

How to Set Up Network Communication for PTW Detector Arrays without DHCP

VeriSoft 5.1 or higher

Detector Interface 4000 (T16039)

This technical note applies to the following PTW detector arrays:

OCTAVIUS Detector 729 (T10040)

OCTAVIUS Detector 729^{xdr} (T10042)

OCTAVIUS Detector 1000 SRS (T10036)

STARCHECK (T10043)

STARCHECK^{maxi} (T10033)

NOTE

This technical note assumes that PC and PTW detector array with the Detector Interface 4000 are part of a network without DHCP, or that they are connected directly by means of a network cable. If you want to learn how to set up a network connection for a PTW detector array in a DHCP network, please refer to technical note D252.200.01.

The Detector Interface 4000 is configured for Auto IP. Via Auto IP, PC and Detector Interface 4000 automatically assign themselves IP addresses in the range 169.254.x.x (subnet mask 255.255.0.0). This range and the subnet mask reflect the default settings of many PCs. Chapter 1 of this technical note describes how to check if your PC is set up for Auto IP.

If you want to establish a network connection to a network that uses static IP addresses (and not Auto IP or DHCP), you need to manually set a static IP address for the Detector Interface 4000 before you are able to integrate it into your network. Chapter 2 explains how to set a static IP address for the Detector Interface 4000.

Chapter 3 describes how to set up the network connection in the software.

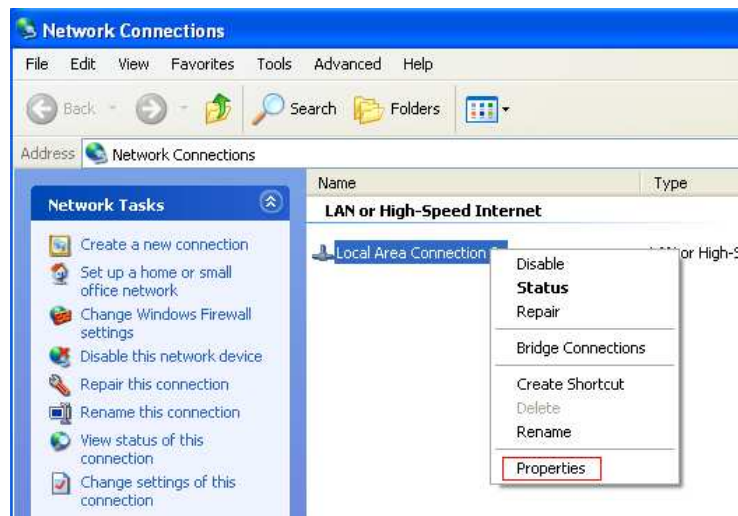
1 Configuring your PC for Auto IP

If you want to establish a direct connection via Auto IP, the network settings of your PC need to be set to **Obtain an IP address automatically / Automatic private IP address**. Usually this is the default setting. To check if your PC is set up for Auto IP, proceed as follows.

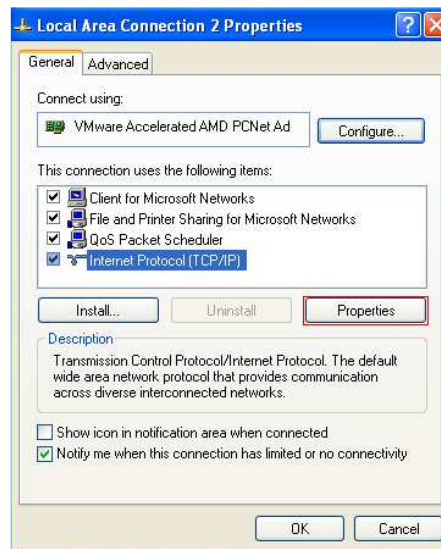
1. In Windows XP, right-click on **My Network Places** and select **Properties** (In Windows 7, type **Network and Sharing Center** in the Windows search bar and click on **Change adapter settings** instead).



