RETEVIS

RA26

VHF Marine Radio

Instruction Manual

EN

CE FC RoHS

MADE IN CHINA

Thank you for purchasing this marine radio. You will find the professional and humanized design of the radio during using. Please read all instructions carefully and completely before using the radio.

It is a multifunctional and well-designed marine radio which meets the IMO (International Maritime Organization) regulation.

As adopting advance waterproof technology, the radio is with good waterproof performance, can float and flash alarm when drops into the water.

CAUTION

- The power supply of this radio is DC 3.7V. Please use the li-ion battery as configured.
- The radio should be charged by the configured adaptor.
- Do not expose the radio to direct sunlight for a long time. Do not place it in environment or near any heating devices below -20°C or above +55°C.
- Stop using and contact the local dealer if the radio emits strange odor or smoke.
- Do not transmit without antenna installed, or the devices will be damaged.
- Please power off in flammable and explosive environment.
- Keep the radio at least 1 meter away from your vessel's magnetic navigation compass.
- The radio meets IPX7 waterproof requirement. However, once the radio has been dropped, waterproof protection cannot be guaranteed because of possible damage to the radio's sealed structure.
- Make sure the radio antenna, earphone jack cover and battery cover are dry before attachment. Or the radio inner components will be damaged.

SUGGESTION

Clean the radio thoroughly with fresh water after exposure to salt water. Dry it before operating. Otherwise the radio keys and control components may be unusable due to salt crystallization.

DO NOT submerge the radio in water. The waterproof protection may not be effective if the radio rubber ring of earphone cover or DC jack cap is damaged in unexpected accident. Please contact the local dealer if they are damaged.
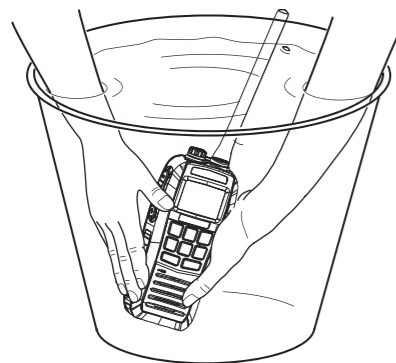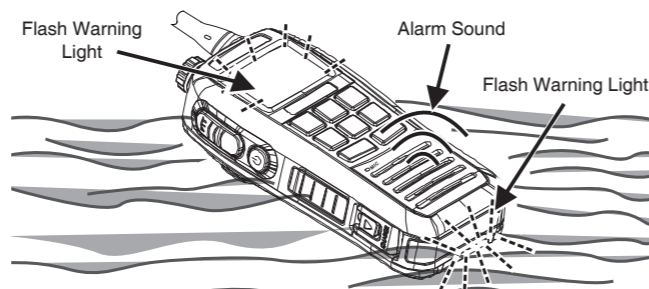
FEATURES

Water-resistant and Float

The radio water-resistant protection meets IPX7 requirements. Can be 1 meter depth in water for 30 minutes. The radio can float in fresh or salt water with the standard accessories-battery, belt clip and antenna.

When a third-party battery, belt clip and antenna etc. are used, the radio may sink.

Flash Alarm

The radio will float, make alarm sound and send out automatic flash alarm when drops into the water. As the LED light flashing, the radio can be easily retrieved to support the emergent rescue. This function works even the radio is powered off.

Flash Warning Light

Alarm Sound

Flash Warning Light

## CONTENTS

PREPARATION

■ Standard Accessories

Carefully unpack the radio. We recommend that you identify items listed in the following table before discarding the packing materials. If any item is missing or has been damaged, please contact the dealer immediately.

Items	Quantity
Antenna	1
AC Adaptor	1
Belt Clip (With Screws)	1
Hand Strap	1
Instruction Manual	1

■ Preparation

◇ Charging the Battery Pack
1. Connect the adaptor to AC power.
2. Open the radio charging port cover. Connect the adaptor with the radio USB charging port to start charging. LCD appears " [ ] " indicates charging.

AC Outlet

Power Adaptor
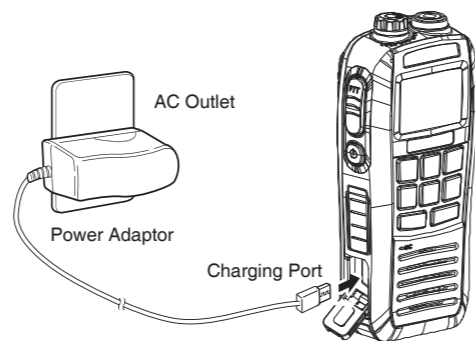
Charging Port

3. If the battery is full charging, LCD appears "**FL**". You should remove the adaptor.
   • If you do not insert the battery pack while charging, the LCD appears "**Er**".

4. Charge by Other Power Supplies
   • **Charge by computer USB port**

   NOTE: *Few computers do not meet the voltage and current as required.*

   Charging Port

   Normal USB Cable(Micro-B)
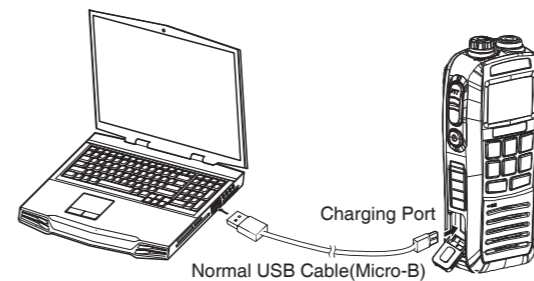
   • **Charge by Micro-B adaptor**

   NOTE: *The power supply output should be 5V/1A.*

   Power Bank

   AC Adaptor

   Car Charger

   Charging Port
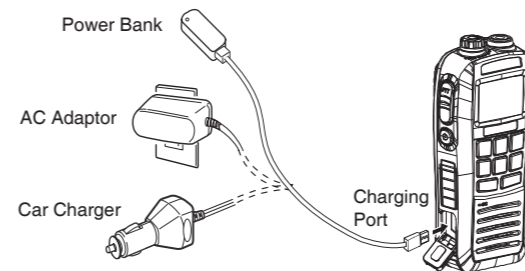
◇ Install/Remove Antenna
1. Connect the supplied fixable antenna to the antenna connector, rotate it clockwise until it is tight.
2. To remove it, rotate it counter clockwise.
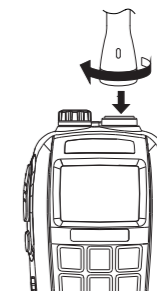
◇ Install Belt Clip
1. Attach the belt clip to radio rear cover. Ensure the screw holes are aligned.
2. Screw tightly using Phillips screwdriver.

