KENWOOD

FreeTalk™

UBZ-LH14

FM TRANSCEIVER
INSTRUCTION MANUAL

EMETTEUR-RECEPTEUR FM
MODE D'EMPLOI

TRANSCEPTOR DE FM
MANUAL DE INSTRUCCIONES

KENWOOD CORPORATION

FM TRANSCEIVER
UBZ-LH14

INSTRUCTION MANUAL

KENWOOD CORPORATION

ENGLISH

KENWOOD MEANS WIRELESS

Founded more than 50 years ago, **KENWOOD**'s Car & Home Audio products are in demand around the world. **KENWOOD** is also a major developer and producer of wireless and digital wireless communications products. **KENWOOD** provides top quality Amateur Radio products for serious hobbyists, and commercial radio products/ systems for business, industry, & public safety users, worldwide.

If you would like information on other quality **KENWOOD** products, please call (USA only):

   1-800-KENWOOD (1-800-536-9663)

KENWOOD is on the Web:

Communications Products (Amateur, Land Mobile (Commercial), Systems):

   http://www.kenwood.net

Consumer Electronics (Home & Car Audio, Stage 3):

   http://www.kenwoodusa.com

KENWOOD welcomes you to the Family Radio Service (FRS). FRS is the new, personal, short range 2-way radio band for family & friends to keep in touch without the need for a license, radio knowledge, or monthly charges. Your **KENWOOD** 2-way Family Radio is called a "transceiver", meaning "transmitter & receiver".

You can choose from 14 preset channels (the full range allowed by the FCC) to communicate with others. For your convenience, Automatic Squelch quiets your transceiver when not receiving calls. For privacy, your transceiver has two useful features; Tone Squelch keeps your transceiver quiet except for calls you want to hear, and Privacy Talk keeps your conversations private. When using Tone Squelch, you can also check if your fellow is within a communication range.

Your transceiver provides safety and convenience almost anywhere. The distance depends on your location; you'll get maximum distance of up to approximately two miles in open areas, less in buildings or vehicles.

Your **KENWOOD** transceiver is a precision device. Treat it with care, and you will enjoy years of reliable operation.

CONTENTS

PRECAUTIONS

- Do not modify or attempt to adjust the transceiver for any reason.

- Avoid extremes in exposure to water, heat, and cold. This transceiver is weather resistant but not waterproof.

- Do not expose the transceiver to long periods of direct sunlight, nor place the transceiver close to heating appliances.

- Do not place the transceiver in excessively dusty areas, humid areas, wet areas, nor on unstable surfaces.

- If an abnormal odor or smoke is detected coming from the transceiver, immediately switch OFF the power and remove the batteries or battery pack from the transceiver. Contact your **KENWOOD** dealer.

UNPACKING

Carefully unpack the transceiver. We recommend that you identify the items listed below before discarding the packing material.

- Transceiver 1
- Belt hook 1
- Instruction manual 1
- Warranty card (U.S.A. only) 1

INSTALLING/ REMOVING BATTERIES

This transceiver requires 3 AA batteries. Use high quality alkaline batteries to enjoy longer periods of battery life.

1 Release the battery cover clip, then completely open the battery cover.
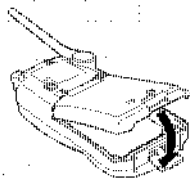
   - Remove the belt hook first if it has been installed.

Battery cover
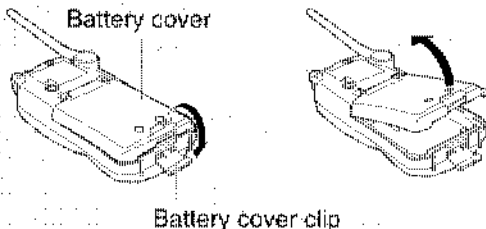
Battery cover clip

2 Insert (or remove) the 3 AA batteries.

   - Mate the battery polarities with those marked on the battery compartment.
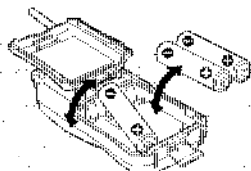
3 Close the battery cover, then lock it using the battery
   cover clip.

The life of alkaline batteries is approximately 40 hours;
where the ratio of transmission, reception, and standby
periods is 1:1:8. When the battery voltage becomes low,
beeps sound and the BATT icon appears and blinks
(page 6). Replace the batteries or recharge the battery
pack at this time.

