

Hybrid



PROFESSIONAL POWER AMPLIFIERS

B1200 ▸ B1800 ▸ B2400 ▸ B4000



USER MANUAL

IMPORTANT PRECAUTIONS



Symbol alerting the operator to follow important operating instructions and precautions detailed in this document



Symbol warning the operator that uninsulated, dangerous voltages are present within the enclosure that may pose a risk to electric shock.

- Save the carton and packing material even if the amplifier has arrived in perfect condition. Should you ever need to ship the amplifier for servicing, use the original packaging supplied.
- Read all documentation before operating your amplifier. Retain all documentation for future reference.
- Follow all instructions printed on this user manual and the back panel of the amplifier for proper and safe operation.
- ⚠ Do not spill water or other liquids into or on the amplifier, or operate the amplifier whilst under wet or damp conditions.
- ⚠ Ensure that power outlets and mains voltage conforms to the power requirements printed on the back panel of the amplifier.
- ⚠ Do not use the amplifier if the electrical power cable is frayed or damaged. The power supply cable should be routed so that it is not walked upon or pinched by objects close by. Only use the original power cable supplied with your amplifier.
- ⚠ Always operate the amplifier with the AC Earth wire connected on both sides (Amplifier and Mains).
- ⚠ Precaution should be taken so that the Earth connection is not defeated.
- Gain controls of the amplifiers should be turned to the minimum position (Completely anti-clockwise) during the switch on and switch off operation in order to prevent damage to loudspeakers.
- ⚠ Power down and disconnect your amplifier from mains power before attempting any physical connections to loudspeakers or audio sources.
- ⚠ Never force the power on-off switch to the "On" position if it will not stay there by itself.
- ⚠ Never use your amplifier near heat radiating appliances such as stoves and heaters.
- ⚠ Do not block the airflow vents located on the front and rear panels of your amplifier. Do not operate your amplifier on a surface or environment which may impede the normal flow of air around the amplifier.
- If the amplifier is used in an extremely dusty or smoky environment, the amplifier should periodically be blown free of foreign matter.
- ⚠ Do not remove the cover, front or rear panels of the amplifier. Removing any cover will expose you to potentially dangerous voltages. There are no user serviceable parts inside.
- ⚠ Connecting your amplifier output to an oscilloscope or other test equipment while the amplifier is in bridge mode may damage both the amplifier and the test equipment.
- ⚠ Do not apply an input signal that is much greater than that which is required to achieve maximum output level. This may damage the pre-amplification stage circuitry.
- ⚠ Do not connect the input or output connectors of your amplifier to any other voltage sources such as batteries, mains power or power supply units, regardless of whether the amplifier is switched on or off.
- ⚠ Never connect the output of your amplifier to an input or output of the same or any other amplifier.
- ⚠ During long periods of no use, the power cable should be unplugged from the mains voltage outlet.
- After long periods of no use, the power cable should be inspected for any damage before using the amplifier again.
- Your amplifier should be serviced only by qualified service personnel. Contact your nearest official retailer should your amplifier need technical attention.
- Your amplifier should be serviced by a qualified service technician when:
 - The power supply cord or plug/s have been damaged
 - Objects have fallen, or liquids have been spilled inside the amplifier enclosure
 - The amplifier has been exposed to rain or excessive moisture
 - The amplifier does not appear to operate normally, or exhibits a reduced change in performance
 - The amplifier has been dropped or the enclosure is damaged
 - Either one of the red protect LED's is indicating a fault and has not corrected itself

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Please read these instructions carefully which includes important information about the installation, operation and maintenance.

INTRODUCTION

- Congratulations on your purchase of the new Hybrid B Series (MK6/2019) professional power amplifier, and thank you for your confidence in the Hybrid brand. You are amongst the growing number of audio professionals who have made Hybrid one of Southern Africa's leading brands of professional and commercial audio systems.
- For your safety, please read the important precautions before installing and operating your amplifier. The Hybrid MK6 B Series is based on the same advanced circuit topologies that have made Hybrid amplifiers the choice of professionals for the past 30 years.

B Series amplifiers are designed for high operating efficiency and accurate sonic performance across the full audio bandwidth, even under stressful conditions. Internal components are the finest available, and sub-assemblies are pre-tested before final assembly.

Finally, each amplifier is "burned in" and thoroughly tested using precision audio test equipment before shipping. In addition, all B Series amplifiers incorporate extensive protection features to safeguard both internal circuitry and connected loudspeakers. This proven combination of advanced design, quality construction and comprehensive circuit protection is your guarantee of fail-safe reliability, and you can depend on consistent, stable performance.

UNPACKING

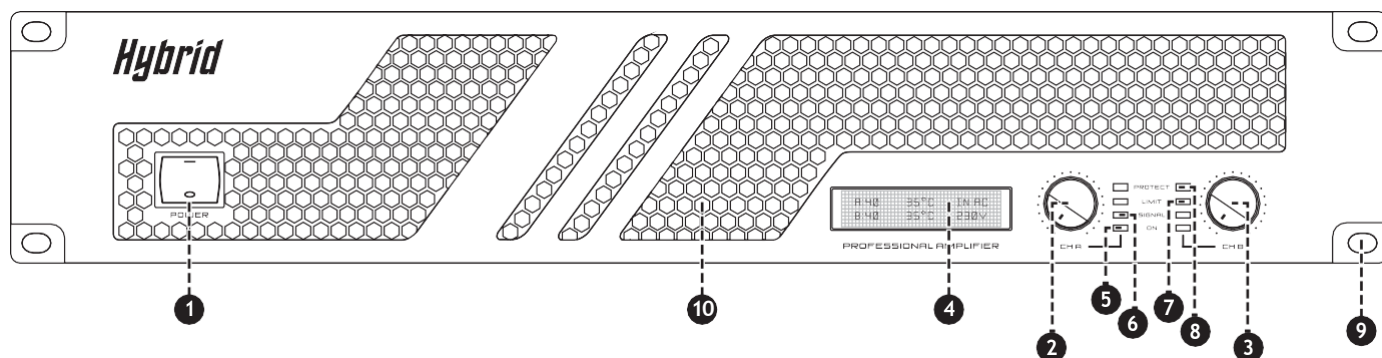
- Please inspect the amplifier carefully immediately after unpacking. If you find any visible damage, notify your supplier/retailer immediately. Be sure to save the carton and all packing materials should you need to ship the unit back to your authorized service center.
- Hybrid B Series amplifiers offer a 1 year "No-Quibble" carry-in guarantee, and should your amplifier in the unlikely event be damaged upon receipt and inspection, we offer an exchange immediately, provided that all packaging and cabling is returned in original condition.

