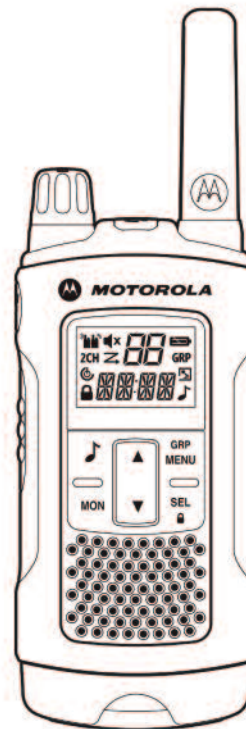# T80/T80 EXTREME
OWNER'S MANUAL

MOTOROLA

PRODUCT SAFETY AND RF EXPOSURE FOR PORTABLE TWO-WAY RADIOS

 Caution

Before using this product, read the operating instructions for safe usage contained in the Product Safety and RF Exposure booklet enclosed with your radio.

ATTENTION!

Before using this product, read the RF energy awareness information and operating instructions in the Product Safety and RF Exposure booklet to ensure compliance with RF energy exposure limits.

Package Contents

- 2 x TLKR T80/T80 Extreme Radio
- 2 x Belt Clip
- 1 x 2-Slot Charging Cradle
- 1 x AC Adapter
- 2 x Battery support brackets
- 2 x Rechargeable NiMH battery packs
- 2 x Headset (for T80 Extreme Only)
- 2 x Lanyard (for T80 Extreme Only)
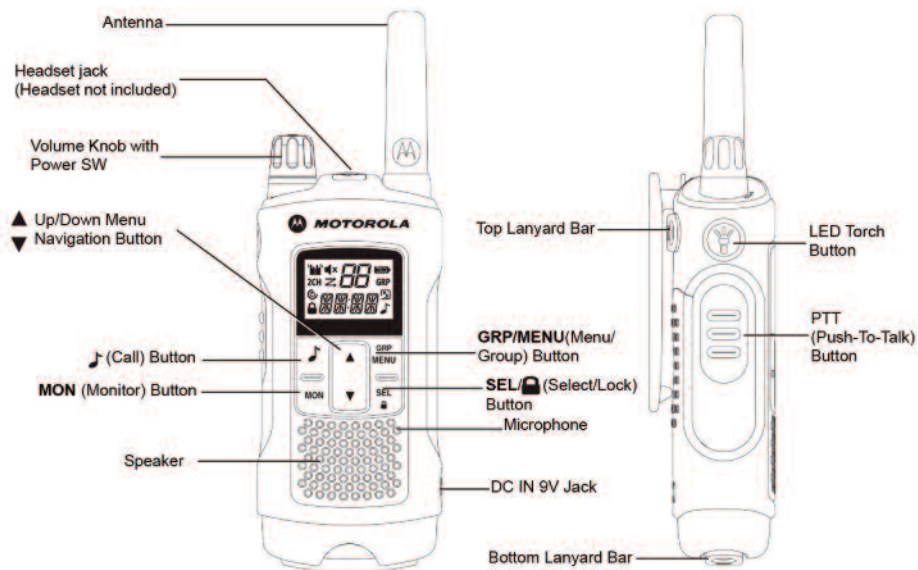- TLKR T80/T80 Extreme Owner's Manual

Frequency Chart

Ch.	Freq. (MHz)	Ch.	Freq. (MHz)	Ch.	Freq. (MHz)
1	446.00625	4	446.04375	7	446.08125
2	446.01875	5	446.05625	8	446.09375
3	446.03125	6	446.06875		

