

NAD 9002

- **OWNER'S MANUAL**
- **MANUEL D'INSTALLATION**
- **BEDIENUNGSANLEITUNG**
- **MANUAL DEL USUARIO**

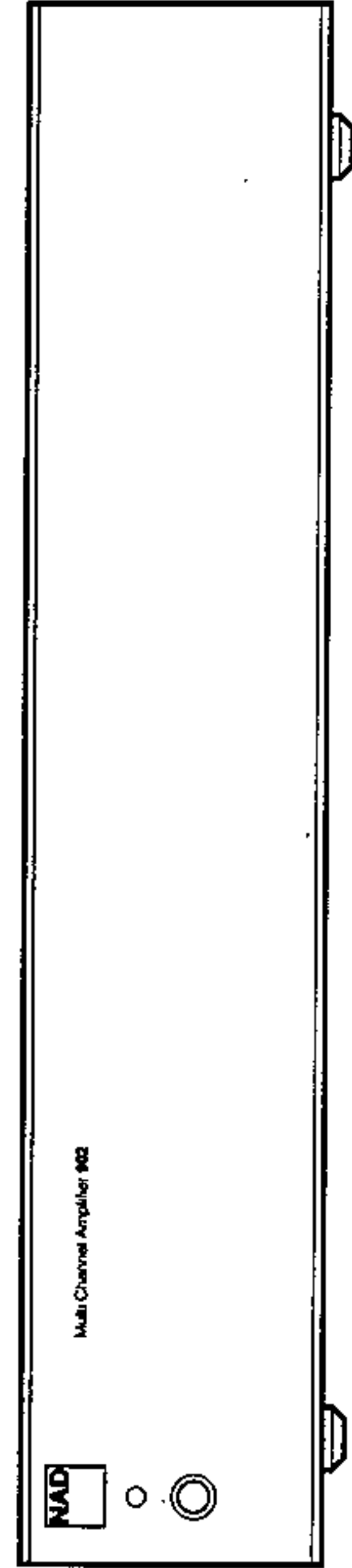


