

GR-8150HV RADIO

HF/VHF MANPACK



Smallest, Lightest and Fastest HF/VHF Manpack Radio in the World!

Key Benefits

- Update version of GR-8100HV
- Smallest, lightest, fastest HF/VHF manpack radio
- Wideband data up to 120kbps
- IP-based LAN, RS-232C & Bluetooth interface
- Interoperable with Glocom GR-8100HV, GR-150, GR-250 and GR-310 radios

Features

Wideband HF Data	MIL-STD-188-110C Appendix D
ALE ⁽¹⁾	STANAG 4538 FLSU
Frequency Hopping	Serial Tone ECCM GR-150 interoperable
Encrypted Data	HF: MIL-STD-188-110C Appendix. D, and Main Body Serial-tone Waveforms, VHF: FSK
Vocoder	HF: MELP1200 VHF: CVSD, MELP2400

The Glocom GR-8150HV HF/VHF manpack radio system reaches the highest level in wideband data performance and interoperability with fielded GR-8150HV manpack radio, GR-150 HF manpack radio, GR-250 VHF manpack radio and GR-310 V/UHF manpack radio - to deliver information superiority on today's battlefields. It provides continuous coverage from 1.6 to 60MHz, 20W HF and 10W VHF on the power of a single battery, and bandwidths from 3 to 24 kHz - with data rates of up to 120 kbps.

No matter the deployment scenario, the GR-8150HV ensures the transmission and receipt of critical communications. With its Glocom GR-8100HV/GR-150/250/310 interoperability, it easily integrates into existing networks to deliver secure voice and data. It provides extended range, operating over degraded communication channels. And with ultra-robust 3G waveforms, it provides last-ditch voice and SMS messaging in channels where legacy waveforms don't work.

Incorporating enhanced anti-jamming measures and embedded AES encryption, all GR-8150HV transmissions are completely secure and reliable. The radio also features high performance automatic link establishment and data link protocols to provide fast, reliable linking and error-free data transfer - even under the most challenging channel conditions.

In addition to its array of embedded capabilities—which also include an internal GPS receiver - the GR-8150HV features a Software Defined Radio (SDR) architecture, which allows it to host future capabilities. Combined with its incredible processing power, this ensures it will continue to be state-of-the-art well into the future.

Providing all of these features in a form factor that's more compact and 30% lighter than previous HF manpack radio, the GR-8150HV enables today's warfighter to take on tomorrow's missions.

General Specifications

Frequency Range	1.6~60MHz
Net Presets	100, fully programmable
Frequency Stability	±1ppm
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)
Frequency Hopping	10hps(HF), 100hps(VHF)
Encryption Mode	AES256, customized algorithm
RF Impedance	50Ω
Power Supply	27VDC(21.5~34VDC)
Data Interfaces	RS-232C, Ethernet, Bluetooth
Dimension	186x85x188mm
Weight	≤3kg (4.5kg with battery)

Receiver

Sensitivity	SSB: -113dBm@ 10dB SINAD
Audio Output	12mW@1000Ω to external handset
Squelch	Front panel adjustable, active squelch selectable
IF Rejection	≥85dB
Image	≥80dB
AGC	Mode dependent, automatically selected
Intermodulation Distortion	-80dB or better for two -30dBm signals separated 30 kHz or more
Overload Protection	Receiver protected to 32 VRMS

Transmitter

RF Power	HF 0.3/1/3/10/20W PEP, VHF 0.3/1/3/10W FM rated output
Undesired Sideband Suppression	≥60dB below PEP output

Environment

Test method	MIL-STD-810G
Vibration	Ground tactical
Immersion	1m
Temperature	-30°C~60°C

GR-8150HV HF/VHF Manpack Radio Set

The Glocom GR-8150HV HF/VHF manpack radio set is ideal for extended portable field operations providing the tactical user with effective, secure and comprehensive communications with remote sited command locations. It includes all necessary items like handset, antennas, battery pack, battery case etc. The standard set includes:-

• HF/VHF Manpack Radio	GR-8150HV
• Officer Handset	A8100-OH10
• HF 2.4m Whip Antenna	A8100-WA2.4H
• HF 15m Line Antenna	A8100-LA15
• GPS Handheld Antenna	A8100-GA01
• Battery Box w/o Battery	A8100-BB31
• Battery Pack	BB-2590/U
• Battery Charger	A8100-BC1B
• Ground Stake Kit	A8100-GK25
• Field Reference Guide	A8100-HVUM01

