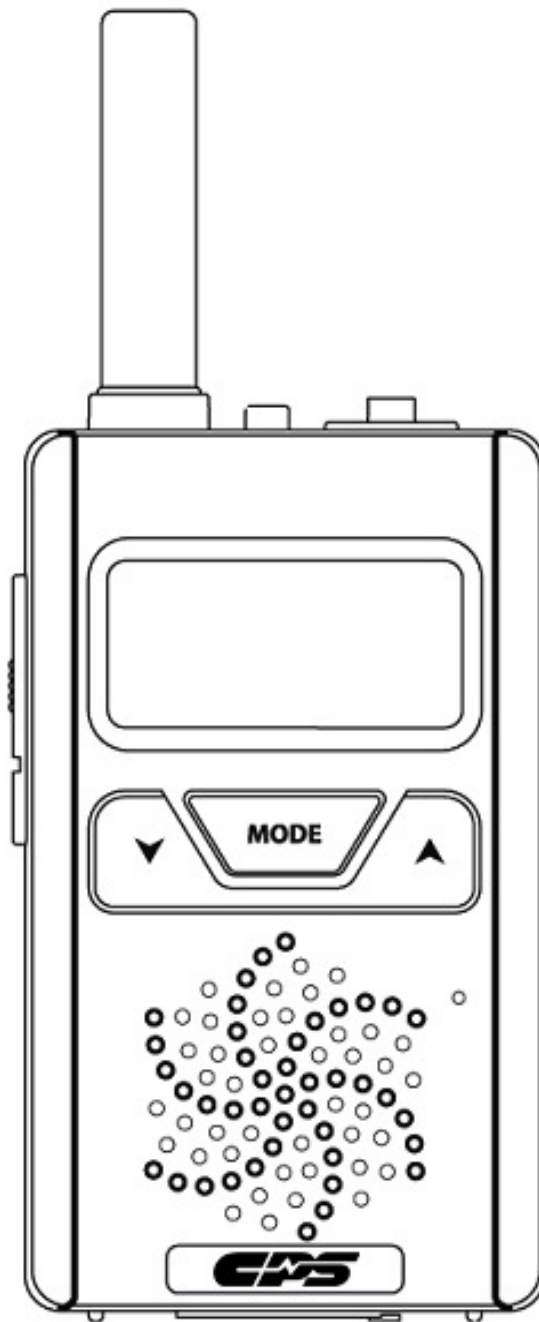


# CP183

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## Business Radio User Manual



# 1. GENERAL INFORMATION

## 1.1 Introduction

The CP183 Business Radio combines quality and versatility into a compact, light and portable two-way radio with state-of-the-art design and easy-to-use features.

## 1.2 Key Features

- 53 CTCSS and 104 DCS
- S.Q. Level control with 5 steps
- VOX Level control and On / Off
- D.W (Dual Watch)
- Key Lock
- Power Saving
- 0.5Watt High Power Speaker Output
- 3.7V 750mAh Li-Polymer High Capacity Battery – Light weight Li-Polymer battery with extended battery life
- Channel Scan – Scans for activity across different communications channels
- Monitor function – Enables monitoring for weak radio signals
- Busy Channel Lockout – Prevents the radio from listening to or transmitting over its channels
- RSSI – Receiving signal strength indication
- Battery Level Indicator
- Cloning – Enable transfer all settled menu to other units instantly or copy of them from other units
- Beep ON / OFF – Choose beep sound on or off when press buttons
- Back lighting ON / OFF – Back Lighting is on for 5 sec from any key touched lastly
- P / C Programming

