C1

12/24V SUPER COMPACT UHF LMR/CB HYBRID RADIO

MGX

AUTOBACS
JAPAN

TABLE OF CONTENTS

SAFETY NOTES

Read these instructions carefully and completely before using this UHF CB Radio.
Keep the instructions with the radio so that they are always accessible to all users.

Observe the following notes about road safety:
Use this device in such a way that you can always safely control your vehicle.
As the driver, you should not use this unit in a way that will distract you from driving.
Traffic signs and traffic regulations always have priority.
Always listen at a moderate volume to protect your hearing and to be able to hear acoustic warning signals (e.g., police sirens).
Do not transmit without an antenna connected, as this may damage the radio and void the warranty.

MAIN UNIT BUTTON FUNCTIONS
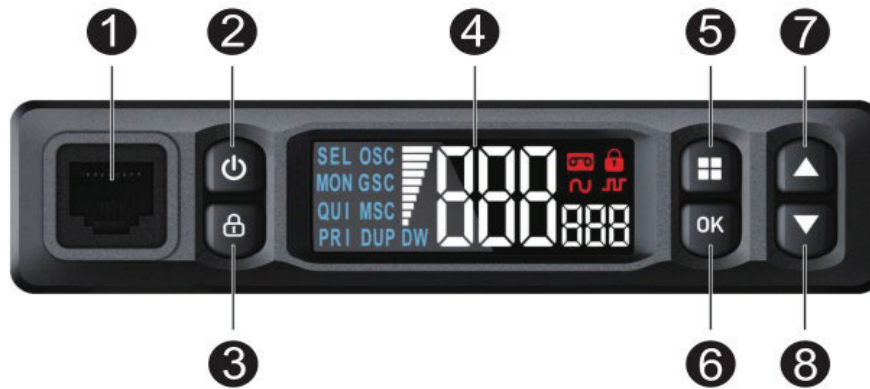
1. Front Mic Jack

2. Power On/Off
● Long press: To turn On or Off.

3. Button Lock/TX Call Tone
● Short press: TX Call Tone.
● Long-press: Button Lock/Un-lock. (Except for Volume and Power Buttons)

4. Display

5. MENU Function
● Short press: To enter the menu section.
- Then use the UP and DOWN buttons to scroll through the function options.
- Press the OK button to enter that function.
- Use the UP and DOWN buttons to make changes to the function.
- Press the OK button to accept the change. The display will then revert to the MENU options.
● Long press: Add /Remove channel from Memory Scan. (Only in Group Scan or Network Scan mode)

6. OK Button
● Short press: To enter Menu function or to accept the function change.

7. UP Button
● Short Press: Channel up in operation mode.
  Function up or Function select in MENU mode.
● Long Press: Channel scan up.
NOTE: *Dual Watch is disabled while scanning, short press again to exit scanning.*
  Pressing the UP and DOWN buttons during scanning can change the scanning direction.

8. DOWN Button
● Short Press: Channel down in operation mode.
  Function down or Function select in MENU mode.
● Long Press: Channel scan down.
NOTE: *Dual Watch is disabled while scanning, short press again to exit scanning.*
  Pressing the UP and DOWN buttons during scanning can change the scanning direction.

SPEAKER MIC BUTTON FUNCTIONS

9. PTT Button

10. Speaker

11. UP Button
● Short Press: Channel up in operation mode.

   Function up or Function select in MENU mode.
● Long Press: Channel scan up.

NOTE: *Dual Watch is disabled while scanning, short press again to exit scanning.*

   Pressing the UP and DOWN buttons during scanning can change the scanning direction.

12. DOWN Button
● Short Press: Channel down in operation mode.

   Function down or Function select in MENU mode.
● Long Press: Channel scan down.

NOTE: Dual Watch is disabled while scanning, short press again to exit scanning.

   Pressing the UP and DOWN buttons during scanning can change the scanning direction.

13. Smart Button
● This button can be assigned in the MENU to one of the following functions-

   Squelch, CH Scan, Duplex, Quiet, Dual Watch, Selcall. Default is Scan.

14. Priority Button
● Short Press: Go to set Priority Channel.
● Long Press: Set current channel as Priority Channel.

15. Replay Button
● Short Press: To playback received communications. The RPY icon will display during playback.
● Long Press: To enter the Call ID call selection for SELCALL.

16. Volume UP

17. Volume DOWN

18. Microphone

For best performance, speak approximately 5cm distance from the built-in microphone.

DISPLAY ICONS

SEL	Selcall			
OSC	Open Scan (OS)	**888**	Channel Number 001~128	
GSC	Group Scan (GS)	888	Dual Watch Channel	
MSC	Memory Scan Channel	888	Priority Channel	
MON	Monitor Function On/Off	🔒	Key Lock	
QUI	Quiet Mode			
DUP	Duplex Capability			
∿	CTCSS			
⊓⊔	Digital Coded Squelch			
⊙⊙	Replaying RX			
DW	Dual Watch			
PRI	Priority Channel Watch			

GENERAL OPERATION

POWER On/Off

Press and hold the power button (2) to turn the radio ON. You will hear a tone when the radio is on. The LCD display will show all icons for one second and then display the most recently selected channel.

Press and hold the Power Button (2) to turn OFF.

ADJUSTING THE VOLUME

Press **+** button on the mic to increase the volume.
Press **-** button on the mic to decrease the volume.

CHANNEL SELECT

Press the **UP** or **DOWN** buttons on the unit or Mic to select desired channel.

