



AP2250

Dual Monaural Power Amplifier

Class A

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RECORD YOUR EQUIPMENT INFORMATION HERE AT THIS TIME

(Attach a copy of your purchase receipt/invoice to this page for future reference)

MODEL: AP2250- _____

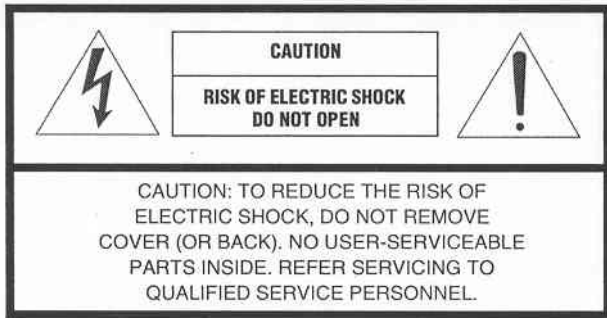
SERIAL NUMBER: _____
(Number is on the back)

DATE OF PURCHASE: _____

PURCHASED FROM: _____

IMPORTANT SAFETY INSTRUCTIONS

*** EXPLANATION OF GRAPHIC SYMBOLS ***



The exclamation point within a equilateral triangle is intended to alert you to the presence of important operating or maintenance instructions in the literature accompanying the appliance.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert you to the presence of un-insulated "Dangerous Voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

- 1- Read these instructions.
- 2- Keep these instructions.
- 3- Heed all warnings.
- 4- Follow all instructions.
- 5- Do not use this apparatus near water.
- 6- Clean only with dry cloth.
- 7- Do not block any ventilation openings. Install in accordance with the manufacture's instructions.
- 8- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10- Protect the power cord from being walked on or pinched particularly at the plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11- Only use attachments/accessories specified by the manufacture.
- 12- Use only the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 13- Unplug apparatus during lightening storms or when unused for long periods of time.
- 14- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



READ BEFORE OPERATING UNIT

To insure a lifetime of enjoyment from this high performance audio equipment it is important to read carefully and follow these precautions. If something is not covered here then common sense should prevail.

**Environmental Precautions:**

This audio equipment, by design, creates a significant volume of heat. It is very important that this unit is installed/setup in cool, dry, well ventilated area. Do not install this unit in an area where it is exposed to direct sunlight. A minimum of 3" inch (76mm) of clearance on all surfaces is recommended.

Do not install/mount the AP2250 on either side or upside down. This unit was designed to best function right side up on its feet or rack mounted with proper minimum clearances. Mounting this unit in any other fashion can cause damage to the unit and void the warranty.

Do not cover this unit with any materials or objects (i.e. anything that can restrict airflow, cabinets not intended for audio amplifiers, cloths, draperies, paper(s), magazines, wood...)

Do not install this unit where foreign objects can fall onto it. This includes rain, liquid(s), water, metal, dust, any debris, container(s) with liquid, plants, planters, or vases. Exposure to any of these could result in damage to the unit, fire and/or personal injury.

Do not expose this unit to high humidity. Vapor condensation inside this unit can cause damage to this unit, electrical shock, fire, and/or personal injury.

**Electrical Precautions:**

Do not plug in this unit until all connections are complete and you have read the following.

This equipment produces high-energy output required by speakers. Therefore, it requires a high-energy power source. Do not use any power cord other than the one delivered with this unit. Do not use any intermediate extension cord(s), power conditioner/regulator, power switch devices, or any device not approved for the power requirements of this unit. Any deviation from this can cause damage to the unit, fire and/or personal injury.

Only connect the AC Power Input of this unit to the proper line-voltage specified on the rear panel. Connection to improper line-voltage can cause damage to the unit, fire and/or personal injury. We will not be responsible for any damage or personal injury resulting in the use of line-voltage other than specified.

Do not overload AC line-voltage circuits. This unit requires 1000VA of power to operate correctly. Overloads to building circuits can cause damage to this unit, the building structure, fire and/or personal injury.

Before moving the position of this unit always turn off the rear circuit-breaker and then disconnect the AC line-voltage source at the outlet.

Always disconnect the line-voltage power cord using the grip at the plug. Do not pull on the cord to disconnect. This could result in damage to the power cord, cause a fire, and/or cause personal injury.

READ BEFORE OPERATING UNIT (cont.)



Electrical Precautions (cont.):

During extended periods of non-use it is recommended to turn off the circuit-breaker and disconnect this unit's AC power cord from the line-voltage source.

Do not open or attempt any modifications to this unit. Contact authorized/qualified service personnel for any/all service requirements. Any attempts to open or modify this unit will void any/all warranties, could cause damage to the unit, fire and/or personal injury.

Do not touch metal parts of the speaker connection 5-way binding posts or alter the speaker wire connections while this unit is operational. This could result in damage to the unit, cause a fire, and/or cause personal injury.

For best operational results:

Place this unit where the provided power cord will safely reach the AC line-voltage outlet.

Place the unit in a location away from electrical disturbances like motors, appliances, lighting power systems and power transformers.

SECTION 1**INTRODUCTION**

Thank you, our customers, for choosing the AP2250 Stereo Power Amplifier. The AP2250, two channel 250 Watts per channel class "A" low idle current amplifier, has been designed using the best possible technologies to give many years of reliable problem free enjoyment. Most notable in this series of audio products is a return to massive oversized heat-sinks supporting an analog design. We broke away from the trend to develop lighter smaller units that sacrificed audio reproduction quality for size, weight and AC power efficiency. The massive 36 pounds of heat-sinks, not only keeps the case temperature comfortable to touch, they will reduce power transistor failures and increase optimum performance life-span beyond any manufacture's traditional warranty period. What does this mean, the best possible sound for a lifetime with minimal service or repair.

