SURECOM®

Operating Instructions

Duplex Repeater Controller

Model No. SR-328

Model shown is SR-328.

Quick Installation Guide

**Thanks for purchasing our Duplex Repeater Controller with connector Cable.**

Please read this manual carefully before use. The information presented herein will help you to derive maximum performance from your repeater controller.
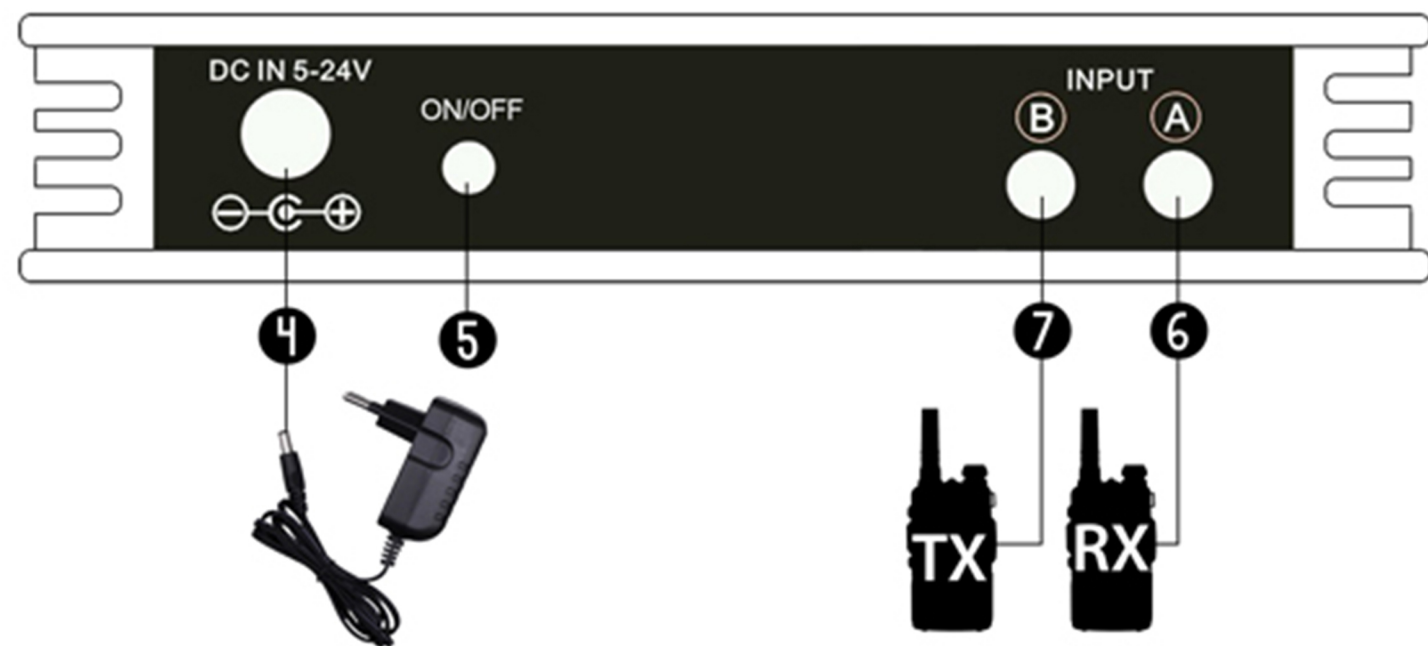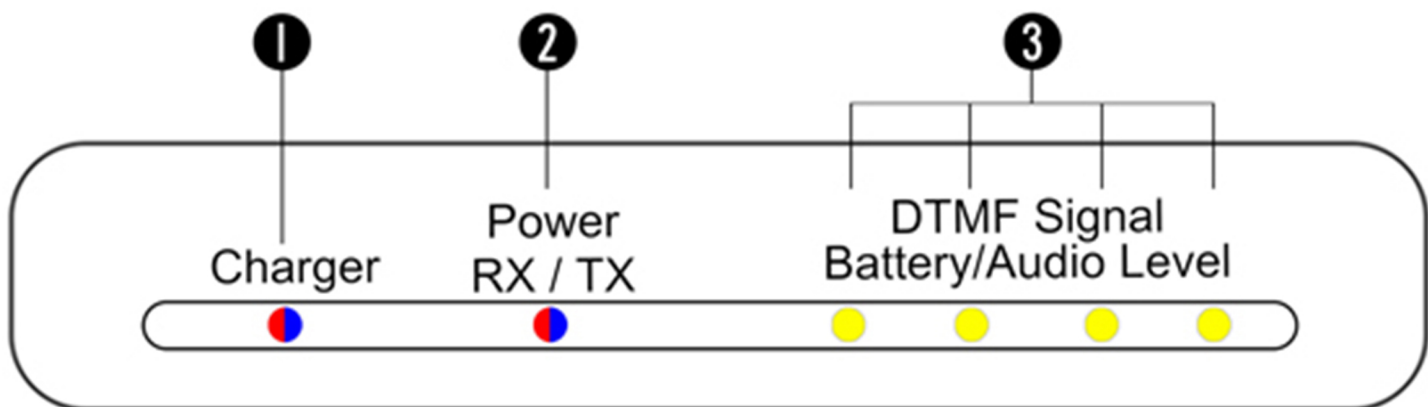
Packing List

