

# MAGNUM

12 & 10 METER HF AMATEUR TRANSCEIVER

# 1

**24.890 ~ 24.990 and 28.000 ~ 29.700 MHz Coverage**

**Continuous Coverage Receiver 24.500 ~ 29.999**

**All Mode - AM / FM / USB / LSB / CW / PA**

**50 Watts PEP Output Power**

- » Dual ERF2030 MOSFET Finals
- » Variable RF Power Out

**Temperature Compensated Crystal Oscillator (TCXO)**

- » Rock Solid Frequency Stability
- » 20 Times More Stable than XO

Digital VFO - 5Hz Resolution

Digital Echo Volume & Delay and Variable Talk Back

Programmable Roger Beep - Tone & Duration

EL Backlight Front Panel

RX Audio Tone Control (Hi-Cut)

3-Button Stock Microphone - Up/Down/ASQ

Large Digital S/R/SWR Meter

Real-Time SWR Meter - Continual Reading

Multi-Mode Clarifier - RX Only / TX Only / RX & TX

Frequency Scan - Squelch & Time Operated

Noise Blanker

Automatic Squelch (ASQ)

PA Mode with Volume Control

+10 kHz Switch

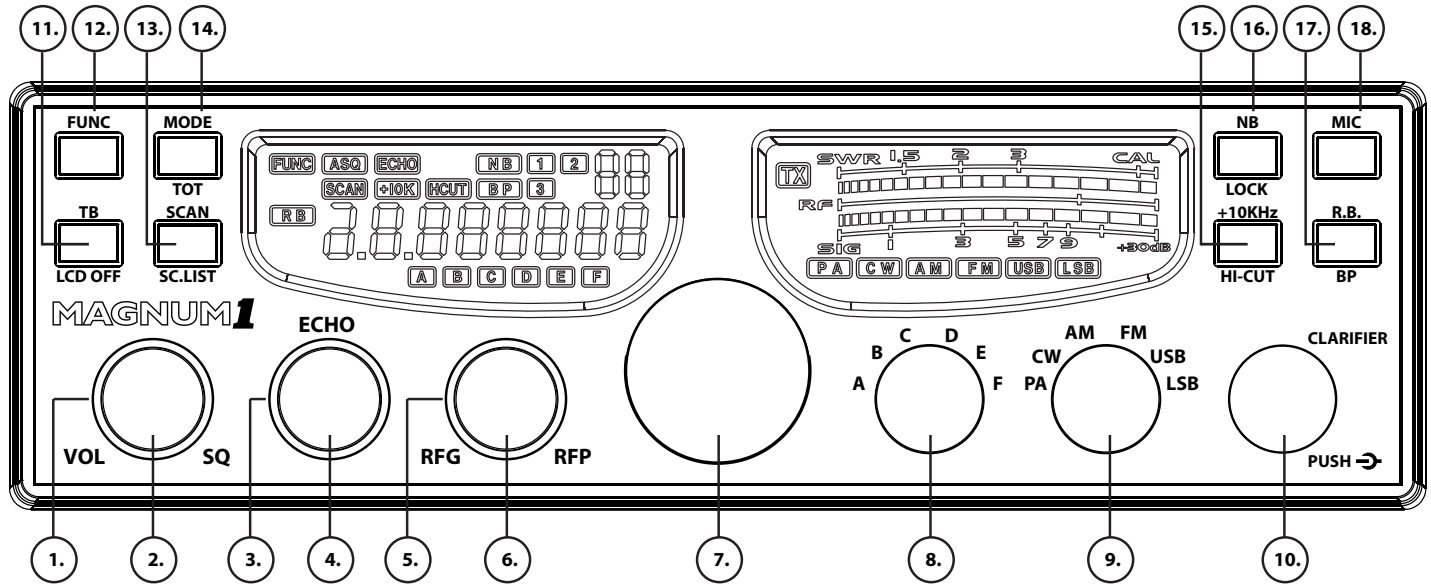


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## FRONT PANEL CONTROLS

- 1) Squelch
- 2) Volume
- 3) Echo Delay
- 4) Echo Volume
- 5) RF Power
- 6) RF Gain
- 7) Frequency
- 8) Band
- 9) Mode
- 10) Clarifier
- 11) Talk Back / LCD OFF
- 12) Function
- 13) Scan
- 14) Display Mode / Time Out TX
- 15) +10kHz / Hi-Cut
- 16) Noise Blanker / Key Lock
- 17) Roger Beep / Key Beep
- 18) Mic Gain

## GENERAL SPECIFICATIONS

Frequency Coverage	: Transmit and Receive .....	24.890~24.990 & 28.000~29.699 MHz
Antenna Impedance	: 50 ohm, unbalanced	
Frequency Control	: Digital Phase-Lock Loop (PLL) Synthesizer	
Frequency Tolerance	: 0.005%	
Frequency Stability	: 0.001%	
Temperature Range	: -30 to +50 degree C	
Power Requirement	: 12 - 13.8 V DC, negative ground	
Current Consumption	: 9 amps maximum	
Dimensions	: 7.75 x 2.25 x 10.75 in (W x H x D)	
Weight	: 4.4 lbs	

## TRANSMITTER SPECIFICATIONS

Power Output	: SSB .....	50 Watts
	: FM / CW .....	20 Watts
	: AM .....	1-10 Watts Average / 50 Watts PEP
Tuning Steps	: 5 Hz / 10 Hz / 100 Hz / 1 kHz / 10 kHz / 100 kHz / 1 MHz	
Final Transistor	: ERF2030 (x2)	
Spurious Emissions	: More than 50 dB below peak output power	
Carrier Suppression	: More than 55 dB below peak output power	
Unwanted Sideband	: More than 50 dB below peak output (1 kHz tone)	
FM Deviation	: +/- 2 kHz maximum	
Audio Response	: More than 30dB below peak output	
Frequency Response	: 300 to 3000 Hz	
Microphone Impedance	: ECM, 2.2K ohms	

## RECEIVER SPECIFICATIONS

Circuit Type	: Dual-Conversion Superheterodyne	
Intermediate Frequencies	: 1st IF / SSB IF .....	10.695 MHz
	: 2nd IF .....	455 kHz
Sensitivity	: SSB .....	0.25 $\mu$ V at 10 dB S + N/N
	: AM .....	1.0 $\mu$ V at 10 dB S + N/N
	: FM .....	0.3 $\mu$ V at 12 dB SINAD
Selectivity	: SSB .....	6.0 kHz (-6 dB) / 3.3 kHz (-60 dB)
	: AM / FM .....	6.0 kHz (-6 dB) / 9 kHz (-60 dB)
Clarifier Range	: Continuous (Digital VFO)	
Adjacent Channel Rejection	: Better than 70 dB	
IF Rejection	: Better than 80 dB for all frequencies	
Frequency Response	: 250 to 3000 Hz	
Audio Output Power	: 3 watts minimum at 10% THD with an 8 ohm load	
Audio Output Impedance	: 8 ohms	

RF Limited  
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