TRANSMITTING

Select the desired channel by using the **UP** or **DOWN** buttons (7 & 8 or 11 &12).
Press the microphone's **PTT** button (9) and speak normally into the microphone.
Hold it approx. 5-7cm from your mouth.
Release the **PTT** button to end the transmission and listen for a reply.
NOTE: *Refer to the Channel Frequency page to see channels restrictions and usage guide.*

CHANNEL SCAN

The UHF CB Radio has a scanning feature that allows you to search for active channels automatically. Furthermore, the UHF CB Radio is designed to have three types of scanning; Open Scanning (OSC), Group Scanning (GSC) and Network Scan (NSB) to give you flexibility and allow you to use the radio more effectively.

Press and hold the **UP** or **DOWN** buttons for 2 seconds to start channel scanning.

The OSC, GSC or MSC (Network Scan) icon flashes depending on which scan mode you are in.

The scan direction can be changed at any time by pressing the **UP** or **DOWN** buttons.

- Open Scan Mode (OSC)

Allows continuous scanning of all 80 channels. If an active channel is found, scanning will stop on that channel.

To use Open Scan Mode, press and hold for 2 seconds the **UP** or **DOWN** buttons- **OSC** icon appears on the display.

To deactivate SCAN, press the PTT button.

- Group Scan Mode (GSC) & Priority Watch

Includes the Priority Watch feature which allows you to monitor the selected Instant Priority Channel while scanning.

To use Group Scan Mode, press and hold for 2 seconds the **UP** or **DOWN** buttons- **GSC** icon appears on the display.

If an active channel is found, scanning will stop on that channel. If the received signal ceases, the unit will wait 3 seconds for the signal to return, otherwise scanning resumes. After transmission in scan mode, the unit will wait 20 seconds for the signal to return, otherwise scanning resumes.

To skip the active channel, press the **UP** or **DOWN** buttons.

NOTE: *If SCAN is deactivated while on an active channel, the UHF CB Radio will stay on that active channel. If no channels are active, the UHF CB Radio will stay on the current channel.*

Network Scan Mode (NSB)

Network Scan will scan the channels stored into Group Scan memory and opens the squelch for signals with the correct CTCSS or DCS code only.

The radios must have the same channel and CTCSS or DCS code. By scanning only group channels, radios will be able to detect and receive group transmissions- continual communication without interruption. When transmitting in this mode, the radio switches to an unused group channel if it detects another signal with no code, or the wrong code, on the channel last used by the group. In this way, all users will be able to have continual communication to or from other users.

P1（CH09-CH20）is stored into NS Memory and CTCSS 01 is set for Network Scan code by default. The NS memory can be changed, channel by channel, if desired- but for Network Scan to work effectively each radio in the group must have the same channels in its NS memory.

Press and hold MENU button to add/remove channels into/from NS SCAN Memory.

NOTE*: RX only Channels CH22-CH23-CH61-CH62-CH63, Emergency Channels (CH05, CH35), User Programmable LMR Channels and Police or Fire (& Ambulance) channels group will not be included in NETWORK SCAN Mode even though stored into NS Memory*

Channels for which Duplex Setting are On also will be skipped in NETWORK SCAN Mode.

SQUELCH

The highest level will provide less interference but will affect the communicate distance. Lowest level is fully open and allows all channels faint or close to be heard.
Select a squelch level that allows only clear communications to be heard.

The Squelch feature has an OFF setting and 9 preset squelch levels:
Off - Squelch open
1 - Max sensitivity (min squelch)
5 - Med sensitivity (med squelch)
9 - Min sensitivity (max/tight squelch)

- **To adjust:**

Press the Smart button (13) then use the **UP** or **DOWN** buttons to set to a desired level.

DUPLEX (Repeater) Mode (DUP)

Duplex operation allows the radio to transmit on a different frequency to that which it receives allowing operation through repeater stations, Repeaters automatically re-transmit your signal over a wider area, providing greatly increased range.

Only channels 01-08 and 41-48 can be selected as repeat, other channels are invalid when selecting relay and display an error.
Default is OFF - The "**DUP**" icon is displayed.

Duplex operation is only on channels 1-8 and 41-48. When duplex is selected on these channels, the radio receives on that channel but actually transmits 30 channels higher.
Channel Selecting 1 - 8
Receiving Channel 1 - 8
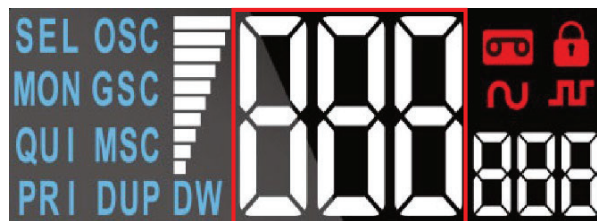Transmitting Channel 31 - 38
Channel Selecting 41 - 48
Receiving Channel 41 - 48
Transmitting Channel 71 – 78

1. Press **the MENU** key to enter Menu mode, press **UP** or **DOWN** to select Menu.
2. Press **OK** when LCD displays "**DUP**"
3. Using the **UP** or **DOWN** buttons, select ON/OFF. Default: OFF
4. Press the OK button to confirm.

Note: *This Menu is only be seen when the channel is between 1-8 and 41-48*

DUP

PRIORITY CHANNEL (PRI)

- Setup

1. Press the **UP** or **DOWN** buttons to select the Priority Channel you prefer.
2. Press and hold the **PRI** button (14) to store the current channel as the Priority channel. The **PR**I icon and channel will be displayed.

- Recalling the Priority Channel

Press **PRI** at any time during standby to recall the Priority Channel.
Press **PRI** again to return to the previous channel.

