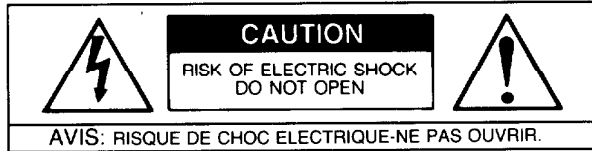


**ADCOM<sup>®</sup>  
PREAMP  
GFP-565**

## THE FOLLOWING PRECAUTIONS AND SAFETY INSTRUCTIONS ARE REQUIREMENTS OF UL AND CSA SAFETY REGULATIONS

**Warning:** To reduce the risk of fire or electric shock, do not expose this unit to rain or moisture.



The graphic symbol of a lightning flash with an arrow point within a triangle signifies that there is dangerous voltage within the unit and it poses a hazard to anyone removing the cover to gain access to the interior of the unit. **Only qualified service personnel should make any such attempt.**



The graphic symbol of an exclamation point within an equilateral triangle warns a user of the device that it is necessary to refer to the instruction manual and its warnings for proper operation of the unit.



Do not place this unit on an unstable cart, stand, tripod, bracket, or table. The unit may fall, causing serious injury to a child or adult, and serious damage to the unit. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the unit. Any mounting of the device should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

Read all the safety and operating instructions before connecting or using this unit.

Retain this notice and the owner's manual for future reference.

All warnings on the unit and in its operating instructions should be adhered to.

All operating and use instructions should be followed.

Do not use this unit near water; for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool.

The unit should be installed so that its location or position does not interfere with its proper ventilation. For example, it should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or placed in a built-in installation, such as bookcase or cabinet, that may impede the flow of air through its ventilation openings.

The unit should be situated away from heat sources such as radiators, heat registers, stoves, or other devices (including amplifiers) that produce heat.

The unit should be connected to a power-supply outlet only of the voltage and frequency marked on its rear panel.

The power-supply cord should be routed so that it is not likely to be walked on or pinched, especially near the plug, convenience receptacles, or where the cord exits from the unit.

Clean unit only as recommended in its instruction manual.

The power-supply cord of the unit should be unplugged from the wall outlet when it is to be unused for a long period of time.

Care should be taken so that objects do not fall, and liquids are not spilled, into the enclosure through any openings.

This unit should be serviced by qualified service personnel when:

- A. The power cord or the plug has been damaged; or
- B. Objects have fallen, or liquid has been spilled, into the unit; or
- C. The unit has been exposed to rain, or liquids of any kind; or
- D. The unit does not appear to operate normally, or exhibits a marked change in performance; or
- E. The device has been dropped, or the enclosure damaged.

**DO NOT ATTEMPT SERVICING OF THIS UNIT YOURSELF.  
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**

### ATTENTION

POUR PREVENIR LES CHOCS ÉLECTRIQUES NE PAS UTILISER CETTE FICHE POLARISÉE AVEC UN PROLONGATEUR, UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SI LES LAMES PEUVENT ÊTRE INSÉRÉES À FOND SANS EN LAISSER AUCUNE PARTIE À DÉCOUVERT.

### CAUTION

TO PREVENT ELECTRIC SHOCK DO NOT USE THIS POLARIZED PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

### CAUTION

#### POWER LINES

Any outdoor antenna must be located away from all power lines.

#### OUTDOOR ANTENNA GROUNDING

If an outside antenna is connected to your tuner or tuner-preamplifier, be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code, ANSI/NFPA No. 70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

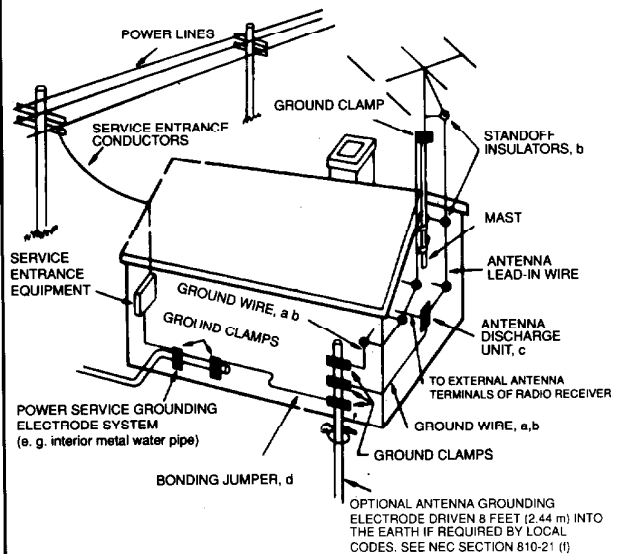
a. Use No.10 AWG (5.3 mm<sup>2</sup>) copper, No.8 AWG (8.4 mm<sup>2</sup>) aluminum, No.17 AWG (1.0 mm<sup>2</sup>) copper-clad steel or bronze wire, or larger, as a ground wire.

b. Secure antenna lead-in and ground wires to house with stand-off insulators spaced from 4-6 feet (1.22-1.83 m) apart.

c. Mount antenna discharge unit as close as possible to where lead-in enters house.

d. Use jumper wire not smaller than No.6 AWG (13.3 mm<sup>2</sup>) copper, or the equivalent, when a separate antenna-grounding electrode is used. See NEC Section 810-21 (j).

EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE INSTRUCTIONS CONTAINED IN ARTICLE 810 - RADIO AND TELEVISION EQUIPMENT.



#### NOTE TO CATV SYSTEM INSTALLER

This reminder is provided to call the CATV system installer's attention to Article 820-22 of the National Electrical Code 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.

## FEATURES

The highly innovative internal design and circuit topologies of the GFP-565 transcend most presently known circuitry in Reference Books and Engineering Application Notes and are certain to set new design and performance standards for products in its price range. Among the benefits provided by the GFP-565 are:

