

REVOX

Agora B MKII
Agora B Slim Line
Operating Instructions



IMPORTANT

Protect your speakers from exposure to excessive heat and moisture. Carefully read Section 1 (setup) before you install the speakers.

The powered speaker should be connected to the (pre-)amplifier before it is connected to the AC outlet.

It is important to follow the instruction in Section 1! (AC power connection).

WARRANTY

Please note that the warranty is only valid in the country in which the equipment has been sold. We also would like to draw your attention to the fact that the warranty becomes null and void if unauthorized modifications or unprofessional repairs are made. Warranty cards for equipment sold in Switzerland or Austria are issued directly by the authorized dealer. For equipment sold in France you will find the warranty card inside the packing. This card must be completed and signed by your authorized REVOX dealer. In the Federal Republic of Germany, in the USA, and in most other countries a special warranty card supplied with the equipment. This card is located either inside the packing or in a plastic pouch attached to the outside of the packing. If this card is missing please consult your REVOX dealer or your national REVOX distributor.

PACKING MATERIAL

Please retain the original box for reuse in case your equipment ever needs to be transported. The packing material has been especially designed to protect your valuable equipment from shock in transit.

- Vorsicht:** Das Gerät ist in ausgeschaltetem Zustand (STANDBY) nicht von der Stromzuführung getrennt.
- Attention:** Cet appareil n'est pas séparé du réseau lorsqu'il est déclenché (STANDBY).
- Warning:** This unit is not separated from the mains supply when switched off (STANDBY).
- Attenzione:** Questo apparecchio non è separato dalla rete quando l'interruttore è spento (STANDBY).
- Precaución:** Este aparato no está separado de la red cuando está apagado (STANDBY).
- Waarschuwing:** In uitgeschakelde toestand (STANDBY) is het apparaat niet gescheiden van de netspanning.
- Advarsel:** Apparaten er ogsaa hvis lukket (STANDBY) under strøm.
- Huomio:** Huolimatta siitä, että virta on katkaistu laitteesta (STANDBY), sitä ei ole eristetty sähköstä.
- Forsiktig:** Selvom strømmen ikke er pa i apparatet (STANDBY), sa er det ikke skilt fra strøm.
- Varning:** Oaktat om strømmen är avbruten i apparaten (STANDBY), sa är den ända kopplad med strøm.

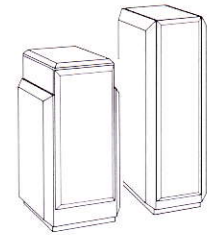
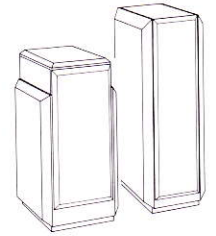


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SECTION 1



General

In conventional passive speakers the frequency range is allocated to the individual speaker chassis by passive filters implemented with coils and capacitors. The ohmic resistance inherent to these coils as well as the resistance of the connecting cable between the amplifier and the speaker have a detrimental influence on the damping factor, i. e. it becomes much more difficult for the amplifier to control the speaker diaphragm movement.

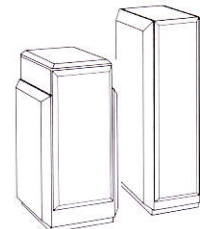
In powered speakers the frequency spectrum is split before the power amplifiers. In this case the crossover networks can be implemented with low-loss components (amplifiers). One power amplifier each is assigned to the bass, midrange, and treble. These power amplifiers are installed in a speaker housing (hence the designation "powered"). This arrangement results in short, low-loss connections between the power amplifiers and the corresponding speaker chassis. The damping factor is known and controllable.

Cone-type speakers generally have an asymmetrical deflection of the diaphragm. This means that the travel of the moving coil is not identical in the direction toward the magnet and away from the magnet. The diaphragm of the bass speakers perform the greatest deflection. This is the reason why this asymmetry is most perceivable in bass speakers. In the powered speaker AGORA B MKII / AGORA B SLIM LINE, the only feasible solution to this problem has been chosen, the so-called push-pull operation of a pair of identical bass speakers of which one is installed in the housing in a conventional manner, the other, however, with the magnet system facing the outside. In this way the asymmetries of the speakers are mutually compensated. The diaphragm movement of the two bass speakers is rigidly coupled to the output signal of the bass amplifier by an interlocking control system. Frequency response errors and high-order sympathetic resonance of the housing, which occur in passive and powered systems without interlocking control, are now a thing of the past.

