



EMS Manual

Model: ZA-42

www.drzamps.com



This symbol warns the user of dangerous voltage levels localized within the enclosure.



This symbol advises the user to read all accompanying literature for safely operating the unit

Important Safety Instructions

- 1) Read these instructions.
 - 2) Keep these instructions.
 - 3) Heed all warnings.
 - 4) Follow all instructions.
 - 5) Do not use this apparatus near water.
 - 6) Clean only with dry cloth.
 - 7) Do not block any ventilation openings. Maintain at least 3 feet of distance around all sides of amplifier. Do not block any ventilation openings with items such as newspapers, tablecloths, curtains, etc.
 - 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
 - 9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
 - 10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
 - 11) Only use attachments/accessories specified by the manufacturer.
 - 12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
 - 13) Unplug this apparatus during lightning storms or when unused for long periods of time.
 - 14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
 - 15) Avoid placing any liquids on or near the amplifier that may splash or drip such as those contained in bottles, cans, glasses, etc.
- *Dr Z amplifiers are capable of producing very high sound pressure levels which can cause temporary or permanent hearing damage.
- *If any screw that is actually on the amp chassis needs to be replaced contact Dr Z Amps for the proper size. Screw size is critical for inner chassis clearances.

General Information

Our goal with the latest Dr. Z amp, the EMS, was to produce the essential sounds of 3 generations of classic British amplifiers. Starting with the mid-60s JTM 50 variant, we combine a dual EL-34 power section with a tube rectified power supply, available by selecting "tube" via the rectifier switch on the back panel. Along with the tube rectifier, setting the EMS' sensitivity switch to "low" and "Touch" response switch to the down position, this combination will produce the bloom and feel of the early American tweed amps but with the British charm of EL-34 output tubes.

Flashing forward to the 70s, the essence of the "small box" JMP amp is available in the EMS by selecting the "solid state" rectifier via the back panel, selecting "low" sensitivity, and using the "Touch" switch to match the amplifier with your choice of guitar. Using the same circuit topography of the JTM series, only with a more powerful solid state power supply, this sound is noted for its lightning quick response and cutting "kerrang" in the upper-midrange.

Lastly, the EMS incorporates the cascaded gain stage design found in the 80s JCM series. By using the "high" sensitivity switch on the front panel, and selecting solid state rectification, hard rock and classic metal tones with tight bass response and singing gain will come screaming out of your guitar. We massaged the circuit to remove some of the annoying, persistent high-treble this era of amplifier has been maligned for and boosted the gain a bit further so that more "modern" drive tones are available higher on the gain knob.

The EMS, like all Dr. Z amplifiers, is 100% hand-wired in Maple Heights, OH using select components throughout its stages and built on a custom rolled aluminum chassis. It has a precise copy of the Drake 784-139 50-watt output transformer for authentic British crunch. For a perfect match to the EMS small box head, we have our 2x12 "Backline" cabinet loaded with a Celestion Creamback 65M speaker and a Celestion G12 H30 70th Anniversary speaker wired in series for 16 ohm.

Specifications:

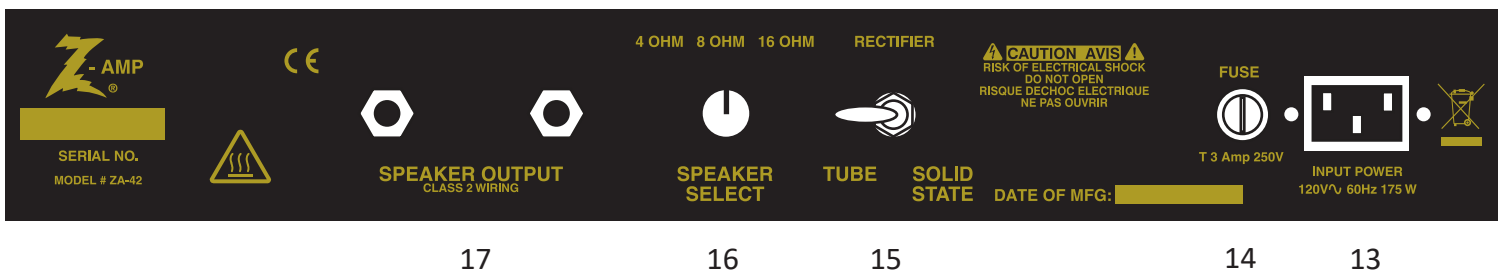
Power Output	50 watts
Output Tubes	2- EL34 (fixed bias)
Preamp Tubes	3- 12AX7
Rectifier	Switchable 5U4GB tube and solid state diodes
Controls	Gain, Volume, Treble, Middle, Bass, Presence
Speaker Outputs	4, 8, 16 Ohm impedance via rotary switch
Other	Hi/Lo sensitivity switch, "Touch" sensitivity switch Tube/Solid State rectifier switch
Configurations	Head
Colors	Special "small box" black cabinet with gold piping and logo
Dimensions & Weight	23 5/8" W, 9 5/8" H, 9 1/4" D, 30 lbs.