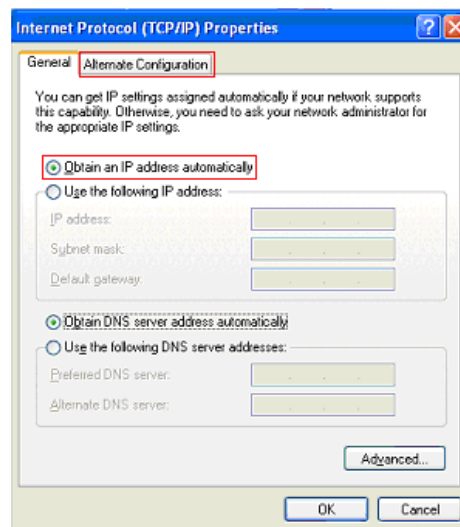
2. In the next window, right-click on the **Local Area Connection** item and select **Properties**.



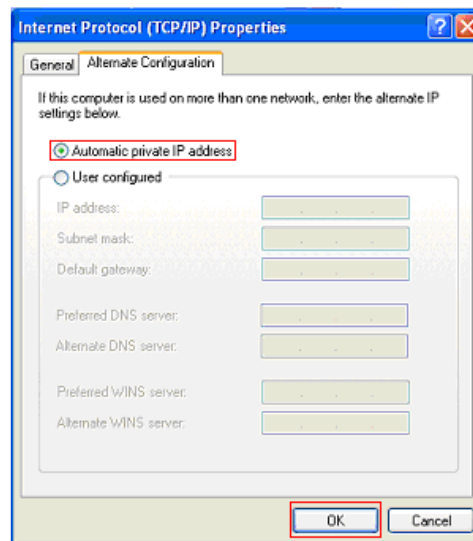
3. In the window that comes up, highlight **Internet Protocol (TCP/IP)** and click the **Properties** button (In Windows 7 you need to highlight **Internet Protocol Version 4(TCP/IPv4)** instead).



4. In the **Internet Protocol (TCP/IP) Properties** window, make sure the radio button **Obtain an IP address automatically** is selected. Then click on the **Alternate Configuration** tab.



5. In the **Alternate Configuration tab**, make sure the radio button Automatic private IP address is selected. Confirm the settings by clicking **OK**.



Your PC is now set up for Auto IP.

6. If you want to establish a direct connection between your PC and the Detector Interface 4000 via Auto IP, proceed with chapter 3.
If you want to integrate the Detector Interface 4000 into a network that uses static IP addresses (and not AutoIP or DHCP), follow the steps in chapter 2.

2 Setting up the Detector Interface 4000 to operate in a Network with static IP Addresses

In order to establish a network connection to a network without DHCP, you need to assign a static IP address to the Detector Interface 4000.

Prerequisites

Before you will be able to set a static IP address for the Detector Interface 4000, you need:

1. A PC that is not part of a network. The internal firewall of your PC needs to be switched off while you are setting up the static IP address.
2. The PTW-SetIP program. You can find it in the **Tools** folder on the PTW Software installation disc.
3. The information from your network administrator which IP address, Subnet mask, and Default gateway you need to assign to the PTW device in order to integrate it into your network. Note down this information.

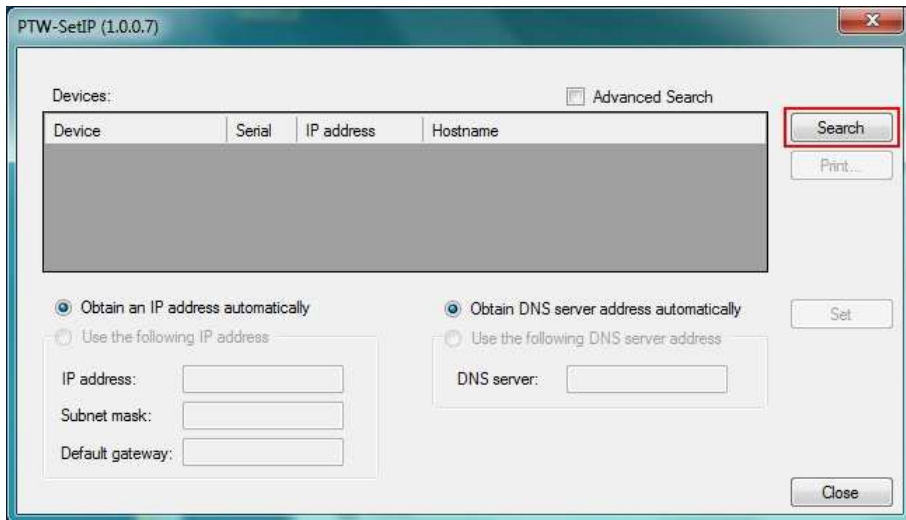
Setting the Static IP Address for the Detector Interface 4000

