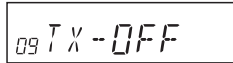
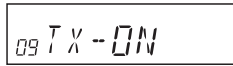


BTLO

BTLO is mainly for repeater application. It will not be transmitted until receiving RX carrier with correct sub tone. If the repeater is occupied by other group when you press PTT button, BTLO will standby till the using group is leaving. Disable BTLO, it is invalid to press PTT, current channel only works in receiving mode.

1. Press and hold **[FUN]** key for over 2s to enter general setting menu.
2. Press **[CAL]**/**[SQL]** key to choose No.09 menu, LCD displays"TX-ON".
3. Turn selector knob to select the desired setting .



On:In current channel,Press PTT to transmit

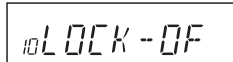
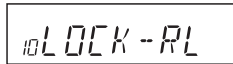
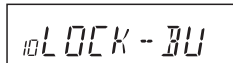
OFF:In current channel,Press PTT is invalid.

4. Press **[TS/DCS]** key to confirm and exit.Default:ON.

BUSY CHANNEL LOCKOUT

BCL is to disable transmitting while RX signal is received. Once the channel is busy and you press PTT, the radio will beep as warning and get back to receiving.

1. Press and hold **[FUN]** key for over 2s to enter general setting menu
2. Press **[CAL]**/**[SQL]** key to choose No.10 menu, LCD displays"LOCK--OFF".
3. Turn selector knob to select the desired setting.



- ▼ BU: Enable BCL, Carrier lockout, transmitting is inhibited when current channel receives a matching carrier;press [PTT] to emit error voice prompt and back to receiving status.
- ▼ RL: Enable BTCL, transmitting is inhibited when current channel receives a matching carrier but dis-matching CTCSS/DCS.press [PTT] to emit error voice prompt and back to receiving status.
- ▼ OFF: Busy channel lockout is disabled.

4. Press **[TS/DCS]** key to confirm and exit.

EDITING A CHANNEL

1. Press and hold **[FUN]** key for over 2s to enter general setting menu
2. Press **[CAL]**/**[SQL]** key to choose No.11 menu, LCD displays cursor and flashing.
3. Turn selector knob to select the desired letter,press **[TS/DCS]** key to confirm selected letter and enter into next edition,Press **[V/M]** to return forward edition.
4. After edition,press **[MHZ]** key to exit.



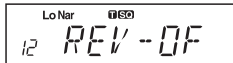
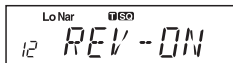
NOTE In Frequency (VFO) mode ,this function will be auto-hidden.

FREQUENCY REVERSE

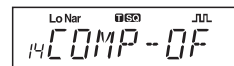
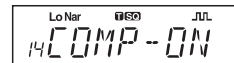
Enable this function,the transmitting frequency and receiving frequency are interchanged, namely, receiving frequency switches to transmitting frequency while transmitting frequency switches to receiving frequency. If CTCSS / DCS signaling is set, it will also interchange.

1. Press and hold **[FUN]** key for over 2s to enter general setting menu

2. Press **[CAL]**/**[SQL]** key to choose No.12 menu, LCD displays "REV—OF".
3. Turn selector knob to select the desired setting.
ON:Enable Frequency Reverse
OFF:Disable Frequency Reverse.
4. After edition,press **[TS/DCS]** key to exit.



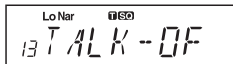
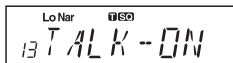
2. Press **[CAL]**/**[SQL]** key to choose No.14 menu, LCD displays"COMP--OFF".
3. Turn selector knob to select the desired setting.
ON:Enable compander
OFF:Disable compander
4. Press **[TS/DCS]** key to confirm and exit.Default:OFF



TALK AROUND

Enable this function,the radio will stop communication with repeater. It transmits and encodes with receiving frequency and CTCSS/DCS decode

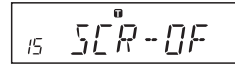
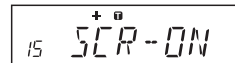
1. Press and hold **[FUN]** key for over 2s to enter general setting menu.
2. Press **[CAL]**/**[SQL]** key to choose No.13 menu, LCD displays "TALK—OF".
3. Turn selector knob to select the desired setting.
ON:Enable Talk Around
OFF:Disable Talk Around
4. After edition,press **[TS/DCS]** key to exit.



