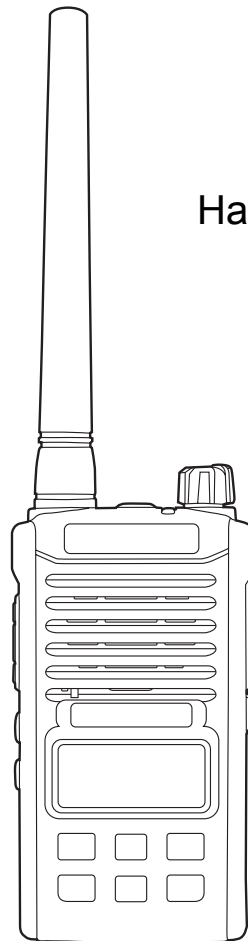


Handheld Two Way Radio



Model: HLT-5199U

Brand: Havoc

FCC ID: WRYHLT-5199U

User's Manual

Unpacking and Checking Equipment

Welcome to use radios, before using we suggest you:

- Please check the packing box of this product and see if there are signs of damage.
- Please open the packing box carefully. We recommend that you identify the items listed in the following packing list. if you find that our product and its accessories in handling are lost or damaged during the shipment. Please immediately contact dealers.

Parts List

Item	Quantity
Rubber Antenna	1
Li-ion Battery Pack	1
Desktop Charger	1
Power Adapter	1
Belt Clip	1
Users' Manual	1

Preparation

■ Charging the Battery

1. Using the battery

The battery is not completely charged at the factory, please charge it fully before using.

To extend the battery life time, please power off the battery when you don't use two way radio, and save battery in a cool (temperature less than 25 °C) and dry place.

2 . Precautions of Charging Equipment

- 1) Do not expose the charger to rain or snow.
- 2) Do not operate the charger if it has received a sharp blow, or has been dropped or damaged in any way.
- 3) Do not disassemble the charger if it has received a sharp blow, or has been dropped or damaged in any way.
- 4) Never alter the AC cord or plug provided with the unit. If the plug will not fit the outlet, have the proper outlet installed by a qualified electrician. An improper condition can result in a risk of electric shock.
- 5) To reduce the risk of damage to the cord or plug, pull the plug rather than the cord when disconnecting the charger from the AC receptacle.
- 6) To reduce the risk of electric shock, unplug the charger from the outlet before attempting any maintenance or cleaning.
- 7) Use of an attachment not recommended or sold by Juston may result in a risk of fire, electric shock, or personal injury.
- 8) Make sure the cord is located so it will not be stepped on, tripped over, or subjected to damage or stress.
- 9) An extension cord should not be used unless absolutely necessary. Use of an improper extension cord could result in a risk of fire and/or

electric shock. If an extension cord must be used, make sure that:

- The pins on the plug of the extension cord are the same number, size, and shape as those on the plug of the charger.
- The extension cord is properly wired and in good electrical condition.
- The cord size is 18 AWG for lengths up to 100 feet, and 16 AWG for lengths up to 150feet.

10. Do not replace charger's power cord. If the power cord damages, you must stop using charger immediately.

3. Charging the Battery

Please use the battery charger designated by to charge battery.

After purchase or extended storage (more than two months), the first time to charge battery cannot make battery reach its normal operating capacity. After repeating charge /discharge it two or three times, the operating capacity will increase to its normal capacity.

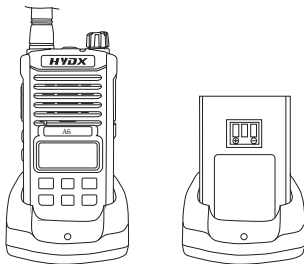
4. Please Charge the Radio According to Operation Steps as Follows:

- 1) Insert power adapter into power supply socket.
- 2) Insert output terminal of power adapter into DC jack behind the charging kit, now the charging orange indicator lights about 2 seconds then goes out.
- 3) Insert the battery or radio equipped with battery into the charging kit.
- 4) Confirm the battery and charging kit terminal contact reliably, when charging indicator light turns into red and charging starts.
- 5) After completion of charge (charging time about 5 hours), light turns to be green.

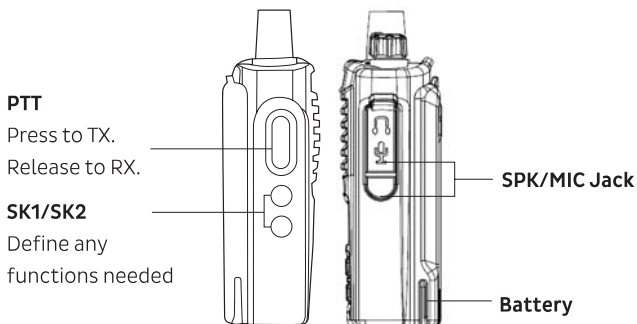
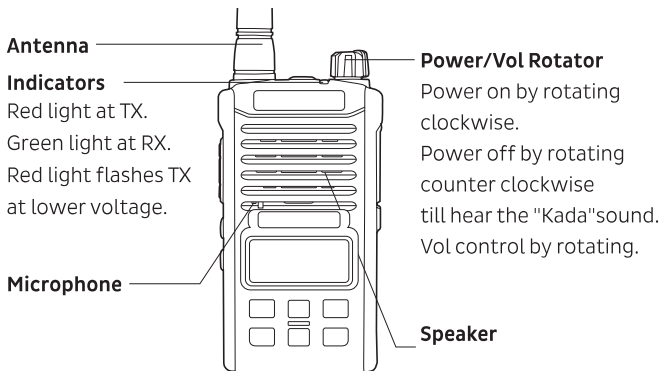
5. Indicators Display as Following:

Status	Indicator
Power Connected	Orange light is on about 2 seconds then goes out
No battery(temperature end judges)	
Charge normally	All go out
The battery is fully charged	Red light is on
Fault (over temperature, battery short circuit or over discharge state)	Green light is on
	Red light flashes

Note: Before charging, please turn off radio power equipped with battery. When charging, using radio will interfere with normal charge of battery and transceiver effect.



GETTING ACQUAINTED



Basic Operations

■ Power On/Off



Turn the power switch knob clockwise to turn on radio power; to turn it off, turn the power switch knob counter-clockwise.



■ Volume Control



Turn the volume switch knob clockwise to increase volume; to decrease the volume, rotate the volume switch knob counter-clockwise.



■ TX

1. According to different settings of monitor ,please monitor the radio for some while .Ensure there is no radio transmitting at the chosen channel .
2. Press PTT and face to microphone talking .
 - 1) Please make the distance between your lip and microphone at 2.5 cm ,and talk as usual to get the best voice quality .
 - 2) Press and hold PTT, LED red light is on .
 - 3) Release PTT to receive information .
3. When using earphone with VOX function ,users can hands-free talking .
4. Also users can active the IVOX function which no need to use earphone .

■ RX

When radio receiving information ,green LED lights .

- 1) Only same signaling and CTCSS setting can receive information .
- 2) May not receive any calling if radio is at lower signal and set high level SQL.
- 3) Local dealer maybe program your radio with CTCSS/DCS . Users can receive the same signaling information if chosen channel with CTCSS/DCS . Or it can not get any calling .

Radio with CTCSS/DCS will help you to ignore ineffective calling. Although there seems special channel for CTCSS/DCS ,radio also can communicate with other radio which programmed the same CTCSS /DCS .

Program Settings

Channel Information

■ Radio Basic Information

1) Frequency

Please type in desired frequency value.

2) Back to factory default settings

You can initialize factory default settings by program software.

3) Delete Channel

You can delete the chosen channel by program software .

4) Turn On SP

Turn on speaker, you can hear sound from radio when it receives correct signaling.

Function 1

■ Optional Items

1) TOT

This function can prevent someone to occupy the present channel for long time and limit TX time, meanwhile prevent radio from damage by long time transmitting .

2) Alarm before TOT

You can set an alert tone sounds from the speaker before TOT is cut.

3) Voice Report

Your radio can choose different languages voice report : English ,Chinese ,Off .

4) Beeper of Power On

Choose desired beeper to sound when turn on the radio .

5) SQL

The purpose of the squelch is to mute the speaker when no signals are present. With the squelch level (0-9) correctly set , you will hear sound only while actually receiving signal. The higher the selected squelch level, the stronger the signals must be when receive. The appropriate squelch level depends on ambient RF noise conditions.

6) Key Lock

1. By manual: Long press this key with lock icon .
2. Auto-lock: Set time to active auto-lock .It will be invalid when turn on radio.
3. Auto-lock + memory : Set time to active auto-lock .It will be valid when turn on radio again.

7) Working Mode

VFO : Variable Frequency Oscillator.

CH: Memory Channel .

VFO+CH : Frequency + Memory Channel

8) Tail Elimination

You can eliminate tail by reversed CTCSS Signal or phases state after ending transmitting with CTCSS signaling .

Item	Description
FRE	Tail elimination by frequency
120FRE	Tail elimination by 120 degree phasing+ Frequency
180FRE	Tail elimination by 180 degree phasing + Frequency
240FRE	Tail elimination by 240 degree phasing + Frequency
OFF	NO tail elimination
120	Tail elimination by 120 degree phasing

Item	Description
180	Tail elimination by 180 degree phasing
240	Tail elimination by 240 degree phasing

10) Back Light

1.Off: Turn off the LCD back light.

2.ON :Turn on LCD back light and keep lighting at certain time.

Duration : choose desired duration for keeping lighting duration .The number after AUTO icon is duration.(Unit: second)

11) Channel Name Display

Tick✓: Display

Not tick✓ : No Display

12) Beeper

Turn beeper on/off . If turn off beeper ,key tone and power on tone will not be available .

13) End-of-Transmission Tone

Turn End-of-Transmission tone on/off . If enabled ,your two way radio will transmit a tone when you finish transmitting .