INSTALLATION AND MOUNTING

- Hybrid B Series amplifiers are 2U-rack-space-High (Approx. 90mm). All 4 models can be mounted in standard 19" Rack units by means of four mounting holes provided in the front panel of the amplifier.
- Rear ears with an additional four mounting holes are present and it is recommended that the amplifier is supported in the rear for added support.
- Industry standard M6 cage nuts, screws and plastic washers are recommended when installing your amplifier.

FRONT PANEL CONTROLS AND FEATURES

MODELS: B1200 ■ B1800 ■ B2400 ■ B4000



1: POWER ON-OFF SWITCH

- Main power switch, switching the amplifier ON or OFF. Once the amplifier is switched ON, the two green power-on LED indicators (5) and the LCD screen (4) will illuminate.

⚠ TIP: When switching the amplifier on or off, ensure that the two volume controls (2 and 3) are rotated fully counter clockwise, i.e. at lowest position.

2: CHANNEL A VOLUME CONTROL

- Rotating Channel A volume control clockwise will increase the volume of the output of Channel A (Stereo Mode). If the amplifier is set to either Parallel or Bridge mode, Channel A volume control will control the volume of the entire amplifier and Channel B volume control (3) will have no effect.
- Once Channel A volume control is rotated in either direction, the LCD screen (4) will indicate at what level the control has been set with a range of 40.0 being a muted state with no output volume and 40 being the maximum volume.

3: CHANNEL B VOLUME CONTROL

- Rotating Channel B volume control clockwise will increase the volume of the output of Channel B (Stereo Mode). If the amplifier is set to either Parallel or Bridge mode, Channel A volume control (2) will control the volume of the entire amplifier and Channel B volume control will have no effect.
- Once Channel B volume control is rotated in either direction, the LCD screen (4) will indicate at what level the control has been set with a range of 40.0 being a muted state with no output volume and 40 being the maximum volume.

TIP: It is good practice to set your Volume controls to maximum whilst operating the amplifier in order to minimize the risk of overloading input stages before the power amplifier. Setting the volume control to a lower level WILL NOT limit / protect your amplifier or loudspeakers.

4: LCD SCREEN

The LCD screen informs the operator of important information as follows:

- Channel A volume setting ranging from 0 to 40.0 being a muted state whilst 40 is at maximum input volume level.
- Channel B volume setting ranging from 0 to 40.0 being a muted state whilst 40 is at maximum input volume level.
- Channel A operating temperature. Normal operating temperatures range from room temperature to 90° Celsius.
- Channel B operating temperature. Normal operating temperatures range from room temperature to 90° Celsius.
- Mains Voltage supplied to the amplifier from your wall electrical supply socket. Normal mains voltage should range between 220 - 240Vac

5: POWER ON LED's

- Two green LED's indicating when the amplifier is switched on.

6: SIGNAL LED's

- Two green LED's indicating when an input signal has been applied to the inputs of channels A and B.
- A threshold of 100mV is required from the input signal in order to activate the LED's

7: LIMIT LED's

- Two yellow LED's indicating once the amplifier has reached its optimum performance and has activated the internal limiters.

⚠ TIP: Do not drive the power amplifier beyond this point as it will degrade the audio quality which may damage your loudspeakers.

8: PROTECT LED's

- Two red LED's indicating that there is a fault on one or both channels. Once the protect LED is lit, it will automatically shut down the associated amplifier channel.
- Protection will activate for the following faults:
 - Thermal overload (Amplifier is overheating)
 - Short Circuit Protection (Short sensed on output cables or within the speaker enclosure)
 - DC protection (DC Voltage sensed on output amplifier stage)

9: RACK MOUNT HOLES

- 4 rack mount holes provided for installation in 19" rack case.

TIP: Use industry standard M6 cage nuts, screws and plastic washers to avoid scratching the face plate.

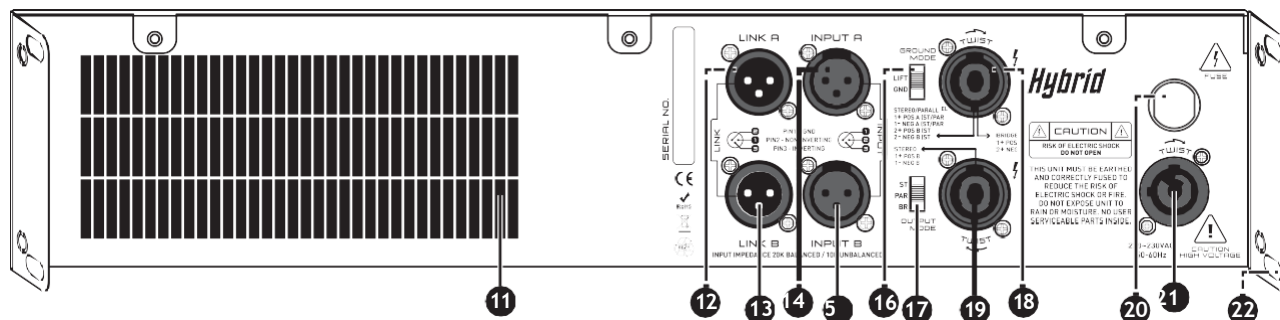
10: AIRFLOW VENT

- Your amplifier is equipped with dual variable speed fans and designed with front to back forced air cooling circuitry. Cool air is pulled from the front panel airflow vents and expelled out the back panel airflow vents.

⚠ TIP: Keep the airflow vents clear from objects allowing for free air movement.

BACK PANEL CONTROLS AND FEATURES

MODELS: B1200 ▀ B1800 ▀ B2400 ▀ B4000



11: AIRFLOW VENT

- This amplifier is equipped with dual variable speed fans and designed with front to back forced air cooling circuitry. Cool air is pulled from the front panel airflow vents and expelled out the back panel airflow vents.

TIP: Keep the airflow vents clear from objects allowing for free air movement.

12: LINK CHANNEL A

- Channel A input link connector, enabling linking the input to multiple amplifiers (Stereo, parallel and bridge mode).

