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AN/PRC-163 MULTICHANNEL HANDHELD RADIO APPLICATION HANDBOOK





TABLE OF CONTENTS

FALCON® IV® AN/PRC-163 MULTICHANNEL HANDHELD RADIO	3	ANTI-JAM RESILIENT RADIO OBJECTIVE WAVEFORM (ARROW®)	7
FEATURES	3	WAVEFORMS R/T MATRIX	7
CERTIFICATIONS	3	SOFTWARE APPLICATIONS	7
INCLUDED WAVEFORMS AND CAPABILITIES	4	TECHNICAL MANUALS	8
VHF/UHF/LINE-OF-SIGHT (VULOS) AND UHF DEDICATED SATCOM	4	MOCK RADIOS	8
TYPE 3 AES	4	CPA CD WAVEFORM/FEATURE EXTENSIONS	8
ADAPTIVE NETWORKING WIDEBAND WAVEFORM (ANW2®C) (SUITE A & B)	4	AN/PRC-163 SYSTEM CONFIGURATIONS	9
SINCGARS	5	MAIN OPTIONAL ACCESSORIES	9
APCO PROJECT 25 (P25) WAVEFORM	5	COMMUNICATIONS PLANNING APPLICATION (CPA) KITS	9
CROSSBANDING	5	ACCESSORIES	10
OPTIONAL WAVEFORMS AND CAPABILITIES	5	HANDHELD ANTENNAS	10
HIGH PERFORMANCE WAVEFORM (HPW)	5	SATCOM ANTENNAS	11
TSM-X™	5	CABLES	13
INTEGRATED WAVEFORM (IW)	5	AUDIO PRODUCTS	14
HAVEQUICK II FREQUENCY HOPPING	5	ADAPTERS	15
SATURN WAVEFORM	6	SOFT GOODS (CARRYING ACCESSORIES)	16
ISRG2	6	BATTERIES & POWER OPTIONS	16
L-BAND TACTICAL WAVEFORM (L-TAC®)	6	AN/PRC-163 VEHICLE INSTALLATION KIT (VIK)	
PT OVERRIDE	6	12193-0260-02 CONTROL OVER COAX (COC)	18
BLUE GREEN PLI	6	VEHICLE INSTALLATION KIT COMPONENTS	18
WRAITH™	6	VEHICLE FIXED MOUNT COMPONENTS	19
WARRIOR ROBUST ENHANCED NETWORK NARROWBAND (WREN-NB)	6	REMOTE CONTROL	19
ADAPTIVE NETWORKING WIDEBAND WAVEFORM (ANW2®D)	6	VEHICULAR ANTENNAS	20
WARRIOR ROBUST ENHANCED NETWORK (WREN) TSM™	7	EXTERNAL POWER AMPLIFIER	20
		KIV-335A MISSION MODULE	21

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FALCON® IV® AN/PRC-163 MULTICHANNEL HANDHELD RADIO



AN/PRC-163

The AN/PRC-163 Multichannel Handheld Radio is a tactical transceiver designed for use by military/agency personnel and includes the DENALI® programmable High Assurance (Type 1) cryptographic system, which provides Suite A/B, National Security Agency (NSA) certified, secure voice and data communications. The radio is a member of the L3Harris Falcon® IV® family of products, which provides highly reliable communications for the severe conditions of tactical operations.

The AN/PRC-163 provides advanced users on the move with simultaneous two channel multi-band, multi-mode operations, eliminating the need to carry multiple radios. Each channel includes a standalone transceiver, enabling a wide variety of multi-mission applications including ground-to-ground networking, ground-to-air and Tactical Satellite (TACSAT) communications. Integrated crossbanding is also made possible with this revolutionary dual-channel platform, which serves as a seamless bridge between disparate networks. The embedded COMSEC maintains critical communications across both channels, provided assured voice, data, command and control, and video on the battlefield.

The AN/PRC-163 radio platform offers significant multi-channel capabilities today while also providing a path to future upgrades:

- Software Communications Architecture (SCA) – The JTRS compliant radio operating environment, Version 2.2.2, offers software-only waveform upgrades.
- DENALI® Programmable Crypto – The ability to add encryption and security capabilities with a software-only upgrade in an NSA certified method.
- Integrated Mission Module Expansion interface offers a path to leverage emerging technologies without modifying the existing radio hardware.

FEATURES

- > Support for Dual Networks: each radio channel can be on a different waveform/net and operate Data and Voice with other radios on its same net
- > Crossbanding voice between channels (nets)
- > Data routing can also be configured between RT1, RT2, and MM up to TOP SECRET
- > WebUI simplifies radio network management via Windows
- > Support for simultaneous operation of any two of: RT1, RT2, and MM

- > Each radio channel supports up to 99 system presets (numbered 01 - 99) and each channel can be configured differently.
- > Built-In Test (BIT) on hardware during power up and operator-initiated BIT.
- > Internal Micro GPS Receiver Application Module Selective Availability Anti-Spoofing Module (Micro GRAM SAASM) unit for precise position and time tracking (option). Also available with commercial GPS.
- > Advanced Situational Awareness feature to transmit encrypted location information to an End User Device (EUD).
- > Internal 5-7 year Hold-Up-Battery (HUB) to maintain programmed information when the main battery is removed.
- > High-Grade and Low-Grade Encryption Standards. Multi-Level Security. Selections vary by waveform.
- > High Assurance Internet Protocol Encryption (HAiPE) Suite A/B.
- > Automatic scan operation of either Cipher Text (CT) or Plain Text (PT) channels on Line-Of-Sight (LOS) fixed frequency or dedicated UHF SATCOM channels.
- > Operable on all VHF Maritime Channel frequencies.
- > Incorporates a Web Server User Interface provides EUD Plug-In support capability enabling network management monitoring and radio control.
- > Support for optional L3Harris Remote Keypad Display Unit (RKDU).
- > Programmable Crypto - The ability to load different encryption algorithms into the radio in an NSA-certified method.

CERTIFICATIONS

- > NSA High Assurance (Type 1) Certification
- > JTEL SCA Certification
- > JITC Interoperability Assessment: SINCGARS, VULOS, HQ
- > JITC IW Certification
- > DD 1494
- > SAASM GPS Security Approval
- > MIL-STD-810G Tests
- > NSN Assigned
- > Safety Assessment and Confirmation
- > SECAN Endorsed

INCLUDED WAVEFORMS AND CAPABILITIES



AN/PRC-163 Multi-Channel Handheld CH 1 | CH 2

LOWER SYSTEM SWAP

- Dual channel comms in a single form factor
- C4, ISR, convergence

MULTI-MISSION PERFORMANCE

- Flexibility for NB, WB, TACSAT on either channel
- Seamless crossbanding of voice/data

ADVANCED, CAPABLE PLATFORM

- NSA Certified Type-1 for assured communications on both channels
- Flexible expansion for integrated mission module upgrade

VHF/UHF/LINE-OF-SIGHT (VULOS) AND UHF DEDICATED SATCOM

The VULOS waveform provides encrypted and plain text voice and data communications in direct line-of-sight and in SATCOM modes. The waveform operates in the VHF and UHF frequency ranges, and provides encrypted data using Vinson (16K KY-57), KG-84 modes 1-4, ANDVT (KYV-5) and TSV (TSVCIS) with 2.4 and 16K Voice and Data modes. VULOS provides multiple modulations, including FM, FSK, AM, ASK, SBPSK, and CPM communications, and is interoperable with fielded equipment operating these modes and modulations. Satellite modes of operation are offered in both narrow-band (5 kHz) and wide-band (25 kHz) channel widths, all within the UHF frequency range, using SBPSK voice and data and CPM data modes as described in MIL-STD-188-181B. These modulations are also provided in the UHF frequency range in a line-of-sight mode. FM, FSK, AM, and ASK are provided in line-of-sight mode in both the VHF and UHF frequency range.