NOTE

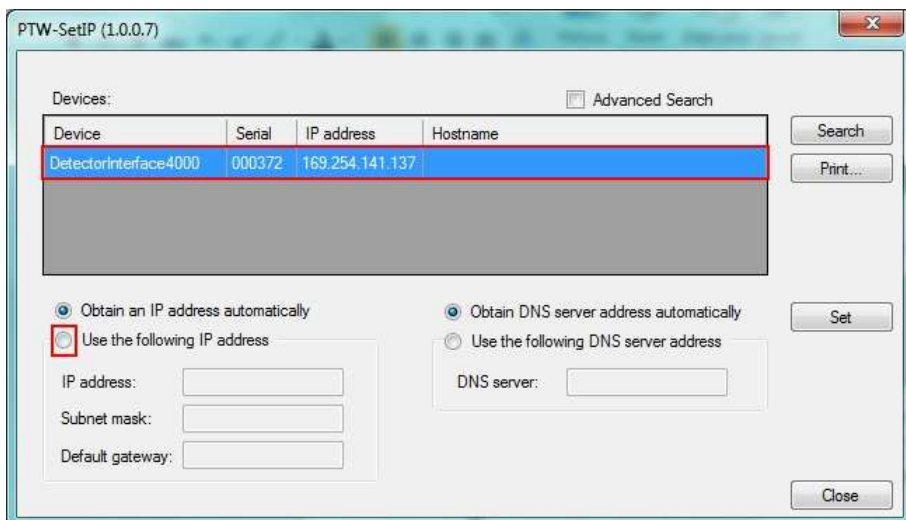
Once you have set a static IP address for the Detector Interface 4000, the device is no longer configured for Auto IP. Therefore, it is recommended to note down the network information you assign to the Detector Interface 4000 and keep it with the device in case you need to set up communication with a different PC.

1. Make sure the Detector Interface 4000 is turned off.
2. Establish a direct connection between your PC and the Detector Interface 4000 by using a LAN cable in combination with the crossover adapter L178090 that was part of the Detector Interface 4000 delivery (or use a crossover cable without the adapter).
3. Turn on the Detector Interface 4000. Wait at least one minute to allow time for PC and Detector Interface 4000 to assign themselves IP addresses.
4. Start the PTW-Set IP program on your PC. If you are running Windows 7, the program needs to be started as administrator.