Features and Specifications

- 8 PMR Channels
- 121 Sub-Codes (38 CTCSS Codes & 83 DCS codes)
- Up to 10 km Range*
- Internal VOX Circuitry
- LED Torch
- 10 Selectable Call Tone Alerts
- Backlit LCD Display
- Roger Beep
- Up Timer
- Room Monitor
- Battery Charger
- Battery Level Meter
- Channel Monitor
- Channel Scan
- Dual Watch
- Keypad Lock
- Auto Power Off
- Auto Squelch Control
- Auto Repeat (Scrolling)
- Battery Save
- Battery Low Alert
- Battery Low Sleep
- Tone (On/Off)
- Direct Call (Caller ID Call)
- Group Call
- Silent Mode
- All Call
- Auto Channel Change
- IP Rating : IPX2 (for T80), IPX4 (for T80 Extreme)
- Power Source: NiMH battery Pack / 4 AAA Alkaline batteries
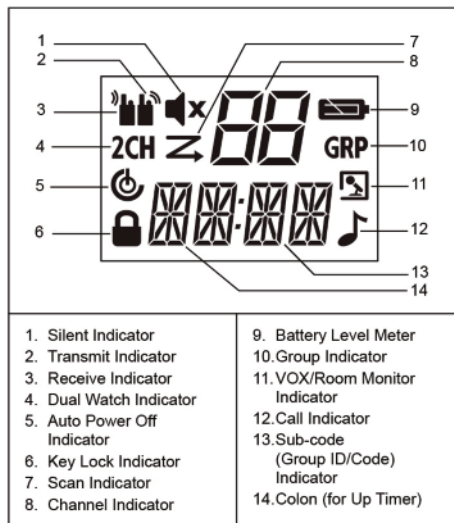- Battery Life: 16 Hours (under typical use conditions)

*Range may vary depending on environmental and/or topographical conditions.

Control and Functions

Antenna

Headset jack
(Headset not included)

Volume Knob with
Power SW

▲ Up/Down Menu
▼ Navigation Button

♪ (Call) Button

MON (Monitor) Button

Speaker

MOTOROLA

GRP/MENU(Menu/
Group) Button

SEL/🔒(Select/Lock)
Button

Microphone

DC IN 9V Jack

Top Lanyard Bar

LED Torch
Button

PTT
(Push-To-Talk)
Button

Bottom Lanyard Bar

Note : Radio depicted is T80 Extreme. Also applicable for T80 radio.

Display

1. Silent Indicator	9. Battery Level Meter
2. Transmit Indicator	10. Group Indicator
3. Receive Indicator	11. VOX/Room Monitor
4. Dual Watch Indicator	Indicator
5. Auto Power Off	12. Call Indicator
Indicator	13. Sub-code
6. Key Lock Indicator	(Group ID/Code)
7. Scan Indicator	Indicator
8. Channel Indicator	14. Colon (for Up Timer)

Installing the Battery

1. Make sure your radio is turned OFF.
2. For T80: To remove the battery compartment door, press the tab at the bottom of the compartment door.
   For T80 Extreme : To remove the battery compartment door, use a coin to wedge the battery door open.
3. Install the NiMH batteries into the battery compartment.
4. Replace the battery compartment door.

Caution: Risk of explosion if battery is replaced by an incorrect type. Dispose used batteries according to the instructions.

Battery Level and Low Battery Alert

	Indicates that the battery is fully charged.
	Blinks when battery is low; charge the radio or replace batteries immediately. (The alert tone sounds every 5 seconds for 30 seconds when the battery is low.)

Charging the Radio

Direct Charging :
1. Make sure your radio is turned OFF.
2. Connect the AC adapter to the radio's DC IN 9V. Connect the other end of the AC adapter to a vehicle accessory power outlet.
3. Charge the battery pack for 14 hours.

Using the Charging Cradle :
1. Make sure your radio is turned OFF.
2. Connect the AC adapter to the DC IN 9V of the charging cradle.
3. Place the charging cradle on a stable surface.
4. Place the radio in the charging cradle with the keypad facing forward.

5. LED indicator will illuminate and remain illuminated as long as the radio is in the charger.

Note: Charge the battery pack for 14 hours.

Using the Battery Support Bracket :
1. Remove the rechargeable NiMH battery pack from the radio.
2. Place the battery support bracket into the charging cradle.
3. Install the NiMH battery pack into the charging cradle. Ensure that the charging contacts are correctly aligned.
4. LED indicator will illuminate and remain illuminated as long as the radio is in the charger.

Note: Charge the battery pack for 14 hours.

Basic Radio Operations

Read this reference guide completely before attempting to operate the unit.

