## APPENDIX 5

## USERS MANUAL

SIXTEEN (16) PAGE USER INSTRUCTIONS FOLLOW THIS SHEET

USERS MANUAL FCC ID: KA9HJC-FRS

APPENDIX 5

# MODEL HJC-FRS Chatter Box!™

**INSTRUCTION MANUAL** 

IMPORTAIN: Before using the CHATTERBOX<sup>™</sup> for the first time, charge the battery for approximately 14 hours.

# **CONTENTS**

CAUTION	2
1.0 INTRODUCTION	2
2.0 UNPACKING AND INSPECTION	3
3.0 INSTALLATION	4
3.1 MOUNTING BRACKET INSTALLATION	4
3.2 HEADSET INSTALLATION	
3.3 MAIN BODY INSTALLATION	6
3.4 HEADSET CONNECTION	6
4.0 EXPLANATION OF THE FUNCTIONS OF EACH	-
PART AND INSTRUCTION FOR USE	7
4.1 OFF/ON VOL	7
4.2 CHANNEL SWITCH	7
4.3 VOX SENSITIVITY	8
4.4 HOW TO TRANSMIT AND RECEIVE	8
4.5 LOW BAT INDICATOR	9
4.6 MIC-SP JACK (MINI DIN SOCKET)	9
4.7 INTERCOM (MINI DIN SOCKET)	10
4.8 PTT JACK (PUSH-TO-TALK)	10
4.9 AUDIO IN JACK	11
4.10 HOW TO CHANGE BATTERY	11
5.0 OPTIONAL ACCESSORIES	
5.1 AUDIO EXTENSION CORD	12
5.2 HEADSET EXTENSION CORD	
5.3 PUSH TO TALK SWITCH (PTT)	
5.4 OPEN FACE HEADSET WITH BOOM MIC	
5.5 FULL FACE HEADSET	
5.6 DC/DC CHARGER	
5.7 AC/DC CHARGER	13
5.8 NI-CAD BATTERY	14
CAUTION	14
6.0 TROUBLE SHOOTING	15
7.0 TO EXPECT THE BEST	
PERFORMANCE OF "HJC-FRS"	16

## **CAUTION**

Do not open the CHATTERBOX<sup>TM</sup> case, change or alter any parts unless performed by a service technician. If the unit receives a severe impact or fall, it may cause damage affecting optimal performance.

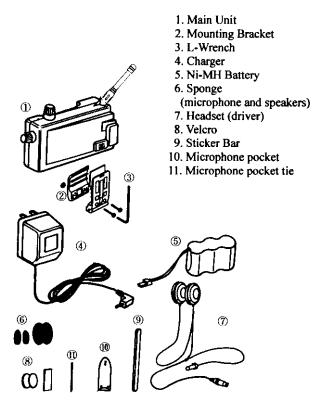
## 1.0 INTRODUCTION

The CHATTERBOX<sup>TM</sup> model HJC-FRS communicator is a low power radio transmitter for short distance communication. It can be used without permission or license in various situations such as motorcycle, bicycle and snowmobile riding, or mountaineering or even on construction sites.

Power is supplied by a rechargeable Ni-MH battery that is included. Fourway transmission between one rider/passenger and the other rider/passenger is possible. It is designed allow enjoyment of audio music which mutes automatically during communication. Please read the following instructions to aid in the proper use of your CHATTERBOX<sup>TM</sup>.

## 2.0 UNPACKING AND INSPECTION

After removing, check that all contents are in good order. If any part of the equipment has been damaged in transit, see your dealer as soon as possible.

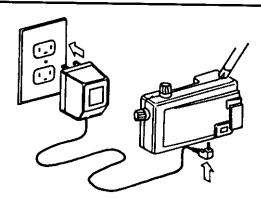


## 3.0 INSTALLATION

The Ni-MH battery included with this unit has not previously been charged. You must charge it for approximately 14 hours with the charger supplied.

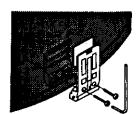
#### NOTE

To reduce risk of damage to the CHATTERBOX™, do not use any other charge expect the one included with the CHATTERBOX™.



## 3.1 MOUNTING BRACKET INSTALLATION

Fasten the mounting bracket tightly to the bottom left side of the helmet with two bolts and two nuts supplied.



