Professional FM Transceiver

Priority Scan (PRI-SCN) ----- MENU33

Feature Description: Switch for turning ON or OFF to scan the priority channels. When ON, it will mo-
nitor the priority channels every three seconds in the main area. If received the carrier on the priority
channel, it will be automatically switched to be the receiving channel.

Option: ON / OFF

Default: OFF

NOTE ⚠️

》 When powering on, there will be a three-second interrupt for receiving on the main area because of the
monitoring on the priority channels.

Auto Lock (AUTOLOCK) ----- MENU34

Feature Description: When powering on, the keypad will be automatically locked if there are no more
operations for 15 seconds on the keyboard.

Option: ON / OFF

Default: OFF

Lock Mode (LOCKMODE) ----- MENU35

Feature Description: Settings about locking the radios in different modes.

Option: Lock the keyboard, lock the keyboard and the encoders, lock the keyboard and PTT, lock the all.

Default: Lock the keyboard

Tips

Lock the keyboard, it locks the keypad including the side keys PF1, PF2 and PF3

Lock the keyboard, it locks the keypad and encoders including the side keys PF1, PF2 and PF3.

Lock the keyboard, it locks the keypad and PTT including the side keys PF1, PF2 and PF3.

Lock the all, it locks the above all options.

Single Tone Setting (S-Tone) ----- MENU36

Feature Description: It transmit the required single plus frequencies mainly used for activating the repeater.

Option: 1000Hz/ 1450Hz/ 1750Hz/ 2100Hz

Default: 1750Hz

Professional FM Transceiver

VOX Delay (VOX-DLY) ----- MENU37

Feature Description: It is the delay time setting for turning off PTT after the VOX transmitting.

Option: OFF, 1 to 5 seconds

Default: 1 second

QT Save (SC-QT) ----- MENU38

Feature Description: It is the save modes for the detected CTCSS/DCS tones in the frequency mode.

Option: RX QT, TX QT, RX/TX QT

Default: RX QT

Auto Power-Off Timer (APO-TMR) ----- MENU39

Feature Description: The transceiver will automatically power off if there are not any receiving or other operations within the preset time, in order to save the battery voltage..

Option: ON/OFF

Default: OFF

Power-ON Message (PONMSG) ----- MENE40

Feature Description: It is programmable to set the message display when power on.

Option: Battery Voltage, Brand Logo

Default: Brand Logo

Repeating Reception (RPT-RCT) ----- MENU41

Feature Description: It is the reception confirmation when the receiving repeater is off during the transceiver is receiving the repeating signals.

Option: ON / OFF

Default: OFF

Scanning Channel Adding (SCN-ADD) ----- MENU42

Feature Description: Setting the programming channels to be on the list of the scanning channels.

Option: ON / OFF

Default: OFF

Scanning Groups (SCN-GP) ----- MENU43

Feature Description: It is available to get 10 groups memory for channels, and specified the desired one to the scanning channels.
Option: All, 1 to 10 groups
Default: All

Scanning Mode (SCN-MODE) ----- MENU44

Feature Description: The scanning range in VHF mode.
Three options as followings.
Scanning on the working band, it scans in the whole working range throughout the current frequency range.
Scanning on the limit range, it scans in a limited range which is programmable via the software ahead.
Scanning the whole six bands on this transceiver.
There are totally 7 bands on this transceiver, and six bands are included into the scanning list except the FM band 76-108MHz.
(1)144-146 MHz   (2) 430-440MHz

Default: Scanning on the working band.

Scanning CTCSS/DCS (SCN-CD) ----- MENU45

Feature Description: Selection for CTCSS or DCS scanning.
Option: CTCSS Scanning, DCS Scanning
Default: CTCSS Scanning

NOTE ⚠
≫ The CTCSS/DCS is only workable in the receiving mode. Please press ▲ / ▼ or rotate the encoder to change the scanning direction. When detecting the CTCSS or DCS tone, the scanning stops on the tone. Press MENU to confirm and save it if needed. Programmable this function via the programming software.

