Yupiteru MVT-7100

Owner's Guide

Rich Wells - N2MCA

Introduction

In an effort to better understand the operation of the Yupiteru MVT-7100, and to offer a valuable resource to other people who may be using these wonderful radios, I wrote this owner's guide.

It does not hurt that the originally supplied manual that comes with the radio is rather poor. Like many translations from the original Japanese, the grammar leaves much to be desired. And, on the whole, the organization of the topics is not helpful in gaining a useful understanding of the radio and how all the pieces interrelate.

This guide goes through the operation of the MVT-7100 in a step-by-step process starting with the basics and builds up to the operation of the more advanced features.

While I've never had the pleasure of playing with the MVT-7200, most of what appears here should apply to it. Where there are differences that I know of between these two radios, I have pointed them out as best I could.

Feel free to make copies of this document and distribute as you see beneficial to the radio monitoring hobby as long as it is done FREE of charge. I simply ask that this information be kept intact. A lot of hard work and effort has gone into the writing of this guide. I would appreciate it if every effort is made to keep this document whole with me as the original author.

If you would like to share your thoughts about this owner's guide, have suggestions for its improvement or have further questions, feel free to send me e-mail.

Happy reading and strong signals!

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Warning

If the radio is being used with standard alkaline batteries, do not use the AC or car power adapters. External power should only be applied to the radio when it has been equipped with rechargeable batteries or the batteries have been removed from the radio.

Even if you do use power in this manner with rechargeable batteries, leaving the radio plugged in continually will overcharge and overheat the batteries. Both of which will drastically shorten their lifespan.

Features

1000 channels
500 search pass frequencies
10 memory banks
10 search bands
13 step sizes (MVT-7200)
12 step sizes (MVT-7100)
6 receive modes (MVT-7200)
5 receive modes (MVT-7100)
1 priority channel
Large, full function, LCD
VFO
Squelch monitor
Rotary control
Attenuator
Programmable battery save
Programmable beep

Resources

1000 Memory channels (0-999)
500 Search pass frequencies
100 Channels/bank
10 Memory banks (1-0)
10 Search bands (1-0)
13 Step sizes (MVT-7200: 50/100 Hz
1/5/6.25/9/10/12.5/20/25/50/100/125 kHz)

12 Step sizes (MVT-7100: 50/100 Hz
1/5/6.25/9/10/12.5/20/25/50/100 kHz)
6 Receive modes (MVT-7200:
    AM/NAM/FM/WFM/USB/LSB)
5 Receive modes (MVT-7100: AM/
    FM/WFM/USB/LSB)
1 Priority channel

Memory Organization

Bank Channels

```
---- ---------
 1   000 - 099
 2   100 - 199
 3   200 - 299
 4   300 - 399
 5   400 - 499
 6   500 - 599
 7   600 - 699
 8   700 - 799
 9   800 - 899
 0   900 - 999
```
Priority channel is memory channel 1000

Definitions & Terms

Here are some basic definitions as well as terms used in the MVT-7100 Instruction Manuals that will help you to use this guide more effectively.

Attenuator

A device which is used to diminish the strength of an incoming signal. This is typically used to alleviate overloading of the front end radio circuitry by very strong, and usually nearby, transmissions. The MVT-7100 allows you to set the attenuator for individual memory channels as well as while performing a search.

Memory bank

An association of memory channels. This radio has 10 memory banks (1-0). Since it also has 1000 memory channels, this means there are 100 memory channels per memory bank.

Memory channel

A location used to store a frequency and its associated receive mode.
The MVT-7100 has 1000 memory channels which are divided into 10 banks.

Pass

Refers to scanning and searching operations. A memory channel can be passed so that it is not checked during a scan operation. A frequency can be passed so it is not checked during a search operation. See Scan Pass and Search Pass for more information.

Priority Channel

Special memory channel that can be checked on a periodic basis for active transmissions. This is usually programmed with very important frequency that you do not want to miss activity on. The MVT-7100 has 1 priority channel which is located at the end of "normal" memory.