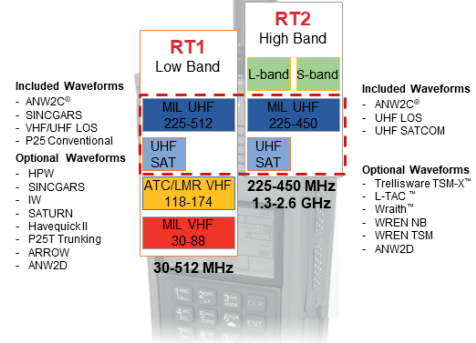
TYPE 3 AES

12193-8940-0007

Sovereign (SOV) keys can be generated by the Communications Planning Application (CPA) or Sovereign Key Generator. These keys can be loaded into the radio Universal Serial Bus (USB) drive directly through the CPA or transferred as a Key File (*.key.tek) from a flash drive or PC.

RT1: Low Band
30-88, 118-174 & 225-512 MHz,
5 W NB or WB, 10 W SATCOM
10 MHz wide channel support

RT2: High Band
225-450 MHz, 1300-2600 MHz
5 W NB or WB UHF, 10-Watt
SATCOM, 3.2 W/L/S Band
40 MHz wide channel support



Note: Part #s are listed by Factory unserialized 12193-8940-xxxx for serialized use 12193-8995-xxxx.

ADAPTIVE NETWORKING WIDEBAND WAVEFORM (ANW2°C) (SUITE A & B)

12193-8940-0008

The Adaptive Networking Wideband Waveform (ANW2°C) is an ad-hoc (self-forming and self-healing) waveform. ANW2°C is IP-based, enabling networked data applications along with robust combat net radio voice and situational awareness. The network will also self-heal, tolerating loss of any network node. Any radio in network can relay data between other stations not within range of each other. ANW2°C operates in the 225 MHz to 450 MHz UHF band and the 1300 MHz to 2600 MHz over 1.2 MHz or 5 MHz channel bandwidths. Encryption is supported with a High Assurance (Type 1) Suite A/B HAIPE, and an AES or Medley voice TEK. Tactical Extensions (TAC-X) feature provides INE flattening, allowing radios in an ANW2°C network to be on the same subnet. This allows planning for fewer IP addresses, simplified IP routing, and simplified mission planning as all radios share the same red subnet. DHCP and Static IP addressing options for simplified mission planning.

Note: Optional waveform ANW2°D (12193-8940-0028) is available, see Optional Waveforms section.

SINGGARS

12193-8940-0010

The SINGGARS waveform is a legacy US High Assurance (Type 1) TRANSEC ECCM waveform which provides anti-jam frequency hopping using a Time-Of-Day (TOD) based synchronization algorithm. SINGGARS was designed to operate in the VHF LOS range over frequencies of 30 MHz to 87.975 MHz. SINGGARS operates in VINSON COMSEC mode using a Traffic Encryption Key (TEK) and a Loadset, which can be filled to the radio using the AN/PYQ-10 Simple Key Loader (SKL), or TKL (KIK-11™) via DS-101 and ADDI.

APCO PROJECT 25 (P25) WAVEFORM

12193-8940-0013 (Conventional)

The P25 Waveform was developed as a standard for allowing effective and reliable mobile communications between local and federal agencies and across manufacturers. The waveform option enables civilian interoperability with a wide variety of local and federal agencies' land mobile radios. Non-Type-1 encryption is supported for Digital Encryption Standard Output Feedback (DES-OFB) and Advanced Encryption Standard 256-bit (AES-256) modes. The Type-3 encryption keys are loaded via a Motorola Key Variable Loader (KVL) 3000+ or KVL 4000 device using TIA/P25 Key Fill Device protocols. Note: Option file 12193-8940-0024 can be added for trunking.

CROSSBANDING

The AN/PRC-163 offers built-in crossbanding between channels, which enables the radio to act as a bridge for voice between different waveforms and networks. Voice Crossbanding can be programmed or enabled by hand, or by using the CPA. Integrated IP data routing allows users to share real-time networking and situational awareness applications across channels and can be configured via the CPA. Embedded Access Control List (ACL) functionality allows users to manage the distribution of services.

OPTIONAL WAVEFORMS AND CAPABILITIES

HIGH PERFORMANCE WAVEFORM (HPW)

12193-8940-0001

HPW is a Satellite Communications (SATCOM) and Line-of-Sight (LOS) waveform designed to provide fast, reliable data messaging and file transfer between two or more End User Devices (EUD's) via a radio network. A built-in Automatic Repeat Request (ARQ) data modem reduces Communication Security (COMSEC) overhead by providing black side ARQ processing with automatic speed adjustment and error free data. HPW only supports data communications and is used in conjunction with L3Harris Wireless Message Terminal (WMT) software or other applications using Internet Protocol (IP) through the radio's Ethernet (ETH) port interface.

Note: HPW and IW bundle 12193-8940-0101

TSM-X™

12193-8940-0002

The TSM-X™ waveform is built upon scalable Mobile Ad-hoc Networks (MANETs). Large scale MANET networks are dynamic and self-healing, can contain 200+ nodes and facilitate simultaneous encrypted voice, IP data, and GPS based Position Location Information (PLI). The waveform operates in the UHF, L and S-band frequency ranges across 1.2, 4, 10, 20, and 40 MHz wide bandwidth channels and provides High Assurance (Type 1) Suite B encryption of user data using the Advanced Encryption Standard (AES) in addition to type-3 AES encryption of network traffic. Two modes of voice are supported, Adaptive Multi-Rate (AMR) and Mixed-Excitation linear Prediction (MELP).

INTEGRATED WAVEFORM (IW)

12193-8940-0003

IW is a UHF satellite waveform that provides several important improvements over Demand Assigned Multiple Access (DAMA) for tactical operations on both 25 kHz and 5 kHz satellite channels. Use of Time Division Multiple Access (TDMA) protocols allow several stations to share the same satellite channel, increases the number of user nets that can simultaneously access a satellite. The AN/PRC-163 includes support for both IW Phase 1 and Phase 2. Demand Assigned capability with Phase 2 allows users to call a peer or confer with multiple terminals as the Controller assigns an ad-hoc service.

Note: HPW and IW bundle 12193-8940-0101

HAVEQUICK II FREQUENCY HOPPING

12193-8940-0011

The HaveQuick II waveform provides anti-jam frequency hopping using a Single/ Multiple Word-of-Day (SWOD/MWOD) synchronization algorithm.

