Quick Guide for DP-5200A/Pathway(Vet.)

*Congratulations, and thank you for choosing the **Veterinary-Version** PC based DynaPulse 5200A/Pathway (Vet. DP-5200A) non-invasive blood pressure monitoring and recording system.*

Note: This Veterinary Version DynaPulse (DP-5200A) blood pressure monitor is modified for use on small animals such as dogs and cats. Certain features of the software, including the ability to upload arterial pulse waveform to the DynaPulse Analysis Center (DAC) for hemodynamic analysis (human application only) and guides to hypertension (human database) etc., are not available or applicable for animal clinical applications. Blood pressure measurement procedures, data recording, display, storage and trending are the same as for human applications. This device shall only be used by or under supervision of qualified veterinarians for evaluating blood pressure readings of animals.
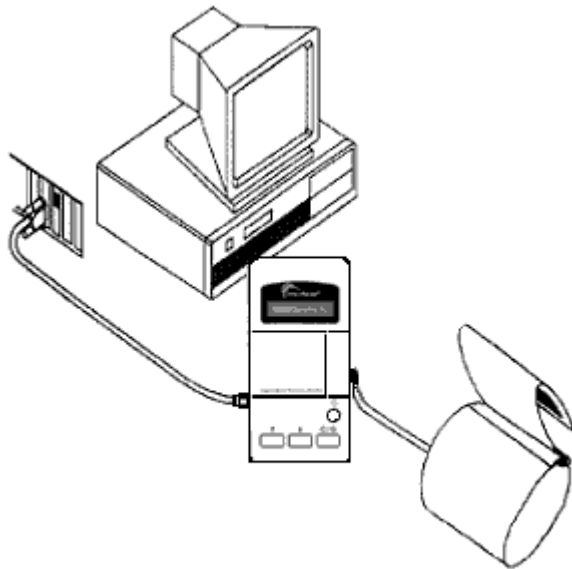
I. Blood Pressure Measurement:

Before you start installing DP-5200A/Pathway hardware and software, please check and make sure you have following items ready:

- DP-5200A/Pathway monitor
- RS232 communication cable
- Blood Pressure cuff assembly (Use appropriate size cuff)
- AC/DC adaptor, or optional 4 AA batteries (***Not included***)
- DP-5200A Pathway software for Windows CD (Include e-Manual User's guide)
- A PC with Windows operation system (Windows 95, 98, NT, 2000 or XP), and an RS232 communication port. (For PC without RS232 port, an **optional** USB-RS232 converter is required.)

Getting ready with DP-5200A/Pathway monitor and connect it to a PC:

- Select a power source: Plug in the supplied AC/DC adaptor (110 Volts AC in USA), or install 4 AA batteries into the battery compartment.
- Connect Cuff assembly to DP-5200A (Use appropriate size cuff for each patient.)
- Connect RS232 cable, one end to DP-5200A and the other end to PC's RS232 COM- port (*NOTE*: When using an optional USB-RS232 converter, make sure to install the *USB driver* provided by its manufacturer.)
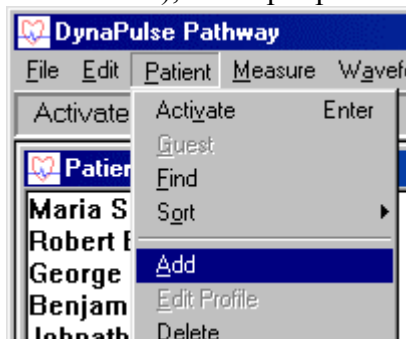

Equipment Layout – Shown a DP-5200A/Pathway monitor (battery operation) connected with a cuff assembly and to a PC's RS232 communication port

Install DP-5200M/Pathway software (a CD or DVD/CD drive is required):

