Computer Assisted Monitoring

System

ACEPAC-3

ACEPAC3A

Computer Assisted Monitoring System
For use with an IBM-PC compatible and AOR
AR3000 & AR3000A receivers.
Supplied on 3.5inch 720k & 5.25inch 360k formats.
Installation is recommended onto a hard drive, the
3.5inch disk may be run from the floppy drive.
Supplied by AOR UK Ltd,

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1. General

New wideband receiver AR3000 offers amazingly wide
frequency coverage from 100KHz to 2036MHz all the way
through and its receiving modes such as USB, LSB, CW, AM,
FM (wide), FM (narrow) make the frequency spectrum very
attractive to the users from hobbiest to professional
surveillance organization.

An RS232C port is provided to the AR3000, which makes the
receiver more versatile when it is connected to one of
these reasonably priced personal computers available in
the market.

ACEPAC3 is the software package exclusively developed for
AR3000 plus personal computer combination to control;

* Frequency
* Squelch
* Receiving modes
* Frequency steps
* Channel memory management
* RF attenuator

This easy to run Menu Driven type software draws maximum
monitoring capability of AR3000 and add new dimension of
AR3000 by using powerful CPU of personal computers.

* More memory for frequencies
* Report ability for scanning or searching frequency
* Graphical display
* Programming AR3000 through personal computer

2. Before use the ACEPAC3

There are 2 floppy disks in package. We recommend you to
keep one of these disk in safe place as original disk and
use the other for day to day monitoring.

You do not have the right to copy ACEPAC3 rather than
copying it onto your own hard disk drive or alter it or
printed materials. You are legally accountable for any
violation of copyright, trademark, or trade secret laws.

Suppose you have a hard disk as drive C and a floppy disk drive as drive A, install the program onto hard disk as follows.

> o Create the sub-directory by typing as shown below followed by <Enter> key press at the C> prompt.
>
>   MKDIR \AR3000
>
> o Insert the program disk into the drive A
>
> o Copy the files on the program disk to the sub-directory
>   COPY A:*.* \AR3000*.*

Now, you have installed the program onto your hard disk. From now on, to run the program, you type in the following commands:
        CD \AR3000 <Enter>
        ACEPAC3 <Enter>

3. System Configuration

3.1. Hardware

The program ACEPAC3 unfortunately runs only under the following environment:

. IBM PC/XT/AT or 100 compatibles

. MS-DOS 2.1 or higher

. At least 256KB of free memory

. Hercules, CGA, EGA, or VGA display card with an associated monitor

. At least one disk drive

. One RS-232C port

. One straight RS232C cable

ACEPAC3 may work properly on IBM's PS/2.

Of course, you need one AR-3000 properly connected to RS232C port of your computer and turned on.

The recommended configuration is as follows:

. IBM AT or compatible
. MS-DOS 2.1 or higher
. 640KB memory installed
. EGA display card with EGA monitor
. Hard disk
. one parallel port with an EPSON 24pin printer
. one RS-232C port

3.2. Files

To run ACEPAC3, you need the following files (those should be contained on the distributed disk)

. ACEPAC3.EXE   program file
. ACEPAC3.HLP   on-line help file

After you run ACEPAC3, the following files are created under the current directory:

. ACEPAC3.MEM   memo file
. ACEPAC3.SRC   search program file

4. Program Execution

[a] Insert a DOS system disk into a drive A.
    (in case you use a hard disk, you skip to [b])
[b] Turn on the power switch.

[c] If you are asked to enter date and time, do it.

[d] For a floppy disk system, exchange the work
    program disk from the DOS system disk.
    For a hard disk system, change the current disk
    drive by entering CD AR3000

[e] Connect the AR-3000 to the system's RS-232C port
    via straight RS232C cable.

[f] Turn on the AR-3000's power switch.

[g] Now, enter the program name ACEPAC3 followed by
    <Enter> key.

Now, you should see ACEPAC3 running on your system.
Otherwise, you may see the word "SIMULATION" on the bottom
of the screen. In this case, the connection between the
AR-3000 and your system is not connected properly. Repeat
the above instruction from the first. To finish the
program, press F10 key and press <Enter> key.

