CP395

Handheld Transceiver

User Manual

1. Features

With the latest advanced technology, the CP395 Professional Transceiver provides a compact and rugged design with easy-to-use features.

【Key Features】
- ➢ 32 Channels in 16 Zones are selectable. (1 Zone = 32 Channels max.)
- ➢ Frequency range : 400 – 470 MHz / 350 – 400 MHz
- ➢ 512 CH can be set.
- ➢ English and Chinese language setting function.
- ➢ RF Power setting function.
- ➢ Short (up to 40 characters) message sending and reception functions.
- ➢ Encryption mode 16 bit (encryption key Range 0~65535)
- ➢ VOX Voice Activated Transmission
- ➢ Lone Worker mode
- ➢ Normal scan
- ➢ 5-step VOX (Voice Operated Transmit) can be set
- ➢ BCL / BCLO function
- ➢ Time-Out Timer (TOT) function
- ➢ Emergency / Siren function
- ➢ Built in Flash Lamp
- ➢ Etiquette (Vibration) function
- ➢ Voice recording and playback
  (Recorder63 parts, 1 Recorder : 2minute 30second)
- ➢ 5-step S.Q can be set (Analog   support).
- ➢ Remote Radio Stun / Kill / Revive
- ➢ Speaker volume of 1 Watt
- ➢ 3Lines Mono LCD Display
- ➢ Aluminum metal Frame Body
- ➢ DC+7.4V 2,600mAh high capacity Battery
- ➢ IP67 (Waterproof and submersible 1m depth for 30 minutes)

【Accessories】
- ➢ CB395 7.4V 2600mAh High Capacity Battery
- ➢ CS395 Charging Stand & CWC33 Adaptor
- ➢ EM320 13 pin Earbud microphone
- ➢ EM220 13 pin Ear-tube microphone
- ➢ AT39U Antenna (450MHz)
- ➢ AT39P Antenna (350MHz)

2. Specification

General

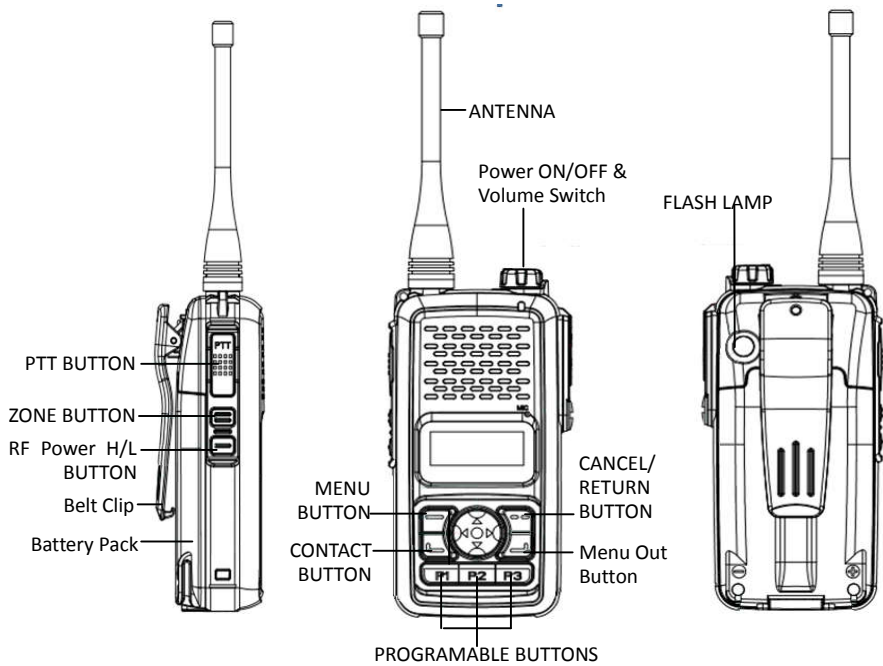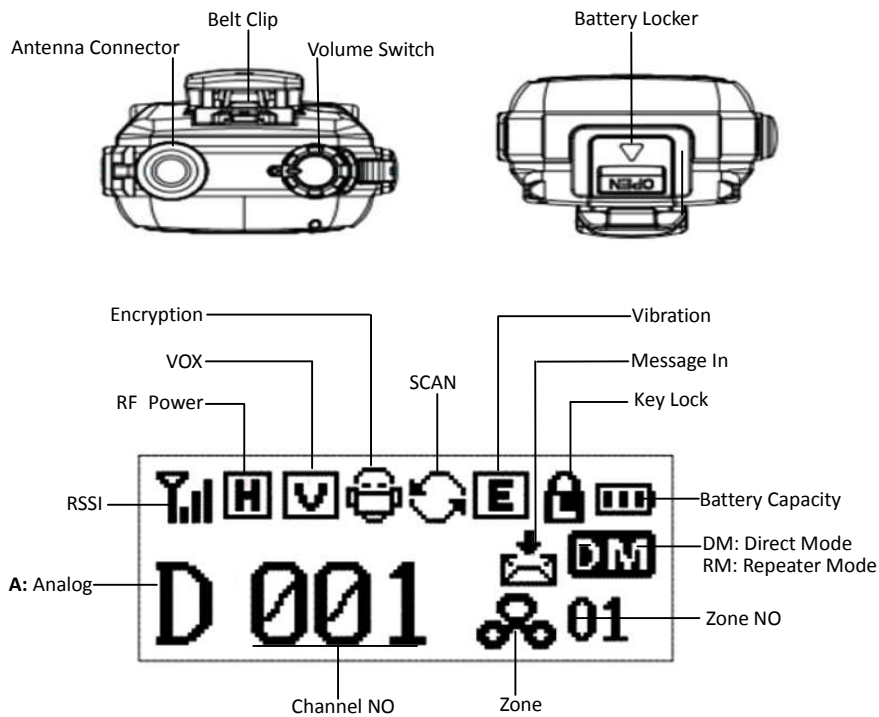|	
Frequency Range	CP395P: 350-390MHz CP395U: 400-470MHz
Frequency Stability	±1ppm(-30℃～+60℃)
Channels	16 Zones / 32 Channels
Channel Spacing	12.5KHz
Dimensions	126mm(H) x 59mm(W) x 36mm(D)
Weight	280g
Power Source	7.4V 2600mAh
Current Drain (maximum)	Receive mode, rated audio out – 420 (Audio Max) Transmit mode –1,200mA Standby mode – 110mA

