

YAPALONG-5000

User's Manual

FCC ID: UJW-5000

IC: 6695A-5000

Model: Yapalong5000



Nautic Devices Inc.

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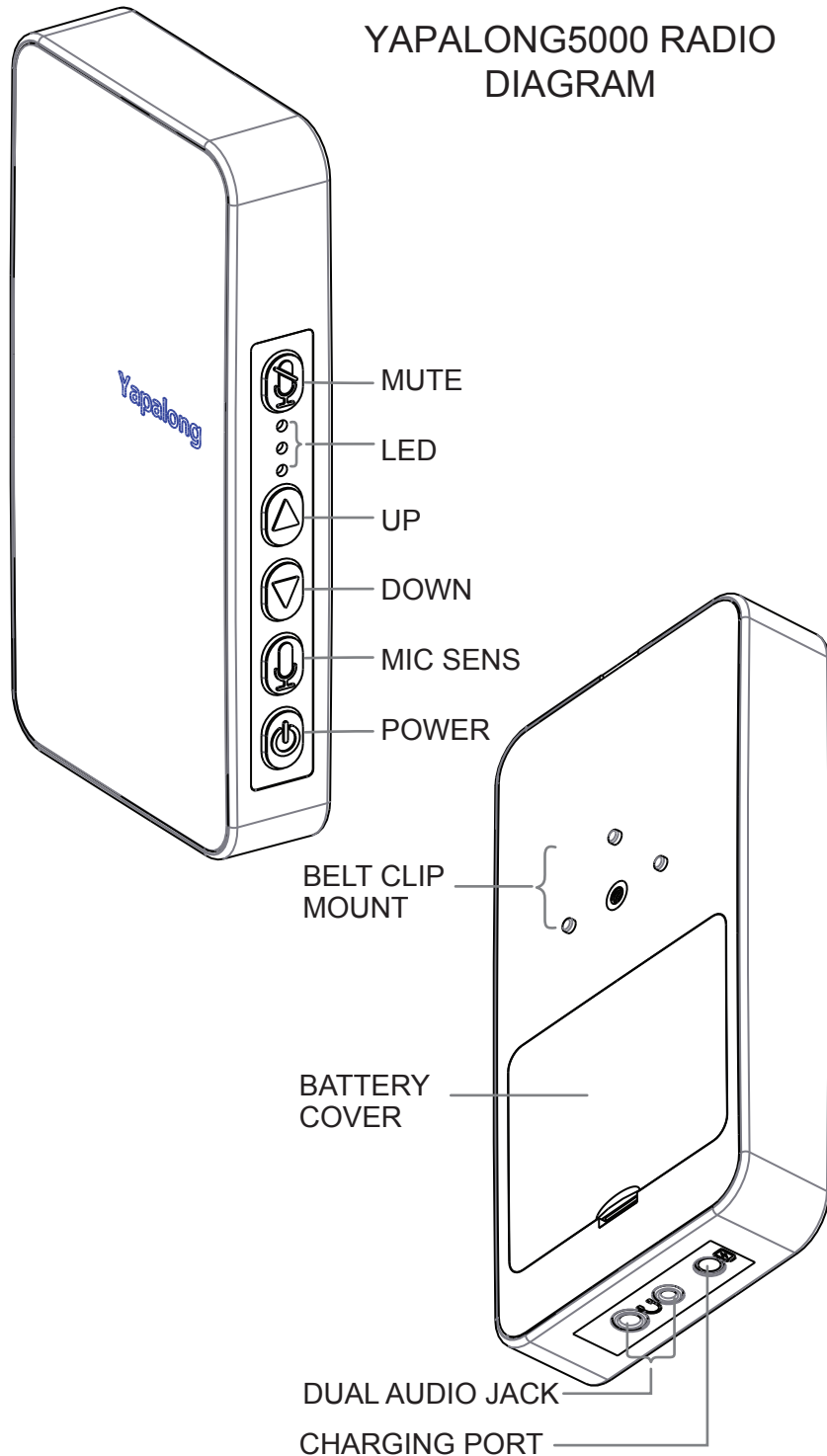
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YAPALONG5000 RADIO DIAGRAM



SPECIFICATIONS

Radio frequency	Unlicensed ISM band 900 MHz & 800 MHz
Group size	8 talkers Unlimited listeners
Wireless network	Auto channel selection no-master TDMA/peer-to-peer Encrypted communication
Digital modulation	FSK/ GFSK
No. of channels	8
Channel Switching	2 channels switching
Range	up to 1,100 meters line-of-sight
Overall latency	25 ms
Size	129mm x 66mm x 21mm
Weight	138 grams
Power rating	27 dBm/ 500 mW
Power source	Lithium polymer, 3.7 V, 1700 mAh
Power efficiency	Over 8 hours after being fully charged
Operating temp Range	-20 °C ~ 50 °C
Noise cancelling	5-level sensitivity adjustment
Safety	Lead free, RoHS compliance
IP rating	IP67

SAFETY WARNING!

