



**DUAL BAND
HEAVY DUTY SUBMERSIBLE TRANSCEIVER**

VX-6R

OPERATING MANUAL

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GENERAL DESCRIPTION

The **VX-6R** is a dual band heavy duty submersible* transceiver with extensive receive frequency coverage, providing local-area two-way amateur communications along with unmatched monitoring capability.

The **VX-6R**'s small size allows you to take it anywhere - hiking, skiing, or while walking around town - and its operating flexibility brings the user many avenues of operating enjoyment. Its incredibly tiny **FNB-80LI** Rechargeable Lithium Ion Battery Pack provides up to 5 Watts of transmit power on 144 MHz and 430 MHz Amateur Bands. Besides 144- and 430-MHz transceive operation, the **VX-6R** provides receive coverage of the AM (MF) and FM broadcast bands, HF Shortwave Bands, VHF and UHF TV bands, the VHF AM aircraft band, and a wide range of commercial and public safety frequencies! Further more, the USA version enables 1.5 Watts transmission on 222 MHz Amateur Band.

New and exciting features of the **VX-6R** are the Emergency Automatic ID (EAI) function, that will automatically cause your **VX-6R** to transmit your callsign and engage your rig's microphone, even if you are disabled and unable to press the **PTT** switch; Enhanced Pag-

ing and Code Squelch (EPCS), that allows you to page a particular station and only receive calls from that station, if desired; and a security Password feature, that will allow you to turn on and operate your transceiver only after you enter your Password.

Additional features include a convenient access key for Vertex Standard's WIRESTM (Wide-coverage Internet Repeater Enhancement System), a transmit Time-Out Timer (TOT), Automatic Power-Off (APO), Automatic Repeater Shift (ARS), Yaesu's exclusive ARTSTM (Auto-Range Transponder System) which "beeps" the user when you move out of communications range with another ARTSTM equipped station, plus provision for reduction of the TX deviation in areas of high channel congestion. And an RF squelch circuit allows the owner to set the squelch to open at a programmable setting of the S-Meter, thus reducing guesswork in setting the squelch threshold.

We appreciate your purchase of the **VX-6R**, and encourage you to read this manual thoroughly, so as to learn about the many exciting features of your exciting new Yaesu hand-held transceiver!

*: 3 ft. 30 minutes



ACCESSORIES & OPTIONS

SUPPLIED ACCESSORIES

- FNB-80LI** 7.4 V, 1,400 mAh
Rechargeable Lithium Ion Battery Pack
- NC-72B/C*** 5-Hour Battery Charger
- CLIP-14** Quick Draw Belt Clip
- YHA-67** Antenna
- Operating Manual
- Warranty Card

AVAILABLE OPTIONS

- FNB-80LI** 7.4 V, 1,400 mAh
Rechargeable Lithium Ion Battery Pack
- FBA-23** 2 x "AA" Cell Battery Case (batteries not supplied)
- CD-15A** Rapid Charger (requires **NC-72B/C/U**)
- NC-72B/C/U*** 5-Hour Battery Charger
- E-DC-5B** DC Cable with Cigarette-Lighter Adapter
- E-DC-6** DC Cable; plug and wire only
- MH-57A4B** Speaker/Microphone
- CMP460A** Waterproof Speaker/Microphone
- VC-27** Ear piece/Microphone
- CT-91** Microphone Adapter
- CN-3** BNC-to-SMA Adapter
- SU-1** Barometric Pressure Sensor Unit
- CSC-91** Soft Case

*: "B" suffix is for use with 100-120 VAC, "C" suffix is for use with 230-240 VAC.

Availability of accessories may vary. Some accessories are supplied as standard per local requirements, while others may be unavailable in some regions. This product is designed to perform optimally when used with genuine Yaesu accessories. Vertex Standard shall not be liable for any damage to this product and/or accidents such as fire, leakage or explosion of a battery pack, etc., caused by the malfunction of non-Yaesu accessories. Consult your Yaesu dealer for details regarding these and any newly-available options. Connection of any non-Yaesu-approved accessory, should it cause damage, may void the Limited Warranty on this apparatus.

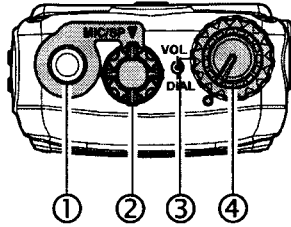
CONTROL & CONNECTIONS (TOP & FRONT PANEL)

① Antenna Jack

Connect the supplied rubber flex antenna (or another antenna presenting a 50-Ohm impedance) here.

② MIC/SP Jack

This four-conductor miniature jack provides connection points for microphone audio, earphone audio, PTT, and ground.



Do not allow the VX-6R to become submerged in water while the plastic cover over the MIC/SP jack is removed.

③ VOL Knob

This control adjusts the audio volume level. Clockwise rotation increases the volume level.

④ DIAL Knob

This (inner) 20-position detented rotary switch is used for setting the operating frequency, and also is used for menu selections and other adjustments.

⑤ LCD (Liquid Crystal Display)

The display shows current operating condition, as indicated on the next page.

⑥ POWER Switch

Press and hold this switch for two seconds to toggle the transceiver's power on and off.

⑦ Keypad

These 18 keys select many of most important operating features on the VX-6R. The functions of the keys are described in detail on the pages to follow.

⑧ Microphone

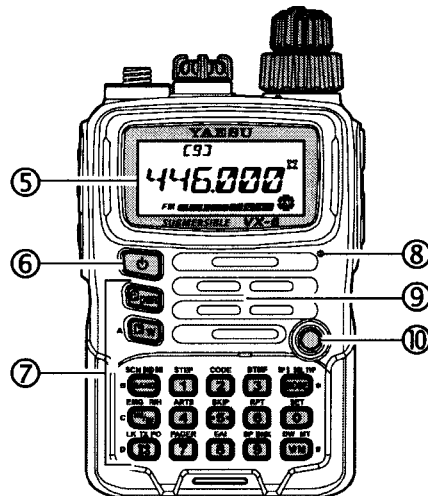
The internal microphone is located here.

⑨ Speaker

The internal speaker is located here.

⑩ TX/BUSY Indicator Lamp

This indicator glows green when the squelch opens, and turns red during transmit. During "Emergency" operation (see page ??), this indicator will glow (or flash) white. Also, this indicator can be useful as a flashlight in a dark environment (see page ??).



CONTROL & CONNECTIONS (NOTE)

CONTROL & CONNECTIONS (SIDE AND BOTTOM PANEL)

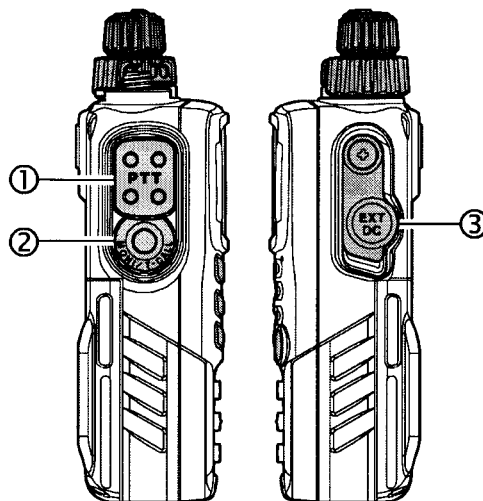
① PTT (Push To Talk) Switch

Press this switch to transmit, and release it (to receive) after your transmission is completed.

② MONI Switch

Pressing this switch disables the noise squelching action, allowing you to hear very weak signals near the background noise level temporarily.

Press the [F/W] key on the keypad first, then press this switch to enable to adjust the squelch threshold level.



③ EXT DC Jack

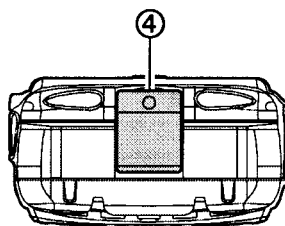
This coaxial DC jack allows connection to an external DC power source (6-16V DC). The center pin of this jack is the Positive (+) connection.












Do not allow the VX-6R to become submerged in water while the rubber cap over the EXT DC jack is removed.

④ Battery Pack Latch









Open this latch for battery removal.



CONTROL & CONNECTIONS (KEYPAD)

			
Primary Function (PRESS KEY)	Moves operation to the next-highest frequency band	Frequency entry digit "1"	Frequency entry digit "2"
Secondary Function (PRESS [F/W] + KEY)	Moves operation to the next-lowest frequency band	Selects the synthesizer steps to be used during VFO operation.	Selects the CTCSS tone or DCS code number
Third Function (PRESS & HOLD KEY)	Starts the scanner upward (toward a higher frequency or a higher channel number)	Store the current setting into the Hyper Memory "1"	Store the current setting into the Hyper Memory "2"
			
Primary Function (PRESS KEY)	Reverses the transmit and receive frequencies while working through a repeater	Frequency entry digit "4"	Frequency entry digit "5"
Secondary Function (PRESS [F/W] + KEY)	Activates the EMERGENCY function	Activates the ARTS™ feature	Selects the Memory Scan "Skip" channel-selection mode
Third Function (PRESS & HOLD KEY)	Switches to the "Home" (favorite frequency) Channel	Store the current setting into the Hyper Memory "4"	Store the current setting into the Hyper Memory "5"
			
Primary Function (PRESS KEY)	Activates the Internet Connection feature	Frequency entry digit "7"	Frequency entry digit "8"
Secondary Function (PRESS [F/W] + KEY)	Selects the desired transmit power output level	Activates the EPCS (Enhanced Paging & Code Squelch) feature	Activates the EA™ (Emergency Automatic ID) feature
Third Function (PRESS & HOLD KEY)	Activates the Key Lockout feature	Store the current setting into the Hyper Memory "7"	Store the current setting into the Hyper Memory "8"

CONTROL & CONNECTIONS (KEYPAD)

			
Frequency entry digit "3"	Select the Receive mode among the AM, FM, and Wide FM	Primary Function (PRESS KEY)	Activates the "User Programmed" mode
Selects the DTMF mode	Activates the CTCSS or DCS Operation	Secondary Function (PRESS [F/W] + KEY)	No Action
Store the current setting into the Hyper Memory "3"	Enter the Special Search mode	Third Function (PRESS & HOLD KEY)	Disable the "User Programmed" mode
			
Frequency entry digit "6"	Frequency entry digit "0"	Primary Function (PRESS KEY)	Activates the "Secondary" key function
Selects the direction of the uplink frequency shift (either "-", "+," or "simplex") during repeater operation	Engages the Set (Menu) Mode	Secondary Function (PRESS [F/W] + KEY)	Disables the "Secondary" key function
Store the current setting into the Hyper Memory "6"	Store the current setting into the Hyper Memory "0"	Third Function (PRESS & HOLD KEY)	Activates the "Memory Write" mode (for memory channel storage)
			
Frequency entry digit "9"	Switches the frequency control between the VFO and Memory Systems	Primary Function (PRESS KEY)	
Enter the Special Bank mode	Activates the "Memory Tune" mode while in the Memory Recall mode	Secondary Function (PRESS [F/W] + KEY)	
Store the current setting into the Hyper Memory "9"	Activates the Priority (Dual Watch) function	Third Function (PRESS & HOLD KEY)	

INSTALLATION OF ACCESSORIES

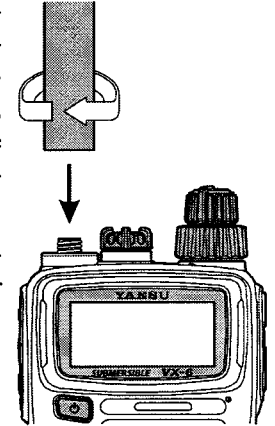
ANTENNA INSTALLATION

The supplied antenna provides good results over the entire frequency range of the transceiver. However, for enhanced reception on certain non-Amateur frequencies, you may wish to connect an antenna designed specifically for that frequency range, as the supplied antenna is necessarily a compromise outside the Amateur bands, and cannot be expected to provide high performance at all frequencies.

To install the supplied antenna, hold the bottom end of the antenna, then screw it onto the mating connector on the transceiver until it is snug. Do not over-tighten by use of extreme force.

Notes:

- Never transmit without having an antenna connected.
- When installing the supplied antenna, never hold the upper part of the antenna while screwing it onto the mating connector on the transceiver.
- If using an external antenna for transmission, ensure that the SWR presented to the transceiver is 1.5:1 or lower, to avoid excessive feedline loss.



HOW TO INSTALL THE QUICK DRAW BELT CLIP

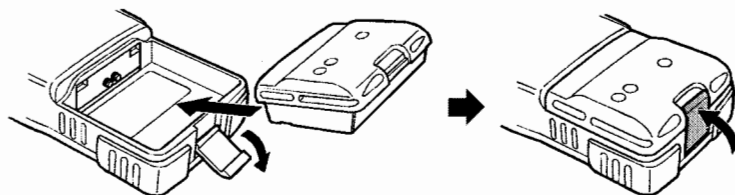
- Connect the hanger to the rear of the VX-6R, with the notch pointing directly up, using the supplied screw (Figure 1). Use only the screw included with the clip to mount the clip to the back of the VX-6R!
- Clip the Quick-Draw Belt Clip onto your belt (Figure 2).
- To install the VX-6R into the Quick-Draw Belt Clip, align the hanger with the Quick-Draw Belt Clip, and slide the VX-6R into its slot until a click is heard (Figure 3).
- To remove the VX-6R from the Quick-Draw Belt Clip, rotate the VX-6R 180 degrees, then slide the VX-6R out from the Quick-Draw Belt Clip (Figure 4).

INSTALLATION OF ACCESSORIES

INSTALLATION OF FNB-80LI BATTERY PACK

The **FNB-80LI** is a high-performance Lithium-Ion battery providing high capacity in a very compact package. Under normal use, the **FNB-80LI** may be used for approximately 300 charge cycles, after which operating time may be expected to decrease. If you have an old battery pack which is displaying capacity which has become diminished, you should replace the pack with a new one.

- Install the **FNB-80LI** as shown in the illustration.
- Close the Battery Pack Latch on the bottom of the radio.



