

ANY RF-7800I
PACKAGED SYSTEM
CAN BE CUSTOMIZED
TO MEET YOUR
NEEDS.

Customization is expected and welcomed with any RF-7800I Intercom System. The scalable system design allows for customer selection of the exact features required to meet mission needs. The Central Unit interfaces to the Crew Station types in any combination to provide custom solutions for any vehicle or command center application. Add a high powered Speaker Unit for command broadcast and audio monitoring. Add a Telephone and Alarm Unit for seamless integration with an analog PBX or field telephone and for interfacing to alarm and sensor signals originated by vehicle subsystems.

Choose Optional Headsets

The RF-7800I Crew Stations supports most types of tactical headsets. Use an under-the-helmet, light-ANR (Active Noise Reduction) headset for use in most wheeled, vehicular applications to drown out vehicle background noise. For tracked vehicle applications where noise levels are extremely high, use a heavy-ANR solution. Headsets are also offered in an Integrated Helmet solution. Customer specified additional headsets can be supported upon request.

Mounting Kits

The headless design of the Central Unit allows for it to be mounted remotely using the 12109-6410-01 Shock Mount. This allows for optimal use of critical cabin space to support use of other mission critical equipment. Crew stations support multiple mounting configurations. Hard mount the Crew Stations for rigidity or use a 12109-6600-01 Universal Gimble Mount to provide flexibility and ease of access using multiple different mounting angles. The RF-7800I-VM301 Quick Release Shock Mount supports the ability to remote a Crew Station up to 1.2km over a standard field wire interface.



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Central Unit
Options

The Central Unit is the heart of the RF-7800I Intercom System. It performs the voice channel switching and digital packet routing as well as providing assured, clear voice communications using digital signal processing. The Central Unit is software configurable and upgradeable through a simple PC user interface.

RF-7800I-CU100:
Voice, Data, and
Remote Control



- 8 Crew Station/Telephone Alarm Units
- 4 serial interfaces to radio transceivers (voice, data, remote control)
- 2 serial ports
- 2 serial/USB host ports
- 2 Ethernet ports
- 1 Speaker (power, audio)

RF-7800I-CU200:
Light, Voice Only



- 4 Crew Stations
- 2 serial interfaces to radio transceivers (voice)
- 1 speaker (power, audio)

Crew Station
Unit Options

Customize Crew Stations to provide a feature-rich, icon-driven Keypad Display that offers remote control of the radios, an at-a-glance Rotary Dial interface, or a hands-free, Basic Unit for time-sensitive, mission-critical communications. Each is available in a dual headset configuration or a headset and RS-232 port for support of a PC or other network device.



RF-7800I-KDx00:

- Real Time Command and Control
- Typical Crew Member: Vehicle Commander



RF-7800I-RDx00:

- One-knob, At-A-Glance operation
- Typical Crew Member: Driver



RF-7800I-BUx00:

- 100% Hands-free operation
- Typical Crew Member: Passenger, Gunner

Connector Configurations



RF-7800I-xx200:

- 2 headset ports



RF-7800I-xx400:

- 1 headset port
- 1 RS-232 serial port

Additional Features: Support visual alarm indication and separate volume control.

Accessories
Options

The RF-7800I is highly configurable and supports additional accessory items to ensure that each system is designed to meet customer specifications. Provide the exact features the customer requires with the addition of a Speaker Unit, Telephone and Alarm Unit, or Power Disconnect Box.



RF-7800I-SA100:

- Amplified audio broadcast
- Monitors any or ALL audio sources



RF-7800I-TA100:

- Telephony and Networking
- Alarms and Sensors



12106-5200-0x:

- On/Off Switch
- Filters Vehicle Power

Radio Interoperability, Cables and Part Numbers

Radio	Cable
AN/PRC-117F	12106-1405-A006
RF-7800V-HH	12106-1412-A006
AN/PRC-117G	12106-1413-A006
RF-7800M-MP	12106-1413-A006
6-PIN Audio	12106-1420-A006
AN/PRC-152	12106-1421-A006
AN/PRC-152A	12106-1421-A006
RF-5800H-MP (20W)	12106-1460-A006

