SAMCOM TWO-WAY RADIO

FT-18S

Pocket-sized Portable Radio



► Instruction Manual

INTRODUCTION

The model FT-18s is a cost-effective communication tool meant for both first time and intermediate users. This ultra-compact and lightweight radio is equipped with the necessary features to ensure reliable communication at an affordable price, ideal for business operators who need the basic and short-range communications.

MAIN FEATURES

- Ultra-compact, lightweight and durable design
- IP54 rating splash and dust proof
- 1700mAh Li-ion battery and life up to 48 hours
- Standard micro USB charging port
- 16 programmable channels
- 50 CTCSS tones & 210 DCS codes in TX and RX
- High/low output power selectable
- Built-in VOX for hands-free communications
- Easy pairing for simple group call set-up
- Voice prompt
- Channels scan
- Battery saver
- Emergency alarm
- Time-out timer
- Busy channel lock-out
- PC programmable

CONTENTS

01	Chapter 1: SAFETY INFORMATION
01	Radio Care
01	Battery Care
03	Chapter 2: RADIO OVERVIEW
03	Package Includes
03	At a Glance
05	Chapter 3: BASIC OPERATION
05	Turn the Radio ON/OFF
05	Adjusting Volume
05	Channel Selection
06	Transmission and Reception
06	Chapter 4: ADVANCED OPERATION
06	Monitor
06	Scan
07	Battery Save
07	VOX
07	Wireless Pairing
80	Chapter 5: TROUBLESHOOTING
09	Chapter 6: SPECIFICATIONS
10	Chapter 7: WARRANTY INFORMATION

SAFETY INFORMATION

Please read this information before using your radio. Failure to do so could result in personal injury, death, and/or damage to your radio, accessories and/or other property.

Radio Care

Caution

- Do not disassemble or modify the radio for any reason.
- Do not transmit while touching the antenna terminal or any exposed metallic parts of the aerial as this my result in burn.
- Please check and observe regulation in your country with regards to use whilst driving.

End of Life Disposal

When your radio reaches the end of its useful life, please ensure that the unit is disposed of in an environmentally friendly way.

Battery Care

Precautions

- Turn the radio OFF before charging.
- Charge the battery pack before use.
- Do not recharge the battery pack if it is already fully charged as this will use one its charge cycles and may shorten its life. Charge the battery in accordance with the instructions enclosed with your charger.
- Do not charge the radio and battery pack if they are wet.

The battery pack includes potentially hazardous components. Please:

Do not disassemble or reconstruct battery.

- Do not short-circuit the battery.
- Do not incinerate or apply heat to the battery.
- Do not immerse the battery in water or get it wet by other means.
- Do not charge the battery near fires or under direct sunlight.
- Use only the specified charger and observe charging requirements.
- Do not pierce the battery with any object or strike it with an instrument.
- Do not use the battery pack if it is damaged in any way.
- Do not reverse-charge or reverse-connect the battery.
- Do not touch a ruptured or leaking battery.

If liquids from the battery get on your skin or into your eyes, immediately:

- Wash your eyes out with fresh water avoiding rubbing them.
- · Seek medical treatment.

Notes:

- If a battery is not to be used for an extended period of time (several months) remove the battery pack from the equipment and store in a cool and dry location part charged. Do not fully discharge the battery before storage.
- Each charge cycle reduces the battery's life. Minimize the number of times you charge your battery especially in hotter environments which further shorten a battery's life.

RADIO OVERVIEW

Package Includes

1pcs radio

1pcs rubber antenna

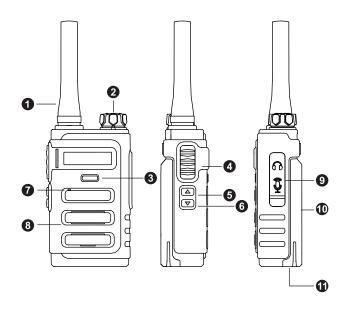
1pcs rechargeable Lithium-ion battery pack

1pcs AC adapter

1pcs belt clip & hand strap

1pcs user's manual

At a Glance



1 - Antenna

Provide attached SMA rubber flexible antenna.

Note: It may cause the damage to your radio if the antenna is connected inappropriately.

2 - On / Off / Volume Knob

Turn the radio ON or OFF and to adjust the radio's volume.

3 - LED Indicator

Give radio transmit, receive, battery and other status.

