

Channel	Description
1	Ch1 Repeater (Semi Duplex)
2	Ch2 Repeater (Semi Duplex)
3	Ch3 Repeater (Semi Duplex)
4	Ch4 Repeater (Semi Duplex)
5	Ch5 Repeater (Semi Duplex)
6	Ch6 Repeater (Semi Duplex)
7	Ch7 Repeater (Semi Duplex)
8	Ch8 Repeater (Semi Duplex)
9	Ch9 Simplex
10	Ch10 Simplex - 4WD / Off-road
11	Ch11 Simplex - Call channel
12	Ch12 Simplex
13	Ch13 Simplex
14	Ch14 Simplex
15	Ch15 Simplex
16	Ch16 Simplex
17	Ch17 Simplex
18	Ch18 Simplex - Motor-homes
19	Ch19 Simplex
20	Ch20 Simplex
21	Ch21 Simplex
22	Disabled - Telemetry Only
23	Disabled - Telemetry Only
24	Ch24 Simplex
25	Ch25 Simplex
26	Ch26 Simplex
27	Ch27 Simplex
28	Ch28 Simplex
29	Ch28 Simplex
30	Ch28 Simplex
31	Ch1 Repeater Input
32	Ch2 Repeater Input
33	Ch3 Repeater Input
34	Ch4 Repeater Input
35	Ch5 Repeater Input
36	Ch6 Repeater Input
37	Ch7 Repeater Input
38	Ch8 Repeater Input
39	Ch39 Simplex
40	Ch40 Simplex – Road Channel

41	Ch41 Repeater (Semi Duplex)
42	Ch42 Repeater (Semi Duplex)
43	Ch43 Repeater (Semi Duplex)
44	Ch44 Repeater (Semi Duplex)
45	Ch45 Repeater (Semi Duplex)
46	Ch46 Repeater (Semi Duplex)
47	Ch47 Repeater (Semi Duplex)
48	Ch48 Repeater (Semi Duplex)
49	Ch49 Simplex
50	Ch50 Simplex
51	Ch51 Simplex
52	Ch52 Simplex
53	Ch53 Simplex
54	Ch54 Simplex
55	Ch55 Simplex
56	Ch56 Simplex
57	Ch57 Simplex
58	Ch58 Simplex
59	Ch59 Simplex
60	Ch60 Simplex
61	Disabled - Guard band channel
62	Disabled - Guard band channel
63	Disabled - Guard band channel
64	Ch64 Simplex
65	Ch65 Simplex
66	Ch66 Simplex
67	Ch67 Simplex
68	Ch68 Simplex
69	Ch69 Simplex
70	Ch70 Simplex
71	Ch41 Repeater Input
72	Ch42 Repeater Input
73	Ch43 Repeater Input
74	Ch44 Repeater Input
75	Ch45 Repeater Input
76	Ch46 Repeater Input
77	Ch47 Repeater Input
78	Ch48 Repeater Input
79	Ch79 Simplex
80	Ch80 Simplex

# TECHOMAN TM-9C

[www.techoman.co.nz](http://www.techoman.co.nz)

2 Watt 16 Channel UHF CB Radio

*With Voice Prompts*

## USER INSTRUCTIONS



Thank you for purchasing your new TM-9C Portable Radio. This fully pre-programmed radio is easy to use and designed to deliver you instant and reliable communications at peak efficiency. Please read this manual carefully before use. The information will help you to enjoy maximum performance from your radio.