Receive Mode

The method by which radio transmissions will be demodulated so that the resultant audio portion may be directed to the speaker. Available receive modes are :

    AM - Amplitude Modulation (below 30MHz, amateur radio, commercial
and military aircraft)
    NAM - Narrow AM (mainly used below 25MHz; only found on the MVT-7200)
    FM - Frequency Modulation (most VHF/UHF communications)
    WFM - Wide FM (for FM radio and TV audio)
    USB - Upper Sideband (mainly used below 25MHz & amateur radio bands)
    LSB - Lower Sideband (mainly used below 25MHz & amateur radio bands)

Scan Pass

Most receivers refer to this feature as channel lockout. Once a frequency has been programmed into memory, a scanning operation will stop on this channel if an active transmission is detected. Certain frequencies may contain transmissions which are very or always active. To keep the scanning operation from stopping on these channels, they can be locked-out/skipped/passed during a scan.

Scanning

The act whereby memory channels are successively checked for active radio transmissions of their programmed frequencies.

Search band

A feature which allows a pre-defined frequency range to be programmed so that it can be repeatedly searched for active transmissions. Stored with each search band are a starting frequency, ending frequency, receive mode and step size. The MVT-7100 has 10 search bands.

Search Pass

Some receivers refer to this feature as search-skip. If you have a known frequency, which you would like to skip while performing a search, it can be placed in a special memory. Yupiteru refers to this as the Search Pass Memory. Once placed in this memory, this frequency will not be tested for an active transmission, or in other words it's skipped/passed when performing a search. The MVT-7100 has 500 Search pass frequencies.

Searching

The act whereby a frequency is incremented or decremented successively to detect active radio transmissions in a given frequency range. Searching is usually performed on a programmed Search Band.

Skip

The MVT-7100 has a feature called skip, which allows a paused scan or search to resume after a fixed time. Normally, during a scan or search, if an active transmission is detected, the scanning or searching operation will be paused until the transmission ceases. Once the transmission goes away, the scanning or searching operation resumes. If you have the index feature enabled, scanning or searching will pause on an active transmission for at most 5 seconds before resuming.

Step size

A value in Hertz (Hz) or kiloHertz (kHz) that indicates the amount by which a frequency will be changed due to user or radio control while searching for active transmissions or using a VFO.

Available step sizes are :

Hz : 50/100
kHz : 1/5/6.25/9/10/12.5/20/25/50/100/125

NOTE: Only the MVT-7200 has the 125 kHz step size

S-meter

A feature used to graphically represent the strength of the signal being received. It is usually calibrated to a dB (logarithmic) scale. A bar graph is used where more bars indicate a stronger signal.

VFO

A temporary location to store a frequency so that a memory channel does not have to be programmed. Associated with this frequency are various settings such as receive mode, step size, attenuator, and delay.

Available Modes

Memory

The radio is in Memory mode when a memory channel number is visible in the upper left corner and followed by the CH indicator. Pressing the MR key toggles between Memory and VFO modes.

Priority

Priority mode is enabled when the PRI indicator is visible. This is a mode independent of the VFO, Memory, Scanning or Searching modes.

Scanning

In this mode, the scanning operation checks the specified banks for active transmissions on the programmed frequencies within those banks. There are two scanning modes with three scanning sub-modes for a total of six different types of scan that can be performed.

The two modes are :

Continuous: scanning of all non-empty banks
Bank: scanning of up to four banks
The three sub-modes are :

Normal: a normal scan
Mode: scans only those channels with the specified receive mode
Program: scans only those channels which have been program tagged

This gives us the following six scan mode types:

Continuous Normal
Continuous Mode
Continuous Program
Bank Normal
Bank Mode
Bank Program

Search Band Programming

In this mode, the search bands (1-0) used to perform searches are programmed with starting and ending frequencies as well as step sizes and receive modes.

Searching

In this mode, the searching operation checks for active transmissions on the frequencies in the specified search range. There are two searching modes which can be performed.

The two modes are :

VFO: starts searching from the current VFO frequency
Band: search a preprogrammed search band

Search Pass

The radio is in Search Pass mode when a blinking P indicator is visible and the contents of the Search Pass memory are being displayed.