The second feature that you will notice in this series is the control/display panel. No out dated switches and metering just a clean, refined, unpretentious appearance. No switches, means fewer mechanical components to breakdown over time. This series uses the latest in optical switch technology to replace their mechanical predecessors. Simply touch the display at the On/Off symbol to activate or deactivate the unit. The onboard controller brings the unit up and takes it down with the least amount of stress to the electrical systems – both in the unit and the surrounding electrical systems.

The single most prominent feature of this power amplifier series is its Dual Monaural design. Not really a new approach to the audio world just one of the best. We have taken great care to design and construct this unit to insure that the full intent of dual monaural is expressed. The three layers of ground paths use loop-breaking techniques. No DC power supply lines are common to more than one section of the unit. No outside power source is coupled to any buss or ground. The result is two fully isolated independent power amplifier channels.

Two Fully independent channels means complete autonomy for each channel with all the possible flexibility and benefits. Each channel has its own independent protection and safety circuits. Even if a catastrophic failure occurs in one channel the other will remain fully operational. Only the AC power controller and remote power sequencer is common to both channels. Once the AC power is delivered to the massive high efficiency toroidal power transformers, all control is with the independent channels.

The controls in this series, unlike the vast majority of the equipment in today's marketplace, have been implemented, purposely, to minimize the use of Digital ICs and CPUs. First, CPUs use high frequency clocks that generate audible noise that finds its way into the surrounding electronic circuits. This amplifier, by design, is intended to take in weak signals and boost those signals to a high level sufficient to drive speakers. Any foreign signal present, no matter how careful the designer, will appear in and discolor the desired audio signal output. Secondly, CPUs over complicate a design with a vast array of logic and programming. This leads to slower responses times to commands and safety features – more time to damage components and speakers. If this unit ever fails we want the damage to be minimal and repairable. Finally, the more components present in any system results in more points of potential failure and shortens the functional lifespan. This is a proven fact of engineering that we choose not to subject you, our customers, more than necessary.

CONTROLS AND FUNCTIONS

This section was placed before the unpacking and installation sections to better familiarize you with the AP2250 operations, controls and functions. We would like to reduce the amount of time it takes you to get to the enjoyment factor as much as possible. So, please read over this section first to allow for the best placement of this unit to take full advantage of its controls and functions.

AC Input Connector: Standard IEC320 15 Ampere connection for 115/230 Volts AC with chassis ground. This user-friendly connection has proven to be much preferred over a hard-wired/attached power cord.

DC Remote Input and Output Sequencer: The standard miniature 2-pole phone jacks provide the input/output to the AP2250 power controller for remote power up and sequencing to the next unit. This 3-12 Volt DC @ 10mA maximum input is totally isolated. The voltage to the output jack is passed through from the input after approximately 4 seconds of elapsed time. Sufficient power to the input should be provided for all units in the remote power up chain.

AC Master Power Switch and Circuit Breaker: The AP2250 has a combined AC input power switch and over current safety circuit breaker. The circuit breaker element is rated for 15 amperes 120/240 Volts AC single-phase power source. This easy to use feature allows this unit's AC power input safety to operate consistently and reliably for the lifespan – no fuses to deal with.

Audio Signal Input Balanced: This Gold Contact XLR input is provided to allow the use of a standard balanced audio connections without requiring adapters or converters. The 600 ohm XLR connection is a true balanced input not an adapted unbalanced circuit.

Audio Signal Input Unbalanced: This ¼" inch Gold plated RCA Audio jack is a fully isolated direct audio signal input. The acceptable audio signal input range is from 0.0 – to – 3.0Volts Peak for full power output plus. See the full specifications page for more details.

Audio Input Switch: This switch has been provided in instead of other methods to serve as the audio input connection selector. The allowable input selections are RCA (Unbalanced) and XLR (Balanced). No audio passes through this switch. It reconfigures the amplifier's input circuits for the requested input type. Do not change the position of this switch while the unit is energized/powering up.

Speaker 5-Way Safety Isolated Binding Posts: The AP2250 utilizes high potential power supplies for the high current audio outputs. To best protect the operator and speaker equipment we have provided this high quality multi-connection type binding post for your speaker connections. All mating electrical contact surfaces are gold plated for the most reliable connection.

Rear Support Handles: These solid machined aluminum handles provide for two functions on the rear of the AP2250 Case. One, due to weight of this unit we found it to be more manageable with good solid rear handles. Two, the handles are positioned to protect the rear connectors from surfaces, walls, floors and so on when moving/repositioning the unit. The rear handles alone are capable of supporting the full weight of the unit without bending, breaking, or damage to the unit.

