



SUPERCUBE

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THE FOLLOWING WILL DETAIL THE AMPLIFIER REMOVAL PROCESS FOR DEFINITIVE TECHNOLOGY SUBWOOFER MODELS SUPERCUBE REFERENCE & SUPERCUBE REFERENCE-TRINITY. SOME MODELS MAY BE LABELED POWERFIELD SUPERCUBE.

The subwoofer should be unplugged from any receiver or power amp that it may be plugged into. Disconnect the speaker from AC power at least 60 minutes prior to starting. Gather the tools you will need in a clean well-lighted place:

- a Phillips head screwdriver
- a flat head screwdriver (optional)
- 4 small plastic cups, with labels
- a (small or tack) hammer
- a needle nosed pliers (recommended)
- a digital camera (or pen and paper)
- 3mm hex key (high-level amp)
- 4mm hex key (woofer)

REMOVE END CAPS AND LOGO

- 1.** Remove both end caps.
 - a.** The top end cap lifts off using as purely vertical a motion as possible.
 - b.** The bottom end cap is secured onto the cabinet by long wood screws.
 - i. Remove them and set aside the bottom end cap.
 - ii. Mind the gloss finish.
 - iii. Reserve the screws in the 1st container, labeled “end cap”.
- 2.** Remove the logo
 - a.** The logo is held in by simple tension
 - b.** The pegs that press into the cabinet are located beneath the left and right sides of the logo.
 - c.** Using a flat bladed screwdriver slightly pry up one side. Then slightly pry up the other side.
 - d.** This should expose enough space between the middle of the logo and cabinet to insert your screwdriver between the pegs and pop the logo right off.

REMOVE THE LOW-LEVEL AMPLIFIER

- 1.** Lay the speaker down gently on its belly, so that the amplifier to be removed (entire back panel) is facing toward the ceiling.
- 2.** Remove the screws that are along the outer edge of the back panel.

CAUTION: Only remove the screws along the outer edge of the back panel.

As you get the screws out drop them into a 2nd plastic cup labeled “LL/Temp”.

 - a.** It is very important that you retain all the original screws.



SUPERCUBE

DEFINITIVE TECHNOLOGY® REFERENCE / TRINITY

3. You may use the power cord as leverage to remove the amplifier. It can stick and this process needs to be done with care.
Alternately you can pry at a corner of the back panel with a small flat head screwdriver, but this method risks chewing up the cabinet corner a bit.
 - a. Stand over the speaker with one foot on each side.
 - b. Grasp the power cord securely with your dominant hand.
 - c. Place your off hand on the speaker, such that only the corner of the back plate is beneath your palm. It should be the corner closest to the power cord.
 - i. With the corner of the back plate beneath your palm you do not have to worry about pulling the entire amp out while still connected.
 - d. Pull up on the cord while pressing down on the speaker with your offhand.
 - i. Do not yank the cord like you are trying to start a lawnmower, instead apply steady but increasing pressure.
 - ii. Pull up with as purely vertical a motion as possible.
 - iii. If needed wrap the power cable around your wrist for added leverage
 - e. Once the incidental seal between the back panel and the cabinet is broken you can ease off the tension.
 - f. Use the flat head screwdriver to help separate the back panel from the plasticized cardboard gasket. Ideally, as it anchors the trimmed down grill fabric, as much of the gasket stays in place as possible.
 - g. Once free from the cabinet, gently lift out the amp using as purely lateral motion as space will allow.

Use caution: although we have freed the amp from the gasket, it is still connected via harnesses to internal components.

- h. Gently rest the low-level amp across the back of the cabinet.
 - i. Snap a pic to be sure you maintain the orientation of which wires connect to which jumpers or make a note. Do not rely solely on memory.
4. There will be 2 wiring harnesses that connect the low-level amp and the high-level amp.
 - a. Remove the blocks for both harnesses from the circuitry on the inside of the back panel.
 - b. Set aside the removed and disconnected low-level amp.
5. Disconnect the temperature gauge.
 - a. The temperature gauge is the single silver wire (black insulation) that is connected to the woofer's magnet by a single small silver Phillips head screw.
 - b. Disconnect it from the woofer but leave it connected to the high-level board.
 - c. Reserve the little silver screw in the container labeled low-level amp.
 - d. Unscrew this wire from the woofer and place the screw in the cup labeled "LL/Temp."

DO NOT REMOVE THE GASKET

1. Once you have the amp completely removed: Identify the staples that were pulled up from the gasket when the amp was removed.



SUPERCUBE

DEFINITIVE TECHNOLOGY® REFERENCE / TRINITY

2. If necessary, stretch the portion of grill fabric back into place, then use a hammer or the butt end of a screwdriver to gently but firmly push or tap the staples securing the gasket back into place.

REMOVE THE PASSIVE RADIATORS

1. To remove the passive radiator, the grill sock must be lowered to reach the screws along the top half and raised to reach the screws along the bottom half.
 - a. The grill sock is stretchy but not infinitely so, so a bit of care is called for.
 - b. Using a Phillips screwdriver, remove the screws around the circumference of the passive radiator.
 - c. The tuning screw in the middle of the passive radiator does not need to be removed.
 - d. As you remove the screws drop them in a 3rd plastic cup; label as "P. rad".
2. Once you have all the screws out remove the radiator.
3. If it sticks pinch the rubber surround for leverage and pull it out.
4. Or reach in through the hole left when you removed the low-level amp and push it free from the inside.
5. Repeat steps 1 through 4 for other passive radiators if required.

DISCONNECT THE WOOFER

1. Working through the empty passive radiator ports, remove the two wires, red and white, from the jumper clips on the underside of the woofer's basket or from the jumper clips on the high-level amp.
 - a. These can stick a bit.
 - b. Use both needle nose pliers and caution.
 - c. Remove the wires using as purely lateral a motion as possible, in relation to the angle with which they are connected.

If removing the wires from the woofer, and not from the high-level amp, be careful not to strip the tabs on the woofer's voice coil. Doing so will ruin the woofer.

REMOVE THE HIGH-LEVEL AMP

1. Once you have removed the low-level amp, and one or more passive radiators, there is enough access to remove the high-level amp's mounting screws without removing the woofer itself. Work through the empty passive radiator vent.
2. Take note of the orientation of the high-level amp board.
 - a. SuperCube high-level amps cannot go back into the cabinet in any orientation; they must be oriented identically as when factory installed.



SUPERCUBE

DEFINITIVE TECHNOLOGY® REFERENCE / TRINITY

- b.** If you are using a digital camera this is a great place to snap a picture or two.
 - c.** Index cards with the words front or back on them, strategically placed into a photo, can yield huge benefit once it is time to reassemble the repair componentry. Also look for amp landmarks such as the pair of large barrel shaped capacitors.
- 3.** Remove the high-level amp.
 - a.** The screws mounting the high-level amp into the cabinet require a 4 mm hex key.
 - b.** Remove the screws by access through the open passive radiator ports.
 - c.** Reserve the screws in a 4th container, labeled “high level”

Only handle the amp module by the metal structures to which the PCB are mounted.

- Be careful not to touch any capacitors on the high-level amp.
- Be careful not to touch any PCB during this process.