The input sensitivity of the AGORA B MKII / AGORA B SLIM LINE powered speakers can be switch selected so that it can be matched either to a tuner/preamplifier combination (e. g. REVOX B286) or a tuner/power amplifier combination (e. g. REVOX B285). In various power amplifiers (e. g. REVOX B250) and receivers it is possible to open the path between the preamplifier and the power amplifier. In this case the AGORA B MKII / AGORA B SLIM LINE can be connected to the preamplifier output of the corresponding unit. Direct connection to source units with variable output level (e. g. REVOX CD B226) is also feasible.

The powered speaker AGORA B MKII / AGORA B SLIM LINE is, of course, also compatible with REVOX equipment of older series. Your dealer will gladly advise you.

Protective circuits prevent overheating of the built-in power amplifiers and protect the midrange speaker and the tweeter from overloads.



Packing content

In addition to these operating instructions and a power cable with a plug that fits the AC outlets in your country, the packing contains a 12 m screened, single-conductor cable with cinch connectors on both ends. In addition there is an adapter for connection to a power amplifier.

AC power connection

Before you connect the speakers to the AC outlet, make sure that the local line voltage agrees with the specification on the name plate on the powered speaker box. Should this not be the case, please consult your dealer. Do NOT connect the powered speaker AGORA B MKII / AGORA B SLIM LINE to the AC outlet until it has been connected to the preamplifier or the power amplifier.

Setup

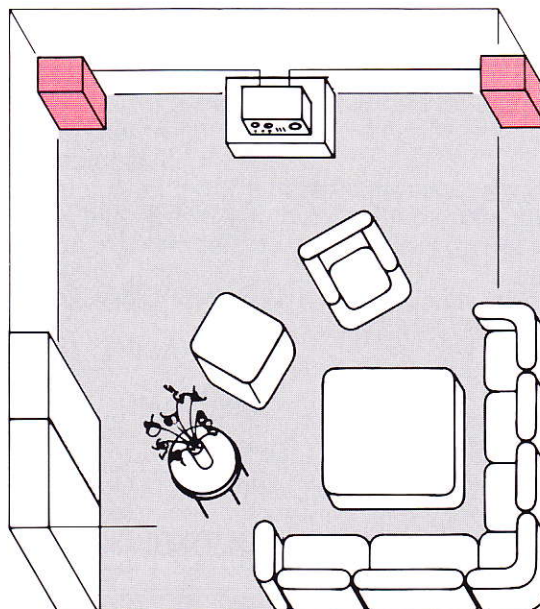
The powered speaker AGORA B MKII / AGORA B SLIM LINE is designed as a standing box which means that it should be set up on the floor, otherwise the sound impression will suffer.

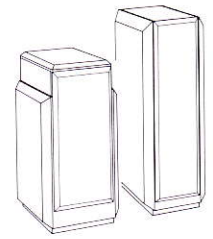
The cooling fins on the rear should be at least 5 cm (2") away from any adjacent surface so that the heat can be dissipated.

The powered speaker AGORA B MKII / AGORA B SLIM LINE has an exceptionally large radiation angle which means that it is not necessary to tilt it in the direction of the listener.

Basically, each speaker should be set up in such a way that it radiates from the acoustically hard (weakly absorbing) part of the room to the acoustically soft (strongly absorbing) part of the room.

Strong accentuation of treble and bass frequencies at the (pre-) amplifier is not recommended because the distortion increases and the power handling capacity is strongly reduced (in some cases the protective circuit will respond). REVOX speakers are designed with a neutral sound and therefore do not require any corrections.

