

Welch Allyn® CardioPerfect™ Workstation Installation Guide

INSTALLING CARDIOPERFECT WORKSTATION SOFTWARE & ACCESSORIES ON A SINGLE PC

For software version 1.6.5 or later

For network installation, please refer to the Network Installation Manual or contact Welch Allyn technical support.

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This guide shows how to install the software and accessories for the Welch Allyn CardioPerfect Workstation on a single laptop or desktop PC. This guide does not cover installation for networked CardioPerfect configurations, for EMR-connected computers, or thin-client settings.

For a detailed installation procedure, see *WACP Installation*, located on the disc under “Browse the manuals” folder.

System Requirements

You need the following minimum recommended configuration to work with the CardioPerfect resting ECG, ambulatory blood pressure, or spirometry software modules:

Computer	Tower or desktop PC preferred; laptop or tablet.
Operating System	Windows XP service pack 2 or later; Windows Vista Business Edition, service pack 1 or later; Windows 7 Home Premium, Professional, Ultimate; Windows 8 or Windows 8 Pro;
CPU	P4 (or equivalent) or higher
Hard disk	20 GB with 5 GB free space
RAM	512 MB; 1 GB or higher recommended
Ports	2 USB ports
Monitor size	15" or larger
Monitor resolution	1024 x 768 true color; 1280 x 1024 resolution recommended
Other	DVD-ROM drive

INSTALLING CARDIOPERFECT WORKSTATION SOFTWARE

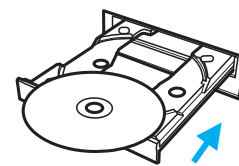
1 Install the CardioPerfect software and USB drivers.



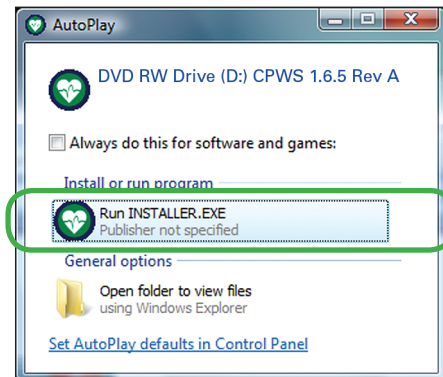
Caution Do not plug in any USB devices during this installation process.



- Make sure that you have administrator rights.
- Close all running programs.



CardioPerfect disc.

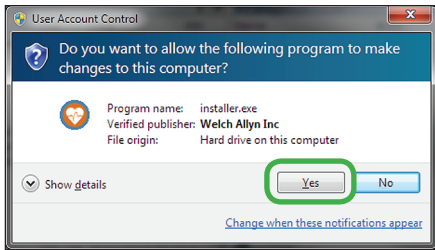


This screen might appear.

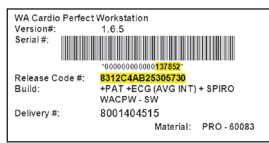
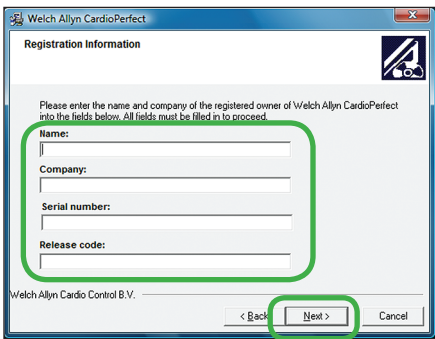
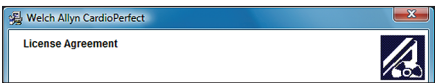


If this screen does not appear, explore the disc, and double-click **installer** (📁).