VFO

The radio is in VFO mode when there is a frequency displayed but no memory channel or 'CH' LCD indicator present. Pressing the MR key toggles between VFO and Memory modes.

Terminology

When you see 'FUNC + key'
Press FUNC
You will hear a beep (if enabled) and FUNC will be displayed
Press 'key'

Mode Operations

VFO Mode

VFO holds:

Frequency
Step size
Receive mode
Attenuator
Delay
Skip

How to change the frequency

Simply key in the desired frequency

1. Enter the frequency
2. If you make a mistake during entry
   A. Press C/AC
   B. Use arrow keys to select digit to be corrected
   C. Change digit using key press or rotary control
   D. Press ENT when completed
3. Press ENT

NOTE: Instead of correcting at step 2 above, simply press C/AC twice and start over with the frequency entry.

Use the rotary control or arrow keys

Use the rotary control or arrow keys to increase or decrease the currently displayed frequency by the currently set step size. Holding down an arrow key will change the frequency rapidly.

Use the ad-hoc approach

This approach allows you to change one or more of the individual MHz digits of the current frequency. Press FUNC + MHz. Use the arrow keys to select the digit to be changed (it will blink faster than the other digits). Press the appropriate number key or use the rotary control to select it. Repeat as necessary to change any other digits. Press ENT to finish entry or C/AC to cancel the changes.

Regardless of how you change the frequency, be sure to verify the receive mode and step size are set appropriately.

Changing receive mode

1. Press FUNC + MODE
2. Use rotary control or arrow keys to select receive mode
3. Press ENT to accept change or C/AC to cancel

Changing step size

1. Press STEP
2. Use rotary control or arrow keys to select step size
3. Press ENT to accept change or C/AC to cancel
NOTE: Each receive mode keeps track of its own step size. If you are going to change the receive mode and step size, change the receive mode first since it might recall the step size you need.

Programming Memory

Once a favourite frequency has been entered in VFO mode, it can be programmed into one of the 1000 memory channels (0-999) or the priority channel (1000).

When frequency data is copied from a VFO to a memory channel, a specific channel number can be specified or the current memory channel can be used.

To copy to a specific memory channel

1. Enter the 3-digit channel number (0-999)
2. Press FUNC + MW
3. A double-beep is heard

To copy to the current memory channel

1. Press FUNC + MW
2. A double-beep is heard
NOTE : The current memory channel can be noted by pressing MR to enter Memory mode, noting the channel number, then pressing MR to return to VFO mode.

NOTE : When a VFO is copied to memory, the following settings are also copied to that memory channel

1. Frequency
2. Step size
3. Receive mode
Each time a memory write (copying VFO to memory) is performed, the current memory channel is incremented by one. To write successive memory channels, simply enter the frequency data and use the method to copy this frequency to the current memory channel.

When frequency data is copied from a VFO to a priority channel, a memory channel number of 1000 must be specified.

To copy to the priority channel

1. Enter 1000
2. Press FUNC + MW
3. A double-beep is heard

Searching

Searching for new frequencies can be performed using the VFO frequency as the starting point. Refer to Searching Modes for further details.

Memory Mode

Memory mode is used to display the contents of memory which consists of the normal 1000 memory channels and the 1 priority channel. Memory mode can be verified by the appearance of a single frequency, the channel number in the upper-left corner and 'CH' LCD indicator.

See the VFO Mode section for details on memory channels are programmed.

Entering Memory Mode

To enter Memory mode from VFO or Scan mode

1. Press MR

To enter Memory mode from Search mode

1. Press MR
2. Now in VFO mode
3. Press MR

To enter Memory mode from Search Pass mode

1. Press C/AC
2. Now in VFO mode
3. Press MR

Displaying Memory Channel Data

The 1000 memory channels have been broken down into 10 banks which are labeled from 1-0. Each bank consists of 100 channels with each starting at an even frequency (0, 100, 200, etc.).

To move around within the memory channels

1. Use the rotary control or arrow keys
2. When the end of memory is reached in either direction, it will simply wrap around to the other end and continue

To display a specific memory channel

1. Key in the 3-digit channel number (0-999)
2. Press MR

Displaying Priority Channel Data

The Priority channel is simply memory channel 1000.

