

SYNERGY[®]

SYN-5050

2 x 50W ALL TUBE POWER AMP

INSTRUCTION MANUAL

INSTRUCTIONS

Please keep this instruction manual for future reference and for the duration of owning this SYNERGY Amplifier. Please carefully read and understand the instructions inside this user's manual before attempting to operate your new amp. This instruction manual includes essential safety information regarding the use and maintenance of the amplifier. Take special care to heed all warning symbols and signs inside this manual and those printed on the amplifier itself.



WARNING!

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THE AMPLIFIER TO WATER OR MOISTURE. DO NOT OPERATE NEAR ANY WATER SOURCE



WHAT'S THE MEANING OF THIS? The lightning flash with an arrow triangular symbol is intended to alert the user to the presence of non-insulated "dangerous voltage" within the products enclosure, and may be of sufficient magnitude to constitute a risk of electric shock



WHAT'S THE MEANING OF THIS? The exclamation point triangular symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the user manual accompanying this amplifier!

1. Read Instructions – All the safety and operating instructions should be read before this product is operated.
2. Retain Instructions – The safety and operating instructions should be retained for future reference.
3. Heed Warnings – All warnings on the amplifier and in the operating instructions should be adhered to.
4. Follow Instructions – All operating and use instructions should be followed.
5. Water and Moisture – The amplifier should not be used near water – for example, a bathtub, washbowl, kitchen sink, laundry tub, wet basement, or near a swimming pool, and the like.

6. Carts and Stands – The amplifier should be used only with a cart or stand that is recommended by the manufacturer.

An amplifier and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the amplifier and cart combination to overturn.

7. Wall or Ceiling Mounting

– The product should never be mounted to a wall or ceiling.

8. Heat – Amplifier should be situated away from heat sources such as radiators, heat registers, stoves, or other amplifier (including amplifiers) that produce heat.
9. Power Sources – This product should be operated only from the type of power source indicated on the rating label.

If you are not sure of the type of power supply to your home, consult your product dealer or local power company.

10. Grounding or Polarization

– This product may be equipped with a polarized alternation-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

11. Power-Cord Protection

– Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to the cord in correspondence of plugs, convenience receptacles, and the point where they exit from the amplifier.

12. Cleaning – The amplifier should be cleaned only as recommended by the manufacturer. Clean by wiping with a cloth slightly damp with water.

Avoid getting water inside the amplifier.

14. Non-use Periods – The power cord of the amplifier should be unplugged from the outlet when left unused for a long period of time.

15. Object and Liquid Entry

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

16. Damage Requiring Service – The amplifier should be serviced by qualified service personnel when:

- A. The power-supply cord or the plug has been damaged; or
- B. Objects have fallen, or liquid has been spilled into the amplifier; or
- C. The amplifier has been exposed to rain, or D. The amplifier does not appear to operate normally or exhibits a marked change in performance; or
- E. The amplifier has been dropped, or the enclosure damaged.
- F. The amplifier needs tube replacement or biasing

17. Servicing – The user should not attempt any service to the amplifier beyond that described in the operating instructions.

All other servicing should be referred to qualified service personnel.

18. Ventilation – Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack.

19. Attachments – do not use attachments not recommended by the product manufacturer as they may cause hazards.

20. Accessories – Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product.

21. Lightning – For added protection for this product before a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet. This will prevent damage to the product due to lightning and powerline surges.

22. Replacement Parts – When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

23. Safety Check – Upon completion of any service or repairs to this product, ask the service technician to

perform safety checks to determine that the product is in proper operating condition.

24. FUSES – Always use the correct rating and type of fuse as indicated on the rear panel. Note the proper rating fuse is determined by the AC line voltage in the country this unit is being operated.



REPLACING TUBES - IMPORTANT SAFETY WARNING DANGEROUS VOLTAGE PRESENT.

We highly recommend that to change or service the tubes inside the amplifier that you take it to an authorized service center. Do not attempt to change tubes while the amplifier is ON or PLUGGED IN. To change tubes, please follow the following instructions.