*Note: After 10 seconds elapse with no key entries and no call received,
Battery Saver automatically functions. It repeats switching ON and OFF
the power to the receiver at certain ratios. You cannot switch OFF this
function.*

INSTALLING THE BELT HOOK

Align the screw with the screw hole and the tab with the
tab hole, then turn the screw clockwise until secure.

Tab hole

Screw
hole
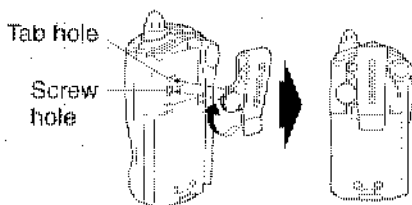
COMMUNICATION RANGE

This transceiver allows a communication range of up to 2 miles in open areas. This distance will be shortened by buildings or foliage in the way. The distance will be further shortened by dense foliage or mountains.
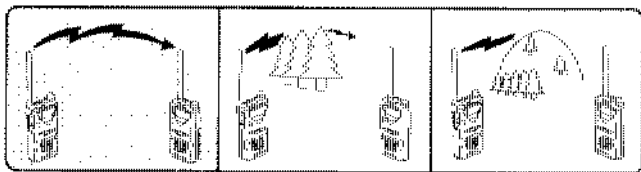
ORIENTATION

Speaker/ Microphone jacks
Lift up the cap carefully when connecting the optional headset or microphone accessory [page 27].

VOL control

PTT (Push-to-Talk) switch

POWER switch

Antenna

Display

Microphone

DOWN/ MODE/ UP keys

Speaker

KENWOOD

DISPLAY

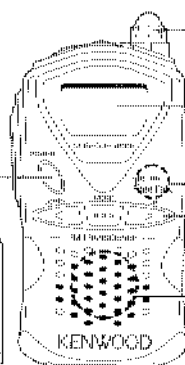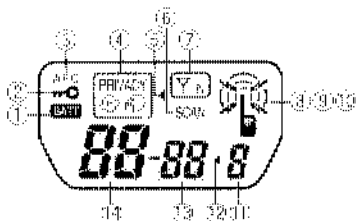|		
①	**BATT**	Appears and blinks when the battery voltage is low.
②	**━O**	Appears when Key Lock is ON {page 24}.
③	APO	Appears while the Auto Power Off (APO) timer is counting {page 25}. Blinks after APO turns the power OFF.
④	**PRIVACY**	Appears when Privacy Talk is ON {page 14}.
⑤	**◄**	Appears and blinks when Privacy Talk can be switched ON and OFF {page 14}.
⑥	SCAN	Appears while Channel Scan is functioning {page 18}.
⑦	**Tx**	Appears when your party is within a communication range {page 15}.
⑧	**┇**	Appears when Communication Range In/Out Detect is ON {page 15}.
⑨	**⁖**	Appears while monitoring {page 21} or receiving. You must not transmit while this icon is visible.
⑩	**⁖**	Appears while transmitting.
⑪	**8**	Displays the current Menu No. {page 8}.
⑫	**◄**	Appears and blinks when the CTCSS number is changeable {page 13}.
⑬	**-88**	Displays the current CTCSS number (1 to 38) or OFF ("OF") {page 13}.
⑭	**88**	Displays the current channel number (1 to 14).

1 Press the **POWER** switch for more than 1 second to turn the transceiver power ON.

1
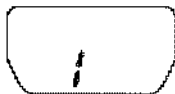
2 Turn the **VOL** control clockwise (or counterclockwise) to increase (or decrease) the volume.

- You may need to adjust the volume more precisely while receiving a call in the next step.

3 Press the **UP** or **DOWN** key to select the operating channel (1 to 14).

3
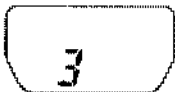
- You have to select the same channel as your party.
- Press and hold the key to continuously change channels.

When you receive a call, you will hear audio from the speaker.
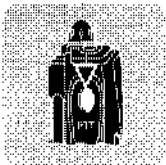
4	To make or answer a call, press and hold the **PTT** switch, then speak into the microphone in your normal speaking voice.
	• Hold the transceiver about 3 to 4 cm (1.5 to 1.6 in.) from your lips.
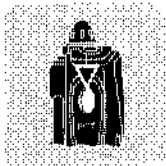
5	Release the **PTT** switch to receive.
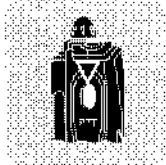
6	Repeat steps 4 and 5 to continue communication.

