



HARRIS FALCON III[®] AN/PRC-152A

TYPE 1 WIDEBAND NETWORKING HANDHELD RADIO

**SECURE, ON-THE-
MOVE NETWORKING
WITH MULTI-MISSION
CAPABILITIES**

KEY BENEFITS

Multi-mission capable with wideband on-the-move networking, SATCOM and legacy narrowband interoperability

Harris Sierra™ II software-programmable encryption

NSA-certified up to TOP SECRET

Software-upgradable with SCA v2.2.2 compliance (no waivers)

JTNC certified SRW

The Harris Falcon III AN/PRC-152A delivers simultaneous voice and high-speed data, seamlessly connecting dismount and upper-echelon networks. This handheld solution employs next-generation wideband waveforms—Soldier Radio Waveform and Harris Adaptive Networking Wideband Waveform (ANW2[®]C)—for reliable and secure mobile ad-hoc networking. Even in challenging environments, the AN/PRC-152A provides voice, data, imagery and video, giving warfighters critical mission intelligence for enhanced decision-making.

This Harris Type 1 Wideband Networking Handheld features a complete set of narrowband line-of-sight and UHF SATCOM capabilities, ensuring interoperability with wideband, legacy and public safety systems. Plus, voice and data are NSA-certified secure up to TOP SECRET through the embedded Harris Sierra II encryption module.

The AN/PRC-152A covers the multiband frequency range, with 5 W transmit power for line-of-sight narrowband waveforms including SINCGARS, HAVEQUICK I/II, and AM/FM VULOS, and a 10 W burst for legacy SATCOM. Its standard highband enhancement increases frequency coverage to 520 MHz, and adds the 762-870 MHz band for APCO P25 conventional and trunking interoperability.

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HARRIS[®] TECHNOLOGY TO CONNECT,
INFORM AND PROTECT™

SPECIFICATIONS FOR: **HARRIS FALCON III® AN/PRC-152A TYPE 1 WIDEBAND NETWORKING HANDHELD RADIO**

GENERAL	
RT Nomenclature	RT-1916x(P/C)/U
Frequency Range	30-870 MHz Narrowband: VHF 30-225 MHz, UHF 225-512 MHz Legacy SATCOM: RX 243-270 MHz, TX 291-318 MHz Highband (VULOS/P25): 512-520 & 762-870 MHz Wideband: 225-450 MHz
Channel Spacing/Bandwidth	Narrowband: 8.33, 12.5, 25 kHz-AM, 12.5, 25 kHz-FM SATCOM: 5 kHz, 25 kHz Wideband: 500 kHz, 1.2 MHz FM deviation: 5 kHz, 6.5 kHz, 8 kHz
Net Presets	99 fully programmable system presets
Internal GPS	Optional internal commercial Jupiter JF2 GPS
Management Tool	Windows® Communications Planning Application JENM compatible
Frequency Tuning	Front panel: 100 Hz ASCII remote: 1 Hz Highband: 5 kHz ANW2®C: 5 kHz
Software Environment	SCA v2.2.2 (JTEL certified)
Frequency Stability	1x10 ⁻⁶ (drift ±0.5 ppm over one year)
TRANSMITTER	
Power Output	User programmable 250 mW to 5 W 10 W SATCOM burst mode
Harmonic Suppression	40 dB
RECEIVER	
Sensitivity	LOS FM: 30-152 MHz; -116 dBm @ 12 dB SINAD LOS AM: 90-512 MHz; -103.5 dBm @ 10 dB SINAD with 30% modulation TACSAT FM: 243-270 MHz; -120 dBm @ 10 dB SINAD
Adjacent Channel Rejection	≥ -40 dB
Squelch	Selectable tone, noise, digital (CDCSS, CTCSS), none
POWER	
Power Input	9.6 to 14 VDC
Power Consumption	≤ 4.0 amps at 10.8 VDC (≤ 43 W at 10.8 VDC)

