

UA-767P-13

Monitor Pro

INSTRUCTION MANUAL

Digital Blood Pressure Monitor
Data Analysis Software



A&D Company, Limited



This is a hazard alert mark.



This mark informs you about the operation of the product.

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1. Compliance

Compliance with European Directive 93/42 EEC for Medical Product

The device conforms to European Directive 93/42 EEC for Medical Products. This is evidenced by the CE mark of conformity accompanied by the reference number of a designated authority.



2. Introduction



2.1. About the Data Analysis Software

Welcome to the blood pressure monitor data analysis software (hereafter referred to as "program"). This software is intended for use with the following monitors and processors.

- The UA-767PC Blood Pressure Monitor (hereafter referred to as "monitor").

The data analysis software is a powerful tool for analyzing blood pressure data. The following features are incorporated in this program:

- **Statistical Analysis** Statistical data may be viewed in full, night, and day periods by switching between clearly labeled tabs.
- **Graphical Data** Systolic/diastolic blood pressure, mean arterial blood pressure, and pulse data are displayed graphically to quickly determine patterns or trends in the data.
- **Data Conversion** Data Convert feature automatically stores blood pressure and pulse data in standard (CSV) file format for use with popular spreadsheet programs.
- **Printed Reports** Custom data reports formats are easily defined and printed. "Mini-report" feature automatically prints a compact summary report.
- **On-line Help** Built-in Help feature provides context-sensitive help at any time.



2.2. Symbols

The symbols printed on the device have the following meaning:



CE marking

SN

Serial number



2.3. Software Package Components

The following items are included in your software package:

- UA-767P-13 program disk
- Blood pressure monitor data analysis software instruction manual
- AX-KO1502 (9 pin D-SUB, socket type) and communication cable For UA-767PC



2.4. System Requirements

- Computer A 486DX or higher microprocessor
- RAM Memory Minimum 8 MB
- Operating System Windows95®, Windows98®, or WindowsNT 4.0®
- Graphic Adapter SVGA video card (minimum of 256 colors)
- Disk Type 3.5-inch floppy disk drive
- Hard Disk At least 1.5MB
- Serial Ports Minimum one (9 pin D-SUB or 25 pin D-SUB)
(A cable separately available is required for the 25 pin D-SUB serial port)
- Printer Type Printers supported by MS Windows™ operating system



2.5. Software Protection

The original disk contains software protection that allows the program to be installed on a hard disk up to five times.

If you encounter a problem installing the program on your system or you believe that your software has been damaged, contact your A&D office. Be sure to have the program's serial number ready, located on the program disk when you call.



2.6. Installing the Program

The program must be run from a hard disk drive only. It may not be run from a floppy disk. To install the program on your hard disk drive, complete the following instructions:

Step 1 Insert the program disk in drive A:.

Step 2 Click the Start button on the Windows taskbar and select Run.

Step 3 Type "a:setup"

Step 4 Click OK.

Step 5 Follow the instructions on the screen.



3. Operating Procedure



3.1. Getting Started

Two initial actions may be executed when starting up the program:

- Data may be retrieved from the monitor.
- Stored data files may be opened and viewed for analysis.

To retrieve data from the monitor, see:

"3.2 Communication Between the Monitor and the Program"

To view stored files, see:

"3.4.1 Open"

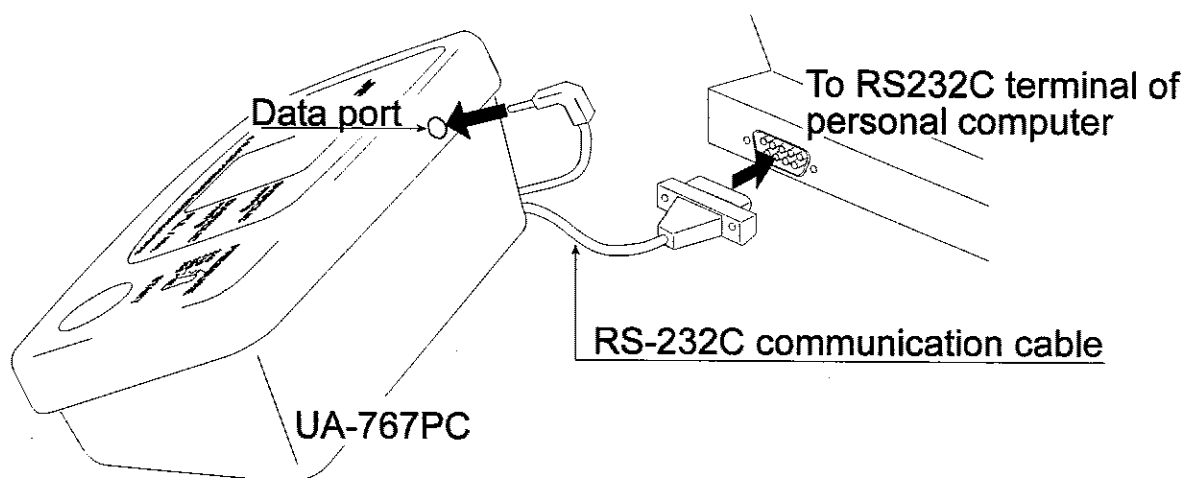


3.2. Communication Between the Monitor and the Program

To communicate between the monitor and the program, the connection between the monitor and the computer must be established first.

3.2.1. Connecting the UA-767PC to the computer

- You must use the A&D-supplied RS-232C communication cable, otherwise communication errors will occur.
- You must use AX-KO1502 cable for 9 pin serial port (supplied) or AX-KO1503 cable for 25 pin serial port (available separately as an option).



Caution: The connected computer is not allowed to be in the patient area.

- Step 1 Connect the male end of the A&D-supplied RS-232C communication cable to the monitor.
- Step 2 Connect the female end of the A&D-supplied RS-232C communication cable to the computer.
- Step 3 Run the program.
- Step 4 Confirm that the correct serial port is set. For details. Refer to "3.8.7 Serial Port".

The system is now ready to:

- Retrieve data from the monitor. Refer to "3.6 Recorder Menu".
- Clear the monitor's memory. Refer to "3.6.2 Clearing the Monitor's Memory".
- Program the monitor's intervals and conditions. Refer to "3.6.3 Programming the Monitor's Intervals and Conditions".



