KENWOOD

TH-D75A
TH-D75E

USER GUIDE

This User Guide covers only the basic operations of your transceiver. For the detailed instruction manual (User Manual), refer to the following URL.

https://manual.kenwood.com/files/B5K-1131-00.pdf

GUIDE DE L'UTILISATEUR

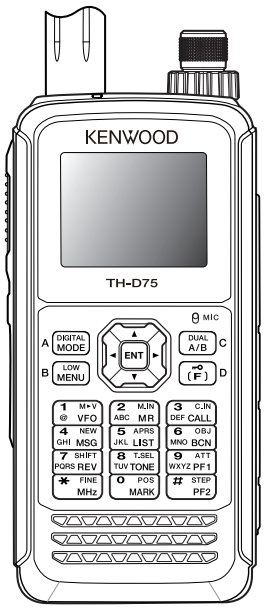
Ce Manuel de l'utilisateur concerne uniquement les opérations de base de votre émetteur-récepteur. Pour avoir accès un manuel de l'utilisateur détaillé (Mode d'emploi), reportez-vous à l'URL suivante.

https://manual.kenwood.com/files/B5K-1131-00.pdf

GUÍA DEL USUARIO

Este Manual del usuario sólo cubre las operaciones básicas de su transceptor. Para más detalles sobre el uso del manual de usuario (Manual de instrucciones), consulte el siguiente URL.

https://manual.kenwood.com/files/B5K-1131-00.pdf



JVCKENWOOD Corporation

B5A-4344-00 (K, E)

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printf("%s",png_get_copyright(NULL));

Also, the PNG logo (in PNG format, of course) is supplied in the files “pngbar.png” and “pngbar.jpg” (88x31) and “pngnow.png” (98x31).

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Glenn Randers-Pehrson

glennrp at users.sourceforge.net

December 19, 2013

*Md5

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L. Peter Deutsch

ghost@aladdin.com

144/220/430MHz TRIBANDER

TH-D75A

144/430MHz DUAL BANDER

TH-D75E

USER GUIDE

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NOTIFICATION
This equipment complies with the essential requirements of Directive 2014/53/EU and Radio Equipment Regulations 2017.

Restrictions
This equipment requires a licence and is intended for use in the countries as below.

AT	BE	DK	FI	FR	DE	GR	IS	IE	IT	LI	LU	NL
NO	PT	ES	SE	CH	CY	CZ	EE	HU	LV	LT	MT	PL
SK	SI	BG	RO	HR	TR	TR	UK(NI)					

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CONTENTS

Note:

- ◆ Display examples in this manual may not match the actual operations.

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- JVCKENWOOD Corporation shall be free from any responsibilities for any incidental losses or damages, such as missing communications or call opportunities caused by a failure or performance error of the transceiver.

BEFORE STARTING

Thank You

We are grateful you decided to purchase this **KENWOOD** Digital transceiver.

The models listed below are covered by this manual.

TH-D75A: 144/220/430MHz TRIBANDER (The Americas)

TH-D75E: 144/430MHz DUAL BANDER (E type: Europe/ T type: UK)

Features

This transceiver has the following main features:

- Includes a program for dealing with data formats supported by Automatic Packet Reporting System (APRS®).
  - – Compliant with a digipeater.
- Compliant with voice/digital mode D-STAR digital amateur radio networks.
  - – Compliant with D-STAR dual monitor.
  - – Compliant with D-STAR hotspot lists.
  - – Compliant with the reflector terminal mode.
- Built-in GPS receiver unit.
- Transflective color TFT Display.
- Weatherproof toughness equivalent to IP 54/55 standard.
- Wide-band and multi-mode reception.
- Two-wave simultaneous reception. (VxU, UxV, UxU (TH-D75A/ TH-D75E), Vx220M, 220MxV, Ux220M (TH-D75A)
- Equipped with IF filter for comfortable reception (SSB/CW).
- High-performance DSP-based voice processing.
- Built-in Bluetooth (SPP, HSP)
- microSD (2 GB to 32 GB)
- Compliant with the battery charge as well as data transmission and reception by USB Type-C™.
- 1000 memory channels, 1500 repeater lists
- Transmit power 4-step switching (5/ 2/ 0.5/ 0.05 W)

Writing Conventions Followed in this Manual

The writing conventions described below have been followed to simplify instructions and avoid unnecessary repetition.

Instruction	Action
Press [KEY].	Momentarily press KEY.
Press [KEY] (1s).	Press and hold KEY for 1 second or longer.
Press [KEY1], [KEY2].	Press KEY1 momentarily, release KEY1, then press KEY2.
Press [F], [KEY].	Press the F key to enter Function mode, then press KEY to access its secondary function.
Press [KEY] + Power ON.	With the transceiver power OFF, press and hold KEY while turning the transceiver power ON.

ATTENTION: (USA and CANADA only)
The RBRC Recycle seal found on KENWOOD Lithium-ion (Li-ion) battery packs indicates KENWOOD's voluntary participation in an industry program to collect and recycle Li-ion batteries after their operating life has expired.

The RBRC program is an alternative to disposing Li-ion batteries with your regular refuse or in municipal waste streams, which is illegal in some areas. For information on Li-ion battery recycling in your area, call (toll free) 1-800-8-BATTERY (1-800-822-8837).
KENWOOD's involvement in this program is part of our commitment to preserve our environment and conserve our natural resources.

Information on Disposal of Old Electrical and Electronic Equipment and Batteries (applicable for countries that have adopted separate waste collection systems)

Products and batteries with the symbol (crossed-out wheeled bin) cannot be disposed as household waste.
Old electrical and electronic equipment and batteries should be recycled at a facility capable of handling these items and their waste byproducts.
Contact your local authority for details in locating a recycle facility nearest to you.
Proper recycling and waste disposal will help conserve resources whilst preventing detrimental effects on our health and the environment.

NOTICES TO THE USER

SUPPLIER'S DECLARATION OF CONFORMITY

47 CFR § 2.1077 Compliance Information

Trade name: KENWOOD

Model(s): TH-D75A, AC adapter (W0H-0160)

Responsible party: JVCKENWOOD USA Corporation 1440 Corporate Drive, Irving, TX 75038 USA

Telephone number: 972-819-0700

One or more of the following statements may be applicable for this equipment.

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 by the party responsible/ JVCKENWOOD. 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.

RF EXPOSURE INFORMATION FOR BLUETOOTH

This equipment complies with FCC/IC radiation exposure limits and meets the FCC radio frequency (RF) Exposure Guidelines and RSS-102 of the IC radio frequency (RF) Exposure rules.

This equipment has very low levels of RF energy that are deemed to comply without testing of specific absorption rate (SAR).

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

This device complies with Industry Canada license exempt RSS standard(s). Operation is subject to the following two conditions : (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

This product is designed for connection to an IT power distribution system.

This product contains a CR Coin Cell Lithium Battery which contains Perchlorate Material – special handling may apply. See www.dtsc.ca.gov/hazardouswaste/perchlorate

PRECAUTION

- 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 earphone 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 long transmissions, the chassis will become hot. Do not touch these hot locations when replacing the battery pack.
- Do not immerse the transceiver in water.
- Do not hold the knob when carrying the transceiver. Doing so may cause the knob to come off and the transceiver to fall.
- If water enters the microphone opening or the speaker grill, the audio level may become unstable or distorted. Lightly shake the transceiver to remove the water from the speaker and/or microphone before operating the transceiver.
- Do not place the accessories of the transceiver or the items removed from the transceiver within reach of infants and children. There is a risk that these may be swallowed. If these are swallowed accidentally, consult a doctor immediately.
- If condensation forms, let it dry naturally or leave the transceiver in the same environment for a long time to eliminate the condensation before using the transceiver.
- Always switch the transceiver power OFF before installing or removing optional accessories. Make these changes out of the Hazardous Location.
- For safety reasons, we recommend that the battery charger be connected to an easily accessible AC socket.
- To dispose of batteries, be sure to comply with the laws and regulations in your country or region.

⚠ 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. (Any use of the transceiver must follow the instructions and regulations provided by the airline crew.)
- Where restrictions or warnings are posted regarding the use of radio devices, including but not limited to medical facilities.
- 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 projected 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 an (Radio Frequency energy) 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.
- Do not carry the battery pack (or battery case) with metal objects, as they may short the battery terminals.
- Danger of explosion if the battery is incorrectly replaced; replace only with the same **KENWOOD** brand & model battery pack.
- Power OFF the transceiver before changing the battery pack.
- When operating the transceiver in areas where the air is dry, it is easy to build up an electric charge (static electricity). When using a earphone accessory in such conditions, it is possible for the transceiver to send an electric shock through the earphone and to your ear. We recommend you use only a speaker/microphone in these conditions, to avoid electric shocks.
- When attaching a commercial strap to the transceiver, ensure that the strap is durable. In addition, do not swing the transceiver around by the strap; you may inadvertently strike and injure another person with the transceiver.
- If a commercially available neck strap is used, take care not to let the strap get caught on nearby machine.
- Do not use the PG-2W to connect directly to a vehicle battery (12 V). Extensive voltage could result in damaging the transceiver. If the input voltage exceeds approximately 17.5 V, the transceiver automatically turns OFF.

Caution about dustproofing and waterproofing

- The transceiver is not completely dustproof and waterproof. When the supplied antenna and the battery pack are installed, and when rubber caps for the SP/MIC jack, microSD memory card slot, USB connector, and DC IN jack are securely attached with no gaps, the dustproofing equivalents with IP5x (protection against dust), and the waterproofing equivalents with IPx4 (protection against water spray) and IPx5 (protection against water jet). If the optional battery case (KBP-9) is attached, the dustproofing and waterproofing equivalent with IP54.
- The waterproofing of the transceiver is only for fresh water and tap water at room temperature (approximately 20°C /70°F). For hot water, cold water, salt water, soup, juice, tea, coffee, detergent, and medication, etc., the transceiver is not waterproof because the leakage into the transceiver increases.
- If a rubber cap is damaged or degrades, the dustproofing and waterproofing of the transceiver cannot be maintained. For the replacement and ordering, etc. of the rubber cap (Part Number: B0K-0148-00), contact the service center or the dealer of the place of purchase. (When you replace a rubber cap, the replacement of the rubber cap is your responsibility.)

