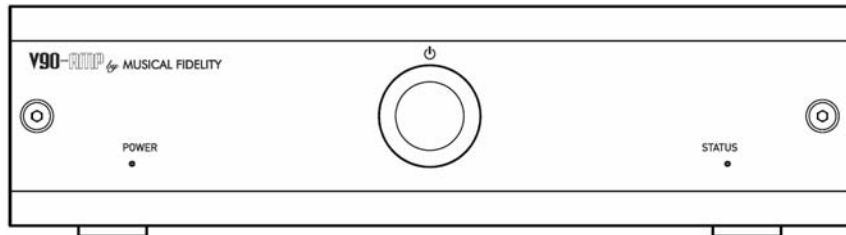


V90-AMP Digital Power Amplifier with 24 bit/48kHz Asynchronous USB DAC

Instructions



Operation

Volume function

The unit can be used as a volume controlled amplifier or a straight power amplifier.

To **enable** the front panel volume control, slide the volume control switch (back panel) to the **on** position. The knob on the front panel now controls volume to speakers.

To **disable** the front panel volume control, slide the volume control switch (back panel) to the **off** position. The knob on the front panel is now defeated and volume control will need to be applied from within the source, for example by a computer's multimedia mixer settings.

Input select

This unit will switch inputs automatically dependant on signal presence or absence.

When playing (i.e. signal is present) through the USB input takes precedence over anything plugged into the 3.5mm Jack plug. So the unit will automatically select the USB input.

To switch to the OPTICAL/ANALOGUE input STOP the USB music player on the computer and/or remove the USB input lead.

The unit will then switch to OPTICAL/ANALOGUE input accordingly.

Selecting between analogue and optical input is simply a matter of plugging the required lead into the OPTICAL/ANALOGUE input and the V90-AMP is internally configured automatically.

Status LED summary

RED - (temporary) mains switched off or lead disconnected. (permanent) Internal failure - switch off and check wiring for short circuits before switching on again.

GREEN (analogue input) analogue connection made but not necessarily playing.

GREEN (digital/USB inputs) digital audio signal present and playing

AMBER (analogue) displayed briefly when plugging in analogue cable as unit switches to analogue input.

AMBER (digital/USB inputs) digital connection made but no signal being played.

Off - No sources connected or unit is switched off.

Use

Switch unit on and adjust the volume control for a comfortable listening level, sit back and enjoy the music.

Introduction

Thank you for purchasing the V90-AMP power amplifier.

It is designed to add power and drive, for example, to multimedia listening with computers, tablets and other similar arrangements.

We sincerely hope that it will bring you many years of outstanding listening pleasure.

Installation Precautions

Your new V90-AMP is designed and built to provide trouble-free performance, but as with all electronic devices, it is necessary to observe a few precautions:

Do not use the V90-AMP near water. The unit must not be exposed to dripping or splashing liquids.

Keep the V90-AMP away from heat such as radiators. No naked flame sources should be placed on the unit.

Product Note:

This Hi-fi product has been tested to ensure that its operation is not adversely affected by normal background levels of Radio Frequency Interference (R.F.I.), and that it does not itself generate excessive amounts of interference. However, if a problem persists, please contact your Musical Fidelity agent.

The V90-AMP will operate in accordance with its specifications within the following environmental range:

Temperature 5 to 45 degrees Celsius

Humidity 10 to 90% non condensing

WARNING: NEVER open the case of the V90-AMP. There are POTENTIALLY LETHAL HIGH VOLTAGES CONTAINED within this unit even on standby or switched off. There are no user adjustments inside. Please refer all service work to an authorised Musical Fidelity agent. Unauthorized access also invalidates all guarantees.

Connections

All connections must be made before the unit is plugged in. Always switch off the equipment attached to the V90-AMP before connecting or disconnecting power, changing leads or inputs.

Inputs

Choose which inputs the unit will be using. It will switch automatically dependant on which input is currently "playing".

USB - Using a good quality USB (1.1 or 2.0) "A" to "B" lead (not supplied), connect the USB input to a spare USB port on computer/host device. This unit is automatically detected in all Microsoft, Apple and Linux based computers and similar which support "USB audio class 1.0 or later".