Receiver

Sensitivity	0.25uV 12dB SINAD
Squelch Sensitivity	0.22uV 10dB SINAD
Selectivity	65dB(12.5KHz)
Spurious and Harmonic Rejection	75dB
FM Hum and Noise	40dB(12.5KHz)
Audio Output Power	1W/16Ω
Audio Distortion	Less than 3% at rated output
Audio Response	+1, -3 dB from 6dB per octave de-emphasis Characteristic
Input Impedance	50 ohms

Transmitter

RF Power Output	CP395P:3W CP395U:5W
Spurious and Harmonic	70 dB
FM Hum and Noise	40 dB
Audio Distortion	3% maximum with 1KHz modulation
Audio Frequency Response	+1, -3dB from 6dB per octave pre-emphasis Characteristic
Output Impedance	From 300 ~ 3000Hz 50 ohm

3. Appearance

PTT BUTTON
ZONE BUTTON
RF Power H/L BUTTON
Belt Clip
Battery Pack

ANTENNA
Power ON/OFF & Volume Switch
FLASH LAMP

MENU BUTTON
CONTACT BUTTON
CANCEL/ RETURN BUTTON
Menu Out Button

PROGRAMABLE BUTTONS

Belt Clip
Antenna Connector
Volume Switch
Battery Locker

Encryption — Vibration
VOX — Message In
SCAN
RF Power — Key Lock
RSSI — Battery Capacity
DM: Direct Mode
RM: Repeater Mode
A: Analog — D 001
Zone NO
Channel NO
Zone

4. Installation and Removal
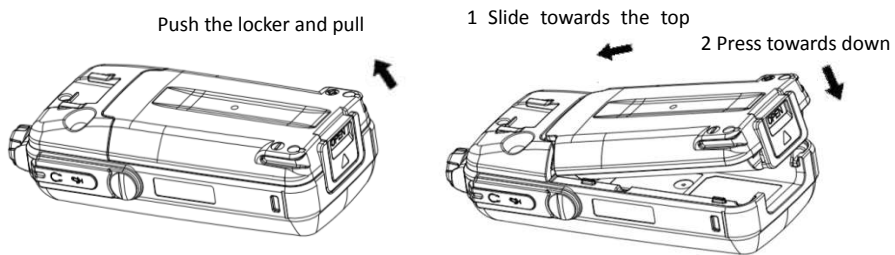
Antenna Installation and Removal

To install the antenna, insert the antenna into antenna connector and screw the antenna clockwise. To remove the antenna, screw the antenna counter clockwise.

