



Amplifier

GTA 270 DSP

1 051 110 425



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 **BLAUPUNKT**

GTA 270 DSP

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ENGLISH

Warranty

We provide a manufacturer's warranty for products bought within the European Union. For devices purchased outside the European Union, the warranty terms issued by our respective responsible domestic agency are valid. The warranty terms can be called up from www.blaupunkt.com.

Recommendation

The performance of an amplifier can only be as good as its installation. A correct installation increases the overall performance of your car sound system. The GTA amplifier should be installed by a trained person. If you would to install it yourself, please read these installation instructions very carefully and allow yourself sufficient time for the installation.

In conclusion, allow us a few words about the topic of **health protection**:

During the playback of music in your vehicle, please consider that continuous sound-pressure levels above 100 dB can lead to permanent damages to the human ear and even to loss of hearing. Using today's high-performance systems and loudspeaker configurations allows for reaching sound-pressure levels above 130 dB.

Safety notes

Please observe the following safety notes during the installation and connection.

- Disconnect the negative pole of the battery! Observe the safety notes of the vehicle manufacturer.
- When you drill holes, ensure that you do not damage any vehicle components.
- The cross section of the plus and minus cable may not be less than 6 mm².
- Use cable glands for holes with sharp edges.
- An incorrect installation can result in malfunctions of the electronic vehicle systems or your car sound system.

Installation and connection instructions

With respect to accident safety, the GTA 270 DSP must be secured in a professional way.

When selecting the installation location, select a dry location that offers sufficient air circulation for cooling the amplifier.

The GTA 270 DSP must not be installed on rear shelves, rear seats or other locations that are open to the front.

The installation surface must be suitable to accept the accompanying screws and provide a firm support.

The amplifier power cable must be fitted with a fuse no more than 30 cm from the battery to protect the vehicle battery in case of a short circuit between power amplifier and battery. The fuse of the amplifier protects only the amplifier, not the vehicle battery.

Only loudspeakers with **2 - 4 Ω** impedance may be used (see table or installation drawings). Observe the maximum power handling capacity (music output). Do not connect loudspeakers to earth, use only the referenced terminals.

Audio inputs

The preamplifier outputs are connected to the cinch (RCA) sockets via a shielded audio line (see Fig. 3).

Plus / minus connection

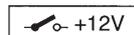
- We recommend a minimum cross section of 6 mm².
- Route commercially available plus cables to the battery and connect via fuse holder.
- Use cable glands for holes with sharp edges.
- Securely fasten commercially available minus cables to a noise-free earth point (chassis screw, chassis metal) (not to the minus pole of the battery).
- Scrap the contact surfaces of the earth point until they are bright and grease with graphite grease.

Integrate fuse (20 A)

The fuse integrated in the amplifier protects the output stage and the entire electrical system in case of a malfunction. If a replacement fuse is used, never bridge fuses or replace them with a type with higher current.

Connection examples

- Connection of the voltage supply.....Fig. 2
- Audio inputs.....Fig. 3
- Loudspeaker connections.....Fig. 4 - 8
- Remote control connection (optional equipment).....Fig. 9



Remote connection of the amplifier with switchable +12 V voltage source.

This allows the amplifier to be switched on and off using the on/off-switch of the car sound system.

Loudspeaker connections

(If the amplifier is to be jumpered, continue with the section "Bridged loudspeaker connections" at this point).

As with every audio component, the correct polarisation of amplifier and loudspeakers is of essentially importance for a good bass response. For this reason, ensure that the positive connection (+) of the amplifier is connected with the positive connection (+) of the loudspeaker; the same applies to the negative connections (-). In addition, the left amplifier channel must be connected with the left loudspeaker and the right amplifier channel with the right loudspeaker.

Bridged loudspeaker connections

The GTA amplifier can also be bridged for a mono configuration. This allows the amplifier to be used for one or several subwoofers or a mid-range driver. In this configuration, the amplifier combines the right and left channel to a single-channel output (mono output).

Note:

The amplifier can add the right and left signal information only if the right as well as the left cinch (RCA) connection were carried out.

