

Limited Warranty

Knöll Systems warrants 4K or 6K amplifiers sold in the USA or Canada by authorized Knöll dealers to be free from defects in materials and workmanship. This warranty extends for three full years from the date of purchase by the consumer. Any products returned freight prepaid to Knöll Systems and found to be defective by Knöll Systems within the warranty period will be repaired or replaced at Knöll Systems option, at no charge. Knöll Systems will not be responsible for the actual cost of installation or removal of the product, nor for any consequential or incidental damages. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights. You may have additional rights which vary from state to state. Knöll products sold outside of the USA and Canada may be covered by warranties provided by an authorized Knöll distributor. Please contact the distributor in the country that the Knöll product was purchased.

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4K
8 Channel
(Four Stereo)
Power Amplifier

6K
12 Channel
(Six Stereo)
Power Amplifier

Installation and Operation Manual

Version 1.1

Congratulations and thank you for choosing a Knöll power amplifier. The 4K and 6K are very similar. The 4K includes four stereo amplifiers each rated at 50 watts per channel (8 ohms). The 6K includes six stereo amplifiers each rated at 50 watts per channel (8 ohms).

Key Features:

- 1. **Legendary reliability.** The 4K and 6K include electronic circuits and designs to effortlessly amplify for years. Knöll is well known in the multi-channel amplifier industry as the reliability leader.
- 2. **Automatic protection circuitry.** Each amplifier channel is individually and fully protected against low impedance, overheating, overloading, overvoltage and undervoltage. The protection circuitry automatically restores the amplifier channel as soon as its parameter returns to the safe operating area.
- 3. **Individual input gain adjustment.** Each channel features an input gain adjustment pot to adjust each channel for gain and speaker sensitivity variations.
- 4. **External power on/off.** The amplifier can be turned off and on by external controllers. To activate external power on, apply a 12VDC current to the trigger jack (the amplifier power switch is in the off position for external power control).
- 5. **Stackable 17" chassis.** Optional rack mount version fits in a standard 19" EIA rack.
- 6. **Link Feature.** Certain installations require that some or all of the stereo channels play the same content. Instead of using Y cords, "link" cascades any or all of channels 2-4 (4K) 2-6 (6K) to channel 1 (l/r).
- 7. **Cooling fan.** The 4K and 6K feature a thermostatically controlled internal fan to help to avoid early protection system distortion as well as reduce noise and energy consumption.

Troubleshooting

If a problem is encountered with the 4K or 6K amplifier, the most expedient procedure is to locate the problem and if possible repair it before requesting service. Be sure to carefully check other system components such as controllers, CD players, volume controls, wiring, speakers, etc. that may be at fault.

Problem	Action
Power led does not light - no sound	<ul style="list-style-type: none">1. Check that the 4K or 6K is plugged in.2. Test the AC outlet with a lamp.3. If remote on/off is used, check that the trigger voltage is at 12 VDC.4. Check 4K or 6K power button on (in).
Sound cuts out	<ul style="list-style-type: none">1. Verify speaker impedance is 4-16 ohms. Changing speakers may be required.2. Check if the amp feels hot. If it's hot increase cooling - see Installation.
Sound is distorted	<ul style="list-style-type: none">1. Turn the volume down2. Check speakers for damage.3. Check inputs for proper levels. 4K or 6K gain and source output level may have to be adjusted.4. Speakers may be less than 4 ohms.
4K or 6K does not turn off	<ul style="list-style-type: none">1. Turn 4K or 6K power switch off (out)2. If trigger is being used, power switch needs to be set to off (out) position or amp is on all the time.3. Try disconnecting trigger jack..
Trigger does not work	<ul style="list-style-type: none">1. Measure trigger voltage with a volt meter. It needs to be 11-15 volts DC to work (current is 35mA per 4K or 6K). See page 6 #10.
Speaker pops when amp turned on or off	<ul style="list-style-type: none">1. Speaker may need resistor placed across terminal. Suggest 2k0 1/4 w. Discharges speaker internal cap.

installation continued...

9. Make sure the speakers in each room are connected in phase with the amplifier + going to the speaker + . Out of phase speakers give unstable imaging and poor bass response.
10. Connect trigger if being used to a 12VDC source (about 35mA) using a 3.5mm mono jack. 5VDC triggers will not work.
11. Connect the AC power into an outlet than can supply at least six amps (750 watts) dedicated to each 4K or 6K.

4K and 6K Power Amplifier Specifications

Inputs:	Gold RCA style with adjustable gain
Input impedance:	50 k ohms
Outputs:	Gold 5 way Binding posts
Output power:	50 watts RMS per channel (8 ohms)
Peak output power:	100 watts RMS per channel (8 ohms)
I deal impedance:	6-8 ohms
Freq. response:	10 Hz - 40 kHz +/- 1 dB (1w)
S/N ratio:	over 105 dB A weighted 50 watts
THD distortion:	<0.1% 20 Hz to 20 kHz
IMD distortion	<0.01% 60 Hz 7 kHz 4:1 (SMPTE)
Trigger control:	12VDC 35 mA on 3.5mm input jack.
Power:	750 watts (6B) 550 watts (4K)
Dimensions:	17" x 3.5" x 10.5"
Weight:	4K 19 lbs (8.7 kg); 6K 21 lbs (9.6 kg)

Caution: Never listen to sound that is distorted. If distorted sound is heard, turn the volume down immediately or speaker and/or amplifier damage could occur that is not covered by the warranty. If this problem persists, contact your dealer.