5. Options

5.1. Description

While you can play with ACEPAC3 and AR-3000 with the
default setting values, you can changes variables by
supplying the options when you run the program.

For example, the default value for the serial port number
is 1, that is, COM1. If you use COM1 already for the other
purpose and you have COM2, you may want to change the
default serial port number to COM2. You can do this by
adding the following option:

/C2

The following is the options supported by ACEPAC3:

/B   (set B/W display)

ACEPAC3 is smart enough to know what kind of display card
is attached on your system, but not clever enough to know
what type of monitor attached. If CGA, EGA, or VGA
display card is detected, ACEPAC3 is assuming you connect
the color monitor to it and display the color image on
the screen. In case you have a lap-top computer, you
mostly have CGA compatible display card and B/W monitor.
Worse, you may not see proper image on the screen. For
this kind of cases, you should use this -B option.

/Wn   (set printer paper width)

The default value 'n' is 80. By knowing the paper width,
ACEPAC3's reports are correctly aligned. If you connect
an EPSON's LQ-1000, for example, and use the 15 inch
width paper, you should use this option. In this case,
'n' should be 132 (-W132). 'n' is the number of columns
to be printed on one line. 'n' must be more than or equal
to 30. Otherwise, this option is simply ignored.

/An   (set printer port number)

The default value of 'n' is 1, that is, LPT1. MS-DOS
supports LPT1, LPT2, and LPT3, so 'n' can be 1, 2, or 3.

Other number is ignored.

/L   (turn off CR+LF code)

Most printers will require CR+LF pair codes to feed line. But some printers will feed line with only CR code. For example, BROTHER typewriter with an interface acts as CR+LF pair code received when either CR or LF code is received.

/F   (turn off FF code)

Most printers supports FF (form feed) code to feed form. However, some printers do not support FF code, for example, BROTHER typewriter with an interface. Use this option for such case.

/Cn   (set serial port number)

The default value of 'n' is 1, that is, COM1. If you need to connect the AR-3000 to COM2, for example, set 2 to 'n' and add it to the program. Some PCs support COM3 and COM4, but ACEPAC3 does not. If you have COM3 or COM4 and need to use either of these serial port, sorry you must connect AR-3000 to either COM1 or COM2.

/Xn   (set delay count)

Some computers are too fast to control the AR-3000. If you missing the some function while using ACEPAC3, you may be using a very fast PC. Please set the value more than 20 to 'n'. For example, -X40. The default value of 'n' is 20.

/Yn   (set delay time in 10ms)

As above, some computers are too fast. So, set a value more than 50 to 'n', which is more than 500ms delay time. The default value of 'n' is 50.

/E   (set HP LaserJet Series II)

ACEPAC3 supports EPSON 24 pin printer or compatible models and HP LaserJet Series II printer. Default value is set for EPSON 24 pin printer or compatible model. If you would like to use HP LaserJet Series II or compatible printer add option switch /E when you boot ACEPAC3. To do so, type ACEPAC3/E.

Then after graphics is displayed, press a F10 key. For GRAPHICS.COM, refer to your DOS manual.

5.2. Example

. ACEPAC3 /C2 /E /W132

> using COM2 and EPSON compatible 15 inch printer with 15 inch paper.

. ACEPAC3 /A2 /C2

> using COM2 and LPT2.

6. Functions

The available functions are displayed on the bottom row of the screen. The most left is a Esc key, and a F1, F2, ..., F10 keys.

For example:

CANCEL HELP MEMO STEP F4   F5   F6   F7   F8   F9   F10

ESC: cancel
F1: help
F2: memo
. . . .

Just after the ACEPAC3 program is run, the program checks the connection to AR-3000. If the connection is not established, the program automatically goes into the simulation mode. In this case, please check the hardware for the proper connection.