REPLAY (RPY)

The Instant Replay feature automatically records up to 20 groups with 1 minute of received signal.
Instant Replay automatically records receive signal(s) in the following modes:
- CB RX channel
- Scan Mode

Instant Replay does not record when in monitor mode (SQT-0 setting in normal channel mode).

Short press **REPLAY** to playback the most recently received signal.
During playback, the display shows **RPY** and the number of the currently playing recording.
After the most recently received signal has been played back, a long confirmation tone sounds, and the radio returns to the previous mode.

Replay can be turned On or Off in the Menu-
Using the **UP** or **DOWN** buttons, select ON or OFF.
ON means that the recording of communication function is active. Default is ON.
Press the **OK** button to confirm.
NOTE:
- *The maximum number of recordings is 20.*
- *Received signals shorter than 500ms are not recorded.*
- *Automatic recording of receive signal(s) is temporarily suspended during Instant Replay playback.*
- *Older recordings are automatically overwritten when new recordings are stored.*
- *Most received communications are short, and the 1-minute buffer may contain several recordings.*
- *Transmissions (TX) are not recorded.*

SELCALL (SEL)

Selective Calling (Selcall) is a special Sequential Tone Squelch System that allows the user to receive/transmit calls selectively from/to an individual or group, on a shared busy channel. Therefore, Selcall is a group feature used by groups with similarly set up radios.

- Programming the Selcall ID

1. Be sure radio is off

2. Press and hold **PRI**, then turn on the radio, and you will see "id" displays
3. Press **OK** to start the Selcall ID edit. The 6th digit of the ID flashes.
4. Use the VOLUME **UP** or **DOWN** buttons to shift between digits. A 6th digit (for 6 tone Selcall) is available and indicated by a '_'.
5. Use the **UP** or **DOWN** buttons to select the desired ID. Default ID:000000
6. Press and release **OK** to finish your setting.
7. Press and hold **[MENU]** to exit programming mode.

### - Store Selcall IDs of receivers into the ID Memory

1. Press and hold **REPLAY**. The Selcall ID memory will SHOW.

ID

01-10
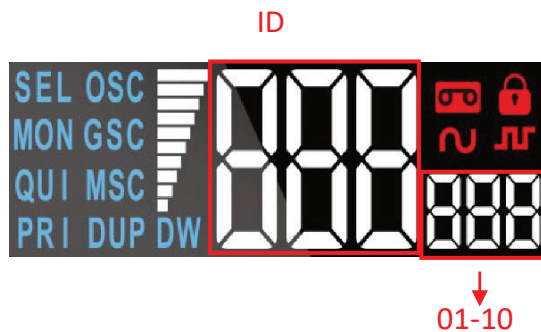
2. Use the **UP** or **DOWN** buttons to select the desired memory you want to edit.
   Up to 10 ID memories can be stored.
If you expect to make calls to radios not stored in the ID memory, then leave memory ID 1 blank for manual ID entry at the time of the call.
2. Press **OK** to start the ID edit. The 6th digit of the ID flashes.
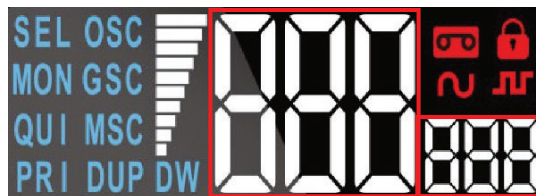
4. Use the VOLUME **UP** or **DOWN** buttons to shift between digits. A 6th digit (for 6 tone Selcall) is available and indicated by a '_'.
5. Use the **UP** or **DOWN** buttons to select the desired ID. Default ID:000000
6. Press and release **OK** to finish your setting
7. Press and hold **[MENU]** to exit programming mode.

CALL FUNCTION [See MENU (CAL)]

1. Press the **LOCK** Button.
   A three second ringing tone will be transmitted.
2. Use the **UP** or **DOWN** buttons to select from 5 types of tones .
NOTE: *The call tone is provided the cumulative duration of this tone is not exceed 3 s in any 60s period.*

TONE CALLING

Tone Calling allows you to selectively call other radios.

To Call:

1. Select the channel that you and your group agreed to use for Selective Calling.

2. Press and hold **Replay** for 2 seconds.

A beep tone will sound, and the last stored ID or last transmitted ID will be displayed.

3. Use **UP** or **DOWN** buttons to select the desired Selcall ID.

4. Press **Replay** to transmit the Selcall.

SEL will display when transmitting the Selcall.

An acknowledge tone coming from the called radio will be received if you have successfully made contact.

QUIET MODE (QUI)

Puts the receiver in the QUIET mode (also known as the Tone Squelch mode) for the selected channel. When activated, the transceiver prevents any unwanted conversations in the channel from being heard unless the call is specifically directed to you and the Selcall ID required to open the QUIET condition has been received.

NOTE*: 1. Under this condition, PTT is temporarily disabled. If you wish to use the same Channel for normal communication, simply remove the channel from QUIET mode.*

2. QUI function will no work when the channel is with CTCSS/DCS

- To Activate/Deactivate QUI function on a Channel

See menu instruction below **(QUI)**

Receiving a Selcall

While in QUI mode, when the radio receives a code matching your Selcall ID, it will perform the following operations:

1. Automatically responds to the caller by transmitting Acknowledge Tones.

2. Informs you that a caller is on the Channel by emitting a CALL ALARM (Default Alarm Setting: four successive beeps in a regular interval for 10 seconds. Refer to 'Alarm Mode' for other alarm settings) and displays the SEL icon.

