

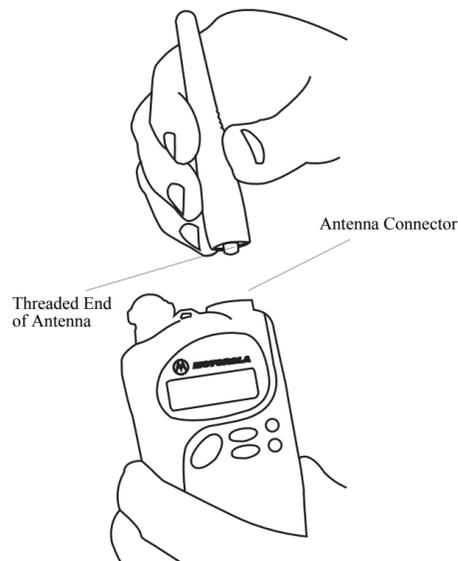


## CB PRO Alpha Series Radio

Modern, Efficient,  
With Exceptional Value



### Attaching and Removing the Antenna



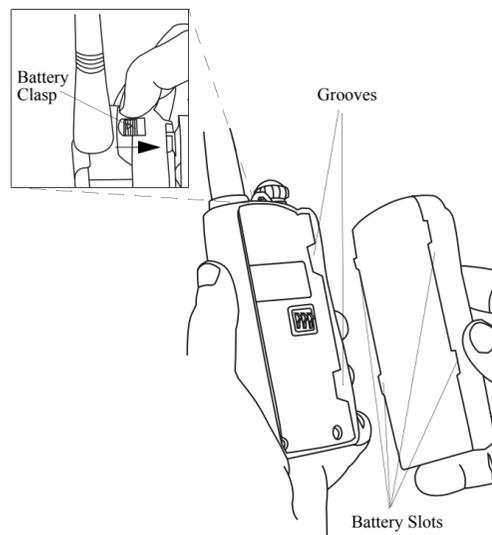
#### To Attach Antenna

1. Fasten the antenna to the radio by placing the threaded end of the antenna into the Antenna Connector.
2. Rotate the antenna clockwise until tight.

#### To Remove Antenna

1. Turn the antenna in a counter-clockwise direction until it disengages from the radio.

### Attaching and Removing the Battery



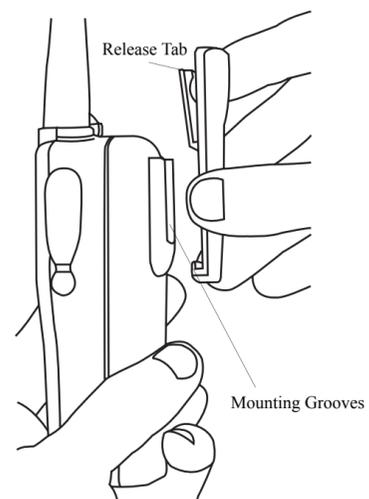
#### To Attach Battery

1. Fit the battery slots with the grooves on the radio.
2. Slide the battery upwards until a click is heard.

#### To Remove Battery

1. Slide the battery clasp away from the radio.
2. Slide the battery downwards.
3. Pull the battery away from the radio.

### Attaching and Removing the Belt Clip



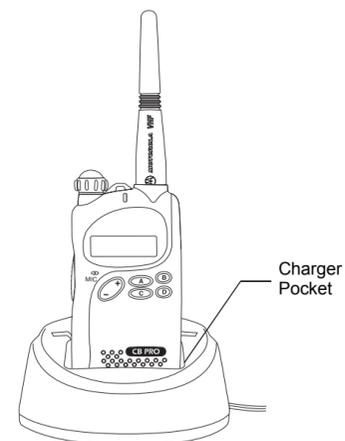
#### To Remove Belt Clip

1. Insert the end of a key between the release tab and the back surface of the radio.
2. Lift the release tab.
3. Slide the belt clip upwards.

