



# Beep codes for JuiceBox EVSE

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## Step 1 — Single beep codes



- There are two types of single beeps - one continuous tone, or a one-second repeating tone.
- One repeating beep means something has gone wrong in a self-test. Modern firmware groups a number of errors into one code - can be GFI self-test failure (common) or pilot signal self-test failure (far less common), or firmware/EEPROM failure (very uncommon unless you're editing firmware).
- A constant, nonstop beep means that there is no ground. Ground is detected by passing a small current from an AC line to chassis ground. No ground is most common when using molded extension cords or adapters with a D-shaped ground socket, which has intermittent connectivity.

## Step 2 — Single beep - GFI test failure notes



- A single-beep GFI test failure is most often a transient failure. Tracking down the actual failure has been elusive, but may be related to low line voltage (208v instead of 240v) or an issue with the -2.5v (negative 2.5v) regulator in the GFI circuit.
- Most often this will clear itself if the temperature or ... or the planet alignment changes. Simply unplug the box for 2 seconds, plug it in again, and it will re-test.
- More rarely, the 0.1uF (105) yellow tantalum capacitor attached to the large -2.5v regulator on the board needs to be replaced with a 1uF (106) capacitor. Observing the voltage on a scope, you may find a sawtooth voltage output there. That's the telltale sign of needing a 1uF capacitor instead of 0.1uF.
- You may find the GFI test resistors have cracked - put some solder on the edge of each one and see if they break in half when the solder is melted. Simply replace with a matching value resistor.

### Step 3 — Five beep - Stuck relay



- A 5-beep code means the JuiceBox thinks the relay is stuck. If this happens immediately upon power-up (after the 30-odd second startup), it could indicate a blown-out relay.
- If your JuiceBox is a black box with front LEDs, you may want to open the box and check for a blown-out relay which was relatively common with early UL units.
- ❗ A stuck relay on this version of the JuiceBox is relatively easy to replace - see the guide here: [JuiceBox EVSE Relay Replacement \(UL/front LEDs version\)](#)
- A blown-out relay will be extremely noticeable when you open the top cover. New relay boards may be hard to find for this model, unfortunately - but that is the only problem, not affecting the car or the rest of the box.
- Sadly, there is no good solution to this other than to replace the relay board, but with strong soldering skills, you may be able to repair the relay board. EV Doctor may have replacement relays available.

To reassemble your device, follow these instructions in reverse order.