3.3. Main Screen Description

The main screen is comprised of six menus located permanently along the top of the screen. These menus may be used to access the various features of the program.

Main Menu

Menu	Reference	Description
File	"3.4 File Menu"	The file menu may be used to manage the files stored on the hard drive or a disk and to exit the program.
View	"3.5 View Menu"	The view menu may be used to access the statistical, tabular, and graphical analysis screens.
Recorder	"3.6 Recorder Menu"	The recorder menu may be used to program the monitor, clear measurement data in the monitor's memory and to retrieve the measurement data in the monitor.
Report	"3.7 Report Menu"	The report menu may be used to specify report formats and print reports.
Option	"3.8 Options Menu"	The option menu may be used to set the default settings and user-defined parameters.
Help	"3.9 On-line Help"	The help menu may be used to view information on program usage. Help may also be accessed by pressing f1 when various screens are opened or by selecting the help button on a screen.



3.4. File Menu

The file menu is used to manage the files stored on a hard drive or floppy disk. It may also be used to exit the program. The file menu has the following sub-menus:

Menu	Description
Open	This function is used to select a data file for viewing, modifying or printing a report. After a file has been opened, the file name, patient name and date of the monitoring session are displayed in the title bar of the main screen
Save as	This function is be used to copy a selected file to a new file with a different name.
Delete	This function is used to delete a selected file.
Convert	This function is used to convert the blood pressure measurement data of a data file to a format which can be read by most spreadsheet applications. The converted file will have the same name as the data file with a ".csv" file extension.
Print	This function is used to print reports for one or more data files according to a user-selectable report format.
Exit	This selection may be used to exit the program.

3.4.1. Open

The file | open function is used to access the blood pressure data within existing data files.

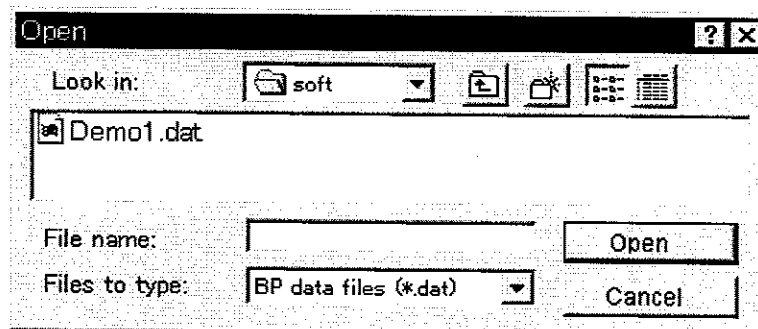
To open a file, complete the following steps:

Step 1 Select the file menu.

Step 2 Select the open sub-menu.

Step 3 Select a file from the directory shown or move to a different directory.

Step 4 Click the open button.



Note: The file | save as, view and report menus and analysis intervals buttons are disabled until a data file is opened.

3.4.2. Save as

The file | save as function is used to copy an open data file to another data file with a different name or to a different directory with any name.

When a file is copied, corresponding ".dat" and ".p" files are created. These two files must stay together within the same directory. The save as function creates new ".dat" and ".p" file with the new file name in the selected directory. When entering a new file name in the save as dialog box, it is not necessary to type the file extension. The original file will not be altered when using the save as function.

3.4.3. Delete

The file | delete function is used to delete a data file.

Caution: Data files will be permanently removed when deleted.

3.4.4. Convert

The file | convert function is used to create a ".csv" (comma delimited) format file from a ".dat" file that is compatible with most spreadsheet applications, including the EXCEL. The ".csv" file that is created includes date, time, SYS, DIA, PUL, ERR headings so that the data can be identified correctly when opened in a spreadsheet. The original file will not be modified in any way. The data is being converted and will be saved to the same name and directory as the original data file, but with a ".csv" extension.

3.4.5. Print

The file | print function is used to print reports for one or more data files according to a user-selected format. This enables the user to generate multiple reports without having to open each file separately and selecting a report.

To print a report for multiple data files, complete the following steps:

Step 1 Click the file menu, then print.

Step 2 In the print dialog box, select the files that you want to print a report for by holding the shift or ctrl key down while clicking the desired files.

Step 3 Click menu "Open".

Step 4 Set the parameters on the printer dialog window.

Step 5 Press the OK key to printer it.

3.4.6. Exit

The file | exit selection may be used to exit the program.

3.4.7. Saving A File

Files are automatically saved when the data is retrieved from the monitor. Refer to "3.6.1 Retrieving data from the monitor". Any modifications made to the data file are saved immediately when the save button is selected to close a function.

3.4.8. Closing A Data File

There is no file close feature in this program.
A file may be closed in two ways:

- By opening another file. The current file will automatically be closed when you open another file.
- By exiting the program.



3.5. View Menu

The view menu may be used to view numerical, statistical and graphical data screens. The view menu is disabled unless a file is opened. For information on how to open a file, see "3.4.1 open".

The view menu has the following six sub menus:

Menu	Reference	Description
Summary data	3.5.1 summary data	Function for viewing statistical data.
BP data list	3.5.2 BP data list	Function for viewing numerical data and entering comments.
Trends	3.5.6 Trends screen	Function for viewing blood pressure, mean arterial blood pressure, pulse (heart rate) and double product trends.
Correlation	3.5.9 Correlation plots	Function for viewing correlation plots of systolic blood pressure to diastolic blood pressure and diastolic blood pressure to pulse.
Histograms	3.5.10 Histograms	Function for viewing the frequency distribution of the measurement data.
Patient information	3.5.11 Patient information	Function for entering patient and physician information, as well as fields for the night and day periods.

3.5.1. Summary data

The summary data screen includes statistics on the data of the opened file and may be viewed directly on the screen. These statistics are separated into three data tabs:

Full Statistics based on all the data within the file.

Day Statistics based on the data during the waking hours.

Note: Waking hours are specified as those hours outside the identified sleeping hours.

Night Statistics based on the data during specified sleeping hours. Refer to "3.5.11 Patient information".

To view, close, or print the individual summary data screen, complete the following steps:

Step 1 Click the view menu.

Step 2 Click summary data. The summary data display appears.

Step 3 Click one of the four data tabs, full, day or night. The full tab will always be enabled. The night and day tabs will be enabled after they are specified. Refer to "3.5.11 patient information" to specify the night period.

Step 4 To print an individual summary data tab, select the tab you want to print and select the print button on the right hand side of the screen.