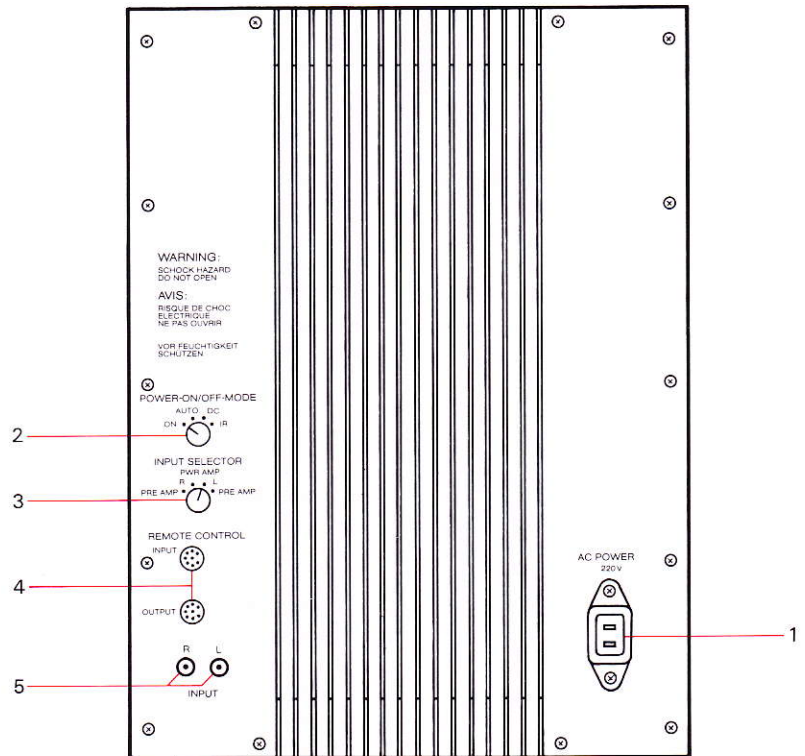




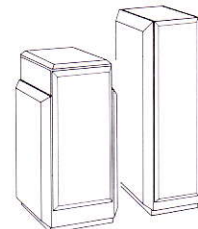
SECTION 2

Synoptical sketch

with quick-reference description of all functions



| | |
|-----------------------|--|
| [1] AC POWER | Power inlet |
| [2] POWER ON/OFF MODE | <p>4-Position rotary switch:</p> <p>ON: Unit is switched on (standby) as long as it is connected to the AC power source.</p> <p>AUTO: The unit automatically starts up from STANDBY when an input signal is available. If there is no input signal for approx. 5 minutes, the unit switches automatically to STANDBY.</p> <p>DC: Switch-on at > 9V DC, switch-off at < 5V DC. Pin assignment: ground [-] to pin 6 0 ... 30V DC to pin 8 at the REMOTE CONTROL INPUT/OUTPUT socket.</p> <p>IR: Automatic on/off in conjunction with the B209 subcontroller.</p> |
| [3] INPUT SELECTOR | <p>4-Position rotary switch:</p> <p>PRE-AMP R: Operation as right-hand box, connected to preamplifier output</p> <p>PWR-AMP R: Operation as right-hand box, connected to amplifier output</p> <p>PWR-AMP L: Operation as left-hand box, connected to power amplifier output</p> <p>PRE-AMP L: Operation as left-hand box, connected to power amplifier output</p> |
| [4] REMOTE CONTROL | <p>INPUT: Connection of the B209 subcontroller or input from 1st AGORA Box with serially connected wiring</p> <p>OUTPUT: Connecting to the next AGORA with serially connected wiring (to REMOTE INPUT socket)</p> |
| [5] INPUT R/L | CINCH terminals for audio input signals. |



Pilot lamps (LEDs)

The two LEDs are located on the acoustic baffle on the right-hand side of the tweeter. They are also visible when the front cover is installed.

The red LED is alight when the powered speaker is connected to the AC power outlet and if switch [2] is in one of the following positions:

AUTO: The speaker is switched to STANDBY by the automatic on/off circuit.

DC: The speaker is switched off (<5 VDC).
(If this external voltage version is not used, the DC setting functions in the same way as "OFF" (STANDBY).

IR: The speaker is in STANDBY mode and operates in conjunction with the B209 subcontroller (connection version II).

The green LED is alight in normal operation if switch [2] is in one of the following positions:

ON: The speaker is continuously switched on.