To display the priority channel

1. Key in 1000
2. Press MR
3. Channel number is displayed as 'P'
NOTE : The memory channels and priority channel have been separated so

that they do not become confused with each other, even though the priority channel is channel 1000.

Copying Memory Channel To VFO

To copy a memory channel frequency and its settings to the VFO

1. Display the memory channel to be copied
2. Press FUNC + M>V
3. A beep is heard and the radio is now in VFO mode
NOTE : The priority channel can not be copied to the VFO.

Erasing Memory Channel Data

Once a memory/priority channel has been programmed to memory, it is easy to erase the channel contents.

To erase the contents of a memory/priority channel

1. Display the desired channel
2. Press FUNC + MW

Receiving Empty Channel Signals

Due to the design of this receiver, if an empty memory channel is being displayed, the radio circuitry will be trying to receive the frequency of the last non-empty channel that was accessed. While this causes no harm, it can be surprising when it occurs.

Attenuator

The attenuator setting for each memory channel can be changed at any time. The current status can be view by looking for the ATT indicator.

To change the attenuator setting

1. Display the desired memory/priority channel
2. Press FUNC + ATT

Scan Pass

Associated with each memory channel is a setting which allows that channel to be skipped during scan operations. This feature is called scan pass and is covered in more detail under Scanning Modes.

To set scan pass

1. Display the desired memory channel
2. Press FUNC + PASS
3. Note that CH blinks
NOTE : The priority channel can not be passed.

To clear scan pass

1. Display the desired memory channel
2. Press FUNC + PASS
3. Note that CH does not blink

Program Scan

This feature allows up to ten channels in each bank to be specially tagged so that they may be scanned separately from the rest of the channels in that bank. This feature is called program scan and is covered in more detail under Scanning Modes.

To Tag A Memory Channel

1. Display the desired memory channel
2. Press FUNC + PGM
3. The PGM indicator appears
NOTE : The priority channel does not support program scan and

therefore can not be tagged.

To Untag A Memory Channel

1. Display the desired memory channel
2. Press FUNC + PGM
3. The PGM indicator disappears

Scanning Modes

The MVT-7100 offers six different ways to scan the contents of memory. There are two major and three minor modes of operation. By combining a major mode with a minor mode, six different scanning types are available.

The two major modes are

Continuous

This mode allows for the scanning of every non-empty bank.

Bank

This mode allows for up to four specified banks to be scanned.

Up to four banks from memory banks 1-0 can be specified.

The three minor modes are

Normal

This mode simply scans all non-empty memory channels.

Mode

This mode scans memory channels with the specified receive mode (AM/FM/LSB/NAM/USB/WFM; NAM for MVT-7200 only)

Program

This mode scans memory channels that have been specially tagged.

Scan Pass

Regardless of the chosen scanning mode, channels that have been marked as 'pass' will not be scanned. On most radios, this feature is referred to as channel lockout.

To Enable Channel Pass/lockout

1. Display the specified memory channel
2. Press FUNC + PASS
3. Note the CH indicator blinks

To Disable Channel Pass/lockout

1. Display the specified memory channel
2. Press FUNC + PASS
3. Note the CH indicator does not blink

While Scanning

If the scan stops on a channel that you do not wish to have scanned in the future, this channel can be passed by

1. Press FUNC + PASS
2. A double beep is sounded and the scan resumes

Changing Scan Direction

All scanning modes start at the lowest applicable channel and work towards the highest. To change the direction to scan from highest to lowest once the scan has started, turn the rotary control in a counter-clockwise direction or press the down/left arrow key. At any time, the scanning direction can be reversed by simply using the rotary control or arrow keys.

Resuming Scanning

If the scan stops on an active channel that you do not wish to monitor, simply use the rotary control or arrow keys to resume the scan.

Canceling Scan

To cancel a scan while it is running, simply press SCAN or MR.

The Six Scanning Modes

Continuous Normal

This mode is used to scan every programmed memory channel in every bank.

