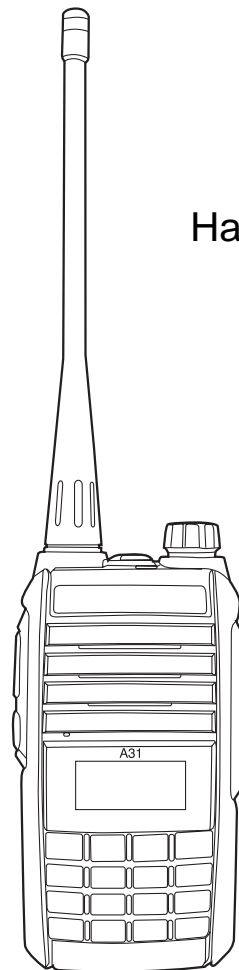


# Handheld Two Way Radio



Model: HLT-5199V  
Brand: Havoc  
FCC ID: WRYHLT-5199V

**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
Warranty Card	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.

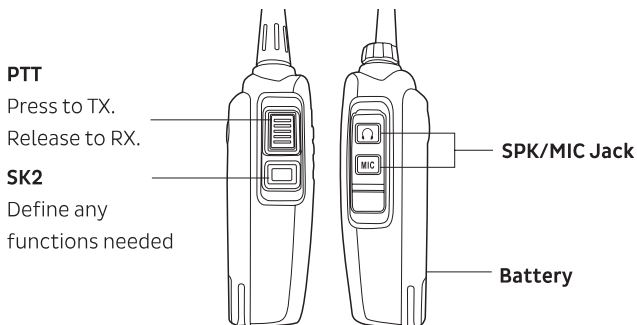
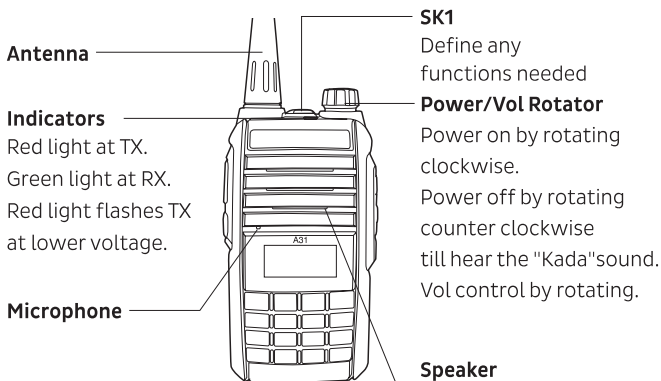
## 5. Indicators Display as Following:

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

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## 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 2.5cm, 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

## ■ 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 Group

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.

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

## 7) Working Mode

Frequency: LCD display frequency value.

Channel: LCD display channel No.

Frequency +Channel: LCD display both modes .

## 8) Tail Elimination

Users can eliminate tail by reversed CTCSS/DCS Signal or phases state after ending transmitting with CTCSS/DCS signal .

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

Item	Description
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

### **10) Back Light**

Choose to turn on/off backlight and set lighting duration.

### **11) Channel Name Display**

Only available at channel mode .

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.

### **19)Support Non-standard CTCSS and DCS**

Your radio can set any desired non-standard CTCSS and DCS

## **VOX**

#### **■ VOX Level**

Set desired VOX level

#### **■ VOX Level Comparing Value**

You can choose 0-225 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 .

#### **■ iVOX (Available Without earphone)**

You can hands-freely communicate with others if active this function.

## **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

Turn on green light flashes when scanning.

## 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 Interval

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 Power 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.

## **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) Local Emergency Time**

Continuous : Keep alerting

Limited time setting :Choose the desired time

### **3) Remote Emergency TX Time**

Continuous : Keep alerting

Limited time setting :Choose the desired time

### **4) Remote Emergency RX Time**

Continuous : Keep alerting

Limited time setting :Choose the desired time

### **5) Emergency Call Circle Time**

Choose desired circle time 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.**

Choose desired channel number from Group A and Group B as emergency channel.

## **First/Quick Channel**

### ■ First Channel

Choose desired channel as first channel

### ■ Quick Channel

Choose desired channel as quick channel

## **Power On Settings**

### **1) Display Information**

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 for Group A and Group B.

