

**ADCOM  
POWERAMP  
GFA-2**

## ADCOM GFA-2 OWNERS MANUAL

### WELCOME

Your ADCOM GFA-2 power amplifier represents the finest thinking in amplifier design. At 100 watts per channel, the GFA-2 offers an exceptional value, superior performance at a reasonable price. Such a product from ADCOM is only natural. Throughout its many years in audio, ADCOM has always been associated with state-of-the-art components utilizing advanced technology and realistic cost designs. Its innovation and technology have expanded into such varied areas as speaker systems, tuners, speaker switching systems and phono cartridges (most recent is the ADCOM Crosscoil<sup>TM</sup> high output moving coil).

This manual represents the same kind of innovative thinking reflected in other ADCOM products. We have written it to reflect the kinds of questions and possible problems you might encounter in enjoying the full benefits of your ADCOM GFA-2 power amp. We ask that you thoroughly read this manual before plugging in the amplifier. For those in a hurry, please read Sections 1 through 4.

### SECTION 1

#### WHAT TO DO WHEN YOU OPEN THE BOX

Before each GFA-2 left the factory, it was carefully inspected for physical imperfections as a routine part of ADCOM's quality control. This, along with full electrical testing, should ensure a product flawless in both appearance and performance.

After you have unpacked the amplifier, inspect it for any physical damage. Save the shipping carton and all packing materials

as they are designed to reduce to a minimum the possibility of transportation damage.

In the unlikely event that damage has occurred, immediately notify your dealer and request the name of the carrier so that a written claim to cover the damages can be initiated.

THE RIGHT TO ANY CLAIM AGAINST A PUBLIC CARRIER CAN BE FORFEITED IF THE CARRIER IS NOT NOTIFIED PROMPTLY 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.

## SECTION 2

### WHERE TO PUT IT (AND WHERE NOT TO!)

The GFA-2 utilizes large internal heat sinks to dissipate heat from the power transistors. The top, side, and bottom panel of the amplifier has slots to allow air to circulate inside the amplifier. Adequate air must be available to assure cool operation of the amp. Therefore, the GFA-2 should not be completely enclosed with other heat producing components and although the amplifier can be mounted in any position, adequate space around the amplifier should be maintained. We recommend at least 3 inches on the top and 1 inch on the sides for air circulation. If the GFA-2 is going to be mounted in an enclosed cabinet, it is recommended that the back of the cabinet have vents to allow air to circulate around the amplifier. With these considerations in mind, the GFA-2 should perform quite happily in any habitable environment. Of course, such normal considerations as protection from excessive dust or moisture should always be considered. The ADCOM GFA-2 power amplifier has been carefully designed with high quality components so that long term undiminished performance may be expected from the amp, when it is operated in accordance with the instructions provided.

An alternate method for ensuring proper phase response is to connect the speaker and then place the two speakers side by side. Play some mono program material with heavy bass content through the system. Now turn off the system, and reverse one pair of leads to one speaker. Turn on the system and play the same passage again. If the bass response has increased, leave the system as it now is. If it has diminished, turn off the system and rewire it as it was originally set up. When making loudspeaker connections care must be taken to avoid short circuits which will cause improper operation of the amplifier.

#### AMPLIFIER/LOUDSPEAKER PROTECTION CIRCUIT

Your amplifier is equipped with a relay protection circuit which is designed to protect your loudspeaker from possible damage, and will also protect itself under all but the severest abuse of operating conditions. If under any circumstances any DC or subsonic frequencies appear at the amplifier output, the amp will disconnect until the problem has been corrected. The sensitivity and slope of the protection circuit is adjusted so that a "thumping" tuner muting circuit, "flicking" the stylus to clean it, or dropping the stylus on the record will disconnect the loudspeaker momentarily thus avoiding the damage which would normally result from such malfunctions. The relay is designed so that the amplifier will not shut off entirely but will allow a very low signal to be heard. A thermal cutout is also employed to protect the amplifier under high temperature conditions. The amplifier is protected by an AC line fuse, and utilizes a low impedance electronic sensing circuit which limits output current into loads below 2 Ohms without limiting the current into loads of 4 Ohms or higher (reactive loads such as electrostatic transducers). You will notice a turn-day delay of 3-5 seconds. This normal operation to prevent turn-on transients or "thumping".

#### SECTION 4

##### WHAT NOT TO DO!

CAUTION: Burn out of the output stage because of failure to observe the following precautions will void the warranty and/service contract.

There is no such thing as absolute reliability or protection when amplifiers are abused. While the GFA-2 amplifier has been designed to withstand most conditions it may not be impervious to gross abuse. There is one condition which must always be avoided: This condition is called RF Detection and will almost certainly cause failure of the output devices if initiated. Because ADCOM amplifiers have an extremely wide bandwidth, it is almost impossible to protect against burnout if abused. The following acts cause RF Detection and MUST BE AVOIDED:

1. Connecting the inputs or outputs while amplifier is on.
2. Using the "thumb test". It is a dangerous habit to connect cables to the inputs, touching the other end of the cable while the amplifier is on. This may not only cause amplifier failure but may destroy your loudspeakers due to the high power surge emitted from the amplifier.