GET AQUAINTED

◼ Appearance

LCD Display

Microphone

Loudspeaker

❶ **[PTT] Key**
  • Hold down **[PTT]** to transmit. Speak with normal tone.
  • Release **[PTT]** to receive.
❷ **Power Key**
  • Hold down this key for 1 second to power on/off the radio.
❸ **Charging Port**
  • Push down to open the charging port.
  • The USB port is for charging only. Cannot support data communications.

NOTE: Ensure the cover for the DC charging connector is affixed tightly to avoid water ingress.

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❹ **Earphone Jack (SP/MIC)**
  • External earphone/microphone jack.
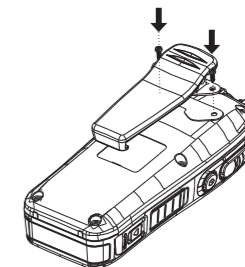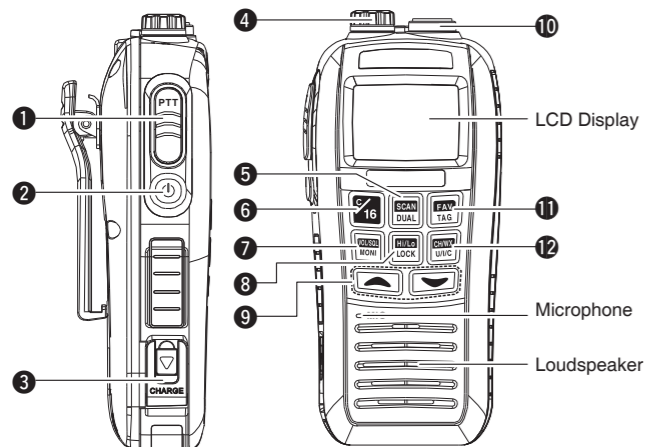 • Revolve the jack counter clockwise to open. Revolve clockwise to close.
  • This jack can be connected with computer for data communication through programming cable.

NOTE: Ensure the cover for the earphone jack is affixed tightly to avoid water ingress.

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❺ **[SCAN]/[DUAL]**
  • Press to start or stop scan mode (including normal and priority scan).
  • Hold on 1 second to enter the Dual or Tri-watch mode.
  • Push to exit the watch mode.
  • Hold this key and **[HI/LO]** key for 1 second to activate the Vibration Draining Function.
❻ **[C/16]**
  • Press to select Channel 16.
  • Hold for 1 second to select Call Channel.
  • The factory default for Call Channel is Channel 9.
  • When the Call Channel is selected, hold for 3 seconds to enter the Call Channel programming mode.
  • While in the set mode, press this key to exit.
❼ **[VOL/SQL]/[MONI]**
  • Press to enter the volume adjustment mode. Press again to enter the squelch adjustment mode.
  • Hold for 1 second to active the Monitor Function.
  • Hold this key while power off. Press **[⏻]** at the same time to power on and enter the set mode.
  • While in the set mode, press to select set items.
  • While holding this key, press **[▼]** to turn on the Volume Mute Function. Repeat again to turn off this function.
❽ **[Hi/Lo]/[LOCK]**
  • Press to select high or low output power.
  • Hold for 1 second to turn Lock Function on or off.
❾ **[▲]/[▼]**
  • Press to select operation channel.
  • While in the set mode, press to select the items.
  • While in channel scan, press to change the scan direction.
❿ **Antenna Connector**
  • Connect with 50Ω supplied antenna.
⓫ **[FAV]/[TAG]**
  • Press to sequentially select the favorite (TAG) channel while ignoring untagged channel.
  • Hold for 1 second to set or clear the TAG channel.
  • Hold this key and power on to clear or set all TAG channels.
⓬ **[CH/WX]/[U/I/C]**
  • Press this key to select normal channel or weather channel.
  • Hold for 1 second to select USA Channel, International Channel or Canada Channel.

◼ Display

There are several kinds of symbols on the LCD display. Each symbol represent one meaning. Knowing these meaning helps the operation.
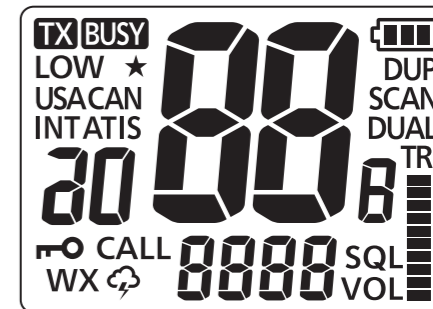
ICON	DESCRIPTION
TX	Appear while transmitting.
LOW	Appear while selecting low power. "**LOW**" flashes when forced to select low power because of battery low voltage or radio high temperature etc.
ATIS	Appear while working in ATIS Channel.
USA	Select USA Channel.