### **3) Password to Power on**

Radio default is to be no password. Users can freely set.

### **4) Password to Reset All Settings**

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

## **FM Radio**

### **1) Monitor at FM Radio**

Tick: RX available during FM radio working

No tick: No RX available during FM radio working

Note: Radio can monitor group A and group B at same time while listening to FM radio .

### **2) Working Mode**



Full Frequency :makes FM radio work in Full frequency .

Channel: makes FM radio work in memorial channel .

### **3) FM SQL**

Choose desired SQ level :1-32

### **4) FM VOL**

Adjust desired FM Volume

### **5) FM Present Channel**

Set the default channel when turn on FM radio

## **Input Information**

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 .

## **DTMF Settings**

### **Encode DTMF**

#### **■ Pre-carrier Frequency Duration :**

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

#### **■ DTMF Code Continuous Duration:**

Set TX continuous duration for every DTMF code. Choose desired duration from 80-2450 ms.

#### **■ DTMF Code Interval :**

Set interval between ending sent DTMF and next DTMF , Choose desired interval from 80-2450 ms.

### ■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 ID code is consisted of 1-10 digits .Radio decodes right DTMF when receiving matched radio with programmed DTMF signaling .

### ■ Auto Reset Timer

If there is no communication after decoding DTMF code, DTMF code will be reset and make the speaker quiet .Timer starts counting from stopping receiving carrier signal.

### ■ID Group Calling

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

**For example :**

**Group C**

	<b>Station 1</b>	<b>Station 2</b>	<b>Station 3</b>	<b>Station 4</b>
<b>Code</b>	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 signaling.

■ **Calling Alert Beeper**

Beeper alter when receiving matched signaling.

■ **ANI**

Active 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 Type**

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**

Set sending pre-carrier frequency duration before two tone code sending ,

so that users can 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 two tone code, The two tone code will be reset and make the speaker quiet .Timer starts counting from stopping receiving carrier signal.

## ■ Side Tone

Enable radio reports when sending two tone.

## Key Settings

### ■ Key Instructions



## ● Working Modes

### 1) Frequency Mode (VFO)

Change to VFO mode with pressing **# V/M** and then turn radio power on. Under this mode ,you can press **# V/M** to choose full frequency or channel display and change the frequency or channel number by pressing **▲ ▼** , or directly input desired frequency value /channel number .

## 2) Channel Mode

Change to CH mode with pressing **# V/M** and then turn radio power on .Under this mode ,you can press **▲ ▼** to choose desired channel number or directly input channel number. But before this operation ,you should memory the channel.

## 3) FM Mode

Change to FM Radio mode with pressing **F** and **0 FM** .Under this mode, you can press **▲ ▼** to change the FM radio frequency. Press **CLR** or **F** + **6 SCN** to scanning the FM frequency /channels. Long press **# V/M** to scan the FM frequency and memory .

## 4) Menu Mode

Press **F** and numeric key 9 to enter the menu, then press **▲ ▼** to choose desired item and set. More details please refer to "Menu Operations".

### ● Numeric Key Inputting

1. In CH or CH/VFO mode, you can input three numbers to change present channel. If channel numbers have stored frequency in radio channel, then it turns to desired channel ; If not ,back to the original channel .

For example : CH1 (input 001) , CH 98 (input 098)

CH123 ( input 123)

2. In VFO mode, you can input numbers to change frequency. After inputting 6 digits frequency value, radio will work at desired frequency. If not, back to the original working frequency .

### ● Channel Storing

1. The channel storing should operate under the frequency mode .


2. Press **F** then press **W/O** to start storing operation. You will see the

SAVE


icon on the left top of LCD and flashes.

3. Press **▲ ▼** to store the channel or directly input numbers as channel number .
4. Press **F** to confirm the storing. Press **\*↵** to cancel it and back to previous menu or press **# VM** to cancel it and back to main menu. Press **CLR** to cancel the setting .