HaveQuick II provides the following features:

- Frequency hopping and single-channel operation
- Frequency hopping synchronization among radios using SWOD/MWOD
- Operation within the 225-400 MHz band using Amplitude Modulation (AM)
- 16 kbps synchronous data and digital voice communications

SATURN WAVEFORM

12193-8940-0034 (EDITION 4-NATO HOPSET)

Second generation Anti-jam Tactical UHF Radio for NATO (SATURN) edition 4 is a 25 kHz bandwidth fast frequency hopping waveform. SATURN employs advanced Electronic Counter-Countermeasures (ECCM) which allows it to operate effectively in jammed environments. SATURN has no dependency on GPS Time. SATURN also allows the user to break in and replace an established call at the receiver whether he is tacking that call. SATURN establishes a user data rate of 16kbps in order to operate CVSD encoded voice or 16 Kbps synchronous data. Interleaving within the waveform is utilized to spread bit errors out in case of a jammed hop. SATURN utilizes the same time format, Word of Day (WOD), and net number configuration parameters as HAVEQUICK I/II. The actual over the air format is different and is frequency shift key modulation based.

ISRG2

12193-8940-0015

The ISRG2 Option File is required to be installed on the AN/PRC-163 (host radio) to enable KIV-335A (ISR MM) operation. The option file allows the host radio to power and control the ISR MM as well as relegate the passing of data between the ISR MM and host radio.

L-BAND TACTICAL WAVEFORM (L-TAC®)

12193-8940-0016

L-Band enable communications via the Inmarsat I-4 constellation, providing an alternative to UHF TACSAT for Beyond Line of Sight communications on the move.

PT OVERRIDE

12193-8940-0017

This option file allows the KIV-335A (ISR MM) to pass unencrypted video/data to the AN/PRC-163 (host radio) when in Cipher Text Mode. Only available for approved end-users.

BLUE GREEN PLI

12193-8940-0018

This option is for allowing black side PLI to be pulled over to the red side on the same EUD when using TSM™ waveforms while connected to the red interface. Only available to approved end-users.

WRAITH™

12193-8940-0020

Wrath™ provides an HDR ad hoc networking waveform technology that provides Type 3 secured, self-forming, self-healing networks that support multiple talk groups and Layer 2 ethernet data capabilities. HDR mode supports larger network size, increased number of talk groups, more accessors, faster Position Location Information (PLI) rates, and higher user data throughput with integrated Anti-Jam capabilities. It can support up to 140 nodes in a single network, with voice, high data rates, and situational awareness capabilities at the tactical edge.

WARRIOR ROBUST ENHANCED NETWORK NARROWBAND (WREN-NB)

12193-8940-0022

WREN-NB (TrellisWare Technologies Inc.) provides narrowband voice, data and Position Location Information (PLI) communications which enables spectrum efficiency for tactical communications and addresses challenges faced by current communications solutions.

P25T (TRUNKING, LOW BAND)

12193-8940-0024

Note: requires 12193-8940-0013 installed.

The P25 Waveform was developed as a standard for allowing effective and reliable mobile communications between local and federal agencies and across manufacturers. The waveform option enables civilian interoperability with a wide variety of local and federal agencies' land mobile radios. Non-Type-1 encryption is supported for Digital Encryption Standard Output Feedback (DES-OFB) and Advanced Encryption Standard 256-bit (AES-256) modes. The Type-3 encryption keys are loaded via a Motorola Key Variable Loader (KVL) 3000+ or KVL 4000 device using TIA/P25 Key Fill Device protocols.

ADAPTIVE NETWORKING WIDEBAND WAVEFORM (ANW2°D)

12193-8940-0028

Note: requires 12193-8940-008 be installed.

ANW2°D is a wireless mobile ad hoc networking (MANET) waveform that provides high-throughput Internet Protocol (IP) data and simultaneous combat net radio (CNR) voice for mobile, tactical-edge operations. ANW2°D is a field-proven technology providing unprecedented situational awareness to warfighters on the move. Designed for networking performance from the ground up, ANW2°D offers network connectivity even in the most challenging combat scenarios by employing robust and adaptive physical layer modem technology coupled with proven ad hoc networking protocols. Self-forming and self-managing, ANW2°D provides a seamless flow of information across the battlefield. It extends the reach of high-quality voice and data over and around geographical obstructions via multi-hop relay.

WARRIOR ROBUST ENHANCED NETWORK (WREN) TSM™

12193-8940-0029

WREN-TSM™ is a wideband waveform for voice, data and Position Location Information (PLI) communications and is a central piece in networked digital battlefields. WREN-TSM™ provides implementation of the commercially available TSM™ waveform, which enables interoperability between independently developed tactical radios.

ANTI-JAM RESILIENT RADIO OBJECTIVE WAVEFORM (ARROW®)

12193-8940-0030

ARROW® is an adaptive narrowband anti-jam waveform that supports fast frequency hopping combined with active interference avoidance. The Frequency hopping mode provides the greatest level of protection against Electronic Warfare. ARROW® also automatically adapts to the hop rate of the incoming transmission at reception without any user interaction with the system. ARROW® provides voice and Position Location Information (PLI) as well as serial data.

WAVEFORMS R/T MATRIX

WAVEFORMS	STD WF	OPT WF	RT1 WF SUPT	RT2 WF SUPT	MM
VULOS/SATCOM	•		•	•	
TYPE-3 AES					
12193-8940-0007	•		•	•	
ANW2°C Suite A/B					
12193-8940-0008	•		•	•	
SINGGARS					
12193-8940-0010	•		•		
P25 Conventional					
12193-8940-0013	•		•		
HPW					
12193-8940-0001		•	•		
TSM-X™					
12193-8940-0002		•		•	
IW					
12193-8940-0003		•	•		
HAVEQUICK II					
12193-8940-0011		•	•		
ISRG2					
12193-8940-0015					•
LBAND					
12193-8940-0016		•		•	
PT OVERRIDE					
12193-8940-0017		•			•
BLUE GREEN PLI					
12193-8940-0018		•		•	
WRAITH™					
12193-8940-0020		•		•	
WREN NB					
12193-8940-0022		•		•	
P25T Trunking					
12193-8940-0024		•	•		

WAVEFORMS	STD WF	OPT WF	RT1 WF SUPT	RT2 WF SUPT	MM
ANW2°D					
12193-8940-0028		•	•	•	
WREN TSM™					
12193-8940-0029		•		•	
ARROW®					
12193-8940-0030		•	•		
SATURN (ED4)					
12193-8940-0034		•	•		
HPW/IW BUNDLE					
12193-8940-0101		•	•		

SOFTWARE APPLICATIONS

PRODUCT NUMBER	PRODUCT NAME
RF-ANDKDU-SW001	SOFT KDU FOR ANDROID
RF-WINKDU-CD001	SOFT KDU FOR WINDOWS
11063-2200-0x	TACTICAL CHAT IP SOFTWARE FOR ANDROID
RF-6705-SW001	TACTICAL CHAT IP SOFTWARE FOR WINDOWS