To start this mode

1. Press SCAN
2. The SCAN indicator appears

Continuous Mode

This mode is used to scan every programmed memory channel in every bank which has the specified receive mode.

To start this mode

1. From VFO mode, select the desired receive mode
2. Press FUNC + M-SCAN
3. The SCAN indicator appears and receive mode blinks

Continuous Program

This mode is used to scan every programmed memory channel in every bank which has been specially tagged with the program scan setting (PGM indicator).

To start this mode

1. Press FUNC + P-SCAN
2. The SCAN indicator appears and PGM blinks

Bank Normal

This mode is used to scan up to four specified banks from 1-0.

To start this mode

1. Specify up to four banks from 1-0 by pressing the appropriate digit keys.
2. Press SCAN
3. The SCAN indicator appears
NOTE : The selected banks are always scanned in numerical order (1-0) regardless of the order in which they were entered.

Bank Mode

This mode is used to scan the channels of up to four specified banks from 1-0 which have the specified receive mode.

To start this mode

1. Go to VFO mode
2. Specify up to four banks from 1-0 by pressing the appropriate digit keys
3. Select the desired receive mode
4. Press FUNC + M-SCAN
5. The SCAN indicator appears and receive mode blinks
NOTE : The selected banks are always scanned in numerical order (1-0) regardless of the order in which they were entered.

Bank Program

This mode is used to scan every programmed memory channel which has been specially tagged with the program scan setting (PGM indicator) from up to four specified banks from 1-0.

To start this mode

1. Specify up to four banks from 1-0 by pressing the appropriate digit keys.
2. Press FUNC + P-SCAN
3. The SCAN indicator appears and PGM blinks
NOTE : The selected banks are always scanned in numerical order

(1-0) regardless of the order in which they were entered.

Delay

The delay may be used during scanning to lengthen the scan resume delay time from 2 to 4 seconds.

See Delay in the Other Features section for further details.

Skip

The skip feature may be used during scanning to make sure the scan does not stay on any active frequency more than 5 seconds.

See Skip in the Other Features section for further details.

Search Band Programming Mode

The MVT-7100 has 10 search bands (1-0) which are used to perform band searches. Before a band is used to perform a search, it should be programmed with a starting and ending frequency as well as a step size and receive mode to be used during the search.
To start this mode
1. Go to VFO mode
2. Select the receive mode and step size to be used
3. Press FUNC + BW
4. Enter the starting search frequency
5. Press ENT
6. Enter the ending search frequency
7. Press ENT
8. Press the number corresponding to the search band this data is to be programmed for
9. Two beeps will be heard confirming band programming

Searching Modes

The MVT-7100 offers two different ways to search for active frequencies.

The two modes are

VFO - This mode allows for a search to be started from the currently displayed VFO frequency.

Band - This mode allows a single specified band to be searched.

Changing Search Direction

All search modes start at the designated starting frequency and successively increment this frequency using the current step size to try and find frequency activity. To reverse the direction of the search at any time, simply turn the rotary control accordingly or press the appropriate arrow key.

Resume Searching

If the search stops on an active frequency that you do not wish to monitor, simply use the rotary control or arrow keys to resume the search.

Cancelling Search

To cancel a search while it is running, simply press SRCH or MR.

The Two Search Modes

VFO

This mode is used to start a simple search from the VFO. Before starting the search, be sure the frequency, step size and receive mode are set appropriately. To start this mode
1. Make sure the radio is in VFO mode
2. Press SRCH
3. The SEARCH indicator appears

Band

This mode is used to search one of the 10 specified bands.

To start this mode

1. Specify the band by pressing the appropriate digit key
2. Press SRCH

3. The SEARCH indicator appears along with programmed search band settings

Attenuator

The attenuator may be used during a search to reduce signal strength.

See Attenuator in the Other Features section for further details.

Delay

The delay may be used during a search to lengthen the search resume delay time from 2 to 4 seconds. This feature will have no function if Auto-Store is enabled.

See Delay in the Other Features section for further details.

Search Pass

Regardless of the chosen search mode, frequencies that have been marked as 'pass' will not be tested for activity. To read more about this capability, see the Search Pass Mode section.

