Owner's Manual



Regency Scanners The Touch K 500



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

Packing List

- 1-Receiver Unit
- 1-AC Power Cord
- 1-Rechargeable Battery Pack
- 1-Telescope Antenna with Right-Angle Adapter
- 1-Owner's Manual
- 1-Warranty Card to be filled out and returned to: Regency Electronics, Inc.

7707 Records Street

Indianapolis, Indiana 46226

General Description

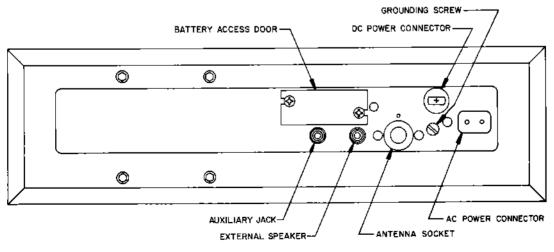
Your Regency ACT-T-K500 is a completely synthesized, automatic, 585 channel VHF/UHF FM scanning receiver. The built-in microprocessor controlled circuitry makes programming and listening easy. There are no crystals required.

The Touch K500 has 40 channels available for conventional touch entry programming (RAM)* plus 545 pre-programmed frequencies (ROM)**. The unit also looks for unknown frequencies in the search mode.

Other K500 features include: Priority, Weather Alert®, count, delay, hold, store, time and alarm. The K500 can be operated from 117 VAC or 12 VDC.

*Regency Alterable Memory
**Regency Organized Memory

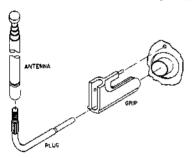




Preparation for Use

Before operating your new scanner, read the following directions carefully.

- Unpack the unit from the carton and check for damage. If the unit is damaged, contact the place of purchase immediately as required by the warranty agreement.
- Insert the AC power cord into the AC jack provided on the rear panel of your scanner. Plug the cord into a 120 VAC outlet. DC operation will be covered later in this manual. See rear panel diagram on page 1.
- 3. Insert the telescopic antenna into the antenna jack on the back of the scanner, using diagram below:



(See rear panel diagram on page 1.)

- Before turning on the power, be sure the squelch knob is all the way to the left and the volume control knob halfway to the right.
- Sliding the power switch to the right will apply power to the receiver. Turning the power off will NOT cause the unit to lose memory providing the power cord is not unplugged.



- Now set the squelch by sliding the squelch knob to the right until static is heard. Slide the knob to the left until the static disappears.
- Each of the 40 RAM channels have been pre-programmed with the frequency 40.345 MHz. You will have to enter your local frequencies into these channels before you can scan them.

Front Panel Controls

POWER

Provides power to the unit when pushed to the right.

VOLUME

Adjusts audio to the level most comfortable for listening.

SQUELCH

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

BANK AND CHANNEL PROGRAMMING PANEL

Your Touch K500 has 40 touch-entry RAM Channels available for monitoring your favorite frequencies.



Keys 100 through 500

These keys represent the 5 banks of 8 channels each available for RAM scan entry.

Keys 1 through 8

These keys represent the 8 channels within a bank.

There are 8 channels per bank for a total of 40 channels. Hereafter referred to as:

Bank	Channels
100 =	101-108
200 =	201-208
300 =	301-308
400 =	401-408
500 =	501-508

The pre-programmed, 545 individual ROM frequencies are divided into three major groups*. The flashing light is for police, the flame is for fire, and the boat with WX and phone is for marine, weather and mobile phone.



*For a detailed list of the ROM frequencies, see pages 22, 23.

PROGRAM PANEL

The Touch K500 program panel has 16 touch-entry keys for easy operation.

Mode Keys



Allows you to program any frequency within a band into one of the 40 RAM Channels. Also used for entering the time.



Selects the search mode to find active frequencies within a band.



Provides for manual selection of any of the 40 RAM Channels or the 545 ROM Channels.



Lets you automatically scan through any or all combinations of the 40 RAM Channels and the 545 pre-programmed ROM Channels.

Programming Keys

The programming keys provide two functions. The digits in the upper portion of the keys are used to enter any frequency into the RAM Channels, search limits and also to set the time. The lower portion of the keys are used to perform special functions.

Listed below are the special functions of each programming key.



Allows you to program or display the time of day, both AM and PM (See page 13).



Gives you the option of a 60 minute clock with display showing minutes and seconds (See page 13).



Lets you program or display the alarm feature (See page 14).



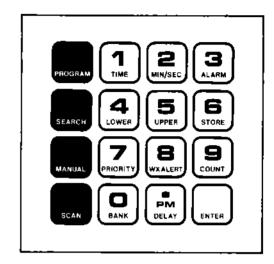
Allows you to program or call up the lower limit of the search process (See pages 9, 10).



Allows you to program or call up the upper limit of the search process (See pages 9, 10).



Puts up to 8 active frequencies into bank 500 automatically during search (See pages 10, 11).





Allows any frequency programmed into channel 101 to be sampled once per second and to interrupt messages on all other channels (See page 11).



Activates the unit to automatically receive the tone coded severe weather bulletins direct from the National Weather Service (See page 12).



Indicates how active a frequency is by counting transmissions (squelch openings, See page 9).



Permits unit to scan only one bank at a time without de-activating the other banks (See page 7).



Provides the decimal point when entering frequencies, lets you delay resumption of the scan or search processes and lets you select PM when setting the time (See pages 6, 7, 13).



For entering any frequency into RAM, setting time or entering search limits.

Display Formats

The Regency Touch K500 LED display includes seven spaces for digits or letters that tell you frequency, operating mode and other useful information. The following is a list of the common display formats you'll find.