AUTO: The speaker is switched on by the automatic on/off circuit.

DC: The speaker is switched on by an external DC voltage (>9 VDC).

IR: The speaker is switched on in conjunction with the B209 subcontroller (connection version II).

The red and the green LED are alight simultaneously if the built-in protective circuit has responded either because of overheating or because the midrange speaker or the tweeter is overloaded. In the first case the power amplifiers are muted until their temperature has dropped to an admissible level; in the second case the muting is cancelled after a few seconds.

Connection to the pre-amplifier or power amplifier

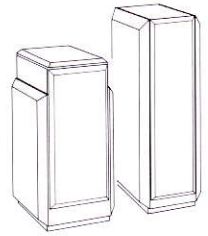
Before the powered speaker AGORA B MKII / AGORA B SLIM LINE can be connected, it is necessary to match the input sensitivity to the driving amplifier.

- If a power amplifier or a receiver is used (e. g. REVOX B285), switch [3] must be in the PWR AMP position.
- If a preamplifier or a preceiver is used (e. g. REVOX B286), switch [3] must be in the PRE AMP position.
- If a power amplifier or a receiver is used in which the signal path between the preamplifier and the output stage can be opened (e. g. REVOX B250), it is better to connect the powered speaker to the preamplifier output. (Switch [3] in PRE AMP position).

A connecting cable (single-conductor, screened, CINCH connectors on both ends) is bypacked to the powered speaker AGORA B MKII / AGORA B SLIM LINE. If required by the room size, this cable can be extended up to 35 m (120 feet) without adversely affecting the quality of the sound reproduction.

If the speaker is to be connected to a preamplifier equipped with DIN, XLR or other output sockets, please contact your dealer or consult the operating instructions of your preamplifier. Your dealer normally carries suitable adapters in stock.

The bypacked adapter cable should be used for connecting the speaker to a power amplifier.