Turning your Radio On/Off

To turn your radio ON, turn the rotary knob clockwise.
To turn your radio OFF, turn the rotary knob counterclockwise.

Adjusting the Volume

Increase volume by turning the rotary knob clockwise.
To decrease volume, turn the rotary knob counterclockwise.

Adjusting the Sound (Key Beeps)

Your radio emits a beep each time one of the buttons is pressed (except the PTT and ♪ button).

Press and hold the ▼ button while turning the radio ON to switch the sound ON/OFF.

Navigating through the Menu

Your radios has two Menu functions: Select Menu and Common Menu.
1. To enter the Select Menu, press the **SEL/** 🔒 button.
2. To enter the Common Menu, press the **MENU/GRP** button.

3. Additional presses of the **SEL/** 🔒 button or **MENU/GRP** button will advance you through the Menu.
4. To exit the Menu function, do one of the following :
   a. Press the **MENU/GRP** button,
   b. Press the **PTT** button
   c. Wait 10 seconds until the unit automatically returns to "Normal" mode.

Talking on Your Radio

1. Hold your radio 5–8 cm from your mouth.
2. Press and hold the **PTT** button while speaking. The 📡 appears on the display.
3. Release the **PTT** button. You can now receive incoming calls. When you do, the 📻 appears on the display. To respond, repeat procedure from step 1.

Note: When you continue to transmit for 60 seconds, the radio emits TX Time Out tone and the 📡 icon flashes. The radio will stop transmitting.

In order to speak to someone, both your radios must be set to the same channel and Sub-Code. Refer to "Selecting a Channel and a Sub-Code" below.

Selecting a Channel and a Sub-Code
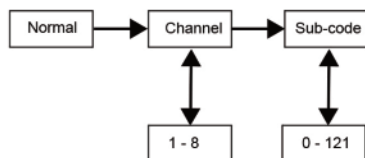
To select a Channel:
1. **SEL/** 🔒 button to enter Select Menu. Advance until the Channel indicator blinks.
2. ▲ or ▼ to the required channel.

To select a Sub-code :
1. **SEL/** 🔒 button to enter Select Menu. Advance until the Sub-code indicator blinks.
2. ▲ or ▼ to the required Sub-code.
3. Exit the Select Menu.

Select Menu

Your radio navigates through the Select Menu as follows:

```
Normal  →  Channel  →  Sub-code
              ↕            ↕
            1 - 8       0 - 121
```

Voice Operated Transmission (VOX)

Transmission is initiated by speaking into the microphone of radio instead of the pushing the **PTT** button.

To select the VOX level:
1. **MENU/GRP** button to enter Common Menu. Advance and select "VOX".
2. **SEL/ 🔒** to select.
3. ▲ or ▼ to the desired VOX sensitivity level.
4. Exit the Select Menu.

Note: Level "N"(OFF) disables VOX. Levels 1-5 set the sensitivity of the VOX circuit.Use level 1 in quiet environments, and use level 5 in very noisy environments. You can find the appropriate sensitivity level by speaking into the microphone. If the flashes, your voice is accepted.

Transmitting a Call Tone

Your radio is equipped with 10 selectable call tones .

To select a call tone:
1. **MENU/GRP** button to enter Common Menu. Advance to "TONE".
2. **SEL/ 🔒** to select.
3. ▲ or ▼ to the desired call tone.
4. Exit the Common Menu.

To transmit the selected call tone :

1. ♪ to transmit the selected call tone. The selected tone will automatically be transmitted for a fixed length of time.
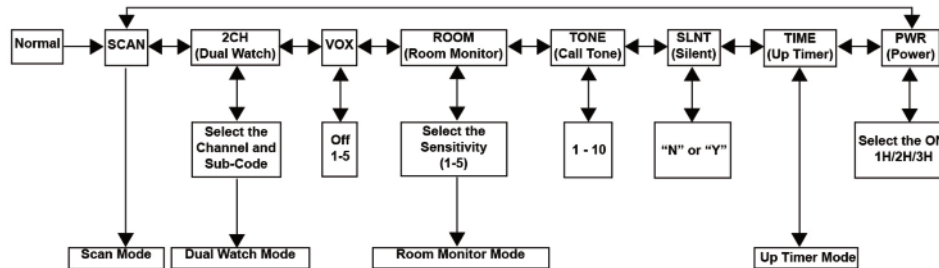2. **PTT** to cancel Call Tone.