ICON	DESCRIPTION
INT	Select International Channel.
CAN	Select Canadian Channel.
BUSY	Appear while channel is busy. Flash while in Scan Channel.
★	Appear when TAG Channel is selected.
CALL	Appear when Call Channel is selected.
(battery icon)	Battery indicator. Indicate piecewise while charging. Flash while full charging.
SCAN	Flash while scanning.
(key icon)	Appear while key locked.
DUP	Appear while a duplex channel is selected.
DUAL	Appear while dual watch.
TRI	Appear while tri-watch.

ICON	DESCRIPTION
88	Indicate the operating channel number. Indicate the selected condition in set mode.
8888	Indicate assistant channel. Appear while setting volume. Appear while setting squelch. Appear while setting mode.
(cloud icon)	Appear while weather alarm.
WX	Appear while weather channel is selected.

■ Power ON/OFF

1. Hold **[⏻]** for 2 seconds to power on.
2. Hold **[⏻]** again for 1 second to power off.

■ Adjust the Volume Level

The volume level can be adjusted through **[VOL/SQL]** and **[▲]/[▼]**.
1. Press **[VOL/SQL]** and then press **[▲]/[▼]** to adjust the volume level.
   • The "**VOL**" flashes.
   • There are 31 volume levels. OF means the volume is turned off.
   • When no operation is performed within 5 seconds, the radio returns to normal mode.
2. Press **[VOL/SQL]** again to exit the volume adjustment mode.

■ Adjust the Squelch Level

The squelch level can be adjusted through **[VOL/SQL]** and **[▲]/[▼]**. Set the proper squelch level to have better receive signal and effectual scan.
1. Press **[VOL/SQL]** for twice and then press **[▲]/[▼]**to adjust squelch level.
   • "**SQL**" flashes.
   • The radio has 11 squelch levels. OP is completely open. 10 is maximum squelch.

• When no operation is performed within 5 seconds, the radio returns to the normal mode.
2. Press **[VOL/SQL]** again to exit squelch level adjustment mode.

■ Transmit and Receive

◇ Transmit

1. Press **[Hi/Lo]** to select transmit power.
   • "**LOW**" appears when low power is selected.
   • Select low power for short distance communication while high power for long distance communication.
   • Some channels are for low power transmit only.
2. Press and hold **[PTT]** to transmit. Then speak to microphone.
   • " TX " appears.
   • Channel 70 cannot be used for normal transmission.
3. Release **[PTT]** to receive.

NOTE:
• *Transmitting without antenna will damage the radio.*
• *To forbid the long time continuing transmit, please turn on TOT Function through PC programming software.*
• *Hold the microphone 5-10cm from your mouth while talking.*

◇ Receive

1. Enter volume adjustment mode. Press **[▲]** or **[▼]** to adjust.

2. Enter squelch adjustment mode. Press **[▲]** or **[▼]** to adjust.
   • " BUSY " appears and audio comes from the loudspeaker when receiving signal.
   • The radio has Power Saving Function. The power saving function activated automatically when no signal is received within 5 seconds.

■ Select Channel Group

This radio contains USA Channel, International Channel and Canadian Channel. Choose the appropriate channel groups for your operating area.

1. Press **[CH/WX]** to select a regular channel group.
   • Press again if the radio indicates weather channel.
2. Press and hold **[CH/WX]** to change the channel group. USA Channel, International Channel and Canadian Channel can be selected sequentially.
3. Press **[▲]** or **[▼]** to select channel.
   • "**DUP**" appears when a duplex channel is selected. "**A**" appears when a simplex channel is selected.

USA Channel Group

International Channel Group   Canadian Channel Group
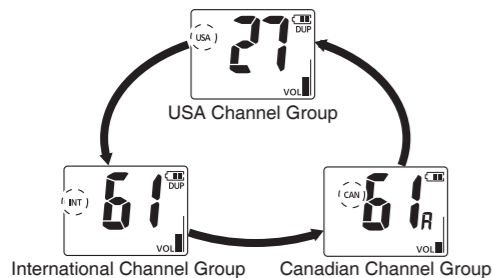
■ Select Channel

◇ Channel 16

Channel 16 is the distress and safety channel. It is used for establishing initial contact with a station and for emergency communications. Channel 16 is monitored during both dual watch and tri-watch.

1. Press **[C/16]** to select Channel 16.
2. Press **[CH/WX]** to return to the channel used before Channel 16. Press **[▲]** or **[▼]** to select operating channel.
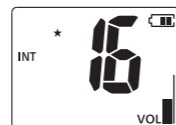
◇ CALL Channel

Each channel roup has a Call Channel. The Call Channel is monitored during tri-watch. The factory default for Call Channel is Channel 9. It can be reprogrammed.

1. Press and hold **[C/16]** for 1.5 seconds to select the Call Channel of the current channel group. "**CALL**" and call channel number appears.
2. Press **[CH/WX]** to return to the operating channel used before call channel. Or press **[▲]** or **[▼]** to select other operating channel.
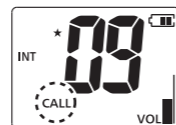
◇ Weather Channel

This radio has 10 weather channels. It can detect a weather alert sound automatically in the selected weather channel when receiving and scanning.

1. Press **[CH/WX]** to select weather channel or normal channel.
   • Appear "**WX**" when weather channel is selected.
   • Appear "**WX ALT**" when weather alert is turned on.
2. Press **[▲]** or **[▼]** to select channel.
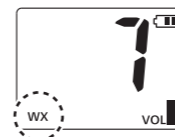
■ Edit CALL Channel

A CALL Channel can be edited in each channel group. The factory default is Channel 9.

1. Hold **[U/I/C]** for 1 second to select a desired programmed channel group (USA, International or Canadian).
2. Hold **[C/16]** for 1 second to select CALL Channel.
   • Appear "**CALL**" and CALL Channel number.
3. Hold **[C/16]** for 3 seconds until a long "BEEP" sound and two "DUDU" sound are heard to enter CALL Channel programming mode.
   • Channel number starts flashing.

