

TiTAN

FULLY BALANCED 1KW DUAL MONO BRIDGED POWER AMPLIFIER INSTRUCTIONS FOR USE



Thank you for purchasing the Musical Fidelity TiTAN power amplifier.

The TiTAN uses the latest in low distortion circuitry in a bridged configuration that delivers 1000 watts into 8 ohm and 2000W into 4 ohm speakers.

It is designed to drive any loudspeaker system to its full potential without distortion or clipping interfering with enjoyment of the music. Large musical transients are delivered without clipping. The overall listening experience is greatly improved due to dramatically lower distortion and increased dynamic range.

The TiTAN accepts both balanced and single ended line level inputs. When driven from a balanced preamplifier the sound quality is greatly enhanced by the doubling of the dynamic range and effective halving of the noise floor.

The TiTAN is a perfect answer to greatly improved dynamics in a beautifully engineered package.

Used properly and carefully, it should give many years of outstanding musical reproduction.

If there are further questions about any Musical Fidelity component, please consult the dealer from whom it was purchased, who is there to give help and advice.

MUSICAL FIDELITY

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IMPORTANT! (U.K. only)

This unit is supplied in the U.K. with mains lead fitted with a moulded 13 amp plug. If, for any reason, you need to cut off the plug, remove the fuse holder and dispose of the plug safely, out of reach of children.

It must not be plugged into a mains outlet.

The wires in the mains lead supplied with this appliance are coloured in accordance with the following code:

Green and yellow.....	Earth
Blue.....	Neutral
Brown.....	Live

WARNING - This appliance MUST be earthed

As the colours of the wires of the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked with the letter E or coloured green or green-and-yellow, or by the earth symbol : 

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

If connecting to a BS1363 plug, a 13 amp fuse must be used.

WARNING:

**ANY MODIFICATIONS TO THIS PRODUCT NOT EXPRESSLY APPROVED
BY MUSICAL FIDELITY WHO IS THE PARTY RESPONSIBLE FOR
STANDARDS COMPLIANCE COULD VOID THE USER'S AUTHORITY TO
OPERATE THIS EQUIPMENT.**

INSTALLATION PRECAUTIONS and USER INFORMATION

The TiTAN is designed and built to provide trouble-free performance, but as with all electronic devices it is necessary to observe a few precautions:

Heed all warnings shown on the back of the product.

Only connect the TiTAN to a mains outlet having the same voltage as marked at the back of the unit.

Always ensure that when disconnecting and reconnecting audio equipment the mains supply is switched off.

Position the mains lead and signal interconnects where they are not likely to be walked on or trapped by items placed on them.

This unit features a **BRIDGED** speaker output and should **NOT** be grounded on either speaker output terminal as both terminals are effectively “hot”, i.e. carry signal. Please check if using *any* active “sub”, electrostatic, or other non standard potentially grounded speaker types directly connected to the outputs of the TiTAN. Consult speaker manual or supplier if in doubt.

Do not use near water, or place water-filled containers on the TiTAN, for example, a flower vase or potted plants. **If water does spill inside, immediately pull out the mains plug from the wall socket and inform the dealer, who should then check the unit before further use. Entry of liquid into the TiTAN is dangerous, and may cause electric shock or fire hazard.**

Do not place the unit near direct heat sources such as radiators, direct sunlight or other equipment.

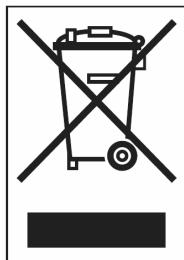
Do not remove any covers or try to gain access to the inside. There are no user-serviceable internal adjustments . Refer all service work to an authorised Musical Fidelity agent.

Note: Unauthorised opening of the equipment will invalidate any warranty claim.

Dust regularly with a soft cloth or soft brush but be careful when using cleaning or polishing agents - they may harm the surface finish.

The electronics in modern hi-fi equipment is complex and may, therefore, be adversely affected or damaged by lightning. For protection of your audio system during electrical storms, remove the mains plugs and disconnect any aerial lead.

If after-sales service is required, to help the dealer identify the TiTAN please quote the serial number located on the rear panel of the unit.

DISPOSAL

The crossed out wheeled bin label that appears on the back panel of the product indicates that the product must not be disposed of as normal household waste. To prevent possible harm to the environment please separate the product from other waste to ensure that it can be recycled in an environmentally safe manner. Please contact local government office or retailer for available collection facilities.

