

HX625A

Family Radio System

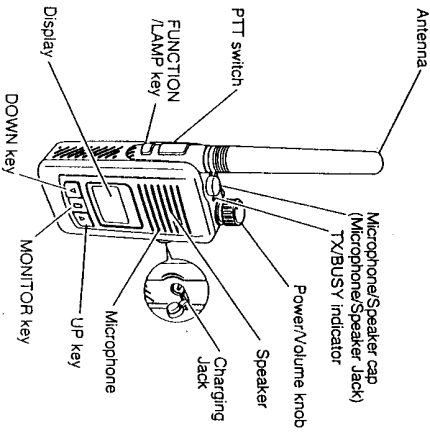
OWNER'S MANUAL

Thank you for purchasing our Transceiver.
For proper use of this Transceiver, please read this manual thoroughly.
Keep this manual in a safe place for future reference.



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417X8510-10

2. Parts and Name



Microphone/Speaker Cap
Make sure the cap is in place when the terminals are not in use.
Never expose an open terminal to moisture.

Microphone/Speaker Jack
External microphone/speaker. When using this jack, the internal speaker is disabled.

1. Before Operation

Safety Cautions
Included are various illustrations and symbols in this manual to assure that this product is used safely and correctly, and to prevent injuries to you or other persons as well as damage to your possessions. The meanings of these symbols are as shown below. Please understand these symbols before reading this manual.

- WARNING**
Indicates contents which, if disregarded and the product handled incorrectly, could lead to a fatal accident or serious injury.
- CAUTION**
Indicates contents which, if disregarded and the product handled incorrectly, could lead to injury or physical damage to property.

Examples of Illustrations in Symbols

- ⚠** This symbol indicates that the contents describe points where caution is necessary or where there is danger. The illustration within the ⚠ at the left indicates that there is danger of electric shock.
- ⊘** This symbol indicates that there is an action that is prohibited. The illustration within the symbol on the left indicates that disassembly is prohibited.
- ⓘ** This symbol indicates that there is an action to be performed by the user. The illustration on the left indicates that there is a general instruction.

PROPERLY DISPOSE OF THE Ni-Cd BATTERY

- To dispose of a Ni-Cd (Nickel-Cadmium) battery, check with your dealer to determine the requirements in your area. The battery must be recycled or properly disposed of.



POWER/VOLUME knob

Turn this knob clockwise to turn the transceiver on, also turn this knob clockwise to increase the volume level.
Turn this knob counterclockwise to decrease the volume level, also turn this knob counterclockwise fully to turn the transceiver off.

TXBUSY Indicator

Illuminates red during transmissions.

Illuminates green during reception or when the squelch is off.

PTT (Push-To-Talk) switch
When pressed, switches the transceiver from receive to transmit.

Hold down the FUNCTION key and press this key to lock the keys.

FUNCTION/LAMP key
Used in combination with other keys to select other functions.

Press this key to turn the display lamp on for 5 seconds.

MONITOR key
Press this key to open the squelch.

Hold down the FUNCTION key and press this key to light the display light continuously.

UP/DOWN key
Press the UP key to increase the channel number.

Press the DOWN key to decrease the channel number.

Hold down the FUNCTION key and press the UP and DOWN key to toggle between Basic mode and Group mode.

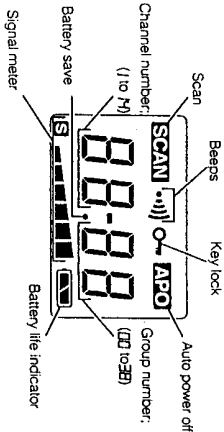
Hold down the FUNCTION key and press the UP key to increase the group number.

Hold down the FUNCTION key and press the DOWN key to decrease the group number.