3. Flashes the **QUI** icon for about 20 seconds allowing you to use the PTT button. If you are not able to respond within the 20 second period, the **QUI** icon stops flashing and QUIET mode resumes. Press **PTT** to talk.
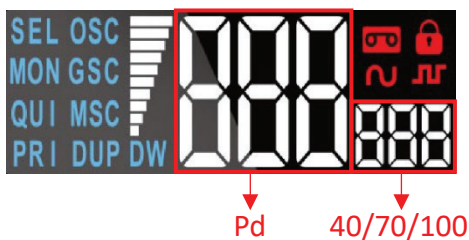
- TONE PERIOD (PD)

Tone period is the duration of one tone in a Selcall ID sequence. The setting of this parameter depends on the type of application. On long-distance communications, for example: where the signal strength of the transmitted information is greatly reduced and affected by noise, it is advisable to use a longer Tone Period. A long Tone Period gives the decoder more time and information to check and evaluate the code. The decoder takes more time and information to check and evaluate the code.
NOTE: *However, be sure that all the radios in your group use the same Tone Period setting. Otherwise, you will not be able to selectively call one another.*

The radio allows you to select which Tone Period is best for you. The three most commonly used tone settings (40, 70 or 100mSec) are available. With the freedom to change this parameter, you can easily adapt to the existing system in your group without the inconvenience of having the unit serviced by the dealer.

To set tone period (pd)

1. Be sure radio is off.
2. Press and hold **PRI**, then turn On the radio
3. Press **DOWN** button 1 time and you will see **"pd"** displays
4. Press **OK** to select the Tone Period setting

Pd   40/70/100

5. Use the **UP** or **DOWN** buttons to select the desired tone period from 40ms, 70ms or 100ms.
6. Press and release **OK** to finish your setting.
7. Press and hold **MENU** to exit programming mode.

- LEAD IN DELAY (LID)

1. Lead-in delay is a Selcall transmission parameter that 'wakes-up' and helps the receiver of the other radio to lock onto the incoming signal.
2. Each time a Selcall ID is transmitted, the Lead-in Delay attaches itself to the starting of the code sequence and causes the transmitter to be on for a longer period prior to the code transmission.
3. This makes for a stronger communication link between the transmitter and the other receiver.
4. One major advantage to having the longer Lead-in Delay is when selectively calling another radio via a repeater station. A longer Lead-in Delay helps to stabilize both the communication link from your radio to the repeater station and from the repeater station to the other radio.

To set Lead in delay (Lid)

1. Be sure radio is off.
2. Press and hold **PRI**, then turn On the radio.
3. Press **DOWN** button 2 times and you will see **"Lid"** displays
4. Press **OK** to select the lead in delay setting.
5. Use the **UP** or **DOWN** buttons to select the desired tone period from 500ms,1s,2s,3s or 4s.
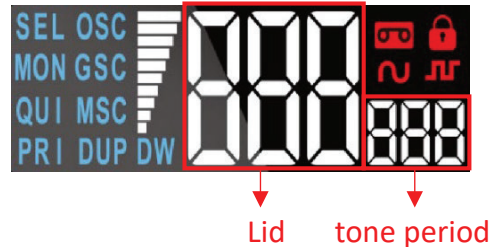

Lid   tone period

6. Press and release **OK** to finish your setting.
7. Press and hold **MENU** to exit programming mode.

Lead-in Tone (Ldt)

The Lead-in Tone, when programmed, 'rides' on the Lead-in Delay.
Hence, when transmitting a Selcall ID, a continuous tone will be heard for the duration of the Lead-in Delay. The main purpose of the Lead-in Tone is to increase the probability of contact between your unit and another radio when QUIET Scanning.

To set Lead in tone

1. Be sure radio is off.
2. Press and hold **PRI**, then turn on the radio, press **DOWN** button 3 times, you will see **"Ldt"** displays
3. Press **OK** to select the Lead-in Tone setting. The current setting appears.
4. Use the **UP** or **DOWN** buttons to select the desired Lead-in Tone.

Lt   t-0~9/A-F
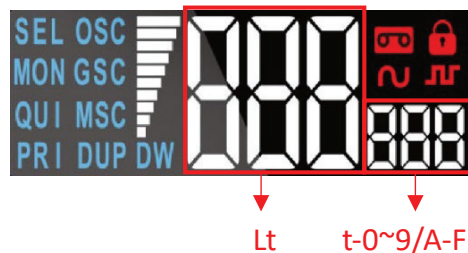
1. Press and release **OK** to finish your setting.
2. Press and hold **MENU** to exit programming mode.

ALARM MODE (Alr)

When a received code matches to your receiver Selcall ID the radio will respond based on the Call Alarm mode.

Call Alarm - Auto mode (Default)
a) Transmit an Acknowledge tone to the Caller.
b) Emit CALL Alarm for 10 seconds only.

c) Resume Quiet condition automatically after 20 seconds if the call is not answered.

d) The Unit will start decoding again when the 20 second period elapsed and the call remained unanswered.

Call Alarm - Continue mode

a) Transmit an Acknowledge Tone to the Caller.

b) Initially an alarm of four successive beeps is emitted for 20 seconds and then two successive beeps every four seconds continuously unless answered.

c) The Quiet Condition is never resumed.

d) The Unit continues to check if incoming codes have your Receiver Selcall ID even though the Quiet Condition is already opened. When detected, it will send an acknowledge Tone to the caller and then resets the Call Alarm

To set Alarm

1. Be sure radio is off
2. Press and hold **PRI**, then turn on the radio, press **DOWN** button 4 times and you will see **"Alr"** displays
3. Press **OK** to select Alr setting. The current setting appears.
4. Use the **UP or DOWN** buttons to select the desired Alarm mode from ATO or CON.
5. Press and release **OK** to finish your setting.
6. Press and hold **MENU** to exit programming mode.