DISPOSITION

La poubelle sur roulettes barrées X, qui apparaît en logo sur le panneau arrière du produit, indique que celui-ci ne doit pas être traité comme un déchet domestique commun. Afin de protéger l'environnement, ce produit électronique devra être géré séparément et donc recyclé selon les nouvelles normes Européennes RoHS concernant les déchets d'appareils électroniques. Prière de contacter les services concernés gouvernementaux ou votre point de vente pour l'élimination et l'enlèvement de déchets électroniques équipés de composants électroniques.

DISPOSAL

La etiqueta cruzada hacia fuera del compartimiento que aparece en el panel trasero del producto indica que el producto no se debe reciclar como basura normal de la casa. Para prevenir daños posibles al ambiente, sepárelo por favor del producto de otras basuras para asegurarse de que puede ser reciclada de una manera ambientalmente segura. Entre en contacto por favor a su oficina gubernamental local o a su minorista para las instalaciones disponibles de la colección.

RIFIUTI

L'etichetta del cassetto barrato riportato sul retro dell'apparecchio indica che il prodotto non deve essere smaltito tramite la procedura normale di smaltimento dei rifiuti domestici. Per evitare eventuali danni all'ambiente, separare questo prodotto da altri rifiuti domestici in modo che possa venire riciclato in base alle procedure di rispetto ambientale. Per maggiori dettagli sulle aree di raccolta disponibili, contattate l'ufficio governativo locale od il rivenditore del prodotto.

FACHGERECHTE ENTSORGUNG:

Das auf der Geräterückseite angebrachte Label deutet darauf hin, dass das Produkt nicht mit konventionellem Hauskehricht entsorgt werden darf. Um Schäden und Verschmutzungen an Umwelt und Mensch zu vermeiden, muss das Produkt fachgerecht entsorgt und von anderem Abfall getrennt werden. Wenden Sie sich bei Fragen hierzu an Ihren Fachhändler oder an eine öffentliche Informationsstelle.

AFVAL

Het label op de achterzijde van dit apparaat, een afvalbak op wielen met een kruis doorgehaald, geeft aan dat dit apparaat niet samen met gewoon huishoudafval mag worden weggegooid. Om mogelijke schade aan onze leefomgeving te voorkomen dient dit apparaat, gescheiden van gewoon huishoudelijk afval, te worden afgevoerd zodat het op een milieuvriendelijke manier kan worden gerecycled. Neem voor beschikbare inzamelplaatsen contact op met uw gemeentelijke reinigingsdienst of met uw elektronica leverancier.

HÄVITTÄMINEN

Yliruksattua jäteastiaa kuvaava tarra tuotteen takalevyssä kertoo, että tuotetta ei saa käsitellä normaalina talousjätteenä. Ympäristön suojelemiseksi on tuote pidettävä erillään muusta jätteestä ja se on kierrättettävä ekologisesti kestävällä tavalla. Ota yhteyttä laitteineen myyjään tai Pirkanmaan Ympäristökeskukseen lähiimmän kierrätyskeskuksen löytämiseksi.

AFSKAFNING

Logoet med en skraldespand med kryds over på bagsiden af apparatet indikerer at dette produkt ikke må kasseres som normal husholdningsaffald. For at forebygge mulig skade på miljøet, bedes De separere dette produkt fra andet affald, og sikre at det bliver genbrugt på en miljørigtig måde. Kontakt venligst de lokale myndigheder eller din forhandler for oplysning om nærmeste tilgængelige opsamlingssted for elektronikaffald.

ΔΙΑΔΙΚΑΣΙΑ ΑΠΟΡΡΙΨΗΣ

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ΑΠΟΡΡΙΜΑΤΑ ΩΣΤΕ ΝΑ ΕΞΑΣΦΑΛΙΣΘΕΙ Η ΑΝΑΚΥΚΛΩΣΗ ΤΟΥ ΜΕ ΤΟΝ ΠΡΕΠΟΝΤΑ ΤΡΟΠΟ.