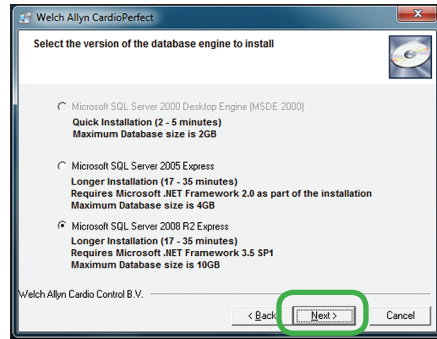
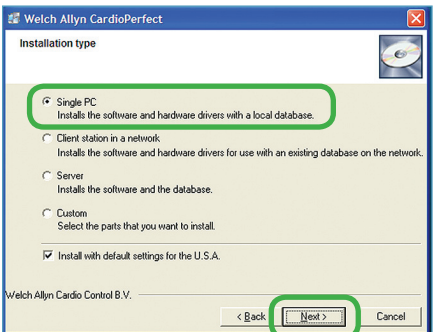
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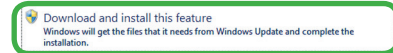
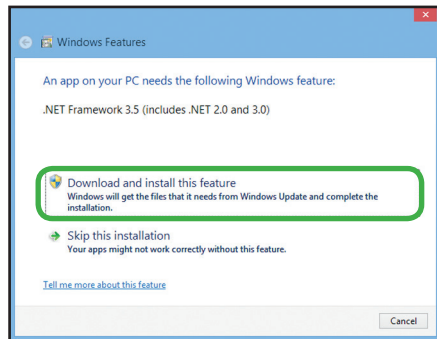
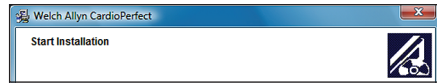
This screen might appear.



The serial number and release code are located on the inside cover of the disc case.



Accept the default option.



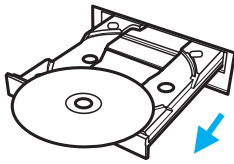
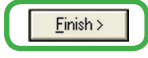
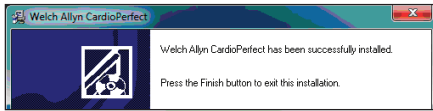
This screen might appear during the installation of the Microsoft SQL Server 2008 R2 database on Windows 8 operating systems. Select **Download and install this feature**.



Wait while the CardioPerfect client software installs. It takes a few minutes.



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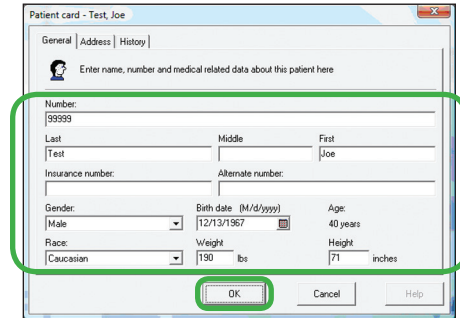
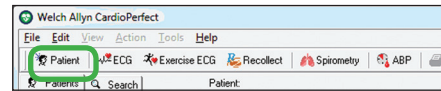
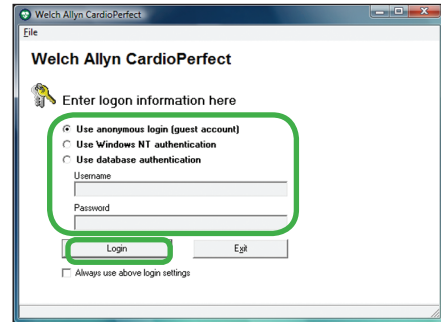


CardioPerfect disc.

2 Create a test patient card.



This icon will have been automatically created on your desktop. Double-click to start the CardioPerfect application.



Fill in the fields with any data you like.
This test patient will be used in later steps.

This test patient will remain in your system.
Patient cards can be edited but not deleted
except by a system administrator.



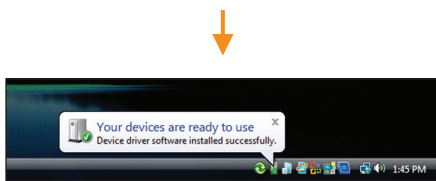
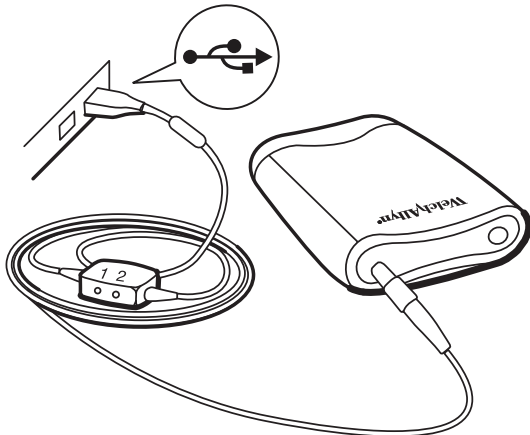
Close CardioPerfect.

