

# OPERATIONS MANUAL

Bedienungsanleitung

Manual de funcionamiento

Manual de fonctionnement

Manual del utente



## **PA-701**

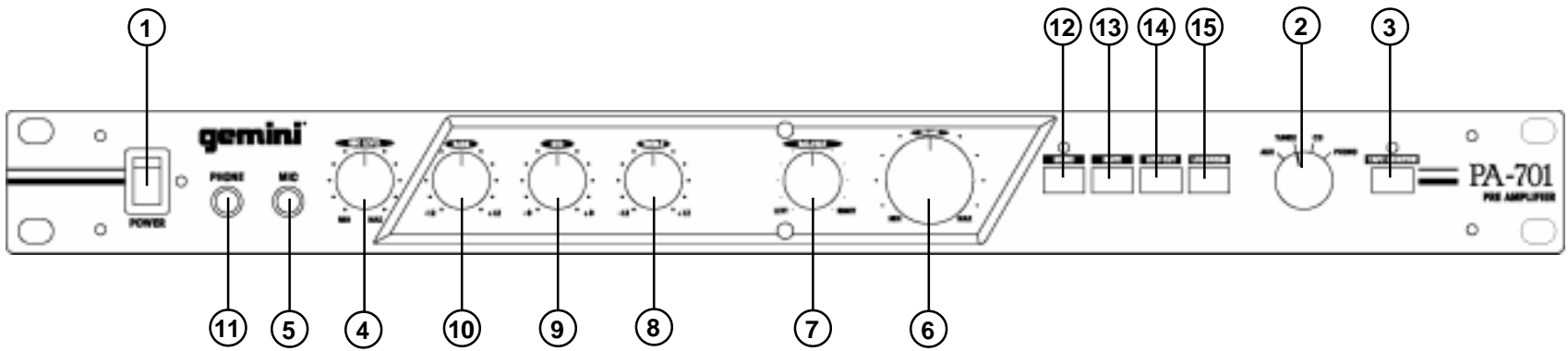
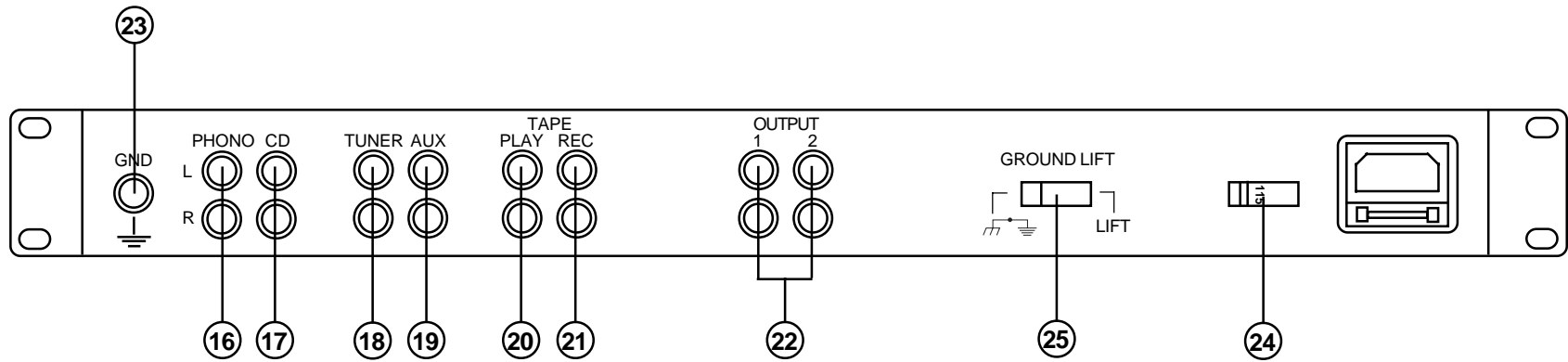
### **PREAMPLIFIER**

VORVERSTÄRKER

PREAMPLIFICADOR

PRÉAMPLIFICATEUR

PREAMPLIFICATORE



## INTRODUCTION

Congratulations on purchasing a Gemini model PA-701 rack mountable preamplifier. This state of the art unit includes the latest features backed by a three year warranty. Prior to use, we suggest that you carefully read all the instructions.

## CAUTIONS

1. All operating instructions should be read before using this equipment.
2. To reduce the risk of electrical shock, do not open the unit. There are **NO USER REPLACEABLE PARTS INSIDE**. Please refer servicing to a qualified service technician.
3. Do not expose this unit to direct sunlight or to a heat source such as a radiator or stove.
4. This unit should be cleaned only with a damp cloth. Avoid solvents or other cleaning detergents.
5. When moving this equipment, it should be placed in its original carton and packaging. This will reduce the risk of damage during transit.
6. **DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.**
7. **DO NOT USE ANY SPRAY CLEANER OR LUBRICANT ON ANY CONTROLS OR SWITCHES.**

## CONNECTION

1. Be sure the **POWER (1)** switch is in the OFF position. All connections must be made with all equipment OFF.
2. For best sound, use only high quality RCA cables when hooking up equipment to the PA-701. Make sure that all cables are pushed in securely.
3. Connect the **OUTPUT LINE (22)** jacks of the PA-701 to your amplifier(s).
4. Plug your microphone into the **MIC (5)** jack on the front panel of the PA-700.
5. Plug your headphone into the **PHONE (11)** jack on the front panel.
6. Plug your turntable into the **PHONO (16)** jacks and attach the ground wire from the turntable to the **GND (23)** screw.
7. Plug your CD player into the **CD (17)** jacks.
8. Plug your tuner into the **TUNER (18)** jacks.
9. Any other line level output device (such as a mixer) may be connected to the **AUX (19)** jacks.
10. You will require two sets of RCA cables to connect your tape deck to the PA-701. Use one set of RCA cables to connect the tape deck's playback or output jacks to the **PLAY (20)** jacks on the rear of the PA-701. Use the other set of RCA cables to connect the tape deck's record or input jacks to the **REC (21)** jacks on the PA-701.