DIAGRAM 1 - REMOTE / REAR SPEAKER CONNECTIONS

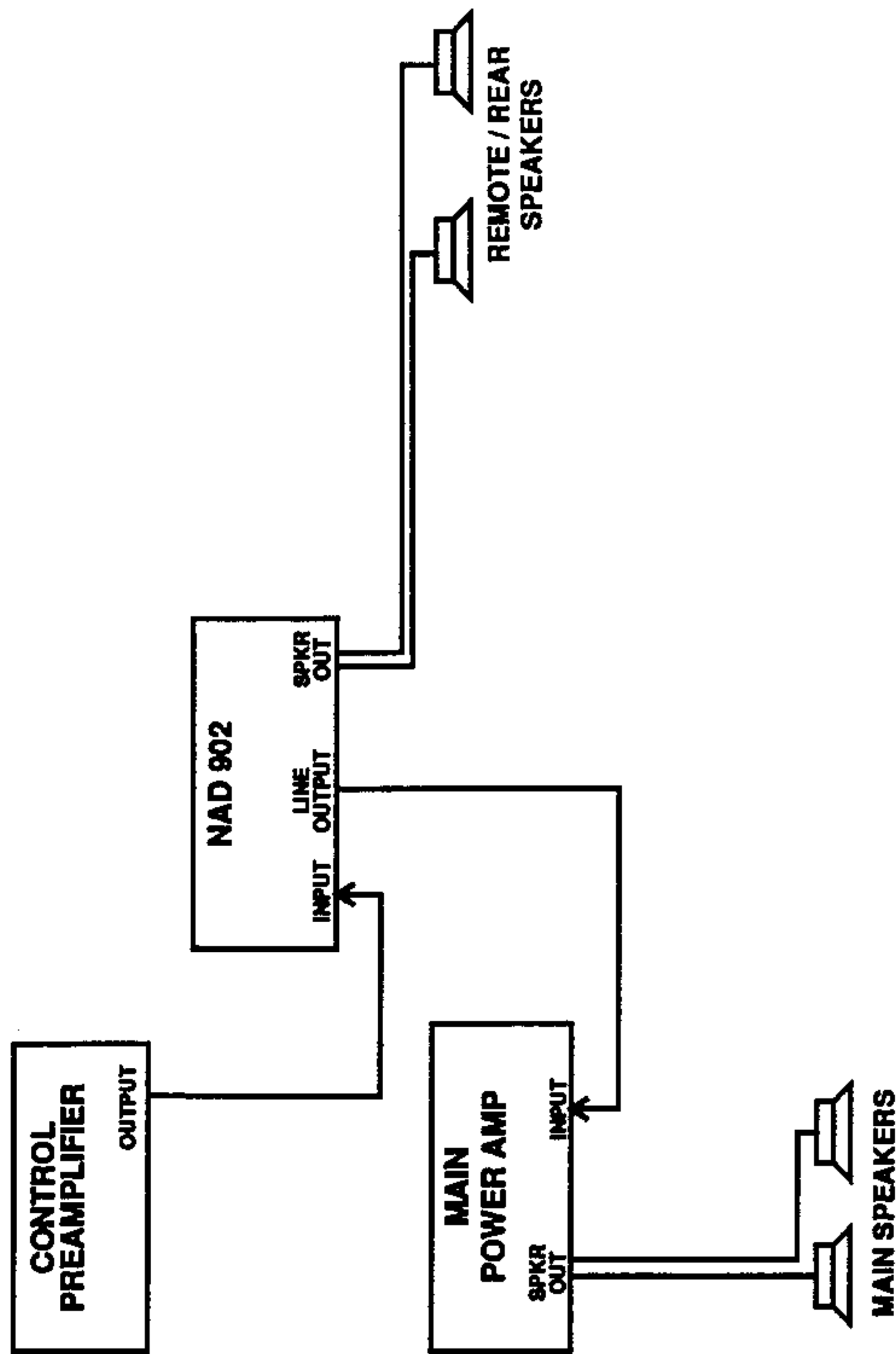
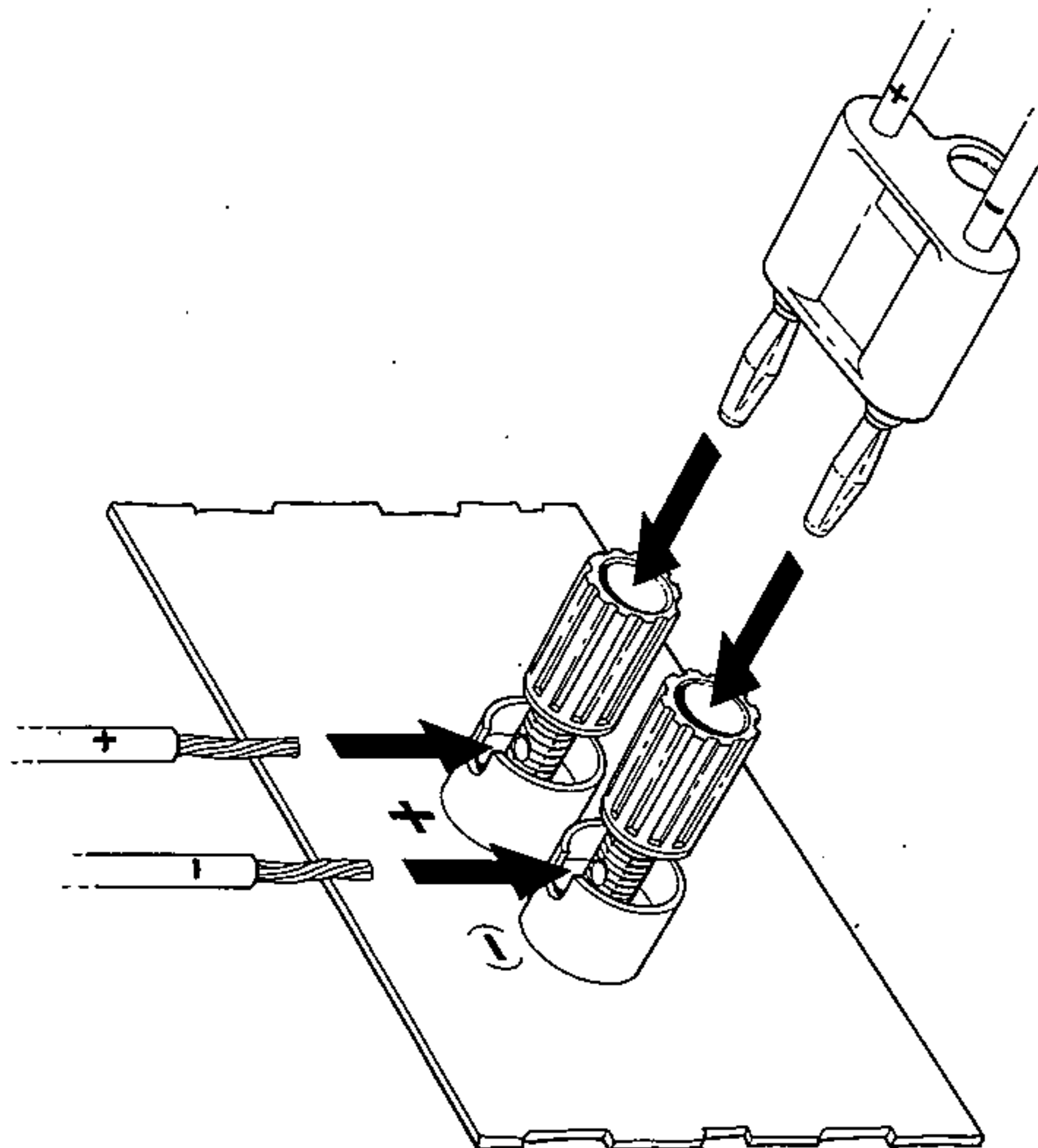


