



Title: **KW181 fuse update**
Bulletin #: KWS0001
Issue Date: 27 January 2011
Models Affected: KW181
Bulletin Revision: A
Production Range: March–November 2010 (S/N 0310xxxxx through 1110xxxxx)

Description

In some KW181 subwoofers, under heavy but normal usage the current draw from the +15-volt supply has been high enough to blow F2, a 1A fuse. QSC recommends replacing it with a 5A fuse. Underwriters Laboratories Inc. agrees that the 5A fuse provides adequate protection and has approved this change.

Symptoms

If fuse F2 blows, only the signal LED will light when the loudspeaker is turned on, and the loudspeaker will not work at all.

Action recommended

Fuse F2 should be replaced in any KW181 that exhibits the above symptoms. It should also be replaced as a preventative measure in any KW181 from the affected date range that is brought in for service and has not already been modified.

Note: F2 is a surface-mount fuse, and access to it requires some disassembly of the amplifier module. QSC recommends that its replacement be performed only by authorized service facilities or qualified technicians.

Instructions

Tools and materials required

- Phillips screwdriver
- Pad or cushion material
- Desoldering station or solder braid
- Soldering iron with fine tip (suitable for SMT)
- Lead-free (RoHS compliant) electronic solder
- 5A SMT fuse (QSC part # MS-000128-30)
- Waterproof permanent marker pen (e.g., Sharpie®, et al)

Procedure

Unplug the power cord from the loudspeaker. Set the loudspeaker face down on the pad or cushion to protect the grille and finish.

Optional: Remove the power module.

While this update can be done with the power module still in place on the subwoofer enclosure, it should be easier to perform if the module is removed and placed on the service bench.

1. Remove the 10 screws that fasten the power module to the enclosure (see Figure 1).
2. Lift the power module out of the enclosure.
3. Detach the multi-pin connector from the module.

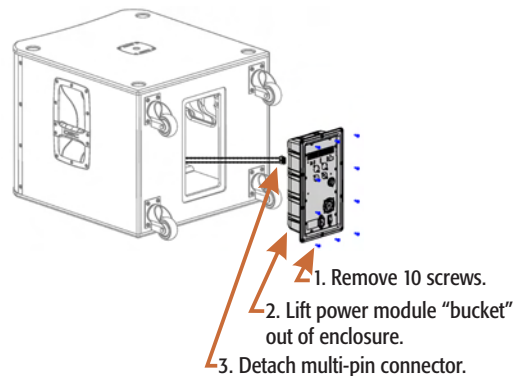


Figure 1. Removal of the KW181 module.

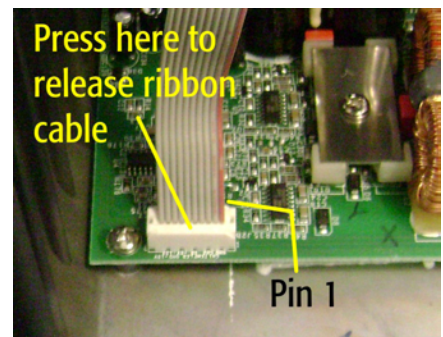


Figure 2. Press down on the housing to release the ribbon cable; insert cable into housing to reattach.

Continued on next page →

Open the power module.

4. Set the module on your work surface and remove the twelve screws around the perimeter of the faceplate.
5. Lift the faceplate up and use a small screwdriver or other implement to press down on the white housing to release the ribbon cable (see Figure 2). Set the faceplate out of the way.

Replace F2.

6. Locate the SMT fuse F2, which is near the power transformer (see Figure 3). Unsolder and remove it (if accessing F2 would be easier with the circuit board out of the "bucket," then remove the board before you unsolder F2).
7. Place the new fuse and solder it to the printed circuit board. Be careful to not damage the nearby SMT components or the solder mask surface on the circuit board.

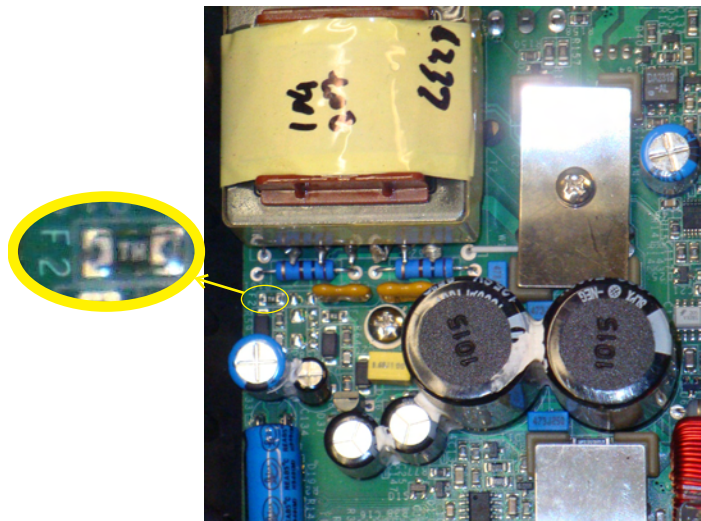


Figure 3. Location of fuse F2.

Re-assemble the loudspeaker.

8. With the permanent marker, add a large dot to the inside of the bucket where it will be visible through the ventilation slots (see Figure 4).
9. Reassemble the power module in the reverse of its disassembly. Ensure that Pin 1 of the ribbon cable is oriented correctly (see Figure 2); the ribbon cable simply inserts into the white housing until it grips the wire ends securely.
10. Re-install the faceplate onto the bucket. Use all 12 mounting screws.
11. Unless you performed the replacement with the module in the enclosure, reattach the multi-pin connector to the module and re-install it into the enclosure. Use all 10 mounting screws.
12. Check the subwoofer to confirm that it works properly.



Figure 4. To show that the module has been updated, place a mark on the inside of the bucket where it will be visible through the slots.

Contact information

This bulletin is available for download from the Service Bulletins page in the *Tech Support* section of the QSC Audio Web site. If you need any further information regarding this service procedure, please contact QSC Technical Services at the addresses or numbers below.

| | |
|----------------------------|---|
| Telephone: | 1-800-772-2834 (within USA only) +1 (714) 957-7150 |
| Fax: | +1 (714) 754-6173 |
| Skype: | qscaudio |
| E-mail: | tech_support@qscaudio.com |
| Web sites: | www.qscaudio.com (product info/support) www.qscparts.com (on-line accessory and replacement component sales) |
| Postal and parcel address: | QSC Audio Products, LLC Technical Services Group 1665 MacArthur Blvd. Costa Mesa, CA 92626 USA |