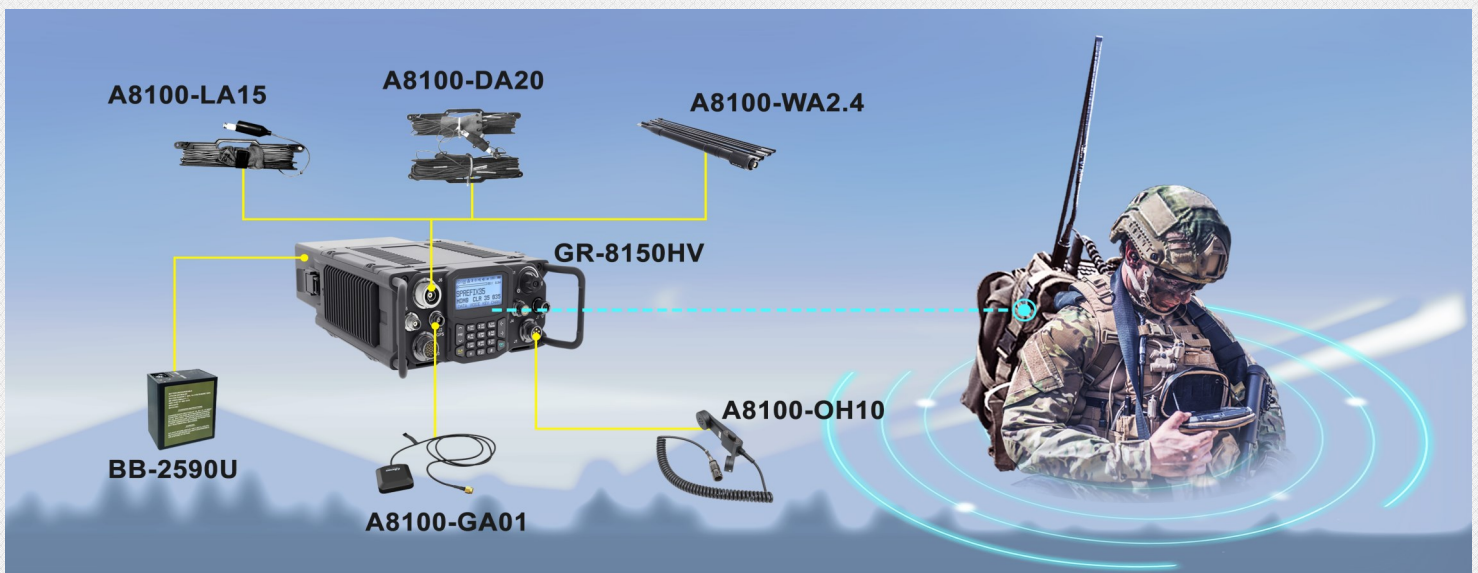
Compatible Batteries

• Non-rechargeable LiSO ₂ Battery	BA-5590B/U
• Non-rechargeable LiMnO ₂ Battery	BA-5390/U
• Rechargeable NiMH Battery	BB-390B/U

Options for Manpack & Mobile Set

• Tactical Headset	A8100-TH11
• Speaker Microphone	A8100-SM13
• HF 2.4m Whip Antenna	A8100-WA2.4
• HF 20mx2 Dipole Antenna	A8100-DA20
• GPS Mobile Antenna	GA-50A
• Asynchronous Data Cable	A8100-DC01
• Ethernet Cable	A8100-EC24
• 2 Bay Battery Charger	A8100-BC2B
• Setup/Control Application (Windows)	A8100-WIN10
• Setup/Control Application (Android)	A8100-AND10
• Communication Planning Application	GC-8100
• Tactical Chat Application	GS-910

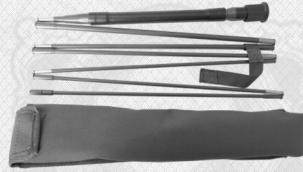
Configuration of GR-8150HV radio set





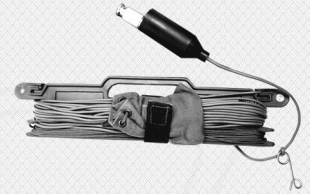
Officer Handset(A8100-OH10)

The officer handset is a high-grade, lightweight MIL handset for use with the Glocom tactical radio systems. One handset is supplied with each radio.