Skip

The skip feature may be used during a search to make sure the search does not stay on any active frequency more than 5 seconds.

See Skip in the Other Features section for further details.

Search Pass Mode

This mode allows you to display and edit the contents of the Search Pass memory. This memory contains a list of frequencies which are to be ignored when the radio is in one of the search modes. By doing so, this allows you to skip over frequencies of known origin or those that are active most/all of the time. Up to 500 frequencies can be entered into this memory.

To Put A Frequency In Search Pass Memory

When in VFO mode

1. Tune the VFO to the desired frequency
2. Press FUNC + PASS
3. The P indicator will display briefly and two beeps will be heard

When in Search mode

1. Make sure the radio has stopped on the desired frequency
2. Press FUNC + PASS
3. The P indicator will display briefly, two beeps will be heard and the search will resume

To Display Search Pass Memory

1. Go to VFO mode
2. Press FUNC + SPR
3. The step size will be replaced with a flashing P indicator while the frequency cursor points to a frequency in the list
4. Use the rotary control or arrow keys to display any remaining frequencies in the memory.
NOTE : If there are no frequencies stored in memory, the message

"Error" will be displayed briefly along with two error beeps and the radio will remain in VFO mode.

NOTE : The frequencies are stored in this memory in numerical order making it easier to find a known frequency.
NOTE : Signals can be received on the frequency while it is being displayed.

To Remove A Frequency

1. Display the desired pass frequency
2. Press FUNC + PASS
3. Two beeps will be heard and the next frequency will be displayed

NOTE : When the last frequency has been removed, the radio will return to VFO mode.

To Exit From Search Pass Memory

Press C/AC or FUNC + SPR

Priority Mode

The MVT-7100 can be programmed with a priority channel which, when priority is enabled, will be checked every five seconds for activity. The priority channel is actually an extension of the 1000 memory channels.

Programming The Priority Channel

1. Go to VFO mode
2. Tune the desired frequency and receive mode
3. Enter 1000
4. Press FUNC + MW
5. The channel number 'P' is briefly displayed then the radio returns to VFO mode

Displaying Priority Channel Data

The Priority channel is located at the end of 'normal' memory and can be simply though of as memory channel number 1000.

To view the priority channel data

1. Key in 1000
2. Press MR
3. A channel number of 'P' should be displayed confirming that the priority frequency is being viewed
NOTE : The memory channels and priority channel have been separated so

that they do not become confused with each other, even though the priority channel is channel 1000.

Erasing Priority Channel Data

Once a priority channel has been programmed to memory, it is easy to erase the channel contents.

1. Display the priority channel
2. Press FUNC + MW

Enabling Priority Mode

Once the desired priority channel has been programmed, it is now ready to be checked for activity. There are two sub-modes that can be used to check the channels for activity.

To Enable Priority Checking

1. Press FUNC + PRI
2. The PRI indicator appears

Disabling Priority Mode

To disable priority mode

1. Press FUNC + PRI
2. The PRI indicator disappears

Attenuator

The attenuator setting for the priority channel can be changed at any time. The current status can be view by looking for the ATT indicator.

To change the attenuator setting

1. Display the desired priority channel
2. Press FUNC + ATT

Scan Pass

The priority channel can not be passed.

Other Features

AM Antenna

To aid in the reception of medium wave (540-1710kHz) broadcasts, the MVT-7200 is equipped with an internal ferrite bar antenna that is used in lieu of the stock antenna for this band.

The MVT-7100 must use the antenna attached to the BNC connector for medium wave band received.

Attenuator

If the radio is used in an area where excessively strong signals are active, it may be necessary to reduce their strength to ensure that the radio receiver functions properly. The Attenuator is used to reduce the strength of signals entering into the receiver.

Signals that enter the radio and are too powerful for it to handle, may result in various forms of interference. Such signals may affect frequencies to either side or can even desensitise the receiver so that it may not be able to receive signals it normally can.

To enable the Attenuator

1. Press FUNC + ATT
2. The ATT indicator appears

To disable the Attenuator

1. Press FUNC + ATT
2. The ATT indicator disappears
The VFO has its own attenuator setting as well as each memory channel. After a search band search operation is started, the Attenuator can be enabled or disabled as is deemed necessary.