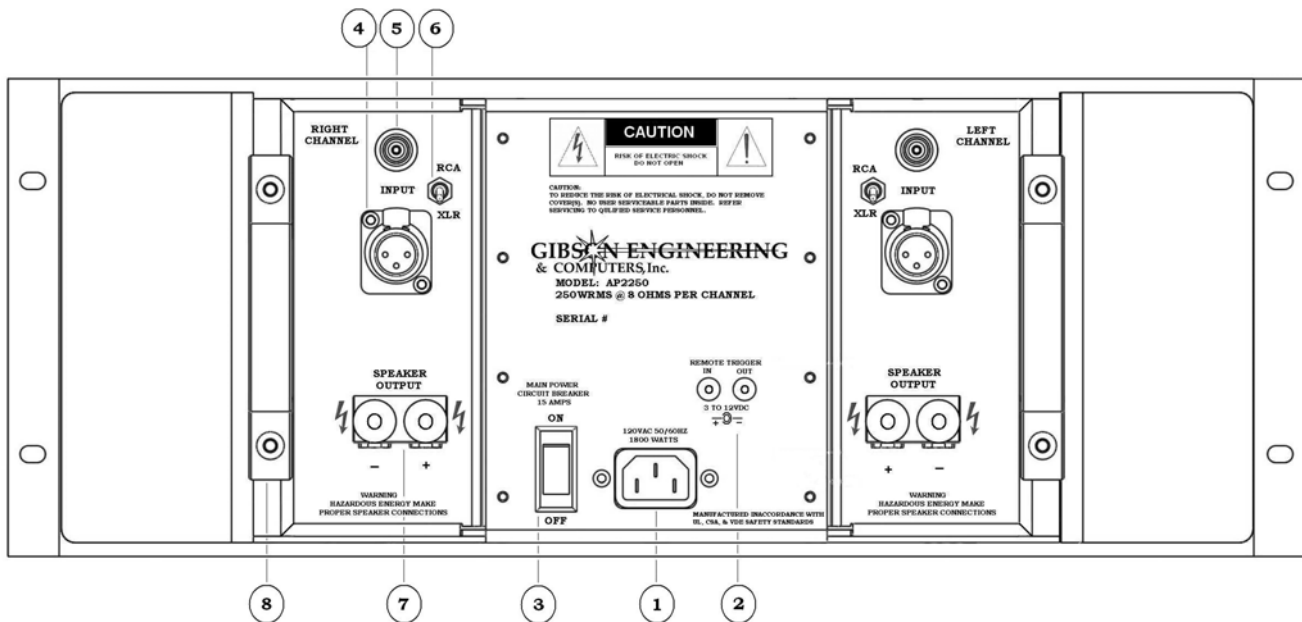
Control Panel: This feature is unified with the display to minimize the technology imprint of the front panel. Our goal with this series of amplifiers is to provide the high power current amplification for your audio signal without dominating the décor. While in standby only a dim yellow indicator informs the operator that AC power is applied and the unit is ready for either a remote or local On Command. When this unit is fully operational all control indicators are blanked and only the hologram is illuminated.

CONTROLS AND FUNCTIONS (cont.)

Display: This feature is one of the most unique elements of the AP2250 series amplifiers. It is a unified control panel as well. When the unit is activated and the power up cycle has completed the display illuminates with a characteristic trademark of this unit -- a pleasing lit hologram.

During the AC power cycle up the indicators in the display change from Standby Yellow to Activated Green. At this time the amplifier sections each activate a Red Status/Health Check indicator. If the system passes the checks they will extinguish in approximately 3 seconds and remain unlit. If either or both amplifier sections experience a fault these red indicators will remain on and flashing until the fault has been corrected. See the Solve a Problem section of this manual for more information.

Front Handles: The front handles of the AP2250 series are high quality machined aluminum. They not only provide an artistic detail to the front panel, but they will support the full weight of the amplifier when installing, moving or repositioning.



- | | |
|--|---|
| <ul style="list-style-type: none"> 1 AC INPUT CONNECTION 2 DC REMOTE INPUT & OUTPUT CONNECTIONS 3 AC MASTER POWER SWITCH & CIRCUIT BREAKER 4 BALANCED AUDIO SIGNAL INPUT CONNECTION (TYPE XLR) | <ul style="list-style-type: none"> 5 UNBALANCED AUDIO SIGNAL INPUT CONNECTION (TYPE RCA) 6 AUDIO INPUT SWITCH 7 SPEAKER BINDING POSTS, 5-WAY SAFETY ISOLATED 8 REAR SUPPORT HANDLES |
|--|---|

OPTIONS AND ACCESSORIES

Rear Rack Supports: This option is available by special order. They provided additional support for the AP2250 series amplifiers when installed in standard 17" inch racks. We recommend this option kit for professionals that install the AP2250 in a rack that is not stationary, subject to vibrations, or stresses that could damage the faceplate and frame. Some rack depths may require the use of the additional support extensions. Verify your rack rear mounting depth before ordering your kit(s).

Rear Rack Support Extensions: This option is a special order item. This option, when required, extends the length of the rear support option for deeper rack cabinets.

Non-Rack AP2250 Face Plate: Not a user installable option — service center and factory request only. Order this option when you purchase your AP2250 Amplifier.

Part Number References:

When inquiring about Options or Accessory needs, please refer to the following List of Part Numbers. Parts not listed here will only be available through an authorized service center.

Description	Part Number
AP2250RM Rack-Mount Class "A"	AS-910-01064
AP2250 Non-Rack-Mount Class "A"	AS-910-01065
Kit, Rear Rack Supports	AS-910-01066
Kit, Rear Support Extension 20-28" inches	AS-910-01067
Kit, Rear Support Extension 28-34" inches	AS-910-01068
Kit, Hardware Rack Mounting 8 Screws	AS-910-01069
Cord, AC Power 6' Ft. 14AWG 15A US 120V	AS-906-01054
Cord, AC Power 6' Ft. 14AWG 15A Other Bare End	AS-906-01055
Cord, AC Power 6' Ft. 12AWG 15A US 120V	AS-906-01057
Cord, AC Power 6' Ft. 12AWG 15A Other Bare End	AS-906-01058
Cable, DC Remote 6' Ft 3.5mm Male to Male	AS-906-01056
Package, AP2250 Shipping Box w/Packing	AS-405-01064
Handle, 2.00" Extended Rear	CO-220-01055
Handle, Standard 3/4" Inch Rear	CO-220-01070

UNPACKING EQUIPMENT



WARNING:

This Equipment Exceeds 40 lbs. Two Persons Lifting Required.

At this point the top of the shipping box is open. Locate the box in an area where you can manage the removal of the AP2250 with its protective foam end caps. This may require two people to manage the weight of the unit. Set the unit with packaging down, remove the protective foam end caps and the plastic cover. Remove the power cord and any remaining items from the package.

