CARDIOPERFECT
AMBULATORY BLOOD
PRESSURE MONITORING
QUICK START GUIDE

WelchAllyn®

Advancing Frontline Care™

UNDERSTANDING ERROR CODES

ERROR CODE	DESCRIPTION
1	Unknown error
2	This can indicate one of the following problems: • After 2 seconds the pulse has not reached the falling level • Heart frequency has not reached its defined range • Variation of the heart frequency is too large • Less than 4 measurements were taken • The rising level was not reached within 2 seconds after the falling level • Pulse bandwidth is out of range • Movement artefact • Maximum number of beats encountered in a stage
3	This can indicate one of the following problems: • The heart frequency was out of range in more than 3 pressure stages • The difference between systole and diastole was too small • The systole is considerably bigger than the pump pressure • An oscillation value was smaller than the start or end value • The pulse bandwidth is smaller than at start or end point • The MAP is out of range • The systole is out of range • The diastole is too large • The number of stages is too large • The oscillation value is too large • The total time is too long • A function took too much time
4	The battery voltage is too low
5	No cuff was detected
6	Too many measurements were taken—OR—No memory was available in EEPROM
7	No measurements were taken—OR—The measurements were stopped
8	Hardware failure—OR—Error at zero alignment or pumping started unexpectedly

NOTE: The codes listed in the table are the codes displayed by the CardioPerfect software. They are different from the error codes which can appear on the ABPM 6100 LCD display.

SIZING CHART

Correct cuff sizing is vital to the accuracy of monitoring data.
Find the circumference of the patient's upper arm and refer to
this cuff sizing chart for proper cuff selection.

CUFF SIZE	ARM CIRCUMFERENCE SOFT DISPOSABLE CUFFS	ARM CIRCUMFERENCE REUSABLE SLEEVE CUFFS	ARM CIRCUMFERENCE TRADITIONAL REUSABLE CUFFS
Pediatric Cuff	Part 5082-94-3 15.8–21.3 cm	NA	Part 6100-10 16.0–21.8 cm
Small Adult Cuff	Part 5082-95-3 20.0–27 cm	Part 101340 18–27 cm	Part 6100-11 21.1–26.6 cm
Adult Cuff	Part 5082-96-3 25.3–34.4 cm	Part 101341 25–35 cm	Part 6100-12 25.4–34.3 cm
Adult Plus Cuff	NA	Part 101342 33–40 cm	Part 6100-13 27.0–42.0 cm
Large Adult Cuff	Part 5082-97-3 32.0–43.4 cm	Part 101343 39–46 cm	Part 6100-14 34.3–48.2 cm

IMPORTANT!

Make sure of the following before the patient leaves the office:

- The belt or shoulder strap and pouch are positioned comfortably.
- The Start/Stop button is accessible to the patient. (Even if the Start button is disabled in the Study Parameters, the Start/Stop button will still allow the patient to cancel a reading.)
- The ABPM 6100 monitor is concealed according to the patient's wishes.
- Remember the patient's comfort and ability to perform normal tasks can significantly impact the relevance of monitoring data.

- If the display is on, briefly review with the patient how to read the data.
- Explain to the patient the kind of information required in the Patient Diary.
- If the Start button is enabled, explain to the patient that he or she has the option to initiate readings using the Start/Stop button.
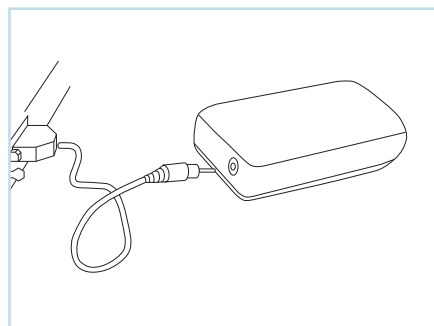
1 Install software

- This quick start guide is intended for use with CardioPerfect Workstation Version 1.6.0 or higher.

- For complete directions for use and warnings, please consult your user manual located on the software CD.

2 Set up monitor

- Install two fresh AA batteries in the back of the ABPM 6100 recorder.
- Connect the PC interface cable to the serial port on the back of the computer.
- Connect the other end to the bottom of the ABPM 6100 recorder.

If you are using a USB port:
- Install the Keyspan USB to serial converter software first, then plug in the adapter.

3 Communicate with your monitor

If you are using a USB port:

- Go to Start/Programs/Keyspan USB Serial Adapter.
- Select Keyspan Serial Assistant.
- Verify which COM port was assigned to adapter.

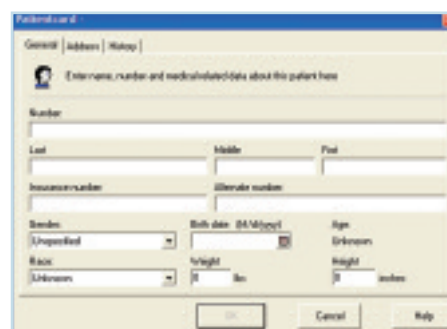Start the CardioPerfect Workstation Software:

- Go to File/Settings/ABPM.
- Select Advanced.
- Match proper COM port to Keyspan Serial Assistant.