#### To Attach Belt Clip

1. Align mounting rails of the radio with the grooves of the belt clip.
2. Slide the belt clip downwards until it clicks into place.

### Charging your Radio

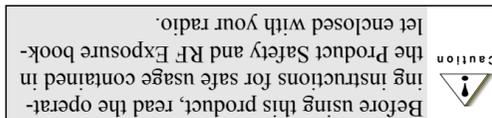


1. Turn off your radio and the A/C power supply to your charger (if they are turned on).
2. Place your radio in the charger pocket.
3. Turn on the charger's A/C power supply.
4. Charge your radio until the charger's LED shows a steady green light (around 2 hours later).
5. Turn off the charger's A/C power supply, and remove the radio from the charger pocket.
6. Turn on your radio; you should see all 3 bars of the Battery Level Indicator illuminated.



6804113J11-B

## PRODUCT SAFETY AND RF EXPOSURE COMPLIANCE



**This radio is restricted to occupational use only to satisfy FCC RF energy exposure requirements.** Before using this product, read the RF energy awareness information and operating instructions in the Product Safety and RF Exposure booklet enclosed with your radio (Motorola Publication part number 6815389H01) to ensure compliance with RF energy exposure limits. For a list of Motorola-approved antennas, batteries, and other accessories, visit the following web site which lists approved accessories: <http://www.motorola.com/businessandgovernment>.

1. After unpacking your radio from the box, attach the battery and antenna to the radio as shown.
2. Charge your radio (see "Charging your Radio" for details).
3. Set the squelch level to a suitable level based on your environment (see "Squelch Level" at "Function" in the user manual).

Before you start using your radio, please make sure to

### Getting Started

Channels 1 to 8 designated as repeater output channels; Channels 31 to 38 are the corresponding designated repeater input channels. Channel 1 to 8 can be activated at a press of a button to operate in Talkaround mode (point to point, single frequency communications) when not used in the locality of repeaters.

The Motorola CB PRO operates on the Citizen Band Radio Service (CBRS) UHF frequencies. It requires no service fees or licenses, and can be used by anybody in Australia or New Zealand.

ONLY, and non-urgent communications must be confined to the other channels. Channels 22 and 23 are receive only channels; thus, no voice transmissions are allowed on these channels.

Channels 1 to 8 designated as repeater output channels; Channels 31 to 38 are the corresponding designated repeater input channels. Channel 1 to 8 can be activated at a press of a button to operate in Talkaround mode (point to point, single frequency communications) when not used in the locality of repeaters.

You have a choice of selecting 001, 002, ..., 042, PL1, PL2, PL3 for PL codes, and 043, 044, ..., 126 for DPL codes. Please refer to the "Accessing Programming Mode Parameters" section for details in setting the Mode Parameters.

**NOTE:** PL/DPL codes do not offer complete privacy, as any radio user can listen into the communications on that channel by pressing the Monitor button.

PL and DPL codes allow you to create several communication groups within a single channel. All radios on that channel with the same set of PL/DPL Receive and Transmit codes are able to communicate with each other. In most cases, other radios on that channel not set with any code, or are set with different codes will not participate in the communications.

### Using PL and DPL Codes

**NOTE:** If a particular channel receives many unwanted calls coming from radios that do not belong to your communications group and are excessive, you can try to filter out these transmissions by tightening the channel's squelch. However, tightening the squelch could cause calls from members of your communications group that are farther away to be filtered out as well.