ID Groups (CALL-ID) ----- MENU46

Feature Description: Setting the groups for calling.
Option: 1 to 20 groups
Default: Group 1

NOTE ⚠

≫ Available to edit 3 to 6 digits from the Arabic numbers and "#".
≫ Only programmable via the software.

AM Detect (AUTO-AM) ----- MENU47

Feature Description: Automatically detect the AM frequencies. When powering on, the working mode of the frequencies within 108-136MHz will be automatically switched to AM.

Option: ON / OFF

NOTE ⚠

≫ This function is prior to MENU48(AM-SW) . When the AUTO-AM is ON, the frequencies within 108-136MHz will be switched to AM mode.
≫ Only workable on A area.

AM Switch (AM-SW) ----- MENU48

Feature Description: Set the receiving on AM mode. When powering on , the current frequencies will be AM receiving mode.

Option: ON / OFF
Default: OFF
Tips
(1) This function is only workable on A area.
(2) AM-SW will be automatically changed to OFF instead and the working mode will be switched to FM mode when the current frequencies or channels are changed.

Side key PF1 setting (PF1-DEF) ----- MENU49

Feature Description: Set the functions on side key PF1.

Option: None/ Selective Call/ Alarm/ SOS/ TX on the sub band(B-PTT)

Default: TX on the sub band(B-PTT)

NOTE ⚠

≫ When the selective call is programmed onto this key, the transceiver transmits on the main band while transmits the DTMF set on the MENU46--Call Groups(CALL ID) if press this side key.
≫ When SOS is programmed onto this key, the transceiver transmits on the main band and there is alarm prompt if press this side key.
≫ When the B-PTT is programmed onto this key, the transceiver transmits on the sub band instead if press this side key.

Professional FM Transceiver

Side key PF2 setting (PF2-DEF) ----- MENU50

There are long press and short press difference.

Short press, turn ON or OFF the FM radio function.

Long press(for 1 second), there are 5 options selectable, scanning, second, lamp, shift direction and keyboard light. Keyboard light is the default setting.

Side key PF3 setting (PF3-DEF) ----- MENU51

There are long press and short press difference.

Short press, Monitor key(MONI)

Long press(for 1 second), there are 4 options selectable, selective call, alarm, SOS and TX on the sub band(B-PTT). Alarm is the default setting.

Voltage Detect (VOLTAGE) ----- MENU52

It detects the voltage status.

Tone Scanning Detect (QT-SW) ----- MENU53

Check the detected tones are compatible when scanning.

Option: ON/ OFF

Default: OFF

Mute on the sub area (S-MUTE) ----- MENU54

Setting the volume status on the sub band when the transceiver is working on the main band.

Option: OFF/ RX mute/ TX mute/ RX and TX mute

Default: OFF

Reset setting (RESET) ----- MENU55

Feature Description: There are two options, functions reset and reset all. Function reset means all the menus setting will be reset to factory default. Reset all the channels, parameter and menus setting will be reset to factory default.

Default: Function reset

1. Memory Channel

1) When the transceiver works in the channel mode, it is able to copy all the parameters except the channel names into the specified channels.

2) When the transceiver works in the frequency mode, set the offset frequencies, shift direction and other parameter ahead, and then save into the specified channels.

3) Same frequency saved in one channel

For example, specified channel CH-10, same frequency 450.025MHz, RX CTCSS 67Hz, TX DCS DN023.

Step 1, input [4WIN] [5TXP] [0] [5TXP] [2SAVE] [5TXP] in the frequency mode

Step 2, press [MENU] + [1BRT] + [6SFT◦] + [MENU] to start setting RX CTCSS, use [▲] / [▼] to select 67.0, and then press [MENU] to confirm.

Step 3, press [MENU] + [1BRT] + [9ROGER] + [MENU] to start setting TX DCS, use [▲] / [▼] to select 67.0, and then press [MENU] to confirm.

Step 4, press [MENU] + [3STEP] + [0] + [MENU] to start selecting the desired channel CH-10 to memory.

Finally, press [0] + [1BRT] + [0], and then [MENU] to confirm and finish.

If tone is not needed, then the step 2 and 3 are not necessary.

