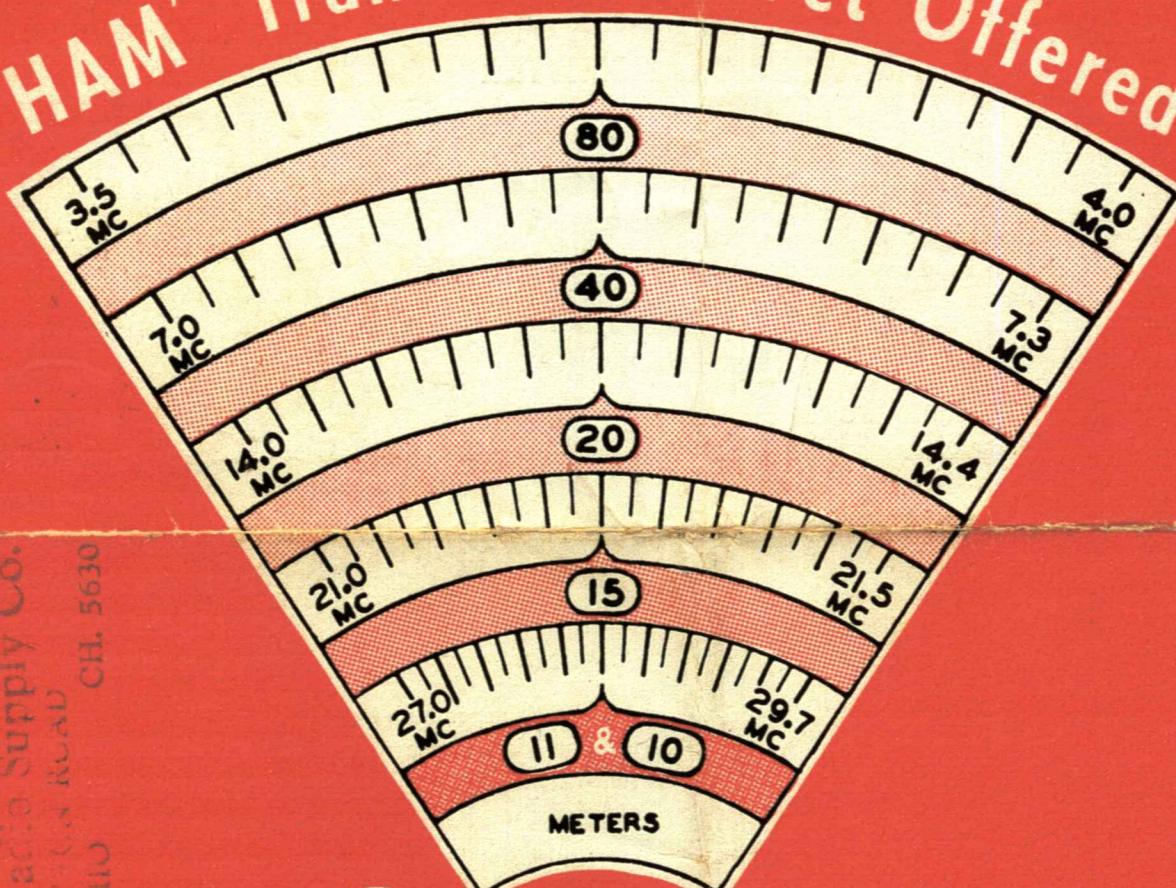


One of the Most Versatile  
 "HAM" Transmitters Yet Offered



Progressive Radio Supply Co.  
 4134 S. CLEVELAND ROAD  
 CLEVELAND 15, OHIO CH. 5630