It is wise to follow the procedure of completely hooking up your system before turning anything on! A few simple precautions will contribute to trouble free performance. Because of the high power of the GFA-2, ADCOM will not be responsible for any damage to speakers or other components due to their inability to handle the amplifier's power or for any other misuse.

#### SECTION 5

##### WHY WE BUILT IT THE WAY WE DID

The ADCOM GFA-2 represents a departure from many of the other currently available amplifier designs. This departure is the result of careful studies into available designs, circuits and parts. The major feature of the GFA-2 amplifier is the dual power supply configuration. Each channel has an independent power transformer and associated circuits. This dual power supply design allows each channel to work independently of the other. Most power amplifiers

share a common power supply. When loud musical transients are passed through the circuits, one channel can possibly 'rob' power from the other channel. When two power suppliers are used, each channel has its own. Thus, dual power supplies allow each channel to supply rated power during the most demanding musical passages. Protection for the amplifier is supplied by both a short circuit relay and temperature sensing circuits. All protection circuits are auto reset and operation is indicated by a LED. Peak LEDs, one for each channel, are provided to monitor amplifier output. In use, the amplifier's peak LEDs can occasionally flicker. If they glow brightly or are on most of the time that you are listening, please turn down your volume control.

We consider the GFA-2 a truly significant contribution to the advancement of sound technology. To ensure that the quality of construction is on par with the quality of sonics, (a much neglected area in other moderate priced amplifiers) the GFA-2 has been carefully developed with computer controlled metal fabrication techniques that maintain .005 of an inch tolerance throughout. Full electrical inspection of each and every circuit board, sub-assembly as well as the finished amplifier provide a sonically and mechanically superior product for your enjoyment.

## SECTION 6

### THE CARE AND FEEDING OF YOUR GFA-2

Great care has been taken by ADCOM to assure that your amplifier is as flawless in appearance as it is electronically. The panel is finished in black anodized aluminum, chosen for its durability and beauty. If the front panel should become fingerprinted or smeared, it can be cleaned best with detergent and water.

**UNDER NO CIRCUMSTANCES SHOULD A STRONG OR ABRASIVE CLEANER SUCH AS SCOURING POWDER OR OVEN CLEANER BE USED ON ANY PART OF THE AMPLIFIER.**

The amplifier is protected by two line fuses on the rear panel. When power is switched on and the small red light on the front panel

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does not illuminate after a few seconds, shut off the amplifier, unplug the AC line cord from the power source, and check the line fuses. If either fuse has opened, replace it ONLY with a fuse of equal value.

REPLACEMENT WITH AN INCORRECT FUSE OR ONE OF HIGHER CURRENT RATING WILL NOT PROTECT THE AMPLIFIER AND WILL VOID THE WARRANTY.

If after replacing the fuse, it blows immediately, an electronic component failure must be suspected. No further attempts to replace the fuse should be made.

#### SECTION 7

#### IF YOU HAVE A PROBLEM OR QUESTION

ADCOM has Technical Service Departments to answer all questions pertinent to the installation and operation of your unit. Please feel free to write or call us in the event of any difficulty, and we shall endeavor to offer prompt advice. If your problem cannot be resolved through our combined efforts, we may wish to refer you to a nearby authorized repair agency or we may prefer to authorize return of your unit to the factory. 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 inquiries to:

#### ADCOM TECHNICAL SERVICE DEPARTMENT

EAST: 11-A Elkins Road

East Brunswick, NJ 08816

(201)390-1130

WEST: 1721 Newport Circle

Santa Ana, CA 92705

(714)966-2628

Be sure to include the serial number of your unit, date of purchase, and name and address of dealer. In the event it must be returned, and authorization form and proper packing instruction will be forwarded to you. This authorization form must be returned with your unit.

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UNDER NO CIRCUMSTANCES SHOULD YOUR UNIT BE SHIPPED TO THE FACTORY WITHOUT PRIOR AUTHORIZATION, OR WITHOUT ORIGINAL PACKING CARTON AND FILLERS.

If the original shipping carton has been lost or discarded, or if the carton is not in good condition, a duplicate carton may be obtained from our Service Department for a nominal charge.

Always ship prepaid via recognized surface or air freight carriers. Suggested carriers will be listed with the Return Authorization. Do not ship via Parcel Post, since the packing will not withstand rough mail handling.

ALL PARCEL POST SHIPMENTS WILL BE REFUSED. COLLECT CANNOT BE ACCEPTED.

## SECTION 8

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

In order to keep the selling price of your GFA-2 amplifier at the lowest possible level, ADCOM offers the enclosed one year LIMITED WARRANTY at no additional cost, an optional two year extension service agreement, for a total three years, for a modest additional fee.

Please read the details carefully to understand fully the extent of the protection offered by your warranty, its limits, and what responsibilities are required of you in order to obtain its benefits.