

Jolida 302b Upgrade

by
Dave Ellis

Immediately Below is a picture of Randy Romenesko's Jolida 502b. The layout is extremely similar to the Jolida 302b, but the component values might be different. The general purpose of these illustrations is to indicate how simple the modifications to the Jolida amplifiers are to execute. Randy's amplifier serves as a "before" picture. My modifications to the Jolida amplifiers completely preserve the typology and values of the OEM components. They simply upgrade the quality of the OEM components. I performed the 302b amplifier modifications on my personal amplifier and for Kevin Keefe. I was extremely pleased with the results and Kevin Shared this sentiment.

If you have any trepidation approaching these modifications, please post your fears and need for help in the Audio Circle string in my forum titled Jolida Mods. This document and instructions are "living". Changes can and will be made over time to the original document (this one) for clarification purposes as needed.

*** Warning***

Before getting your hands inside this amplifier, ensure ALL the electrolytic capacitors are discharged by momentarily jumping their terminals. Getting zapped with this voltage will hurt considerably, and may be deadly to anyone using a pacemaker.

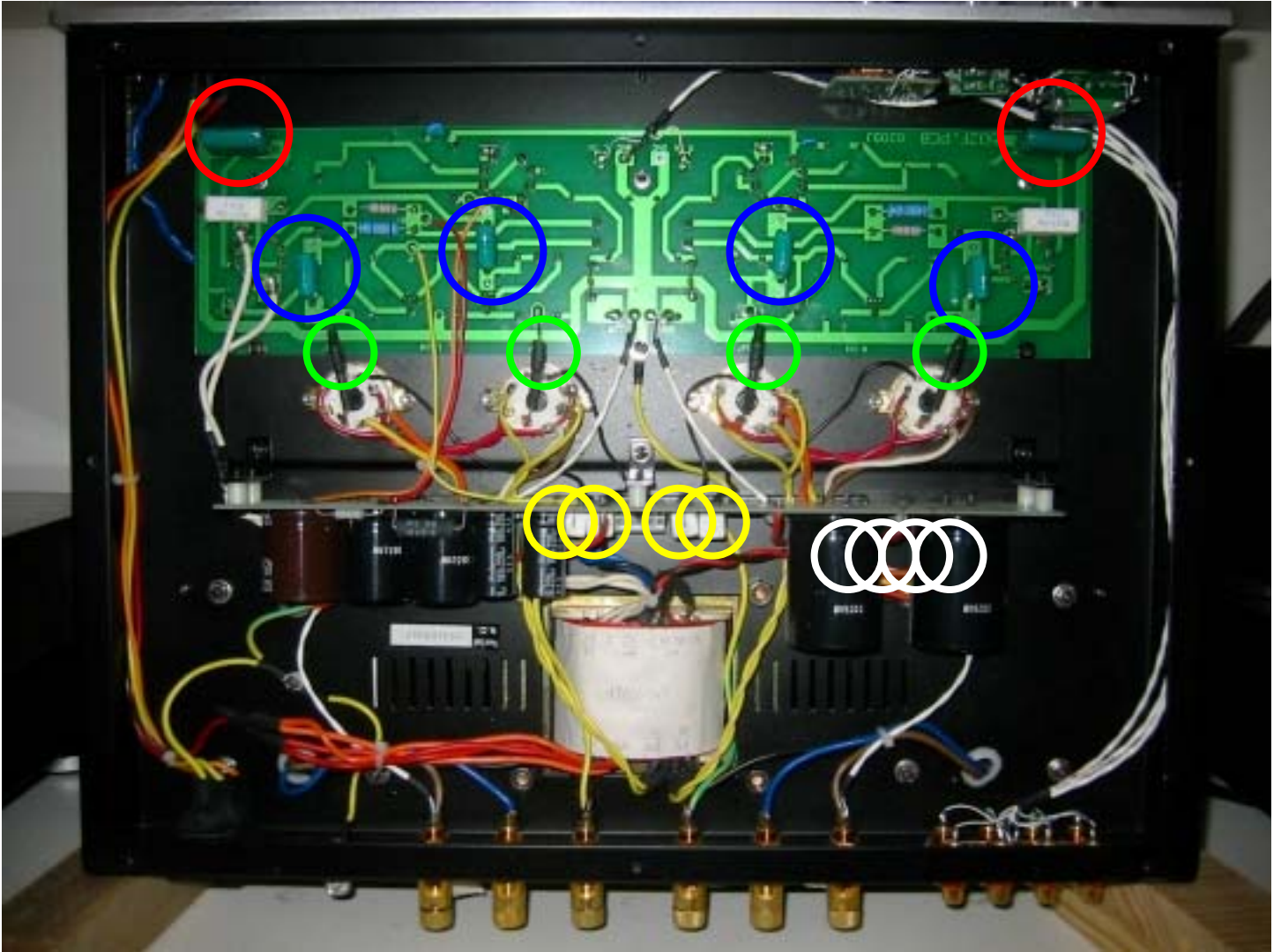
Warning

The general steps for performing these modifications is very simple. Unsolder the old parts, and insert the new parts. I generally work very slow through this process and spend about 3 hours to complete these modifications. For ease of understanding, I color-coded the parts I recommend