Auto Power Off

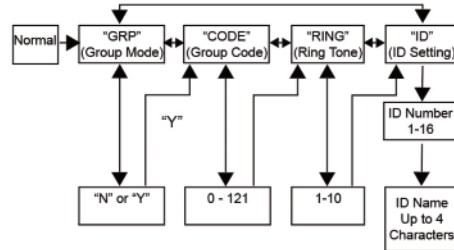Auto Power Off feature allows you to set the time that the radio turns off automatically.
1. **MENU/GRP** button to enter Common Menu. Advance until **"PWR"** and the current Auto Power Off time blinks.
2. **SEL/ 🔒** to select.
3. ▲ or ▼ to select the time from ON, 1H, 2H, and 3H.
4. Exit the Menu.

Common Menu

Your radio navigates through Common Menu as follows:

```
Normal → SCAN ↔ 2CH ↔ VOX ↔ ROOM ↔ TONE ↔ SLNT ↔ TIME ↔ PWR
              (Dual Watch)  (Room Monitor) (Call Tone) (Silent) (Up Timer) (Power)
```

| Normal | → | SCAN | ↔ | 2CH (Dual Watch) | ↔ | VOX | ↔ | ROOM (Room Monitor) | ↔ | TONE (Call Tone) | ↔ | SLNT (Silent) | ↔ | TIME (Up Timer) | ↔ | PWR (Power) |

- 2CH → Select the Channel and Sub-Code
- VOX → Off 1-5
- ROOM → Select the Sensitivity (1-5)
- TONE → 1 - 10
- SLNT → "N" or "Y"
- PWR → Select the ON/ 1H/2H/3H

- SCAN → Scan Mode
- 2CH → Dual Watch Mode
- ROOM → Room Monitor Mode
- TIME → Up Timer Mode

Group Menu

```
Normal → "GRP" ↔ "CODE" ↔ "RING" ↔ "ID"
         (Group Mode) (Group Code) (Ring Tone) (ID Setting)
```

| Normal | → | "GRP" (Group Mode) | ↔ | "CODE" (Group Code) | ↔ | "RING" (Ring Tone) | ↔ | "ID" (ID Setting) |

- "ID" → ID Number 1-16
- "GRP" → "N" or "Y"
- "CODE" → 0 - 121
- "RING" → 1-10
- "ID" → ID Name Up to 4 Characters

"Y"

1. Press and hold **MENU/GRP** to enter GROUP MENU.
2. ▲ or ▼ to proceed to each menu (GRP/CODE/RING/ID).
3. **SEL/** 🔒 to select.
4. ▲ or ▼ to proceed to desired condition or number.
5. **SEL/** 🔒 to select.
6. **MENU/GRP** to exit.

Set Group Mode
1. Press and hold **MENU/GRP** to enter GROUP MENU.
2. **SEL/** 🔒 to control Group Mode.
3. ▲ or ▼ to "Y". **SEL/** 🔒 to go to Group Menu and Group Code Setting.
4. ▲ or ▼ to "N". **SEL/** 🔒 to exit from Group Menu.

Set Group Code

1. ▲ or ▼ to choose the Group Code.
2. **SEL/** 🔒 to complete Group Code setting.
3. The radio enters "Ring Tone Setting Menu"
4. **MENU/GRP** to back to Group Menu.

Set Ring Tone

The user can select the Ring Tone for a Direct Call. Ring Tones are the same as Call Tones.

1. ▲ or ▼ to select a Ring Tone.
2. The selected Ring Tone sounds.

Set ID

Each radio in the group needs to be set with an ID. The user can set an ID name of up to four (4) characters.

1. ▲ or ▼ to select an ID number.
2. If the ID is already taken, USED is seen. If USED is not shown, then the ID is available.
3. **SEL/** 🔒 to advance to setting ID Name.

