

# Z-40 Manual

Model: ZA-54

[www.drzamps.com](http://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

Having much success developing half-power versions of his popular amps, the MAZ 18 and the Z Wreck Jr. being exemplary best-sellers, the impetus to distill the brilliant British character of the Z-80 down to a manageable 40 watts of dual EL-34 power was strong. And let's face it, not every rockstar needs the full 80-watt potential of the Z-80, so the Z-40 seemed an obvious addition to the line. Yet the path it led Z down was winding, as trying to wrangle the Z-80's behemoth tone by simply marrying it's preamp to a twin tube power section wasn't as easy as simply dreaming up the idea.

Finding the same robust, chiming clarity of the bigger amp challenged Dr. Z to rethink the technical design while retaining the essential features every player appreciated about the Z-80. Still present in the Z-40 is the smooth, fader-like post-phase inverter master volume to manage the overall output, the unique, individually cathode-biased EL-34 power tubes which gave the original design it's harmonically rich character, and the versatility of a buffered FX loop for the modern player's pedalboard.

Re-designed was a proprietary output transformer from Heyboer, not a copy of any previous amp, vintage or otherwise. The gain-staging of the preamp was considered to maintain superb clarity and headroom, with chiming British cleans that bloom into defined, grinding saturation. This amp includes a first in Z's design history: the use of TAD Hi-Grade 12AY7 preamp tubes in the first two positions which provide a punchy, well-balanced response across every note of the fretboard. Adding the novel "bootstrap" tone stack driver circuit from the previous amp to the Z-40 increased bandwidth and gain which was essential to its sonic signature. Finally, another tweak rarely employed by Dr. Z: a subtle, fine-tuning of negative feedback in the output section corrects any mushy artifacts and produces an accurate, extremely low noise amplification of the guitar's signal.

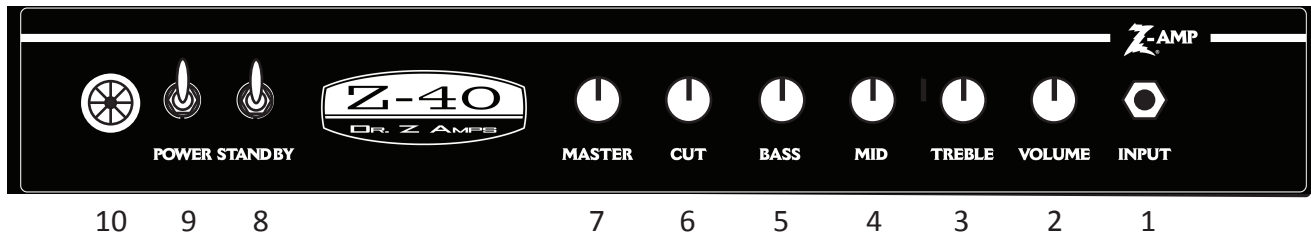
But Dr. Z wasn't satisfied with the Z-40 being the kid brother of the Z-80; the amp had to stand on its own with its own exclusive features. A new switchable rectifier mode allows the player to alter the headroom and response. Solid-state diode rectification, as in the original amp, produces pure, lucid cleans, with a snappy response. Switching in the 5U4 tube rectifier creates compression, a smoother play feel, and a bit more grit to the overdrive as the power section pulses to the player's touch. The "cut" control, famous in many British-style amps, reappears in the Z-40 to fine-tune the all-important high mid chime to the player's guitar and pickups.

Finally, the Z-40 will be offered not just as a head, but also as a 1x12 combo in sleek black-out tolex with classy silver appointments. The 1x12 combo features a WGS ET-90, a high headroom powerhouse speaker that throws the sound forward, and is the same top-mounted cabinet design as the lauded Z-28 Mk. II, which produces piano-like low mids, and resonant, room-filling projection, even at lower volumes.