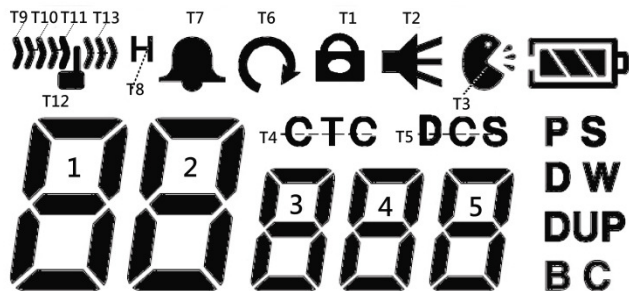
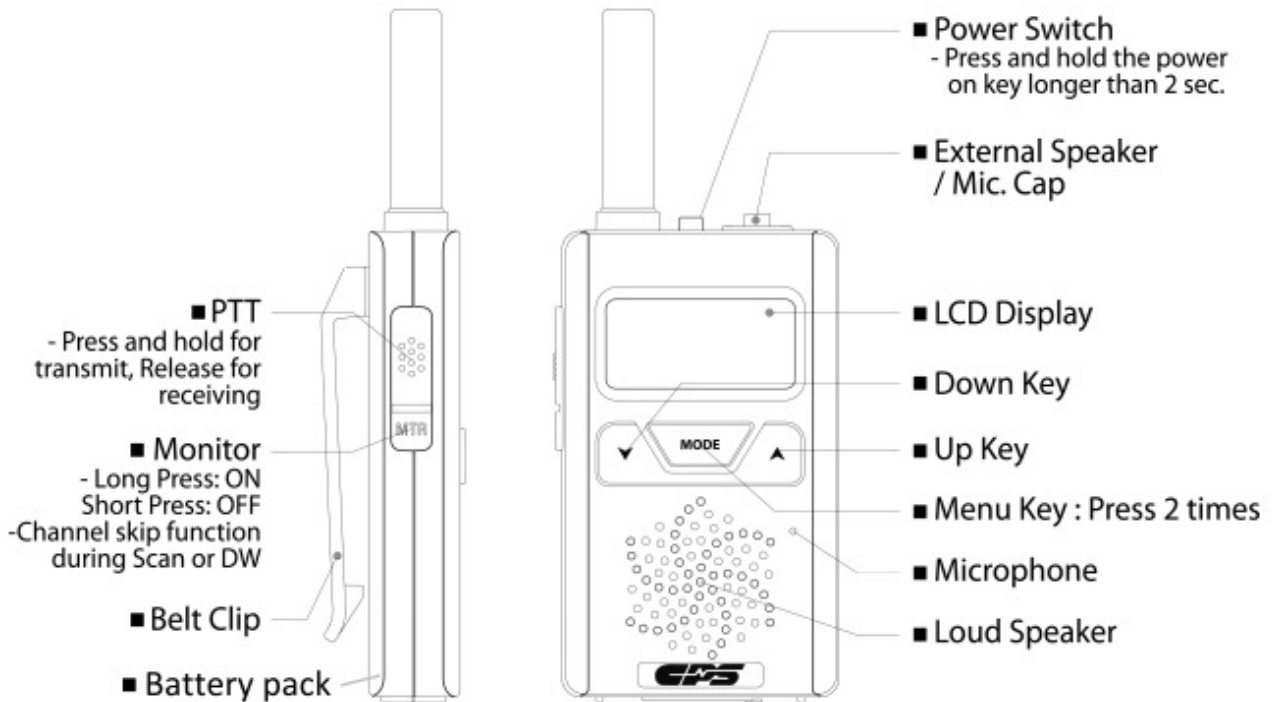
## 1.3 Accessories

- Mini-USB cable including CWC18 Charging adaptor
- CB18 Battery
- CS18 Charging stand
- Owner's manual

## 1.4 Optional Accessories

- External speaker / microphone

## 2. CONTROLS AND INDICATORS



	FEATURE	REMARKS
T3	Indicates the Vox On	OFF / LOW / HIGH
T7	Indicates the Beep Sound ON	ON / OFF
T1	Indicates when the keypad is locked	ON / OFF
T4, T5	Indicates the CTCSS / DCS is on	CTCSS / DCS
PS	Indicates the Power Saving is on	
DW	Indicates the Dual Watch is activated	
BC	Indicates the BCLO is on	ON / OFF
T6	Indicates the Scan is activated	ON / OFF
T13, T12	Indicates the Strength of TX Signal	
T8	Indicates the Power, H: High	
T9, T10, T11, T12	Indicates the strength of RX Signal	
T2	Indicates the Monitor feature is activated	ON / OFF
S1, S2, S3, S4	Shows battery condition	4 STEPS

## 3. CHARGING THE BATTERY

### 3.1 Charging the Battery

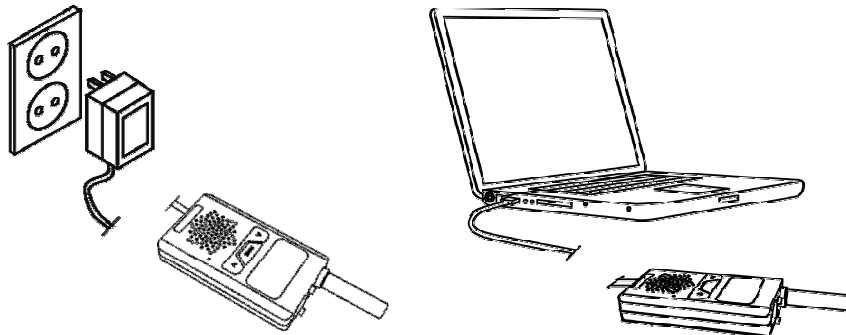
1. Plug the AC adaptor into the AC power outlet.
2. Connect the mini USB cable into the mini USB jack of the unit
3. Charge the radio. It will take 3 to 5 hours for full charging

