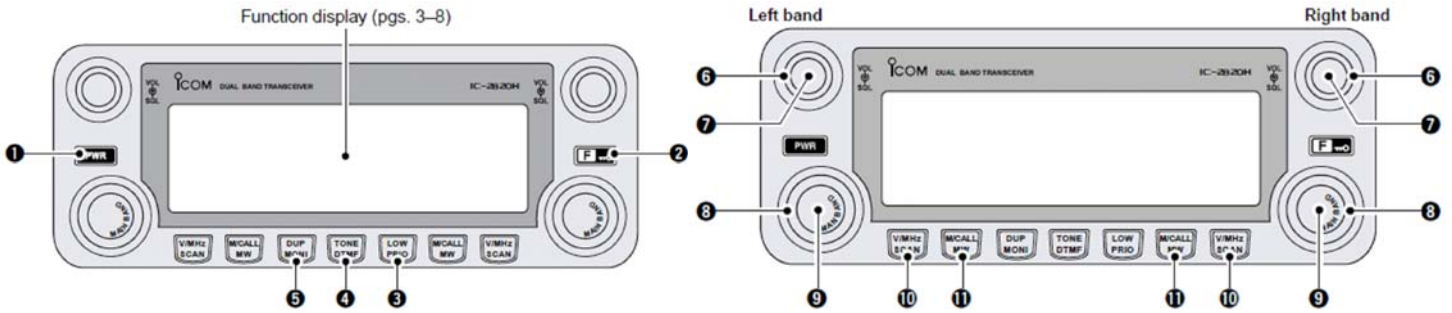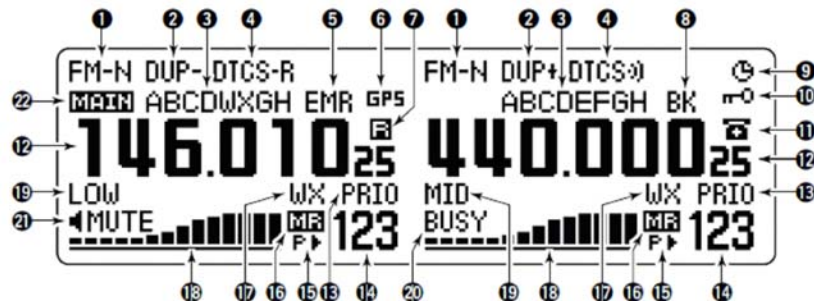# Icom IC-2820H Basic Operations
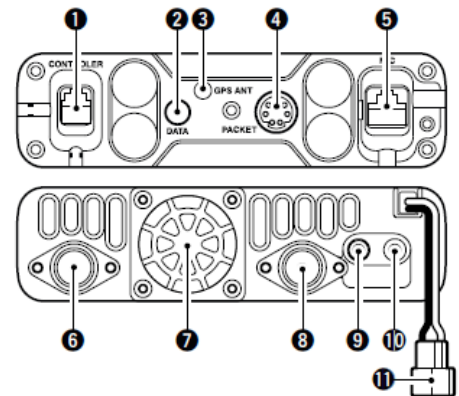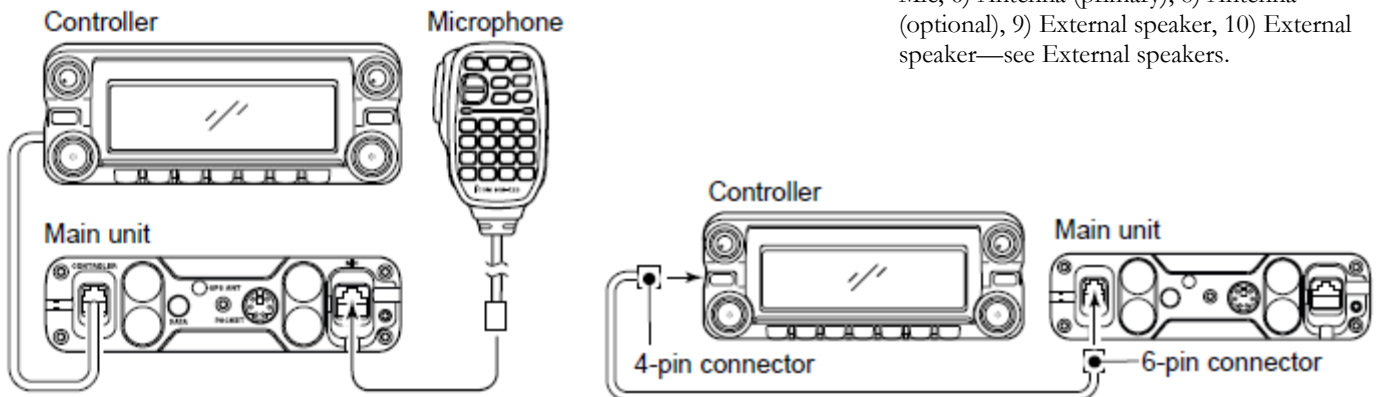## These instructions are not a substitute for reading the manual