4. Press **[▲]** or **[▼]** to select desired CALL Channel.
5. Press **[C/16]** to confirm and save CALL Channel.
   • Press **[C/16]** to cancel and exit.

■ Monitor Function

The Monitor Function can open the squelch and monitor useful signals. For setting monitor key, please refer to the explanation at the back.
• Hold **[MONI]** for 2 seconds to activate monitor function.
• " BUSY " flashes and a sound is heard when monitor function is activated.
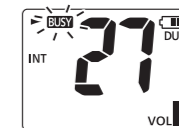
■ Volume Maximum Function

The Volume Maximum Function can temporarily maximize the volume level. This function is invalid when the volume level reaches 31.
 1. Hold **[VOL/SQL]** and press **[▲]** to turn on this function.
  • The volume will be maximum.
  • The rolling indicator strip appears.
 2. Hold **[VOL/SQL]** and press **[▲]** to turn off.

■ Volume Mute Function

The Volume Mute Function can be activated temporarily. This function is invalid when the volume level is OF.
 1. Hold **[VOL/SQL]** and press **[▼]** to activate.
  • The volume is mute.
  • The volume indicator strap flashes.
 2. Hold **[VOL/SQL]** and press **[▼]** to turn off.

■ Automatic Backlight

The Automatic Backlight Function is convenient for night operation. This function can be turn on/off in set mode.
• Press any key except **[PTT]** to turn on LCD and keypad backlight.
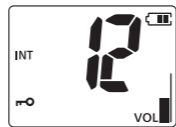• The backlight is automatically turned off after 5 seconds without operation.

■ Key Lock

The Key Lock Function locks all keys except **[⏻]**, **[PTT]**, **[VOL/SQL]** and **[LOCK]** to avoid accidental operation of channel switch.
• Hold **[LOCK]** for 1 second to turn on/off this function.

■ Vibration Water Draining Function

The Vibration Water Draining Function helps to drain the water away from the loudspeaker housing. It can prevent water ingress to affect the loudspeaker voice quality. The radio emits a vibrating sound when this function is activated.
• Press and hold **[SCAN]** and **[Hi/Lo]** at the same time to activate.
• A deep sound emits for 10 seconds to drain water.
• Any key operation is invalid when vibration water draining is activated.

■ Scan Types

The Scan Types including normal scan and priority scan, can be selected in the set mode (Please refer to set mode operation).
The weather channel will be scanned also if the weather alert function is activated.
Set TAG channels before scanning. Cancel TAG for channels not need to be scanned.
Normal scan: Scan TAG channels. Channel 16 won't be scanned if it is not set as TAG channel.
Priority scan: Scan Channel 16 during normal scan.

Normal Scan   Priority Scan
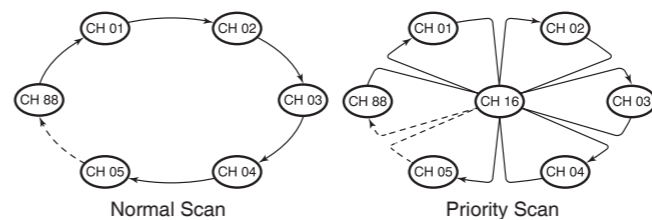
■ Set TAG Channels

Set TAG (★) for channels need to be scanned. Cancel TAG (★) which is no need. The untagged channels will be skipped during the scan period.

◇ **Set/Cancel Single TAG Channels**
 1. Press **[U/I/C]** to select channel group.

 2. Press **[▲]** or **[▼]** to select the desired TAG channel.
 3. Hold **[FAV/TAG]** for 1 second to set the current channel as TAG channel.
  • "★" appears on LCD.
 4. Hold **[FAV/TAG]** again for 1 second to cancel the TAG channel.
  • "★" disappears on LCD.

◇ **Set/Cancel All TAG Channels**
 1. Power off. Hold **[FAV/TAG]** and press **[⏻]** to power on. All TAG channels will be canceled in the selected channel group.
 2. Repeat the above operation to set all channels as TAG channels.

■ Scan Operation

Set scan resume timer in the set mode.
 1. Press **[SCAN]** to start normal scan or priority scan.
  • "**SCAN**" flashes on LCD.
  • "**16**" appears on the sub channel readout during priority scan.
  • The scan pauses when a signal is received (The resume time can be set in the set mode).
  • Channel 16 is monitored in priority scan.
  • Press **[▲]** or **[▼]** to change the scan direction.
 2. Press **[SCAN]** to stop scanning. Or press **[PTT]**, **[C/16]**, **[CH/WX]** and **[U/I/C]** to stop.

■ Description

This radio contains DUAL/TRI WATCH, can be selected in the set mode.
Dual watch: Watch and monitor in turns between the current channel and Channel 16.
Tri watch: Watch and monitor in turns among the current channel, Channel 16 and CALL Channel.

CALL channel

Dual Watch   Tri Watch

Receive signal during watch and monitor:
• **Receive signal in Channel 16**
  Dual/tri watch pause in Channel 16 until the signal disappeared.
• **Receive signal in CALL Channel**
  Tri watch switches to dual watch until the signal disappeared in CALL Channel.

■ Operation

1. Hold **[SCAN/DUAL]** for 1 second to start dual/tri watch.
   • "**DW**" flashes during dual watch; "**TW**" flashes while tri watch.
   • A "BEEP" sound emits when signal is received in Channel 16.
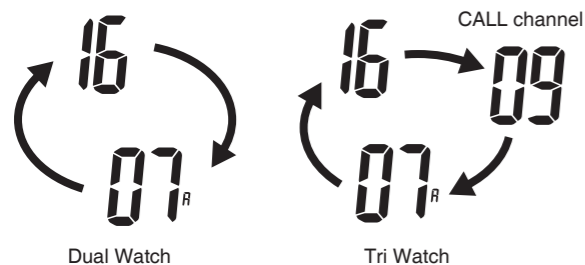   • Tri watch switches to dual watch when signal received in CALL Channel.
2. Press **[SCAN/DUAL]** to cancel dual/tri watch.