Don't hold Yapalong too close to your head when in use.

INDUSTRY CANADA COMPLIANCE STATEMENT

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

1. L'appareil ne doit pas produire de brouillage;
2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

FCC INFORMATION TO USERS

This equipment has been tested and found to comply with the limits for Class B digital devices, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna;
- Increase the separation between the equipment and receiver;
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

WARNING: Changes or modifications not expressly approved by Nautic Devices Inc. could void the user's authority to operate the equipment.

FOR CLASS B – UNINTENTIONAL RADIATORS

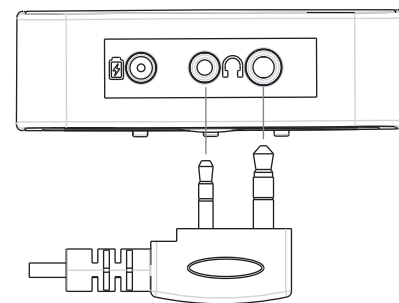
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operations.

GET STARTED

1. Turn Yapalong5000 unit on by holding down POWER button for 2 seconds until RED LED turns on.
2. If the AMBER LED blinks every 2 or 5 seconds or there is no LED light at all, the battery needs to be charged.
3. If RED LED remains on with high intensity, it means it cannot detect other group unit due to various reasons:
 - no group unit powered on;
 - group unit out of range;
 - unit in different group

(Refer to BINDING PROCEDURE to do binding).

4. If RED LED remains on with normal intensity, it means it has detected group unit(s). Plug in the headset as shown. The unit is now ready to be used with other powered-on group units.



5. To adjust the sound volume, click UP or DOWN button, repeatedly if necessary, until desired volume is reached.
6. To adjust the microphone sensitivity, while holding down MIC SENSITIVITY button, click UP or DOWN button, repeatedly if necessary until desired sensitivity is reached. Now Yapalongs let every member in the group talk freely and listen at the same time.

BINDING PROCEDURE

NOTE:

1. Binding needs to be done under minimum radio wave interference environment, which means no cellphone, computer, Bluetooth, electrical control panel, or other radiating electronic devices nearby.
2. After binding procedure, there is no need to do binding again next time for the same group.

A. BINDING PROCEDURE FOR REGULAR UNITS

1. Power down all units with good batteries installed.
2. Power up 1st unit until RED LED is solid on. Hold down UP and DOWN buttons simultaneously for 3 seconds until GREEN and AMBER LEDs begin to flash alternatively. Release buttons for 5 or more seconds, both LEDs stop blinking and all 3 LEDs remain solid on.
3. Power up 2nd unit until RED LED is solid on. Hold down UP and DOWN buttons simultaneously for 3 seconds until GREEN and AMBER LEDs begin to flash alternatively. Release buttons for 5 or more seconds, both LEDs stop blinking and only RED and GREEN remain solid on. If AMBER is also on, restart Binding from Step1.
4. Repeat Step3 for the rest of the units.
5. Power down all units (incl. the 1st one) in random sequence. Then power up all units in random sequence. So far Binding is done. If in doubt, repeat the entire procedure.

B. ORDER FOR BINDING LISTENER UNITS

LISTENER units can be added to existing Yapalong group as listen-only units. Regardless of the previous grouping state, the entire group has to be bound again. The binding procedure is the same as the one for REGULAR units. In addition we need to follow the order below to bind:

1. Set 1st REGULAR into Binding mode.
2. Set 2nd REGULAR into Binding mode.
3. Set all LISTENERS into Binding mode one by one.
4. Set the rest REGULARS into Binding mode one by one.

HOW TO MAXIMIZE RANGE

To obtain maximum range is to eliminate blocking obstacles at line of sight. The range is greatly reduced when the obstacle is very close to the antenna. We need to avoid the following scenarios:



