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## JL7

BLACK PATH EDITION Owner's Manual

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Congratulations on your purchase of the Convergent Audio JL7 Amplifier. Your decision is an indication that you are a dedicated Audiophile, seeking the state of the art in music reproduction.

#### UNPACKING YOUR AMPLIFIER

Open the box from the top. Remove the top piece of foam. You will now see a cardboard "cradle". Carefully lift the amplifier out of the box by the handles on the ends of this cradle. Leave the foam sheets, which are taped to the cradle in place. These will be needed to protect the amplifier next time you pack up it up.

Before turning on your amplifier remove the bubble packs from inside the metal tube cages. These bubble packs protect the tubes during shipping

#### TURNING ON YOUR AMPLIFIER

When you first power up your JL7 you will see that the light labeled "Tube Life" will come on RED. After a minute or so it will turn GREEN indicating that the tubes are in good condition.

#### **OPTIBIAS**

The JL7 uses a novel new bias circuit we call OptiBias<sup>TM</sup>. With this circuit user bias adjustment is not necessary. The tubes will bias themselves correctly over a + or -10% range of line input voltage. This OptiBias<sup>TM</sup> circuit doesn't merely hold the current steady, like the op amp and computer biased circuits of other amplifiers; it actually optimizes the bias current for the different line voltages in different homes. In fact when the line voltage goes UP the bias current will go DOWN by the amount which we have determined here at CAT to produce the best sound. Not only is this a better sounding method than the "hold it constant" method used by other manufacturers it also completely eliminates the bad sounding op amps and/or digital processors used to implement these other schemes.

#### WHEN WILL YOU KNOW TO REPLACE POWER TUBES JL7

We expect about 6 years of tube life for your output tubes under normal usage. We run the tubes at a very low power level because this produces the effortless dynamic sound we prefer at CAT, but this also has the added side benefit of resulting in very long tube life.

One day you will turn on your JL7 and the "Tube Life" indicator will stay RED not switching to GREEN. This indicates that your tubes need to be replaced. There is no urgency to do this immediately, but it should be done soon.

#### NEW POWER TUBES

The OptiBias<sup>M</sup> circuit works best with tubes in the big middle section of the "bell shaped curve" and so this is what we provide with your amps. This is also what we will provide for you when the time finally comes to replace them. <u>Therefore, we recommend that new power tube sets only be bought from CAT</u>.

DO NOT SUBSTITUTE DIFFERENT POWER TUBES! This will invalidate your warranty.

#### NOS DRIVER TUBES (SMALL TUBES)

We provide the best driver tubes ever made for your CAT amplifier. These tubes provide the most natural sound quality, and your amplifiers have been designed around them. However, feel free to experiment if you wish!

#### MECHANICAL GROUNDING

Your amplifier is equipped with high loss visco elastic feet which do a very good job of isolating the amplifier from structure born vibrations. In most situations these will be the best sounding feet to use.

In cases where the floor is particularly vibration free, especially if the floor is on a concrete slab, you may get slightly better bass definition by coupling the chassis directly to the floor. This is best accomplished by using Audio Selection cones. Two are in the back and one in the front. DO NOT remove the open cell foam on top of the foot, as this prevents the chassis from chattering against the top of the foot. It is not necessary to remove the protective layer and actually glue the foot to the bottom of the chassis. There are other good devices available as well <u>but under no circumstances should you use any device which places a flat hard surface in contact with the amplifiers chassis</u>. Such devices always create mechanical resonances which are claimed to enhance "detail". Your CAT amplifiers are the most transparent amplifiers in the world. Mechanical noises which masquerade as "detail" with lesser amplifiers are instantly revealed as false with your amplifiers. If you must place a foot with a hard surface under your amplifier please put a piece of felt between the cone and the bottom of the amplifier.

#### **TUBE DAMPERS**

Don't use them

#### POWER CONDITIONERS

CAT amplifiers have built in isolation transformers which already provide tremendous power conditioning. Use of any additional external devices will restrict current delivery and degrade dynamics and bass response.

#### SPECIAL POWER CORDS

Your amplifier is provided with a decent standard power cord. Feel free to experiment, but beware of cords which sound significantly "different". In our experience, this is a bad. Subtly better is what you should look for, better bass definition, blacker, tighter etc.

#### BREAK IN

Your amplifier will sound better after a few hours of use. We play amplifiers here for at least 72 hours, so they usually sound quite great right out of the box, but they will still improve a bit after another few hours of playing time. Leaving the amplifier on without playing music will NOT help break in your CAT amplifier!

