

DuraLink

An add-on application for DuraSoft

Instruction Manual

Original Instructions



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1 About this manual

**CAUTION****Read the machine manual**

Struers equipment must only be used in connection with and as described in the Instruction Manual supplied with the equipment.
The machine manual also contains important warnings to the use of the machine.

**Note**

Read the Instruction Manual carefully before use, and save it for future reference.

2 Description

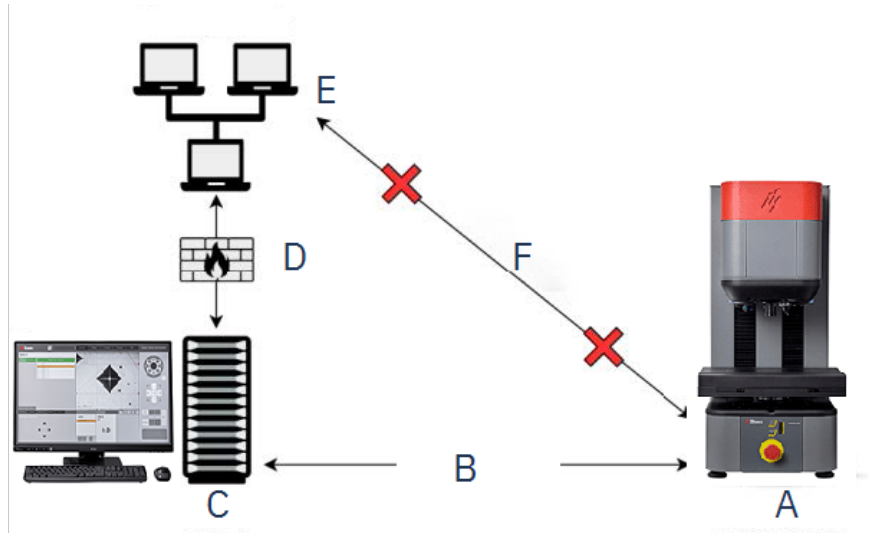
The internal PC of the Dura-series machine (hardness tester) may be connected to your company network.

DuraLink is an add-on for DuraSoft and the hardness tester, which offers a 'machine-control connection' from your PC to the hardness tester.

The hardness tester will be connected directly to your PC by the use of an UTP cable. This is a peer-to-peer connection, which will isolate the hardness tester from any other networks.

The tool consists of 2 programs; one which will be installed on an external PC, and the other which will be installed on the hardness tester.

For service purposes, the external PC can also use TeamViewer QuickSupport to allow a remote-service connection.



A Hardness tester	D Firewall
B Network cable	E Company network
C Your PC	F No connection

3 Prerequisites

Software

The DuraLink USB stick includes:

- DuraLink software for your PC
- DuraLink Tester software for your hardness tester machine
- A license for DuraLink
- TeamViewer QuickSupport software

Hardware

- Network cable (to connect the hardness tester to your PC)

3.1 Prerequisites for the hardness tester

Hardness tester software

- Version 4
- Installed in default location: d:\durasoft\
- Functional without errors

Screen

- Attached to the hardness tester
- Landscape-oriented



Hint

You can remove the screen after installation of the Launcher application.

3.2 Prerequisites for the PC

Connections

- A free network connection

Windows operating system

- Versions 10 or 11
- User-login with administrative rights.
Alternatively, ask your system administrator to support you.

Screen

- Landscape-oriented
- Resolution minimal “Full HD” (1920 x 1080 pixels)
- Optional: Multi-touch

Hard disk

- At least 5 MB free space



Hint

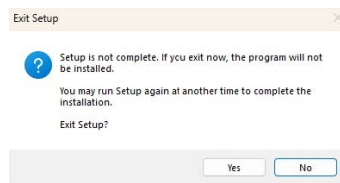
When you save your hardness tester data on the shared drive of your PC, you need more free space on your PC.