PL/DPL Receive and Transmit codes for your desired

PL Freq. (Hz)	Motorola Code	Equip. PL Code
67	XZ	XZ
69.3	WZ	WZ
71.9	XA	XA
74.4	WA	WA
77	XB	XB
79.7	WB	WB
82.5	YZ	YZ
85.4	YA	YA
88.5	YB	YB
91.5	ZZ	ZZ
94.8	ZA	ZA
97.4	ZB	ZB
100	1Z	1Z
103.5	1A	1A
107.2	1B	1B
110.9	16	16
114.8	17	17
118.8	18	18
123	19	19
127.3	20	20
131.8	21	21
136.5	22	22
141.3	23	23
146.2	24	24
151.4	25	25
156.7	26	26
162.2	27	27
167.9	28	28
173.8	29	29
179.9	30	30
186.2	31	31

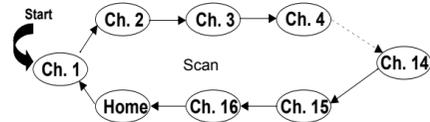
DPL Code	Motorola Code	DPL Code	Motorola Code
23	043	131	061
25	044	132	062
26	045	134	063
31	046	143	064
32	047	152	065
43	048	155	066
47	049	156	067
51	050	162	068
54	051	165	069
65	052	172	070
71	053	174	071
72	054	205	072
73	055	223	073
74	056	226	074
114	057	243	075
115	058	244	076
116	059	245	077
125	060	251	078

### DPL Codes

PL Freq. (Hz)	Motorola Code	Equip. PL Code
192.8	032	7A
203.5	033	M1
206.5	034	8Z
210.7	035	M2
218.1	036	M3
225.7	037	M4
229.1	038	9Z
233.6	039	M5
241.8	040	M6
254.1	042	PL1
250.3	041	M7
255.0	PL3	

DPL Code	Motorola Code	DPL Code	Motorola Code
261	079	503	103
263	080	506	104
265	081	516	105
271	082	532	106
306	083	546	107
311	084	565	108
315	085	606	109
331	086	612	110
343	087	624	111
346	088	627	112
351	089	631	113
364	090	632	114
365	091	645*	115
371	092	654	116
411	093	662	117
412	094	664	118
413	095	703	119
423	096	712	120
431	097	723	121
432	098	731	122
445	099	732	123
464	100	734	124
465	101	743	125
466	102	754	126

**Scan**  
Scan allows you to monitor multiple channels and receive calls that are transmitted on them.



During scan, when activity is detected that meets the unsquelch condition, the radio stops scanning and switches to that channel; the **Z** indicator is illuminated, and the channel number is displayed. When no activity is detected for a pre-set time, the radio resumes scanning.

The radio transmits on the Home Channel (the channel, the radio was monitoring, before the user activated scanning), if *PTT* is pressed during scanning. If the radio has stopped scanning, and changed to a particular channel, all transmit and receive activities is performed on that channel.

- Press the *Scan* button to begin channel scanning. The **Z** indicator blinks to indicate that the radio is scanning. The LCD Screen shows the Home Channel where the scan began.
- Press the + button to scan the channels in the ascending order, and the - button to scan in the descending order.
- Press *Scan* button to stop scanning.

**Deleting a Nuisance Scan Channel**

A channel with unwanted activity is called a Nuisance Channel. You can remove a Nuisance Channel from the scan list temporarily. To remove a Nuisance Channel

- Press the *Nuisance Channel Delete* button, when your radio stops on a Nuisance Channel. A high-pitched tone is heard.

You cannot remove the *Home Channel* from the scan list. If attempted, a low-pitched tone is heard, and no action is taken.

To reinstate the deleted channel(s) into the scan list, restart scan, or simply turn off your radio and turn it on again.

**Battery Gauge Indicator Details**

Indicator	Battery Level
	Good
	Sufficient
	Low
	Very Low
	Need to Recharge your battery

**Frequencies Available for Your Radio**

Ch.	Freq. (Hz)								
1	476.425*	9	476.625	17	476.825	25	477.025	33	477.225
2	476.450*	10	476.650	18	476.850	26	477.050	34	477.250
3	476.475*	11	476.675	19	476.875	27	477.075	35	477.275†
4	476.500*	12	476.700	20	476.900	28	477.100	36	477.300
5	476.525*‡	13	476.725	21	476.925	29	477.125	37	477.325
6	476.550*	14	476.750	22	476.950‡	30	477.150	38	477.350
7	476.575*	15	476.775	23	476.975‡	31	477.175	39	477.375
8	476.600*	16	476.800	24	477.000	32	477.200	40	477.400

\*. Repeater Channels.  
†. Frequencies dedicated for emergency use only.  
‡. Receive only frequencies.