The XLR Male connector is a balanced line connector with industry standard pin-out configuration as follows:

- Pin 1 - Ground
- Pin 2 - Non Inverting (Hot)
- Pin 3 - Inverting (Cold)

13: LINK CHANNEL B

- Channel B input link connector, enabling linking the input to multiple amplifiers (Stereo mode only).

The XLR Male connector is a balanced line connector with industry standard pin-out configuration as follows:

- Pin 1 - Ground
- Pin 2 - Non Inverting (Hot)
- Pin 3 - Inverting (Cold)

14: INPUT CHANNEL A

- Channel A Input. In Parallel and Bridge mode, Channel A input is the only active input.

The XLR Female connector is a balanced line connector with industry standard pin-out configuration as follows:

- Pin 1 - Ground
- Pin 2 - Non Inverting (Hot)
- Pin 3 - Inverting (Cold)

15: INPUT CHANNEL B

- Channel B Input. In Parallel and Bridge mode, Channel B input is not active.

The XLR Female connector is a balanced line connector with industry standard pin-out configuration as follows:

- Pin 1 - Ground
- Pin 2 - Non Inverting (Hot)
- Pin 3 - Inverting (Cold)

16: GROUND MODE SWITCH

- Dual position switch. On GND position, the Earth from the mains plug is connected to the amplifier Ground. This position is recommended if multiple amplifiers are not being used.
- On lift position, the Earth from the mains is disconnected from the amplifier ground. This position is recommended to eliminate "Earth noise" and hum within a system when multiple amplifiers are used.

17: OUTPUT MODE SWITCH

- 3 position switch to select the output mode between Stereo, Parallel or Bridge.

18: CHANNEL A AND CHANNEL B OUTPUT CONNECTOR - SPEAKON

Output connector with the following pin-out configurations:

- When Output Mode Switch (17) is set to Stereo and Parallel
 - 1+ Channel A Positive Output
 - 1- Channel A Negative Output
 - 2+ Channel B Positive Output
 - 2- Channel B Negative Output
- When Output Mode Switch (17) is set to Bridge
 - 1+ Positive Speaker Output
 - 1- Not Used
 - 2+ Negative Speaker Output
 - 2- Not Used

19: CHANNEL B OUTPUT CONNECTOR - SPEAKON

Channel B output connector with the following pin-out configurations:

- When Output Mode Switch (17) is set to Stereo and Parallel
 - 1+ Channel B Positive Output
 - 1- Channel B Negative Output
 - 2+ Open / Not used
 - 2- Open / Not used

20: FUSE HOLDER

- It is recommended that should the fuse be blown, take the amplifier for testing to your nearest authorised service center. Usually when a fuse has blown, it indicates that there is damaged components within the circuitry of the amplifier. By changing the fuse and restarting the amplifier, it may cause further damage to components.
- **DO NOT** attempt to bypass the fuse in any manner by bridging the fuse with solid conductor.
- **DO NOT** replace the fuse with an incorrect value fuse. Each model amplifier has a correct fuse rating printed on the back panel. Only replace the fuse with the exact fuse rating.

21: POWERCON CONNECTOR

- Mains 220 - 240Vac connector
- Only use the cable supplied with this amplifier to power up the unit (Powercon – 3 Pin Mains South African plug)
- **DO NOT** modify the cable in any way.
- Inspect the cable before use and should any sign of damage be visible, replace the cable with the exact same, available from your nearest authorised retailer.

22: REAR MOUNT HOLES

- 4 rack mount holes provided for installation in 19" rack case (Rear Support).

CONNECTING INPUTS AND LINK

- Use the Input XLR (Female) connectors (14 / 15) on the rear panel to supply audio signals to your Hybrid B series amplifier.
- The link XLR (Male) connectors (12 / 13) may be used to daisy chain the audio inputs to other amplifiers when necessary.
- Balanced and Unbalanced connections may be used with pin 2 configured as the non-inverting (Hot) pin.

TIP: It is recommended to always use balance line inputs opposed to unbalanced inputs, ensuring a +6dB gain structure and noise reduction throughout your input cables.

CONNECTING OUTPUTS

- Speakers are connected using the speakon connectors (18 / 19) located on the back panel of the amplifier.
- Channel A speakon connector (18) can be wired for both channels as well as when the amplifier is set to bridge mode.
- When the amplifier is set in stereo or parallel mode, Channel A speakon (18) can be wired as follows:
 - 1+ Positive connection to Left speaker
 - 1- Negative connection to Left speaker
 - 2+ Positive connection to Right speaker
 - 2- Negative connection to Right speaker
- When the amplifier is set in bridge mode, Channel A speakon (18) can be wired as follows:
 - 1+ Positive connection to speaker
 - 2+ Negative connection to speaker
- Channel B speakon (19) connector can only be wired for channel B output, and only when the amplifier is set in stereo or parallel mode. When the amplifier is set to bridge mode, channel B speakon (19) connector is unused / not connected.
- When the amplifier is set in stereo or parallel mode, Channel B speakon (19) can be wired as follows:
 - 1+ Positive connection to Right speaker
 - 1- Negative connection to Right speaker

OUTPUT MODE SELECTION

- The three-position, recessed output mode selection switch (17) located on the rear panel configures the amplifier's outputs to either Stereo, Parallel or Bridge-Mono mode.
- Factory default is configured to Stereo Mode.

STEREO MODE SELECTION

- In Stereo Mode, both Channels A and B operate independently, with their input attenuators (Volume Controls 2 / 3) controlling their respective output levels. Signal applied at Channel A's input connector (14) produces an output at Channel A's output connector (18), whilst signal applied at Channel B's input connector (15) produces an output at Channel B's output connector (19).
- The recommended output load impedance for stereo operation is 16Ω - 4Ω per channel.

⚠ TIP: 2Ω Output loads may cause the amplifier to behave erratically, causing protection circuits to activate as well as forcing the amplifier to operate at high temperatures. It is not advisable to load the amplifier's output below 4Ω .

PARALLEL MODE SELECTION

- In Parallel Mode, an input signal applied to Channel A's input connector (14) will be amplified and appear at both Channels A and B output connectors (18 / 19). Outputs A and B will still be independently controlled by their respective input attenuators (Volume Controls 2 / 3).
- The recommended output load impedance for Parallel operation is 16Ω - 4Ω per channel.

