2000 watts P. E. P. SSB

1000 watts CW

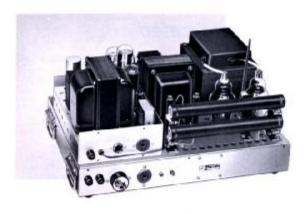
800 watts AM phone



Here is the most versatile . . . and the most advanced SSB Transmitter/Exciter/Amplifier package ever designed for the amateur service! Excitingly different — from exclusive filter-type circuitry to distinctive front panel and cabinet design — the Viking "Invader-2000" offers flexibility and performance for a lifetime of operating pleasure.

Available completely factory wired and assembled, the "Invader-2000" offers all of the fine features of the "Invader" plus the added power and flexibility of an integral linear amplifier and remote controlled power supply. Here's desk-top operating convenience unsurpassed by any other high power transmitter . . . with a solid 2000 watts P.E.P. input on SSB, 1000 watts CW, and 800 watts AM input!

The "Invader-2000" was extensively field-tested by dozens of unbiased amateurs. Ease of operation was paramount in the design of the control system. Unique, single knob wide range loading control – slide rule dial with individually calibrated bands – highly simplified tuning . . . just tune for maximum meter reading (meter indicates actual RF power output).



POWER SUPPLY — Heavy duty, multi-section power supply uses 866A High Voltage Rectifiers. Screen supply employs a 5U4GA rectifier and uses heavy bleeder and high filter capacity for excellent dynamic screen voltage regulation in Class AB₂ operation, An OC2 bias regulator provides regulated bias for the two PL-175A final amplifier tubes.

THE FEATURES AND POWER YOU WANT . . . Full bandspread coverage of 80, 40, 20, 15 and 10 meters — no extra crystals to buy — no retuning necessary! Exclusive high frequency bandpass crystal filter gives you unwanted sideband suppression of 60 db or more! Highly stable, differentially compensated VFO with exclusive "Keep-Warm" heater element maintains VFO at operating temperature even with equipment turned off, thus eliminating warm-up drift!

Yes, in exciting distinctive styling . . . in advanced circuitry, operating ease, performance, coverage, and flexibility, the "Invader" and the "Invader-2000" are the transmitters that experienced amateurs have dreamed about . . . now a practical reality . . . and yours at a modest price!

FILTER-TYPE SIDEBAND — Highly stable operation and unusually sharp response on sideband is obtained by the use of a specially developed, multi-section high frequency band-pass crystal filter. This special crystal filter provides unwanted sideband suppression of 60 db and carrier suppression of 55 db ar mare. Select either upper or lower sideband instantly, with front panel "mode" switch.

FREQUENCY CONTROL — Instant band-switching coverage 80, 40, 20, 15 and 10 meters — na extra crystals or retuning required. Large, easy-to-read slide rule dial individually calibrated for each band , . . bands over-lap slightly to further simplify tuning. Highly stable, built-in VFO is differentially compensated and voltage regulated — factory adjusted for maximum stability . . . no warm-up drift! (Stability — better than 75 cycles.)

FINAL AMPLIFIER — The "Invader-2000" amplifier employs two rugged, high efficiency, low replacement cost Type PL-175A pentode tubes in parallel. Pi-network output matches 40 to 600 phm resistive antenna loads, tunes out large amounts of reactance as well.

METERING — The meter switch is located on the front panel of the "Invader-2000" — permits instantaneous selection of any of the following: plate voltage; grid current; screen current; driver output. Plate current meter is always in circuit.

PUSH-PULL COOLING — Two fans located within the "Invader-2000" cabinet operate in a push-pull arrangement to draw cooling air through the chassis, cooling all component parts as well as filament and plate seals for extended tube life.

SPECIFICATIONS

FREQUENCY RANGE:

80, 40, 20, 15, and 10 meters 3.5 - 4.1, 7.0 - 7.6; 13.9 - 14.5, 20.9 - 21.5; 28.0 - 28.6; 28.5 - 29.1; 29.1 - 29.7 Mcs.

POWER REQUIREMENTS:

1600 watts; 105-125 V AC, 2-wire; or 210-250 V AC, 3-wire, 50-50 cycles, 1640 watrs maximum.

POWER INPUT: 2000 Watts PEP Single

Sideband 1000 Watts Continuous Wave 800 Watts Amplitude Modulated Phone

SUPPRESSION:

Unwanted Sideband: 60 do or better

Carrier Suppression: 55 db or better

Spurious Frequencies: 55 db or better

Distortion Products: Better than 30 db down

VFO STABILITY:

Better than 75 cycles

FUSE PROTECTION:

Transmitter fuses are located in the 115 V. power plug

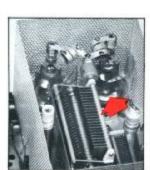
TUBE AND DIODE COMPLEMENT

12AU7	Carrier Oscillator	IN294	Balanced Modulator
6AH6	9 MC Amplifier		Diades (4)
6CX8	1st Mixer & Hetro-	IN294	Output Indicator
	dyne Oscillator		Diode
6AU6	VFO	IN294	Sideband Switching
12AT7	1st Audio & Relay		Diode
	Amplifier	5U4	Low Voltage Rectifier
12AT7	2nd Audio & VOX	5R4	High Voltage
	Amplifier		Rectifier
6U8	3rd Audio & AT	6X4	Bias Rectifier
	Amplifier	OA2	Bias Regulator
6AH6	2nd Mixer	PL-175A	RF Power Amplifier
12BY7	RF Driver		(2)
6146	RF Power Amplifier	OC2	Bics Regulator
	(2)	866A	High Voltage
6T8	ALC and Audio AGC		Rectifier (2)
6AL5	VOX and AT Rectifier	5U4	Screen Voltage
OA2	Valtage Regulator		Rectifier



FREQUENCY CONTROL

FILTER-TYPE SIDEBAND



FINAL AMPLIFIER





For information concerning Civil Defense Certification
— See inside back cover.

The "Invader-2000" is furnished completely wired and factory tested. The sturdy steel cabinet is finished in attractive two-tone warm grey with marpon nomenclature and control identification. Cabinet trim and dial escutcheon are satin-finish aluminum—knobs are an attractive margon which harmonizes with the grey cabinet finish. Dimensions of the "Invader-2000": 11%" high x 21" wide x 17½" deep. Weight: 53 pounds. Dimensions of the "Power Supply". 11%" high x 19%" wide x 14½" deep. Weight: 102 pounds. Total Shipping Weight of both units: 183 pounds.

*The F.C.C. permits a maximum one-kilowatt average power input for the amateur service. In SSB operation under normal conditions, this results in Peak Envelope Power inputs of 2,000 watts or more depending on individual voice characteristics.



METERING



PUSH-PULL COOLING