- Very-low-impedance power supply to insure stable, accurate voltages regardless of circuit/current demands. This type of power supply design insures uncompressed dynamics identical to the source material.
- Discrete solid-state regulators and the finest, lowest ESR bypass capacitors are used to maintain very-low-output impedance in the power supply.
- All capacitors are state-of-the-art electrolytics and film capacitors for unsurpassed sonic purity. This design feature provides the lowest possible distortion of music signals.
- DC supplies are distributed by heavy brass buses to insure lowest resistance between regulators and circuitry. This technique insures constant voltage to all the circuitry, regardless of volume or dynamic demands of the music.
- High-current, all-mu-metal-shielded power transformer for best regulation under heavy demands. Eliminates stray hum fields for lowest noise (especially in phono). Provides undiminished voltage to circuits for best performance.
- Signal-path amplifier stages use premium-grade ICs selected for their linear operation and sonic quality. These linear amplifiers insure extremely low noise, low distortion and low DC offset for best performance with any of the preamp's outputs.
- All stages are operated in pure Class-A mode using wide-bandwidth, high-current, low-impedance IC buffers in a unique circuit configuration designed to insure lowest distortion, regardless of volume demands, as well as zero dynamic-loading distortion.
- Ultra-low-noise, Class-A phono preamplifier with high-current buffering and almost zero RIAA error, optimized for high-output moving-coil and moving-magnet cartridges. Its direct-coupled signal output provides maximum bass impact, maximum phase accuracy and perfect response to dynamics. These features result in the flattest, lowest-noise, lowest-distortion response from a high-grade phono cartridge and virtually faultless reproduction from any record.
- Very-low-impedance RIAA equalization network. This unique network insures the lowest achievable noise in a phono preamp.
- Entire signal path is direct-coupled from input to output when using BYPASS OUTPUT or MAIN OUTPUTS LAB. Direct coupling minimizes the number of components signal must go through insuring no degradation of the music signal.
- Three sets of outputs: BYPASS OUTPUT is direct-coupled and placed before tone controls, filters, etc., and provides a signal in the most straightforward, simplest path; MAIN OUTPUTS LAB is also direct-coupled but permits operation of the tone controls, high filter, etc.; MAIN OUTPUTS NORMAL is capacitor-coupled using high-precision, high-grade, polycarbonate-film capacitors for virtually zero signal degradation. These outputs also permit operation of the tone controls and high filter.
- Low output impedance (100 ohms) from amplifier outputs to reduce interaction of connecting cables and other loads, and preserve music dynamic contrasts. This low-impedance-output design ensures the full dynamic range of the signal will be preserved regardless of cable characteristics or amplifier load.
- Low-impedance tape outputs (475 ohms) to perfectly interface with any type of tape recorder, including DAT. Insures the best recording characteristics, reducing interface effects of cables and the load impedance of the tape recorder inputs.
- Buffered tape outputs to preserve input-source-signal integrity and preclude "loading" of the signal-source component and resultant distortion. Buffering prevents the degradation of the source signal caused by most tape recorders when connected to the tape outputs. These buffers insure that the integrity of the internal signal path will not be affected when a tape recorder is connected.
- Front-panel-switchable processor loop. Shortens the signal path by switching the processor in and out of the circuit directly on the main circuit board. This feature allows the processor to be completely removed from the circuit when not needed to prevent any sonic degradation.
- Highest-grade construction and parts including 1%, Roederstein metal-film resistors and all metallized-film, precision capacitors throughout. These components help achieve lower noise levels and lower signal degradation than preamps selling for many times the price of the GFP-565.

- Direct switching of all functions on PC board. All working parts of the switches are soldered directly onto the actual circuit traces eliminating long connecting wires between inputs/switches/circuitry/outputs.
- Glass-epoxy-printed-circuit board, copper-plated on both sides, provides a ground plane to minimize noise and interference.
- Highest-grade potentiometers for volume and balance controls to insure long-term accuracy and minimum "tracking error."
- Non-permeable metal bottom plate to preclude the sonic degradation caused by eddy-currents and their magnetic fields when steel or other similar permeable metal parts are used in close proximity to circuitry, or the main printed-circuit board.
- Improved headphone amplifier optimized for use with headphone impedances of 100 to 2,000 ohms.

## **IMPORTANT NOTICE**

### **ADCOM PROTECTION PLAN (U.S.A. ONLY)**

ADCOM offers the enclosed valuable Limited Warranty. Please read the details on the Warranty Card carefully to understand the extent of the protection offered by the Warranty, its reasonable limitations, and what you should do in order to obtain its benefits.

Be sure to verify that the serial number printed on the back panel matches the serial number on the outer carton. If either number is altered or missing, or if the Warranty Card is not included in the carton, you should notify us immediately in order to insure that you have received a genuine ADCOM product which has not been opened, mishandled or tampered with in any way.

## **INTRODUCTION**

Please read thoroughly these operating instructions for the GFP-565 before connecting or attempting to operate this unit.

The ADCOM GFP-565 is the result of a thorough examination and reevaluation of all factors affecting the sonic performance of preamplifiers. A great deal of care was taken to ensure that the audio performance of the GFP-565 would be maintained for years to come by the selection of top-quality components and circuit topologies. The result is a preamplifier which is as musical-sounding as, and which preserves the dynamic contrasts of, an original performance.

The installation and operation of the GFP-565 are described in the following pages. We sincerely hope you will value and enjoy the considerable attention we have given its design and construction. This manual has been written to help you understand the correct operation of the GFP-565. Please read it carefully to fully comprehend all its features and functions and thereby derive maximum performance from its use in your system. It is a good idea to keep it handy for future reference.

## **UNPACKING**

Before your GFP-565 left our plant, it was carefully inspected for physical imperfections and electrical performance as a routine part of ADCOM's systematic Quality Control. This, along with full operational and mechanical testing, should insure a product flawless in both appearance and performance. After you have unpacked the GFP-565, inspect it for physical damage. Save the shipping carton and all packing materials, as they are intended to reduce to a minimum the possibility of transportation damage, should the product ever need to be shipped again. In the unlikely event damage has occurred, notify your dealer immediately and request the name of the carrier so that a written claim to cover shipping damage can be initiated.

**THE RIGHT TO A CLAIM AGAINST A PUBLIC CARRIER CAN BE FORFEITED IF THE CARRIER IS NOT NOTIFIED PROMPTLY IN WRITING AND IF THE SHIPPING CARTON AND PACKING MATERIALS ARE NOT AVAILABLE FOR INSPECTION BY THE CARRIER. SAVE ALL PACKING MATERIALS UNTIL THE CLAIM HAS BEEN SETTLED.**