SCRAMBLER SETUP (ENCRYPTION)

An analog voice inversion scrambler can be equipped as optionals.This special audio process can offer a more confidential communication.Other radios at same frequency will receive only disordered noises.

1. Press and hold **[FUN]** key for over 2s to enter general setting menu.
2. Press **[CAL]**/**[SQL]** key to choose No.15 menu, LCD displays"SCR--OF".
3. Turn selector knob to select the desired setting.
ON:Enable Scrambler
OF:Disable Scrambler
4. Press **[TS/DCS]** key to confirm and exit.Default:OFF.



This function is optional

VOICE COMPANDER

Enable this function to reduce background noise and enhance audio clarity, especially in long range communication.

1. Press and hold **[FUN]** key for over 2s to enter general setting menu

RADIO'S DTMF ID

1. Press and hold **[FUN]** key for over 2s to enter general setting menu.
2. Press **[CAL]**/**[SQL]** key to choose No.16

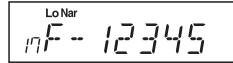


menu, LCD displays "D--XXX" XXX is radio's DTMF ID.

3. Press **[TS/DCS]** key to confirm and exit.

RADIO'S STONE ID

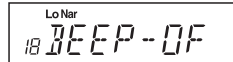
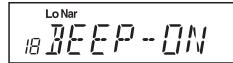
1. Press and hold **[FUN]** key for over 2s to enter general setting menu.
2. Press **[CAL]** / **[SQL]** key to choose No.17 menu, LCD displays "F--XXXXX", "XXXXX" is radio's 5TONE ID.
3. Press **[TS/DCS]** key to confirm and exit.



VOICE PROMPT

The prompting tone provides confirmation of entry, error status or malfunctions of the transceiver. You can enable or disable this function.

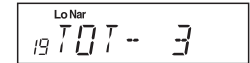
1. Press and hold **[FUN]** key for over 2s to enter general setting menu.
2. Press **[CAL]** / **[SQL]** key to choose No.18 menu, LCD displays "BEEP--ON".
3. Turn selector knob to select the desired setting.
ON:Enable voice prompt
OFF:Disable voice prompt
4. Press **[TS/DCS]** key to confirm and exit.Default:ON.



TOT (TIME-OUT TIMER)

TOT is the function that prevents from locking up a repeater or frequency by prolonged keying of PTT. The time-out timer limits the amount of time you have to transmit your message. When you reach the time limit which has been programmed by your dealer, your transmission will be cut off. In order to transmit again, you must push PTT button to reset the timer.

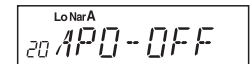
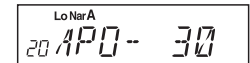
1. Press and hold **[FUN]** key for over 2s to enter general setting menu.
2. Press **[CAL]** / **[SQL]** key to choose No.19 menu, LCD displays "TOT--3"
3. Turn selector knob to select the desired setting.
Timer:1-30min,each level 1m
OFF:Disable TOT
4. Press **[TS/DCS]** key to confirm and exit.Default:3.



APO (AUTO POWER OFF)

Once APO is activated, the radio will be automatically switched off when the pre-set timer is running to end.

1. Press and hold **[FUN]** key for over 2s to enter general setting menu.
2. Press **[CAL]** / **[SQL]** key to choose No.20 menu, LCD displays "APO--OFF".
3. Turn selector knob to select the desired setting.
30MIN:Auto power off after 30m



NOTE Suggestion:Enable this function to check incorrect operation and malfunctions.

1HOUR:Auto power off after 1h

2HOUR:Auto power off after 2h

OFF:Disable Auto power off

4. Press **[TS/DCS]** key to confirm and exit.Default:OFF

DTMF TRANSMITTING TIME

1. Press and hold **[FUN]** key for over 2s to enter general setting.

2. Press **[CAL]** / **[SQL]** key to choose No.21 menu, LCD displays"SPD--50".

3. Turn selector knob to select the desired setting.

30/50/100/200/300/500, which indicates the time for sending each DTMF signal & the interval between each DTMF being sent.

4. Press **[TS/DCS]** key to confirm and exit.Default:50MS.

SQUELCH LEVEL SETUP

Setting the radio to a tight squelch level, you can avoid unwanted signals or noise, but you may not receive a weak signal. Therefore, it will be better for you to select the normal squelch level

1. Press and hold **[FUN]** key for over 2s to enter general setting menu.

2. Press **[CAL]** / **[SQL]** key to choose No.22 menu, LCD displays"SQL--04".

3. Turn selector knob to select the desired squelch level.

OF-20 total 21,OF is min setting value(ON)

4. Press **[TS/DCS]** key to confirm and exit.Default:04

Press **[SQL]**,then turn selector knob to select the desired squelch level.