Set ID Name

The ID Name appears on the other radio's display when you make an All Call or a Direct Call. The ID Name will also on the other radio's display when they are placing a Direct Call. When no ID name is set, the unit number appears.

1. ▲ or ▼ to select a character that will blink on the display.
2. **SEL/** 🔒 to select and move to the next character.
3. **SEL/** 🔒 to register the ID number and ID Name.

Note: The radio cancels selected ID Number and entered ID Name, then exits from Group Menu when MENU/GRP button is pressed.

Channel Setting in Group Mode

To set Auto Channel Change in Group Mode:
1. **MENU/GRP** to enter Group Mode.
2. **SEL/** 🔒 to enter Channel Setting.
3. ▲ or ▼ to "Auto Channel Change Setting".
4. **SEL/** 🔒 to select.
   A channel number will blink and "ALL" is seen.
5. ▲ or ▼ to select the channel.
6. **SEL/** 🔒 or ♪ to transmit Auto Channel Change command.
7. **MENU/GRP** to return to Channel Setting in Group Mode.

To set Manual Channel in Group Mode:
1. **MENU/GRP** to enter Group Mode.
2. **SEL/** 🔒 to enter Channel Setting.
3. ▲ or ▼ to "Manual Channel Setting".
4. **SEL/** 🔒 to select.
   A channel number will blink and "MY" is seen.
5. ▲ or ▼ to select the channel manually.
6. **SEL/** 🔒 to exit from Manual Channel setting.
7. **MENU/GRP** to return to Channel Setting in Group Mode.

Set All Call

1. **MENU/GRP** to enter Group Mode.
2. ♪ to enter All/ Direct Call Setting.
3. ▲ or ▼ to select All Call Transmission. "SYNC" is seen.
4. **SEL/** 🔒 or ♪ to exit this setting, and transmit All Call.
   All Call Tone sounds. 📡 and ♪ blinks while transmitting.
5. **MENU/GRP** to exit.

Set Direct Call

➤ The ID Number for Direct Call

➤ The ID Name

1. **MENU/GRP** to enter Group Mode.

2. 🎵 to enter All/ Direct Call Setting.

3. ▲ or ▼ to select an ID Number.

4. 🎵 or **SEL/** 🔒 to transmit Direct Call Command.
   The selected Call Tone sounds. The display shows TX icon and CALL icon while transmitting.

5. **MENU/GRP** to go back to All/Direct Call setting.

Features on Your Radio

Channel Scan Mode

Enables your radio to scan for active channels. When activity is detected, your radio lands (stays) on that channel for 2 seconds (5 seconds for VOX ON without headset). To transmit on that channel, press the **PTT** button. When activity on the landed channel ends, your radio continues scanning other channels.

To turn the channel scan ON:
1. **MENU/GRP** to enter Common Menu. Advance to "SCAN".

2. **SEL/** 🔒 to turn ON channel scan.
3. **MENU/GRP** or **PTT** to turn OFF Scan mode.

Dual Watch Mode

Enables your to scan the current channel and another channel alternately.

To set another channel and start Dual Watch:
1. **MENU/GRP** to enter Common Menu. Advance to "2CH".

2. ▲ or ▼ to select the channel, then press **SEL/** 🔒 .

3. ▲ or ▼ to select the Sub-code, then press **SEL/** 🔒 .

4. The radio starts to Dual Watch.

Note: If you set the same channel and Sub-code as the current channel, Dual Watch doesn't work.

5. **MENU/GRP** to turn the Dual Watch mode OFF.

Room Monitor

Enables your radio to detect voice/noises (according to the sensitivity level set) and transmit back to the listening radio without pushing the **PTT** button. The monitoring radio is not able to receive any transmissions in this mode.

To turn Room Monitor ON:
1. **MENU/GRP** to enter Common Menu. Advance to "ROOM".

2. **SEL/** 🔒 to select.

3. ▲ or ▼ to the desired room monitor sensitivity level.

Note: Use level 1 in quiet environments. Use level 5 in very noisy environments.

4. **SEL/** 🔒 to turn ON room monitor.
   MENU/GRP to turn OFF Room Monitor.

Note: When the voice/noise in the monitored room continues for more than 60 seconds, the monitoring radio stop monitoring for 5 seconds, and resumes.