4 Install software

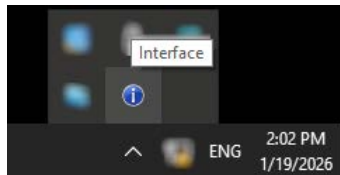
4.1 Install software on the hardness tester

1. From the DuraLink USB stick, run the installer (exe file).
2. If by accident you run the installer for the PC, you get a warning, and a disabled/gray **Next** button.
 - Select **Exit**.

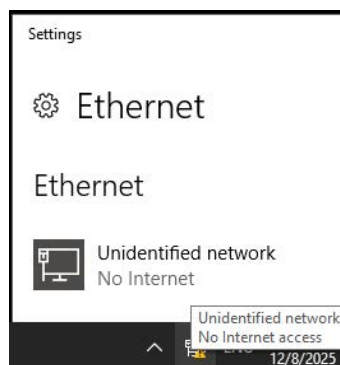
- Select **Yes**.



- Run the correct installer.
- Follow the questions and instructions from the installer.
 - In **Additional Tasks**, select **Next**.
 - You see a summary of actions that are performed by the installer.
 - Select **Install**.
 - The Windows on the machine is protected against changes via the Microsoft Unified Write Filter (UWF). The installer temporarily disables this protection. After the installation, the installer enables the protection again. Because of this Windows protection tool, Windows will restart several times.
 - Select **OK**.
 - If you get a message that some applications prevent restarting, wait until the dialog disappears.
 - Ignore the information text **The application may be launched by selecting the installed shortcuts**. The application starts automatically.
 - Select **Finish**.
 - After a successful install, the "i" icon in the Windows system tray tells you that the DuraLink Launcher is running.



- In the Windows System tray, the **No Internet access** message indicates that the local PC to machine connection is isolated from your company network.



4.2 Install software on the PC

The following instructions describe how you install software at a minimum on your PC.

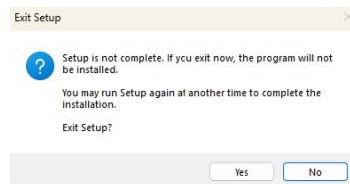
1. From the DuraLink USB-stick, run the installer (exe file).



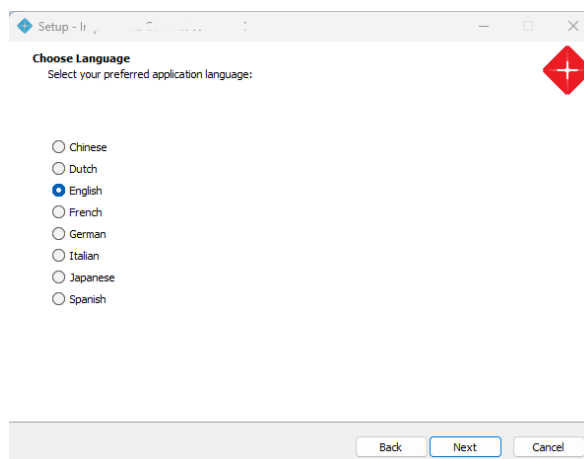
WARNING

If you receive a warning from your antivirus software, contact your system administrator to add an antivirus exception for this file.

2. If by accident you run the installer for the hardness tester, you get a warning and a disabled/gray **Next** button.
 - Select **Exit**.
 - Select **Yes**.



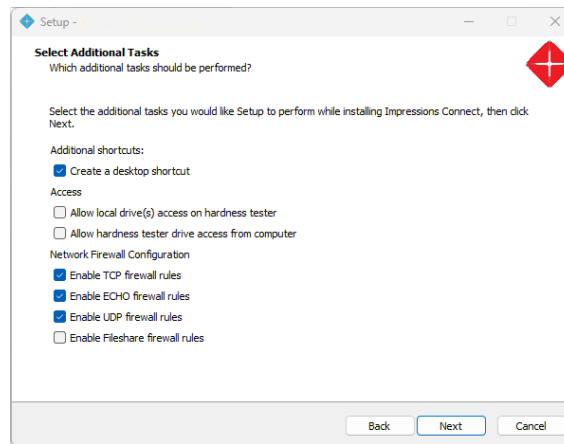
- Run the correct installer.
3. Follow the questions and instructions from the installer.
 4. In **Select install mode**, choose **Install for all users (recommended)**.
 5. In **Select Destination Location**, do not change the proposed location, unless instructed.
 - Select **Next**.
 6. In **Choose language**, this is the language that will be used when you run DuraLink.