1 2 3 4 5 6 7	Location of digits or characters (positions 1-7).
પટપટઇ	Indicates a frequency in the LO VHF band.
158510	Indicates a frequency in the HI VHF band.
475320	Indicates a frequency in the UHF band.
1552258	Shows a frequency with priority feature activated ("P" in position 7; see page 11).
1825508	Weather Alert® feature ("A" in position 7) has been activated (see page 12).
1 4 5. 7 5 0 8	Shows delay activated ("d" in position 7). May be in either scan or search modes (see pages 7, 10).
3 3 5 5 0 8	An "H" in position 7 indicates the hold feature is in use (search mode only, see page 10).
чаррзоц	The "L" in position 7 indicates a lockout of a particular channel (see page 7).
3 3 5	When Count feature is activated, the total number of transmissions (squelch openings) will appear in the display (see page 9).
9 432	Time displayed in hours and minutes. A "P" in position 6 indicates PM while an "A" indicates AM (see page 13).
18 03	Time displayed in minutes and seconds (see page 13).
8 · 8 3 8 ° :	Small □ in upper half of position 7 differentiates Alarm time from regular time (see page 14).
3 4500	Blinking decimal point in position 7 indicates Alarm is activated (see page 14).
18 338 <u>.</u> .	Indicates time of day and that Alarm is activated. Both decimal points will blink (see page 14).
1480001	An "L" indicates the frequency displayed is the lower limit in the search process (see page 9).
រទិនិនិនិនិនិនិ	A "U" indicates the frequency displayed is the upper limit in the search process (see page 9).

Prompting Messages

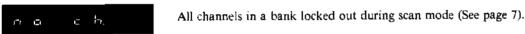


- 1. Displayed upon initial power-up even if a good battery is installed.
- 2. Displayed following a power failure if the standby battery is low in voltage.
- 3. Displayed following a power failure if the standby battery has not been installed.

Will be displayed in the Time mode after a power failure, even if a good standby battery is installed, because the battery does not power the clock.

The following memories are lost and will have to be re-entered.

- 1. Time, including Alarm Time.
- 2. Search Limits, both lower and upper.
- 3. RAM Channels 407 and 408.
- 4. RAM Bank 500; all 8 channels.



Unit is in program mode and waiting for data (frequency or time) to be entered (See page 6).

You have entered an invalid frequency in the program mode. Frequency entered is not within a band (see specifications on pages 18 and 19 for band limits) or is an improper search limit (See pages 6, 9).

You have tried to enter a new frequency into a ROM channel (See page 6).

Invalid frequency beyond radio's coverage.

An invalid time has been entered. (See page 13).

All banks have been locked out during scan mode (See page 7).

Indicates that you have initiated the Weather Alert® function. You must now select one of the three weather frequencies (WX1, WX2 or WX3) to complete the activation (See page 12).

Programming the RAM Channels

40 Channels have been set aside for your personal choice of frequencies. The Touch K500 uses sophisticated microprocessor controlled circuitry eliminating the need for crystals and allowing easy fingertip touch entry of all data.

Example: Entering the frequency 465.225 into channel 101.

1. PRESS:



(puts the unit into the program mode)

Display:



One of the 5 bank LED's* (100-500) and one of the channel LED's (1-8) will light up. You may enter your frequency into that channel or into any other channel.

2. PRESS:









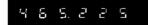








Display:



The bank LED and the channel LED will blink, indicating the unit is waiting for you to put the frequency into a specific channel.

If you enter an invalid frequency, the display will tell you:



To enter another frequency, simply press and begin with step 2.





Frequency 465.225 is now in channel 101.

To continue programming the other channels, repeat the above process beginning with Step 2.

If a ROM bank key is selected, the display will indicate:



Return to Step 1 and begin again

*LED (Light-Emitting Diode)—a solid-state, red lamp or indicator.

RAM PROGRAMMING HINTS

A. When programming consecutive channels, there is no need to press before keying in each frequency.

B. When programming channels 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



before selecting a channel to clear the error. Start over with Step #2 above.

D. After programming a channel, press



To resume programming, you must begin with Step #1 above.

If you wish to move a frequency from one channel to another such as from channel 101 to channel 201:

PRESS:









The LED's for bank 100 and channel 1 will blink.

Then, PRESS





Now the frequency that was in channel 101 is in channel 201.

Note: The frequency is in both channel 101 and 201. It has not automatically been erased from channel 101. You must re-program channel 101 to change the frequency.

Scanning the RAM Channels

After you have programmed the frequencies of your choice, you can then scan each one automatically when in the scan mode. To start the scanning process, press



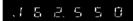
The LED over 100



will light followed by the LED's under channels 1-8 as they are sampled. Then the LED over

will light followed by channels 1-8. This process continues until all the channels through 508 have been sampled. The K500 will then go back to channel 101 and start over. If a transmission is found, the scanner will stop and the display will indicate the frequency:

DISPLAY:



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

There are several variations available when scanning the 40 RAM channels.

1. Scan one bank only.

By pressing



the unit will stop on a bank and scan only the eight channels in that bank. You can now manually select which bank to scan simply by pressing one of the bank keys (100-500).

Resume scanning all 40 channels by pressing



2. Lockout.

a. Channel Lockout—If you wish to lockout any of the 40 channels from the scan sequence, first follow Step 1 above to select the bank in which the channel is located. Then, to lockout a specific channel, simply touch the channel number. The LED below the channel will light up, indicating you have made contact. The frequency will be displayed, followed by an "L," meaning that the channel is locked out of the scan sequence.

DISPLAY:



Note: When you release the channel number, the display will clear.