Designed and Tested to AS/NZS 4365:2011

## CONTENTS

1. Equipment
2. Accessories
3. Safety Warnings
4. Important Information
5. About UHF CB Radio
6. Unusable Channels
7. Fitting Battery
8. Battery Charging
9. Battery Tips
10. Fitting Antenna
11. Radio Overview
12. Channel Selector
13. Radio Channels
14. Channel Scanning
15. Specifications
16. Channel Listing (back cover)

## 2

## ACCESSORIES

A full range of parts and accessories available from [www.techoman.co.nz](http://www.techoman.co.nz)

- External whip antennas
- Vehicle antennas
- Additional batteries
- Earpiece/microphones
- Tactical headset/microphones
- Handheld microphone/speakers
- Handheld microphone/speaker/antennas
- Charger cradles and USB cords
- Waterproof bag covers
- Car cigarette lighter charge cables
- Antenna tuning/power meters, and more

## 3

## SAFETY WARNINGS

- This radio is a transmitting device.
- When transmitting, keep the antenna more than 25 mm from any part of the head or body.
- Do not transmit near flammable or explosive atmospheres.
- Do not allow children to operate a radio transmitter unsupervised.

## 4

## IMPORTANT

**READ ALL INSTRUCTIONS** carefully and completely before operating your radio and retain this manual for future reference.

**NEVER** connect the radio to a power source other than the supplied battery. This may damage your product.

**DO NOT** use your radio with a damaged antenna.

**AVOID** storing or charging your radio in direct sunlight.

## 1

## EQUIPMENT



## 13

## RADIO CHANNELS

Radio Channel	CB Channel	Description
1	10	Simplex 4WD/Off Road
2	11	Simplex Call Channel
3	12	Simplex
4	13	Simplex
5	14	Simplex
6	15	Simplex
7	16	Simplex
8	17	Simplex
9	18	Simplex (Caravan & Motorhome)
10	19	Simplex
11	20	Simplex
12	40	Simplex (Road Channel)
13	64	Simplex
14	65	Simplex
15	66	Simplex
16	67	Simplex

## 14

## VOX FUNCTION

VOX (Voice Operated Transmit) eliminates the need for using the PTT button to transmit. The transmitter is starts when the VOX circuit senses you are speaking into the microphone.

1. set the VOX Gain level to recognize the desired sound level.
2. If level is too sensitive, transceiver will key with noise in the background.
3. If level is not sensitive enough, it will not pick up your voice. Set level for smooth transmission.
4. On channel 1-5, Press and Hold the PTT and MONI buttons while switching ON the transceiver to turn the VOX ON or OFF.

## 15

## SPECIFICATIONS

### Voltage

- Battery Voltage: 3.7 Volts

### Transmitter

- Output Power: Maximum 2 Watts
- Transmission: Narrow Band FM (F3E)
- Frequency Range: 476.425 to 477.4125 MHz
- Maximum Frequency Deviation: 2.5kHz
- Adjacent channel power: <-60dB

### Receiver

- Sensitivity: -122dBm(12dB SINAD)
- Audio Power: 1 W



## 11 RADIO OVERVIEW

- A. Receive/Transmit Indicator
- B. Knob - Channel selector knob
- C. Knob (ON/OFF/Volume) - Power on/off and audio speaker volume
- D. Press to Talk (PTT) - Press to transmit
- E. Press and hold for for channel monitor (open squelch)
- F. Microphone and Speaker Sockets (must use a Techoman/Baofeng/Kenwood external microphone/earpiece with K type connector)
- G. USB Quick-Charge Connector



## 12 CHANNEL SELECTOR

Turn the channel selector knob to select the desired channel you want from a selection of 16 channels.

The voice prompt will indicate your selected channel number.



## 5 ABOUT UHF CB RADIO

The use of the Citizen Band radio service is licensed in New Zealand by the Ministry of Economic Development New Zealand (MED). Users can use these Citizens Band channels for free but are subject to operational conditions of the licence.

Your TM-9C meets the latest UHF CB 477 MHz band plan but is limited to 15 channels usable out of the 80 — standard AS/NZS 4365:2011

The same amount of spectrum is available; however, radio transceivers can now operate in a narrower bandwidth and hence use less spectrum. These radios are generally referred to as narrowband or 12.5 kHz radios. By using 12.5 kHz channel spacing instead of 25 kHz, the 40 channels originally allocated has now expanded to 80 channels thereby doubling the channel capacity and relieving congestion in the UHF CB band.

