DIGITECH

TRANSCEIVER MODEL DC-1049
OWNER'S MANUAL AND OPERATING INSTRUCTIONS
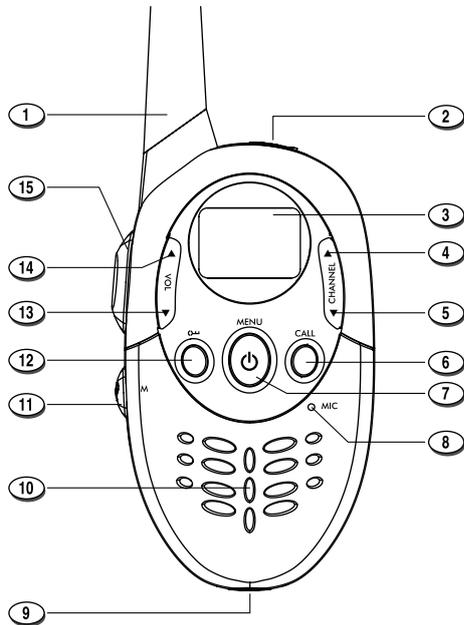
KEYS AND CONTROLS

1. High efficency antenna
2. External earset-microphone jack
3. Backlighted LCD display,
   with indication of used Channel,
   CTCSS tone and all enabled functions
4. UP Key
5. DOWN Key
6. CALL Tone Key
7. ON-OFF / MENU Key
8. Built-in Microphone
9. 9V DC Charger Jack
10. Built-in Speaker
11. LAMP/MONITOR Key
12. Keypad LOCK Key /
    Comfirm Key
13. Volume Down Key
14. Volume UP Key
15. PTT (Push-To-Talk) Key
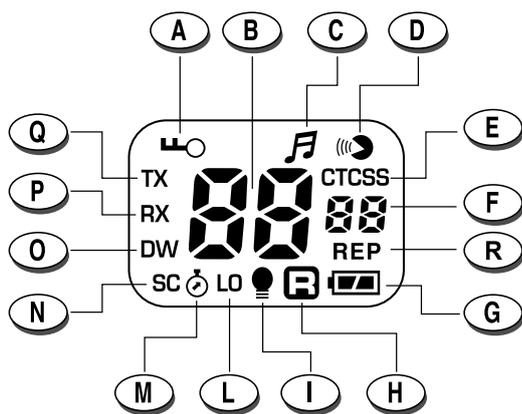
LCD DISPLAY

A. Keypad LOCK Icon
B. Selected Channel Indication (1-80)
C. Keypad Beep Tone Icon
D. VOX (handsfree use) Icon
E. CTCSS Icon (this feature is not
   available on this model)
F. CTCSS Code number (1-38)
G. Battery Status Indicator
H. R Icon - Roger Beep function
I. Power Save function Icon
L. LO Icon - Transmitter Low
   Power Icon
M. Stop Watch function Icon
N. SCAN Icon - automatic
   channels or CTCSS Code
   scanning
O. DW Icon - Dual Watch function
P. RX Icon - is lighted when the
   radio is in receive mode
Q. TX Icon - is lighted when the
   radio is in transmit mode
R. REP Icon-Display when the
   Repeater function is activated.

CONTENTS OF THE PACKAGE

Please carefully check that the package contains the following items :
1 x DC-1049 Walkie-Talkie
1 x Li-Ion rechargeable Battery Pack
1 x 9V DC Charger
1 x Belt Clip
1 x User Manual