## 3.2 HEADSET INSTALLATION

- Attach the mic-sponges to the mic and the speakers respectively. (drawing 1)
- Slide the velcro-backed mic sock over the foam sponge covered mic. Be sure open part of mic faces out. (drawing 2)
- 3. Attach the hard round velcro to the speakers of the headset. (drawing 3)
- 4. Attach the large soft velcro to the inside of the helmet. The location will determine the final position of the velcro-backed mic sock. Install the velcro on a slight angle down from the left toward your lips. The downward angle will allow moisture to flow away from the mic.
- 5. Attach the microphone and speakers to the inside of the helmet and use the stickbar to insert the wire in the groove around the bottom rim of the helmet. Make sure that the speaker with the long wire goes on the right side, and the short wire speaker to the left side.(drawing 5) Attach the mic as shown. (drawing 4) Mic should be placed close to your mouth but not touching your lips.



DRAWING 2



**DRAWING 3** 



DRAWING 4



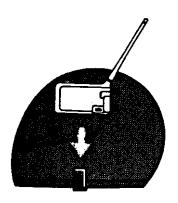
**DRAWING 5** 



## INSTALLATION

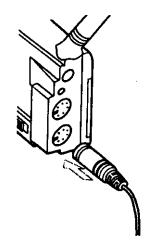
## 3.3 MAIN BODY INSTALLATION

Align the mounting ralls with the grooves in the back side of the main body. Slide down the main body onto the mounting rails of the bracket until it latches into place, so it clicks.



## 3.4 HEADSET CONNECTION

Insert the DIN plug of the headset (attached to the helmet) into the microphone jack on the back of the CHATTERBOX<sup>TM</sup>.



# 4.0 EXPLANATION OF THE FUNCTIONS OF EACH PART AND INSTRUCTION FOR USE.

## 4.1 OFF/ON VOL.

Turn clockwise to switch power on and adjust volume to the proper level. When not in use, turn if off. Set dial at the end of the counterclockwise position.



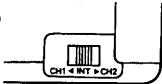


## **4.2 CHANNEL SWITCH**

The channel switch selects one of the two radio frequencies available for communications. The centre position selects intercom for rider to passenger communication.

(CHANNEL 1: 462.5625 MHz. CHANNEL 2: 462.5875 MHz.

**INTERCOM: PRIVATE INTERCOM)** 



#### 4.3 VOX SENSITIVITY

The VOX SENS dial controls the sensitivity of the microphone. As the dial is turned clockwise, the sensitivity increases. This unit has circuitry and software internal to the radio that senes when you speak through the headset and will automatically transmit. When surrounding noise levels increases, transmission may be activated unintentionally. To reduce the sensitivity of the mic, turn the dial counterclockwise. When the VOX SENS is set at a low sensitivity position, it will require your voice to be slightly louder in order to activate the microphone transmission.



#### 4.4 HOW TO TRANSMIT AND RECEIVE

Turn power switch to on. If you turn the VOX SENS dial clockwise and speak through the microphone, the VOX operates and automatically transmits. You will know you are transmitting when you hear yourself in the headset speakers. Operation is totally automatic; no external controls are required.

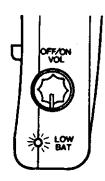
To receive, just listen in silence. If your mic is activated, you cannot receive. Simultaneous transmissions are not possible. You cannot talk (activate your VOX) and hear a transmission from another CHATTERBOX<sup>TM</sup> at the same time.

## EXPLANATION OF THE FUNCTIONS OF EACH PART AND INSTRUCTION FOR USE

#### 4.5 LOW BAT INDICATOR

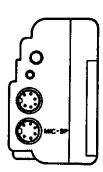
When the LOW BAT light comes on, it indicates that the battery voltage has dropped below 3.4V and will soon need to be recharged. A short blink when the power is turned on or off indicates that the LOW BAT light is operating correctly.

When it is impossible to operate the set caused by the 20W battery, the beep sound will ring during 25second.



## 4.6 MIC-SP JACK (MINI DIN SOCKET)

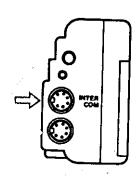
The socket that connects to the driver's head set (mic and speaker).



# EXPLANATION OF THE FUNCTIONS OF EACH PART AND INSTRUCTION FOR USE

## 4.7 INTERCOM (MINI DIN SOCKET)

The socket that connects to the passenger's headset (MIC & SP). If it is connected to the driver's headset (4.6), four way communication is possible between rider/passenger and another rider/passenger.

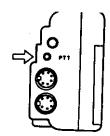


#### NOTE

If you wish to use the CHATTERBOX<sup>TM</sup> as a private intercom, set the channel selector switch to the middle position-INT.

## 4.8 PTT JACK (PUSH TO TALK)

When transmitting by VOX (refer to 4.3 and 4.4), and the exterior noise is very high, or your voice is too low or soft, communication is possible using the remote PTT switch. When the PTT button is depressed it automatically activates the VOX. The VOX cannot be activated when the remote PTT switch is plugged into the main unit, unless the PTT button is depressed.