⚠ TIP: 2Ω Output loads may cause the amplifier to behave erratically, causing protection circuits to activate as well as forcing the amplifier to operate at high temperatures. It is not advisable to load the amplifier's output below 4Ω .

BRIDGED MONO MODE SELECTION

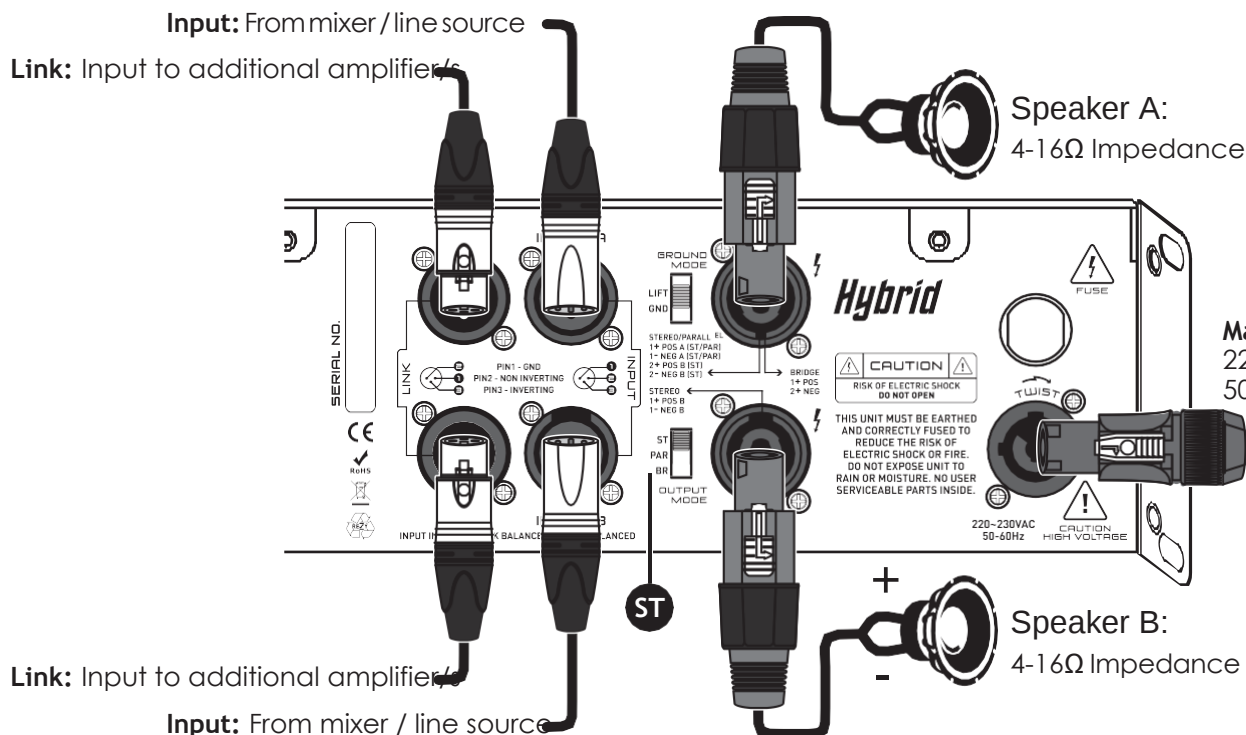
- In Bridged Mono Mode, the amplifier is converted from a two output channel amplifier to a single Mono output amplifier. The output power of the converted mono output amplifier is doubled, making it a very powerful, single channel monoblock amplifier.
- An input signal applied to Channel A's input connector (14) will result in an amplified mono output on Channel A's output connector (18) with the following pinout configuration.
 - 1+ Positive Speaker Output
 - 1- Not Used
 - 2+ Negative Speaker Output
 - 2- Not Used
- The input attenuator (Volume Control) of Channel A (2) controls the output level.
- Input and Output connectors as well as the input attenuator (Volume Control) of Channel B are not used, and left open (Not connected)
- ⚠ The recommended output load impedance for Bridge Mono operation is 16Ω - 8Ω .
- ⚠ Use extreme caution when operating the amplifier in Bridge Mono Mode. Never ground either side of the speaker cable / output connection as both sides are "hot" and are at different voltages with respect to ground.

TIP: 4Ω Output loads may cause the amplifier to behave erratically, causing protection circuits to activate as well as forcing the amplifier to operate at high temperatures. It is not advisable to load the amplifier's output below 8Ω .

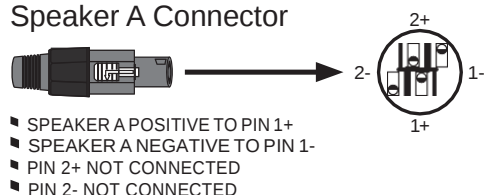


Connecting the amplifier outputs to oscilloscopes or other test equipment while the amplifier is in Bridge Mono mode may damage both the amplifier and the test equipment.

