

HONGDA

USER'S MANUAL



PROFESSIONAL TWO-WAY RADIOS

专业对讲机
使用说明书

HONGDA CORPORATION

©B62-1695-00(M2)

09 08 07 06 05 04 03 02 01 00

THANK YOU!

We are grateful for your purchase of this **HONGDA** transceiver.
We believe this easy-to-use transceiver will provide you with
dependable and reliable communications.

HONGDA

We adopt advanced technology & workmanship for this transceiver,
we trust our laborative design will make it better & quicker service for
you; for correct use, please read this manual before use.

THIS MANUAL USE BY BELOW MODELS:

HD-3107G:16-channels VHF/UHF Transceiver

SAFETY TRAINING INFORMATION



Your radio generates RF electromagnetic energy during transmit mode. This radio is designed for and classified as “Occupational Use Only”, meaning it must be used only during the course of employment by individuals aware of the hazards, and the ways to minimize such hazards. This radio is NOT intended for use by the “General Population” in an uncontrolled environment.

This radio has been tested and complies with the FCC RF exposure limits for “Occupational Use Only”. In addition, your radio complies with the following Standards and Guidelines with regard to RF energy and electromagnetic energy levels and evaluation of such levels for exposure to humans:

- FCC OET Bulletin 65 Edition 97-01 Supplement C, Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields.
- American National Standards Institute (C95.1-1992), IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.
- American National Standards Institute (C95.3-1992), IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields– RF and Microwave.
- The following accessories are authorized for use with this product. Use of accessories other than those (listed in the instruction) specified may result in RF exposure levels exceeding the FCC requirements for wireless RF exposure.



To ensure that your exposure to RF electromagnetic energy is within the FCC allowable limits for occupational use, always adhere to the following guidelines:

- **DO NOT** operate the radio without a proper antenna attached, as this may damage the radio and may also cause you to exceed FCC RF exposure limits. A proper antenna is the antenna supplied with this radio by the manufacturer or antenna specifically authorized by the manufacturer for use with this radio.
- **DO NOT** transmit for more than 50% of total radio use time (“50% duty cycle”). Transmitting more than 50% of the time can cause FCC RF exposure compliance requirements to be exceeded. The radio is transmitting when the “TX indicator” lights red. You can cause the radio to transmit by pressing the “PTT” switch.

- **ALWAYS** keep the antenna at least 2.5 cm (1 inch) away from the body when transmitting and only use the HONDA belt-clip which is listed in instructions when attaching the radio to your belt, etc., to ensure FCC RF exposure compliance requirements are not exceeded. To provide the recipients of your transmission the best sound quality, hold the antenna at least 5 cm (2 inches) from your mouth, and slightly off to one side.

The information listed above provides the user with the information needed to make him or her aware of RF exposure, and what to do to as-sure that this radio operates with the FCC RF exposure limits of this radio.

Electromagnetic Interference/Compatibility

During transmissions, your radio generates RF energy that can possibly cause interference with other devices or systems. To avoid such interference, turn off the radio in areas where signs are posted to do so. **DO NOT** operate the transmitter in areas that are sensitive to electromagnetic radiation such as hospitals, aircraft, and blasting sites.

Occupational/Controlled Use

The radio transmitter is used in situations in which persons are exposed as consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure.

IMPORTANT

READ ALL INSTRUCTIONS carefully and completely before using the transceiver

SAVE THIS INSTRUCTION MANUAL- This instruction manual contains important operating instructions for the Two-Way Radio

EXPLICIT DEFINITIONS

WORD	DEFINITION
WARNING	Personal injury, fire hazard or electric shock may occur.
CAUTION	Equipment damage may occur.
NOTE	If disregarded, inconvenience only. No risk of personal injury, fire or electric shock.

OPERATING NOTES

- When transmitting with a portable radio, hold the radio in a vertical position with its microphone 5 to 10 cm (2 to 4 inches) away from your mouth. Keep the antenna at least 2.5 cm (1 inch) from your head and body.
- If you wear a portable two-way radio on your body, ensure that the antenna is at least 2.5 centimeters (1 inch) from your body when transmitting.

