WT-402 Instruction Manual

Key Location Graph

**FRS Main Screen** (Figure 1)

   1—The FRS Icon

     -- ▮ Normal Status   ▷ VOX Status

   2—Key Lock Icon

   3—Battery Icon

    --Full ▬

    -- Empty ⬜ The unit will make a "beep" sound every 15 seconds

     to let you know you have to change the batteries.

   4—Sub-code

    --CTCSS code   (1-38 sub-codes)

    --No Display (No any code)

   5—Channels (1-14)

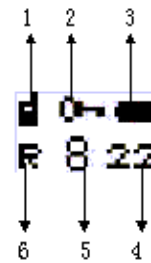   6—"**R**" means receiving   --"**T**" means transmitting

Radio Main Screen   Figure 2

   1—Radio Icon –in FM Radio status

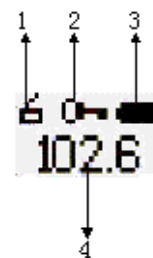   2—Key Lock Icon

   3—Battery Icon (same as the FRS, See Figure 1)

   4—FM Broadcasting Station—Current FM broadcasting station

(Figure 1)

(Figure 2)

Installing Batteries

1. Rotate the belt clip anti-clockwise
2. Open the battery door
3. Install the batteries according to the anode-cathode signs shown in the battery compartment
4. Close the battery door and rotate the belt clip clockwise.

Note: please use 4"AAA" batteries

QUICK GUIDE

1. When the unit is ready

A – Open the unit install the batteries & press the MODE key for 1 sec., then you can hear a "DI", it means the unit is ready.

B -- Unlock If the unit has been locked (Refer to Figure 1) press the MODE key first, then press the UP key in 1 sec. After that the lock will be unlocked, and a "DI, DI" sound will be heard (Refer to Figure 3).

2. How to talk with your friend

A. You must make sure the unit is on the FRS status (As Figure 3), if the unit is on FM radio status please press the FM key to change it on the FRS status.

B. Select the same channel & sub-code as that of your friend's, e.g. CH 8, SUBCODE 22)

B1-In figure 3, press the UP key to enter the Figure 4

B2-Press the MODE key to enter figure 5

B3-Press the UP/DOWN key to select the channel from 1 to 14. In this case, you need to choose channel 8

B4-Press the MODE key to confirm the setting & return the main menu (Figure 3)

B5-In the figure 3, press the UP/DOWN key to enter figure 6

B6-Press the MODE key to enter figure 7

B7-Press the UP/DOWN key to select the sub-code from 0-38. In this case, you need to choose subcode 22.

B8-Press the MODE key to confirm the setting and return the main menu (Figure 3)

C. Press the CALL or PTT key to connect the other side

--Press the CALL key once to make a call ring tone or press the PTT key as long as you would like to talk to the other user. If the device is in the transmitting status,
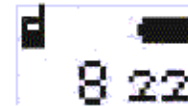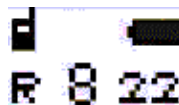
(Figure 3)

(Figure 4)

(Figure 5)

(Figure 6)

(Figure 7)

(Figure 8)

(Figure 9)

"T" would be displayed on the LCD. (Refer to Figure 8).

D. Release the CALL or PTT key to receive the signal from the other user.

--Release the CALL/PTT key and wait for signal, Refer to Figure 9, if **"R"** is displayed, it means that the device is in the receiving status. You can hear the call ring tone or the talk from the other user.

3. How to hear the FM station

A. Press the FM key to change you unit status is in FM radio station. (as Figure 10)

B. To select the FM radio station (e.g. FM 102.6 MHz)
   B1—In the figure 10, press the UP key to enter the figure 11
   B2—Press the MODE key to enter the figure 12
   B3—Press the UP/DOWN key to change the FM radio station that you like. (e.g. 87.5-108.0 MHz)
   B4—Press the MODE key to confirm the setting & return the main
   FM screen figure10

C. To adjust the suitable volume
   C1—In the figure 10 press the UP/DOWN key to enter the figure 13
   C2—Press the MODE key to enter the figure 14
   C3—Press the UP/DOWN key to adjust the volume until you are satisfied.
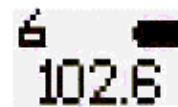   C4—Press the MODE key to confirm the setting and return the main screen figure 10.