7	To turn the transceiver power OFF, press the **POWER** switch for more than 1 second.

OPERATING BASICS

MENU SET-UP

The Menu Set-up function allows you to change numerous settings using the same procedures.

1	With the transceiver power OFF, press and hold the **UP** key, then press the **POWER** switch.
	Cd-OF·1

2	Press the **UP** or **DOWN** key to select the desired menu item.
	RP-OF·7

3	Press the **MODE** key to select the desired parameter.
	RP-On·7

4	Press the **PTT** switch to exit Menu mode.
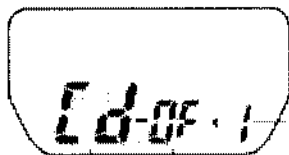
No.

Item   Selections

You will see 𝐮𝐧 for ON,
and 𝐮𝐅 for OFF.

No.	Item	Function	Selections	Default	Ref. Page
1	Cd	Communication range in/out detect	ON/ OFF	OFF	15
2	SC	Channel scan enable	ON (Ad)/ OFF (rE)	OFF (rE)	17
3	bP	Beep	ON/ OFF	ON	26
4	LP	Display light always ON	ON/ OFF	OFF	20
5	C1	Call tone (**DOWN** key)	Type 1/ Type 2	Type 1	11
6	C2	Call tone (**UP** key)	Type 1/ Type 2	Type 1	11
7	AP	Auto power off	ON/ OFF	OFF	25
8	tO	Transmit limit time	3/ 10 minutes	3 minutes	23
9	Sq	Squelch	ON/ OFF	ON	22

CALL TONES

Call tones sound like a telephone ring, and are convenient for quickly identifying yourself to another party. Persons whom you call will instantly recognize you because of your call tone. The **UP** and **DOWN** keys are pre-assigned one tone each; the Mic **3** key on the optional SMC-34 Mic also is assigned one tone.

Note: The Mic 3 key does not operate during Channel Scan (page 16).

Using call tones

Oh!
It's him/her.
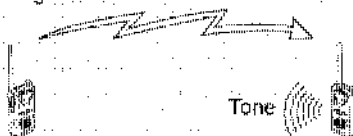
Tone

SENDING CALL TONES

1	Press and hold the **PTT** switch, then press the **UP**, **DOWN**, or Mic **3** key. • The other party will hear the same call tone that you hear. • Simply pressing the Mic **3** key also sends the assigned call tone.
2	Release the **UP**, **DOWN**, or Mic **3** key to stop sending the call tone.
3	Speak into the microphone without releasing the **PTT** switch; or, release the **PTT** switch to receive.

CHANGING THE DEFAULT CALL TONES

You can change the default tones assigned to the **UP** and **DOWN** keys. Choose from two selectable tones for each key.

1	With the transceiver power OFF, press and hold the **UP** key, then press the **POWER** switch.

2	Press the **UP** or **DOWN** key to select "C1" (Menu No. 5) to change the **DOWN** key default, or "C2" (Menu No. 6) to change the **UP** key default.

$$[1 \text{-} 1 \text{-} s \qquad [2 \text{-} 1 \text{-} 6$$

3	Press the **MODE** key to select type 1 (default) or type 2. • The selected tone will sound.

4	Press the **PTT** switch to exit Menu mode.

TONE SQUELCH (CTCSS)

You may sometimes want to hear calls from only specific persons. The Continuous Tone Coded Squelch System (CTCSS) allows you to ignore (not hear) unwanted calls from persons in other groups who are using the same channel. Simply select the same CTCSS tone (number) as your party. A CTCSS tone is subaudible and is selectable from among the 38 standard tone frequencies.