4) memory channel in different TX and RX frequencies. This is working for repeating communication.

For example, specified channel CH-10, RX frequency 450.025MHz with RX CTCSS 67.0Hz, TX frequency 460.025MHz.

Step 1, input [4WIN] [5TXP] [0] [5TXP] [2SAVE] [5TXP] in the frequency mode.

Step 2, press [MENU] + [2SAVE] [8SQL] to set the offset frequency 10.000MHz.

Step 3, press [MENU] + [4WIN] [8SQL] to set the side key be shift direction, and program the direction to "+".

Step 4, press [MENU] + [3STEP] + [0] + [MENU] to start selecting the desired channel CH-10 to memory.

NOTE ⚠

≫ Viewing the memory channel list, it means the channel is saved if the channel number displays blue while the channel is blank if the channel number displays red.

2. DTMF

(1) Manual Operation

This transceiver is independently supportable for the Call ID, Selective Calls and DTMF Decode. Setting the signaling type to DTMF is programmable via software ahead.

A. All Calls

Press PTT to transmit out the PTT ID of this transceiver, and then input "*" "+" "#" through the keypad to activate this function.

B. Group Calls

Press PTT to transmit out the PTT ID of this transceiver, and then input the group ID (the first ID digit)
you want to call, "*" "+" "#" through the keypad to activate this function.

C. Selective Calls

Press PTT to transmit out the PTT ID of this transceiver, and then input the PTT-ID of the transceiver you
want to call through the keypad to activate this function.

(2) Shortcut

It is programmable to set the PF1 or PF2 to be selective call, to automatically transmit out the message
saved on the calling groups ahead.

A. Program the parameters for the groups via software. E.g., program 123456 as the PTT ID for group 1.

B. Program the calling group by number 01 on the MENU46.

C. Program the PF1 or PF3 to Selective Call Key on the MENU49 or MENU51.

D. Press the function key which has been programmed to Selective Call, then the transceiver will select-
ively call the transceiver with the PTT-ID 123456.

Please repeat the above steps, program the related settings for the group calls or the all calls on the dif-
ferent calling groups to get the shortcut.

Group calls

Group number * + *
All calls * #

3. FM Radio

1) Activating FM Radio

In standby, press PF2 to activate the FM Radio function, while it shows the FM frequencies on the display.

2) Searching FM stations

Press # to enter into the FM menu, then press * to get it searching. When searching the correct sta-
tion, it stops. Press ▲ / ▼ to change the searching direction.

3) FM Frequencies Editing

Press # to enter into the FM menu, and program the FM frequencies through the numeric keys within
the FM range 76.02-108MHz.

4) FM Frequencies Memory

Press # to enter into the FM menu, switch to the sub menu "Save", press ▲ / ▼ to get the required
group for memory, and then press MENU to confirm and save the FM frequency.

5) Invoking the saved FM frequencies

Press to enter into the FM menu, switch to the sub menu "Call", press ▲ / ▼ to call out the saved

group, and then press 🅼 to confirm and save the FM frequency.

6) Exit from the FM Radio

Please press PF2 to exit out from the FM Radio mode. It is also OK to press PF2 from the menu list to exit.

NOTE ⚠

» When working on the FM frequencies, the current frequency and channel will be standby and it will be temporarily switched to two-way communication once getting the receiving signals, and then automatically get back to FM Radio after the signal disappears. Press PTT to transmit, and still gets back to FM Radio after 5 seconds.

4. Remote Control

1) Stun

Controlled code+ confirmed code CB+ controlled ID

Step 1, program the controlled code, controlled ID

E.g., controlled code is set to 126018 while the ID for the controlled transceiver is set to 898188.

Step 2, press PTT to transmit, then input 1⃝ 2⃝ 6⃝ 0⃝ 1⃝ 8⃝ , ▽ (C) △ (B), 8⃝ 9⃝ 8⃝ 1⃝ 8⃝ 8⃝ , the controlled transceiver will be stunned.

A. The stunned transceiver is only available for receiving, not transmitting.

B. If the controlled code and ID are not 6 digit enough in step 2, add # .(e.g., the PTT-ID is 123, then add # after 123 input.)