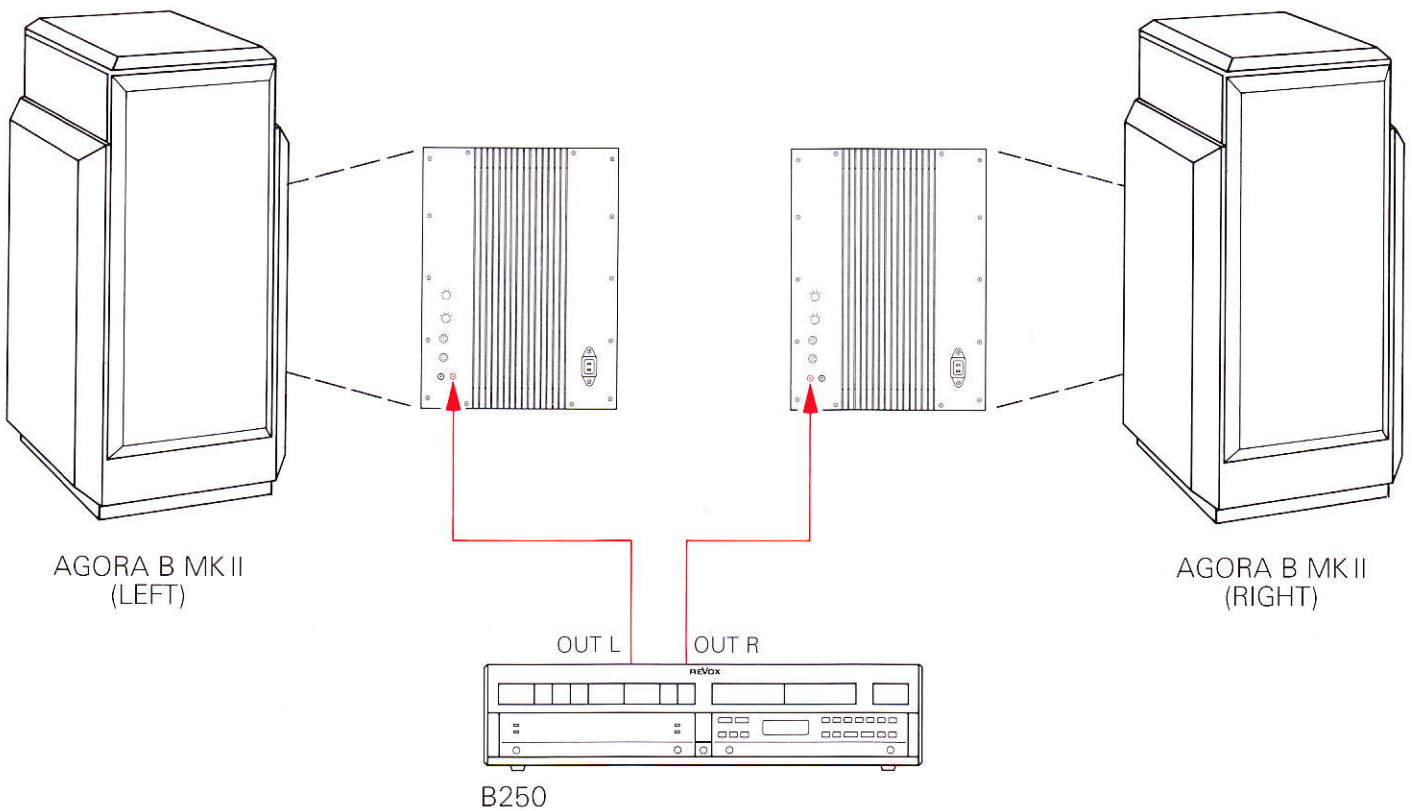
SECTION 3

Connection versions

In the following Chapter the term "amplifier" is used to mean power amplifier, preamplifier, or preceiver.

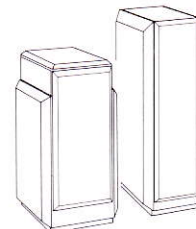
Basically, there are two methods for connecting the REVOX AGORA B MKII / AGORA B SLIM LINE speaker to an amplifier.