Figure 10

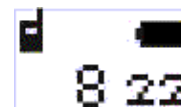Freq

(Figure 11)

102.6

(Figure 12)

VOL

(Figure 13)

(Figure 14)

Functions Setup

1 Setup the FRS Function

------To make sure your unit is in FRS status first, (Figure 15) if the unit is in FM radio status, please press the FM key to return the FRS status then setting the below functions.

A----Changing Channels

A1---In figure 15, press the UP key to enter figure 16

A2---Press the MODE key to enter figure 17

A3---Press the UP/DOWN key to change the channel 1-14 ,it'll change the channel number sequentially from 1 to 8 or the other way round if pressing time over 1 second .

A4---Press the MODE key to confirm the setting and return the main screen.

B----Changing Subcodes

B1---In figure 15, press the UP/DOWN key to enter the figure 18.

B2---Press the MODE key to enter figure 19

B3---Press the UP/DOWN key, it will change the subcodes sequentially from 1 to 38 or the other way round, if pressing time is over 1 sec.

B4---Press MODE key to confirm the setting and return the main screen.

C----To Adjust the Suitable Volume

C1---In figure 15, press the UP /DOWN key to enter the figure 20

C2--Press the MODE key to enter figure 21.

C3--In figure 21, press the UP/DOWN key to change the VOL level, it'll change the VOL continually if you press the UP/DOWN key more than 1 second.

C4—Press the MODE key to confirm the setting and return the main screen.

(Figure 15)

(Figure 16)

(Figure 17)

(Figure 18)

(Figure 19)

Figure 20

Figure 21

D----Changing SQ

D1---In figure 15, press the UP/ DOWN key to enter figure 22.

D2---Then press the MODE key to enter its figure 23

D3---Press the UP/DOWN key to change the SQ level, it'll change the SQ continually if you press the UP/DOWN key more than 1 second.

D4---Then press the MODE key again to confirm the setting and return the main screen.

Figure 22

Figure 23 is labeled below the second image.

E----Open/Close the VOX & Modulation Sensitivity

Ea----Open the VOX

Ea1---In figure 15, press the UP/DOWN key to enter figure 24.

Ea2---Press the MODE key to enter figure 25

Ea3---Press the UP/DOWN key to move the arrow on the selectable item "on".

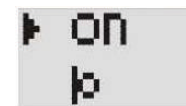Ea4---Press the MODE key to confirm the VOX has been opened, and returned to the main VOX screen figure 26.

Eb--Off the VOX

Eb1---In figure 15, press the UP/DOWN key to enter figure 24.

Eb2---Press the MODE key to enter its figure 27 (after the VOX has been opened)

Eb3---Press the UP/DOWN key to move the arrow on the selectable item "off".

Eb4---Press the MODE key to close the VOX and return the main screen.
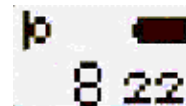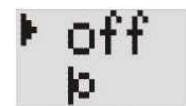
Ec---Changing the VOX Sensitivity

Ec1---In figure 25 or 27, press the UP/DOWN key to move the arrow on the "▷"

Ec2---Press the MODE key to enter figure 28.

Ec3---Press the UP /DOWN key to change the sensitivity of VOX it will change the VOX continually if you press the UP/DOWN key more than 1 second.

Ec4---Press the MODE key to confirm it is in the main screen.

Figure 22

(Figure 23)

Figure 24

Figure 25

Figure 26

(Figure 27)

(Figure 28)

F----To select the Call Tone

F1---In figure 15, press the UP/DOWN key to enter figure 29

F2---Then press the MODE key again to enter the figure 30

F3---Press the UP/DOWN key to select the tone (1-14)   the tone number will be change continually if you press the UP/DOWN key more than 1sec.

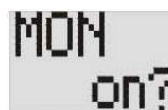(each call tone would be displayed for you during your selecting procedure)

F4---Press the MODE key to confirm the setting and return the main screen.
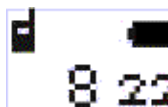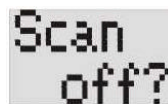
G----Open/Close the MON Function

G1---In figure 15, press the UP/DOWN key to enter figure 31.

G2---Press the MODE key to open the MON function (as figure 32)

G3---When the MON function has been activated, only SQ & VOL menu are effective, their setup method has been mentioned above.

G4---In figure 32, press the MODE key to switch off the MON function.