Battery Installation and Removal

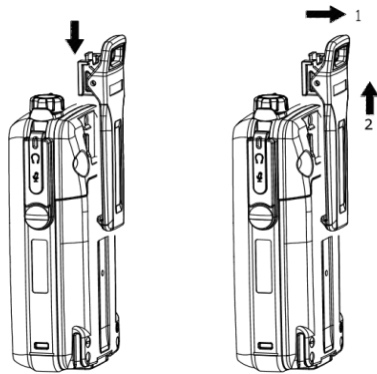To remove the battery, push the locker and pull following the arrow direction;

To install the battery, slide up the battery towards the top of the radio as number 1 and push down as number 2 until battery latch is locked.

Push the locker and pull

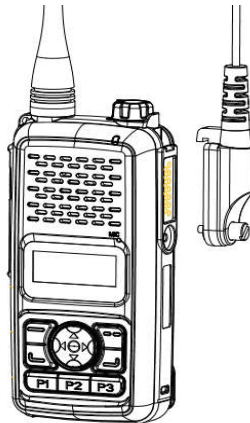1 Slide towards the top

2 Press towards down

Belt clip Installation and Removal

To attach belt clip to the radio, align its rails with the grooves in radio and slide the belt clip onto the mounting rails until it latches into place. To remove belt clip from the radio, push up on tab of belt clip with flat bladed screw driver and at the same time, slide the belt clip towards the top of Radio.

External Accessory Connection

Fix the main unit and the accessory by aligning them and tighten the screw.

To remove the accessory, loosen the fixed screw.

5. Radio operation

Antenna Connector	Power ON/OFF & Volume Swith
Hand Strip Hole	LED Status
PTT Button	UDC Connector
Zone Button	MIC Hole
RF Power H/L Button	LCD Display
Menu Button	CH UP Button
Left Button	Cancel/Return Button
Contact Button	Right Button
	Menu Exit Button
	CH Down Button

DIGITAL

D001

Programmable Button

1. Power ON/OFF &Volume Switch

Turning the volume switch knob clockwise to power ON and turning the knob counterclockwise to power OFF. There will be a sound with a 'CPS' logo on LCD when turning ON the radio.

It volumes up when you turn it clockwise and volumes down when you turn it counter-clockwise.

2. PTT Button

Pressing PTT button, the radio mode is transmission and releasing the button, it is receiving mode. It is recommended to talk 5~10cm away from the microphone for the best voice communication

3. MENU/ENTER Button

When you press the NENU / ENTER button, currently programmed menu is displayed and you can select a desired menu using by VOLUME + / LEFT button or VOLUME- / RIGHT button.

4 . ZONE Button (Program settings**)**

When you press the ZONE button, the registered ZONE which registered by program is changed to a step-by-step and can be select your request channel use by UP / DOWN buttons.

5. CH/Menu UP/Down Button

" CH / MENU UP" and   "CH / MENU Down" are to change channels and in the menu entry mode, it is select the UP / Down of the Menu.

6. Contact Button

When you push contact button, to go directly to the phonebook menu.

7. P1, P2, P3 Programmable Button

If you push the P button for more than 2 seconds, the P button has two functions of Short Key and Long Key. The Short Key is set by PC program and Long Key is defined in the body.

P Key	Short Key	Long Key
P1	Programmable	Key Lock ON/OFF
P2	Programmable	Flash Light ON/OFF
P3	Programmable	Vibration mode ON/OFF

8. UDC EAR/MIC Jack

UDC EAR/MIC Jack is used in the following cases:

1) When using external speaker MIC

2) When setting radios with CPS Program

3) When communicating with external terminals

9. LED indication Status

TX	Red Lamp
RX	Green Lamp
Green blinks	when the frequency is the same but the color code does not match.
Low Battery	Red Lamp blinks with "beep" sound.

10 . Charging status LED

The LED indicates the battery charge.

6. Charging the Battery

1. Safety Notes

1）The radio of CP395 series receives power from high-performance Li-ion battery (CB39). CB39 Battery is safe of high performance and highly reliable, and could be charged very fast.

2）Please charge the battery before using the radio for best performance and safety.