Or

1. Plug the USB part of mini USB cable into the P / C
2. Connect the mini USB part of mini USB cable into the mini USB jack of the unit
3. Charge the radio. It will take 3 to 5 hours for full charging

Or

1. Plug the charger into 110/220V AC power outlet.
2. Insert the battery pack into the charging tray for charging.



## 4. OPERATION

### 4.1 Power On / Off

To turn the radio on, press and hold the power on key which is on the top of the unit longer than 2 sec. And to turn off the radio, press and hold the power on key longer than 2 sec.

### 4.2 Adjusting the Radio Volume

Adjust the volume level by using ▲ / ▼ key (16 steps)

### 4.3 Channel Selection

Press and hold the "MODE" button longer than 2 sec. to enter the channel selection mode. The "CH" will be blinking on the LCD. Select the channel number by using ▲ / ▼ key and press "PTT" button to confirm it. The channels will increase constantly in case press and hold ▲ key or the channels will decrease constantly when you press and hold ▼ key.

### 4.4 Transmission

Press and hold the "PTT" button while speaking at about 5cm from the microphone for transmission. Release the "PTT" button to return to stand by mode.

### 4.5 Reception

Select the wanted radio channel. If the CTCSS or DCS icon is blinking, it will indicate that the sender is using as same radio channel as you set with other pilot tone CTCSS / DCS code.

In this case, you need to change the channel number to others when you transmit.

## 4. OPERATION

### 4.6 Monitor

Press and hold **MTR** key for longer than 2 sec. to monitor weak radio signal and release **MTR** Key to stop the monitor. The Monitor key works to skip the channel as well during Scan or DW, if you short press it.

### 4.7 CTCSS / DCS

Enter MENU mode by press and hold the "MODE" button longer than 2 sec. and select CTCSS / DCS menu by ▲ / ▼ key. CTCSS / DCS channel will be blinking. Choose the CTCSS / DCS channel by ▲ / ▼ key and confirm it by press "PTT". If you choose "Tone Off", "NO-TONE" will be displayed on the LCD.

### 4.8 Key Lock

Press **MTR** key and ▲ key at the same time to control Key Lock ON / OFF

### 4.9 VOX

Enter MENU mode by press and hold the "MODE" button longer than 2 sec. and CHOOSE "VOX MODE" by ▲ / ▼ key. The VOX Hi or VOX Low or VOX Off will be displaying on the LCD. Select VOX Hi or VOX Low or VOX Off by using ▲ / ▼ key then confirm it by press "PTT". "VOX ICON" will be displayed, in case you choose the VOX on.

The VOX will be performed when external Ear/Mic. is connected only.

### 4.10 SCAN

Press **MTR** key and ▼ key at the same time to select SCAN ON / OFF.

### 4.11 DW SCAN

Enter MENU mode by press and hold the "MODE" button longer than 2 sec. and choose "DW" by ▲ / ▼ key. DC will be blinking on the LCD. Select DW channel or DW off by ▲ / ▼ key then confirm it by press "PTT".

### 4.12 LCD Back Lighting

Back lighting will be ON every key you press except "PTT" and it will be OFF after long last 5 sec. from any key touched.

### 4.13 CLONE

Press Power ON and ▲ key at the same time of the host unit.

"CL---" will be displayed on the host unit.

Press power ON and ▼ key at the same time of the sub unit.

"PR---" will be displayed on the sub unit.

Connect the Clone cable between the host unit and the sub unit.

The program will be transferred to the sub unit automatically.

"Pass---" will be displayed on the LCD of host unit after complete of program transfer successfully.

In case to continue the program transfer to another unit, connect the Clone cable to another sub unit and press "PTT" to the host unit.

"Pass---" will be displayed on the LCD of host unit after complete of program transfer successfully.