NEXT STEP: Install and verify all devices that you have purchased: ECG recorder, spirometer, and/or ABPM 6100 recorder. When finished, please see the user information provided with your product.

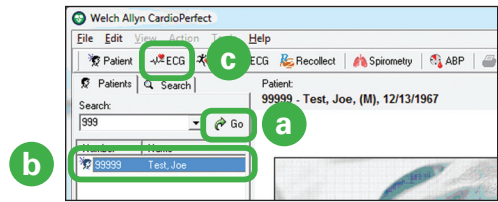
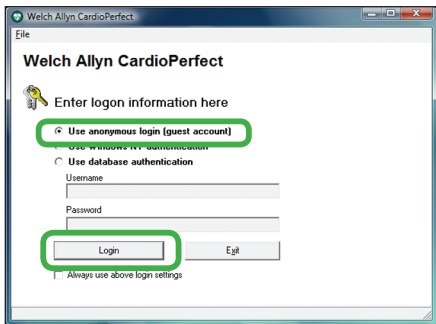
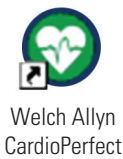
INSTALLING THE ECG RECORDER ON A CARDIOPERFECT WORKSTATION

Before you start, install the CardioPerfect Workstation software.

1 Assemble the ECG recorder, and then plug it into any USB port.



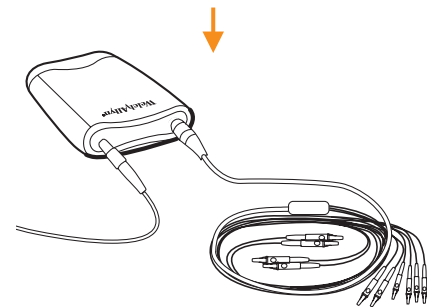
2 Verify the installation of the ECG recorder.



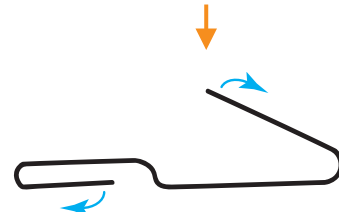
- (a) Click **Go**.
- (b) Select your test patient.
- (c) Click **ECG**.



You will see square waves along with this message: "Bad signal on Left Leg."



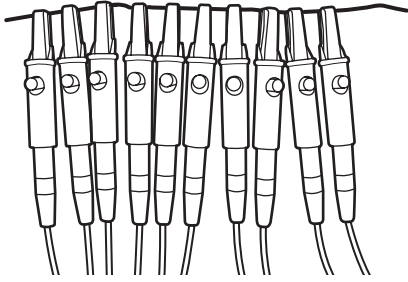
Attach the patient cable to the recorder. Attach clips to the ends of the lead wires.



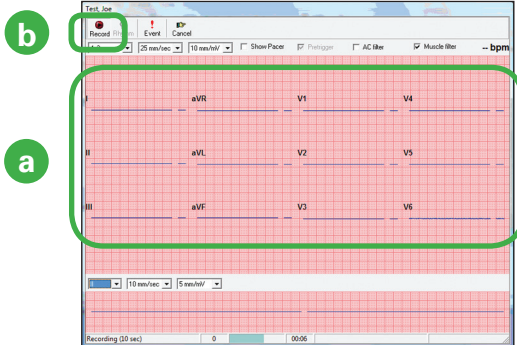
Straighten a large metal paper clip.

Note Do not use a plastic-coated or painted paper clip.

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Attach all ten lead wires to the paper clip.

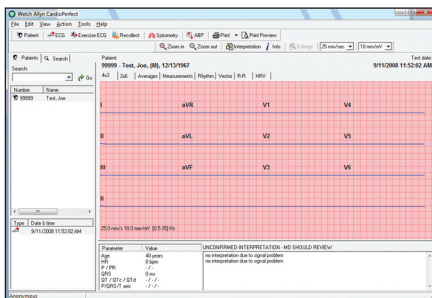


- (a) Wait at least 20 seconds for the square waves to level off. When the lines become straight, verify that there are no lead-off messages.