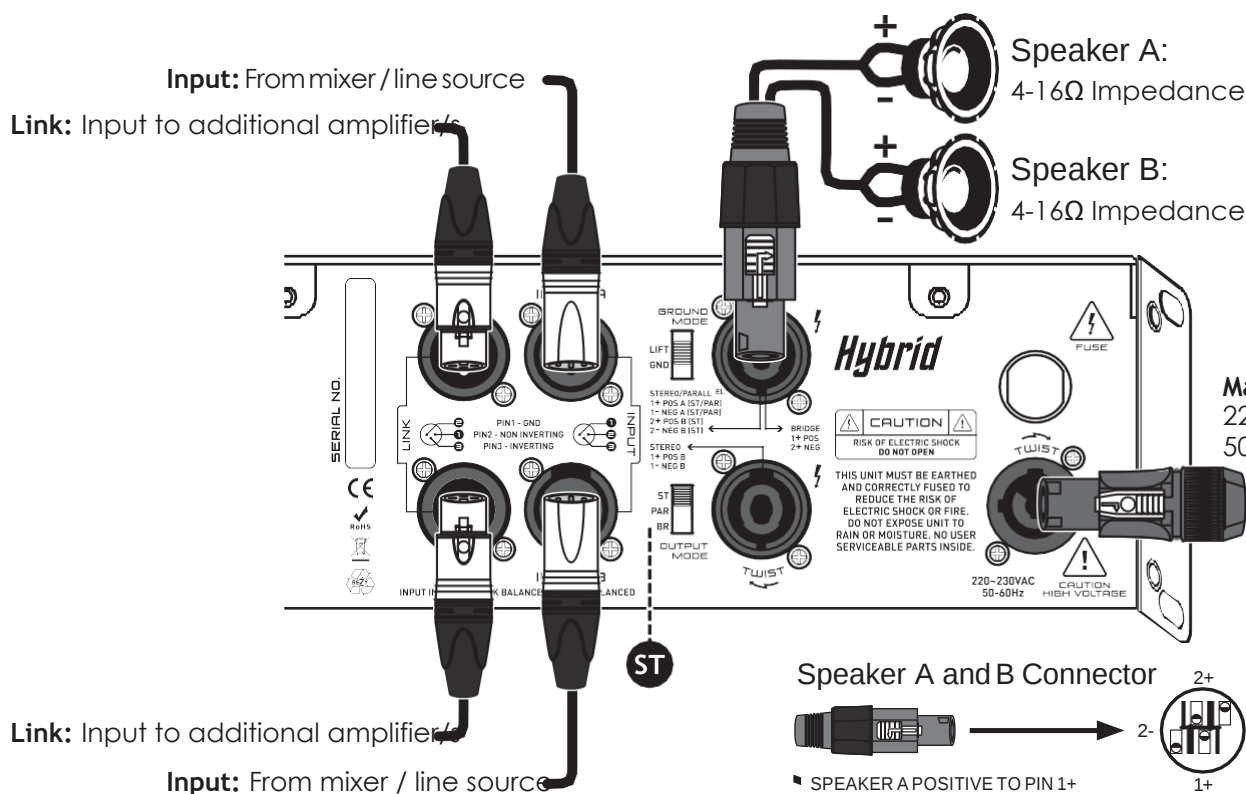
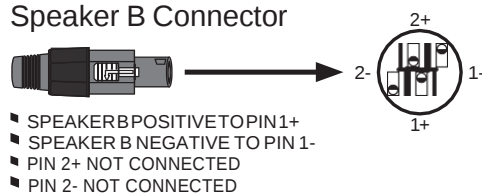
STEREO MODE SELECTION