NOTE

If the transceiver has set at higher squelch level,it may fail to hear the calling.If set at lower squelch level,the radio will be interfered.

SCAN DWELL TIME SETUP

There are 3 kinds of Scan Dwell Time for option.

1. Press and hold **[FUN]** key for over 2s to enter general setting menu.

2. Press **[CAL]** / **[SQL]** key to choose No.23 menu, LCD displays"SCAN--TO".

3. Turn selector knob to select the desired Scan Dwell Time.

TO:it pauses 15s once scanning matching signal,then resume scan.

CO:it pauses once scanning matching signal,signal disappeared then resume scan.

SE:It stops once scanning matching signal.

4. Press **[TS/DCS]** key to confirm the selection and exit.Default:TO.

LCD BACKLIGHT

1. Press and hold **[FUN]** key for over 2s to enter general setting menu.

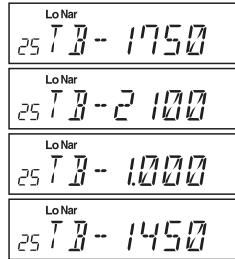
2. Press **[CAL]** / **[SQL]** key to choose No.24

- menu, LCD displays "LAMP--25"
- 3. Turn selector knob to select the desired LCD backlight brightness 1-32 total 32 level backlight brightness.
- 4. Press **[TS/DCS]** key to confirm and exit. Default: 25.

PILOT FREQUENCY

This function uses to start repeater excited by Pilot Frequency. It needs certain intensity Pilot Frequency to start repeater. As usual, no need to send pilot frequency again once repeater started.

1. Press and hold **[FUN]** key for over 2s to enter general setting.
2. Press **[CAL]** / **[SQL]** key to choose No.25 menu, LCD displays "TB--1750".
3. Turn selector knob to select the desired pilot frequency.
 1750HZ: Pilot frequency 1750HZ
 2100HZ: Pilot frequency 2100HZ
 1000HZ: Pilot frequency 1000HZ
 1450HZ: Pilot frequency 1450HZ
4. Press **[TS/DCS]** key to confirm the selection and exit. Default: 1750HZ

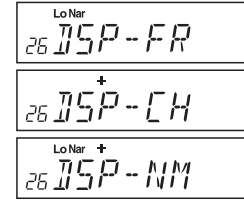


DISPLAY MODE SETUP

There are 3 different Channel modes: Frequency+Channel mode, & Channel mode&Channel+Name Tag mode, .

1. Press and hold **[FUN]** key for over 2s to enter general setting menu.

2. Press **[CAL]** / **[SQL]** key to choose No.26 menu, LCD displays "DSP--FR".
3. Turn selector knob to select the desired channel mode.
 FR: Frequency+Channel mode (Amateur transceiver mode).



CH: Channel mode (Professional transceiver mode).

NM: Channel+Name Tag mode (Amateur transceiver mode), if channel not named, it displays Frequency+Channel mode.

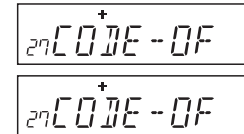
4. Press **[TS/DCS]** key to confirm and exit. Default: FR.

NOTE This function will be auto-hidden if channel mode locked. (Refer to programme software)

PIN SETUP

Enable this function, you have to insert matching PIN to power on radio when radio is on. (Pin setup by programme software).

1. Press and hold **[FUN]** key for over 2s to enter general setting menu.
2. Press **[CAL]** / **[SQL]** key to choose No.27 menu, LCD displays "CODE-OF".



3. Turn selector knob to enable/disable Pin setup.
 ON: Turn on Pin setup
 OFF: Turn off Pin setup

4. Press **[TS/DCS]** key to confirm and exit. Default: OFF

ADDRESS LIST

You store desired ID and corresponding ID name in address list. The LCD displays ID corresponding name if radio received ANI calling and find matching ID in address list .

1. Press and hold **[FUN]** key for over 2s to enter general setting menu.

2. Press **[CAL]**/**[SQL]** key to choose No.28 menu, LCD displays"BOOK".

28 BOOK

3. Press **[MHz]** to enter into ID setting,press **[CAL]**/**[SQL]** to select the desired group.Turn selector knob to select desired number,press **[TS/DCS]** confirm and move cursor to next edition,press **[V/M]** to clear out all cursors.