Group Calling

The C1 has the capability to respond to Group Calling and to transmit Group Calling Codes. Group Calling allows you to call members of your group simultaneously. However, to do this, you need to follow a certain format (see below) when programming your TX Selcall ID.

Selcall ID Format

To call Transmitter SELCALL ID

10 radios [X] [X] [X] [X] [X] [A]

100 radios [X] [X] [X] [X] [A] [A]

1000 radios [X] [X] [X] [A] [A] [A]

10000 radios [X] [X] [A] [A] [A] [A]

....

where: [X] is a common Selcall ID prefix of your group- and - [A] is the CCIR Assigned Group Tone Code

Example:

If one group comprises 10 members with Selcall IDs the ID numbers could be as follows:

Group ID # Individual ID#

[1] [2] [3] [4] [5] [0]

[1] [2] [3] [4] [5] [1]

[1] [2] [3] [4] [5] [2]

[1] [2] [3] [4] [5] [3]

to -
[1] [2] [3] [4] [5] [9]
all in QUI mode at CH1
If someone transmits ID 12345A on CH1, all of the above units will open their Tone Squelched Receiver.

Group Call Mode (grp)

The Group Tone period can be adjusted to increase the ability to identify group calls.
Group 01 mode sets the tone period to 1 tone period (default). Group 02 mode sets the
first group tone period to 3 tone periods.
1. Be sure the radio is off.
2. Press and hold **PRI,** then turn on the radio, press **DOWN** button 5 times and **"grp"** will display.
3. Press **OK** to select the Group Call mode setting. The current setting flashes.
4. Use the **UP or DOWN** buttons to select the desired Group Call mode from 01 or 02.
5. Press **OK** to finish your setting.
7. Press and hold **MENU** to save and exit programming mode.

Select UHF CB 80 CH or LMR Function (if programed)

3. Be sure radio is off.
4. Press and hold **OK**, then turn on the radio, the LCD displays the current band- bd1 or bd2.
5. Press **CH+** or **CH-** to switch between bd1 and bd2.
   bd1: UHF CB 80 CH band
   bd2: LMR band
6. Press **PTT** to confirm your selection.
7. The radio will go to the band you selected automatically.

LICENSED FREQUENCY (LMR) PROGRAMMING (by authorised operator only)

Via the programming software, the licenced frequency can be programmed from 450MHz-520MHz for bd2 bands with 12.5Khz (NB) or25KHz (WB) steps.

Hi/Lo VOLTAGE ALERT

1: If the power voltage exceeds 29.5V DC, an alert tone sounds, and HI DC will display every 2 seconds.
2: If the input voltage falls below 10V DC, an alert tone sounds, and LO DC will display every 2 seconds.
3: If the input voltage falls below 8.5VDC, the radio will turn off automatic.

MENU FUNCTION SETTINGS

Short press **MENU** button to enter all the functions settings highlighted in this section, then press the **UP** or **DOWN** buttons to scroll through the available functions below.

Press the **OK** button to enter the chosen function.

If there is not any operation in 10s, it will return to the current channel automatically.

- **POWER LEVEL (Pr)**

    1. Press the **MENU** button and scroll **UP** or **DOWN** till **"Pr"** displays.
    2. Press the **OK** button to enter the power setting.
    3. Use the **UP or DOWN** buttons to select between Hi (5W) and Low (1W)
    4. Press the **OK** button to confirm selection.
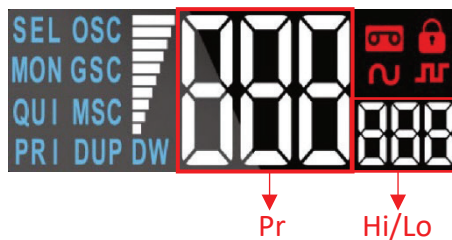
- **SQUELCH (SqL）**

    1. Press the **MENU** button and scroll **UP or DOWN** till **"Sql"** displays.
    2. Press the **OK** button to enter the Squelch setting.
    3. Use the **UP** or **DOWN** buttons, select 00—09. Default: 05
    4. Press the **OK** button to confirm selection.

- **CTCSS and DCS CODE (Cod）**

    1. Press the **MENU** button and scroll **UP or DOWN** till **"COD"** displays.
    2. Press the **OK** button to enter the setting.
    3. Use the **UP** or **DOWN** buttons to select CTCSS (〜） 01-50 and DCS 001-104. Default: No code
    4. Press the **OK** button to confirm selection.

    NOTE: *CH5 and CH35 are no allowed to set CTCSS or DCS code, this menu cannot be seen when in CH5 and CH35.*

- DUAL WATCH (duL)

1. Press the **MENU** button and scroll **UP or DOWN** till **"duL"** displays.
2. Press the **OK** button to enter dual watch channel setting.
3. Use the **UP** or **DOWN** buttons to select the channel you want to set. Default: 01
4. Press the **OK** button to confirm selection.

- QUIET (QUI)

Press the **MENU** button and scroll **UP or DOWN** till **"qui"** displays.
Press the **OK** button to enter quiet mode setting.
Use the **UP** or **DOWN** buttons to select- On or Off. Default: Off
Press the **OK** button to confirm selection.