1) Do not attempt to open any of the rechargeable Li-Ion packs, as personal injury or damage to the Li-Ion pack could occur if a cell or cells become accidentally short-circuited.

2) Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type.

BATTERY CHARGING

If the battery has never been used, or its charge is depleted, it may be charged by connecting the **NC-72B/C** Battery Charger, as shown in the illustration, to the **EXT DC** jack. If only 12 ~ 16 Volt DC power is available, the optional

E-DC-5B or **E-DC-6** DC Adapter (with its cigarette lighter plug) may also be used for charging the battery.

The display will indicate "CHGING" while the battery is being charged. When charging is finished, the display will change to indicate "CHGFUL" and the **TX/BUSY** indicator will glow green.



AC line outlet

EXT DC jack

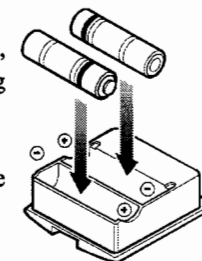
INSTALLATION OF ACCESSORIES

INSTALLATION OF FBA-23 ALKALINE BATTERY CASE (OPTION)

The optional **FBA-23** Battery Case allows receive monitoring using two "AA" size Alkaline batteries. Alkaline batteries can also be used for transmission in an emergency, but power output will only be selectable 300 mW and 50 mW, and battery life will be shortened dramatically.

To Install Alkaline Batteries into the **FBA-23**

- Slide the batteries into the **FBA-23** as shown in the illustration, with the Negative [-] side of the batteries touching the spring connections inside the **FBA-23**.
- Open the Battery Pack Latch on the bottom of the radio.
- Install the **FBA-23** as shown in the illustration, with the [+] side facing the bottom of the transceiver.
- Close the Battery Pack Latch on the bottom of the radio.



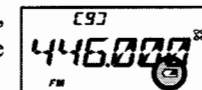
The **FBA-23** does not provide connections for charging, since Alkaline cells cannot be recharged. Therefore, the **NC-72B/C**, **E-DC-5B**, or **E-DC-6** may safely be connected to the **EXT DC** jack when the **FBA-23** is installed.



- 1) The **FBA-23** is designed for use only with AA-type Alkaline cells.
- 2) If you do not use the **VX-6R** for a long time, remove the Alkaline batteries from the **FBA-23**, as battery leakage could cause damage to the **FBA-23** and/or the transceiver.

Low Battery Indication

- As your battery discharges during use, the voltage will gradually become lower. When the battery voltage is becoming too low for reliable operation, the "⚡" icon will blink on the LCD display, indicating that the battery pack must be recharged before further use.
- Avoid recharging Lithium-Ion batteries before the "⚡" indicator is observed, as this can degrade the charge capacity of your Lithium-Ion battery pack.



INTERFACE OF PACKET TNCs

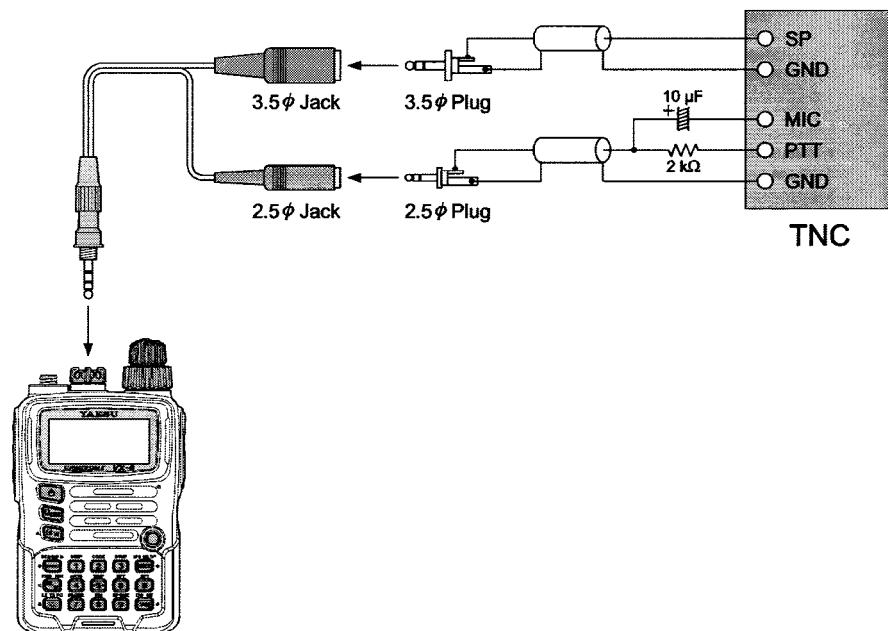
The **VX-6R** may be used for Packet operation, using the optional **CT-91** microphone adapter (available from your Yaesu dealer) for easy interconnection to commonly-available connectors wired to your TNC. You may also build your own cable, using a four-conductor miniature phone plug, per the diagram below.

The audio level from the receiver to the TNC may be adjusted by using the **VOL** knob, as with voice operation. The input level to the **VX-6R** from the TNC may be adjusted via Set Mode Item 37: **MCGAIN**; see page ?? for details.

Be sure to turn the transceiver and TNC off before connecting the cables, so as to prevent voltage spikes from possibly damaging your transceiver.

When you are operating on Packet, switch the Receive Battery Saver OFF, as the “sleep” cycle may “collide” with the beginning of an incoming Packet transmission, causing your TNC not to receive the full data burst. See page ?? for details regarding Battery Saver setup.

Remember to readjust the default microphone input level to “LVL 5” (Set Mode Item 37: MCGAIN) when the Packet operation is finished.

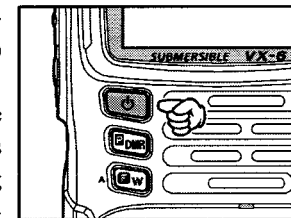


OPERATION

Hi! I'm R. F. Radio, and I'll be helping you along as you learn the many features of the VX-6R. I know you're anxious to get on the air, but I encourage you to read the "Operation" section of this manual as thoroughly as possible, so you'll get the most out of this fantastic new transceiver. Now... let's get operating!

SWITCHING POWER ON AND OFF

1. Be sure the Battery Pack is installed, and that the battery is fully charged. Connect the antenna to the top panel ANTENNA jack.
2. Press and hold in the orange **POWER** switch (on the left side of the transceiver) for one second. Two beeps will be heard when the switch has been held long enough, and the current DC supply voltage will indicated on the display for 2 seconds; if you are using the **FNB-80LI** Battery Pack, the small "Lit" notation at the top of the display confirms that the Lithium-Ion Battery Pack has been detected. After this 2-second interval, the display will resume its normal indication of the operating frequency.
3. To turn the **VX-6R** off, press and hold in the **POWER** switch again for one second.

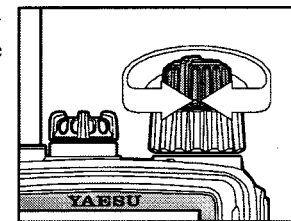


1) If you don't hear the two "Beep" tones when the radio comes on, the Beeper may have been disabled via the Menu system. See page ??, which tells you how to reactivate the Beeper.

*2) You can change the Opening Message (DC supply voltage indication) to any desired message (up to 6 characters) via Set Mode Item 42: **OPN.MSG**; see page ?? for details.*

ADJUSTING THE VOLUME LEVEL

Rotate the **VOLUME** control (inner knob) to set the desired audio level. Clockwise rotation increases the volume level.



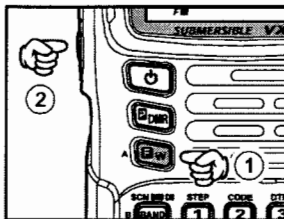
OPERATION

SQUELCH ADJUSTMENT

The **VX-6R**'s Squelch system allows you to mute the background noise when no signal is being received. Not only does the Squelch system make "standby" operation more pleasant, it also significantly reduces battery current consumption.

The Squelch system may be adjusted independently for the FM and Wide-FM (FM Broadcast) modes.

1. Press the **[F/W]** key, then press the **MONI** switch on the left side of the radio. This provides a "Short-cut" to Set Mode Item 58: SQL.
2. Now, rotate the **DIAL** knob to set the Squelch so that the background noise is just silenced (typically at a setting of about "1" or "2" for FM and AM, and "2" or "3" for Wide-FM); this is point of maximum sensitivity to weak signals.
3. When you are satisfied with the Squelch threshold setting, press the **PTT** key momentarily to save the new setting and exit to normal operation.



- 1) A special "RF Squelch" feature is provided on the **VX-6R**. This feature allows you to set the squelch so that only signals exceeding a certain S-meter level will open the squelch. See page ?? for details.
- 2) If you're operating in an area of high RF pollution, you may need to consider "Tone Squelch" operation using the built-in CTCSS Decoder. This feature will keep your radio quiet until a call is received from a station sending a carrier which contains a matching (subaudible) CTCSS tone. Or, if your friends have radios equipped with DCS (Digital Coded Squelch) like your **VX-6R** has, try using that mode for silent monitoring of busy channels.

OPERATION

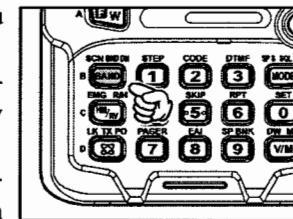
SELECTING THE OPERATING BAND

The **VX-6R** covers an incredibly wide frequency range, over which a number of different operating modes are used. Therefore, the **VX-6R**'s frequency coverage has been divided into different operating bands, each of which has its own pre-set channel steps and operating modes. You can change the channel steps and operating modes later, if you like (see page ??).

BAND [BAND NUMBER]	FREQUENCY RANGE	
	USA VERSION	EXP VERSION
BC Band [1]	0.5 - 1.8 MHz	0.504 - 1.8 MHz
SW Band [2]	1.8 - 30 MHz	1.8 - 30 MHz
50 MHz Ham Band [3]	30 - 59 MHz	30 - 88 MHz
FM BC Band [4]	59 - 108 MHz	88 - 108 MHz
Air Band [5]	108 - 137 MHz	108 - 137 MHz
144 MHz Ham Band [6]	137 - 174 MHz	137 - 174 MHz
VHF-TV Band [7]	174 - 222 MHz	174 - 222 MHz
222 MHz Ham Band [8]	222 - 420 MHz	222 - 420 MHz
430 MHz Ham Band [9]	420 - 470 MHz	420 - 470 MHz
UHF-TV Band [A]	470 - 800 MHz	470 - 800 MHz
Action Band [b]	803 - 999 MHz	800 - 999 MHz

To Change Operating Bands:

1. Press the **[BAND(SCN)BND DN]** key repetitively. You will see the LCD indication move toward a higher frequency band each time you press the **[BAND(SCN)BND DN]** key.
2. If you wish to move the operating band selection downward (toward lower frequencies), press the **[F/W]** key first, then press the **[BAND(SCN)BND DN]** key.
3. Once you have selected the desired band, you may initiate manual tuning (or scanning) per the discussion in the next chapter.



When receiving in the AM Broadcast or Shortwave bands (0.5-30 MHz), we recommend that you connect an external antenna, for improved reception.

FREQUENCY NAVIGATION

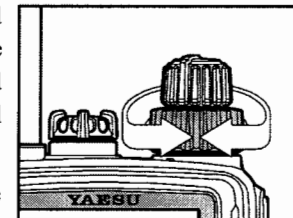
The **VX-6R** will initially be operating in the "VFO" mode, a channelized system which allows free tuning throughout the currently-selected operating band.

Three basic frequency navigation methods are available on the **VX-6R**:

1) Tuning Dial

Rotation of the **DIAL** allows tuning in the pre-programmed steps established for the current operating band. Clockwise rotation of the **DIAL** causes the **VX-6R** to be tuned toward a higher frequency, while counter-clockwise rotation will lower the operating frequency.

If you press the **[F/W]** key momentarily, then rotate the



OPERATION

FREQUENCY NAVIGATION

DIAL, frequency steps of 1 MHz will be selected. This feature is extremely useful for making rapid frequency excursions over the wide tuning range of the **VX-6R**.

2) Direct Keypad Frequency Entry

The desired operating frequency may be entered directly from the keypad.

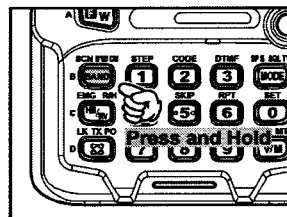
To enter a frequency from the keypad, just press the numbered digits on the keypad in the proper sequence. There is no “Decimal point” key on the **VX-6R**, so if the frequency is below 100 MHz (e.g. 15.150 MHz), any required leading zeroes must be entered. However, there is a short-cut for frequencies ending in zero - press the **[V/M(DW)MT]** key after the last non-zero digit.

Examples:

- To enter 146.520 MHz, press [1] → [4] → [6] → [5] → [6] → [0]
- To enter 15.255 MHz, press [0] → [1] → [5] → [2] → [5] → [5]
- To enter 1.250 MHz (1250 kHz), press [0] → [0] → [1] → [2] → [5] → [0]
- To enter 0.950 MHz (950 kHz), press [0] → [0] → [0] → [9] → [5] → [0]
- To enter 430.000MHz, press [4] → [3] → **[V/M(DW)MT]**

3) Scanning

From the VFO mode, press and hold in the **[BAND(SCN)BND DN]** key for one second, and rotate the **DIAL** knob while holding in the **[BAND(SCN)BND DN]** key to select the bandwidth for the VFO scanner, then release the **[BAND(SCN)BND DN]** key to begin scanning toward a higher frequency. The scanner will stop when it receives a signal strong enough to break through the Squelch threshold. The **VX-6R** will then hold on that frequency according to the setting of the “RESUME” mode (Set Mode Item 48: RESUME). See page ?? for details regarding Scan Operation.



If you wish to reverse the direction of the scan (i.e. toward a lower frequency, instead of a higher frequency), just rotate the **DIAL** one click in the counter-clockwise direction while the **VX-6R** is scanning. The scanning direction will be reversed. To revert to scanning toward a higher frequency once more, rotate the **DIAL** one click clockwise.