127 ID 135 --

127 JHONSON

4. After finishing edition,press **[MHz]** to confirm and enter into edition of current group's ID corresponding name.Turn selector knob to select desired letter,press **[TS/DCS]** to move cursor to next edition,Press **[V/M]** to clear out all cursors. 00-127,total 128 ID and corresponding ID name.

5. Press **[MHz]** to confirm and return into main menu.Repeat above operation to edit multi-ID and corresponding ID name.

6. Press **[TS/DCS]** key to return into standby status.

FACTORY DEFAULT

If your radio seems to be malfunctioning, resetting the microprocessor may solve the problem. When performing the reset, you may lose memory data and stored information. Back up or write down important data before performing the reset.

1. Press and hold **[FUN]** key for over 2s to enter general setting menu.

2. Press **[CAL]**/**[SQL]** key to choose No.29 menu, LCD displays"RESTORE".

29 RESTORE

3. Turn selector knob to select the desired operation.

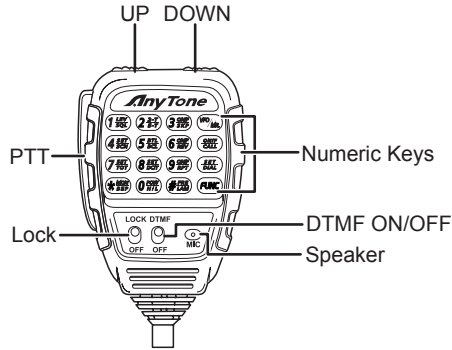
29 FACT

FACT:Resume factory default for channel,signaling and general setting.

29 SETUP

SOFT:Return initial setup for No.18-No 27 general setting menu.

4. Press **[MHz]** key to confirm.



You can operate the transceiver by keypad or input desired frequency through the QHM-03 microphone (Note: In channel mode, other keys are invalid except PTT, [UP / DOWN], [ONE CALL] and [SET DIAL]).

❖ KEYPAD LOCK

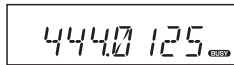
Pull down the slider switch to lock position, The lamp is turned off and all of keypads is not work except PTT switch.

❖ TRANSMITTING DTMF TONE BY MICROPHONE KEYPAD

Switch DTMF key to DTMF position, press and hold the [PTT] key, transmitting the desired DTMF signaling by the numeric key directly. (Note: Switch DTMF key to DTMF position, the keyboard is invalid in standby).

■ FUNCTION SETUP BY MICROPHONE KEYPAD

Scquelch off: In standby, press [*MENU] key, the squelch is disabled when the LCD displays BUSY icon, Press [*MENU] again to enable squelch and the BUSY icon disappears.



❖ CHANGE OPERATION MODE

In standby, press [VFO/MR] key to switch between channel mode and Frequency (VFO).

❖ SHORT CALLING

In standby, press [ONE CALL] to transmit subtone (DTMF, 2TONE, 5TONE) in current channel.

Transmitting DTMF Code: In standby, press [SET DIAL], LCD displays DTMF data and group. Press [UP / DOWN] key to select the desired transmitting DTMF group, then Press PTT to transmit.

If no DTMF data in current group, LCD displays "EMPTY", press [SET DIAL] key to select the desired DTMF code by keypad, press PTT to transmit and store DTMF data.

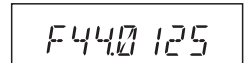
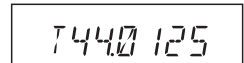
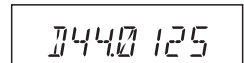
■ SQUELCH LEVEL

1. In standby, press [FUNC], then press [1 SQL], LCD displays "SQL" and current squelch level.
2. Press [UP / DOWN] to adjust the desired squelch level. (press [FUNC], then press [1 SQL], turn selector knob to adjust the desired squelch level.
3. Press number key to confirm and exit.

■ OPTIONAL SIGNALING

In standby, press [FUNC], then press [2 ST] to add sub tone signaling, repeat above operation to set DTMF, 2TONE, 5TONE signaling.

- ▼ When first bit of Exa byte in frequency displays "D", it indicates DTMF function enable.
- ▼ When first bit of Exa byte in frequency displays "T", it indicates 2Tone function enable.



- ▼ When first bit of Exa byte in frequency displays "F", it indicates 5Tone function enable.



This function can be temporarily used in channel mode. Once the radio is turned off or switched to another channel, the temporary setting will be erased and back to initial settings.

SCAN SKIP

In Channel mode, press **FUNC** then press **3 ONF**, decimal point displayed between frequency's ten digit and unit digit, it means current channel is scan skip. Repeat above operation to set scan or scan skip in current channel.