IC-2820 Front Panel: 1) Power, 2) Function/Lock key 3) Output Power/Priority, 4) Tone/DTMF, 5) Duplex/Monitor, (Button 2-5 are for the **MAIN** band only), 6) SQL, 7) VOL, 8) DIAL, 9) MAIN band (push), 10) VFO/Tune/Scan, 11) Memory/Call/Memory write.

IC-2820 LCD Panel: Of note: 1) Operating mode indicator, 2) Duplex indicators, 3) Name indicator if programmed, 4) Tone indicator, 5/6) Not relevant without D-Star board, 10) Lock function enabled, 17) Weather indicators if programmed, 19) Power level, 22) **MAIN** band indicator

IC-2820 Main body: 1) Controller connector (6-pin), 2) & 3) Not used, 4) Packet data jack, 5) Mic, 6) Antenna (primary), 8) Antenna (optional), 9) External speaker, 10) External speaker—see External speakers.

The IC-2820 has a magnetic attached face plate. The connector cable may not be attached to the radio initially (use the short one, not the long extender cable). Note that the six-pin end goes into the main unit and the four-pin end goes into the face plate. The microphone should already be attached and covered by a faceplate.

NOTE: The IC-2820 is a dual receive radio with a *left* and *right* side and set of keys and knobs. The active side is identified by a **MAIN** icon in the top "left" corner of the active display. When the instructions refer to **MAIN** key or knob, they refer to the active transceiver side and do not affect the inactive side until the inactive side is made active.

To select the **MAIN** band, either press the **DIAL** knob on the side you wish to set active.

Preprogrammed Memory Channels and Frequencies
IC-2820

Memory Channel	Memory Name/Purpose	Frequency	Tone
1	OVH2M/Operations and Logistics	146.970 -	100 Hz
2	WWI2M/Operations and Logistics	147.240 +	
3	NVFM2M/Fairfax ARES	146.790 -	
4	NVREGN/Northern Virginia Regional Operations and Coordination	146.910 -	
5	SKYWARN/National Weather Service—Sterling	147.300 +	
6	MDREGN/Maryland Regional Operation and Coordination	147.105 +	
7	MTVERN/Mount Vernon (Alexandria)	146.655 -	141.3 Hz
8	ALEX2M/Alexandria ARES	147.315 +	
9	ARL2M/Arlington ARES	145.470 -	
10	FAQ2M/Fauquier ARES	147.470 +	167.9 Hz
11	LOU2M/Loudon ARES	145.310 -	
12	DULLES/Dulles Airport 2m machine, max 15w out	147.330 +	203.5 Hz
21	OVH440/Command and Control/Operations and Logistics	442.200 +	
22	WWI440/Command and Control/Operations and Logistics	444.900 +	
23	FALLSC/Fall Church ARES	442.425 -	91.5 Hz
24	NERA/Main Repeater, linked system	442.725 +	107.2 Hz
25	NERA/DC	449.975 -	107.2 Hz
26	KT4ER/Bull Run Mountain	448.325 -	100.0 Hz
27	NERA/Bull Run Mountain	447.775 -	67.0 Hz
33	MEDCOM/InterHospital communications/MedComm back-up	146.445	
34	ARC-CHP/Red Cross Chapter-to-Chapter communications	146.535	
35	ARC-FLD/Red Cross Field Operations	146.420	
36	XBAND1/Combine with 147.525—VHF1 (left)	445.950 (right)	100.0 Hz
37	XBAND2/Combine with 146.475—VHF2 (left)	446.050 (right)	100.0 Hz
38	XBAND3/Combine with 146.970—OVH2M (left)	445.975 (right)	100.0 Hz
39	XBAND4/Combine with 147.240—WWI2M (left)	446.025 (right)	100.0 Hz
40	Packet	145.730	
41	APRS	144.390	