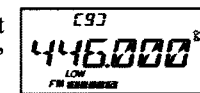
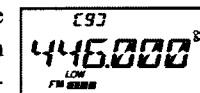
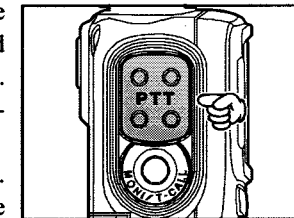
Press the **PTT** switch momentarily to cancel the scanning. This only stops the scan; it does not cause transmission to occur.

OPERATION

TRANSMISSION

Once you have set up an appropriate frequency inside one of the 144 MHz, 222 MHz*, or 430 MHz Amateur bands on which the **VX-6R** can transmit, you're ready to go on the air! These are the most basic steps; more advanced aspects of transmitter operation will be discussed later (222 MHz: USA version only).

1. To transmit, press the **PTT** switch, and speak into the front panel microphone (located in the upper right-hand corner of the speaker grille) in a normal voice level. The **TX/BUSY** indicator will glow red during transmission.
2. To return to the receive mode, release the **PTT** switch.
3. During transmission, the relative power level will be indicated on the bar graph at the bottom of the LCD; full scale deflection confirms “High Power” operation, while deflection of three bars indicates “Low 1 Power” operation. Five bars indicates “Low 2 Power” operation and seven bars indicates “Low 3 Power” operation. Additionally, the “LOW” icon will appear at the bottom of the display while operating on the “Low Power” settings.



- 1) *If you're just talking to friends in the immediate area, you'll get much longer battery life by switching to Low Power operation, described in the next chapter. And don't forget: always have an antenna connected when you transmit.*
- 2) *Transmission is possible only on the 144 MHz and 430 MHz bands.*

OPERATION

TRANSMISSION

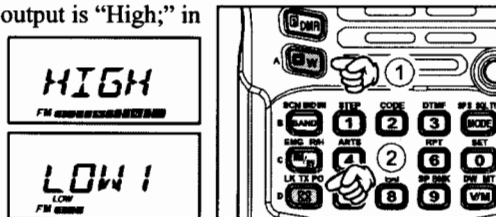
Changing the Transmitter Power Level

You can select between a total of four transmitter power levels on your **VX-6R**. The exact power output will vary somewhat, depending on the voltage supplied to the transceiver. With the standard **FNB-80LI** Battery Pack and external DC source, the power output levels available are:

	144/430 MHz	220 MHz
High	5.0 W	1.5 W
Low 3	2.5 W	1.0 W
Low 2	1.0 W	0.5 W
Low 1	0.3 W	0.2 W

To change the power level:

- The default setting for the power output is “High;” in this configuration, the LCD shows no indication of the power output level. Pressing the [F/W] key, followed by the [⊗(LK)TXPO] key, appear the current power output level.
- Within one second of releasing the [⊗(LK)TXPO] key, press the [⊗(LK)TXPO] key repetitively, causes the power level “LOW1,” “LOW2,” or “LOW3” to appear.
- Press the [F/W] key, followed by the [⊗(LK)TXPO] key (repeatedly, if necessary) to make the “HIGH” notation appear and restore High Power operation.



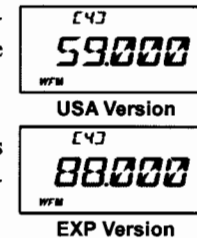
- 1) The VX-6R is smart! You can set up Low power on the 144 MHz band, while leaving 430 MHz on High power, and the radio will remember the different settings on both bands. And when you store memories, you can store the power output settings separately in each memory, so you don't waste battery power when using very close-in repeaters!*
- 2) When you are operating on the “Low” power settings, you can press the [F/W] key, when press the PTT switch, to cause the VX-6R to transmit (temporarily) on High power. After one transmission, the power level will revert to the previously-selected setting.*

OPERATION

AM BROADCAST RECEPTION

The **VX-6R** includes provision for reception of AM broadcasts, either on the standard medium-wave (MW) broadcast band, or on the shortwave bands up to 16 MHz.

- Press the [BAND(SCN)BND DN] key (or press the [F/W] key, followed by the [BAND(SCN)BND DN] key) repetitively until you see a frequency in the frequency range desired. The MW coverage is 0.5 MHz to 1.8 MHz, while the shortwave broadcast coverage is 1.8 MHz to 16 MHz. In either case, the operating mode (displayed on the bottom left of the LCD) should be shown as being “AM.”
- Rotate the **DIAL** to tune across the broadcast band.
- You may also use the keypad to enter frequencies directly. This method will be quicker for changing from the 49-meter broadcast band to the 31-meter band, for example.

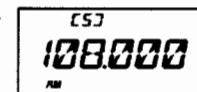


- 1) If the operating mode is not correct, you may change the operating mode by pressing the [MODE(SP S)SQ TYP] key.*
- 2) The VX-6R includes a special memory bank into which the factory has stored 89 frequencies representing popular Short-wave Broadcast stations. See page ?? for details.*

AM AIRCRAFT RECEPTION

Reception of AM signals in the aeronautical band (108-137 MHz) is similar to that described in the previous section.

- Press the [BAND(SCN)BND DN] key (or press the [F/W] key, followed by the [BAND(SCN)BND DN] key) repetitively until you see a frequency in the aeronautical band.
- Rotate the **DIAL** to tune across the aeronautical band.
- You may also use the keypad to enter frequencies directly. Remember that frequencies quoted by aircraft operators may be abbreviated, and that the “5” at the end of a frequency may be dropped. Since aeronautical channels are assigned in 25-kHz steps, therefore, a frequency announced as “thirty-two, forty-two” corresponds to an operating frequency of 132.425 MHz.



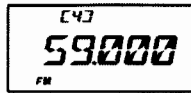
OPERATION

FM BROADCAST/TV AUDIO RECEPTION

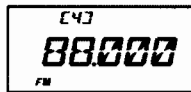
The **VX-6R** also includes provision for reception in the FM broadcast band, utilizing a wide-bandwidth filter which provides excellent fidelity.

To Activate FM Broadcast Reception

1. Press the **[BAND(SCN)BND DN]** key (or press the **[FW]** key, followed by the **[BAND(SCN)BND DN]** key) repetitively until a frequency in the FM broadcast band appears on the display. The total frequency range included in the "FM" band is 59-108 MHz.
2. Rotate the **DIAL** to select the desired station. The default synthesizer steps for the W-FM mode are 100 kHz/step.



USA Version



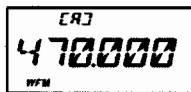
EXP Version

To Activate VHF or UHF TV Audio Reception

1. Press the **[BAND(SCN)BND DN]** key (or press the **[FW]** key, followed by the **[BAND(SCN)BND DN]** key) repetitively until a frequency in the VHF or UHF TV bands appears on the LCD.
2. Rotate the **DIAL** to select the desired station.



VHF TV Band



UHF TV Band



*Remember that the Wide-FM Squelch setting may be made independently from the Narrow-FM setting, adjust the Wide-FM Squelch setting by pressing the **[F/W]** key, followed by the **MONI** switch. See page ?? for details.*

ADVANCED OPERATION

Now that you're mastered the basics of **VX-6R** operation, let's learn more about some of the really neat features.

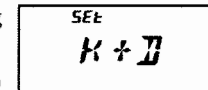
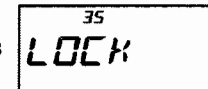
KEYBOARD LOCKING

In order to prevent accidental frequency change or inadvertent transmission, various aspects of the **VX-6R's DIAL** and keypad may be locked out. The possible lockout combinations are:

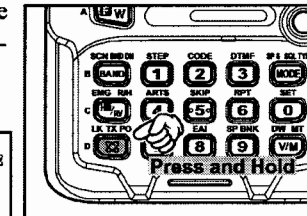
- KEY: Just the front panel keypad is locked out
- DIAL: Just the top panel **DIAL** is locked out
- K+D: Both the keypad and **DIAL** are locked out (factory default)
- PTT: The **PTT** switch is locked out (TX not possible)
- K+P: Both the keypad and **PTT** switch are locked out
- D+P: Both the **DIAL** and **PTT** switch are locked out
- LK ALL: All of the above are locked out

To lock out some or all of the keys:

1. Press the **[FW]** key, then press the **[0(SET)]** key to enter the Set mode.
2. Rotate the **DIAL** knob to select Set Mode Item 35: LOCK.
3. Press the **[0(SET)]** key momentarily to enable adjustment of this Item.
4. Rotate the **DIAL** knob to choose between one of the locking schemes as outlined above.
5. When you have made your selection, press the **PTT** switch to save the new setting and return to normal operation.



To activate the locking feature, *press and hold* in the **[Ⓚ(LK)TXPO]** key for one second. The "Ⓚ" icon will appear on the LCD. To cancel locking, repeat this process.

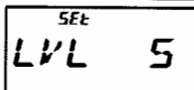
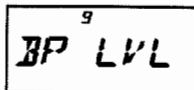


ADVANCED OPERATION

ADJUSTING THE KEYPAD BEEPER VOLUME LEVEL

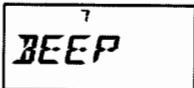
A keypad beeper provides useful audible feed back whenever a keypad is pressed. The keypad beeper level changes according to the **VOL** knob setting. However, you may adjust the volume balance between the receiving audio and keypad beeper via the Set mode.

1. Press the **[FW]** key, then press the **[0(SET)]** key to enter the Set mode.
2. Rotate the **DIAL** knob to select Set Mode Item 9: BP LVL.
3. Press the **[0(SET)]** key momentarily to enable adjustment of this Item.
4. Rotate the **DIAL** knob to select the desired level.
5. Press the **PTT** switch to save the new setting and return to normal operation.



Additionally, if you want to turn the beep off:

1. Press the **[FW]** key, then press the **[0(SET)]** key to enter the Set mode.
2. Rotate the **DIAL** knob to select Set Mode Item 7: BEEP.
3. Press the **[0(SET)]** key momentarily to enable adjustment of this Item.
4. Rotate the **DIAL** knob to change the setting to "OFF."
5. Press the **PTT** switch to save the new setting and return to normal operation.
6. To turn the beep back on again, select "ON" in step 4 above.



KEYPAD/LCD ILLUMINATION

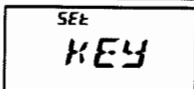
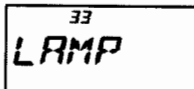
Your **VX-6R** includes a reddish illumination lamp which aids in nighttime operation. The reddish illumination yields clear viewing of the display in a dark environment, with minimal degradation of your night vision.

Three options for activating the lamp are provided:

- KEY Mode: Illuminates the Keypad/LCD for 5 seconds when any key pressed.
- CONT Mode: Illuminates the Keypad/LCD continuously.
- OFF Mode: Disables the Keypad/LCD lamp.

Here is the procedure for setting up the Lamp operating mode:

1. Press the **[FW]** key, then press the **[0(SET)]** key to enter the Set mode.
2. Rotate the **DIAL** knob to select Set Mode Item 33: LAMP.
3. Press the **[0(SET)]** key momentarily to enable adjustment of this Item.
4. Rotate the **DIAL** knob to select one of the three modes described above.
5. When you have made your choice, press the **PTT** switch to save the new setting and return to normal operation.

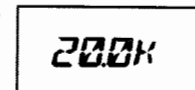


ADVANCED OPERATION

CHANGING THE CHANNEL STEPS

The **VX-6R**'s synthesizer provides the option of utilizing channel steps of 5/10/12.5/15/20/25/50/100 kHz per step, as well as an automatic step selection based on the current operating frequency ("AUTO"), any number of which may be important to your operating requirements. The **VX-6R** is set up at the factory in the "AUTO" configuration, which probably is satisfactory for most operation. However, if you need to change the channel step increments, the procedure to do so is very easy.

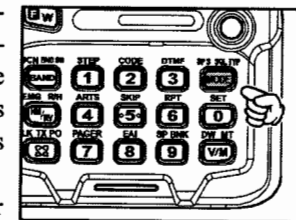
1. Press the **[FW]** key, then press the **[1(STEP)]** key. This provides a "Short-cut" to Set Mode Item 61: STEP.
2. Rotate the **DIAL** to select the new channel step size.
3. Press the **PTT** key to save the new setting and exit to normal operation.



- 1) 9 kHz steps are available only when receiving on the BC band.
- 2) While operating on the BC band, you may only select channel steps of 9 kHz or 10 kHz; the other step selections are disabled.
- 3) 5 kHz and 15 kHz steps are not available for use on 250 - 300 MHz, nor above 580 MHz.

CHANGING THE RECEIVING MODE

The **VX-6R** provides for automatic receiving mode changing when the radio is tuned to different operating frequencies. However, should an unusual receiving situation arise in which you need to change other receiving mode, just press the **[MODE(SP S)SQ TYP]** key. The receiving modes available are:



- AUTO: Automatic mode setting per default values for the selected frequency range.
- FM: Frequency Modulation for receiving a Amateur Radio Station and most VHF/UHF Communication.
- WFM: Frequency Modulation for receiving a FM Broadcast Station.
- AM: Amplitude Modulation for receiving a Short-wave Broadcast Station and Air Band Communication.

Unless you have a compelling reason to do so, leave the Automatic Mode Selection feature on so as to save time and trouble when changing bands. If you make a mode change for a particular channel or station, you can always store that one channel into memory, as the mode setting will be memorized along with the frequency information.

ADVANCED OPERATION

RF SQUELCH

A special RF Squelch feature is provided on this radio. This feature allows you to set the squelch so that only signals exceeding a certain S-meter level will open the squelch.

To set up the RF squelch circuit for operation, use the following procedure:

1. Press the **[FW]** key, then press the **[0(SET)]** key to enter the Set mode.
2. Rotate the **DIAL** knob to select Set Mode Item 50: RF SQL.
3. Press the **[0(SET)]** key momentarily to enable adjustment of this Item.
4. Rotate the **DIAL** knob to select the desired signal strength level for the squelch threshold (S1, S2, S3, S4, S5, S6, S8, S9+, or OFF).
5. Press the **PTT** switch to save the new setting and return to normal operation.