Do Not Discard the Packaging. If you need to return the AP2250 for any reason, it must be returned in the original package while under warranty.

Due to the weight of this unit we recommend that you keep the packing in a safe place for any future transportation needs. This is the best way to protect your AP2250 investment. Damage to the unit caused as result of not using the proper packaging for shipping will not be covered under warranty.

Carefully inspect the unit for any shipping damage. If you purchased this unit from a retailer, they will have made sure that no damage occurred before delivery to you. If you have shipping damage, it must be reported to your place of purchase within 72 hour of receipt no exceptions. Once the problem has been reported the appropriate arrangements will be made to rectify the situation.

(Picture/figure of packing, cables, etc.)

INSTALLATION

At this point the AP2250 amplifier has been unpacked and all accessories are accounted for.

The AP2250 is a heavy unit. So, the shelf, rack or audio/video center should be sturdy enough to safely support its weight. Make sure the intended installation place can support the weight. If not, the unit could be damaged or personal injury may be the result. Refer to the Appendix A2 for recommended shelf or rack space requirements to maintain proper clearances for airflow.

**WARNING:**

This Equipment Exceeds 40 lbs. Two Persons Lifting Required.

If your unit is a rack-mounted version, we recommend that two people install the unit to avoid damage to the unit or personal injury. It is also recommend that the AP2250 be placed in the lower area of the rack cabinet. If the top of the rack is heavier than the bottom, it could become unstable and collapse. This may result in damage to the unit and/or personal injury. When in place, tighten all hardware before allowing the unit's attaching points to hold the full weight. Otherwise, the mounting points and/or the screws could be weakened or damaged.

Once you have a proper resting/installation place for the AP2250, you can begin make the proper cable connections to your pre-amplifier/amplifier controller, speakers, remote power-up (if used), and lastly the AC power cord. Refer to Connection section for questions concerning proper cabling. It is always recommended that this unit be placed in the lower areas of any shelving or cabinet. If the top of the rack is heavier than the bottom, it could become unstable and collapse. This may result in damage to the unit and/or personal injury.

Double check all the connection to make sure nothing has been over looked. Check audio input selection switch is set for the proper cable connection type.

If all installation steps are correct, turn "On/Reset" the AC Master Power Switch/Circuit-Breaker. The Yellow Standby indicator will illuminate. You are now ready for use. Remember, always power-up your amplifier(s) last to avoid possible damage to the unit or the speakers.

CONNECTIONS

The following is a sample standard configuration for cable connections, to and from, the AP2250 series amplifier. This drawing is intended for reference purposes only. Your desired cable connection configuration may be different. Pre-amplifier outputs could be the standard RCA type shown in the following diagram or XLR. Either type will be connected in a similar fashion.

Maintain proper polarity from the Amplifier(s) outputs to the speaker(s) inputs. Red speaker posts are positive (+) and the Black posts are negative (-). Standard connections should be from Red to Red on the speaker and Black to Black on the speaker.

To maintain the best performance with any speaker, it is recommended that a speaker cable be 10AWG gauge speaker rated wire. This will insure lower resistance and better transfer of audio power to your speakers. This condition may be audible in lower frequencies of 4 ohm and sub-4 ohm speakers. You have provided your system with a high power AP2250 amplifier. It would be a shame to loose that power to poor quality or under rated speaker cables.

The remote power-up feature of the AP2250 is capable of a daisy-chain with the remote power-on source from the pre-amplifier or other amplifier controller device. There is no remote power source provided in the AP2250. This is to maintain the isolation of the dual-mono design.

The remote output of your pre-amplifier will be connected to the remote input of the first AP2250 amplifier with the provided remote cable. The remote output of the first AP2250 is then connected to the remote input of the second AP2250 Amplifier and so on. If there is another manufactures product in the chain, it is recommended it be placed last or connected to the pre-amplifier's second remote output if provided. The reason for this is that other amplifier manufactures may not provide daisy-chain remote output sequencing. Remote sequencing insures that each amplifier in the chain has sufficient time to power-up before the next amplifier is powered up. Without this sequencing, the resulting massive power surge could cause damage to or shutdown the AC power source.

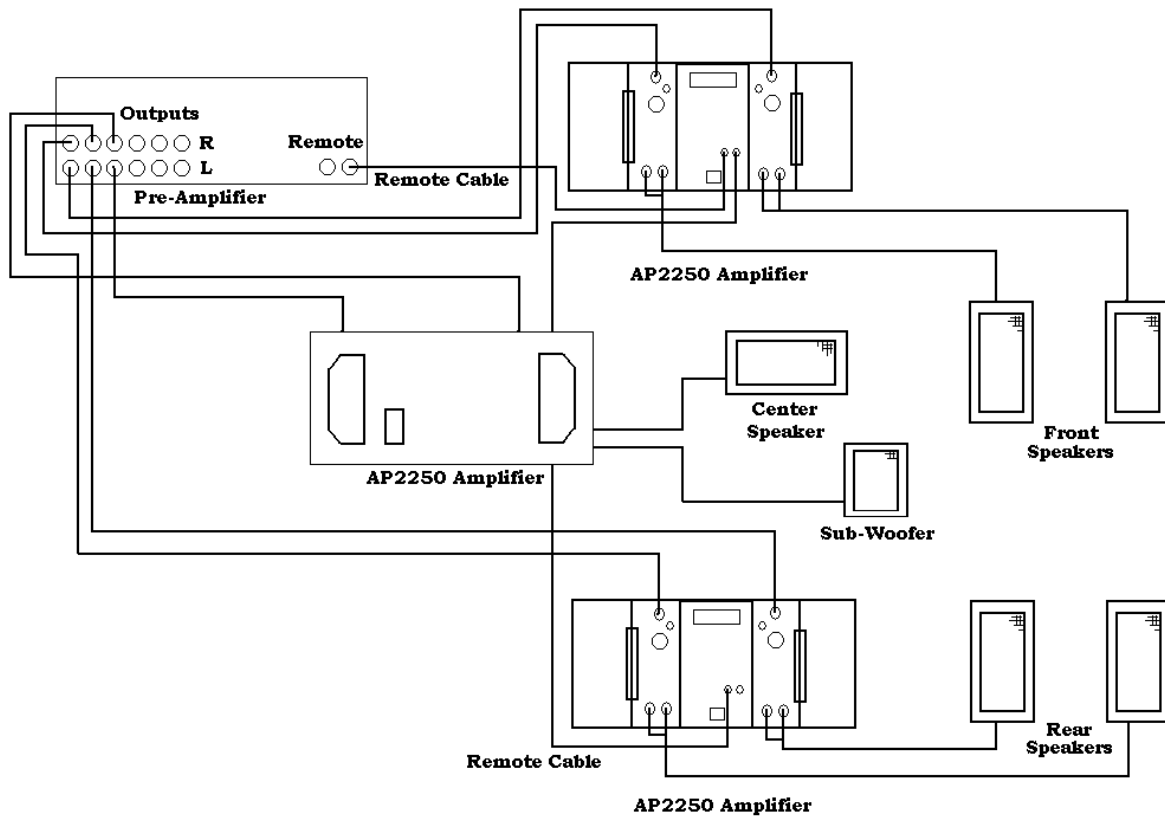
When the remote power control feature is used the front panel power control is overridden. Any attempt to power up or down from the front panel will be ignored.