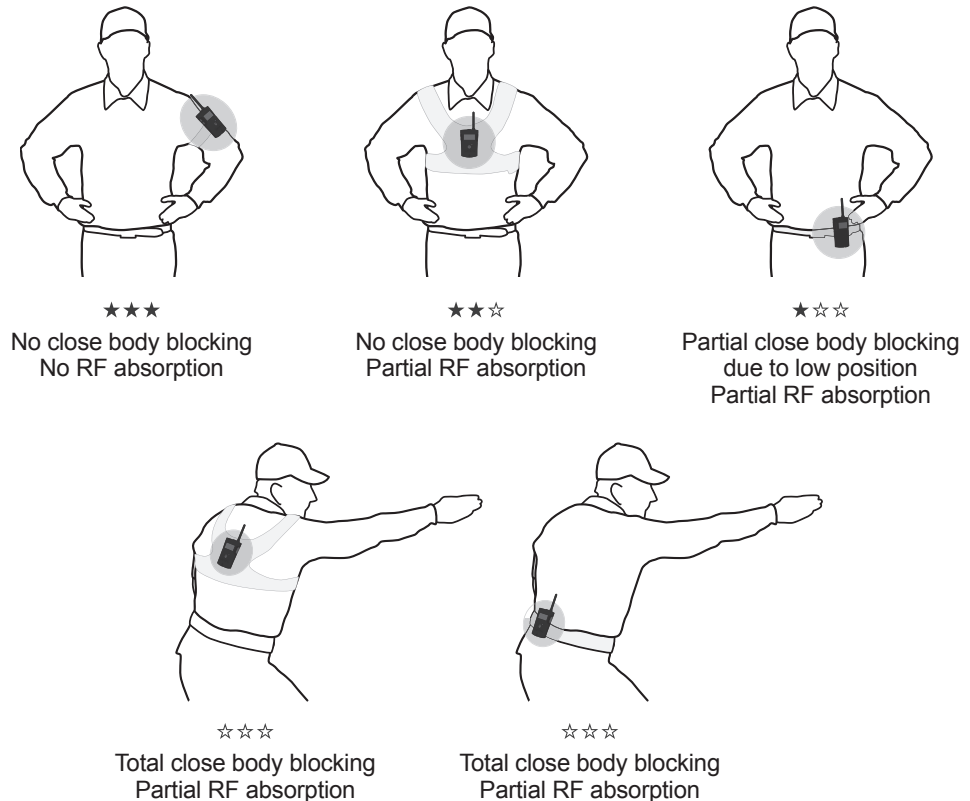
CLOSE BODY BLOCKING

1. placing bodies in between antennas causes communication signs being blocked

ANTENNA TOUCHING BODY

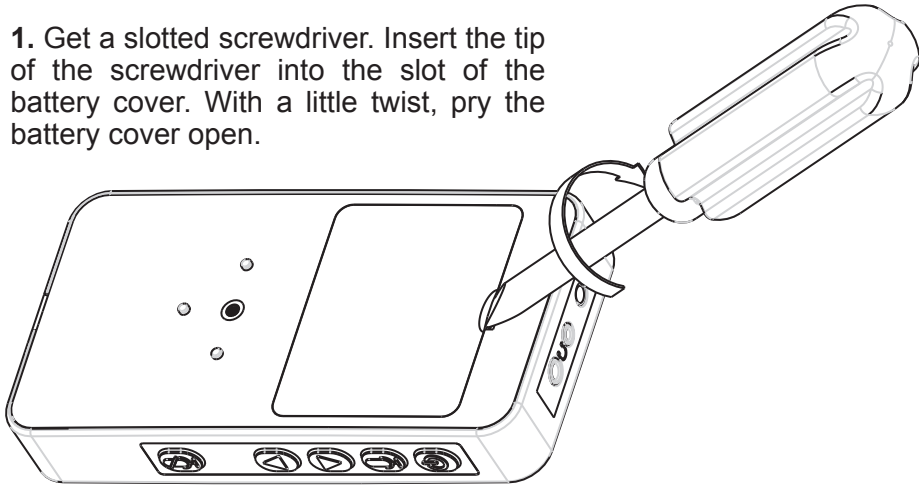
2. Human body is mainly water so it absorbs RF wave. Water absorbs RF (radio frequency) wave.

WEARING POSITION ANALYSES:



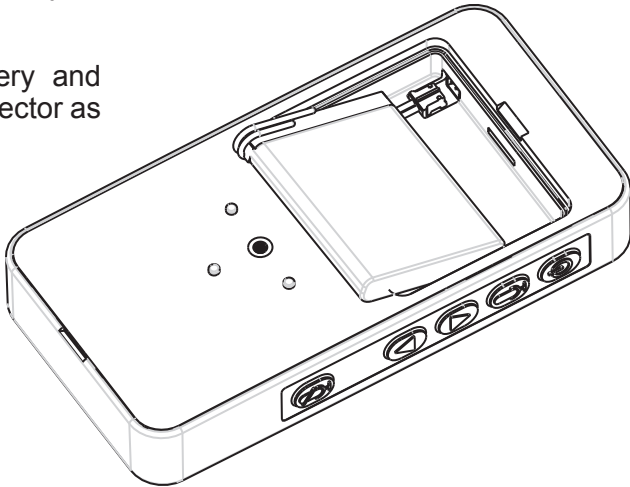
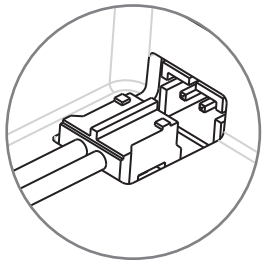
BATTERY REPLACEMENT

1. Get a slotted screwdriver. Insert the tip of the screwdriver into the slot of the battery cover. With a little twist, pry the battery cover open.

