

Owner's Manual



Regency Scanners Model M400

Packing List

- 1-Receiver Unit
- 1-Wall-mounted AC Power Supply
- 1-DC Power Cord
- 1-Telescopic Antenna with Right-angle adaptor
(assembly instructions on page 6)
- 1-Mounting Bracket (assembly instructions on page 25)
- 1-Rechargeable Battery (Installation instructions on page 26)
- 1-Instruction Manual
- 4-Non-skid feet (see page 6)
- 1-Warranty Card to be filled out and returned to: Regency Electronics, Inc.
7707 Records St.
Indianapolis, IN 46226

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**WARNING: TO PREVENT FIRE OR SHOCK HAZARD,
DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.**

Maintenance

If your unit does not operate properly, refer to the troubleshooting guide on page 29 and make the suggested adjustment. If the problem persists, send the unit to the Regency Customer Service Department as per the instructions outlined by the warranty statement on the back cover of this manual. **DO NOT** attempt additional service to this unit yourself. All servicing should be referred to a qualified technician. **UNAUTHORIZED ADJUSTMENTS MAY DAMAGE THE EQUIPMENT OR RESULT IN IMPROPER OPERATION AS WELL AS INVALIDATE THE WARRANTY.**

Description

Your Regency M400 is a compact, 3-band, 30 channel, programmable, FM monitor receiver for use at home or on the road. It is a double conversion, superheterodyne used to receive the narrow band FM communications in the amateur, public safety and business bands: 30-50 (Low VHF), 144-174 (High VHF) and 440-512 (UHF) MHz.

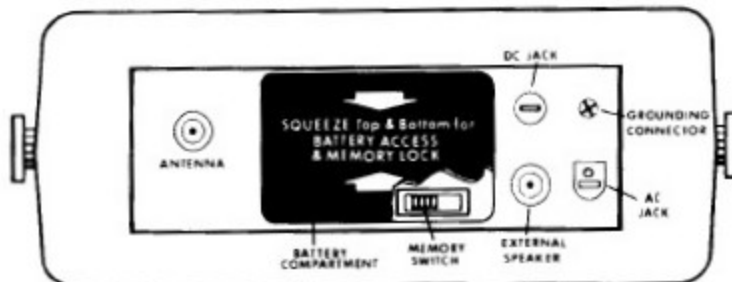
The unit has 30 RAM* channels available for conventional touch entry programming plus 545 pre-programmed police, fire, weather and mobile telephone ROM** frequencies.

Sophisticated microprocessor-controlled circuitry eliminates the need for crystals. Instead, each frequency is programmed through the numbered keyboard similar to the one used on a telephone. A "beep" acknowledges contact each time a key is touched.

Any combination of the RAM and ROM channels can be scanned automatically or the unit can be set on manual for continuous monitoring of any one of the RAM channels. In addition, the search function locates unknown frequencies within a band.

You can also program your unit to display the time of day or indicate elapsed time with quartz crystal accuracy.

Other features include: scan delay, search hold, priority, memory switch and a day/night switch to control the brightness of the multi-function, 12-digit vacuum-flourescent display. The unit can be operated on either 120 VAC or 12 VDC.



*Regency Alterable Memory
**Regency Organized Memory

Front Panel Controls

This section is designed to familiarize you with the various controls and buttons of the M400. Read this section thoroughly prior to operating your unit.

OFF/VOLUME

When turned clockwise, the OFF/VOL knob provides power to the unit and increases the audio to the desired listening level.

SQUELCH

Eliminates background noise while the unit is scanning or searching until a transmission is received.

OFF/TIME/SET

Used for programming and displaying the time of day.

OFF/PRIORITY

Selects the priority feature when in the SCAN or MANUAL mode.

NIGHT/OFF/DAY

Controls the brightness of the vacuum-flourescent display. When in the NIGHT (left) position, the display dims for night use and also illuminates the keyboard. When in the DAY (right) position, the display is brightest for easier visibility in the daytime. The OFF (center) position turns off the display while the unit remains operating; see page 26.

Program Panel

The M400 has 20 touch entry keys for easy operation. They are: mode keys, bank keys and program keys.

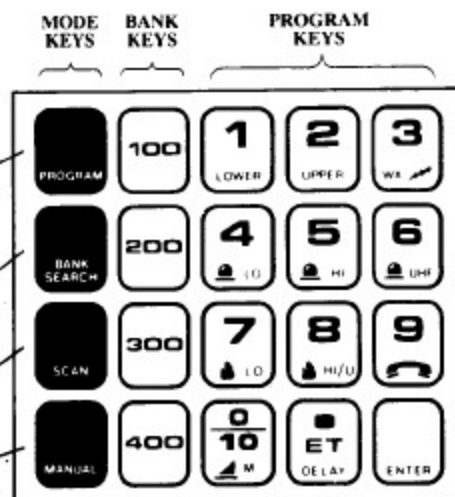
MODE KEYS

Puts the unit into the program mode prior to entering channel frequencies, search limits and search increments.

Use this key to: search for active signals within selected limits or scan one bank of programmed channels.

Puts the unit into the scan mode.

Provides for manual selection of any one channel.



PROGRAM KEYS

The program keys provide two functions: The digits in the upper portion of the keys are used when entering frequencies into the RAM channels, selecting search limits, programming search increments, setting the time and as channel numbers

during programming. The words and/or symbols below the digits indicate special functions.



This key is used as a "0" (zero) when it is part of a frequency or time and as a "10" (ten) when selecting channel 10 either manually or during programming.



These keys are used when entering a frequency as the lower or upper limit to the search.



Provides the decimal point when entering frequencies and setting time, allows for a delay in the resumption of the SCAN or SEARCH process and is used when starting/stopping the elapsed timer.



For entering: a frequency into one of the 30 RAM channels, search limit frequencies, search increments and time of day.

BANK KEYS

RAM Scan

Your M400 scanner has 30 touch-entry (RAM) channels available for monitoring your favorite frequencies. Bank keys 100, 200 and 300 represent the three banks of 10 channels each available for RAM scan entry. The RAM channels are thus referred to as 101 through 110, 201 through 210 and 301 through 310.

ROM Scan

The 545 pre-programmed ROM frequencies are located within bank 400; channels 3 through 10. The ROM channels are thus referred to as 403 through 410. These 545 ROM frequencies consist of the most common police, fire, mobile telephone and marine frequencies nationwide.

Select the type of ROM activity you wish to hear using keys three through ten.



Weather — All three U.S. National Weather Service frequencies plus the Canadian weather frequency.



Police — Select either low VHF; key 4, high VHF; key 5 or UHF; key 6 (or any combination of all three).



Fire — Select either low VHF; key 7 or high VHF and UHF; key 8 (or both).



Mobile Telephone



Marine

For a complete list of all the pre-programmed ROM frequencies, see page 32.

Prompting Messages

The following messages which appear in the digital display of the M400 give programming and operating status as each function is executed.

Lo-no b.