Example lead-off message: **Bad signal on V3, V5**

If you receive a lead-off message, reconnect the indicated leads, and wait 20 seconds again. Repeat until there are no lead-off messages.

- (b) Click **Record**.

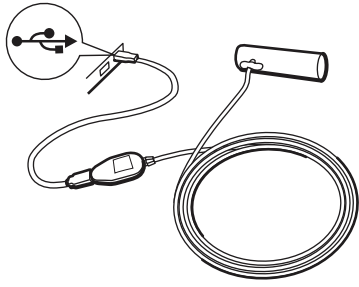


The system takes a 10-second recording and returns to the main screen with your recording displayed. You have now verified that your ECG recorder is properly installed.

INSTALLING THE SPIROMETER ON A CARDIOPERFECT WORKSTATION

Before you start, install the CardioPerfect Workstation software.

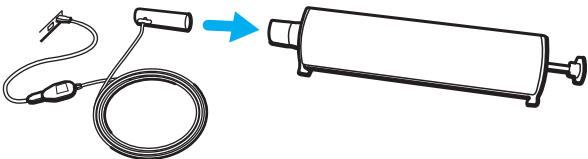
1 Assemble the spirometer, and plug it into any USB port.



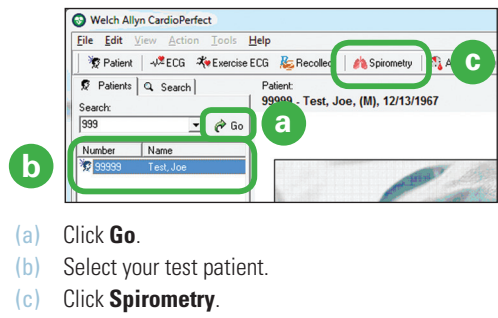
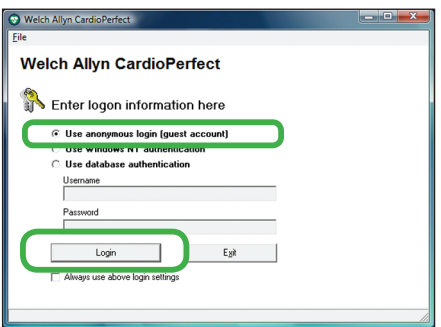
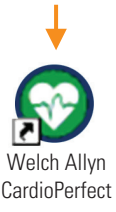
Caution With the spirometer, always use the USB extension cable, as shown. This cable helps to prevent damage to the spirometer.



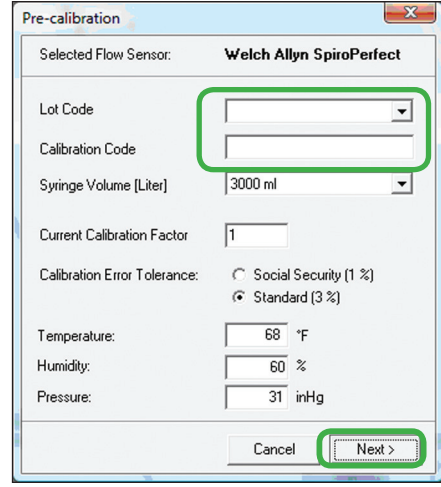
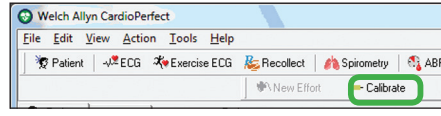
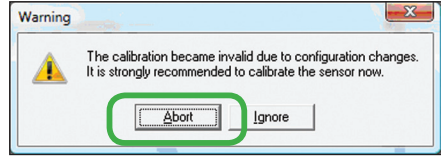
2 Verify the installation of the spirometer.



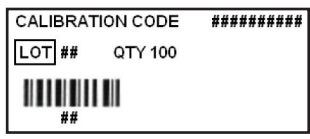
Attach the flow tube. Attach the calibration syringe as illustrated.