#### WARM UP

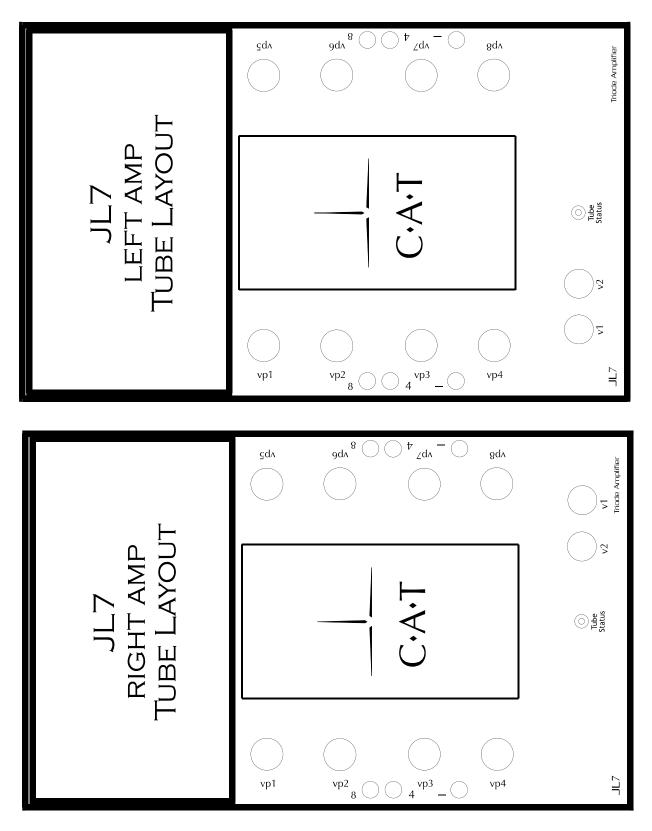
Your amplifier will sound best after about 15 minutes of dynamic warm up, playing music at normal levels. Simply leaving them turned on will do nothing regarding warm up. We are aware that many other products, especially solid state, do indeed benefit from static warm up. If you have such a product let it warm up by itself. There is no point in wasting tube life by leaving the amp on without playing music.

#### **USE OF OUTPUT TAPS**

The JL7, like most tube amplifiers, have output taps to maximize power output into either 4 or 8 ohm speakers. The negative, usually black, speaker cable lead should be connected to the negative terminal on either side of the amplifier and the positive terminal, usually red, will be connected to either the "4" or the "8" terminal.

#### CHOICE OF OUTPUT TAP

Do not assume that the best sounding tap will be the one which maximizes power into your speaker. Many times the other tap will sound best. Generally speaking the 4 ohm tap will sound tighter and have better control, but the 8 ohm tap will sound bigger and fuller. (The 8 ohm tap has been specially designed to deal with the high capacitance of electrostatic speakers, so please be certain to try it if you have such a speaker.)



V1 V2 VP1,VP2,VP3,VP4 VP5, VP6,VP7,VP8

6922 - Input tubes 6922 - Driver tubes KT120 - Left Power tubes KT120 - Right power tubes

#### HOW TO REPLACE THE LIGHT BULB IN YOUR POWER AMPLIFIER:

#### Unplug your amp first!

You must remove the red push button from the power switch. Grip the red button with your fingers on the top and bottom of the side which is out the most. Gently pull it out. It pops out easily. Inside you will see the top of the bulb. To the side is a flat metal extraction bar. Pull the extraction bar straight out, the bulb will pop out. Now put the new bulb in the hole and push it in. Replace the red cover with a gentle push. Now plug in your amp.

#### How To Repackage the CAT JL7 Power Amplifier:

- 1. Put the box on the ground.
- 2. Put the large piece of foam inside the bottom.
- 3. Put the amplifier in the cardboard cradle. Make sure the protective foam sheet is still in place, particularly in the front where it protects the shiny front plate.
- 4. Line the box with the 4 smaller pieces of foam. The two smallest in the front and back
- 5. Gently lift the amplifier up in the cradle and lower it down into the box, between the 4 side foams.
- 6. Insert the two folded up cardboard pieces on the left and right sides of the amp. Make certain that the foam sheets taped to these pieces are touching the amplifier.
- 7. Fold the cardboard handles over the top of the amplifier. Make certain the protective foam sheet covers the shiny mirrored finish top plate.
- 8. Put the other large foam piece on the top
- 9. Seal up the top of the box with packing tape.

#### WARRANTY:

Your JL7 amplifier is warranted for six months from date of purchase. The warranty will be extended to three years with the return of the completed warranty registration form within 30 days of purchase. Be sure to include a copy of the sales receipt to validate your registration. Tubes carry a ninety day warranty.

#### WARRANTY REGISTRATION FORM

Name:		 
Address:		
City:	State:_	_Zip:
Phone:	E-Mail:	 
Serial Number:	Purchase Date:	 
Dealer:		 
What Hi Fi Magazines Do You Read?		

Other Components in Your System:

#### THANK YOU!