- 1 x SR-328 Duplex Repeater Controller
- 1 x 100~240V Wall Charger
- 1 x USB Power Cable
- 2 x Repeater Controller Cable (Can change by your request.)
- 1 x This English User's Manual
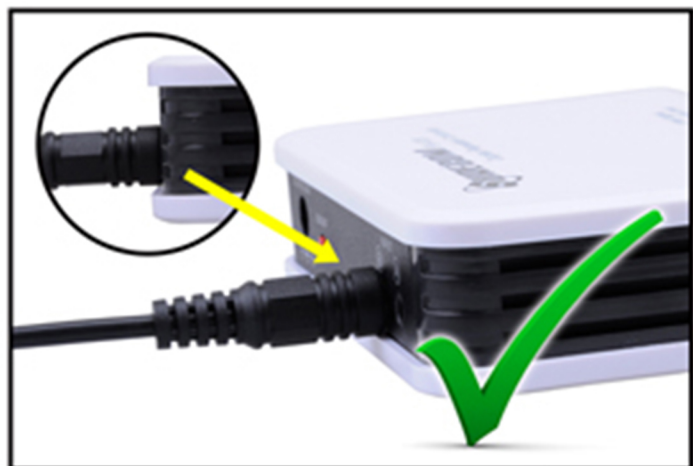
* Please make sure the plug is fully inserted into the socket.

SURECOM SR-328
Duplex Repeater Controller
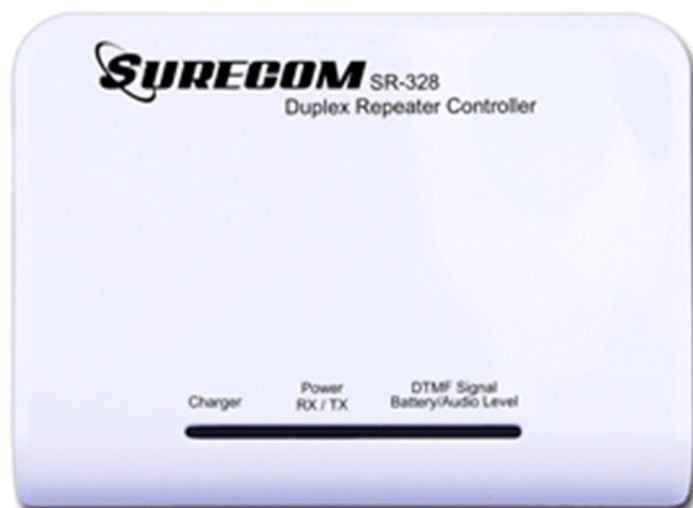
❶ Charger LED Display
❷ Power (RX / TX) STATUS
❸ DTMF Signal STATUS
    Battery / Audio Level LED Display
❹ Charging and DC input
❺ ON/OFF Switch (Factory Reset)
❻/❼ Connect Radio
    (SP/MIC/PTT out)