6.1. Main Screen

a) Signal Strength Meter

> The signal strength of receiving frequency is to be

displayed. The resolution is from 0 to 15 of strongest signal. The height of this signal bar indicates relative strength of the receiving frequency.

b) Frequency display

Receiving frequency is to be displayed here.
To change the frequency displayed, press F6 = MANUAL and type numeric keys to enter the frequency you like. Cancel the manual mode, press ESC key. You can manually increase or decrease the frequency in the increment currently programmed (refer to the display as Step Size :) by pressing cursor keys.

c) Step Size display

Searching frequency increment currently selected is displayed. To change the increment, press F4 = STEP and enter the appropriate increment you would like by using numeric keys. Cancel the STEP mode, press ESC key.

d) Attenuator display

You can program the attenuator status "ON" or "OFF" on each programmed frequency. If attenuator is turned "ON" on that frequency, "ATT" is displayed here. To toggle On to Off or Off to On, press O.

e) Receiving mode display

The one of these modes such as NFM (Narrow FM), WFM (Wide FM), AM, USB, LSB, CW is to be displayed here. To change the mode, please refer following table.

NFM	Press "N" key
WFM	Press "W" key
AM	Press "A" key
LSB	Press "L" key
USB	Press "U" key
CW	Press "C" key

f) Bank display

The bank number currently selected is displayed. To change the bank number, press F8 = BANK to display all available four banks. And move the cursor by using

Left arrow or Right arrow key to the bank you would
like to select and then type <Enter> key. ESC to
cancel the mode.

6.1.1. On-Line Help   (F1 key)

If you press a F1 key, the on-line help screen appears and
you can read it. To see a next page, press <PgDn> key. To
see a previous page, press <PgUp> key. The following is
the assigned keys for on-line help mode:

<Esc>	cancel and go back to main screen
<PgDn>	display a next page if available
<PgUp>	display a previous page if available
Down arrow	display one next line if available
Up arrow	display one previous line if available

6.1.2. Memo Section   (F2 key)

By pressing a <F2> key, you can enter a memo section. What
you can do is

<F2>	edit memo channel
<F3>	transfer memo data to AR-3000
<F4>	insert a blank line
<F5>	delete a line
<F6>	sort the memo channels
<F7>	set continuous frequencies to memo CHs
<F8>	print memo channel list
<F9>	delete all memo channels
<F10>	save memo channels to a file

Please refer to [6.2 Memo Section in details]

6.1.3. Search Section   (F3 key)

By pressing a <F3> key, you can enter a search section.
After selecting one of search programs, you can do

<F2>	clear search program
<F5>	start count search
<F10>	start regular search

Please refer to [6.3. Search Section in details].

6.1.4. Step Size Change (F4 key)

To change a step size, press <F4> key. You will be asked to enter a new step size. The step size you enter should be between 0.0001MHz to 9999.9999MHz in 0.00005 resolution. Otherwise, you will be beeped and the value you entered will be rejected.

By pressing cursor keys, you can up/down frequency by amount of the step size.

6.1.5. Scan Section   (F5 key)

By pressing a <F5> key, you can enter a scan section. What you can do in the scan section is

<F5>	free scan
<F6>	regular scan
<F7>	count scan

please refer to [6.4. Scan Section in details].

6.1.6. Manual Frequency Change   (F6 key)

When you want to change the frequency, you can choose any frequency by pressing <F6> key and entering a new frequency.

6.1.7. Sweep Section   (F7 key)

You can see a spectrum analysis graph, though you need a graphics capable display board on your system. If you do not have a CGA, EGA, VGA, or compatible display card, you may not be able to see the spectrum analysis graph.
There are two types of display method and three types of scanning way.

. dot display
. line display
. single scanning
. repeat scanning
. cumulative scanning

please refer to [6.7. Sweep Section in Detail].

6.1.8. Change Memo Bank (F8 key)

There are four memo banks supported by an AR-3000. You can change these memo banks freely by pressing <F8> key and selecting the memo bank you want to change. Each memo bank can hold 100 channels, and you can easily utilize these 400 channels by using the Memo Section in this program ACEPAC3, though you cannot scan thought all 400 channels at one time.

Since the memo banks of both ACEPAC3 and AR-3000 are linked, when you change the memo bank on ACEPAC3, you will see AR-3000 change its own memo bank too.

6.1.9. Change Memo File   (F9 key)

As mentioned above, there are 4 memo banks available on AR-3000. However, for some applications, 4 times 100 channels are not enough number to be in memory. By pressing <F9> key from a main screen, you can create new memo file maximum 15 memo files, i.e., 6,000 frequencies storage but the files are limited by DOS.