Note: you may also print the summary data screens in the standard report. Refer to "3.7 report menu".

Step 5 Close the data summary screen when finished.

Summary Data [X]

Full | Day | Night

FULL SUMMARY Demo1: (Oscillometric only)

Time interval: 699 hours, 07:00 98/11/01 --> 10:00 98/11/30

Valid readings = 40 Excluded readings = 0 (0.0%)

	MIN	MEAN	MAX	SD	SE	CV%
SYSTOLIC (mmHg)	92	112	149	12.13	1.92	10.86
DIATOLIC (mmHg)	56	79	140	15.83	2.50	20.12
MAP (mmHg)	68	89	143	14.30	2.26	16.00
PULSE (BPM)	59	82	185	19.73	3.12	23.95

SYS/DIA limits: Day: 140/ 90 mmHg
Night: 120/ 70 mmHg

Readings > SYS limit(s): 5.0% Readings > DIA limit(s): 20.0%

Highest Systolic value: 149 mmHg at 07:54 98/11/23
Highest Diasolic value: 140 mmHg at 07:54 98/11/23
Lowest Systolic value: 92 mmHg at 07:12 98/11/18
Lowest Diastolic value: 56 mmHg at 08:04 98/11/12

Print

Close

Each of the three summary data tabs is titled with the name of the tab, file and patient and measurement method. For detailed information on summary data screen listings, see below:

Summary data tab	Definition
Time interval	The analysis period, start time/date – end time/date, for the activated summary data tab.
Valid readings	The total numbers of measurements taken during the monitoring session less any monitoring errors or manually excluded readings within the data set. Refer to "4.1 Measurement Errors" for information on measurement errors.
Excluded readings	The measurement error percentage. This figure is based on the combined total of measurement errors and excluded measurements.
Min (Minimum)	The minimum measurement value for systolic, diastolic, MAP and pulse measurements during the time interval.
MAP (Mean arterial blood pressure)	The mean arterial blood pressures values of the measurements for systolic, diastolic and pulse measurements during the time interval.
Max (Maximum)	The maximum measurement value for systolic, diastolic, MAP and pulse measurements during the time interval.
SD (Standard deviation)	The standard deviation of the measurement value for systolic, diastolic, MAP and pulse measurements during the time interval.
SE (Standard error)	The standard error of the measurement value for systolic, diastolic, MAP and pulse measurements during the time interval.
CV(%) (Coefficient of variation)	The coefficient of variation for systolic, diastolic, MAP and pulse readings during the time interval.
SYS values	The percentage of the systolic measurement values greater than the specified systolic limit. Refer to "3.8.6 BP (Blood Pressure) Settings " for information on specifying the systolic blood pressure limit.
DIA values	The percentage of the diastolic measurement values greater than the specified diastolic limit. Refer to "3.8.6 BP (Blood Pressure) Setting" for information on specifying the diastolic blood pressure limit.
Highest systolic value	The time and date of the highest systolic value during the time interval.
Highest diastolic value	The time and date of the highest diastolic value during the time interval.
Lowest systolic value	The time and date of the lowest systolic value during the time interval.
Lowest diastolic value	The time and date of the lowest diastolic value during the time interval.

3.5.2. BP Data List

The BP data list function displays individual blood pressure measurement within an open data file in tabular form. With the BP data list, you may input measurement comments, exclude/include a measurement within the graphics and statistics or link a measurement to the beginning of the trend screen.

The following table defines each heading within the blood pressure data list:

Item	Description
NO.	Measurement number
DATE/TIME	Date and time of the measurement
SYS	Systolic blood pressure
DIA	Diastolic blood pressure
MAP	Mean arterial blood pressure
PUL	Pulse
DP	Double Product, equals $\frac{SYS * PUL}{100}$
STATUS	The status line has 4 positions. When filled with a character other than “-”, each denotes a specific occurrence or condition.
<u>Position 1</u> BP method, O or K	Denotes the BP method used for the specific measurement. “K” refers to korotkoff method, “O” refers to oscillometric method.
<u>Position 2</u> E (Event)	Indicates that data was measured when the monitor’s EVENT button was activated.
<u>Position 3</u> Error code	Denotes the specific error code that occurred during the monitoring session, Refer to “4.1 Measurement Errors”.
<u>Position 4</u> X-Exclude	When this position 4 has an “X”, the measurement has been excluded from the statistics and graphs.
Comment	Space provided for user to enter patient diagnostic notations up to 20 characters.
Vertical scroll bar	The vertical scroll bar on the right hand side of the screen helps scroll through the measurements. This may also be performed with the up and down arrow keys, as well as the mouse.
Save button	Saves any edits, i.e. comments, exclusions or inclusions.
Close button	Closes the screen. Note: Edits (comments, exclusions or inclusions) will not be saved.
Help button	Opens the Blood Pressure Data List help screen.

BP Data List										
#	DATE	TIME	SYS	DIA	MAP	PUL	DP	STATUS	EXCLUDE	COMMENTS
1	98/11/01	07:32	132	95	107	79	104	0 --	-	
2	98/11/01	21:02	120	92	101	80	96	0 --	-	
3	98/11/02	07:07	124	95	104	80	99	0 --	-	
4	98/11/02	22:09	115	86	95	79	90	0 --	-	
5	98/11/03	06:59	112	86	94	80	89	0 --	-	
6	98/11/03	22:16	113	88	96	80	90	0 --	-	
7	98/11/04	08:00	116	87	96	79	91	0 --	-	
8	98/11/04	23:01	136	104	114	79	107	0 --	-	
9	98/11/05	07:23	143	106	118	79	112	0 --	-	
10	98/11/05	21:56	122	82	95	79	96	0 --	-	
11	98/11/06	07:13	110	72	84	79	86	0 --	-	
12	98/11/06	20:00	109	72	84	79	86	0 --	-	
13	98/11/07	07:05	109	72	84	79	86	0 --	-	
14	98/11/07	21:39	111	72	85	79	87	0 --	-	

Save Close Help

3.5.3. Excluding/Including BP Measurements

It is useful to exclude a measurement from the blood pressure data list in cases where the measurement is clearly incorrect. The program provides a simple way to include or exclude measurements while viewing a list. When a measurement is excluded from the blood pressure data list, it will not be included in any of the program's statistical or graphical analysis functions.