PRECAUTIONS

- **WARNING! NEVER** hold the transceiver so that the antenna is very close to, or touching exposed parts of the body, especially the face or eyes, while transmitting. The transceiver will perform best if the microphone is 5 to 10 cm (2 to 4 inches) away from the lips and the transceiver is vertical.
- **WARNING! NEVER** operate the transceiver with a headset or other audio accessories at high volume levels.
- **CAUTION! NEVER** short the terminals of the battery pack.
- **NEVER** connect the transceiver to a power source other than the Battery listed below. Such a connection will ruin the transceiver.
- **DO NOT** push the PTT when not actually desiring to transmit.
- **AVOID** using or placing the transceiver in direct sunlight or in areas with temperatures below -30°C (-22°F) or above $+60^{\circ}\text{C}$ ($+140^{\circ}\text{F}$).
- **DO NOT** modify the transceiver for any reason.
- **MAKE SURE** the flexible antenna and battery pack are securely attached to the transceiver, and that the antenna and battery pack are dry before attachment. Exposing the inside of the transceiver to water will result in serious damage to the transceiver.
- **BE CAREFUL!** The series transceivers employ waterproof construction, which corresponds to IPX7 of the international standard IEC 60529 (2001), 1 m depth for 30 minutes. However, once the transceiver has been dropped, waterproofing cannot be guaranteed due to the fact that the transceiver may be cracked, or the waterproof seal damaged, etc.

The use of **non-HONDA** battery packs/chargers may impair transceiver performance and invalidate the warranty.

FCC CAUTION:

Changes or modifications to this device, not expressly approved by **3108**, could void your authority to operate this transceiver under FCC regulations.

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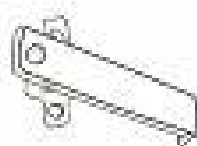
UNPACKING AND CHECKING EQUIPMENT

Carefully unpack the transceiver. We recommend that you identify the items listed in the following table before discarding the packing material. If any items are missing or have been damaged during shipment, file a claim with the carrier immediately.

Supplied Accessories

ITEM	QUANTITY
Battery charger	1
NI-CD battery pack	1
Belt clip	1
Screw set	1
Instruction Manual	1
Antenna	1

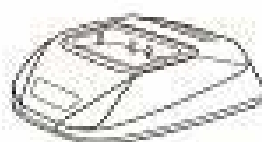
UNPACKING AND CHECKING EQUIPMENT



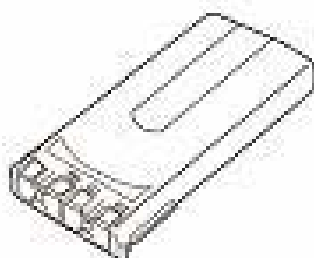
Belt clip



Antenna



Battery charger



Ni-CD battery pack



Speaker / microphone
jack cover

PREPARATION

Charging the Ni-CD Battery Pack

The battery pack is not charged at the factory; charge it before use. Initially charging the battery pack after purchase or extended storage (more than 2 months) will not bring the battery pack to its normal operating capacity. After repeating the charge/discharge cycle two or three times, the operating capacity will increase to normal.



CAUTION

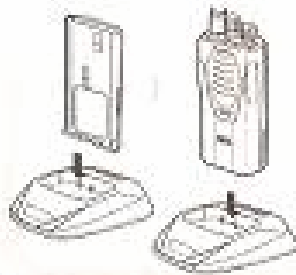
- ◆ DO NOT RECHARGE THE BATTERY PACK IF IT IS ALREADY FULLY CHARGED. DOING SO MAY CAUSE THE LIFE OF THE BATTERY PACK TO SHORTEN OR THE BATTERY PACK MAY BE DAMAGED.
- ◆ AFTER RECHARGING THE BATTERY PACK, DISCONNECT IT FROM THE CHARGER. CHARGING THE BATTERY PACK FOR MORE THAN 5 DAYS MAY REDUCE THE BATTERY PACK LIFE DUE TO OVERCHARGING.

Note:

- ◆ The ambient temperature should be between 41 and 104 °F (5 and 40°C) while charging is in progress. Charging outside this range may not fully charge the battery.
- ◆ Always switch OFF the transceiver equipped with a Ni-CD battery pack before charging. Using the transceiver while charging its battery pack will interfere with correct charging.
- ◆ The battery pack life is over when its operating time decreases even though it is fully and correctly charged. Replace the battery pack.