3）When you charge the battery that is installed in the Radio, please turn off the radio first to charge the battery.
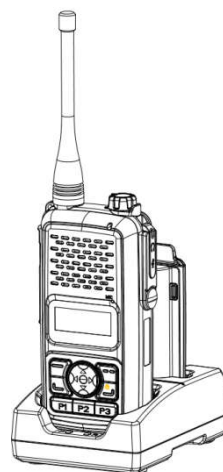
2 . Charging time

Low battery voltage maybe cause to reduce communication coverage and also make the performance worse. Please charge the battery in case of following:

1）When you think that the performance of the radio has degradation.
2）The red lamp on RX/TX LED blinks. (every 0.5 second), during transmission or reception.
3）When the battery icon is blinks
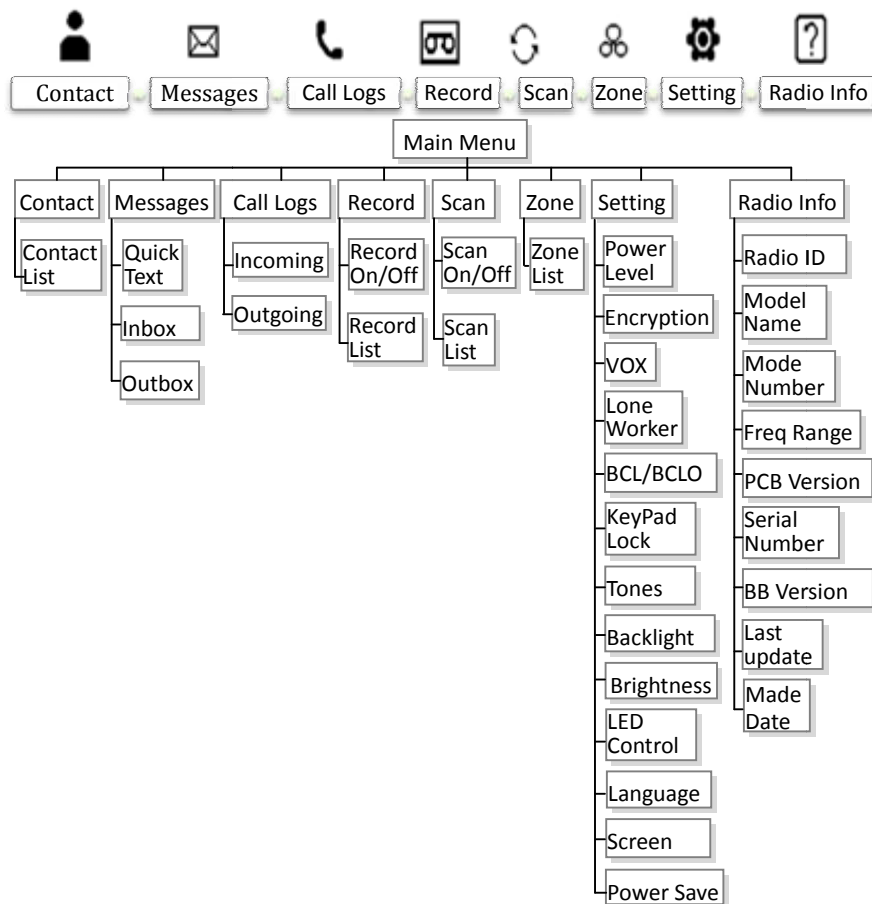4）While the radio is in use, "beep" sounds.

3 How to charge

1）Plug the adapter of the CS39 charger in general power AC220V power outlet.
2）When charging the battery that is equipped with radio, please turn off the power of the Radio and plug the Radio in the charger.
3）Even if charging is completed (green lamp lights), please charge
4）more for about 30 minutes for a full charge.

Status	LED indication	Status	LED indication
Charging	Red LED lights	Detecting error	Red LED is flicker
Complete charging	Green LED lights	Keep charging	Green LED lights

7. Using the CP395

Press the ⬚ button on the front to enter the menu mode. In the menu mode, there are eight of the main menus, and set and used according to the application and the environment, it can be more convenient to use.

1 . Contact List

Set a contact list (set to CPS program) and will be pressing the PTT button to call. If you want to call with another registered contact, after you select a contact from the contact list and press the PTT button, it will be the call. The list of contacts in the menus can be registered / deleted using the CPS (Customer Programing Software) program.

When you enter in the contact menu, the individual, group and All Call contact list is displayed.

- ICON

  Individual Contact List (individual Call , Sending individual message)

  Group Contact List (Group Call , Sending group message)

  All Contact List (All call, Sending Message to terminal which has same channel and same color)

2. Message

When a new message arrives, the contents will be display on LCD in receive mode. And if you are in other mode, it will be seen in the ICON form when a new message arrives. Message menu has a simple message, inbox, outbox, three kinds of menu.

