# Craig Anderton's Stage Center Reverb Instructions

*Version 2017December18* 




This is the Stage Center Reverb kit. **How the circuit works:** The signal is split into "wet" and "dry" signals (IC1a stage). The wet signal goes into a spring reverb tank, driven by the IC1b stage (to make it "wet", as it is done in most amplifier reverb effects). IC2b is the "recovery stage" from the tank. The dry signal is mixed with the wet signal (IC2a stage) to give reverb sounds of varying intensity. The Dwell Control controls the volume of the wet signal. The R7 trimmer controls the amount of drive to

the tank. We tested this circuit with several different spring reverb tanks and found that these are the identifiers of the reverb spring tanks that work well with this circuit:

- **8DB2C1D**
- **8EB2C1B**
- **8EB3C1B**

The circuit has a charge pump for plus/minus 9v dual power supply so that the Opamps have plenty of headroom. The R7 trimmer on the circuit board is for gain to the "driver" circuit, which is the signal into the reverb tank. This should be adjusted by ear to sound best with the particular reverb tank you are using.

The mix control is strange compared to most. Craig designed the **Mix Control** for full mix. Full counter-clockwise (ccw) is all dry signal with no reverb. Full clock-wise (cw) is pure wet signal (all reverb) with no dry signal at all. At full cw, the sound is completely from the tank only. Most of the attack and recognizable guitar sound is missing. This could be very useful in some situations, but it is not "normal" by reverb stompbox standards. This is just a "tidbit" of information to keep in mind when you use it. If you keep the Mix on the first half of the rotation, it works as you would expect a "Reverb Mix" to work. Note that we did not include battery power in the example pictured below, so the battery snap and the switching transistor, Q1 were not included.

Here's an inside view of the unit we built to give you a real view of our construction.

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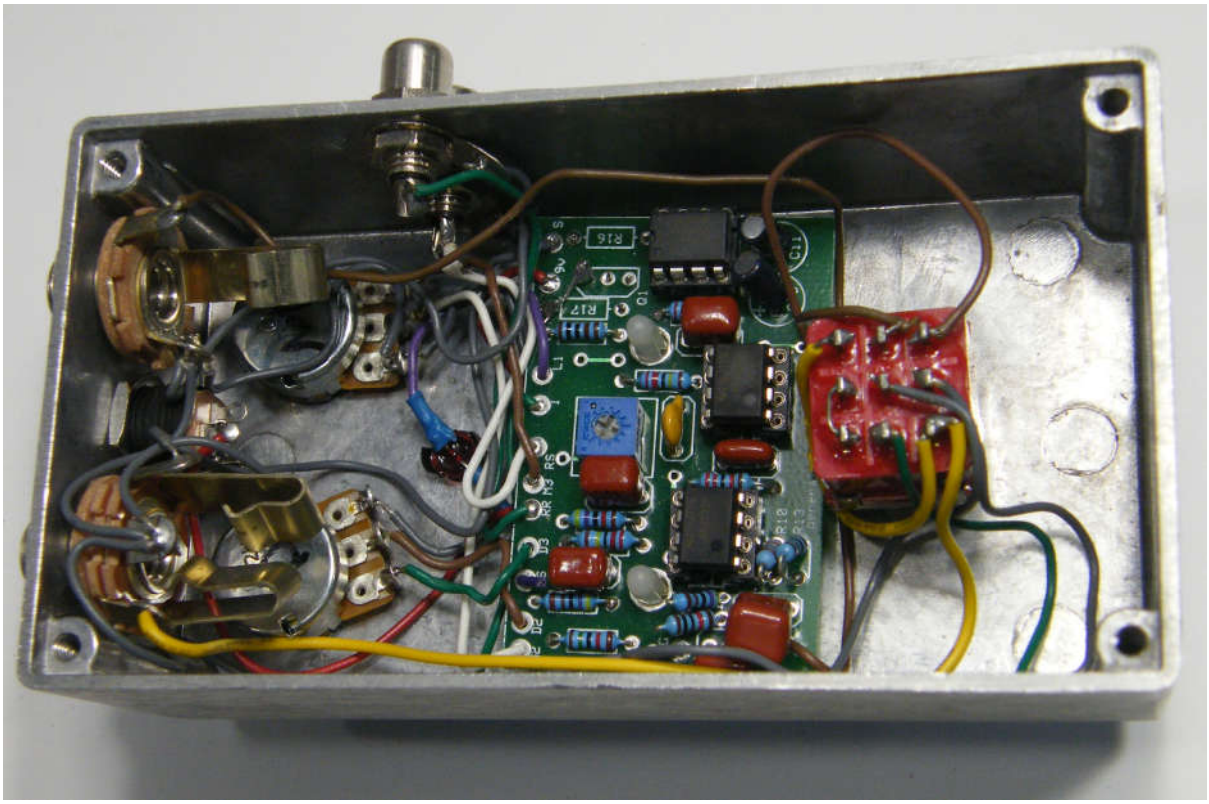

Here is a chart of voltages taken at the transistor pins. Use these voltages as a guideline. You may not get the exact readings listed, but should be somewhere in this general range.

| Component | Pin Number | Voltage |
|---|---|---|
| 9 volt power supply | | +9.8v |
| IC1 | 1 | Around 1v |
| | 2 | Around 1v |
| | 3 | Around 1v |
| | 4 | -9.3v |
| | 5 | 0v |
| | 6 | 0v |
| | 7 | Around 0.0v |
| | 8 | +9.8v |

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| | | |
|---|---|---|
| IC2 | 1 | Around 0.0v |
| | 2 | Around 0.0v |
| | 3 | Around 0.0v |
| | 4 | -9.3v |
| | 5 | 0.0v |
| | 6 | 0.0v |
| | 7 | 0.6v |
| | 8 | +9.8 |
| IC3 | 1 | +9.8 |
| | 2 | +4.8 |
| | 3 | 0v |
| | 4 | -4.7v |
| | 5 | -9.3v |
| | 6 | +5.2v |
| | 7 | +7.5v |
| | 8 | +9.8v |