The remote power control configuration has no effect on the amplifier(s) and the speakers that are connected. You don't have to reconfigure your amplifiers and the speakers to a specific configuration to take full advantage of the remote power control feature. See the specification appendix for the connector type, signal conditions, and power requirements for the remote control input and output.

**CAUTION:**

Remember, never change or make any connections to this unit with AC power applied. Always, disconnect the AC power cord from the AC power source before making any connections. This will insure the greatest possible safety around this unit. Otherwise, damage to the AP2250 or personal injury could be the result.

CONNECTIONS (CONT.)



Simplified Connections for a Stereo or A/V Processor 5:1 Using Two AP2250 Amplifiers

SECTION 2

OPERATION

You now have the unit installed and have made all the necessary connections. Turn on/reset the master AC input power switch/circuit breaker. The AP2250 should now indicate AC power is applied and is in Yellow Standby mode. Turn on your pre-amplifier or amplifier controller and any source devices that you plan on using (i.e. Turntable, CD/DVD Player, Tuner, ...) before activating the power up switch on the control panel or by remote. If you have an appropriate power control device installed, this procedure needs to be followed for AP2250 activation. If the AP2250 is active and an audio source or pre-amplifier is turned "On", the audio inputs to the AP2250 could be driven to overload. An overload condition may cause damage to the unit or the connected speakers. Even if an overload condition isn't reached, this unit has sufficient capability to damage speaker systems. Always power up from Standby mode and Activate the AP2250 last.

Activation of the AP2250 from standby can be accomplished one of two ways. First, the most common way that will be used is the front panel switch. Located in the lower center quadrant of the display window is the international symbol for On/Off (a circle with a line at the top). Lightly press your finger tip on the area of the On/Off symbol to turn On or Off the unit. There is a timer interlock to prevent false condition changes, so continue to press for 1.0 second. The power controller will respond with a Green Power-up Activated indicator when the activation conditions have been met. Next, the display will indicate two red indicators performing a health check on the amplifier sections. Finally, all indicators will extinguish and the display will illuminate the hologram. This activation cycle takes approximately 4 seconds. Press again for 1 second and the unit is deactivated and returned to Standby mode.

The second activation method is by remote power control. Some audio pre-amplifier and amplifier controller products offer a remote power output for controlling the On/Off function of amplifiers and other audio equipment. The AP2250 has the capability for remote On/Off using a constant 3.0 -to- 12Volt DC @ 10mA signal applied to the Remote Input on the rear of this unit. When the signal is applied to the input jack the unit is activated using the same procedure as if the front panel switch was used. When the signal is removed the unit is deactivated and returns to Standby mode.



WARNING:

The audio input selector on the rear is the only other control that requires setting for proper operation. Insure that the input switch is in the proper corresponding position for the audio cable connections. Do not change this setting when the AP2250 is activated. This may cause damage to the unit.

MAINTENANCE AND CARE

The AP2250 has been designed so caring for it is minimal. We recommend using a household vacuum with a brush attachment to gently remove dust accumulation from the heat-sink fins and outside surfaces at least once per year of installation/operation.

**WARNING:**

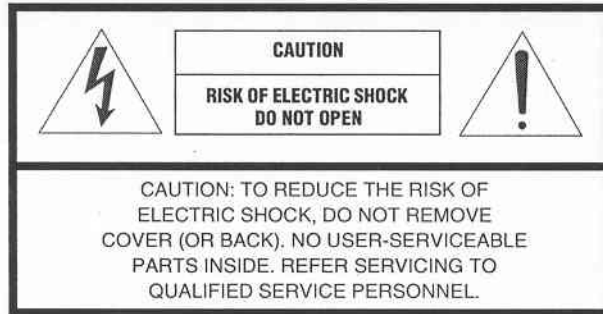
The finer finished surfaces on the front should be more carefully cleaned. We recommend the use of a soft cloth towel – no paper products. Do not use any paper products to clean the front panel. Paper can cause fine scratches in the finish.