- 1) Turn the unit OFF
- 2) Unplug the AC power cord
- 3) Leave the unit OFF for at least 20 minutes. This will give the amp a chance to cool down and for the capacitors internally to discharge.
CAUTION: Even if the amp is OFF and UNPLUGGED there are still dangerous voltages present!
- 5) Remove the cover - screw on top, sides and back.
- 6) Replace tubes per guidelines
- 7) Place back the cover completely with all screws.
- 8) Plug in AC cord and then turn ON the amplifier.

SPECIFICATIONS

POWER CONSUMPTION: 350 WATTS 50/60Hz

FUSE:

T4A/250V @ 110-117VAC 50/60Hz - NORTH AMERICA

T2A/250V @ 220-240VAC 50/60Hz - EUROPE

TUBES:

TWO 12AX7

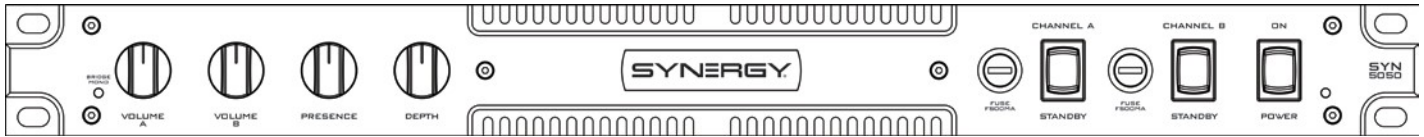
FOUR 6L6GC

OUTPUT POWER:

50WRMS/CHANNEL INTO 4, 8 or 16 OHMS STEREO (SWITCHABLE)

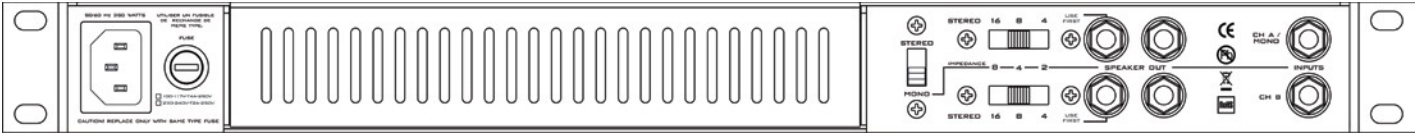
100WRMS INTO 2, 4 OR 8 OHMS BRIDGED MONO (SWITCHABLE)

FRONT PANEL



1. **VOLUME A** - Level control for Channel A.
2. **VOLUME B** - Level control for Channel B.
3. **BRIDGE MONO LED** - Indicates if the amplifier is in the bridge mono mode.
4. **PRESENCE** - Increases high frequency gain for both channels.
5. **DEPTH** - Variable damping for extended low frequency and looser speaker response for both channels
6. **CHANNEL A STANDBY** - Turns on the high voltage to the output section for Channel A. In standby, the amplifier output is disabled while power is supplied to the tube filaments only. Use STANDBY instead of switching the power off during short breaks to extend tube life and avoid the warm-up delay upon returning to play.
7. **CHANNEL B STANDBY** - Turns on the high voltage to the output section for Channel B. In standby, the amplifier output is disabled while power is supplied to the tube filaments only. Use STANDBY instead of switching the power off during short breaks to extend tube life and avoid the warm-up delay upon returning to play.
8. **Note:** When using only one channel, simply place the unused channel STANDBY switch in the STANDBY (down) position. Also, it is not necessary to have a speaker connected to the unused channel.
9. **CHANNEL A FUSE** - 500mA fast blow fuse for Channel A
10. **CHANNEL B FUSE** - 500mA fast blow fuse for Channel B
11. **POWER** - Switches main AC power on or off. You can extend the life of the amplifier tubes by keeping the STANDBY switches down for the first 60 seconds that the power is ON.
12. **POWER ON INDICATOR** – LED Illuminates when the unit is ON.

REAR PANEL



LEFT TO RIGHT

1. **AC MAINS INPUT** – Connect to a grounded outlet in accordance with the voltage and frequency specified on the rear panel of your amplifier.