1. Displayed upon initial power-up even if a good battery is installed (see page 6).
2. Displayed following a power failure if the standby battery is either low in voltage or has not been installed (see page 25). RAM channel frequencies will have to be re-entered (see page 10).

After programming the unit, Lo-no b. will disappear from the display. It will re-appear if a battery is not installed and power is again interrupted.

P. LOSS

Will be displayed when checking time (moving time switch to the TIME or SET positions) after power has been disconnected or interrupted or at initial power-up even if a good memory battery is installed (see page 7). Time will have to be entered (see page 21).

The following will also have to be re-entered in the event power is interrupted:

1. Banks and/or channels that had previously been locked out (see page 10).
2. Search limit frequencies (see page 16).
3. Previously activated ROM channels (see page 14).

Pr o.

Unit is in program mode and waiting for data (frequency or search increment) to be entered (see page 7).

F. Error

Frequency entered is not within a band (see specifications on page 27 for band limits).

Ch Error

You have tried to enter a frequency into a ROM channel (bank 400; channels 403-410 -see pages 8, 15) or pressed an incorrect key when entering search limits (see page 17).

Error

You have entered an incorrect time (see page 22).

no ch.

All channels within a bank have been locked out (see pages 10 and 14).

no b.

All banks have been locked out during scan mode (see page 10).

Poor F.

Invalid frequency beyond radio's coverage.

Search L. Error

Incorrect search frequency has been entered (see page 17).

Search 455.225d

Indicates the unit is in the SEARCH mode (see page 18).

incr.

Indicates that a new search increment has been selected (see page 20).

P

Priority feature has been activated (see page 12).

LO

Blinking "LO" or "UP" — Frequency has been entered into search program but search limit (lower or upper) has not been selected (see page 17). When verifying search limits, "LO" or "UP" will appear before the frequency as a reference.

UP

L

When "L" appears following the channel number and frequency in the MANUAL mode, it indicates that the channel is locked out of the scan sequence (see pages 12 and 16). An "L" will also appear briefly when a channel or bank is initially locked out (see pages 10 and 15).

d

Delay feature has been selected (see page 11).

H

Hold feature has been selected (SEARCH mode only; see page 18).

4:12 27

Time of day with seconds is being displayed (see page 22).

8.03 157.005

Time displayed along with a frequency (see page 22).

8.03 00.0017

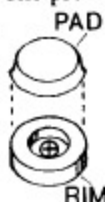
Time displayed and elapsed timer running (see page 23).

Preparation for Use

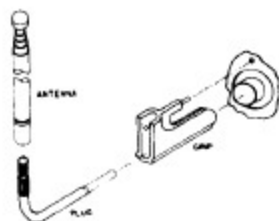
Before operating your new scanner, read the following directions carefully. Doing this will ensure maximum performance and enjoyment of your radio. We also recommend that you save all instructions for future reference.

1. Unpack the unit from the carton and check for damage. If the unit is damaged, contact the place of purchase immediately.
2. Insert one end of the AC power cord into the AC jack provided on the rear panel of your unit. See rear panel diagram on page 1. Plug the wall-mounted power supply into a proper outlet (DC operation is covered on page 24). Do not attempt to operate this unit with a power supply other than the one provided.

3. Attach the four non-skid "foot pads" to the bottom of the unit using the diagram at right. Peel off each pad to expose the flat gray adhesive surface. Next, place each one on the four raised rims on the bottom of the unit. Be sure to center each pad so that the entire rim is in contact with the pad for maximum holding power. DO NOT try to fit the pad inside the rim.



4. Assemble, then insert the telescopic antenna into the antenna jack on the back of the scanner following diagram at right.



5. Set the three control switches as follows:

Off/Time/Set — "OFF"


Off/Priority — "OFF"

Night/Off/Day — "DAY"

6. Now turn the "OFF/VOL" knob clockwise to apply power to the receiver. A "click" indicates power is on.

Display: 

Set the knob at approximately "12 o'clock" prior to programming.

7. Press  to activate the receiver. Initially, the display will show:



8. Adjust the squelch by turning the "SQ" knob clockwise until static is heard. Turn the knob back (counterclockwise) until the static just disappears.

9. Set the clock.

- a) Push the OFF/TIME/SET switch to SET.

Display:

P. 1055

- b) Enter the time of day.

Example: 7:45

PRESS:



- c) Push the OFF/TIME/SET switch to TIME.

Display:

7:45 492.850

- d) The time (7:45) has been entered and the clock is now running.

NOTE: Further instructions on setting the time are on page 21.

- e) Push the OFF/TIME/SET switch to OFF.

Your unit is now ready for programming and operation.

Programming the RAM Channels

The M400 has 30 channels available for entering your personal choice of frequencies. The sophisticated microprocessor-controlled circuitry eliminates the need for crystals and allows easy fingertip touch entry of all data.

NOTE: When programming the unit for the first time, you may notice that the 30 RAM channels have been pre-programmed with the frequency 492.850. Entering your choice of frequencies will erase the pre-programmed frequencies.

Programming is done while in the program mode and the OFF/TIME/SET switch in the OFF position.

Example: Entering the frequency 465.225 into channel 102.

1. **PRESS:**  (a "beep" verifies contact)

Each key will "beep" when touched.

Display:

P r o.

2. **PRESS:**



A "C" followed by a bank number (100, 200 or 300) will blink indicating the unit is waiting for you to put the frequency into a specific channel. You must select a bank number key (100, 200 or 300) and a channel number to complete the entry.

Programming (continued)

3. PRESS:



Example:

102 465.225

Frequency 465.225 is

now in channel 102. Repeat this procedure for each channel to be programmed. If you had entered an invalid frequency, the display would have shown:

F. Error

If you attempt to program the frequency

into a ROM channel (bank 400; channels 403-410), the display will show:

Ch Error

In either case, press



and begin again.

NOTE: If you press the wrong bank key, you may still select the desired bank by pressing the correct key WHILE THE DISPLAY IS STILL BLINKING. Then, press the desired channel number to complete the entry.

PROGRAMMING HINTS

A. When programming more than one channel, it is not necessary to press



before keying in each frequency. Go directly to step 2 (page 7).

B. When programming more than one channel WITHIN A BANK, there is no need to press the bank number each time.



C. If an error in frequency entry is made, simply press **PROGRAM** BEFORE SELECTING A CHANNEL NUMBER to clear the error (i.e. if you detect the incorrect entry in the display prior to pressing "Enter" or if it is detected while the display is blinking).

D. If you wish to move a frequency from one channel to another such as from channel 204 to 303:

PRESS:



followed by


The display will show "C303" followed by the frequency. The frequency that was in channel 204 is now in channel 303.

IMPORTANT: The frequency is in both channels 204 and 303. It has not automatically been erased from channel 204. You must re-program channel 204 to change its frequency.


Scanning the RAM Channels

After you have programmed the frequencies of your choice, you can scan each one automatically when in the scan mode. The OFF/TIME/SET switch must be in



the OFF position (left). To start the scanning process, press . If necessary, adjust the squelch control by turning COUNTERCLOCKWISE until proper scanning action is obtained.