SECURITY	
Encryption	Sierra™ II-based, Type 1 encryption (suite A/B), NSA-certified TOP SECRET and Below
Encryption Modes	KY-57 (VINSON), KYV-5 (ANDVT), KG-84C, FASCINATOR, TSVCIS, VULOS, HPW, HAIPE (PPK/FPV), AES (Type 1 & 3), Type 3 DES
Key Fill Device Compatibility	AN/CYZ-10 DTD, KOI-18, KYK-13, KYX-15, MX-18290, AN/PYQ-10 (SKL), KIK-11 (TKL), KIK-20, KVL-3000/4000
Key Storage	Up to 300
Modes	DS101, DS102, MODE 2/3, USB

MODES AND WAVEFORMS	
Narrowband Waveforms	AM/FM, VULOS, SINGGARS & HAVEQUICK VII (standard), HPW, HPW IP, APCO P25 Phase 1 trunking, conventional and OTAR (optional)
Wideband Waveforms	ANW2C (standard), SRW (optional)
UHF SATCOM Waveforms	MIL-STD-188-181B dedicated channel (standard) MIL-STD-188-182A, 183A DAMA (optional) MIL-STD-188-181C, 183B IW Phase 1 (optional) High Performance Waveform (HPW) & HPW IP (optional) SATCOM TDMA Capability (STC) waveform (optional)
Voice and Data Modes	Simplex or half-duplex and plain text analog voice SINGGARS ECCM (30.0-87.975 MHz) HAVEQUICK ECCM (225.0-399.975 MHz) Wideband CT digital voice (16 kbps; CVSD; KY-57) Narrowband CT digital voice (2.4 kbps; LPC-10, ANDVT) MELP for adaptive networking Wideband Waveform (ANW2C)
Transmission Modes	AM, ASK, FM, FSK, PSK, CPM, GMSK

PHYSICAL	
Dimensions (with battery)	Non-GPS: 9.6 H x 3.0 W x 1.9 D in (24.5 H x 7.6 W x 4.8 D cm) With GPS: 10.25 H x 3.0 W x 2.5 D in (26.5 H x 7.6 W x 6.4 D cm)
Volume (with whip antenna and battery)	Non-GPS models: 40 in ³ (655.5 cm ³) GPS models: 42 in ³ (688.3 cm ³)
Weight (with battery and antenna)	Non-GPS models: 2.5 lbs. max (1.1 kg) GPS models: 2.7 lbs. max (1.2 kg)
Color/Finish	CARC Green per FED-STD-595B, (optional black)

ENVIRONMENTAL	
Shock and Vibration	MIL-STD-810G for tracked vehicles, wheeled vehicles, and shipboard
Immersion	Standard unit: 6.6 ft. (2.0 m) of water for 30 minutes 20-meter version: 66 ft. (20 m)
Temperature	Operating: -22.0° F to +140° F (-30° C to +60° C) Storage: -22.0° F to +158° F (-30° C to +70° C)
Sand/Dust/Salt/Fog/Rain	MIL-STD-810F

INTERFACES	
External Data	USB, USB RNDIS host and device, Ethernet, RS-232, EEM
Audio	Standard 6-pin ADF
Antenna Port	50 Ohm TNC (female)
Programming	USB
Function Knob	Off, 1-5 presets, scan, front panel, Z-All, PT, LD & CT
Remote Control	USB, RS-232, Remote Keypad Display Unit, Software Keypad Display Unit

See Product Catalog for accessories.

About Harris Corporation

Harris Corporation is a leading technology innovator, solving customers' toughest mission-critical challenges by providing solutions that connect, inform and protect. Harris supports government and commercial customers around the world.

Learn more at harris.com.