6.1.10 Exit to DOS   (F10 key)

When you entertained enough with ACEPAC3 and AR-3000, you want to quit the program. You can turn off your system's power, (of course, this is not a good idea, though) or you can press <F10> key to quit the program. ACEPAC3 confirms the key you pressed is correct, so if you really want to quit, simply hit <Enter> key. If you miss-typed <F10> key, do not worry. Hit <Esc> key to re-enter the main screen mode.

6.2 Memo Section

When you press F2 while you are at main screen, Memo Section is to be displayed where you can modify, delete, insert, or overwrite all the information related to programmed channel. Each channel can be programmed a) scanning selection, b) mode selection, c) frequency mode, d) attenuator ON or OFF, and e) short memo for the channel

CH	Channel number
S	Selection of Scan
M	Mode
ATT	Attenuator ON or OFF
Frequency	Frequency
Memo	Short Note for the Channel
HIT #	Received the CH for how many
%	Hit rate of the Channel in %

6.2.1. Online Help   <F1> key

To display Online help menu on Memo Section. If you do not
have ACEPAC3.HLP file at current directory, "Error" is to
be displayed. Hit any key to go back to the main screen of
the Memo Section. To ready entire help screen, use Up
arrow, Down arrow, PgUp or PgDn key. To go back to main
screen of Memo Section, press any key.

6.2.2. Edit   <F2> key

To edit current channel data. Edit screen is going to ask
you if you would like to change the parameters of the Memo
Section in following order. Change the parameters the way
you like and press <Enter> key or just simply to press
<Enter> key at the parameter you would like to maintain.
Edit key. Following keys or key combinations are provided
for easy editing.

CTRL-Y   Delete the Input

HOME	Move the cursor to 1st column
End	Move the cursor to last column
Right arrow ->	Move the cursor to next right column
Left arrow <-	Move the cursor to next left column
BS	Delete next left character and move to next left column
DEL	Delete character at cursor
CR	Complete the input

The numbers and characters can be programmed are:

1. For frequency: 0 - 9 numeric keys and period.
   As the frequency range of AR3000 is from 100KHz
   to 2036MHz, 0.01 to 2036 in 0.005 order are effective.

2. For Memo: Alphanumeric and marks are available.
   ASCII 32 through 127 are effective.

6.2.3. Transfer of ACEPAC3 data to AR3000   <F3> key

To down load the memory channel data of the ACEPAC3 to the
memory bank of AR3000. Set the memory bank of AR3000 to
Bank Number 1 and then press the F3. Window is to be
displayed asking you if you would like to set the data to
AR3000. If yes, confirm by pressing <Enter> key. If not,
select "NO" by pressing one of Up or Down arrow key and
confirm "NO" by pressing <Enter> key. As long as AR3000
is selected to Bank 1 before transferring the data from
PC to AR3000, the program is going to allocate the data
to appropriate memory bank of AR3000 automatically. It
takes 200mS/channel to down load.

If you would like to down load Bank 4 data of ACEPAC3 to
Bank 4 of AR3000, select the bank number 1 at AR3000
before execute this <F3> function. And select the bank 4
of ACEPAC3 and down load the data as the way above
described, ACEPAC3 is then going to write the data
automatically select Bank 4 of AR3000 and over write.

6.2.4. Insert of blank channel <F4> key

To insert the blank channel data. You can insert the blank
channel data to the row at current cursor and move
relative row down by one. Therefore, if there is channel
data on channel number 100, that data is to be eliminated
and the data of channel 99 become channel 100.

6.2.5 Delete channel <F5> key

To delete channel data. You can delete channel data at
current cursor and move relative row up by one.
Therefore, if there is channel data on channel number
100, that data is to be moved up to channel 99.

6.2.6. Sort the channel <F6> Key

To sort the channel data information by using Frequency or
the contents of the memo as the sorting key to have
certain order. By pressing F6 key, the screen prompts
which sorting key you would like to use. If you would like
to sort the table by frequency order, press <Enter> key.
If you would like to sort the table by name of the memo in
alphabetical order, press one of arrow keys and press
<Enter> key. The screen again prompts you to select if
Ascending order or descending order, use Up or Down arrow
key to select one and confirm by pressing <Enter> key.

To cancel the sorting, press ESC while the prompts asking
you Sort type or the order.