- Insert DP-5200A/Pathway software CD to CD/DVD drive and closed
- Following the on-screen instruction, select correct Window version to install DP-5200A/Pathway software for blood pressure measurement.
- *Note:* First-time installation of DP-5200A software, an automatic COM check window will appear, click "Continue" to find and select an available COM port.
- A complete e-Manual, User's Guide, is included in the DP-5200A/Pathway CD. Use MS Word to open the e-manual file, Pathway_Manual_R07.doc, from the CD. You may print out a copy for future reference. This manual provides detail instructions of using/operating and the features of DP-5200A/Pathway.
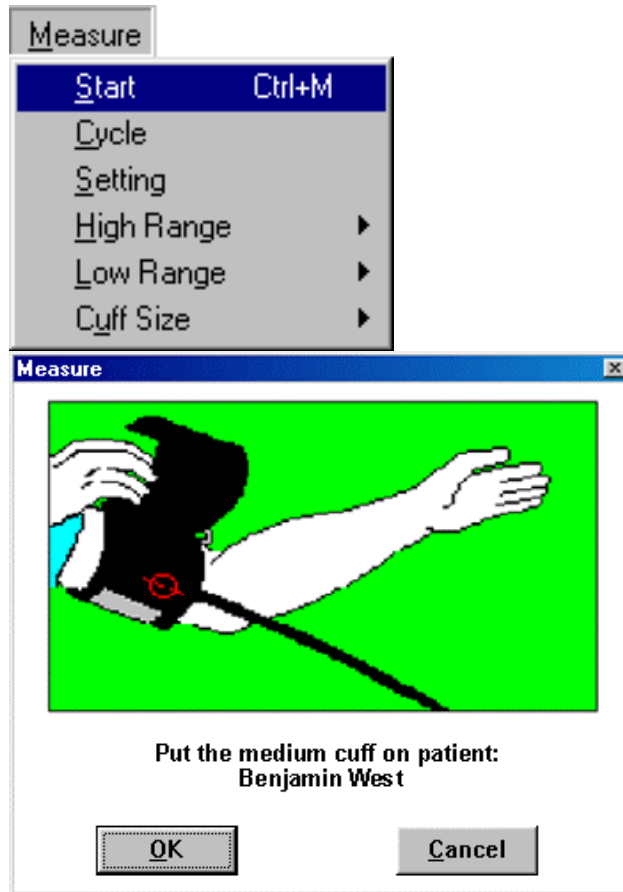
Ready and getting start with a blood pressure measurement:

- Go to "Patient" in Main Menu, select "Add" (for first time or a new user), and input patient's Name and ID.

- Go to "Measure" in Main Menu, select "Start" and following the on-screen instructions to put on the cuff and pump up pressure

and perform a blood pressure measurement. (For automatic
multiple BP measurements, select "**Cycle**" to set interval and the
total numbers of measurements.)

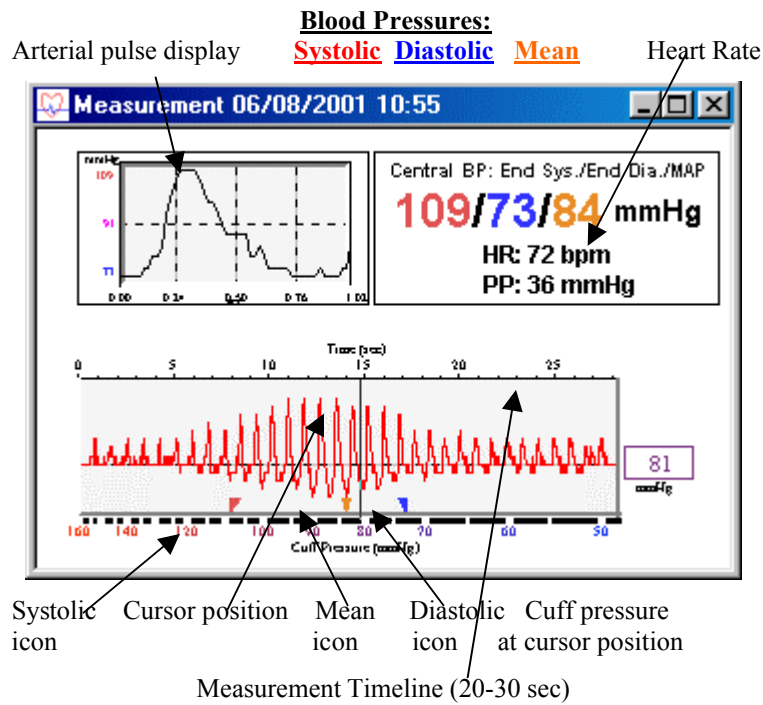Put the medium cuff on patient:
Benjamin West

