

# OPERATION MANUAL

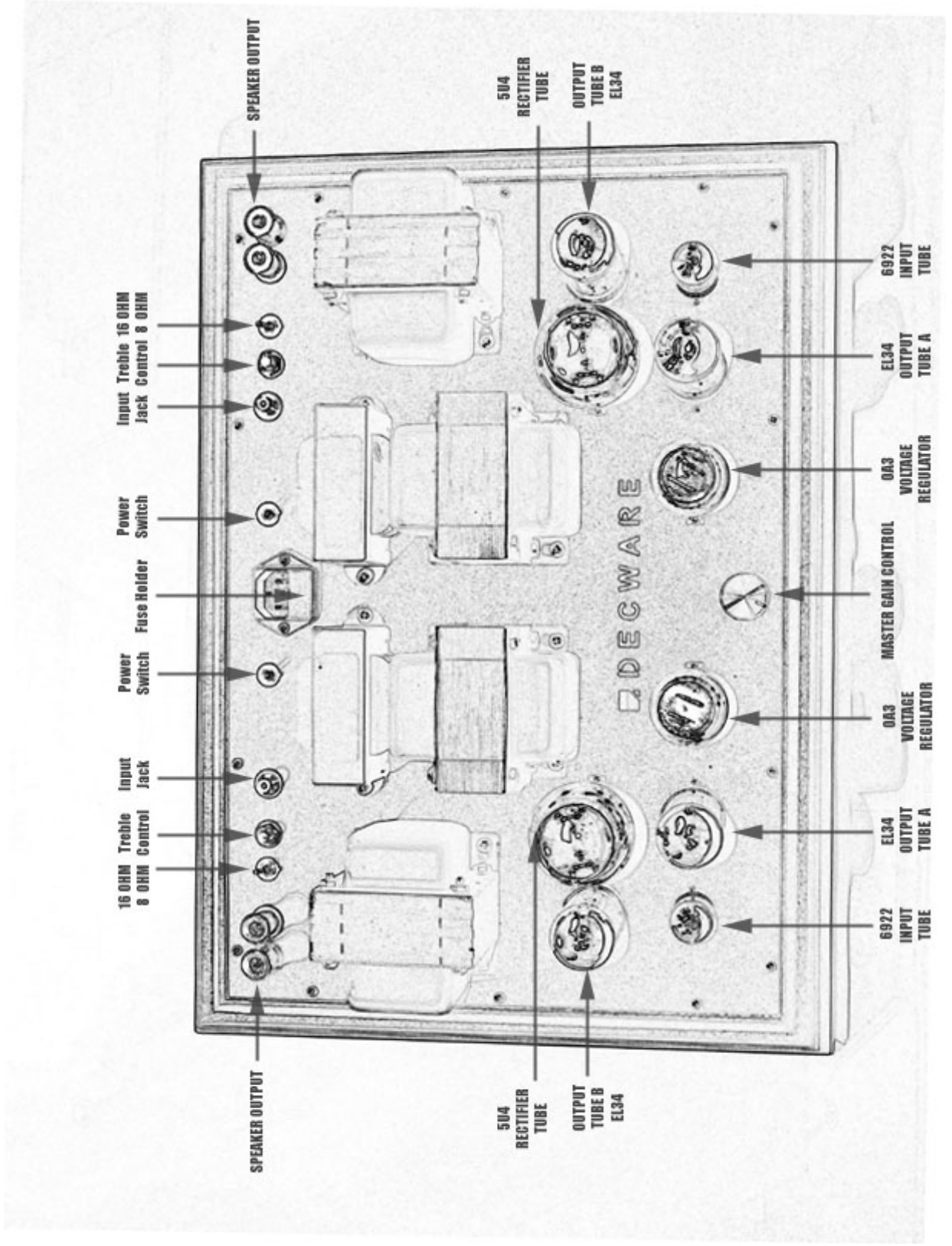
Model TORII Mk II



## ZEN DUAL MONO PUSH PULL AMPLIFIER

MANUFACTURED by DECWARE / High Fidelity Engineering Co.  
1202 N.E. Adams Street, Peoria IL 61603  
USA

