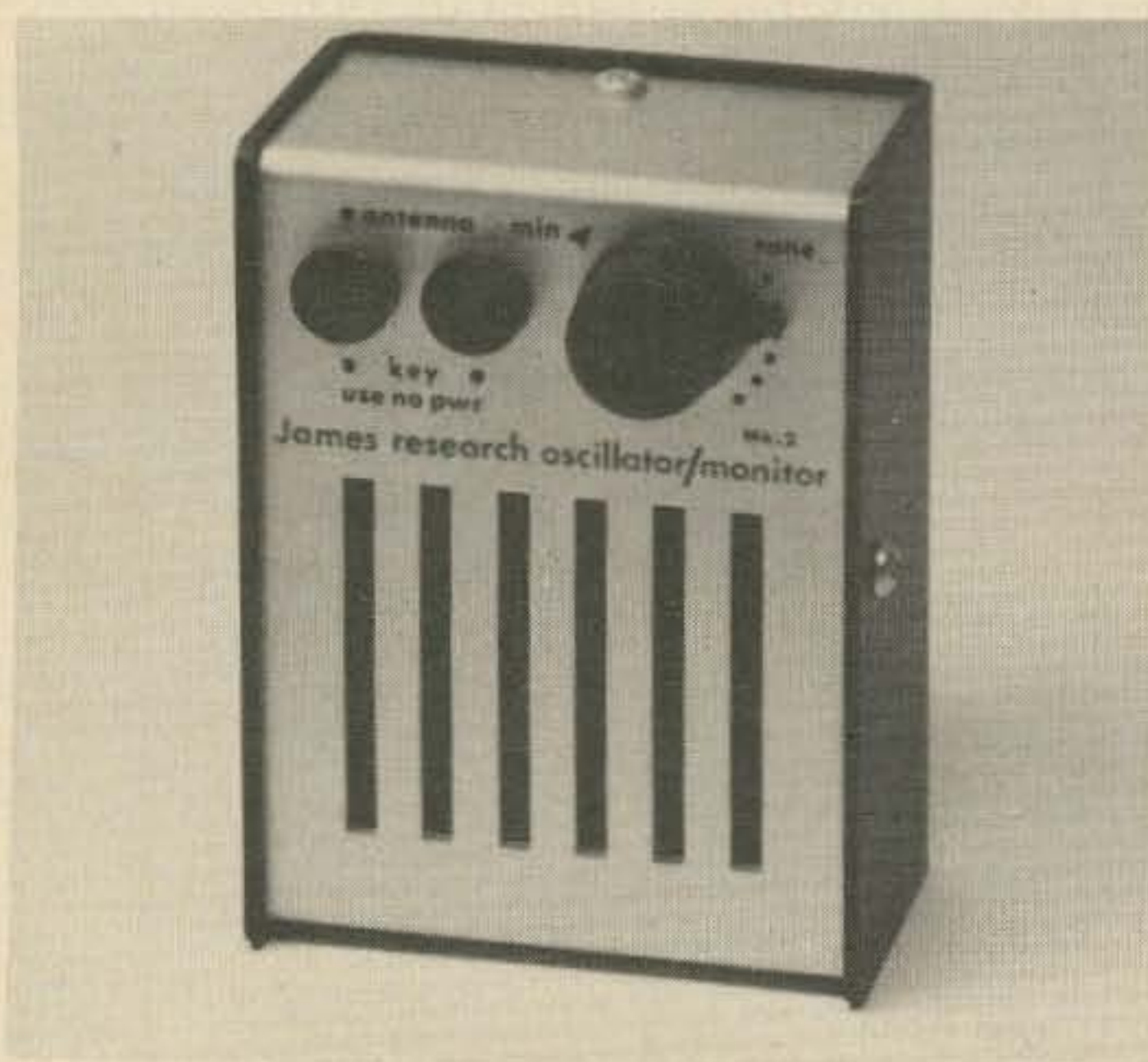


73 Tests

The James Research Oscillator/Monitor, Mark 2 and Permafex Key



Oscillator/Monitor is a very modest description of this extremely versatile piece of equipment. Housed in an anodized aluminum case about the size of a pack of cigarettes, this little unit does just about everything except stand up and sing "The Star Spangled Banner."

The Mark 2 will serve as a CW monitor, a code practice oscillator, an *rf* detector, an *rf* test device, and a test instrument to check diodes and semi-conductor devices of all types.

