

Fender® Bandmaster Reverb AA768 & Super Reverb AB568 Capacitor Kit

Installation Guidelines

Pre-Installation Notice

Please read through these instructions entirely before starting work on your amplifier. Taking time to familiarize yourself with the procedures ensures a smooth, safe, and successful installation.

High-Voltage Safety Warning

Tube amplifiers operate on lethal high voltages. High voltage remains stored in the filter capacitors even after the amplifier is switched off and unplugged from the wall. Always disconnect commercial power and thoroughly discharge all filter capacitors before touching any internal circuitry. If you are unfamiliar or me-uncomfortable with safe capacitor discharge procedures, we strongly recommend taking your Bandmaster Reverb or Super Reverb to a qualified technician.

Key Information Before You Start

- **Size:** Modern manufacturing technology allows replacement capacitors to be 50% to 75% smaller than original vintage components, freeing up space inside the chassis and cap pan.
- **Value Variations:** Standard component values have evolved over time. Depending on your kit for the AA768 or AB568 circuits, you may notice small variances from the original factory schematic:
 - **Bias capacitors:** Typically replaced with **100µF/100V** (or **25µF/70V** depending on circuit revision).
 - **20µF and 25µF capacitors:** Replaced with **22µF**.
 - **70µF main filter capacitors:** Replaced with **80µF** (or 80µF/450V).
 - **5µF capacitors:** Replaced with **4.7µF**.
 - **8µF capacitors:** Replaced with **10µF**.

Polarity & Orientation

Electrolytic capacitors are **polarized** and must be installed in the correct direction. Installing a capacitor backward will result in immediate component failure or circuit damage.

1. **Identify Markings:** Original vintage capacitors feature **+** (positive) and **-** (negative) markers. Replacement capacitors (such as Tube Amp Doctor) typically feature an arrow or stripe pointing toward the **negative (-)** end.
2. **Mark Before Removal:** Mark the polarity orientation directly inside the chassis or dog house *before* removing original components. Use a silver marker, masking tape, or take clear reference photos.

3. **Check Dog House Layouts:** Capacitors inside the filter capacitor housing ("dog house") are not always oriented in the same direction. For instance, in setups with dual 70 μ F/350V caps (replaced with 80 μ F/450V), the capacitors are installed in opposite directions from each other!
4. **Bias Capacitors:** The + lead of a bias capacitor is always connected to **ground**, and the – lead connects into the circuit.

Installation Step-by-Step

1.Safe Discharging & Prep:Safety Prerequisite.

Unplug the amplifier and safely discharge all filter capacitors. Verify zero voltage across the caps using a multimeter before proceeding. Mark the polarity of every capacitor on the board or dog house.

2.Replace Components One at a Time:

Work on **one capacitor at a time**. Do not remove all components at once, as this drastically increases the chance of placement or polarity errors.

- How to verify: Confirm the component value and polarity marking against your original layout before clipping any leads.

3.Clear Eyelets Cleanly:

Snip the leads of the old capacitor close to the eyelet board. Clean out the eyelet hole using solder wick or a solder sucker. Leave any underlying lead wire beneath the board intact.

- How to verify: Ensure the eyelet hole is clear enough to accept the new lead without forcing it.

4.Trim & Solder New Leads:

Trim the new capacitor leads to leave roughly 1/2" (12mm) of excess length to seat through the eyelet. Solder cleanly.

Note: Never wrap or twist new capacitor leads around old clipped leads. This degrades reliability, performance, and the resale value of your amplifier.

- How to verify: Inspect solder joints to ensure a bright, solid connection with full coverage around the eyelet.

5.Secure Large Capacitors:

Because modern capacitors are smaller and lighter, secure large filter capacitors inside the "dog house" using a bead of silicone (RTV) caulk or hot glue underneath the body. This prevents physical vibration from breaking solder joints over time. Smaller board-mounted capacitors do not require adhesive.

- How to verify: Gently touch the body of the filter cap to ensure it remains stable and immobilised against the board.

6.Replace Dropping & Balancing Resistors:

If your kit includes balancing and dropping resistors (located in the capacitor housing under the chassis along with the main filter caps), match the color codes to the existing resistors and replace them one at a time. Disregard the final tolerance band (gold/silver) when matching.

Note on Resistors: Some sets may have extra resistors included to cover minor production changes across different amp revisions. Only use the recommended ones that match your specific Bandmaster Reverb AA768 or Super Reverb AB568 layout; any unused resistors can be discarded.

- How to verify: Double-check that color-code values match the original component being replaced before soldering.

Special Circuit Notes for Bandmaster Reverb AA768 & Super Reverb AB568

Vibrato Circuit (Late 1960s / Silverface Changes)

- **Cathode Bypass Cap:** In these late-60s circuit transitions, one of the cathode bypass capacitors in the vibrato circuit was changed from 25 μ F to 5 μ F (replaced by **4.7 μ F** in your kit).
- **Locating It:** We recommend replacing this cap first when working on the cathode bypass section so it isn't confused with the 22 μ F/25 μ F caps. It sits across a 100k Ω resistor and connects to **pin 8** of the vibrato tube (the 5th 12AX7 in models featuring 6 preamp tubes).
- **RCA Grounding:** Depending on your chassis build, a couple of cathode bypass capacitors may be grounded directly to one of the rear RCA jacks rather than mounted on the main fiberboard.

Early Circuit Variations & Dual Preamp Capacitors

- **Dual Capacitors:** If servicing an early chassis section that utilizes a 3-legged dual 25 μ F capacitor (a shared negative ground with two positive leads), replace it with two single **22 μ F** or **25 μ F** capacitors.
- **Wiring:** Connect the negative leads of both replacement capacitors to the single original ground eyelet, and route the two positive leads to their respective original eyelets.