14) Monitor End-of- Transmission Tone

If enabled this monitor function ,you can hear the indicating sound.

15) Decode Tail Elimination by Frequency Without CTCSS/DCS Decode

Tail tone elimination by frequency at channel without CTCSS/DCS decode .

16)Encode Tail Elimination by Frequency Without CTCSS/DCS Encode

Tail tone elimination by frequency at channel without CTCSS/DCS encode .

17)Key Lock

Enable the key lock function.

18)UP/DOWN Lock

Enable UP/DOWN lock function.

VOX

■ VOX Level

Chose your desired VOX level.

■ VOX Level Comparing Value

You can choose 0-180 branch setting in every VOX level for your radio.

■ VOX Delay Time

This function helps you to make fluent communication by avoiding quickly back to TX mode without transmitting the last sentence .

■ No VOX During RX

When radio is receiving , VOX/IVOX are not available .

Scan

■ Scan Mode

According to chosen scan mode ,radio stops or continues to scan.

- 1) Time Mode: Your radio stops scanning when detecting a signal for some while(approximately 5 seconds).and then continues to scan even if the signal is still present.
- 2) Carrier Mode: Your radio stops scanning when detecting a signal and remains on the same channel until the signal drops out.
- 3) Search Mode : Radio stops at the scanned frequency or channel when detecting a signal.

■ Delay Time Between RX and Scanning

You can set the time of radio automatically back to scanning after RX .

■ Delay Time Between TX and Scanning

You can set the time of radio automatically back to scanning after TX.

■ Scanning Beeper On/Off

Your radio can turn on/off scanning beeper.

■ Scan Indicator

If enabled scanning indicator and green light flashes .

Battery

■ Battery Save

The battery saver function decreases the amount of power used when a signal is not being received and no operations are being performed (no keys are being and no switches are being turned). But when your radio receives information first time ,the delay time will be longer .

■ Low Battery Beeper Type

You can choose the desired beeper for low battery alert.

■ Low Battery Alert

Set the interval by every low battery alert .

■ APO

Radio will automatically turn off power if there is no operation within 5 minutes and alarm at interval time before APO .Under APO mode, user can activate radio by operating it again.

Off : Turn off APO function

APO Time : Turn on this function and set the time to auto power off as requested.

■ Low Battery Voice Report

Radio will report low battery state if active this function.

■ Low Battery Orange Indicator

Orange indicator lights when TX at low power.

■ TX Available at Lower Battery

Set the certain voltage value to enable radio TX at lower battery (if battery lower than certain value ,radio turns off power automatically)

■ APO at High Voltage

Radio automatically power off if the voltage higher than pre-set voltage value.

■ APO at Low Voltage

Radio automatically power off if the voltage lower than pre-set voltage value.

Function 2

FM Radio

1) Monitor at FM Radio

Tick: RX during FM radio working

No tick: No RX during FM radio works

2) FM SQL

You can desired FM squelch level from 1-32.

3) FM Present Channel

You can Program default channel by inputting desired default frequency when enable FM radio.

Emergency Call

1) Emergency Call Type

Local Emergency : Alert from radio .

Local Emergency + Remote Emergency: Alert from radio, same as other radios with the same frequency and same signaling .

2) Emergency Duration

Continuous : Keep alerting

Duration :Choose desired turation.

3) Remote Emergency TX Duration

Continuous : Keep alerting

Duration :Choose desired duration

4) Remote Emergency RX Duration

Continuous : Keep alerting

Duration : Choose desired duration

5) Emergency Call Circle Duration

Choose desired circle duration to make emergency call.

6) Channel Select

Assigned Channel : Suppose assigned at Channel 3 ,no matter what the present channel is ,alarm always goes from Channel 3.

Present Channel: Suppose present channel is No.5 ,alarm from Channel 5.
Present channel is No.6 ,alarm goes from Channel 6.

7) Emergency Channel No.

You can desired channel to make emergency call.

First/Quick Channel

■ First Channel

Your radio can choose desired channel as first channel.

■ Quick Channel

Your radio can choose desired channel as quick channel.

■ First Channel Back Duration

Your radio can choose desired duration to return to first channel.

Information Input

This function allow radio input and store at most 16 letters or numbers , Chinese words. It also can be used to store SN-code, identification for Program ID ,ID and so on .

Power On Settings

1) Display Method

Off: Display all functions' icon.

Voltage :only display voltage value.

Display Information :edited by user.

2) Power On Message

Please edit the desired information by program software.

3) Password to Power on

Your radio is default to be no password. Users can freely set.

4) Password to Reset All Settings

Enable this function, radio will back to pre-set state .

DTMF Settings

Encode DTMF

■ Pre-carrier Frequency Duration :

You can set sending pre-carrier frequency duration before sending DTMF ,so that users can get more accurate and stable information .Choose desired duration from 0-5100 ms.

■ DTMF Code Continuous Duration:

You can set continuous duration for every DTMF code. Choose desired one from 40-2450 ms.

