

## FALCON III® AN/PRC-160(V)

### Wideband HF/VHF Tactical Radio System

The L3Harris Falcon III AN/PRC-160(V) is the smallest, lightest, fastest, Type 1-certified HF manpack available today. Engineered for advanced security and performance, the Wideband HF/VHF Tactical Radio System features industry-leading encryption, breakthrough data performance and interoperability with fielded Falcon II® and international HF radios, including the L3Harris AN/PRC-150(C) and RF-7800H manpack radios.



This SWaP-optimized manpack delivers continuous coverage from 1.5 to 60 MHz with a single battery while providing 20 watts HF and 10 watts VHF power. With its high-speed wideband waveform, the AN/PRC-160(V) transmits data in bandwidths from 3 kHz to 24 kHz (48 kHz capable). Data rates of up to 120 kbps are supported through technology that optimizes channel selection and adapts the selected channel to real-time conditions.

The NSA-certified RT-2060(C)/U and RT-2061(C)/U, components of the AN/PRC-160(V)1 and AN/PRC-160(V)2, will protect the confidentiality of legacy and modern voice and data up to the U.S. TOP SECRET level with L3Harris Sierra™ II software programmable encryption.

This wideband manpack supports secure interoperability with Coalition and Partnership for Peace forces through modern algorithms, including the L3Harris proprietary Citadel® and AES encryption.

The AN/PRC-160 also offers current and legacy automatic link establishment (ALE) MIL-STD and NATO Standards, including 2G, 3G and 4G ALE, providing interoperability and ease of use with high performance and reliability. The embedded SAASM or commercial GPS receiver ensures accurate Position Location Information for enhanced Situational Awareness.



### Advanced Security and Power in a Lightweight Manpack

#### KEY BENEFITS

- > World's first and only Type 1 HF manpack meeting NSA crypto-modernization requirements
- > First 4G ALE wideband HF manpack
- > Data rates up to 10 times greater than previous generation radios
- > Secure interoperability among U.S., Coalition and Partnership for Peace forces
- > Supports immediate system upgrade, while utilizing existing legacy L3Harris HF accessories and mounting solutions
- > Smallest, lightest, fastest, Type 1-certified HF manpack available today

GENERAL	
RT Nomenclature	RT-2060(C)/U part of AN/PRC-160(V)1 (SAASM GPS version) RT-2061(C)/U part of AN/PRC-160(V)2 (Commercial GPS version)
Frequency Range	1.5-59.999 MHz
Net Presets	75, fully programmable
RF Input/Output Impedance	50 ohm nominal, unbalanced
Frequency Hopping	Serial tone ECCM Falcon II interoperable
Automatic Link Establishment (ALE)	STANAG 4538, MIL-STD-461, MIL-STD-188-141D, 2G/3G/4G ALE compliant
Frequency Stability	±1×10 <sup>-6</sup>
Power Input	26 VDC (21.5-35 VDC)

TRANSMITTER	
Power Output	HF: 1, 5, 20 watts PEP, -1/+1 dB VHF: 1, 5, 10 watts FM
Audio Input	1.5 mV at 150 ohm or 0 dBm at 600 ohm for full rated output
Carrier Suppression	> 60 dB below PEP output (J3E mode)
Undesired Sideband Suppression	> 60 dB below PEP output
Antenna Tuning Capability	OE-505 10-foot (3 m) whip RF-1940-AT001/RF-1941 dipole, random wires, long wires
Vocoder	HF: LPC-10-52E (600/2400) MELP (600/1200/2400) VHF: CVSD

RECEIVER	
Sensitivity	SSB: -113 dBm (0.5 μV) for 10 dB SINAD
Audio Output	12 mW at 1000 ohm to external handset
Squelch	Front panel adjustable, active squelch selectable
IF Rejection	> 80 dB
Image Rejection	> 80 dB (1st IF image)
AGC	Mode dependent, automatically selected
Intermodulation Distortion	-80 dB or better for two -30 dBm signals separated 30 kHz or more
Overload Protection	Receiver protected to 32 VRMS

SECURITY	
Encryption Modes	Supports legacy and modern algorithms
Encrypted Data	HF: MIL-STD-188-110D App. D, App. C, and main body serial-tone waveforms, STANAG 4415, STANAG 4539 VHF: WBFsk (16 kbps)

MODES AND WAVEFORMS	
Emission Modes	J3E (single sideband, upper or lower, suppressed carrier telephony) H3E (compatible AM single sideband plus full carrier) A1A, J2A (compatible CW), selectable; F3E (FM) and HF ECCM, STANAG 4444 based
Wideband HF Data	MIL-STD-188-110D Appendix D and Wideband HF Internet Protocol Data

PHYSICAL	
Dimensions	3.3 H x 7.9 W x 9.2 D in (8.3 H x 20 W x 23.4 D cm)
Weight	9.1 lbs (4.1 kg) without batteries
Color/Finish	CARC green

ENVIRONMENTAL	
Shock and Vibration	MIL-STD-810H for ground tactical
Immersion	1 meter of water (3 ft)
Temperature	-40°F to +159°F (-40°C to +71°C)
Sand/Dust/Salt/Fog/Rain	MIL-STD-810G

INTERFACES	
Data Interfaces	USB and Ethernet with adapter, and synchronous
Networking	Narrowband and wideband HF IP, SNMP, Automatic Position Reporting (PLI)

INCLUDED ACCESSORIES	
10515-0512-4200	Operator's manual
10512-0512-4000	Operator's card
10515-6648	Instruction sheet, dismount dipole adapter
10515-0512-4100	Field reference guide
RF-3070-AT242	GPS antenna for AN/PRC-160(V)1
12006-0017-02	GPS antenna for AN/PRC-160(V)2
10372-0240-02	OE-505 manpack antenna kit
10372-1260-01	Antenna assembly adapter
10372-1270-01	Dismount dipole adapter
10075-1399	H-250/U lightweight handset (modified)
12043-4800-01	Battery box
10303-1008-01	Ground stake kit
12043-2850-A006	Cable assembly program/data (USB)
RF-6705	Tactical Chat IP

OPTIONAL ACCESSORIES	
12200-8501-01	LDD/LPI/LPD Option
RF-5910-PS005	Falcon III Battery Eliminator
10553-0100-02	KDU Remote Control Kit
12083-0707-A003	USB/Ethernet® Adapter Cable
RF-6706	Tactical Chat IP with ATAK Proxy
RF-6760W	Wireless Message Terminal (WMT)

## Falcon III® AN/PRC-160(V) Wideband HF Tactical Radio System

© 2021 L3Harris Technologies, Inc. | 07/2021 DS600K

### Non-Export Controlled Information

L3Harris Technologies is an agile global aerospace and defense technology innovator, delivering end-to-end solutions that meet customers' mission-critical needs. The company provides advanced defense and commercial technologies across air, land, sea, space and cyber domains.



1025 W. NASA Boulevard  
Melbourne, FL 32919