Battery Saver

To extend the operating time of the radio, the Battery Saver feature is used. Not only can this feature be enabled or disabled upon request, the amount of time the saver circuitry is active can be selected.

Three of the numeric keys are used to specify the battery saver level
1 = sleep for 0.3 seconds out of every 0.6 seconds
2 = sleep for 0.9 seconds out of every 1.2 seconds
3 = sleep for 1.5 seconds out of every 1.8 seconds

To enable the Battery Saver

1. Press 1, 2 or 3
2. Press FUNC + SAVE
3. SAVE appears on the LCD with 1, 2 or 3

NOTE: If step #1 is skipped, a value of 1 is assumed

To disable the Battery Saver

1. Press FUNC + SAVE
2. SAVE disappears
The Battery Saver is only effective when used in VFO or Memory modes. If no transmission is detected on the displayed frequency within five seconds, the Battery Saver is engaged.

Once engaged, the Battery Saver puts the radio "to sleep" for a period of time, then "wakes up" briefly to check for an active transmission. The amount of time the radio spends "sleeping" can be selected. While the radio is "asleep", power usage is lowered thus saving battery power. The longer the sleep time, the more power is saved and the longer the batteries will last.

NOTE : Starting a search or scan turns off the battery saver.

Beep

The MVT-7100 sounds a beep tone each time a key is pressed. This helps to provide audible feedback during radio operations. Shipped from the factory, the beep tone is enabled which can be verified by the presence of the BEEP indicator. For more discreet operations, it may be necessary to disable this feature.

To disable the beep tone
1. Press FUNC2 + BEEP
2. The BEEP indicator disappears

To enable the beep tone
1. Press FUNC2 + BEEP
2. The BEEP indicator appears

Delay

During a scan or search operation, after a transmission ends, there will be a two second delay before the scan/search is resumed. This delay allows for a response to be heard. To increase this delay time to four seconds, the Delay function is used.

To enable Delay
1. Press FUNC + DELAY
2. The DLY indicator appears

To disable Delay
1. Press FUNC + DELAY
2. The DLY indicator disappears

Lamp

The MVT-7100 contains a brilliant backlighting system which is used to illuminate both the display and keypad for night time operations.

On the MVT-7100, the LAMP button must be pressed and held to activate the backlight. When the buttons is released, the backlight turns off.

The MVT-7200 comes with a switch that can be used to keep the backlight on if so desired.

NOTE : Excessive use of the Lamp feature will dramatically reduce the operational time of the radio when batteries are being used.

Monitor

The MONI button on the side of the radio is used it immediately open the squelch to help aid in the reception of signals whose strength might be below the squelch threshold or for monitoring weak signals which are fading in and out resulting in repetitive squelch operations.

Reset

The MVT-7100 has a reset feature that allows the processor to be reset should the radio act peculiar. Using this feature effectively restores the radio to the condition it was in when it left the factory.

ALL MEMORY DATA WILL BE ERASED! ALL SEARCH BANDS AND VFO SETTINGS WILL BE RESET TO THEIR DEFAULT VALUES!

To perform the reset
1. Make sure the radio is powered on
2. Use a small object to press and hold the micro switch located beneath the small opening on the side panel
3. The radio will reset and then go to VFO mode

Skip

The Skip function is used during scan and search modes to prevent the radio from stopping on any one frequency for an undue amount of time.

Normally, when scanning or searching comes across an active transmission it will stop on that frequency until the transmission ceases and then resume scanning/searching. For some situations, staying on one frequency for too long may miss transmissions occurring on other frequencies.

When the Skip function is enabled, if the scan or search operation stops on an active transmission, it will resume the scan/search when the transmission ends or five seconds have elapsed; whichever occurs first.

To enable Skip

1. Press FUNC + SKIP
2. The SKIP indicator appears

To disable Skip

1. Press FUNC + SKIP
2. The SKIP indicator disappears
NOTE : The Skip function has no effect on active priority channel signals.

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