

# **Instruction Manual**

**MODEL  
(VHF-125)**

# Contents

## Chapter 1. Channel Table

## Chapter 2. External Feature

### 2.1 LCD Display

1. Power On/Off Key
2. Rx/Tx Channel Change
3. USA/INTERNATIONAL/CANADIAN Mode Change
4. Volume Level Setting
5. Transmit Operation
6. Weather Channel
7. Scan
8. Channel 16/9 Key
9. Dual Watch
10. MEMory
11. Tx Output Power Selection
12. Key-Pad Lock
13. Receive Operation
14. Squelch Level Setting
15. Radio Initial
16. Initializing Condition
17. Battery Level display & Low

# 1 Frequency Chart

## 1.1. USA Frequency Chart

Ch No.	Rx Freq (MHz)	Tx Freq (MHz)	Status	Name
1	156.0500	156.0500		OPS/VTs
2	X	X	TX/RX Inhibit	
3	156.1500	156.1500		US CG
4	X	X	TX/RX Inhibit	
5	156.2500	156.2500		OPS/VTs
6	156.3000	156.3000		SAFETY
7	156.3500	156.3500		COMMER
8	156.4000	156.4000		COMMER
9	156.4500	156.4500		CALLING
10	156.5000	156.5000		COMMER
11	156.5500	156.5500		VTs
12	156.6000	156.6000		OPS/VTs
13	156.6500	156.6500	1 W Only	BRG-BRG
14	156.7000	156.7000		OPS/VTs
15	156.7500	<i>Inhibit</i>	TX Inhibit	ENVIRON
16	156.8000	156.8000		DISTRES
17	156.8500	156.8500	1W Only	SAR
18	156.9000	156.9000		COMMER
19	156.9500	156.9500		COMMER
20	157.0000	157.0000		PORT OPR
21	157.0500	157.0500		US CG
22	157.1000	157.1000		CG
23	157.1500	157.1500		US CG
24	161.8000	157.2000	RX/TX Shift	MAR OPER
25	161.8500	157.2500	RX/TX Shift	MAR OPER
26	161.9000	157.3000	RX/TX Shift	MAR OPER
27	161.9500	157.3500	RX/TX Shift	MAR OPER
28	162.0000	157.4000	RX/TX Shift	MAR OPER

Ch No.	Rx Freq(MHz)	Tx Freq(MHz)	Status	
60	X	X	TX/RX Inhibit	
61	156.07500	156.07500		US CG
62			TX/RX Inhibit	
63	156.1750	156.1750		OPS/VTs
64	156.2250	156.2250		COMMER
65	156.2750	156.2750		PORT OPR
66	156.3250	156.3250		PORT OPR
67	156.3750	156.3750	1W Only	BRG-BRG
68	156.4250	156.4250		IN SHIP
69	156.4750	156.4750		PLEASUR
70	156.5250	<i>Inhibit</i>	TX Inhibit	DSC
71	156.5750	156.5750		PLEASUR
72	156.6250	156.6250		IN SHIP
73	156.6750	156.6750		PORT OPR
74	156.7250	156.7250		PORT OPR
75	X	X	TX/RX Inhibit	
76	X	X	TX/RX Inhibit	
77	156.8750	156.8750	1W Only	PORT OPR
78	156.9250	156.9250		IN SHIP
79	156.9750	156.9750		COMMER
80	157.0250	157.0250		COMMER
81	157.0750	157.0750		US CG
82	157.1250	157.1250		US CG
83	157.1750	157.1750		US CG
84	161.8250	157.2250	RX/TX Shift	MAR OPER
85	161.8750	157.2750	RX/TX Shift	MAR OPER
86	161.9250	157.3250	RX/TX Shift	MAR OPER
87	161.9750	157.3750	RX/TX Shift	MAR OPER
88	157.4250	157.4250		COMMER