Note:

- *In order to use CTCSS, your party also must use a transceiver which has the CTCSS function.*

- *CTCSS does not cause your conversation to be private. It only relieves you from listening to unwanted conversations.*
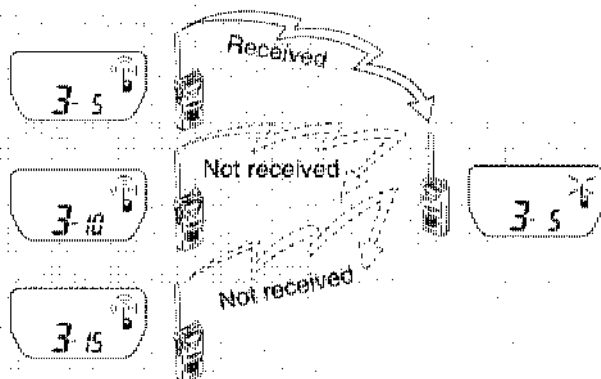
Note: You can use Privacy Talk (page 14) with CTCSS when your party uses a KENWOOD UBZ-LH14 or UBZ-LF14 transceiver. You can also use Communication Range In/Out Detect (page 15) with CTCSS when your party uses a KENWOOD UBZ-LH14 transceiver. In this mode, more amount of battery power is consumed than usual.

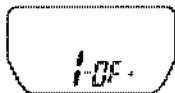|	Press the **MODE** key.
1	• The current CTCSS number appears. The default is OFF ("OF").
	1-OF

	Press the **UP** or **DOWN** key to select the desired CTCSS number from 1 to 38 (within approx. 10 seconds).
2	• Press and hold the key to continuously change CTCSS numbers.

	Press the **MODE** key twice to complete the selection.
3	• If you select OFF in step 2, press the **MODE** key only once.

No.	Freq. (Hz)	No.	Freq. (Hz)	No.	Freq. (Hz)	No.	Freq. (Hz)
1	67.0	11	97.4	21	136.5	31	192.8
2	71.9	12	100.0	22	141.3	32	203.5
3	74.4	13	103.5	23	146.2	33	210.7
4	77.0	14	107.2	24	151.4	34	218.1
5	79.7	15	110.9	25	156.7	35	225.7
6	82.5	16	114.8	26	162.2	36	233.6
7	85.4	17	118.8	27	167.9	37	241.8
8	88.5	18	123.0	28	173.8	38	250.3
9	91.5	19	127.3	29	179.9		
10	94.8	20	131.8	30	186.2		

PRIVACY TALK

While using CTCSS, you do not hear unwanted calls on your selected channel, but others on the same channel may hear your conversation. This transceiver also allows you to scramble your calls so that others will not understand your conversations. First select the desired CTCSS number {page 13}.

| 1 | Press the **MODE** key once or twice to enter the Privacy Talk ON/OFF mode. |

| 2 | Press the **UP** or **DOWN** key to switch Privacy Talk ON (or OFF) (within approx. 10 seconds). |

ON   OFF

| 3 | Press the **MODE** key again to complete the selection. |

Note: If you have selected OFF for the CTCSS number, you cannot enter the Privacy Talk ON/OFF mode. Selecting OFF for the CTCSS number after switching Privacy Talk ON switches Privacy Talk OFF automatically.

COMMUNICATION RANGE IN/OUT DETECT

With a CTCSS number programmed, this transceiver can also check if your party is within a communication range. When he (or she) is within the range, the In-range icon ($\boxed{Y_{u}}$) is visible. If out of the range, this icon is invisible. When your party goes beyond the range, an alarm beep also sounds. In order to monitor your party, the transceiver automatically transmits signals at predetermined intervals to receive acknowledgement.

1	With the transceiver power OFF, press and hold the **UP** key, then press the **POWER** switch.
2	Press the **UP** or **DOWN** key to select "Cd" (Menu No. 1). $\boxed{\text{Cd OF·1}}$
3	Press the **MODE** key to switch the function ON (or OFF). • When the function is switched ON, " ᄂ " appears.
4	Press the **PTT** switch to exit Menu mode.

Note: If you have selected OFF for the CTCSS number, you cannot switch this function ON. Selecting OFF for the CTCSS number after switching the function ON switches it OFF automatically. Starting Channel Scan (page 18) also deactivates this function.

Channel Scan on this transceiver automatically finds a free channel for transmitting. It also automatically finds a channel where a call with a matching CTCSS number is received (busy channel). If an interference disturbs your communication, you and your party can easily find and move to a free channel, using this function. Channel Scan monitors the channels in the ascending order; you cannot change this direction.