6.2.7. Bulk memory <F7> key

To program the frequencies into numbers of channels in
certain frequency increments. By pressing F7 key, screen
prompts you to enter the information in following order.

                *Enter the Frequency
                *Enter the Step Size
                *Frequency mode selection
                *Attenuator Selection
                *Enter the channel number to start with
                *Enter the description

For example

        440.0   - The frequency to start with
         25.0   - 25KHz increment
         NFM   - Narrow FM
         OFF   - Attenuator OFF
         10   - From CH 10 to CH 100
         Police   - Memo for the channels

6.2.8 Printing of memory table <F8> key

To print out the memory table. When you press F8 key,
the screen prompts if you would like to print the data for
all 100 channels or to print only the data stored. If you
print the data for all 100 channels and there are blank
data, dots are to be appeared on blank channels.

The screen prompts input of the parameter you would like
in following order.

1. Select Printer port   LPT1, LPT2, LPT3,
   Select one by using up or down arrow key.

2. Then the screen prompts you to check if
   the printer is connected and the printer
   line is ON. Check it again.

3. The screen then prompts "Print all memo
   channel". Select Yes to print the data
   for all 100 channels or No to print the data
   for stored only.

6.2.9 Clear all the stored information <F9>

When F9 key is depressed, the screen prompts if you are
sure to clear all the data. Press <Enter> key to delete
all the information stored.

6.2.10. Save all the stored information <F10>

If you quit the program without saving the data, the data
you added or modified are going to be disappeared. Make
sure to save the data before you quitting the program by
pressing F10 key.

6.3 Search Section <F3> key

ACEPAC3 offers 10 different search pair limits. You must
program these pair limits for 1st time but those limits
are to be saved for next use.

By pressing F3 key, the screen prompts you to select one
of those 10 search pair limits. Select one by using Up or
Down arrow key followed by <Enter> key. The program now
prompts you to enter following searching information one
by one. Input these parameters and last of all change the
program name the one you would like to use in the feature.

Example

Starting Frequency:	880.0000MHz
Ending Frequency:	890.0000MHz
Step Size:	25.00KHz
Program Name:	My favorite

6.3.1. Online Help <F1> key

To read online help screen, press F1. Cursor keys, PgUp or PgDn keys can be used for reading over entire Help screen.

6.3.2. Clear <F2> key

The search program will simply be cleared and you will go back to the main screen.

6.3.3. Count Frequency Activity <F5> key

ACEPAC3 offers powerful report capability in this searching section. It counts the frequencies received, accumulates such information, calculate the ratio in percentage to report these information in printing.

After having enough time to search all 1000 frequencies, press <Esc> key to start printing the report. You will be asked if you want the report. While printing the report, you can abort it by simply pressing the <Esc> key.

6.3.4. Search Frequency <F10> Key

By pressing F10 key, the program moves into the search mode. The number of frequencies you specified does not exceed the available memory, then you will be able to set the pass frequency. When you select "YES" on the pass frequency by using cursor keys, that particular frequency locked out from the searching schedule until you alter to "NO".

Searching works the following way: If the current frequency has the signal, the search is temporarily stopped. After the delay time passed when the signal is no longer detected, the search will be resumed. While the search is stopped, you can register the frequency press <CR> key, the search will be also resumed. You will be asked how long you want to delay the search as soon as you press the F10 key when you go into Search mode. Type the delay time you would like followed by <Enter> key. And

then you will be asked if you would like to set "PASS" on certain frequency. See Fig. ___ To toggle NO to YES, press F5 key, F7 to next frequency, F8 to go back to previous Frequency. To run the searching, press F10

To quite searching, simply press the <ESC> key.

During the search, you can change the frequency mode and the attenuator. By pressing the following key, you can change:

```
N .... NFM
W .... WFM
A .... AM
L .... LSB
U .... USB
C .... CW
O .... Attenuator on/off
```

The search direction can be altered by the cursor keys. up arrow key or right arrow key can be used for forward searching and down arrow key or left arrow key for backward searching.

If you like to store the frequency you find during the search mode, simply press F10 to be asked channel number and memo to that channel. Input these information followed by <Enter> key. If you do not want to store that frequency into your scan schedule, press <ESC> key to go back to previous screen.