**LED Indicators**

LED Colour	State	Indication
Red	Illuminated	Radio is transmitting.
	Blinking	Battery voltage is low.
Green	Illuminated	Radio is receiving.

**On/Off and Volume Knob**

- If the radio is off, turn this knob clockwise to turn the radio on.
- If the radio is on, turn this knob counter-clockwise to turn the radio off.
- Turn this knob clockwise to increase the volume.
- Turn this knob counter-clockwise to decrease the volume.

**Monitor Button**

- Used to monitor the channel for any activity; squelch is disabled.

**Push-to-Talk (PTT) button**

- Press and speak to microphone to send message.
- Release and listen to receive messages.

**Microphone**

- Speak into the microphone when sending message.

**+/- Button**

- Used to select a channel in Normal Mode.
- Used to select a parameter in Programming Mode.
- Used to change the scanning direction.

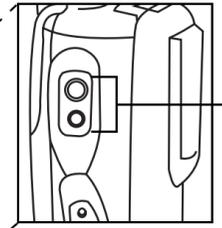
**Speaker**

- You will hear received messages through the speaker.

**LCD Screen**

• Displays selected channel, programming parameters, status messages and any error or information messages.

LCD Indicator	Description	Function
	Keypad lock indicator	Illuminates when your keypad is locked.
	Battery level indicator	Shows remaining charge in battery based on how many bars are displayed (see "Battery Gauge Indicator Details").
	Power level indicator	"L" illuminates to indicate radio transmits in low power; "H" illuminates to indicate radio transmits in high power; "E" illuminates to indicate radio is on economy low power.
	Monitor indicator	Illuminates when monitoring a selected channel.
	Programming Mode indicator	Illuminates when in Programming Mode.
	Scan indicator	Blinks when scan is activated. Illuminates when there is some activity on a channel.
	Signal Strength Indicator	Shows the signal strength. Six bars indicate the strongest signal.
	Talkaround Indicator	Shown when the user presses the Talkaround programmable button to enable Talkaround mode (user chooses NOT to use the repeater, but to enable point-to-point communications). Not shown when user presses the Talkaround programmable button again to disable Talkaround mode.



**Accessory Connector**  
• Used to connect compatible accessories to your radio.

**Function Buttons (A, B, C, D)**

• The following functions are assigned as short press (press and release) or long press (press and hold for 1 second).

Button	Function
Backlight	Turns on the backlight display or toggles backlight display between <i>On</i> and <i>Off</i> , depending on programmed settings (see "Programming Mode").
Keypad Lock*	Locks or unlocks all buttons except <i>PTT</i> , <i>Monitor</i> and <i>On/Off/Volume Knob</i> .
Nuisance Channel Delete	Removes unwanted channel(s) temporarily from scan list during scan.
Power Select*	Selects required power level: High, Low, or Economy Low.
Scan*	Starts or stops channel scan.
Squelch Level*	Selects desired squelch level. Use the +/- button to choose desired level (Level 0 will unsquelch radio unconditionally, whereas Level 15 will set tightest squelch).
No Operation	No function is programmed to this button.
Talkaround	Enables or disables radio to transmit in Talkaround mode.

\*. Parameter values are preserved, even after the radio is turned off.

• The default functions assigned to your radio are described in the table below.

Press Type	Button A	Button B	Button C	Button D
Short Press	Scan	Squelch Level	Talkaround	Backlight
Long Press	Nuisance Channel Delete	Power Select	Keypad Lock	No Operation

**Programming Mode**

This mode allows you to change feature parameters to enhance the use of your radio.

**Entering Programming Mode**

If your radio is turned on, turn it off. Press and hold the *Monitor* button, and turn on your radio. A ringing tone is heard, indicating that your radio is in Programming Mode. The indicator illuminates and *RW* is displayed.