C. Repeat Step 2 to re-activate the stunned transceiver.

2) Kill

Controlled code+ confirmed code AB+ controlled ID

Step 1, program the controlled code, controlled ID

E.g., controlled code is set to 126018 while the ID for the controlled transceiver is set to 898188.

Step 2, press PTT to transmit, then input 1⃝ 2⃝ 6⃝ 0⃝ 1⃝ 8⃝ , 🅴🆇🅸🆃(A) △ (B), 8⃝ 9⃝ 8⃝ 1⃝ 8⃝ 8⃝ , the controlled transceiver will be killed.

A. The killed transceiver is not available for receiving neither transmitting.

B. If the controlled code and ID are not 6 digit enough in step 2, add # .(e.g., the PTT-ID is 123, then add # after 123 input.)

C. Repeat Step 2 to re-activate the killed transceiver.

3) Monitor

Controlled code+ confirmed code DA+ controlled ID

Step 1, program the controlled code, controlled ID

E.g., controlled code is set to 126018 while the ID for the controlled transceiver is set to 898188.

Step 2, press PTT to transmit, then input `1 BRT` `2 SAVE` `6 SFT-Q` `0` `1 BRT` `8 SQL` , `RPT` (D) (A), `EXIT` , the controlled transceiver will be monitored.

A. If the controlled code and ID are not 6 digit enough in step 2, add `#` .(e.g., the PTT-ID is 123, then add `#` after 123 input.)

B. There are only 15 seconds for monitor, and it ends if there are any operations on the monitored transceiver.

4) Inspection

Controlled code+ confirmed code DB+ controlled ID

The inspected transceivers will automatically transmit out their PTT-IDs like calling the roll. This feature is used to check whether the transceivers in groups are power on and within the available communication.

Step 1, program the controlled code, controlled ID

E.g., controlled code is set to 126018 while the ID for the controlled transceiver is set to 898188.

Step 2, press PTT to transmit, then input `1 BRT` `2 SAVE` `6 SFT-Q` `0` `1 BRT` `8 SQL` , `RPT` (D) (B), `▲` , the controlled transceiver will automatically transmit out its PTT-ID after that.

A. If the controlled code and ID are not 6 digit enough in step 2, add `#` .(e.g., the PTT-ID is 123, then add `#` after 123 input.)

5. Non-standard CTCSS/DCS Setting

It is available to set the TX and RX non-standard tone separately, including the non-standard TX CTCSS, RX CTCSS, TX DCS and RX DCS.

The range for the non-standard CTCSS is 62-260MHz, while for the non-standard DCS is 000-777 (every digit of the tone should be lower than 7.)

Operations for non-standard RX/TX CTCSS

Step 1, press `MENU` to get to MENU16 "RX CTCSS" or MENU17 "TX CTCSS".

Step 2, input the non-standard CTCSS tone through the keypad, and press `MENU` to confirm while press `EXIT` to exit from the setting.

E,g., set the non-standard RX CTCSS to 67.4Hz.

Press `MENU` `1 BRT` `6 SFT-Q` `MENU` and `6 SFT-Q` `7 VOX` `4 WN` , then press `MENU` to confirm while press `EXIT` to exit from the setting.

Operations for non-standard RX/TX DCS

Step 1, press `MENU` to get to MENU18 "RX DCS" or MENU19 "TX DCS".

Step 2, input the non-standard DCS tone through the keypad, and press `MENU` to confirm while press `EXIT` to exit from the setting.

E,g., set the non-standard RX DCS to D021N.

Press `MENU` `1 BRT` `8 SQL` `MENU` and `0` `2 SAVE` `1 BRT` (press `#` to set the negative code while it is not necessary.), then press `MENU` to confirm while press `EXIT` to exit from the setting.