50
RF SQL

SET
S8

CHECKING THE BATTERY VOLTAGE

The **VX-6R**'s microprocessor includes programming which will measure the current battery voltage.

1. Press the **[FW]** key, then press the **[0(SET)]** key to enter the Set mode.
2. Rotate the **DIAL** knob to select Set Mode Item 16: DC VLT.
3. Press the **[0(SET)]** key momentarily to display the current DC voltage being supplied.
Lit: **FNB-80LI** is in use.
Edc: An external DC source is in use.
4. Press and hold the **[0(SET)]** key for one second to return to normal operation.

16
DC VLT

LE
7.4V

REPEATER OPERATION

Repeater stations, usually located on mountaintops or other high locations, provide a dramatic extension of the communication range for low-powered hand-held or mobile transceivers. The **VX-6R** includes a number of features which make repeater operation simple and enjoyable.

REPEATER SHIFTS

Your **VX-6R** has been configured, at the factory, for the repeater shifts customary in your country. For the 144 MHz band shift will be 600 kHz; on the 430 MHz band, the shift may be 1.6 MHz, 7.6 MHz, or 5 MHz (USA version).

Depending on the part of the band in which you are operating, the repeater shift may be either downward (▣) or upward (▢), and one of these icons will appear at the top of the LCD when repeater shifts have been enabled.

19.1 ▣
446.200
FM

19.1 ▢
443.200
FM

AUTOMATIC REPEATER SHIFT (ARS)

The **VX-6R** provides a convenient Automatic Repeater Shift feature, which causes the appropriate repeater shift to be applied automatically whenever you tune into the designated repeater sub-bands in your country. These sub-bands are shown below.

If the ARS feature does not appear to be working, you may have accidentally disabled it.

To re-enable ARS:

1. Press the **[FW]** key, then press the **[0(SET)]** key to enter the Set mode.
2. Rotate the **DIAL** knob to select Set Mode Item 4: ARS.
3. Press the **[0(SET)]** key momentarily to enable adjustment of this Item.
4. Rotate the **DIAL** knob to select "ON."
5. When you have made your selection, press the **PTT** switch to save the new setting and return to normal operation.

4
ARS

SET
ON

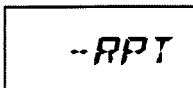
REPEATER OPERATION


MANUAL REPEATER SHIFT ACTIVATION

If the ARS feature has been disabled, or if you need to set a repeater shift direction other than that established by the ARS, you may set the direction of the repeater shift manually.

To do this:

1. Press the [FW] key, then press the [6(RPT)] key. This provides a “Short-cut” to Set Mode Item 51: RPT.
2. Rotate the **DIAL** knob to select the desired shift among “-RPT,” “+RPT,” and “SIMP.”
5. When you have made your selection, press the **PTT** switch to save the new setting and return to normal operation.



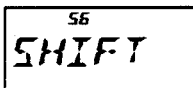
 *If you make a change in the shift direction, but still have Automatic Repeater Shift still engaged (see previous section), when you change frequency (by rotating the DIAL knob, for example) the ARS will over-ride your manual setting of the shift direction. Turn ARS off if you do not wish this to happen.*


Changing the Default Repeater Shifts

If you travel to a different region, you may need to change the default repeater shift so as to ensure compatibility with local operating requirements.

To do this, follow the procedure below:

1. Set the **VX-6R**'s frequency to the band on which you wish to change the default repeater shift (144 MHz or 430 MHz Amateur Band).
2. Press the [FW] key, then press the [0(SET)] key to enter the Set mode.
3. Rotate the **DIAL** knob to select Set Mode Item 56: SHIFT.
4. Press the [0(SET)] key momentarily to enable adjustment of this Item.
5. Rotate the **DIAL** knob to select the new repeater shift magnitude.
6. When you have made your selection, press the **PTT** switch to save the new setting and return to normal operation.



 *If you just have one “odd” split that you need to program, don’t change the “default” repeated shifts using this Set Mode Item. Enter the transmit and receive frequencies separately, as shown on page ??.*

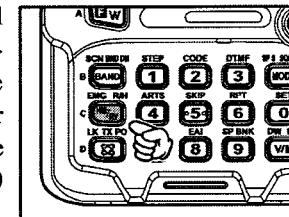
REPEATER OPERATION


MANUAL REPEATER SHIFT ACTIVATION

Checking the Repeater Uplink (Input) Frequency

It often is helpful to be able to check the uplink (input) frequency of a repeater, to see if the calling station is within direct (“Simplex”) range.

To do this, just press the [HM/RV(EMG)R/H] key. You’ll notice that the display has shifted to the repeater uplink frequency. Press the [HM/RV(EMG)R/H] key again to cause operation to revert to normal monitoring of the repeater downlink (output) frequency. While you are listening on the input frequency to the repeater using the [HM/RV(EMG)R/H] key, the repeater offset icon will blink.



 *The configuration of this key may be set either to “RV” (for checking the input frequency of a repeater), or “HM” (for instant switching to the “Home” channel for the band you are operating on). To change the configuration of this key, use Set Mode Item 28: HM/RV. See page ??.*

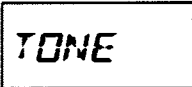

CTCSS/DCS OPERATION

CTCSS OPERATION

Many repeater systems require that a very-low-frequency audio tone be superimposed on your FM carrier in order to activate the repeater. This helps prevent false activation of the repeater by radar or spurious signals from other transmitters. This tone system, called "CTCSS" (Continuous Tone Coded Squelch System), is included in your **VX-6R**, and is very easy to activate.




CTCSS setup involves two actions: setting the Tone Mode and then setting of the Tone Frequency. These actions are set up by using the [MODE(SP S) SQ TYP] key and [2(CODE)] key.

1. Press the [F/W] key, then press the [MODE(SP S)SQ TYP] key to enable selection of the CTCSS/DCS mode.
2. Rotate the **DIAL** knob so that "TONE" indication appears on the display; this activates the CTCSS Encoder, for access to repeaters requiring a CTCSS tone. 
3. Rotation of the **DIAL** knob one more "click" in step "2" above will cause the "T SQL" notation to appear. When "T SQL" is displayed, this means that the Tone SQuelch system is active, which mutes your **VX-6R**'s receiver until it receives a call from another radio sending out a matching CTCSS tone. This can help keep your radio quiet until a specific call is received, which may be helpful while operating in congested areas of the band. 



1) You may notice a "REV TN" indication on the display while you rotate the DIAL knob in this step; this means that the Reverse Tone Squelch system is active, which mutes your VX-6R's receiver (instead of opening the squelch) when it receives a call from the radio sending a matched CTCSS tone. The "T SQ" icon will blink on the display when the Reverse Tone Squelch system is activated.

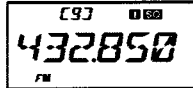
2) You may notice a "DCS" indication on the display while you rotate the DIAL knob still more. We'll discuss the Digital Code Squelch system shortly.

4. When you have made your selection of the CTCSS tone mode, press the **PTT** switch to save the new setting.
5. Press the [F/W] key, then press the [2(CODE)] key to enable adjustment of the CTCSS frequency.
6. Rotate the **DIAL** knob until the display indicates the Tone Frequency you need to be using (ask the repeater owner/operator if you don't know the tone frequency). 

CTCSS TONE FREQUENCY (Hz)						
67.0	69.3	71.9	74.4	77.0	79.7	
82.5	85.4	88.5	91.5	94.8	97.4	
100.0	103.5	107.2	110.9	114.8	118.8	
123.0	127.3	131.8	136.5	141.3	146.2	
151.4	156.7	159.8	162.2	165.5	167.9	
171.3	173.8	177.3	179.9	183.5	186.2	
189.9	192.8	196.6	199.5	203.5	206.5	
210.7	218.1	225.7	229.1	233.6	241.8	
250.3	254.1	-	-	-	-	

CTCSS/UCS OPERATION

CTCSS OPERATION

7. When you have made your selection, press the [2(CODE)] key momentarily to save the new settings and exit to normal operation. This is different than the usual method of restoring normal operation, and it applies only to the configuration of the CTCSS/DCS frequencies. 

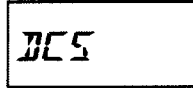

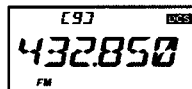


Your repeater may or may not re-transmit a CTCSS tone - some systems just use CTCSS to control access to the repeater, but don't pass it along when transmitting. If the S-Meter deflects, but the VX-6R is not passing audio, repeat steps "1" through "4" above, but rotate the DIAL so that "TONE" appears - this will allow you to hear all traffic on the channel being utilized.

DCS OPERATION

Another form of tone access control is Digital Code Squelch, or DCS. It is a newer, more advanced tone system which generally provides more immunity from false paging than does CTCSS. The DCS Encoder/Decoder is built into your **VX-6R**, and operation is very similar to that just described for CTCSS. Your repeater system may be configured for DCS; if not, DCS is frequently quite useful in Simplex operation if your friend(s) use transceivers equipped with this advanced feature.

Just as in CTCSS operation, DCS requires that you set the Tone Mode to DCS and that you select a tone code.

1. Press the [F/W] key, then press the [1(SQ TYP)] key to enable selection of the CTCSS/DCS mode.
2. Rotate the **DIAL** knob until the "DCS" indication appears on the display; this activates the DCS Encoder/Decoder. 
3. Press the **PTT** key to save the new setting.
4. Press the [F/W] key, then press the [2(CODE)] key to enable adjustment of the DCS code. 
5. Rotate the **DIAL** knob to select the desired DCS Code (a three-digit number). Ask the repeater owner/operator if you don't know DCS Code; if you are working simplex, just set up the DCS Code to be the same as that used by your friend(s).
6. When you have made your selection, press the [F/W] key momentarily to save the new settings and exit to normal operation. 

DCS CODE												
023	025	026	031	032	036	043	047	051	053			
054	065	071	072	073	074	114	115	116	122			
125	131	132	134	143	145	152	155	156	162			
165	172	174	205	212	223	225	226	243	244			
245	246	251	252	255	261	263	265	266	271			
274	306	311	315	325	331	332	343	346	351			
356	364	365	371	411	412	413	423	431	432			
445	446	452	454	455	462	464	465	466	503			
506	516	523	526	532	546	565	606	612	624			
627	631	632	654	662	664	703	712	723	731			
732	734	743	754	-	-	-	-	-	-			

CTCSS/DCS OPERATION

DCS OPERATION

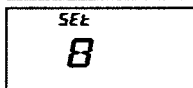
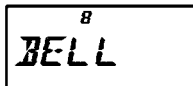


Remember that the DCS is an Encode/Decode system, so your receiver will remain muted until a matching DCS code is received on an incoming transmission. Switch the DCS off when you're just tuning around the band!

CTCSS/DCS BELL OPERATION

During CTCSS Decode or DCS operation, you may set up the **VX-6R** such that a ringing "bell" sound alerts you to the fact that a call is coming in. Here is the procedure for activating the CTCSS/DCS Bell:

1. Set the transceiver up for CTCSS Decode ("Tone Squelch") or DCS operation, as described previously.
2. Adjust the operating frequency to the desired channel.
3. Press the [F/W] key, then press the [0(SET)] key to enter the Set mode.
4. Rotate the **DIAL** knob to select Set Mode Item 8: BELL.
5. Press the [0(SET)] key momentarily to enable adjustment of this Set Mode Item.
6. Rotate the **DIAL** knob to set the desired number of rings of the Bell. The available choices are "1," "3," "5," or "8" rings, "CONT" (continuous ringing), or "OFF."
7. Press the **PTT** switch momentarily to save the new setting and exit to normal operation.



When you are called by a station whose transceiver is sending a CTCSS tone or DCS code which matches that set into your Decoder, the Bell will ring in accordance with this programming. When the CTCSS/DCS Bell is activated, the "🔔" icon will appear at the upper right corner on the LCD.



CTCSS/DCS OPERATION

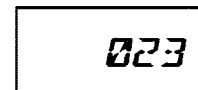
TONE SEARCH SCANNING

In operating situations where you don't know the CTCSS or DCS tone being used by another station or stations, you can command the radio to listen to the incoming signal and scan in search of the tone being used. Two things must be remembered in this regard:

- You must be sure that your repeater uses the same tone type (CTCSS vs. DCS).
- Some repeaters do not pass the CTCSS tone; you may have to listen to the station(s) transmitting on the repeater uplink (input) frequency in order to allow Tone Search Scanning to work.

To scan for the tone in use:

1. Set the radio up for either CTCSS or DCS Decoder operation (see the previous discussions). In the case of CTCSS, "T SQ" will appear on the display; in the case of DCS, "DCS" will appear on the display.
2. Press the [F/W] key, then press the [2(CODE)] key.
3. Press and hold in the [BAND(SCN)BND DN] key for one second to start scanning for the incoming CTCSS or DCS tone/code.
4. When the radio detects the correct tone or code, it will halt on that tone/code, and audio will be allowed to pass. Press the [BAND(SCN)BND DN] key to lock in that tone/code, then press the [F/W] key to exit to normal operation.



If the Tone Scan feature does not detect a tone or code, it will continue to scan indefinitely. When this happens, it may be that the other station is not sending any tone. You can press the PTT switch to halt the scan at any time.

You may listen to the (muted) signal from the other station during Tone Scanning when Set Mode Item 68: TS MUT is set to "OFF." See page ?? for details. You can also change the Tone Search scanning speed, using the Set Mode Item 69: TS SPD." See page ??.

Tone Scanning works either in the VFO or Memory modes.

CTCSS/DCS OPERATION

SPLIT TONE OPERATION

The **VX-6R** can be operated in a Split Tone configuration via the Set mode.

1. Press the **[FW]** key, then press the **[0(SET)]** key to enter the Set mode.
2. Rotate the **DIAL** knob to select Set Mode Item 58: SPLIT.
3. Press the **[0(SET)]** key momentarily to enable adjustment of this Set Mode Item.
4. Rotate the **DIAL** knob to select ON (to enable the Split Tone feature).
5. Press the **PTT** key momentarily to save the new setting and exit to normal operation.