Version I



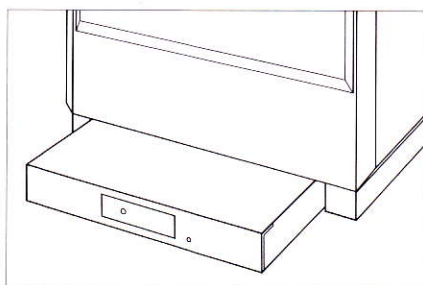
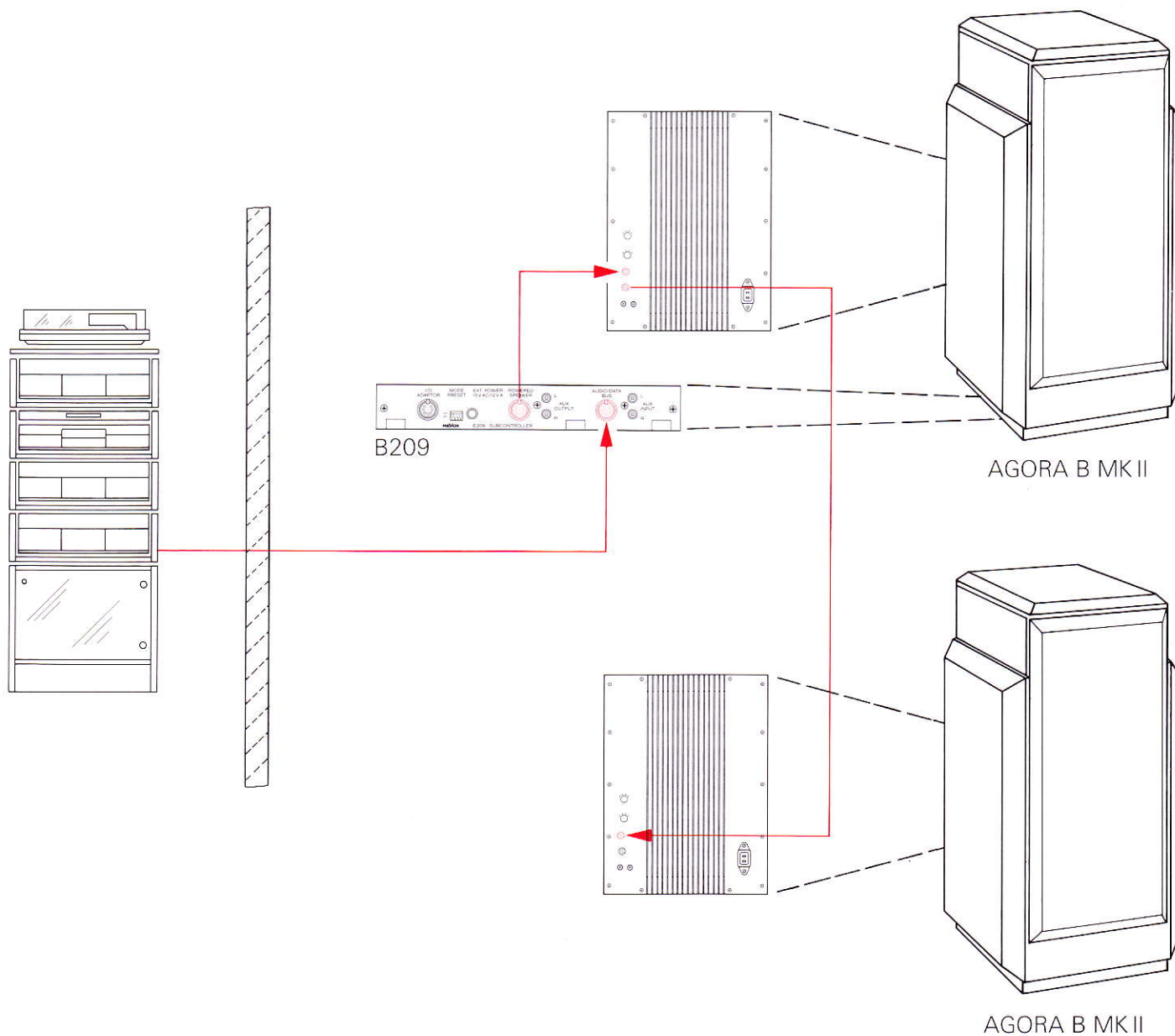
The left-hand amplifier output is connected by a single-conductor, screened cable to the input socket INPUT L of the left-hand powered box. The INPUT SELECTOR [3] switch of the left-hand box must be set to either the PRE AMP L (preamplifier) or the PWR AMP L (power amplifier) position.

The right-hand channel is cabled analogously. The INPUT SELECTOR [3] switch of the right-hand box must be set to either the PRE AMP R (preamplifier) or the PWR AMP R (power amplifier) position.



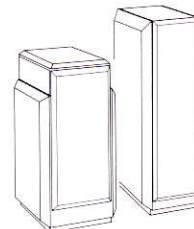
Version II

AGORA B MKII / AGORA B SLIM LINE in the ancillary room with B209 subcontroller.



The REVOX B209 subcontroller is a high-quality preamplifier without operator controls. It is installed below the AGORA in place of the base. The volume, the balance and the tone control are adjusted with the B208 IR remote control. The B209 subcontroller features an input that is supplied with audio signals by a preamplifier located in the main room. Detailed information concerning the REVOX B209 subcontroller and the extended application facilities of the AGORA in conjunction with the B209 subcontroller can be found in the B209 operating instructions.