Information concerning the battery pack:

The battery pack includes flammable content such as organic solvents. 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 safety precautions.

⚠ DANGER

- **Do not disassemble or rebuild the battery!**
  The battery pack has a safety and protection circuits 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 circuit is damaged, or the electrolyte is ignited, the battery may generate heat or smoke, rupture, or burst into flame.
- **Do not leave the battery near fire, stoves, or other heat generators (areas reaching over 80°C/ 176°F)!**
  If a cell internal 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.
- **Avoid immersing the battery in water or getting it wet!**
  If the battery becomes wet, wipe it off with a dry towel before use. If the battery's protection circuit is damaged, the battery may charge at excess 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 heat sources, fires or in direct sunlight!**
  If the battery's protection circuit is damaged, the battery may charge at excess 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(s) and observe charging requirements!**
  If the battery is charged in out of specifications conditions (at high temperature over the specified value, excessive high voltage or current over the specified value, or with a modified 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 object, or step on it!**
  This may break or deform the battery, causing a short-circuit. 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 circuit is damaged, the battery may generate heat or smoke, rupture, or burst into flame.
- **Do not reverse the battery polarity (or terminals)!**
  When charging a reverse connected 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 terminals. 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, flush your eyes 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 specified time has passed, stop it. The battery may generate heat or smoke, rupture, or burst into flame.
- **Do not place the battery pack in a microwave oven or a 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 hot, flammable or combustible 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.

PREPARATION

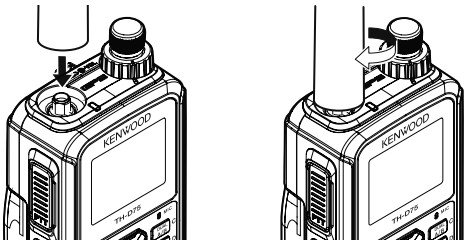
SUPPLIED ACCESSORIES

After carefully unpacking the transceiver, identify the items listed in the table below. We recommend you keep the box and packaging for shipping.

Item	Comments	Quantity		
		TH-D75A	TH-D75E	
			E	T
Antenna		1	1	1
Li-ion battery pack	KNB-75LA: 1820 mAh	1	1	1
AC adapter (Battery charger) (AC Voltages: 100 - 240 V, 50/60 Hz)	W0H-0160-XX	1	–	–
	W0H-0161-XX	–	1	–
	W0H-0162-XX	–	–	1
Belt clip		1	1	1
Warranty card		1	1	1
User guide	English/ French/ Spanish	1	1	1
	Italian/ German/ Dutch	–	1	–

INSTALLING THE ANTENNA

Hold the supplied antenna by its base, then screw it into the connector on the top panel of the transceiver until secure.

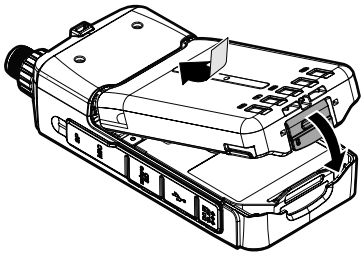


INSTALLING THE BATTERY PACK

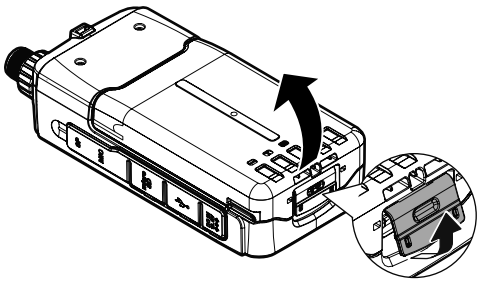
Note:

- Because the battery pack is provided uncharged, you must charge the battery pack before using it with the transceiver.
- When removing the battery pack, be careful not to drop the transceiver and the battery pack.

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



To remove the battery pack, lift the release lever to unlock the battery pack. Lift the battery pack away from the transceiver.



CHARGING THE BATTERY PACK

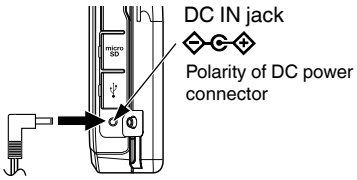
For charging the battery pack with the supplied battery charger

The battery pack can be charged after it has been installed onto the transceiver. (The battery pack is provided uncharged for safety purposes.)

1 Plug the charger into an AC wall outlet.

- Plug in the charger while the transceiver power is OFF.

2 Insert the charger plug into the DC IN jack of the transceiver.



- Charging starts and "Charging" appears on the display when the transceiver power is OFF. "Charging" disappears when charging is completed.
- The backlight is ON when pressing any key while charging.
- "Charging" does not appear when charging with the optional rapid battery charger.

3 It takes approximately 3.5 hours to charge an empty KNB-75LA Li-ion battery pack (charging when the transceiver power is OFF). After 3.5 hours, remove the charger plug from the transceiver DC IN jack.

- Charging when the transceiver power is ON takes a longer time than charging when the transceiver power is OFF.

4 Unplug the charger from the AC wall outlet.

Note:

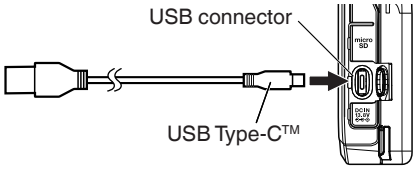
- Never leave the battery pack in direct sunlight.
- The transceiver becomes warm while charging the battery pack.
- While the battery pack is charged, the ambient temperature must be within 0°C ~ 40°C (32°F ~ 104°F). Otherwise, charging does not start. If the transceiver senses that the temperature is more than 60°C (140° F) during charging, the transceiver stops charging.
- Before recharging the battery pack, use the battery pack until the transceiver stops receiving.
- Do not plug the charger into the DC IN jack for more than 24 hours.
- Do not expose the charger to dripping or splashing conditions. No objects filled with liquids, such as vases, shall be placed on the AC adapter or charger.
- Do not place the charger into the liquids.
- Unplug the charger as soon as possible after the charging period is over.
- The charger plug for an AC wall outlet should be used to disconnect an AC adapter from an AC outlet, and the charger plug must remain readily operable.
- After the battery pack is charged, do not unplug and plug the charger into the AC outlet again. Unpluging the charger will reset the charging timer and the battery pack will be charged again. This could result in over-charging.
- If the battery pack is not used for a long time, the battery pack capacity temporarily decreases. In this case, charge the battery and use the battery pack until the transceiver stops receiving. Repeat this procedure several times. The battery pack should recover its capacity.
- Exceeding the specified charge period shortens the useful life of the KNB-75LA battery pack.
- The provided charger is designed to charge only the KNB-75LA battery pack. Charging other models of battery packs may damage the charger and battery pack.
- Do not transmit while charging.
- When not in use, store the battery pack in a cool and dry place.
- Before charging the battery pack, ensure that the release lever is firmly closed.
- Attention should be drawn to the environmental aspects of battery disposal.

- ◆ It takes approximately 3 hours to charge the KNB-75LA with the optional rapid battery charger.
- ◆ Charging through the DC IN jack and USB connector when the transceiver is turned ON can be prevented. Access Menu No. 923 (page 25).

For charging the battery pack with the USB cable (USB Type-C™)

1 Plug the USB cable into an AC adapter, etc.

2 Attach the battery pack to the transceiver, and plug the USB plug into the USB connector.



Note:

- ◆ To avoid a failure or abnormal heat generation, be sure to use a USB converter AC adapter (sold separately) with a 5 V output voltage and a current of 2 A or higher.
- ◆ Do not use a USB cable exceeding 3 m (9.8 feet).
- ◆ Charging from the USB cable is not guaranteed to work with all USB cables or AC adapters.
- ◆ Charging time with the USB connector may be longer than with the supplied charger.
- ◆ If the DC IN cable and USB cable are both connected, you cannot charge from the USB cable. The DC IN route has priority.
- ◆ Charging through the DC IN jack and USB connector when the transceiver is turned ON can be prevented. Access Menu No. 923 (page 25).

For charging the battery pack with the optional rapid battery charger

Note:

- ◆ Insert the battery pack only in the rapid battery charger to charge a battery pack that has been in storage for a long time.
- ◆ If the battery pack is completely depleted while using the transceiver, remove the battery pack from the transceiver and insert the battery pack in the rapid battery charger.
- ◆ When the battery is installed on the transceiver and you are using an optional rapid battery charger, do not charge the battery from the DC IN jack/ USB connector. Charging the battery from the DC IN jack/ USB connector may result in overcharging the battery which can result in the shortening of the battery life cycle.

Charger Error

- While charging, if a problem is detected in the battery, “Charge Error !!” appears on the display.
- The following condition create charging error:
  - Overvoltage in the battery is detected.
- When a charge error occurs, no key other than **[⏻]** will function.

BATTERY LIFE

Before you operate the transceiver outside using a battery pack, it is important to know how long the battery pack will last. The operating times listed in the table below are measured under the following cyclic conditions:

If the battery saver setting is 1.0 sec and the GPS setting is Off in the single band operation, the operating times listed in the table below are the referential values under the following cyclic conditions: TX: 6 seconds, RX: 6 seconds, Stand-by: 48 seconds (unit: hour)

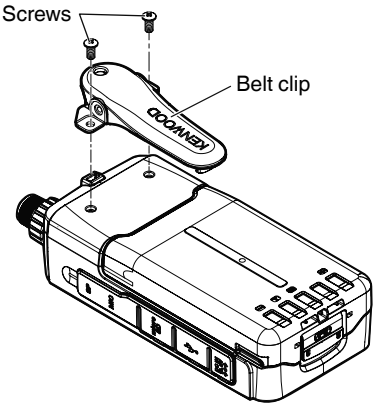
We recommend you carry extra battery packs with you, in case the battery pack becomes depleted.