## Specifications:

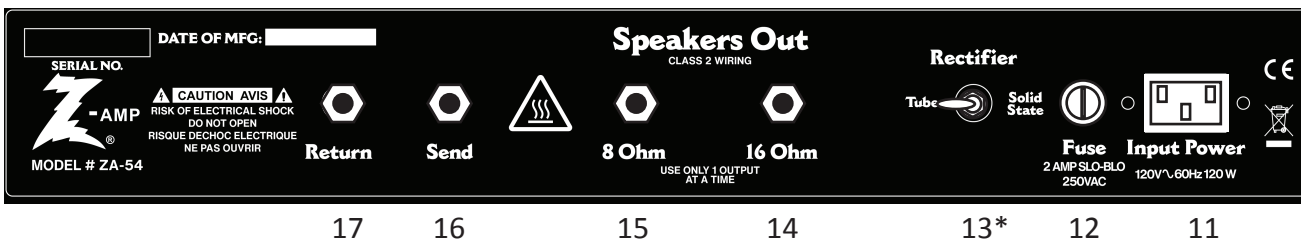
<b>Power Output</b>	40 watts
<b>Output Tubes</b>	2- EL34 (cathode biased)
<b>Preamp Tubes</b>	2- 12AU7, 1- 12AX7
<b>Rectifier</b>	Switchable 5U4 tube rectifier and Solid State diodes
<b>Controls</b>	Volume, Treble, Middle, Bass, Cut, Master
<b>Speaker Outputs</b>	8, 16 Ohm Outputs
<b>Configurations</b>	Head, 1x12 Combo
<b>Dimensions &amp; Weight</b>	Head: 19" W, 9 3/4" H, 9 1/2" D; 28 lbs. 1x12 Combo: 22" W, 21 1/2" H, 10 5/8" D; 45 lbs.

## FRONT PANEL



- 1. Input:** Input jack for your guitar.
- 2. Volume:** Controls the amp input signal. As you turn the volume up natural overdrive will occur along with an increase in volume.
- 3. Treble:** Controls overall high frequency response.
- 4. Mid:** Controls the midrange response. Under 12:00 will scoop out midrange for a glassy tone and beyond noon will add high mids for a sound that will push the sound forward in a mix.
- 5. Bass:** Controls overall low frequency response.
- 6. Cut:** Controls the overall brightness of the signal entering the power section. Clockwise will add chime and presence. Counter-clockwise will reduce the upper frequencies of the signal.
- 7. Master:** Controls the overall volume of the amp.
- 8. 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.
- 9. Power:** Switch up to turn on amplifier. Switch down to turn off amplifier.
- 10. Power Indicator:** Lights up when power is switched on. If LED fails replace with a 6.3 volt #44 Bayonet Base(BA9S).

## REAR PANEL



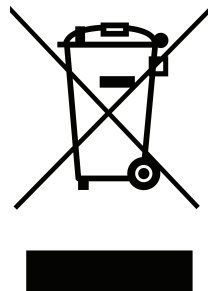
- 11. AC Inlet:** (Class I Wiring). This device is used for disconnection from power mains and must remain readily operable. The power indicator light does not indicate connection to power mains. The power cord must be disconnected to disconnect amplifier from power mains.
- 12. Fuse:** The fuse protects the amp from electrical faults. Replace only with the same rating and type stated below fuse holder (2A 250v SLO BLO). If the amp repeatedly blows the fuse contact your dealer or Dr. Z Amps.
- 13. 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 headroom. **\*Set amp to stand-by before switching the rectifier.**
- 14. 16 Ohm Speaker Jack:** Plug in the external or internal 16 Ohm speaker here. Always have a load connected to your amp. **ONLY USE ONE SPEAKER OUT AT A TIME.**
- 15. 8 Ohm Speaker Jack:** Plug in the external or internal 8 Ohm speaker here. Always have a load connected to your amp. **ONLY USE ONE SPEAKER OUT AT A TIME.**
- 16. Send Jack:** This will send the signal from the amp to the “in” of your effects chain.
- 17. Return Jack:** Plug the “out” of your effects chain to return the signal back to the amp.



MODEL: \_\_\_\_\_

SERIAL NUMBER: \_\_\_\_\_

INPUT VOLTAGE: \_\_\_\_\_



MADE IN USA



## EC/EU Declaration of Conformity

Document: CE – ZA-54

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

We declare that the designated product (s)  
DR. Z Z-40  
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 , 13.OCTOBER.2023

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 Z-40 (ZA-54) 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 2001.

2 -1-2025

A handwritten signature in black ink that reads "M. Zaite". The signature is written in a cursive, flowing style.

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Michael Zaite, General Manager Dr Z Amps