For example: Tri watch in International Channel 01.

Start tri watch.   Receive signal in call channel 09.

Resume tri watch after signal disappeared.   Open Channel 16 prior when signal is received in Channel 16.
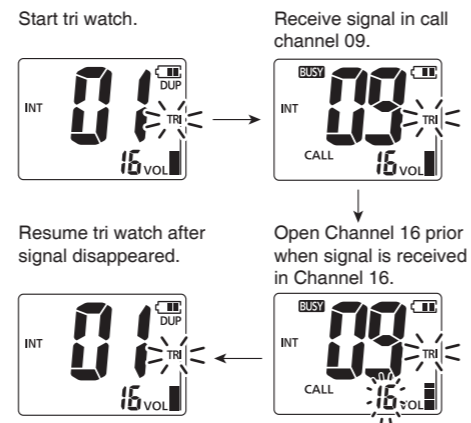
■ Set Mode Operation

The Set Mode can be used to change the settings of the radio's function. The function settings including Prompt Tone, Weather Alert, Priority Scan, Scan Resume Timer, Auto Scan, Dual/Tri Watch, Monitor Key Function, Automatic Backlight, LCD Contrast, Power Save, Float Alarm and Vibration Water Draining.

Set mode operation as below.
1. Power off.
2. Press and hold **[VOL/SQL]**, power on to enter set mode.
3. Release **[VOL/SQL]**, LCD appears "**bEEP**".
4. Press **[VOL/SQL]** to select desired setting items.
5. Press **[▲]** or **[▼]** to select desired setting parameter.
6. Press **[C/16]** to exit set mode.

No.	Display	Set Items	Set Parameter Options	Default Value
1	bEEP	Prompt Tone	oF (OFF) / on (ON)	on (ON)
2	ALrt	Weather Alert	oF (OFF) / on (ON)	oF (OFF)
3	Prio	Priority Scan	oF (OFF) / on (ON)	oF (OFF)
4	S_ti	Scan Resume Timer	oF (OFF) / on (ON)	oF (OFF)
5	Auto	Automatic Scan	oF (OFF) / on (ON)	oF (OFF)
6	dt	Dual/Tri Watch	d - (Dual watch) / t - (Tri watch)	d - (Dual watch)
7	S9LS	Monitor Key Function	Pu (Push) / Ho (Hold)	Pu (Push)
8	A_bL	Automatic Backlight	oF (OFF) / on (ON)	on (ON)
9	Lcdc	LCD Contrast	Hi / Lo	Hi
10	P_SA	Automatic Power Save	oF (OFF) / on (ON)	On
11	FLAr	Float Alarm	oF (OFF) / on (ON)	oF (OFF)
12	A9uA	Vibration Water Draining	oF (OFF) / 2 / 5 / 10 (seconds)	oF (OFF)

■ Set Mode Items

◇ Prompt Tone

Turn on/off the prompt tone while operating.

◇ Weather Alert

The U.S.A NOAA broadcast station will transmit weather alert when there are significant weather information. When the weather alert function is activated, the radio will send alert. " wx↻ " flashes at the same time. The current used weather channel will be scanned during the scan.
• With this function enable, " wx↻ " appears when weather channel is selected.

◇ Priority Scan

The radio has 2 scan types, Normal Scan (of) and Priority Scan (on). Normal scan searches all TAG channels in the selected channel group. Priority scan scans Channel 16 during normal scan.

◇ Scan Resume Timer

The Scan Resume Timer can be turned off (of)/on (on).
• *(of):* The scan will pause until the signal disappears.
• *(on):* The scan will pause for 5 seconds and then resume.

◇ Automatic Scan

The Automatic Scan will be activated when no signal is received and no operation is performed for 30 seconds.

◇ Dual/Tri Watch

Select dual (d-)/tri (t-) watch.

◇ Monitor Key Function

Press Monitor Key, the squelch inhibit function will be turned off to monitor the operating channel. There are two options for opening key.
• *Pu (PUSH):* Press and hold **[MONI]**, the sound emits from loudspeaker. Keep holding **[MONI]**, the loudspeaker continuing opened. Release **[MONI]**, the loudspeaker closed.
• *Ho (HOLD):* Press and hold **[MONI]** for 1 second, the sound emits from loudspeaker. The mode remains when release **[MONI]**. Press other key to turn off the loudspeaker.

◇ Automatic Backlight

The Automatic Backlight Function is convenient for night operation. Press any key except **[PTT]** to turn on LCD and keypad backlight.
• The backlight is automatically turned off after 5 seconds without operation.

◇ LCD Contrast

The LCD Contrast can be selected according to using environment. It can be set as "Hi" or "Lo".

◇ Power Save

The Power Save Function can reduce the current drain and extend the battery using time.
When the power save function is opened, the radio will enter power save mode automatically if no signal is received or no operation is performed within 5 seconds.

◇ Float Alarm

When the radio drops into the water, it will float automatically, make intermittent alarm sound and flash alarm which can be easily found in water.
The radio will make intermittent alarm sound when floats on water. This function stops automatically when press any key or fish out the radio after 10 seconds.

◇ Vibration Water Draining

The Vibration Water Draining Function will be automatically activated when the radio fished out from water.
This function activates automatically after float alarm sound stops. The loudspeaker emits 5 or 10 seconds deep vibrate sound to drain the water.

NOTE: This function is invalid when using external loudspeaker microphone.