ΠΑΡΑΚΑΛΟΥΜΕ ΝΑ ΕΠΙΚΟΙΝΩΝΗΣΕΤΕ ΜΕ ΤΗΝ ΤΟΠΙΚΗ ΥΠΗΡΕΣΙΑ ΑΝΑΚΥΚΛΩΣΗΣ Η ΜΕ ΤΟ ΚΑΤΑΣΤΗΜΑ ΑΓΟΡΑΣ ΓΙΑ ΠΕΡΙΣΣΟΤΕΡΕΣ ΛΕΠΤΟΜΕΡΕΙΕΣ.

SETTING UP

Position the TiTAN on a stable, horizontal surface where there is no risk of it being knocked.

Make sure ALL units involved are switched off and unplugged from mains supply before making or removing any connections.

During normal use, the unit develops a certain amount of internal heat and therefore should be sensibly situated where it can radiate this heat most efficiently. If this is not realised, heat build-up will occur and may cause the amplifier to prematurely shut itself down. It is thus recommend that the unit is situated in an open rather than enclosed space as well as away from other sources of heat.

AUDIO CONNECTIONS

Inputs: The TiTAN has single ended (RCA) line level and balanced (XLR) line level input. Choose the desired input to be used:

UNBALANCED RCA LINE LEVEL OUTPUTS:

The line input allows direct connection from a preamplifier or amplifier's preamp outputs (100K input impedance).

Use dual (or two single) RCA phono to phono cable(s) to connect left and right RCA outputs on the preamplifier to the left and right RCA inputs on the TiTAN.

Make sure the input selector slide switch on the back panel is set to "unbalanced".

BALANCED XLR LINE LEVEL INPUTS:

The line input allows direct connection from a preamplifier or amplifier's balanced preamp outputs (100K input impedance).

Use a single XLR balanced cable to connect output on the preamplifier left output to the left balanced line level input XLR on the TiTAN. Use another single XLR balanced cable to connect output on the preamplifier right output to the right balanced line level input XLR on the TiTAN.

Make sure the input selector slide switch on the back panel is set to "balanced".

Note: in both input cases it is assumed that the driving preamplifier has a VOLUME CONTROL to allow setting of listening level. This is important as the TiTAN has no control of its own.

OUTPUTS:

Connect loudspeakers to the terminals on the back panel marked **OUTPUTS**.

When wiring up the speakers check the speaker wiring for polarity markings. Use the "positive" speaker lead to connect positive (RED) on the TiTAN output to the positive binding post on the speaker, and the "negative" lead to connect the negative (BLACK) on the TiTAN output to the negative binding post on the speaker.

MAINS POWER INPUT

Check the two power supply front panel mains switches are set to "off" (out). Connect the supplied mains leads to the IEC sockets near base of back panel. Connect the other end to a mains power socket.

Note: **Both** mains leads must be connected for normal operation.

POWER AND CONTROL INTERCONNECTS

Connect the black XLR cable between the control PSU output on the power supply and the control PSU input on the amplifier.

Use one of the large silver/grey "Neutrik" leads to connect the LEFT PSU OUTPUT on the power supply to the LEFT PSU INPUT on the amplifier.

Use the other large silver/grey "Neutrik" lead to connect the RIGHT PSU OUTPUT on the power supply to the RIGHT PSU INPUT on the amplifier.

Important note: The amplifier will not switch on if the left and right PSU leads are incorrectly connected. The amplifier will switch on briefly then off again.

TRIGGER INPUT

A remote triggering input is available to allow the amplifier to be turned on automatically by other equipment. This is a 2-way 3.5mm jack on the back of the unit labelled "TRIGGER". It requires 5 to 12V (either polarity) to switch the amplifier on. Such a trigger signal is available from (for example) most home theatre setups.

CAUTION!

This amplifier features a **BRIDGED** output and should **NOT** be grounded on either output terminal as both are effectively "hot". Please check if using *any* active "sub", electrostatic, or other non standard speaker types directly connected to the speaker outputs of the TiTAN. Consult speaker manual or supplier/dealer if in doubt.

Most high quality speakers will comfortably cope with large power transients. By their nature, these are very quick and will present no thermal problems for a good commercial quality loudspeaker.

However please note that most loudspeakers are *not* designed for very high *sustained* listening levels. The TiTAN is a very powerful amplifier and will faithfully deliver what is asked of it. If listening levels are set significantly higher than normal, it is possible that the loudspeakers could get into thermal problems and be damaged. Musical Fidelity will not be responsible for any loss or damage to loudspeakers.