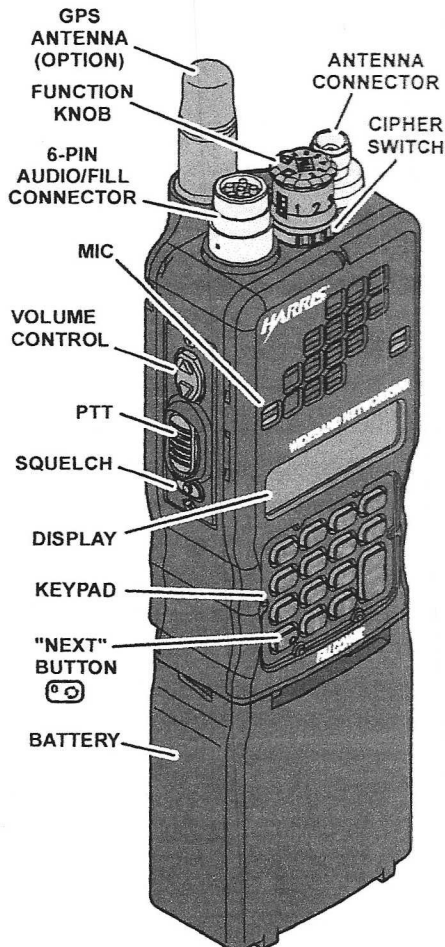
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Controls, Indicators, Connectors



TYPICAL AN/PRC-152A
MULTIBAND HANDHELD RADIO

Basic Operation

Radio must be programmed with COMSEC fill/keys and mission plans prior to operation.

TO TRANSMIT:

- Place Cipher Switch in Plain Text [PT] or Cipher Text [CT] (encrypted) position.
- Power up the radio by turning the FUNCTION knob to select preset number 1, 2, 3, 4, 5, or go to [FP].
- From [FP], select presets 1 - 99 using .
- Press Push-to-Talk (PTT) to transmit. Other waveform-specific operations are described below.

SATCOM

- Use > PING to aim antenna.

SINGGARS

- Set Master/Member roles. Press two times to third main screen. three times to TYPE. to select MASTER or MEMBER.

HAVEQUICK

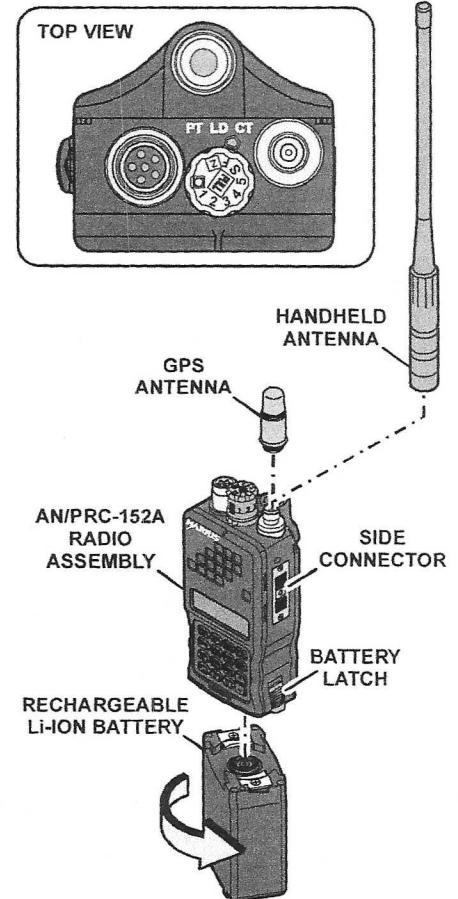
- Manual time sync, use > TOD RECEIVE for TOD sync in INI mode. Required approximately every four (4) hours. (Not required with GPS time sync.)

HPW

- Set HPW Time Of Day to ± 30 seconds for entire net. > HPW TOD > Configure HPW TOD.
- HPW SATCOM: > PING to aim antenna.
- Wireless Message Terminal or Internet Protocol Operation: Use cable (12041-7180). Requires optional HPW IP firmware installed in radio.

