MTB
MEDIZINTECHNIK BASLER AG
Technoparkstrasse 1, CH - 8005 Zurich Tel.: +41 1 445 15 60, Fax: +41 1 445 15 61

HiDop 300

PC Software
for Windows 95/98/NT

User manual

Version 4.10 Beta19

Contents

1. Software installation

1.1. System requirements

The version 4.0 of the HiDop® PC software requires a system with the following minimum characteristics:

- Intel Pentium processor, at least 64 Mbytes RAM
- Operating System Windows 95, 98 or NT
- Display with a resolution of 800 x 600 or higher with more than 256 colors, preferably “High Colors 16 Bit” (important)

1.2. Installation

Exit all Windows applications before you start the installation of the HiDop® PC software.
Insert the floppy disk containing the HiDop® PC software. Use the Windows Explorer to start the setup program “hdpsetup”. The program will guide you through the installation process.
After a successful installation, you will find the HiDop® icon on your desktop.

1.3. Running the HiDop® PC software for the first time

Start the HiDop® PC program by double clicking on the HiDop® icon on your desktop. When you run the HiDop® PC program for the first time, you are asked to enter the following information:

Serial number: Enter the serial number. You can find your serial number printed on the floppy disk or on the delivery note.

Serial interface: Choose the serial interface (COM1…COM4) you want to connect your HiDop® 300 to.

Address: The address or information you put in here (6 lines) will be printed out on all examination protocols.

Data management configuration: Choose the directory where you want data to be stored in.
Choose the number of days during which data will remain in this directory. Choose what will happen to data after the chosen period of time has elapsed.
For additional information please read the chapter “data storage”.

If you want to change any of the above settings later, you can do so in the “Pull Down” menu OPTIONS/BASIC PROPERTIES of the HiDop® PC program.

2. Understanding data storage

The HiDop® PC software stores all measurements of a patient made during a session together with the patient data in a single data file. When you put in the name of a new patient, a new file is created. Consequently all data handling is related to a visit of a patient.
All data is combined in a data pool. Measurements stored in the data pool can be easily recalled or printed out. For a good and reliable program operation, the size of the data pool should be limited. Therefore, it is necessary to specify how many days data will be kept in the data pool
After the specified period of time has elapsed, the stored data is either:

- **deleted (delete older files):** data files older than the specified number of days are automatically deleted.
- **stored in a different directory (keep all files):** all data is stored in an additional (monthly based) data base.
  To facilitate the access to the stored data, the HiDop® PC software uses an index in this data base. Every time you delete or add data outside the HiDop® PC software (for example using the Windows Explorer) you have to rebuild this index by using the “Pull Down” menu FILE/REBUILD DATABASE INDEX.

Adjustments to the above items can be made in the “Pull Down” menu OPTIONS/BASIC PROPERTIES.

3. Patient data and examination program

After starting the HiDop® PC software the window *"Patient data"* appears. All buttons and menus are self-explaining and made with help lines so that the operation of the program is made as easy as possible.

3.1. "Pull Down Menus"

Three different "Pull Down" menus give you access to the following information or parameter settings:

"File" *"Save":* save measurement data
"Rebuild database index": after copying, deleting or modifying stored data outside the HiDop® PC program (for example using Windows Explorer) you have to rebuild the database index
"Clip-board": clip-board function for exporting measurement data to other programs (for example "Word")

"Options" *"Basic properties":* change settings made during the installation of the program
"Printer configuration": select printer driver and adjust settings (important for high quality print-outs)
"General": select search path and protocol configuration
Three different layouts for protocol printouts are available
"Measurement": select parameters for measurement, modify vessel list, vessel groups and properties, and define measurement programs
"Text phrases": define text phrases and remarks
"Save window position": save position and size of the program window

"Help" *"Product information"*

3.2. Data input

Patient data fields
Here you can put in the data of the patient (name, first name, birthday, patient no.). In order to identify the results, it is necessary to specify at least the name of the patient.
With exception of the *remarks* made in this field, the patient data will be printed out on the examination protocols.

F3-New patient

Whenever you start measurements with a new patient, press or click on *F3*. A new file will be created.

F5-Data pool

To look at or print out previously made measurements, press or click on *F5*. A list of patients stored in the data pool appears in the window. If you want to include older measurements stored in the data base, click on the corresponding checkbox and enter search parameters.
All stored data with patient names matching the entered search string are shown on the list.
An empty search string will search for all patients. A search string can contain the common place holders “*” and “?” to build more complex search queries.
From the patient list, click to select a patient.
Click on *“OK”* to select patient data and measurement data. Click on *“Take”* to select patient data without measurement data.

F2-Print

To print out data from the data pool or from the data base press or click on *F2*.
Select the data that you want to print out.

F10-Findings

To add findings or comments to the measurements, press or click on *F10*.