Battery Type	Output Power	Operating Time/ Hours (Approx.)
KNB-75LA Li-ion battery pack	H	6
	M	8
	L	12
	EL	15

INSTALLING THE BELT CLIP

If desired, you can install the supplied belt clip to the transceiver.

Attach the belt clip firmly using the two supplied M3 x 6 mm binding screws.



Note:

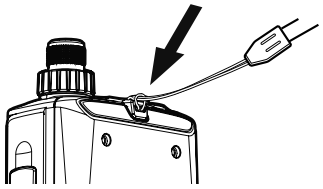
- ◆ Be careful not to pinch your fingers into the belt clip.

⚠ 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 HAND STRAP

If desired, you can install the commercially available strap with sufficient strength using the holes of the transceiver.

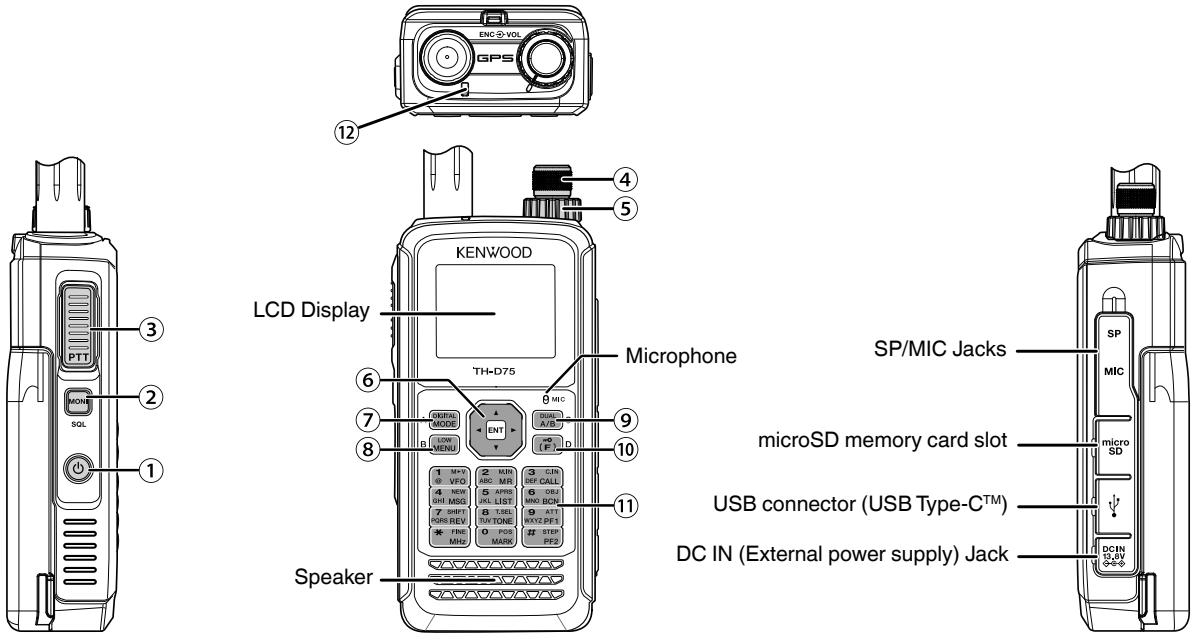


Note:

- ◆ If the strap is thick and does not pass through the holes, install the strap using the holes of the supplied belt clip.

GETTING ACQUAINTED

KEY AND CONTROL KNOB OPERATIONS



①[⏻]

Press **[⏻] (1s)** to turn the transceiver power ON and OFF.

Press **[⏻]** to turn the backlight ON and OFF when the transceiver power is ON.

The backlight turns OFF when the backlight timer elapses.

When the voice guidance function is not set to OFF, the voice announces the operating states of the transceiver.

When pressing **[⏻]** while announcing, the voice stops.

②[MONI]

Press and hold **[MONI]** to unmute the speaker in order to monitor signals.

Release **[MONI]** to return to normal operation.

Press **[F]**, **[MONI]** to enter the Squelch level adjustment mode.

③[PTT]

Press and hold **[PTT],** then speak into the microphone to transmit.

④[ENC] Control

Rotate the **[ENC]** control to select an operating frequency, Memory channel, Menu item, setting value and change the scan direction, etc.

⑤[VOL] Control

Rotate the **[VOL]** control to adjust the speaker volume.

⑥Multi-Scroll Key

[▲], [▼]

Press **[▲]** or **[▼]** to select an operating frequency, Memory channel, Menu item, setting value or to change the scan direction, etc.

Press and hold **[▲]** or **[▼]** to change an operating frequency, Memory channel, Menu item, setting value, etc. continuously.

[▶]

Press and hold **[▶]** to select a frequency band in VFO mode.

Press **[▶]** to move to the next step in various setting modes.

[◀]

Press and hold **[◀]** to select a frequency band in VFO mode.

Press **[◀]** to move back to the previous step in various setting modes.

[ENT]

Press **[ENT]** to enter frequency direct entry mode in VFO mode.

Press **[ENT]** to complete the setting value and move to the next step in Menu mode or various setting modes.

⑦[MODE]

Press **[MODE]** to select the mode.

Press **[F]**, **[MODE]** in DV mode or DR mode to enter Digital Function Menu mode.

This key operates the function displayed in the lower left side. (Refer to page 15.)

⑧[MENU]

Press **[MENU]** to enter Menu mode.

Press **[F]**, **[MENU]** to cycle the transmit output power.

⑨[A/B]

Press **[A/B]** to select operation band A or B.

Press **[F]**, **[A/B]** to switch the Single band mode and Dual band mode.

This key operates the function displayed in the lower right side. (Refer to page 15.)

⑩[F]

Press **[F]** to enter Function select mode.

Press **[F] (1s)** to turn the transceiver Key lock function ON and OFF.

⑪12 Keypad

[VFO] (1)

Press **[VFO]** to enter VFO mode. In Memory channel or CALL channel, press **[F]**, **[VFO]** to copy the current Memory channel or Call channel to the VFO (memory shift).

[MR] (2)

Press **[MR]** to enter Memory Channel mode.

Press **[F]**, **[MR]** to move to the Memory channel store screen.

[CALL] (3)

Press **[CALL]** to select the Call channel.

Press **[F]**, **[CALL]** to store the current operating frequency to the Call channel.

[MSG] (4)

Press **[MSG]** to display the APRS Message list.

Press **[F]**, **[MSG]** to enter the New Message input mode.

[LIST] (5)

Press **[LIST]** to display the APRS Station list.

- Each time you press **[F]**, **[LIST],** the mode cycles through the following: APRS mode ON ➡ KISS mode ON ➡ OFF.

[BCN] (6)

Press **[BCN]** to transmit the beacon when APRS mode is ON.

Press **[F]**, **[BCN]** to transmit the Object.

[REV] (7)

Press **[REV]** to turn the Reverse function ON or OFF.

Press **[F]**, **[REV]** to select the Shift direction.

[TONE] (8)

Press **[TONE]** to turn the Tone function ON.

- Each time you press **[TONE]**, the function cycles through the following: Tone ON ➡ CTCSS ON ➡ DCS ON ➡ Cross Tone ON ➡ OFF.

Press **[F]**, **[TONE]** to enter the Tone frequency, CTCSS frequency, DCS code, or Cross Tone setup mode.

Press **[F]**, **[TONE] (1s)** to start the Tone frequency, CTCSS frequency, or DCS code scan.

[PF1] (9)

Press **[PF1]** to activate its programmed function.

Press **[F]**, **[PF1]** to turn the Attenuator function ON or OFF.

[MARK] (0)

Press **[MARK]** to display the Position memory list.

Press **[MARK] (1s)** to enter the Mark Way point registration mode.

Press **[F]**, **[MARK]** display your “My position”.

[MHz] (✳)

Press **[MHz]** to enter the MHz mode.

Press **[MHz] (1s)** to start the MHz scan.

Press **[F]**, **[MHz]** to enter Fine tuning function mode.

[PF2] (#)

Press **[PF2]** to activate its programmed function.

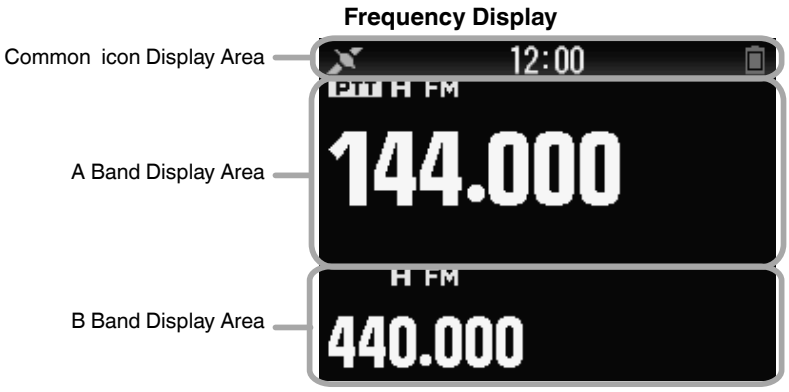
Press **[F]**, **[PF2]** to enter Frequency step setup mode or Fine step frequency setup mode.

⑫ **ON AIR/ Busy Indicator**

The indicator lights red in transmitting, and lights green in receiving.

The indicator lights blue in transmitting in the reflector terminal mode.

DISPLAY



Various function indicator

Indicator	Description
	Performs as the S meter when receiving a signal.
	Displays the selected power level while transmitting.
PTT	Indicates the transmission band.
EL	Appears while using Economic low output power.
L	Appears while using Low output power.
M	Appears while using Medium output power.
H	Appears while using High output power.
FM	Appears while in FM mode.
NFM	Appears while in Narrow FM mode.
WFM	Appears while in Wide FM mode.
AM	Appears while in AM mode.
LSB	Appears while in LSB mode.
USB	Appears while in USB mode.
CW	Appears while in CW mode.
DR	Appears while in Digital Repeater mode.
DV	Appears while in Digital Voice mode.
VA	Appears when Voice Alert is set to [On].
VAR	Appears when Voice Alert is set to [RX Only].
T	Appears when the Tone function is ON.
CT	Appears when the CTCSS function is ON.
DCS	Appears when the DCS function is ON.
T/C	Appears when the Cross tone function is "TONE/CTCSS".
D/C	Appears when the Cross tone function is "DCS/CTCSS".