*Note: When measuring blood pressure on an animal, place
cuff on its tail or leg where the cuff fits appropriately. Use
the correctly sized cuff for each animal.*

Example photos – Apply cuff on animal:

- A successful measurement will display the measured Systolic, Diastolic, Heart Rate and Pulse waveform, etc.. To keep this measurement, go to "File" and select "Save". You may enter comments for this measurement.

Blood Pressures:

Arterial pulse display   **Systolic Diastolic   Mean**   Heart Rate

Systolic   Cursor position   Mean   Diastolic   Cuff pressure
icon   icon   icon   at cursor position

Measurement Timeline (20-30 sec)

- If an ERROR window appears, following the instruction, go to Measure" and adjusting the High or Low Range settings accordingly. Click "Start" to start another measurement.

Other features for reviewing the recorded data:

- The Trend Display and Analysis – Go to "Options" and select "Show Trend Window", a histogram display of previously recorded blood pressure data will be shown. Select "Analysis" to perform a statistic analysis.
- Go to "Record" in Main Menu and select "Personal Info", would allow you to input and record, or edit general personal (patient or it's owner's) information.
- Go to "Record" in Main Menu and select "Record Table", a tabulated display of previously recorded blood pressure measurement data will be displayed.
- For other advanced features, please read DP-5200A/Pathway e-manual (User's guide) page 37-49.

Note for DP-5200A (Vet. Version) users:

- *If the DP-5200A/Pathway (Vet.) monitor is labeled "**For Small Animals Only**", the air release is configured for small size cuffs only. It may be ineffective for human arms or large animals (cows or horses).*
- When you open the DP-5200A software, a "Patient List" window will display with default "Activated Patient" as "***Guest***". Blood pressure measurement ***CANNOT*** be saved in the "Guest" mode!
- Find a patient from Patient List and double click to select it.
- Perform blood pressure measurement as described above.

DynaPulse DP-5200A/Pathway (Vet.) blood pressure monitor applies oscillometric method to derive systolic, diastolic and mean arterial pressure (MAP). It also estimates the equivalent Korotkoff sounds (K1/K4) Systolic/Diastolic when measuring on a human arm. For measuring blood pressures on animals, users may use (K1/K4) readings as reference (vs. Doppler method for example).
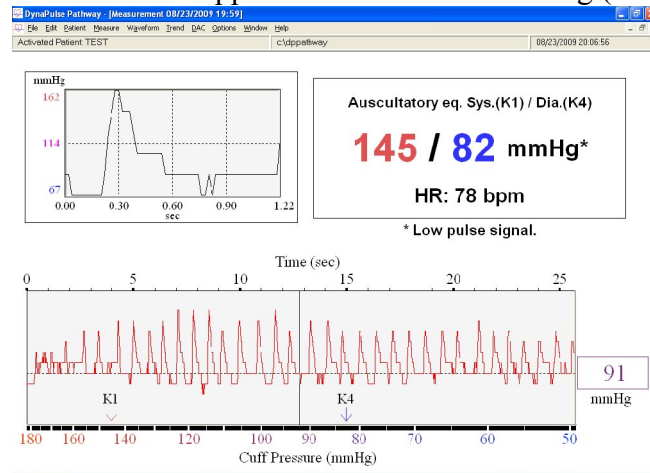
II. DP-5200A(Vet.) Engineering Specifications:

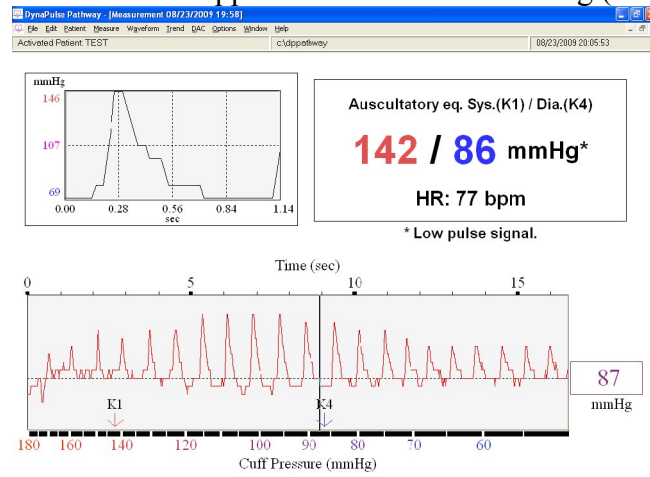|	
Measurement Method:	Oscillometric (Pulse Dynamics)
Measurement Range:	SBP 60-260 mmHg DBP 30-200 mmHg MAP 40-240 mmHg HR 30-250 BPM
Accuracy	+/- 5 mmHg on BP readings +/- 2 mmHg on sensor
Inflation	Auto-pump (Micro rolling pump)
Deflation	Adjustable needle valve
System Power	6V DC (AC adaptor or 4 AA batteries)
Power Consumption	380-500 mA during pump 10-15 mA while idle
Patient Safety	2 hardware and 2 software controls
Operating Temperature	5-40 degree C (41-104 degree F)
Dimensions	90x180x36 mm (3.5x7.1x1.4 in)
Weight	355 g (12.5 oz) without batteries

III. DP-5200A(Vet.) Test Sample Reports:

Sample 1:
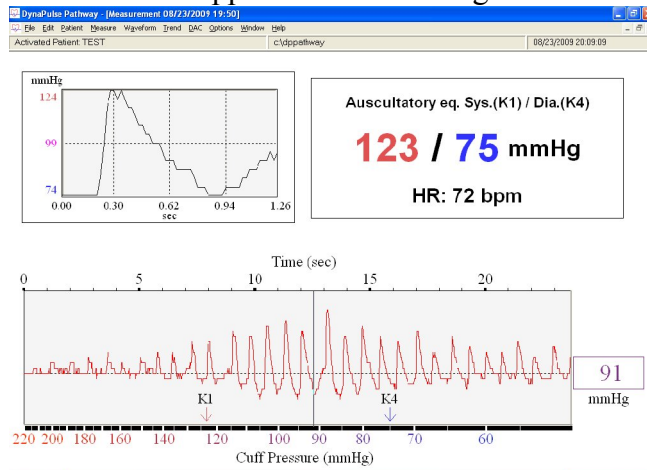UN-0309 cuff applied to the tail of a 9 lb dog (Test #1)

Sample 2:
UN-0309 cuff applied to the tail of a 9 lb dog (Test #2)

Sample 3:
UN-0314 cuff applied to the front leg

DynaPulse Pathway - [Measurement 08/23/2009 19:50]
File Edit Patient Measure Waveform Trend DAC Options Window Help
Activated Patient: TEST   c:\dppathway   08/23/2009 20:09:09

mmHg
124
99
74
0.00   0.30   0.62   0.94   1.26
sec

Auscultatory eq. Sys.(K1) / Dia.(K4)

123 / 75 mmHg

HR: 72 bpm

Time (sec)
0   5   10   15   20

91
mmHg

K1   K4

220 200 180 160 140 120 100 90 80 70 60
Cuff Pressure (mmHg)

Sample 4:
UI-0515 cuff applied to the front leg

DynaPulse Pathway - [Measurement 08/23/2009 19:54]
File Edit Patient Measure Waveform Trend DAC Options Window Help
Activated Patient: TEST   c:\dppathway   08/23/2009 20:18:35

mmHg
146
109
73
0.00   0.20   0.42   0.64   0.86
sec

Auscultatory eq. Sys.(K1) / Dia.(K4)

133 / 75 mmHg*

HR: 79 bpm

* Low pulse signal.

Time (sec)
0   5   10   15   20   25

88
mmHg

K1   K4

180 160 140 120 100 90 80 70 60
Cuff Pressure (mmHg)