 **Use only the factory supplied cord or a UL approved equivalent type.**

2. **MAINS FUSE** – Protects the amplifier from electrical faults. Replace only with type and rating specified on the rear panel of your amplifier.

 **Warning! Replace only with same fuse type and rating.**

3. **MONO / STEREO** - Selects if both channels are active (stereo) or just one channel (Mono). In the Stereo mode the amplifier will deliver 50 watts per channel. In the MONO the amplifier will deliver 100W. If selecting MONO, you must connect to Channel A input only. See 9 & 10 below for details.
4. **IMPEDANCE SELECTOR FOR CHANNEL A** - Upper selector for Channel A amplifier- set for 4, 8, or 16-Ohm loads.
5. **SPEAKER OUTPUTS FOR CHANNEL A** - Upper set of two parallel outputs for the Channel A amplifier.

NOTE! To prevent damage to power tubes and/or output transformer, ALWAYS USE “USE FIRST” output whether you are running one or two sets of speakers for either channel.

6. **IMPEDANCE SELECTOR FOR CHANNEL B** - Lower selector for Channel B amplifier- set for 4, 8, or 16-Ohm loads.
7. **SPEAKER OUTPUTS FOR CHANNEL B** - Lower set of two parallel outputs for the Channel B amplifier.

NOTE! To prevent damage to power tubes and/or output transformer, ALWAYS USE “USE FIRST” output whether you are running one or two sets of speakers for either channel.

8. **UPPER INPUT** - Upper input jack for MONO signal input. (Example: signal coming from a preamp is sent to A and B Channels) or for Channel A input from a stereo source.

9. **LOWER INPUT** - Lower input jack for Channel B for stereo source operation (example: left and right outputs coming from a stereo effect would input left signal to Channel A input and right signal to Channel B input).

NOTE! Sending a single source signal (MONO) into the Channel B input without inputting any signal to the Channel A input will effectively defeat the operation of Channel A amplifier (no sound from Channel A).

10. When using the amp in the MONO BRIDGE mode, use only the CHANNEL A/MONO input and the CHANNEL A SPEAKER OUTPUTS. The setting of the IMPEDANCE selector is now indicated by the text **below** the CHANNEL A IMPEDANCE slide switch. The IMPEDANCE selections are now 2, 4 or 8 ohms as opposed to 4, 8 or 16 ohms as in the STEREO mode. Be sure to set this switch in the proper position to match your speaker impedance. The CHANNEL B IMPEDANCE switch is disconnected in the MONO BRIDGE mode.
11. There is a functional difference between MONO and the MONO BRIDGE modes. In MONO, the A and B inputs are simply in parallel, just like using a Y-adaptor into both channels. The signal is still sent to both the CHANNEL A and CHANNEL B speaker outputs. In MONO BRIDGE, the CHANNEL B input is disconnected. The circuit is reconfigured internally so that only the CHANNEL A input is active and the outputs from both amplifiers are in parallel at the CHANNEL A speaker outputs only. THE CHANNEL B input and CHANNEL B speaker outputs are not used in the MONO BRIDGE mode.

TUBES

Recommended tubes are listed under each location (where two types are listed, the second listing is a factory recommended *substitution*). The numbering sequence is front to rear for preamp tubes (V1 and V2) and left to right looking at FRONT of amp for power tubes (V3-V6).



Use only 12AX7-tubes as specified. These cannot be switched between socket locations or substituted for other types.

V1 Input Stage (post volume control).
12AX7 Phase Inverter.
12AX7WA

V2 Input Stage (post volume control).
12AX7 Phase Inverter.
12AX7WA

V3-V6 Power Tubes
6L6/5881

SYNERGY LIMITED TWO (2) YEAR WARRANTY

Thank you for choosing SYNERGY. SYNERGY takes great pride in an extremely thorough testing procedure which is implemented on each product prior to shipment. In the unlikely event that you have a problem with your amplifier, please refer to warranty below. SYNERGY stands behind our products like no other and we're here to help you!