H----Open/Close the Channel & the auto-scan of Sub-code

Ha---Turn on   **ON**

Ha1---In figure 15, press the UP/DOWN key to enter figure 33

Ha2---Press the MODE key to enter its figure 34

Ha3---Press the UP/DOWN key to move the arrow on "UP" or "DOWN", in this way, you can choose the scanning direction

Ha4---Press the MODE key to confirm the scanning direction & to enter figure 35

Ha5---Both of the channel number & the sub-code number are changing, it will stop 10 seconds when the unit find a channel and a subcode   in which transmission is taking place.   Press the MODE key to confirm and stop scanning.   After that, you would stay in that particular channel and subcode.   If you do not press the MODE key, after 10 seconds, scanning will take place again, unless you switch off the auto-scan function.

Hb---**OFF   When the scan is opened**

Hb1---In figure 15, press the UP/DOWN key to enter figure 36.

Hb2---Press the MODE key to confirm switch MON off.

(Figure 29

Figure 30

(Figure 31)

(Figure 32)
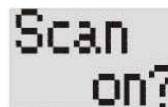
Figure 33

Figure 34

Figure 35

(Figure 36)

2   Setup the FM Radio Function

------ To make sure your unit is in the FM radio status first, (Figure 37)   if the unit is in FRS status, please press the FM KEY to return the FM radio status then setting the below functions.

Figure 37

A----To Select the FM Radio Station

A1---In figure 37, press the UP/DOWN key to enter figure 38

A2---Press the MODE key to enter figure 39

A3---Press the UP/DOWN key to change the FM radio station in your preferred direction.

A4---Press the MODE key to confirm the setting & return the main FM radio screen figure 37.
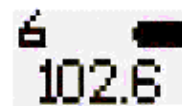

(Figure 38)

B   Auto-scan of the FM Station

B1---In figure 37,   press the UP/DOWN key to enter figure 38

B2---Press the MODE key to enter figure 39

B3---In figure 39, press the UP/DOWN key lsec.   the radio station will auto-scan up or down, LCD would change to figure 40 while scanning is taking place.

B4---The radio station is changing automatically, when it finds a station frequency will stay there for10 seconds, press the MODE key to confirm choosing the frequency, and auto-scan would be finished.   Otherwise, it will scan repeatedly after 10 seconds unless you switch off the auto-scan.

(Figure 39)

Figure 40

C   To adjust the Suitable Volume

C1---In figure 37, press the UP/DOWN key to enter figure 41

C2---Press the MODE key to enter figure 41

C3—Press the UP/DOWN key to adjust the volume until you are satisfied.

C4—Press the MODE key to confirm the setting and return the main screen.

(Figure 41)

Figure 42

D   Select to return to the FRS Status

D1---In the figure 37, press the UP/DOWN key to enter the figure 43

D2---Press the MODE key to enter the figure 44

D3---Press the UP/DOWN key to select "Auto" or "Manu"

D4---Press the MODE key to confirm

(Auto---means when the unit receive a signal from the other user, it will switch to the FRS status from FM radio status automatically.

(Manu---means when the unit receive from the other user, it will inform you first, then you can decide to stay in FM Radio Status or to go to FRS Status)

Figure 43

Figure 44

E----What to do if FRS signal comes while the unit is in FM radio status

    E1---While listening to FM Radio, and the unit setting is in auto-to-FRS status (Auto), once a FRS signal come s, the unit will return the FRS status automatically.

    E2---While listening to FM Radio, and the unit setting is in manual-to-FRS status (Manu), once a FRS signal comes, it will display the select menu as shown in figure 45. At the same time, it will send out "beep" sound once and LCD will flash in every 0.5 second. Flashing light will last for 10 seconds in total.

    E3---Press the UP/DOWN key to select whether you would like to go to FRS status or to stay in FM radio status, then press the MODE key for confirm. (If the key has been locked, the device must be unlocked first)
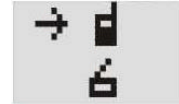
Figure 45

  -- █ means return the FRS status

  -- 🔺 means stay on the FM radio station

F---To press the PTT to return the FRS status

    ---In the FM radio status, whenever you press the PTT key, the device will go to the FRS status, when you release the PTT key, it will come back to the FM radio status.

■ If the device receive a signal from the other user, it will display menu as shown in figure 45 automatically, provided the device is in manual-to-FRS status.

■ Or it will return to the FRS status automatically, provided the device is in auto-to-FRS status.

3 Setup others function

LED (Figure 46)

LED C0 (Figure 47)

A LCD Backlit

A-1 LCD Backlit would be on for about 8 sec., once a key is pressed.