58
SPLIT

SEE
ON

When the Split Tone feature is activated, you can see the following additional parameters following the "RV TN" parameter (while selecting the tone mode by pressing **[FW]** → **[MODE(SP S)SQ TYP]**):

- D CODE: DCS Encode only (the "**DCS**" icon will blink during operation)
- T DCS: Encodes a CTCSS Tone and Decodes a DCS code
(the "**T**" icon will blink and the "**DCS**" icon will appear during operation)
- D TONE: Encodes a DCS code and Decodes a CTCSS Tone
(the "**T SQ**" icon will appear and the "**DCS**" icon will blink during operation)

Select the desired operating mode, from the selections shown above.

TONE CALLING (1750 Hz)

If the repeaters in your country require a 1750-Hz burst tone for access (typically in Europe), you can set the **MONI** switch to serve as a "Tone Call" switch instead. To change the configuration of this switch, we again use the Set Mode to help us.

1. Press the **[FW]** key, then press the **[0(SET)]** key to enter the Set mode.
2. Rotate the **DIAL** knob to select Set Mode Item 36: M/T-CL.
3. Press the **[0(SET)]** key momentarily to enable adjustment of this Set Mode Item.
4. Rotate the **DIAL** knob to select "T-CALL" on the display.
5. Press the **PTT** switch to save the new setting and exit to normal operation.

36
M/T-CL

SEE
T-CALL

To access a repeater, press and hold in the **MONI** switch for the amount of time specified by the repeater owner/operator. The transmitter will automatically be activated, and a 1750-Hz audio tone will be superimposed on the carrier. Once access to the repeater has been gained, you may release the **MONI** switch, and use the **PTT** switch for activating the transmitter thereafter.

MEMORY MODE

The **VX-6R** provides a wide variety of memory system resources. These include:

- Regular Memory Channels, which made up of:
 - 900 "Standard" memory channels, numbered "1" through "900."
 - 100 "Frequency Skip Memory," numbered "901" through "999."
 - 11 "Home" channels, providing storage and quick recall of one prime frequency on each operating band.
 - 50 sets of band-edge memories, also known as "Programmable Memory Scan" channels, labeled "LO1/UO1" through "L50/U50."
 - 24 Memory Banks, labeled "BANK 1" through "BANK24." Each Memory Bank can be assigned up to 100 channels from the "standard" and "PMS" memory channels.
- Special Memory Channels, which include:
 - 10 "Direct Memory Recall" Channels.
 - 10 "Weather Broadcast" Channels.
 - 89 Popular Short-wave Broadcast Station Memory Channels.
 - 281 VHF Marine Channels.

MEMORY MODE (REGULAR MEMORY CHANNEL)

MEMORY STORAGE

1. Select the desired frequency, while operating in the VFO mode. Be *sure* to set up any desired CTCSS or DCS tones, as well as any desired repeater offset. The power level may also be set at this time, if you wish to store it.
2. Press and hold in the [FW] key for one second.
3. Within ten seconds of releasing the [FW] key, you need to make a decision regarding channel storage. The microprocessor will automatically select the next-available “free” channel (a memory register on which no data has been stored), so you may not wish to make any change; if this is the case, proceed to step 4.

If you wish to select a different channel number into which to store the data, rotate the **DIAL** knob to select the desired memory channel. If you see a blinking memory channel number, it means that the channel currently has no data written on it (i.e. the channel is “free”). You may jump 100 memory channels, if you’re in a hurry (101 → 201 → 301 ...) by pressing the [P(DMR)] key (multiple times, if necessary).

Similarly, if you wish to store to the designated memory channel, an easy way to designate memory is to key in the memory channel number, then press the [V/M(DW)MT] key. *For example*, to designate memory channel #14, press [1] → [4] → [V/M(DW)MT]. You may also designate the Memory Channel #000 and Programmable Memory channels (“L01/U01” through “L50/U50.”) using the following numbers: Memory Channel #000 = “1000,” Programmable Memory channels #L1 = “1001,” U1 = “1002,” L50 = “1099,” and U50 = “1100.” In this case, you does not need pressing the [V/M(DW)MT] key.

4. Press the [FW] key once more to store the frequency into memory.
5. You still will be operating in the “VFO” mode, so you may now enter other frequencies, and store them into additional memory locations, by repeating the above process.



You may change the automatic memory channel selection feature to select the “next-highest memory channel above the last-stored memory channel” by instead of the “next-available ‘free’ channel” via the Set Mode Item 38:

MW MD; see page ??.

Storing Independent Transmit Frequencies (“Odd Splits”)

All memories can store an independent transmit frequency, for operation on repeaters with non-standard shift. To do this:

1. Store the receive frequency using the method already described under **MEMORY STORAGE** (it doesn’t matter if a repeater offset is active).
2. Turn to the desired transmit frequency, then press and hold in the [FW] key for one second.
3. Within five seconds of releasing the [FW] key, rotate the **DIAL** knob to select the same memory channel number as used in step “1” above.

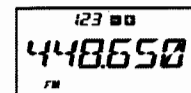
MEMORY MODE (REGULAR MEMORY CHANNEL)

MEMORY STORAGE

4. Press and hold in the PTT switch, then press the [FW] key once more momentarily while holding the PTT switch in (this does not key the transmitter).

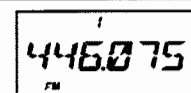


Whenever you recall a memory which contains independently-stored transmit and receive frequencies, the “ ” indication will appear in the display.



MEMORY RECALL

1. While operating in the VFO mode, press the [V/M(DW)MT] key to enter the Memory mode.
2. Rotate the **DIAL** knob to select the desired channel.
3. To return to the VFO mode, press the [V/M(DW)MT] key.



When the radio is already set to the Memory mode, an easy way to recall memories is to key in the memory channel number, then press the [V/M(DW)MT] key.

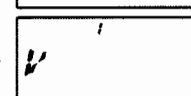
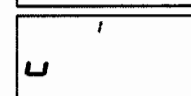
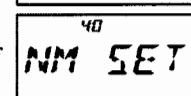
For example, to recall memory channel #14, press [1] → [4] → [V/M(DW)MT].

You may also recall the Memory Channel #000 and Programmable Memory channels (“L01/U01” through “L50/U50.”) using the following numbers: Memory Channel #000 = “1000,” Programmable Memory channels #L1 = “1001,” U1 = “1002,” L50 = “1099,” and U50 = “1100.” In these case, you does not need pressing the [V/M(DW)MT] key.

LABELING MEMORIES

You may wish to append an alpha-numeric “Tag” (label) to a memory or memories, to aid in recollection of the channel’s use (such as a club name, etc.). This is easily accomplished using the Set Mode.

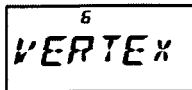
1. Recall the memory channel on which you wish to append a label.
2. Press the [FW] key, then press the [0(SET)] key to enter the Set mode.
3. Rotate the **DIAL** knob to select Set Mode Item 40: NM SET.
4. Press the [0(SET)] key momentarily to enable programming of the name tag.
5. Rotate the **DIAL** knob to select the first digit of the desired label.
6. Press the [MODE(SP S)SQ TYP] key to move to the next character.
7. If you make a mistake, press the [BAND(SCN)BND DN] key to back-space the cursor, then re-enter the correct letter, number, or symbol.
8. Repeat steps 5 through 7 to program the remaining letters, numbers, or symbols of the



MEMORY MODE (REGULAR MEMORY CHANNEL)

LABELING MEMORIES

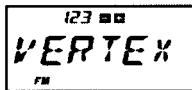
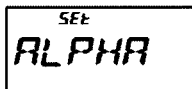
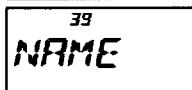
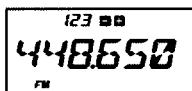
desired label. A total of six characters may be used in the creation of a label.



- When you have programmed a label which is under 6 characters, press the **[0(SET)]** key to confirm the label.
- When you have completed the creation of the label, press the **PTT** key to save the label and exit.

To display the alpha-numeric “Tag” (label):

- Set the **VX-6R** to the “MR” (Memory Recall) mode, and recall the memory channel on which you wish to display its label.
- Press the **[F/W]** key, then press the **[0(SET)]** key to enter the Set mode.
- Rotate the **DIAL** knob to select the Set Mode Item labeled 39: NAME.
- Press the **[0(SET)]** key momentarily to enable adjustment of this Item’s setting.
- Rotate the **DIAL** knob to set this Set Mode Item to “ALPHA” (thus enabling the alpha-numeric display).
- Press the **PTT** key to save the new setting and activate the alpha-numeric Tag.



To disable the alpha-numeric Tag (enabling the frequency display), just repeat the above procedure, rotating the **DIAL** knob to select “FREQ” in step 5 above.



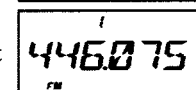
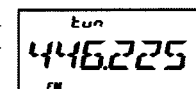
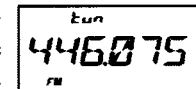
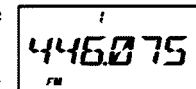
You may set up some memory channels to have their frequencies displayed, while others may be set to have their Name Tag displayed; the selection within Set Mode Item 39: NAME is not applied to all memory channels at once (just the channel on which you currently are operating).

MEMORY MODE (REGULAR MEMORY CHANNEL)

MEMORY OFFSET TUNING

Once you have recalled a particular memory channel, you may easily tune off that channel, as though you were in the “VFO” mode.

- With the **VX-6R** in the “MR” (Memory Recall) mode, select the desired memory channel.
- Press the **[F/W]** key, then press the **[V/M(DW)MT]** key to activate the “Memory Tuning” feature. The Memory Channel number will be replaced by “tun.” And if you have an alpha-numeric Tag displayed on the memory channel, the display will automatically revert to display of the operating frequency, so you can navigate without having to enter the Menu to change the display configuration.
- Rotate the **DIAL** knob, as desired, to tune to a new frequency. The synthesizer steps selected for VFO operation on the current band will be the steps used during Memory Tuning.
- If you wish to return to the original memory frequency, just press the **[V/M(DW)MT]** key momentarily. The display will revert to display of the alpha-numeric Tag (if any) that may have originally appeared on the LCD.
- If you wish to store a new frequency set during Memory Tuning, just press and hold in the **[F/W]** key for one second, per normal memory storage procedure. The microprocessor will automatically set itself to the next-available clear memory location, and you then press **[F/W]** again to lock in the new frequency.



- If you want to replace the original memory contents with those of the new frequency, be sure to rotate the **DIAL** knob to the original memory channel number!*
- Any required CTCSS/DCS changes, or repeater offset modifications, must be done before storing the data into the new (or original) memory channel location.*

MEMORY MODE (REGULAR MEMORY CHANNEL)

MOVING MEMORY DATA TO THE VFO

Data stored on memory channels can easily be moved to the VFO, if you like.

1. Select the memory channel containing the frequency data to be moved to the VFO.
2. Press the [FW] key, then press the [V/M(DW)MT] key to activate the “Memory Tune” feature temporarily, then press the [FW] key, followed by the [⊞(LK)TXPO] key. The data will now have been copied to the VFO, although the original memory contents will remain intact on the previously-stored channel.

If a Split Frequency Memory channel was transferred, the TX frequency will be ignored (you will be set up for Simplex operation on the Receive frequency).

MASKING MEMORIES

There may be situations where you want to “Mask” memories so they are not visible during memory selection or scanning. For example, several memories used only in a city you visit infrequently may be stored, then “Masked” until you visit that city, at which time you can “Unmask” them for normal use.

1. Press the [V/M(DW)MT] key, if needed, to enter the MR mode.
2. Press and hold in the [FW] key for one second, then rotate the DIAL knob to select the memory channel to be “deleted.”
3. Press the [⊞(LK)TXPO] key momentarily. The display will revert to memory channel #1. The previously-selected memory will be deleted.
4. To Unmask the hidden memory, repeat the above procedure: press and hold in the [FW] key for one second, rotate the DIAL to select the masked memory’s number, then press the [⊞(LK)TXPO] key to restore the memory channel’s data.



Watch out! You can manually store data over a “Masked” memory, deleting previous data, if you’re not careful. Use the “next available memory” technique (look for the blinking memory channel number) storage technique to avoid over-writing a masked memory.

MEMORY ONLY MODE

Once memory channel programming has been completed, you may place the radio in a “Memory Only” mode, whereby VFO operation is impossible. This may be particularly useful during public-service events, where a number of operators may be using the radio for first time, and ultimate simplicity of channel selection is desired.

To place the radio into the Memory Only mode, turn the radio off. Now, **press and hold in** the [V/M(DW)MT] key while turning the radio on. To return to normal operation, repeat the above power-on procedure.

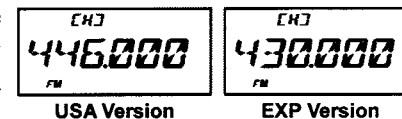
MEMORY MODE (REGULAR MEMORY CHANNEL)

HOME CHANNEL MEMORY

A special one-touch “HOME” channel is available for each of operating bands, to allow quick recall of a favorite operating frequency on each band.

Home Channel storage is simple to accomplish:

1. Change the setting of Set Mode Item 28: HM/RV from “REV” to “HOME,” if it is not already set to this option (see page ??).
2. Select the desired frequency, while operating in the VFO mode. Be sure to set up any desired CTCSS or DCS tones, as well as any desired repeater offset. The power level may also be set at this time, if you wish to store it.
3. Press and hold in the [FW] key for one second.
4. While the memory channel number is blinking, just press the [HM/RV(EMG)R/H] key. The frequency and other data (if any) will now be stored in the special HOME channel register.
5. You may repeat this process on the other operating bands.
6. To recall the HOME channel, press the [HM/RV(EMG)R/H] key momentarily while operating either in the VFO or MR mode.



The UHF HOME channel is the one used during “Emergency channel operation.” See page ?? for details regarding this feature.