INSTALLING AND CHECKING THE BATTERY
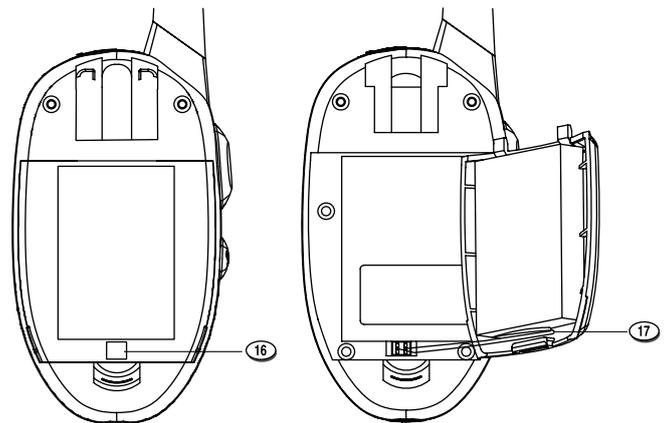
1. Insert the battery connector in the
   connector (16) located inside the
   battery compartment.
2. Place wire in this area(17).
3. Install the battery door (18) and
   press it downward until the block
   system (19) make a click.
4. Install the Belt Clip.
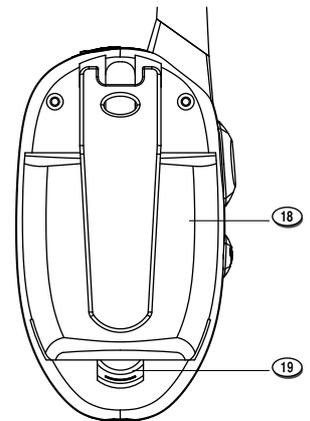
When the battery capacity is low, the
bA Lo indication and the battery status
icon (G) will flash on the LCD display (3).
Recharge the battery pack at this time.
Please refer to the following item
"BATTERY CHARGING".

Battery Charging

When the battery capacity is low, switch OFF the radio and connect the supplied
battery charger to the CHARGE jack (9), then plug it into the 220VAC outlet; the
battery status icon (G) will show the charging process. To obtain the maximum
performance from the battery, recharge it only when it is fully discharged.
The charging time is around 6 hours. When the charging time has expired, the
battery status icon (G) will not flash. **Unplug the charger from the AC outlet and
then disconnect it from the radio when the charging time is expired.**

Warning :
1. **If you're not going to use the unit for a long period of time e.g several weeks,
   please take out the battery.**
2. **Please dispose of old and defective batteries in a safe & environmentally
   friendly manner.**
3. **Do not dispose of batteries in fire.**
4. **Only replace batteries with the same or equivalent type recommended
   by the manufacturer.**

Belt Clip

1. To install the belt clip, slide it down into the special slot situated in the rear side of
   the unit, until the block system make a click.
2. To remove the clip, pull the block tab toward exterior and slide the clip toward the
   up side of the unit.

BASIC OPERATION

Power ON-OFF
1. To power on the unit, press and hold the ON-OFF/MENU key (7) , the LCD display will show the channel number (B) and the CTCSS code number (F).
2. To power off the unit, press and hold again the ON-OFF/MENU key (7) .

Using the radio
The unit has 80 main channels (Channel 22,23,61,62 & 63 being inhibited) and 38 CTCSS codes for each channel. You can communicate with any other PMR that is using the same main channel & CTCSS code.

In Australia,
1. Except in an emergency, the unit must not be operated on channel 5 and 35;
2. Channel 11 is the customary calling channel for establishing communication;
3. Channel 40 is the customary road vehicle channel.

Speaking to other radios
1. Press and hold the PTT key (15), the TX Icon (Q) will be lighted on the LCD display (3).
2. Hold the unit in a vertical position with the Microphone at 5-8 cm from the mouth and then speak.
3. When you have finished speaking, release the PTT key (15).
4. Now you are ready to receive incoming transmission. Adjust the volume to the desired level if necessary.

Time-out timer (TOT)
A timer disables transmitting after 3 minutes maximum transmission period. Transmitting can only be reactivated by releasing and pressing the PTT (15) button again.

Using the supplied Earset-microphone.
1. Plug the supplied Earset-Microphone into the earphone Jack (2).
2. Press the PTT key on the earphone to speak and release it to listen.
3. Adjust volume control if necessary.

WARNING !
Use only original accessories. Connecting and using accessories other than the original ones, may cause serious damage to the radio and will void the warranty.
Always set the volume to minimum before connecting an external earset, in order to avoid damaging the earset or the user's ear.

Channel Selection
Press the CH UP (4) or CH DOWN (5) to select the desired channel (1-80). The factory default start up channel is channel 1 and sub-channel 00; Before selecting a channel for communication, always listen on it and ensure it is not already being used. Always avoid selecting a busy channel when the unit keeps on receiving signal from unknown party.