VHF 2.4m Whip Antenna(A8100-WA2.4V)

30~88MHz, 40W, Impedance:50Ω, Contact resistance: ≤120mΩ, Length:2400mm, Draw back length: 365mm, ≤0.7Kg, Interface: BNC fixed with threading sheath.



HF 15m Line Antenna(A8100-LA15)

This antenna can be used for communication on actual combat. This antenna is used for HF radio set or long distance emergency communication. It has the features of high radiation efficiency, easy carrying and installation.



GPS Handheld Antenna(A8100-GA01)

This is high gain, low loss, active, extra low current consumption, small size GPS antenna. It supports SMA plug and magnetic mounting. It's useful for mobile application with GR series radios.



Battery Box w/o Battery(A8100-BB31)

Battery box for BB-2590/U series batteries . Water-proof and moisture-proof. This battery box is fully compatible with BB-2590/U size battery system.



Battery Pack(BB-2590/U)

The Li-Ion battery is a very high-capacity, rechargeable, Li Ion battery. Use with Glocom A8100-BC2B/4B/6B battery charger system.



Battery Charger(A8100-BC1B)

This is 2 bay battery charger for BB-2590/U. Up to 2 batteries may be connected for simultaneous processing, and disconnected from any channel during processing.



Ground Stake Kit(A8100-GK25)

Earth braid, 1.5m.



Field Reference Guide(A8100-HVUM01)

This is a field reference user manual for GR-8150HV radio system.



Tactical Headset(A8100-TH11)

Tactical headset adopts structure of head ring soft strap, it is audio terminal. It has the features of small in dimension, light in weight, good water proof performance, high environment adaptability.



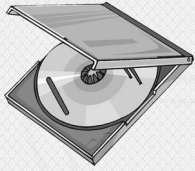
Speaker Microphone(A8100-SM13)

This speaker microphone amplifies radio audio output for manpack, vehicular and base station applications. It can be connected to audio jack on manpack radio.



Asynchronous Data Cable(A8100-DC01)

This is RS-232C data communication cable for GR 8000 series radios. It is used for data communication, radio programming and radio control by computer etc.



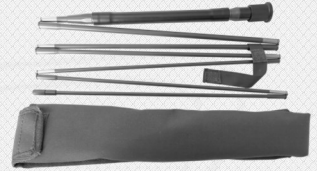
Setup/Control Application(A8100-WIN10, A8100-AND10)

This software application allows user to enter frequency, mode, encryption code, ALE network information and other parameters into a Windows-based computer program and save it to a file.



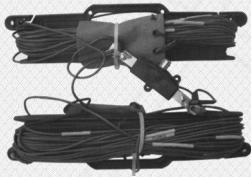
Ethernet cable(RJ-45)(A8100-EC24)

This cable is the Ethernet cable to connect radio and Ethernet port or network hub.



HF 2.4m Whip Antenna(A8100-WA2.4)

1.6~30MHz, 40W, Contact resistance: $\leq 120m\Omega$, Length:2400mm, Draw back length: 365mm, $\leq 0.7Kg$, Interface: BNC fixed with threading sheath.



HF 20m x 2 dipole antenna(A8100-DA20)

This antenna can be used for communication on actual combat. This antenna is used for stationary HF radio set or long distance emergency communication.



HF 4.2m Whip Antenna(A8100-WA4.2)

This is HF mobile communication antenna. The antenna is composed of three parts. The antenna is light weight, good flexibility, endurable for corrosion.



Power supply unit(A8100-PS300)

This is 320W AC-DC/DC-DC converter to supply power into GR-series mobile radio system. It supports very high efficiency, over-voltage protection, polarity protection.



Rucksack(A8100-RS22-01)

This is a rucksack for GR series manpack radio system. It is very convenience for soldier to carry radio with all accessories. It can keep antenna, batteries, handset, headset etc...



Mobile Installation Kit(A8100-IK10)

This is a set of mobile installation kit. It can be used to install GR series radio system into various kind of vehicles, ships or stationary. It is very simple to install or uninstall on the vehicles.