### 3.4.2 INT Frequency Chart

Ch No.	Rx Fre (MHz)	Tx Freq (MHz)	Status	Name
1	160.6500	156.0500	RX/TX Shift	MAR OPER
2	160.7000	156.1000	RX/TX Shift	MAR OPER
3	160.7500	156.1500	RX/TX Shift	MAR OPER
4	160.8000	156.2000	RX/TX Shift	PORT OPR
5	160.8500	156.2500	RX/TX Shift	OPS/VTs
6	156.3000	156.3000		SAFETY
7	160.9500	156.3500	RX/TX Shift	OPER OPR
8	156.4000	156.4000		COMMER
9	156.4500	156.4500		CALLING
10	156.5000	156.5000		COMMER
11	156.5500	156.5500		VTs
12	156.6000	156.6000		OPS/VTs
13	156.6500	156.6500		BRG-BRG
14	156.7000	156.7000		OPS/VTs
15	156.7500	156.7500	1W only	ENVIRON
16	156.8000	156.8000		DISTRES
17	156.8500	156.8500	1W only	SAR
18	161.5000	156.9000	RX/TX Shift	PORT OPR
19	161.5500	156.9500	RX/TX Shift	COMMER
20	161.6000	157.0000	RX/TX Shift	PORT OPR
21	161.6500	157.0500	RX/TX Shift	PORT OPR
22	161.7000	157.1000	RX/TX Shift	PORT OPR
23	161.7500	157.1500	RX/TX Shift	MAR OPER
24	161.8000	157.2000	RX/TX Shift	MAR OPER
25	161.8500	157.2500	RX/TX Shift	MAR OPER
26	161.9000	157.3000	RX/TX Shift	MAR OPER
27	161.9500	157.3500	RX/TX Shift	MAR OPER
28	162.0000	157.4000	RX/TX Shift	MAR OPER

Ch No.	Rx Freq (MHz)	Tx Freq (MHz)	Status	Name
60	160.6250	156.0250	RX/TX Shift	MAR OPER
61	160.6750	156.0750	RX/TX Shift	PORT OPR
62	160.7250	156.1250	RX/TX Shift	PORT OPR
63	160.7750	156.1750	RX/TX Shift	PORT OPR
64	160.8250	156.2250	RX/TX Shift	MAR OPER
65	160.8750	156.2750	RX/TX Shift	PORT OPR
66	160.9250	156.3250	RX/TX Shift	PORT OPR
67	156.3750	156.3750		BRG-BRG
68	156.4250	156.4250		SHP SHP
69	156.4750	156.4750		PORT OPR
70	156.5250	<i>Inhibit</i>	Tx Inhibit	DSC
71	156.5750	156.5750		PORT OPR
72	156.6250	156.6250		IN SHIP
73	156.6750	156.6750		PORT OPR
74	156.7250	156.7250		PORT OPR
75	X	X	TX/RX Inhibit	
76	X	X	TX/RX Inhibit	
77	156.8750	156.8750		IN SHIP
78	161.5250	156.9250	RX/TX Shift	NON COM
79	161.5750	156.9750	RX/TX Shift	PORT OPR
80	161.6250	157.0250	RX/TX Shift	PORT OPR
81	161.6750	157.0750	RX/TX Shift	PORT OPR
82	161.7250	157.1250	RX/TX Shift	PORT OPR
83	161.7750	157.1750	RX/TX Shift	MAR OPER
84	161.8250	157.2250	RX/TX Shift	MAR OPER
85	161.8750	157.2750	RX/TX Shift	MAR OPER
86	161.9250	157.3250	RX/TX Shift	MAR OPER
87	157.3750	157.3750	RX/TX Shift	MAR OPER
88	157.4250	157.4250	RX/TX Shift	MAR OPER