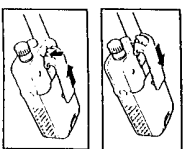
⚠ WARNING

- Never use any batteries other than size AA alkaline, manganese batteries or the CNB510A optional Ni-Cd battery pack. Using different batteries could cause fire, electric shock or equipment failure.
- Never install or remove batteries while your hands are wet. This may cause electric shock.
- Never dispose of used batteries into a fire. They may explode, causing fire or burns.
- Never short the battery terminals. This may cause fire or burns.
- Never use a battery charger other than the one specified.
- In the event that smoke is emitted, a strange odor or noise is generated, or similar abnormally occurs, this could cause fire, electric shock or equipment failure. Consult your dealer immediately for the necessary instructions or repair service needed. Do not attempt to repair the receiver yourself, doing so may cause serious damage or physical injury.
- If foreign material enters this product, contact your dealer. If it is used in this condition it could cause fire, electric shock or equipment failure.
- This product is dropped or damaged in any way, contact your dealer. If it is used in a damaged condition, it could cause fire, electric shock or equipment failure.
- Never attempt to disassemble or modify this product. This may cause fire, electric shock or equipment failure and could result in a violation of the rules.
- Never attempt to disassemble the batteries. This may cause fire, electric shock or equipment failure.
- Never place discharged batteries in a fire. They may explode, causing fire or burns. This may cause electric shock, fire or burns. Never carry batteries without the terminal covered to prevent an accidental short.

3. Display Indications



4. Attaching/Removing the Belt Clip



To attach, slide the belt clip towards the arrow mark.

To remove, pull the belt clip lock and slide the belt clip.

⚠ CAUTION

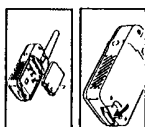
- Discontinue use of this product if it has a negative influence on TV, electronic equipment, therapeutic devices and/or other equipment.
- Always be aware of antenna location to avoid possible injury.
- During battery installation, make sure the polarity is correct. If the batteries are installed incorrectly, the batteries or equipment may be damaged.
- Do not expose this product to unattended conditions, extreme temperature, high humidity or excessive dust. Do not keep it in an automobile. This could cause fire, electric shock or equipment failure.
- During extended periods of time without use, remove the batteries. Store the batteries in a safe place out of the reach of small children.
- At all times, keep this products out of the reach of children.
- Do not transmit for a continuous period of time.

NOTICE

- 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 operation.
- Unauthorized changes or modifications to this equipment may void compliance with FCC rules. Any change or modification must be approved in writing by Standard Communications Corp.

5. Installing the Battery

- Remove the belt clip if it is attached.
- Pull the latch on the battery lid and detach the battery lid.



- Install the battery pack CNB510A or AA x 3 batteries into the case.



- Attach the battery case cover.

Battery life indicator.



Approx. 80 % charged or more
less than approx. 80 %
need to be charged or replace with new batteries.

Advice
When the power is turned on, high pitched beep is emitted. If low pitched beep is emitted, you need to charge or replace the battery.

⚠ WARNING

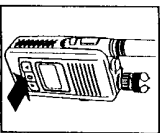
- If the batteries are not installed properly this could cause fire, burns or equipment failure.
- Never use old batteries and a new batteries together. This could cause fire or burns.
- When using the Ni-Cd battery pack CNB510, only use the included wall charger to charge the battery pack.

CAUTION

Do not carry the Transceiver by the antenna. This may break the antenna.
Do not remove the antenna. The antenna is fixed.



6. Adjusting the Volume



- 1 Turn the power on.
- 2 Press the **MONITOR** key, and turn the **POWER/VOLUME** knob until noise or audio from the speaker is at a desired level.
(To increase the volume, turn the **POWER/VOLUME** knob clockwise. To decrease the volume, turn the **POWER/VOLUME** knob counter-clockwise.)

WARNING

Remember to reduce the volume before using the optional headset.

13. Lighting the Display Lamp

- The lamp can be lit for 3 seconds, or locked in the on position. The lamp will not extinguish if any keys are being used.
- 1 Press the **FUNCTION/LAMP** key to light for 3 seconds.
 - 2 To extinguish within 5 seconds, press the **FUNCTION/LAMP** key.

14. Locking the display lamp

- 1 Hold down the **FUNCTION/LAMP** key and press the **MONITOR** key.
- 2 To cancel this state (To extinguish), hold down the **FUNCTION/LAMP** key and press the **MONITOR** key.

