# User Manual

Two Way Radio

Brand Name: YANTON

Model Name: T-518

FCC ID: SV8T-518

# Introduction

Thank you for purchasing  Series Radio. The Series radios provide cost effective communications for businesses, they are the perfect communications solution for all of todays fast–paced industries.

Please read this guide carefully so you know how to properly operate the radio before use.

# Safety and General Information

## Important Information on Safe and Efficient Operation.

### Read This information Before Using Your Radio.

The information provided in this document supersedes the general safety information contained in user guides published before.

Transmit and Receive Procedure

Your two-way radio contains a transmitter and a receiver. To control your exposure and ensure compliance with the occupational/controlled environment exposure limits, always adhere to the following procedure:

◆ Transmit no more than 50% of the time.

◆ To transmit (talk), press the Push to Talk (PTT) button.

◆ To receive calls, release the PTT button.

Transmitting 50% of the time, or less, is important because the radio generates measurable RF energy exposure only when transmitting (in terms of measuring standards compliance).

# Portable Radio Operation and EME Exposure

## Antenna Care

Use only the supplied or an approved replacement antenna.

DO NOT hold the antenna when the radio is "IN USE"

Holding the antenna affects the effective range.

## Two–Way Radio Operation

When using your radio as a traditional two–way radio, hold the radio in a vertical position with the microphone 1 to 2 inches (2.5 to 5 cm) away from the lips.

## Body–Worn Operation

If you wear a radio on your body when transmitting, always place the radio in a supplied or approved clip, holder, holster, case, or body harness for this product. If you do not use one of the supplied or approved body–worn accessories, and are not using the radio held in the normal use position, ensure the radio and its antenna are at least 1 inch (2.5 cm) from your body when transmitting.

## Data Operation

If applicable, when using any data feature of the radio with or without an accessory cable, position the radio and its antenna at least 1 inch (2.5 cm) from the body.

## Electromagnetic Interference/Compatibility

Note: Nearly every electronic device is susceptible to electromagnetic interference (EMI) if inadequately shielded, designed, or otherwise configured for electromagnetic compatibility.

## Facilities

To avoid electromagnetic interference and/or compatibility conflicts, turn off your radio in any facility where posted notices instruct you to do so. Hospitals or health care facilities may be using equipment that is sensitive to external RF energy.

## Aircraft

When instructed to do so, turn off your radio when on board' an aircraft.

Any use of a radio must be in accordance with applicable regulations per airline crew instructions.

## Medical Devices Pacemakers

The Advanced Medical Technology Association recommends that a minimum separation of 6 inches (15 cm) be maintained between a handheld wireless radio and a pacemaker. These recommendations are consistent with the independent research by,and recommendations of the U.S. Food and Drug Administration.

Persons with pacemakers should:

◆ ALWAYS keep the radio more than six inches (15 cm) from their pacemaker when the radio is turned ON.

◆ Not carry the radio In the breast pocket.

◆ Use the ear opposite the pacemaker to minimize the potential for interference.

◆ Turn the radio OFF immediately if you have any reason to suspect that interference is taking place.

## Hearing Aids

Some digital wireless radios may interfere with some hearing aids. In the event of such interference, you may want to consult your hearing aid manufacturer to discuss alternatives.

## Other Medical Devices

If you use any other personal medical device, consult the manufacturer of your device to determine if it is adequately shielded form RF energy.

Your physician may be able to assist you in obtaining this information.

## Safety and General Use While Driving

Check the laws and regulations on the use of radios in the area where you drive. Always obey them. When using your radio while driving, please:

◆ Give full attention to driving and to the road.

◆ Use hands–free operation, if available.

Pull off the road and park before making or answering a call if driving conditions so require.