❶ Charger
❷ Power RX / TX
❸ DTMF Signal Battery/Audio Level

Charger

Power
RX / TX

DTMF Signal
Battery/Audio Level

DC IN 5-24V   ON/OFF   INPUT
                                          Ⓑ   Ⓐ
⊖─ⓒ─⊕

❹   ❺   ❼   ❻

TX   RX

Charger

Power RX / TX

DTMF Signal Battery/Audio Level

Battery Full
Blue LED light on

Charging
Red LED light on

Battery / Audio Level
Yellow LED

Radio B Transmitting / Sleep Mode
Blue LED light on   Blue LED light blink

Power On in work mode / Radio A Stanby
Red LED light blink

With Duplex

Work with one Antenna

RX TX

SR-328

**SURECOM** SR-328
Radio Duplex Repeater Controller

RX

TX

Have a duplexer: purchase the corresponding frequency / power duplexer using "the joint " of the two hand sets connected to the antenna output terminal of the duplexer transmitter and receiver, respectively, set the frequency corresponding to the handheld units (frequency should be consistent with the duplexer). Under diplexer case, the relay station as long as the need to connect an antenna! And no special attention when erecting antennas !
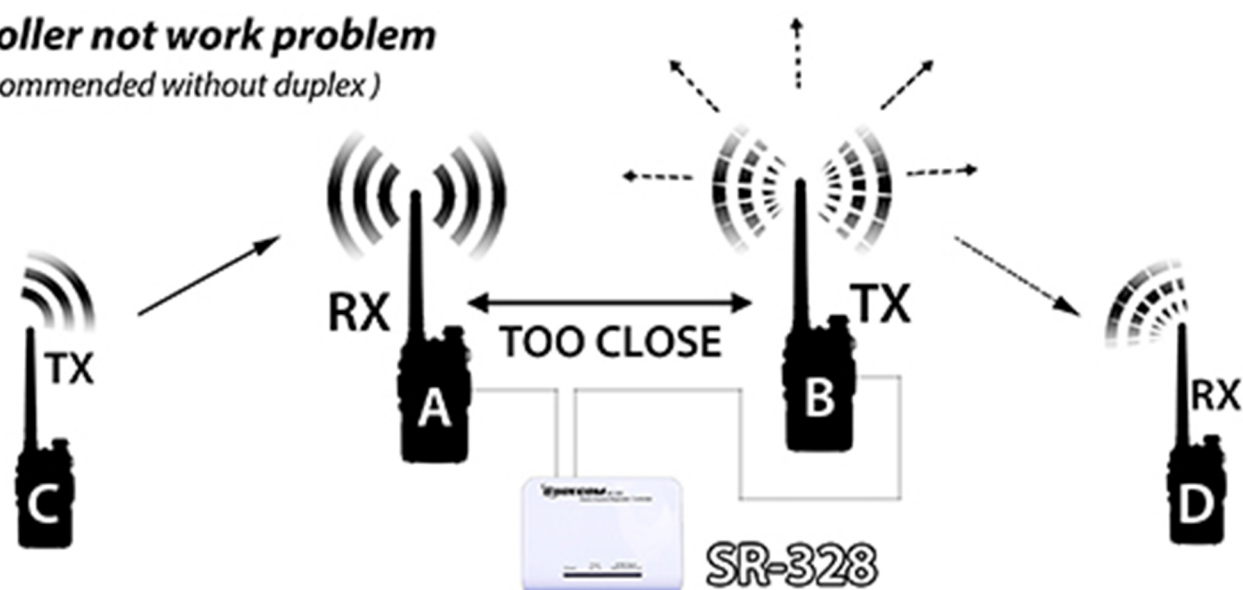
Without Duplex