- RECORD (rcd)
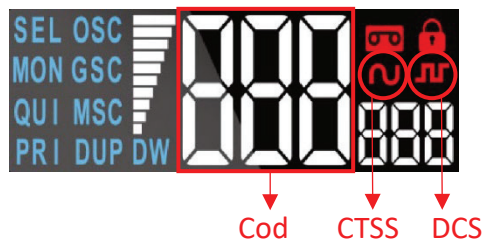
1. Press the **MENU** button and scroll **UP** or **DOWN** till **"rcd"** displays.
2. Press the **OK** button to enter the recording setting.
3. Use the **UP** or **DOWN** buttons to select- On or Off. Default: On
4. Press the **OK** button to confirm selection.

rcd   On/Off

- PRIORITY WATCH (Pri)

1. Press the **MENU** button and scroll **UP** or **DOWN** till **"Pri"** displays.
2. Press the **OK** button to enter the priority channel setting.
3. Use the **UP** or **DOWN** buttons to select- On or Off. Default: On
4. Press the **OK** button to confirm selection.

pri   On/Off
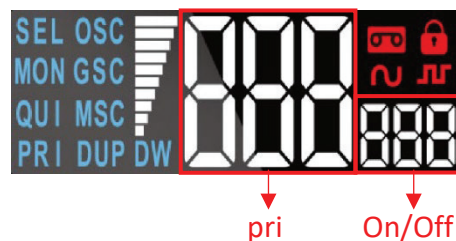
- SCAN MODE (SCN)

1. Press the **MENU** button and scroll **UP** or **DOWN** till **"SCN"** displays.
2. Press the **OK** button to enter the channel scan setting.
3. Use the **UP or DOWN** buttons to select between oS (Open Scan), gS (Group Scan) and nS (Network Scan). Default: oS
4. Press the **OK** button to confirm selection.

- NETWORK SCAN BAND (NSb)

1. Press the **MENU** button and scroll **UP or DOWN** till **"NSb"** displays.
2. Press the **OK** button to enter the Network Scan Band setting
3. Use the **UP or DOWN** buttons to select between P-, P1, P2, P3, P4. Default: P-
4. Press the **OK** button to confirm selection.

When Network Scan is ON with the current GS channel memory, Open/Group Scan is disabled.

P-: Network Scan works the scan channel before you switch to Network Scan mode. For example: If you switch Open scan mode to Network Scan mode, P- means all 80 Channels; If you switch Group scan mode (CH1-CH8 in GS memory for example) to Network Scan mode, P- means CH1-CH8

P1: Network Scan works from CH09 to CH20 in GS.

P2: Network Scan works from CH21, CH24-CH30, CH39, CH40 in GS.

P3: Network Scan works from CH49 to CH60 in GS.

P4: Network Scan works from CH64 to CH70 and CH79, CH80 in GS

- NETWORK SCAN CODE (NSC)

1. Press the **MENU** button and scroll **UP or DOWN** till **"NSC"** displays
2. Press the **OK** button to enter the Network Scan code setting.
3. Use the **UP or DOWN** buttons to select between CTCSS 01-50 and DCS 01-104. Default: CTCSS-01
4. Press the **OK** button to confirm selection.

- BUSY CH LOCKOUT (BSY)

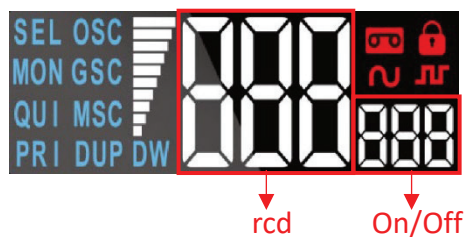1. Press the **MENU** button and scroll **UP** or **DOWN** till **"bsy"** displays.
2. Press the **OK** button to enter the setting.
3. Use the **UP** or **DOWN** buttons to select- On or Off. Default: Off
4. Press the **OK** button to confirm selection.

NOTE: *If you press PTT when this function on, an Error sound will be heard.*

- ROGER BEEP (rob)

1. Press the **MENU** button and scroll **UP** or **DOWN** till **"rob"** displays.
2. Press the **OK** button to enter the setting.
3. Use the **UP** or **DOWN** buttons to select- On or Off. Default: Off
4. Press the **OK** button to confirm selection.

- KEY BEEP (bEE)

1. Press the **MENU** button and scroll **UP** or **DOWN** till **"bEE"** displays.
2. Press the **OK** button to enter the setting.
3. Use the **UP** or **DOWN** buttons to select- On or Off. Default: On
4. Press the **OK** button to confirm selection.

- CALL TONE (CAL)

1. Press the **MENU** button and scroll **UP** or **DOWN** till **"CAL"** displays.
2. Press the **OK** button to enter the setting.
3. Use the **UP** or **DOWN** buttons to select 01-02-03-04-05. Default: 01
4. Press the **OK** button to confirm selection.

- TX Noise Cancel (ANC)

1. Press the **MENU** button and scroll **UP** or **DOWN** till **"AnC"** displays.
2. Press the **OK** button to enter the setting.
3. Use the **UP** or **DOWN** buttons to select- On or Off. Default: Off
4. Press the **OK** button to confirm selection.

- RX Noise Cancel (NRC)

1. Press the **MENU** button and scroll **UP** or **DOWN** till **"nrC"** displays.
2. Press the **OK** button to enter the setting.
3. Use the **UP** or **DOWN** buttons to select- On or Off. Default: Off
4. Press the **OK** button to confirm selection.

- SMART BUTTON (Stb)

1. Press the **MENU** button and scroll **UP** or **DOWN** till **"stb"** displays.
2. Press the **OK** button to enter the setting.
3. Use the **UP** or **DOWN** buttons to select between- Squelch, CH Scan, Duplex, Quiet, Dual Watch, Selcall. Default: Squelch (SQL)
4. Press the **OK** button to confirm selection.