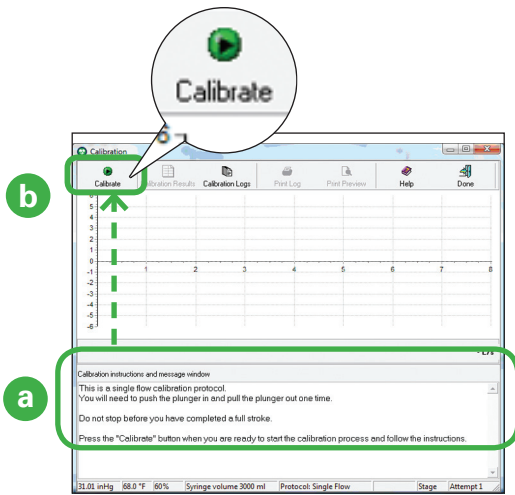
- (a) Click **Go**.
- (b) Select your test patient.
- (c) Click **Spirometry**.



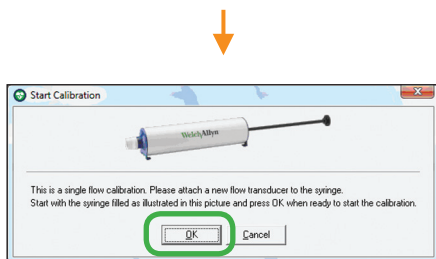
The lot code and calibration code appear on the flow transducer box:



(next page)

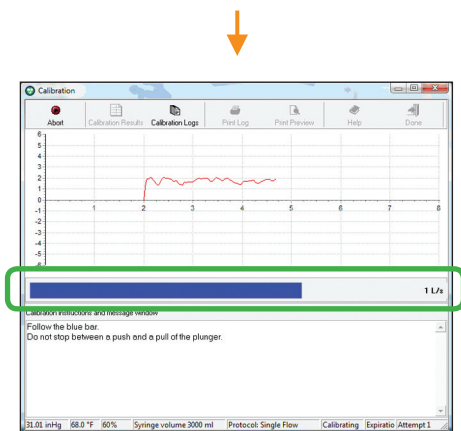


- (a) Read the instructions on this screen.
 (b) Click **Calibrate**.

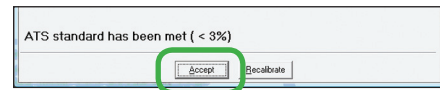
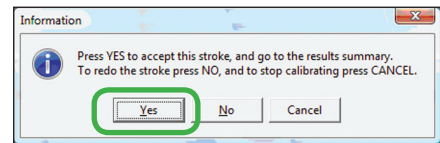


Follow the instructions on this screen.

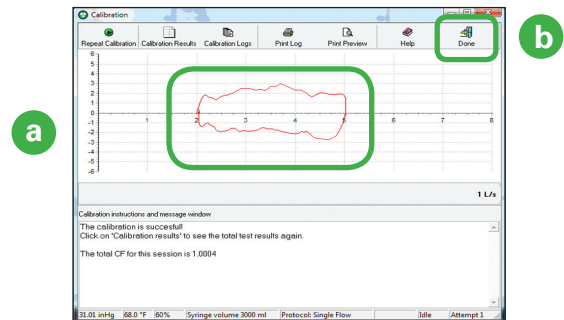
..3.. ..2.. ..1..



Push and then pull the plunger in sync with the side-to-side motion of the blue bar. Move steadily, all the way in and then all the way out, without hesitating during the stroke.



Don't worry if your screen says ATS standard has NOT been met. You don't need to meet the standard for this verification.



- (a) Verify that you see a flow loop. Each flow loop looks slightly different.
 (b) Click **Done**. You have verified that your spirometer is communicating with the Workstation.

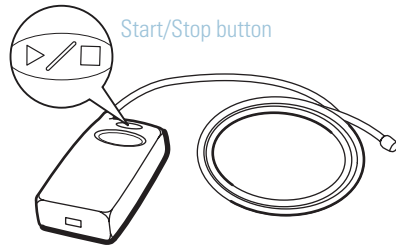
Before performing spirometry tests, be sure to perform a successful calibration.