A measurement can be included or excluded by clicking on the measurement in the column labeled exclude. An "X" in the exclude column indicates that the measurement is excluded. A "-" indicates that the measurement is included.

In some cases the program automatically excludes measurements if an error occurred during the reading. Measurements that have been automatically excluded are displayed with an "X" in the exclude column and cannot be included by the user.

Note: Measurements that have been excluded are not deleted from the data file.

3.5.4. Entering Comments

Comments, such as information taken from the patient activity diary, may be entered into the data file. To enter a comment, complete the steps below:

Step 1 Click the measurement in the column labeled comments.

Step 2 Type your comment – maximum 27 characters.

Note: you may write over any of the automatic measurement error comments.

Step 3 Press the enter key or click a different measurement to store the comment.

Step 4 To save the comments, click the save button before closing the blood pressure data list screen.

Step 5 Click the close button if you do not want to save the comments.

3.5.5. Linking to Trends Screen

A measurement may be linked to the trend graph by highlighting an individual measurement and then closing the blood pressure data list. When opened, the trend screen will be aligned with the time of the highlighted measurement in the blood pressure data list. This feature may be used to pinpoint the position of an individual measurement on the trend graph.

3.5.6. Trend Screen

The trend function is used to visualize trends in a patient's blood pressure, pulse, MAP and DP calculation over time. The trend screen is a useful diagnostic tool to determine nocturnal dips and related peaks and troughs in the patient's circadian rhythm.

The trends function provides graphic representation of the data file. The trends function is dependent on the following parameters:

- Night period
- Blood pressure limits

The following four trends can be displayed in the trend function:

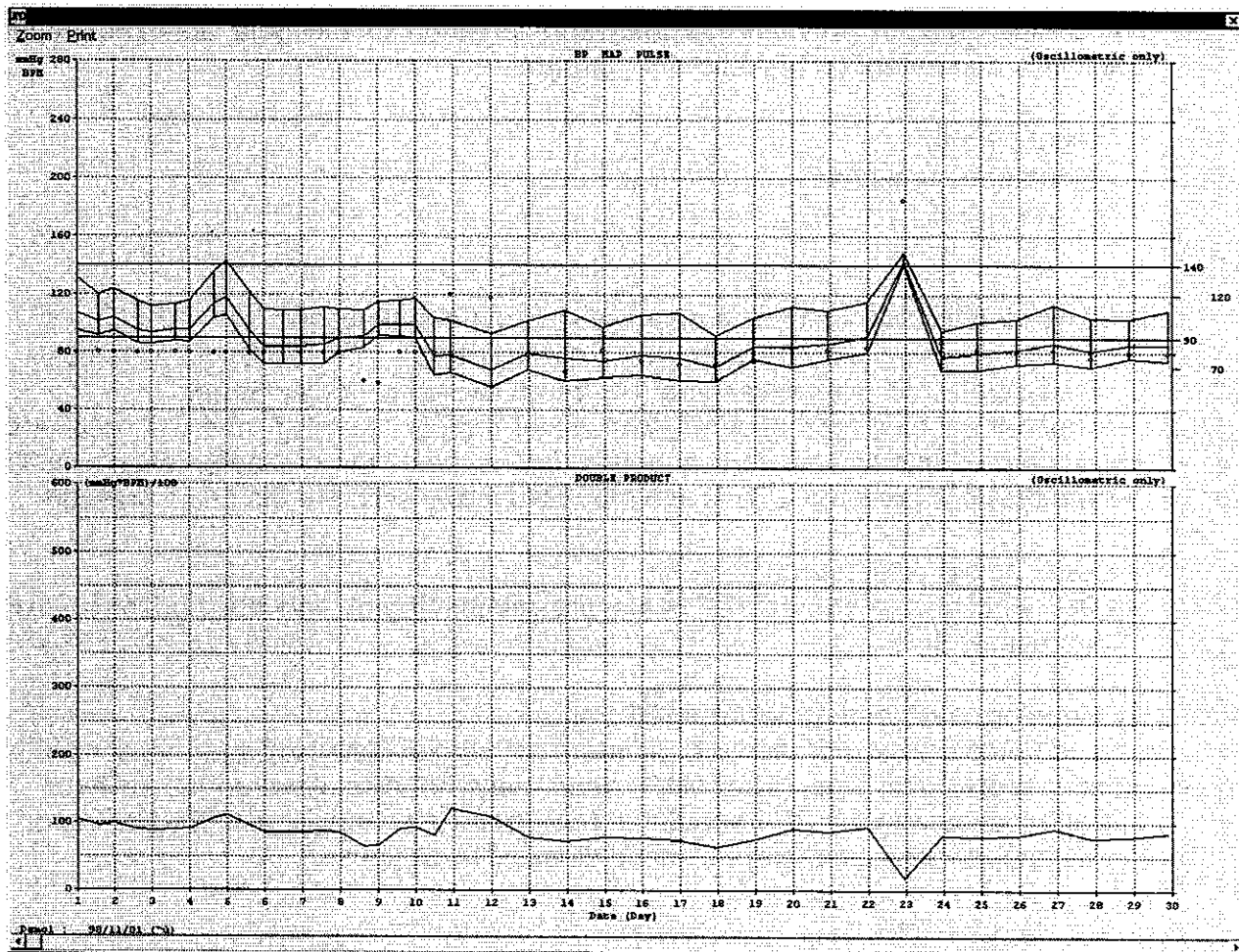
- Systolic/diastolic blood pressure (BP trend) and pulse (pulse trend):
The vertical axis represents millimeters of mercury (mmHg) and the horizontal axis represents time. A vertical dotted line connects the measurement's systolic and diastolic pressures. This line may be used to estimate the pulse pressure¹.
- Rate, pulse (pulse trend):
The vertical axis represents beats per minute (bpm) and the horizontal axis represents time.
- Mean arterial blood pressure (MAP trend):
The vertical axis represents millimeters of mercury (mmHg) and the horizontal axis represents time. The MAP trend may be displayed on its own or in combination with the BP trend. If the MAP trend is combined with the BP trend, it will appear between the systolic and diastolic trend lines.
- Double product:
The vertical axis represents millimeters of mercury (mmHg) and the horizontal axis represents time.