To put the channel back in later, simply follow Step 1 above, and press the channel number. If you lockout all channels within a bank, the display will indicate this by:

DISPLAY:



b. Bank Lockout—If you wish to lockout an entire bank from the scan sequence, simply press the proper bank key (100-500). The LED above the bank key you have selected will light up again, indicating you have made contact. An "L" will appear in the display indicating the bank has been locked out. Should all 5 banks be locked out, the K500 will indicate this by:

DISPLAY:



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

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, simply press

PM DELAY

WHILE THE UNIT IS SCANNING. A "d" will appear in position 7 of the display either by itself or following a frequency.

DISPLAY:



Now, whenever a signal is received, the unit will stop on the channel, display the frequency, and broadcast the message. At the conclusion of the message, the unit will wait an additional 2 seconds before scanning. To de-activate DELAY, press the delay button again. The "d" will disappear from the display.

MANUAL SCAN

On occasion, the unit will stop on a very active frequency while it is scanning the RAM channels. You may want to stop the scanning process and set the unit on that channel for continuous monitoring. To do this, you press

MANL

while the unit is scanning. The K500 will stop on a particular bank and channel number, and at the same time display the frequency.

For example, if you are interested in continuous monitoring of channel 207,

PRESS:







(the frequency entered in channel 207 will appear in readout)

While in MANUAL, you can listen to any RAM channel, in any order you desire. To resume normal scan, press

Scanning the ROM Channels

Your Touch K500 scanner has been pre-programmed with 545 different police, fire, weather, marine and mobile phone frequencies. So if you do not know the local frequencies, just press the symbol for the type of action you would like to hear. The flashing light is for police, the flame is for fire and the boat with WX and phone is for marine, weather and mobile phone.

Example:

If you are interested in scanning the common police frequencies:



The K500 will begin stepping through the LO VHF, HI VHF and UHF police frequencies to automatically look for a call. In the ROM scan sequence, the LED above the symbol you have selected will light, followed by the LED under channel 1. The LED under channel 1 will remain lit as the frequencies within the channel 1 sub-group are sampled. It will then sample the frequencies within channel 2. This process continues until all frequencies within the 8 channels have been sampled. It will then return to channel one and repeat. (For a detailed list of these groups and the 545 channels, see the table on pages 22, 23).

When a transmission is found, the display will indicate the frequency.



When the transmission ends, the scan process resumes. If you wish to scan one of the other ROM groups, simply select the one you want by touching the proper symbol. Any time you select a different bank the scanning process will automatically begin with channel 1.

As in scanning the RAM channels, you can also lockout any of the 8 channels from the ROM scan sequence by simply touching the channel number. To put the channel back in, touch the channel number again.

Note: You can not lockout an individual frequency within a channel's sub-group (except for the ROM bank for Weather; channels 1-3 where only one frequency has been pre-programmed. (See table on pages 22, 23).

To move the unit off an active frequency, press



During the ROM scan sequence, the unit may stop on a frequency that you would like to enter into one of the RAM channels.

Example: Entering a ROM frequency into channel 301:

PRESS: (a bank and channel LED will blink)

Note: You must press "ENTER" while the unit is stopped on the frequency to enter it into RAM.

Then, PRESS: (or any other channel you wish)

To resume scanning the ROM channels,



To go from scanning a ROM bank to scanning only the RAM channels, lockout the ROM bank by pressing theappropriate symbol followed by "SCAN."

If, however, a ROM bank is being scanned along with the RAM channels, you can lock it out by simply pressing the ROM bank key. An "L" will momentarily appear in the display. The K500 will now scan only RAM banks 100-500.

SCAN DELAY

As in RAM SCAN, you may also choose the SCAN DELAY feature when scanning the ROM channels. Follow the same steps on page 7 under SCAN DELAY to delay scanning the ROM channels.

MANUAL SCAN

If you wish to step through the pre-programmed ROM channels one at a time,



Then select the ROM bank you wish to manually SCAN:

Example: (the symbol for the ROM police PRESS:

The LED above the



will light as well as the LED under channel 1. The display will also indicate the first police frequency pre-programmed into channel 1 (37.020, see table on pages 22, 23). You can now sample each and every ROM frequency beginning with the first frequency in the sub-group by repeatedly pressing



MOBILE TELEPHONE TONES

Mobile telephone systems use various tones to indicate or identify specific conditions such as idle, ringing, off-hook, etc. The idle tone is used to identify a channel not in use. The K500, in the SCAN mode, will automatically resume scanning

if it stops on a channel or frequency when this idle tone is present. The tone (2000Hz) will be heard for just a short time before the scanner moves on. This feature is operative either in RAM scan or ROM scan.

OPERATING HINTS FOR THE ROM FREQUENCIES

A. We highly recommend that you scan each channel within a ROM bank separately by locking out the other channels. This is because of the large number of frequencies in each sub-group (except the ROM bank for weather, channels 1-4, see table on pages 22,23).

B. Make a list of the active ROM frequencies in your area and later enter them into RAM channels. This will eliminate needless scanning of unused or inactive channels.

Count

Note: The COUNT feature is only operative in the MANUAL mode. If you change modes, to search or scan, COUNT is automatically de-activated. You must de-activate count before programming.

Example: To count transmissions on channel 107;

PRESS:









DISPLAY:



Note: The COUNT feature is only operative in the MANUAL mode. If you change modes, to search or scan, you must deactivate count before programming. COUNT is automatically de-activated.

After each transmission, the number in the display will indicate the updated total.



If you wish to de-activate COUNT, press



To reset or begin the count again, press



The display will start at zero and begin again.

Note: Only one frequency should be counted at a time.

To count transmissions of a frequency within a ROM subgroup, follow the steps on page 8 to manually step to the frequency you wish to count (see ROM frequency chart, pages 22, 23 for assistance). Then, press COUNT. A zero will appear in position 6 of the display. As each transmission (squelch opening) is heard, the display will indicate the updated total.