If you need more than a dry cloth for cleaning, lightly moisten the cloth with water, (dampened not dripping wet), and a small amount of mild soap (such as liquid dish soap). Do not apply any liquids directly to any surfaces of the AP2250. Do not use any aerosol cleaners. Do not use any solvents or liquids other than pure water. Any deviation can cause damage to the finish and the polished surface of the display panel. If the display panel surface is damaged it may impede proper function.

SECTION 3

SOLVE A PROBLEM

The following are the basics of problems you might encounter in the operation of the AP2250. If the problem is not listed in the following information or requires an experienced service person, contact us the, manufacture, or an authorized service center for assistance. At no time should any unqualified person(s) open the casework. This action may void your warranty, result in damage to the unit, cause a fire, or cause personal injury. We always recommend any work requiring that the casework to be opened be done by experienced service personnel.



No yellow Standby mode indication.

Check power cord, power to the outlet, any devices between the power cord and the AC outlet.
Cycle the Master switch/circuit breaker on the rear Off to Reset.
Verify AC power at AP2250.

Refer to Authorized Service Location.

No green Activated mode indication.

Yellow Standby present then check to see if front panel display is scratched or dirty at the On/Off location. Clean same if dirty.

Remote operation active, check for 3 to 12Volt DC present at the rear Remote Input Jack. Disconnect remote cable.

Refer to Authorized Service Location.

No Hologram Illumination

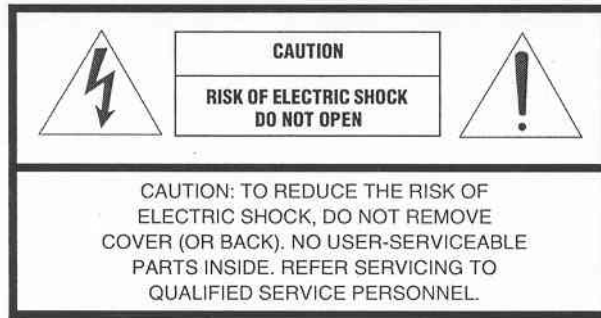
Green Active Mode indicated and more than 10 seconds has elapsed, Refer to Authorized Service Location.
No Green or Yellow indication, Verify AC power present at AP2250.

Yellow to Green and back to Yellow indication, Refer to Authorized Service Location.

Yellow to Green indication to No 3D illumination, Refer to Authorized Service Location.

Are the heat-sinks too hot to touch (above 60C). Turn off Unit and let cool down then run at lower output level.
Refer to Authorized Service Location.

SOLVE A PROBLEM (cont.)



Flashing Red indication (Left or Right)

Left or Right channel amplifier section in protection mode.
 Wait 10 second for condition to clear.
 Check speaker connections and cables for shorts or damage.
 Is audio program signal frequency below 10 Hertz or at a DC level. Correct input program material.
 Refer to Authorized Service Location.

Cannot Switch Off Unit from Front

Is the remote input feature active. Disconnect cable.
 Clean the front display.
 Is the front display scratched at the On/Off symbol.
 Refer to Authorized Service Location.

Cannot Switch On or Off Unit with Remote Input

Is remote input signal 3 to 12Volts DC @ 10mA or more.
 Is the remote signal constant in either 0 Volts or 3 to 12Volts. If not, correct power-up signal source.
 Is the proper remote input plug in use. See Specifications.
 Is there power applied to the remote output verses the input. Check/correct remote cable connections.
 Is the remote output cable shorted.
 Refer to Authorized Service Location.

No Sound from Channel(s) Unit Active

Check the pre-amplifier/amplifier controller for proper output signal.
 Is the audio signal present at the Input Jack.
 Is the input selector in the proper position for the input jack that is connected to the audio source.
 Is a red indicator flashing, See Flashing Red Indicators.
 Refer to Authorized Service Location.

Distorted Sound

Check audio source.
 Is the audio input level too high. See Specifications
 Check all cables and cable connections.
 Refer to Authorized Service Location.