Silent Mode

Silent mode will mute all incoming calls. The backlight of the radio blinks when there's an incoming call. If the call is not

answered, the backlight turns off and the 🎵 blinks until there is no signal. The T80/T80 Extreme radio will vibrate when there is a missed call.

The silent mode will be disabled for 15 seconds when you transmit, receive or press any other buttons.

To turn silent mode ON:
1. **MENU/GRP** to enter Common Menu.

2. Select "SLNT".

3. **SEL/🔒** to select.

4. ▲ to turn Silent Mode ON. "Y" is displayed on the Channel Indicator. 🔇✗ appears.

5. ▼ to turn Silent Mode OFF. "N" is displayed on the Channel Indicator. 🔇✗ disappears.

Up Timer

Enables your radio to time up to 59 minutes 59 seconds. You can receive incoming calls in this mode.

To use up timer:
1. **MENU/GRP** to enter Common Menu. Advance to "TIME".

2. **SEL/🔒** to select the Up Timer.

3. **SEL/🔒** to start the Up Timer.

4. **SEL/🔒** to pause the Timer.

   SEL/🔒 to ON/OFF the Timer.

5. **MENU/GRP** or **PTT** to stop or reset up timer.

Note: If a call is received, the ID Name will be indicated and then the radio will return to timer mode and the Call Icon will blink.

Key Lock

Press and hold **SEL/🔒** until 🔒/"LOCK" appears to lock the keypad.

Press and hold SEL/🔒 until 🔒/"UNLK" disappears to unlock the keypad.

LCD Backlight

The LCD display will automatically illuminate for 10 seconds after any button is pressed (except for PTT).

Monitor Mode

Enables you to listen for weak signals on the current channel.

To turn the Monitor Mode ON:
1. Press the **MON** button for brief listening. The 🔊 icon blinks.
2. Press and hold the MON button for 2 seconds for continuous listening. The 🔊 icon continues to blink.

To turn the Monitor Mode OFF:

Press the **MON, MENU/GRP or SEL/🔒** button to return to "Normal" mode. The 🔊 icon stops blinking.

Roger Beep

Sounds to indicate the end of a **PTT** or **VOX** transmission. It can be heard through the speaker when Key Beep is on. It cannot be heard through the speaker if Key Beep is turned off.

Press and hold the ▲ button while turning the radio ON to turn the Roger Beep ON. Repeat the step to turn Roger Beep OFF.

LED Torch

Your radio has a built-in LED Torch.
The LED Torch indicator will remain on until the button is released.

Approved Accessories

NNTN8870_R	Consumer Earbud
NNTN8868_R	Consumer Headset
IXTN4011_	XTR Headset
IXPN4016_	UK Adapter
IXPN4017_	EU Adapter
IXNN4002_	NiMH Battery

Warranty Information

The authorized Motorola dealer or retailer where you purchased your Motorola two-way radio and/or original accessories will honour a warranty claim and/or provide warranty service.

Please return your radio to your dealer or retailer to claim your warranty service. Do not return your radio to Motorola.

In order to be eligible to receive warranty service, you must present your receipt of purchase or a comparable substitute proof of purchase bearing the date of purchase. The two-way radio should also clearly display the serial number. The warranty will not apply if the type or serial numbers on the product have been altered, deleted, removed, or made illegible.

What Is Not Covered By The Warranty

- Defects or damage resulting from use of the Product in other than its normal and customary manner or by not following the instructions in this user manual.
- Defects or damage from misuse, accident or neglect.
- Defects of damage from improper testing, operation, maintenance, adjustment, or any alteration or modification of any kind.
- Breakage or damage to aerials unless caused directly by defects in material or workmanship.
- Products disassembled or repaired in such a manner as to adversely affect performance or prevent adequate inspection and testing to verify any warranty claim.
- Defects or damage due to range.
- Defects or damage due to moisture, liquid or spills.
- All plastic surfaces and all other externally exposed parts that are scratched or damaged due to normal use.
- Products rented on a temporary basis.
- Periodic maintenance and repair or replacement of parts due to normal usage, wear and tear.

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