Caution:

In a bridge circuit, the amplifier load must be 4 Ω or higher. A lower load leads to an overheating or switch-off of the amplifier and can cause permanent damages.

Subwoofer connection

The GTA 270 DSP features three different options of connecting a subwoofer:

- An **active subwoofer** or an **additional amplifier** are connected with a cinch (RCA) cable to the two SUBWOOFER OUTPUT sockets (see Fig. 7). The setting options of the integrated DSP (Digital Sound Processor) can be used in this case.
- A **passive subwoofer** is connected to the bridged loudspeaker output (see the section "Bridged loudspeaker connections"). To be able to use the setting options of the integrated DSP (Digital Sound Processor), the two INPUT sockets must additionally be connected with a commercially available cinch (RCA) cable with the two SUBWOOFER OUTPUT sockets (see Fig. 8).
- A **passive subwoofer** is connected to the bridged loudspeaker output (see the section "Bridged loudspeaker connections"). The setting options of the integrated DSP (Digital Sound Processor) cannot be used in this case.

DSP sound settings (FRONT)

A variety of options is available to optimise the sound of the connected loudspeakers:

- **GAIN control (FRONT)**
The GAIN control is used to adjust the input sensitivity of the power amplifier to the output voltage of your car sound system preamplifier output. The adjustment range is from 0.2 V to 5 V. If a car sound system of a third party manufacturer is connected, the input sensitivity must be adjusted corresponding to the manufacturer data.
A few important explanations in this context:
By turning the GAIN control clockwise, the input sensitivity of the amplifier and, therefore, also the volume increases. However, this is not a volume control. In the end position, it is not possible to achieve a higher amplifier output, even if it sounds like that at first. The system merely increases the volume faster if the volume control of the car sound system is turned up.
- **FULL/HI/LOW switch and X-OVER control (FRONT)**
For the GTA 270 DSP, the type of frequency crossover ("Low-Pass" or "High-Pass") and the desired cut-off frequency can be adjusted for the connected loudspeakers. Select the cut-off frequency up to which lower frequencies (high-pass) or higher frequencies (low-pass) should be blocked. Only frequencies above the cut-off frequency (high-pass) or below the cut-off frequency (low-pass) are passed on to the loudspeakers.
The cut-off frequency is dependent upon the frequency range of the loudspeakers (see recommended frequency range of the loudspeakers).

"High-Pass" (switch setting: HI)

With a setting of 80 Hz, the amplifier has a frequency range from 80 Hz to 30,000 Hz.

"Low-Pass" (switch setting: LOW)

This control is active if the switch is in the LOW position, and allows for setting the desired entry frequency.

Example:

At a setting of 80 Hz, the amplifier has a frequency range of 10 Hz to 80 Hz.

"Full Range" (switch setting: FULL)

In this switch setting, the frequency control is deactivated and the entire frequency spectrum is being amplified.

– SUBSONIC control (FRONT)

To avoid interferences from extremely low frequencies, you can use the subsonic filter to limit the low-frequency response of the device. The setting of the subsonic filter suppresses all frequencies below the defined frequency.

Example:

At a setting of 40 Hz, the frequency range from 0 Hz to 40 Hz is being suppressed.

DSP sound settings (SUBWOOFER)

The following options are available to optimise the sound for the use of a subwoofer:

– X-OVER control (SUBWOOFER)

For the GTA 270 DSP, the type of frequency crossover ("Low-Pass") can be adjusted. Select the cut-off frequency up to which higher frequencies should be blocked. Only frequencies that are below the cut-off frequency are passed on to the loudspeakers.

Example:

At a setting of 80 Hz, the amplifier has a frequency range of 10 Hz to 80 Hz.

– SUBSONIC control (SUBWOOFER)

To avoid interferences from extremely low frequencies, you can use the subsonic filter to limit the low-frequency response of the device. The setting of the subsonic filter suppresses all frequencies below the defined frequency.

Example:

At a setting of 40 Hz, the frequency range from 0 Hz to 40 Hz is being suppressed.