* TX/RX Antenna minimum separation distance 1- 5 m (for better condition)

TX

1-5m *(the best condition)*

RX

SR-328
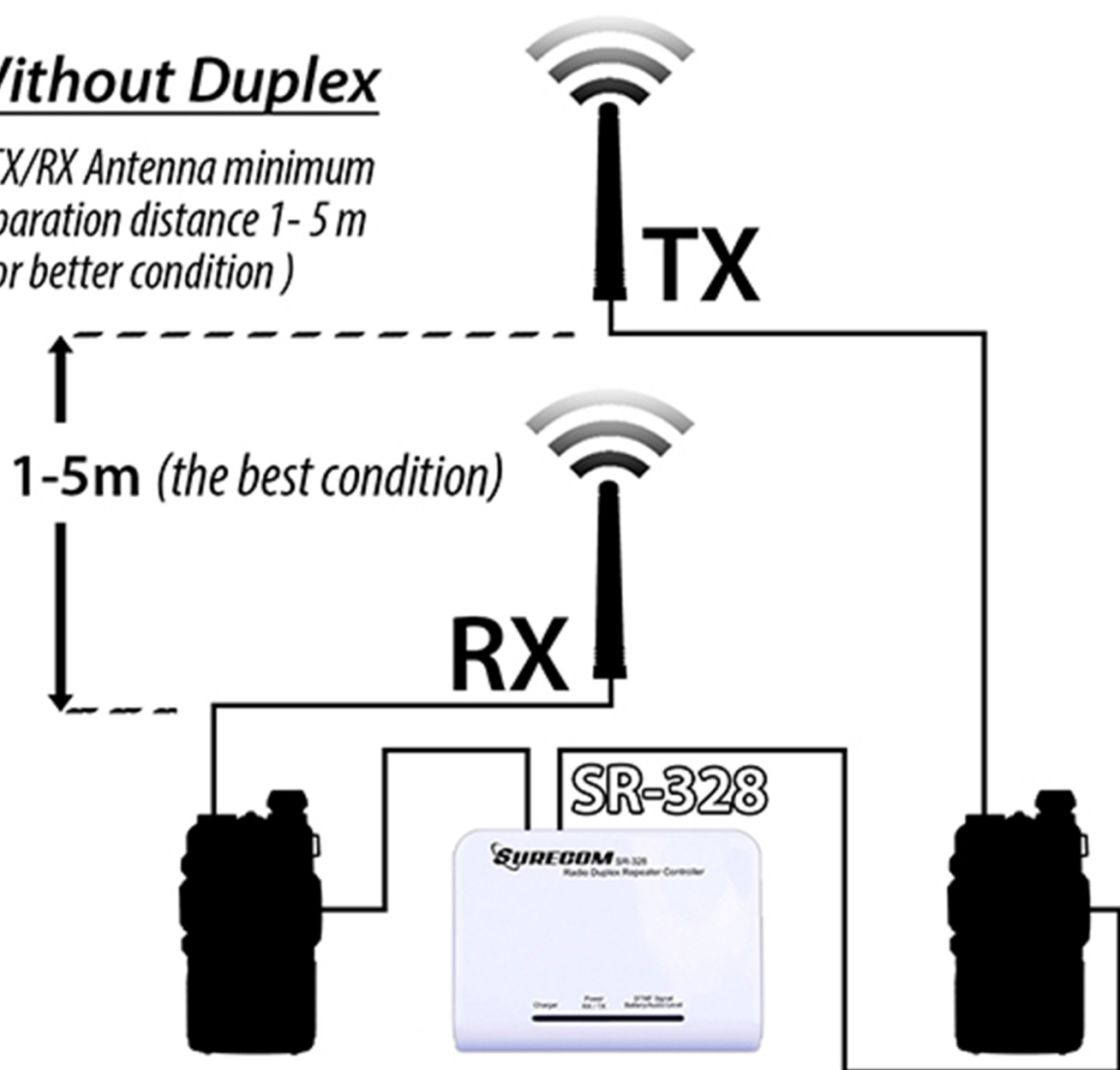
Controller not work problem
(Not recommended without duplex)

