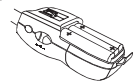## Fitting the batteries

You need three alkaline 1.5V AA/LR6 or three nimh AA rechargeable batteries for each handset.

1. Pull down the locking tab to release the battery compartment cover

2. Insert the three batteries, clicking them firmly into place Make sure the plus and minus ends of the batteries are positioned as shown.
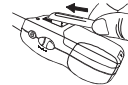
3. Replace the cover and the locking tab

Warnings

- Do not try to recharge alkaline batteries.
- Dispose of used batteries safely - never try to burn them or put them anywhere they could get burnt or punctured.
- If you don't intend to use your TC-109ER for several months, take the batteries out so they don't leak corrosive substances.
- When the display shows that the battery level indicator is low (see page 4),replace all three batteries.
- Don't leave dead batteries in your handset - they might leak corrosive substances.

Fitting the belt clip (optional)

Slide the belt clip into place as shown

Switching on and off

To switch on, press the button for about 2 seconds until the handset 'beeps' and the display comes on.
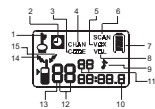To switch off, press the button until the display clears.

Volume control

To adjust the volume of the speaker, press the VOL (▲/▼) buttons.8 VOL level are adjustable, lowest level 1 to highest level 8.

Cleaning and care

To clean your TC-109ER, use a soft cloth dampened with water. Do not use cleaners or solvents, which may cause permanent damage which is not covered by the guarantee.

DISPLAY PANEL

1. KEY LOCK SYMBOL
2. AUTO POWER OFF
3. CTCSS CODE INDICATOR
4. CHAN INDICATOR
5. VOX INDICIATION
6. SCAN INDICATOR
7. BATTERY INDICATOR
8. VOL INDICATOR
9. KEY TONE INDICATOR
10. VOLUME LEVEL INDICATOR
11. 2 DIGIT CTCSS CODE NUMBER
12. 2 DIGIT MAIN CHAN
13. VOL LEVEL OR APOTIME OR SENS OF VOX
14. TX ICON
15. RX ICON

88	: 2-digit channel number
88	: 2-digit CTCSS code number
SCAN	: Scan frequency channel or CTCSS number
TonE	: Talk confirmation tone
	: Battery level indicator
VOL	: Volume level indicator
	: Receiving
	: Transmitting
VOX	: Vox mode
CHAN	: Main Channel
CODE	: CTCSS Channel
	: LOCK key function
	: Power auto off

FUNCTION KEY FLOW CHART

FUNC
↓
CTCSS
↓
SCAN
↓
CALL TONE
↓
VOX
↓
TONE
↓
AUTO POWER ——→ END

Backlight Of LCD Display

The screen will light for 10 seconds whenever the [LIGHT/MONITOR] key is pressed. You can extinguish the backlight by pressing the [LIGHT/ MONITOR] key again.

To set the main channel:

1. Press [▲] or [▼] keys to select your desired main channel.
2. The channel "CHAN" will be displayed on the LCD

Selecting channels

PMR has eight channels. You can communicate with any other user whose handset is turned to the same channel as yours.

To select a channel

Press the UP ▲ or DOWN ▼ button until the channel number you want is shown on the display.

To search for channel

To search for a channel in use
1. Press the FUNC/LOCK button once The "SCAN" symbol appears on the display and the channel number flashes.
2. Press the ENTER button (on the side of the handset) to start searching When the handset finds a channel which is being used, it will stop at that channel for 10 seconds.
3. To stop searching and stay at that channel, press the ENTER button again If you don't press ENTER, the handset will carry on searching for another busy channel.

Select CTCSS tone function

This function can help you to identify your group of users among the same channel. Only the users with the same CTCSS tone can listen and talk to each other.

To select a CTCSS tone
Press FUNC key and the CTCSS code number will flash.
Press ▲ or ▼ keys to select your desired CTCSS code.
Press ENTER key to confirm the selection.

* CTCSS stands for 'Continuous Tone-Coded Squelch System'

Communicating

Note that PMR transmission is 'one-way-at-a-time' - while you are speaking, you cannot listen to other people.

To speak to another handset user

1. Press and hold the PTT button The " " symbol appears on the display.
2. Speak in a normal tone -don't shout
3. When you have finished speaking, release the PTT button.

To listen to another handset user

1. Make sure the PTT button is not pressed The " " symbol will appear on the display when the other person starts to speak.
2. Adjust the volume control as necessary (see page 3)

Talk range

Your TC-109ER has been designed to maximize the transmission range.It is not recommended to use two units within 1.5 m apart because of interference.The maximum talk range is affected by terrain. In flat and open area, the talk range can be up to 3 km. The range will be reduced if there is obstruct in between.

Auto Power Off

There is 3 time level of 1, 2, and 3 hours can be selected for auto power off.

Enable this function by pressing " FUNC/LOCK " key 6 times. Icon " OFF " & " " display.