TECHNICAL MANUALS

PRODUCT NUMBER	PRODUCT NAME
10515-0534-4010	MARITIME OPERATIONS FOR AN/PRC-163 OPERATOR CARD
10515-0534-4015	AN/PRC-163 MCHH HAVEQUICK OPERATION SUPPLEMENT
10515-0589-4020	KIV-335A MISSION MODULE SUPPLEMNET
10515-0534-4025	AN/PRC-163 WREN OPERATION SUPPLEMENT
10515-0534-4035	AN/PRC-163 MCHH HPW OPERATOR SUPPLEMENT
10515-0534-4045	AN/PRC-163 MCHH IW OPERATOR SUPPLEMENT
10515-0534-4055	AN/PRC-163 MCHH P25T OPERATOR SUPPLEMENT
10515-0534-4070	AN/PRC-163 TSM-X™ OPERATION SUPPLEMENT
10515-0534-4080	AN/PRC-163 SATURN OPERATION SUPPLEMENT
10515-0534-4095	AN/PRC-163 MCHH WRAITH™ OPERATOR SUPPLEMENT
10515-0534-4100	AN/PRC-163 MCHH RADIO FIELD REFERENCE GUIDE
10515-0534-4200	AN/PRC-163 MCHH RADIO OPERATION MANUAL
10515-0534-4300	AN/PRC-163 MCHH MAINTENANCE MANUAL
10515-0534-4500	AN/PRC-163 MCHH OPERATIONS STUDENT GUIDE
10515-0534-4600	AN/PRC-163 MCHH MAINTENANCE STUDENT GUIDE
10515-0534-6000	E-PUB, AN/PRC-163 (SOCOM)
10515-0534-6001	E-PUB, AN/PRC-163 (COMMERCIAL/ INTERNATIONAL)
10515-0534-7200	AN/PRC-163 MCHH COMPUTER BASED TRAINING (CBT) (SOCOM)
10515-0534-7210	AN/PRC-163 MCHH COMPUTER BASED TRAINING (CBT) (INTERNATIONAL)
10515-0534-7220	AN/PRC-163 MCHH COMPUTER BASED TRAINING (CBT) (DOD)
10515-0534-7230	AN/PRC-163 MCHH TSM-X™ (CBT)
10515-0534-7260	AN/PRC-163 MCHH WRAITH™ (CBT)
10515-0438-4100	RF-ANDKDU-SW001 SOFT KDU USER'S GUIDE
10515-0541-4200	AN/PRC-163 MCHH FIXED MOUNT SYSTEM (FMS) SYSTEM MANUAL

APPLICATION GUIDES

PRODUCT NUMBER	PRODUCT NUMBER
D12073-0254	GUIDE TO ATAK NXGEN PLUGIN & EUD NETWORK CONFIGURATION WITH WEBMMI
D12073-0257	GUIDE TO UPDATE TRELISWARE CERTIFICATES
D12073-0207	APPLICATION NOTE, HH LI-ION BATTERIES MAINTENANCE

MOCK RADIOS

PRODUCT NUMBER	PRODUCT NUMBER
12193-0001-01	3D MOCK AN/PRC-163 (EAR99/PILOT)
12193-0100-99	PLASTIC MOCK AN/PRC-163 (600/PILOT)
12193-1000-99	MOCK NON-CCI AN/PRC-163(ITAR/ PRODUCTION)

CPA CD WAVEFORM/FEATURE EXTENSIONS

PRODUCT NUMBER	PRODUCT NUMBER
10518-2081-0x	CD ASSY, P25
10518-2082-0x	CD ASSY, HPW
10518-2083-0x	CD ASSY, IW
10518-2087-0x	CD ASSY, HAVEQUICK
10518-2088-0x	CD ASSY, ANW2°C
10518-2339-0x	CD ASSY, WRAITH™
10518-2386-0x	CD ASSY, WREN
10518-2476-0x	CD ASSY, TSM™
10518-2483-0x	CD ASSY, SATURN
10518-2489-0x	CD ASSY, ISR

*CPA waveforms/feature extensions must be order separately

AN/PRC-163 SYSTEM CONFIGURATIONS



RF-335M-HH001

AN/PRC-163(V)1(C) 20M RADIO SYSTEM, MIL GPS

	PRODUCT NUMBER	PRODUCT NAME	QTY
(A)	12193-1000-03	RT-2062(C)/U 20 M TRANSCEIVER (MIL GPS)	1
(B)	12102-2700-01	HANDHELD 30-870 BLADE ANTENNA	1
(C)	12193-2740-01	HANBDHELD 225-450 AND 1300-2600 MHz DUAL BAND ANT.	1
(D)	12500-2500-02	7.0A-HR LI-ION RECHARGEABLE BATTERY PACK (GREEN)	1

RF-335M-HH002

AN/PRC-163(V)2(C) 20M RADIO SYSTEM, COMM GPS

	PRODUCT NUMBER	PRODUCT NAME	QTY
(E)	12193-1000-04	RT-2062A(C)/U 20 M TRAQNSCEIVER (COMM GPS)	1
(B)	12102-2700-01	HANDHELD 30-870 BLADE ANTENNA	1
(C)	12193-2740-01	HANDHELD 225-450 AND 1300-2600 MHz DUAL BAND ANT.	1
(D)	12500-2500-02	7.0A-HR LITH ION RECHARGEABLE BATTERY PACK (GREEN)	1



COMMUNICATIONS PLANNING APPLICATION (CPA) KITS

	PRODUCT NUMBER	PRODUCT NAME
	12193-1040-03	MCHH MISSION FILL KIT
(F)	- 12193-0340-A001	CABLE ASSY, AUDIO/KEY FILL
(G)	- 12193-0460-A006	CABLE ASSY, USB, PDF-184
(K)	- AN/PRC-163-CD002	CPA FOR AN/PRC-163

MAIN OPTIONAL ACCESSORIES

	PRODUCT NUMBER	PRODUCT NAME	QTY
(F)	12193-0340-A001	CABLE ASSY, AUDIO/KEY FILL	1
(G)	12193-0460-A006	CABLE ASSY, USB, PDF-184	1
(H)	12241-1000-01	SIDE ADAPTER ASSEMBLY, DISMOUNTED GENERAL	1
(I)	12011-2730-01	HANDHELD 30-512 MHz 45 INCH VHF/UHF BLADE ANTENNA	1
(J)	12193-0600-A1	CABLE ASSY, 19-PIN TO DUAL AUDIO AND EUD/RKDU	1

ACCESSORIES

HANDHELD ANTENNAS

PRODUCT NUMBER	PRODUCT NAME
12102-2700-01	HANDHELD 30-870 BLADE ANTENNA
12193-2740-01	HANDHELD 225-450 AND 1300-2600 MHz DUAL BAND ANTENNA
12011-2730-01	HANDHELD 30-512 MHz 45 INCH VHF/UHF BLADE ANTENNA
12193-2750-02	ANT, GPS L1/L2, HELICAL (CERAMIC CORE) HH, SMA
E75-1500-500	HANDHELD COMMERCIAL L1 GPS ANTENNA
12193-2710-01	DISMOUNT TETHER ANTENNA MOUNT
12006-3900-01	ANTENNA, 30-512 MHz COAX
RF-3171-AT001	ANT, UHF/LBAND WEARABLE ASSY, TNC



12102-2700-01

The 12102-2700-01 is a dismount, ruggedized multiband 30 to 870 MHz and APCO P25 Band 3 frequency coverage end-fed antenna. The antenna is designed to connect directly to the RF connector on the transceiver. The antenna assembly is ~13.5 inches long (unfolded) and .75 inches wide (max); incorporates a bidirectional folding blade and hook-and-loop strap, enabling the antenna to be folded in half and secured in place. Meets 20 Meter (~66-foot) immersion requirements. Max power is 10W. Primary Use: RT 1



12193-2740-01

The 12193-2740-01 is a dismount, ruggedized dual band (UHF-L/S) 225 – 450 MHz and 1,300 – 2,600 MHz antenna. The antenna assembly incorporates a ~ 1.1 inches base which connects a ~ 5 inch, ~ 0.85 diameter Radome via a 4.05-inch 0.325 diameter Gooseneck. Meets 20 Meter (~66-foot) immersion requirements. Max power is 8W Primary Use: RT 2