5. The PTW-SetIP dialog opens. Click on the **Search** button to find connected devices.

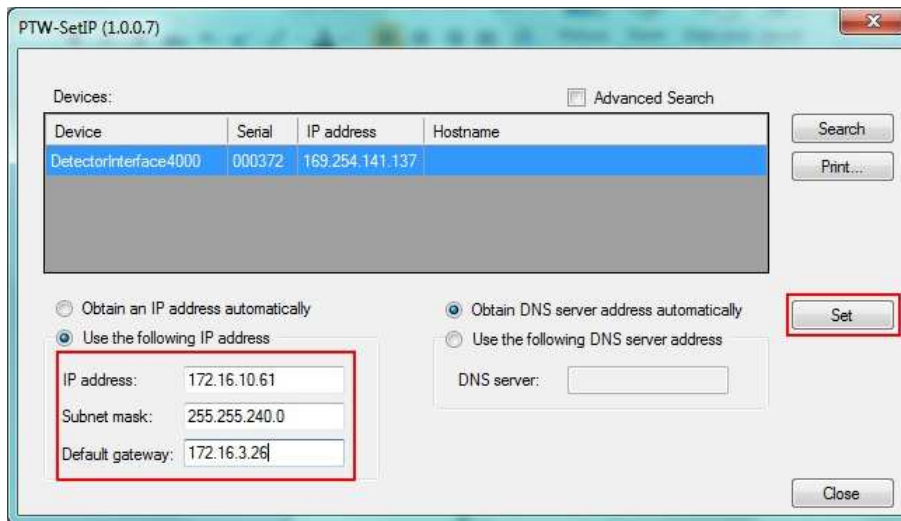


6. After a couple of seconds, the connected Detector Interface 4000 will be displayed. Highlight the entry, and click the radio button next to **Use the following IP address**.

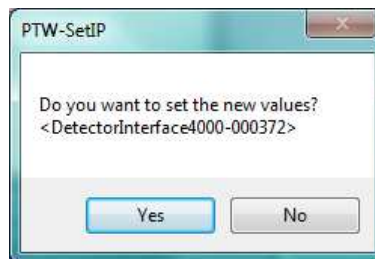


If your Detector Interface 4000 was not found, make sure the device is properly connected and turned on. Check if the internal firewall of your PC is disabled (you can find a guide of how to turn off the Windows firewall in **Appendix A**). If you are not able to turn off the firewall, contact your system administrator.

- You are now able to enter the network information you got from your system administrator. Fill in the **IP address**, **Subnet mask** and **Default gateway** address. Make sure you have entered the information correctly and click on **Set**.



- A window appears, asking you if you really want to set the new values. Confirm by clicking **Yes**.



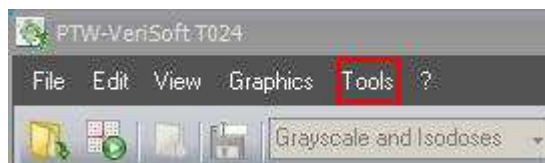
- After some seconds, the new IP will be displayed next to the entry of your device.
- Your Detector Interface 4000 now has a static IP address and can be integrated into your network. Turn off the Detector Interface 4000 and follow the steps in chapter 3 in order to set up the connection in the VeriSoft software.

3 Setting up the Connection in the Software

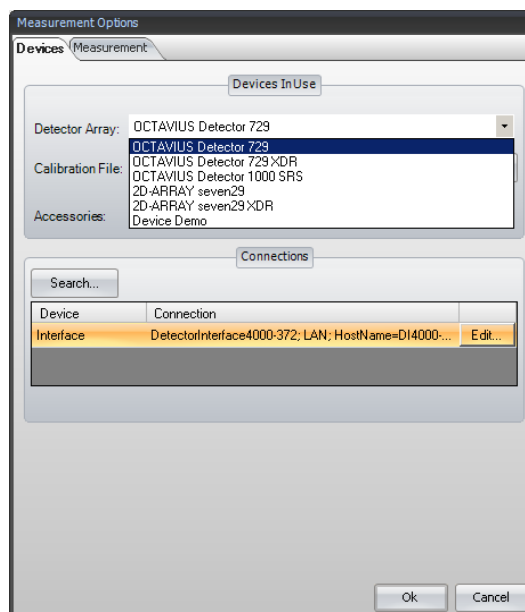
1. Install the VeriSoft software on your PC.
2. Make sure the Detector Interface 4000 is turned off.
3. Connect the PTW detector array to the Detector Interface 4000.
4. If you want to set up network communication between a PTW detector array and a network without DHCP, connect the Detector Interface 4000 to your network via LAN cable (in order to integrate the Detector Interface 4000 into your network without DHCP you need to have assigned a static IP address to the device - see chapter 2).

If you want to directly connect a PC that is not part of a network to the Detector Interface 4000, use a LAN cable in combination with the crossover adapter L178090 that was part of the Detector Interface 4000 delivery (or use a crossover cable without the adapter) to connect your PC to the Detector Interface 4000.