Power

Turning the power on and off (Pg. 15)

To turn the radio **on**, press and hold the *[PWR]* button
For 1 second (Fig. 1). The LCD will show the
current power supply voltage for 2 seconds before
switching to normal mode.

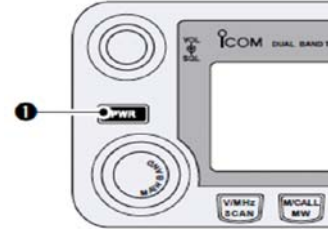To turn the radio **off**, press and hold the *[PWR]* button
for 1 seconds.

Figure 1

Changing the Transmit Power Level (Pg. 23)

Press the **[LOW-PRIO]** to change the power output levels. Low is 5W, Mid is 15W,
High is 50W on 2M and 35W on 70cm.

Memory Mode

Memory Mode Operations (Pg. 61)

The IC-2820 deployed at the EOC and Potomac Hospital have been preloaded with the
frequencies listed in this guide. To ENTER memory mode:

1. Press **M/CALL-MW** button once. The MR icon appears on the active frequency.
    You will need to do this for each active frequency once.
2. Turn the **DIAL** until the desired memory bank is displayed.
3. To enable the name function:
    A. Push the **FUNCTION** key
    B. Push the **LOW-PRIO** button once
    C. Push the **FUNCTION** key twice to return to normal operations

Locking the Radio

Locking the radio (Pg. 19)

Press the **FUNCTION-LOCK** key for 1 second to lock or unlock the frequency.

Band Management

Selecting the Operating Band (Pg. X)

Transmission is possible on the side where the **MAIN** icon is lit.

To select the left or right side for transmission:
Mic: Press the **BAND** button
Face: Briefly press the **MAIN-BAND** knob on either the left or the right side as
needed.

Selecting the Frequency Band (Pg. XI)

Press and hold the **DIAL** knob for 1 second, then rotate the **DIAL** to step through the
bands.

Direct input with Mic (Pg. XI)

Push the **VFO/LOCK** button, push the **T-OFF/ENT C** button, push the number
buttons for the frequency.

CTCSS

CTCSS Operations

Enabling CTCSS involves two steps. You have to set the Tone Frequency (Pg. 32) and enable the Tone mode (Pg. 30).

Setting the Tone Frequency (Pg. 32)

1. Push the **FUNCTION** key to display the function guide.
2. Push the **MENU (V/MHZ-SCAN)** key (Far right).
3. Rotate **DIAL** to select DUP/TONE, then push **MAIN-BAND**.
4. Rotate **DIAL** to select REPEATER TONE then push **MAIN-BAND**.
5. Rotate **DIAL** to select the tone you want, and then push **MAIN-BAND** to set.
6. Push **BACK (V/MHZ-SCAN)** (far right) twice to exit and return to normal operations

Enabling Tone Mode (Pg. 30)

1. Push **TONE-DTMF** to enable TONE. It rotates through TONE, T.SQL, and disabled.

Repeater Offsets

Setting Repeater Offsets (Pg. 30)

The IC-2820 comes preset with the following shifts: On 2m, 600 kHz; on 70cm, 5 MHz

To manually set the positive (+) or negative (-) or disable the offset, push the **DUP-MONI** button to change between off, DUP-, and DUP+

This works ONLY for the active frequency.

Cross Band Repeater Operations

Enabling the cross band function (Icom KB 743G461664)

1. Configure the band(s) as needed with power levels and TONE as needed.
2. Press and hold both left and right **MAIN** dials then the **FUNCTION** key together. After two beeps, the lock key will flash in the upper right of the display.
3. When in cross band mode, the VHF frequency is on the left and the UHF frequency is on the right.
4. Repeat step 2 to return to normal operations.