

KENWOOD

TK-2180/ TK-3180



VHF FM TRANSCEIVER/
UHF FM TRANSCEIVER

INSTRUCTION MANUAL

ÉMETTEUR-RÉCEPTEUR FM VHF/
ÉMETTEUR-RÉCEPTEUR FM UHF

MODE D'EMPLOI

TRANSCÉPTOR DE FM VHF/
TRANSCÉPTOR DE FM UHF

MANUAL DE INSTRUCCIONES

RICETRASMETTITORE FM VHF/
RICETRASMETTITORE FM UHF

MANUALE DI ISTRUZIONI

VHF-FM-TRANSCEIVER/
UHF-FM-TRANSCEIVER

BEDIENUNGSANLEITUNG

VHF FM ZENDONTVANGER/
UHF FM ZENDONTVANGER

GEBRUIKSAANWIJZING

KENWOOD CORPORATION

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VHF FM TRANSCEIVER/
UHF FM TRANSCEIVER

TK-2180/ TK-3180

INSTRUCTION MANUAL

KENWOOD CORPORATION

ENGLISH

THANK YOU

We are grateful you chose **KENWOOD** for your land mobile radio applications. We believe this easy-to-use transceiver will provide dependable communications to keep personnel operating at peak efficiency.

KENWOOD transceivers incorporate the latest in advanced technology. As a result, we feel strongly that you will be pleased with the quality and features of this product.

MODELS COVERED BY THIS MANUAL

- TK-2180: VHF FM Transceiver
- TK-3180: UHF FM Transceiver

NOTICES TO THE USER

- | |
|--|
| <ul style="list-style-type: none">◆ Government law prohibits the operation of unlicensed radio transmitters within the territories under government control.◆ Illegal operation is punishable by fine and/or imprisonment.◆ Refer service to qualified technicians only. |
|--|

SAFETY: It is important that the operator is aware of and understands hazards common to the operation of any transceiver.

PRECAUTIONS

- Do not charge the transceiver and battery pack when they are wet.
- Ensure that there are no metallic items located between the transceiver and the battery pack.
- Do not use options not specified by **KENWOOD**.
- If the die-cast chassis or other transceiver part is damaged, do not touch the damaged parts.
- If a headset or headphone is connected to the transceiver, reduce the transceiver volume. Pay attention to the volume level when turning the squelch off.
- Do not place the microphone cable around your neck while near machinery that may catch the cable.
- Do not place the transceiver on unstable surfaces.
- Ensure that the end of the antenna does not touch your eyes.
- When the transceiver is used for transmission for many hours, the radiator and chassis will become hot. Do not touch these locations when replacing the battery pack.
- Do not immerse the transceiver in water.

**WARNING**

Turn the transceiver power off in the following locations:

- In explosive atmospheres (inflammable gas, dust particles, metallic powders, grain powders, etc.).
- While taking on fuel or while parked at gasoline service stations.
- Near explosives or blasting sites.
- In aircrafts.
- In medical institutions or near persons using pacemakers.

**CAUTION**

- Do not disassemble or modify the transceiver for any reason.
- Do not place the transceiver on or near airbag equipment while the vehicle is running. When the airbag inflates, the transceiver may be ejected and strike the driver or passengers.
- Do not transmit while touching the antenna terminal or if any metallic parts are exposed from the antenna covering. Transmitting at such a time may result in a high-frequency burn.
- If an abnormal odor or smoke is detected coming from the transceiver, switch the transceiver power off immediately, remove the battery pack from the transceiver, and contact your **KENWOOD** dealer.
- Use of the transceiver while you are driving may be against traffic laws. Please check and observe the vehicle regulations in your area.
- Do not expose the transceiver to extremely hot or cold conditions.

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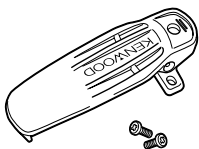
UNPACKING AND CHECKING EQUIPMENT

Note: The following unpacking instructions are for use by your **KENWOOD** dealer, an authorized **KENWOOD** service facility, or the factory.

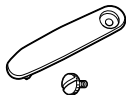
Carefully unpack the transceiver. We recommend that you identify the items listed in the following table before discarding the packing material. If any items are missing or have been damaged during shipment, file a claim with the carrier immediately.

SUPPLIED ACCESSORIES

Item	Part Number	Quantity
Belt clip	J29-0710-XX	1
Screw for belt clip	N30-3008-XX	2
Univeral connector cap	B09-0625-XX	1
Screw for connector cap	N08-0548-XX	1
Instruction manual	B62-1760-XX	1



Belt clip + screws



Universal connector
cap + screw

PREPARATION

BATTERY PACK PRECAUTIONS

Do not use battery packs or battery chargers not recommended by **KENWOOD**.



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 charging the battery pack, disconnect it from the charger. If the charger power is reset (turned ON after being turned OFF), recharging will start again and the battery pack will become overcharged.
- ◆ Do not use the transceiver while charging the battery pack. We recommend you switch the transceiver power OFF while charging is taking place.
- ◆ Do not charge the battery pack when the battery pack or transceiver is wet, to avoid the risk of fire or damage. Wipe the water from the battery pack or transceiver using a dry cloth before charging.
- ◆ Do not short the battery terminals or dispose of the battery by fire.
- ◆ Never attempt to remove the casing from the battery pack.

■ CHARGING THE BATTERY PACK

For charging procedures, refer to the battery charger Instruction Manual.

Information concerning the (optional) Li-ion battery pack:

The battery pack includes flammable objects such as organic solvent. Mishandling may cause the battery to rupture producing flames or extreme heat, deteriorate, or cause other forms of damage to the battery. Please observe the following prohibitive matters.



DANGER

- **Do not disassemble or reconstruct battery!**

The battery pack has a safety function and protection circuit to avoid danger. If they suffer serious damage, the battery may generate heat or smoke, rupture, or burst into flame.

- **Do not short-circuit the battery!**

Do not join the + and – terminals using any form of metal (such as a paper clip or wire). Do not carry or store the battery pack in containers holding metal objects (such as wires, chain-necklace or hairpins). If the battery pack is short-circuited, excessive current will flow and the battery may generate heat or smoke, rupture, or burst into flame. It will also cause metal objects to heat up.

- **Do not incinerate or apply heat to the battery!**

If the insulator is melted, the gas release vent or safety function is damaged, or the electrolyte is ignited, the battery may generate heat or smoke, rupture, or burst into flame.

- **Do not use or leave the battery near fires, stoves, or other heat generators (areas reaching over 80°C)!**

If the polymer separator is melted due to high temperature, an internal short-circuit may occur in the individual cells and the battery may generate heat or smoke, rupture, or burst into flame.