Indicator	Description
T/D	Appears when the Cross tone function is "TONE/DCS".
D/O	Appears when the Cross tone function is "DCS/OFF".
+	Appears when the Shift function is set to plus.
−	Appears when the Shift function is set to minus.
	Appears when the Shift function is set to -7.6 MHz. (TH-D75E only)
R	Appears when the Reverse function is ON.
ATT	Appears when the Attenuator function is ON.
APRS 12	Appears when the packet communication speed in APRS mode is set to 1200 bps.
APRS 96	Appears when the packet communication speed in APRS mode is set to 9600 bps.
KISS 12	Appears when the packet communication speed in KISS mode is set to 1200 bps.
KISS 96	Appears when the packet communication speed in KISS mode is set to 9600 bps.
STA	Appears while in Stand-by (Packet mode).
BCON	Appears when the Beacon function is ON.
OBJ	Appears when the Object function is ON.
	Appears when the built-in GPS function is ON and positioning.
	Appears when the built-in GPS function is ON and not positioning.
	Appears when the GPS Track Log function is ON and the built-in GPS function is positioning.
	Appears when the GPS Track Log function is ON and the built-in GPS function is not positioning or in Save mode.
	Appears when a message is received.
	Appears when recording communication.
	Appears when playback of a voice message is paused.

Menu Mode Display

KEY GUIDE Display Area

D-STAR (DV/DR mode) Display

Indicator	Description
P	Appears when the Priority Scan function is ON.
	Appears when FM radio mode is ON.
	The Bluetooth® function is ON.
	Connected to a Bluetooth® device.
SD	Appears when a microSD memory card is recognized. Blinks when a microSD memory card is mounting or unmounting.
W	Appears when Weather Alert is ON. Blinks when Weather Alert is detected. (TH-D75A only.)
	Appears when the key lock is ON.
	Indicates the battery level.
	Appears during charging of the battery.
Grp 29	Indicates the memory group number.
WX	Indicates the Weather Channel. (TH-D75A only.)
	Appears when the Memory Channel Lockout function is ON.
R	Appears when the Repeater Lockout function is ON.
CCS	Appears when Callsign squelch is ON.
DCS	Appears when Code squelch is ON.
B	TX: Appears in interrupt communication. RX: Blinks while receiving interrupt communication.
	Appears when the auto reply function is ON.

Indicator	Description
	Appears in GPS transmission.
DATA	Appears while in data communication mode. Blinks while receiving fast data.
	Appears when a packet loss happens.
	Indicates a repeater for local area call.
	Indicates a repeater for call within zone.
	Indicates a repeater for gateway call.
TERM	Appears while in the reflector terminal mode.

SWITCHING THE POWER ON/ OFF

Switching the Power ON

Press **[⏻] (1s)**.

The power on message momentarily appears, and frequency screen appears.

Switching the Power OFF

Press **[⏻] (1s)**.

ADJUSTING THE INTERNAL CLOCK

When the built-in GPS function is turned ON, the year, month, day, and time are automatically set from the GPS satellite information. The default setting of the built-in GPS function is [On]. If the GPS information cannot be received, you can manually enter the date and time.

1 Access Menu No. 950.

Date & Time screen appears by pressing **[MENU]**, **[PF1]**, **[LIST]**, **[MARK]**.

2 Set the date, time, and time zone with **[▲]/[▼]** or **[ENC]** control.

3 Press **[A/B].**

The date, time, and time zone are set.

4 Press **[MENU]** to return to the frequency screen.

ADJUSTING THE VOLUME

Rotate the **[VOL]** control to increase the volume and counterclockwise to decrease the volume.

When no sound is heard (the squelch is closed), you can adjust the noise level by rotating the **[VOL]** control while pressing the **[MONI]**.

- Refer to page 24 for setting the beep that sounds during key operation, etc.

VOLUME BALANCE (BAND A/B)

This function adjusts the volume balance when using the transceiver with dual bands.

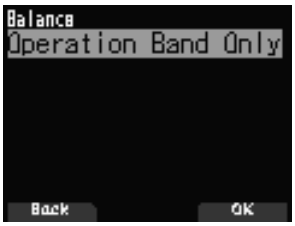
1 Access Menu No. 910.

Volume balance screen appears by pressing **[MENU]**, **[PF1]**, **[VFO]**, **[MARK]**.

2 Change the balance with **[▲]/[▼]** or **[ENC]** control.

- Band A and B are set to the same volume level (MAX) as a default setting. Pressing **[MODE]** returns to the previous screen without changing the setting.

When you select [Operation Band Only], the sound of the operation band is outputted with priority.



Setting examples

When used in combination with APRS:

When using band A for voice calls, use the transceiver with the sound of band B set to a low volume level or muted.

When simultaneously scanning two waves:

If [Operation Band Only] is set, a voice is output only for the operation band when the operation and non-operation band become busy at the same time.

3 Press **[ENT]** to set the volume balance.

4 Press **[MENU]** to return to the frequency screen.

SELECTING DUAL BAND MODE/ SINGLE BAND MODE

You can switch the transceiver between dual band operation and single band operation.

1 Press **[F], [A/B]**.

- Each time you press **[F], [A/B]**, the transceiver switches between Single band and Dual band mode.

Dual Band mode

Single Band mode

SELECTING AN OPERATION BAND

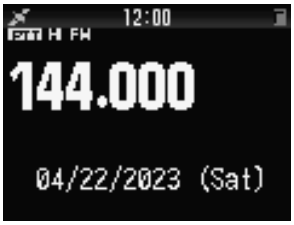
You can select a band A or B as an operation band for changing the frequency or setting various operations, etc.

1 Press **[A/B]** to select operating band A or B.

Dual Band A

Dual Band B

Single Band A



Single Band B

SELECTING A FREQUENCY BAND

You can change the frequency bands for bands A and B.

1 Press **[◀]/[▶] (1s)**.

- Each time you press **[◀]/[▶] (1s)**, you cycle to the next frequency band.

  Band A : 144 ⇔ 220 ⇔ 430 ⇔ 144 (MHz).

  Band B : 430 ⇔ UHF(470-524) ⇔ LF/MF(AMBC) ⇔ HF ⇔ 50 ⇔FMBC ⇔ 118 ⇔ 144 ⇔ VHF(174-216) ⇔ 200/300 ⇔ 430 (MHz).

Note:

◆ 220 MHz band in Band A is used by the TH-D75A only.

Frequency ranges:

- 118 MHz: Band B 108 ~ 136 MHz
- 144 MHz: 136 ~ 174 MHz
- VHF: 174 ~ 216 MHz (TH-D75A)
  174 ~ 230 MHz (TH-D75E)
- 220 MHz: 216 ~ 260 MHz (TH-D75A only)
- 200/300 MHz: Band B 216 ~ 410 MHz (TH-D75A)
  230 ~ 410 MHz (TH-D75E)
- 430 MHz: 410 ~ 470 MHz
- UHF: 470 ~ 524 MHz
- LF/MF(AMBC): 0.1 ~ 1.71 MHz
- HF: 1.71 ~ 29.7 MHz
- 50: 29.7 ~ 76 MHz
- FMBC: 76 ~ 108 MHz

SELECTING THE DEMODULATION MODE

You can select the demodulation mode.

1 Press **[A/B]** to select an operation band.

2 Press **[MODE]** to select a demodulation mode.

- Each press changes the demodulation mode as follows.

Band A: FM/NFM ➡ DR (DV) ➡ (Returns to FM/NFM)

Band B: FM/NFM ➡ DR (DV) ➡ AM ➡ LSB ➡ USB ➡ CW ➡ (Returns to FM/NFM)

Note:

◆ Switching between the DV and DR modes is not possible with the **[MODE]** button. (Refer to "Digital Function Menu".)

◆ Switching between the FM and NFM modes is not possible with the **[MODE]** button. (Refer to page 16.)

SELECTING A FREQUENCY

There are 3 operating modes available to choose from: VFO mode, Memory Channel mode, and Call Channel mode.

VFO Mode

VFO mode allows you to manually change the operating frequency.

1 Press **[VFO]** to enter VFO mode.

2 Rotate the **[ENC]** control to select your desired operating frequency.

- You can also select a frequency by using the **[▲]/[▼]** keys.
- The default step frequency for the **[ENC]** control varies according to the model and operating frequency band:

Model	144 MHz	220 MHz	430 MHz
TH-D75A	5 kHz	20 kHz	25 kHz
TH-D75E	12.5 kHz	-	25 kHz

Note:

◆ 220 MHz band is used by the TH-D75A only.

MHz Step

To adjust the frequency by a larger amount, press **[MHz]** to enter MHz mode, then rotate the **[ENC]** control or use the **[▲]/[▼]** keys to adjust the frequency in steps of 1 MHz. Press **[MHz]** again to exit MHz mode and adjust the frequency using the normal step frequency.

Frequency Direct Entry

If the desired operating frequency is far from the current frequency, using the keypad is the quickest way to change the frequency.

1 Press **[ENT]**.

The Direct Frequency Entry display appears.

2 Press the numeric keys (**[0]** ~ **[9]**) to enter your desired frequency.

3 To set the entered frequency, press 6 digit.

- Pressing **[ENT]** before entering all of the digits will set the remaining digits to 0.

Memory Channel Mode

Memory Channel mode allows you to quickly select a frequently used frequency and related data which you have stored in the memory channel.

1 Press **[MR]** to enter Memory Channel mode.

The Memory channel number appears on the display.

2 Rotate the **[ENC]** control to select your desired Memory channel.

Call Channel Mode

Call Channel mode allows you to quickly select a preset channel to allow immediate calls on that frequency. The Call channel can be conveniently used as an emergency channel within your group.

1 Press **[CALL]** to enter Call Channel mode.

"C" appears on the display.

2 Press **[CALL]** again, and the transceiver will return to the previous frequency.

- The default settings are as follows.