– PHASE control (SUBWOOFER)

This control allows the stepless change of the phase position of the subwoofer from 0° to 180°. It is used for the fine tuning with the other connected loudspeakers and if set correctly, it can prevent any possibly occurring mutual cancellation of low frequencies within the audio system.

FRONT COMPRESSOR and SUB COMPRESSOR switches

This function is used to protect the connected loudspeakers and subwoofer. If the switch is in the ON position, the output volume is reduced by 10 dB. The GTA 270 DSP features separate switches for the connected loudspeakers (FRONT COMPRESSOR) and subwoofer (SUB COMPRESSOR).

FRONT dB/Oct and SUBWOOFER dB/Oct switches

These switches are used to set the attenuation of the installed filter separately for the connected loudspeakers and subwoofer. A high value ensures a steep filter slope, which translates to a strict separation between blocked and forwarded frequencies. A low value ensures a soft separation, which translates to a gradual transition from blocked to forwarded frequencies. The settings 18, 24 or 48 dB per octave are available for attenuation.

Caution:

If the FRONT switch is set to FULL, the FRONT dB/Oct switch is without function.

GTA 270 DSP

Initial setup of the amplifier

We recommend the following sequence for the initial setup of the amplifier:

1. Settings for the connected loudspeakers
2. Settings for the connected subwoofer

You should always proceed in the same way, e.g. setting the treble first, then the bass.

Setting options on the remote control (optional equipment)

For the GTA 270 DSP amplifier, the GTA RC01 cable remote control (1 101 210 001 001) is available as an accessory. It can be used to perform the following settings:

– DELAY control

It allows setting a sound delay for the left loudspeaker. The control has 256 levels, each of the levels corresponds to a distance of 7 mm. The maximum adjustable value is approx. 1.8 metres.

– LEVEL control and BB/SHS switch

With these switches, you can individually adjust the value for the bass increase. Two different types are available. BB (Bass Boost): A value from 0 to 15 dB can be set at a frequency of 45 Hz.

SHS (Sub Harmonic Synthesizer): This setting is particularly suited for music with only minor bass portions.

Power-on indicator (PWR / PRO)

Green LED:

Output stage on, regular operating status.

Red LED:

Output stage is electronically switched off due to an error.

Technical data

Stereo mode Max power	2 x 140 W / 4 Ω	Fig. 4, 5
Mono mode Max power	1 x 420 W / 4 Ω	Fig. 6
Stereo mode Max power	2 x 200 W / 2 Ω	Fig. 4, 5
Stereo mode RMS power	2 x 70 W / 4 Ω	Fig. 4, 5
Mono mode RMS power	1 x 200 W / 4 Ω	Fig. 6
Stereo mode RMS power	2 x 100 W / 2 Ω	Fig. 4, 5
Frequency response	10 Hz - 30,000 Hz	
Signal-to-noise ratio	> 92 dB @ RMS power	
Signal-to-noise ratio	> 75 dB @ 1 w/ 1 kHz	
Distortion factor (RMS)	< 0.05 %	
Stability	2 Ω (4 Ω in bridge mode)	

Input sensitivity	0.2 V - 5 V
Low-pass filter (Low-Pass)	50 Hz - 5,000 Hz
High-pass filter (High-Pass)	50 Hz - 5,000 Hz
Subsonic filter	0 Hz - 80 Hz
Compressor limiter	10 dB
Dimensions W x H x D (mm) W x H x D (")	263 x 54 x 198 10.4 x 2.1 x 7.8

Recycling and disposal



Please use the return and collection systems available to dispose of the product.

Subject to changes.

FRANÇAIS

Garantie

Notre garantie constructeur s'étend à tous nos produits achetés au sein de l'Union Européenne. Pour les appareils vendus en dehors de l'Union européenne, les conditions de garantie applicables sont celles définies par notre représentant agréé dans le pays. Les conditions de garantie sont disponibles sur le site www.blaupunkt.com.