### 3.4.3 CAN Frequency Chart

Ch No.	Rx Freq (MHz)	Tx Freq (MHz)	Status	Name
1	160.6500	156.0500	RX/TX Shift	MAR OPER
2	160.7000	156.1000	RX/TX Shift	MAR OPER
3	160.7500	156.1500	RX/TX Shift	MAR OPER
4	156.2000	156.2000		CAN CG
5	156.2500	156.2500		OPS/VTs
6	156.3000	156.3000		SAFETY
7	156.3500	156.3500		COMMER
8	156.4000	156.4000		COMMER
9	156.4500	156.4500		CALLING
10	156.5000	156.5000		COMMER
11	156.5500	156.5500		OPS/VTs
12	156.6000	156.6000		VTs
13	156.6500	156.6500	1W only	BRG-BRG
14	156.7000	156.7000		OPS/VTs
15	156.7500	156.7500	1W only	ENVIRON
16	156.8000	156.8000		DISTRESS
17	156.8500	156.8500	1W only	SAR
18	156.9000	156.9000		COMMER
19	156.9500	156.9500		CAN CG
20	161.6000	157.0000	RX/TX Shift, 1W	CAN CG
21	157.0500	157.0500		PORT OPR
22	157.1000	157.1000		US CG
23	161.7500	157.1500	RX/TX Shift	MAR OPER
24	161.8000	157.2000	RX/TX Shift	MAR OPER
25	161.8500	157.2500	RX/TX Shift	MAR OPER
26	161.9000	157.3000	RX/TX Shift	MAR OPER
27	161.9500	157.3500	RX/TX Shift	MAR OPER
28	162.0000	157.4000	RX/TX Shift	MAR OPER

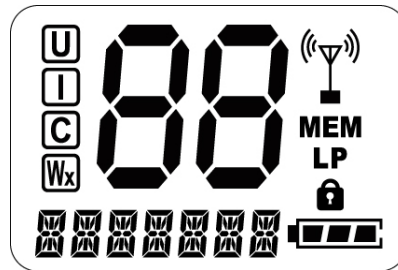
Ch No.	Rx Freq (MHz)	Tx Freq (MHz)	Status	Name
60	160.6250	156.0250	RX/TX Shift	MAR OPER
61	156.0750	156.0750		CG
62	156.1250	156.1250		CAN CG
63			TX/RX Inhibit	
64	156.2250	156.2250		MAR OPER
65	156.2750	156.2750		PORT OPR
66	156.3250	156.3250	1W Only	PORT OPR
67	156.3750	156.3750		BRG-BRG
68	156.4250	156.4250		NON COML
69	156.4750	156.4750		PLEASUR
70	156.5250	<i>Inhibit</i>	Tx Inhibit	DSC
71	156.5750	156.5750		PLEASUR
72	156.6250	156.6250		IN SHIP
73	156.6750	156.6750		COMMER
74	156.7250	156.7250		COMMER
75			TX/RX Inhibit	
76			TX/RX Inhibit	
77	156.8750	156.8750	1W Only	PORT OPR
78	156.9250	156.9250		SHP SHP
79	156.9750	156.9750		COMMER
80	157.0250	157.0250		COMMER
81	157.0750	157.0750		US CG
82	157.1250	157.1250		CG
83	157.1750	157.1750		CAN CG
84	161.8250	157.2250	RX/TX Shift	MAR OPER
85	161.8750	157.2750	RX/TX Shift	MAR OPER
86	161.9250	157.3250	RX/TX Shift	MAR OPER
87	161.9750	157.3750	RX/TX Shift	MAR OPER
88	162.0250	157.4250	RX/TX Shift	MAR OPER




#### 3.4.4 Weather Frequency

Ch No.	Rx Frequency (MHz)	Name
WX01	162.5500	WX 01
WX02	162.4000	WX 02
WX03	162.4750	WX 03
WX04	162.4250	WX 04
WX05	162.4500	WX 05
WX06	162.5000	WX 06
WX07	162.5250	WX 07
WX08	161.6500	WX 08
WX09	161.7750	WX 09
WX10	163.2750	WX 10

## 2.1 LCD Display




.  : Displaying USA

.  : Displaying International

.  : Displaying Canadian

.  : Displaying Weather Channel

.  : Channel Number display segment


.  : Displaying Rx status

.  : Displaying Tx status

. MEM : Displaying Channels memorized

. LP : Tx Power display  
5W (High) Power (No display), 1W (Low) Power (LP-Display)

.  : Displaying Locking Button Satus.