## ● Channel Deleting

1. Channel deleting should be operated under channel mode .
2. Press **\*↵** to turn radio power on and get channel deleting state .You will see the channel number on the left top of LCD and display the flashing  icon.
3. Press **▲ ▼** to choose desired deleted channel number or directly input channel number and delete ,then press **F** to confirm .
4. Radio will automatically turn to next channel after deleting. If there is no channel with frequency value, radio will quit channel deleting and back to full frequency mode.

## ● SQL

1. Press **F** and numeric key 1, LCD will display  and start to set the SQL level (Level 0-9)
2. Press **▲ ▼** to choose desired SQL level.
3. Press **F** to confirm the setting. Press **\*↵** to cancel it and back to previous menu or press **# VM** to cancel it and back to main menu. Press **CLR** to cancel the setting.

### ●Frequency Reverse On/Off

Press **F** and numeric 3 to exchange the frequency reverse function .You cannot operate reverse frequency if there is no frequency on the channel .

### ●Offset Setting

Press **F** and numeric key 5 to get the offset direction setting .(Available for frequency mode)

### ●Scanning

1 Press **F** and numeric key 6 to start scanning .

2 Press **▲ ▼** to change scanning direction during scanning .



- 3 Under VFO mode ,radio will scan all the band at present frequency step
  - 4 Under Channel mode ,radio will scan all 199 channels which program with frequency value .
  - 5 Under FM mode , radio will scan all the frequency /channel.
- Scanning will not be active if radio has less than 2 channels with frequency value and no more adding channels.

### ● RX CTCSS/DCS

1. Press **F** and numeric key 7 ,LCD will display 5 70 and start to CTCSS/DCS setting .
2. Press **\*wO** to exchange CTCSS and DCS. See followings:  
OFF → CTCSS → DCS N → OFF
3. Press **#VM** to exchange DCS direction. See followings:  
DCS N \* DCS I
4. Press **▲ ▼** to choose desired CTCSS/DCS.
5. Directly input numeric key 0-9 to get desired CTCSS/DCS. See followings :  
Input 102.5Hz for CTCSS.
  - a) Press **\*wO** to exchange CTCSS and DCS.
  - b) Input numbers : 1, 0, 2, 5.
  - c) Same operation for DCS input.
6. Press **F** to confirm the setting. Press **\*wO** to cancel it and back to previous menu or press **#VM** to cancel it and back to main menu. Press **CLR** to cancel the setting. (Note :You cannot set the RX signaling when radio in channel mode.)

### ● TX CTCSS/DCS

1. Press **F** and numeric key 8 ,LCD will display 5 70 and start to CTCSS/DCS setting .
2. Press **\*wO** to exchange CTCSS and DCS. See followings:

OFF → CTCSS → DCS N → OFF

3. Press **#VM** to exchange DCS direction. See followings:

DCS N → DCS I

4. Press **▲ ▼** to choose desired CTCSS/DCS.

5. Directly input numeric key 0-9 to get desired CTCSS/DCS. See followings :  
Input 102.5Hz for CTCSS.

a) Press **\*WO** to exchange CTCSS and DCS.

b) Input numbers : 1, 0, 2, 5.

c) Same operation for DCS input.

6. Press **F** to confirm the setting. Press **\*WO** to cancel it and back to previous menu or press **#VM** to cancel it and back to main menu. Press **CLR** to cancel the setting.

(Note :You cannot set the RX signaling when radio in channel mode.)

## Side-Keys Programming Function

**See following side-key functions:**

English	Details
OFF	No function available
DIAL	"Dial" is applicable for choosing pre-set code and call someone by DTMF code. Press "Dial" or PTT, then press "dial" to send DTMF code .
CALL	Choose desired number in the list and make call . Press 0-9 to choose desired list .

SCAN	Scanning frequency/memorial channel, press any key except [▲]/[▼] to quit scanning .
VOX	Turn on/off VOX
MONITOR	Stop/Start monitor the QT or DQT, meanwhile radio automatically turn on SQL when receives carrier signal.
POWER	<b>Power on/off</b> .
ALARM	Turn on emergency call function. Press PTT to turn off emergency call.
DTMF IN	Input DTMF code ,then press PTT to send out DTMF code .
FM RADIO	Turn on/off FM radio
LAMP	Turn on/off Lamp
FIR CH	exchange to the first channel
SEC CH	exchange to quick channel
SQL OFF	Turn on SQL and while receive carrier signal ,radio speaker actives.
SQL MOM	Active this SQ , and keep at SQ state when radio receives carrier wave (Short press is invalid for this function)

## Operation Instructions

### BEEPER ON/OFF

Press **[F]** and **[9 SET]**, choose BEEPER by **[▲ ▼]** and LCD displays **BEEP**, then press **[F]** and **[▲ ▼]** to choose \*ON; \*OFF. After that, press **[F]** confirm and back to selected item. Press **[\*\*0]** to cancel setting and back to previous item or press **[CLR]** to cancel setting and back to main menu.