Digital - Use a normal TOSLINK cable (not supplied) with TOSLINK to 3.5mm adaptor (supplied) for best quality connection from other digital audio devices.

Analogue - Use standard 3.5mm Jack cable (or RCA cables in conjunction with supplied adaptor) to connect analogue signals from other sources.

Outputs

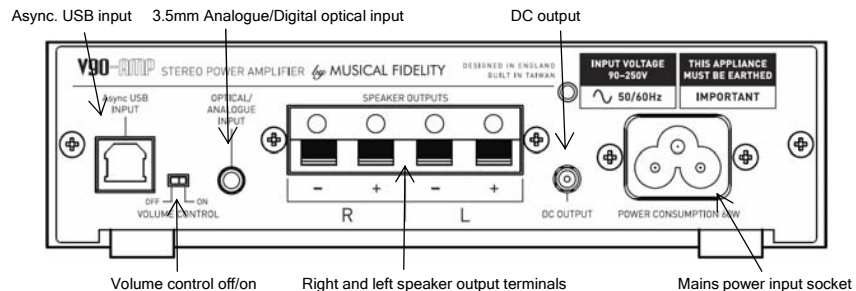
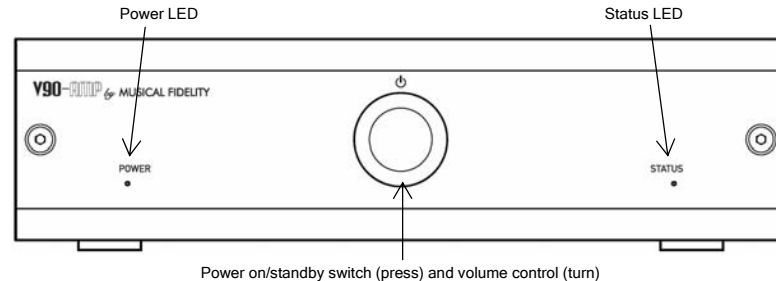
Two pairs of sprung speaker terminals are provided for connection to a pair of speakers. Use normal stranded speaker cable and make absolutely sure there are no stray strands that could short circuit and cause the amp to shut down prematurely.

DC output

A DC output socket is provided for future MF product only.

Power

Plug the mains connector lead from the unit into a convenient wall mains outlet. The blue LED will light to confirm the unit is now on and ready for use. To turn unit off or on again, press the volume knob.



USB input

A good quality USB A to B cable is required to connect the unit to the computer.

Plug the B (square) end into the socket in the back of the V90-AMP. Plug the A (rectangle) end into a free USB socket on your computer.

Additional USB information

On the host computer, a new device will be available, whenever the V90-AMP is plugged in. Use this device to listen to music stored or played from this host computer. CD, MP3, WAV files played on any software should now play through the internal USB DAC.

This device works any device that supports USB audio Class 1.0 or later. USB Class 1.0 "drivers" are supplied with operating systems such as Windows XP, VISTA, 7, 8 and later, Apple OS-X and later and Linux kernel 2.6.33 or later.

The computer drivers for the USB input of the V90-AMP should install automatically. If they do not, please consult **computer system administrator/technical support**.

Musical Fidelity does not support or supply any third party or update drivers for this device.

To check correct installation follow these steps:

PC /Windows users

Check the computer has detected the device and is currently using it by clicking: (most Windows versions)

- Start
- Settings
- Control panel
- Sounds and Multimedia
- Audio

Check "Musical Fidelity V90-AMP" appears under PREFERRED AUDIO DEVICE tab.

Mac users

Check the computer has picked up the device and is currently using it by clicking: (MAC OS X)

- System preferences
- Hardware
- Sound

Check that "Musical Fidelity V90-AMP" is selected under the OUTPUT tab. If the computer's warning sounds/chimes are to be played through the internal DAC, make sure it is selected under the SOUND EFFECTS tab too.