**NOTE: Any line level device can be connected to the PLAY (20) jacks and then can be accessed by the TAPE MONITOR (3) button.**

## OPERATION

1. **POWER:** Once you have made all source connections to the PA-701, and you have made sure that the **VOLTAGE SELECTOR (24)** switch is in the proper position, plug the power cord into a power source and press the **POWER (1)** button (LED lights).
2. **INPUT SELECTION:** The **INPUT SELECTION (2)** switch determines which input source goes through the PA-701 to the amplifier. If the **PHONO** position is selected on the **INPUT SELECTION (2)** switch, then the source connected to **PHONO (16)** jack on the back panel will be selected. If the **CD** position is selected, then the source connected to the **CD (17)** jack on the back will be selected.
3. **TAPE MONITOR:** Pressing the **TAPE MONITOR (3)** button (the LED is lit) allows you to hear the playback signal of your tape deck or whatever you have connected to the **PLAY (20)** jacks on the rear panel. Pressing the **TAPE MONITOR (3)** button a second time (the LED is off), disengages the tape monitor circuit.
4. **MIC LEVEL:** The **MIC LEVEL (4)** control adjusts the volume of the microphone.
5. **MIC JACK:** 1/4" microphone input jack (5).
6. **VOLUME:** Overall volume is controlled by the **VOLUME (6)** control.
7. **BALANCE:** Use this control to adjust the relative levels of the left and right channels. The 12 o'clock position is the point of equal **BALANCE (7)**.

8. **TREBLE:** The **TREBLE (8)** control adjusts the relative level of the high frequencies in the sound.
9. **MID:** The **MID (9)** control adjusts the relative level of the mid range frequencies in the sound.
10. **BASS:** The **BASS (10)** control adjusts the relative level of the low frequencies in the sound.
11. **PHONE JACK:** 1/4" headphone input jack (11).
12. **MONO:** When the **MONO (12)** button is activated (LED is lit), the two stereo channels are blended together to produce monophonic sound. This blend minimizes rumble and surface noise in old monophonic records. Push the button a second time (LED goes out) to get back to stereo mode.
13. **MUTE:** Pushing this button reduces the volume of the amplifier output signal by approximately 20 dB. Pressing the button a second time removes the muting. The **MUTE (13)** has no effect on the microphone volume.
14. **LOW CUT:** The output from a turntable usually contains strong but inaudible impulses at infrasonic frequencies (below 20Hz) due to disc warps, stylus/turnarm resonance, and vibrations that reach the turntable. If these are amplified at full strength, they may waste amplifier power and muddy the sound. The **LOW CUT FILTER (14)** attenuates these unwanted signals.
15. **LOUDNESS:** When pressed, the **LOUDNESS (15)** button engages a "loudness compensation" circuit which, at low-to-medium volume, boosts the bass and treble response.

## USING THE GROUND LIFT SWITCH

Depending on your system configuration, sometimes applying the ground will create a quieter signal path. Sometimes lifting the ground can eliminate ground loops and hum to create a quieter signal path.

1. With the unit on, listen to the system in idle mode (no signal present) with the ground applied (the **GROUND LIFT SWITCH (25)** in the left position).
2. **Then turn the power off before moving the GROUND LIFT SWITCH (25).** Lift the ground by moving the **GROUND LIFT SWITCH** to the right, turn the power back on and listen to determine which position will provide a signal devoid of background noise and hum. Keep the **GROUND LIFT SWITCH** in the ground position if the noise level remains the same in either position.

**CAUTION: Do not terminate the AC ground on the unit in any way. Termination of the AC ground can be hazardous.**

## SPECIFICATIONS

### INPUTS SENSITIVITY/IMPEDANCE

Mic.....	1mV / 3 Kohms
Phono.....	3mV / 47 Kohms
Tape,Tuner,CD, Aux.....	150mV / 22 Kohms

### OUTPUT/IMPEDANCE

Tape Rec.....	150mV / 3 Kohms
Pre Output.....	max. 11V / 1 Kohms

### TOTAL HARMONIC DISTORTION

Mic.....	less than 0.02%
Phono.....	less than 0.04%
Tape,Tuner,CD, Aux.....	less than 0.01%

### SIGNAL TO NOISE RATIO

Mic.....	more than 70dB
Phono.....	more than 90dB
Tape,Tuner,CD, Aux.....	more than 100dB

### GENERAL

Frequency Response.....	5Hz - 30 KHz +0, - 3dB
Bass.....	+/-12dB at 100Hz
Midrange.....	+/-9dB at 1KHz
Treble.....	+/-12dB at 10KHz
Loudness.....	+9/0/+9dB at 100/1K/10KHz
Mute.....	-20dB
Power.....	120V or 230V, 50/60Hz
Power Consumption.....	15W
Dimensions.....	483mm x 45mm x 248 mm 19" x 1.75" x 9.75"
Weight.....	4 kg (9 lbs.)



**In the U.S.A., if you have any problems with this unit, call 1-732-969-9000 for customer service. Do not return equipment to your dealer.**

Parts of the design of this product may be protected by worldwide patents.

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