**Accessing Programming Mode Parameters**

Programming Mode parameters are grouped into two main categories: *RW* (Radio Wide) and Channel (CH 001 - CH 040). Use + or - to select *RW* or the desired channel:

*RW* <--> CH 001 <--> CH 002 <--> .... <--> CH 040

Once you have made the appropriate selection, press *PTT* or the *Monitor* button to scroll through the features available. Press the +/- button to scroll through the parameters for each feature.

Features available Radio Wide (default settings shown in **bold** where applicable):

Feature	Range	Remarks
Squelch Level (SQL-XX)	SQL-00, ..., <b>SQL-06</b> , ..., SQL-15	Select low level when you need to receive very weak signal, and select high level when the communications distance is near.
Scan List 1 (SCANLST1)	1-01-XXX, ..., 1-16-XXX, XXX denotes channel number.	You can include up to 16 channels in the scan list. When scanning is activated, only these 16 channels are scanned. Press + or - to move from one scan list member to another. To include a channel into the scan list, first, use Button A to scroll in the ascending order, or Button C to scroll in the descending order to the required channel; then, press <i>PTT</i> to include this channel in the scan list. To erase a channel from the scan list, press Button D.
Time Out Timer (TOT-XXX)	TOT-OFF, <b>TOT-001</b> , ..., TOT-010	This determines the maximum duration (in minutes) that you can transmit continuously.
Battery Saver (BS-XXXX)	BS-OFF, BS-NORM, <b>BS-ENH</b>	Battery Saver helps to extend your battery life. When enabled, it turns off radio receiver circuitry periodically when no activity is detected. BS-NORM (Normal) turns off the radio less frequently. BS-ENH (Enhanced) turns off the receiver for a longer duration; select this if you want to maximize battery saving.
Battery Type (BT-XXXX)	<b>BT-NIMH</b> , BT-NICD, BT-ALK	Selects the type of battery that your radio uses. For CB PRO models, only NIMH (Nickel Metal Hydride) battery is available. NICD (Nickel Cadmium) or ALK (Alkaline) batteries are not applicable.
Alert Tone Volume (BEEP-X)	BEEP-OFF, BEEP-1, BEEP-2, <b>BEEP-3</b>	Selects the alert tone volume needed. Select BEEP-OFF, if you require quiet operation, or BEEP-3, if working in a noisy environment.
Prime Channel Select (PRM-XXX)	<b>PRM-OFF</b> , PRM-001, ..., PRM-040	The Prime Channel is the channel that you wish to spend most of your time monitoring. The radio will always switch back to the Prime Channel if it is idle for more than the pre-programmed hang-time in other channel, and each time the radio is turned on.
Backlight Select (LGT-XXXX)	<b>LGT-AUTO</b> , LGT-TOGL	Selecting LGT-TOGL makes the <i>Backlight</i> button a toggle to control the ON/OFF status of the LCD backlight. Selecting LGT-AUTO turns off the backlight automatically, if there is no keypress for more than 5 seconds. Pressing the <i>Backlight</i> button prolongs illumination time.

Features available per Channel (default settings shown in **bold**):

Feature	Range	Remarks
Channel Receive PL/DPL (RPL-XXXX)	<b>000</b> , 001, ..., 126, PL1, PL2, PL3	This is the PL or DPL code that the channel will use to unsquelch the receive message. 000 indicates that no PL/DPL is used for receive, i.e., radio operates in carrier squelch mode. Press + or - to select the desired PL/DPL.
Channel Transmit PL/DPL (TPL-XXXX)	<b>000</b> , 001, ..., 126, PL1, PL2, PL3	This is the PL or DPL code that the channel will use to transmit the message. 000 indicates that no PL/DPL is used for transmit. Press + or - to select the desired PL/DPL.

**Exiting Programming Mode**

Turn off the radio to exit Programming Mode.