Plug the AC adaptor into an AC outlet.



Slide the Ni-CD battery pack or transceiver with a Ni-CD battery pack into the charger.

Make sure the battery pack contacts are in contact with the charging terminals.

The charger LED lights and charging begins. When the charger LED lights green, meaning the charge is completed. Now you can use it.

After charging the supplied battery pack for 8 hours, remove it or the transceiver equipped with it from the charger.

◆ The charger does not turn OFF automatically after charging is completed.

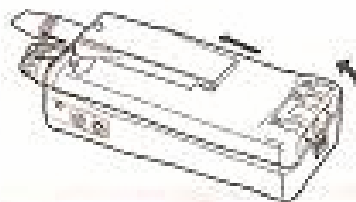
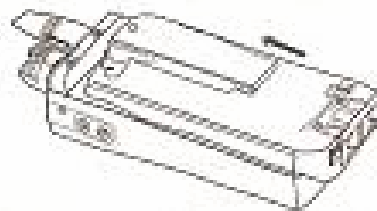
Unplug the AC adaptor from the AC outlet.

PREPARATION



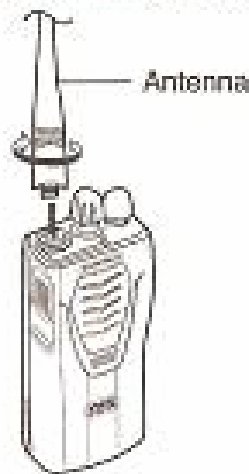
CAUTION

- ◆ DO NOT SHORT THE BATTERY TERMINALS OR DISPOSE OF THE BATTERY BY FIRE.
- ◆ NEVER ATTEMPT TO REMOVE THE CASING FROM THE BATTERY PACK.



PREPARATION

Installing the Antenna

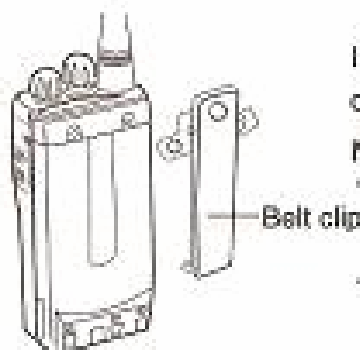


Screw the antenna into the connector on the top of the transceiver by holding the antenna at its base and turning it clockwise until secure.

Note:

The antenna is neither a handle, a key ring retainer, nor a speaker/microphone attachment point. Using the antenna in these ways may damage the antenna and degrade your transceiver's performance.

Installing the Belt Clip



If necessary, buckle the belt clip to the back of the battery pack.

Note:

- If the belt clip is not installed, its mounting location may get hot during continuous transmission or when left sitting in a hot environment.
- You must remove the belt clip before removing the battery pack.

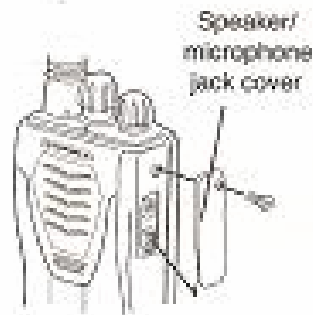


CAUTION

DO NOT USE GLUE WHICH IS DESIGNED TO PREVENT LOOSENING WHEN INSTALLING THE BELT CLIP, AS IT MAY CAUSE DAMAGE TO THE TRANSCEIVER. ACRYLIC ESTER, WHICH IS CONTAINED IN THESE GLUES, MAY CRACK THE TRANSCEIVER'S BACK PANEL.

PREPARATION

Installing the Cover over the Speaker/Microphone Jacks



If you are not using a speaker/microphone, install the cover over the speaker/microphone jacks using the supplied 2.5x6 mm screw.

Note:

To keep the transceiver water resistant, you must cover the speaker/ microphone jacks with the supplied cover.