APPENDIXES

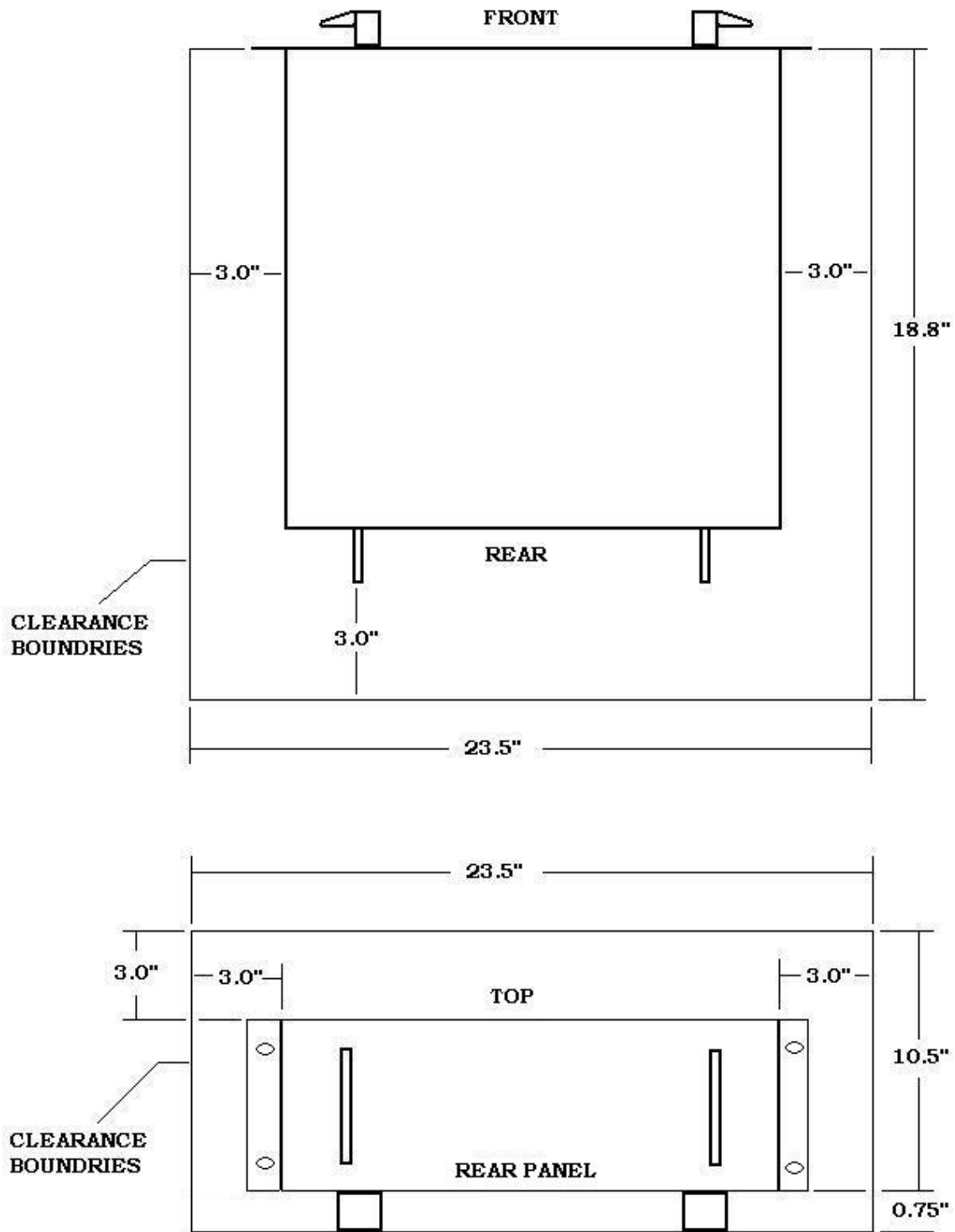
SPECIFICATIONS

Power Output	250Watts RMS @ 8 Ohms Both Channels Driven 380Watts RMS @ 4 Ohms Both Channels Driven
Frequency Response	10Hz to 20kHz +0.05dB -0.2dB @ Full Rated Power
Frequency Bandwidth	5Hz to 150Khz @ Rated Gain
Slew Rate	Greater Than 20V/uSec. Front to Back all Filters in Place
Total Harmonic Distortion	TDH+N Less Than 0.04% 1Watt to 250Watts @ 20Hz to 20kHz
Damping Factor	Greater Than 150 @ 2kHz 8 Ohms
Crosstalk	Better Than -90dB @ 20Hz to 20kHz
Signal-to-Noise	Better Than -100dB un-weighted at Rated Power
Gain, Voltage (Audiophile setting)	20 (26.0dB) RCA Inputs (Optional Factory Setting Required) 20 (26.0dB) XLR Inputs
Gain, Voltage (THX setting)	28.28 (29.0dB) RCA Inputs
Input Impedance	47k Ohms
Input Sensitivity	2.24Vrms for Full Rated Power Into 8 Ohms (Optional Factory Setting Required)
Input Sensitivity (THX)	1.59Vrms for Full Rated Power Into 8 Ohms
Dynamic Headroom	+1.5dB Before Clipping +0.5dB @ 0.1% THD+N
Remote Trigger Voltage	3.0 to 12.0Volts DC @ 10mA or Greater Positive Signal Logic Control (On = 3.0 to 12VDC, Off = 0 to 1.2VDC) 1200VDC Isolation
Dimensions Maximum	Non-Rack 7.50" (191mm) x 17.5" (445mm) x 18.5" (470mm) H x W x D Rack Mount 7.50" (191mm) x 19" (483mm) x 18.5" (470mm) H x W x D
Weight	70 Lbs (32kg)
Weight w/Package	77 Lbs (35kg)
Power Requirements	115VAC 50/60Hz or 230VAC 50/60Hz 1800Watts RMS Maximum Idle (Standby consumption) 4Watt RMS Maximum Idle (Active consumption No Audio) 120Watts RMS Maximum Surge (Power-Up) 115VAC 50/60Hz 15Amperes @100ms Maximum
Humidity Operational	0-90 % Percent Non-Condensing
Humidity Storage	95 % Percent Non-Condensing
Temperature Operational	+5F to +80F (-15C to +27C) Ambient Air (Recommended)
Temperature Storage	+5F to +90F (-15C to +32C) Ambient Air

APPENDIXES

SPECIFICATIONS (cont.)

SUGGESTED MINIMUM INSTALLATION CLEARANCES



APPENDIXES

INDICATORS

Indicators are located in the lower left-hand portion of the Display/Control Panel. They are from left to right, Yellow, Green, Red-Left, and Red-Right.

LED Yellow	Standby Mode, AC Voltage Applied
LED Green	Power-Up Mode, Activated
LED Red, Left	Protection Status Indicator Left Channel Amplifier
LED Red, Right	Protection Status Indicator Right Channel Amplifier
LED RGB Display	AP2250 Operational, Hologram Illuminated

CABLE SPECIFICATIONS

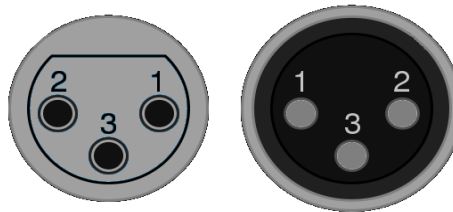
AC Power Cord	USA IEC320 to NEMA15 6' Foot 14AWG 3-Wire 1-Phase 70C PVC Coating
	Other IEC320 to Bare Wire 6' Foot 14AWG 3-Wire 1-Phase 70C PVC Coating