BAND	DEFAULT HOME CHANNEL FREQUENCY	
	USA VERSION	EXP VERSION
BC Band	0.540 MHz	0.540 MHz
SW Band	1.800 MHz	1.800 MHz
50 MHz Ham Band	30.000 MHz	30.000 MHz
FM BC Band	59.000 MHz	88.000 MHz
Air Band	108.000 MHz	108.000 MHz
144 MHz Ham Band	146.520 MHz	144.000 MHz
VHF-TV Band	174.000 MHz	174.000 MHz
222 MHz Ham Band	222.000 MHz	230.000 MHz
430 MHz Ham Band	446.000 MHz	430.000 MHz
UHF-TV Band	470.000 MHz	470.000 MHz
Action Band	860.000 MHz	860.000 MHz

MEMORY MODE (REGULAR MEMORY CHANNEL)

MEMORY BANK OPERATION

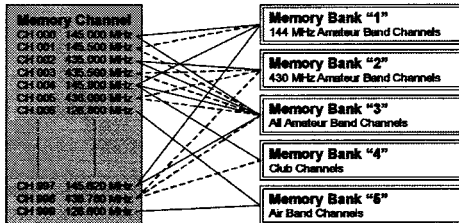
The large number of memories available in the **VX-6R** could be difficult to utilize without some means of organizing them. Fortunately, the **VX-6R** includes provision for dividing the memories into as many as ten Memory Groups, so you can categorize the memories in a manner convenient to you. You may enter and exit the "Memory Group" mode by a single press of the **[BAND(SCN)BND DN]** key, as we shall see below.

Assigning Memories to a Memory Bank

1. Recall the memory channel to be assigned to a Memory Bank.
2. Press and hold in the **[FW]** key for one second, then rotate the **DIAL** knob to select the Memory Bank number ("b 1" ~ "b24") you want as the Memory Bank for this channel.

You may easily recall the Memory Banks, press and hold in the **[FW]** key for one second, then enter the following numbers: 1101 (for Memory Bank "b1") through 1124 (for Memory Bank "b24").

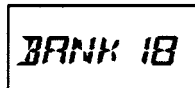
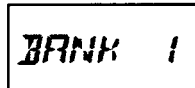
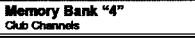
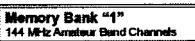
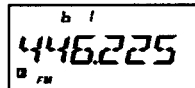
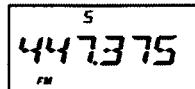
3. Press the **[FW]** key to copy the memory channel data into the Memory Bank.



- 1) You may assign one memory channel into several Memory Banks.
- 2) The PMS memory channels (L1/U1 through L50/U50) may not be assigned to a Memory Bank.

Memory Bank Recall

1. Press the **[V(M)DW)MT]** key, if needed, to enter the Memory mode.
2. Press the **[BAND(SCN)BND DN]** key to activate the "Memory Bank" mode. The Memory Bank number will appear on the display.
3. Press the **[FW]** key, followed by the **[BAND(SCN)BND DN]** key, then rotate the **DIAL** knob to select the desired Memory Bank ("BANK 1" through "BANK24").
3. Press the **[BAND(SCN)BND DN]** key momentarily; now, as you rotate the **DIAL** knob to select memories, you will observe that you can only select memory channels in the current memory bank. The small memory bank number will appear at the above of the frequency display while operating within a Memory Bank.
4. To change to another Memory Bank, press the **[FW]** key, followed by the **[BAND(SCN)BND DN]** key, rotate the **DIAL** knob to select the new Memory Bank,



MEMORY MODE (REGULAR MEMORY CHANNEL)

MEMORY BANK OPERATION

then press the **[BAND(SCN)BND DN]** key momentarily.

5. To exit from Memory Bank operation, just press the **[BAND(SCN)BND DN]** key. "MEMORY" will appear on the display, indicating that you are now in the "standard" Memory Recall mode, without utilization of the Memory Banks. The memories stored in the various Banks will remain in those banks, however; you do not need to store them again.

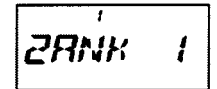
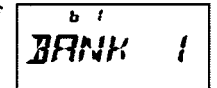
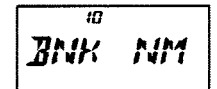
Removing Memories from a Memory Bank

1. Recall the memory channel to be removed from a Memory Bank.
2. Press and hold in the **[FW]** key for one second, then press the **[⊗(LK)TXPO]** key to remove the memory channel data from the Memory Bank.

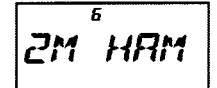
Changing Memory Bank Name

You may change the default Memory Bank Name which is indicates on the display while selecting the Memory Bank to your desired name.

1. Press the **[FW]** key, then press the **[0(SET)]** key to enter the Set mode.
2. Rotate the **DIAL** knob to select Set Mode Item 10: BNK NM.
3. Press the **[0(SET)]** key momentarily, then rotate the **DIAL** knob to recall the memory bank on which you wish to change a label.
4. Press the **[MODE(SP S)SQ TYP]** key to enable changing of the name tag.
5. Rotate the **DIAL** knob to select the first digit of the desired label.
6. Press the **[MODE(SP S)SQ TYP]** key to move to the next character.



7. If you make a mistake, press the **[BAND(SCN)BND DN]** key to back-space the cursor, then re-enter the correct letter, number, or symbol.
8. Repeat steps 5 through 7 to program the remaining letters, numbers, or symbols of the desired label. A total of six characters may be used in the creation of a label.
9. When you have programmed a label which is under 6 characters, press the **[0(SET)]** key to confirm the label.
10. When you have completed the changing of the label, press the **PTT** key to save the label and exit.



MEMORY MODE (REGULAR MEMORY CHANNEL)

DIRECT MEMORY RECALL CHANNEL

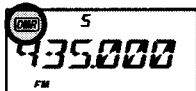
The Direct Memory Recall Channel feature allows you to recall up to ten favorite frequencies directly via the numeric ([0] through [9]) keys.

Storing the Direct Memory Recall Channel

1. Set up the transceiver according to the desired configuration, including parameters such as CTCSS/DCS data, Repeater Shift, Power Level etc.
2. Press and hold in the numeric ([0] through [9]) key, corresponding to Direct Memory Recall Channel into which you wish to store this configuration, for 2 seconds.
3. You still will be operating in the “normal” mode, so you may now enter other configuration, and store them into additional Direct Memory Recall Channel, by repeating the above process.

Recalling the Direct Memory Recall Channel

1. Press and hold in the [P(DMR)] key for 2 seconds to recall the Direct Memory Recall Channel. The “DMR” icon will appear at the upper left corner of the display while operating on the Direct Memory Recall Channel.
2. Press the numeric ([0] through [9]) key corresponding to the Direct Memory Recall Channel you wish to recall.
3. You may change the frequency and the transceiver configuration to your desired.
4. Press and hold in the numeric key which is pressed in step 2, to over-write the new frequency and configuration into the Direct Memory Recall Channel, for 2 seconds.
5. To exit the Direct Memory Recall Channel, press and hold in the [P(DMR)] key for 2 seconds.



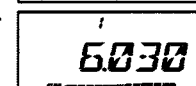
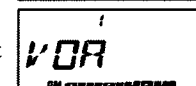
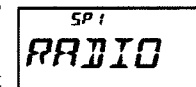
DEFAULT DMR CHANNEL FREQUENCY		
KEY	USA VERSION	EXP VERSION
[1]	145.000 MHz	144.500 MHz
[2]	146.520 MHz	145.000 MHz
[3]	147.500 MHz	145.500 MHz
[4]	435.000 MHz	430.000 MHz
[5]	440.000 MHz	435.000 MHz
[6]	446.000 MHz	439.000 MHz
[7]	222.000 MHz	0.540 MHz
[8]	7.000 MHz	7.000 MHz
[9]	88.000 MHz	88.000 MHz
[0]	120.000 MHz	120.000 MHz

MEMORY MODE (SPECIAL MEMORY CHANNEL)

SHORT-WAVE BROADCAST STATION MEMORY CHANNELS

A large number of Short-Wave Broadcast Station Memory Channels have also been pre-programmed at the factory, for convenient selection of broadcast stations.

1. Press the [FW] key, then press the [9(SP BNK)] key, to recall the Special Memory Channel Bank.
2. Press the [BAND(SCN)BND DN] key to select the “RADIO” (thus recalling the Broadcast Station Channel Memory Bank).
3. Rotate the DIAL knob to select any of 89 available Broadcast Stations.
4. You may indicate the channel frequency temporarily using Set Mode Item 36: NAME (select its parameter to “FREQ”).
5. To exit to normal operation, press the [V/M(DW)MT] key, or press the [FW] key followed by the [9(SP BNK)] key.



BROADCAST STATION FREQUENCY LIST

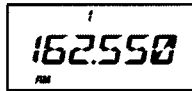
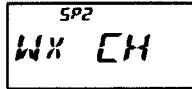
Ch No.	Freq. (MHz)	MODE	Tag	Station Name	Ch No.	Freq. (MHz)	MODE	Tag	Station Name
1	6.030	AM	VOA	Voice of America	45	7.270	AM	SPAIN	Radio Exterior de Espana
2	6.160	AM	VOA	Voice of America	46	9.520	AM	SPAIN	Radio Exterior de Espana
3	9.760	AM	VOA	Voice of America	47	11.920	AM	SPAIN	Radio Exterior de Espana
4	11.930	AM	VOA	Voice of America	48	15.585	AM	SPAIN	Radio Exterior de Espana
5	5.995	AM	CANADA	Radio Canada International	49	6.090	AM	LUXBRG	Radio Luxembourg
6	7.235	AM	CANADA	Radio Canada International	50	7.485	AM	NORWAY	Radio Norway International
7	9.735	AM	CANADA	Radio Canada International	51	9.590	AM	NORWAY	Radio Norway International
8	11.955	AM	CANADA	Radio Canada International	52	9.985	AM	NORWAY	Radio Norway International
9	6.195	AM	BBC	British Broadcasting Corporation	53	13.800	AM	NORWAY	Radio Norway International
10	9.410	AM	BBC	British Broadcasting Corporation	54	6.065	AM	SWEDEN	Radio Sweden
11	12.095	AM	BBC	British Broadcasting Corporation	55	9.490	AM	SWEDEN	Radio Sweden
12	15.310	AM	BBC	British Broadcasting Corporation	56	13.625	AM	SWEDEN	Radio Sweden
13	6.045	AM	FRANCE	Radio France International	57	17.505	AM	SWEDEN	Radio Sweden
14	9.790	AM	FRANCE	Radio France International	58	6.120	AM	FINLND	Radio Finland
15	11.670	AM	FRANCE	Radio France International	59	9.630	AM	FINLND	Radio Finland
16	15.325	AM	FRANCE	Radio France International	60	11.755	AM	FINLND	Radio Finland
17	3.955	AM	DW	Deutsche Welle	61	9.795	AM	FINLND	Radio Finland
18	6.075	AM	DW	Deutsche Welle	62	5.940	AM	RUSSIA	Voice of Russia
19	9.545	AM	DW	Deutsche Welle	63	5.920	AM	RUSSIA	Voice of Russia
20	9.735	AM	DW	Deutsche Welle	64	7.205	AM	RUSSIA	Voice of Russia
21	6.060	AM	ITALY	Italian Radio International	65	12.030	AM	RUSSIA	Voice of Russia
22	7.175	AM	ITALY	Italian Radio International	66	9.435	AM	ISRAEL	Israel Broadcasting Authority
23	9.515	AM	ITALY	Italian Radio International	67	11.585	AM	ISRAEL	Israel Broadcasting Authority
24	17.710	AM	ITALY	Italian Radio International	68	15.615	AM	ISRAEL	Israel Broadcasting Authority
25	3.985	AM	SWISS	Swiss Radio International	69	17.545	AM	ISRAEL	Israel Broadcasting Authority
26	6.165	AM	SWISS	Swiss Radio International	70	6.045	AM	INDIA	All India Radio (AIR)
27	9.885	AM	SWISS	Swiss Radio International	71	9.595	AM	INDIA	All India Radio (AIR)
28	15.220	AM	SWISS	Swiss Radio International	72	11.620	AM	INDIA	All India Radio (AIR)
29	5.985	AM	BELGIUM	Radio Vlaanderen International	73	15.020	AM	INDIA	All India Radio (AIR)
30	9.925	AM	BELGIUM	Radio Vlaanderen International	74	7.190	AM	CHINA	China Radio International (CRI)
31	11.780	AM	BELGIUM	Radio Vlaanderen International	75	5.250	AM	CHINA	China Radio International (CRI)
32	13.740	AM	BELGIUM	Radio Vlaanderen International	76	9.855	AM	CHINA	China Radio International (CRI)
33	5.955	AM	NDELND	Radio Nederland	77	11.685	AM	CHINA	China Radio International (CRI)
34	6.020	AM	NDELND	Radio Nederland	78	5.975	AM	KOREA	Radio Korea
35	9.895	AM	NDELND	Radio Nederland	79	7.275	AM	KOREA	Radio Korea
36	11.655	AM	NDELND	Radio Nederland	80	9.570	AM	KOREA	Radio Korea
37	9.590	AM	DENMRK	Radio Denmark	81	13.670	AM	KOREA	Radio Korea
38	9.985	AM	DENMRK	Radio Denmark	82	6.155	AM	JAPAN	Radio Japan
39	13.800	AM	DENMRK	Radio Denmark	83	7.200	AM	JAPAN	Radio Japan
40	15.735	AM	DENMRK	Radio Denmark	84	9.750	AM	JAPAN	Radio Japan
41	9.780	AM	PORTGL	Radio Portugal	85	11.850	AM	JAPAN	Radio Japan
42	11.960	AM	PORTGL	Radio Portugal	86	5.995	AM	ASTRLA	Radio Australia
43	15.555	AM	PORTGL	Radio Portugal	87	9.580	AM	ASTRLA	Radio Australia
44	21.655	AM	PORTGL	Radio Portugal	88	9.660	AM	ASTRLA	Radio Australia
					89	12.080	AM	ASTRLA	Radio Australia

MEMORY MODE (SPECIAL MEMORY CHANNEL)

WEATHER BROADCAST CHANNELS (U. S. VERSION)

The VHF Weather Broadcast Station Memory Channel Bank has been pre-programmed at the factory, for quick selection of NOAA weather information stations.