- RESET (Rst)

Radio must be OFF.
Press and hold PTT (9) and MENU, then turn ON the unit.
The radio will display "**rst+version**".
Let go of the buttons and the radio will return to the factory default settings.

rst   software version
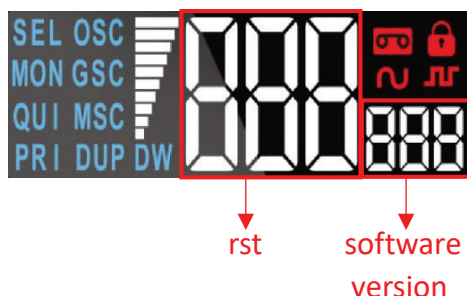
NOTE: *All recordings will be deleted after reset.*

Factory Default Setting Table

Channel	1 (bd1)	CTCSS/DCS	OFF
Power Level	Hi	SQ Level	5
DW channel	18	Quiet Mode	OFF
Roger Beep	OFF	Key Beep	ON
Duplex Mode	OFF	Scan mode	OS
PRI Channel	40	PRI watch	ON
ANC	OFF	NRC	OFF
GS Memory Channel	None	Busy Lockout	OFF
Repeater Channel	None	OS Memory Channel	ALL 80 channels
Rd（Record）	On	SELCALL	OFF
Call Tone	01		

Channel description and usage:

- Channels 5 and 35 are for emergency use only- penalties will apply.
- Channels 22 and 23 are for monitoring and control. (cannot be used)
- Channels 61-63 are guard channels. (cannot be used)
- Channels 01-08, 31-38, 41-48 and 71-78 can be used as repeater output/input duplex.
- Channel 10 is commonly used for recreational 4x4, Clubs, Convoys, and National Parks.
- Channel 18 used for Caravan and Campers.
- Channel 29 is commonly used on the Pacific & Bruce Highways.
- Channel 40 is used for highway vehicles and trucks.

SELCALL Tone Frequency List

Tone NO.	Tone frequency (Hz)	Tone NO.	Tone frequency (Hz)
0	1981	8	1747
1	1124	9	1860
2	1197	A (group)	2400
3	1275	B	930
4	1358	C	2247
5	1446	D	991
6	1540	E(repeat)	2110
7	1640	F	1055

UHF CB 80 Channels Frequency List

CH NO.	Simplex Mode Transmit/Receive Frequency (MHz)	Duplex Mode Transmit Frequency (MHz)	CH NO.	Simplex Mode Transmit/Receive Frequency (MHz)
1	476.425	477.175(CH31)	21	476.925
2	476.450	477.200(CH32)	22	476.950(RX only)
3	476.475	477.225(CH33)	23	476.975(RX only)
4	476.500	477.250(CH34)	24	477.000
5	476.525	477.275(CH35)	25	477.025
6	476.550	477.300(CH36)	26	477.050
7	476.575	477.325(CH37)	27	477.075
8	476.600	477.350(CH38)	28	477.100
9	476.625		29	477.125
10	476.650		30	477.150
11	476.675		31	477.175
12	476.700		32	477.200
13	476.725		33	477.225
14	476.750		34	477.250
15	476.775		35	477.275
16	476.800		36	477.300
17	476.825		37	477.325
18	476.850		38	477.350
19	476.875		39	477.375
20	476.900		40	477.400
41	476.4375	477.1875(CH71)	61	476.9375(RX only)
42	476.4625	477.2125(CH72)	62	476.9625(RX only)
43	476.4875	477.2375(CH73)	63	476.9875(RX only)
44	476.5125	477.2625(CH74)	64	477.0125
45	476.5375	477.2875(CH75)	65	477.0375
46	476.5625	477.3125(CH76)	66	477.0625
47	476.5875	477.3375(CH77)	67	477.0875
48	476.6125	477.3625(CH78)	68	477.1125
49	476.6375		69	477.1375
50	476.6625		70	477.1625
51	476.6875		71	477.1875
52	476.7125		72	477.2125
53	476.7375		73	477.2375
54	476.7625		74	477.2625
55	476.7575		75	477.2875
56	476.8125		76	477.3125
57	476.8375		77	477.3375
58	476.8625		78	477.3625
59	476.8875		79	477.3875
60	476.9125		80	477.4125

CTCSS Table

01	67.0	**11**	97.4	**21**	136.5	**31**	192.8	**41**	165.5
02	71.9	**12**	100.0	**22**	141.3	**32**	203.5	**42**	171.3
03	74.4	**13**	103.5	**23**	146.2	**33**	210.7	**43**	177.3
04	77.0	**14**	107.2	**24**	151.4	**34**	218.1	**44**	183.5
05	79.7	**15**	110.9	**25**	156.7	**35**	225.7	**45**	189.9
06	82.5	**16**	114.8	**26**	162.2	**36**	233.6	**46**	196.6
07	85.4	**17**	118.8	**27**	167.9	**37**	241.8	**47**	199.5
08	88.5	**18**	123.0	**28**	173.8	**38**	250.3	**48**	206.5
09	91.5	**19**	127.3	**29**	179.9	**39**	69.4	**49**	229.1
10	94.8	**20**	131.8	**30**	186.2	**40**	159.8	**50**	254.1