AMPLIFIERS: SYNERGY offers a limited Two (2) Year warranty to the original purchaser that this SYNERGY amplifier will be free from defects in material and workmanship. A dated sales receipt will establish coverage under this warranty, PLEASE KEEP YOUR PROOF OF PURCHASE TO USE YOUR WARRANTY. This warranty does not cover service or parts to repair damage caused by accident, neglect, abuse, normal & wear, disaster, misuse, abuse, over-powering, negligence, inadequate packing or shipping procedures and service, repair or any modifications to the product which have not been authorized or approved by SYNERGY in writing. **ANY MODIFICATION TO THE AMPLIFIER WILL VOID YOUR WARRANTY.** If this product is defective in materials or workmanship as warranted above, your sole remedy shall be repair or replacement by SYNERGY as provided below.

CAUTION: Do NOT attempt to repair, modify, or service your amplifier by yourself!!! Please read the instruction manual for all safety notifications, warnings, and instructions. SYNERGY, like all tube amplifiers, have extremely high voltages that can cause serious injury or death. Do not remove the chassis cover from the amplifier. All repair and service work must be performed by SYNERGY or an authorized service center of SYNERGY. ANY UNAUTHORIZED REPAIRS WILL VOID YOUR WARRANTY.

TUBES: SYNERGY warrants the original purchaser that the specific tubes used in SYNERGY will be free from defects in material and workmanship for a period of 90 days from the original date of purchase. A dated sales receipt will establish coverage under this warranty. This tube warranty will automatically terminate 90 days after the original retail sales date. This tube warranty is in lieu of all other expressed warranties. If tubes fail within the 90-day warranty period, your sole remedy shall be replacement of tubes as provided below.

RETURN PROCEDURES: In the unlikely event that a defect occurs please email **support@SynergyAmps.com**. A member of our staff will email you a response in a timely manner. Please include your phone number in case our customer service department needs to reach you. In most cases we can help you diagnose the problem over the phone. If a product must be sent to us, please follow the procedure outlined below.

- Defective products must be shipped, together with proof of purchase, freight pre-paid and insured to the Authorized SYNERGY Service Center or directly to SYNERGY.
- If a product must be returned to SYNERGY for warranty replacement/repair, a Return Authorization Number must be obtained from our Customer Service Department prior to shipping the product.
- Please contact SYNERGY Customer Service Department for the Authorized SYNERGY Service Center nearest you.
- Products must be shipped in their original packaging or its equivalent; in any case, the risk of loss or damage in transit is to be borne by the purchaser.
-

- Please send to:
SYNERGY
5300 Harbor St.
Commerce, CA 90255
- The Return Authorization Number must appear in large print directly below the shipping address.
- Always include a brief description of the defect, along with your correct return address and telephone number.
- When emailing to inquire about a returned product, always refer to the Return Authorization Number.

If SYNERGY determines that the unit was defective in materials or workmanship at any time during the warranty period, SYNERGY has the option of repairing or replacing the product at no additional charge, except as set forth below.

- All replaced parts become a property of SYNERGY. Products replaced or repaired under this warranty will be returned via ground shipping within the United States or Canada - freight prepaid.
- SYNERGY is not responsible for costs associated with expedited shipping, either to SYNERGY or the return of the product to the customer.

All warranty repairs outside the United States and Canada must be directed to the dealer or distributor from which you purchased the product.

INCIDENTAL OR CONSEQUENTIAL DAMAGE: In no event will SYNERGY be liable for any incidental or consequential damages arising out of the use or inability to use of any SYNERGY product, even if a SYNERGY dealer has been advised of the possibility of such damages, or any other claim by any other party. Some states do not allow the exclusion or limitation of consequential damages, so the above limitation and exclusion may not apply to you. This warranty gives you specific legal

rights and you may also have other rights which may vary from state to state.

FOR YOUR PROTECTION: Please complete the warranty registration card within (10) ten days of the date of purchase so that we may contact you directly in the event a safety notification issued in accordance with the 1972 Consumer Product Safety Act.

CUSTOMER SUPPORT: Our dedicated and friendly staff is ready to help you with any warranty or product questions you may have. Please email us at **Support@SynergyAmps.com**

Thank you again for choosing SYNERGY and we look forward to a long relationship!

SYNERGY