TH-D75A

Band (Mode)	Call Channel	Memory Name
VHF (except DV/DR mode)	146.520 MHz (FM)	Call VHF (FM)
VHF(DV/DR mode)	144.000 MHz (DV)	Call VHF (DV)
220 MHz(except DV/DR mode)	223.500 MHz (FM)	Call 220M (FM)
220 MHz(DV/DR mode)	223.000 MHz (DV)	Call 220M (DV)
UHF(except DV/DR mode)	446.000 MHz (FM)	Call UHF (FM)
UHF(DV/DR mode)	440.000 MHz (DV)	Call UHF (DV)

TH-D75E

Band	Call Channel	Memory Name
VHF (except DV/DR mode)	145.500 MHz (FM)	Call VHF (FM)
VHF(DV/DR mode)	144.8125MHz (DV)	Call VHF (DV)
UHF(except DV/DR mode)	433.500 MHz (FM)	Call UHF (FM)
UHF(DV/DR mode)	433.6125MHz (DV)	Call UHF (DV)

ADJUSTING THE SQUELCH

Squelch is used to mute the speaker when no signals are present. With the squelch level set correctly, you will hear sound only while actually receiving a signal. The higher the squelch level selected, the stronger the signals must be in order to hear them. You can set the squelch level separately for Bands A and B.

1 Press **[F], [MONI]**.

The squelch level appears on the display.

2 Press **[▲]/[▼]** or rotate the **[ENC]** control of your selected band, when no signals are present, and select the squelch level at which the background noise is just eliminated.

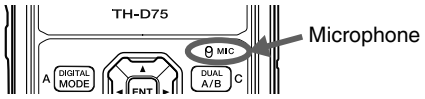
3 Press **[ENT]**.

The squelch level is set.

TRANSMITTING

1 Select your desired band and frequency/channel.

2 Press and hold **[PTT]**, and speak into the microphone to transmit.



3 When you finish speaking, release the **[PTT]**.

Selecting an Output Power

Selecting a lower transmit power is the best way to reduce battery consumption, if communication is still reliable.

Press **[F]**, **[MENU]** to select high (H), medium (M), low (L), or economic low (EL) power.

Battery Pack KNB-75LA	H	Approx. 5 W
	M	Approx. 2 W
	L	Approx. 0.5 W
	EL	Approx. 0.05 W

Note:

- You can program different power settings for bands A and B.
- You can not change the output power in transmitting.
- You can not set the output power in each frequency band.
- Refer to the details instruction manual (User Manual) when using with an external power supply or Alkaline batteries.

MONITOR

When you are receiving while the squelch function is ON, weak signals may become intermittent.

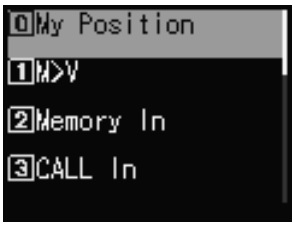
1 Press and hold **[MONI]**.

• The speaker is unmuted and you can monitor the signals.

2 Release **[MONI]** to return to normal operation.

FUNCTION SELECT MODE

Press **[F]** to enter Function Select mode. Press **[F]** again to return to the previous screen.



Pressing each key in the Function Select Mode performs the operation of the second function assigned to each key.

The function of each key may differ depending on the mode when **[F]** is pressed (refer to the following table).

Key	Second function	Remarks
[MARK] (0)	My position	Built-in GPS is On.
[VFO] (1)	Memory shift	Only in Memory mode or Call mode
[MR] (2)	Memory channel registration	
[CALL] (3)	Call channel registration	
[MSG] (4)	APRS message creation	
[LIST] (5)	APRS/ KISS mode switching	
[BCN] (6)	Object packet	Only in APRS mode
[REV] (7)	Shift	
[TONE] (8)	Tone frequency	
[PF1] (9)	Attenuator	
[MHz] (*)	Fine mode	
[PF2] (#)	Frequency Step	
[MODE]	Digital function menu	Only in DV/DR mode
[MENU]	Transmission power	
[A/B]	Dual or Single band switching	
[F]	Function select mode end	
[MONI]	Squelch setting	

Note:

- The tone frequency changes to the following setting items depending on the conditions of this transceiver.
  Tone OFF: Invalid
  Tone ON: Tone frequency
  CTCSS ON: CTCSS frequency
  DCS ON: DCS frequency
  Cross Tone ON: Cross tone combination

MENU MODE

Many functions on this transceiver are selected or configured through the Menu instead of physical controls.

MENU ACCESS

Example: Setting the time for [Battery Saver] of Menu No. 920.

1 Press **[MENU]**.

The transceiver enters the Menu mode. The icon currently selected by the cursor is highlighted, and the item name is displayed at the bottom of the screen. (Example: TX/RX)

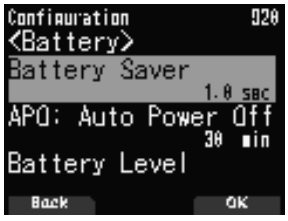
Directly Entering a Menu Number (Direct Access)

You can also directly enter a Menu number using the number keys from this screen.

Press **[PF1], [MR], [MARK]** for Menu No.920. In this case, you can move to step 4.

2 Select [Configuration] with **[▲]/[▼]** or **[ENC]** control and press **[A/B]**.

3 Select [Battery] with **[▲]/[▼]** or **[ENC]** control and press **[A/B]**.



4 Select [Battery Saver] with **[▲]/[▼]** or **[ENC]** control and press **[A/B]**.

5 Select a setting value with **[▲]/[▼]** or **[ENC]** control and press **[A/B]** to set the value.

6 Press **[MENU]**.

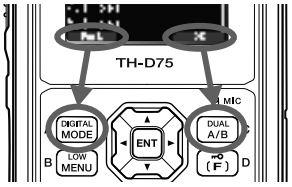
The Menu mode ends and the frequency screen appears. For subsequent Menu operations, steps 1 to 4 will be referred to as "Access Menu No. XXX".

Note:

- Pressing **[PTT]** during each operation ends Menu mode without confirming the setting.
- Pressing **[MODE]** during each operation returns to the previous screen. Also, pressing **[MODE]** during step 4 discards the new setting value and returns to the previous operation.
- Pressing **[MENU]** in scanning cancels scan.

Software Key Operation

Software keys (**[Back]**, **[OK]**, etc.) are displayed in the key guide area of various setting screens and other screens. To select or operate the displayed functions, press the corresponding keys.



Example:

[Back] ➡ Press **[MODE]:** Returns to the previous screen without confirming the displayed setting.

[OK] ➡ Press **[A/B]:** Changes to the next screen.

CHARACTER ENTRY

In the screens that require you to enter text such as the screen for entering a memory name or power-on message, there are two methods to enter text. One is to enter text using the number keys in the same ways as a mobile phone and the other is to enter text by selecting characters one by one with the Multi-Scroll Key or **[ENC]** control.

Keypad Character Entry

1 Enter text with **[0]** to **[9]** and **[ENT]**.

- The each press of a key changes the character that can be entered.
- To enter another character assigned to the same key, move the cursor to the next position with **[▶]** (**[◀]** moves the cursor to the previous position) and enter the next character.
- Pressing **[A/B]** deletes a character. The character at the cursor position is deleted. The backspace operation is performed when there is a blank space.
- Pressing **[◀]/[▶]** moves the cursor.

Example: Entering the power-on message (Menu No.903)

- Pressing **[MODE]** changes the character input mode.
- Pressing **[A/B]** clears the text.

2 Press **[▶]**.

The cursor moves to the right. If 16 characters are entered, this operation confirms the characters and ends text input.

3 Press **[ENT]**.

The text is confirmed and text input ends.

Entering Text with the Multi Scroll Key or [ENC]

1 Display the character with **[▲]/[▼]** or **[ENC]** control.

2 Press **[▶]**.

The character or symbol is entered and the cursor moves to the right.

Pressing **[A/B]** deletes the character selected by the cursor. If it is pressed when there is no character selected by the cursor, the cursor moves to the left.

Auto Cursor Shift

This function provides assistance for entering text using the number keys. It is convenient to use this function when consecutively entering characters with the same key because it automatically moves the cursor to the right after a set time has passed.

You can set this time until the cursor is moved to the desired time.

1 Access Menu No. 945.

Select [Off], [1.0], [1.5], or [2.0] seconds.