The unit will begin with bank 100 and scan channels 101-110. The display will show the bank number followed by the number of each channel sampled. NOTE: Channel 10 is represented by a "0" in the display during scan. If no activity is found, the unit will move to bank 200 and scan channels 201-210. This process continues until all channels through 310 have been sampled. The M400 will then go back to channel 101 and start over. If a transmission is found, the scanner will stop and the display will show both the channel number and the frequency:

Example: 

At the conclusion of the transmission, scanning will resume automatically.

VARIATIONS IN SCANNING

1. Scan one bank only.

By pressing  followed by a bank number key, ,  or , the unit will scan only the ten channels within that bank. You can now manually select which bank to scan by pressing one of the three bank keys.

To resume scanning the RAM channels, simply touch



Scanning (continued)

2. Lockout

a. Channel Lockout




If you wish to omit a channel from the scan process, press followed by the bank key (100, 200 or 300) in which the channel is located. Then, to lockout a specific channel, simply touch the channel number key **WHILE THE UNIT IS SCANNING**. While the key is held down, the channel number and frequency will appear in the display followed by an "L", meaning the channel is locked out of the scan sequence.

Example:



182550L

NOTE: When you release the channel number key, the unit will resume

scanning. To put the channel back in later, simply press  followed by the bank key number and then the channel number. If all channels within a bank should become locked out, the display will indicate this by:



10L

b. Bank Lockout

If you wish to lockout an entire bank from the scan sequence, simply press the proper bank key (100, 200 or 300) **WHILE THE UNIT IS SCANNING**. While the key is depressed, the bank number will appear in the display followed by an "L" indicating the bank has been locked out.

Example:



100L

Should all three banks

become locked out, the display will indicate this by:



100L

To put any or all banks back in, simply press the desired bank key number.

IMPORTANT: If a power failure should occur or if power becomes disconnected (even if a good battery is installed) the banks and/or channels you have locked out will automatically be re-inserted into the scan sequence. When this happens, you will have to lock out those banks and/or channels again.

NOTE: The scanning variations are only possible in the SCAN Mode.

SCAN DELAY

During the SCAN mode, you may want to delay resumption of the scan process in order to hear a reply that might otherwise be missed once the unit has gone on to



scan other channels. To do this, press **ET DELAY** WHILE THE UNIT IS SCANNING. A "d." will appear in the display:



Now, whenever a signal is received, the unit will stop on the channel, display the channel number and frequency and broadcast the message. At the conclusion of the message, the unit will wait approximately 2 seconds before resuming



scanning. To de-activate DELAY, press **ET DELAY** again. The "d." will disappear from the display.

MOBILE TELEPHONE FREQUENCIES

Mobile telephone systems use various tones to indicate or identify specific conditions such as idle, ringing, off-hook, etc. In addition, there may be times when a carrier is being transmitted but no tone or modulation is present. The scanner will stop for these "silent" carriers just as it would for an active carrier. To resume scanning, you must either step it off that channel or lockout that channel from the scan sequence.

Manual Operation

If at any time you wish monitor or listen to one RAM channel continuously,



press **MANUAL**. The unit will stop on a channel at random. To select the channel you wish to monitor, press the bank key (100, 200 or 300) followed by the channel number.

NOTE: When the bank key is selected, the unit will automatically go to channel 1 within that bank. To select another channel, simply touch the appropriate key.

Example:



Example:





Manual Operation (continued)

Should the channel you select be one that had been previously locked out of the SCAN sequence, an "L" will follow the frequency in the display.

Example: 




You can also use the  key to keep the unit on an active channel during

SCAN. While the message is being broadcast, press the  key. This will keep the unit on that frequency for continuous monitoring.

While in the MANUAL mode, you can now listen to any of the 30 RAM channels by simply touching the bank number followed by the channel number.



Press  to resume automatic scan.

Priority

This is a special feature that lets you program your favorite frequency to be sampled approximately once every two seconds and also to have it override calls on other channels. Channel 101 has been set aside for this function. Enter your favorite frequency into channel 101 then move the OFF/PRIORITY switch to PRIORITY (right).

NOTE: PRIORITY can be activated only in the MANUAL or SCAN modes. The display will indicate priority with a "P":



While the unit is in the SCAN or MANUAL modes, the display will blink each time channel 101 is sampled. Any audio will also be briefly interrupted. Should a transmission begin on channel 101, the unit will go immediately to it and receive the message. After the message, the unit will resume scanning or return to the other channel. To de-activate priority, push the switch to OFF (left).

NOTE: If you select PRIORITY while scan delay is activated, the display will alternate between a "P" and a "d." Priority also overrides delay should a call come over channel 101.

Scanning the ROM Channels

Your Touch M400 has been pre-programmed with 545 different police, fire, weather, marine and mobile phone frequencies. So if you don't know the local frequencies, just press the button for the type of activity and frequency range you want.

The ROM frequencies are located in bank 400; channels 3 through 10. Each key represents the type of service and/or frequency range that has been pre-programmed into that channel (see page 3).


Example:

If you are interested in scanning the most common national police frequencies in the low VHF band:




The M400 will automatically begin stepping through the Low VHF police frequencies beginning with 37.020 looking for a call. For a detailed list of the frequencies within each ROM channel, see the table on page 32.

When a transmission is found, the unit will stop scanning and the display will indicate the channel number followed by the frequency:

Example: 

When the transmission ends, scanning resumes until all Low VHF police frequencies have been sampled. The unit will then return to the lowest frequency within channel 404 (37.020) and repeat.

If the unit stops on an inactive frequency, press  to step the unit off the frequency.

If you wish to scan one of the other ROM channels such as the mobile telephone

frequencies, lockout channel 404 by pressing



Display: 



Then, press:

The unit will begin scanning with the frequency 35.220 looking for a call. Follow these steps to scan any of the other ROM channels.

Scanning (continued)


IMPORTANT: If a power failure should occur or if power becomes disconnected (even if a good battery is installed), all ROM channels previously activated will not be held by the battery and will have to be re-activated.


Since there are a number of frequencies contained within each ROM channel, we highly recommend that you scan only one ROM channel at a time. Lock out all the other ROM channels from the ROM scan sequence EXCEPT the one you wish to scan. You are more likely to catch activity if you limit ROM scanning to one channel. You CANNOT lockout an individual frequency within a ROM channel however.

If all ROM channels (403-410) should become locked out, the digital display will show this by:




During ROM scan, the unit may stop on a very active frequency. If it does, you may: 1) put the unit in MANUAL on that frequency or 2) enter the frequency into one of the 30 RAM channels.

1) After the unit stops on the frequency, press . Be sure you press


 only once or you will move the unit off that frequency. The unit is now in the MANUAL mode for continuous monitoring. When you wish to continue

scanning the ROM channels, press  . NOTE: If more than one ROM channel is being scanned, the unit will begin scanning with the LOWEST

activated channel (not necessarily the channel it was scanning when the  key was pressed).