TX

RX

TOO CLOSE

TX

RX

A

B

C

D

SR-328

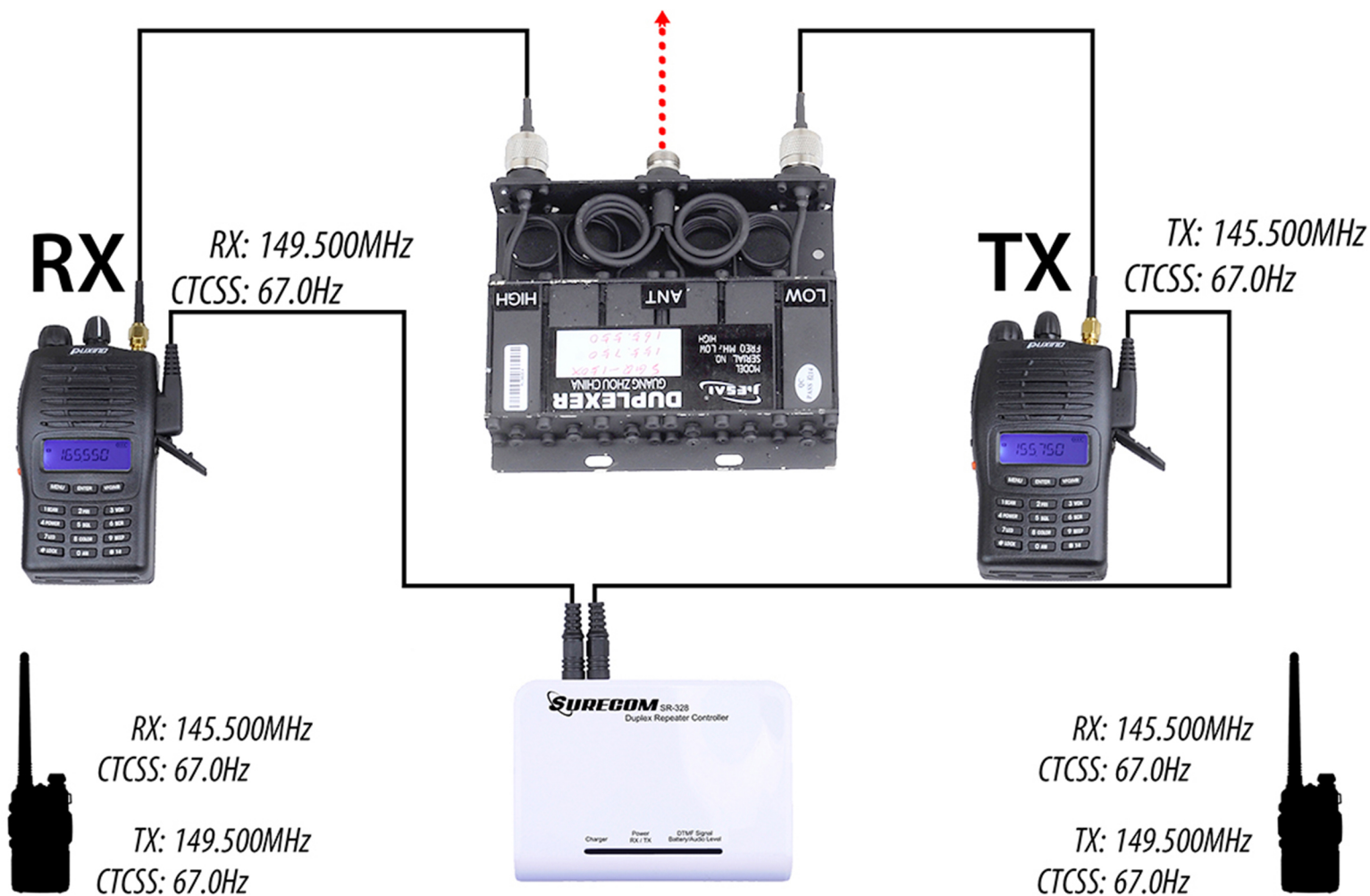**Radio A and Radio B are spaced too close to the case:**
After Radio A received signals from Radio C.
When Radio B sending signals, the distance is too close, that Radio A receiving the noise at the same time.
Therefore, in the case of a distance too close, Radio D can not efficiently receive the Radio C signals.