1. decimal point displayed between frequency's ten digit and unit digit, it means current channel is scanned skip.
2. decimal point is not displayed between frequency's ten digit and unit digit, it means current channel is scanned.

FREQUENCY/CHANNEL SCAN

In corresponding mode, press **FUNC** then press **4 SET** key into scanning.

In scanning mode, press **UP** / **DOWN** to change scan direction.

BUSY CHANNEL LOCKOUT

BCLO is to disable transmitting while RX signal is received. Once the channel is busy and you press PTT, the radio will beep as warning and get back to receiving.

1. In standby, press **FUNC**, then press **5 BIT** to enter into Busy Channel Lockout.
2. Press [**UP** / **DOWN**] to select the desired value.

BU: Enable BCL, Carrier lockout, transmitting is inhibited when current channel receives a matching carrier; press [PTT] to emit error voice prompt.

RL: Enable BTCL, transmitting is inhibited when current channel receives a matching carrier but dis-matching CTCSS/DCS. press [PTT] to emit error voice prompt.

OFF: Busy channel lockout is disabled.

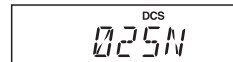
3. Press number keys to confirm and exit.



This function can be temporarily used in Channel mode. Once the radio is turned off or switched to another channel, the temporary setting will be erased and back to initial settings.

FREQUENCY REVERSE

Enable this function, the transmitting frequency and receiving frequency are interchanged, namely, receiving frequency switches to transmitting frequency while transmitting frequency switches to receiving frequency. If CTCSS / DCS signaling is set, it will also interchange.



1. In standby, press **FUNC**, then press **6 REV**, LCD displays "REV—OF".
2. Press [**UP** / **DOWN**] to select the desired value.

ON: Enable Frequency Reverse

OFF: Disable Frequency Reverse

3. Press number keys to confirm and exit.



This function can be temporarily used in Channel mode. Once the radio is turned off or switched to another channel, the temporary setting will be erased and back to initial settings.

TOT (TIME-OUT TIMER)

TOT is the function that prevents from locking up a repeater or frequency by prolonged keying of PTT. The time-out timer limits the amount of time you have to transmit your message. When you reach the time limit which has been programmed by your dealer, your transmission will be cut off. In order to transmit again, you must push PTT button to reset the timer.

1. In standby, press **FUNC**, then press **7^{SET}** "LCD displays "TOT-X".
2. Press [**UP** / **DOWN**] to select the desired value.
3. Press number key to confirm and exit.

CTCSS/DCS ENCODE AND DECODE

1. In standby, press **FUNC**, then press **8^{SET}** to enter into CTCSS/DCS Encode and Decode.
2. Repeat above operation to set as below:
 - ▼ LCD displays T icon, it indicates CTCSS encode set in current channel.
 - ▼ LCD displays T and SQ icon, it indicates CTCSS encode and decode set in current channel.
 - ▼ LCD displays DCS icon, it indicates DCS encode and decode set in current channel.
3. In corresponding icon, press [**UP** / **DOWN**] to select the desired CTCSS/DCS encode and decode.
4. Press ***^{MEM}**, **V/M**, or **C/SET** to confirm and exit.



NOTE

This function can be temporarily used in Channel mode. Once the radio is turned off or switched to another channel, the temporary setting will be erased and back to initial settings.

TALK AROUND

Enable this function, the radio will stop communication with repeater. It transmits and encodes with receiving frequency and CTCSS/DCS decode.

1. In standby, press **FUNC**, then press **9^{REP}** key, LCD displays "TALK--OF".
2. Press [**UP** / **DOWN**] to select the desired setting .
ON:Enable Talk Around
OFF:Disable Talk Around
3. Press number key to confirm and exit.



NOTE

This function can be temporarily used in Channel mode . Once the radio is turned off or switched to another channel, the temporary setting will be erased and back to initial settings.

VOICE PROMPT

The prompting tone provides confirmation of entry, error status or malfunctions of the transceiver. You can enable or disable this function.

1. In standby, press **FUNC**, then press ***^{MEM}**, LCD displays "BEEP--XX".
2. Press [**UP** / **DOWN**] to turn on/off BEEP voice prompt.
BEEP—OF :turn off voice prompt
BEEP—ON :turn on voice prompt
3. Press number key to exit and store.

TX POWER SELECTION

1. In standby, press **FUNC**, then press **0^{REP}**, LCD displays "LAMP-XX".
2. Press [**UP** / **DOWN**] to select the desired power.

