

Fender® Capacitor Replacement Set for Bandmaster Reverb AA1069; Dual Showman Reverb AA769; Pro Reverb AA1069; Super Reverb AA1069

Please review these instructions thoroughly prior to beginning installation. Familiarizing yourself with the complete procedure in advance ensures a safe, successful installation.

Important Safety Warning

Tube amplifiers contain lethal high voltages stored within the filter capacitors, even when turned off and disconnected from mains power.

- **Disconnect Power:** Always unplug the amplifier from the AC power source before commencing work.
- **Discharge Capacitors:** Fully discharge all filter capacitors prior to touching any internal circuitry.
- **Professional Assistance:** If you are unfamiliar with high-voltage discharge procedures, we strongly recommend having a qualified technician perform this service.

Capacitor Specifications & Values

- **Component Physical Size:** Modern manufacturing advancements allow replacement capacitors to be 50%–75% smaller than original vintage units without sacrificing performance.
- **Standard Value Adjustments:** Due to updated industry manufacturing standards, original component values are superseded by modern equivalents:
 - **Bias Filter Capacitors:** Supplied as **100 μ F/100V** (or **25 μ F/70V** for early 1960s circuits).
 - **Standard Preamp/Filter Capacitors:** 20 μ F/25 μ F units are superseded by **22 μ F**; 70 μ F units by **80 μ F**; 5 μ F units by **4.7 μ F**; and 8 μ F units by **10 μ F**.

Polarity & Orientation Guidelines

Electrolytic capacitors are polarized and must be installed in the correct direction. Failing to observe proper polarity will cause immediate component failure.

- **Identifying Terminals:** Original capacitors feature positive (+) and negative (-) markings. Replacement components (such as Tube Amp Doctor capacitors) utilize an arrow on the casing pointing toward the negative terminal.
- **Marking the Chassis:** Before removing any component, clearly mark the polarity orientation inside the chassis using a silver marker, masking tape, or photographs.
- **Varied Orientations:** In certain models, filter capacitors inside the capacitor housing ("dog house") are intentionally installed in opposing directions (e.g., dual main filter capacitors).
- **Bias Circuitry Exception:** In bias circuits, the positive (+) lead connects to ground, while the negative (-) lead connects to the active circuit.

Step-by-Step Installation Procedure

1. **Replace One Component at a Time:** Do not remove all capacitors simultaneously. Replacing components individually prevents layout and polarity errors.
2. **Desoldering & Eyelet Prep:** Snipping old component leads near the circuit board eyelets. Use solder wick or a solder sucker to clear the eyelet hole, leaving any under-board lead intact.

3. **Lead Trimming:** Trim new capacitor leads allowing approximately ½ inch of excess lead length for proper seat depth.
4. **Avoid Lead Splicing:** Never splice or twist new leads onto old cut leads. Proper eyelet mounting ensures circuit reliability, structural integrity, and preserves amplifier resale value.
5. **Complete Installation:** Replace every capacitor supplied in your kit before reconnecting the amplifier to power.

Physical Mounting & Stabilization

Because modern replacement capacitors are smaller and lighter than vintage originals, mechanical stabilization is required inside the main filter capacitor housing ("dog house"):

- Apply a bead of silicone sealant (RTV) or non-conductive hot melt adhesive underneath large filter capacitors to secure them to the board.
- Unsecured components rely solely on lead wires for support; speaker vibration will eventually fatigue and snap the wire leads. Small preamp capacitors do not require adhesive support.

Resistor Installation Notes

Certain kits include balancing and power supply dropping resistors located within the main capacitor housing.

- **One-for-One Replacement:** Match color bands with existing resistors and replace them one at a time.
- **Color Code Tolerance Bands:** Ignore gold or silver tolerance stripes on new replacement resistors when comparing against older units.
- **Production Variance:** Kits such as the **FCK-7** and **FCK-34** include supplemental resistors to cover multiple production revisions. Unused resistors should be discarded; match existing values like-for-like.

Model-Specific Circuit Notes

Later Fender® Silverface Amps (Post-1970)

- Locate the vibrato circuit cathode bypass capacitor (changed from 25μF to 5μF / 4.7μF in later production).
- Replace this unit first to prevent mix-ups. It connects across a 100kΩ resistor, with one side wired to Pin 8 of the 5th 12AX7 preamp tube.
- On select Silverface models, some cathode bypass capacitors ground directly to the rear panel RCA jacks rather than the central circuit board.

Early Fender® Blackface Amps

- Early Blackface models feature dual 25μF preamp capacitors housed in a single three-terminal package (one common ground, two positive leads).
- Replace these with two individual 22μF or 25μF capacitors. Solder both negative leads into the original single ground eyelet, and attach each positive lead to its respective circuit eyelet.