2 Press **[ENT]**.

MENU CONFIGURATION

No.	Display	Description	Setting Values
TX/RX - RX			
100	**Programmable VFO**	Programmable VFO setting (Band A only)	Varies with the selected frequency band
101	**Beat Shift**	Beat shift	**Type 1** - Type 8
102	**USB Out Select**	USB output select	**AF**/ IF/ Detect
103	**FM Narrow**	FM narrow	**Off**/ On
104	**MW/ SW Antenna**	MW/ SW antenna	ATT connector / **Bar Antenna**
105	**WX Alert**	Weather alert	**Off**/ On (TH-D75A only)
TX/RX - TX			
110	**TX Inhibit**	TX inhibit	**Off**/ On
111	**Time-out Timer**	Time-out timer	0.5/ 1.0/ 1.5/ 2.0/ 2.5/ 3.0/ 3.5/ 4.0/ 4.5/ 5.0/ **10.0** [min]
112	**Mic. Sensitivity**	Microphone sensitivity	Low/ **Medium**/ High
TX/RX - RX Filter			
120	**SSB High Cut**	SSB high cut frequency	2.2/ **2.4**/ 2.6/ 2.8/ 3.0 [kHz]
121	**CW Width**	CW bandwidth	0.3/ 0.5/ **1.0**/ 1.5/ 2.0 [kHz]
122	**AM High Cut**	AM high cut frequency	3.0/ 4.5/ **6.0**/ 7.5 [kHz]
TX/RX - Scan			
130	**Resume**	Resume method	**Time**/ Carrier/ Seek
131	**Resume (Digital)**	Resume method (Digital)	Time/ Carrier/ **Seek**
132	**Time Restart**	Time operate restart time	1 - **5** - 10 [sec]
133	**Carrier Restart**	Carrier operate restart time	1 - **2** - 10 [sec]
134	**Priority Scan**	Priority scan	**Off**/ On
135	**Scan Auto Backlight**	Scan auto backlight	**Off**/ On
136	**Auto Weather Scan**	Auto weather channel scan	**Off**/ On (TH-D75A only)
TX/RX - Repeater			
140	**Offset Frequency**	Offset frequency	Varies with the selected frequency band
141	**Auto Offset**	Auto repeater offset	Off/ **On**
142	**CALL Key**	CALL key function	**CALL** (TH-D75A)/ **1750Hz** (TH-D75E)
143	**1750Hz TX Hold**	1750 Hz TX hold	**Off**/ On
TX/RX - VOX			
150	**VOX**	VOX on/ off	**Off**/ On
151	**Gain**	VOX gain level	0 - **4** - 9
152	**Delay**	VOX delay time	250/ **500**/ 750/ 1000/ 1500/ 2000/ 3000 [ms]
153	**TX on Busy**	VOX on busy	**Off**/ On
TX/RX - DTMF			
160	**Encode Speed**	Encode speed	50/ **100**/ 150 [ms]
161	**Pause Time**	Pause time	100/ 250/ **500**/ 750/ 1000/ 1500/ 2000 [ms]
162	**TX Hold**	TX hold	**Off**/ On
163	**DTMF Memory**	DTMF memory	Up to 10 channels for DTMF memory channel Up to 16 characters for DTMF memory name Up to 16 digits for DTMF memory code
164	**EchoLink Memory**	EchoLink memory	Up to 10 channels for EchoLink memory channel Up to 8 characters for EchoLink memory name Up to 8 digits for one channel code
TX/RX - CW			
170	**Pitch Frequency**	Pitch frequency	400 - **800** - 1000 [Hz]
171	**Reverse**	Reverse	**Normal**/ Reverse

No.	Display	Description	Setting Values
TX/RX - Others			
180	**QSO Log**	QSO log	**Off**/ On
181	**LED Control**	LED control	**RX**: Check FM Radio: Uncheck
Memory - Memory Channel			
200	**View List**	Memory channel list	-
201	**Group Name**	Memory group name input	Up to 16 characters
202	**Recall Method**	Memory channel recall method	**All Bands**/ Current Band
203	**Group Link**	Memory group link registration	Register up to 30 memory group links
204	**CALL Ch List**	CALL channel list	-
Memory - Repeater List			
210	**View List**	Repeater list	-
Memory - Callsign List			
220	**View List**	Callsign list	-
Memory - Hotspot List			
230	**View List**	Hotspot list	-
Audio File - Recording File			
300	**View List**	Recording file list	-
301	**Recording**	Recording	**Stop**/ Start
302	**Recording Band**	Recording band	**A Band**/ B Band
Audio File - Voice Message			
310	**View List**	Voice message list	-
311	**TX Monitor**	TX monitor	Off / **On**
312	**Digital Auto Reply**	Digital auto reply	**Off**/ Voice Message 1 - Voice Message 4
GPS - Basic Settings			
400	**Built-in GPS**	Built-in GPS	Off/ **On**
401	**My Position**	My position	My Position 1 - 5/ **GPS**
402	**Position Ambiguity**	Position ambiguity mode	**Off**/ 1-Digit - 4-Digit
403	**Operating Mode**	Built-in GPS operating mode	**Normal**/ GPS Receiver
404	**Battery Saver**	Battery saver time	Off/ 1min/ 2min/ 4min/ 8min/ **Auto**
405	**PC Output**	GPS data output to PC	**Off**/ On
406	**Sentence**	Sentence	**$GPGGA**/ $GPGLL/ $GPGSA / $GPGSV/ **$GPRMC**/ $GPVTG
GPS - Track Log			
410	**Track Log**	Track log recording	**Off**/ On
411	**Clear Track Log**	Clear track log	-
412	**Record Method**	Record method	**Time**/ Distance/ Beacon
413	**Interval**	Interval time	2 - **10** - 1800 [sec]
414	**Distance**	Distance	**0.01** - 9.99 [km]
APRS - Basic Settings			
500	**My Callsign**	Callsign entry	Up to 9 characters
501	**Icon**	Icon	**Person**/ Bicycle/ Motorcycle, etc. (total 68 icons)
502	**Position Comment**	Position comment	Off Duty/ Enroute/ **In Service**/ Returning/ Committed/ Special/ PRIORITY/ CUSTOM0 ~ CUSTOM6/ EMERGENCY!
503	**Status Text**	Status text	Status text: **1** - 5 TX Rate: Off/ 1/1 - **1/4** - 1/8 Up to 42 characters
504	**Packet Path**	Packet path type	Type: **New-N**/ Relay/ Region/ Others1-Others3, WIDE1-1: Off/On, RELAY: Off/On, ABBR: Up to 5 characters, Total Hops: 0 - **1** - 7, Path: Up to 79 characters
505	**Data Speed**	Data communications speed	**1200bps**/ 9600bps
506	**Data Band**	Internal data band type	**A Band**/ B Band
507	**DCD Sense**	DCD sense type	**Busy**/ Detect Data/ Off (Ignore)
508	**TX Delay**	TX delay time	100/ 150/ **200**/ 300/ 400/ 500/ 750/ 1000 [ms]
509	**APRS Lock**	APRS lock	Frequency/ PTT/ APRS Key: All unchecked

No.	Display	Description	Setting Values
APRS - Beacon TX Control			
510	**Method**	Method	Manual/ PTT/ **Auto**/ SmartBeaconing
511	**Initial Interval**	Initial Interval timer	0.2/ 0.5/ **1**/ 2/ 3/ 5/ 10/ 20/ 30/ 60 [min]
512	**Decay Algorithm**	Decay algorithm	Off/ **On**
513	**Prop. Pathing**	Prop. pathing	Off/ **On**
514	**Speed**	Speed	Off/ **On**
515	**Altitude**	Altitude	**Off**/ On
516	**Object**	Object/ Item settings	Name: up to 9 characters, Type: **Live Object**/ Killed Object/ Live Item/ Killed Item, Method: Off/ **Temp.**/ Auto(15 min)/ Auto(30 min)/ Auto(60 min), N(S): Latitude, E(W): Longitude, Icon (Total 68 kinds): **Eyeball**/ Portable (Tent)/ HAM Store, etc., Comment: up to 42 characters
APRS - QSY Information			
520	**QSY Info. in Status**	QSY information in status	**Off**/ On
521	**Tone/Narrow**	Tone/ Narrow	**Off**/ On
522	**Shift/Offset**	Shift/ Offset	**Off**/ On
523	**QSY Limit Distance**	QSY limit distance	**Off**/ 10/ 20 … 2490/ 2500
APRS - SmartBeaconing			
530	**Low/High Speed**	Low speed/ High speed setting	Low Speed: 2 - **5** - 30 [km/h] High Speed: 2 - **70** - 90 [km/h]
531	**Slow Rate**	Low speed transmission interval time	1- **30** - 100 [min]
532	**Fast Rate**	High speed transmission interval time	10 - **120** - 180 [sec]
533	**Turn Angle**	Driving direction change, minimum value setting	5 deg - **28 deg** - 90 deg
534	**Turn Slope**	Driving direction change, additional value setting	1 (10deg/speed) - **26 (10deg/speed)** - 255 (10deg/speed)
535	**Turn Time**	Minimum time delay between each beacon transmission	5 - **60** - 180 [sec]
APRS - Waypoint			
540	**Format**	Way point format	**NMEA**/ MAGELLAN/ KENWOOD
541	**Length**	Way point name length	**6-Char**/ 7-Char/ 8-Char/ 9-Char
542	**Output**	Way point output type	**All**/ Local/ Filtered
APRS - Packet Filter			
550	**Position Limit**	Position limit	**Off**/ 10/ 20 … 2490/ 2500
551	**Filter Type**	Filter type	**Weather**/ **Digipeater**/ **Mobile**/ **Object**/ **NAVITRA**/ **1-WAY**/ **Others**
APRS - Message			
560	**User Phrases**	User phrases	Up to 32 characters x 8 phrases
561	**Auto Reply**	Auto message reply	**Off**/ On
562	**Reply To**	Reply to	Up to 9 characters
563	**Reply Delay Time**	Reply delay time	0/ **10**/ 20/ 30/ 60 [sec]
564	**Reply Message Text**	Reply message text input	Up to 50 characters
APRS - Notification			
570	**RX Beep**	RX beep	Off/ Message Only/ Mine/ All New/ **All**
571	**TX Beep**	TX beep	Off/ **On**
572	**Special Call**	Special call	Up to 9 characters
573	**Display Area**	Display area	**Entire Always**/ Entire Display/ One Line
574	**Interrupt Time**	Interrupt time	3/ 5/ **10**/ 20/ 30/ 60/ infinite [sec]
575	**APRS Voice**	APRS voice	**Off**/ On
APRS - Digipeat			
580	**Digipeat(MyCall)**	Digipeat function	**Off**/ On
581	**UIcheck**	UI check time	1 - **28** - 250 [sec]
582	**UIdigipeat**	Uidigipeat	**Off**/ On
583	**UIdigi Aliases**	UIdigi aliases text string	Up to 9 characters x 4
584	**UIflood**	UIflood	**Off**/ On
585	**UIflood Alias**	UIflood alias text string	Up to 5 characters
586	**UIfloodSubstitution**	UIflood substitution	**First**/ Id/ Noid
587	**UItrace**	UItrace	**Off**/ On
588	**UItrace Alias**	UItrace alias text string	Up to 5 characters