6.4 Step Size selection <F4> key

Press F4 to go to Step Size selection menu. And then type the increment you would like to use followed by <Enter> key. When <ESC> key is depressed, you go back to main screen.

You can only enter numeric characters and period, i.e., 0.05 through 9999.95 in minimum of 0.05 order according to the specification of AR3000 increment schedule. Other inputs are to be warned by beep tone. Therefore you can not enter for example following numbers.

25.02 or 100.23

6.5 Scan section <F5> key

ACEPAC3 offers 3 different scanning functions such as

Free Scan, regular scan, and count scan using frequency memory table discussed at section 6.2. Basic principal of scanning is to scan the frequencies on the table which were selected as scanning "ON". To abort this scan section, press <ESC> going back to main screen.

6.5.1. Free Scan <F5> key

When F5 key is depressed, the screen prompts you to enter the time interval how long you would like to stay at the frequencies selected when the AR3000 receives signal coming onto one of these frequencies. And press <Enter> key to start the free scan. ACEPAC3 start scanning the frequencies stored to detect incoming signal on one of these frequencies.

When ACEPAC3 plus AR3000 detects the signal, the squelch of AR3000 opens which stops scanning to deliver the audio carried by the frequency. ACEPAC3 is going to stay that frequency for the specified interval you have entered. And after receiving the signal for selected interval, it resumes the scanning automatically. If you would like to resume scanning within the selected interval, press <Enter> key. Pressing the <ESC> key brings you back to main screen.

6.5.2. Regular Scan <F6> key

When F6 key is depressed, ACEPAC3 starts scanning and stop scanning when AR3000 detects incoming signal. In this regular scan mode, ACEPAC3 is going to stay onto that frequency as long as the incoming signal is existing. And as soon as the signal disappears, it resumes scanning. To resume scanning while the signal is existing, press <Enter> key. Pressing <ESC> key brings you back to main screen.

6.5.3. Count Scan <F7> key

ACEPAC3 offers powerful report capability in this scan section. It counts the frequencies received, accumulates such information, calculate the ratio in percentage to report these information in printing. See Fig. ___.

When you press F7 key, ACEPAC3 automatically starts

scanning all the frequencies on the scanning table.
After scanning enough time to make the report, press <Esc>
key to start printing the report. You will be asked if you
want the report in following manner. Press <Esc> key to go
back to the main screen.

Print Report	Select Yes or No
Printer port Selection	Select LPT1, 2 or 3
Set the printer	Check if your printer is on and printer line is on according to the port you selected as above.

6.6 Manual section <F6> key

When you press F6 key, the screen goes into manual mode to
enter the frequency you would like. Enter the frequency
followed by <Enter> key. To abort manual mode, simply
press <ESC> key. 0.10 through 20360 can be entered in
0.00005 order. For example, 102.02320 can be accepted but
23.23302 can not be accepted.

6.7. Sweep section <F7> key

ACEPAC3 offers graphic display for the air traffic
activity during this sweep section. When you press F7 key
while you are in the main screen, the screen prompts to
enter the parameters of sweep mode in following order.

* Step size
  Enter the increment you would like to use by using
  numeric key. Please refer to search section about
  the principal of increment programming.

* Frequency mode
  Select the frequency mode you would like to use by
  using cursor keys Up arrow or Down arrow followed by
  <Enter> key to confirm your selection.

* Lower Frequency
  Enter the lower limit frequency from where you would
  like to start sweeping the frequencies.

* Upper frequency
  Enter the upper limit frequency to where you would
  like to keep sweeping the frequencies.

* Sweep mode
  There are 3 different sweep modes are available.
  Select one of the following by using cursor keys
  followed by <Enter> key to confirm your selection.

    Single: To sweep the limit one time and pause
    to wait for next key entry. F1 key to display
    online help screen.

    If you boot ACEPAC3 with having /E switch,
    you are ready to print the graph using
    HP LaserJet II. Without having /E switch option,
    you can use EPSON 24 pin dot printer or compatible.
    Check if the printer line is on and press F10 to
    print.

    After the printing, ACEPAC3 again waits for
    next key entry. <ESC> key to go back to the main
    screen. <F10> key to print again. Other keys
    to clear the graph and start sweeping again.
    When <ESC> key is depressed during the sweeping,
    the sweeping mode is terminated and going back
    to the main screen.