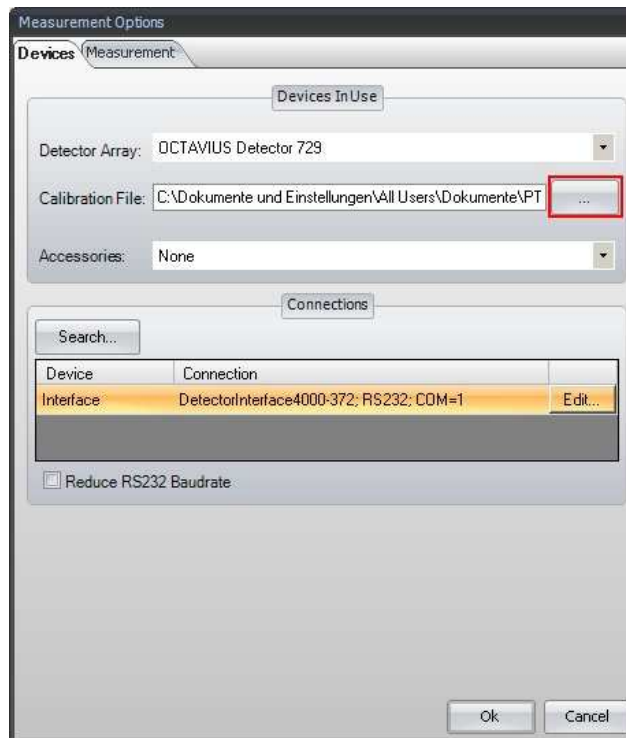
5. Turn on the Detector Interface 4000.
The Detector Interface 4000 will automatically receive an IP over Auto IP (**Note:** This is not the case if you have entered a static IP address for the Detector Interface 4000). This process may take a while, so wait at least one minute.
6. Start the VeriSoft software on your PC.
7. In the VeriSoft software, select **Tools → Measurement Options** in the menu bar.



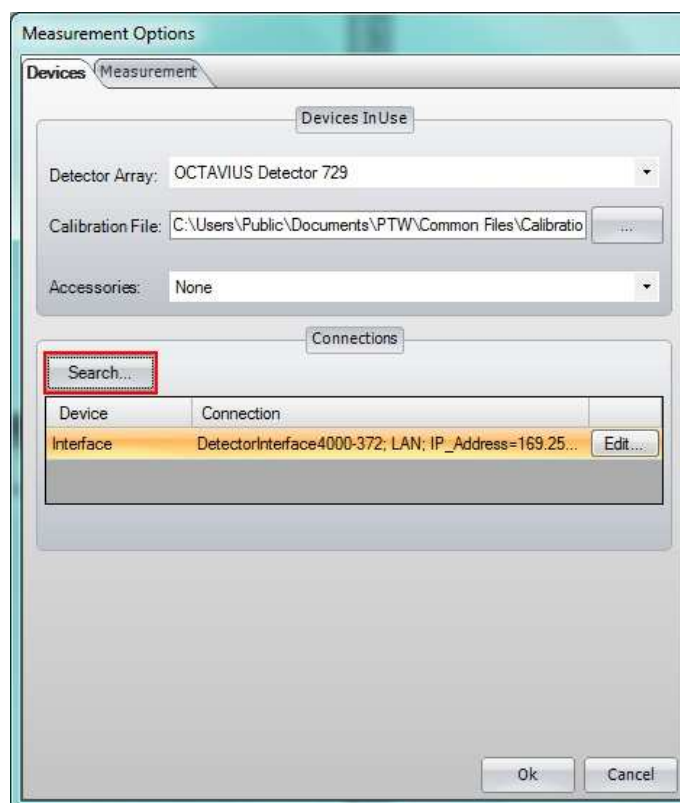
8. The **Measurement Options** window opens. Choose the correct detector array from the drop down menu:



9. Click the **...** button next to the **Calibration file** panel and select the calibration file corresponding to your detector.