## 4. OPERATION

### 4.14 Squelch Level

Enter MENU mode by press and hold the "MODE" button longer than 2 sec. and select the SQL mode by press "MODE" button continuously. Its SQL will be blinking on the LCD. Press ▲ / ▼ key to increase or decrease squelch level from 1 to 5. In case, setting the radio to the tight squelch level, you can avoid unwanted signal or noise, but you may not receive a weak signal. Therefore, it will be recommended for you to select the normal squelch level. (Default value:1) Press "PTT" button to save the setting.

### 4.15 Beep

Enter MENU mode by press and hold the "MODE" button longer than 2 sec. and select the Beep mode by press "MODE" button continuously. Its Beep On / Off will be blinking on the LCD. Press ▲ / ▼ key to choose either beep on or off then confirm it by press "PTT" button. (Default is beep on)

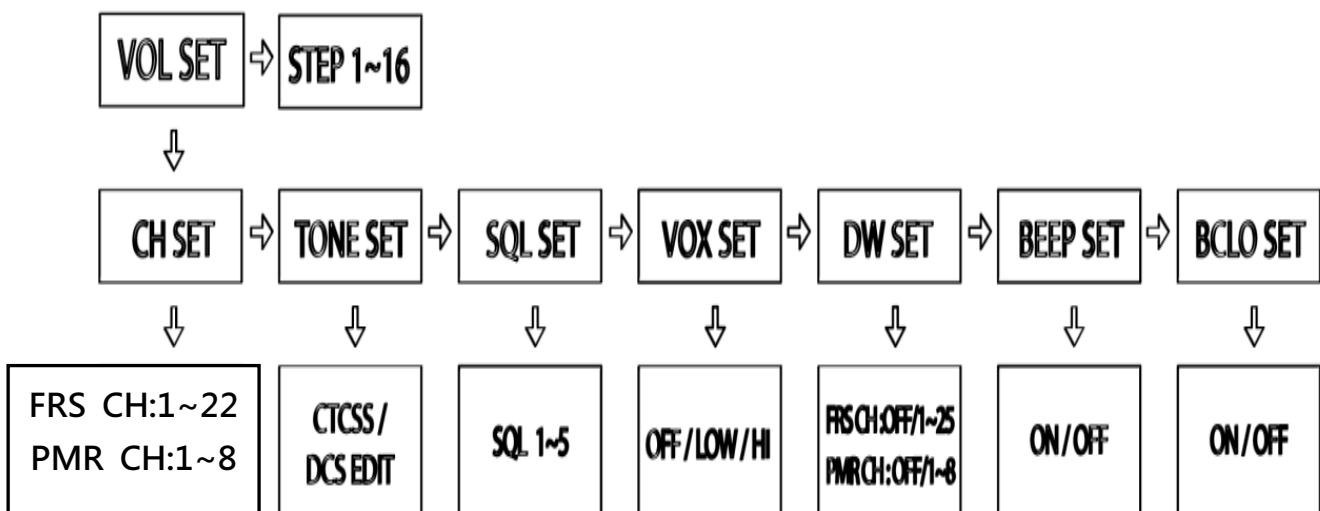
### 4.16 BCLO

Enter MENU mode by press and hold the "MODE" button longer than 2 sec. and select the BCLO mode by press "MODE" button continuously. Its BCLO On / Off will be blinking on the LCD. Press ▲ / ▼ key to choose either BCLO on or off then confirm it by press "PTT" button.

## 5. MENU SETTING

### 5.1 Menu Setting

Enter Menu mode by press and hold the "MODE" key longer than 2 sec. Choose desire menu by press ▲ / ▼ key and select the function then press "PTT" to save it



# TECHNICAL SPECIFICATIONS

## General

<b>Channels</b>	FRS 22 CHs / PMR 8 CHs	<b>Temp. range</b>	-20°C - +55°C
<b>Frequency range</b>	FRS 462.5500 ~ 467.7125 MHz PMR 446.00625~446.09375MHz	<b>Frequency stability</b>	+/-2.5ppm
<b>Battery type</b>	Lithium - Polymer	<b>Size (W x H x D)</b>	44 x 74 x 16.8mm
<b>Battery capacity</b>	750mAh	<b>Weight inc. battery</b>	65g
<b>Operation Time</b>	15 hours	<b>Sub tones</b>	CTCSS / DCS
<b>Stand by time</b>	33 hours		

## Receiver

<b>Adjacent channel rejection</b>	55 dB
<b>Inter-modulation</b>	55 dB
<b>Spurious and image rejection</b>	55 dB
<b>Noise</b>	45 dB
<b>Audio output @5% distortion</b>	500mW@8 Ohm