### BACK LIGHT

Press **[F]** and **[9 SET]** and choose LIGHT by **[▲ ▼]** and LCD displays **LIGHT**. Then press **[F]** and **[▲ ▼]** to choose \*ON; \*OFF. \*Choose desired timing to keep lighting. After that, press **[F]** to confirm and back to selected item. Press **[F]** to cancel setting and back to previous item or press **[CLR]** to cancel setting and back to main menu.

### KEY LOCK

Press **[F]** and **[9 SET]**, choose LOC.KEY by **[▲ ▼]** and LCD displays **LOCKEY**. Then press **[F]** and **[▲ ▼]** to choose \*MANU: Lock the key by manual; \*AT 5/.../30: Lock the key within defined timing and radio do not memory the auto key lock status if turn on again; \*AS 5/.../30: Lock the key within defined timing and radio memory the auto key lock status if turn on again. After that, press **[F]** to confirm and back to selected item. Press **[CLR]** to cancel setting and back to previous item or press **[\*\*0]** to cancel setting and back to main menu.

### BATTERY SAVE

Press **[F]** and **[9 SET]**, choose SAVE by **[▲ ▼]** and LCD displays **SAVE**. Then press **[F]** and **[▲ ▼]** to choose \*OFF; \*1-1/1-2/.../1-10: Ratio for battery saving (1-1 highest battery consumption, 1-10 lowest battery consumption). After that, press **[F]** to confirm and back to selected item. Press **[CLR]** to cancel

el setting and back to previous item or press **↶** to cancel setting and back to main menu.

## TOT

Press **F** and **9 SET**, choose TOT by **▲ ▼** and LCD displays **TOT**. Then press **F** and **▲ ▼** to choose \*OFF; \*30/.../600: Timing for stopping transmission. After that, press **F** to confirm and back to selected item. Press **CLR** to cancel setting and back to previous item or press **↶** to cancel setting and back to main menu.

## VOX SWITCH

Press **F** and **9 SET**, choose VOX SWI by **▲ ▼** and LCD displays **VOX SWI**. Then press **F** and **▲ ▼** to choose \*OFF; \*ON. After that, press **F** confirm and back to selected item. Press **CLR** to cancel setting and back to previous item or press **↶** to cancel setting and back to main menu.

## VOX

Press **F** and **9 SET**, choose VOX LEV by **▲ ▼** and LCD displays **VOX LEV**. Then press **F** and **▲ ▼** to choose desired VOX level. After that, press **F** to confirm and back to selected item. Press **CLR** to cancel setting and back to previous item or press **↶** to cancel setting and back to main menu.

## POWER ON MESSAGE

Press **F** and **9 SET**, choose PON MSG by **▲ ▼** and LCD displays **PONMSG**. Then press **F** and **▲ ▼** to choose \*OFF: Display all icons. \*DC: Display only voltage; \*MSG: Display only message. After that, press **F** to confirm and back to selected item. Press **CLR** to cancel setting and back to previous item or press **↶** to cancel setting and back to main menu.

## APO

Press **F** and **9 SET**, choose APO by **▲ ▼** and LCD displays **APO**. Then press **F** and **▲ ▼** to choose \*OFF; \*1H24H: Timing for automatically power off. After that, press **F** to confirm and back to selected item. Press **CLR** to cancel setting and back to previous item or press **\*↶** to cancel setting and back to main menu.

## ROGER

Press **F** and **9 SET**, choose ROGER by **▲ ▼** and LCD displays **ROGER**. Then press **F** and **▲ ▼** to choose \*OFF; \*ON. After that, press **F** confirm and back to selected item. Press **CLR** to cancel setting and back to previous item or press **\*↶** to cancel setting and back to main menu.