replacing. These same parts for the Jolida 502 are certainly present in the 302, but the values for some/all of these will certainly be different. I only listed the values for the Jolida 302b.

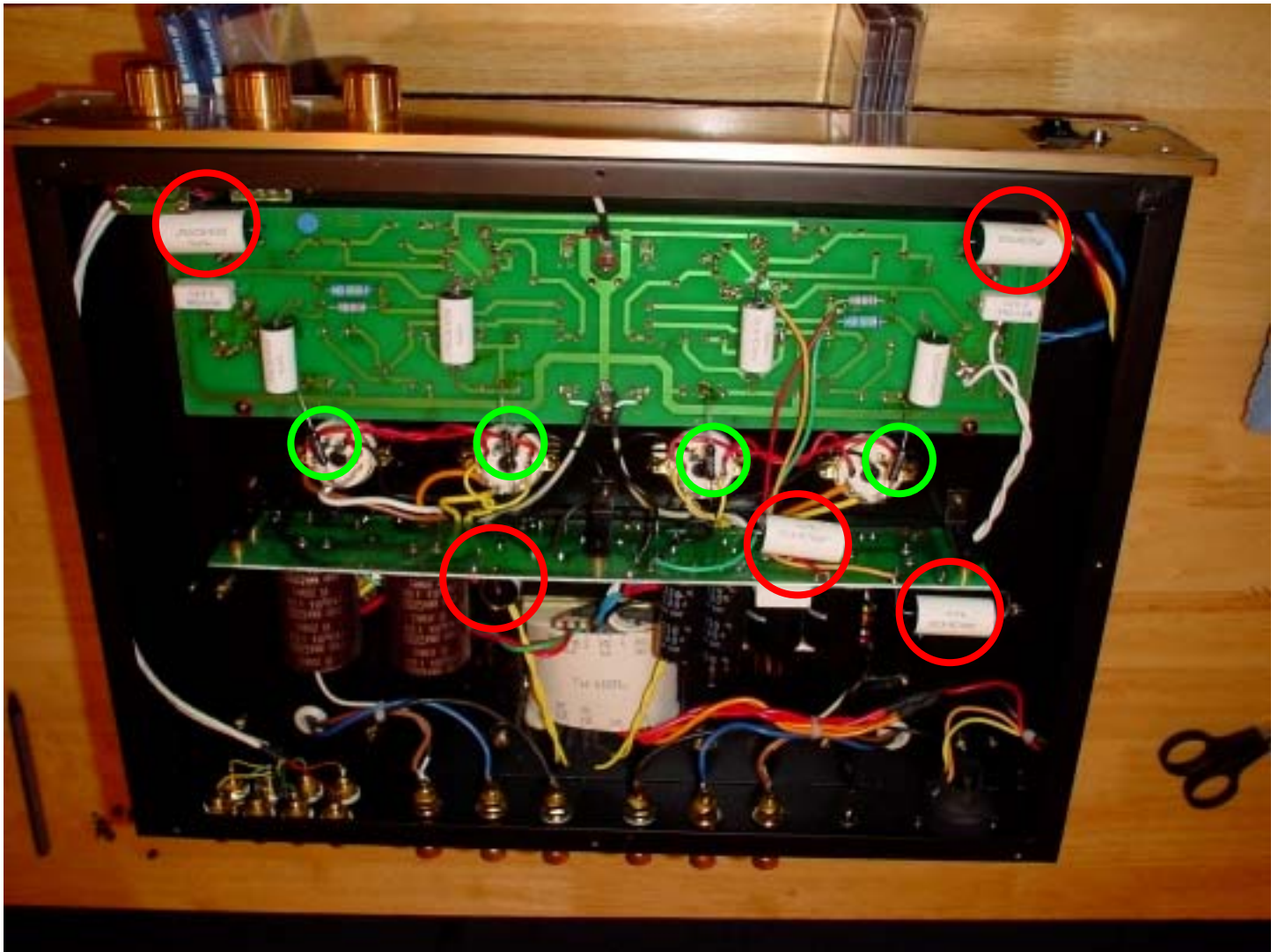
** Note: The only tricky part about these modifications is getting the diodes oriented correctly. Diodes are one-way electricity valves. They will have an infinite resistance in 1 direction and about .5 ohms in the other direction. You must ensure the new diodes are installed using the same orientation as the old diodes. The direction to of flow for the new diodes needs to be the same. The new diodes are a stand-up diode and they will physically look different, but work the same. Simply check the orientation of flow with a multimeter and install the new diodes accordingly.