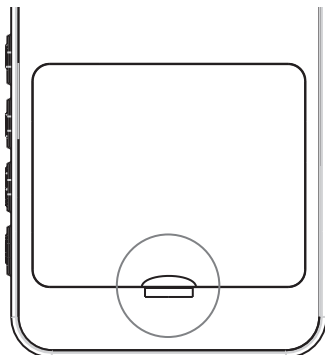


2. Pull gently on the battery connector and take the old battery out.

3. Get the new battery and insert the battery connector as orientation indicated

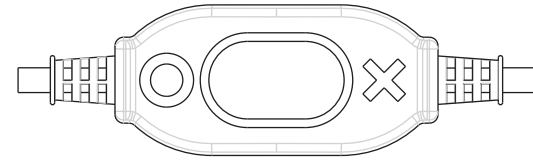


4. Put the battery cover back. Make sure the bump on the battery cover is close to the bottom of the radio.



C. BIND 2C UNITS

Set 2C switch to either "O" or "X", then follow the instruction above to bind the radio into one group. After the binding to one group is over, set the 2C switch to the other group, repeat the procedure again.



INTRODUCTION TO 2C FUNCTION

2C stands for 2-channel. It allows Yapalong5000 radio(s) to switch between 2 groups. This function is not available on Yapalong4000.

User can switch between group "O" and "X" by clicking 2C button. 2C button is only located at the cable of certain Yapalong headsets, not at the radio itself. You can hear one "beep" sound from the headset indicating the switching and you can also see green LED flashes once.

INTRODUCTION TO MIC SENS



MIC SENS (microphone sensitivity) sets the minimum level of sound volume that the microphone can pick up. The adjustment of it does not affect the sound that the user oneself hears but affect the sound that other users in the same group hear. The higher MIC SENS is, the slighter sound is picked up by the microphone. It is good practice to lower MIC SENS in a noisy environment so that other users will not hear so much background noise.

FUNCTION - GENERAL

Any modification to the function below is temporary. Once you restart your radio, the radio returns to the default setting.

POWER ON	Hold down POWER button approx. 2 seconds until RED LED turns on. Then release button.	RED LED will remain on at a lower intensity if your unit finds other unit(s) in the same group; otherwise the RED LED will be extra bright.
POWER OFF	Hold down POWER button approx. 2 seconds until RED	All LEDs are off in power down mode except battery charging indicator.
MUTE	Click MUTE button and GREEN LED flashes 3 times.	Continuous slow blinking of RED LED indicates the microphone is being muted. When the microphone is muted, other YapaLong units cannot hear you but you can hear the others.
UNMUTE	Click MUTE button and GREEN LED flashes 3 times.	RED LED slow blinking stops. Back to normal operation.
VOLUME UP	Click UP button to move up one level at a time until desired level.	GREEN LED flashes once unless maximum level is reached. There are 6 volume levels. The default level is level 4.
VOLUME DOWN	Click DOWN button to move down one level at a time until desired level.	GREEN LED flashes once unless minimum level is reached.
MIC SENS UP	Hold down MIC SENS button then click UP button to move up one level at a time until desired level	GREEN LED flashes twice unless maximum level is reached. Increase microphone sensitivity if you want to speak softly in a quiet environment. There are 5 sensitivity levels. The default level is level 4.
MIC SENS DOWN	Hold down MIC SENS button then click DOWN button to move down one level at a time until desired level.	GREEN LED flashes twice unless minimum level is reached. Decrease microphone sensitivity when background noise is loud. Speak closer to the microphone to compensate.

FUNCTION - FORCE SYNC

After the radio is taken out of range and brought back into range, its communication to the group will resume automatically. If the communication has not resumed immediately, as indicated by extra bright red LED light, you may press POWER button 1-3 seconds on this radio to resume the communication. If the communication is still has not resumed, please restart the radio.

BELT CLIP MOUNT

The belt clip can be mounted at 3 different positions as shown. The screw used is M3 machine screw, 4mm long, Philips head.

NOTE:

Always point the top of the radio to the sky for the best range performance.