Searching

The Touch K500 includes a SEARCH function that enables you to locate new frequencies in addition to those you already know. It can locate active signals anywhere within a band. Check the specifications on pages 22 and 23 if you are unfamiliar with the limits of each band. For example, to search for unknown frequencies between 450.00 MHz and 460.00 MHz.

PRESS:



(A bank and channel LED will blink)

Then, PRESS:



Your entry will appear in the display.

DISPLAY:

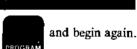


(An "L" after the frequency in the display will verify 450.00 as the lower limit to your search.)

If you make an entry error, the display will tell you:



To enter another frequency, press



Now, PRESS:



DISPLAY:



(The "U" after the frequency in the display will verify 460.000 as the upper limit to your search.)

Searching Continued

To start the search, press



The display will initially show



Note: Be sure squelch is set to eliminate background noise. The K500 will then sample every frequency automatically within the limits you have selected in pre-determined increments (see "Increments" table on page 23). When an active frequency is found, the search stops and the frequency appears in the display. When the transmission ends, press



to resume. When the unit reaches the upper limit of the search, it will automatically go back to the lower limit and begin again.

You may write down any frequency for future reference or you can enter it into one of the 40 RAM channels. For example, entering a frequency found in search into channel 201:

PRESS:



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

Then, PRESS:





(The frequency is now entered into channel 201 of the RAM scan.)

Any other active frequencies found in SEARCH can be entered into RAM the same way. To resume the search, press "SEARCH."

When you initially select SEARCH you automatically select the HOLD feature. An "H" in position 7 of the display indicates HOLD. Thus, after each transmission, the unit will NOT resume searching unless you press



If you wish to select a four second search delay instead of hold, press

PM

Now a "d" replaces the "H" in the display and the unit will automatically resume searching four seconds after each transmission. The four second delay should be long enough to either record the frequency or to enter it into one of the RAM channels. To re-activate HOLD, press



Note: You cannot eliminate both delay and hold.

If at any time you wish to verify the limits you have set for the SEARCH, simply press





The search stops and the lower or upper search limit will appear in the display followed by either a "U" or an "L." You must press "SEARCH" to resume the search. The search will now begin at the lower limit and start over.

Note: If you decide to change modes (i.e. Program, Search or Manual) while the unit is searching, you may do so. The K500 will remember at what frequency the search was interrupted. To resume the search at any time, press "SEARCH" and the K500 will continue the search with that frequency.

Another feature available connected with SEARCH is STORE. With STORE activated, the unit automatically stores the first 8 active frequencies found while in SEARCH into bank 500. After you have set the search limits:

PRESS:





(The LED over bank 500 will light)

The frequencies being searched will appear in the display:

DISPLAY:



If STORE is activated after the search has already started, the lower search limit will not be displayed after you press "STORE."

When the unit finds an active frequency, it will appear in the display. The LED under channel 1 will light, indicating the frequency has been entered into channel 501. After 4 seconds, search resumes automatically. The next active frequency found will be entered into channel 502, etc. until all 8 channels of bank 500 are filled. The unit now reverts to SCAN, and automatically scans channels, 501-508. If after listening to the stored frequencies you wish to erase them, press





and channels 1-8 will be filled with 8 new active frequencies found in SEARCH.

Note: When SEARCH STORE is activated, any RAM frequencies you may have previously programmed into Bank 500 will be written over by an active search frequency entered during STORE.

Searching Continued

If you decide to keep all 8, you may resume searching by pressing

SEAHCH

Any other active frequencies found in search can be entered MANUALLY into any of the other 32 RAM channels by following the steps on page 10.

To re-activate STORE, press



If you decide to keep only a few of the 8, refer to page 6 to move these frequencies to one of the channels in banks 100 through 400. Now you can fill bank 500 with 8 new frequencies.

SEARCH INCREMENTS

The standard increment in the search function is .005 MHz for VHF and .0125 MHz for UHF. This can be changed by following these steps:

PRESS:



Note: A table listing possible increments changing the variable X, Y is on page 23.

To verify that you have entered the desired increment, open the squelch and step through the search manually by continually pressing SEARCH. The display will change according to the increments you have selected. If you wish to select another increment, follow the above steps.

Note: Any time you change or call up one of the limits (lower or upper), the search increment will automatically revert back to the standard (.005 MHz for VHF and .0125 MHz for UHF) increment.

Priority

This is a special feature that lets you program your favorite frequency to be sampled once per second and also to have it override calls on other channels. Channel 101 has been set aside for this function. Enter your frequency into channel 101, then:

PRESS:



Note: You can only activate PRIORITY while in the SCAN or MANUAL modes.

The display will indicate priority with a "P" in position 7 of the display. While scanning, or in manual on a channel, the LED above bank 100 and below channel 1 will blink each time channel 101 is sampled. Any audio will also be 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 continue scanning or go back to the other channel. You may de-activate the priority feature at any time by pressing

Note: If you select PRIORITY while the scan delay is activated, position 7 of the display will alternate between a "P" and a "d".

Weather Broadcasts

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 up-dated report is issued. The Weather Service has broadcast facilities in many metropolitan areas of the country.

If you are located within 25 or 30 miles of one of these cities, reception can usually be obtained with the telescopic antenna

supplied with the unit. Your local Regency dealer can advise you about your specific antenna requirement.

Note: When set to automatic scan, the ACT-T-K500 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.