DCS Table

No	Code	No	Code	No	Code	No	Code
1	D023N	28	D155N	55	D325N	82	D516N
2	D025N	29	D156N	56	D331N	83	D523N
3	D026N	30	D162N	57	D332N	84	D526N
4	D031N	31	D165N	58	D343N	85	D532N
5	D032N	32	D172N	59	D346N	86	D546N
6	D036N	33	D174N	60	D351N	87	D565N
7	D043N	34	D205N	61	D356N	88	D606N
8	D047N	35	D212N	62	D364N	89	D612N
9	D051N	36	D223N	63	D365N	90	D624N
10	D053N	37	D225N	64	D371N	91	D627N
11	D054N	38	D226N	65	D411N	92	D631N
12	D065N	39	D243N	66	D412N	93	D632N
13	D071N	40	D244N	67	D413N	94	D654N
14	D072N	41	D245N	68	D423N	95	D662N
15	D073N	42	D246N	69	D431N	96	D664N
16	D074N	43	D251N	70	D432N	97	D703N
17	D114N	44	D252N	71	D445N	98	D712N
18	D115N	45	D255N	72	D446N	99	D723N
19	D116N	46	D261N	73	D452N	100	D731N
20	D122N	47	D263N	74	D454N	101	D732N
21	D125N	48	D265N	75	D455N	102	D734N
22	D131N	49	D266N	76	D462N	103	D743N
23	D132N	50	D271N	77	D464N	104	D754N
24	D134N	51	D274N	78	D465N		
25	D143N	52	D306N	79	D466N		
26	D145N	53	D311N	80	D503N		
27	D152N	54	D315N	81	D506N		

SPECIFICATIONS

TYPE:	Super Compact
CHASSIS:	Die-Cast Alloy
POWER SOURCE:	12/24V DC
MAX POWER OUTPUT:	5W
CHANNELS CB/LMR:	2 Banks: 80 (CB), 128 (LMR - Dealer Programmable)
CB FREQUENCY RANGE:	476.425 ~ 477.4125MHz
LMR FREQUENCY RANGE:	450~520MHz
LMR CHANNEL WIDTH:	12.5KHz/25KHz (Narrowband/Wideband Selectable)
DISPLAY:	Colour VA
ILLUMINATED CONTROLS:	Yes
INGRESS PROTECTION:	IP66 Mic
REPLAY:	RX saved in 20 Groups of 1 minute each
ACTIVE NOISE CANCELLING:	TX & RX
PROGRAMABLE SMART BUTTON:	Yes
PRIORITY CHANNEL:	Yes
DUAL WATCH:	Yes
SELCAL:	Yes
CTCSS/DCS:	50/104
SQUELCH:	Manual
QUIET MODE:	Yes
MONITOR FUNCTION:	Yes
KEY LOCK:	Yes
SPEAKER MIC:	Yes
BUILT-IN SPEAKER:	No
EXTERNAL SPEAKER JACK:	Yes
ANTENNA CONNECTION:	FME
MIC JACK:	Front RJ45
MIC MOUNT:	Magnetic & Clip
SLIDE MOUNT BRACKET:	Yes
DIMENSIONS WxHxD:	102x24x102mm

INCLUDES

- Slide Mount Cradle
- Magnetic Mic Holder
- Clip Mic Holder
- Power Lead

WARRANTY

Congratulations on your purchase of a quality product! You're joining thousands of satisfied customers who enjoy & experience the benefits of the products we distribute. In the unlikely event that some technical difficulty arises with your purchase, be assured that we are most anxious to see that the problem is quickly rectified to your satisfaction. Please familiarise yourself with the following simple conditions of our warranty. This warranty covers faults through component failure or failure of the product to operate in accordance with published specifications. Product failure as a result of unreasonable environmental conditions, accident, misuse, improper installation, unauthorised repair, vehicle electrical or wiring faults or neglect etc, will not be covered by this warranty. Removal and installation costs, if any, would be paid by the owner as well as any freight or postage costs of transporting the product to AUTOBACS AUSTRALIA PTY LTD and shall not be liable or responsible for any loss of use of this product or any form of consequential loss.

CONSUMER WARRANTY

This product is warranted by AUTOBACS AUSTRALIA PTY LTD to be free from defects in materials and workmanship under **NORMAL USE** for a period of **SIXTY MONTHS** from the date of purchase.

WITHIN 30 DAYS OF PURCHASE DATE:
Please return the unit for replacement to our National Service Centre or the Retailer from where you made the purchase. All accessories must be included. Proof of purchase date **must** accompany the products.

AFTER 30 DAYS OF PURCHASE DATE:
Warranty repair and service is carried out by our National Service Centre. Repair and service will be carried out at no cost to the owner if proof of ownership and the date of purchase can be verified to the satisfaction of the authorised centre concerned with this repair. This proof should take the form of either:
a) The warranty card accompanying this product, stamped and dated by the dealer.
b) A Tax Invoice or Receipt showing full details of original vendor, purchaser, model number and serial number.

COMMERCIAL WARRANTY

A product used in or associated with a commercial application will carry a limited TWELVE MONTHS warranty.
An abnormal commercial application is one where usage, dust, vibration, heat/cold and other environmental conditions exist at an extreme level.
Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Purchaser's Name: _____

Purchaser's Address: _____

_____

Model Number: _____ **Serial Number:** _____

Dealer Name: _____ **Date of Purchase:** / /

Dealer Address: _____

Invoice/Sales Docket no: _____

General Hints: To expedite service and prompt return of the equipment, please:
a) Clearly describe the fault in detail   b) Safely and securely pack the unit for transport
c) Include your return address   d) Provide proof of purchase date as outlined above

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National Service Contacts:
AUTOBACS AUSTRALIA PTY LTD
Telephone: 1300 288 029
email: services@autobacs.com.au