## Operational Warnings

> ### ⚠ Warnings
>
> ◆ **For Vehicles with an Air Bag**
>
> Do not place a portable radio in the area over an air bag or in the air bag deployment area. Air bags inflate with great force. If a portable radio is placed in the air bag deployment area and the air bag inflates, the radio may be propelled with great force and cause serious injury to occupants of the vehicle.
>
> ◆ **Potentially Explosive Atmospheres**
>
> Turn off your radio prior to entering any area with a potentially explosive atmosphere, unless it is a radio type especially qualified for use in such areas as "Intrinsically Safe." Do not remove, install, or charge batteries in such areas. Sparks in a potentially explosive atmosphere can cause an explosion or fire resulting in bodily injury or even death.
>
> **Note:** The areas with potentially explosive atmospheres referred to above include fueling areas such as below decks on boats, fuel or chemical transfer or storage facilities, areas where the air contains chemicals or particles, such as grain, dust or metal powders, and any other area where you would normally be advised to turn off your vehicle engine. Areas with potentially explosive atmospheres are often but not always posted.
>
> ◆ **Blasting Caps and Areas**
>
> To avoid possible interference with blasting operations, turn off your radio when you are near electrical blasting caps, in a blasting area, or in areas posted: "Turn off two–way radio. Obey all signs and instructions.

# Operational Cautions

## Antennas

Do not use any portable radio that has a damaged antenna. If a damaged antenna comes into contact with your skin, a minor burn can result.

## Batteries

All batteries can cause property damage and/or bodily injury such as burns if a conductive material such as jewelry, keys, or beaded chains touch exposed terminals. The conductive material may complete an electrical circuit (short circuit) and become quite hot. Exercise care in handling any charged battery, particulariy when placing it inside a pocket, purse, or other container with metal objects.

# Battery Charger Safety Instructions

## Save these Instructions

1. Do not expose ttie charger to rain or snow.

2. Do not operate or disassemble the charger if it has received a sharp blow, or has been dropped or damaged in any way.

3. Never alter the AC cord or plug provided with the unit. If the plug will not fit the outlet, have the proper outlet installed by a qualified electrician. An improper condition can result in a risk of electric shock.

4. To reduce the risk of damage to the cord or plug, pull the plug rather than the cord when disconnecting the charger form the AC receptacle.

5. To reduce the risk of electric shock, unplug the charger from the outlet before attempting any maintenance or cleaning.

6. Use of an attachment not recommended or sold by SMP may result in a risk of fire, electric shock, or personal injury.

7. Make sure the cord is located so it will not be stepped on, tripped over, or subjected to damage or stress.

8. An extension cord should not be used unless absolutely necessary.

   Use of an improper extension cord could result in a risk of fire and/or electric shock. If an extension cord must be used, make

sure that:

- ◆ The pins on the plug of the extension cord are the same number, size, and shape as those on the plug of the
- ◆ charger.
- ◆ The extension cord is properly wired and in good electrical condition.
- ◆ The cord size is 18 AWG for lengths up to 100 feet, and 16 AWG for lengths up to 150 feet.

9. The supply cord of this charger can not be replaced.
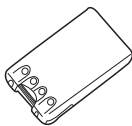
# CONTENTS

# CHECK EQUIPMENT

Welcome to use our radio. Please check if any damage to the packing box before use. Carefully unpacks the radio, identify the items list below, please inform the seller if any Item missed or damaged.

## ACCESSORIES

| ITEMS | QUANTITY |
|-------|----------|
| ANTENNA | 1 |
| CHARGER | 1 |
| ADAPTOR | 1 |
| LI–ion BATTERY | 1 |
| BELT CLIP | 1 |
| USER MANUAL | 1 |
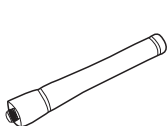
ANTENNA   LI–ion BATTERY   CHARGER

ADAPTOR   BELT CLIP   USER'MANUAL

# START

## CHARGE BATTERY

The battery hasn't been charged at the factory, please charge it before use.

Charge it for the first time, or recharge it after unusing for a long time (over two months), it needs charging two or three times to reach normal capacity.

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### ⚠ Warnings

◆ If the battery was completely charged, do not charge it again. Otherwise the life of battery may be lost or damaged.

◆ After battery was completely charged, please remove the battery from the charger. Charging over 5 hours may cause damage.

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### Note

◆ The environment temperature for charging is from 5'C to 40*C. The battery can not be fully charged beyond this temperature.

◆ Please turn off the radio before charging.

◆ It will affect charging process if you use the radio during charging.