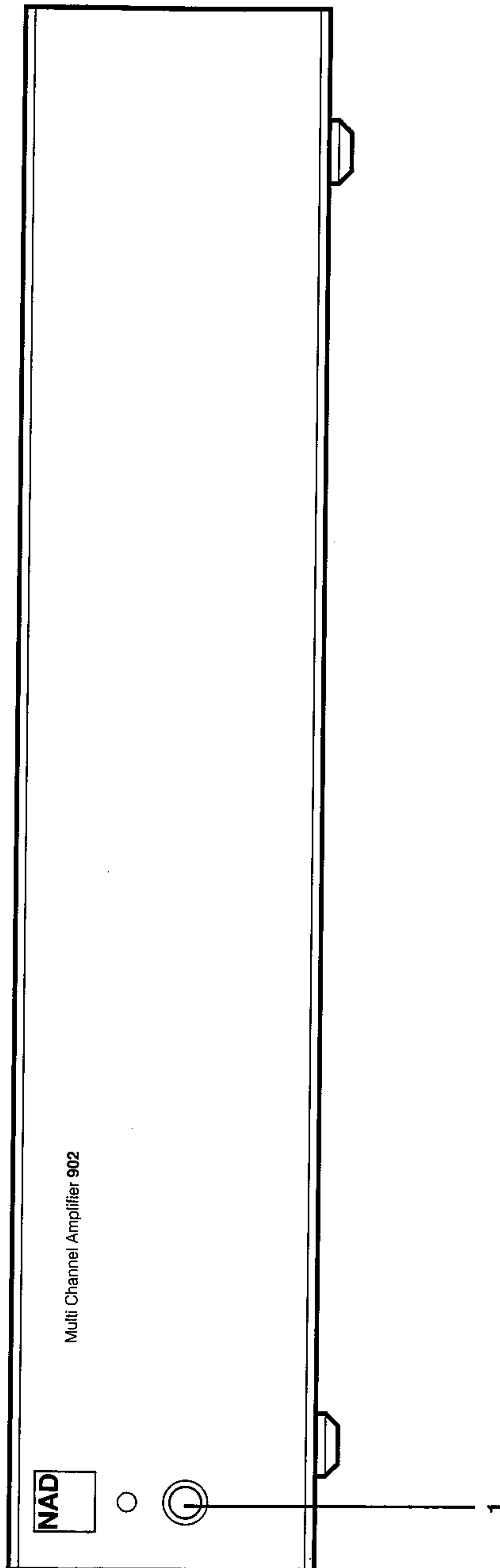
FIGURE 1 - SPEAKER CONNECTIONS



SPECIFICATIONS - NAD 902 MULTI-CHANNEL AMPLIFIER

Stereo Mode	30 W (14.8 dBW)
CONTINUOUS AVERAGE POWER OUTPUT INTO 8 OHMS (Min. power per channel, 20 Hz - 20 kHz, both channels driven, with no more than rated distortion)	
Rated distortion (THD 20 Hz - 20 kHz)	0.05%
Clipping Power (maximum continuous power per channel)	38 W
IHF dynamic headroom at 8 ohms	+2 dB
IHF dynamic power (maximum short term power per channel)	48 W (16.8 dBW)
8 ohms:	65 W (18.0 dBW)
4 ohms:	85 W (19.3 dBW)
2 ohms:	R = 10 kΩ
	C = 470 pF
	1 V
	x15.5 (23.8 dB)
	2 Hz to 100 kHz
	+0, -3 dB
	95 dB ref. 1 W
	<0.05%
Input impedance	
Input sensitivity (for rated power into 8 ohms)	
Voltage gain	
Frequency response	
Signal/Noise ratio, A-weighted	
THD	
(Total Harmonic Distortion, 20 Hz - 20 kHz, from 250 mW to rated output)	<0.05%
SMPTE I.M.	
(Intermodulation distortion, 60 Hz + 7 kHz, 4:1 from 250 mW to rated output)	<0.05%
IHF I.M.	
(CCIF IM distortion, 19 + 20 kHz at rated output)	
Bridged (Monophonic) Mode	
CONTINUOUS AVERAGE POWER OUTPUT INTO 8 OHMS (Min. power per channel, 20 Hz-20 kHz, both channels driven, with no more distortion than rated distortion)	90 W
IHF dynamic headroom at 8 ohms	+2 dB
IHF dynamic power (maximum short term power per channel)	140 W (21.5 dBW)
8 ohms:	170 W (22.3 dBW)
4 ohms:	

