

Designed By THD<sup>®</sup> CE

# Yellow Jackets<sup>®</sup>

Tube Converter

YJ20



Handmade in the U.S.A.

## INSTRUCTION SHEET

- Converts most audio amplifiers with 6V6s and similar-based tubes to EL84s without modification or rebiasing.
- **Converts from Class AB to Class A operation!**
- Keeps output power the same.
- Safe for all common amplifiers and transformers.
- One year limited warranty on converter.
- “The next best thing to getting yourself a new amp.”
  - Guitar World Magazine
- “Increase amplifier flexibility”
  - Guitar Player Magazine

### Thank You!

Thank you for buying our Yellow Jackets<sup>®</sup> converter! It will provide you with years of service, assuming that you replace the tubes when they are worn, and will also give you a much greater variety of sounds from your amplifiers than you have ever experienced before.

### How to Install Yellow Jackets<sup>®</sup>:

1. With your amplifier cold and turned off, remove the 6V6 tube from its socket. (Use a towel to protect your hands if the tubes are hot.)
2. Place the Yellow Jackets<sup>®</sup> converter in the tube socket, screw the ground wire under the tube socket mounting screw (to provide an adequate ground connection), and install an EL84 tube into the Yellow Jackets<sup>®</sup> converter. Make sure that all pins are properly aligned and do not force anything. It should all go smoothly if the tube pins are properly aligned.
3. Turn the amp on, let it warm up, and play. Your amp is now running in Class A mode with an EL84 output tube.

You do not have to adjust the bias of your amplifier as the Yellow Jackets<sup>®</sup> converters themselves create their own cathode bias circuit, ignoring the bias setting in your amp. This also means that when you put your old tubes back into the amplifier, your bias will be set just as you left it.

If you have an amp with 4 output tubes, you have a number of options:

- a. Replace all 4 output tubes with Yellow Jackets<sup>®</sup>.
- b. Remove all 4 tube and put only 2 Yellow Jackets<sup>®</sup> in the amp, giving you about 10% power. In this case, install the Yellow Jackets<sup>®</sup> in the inner two sockets. (You do not need to adjust the

impedance selector on your amplifier to compensate for using only two output tubes. You can keep it set to the impedance of your speaker cabinet with no danger of causing damage to the transformer.)

c. Leave two output tubes in the outside sockets and install two Yellow Jackets<sup>®</sup> in the inside two sockets. This will give you a combination of Class A Triode and Class AB Pentode operation, a very cool, responsive sound!

### Other Thoughts Regarding Yellow Jackets<sup>®</sup>:

This model of Yellow Jackets<sup>®</sup> converter, the YJ20, is a specialized, current-limiting/voltage-conditioning adaptor for use in most amplifiers which use 6V6 output tubes, or other similar-based tubes, such as the 6F6, 6G6, 6K6, 6Y6, etc... YJ20 series Yellow Jackets<sup>®</sup> are NOT to be used in amplifiers designed to take tubes other than 6V6 and its close relatives. Use in amplifiers designed to take 6L6, EL34 or 6550 amplifiers will prematurely wear the EL84 tube, and will likely damage the Yellow Jackets<sup>®</sup> converters. Chances are very slim that any damage will occur to the amplifier itself as the Yellow Jackets<sup>®</sup> converters are current-limiting in and of themselves.

If you are not sure if this Yellow Jackets<sup>®</sup> converter will work in your amp, please feel free to contact us either by phone or by e-mail. We will be happy to advise you on your individual situation.

Amplifiers which vary the bias voltage to create a tremolo effect will not have any tremolo effect when using Yellow Jackets<sup>®</sup> converters. This includes the Fender<sup>®</sup> Brown Deluxe Amp (6G3), Princeton, Tremolux (5G9, 6G9), and Vibrolux (5F11, 6G11) to name a few.

If your amp uses 7591 output tubes, you need YJ7591 Yellow Jackets<sup>®</sup> converters. If your amp uses 6L6, 6550 or EL34 family tubes, you should use YJS Yellow Jackets<sup>®</sup> converters. The correct unit can be obtained from your local dealer or from us.

Thank you once again for buying our products. Without customers like you, we would have nothing to do all day.

- All the folks at CE Manufacturing, LLC



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