◆ When operating time becomes short, even if it is fully charged, please replace the battery pack.
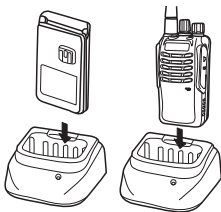
Insert the plug of the adaptor into the socket which on the back of the charger.
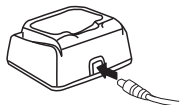
The AC power adapter should be plugged into AC power output.

Plug the Li–ion battery or radio with battery into the charger.

◆ Ensure the battery is in touch with the contacts of the charger.

◆ The charger Indicator light flashing red means charging start.

After charging for 4 hours, please remove it from the charger.

◆ The charger indicator light becomes green after fully charged.

Remove the AC power adaptor from the AC power output.

# INSTALL/REMOVE BATTERY
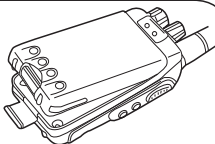
The average use time of the battery pack is 10 hours.

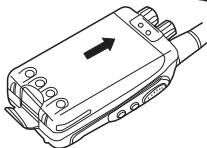It calculated as 5% TX time, 5% RX time and 90% standby time.

⚠ **CAUTION**

- ◆ Don't short circuit the battery charger contacts or threw the battery into fire.

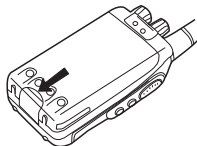- ◆ Don't disassemble the case of the battery.

Match the top of the battery pack with the corresponding grooves on the radio.

Push the battery onto the bottom of the radio, buckle the safety lock.

To remove the battery pack, lift the safety lock and pull the battery pack away from the radio.
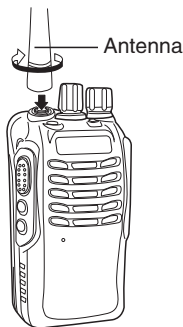
# INSTALL ANTENNA

Hold the radio, screw the antenna into the connector on the top of the radio. Hold the antenna and turn it clockwise until being tight.

Antenna

**Note:**

Don't use the antenna as handle, keychain or speaker/microphone hook, it will damage the antenna and affect the function of the radio.

# INSTALL BELT CLIP

When necessary, you can install the belt clip to the back of the radio.

**Note:**

Without installing the belt clip, the installing area will become hot due to continuous communication or put in hot environment.

You should remove the belt clip first before disassemble the battery pack.

Belt clilp

## ⚠ CAUTION

◆ Please don't use glue to fix the screws of belt clipl otherwise it may ruin the housing!

# INSTALL SPEAKER/MICROPHONE

Insert the speaker/microphone plugs
into the speaker/microphone jack.

Speaker/
Microphone

**Note:**

> The radio is not entirely waterproof
> when use the speaker/microphone.
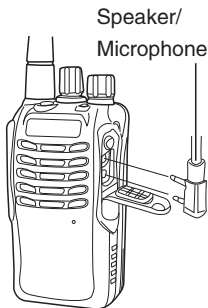
# INSTALL THE COVER OVER THE SPEAKER/ MICROPHONE JACKS

If not use a speaker/microphone, please
use the screw to install the cover over the
speaker/microphone jack.

Speaker/
Microphone Jack

# CONTROLS

ANTENNA

LED INDICATOR

Lights red while transmitting.
Lights green while receiving.
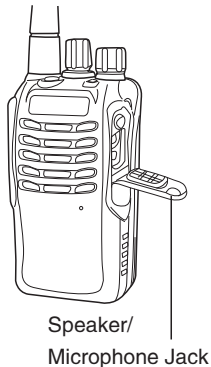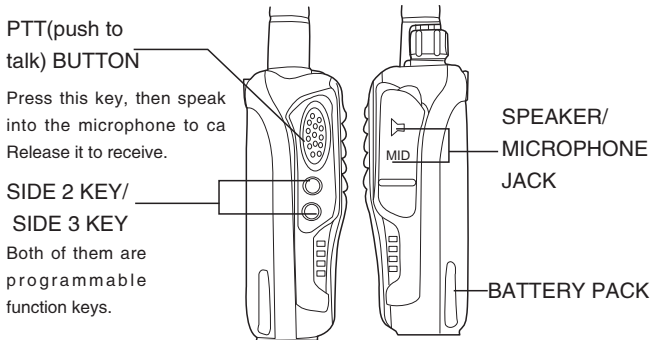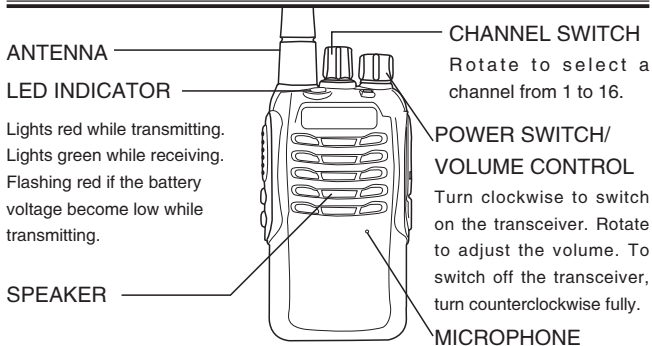Flashing red if the battery
voltage become low while
transmitting.