- **Do not immerse the battery in water or get it wet by other means!**

If the battery's protection circuit is damaged, the battery may charge at extreme current (or voltage) and an abnormal chemical reaction may occur. The battery may generate heat or smoke, rupture, or burst into flame.

- **Do not charge the battery near fires or under direct sunlight!**

If the battery's protection circuit is damaged, the battery may charge at extreme current (or voltage) and an abnormal chemical reaction may occur. The battery may generate heat or smoke, rupture, or burst into flame.

- **Use only the specified charger and observe charging requirements!**

If the battery is charged in unspecified conditions (under high temperature over the regulated value, excessive high voltage or current over regulated value, or with a remodelled charger), it may overcharge or an abnormal chemical reaction may occur. The battery may generate heat or smoke, rupture, or burst into flame.

- **Do not pierce the battery with any object, strike it with an instrument, or step on it!**

This may break or deform the battery, causing a short-circuited. The battery may generate heat or smoke, rupture, or burst into flame.

- **Do not jar or throw the battery!**

An impact may cause the battery to leak, generate heat or smoke, rupture, and/or burst into flame. If the battery's protection circuit is damaged, the battery may charge at an abnormal current (or voltage), and an abnormal chemical reaction may occur. The battery may generate heat or smoke, rupture, or burst into flame.

- **Do not use the battery pack if it is damaged in any way!**

The battery may generate heat or smoke, rupture, or burst into flame.

- **Do not solder directly onto the battery!**

If the insulator is melted or the gas release vent or safety function is damaged, the battery may generate heat or smoke, rupture, or burst into flame.

- **Do not reverse the battery polarity (and terminals)!**

When charging a reversed battery, an abnormal chemical reaction may occur. In some cases, an unexpected large amount of current may flow upon discharging. The battery may generate heat or smoke, rupture, or burst into flame.

- **Do not reverse-charge or reverse-connect the battery!**

The battery pack has positive and negative poles. If the battery pack does not smoothly connect with a charger or operating equipment, do not force it; check the polarity of the battery. If the battery pack is reverse-connected to the charger, it will be reverse-charged and an abnormal chemical reaction may occur. The battery may generate heat or smoke, rupture, or burst into flame.

- **Do not touch a ruptured and leaking battery!**

If the electrolyte liquid from the battery gets into your eyes, wash your eyes out with fresh water as soon as possible, without rubbing your eyes. Go to the hospital immediately. If left untreated, it may cause eye-problems.

**WARNING**

- **Do not charge the battery for longer than the specified time!**

If the battery pack has not finished charging even after the regulated time has passed, stop it. The battery may generate heat or smoke, rupture, or burst into flame.

- **Do not place the battery pack into a microwave or high pressure container!**

The battery may generate heat or smoke, rupture, or burst into flame.

- **Keep ruptured and leaking battery packs away from fire!**

If the battery pack is leaking (or the battery emits a bad odor), immediately remove it from flammable areas. Electrolyte leaking from battery can easily catch on fire and may cause the battery to generate smoke or burst into flame.

- **Do not use an abnormal battery!**

If the battery pack emits a bad odor, appears to have different coloring, is deformed, or seems abnormal for any other reason, remove it from the charger or operating equipment and do not use it. The battery may generate heat or smoke, rupture, or burst into flame.

■ USING THE LI-ION BATTERY PACK

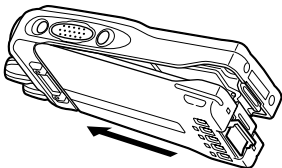
- Charge the battery pack before using it.
- To keep the battery discharge at a minimum, remove the battery pack from the equipment when it is not in use. Store the battery pack in a cool and dry location.
- When storing the battery pack for a long period:
 - 1 Remove the battery pack from the equipment.
 - 2 Discharge the battery pack, if possible.
 - 3 Store the battery pack in a cool (below 25°C) and dry location.

■ CHARACTERISTICS OF THE LI-ION BATTERY PACK

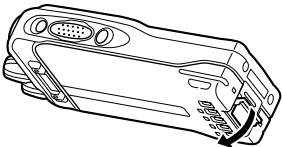
- As the battery pack is charged and discharged repeatedly, the battery capacity decreases.
- Even if the battery pack is unused, the battery pack degrades.
- It takes a longer time to charge the battery pack in cooler areas.
- The life of battery pack is shortened when it is charged and discharged in hotter areas. When the battery pack is stored in a hot location, the battery pack degrades quicker. Do not leave the battery pack in vehicles or near heating appliances.
- When the battery pack operating time becomes short, even if it is fully charged, replace the battery pack. Continuing to charge and discharge the battery pack may result in electrolyte leakage.

INSTALLING/ REMOVING THE (OPTIONAL) BATTERY PACK

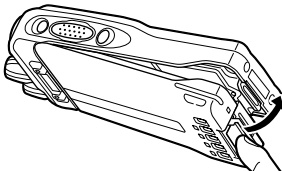
- 1 Match the guides of the battery pack with the corresponding grooves on the upper rear of the transceiver, then firmly press the battery pack to lock it in place.



- 2 Lock the safety catch to prevent accidentally pressing the release latch and removing the battery pack.



- 3 To remove the battery pack, lift the safety catch, press the release latch, then pull the battery pack away from the transceiver.



Note:

- ◆ To lift the battery pack safety catch, use a piece of hardened plastic or metal, such as a screwdriver, that is no more than 6 mm wide and 1 mm thick. It is imperative that you place the implement under only the lip of the safety catch so that you do not damage the release latch.
 - ◆ Before charging a battery pack that is attached to the transceiver, ensure that the safety catch is firmly closed.
 - ◆ While operating the transceiver using a Li-ion or Ni-MH battery pack in areas with an ambient temperature of -10°C and lower, operating time may be shortened.
-

INSTALLING THE (OPTIONAL) 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.

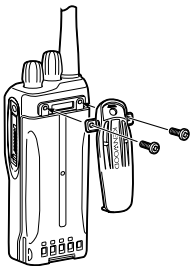
Note: The antenna is neither a handle, a key ring retainer, nor a speaker/ microphone attachment point. Using the antenna in these ways may damage the antenna and degrade your transceiver's performance.



INSTALLING THE BELT CLIP

If necessary, attach the belt clip using the two supplied 3 x 8 mm screws.

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.

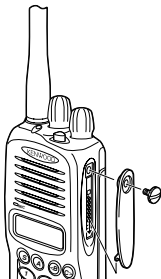


CAUTION

Do not use glue which is designed to prevent screw 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.