CW monitoring

The Mark 2 provides a reliable CW side-tone from any amateur transmitter regardless of power or frequency. It requires no connection to either the transmitter or key. An 8" stiff wire antenna picks up stray *rf* and triggers the monitor. A strong magnet is attached to the back of the case to allow it to be placed on the transmitter in the spot where the *rf* pickup will be best.

Code practice

The monitor can be connected to any keying device to produce a loud, click free audio tone. A tone control knob allows for adjustment to a comfortable listening tone.

RF detection and testing

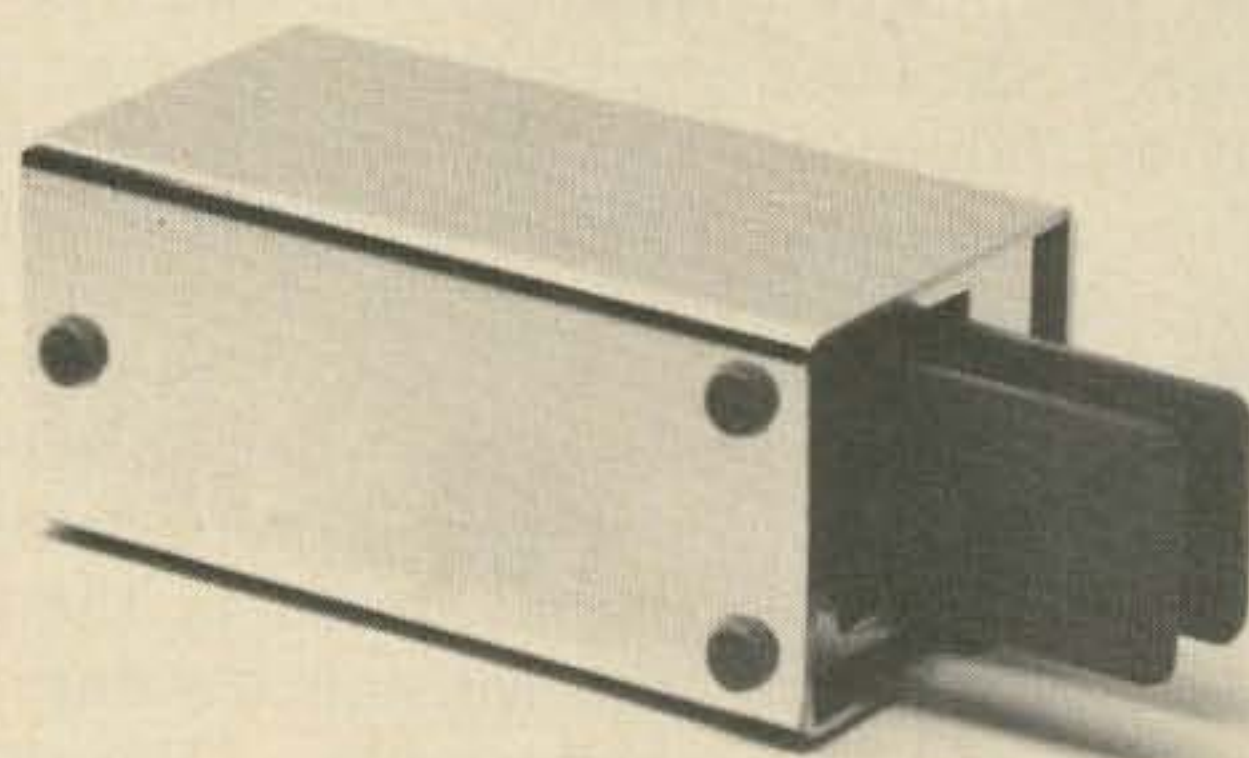
The high sensitivity and broadband characteristics of the monitor make it a valuable *rf*

test instrument. It will detect the presence of *rf* by producing an audible tone and indicates relative power of the *rf* source by changing tone. No direct connection is required for *rf* in excess of 10 milliwatts. The monitor may be used as an effective tuning aid for transmitters or power oscillators. As the *rf* power increases, the tone becomes lower in pitch.

Component continuity and semi-conductor testing

For the testing of circuit or component continuity, the monitor has many advantages. Tests with the monitor are completely non-destructive since the power required can never exceed .0025 microwatts and the open circuit voltage is not over 1.5 volts. The maximum current that can pass through any component will not exceed 50 microamps. The monitor will test component resistances from zero to 100,000 ohms. Various resistance values will cause the tone of the monitor to change. It is possible to test for open or shorted conditions as well as partial continuity. Since the monitor is a polarized device, it will test such polarity sensitive components as semi-conductors and meters.

Available by direct mail only at the Mini-price of \$14.95.



Permafex key

The James Permafex key is a manually operated single pole double throw switch