12011-2730-01

The 12011-2730-01 is a dismount, 30 to 512 MHz antenna that combines the VHF performance of the VHF Blade Antenna with the UHF performance of the Multiband Mini-Blade. It is designed to operate across the band while folded for UHF performance; when additional VHF performance is required, it can be extended to its full length. The 12011-2730-01 incorporates a flexible gooseneck for orienting the antenna. The antenna assembly is ~45 inches long (unfolded) and .85 inches wide (max) and includes a Velcro strap that can be used to stow the bi-directionally folding blade. This antenna offers the performance of the two-antenna set in a single antenna for ease of use across the available band. Max power is 10W. Primary Use: RT 1



12193-2750-02

The 12193-2750-02 dismount Active SAASM GPS antenna for use with the AN/PRC-163(V)1(C) Handheld Radio. The antenna is comprised of L1/L2 GPS receiving antenna element, saw filters, matching circuits, Radome, and a SMA (male) connector. The antenna assembly is 2.1 inches long and .75 inches wide; Meets 20 Meter (~66-foot) immersion requirements.



E75-1500-500

The E75-1500-500 dismount rugged Active GPS antenna for use with the AN/PRC-163(V)2(C) Handheld Radio. The antenna is comprised of L1 GPS dielectric loaded receiving antenna element, and a SMA (male) connector. The antenna assembly is ~1.25 inches long and .75 inches wide (max). Meets 20 Meter (~66-foot) immersion requirements.



12193-2710-01

The 12193-2710-01 Dismount Body-Worn Remote Antenna Mount “Tether”. This extends a radio’s TNC jack to provide physical separation between antennas that are ‘co-located’. The Tether features an extendable counterpoise for use with longer antennas. The assembly is covered with fabric and employs the MOLLE (Modular Lightweight Load-carrying Equipment) system for attachment to the user’s vest or pack. A strap is incorporated into the Tether to pull it upward to help support larger antenna loads. See 10515-6959 Operator Card for more information.
 Primary Use: Both RT 1 and RT 2



12006-3900-01

The 12006-3900-01 coaxial Monopole (VHF/UHF) dismount antenna is designed to be used with a portable handheld radio in the bands 30-512 MHz. The element for this antenna is a flexible wire meant to weave through the molle loops of a user’s bodywear for low profile fit. The Antenna is comprised of a TNC connector 3-inch-long by .75-inch-wide base, matching circuit, and coaxial wire. Antennas total length is 38 inches and is IP68 2-meter submersible.
 Primary Use: RT1



RF-3171-AT001

The RF-3171-AT001 conformal dual band antenna is suitable for frequencies from 225-450 and 1,200-2,600 MHz. A 36” cable with two right angle TNC plugs links the antenna to the R/T2 jack of the PRC-163 radio. See 10515-7011 Operator Card for more information.
 Primary Use: RT 2

SATCOM ANTENNAS

PRODUCT NUMBER	PRODUCT NAME
RF-3081-AT001	ANTENNA, MUOS, ATP SATCOM
RF-3082-AT001	ANTENNA, FOLDABLE, UHF SATCOM & MUOS ATP
12006-9005-01	ANTENNA, HIGH GAIN, FOLDABLE, SATCOM
12006-9007-01	ANTENNA, FOLDABLE MAG MOUNT X-WING, BLACK
12006-9008-01	ANT, HH SATCOM WITHOUT MAG MOUNT
12006-9001-01	ANTENNA, BOLD MOUNT, X-WING, SOTM
12006-9002-0X	ANTENNA, BLACK X-WING SOTM

X = 01/02 for Tan, = 03 for Black, = 04 for Green



RF-3081-AT001

The RF-3081-AT001 SATCOM antenna is a 240 to 400 MHz rapid-deploy, high-gain, light weight crossed Yagi antenna for MUOS SATCOM communications. The antenna gain varies between +7 dBic and +11 dBic and the polarization is right hand circular. The 3 dB radiation pattern beam width is 85 degrees. Deployment time is less than one minute. This antenna is designed for use with/for Legacy SATCOM and MUOS capable radios.



RF-3082-AT001

The RF-3082-AT001 next-generation crossed Yagi satellite antenna provides both full duplex MUOS and legacy UHF SATCOM. Designed for both rapid deployment and high-gain radiation patterns, the antenna covers the 240 to 380 MHz frequency range. It folds up and easily fits into a lightweight, small-volume carry bag.



12006-9005-01

The 12006-9005-01 antenna is a 240 to 320 MHz, high gain, crossed Yagi SATCOM antenna for applications that require high gain in a small tactical package. The antenna provides +6.5 to 10.5 dBic gain with right hand circular polarization and is rated to 50 watts of continuous input power. The 12006-9005-01 weighs less than 3 pounds (~1.4 kilograms) and can be broken down for transport into a 5-inch (~12.7 centimeter) diameter by 9-inch (22.9 centimeter) long carry case (included). Color: Black.



12006-9007-01

The 12006-9007-01 is a foldable X-wing antenna with 50 watts maximum power and a magnetic mount designed for SATCOM-on-the-move (SOTM). When removed from the vehicle, the antenna conveniently folds for easy storage. This 225 to 400 MHz, MUOS waveform compatible, antenna offers both high-angle circular polarization for SATCOM and low-angle linear polarization for line-of sight (LOS) mode. It has two connectors, type N female for high-angle and TNC female for low-angle. Color: Black.



E75-0321-101

The E75-0321-101 L-TAC® (L-Band) Dismount Antenna enable communications via the Inmarsat I-4 constellation, providing an alternative to UHF TACSAT for Beyond Line of Sight communications on the move.
Primary Use: RT2



12006-9008-01

The 12006-9008-01 is a 240 to 320 MHz antenna that provides UHF SATCOM performance in a compact antenna. Its crossed Yagi design in a fully assembled package allows rapid deployment and storage, plus directional high gain performance. The antenna is lighter and smaller than other portable SATCOM antennas and the unique foldable design allows the antenna to be handheld, used with the integral tripod, or attached to a post. Color: Black.



E75-0321-002

The E75-0321-002 L-TAC® (L-Band) Vehicular Antenna enable communications via the Inmarsat I-4 constellation, providing an alternative to UHF TACSAT for Beyond Line of Sight communications on the move.
Primary Use: RT2



12006-9002-03

The 12006-9002-03 SATCOM X-Wing Antenna is a 225 to 400 MHz, MUOS waveform compatible, dual-mode antenna with a magnetic mount designed for SATCOM-on-the-move. It offers 50 watts maximum power and both high-angle circular polarization for SATCOM and low-angle linear polarization for line-of-sight (LOS) mode. Two connectors are located on the side of the antenna, type N female for high-angle and TNC (F) for low-angle. Color: Tan 12006-9002-01/02, Black 12006-9002-03, Green 12006-9002-04.