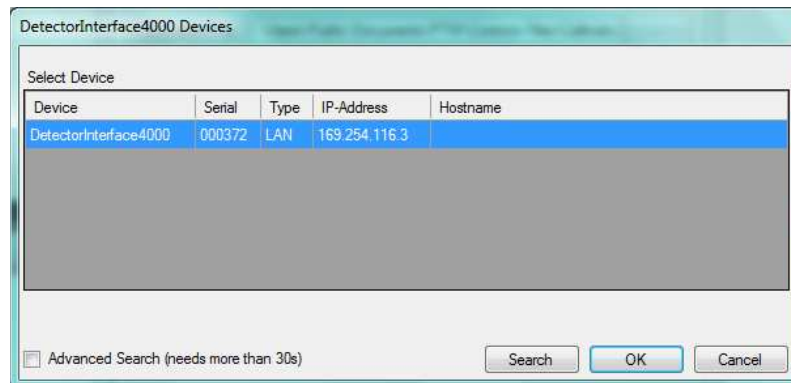


10. Click the **Search...** button.



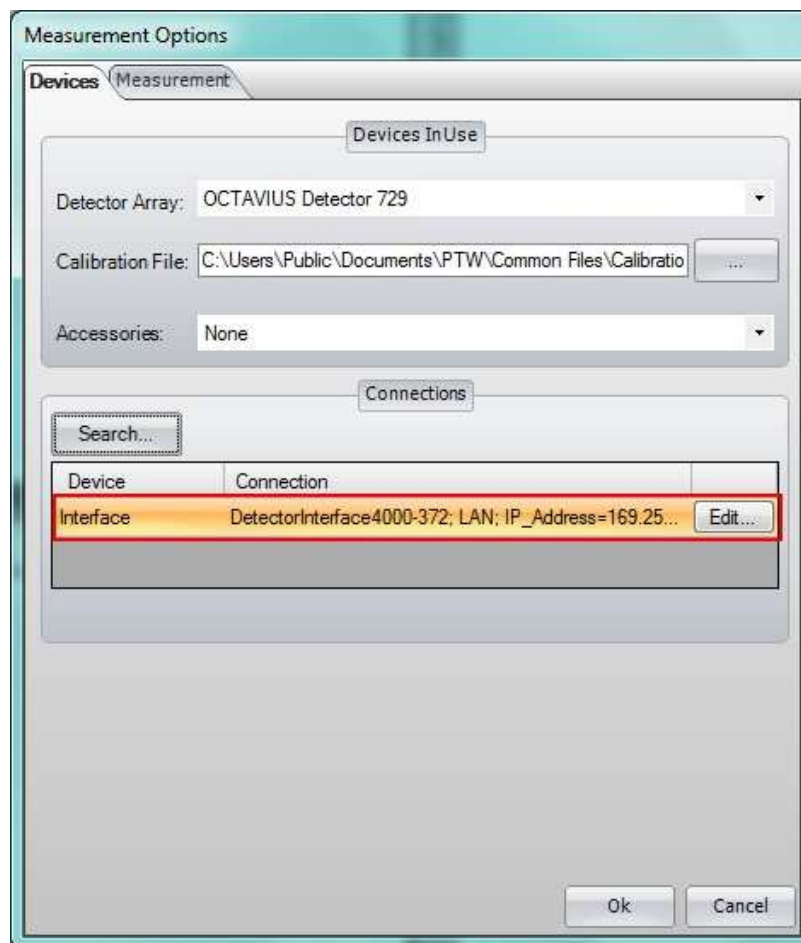
Please note: It is possible that this search will be blocked by your firewall. **Appendix A** shows how to disable the standard Windows firewall. If you cannot disable your firewall, contact your system administrator.

11. The **DetectorInterface 4000 Devices** window appears, listing all connected Detector Interface 4000 that could be found in the network. Select the device for which you want to set up the connection (you can identify it by its serial number if there is more than one) and click **OK**.