15. Using the Auto Power Off (APO)

The Transceiver can be shut off automatically if the unit is not being used in the receive, transmit or key entry mode for 2 hours. This function can be performed following procedure.

- 1 Turn the power off.
- 2 Hold down the **DOWN** key and turn the power on.
- 3 Confirm APO symbol **APO** is disappeared.

Advice
When APO is performed, "OFF" is displayed.
When APO is turned on, repeat the above procedure and confirm APO symbol **APO** is disappeared.

16. Using the Battery Save

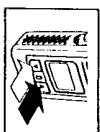
This function is used to extend the life of the battery. The battery save function actually turns the Transceiver off for a set period of time and then turns the Transceiver on to check for a signal. This function can be canceled using this procedure.

- 1 Turn the power off.
- 2 Hold down the **MONITOR** key and turn the power on.
- 3 Confirm the battery save symbol **B** is disappeared.

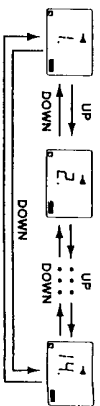
Advice
When the battery save is turned off, repeat the above procedure and confirm the battery save symbol **B** is displayed.

This Transceiver has two operating mode. Basic mode and Group mode.
Basic mode In this mode, you can communicate when the Transceiver's channel is the same as your partner.
Group mode In this mode, you can communicate when the Transceiver's channel and group number is the same as your partner. If the channel number is the same but group number is not, sound will not be heard. However, in such cases, the TX/BUSY lamp will illuminate green.

8. Operating with Basic mode



- 1 Press the **UP** or **DOWN** key to set the desired channel. (The channel can be selected from 1 through 14.)



- 2 Hold down the PTT switch and speak slowly and clearly into the microphone.
- 3 Release the PTT switch to receive.

17. Turning the Beep off

This Transceiver emits the beeps. The beeps can be turned off using the following procedure.

- 1 Turn the power off.
- 2 Hold down the **UP** key and turn the power on.
- 3 Confirm the beep symbol **B** is disappeared.

Advice
When beeps are turned on, repeat the above procedure and confirm beep symbol **B** is disappeared.

18. Using the Key Lock Function

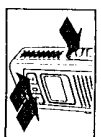
This function locks the following keys to prevent accidental change: **UP** and **DOWN** key.

- 1 Hold down the **FUNCTION** key and press the PTT switch.
- 2 Confirm the key lock symbol **KL** is displayed.
- 3 To cancel, hold down the **FUNCTION** key and press the PTT switch.

19. Turning the Squelch Off (Monitor)

When the Transceiver is not receiving a signal, noise is emitted. The squelch is used to cancel this noise. The squelch must be on to cancel the noise.

- 1 Press the **MONITOR** key

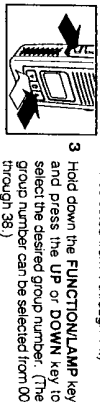


- 1 Hold down the **FUNCTION/LAMP** key and press the **UP** and **DOWN** key.
- 2 Confirm the mode is switched.

Advice
The operating mode cannot be changed in key lock.

10. Operating with Group mode

- 1 Hold down the **FUNCTION/LAMP** key and press the **UP** and **DOWN** key if the Basic mode is displayed. (The group number is displayed.)
- 2 Press the **UP** or **DOWN** key to select the desired channel. (The channel can be selected from 1 through 14.)



- 3 Hold down the **FUNCTION/LAMP** key and press the **UP** or **DOWN** key to select the desired group number. (The group number can be selected from 00 through 35.)
- 4 Hold down the PTT switch and speak slowly and clearly into the microphone.
- 5 Release the PTT switch to receive.