Recommandation

Les performances d'un amplificateur ne seront jamais meilleures que son installation ne le permet. Une installation correcte augmente les performances d'ensemble de votre système audio. Vous devriez confier le montage de l'amplificateur GTA à un spécialiste. Si vous souhaitez cependant effectuer vous-même ce travail, lisez soigneusement la présente Notice de montage et accordez-vous suffisamment de temps pour le montage.

Permettez-nous enfin de vous dire quelques mots sur la **protection en matière de santé** :

N'oubliez pas que lorsque vous écoutez de la musique dans votre véhicule, un niveau de pression sonore permanent supérieure à 100 dB peut entraîner des dommages irréversibles au niveau de l'ouïe, voire une perte complète de celle-ci. Les systèmes haute puissance modernes et les configurations établies avec des haut-parleurs de haute qualité permettent d'atteindre des niveaux de pression sonore supérieurs à 130 dB.

GTA 270 DSP

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Fig. 1

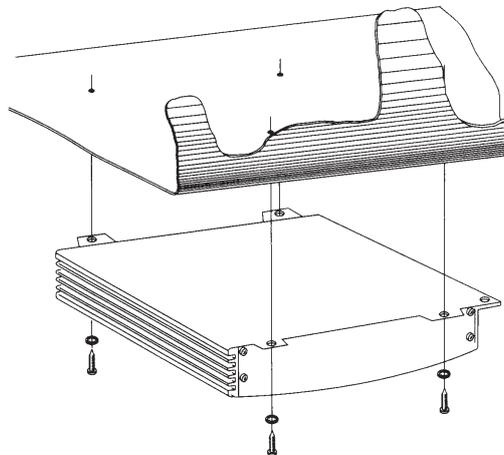


Fig. 2

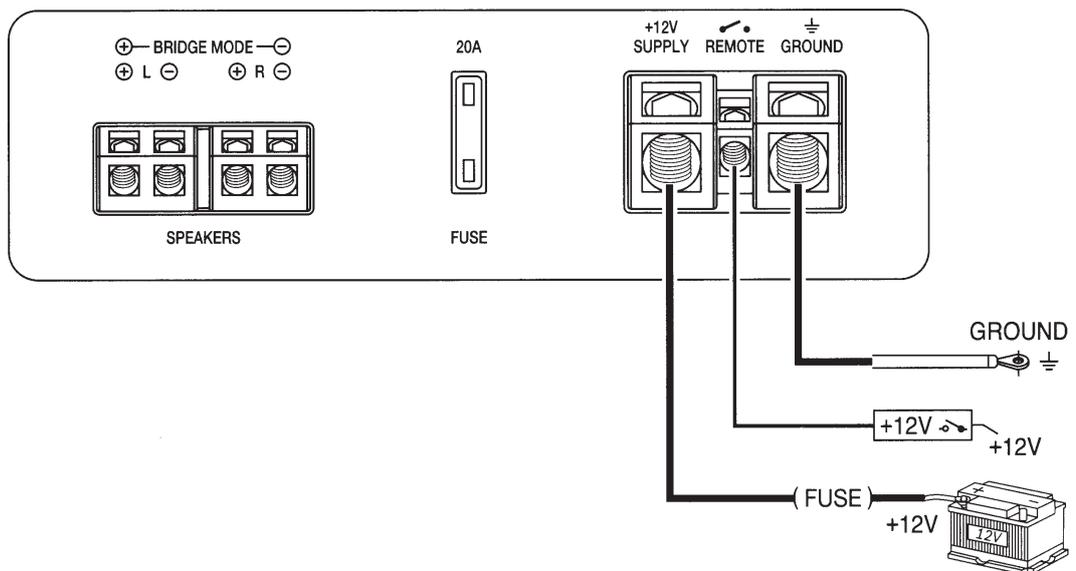
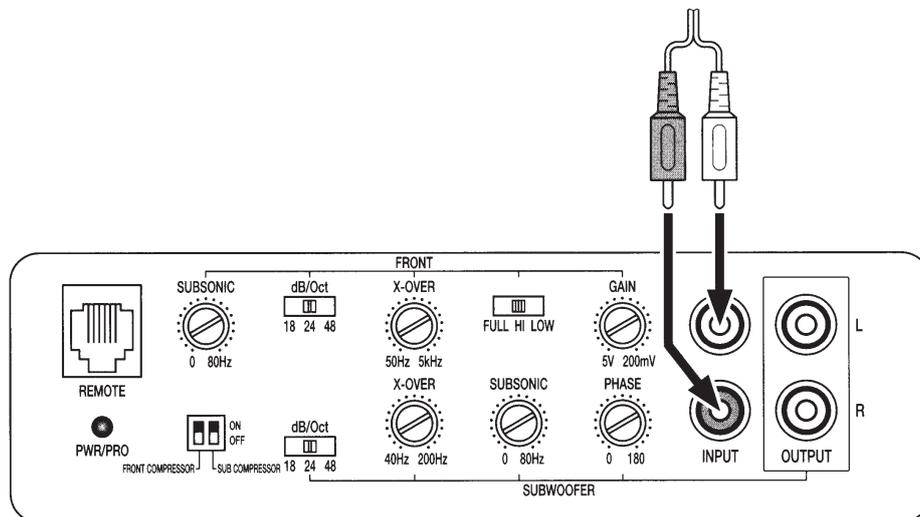


