

FM Transceiver

Dear user:

Welcome to use our handheld transceiver. We believe you will be pleased to use it in our daily life and work. This transceiver adopts advanced technology, we hope you will be satisfied with its quality and functions. This transceiver will bring you convenient, fast, reliable two-way communication.

Notice:

Please read this manual carefully before using this transceiver.

- Please do not communicate or charge this transceiver in flammable, explosive and area which transceiver communication is prohibited such as oil station, gas station, airport etc.)
- Please do not operate this transceiver without licence in government laws banned areas.
- Please make sure this transceiver avoids the sunshine, and avoids to put it near any heating device.
- Please make sure this transceiver avoids any dusty, humid and water splashed place, and also avoids to put it on unstable surface.
- If transceiver smells or smokes, please remove the battery pack from transceiver at once, and then contact our company or local dealer.
- The repair job of this transceiver is in the charge of professional & technicals, self-disassembly is prohibited.

• Scan function

• Busy Channel Lock Out

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UNPACKING AND CHECKING EQUIPMENT

We recommend that you open the packing box before use and check carefully the main transceiver in the packing box and the supplied accessories. If any item missed or damaged during shipment, please contact the shipper or local dealer.

1. Supplied Accessories

Item	Quantity
Hand Strap	1
Belt Clip	1
Battery	1
USB Charger	1
User's Manual	1
Adapter	1

2. If possible, discharge battery.

3. Store it in a cool (below 25°C) and dry place.

2. Battery Characteristics

- The capacity of battery will reduce step by step after being charged and discharged again and again.
- Battery will be aged even without any usage.
- It will cost longer time to charge the battery in cool and dry place.
- Battery working life will be reduced if being charged in hotter place. Battery ages more quickly when stored in hot place. Please do not leave battery in car and put it near a heating device.
- If battery working life becomes shorter, please replace it even it is fully charged. If go on being charged and discharged, the light will turn red, start charging. When battery has been fully charged, the green light on.

3. Charge Li-ion Battery

When charger is power on, put battery in and full connected, the light will turn red, start charging. When battery has been fully charged, the green light on.

4. Install/Remove Battery Pack Note:

- Do not short circuit battery pack terminals or throw battery pack into fire.
- Do not try to remove the battery pack shell.
- Do not install battery pack under dangerous conditions, otherwise spark will cause explosion.
- Insert the top part of the battery pack into the top 2 slots of the transceiver and then press the battery pack down until a 'click' sound is heard.(Pic1)
- To remove the battery pack, make sure the transceiver has been turned off, and then press the battery released latch inside.
- For battery long time storage
- Remove the battery from device

1. Use Li-ion Battery

- Charge the battery before use.
- To prevent battery pack from discharging, please remove the battery from transceiver or device when it is not in use, and then store it in a cool dry place.
- For battery long time storage
- Remove the battery from device

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PREPARATION

Notice:

- Do not charge the battery for a long time! If battery is not fully charged within schedule time, stop charging. Otherwise the battery may be overheated and smoke and burst into fire.
- Do not throw the battery into micro-wave oven and high-pressure container!
- The battery may be overheat and smoke and burst into fire.
- Prevent the break as well as liquid spilling battery from fire!
- If the battery is spilling or exuding smelly smell, put it away from inflammable area. The electrolyte spilling from the battery is easy to catch fire, and it will cause battery smokes or burst into fire suddenly.
- Do not use unusual battery!
- If battery smells smelly, different colors, out of shape or any unusual display, please remove the battery from charger or operating device and do not use it.
- Please use standard charger.

The charger supplied is specialized designed for this transceiver only, it will charge the battery more scientific reasonable, and safety:

- Charge the battery before use.
- To prevent battery pack from discharging, please remove the battery from transceiver or device when it is not in use, and then store it in a cool dry place.
- For battery long time storage
- Remove the battery from device