SECTION 4



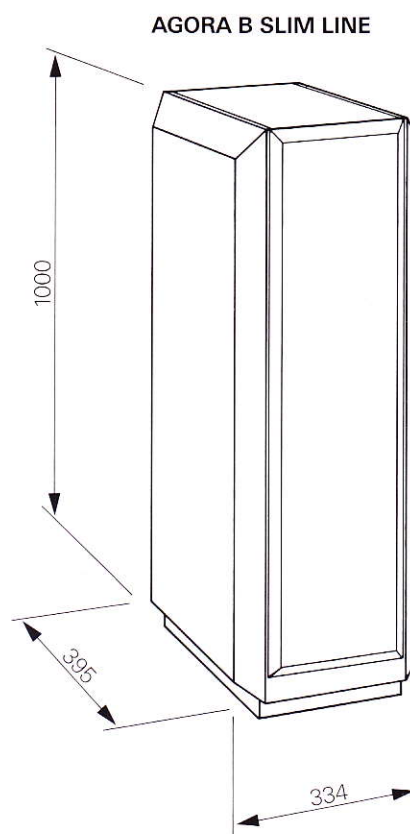
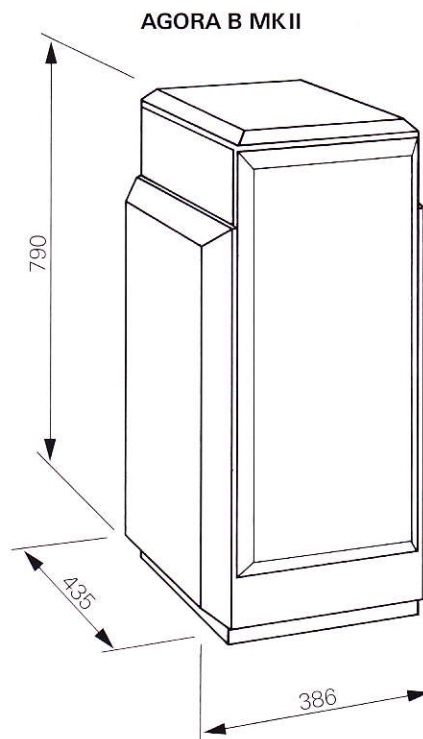
Technical data

| Audio data | | |
|---|---|------------------|
| Bandwidth (DIN 45500) | | 24 Hz ... 42 kHz |
| Frequency response | (-3 dB) | 40 Hz ... 22 kHz |
| Harmonic distortion K_{tot} | Bandwidth at a distance of 1 m: with sound pressure level 82 dB SPL max. 0.5% with sound pressure level 88 dB SPL max. 1.0% | 45 Hz ... 20 kHz |
| Achievable sound pressure level | 100 m ³ living room, mean reverberation time 0.4 s, distance of 2 m, 2 active speakers simultaneously in operation: 113 dB SPL | |
| Speaker configuration | Woofers | diam. 2x220 mm |
| | Midrange speaker | diam. 122 mm |
| | Tweeter | diam. 25 mm |
| Flux density | Woofers | 2x1.1 T |
| | Midrange speaker | 1.1 T |
| | Tweeter | 1.7 T |
| Magnetic flux | Woofers | 2x541 μ Wb |
| | Midrange speaker | 539 μ Wb |
| | Tweeter | 412 μ Wb |

| Electrical data | | |
|---|--|---------|
| Inputs | Sensitivity for 100 dB SPL at a distance of 1 m: - Switch in PRE-AMP pos. 0.35 V/47 kohm - Switch in PWR-AMP pos. 3.5 V/1 kohm | |
| Operating modes | ON: continuous ON AUTO: on/off via audio DC: on/off via DC voltage IR: on/off via B209 | |
| Switch-off delay of the automatic on/off circuit | approx. 5 min | |
| Sensitivity of the automatic on/off circuit | - PRE-AMP | 0.25 mV |
| | - PWR AMP | 2.5 mV |
| DC switching thresholds | On: >9 V Off: <5 V | |