## INSTALLING THE GFP-565

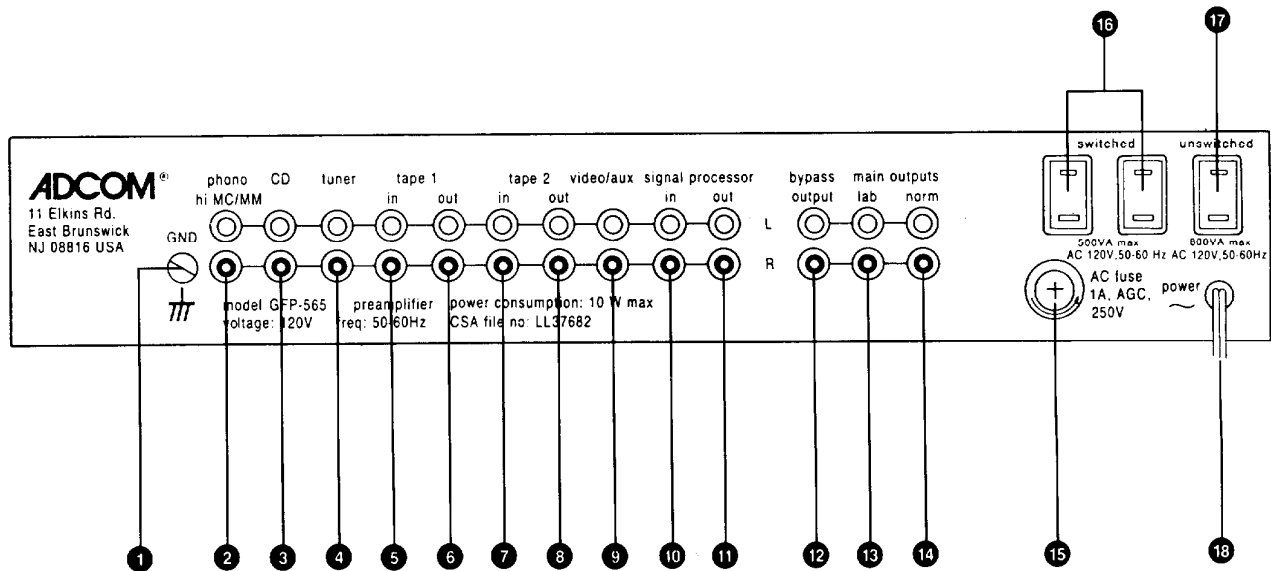
Although the GFP-565 does not generate much heat, you will help insure its long-term, trouble-free operation if you keep it away from external sources of heat, such as radiators or hot-air ducts, and provide reasonable ventilation. The GFP-565 should never be placed with other heat-producing components in a cabinet or enclosure lacking free air flow. If placed near or above any heat-producing component, please allow a minimum of three inches between the components.

Please note that the bottom cover of the GFP-565 is made of aluminum, rather than steel. This construction precludes the sonic deterioration and other interference caused by eddy-currents, and their resultant magnetic fields, when a surface of permeable metal is placed in close proximity to the main circuitry of a preamplifier. In order to preserve the sonic benefits of the aluminum bottom plate, the GFP-565 should not be placed directly on top of another component with a steel top. Similarly, because aluminum is not a permeable material, it does not provide magnetic shielding. Therefore, it is suggested that you do not place the GFP-565 directly on top of power amplifiers, or other devices, which might emit strong magnetic fields from their power transformers. Otherwise an increase in the residual noise and hum, particularly in the PHONO ② stages, may result.

For use in professional installations, the GFP-565 may be mounted in a standard 19-inch rack using the optional RM-3 rack-mount adaptors available through ADCOM dealers.

## CONNECTING THE GFP-565

The performance of the GFP-565 will depend on the quality of the interconnection of both the preamplifier and its associated equipment. All the input- and output-signal connections should be made only with high-quality, low-loss audio cables such as the one supplied with the GFP-565. LEFT and RIGHT inputs and outputs are clearly labelled (L and R) on the rear panel. See the rear-panel diagram below to identify all the connections and their locations.



GFP-565 Rear Panel Diagram

### NOTE

**WHENEVER CONNECTIONS TO OR FROM THE GFP-565 ARE BEING MADE, BE CERTAIN ALL ASSOCIATED COMPONENTS ARE TURNED OFF.**

## NOTE

Although the GND ① connection is probably the best place at which to connect your system to a good earth ground, it should be pointed out that only **one** connection to an earth ground is to be made in any system. Otherwise what is commonly known as a "ground-loop" will be caused and hum and noise may increase sufficiently to become a nuisance. In any system, only **one** ground connection can be made to earth. If one of your components is supplied with a three-prong AC connector which is plugged into the AC wall outlet, earth connection will be made through this plug and additional ground connections are not recommended. Similarly, if the system's units are mounted in a rack and ground connection between chassis is made through the rack mounting, special techniques must be undertaken to minimize ground-loops and subsequent noise. A detailed discussion of ground-loops with methods for their elimination is beyond the scope of this manual.

### PHONO HI MC/MM ②

These two standard RCA jacks will accept all common RCA plugs, one for each channel, left and right, usually supplied at the ends of the turntable's cables. LEFT and RIGHT PHONO ② inputs are clearly labelled. Determine the exact color coding or markings on your turntable's cable for left and right channels in order to insure the correct connections.

The PHONO ② circuitry is designed to accept the signal from any high-output moving-coil, moving-magnet, induced-magnet, moving-iron or variable-reluctance cartridge, the output from which is rated at 2.2mV/cm or higher. The PHONO ② input electrical impedance characteristics are the standard 47,000 ohms with 100pF shunt capacitance. ADCOM high-output moving-coil cartridges, for example, are ideally suited for use with this phono preamplifier. Low-output moving-coil cartridges which normally require a pre-preamplifier (sometimes referred to as a "head-amp"), or step-up transformer, must have these auxiliary devices connected **before** the PHONO ② input. A pre-preamplifier, or step-up transformer, provides the additional gain required by very-low-output moving-coil cartridges to operate with a standard phono preamplifier. A pre-preamplifier, or step-up transformer, is not necessary, and must not be used, with high-output moving-coil cartridges or moving-magnet, induced-magnet, etc., cartridges. If you are uncertain as to which type of cartridge you will be using, please consult the instruction manual or specification sheet which is included with your cartridge, or contact the dealer from whom you purchased the cartridge or the cartridge manufacturer. A provision has been made on the printed-circuit board of the GFP-565 (in the form of two unused sets of "eyelets") to allow easy modification by your ADCOM dealer of the impedance characteristics of the PHONO ② input if the cartridge you plan to use requires a load different from the standard 47,000-ohms/100pF. Please note that the change in load impedance which can be made to the PHONO ② input of the GFP-565 does **not** change the gain characteristics of the phono preamp and, therefore, does not permit the use of a low-output moving-coil cartridge with the GFP-565. Only in unusual cases will this minor modification have to be undertaken, since most modern phono cartridges are designed to work into the standard load provided by the GFP-565.

### CD ③

This set of input jacks is for use with a Compact Disc (CD) player or other similar high-level signal source, such as a tape player, the audio signal from a video-disc player, or video-cassette recorder (VCR). The load impedance of this input is approximately 22,000 ohms.

### TUNER ④

Although this pair of inputs is provided for your tuner, they may be used with any other high-level source such as a tape player, an additional Compact Disc (CD) player or other similar high-level signal source. The load impedance of this input is identical to that of the CD ③ input.

### TAPE 1 IN ⑤ / TAPE 2 IN ⑦

These two sets of tape inputs are identical in sensitivity and electrical characteristics to the CD ③ inputs and the comments made about the CD ③ inputs apply. These may be used not only for cassette or other audio tape recorders (such as a DAT), but also with any high-level signal source, such as a VCR's audio outputs, etc.

These two sets of tape inputs are also part of a "cross-dubbing" tape circuit. Refer to TAPE 1 OUT ⑥ / TAPE 2 OUT ⑥ below for interconnection of the tape-dubbing facility.