Adjusting speaker volume (8 Levels)
1. Press the VOL UP (14) to increase the volume.
2. Press the VOL DOWN (13) to decrease the volume.

The **LE** (B) icon and the selected volume level (01-08) (F) will appear on the LCD display (3).

Repeater function
Repeater facility is a third party facility which is only available in some local areas. Only use this function for extending your communication range when you know the channel of the repeater facility in your area.
1. Pre-set the channel (channel 1-8 or 41-48) to the channel as specified by your local repeater station.
2. Press LOCK key(12) for 1 second to activate / deactivate the Repeater function.
3. The Radio will automatically send the signal at a frequency 30 Channels (Channel 31-38 or 71-78) above the original in order to access the repeater station. After transmitting, the radio reverts back to its original operating frequency.

ADDITIONAL FUNCTIONS

Menu Operation
Press ON-OFF/Menu (7) button to select the Menu functions.
Menu --> CTCSS - TX Power selection --> VOX --> VOX sensitivity --> Channel SCAN --> CTCSS tone SCAN --> Dual Watch --> CALL Tone --> Roger Beep --> Keypad Beep Tone --> Stop Watch

CTCSS Code Selection
The radio has 38 CTCSS private codes available. Different CTCSS tones may be associated to different channels. To choose the desired CTCSS code, please proceed as follows :

1. Press the ON-OFF/MENU (7) until the CTCSS code number (F) blinks on the LCD display. The CTCSS code **00** (F) indicates that no CTCSS tone is programmed on that channel.

2. Press the CH UP (4) or CH DOWN (5) keys to select the desired CTCSS code number.
   Pressing and holding the CH UP (4) or CH DOWN (5) keys, the selection will move quicker.
3. To confirm the selection and exit the Menu Mode, press the LOCK key (12) or press the ON-OFF/MENU (7) key to move to the next function.

Selecting a CTCSS code of **00** will disable the CTCSS feature. To communicate between two or more radios, both the channel and CTCSS code selections must be the same. To communicate with other models and brands of radios, the actual radio frequency and CTCSS frequency must be matched. The frequency chart and CTCSS Code chart are included to help with this selection.

Transmitter RF Power Setting
Your radio has a HI/LOW Power selection function This function is very convenient to reduce the current drain and extend battery life when communicating within short distance. To select the output power proceed as follow :
1. Press the ON-OFF/MENU (7) 2 times, until the **HI** or **Lo** (F) icons will blink on the LCD display (3).
2. Press the CH UP (4) or CH DOWN (5) keys to select the desired power level HI (high power) or LO (low power).
3. To confirm the selection and exit the Menu Mode, press LOCK key (12) or press the ON-OFF/MENU (7) key to move to the next function.

VOX (Handsfree use) Function
Your radio is equipped with a user selectable Voice Operated Transmitter function (VOX), that is used for automatic voice transmission (handsfree use or baby room monitor use). In this mode, transmission is automatically initiated by speaking into the microphone (8) and there is no need to push the PTT key (15). To enable the VOX function, please proceed as follows :
1. Press the ON-OFF/MENU (7) three times, until the **VOX** icon (D) and the **OFF** indication appear on the LCD display (3).
2. Press the CH UP (4) or CH DOWN (5) keys to enable the VOX function; the **On** indication will appear on the LCD display (3).
3. To confirm the selection and exit the Menu Mode, press LOCK key (12) or press the ON-OFF/MENU (7) key to move to the VOX sensitivity level selection function.

VOX SENSITIVITY LEVEL SELECTION
1. Press the ON-OFF/MENU (7) four times, until the **LE** indication, the **VOX** icon (D) and the selected VOX level will blink on the LCD display (3).
2. Press the CH UP (4) or CH DOWN (5) keys to select the level of sensitivity (from 01 to 05). The VOX level **05** indicates the highest VOX sensitivity.
3. To confirm the selection and exit the Menu Mode, press LOCK key (12) or press the ON-OFF/MENU (7) key to move to the next function.
4. When VOX feature is on, the VOX icon (D) will appear on the LCD display.
5. You can plug in the supplied earset-microphone for hands-free talking and listening.
   Please speak close to the mic in order to activate the VOX function.

