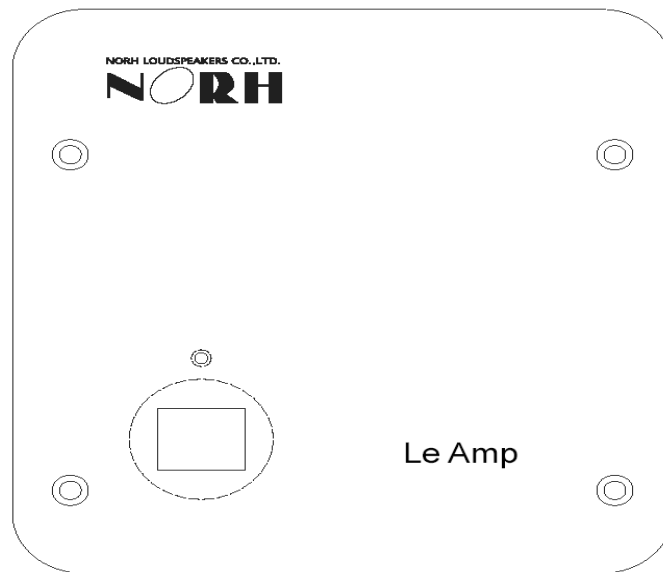


Le Amp Manual



How does one begin to write a manual for an amplifier that has one input, one output and an on/off switch? The best way to start is to thank you for purchasing the unit. Thank you for purchasing Le Amp.

Le Amp was designed by Curt Wishman. Curt's background was designing life support systems where the quality of build is probably nearly as high as the aerospace industry. His approach to Le Amp was to design an amplifier that represented the highest level of performance that can be built for home audio at a price target.

Le Amp is an amplifier designed for home applications that will give the listener the same level of enjoyment as the world's most expensive amplifiers—within its limitations.

Le Amp is rated at 100 watts. Despite this modest rating, Le Amp can actually produce 200 watts for short durations.

Most amplifiers are designed to run out of power supply long before they exceed the capabilities of the output section. The problem with this approach is that it creates a condition called clipping. Clipping not only sounds bad, it also destroys speakers.

One of the reasons people enjoy tube amplifiers is that they don't clip hard like many solid state amplifiers. As you push tubes beyond their rated output power, the result is the distortion increases. Tubes don't suddenly send DC to the speakers the way many (if not most) solid state amplifiers do.

Many amplifier's power supplies are designed to output the rated power 70% of the time. The belief is that people will not need to drive their amplifier to its maximum power 100% of the time. Limiting the power supply also protects the output devices from self

destructing.

Le Amp uses an integrated chip. The chip is the TDA7294V. We believe that the sound of this output device is very similar to the sound one hears from SE tube amplifiers. However, the TDA7294 provides better distortion characteristics that one can achieve with tubes and we can get better woofer control with this device.

Another advantage of the TDA7294V is that it is internally short and thermal protected. The chip will protect itself from being destroyed.

Having said all this, what is the limitation using Le Amp. The limitation is that ICs can not dissipate as much heat as discrete devices. Therefore, as the IC approaches its maximum output, distortion will rise. Below the level where distortion begins to rise, the sonic qualities of Le Amp will match virtually any amplifier made. We have tested Le Amp so that the amplifier is running 80 watts continuous and outputting over 200 watt peaks and our distortion readings are still very low. Pushing the amplifier harder raises the distortion but does not result in clipping as would happen with many amplifiers.

Under real conditions, Le Amp will sound and perform like a more powerful amplifier than 100 watts. This is because the power supply is literally big enough to support a 200 watt amplifier.

If the sound starts to distort, turn down the amplifier.

Another area where Le Amp might not appear to match other amplifiers is Slew Rate. Le Amp is rated at 10 volts-per-microsecond. There is a relationship between power frequency response and slew rate. Le Amp provides a bandwidth of 7 Hz to 200,000 Hz. Through most of the power range of the amplifier, we can get well beyond the bandwidth of most amplifiers that are generally rated out to 50,000 Hz.

At 100 watts, using our power supply, a slew rate of 10 volts-per-microsecond supports 50,000 Hz. For our application, any faster slew rate would have no benefit.

Why would anyone need a more expensive or more powerful amplifier?

We believe that most people will not need more power. None-the-less, if more power is required, there are two ways to get there. One way—and the way we recommend is to biamp using active crossovers. Otherwise, a more powerful amp would require discrete devices.

The very expensive amplifiers that cost many times Le Amp might extend the conditions which you can enjoy high-end sound. We believe however that if you are listening to Le Amp under normal listening conditions using loudspeakers that are reasonably easy to drive—such as nOrh loudspeakers, the sonic qualities of Le Amp will match any amplifier.

Operation

Many audiophiles prefer to burn their equipment in before they make a full evaluation of the sound. You will notice that with most audio equipment, the sound will improve after the equipment has been used for many hours. This improvement will be subtle but what you hear after a few weeks of use will be better than the first time you listen.

Le Amp is designed to not to get hot while operating. The amp will get warm to touch. Make sure that there is enough space around the amplifier so that the heat produced by the amplifier can escape through the slits in the case.

Le Amp is designed for loudspeakers rated from 4 to 8 ohms. You will not damage the amplifier using other loads but Le Amp provides the best performance with loudspeakers rated from 4 to 8 ohms.

Caution

Le Amp is designed for indoor use. It is important to observe all safety precautions one would with any other electrical equipment. While the chip itself is protected against shorts and thermal damage, it is best to turn the amplifier off when changing cables and certainly best to unplug the amplifier should you want to open the amplifier and marvel at its construction.

Word on Tweaking

Le Amp is designed as a system. While it might be tempting to replace or modify the amplifier, the designers do not think that the amplifier can be improved as we are getting as much performance as the output device can offer. Each unit is tested before being shipped and there is virtually no performance variation from one unit to another. When you feel the urge to modify or tweak, just remember how inexpensive Le Amp is and enjoy the bargain you now have.

Warranty

We do not expect you to ever have a problem with Le Amp. We have designed Le Amp to be the most reliable amplifier possible. We have therefore decided to offer a three year parts and labor Warranty against any factory defects. If your amplifier has a problem please e-mail info@norh.com. We will instruct you how to get service for your amplifier.

Shipping is the responsibility of the customer.

Conclusion

IRD and nOrh Loudspeakers are very proud of Le Amp. We don't think we or anyone else can do better for what we are selling Le Amp for. We hope you will tell your friends and let everyone know what you think of Le Amp. We are interested in how Le Amps compares to other amplifiers. Please keep us informed and let us know what you think.