Radio Status	LED Indicator
Transmit (TX)	Solid red
Receive (RX) & Monitor	Solid green
PC programming / Reading data	Green heartbeat
PC programming / Writing data	Red heartbeat
Wireless clone / Member waits	Solid yellow
Wireless clone / Leader transmits	Red heartbeat
Wireless clone / Member received	Green heartbeat
Channel scanning	Green heartbeat
Low battery	Red heartbeat
Breath light mode	White heartbeat

4 - PTT (Push-To-Talk) Button

Press and hold down this button to transmit and talk, release it to receive and listen.

5 - Side A / MON Button

Short press this button to switch the radio's channel up. Long press it for about 2 seconds to activate monitor function that temporarily cuts off the squelch (for weak signals).

6 - Side ▼ / SCAN Button

Short press this button to switch the radio's channel down. Long press it for about 2 seconds to activate the channel scan function.

7 - Built-in Microphone

Speak clearly into the microphone when transmitting.

8 - Built-in Speaker

9 - Audio Accessory Jack (Kenwood 2 Pin Connector) Connect compatible audio accessories, such as microphones earpieces, etc

10 - Rechargeable Li-ion Battery Pack

11 - USB Port for the recharge of the battery pack

BASIC OPERATION

Turn the Radio ON / OFF

To turn on the radio, rotate on the On/Off/Volume Knob clockwise. The radio plays power up audio and channel number. To turn off the radio, rotate the On/Off/Volume Knob counterclockwise until you hear a 'Click' sound.

Adjusting Volume

Turn the On/Off/Volume Knob clockwise to increase the volume, or counterclockwise to decrease the volume. **Note:** Do not hold the radio too close to the ear when the volume is high or when adjusting the volume.

Channel Selection

Short press the side \blacktriangle I \blacktriangledown keys to switch up or down the channels until you select the desired channel. An audible voice indicates the selected channel if the voice prompt is enable. Each channel has its own frequency, privacy code and other settings.

Transmission and Reception

- 1. Make sure that no one else is currently talking on the selected channel.
- 2. Keep **PTT** button firmly pressed.
- 3. Speak normally in the direction of the microphone.
- 4. When you have finished, release the PTT.
- 5. When the radio is in reception mode (**PTT** not pressed) you will automatically receive any communication.

Note: during transmission and reception, as far as possible, try to keep the antenna in vertical position and to avoid obstacles towards the direction of the other party.

ADVANCED OPERATON

Monitor

The Monitor feature is for temporarily opening the squelch in order to listen to signals that are too weak to open the squelch. By opening the squelch you will listen the communication "chopped" by the squelch. In order to activate the Monitor function, so as to listen to all traffic on the selected channel, keep pressed the side **\(\Lambda \) / MON** key for about 2 seconds. Keep pressed it again for about 2 seconds to disable this function.

Scan

The radio can automatically search for signals throughout the bands by scanning, i.e. selecting the channels in sequence. Long press the side ▼ / SCAN side key for about 2 seconds to start scanning. When a signal is detected, the scanning pauses on that channel and you can transmit by pressing PTT button.

If you want to stop it, long press the side ▼ / SCAN side key for about 2 seconds again. The radio will go back to the channel from which the scanning originally started.

Battery Save

The battery saving feature enables a reduction in the consumption of up to 50%. Battery saving comes on automatically when the radio does not receive any signal for more than 5 seconds. When the batteries are discharged, replace the batteries or recharge the battery pack.

VOX

The VOX feature enables hands free conversations without using **PTT**, just speak in the direction of the microphone and the communication will be automatically activated. The VOX sensitivity can be adjusted in 10 different levels.

Wireless Pairing

The wireless pairing feature enables to copy the radio profiles including channels and code settings from leader radio A to member radios B, C, D...etc without any accessories.

- 1. Member radios: switch to Channel 7 and power off the radio. Keep pressed the side ▲ / MON key button and turn on the radio, until you see the LED indicator solid yellows. The radio is ready to be paired. Multiple radios can be paired simultaneously.
- 2. Leader radio: switch to Channel 6 and power off the radio. Keep pressed the side ▲ / MON key button and turn on the radio, until you see the LED indicator red heartbeats. The radio broadcasts channel and code settings for other radios to pair.
- 3. When member radios received the leader radio sending message, their LED will turn to green heartbeat status and enter data validation. After that the member radios will restart automatically.