■ VHF Marine Channel List

USA-USA Channel, INT-International Channel, CAN-Canadian Channel

USA	INT	CAN	Transmit (MHz)	Receive (MHz)
	01	01	156.050	160.650
01A			156.050	156.050
	02	02	156.100	160.700
	03	03	156.150	160.750
03A			156.150	156.150
	04		156.200	160.800
		04A	156.200	156.200
	05		156.250	160.850
05A	05A		156.250	156.250
06	06	06	156.300	156.300
	07		156.350	160.950
07A		07A	156.350	156.350
08	08	08	156.400	156.400
09	09	09	156.450	156.450
10	10	10	156.500	156.500
11	11	11	156.550	156.550
12	12	12	156.600	156.600
13*1	13	13*1	156.650	156.650
14	14	14	156.700	156.700
15*1	15*1	15*1	156.750	156.750
16	16	16	156.800	156.800
17*1	17	17*1	156.850	156.850
	18		156.900	161.500
18A		18A	156.900	156.900
	19		156.950	161.550
19A		19A	156.950	156.950
20	20	20*1	157.000	161.600
20A			157.000	157.000
	21	21	157.050	161.650
21A		21A	157.050	157.050
		21b	RX Only	161.650
	22		157.100	161.700
22A		22A	157.100	157.100
	23	23	157.150	161.750
23A			157.150	157.150
24	24	24	157.200	161.800
25	25	25	157.250	161.850
		25b	RX Only	161.850
26	26	26	157.300	161.900
27	27	27	157.350	161.950
28	28	28	157.400	162.000
		28b	RX Only	162.000
	60	60	156.025	160.625
	61		156.075	156.675
61A		61A	156.075	156.075
	62		156.125	160.725
		62A	156.125	156.125
	63		156.175	160.775
63A			156.175	156.175
	64	64	156.225	160.825
64A		64A	156.225	156.225
	65		156.275	160.875
65A	65A	65A	156.275	156.275
	66		156.325	160.925
66A	66A	66A*1	156.325	156.325
67	67	67	156.375	156.375
68	68	68	156.425	156.425
69	69	69	156.475	156.475
70	70	70	RX Only	156.525
71	71	71	156.575	156.575
72	72	72	156.625	156.625
73	73	73	156.675	156.675
74	74	74	156.725	156.725
75*1	75*1	75*1	156.775	156.775
76*1	76*1	76*1	156.825	156.825
77*1	77	77*1	156.875	156.875
	78		156.925	156.525
78A		78A	156.925	156.925
	79		156.975	161.575
79A		79A	156.975	156.975
	80		157.025	161.625
80A		80A	156.025	157.025
	81		157.075	161.675
81A		81A	157.075	157.075
	82		157.125	161.725
82A		82A	157.125	157.125
	83	83	157.175	161.775
83A		83A	157.175	157.175
		83b	RX Only	161.775
84	84	84	157.225	161.825
84A			157.225	157.225
85	85	85	157.275	161.875
85A			157.275	157.275
86	86	86	157.175	161.925
86A			157.325	157.325
87	87	87	157.375	161.975
87A			157.375	157.375
88	88	88	157.425	162.025
88A			157.425	157.425
1019*3			156.950	156.950
1020*3			157.000	157.000
1078*3			156.925	156.925
1079*3			156.975	156.975
		A1*2	161.975	161.975
		A2*2	162.025	162.025

WX Channel	Transmit (MHz)	Receive (MHz)
1	RX Only	162.550
2	RX Only	162.400
3	RX Only	162.475
4	RX Only	162.425
5	RX Only	162.450
6	RX Only	162.500
7	RX Only	162.525
8	RX Only	161.650
9	RX Only	161.775
10	RX Only	163.275

*1 Low power only.   *2 For only the AUS version.   *3 For only the USA version.

SPECIFICATION

General Specification

Frequency Range	TX: 156.000~161.450MHz
	RX: 156.000~163.425MHz
Type of Emission	FM (16K0G3E)
Battery Pack	DC3.7V, 1500mAh li-ion
Frequency Stability	± 10ppm
Operating Temperature	-15°C ~ +55°C
Dimensions (H×W×D)	140mm×64mm×35mm
Weight	220g (With battery, antenna and belt clip)

Transmmiter Specification

Ourput Power	5W/1W
Max. Frequency Deviation	±5kHz
Spurious Emission	≤0.25µW
Adjacent Channel Power	≥70dB
Audio Harmonic Distortion	≤10%
Current Drain	≤1.5A (High power)
	≤0.9A (Low power)
	≤0.35A (Max. audio output)

Receiver Specification

Receive Sensitivity	≤0.22µV
Squelch Sensitivity	≤0.22µV
HUM and Noise	≥40dB
Adjacent Channel Selectivity	≥70dB
Spurious Response	≥70dB
Intermodulation Rejection	≥68dB
Audio Output Power	≥0.6W (10%)

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION	REF.
Cannot power on.	• The battery is exhausted.	• Charge the battery pack.	• 1
Cannot transmit or transmit in high power is incapable.	• Some channels are limited to low power transmit. • The battery is exhausted • Low power transmit. • Work in Weather Channel or Channel 70.	• Switch to channels without output power limit. • Charge the battery pack. • Press **[Hi/Lo]** to select high power transmit. • Exit Weather Channel or Channel 70.	• 5, 6 • 1 • 5 • 6
Cannot not change channel.	• The keypad is locked.	• Hold **[LOCK]** for 1 second to turn off key lock function.	• 7
Cannot scan.	• No TAG channels are set.	• Set TAG channels.	• 8
Cannot communicate in the same channel.	• The channel is duplex (DUP). • Work in self-set channel group.	• Select channel. • Set the same channel frequency.	• 6 • 6
No prompt tone.	• The prompt tone is turned off.	• Turn on the prompt tone in the set mode.	• 10
No sound from loudspeaker.	• The squelch level is too high. • The volume level is too low. • Water ingress in loudspeaker.	• Set the proper squelch level. • Turn up the volume. • Drain water in loudspeaker.	• 5 • 5 • 7
Battery sign flashes and indicates "**ER**" and "**CHG**".	• The temperature range for charging exceed 0~+45°C. • Continuing charging causes high battery heat.	• Put the radio in somewhere cool.	---
Cannot charge full.	• Power on when charging. • The inner battery service life is short.	• Power on and then charge again. • Change inner battery from the local dealer.	• 1

RF ENERGY EXPOSURE AND PRODUCT SAFETY GUIDE FOR PORTABLE TWO-WAY RADIOS

> **ATTENTION!** Before using this radio, read this guide which contains important operating instructions for safe usage and RF energy awareness and control for compliance with applicable standards and regulations.