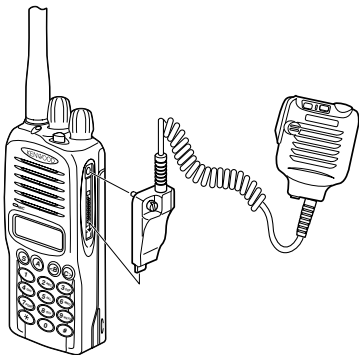
INSTALLING THE CAP OVER THE UNIVERSAL CONNECTOR

If you are not using an optional speaker/ microphone or headset, install the cap over the universal connector using the supplied 4 x 6 mm screw. Ensure that the cap fits tightly over the connector.



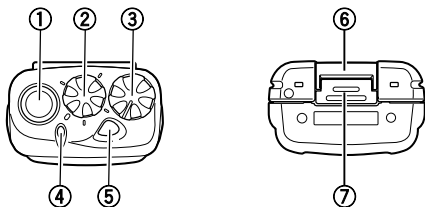
INSTALLING THE (OPTIONAL) SPEAKER/ MICROPHONE OR HEADSET

- 1 Insert the guide of the speaker/ microphone connector into the groove of the universal connector.
- 2 Secure the connector in place using the attached screw.



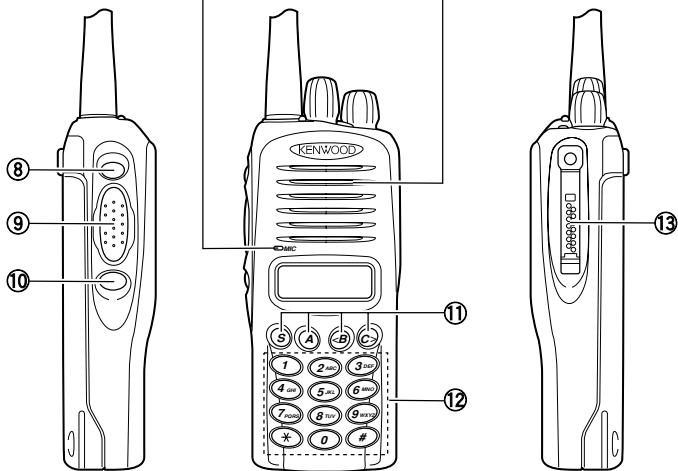
Note: When not using an optional speaker/ microphone or headset, install the cap over the universal connector.

GETTING ACQUAINTED



Microphone

Speaker



① Antenna connector

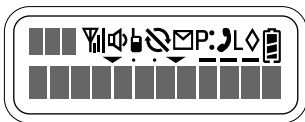
Connect an antenna here {page 8}.

② Selector









Rotate to activate its programmable function {page 14}.

- ③ **Power switch/ Volume control**
Turn clockwise to switch ON the transceiver. Rotate to adjust the volume. Turn counterclockwise fully to switch OFF the transceiver.
- ④ **Transmit/ Busy/ Call indicator**
This LED lights red during transmission, green while receiving a call, and orange when receiving an encoded call (i.e. 5-tone, DTMF signaling, etc.).
- ⑤ **Auxiliary (orange) key**
Press to activate its programmable function {page 14}.
- ⑥ **Safety Catch**
Lock this catch to avoid accidentally pressing the release latch and removing the battery pack {page 7}.
- ⑦ **Release Latch**
Press the release latch to unlock and remove the battery pack {page 7}.
- ⑧ **Side 1 key**
Press to activate its programmable function {page 14}.
- ⑨ **PTT (Push-To-Talk) switch**
Press this switch, then speak into the microphone to call a station.
- ⑩ **Side 2 key**
Press to activate its programmable function {page 14}.
- ⑪ **S, A, <B, and C> keys**
Press to activate their programmable functions {page 14}.
- ⑫ **DTMF keypad**
Press the keys on the keypad to make DTMF calls {page 30} or to activate their programmable functions {page 14}.
- ⑬ **Universal connector**
Connect a speaker/ microphone or headset here {page 9}. Otherwise, keep the supplied cap in place.

DISPLAY



Indicator	Description
	Displays the zone and channel numbers. Your dealer can program zone and channel names with up to 12 characters, in place of numbers. Also displays received 5-tone and FleetSync messages.
	Displays the zone and channel numbers. Also displays list numbers for Operator Selectable Tones.
	Displays the strength of received signals. An antenna and all 3 strength bars represents strong signals while the antenna by itself (no strength bars) represents weak signals.
	Appears when Monitor or Squelch Off is activated.
	Appears when the Talk Around function has been activated.
	Appears when you are using Scan mode or while the selected zone is a Voting or Free Channel Call zone.
	Flashes when you receive a message. Lights when a message is stored in the queue memory.

Indicator	Description
P:	Appears when the selected channel is programmed as priority. P [*] represents Priority Channel 1, P. represents Priority Channel 2, and P: represents Priority Channels 1 and 2.
J	This icon is not used on this transceiver.
L	Appears when the selected channel is using low transmit power.
◇	Appears when the scrambler function is activated.
	Displays the battery power status as high, sufficient, low, or very low.
	Appears when the selected zone is added to the scanning sequence.
	Appears when the auto recording function on the VGS-1 option is activated.
	Appears when an Auto Reply Message on the VGS-1 option is activated.
	Appears when the selected channel is added to the scanning sequence.
	Appears when the VOX function has been activated.
	Appears when the AUX function has been activated.
	Appears when the OST function has been activated.

PROGRAMMABLE FUNCTIONS

The **Auxiliary**, **Side 1**, **Side 2**, **S**, **A**, **<B**, and **C>** keys, and the DTMF keypad {pages 10 and 11} can be programmed with the functions listed below. Please contact your dealer for further details on these functions.

Note: The selector can be programmed as either CH/GID Up/Down or Zone Up/Down.

- Auto Reply Message ^{1,2}
- Autodial
- Autodial Programming
- AUX
- Call 1 ~ Call 6
- CH/GID Down
- CH/GID Down (Continuous)
- CH/GID Recall
- CH/GID Up
- CH/GID Up (Continuous)
- Channel Entry
- Clock
- Digit 1x Down ³
- Digit 10x Down ³
- Digit 1x Up ³
- Digit 10x Up ³
- Direct CH/GID 1 ~ 5
- Direct CH/GID 1 ~ 5 Select
- Display Character
- Emergency ⁴
- Fixed Volume
- Function
- Home CH/GID
- Home CH/GID Select
- Key Lock
- Lamp
- Lone Worker
- Low Transmission Power
- Monitor
- Monitor Momentary
- None
- OST
- Playback ²
- Priority Channel Select
- Queue
- Receive Entry ³
- Scan
- Scan Delete/Add
- Scrambler
- Scrambler Code
- Selcall
- Selcall + Status
- Speaker Attenuation ⁵
- Squelch Level
- Squelch Off
- Squelch Off Momentary
- Status
- Talk Around

- Transceiver Password
- Voice Memo ²
- VOX
- Zone Delete/Add
- Zone Down
- Zone Down (Continuous)
- Zone Up
- Zone Up (Continuous)

¹ “Auto Reply Message” can be used only for FleetSync.

