

75 watts CW input

65 watts phone

Completely self-contained

# Viking "Ranger"

Effectively TVI suppressed, and completely self-contained, the Viking "Ranger" transmitter/exciter is available as a complete, easily assembled kit or as a wired and tested unit. A phone and CW transmitter for 10 through 160 meters, the "Ranger" may also be used as a flexible exciter without modification.

As a transmitter, the "Ranger" is a rugged and compact 75 watt CW input or 65 watt phone unit. The "Ranger" has a pi-network coupling system that will match antenna loads from 50 to 500 ohms and will tune out large amounts of reactance. Single-knob bandswitching on seven amateur bands: 160, 80, 40, 20, 15, 11, and 10 meters — built-in VFO or crystal control. Timed sequence (grid block) keying provides ideal "make" or "break" on your keyed signal, yet the "break-in" advantages of a keyed VFO are retained.

As an exciter, the "Ranger" will drive any of the popular kilowatt level tubes and will provide a high quality speech driver system for high powered modulators. Control functions for the high powered stage may be handled right at the exciter — no modification required to shift from transmitter to exciter operation. A nine pin receptacle on the rear of the transmitter brings out TVI filtered control and audio leads for exciter operation. This receptacle also permits the "Ranger" to be used as a filament and plate power source, and also as a modulator for auxiliary equipment such as the Viking "6N2" VHF transmitter.

**FREQUENCY CONTROL** — The "Ranger" is equipped with an extremely stable, temperature compensated built-in VFO. Separate, calibrated, bandspread dial scales for each of the seven bands and a 6 to 1 planetary drive mechanism result in exceptional tuning accuracy and velvet smooth control.

Plexiglas dial is edgelighted — Plexiglas pointer is positioned to insure a minimum of parallax. Precise 10 kc calibration increments on each band provide uniform and accurate dial interpolation.

**TUNING** — The "Ranger's" basic tuning controls are located on the VFO dial escutcheon. QSY within the phone or CW portion of a band is usually possible by merely changing the VFO frequency setting. For larger frequency excursions, simply touch up the grid (Buffer) tuning, adjust loading, and dip the final.

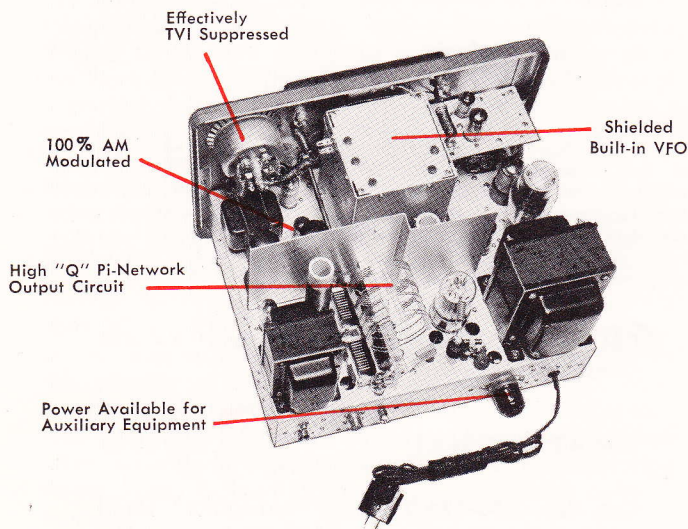
**OUTPUT CIRCUIT** — An efficient pi-network tank circuit is used in the final amplifier. Designed to handle 50 to 500 ohm resistive antenna loads it will also tune out large amounts of reactance. Plate circuit capacitor switching provides the best combination of variable and padding capacity for easy tuning and proper loading. Final amplifier tube is a 6146.

**TIMED SEQUENCE KEYING** — This highly flexible keying system applies wave shaping to the keyed amplifier stages for perfect "make" and "break" on your keyed signal. Signal clicks and chirps are eliminated, yet the "break-in" advantages of a keyed VFO are retained. The system operates so fast that a breaking station may be heard between transmitted dots! Electrically operated, this timed sequence keying system uses no relays and only one dual triode plus a rectifier tube for the grid block bias.

**AUDIO SYSTEM** — An all-triode speech amplifier permits the use of any crystal or high impedance dynamic microphone. Push-pull 1614 modulators provide 100% modulation, response is limited to 250-3000 cycles for maximum communication effectiveness.

**TVI SUPPRESSION** — Completely TVI suppressed, the "Ranger" cabinet is electrically sealed with flexible monel braid on the inside of the front panel and large cabinet overlap. A cup type shield seals the meter, and spring contact washers on the front panel shafts prevent possible radiation from shaft clearance openings. Power line and relay jack have double L type filters; all auxiliary socket, meter, dial lamp, key, and meter lamp leads equipped with L filter networks. To minimize chassis harmonics, interior harness leads and filaments are by-passed. Careful by-passing of the final and special circuit techniques minimize harmonics in the output circuit.

**POWER SUPPLIES** — Self-contained high and low voltage power supplies use choke input filtering — high voltage supply delivers 500 to 525 V DC to the final and modulators — low voltage supply delivers 300 V DC for the exciter and speech stages. A separate relay jack provides 115 V AC for antenna change-over and control relays, and is energized by the "operate" switch on the front panel.



## SPECIFICATIONS

**FREQUENCY RANGE:**  
160, 80, 40, 20, 15, 11, and 10 meters

**POWER INPUT:**  
75 Watts Continuous Wave  
65 Watts Amplitude Modulated  
Phone

**POWER REQUIREMENTS:**  
105-120 V AC, 50-60 cycles,  
single phase

**FUSE PROTECTION:**  
Transmitter fuses are located in  
the 115 V. power plug.

## TUBE COMPLEMENT

6AU6—Variable Frequency Oscillator	12AU7—Dual Triode Audio Driver
6CL6—Crystal Oscillator/VFO Isolator	OA2—Voltage Regulator
6CL6—Buffer/Doubler	6146—Final Amplifier
12AU7—Keyer Tube	6AQ5—Clamper
12AX7—Dual Triode Speech Amplifier	1614—Push-Pull Modulators (2)
	6AL5—Bias Rectifier
	6AX5GT—Low Voltage Rectifier
	5R4GY—High Voltage Rectifier

The Viking "Ranger" is available completely wired and tested or as a complete, ready to assemble kit. The 18 gauge steel cabinet is finished in attractive maroon and grey, with green nomenclature. Assembly instructions for the kit include photographs, diagrams and step-by-step wiring directions—wiring harness, all necessary hardware, and connectors furnished—no drilling or metal work necessary. Dimensions: 15½" long x 9¾" high x 14" deep. Net Weight: 43 pounds. Shipping Weight: 54 pounds.



**Cat. No. 240-161-1** Viking "Ranger" Kit with tubes, less crystals, key and microphone.

**AMATEUR NET** \$229.50

**Cat. No. 240-161-2** Viking "Ranger" wired and tested with tubes, less crystals, key and microphone **\$329.50** Amateur Net