Antenna

RX

RX: 149.500MHz
CTCSS: 67.0Hz

TX

TX: 145.500MHz
CTCSS: 67.0Hz

RX: 145.500MHz
CTCSS: 67.0Hz

TX: 149.500MHz
CTCSS: 67.0Hz

RX: 145.500MHz
CTCSS: 67.0Hz

TX: 149.500MHz
CTCSS: 67.0Hz

DTMF Remote Control Function
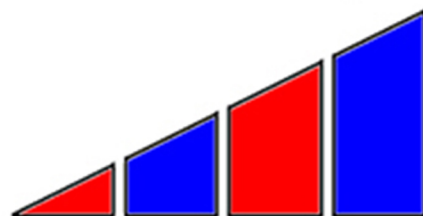
Table 4

Code	Sub-menu
##0	Test DTMF, display DTMF signal(see Table 3)
##1+8888	Enable Standby mode *Factory P/W 8888*
##2+8888	Disable sleep mode
##3+8888+1234	Change Password-step 1 of 2
##4+1234	Change Password-step 2 of 2
##55+n	SQL Level Control, n=1-9 (Default n=5)

Reset Device

● Pressing the Power Button until 4 LED light on and then wait for 2 seconds,release the button. Device will reset.

Level

| | Charger | Power RX / TX | Battery and Audio Level |

Battery Level (Table 1)

Description	Battery Level
> 4.0 V	● ● ● ●
3.7 - 4.0 V	● ● ● ○
3.3 - 3.7 V	● ● ○ ○
3.0 - 3.3 V	● ○ ○ ○
< 3.0 V	Light Blink ☀ ○ ○ ○

*Battery voltage level Display when Power On.
(Without charger connect.)

Audio in Level (Table 2)

Description	Audio Level
> 1.8 Vrms	● ● ● ●
> 1.4 Vrms	● ● ● ○
> 0.8 Vrms (*The best Audio Level.)	● ● ○ ○
> 0.2 Vrms	● ○ ○ ○
< 0.2 Vrms	○ ○ ○ ○

*Audio input level Display for Radio Recevied.

DTMF Signal Display

| | Charger | Power RX / TX | DTMF Signal Battery/Audio Level |

Table 3 (* Press # # 0 first , then press another key.)

Description	DTMF Signal			
1	○	●	○	○
2	●	○	○	○
3	●	●	○	○
4	○	○	○	●
5	○	●	○	●
6	●	○	○	●
7	●	●	○	●
8	○	○	●	○
9	○	●	●	○
0	●	○	●	○
*	●	●	●	○
#	○	○	●	●

Normal operation with build-in battery

- Charger
- Power RX / TX
- DTMF Signal Battery/Audio Level
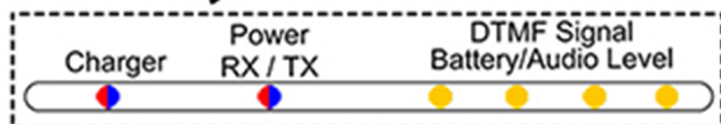
● **"ON/OFF"**

This switch is used to turn ON/OFF the SR-328.