² “Auto Reply Message”, “Playback”, and “Voice Memo” can be programmed only when the optional VGS-1 board has been installed.

³ “Digit 1x Down”, “Digit 10x Down”, “Digit 1x Up”, “Digit 10x Up”, and “Receive Entry” can be programmed only for 5-tone calls.

⁴ “Emergency” can be programmed only on the Auxiliary (orange) key and the PF1 key of the optional KMC-25 speaker/ microphone.

⁵ “Speaker Attenuation” can be programmed only on the PF1 and PF2 keys of the optional KMC-25 speaker/ microphone.

BASIC OPERATIONS

OVERVIEW

Your dealer can program your transceiver with Conventional, Voting, Voting with Signaling, and Free Channel Call zones. The transceiver can handle up to 128 zones with up to 250 channels in each zone and a total combined maximum of 512 channels. Zones, channels, and their functions are programmed by your dealer.

SWITCHING POWER ON/ OFF

Turn the **Power** switch/ **Volume** control clockwise to switch the transceiver ON.

- A beep sounds and the display momentarily lights up.
- If the Transceiver Password function is programmed, "PASSWORD" appears on the display. You must enter the password to unlock the transceiver. Refer to "Transceiver Password", below.

Turn the **Power** switch/ **Volume** control counterclockwise to switch the transceiver OFF.

■ TRANSCEIVER PASSWORD

To enter the password using the DTMF keypad:

- 1 Press the DTMF keys corresponding to the password digits.
 - Press the **A** or **#** key to delete an incorrect character. Press and hold the **A** or **#** key to delete all entered characters.
- 2 Press the **S** or ***** key to confirm the password.
 - If you enter an incorrect password, an error tone sounds and the transceiver remains locked.

To enter the password without using the DTMF keypad:

- 1 Rotate the selector to select a digit.
- 2 Press the **C>** key to accept the entered digit and move to the next digit.
 - Press the **A** or **#** key to delete an incorrect character. Press and hold the **A** or **#** key to delete all entered characters.
- 3 Press the **S** key to confirm the password.
 - If you enter an incorrect password, an error tone sounds and the transceiver remains locked.

ADJUSTING THE VOLUME

Rotate the **Power** switch/ **Volume** control to adjust the volume. Clockwise increases the volume and counter-clockwise decreases it.

SELECTING A ZONE AND CHANNEL

Select the desired zone using the selector or the keys programmed as **Zone Up/ Zone Down**.

Select the desired channel using the selector or the keys programmed as **CH/GID (Channel/ Group ID) Up/ CH/GID (Channel/ Group ID) Down**.

Names can be programmed for zones and channels with up to 12 characters each. However, to fit on the display, names will be abbreviated. Your dealer can set the zone name to a length of 0 to 12 digits. Channel names will shorten appropriately, to fit in the 12-digit display.

For example, if the channel name is “-CHANNEL1-” and the zone name is “KENWOOD”, and your dealer sets the zone name to 3-digits, the following display will appear:



TRANSMITTING

- 1 Select the desired zone and channel using the selector and the **Zone** or **CH/GID** keys.
 - In Voting, Voting with Signaling, and Free Channel Call zones, the channel is selected automatically.
- 3 In Conventional zones, press the key programmed as **Monitor** or **Squelch Off** to check whether or not the channel is free.
 - If the channel is busy, wait until it becomes free.
- 4 Press the **PTT** switch and speak into the microphone. Release the **PTT** switch to receive.
 - For best sound quality at the receiving station, hold the microphone approximately 1.5 inches (3 ~ 4 cm) from your mouth.
 - In Voting and Voting with Signaling zones, the transceiver will search for the closest repeater and transmit using that repeater's frequency.
 - In Free Channel Call zones, the transceiver will search for a free channel and will begin transmitting on that channel.

RECEIVING




- 1 Select the desired zone and channel using the selector and the **Zone** or **CH/GID** keys.
 - Alternatively, in Conventional zones, you can activate the Scan function if desired.
 - In Voting and Voting with Signaling zones, the transceiver will automatically search for the strongest signal and receive on that frequency.
 - In Free Channel Call zones, the transceiver will automatically search for any signal and will receive on that channel.
- 2 When you hear a caller's voice, readjust the volume as necessary.

CONVENTIONAL SCAN

If the Scan function is programmed, Conventional zones or channels can be scanned by pressing the key programmed as **Scan**. Scan can be used as either Single Scan or Multi Scan.

- Single Scan monitors only the channels of the currently selected zone, which have been added to the scanning sequence. If set up to scan Priority channels, the Priority channels will be scanned even if they are not within the currently selected zone.
- Multi Scan monitors all channels of every zone, which have been added to the scanning sequence.


To activate Scan, press the key programmed as **Scan**.

- The  icon and "SCAN" or the revert zone and channel number appear on the display.
- The zone add indicator () will appear on the display when the selected zone is added to the scan sequence. The channel add indicator () will appear on the display when the selected channel is added to the scan sequence.
- When a call is received, scanning stops and the zone and channel digits appear. Press the **PTT** switch and speak into the microphone to respond to the call. The transceiver will continue scanning after a predetermined time delay if the **PTT** switch is released and no further signal is received.


To stop scanning, press the **Scan** key again.

ADD TO SCAN/ DELETE FROM SCAN

Press the key programmed as **Scan Delete/Add** to add or remove each channel to or from the scan sequence.

- The channel add indicator () will appear on the display when the selected channel is added to the scan sequence.

Press the key programmed as **Zone Delete/Add** to add or remove each zone to or from the scan sequence.

- The zone add indicator () will appear on the display when the selected zone is added to the scan sequence.

SCAN REVERT

You can select Revert zones and channels using the selector and the **Zone** or **CH/GID** keys.

Eight types of Scan Reverts which can be programmed by your dealer are available.

- **Last Called Revert:** The last zone/ channel received is assigned as the new revert zone and channel.
- **Last Used Revert:** The last zone/ channel responded to is assigned as the new revert zone and channel.
- **Selected:** The last zone/ channel selected is assigned as the new revert zone and channel.
- **Selected + Talkback:** If the zone/ channel has been changed during Scan, the newly selected zone/ channel is assigned as the new revert zone and channel. The transceiver “talks back” on the current receive channel.
- **Priority 1/ Priority 2:** If your dealer has programmed a Priority channel (either Priority 1 or Priority 2), this channel is the revert zone and channel.
- **Priority 1 + Talkback/ Priority2 + Talkback:** If your dealer has programmed a Priority channel (either Priority 1 or Priority 2), this channel is the revert zone and channel. The transceiver “talks back” on the current receive channel.