.  : Channel Name or Radio condition display segment

.  : Battery Level display icon → 3 Level

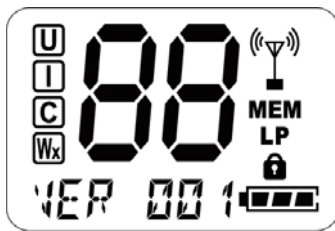
## 1. Power On/Off Key

Press Power key for 2 sec, Power on

On Power on, If Power key is pressed for 1.5sec, Power off

On Power on, Being displayed all things and Radio's version with LCD as well as Power on beep tone.

When Power-On, the last used Country mode(USA/INT/CAN) and channel is restored and last used condition such as TX Power, H/M/L, Key Lock, Squelch Level or something will be restored.



## 2. Rx/Tx Channel Change

Press ▲ or ▼ keys in RX or RX standby status for changing current RX/TX channels. If press ▲ or ▼ keys for more than 1sec, the channel increase or decrease rapidly.

## 3. USA/INTERATION/CANADIAN Mode Change

Press VOL(U/I/C) key for more than 2sec, it goes to USA → INT → CAN in turn.

\*\* When Country mode is changed, the channel goes to Ch16



## 4. Volume Level Setting

VOL(U/I/C) key is pressed shortly (within 1sec), it goes to Volume level setting mode.



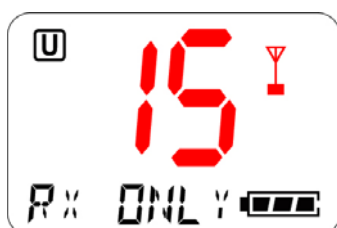
. From the above mode, change and control squelch level by pressing ▲ or ▼ keys.  
(Total 17 levels: 00 ~ 16)

- . Under the above state, PTT button or VOL(U/I/C) key is pressed, changed Volume Level is saved and exit to Channel No. display (Stand-by mode).
- . Under the above state, Any key(excluding PTT button and VOL(U/I/C) key) is pressed, changed Volume Level is not saved and exit to Channel No. display (Stand-by mode).
- . Under the above state, if any key is not pressed for more than 3 seconds, the changed Volume Level is saved and exit to Channel No. Display (Stand-by Mode)

## 5. Transmit Operation



- \*\* If press PTT key at weather channel mode, an error beep tone will sound, the channel number and TX icon will blink.
- \*\* If press PTT key at TX inhibited channel, an error beep tone will sound, the channel number and TX icon will blink.

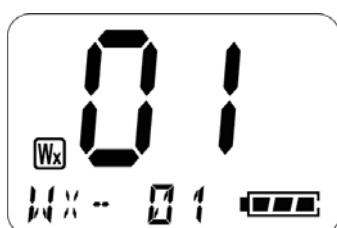


- \*\* After the channel number and TX icon blinked three times, go back to the normal display.
- \*\* Receiving continuously in case of busy and the channel number and TX icon blinked three times.

## 6. Weather Channel

WX(DW) key is pressed shortly within 1sec, it toggles Weather  $\leftrightarrow$  Marine mode.

\*\* WX Mode display



\*\* Marine Mode display



\*\* It doesn't work with beep tone if press MON(H/L), SCAN(MEM) key at WX mode.

\*\* It doesn't work if VOL(U/I/C) key for over 2sec at WX mode.