CABLES

PRODUCT NUMBER	PRODUCT NAME
12193-0330-A006	CABLE ASSY, CLONING/RETRANS
12193-0340-A001	CABLE ASSY, AUDIO/KEY FILL
12193-0460-A006	CABLE ASSY, USB, PDA-184
12193-0600-A1	CABLE ASSY, 19-PIN TO DUAL AUDIO AND EUD/RKDU
12193-0420-A006	CABLE ASSY, 12-PIN TO KDU
12193-0380-A003	CABLE ASSY, 12-PIN TO EUD
12193-3810-A1	CABLE ASSY, 19-PIN TO 6-PIN ADF
12193-0601-A1	CABLE ASSY, 19-PIN TO DUAL AUDIO
11400-1033-A005	CABLE ASSY, ODU12P TO DAGR
12193-0350-A003	CABLE ASSY, USB, HIGH SPEED DATA RADIO



12193-0600-A1

The 12193-0600-A1 Dual Audio and EUD/RKDU (19-PIN NEMESIS Plug, R/T ADF) to Data Interface Cable (12-PIN ODU RCPT) and to two each R/T1 & R/T2 (6-PIN RCPT, Legacy ADF) connectors cable assembly. Primarily used for data interface to an EUD, RKDU or PC and Legacy audio handset/headset not requiring radio power. Also supports Key Fill on R/T1.



12193-0330-A006

The 12193-0330-A006 Cloning and Retrans Cable (19-PIN NEMESIS Plug, R/T ADF) to (19-PIN NEMESIS Plug, R/T ADF) connectors cable assembly. Primary used for Retrans for the SINCGARS Waveform.



12193-0420-A006

The 12193-0420-A006 KDU Interface (12-PIN ODU PLUG) to (7-PIN Fisher) connector cable assembly. Used to connect the Remote Keypad Display Unit to R/T (Red ports only).



12193-0340-A001

The 12193-0340-A001 Audio/Key Fill (19-PIN NEMESIS Plug, R/T ADF) to Key Fill (6-PIN RCPT, Legacy ADF) and R/T Programming and (12-PIN ODU RCPT) connector Data Interface cable assembly. Primarily used for programming Keys and CPA Mission plans, also can support audio from R/T1.



12193-0380-A003

The 12193-0380-A003 Net Warrior Interface (12-PIN ODU PLUG) to (5-PIN Glenair Plug RCPT) connector cable assembly. Used to interface into the Net Warrior network architecture.



12193-0460-A006

The 12193-0460-A006 Data Interface (12-PIN ODU PLUG) to (USB A-Blade) connector cable assembly. Primarily used for programming R/T from CPA on PC and data interface to USB 2 devices..



12193-3810-A1

The 12193-3810-A1 Audio/Key Fill (19-PIN TO 6 PIN ADF). Primarily used loading keys and can also support audio from R/T1.



12193-0601-A1

The 12193-0601-A1 Dual Audio with power (19-PIN NEMESIS Plug, R/T ADF) to R/T1 & R/T2 (6-PIN RCPT, Legacy ADF) connectors cable assembly. 5 VDC connected to pin F for audio devices that need power from R/T.



10075-1399

The 10075-1399 modified H-250/U handset (used with 12193-0600-A1 or 12193-0601-A1 Cable Assembly).



11400-1033-A005

The 11400-1033-A005 DAGR Interface (12-PIN ODU PLUG) to (15-PIN HDD SUB RCPT) connector cable assembly.



A30-1984-001

The A30-1984-001 INVISIO MCHH to V60 PTT with 12-PIN ODU Data Breakout Interface Cable.

AUDIO PRODUCTS

PRODUCT NUMBER	PRODUCT NAME
12041-3160-02	DUAL CHANNEL SPEAKER/MICROPHONE (LAPEL MIC) WITH 12-PIN EUD BREAKOUT
A04-0004-007	EARBUDS ERGO FIT BLACK
A30-1984-001	COMM CABLE, INVISIO, V60 TO MCHH, W/EUD BREAKOUT, TAN
10075-1399	HANDSET, MODIFIED H-250 (used with 12193-0600-A1 Cable Assembly)
12500-4600-01	DUAL CHANNEL OVER THE EAR HEADSET KIT (without EUD Breakout)
12500-4600-02	DUAL CHANNEL OVER THE EAR HEADSET KIT (with EUD Breakout)



12500-4600-01

The 12500-4600-01 Over Ear Headset with Situational Awareness and hearing protection for use with Two Channel Radios.



12041-3160-02

The 12041-3160-02 Dual Channel Speaker/Microphone is designed for use with Two Channel Radios and includes (12-PIN ODU RCPT) Data Interface cables.

ADAPTERS

PRODUCT NUMBER	PRODUCT NAME
12241-1000-01	MCHH DISMOUNTED GENERAL SIDE ADAPTER ASSEMBLY
12193-0395-A003	MCHH 12-PIN USB TO ETHERNET PLUG CABLE ASSEMBLY
12193-0396-A003	MCHH USB TO ETHERNET RECEPTACLE CABLE ASSEMBLY
12246-2000-01	MCHH 12-PIN USB TO ETHERNET/GPS ADAPTER KIT
12193-0752-A1	MCHH 12-PIN TO KVL KEY PROGRAMMING CABLE KIT
12193-9955-01	20M DIVE MODE KIT



12241-1000-01

The 12241-1000-01 general red / black side adapter assembly has been developed for the AN/PRC-163 to interface to the R/T's 38-pin side connector. This adapter provides access to many of the signals available on the side interface of the PRC-163 via two 12-pin multi-function connectors (One for Red I/O's and one for Black I/O's).



12193-0395-A003

The 12193-0395-A003 USB to Ethernet converter (12-PIN ODU PLUG) to (CONN RJ-45 CAT3 PLUG) connector cable assembly. The converter acts as a peripheral device on the USB bus interface on the radio. It converts the USB signals to 10/100Base-T compatible Ethernet signals. Used with 12241-1000-01 Side Adapter Red or Black ports only.



12193-0396-A003

The 12193-0396-A003 USB to Ethernet Receptacle (12-PIN ODU PLUG) to (CONN RJ-45 CAT3 RCPT) connector cable assembly. The converter acts as a peripheral device on the USB bus interface on the radio. It converts the USB signals to 10/100Base-T compatible Ethernet signals. Used with 12241-1000-01 Side Adapter Red or Black ports only.



12246-2000-01

The 12246-2000-01 USB to Ethernet converter and GPS interface (12-PIN ODU PLUG) to (CONN RJ-45 CAT3 RCPT) and (Fisher RCPT) connector cable assembly. The converter acts as a peripheral device on the USB bus interface on the radio. It converts the USB signals to 10/100Base-T compatible Ethernet signals. Also allows the use of an external legacy DAGR/PLGR interface cable simultaneously (12043-2854-A006 CABLE ASSY, 7-PIN FISCHER TO PLGR). Used with 12241-1000-01 Side Adapter Red or Black ports only. Primarily used in vehicular system configurations.



12193-0752-A1

The 12193-0752-A1 KVL Key Programming (12-PIN ODU PLUG) to (CONN RJ-45 CAT3 RCPT) (CONN RJ-45 CAT3 PLUG) to (STX KVL) connector cable assembly.



12193-9955-01

The 12193-9955-01 20M Dive Mode Kit, includes 12193-3760-01 20 Pin Cap Assy and 12193-3700-01 Side Connector Cap Assy.

Maritime Operations Card 10515-0534-4010.