PRIORITY SCAN

A Priority channel must be programmed in order for Priority Scan to function.

The transceiver will automatically change to the Priority channel when a signal is received on it, even if a signal is being received on a normal channel.

- The P¹ indicator represents the Priority 1 channel.
- The P² indicator represents the Priority 2 channel.
- The P¹² indicator represents both the Priority 1 and Priority 2 channel.

Your dealer may have programmed QT or DQT signaling on your transceiver channels. A QT tone/ DQT code is a sub-audible tone/code which allows you to ignore (not hear) calls from other parties who are using the same channel.

When a channel is set up with a QT tone or DQT code, squelch will open only when a call containing a matching tone or code is received. Likewise, signals you transmit will be heard only by parties whose QT/ DQT signaling matches your transceiver.

If a call containing a different tone or code is made on the same channel you are using, squelch will not open and you will not hear the call. Although it may seem like you have your own private channel while using QT/ DQT, other parties can still hear your calls if they set up their transceiver with the same tone or code.

OPERATOR SELECTABLE TONE (OST)

You can change the preset encode and decode tones for the selected channel. Your dealer can program up to 40 tones on your transceiver.

To turn OST on or off, press the key programmed as **OST**.

- The OST indicator () appears on the display when this function is activated.

To change the preset encode/decode tones:

- 1 Press and hold the key programmed as **OST**.
 - The duration for holding the **OST** key is programmed by your dealer.
 - The OST number and name appear on the display.
- 2 Rotate the selector, press the **<B** and **C>** keys, or enter the list number directly using the DTMF keypad to select your desired encode/decode pair.
- 3 Press the **S** or ***** key to accept the new setting and return to normal operation.

5-TONE SIGNALING

5-tone Signaling is enabled or disabled by your dealer. This function opens the squelch only when the transceiver receives the 5 tones programmed in your transceiver. Transceivers that do not transmit the correct tones will not be heard.

Note: Your transceiver functions include either 5-tone Signaling or FleetSync {page 26}, but not both.

MAKING A SELCALL (SELECTIVE CALL)

A Selcall is a voice call to a particular station. To make a Selcall:

- 1 Select your desired zone and channel.
- 2 Press the key programmed as **Selcall** or **Selcall + Status** to enter Selcall Mode.
- 3 Rotate the selector or press the **<B** and **C>** keys to select the ID of the station you want to call.
 - Alternatively, you can enter a station ID using the DTMF keypad.
 - You can also enter digits by using the DTMF keypad or by selecting digits with the selector. Before entering digits using the DTMF keypad, enter Manual Input Mode by pressing and holding the **S** key. When using the selector, rotate it to select a digit. The cursor can be shifted to the left or right by pressing the **<B** or **C>** key. Repeat this process until the entire ID is entered.
- 4 Press the key programmed as **Call 1** to **Call 6** and begin your call.

TRANSMITTING A STATUS MESSAGE

Status messages can contain up to 16 alphanumeric characters. To transmit a Status message:

- 1 Select your desired zone and channel.
- 2 Press the key programmed as **Status** to enter Status Mode or **Selcall + Status** to enter Selcall Mode.
 - When using the **Status** key to enter Status Mode, the station ID is fixed and cannot be selected. Skip to step 5 to continue.
- 3 In Selcall Mode, rotate the selector or press the **<B** and **C>** keys to select the ID of the station you want to call.
 - Alternatively, you can enter a station ID using the DTMF keypad.
 - If Manual Input Mode is enabled, you can enter digits by using the DTMF keypad or by selecting digits with the selector. To enter Manual Input Mode, press and hold the **S** key. When using the selector, rotate it to select a digit. The cursor can be shifted to the left or right by pressing the **<B** or **C>** key. Repeat this process until the entire ID is entered.
- 4 Press the **S** key to enter Status Mode.
- 5 Rotate the selector or press the **<B** and **C>** keys to select the status ID you want to transmit.
 - Alternatively, you can enter the status ID using the DTMF keypad.
 - If manual input mode is enabled, you can enter digits by using the DTMF keypad or by selecting digits with the selector. To enter manual input mode, press and hold the **S** key. When using the selector, rotate it to select a digit. The cursor can be shifted to the left or right by pressing the **<B** or **C>** key. Repeat this process until the entire ID is entered.
- 6 Press the **Call 1** to **Call 6** key to initiate the Status call.

RECEIVING SELCALLS AND STATUS MESSAGES


When you receive a signal containing the correct tones, squelch opens and you will hear the call.

- The LED indicator flashes orange.
- To mute the speaker after squelch opens, press the key programmed as **Monitor**.
- Your dealer can program the monitor function to close again after a specific time period elapses.
- If Transpond for 5-tone Signaling is programmed, an acknowledgment signal is returned to the calling station.
- If Call Alert for 5-tone Signaling is programmed, an alert tone will sound when the correct tones are received.
- Your dealer can program the transceiver to display the received Selcall/Status.

To respond to the call, press the **PTT** switch and speak into the microphone.

REVIEWING MESSAGES IN THE QUEUE MEMORY

A maximum of 15 received messages can be stored in the Queue memory of your transceiver. Saved messages can be viewed after reception. Depending on your dealer settings, when the Queue memory is full, either the oldest message will be erased when a new message is received or the new message will not be stored in the Queue memory.

The  icon lights when a message is stored in the Queue memory.

- 1 Press the key programmed as **Queue** to enter Queue Mode.
- 2 Rotate the selector or press the **<B** and **C>** keys to select the desired message.
 - Press and hold the **S** or ***** key to toggle between the called ID/ status ID, the channel name, and the time of the received message.
- 3 Press the **S** or ***** key to return to Normal Operation Mode.
 - To delete the selected message, press the **A** or **#** key. To confirm the deletion, press the **S** or ***** key.
 - To delete all messages, press and hold the **A** or **#** key for 1 second. To confirm the deletion, press the **S** or ***** key.

FleetSync is an Alphanumeric 2-way Paging Function, and is a protocol owned by **KENWOOD** Corporation. FleetSync enables a variety of paging functions on your transceiver, some of which depend on dealer programming.

Note: Your transceiver functions include either FleetSync or 5-tone Signaling {page 22}, but not both.

SELCALL (SELECTIVE CALLING)

A Selcall is a voice call to a particular station or to a group of stations.

■ TRANSMITTING

- 1 Select your desired zone and channel.
- 2 Press the key programmed as **Selcall** or **Selcall + Status** to enter Selcall Mode.
- 3 Rotate the selector or press the **<B** and **C>** keys to select the ID of the station you want to call.
 - Alternatively, you can enter a station ID using the DTMF keypad.
 - If Manual Input Mode is enabled, you can enter digits by using the DTMF keypad or by selecting digits with the selector. To enter Manual Input Mode, first press and hold the **S** or ***** key. When using the selector, rotate it to select a digit, then press the **C>** key to accept the digit and shift the cursor to the right. Repeat this process until the entire ID is entered.
- 4 Press the **PTT** switch and begin your conversation.
 - Alternatively, you can press the **Side 2** key to page the selected station, rather than making a voice call.