F12-Results

Press or click on *F12* to view the measurements. The screen will change from the "Patient data" window to "Doppler" window. Use *F12-Next* or *F11-Previous* to view all measurements from the selected patient.

3.3. Start a measurement

If you want to make a measurement you have to carry out the following steps:

- If there is already a patient name entered from previous measurements, press *F3-New Patient to* reset the patient data.
  Put in at least the name of the patient and confirm with ENTER or TAB.
  Alternatively, load patient data from the data pool or the data base using *F5-Data pool*, as described before.
  The program creates a new file for storing data of the new patient.

- Make sure the HiDop®300 is connected to the selected serial interface.
  Make sure a Doppler probe is connected to the cable and the HiDop®300 is turned on.
  Always start the HiDop® PC software first and then turn the HiDop®300 on.
  Check in the *"Patient data"* window that the HiDop®300 is listed under connected devices.

- Select the type of envelope you want to use

- Select whether you want to display spectral data or just the envelope

- Start the measurement procedure by pressing or clicking on *F4-Measurement*

- Press or click on *F10-Start Stop* or press *“space bar”.*
  The measurement procedure starts.

In the measurement procedure the following functions are available:

Key “left”, key “right”

Adjust the gain (sensitivity) of the Doppler signals. Pressing the keys once, changes the gain by 1 dB.

F7-Soft gain

Select one of four preset dynamic ranges (dB values between color steps).

Key “page up”, key “page down”

Select one of three scales (± 2.5 kHz, ± 5 kHz, ± 10 kHz).

Key “up”, key “down”

Change the offset of the baseline.

F4-Direction

Change the direction of flow.

F8-Sweep

Select one of three sweeps.

F6-Prog.

Select a predefined vessel course.

- To freeze the measurement, press or click on *F10-Start/Stop* or press the *“space bar”.*

F5-Names

Identify the measurement with a vessel name.

- Use the cursor to read specific values of the measurement.
- Read the values of the heart rate and of the selected Doppler indices. **Note** that Doppler indices can only be calculated for positive frequency or velocity values. Use *F4-Direction* switch if necessary.

F2-Save

Save measurement data.

3.4. Printing reports

Any printer configured in your Windows system can be used to print out reports.
You can use black/white printers or color printers.
Appropriate printer configuration is necessary for best print-out quality.

Reports can be printed out in single measurement mode (in the “Patient data” window or in the “Doppler” window) or in multi measurement mode (in the “Patient data” window).
In multi measurement mode, up to 6 measurements can be printed out on 1 sheet. Choose the adequate layout in the “General/Protocol configuration” menu.

Remarks and findings can be included in the print outs.

In addition, you can use the “Clipboard” function to easily export measurement reports to other programs. Like this measurements can be included in text reports, scientific articles and many more.

Miller, John

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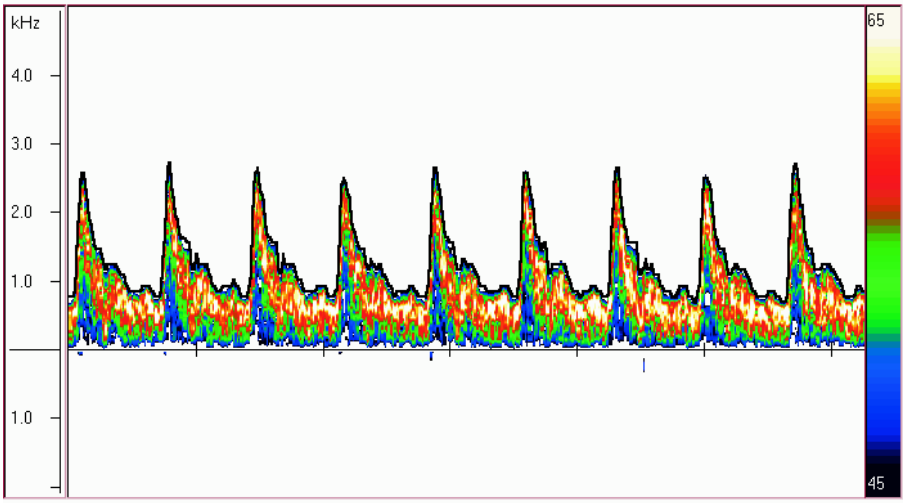

8 MHz; Filter: 200 Hz

HR: 84 PI: 1.44 RI: 0.67 SD: 3.49

4. Software updates

- Before you start to install a new version of the HiDop® PC software, please save all data files (data stored in the data pool and in the data base). Copy all data files into a new directory.
- Uninstall the old HiDop® PC software version using Windows tools.
- Install the new version of HiDop® PC software.
- Copy the saved data files from the old version into the corresponding directory of the new version.
  Rebuild the data base index.