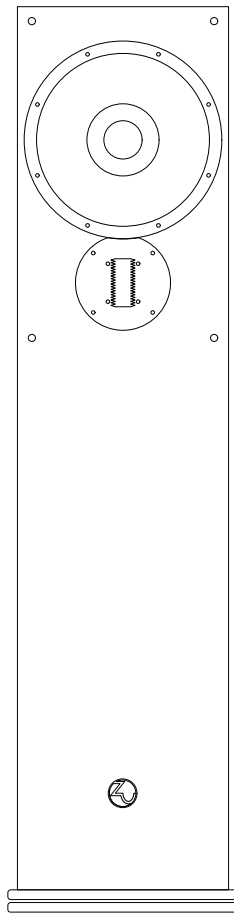


ESSENCE Mk.I-B UPGRADE KIT



Mk.I REV-B UPGRADE KIT DETAILS

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ESSENCE Mk.I-B UPGRADE KIT

DETAILS & PRICES

[Parts and upgrade kits are purchased directly from Zu Audio, Ogden, Utah, USA.]

The Essence upgrade kit [Essence Rev. I-B]. Users that want to keep the timbre of the original Essence but would like improved dynamics, intensity, full-spectrum resolution and get a bit more presence—this kit is for you.

Not always the case but often, Essence best matches up with amplifiers that have an output impedance that is greater than 0.1 ohm (a spec'd damping factor of less than 80), so tube amps, the great sounding '60s and '70s solid-state receivers and amplifiers and some modern solid-state amps.

This kit works with all Essence loudspeakers (Essence never had a revision in it's four years of production) and can be done with minimal effort, with no soldering and no fitment issues. All kits are purchased direct from Zu Audio Ogden, Utah—U.S.A. Kits are designed and priced to be done as a matched pair (left and right).

Essence was the only loudspeaker from Zu to feature a ribbon tweeter. It was designed to give the listener great stereophony and bass/treble response at low level listening. It was a very successful speaker for us but diverged a bit from our tenets of max efficiency, max tone and live presence. This upgrade kit gets you much closer to our view of sound while keeping that great low-level listening Essence is known for.

On the technical, the upgrade kit reduces the impedance differential between the low Z ribbon and the new 16 ohm full-range driver. The kit also reduces the destructive interference between the ribbon tweeter and the full-range driver.



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KIT DETAILS & PRICES

Note: identification for this upgrade is the machined model number in the full-range driver and the Mk.I Rev-B nameplates.

Difficulty: easy.
Time: one hour.

- 1x Matched pair high-output nanotech (Zu103ND/G1-16) drivers w/ 600 hours burn-in.
- 1x New high-pass network (ClarityCap MR based).
- 16x #9 Torx T-25 stainless FRD mounting screws.
- 1x Additional gasket tap.
- 2x Rev. 1-B nameplates.

There is a \$200 refund for the safe return of your excellent condition original full-range drivers.

REQUIRED TOOLS

- Clean workspace; a blanket over coffee table is perfect.
- #1 square drive, for removal of your old drivers (not included).
- 3mm hex screwdriver for tweeter high-pass work (not included).
- T-20 screwdriver, some late production used a T-20 fastener (not included).
- T-25 screwdriver, used to install the new T-25 FRD fastening screws (not included).

AVAILABLE FOR PURCHASE

- 1x Wera #1 square screwdriver 368 [05117682003] for old full-range driver fasteners.
- 1x Wera 3mm screwdriver 354 [05023110003] for tweeter network.
- 1x Wera T-20 screwdriver 1767 [05031304002] for old full-range driver fasteners.
- 1x Wera T-25 screwdriver 1767 [05031305002] for new full-range driver fasteners.



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INSTRUCTIONS

PREPARATIONS

- Make sure you are button, snaps, belt buckle and wristwatch free.
- Switch off your electronics and disconnect your speaker cables.
- With a clean work space and a clean blanket on the floor, lay Essence down with drivers facing up.

DISASSEMBLY AND REMOVAL OF THE FULL-RANGE DRIVER

1. Careful not to poke a hole in the cone or surround, remove the full-range driver fasteners.
2. Remove the full-range machined trim ring and set it aside.
3. Grab hold of the machined center cylinder of the driver and lift it up. Or turn the cabinet to the side so the driver will slide out from the baffle.
4. With it just clear of the cabinet cradle the driver from the backside with your other hand.
5. Remove leads from the full-range driver by gently rocking the connector longitudinally and pulling.
6. After all four disconnects are disconnected from the full-range driver set it off to the side.

REMOVAL OF HIGH-PASS NETWORK FROM TWEETER

1. Look into the cabinet and notice the tweeter (removal of the tweeter is not necessary).
2. With a 3mm screwdriver remove the only visible small binding post screw.
3. The freed solid-core wire lead should now be insulated with a bit of tape, then bent it back out of the way.
4. Remove capacitor assembly by gently rocking the connector longitudinally and pulling from the tweeter.