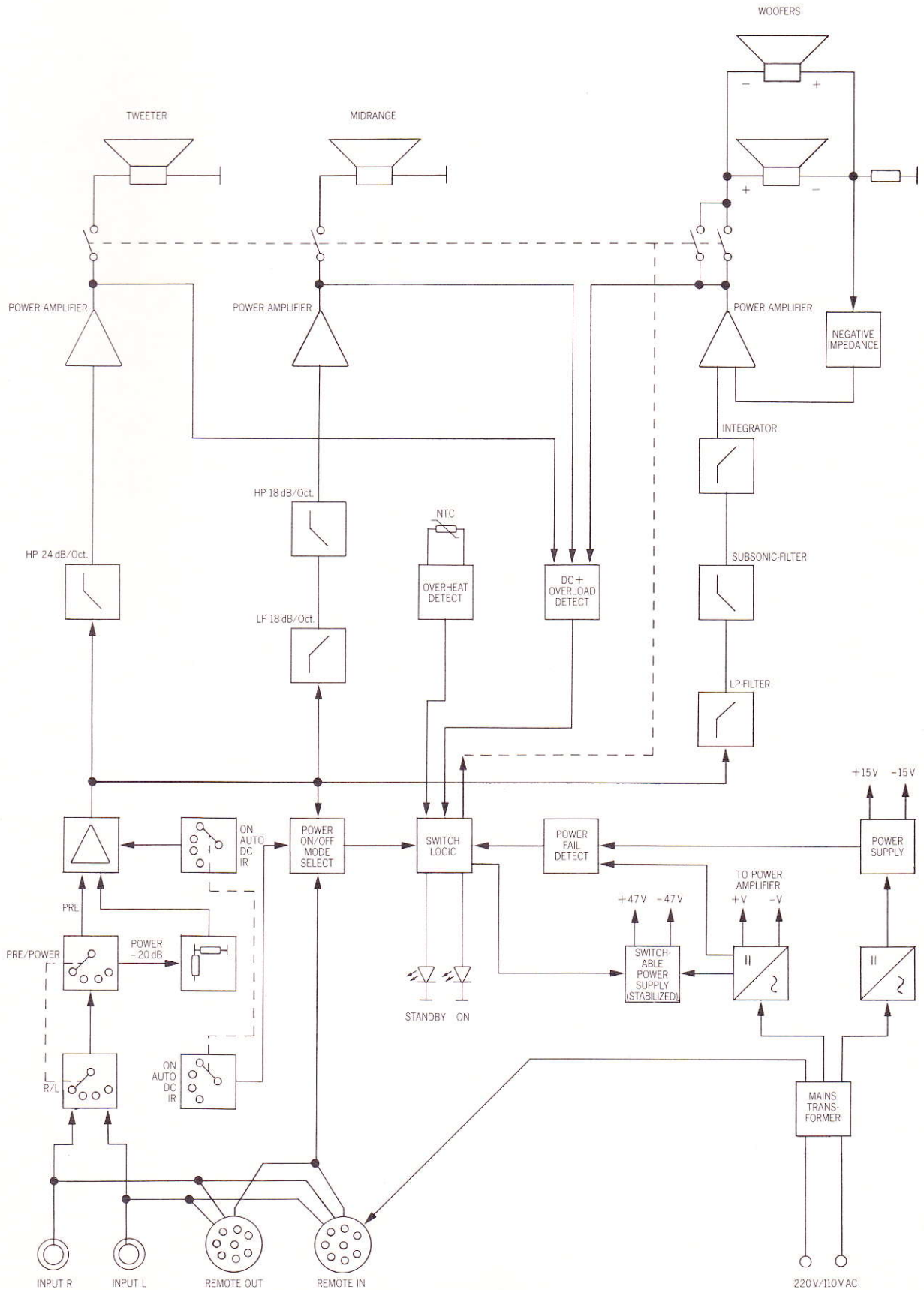
| General data | | |
|------------------------------|---|------------------|
| Power requirements | 220/110 V \pm 10% internally solder strappable 50 ... 60 Hz | |
| Power fuses | 220 V: | T 1.6 A slow |
| | 110 V: | T 3.15 A slow |
| Power consumption | - Standby mode | <7 W |
| | - Max. (100 dB SPL at 1 m) | 400 W |
| Operating environment | - Ambient temperature | + 10 ... + 40 °C |
| | - Relative humidity (DIN 40040) | Class F |
| Weight | 38.5 kg (AGORA B MKII) 43.5 kg (AGORA B SLIM LINE) | |
| Housing versions | Walnut dark, Ash black, Piano varnish black or white | |
| Dimensions (WxHxD) | 790x386x435 mm AGORA B MKII 1000x334x395 mm AGORA B SLIM LINE | |

Subject to change



SECTION 5

Block diagram



STUDER REVOX

Manufacturer

Willi Studer AG
CH-8105 Regensdorf/Switzerland
Althardstrasse 30

Studer Revox GmbH
D-7827 Löffingen/Germany
Talstrasse 7

Worldwide Distribution

Revox Ela AG
CH-8105 Regensdorf/Switzerland
Althardstrasse 146