HI:High Power

MI:Middle Power

LOW:Low Power

3. Press number keys to exit and store.

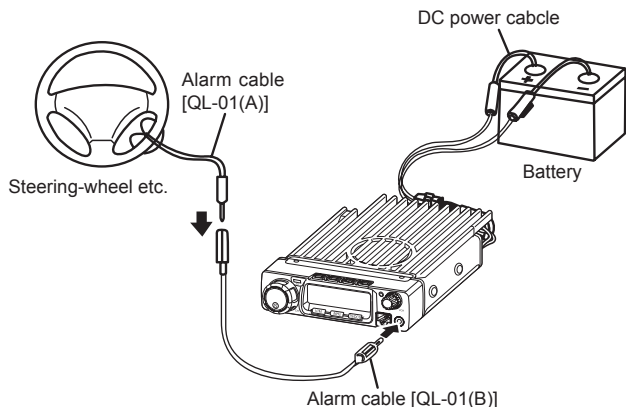
LCD BACKLIGHT

1. In standby status,press **FUNC** , then press **# FREQ** LCD displays"LAMP-XX".


2. Press [**UP** / **DOWN**] to select desiredbacklight brightness(1-32 levels).

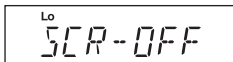
3. Press number keys to confirm and exit.

This function is mainly use for simple anti-theft alarm device in vehicles. When the transceiver be removed in an improper manner,the transceiver will emit and transmit alarming and background voice to system and other transceiver of the same frequency.



Connect DC power cable with car battery.

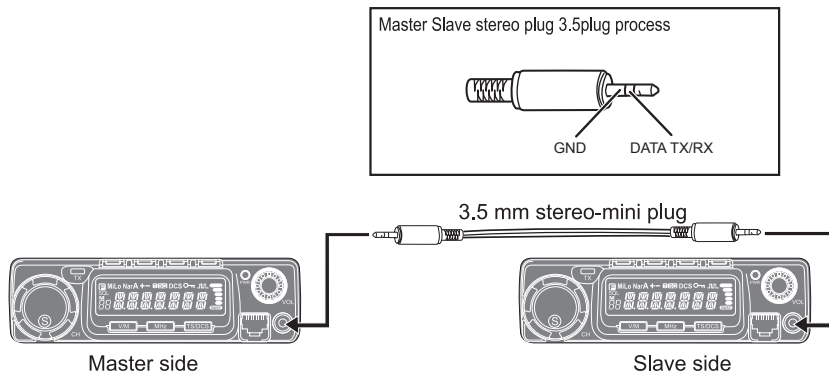
1. Connect the optional alarm cable QL-01(A) to the data jack on the front panel as shown. Secure the other end of the cable to an object that stays fixed in vehicle. (Note: if alarm cable QL-01 (A) is not enough long, you can choose optional alarm cable QL-01 (B) to extend).
2. When transceiver power off by press  key ,the long-distance anti-theft alarm enable.
3. Note:The long-distance anti-theft alarm only available when transceiver power off .



4. When the alarm cable QL-01(A) or QL-01(B) is removed from the DATA jack or cut by improper sequence, the alarm function enable and will alarm as programmed. In alarming,the transceiver will stop alarm once receiving matching signal. And alarm again when matching signal disappeared.
5. Restart radio to cancel anti-theft alarming.Reconnect with alarm cable and turn off radio,the system will return to alarm mode.

This feature will copy the programmed data and parameters in the master unit to slave units. It copies the parameters and memory program settings.

1. Use optional CP50 cloning cable, connect the cable between the data jacks on both master and slave.
2. Press and hold **[FUN]** key, then press **[CAL]** key to enter into cloning mode, LCD displays "**CLONE**".

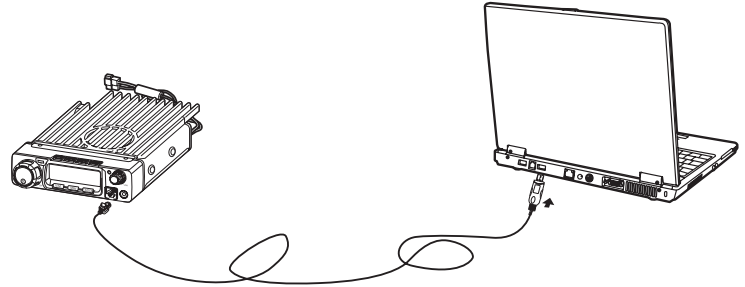


3. Press master unit's [PTT] key, LCD displays "SD XXX", "XXX" indicates data volume in transmitting. Slave unit displays "LD XXX", "XXX" indicates received data volume. When the transmission is successfully finished, the master and slave unit both display "**PASS**". Turn off the power, disconnect the cable and repeat step 2 to step 3 operations to clone the next slave unit.