■ DTMF Code Interval :

You can set interval between ending sent DTMF and next DTMF ,choose desired interval from 40-2450ms .

■PTT ID at the begin of TX

You can input at most 16 digits DTMF code to send as PTT ID before transmitting.

■PTT ID at the end of TX

You can input at most 16 digits DTMF code to send as PTT ID after transmitting.

■Side Tone

This tone is for checking if the DTMF code sent by using radio.

■ DTMF Key Lock

You can lock the desired DTMF key.

Decode DTMF

■ ID Code

The code is consisted of 1-10 digits .Radio decode right DTMF when receiving matched radio with programmed signaling .

■ Auto Reset Timer

If there is no communication after decoding DTMF code, radio reset DTMF and quite the speaker .Timer start from stopping receiving signaling.

■ ID Group Calling

Define a universal group code by DTMF character A,B,C,D, *, #. Radio can decode if receiving effective ID code and one or all code will replaced by this universal code .

For example :

Group C

	Station 1	Station 2	Station 3	Station 4
Code	123	223	235	355
Calling C23	Station 1 and 2 called			
Calling CC5	Station 3 and 4 called			
Calling CCC	All Station Called			

■ Calling Alert

Indicator alert when receiving matched signal.

■ Calling Alert Beeper

Beeper alter when receiving matched signal.

■ ANI

Enable this function to display the sender's ID .

You can choose desired function :turn on/turn off.

■ Contact List

Edit and name sender's ID on the log by programming software. You can choose desired function :turn on/turn off.

Stun/Kill

■ Kill Code

Kill radio when it receives assigned code .Decode unless receive kill decode Stun+#.

■ Kill Group Code

Similar as ID Group Code.

For example :
Group C

	Station 1	Station 2	Station 3	Station 4
Code	123	223	235	355
Base sending Kill Code C23	Station 1 and 2 called			
Base sending Kill Code CC5	Station 3 and 4 called			
Base sending Kill Code CCC	All Station Called			

■ Stun/Kill

You can stun desired radio to disable transmission until receiving decode code.
Or kill desired radio to disable transmission and receiving until receiving decode code.

Note: Whatever radio power on again or not ,radio still memory the stun/kill function.

Automatically Dial List

Set DTMF code for every auto dial list .

Phone Book

Before dialing ,user input DTMF code which matched with desired person , then quick to find out desired person's number.

Two Tone

■ Two Tone List

Set value for every two tone group.

■ Pre-carrier Frequency Duration

Sending pre-carrier frequency duration before DTEM. so that to make sure users get more accurate and stable information .

■ Adjusting Volume for Two Tone ,End Tone and DTMF

You can choose desired volume level for two tone ,end tone and DTMF.

■ Auto Reset Timer

If there is no communication after decoding DTMF code, radio reset DTMF and quite the speaker. Timer start from stopping receiving carrier signaling.

■ Side Tone

Enable radio reports when sending two tone.

Key Settings

■ Key Instructions

- 1) Long press **F1** to turn on FM radio
- 2) Long press **F2** to enable reverse frequency function.
- 3) Long press **F3** to lock keys .

When your radio in VFO mode , long press **▲▼** to change frequency by step at first ,then by every MHz.

When your radio in Menu mode ,long press **▲▼** to quick shift menu , release to quit .

■ Key Settings

You can program side-keys and F1/2/3 with following functions by software.

1) No

Program key with no functions available.

2) Automatically Dial

Choose a number from preset group as DTMF code , then send out by automatically dial key or press PTT and automatically dial key .

3) Calling

Please open automatically dial list, choose desired one from the list by **▲▼** , then press **MENU** to confirm dialing.

4) Scanning

Press this key to start scanning the frequency or memorial channels .Press any keys except **▲▼** to quit scanning.

5) VOX

You can turn on/off VOX function.

6) Monitor

Your radio can disable/enable monitor CTCSS /DCTCSS, simultaneously will active SQ once receives carrier frequency.

8) Emergency Call

You can make an emergency call by programmed key.

9) FM Radio

You can turn on/off FM radio.

10)First Channel

You can exchange to first channel by pressing programmed key.

11) Quick Channel

You can exchange to quick channel by pressing programmed key.

12) SQ Cancel Function

You can active SQ and keep at SQ status when receiving carrier frequency by shortly pressing programmed key .

13)Frequency/Channel Mode

You can exchange frequency/channel mode by pressing programmed key.

14) Instant SQ Cancel

Active this SQ and keep at SQ status when receive carrier frequency by holding this programmed key.

16) Back Light

You can turn on back light by pressing programmed key.

Quick Key Operations

■ Operations and Instructions

1) SQL

- * With radio in standby status , press **MENU**
- * Press **▲▼** to choose **SQL** ;
- * Choose the desired level by **▲▼** .
- * Press **MENU** to confirm and back to previous menu or goes to other desired menu by **▲▼** . Press any key to back standby .