1. Press the **[FW]** key, then press the **[9(SP BNK)]** key, to recall the Special Memory Channel Bank.
2. Press the **[BAND(SCN)BND DN]** key, repeatedly if necessary to select "WX CH" (thus recalling the Weather Broadcast Memory Bank).
3. Rotate the **DIAL** knob to select the desired Weather Broadcast channel.
4. If you wish to scan this bank to search for louder stations, just press the **PTT** switch. When the scanner pauses on a station, press the **PTT** key once to halt the scan, or press it twice to restart the scan.
5. To exit to normal operation, press the **[V/M(DW)MT]** key, or press the **[FW]** key followed by the **[9(SP BNK)]** key.



CH	FREQUENCY	CH	FREQUENCY
01	162.550 MHz	06	162.500 MHz
02	165.400 MHz	07	165.525 MHz
03	162.475 MHz	08	161.650 MHz
04	162.425 MHz	09	161.775 MHz
05	162.450 MHz	10	163.275 MHz

Severe Weather Alert

In the event of extreme weather disturbances, such as severe thunderstorms and hurricanes, the NOAA (National Oceanic and Atmospheric Administration) sends a weather alert accompanied by a 1050 Hz tone and subsequent weather report on one of the NOAA weather channels. See page 39 for details regarding activation of this mode.

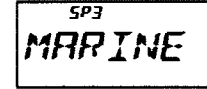
The **VX-6R** allows you to scan just the memory channels, the entire operating band, or a portion of that band. It will halt on signals encountered, so you can talk to the station(s) on that frequency, if you like.

MEMORY MODE (SPECIAL MEMORY CHANNEL)

VHF MARINE CHANNELS

Another special Memory Bank contains VHF Marine Channels, pre-programmed at the factory, for quick selection.

1. Press the **[FW]** key, then press the **[9(SP BNK)]** key, to recall the Special Memory Channel Bank.
2. Press the **[BAND(SCN)BND DN]** key, repeatedly if necessary, to select "MARINE" (thus recalling the Marine Channel Memory Bank).
3. Rotate the **DIAL** knob to select any of 280 available VHF Marine Channels.
4. To exit to normal operation, press the **[V/M(DW)MT]** key, or press the **[FW]** key followed by the **[9(SP BNK)]** key.



VHF MARINE CHANNEL FREQUENCY LIST

CH No.	Frequency (MHz)	CH No.	Frequency (MHz)	CH No.	Frequency (MHz)	CH No.	Frequency (MHz)	CH No.	Frequency (MHz)	CH No.	Frequency (MHz)	CH No.	Frequency (MHz)
0	156.000	41	158.050	82	157.125	123	159.075	164	160.100	205	161.125	246	155.875
1	156.050	42	158.100	83	157.175	124	159.100	165	160.125	206	161.150	247	155.850
2	156.100	43	158.150	84	157.225	125	159.125	166	160.150	207	161.175	248	155.825
3	156.150	44	158.200	85	157.275	126	159.150	167	160.175	208	161.200	249	155.800
4	156.200	45	158.250	86	157.325	127	159.175	168	160.200	209	161.225	250	155.775
5	156.250	46	158.300	87	157.375	128	159.200	169	160.225	210	161.250	251	155.750
6	156.300	47	158.350	88	157.425	129	159.225	170	160.250	211	161.275	252	155.725
7	156.350	48	158.400	89	157.475	130	159.250	171	160.275	212	161.300	253	155.700
8	156.400	49	158.450	90	157.525	131	159.275	172	160.300	213	161.325	254	155.675
9	156.450	50	158.500	91	157.575	132	159.300	173	160.325	214	161.350	255	155.650
10	156.500	51	158.550	92	157.625	133	159.325	174	160.350	215	161.375	256	155.625
11	156.550	52	158.600	93	157.675	134	159.350	175	160.375	216	161.400	257	155.600
12	156.600	53	158.650	94	157.725	135	159.375	176	160.400	217	161.425	258	155.575
13	156.650	54	158.700	95	157.775	136	159.400	177	160.425	218	161.450	259	155.550
14	156.700	55	158.750	96	157.825	137	159.425	178	160.450	219	161.475	260	155.525
15	156.750	56	158.800	97	157.875	138	159.450	179	160.475	220	161.500	261	155.500
16	156.800	57	158.850	98	157.925	139	159.475	180	160.500	221	161.525	262	155.475
17	156.850	58	158.900	99	157.975	140	159.500	181	160.525	222	161.550	263	155.450
18	156.900	59	158.950	100	158.025	141	159.525	182	160.550	223	161.575	264	155.425
19	156.950	60	156.025	101	158.075	142	159.550	183	160.575	224	161.600	265	155.400
20	157.000	61	156.075	102	158.125	143	159.575	184	160.600	225	161.625	266	155.375
21	157.050	62	156.125	103	158.175	144	159.600	185	160.625	226	161.650	267	155.350
22	157.100	63	156.175	104	158.225	145	159.625	186	160.650	227	161.675	268	155.325
23	157.150	64	156.225	105	158.275	146	159.650	187	160.675	228	161.700	269	155.300
24	157.200	65	156.275	106	158.325	147	159.675	188	160.700	229	161.725	270	155.275
25	157.250	66	156.325	107	158.375	148	159.700	189	160.725	230	161.750	271	155.250
26	157.300	67	156.375	108	158.425	149	159.725	190	160.750	231	161.775	272	155.225
27	157.350	68	156.425	109	158.475	150	159.750	191	160.775	232	161.800	273	155.200
28	157.400	69	156.475	110	158.525	151	159.775	192	160.800	233	161.825	274	155.175
29	157.450	70	156.525	111	158.575	152	159.800	193	160.825	234	161.850	275	155.150
30	157.500	71	156.575	112	158.625	153	159.825	194	160.850	235	161.875	276	155.125
31	157.550	72	156.625	113	158.675	154	159.850	195	160.875	236	161.900	277	155.100
32	157.600	73	156.675	114	158.725	155	159.875	196	160.900	237	161.925	278	155.075
33	157.650	74	156.725	115	158.775	156	159.900	197	160.925	238	161.950	279	155.050
34	157.700	75	-	116	158.825	157	159.925	198	160.950	239	161.975	280	155.025
35	157.750	76	-	117	158.875	158	159.950	199	160.975	240	162.000	281	155.000
36	157.800	77	156.875	118	158.925	159	159.975	200	161.000	241	162.025		
37	157.850	78	156.925	119	158.975	160	160.000	201	161.025	242	162.050		
38	157.900	79	156.975	120	159.000	161	160.025	202	161.050	243	162.075		
39	157.950	80	157.025	121	159.025	162	160.050	203	161.075	244	162.100		
40	158.000	81	157.075	122	159.050	163	160.075	204	161.100	245	162.125		

NOTE

SCANNING

Scanning operation is basically the same in each of the above modes. Before you begin, take a moment to select the way in which you would like the scanner to resume scanning after it halts on a signal.

Setting the Scan-Resume Technique

Three options for the Scan-Resume mode are available:

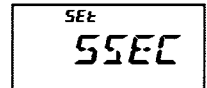
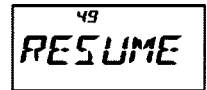
3 SEC/5 SEC/10 SEC: In this mode, the scanner will halt on a signal it encounters, and will hold there for the selected resume time. If you do not take action to disable the scanner within that time period, the scanner will resume even if the stations are still active.

BUSY: In this mode, the scanner will halt on a signal it encounters. One seconds after the carrier has dropped because the other station(s) ceased transmission, the scanner will resume. In the case of constant-carrier signals like Weather Station broadcasts, the scanner will likely remain on this frequency indefinitely.

HOLD: In this mode, the scanner will halt on a signal it encounters. It will not restart automatically; you must manually re-initiate scanning if you wish to resume.

To set the Scan-Resume mode:

1. Press the **[FW]** key, then press the **[0(SET)]** key to enter the Set mode.
2. Rotate the **DIAL** knob to select Set Mode Item 49: RESUME.
3. Press the **[0(SET)]** key momentarily to enable adjustment of this Set Mode Item.
4. Rotate the **DIAL** knob to select the desired scan-resume mode.
5. When you have made your selection, press the **PTT** key to save the new setting and exit to normal operation.



The default condition for this Set Mode Item is "5 SEC."

SCANNING

VFO SCANNING

1. Select the VFO mode by pressing the [VIM(DW)MT] key, if necessary.
2. Press and hold in the [BAND(SCN)BND DN] key for one second, then rotate the **DIAL** knob *while holding* the [BAND(SCN)BND DN] key to select the bandwidth for the VFO scanner. Available selections are ±1 MHz, ±2 MHz, ±5 MHz, ALL, PMS-X, and BAND.

± -- 1MHz

±1 MHz, ±2 MHz, ±5 MHz: The scanner will sweep frequencies within selected bandwidth.

ALL: The scanner will sweep all frequencies.

PMS-X: The scanner will sweep frequencies within the currently-selected PMS frequency pair. See page ?? for details.

BAND: The scanner will sweep frequencies only on the current band.
3. Release the [BAND(SCN)BND DN] key to start scanning.
4. If and when the scanner encounters a signal strong enough to open the squelch, the scanner will halt temporarily; the decimal point of the frequency display will blink during this "Pause" condition.
5. The scanner will then resume according to the Scan-Resume mode selected in the previous section.
6. To cancel scanning, press the PTT switch or [VIM(DW)MT] key.



1) When you start the VFO Scanner, the VX-6R will be changing frequency in the upward direction. If you want to change direction of the scan while it is underway, rotate the DIAL knob one click in the opposite direction (in this case, one click counter-clockwise). You'll see the scanner turn around and change frequency downward!

2) You may change the scanner's method of operation so that the VFO frequency will jump to the low band edge of the next band when the VFO frequency reaches the high edge of the current band (or vice versa). See page ?? regarding Set Mode Item 71: VFO MD.

Setting the Squelch Level during active Scanning operation

The VX-6R allows adjustment of the Squelch level "on the fly" while you are scanning.

1. While the scanner is engaged, press the [F/W] key, then press the MONI key (the current squelch level will appear below the frequency display).
2. Rotate the **DIAL** to select the desired Squelch level.
3. Press the PTT switch momentarily to save the new setting and exit to normal operation. In this case, pressing the PTT switch this one time will not causing scanning to stop.



SCANNING

VFO SCANNING

How to Skip (Omit) a Frequency during VFO Scan

If the VFO scan stops on a frequency or frequencies that you do not need (such as a spurious radiation from a television), such frequencies can be "skipped" during VFO scanning. This accomplished by storing these frequencies in a special "Frequency Skip Memory" bank reserved for this purpose.

To skip a frequency during VFO scanning:

1. While VFO scanning is stopped on the frequency that you do not need, press and hold the [F/W] key for one second, then rotate the **DIAL** knob to select the desired Frequency Skip Memory channel (901 - 999). The microprocessor will automatically select the next-available "free" Frequency Skip Memory channel (a memory register on which no data has been stored). If you see that any blinking channel number, it means that the channel currently has no data written on it (i.e. the channel is "free").
2. Press the [F/W] key to store the frequency into the Frequency Skip Memory; it now is programmed to be ignored during VFO scanning.

The VX-6R has 99 VFO Frequency Skip Memory Channels.

To re-institute a frequency into the VFO scan loop:

1. Press the [VIM(DW)MT] key, if needed, to enter the MR mode.
2. Press and hold in the [F/W] key for one second, then rotate the **DIAL** knob to select the memory channel to be re-instituted.
3. Press the [88] key to delete the channel from the Frequency Skip Memory; this will re-institute the frequency into the VFO scan loop.

SCANNING

MEMORY SCANNING

Memory scanning is similarly easy to initiate:

1. Set the radio to the Memory mode by pressing the [V/M(DW)MT] key, if necessary.
2. Press and hold in the [BAND(SCN)BND DN] key for one second, and rotate the **DIAL** knob *while holding* in the [BAND(SCN)BND DN] key to select the desired Memory Scan mode. Available selections are ALL CH, TAG1, TAG2, BAND, and PMS-X.

ALL CH: The scanner sweeps all Memory channels.

TAG1: The scanner sweeps only those Memory channels which are memorized on the same “first” digit of the alpha/numeric tag as the first channel on which scanning started.

TAG2: The scanner sweeps only those Memory channels which are memorized on the same “first” and “second” digits of the alpha/numeric tag as the first channel on which scanning started.

BAND: The scanner sweeps only those Memory channels which are memorized on the same operating band as the first channel on which scanning started.

PMS-X: The scanner will sweep frequencies within the currently-selected PMS frequency pair. See page ?? for details.

3. Release the [BAND(SCN)BND DN] key to initiate scanning.
4. As with VFO scanning, the scanner will halt on any signal encountered that is strong enough to open the squelch; it will then resume scanning according to the Scan-Resume mode set previously. When does not have the memory channel correspond to the Memory Scan mode, “MS ERR” notation appears on the display.
5. To cancel scanning, press the PTT switch or [V/M(DW)MT] key.

MS ERR

How to Skip (Omit) a Channel during Memory Scan Operation

As mentioned previously, some continuous-carrier stations like a Weather Broadcast station will seriously impede scanner operation if you are using the “Carrier Drop” Scan-Resume mode, as the incoming signal will not pause long enough for the transceiver to resume scanning. Such channels may be “Skipped” during scanning, if you like:

1. Recall the Memory Channel to be skipped during scanning.
2. Press the [FW] key, then press the [0(SET)] key to enter the Set mode.
3. Rotate the **DIAL** knob to select Set Mode Item 57: SKIP.
4. Press the [0(SET)] key momentarily to enable adjustment of this Set Mode Item.

57
SKIP

5. Rotate the **DIAL** knob so as to select “SKIP.” The current Memory Channel will now be ignored during scanning. The “ONLY” selection is used for “Preferential Memory Scan,” described in the next section.

57
SKIP
ONLY

SCANNING

MEMORY SCANNING

6. When you have made your selection, press the PTT key to save the setting and exit to normal operation.

When you recall the “skipped” memory channel manually, a small “▶” icon will appear at the left of the memory channel number, indicating it is to be ignored during scanning.