Hint

The installer itself is only available in English.

- Select **Next**.
7. In **Select Start Menu folder**, do not change the proposed location unless you are instructed to do so.
 - Select **Next**.
 8. Setup window **Select Additional Tasks**



- In **Additional shortcuts**, select **Create a desktop shortcut**.

**Hint**

After installation, DuraLink is always available via the Windows button.

- In **Access**, do not change the proposed defaults. Later on, when you want to change your settings in **Access**, you can re-run the installer, and make your wanted changes.
 - In **Network Firewall Configuration**, do not change the proposed defaults. Later on, when you want to change the **Network Firewall Configuration**, you can re-run the installer, and make your wanted changes.
 - Select **Next**.
9. In **Ready to Install**, you see a summary of actions that will be done by the installer.
 - Select **Install**, and wait until the installer is ready.
 - Then select **Finish**.
 10. Now, the software you need to connect your PC to the hardness tester is ready.
 - If you also want to enable the network drive access, see [Use a remote drive access](#) ► 9.
 - Otherwise, follow the directions in [Start DuraLink](#) ► 11.

5 Configure software on your PC

5.1 Use a remote drive access

1. From the DuraLink USB stick, re-run the installer until the **Select Additional Tasks** step.

2. In **Access**:

- Activate the choice **Allow local drive(s) access on hardness tester** if you want DuraSoft to be able to store/read data from your PC. See more details in [Changed functionality in DuraSoft ► 13](#).

Access

☒ Allow local drive(s) access on hardness tester

☐ Allow hardness tester drive access from computer

- Activate the choice **Allow hardness tester drive access from computer** if you want your PC to be able to see the data on the d-drive. See more details in [Changed functionality in DuraSoft ► 13](#).

Access

☐ Allow local drive(s) access on hardness tester

☒ Allow hardness tester drive access from computer

5.2 Use a network firewall configuration

**Note**

When your PC uses a different firewall than **Microsoft Defender**, consult your System Administrator.

1. From the DuraLink USB stick, re-run the installer until the **Select Additional Tasks** step.
2. In **Network Firewall Configuration**, set the firewall rules for **Microsoft Defender**.

Network Firewall Configuration

☒ Enable TCP firewall rules

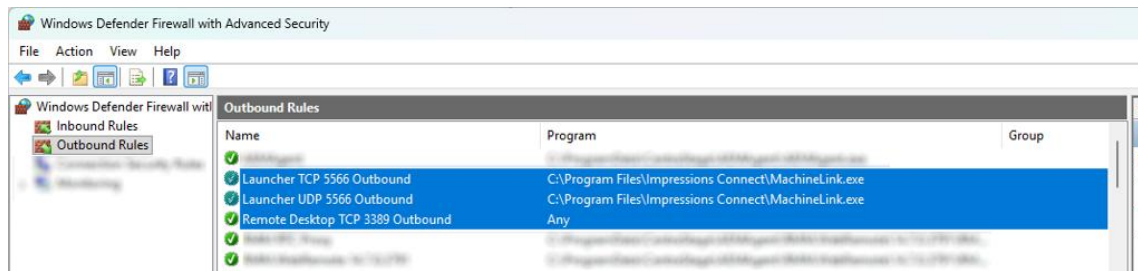
☒ Enable ECHO firewall rules

☒ Enable UDP firewall rules

☐ Enable Fileshare firewall rules

- **Enable TCP firewall rules**
 - Try to allow TCP port 5566 for only the app; rule named “Launcher TCP 5566 Outbound”.
 - Try to allow TCP port 3389 for general Remote Desktop; rule named “Remote Desktop TCP 3389 Outbound”.
- **Enable ECHO firewall rules**
 - Try to allow.
- **Enable UDP firewall rules**