Automatic Channel Scanning
To start the automatic channel SCAN function proceed as follows :
1. Press the ON-OFF/MENU (7) five times, until the channel number (B) and the SC Icon (N) will blink on the LCD display (3).
   Press the CH UP (4) or the CH DOWN (5) keys to start the automatic channel scanning.
   SCAN will automatically stop when a signal is detected on one channel, in order to listen to the communication and SCAN will re-start when no more signal is detected on that channels.
2. If you press the PTT (15) or LOCK (12) keys during the SCAN operation, SCAN will stop automatically and radio will set the last used channel.

Automatic CTCSS tone Scanning
This function allows automatic CTCSS tone scanning on the selected channel. Please proceed as follows :
1. Select the desired channel number; the CTCSS tone scanning will be activated on this channel.
2. Press the ON-OFF/MENU (7) six times, until the CTCSS tone number (F) and the SC Icon (N) will blink on the LCD display (3).
3. Press the CH UP (4) or the CH DOWN (5) keys to start the automatic CTCSS tone scanning on the selected channel; the SC Icon (N) will be lighted on the LCD display.
   SCAN will automatically stop when a signal is detected on the active channel in order to listen to the communication and SCAN will re-start when no more signal is detected on that channel.
4. If you press the PTT (15) or LOCK (12) keys during the SCAN operation, SCAN will stop automatically and radio will set the last used channel.

Dual Watch Function

The radio is equipped with a Dual Watch function that allows to monitor 2 differents channels without the CTCSS code.

To set the Dual Watch function, please proceed as follows :

1. Select the first channel to be monitored.
2. Press the ON-OFF/MENU (7) seven times, until the DW (O) icon and the selected channel will blink on the LCD display (3).
3. Press the CH UP (4) or the CH DOWN (5) keys to select the second channel to be monitored.
4. Now the radio will start monitoring the two channels and will stop when a signal is received on one of the two stored channels.
5. To disable the Dual Watch function and return to Stand-by mode, press the LOCK key (12).

Call Tone Setting

Call tone can only be transmitted once (not more than 3 sec) in any 60 sec period. It means that the unit will not transmit a call tone more than once no matter how many times you press the "Call" (6) button within a minute.

The radio is equipped with 5 user selectable Call tone melodies. To set the desired Call tone melody, please proceed as follows :

1. Press the ON-OFF/MENU (7) eight times, until the **C** (B) indication and melody number (F) will blink on the LCD display (3).
2. Press the CH UP (4) or the CH DOWN (5) keys to set the desired melody, between the 5 available melodies.
3. To confirm the selection and exit the Menu Mode, press LOCK key (12) or press the ON-OFF/MENU (7) key to move to the next function.
4. Press the CALL key (6) to transmit the Call Tone Melody.

Roger Beep Tone Setting

The radio is equipped with a user selectable Roger Beep Tone feature, which enables you to send a Beep Tone at the end of each transmission after every release of the PTT key (15).

This will prompt any receiving unit that your transmission has ended. To enable or disable this function, please proceed as follows :

1. Press the ON-OFF/MENU (7) nine times, until the Roger Beep icon (H) and the **On** or **OFF** indications will blink on the LCD display (3).
2. Press the CH UP (4) or the CH DOWN (5) keys to set the desired selection **On** (Roger Beep tone enabled) or **OFF** (Roger Beep tone disabled). If the Roger Beep function is enabled, a beep tone is heard to confirm the selection.
3. To confirm the selection and exit the Menu Mode, press LOCK key (12) or press the ON-OFF/MENU (7) key to move to the next function.
4. When the Roger Beep tone is enabled, the tone icon (H) appears on the LCD display (3).

Keypad Program Tone Setting

When a key is pressed, a beep tone is heard to confirm your command. The user may enable or disable this keypad program tone.