Delimitation, Scroll Bar and Linking

- Night:
When the night period is identified, black bands will appear around all the trend graphs highlighting the specified night period.
- Blood pressure trend BP limits:
When the systolic and diastolic blood pressure hypertensive limits are specified, lines are drawn horizontally across the blood pressure and mean arterial blood pressure trends at the specified limits. These lines may be used to determine when the patient exceeds the user-defined limits during the monitoring session.

- **Scroll bar/linking:**

The scroll bar at the bottom of the trend display allows you to scroll through the trend graphs. You may also link the trend display to the blood pressure data list by aligning the left-hand side of a trend screen with the vertical line of an individual blood pressure measurement. When the blood pressure data list is displayed, the aligned measurement will be selected.



The Trends display can be modified in scaling:

Once you have opened and selected a data file, follow the steps below to view, scale and print the Trends screen.

3.5.7. Viewing the Trends

- Step 1 Select the view menu.
- Step 2 Select the trends sub menu.
- Step 3 You may print the trends screen by selecting the print heading on the trends toolbar.
- Step 4 Close the trends screen when finished.

3.5.8. Scaling the Screen

The trend screen may be scaled to have some or all of the data fit on the screen. To scale the trend screen, complete the following steps:

- Step 1 Select the Zoom drop-down menu on the Trends toolbar.
- Step 2 Select a scale to view the screen: All data and the range be expanded according to the scale of the data.

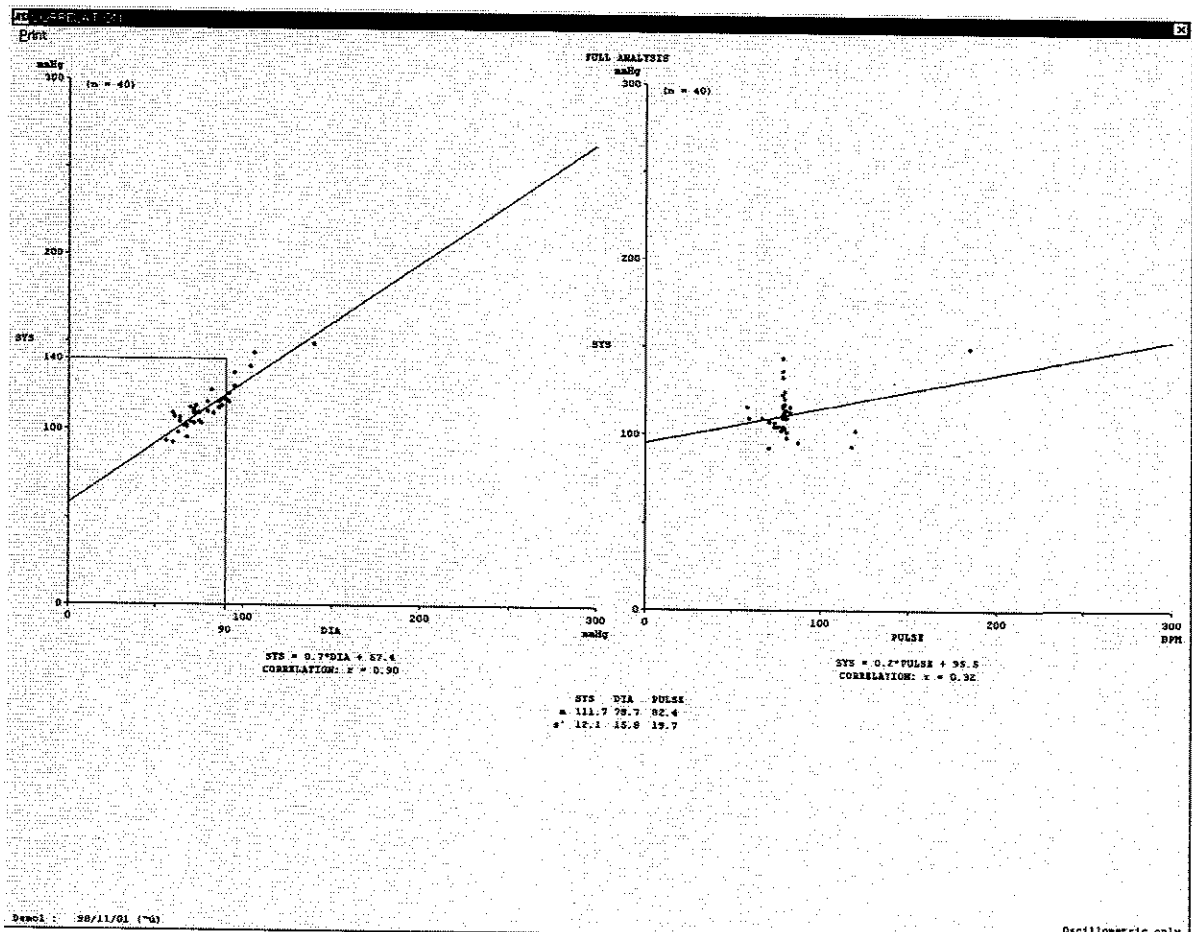
3.5.9. Correlation Plot

The correlation screen offers a convenient way to view the relationship between the blood pressure parameters. It also assesses overall performance of the patient's cardiovascular system. Full analysis correlation plot may be viewed for the following relationships:

- Systolic versus diastolic
- Systolic versus pulse (heart rate)
- Statistical data: systolic, diastolic, pulse
 - mean, "m"
 - standard deviation, "s"
 - correlation coefficient, "r"
 - regression line

The vertical axis represents systolic pressure, the horizontal axis represents the diastolic pressure on the right hand graph and pulse on the left hand graph. All the graphs have scales of 0 to 300 mmHg.

Each measurement recorded represents a dot on the screen. The vertical position of the dot is equal to the systolic value on both graphs. The horizontal position on graph 1 is equal to the diastolic value and on graph 2, the pulse. The clusters of dots are created by the measurement that are recorded and overlapped. Measurement statistics, mean systolic blood pressure "m", standard deviation "s", regression line and correlation coefficient "r" values are shown on the bottom of the screen.