Installing the Optional Speaker/Microphone

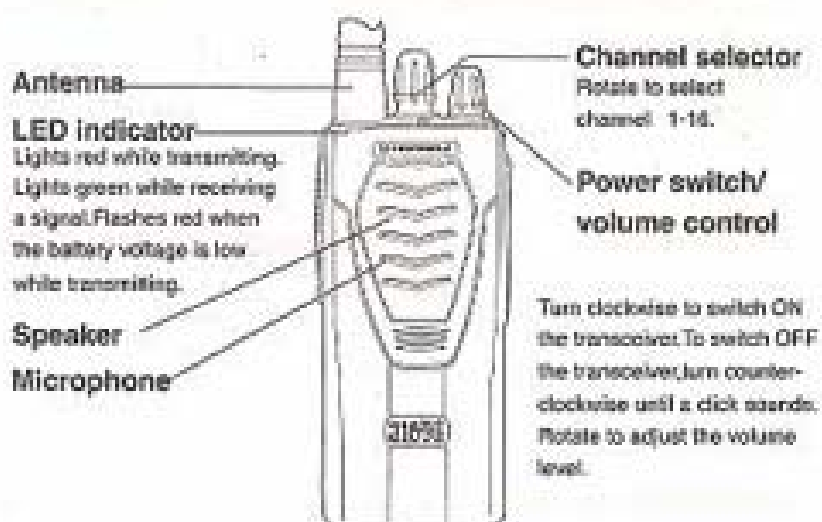


Insert the speaker/microphone plugs into the speaker/microphone jacks.

Note:

The transceiver is not fully water resistant while using the speaker/ microphone.

GETTING ACQUAINTED (HD-3107G)

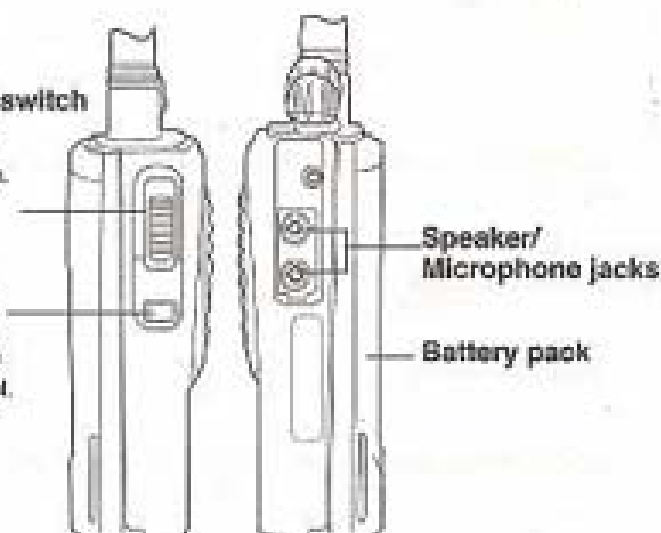


PTT(Push-To-Talk) switch

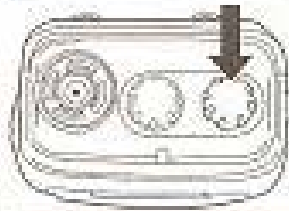
Press, then speak to the microphone to call a station.
Release to receive.

Monitor key

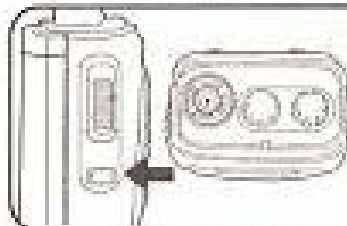
Press and hold to turn the squelch OFF. You will hear background noise. Release to turn the squelch back ON.



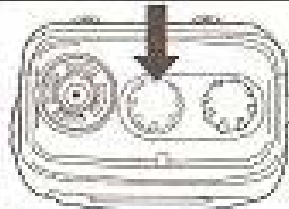
HD-3107G OPERATION



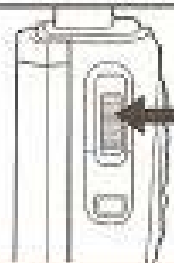
Switch ON the transceiver by turning the Power switch / Volume control clockwise.
A beep sounds.



Adjust the volume by pressing and holding the Monitor key, then rotating the Power switch / Volume control.



Rotate the Channel selector to select your desired channel.
When you receive an appropriate signal, you will hear audio from the speaker.



To make a call, press and hold the PTT switch, then speak into the microphone using your normal speaking voice.
Hold the microphone approximately 1.5 inches (3 to 4 cm) from your lips.

Release the PTT switch to receive.