# Supreme

Built for  
 the Present . . .  
 and the  
 Future



Price  
 \$450.00  
 Complete  
 with Tubes  
 and Coils

MODEL AF-100  
 6-BAND AMATEUR TRANSMITTER  
 100 WATTS — AM, FM, CW AND ICW

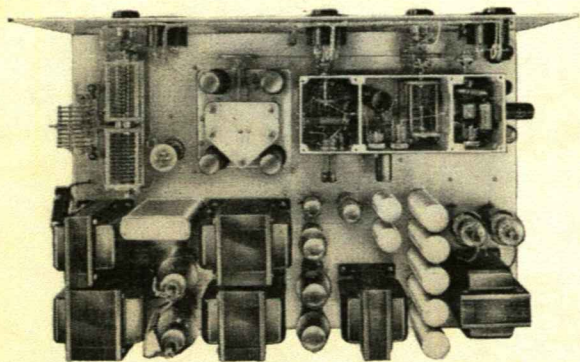
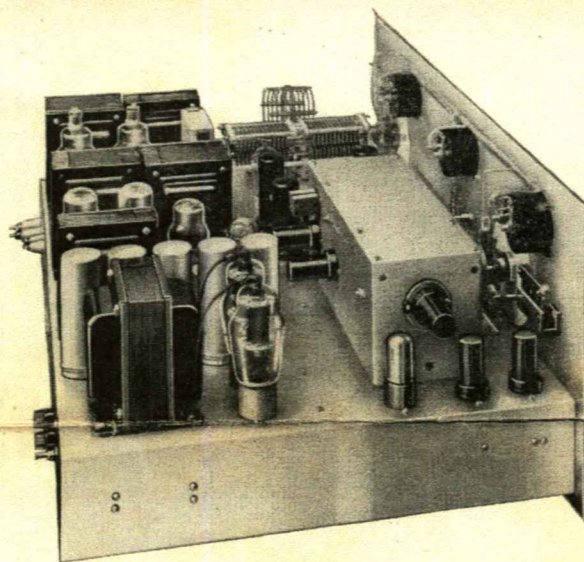
DESIGNERS & BUILDERS OF BROADCAST STATION EQUIPMENT,  
 250 WATTS to 50 KW — AM and FM

The Radio Amateur's **BEST BUY**



# SALIENT OPERATING FEATURES of SUPREME MODEL AF-100 Medium Power AMATEUR TRANSMITTER

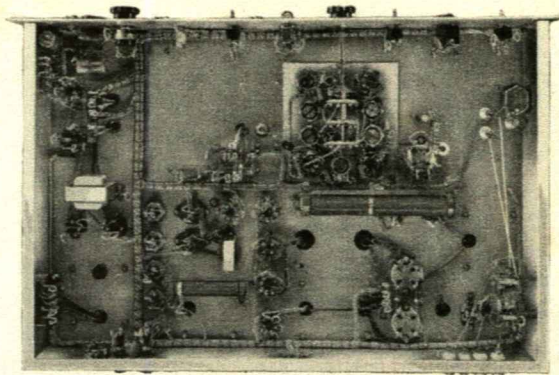
- 1—Single dial track tuning of the exciter and buffer multiplier stages.
- 2—All controls are at the fingertips of the operator. The selection of any band or frequency within a band can be accomplished instantly.
- 3—The selection of any type emission—AM phone, FM phone, CW or ICW is obtained with a flip of the switch. The modulating tone for ICW is variable from 400 to 1,000 cps by a screw driver adjustment in the rear of the chassis. In the FM position the deviation or swing can be adjusted from 0 to  $\pm 75$  kc.
- 4—Metering of the essential circuits of this transmitter and the pilot light indicators give the operator complete operating characteristics and condition of the unit at all times.



- 5—Break-in operation speeds up traffic handling and reduces operating fatigue. An antenna change-over relay with extra contacts for rendering the receiver inoperative during transmission is provided for this purpose.
- 6—A standard microphone connector and a key jack are mounted on the front panel, thus providing for convenience and ease of connecting these accessories.
- 7—An inter-lock, operating when the cabinet cover is opened, breaks the primary circuit of the high voltage power transformer, for complete protection of the operator against accidental shock when changing the P. A. band coils or in maintaining the transmitter.
- 8—The transmitter is completely AC-operated, from the wall outlet — no batteries being required for any bias circuits.