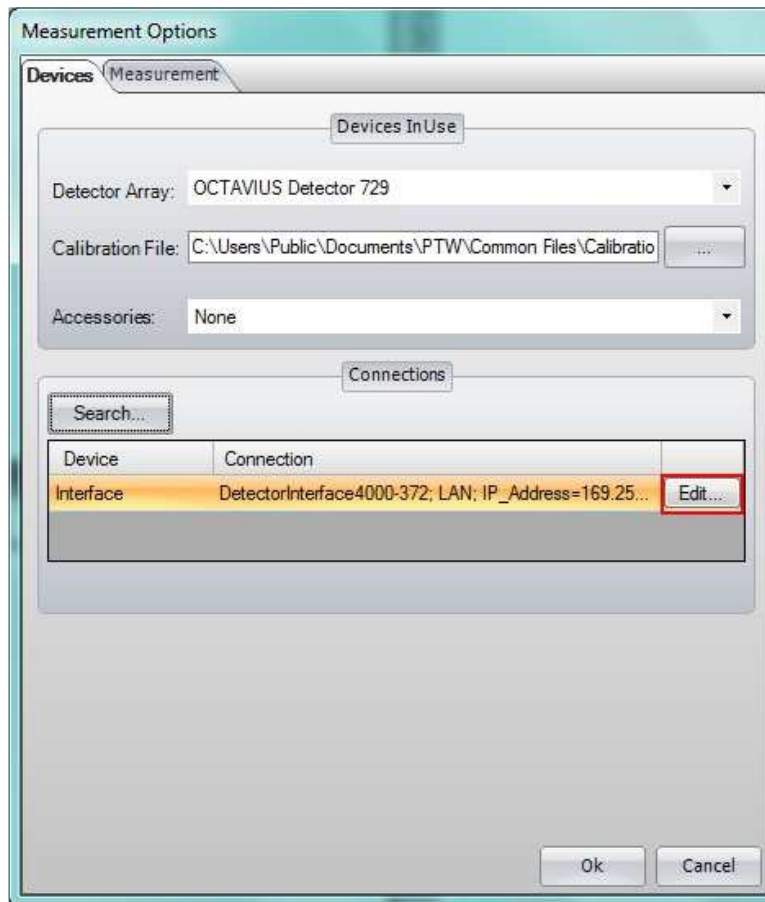


If your device does not appear in the list, check again if it is properly connected and turned on. If you have not already done so, disable the firewall. Repeat the search.

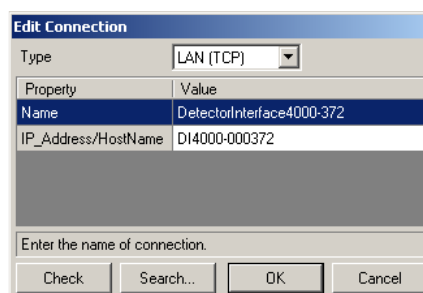
12. The established connection is now displayed in the **Measurement Options** window.



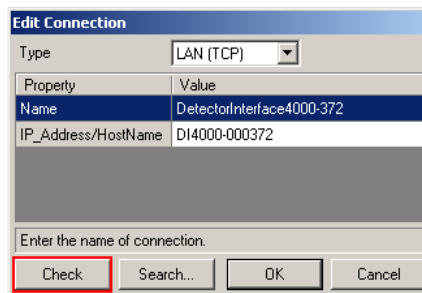
13. To check the connection, click on the **Edit...** button next to its entry.



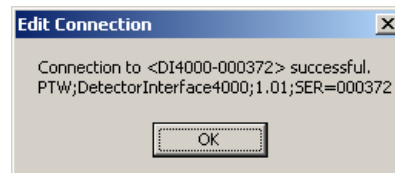
14. The **Edit Connection** window appears, showing the details of the respective connection.



15. Click on the **Check** button.



16. A message that the connection was successful should appear. Confirm with the **OK** button.



17. Leave the **Measurement Options** window by clicking **OK**. The network connection to your PTW Detector Array is now established.