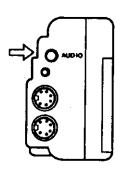


#### NOTE

This CHATTER BOX<sup>TM</sup> unit adopts "Squelch" circuit so that there is be no other sound from the speaker when the power switch is on and there is no communication. Thus please make sure of the position of the power switch when you do not use this unit.

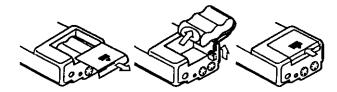
#### 4.9 AUDIO IN JACK

When you want to listen to F.M. radio or taped music, you can listen through the headset by connecting the walkman to the AUDIO IN JACK. It mutes automatically when you transmit or receive.



## 4.10 HOW TO CHANGE BATTERY

Open the battery cover and pull out the connector by pulling the lead wire. Next, remove the battery obliquely from the case. Disconnect worn battery, connect new battery and fit obliquely into battery case. Arrange the lead wire into the groove and replace the cover.



## 5.0 OPTIONAL ACCESSORIES

## 5.1 AUDIO EXTENSION CORD

Connects from audio source to  $CHATTERBOX^{TM}$ .



## 5.2 HEADSET EXTENSION CORD

Used to connect passenger headset to the main control unit.



## 5.3 PUSH TO TALK SWITCH (PTT)

Handlebar mounted PTT switch transmits when pushed. Defeats the voice operated feature (VOX).



# 5.4 OPEN FACE HEADSET WITH BOOM MIC.

Replacement headset or passenger headset for main unit. Used with open face helmet.



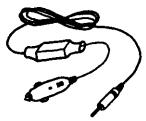
## 5.5 FULL FACE HEADSET

Replacement headset or passenger headset for main unit. Used with full face helmet.



#### 5.6 DC/DC CHARGER

When the LOW BAT-IND lights and there is no AC electric power source, you can recharge it from the electric power source of an automobile and a motorcycle with this DC/DC charger.



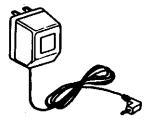
cigar-cord type



Y-terminal type

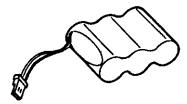
## 5.7 AC/DC CHARGER

It is an adaptor to recharge using 120V 60Hz source of electric power.



## 5.8 NI-CAD BATTERY

Rechargeable Ni-MH battery. Type 3VE or 2/3 A 600mAh 3.6VDC



## **CAUTION**

Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

## 6.0 TROUBLE SHOOTING

- 6.1 PROBLEM 1. There is intermittence when transmitting with VOX.
  - SOLUTION 1. The intermittence occurs when the sound entering the mic is low and the VOX doesn't stay activated. You must adjust the mic sensitivity higher by turning the MIC SENS dial clockwise, or holding your mouth closer to the mic or speaking louder.
- 6.2 PROBLEM 2. Not receiving; your VOX is activated not allowing you to receive transmissions.
  - SOLUTION 2. Turn the VOX (sensitivity) lower (counterclockwise).

    Also check that the windsock is properly installed on the mic.
- 6.3 PROBLEM 3. You continually hear a hiissing sound from the speakers.
  - SOLUTION 3. The noise is an indicator light Charge battery.
- 6.4 PROBLEM 4. Short operating range.
  - SOLUTION 4. Vehicle has high-voltage leaks, needs resistor spark plugs, metal caps or wires.

# 7.0 TO EXPECT THE BEST PERFORMANCE OF "HJC-FRS"

- 7.1 Be sure to charge the battery for more than 14 hours before use.
- 7.2 Correct charging is possible only when you use the charger which HJC provides. It is recommendable to use power charger. Model HP-4530 which is packed together with the unit. Using other similar charger may damage the battery. Making the Ni-cad battery unusable without enough capacity.
- 7.3 If you use the unit after leaving it unused for a long time or when you feel that the durability of the battery becomes shorter than before, you can restore the battery to the original state by two or three times of repetition of FULL CHARGE/FULL DISCHARGE.

#### 7.4 HOW TO DO FULL CHARGE/FULL DISCHARGE

- Discharge the battery completely by using the unit continuously until the LOW-BAT-IND lights up.
- 2) Charge the battery enough again.
- 3) Discharge again the battery completely like step 1).
- 4) You can restore the battery to the original state by repeating FULL CHARGE two or three times following step 1) and 2).
- 5) When you keep the unit unused for a long time, please keep the battery in the state of FULL CHARGE.