1）Simple Message

Using the CPS program can create a total of 10 messages and One message can be edit up to 40 characters. If you select a simple message menu you can view the registered message. Select the message you want to send, and press the ⬜ button, you can see the contents of the message. When you press the ⬜ button again, the message will be sent to the registered terminal.

2）Inbox

It is possible to store up to 10 incoming messages. When you choose contents stored in the list, you can see the received messages.
When the received message is more than 10, the earliest incoming message is cleared first and it is registered.
If you want to delete incoming messages, it can be deleted by selecting delete all menu.

3）Outbox

It is possible to store up to 10 outgoing messages. When you choose contents stored in the list, you can see the outgoing messages.
When the outgoing message is more than 10, the earliest outgoing message is cleared first and it is registered.
If you want to delete outgoing messages, it can be deleted by selecting delete all menu

3. Call Log

This is the menu to save only individual call log. Group and All call logs do not save. The message content is managed in the in/outbox messages.

1）Inbox

It is possible to store up to 10 inbox record and it can see the opponent ID. When the inbox is more than 10, the earliest inbox record is cleared first and it is registered. If you want to delete inbox record it can be deleted by selecting delete all menu.

2）Outbox

It is possible to store up to 10 outbox record and it can see the opponent ID. When outbox is more than 10, the earliest outbox record is cleared first and it is registered. If you want to delete outbox record it can be deleted by selecting delete all menu.

4. Call Recording

This function is used to save the outgoing and incoming calls content. If the recorded content is not required, it can be completely deleted. Calls list can store up to 63 and one call list will be limited to 2 minutes and 30 seconds. If you want to use the call recording function, you can select in the settings.

5. Scan

When turning ON the scan operation, to start the scan in the order of the channel that has been set in the scan list. If there is a channel used during the scan, you will receive the contents stops at that channel. If you want to call, you can use the settings to suit your needs by the CPS program.

1）Scan ON/OFF

Select the scan settings or scan release at the scan of menu and go to receive mode.

2）Scan list

Scan list can be set using the CPS program

6 . ZONE

ZONE can create up to 16 and it can be registered to 32 channels per ZONE. How to specify the ZONE is to use the CPS program.

7 . Setting

This is the menu to set various functions of the radio. The settings are transmission power, voice encryption, VOX, Lone walker, BCL / BLCO, Keypad lock, Sounds, Backlight, Contrast, LED settings, and Language.

1） Transmission power

Set the high and low of the transmission power.

2） Voice Encryption

This is a feature to encrypt the incoming and outgoing voice. Voice Encryption function can be set for each channel from all of the digital channels. The setting of voice encryption code is using the CPS program, the total number of encryption can be set from 0 to 65535.

3） VOX

VOX function is transmitted by detecting a voice level without Using the PTT button VOX sensitivity level is 1 - 5 steps, you can set using the CPS program.

4） Lone Worker

It is function to inform others about your safety within the time set in the menu. Setting time supports up to 1-100 minutes.

5） BCL/BCLO

If the another user on the currently used channel, it is the ability to limit the transmission so as not to interfere. BCL: If the current channel is busy, the transmission prohibition BCLO: The ability to send regardless of the user of the current channel

6） Button Lock

With the exception of the minimum of buttons necessary for the user to prevent unwanted terminal operation, it is the ability to limit the operation. When the button lock is on, all buttons are locked except the PTT button, the emergency button and power ON / OFF button. When press the [P1] key (button lock temporary release key) for seconds, you can use a button. After 25 seconds from you pressing the last button, to return to the button again locked.

7） Sound

This is a sound setting function. The main menu is available Only ON / OFF. The detailed sound can be set using the CPS program.

8） LCD Back Light

This feature is LCD backlight ON / OFF.

9） LCD Contrast

The function is to adjust the brightness. The brightness can be set from 1 to 7 step. LED Status display setting. The feature is to set the LED status display. It can be set detailed using the CPS program.

10）LED Control

This function is to set the enable or disable the radio status LED.
The LED status can be set using the CPS program.

11）Language

The feature is to select the language for the menus.

12）Screen Setting

This function allows the ability to change between Screen 1 for
Numeric or Screen 2 for Alphanumeric. The information display
set using the CPS program. Contact your Authorized Dealer
for futher information.

13）Power Saving Mode

This function allows the radio to enter a power saving mode to
extend battery usage time. Off is full power, 1/1 is 50% on/50%
off; 1/2 is 33% on/67% off; 1/4 is 25% on/75% off. Note: When
sending and receiving text messages, turn off the power
saving mode.

8. Radio Information

A menu that shows the information in this device.

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