Note: Part # for Vent (not included) 12193-3130-01



SOFT GOODS (CARRYING ACCESSORIES)

PRODUCT NUMBER	PRODUCT NAME
12193-1590-01	MCHH HOLSTER WITH OR WITHOUT MISSION MODULE (MULTICAM)
12193-1591-01	MCHH HOLSTER, BATTERY ACCESS, MULTICAM
12193-1595-01	MCHH ACCESSORY BAG (MULTICAM)

Note: For Coyote Brown -02



12193-1590-01

The 12193-1590-01 MCHH Holster is designed to support the radio with or without a mission module attached and provides access to 12244-1000-01 RPA when used with CWB batteries.



12193-1591-01

The 12193-1591-01 MCHH Holster is designed to provide quick access to swap 12500-2500-02 Battery. Also has foldable flap to cover display or quickly slide down for viewable access. Still supports use with mission module.



12193-1595-01

The 12193-1595-01 MCHH Accessory Bag is designed to stow all your ancillary gear. Multiple compartments with ability to insert labels to quickly find needed accessory.

BATTERIES & POWER OPTIONS

PRODUCT NUMBER	PRODUCT NAME
12500-2500-02	7.0A-HR LITH ION RECHARGEABLE BATTERY PACK (GREEN)
12500-2600-02	7.6A-HR LITH ION RECHARGEABLE BATTERY PACK (GREEN)
RF-5853-CH201	ONE-BAY BATTERY CHARGER-HANDHLED BATTERY
RF-5853-CH2X2	TWO-BAY BATTERY CHARGER-HANDHELD BATTERY
RF-5853-CH2X6	SIX-BAY BATTERY CHARGER-HANDHELD BATTERY
RF-5902-CH008	EIGHT-BAY TACTICAL BATTERY CHARGER/CONDITIONER
RF-7912-PS001	MCHH SLIDE POWER ADAPTER INTERFACE (SPA) (GREEN)
RF-7913-PS001	MCHH RADIO POWER ADAPTER (RPA) (GREEN)
RF-2525/U	BATTERY PK, RECHARGEABLE, 10.0A-HR, CWB
RF-5857-CH206	6-BAY BATTERY CHARGER - CWB

X = 0 for US Power Cord, = 2 for EU Power Cord



12500-2500-02

The 12500-2500-02 rechargeable 7.0 Ah Lithium Ion (Li-Ion) battery pack with built in Power Meter and State of Health display for use with L3Harris handheld radios.

12500-2600-02

The 12500-2600-02 rechargeable 7.6 Ah Lithium Ion (Li-Ion) battery pack with built in Power Meter and State of Health display for use with L3Harris handheld radios.



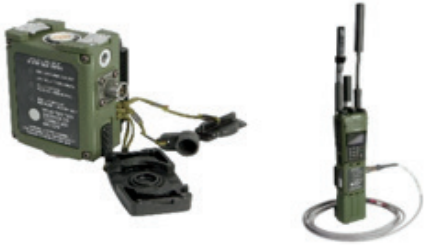
RF-5853-CH20x

The RF-5853-CH20x series of smart battery charger systems with multi-color LED button to indicate charging status and LCD screen showing Charge, Battery info, Calibrate and Custom State of Charge Modes. All chargers operate 90-264 VAC, 47-63 Hz and 10-36 VDC.



RF-5902-CH008

The RF-5902-CH008 Eight-Bay Tactical Battery Charger/Conditioner.



RF-2525/U

The RF-2525/U rechargeable 10.0 Ah Lithium-Ion (Li-Ion) battery pack Conformal Wearable Battery (CWB) with built in Power Meter and State of Health display for use with L3Harris handheld radios.



RF-5857-CH206

The RF-5857-CH206 series smart 6-Bay battery charger system is utilized in the charging of L3Harris Conformal Wearable Battery (CWB) RF-2525/U pack. The charger operates 90-264 VAC, 47-63 Hz and 10-36 VDC.

RF-7912-PS001

The RF-7912-PS001 Power Adapter Interface (PAI) Kit. Handheld Power Adapter Assembly will provide a regulated output voltage to operate the L3Harris AN/PRC-163 Handheld Radio from 10.5 V to 34.8 VDC input power and simultaneously charge the battery. The PAI mounts between the radio and a compatible Li-ION battery pack. The PAI can also be used to power the radio without an attached battery. The PAI has indicator lights to indicate presence of DC voltage, charging status and charger fault.

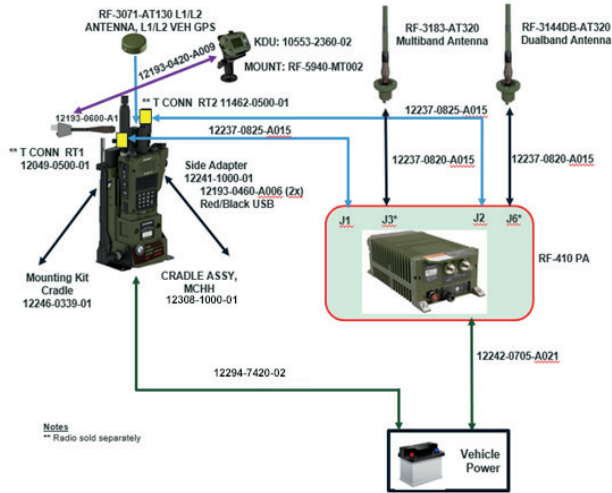
- Surge and transient protection, input / output OV/UV protection, reverse polarity protection.
- Standard Radio and Battery Interface.
- DC Connector compatible with the RF-5912.
- Backward compatible with HH Radios, Batteries, DC Input Sources.
- DQ pass-through to connected battery.



RF-7913-PS001

The RF-7913-PS001 Radio Power Adapter (RPA) will act as a power adapter to allow connection of a Conformal Wearable Battery (CWB) to the AN/PRC-163 (through the RPA) as well as contain an internal 1.1 Ah battery capable of allowing CWB hot swap for a short period, as well as supplement the CWB current when the radio power demand exceeds the output current of the CWB.

AN/PRC-163 VEHICLE INSTALLATION KIT (VIK) 12193-0260-02 CONTROL OVER COAX (COC)



Note: Mounting Kits (Qty 2) are not part of the VIK BOM 12193-0260-02. We recommend for DoD use 10181-5178-06 and for International use Mounting Kit 919-6224-06 (RF-292-01).

The PRC-163 VIK is based on installation in a Generic Mobile Vehicle or High Mobility Multipurpose Wheeled Vehicle

The VIK features include:

- Radio Cradle/Charger:
Charges 2500 battery in approx 3.5 hours
Supports pre-charge to wake depleted batteries
Integrated LED and overlay communicates battery status
Firmware upgradable without disassembly
Supports horizontal and vertical installation
MID STD 1275E compliant
- RF-410D Power Amplifier, 30-520 MHz and 764-2600 MHz
- Remote Keypad Display Unit
- Vehicular Antenna systems

Note: VIK system doesn't support power for speaker. Two Channel Speaker will need to get powered from the vehicle

