Vintage Vox Part III

By Ken Fischer

In the last issue we covered the larger Vox tube amplifiers. To finish up on Vox tube gear I'd like to cover some later, less well-known, Vox tube amps in smaller sizes that also sound great. These are from the Thomas Organ period but don't let that put you off. The amps I will cover are pure Vox and are the last from the "Golden Sound" period of manufacture.

The Pathfinder Amp

Think of this model as a Blackface Fender Vibro-Champ, but with a single ended class "A" EL84 output stage. This amp uses four tubes:

V1: EZ80/6V4 Rectifier
V2 & V3: ECC83/12AX7/7025
VG: EL84/6BQ5

This single channel model has high and low gain input jacks, volume, bass, and treble controls, tremolo with speed and depth controls with an on/off footswitch and an 8 ohm, eight inch speaker. I've always liked the Fender Vibro-Champ and the Pathfinder is the Vibro-Champ with a Vox voice. The Fender has a bit more volume, and the Pathfinder has those great EL84 harmonics. If you like one, you'll like the other. The only service problem on the Pathfinder is the can-type electrolytic power filter. It's a 40/30/20 at 350 volts. New Sensor sells a 20/20/20/20 at 475 volts for a Fender Champ that works just fine for the Vox. This requires you to enlarge the hole for the original filter. Use two 20 MFD sections for the Vox 40 section and one 20 section for the Vox 30 section. Use the last 20 section for the Vox 20 section. The lack of 10 MFD in the middle section will make no noticeable difference in the sound of the Vox. The fresh Mallory filter will only make the amp sound better. Like most Vox amps, the Pathfinder does not use negative feedback which gives it a very open tone.

The Pacemaker

The Pacemaker model adds another EL84/6BQ5 to the Pathfinder to give it a more powerful 15 watt push-pull output. One section of a 12AX7 used in the tremolo section of the Pathfinder. This section remains for the tremolo in the Pacemaker and the other section of the tube is removed from tremolo duty to use as a phase inverter. It should be noted that R17 in the factory schematic is shown as a 5.6K when in fact it is a 56K in the amplifier. The schematic is wrong; 56K is the correct value. The Pacemaker also upgrades to an EZ81/6CA4 rectifier.

An aside: On the Fender Pro 6G5A layout there's a major mistake. The screen supply is shown connected to the control grid of the left side 5881 tube. I talked to Bruce Zinky at Fender's custom amp shop, who states he can not be held responsible for the error since he wasn't yet born when the layout was drawn. That's lame Bruce! – I wasn't born when the pre-war Martins were built, yet I don't deny responsibility for them! Anyway, thanks to Brian Wenz of Otto's Guitars in Austin, Texas for pointing this mistake out to me. No, I didn't find it myself so I guess my reputation is shot!!

Back to the Pacemaker. The Pacemaker has the same power filter as the Pathfinders so the same information of power filter applies to both. The Pacemaker uses a ten inch speaker and is an excellent example of a 15 watt amplifier. If you are looking at some of the current 15 watt amps using 2 EL84s you may want to try one of these first, if you can find one.

The Cambridge Reverb

The Cambridge Reverb is a seven tube reverb model with a single ten inch speaker. The tubes are:

V1: EZ81/6CA4
V4 & V5: EL84/6BQ5
V2, V3, V7: ECC83/12AX7/7025
V6: ECC82/12AU7

This is a Pacemaker upgrade with reverb and a "longtail" phase inverter (two tube sections) for more drive to the output stage: it uses a transformer driven reverb tank with a 12AU7/ECC82 as the driver tube. This is a really fine sounding amp and again, before shelling out for a modern 15 watt EL84 amp, I'd really recommend you try these first if you can locate one. This model again uses that same power filter common to all amps in this series.

The Berkeley II Super Reverb

This is the same amp as the Cambridge except that it is equipped with two ten inch speakers. It's my personal favorite out of the group for its increased volume and bigger sound. I'd put this one right up there with an 18 watt Marshall combo, and the rare but righteous Selma Truvoice Constellation Twenty Combo.

So there you have it. Any of the Vox models I've covered sound great, and many haven't yet risen out of reach of the average player.

Next issue

I announce my intention to run for Emperor of the United States in 1996.

What Trainwreck owners are saying

"Are vacuum tubes dishwasher safe?" *Wesley Matsuda, Hawaii.*

"Computer viruses make some people sick, and others rich!" *Steve Greenstreet, New Jersey.*

"I'm for Ken for U.S. Emperor." *Hiroshi Yagi, Tokyo, Japan.*

"Ken, you worked at Ampeg, does my Jet sound normal?" *Fred Riga, New Jersey.*

"No, Fred, it has 'Jet' lag!" *Ken Fischer.*

Ken builds his highly-regarded Trainwreck amplifiers in Colonia, New Jersey. VG

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