■ RECEIVING

An alert tone will sound, the transceiver will automatically enter Selcall Mode, and the calling station's ID will appear when a Selcall is received.

To respond to the call, press the **PTT** switch and speak into the microphone.

■ IDENTIFICATION CODES


An ID code is a combination of a 3-digit Fleet number and a 4-digit ID number. Each transceiver must have its own Fleet and ID number.

- Enter a Fleet number (100 ~ 349) to make a group call.
- Enter an ID number (1000 ~ 4999) to make an individual call in your fleet.
- Enter a Fleet number make a call to all units in the selected fleet (Interfleet call).
- Select "ALL" Fleet and enter an ID number to make a call to the selected ID in all fleets (Supervisor call).
- Select "ALL" Fleet and "ALL" ID to make a call to all units (Broadcast call).

Note: The ID range may be limited by programming.

STATUS MESSAGE

You can send and receive 2-digit Status messages which may be decided in your talk group. Messages can contain up to 16 alphanumeric characters. Status messages range from 10 to 99 (80 ~ 99 are reserved for special messages).

A maximum of 15 received messages can be stored in the Queue memory of your transceiver. These saved messages can be reviewed after reception. Depending on your dealer settings, when the Queue memory is full, either the oldest message will be erased when a new message is received or the new message will not be stored in the Queue memory. The  icon lights when a message is stored in the Queue memory.

■ TRANSMITTING

- 1 Select your desired zone and channel.
- 2 Press the key programmed as **Status** to enter Status Mode or **Selcall + Status** to enter Selcall Mode.
 - When using the **Status** key to enter Status Mode, the station ID is fixed and cannot be selected. Skip to step 5 to continue.
- 3 In Selcall Mode, rotate the selector or press the **<B** and **C>** keys to select the ID of the station you want to call.
 - Alternatively, you can enter a station ID using the DTMF keypad.
 - If Manual Input Mode is enabled, you can enter digits by using the DTMF keypad or by selecting digits with the selector. To enter Manual Input Mode, first press and hold the **S** or ***** key. When using the selector, rotate it to select a digit, then press the **C>** key to accept the digit and shift the cursor to the right. Repeat this process until the entire ID is entered.
- 4 Press the **S** or ***** key to enter Status Mode.
- 5 Rotate the selector or press the **<B** and **C>** keys to select the status ID you want to transmit.
 - Alternatively, you can enter the status ID using the DTMF keypad.
 - If Manual Input Mode is enabled, you can enter digits by using the DTMF keypad or by selecting digits with the selector. To enter Manual Input Mode, first press and hold the **S** or ***** key. When using the selector, rotate it to select a digit, then press the **C>** key to accept the digit and shift the cursor to the right. Repeat this process until the entire ID is entered.
- 6 Press the **PTT** switch or **Side 2** key to initiate the Status call.
 - “**«COMPLETE»**” is displayed when the call has been successfully transmitted.

■ RECEIVING

The ☒ icon will flash and a calling ID or text message will appear when a Status call is received.

Press any key to return to Normal Operation Mode.

■ REVIEWING MESSAGES IN THE QUEUE MEMORY

- 1 Press the key programmed as **Queue** to enter Queue Mode.
 - The last received message is displayed with the message number.
- 2 Rotate the selector or press the **<B** and **C>** keys to select the desired message.
 - Press and hold the **S** or ***** key to toggle between the message/ call ID, the channel name, and the time of the received message.
- 3 Press the **S** or ***** key to return to Normal Operation Mode.
 - To delete the selected message, press the **A** or **#** key. To confirm the deletion, press the **S** or ***** key.
 - To delete all messages, press and hold the **A** or **#** key for 1 second. To confirm the deletion, press the **S** or ***** key.

SHORT MESSAGES

To send a short message, you must connect the transceiver to a PC. Ask your dealer for details.

- Short messages can contain a maximum of 48 characters.
- Received short messages are displayed the same as Status messages and are stored in the same Queue memory. A combined maximum of 15 Status calls and short messages can be stored in the Queue memory.

LONG MESSAGES

To send and receive long messages, you must connect the transceiver to a PC. Ask your dealer for details.

- Long messages can contain a maximum of 4096 characters.

DTMF (DUAL TONE MULTI FREQUENCY) CALLS

MANUAL DIALING

■ METHOD 1

Press and hold the **PTT** switch, then enter the desired digits using the front panel keypad.

- If you release the **PTT** switch, transmit mode will end even if the complete number has not been sent.
- If your dealer has activated the Keypad Auto PTT function, you need not press the **PTT** switch while entering digits. The DTMF code will be sent automatically when you press a key.

■ METHOD 2

Enter the desired digits using the front panel keypad (maximum of 30 digits). After entering the complete number, press the **PTT** switch.

- The DTMF code is transmitted after pressing the **PTT** switch.

Note: Switching OFF the transceiver power clears the number.

AUTODIAL

Autodial allows you to store and quickly recall 32 names (up to 12 characters per name) and DTMF numbers (up to 16 digits per number).

REDIAL

- 1 To redial the last called number, press the key programmed as **Autodial**.
 - The first entry in the Autodial list appears on the display.
- 2 Press the * key followed by the 0 key to display the last called number.
- 3 Press the **PTT** switch to make the call.

Note: Switching OFF the transceiver power clears the redial memory.

CONNECT/ DISCONNECT IDs

- 1 Press the key programmed as **Autodial**.
 - The first entry in the Autodial list appears on the display.
- 2 Connect ID: Press the * key two times.
Disconnect ID: Press the * key followed by the # key.
- 3 Press the **PTT** switch to make the call.

DTMF SIGNALING

DTMF Signaling is either enabled or disabled by your dealer. This function opens the squelch only when the transceiver receives the DTMF code programmed in your transceiver. Each transceiver is normally programmed with a unique code. You will not hear calls from transceivers that are not programmed with a matching code.

When you receive a signal containing the correct tones, squelch opens and you will hear the call.

- The LED indicator flashes orange.
- To mute the speaker after squelch opens, press the key programmed as **Monitor**.
- Your dealer can program the squelch to close again after a specific time period elapses.
- If Transpond for DTMF Signaling is programmed, an acknowledgment signal is returned to the calling station.
- If Tone Alert for DTMF Signaling is programmed, an alert tone will sound when the correct tones are received.