- Try to allow UDP port 5566 for only the app; rule named “Launcher UDP 5566 Outbound”.
 - **Enable Fileshare firewall rules**
 - Try to allow TCP 445 for Samba file share.
 - Try to allow TCP 139.
 - Try to allow UDP 138.
 - Try to allow UDP 137.
3. Optional: Verify the changed settings in the **Microsoft Defender Firewall** rules.



6 Start DuraLink

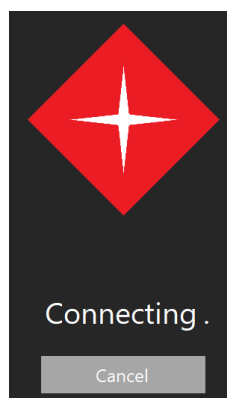
1. On your PC, search for DuraLink:
 - via a shortcut on the desktop.
 - via the Windows **Start** menu.



Hint

To get the desktop shortcut, you must select **Create a desktop shortcut** during the installation.

2. When you select DuraLink, the application will try to connect to the machine.





Hint

The text in the dialog will be in the language you selected in the installer.



WARNING

If you receive a warning that the file **machinelink.exe** has been changed or removed, contact your system administrator to add the file to the antivirus exception list.

3. The connecting was successful if you get the **LOGIN** window.



Note

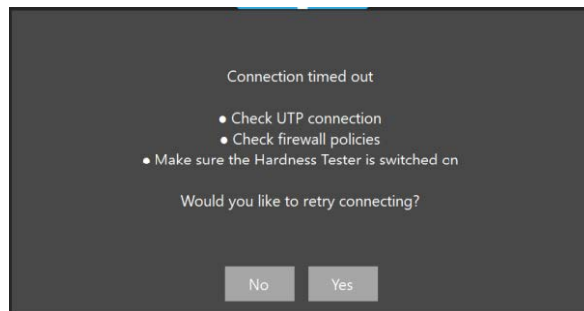
See the separate DuraSoft Instruction Manual for login and operation instructions.



Hint

For additional functions of the DuraLink software, see [Changed functionality ► 12](#).

4. If you get the message **Connection timed out**, follow the instructions in [Troubleshooting ► 16](#).



7 Changed functionality

7.1 Changed functionality on the hardness tester

With DuraLink, when you power up your PC, the DuraSoft software does not start automatically. Instead, you must manually launch the application by clicking on the DuraSoft icon on the

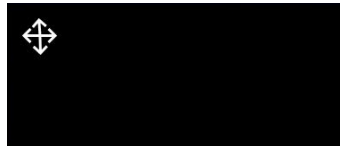
desktop.

7.2 Changed functionality in DuraSoft

1. Move DuraSoft

It is possible to relocate the DuraSoft UI when the screen size (number of pixels) of your PC is larger than the screen of the machine ("Full HD" 1920 x1080 pixels):

- Hover your mouse to the top of the UI until you see the move icon.



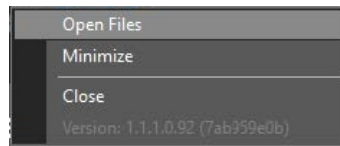
- Press and hold to move the UI to your desired location.

2. Additional items

- Hover your mouse to the top of the UI, until you see the hand icon.



- If you click with the mouse or tap on the touch screen, a dialog opens with various links.



Hint

The text in the dialog will be in the language you selected in the installer.

- **Open Files**

Opens the Windows File Explorer on your PC.

The default location is the shared D-drive of the hardness tester (not a local drive).