2) If you want to enter an active ROM frequency into a RAM channel (such as channel 307):

PRESS:  (the display will blink)

NOTE: You must press  while the unit is stopped on the frequency.



Then, press:

The display will show the channel number you've selected followed by the frequency:

Example:

0307 152750

If you attempt to enter a frequency into a ROM channel, the display will show:

Ch. Error

If you make this error, press   to resume scanning the ROM channel(s). If more than one ROM channel is being scanned, the unit will begin scanning with the LOWEST activated ROM channel, not necessarily the channel

it was scanning when the  key was pressed.

If you wish to add any or all of the ROM channels to the RAM scan sequence,

press




WHILE THE UNIT IS SCANNING the RAM channels.

Display:

400

The unit will begin with the first ROM channel not locked out and scan those frequencies for activity. After the ROM channel(s) have been sampled, the unit will return to scanning the activated RAM channels. Any ROM channels locked out can be added by simply pressing the channel number WHILE THE ROM CHANNELS ARE BEING SCANNED.

If the unit stops on an inactive ROM frequency, press  to step the unit

off the frequency. Press



to return to scanning the RAM channels only.

Display:

400

1

Scanning (continued)

SCAN DELAY

As in RAM SCAN, you may also choose the DELAY feature when scanning the ROM channels. Follow the same steps on page 11 under SCAN DELAY to delay scanning the ROM channels.

MANUAL OPERATION

If you wish to step through the pre-programmed ROM frequencies one at a time, such as those in channel 406,




The display will initially show the lowest frequency within the ROM channel you have selected. You can now sample each and every ROM frequency within



that channel by repeatedly pressing

Should the ROM channel you select be one that had previously been locked out of the ROM SCAN sequence, an "L" will follow each frequency in the display:

Example: 

Searching

The Touch M400 includes a SEARCH function that enables you to locate new frequencies in addition to those you already know. It can locate active frequencies anywhere within a band.

NOTE: When programming search limits for the first time, you may notice that 492.850 has been pre-programmed as both the lower and upper search frequency. Entering your choice of search frequencies will erase the pre-programmed frequency.

Two frequencies (lower and upper) are used in the SEARCH mode. For example, to search for unknown active frequencies between 455.225 MHz and 460.550 MHz:

PRESS:



The display will blink indicating the unit is waiting for you to select a limit (lower or upper).

Then, **PRESS:**



Example:



Frequency 455.225 is now entered as the lower limit to the search.

If you enter an invalid frequency,



will appear in the display. Simply press



and begin again.

Now enter the upper limit:

PRESS:



Example:



Frequency 460.550 is now entered as the upper limit to the search.

If you press any key other than



or



when entering search

limits,



will appear in the display.

Press




and begin again.

IMPORTANT: If a power failure should occur or if power becomes disconnected (even if a good battery is installed), the upper and lower search limits will be lost and will have to be re-entered.

If an incorrect entry was made when programming (i.e. limits not in the same band or lower limit higher than upper limit), the digital display lets you know:



Searching (continued)

Press  and re-enter another lower or upper limit. Refer to the specifications on page 27 if you are unfamiliar with the limits of each band.

To start the search, press



The display will initially show "Srch." followed by the lower limit:

Example:

Srch. 45.225d

(the "d." indicates delay)

NOTE: Be sure squelch control is set to eliminate background noise or the unit will NOT search.

The M400 will now automatically sample every frequency within the limits you have selected. When an active frequency is found, the unit will stop searching, display the frequency and broadcast the message. When a "d." is in the display, the unit will wait approximately 3.5 seconds following the conclusion of the message before it resumes searching. If you wish to step the unit off an inactive frequency or resume the search at any time, press



You may select HOLD instead by simply pressing

Display:



Now, when the unit finds a frequency during search, it will hold or stay on the frequency and not resume searching until you: 1) press



to step it off the

frequency, or 2) press



to re-activate the 3.5 second delay.

NOTE: You cannot eliminate both DELAY and HOLD.

When the unit reaches the upper search limit, it will automatically return to the lower limit and begin again. If, while searching, you wish to verify the limits you have set for the search, press:




or



When in the MANUAL or SCAN modes, you can verify search limits by




pressing  followed by  or .

Should you decide to change modes (i.e. to MANUAL, SCAN or PROGRAM) while the unit is searching, you may do so. The M400 will remember at what

frequency the search was interrupted. To resume the search, press . The M400 will continue searching from that frequency.

You also have the option of entering frequencies found while searching directly into one of the 30 RAM scan channels. For example: entering a frequency found in search into channel 204.

When the unit stops on an active frequency,

PRESS:    **You must press "ENTER" while the search is still stopped on the frequency.**

Now, the frequency found while in search has been entered into channel 204. Other frequencies found in the SEARCH mode can be entered into any of the other

channels the same way. Press  to resume the search.

NOTE: In the SEARCH mode, it is recommended that you limit the search range to 1 MHz or even less. Thus, your chances of catching an unknown active frequency will be considerably greater since transmissions are usually short.

SEARCH INCREMENTS

The standard increment in the search function is 0.005 MHz for VHF and 0.0125 MHz for UHF. This can be changed by following this procedure:

PRESS:

Searching (continued)

Substitute for X, Y and Z using the table below:

XYZ	VHF (MHz)	UHF (MHz)
005	.005**	.0125**
010	.010	.0250*
015	.015*	.0375
020	.020*	.0500*
025	.025*	.0625
030	.030*	.0750
035	.035	.0875
040	.040	.1000*
045	.045	.1125
050	.050*	.1250
055	.055	.1375
060	.060	.1500
065	.065	.1625
070	.070	.1750
075	.075	.1875
080	.080	.2000
085	.085	.2125
090	.090	.2250
095	.095	.2375
100	.100	.2500
637	.635	1.5875 (Maximum)


*Most useful increments based upon normal allocations or general usage within an amateur band.

**Standard increment.


Example:

If you wanted to search between 155.000 and 160.000 MHz at the rate of 0.025 MHz instead of the standard 0.005 MHz, set the search limits then follow the procedure on page 19 using 0, 2 and 5 in place of X, Y and Z. **NOTE:** You must

press  and  prior to entering X, Y and Z.

After touching the  key the second time, the digital display verifies the new increment.

Example:



Now, press



The unit will begin with the frequency 155.000 and begin searching at intervals of 0.025 MHz.

To verify that you have entered the desired increment, open the squelch (turn



fully clockwise) and step through the search manually by pressing several times. The display will change according to the increments you have selected. If you wish to select another increment, simply substitute another X, Y and Z from the chart.

NOTE: New search increments **CANNOT** be set below the standard (0.005 MHz for VHF and 0.0125 MHz for UHF). If such an attempt is made, the increment will automatically revert to "0" (zero):

Display:

The unit will not search.



If this should happen, press followed by and . The unit will now search at the rate of the standard increment. In addition, you cannot set the increment above the maximum (0.635 MHz for VHF and 1.5875 MHz for UHF). If such an attempt is made, the digital display will show:



In either case, press and re-set the search increment.