INSTALLING THE ABPM 6100 ON A CARDIOPERFECT WORKSTATION

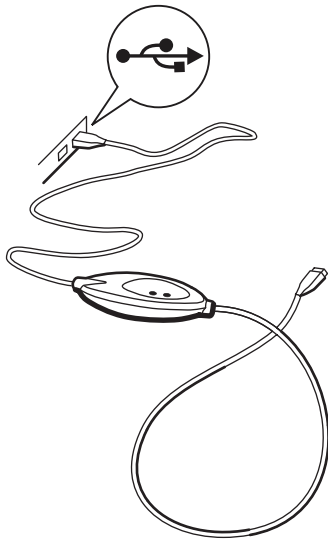
Before you start, install the CardioPerfect Workstation software.

1 Install two fresh AA batteries in the recorder.

If the recorder is on, turn it off. (**Press and hold** the Start/Stop button for five seconds until the device emits five quick beeps.)



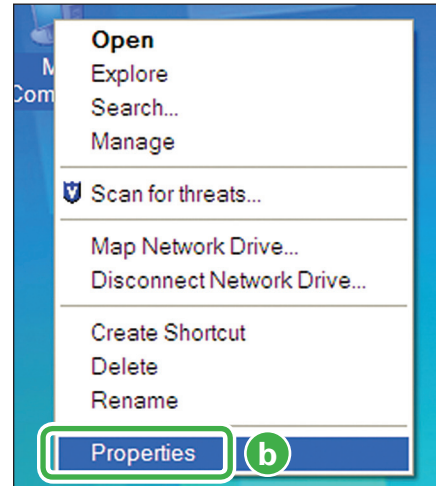
2 Plug the PC Interface Cable into a USB port on your PC.



(a) Right-click on **(My) Computer**.



The actual screens you see may appear slightly different than what is pictured below.



(b) Select **Properties**.

If you have Windows XP, continue to step c.
If you have Windows 7 or Windows 8, go to step e.

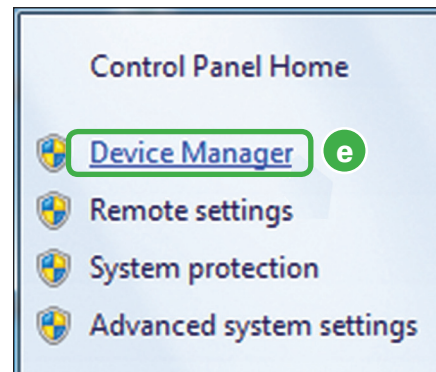


Windows XP

(c) Click the **Hardware** tab.

(d) Click the **Device Manager**.

OR

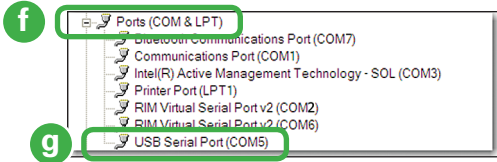


Windows 7 and Windows 8

(e) Click the **Device Manager**.



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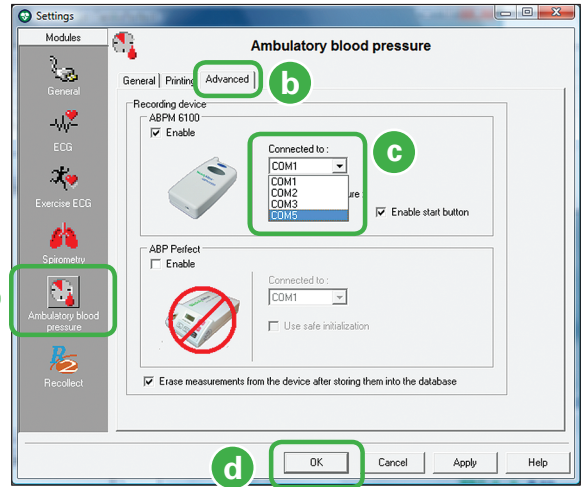
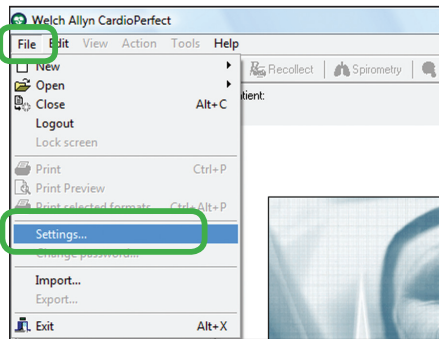
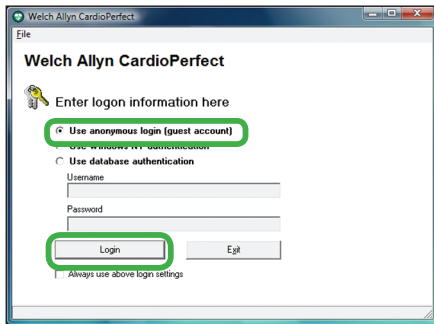