Note:

- *This transceiver does not require an optional SMC-34 Mic to use Channel Scan. However, you can also use this optional microphone to start or stop Channel Scan (page 28). If using the SMC-34 Mic, you need not manually enable Channel Scan using Menu Set-up (page 17).*

- *The APO timer (page 25) does not count while scanning.*

Interference

Finding a free channel

Finding a busy channel
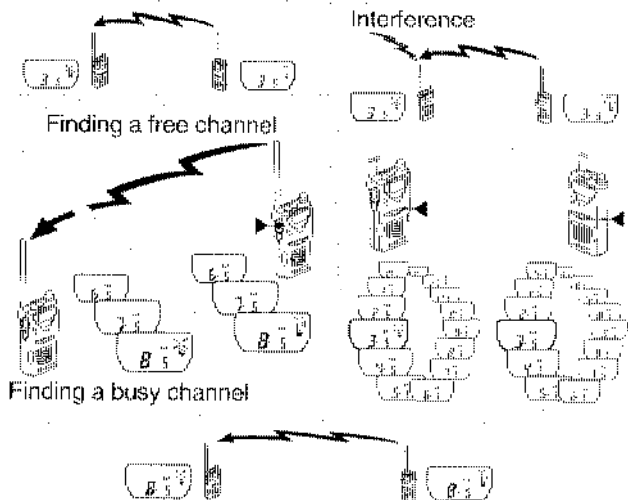
In order to automatically move to a free channel with your party, he (or she) must use a **KENWOOD** UBZ-LH14 or UBZ-LF14 transceiver. In addition, you and your party must program the same CTCSS number {page 13}. On this transceiver, use Menu Set-up to enable Channel Scan.
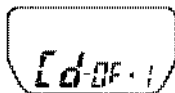
1	With the transceiver power OFF, press and hold the **UP** key, then press the **POWER** switch.
2	Press the **UP** or **DOWN** key to select "SC" (Menu No. 2). $5C - E \cdot 2$
3	Press the **MODE** key to enable the function ("Ad" selected).
4	Press the **PTT** switch to exit Menu mode.
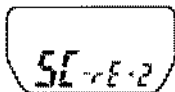
Note:

◆ *After enabling Channel Scan, you cannot press and hold the **UP** or **DOWN** keys to continuously change channels.*

◆ *If you always play the role of finding a free channel (not a busy channel), your party does not require a transceiver capable of finding a free channel; however, his (or her) transceiver must be capable of finding a busy channel.*

FINDING A FREE CHANNEL

1	Press the **UP** key for more than 1 second; "SCAN" appears. • To quit scanning, momentarily press this key again.
2	Press and hold the **PTT** switch. • Channel Scan finds and stops at a free channel.
3	Without releasing the **PTT** switch, speak into the microphone in your normal speaking voice.
4	To receive, release the **PTT** switch. • If no response is received for approx. 10 seconds, Scan automatically resumes.

FINDING A BUSY CHANNEL

5	Press the **UP** key for more than 1 second; "SCAN" appears. • To quit scanning, momentarily press this key again. • Scan stops when finding a busy channel; the channel number blinks. • Approximately 10 seconds after no further call is received, Scan resumes. • If using the SMC-34 Mic, you may press and hold Mic 1 key to monitor activity in the current channel (page 21).

RESET

You may sometimes want to reset all the transceiver
settings to the factory defaults.

With the transceiver power OFF,
press and hold the **UP** and **DOWN**
keys, then press the **POWER** switch.

h-14

- Upon releasing the keys, a beep
  sounds and Reset is executed.

LAMP CONTROL

The lamp is used to illuminate the Liquid Crystal Display.
It turns ON every time you press the **UP**, **DOWN**, **MODE**,
or Mic **2** key (on the optional SMC-34 Mic), and when you
turn the power ON. The lamp will go out after 5 seconds.

- If you press any key or switch while the lamp is ON, the
  lamp timer will restart the 5 second countdown.

- The lamp stays ON while holding down the **UP** or **DOWN**
  key to continuously change channels or CTCSS numbers.

To set the lamp continuously ON:

1		With the transceiver power OFF, press and hold the **UP** key, then press the **POWER** switch.
2		Press the **UP** or **DOWN** key to select "LP" (Menu No. 4).
		$LP_{OF\cdot 4}$
3		Press the **MODE** key to switch the function ON (or OFF).
4		Press the **PTT** switch to exit Menu mode.