IMPORTANT:

Anytime you CHANGE or VERIFY one of the SEARCH LIMITS (lower or upper), the search increment will automatically revert back to the standard increment.

Time

In addition to being a scanning and searching receiver, the M400 can also be used as a clock with quartz crystal accuracy. You can program the M400 to read hours and minutes (also seconds when the unit is turned off) or use it as an elapsed timer.

To set the time (hours and minutes), first turn on the unit if it is not already on. Push the OFF/TIME/SET switch to the SET position (right). If the time is being set for the first time, or power to the unit was lost since the time was set last, the display will read:


Time (continued)

IMPORTANT: The standby memory does not save the time even if a good battery has been installed.

Example: Entering the time; 9:30:

PRESS:     

The time in the display will blink indicating the unit is waiting for you to complete the entry. Now push the OFF/TIME/SET switch to the TIME (center) position.

Display: 

NOTE: The decimal point between hours and minutes will blink indicating the clock is running.

The time you have set will appear along with a frequency in the display. The frequency that appears will be the last one in the display before the time was set. The unit is now in the MANUAL mode on that frequency.

If an incorrect time is entered, the display will show:




instead of the time and frequency. To re-enter the correct time, push the switch to SET and begin again. If a call should come over that frequency while the time and frequency are being displayed, the display will show the channel number instead of the time for the duration of the message.

Now that the time has been set, you may continue to operate the M400 in the SCAN, MANUAL or SEARCH modes and not lose the time. Simply push the switch to OFF (left). The unit will automatically revert to the mode it was in prior to setting the time. Any other mode can now be selected.

To check the time, push the switch to TIME (center).

NOTE: The unit is ALWAYS in the MANUAL mode when the switch is in the TIME position.

After turning off the unit, move the switch to TIME (center). The display will indicate the time in hours, minutes and seconds.

Example: 

NOTE: The decimal in the time does not blink. The changing seconds indicate the clock is running.

To blank the display completely, push the switch to OFF (the clock is still running).

ELAPSED TIMER

Before using the M400 as a timer, you MUST first program the time of day into the unit. Second, move the OFF/TIME/SET switch to the SET (right) position. To activate the timer, press:



The display will initially show the time of day followed by six zeroes:

Time of Day Elapsed Time

Example:

1 5 9 0 0 0 0 0 0

NOTE: The decimal in the time does not blink with the switch in the SET position.

With the elapsed timer activated, the time of day in the display will indicate WHEN the elapsed timer was started. The time of day clock is still running and will display the correct current time whenever the switch is moved to TIME.

The timer can run for a maximum of 99 hours, 59 minutes, 59 seconds. It will then return to zero elapsed time and continue. To STOP the timer press



Touching again re-sets the timer to "00.00.00" and starts it.

With the timer running, you may select any other mode of operation. Push the time switch to OFF (left). The unit will revert to the mode it was in prior to starting



the timer. Select another mode by pressing either **MANUAL**, **SCAN** or **BANK SEARCH**. Later, to check how much time has elapsed, simply push the switch to the SET (right) position.

Example:

2 4 8 0 0 0 2 5 6

With the unit turned off, the timer will continue running with the switch in the OFF, TIME or SET positions and can be displayed by moving the switch to TIME or SET.

Example:

2 4 9 0 0 0 4 0 2



Blinking decimal while unit is off indicates clock is running.

Time (Continued)

To return the unit to displaying the time of day and seconds while the unit is



off, press once to stop the timer. Next, turn the unit ON then OFF. The display will now show the time of day in hours, minutes and seconds.

Home (120 VAC) Installation

Plug one end of the AC cord into the AC receptacle on the rear of the radio. Plug the wall-mounted power supply into a 120 volt wall outlet. The M400 requires very little ventilation, however very warm locations such as near radiators or heating vents should be avoided.

Mobile (12 VDC) Installation

NOTE: Mobile reception of a POLICE frequency by UNAUTHORIZED personnel is ILLEGAL in some areas. It is the responsibility of the person making the installation to be sure that the user of this receiver is authorized or cleared through the local police department. Under no conditions can Regency Electronics, Inc., the manufacturer of this set, be held responsible for its unauthorized installation or use.

The M400 receiver may be used in any car, truck, boat, etc., that has a 12 VDC negative ground system. For permanent DC operation in a vehicle; it will be necessary to use the DC cord. The red lead with the fuse holder must be connected to the positive terminal side of the battery. The female quick-connect terminal is then pushed on to the male terminal in the DC power connector (RED).

An 18-gauge conductor, preferably stranded, must be connected to the ground-ing screw located on the rear panel and run to the nearest negative or ground point of the system. To prevent the possibility of memory loss during engine starting, be sure the memory battery is installed in the receiver.

Temporary installation can be obtained by using the accessory MA-18 Cigarette Lighter Power Cord and making two connections to the receiver (both are located on the unit's rear panel; see diagram on page 1). First, connect the unshielded spade lug to the grounding screw. This provides the "ground" connection to the receiver. The shielded female quick-connect terminal is then pushed on to the male terminal in the DC power connector (RED). After both of these connections are secured, plug the Cigarette Lighter Plug end of the power cord into the vehicle's lighter receptacle. This completes the required connections. This cord will permit the unit to be operated while sitting on the seat. The telescopic antenna will usually be sufficient for this type of operation.

A coupling harness, Regency part number MA-5, is available to allow the auto antenna to be used with the M400.

MOUNTING BRACKET INSTALLATION DIAGRAM



Memory Battery

The rechargeable battery pack included with the unit should be installed to prevent loss of frequencies programmed into the RAM channels in the event of a power failure or if the power cord is unplugged. When fully charged, the battery should provide four to six days of continuous standby service. If the battery is low in power or not installed, a power failure will be indicated by the digital display:



NOTE: The battery pack shipped with the unit is not fully charged. Do not expect maximum standby service until it has been installed and the unit has been plugged into a 120 VAC outlet or a 12 VDC power source for at least three days.

The battery is not intended for long term memory storage. If the unit is going to be unplugged for an extended period of time (more than 7 days) we recommend that the battery be disconnected and removed.

NOTE: RAM channel frequencies, time, search frequencies and bank/channel lockout status are lost if the battery is removed and power is interrupted or disconnected.

Also, it is highly recommended that a dead battery be removed and/or replaced as soon as possible. Replace only with a Regency battery, #4000-3302-400. This battery is available from the Regency Customer Service Department.

IMPORTANT:

Should it become necessary to ship your unit to Regency Customer Service for repair, do NOT leave the battery connected. To prevent battery from shorting during shipment, disconnect the battery and either place tape over the battery connector or remove the battery from the compartment.

Memory Battery (continued)

BATTERY INSTALLATION

To install the rechargeable battery, follow these steps:

1. Squeeze battery compartment cover at top and bottom.
2. Lift out at bottom, then at top.
3. Attach the battery's connector clip to the unit's connector. The two should snap firmly together.
4. Fit the battery and the joined connectors inside the compartment cover.
5. Re-attach the cover to the rear panel by sliding the top tab in first, then snap in the two bottom tabs.