Fig. 3



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Fig. 4

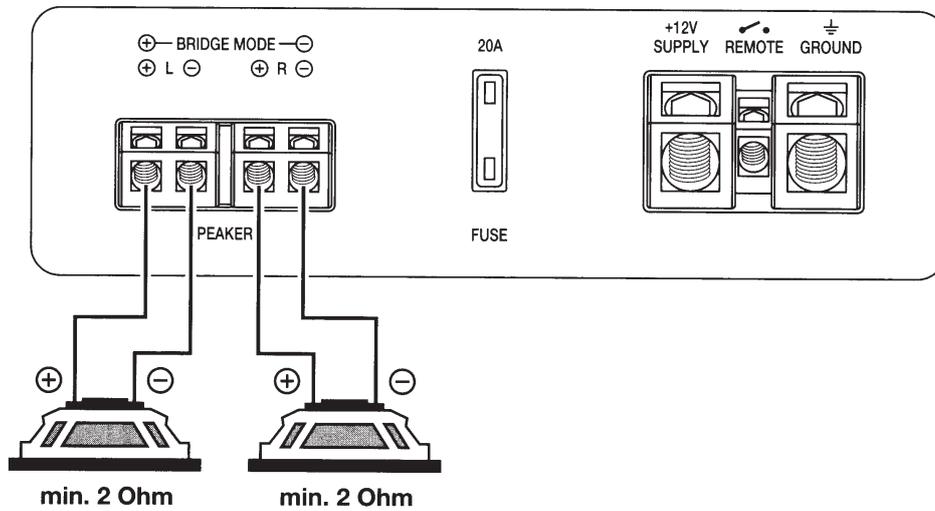


Fig. 5

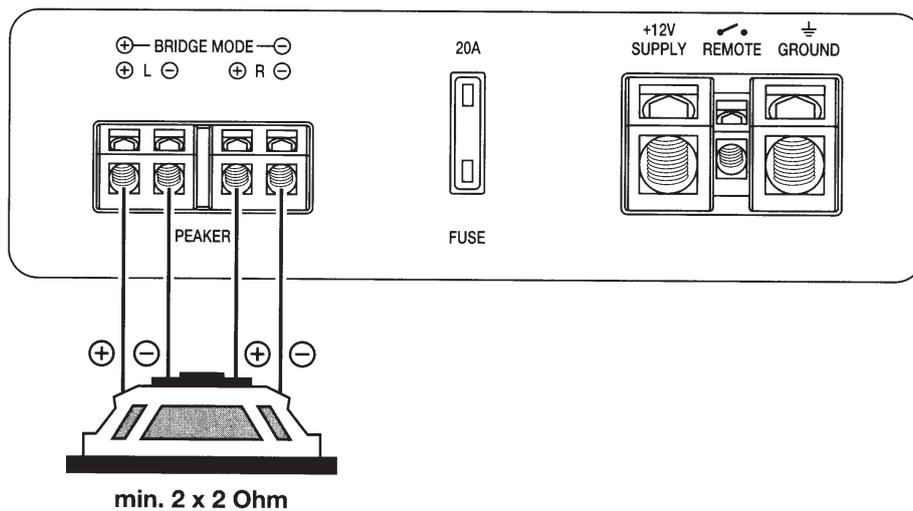
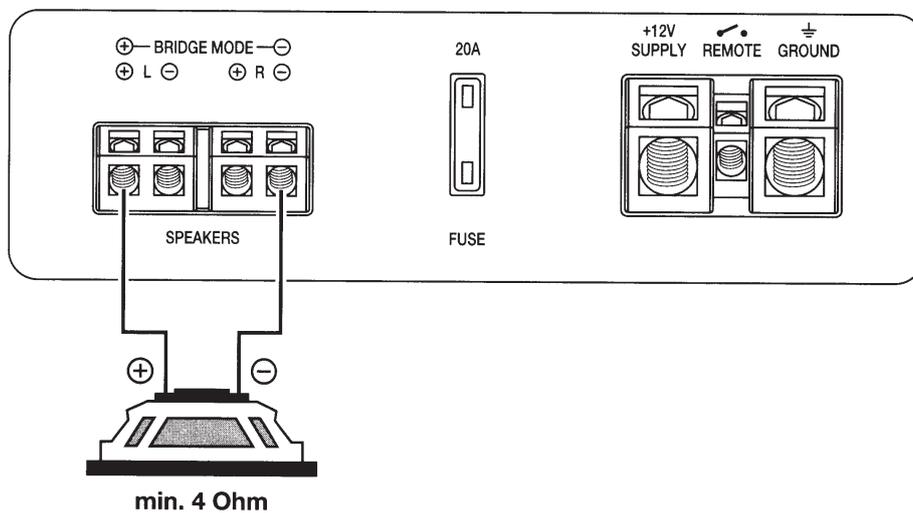


