

# ALINCO

## DIGITAL

MOBILE/BASE VHF+UHF TRANSCEIVER

# DR-620 T/E

## The Future Has Arrived!

Alinco's engineers have crafted a VHF+UHF transceiver that is so innovative in function, form and style, you might think having so many features in one transceiver is not possible using today's technology. The DR-620 can fill many different communication needs, including analog voice, digital data at 1200 or 9600 bps and even optional digital voice!\*

You can put the versatile DR-620 to work right away as an easy-to-use, high-quality transceiver for simplex and repeater operations on the VHF and UHF bands. The internal duplexer simplifies connection with one cable to a dual-band antenna, eliminating the need for a costly external duplexer. Choose H/M/L output power for either band. The dual watch receiver can also operate in the V/U, V/V or U/U modes. With the optional EJ-50U TNC installed, you can also transmit and receive data at 1200 or 9600 bps, or engage in geolocation activities by connecting a GPS and/or a computer that runs APRS® or similar software.



The large display is easy to read. Both bands are displayed and alphanumeric labels help you easily manage the 200 memory channels. Choose among three different and programmable display illumination colors to match your operating environment. You can also invert the control head to ensure optimal speaker placement (facing up or down), or remote-mount the control head away from the transceiver with the optional separation kit.

Technical achievements include a Temperature Compensated Crystal Oscillator (TCXO) that is stable to  $\pm 2.5$  ppm, narrow FM mode, power supply voltage display, CTCSS/DCS encode-decode and tone burst selective communication features, ignition key power on/off feature, a theft alarm, scan modes and remote control capability through the EMS-57 microphone (optional on DR-620E). Direct frequency entry is also possible using the EMS-57.

The expanded receiver can keep you informed and even entertained, beyond the VHF and UHF bands, as the ability to receive broadcast FM programming is included! The DR-620T can also monitor AM aircraft communications and has additional receiver coverage on the VHF and UHF bands.

The DR-620 might seem like a radio from the future. Alinco engineering has made it possible today!

\* With optional EJ-47U. Please be sure to consult the rules that apply in your country before you actually operate in the digital mode. This unit is neither available nor intended for use where the import, sale or use of such devices is prohibited by the government. Alinco declines any and all responsibilities for any illegal use, nor is it responsible for sales of our products by dealers to any party.

APRS is a registered trademark of Bob Bruninga, WB4APR.

- VHF/UHF operation includes V/U, V/V and U/U modes  
(Not capable of full-duplex V/U,V/V,U/U operation.)  
(The sub-band audio mutes while transmitting on the Main band)
- 200 Memory channels
- H/M/L power output settings-  
VHF: 50/10/5w UHF: 35/10/5w
- Large alphanumeric display
- Selectable display color illumination
- Internal duplexer – single PL-type antenna connector
- Removable control head can be remote mounted or allow transceiver to be inverted
- Expanded receive range includes FM broadcast band (WFM)
- AM Aircraft band reception and MARS modifiable (T models only)
- Power supply voltage display
- Theft alarm feature
- Optional 1200 and 9600 bps packet operation with optional EJ-50U
- Direct GPS input for APRS® mobile tracking (requires optional EJ-50U)
- Advanced digital voice communications with optional EJ-47U (Where permitted. Not compatible with EJ-40U)
- Optional illuminated DTMF microphone EMS-57 (included with DR-620T) allows direct VFO frequency entry and remote control of transceiver
- CTCSS & DCS encode and decode plus four different tone bursts
- CTCSS Tone and DCS scan
- Programmable VFO and Memory scan including Timed, Busy and Skip mode.
- "Time Out" timer and Busy-Channel-Lock-Out
- Cable Clone feature
- Temperature Compensated Crystal Oscillator
- Ignition key activated power on/off feature

#### Standard Accessories

- Microphone (EMS57/EMS53 depending on the version)
- DC cable
- Bracket Hardware pack
- ACC port cable
- Sticker
- Instruction Manual

#### Optional Accessories

- Digital modulation unit EJ-47U
- TNC unit EJ-50U
- Control unit Separation Kit EDS-9



EJ-47U



EDS-9

#### Specifications

##### General

Frequency range	TX: T VHF 144.00 - 147.995MHz / UHF 430.00 - 449.995MHz RX: T 108.00 - 173.995MHz / 335.00 - 479.995MHz / 87.5 - 107.995MHz E 144.00 - 145.995MHz / 430.00 - 439.995MHz / 87.5 - 107.995MHz
Modulation	16K0F3E(FM)/8K50F3E(Narrow FM)/10F3(digital voice)/F1(9600bps)/F2(1200bps)/A3E(RX only/AM)
Channel Steps	5,8,33,10,12,5,15,20,25,30,50,100KHz
Memory channels	VHF 80ch / UHF 80ch / Free-programmable 40ch / 1ch VHF CALL / 1ch UHF CALL
antenna impedance	50 Ω unbalanced
Freq.stability	±2.5ppm
Power Supply Requirement	13.8V DC ±15% Negative ground
Current Drain	Approx. 11A TX high / 600mA RX max. / 400mA RX squelched
Usable temperature range	-10°C to +60°C (14F to 140F)
Dimensions	140mm(W) X 40mm(H) X 185mm(D) or 5.5 x 1.6 x 7.3 inches
Weight	Approx. 1kg or 35.3oz

##### Transmitter

Output	High VHF 50W / UHF 35W, Mid 10W, Low 5W(approx.)
Modulation System	Variable Reactance Frequency Modulation
Max.Frequency Deviation	±5KHz (FM) ±2.5KHz (NFM)
Sporious emissions	Less than -60dB

##### Receiver

Receive system	Double Conversion Superheterodyne
Intermediate Frequencies	1st 21.7MHz/450KHz 2nd 45.1MHz/455KHz
Sensitivity(-12dB SINAD)	Main band -14dBu(0.20uV) or better Sub band -12dBu(0.25uV) or better
Squelch	-18 dBu (0.1uV) or less
Selectivity	FM -6dB: 12KHz or more, -60dB: 28KHz or less NFM -6dB: 6KHz or more, -60dB: 14KHz or less
Audio Output	2W or more (8Ω 10% THD)



Specifications subject to change without notice or obligation. Performance specifications apply only to the amateur bands. Permit required for MARS use. APRS is a registered trademark of Bob Bruninga, WB4APR

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