This two-way radio uses electromagnetic energy in the radio frequency (RF) spectrum to provide communications between two or more users over a distance. RF energy, which when used improperly, can cause biological damage. All Retevis two-way radios are designed, manufactured, and ested to ensure they meet government-established RF exposure levels. In addition, manufacturers also recommend specific operating instructions to users of two-way radios. These instructions are important because they inform users about RF energy exposure and provide simple procedures on how to control it. Please refer to the following websites for more information on what RF energy exposure is and how to control your exposure to assure compliance with established RF exposure limits: http://www.who.int/en/

Local Government Regulations
When two-way radios are used as a consequence of employment, the Local Government Regulations requires users to be fully aware of and able to control their exposure to meet occupational requirements. Exposure awareness can be facilitated by the use of a product label directing users to specific user awareness information. Your Retevis two-way radio has a RF Exposure Product Label. Also, your Retevis user manual, or separate safety booklet includes information and operating instructions required to control your RF exposure and to satisfy compliance requirements.

Radio License
Governments keep the radios in classification, business two-way radios operate on radio frequencies that are regulated. by the local radio management departments (FCC, ISED, OFCOM, ANFR, BFTK, Bundesnetzagentur...).To transmit on these frequencies, you are required to have a license issued by them. The detailed classification and the use of your two radios, please contact the local government radio management departments.Use of this radio outside the country where it was intended to be distributed is subject to government regulations   and may be prohibited.

Unauthorized modification and adjustment
Changes or modifications not expressly approved by the party responsible for compliance may void the user's authority granted by the local government radio management departments to operate this radio and should not be made. To comply with the corresponding requirements, transmitter adjustments should be made only by or under the supervision

of a person certified as technically qualified to perform transmitter maintenance and repairs in the private land mobile and fixed services as certified by an organization representative of the user of those services.Replacement of any transmitter component (crystal, semiconductor, etc.) not

authorized by the local government radio management departments equipment authorization for this radio could violate the rules.

FCC Requirements:

This device complies with part 15 of the FCC Rules. Operation is subject to the condition that this device does not cause harmful interference. (Licensed radios are applicable); This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(Other devices are applicable)

(1) This device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency

energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

CE Requirements:

•(Simple EU declaration of conformity) Shenzhen Retevis Technology Co., Ltd. declares that the radio equipment type is in compliance with the essential requirements and other relevant provisions of RED Directive 2014/53/EU and the ROHS Directive 2011/65/EU and the WEEE Directive 2012/19/EU; the full text of the EU declaration of conformity is available at the following internet address: www.retevis.com.

•Restriction Information

This product can be used in EU countries and regions, including: Belgium (BE), Bulgaria (BG), Czech Republic (CZ), Denmark (DK), Germany (DE), Estonia (EE), Ireland (IE), Greece (EL), Spain (ES), France (FR), Croatia (HR), Italy (IT), Cyprus (CY), Latvia (LV), Lithuania (LT), Luxembourg (LU), Hungary (HU), Malta (MT), Netherlands (NL), Austria (AT), Poland (PL), Portugal (PT), Romania (RO), Slovenia (SI), Slovakia (SK), Finland (FI), Sweden (SE) and United Kingdom (UK).For the warning information of the frequency restriction, please refer to the package or manual section.

•Disposal

The crossed-out wheeled-bin symbol on your product, literature, or packaging reminds you that in the European Union, all electrical and electronic products, batteries, and accumulators (rechargeable batteries) must be taken to designated collection locations at the end of their working life. Do not dispose of these products as unsorted municipal waste. Dispose of them according to the laws in your area.

IC Requirements:

Licence-exempt radio apparatus This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

(1) This device may not cause interference.

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

(1) l'appareil ne doit pas produire de brouillage;

(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

RF Exposure Information

•DO NOT operate the radio without a proper antenna attached, as this may damage the radio and may also cause you to exceed RF exposure limits. A proper antenna is the antenna supplied with this radio by the manufacturer or an antenna specifically authorized by the manufacturer for use with this radio, and the antenna gain shall not exceed the specified gain by the manufacturer declared.

•DO NOT transmit for more than 50% of total radio use time, more than 50% of the time can cause RF exposure compliance requirements to be exceeded.

•During transmissions, your radio generates RF energy that can possibly cause interference with other devices or systems. To avoid such interference, turn off the radio in areas where signs are posted to do so.•DO NOT operate the transmitter in areas that are sensitive to electromagnetic radiation such as hospitals, aircraft, and blasting sites.

•Portable Device, this transmitter may operate with the antenna(s) documented in this filing in Push-to-Talk and body-worn configurations. RF exposure compliance is limited to the specific belt-clip and accessory configurations as documented in this filing and the separation distance between user and the device or its antenna shall be at least 2.5 cm.

•Mobile Device, during operation, the separation distance between user and the antenna subjects to actual regulations, this separation distance will ensure that there is sufficient distance from a properly installed externally-mounted antenna to satisfy the RF exposure requirements.

•Occupational/Controlled Radio, this radio is designed for and classified as "Occupational/Controlled Use Only", meaning it must be used only during the course of employment by individuals aware of the hazards, and the ways to minimize such hazards;

NOT intended for use in a General population/uncontrolled environment.