- (f) Double-click **Ports (COM & LPT)**.
- (g) Make a note of the number associated with the selected COM port. You will need this number in the next steps. Allow Windows to install the driver.

3 Select the proper CardioPerfect settings.



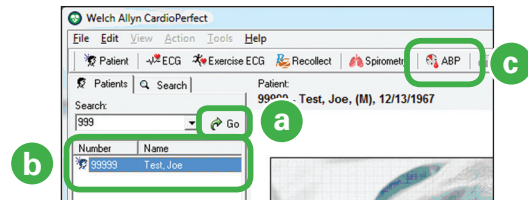
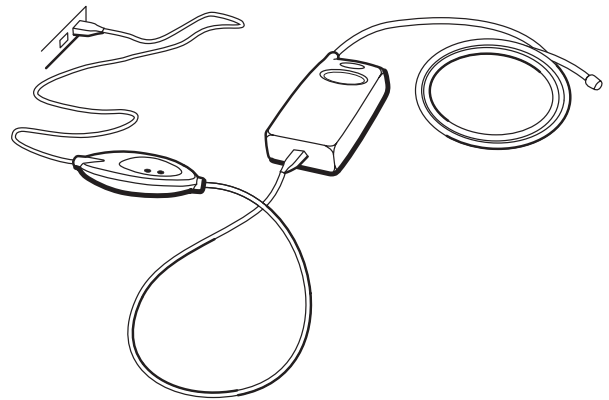
Welch Allyn CardioPerfect



- (a) Click this icon.
- (b) Click this tab.
- (c) Select the COM number appropriate for your recorder. Use the number you previously made a note of in *Step 2, (g)*.
- (d) Click **OK**. You can leave the main screen open.

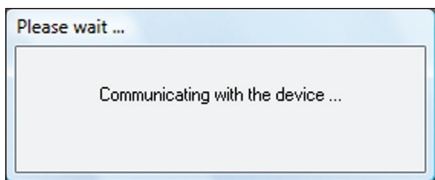
4 Verify the installation of the ABPM 6100 recorder.

Attach the cable to the recorder.

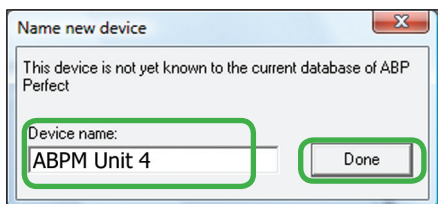


- (a) Click **Go**.
- (b) Select your test patient.
- (c) Click **ABP**.

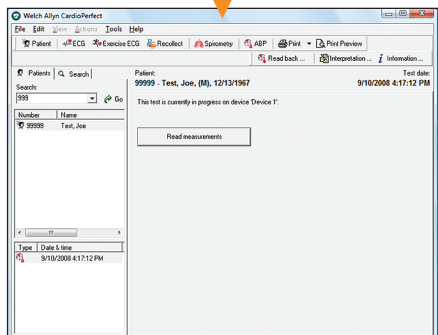
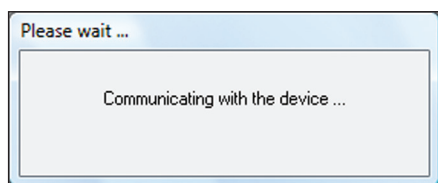
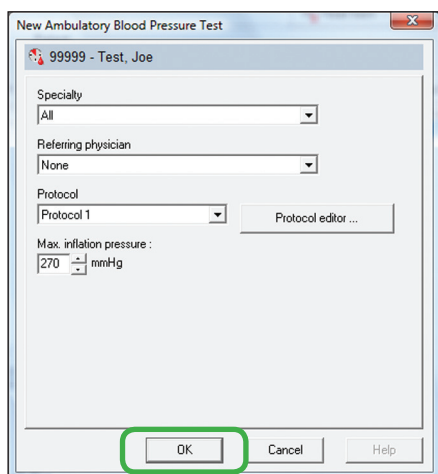
(next page)