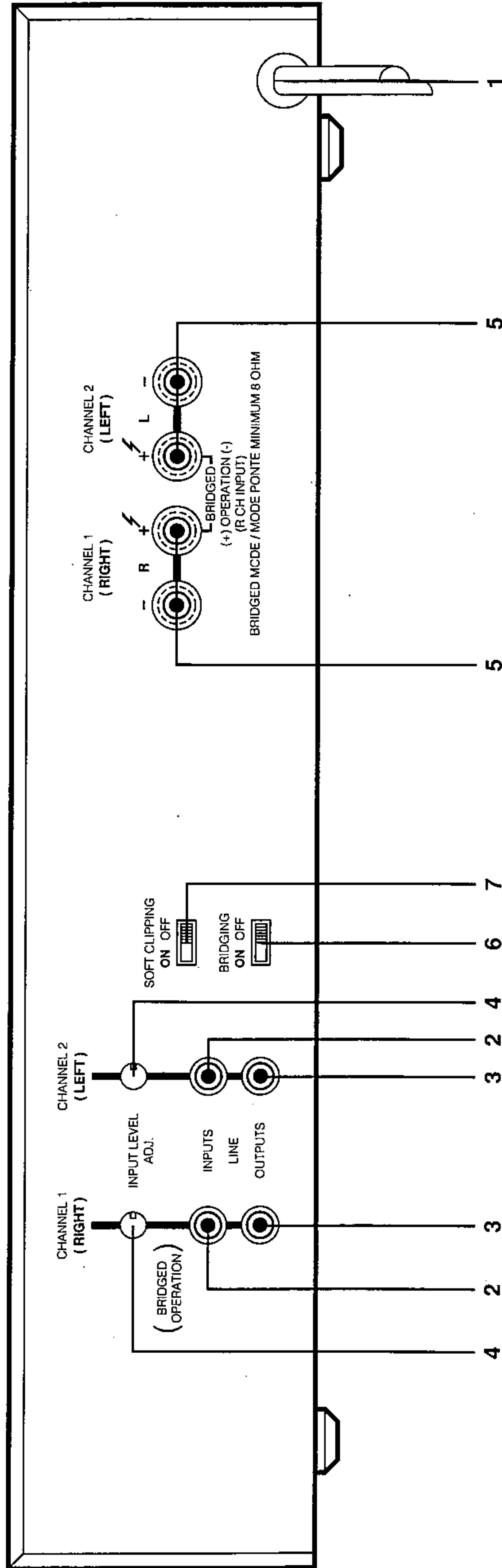
FRONT PANEL



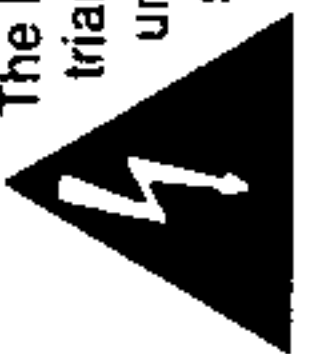
NAD 902

REAR PANEL CONNECTIONS

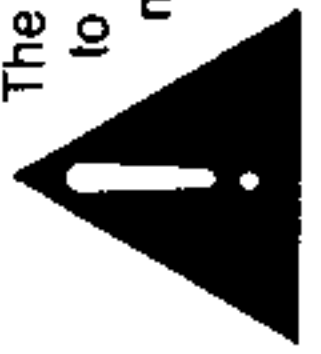
WARNING: TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.



The lightning flash with arrowhead, within an equilateral triangle, is intended to alert the user of the presence of uninsulated "dangerous voltage" within the product's enclosure; that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



5. SPEAKER CONNECTIONS

This amplifier is equipped with special high-current binding-post speaker terminals to handle the highest peak power levels that may occur in the "bridged" mode or with low-impedance loudspeakers. Connect the loudspeakers with heavy-duty (16-gauge or thicker) stranded wire.

Connections may be made in either of two ways. (See Figure 2.)

(1) Strip off a half-inch (1 cm) of insulation from each speaker wire. In each conductor, twist the thin strands of wire together. Unscrew the knob, insert the bare wire into the opening at the base of the binding post, and tighten the knob until it grasps the wire securely. Check to be sure that no loose strand of wire is touching the chassis or an adjacent terminal.

Or (2) Install banana plugs on your speaker wires, and plug them into the end of each binding post. The terminals are separated by 3/4 inch (19mm), so they will accept dual-banana plugs.

Connect the wires from the left-channel speaker to the CH 1 '+' and CH 1 '-' terminals and the wires from the right-channel speaker to the CH 2 '+' and CH 2 '-' terminals

NOTE — Stereo speakers must operate in phase with each other in order to produce a focused stereo image and to reinforce rather than cancel each other's output at low frequencies. When connecting speakers, take care that the red (positive) terminal on each loudspeaker is connected to the corresponding red (positive) terminal on the amplifier.

6. BRIDGING