Radio	Cable
AN/PRC-150 (20W)	12106-1501-A006
RF-5800H-MP	12106-1503-A006
AN/PRC-150 (125-400W)	12106-1503-A006
RF-5800V-MP	12106-1505-A006
RF-5800M-MP	12106-1505-A006
RF-5800V-HH	12106-1507-A006
RF-5800M-HH	12106-1507-A006
RF-7800S (Voice)	12106-1509-A006



RF COMMUNICATIONS



RF-7800I
INTERCOM
SYSTEM

Light Voice System

Install Configuration for Motorized Infantry Vehicle Application



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Vehicle Type:

Motorized Infantry Vehicle

Crew Members:

5
1 Driver, 1 Squad Leader,
2 Crew, 1 Gunner

System Features:

- Modular, lightweight solution
- Low power consumption
- Simple 4-wire highway cable
- Tightly integrated with world-class Harris radio products
- Scalable, modular architecture supports a variety of installation scenarios
- Supports integrated radio remote control

Operational Scenario:

In a Motorized “D” Company the Squad leader has control of an up-armored vehicle with an MK19 40mm Grenade launcher and a second up-armored vehicle with the M2 50cal BMG, so connection to the two radios in the tactical VHF system for communications to the other vehicle and his company along with the other 4 members of the team are paramount.

Harris Solution:

The Light Voice-Only System provides clear and reliable voice connectivity to every crew member within the vehicle and within the unit; providing up and down echelon voice communication for complete command and control. This system configuration provides dynamic connectivity for up to 2 radios and up to 4 crew stations.

Equipment List:

Part Number	Description	Qty
Intercom Components		
RF-7800I-CU200	Central Unit Light	1
RF-7800I-KD200	Keypad Display Unit with 2 Headset Ports	1
RF-7800I-RD200	Rotary Dial Unit with 2 Headset Ports	1
RF-7800I-BU200	Basic Unit with 2 Headset Ports	1
Headsets and Ancillaries		
A06-0015-001	Racal Under-the-Helmet Light ANR Headset	5
12106-1050-A32	Crew Station to Headset Cable	5
Cabling and Mounting Solution		
12109-6410-01	Central Unit Shock Mount	1
12106-1013-A010	Crew Station J1 Cable	3
12106-1348-A002	Central Unit Light Distribution Cable	1
12106-1421-A006	Central Unit to AN/PRC-152 Radio Cable	2
System Integration, Vehicle Fit		
12106-1353-A006	Central Unit to Ethernet and Programming Cable	1
12106-5200-02	Power Disconnect and Filter Unit	1

*Radio System not included.



Radio Configuration
Dual, 50-Watt
Radio System*

For this example:
(1) AN/VRC-110

The RF-7800I is compatible with a variety of Combat Net Radios, including the tightest integration with the fielded and familiar world-class suite of CNR's offered by Harris. Most third-part CNR's can also be integrated for voice communications. Cables for integration with Harris Falcon radios listed on reverse side.



RF-7800I-CU200
Central Unit and
Intercom Cabling

Placing of the Central Unit near radio assets reduces the hazards of long cable runs and complex installation requirements. Single cable connections between the Central Unit and Crew stations reduces cabin clutter.



RF-7800I-KD200
Commander

The RF-7800I-KD200 is providing real time command and control to the vehicle commander, allowing for dynamic control of the other crew stations and functionality provided to the crew.



RF-7800I-BU200
Gunner and
Dismounted Soldier

The RF-7800I-BU200 offers continuous connectivity and hands-free operations for communications within the vehicle as well as any additional functions allotted to the user by the vehicle commander on-the-fly from the Keypad Display unit.



RF-7800I-RD200
Driver and
Dismounted Soldier

The RF-7800I-RD200 allows for quick access of pre-defined functions to be selected on the fly, at a glance, with the quick turn-of-a-knob. The RF-7800I-RD200 also provides voice prompt notifications when selections are modified.