The recorder turns on. (It turns on and off automatically throughout this procedure.)



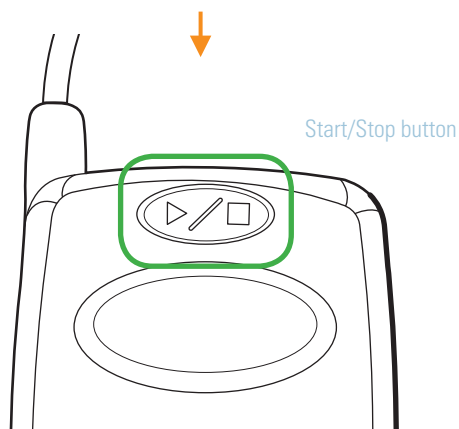
You can give the recorder any name that you find helpful.



The recorder is ready to take a BP measurement.



Disconnect the cable from the recorder.



Press the Start/Stop button to turn the recorder on.



Press the Start/Stop button again to start the BP pump.



Press the Start/Stop button again to stop the BP pump.



When BP stops, verify that the recorder displays an error code ("E" followed by a number).



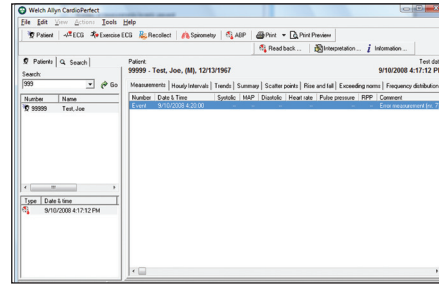
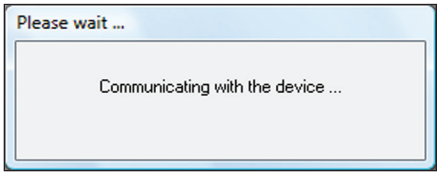
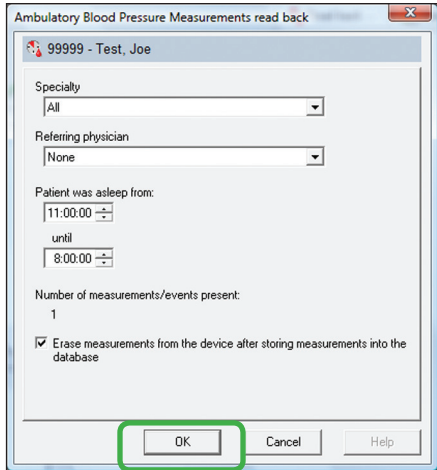
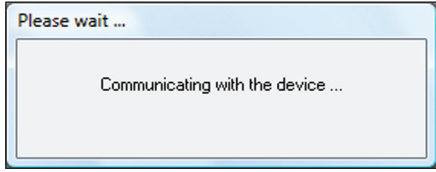
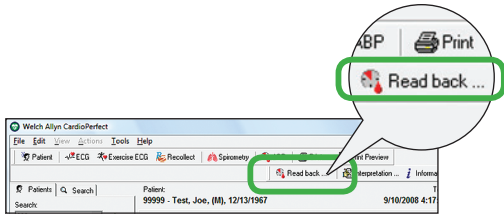
Press and hold the Start/Stop button until you hear a series of quick beeps (approximately 7 seconds) to turn the recorder off.



Attach the cable to the recorder.



(next page)



Verify that your BP measurement appears in the test patient's record. (Look for an error message in the Comment column.) Your recorder is properly installed.