This device is a high speed serial data processor, and by its nature, requires a very high volume of USB bandwidth. It will benefit greatly from being the only device connected on its USB 'port'. Sharing the same port with other devices may cause unwanted artefacts such as dropouts. This especially includes the use of the unit on a USB hub/splitter alongside other USB components.

With the USB cable plugged in, the internal USB DAC is automatically recognised no matter what input is currently selected. When INPUTS selector switch is set to USB, the green LOCK LED will light to show that the USB DAC is correctly setup. The green LOCK LED goes out when the INPUTS switch is set to LINE position but the internal USB DAC is still connected and ready to use whenever required.

Specifications:	Power	20W /channel	into 8 Ohms (Suitable for speakers 6 ohms minimum).	
	THD	<0.1% typical	'A' weighted	
	Signal/noise ratio	>85dB	'A' weighted	
	Input impedance	47KΩ		
	Frequency response	+0, -3dB	10Hz to 20 kHz	
Power requirement:	90-250Vac universal mains			
Connections:	Line level input:	1 stereo 3.5mm "jack" connector		
	Optical input	1 optical 3.5mm "jack" combined with line level input above		
	USB input	1 Type "B" asynchronous, 16-24 bits, up to 48kHz sample rate		
	Speaker outputs	2 pairs spring loaded speaker terminals		
	DC output	For future MF product only.		
Power input	3-way "cloverleaf" mains power socket			
Dimensions:	Length	117mm	4 5/8" including terminals and volume	
	Width	170mm	6 5/8"	
	Height	47mm	1 7/8" including "feet"	
Weight:	Unit alone	710g	1 3/4lbs	
	Total packed carton	1.38Kg	3lbs	
Accessories (supplied)	Optical adaptor	Toslink	to 3.5mm jack	1 off
	Analogue adaptor	2xRCA	to 3.5mm jack	1 off
	Mains lead	3 way	"cloverleaf"	1 off
	Leaflet	V90-AMP	Instructions	1 off

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

Manual issue 2 - 27/9/13



Basic problem-solving with an amplifier is similar to troubleshooting other electrical or electronic equipment.		
Problem	Probable Cause	Remedy
No power	Mains supply not switched on.	Check mains supply is plugged in and unit switched on (blue LED lit)
	Power plug is not fully inserted	Plug into rear socket securely
No sound - analogue	Wrong connections between input source and the V90-AMP	Check speaker leads are connected and secure Check other source is not playing and lead connections.
	Volume turned right down	Check volume is adjusted accordingly. Take care not to turn up too high!
No sound - USB	USB device not working	Check USB input lead is securely connected. Green LOCK LED will light when an active digital/USB stream is detected. See "Additional USB Information section" to check computer has recognised and is using "V90-AMP 24/96" for playback.
Hum	Audio connector not secure	Insert plug so full contact is made.

If none of these actions affect a cure, please contact the dealer, or an authorised Musical Fidelity service agent. Remember, never open the case of the V90-AMP, as this will invalidate the guarantee.

Item disposal information for Europe



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 your local government office or your 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 Rohns 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 compartimento 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 posible al ambiente separe por favor el producto de otras basura 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 cassettono 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 o il rivenditore del prodotto.



FACHGEBERECHTE ENTSORGUNG:

Das auf der Gerätekäufersseite angebrachte Label deutet darauf hin, dass das Produkt nicht mit konventionellem Hausmüll entsorgt werden darf. Um Schäden und Verschmutzungen an Umwelt und Mensch zu vermeiden, muss das Produkt fachgerecht entsorgt und vom Restmüll 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.



HÄVITÄMINEN

Tiirukäsitäla järeleasiala kuvaava tarra tuoteen takalevystä kertoo, että tuotetta ei saa käsitellä normaalina talousjätteenä. Ympäristön suojelusekski on tuote pidettävä erillään muusta jätteestä ja se on kierrätettävä ekologisesti kestäväällä tavalla. Ota yhteyttä laitteen myyjään tai Pirkanmaan Ympäristökeskukseen lähimmän 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 elektronikaflald.



ΑΠΑΚΑΘΙΑ ΑΠΟΡΡΙΨΗ

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