## 7. SCAN

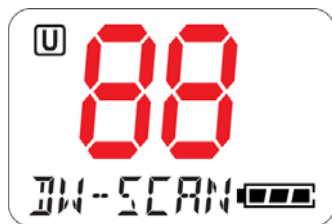
Scan a MEM channel which is being MEM if press and release SCAN(MEM) key within 1sec.(Memory Scan)

ex) MEM Channel : 1, 10, 15, 65, 77

Scan sequence : Ch1→Ch10→Ch15→Ch65→Ch77→Ch1→Ch10→ ...

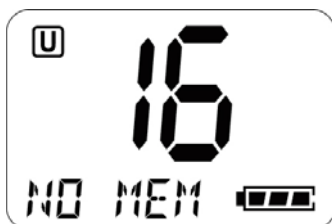


In case of Scan and DW mode setting

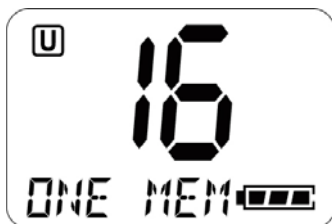


\*\* No scanning with error beep tone if press SCAN(MEM) key at WX mode.

\*\* No scanning with error beep tone if there's no MEM channel.



\*\* If there is only one channel in the scan memory, the radio will sound error tone and move to appropriate channel.

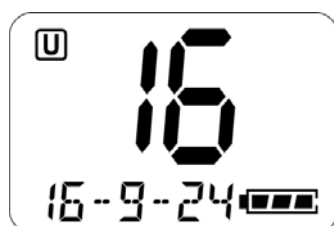


- \*\* In scanning if a signal is received on a channel, it receives until the signal disappears and the stays 3 seconds (Scan Delay). If there is no further signal, it resumes scanning.
- \*\* In scanning, if PTT button is pressed,
  - It transmit in receive channel if the radio is in receive or scan delay time.
  - It transmit scanning start channel (SCAN Home Channel) if the radio is scanning.
- \*\* You can change the order in which the channel are scanned (increasing or decreasing) by pressing the ▲ or ▼ keys.
- \*\* If the 16/9 key is pressed shortly(less than 1sec), the radio will switch from Ch 16 to Ch 9 and back to Scan Mode in turn.
- \*\* If Scan key is pressed during scanning(including "Receive", "Scan", "Scan Delay time"), Scanning will be stopped on the start channel(SCAN Home Channel)
- \*\* Pressing the WX(DW) key while scanning will change to weather channel mode.
- \*\* Pressing the SQL(U/I/C) key briefly(less than 1 sec) while scanning will change to squelch change mode. The LCD display will show the squelch level(which can be changed with the ▲ or ▼ keys)and the radio will continue to scan.
- \*\* Pressing the VOL(U/I/C) key shortly(less than 1sec) while scanning will change to volume level change mode after stopping scan for a while. The LCD display will show the volume level(which can be changed with the ▲ or ▼ keys) and the radio will continue to scan.
- \*\* Pressing the VOL(U/I/C) key for over two seconds while scanning will stop SCAN and change country change mode in turn.
- \*\* If the SQL(H/L) key is pressed while scanning, the radio will make an error tone and the key press will be ignored.

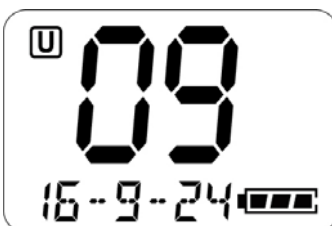
## 8. Channel 16/9 key

Each time the 16/9 key is pressed shortly(within 1sec), Channel 16 → Channel 9 → current Channel in turn.

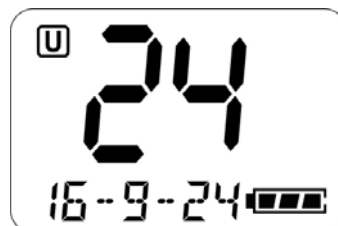
\*\* Channel 16 display



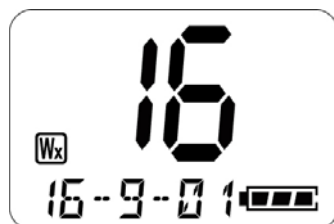
\*\* Channel 9 display



\*\* current Channel display



\*\* Channel 16 display



\*\* Channel 9 display



\*\* current WX Channel display



\*\* If 16/9 key is pressed in WX mode, WX mode is paused temporally and it changes Channel 16 → Channel 09 → WX mode in turn.