Weather Alert®

With this exclusive Regency feature, you can program your Touch K500 to alert you to a National Weather Service watch or warning. When the NWS broadcasts its tone prior to a watch or warning, the K500 will automatically be activated to broadcast that message. If there is a NWS transmitter in your area, one of the following frequencies will most likely be used:

WX1 = 162.55 MHz WX2 = 162.400 MHz WX3 = 162.475 MHz

To activate Weather Alert®, press



followed by



The LED over



will blink. The display will then ask you to select one of the three weather frequencies by the following prompting message:

DISPLAY:



Select either WX1, WX2, or WX3 by using the CHANNEL BUTTONS:







An "A" will appear continuously in position 7 of the display indicating that the Weather Alert® feature has been selected. The K500 will sample the weather frequency you have selected once per second. This will be indicated by a simultaneous blinking of the LED over the



key and the LED under channel 1, 2 or 3 while it scans. If the National Weather Service activates their tone warning, the K500 will respond—broadcasting the tone and then the message direct from the National Weather Service—interrupting all activity. To de-activate Weather Alert[®], press



Note: Weather Alert® will only be active while in SCAN or MANUAL. When in SEARCH or TIME, the Weather Alert® will not be activated.

While Weather Alert® is activated, and the unit stops on a channel during normal scan, the audio will be briefly interrupted each time the weather frequency is sampled. THIS IS A NORMAL ACTIVITY. The frequency of the channel in the display will also be interrupted to show the frequency of the weather station you have selected.

Note: Weather Alert® overrides PRIORITY. Thus if Priority has been previously activated, it is de-activated whenever the Weather Alert® feature is selected.

If you select Weather Alert® while scan-delay is activated, position 7 of the display will alternate between "A" and "d".

Time

In addition to being a scanning and searching receiver, the Touch K500 is also a clock with quartz crystal accuracy. You can program the K500 to read hours and minutes or minutes and seconds.

To set the TIME (AM):





DISPLAY:



(The "A" in the display indicates AM.)

Note: When the time is displayed, the decimal separating the hours from the minutes will blink. This indicates the clock is running.

To set the TIME (PM):

PRESS:



DISPLAY:



(The "P" in the display indicates PM.)

If you enter an invalid time, the display will tell you:



Now that the time is set, you may use the Touch K500 to SCAN or SEARCH by pressing the appropriate key. Any time you wish to check the time, simply press



The time will appear in the display. If you wish to use the clock as a minute/second timer, press



It now shows the current time in minutes and seconds. YOU CANNOT GO FROM MIN/SEC TO A MODE (SEARCH, etc.) AND DIRECTLY BACK TO MIN/SEC. Once you go from MIN/SEC, you must first press



then 2

to use the clock as a timer.

If you wish to check the time while the unit is stopped on a frequency in the SCAN or SEARCH mode, you may do so by pressing and HOLDING



You must hold down the



key or the frequency will

re-appear in the display. The unit will continue to receive the transmissions while



is held down.

Once the time has been entered, it will automatically appear in the display while the unit is off. The time will disappear when you turn the unit back on again if in the SCAN, MANUAL OR SEARCH mode. To blank the display while the unit is off, press



Whenever you wish to restore time to the display, press



Note: While the unit is turned off, the time cannot be re-set.

Alarm

The Touch K500 includes an extra feature along with its time capabilities. You may program the unit to wake you up to an alarm. (Set time of day before entering alarm time!)

For AM PRESS:



For PM PRESS:



AM DISPLAY:



The position 7 indicates that alarm time is being displayed and not regular time.

Note: When setting the alarm time, noon is PM, midnight is AM.

PRESS: again to activate the alarm.

DISPLAY: 3 .008°

The decimal point in position 7 will blink when alarm is activated.

After activating the ALARM, you may choose any other mode of activity (MANUAL, SCAN or SEARCH) and keep the alarm. The display will continue to indicate the alarm is activated by a blinking decimal in position 7. You may activate or de-activate the ALARM at any time while the unit is turned on or off.

If the unit is turned OFF and the alarm is activated, the decimal will continue to blink and the time of day will appear in the display.



VERIFICATION OF ALARM TIME

- A. While the unit is on and alarm is ACTIVATED.
 - 1. With blank display (such as in scan)

PRESS: 1

Note: While in the scan or search modes, you cannot verify alarm time while the unit has stopped on a frequency.

To resume scanning or searching, press the appropriate key.

You must press to activate the alarm again.

2. With time displayed (both decimal points blinking)

PRESS: ALARM

To restore time of day and re-activate the alarm

PRESS: 3

- B. While the unit is on and alarm is DE-ACTIVATED.
 - 1. With blank display

PRESS: 1

To resume scanning or searching, press the appropriate key.

PRESS: 3 to deactivate the alarm.

2. With time displayed

PRESS: ALARM

To restore time and de-activate the alarm

PRESS: ALARM TIME

- C. While unit is off and alarm is ACTIVATED.
 - 1. With blank display

PRESS:





To re-activate alarm and blank display,

PRESS:







2. With time displayed

PRESS:



To re-activate alarm and restore time,

PRESS:





- D. While unit is off and alarm is DE-ACTIVATED.
 - 1. With blank display

PRESS:





To blank the display and de-activate the alarm,

PRESS:







2. With time displayed

PRESS:



To deactivate the alarm and restore time,

PRESS:

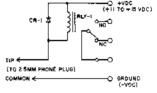




Auxiliary

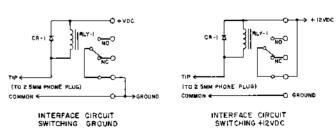
A special auxiliary jack (2.5mm) located on the rear apron of the Touch K500 is available for automatic activation of a tape recorder, remote equipment, etc. See rear panel diagram on page 1. Whenever a transmission is received (squelch opens), this special circuit grounds the center conductor or tip of the mating 2.5mm plug by means of a solid-state switch (transistor). If more than 100 milliamperes must be switched, or if switching ground is not desired, then an external relay will be required. See adjacent diagrams for some typical interface connections.