Now you can use your locally installed application, like Excel, to view the saved measurements in DuraSoft.



Hint

The option **Open Files** is available if you mark **Allow hardness tester drive access from computer** when you install DuraLink.

**Note**

The Excel application which you need to see xls files, is not part of the DuraLink package.

**Note**

Because you browse in files on the hardness tester, be careful when you change or remove files.

- **Minimize**

Minimizes the application to the Windows taskbar.



To maximize again, tap the DuraLink icon in the taskbar.

- **Version**

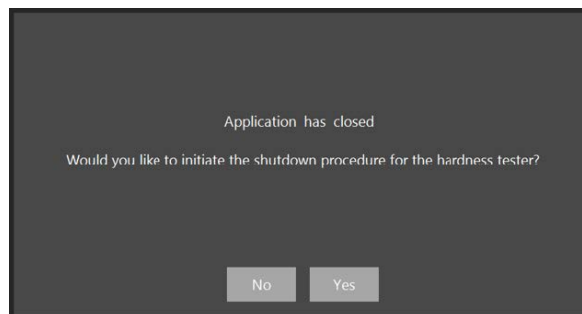
This is not an active link. It shows the version number of the DuraLink application on the PC.

3. Within DuraLink, you can now also open and save files (**Archives, Reports, Exports**) that are stored on your PC.

**Hint**

This feature is available if you mark **Allow local drive(s) access on hardness tester** when you install DuraLink.

4. If you choose to exit the system, you will get the message **Application has closed**. And you are asked to respond to the question: **Would you like to initiate the shutdown procedure for the hardness tester?**



- **No**

- Closes the UI connection between the hardness tester and your PC.
- Keeps Windows running on the hardness tester.
- Makes it possible to re-connect to the hardness tester.

- **Yes**

- Closes the UI connection between the hardness tester and your PC.
- Shuts down Windows on the hardness tester.

**Note**

You must turn the power off manually.

- You cannot re-connect to the hardness tester. In order to do so, you must restart the hardness tester.

8 Uninstall

8.1 Uninstall DuraLink from the hardness tester

You can install the application the usual Windows way:

1. Search for the application **DuraLink Launcher**.
2. Select **Uninstall**.

**Hint**

Because of the Windows protection tool **Write Filter**, Windows will restart several times.

After uninstall

DuraSoft will restart automatically upon power-up of the hardness tester.

Any “Remote Desktop Connections” are disabled. The remote PC cannot connect to the hardness tester any longer.

**Note**

Remember to also uninstall DuraLink from the remote PC as well.

8.2 Uninstall DuraLink from your PC

You can uninstall the application the usual Windows way:

1. Select the Windows button, and search for the application name, DuraLink.
2. Select **Uninstall**.

**Note**

Remember to also uninstall the DuraLink Launcher from the hardness tester.

9 Troubleshooting

9.1 Error message

Connection timed out

- Follow the steps in the below error categories.

Hardness tester software was not found! Application will exit now

- On the hardness tester, verify that DuraSoft is installed in the default location, d:\DuraSoft\.

No valid license was found! Application will exit now

The additional license to activate the tool is missing or incorrect.

- The license is on the USB stick and must be copied to the hardness tester during the installation steps.

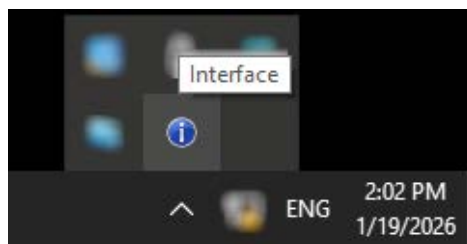
9.2 Network error

- Double-check that a network cable connects the hardness tester and the PC.

Ensure that this is a direct point-to-point connection, without any hubs, switches, routers, or connections to the company network. A proper direct link is required for reliable communication between the devices.