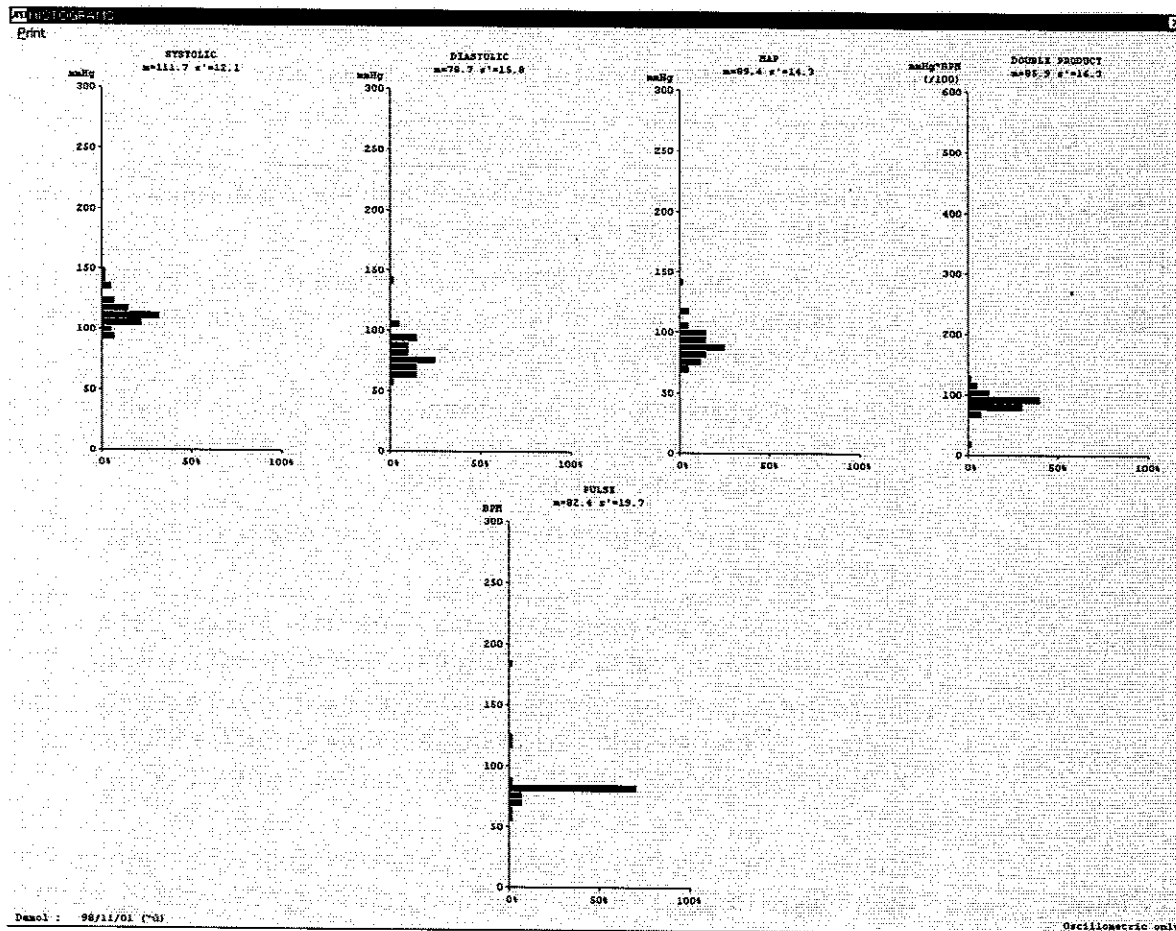


3.5.10. Histograms

The histogram screen offers a convenient way to quickly review the overall magnitude and distribution of the systolic, diastolic, mean arterial blood pressures and pulse (heart rate) measurements. The following histograms are available:

Systolic blood pressure:	Full analysis in blue.
Diastolic blood pressure:	Full analysis in blue.
MAP, mean blood arterial pressure:	Analysis in blue.
Double product:	Full analysis in blue.
Pulse:	Full analysis in blue.
Statistical data	MAP and SD for: SYS, DIA, MAP, DP and HR. Full analysis is in blue.

The vertical scale represents 0 to 300 mmHg on all graphs except pulse which is scaled 0 to 250 bpm. The horizontal scale represents the percentage of total readings that occurred at the corresponding vertical level. The histograms are displayed in blocks that represent a range of readings.



3.5.11. Patient Information

The patient information screen is used to store information on patients and their treatment. This is also the input screen for the patient's night period.

Patient Information

Recorder ID: 00 Date: 98/11/01 Time: 07:00

File: Demo1 Soc. Sec. #: Age: Sex: Height: Weight: Insurance: Medicare #: Medications: Comments:

Name: Address: Phone: PHYSICIAN List Name: Address: Phone: NIGHT Begin End Save Cancel

The patient information screen has the following data fields:

Field	Description
Recorder ID	Recorder ID refers to the monitor identification number. The recorder ID cannot be modified in this screen.
Date	Date corresponds to the first measurement date in the patient record. Date cannot be modified in this screen. It is automatically set at the time the measurement was recorded.
Time	Time corresponds to the first measurement time in the patient record. Time cannot be modified in this screen. It is automatically set at the time the measurement was recorded.
File	File refers to the name of the file. The user initially defines it at the time of data retrieval.
Name	Name refers to the patient's name. The user initially defines it at the time of data retrieval or selecting this field may modify it.
Address	There are two address fields. The patient address field may be filled in manually. The physician address field may either be filled in manually, or automatically by selecting the list button, Refer to "3.8.1 Physician List".
Phone	There are two telephone fields. The patient phone field may be filled in manually. The physician phone field may either be filled in manually, or automatically by selecting the list button, Refer to "3.8.1 Physician List".

Field	Description
Soc. Sec. #	Field for the patient's social security number.
Insurance	Field for the patient's insurance information.
Medicare #	Field for the patient's Medicare or Medicaid number or other health care number.
Medications	Field for the patient's medications.
Age	Field for the patient's age.
Sex	Field for the patient's sex.
Height	Field for the patient's height.
Weight	Field for the patient's weight.
Comments	Field for comments on the patient's condition, treatment or other notes. The scroll bar will automatically be activated when additional space is required.
Night	The night field is used to define the night parameter. Begin refers to the time the patient went to night. End refers to the time the patient woke up. The 24-hour clock must be used when inputting the night times. For example, 11 p.m. Equals 23:00, midnight equals 0, and 9 a.m. Equals 09:00. Use a colon ":" between hours and minutes.

Follow the instructions below to view, edit and print the patient information screen.

Step 1 Select the view menu.

Step 2 Select patient information sub menu.

Step 3 To edit a field, select the appropriate field and input the information.