VEHICLE INSTALLATION KIT COMPONENTS

PRODUCT NUMBER	PRODUCT NAME
10181-5176-06	MOUNTING KIT, HMMWV ANT
11400-3070-01	M-LR REMOTE HMI, GRN
11462-0500-01	ADAPTER, BNC-TNC, PULL AND GO, 30 MHz - 2.6 GHz
12049-0500-01	ADAPTER, BNC-TNC, PULL AND GO, 30 MHz to 512 MHz
12193-0460-A006	CABLE ASSY, USB, PDA-184
12193-0600-A1	CABLE ASSY, 19-PIN TO DUAL AUDIO AND EUD/RKDU
12237-0820-A015	CABLE ASSY, COAX, TNC, LMR-400-UF, N
12237-0825-A015	CABLE ASSY, COAX, TNC, LMR-400-UF, BNC
12241-1000-01	ADAPTER ASSEMBLY, DISMOUNTED GENERAL, MCHH
12246-0336-01	STC FMS, MOUNTING KIT, GND STRAPS, 1.2
12246-0339-01	STC FMS, MOUNTING KIT, CRADLE
12308-1000-01	CRADLE ASSY, MCHH
12294-7420-02	KIT, INSTALLTION, DC POWER, 21 FT.
RF-3071-AT130	ANTENNA, L1/L2 VEH GPS W 12FT SMA-SMA CBL, GRN
RF-3144DB-AT320	QNT, VEH, UHF/L/S, 225-2600 MHz 1 PORT, GRN
RF-3183-AT320	ANT, VEH, GREEN, N, 30-512 MHz, GDT
RF-410D-PA050	RF AMPLIFIER, BASE, GREEN

VEHICLE FIXED MOUNT COMPONENTS

PRODUCT NUMBER	PRODUCT NAME
12308-1000-01	CRADLE ASSY, MCHH
12246-0339-01	VIK, MOUNTING KIT, CRADLE
RF-5980-SA201	SPEAKER, TWO CHANNEL, CARC GREEN, T-BRACKET MTG
10535-0708-A0xx	CABLE ASSY, SPEAKER POWER
12193-0480-A009	CABLE ASSY, 2 CHANNEL SPEAKER



12308-1000-01

The 12308-1000-01 Cradle Assembly, charges the battery and power the radio. The radio is mounted screen out (no mission module). This cradle also has LED indicator to inform power on, battery charging and fault.

Note: See VIK System 12193-0260-02 for additional cables part #s.



12246-0339-01

The 12246-0339-01 VIK Cradle Mounting kit includes Bracket for vertical mounting and associated hardware supplied for vertical or horizontal mounting.



RF-5980-SA201

The RF-5980-SA201 speaker is designed for new audio devices which utilize the 19-pin ADF connector (same as on the top of the AN/PRC-163 radio).

Note: Speaker Kit 11400-0600-01



10535-0708-A0xx

The 10535-0708-A0xx is a open ended power cable for the RF-5980-SA201.



12193-0480-A009

The 12193-0480-A009 VIK 2 channel speaker audio and EUD interface cable assembly.

REMOTE CONTROL

PRODUCT NUMBER	PRODUCT NAME
12246-0360-01	REMOTE KDU KIT, GRN (CONTAINS THE FOLLOWING ITEMS):
- 10553-1450-01	WRIST STRAP, KDU, BLACK
- 10553-2360-02	REMOTE KDU ASSY, GREEN
- 12193-0420-A009	9 FT. KDU EXTENSION CABLE (12-PIN ODU TO 7-PIN FISHER)
RF-5940-MT002	MOUNT, ADAPTER F2 AND F3 KDU



10553-2360-02/12193-0420-A009

The 10553-2360-02 is a Remote Keypad Display Unit (KDU). The 12193-0420-A009 is a 9 Ft. KDU extension cable. Part of KDU Kit 12246-0360-01.



RF-5940-MT002

The RF-5940-MT002 Remote Keypad Display Unit (KDU).

VEHICULAR ANTENNAS

PRODUCT NUMBER	PRODUCT NAME
RF-3183-AT320	ANT, VEH, GREEN, N, 30-512 MHz, GDT
RF-3144TB-AT320	ANT, VEH, V/U/L, 30-2600 MHz, 3 PORT, GRN
RF-3071-AT130	ANTENNA, L1/L2 VEH GPS W 12FT SMA-SMA CBL, GRN
12006-9001-01	ANTENNA, BOLT MOUNT, X-WING, SOTM



RF-3183-AT320

The RF-3183-AT320



RF-3144TB-AT320

The RF-3144TB-AT320



RF-3071-AT130

The RF-3071-AT130



12006-9001-01

The 12006-9001-01 is a bolt-on, 225 to 400 MHz, MUOS waveform compatible, dual mode antenna designed for SATCOM-on-the-move applications. It offers 50 watts maximum power and both high-angle circular polarized mode for SATCOM and low-angle linear polarized for line-of-sight (LOS). Two connector ports are located on the bottom of the antenna, type N female for high-angle and TNC (F) for low-angle. Mounts with four bolts on a 4.6 x 2.6-inch (~11.7 x 6.6-centimeter) rectangular bolt pattern. Color: Black.

EXTERNAL POWER AMPLIFIER

PRODUCT NUMBER	PRODUCT NAME
RF-410D-PA050	RF AMPLIFIER, BASE



RF-410D-PA050

The RF-410D-PA050 provides seamless access to networked voice and data, over the frequency range of 30-520 MHz, 764-2600 MHz. Waveform coverage includes wideband and legacy narrowband communications. Unlike most existing PA solutions, the RF-410 has a software-defined architecture for fast upgrades to emerging and future waveforms



12242-1500-01

NGPA Shock Tray Assembly

KIV-335A MISSION MODULE

The KIV-335A is a software-defined receiver optimized for the processing and secure dissemination of ISR video and data. The Mission Module leverages both the AN/PRC-163 (multi-channel handheld) and AN/PRC-167 (multi-channel manpack) for power and HMI which optimizes usability. A feature known as “stream forwarding” allows secure ISR video to be disseminated into tactical MANET waveforms viewable on EUDs running ATAK/WINTAK and host of other media players.

The features include:

- High Assurance (Type 1) and AES encryption
- Supports NSA CCM (KIV-700)*
- Two-button zeroize
- Tethered Options allow for integration into MOLLE Vest for enhanced performance and gear composition optionality.

*KIV-700A is obtained directly through NSA. See Sales/Account Manager for further details. KIV-335A will not operate without a KIV-700A module.

CAPABILITIES

- > Receive only frequencies across the L/S/C and Ku-band:
 - 1350 to 1725 MHz / 1725 to 1850 MHz L-Band
 - 2025 to 3200 MHz S-Band
 - 4000 to 4990 MHz / 5250 to 6000 MHz C-Band
 - 14.40 to 14.93 GHz / 15.15 to 15.35 GHz Ku-Band
- > Receives the following waveforms:
 - Standard Common Data Link (STD-CDL)
 - Bandwidth Efficient Common Data Link (BE-CDL)
 - Vortex Native Waveform (VNW)
 - 466 Extended Range (466ER)
 - Tactical Data Link (TDL)
 - 1.6 Mbps, 3.2 Mbps, and 6.4 Mbps modes
 - Small Unmanned Aircraft System DDL (SUAS DDL)
 - Frequency Modulation Analog (FMA)

Compatible with the following video formats:

- H.264
- MPEG-2
- MPEG-4
- MJPEG
- Analog NTSC
- Seamless acquisition of ISR video via frequency band scan and waveform detect modes
- Internal memory Hold-Up Battery



FAST. FORWARD.

Tactical Communications AN/PRC-163 Application Handbook

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Non-Export Controlled Information

L3Harris Technologies is the Trusted Disruptor in the defense industry. With customers' mission-critical needs always in mind, our 50,000 employees deliver end-to-end technology solutions connecting the space, air, land, sea and cyber domains in the interest of national security. [L3Harris.com](https://www.L3Harris.com).



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