15
▶ 446.725
MHz

To re-institute a channel into the scanning loop, select “OFF” in step 5 above (the “Skipped” channel will, of course, still be accessible via manual channel selection methods using the **DIAL** knob in the MR mode, whether or not it is locked out of the scanning loop).

Preferential Memory Scan

The **VX-6R** also allows you to set up a “Preferential Scan List” of channels which you can “flag” within the memory system. These channels are designated by a blinking “▶” icon when you have selected them, one by one, for the Preferential Scan List.

Here is the procedure for setting up and using the Preferential Scan List:

1. Recall the Memory Channel which you wish to add to the Preferential Scan List.
2. Press the [FW] key, then press the [0(SET)] key to enter the Set mode.
3. Rotate the **DIAL** knob to select Set Mode Item 57: SKIP.
4. Press the [0(SET)] key momentarily to enable adjustment of this Set Mode Item.
5. Rotate the **DIAL** knob so as to select “ONLY.”
6. When you have made your selection, press the PTT key to save the settings and exit to normal operation.
7. To remove a channel from the Preferential Scan List, just repeat the above procedure, rotating the **DIAL** knob to select “OFF” in step 5 above.

57
SKIP

57
SKIP
ONLY

To initiate Preferential Memory Scan:

1. Press the [V/M(DW)MT] key momentarily to enter the Memory Recall mode, if you are not using memories already.
2. Rotate the **DIAL** to select any channel which has a blinking “▶” icon appended to the channel number.
3. Press and hold in the [BAND(SCN)BND DN] key for one second, and rotate the **DIAL** knob *while holding* in the [BAND(SCN)BND DN] key to select the desired Memory Scan mode. Available selections are ALL CH, TAG1, TAG2, BAND, and PMS-X.

ALL CH: The scanner sweeps all Preferential Memory channels.

TAG1: The scanner sweeps only those Preferential Memory channels which are memorized on the same “first” digit of the alpha/numeric tag as the first channel on which scanning started.

SCANNING


MEMORY SCANNING

- TAG2:** The scanner sweeps only those Preferential Memory channels which are memorized on the same “first” and “second” digits of the alpha/numeric tag as the first channel on which scanning started.
- BAND:** The scanner sweeps only those Preferential Memory channels which are memorized on the same operating band as the first channel on which scanning started.
- PMS-X:** The scanner will sweep frequencies within the currently-selected PMS frequency pair. See page 52 for details.
- Release the [**BAND(SCN)BND DN**] key to initiate Preferential Memory Scanning. Only the channels which have a blinking “▶” icon appended to the channel number will be scanned.

Memory Bank Scan

When the Memory Bank feature is engaged, the scanner sweeps only memory channels in the current Memory Bank. However, if the Memory Bank Link Scan feature is enabled, you may sweep the memory channels in several Memory Banks which you have selected.

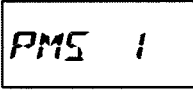
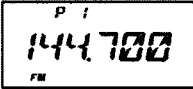
To enable the Memory Bank Link Scan feature:

- Set the radio to the Memory mode by pressing the [**V/M(PRI)**] key, if necessary.
- Press the [**FW**] key, followed by the [**BAND(SCN)BND DN**] key to recall the Memory Bank.
- Rotate the **DIAL** knob to select the first Memory Bank (“BANK 1” ~ “BANK24”) you wish to sweep using Memory Bank Link Scan.
- Press the [**V/M(DW)MT**] key momentarily. A small blinking “▶” icon will appear at the left of the Memory Bank number, indicating this Memory Bank will now be swept during Memory Bank Scan. 
- Repeat steps 3 and 4 above, to append the blinking “▶” icon to any other Memory Banks you wish to sweep.
- Now, press and hold in the [**V/M(PRI)**] key for one second to initiate the Memory Bank Link Scan.
- To remove a Memory Bank from the Memory Bank Link Scan, repeat steps 2 and 3 above, to delete the blinking “▶” icon from the Memory Bank number indication.

SCANNING

PROGRAMMABLE (BAND LIMIT) MEMORY SCAN (PMS)

This feature allows you to set sub-band limits for either scanning or manual VFO operation. For example, you might wish to set up a limit (in North America) of 144.300 MHz to 148.000 MHz so as to prevent encroachment into the SSB/CW “Weak Signal” portion of the band below 144.300 MHz. Here’s how to do this:


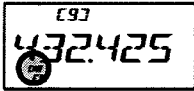
- Set the radio to the VFO mode by pressing the [**V/M(DW)MT**] key, if necessary.
- Using the techniques learned earlier, store (per the above concept) 144.300 MHz into Memory Channel #L01 (the “L” designates the Lower sub-band limit).
- Likewise, store 148.000 MHz into Memory Channel #U01 (the “U” designates the Upper sub-band limit).
- Press and hold in the [**BAND(SCN)BND DN**] key for one second, and rotate the **DIAL** knob to select the desired PMS frequency pair (PMSxx), then press the [**FW**] key. 
- Release the [**BAND(SCN)BND DN**] key to initiate the Programmable (Band Limit) Memory Scan; the Memory Channel number will be replaced by “Pxx.” Scanning and tuning will now be limited within the just-programmed range. 
- 50 pairs of Band Limit memories, labeled L01/U01 through L50/U50 are available. You therefore can set upper and lower operation limits in multiple segments on a number of bands, if you like.

SCANNING

“PRIORITY CHANNEL” SCANNING (DUAL WATCH)

The **VX-6R**'s scanning features include a two-channel scanning capability which allows you to operate on a VFO or Memory channel, while periodically checking a user-defined Memory Channel for activity. If a station is received on the Memory Channel which is strong enough to open the Squelch, the scanner will pause on that station in accordance with the Scan-Resume mode set via Set Mode Item 49: RESUME. See page ??.

Here is the procedure for activating Priority Channel Dual Watch operation:

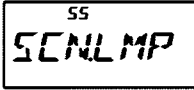

1. Press the **[V/M(DW)MT]** key momentarily to enter the Memory Recall mode, if you are not using memories already.
2. Press and hold in the **[F/W]** key for one second, then rotate the **DIAL** knob to select the memory channel you wish to be the “Priority” channel.
3. Press the **[BAND(SCN)BND DN]** key. The “**PRI**” icon will appear to the left side of the memory channel number, indicating it is the Priority channel while recalling the channel. 
4. Now set the **VX-6R** for operation on another memory channel, Home channel, or on a VFO frequency.
5. Press and hold in the **[V/M(DW)MT]** key for one second. The display will remain on the VFO or memory channel selected; however, the “**DW**” icon will appear on the display, and every five seconds the **VX-6R** will check the Priority Channel for activity. If a station appears on the Priority Channel, the radio will pause on that channel, as described previously. 

SCANNING

AUTOMATIC LAMP ILLUMINATION ON SCAN STOP

The **VX-6R** will automatically illuminate the LCD/Keypad Lamp whenever the scanner stops on a signal; this allows you to see the frequency of the incoming signal better at night. Note that this will, of course, increase the battery consumption, so be sure to switch it off during the day (the default condition for this feature is “ON”).

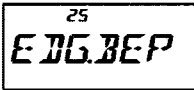
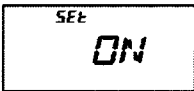
The procedure for disabling the Scan Lamp is:

1. Press the **[F/W]** key, then press the **[0(SET)]** key to enter the Set mode.
2. Rotate the **DIAL** knob to select Set Mode Item 55: SCN.LMP. 
3. Press the **[0(SET)]** key momentarily to enable adjustment of this Set Mode Item.
4. Rotate the **DIAL** knob to set this Set Mode Item to “OFF.” 
5. When you have made your selection, press the **PTT** key to save the setting and exit to normal operation.

BAND EDGE BEEPER

The **VX-6R** will automatically “beep” when a band edge is encountered during scanning (either in standard VFO scanning or during PMS operation). You may also enable this feature (band edge beeper) to operate when the frequency reaches the band edge while tuning using the **DIAL** knob.

The procedure for enabling the Band-Edge Beeper is:

1. Press the **[F/W]** key, then press the **[0(SET)]** key to enter the Set mode.
2. Rotate the **DIAL** knob to select Set Mode Item 25: EDG.BEP. 
3. Press the **[F/W]** key momentarily to enable adjustment of this Set Mode Item.
4. Rotate the **DIAL** knob to set this Set Mode Item to “ON.” 
5. When you have made your selection, press the **PTT** key to save the setting and exit to normal operation.

SCANNING

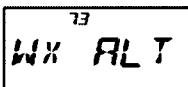
WEATHER ALERT SCAN

This feature allows you to check the Weather Broadcast Memory Channels for the presence of the NOAA Alert Tone while operating using VFO scan or Memory channel scan.

When the Weather Alert Scan feature is engaged, the **VX-6R** will check the Weather Broadcast Memory Channels for activity every five seconds while scanning. If you watch the display carefully, you'll observe the scanner periodically shifting to the Weather Broadcast bank, scanning the Weather channels quickly in search of the Alert Tone, after which regular scanning will resume for another five seconds.

To enable the Weather Alert Scan feature:

1. Press the **[F/W]** key, then press the **[0(SET)]** key to enter the Set mode.
2. Rotate the **DIAL** knob to select Set Mode Item 73: WX ALT.
3. Press the **[0(SET)]** key momentarily to enable adjustment of this Set Mode Item.
4. Rotate the **DIAL** knob so as to select "ON."
5. When you have made your selection, press the **PTT** key to save the setting and exit to normal operation.
6. To disable the Weather Alert Scan feature, select "OFF" in step 4 above.





- 1) When the Weather Alert Scan feature is engaged, the Scan-Resume mode is fixed to "TIME."
- 2) If you are just scanning the Weather Broadcast Channels, the VX-6R's receiver will remain muted indefinitely unless the Alert Tone is received. This yields a long period of monitoring time, as no power will be consumed via audio output while scanning for the Alert Tone is in progress.

SMART SEARCH OPERATION

The Smart Search feature allows you to load frequencies automatically according to where activity is encountered by your radio. When Smart Search is engaged, the transceiver will search above and below your current frequency, storing active frequencies as it goes (without stopping on them even momentarily); these frequencies are stored into a special Smart Search memory bank, consisting of 31 memories (15 above the current frequency, 15 below the current frequency, plus the current frequency itself).

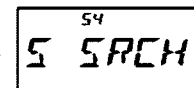
Two basic operating modes for Smart Search are available:

SINGLE: In this mode, the transceiver will sweep the current band once in each direction starting on the current frequency. All channels where activity is present will be loaded into the Smart Search memories; whether or not all 31 memories are filled, the search will stop after one sweep in each direction.

CONT: In this mode, the transceiver will make one pass in each direction as with One-Shot searching; if all 31 channels are not filled after the first sweep, however, the radio will continue sweeping until they are all filled.

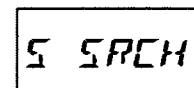
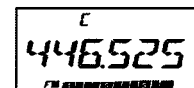
Setting the Smart Search Mode

1. Press the **[F/W]** key, then press the **[0(SET)]** key to enter the Set mode.
2. Rotate the **DIAL** knob to select Set Mode Item 54: S SRCH.
3. Press the **[0(SET)]** key momentarily to enable adjustment of this Set Mode Item.
4. Rotate the **DIAL** knob to select the desired Smart Search mode (see above).
5. When you have made your selection, press the **PTT** switch to save the setting and exit to normal operation.




Storing Smart Search Memories

1. Set the radio to the VFO mode. Be sure that you have the Squelch adjusted properly (so that band noise is quieted).
2. Press and hold in the **[MODE(SP S)SQ TYP]** key for one second, and rotate the **DIAL** knob *while holding* in the **[MODE(SP S)SQ TYP]** key to that "S SRCH" indication appears on the display: this activates the Smart Search feature.
3. Press and hold in the **[BAND(SCN)BND DN]** key for one second to begin the Smart Search scanning.
3. As active channels are detected, you will observe the number of "loaded" channels increasing in the regular memory channel window.
4. Depending on the mode you set for Smart Search operation ("SINGLE" or "CONT"), the Smart Search scan will eventually terminate, and the LCD will revert to Smart Search Memory Channel "C."
5. To recall the Smart Search memories, rotate the **DIAL** knob to choose from among the

SMART SEARCH OPERATION

frequencies stored by Smart Search.

- To return to normal operation, press the [MODE(SP S)SQ TYP] key.



Smart Search is a great tool when visiting a city for the first time. You don't need to spend hours looking up repeater frequencies from a reference guide-book. . . just ask your VX-6R where the action is!

CHANNEL COUNTER OPERATION

The Channel Counter allows measuring of the frequency of a nearby transmitter, without knowing that frequency in advance. The frequency can be measured by bringing the VX-6R close to the transceiver which is transmitting.

The VX-6R performs a high-speed search within a ± 5 MHz range from the frequency displayed on the LCD. When the strongest signal in that range is identified, the VX-6R displays the frequency of that (strongest) signal, and writes it into the special "Channel Counter" memory.

Note: This Channel Counter is designed to provide an indication of the operating frequency of the incoming signal, one that is close enough to allow the user, thereafter, to tune precisely to the other station's frequency. This feature is not, however, designed to provide a precise determination of the other station's frequency.

- Set the radio to the VFO mode in the predicted frequency range for the transmitter to be measured.
- Bring the VX-6R into close proximity to the transmitter to be measured.
- Press and hold in the [MODE(SP S)SQ TYP] key for one second, and rotate the DIAL knob *while holding* in the [MODE(SP S)SQ TYP] key to that "CH CNT" indication appears on the display: this activates the Channel Counter feature.
- Release the [MODE(SP S)SQ TYP] key to begin the Channel Counter; the frequency of the nearby station will be displayed. When the channel counter is active, a 50 dB receiver front-end attenuator will be engaged. Therefore, only stations in close proximity may have their frequencies measured using this feature.
- If it isn't possible to determine the signal's frequency, the transceiver will return to the frequency on which you were operating when you started Channel Counter operation.
- When you are finished, just press the [MODE(SP S)SQ TYP] key. The radio will exit from Channel Counter operation.