Step 4 To save the edits and close the patient information screen, select the save button.

Step 5 To cancel the edits and close the patient information screen, select the cancel button.

Note: For some types of printers, the number of printed characters may be different from the number of displayed characters.



3.6. Recorder Menu

The recorder menu may be used to retrieve data from the monitor, set the monitor's intervals and conditions and clear the data in the monitor's memory. With the monitor and the processor connected to the computer, the following options are provided:

- Retrieve data
- Condition setup
- Clear data

Note: If communications cannot be made due to improper connection or some other failure, see "4 Troubleshooting".

3.6.1. Retrieving Data from the Monitor

See below for the description of each field on the recorder-retrieved data dialog box.

Field	Description
Recorder ID	Recorder ID is set in the monitor's memory prior to the monitoring session.
Start date	Date of first measurement in the monitor's memory.
Start time	Time of first measurement in the monitor's memory.
Patient name	Field for the patient's name.
Convert data	Creates a CSV file automatically when checked.
Status	Status line offers comments on the present stage of the data retrieving process, e.g. "connected" or "retrieving data".

With the monitor and the processor connected to the computer, you may retrieve data from the monitor by completing the steps below:

- Step 1 Select the recorder menu.
- Step 2 Select retrieve data sub menu.
- Step 3 Select the patient name field and input the patient's name. The name will appear in the name field on the patient information screen.

Recorder - Retrieve Data

Recorder ID: 1

Start Date: 03/25/99

Start Time: 12:56

Patient Name:

Convert Data

☒ Create CSV file automatically

Retrieve data

Status: Connected

Read counter:

Note: You must input a patient name or the data can not be retrieved. To exit the retrieve data dialog box prior to retrieving the data, select the windows™ function box in the top left corner of the recorder-retrieve data dialog box.

Step 4 Select the retrieve button.

Step 5 Select the file name field
and enter a file name.

Step 6 Select the drive and directory where the file should be saved.

Step 7 Select the ok button.

Note: To view a retrieved file, you must open it.

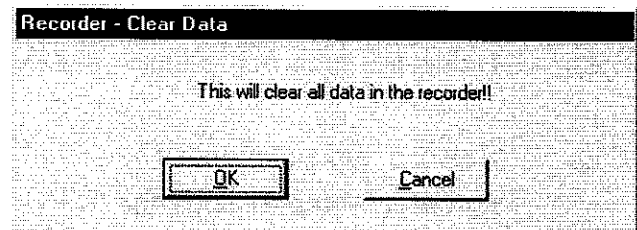
3.6.2. Clearing The Monitor's Memory

The monitor's memory should be cleared before each monitoring session. With the monitor and the processor connected to the computer, you may clear the measurement data stored in the monitor by completing the steps below:

Step 1 Select the recorder menu.

Step 2 Select clear data sub menu.

Step 3 To clear the monitor's memory,
select the ok button.



Step 4 To not clear the monitor's memory,
select the cancel button.

Caution: cleared data cannot be recovered.

3.6.3. Programming the Monitor's Intervals and Conditions

Setup UA-767PC

Item	Definition
Time	Sets monitor's internal clock.
Date	Sets monitor's internal calendar.
BP measurement time	The time settings when six kinds of or less alarms are sounded.

The time when six kinds of or less alarms are sounded can set on the sub-menu of the "Setup" menu.

Note: The monitor, interface, and cable must be connected to the computer correctly, Refer to "3.2 Communication Between the Monitor and the Program".

- Step 1 Select the recorder menu.
- Step 2 Select setup sub menu. The recorder setup dialog box appears.
- Step 3 Select the time field. Enter the current time. Use military time to set the clock.
- Step 4 Set the time to sound each alarms.
- Step 5 Press the OK key. And canceling and closing the dialog window, press the CANCEL key.

Recorder- Setup

Time: 11:33 Date: 1999/12/20

BP Measurement Times

Measurement time (Beep)

	HOUR	MINUTE
1	<input type="text"/>	<input type="text"/>
2	<input type="text"/>	<input type="text"/>
3	<input type="text"/>	<input type="text"/>
4	<input type="text"/>	<input type="text"/>
5	<input type="text"/>	<input type="text"/>
6	<input type="text"/>	<input type="text"/>

OK Cancel Help

- Step 6 Removing the cable form the UA-767PC, the "P" mark is displayed and the alarm sounds at the time of measurement.
- Step 7 If you want to cancel this alarm setting, remove batteries installed in the UA-767PC.

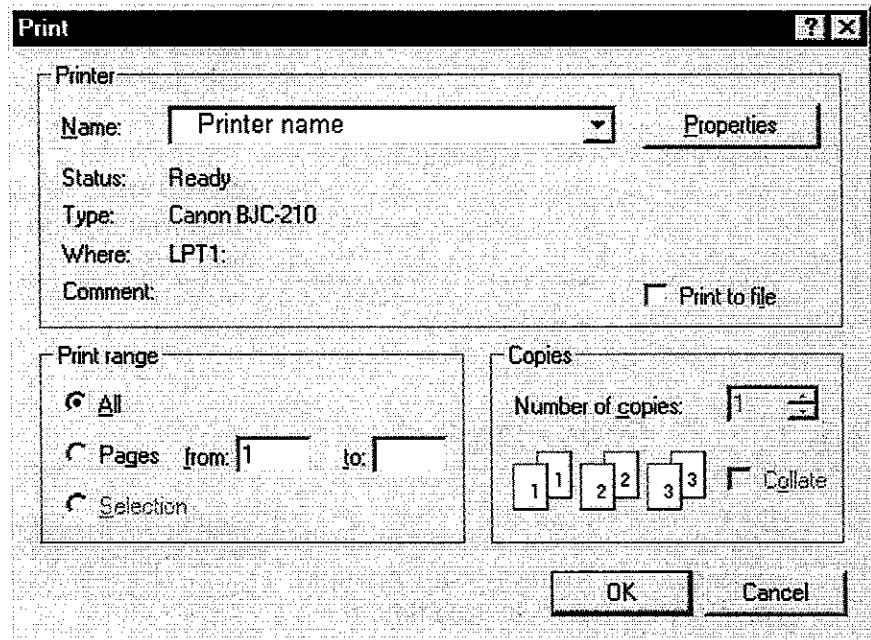


3.7. Report Menu

This menu can print the measurement data using the pre-formed format.