\*\* If 16/9 key is pressed in scanning, scanning is paused temporally and it changes Channel 16 → Channel 09 → scan in turn.

\*\* If 16/9 key is pressed in DW mode, DW operation is paused temporally and it changes Channel 16 → Channel 09 → the current channel (Dual watch re-operation) in turn.

\*\* If VOL(U/I/C) key is pressed more than 2sec, it changes country mode and disables Channel 16 or Channel 9 mode.

\*\* If WX(DW) key is pressed over 2 sec, it sounds error beep tone and does not work DW.

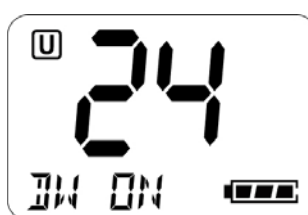
\*\* When channel is on 16 or 9 by pressing 16/9 key, If ▲ or ▼ keys is pressed, channel is goes up or down from displayed channel(16 or 9)  
(Restore Scan Mode or Dual watch Mode)

## 9. Dual Watch

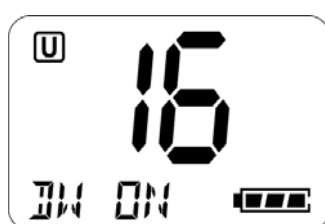
If WX(DW) key is pressed over 2 sec, CH16 will be checked for every two seconds.

ex) Marine USA mode Channel 24,DW on

\*\* CH 24(current) -> ( 2 second later ) -> Check Ch16 -> Back to Ch 24



ex) Weather Channel 01 ,DW on



\*\* A Channel is received on Dual Watch Mode

1) In case of the received Channel is Ch16

Keep receiving traffic until the traffic is missed and waiting for three second on Ch16 after the receiving is finished and then the Dual Watch function will be on again if no further traffic is detected.

2) In case of the received Channel is not the Ch16

CH16 will be being checked for every two seconds and Radio will be on standby with pausing for three seconds after traffic is missed and then the Dual Watch function will be on again

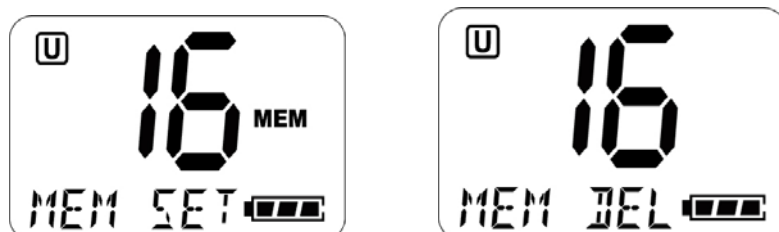
\*\* If the PTT key is pressed to transmit while Dual Watch mode in on

1) While the radio is receiving a traffic or has Dual Watch Delay time, the radio will transmit through the current received channel

2) Beside the above cases , the radio will transmit through the Main channel not the Ch16 after transmission, delay for 3 seconds at transmitted channel (Dual Watch delay) and reset Dual Watch.

## 10. MEMory

Press SCAN(MEM) key for 2 seconds to release or set MEM.



\*\* When scan is required, only scan MEM Channel

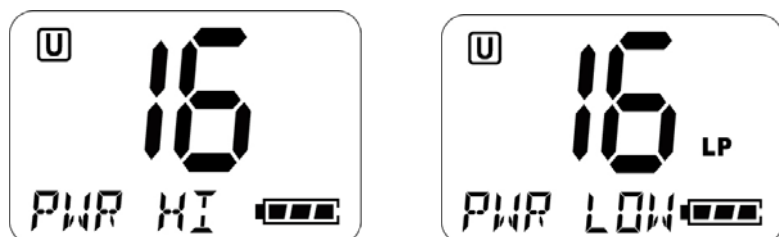
\*\* In WX Channel mode, noise comes out and not work out.

