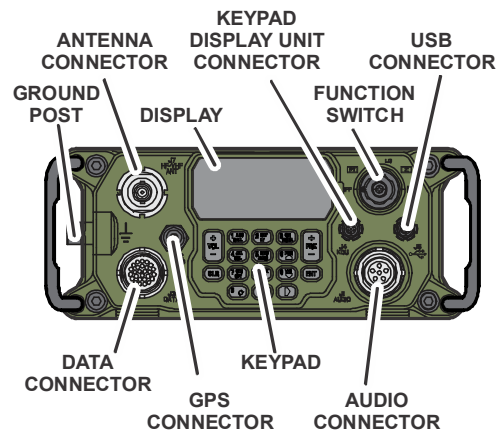
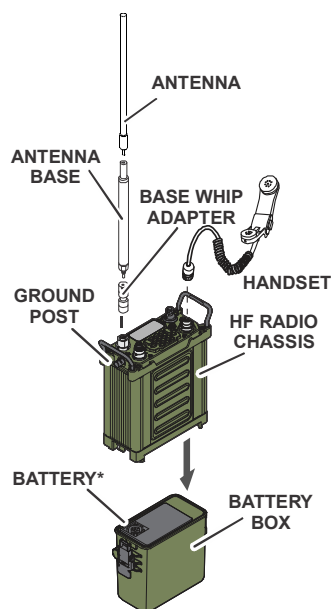


RF-7800H-MP OPERATOR CARD



Function Switch

| | |
|------------|--|
| OFF | Turns the RF-7800H-MP OFF. |
| PT | Places the radio in Plain Text (PT) (clear voice, digital voice or data) (requires a pull-to-turn action). |
| CT | Places the radio in Cipher Text (CT) (digital voice or data). |
| LD | Load. Places the radio into menus for installing/uninstalling firmware. |
| Z | Zeroize. Zeroizes the radio, including the encryption keys. (Requires a pull-to-turn action.) |
| CLR | Clear. (Requires pull to turn) Disconnects Hold-Up Battery (HUB) and zeroizes radio. This also provides improved HUB life while the radio is in storage. |



*NOT INCLUDED

POWER ON

(Pull to Turn) Function switch to **PT** or **CT**.

ZEROIZE

(Pull to Turn) Function switch to **Z**. Erases all programming.

ENCRYPTION

[8 VWX PGM] > **COMSEC** > **KEYS**.

RADIO LOCK/UNLOCK

[7 STU OPT] > **RADIO** > **RADIO LOCK** > **ON** > **[ENT]**.To unlock: Press **[1 ABC CALL]** **[3 GHI MODE]** **[7 STU OPT]** **[9 YZ ?]**.

SQUELCH

Press **[4 JKL SQL]**.

Make sure radio is programmed with a Communications Planning Application (CPA) plan. Use programming and data interface cable (10535-0775-A006).

FIXED FREQUENCY

- [3 GHI MODE]** > **FIX** > **[ENT]**.
- Use **[+ PRE]** to select preset.

PRESET PROGRAM STEPS

In order shown:

- [8 VWX PGM]** > **MODE** > **PRESET** > **CHANNEL**.
- [8 VWX PGM]** > **MODE** > **PRESET** > **MODEM**.
- [8 VWX PGM]** > **MODE** > **PRESET** > **SYSTEM**.
- [8 VWX PGM]** > **MODE** > **PRESET** > **MANUAL**.

OPTIONS MENU

Press **[7 STU OPT]**. Options include:

- GPS-TOD** - Global Positioning System (GPS) Time of Day (TOD)
- RETUNE** - Retunes internal coupler
- RADIO** - General radio setting of TX power, squelch, internal coupler, radio silence, Beat Frequency Oscillator (BFO), RX noise blanking, radio name, radio lock
- SCAN** - fixed radio mode single sideband only
- ALE** - ALE only
- 3G** - 3G only
- GPS-APR** - position reporting
- EXT-ACC** - external accessories
- MSG** - 3G only, with Last Ditch Voice (LDV) and Short Message Service (SMS)
- TEST** - battery test, Voltage Standing Wave Ratio (VSWR), Built-In Test (BIT), version reporting, Internet Protocol (IP) address ping, internal temperature

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ALE

ALE SCANNING

[3 GHI MODE] > **ALE** > **[ENT]**. If Automatic Link Establishment (ALE) is not scanning, press **[CLR]**.

ALE INDIVIDUAL CALL

[1 ABC CALL] > **AUTOMATIC** > **INDIVIDUAL** > **[ENT]**.

MANUAL call requires you to pick the channel.