Appendix A

Disabling the Firewall

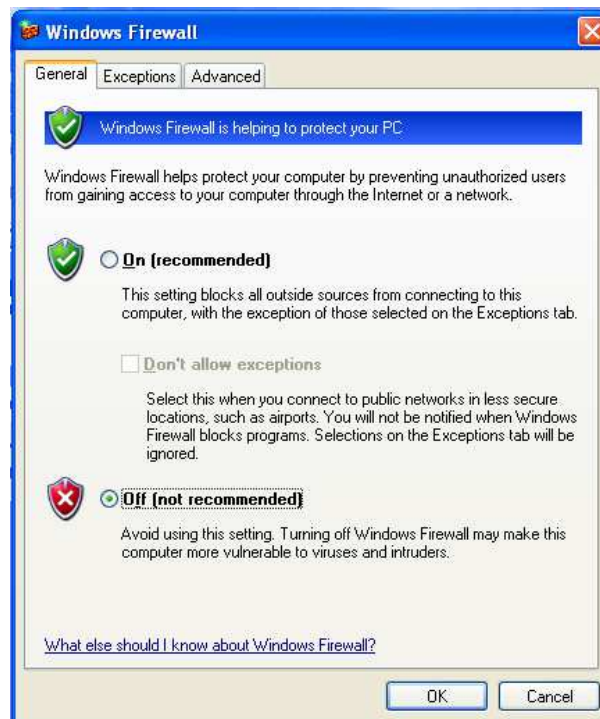
It is possible that the Search function of the PTW programs is blocked by your firewall. In this case, you have to disable your firewall while setting up the connection. Disabling the firewall is only recommended if you have established a direct connection between PC and PTW device, and the PC is not part of a network. Once you have set up the connection, make sure to turn on the firewall again.

This appendix shows how to turn off the standard Windows firewall in Windows XP and Windows 7. You need administrator rights to do so.

If you are using a different firewall or do not have administrator rights, contact your system administrator.

Disabling the Firewall in Windows XP

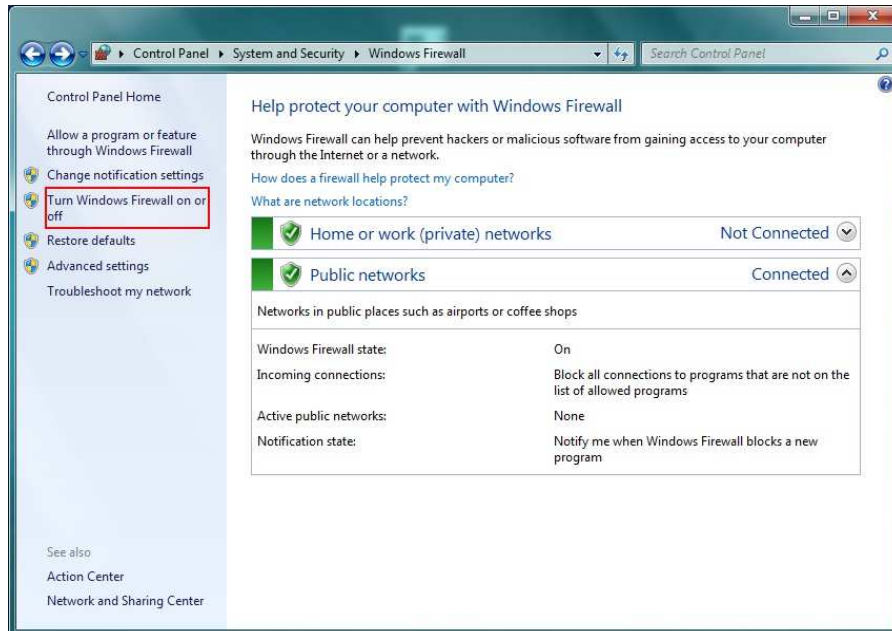
The firewall can be disabled via **Control Panel** → **Windows Firewall** → **General tab**.



Click the radio button **Off (not recommended)** and confirm your choice by clicking OK. The Search function of the PTW programs should no longer be blocked. Do not forget to turn the firewall on again, once you have set up the connection.

Disabling the Firewall in Windows 7

The firewall can be disabled via **Control Panel → System and Security**. Click on the **Windows Firewall** entry. Choose **Turn Windows Firewall on or off** on the left side:



Click both radio buttons **Off (not recommended)** and confirm your choice by clicking OK. The Search function of the PTW programs should no longer be blocked. Do not forget to turn the firewall on again, once you have set up the connection.