\*\* On scan, noise comes out and MEM key is disregarded.

## 11. Tx Output Power Selection

SQL(H/L) key is pressed for 2 sec, output power setting is changed High Power(5W) → Low Power(1W) in turn.

\*at Low power → 1.0 W icon Display → LP





\*\* Because of fixed Low Power(1W), if it is pressed H/L Key channel which fixed as Low Power only channel shouldn't be worked out.

(USA mode Ch 13,17,17,67,77, INT mode Ch 15, 17, CAN mode Ch 13,15,17,20,66,77)

\*\* If SQL(H/L) key is pressed Tx inhibit Channel would make a noisy and not work out.

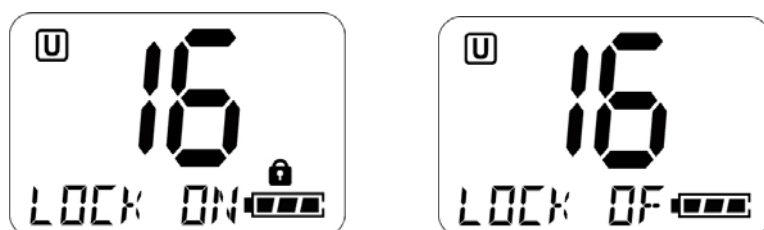
(WX mode All channel, USA mode Ch, 15,70, INT mode Ch 70, CAN mode Ch 70)

\*\* On scan, If SQL(H/L) key is pressed, noisy comes out and not work out.

\*\* In WX mode If SQL(H/L) key is pressed noisy comes out and not work out.

## 12. Key-PAD Lock

Press MON(LK) key for 2 sec , Key-PAD Lock would be set or released.



\*As Key Lock is operated, any other key should be not working except PTT button and MON(LK) key.

## 13. Receive Operation

On receiving, Busy icon on



## 14. Squelch Level Setting

Press and release SQL(H/L) key in shortly (within 1 sec), it should move to squelch level setting mode.

Control squelch control by using ▲ or ▼ keys



. From the above mode, change and control squelch level by pressing ▲ or ▼ keys.

(Total 9 levels: 00 ~ 08)

Level 00(SQL – 00): It will open the squelch regardless of the signal condition.

- . Under the above state, PTT button or SQL(H/L) key is pressed, changed squelch level is saved and exit to Channel No. display (Stand-by mode).
- . Under the above state, Any key(excluding PTT button and SQL(H/L)key) is pressed, changed Squelch Level is not saved and exit to Channel No. display (Stand-by mode).
- . Under the above state, if any key is not pressed for more than 3sec, the changed squelch level is saved and exit to Channel No. Display (Stand-by Mode)

## 15. Radio Initial

With pressed WX(DW) key, power on and initialize Memory states.

## 16. Initializing Condition

Country Mode : USA Mode

Last Used Channel : 16

WX mode : release

WX Last Used Channel : 01

Key Lock : release

Dual Watch : release

All Channel MEM : release

Squelch level : 8

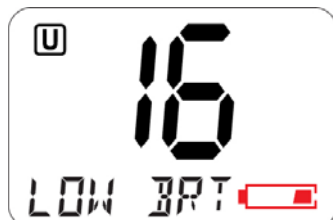
Volume Level : 9

## 17. Battery Level display & Low Battery display

Check battery level to display battery level periodically

If Battery Level drops under the ruled voltage, it turns Low Battery.

At low battery, Display low battery according to following picture and display error message one time at 10 seconds.



With sound of noisy, display message for 3 seconds and moves to Channel No. display

At low battery, blink 'Battery' icon and press PTT button trying to transmit.

The first round permits transmission and next round doesn't allow transmission for

displaying low battery error message.