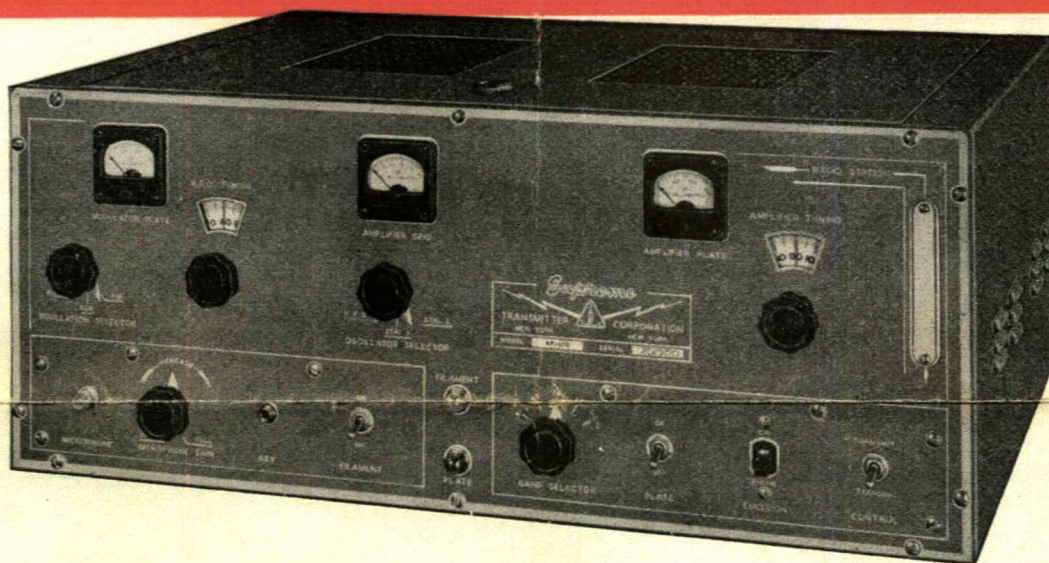
## OUTSTANDING MECHANICAL FEATURES

- 1—Beautiful gray wrinkled-finish heavy steel cabinet and simple, neat and classical-looking etched panel, with a staid professional look.
- 2—The complete transmitter is easily removed from the cabinet by the removal of ten panel screws.
- 3—The mechanical design is such that all components are readily accessible for inspection and service.
- 4—The cable wiring harness alone is the work of master craftsmen and women who have set new high standards for this art.
- 5—Unique construction of the oscillator compartment results in a highly stable oscillator, unaffected by external load conditions.
- 6—A novel tracking arrangement is used for tuning the buffer and multiplier stages, which also insures the operation of these tubes under optimum conditions.
- 7—A transparent plastic call-letter nameplate is supplied with each unit.





# COMPLETE COMPACT and INEXPENSIVE!



**SUPREME TRANSMITTER Model AF-100, 6-Band, 100 Watt (output) Desk Type Transmitter.** Embodies ALL the features most desired by the majority of the amateurs. Designed to cover the amateur bands most frequently used: 10, 11, 15, 20, 40 and 80 meters for CW, ICW, AM and FM Phone transmission. This is the very first transmitter offered to the amateur which has the new feature of Frequency Modulation in the band of frequencies assigned for this purpose, namely 27.185 to 27.455 and 29 to 29.7 megacycles. Model AF-100 is continuously tunable throughout the range of each of the amateur bands. A highly stable variable oscillator followed by slug-tuned buffer and doubler stages which are ganged to the oscillator dial simplifies the problem of working through

severe QRM and further enhances the pleasures of easily establishing and retaining QSOs. Band changing is easily accomplished in the exciter by a band selector switch and in the final by the plugging in of a coil for the particular band selected. This unit is one of the simplest to operate—and highly efficient on all bands, for all types of emission.

**Front Panel Controls:** Oscillator Dial; Final Amplifier Dial; Oscillator Selector Dial; Modulation Selector Dial; Microphone Gain Control; Band Selector Switch; Filament Power Switch; Plate Power Switch; Emission Selector Switch; Standby Control.

**Metering:** PA Plate Current; PA Grid Current; Modulator Plate Current.

TUBE COMPLEMENT		ELECTRICAL CHARACTERISTICS	
Type	Function		
1—6AC7	Reactance Tube Modulator	Frequency Range:	Amateur Bands—10, 11, 15, 20, 40, 80 meters
1—6J5	Variable Frequency Oscillator	Output Power:	100 watts on CW, ICW and Frequency Modulation 100 watts Amplitude Modulation
1—6AC7	Class "A" Amplifier or Crystal Oscillator	Method of Modulation:	AM—High Level Class AB <sub>2</sub> FM—Reactance Tube Modulation
1—6L6	80 meter Buffer or 40 meter Doubler, or 30 meter Tripler	Modulation Capabilities:	AM—100% FM—100% = ±75 kilocycles (variable from 0 to 75 kc)
1—6L6	20 meter Doubler	Input Audio Source:	High Impedance Crystal or Dynamic Microphone. Level 60 DB down
1—6L6	15 meter Doubler	Audio Frequency Response:	AM—±2DB, 200 to 6000 cps FM—±1DB, 100 to 7500 cps
1—6L6	10 meter Doubler	Noise Level:	AM—Minus 45DB below 100% modulation FM—Minus 60DB below 100% modulation (± 75 kilocycles)
1—3D23	Final Amplifier	Audio Frequency Distortion:	AM—5% at 85% modulation for 100 watt output FM—1.5% at 100% modulation
2—807	Class AB <sub>2</sub> Modulators	Frequency Control Elements:	Stabilized Variable Frequency Oscillator or two (2) crystal controlled positions
1—6J5	Modulator Driver		
1—6SJ7	Speech Amplifier		
2—866A	High Voltage Rectifiers		
1—5R4GY	Low Voltage Rectifier		
1—5R4GY	Modulator Rectifier		
1—80	Speech Rectifier		
1—6X5GT	Bias Rectifier		
1—VR 150	Voltage Regulator		
1—6SN7GT	Audio Oscillator		