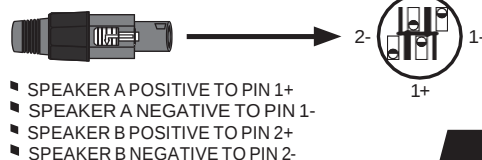
Speaker A Connector



Speaker B Connector



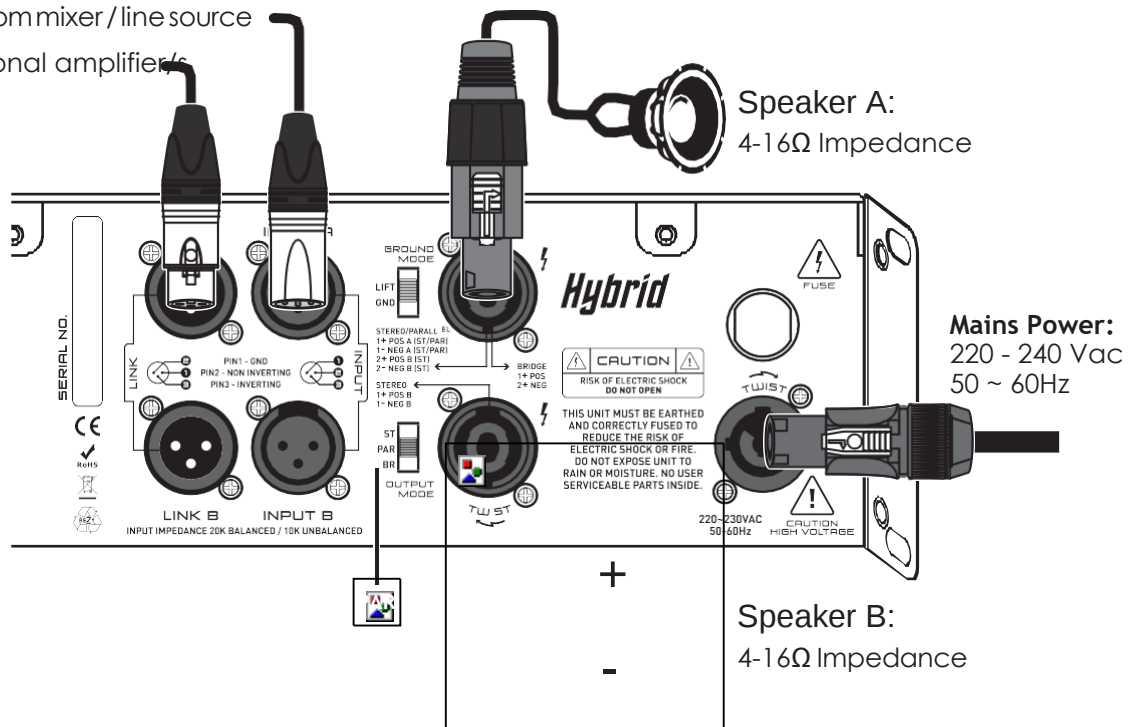
Speaker A and B Connector



PARALLEL MODE SELECTION

Input: From mixer / line source

Link: Input to additional amplifier/s

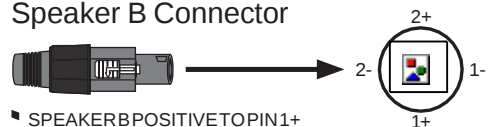


Speaker A Connector



- SPEAKER A POSITIVE TO PIN 1+
- SPEAKER A NEGATIVE TO PIN 1-
- PIN 2+ NOT CONNECTED
- PIN 2- NOT CONNECTED

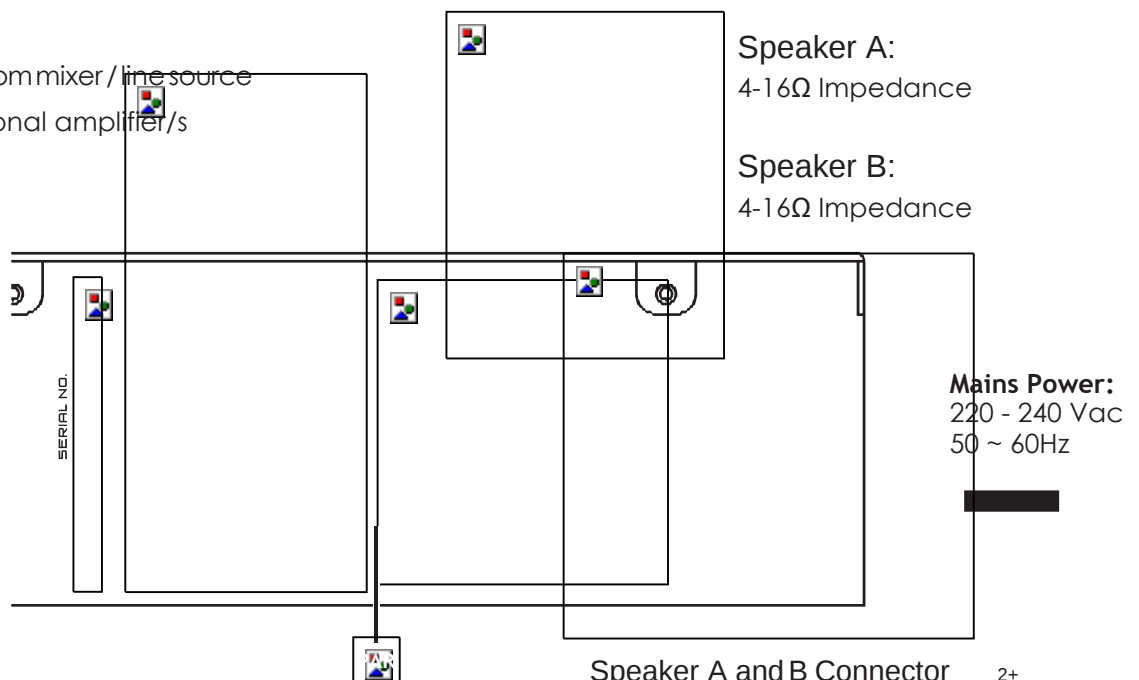
Speaker B Connector



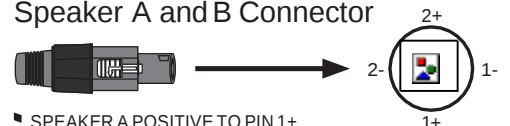
- SPEAKER B POSITIVE TO PIN 1+
- SPEAKER B NEGATIVE TO PIN 1-
- PIN 2+ NOT CONNECTED
- PIN 2- NOT CONNECTED

Input: From mixer / line source

Link: Input to additional amplifier/s

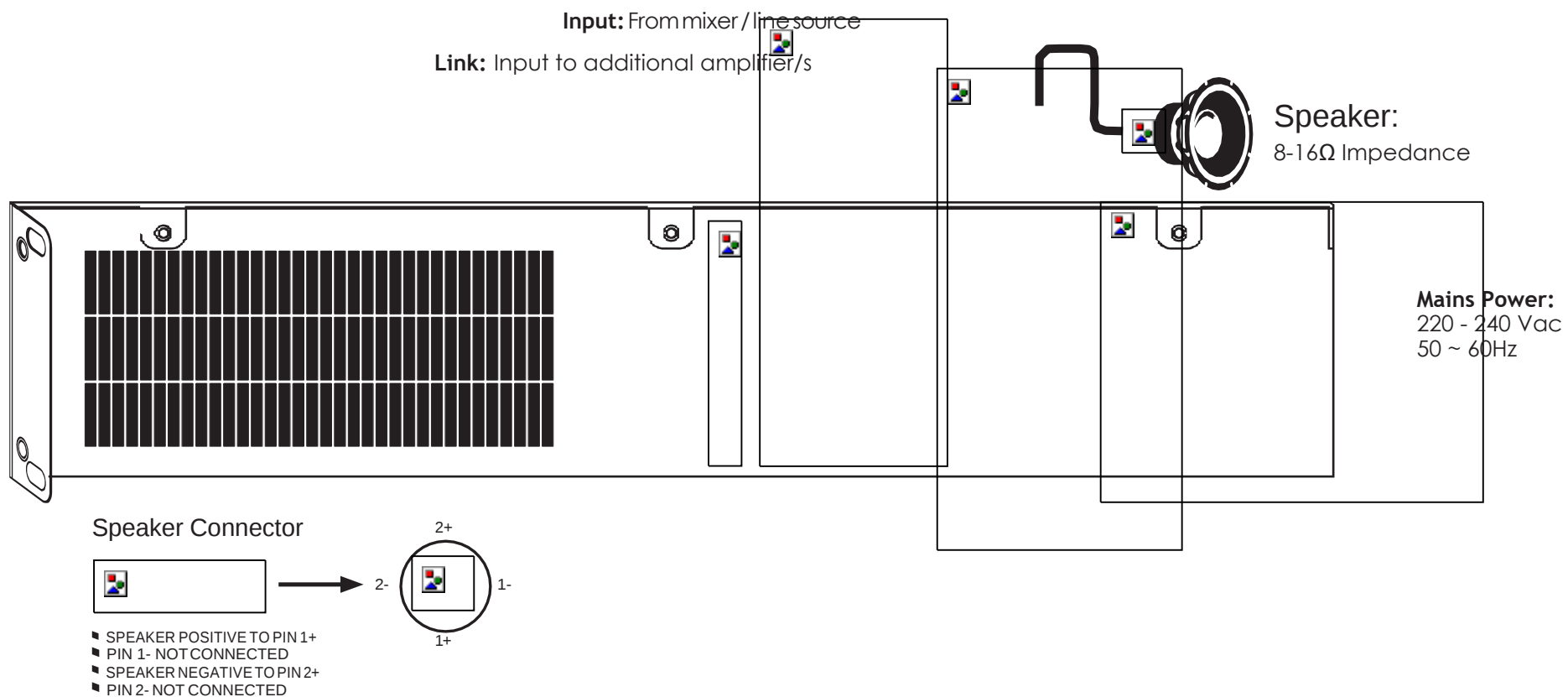


Speaker A and B Connector



- SPEAKER A POSITIVE TO PIN 1+
- SPEAKER A NEGATIVE TO PIN 1-
- SPEAKER B POSITIVE TO PIN 2+
- SPEAKER B NEGATIVE TO PIN 2-

BRIDGED MODE SELECTION



Hybrid

PROTECTION FEATURES

ACTIVE CLIP LIMITING

- When the amplifier reaches its full output power potential, known as the clipping point, the Active Clip Limiting protection feature will activate automatically, which is indicated by the illumination of the yellow Limiter LED's (7) located on the front panel. When the Active Clip Limiter has activated, the protection circuit will automatically reduce the gain, protecting the connected loudspeakers from potential damage caused by square waveforms that would be otherwise produced.
- The Active Clip Limiter cannot be user bypassed and will only activate once excessive, abnormal program transients are sensed. The circuit is virtually transparent in operation and full signal bandwidth is maintained.