•General population/uncontrolled Radio, this radio is designed for and classified as "Generalpopulation/uncontrolled Use".

RF Exposure Compliance and Control Guidelines and Operating Instructions
To control your exposure and ensure compliance with the occupational/controlled environment exposure limits, always adhere to the following procedures.

Guidelines:
•User awareness instructions should accompany the device when transferred to other users.

•Do not use this device if the operational requirements described herein are not met.

Operating Instructions:
•Transmit no more than the rated duty factor of 50% of the time. To Transmit (Talk), push the Push to Talk (PTT) button. To receive calls (listen), release the PTT button. Transmitting 50% of the time, or less, is important because the radio generates measurable RF energy exposure only when transmitting in terms of measuring for standards compliance.

•Transmit only when people outside the vehicle are at least the recommended minimum lateral distance away from a properly installed according to installation instructions, externally mounted antenna.

•When operating in front of the face, worn on the body, always place the radio in a Retevis approved clip, holder, holster, case, or body harness for this product. Using approved body-worn accessories is important because the use of Non-Retevis approved accessories may result in exposure levels, which exceed the IEEE/ICNIRP RF exposure limits.

Hand-held Mode
• Hold the radio in a vertical position with the microphone (and other parts of the radio including the antenna) at least 2.5 cm (one inch) away from the nose or lips.The antenna should be kept away from the eyes. Keeping the radio at a proper distance is important as RF exposure decreases with increasing distance from the antenna.

Phone Mode
•When placing or receiving a phone call, hold your radio product as you would a wireless telephone. Speak directly into the microphone.Electromagnetic Interference/Compatibility

NOTE: Nearly every electronic device is susceptible to electromagnetic interference (EMI) if inadequately shielded, designed, or otherwise configured for electromagnetic compatibility.

Avoid Choking Hazard

Small Parts. Not for children under 3 years.

Turn off your radio power in the following conditions:

•Turn off your radio before removing (installing) a battery or accessory or when charging battery.

•Turn off your radio when you are in a potentially hazardous environments: Near electrical blasting caps, in a blasting area, in explosive atmospheres (inflammable gas, dust particles, metallic powders, grain powders, etc.).

•Turn off your radio while taking on fuel or while parked at gasoline service stations.To avoid electromagnetic interference and/or compatibility conflicts

•Turn off your radio in any facility where posted notices instruct you to do so, hospitals or health care facilities (Pacemakers, Hearing Aids and Other Medical Devices) may be using equipment that is sensitive to external RF energy.

•Turn off your radio when on board an aircraft. Any use of a radio must be in accordance with applicable regulations per airline crew instructions.

Protect your hearing:

• Use the lowest volume necessary to do your job.

• Turn up the volume only if you are in noisy surroundings.

• Turn down the volume before adding headset or earpiece.

• Limit the amount of time you use headsets or earpieces at high volume.

• When using the radio without a headset or earpiece, do not place the radio's speaker directly against your ear

• Use careful with the earphone maybe possible excessive sound pressure from earphones and headphones can cause hearing loss

Note: Exposure to loud noises from any source for extended periods of time may temporarily or permanently affect your hearing. The louder the radio's volume, the less time is required before

•your hearing could be affected. Hearing damage from loud noise is sometimes undetectable at first and can have a cumulative effect.

Avoid Burns

Antennas
•Do not use any portable radio that has a damaged antenna. If a damaged antenna comes into contact with the skin when the radio is in use, a minor burn can result.

Batteries (If appropriate)
•When the conductive material such as jewelry, keys or chains touch exposed terminals of the batteries, may

complete an electrical circuit (short circuit the battery) and become hot to cause bodily injury such as burns. Exercise care in handling any battery, particularly when placing it inside a pocket, purse or other container with metal objects

Long transmission

•When the transceiver is used for long transmissions, the radiator and chassis will become hot.

Safety Operation

Forbid

•Do not use charger outdoors or in moist environments, use only in dry locations/conditions.

•Do not disassemble the charger, that may result in risk of electrical shock or fire.

•Do not operate the charger if it has been broken or damaged in any way.

•Do not place a portable radio in the area over

an air bag or in the air bag deployment area. The radio may be propelled with great force and cause serious injury to occupants of the vehicle when the air bag inflates.

To reduce risk

•Pull by the plug rather than the cord when disconnecting the charger.

•Unplug the charger from the AC outlet before attempting any maintenance or cleaning.

•Contact Retevis for assistance regarding repairs and service.

•The adapter shall be installed near the equipment and shall be easily accessible

Approved Accessories

•This radio meets the RF exposure guidelines when used with the Retevis accessories supplied or designated for the product. Use of other accessories may not ensure compliance with the RF exposure guidelines and may violate regulations.

•For a list of Retevis-approved accessories for your radio model, visit the following website:

http://www.Retevis.com

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EU Importer：
Name： Germany Retevis Technology GmbH
Address： Uetzenacker 29,38176 wendeburg
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- Cut along this line -

Guarantee

Model Number: _____ Serial Number: _____

Purchasing Date: _____

Dealer: _____ Telephone: _____

User's _____ Telephone: _____

Country: _____ Address: _____

Post Code: _____ Email: _____

Remarks:

1.This guarantee card should be kept by the user, no replacement if lost.

2.Most new products carry a two-year manufacturer's warranty from the date of purchase. Further details, pls read http://www.retevis.com/after-sale/

3.The user can get warranty and after-sales service as below:

● Contact the seller where you buy.

● Products Repaired by Our Local Repair Center

4.For warranty service, you will need to provide a receipt proof of purchase from the actual seller for verification

Exclusions from Warranty Coverage:

1.To any product damaged by accident.

2.In the event of misuse or abuse of the product or as a result of unauthorized alterations or repairs.

3.If the serial number has been altered, defaced, or removed.