NOTE If the data is not successfully transmitted, turn off both units, make sure the cable connection is correct and repeat the entire operation from the beginning.

1. Double click "QPS588 setup.exe", then follow the installing instruction.
2. Click start menu in computer, under "ALL PROGRAMS" menu, choose and click "USB To Com port" in QPS588 program, install "USB To Com port" drives by indication.
3. Connect the optional PC50 USB Programming cable to USB port in PC with transceiver.
4. Double click QPS588 shortcut or click QPS588 in procedure index of start menu, choose serial com port as indicated then click OK to start programming software. (You shall install software before connecting the USB cable line. Switch on transceiver before writing frequency. You had better not switch on or off the power supply of transceiver when it is connected with computer, otherwise, it will make transceiver unable to read or write frequency. In this case, you have to turn off programming software, pull out USB cable. next reinsert USB cable and open software, then rechoose COM Port, it will turn into normal operation. Therefore, please connect transceiver with computer after switching on the transceiver. Don't restart transceiver power when it is connected with computer.)



NOTE This software has product identify system, so when firstly installing the software, you have to connect the products, otherwise you can not start the software.

DEFAULT SETTING AFTER RESETTING(VHF)

	AT-588	DCS encode and decode	—
VFO frequency	145.00MHz	DCS code	023N
Memory channel 0–199	—	Output power	HI
Offset direction	—	Key-lock setting	OFF
Offset frequency	600KHz	TOT	OFF
Channel step	12.5KHz	APO	OFF
CTCSS encode and decode	—	Squelch Level	4
CTCSS frequency	88.5Hz		

DEFAULT SETTING AFTER RESETTING(UHF)

	AT-588	CTCSS tone frequency	88.5Hz
VFO frequency	435.00MHz	DCS encode and decode	—
CALL frequency	445.00MHz	DCS code	023N
Memory channel 0–199	—	Output power	HI
Offset direction	—	Key-lock setting	OFF
Offset frequency	5MHz	TOT	OFF
Channel step	25KHz	APO	OFF
CTCSS encode and decode	—	Squelch Level	4

TROUBLE SHOOTING

Problem	Possible Causes and Potential Solutions
(a) Power is on, nothing appears on Display.	+ and - polarities of power connection are reversed. Connect red lead to plus terminal and black lead to minus terminal of DC power supply.
(b) Fuse is blown.	Check and solve problem resulting in blown fuse and replace fuse with new fuse.
(c) Display is too dim.	Dimmer setting is "LAMP-L". Please make the dimmer setting "LAMP-H".
(d) No sound comes from speaker.	<ul style="list-style-type: none"> • Squelch is muted. Decrease squelch level. • Tone or DCS squelch is active. Turn CTCSS or DCS squelch off.
(e) Key and Dial do not function.	Key-lock function is activated. Cancel Key-lock function.
(i) Rotating Dial will not change memory channel.	Transceiver is in CALL mode. Press the VFO or memory mode.
(g) PTT key is pressed but transmission does not occur.	<ul style="list-style-type: none"> • Microphone connection is poor. Connect microphone properly. • Antenna connection is poor. Connect antenna properly.

General

Frequency Range	VHF: 136-174MHz 245-245.9875MHz (220~260MHz) UHF: 400~490MHz
Number of Channels	200 channels
Channel Spacing	25K (Wide Band) 20K(Middle Band) 12.5K (Narrow band)
Phase-locked Step	5KHz, 6.25KHz, 8.33KHz, 10KHz, 12.5KHz, 15KHz, 20KHz, 25KHz, 30KHz, 50KHz
Operating Voltage	13.8V DC \pm 15%
Squelch	Carrier/CTCSS/DCS/5Tone/2Tone/DTMF
Frequency Stability	\pm 2.5ppm
Operating Temperature	-20 $^{\circ}$ C~+60 $^{\circ}$ C
Dimensions(WxHxD)	145 (W) x 47 (H) x 190 (L)mm
Weight	about 1.2Kg

⚠ Specifications are subject to change without notice due to advancements in NOTE technology.