9.3 Error on the hardness tester

1. Double check that the hardness tester is running.
2. If you see the “i” icon in the system tray, this verifies that the DuraLink Launcher is installed.



3. When running network statistics, note that the machine has 2 on-board network cards but only 1 is available from the outside.

9.4 Error on the PC

1. Check the network cable connection:

- Windows command line: **ipconfig /all**
- Look for sections Ethernet adapter **Ethernet ***
 - ignore **Wireless LAN adapter Local Area Connection ***
 - ignore sections with *** Virtual *** in **Description**

```
C:\Users\...>ipconfig /all

Windows IP Configuration

Host Name . . . . . : 192.168.71.192
Primary DNS Suffix . . . . . : cvl.local
IP Address . . . . . : 192.168.71.192
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : 192.168.71.253

Ethernet adapter Ethernet 0:

Media State . . . . . : Media disconnected
Connection-specific DNS Suffix . . . . . : cvl.local
Description . . . . . : Fortinet VM Virtual Ethernet Adapter
Physical Address. . . . . : 00-09-0F-AA-00-01
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . . : Yes

Ethernet adapter Ethernet:

Media State . . . . . : Media disconnected
Connection-specific DNS Suffix . . . . . : cvl.local
Description . . . . . : Intel(R) Ethernet Connection (18) I219-V
Physical Address. . . . . : C4-EF-BB-34-5E-6F
DHCP Enabled. . . . . : No
Autoconfiguration Enabled . . . . . : Yes

Ethernet adapter Ethernet 2:

Media State . . . . . : Media disconnected
Connection-specific DNS Suffix . . . . . : cvl.local
Description . . . . . : Broadcom NetXtreme Gigabit Ethernet
Physical Address. . . . . : F4-5B-59-57-59-56
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . . : Yes

Wireless LAN adapter Local Area Connection* 1:

Media State . . . . . : Media disconnected
Connection-specific DNS Suffix . . . . . : cvl.local
Description . . . . . : Microsoft Wi-Fi Direct Virtual Adapter
Physical Address. . . . . : A8-59-5F-F0-F9-88
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . . : Yes

Wireless LAN adapter Local Area Connection* 2:

Media State . . . . . : Media disconnected
Connection-specific DNS Suffix . . . . . : cvl.local
Description . . . . . : Microsoft Wi-Fi Direct Virtual Adapter #2
Physical Address. . . . . : A8-59-5F-F0-F9-88
DHCP Enabled. . . . . : No
Autoconfiguration Enabled . . . . . : Yes

Ethernet adapter Ethernet 3:

Media State . . . . . : Media disconnected
Connection-specific DNS Suffix . . . . . : cvl.local
Description . . . . . : Fortinet Virtual Ethernet Adapter (NDIS 6.30)
Physical Address. . . . . : 00-09-0F-FE-00-01
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . . : Yes

Wireless LAN adapter Wi-Fi:

Connection-specific DNS Suffix . . . . . : cvl.local
Description . . . . . : Intel(R) Wi-Fi 6E AX211 160MHz
Physical Address. . . . . : A8-59-5F-F0-F9-88
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . . : Yes
Link-local IPv6 Address . . . . . : fe80::8322:186b:f409:a8e5%3 (Preferred)
IPv4 Address. . . . . : 192.168.71.86(Preferred)
Subnet Mask . . . . . : 255.255.255.0
Lease Expires . . . . . : maandag 19 januari 2026 09:05:21
Default Gateway . . . . . : 192.168.71.253
DHCP Server . . . . . : 192.168.71.192
DHCPv6 IAID . . . . . : 195882383
DHCPv6 Client DUID. . . . . : 00-01-00-01-2E-71-24-A8-C4-EF-BB-34-5E-6F
DNS Servers . . . . . : 192.168.71.192
NetBIOS over Tcpip. . . . . : Enabled
```