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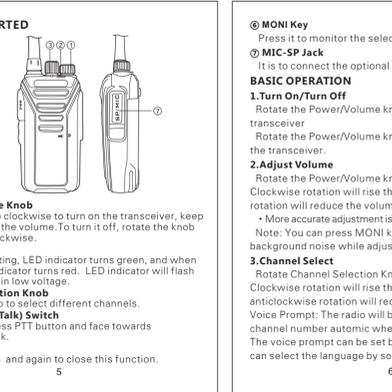
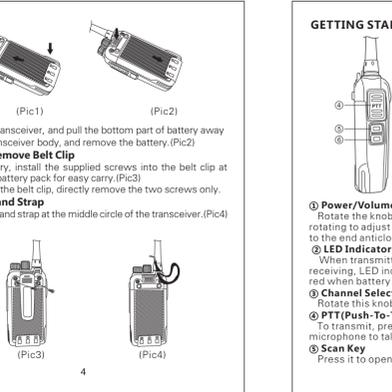
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- Do not short circuit battery pack terminals or throw battery pack into fire.
- Do not try to remove the battery pack shell.
- Do not install battery pack under dangerous conditions, otherwise spark will cause explosion.
- Insert the top part of the battery pack into the top 2 slots of the transceiver and then press the battery pack down until a 'click' sound is heard.(Pic1)
- To remove the battery pack, make sure the transceiver has been turned off, and then press the battery released latch inside.
- For battery long time storage
- Remove the battery from device



GETTING STARTED

1. Power/Volume Knob

Rotate the knob clockwise to turn on the transceiver, keep rotating to adjust the volume. To turn it off, rotate the knob to the end anticlockwise.

2. LED Indicator

When transmitting, LED indicator turns green, and when receiving, LED indicator turns red. LED indicator will flash red when battery in low voltage.

3. Channel Selection Knob

Rotate this knob to select different channels.

4. PTT(Push-To-Talk) Switch

Press it to open and close this function.

5. Scan Key

Press it to monitor the selected channel.

6. MIC-SP Jack

It is to connect the optional microphone-speaker.

7. Turn On/Turn Off

Rotate the Power/Volume knob clockwise to turn on the transceiver. Rotate the Power/Volume knob anticlockwise to turn on the transceiver.

8. Adjust Volume

Rotate the Power/Volume knob to adjust the volume. Clockwise rotation will rise the volume and anticlockwise rotation will reduce the volume.

More accurate adjustment is needed while communication.

Note: You can press MONI key to monitor the background noise while adjusting volume.

9. Channel Select

Rotate Channel Selection Knob to select needed channel. Clockwise rotation will rise the channel number and anticlockwise rotation will reduce the channel number. Voice Prompt: The radio will be voice prompt recent channel number automatic when you rotate channel knob. The voice prompt can be set by English and Chinese, you can select the language by software.

4. Adjust Squelch Level

Squelch function is used to let speaker quiet when no any signal. When squelch is on, you hear background noise from speaker. When squelch is off, no any noise can be heard.

The selected squelch level will decide where to turn on or off squelch function. If the selected squelch level is too high, then weaker signal can not be heard; But if the selected squelch level is too low, then signal will appear with the background noise. (PC programmable)

5. Transmit(Call)

1. According to different settings of monitor function, press [MONI] key to monitor loudspeaker. Make sure no any transceiver is transmitting on the selected channel.

2. Press [PTT] key, and speak to microphone.

(1) Keep microphone away from your mouth about 3-4 cm, and speak in your usual tone, so that the receiver can get best tone quality.

(2) Press [PTT] key, LED indicator displays red.

(3) Release [PTT] key and start to receive.

6. Receive

When the selected channel is being called, LED indicator displays green, you can receive the call.

If the transmitting signal is weaker, and also higher squelch level is set, then maybe you can not receive the call.

Maybe your local dealer has set CTCSS/DCS signalling on your transceiver. When this programmable channels has been selected, other transceiver with same signalling can be received. Other transmitting can not be received.

VOX FUNCTION

Press and hold the [MONI] key to boot, and VOX setting function will be open. Then press [MONI] key again to select VOX levels, you can use short press the [MONI] key to select the VOX levels from 0-9, finally press [PTT] key to confirm.

SCAN FUNCTION

Press Scan key to start auto scan. When receiving signal, after signal disappears in 5s. Press [PTT] key. If scan is working, then transmitting will according to the frequency from the scan start channel. If scan stops, transmitting will according to current channel.(PC programmable)

CTCSS and DCS

Maybe your local dealer has set CTCSS/DCS signalling on your transceiver. When this programmable channels has been selected, other transceiver with same signalling can be received. Other transmitting can not be received.

5. DCS Select

Open the software, input the necessary frequency, click 'CTCSS' which is under 'CTCSS/DCS decode' and 'CTCSS/DCS encode', and select the necessary CTCSS, then write it into transceiver by software.

6. Time-out Timer(TOT)

TOT function is used to prevent a channel have been used for a long time.

If the transmitting time exceeds the programmable time, transceiver will stop transmitting, and send alarm sound. Release [PTT] key, transceiver will back to receiving mode automatically.

When this channel is free, press PTT key again to transmit.