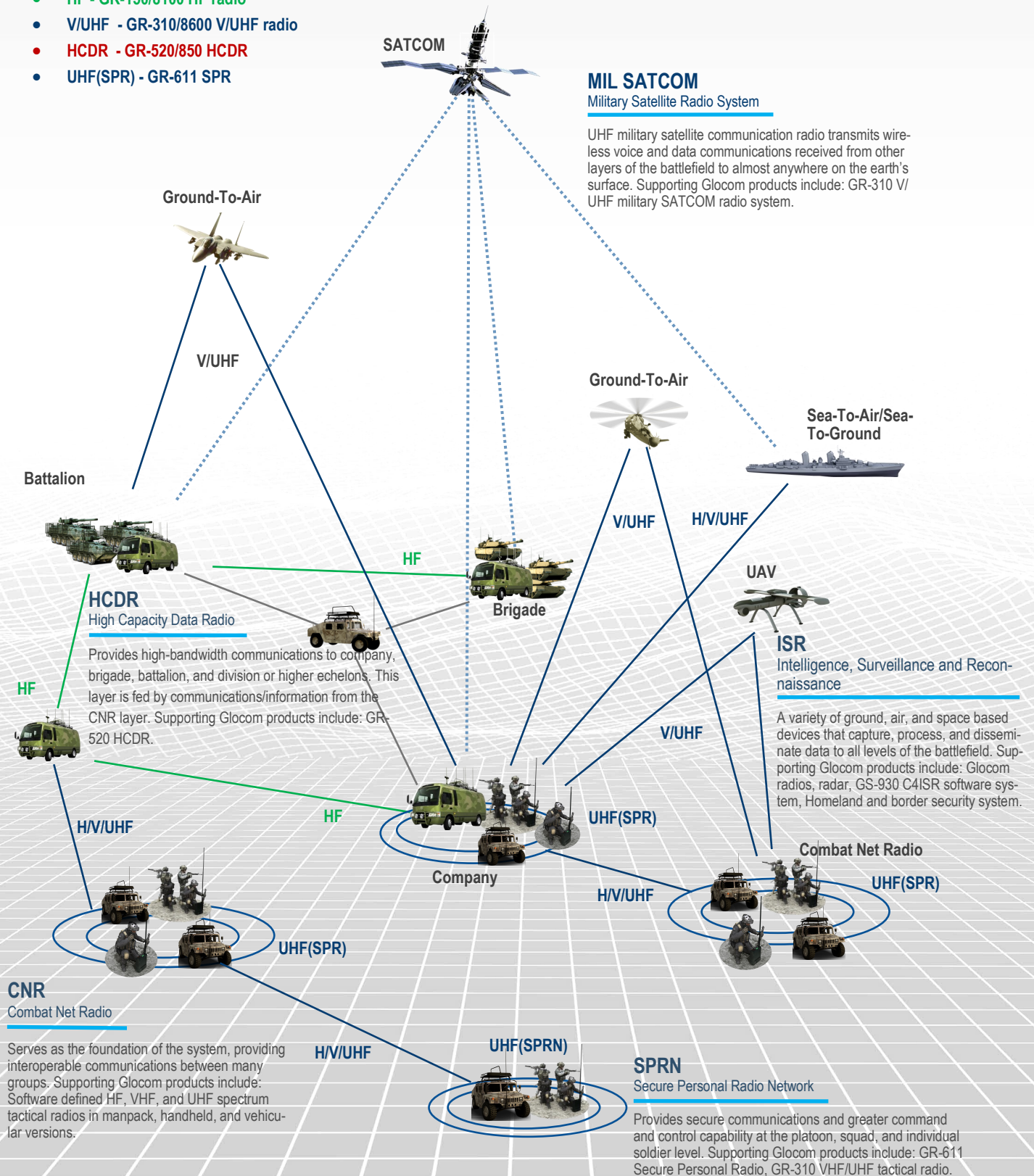


GPS Mobile Antenna(GA-50A)

This is high gain, low loss, active, extra low current consumption, small size GPS antenna. It supports SMA plug and magnetic mounting or screw mounting. It's useful for mobile application with GR series radios.

Glocom Battlefield Communications Architecture

- **HF** - GR-150/8100 HF radio
- **V/UHF** - GR-310/8600 V/UHF radio
- **HCDR** - GR-520/850 HCDR
- **UHF(SPR)** - GR-611 SPR





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- Manpack Radio Systems
- Handheld Radio Systems
- Stationary Systems
- Mobile Systems
- Airborne Systems
- Shipborne Systems
- Soldier Systems
- BMS Applications

Communications solutions for anywhere, anytime in battlefield

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