSER HI-FI KIT 503

LOUDSPEAKER CONNECTIONS HI-FI KIT 503

LAUTSPRECHER VERDRAHTUNG HI-FI KIT 503

- **A.** FORSTERKER / AMPLIFIER / VERSTÄRKER
- **W.** BASSHØYTTALER / WOOFER / TIEFTON
- **M.** MELLOMTONEHØYTTALER / MIDRANGE / MITTELTON
- **T.** DISKANTHØYTTALER / TWEETER / HOCHTON
- **C.** FELLESKONTAKT / COMMON / SAMMELKONTAKT
- • RØDMERKET KLEMME / RED-MARKED TERMINAL / ROT-GEZEICHNETER KONTAKT

SEAS

Kit 503

FREQUENCY RANGE	25-20000
NOMINAL POWER	60 Watt
MUSIC POWER	120 Watt
OPERATING POWER	2.5 Watt
IMPEDANCE	8 OHM

SEAS

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