## OFFSET

Press **F** and **9 SET**, choose OFF SET by **▲ ▼** and LCD displays **OFFSET**. Then press **F** and **▲ ▼** to choose desired frequency difference between transmission and receiving. After that, press **F** to confirm and back to selected item. Press **CLR** to cancel setting and back to previous item or press **\*↶** to cancel setting and back to main menu.

## SCANNING

Press **F** and **9 SET**, choose SC MOD by **▲ ▼**, LCD displays **SCMOD**. Then pr-

Press **F** and **▲ ▼** to choose \*SE: Searching \*CO: Carrier wave; \*TO: Tim. After that, press **F** to confirm and back to selected item. Press **CLR** to cancel setting and back to previous item or press **\*WO** to cancel setting and back to main menu.

### SCANNING ADD/DEL

Press **F** and **9 SET**, choose SC ADD by **▲ ▼** and LCD displays **SCADD**. Then press **F** and **▲ ▼** to choose \*ADD; \*DEL: delete. After that, press **F** to confirm and back to selected item. Press **CLR** to cancel setting and back to previous item or press **\*WO** to cancel setting and back to main menu.

### VOICE

Press **F** and **9 SET**, choose VOICE by **▲ ▼** and LCD displays **VOICE**. Then press **F** and **▲ ▼** to choose \*CHS: Chinese; \*ENG: English; \*OFF. After that, press **F** to confirm and back to selected item. Press **CLR** to cancel setting and back to previous item or press **\*WO** to cancel setting and back to main menu.

### ANI

Press **F** and **9 SET**, choose ANI by **▲ ▼** and LCD displays **ANI**. Then press **F** and **▲ ▼** to choose \*ON; \*OFF. After that, press **F** to confirm and back to selected item. Press **CLR** to cancel setting and back to previous item or press **\*WO** to cancel setting and back to main menu.

### TOP KEY

Press **F** and **9 SET**, choose Top Key by **▲ ▼** and LCD displays **TOPKEY**. Then press **F** and **▲ ▼** to choose desired program function, more details can refer to the above keys programming definition. After that, press **F** to con-

firm and back to selected item. Press **CLR** to cancel setting and back to previous item or press **\*wO** to cancel setting and back to main menu.

### PTT ID

Press **F** and **B SET**, choose PTT ID by **▲ ▼** and LCD displays **PTT ID**. Then press **F** and **▲ ▼** to choose \*OFF: No PTT ID sending; \*BOT: Send PTT ID before transmission; \*EOT: Send PTT ID after transmission; \*BOTH: Send PTT ID before and after transmission. After that, press **F** to confirm and back to selected item. Press **CLR** to cancel setting and back to previous item or press **\*wO** to cancel setting and back to main menu.

### RESET

Press **F** and **B SET**, choose reset by **▲ ▼**, LCD displays **RESET**, then press **F** and **▲ ▼** to choose \*VFO: reset all settings except memorial channels \*FULL: All settings. After that, press **F** to confirm and back to selected item. Press **CLR** to cancel setting and back to previous item or press **\*wO** to cancel setting and back to main menu.



# Troubleshooting

Symptom	Try This
No power	<ul style="list-style-type: none"><li>● Battery power may have run out, please update battery or recharge it.</li><li>● Battery may not be properly installed, please take it off and re-install.</li></ul>
Battery lasts a short time after charge	<ul style="list-style-type: none"><li>● The battery life is over, please replace new battery.</li></ul>
Can not talk to other members of your group.	<ul style="list-style-type: none"><li>● Verify transmitting is within effective operating range.</li><li>● Verify channel, frequency and code settings are correct.</li></ul>
Hearing other conversation on a channel (not group members')	<ul style="list-style-type: none"><li>● Please change code settings, including all two way radio settings of your group.</li></ul>

## Specifications and Parameters

General Specification	
Device Number(D/N)	HLT-5199V
Frequency Range	VHF: 136-174Mhz
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)	110.5( H )x58.5( W ) x35.6( D )mm
Weight (include antenna, battery)	About 230g

## 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	

## 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