Receiver (ETSI EN 300 086 standard testing)

	Wide band	Narrow band
Sensitivity (12dB Sinad)	$\leq 0.25\mu V$	$\leq 0.35\mu V$
Adjacent Channel Selectivity	≥ 70 dB	≥ 60 dB
Intermodulation	≥ 65 dB	≥ 60 dB
Spurious Rejection	≥ 70 dB	≥ 70 dB
Audio Response	+1~-3dB(0.3~3KHz)	+1~-3dB(0.3~2.55KHz)
Hum & Noise	≥ 45 dB	≥ 40 dB
Audio distortion	$\leq 5\%$	
Audio power output	$> 2W@10\%$	

Transmitter (ETSI EN 300 086 standard testing)

	Wide band	Narrow band
Power Output	60W /25W/10W(VHF)	45W /25W/10W(UHF)
Modulation	16K Φ F3E	11K Φ F3E
Adjacent Channel Power	≥ 70 dB	≥ 60 dB
Hum & Noise	≥ 40 dB	≥ 36 dB
Spurious Emission	≥ 60 dB	≥ 60 dB
Audio Response	+1~-3dB(0.3~3KHz)	+1~-3dB(0.3~2.55KHz)
Audio Distortion	$\leq 5\%$	

50 GROUPS CTCSS TONE FREQUENCY(HZ)

67.0	79.7	94.8	110.9	131.8	156.7	171.3	186.2	203.5	229.1
69.3	82.5	97.4	114.8	136.5	159.8	173.8	189.9	206.5	233.6
71.9	85.4	100.0	118.8	141.3	162.2	177.3	192.8	210.7	241.8
74.4	88.5	103.5	123.0	146.2	165.5	179.9	196.6	218.1	250.3
77.0	91.5	107.2	127.3	151.4	167.9	183.5	199.5	225.7	254.1

1024 GROUPS DCS CODE.

000	001	002	003	004	005	006	007
010	011	012	013	014	015	016	017
020	021	022	023	024	025	026	027
030	031	032	033	034	035	036	037
040	041	042	043	044	045	046	047
050	051	052	053	054	055	056	057
060	061	062	063	064	065	066	067
070	071	072	073	074	075	076	077
100	101	102	103	104	105	106	107
110	111	112	113	114	115	116	117
120	121	122	123	124	125	126	127
130	131	132	133	134	135	136	137
140	141	142	143	144	145	146	147
150	151	152	153	154	155	156	157
160	161	162	163	164	165	166	167
170	171	172	173	174	175	176	177
180	181	182	183	184	185	186	187
190	191	192	193	194	195	196	197
200	201	202	203	204	205	206	207
210	211	212	213	214	215	216	217
220	221	222	223	224	225	226	227
230	231	232	233	234	235	236	237
240	241	242	243	244	245	246	247
250	251	252	253	254	255	256	257
260	261	262	263	264	265	266	267
270	271	272	273	274	275	276	277
300	301	302	303	304	305	306	307
310	311	312	313	314	315	316	317

320	321	322	323	324	325	326	327
330	331	332	333	334	335	336	337
340	341	342	343	344	345	346	347
350	351	352	353	354	355	356	357
360	361	362	363	364	365	366	367
370	371	372	373	374	375	376	377
400	401	402	403	404	405	406	407
410	411	412	413	414	415	416	417
420	421	422	423	424	425	426	427
430	431	432	433	434	435	436	437
440	441	442	443	444	445	446	447
450	451	452	453	454	455	456	457
460	461	462	463	464	465	466	467
470	471	472	473	474	475	476	477
500	501	502	503	504	505	506	507
510	511	512	513	514	515	516	517
520	521	522	523	524	525	526	527
530	531	532	533	534	535	536	537
540	541	542	543	544	545	546	547
550	551	552	553	554	555	556	557
560	561	562	563	564	565	566	567
570	571	572	573	574	575	576	577
600	601	602	603	604	605	606	607
610	611	612	613	614	615	616	617
620	621	622	623	624	625	626	627
630	631	632	633	634	635	636	637
640	641	642	643	644	645	646	347
650	651	652	653	654	655	656	657
660	661	662	663	664	665	666	667
670	671	672	673	674	675	676	677

700	701	702	703	704	705	706	707
710	711	712	713	714	715	716	717
720	721	722	723	724	725	726	727
730	731	732	733	734	735	736	737
740	741	742	743	744	745	746	747
750	751	752	753	754	755	756	757
760	761	762	763	764	765	766	767
770	771	772	773	774	775	776	777



NOTE N is positive code, I is negative code, total: 232groups.



DYNASCAN

We only do best radio!