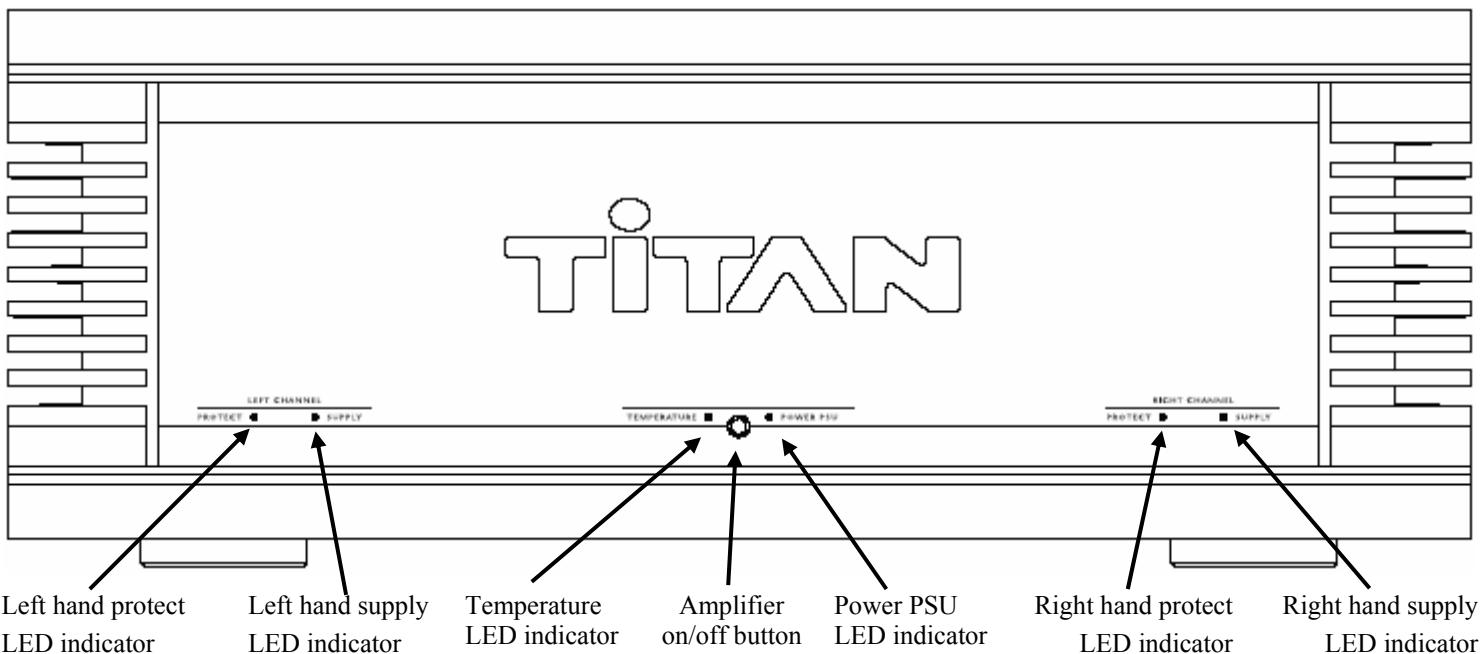
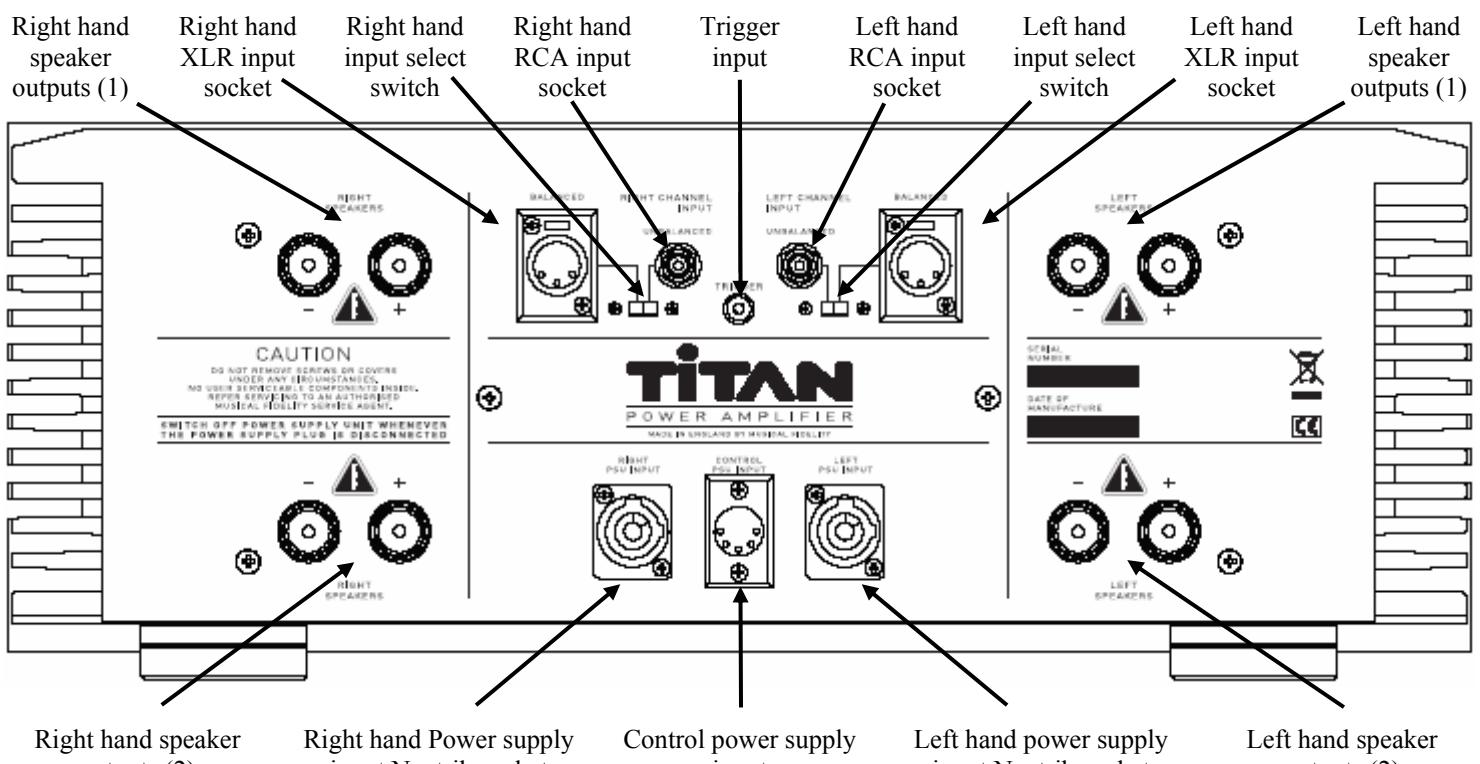
Please take care with listening levels, which can damage hearing, and consider the noise suffered by others, such as neighbours.