- If **Media State** is **Media disconnected**, then double-check the network cable between the hardness tester and the PC.
2. Check the network card setting:
- In the above **ipconfig** output, look in the section of the connected card.
 - Setting in **DHCP Enabled** should be **Yes**.
When **DHCP Enabled** is **No**, enable this the usual Windows way.

```
Ethernet adapter Ethernet:

Connection-specific DNS Suffix . . . : cvl.local
Description . . . . . : Intel(R) Ethernet Connection (18) I219-V
Physical Address. . . . . : C4-EF-BB-34-5E-6F
DHCP Enabled. . . . . : Yes

Link-local IPv6 Address . . . . . : fe80::8322:186b:f409:a8e5%3 (Preferred)
Autoconfiguration IPv4 Address. . . : 169.254.0.0
Subnet Mask . . . . . : 255.255.0.0

DHCP Server . . . . . : 192.168.71.192
DHCPv6 IAID . . . . . : 195882383
DHCPv6 Client DUID. . . . . : 00-01-00-01-2E-71-24-A8-C4-EF-BB-34-5E-6F
DNS Servers . . . . . : 192.168.71.192
NetBIOS over Tcpip. . . . . : Enabled
```

**Hint**

You only need to correct the connected network adapter.

**Hint**

You only need to enable for IPV4, not for IPV6.

3. Check the IP address and **Subnet Mask**:
 - In the above ipconfig output, look in the section of the connected card.
 - IP-address should be starting with **169.254**.
 - **Subnet Mask** should be exactly **255.255.0.0**.

```
Ethernet adapter Ethernet:
Connection-specific DNS Suffix . : 
Description . . . . . : Intel(R) Ethernet Connection (18) I219-V
Physical Address. . . . . : 80-00-56-00-00-00
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . : Yes
Autoconfiguration IPv4 Address. . : 169.254.180.97
Subnet Mask . . . . . : 255.255.0.0
IPv4 Address . . . . . : 169.254.180.97
IPv4 Subnet Mask . . . . . : 255.255.0.0
IPv4 Default Gateway . . . . . : 
IPv6 Address . . . . . : 
IPv6 Subnet Mask . . . . . : 
IPv6 Default Gateway . . . . . : 
NetBIOS over Tcpip. . . . . : Enabled
```

4. Check firewall settings: **ping**
 - Ping from PC to hardness tester via IP-address, for example **ping 169.254.180.97**

```
C:\Users\johndoe>ping 169.254.180.97

Pinging 169.254.180.97 with 32 bytes of data:
Reply from 169.254.180.97: bytes=32 time<1ms TTL=128
Reply from 169.254.180.97: bytes=32 time<1ms TTL=128
Reply from 169.254.180.97: bytes=32 time<1ms TTL=128
```

5. Check that certain ports in your firewall between the PC and the hardness tester are open, for example use **netstat**.
 - Look for ports 5566
 - Look for port 3389

```
C:\Users\johndoe>netstat -a

Active Connections
Proto Local Address Foreign Address State
TCP 0.0.0.0:80 0.0.0.0:80 LISTENING
TCP 0.0.0.0:443 0.0.0.0:443 LISTENING
TCP 0.0.0.0:3389 0.0.0.0:3389 LISTENING
TCP 0.0.0.0:5566 0.0.0.0:5566 LISTENING
TCP 0.0.0.0:135 0.0.0.0:135 LISTENING
TCP 0.0.0.0:139 0.0.0.0:139 LISTENING
TCP 0.0.0.0:445 0.0.0.0:445 LISTENING
TCP 0.0.0.0:593 0.0.0.0:593 LISTENING
TCP 0.0.0.0:1024 0.0.0.0:1024 LISTENING
```

9.5 Drive share

1. During the installation, you selected file share. If you forgot this, you can re-run the installer.

2. Check that certain ports in your firewall between the PC and the hardness tester are open, for example use **netstat**.

Drive sharing is done via:

- Modern Samba: TCP port 445.
- Legacy Samba: TCP port 139, UDP port 137 and UDP port 138.

