



## **NVA INTEGRATED AMPLIFIER – INT250, INT400, INT 400SA - USER INSTRUCTIONS**

Thank you for purchasing this NVA Integrated Amplifier. The functions and operations of all NVA amplifiers are deliberately simple. However, it is **essential** that you read through these user instructions prior to installing the amplifier into your system. Failure to do so may result in accidental damage to the amplifier circuit.

**IMPORTANT** - there is no protection circuitry or filtering on the output of our amplifiers (that's one of the reasons why they sound so good!), so care must be taken in use. Do not short circuit the output; doing so will fatally damage the amplifier boards. Do not use high capacitance speaker cables as these could damage the amplifier by creating a virtual short-circuit at high frequencies. Do not use bi-wiring with non-NVA cables. Do not use Litz, Goertz or woven cables. Do not twist cables together. **Avoid cables with a capacitance of greater than 200pf per metre (failure to do so will invalidate our warranty) and do not use non-NVA cables over 10 metres in length.** The best sounding speaker cable for NVA and the perfect electrical match, is our LS series of low capacitance cables. Proof of purchase of NVA speaker cable, or another suitable low capacitance speaker cable, may be required when submitting any NVA amplifier for warranty repair.

The reward for following these instructions... is a beautifully pure, open and musical presentation. Welcome to the NVA sound!

Paul Tiernan (Director)

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## **Placement & Reasonable Use**

At all times during use, you must ensure adequate ventilation space around the top and sides of the amplifier (minimum 3 inches) for air to circulate. The amplifier must sit on its own feet (removing or replacing the feet will void our warranty). Do not place the amplifier on top of anything that generates any level of heat.

NVA amplifiers are designed for domestic use at normal domestic listening levels. They are not PA or 'party' amplifiers. Playing the amplifier at very high volumes into difficult loads for extended periods of time will cause the amplifier to overheat, and may cause catastrophic failure of the amplifier, beyond economic repair.

The only 'running in' required is to leave the amplifier powered on at all times. The capacitors will be fully formed after the amplifier has been left on for 72 hours. You can still play music as often as you want during the run-in period – at first, the amplifier may sound 'tight',

NVA amplifiers do not contain an automatic thermal cut out device. We advise monitoring amplifier temperature if you are uncertain in any way about the volume levels that you wish to listen at. Put most simply, if the amplifier is uncomfortable to touch, it is too hot and should be switched off, immediately.

## **Putting The System Together For The First Time**

1. Lower the volume control(s) to minimum on the amplifier (do not connect any cables, yet)
2. Power on the amplifier from the switch on the rear panel
3. Connect sources to the amplifier inputs
4. Connect speaker cables to your speakers FIRST
5. Connect speaker cables to the amplifier starting with black
6. Check the selector switch is in the right position for your intended source, play some music and gradually turn up the volume

**It is very important not to short the loudspeaker plugs, as permanent damage can result.**

## **Cable Management**

- Never twist or tie cables together – let them run independently
- Keep signal cables away from power cables
- Allow space between cables (proximity creates unwanted capacitance)
- Ensure all connections are secure and not stressed / stretched

## **Keeping The Amplifier Powered On**

For best performance, we recommend that you leave the amplifier powered on at all times, unless you are going to be away for an extended period. Electricity consumption is very low at idle. If you decide you need to power down, switch off the music source, make sure the volume is set to minimum then power the amplifier off from the switch on the rear panel. It is not necessary to disconnect any cables.

## **Powering Back On After Turning Off**

Switch off music source (failure to do this may damage your equipment), lower the volume control(s) to minimum on the amplifier, then power the amplifier on from the switch on the rear panel. You may notice a small 'bump' type noise through the speakers when you power back on. This is normal and will not damage your speakers.