**COMPACT:** 29 3/8" long, 11 3/4" wide, 18 3/8" deep. **Power Source:** 110-117 volts 50/60 cycles AC.



## *A Real Contribution to Amateur Radio*

# **SUPREME TRANSMITTER MODEL AF-100**

### **TEN CONCLUSIVE AND CONVINCING REASONS**

1. This transmitter has been designed and is produced in accordance with the **BEST COMMERCIAL PRACTICE!**
2. This transmitter has been designed for **CONTINUOUS COMMERCIAL SERVICE FOR AMATEUR USE!**
3. Each and every transmitter is subjected to a four (4) hour locked-key square-wave 100% modulated heat run to insure **ABSOLUTE DEPENDABILITY IN THE FIELD!** (You are probably acquainted with the fact that this type of gruelling or accelerated life test is a requirement of the U.S. Signal Corps for continuous duty transmitters used by them.)
4. The mechanical construction of the unit **SPEAKS FOR ITSELF!**
5. The electrical characteristics, we know, and can assure you, **SURPASS, BY FAR ANYTHING IN THE FIELD, EVEN IN HIGHER-PRICED UNITS!**
6. The stability of the Variable Frequency Oscillator is such that it is well-nigh impossible to distinguish by any ordinary means whether the transmitter is being operated with a crystal or with the VFO! And this statement holds **TRUE** for **ALL** of its six (6) bands!
7. To obtain narrow, medium or wide-band FM transmission, it is only necessary to adjust the speech level into the reactance tube modulator. This is accomplished with the same volume control that controls the level into the modulators for Amplitude Modulation! It is **IMPORTANT** to stress this point since it will permit the use of narrow-band transmission where contacts have only an amplitude modulated receiver, and the use of medium or wide-band transmission where QSO contacts have the means for the reception of wide-band FM, such as a limiter and a discriminator. It is also **IMPORTANT** to remember that with this transmitter, FM can be used in **ANY** part of the bands assigned for the purpose—or for **ANY** band that may be opened later by the FCC for amateur use! It is therefore evident that **THIS EQUIPMENT CAN NEVER BECOME OBSOLETE!**
8. The incorporation of ICW in this transmitter will permit the amateur to maintain his QSO **UNDER THE SEVEREST CONDITIONS OF QRM and QRN!** The peak power developed under ICW operation is approximately four (4) times the average carrier level! The average power developed is at least twice the carrier level because of the fact that a square-wave modulating tone is employed! This tone can be varied between the limits of 400 to 1000 cps! **THE OUTPUT ON ICW IS FULLY 200 WATTS!**
9. Operationally, the AF-100 is the **SIMPLEST** transmitter to handle! And, the NEW "ham" or "old-timer" will find it extremely easy **IN ALL RESPECTS** to install and operate! The output coupling is such that either a balanced or unbalanced transmission line having a characteristic surge impedance of 50 to 600 ohms can be used, **EFFICIENTLY!**
10. The carrier output level of Model AF-100 is **CONSERVATIVELY RATED AT 100 WATTS OUTPUT ON ALL BANDS!** The actual output power that is obtained at the input levels specified in the Instruction Book is in the range of 115 to 125 watts! All tubes are operated **UNDER CONTINUOUS COMMERCIAL SERVICE CONDITIONS!**  
**REMEMBER—CQ MEANS COMMERCIAL QUALITY IN MODEL AF-100, and at a price well within the reach of most amateurs!**



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