If you desire simple playback of pre-recorded tapes, plug the left and right outputs of your tape machine labelled "tape out" or "line out" to either set of TAPE 1 IN ⑤ or TAPE 2 IN ⑦ jacks using a set of good-quality, low-loss audio cables.

## TAPE 1 OUT 6 /TAPE 2 OUT 8

The outputs from these jacks are selected by the RECORDING 30 selector on the front panel. Whichever input is selected via the RECORDING 30 knob will appear at the TAPE 1 OUT 6 and TAPE 2 OUT 8 jacks. It should be pointed out that when the RECORDING 30 selector is placed in the TAPE 1 position, the TAPE 1 IN 5 inputs will appear **only** at the TAPE 2 OUT 8 jacks. Similarly, if TAPE 2 IN 7 is selected by the RECORDING 30 knob, the TAPE 2 IN 7 inputs will appear **only** at the TAPE 1 OUT 6 jacks.

This type of system permits "cross-dubbing" from one cassette deck to another or from one audio recorder to another without having to disconnect, or change connections to or from, either cassette or tape recorder.

To hook-up the TAPE 1 OUT 6 to your cassette or tape recorder, connect the right and left jacks on the cassette or tape recorder labelled "line in" or "record in" to the corresponding LEFT and RIGHT TAPE 1 OUT 6 jacks on the rear panel of the GFP-565. To connect the TAPE 2 OUT 8 jacks to another recorder proceed in the same manner outlined above. It is very important that you use only high-quality, low-loss interconnecting cables, in order not to degrade the quality of the recording.

### NOTE

Both the TAPE 1 OUT 6 and TAPE 2 OUT 8 circuits are individually and actively "buffered" in order to insure that the signal within the circuitry of the GFP-565 will not be compromised whether or not the tape recorders are in use. Therefore, you can listen to the same source which you are recording, or any other source, without fear of degrading the signal either in the recording or the listening mode. In addition, the buffered outputs will prevent the normal degradation that tape recorder inputs cause an audio signal in a preamplifier when the tape recorder circuits are turned off and not in operation.

## VIDEO/AUX 9

This set of input jacks is for use with any high-level signal source and is identical in sensitivity and electrical characteristics to the CD 3 inputs. All the comments and recommendations made about the CD 3 inputs apply.

## SIGNAL PROCESSOR IN 10 /SIGNAL PROCESSOR OUT 11

This set of inputs and outputs is provided for use with any "signal processor" such as an equalizer, time delay, surround sound decoder, etc. The SIGNAL PROCESSOR IN 10 /SIGNAL PROCESSOR OUT 11 jacks are selected and controlled by the front-panel button labelled PROCESSOR IN 29. Pushing in the PROCESSOR IN 29 button will connect whatever processor is plugged into the SIGNAL PROCESSOR IN 10 / SIGNAL PROCESSOR OUT 11 jacks to the circuitry of the GFP-565. Pushing in and **releasing** the PROCESSOR IN 29 button will disconnect the SIGNAL PROCESSOR IN 10 / SIGNAL PROCESSOR OUT 11 jacks from the circuitry of the preamplifier. It is important to note that when the PROCESSOR IN 29 button is **released**, both of the jacks (SIGNAL PROCESSOR IN 10 and SIGNAL PROCESSOR OUT 11) are electrically removed from the circuitry of the preamplifier (and, so, consequently whatever processor is plugged into these jacks) to prevent any possible degradation of the signal selected through the RECORDING 30 and LISTENING 31 switches.

To connect the processor, equalizer or surround sound decoder, etc., to the GFP-565 always use high-quality, low-loss audio cables. Plug the jacks on the signal processor labelled "input," "in," "line in" or "source" into the SIGNAL PROCESSOR OUT 11 jacks on the rear panel of the GFP-565, observing the left and right labelling on both sets of jacks. Plug the jacks on the signal processor marked "output," "out" or "line out" into the GFP-565 jacks labelled SIGNAL PROCESSOR IN 10. Once these connections have been effected, simply pushing in the PROCESSOR IN 29 button on the front panel of the GFP-565 will bring the processor into the circuit.

Whatever processor is connected to the SIGNAL PROCESSOR IN 10 and SIGNAL PROCESSOR OUT 11 jacks will not be operative at the TAPE 1 OUT 6 and TAPE 2 OUT 8 jacks. If you wish to insert an equalizer into the tape recording circuits, this must be done through the specific TAPE 1 IN 5 and TAPE 1 OUT 6 jacks, or the TAPE 2 IN 7 and TAPE 2 OUT 8 jacks along with the particular tape recorder. In such an instance, this processor will not operate on any other source selected through the LISTENING 31 selector but will only operate on the tape loop to which it has been connected. Similarly, because of the design of the circuitry in the GFP-565, and when the SIGNAL PROCESSOR IN 10 jacks are used as an additional high-level input, this individual signal will **not** appear at the TAPE 1 OUT 6 or the TAPE 2 OUT 8 jacks, nor can it be selected through the RECORDING 30 selector. Therefore, tape recordings **cannot** be made of the signal source plugged into the SIGNAL PROCESSOR IN 10 jacks. To return to usual operation of the preamplifier, push and **release** the PROCESSOR IN 29 button and the operation of all the switches and selectors will return to normal and the source plugged into the SIGNAL PROCESSOR IN 10 jacks will be disconnected from the circuitry of the GFP-565.

## NOTE

1. Please be advised that if no processor is plugged into the SIGNAL PROCESSOR IN ⑩ and SIGNAL PROCESSOR OUT ⑪ jacks, and the PROCESSOR IN ⑲ button is pushed in, all the inputs of the GFP-565 will be **disconnected** and no output signal will be present at either the BYPASS OUTPUT ⑫ or the MAIN OUTPUTS ⑬ and ⑭ and, consequently, no sound will be heard through the system. Whenever a signal processor is not being used, the PROCESSOR IN ⑲ button should always be in the **out** position.
2. However, it is possible, when no processor is connected to the SIGNAL PROCESSOR IN ⑩ and SIGNAL PROCESSOR OUT ⑪ jacks, to use the PROCESSOR IN ⑲ button as a mute function. By pressing in the PROCESSOR IN ⑲ button, the signal will be interrupted until the PROCESSOR IN ⑲ button is, once again, pushed in and **released**.
3. Normally, the GFP-565 does not invert polarity; that is, if a positive-going signal is present at any of its inputs, it will appear as a positive-going signal at the outputs. However, if a signal processor is connected to the SIGNAL PROCESSOR IN ⑩ and SIGNAL PROCESSOR OUT ⑪ jacks, and its circuitry inverts polarity, the signals present at the BYPASS OUTPUT ⑫ and MAIN OUTPUTS ⑬ and ⑭ will also be inverted in polarity (check the Instruction Manual of your signal processor to determine if it does or does not invert polarity). See also the NOTE under TONE IN ⑳ below.
4. Usually, there should be no appreciable level difference whenever a signal processor is connected into or out of the circuitry of the GFP-565 (through the use of the PROCESSOR IN ⑲ button), so long as the processor was designed with an absolute gain of 1 and adequate input and output impedances to fulfill this function. If a level difference can be detected when switching a processor in and out of the circuit, and this is disturbing to you, please contact the manufacturer of the processor you are using to see if a correction of this level difference can be effected.
5. It is also possible to employ the SIGNAL PROCESSOR IN ⑩ jacks as an additional set of inputs, since these jacks are located, in the circuitry, before the volume ㉓ and BALANCE ㉒ controls. If you wish to use the SIGNAL PROCESSOR IN ⑩ jacks as an additional input, simply plug the signal source into the SIGNAL PROCESSOR IN ⑩ jacks as you would any of the other inputs (CD ③, TUNER ④, etc.) and select that source by pushing in the PROCESSOR IN ⑲ button. Whatever other selection of sources has been made through the LISTENING ㉑ selector will be disconnected and the source plugged into the SIGNAL PROCESSOR IN ⑩ jacks will then be fed through the circuits of the GFP-565 and out of the BYPASS OUTPUT ⑫ and MAIN OUTPUTS ⑬ and ⑭.