K500 AUXILIARY INTERFACE



WITH NORMALLY CLOSED (NC) AND NOR-MALLY OPEN (NO) CONNECTIONS AVAIL-ABLE FOR EXTERNAL SWITCHING FANY TYPE C CR-115 A GENERAL PURPOSE RECTIFIER PLODE, IN4002 OR EQUIVALENT.

INTERFACE CIRCUIT GENERAL PURPOSE





Mobile Installation

Note: Mobile reception of a police frequency by UNAUTHO-RIZED personnel is ILLEGAL in some areas. It is the responsibility of the person making the installation to determine 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 ACT-T-K500 will operate from any 12 volt, negative ground electrical system. A DC power cord, Regency Part Number MA-17, will be required. The DC cord should be connected to the battery, not through the ignition switch.

The rechargeable batteries provided with the unit should be installed in the receiver to reduce the possibility of memory loss during engine starting.

If the scanner fails to operate properly after engine starting, turn the radio off and then on to restore proper operation. The electrical system in the vehicle should be checked to determine the cause of the low voltage.

Temporary mobile operation is possible by using a DC power cord with lighter plug attachment, Regency Part Number MA-18. See rear panel diagram on page 1. This cord will permit the unit to be operated while sitting on the seat. The telescope antenna will usually be sufficient for this type of operation.

A coupling harness, Regency Part Number MA-5 is available to allow the AM auto antenna to be used with the ACT-T-K500.

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 148-174 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 (back) panel of the unit.

External Speaker

An external (or remotely mounted) 8 ohm speaker, such as Regency's MA-108, can be used by merely inserting the

mating phone plug into the 3.5mm jack (labeled EXT SPKR) 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.

Record of Serial Number

For your own protection, please write the serial number of your unit at right, and save it for future reference.

Serial No	

Model: ACT-T-K500

Date Purchased

Batteries

The rechargeable batteries included with the unit should be installed to prevent loss of channel frequency memory in the event of a power failure or the power cord is unplugged.

The batteries are not intended for long term memory storage. If the unit is going to be unplugged for an extended period of time (more than 2 or 3 days), we recommend that the batteries be removed. Also it is highly recommended that a dead battery be removed or replaced as soon as possible. A rechargeable nickel-cadmium, size AA battery with a 450 or 500 MAH rating is the proper replacement.

A partial list of available batteries:

Eveready #CH500 Mallory #NC15AA Ray-O-Vac #615 GE #GC1 Regency #4000-3286-300

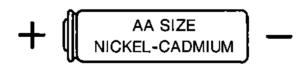
Note: Batteries shipped with the unit are not fully charged. Do not expect maximum stand-by service until they have been installed and unit has been plugged in to a 117 VAC outlet for at least 3 days.

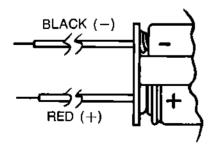
BATTERY INSTALLATION

The access cover on the battery compartment is held with two screws. One of these screws must be removed, the other loosened to remove the cover. See rear panel diagram on page 1.

Insert the batteries into the battery holder located in the battery compartment. Carefully push the battery holder back into the compartment and replace the cover.

Note: The batteries MUST be installed with their terminals properly oriented; see diagram below. Proper polarity must be observed or possible damage to the batteries or to the unit could result.







ACT-T-K500 Specifications

Frequency Ranges:	
VHF (Low Band)	:
VHF (Amateur)144-148 MHz	
VHF (High Band)	
UHF (Amateur)	
UHF (Standard)	
UHF (Extended)	
Weather Frequencies	
WX2, 162.400 MHz	
WX3, 162.475 MHz	
Pre-programmed (ROM) Frequencies	į
Search Frequency Increments:	
VHF Standard5 KHz	
Programmable in 5 KHz Steps	
UHF Standard12.5 KHz	
Programmable in 12.5 KHz Steps0-187.5 KHz	
Sensitivity (12 DB Sinad; at tune-up)	
LO VHF (30-50 MHz)	
HI VHF (144-174 MHz)	
UHF (440-512 MHz)045 μV	
Sensitivity (12 DB Sinad; maximum)	
LO VHF (30-33 MHz)	
LO VHF (33-48 MHz)	
LO VHF (48-50 MHz)	
HI VHF (146-158 MHz)	
HI VHF (158-170 MHz)	
HI VHF (170-174 MHz)	
UHF (440-450 MHz)	
UHF (450-495 MHz)	
UHF (495-512 MHz)	
Selectivity ±7.5 KHz @ 6 DB ±18 KHz @ 50 DB	
Spurious Rejection (except Primary Image)	;
Modulation Acceptance ±7.5 KHz	
I.F. Frequencies	
2nd IF: 455 KHz; ceramic filter	•
Reference Oscillator (Synthesizer)	
Scanning Rate	l

Search Scanning Rate
VHF approx. 16 seconds per megaHertz UHF approx. 6 seconds per megaHertz
Scan Delay
Normal approx. 0.6 seconds With Delay Option approx. 2 seconds
Search Delay
Clock Reference
Clock Display Digital
Alarm Frequencyapprox. 1600 Hz
Alarm Duration
Channel Activity Counter
Automatic Frequency Storage
Weather Alert Tone Decoder
Mobile Telephone Tone Decoder
Audio Output
Speaker (Internal)
Power Requirements
Memory Saver Battery
Battery Charger Automatic, maintains battery charge when unit is connected to AC or DC power
Display (Frequency and Message Readout)
Semiconductors:
Integrated Circuits
Diodes (total) 41 Rectifier 3 Varactor 11 Light Emitting (LED) 16 Signal, Silicon 5 Signal, Germanium 6
FCC Certified
UL Listed
Size
Weight