ANW2, ANW2C, DAMA, IW & P25 - Refer to operation manual.

Basic Assembly



10515-0409-4010

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Operating Modes

S CLONE MODE

Transfer mission plans from one radio to another. Set the Cipher Switch in [CT] (encrypted) position. Make sure VULOS VINSON fill is selected for CT operation.

[H] [DE] > CLONE > [ENT]

Select the frequency to use (all radios must be the same).

Select the VULOS VINSON encryption key file (all radios must be the same).

Select **RECEIVE CLONE** on radios receiving the mission plan.

Select **TRANSMIT CLONE** on radio receiving the mission plan. Sending radio must also select the mission plan.

MODE

Default frequency is 90.0 MHz. To activate and rescue Beacon:

[H] [DE] > BEACON > [ENT]

[IT] to start transmitting.

[R] to stop Beacon.

MODE

Turn **FUNCTION** knob to [S]. Radio will begin automatic scanning (if configured).

[R] for Manual Scan. Use [PRE] to step manually.

Turn **FUNCTION** knob out of [S] position to stop Scan.

ZEROIZE

Turn **FUNCTION** knob to [Z], then **Volume** + [VOL]

to clear encryption keys, ESETs.

or deactivates Mission Plans (as needed).

Options

KEYPAD LOCK

To lock: [7] [STU] [OPT] > LOCK > KEYPAD > [ENT]

To unlock: Press [1] [3] [7] [9].

SPEAKER ON/OFF

[7] [STU] [OPT] > RADIO OPTIONS > RADIO SPEAKER.

POWER LEVEL

[7] [STU] [OPT] > TX POWER OPTION.

SITUATIONAL AWARENESS (SA)

[7] [STU] [OPT] > SA OPTIONS > SA TRANSMIT > ENABLE.

SA must be configured in the mission plan. Use with VULOS (LOS or SATCOM) / ANW2 / ANW2C. GPS required. VINSON only.

DISPLAY ADJUSTMENTS

[2] [DEF] [LT] > [5] [PRQ] or [9] [YZ]?

ACTIVATE A MISSION PLAN

- [7] [STU] [OPT] > MISSION PLAN > ACTIVATE MISSION PLAN > [ENT]
- Select a mission plan, [ENT]. For a .MSFF file, select station name, [ENT]
- Select YES, [ENT]

20-METER RADIO NOTES

- Submersion to 66 feet (20 m) of water.
- Identified by part number on rear cover: 0N689740-25, -26, -33, -34, -37, or -38.
- Spare batteries (12041-2200-02) should have protective cap (12011-6014-01/02) attached.
- Powered-On operation: Press [7] [STU] [OPT] > LOCK > DIVE MODE > [ENT] to protect radio during submersion. Press [1] [3] [7] [9] to return to normal.
- Rinse with fresh water and dry after submersion.

Common Faults

Radio does not power on; completely dead

Replace battery. Clean battery connector.

No Receive (RX)/Transmit (TX) audio

Check volume level. Check squelch. If using a handset, clean connectors or replace handset.

Intermittent RX audio

Check squelch level. If using a handset, clean connectors or replace handset.

Radio stuck at HARRIS logo or ALARM at power-up

Maintenance required.

Passive Zeroization message at start-up

Remove main battery for five minutes. Reattach main battery and power-up radio. If message is displayed again, maintenance is required.

Invalid Crypto Mode Message

Check Cipher Switch position. Make sure COMSEC is properly loaded, and preset has COMSEC mode enabled.

Hold Up Battery Low Message

Radio is due for HUB change (refer to Operation Manual). Radio is operable, but could lose stored COMSEC data if HUB expires and main battery is dead or disconnected.

Internal GPS Failure

Inspect GPS antenna and connection. Ensure upright orientation. Verify clear path to satellite.

REFERENCE MANUALS

Operation Manual (10515-0409-4200).

Field Reference Guide (10515-0409-4100).

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