2. Battery Voltage

When transceiver power is on, battery voltage will be auto detected. When voltage is low, LED indicator displays red. The transceiver can be used for a while, but excessive transmitting will run out of battery quickly. When battery voltage is very low, then signal will appear with the background noise. (PC programmable)

Please charge the battery pack or replace the battery pack.

3. Monitor

You can press [MONI] key to monitor weaker signal which is difficult to be received under normal operation, and also adjust the selected channel volume if signal disappears.

4. CTCSS Select

Open the software, input the necessary frequency, click 'CTCSS' which is under 'CTCSS/DCS decode' and 'CTCSS/DCS encode', and select the necessary CTCSS, then write it into transceiver by software.

5. Busy Channel Lockout

Start this function to prevent interfering other transceiver using same channel frequency.

The default setting of this function is off. If the selected channel is programmed on by software or local dealer, when other transceiver is using this channel, [press [PTT] key, then can not transmit, and transceiver will sound "beep", "beep". To stop beep sound, release PTT key.

1. Use the Analog Transceiver in the environment with the temperature between -20°C and 60°C, otherwise, it may damage your Analog Transceiver. It can be operating under 2000m.

2. For the following equipment: Analog Transceiver

CE

Is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.

EU Declaration of Conformity:

Refer to article 10(9), shall be provided as follows:

Hereby, Shenzhen Retevis Technology Co., Ltd declares that the radio equipment type RT27 is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address: www.retevis.com.

3. **Warning: CHOKING HAZARD—Small Parts.** Not for children under 3 years

Attention! RISQUE D'ETOUFFEMENT — Contient de petits éléments. Ne convient pas aux enfants de moins de 3 ans.

Advertencia: PELIGRO DE ASFIXIA — Contiene piezas pequeñas. No conveniente para niños menores de 3 años.

Achtung: ERSTICKUNGSGEFAHR — Kleinteile. Nicht für Kinder unter 3 Jahren geeignet.

Waarschwing: VERSTIKKINGSGEVAAR — Bevat kleine onderdelen. Niet geschikt voor kinderen jonger dan 3 jaar.

Attenzione: RISCHIO DI SOFFOCAMENTO — Contiene pezzi di piccole dimensioni. Non adatto a bambini di età inferiore a 3 anni.

CAUTION

For adapter: Shall be installed near the equipment and shall be easily accessible.

For battery: Risk of explosion battery is replaced by an incorrect type, dispose of used batteries according to the instructions. Manufacturer: **DEE VAN ELECTRONICS (Long Chuan) CO., LTD.**

Address: **Dee Van Industrial District, Meichun Village, Taucheng town, Longchuan County, Heyuan City, Guangdong PR, China**

Model Name: **DSA-SPF07-05 FUS 05100**

Rated Input & Output: **Input: 100-240V~50/60Hz, 0.2A; Output: +5V-1A**

The plug considered as disconnect device of adapter. Only can use the rechargeable batteries as below.

Nominal voltage: 3.7V DC

CAUTION

Batteries and chargers safety information

This document contains important safety and operating instructions. Read these instructions carefully and save them for future reference.

Before using the battery charger, read all the instructions and cautionary markings on

- The charger
- The battery, and
- The radio using the battery

1. The antenna in the packing is unique, please do not optional change.

2. For safe operation, the antenna for the product shall be least 25mm away from your face, when speaking.

3. Switching to other antennas is prohibited and will affect the radio performance.

4. 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.

1) To reduce risk of injury, charge only the rechargeable Retevis-authorized batteries. Other batteries may explode, causing personal injury and damage.

2) Use of accessories not recommended by Retevis may result in risk of fire, electric shock, or injury.

3) To reduce risk of damage to the electric plug and cord, pull by the plug rather than the cord when disconnecting the charger.

4) An extension cord should not be used unless absolutely necessary. Use of an improper extension cord could result in risk of fire and electric shock. If an extension cord must be used, make sure that the cord size is 18AWG for lengths up to 6.5 feet(2.0m), and 16AWG for lengths up to 9.8 feet(3.0m).

5) To reduce risk of fire, electric shock, or injury, do not operate the charger if it has been broken or damaged in any way. Take it to a qualified Retevis service representative.

6) Do not disassemble the charger. It is not repairable and replacement parts are not available. Disassembly of the charger may result in risk of electrical shock or fire.

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

Operational safety guidelines

- Turn the radio off when charging battery.
- The charger is not suitable for outdoor use. Use only in dry locations/conditions.
- Connect charger only to an appropriately fused and wired supply of the correct voltage (as specified on the product).