REASSEMBLY

1. Apply the new gasket tape on top of the old gasket tap.
2. Connect the new capacitor assembly to the tweeter; "T" end to tweeter.
3. Connect the new ZU103ND/G1-16: 2x red leads to [+], 2x black or white leads to [-].
4. Position the new FRD, line up the holes, put the trim ring in place, set with new screws.

TORQUE FULL-RANGE DRIVER

1. First pass around, gently torque the screws.
2. Second pass around, torque firmly; using standard screwdriver and one hand].
3. Third pass around, torque as tightly as you can; using standard screwdriver and one hand [80 inch pounds [9 N-m]].

REPACK OLD DRIVER

Repack the old drivers exactly like you received the new nanotech units.

1. Use the hard gasket between the two drivers.
2. Use the same fasteners.
3. Torque the screw with a 3/16" hex screwdriver or a T-25 screwdriver.
4. Send them back for refund.



ESSENCE Mk.I-B SPECIFICATIONS

ZU AUDIO ESSENCE Mk.I [REV-B] LOUDSPEAKER SYSTEM SPECIFICATIONS + INFORMATION

Description	These are the revised specs, original Essence Mk.I [Rev. A] but fitted with the Rev. 1-B upgrade kit.
Dimensions H x W x D	49 x 12 x 12 [125 x 30.5 x 30.5 cm] // footprint is 12.5" [32 cm] square
Weight	68 pounds [30 kg] // may vary with finish selection
Packaged	FlexPak foam encapsulated 54 x 17 x 17" [137 x 43 x 43 cm] 75 pounds [34 kg]
Bandwidth	30–40,000 Hz
Efficiency	100 dB SPL @ 1W, 1m
Impedance	16 Ω
Acoustic Center	40" [101 cm]
Horizontal Listening Window	45°
Vertical Listening Window	40°
Recommended Listening Distance	4 feet [1 m] or more
Recommended Connector	1/4" fork spade [6.3 mm] or oversized 5/16" [8 mm] fork spade
Accepted Connectors Via Adapter	the above plus bare wire (banana plugs in a pinch)
Internal Cabling	Zu Mission cable harness, pure copper, approximate conductor area is #13 AWG per charge
Power Recommendations	1 – 8 watt (average room, moderate volume) 8 – 32 watt (large room, loud listening) 200 watt (maximum input power)
Amplification Considerations	all types, tubes and solid-state, anything that sounds good and has an output impedance that is $>0.1 \Omega$
Component Tolerance	drivers 1% pair matching, 0.01% on electrical components
Tweeter Detail	1x TB-1855S-B ribbon, final foil adjustment and assembly by Zu // bandwidth: 14k–40 kHz+
High-Pass Detail	1st order @ 18 kHz featuring ClarityCap MR 1 uF
Full-range Driver Array Detail	1x Zu103ND/G1-16 nanotech full-range driver // bandwidth: 30–12k Hz (direct and unfiltered)
Cabinet	MDF / Baltic or Finish birch
Spike / Feet Insert Thread	3/8–16 TPI, 9/16" hex nut, 14 mm wrench can be used
Included With Loudspeaker	2x hard press-on full-range driver covers, installed 8x hard surface stainless ball-end feet / 8x stainless 9/16" [14 mm] jam nuts, installed 8x long carpet spikes, 1x connector cleaning kit, 1x finish cleaning cloth, 1x instruction booklet
Loudspeaker Options	custom finish work
Life Expectancy	40 years; cabinet, and the Zu 10" drivers; 15 years on TB-1855S-B ribbon (foil will likely need replacement)
Manufacturers Country Of Origin	U.S.A. all parts and labor excluding the TB ribbon tweeter which is a product of Taiwan
Compliances of Directives	RoHS CE WEEE
Warranty & Service	5 years limited on cabinet and drivers—warranty does not cover misuse, abuse, components upstream from the loudspeaker system, modifications or non-factory service.

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UPGRADE DETAILS

D.I.Y. WARRANTY

Limited two year warranty on parts only. No warranty for your workmanship. Zu will cover shipping on parts and D.I.Y. service is expected.

FACTORY WARRANTY

Limited two year warranty on parts and workmanship, cabinet areas that are not modified are not covered. Zu will cover shipping on parts and D.I.Y. service is expected.

Limited five year warranty if extended warranty and factory service are purchased/performed. Covers all parts and labor including the whole of the cabinet. If warranty is needed complete loudspeaker shipping may not be covered. Zu will cover shipping on parts and D.I.Y. service is expected.



ZU AUDIO

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[DESIGNED AND MADE BY US]