No.	Display	Description	Setting Values
APRS - Others			
590	**PC Output**	PC output type	**Off**/ Raw Packets/ Waypoints
591	**Network**	Network type	**APRS[APK005]**/ Altnet
592	**Voice Alert**	Voice alert type	**Off**/ On/ RX Only
593	**VA Frequency**	VA frequency type	67.0 - **100.0** - 254.1 Hz
594	**Message Group Code**	Message group code	Up to 9 characters x 6 codes (ALL,QST,CQ,KWD)
595	**Bulletin Group Code**	Bulletin group code	Up to 5 characters x 6 codes
Digital - RX History			
600	**View History**	View history	-
Digital - TX/RX			
610	**My Callsign**	Callsign entry	Up to 8 characters + up to 4 characters
611	**TX Message**	TX message	**Off**/ 1/ 2/ 3/ 4/ 5
612	**Direct Reply**	Direct reply	Off/ **On**
613	**Auto Reply Timing**	Auto reply timing	**Immediate**/ 5/ 10/ 20/ 30/ 60 [sec]
614	**Data TX End Timing**	Data TX end timing	**Off**/ 0.5/ 1/ 1.5/ 2 [sec]
615	**EMR Volume Level**	EMR Volume level	1 - **25** - 50
616	**RX AFC**	RX AFC	Off/ **On**
617	**FM Auto Det. on DV**	FM auto detector on DV	**Off**/ On
618	**Data Frame Output**	Data frame output	**All**/ Related to DSQL/ DATA Mode
619	**Break Call**	Break Call	**Off**/ On
Digital - Digital Squelch			
620	**Select Type**	Select type	**Off**/Code Squelch/ Callsign Squelch
621	**Digital Code**	Digital code	**00** - 99
Digital - GPS Data TX			
630	**GPS Info. in Frame**	GPS Information in frame	**Off**/ On
631	**Sentence**	Sentence	**$GPGGA**/ $GPGLL/ $GPGSA/ $GPGSV/ **$GPRMC**/ $GPVTG/ APRS Sentence
632	**Auto TX**	Auto TX	**Off**/ 0.2/ 0.5/ 1/ 2/ 3/ 5/ 10/ 20/ 30/ 60 [min]
Digital - RX Notification			
640	**Display Method**	Display method	Off/ **All**/ Related to DQSL/ My Station Only
641	**Single Display Size**	Single display size	Half Display/ **Entire Display**
642	**Dual Display Size**	Dual display size	Half Display/ **Entire Display**
643	**Display Hold Time**	Display hold time	0 / 3/ 5/ **10**/ 20/ 30 / 60/ Infinite [sec]
644	**Callsign Announce**	Callsign announce	**Off**/ Kerchunk/ Except Kerchunk/ My Station Only/ All
645	**Standby Beep**	Standby beep	**Off**/ On
Digital - DV Gateway			
650	**DV Gateway Mode**	Terminal mode (reflector) operation	**Off**/ Reflector TERM Mode
651	**My Callsign**	My callsign	Up to 8 character callsign + 6 patterns of up to 4 character identification code
652	**RPT1**	RPT1 (access repeater callsign)	Up to 8 characters
653	**RPT2**	RPT2 (connection repeater callsign)	Up to 8 characters
654	**Device Information**	Device name	Up to 16 characters
FM Broadcasting - Basic Settings			
700	**FM Radio Mode**	FM radio mode	**Off**/ On
701	**Auto Mute RET. Time**	Auto mute return time	1 - **3** - 10 [sec]
FM Broadcasting - Memory			
710	**FM Radio List**	FM radio list	-
SD Card - Export			
800	**Config Data**	Config data	-
801	**Config Data + V.Msg**	Config data and voice message	-
802	**Repeater List Only**	Repeater list only	-
803	**Callsign List Only**	Callsign list only	-
SD Card - Import			
810	**Config Data**	Config data	-
811	**Config Data + V.Msg**	Config data and voice message	-
812	**Repeater List Only**	Repeater list only	-
813	**Callsign List Only**	Callsign list only	-
SD Card - Unmount			
820	**Execute**	Unmount execute	-
SD Card - Format			
830	**Execute**	Format execute	-

No.	Display	Description	Setting Values
SD Card - Memory Size			
840	**View**	Free capacity	-
Configuration - Display			
900	**Backlight Control**	Backlight control	Auto/ **Auto (DC-IN)**/ Manual/ On
901	**Backlight Timer**	Backlight timer	3 - **10** - 60 [sec]
902	**LCD Brightness**	LCD brightness	**High**/ Medium/ Low
903	**Power-on Message**	Power-on message input	Up to 16 characters
904	**Single Band Display**	Single band display type	Off/ GPS(Altitude) / GPS(GS)/ **Date**/ Demodulation Mode
905	**Meter Type**	Meter type	**Type 1**/ Type 2/ Type 3
906	**Background Color**	Background color select	**Black**/ White
907	**Info. Backlight**	Information backlight	Off/ LCD/ **LCD+Key**
Configuration - Audio			
910	**Balance**	Audio balance	A:100/ B:0, A:100/ B:25, A:100/ B:50, A:100/ B:75, **A:100/ B:100**, A:75/ B:100, A:50/ B:100, A:25/ B:100, A:0/B:100, Operation Band Only
911	**TX/RX EQ**	TX/RX EQ	RX EQ/ TX EQ(FM, NFM)/ TX EQ(DV)
912	**TX EQ Level**	TX EQ level	-9 - **0** - +3 [dB]
913	**RX EQ Level**	RX EQ level	-9 - **0** - +9 [dB]
914	**Beep**	Beep	Off/ **On**
915	**Beep Volume**	Beep volume	**Volume Link**/ Level 1 - Level 7
916	**Voice Guidance**	Voice guidance	**Off**/ Manual/ Auto1/ Auto2
917	**Voice Guidance Vol.**	Voice guidance volume	**Volume Link**/ Level 1 - Level 7
918	**VoiceGuidanceSpeed**	Voice guidance speed	**Speed 1** - Speed 4
919	**Callsign Readout**	Callsign readout	**Standard**/ Phonetics
91A	**USB Audio Out. Lvl.**	USB audio output level	Level 1 - Level 5 - **Level 7**
Configuration - Battery			
920	**Battery Saver**	Battery saver	Off/ 0.2/ 0.4/ 0.6/ 0.8/ **1.0**/ 2.0/ 3.0/ 4.0/ 5.0 [sec]
921	**APO: Auto Power Off**	APO: Auto power off	Off/ 15/ **30**/ 60 [min]
922	**Battery Level**	Battery level	-
923	**Charging**	Charges even when the power is on.	Off / **On**
Configuration - Bluetooth			
930	**Bluetooth**	Bluetooth	**Off** / On
931	**Connect**	Connect	-
932	**Device Search**	Device search	-
933	**Disconnect**	Disconnect	-
934	**Pairing Mode**	Pairing mode	-
935	**Device Information**	Device information	Up to 19 characters
936	**Auto Connect**	Auto connect	Off / **On**
Configuration - Auxiliary			
940	**PF1 Key**	PF1 Key	Recording - Voice Message 1-4 - Voice Guidance - Battery Level - VOX - Group Name - **Balance (PF1)** - **GPS (PF2)** - Track LOG - SQL - SHIFT - STEP - LOW - Key Lock - Lockout - M>V - T. SEL - NEW - Voice Alert - LCD Brightness - DTMF CH0 - EchoLink CH0 - 1750Hz Tone - M. IN
941	**PF2 Key**	PF2 Key	
942	**PF1 (Mic)**	PF1 (Mic)	Recording - Voice Message 1-4 - Voice Guidance - Battery Level - VOX - Group Name - Balance - GPS - Track LOG - SQL - SHIFT - STEP - LOW - Key Lock - Lockout - M>V - T. SEL - NEW - Voice Alert - LCD Brightness - DTMF CH0 - EchoLink CH0 - 1750Hz Tone - Screen Capture - MODE - MENU - **A/B (PF1 Mic)** - **VFO (PF2 Mic)** - **MR (PF3 Mic)** - CALL- MSG - LIST - BCON - REV - TONE - MHz - MARK - DUAL - APRS - OBJ - ATT - FINE - POS - BAND - MONI - UP - DOWN
943	**PF2 (Mic)**	PF2 (Mic)	
944	**PF3 (Mic)**	PF3 (Mic)	
945	**Cursor Shift**	Cursor shift	**Off**/ 1.0/ 1.5/ 2.0 [sec]
946	**Secret Access Code**	Secret access code input	000 - 999 (TH-D75A only)
Configuration - Date & Time			
950	**Setting**	Date and time setting	-
Configuration - Lock			
960	**Keys Lock Type**	Keys lock type	Key Lock/ **Frequency Lock**
961	**DTMF Keys Lock**	DTMF keys lock	**Off**/ On
962	**Mic Keys Lock**	Microphone keys lock	**Off**/ On
963	**Volume Lock**	Volume lock	**Off**/ On

No.	Display	Description	Setting Values
Configuration - Units			
970	**Speed, Distance**	Speed/ Distance	**mi/h, mile** (TH-D75A)/ **km/h, km** (TH-D75E)/ knots, nm
971	**Altitude, Rain**	Altitude/ Rain	**feet, inch** (TH-D75A)/ **m, mm** (TH-D75E)
972	**Temperature**	Temperature	°**F** (TH-D75A)/ °**C** (TH-D75E)
973	**Latitude, Longitude**	Latitude/ Longitude	**dd°mm.mm'**/ dd°mm'ss.s"
974	**Grid Square Format**	Grid square format	**Maidenhead Grid**/ SAR Grid (CONV)/ SAR Grid (CELL)
Configuration - Interface			
980	**USB Function**	USB function	**COM+AF/IF Output**/ Mass Storage
981	**PC Output(GPS)**	PC output (GPS)	**USB**/ Bluetooth
982	**PC Output(APRS)**	PC output (APRS)	**USB**/ Bluetooth
983	**KISS**	PC input/ output (KISS)	**USB**/ Bluetooth
984	**DV/DR**	PC input/ output (DV/DR)	**USB**/ Bluetooth
985	**DV Gateway**	PC input/ output (DV Gateway)	**USB**/ Bluetooth
Configuration - System			
990	**Language**	Language	**English**/ Japanese
991	**Version**	Firmware version	-
999	**Reset**	Reset	**VFO Reset**/ Partial Reset/ Full Reset

Note:
- Menu descriptions and setting values are subject to change without prior notice.
- Bold character in setting values indicates a default setting.