The two amplifiers within the Model 902 can be "bridged" to form a single amplifier of about three times the power per channel.

To convert to bridged operation:

- (1) Switch the POWER off.
- (2) Disconnect any input and output cables.
- (3) Set the bridging switch to ON.
- (4) Select the cable from the speaker that is to be driven by the 902. Connect its "positive" conductor to the CH 1 '+' terminal and its "negative" conductor to the CH 2 '+' terminal (i.e. to the two red terminals). **DO NOT** connect any wires to the black terminals (CH 1 '-' and CH 2 '-').

CAUTION: In the bridged mode, wires must be connected directly from the amplifier to the speakers, not to a speaker switch, a headphone adapter, or any other device that shares a common ground between channels.

- (5) Connect the signal lead from the source chosen to be amplified by the bridging amplifier to the input socket of the CH 1 amplifier
- (6) Turn the POWER on.

NOTE — If you are using two pairs of speakers on one channel, or if you are in the bridged mode, we recommend that the speakers have a nominal impedance of 8Ω or more.

7. SOFT CLIPPING

When an amplifier is driven beyond its specified power output it normally produces "hard clipping" of the signal with harsh distortion and power-supply buzz as the output transistors saturate. The NAD SOFT CLIPPING circuit gently limits the output waveform and minimizes audible distortion when the amplifier is overdriven. We recommend that it be switched ON when playing music at levels that might exceed the amplifier's power capacity.

FRONT PANEL

1. POWER

Press this button to switch the amplifier on or off.

NAD 902 MULTI-CHANNEL POWER AMPLIFIER

A NOTE ON INSTALLATION

This unit may be installed on any sturdy, level surface. Since its power transformer generates a magnetic hum field of moderate strength, a turntable (especially one with a moving-coil pickup cartridge) should not be located near the amplifier.