Press " ▶ " or " ◀ " key to select time for auto power off. Same time Icon " " & " ON " will appear.

Press " Enter " key to confirm the settings and the " " icon will appear.

Disable this function by pressing "FUNC/LOCK " key 6 times again, press " down " key till time goes to 0.Then press "FUNC/LOCK " key once, both " ON " & " " will disappear.

Key Lock Function

To Prevent accidental entries, you can lock the key buttons. By pressing " FUNC/LOCK " key for 2 sec until the " " icon appears.
Press the "FUNC/LOCK " key for 2 sec again to unlock this function and the " " icon will disappear.

" PTT " & " LIGHT/MONITOR " key can still valid when key lock function is activated.

Monitor Mode

Your TC-109ER has an Automatic Squelch Circuit to turn off the speaker when there is no receiving message. However, the circuit will reduce the reception ability if the receiving message signal is weak.It is advised to deactivate the circuit if you dont want to monitor weak signals.

To deactivate the Automatic Squelch Circuit (monitor mode):
Press and hold the [LIGHT/MONITOR] key until the icon "   "appears.

You will hear noise. This is normal because the cir cuit will not turn off the speaker even for loud noise.

Select Call Tone

This function allows you to setup different alert types when you receive a call.
1. Press [FUNC/LOCK] key three times.
2. Press the [up] or [down] keys to select the desired type alert, total 8 types call tone can be selected
3. Confirm the selection by pressing [ENTER].

Set Talk Confirmation Tone

This function allows you to alert yourselves with a beep when your correspondent has finished speaking.You can talk after the beep tone.
1. Press [FUNC/LOCK] key .
2. The icon [tone] flashes.
3. Press the [▲] or [▼] keys to turn on or off beep tone.
4. Confirm the by pressing [ENTER].

Battery Level Indicator

The battery level indicator shows the status of the battery.

- Full
- 2/3
- 1/3
- low battery warning. Replace all three batteries.

Handsfree Use

Your TC-109ER can connect an external mic/speaker kit for handsfree use. Simple insert the plug into the mic/speaker jack. The unit has a built in Voice Activated Transmission (VOX) circuit. You speak to the external mic and your voice will activate the transmission without pressing the [PTT] key. Remember to adjust the volume to a comfortable listening level.

Channel Frequency Table

Channel.	Frequency (MHz)	Channel.	Frequency (MHz)
01	446.00625	05	446.05625
02	446.01875	06	446.06875
03	446.03125	07	446.08125
04	446.04375	08	446.09375

Technical specifications

Operating frequency : 446.00625 to 446.09375 MHz
(eight channels)
Channels : 8
Channel Spacing : 12.5 KHz
Power Source : 3 x 1.5 V 'AA' Alkaline Battery
(or 3 x rechargeable AA NIMH Batteries
Approvals : EN300296 (RF testing),
EN300339 (EMC testing)

Safety warnings

- To maintain compliance with the PMR's RF exposure guidelines, hold the transmitter and antenna at least 2 inches (5cm) away from your face, and speak in a normal voice. Point the antenna up and away from your face.

- If you wear the handset on your body while using the handset accessory, use only the supplied belt clip for this product and when transmitting, take it out of the belt to ensure that the antenna is at least 1 inch (2.5cm) from the body.
- Use only the supplied antenna. Unauthorized antennas, modifications, or attachments could dam age the transmitter and changes or modifications not expressly approved by the party responsible for the compliance could void the user's authority to operate the equipment.

In the event of an incident or accident, the TC-109ER cannot be used for contacting Emergency or Rescue services.
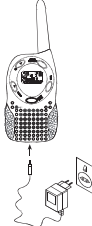
Troubleshooting

If you have problems with your TC-109ER, reset it by switching it off and removing the batteries. Then replace the batteries and switch the handset on again.

Charging Battery

Warning Notice. Use only the submitted Optional AC adaptor #22065 or an 230~240V approved Adaptor if rechargeable batteries are being used.

- Turn the Hand Set off and connect the AC adaptor plug to the Female Jack at the bottom of the Hand set;
- Battery charging time varies depending on battery capacity
- The Battery Icon flashes when charging, when charging is finished, the Icon will stop at Full Bar.

Recharge Batteries	Charging Time
600 mAH Ni-Cad	10 ~ 12 hours
1100 mAH Ni-mH	12 ~ 13 hours
1300 mAH Ni-mH	13 ~ 14 hours

- Disconnect the AC adaptor from the unit when charging is completed.

TC-109ER(ENG) ART NO:A0711

TC-109ER Private mobile radio

USER GUIDE

Private mobile radio (PMR) lets you talk to as many people as you wish, as often as you like, with no need for a licence, subscription or tax payment. It's very easy to use, even for children.
Each TC-109ER handset is to be used with one or more TC-109ER

Antenna

VOX hands-free kit connector
Lift as shown to plug in a hands-free kit

Power Button

PTT and ENTER buttons (at the side of the handset)

Volume Button

Microphone

Speaker