Note:

- The APO function (page 25) will override the continuous lamp setting. When APO turns OFF the transceiver, it will also turn OFF the lamp. However, the lamp setting will remain and the lamp will again turn ON when the power is turned ON.

- The amount of power consumed with lamp continuously ON is slightly more than with lamp OFF.

MONITOR

When no signals are present, the Squelch on this transceiver automatically functions to mute the speaker so that you will not hear background noise. You can, however, manually deactivate the Squelch in any situation. You may try this when received signals are too weak to recognize or when you want to adjust the volume while listening to background noise.

■ Using the Optional SMC-34 Mic

If you have connected the optional SMC-34 Mic, you can use the Mic 1 key.

1	Press and hold the Mic 1 key.
	• The Squelch is deactivated and the busy icon is visible while the key is being held.

2	Release the Mic 1 key to activate the Squelch.

Note:

- *Before connecting or disconnecting the optional SMC-34 Mic, turn OFF the power to the transceiver.*

- *Deactivating the squelch while using Communication Range In/Out Detect always causes the In-range icon to appear.*

■ Not Using the Optional SMC-34 Mic

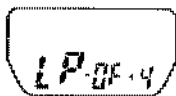You also can deactivate the Squelch by using Menu Set-up.

1	With the transceiver power OFF, press and hold the **UP** key, then press the **POWER** switch.
2	Press the **UP** or **DOWN** key to select "Sq" (Menu No. 9). $$59 \cdot_{0n} \cdot 9$$
3	Press the **MODE** key to switch the Squelch ON or OFF. • Selecting OFF causes the speaker to be unmuted.
4	Press the **PTT** switch to exit Menu mode. • If you switch the Squelch OFF in step 3, the busy icon appears.

Note: *Deactivating the squelch while using Communication Range In/Out Detect always causes the In-range icon to appear.*

TRANSMIT POWER SAVE

The purpose of Transmit Power Save is to prevent transmitting for too long. This function is useful, for example, when you accidentally keep the **PTT** switch pressed. You can switch the limit time between 3 (default) and 10 minutes.

1		With the transceiver power OFF, press and hold the **UP** key, then press the **POWER** switch.
2		Press the **UP** or **DOWN** key to select "tO" (Menu No. 8).

$$tO\text{-}3.0$$
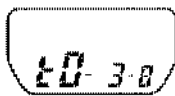
3		Press the **MODE** key to switch between 3 and 10 minutes.
4		Press the **PTT** switch to exit Menu mode.

Holding down the **PTT** switch for more than the selected time causes the transceiver to generate a beep and stop transmitting. Release, then press the **PTT** switch again to resume transmitting.

KEY LOCK

This function locks most of the keys on the transceiver to prevent accidentally changing any transceiver settings.

With the transceiver power OFF, press and hold the **MODE** key, then press the **POWER** switch.

* The Key icon appears.

* To switch Key Lock OFF, repeat the above key operation.

While Key Lock is active, you can still do the following:

* Power ON/OFF (pages 6 and 7)
* Receive/ Transmit (pages 6 and 7)
* Send call tones (page 10)
* Reset (page 19)
* Monitor (with the optional SMC-34 Mic) (page 21)

Note: *With the Beep function (page 26) and Key Lock function ON, pressing a locked key causes the transceiver to output an error beep.*

AUTO POWER OFF (APO)

Auto Power Off is useful when you happen to leave the power ON unintentionally. This function saves battery consumption. After 2 hours elapse with no key entries and no call received, APO turns OFF the transceiver's power; however, 1 minute before the power turns OFF, a warning tone sounds (4 double beeps). When the power is turned OFF by APO, the display clears and the APO icon starts blinking. To turn the power back ON, press the **POWER** switch.

1	With the transceiver power OFF, press and hold the **UP** key, then press the **POWER** switch.
2	Press the **UP** or **DOWN** key to select "AP" (Menu No. 7). $RP\text{-}OF\text{-}7$
3	Press the **MODE** key to switch the function ON (or OFF).
4	Press the **PTT** switch to exit Menu mode.

BEEP ON/OFF

The transceiver beeps each time you press a key. The beep volume depends on the position of the **VOL** control. You can also switch the Beep function OFF.
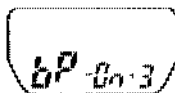
1		With the transceiver power OFF, press and hold the **UP** key, then press the **POWER** switch.
2		Press the **UP** or **DOWN** key to select "bP" (Menu No. 3).
		bP On 3
3		Press the **MODE** key to switch the function ON or OFF.
4		Press the **PTT** switch to exit Menu mode.