[www.decware.com](http://www.decware.com)



16 OHM Treble 8 OHM Control  
 Input Jack  
 Power Switch  
 Fuse Holder  
 Power Switch  
 Input Jack  
 Input Treble 16 OHM Jack Control 8 OHM

SPEAKER OUTPUT

SPEAKER OUTPUT

504 RECTIFIER TUBE

504 RECTIFIER TUBE

OUTPUT TUBE B EL34

OUTPUT TUBE B EL34

DECCA WARE

6922 INPUT TUBE

EL34 OUTPUT TUBE A

0A3 VOLTAGE REGULATOR

MASTER GAIN CONTROL

0A3 VOLTAGE REGULATOR

EL34 OUTPUT TUBE A

6922 INPUT TUBE

# GETTING STARTED

## **IMPORTANT:**

TUBES MUST BE INSTALLED IN THE CORRECT LOCATIONS!

Refer to diagram on page 2

## **IMPORTANT:**

OUTPUT TUBES MUST BE MATCHED PAIRS FOR EACH CHANNEL

Your amp will come with matched tubes. Check the base of each tube for the letters A and B. Put both output tubes marked A in one channel and both output tubes marked B in the other channel.

## **IMPORTANT:**

HAVE SPEAKERS HOOKED UP TO THE AMP *AND*  
THE MASTER GAIN CONTROL TURNED FULLY COUNTER-CLOCKWISE  
BEFORE TURNING ON THE AMP.

## **IMPORTANT:**

THE OA3 TUBES LOCATED IN THE FRONT NEAREST THE  
MASTER GAIN CONTROL DO NOT GET HOT.

These tubes may be touched during operation and you are likely to touch them when you adjust the volume which is no problem. All of the other tubes **DO GET HOT** and care should be taken not to touch them when they are on to avoid burns.

## **IMPORTANT:**

OA3 TUBES TAKE BETWEEN 2 and 10 SECONDS TO COME ON.

After the power is turned on, there will be a delay before the OA3 tube lights. OA3 tubes are no longer made. They last the longest when they are left on for at least 20 minutes before turning off. NOTE: The OA3 tube is also a clipping indicator allowing you to see when the amp is starting to clip by observing when the OA3 tube flickers.

### **OPERATION NOTES:**

This is a dual mono amplifier. The only thing common to both sides is the chassis and the removable power cord jack and integrated 5 amp fuse.

It is common practice to power up one side, then the other as opposed to turning on both sides at the exact same time.

The amplifier ships with top quality matched EL34's for the output tubes. These generally have the warmest tone and smoothest top end.

6550's can also be used. Headroom increases slightly, speed increases as does detail.

KT88's can also be used. We like the JJ brand the best for it's unique signature. Expect added depth and openness in the base with more linear base response. These are ideal with loudspeakers that have widely peaked impedance curves such as some horns because they minimize the bass boom.

The 5U4 rectifier can be exchanged for the 5AR4 and even a 5Y3GT. All three sound good in this amplifier. The 5U4 has the best headroom.

The 9 pin input tube (6922) can be exchanged with either a 6N1P or 6DJ8. 6N1P's are the warmest and smoothest, 6922's have the best dynamics, 6DJ8's have a more airy sound with less weight.

The treble controls, one for each channel, are there so you can tweak the top end for any given combination of source and speaker. Most of the time this control ends up somewhere between 3/4 and all the way up. These controls are not in the signal path.

The speaker impedance switches allow you to change between the 4 ohm tap and the 8 ohm tap while you listen. Choose the one that sounds best. Your amp can also be ordered with the switch wired for 8 and 16 ohms. The higher impedance is always towards the back.

Output tubes should be tested or changed once a year.

Decent power cords and isolation transformers/power conditioners make a large difference with an amplifier that is this transparent. Speaker cables and interconnects are equally important. Don't handicap your amplifier with a weak link.

My personal cell phone for day or evening calls—(309) 868 9302 Steve Deckert

**This amplifier comes with a lifetime warranty to the original owner with 90 days on tubes.**

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