MEMORY CHANNELS

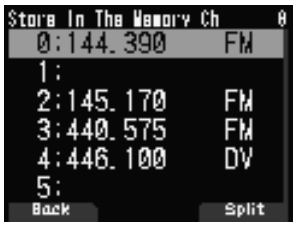
MEMORY CHANNEL LIST

The memory channel configurations can be displayed on the Memory Channel List screen. In the Memory Channel List screen, you can select a channel to store or to recall. You can assign a name to a Memory Channel.

1 Press **[MR]** to switch to the memory mode.

2 Press **[ENT]**.

Memory channel list appears. You can also access to the memory channel list by Menu No. 200.



Display	Type
[0] to **[999]**	Memory channels
[L 0], **[U 0]** to **[L49]**, **[U49]**	Program scan memory
[Pri]	Priority scan memory
[A 1] to **[A10]**	Weather channels (TH-D75A only)
[C]	CALL channels

3 Select the channel.

You can select the channel by inputting the channel number from 0 to 999 by 12 keypad. When you select 1 or 2 digits channel, you can also select by inputting the channel number and pressing **[ENT].**

4 Press **[ENT]**.

The selected channel is set and return to the frequency display.

Storing Simplex and Standard Repeater Frequencies

1 Select the frequency, mode, etc.

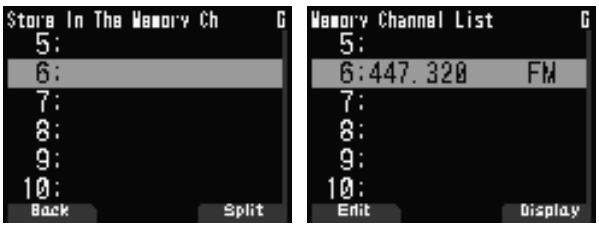
2 Press **[F]**, **[MR]**.

The screen for selecting the channel to store appears.

3 Select the memory channel number.

4 Press **[ENT]**.

The simplex channel is registered.



Storing Odd-Split Repeater Frequencies

When you change the RX and TX frequencies, register the RX frequency first and then register the TX frequency. Only the TX frequency cannot be registered.

1 Register the RX frequency.

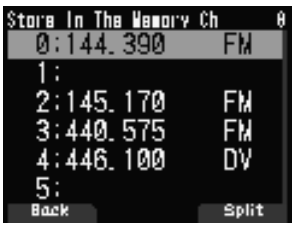
A split channel can be registered only to an already registered memory channel.

2 Display the TX frequency.

3 Press **[F]**, **[MR]**.

The screen for selecting the channel to store appears.

4 Select the memory channel number using **[▲]/[▼]** or **[ENC]** control.



5 Press **[A/B]**.

The split channel is registered.

Note:

- You cannot set the TX and RX frequencies on different frequency bands.
- You cannot set the different frequency step size for the TX and RX frequencies.

Clearing a Memory Channel

You can clear the specified channel of the registered memory channels.

1 Press **[MR]** to enter the memory mode.

2 Press **[ENT]**.

The memory channel list appears. You can also access to the memory channel list by Menu No. 200.

3 Select the specified channel and press **[MENU]**.

The memory channel list menu appears.

4 Select [Clear Memory] and press **[A/B]**.

Clear memory channel screen appears. Press **[MODE]** to return to the memory channel list menu.

5 Press **[A/B]**.

The specified memory channel is cleared.

To clear another memory channel, repeat the procedure from step 3.

Memory Recall Method

This menu provides you with the option to recall memory channels with stored frequencies in your current frequency band, or all memory channels:

1 Access Menu No. 202.

[All Bands]:

This allows you to recall all programmed memory channels.

[Current Band]:

This allows you to recall only those memory channels that have stored frequencies within the current frequency band.

SCAN

Scan is a useful feature for hands-off monitoring of your favorite frequencies. Becoming comfortable with all types of Scan will increase your operating efficiency.

SELECTING A SCAN RESUME METHOD

The transceiver stops scanning at a frequency or Memory channel on which a signal is detected. It then continues scanning according to which resume mode you have selected. You can choose one of the following modes.

Time-Operated mode

The transceiver remains on a busy frequency or Memory channel for approximately 5 seconds, and then continues to scan even if the signal is still present.

Carrier-Operated mode

The transceiver remains on a busy frequency or Memory channel until the signal drops out. There is a 2 second delay between signal drop-out and scan resumption.

Seek mode

The transceiver remains on a busy frequency or Memory channel even after the signal drops out and does not automatically resume scanning.

1 Access Menu No. 130.

Note:
◆ **In digital (DV/DR mode), access Menu No. 131.**

2 Set the Scan Resume mode to [Time] (Time-Operated), [Carrier] (Carrier-Operated) or [Seek] (Seek).

Time-Operate Resume Time

Set the hold time for the Time-Operate scan method.

When a signal is received, scan will pause at that frequency for the duration of the hold time you set. When the set time elapses, scan will resume (even if the signal is still being received).

1 Access Menu No. 132.

2 Set the resume time to [1] ~ [10] sec.

Carrier-Operated Resume Time

Set the hold time for the Carrier-Operate scan method.

When a signal is received, scan will pause at that frequency. When the signal stops, scan will resume after the duration of the hold time you set.

1 Access Menu No. 133.

2 Set the resume time to [1] ~ [10] sec.

BAND SCAN

Band scan monitors all frequency range that is stored in Menu No. 100 (Programmable VFO), using the current frequency step size.

1 Select your desired operation band and frequency.

2 Press **[VFO] (1s)**.

Band scan appears and scan starts at the current frequency.

- The 1 MHz decimal point blinks while scanning is in progress.

3 To quit band scan, press **[VFO]**.

MEMORY SCAN

Use memory scan to monitor all Memory channels programmed with frequency data.

1 Press **[MR] (1s)**.

Scan starts at the current memory channel.

2 To quit memory scan, press **[MR]**.

Note:
◆ At least 2 Memory channels must contain data and must not be locked out of scan.

OTHER OPERATIONS

TX INHIBIT

You can inhibit the transmission to prevent unauthorized individuals from transmitting, or to eliminate accidental transmissions while carrying the transceiver.

1 Access Menu 110.

2 Set the TX inhibit to [On] or [Off].

LED CONTROL

This function turns off the BUSY LED to reduce the consumption of battery power. With the default setting, the BUSY LED is always on when receiving FM radio broadcasts.

1 Access Menu No. 181.

2 Press **[ENT]**.

Each press adds or removes a check mark.

RX

(Check): The LED is on when receiving in bands A and B (including when receiving an FM radio broadcast).

(Uncheck): The LED is not on when receiving in normal operation mode (including when receiving an FM radio broadcast).

FM Radio

(Check): The LED is on when receiving an FM radio broadcast in FM radio mode.

(Uncheck): The LED is not on when receiving an FM radio broadcast in FM radio mode.

3 Press **[A/B]**.

The change of a check mark is confirmed.

METER TYPE

This function changes the design of the S/RF meter.

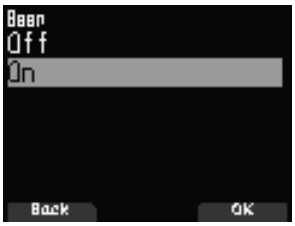
1 Access Menu No. 905.

2 Set [Type 1], [Type 2], or [Type 3].

KEY BEEP

You can turn the transceiver beep function [On] or [Off].

1 Access Menu No.914.



2 Set the beep function to [On] or [Off].

Note:

- Even with the beep function turned off, the transceiver will beep 1 minute before the power turns off when Auto Power off is activated.
- After transmitting for the maximum time duration according to the Time-out Timer, the transceiver will beep.

BEEP VOLUME

You can set the beep volume.
The volume level can be changed by VOL Link (Linked with **[VOL]** control.), and set by a value among “Level 1” to “Level 7”. A larger value results in a greater volume.

1 Access Menu No. 915.

2 Select [VOL Link] or [Level 1] - [Level 7].

BATTERY SAVER

The Battery Saver extends the operating time of the transceiver. It automatically activates when the squelch is closed and no key is pressed for more than 5 seconds. To reduce battery consumption, this function shuts the receiver circuit OFF for the programmed time, then momentarily turn it back ON to detect a signal.

To program the receiver shut-off period for the battery saver:

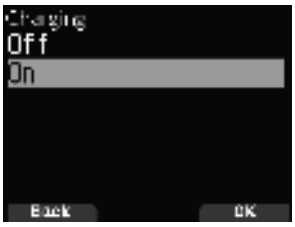
1 Access Menu No. 920.

2 Set the receiver shut-off period time to [0.2], [0.4], [0.6], [0.8], [1.0], [2.0], [3.0], [4.0], [5.0] seconds, or [Off].

CHARGING

You can set whether to charge the battery pack when a DC IN cable or USB cable is connected while the power is ON.

1 Access Menu No. 923.



2 Select [On] or [Off].

[Off]:

Does not charge when the power is ON.

[On]:

Charges even when the power is ON.

Note:

◆ When the power is off, the battery will be charged regardless of the settings.

TRANSCEIVER RESET

There are 3 types of transceiver reset available:

VFO Reset

Use to initialize the VFO and accompanying settings.

Partial Reset

Use to initialize all settings other than the Memory channels, and the DTMF memory channels.

Full Reset

Use to initialize all transceiver settings that you have customized. (Date and time are not reset.)

There are 2 ways to perform a reset on the transceiver: by key operation and by accessing Menu mode.

Key Operation

1 Turn the transceiver power OFF.

2 Press **[F] + Power ON** until reset screen appears.

3 Select your desired reset type: [VFO Reset], [Partial Reset], or [Full Reset].

4 Press **[A/B]** to set the reset type.

A confirmation message appears on the display.

5 Press **[A/B]** again to perform the reset.

Menu Mode

1 Access Menu No. 999.

2 Select your desired reset type: [VFO Reset], [Partial Reset], or [Full Reset].

Note:

◆ Press **[PF2] + Power ON** to set the voice guidance to Auto1 after Full Reset.