1. Press the ON-OFF/MENU (7) ten times, until the keypad tone icon (C) and the **On** or **OFF** indications will blink on the LCD display (3).
2. Press the CH UP (4) or the CH DOWN (5) keys to set the desired selection **on** (keypad tone enabled) or **OFF** (keypad tone disabled). If the keypad tone is enabled, a beep tone is heard to confirm the selection.
3. To confirm the selection and exit the Menu Mode, press LOCK key (12) or press the ON-OFF/MENU (7) key to move to the next function.
4. When the Keypad tone is enabled, the tone icon (C) appears on the LCD display (3).

Stop Watch function

This function will enable a timer function.

1. Press the ON-OFF/MENU (7) eleven times, until the Stop Watch Icon (M) and the **00:00** indication will blink on the LCD display (3).
2. Press the CH UP key (4) to start counting and press the CH DOWN key (5) to stop the function. The radio can still operate in this mode.
3. Press the CH UP key (4) again to re-start.
4. To reset the timer press the CH DOWN Key (5) two times.
5. To exit to Stand-by mode press the LOCK Key (12).

ADDITIONAL FUNCTIONS

Keypad Lock

To avoid entering unwanted command, press and hold the LOCK Key (12) for about 2 seconds. The Lock Icon (A) will appear on the LCD Display (3). When the keypad is locked, the PTT (15), CALL (6) and LAMP/MONITOR (11) keys are enabled. To unlock the keypad press and hold the LOCK key (12) for about 2 seconds.

LCD Backlight

Shortly press the LIGHT/MONITOR key (11) to backlight the LCD display. Press this key again to turn OFF the LCD backlight.

Monitor Function

Press and hold the Lamp / Monitor Key (11) for about 4 seconds to activate the Monitor Function. Press Monitor Key (11) once to return.

If require to listen to weak signal with background noise temporarily, press and hold Monitor Key (11) for about 2 seconds. You will hear background noise and possible weak signal from the unit. Release Monitor Key (11) within 2 seconds to return.

Automatic Power Save

The radio has a Automatic Power Save circuit designed to extend battery life. If it senses no transmission within 10 seconds, it automatically switches to the Power Save mode. The Power Save icon (I) will appear on the LCD display. The Radio can still receive transmissions in this mode.

SPECIFICATIONS

Channels Available	80 Channels
CTCSS Sub-channel	38 for each Channel
Output Power (TX)	2W
Battery Life	30 Hours (typical)
Range	About 10 Km

CHANNEL TABLE		CHANNEL TABLE		CHANNEL TABLE	
Channel Number	Frequency (MHZ)	Channel Number	Frequency (MHZ)	Channel Number	Frequency (MHZ)
1*	476.4250	28	477.1000	55	476.7875
2*	476.4500	29	477.1250	56	476.8125
3*	476.4750	30	477.1500	57	476.8375
4*	476.5000	31*	477.1750	58	476.8625
5*	476.5250	32*	477.2000	59	476.8875
6*	476.5500	33*	477.2250	60	476.9125
7*	476.5750	34*	477.2500	61++	–
8*	476.6000	35*	477.2750	62++	–
9	476.6250	36*	477.3000	63++	–
10	476.6500	37*	477.3250	64	477.0125
11	476.6750	38*	477.3500	65	477.0375
12	476.7000	39	477.3750	66	477.0625
13	476.7250	40	477.4000	67	477.0875
14	476.7500	41*	476.4375	68	477.1125
15	476.7750	42*	476.4625	69	477.1375
16	476.8000	43*	476.4875	70	477.1625
17	476.8250	44*	476.5125	71*	477.1875
18	476.8500	45*	476.5375	72*	477.2125
19	476.8750	46*	476.5625	73*	477.2375
20	476.9000	47*	476.5875	74*	477.2625
21	476.9250	48*	476.6125	75*	477.2875
22+	476.9500	49	476.6375	76*	477.3125
23+	476.9750	50	476.6625	77*	477.3375
24	477.0000	51	476.6875	78*	477.3625
25	477.0250	52	476.7125	79	477.3875
26	477.0500	53	476.7375	80	477.4125
27	477.0750	54	476.7625		

* Channel 5 and 35 are for emergency calling. Please do not use these channels in non-emergency cases.