A-2 *Turn on and off the LED light (Colour Selection)*

- Press UP/Down Key when the in the status as what Figure 15 shown, in this way the menu in Figure 46 will be pulled down.
- in the menu of Figure 46, press MODE KEY to enter the menu of Figure 47
- in the menu of Figure 47, press UP/DOWN KEY to select C0-C2
- Press MODE KEY to confirm the colour of Backlit selected, the unit will return to the status shown in Figure 15.

B Key lock or unlock

----In the main FRS or FM radio screen, press the MODE key first   then press the UP key in 1 sec., you can lock or unlock for all the keys, except PTT key.

C Auto-resume of the menus

----When the menu is opened, if there is no operation in 5 seconds, it will return to the main screen automatically after 5 seconds.

D Fast Changing

----Used the UP or DOWN key to select the menu or adjust channel, subcode, volume setting, etc., it will no. of channel and subcode or the volume setting in sequentially, if you press the UP or Down key for more than 1 second.

D LCD BACKLIT

---LCD Backlit will be on for about 8 second when any key is pressed.

4 Power Off

----In the main FRS or FM radio screen, pressing the MODE key 3 seconds will switch off the unit.

TECHNICAL SPECIFICATIONS

Description	Specs
Channels	14
Codes	38
Operating Frequency	UHF-462.5625 to 467.7125MHz
Modulation	FM
Talk Range	Up to 2 miles
Power Source	4 AAA Alkaline Batteries or Accessories accumulator
LCD	Backlit
FM Radio	87.5 to 108.0 MHz

Channel Frequency Chart

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	462.5625	8	467.5625
2	462.5875	9	467.5875
3	462.6125	10	467.6125
4	462.6375	11	467.6375
5	462.6625	12	467.6625
6	462.6875	13	467.6875
7	462.7125	14	467.7125

Interference Eliminator Code Chart

Code	Frequency (Hz)	Code	Frequency (Hz)	Code	Frequency (Hz)
1	67.0	14	107.2	27	167.9
2	71.9	15	110.9	28	173.8
3	74.4	16	114.8	29	179.9
4	77.0	17	118.8	30	186.2
5	79.7	18	123.0	31	192.8
6	82.5	19	127.3	32	203.5
7	85.4	20	131.8	33	210.7
8	88.5	21	136.5	34	218.1
9	91.5	22	141.3	35	225.7
10	94.8	23	146.2	36	233.6
11	97.4	24	151.4	37	241.8
12	100	25	156.7	38	250.3
13	103.5	26	162.2		

Troubleshooting of FRS

Problem	Solution
No Power	Reposition or replace batteries
Message Not Transmitted	Make sure the Push-to-Talk button is completely pressed as you transmit. Reposition or replace batteries.
Message Not Received	Confirm radios have the same Channel and Interference Eliminator Code settings. Make sure Push-to-Talk is not inadvertently being pressed. Reposition or replace batteries Obstructions, operating indoors or in vehicles may interfere with communication. Change your location. Check to make sure volume is enough to hear.
Hearing Other Conversation or Noise on a Channel	Confirm Interference Eliminator Code is set, (active settings are 1-38). Shared Channel or Interference Eliminator Code may be in use, try another.
Limited Talk Range	Steel/concrete structures, heavy foliage and use Use in buildings and in vehicles will decrease range, check for clear line of sight to improve transmission. Wearing radio close to body such as in a pocket or on a belt will decrease range, change location of radio.
Heavy Static or interference	Radios too close. Radios must be at least 5 feet apart, increase your distance. Radios too far apart. Obstacles interfere with transmission. Talk range is up to 2 miles in clear, unobstructed conditions.

Troubleshooting of FM

Problem	Solution
The sound is unclear and has cacophony.	To check if the frequency what the LCD display is the same frequency which corresponding the radio station, enter into the frequency setup, used UP/DOWN to modulate the frequency. Not is local broadcasting station, the signal is weakly,

	modulating the frequency to the others which signal is strong.
	Disturbed by the electricity who around the unit or radio equipment, please keep away.
Can't scan the signal of broadcasting station	Electricity isn't full, change the battery
	The signal of broadcasting station is weakly, modulation the frequency manually.
	Modulating the location (place)
Can't receive the broadcasting station	Electricity isn't full, change the battery
	In the building what made by the steel-concrete or in the vehicle, the receiving function will be weakly, please replace the location.
	Closed to the object what has absorbed the signal of electromagnetism, please keep away.