TROUBLESHOOTING

Problem	Possible Reasons and Potential Solutions
No Power	Recharge or replace the battery pack;
	Extreme operating temperatures may affect battery life.
	Confirm CTCSS/DCS is set;
Hearing other noises or	Frequency or CTCSS/DCS may be in use; Change settings: either change frequencies or
conversation on a	Change settings: either change frequencies or CTCSS/DCS on all radios:
channel	Make sure the radio is at the right frequency and privacy
	code when transmitting.
A 12 12 1 1	Radio settings might not be matching up correctly.
Audio quality not good enough	Double check frequencies, CTCSS/DCS and
enough	bandwidths to make sure they are identical in all radios.
	Steel and/or concrete structures, heavy foliage,
	buildings or vehicles decrease range. Check for clear
	line of sight to improve transmission;
Limited tells reces	Wearing radio close to body such as in a pocket or on a
Limited talk range	belt decreases range; Change location of radio. UHF radios provide great
	coverage in industrial and commercial buildings.
	Increasing power provides greater signal range and
	increases penetration through obstructions.
	Make sure the PTT button is completely pressed when
	transmitting;
	Confirm that the radios have the same channel,
Can not transmitted or	frequency, private code and bandwidth settings;
received	Recharge, replace and/or reposition batteries;
	Obstructions and operating indoors, or in vehicles, may
	interfere, change location; Verify that the radio is not in Scan.
	Radios are too close, they must be at least seven feet
Heavy static or	apart;
interference	Radios are too far apart or obstacles are interfering with
	transmission.
Lowbatton	Recharge or replace the battery pack;
Low battery	Extreme operating temperatures affect battery life.
Desktop Charger LED	Check that the radio/battery is properly inserted and
light does not blink	check the battery/charger contacts to ensure that they
	are clean and charging pin is inserted correctly.
	VOX feature might be set to OFF;
Cannot activate VOX	Use the programming software to ensure that the VOX sensitivity level is not set to '0';
	Accessory not working or not compatible.
	Check desktop charger is properly connected and
5	correspond to a compatible AC adapter:
Battery does not charge	Check the charger's LED indicators to see if the battery
	has a problem.

SPECIFICATIONS

General

Frequency Range	PMR: 446MHz FRS/GMRS: 462-467MHz
Channel Capacity	16 Channels
Channel Bandwidth	12.5 / 25kHz
Operating Voltage	3.7V DC
Dimensions (H x W x D)	88 x 52 x 30mm
Weight with battery	150g

Transmitter

RF Power(H/L)	PMR: 500mW
RF Fower(H/L)	FRS: 500mW / GMRS: 2W
Frequency Stability	±1.5ppm
Spurious & Harmonics	-36dBm < 1GHz
Spurious & Harmonics	-30dBm > 1GHz
FM Hum & Noise	≥ 40dB(W) / ≥ 36dB(N)
Modulation Deviation	$\leq 5kHz(W) / \leq 2.5kHz(N)$
Adjacent Channel Power	≥ 70dBC(W) / ≥ 60dBC(N)
Audio Frequency Response	+1 ~ -3dB
Audio Distortion	< 5%

Receiver

Sensitivity (12 dB SINAD)	$\leq 0.2 \mu V(W) / \leq 0.3 \mu V(N)$
Adjacent Channel Selectivity	≥ 70dBC(W) / ≥ 60dBC(N)
Audio Distortion	< 5%
Radiated Spurious Emissions	< -54dBm
Intermodulation Rejection	70dB
Audio Output	1W @ 8Ω

Hereby, we declare that our radio is in compliance with the essential requirements and other relevant provisions of RE Directive 2014/53/EU.

WARRANTY INFORMATION

Warranty Period

Radio Body: 12 months from date of purchase. Battery Pack: 6 months from date of purchase.

Note: Please retain your receipt as your proof of purchase

will be required to valid warranty claim.

Warranty Exclusions

This warranty will not apply in relation to:

- Failure to provide a proof of purchase
- Product has been modified, changed or serial number has been removed
- If any damage is caused by the use of non approved accessories
- Product that has been replaced by an unauthorized person
- Product failure due to customer misuse, abuse or abnormal use
- Failure by the customer to take reasonable care
- Failure due to not using the product in accordance with instructions stated in the manufacture's user guide.
- Product failure due to recommended installation procedures not being followed as stated in the manufacture's user guide.

More warranty relative information please read our Warranty Policy on the website.

SAMCOM