20. Specifications

General

Frequency Range	462.5625 - 467.7125 MHz
Number of channels	14
Modulation	F3E
Microphone input impedance	2.2 kΩ
Speaker impedance	8 Ω
Operating Voltage	3.3 - 5.5 VDC
Rated Voltage	DC 4.5 V
Current Consumption (in waiting)	Approx. 25 mA
Current Consumption (transmit)	Approx. 350 mA
Dimensions of Main Body (No. including battery)	55 (W) x 100 (H) x 20.5 (D) mm
Weight (including battery and antenna)	Approx. 230 g

Receiver

Receiver System	Double superheterodyne system
Intermediate Frequency	1st IF 23.05 MHz 2nd IF 450 kHz
Sensitivity (12 dB SINAD)	less than 0.22 μV
Squell Open Sensitivity	0.18 - 0.28 μV
Audio Output	Approx. 100 mW (8 Ω, 10 % distortion)

Transmitter

RF output power	Normal: 500 mW
Modulation System	Resistance modulation
Max. Frequency Deviation	± 2.5 kHz
Spurious Radiation	45 dB or more
Frequency tolerance	0.00025 %
Built-in Microphone	Electret Condenser Microphone

20. Packing List

Transceiver (H4655A)	1
Belt clip	1
N-Cd battery pack	1
Wall Charger (AC Adapter)	1
Owner's manual	1

The scan changes the channel and receives. The scan is halted when a signal is received. However, after about 5 seconds, the scan resumes even if a signal is being received.
1 Hold down the **UP** or **DOWN** key for 2 seconds or more.
2 Confirm the scan starts and scan symbol **SCAN** is displayed.

- 3a To stop the scan, hold down the **UP** or **DOWN** key for 2 seconds or more, or press the PTT switch.
- 3b To pause the scan. Press the **MONITOR** key.

Advice
When the scan is halted by receiving the signal, press the **UP** or **DOWN** key to resume the scan. The scan can be halted by pressing PTT switch key.

12. Resetting All setting (All Reset)

All Reset changes the setting of the Transceiver to their original factory states.

- 1 Turn the power off.
- 2 Hold down the **UP** and **DOWN** key, and turn the power on.
- 3 Confirm the original state is displayed as shown below. Release the keys.

Advice
The original factory states are as follows:

Mode:	Basic mode
Channel:	01
APO:	Off
Beeps:	On
Battery save:	On
Key lock:	Off
Scan:	Off

22. Options

Charger	N-Cd battery pack
Charger	Mini Speaker/Microphone

23. Replacement Parts

Wall Charger	AA12002010
Belt Clip (Black)	AA12002010
Belt Clip (Yellow)	AA12002010
Volume Knob	AA12002010
Battery Lid (Black)	AA12002010
Battery Lid (Yellow)	AA12002010

Relationship between channel and frequency

Channel	Frequency	Channel	Frequency
1	462.5625 MHz	9	467.5625 MHz
2	462.5875 MHz	10	467.5875 MHz
3	462.6125 MHz	11	467.6125 MHz
4	462.6375 MHz	12	467.6375 MHz
5	462.6625 MHz	13	467.6625 MHz
6	462.6875 MHz	14	467.6875 MHz
7	462.7125 MHz		

Relationship between group number and tone frequency

Number	Frequency	Number	Frequency
00	67.0 Hz	13	103.5 Hz
01	69.3 Hz	14	107.2 Hz
02	71.9 Hz	15	110.9 Hz
03	74.4 Hz	16	114.8 Hz
04	77.0 Hz	17	118.8 Hz
05	79.7 Hz	18	123.0 Hz
06	82.4 Hz	19	127.3 Hz
07	85.1 Hz	20	131.8 Hz
08	87.8 Hz	21	136.5 Hz
09	90.5 Hz	22	141.3 Hz
10	93.2 Hz	23	146.2 Hz
11	95.9 Hz	24	151.3 Hz
12	98.6 Hz	25	156.7 Hz
		26	162.2 Hz
		27	167.9 Hz
		28	173.8 Hz
		29	179.9 Hz
		30	186.2 Hz
		31	192.8 Hz
		32	200.5 Hz
		33	210.7 Hz
		34	218.1 Hz
		35	226.7 Hz
		36	235.6 Hz
		37	244.8 Hz
		38	254.3 Hz