Additional note-

If bi-amping, please ensure that all speaker shorting links linking treble and bass units are removed. Failure to do so may result in damage to connected amplifier(s). See loudspeaker instructions for more information.

CLEANING

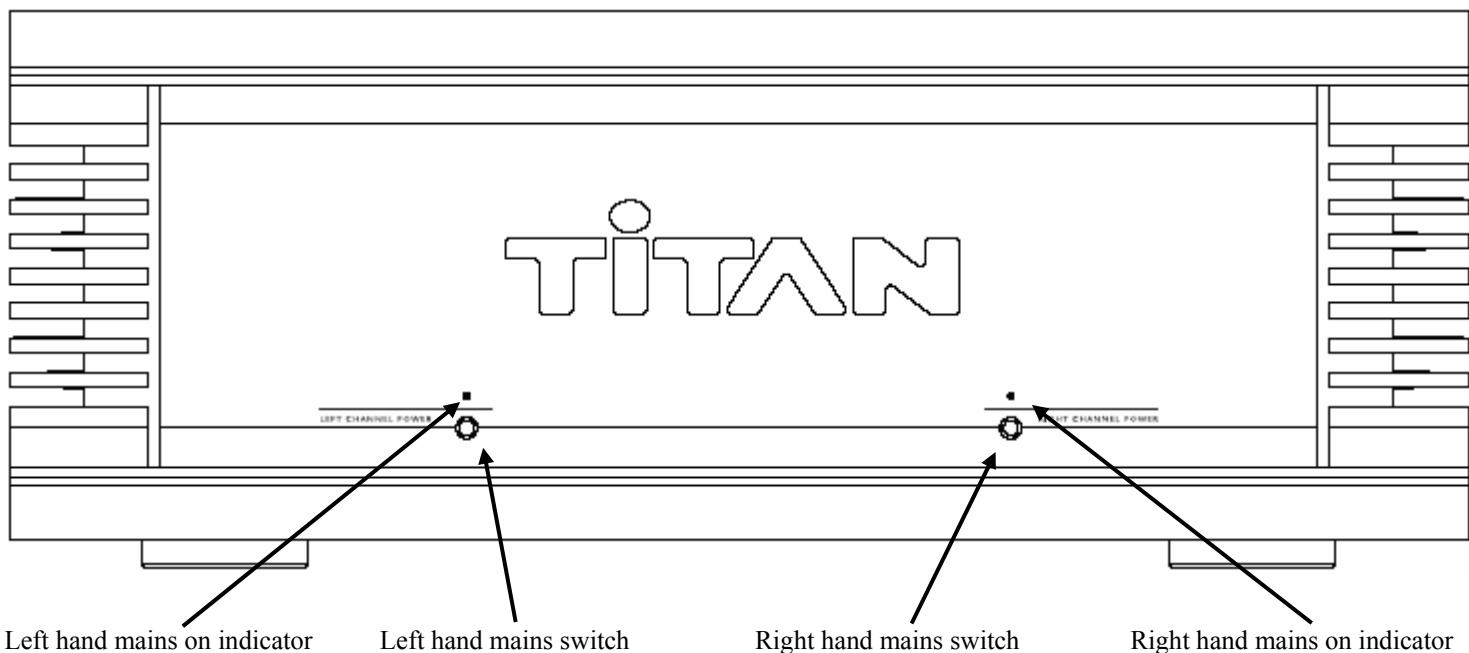
Before cleaning the unit, switch off power at the mains switch and remove both the mains plugs from the wall socket. Clean the cabinet and remote control unit using a moist cloth. We do not advise using solvents, white spirit or thinners as they could damage the surface finish.

FRONT PANELREAR PANELXLR Balanced input and output lead connections:

(for reference only, no XLR signal leads supplied)

Pin functions:

- 1 Ground (cable shield)
- 2 Normal polarity ("hot" or "+")
- 3 Inverted polarity ("cold" or "-")