Fig. 6



GTA 270 DSP

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Fig. 7

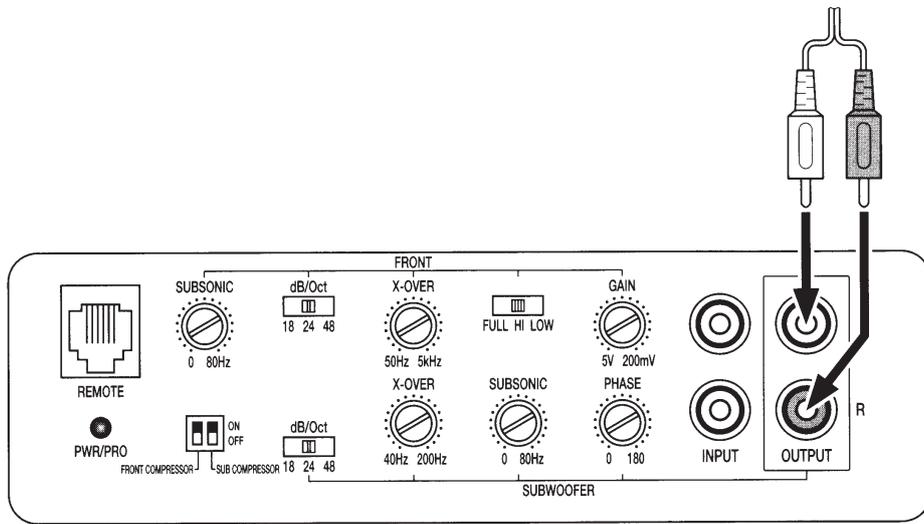
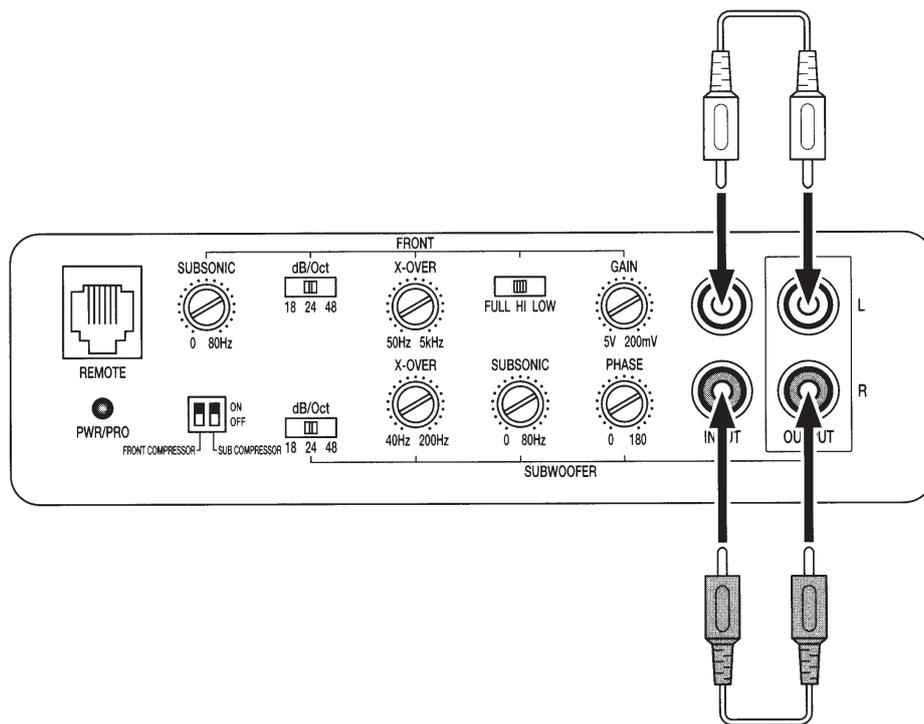
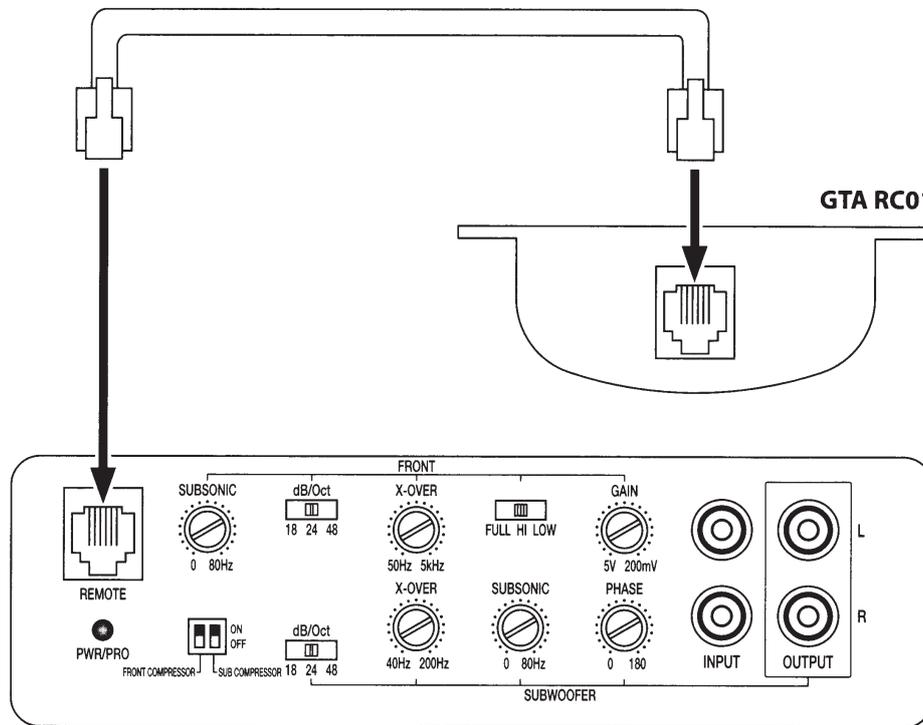


Fig. 8



Anschluss • Connection • Raccordement • Conexión • Ligação • Collegamento • Podłączenie • Připojení • Подключение • Racordare • Свързване • Priključak • Priklop

Fig. 9



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