Original 40 channel wideband radios will continue to operate on the original 40 channels, however they will not be able to

converse on the newer channels 41 – 80. The newer narrowband radios will be able to converse with all older 40 channel wideband radios on all channels 1 to 40 as well as the newer channels allocated from 41 to 80.

The mixing of narrowband and wideband radios in the same spectrum can cause some possible operating issues of interference and varying levels of received volume.

When a new narrowband radio receives a transmission from an older wideband radio the speech may sound loud and distorted – simply adjust your radio volume for best performance. When an older wideband radio receives a signal from a new narrowband radio, the speech may sound quiet - simply adjust your radio volume for best performance.

Depending on how close your receiving radio is to another transmitting radio, there can be interference from the transmitting radio if it is using a channel adjacent to the channel you are listening to. Simply try going up or down a few channels from the currently selected channel.

## 6 UNUSABLE CHANNELS

ACMA regulations have allocated channels 22, 23, 61, 62 & 63 for telemetry only applications and have prohibited the transmission of speech on these channels. Consequently the TM-9C must not have these channels

22, 23, 61, 62 & 63

## 7 FITTING BATTERY

### TO INSTALL BATTERY

Fit bottom of battery into the matching two cut outs (locators) on the bottom rear of the radio. Press down top of battery where the belt clip mount is. You will hear the battery holder clip 'click' when the battery is in place and locked.

### TO REMOVE BATTERY

Turn off the radio before removing the battery. Slide the battery release tab as indicated in the drawing below.



Lift the battery from below the release tab and remove the battery.

## 8 BATTERY CHARGING

Use only the charger specified by the manufacturer.

**WARNING:** Turn off the radio before charging otherwise battery will not fully charge.

Please follow these steps:

1. Plug the AC connector of the USB power pack into the AC outlet socket.
2. Plug the USB cord on the charger cradle into the USB power pack.
3. Place the radio with the battery attached, or the battery alone, in the charger.
4. Make sure the battery is in good contact with the charging terminals. Allow 5 hours for the battery to charge.



## 9 BATTERY TIPS

1. When your radio battery is getting low a voice prompt will indicate 'Battery Low'.
2. When charging your battery, keep it at a temperature between 5C and 40C. Temperature out of the limit may cause battery leakage or damage.
3. When charging a battery attached to a radio, turn the radio off to ensure a full charge.
4. Do not turn off the power supply or remove the battery when charging a battery.
5. Never charge a battery that is wet. Dry it with a soft cloth prior to charging.
6. The battery will eventually wear out when the operating time (talk-time and standby time) is noticeably shorter than normal performance. It is time to buy a new battery.

### INITIAL USE

New batteries are shipped uncharged from the factory. Charge a new battery for 5 hours before initial use. The maximum battery capacity and performance is achieved after three full charge/discharge cycles. If you notice the battery power runs low, please recharge the battery.

### TO PROLONG BATTERY LIFE:

1. Battery performance will be greatly decreased at a temperature below 0C. A spare battery is necessary in cold weather. A cold battery is unable to work in this situation and will work when back to room temperature.
2. Dust on the battery contacts may cause the battery to not work or charge. Please use a clean dry cloth to wipe them before attaching the battery to the radio.

## BATTERY STORAGE:

1. Fully charge a battery before you store it for a long time to avoid battery damage due to over-discharge.
2. Recharge a battery after 6 months storage to avoid battery capacity reduction due to over-discharge.
3. Store your battery in a cool and dry place under room temperature to reduce self-discharge.

## 10 FITTING ANTENNA

Install the antenna as shown as below:



**NOTE:** - When installing the antenna, don't rotate it by its top. Hold it by its base and turn clockwise. Don't over-tighten.

If you use an external antenna, make sure the 'SWR' is about 1.5:1 or less to avoid damage to the transceiver's final transistors.



**NEVER TRANSMIT WITHOUT AN ANTENNA**