Memory Lock Switch

After programming the channels, you have the option of locking in those frequencies using the Memory Lock Switch located behind the battery compartment (see rear panel diagram on page 1). Follow steps 1 and 2 above to gain access to the switch located behind the battery compartment inside the unit. With the switch in the **RIGHT** position, the keyboard is disabled so that channel or search frequencies cannot be inadvertently changed. The unit will continue to operate in the **SEARCH**, **SCAN** or **MANUAL** modes on those frequencies previously entered into the unit's memory. Pushing the switch to the **LEFT** restores the full keyboard to normal operation. Channel or search frequencies may now be changed if desired. Replace battery cover following step 5 above.

Night/Off/Day

When operating the unit in a dark location, such as in a vehicle at night, push the Day/Night switch to be **NIGHT** (left) position. The digital display will dim and the keyboard becomes back-lighted for easy nighttime operation. You also have the option of turning off the display as well as the back lighted program panel by setting the switch into the **OFF** (center) position. The unit will otherwise continue to operate normally. Moving the switch to the **DAY** (right) position, illuminates the digital display to its maximum brightness for easy visibility during daytime operation.

External Antenna

In areas of very low signal strength, it may be necessary to use an antenna system better than the telescopic one for proper reception. An external antenna mounted as high above the ground as practical will greatly increase the signal strength. If it is determined that proper reception will require an external or outside

antenna, then it is suggested that a tri-band antenna (it covers both VHF bands, 30-50 MHz and 144-174 MHz, and UHF) be used. There are several manufacturers of tri-band, monitor type antennas. They are usually available at the source from which the receiver was purchased.

For proper input matching, 50 ohm coaxial cable such as RG 58/U should be used. A Motorola type antenna plug (Cinch-Jones No. 13B or H. H. Smith No. 1200) will have to be installed on the receiver end of the cable in order to utilize the antenna socket located on the rear panel of the unit. (See rear panel diagram on page 1).

IMPORTANT:

Be sure the antenna system you select is grounded to protect against voltage surges and built up static charges. In addition, the antenna should be located away from power lines.

External Speaker

An external (or remotely mounted) 8 ohm speaker, such as Regency's MA-108, can be used by inserting the mating phone plug into the 3.5mm jack on the unit's rear panel. (See rear panel diagram on page 1). An 8 ohm speaker is recommended for optimum performance; do NOT use a 3-4 ohm speaker. The internal speaker is automatically disconnected when an external speaker is used.

Specifications

Frequency Ranges:

VHF (Low Band).....	30-50 MHz
VHF (Amateur).....	144-148 MHz
VHF (High Band).....	148-174 MHz
UHF (Amateur).....	440-450 MHz
UHF (Standard).....	450-470 MHz
UHF (Extended).....	470-512 MHz

Search Frequency Increments:

VHF (standard).....	5 KHz
programmable in 5 KHz steps.....	0-635 KHz
UHF (standard).....	12.5 KHz
programmable in 12.5 KHz steps.....	0-1.5875 MHz

Sensitivity (12 DB Sinad; at tune-up)

LO VHF (30-50 MHz).....	0.25 μ V
HI VHF (144-174 MHz).....	0.45 μ V
UHF (440-512 MHz).....	0.45 μ V

Sensitivity (12 DB Sinad; maximum)

LO VHF (30-33 MHz).....	1.0 μ V
LO VHF (33-48 MHz).....	0.40 μ V
LO VHF (48-50 MHz).....	0.60 μ V
HI VHF (144-146 MHz).....	1.0 μ V
HI VHF (146-170 MHz).....	0.5 μ V
HI VHF (170-174 MHz).....	1.0 μ V
UHF (440-450 MHz).....	0.90 μ V
UHF (450-495 MHz).....	0.60 μ V
UHF (495-512 MHz).....	1.50 μ V

Specifications (continued)

Selectivity	± 7.5 KHz @ 6 DB ± 18 KHz @ 50 DB
Spurious Rejection (except Primary Image)	50 DB
Modulation Acceptance	± 7.5 KHz
I.F. Frequencies	1st IF: 10.7 MHz; crystal filter 2nd IF: 455 MHz; ceramic filter
Reference Oscillator (Synthesizer)	Crystal Controlled
Scanning Rate	approx. 14 channels per second
Search Scanning Rate (standard increment) VHF	approx. 17 seconds per megaHertz
UHF	approx. 6 seconds per megaHertz
Scan Delay Normal	approx. 0.6 seconds
With Delay Option	approx. 2 seconds
Search Delay	approx. 3.5 seconds
Audio Output	2W @ 10%, or less distortion
Speaker (Internal)	8 Ohms, 4" square
Speaker (External)	8 Ohms, min.
Power Requirements	110-130 VAC, 60 Hz; 14 Watts max. 11.5-15 VDC; 11 Watts max.
Memory Saver Battery	Rechargeable, Nickel-cadmium
Clock Reference	Quartz Crystal
Display (Frequency and Message Readout) ..	12 Digits, 7-Segment VFD type
FCC Certified	Part 15, Subpart C
Size	5 $\frac{3}{4}$ " Wide x 2 $\frac{3}{8}$ " High x 9 $\frac{1}{4}$ " Deep
Weight	3 $\frac{1}{2}$ lbs.

Troubleshooting Guide

NOTE: Please perform the simple checks indicated for improper operation before returning the unit for service.

TROUBLE	CHECK
No display, no sound	OFF/VOL knob should be turned clockwise. NIGHT/DAY Switch should be in Night or Day position (not OFF). Power Cord (AC or DC connections). See also specifications for power requirement. DC Cord — replace 1.5 Amp fuse if blown.
Display, no sound	Volume Control setting — check by turning clockwise. Program Mode — press SCAN or MANUAL. Clock Switch — move to OFF.
No reception (no station heard)	Squelch Control setting — see page 6. Antenna not installed. Incorrect frequencies entered.
Weak or poor reception	Antenna should be fully extended. Stations too far away — external antenna may be needed. See page 26.
Does not scan	Manual or Program Mode — press SCAN. Squelch Control Setting — see page 6. Channels locked out — see page 10.
Will not program	Clock Switch — set to OFF. Memory Lock Switch — set to OFF (left) — see page 26.
Search scan stops on channels without stations	Birdies — see page 33. Mobile Telephone frequencies — see page 11.
“Error” appears in readout	Invalid clock entry.
“F. Error” appears in readout	Invalid frequency entry.
“Lo-no b.” appears in readout	Initial power up — proceed with programming. Power failure — no memory battery installed, or battery low in voltage.
“P. LOSS” appears in readout	Power failure — re-enter time.

National Frequencies

The following is a partial list of the common public service band frequencies as allocated by the FCC. You will not be able to pick up activity on every frequency listed here. Only those frequencies assigned to the services which are applicable to your area will be received. We advise you to compile your own frequency list for your monitoring area.