## BYPASS OUTPUT ⑫

This set of jacks was designed to provide as simple a signal path as possible. The tone controls and filter, switches, etc. are **not** in the signal path when these outputs are used. Essentially, when using these outputs, the signal comes into the GFP-565, goes through the LISTENING ㉑ switch, through the volume ㉓ and BALANCE ㉒ controls into a single amplification stage to buffer the source, and lower its impedance to 100 ohms, and directly out of the BYPASS OUTPUT ⑫ jacks.

The BYPASS OUTPUT ⑫ is direct-coupled with no capacitors and was designed to provide an output voltage ideally matched for operation with the ADCOM brand of amplifiers. It can be used, however, to drive almost any power amplifier presently available with input sensitivities ranging from below 500mV (0.5V) to well above 2.0V.

To connect this output to your power amplifier, simply interconnect the LEFT and RIGHT BYPASS OUTPUT ⑫ jacks to the corresponding left and right input jacks on the amplifier. To preserve the extremely high quality of the circuitry in the GFP-565, it is recommended that you use either the cable supplied with the preamplifier or as high a quality cable as possible to make this interconnection.

It should be pointed out that, since the BYPASS OUTPUT ⑫ is direct-coupled, it is an extremely broadband circuit which responds down to DC (direct current). Therefore, it requires that your power amplifier (if it is not an ADCOM-brand amplifier) be able to handle this extremely broadband signal.

## NOTE

Both the BYPASS OUTPUT ⑫ and the set of MAIN OUTPUTS ⑬ and ⑭ may be used simultaneously should you wish to biamp or triamp your speakers, or drive more than one amplifier. When using more than one of these outputs simultaneously, please refer to the NOTE under TONE IN ⑳ below.



### MAIN OUTPUTS LAB 13

The MAIN OUTPUTS LAB 13 can be considered identical to, and in parallel with, the BYPASS OUTPUT 12, so long as the TONE IN 25 button, and HIGH FILTER 27 switch, are in the **out** position; that is, not in the circuitry of the GFP-565. Under these conditions (TONE IN 25 and HIGH FILTER 27 **out**), they are able to be used in conjunction with the BYPASS OUTPUT 12 to supply a signal to two separate amplifiers to bi-amplify your loudspeakers.

The MAIN OUTPUTS LAB 13 is also direct-coupled with no capacitors in the signal path and all the comments made about the BYPASS OUTPUT 12 above apply. However, please note that if the tone control circuits are activated by pushing **in** the TONE IN 25 button, the output from the MAIN OUTPUTS LAB 13 (and also from the MAIN OUTPUTS NORM 14, below) jacks will be inverted in polarity (see NOTE under TONE IN 25, below).

The MAIN OUTPUTS LAB 13 (and the MAIN OUTPUTS NORM 14, as well) jacks permit the use of all the optional controls and circuits, which are normally inoperative, so long as the individual switches, such as the TONE IN 25 and HIGH FILTER 27, are pushed into the **in** position.

To interconnect these outputs to your power amplifier, follow the instructions under BYPASS OUTPUT 12 above.

### MAIN OUTPUTS NORM 14

The MAIN OUTPUTS NORM 14 jacks are in parallel with, and can be considered identical to, the MAIN OUTPUTS LAB 13 jacks. Therefore, all the comments made about the MAIN OUTPUTS LAB 13 apply. The MAIN OUTPUTS NORM 14 is, however, capacitively coupled using the highest grade obtainable polycarbonate film capacitors to preclude any degradation of signal quality. Great care was taken in the selection of the capacitors to insure ultimate signal integrity.

The MAIN OUTPUTS NORM 14 is ideal for use with power amplifiers which require a bandwidth-limited signal not extending down to DC. Although this capacitively-coupled output does restrict somewhat the extremely low frequencies, around 1Hz or 2Hz, it does not in any way degrade the quality of the signal, or restrict the low-frequency performance, in the audible range.

To interconnect these outputs to your power amplifier, follow the instructions under BYPASS OUTPUT 12 above.

### NOTE

Although the GFP-565 was designed primarily for use with stereo power amplifiers, it can operate just as well with two mono power amplifiers. When two mono amplifiers are used for stereophonic reproduction, it is strongly suggested that they be a matched pair with respect to brand, model, input sensitivity and power output.

### AC FUSE 15

The AC line fuse which protects the circuits of the GFP-565 is a Bussman 1-ampere, AGC/250V-type (Littelfuse 3AG312001/250V is a direct equivalent). This fuse should be replaced only with a fuse of the same current value, type and rating. Replacement with fuses of higher value and/or different rating and/or type will not protect the GFP-565 circuits, will void the Warranty, **and may cause a fire hazard**. Please note that this fuse does not protect either the SWITCHED 16 outlets or the UNSWITCHED 17 outlet.

### NOTE

**Before checking or replacing a blown fuse, make certain you UNPLUG THE POWER 18 CORD FROM THE AC WALL OUTLET TO PREVENT POSSIBLE ELECTRICAL SHOCK.**

### SWITCHED 16 OUTLETS

The SWITCHED 16 outlets are controlled by the power switch 19 on the front panel of the GFP-565. You may plug the AC line cord of your power amplifier, or any other accessory, which you want to turn on and off with the power switch 19 of the GFP-565 into these outlets. The current-carrying capacity of the switch 19 is sufficient to handle the inrush current of power amplifiers up to the 200-watt-per-channel class. It is not recommended that very-large-power amplifiers, above the 200-watt class, be plugged into these outlets (see NOTE following UNSWITCHED 17 outlet).