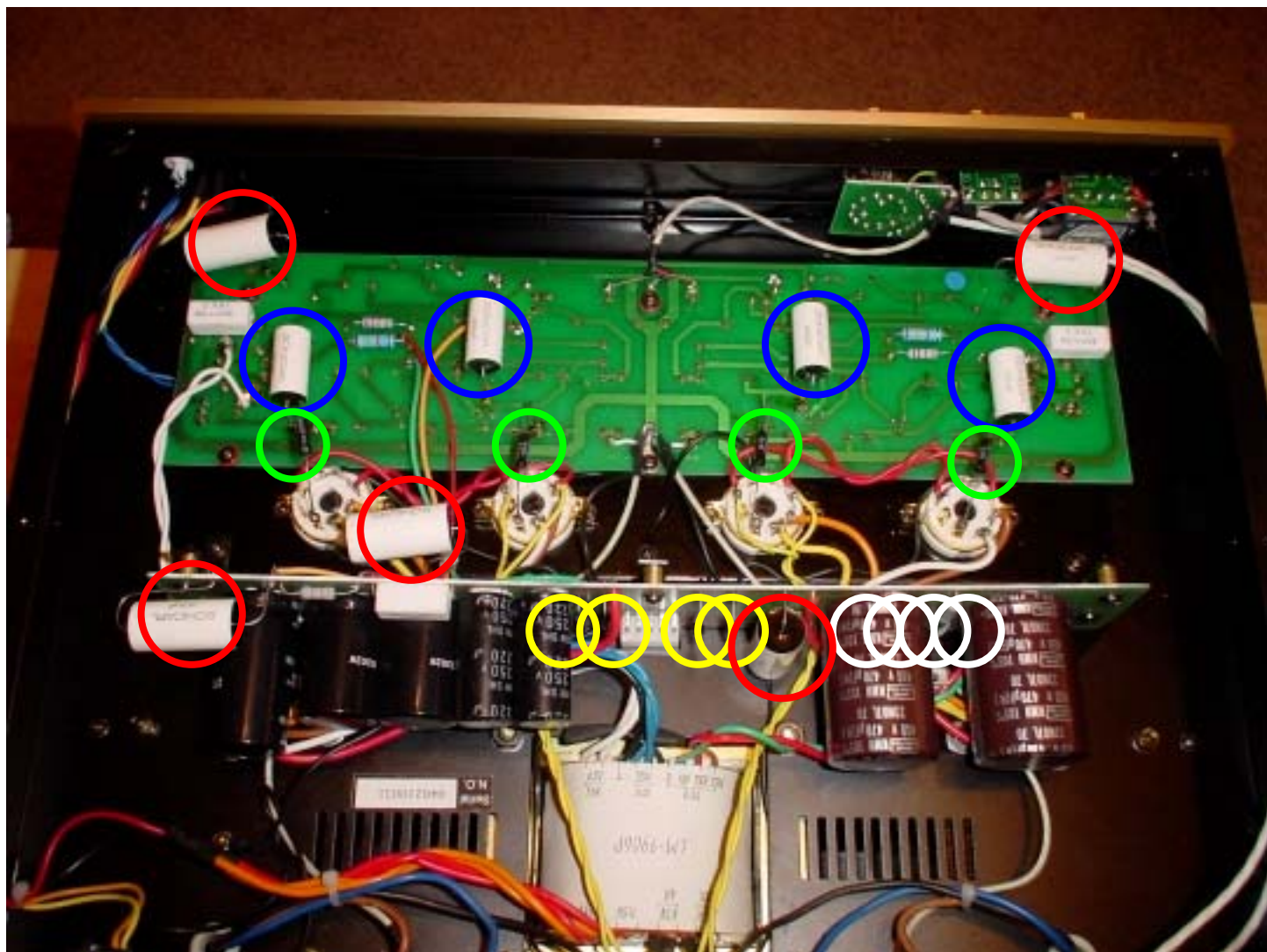
** Note: You will have to clip a few plastic wire wraps when performing these modifications. This is perfectly fine and will cause no harm.