STUN

This function is used when a transceiver is stolen or lost. When the transceiver receives a call containing a stun code, either transmit mode will be disabled, or both receive mode and transmit mode will be disabled. Stun is cancelled when the transceiver receives a call with a revive code.

VOICE OPERATED TRANSMISSION (VOX)


VOX can be activated or deactivated by your dealer. VOX operation allows you to transmit hands-free. This feature can only be used if you are using a supported headset.

When operating VOX, you must set a VOX Gain level. This setting allows the transceiver to recognize sound levels. If the microphone is too sensitive, it will begin transmitting when there is noise in the background. If it is not sensitive enough, it will not pick up your voice when you begin speaking. Be sure to adjust the VOX Gain level to an appropriate sensitivity to allow smooth transmission.

To set the VOX Gain level, perform the following steps:

- 1 Connect the headset to the transceiver.
 - The VOX function does not activate when a headset is not connected to the accessory terminal of the transceiver.
- 2 Press the key programmed as **VOX**.
 - The current VOX Gain level appears.
- 3 Press the **<B** and **C>** keys to increase or decrease the VOX Gain level.
 - The VOX Gain can be adjusted from levels 1 to 10.
- 4 While adjusting the gain level, speak into the headset microphone as you would while under normal operation, to test the sensitivity level.
 - When the microphone recognizes a sound, the LED lights orange. This allows you to determine a suitable level where background noise will not activate VOX operation while speaking into the microphone will.
 - The transceiver does not transmit your voice during this test procedure.
- 5 Press the **S** or ***** key to save the setting.

To activate the VOX function:

- 1 Connect the headset to the transceiver.
 - The VOX function does not activate when a headset is not connected to the accessory terminal of the transceiver.
- 2 Press and hold the key programmed as **VOX**.
 - The duration for holding the **VOX** key is programmed by your dealer.
 - The VOX indicator () appears on the display.
- 3 To turn the VOX function OFF, press and hold the **VOX** key again.

Note:

- ◆ If a speaker/ microphone is connected to the transceiver while the VOX function is switched ON and the VOX Gain Level is configured to a higher, more sensitive level, louder received signals may cause the transceiver to start transmission.
 - ◆ When you operate the VOX function, you must use an optional KHS-11BL, KHS-12BL, KHS-14, KHS-15-BH, or KHS-15-OH accessory.
-

EMERGENCY CALLS

If your transceiver has been programmed with the Emergency function, you can make emergency calls.

Note: Only the Auxiliary (orange) key and the PF1 (orange) key of the optional KMC-25 speaker/ microphone can be programmed with the Emergency function.

- 1 Press and hold the key programmed as **Emergency**.
 - Depending on the delay time programmed into your transceiver, the length of time you must hold the **Emergency** key will vary.
 - When the transceiver enters Emergency mode, the transceiver will change to the Emergency channel and begin transmitting based on how the transceiver is set up by your dealer. Transmit periods are also set by your dealer.
- 2 To exit Emergency mode, press and hold the **Emergency** key again.
 - If the Emergency mode completes the preset number of cycles, Emergency mode will automatically end and the transceiver will return to the channel that was in use before Emergency mode was entered.

Note:

- ◆ Your dealer can set a beginning of transmit and end of transmit tone for the transceiver.
 - ◆ Your dealer can set the transceiver to emit tones and received signals as normal or mute the speaker during Emergency operation.
-

SELECTING A TRANSMIT POWER

Each channel is programmed with either high or low transmit power by your dealer. You can change the transmit power of only channels programmed as high.

When you can reliably communicate with other parties without using high transmit power, select low transmit power by pressing the key programmed as **Low Transmission Power**. Each time you press **Low Transmission Power**, the transmit power toggles between high and low.

- The **L** icon appears while using low transmit power.
- Using low transmit power conserves battery power and reduces the risk of interfering with other communications.

Note: Pressing **Low Transmission Power** while using a channel programmed with low power causes an error tone to sound.

TALK AROUND


You may occasionally experience an interruption in service (due to a power failure, etc.). During such an occurrence, you can continue communication by using the Talk Around feature. Talk Around allows you to communicate directly with other transceivers, without the use of a repeater. However, if the station you want to contact is too far away, or there are geographical obstacles in the way, you may not be able to contact the station.

Toggle Talk Around ON and OFF by pressing the key programmed as **Talk Around**.

- The **T** icon appears on the display while Talk Around is active.
- When using Talk Around, the receive frequency is used for both transmitting and receiving, and the decode signaling is used for both encoding and decoding.

MONITOR/ SQUELCH OFF

You can use the key programmed as **Monitor/ Squelch Off** to listen to weak signals that you cannot hear during normal operation and to adjust the volume when no signals are present on your selected channel.

- The  icon appears on the display while Monitor/ Squelch Off is activated.

Your dealer can program a key with one of 4 functions:

- **Monitor:** Momentarily press to deactivate QT, DQT, DTMF, 5-tone, or FleetSync Signaling. Press the key again to return to normal operation.
- **Monitor Momentary:** Press and hold to deactivate QT, DQT, DTMF, 5-tone, or FleetSync Signaling. Release the key to return to normal operation.
- **Squelch Off:** Momentarily press to hear background noise. Press the key again to return to normal operation.
- **Squelch Off Momentary:** Press and hold to hear background noise. Release the key to return to normal operation.

■ SQUELCH LEVEL

To adjust the squelch level:

- 1 Press the key programmed as **Squelch Level**.
- 2 Press the **<B** key to decrease the squelch level (open) and the **C>** key to increase the squelch level (tighten).
 - Alternatively, you can increase or decrease the squelch level by rotating the selector.
- 3 Press the **S** or ***** key to store the new setting and exit the squelch level adjustment.

KEY LOCK

This function is used to help prevent any accidental operation of the transceiver.

To lock the transceiver keys, press and hold the key programmed as **Key Lock**.

- The duration for holding the **Key Lock** key is programmed by your dealer.
- "LOCKED" appears on the display.
- You can continue to use the following programmable functions (if available): **Emergency, Function, Key Lock, Lamp, Monitor, Monitor Momentary, Squelch Off, and Squelch Off Momentary.**

To unlock the keys, press and hold the **Key Lock** key again.

SCRAMBLER

Although the scrambler function does not offer complete privacy with your calls, it does prevent others from easily listening in on your calls. When activated, the transceiver distorts your voice so that anybody listening to your call will be unable to clearly hear what you are saying.

In order for members of your own group to clearly hear your call while you are using the scrambler, all other members must also activate the scrambler functions on their transceivers. This distorts everybody's voice while transmitting and corrects the voice message on your own transceiver when you receive the call.

To activate the scrambler, press the key programmed as **Scrambler**.

- The ◊ icon appears on the display while the scrambler is active.