Audio Input Cables	
XLR	Male 3-Wire w/Shield Gold Plated Contacts Metal Shell
RCA	Male 1-Wire w/Shield Gold Plated Contacts (Chassis Isolated Female Connector)

Remote Input/Output	Male 2-Wire 0.138" (3.5mm) x 0.197" (5.0mm) Miniature Mono. Phone Plug (Input Female Connector is Chassis Isolated)
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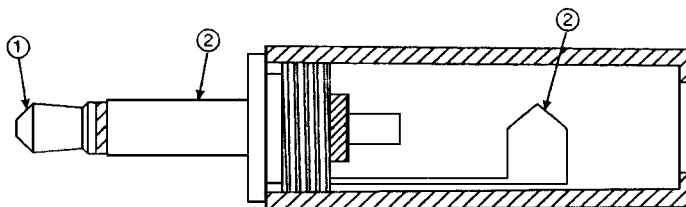
Cable Pin Outs:

XLR	1 Ground, Shield
	2 Positive
	3 Negative



RCA	Center Positive
	Body Ground/Shield

Remote	1 Positive 1
	2 Ground 2



APPENDIXES**LIMITED WARRANTY****1. ACTIVATION**

This warranty is activated, and the below terms and conditions apply, on the date of shipment of the Equipment by Gibson Engineering & Computers, Inc. Customer registration is not required to activate this warranty.

In order to take advantage of this warranty, the original purchaser must provide a valid proof of warranty purchase.

This warranty is not transferable.

2. COVERAGE

Gibson Engineering & Computers, Inc., (hereinafter referred to as MFG) warrants to the original purchaser that this manufacturer's equipment will be free from defects in materials and workmanship for a period of five (5) years from the date of invoice. This warranty applies to the components comprising the unit including: accessories, cable(s), connectors, and mounting bracket(s) for sale by MFG. Failed items must be returned to MFG, freight prepaid by the customer, within 10 days purchase or they will be subject to invoice for the unreturned products. This warranty is a limited warranty. During this warranty period MFG will repair or replace defective components. When the unit is delivered freight prepaid to MFG, MFG will restore the unit to its original operating configuration. As the sole remedy for a breach of this warranty, MFG will, at its discretion, repair or replace defective components with new or like new (tested equivalent to new) components of equivalent or better performance. MFG will complete warranty service within a period of time deemed reasonable by MFG and return the repaired unit to the Customer freight prepaid by normal surface transportation routing.

3. EXCLUSIONS

Reinstallation or restoration of hardware not approved by MFG, or configuration changes done by the customer, which are not approved by MFG customer service, are not covered by this warranty.

Component failures that have, in the sole opinion of MFG, failed because of damage caused by accident, misuse, mishandling, misapplication, lack of proper maintenance or act of God/Nature, are not covered by this warranty.

4. LIMITATION OF LIABILITY

MFG IS NOT LIABLE AND SPECIFICALLY DISCLAIMS ANY DIRECT, INDIRECT, SPECIAL, EXEMPLARY, PUNITIVE, CONSEQUENTIAL OR INCIDENTAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOST PROFITS OR LOSS OF BUSINESS OR DOWN TIME, YOUR TIME, THE CLAIMS OF THIRD PARTIES OR INJURY TO PROPERTY, REGARDLESS OF THE NATURE OF THE CLAIM, EVEN IF MFG HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. USER UNDERSTANDS AND AGREES THAT MFG IS NOT RESPONSIBLE FOR LOSS, DESTRUCTION OR DAMAGE TO DATA, SOFTWARE, AND/OR OTHER EQUIPMENT. YOUR SOLE REMEDY AGAINST MFG IS LIMITED TO THE COST OF REPLACING THE DEFECTIVE EQUIPMENT AND/OR TO SEEK RECOVERY OF THE AMOUNTS YOU HAVE PAID FOR THIS WARRANTY.

5. PARTS AVAILABILITY

Because of the rapid development of technology, or for other reasons, a particular part may not be available. In such an event, MFG will make reasonable efforts to locate a compatible replacement part(s). If MFG cannot locate a compatible replacement part(s), then, if possible, MFG will offer to upgrade Customer's unit to the least expensive configuration that can be serviced. If Customer elects to accept the offer to upgrade, then Customer shall repay MFG for the cost of the upgrade(s). In the event Customer chooses not to accept the upgrade MFG shall not be responsible to make repairs under this Service/Warranty Plan.

6. MISCELLANEOUS

EXCEPT FOR THE WARRANTIES SET FORTH HEREIN, MFG DISCLAIMS ALL OTHER WARRANTIES EXPRESS OR IMPLIED INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ANY IMPLIED WARRANTIES THAT MAY BE IMPOSED BY APPLICABLE LAW ARE LIMITED TO THE DURATION OF THIS LIMITED WARRANTY.

Manufacturer warranty responsibilities vary from state to state. Therefore, this warranty may give you specific legal rights that are not stated above which may be required in your state. Consult your specific state's warranty requirements for any questions.

APPENDIXES

MANUFACTURES INFORMATION

Contact information is as follows:

Corporate Office:
Gibson Engineering & Computers, Inc.
3575 S. West Temple, Suite 6
Salt Lake City, UT 84115
USA

Phone 801.261.8181
Fax 801.261.1095
WEB www.gibsoneng.com

For Product Support Information, please refer our website for online resources. If you need additional assistance or cannot access our website, please contact our corporate office.

For Service and/or Support: Please contact our corporate office for the nearest service/support location.
Do not send/return any product back to us without an RMA authorization.
It will be rejected and returned.
We take no responsibility for any return(s), without a proper RMA Authorization,
that are lost/damaged.

Factory Authorized Service Centers:

Interwest Electronics, Inc.
4091 S. State
Salt Lake City, UT 84107
USA
801-266-5301

NOTES: