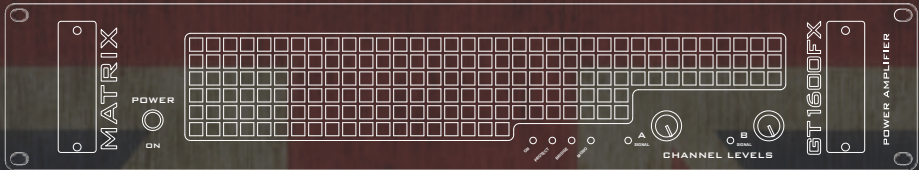
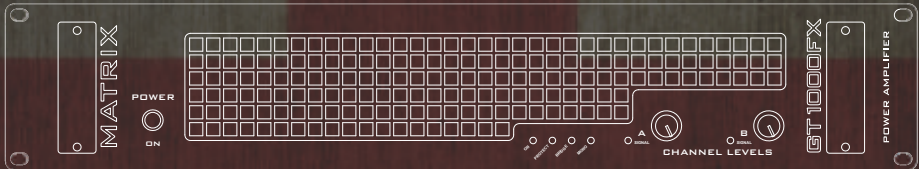
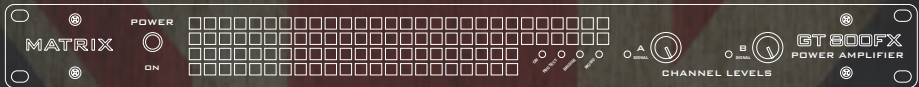


MATRIX ELEMENTS

GUITAR AMPLIFICATION

MADE IN BRITAIN, HEARD WORLDWIDE



GT SERIES AMPLIFIERS

USER MANUAL

MODELS COVERED:

GT800FX, GT1000FX (1U & 2U),

GT1600FX



WWW.MATRIXAMPLIFICATION.COM

MATRIX AMPLIFICATION

Thank You

Congratulations on the purchase of your new Matrix Professional Power Amplifier.

Matrix amplifiers are the result of many decades of experience in the design of exceptionally robust and reliable amplifiers. They are designed to breathe life into your sound, by controlling your speakers with exacting authority through the uncompromising delivery of clean, undistorted power, from a package which is smaller and lighter than you might expect for the performance it delivers.

This manual will help you to get the most from your amplifier. For maximum benefit, it is recommended that all instructions and warnings are carefully read. Also be sure to read the notices regarding correct wiring of output connectors as this impacts the operation of the amplifier.

For warranty service, please retain your receipt and all packaging that comes with the amplifier, as it has been specifically designed to transport the amplifier safely.

Unpacking

Please unpack and inspect your new amplifier for any damage that may have occurred during transit. If damage is found, notify the carrier immediately.

Note: A suitable mains lead is provided and can be found packaged with the amplifier.

**PLEASE RETAIN ALL FACTORY
PACKAGING FOR ANY FUTURE POSTAL
TRANSIT.**

CONTENTS:	PAGE:
1. Thank You & Unpacking.	1
2. Safety Notices & FCC Declaration.	2
3. Layout:	3-7
3.1 Front Panel.	3-4
3.2 Rear Panel.	5-7
4. Before You Start .	7
5. Getting Started, Powering Up & Connections.	8-9
6. Set-Up Examples.	10-13
7. International Voltage Selection.	14
8. Choosing Cables.	15
9. Troubleshooting.	16-17
10. Warranty.	18
11. Care & Contact Us.	19
12. Technical Specs.	20
13. CE Declaration.	21
14. Notes.	22

CAUTION:

OBSERVE ALL SAFETY AND USAGE INSTRUCTIONS TO AVOID POSSIBLE DAMAGE TO EQUIPMENT AND EXPOSURE TO HAZARDS. THIS SYMBOL UNIVERSALLY FLAGS CAUTION NOTICES



LETHAL VOLTAGES PRESENT AT SPEAKER, CABLE AND AMPLIFIER TERMINALS; ENSURE ALL WIRING IS SAFE AND CORRECT BEFORE USE. THIS SYMBOL ALSO UNIVERSALLY FLAGS ELECTRICAL HAZARDS



DO NOT OPEN UNIT; LEAVE ALL INTERNAL SERVICE OPERATIONS TO A QUALIFIED TECHNICIAN. THIS PRODUCT IS CAPABLE OF PRODUCING SOUND PRESSURE LEVELS WHICH MAY DAMAGE HEARING.



THE USER IS RESPONSIBLE FOR EXPOSURE LEVELS AND USE OF HEARING PROTECTION.

OPERATING ENVIRONMENT:

The amplifier is designed for use in environments which protect it from rain, unusually high air humidity and temperature.

Place on a surface where it cannot be easily dislodged, potentially causing damage to the unit or injury to a person. Ensure that the location will not expose the amplifier to spillage of liquids/drinks, sprays/vapours or high humidity.

Ensure the amplifier is installed in a place which is not subject to abnormally high temperatures and maintain sufficient ventilation to prevent overheating.

For temporary use outside, apply similar caution however, careful to ensure placement accounts for changing weather conditions and that extreme wind/rain/heat will not find its way to the equipment.

When taking any equipment from a cold environment (unheated storage, vehicles, etc), into a warm one, allow the equipment time to become acclimatised to the ambient temperature, as condensation is likely to form in the amplifier, potentially causing it to malfunction if put into service too soon.

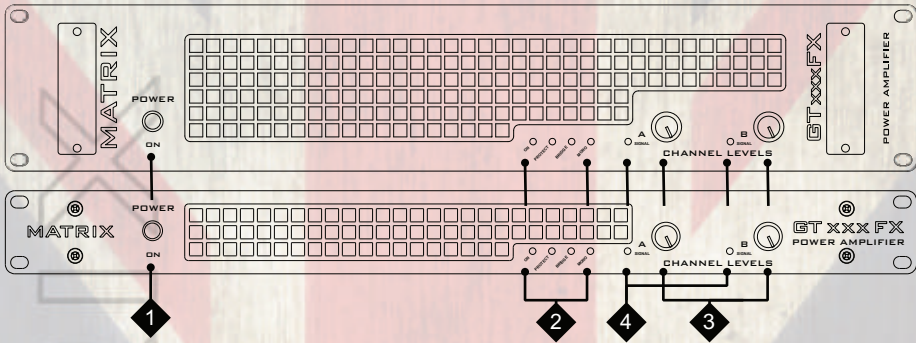
Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FRONT AND REAR PANEL LAYOUTS: 1U & 2U MODELS

The front and rear panels on 1U & 2U versions of the amps share the same features and layouts.

1U MODEL (GT800 & GT1000) & 2U MODEL (GT1000 & GT1600)



(1) Power Switch

This switch controls the power supply to the amplifier.

(2) Indicator Section, Status:

a. Power Indicator

This indicator shows when the amplifier is on and is receiving power.

b. Parallel Mono Mode Indicator

This indicator shows if (parallel) MONO mode is selected on the rear panel. For channel pair A and B only Input A will be used to drive both channels. Full independent level control of the amplifier output stages is still possible via the Gain controls.

c. Bridged Mono Mode Indicator

This indicator shows if Bridged mode is selected on the rear panel. It is most important that this indicator is not illuminated unless bridged mode is required. This is because when bridged mode is selected, Channel A will be out of phase with Channel B. This will result in poor bass response and an unsatisfactory sound if left and right outputs are used. In this mode Channel A controls the output level.

d. Protect Indicator

This indicator lights briefly during the power up cycle and also lights should a fault occur. Illumination of the protect indicator, shows that the output of the amplifier has been disconnected by means of an internal relay to protect connected speaker systems from being damaged by the fault.

(3) Gain Controls

The level of each Channel is individually adjusted by these controls. Rotating these controls fully clockwise, results in no attenuation to the incoming audio signals.

(4) Indicator Section, Signal levels:

These show the (Peak) output level of the amplifier for each channel, in both Stereo and Mono modes. These will start to illuminate when a signal is present at the speaker sockets when driven above a threshold of approximately -9db. Note that for levels below this amount the led may not illuminate. The signal level lights are useful in indicating how much power is being sent to the speaker connected. The -9db threshold relates to approximately 12.5% of the amps available power at the load it is connected to. The table below gives the ratings at -9db for typical impedances connected.

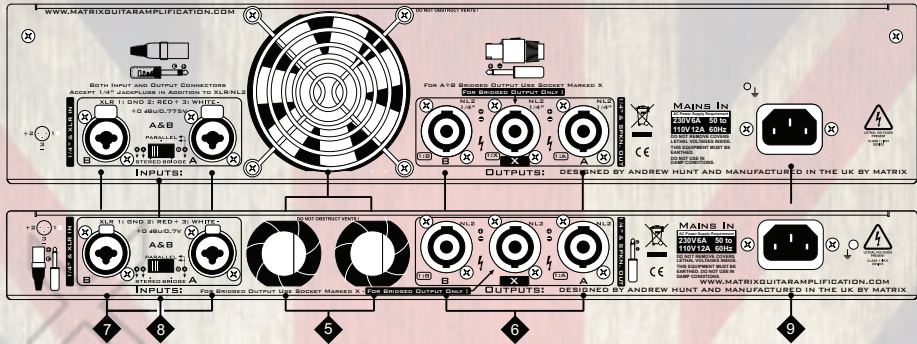
Signal lights starting to blink at -9db					
	4 Ohms	8 Ohms	16 Ohms	8 Ohms (Bridged)	16 Ohms (Bridged)
GT800FX	50	30	15	100	60
GT1000FX	60	40	20	120	80
GT1600FX	100	60	30	200	120

For every increase of 3db that occurs, a doubling of the power is needed, so to that effect, when the signal lights start to stay permanently on at -6db the power the amp produces is doubled. Most stage volumes will occur somewhere between the two

Signal lights starting to stay on at -6db					
	4 Ohms	8 Ohms	16 Ohms	8 Ohms (Bridged)	16 Ohms (Bridged)
GT800FX	100	60	30	200	120
GT1000FX	120	80	40	240	160
GT1600FX	200	120	60	400	240

but if you're happy with the volume levels and the signal lights are not lighting up, that's fine!

1U MODEL (GT800 & GT1000) & 2U MODEL (GT1000 & GT1600)



(5) Cooling Fan Outlets

Hot air exits here. Make sure all rear (and front) ventilation paths are free from obstruction and air flows freely, otherwise the amplifier will trip into thermal protect mode prematurely and in some extreme circumstances damage may occur.



(6) Output Connectors

The Output sockets are Neutrik® Speakon / 1/4" combi connectors. They accept both Neutrik® NL2FC & 1/4" jack plugs (NL4FC accepted, however only terminal pair 1 carry signals). Avoid inferior alternatives, as they may present numerous hazards due to less than ideal construction.



When inserting speakon plugs turn clockwise until you hear it click; This ensures correct connection has been made. To remove, pull back the levered tab and turn anti-clockwise.

Ready-made, sensibly priced, quality interconnection leads suitable for use with the amplifier should be easy to source. However, with sufficient skill, it is possible to make/modify leads for the task.

- Only the first two pins (+1 and -1) are used in this amplifier.
- When utilising the 1/4" output option the centre pin (Tip) is connected to +1 & the outer sheath (Sleeve) is connected to -1.
- For STEREO/MONO operation, unmodified "off the shelf" cables will usually work fine.
- For BRIDGED MONO mode, Output is exclusively available from OUTPUT X, do not use at any other time.

CAUTION: Whilst we recommend that Neutrik speakon connections are always used for the safest way of connecting to the amplifier, the option is also provided to use 1/4" jack connections with these outputs. Take extra care when connecting leads to ensure that these are not accidentally connected to the inputs and outputs of other equipment not designed specifically to do so, otherwise damage to equipment is likely to occur.



Take extra care with 1/4" jack speaker connections, the exposed plug end can present an electric shock hazard, also never allow the outputs to be shorted, equipment damage may occur. Finally, never use standard 1/4" instrument leads for connection between amplifier and loudspeaker, choose a quality speaker lead for this specific task for safe operation. and optimal performance.

(7) Input Signal Sockets.

These are Neutrik® combined female XLR and 1/4" jack sockets.

For cable runs of under 12", (ie. within a rack system) standard good quality instrument leads should provide a similar level of RF shielding to XLR cables. For longer cables runs, balanced cables (XLRs) are recommended.

(8) Output Mode Selector.

STEREO, MONO or BRIDGED (mono) Output can be selected using this switch.

Take care to ensure the correct mode for your application is selected.

- In Stereo mode, channels A and B operate independently, when fed with separate input signals. (Think of this as two separate mono amps fed by their own input.)
- In Parallel (Mono) mode, Input A is connected to feed both amplifier channel A and B. Input B is not used. Full independent level control over each amplifier output channel remains possible. (This is useful if you want to send the same mono signal to two separate cabs).
- In Bridged (Mono) mode, the input from channel A is fed out of phase to channel B and combined to give a higher power mono output.

Note: Bridged Output X is used exclusively for this mode, do not use at any other time. Using output channel A or B whilst Bridged mode is selected will give a thin, out of phase sound, lacking bass through those outputs.



(9) Power Connection

Mains power is supplied to the amplifier by a standard 10 Amp IEC mains socket.

An appropriate mains lead is supplied with the amplifier.



Note: The amplifier requires a stable power supply to function as intended. Ensure that the power source (mains power supply, generator, etc.) is suitable for this application and adequate power is available. Poorly selected power sources result in sub-optimal performance, increased likelihood of tripping breakers, blowing fuses and in extreme situations damage to equipment may occur.



BEFORE YOU START:

If you intend to rack mount your GT series amplifier you may want to consider removing the rubber feet from the amplifier to allow maximum room for other units that may share the rack space. This is a simple process. Using a small flat bladed screwdriver gently prise the shiny plastic insert up from the chassis which will enable the feet to be removed. Store somewhere safe!!



To replace the feet simply pull the plastic insert so the mechanism is closed, line up the foot with the chassis hole and push into place.



GETTING STARTED, POWERING UP & CONNECTIONS:

Your GT Series amplifier comes equipped with a power lead specific for the requirements of your country. Use only the correct lead with the correct rated fuse for your country's power requirements. Use of an incorrect lead or fuse rating could lead to damage of your amplifier.

NOTE: Unlike a Valve powered amplifier, it is not necessary to connect a speaker (or load) to the amp whilst it is powered on. Powering on or operation of the amp without a speaker or load attached will NOT damage the amplifier.



1. Connect the supplied mains power lead to the IEC inlet on the rear of the amp.
2. Connect the signal source (this can be your pre-amp, modelling device or main outs from your effects unit) to the inputs on the rear of the amp. If you are running in mono from your source, then only use one channel of the amp and keep the amp in stereo mode. Note: If you are running the Matrix amp as part of a wet/dry or wet/dry/wet system then make sure the connections between your amplifier or source are in place to the effects system you intend to use before feeding the signal to the Matrix amp.
3. Connect the GT amplifier to a speaker or cabinet with a good quality speaker cable. Never use a screened (shielded) guitar cable for this as you may damage the cable and the amplifier. The GT-series amps will accept various standard impedance cabinets and even non standard but bear in mind that the total load must NOT exceed 4 ohms per channel (or 8 ohms in bridged mode).
4. Making sure that the amp is turned off at this point, power up your signal source (this prevents any unwanted signal noise transmitted to your speaker(s)). Now with the volumes on the amp all the way down, power on the amplifier via the power switch located on the front. You may hear a slight "thump" as the unit is powered on. This is perfectly normal.
5. Adjust the controls of the input source to a required level (ideally 0db or .775v) and steadily increase the GTs volume until a sufficient level is achieved.
6. Adjust the levels of the relevant volume controls on the Matrix amp until desired volume is achieved.

NOTE: The Matrix's volume controls are basically attenuators. That means that to achieve full power at their specified load they requires a signal of .775v (0db) and the volume knobs up full. If you put a higher level signal into the amp, it will achieve it's full power rating earlier than at full volume position and inversely, if you put a lower level signal in, say -6db, the amps full volume will always be -6db of full power rating.



If your volume is lower than expected even with the Matrix amp on full then look to increase the signal level going into the amp. This could be the individual patch volume or the master volume of the unit or indeed the send level of a preamp. Be aware of the noise floor of a unit as well. Turning something up full will usually turn up the amount of noise the unit generates. The Matrix units are obviously designed to be turned up full and have a low level of noise/distortion but you may experience issues if you turn up the signal being fed into the Matrix too much and have the volume of the amp set too low.

Important Notice regarding connection to multiple input and switchable input cabinets.

Care must be taken when connecting the amp to any cabinet that has more than one jack plug or socket or features switchable stereo/mono operating modes.



Certain cabinets are known to have more than one socket but are not stereo capable cabs.



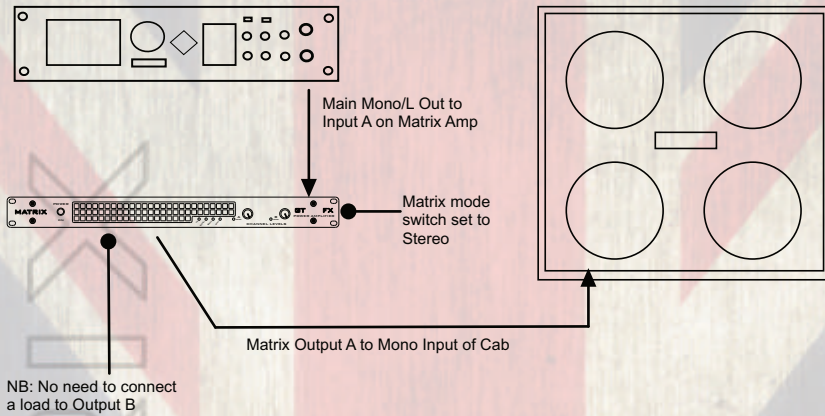
Orange® 2x12 and 4x12 cabs for instance have two unlabeled parallel inputs. Connecting the amplifier to both inputs effectively shorts the amplifiers outputs and will cause damage to the amplifier. **This will not be covered under warranty.**

Similarly, cabinets which feature stereo/mono switchable inputs (Marshall® style) must always be switched to stereo operation when both channels of the amplifier are connected to it. Switching to mono mode will turn the input into a parallel output and again effectively link and short the amps channel outputs together. If you are unsure of your cabinets' specifications, please refer to the manufacturer's instructions or consult a qualified technician for guidance. Care must also be taken with Mesa® style cabinets to use the applicable socket for stereo or mono and manually switch to the correct one(s).

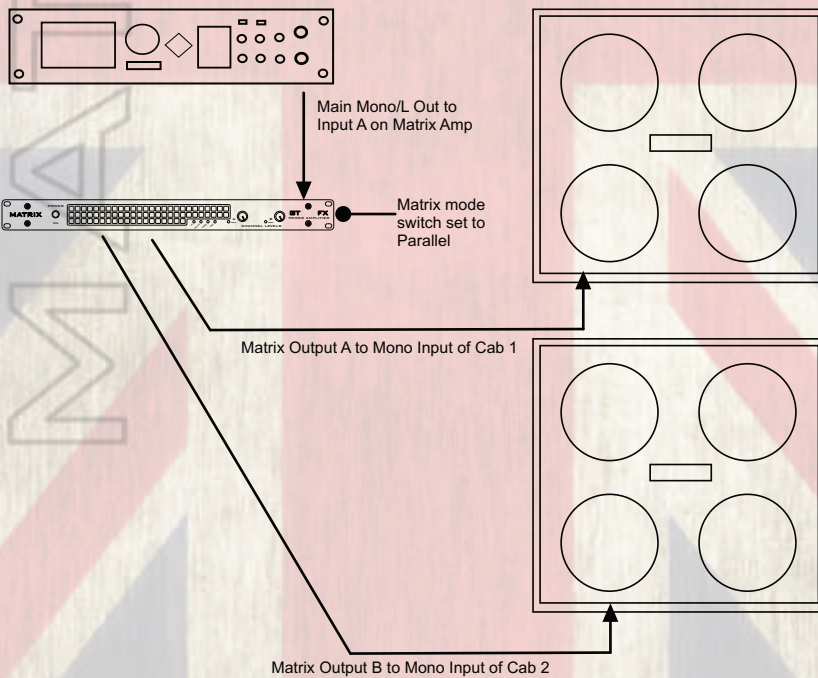
If in doubt consult your cabinets manual or relevant support page.

SOME TYPICAL SET-UP EXAMPLES:

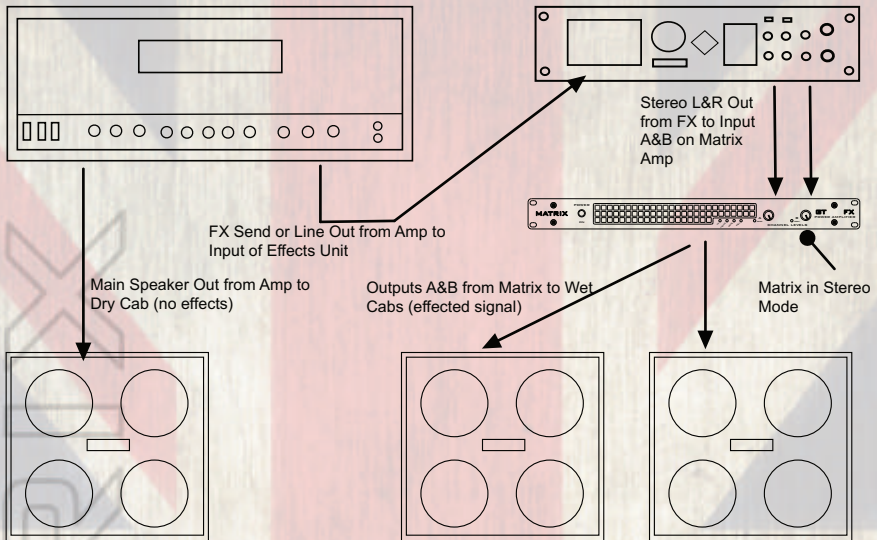
Modelling System/Pre-amp/Multi FX in Mono To Single Cab



Modelling System/Pre-amp/Multi FX in Mono To Two Cabs

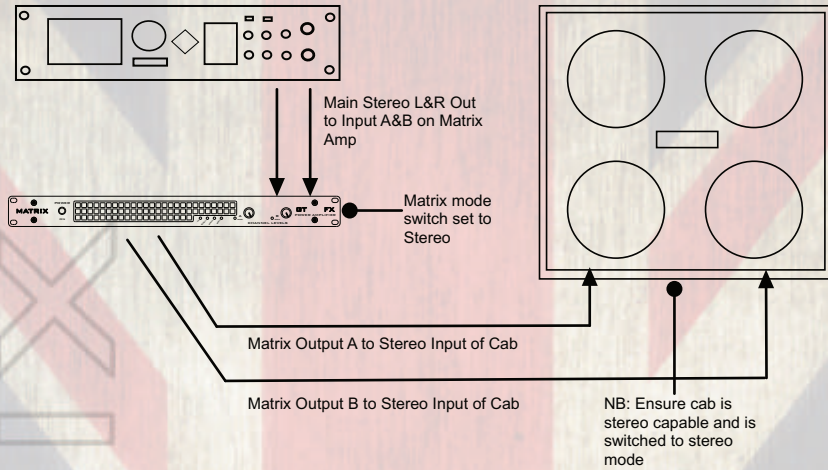


Wet/Dry/Wet Rig



NOTE: The above system can also be adapted to run the Matrix as a “slave” amp. Take care that the Matrix amp receives only a line level signal and not a signal direct from the main amps speaker out otherwise damage will occur. This can be from the amps line out or effects send or from a suitable ISO/Load box with a line out facility. Care must also be taken to ensure the main amp still has a “load” attached to it either in the form of a cabinet or suitable load box.

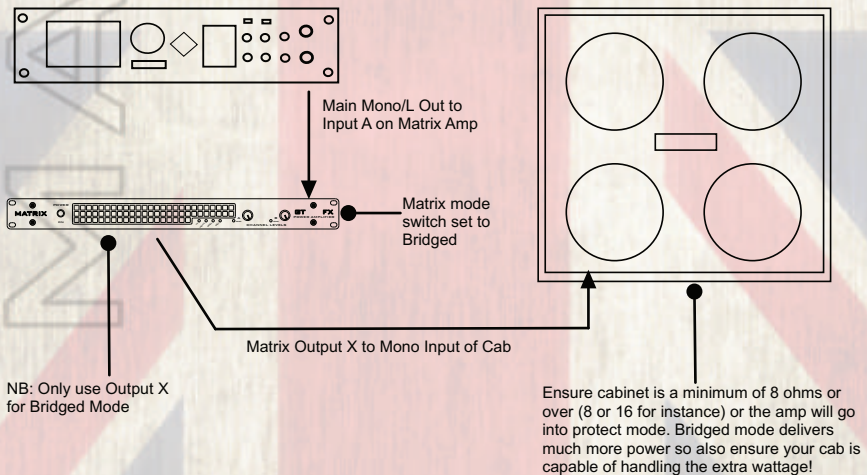
Modelling System/Pre-amp/Multi FX in Stereo To Stereo Single Cab



NOTE: The above system can also be run to two separate mono cabs to achieve a wider stereo depth of field.

If using a stereo/mono switchable cab, always check your cab is in stereo mode before connecting both outputs to it!

Bridged Mode (High Powered Mono 8 Ohms Minimum)



More Complex Systems with Mismatched Loads or Daisy Chained Cabs

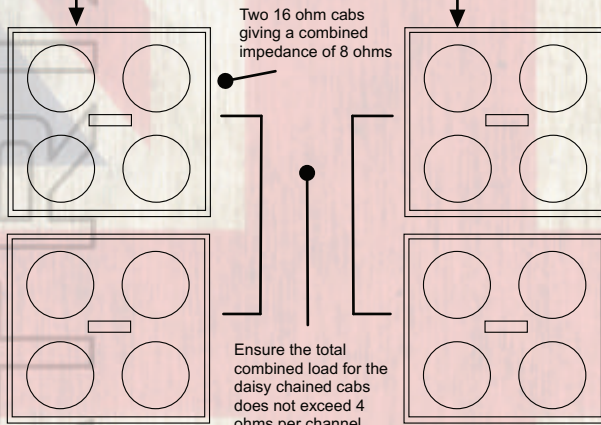


Main Mono/L Out to Input A on Matrix Amp
*Could also be run as Stereo!!

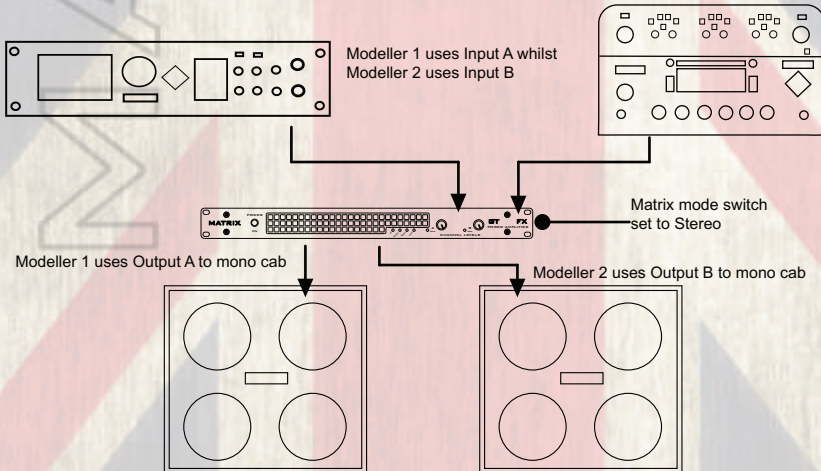


Matrix mode switch set to Parallel
* or stereo if a stereo feed is given to the amp

Note: Depending on your modelling system you can also run hybrid systems from each channel of the amp comprising traditional guitar cabinets and FRFR systems for maximum realism and tonal possibilities.



Multiple Modellers Sharing One Amp



INTERNATIONAL VOLTAGE SELECTION

Your Matrix amplifier should be set at the voltage for your specific country if selected correctly at the time of ordering. It is possible however to select alternative region voltages internally via an on-board switch.

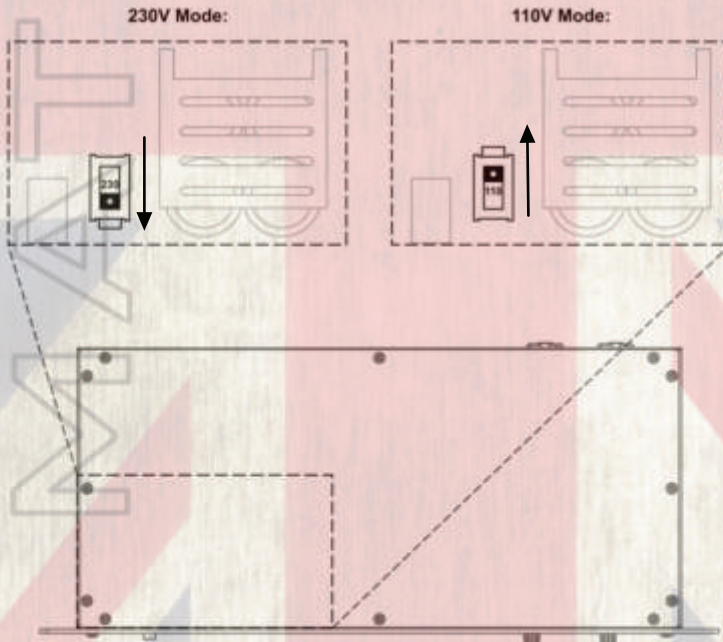
This allows for selection of 230v or 110v modes respectively at +/- 15%.

This is approximately 200 to 265v or 95 to 125v.

If you are unsure about undertaking this procedure, please refer to qualified service personnel.

To access the internal switch, firstly disconnect amplifier from all equipment & mains supply as lethal voltages are present inside. Next remove the screws on the lid shown below with a suitable cross head screwdriver, the lid should now simply lift away without obstruction, should any resistance be encountered, inspect for further fasteners holding the lid down.

Within the region indicated below by the dotted area a internal view similar to that shown below should be visible. With a finger or ballpoint pen move the switch shown into its alternative position for secondary voltage mode. Re-assemble amplifier ensuring all fixings are tight before further use.



NOTE: Ensure correct voltage for region is always selected, otherwise damage is likely to occur!

CABLE CHOICE & NEUTRIK® SPEAKON CONNECTORS

Whilst the Matrix GT series amps come with Neutrik® combi inputs and outputs for maximum flexibility it is important to use good quality cables and connectors. We recommend using Neutrik® branded connectors wherever possible. We've come across certain low cost 1/4" jacks not connecting properly as well as XLRs not "locking" which can cause loss or degradation of signal. Whilst many guitarists are used to using traditional 1/4" jack to jack speaker cables we recommend trying out Speakon connectors as they offer certain advantages over 1/4" jacks

- No possible confusion with low-current microphone or instrument cables.
- They lock into their sockets with a twisting motion, making them significantly less prone to disconnection than push in jack plugs.
- They are shielded from human touch, preventing electrical shock from a high-powered amplifier (especially important given the high wattage of our amps).
- The contacts do not short out during connection or disconnection. This can be a benefit when working with sound equipment that is in operation.
- The chassis receptacles are airtight, so do not provide an air leak path from speaker enclosures. (Important in high SPL FRFR cabinets)
- They are usually solderless connections making field maintenance and construction much easier.

Whilst we appreciate that not everyone will convert their traditional cabs over to Speakon connectors, you can still use Speakon to 1/4" cables to connect to the GT series and at least get some benefit!

You can use either NL2FC or NL4FC Speakon connectors with the GT series but only pins +1 and -1 are used if you use the 4 pole connector type!

If you decide to make your own speaker cables we recommend a twin core cable with a copper core of at least 2.5mm² / 12 awg. For cables longer than 6m/20ft a heavier gauge cable may provide improved performance.

An approximate guide of cable sizing in relation to that of a pencil is shown below, also note on the right the thin 'bell wire' / budget domestic speaker cable... never use cable of this gauge to connect to power amplifiers, this can present a fire risk and will result in poor performance.



TROUBLESHOOTING:

NOTE:

- Ensure the amplifier has no less than 4 Ohms worth of loading across each channel for Stereo/Parallel modes.
- Ensure Bridge Mode (if used) is utilised via Output X and is loaded with no less than 8 Ohms.
- Ensure wiring is safe and correct.
- When heavily driven, the amplifier itself may make a noticeable hissing sound in relation to the supplied signal. This is a normal phenomenon relating to the behaviour of certain components which vibrate slightly under the high powers involved.
- The fans on the GT series may increase their speed when the amplifier is under load to improve cooling efficiency.

(1) THE POWER LIGHT DOES NOT ILLUMINATE

- Check that the mains supply is turned on.
 - Check that the mains switch is turned on.
 - Check mains lead for damage & check fuse. Replace lead if damaged, replace fuse if blown.
 - Check internal fuse. Replace if blown.
- (same type of fuse specified/installed must be used, do not change)
- If fuse re-blows refer to service personnel.
 - Check voltage selector of amp is in correct position for required voltage.
 - If fuse has not blown and the voltage selector is in correct position but the amplifier still malfunctions, refer to service personnel.

(2) OUTPUT VOLUME IS LOW

- Check the signal from the input source and check signal cables. The amplifiers are designed to operate at an input voltage of 0.775V. If the intended signal source is below this a lower output volume will result. Raise the signal level from the source.

(3) NO OUTPUT VOLUME

- Check the amp is receiving a signal from it's source.
- Check both input and output leads and replace and re-test. In the case of outputs, if speakons are used make sure they are securely attached or try a 1/4" cable.
- Check signal output lights are lighting up. These lights are directly connected to the amplifiers output circuits so if they are lighting up, the amplifier is outputting a signal and the problem lies elsewhere.

(4) OUTPUT IS DISTORTED OR THIN SOUNDING

- The protection circuits (current clamps) are operating. Check all leads for short-circuits. Try another set of leads and loudspeakers.
- Check the amp is not switched to bridged mode and non bridged output is being used.
- Check leads for correct wiring.

(5) AMPLIFIER IS OVERHEATING (PROTECT LIGHT ON)

- Check that the fan is not obstructed with debris, and is operating and rotating freely. If the amp is overheating the fans will run in high speed mode which is audibly louder than normal mode. Switch off amp and allow to cool. Power on and ensure protect light turns off.

(6) PROTECT LIGHT IS ON

The protect light will illuminate under certain conditions to prevent damage to the amplifier or connected speakers.

- Check cabinet impedance is not less than 4 ohms per channel or less than 8 ohms in bridged mode.
- If both channel outputs are connected, check cabinet is in correct mode (see important notice on page 9) or is compatible.
- Check for short circuits in leads (try a different lead).
- Check for possible short circuit in speaker (try a different speaker).
- Make sure amp has sufficient air flow through fans and vents to avoid the amp going into thermal protect.
- Power down, disconnect all leads except power and switch on. If protect light extinguishes then problem was linked to one of the above items.
- If the protection circuits have detected a DC signal or other damage the amp will stay in protect mode.

If any of these, or other symptoms persist, please contact your dealer or alternatively email us at support@matrixamplification.com for help, advice and service.

FULL 2 YEAR WARRANTY:

Summary

Matrix Elements warrants this GT series amplifier for a period of 2 years from date of purchase to be free of defects in materials and workmanship under normal conditions and usage. This warranty is transferable but original proof of purchase date is needed if any claim is to be made on the warranty. Any products found to be defective within the applicable period will be repaired or replaced at the discretion of Matrix Amplification Inc/Ltd. without any charge provided that;

- (1) the product was not misused, abused, improperly maintained, or repaired by any person not authorized by Matrix Amplification Inc/Ltd;
- (2) the failure resulted from a defect in material or workmanship and was not damaged due to use other than its intended use;
- (3) the product was not used under abnormal, excessive, or unusual operating conditions or suffered abuse;
- (4) the product is promptly delivered prepaid to the original place of purchase or to manufacturer together with proof of purchase within the applicable period.

Limitations and exclusions

We will not warrant items which we deem to have been misused, damaged due to incorrect connection, neglected or items exhibiting normal wear and tear. We will not warrant consequential damage to other products resulting from the incorrect operation or misuse of the item.

Warranty Claims

Contact your dealer (if applicable) in the case of a warranty claim or alternatively contact us if purchased direct on:
support@matrixamplification.com

Your statutory rights are not affected

CARE & MAINTENANCE:

Your Matrix GT series amplifier should give you years of trouble free service provided you take care of it. Any cleaning should be done with a damp (not wet) lint free cloth and if needs be, the fans can be cleared of any dust or debris using either a small brush or compressed air (the kind suitable for cleaning computer devices). Do not use any abrasive cleaning products as these may damage the powder coating or printing.

CONTACT US:

Matrix is a company that prides itself on customer feedback and interaction. We like to hear from our customers with any suggestions they have to help us continually improve our service. You are very welcome to share your experience with us by contacting:

support@matrixamplification.com

Alternatively you can call us.

(+44) (0)845 108 5449 within the UK (calls charged at local rate from landline) 9.30am - 5pm Mon-Fri (GMT)

or customers within the US can call: (805) 766 8556 9am - 5pm Mon-Fri (PDT/PST)

We also love sharing our players experience and promoting them where we can. Any pictures, videos featuring Matrix products or a good old fashioned thumbs up can be posted on our social media.