 **TIP:** Amplifiers should be driven just before the point when the Active Clip Limiting LED's illuminate or below that level. Pushing amplifiers beyond their capabilities degrades the audio quality causing high levels of distortion and can damage loudspeakers.

IMPEDANCE SENSING

- The Impedance Sensing protection circuit allows the amplifier to operate within its safe output load parameters, and will activate once it senses a load that over stresses either amplifier stage. The output relay will activate, disconnecting the loudspeakers to the affected channel and the red protection LED (8) located on the front panel will illuminate.
- The Impedance Sensing protection circuit protects the amplifier from very stressful or short circuit loads, which could have caused permanent damage to the output amplifier stages.

 **TIP:** Ensure that connected loudspeakers do not exceed the maximum load parameters of the amplifier. In Stereo and Parallel mode the maximum load that is recommended is 4Ω per output channel. In Mono Bridge mode, the maximum load recommended is 8Ω.

Ensure to use quality speaker cables and that they are free of defects such as short circuits.

SOFT START

- Soft Start protection engages every time the amplifier is switched on or is reactivated after a protect condition has been corrected. This feature gradually increases the gain / output volume avoiding unnecessary "thumps" to loudspeakers that are prevalent whilst the amplifier power supply is stabilizing during the initial switch on period.

THERMAL PROTECTION

- Abnormally high heat sink temperatures will activate the Thermal Protection circuit for the affected channel only, allowing the other output channel to operate normally. The output relay will disconnect the affected channel's connected loudspeakers and the protection LED (8) will illuminate until such time that the temperature has dropped to a normal level which will re-engage the output relay and restoring signal to the affected loudspeakers. Should the power supply overheat, both output relays will activate, disconnecting both outputs from connected speakers and the protection LED's (8) will illuminate. Once the power supply temperature has dropped to a normal level, the amplifier will resume normal operation.
- The amplifier is equipped with variable speed fans, and depending on sensed temperatures on heat sinks and on the power supply unit will determine the speed of the fans.

 It is extremely important to keep all airflow vents located on both front and back panels free of objects causing resistance to free airflow. Equally as important is to keep air vent filters behind the air vents and heat-sinks free of dust that accumulates with time. It is recommended to clean filters and heat sinks with high compression air every 6-12 months depending on the environment.

TIP: Thermal Protection activation is not a normal occurrence and should be checked by qualified service personnel.

DC VOLTAGE PROTECTION

- The DC Voltage protection will activate if a DC voltage is sensed on either output, activating both output relays, disconnecting and protecting connected speakers. The red protection LED's (8) located on the front panel will illuminate until the DC condition has been rectified.

 **TIP:** DC Voltage protection activation is not a normal occurrence and usually indicates internal damage to active components within the amplifier. Switching the amplifier on and off repeatedly usually results in further damage and should be avoided. The amplifier should be checked by qualified service personnel.

SUBSONIC FREQUENCY LIMITING

- Built in high pass filtering reduces subsonic (20Hz<) frequencies being applied to the loudspeakers, protecting them from over excursion and over powering in audible audio ranges.



Max load indicates the lowest resistance that can be applied to an output. For example, if the maximum load is specified as 4Ω, impedances lower than 4Ω are not permitted / recommended.

USER PRECAUTIONS

SPEAKER PROTECTION

- All loudspeakers have electrical, thermal and mechanical limits that should be respected in order to prevent damage or failure. Low-Mid frequency transducer cones and High frequency driver diaphragms can be damaged sometimes to the point of failure from excessive power, clipped waveforms, DC voltages and incorrect frequencies applied to them.
- Your B series amplifier automatically protects to a certain degree your loudspeakers from DC voltages, clipped waveforms and subsonic (20Hz<) frequencies, however, correct usage of the amplifier should always be followed in order to ensure longevity of your speakers system.
- Mid and High frequency drivers are particularly susceptible to damage from incorrect usage of your power amplifier and the following recommendations should be followed:
 - ⚠ Ensure that the amplifier does not reach or go beyond its clipping point. This threshold is determined by the illumination of the yellow CLIP LIMIT LED's (7) found on the front panel.
 - ⚠ Ensure that your speaker system and its components are operating within their rated frequency bandwidths. Most passive speakers have internal crossovers that supply the correct frequencies to drivers, however some speaker systems are bi and tri amped and require an external electronic crossover. It is imperative that the electronic crossover is set correctly for the speaker system. Incorrect applied frequencies especially to Mid and High frequency drivers can destroy them within a very short time period.
 - ⚠ Overpowering or applying clipped waveforms to drivers can damage them permanently and it is recommended that an external limiter is used to protect from such occurrences.
 - ⚠ Do not drive low frequency speaker enclosures with frequencies below the tuned frequency of the speaker system. A high pass filter should be applied with a crossover frequency higher than the tuned frequency with a moderate roll off filter.

MAINTENANCE

- Your B series amplifier requires no routine maintenance other than the occasional cleaning of the airflow vents located on both front and rear panels as well as heat-sinks within the amplifier. It is important to keep these areas free of dirt and dust so as to avoid overheating of the amplifier.
-  With the amplifier switched off and unplugged from the Mains (220-240 Vac) supply, blow high pressure air into the airflow vents using an air compressor or blower. **Do Not** remove the lid of the amplifier in order to carry out this operation as there may still be dangerous voltages present on capacitors and other passive components.
- ⚠ Cleaning of the heat-sinks and air vents is recommended every 3-6 months depending on the environment the amplifier is working under.
- ⚠ Users will not need to make any internal adjustments to the amplifier throughout its lifetime. There are no user serviceable parts inside. Removal of the Lid, Front and Back panel exposes risk of shock, and any servicing needed should be carried out by and authorized and qualified service center.