## UNSWITCHED 17 OUTLET

The UNSWITCHED 17 outlet can supply the AC power requirements of any accessory source used with the GFP-565, such as a CD player or analog turntable. The AC line cord of the accessory may be plugged into this outlet. The UNSWITCHED 17 outlet is not controlled by the power switch 19 on the front panel of the GFP-565, and 120VAC will always be available at this outlet so long as the GFP-565 is plugged into an energized wall outlet, regardless of the position of the main power switch 19. The total power drawn through the UNSWITCHED 17 outlet must never exceed 800 watts.

### NOTE

Most electronic or electrical devices state the maximum power drawn by the device on a plate, or label, on the rear panel of the unit, near the AC line cord which supplies power to the unit. It is a good idea to check these requirements before plugging an amplifier into either the UNSWITCHED 17 outlet or the SWITCHED 16 outlets. Most large-power amplifiers should be plugged directly into an AC wall outlet or an ADCOM ACE-515 AC Enhancer for overall maximum performance and best power delivery.

## POWER 18

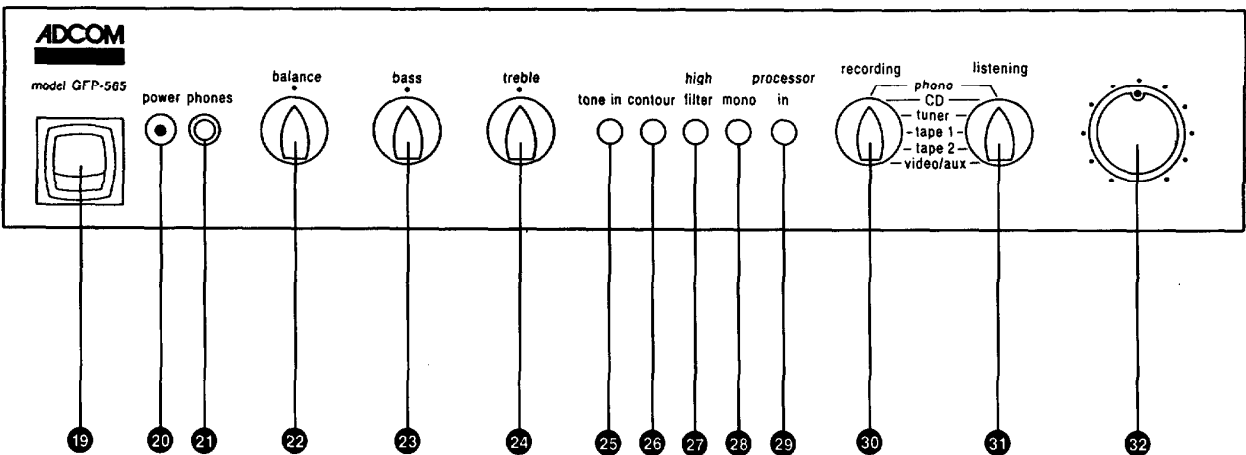
This cord provides AC power to operate the GFP-565's circuits and energize the SWITCHED 16 and UNSWITCHED 17 accessory outlets. The AC line cord should be plugged into any standard wall outlet providing 120VAC, 50-60Hz.

### NOTE

The GFP-565's power cord is supplied with a "polarized" AC plug as required by UL/CSA standards and local electrical codes. To minimize the risk of electrical shock, and to insure minimal hum from the system, do not defeat the polarity-insuring feature of the plug (one wide blade and one narrow blade). To prevent electrical shock, do not use this polarized plug with an extension cord or receptacle, or other outlet, unless the blades can be fully inserted to prevent blade exposure.

## CONTROLLING THE GFP-565

Please refer to the diagram of the front panel of the GFP-565 to identify all the controls and their functions.



GFP-565 Front Panel Diagram

## AC ON/OFF SWITCH 19 20

The "rocker" AC on/off switch 19 controls power to the circuits of the GFP-565 and to the SWITCHED 16 outlets on the rear panel of the GFP-565. Whenever the GFP-565 is energized, the red LED 20 will glow. Push the **top** of the rocker switch to energize the GFP-565. Push the **bottom** of the rocker switch to turn the unit off.

## PHONES 21

The headphone jack is a standard, 1/4-inch, 3-contact type which will operate with any conventional set of stereo headphones. If you have a set of light-weight stereo headphones, which are generally supplied with a mini-phoneplug, you may use a stereo phoneplug-to-miniplug adaptor.

The PHONES 21 jack is powered by its own high-quality stereo amplifier, the level of which is governed by the setting of the volume 32 control. The amplifier driving the PHONES 21 jack has been optimized to operate with headphones having an impedance of 100 ohms up to 2,000 ohms. Although the PHONES 21 jack, and its internal amplifier, will operate with other headphone impedances, maximum quality will be obtained if headphones with an impedance of approximately 600 ohms are used.

## NOTE

Since the volume 32 control, BASS 23, TREBLE 24, CONTOUR 26, TONE IN 25, etc. affect the level from both the MAIN OUTPUTS 13 and 14 jacks and the PHONES 21 jack, it is advisable to unplug any set of headphones connected to the PHONES 21 jack whenever they are not in use and you are listening to your speakers. Conversely, if you are listening to your headphones, it is recommended that you turn off your power amplifier to deactivate your loudspeakers, thereby preventing possible interference between the two listening modes or inadvertent damage to either.

## BALANCE 22

The BALANCE 22 control permits you to adjust the level of the left channel versus the right channel and vice-versa. Turning the control counterclockwise will reduce the level of the right channel. Turning it clockwise will reduce the level in the left channel. At the maximum counterclockwise position, only the left channel will operate. Conversely, at the maximum clockwise position, only the right channel will operate. In most cases, the proper setting of the BALANCE 22 control will be at or near its 12 o'clock position.

To adjust for optimum balance between channels, it is easiest to use a tuner tuned to a station in which the announcer is speaking. This will almost always be a mono signal. Place yourself in your normal listening position and adjust, or have someone adjust, the BALANCE 22 control until the announcer appears to be centered between the two speakers. This method will compensate for almost all the variations within your system, and the room, and is the easiest of all methods to use.

If your system does not include a tuner, the next best way is to select either an analog record or CD, push in the MONO 28 button, place the LISTENING 31 selector on either PHONO 2 or CD 3 (whichever is being used for this procedure) and adjust the BALANCE 22 control as described above.

Once the correct setting is chosen, it will need to be changed only to compensate for unequal signal levels from an outside music source, such as a cassette, disc, etc.

## BASS 23

This control emphasizes the bass frequencies when turned in the clockwise direction and de-emphasizes them when turned counterclockwise in both left and right channels simultaneously. The normal position of the BASS 23 control will be at or near its 12 o'clock position. In many cases, however, it will be useful in compensating for inadequate or over-prominent low bass that is due to poor program sources, inadequate speaker placement, etc. You will very seldom, if ever, need to set this control at its maximum clockwise or counterclockwise position. Please note that the maximum clockwise setting emphasizes extreme low frequencies by a factor of 10 which, when playing music at normal or loud levels, may exceed the power-output capabilities of your amplifier and/or speakers — particularly when playing music of very wide dynamic range.