Step 1 Set the parameters of the printer dialog window.

Step 2 Press the OK key to print it.





3.8. Options Menu

The options menu may be used to access default and various formatting screens within the program. The following options features are available:

Menu	See	Description
Physicians list	"3.8.1 Physician list"	The physicians list may be used to store contact information on the patient's physician, i.e. Address and phone number, so that the physician fields in the patient information screen may be quickly updated.
Default settings	"3.8.5 Default settings"	There are two default settings: <ul style="list-style-type: none">• BP settings (blood pressure settings) which may be used to set the default BP mode and BP limits.• Serial port which may be used to set the communication port for interfacing with the monitor.

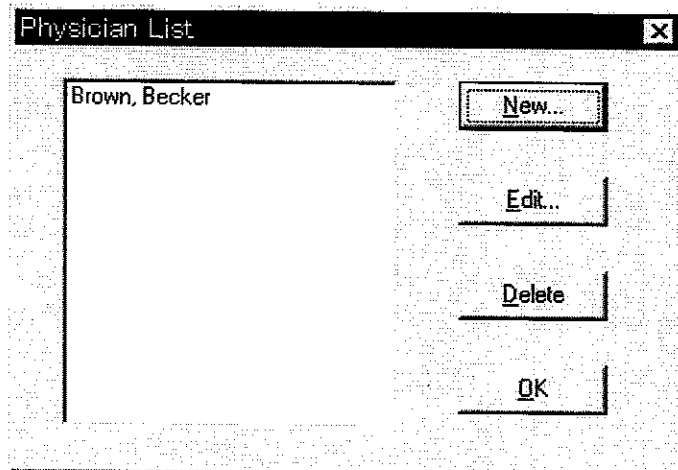
3.8.1. Physician List

The physicians list is used to store contact information for multiple physicians. This will save time from repetitive data input.

Step 1 Select the options menu.

Step 2 Select the physician list sub menu.

The following instructions outline the various physician list features available.



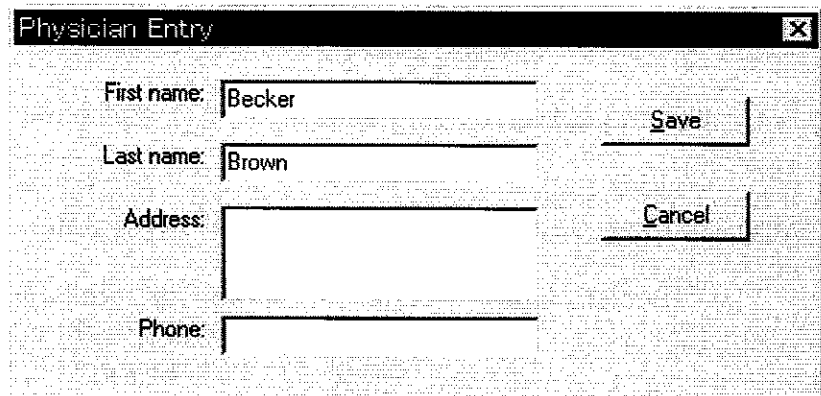
3.8.2. Adding a New Physician to the List

Step 1 Select the new button on the physician list dialog box.

Step 2 Enter the appropriate data.

Note: All fields must be completed.

Step 3 Save the new physician template in the list by selecting the save button.
If you do not want to save the new physician, select the cancel button.

A screenshot of a 'Physician Entry' dialog box. The dialog has a title bar with the text 'Physician Entry' and a close button (X). Inside the dialog, there are four text input fields: 'First name:' with the value 'Becker', 'Last name:' with the value 'Brown', 'Address:' which is empty, and 'Phone:' which is empty. To the right of these fields are two buttons: 'Save' and 'Cancel'.

3.8.3. Editing an Existing Physician in the List

Step 1 High-light the physician's name you want to edit.

Step 2 Select the edit button.

Step 3 Select the field to edit and then type the new data.

Note: All fields must be completed.

Step 4 Save the edited physician template by selecting the save button.
If you do not want to save the edited physician, select the cancel button.

3.8.4. Deleting an Existing Physician in the List

Step 1 High-light the physician's name you want to delete.

Step 2 Select the delete button.

Step 3 Confirm deletion of the specified physician template by selecting the OK button.

Step 4 If you do not want to delete the physician template, select the cancel button.

3.8.5. Default Settings

There are two default settings in this program:

- Blood Pressure
- Serial Port

3.8.6. BP (Blood Pressure) Settings

Edit the default blood pressure settings as follows:

Step 1 Enter data for each value. The following is the description of each value.

Systolic limit : The percentage of readings exceeding the specified systolic limit for the day and night interval will be calculated and noted both on the summary data tabs and printed reports.

Diastolic limit:: The percentage of readings exceeding the specified diastolic limit for the day and night interval will be calculated and noted both on the summary data tabs and printed reports.

Step 2 To save the edits, select the save button.

Step 3 To cancel the edits, select the cancel button.

Default Blood Pressure Settings

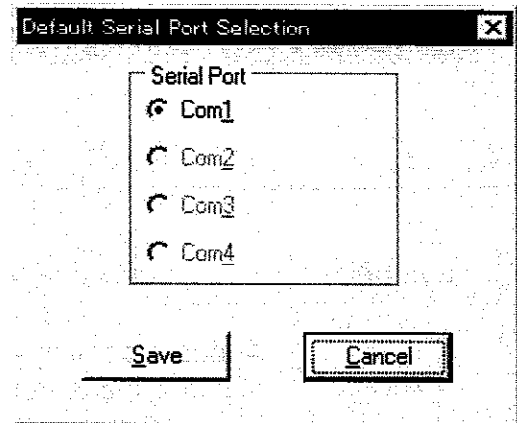
HYPERTENSIVE LIMITS

Day Interval	Night Interval
Systolic limit: 140 mmHg	Systolic limit: 120 mmHg
Diastolic limit: 90 mmHg	Diastolic limit: 70 mmHg

Save Cancel Help

3.8.7. Serial Port

The serial port is used to communicate between the monitor and the computer. The serial port setting and the port used for communication must be the same.



3.9. On-line Help

Help screens are available for on-line program assistance. There are three ways to access the help function.

- Select the help menu on the menu bar.
- Click the help button to appear on various dialog boxes throughout the program.
- Press the F1 key at any point during the operation of the program.



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