<https://www.facebook.com/MatrixAmplification>

We're also around to offer any help or advice as best we can if you run into any problems or have a question, no matter how trivial. We aim to get back to you within 24 hours (during the week) but bear in mind our main office is in the UK and there may be a time difference. Again, contact us at:

support@matrixamplification.com

Thank you from the Matrix Team!

TECHNICAL SPECIFICATIONS:

	GT800	GT1000 (1U & 2U)	GT1600
Number of Channels:	2	2	2
Watts Per Channel at - 16 Ω :	125	150	240
Watts Per Channel at - 8 Ω :	250	300	480
Watts Per Channel at - 4 Ω :	400	500	800
Watts Bridged (A and B) - 16 Ω :	400	650	800
Watts Bridged (A and B) - 8 Ω :	800	1000	1600
Supply Voltage:	230V +/- 15%	230V +/- 15%	230V +/- 15%
Internally Selectable Alternative Voltage:	110V +/- 15%	110V +/- 15%	110V +/- 15%
Average Supply Current, Full Load:	4A (8A at 110v)	5A (10A @ 110v)	8A
Mains Connector:	10A IEC	10A IEC	10A IEC
Frequency Response:	8–24,000 Hz	8–24,000 Hz	8–24,000 Hz
Signal to Noise Ratio (ref. Full power 1kHz):	96 dB	96 dB	96 dB
THD (1kHz, full power):	0.06%	0.06%	0.06%
THD (20Hz - 20kHz, full power):	<0.1%	<0.1%	<0.1%
Slew Rate:	50 V/ μ s	50 V/ μ s	50 V/ μ s
Damping Factor (ref. 8R, 100Hz):	>400	>400	>400
Cooling Fan Arrangement: (Temperature controlled dual speed fans)	2x 40mm	2x 40mm (1U) 1x 80mm (2U)	1x 80mm
Input Level Sensitivity:	0.775v / 0 dBu	0.775v / 0 dBu	0.775v / 0 dBu
Dimensions (mm):	482x44x210	482x44x210 (1U) 482x88x210 (2U)	482x88x210
Weight:	3.7 Kg	4.1 Kg	4.7 Kg

CE Declaration:**Issuers Name and Address:**

Andrew Hunt MATRIX AMPLIFICATION LIMITED/MATRIX AMPLIFICATION
INC, 32 Dewsland Park Road, Newport, South Wales. United Kingdom.
NP20 4EF

Products:

GT800FX, GT1000FX 1u, GT1000FX 2u, GT1600FX

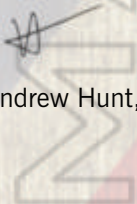
Equipment Type:

Commercial Audio Amplifiers

Safety Standard:

AMD1: 2005 and IEC 60065: 2001 7th Ed. EMC Standards: EN 61000-4-2:2001 EN 61000-4-3:2006 EN 61000-4-4:2007 EN 61000-4-5:2006 EN 61000-4-6:2006 EN 61000-4-11:2001 EN 55103-1:1997 EN 55103-1:1997 EN 55103-2:1997 EN 61000-3-3:2008 EN 61000-3-2:2005 and AMD1: 2008 EN 55022:2006

Safety Requirements - Audio Video and Similar Electronic Apparatus. Electrostatic Discharge Immunity (Environment E2-Criteria B, 4k V Contact, 8k V Air Discharge). Radiated, Radio-Frequency, Electromagnetic Immunity (Environment E2, criteria A). Electrical Fast Transient/Burst Immunity (Criteria B). Surge Immunity (Criteria B). Immunity to Conducted Disturbances Induced by Radio-Frequency Fields (Criteria A). Voltage Dips, Short Interruptions and Voltage Variation. Electromagnetic Compatibility - Product Family Standard for Audio, Video, Audio-Visual and Entertainment Lighting Control Apparatus for Professional Use, Part 1: Emissions. Magnetic Field Emissions-Annex A @ 10 cm and 20 cm. Electromagnetic Compatibility - Product Family Standard for Audio, Video, Audio-Visual and Entertainment Lighting Control Apparatus for Professional Use, Part 2: Immunity. Limits for Harmonic Current Emissions (equipment input current less than or equal to 16 A per phase). Limits and Methods of Measurement of Radio Disturbance Characteristics of ITE: Radiated, Class B Limits; Conducted, Class A. Limitation of Voltage Fluctuations and Flicker in Low-Voltage Supply Systems Rated Current less than or equal to 16A. I certify that the product identified above conforms to the requirements of the EMC Council Directive 89/336/EEC as amended by 92/31/EEC, and the Low Voltage Directive 73/23/EES as amended by 93/68/EEC.

Signature:

Andrew Hunt, Managing Director. Date of Issue: 04/02/2014

NOTES:

MATRIX

GT-SERIES AMPLIFIERS

HEAVYWEIGHT TONE
WITHOUT THE HEAVY WEIGHT

WWW.MATRIXAMPLIFICATION.COM

MATRIX AMPLIFICATION, UNIT 1 B, TECHWAYS, WONASTOW ROAD INDUSTRIAL ESTATE,
MONMOUTH, WALES, NP25 5JA.
MATRIX AMPLIFICATION INC. 1376 WALTER STREET, UNIT 3, VENTURA, CALIFORNIA,
93003, UNITED STATES OF AMERICA.