    Repeat: To sweep the limit one time and clear
    the graph and start sweeping again. If you would
    like to freeze the graph, press the <Enter> key
    during the sweeping. After completing entire
    graph, it pauses and wait for other key entry
    with the same way as single sweeping.

    Cumulation: To keep sweeping one after another
    and overwrite the graphic.

* Graph line selection
  There are two different graph lines such as
  1) bar or 2) dot are available. Select one by
  using cursor keys and confirm your selection by
  pressing <Enter> key.

6.8 Bank Section

To select one out of four banks by using cursor keys
followed by <Enter> key. <ESC> key to abort the bank
selection. When the bank of ACEPAC3 is changed, it changes
the bank selection of AR3000 accordingly.

6.9 Change Memory File Size.

ACEPAC3 offers more storage of frequencies. One memory file have 400 channnels divided into 4 different banks 100 channels each bank. ACEPAC3 can make more than one memory file to increase the memory storage capacity but according to your disk space. Making one more memory file under new file name, ACEPAC3 can store 800 channels altogether.

By pressing F9, the window for the file name entry is to be displayed and by pressing F10, it prompts you to enter new file name. ACEPAC3 makes the file automatically with the extension of *.MEM. To change the file currently use to new one, press F9 from main screen to look up the file names available to use, select the file name by using up or down cursor keys followed by <Enter> key

CAUTION: If you enter the existing file name, ACEPAC3 reads the file name and converts into the memory file format. If the existing file is not for the memory file, the contents of the file are overwritten and the original information is erased. Be careful enough to enter the file name. You need to use unique file name for the memory files and not to use existing binary files, text files and others.

This document contains important information that's not available at the time for printing manual of the ACEPAC3 software package.

The ACEPAC3 is in two different size of media for your convenience.

We include 5' 1/4" 360KB formatted size disk and 3' 1/2" 720KB formatted size disk

To install ACEPAC3 to your fixed disk drive(for example c: drive is fixed disk drive), please proceed following.

1. Insert one of the above mentioned floppy disk to your appropriate floppy disk drive and close.

2. type at DOS prompt HDCOPY c:

We add new graphic function to this latest version 2.11 of ACEPAC3 in addition to the original graphic for the signal strength.

This new version of graphic displays Frequencies in X axis and squelch opening percentage on each frequency in the programmed frequency search range in Y axis which indicates obviously "how active these frequencies are in the programmed search range. In addition to the graphic, ACEPAC3 can produce a list as a detailed numerical information of the graphic.

Well organized menu driven guidance is fairly easy to understand how to use this new feature but please read following to avoid any of misunderstandings.

1. Press F7 and ACEPAC3 prompts you 2 choices.

   Spectrum display or Count Display. Please refer user's manual for spectrum display.

2. Highlight Count Display by using Up or Down arrow key and press return key to select Count Display mode.

3. ACEPAC3 prompts you to enter then the increment size you would like for searching the range. Enter the number you would like and press return key to confirm the entry.

4. ACEPAC3 then prompts you to enter the receiving mode you would like for searching the range. Highlight the mode you would like on the list and select by pressing the return key.

5. ACEPAC3 prompts you to enter lower limit frequency from where you would like to start searching.
   Enter the frequency you would like and enter it by pressing the return key.

5. ACEPAC3 then prompts you to enter upper limit frequency to where you would like to keep searching. Enter the frequency you would like and enter it by pressing the return key.

6. As soon as you pressing the return key, ACEPAC3 start drawing the graphic for the programmed search range as the searching progresses.

7. Press F1 for on-line help information or F10 to print the graphic.

8. When you press the F10 key, ACEPAC3 offers you 3 different printing choices.

   * Print only graphic

   * Print only numerical report for the graphic

   * Print both the graphic and the report

   Highlight the one of these by using up or down arrow key and confirm the selection by pressing return key to start printing.

9. You can go back to graphic mode by pressing Esc key and one press of Esc bring you back to the main screen of the ACEPAC3.

10. To delete the ACEPAC3 from your sub-directory of your fixed disk, use UNINST.EXE after moving into the ACEPAC3 sub-directory which clear up the sub-directory and you are going to be able to remove that sub-directory.