Note:

♦ When using the optional SMC-34 Mic, the beep volume depends on both the transceiver **VOL** control and the SMC-34 **VOLUME** control.

♦ While the Beep function is OFF, the following beeps or tones are still output from the speaker:

- Battery voltage alarm (page 3)
- Call tones (page 10)
- Out-of-range alarm (page 15)
- Transmit Power Save alarm (page 23)
- APO warning tone (page 25)

The following options are available to improve your operation efficiency. For details, contact your **KENWOOD** dealer.

| **SMC-34**	**HMC-3**	**EMC-3**
Remote Control Speaker Microphone	Headset	Clip Microphone with Earphone

Note: Using a headset or microphone accessory while driving may not be allowed in your area. Check your local regulations.

SMC-34 SPEAKER MICROPHONE

The SMC-34 Mic gives you the following additional functions and features.

Additional call tone (page 10)	Channel Scan (page 16)
Monitor function (page 21)	Remote **PTT** switch
Remote **VOLUME** control	Remote speaker/ microphone
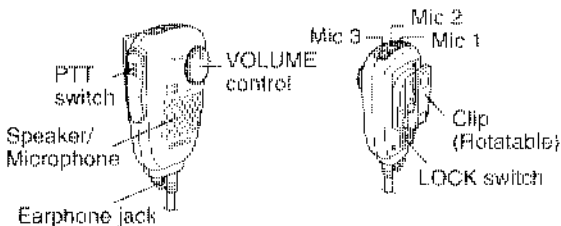
Note:

- The **LOCK** switch locks the Mic 1, Mic 2, and Mic 3 keys OFF.
- The speaker volume depends on both the transceiver **VOL** control and the SMC-34 **VOLUME** control.
- Before connecting or disconnecting the optional SMC-34 Mic, turn OFF the power to the transceiver.

Transmit	Press and hold **PTT**.
Sending call tones (page 10)	Press and hold **PTT**, then press Mic 3; or simply press Mic 3.
Free channel scan start (page 18)	Press Mic **2** for more than 1 second, then press and hold **PTT**.
Free channel scan stop (page 18)	Press Mic **2** momentarily.
Busy channel scan start (page 18)	Press Mic **2** for more than 1 second.
Busy channel scan stop (page 18)	Press Mic **2** momentarily.
Monitor (page 21)	Press and hold Mic **1**.

Frequency range		462.5625 ~ 467.7125 MHz (14 channels)
Current	Transmit mode	420 mA or less
	Receive mode (90 mW output)	120 mA or less
	Receive mode (No signal)	50 mA or less
	Battery Saver ON	Approx. 10 mA (average)
Supply voltage (rated voltage)		4.5 V
Transmit output power		500 mW
Dimensions (W x H x D) (Projections not included)		56.0 x 106.0 x 26.5 mm (2.20 x 4.17 x 1.04 in.)
Weight (with 3 AA batteries)		Approx. 180 g (6.3 oz.)

FREQUENCY CHART

Ch.	Freq. (MHz)	Ch.	Freq. (MHz)
1	462.5625	8	467.5625
2	462.5875	9	467.5875
3	462.6125	10	467.6125
4	462.6375	11	467.6375
5	462.6625	12	467.6625
6	462.6875	13	467.6875
7	462.7125	14	467.7125

NOTICES TO THE USER (U.S.A. ONLY)

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.

One or more of the following statements may be
applicable:

FCC WARNING

This equipment generates or uses radio frequency energy. Changes
or modifications to this equipment may cause harmful interference
unless the modifications are expressly approved in the instruction
manual. The user could lose the authority to operate this equipment
if an unauthorized change or modification is made.

INFORMATION TO THE DIGITAL DEVICE USER REQUIRED BY
THE FCC

This equipment has been tested and found to comply with the limits
for a Class B digital device, 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 generate radio frequency
energy and, if not installed and used in accordance with the
instructions, may cause harmful interference to radio
communications. However, there is no guarantee that the
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 to an outlet on a circuit different from
  that to which the receiver is connected.
- Consult the dealer for technical assistance.

KENWOOD