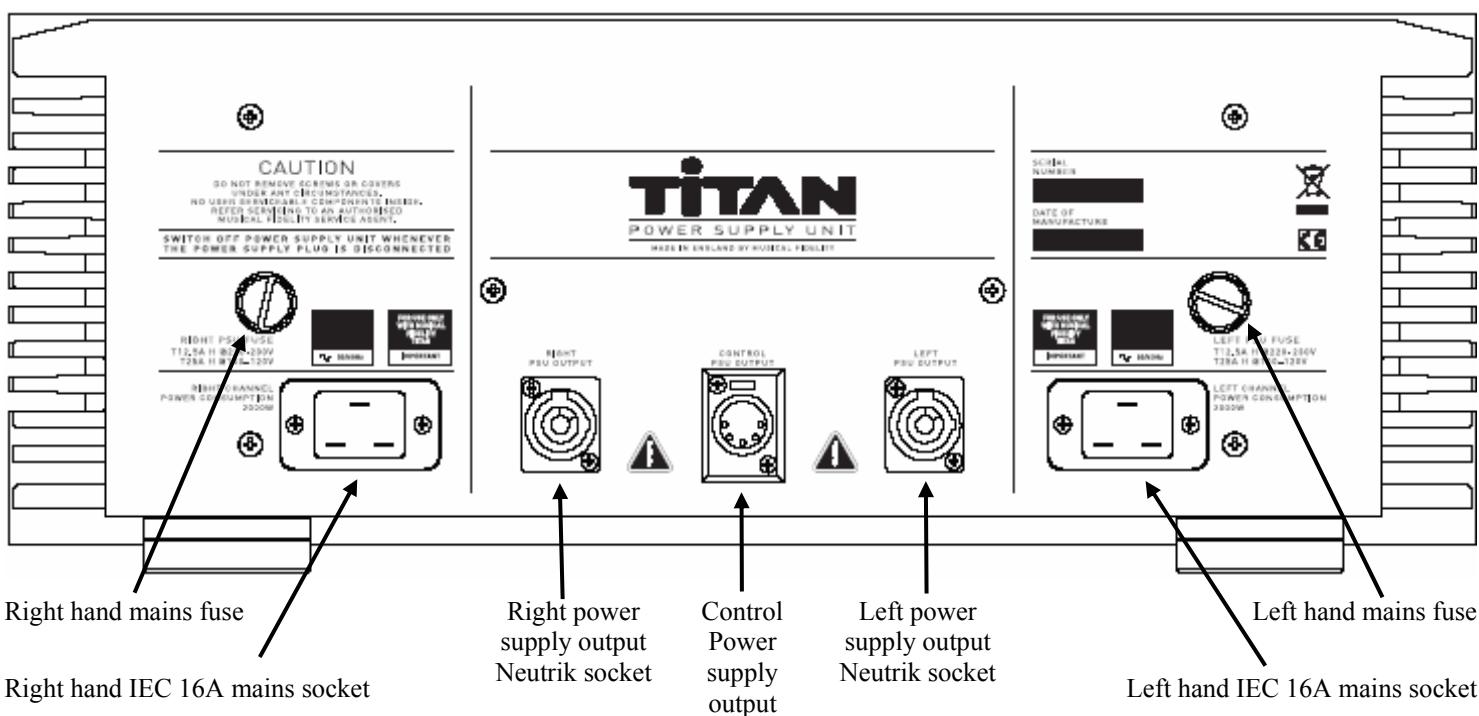
FRONT PANEL

Left hand mains on indicator

Left hand mains switch

Right hand mains switch

Right hand mains on indicator

REAR PANEL

Right hand mains fuse

Right hand IEC 16A mains socket

Right power supply output Neutrik socket

Control Power supply output

Left power supply output Neutrik socket

Left hand IEC 16A mains socket

POWER ON

Once all connections are made, switch on the unit, using the ON/OFF switches on the power supply front panel. Both switches should be operated for normal operation.

Both blue LEDs on the power supply front panel should be lit as well as the blue middle LED on the amplifier.

The amplifier may now be switched fully on using the button on the front of the amplifier. After a few seconds delay the left hand blue LED on the amplifier should be lit. The right hand LED will light after another short delay and the amplifier is ready for use.

POWER OFF CAUTION:

The correct power off procedure should be followed in order to prevent unnecessary power surges on the mains line.

The amplifier itself should be switched off by the button on it's own front panel. Only the blue LED in the centre will be lit at this point.

A protection feature is built into the amplifier which has to time out before switching back on again. After switch-off, please wait at least 5 seconds before attempting to switch the amplifier on again. The amplifier on/off button will be disabled for these 5 seconds.

FAULT CONDITION

Should the amplifier be driven into current limit, the red LED on the affected channel will flash briefly and sound output may be reduced slightly. This is indicating that a very large amount of current is being driven into the speakers and damage is likely to occur. Turn the volume down.

Repeated concurrent clipping will cause the amplifier to shut down with the red LED lit steadily in the offending channel.

Check wiring and if all looks secure, reset the unit by pressing the front panel button.

OVERHEAT

Should an internal overheat situation occur, the centre orange LED will light. If this is allowed to continue, the amplifier will eventually shut itself off. The amplifier will remain in this state until it has cooled down a sufficiently. Once the orange light has extinguished, the amplifier is ready to be turned on again, by pushing the front panel button.

If overheat mode persists, check wiring for errors; locate unit in a more open area, where it can cool down more easily.

Basic problem-solving with an amplifier is similar to troubleshooting other electrical or electronic equipment. Always check the most obvious possible causes first, such as the following examples:

Problem	Probable Cause	Remedy
No power when POWER switches turned on	Mains power plug(s) not fully inserted into rear socket(s) No mains power	Plug both mains leads in securely Check socket(s) with another appliance
Unit not coming on via TRIGGER input	Trigger lead disconnected Triggering unit not sending trigger signal	Check lead is fully connected and triggering unit is on and sending a trigger signal (± 5 to 12V nominal)
Unit comes on then switches itself off	Left and right power supply leads incorrectly wired or disconnected	Check power supply wiring, see P. 6
No sound	No power or unit not switched on Speakers not connected, or incorrectly Wired	Check power supply Check trigger cable and setup (if used) Check speaker cables at both ends
Sound is not precise, lacking in bass and stereo image	Speakers are connected out of phase, i.e., connections to one speaker (+ and -) are reversed	Ensure speakers are connected correctly on all units: + terminal on amplifier goes to + terminal on speaker, - terminal on amplifier goes to – terminal on speaker. Note: Most cables have polarity markings to help get this right.
Unit cuts out, orange LED lit	Overheating Short circuit in speaker output leads Problem in speakers Grounded via speaker	Make sure unit is situated to allow free air circulation, and away from other sources of heat. Check speaker leads connected to SPEAKER OUTs on TiTAN <i>and</i> speaker ends for stray strands or short circuits. Check speakers Both the + and – speaker output terminals on this unit are “hot”. Some speakers e.g. electrostatics have “grounded” inputs. Such speakers are incompatible with the TiTAN.
Unit cuts out, red LED lit	Excessive clipping Grounded via speaker	Reduce volume level on driving amplifier Switch off unit using front panel button Wait 30 seconds before switching back on, and apply music source. Both the + and – speaker output terminals on this unit are “hot”. Some speakers e.g. electrostatics have “grounded” negative terminals. Such speakers are incompatible with the TiTAN.
Hum	Audio connector plug not fully pushed in Cable Fault Unsuitable Cable (e.g. cable grounds not connected) Input type switch incorrectly set	Insert plug securely Check cable is connected at both ends. N.B. some esoteric cables have internal wiring intentionally disconnected/modified. For best results on all inputs, please use good quality fully screened lead; signal(s) connected both ends and earth/screen(s) connected both ends. Check the input switch (back panel) is correctly set for the type of input cable being used (RCA single-ended or XLR balanced)

If none of these actions affect a cure, please contact your dealer, or an authorised Musical Fidelity service agent. Remember; never open the case of the TiTAN yourself, as this will invalidate the guarantee.

Output:	Power	1000 Watts per channel into 8 Ohms (30dBW),
	Voltage	90 Volts rms 20Hz to 20 kHz
	Current	254 Volts peak to peak
	Damping factor	limited to 100A peak to peak
	Output devices	250
	Thermal cut out (internal temp)	20 per side
		70 °C
Line input:	THD + N	<0.008% 20Hz to 20 kHz
	Signal / noise ratio	>126dB 'A'-weighted
	Input sensitivity for 1000W	3V rms
	Input impedance	100k Ohms balanced and unbalanced
	Frequency response	20Hz to 40kHz -0.5dB
Connections:	Unbalanced Line level inputs:	1 pair line level RCA connector
	Balanced inputs:	1 pair XLR (female) sockets
	Speaker outputs:	2 pairs 4mm banana plug/binding posts per side
	Trigger input	3.5mm/1/8" mono jack socket
	Trigger level	±5V to ±12V
Power required:	100/115/230Volts AC 50/60Hz (Factory pre-set)	1770 Watts maximum into 8 Ohms, 275 Watts idle (per side)

Main unit physical details:

Dimensions:	483mm	19 inches	wide
	185mm	7½ inches	high including feet
	635mm	25 inches	deep (front to back) including terminals*
Weight:	45kg	99lbs	unit only, unboxed

Power Supply physical details:

Dimensions:	483mm	19 inches	wide
	185mm	7½ inches	high including feet
	615mm	24¼ inches	deep (front to back) including terminals*
Weight:	68kg	150lbs	unit only, unboxed

* In tight spaces, it is recommended to allow at least an additional 75mm or 3 inches for the connectors.

Shipping details:

Carton size:	610mm	24 inches	Per box: A complete unit = 2 identical boxes,
	375mm	14¾ inches	1 for main unit; 1 for power supply and standard accessories
	765mm	30⅛ inches	

Shipping weight

Main unit	50kg	110lbs	in shipping carton
Power supply	75kg	165bs	in shipping carton (includes all standard accessories, as listed below)
TOTAL	125kg	275lbs	

Standard accessories:

1 off	Power supply unit (in separate carton)
2 off	IEC type fused mains lead (16-Amp type)
2 off	Neutrik power connecting leads 1.2m
1 off	5-way XLR connecting lead 1.2m
1 off	Manual



Musical Fidelity reserves the right to make improvements which may result in specification or feature changes without notice.

RELEASE	DATE	CHANGES
Issue 1	January 30 th 2009	1 st Issue