ALE NET CALL

[1 ABC CALL] > **AUTOMATIC** > **NET** > **[ENT]**. Press **[CLR]** to terminate link.

ALE LQA SOUND

Link Quality Analysis (LQA) finds the best operating frequencies. LQA sounds do not require response back from other stations.

[7 STU OPT] > **ALE** > **LQA** > **SOUND** > **[ENT]**.

ALE LQA EXCHANGE

[7 STU OPT] > **ALE** > **LQA** > **EXCHANGE** > **[ENT]**.

ALE LQA SCORES

[7 STU OPT] > **ALE** > **SCORES** > **[ENT]**.

AMD MESSAGES

[7 STU OPT] > **ALE** > **ALE** > **TX_MSG** (or **RX_MSG**) > **[ENT]**.

ALE PROGRAM STEPS

- [8 VWX PGM]** > **MODE** > **PRESET** > **CHANNEL**.
- [8 VWX PGM]** > **MODE** > **ALE** > **CHAN_GROUP**.
- [8 VWX PGM]** > **MODE** > **ALE** > **ADDRESS** > **SELF**. One must be 1 -3 characters.
- [8 VWX PGM]** > **MODE** > **ALE** > **ADDRESS** > **INDIVIDUAL**.
- [8 VWX PGM]** > **MODE** > **ALE** > **ADDRESS** > **NET**. Must contain all radios in identical order.
- [8 VWX PGM]** > **MODE** > **ALE** > **PROGRAMMED** > **LQA**.
- [8 VWX PGM]** > **MODE** > **ALE** > **AMD**.

3G/3G+

3G RADIO MODE

[3 GHI MODE] > **3G** > **[ENT]**.

TOD SERVER

[7 STU OPT] > **3G** > **TODROLE** > **BASE** > **[ENT]** for Time of Day (TOD) server. All others are **OUTSTATION**.

MANUAL TOD SYNCHRONIZATION

[7 STU OPT] > **3G** > **TOD** > **[ENT]**. Outstation must be ± 7 minutes of Universal Time Coordinated (UTC). Server must be ± 15 seconds of UTC.

TOD REQUEST FROM SERVER

[1 ABC CALL] > **SYNC REQUEST** > **[ENT]**.

3G BROADCAST SYNC

[1 ABC CALL] > **BROADCAST SYNC** > **[ENT]**. **BROADCAST SYNC-ALL** can be used to transmit a sync on all channels in plan but may require time to complete.

3G POINT-TO-POINT CALL

[1 ABC CALL] > **AUTOMATIC** > **STATION** > **[ENT]**. **MANUAL** requires you to pick the channel. **BEST** uses highest LQA score. Press **[CLR]** to terminate link.

3G LQA SOUND

[7 STU OPT] > **3G** > **LQA** > **SOUND** > **[ENT]**.

3G LQA EXCHANGE

[7 STU OPT] > **3G** > **LQA** > **EXCHANGE** > **[ENT]**.

3G LQA SCORES

[7 STU OPT] > **3G** > **SCORES** > **[ENT]**.

WIRELESS MESSAGE TRANSFER

For point-to-point WMT message transfer:

- Refer to Wireless Message Terminal (WMT) manual (10515-0316-4100)
- Both radios are programmed by CPA with valid 3G fill, and include WB channels.
- Both radios have Manual or Auto 3G sync.
- Both radios are connected to PCs running WMT.
- Both WMTs are online and Idle.
- Both radios are scanning 4538 FLSU.
- Perform LQA exchange.

Frequency Hopping

HOP RADIO MODE

[3 GHI MODE] > **HOP** > **[ENT]**.

SYNC REQUEST

[1 ABC CALL] > **REQUEST** (or **BROADCAST**) > **[ENT]**.

HAIL HOPNET FROM FIX RADIO MODE

Hail must be enabled in channels 001 to 010 during channel programming.

- Use **[+ PRE -]** to select hailing preset.
- [1 ABC CALL]** > **SEND HAIL** > **YES** > **[ENT]**.
- At receiving radio, press **[ENT]** to respond to the hail.

HOP PRESET PROGRAM STEPS

In order shown:

- [8 VWX PGM]** > **MODE** > **HOP** > **CHANNEL** > **ADD** > **HOP CHANNEL**. Set channel, hop type, ID, TOD mask, autorespond
- [8 VWX PGM]** > **MODE** > **PRESET** > **MODEM**.
- [8 VWX PGM]** > **MODE** > **PRESET** > **SYSTEM**.

REFERENCE MANUALS

Operation Manual (10515-0413-4200).

Field Reference Guide (10515-0413-4100).

Due to the complexity of 3G, 3G+, and Adaptive Wideband, programming must be accomplished initially through the CPA.

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