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. Highway Maintenance..... Hwy. Local Government.... Local Govt. Mobile Telephone Mob. Tel. National Weather Service.....NWS Petroleum Industry Pet. Power Utilities Power Railroad.....RR Special Emergency......Spec. Emerg. Special Industrial Spec. Ind. Weather.....WX

Frequency-MHz

Service or Allocation

Frequency-MHz

Service or Allocation

Frequency—MHz	Service or Allocation	Frequency—NIHZ	Service or Allocation
LOW VHF BAN	D 30-50 MHz	HIGH VHF BAND	144-174 MHz
30.00-30.56			
	Special Industrial	148.150	Civil Air Patrol
30.66-31.24	Pet., ForCons., For. Prod., Bus.	148.200-150.800	Government
31.26-31.98	Spec. Ind., ForCons.	150.815-151.475 Bu	s., Auto Emerg., ForCons., Hwy.
32.00-33.00		151.490-151.595	Special Industrial
33.02-33.16,	Spec. Ind., Hwy., Spec. Emerg., Bus.		Business
	Petroleum	152.000-152.255	Mobile Telephone
32.42-33.98			Business, Taxi
34,00-35.00			Mobile Telephone, Paging
	Business	152.870-153.035Re	mote Broad., Spec. Ind., Mot. Pic.
35.22-35.66	Mobile Telephone, Paging	153.050-153.380	Manu., Pet., For. Prod.
	Special Industrial, Business	153.410-153.710	Power, Pet., For. Prod.
36.00-37.00	Government	153.755-154.115	Fire, Local Government
37.02-37.42	Police, Local Government	154.130-154.445	Fire
37.44	Forest Products	154.450-154.625	Bus., Pet., Spec. Ind.
37.46-37.86	Power		Police, Local Government
	For. Prod., Hwy., Spec. Emerg.	155.160-155.400	Police, Spec. Emergency
	Government	155.415-156.030	Police, Local Government
	Police, Local Government	156,045-156,240	Police, Hwy. Maintenance
40,00-42.00		152,275-157,450	
	Police	157,470-157,500	Auto Emergency
	Special Industrial, Business		Business, Taxi
	Mobile Telephone, Paging	157.755-158.115	Mobile Telephone, Paging
43.70-44,60	Motor Carrier (Buses, Trucks)	158.130-158.460	Manu., Power, Pet., For. Prod.
44.62-45.06,	Police, ForCons.	158.475-158.715,	
45.08-45.66	Police, Local Government	158.730-158.970	Police, Local Government
45.68-46,04	Police, Hwy., Spec. Emerg.	158.985-159.210	Police, Hwy. Maintenance
46.06-46.50	Fire	159.225-159.465	Forestry-Conservation
46.52-46.58	Local Government	159.495-160.200	Motor Carriers (Buses, Trucks)
46.60-47.00	Government	160.215-161.565	Railroad
47.02-47.40	Highway Maintenance		
47.42		161.640-161.760	Marine, Remote Broadcast
47.44-47.68	Spec. Ind., Spec. Emerg.	161.775-162.025	
47.70-48.54		162.026-162.175	Bureau of Reclamation
	Pet., For. Prod., Spec. Ind.	162,400	NWS (WX-2)
49.60-50.00	Government		NWS (WX-3)

HIGH VHF BAND (Continued)	STANDARD UHFBAND 440-470MHz Cont'd
162,550NWS (WX-1)	452.525-452.600 Auto Emergency
163.125 Indian Affairs	452.625-452.950
163.175Bureau of Reclamation	Manu., Tel. Maint., Motor Carrier, R.R.
163.250 Special Emergency	452,975-453,000
163.275 National Weather Service	453.025-454.000
163.385-163.975Military, Government	Manu., Tel. Maint., Local Govt., Police,
164.025-164.075U.S. Coastal & Geodetic Survey	
164.175-165.190 Bur. Reclam., Government	Fire, Hwy., ForCons. 454.025-454.650
166.250 Fire	455.025-454.925 Remote Broadcast
169.300 Federal Aviation Administration	456.025-456.150
169.425-169.525	456.175-456.700 Power, Pet., For. Prod., Manu.,
Spec. Ind., RR	Tel. Maint.
Spec. Ind., RR 170.150	456.725-457.025 Special Industrial
170.200-170.220 U.S. Coastal & Geodetic Survey	457.050-457.500
170.225-170.325 Bus., Power, Pet., For. Prod.,	Manu., Tel. Maint., Motor Carrier, RR, Taxi
Spec. Ind., RR	457.525-457.600
Spec. Ind., RR 170.425-170.475Forestry-Conservation	457.625-457.950
170.575 Forestry-Conservation	Manu., Tel. Maint., Motor Carrier, RR
171.025-171.125	457,975-458.000
	458.025-459.000 Power, Pet., For. Prod., Spec. Ind.,
Spec. Ind., RR 171.475-171.575Forestry-Conservation	Manu., Tel. Maint., Local Govt., Police,
171,825-171.925Bus., Power, Pet., For. Prod.,	Fire, Hwy., ForCons., Spec. Emerg.
Spec. Ind., RR	459.025-459.650
172,225-172.275Forestry-Conservation	460.025-460.625 Power, Pet., For. Prod., Spec. Ind.,
172,375 Forestry-Conservation	Manu., Tel. Maint., Police, Spec. Emerg.
172.775 National Parks	460.650-462.175Business
173.025	462.200-462.450
173.075	462.475-462.525
173.200-173.400Police, Power, Pet., For. Prod., Mot. Pic.,	Tel. Maint. 462.750-462.925
Rel. Press, Spec. Ind., Manu., Bus., L. Govt.	462.750-462.925Business
·	462.950-463.175
CTANDADD LITTE DAND 440 470 MIL-	463.200-465.000
STANDARD UHF BAND 440-470 MHz	465.025-465.625
440.000-450.000	Manu., Tel. Maint., Police 465.650-467.175Business
450,050-450.950 Remote Broadcast	465.650-467.175Business
451.025-451.150	467.200-467.450
451.175-451.750 Power, Pet., For. Prod., Manu., Tel. Maint.	467.475-467.525Power, Pet., For. Prod., Manu.,
451.775-452.025 Special Industrial	Tel. Maint. 467.750-467.925
452.050-452.500	467.950-468.175
Manu., Tel. Maint.	468,200-469,975 Business
Manu, 101. Manu.	