Professional FM Transceiver

Appendix 1

CTCSS

1	67.0	11	94.8	21	131.8	31	171.3	41	203.5
2	69.3	12	97.4	22	136.5	32	173.8	42	206.5
3	71.9	13	100.0	23	141.3	33	177.3	43	210.7
4	74.4	14	103.5	24	146.2	34	179.9	44	218.1
5	77.0	15	107.2	25	151.4	35	183.5	45	225.7
6	79.7	16	110.9	26	156.7	36	186.2	46	229.1
7	82.5	17	114.8	27	159.8	37	189.9	47	233.6
8	85.4	18	118.8	28	162.2	38	192.8	48	241.8
9	88.5	19	123.0	29	165.5	39	196.6	49	250.3
10	91.5	20	127.3	30	167.9	40	199.5	50	254.1

Appendix 2

DCS

| 1	D023N	22	D131N	43	D251N	64	D371N	85	D532N
2	D025N	23	D132N	44	D252N	65	D411N	86	D546N
3	D026N	24	D134N	45	D255N	66	D412N	87	D565N
4	D031N	25	D143N	46	D261N	67	D413N	88	D606N
5	D032N	26	D145N	47	D263N	68	D423N	89	D612N
6	D036N	27	D152N	48	D265N	69	D431N	90	D624N
7	D043N	28	D155N	49	D266N	70	D432N	91	D627N
8	D047N	29	D156N	50	D271N	71	D445N	92	D631N
9	D051N	30	D162N	51	D274N	72	D446N	93	D632N
10	D053N	31	D165N	52	D306N	73	D452N	94	D645N
11	D054N	32	D172N	53	D311N	74	D454N	95	D654N
12	D065N	33	D174N	54	D315N	75	D455N	96	D662N
13	D071N	34	D205N	55	D325N	76	D462N	97	D664N
14	D072N	35	D212N	56	D331N	77	D464N	98	D703N
15	D073N	36	D223N	57	D332N	78	D465N	99	D712N
16	D074N	37	D225N	58	D343N	79	D466N	100	D723N
17	D114N	38	D226N	59	D346N	80	D503N	101	D731N
18	D115N	39	D243N	60	D351N	81	D506N	102	D732N
19	D116N	40	D244N	61	D356N	82	D516N	103	D734N
20	D122N	41	D245N	62	D364N	83	D523N	104	D743N
21	D125N	42	D246N	63	D365N	84	D526N	105	D754N

Please double check the transceiver according to the trouble shooting in the following table before recognizing the transceiver as the fault. And please rest the whole transceiver if the following problems happen often in order to correct the improper operations.

PROBLEM	SOLUTION
Cannot be powered on.	» Please change a new battery or re-change as the battery may be out of change. » Please take out the battery and re-install as the battery may be installed incorrectly.
The time for battery working is not so long as usual.	» Please change a new battery as the battery life is over. » Make sure the battery is fully charged before taking it out of the charger.
The indicator on the transceiver keeps flashing green, but there is no audio heard.	» Make sure the volume is clear enough for communication. » Check whether the programmed CTCSS or DCS is compatible during the communication. » Make sure the mute mode is correct setting.

| PROBLEM	SOLUTION
The keypad is useless.	» Check whether the keypad is programmed to keylock. » Check whether there are any keys stuck.
The transceiver automatically transmit even there is no press on PTT.	» Check whether VOX is on, and the level is too low.
Some functions are not able to be programmed.	» Check whether the transceiver works in the channel mode as some functions should be programmable via software.
There is other audio interrupted when communication.	» Change the CTCSS or DCS.

Optional Accessories
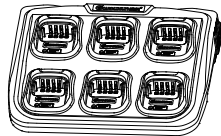
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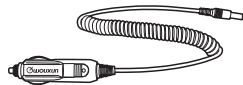
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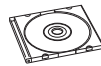
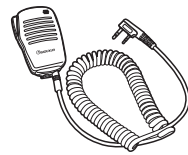Programming Software

Eliminator
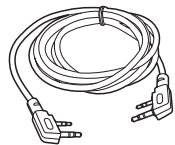
Wire-clone cable

Headset

MIC/Speaker

(SL16)   (BNC)

Antenna Adapter

Announcement

We are working hardest to make the manual perfect, but there is still emission and printing errors. All the above specification is subject to updated by WOUXUN without prior notice.

English Version:1501-V2