• Disconnect charger from line voltage by removing main plug.

• The outlet to which this equipment is connected should be nearby and easily accessible.

• Maximum ambient temperature around the power supply equipment must not exceed 40°C (104°F).

• Do not place the microphone cable where it will not be stepped on, tripped over, or subjected to water, damage, or stress.

WARNING

When the conductive metals such as jewellery, key or decorative chains touch the battery terminals, all the batteries are likely to cause damage to the items or personal injury. These conductive metals may form a short circuit and generates much heat. Do not work with other metallic containers.

WARNING

Please read the following brief instructions, non-compliance with these rules may cause danger or violate the law.

- Obey the local government regulation before using this radio, improper use may violate the law and the punished.
- Do not operate the transceiver and battery pack when they are wet.
- Ensure that there are no metallic items located between the transceiver and the battery pack.
- Do not use the options not specified by Retevis.

• If the die-cast chassis or other transceiver part is damaged, do not touch the damaged parts.

• If the headset or headphone is connected to the transceiver, reduce the transceiver volume. Pay attention to the volume level when turning the squelch off.

• Do not place the microphone cable around your neck while near machinery that may catch the cable.

• Do not place the transceiver on unstable surfaces.

• Ensure that the end of the antenna does not touch your eyes.

• When the transceiver is used for long transmissions, the radiator and chassis will become hot.

• Do not touch those locations when replacing the battery pack. Do not immerse the transceiver in water.

• Always switch the transceiver power off before installing optional accessories.

• The charger is the Device that disconnects the units from the AC mains line, the AC plug should be readily accessible.

• Do not transmit too long, for the radio may heat and hurt the user.

WARNING

TURN THE TRANSCIEVER POWER OFF IN THE FOLLOWING LOCATIONS:

- In explosive atmospheres (inflammable gas, dust particles, metallic powders, grain powders, etc.)
- While taking on fuel or white parked at gasoline service stations.
- Near explosives or blasting sites.

CTCSS FREQUENCY(50 groups)

1	67.0	12	94.7	23	141.3	34	179.9	45	225.7
2	69.3	13	100.0	24	146.2	35	183.5	46	229.1
3	71.9	14	103.5	25	151.4	36	186.2	47	233.6
4	74.4	15	107.2	26	156.7	37	189.9	48	238.3
5	77.0	16	110.9	27	159.6	38	192.8	49	250.3
6	79.7	17	114.8	28	162.2	39	196.6	50	254.1
7	82.5	18	118.8	29	165.5	40	199.5		
8	85.4	19	123.0	30	167.9	41	203.5		
9	88.5	20	127.3	31	171.3	42	206.5		
10	91.5	21	131.8	32	173.8	43	210.7		
11	94.8	22	136.5	33	177.3	44	216.1		

DCS FREQUENCY (105 groups)

1	023	118	116	307	226	365	305	793	452	911	827
2	025	120	122	301	228	366	311	74	454	921	831
3	026	121	125	303	243	372	332	75	455	931	832
4	031	127	131	434	168	263	167	452	934	945	
5	032	123	132	431	245	366	346	77	464	96	654
6	036	124	134	426	246	369	351	78	465	96	662
7	043	126	143	431	251	369	356	79	466	97	664
8	047	128	145	442	252	362	364	80	503	98	703
9	051	127	152	441	255	363	365	81	508	99	712
10	053	128	155	448	261	364	371	82	518	100	723
11	054	129	156	447	263	365	411	83	523	101	731
12	055	130	162	448	265	366	412	84	526	102	732
13	071	131	165	449	266	367	413	85	530	103	734
14	072	132	172	471	168	263	166	545	104	104	743
15	073	133	174	501	274	369	431	87	565	106	754
16	074	134	185	398	273	368	430	88	566	107	763
17	114	135	212	531	311	73	445	89	612		
18	115	136	223	34	315	72	448	90	624		

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GUARANTEE CARD

Model Number: _____

Serial Number: _____

Purchasing Date: _____

Dealer: _____ Telephone: _____

User's Name: _____ Telephone: _____

Address: _____ Post Code: _____

REMARKS:

- This guarantee card to be kept by the user, no replacement if lost.
- This guarantee card to be filled & chopped by the dealer or it is invalid.
- Don't alter the guarantee card, please confirm the serial number on the guarantee card is same as that on the machine.
- One-year guarantee, charger, battery, microphone, antenna and cable are not under guarantee.
- The user can get repairing service from the following ways:
 - Go to the shop where you buy the machine
 - Our local repairing agent