2) Battery Save

- * With radio in standby status , press **MENU**
- * Press **▲▼** to choose **BAT** ;
- * Choose the desired function (A :OFF; B: other save time) by **▲▼** ;
- * Press **MENU** to confirm and back to previous menu or goes to other desired menu by **▲▼** . Press any key to back standby .

3) Beep

- * With radio in standby status , press **MENU** ;
- * Press **▲▼** to choose **BEEP** ;
- * Choose desired function (A: OFF ; B: ON)by **▲▼** ;
- * Press **MENU** to confirm and back to previous menu or goes to other desired menu by **▲▼** . Press any key to back standby .

4) BCL

- * With radio in standby status , press **MENU** ;
- * Press **▲ ▼** to choose **BCL** ;
- * Choose desired function (A: OFF; B: WAVE ,your radio can not transmit when receive carrier signaling ; C:CALL, your radio can not transmit when detect wrong CTCSS/DCTCSS carrier frequency) by **▲ ▼** ;
- * Press **MENU** to confirm and back to previous menu or goes to other desired menu by **▲ ▼** . Press any key to back standby .

5) Monitor at FM radio

- * With radio in standby status , press **MENU** ;
- * Press **▲ ▼** to choose **FM** ;
- * Choose the desired function (A: OFF, no RX during FM radio working ; B: Radio can receive any carrier frequency during FM radio working) by **▲ ▼** .
- * Press **MENU** to confirm and back to previous menu or goes to other desired menu by **▲ ▼** . Press any key to back standby .

6) LED Flashlight

- * With radio in standby status , press **MENU** ;
- * Press **▲ ▼** to choose **LED** ;
- * Choose desired function (A:AUTO, the light auto goes out when set time is out . Unit: second ; B: OFF ; C: ON ,Lighting always.)by **▲ ▼** .
- * Press **MENU** to confirm and back to previous menu or goes to other desired menu by **▲ ▼** . Press any key to back standby .

Note: If choose B ,your radio should be set the time to be highest by pressing .

7) Key Lock (AUTOLK)

- * With radio in standby status , press **MENU** ;
- * Press **▲ ▼** to choose **LOCK** ;
- * Choose desired function (A:MANU , by manual ;B:AUTO , auto lock key by set time . Radio do not memory the auto key lock status if turn on again ; C:AUTOS, auto lock key by set time ,Radio memory the auto key lock status

if turn on again) by ▲▼ ;

- * Press **MENU** to confirm and back to previous menu or goes to other desired menu by ▲▼ . Press any key to back standby .

Note: If choose B ,you should set the time to be highest by pressing .

8)Power On Tone (P TONE)

- * With radio in standby status , press **MENU** ;
- * Press ▲▼ to choose **P TONE** ;
- * Choose desired function (A:TONE ,five type to choose ; B:OFF) by ▲▼ .
- * Press **MENU** to confirm and back to previous menu or goes to other desired menu by ▲▼ . Press any key to back standby .

Note: If choose B ,radio P tone should be set at Type1 or 5 .

9) ROGER

- * With radio in standby status , press **MENU** ;
- * Press ▲▼ to choose **ROGER** ;
- * Choose desired function (On/Off) by ▲▼ .
- * Press **MENU** to confirm and back to previous menu or goes to other desired menu by ▲▼ . Press any key to back standby .

10) Scan Mode (SCAN S)

- * With radio in standby status , press **MENU** ;
- * Press ▲▼ to choose **SCAN S** ;
- * Choose desired function (A:TO ;B:CO ;C:SE)by ▲▼ .
- * Press **MENU** to confirm and back to previous menu or goes to other desired menu by ▲▼ . Press any key to back standby .

11) Scan ADD/Delete (SCAN A/D)

- * With radio in standby status , press **MENU** ;
- * Press ▲▼ to choose **SCAN A/D** ;
- * Choose desired function (A:ADD ,add scanning channel ;B:DEL ,delete

scanning channel) by ▲▼;

- * Press **MENU** to confirm and back to previous menu or goes to other desired menu by ▲▼. Press any key to back standby.

12) Tail Elimination Method (TAIL M)

- * With radio in standby status, press **MENU**;
- * Press ▲▼ to choose **TAIL**;
- * Choose desired function (See below) by ▲▼.
- * Press **MENU** to confirm and back to previous menu or goes to other desired menu by ▲▼. Press any key to back standby.

Item	Description
FRE	Tail elimination by frequency
120FRE	Tail elimination by 120 degree phasing+ Frequency
180FRE	Tail elimination by 180 degree phasing + Frequency
240FRE	Tail elimination by 240 degree phasing + Frequency
OFF	NO tail elimination
120	Tail elimination by 120 degree phasing
180	Tail elimination by 180 degree phasing
240	Tail elimination by 240 degree phasing

13) TOT

- * With radio in standby status ,press **MENU**;
- * Press ▲▼ to choose **TOT**;
- * Choose desired function (A: Limited time ,step by 30 seconds ;B:OFF)by ▲▼;
- * Press **MENU** to confirm and back to previous menu or goes to other desired menu by ▲▼. Press any key to back standby.