## Transmitter

<b>Output Power</b>	<0.5W
<b>Spurious (Conducted)</b>	60dB
<b>Mod. Distortion @ 1kHz</b>	<3%

# CTCSS / DCS TABLE

## CTCSS

CH	Frequency	CH	Frequency	CH	Frequency	CH	Frequency
1	67.0	14	107.2	27	167.9	40	159.8
2	71.9	15	110.9	28	173.8	41	183.5
3	74.4	16	114.8	29	179.9	42	189.9
4	77.0	17	118.8	30	186.2	43	196.6
5	79.7	18	123.0	31	192.8	44	199.5
6	82.5	19	127.3	32	203.5	45	206.5
7	85.4	20	131.8	33	210.7	46	229.1
8	88.5	21	136.5	34	218.1	47	254.1
9	91.5	22	141.3	35	225.7	48	165.5
10	94.8	23	146.2	36	233.6	49	171.3
11	97.4	24	151.4	37	241.8	50	177.3
12	100.0	25	156.7	38	250.3	51	60.7
13	103.5	26	162.2	39	69.3	52	62.5
						53	64.7

## DCS

CH	DCS Code	CH	DCS Code	CH	DCS Code	CH	DCS Code
1	023	28	172	55	431	82	743
2	025	29	174	56	432	83	754
3	026	30	205	57	445	84	036
4	031	31	223	58	464	85	053
5	032	32	226	59	465	86	122
6	043	33	243	60	466	87	145
7	047	34	244	61	503	88	212
8	051	35	245	62	506	89	225
9	054	36	251	63	516	90	246
10	065	37	261	64	532	91	252
11	071	38	263	65	546	92	255
12	072	39	265	66	565	93	266
13	073	40	271	67	606	94	274
14	074	41	306	68	612	95	325
15	114	42	311	69	624	96	332
16	115	43	315	70	627	97	356
17	116	44	331	71	631	98	446
18	125	45	343	72	632	99	452
19	131	46	346	73	654	100	454
20	132	47	351	74	662	101	455
21	134	48	364	75	664	102	462
22	143	49	365	76	703	103	523
23	152	50	371	77	712	104	526
24	155	51	411	78	723		
25	156	52	412	79	731		
26	162	53	413	80	732		
27	165	54	423	81	734		

# CHANNEL FREQUENCY CHART

## FRS

Channel No.	Frequency (MHZ)	Channel No.	Frequency (MHZ)
1	462.5625	12	467.6625
2	462.5875	13	467.6875
3	462.6125	14	467.7125
4	462.6375	15	462.5500
5	462.6625	16	462.5750
6	462.6875	17	462.6000
7	462.7125	18	462.6250
8	467.5625	19	462.6500
9	467.5875	20	462.6750
10	467.6125	21	462.7000
11	467.6375	22	462.7250

## PMR

Channel No.	Frequency (MHZ)	Channel No.	Frequency (MHZ)
1	446.00625	5	446.05625
2	446.01875	6	446.06875
3	446.03125	7	446.08125
4	446.04375	8	446.09375





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## **Product Safety and RF Exposure**

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

### **FCC Caution:**

Caution: To maintain compliance with the FCC's RF exposure guidelines hold the transmitter and antenna at least 1 inch (2.5 centimeters) from your face and speak in a normal voice, with the antenna pointed up and away from the face, use only the supplied belt clip for this product and transmitting, use of other accessories may not ensure compliance with FCC RF exposure guidelines.

This equipment complies with FCC radiation exposure limits set forth for uncontrolled environment. Unauthorized antennas, modification, or attachments could damage the transmitter and may violate FCC regulations.

The device is authorized to operate at a duty factor not to exceed 50%.

### **Hazardous Environments:**

Do not operate the communicator in hazardous environments, explosion or fire may result. Do not operate the communicator near unshielded electrical blasting caps.

Under certain conditions, radios can interfere with blasting operations and may cause an explosion. Turn your radio to the OFF position to prevent accidental transmission when in a blasting area or in areas posted: "Turn off two-way radios." Construction crews often use remote control RF devices to set off explosives.

Never use cleaners or solvents to clean your device. Use a dry, lint-free cloth to clean the battery contacts. Do not submerge the unit in water.

**NOTE:** CPS Telecom Limited is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user's authority to operate the equipment.

The devices must be installed and used in strict accordance with the manufacturer's instructions as described in the user documentation that comes with the product.