Note: When the battery pack voltage becomes too low, transmission will stop and the LED will blink red. See "Low Battery Warning" on page 10.

AUXILIARY FUNCTIONS

Time-out Timer

The purpose of the Time-out Timer is to prevent any single person from using a channel for an extended period of time.

If you continuously transmit for 300 seconds, the transceiver will stop transmitting and a tone will sound.

To stop the tone, release the **PTT** switch. You can press the **PTT** switch again to resume transmitting.

Battery Save

The Battery Save function decreases the amount of power used when a signal is not being received and no operations are being performed (no keys are being pressed, and no switches are being turned). While the channel is not busy and no operation is performed for 10 seconds, Battery Save turn ON.

When a signal is received or an operation is performed, Battery Save turn OFF.

Low Battery Warning

Low Battery Warning alerts you when the battery needs to be recharged.

While transmitting, if the battery power goes below a pre-determined value, the LED will blink red. When a tone sounds, the transceiver stops transmitting, replace or recharge the battery pack.

Voice Annunciation of Channel Number:

Turn on/turn off voice annunciation select: turn to channel 15, then press MONI key and hold, and turn on the transceiver.

Chinese/English select: turn to channel 5, then press MONI key and hold, and turn on the transceiver.

High/Low Power Select

Transceiver have 5W/1W power to select, high power work current is 1.5A, low is 0.8A.

High/Low power indicator: the LED light red on high power launching, light orange is low power launching. Press PTT key and turn on the transceiver, then sound "DI" means the transceiver change to high power, and sound "DI, DI" means change to low power.

QT/DQT

The transceiver can use computer set the QT/DQT. Some channels may have pre-programmed QT/DQT. In same channel, transceivers talk to each other, the QT/DQT must same or all haven't QT/DQT.

Note: Although using channels set up with QT/DQT relieves you from listening to unwanted calls, it doesn't mean your calls will be private.

Monitor

Press Monitor key open or close Monitor function.

Urgent Alert

In the emergency, press monitor key about 10 second, transceiver sound high alert voice. Press PTT stop it.

Wired Copy data

Use special copy data line connect with two transceivers. Turn on the receiver. First, turn the sender CH8 and press MONI key and hold on, then turn on the power and hold on MONI key 2 second, enter copy data model start sending data, the red shine quickly, finish, green shine each 0.5 second. receiver receive the copy signal, green shine quickly, finish, green LED quench.

Technical information

	Unit sections
Frequency range	136-174MHz
	400-480MHz
Output Power	5W/1W
Memory Channel	16
Modulation Model	Frequency Modulation
Frequency Stability	$< \pm 5\text{ppm}$
Max. Frequency Deviation	$< \pm 5\text{KHz}$
Power of Adjacent Channel	$\leq -60\text{dB}$
Reband Radiation	$\leq -60\text{dB}$
Distortion	$\leq 5\%$
Reference Sensitivity	$< 0.20\mu\text{V}$
Squelch Sensitivity	$< 0.15\mu\text{V}$
Selectivity of Adjacent Channel	$> 60\text{dB}$
Spurious Response Rejection	$> 60\text{dB}$
Interference Resistance	$> 60\text{dB}$
Stand by Current	40mA(15mA in Save model)
Emission Current	$< 1500\text{mA}$
Rated Power	DC 7.2V

TROUBLESHOOTING GUIDE

PROBLEM	SOLUTION
No power.	<ul style="list-style-type: none"> • The battery pack may be used up. Recharge or replace the battery pack. • The battery pack may not be installed correctly. Replace the battery pack and install it again.
Battery power used up shortly after charging.	<ul style="list-style-type: none"> • The battery pack life is finished. Remove the battery pack with a new one.
Cannot talk to or hear other members in your group.	<ul style="list-style-type: none"> • Make sure you are using the same frequency and CTCSS as the other members in your group. • Other group members may be too far away. Make sure you are within range of the other transceivers.
Other voices (besides group members) are present on the channel.	<ul style="list-style-type: none"> • Change the CTCSS tone. Be sure to change the tone on all transceivers in your group.

FREQUENCY CHART

MODEL NAME: HD-_____

SERIAL NUMBER: _____

Channel	Transmit Frequency	Receive Frequency	QT/DQT
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			

1