Note: If choose B ,should be set the time to be highest by pressing ▲▼.

14) VOX (VOXSWI)

- * With radio in standby status , press **MENU** ;
- * Press **▲ ▼** to choose **VOXSWI** ;
- * Choose desired function (A: ON ;B: OFF) by **▲ ▼** .
- * Press **MENU** to confirm and back to previous menu or goes to other desired menu by **▲ ▼** . Press any key to back standby .

15) VOX Level

- * With radio in standby status ,press **MENU** ;
- * Press **▲ ▼** to choose **VOXLEV** ;
- * Choose desired function by **▲ ▼** .
- * Press **MENU** to confirm and back to previous menu or goes to other desired menu by **▲ ▼** . Press any key to back standby .

16) VOX Delay Time (VOXDLY)

- * With radio in standby status , press **MENU** ;
- * Press **▲ ▼** to choose **VOXDLY** ;
- * Choose desired time by **▲ ▼** ;
- * Press **MENU** to confirm and back to previous menu or goes to other desired menu by . Press any key to back standby .

18) POWER

- * With radio in standby status , press **MENU** ;
- * Press **▲ ▼** to choose **POWER** ;

- * Choose desired one (A: HIGH ; B: LOW) by ▲▼ ;
- * Press **MENU** to confirm and back to previous menu or goes to other desired menu by ▲▼ . Press any key to back standby .

19) RX CTCSS/DCS

- * With radio in standby status ,press **MENU** ;
- * Press ▲▼ to choose 9-99.9 ;
- * Choose desired codes (see below) by **F2** ;
- * Press **MENU** to confirm and back to previous menu or press **F1** key to back standby .

R-OFF

R-DCS , choose 023N-754I by pressing ▲▼ .

R-CTCSS, choose CTCSS code by pressing ▲▼ .

20) TX CTCSS/DCS

- * With radio in standby status , press **MENU** ;
- * Press ▲▼ to choose 1-99.9 ;
- * Choose desired codes (see below) by **F2** ;
- * Press **MENU** to confirm and back to previous menu or press **F1** key to back standby .

T-OFF

T-DCS , choose 023N-754I by pressing ▲▼ .

T-CTCSS, choose CTCSS code by pressing ▲▼ .

21) SCAN

- * With radio in standby status , press **MENU** ;
- * Press ▲▼ to choose **SCAN** ;
- * Press **MENU** to confirm and back to previous menu or waiting for some seconds to back standby (Press ▲▼ to choose desired frequency if the present one is not initial standby frequency.)

If your radio under channel+ frequency mode ,the present scanning is for pre-set channels.

22) Shift Direction (SFT_D)

- * With radio in standby status , press **MENU** ;
- * Press **▲▼** to choose **SFT_D** ;
- * Choose desired function(see below) by **▲▼** .
- * Press **MENU** to confirm and back to previous menu or goes to other desired menu by **▲▼** . Press any key to back standby .

A: OFF ,TX frequency = RX frequency

B: --, TX frequency =Present frequency-frequency difference

C: + , TX frequency= Present frequency + frequency difference .

Note: Only available under frequency mode .

23) Display Channel Name

- * With radio in standby status , press **MENU** ;
- * Press **▲▼** to choose **DISP** ;
- * Choose desired function(A: ON ;B:OFF) by **▲▼** .
- * Press **MENU** to confirm and back to previous menu or goes to other desired menu by **▲▼** . Press any key to back standby .

Note: Only available when your radio is in channel mode .

24) Memory Channel (MEM CH)

- * With radio in standby status , press **MENU** ;
- * Press **▲▼** to choose **MEM CH** ;
- * Choose desired function by **▲▼** ;
- * Press **MENU** to confirm ,LCD display **YES** ;
- * Press **MENU** and back to previous menu or goes to other desired menu by **▲▼** . Press any key to back standby .

25) Delete Channel (DEL CH)

- * With radio in standby status , press **MENU** ;
- * Press **▲▼** to choose **DEL CH** ;
- * Choose desired function by **▲▼** ;

- * Press **MENU** to confirm , LCD display **YES** .
- * Press **MENU** and back to previous menu or goes to other desired menu by **▲▼** . Press any key to back standby .

26) Battery Voltage (DC VOLT)

- * With radio in standby status, press **MENU** ;
- * Press **▲▼** to choose **BCT** ;
- * Choose desired function by **▲▼** ;
- * Press **MENU** to confirm and back to previous menu or goes to other desired menu by **▲▼** . Press any key to back standby .

27) Channel Display Method (MDF_CH)

- * With radio in standby status , press **MENU** ;
- * Press **▲▼** to choose **MDF-CH** ;
- * Choose desired function (A: VFO, Full Frequency ; B:CH , Channel ; C: VFO+CH, Frequency +Channel) by **▲▼** ;
- * Press **MENU** to confirm and back to previous menu or goes to other desired menu by **▲▼** . Press any key to back standby .