User Adjustments and Service: There are no user adjustments on the 4K or 6K. Your installer may make certain gain level adjustments on the rear panel.

Caution: The 4K or 6K contains no user serviceable parts, so do not attempt to open or repair the 4K or 6K. Refer servicing to a qualified technician only or contact the factory for information.

Installation

Installing the amplifier should be relatively easy. With a bit of planning, this amplifier will give trouble free service for years.

1. **The most important consideration when installing the 4K and/or 6K is cooling.** This amplifier has a lot of power packed into a small chassis size. When installing it in an equipment stack, it should be the top component. It needs at least 3"-5" of space above the amplifier to allow for adequate convection cooling.
2. When installing the 4K and/or 6K in a rack we suggest adding a 3-1/2" blank above and below the amplifier. In multiple 4k and 6K installations, plan for a 3-1/2" blank (double) between each amplifier and a 3-1/2" blank on the top and bottom. Amplifiers should always be the top components in a rack system.
3. The 4K and 6K are available as an optional 19" EIA rack mount style.
4. Never operate a 4K or 6K in its side, as the cooling potential drops significantly when operated on the side.
5. Connect the 4K or 6K RCA inputs to the source component outputs with good quality, short as possible RCA jack cables. Connect each channel individually.
6. Connect the 4K or 6K speaker outputs to speakers using good quality speaker wire. Minimum 16 gauge copper wire is recommended with 14 gauge minimum for runs over 30' (10m). Fire rated wire may be required if installing wires inside walls ceilings or floors.

Note: Ideally the 4K and 6K amplifier likes 6-8 ohm loads. Connecting to 4 ohm loads won't hurt the amplifier but those channels connected to 4 ohm loads may occasionally shut down due to overloading. Never connect any 4K or 6K amplifier to less than 4 ohms.

8. Individually adjust the channel gains as required. Ideally, all gains are fully on (fully clockwise).

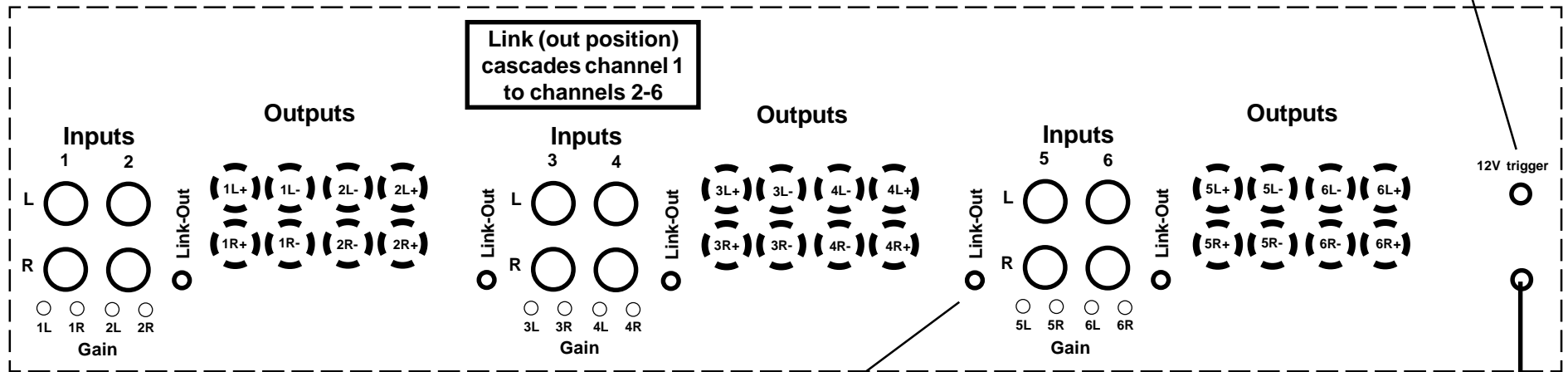
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6K Rear Panel

Trigger is 12 VDC (35mA per 4K and/or 6K) via 3.5mm mono jack.
5 VDC trigger outputs will not work.

To connect the trigger to a receiver switched outlet use a 12 VDC power supply (we suggest Knöll PS1202 power supply). Plug the power supply into the switched outlet on the rear of the receiver. Connect the 12 volt wire to a 3.5mm mono jack. Plug the jack into the rear of the 4K or 6K. 12 VDC polarity is not important.

When the receiver is switched on, the 4K and/or 6K amplifier is switched on.



Note 1: Ideal speaker impedance is 6-8 ohms.

Caution: NEVER connect the 4K or 6K to impedances less than 4 ohms or amplifier damage not covered by the warranty may occur.

The Link button is normally set to the in position to give all six stereo inputs individual sources. When the Link button is set to the out position, that input Left/Right is linked or cascaded to input #1 (without the use of Y cords). Any or all combination of linked inputs 2 to inputs 6 are possible. When all inputs are linked to input 1 the input impedance is about 8500 ohms.

Note: When linked unused RCA inputs can be used as outputs to other amplifiers