SPEAKER

CHANNEL SWITCH
Rotate to select a
channel from 1 to 16.

POWER SWITCH/
VOLUME CONTROL
Turn clockwise to switch
on the transceiver. Rotate
to adjust the volume. To
switch off the transceiver,
turn counterclockwise fully.

MICROPHONE

PTT(push to
talk) BUTTON

Press this key, then speak
into the microphone to ca
Release it to receive.

SIDE 2 KEY/
SIDE 3 KEY
Both of them are
programmable
function keys.

SPEAKER/
MICROPHONE
JACK

MID

BATTERY PACK

NOTE: Side 2 key and side 3 key can be programmable by software. They
can be programmed as follow:

| 1.N0NE, | 2. MONITOR, | 3. SCAN ON/OFF, |
| 4. HIGH/LOW POWER, | 5. TALK AROUND, | 6. REVERSE, |
| 7. PRIORITY SCAN, | 8. VOX ON/OFF. | |

# OPERATIONS AND SETTINGS

## BUSY CHANNEL LOCK

This function can prevent other two way radio from disturbing. There are two choices for customer to select in the programming software.

- ◆ **FREQUENCY:** It is not allowed to transmit or make other operation while the radio is receiving.
- ◆ **CTCSS/DCS:** While receiving signal, the radio is allowed to transmit when the CTCSS/DCS received is different; and it is not allowed to transmit if both frequency and CTCSS/DCS are the same.

## VOX SENSITIVITY

You can use programming software to select the level of the VOX sensitivity (1–9 levels).

## TX POWER

You can choose the high power or low power for each channel by programming software.

## SQUELCH LEVEL

You can use programming software to adjust the squelch level (0–9 levels).

## BEEP SETTING

You can hear a beep sound when turn on the radio or press a key. You can use programming software to open or close this function.

## TIME OUT TIMER (TOT)

TOT is used to prevent any user from using a channel for a long time. It will damage the radio if transmit for a long time.

## CTCSS/DCS

You can use the programming software to set the CTCSS/ DCS for each channel. There are 38 groups of CTCSS and 83 groups of DCS for you to select.

## WIDE/NARROW BAND

You can use the programming software to set the wide/ narrow band for each channel.

## EMERGENCY CALL

In case of emergency, press emergency key the radio will sound alert tone and also send alert.

## BATTERY SAVE

This function can decrease power consumption when no signal is received, and no operation is performed. You can use programming software to open or close this function.

## END ROGER

It is very useful for hand free users to eliminate the End Roger Beep, You can use programming software to open or close this function.

## LOW BATTERY WARNING

Low battery warning alerts you that the battery should be recharged or replaced. While transmitting or receiving, the LED will blink red if the battery is low. Please replace the battery if "du du" tone sounds every 30 seconds.

## CABLE CLONE

**Step:**

1. Use cable to connect Master unit to slave unit, and turn on the slave unit. Press and hold programmable Side Key 2 to turn ON master unit, LED flash Orange twice.
2. Press PTT of Master unit to transmit the data and Slave unit begin to receive data from Master unit
3. During cable cloning Master unit blink red and Slave unit blink Green

4. When cloning completed, slave unit restart automatically.

5. Switch to next slave unit and power on, press side key 2 of master unit to clone.

6. Power off master unit to exit.

◆ During data transmission, if no data received 3 seconds Master unit flash Red (0.5s ON, 0.5S OFF)

# PTT ID TRANSMIT MODE

1. Press PTT to send.     2. Release PTT to send.

3. Both.                      4. OFF (DTMF Encode only)

◆ OFF: Press PTT or release it will not send ANI code.