28) Power On Display Selection (PONMSG)

- * With radio in standby status , press **MENU** ;
- * Press **▲▼** to choose **PONMSG** ;
- * Choose desired function(A: OFF , display all functions' icon ; B:DC , display battery voltage.
value ; C: MSG , display character) by **▲▼** ;
- * Press **MENU** to confirm and back to previous menu or goes to other desired menu by **▲▼** . Press any key to back standby .

29) ANI

- * With radio in standby status , press **MENU** ;
- * Press **▲▼** to choose **ANI** ;

- * Choose desired function(A :On ;B :OFF) by ▲▼;
- * Press **MENU** to confirm and back to previous menu or goes to other desired menu by ▲▼ . Press any key to back standby

30) Phone Book (PH BOOK)

- * With radio in standby status and coding with DTMF , press **MENU** ;
- * Press ▲▼ to choose **PHBOOK** ;
- * Choose desired function by ▲▼ ;
- * Press **MENU** to confirm and back to previous menu or goes to other desired menu by ▲▼ . Press any key to back standby .

31) PTT ID

- * With radio in standby status and coding with DTMF , press **MENU** ;
- * Press ▲▼ to choose **PTT ID** ;
- * Choose desired function (see below) by ▲▼ ;
- * Press **MENU** to confirm and back to previous menu or goes to other desired menu by . Press any key to back standby .

OFF :No sending PTT ID

BOT: Send PTT ID before transmission.

EOT: Send PTT ID after transmission .

BOTH: Send PTT ID before transmission and after transmission .

32) DTMF :dialing 1-16(DTDIA)

- * With radio in standby status and coding with DTMF , press **MENU** ;
- * Press ▲▼ choose **DTDF** ;
- * Choose desired dialing number from DTMF list by ▲▼ .
- * Press **MENU** to confirm and back to previous menu or goes to other desired menu by ▲▼ . Press any key to back standby .

33) APO

- * With radio in standby status and coding with DTMF ,press **MENU** ;
- * Press **▲▼** to choose **APO** ;
- * Choose desired function (see below) by **▲▼** .
- * Press **MENU** to confirm and back to previous menu or goes to other desired menu by **▲▼** . Press any key to back standby .

A: OFF

B: Select desired time for APO function .

Radio will automatically turn off power if there is no operation within 5 minutes and alarm at interval time before APO .Under APO mode, user can active radio by operating it again.

34) First Channel Back Timer (FIR.TMR)

- * With radio in standby status and coding with DTMF , press **MENU** ;
- * Press **▲▼** to choose **FIR.TMR** ;
- * Choose desired function by **▲▼** ;
- * Press **MENU** to confirm and back to previous menu or goes to other desired menu by **▲▼** . Press any key to back standby .

35) First Channel NO. (FIR.CH)

- * With radio in standby status and coding with DTMF , press **MENU** ;
- * Press **▲▼** to choose **FIR.CH** ;
- * Choose desired function by **▲▼** ;
- * Press **MENU** to confirm and back to previous menu or goes to other desired menu by **▲▼** . Press any key to back standby .

36) Select Channel NO. (SEC.CH)

- * With radio in standby status and coding with DTMF , press **MENU** ;
- * Press **▲▼** to choose **SEC.CH** ;
- * Choose desired function by **▲▼** ;
- * Press **MENU** to confirm and back to previous menu or goes to other desired menu by **▲▼** . Press any key to back standby .

- * Press **MENU** to confirm and back to previous menu or goes to other desired menu by **▲▼** . Press any key to back standby .

37) VOICE

- * With radio in standby status and coding with DTMF , press **MENU** ;
- * Press **▲▼** to choose **VOICE** ;
- * Choose desired function(A: OFF ;B: Chinese ;C: English) by **▲▼** ;
- * Press **MENU** to confirm and back to previous menu or goes to other desired menu by **▲▼** . Press any key to back standby .

38) RESET

- * With radio in standby status and coding with DTMF , press **MENU** ;
- * Press **▲▼** to choose **RESET** ;
- * Choose desired function (see below) by **▲▼** ;
- * Press **MENU** to confirm and LCD display **RESET** **SUCCESS** back the original status.

A:Partial Reset: Use to initialize all settings except the memory channels .

B:Full Reset: Use to reset all settings.

Getting password to reset, you should firstly press **F1 three times, then press **F3** , corresponding number is 222555 . You also can program it by PC .**

Troubleshooting

Symptom	Try This
No power	● Battery power may have run out, please update battery or recharge it. ● Battery may not be properly installed, please take it off and re-install.
Battery lasts a short time after charge	● The battery life is over, please replace new battery.
Can not talk to other members of your group.	● Verify transmitting is within effective operating range. ● Verify channel, frequency and code settings are correct.
Hearing other conversation on a channel (not group members')	● Please change code settings, including all two way radio settings of your group.