## TREBLE 24

This control emphasizes treble frequencies when turned clockwise. It de-emphasizes them when turned counterclockwise. The control affects both left and right channels simultaneously. Its normal position is at the center, or 12 o'clock, setting. The TREBLE 24 control will be primarily useful in taming musical source material which is strident and/or in adding "sparkle" to older analog recordings or broadcasts of similar material. You may also find it useful to correct for slight speaker deficiencies in their extreme high range or to compensate somewhat for inadequate room acoustics. If your listening room has "dull" acoustics, due to heavy carpeting, upholstered furniture, etc., a small amount of treble boost may achieve better overall balance. Conversely, a "live" room with hard surfaces and sparse furnishings may benefit from a judicious reduction of treble.

## NOTE

The tone-control circuitry of the GFP-565 was very carefully designed to provide subtle, but effective, low- and high-frequency equalization without unduly affecting the critical midrange frequencies. Careful circuit damping prevents any action of the BASS 23 or TREBLE 24 controls on the frequency response, or any other parameter of the GFP-565, when either control is in the normal, centered, 12 o'clock position. Do not expect to hear drastic, non-musical boost or attenuation of bass and treble usually encountered with less sophisticated tone-control circuits.

## TONE IN 25

Pushing **in** this switch inserts the tone control circuitry (BASS 23 and TREBLE 24 controls) into the circuit path of the GFP-565. When this switch is in the **out** position, the entire tone control circuitry is completely bypassed and is **not** in the circuitry of the GFP-565. Please note that in order for the BASS 23 and TREBLE 24 controls to operate, the TONE IN 25 switch must be pushed **in**. The BASS 23 and TREBLE 24 controls are operative only through the MAIN OUTPUTS 13 and 14 and PHONES 21 jacks.

## NOTE

Whenever the TONE IN 25 switch is pushed **in**, an additional stage of amplification is inserted into the circuitry of the GFP-565. As a result, the normally non-inverted signal at the MAIN OUTPUTS 13 and 14 will be inverted in polarity. In other words, if there is a signal with positive-going polarity at the MAIN OUTPUTS 13 and 14 jacks when the TONE IN 25 switch is in the **out** position, the signal will be inverted (to negative-going polarity) whenever the TONE IN 25 switch is pushed **in**. See MAIN OUTPUTS 13 and 14 above.

## CONTOUR 26

The CONTOUR 26 circuit in the GFP-565 differs markedly from conventional loudness compensation circuits. Recent studies show that conventional circuits overcompensate for natural low- and high-frequency hearing reduction at low signal levels. The studies of Robinson and Dadson of Harvard University have provided guidelines for a newer and more accurate curve for loudness compensation. In our judgment, a subtle boost of low frequencies (in the 20-100Hz range) and no boost at high frequencies, provides the ideal musical balance for listening at low to moderate levels. The effects of the circuit gradually diminish as the volume level is increased (that is, when the volume 32 control is turned clockwise). Pushing **in** the CONTOUR 26 switch activates this function. Whenever the CONTOUR 26 switch is in the **out** position, the CONTOUR circuit will be disconnected from the circuitry of the GFP-565. The CONTOUR 26 function is operative on all the GFP-565 outputs except TAPE 1 OUT 6 and TAPE 2 OUT 8.

## HIGH FILTER 27

Pushing **in** this switch engages a very-high-frequency/ultrasonic filter intended primarily to reduce unwanted ultrasonic noise and spurious signals (particularly useful when playing back some CDs or noisy FM broadcasts), as well as to correct for some excessive high-frequency energy in the top octave, or "edginess," found on some poorly equalized recorded material. The filter's characteristics are very gentle in the audible range insuring minimal side effects on the important main frequency range of musical material. To remove the filter circuitry from the signal path of the GFP-565, push in and **release** the HIGH FILTER 27 button. Please note that the HIGH FILTER 27 is operative only through the MAIN OUTPUTS LAB 13, MAIN OUTPUTS NORM 14 and PHONES 21 jacks. The filter will not affect the signal at the BYPASS OUTPUT 12.

## MONO 28

Pushing **in** this switch mixes the left- and right-channel signals. This combined signal is then fed to the BYPASS OUTPUT 12 and MAIN OUTPUTS 13 and 14 jacks (as well as the PHONES 21 jack). The mono switch does not insert switch contacts in series with the signal path but simply parallels the left and right channels. The MONO 28 switch is useful in reducing FM noise and distortion on weak stations, or when playing older analog mono recordings. It is also useful when setting channel balance of your loudspeakers using the BALANCE 22 control.

## PROCESSOR IN 29

Pushing **in** this switch connects the SIGNAL PROCESSOR IN 10 and SIGNAL PROCESSOR OUT 11 jacks on the rear panel of the GFP-565. Please refer to the section SIGNAL PROCESSOR IN 10/SIGNAL PROCESSOR OUT 11 above for a complete explanation of the function of this circuit. Please note that whenever the PROCESSOR IN 29 switch is in the **out** position, whatever processor is connected to the SIGNAL PROCESSOR IN 10 and SIGNAL PROCESSOR OUT 11 jacks will be **completely** disconnected from the circuit to prevent any possible degradation of the signal being amplified by the GFP-565.

## RECORDING 30

This rotary selector switch permits you to choose any input connected to the GFP-565 and feed it directly to the TAPE 1 OUT 6 and TAPE 2 OUT 8 jacks on the rear panel of the GFP-565 for recording the selected input. With the GFP-565 selector system, it is possible to record one source (say, CD 3 or PHONO 2) while listening to a different source such as an FM tuner or DAT. Please refer to the sections TAPE 1 OUT 6 and TAPE 2 OUT 8 above for the proper use of the RECORDING 30 selector in conjunction with these outputs.

Neither the volume 32 control nor any of the other controls on the front panel of the GFP-565, including the PROCESSOR IN 29 switch, affect the output at the TAPE 1 OUT 6 or TAPE 2 OUT 8 jacks.

## LISTENING 31

This rotary selector lets you choose any input connected to the GFP-565 and feed it, through the circuitry of the GFP-565, to the BYPASS OUTPUT 12 and MAIN OUTPUTS 13 and 14 jacks (as well as to the PHONES 21 jack) and, then, through your amplifier and loudspeakers. The LISTENING 31 selector operates independently from the RECORDING 30 selector (above); therefore, you can listen to one source while recording another, different source. All the controls on the front panel of the GFP-565 will affect the signal present at the MAIN OUTPUTS 13 and 14 jacks (as well as at the PHONES 21 jack). The BYPASS OUTPUT 12 jacks will be affected only by the BALANCE 22, CONTOUR 26, MONO 28, PROCESSOR IN 29 and the volume 32 control.