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		.494-500 MHz
Miami		.470-476 MHz
New York		.470-476 MHz
Northeastern		
New Jersey	15 .	.476-482 MHz
Oakland		.488-494 MHz
Philadelphia	19, 20.	.500-506 MHz, 506-512 MHz
Pittsburgh	. 14, 18.	.470-476 MHz, 494-500 MHz
San Francisco		.482-488 MHz
Washington, D.C		.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	
	Business
472.3625-472.4375	
	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	
474.3125-474.4125	Power, Telephone Maintenance
474.4375-474.6375	Special Industrial
474.6625-474.7875	Reserve Pool B
	Business
	Motor Carrier, RR, Auto Emerg.
475.8125-475.9875	Pet., For. Prod., Manu.

Troubleshooting Guide

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

TROUBLE	СНЕСК		
No Channel light, no sound.	On-off switch should be pushed to the right.		
	Power Cord, (AC or DC connection.) See also specifications for power requirements.		
	DC cord. Fuse replaced with 1.5 amp fuse if blown.		
Channel light, no sound. No reception (no stations heard).	Volume Control setting should be at least 1/3 to the right.		
-	Squelch control setting. See page 2.		
Weak or poor reception.	Antenna should be fully extended.		
	Stations too far away, outside antenna may be needed.		
	Incorrect channel frequencies entered.		
Does not scan.	If in manual mode, press scan.		
	Channels locked out. See page 7.		
Search Scan stops on channels without stations.	Birdies: See page 24.		
Blank display, unit turned off.	Time deactivated or subsequent power failure.		

CHANNELS →	1	2	3	4
Police	37.02-37.42; 39.02-39.60 @ .02 MHz increment	39.62-39.98; 42.02-42.64 @ .02	42.66-42.94 @ .02 44.62-46.02 @ .04	154,650-154.950 @ .015 155,010-155.370 @ .06 155,415-155.475 @ .015
Fire	33.42-33.76 @ .02	33.78-33.98; 45.88; 46.06-46.14 @ .02	46.16-46.50 @ .02	153.770-154.130 @ .06 154.145-154-250 @ .015
Weather, Marine, Mobile Phone	162.550 (WX 1)	162.400 (WX 2)	162,475 (WX 3)	156.300; 156.800

Safety Precautions

Increments

If you wish to change the search increment from the standard, follow the steps on page 11 using the table below.

Your Regency K500 is listed with Underwriters Laboratories and complies with their standards for safety. We suggest, though, that you remember these few safety precautions:

- Do not operate the unit if it is wet.
- Never touch an electrical appliance while standing in water or on wet ground.
- Do not attempt to adjust internal circuitry.
- When disconnecting power cord, ALWAYS disconnect the cord from the outlet first.

If you believe there is an electrical problem, do not attempt to fix it yourself. Refer to the warranty statement and return your unit to Regency for repairs.

XY	@ VHF (MHz)	@ UHF (MHz)
05	.005**	.0125**
10	.010	.025*
15	.015*	.0375
20	.020*	.050*
25	.025*	.0625
30	.030*	.075
35	.035	.0875
40	.040	.100*
45	.045	.1125
50	.050*	.125
55	.055	.1375
60	.060	.150
65	.065	.1625
70	.070	.175
75	.075	.1875

^{*}Most useful increments, based upon FCC allocations or general usage within an Amateur band.

5	6	7	8	TOTALS
155.490-155.700 @ .015 155.730-156.210; 158.730-159.210 @ .06	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 @ .025	305
154.265-154.445 @ .015 166.250; 170.150	453.050-453.950 @ .05	458.050-458.950 @ .05	460.525-460.625; 465.525-465.625 @ .025	89
156.300-157.400; 156.275-156.725; 156.875-157.425 @ .05	156.025-156.275; 160.625-160.875; 160.925-160.950; 161.500-162.025 @ .025	35,220- 35,660 @ .04 152,030-152,240; 152,480-152,840 @ .03	454.025-454.650 @ .025	151

^{**}Standard increment.

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 Touch K 500.

Low VHF (30-50 MHz)	High VHF (144-174 MHz)	UHF (440-512 MHz)	
31,490	148.755	451.825	
32.400	150.005	456.000	
33.980	151.255	467.637	
33.990	152.255	468.900	
34.900	152.400	471.512	
36.690	153.130	471.637	
37.585	153.310	483.637	
37.930	156.255	488.812	
38,480	157.505	504.325	
39,380	159.255	511.962	
42.060	161.255		
42.285	161.690		
42.950	163,195		
43.200	164.070		
44.740	166.255		
46.530	168.110		
47.200	168.775		
47.430	173.375		

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 to the left (increase squelch action).

Regency Scanners Limited



- 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 work-manship.
- 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 Street

Indianapolis, Indiana 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.



ELECTRONICS, INC. 7707 Records St. Indianapolis, IN 46226

Part No. 7001-1212-700 5-79 Printed in U.S.A.