Appendix I CTCSS (Hz)

1-67.0	14-103.5	27-159.8	40-199.5
2-69.3	15-107.5	28-162.2	41-203.5
3-71.9	16-110.9	29-165.5	42-206.5
4-74.4	17-114.8	30-167.9	43-210.7
5-77.0	18-118.8	31-171.3	44-218.1
6-79.7	19-123.0	32-173.8	45-225.7
7-82.5	20-127.3	33-177.3	46-229.1
8-85.4	21-131.8	34-179.9	47-233.6
9-88.5	22-136.5	35-183.5	48-241.8
10-91.5	23-141.3	36-186.2	49-250.3
11-94.8	24-146.2	37-189.9	50-254.1
12-97.4	25-151.4	38-192.8	
13-100.0	26-156.7	39-196.6	

Appendix II DCS

023	071	143	225	266	356	452	532	664
025	072	145	226	271	364	454	546	703
026	073	152	243	274	365	455	565	712
031	074	155	244	306	371	462	606	723
032	114	156	245	311	411	464	612	731
036	115	162	246	315	412	465	624	732
043	116	165	251	325	413	466	627	734
047	122	172	252	331	423	503	631	743
051	125	174	255	332	431	506	632	754
053	131	205	261	343	432	516	645	
054	132	212	263	346	445	523	654	
065	134	223	265	351	443	526	662	

Key

Status	Key	Method	Function
1	F1	Short Press	No
2		Long Press	FM Radio on/off
3	F2	Short Press	No
4		Long Press	Reverse frequency on/off
5	F3	Short Press	No
6		Long Press	Key Lock on/off
7	SK1	Short Press	Instant SQ Cancel
8	SK2	Short Press	Back Light On

Specifications and Parameters

General Specification	
Device Number(D/N)	HC-5199U
Frequency Range	400-470MHz
Output Power	5w
Channel	199 channels
Channel Spacing	12.5KHz
CTCSS/DCS	50 CTCSS / 105 DCS
Antenna Impedance	50 ohm
Working Temperature	-20 °C +50 °C
Working Voltage	DC7.4v
Battery Type	Li-ion battery
Dimension(antenna excluding)	112.5(H)x58(W) x37(D)mm
Weight (include antenna, battery)	About 230g

Warranty Card

Contact:_____

Company Name:_____

ADD:_____ Post Code:_____

Tel:_____ Mob.: _____

Fax:_____ Email: _____

Ordered:_____ Model:_____

Ordered No.:_____ Purchased Date:_____

S/N: _____ (EAN)_____

Warranty Card No.:_____

Trouble Description:

Terms and Conditions

1)This warranty is provided only for product purchased from authorized dealer of Juston Electronic Equipment Co.Ltd (hereinafter called) .

2) Warrants this product to be free from manufacturer's defects for a specified period .

3)Within the specified warranty period , will repair or replace non consumable parts (excluding casing ,accessories ,batteries ,cable and consumable) that are damaged under normal use (by judgement of) at no additional charge .

4)The warranty will not be covered under the following conditions.

A, Out-of-warranty products .

B , The product is modified without approval.

C ,Obvious attack of appearance whatever it is .

D ,The product is subjected to unusual physical or electrical stress , including physical damage ,burnt components and broken connectors, watered radio.

E ,The serial number label is removed or altered .

5)This warranty card must be presented together with dealer's invoice when the defective product is returned for repair .

Otherwise , reserve the right of not providing free warranty during the warranty period .

6)The customer is responsible for returning the defective product at his own expense .

7)Your warrant period is calculated from the date of invoice of this product .

SAFETY TRAINING INFORMATION



Your EKL Imports radio generates RF electromagnetic energy during transmit mode. This radio is designed for and classified as “Occupational 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. This radio is NOT intended for use by the “General Population” in an uncontrolled environment.

This radio has been tested and complies with the FCC RF exposure limits for “Occupational Use Only”. In addition, your EKL Imports radio complies with the following Standards and Guidelines with regard to RF energy and electromagnetic energy levels and evaluation of such levels for exposure to humans:

- ▮ FCC OET Bulletin 65 Edition 97-01 Supplement C, Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields.
- ▮ American National Standards Institute (C95.1-1992), IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.
- ▮ American National Standards Institute (C95.3-1992), IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields— RF and Microwave.



The information listed above provides the user with the information needed to make him or her aware of RF exposure, and what to do to assure that this radio operates with the FCC RF exposure limits of this radio.

Electromagnetic Interference/Compatibility

During transmissions, your EKL Imports 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.

Occupational/Controlled Use

The radio transmitter is used in situations in which persons are exposed as consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure.

Attention:

This radio complies with IEEE and ICNIRP exposure limits for occupational/controlled RF exposure environment at operating duty factors of up to 50% and is authorized by the FCC for occupational use only. An appropriate warning label is affixed to all units. In order to comply with RF exposure requirements, a minimum distance of 2.5cm must be maintained when held-to-face, and body-worn operations are restricted to the approved original accessories (belt clip).

Do not use this device when antenna shows obvious damages