To deactivate the scrambler, press the **Scrambler** key again.

Note: There are 2 options for using the scrambler. Your dealer can activate or deactivate the built-in scrambler function of the transceiver, or they can add a more secure optional scrambler board to your transceiver. Ask your dealer for details.

CLOCK

If activated by your dealer, your transceiver can track the time and date with its built-in clock. The time will display momentarily when the transceiver power is turned ON. Additionally, you can view the clock any time by pressing the key programmed as **Clock**.

Note: Removing the battery pack or leaving the battery pack uncharged for extended periods will cause the clock time to clear.

■ CLOCK SETUP

To set the year, month, day, and time:

- 1 With the transceiver power OFF, press and hold the **C>** key while turning the transceiver power ON.
 - The current year setting appears.
- 2 Rotate the selector to select the year, then press the **S** key to cycle to the month setting.
 - Repeat this step, to cycle through the day, hour, and minute settings.
- 3 Press the **S** key again, to return to the year setting.
 - A triple beep will sound, indicating that your selections have been set into the transceiver memory.
- 4 Turn the transceiver power OFF and then back ON to return to Normal Operation Mode.

TRANSCEIVER BACKLIGHT

To turn the transceiver display and front panel keypad backlight on, press the key programmed as **Lamp**.

- Pressing any key other than the **PTT** switch, the **Power** switch/**Volume** control, and the **Lamp** key while the backlight is on will reset the backlight timer, allowing it to remain lit for an additional 5 seconds.

To turn the transceiver backlight off immediately, press the **Lamp** key while the backlight is on.

BACKGROUND OPERATIONS

TIME-OUT TIMER (TOT)

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

If you continuously transmit for a period of time that exceeds the programmed time set by your dealer (default is 1 minute), the transceiver will stop transmitting and an alert tone will sound. To stop the tone, release the **PTT** switch.

Your dealer can program the TOT time in the range of 15 seconds to 20 minutes.

BUSY CHANNEL LOCKOUT (BCL)

When activated, BCL prevents you from interfering with other parties who may be using the same channel that you selected. Pressing the **PTT** switch while the channel is in use will cause your transceiver to emit an alert tone and transmission will be inhibited (you cannot transmit). Release the **PTT** switch to stop the tone and return to receive mode.

If activated, you can override this function. To override BCL, press the **PTT** switch again immediately after releasing it (within half a second).

Note: Ask your dealer for an explanation on how BCL functions when using QT, DQT, DTMF, 5-tone, or FleetSync signaling.

BATTERY SAVER

If activated by your dealer, the Battery Saver function will decrease 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 5 seconds, Battery Saver turns ON. When a signal is received or an operation is performed, Battery Saver turns OFF.

BATTERY POWER INDICATOR

The battery power indicator displays the battery power remaining, as illustrated below:

 High

 Sufficient


 Low

 Very low (flashing)

When the battery power is very low, replace or recharge the battery pack. If activated by your dealer, an alert tone will sound every 30 seconds and the LED indicator will blink red when the battery power is low.

SIGNAL STRENGTH INDICATOR

The signal strength indicator displays the strength of received calls:

 Strong signal

 Medium signal

 Weak signal

 Very weak signal

BEGINNING/ END OF TRANSMIT SIGNAL

The Beginning of Transmit and End of Transmit identification signals are used to access and release some repeaters.

If Beginning of Transmit is set, the ID signal is transmitted when you press the **PTT** switch.

If End of Transmit is set, the ID signal is transmitted when you release the **PTT** switch.

If both are set, the ID signal is transmitted when you press and release the **PTT** switch.

When using the optional VGS-1 voice guide & storage unit, you gain access to the voice recorder and voice announcement functions. Ask your dealer for details.

VOICE RECORDER

The voice recorder function allows you to record your conversations and create voice memos and automated message responses.

■ AUTO RECORDING

If activated, the auto recording function will continuously record all transmitted and received signals. The recording storage area retains 30 seconds of recording, so all transmitted and received signals are simultaneously recorded and erased, leaving only the last 30 seconds of recording in memory.

- The auto recording indicator (■■■■■■■■■■) appears when this function is activated.

■ VOICE MEMOS

To record a voice memo, for later playback:

- 1 Press the key programmed as **Voice Memo**.
 - The duration of recording memory will appear on the display and begin counting down.
- 2 Speak into the transceiver to record your voice memo.
- 3 Press the **Side 2**, **S**, or ***** key to end the recording at any time and store it into the transceiver memory.
 - If the memory becomes full, recording will stop automatically and store the voice memo to memory.
 - "WRITING" appears on the display while the recording is being stored to memory.

■ AUTO REPLY MESSAGE

You can set the transceiver to automatically respond to Individual Calls (while using FleetSync):

- 1 Press the key programmed as **Auto Reply Message** to enter Auto Reply Message mode.**
 - The Auto Reply Message indicator (████████████████████) appears on the display.
- 2 When you receive an Individual Call, Auto Reply will begin after waiting for 3 seconds, the transceiver will send an automatic response to the caller, and "GREETING" appears on the display.**
 - If you are available to receive the call, press any key to disable the auto response.
 - If memory is available on your transceiver for recording, "I am not available. Leave your Message." will be sent to the caller. The caller can then leave a recorded message on your transceiver which you can later recall and listen to. When a message is stored on your transceiver, "Msg Rcvd" appears on the display.
 - If no memory is available on your transceiver for recording, "I am not available." will be sent to the caller and "MEMORY FULL" appears on the display.

■ **PLAYBACK**

To play back a recorded conversation, memo, or message:

- 1** Press the key programmed as **Playback** to enter Playback mode.
 - If the last action on your transceiver was to auto record your conversation, "STORE?" will appear on the display, otherwise a recording channel with the time of the recording will appear. To store the conversation record in the next available recording channel, press the **Side 2** key. To clear the conversation, press the **A** or **#** key. To skip to the stored recording channels, press the **S** or ***** key. To skip back 5 seconds, press the **<B** key. To skip ahead 5 seconds, press the **C>** key.
- 2** Rotate the selector to select the channel which you want to play back.
 - "RM" represents automated reply messages.
 - "AR" represents conversation records.
 - "UM" represents voice memos.
- 3** The transceiver will announce the channel, then the recording will automatically play back.
 - When the entire recording has been played, "END OF MSG" (end of message) is displayed.
 - To delete the selected recording, press the **A** or **#** key. To clear all the recorded data, press and hold the **A** or **#** key. A confirmation message will appear on the display. Press the **S** or ***** key to delete the recording(s) or the **A** or **#** key to cancel.

VOICE GUIDE

When changing the zone, channel, or operation mode, an audio voice will announce the new zone, channel, or mode, after it has been selected. (Voice Annunciation can be activated or deactivated by your dealer.)

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