## **Adding / Removing Inputs**

Powering down of the amplifier is NOT required but NEVER unplug inputs while the amplifier is playing music

1. Switch off music source (failure to do this may damage your equipment)
2. Lower the volume control(s) to minimum
3. Add / remove source input cables, as desired
4. Check the selector switch is in the right position for your intended source, play some music and gradually turn up the volume

## **Dismantling The System**

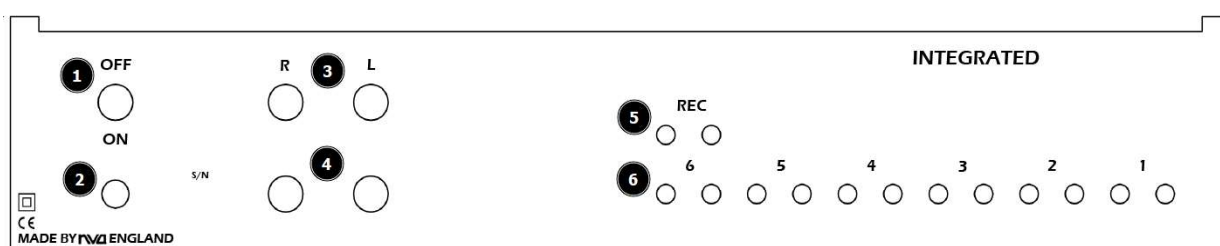
1. Switch off music source (failure to do this may damage your equipment)
2. Lower the volume control(s) to minimum on the amplifier
3. Remove the speaker cables from the amplifier FIRST starting with the red
4. Disconnect sources from the amplifier inputs
5. Power off the amplifier from the switch on the rear panel and wait for 5 minutes until the transformers have completely discharged (the LED will remain on while this happens).

## **Cleaning**

Dust with a lint-free cloth. To remove fingerprints, apply a spray of Windowlens to a fine-grade microfibre glass cloth and then wipe the acrylic surfaces. Never use alcohol based cleaning products.



1. Input selection knob – with pointer to indicate position.
2. Volume control knob – with pointer to indicate position.
3. Power-on LED (red).



1. Power-on switch.
2. Captive mains lead – required for compliance with Class II regulations. Do not remove / replace / modify.
3. Speaker outlet sockets red (live) – one per channel.
4. Speaker outlet sockets black (ground) – one per channel.
5. Tape Rec output – can be used to connect a headphone amplifier or tape recorder.
6. Line level inputs (6 of).

## Notes

All of the line inputs are the same sensitivity. If you wish to use a turntable, you will need a separate phono-stage, such as our P1 or P2, which you will then connect to any one of the six line inputs.

The Tape Rec output can be factory configured as a Pre Out facility (for connecting to a separate power amplifier, or for connection to the low-level inputs of an active subwoofer).

**Only the NVA speaker cables supplied with your amplifier should be used. Use of other speaker cables will invalidate your warranty.**

## **How To Optimise Your NVA System**

### **DO:**

Allow adequate ventilation all around the amplifier(s).

Use tables and other furniture that allow for plenty of space between components and easy access when setting up.

If the phono stage head unit and power supply have to be side by side due to space constraints, make sure the phono stage output sockets are on the opposite side to the power supply case(s).

Keep hi-fi signal cables away from power cables.

Allow space between cables (close proximity can cause unwanted capacitance).

For best sound the amplifier should be left powered up. Electricity consumption is very low. It is for this reason that the power switch is located on the back panel, where it may not be easy to reach.

Try a Balanced Mains Unit. UK mains quality can be very poor. There's a strong possibility that you won't hear your system at it's full potential until you try our BMU.

### **DONT:**

Don't use tightly spaced metal racks. If you need a dedicated rack, buy one that is deep enough to allow easy access from the rear and with plenty of spacing between the shelves.

Don't sit head units (Phono 2 / 3, AP10H) on top of their power supplies. Use the umbilical leads provided to keep as much distance between them as possible without stretching the leads or stressing the connections.

Never twist or tie cables together - let them run independently.

Don't forget to check out the extensive archive of NVA advice, discussion and user reviews at our Hi-Fi Subjectivist Forum [www.hifisubjectivist.org](http://www.hifisubjectivist.org)

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