The amplifier requires ventilation. Do not obstruct the air outlet grilles on the top or bottom covers, and do not place the amplifier on a rug or other soft surface.

REAR PANEL CONNECTIONS

1. AC LINE CORD

Plug the AC line cord into a nearby wall outlet that provides the correct AC power line voltage, or into a switched convenience outlet on your preamp.

2. INPUTS

The 902 has both inputs and outputs. Before making connections to the amplifier, make sure the POWER is switched OFF.

Connect the signal cable from the preamplifier, surround decoder or other signal source to the inputs. If you want to use the 902 as a single 90-watt amplifier instead of a stereo 30 W/ch amp, see BRIDGING (#6).

3. LINE OUTPUTS

Each input has an accompanying line output which will pass the signal on to another amplifier input or other line-level device. The line outputs are buffered, so that a low impedance or short circuit placed across it will not affect the signal at the input. If the 902 is being used to amplify a remote pair of speakers, connect the system's preamplifier to the 902's inputs, then run a pair of cables from the 902's outputs to the inputs of the main stereo amplifier. (See Diagram 1.)

4. INPUT LEVEL

The amplifier is equipped with separate input level controls for each channel. Before turning on the 902 for the first time, make sure all level controls are in their normal full-clockwise position. Under some circumstances, other settings may be useful for:

(1) Level-matching. In a surround-sound or other multi-amplifier system, reduce some of the controls as necessary to balance the system with speakers of varying sensitivities.

(2) Extended volume-control range. Many stereo

systems have so much voltage gain that the speakers (or your ears) are over-driven at any volume-control setting higher than 11 or 12 o'clock. As a result you are confined to using only the lower half of the volume control's range, where adjustments are imprecise and where channel-balance errors tend to be greater. If all input-level controls are reduced, you can turn up your preamplifier's volume control, making effective use of most of its range. (Suggestion: adjust the input level controls so that your preferred maximum sound levels usually occur at about 2 or 3 o'clock on the volume control.)

As an added benefit, this procedure suppresses any noise produced by the preamp's high-level circuitry (e.g. any residual hum or hiss that does not go away when the Volume is turned down).

(3) Balance correction. Small errors in channel balance can dramatically degrade the apparent "depth" and "air" of the stereo image. Such balance errors may be due to normal production-line differences in speaker sensitivity, differences in the acoustic environment around the two speakers, and slightly different distances from your chair to each speaker. You can use the input-level controls to correct these fixed balance errors, freeing your preamplifier's balance control to correct balance errors in recordings.

Switch the preamp to mono and sit in your normal listening location. Ideally the "phantom" central image should seem to be floating in mid-air midway between the left and right speakers. If it is located off-center, closer to one speaker, turn down the input-level control for that channel slightly in order to re-center the phantom mono image. Then restore the preamp to normal stereo operation.

CAUTION: TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARISED) PLUG WITH AN EXTENSION CORD RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

ATTENTION: POUR PREVENIR LES CHOCS ELECTRIQUES NE PAS UTILISER CETTE FICHE POLARISEE AVEC UN PROLONGATEUR, UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SI LES LAMES PEUVENT ETRE INSEREES A FOND SANS EN LAISSER AUCUNE PARTIE FOND SANS EN LAISSER AUCUNE PARTIE A DECOUVERT.

NOTE: Some NAD products are equipped with dual or multi-voltage transformers (which is indicated on the back panel). If you wish to change the voltage, please bring your unit to an authorised NAD service technician for internal conversion.

ATTENTION: Quelques pièces NAD sont munies de transformateurs à double ou à multi-voltage (indiqué au panneau arrière). Si vous voulez changer le voltage, veuillez apporter votre appareil au fournisseur de NAD pour le transformer.

NOTA: Ciertos componentes de NAD están dotados de transformadores de doble tensión o de varias tensiones (lo que se indica en el panel posterior). Si se desea cambiar la tensión, sírvanse llevar el aparato a un técnico autorizado por NAD para su conversión interna.

NOTE to CATV systems Installer: This reminder is provided to call the CATV system installer's attention to Article 820-22 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

NAD ELECTRONICS
LONDON