SERVICE AND REPAIR

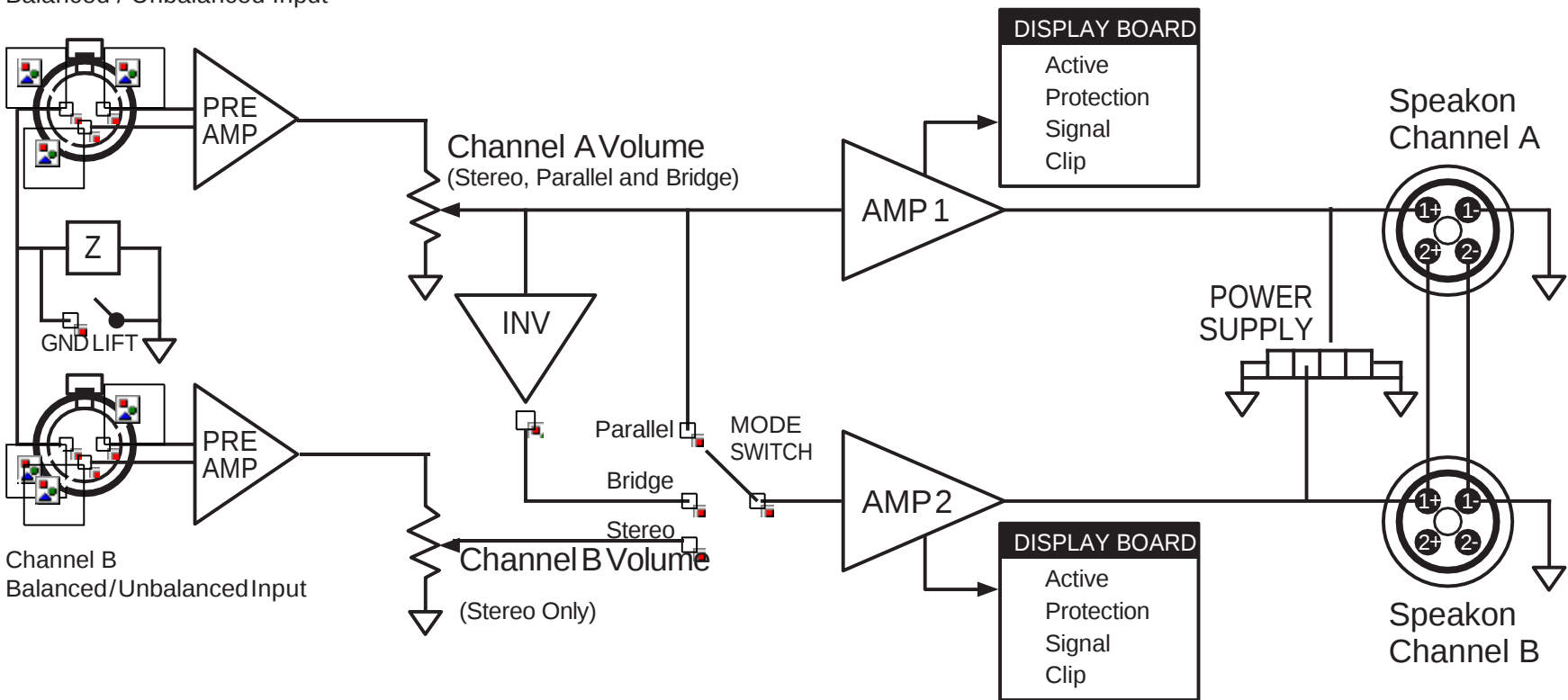
- In the unlikely event that your amplifier develops a problem, it should be returned to an authorized distributor or service center. Due to the complexity of the design and the risk of electrical shock, all repairs must be carried out by authorized and qualified personnel. If the amplifier needs to be couriered to the distributor or service center, ensure that it is correctly packed in its original packaging so as to avoid further damage.
- Your Hybrid amplifier carries from date of purchase a 1 year, no quibble walk-in guarantee. Hybrid prides itself for its excellent after sales service and it is our goal to return your amplifier back to you in perfect working order.
- Thank you for purchasing a Hybrid product and for reading this user manual. You are now ready to use your Hybrid amplifier and we hope it brings you many hours of listening pleasure.

SPECIFICATIONS LIST

MODEL	B1200	B1800	B2400	B4000
* Stereo Power 8Ω	400W	600W	800W	1 200W
* Stereo Power 4Ω	600W	900W	1 200W	2 000W
* Bridge 4Ω	1 200W	1 800W	2 400W	3 600W
Signal toNoise	≥117dB	≥115dB	≥112dB	≥110dB
Slew Rate	90V/μS	90V/μS	100V/μS	105V/μS
Damping Factor	≥ 300	≥ 270	≥ 260	≥ 220
Frequency Response	20Hz -20KHz, ±0.5dB			
THD + N	≤ 0.5%, 1KHz, 1/3 Rrte Power, 8Ω			
IMD	≤ 0.1%, 1KHz, 1/3 Rrte Power, 8Ω			
Cross Talk	≥ 82dB	≥ 85dB	≥ 86dB	≥ 88dB
Input Sensitivity	0.77 Balanced / 0dB Unbalanced			
Input Impedance	10KΩ, Balanced / 20KΩ, Unbalanced			
Input Interface	Three-core Female XLR Input			
Link Interface	Three-core Male XLR Link			
Speaker Interface	Speakon Connectors (4 Pole)			
LED Indicator	Power / Signal (-40dB) / Clip (Peak) / Protection			
Power Supply	1 260W	1 890W	2 520W	4 000W
Cooling Mode	Front to Rear Stepless Air Cooling			
Net Weight	13.8kg	16.3kg	17.3kg	17.8kg
Gross Weight	15.5kg	18kg	19kg	19.5kg
Install Size	2U / 19" Rack Mount			
Dimensions (w x h x d)	487 x 99 x 387mm			
* In accordance with the EIA Standard Two Channel Test: f=1KHz / THD=0.5%				

BLOCK DIAGRAM

Channel A
Balanced / Unbalanced Input



Channel B
Balanced/Unbalanced Input



PROFESSIONAL POWER AMPLIFIERS

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Hybrid

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