FRONT PANEL



- 1. Hi/Lo Sensitivity:** Set to “lo” for cleaner sounds and vintage levels of gain. Set to “hi” for higher gain sounds and to boost low output pickups.
- 2. Input:** Input jack for your guitar.
- 3. Gain:** Controls the level of gain in the preamp. Set low for clean, high for distortion.
- 4. Volume:** Controls the amount of signal reaching the output section and the loudness of the amp.
- 5. Treble:** Controls overall treble frequency response.
- 6. Middle:** Controls overall midrange frequency response.
- 7. Bass:** Controls overall bass frequency response.
- 8. Presence:** Controls the high midrange frequency response.
- 9. Touch:** Attenuates the transient response and pick attack. Set to down position to attenuate attack or for bright single coils. Set to up position for fast transient response and cut.
- 10. Stand-By:** Leave in off position for 1 minute when powering up the amp. Turn on for play. Place in off position for extended break periods.
- 11. Power:** Switch up to turn on amplifier. Switch down to turn off amplifier.
- 12. Power Indicator:** Lights up when power is switched on. If bulb fails replace with type T47.

REAR PANEL



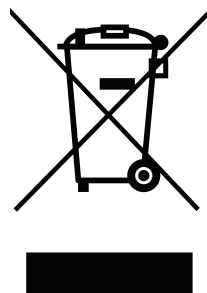
- 13. AC Inlet:** (Class I Wiring). This device is used for disconnection from power mains and must remain readily operable. The power indicator light does not indicate connection to power mains. The power cord must be disconnected to disconnect amplifier from power mains.
- 14. Fuse:** The fuse protects the amp from electrical faults. Replace only with the same rating and type stated below fuse holder (3A 250v FAST ACTING). If the amp repeatedly blows the fuse contact your dealer or Dr Z Amps.
- 15. Tube/Solid State Rectifier:** Set to “Tube” to lower the voltage of the amp for a softer feel and more vintage sound. Set to “Solid State” to raise the voltage of the amp for a faster response and more modern sound.
- 16. Speaker Select:** *Do not rotate unless the amp is off.* Selectable dial for 4/8/16 ohm loads. Always have a speaker plugged into the amp when it is powered on. Always match a your speaker impedance with this dial. This will allow the amp to sound its best and avoid damage.
- 17. Speaker Output Jacks:** Always have a speaker plugged into the amp when it is powered on. Plug in your speaker cabinet in either jack. Jacks are wired in parallel. If plugging in two cabinets, use two cabinets of the same impedance and then divide that impedance in half. Set the Speaker Select dial to this number (examples: Two 16 ohm cabinets should be set to a 8 ohm load. Two 8 ohm cabinets should be set to a 4 ohm load).



MODEL: _____

SERIAL NUMBER: _____

INPUT VOLTAGE: _____



MADE IN USA



EC/EU Declaration of Conformity

Document: CE – ZA-42

Manufacturer: Dr. Z Amplification
17011 Broadway Ave.
Maple Heights, OH 44137 -3407
USA

We declare that the designated product (s)
DR. Z EMS
is/are in conformity with the European Directives:

2014/30/EU EMC Directive of 26 February 2014

2011/65/EU RoHS Directive of 8 June 2011

2014/35/EU Electrical equipment designed for use within certain voltage limits

This declaration certifies compliance with the indicated directives but implies no warranty of properties. The safety instructions of the accompanying documentation shall be observed. This declaration of conformity is issued under the sole responsibility of the manufacturer.

Issuer: Dr. Z Amplification
17011 Broadway Ave.
Maple Heights, OH 44137 -3407
USA

Place, date: Maple Heights, OH USA , 01.JUNE.2017

Legally binding signature:

M.D. Zaito, General Manager, Dr. Z Amps



Dr Z Amps 17011 Broadway Ave. Maple Heights, OH 44137 USA

CE

DECLARATION OF CONFORMITY

We, Dr Z Amps, declare, taking this declaration under our total responsibility, that guitar amplifier model EMS (ZA-42) is in conformity with EN 55013, EN 61000-3-2, EN 61000-3-3, and EN 55020 in accordance with the Directive 2006/95/EC of 12 December 2006, even more declaring that the CE marking was affixed in the year 2011.

12-1-2016

A handwritten signature in black ink, appearing to read "M. D. Zaite". The signature is written in a cursive, flowing style.

Michael Zaite, General Manager Dr Z Amps