## VOLUME 32

This rotary control sets the level at the BYPASS OUTPUT 12, the MAIN OUTPUTS 13 and 14 and the PHONES 21 jack and, consequently, the level heard through the headphones, amplifier and speakers. Turning this control clockwise will raise the level of the signal chosen via the LISTENING 31 selector. Turning the control counterclockwise will reduce the level of the signal. Normally, when used with standard amplifiers and speakers having medium-to-low sensitivities, the position of this control will be at its normal 12:30 to 1:30 o'clock position. There are many factors which will affect the position of the volume 32 control for any given listening level. Among these are: the specific sensitivity of the power amplifier for maximum output; the sensitivity (or "efficiency") of the speakers being used; the size of the room in which the speakers are located; the output levels of the sources being used and plugged into the GFP-565 (cassette machine, tape recorder, CD player, etc.); the modulation level of the station being received by your tuner; etc. The position of the volume 32 control is a relative indication to permit you to return to a similar level setting again and again. It is not an absolute indication of how much power the amplifier is delivering to the speakers or "how powerful" a system is. It is quite possible, with different component systems, to have the same power output from an amplifier, and sound level from the speakers, but with different volume 32 control settings of the GFP-565.

It is also quite common to have to set the volume 32 control to a different position, when switching from one source (say, CD) to another (such as a cassette machine), to achieve the same, or approximate, volume level from the loudspeakers. Similarly, different FM and AM stations received by your tuner may require adjustment of the volume 32 control depending on the amount of audio "limiting" and "compression" used by the particular station and/or the type of music it broadcasts.

### NOTE

For the reasons described above, it is good practice to lower the volume 32 control before changing the LISTENING 31 selector to another input. It is also advisable to unplug headphones from the PHONES 21 jack when using your loudspeakers, or turn off your power amplifier through its on/off switch when listening to headphones. See PHONES 21 above.

The design of the GFP-565 makes it usable with the gamut of power amplifiers presently available, as well as with all loudspeakers presently in use. The volume 32 control was designed to be fully operable throughout its complete rotation.

## CARING FOR YOUR GFP-565

Great care has been taken by ADCOM to assure that your preamplifier is as flawless in appearance as it is electronically. The front panel is a heavy-gauge, high-grade, anodized-aluminum extrusion, bead-blasted for durability. The chassis, top cover and rear panel are of heavy-gauge steel, both painted and baked. If the front panel, top or sides should become dusty or fingerprinted, they can be cleaned with a soft, lintless cloth, slightly dampened with a very mild detergent solution.

### NOTE

**DO NOT SPRAY OR USE LIQUIDS OF ANY KIND ON THE SURFACES OF THE GFP-565.**

## **SERVICING**

ADCOM has a *Technical Service Department* to answer questions pertinent to the installation and operation of your unit. In the event of difficulty, please contact us for prompt advice. If your problem cannot be resolved through our combined efforts, we may refer you to an authorized repair agency, or authorize return of the unit to our plant. To aid us in directing you to a convenient service station, it would be helpful if you indicate which major city is accessible to your home.

Please address mail inquiries to:  
ADCOM Service Corp.  
11 Elkins Road  
East Brunswick, New Jersey 08816.

For telephone inquiries call:  
Monday through Friday  
9AM to 4PM Eastern Time  
(201)-390-1130

For fax inquiries: (201)-390-9152; please include a return fax number for the reply.

When calling or writing about your GFP-565, be sure to note and refer to its model and serial numbers as well as the date of purchase and the dealer from whom it was purchased. In the event that the unit must be returned to our plant for service, you will be instructed as to the proper procedure when you call or write for a Return Authorization.

**UNDER NO CIRCUMSTANCES SHOULD YOUR UNIT BE SHIPPED TO OUR PLANT WITHOUT PRIOR AUTHORIZATION, OR PACKED IN OTHER THAN ITS ORIGINAL CARTON AND FILLERS.**

If the original shipping carton and its fillers have been lost, discarded, or damaged, a duplicate carton may be obtained from our *Service Department* for a nominal charge. Inquire as to the procedure when requesting a Return Authorization.

Always ship PREPAID via United Parcel Service (UPS) or other approved carrier. DO NOT SHIP VIA PARCEL POST, since the packing was not designed to withstand rough Parcel Post handling. FREIGHT COLLECT SHIPMENTS CANNOT BE ACCEPTED.

**ADCOM**  
11 Elkins Road  
East Brunswick, NJ 08816  
Telephone (201) 390-1130  
Fax (201) 390-9152

## SPECIFICATIONS

Output Impedance	
Bypass Output .....	100 ohms
Main Outputs .....	100 ohms
Tape Out .....	475 ohms
Output Level (Rated)	
Bypass Output .....	2.0V
Main Outputs .....	2.0V
Output Level (Maximum)	
Bypass Output .....	≥10.0V
Main Outputs .....	≥10.0V
Frequency Response (±0.5dB)	
High Level .....	5Hz-90kHz
Phono .....	5Hz-70kHz
THD + Noise (@ Rated Output, 20Hz-20kHz)	
High Level .....	0.0025%
Phono .....	0.009%
IMD (SMPTE, @ Rated Output)	
High Level .....	0.0025%
Phono .....	0.0025%
Signal-to-Noise (@ Rated Output, "A" Weighted)	
High Level .....	≥100dB
Phono .....	≥95dB
Input Impedance	
High Level .....	22,000 ohms
Phono .....	47,000 ohms/100pF
Input Sensitivity (@ Rated Output)	
High Level .....	205mV
Phono .....	2.3mV
RIAA Accuracy (20Hz-20kHz) .....	±0.1dB
Tape Out THD + Noise (@ 2.0V, 20Hz-20kHz) .....	0.003%
Tape Out IMD (SMPTE @ 2.0V) .....	0.002%
Tone Controls	
Bass (20Hz) .....	±10dB
Treble (20kHz) .....	±9dB
Loudness (Volume Control @ 9:00 o'clock)	
100Hz .....	+5dB
20Hz .....	+10dB
Crosstalk (1kHz) .....	-105dB
Separation (1kHz, @ Rated Output) .....	≥75dB
High Filter (20Hz) .....	-2.7dB

## GENERAL

Power (available in 220V or 240V on special order) .....	120VAC/50-60Hz
Power Consumption .....	10 watts max.
Chassis Dimensions .....	17" (432mm)x11-3/8" (289mm)x3" (76mm)
Maximum Dimensions .....	17" (432mm)x12-9/16" (319mm)x3-1/4" (83mm)
Weight .....	11 lbs. (5 kg)
Weight, Packed .....	14 lbs. (6.4 kg)

Specifications subject to change  
without prior notice.

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