- *Power ON*

The Power Led Blink with Red color for standby.

Battery Level Leds with indicate relativity within 1 second.

- *Power OFF*

Push this switch until all lights off.

● **"To Radio"**

This terminal is used to connect a radio tranceiver unit.

● **"DC IN 5-24V"**

This indicator is used to indicate the battery charging and external DC input status. *(5.5/2.1mm, plug center pole is DC+.)* (This terminal is used to connect an external DC+5-24V power supply.)

● **Sleeping Mode**

- Turn ON the power of the radio receiver unit.
- Push and hold the PTT switch of any radio unit with DTMF function.

Press **# # 2** *(Mode)* + **8 8 8 8** *(Password)* *then turn to Sleeping Mode.*

● **Working Mode** *(By Password)*

- Push and hold the PTT switch of any radio unit with DTMF function.

Press **# # 1** *(Mode)* + **8 8 8 8** *(Password)* *then turn to Working Mode.*

Setup a new Password

- Turn ON the power of the radio receiver unit.
- Turn ON the power of the SR-328. The Status Indicator of the SR-328 will BLINK with RED COLOR
- Push and hold the PTT switch of any radio unit with DTMF function (Besides the radio receiver units installed with the SR-328.).
- It need 2 steps to Change the Password.

Step 1: (for example)

`#` `#` `3` + `8` `8` `8` `8` + `1` `2` `3` `4`
(Mode) + *(Factory password)* + *(New pasword)*

Step 2: (for example)

`#` `#` `4` + `1` `2` `3` `4`
(Mode) + *(New pasword)*

SPECIFICATION

Power Supply :	Build-in 3.7V 900mAh Li-Ion Battery (14500)
Charging & External Power Supply :	DC +5V-24V
DTMF Remote Control Protection :	User define 4-digit Password Protection
StandbyTime :	180 hours
Indicators :	Status LED and External Power Supply Input LED
Dimensions :	110 x 80 x 25 mm
Weight :	84g (Body without accessory.)

Trouble Shooting

* To connection controller, test your wireless TX from your radio. Please connecting controller after you test.

PROBLEM	SOLUTION
No System LED	Confirm that you have +5V-24V DC power connected to the correct pins. Be sure that the power to the controller is stable and Repeaer Controller is on. If the unit has adequate voltage, and the system ON/OFF is on, there may be some type of hardware failure.
TX and RX Error	**Radio get more noise :** Please set CTCSS or DCS for repeater operation. **Radio get noise after setting DCS/CTCSS :** Please set #55+n SQL Level to 6-9. (Table 4)
Insufficient Charge	Battery charger or Battery maybe defective, you need to be replaced.
Battery Life Too Short When It Full Charge	Battery is defective or has been damaged and need replacing.
Repeater Controller No Reaction	Radio problem or Radio Volume is too low.
No Response	If the radio received a non-member response, turn Radio to another channel or swtich on Radio CTCSS / DCS to improve reaction errors.
DTMF No Reaction	Radio without DTMF Function. Radio Audio Out Level is too low or too high.
No Reaction of DTMF Key	Audio Out Level is too low or too high. Please testing your mode of DTMF.
Receive Distance Too short	Radio RF power is too low, increase the power, or use higher output power transceiver.

OPTIONAL ACCESSORIES

46-GM
• for Motorola GM300

46-K
• for Kenwood

46-M
• for Motorola GP300

46-MU

46-MT
• for Motorola Talkabout

46-S
• for ICOM

46-S2
• for Midland

46-Y
• for Yaesu

46-Y7

US Plug USB Wall Charger

AUS Plug USB Wall Charger

UK Plug USB Wall Charger

AC USB PSU US Plug

AC USB PSU EURO Plug

USB Power Cable

Protected Battery TR14500 800MAH