Abbreviations

Automobile Emergency	Auto Emerg.
Business	Bus.
Bureau of Reclamation	Bur. Reclam.
Forestry-Conservation	For.-Cons.
Forest Products	For. Prod.
Government	Govt.
Highway Maintenance	Hwy.
Local Government	Local Govt.
Manufacturers	Manu.
Mobile Telephone	Mob. Tel.
Motion Picture	Mot. Pic.
National Weather Service	NWS
Petroleum Industry	Pet.
Power Utilities	Power
Railroad	RR
Relay Press	Rel. Press
Remote Broadcast	Remote Broad.
Special Emergency	Spec. Emerg.
Special Industrial	Spec. Ind.
Telephone Maintenance	Tel. Maint.
Weather	WX

Frequency — MHz Service or Allocation

LOW VHF BAND 30-50 MHz

30.00-30.56	Government
30.58-30.64	Special Industrial
30.66-31.24	Pet., For.-Cons., For. Prod., Bus.
31.26-31.98	Spec. Ind., For.-Cons.
32.00-33.00	Government
33.02-33.16	Spec. Ind., Hwy., Spec. Emerg., Bus.
33.18-33.38	Petroleum
33.42-33.98	Fire
34.00-35.00	Government
35.02-35.18	Business
35.22-35.66	Mobile Telephone, Paging
35.70-35.98	Special Industrial, Business
36.00-37.00	Government
37.02-37.42	Police, Local Government
37.44	Forest Products
37.46-37.86	Power
37.88-37.98	For. Prod., Hwy., Spec. Emerg.
38.00-39.00	Government
39.02-39.98	Police, Local Government
40.00-42.00	Government
42.02-42.94	Police
42.96-43.18	Special Industrial, Business
43.22-43.68	Mobile Telephone, Paging
43.70-44.60	Motor Carrier (Buses, Trucks)
44.62-45.06	Police, For.-Cons.
45.08-45.66	Police, Local Government
45.68-46.04	Police, Hwy., Spec. Emerg.
46.06-46.50	Fire
46.52-46.58	Local Government
46.60-47.00	Government
47.02-47.40	Highway Maintenance
47.42	Red Cross
47.44-47.68	Spec. Ind., Spec. Emerg.
47.70-48.54	Power
48.56-49.58	Pet., For. Prod., Spec. Ind.
49.60-50.00	Government

HIGH VHF BAND 144-174 MHz

144.000-148.000	Amateur
148.150	Civil Air Patrol
148.200-150.800	Government
150.815-151.475	Bus., Auto Emerg., For.-Cons., Hwy.
151.490-151.595	Special Industrial
151.625-151.955	Business
152.000-152.255	Mobile Telephone
152.270-152.480	Business, Taxi
152.495-152.855	Mobile Telephone, Paging

Frequency — MHz Service or Allocation

HIGH VHF BAND (Continued)

152.870-153.035	Remote Broad., Spec. Ind., Mot. Pic.
153.050-153.380	Manu., Pet., For. Prod.
153.410-153.710	Power, Pet., For. Prod.
153.755-154.115	Fire, Local Government
154.130-154.445	Fire
154.450-154.625	Bus., Pet., Spec. Ind.
154.650-155.145	Police, Local Government
155.160-155.400	Police, Spec. Emergency
155.415-156.030	Police, Local Government
156.045-156.240	Police, Hwy. Maintenance
156.275-157.450	Marine
157.470-157.500	Auto Emergency
157.530-157.740	Business, Taxi
157.755-158.115	Mobile Telephone, Paging
158.130-158.460	Manu., Power, Pet., For. Prod.
158.475-158.715	Mobile Telephone
158.730-158.970	Police, Local Government
158.985-159.210	Police, Hwy. Maintenance
159.225-159.465	Forestry-Conservation
159.495-160.200	Motor Carriers (Buses, Trucks)
160.215-161.565	Railroad
161.600-161.625	Marine
161.640-161.760	Marine, Remote Broadcast
161.775-162.025	Marine
162.026-162.175	Bureau of Reclamation
162.400	NWS (WX-2)
162.475	NWS (WX-3)
162.550	NWS (WX-1)
163.125	Indian Affairs
163.175	Bureau of Reclamation
163.250	Special Emergency
163.275	National Weather Service
163.385-163.975	Military, Government
164.025-164.075	U.S. Coastal & Geodetic Survey
164.175-165.190	Bur. Reclam., Government
166.250	Fire
169.300	Federal Aviation Administration
169.425-169.525	Bus., Power, Pet., For. Prod., Spec. Ind., RR
170.150	Fire
170.200-170.220	U.S. Coastal & Geodetic Survey
170.225-170.325	Bus., Power, Pet., For. Prod., Spec. Ind., RR
170.425-170.475	Forestry-Conservation
170.575	Forestry-Conservation
171.025-171.125	Bus., Power, Pet., For. Prod., Spec. Ind., RR

HIGH VHF BAND (Continued)

171.475-171.575	Forestry-Conservation
171.825-171.925	Bus., Power, Pet., For. Prod., Spec. Ind., RR
172.225-172.275	Forestry-Conservation
172.375	Forestry-Conservation
172.775	National Parks
173.025	National Weather Service
173.075	U.S. Coastal & Geodetic Survey
173.200-173.400	Police, Power, Pet., For. Prod., Mot. Pic., Rel. Press, Spec. Ind., Manu., Bus., L. Govt.

STANDARD UHF BAND 440-470 MHz

440.000-450.000	Amateur
450.050-450.950	Remote Broadcast
451.025-451.150	Power Utilities
451.175-451.750	Power, Pet., For. Prod., Manu., Tel. Maint.
451.775-452.025	Special Industrial
452.050-452.500	Power, Pet., For. Prod., Spec. Ind., Manu., Tel. Maint.
452.525-452.600	Auto Emergency
452.625-452.950	Power, Pet., For. Prod., Spec. Ind., Manu., Tel. Maint., Motor Carrier, R.R.
452.975-453.000	Relay Press
453.025-454.000	Power, Pet., For. Prod., Spec. Ind., Manu., Tel. Maint., Local Govt., Police, Fire, Hwy., For.-Cons.
454.025-454.650	Mobile Telephone
455.025-454.925	Remote Broadcast
456.025-456.150	Power Utilities

STANDARD UHF BAND (Continued)

456.175-456.700	Power, Pet., For. Prod., Manu., Tel. Maint.
456.725-457.025	Special Industrial
457.050-457.500	Power, Pet., For. Prod., Spec. Ind., Manu., Tel. Maint., Motor Carrier, RR, Taxi
457.525-457.600	Business
457.625-457.950	Power, Pet., For. Prod., Spec. Ind., Manu., Tel. Maint., Motor Carrier, RR
457.975-458.000	Relay Press
458.025-459.000	Power, Pet., For. Prod., Spec. Ind., Manu., Tel. Maint., Local Govt., Police, Fire, Hwy., For.-Cons., Spec. Emerg.
459.025-459.650	Mobile Telephone
460.025-460.625	Power, Pet., For. Prod., Spec. Ind., Manu., Tel. Maint., Police, Spec. Emerg.
460.650-462.175	Business
462.200-462.450	Manufacturers
462.475-462.525	Power, Pet., For. Prod., Manu., Tel. Maint.
462.750-462.925	Business
462.950-463.175	Police, Special Emergency
463.200-465.000	Business
465.025-465.625	Power, Pet., For. Prod., Spec. Ind., Manu., Tel. Maint., Police
465.650-467.175	Business
467.200-467.450	Manufacturers
467.475-467.525	Power, Pet., For. Prod., Manu., Tel. Maint.
467.750-467.925	Business
467.950-468.175	Police, Special Emergency
468.200-469.975	Business