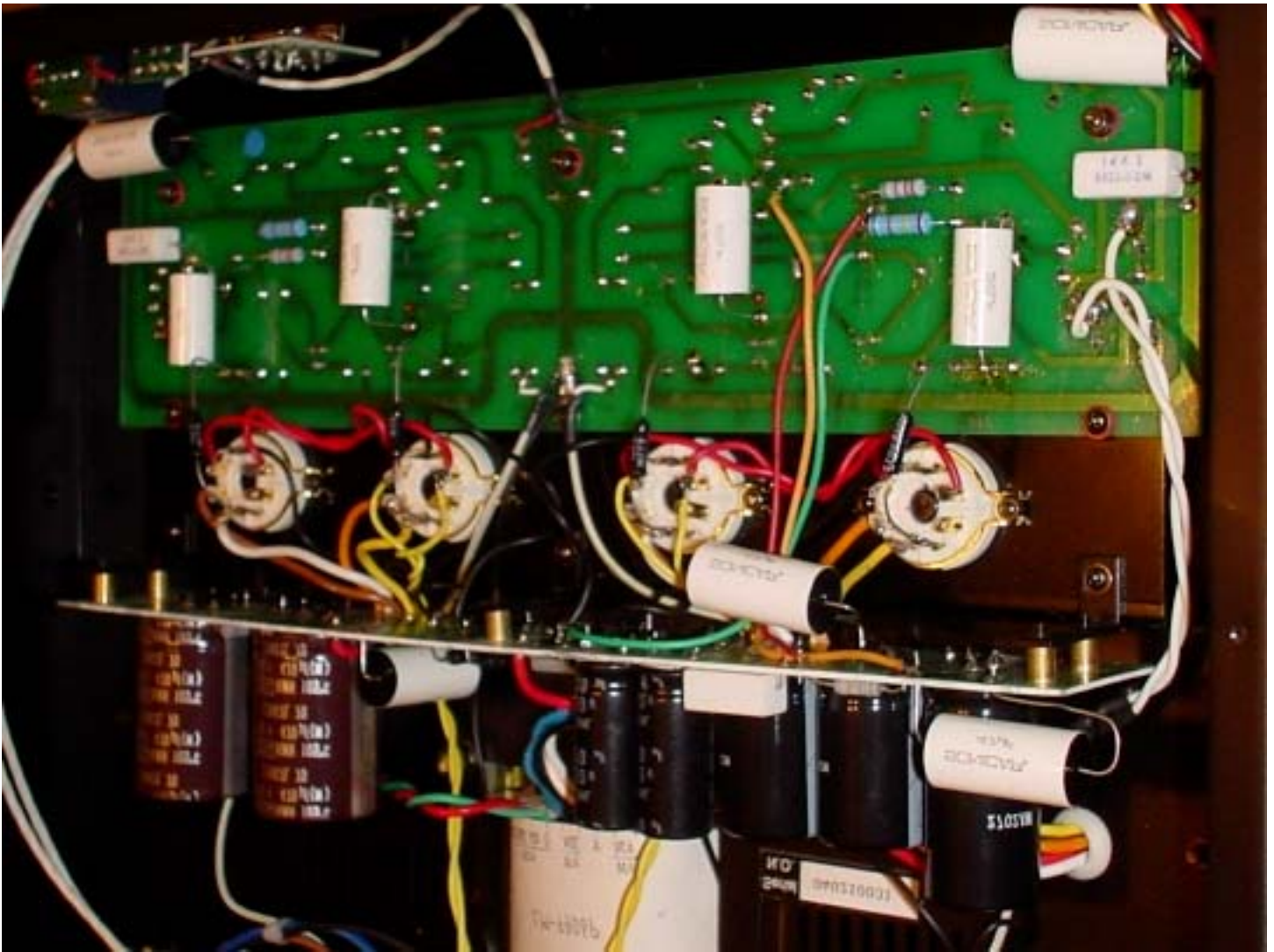
Before



After







Key:

Red – Replace 2 OEM .47uf coupling capacitors with 2 .47uf soniccaps.

Add 3 .47uf bypass capacitors to empty holes emitted by Jolida Accounting Department

Blue – Replace 4 OEM .22uf coupling capacitors with 4 .22uf SonicCaps

Green – Replace 4 OEM 10k ohm resistors with 4 Mills MRA5 10k ohm resistors

Yellow – Replace 4 OEM 1ohm emitter cushion resistors with 4 Mills MRA5 10k ohm resistors

White – Replace 4 OEM diodes with 4 Fairchild (Harris) Gen 3 Superfast Diodes.

The parts/price list for upgrading the JOLIDA **302B** as follows. I recommend ordering all of these parts from Jeff at www.soniccraft.com .

o Upgrade List		
Description	Cost/ea	Cost total
.47uf SonicCap	\$ 7.60	\$ 38.00
.22uf SonicCap	\$ 6.60	\$26.40
Mills MRA5 10k ohm	\$ 3.85	\$ 15.40
Mills MRA5 1 ohm	\$ 2.15	\$ 8.60
Fairchild Diodes	\$ 1.95	\$ 7.80
Spool Chemwick	\$ 3.00	\$3
Strand of Cardas Solder	\$ 7.50	\$8
Approxomate shipping		\$8
		Total Cost
		\$ 114.70

As a hifi enthusiast, I am confident this \$114.40 will be the very best value investment you can make in hifi. The hierarchy of value gleaned is most prevalent with the coupling capacitors and least prevalent with the resistors, but it all matters.

Sincerely,

Dave