+ Speech telephony is inhibited on Channel 22 and 23.

* Channel 1-8 and 31-38, 41-48 and 71-78 are used as repeater channels with 750kHz offset. Channels 1-8 and 41-48 are used for mobile reception and channels 31-38 and 71-78 for mobile transmission.
Only use this repeater function when a long distance communication via the local repeater facility is specifically required. Unless it is necessary, avoid operation on locally used repeater input channels (channels 31 to 38 and channels 71 to 78) or locally used repeater receiving channels (channels 1 to 8 and channels 41 to 48) is recommended.

++ Channel 61, 62 and 63 are reserved for future use. They cannot be activated until approved by the ACMA CBRS Class Licence in Australia.

NOTE: The maximum transmission range will vary depending on terrain and environment.

CTCSS (Continuous Tone Coded Squelch System) Frequency Table.

Sub Channel	Frequency (Hz)	Sub Channel	Frequency (Hz)	Sub Channel	Frequency (Hz)
1	67.0	14	107.2	27	167.9
2	71.9	15	110.9	28	173.8
3	74.4	16	114.8	29	179.9
4	77.0	17	118.8	30	186.2
5	79.7	18	123.0	31	192.8
6	82.5	19	127.3	32	203.5
7	85.4	20	131.8	33	210.7
8	88.5	21	136.5	34	218.1
9	91.5	22	141.3	35	225.7
10	94.8	23	146.2	36	233.6
11	97.4	24	151.4	37	241.8
12	100.0	25	156.7	38	250.3
13	103.5	26	162.2	0	No Tone

NOTE: The maximum transmission range will vary depending on terrain and environment.

Note to user:

Use of the citizen band radio service is licensed in Australia by ACMA Radio communications (Citizen Band Radio Stations) Class Licence and in New Zealand by MED General User Radio Licence for Citizen Band Radio and operation is subject to conditions contained in those licences.
For more details, please contact ACMA or visit www.acma.gov.au.

Note:

This product is made to the new standard 2011 version.

There are possible operational issues during the changeover from the old version 25kHz to the new version of 12.5kHz channel spacing. They include the consequences of narrowband (with 2.5kHz deviation) transmissions being received on the old wideband equipment, and wideband (with 5.0kHz deviation) transmissions being received on newer narrowband equipment.

There is a possibility of interference due to the older equipment being operated on channels adjacent to new narrowband channels.

The list of currently authorised channels can be obtained from the ACMA website in Australia and the MED website in New Zealand.

Troubleshooting

SYMPTOM	SOLUTION
No power.	• Check battery. Ensure that the battery are installed properly. • The battery may be weak. • Charge the supplied battery
Reception is weak.	• Press the VOL Up (14) button to increase VOLUME. • The receiving signal may be weak and/or out of range. • If this happens, press the MONITOR
Cannot change channels.	• To change channels, press the ON/OFF-MENU key until the channel number flashes on the LCD Screen. • Press the CH Up (4) or Down (5) buttons to change channels. • Battery may be weak. • Keypad LOCK (12) must be deactivated.
Range is limited.	• BATTERY may be weak. • Charge the battery if the BATTERY LEVEL indicator is low. • The maximum range will vary depending on terrain and environment. • Open fields provide the maximum range, while steel/concrete structures, heavy foliage and use in buildings and in vehicles may limit the range significantly. • Wearing the radio close to the body, such as in a pocket or on a belt, will decrease range; change the location of the radio.
Sound distortion problems.	• If you are transmitting, speak in a normal tone of voice, 2 to 3 inches away from the MICROPHONE. • If you are receiving, lower the volume to a comfortable level. • Radios too close. Radios must be at least 5 feet apart; increase your distance. • Radios too far apart. Obstacles interfere with transmission. Talk range is up to 10 miles in clear unobstructed conditions.

WARNING: Using batteries
1. The units operate Li-Ion rechargeable battery pack.
2. Rechargeable battery packs should not be thrown with domestic rubbish. You may hand them in at your nearest collection point.
3. Do not leave batteries installed over a long period of time as leakage may occur and this can destroy the radio.