EXTENDED UHF BAND 470-512 MHz









A number of the larger cities or metropolitan areas may utilize some of the lower UHF TV channels for land mobile radio services. UHF TV channels 14 through 20 are re-allocated in these cities as follows:

City/Area	Channel	Frequency Range
Boston	14, 16	470-476 MHz, 482-488 MHz
Chicago	14, 15	470-476 MHz, 476-482 MHz
Cleveland	14, 15	470-476 MHz, 476-482 MHz
Dallas/Fort Worth	16	482-488 MHz
Detroit	15, 16	476-482 MHz, 482-488 MHz
Houston	17	488-494 MHz
Los Angeles	14, 20	470-476 MHz, 506-512 MHz
Maryland	18	494-500 MHz
Miami	14	470-476 MHz
New York	14	470-476 MHz
Northeastern		
New Jersey	15	476-482 MHz
Oakland	17	488-494 MHz
Philadelphia	19, 20	500-506 MHz, 506-512 MHz
Pittsburgh	14, 18	470-476 MHz, 494-500 MHz
San Francisco	16	482-488 MHz
Washington, D.C.	17	488-494 MHz

Each 6 MHz segment (or channel) has the same allocation pattern as illustrated below for channel 14:

Frequency — MHz	Service or Allocation
470.0125-470.2875	Mobile Telephone
470.3125-471.1375	Public Safety
471.1625-471.2875	Reserve Pool A
471.3125-471.4125	Power, Telephone Maintenance
471.4375-471.6375	Special Industrial
471.6625-471.7875	Reserve Pool A
471.8125-472.3375	Business
472.3625-472.4375	Taxi
472.4625-472.7875	Motor Carrier, RR, Auto Emerg.
472.8125-472.9875	Pet., For. Prod., Manu.
473.0125-473.2875	Mobile Telephone
473.3125-474.1375	Public Safety
474.1625-474.2875	Reserve Pool A
474.3125-474.4125	Power, Telephone Maintenance
474.4375-474.6375	Special Industrial
474.6625-474.7875	Reserve Pool B
474.8125-475.3375	Business
475.3625-474.4375	Taxi
475.4625-475.7875	Motor Carrier, RR, Auto Emerg.
475.8125-475.9875	Pet., For. Prod., Manu.

ROM Channels

Channels	Frequencies
 403 (Weather)	162.400-162.550 @ .075 MHz Increments 161.650 (Canada)
 404 (Police-Low VHF)	37.02-37.42 } 39.02-39.98 } @ .02 42.02-42.94 } 44.62-46.02 @ .04
 405 (Police-High VHF)	154.650-154.950 @ .015 155.010-155.370 @ .06 155.415-155.700 @ .015 155.730-156.210 @ .06 158.730-159.210 @ .06
 406 (Police-UHF)	453.050-453.950 } 458.050-458.950 } @ .05 460.025-460.550 } 462.950-462.975 } @ .025 465.025-465.550 } 467.950-467.975 }
 407 (Fire-Low VHF)	33.42-33.98 @ .02 45.88 46.06-46.50 @ .02
 408 (Fire-High VHF/UHF)	153.770-154.130 @ .06 154.145-154.445 @ .015 166.250; 170.150 453.050-453.950 @ .05 458.050-458.950 @ .05 460.525-460.625 @ .025 465.525-465.625 @ .025
 409 (Mobile Telephone — all bands)	35.220-35.660 @ .04 152.030-152.240 @ .03 152.480-152.840 @ .03 454.025-454.650 @ .025
 410 (Marine)	156.025-156.750 @ .025 156.800 156.850-157.425 } 160.625-160.875 } @ .025 160.925-160.950 } 161.500-162.050 }

National Weather Service

The National Weather Service provides a continuous (24-hour) broadcast of local and area weather conditions. These weather messages are repeated until the next or updated report is issued. The Weather Service has broadcast facilities in many metropolitan areas of the country.

Three frequencies are utilized by the Weather Service. They are: 162.550, 162.400 and 162.475 MHz. The first frequency listed is the principal one used throughout the country. The other two are used to reduce possible interference from the overlapping of signals of nearby cities or metropolitan areas.

If you are located within 25 or 30 miles of one of these cities, reception can usually be obtained with the telescopic antenna. Your local Regency dealer can advise you about your specific antenna requirement.

IMPORTANT: When set to automatic scan, the M400 will stop and remain on the weather channel because it broadcasts continuously. Thus, this channel should only be activated when you desire to hear the current weather report. See page 10 for instructions on locking out a channel.

Birdie List

Every complex receiver has frequencies that are difficult or impossible to receive because of internally generated signals. These frequencies are called "birdies". The following is a partial list of such frequencies that may occur in the M400.

Low VHF (30-50 MHz)		High VHF (144-174 MHz)	UHF (440-512 MHz)
30.425	36.690	156.800	470.400
31.320	37.590	167.000	505.200
32.215	38.480	168.000	
33.600	39.380		
34.005	40.280		
34.900	44.800		
35.800	46.335		

In addition, there are other frequencies that are difficult to receive because of interference from externally generated signals, such as T.V. stations, other receivers nearby and various other sources of man-made noise. These frequencies vary from location to location and are therefore impossible to list. When this type of interference is encountered, it can sometimes be eliminated by moving the Squelch Control knob counterclockwise (increase squelch action).

Please record Serial Number and Date of Purchase:

Serial No. _____

Date Purchased _____

Regency Scanners Limited Warranty

1. The warranty applies to the original or subsequent owners of the product for a period of 1 year from the original purchase date.
2. We agree to repair or replace all parts showing defects in material or workmanship.
3. Warranty service will be provided free of charge if unit is delivered to us intact, transportation charges prepaid, within one year of the date of sale to the original purchaser.
4. The warranty does not apply to units subject to misuse, neglect, accidents, incorrect wiring not our own, improper installation, or units used in violation of the instructions furnished by us. Nor does the warranty apply to units: damaged by lightning, excess current, repaired or altered outside the factory, or units with altered or removed serial numbers.
5. To have your unit serviced under the warranty return it, freight prepaid, to:
Customer Service Department
Regency Electronics, Inc.
7707 Records St.
Indianapolis, IN 46226
Only factory personnel are authorized to perform warranty service.
6. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

 **REGISTRY, INC.**
7707 Records St., Indianapolis, IN 46226