◆ PRE–ONLY: Press PTT to send the ANI.

◆ POST–ONLY: Release PTT to send the ANI.

◆ BOTH: Both press and release PTT to send ANI.

# THE SIDE KEY CAN BE PROGRAMMED THE FUNCTIONS AS FOLLOW,

1. NONE                     2. MONITOR

3. SCAN ON/OFF          4. HIGH/LOW POWER

5. TALK AROUND         6. REVERSE

7. PRIORITY SCAN       8. VOX ON/OFF

**1)NONE**

◆ No function to be set

### 2)MONITOR

◆ If press the monitor key, it can detect if the channel is busy, it can ignore all the interference codes temporarily and receive weak signal.

### 3)SCAN ON/OFF

◆ Scan ON: The radio will scan from the current channel.

◆ Scan OFF: To press the side key again.You can exit.

### 4)HIGH/ LOW POWER SWITCH

◆ Press the key to switch High/Low Power Switch.

### 5)TALK AROUND

◆ Talk around allows you to communicate directly with other radios without the repeater. When using talk around, the transmitting frequency is same with receive frequency.
Press talk around key (programmed key) to enter this function and press it again to exit.

### 6)REVERSE

◆ Transmitting frequency can reverse with receiving frequency. Codes will reverse too.

◆ Press frequency reverse key (programmed key) to enter this function and press it again to exit.

### 7)PRIORITY SCAN

◆ Set priority channel: open the programming software, and select the priority channel (1–16 optional). Suppose channel 6 was selected.

◆ Programming side key: program one of the side key to be priority channel function.

Press the programmed side key to enter the priority scan mode, the radio will scan like this: 6–1, 6–2, 6–3⋯.

◆ Turn off PRI: press PRI on/off key to exit

**8)VOX ON/OFF**

Radio will transmit when detects voice, without press PTT key.

Use VOX earpiece or radio micphone to talk hands–free, operation as follows:

◆ Programming the VOX ON/OFF key.

◆ Press the side key to open this function.

◆ To communicate by earphone you should plug the earphone before turning on the radio.

◆ Speak to VOX earpiece or radio micphone to send the voice.

◆ Press this side key again to exit

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**Caution:**

1)When use VOX by earpiece, press the PTT key to exit.

2)If use PTTA/OX earpiece. It is not allowed to switch to VOX directly during PTT call.

Because it will transmit without ending. Please switch to PTT to return to normal.

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# TROUBLESHOOTING

| Problem | Solution |
| --- | --- |
| No Power | ◆ The battery pack may be dead. Recharge or replace it.<br>◆ The battery pack may not be installed correctly. Remove it and install it again. |
| Battery power dies shortly after charging | ◆ The battery pack life Is finished. Replace the battery pack with a new one. |
| Cannot talk to or hear other members in your group | ◆ Make sure you are using the same frequency and CTCSS/DCS tone as the other members in your group.<br>◆ Other group members may be too far away. Make sure you are within the range of the other radios. |
| Other voices (besides group members) are present on the channel. | ◆ Change the CTCSS/DCS tone. Be sure to change the CTCSS/DCS on all radios in your group. |

# DEFAULT SETTING

**1) Default frequency list in factory**

| CHANNEL NO. | FREQUENCY(MHz) | BAND(KHz) |
|:---:|:---:|:---:|
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |
| 14 | | |
| 15 | | |
| 16 | | |

## REMARK:

The frequency from 1–16 channels of this product is same as our company product T–518 frequency list from 17–32 channels.

**2)PTT ID:** OFF

**3)TOT:** 60 seconds

**4)VOX sensitivity:** 5

**5)SQL:** 3

**6)CTCSS/DCS:** CTCSS code 1 (67.0Hz)

**7)SIDE KEY:** (1) short/long press: MONITOR

(2) stiort/long press: SCAN ON/OFF