

FUZZ-A-TORT

fuzzing of the basic guitar sound to the deep, throaty sound of a saxophone.

Our great goody provides for user adjustment of the degree of fuzz and output level, allowing the fuzzbox sound level to be balanced with the normal guitar sound output level. An oversize rocker switch allows the fuzz effect to be keyed in-and-out with the foot while playing.

The power switch is combined with the rocker fuzz selector switch, automatically turning the power on when the fuzz effect is desired. The *Fuzz-A-Tort's* response to the power application is instantaneous—there is no delay before the fuzz effect is cut-in.

Options. You can build the *Fuzz-A-Tort* in any of three different ways. The hard way is to build it following the schematic, using your own parts layout. The easy way is to send for the *free* printed circuit board—just fill out the coupon at the end of this article. There is no hidden charge (like postage); all it takes is the coupon. Or, if

desired, you can purchase a complete set of components, including a pre-punched, anodized cabinet and a pre-drilled circuit board, from the source listed in the Parts List.

How It Works. Transistor Q1, an emitter follower of normally relatively high impedance, in combination with R1, presents a high impedance input at J1. Transistor Q2 functions as a variable-gain amplifier. Since Q2's base bias is obtained through R4 and R5 from the collector of Q2, the setting of R5 determines the effective gain that is realized by this stage.

Transistor Q3 functions as a "class C" amplifier. The normal leakage in Q3 (a germanium type) allows very low signal input levels to be amplified with little distortion. As the signal input level to Q3 is increased via R5, the signal level becomes greater than the leakage bias current and the signal is distorted; the greater the signal input level, the greater the degree of distortion or fuzz effect.

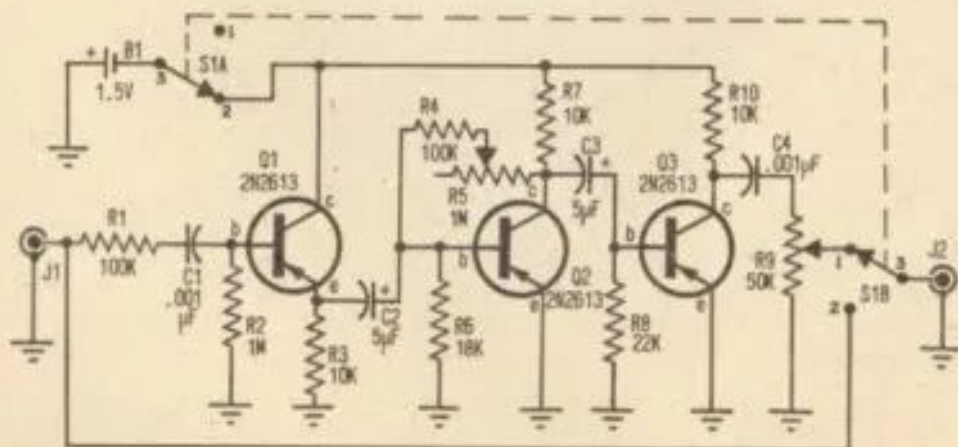
Construction. The model shown is built on the free printed circuit board. While we show the cabinet supplied in the parts kit, you can substitute any aluminum cabinet measuring approximately 6 x 3½ x 1¾ in.

PARTS LIST FOR FUZZ-A-TORT

- B1—1.5-V type AA battery
- C1, C4—.001- μ F capacitor
- C2, C3—5- μ F, 6-VDC electrolytic capacitor
- J1, J2—Phone jack
- Q1, Q2, Q3—2N2613 transistor
- R1, R4—100,000-ohm, ½-watt resistor
- R2—1,000,000-ohm, ½-watt resistor
- R3, R7, R10—10,000-ohm, ½-watt resistor
- R5—1,000,000-ohm linear-taper potentiometer
- R6—18,000-ohm, ½-watt resistor

- R8—22,000-ohm, ½-watt resistor
- R9—50,000-ohm audio-taper potentiometer
- S1—D.p.d.l. switch (see text)
- Misc.—Battery clamp, cabinet, knobs, wire, solder, etc.

(A complete kit of parts, including the PC board and cabinet, is available for \$12.50, postpaid, from Sentry Mfg. Co., Box 12322, Oklahoma City, Okla. 73112. See coupon on page 44.)



Schematic of Fuzz-A-Tort is primarily for reference since wiring is already done on free PC board, though die-hards can build hand-wired version.