4 Select Patient

- Open the CardioPerfect Workstation Software by double clicking on the CardioPerfect icon.
- To enter a new patient:
  1. Click the Patient button.
  2. Fill in Patient Card.
- To select a patient from the database:
  1. In the Search box, type the patient name or number (can be a partial entry).
  2. Click the Go button.
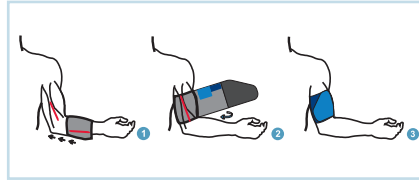 3. Click on the patient for whom you want to record the test.

5 Program your monitor

- Click on the ABP Icon.
- You will hear a few beeps followed by the New ABP Test window.
- Select Protocol, Referring Physician, etc. and click OK.
- The recorder is now programmed with the patient information and will turn itself off. Disconnect the monitor from the computer.

6 Fit your patient with the monitor and cuff

- Place an appropriate size cuff around the patient's nondominant arm.
- Position the cuff so that the Artery Marker label is directly over the brachial artery.
- Connect the hose of the cuff to the monitor, place the monitor in the pouch, and attach the monitor to the patient.

Sleeve Cuff

Traditional Cuff

7 Prepare your patient

- If the unit is in Sleep Mode (no display on the LCD), press the Start/Stop button to "wake" the unit.
- Press the Start/Stop button again to initiate a manual reading. This will cause the cuff to inflate and a reading to be taken.
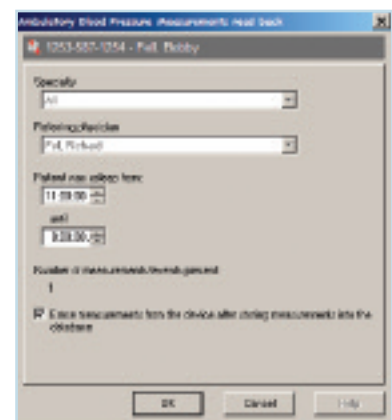
NOTE: the automatic measurements will not start until at least one manual measurement is taken

Review the following instructions with your patient:

- Avoid excess movement during readings.
- Relax arm slightly away from body.
- Avoid hand movement.
- Avoid flexing muscle during reading.
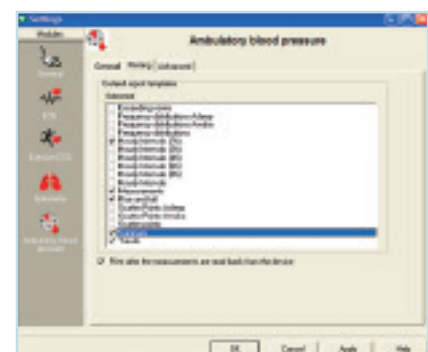- Do not remove cuff between readings.

8 Retrieve data

- When your patient returns, remove the recorder and accessories.
  - Turn the recorder off by holding down the Start/Stop button for five seconds or until the unit beeps five times.
  - Connect the recorder to the computer.
  - Start the CardioPerfect Workstation Software and search for the patient in the database.
  - Select the Read Back icon.
  - Make your selections from the ABP Measurement Read Back window and press OK to transfer and save the data to the computer.

9 Review data and print report

- You can choose from multiple ABPM report templates.
- If automatic printing is checked in the ABPM Print settings, the report should print now.
- If you did not select Automatic Printing in the Settings, click on the down arrow next to the Print icon and choose Print Selected Formats to initiate printing.
- If you just want to print one page, click on the Print icon, and select the desired report page.

Ambulatory blood pressure monitoring (ABPM) takes numerous readings of your blood pressure over a 24-hour period or longer. It provides accurate and reliable information and can give you and your doctor a truer picture of your blood pressure than occasional visits and readings taken at your doctor's office.

How often will my blood pressure be taken?

Usually, your heart rate and blood pressure will be measured at 15- to 30-minute periods during the day and every 30 minutes to one hour at night. Although you may notice the first few times the cuff inflates, you will soon become used to the monitor. Most people find it very easy to wear.

How does APBM work?

This ABPM uses the oscillometric method, which involves measuring movement of the blood after closing off the brachial artery, the main artery that runs from the shoulder down to the elbow. The data is stored and then interpreted by trained professionals in your doctor's office.

Be advised of the following:
- Pressing the Start/Stop button during a reading will cancel that reading and deflate the cuff regardless of whether the Start button is set to On or Off in the Study Parameters.

- Undress carefully at bedtime, using caution not to disconnect the hose from the monitor.

- Placing a pillow over the monitor during sleep will reduce any electrical hum from the ABPM 6100 unit.

PATIENT DO'S AND DON'TS

DO

- Wear a loose fitting blouse or shirt.

- Record time, symptom/mood and activity/position in the patient diary.

- Activate a reading (if the Start/Stop button is activated) at the first sign of symptoms.

- Remain motionless during readings.

- Keep vehicle driving and travel to a minimum.

- Bring diary upon return.

DON'T

- Remove the cuff.

- Get the monitor wet.

- Use power tools or heavy equipment during a reading.

- Remove the batteries from the unit.

- Wear long-sleeved sweaters or dresses during monitoring period.

- Swim, shower, or bathe during monitoring.

- Operate heavy equipment or power tools, as vibrations may functionally disrupt the monitor.

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