
DLD
Device Driver and Software
Installation

Manual



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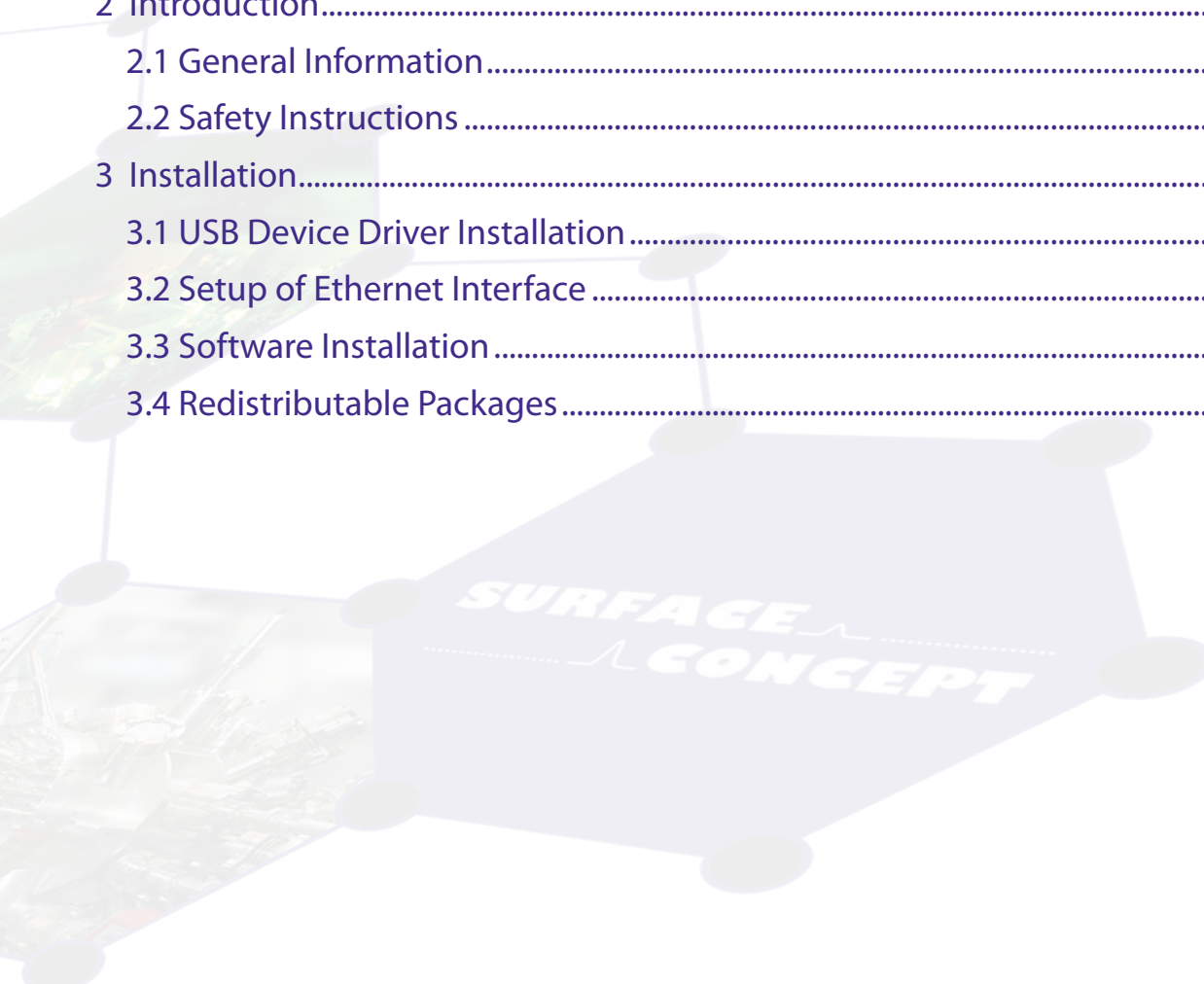
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User Manual for the
DLD Driver & Software Installation
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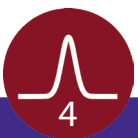


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2 Introduction

2.1 General Information

This installation routine describes the installation of the Surface Concept TDCs for DLD readout which come with a USB interface as well as the installation of the TDCs which come with an Ethernet interface. It also describes the installation of the DLD Software.

This description only describes the installation for Windows 7, 8.1 and 10 (64bit) operation systems.

Please contact Surface Concept in case that you need support for any other Windows operation system.



Please install the USB device driver and the software first and also setup the Ethernet interface first, before switching on the TDC.

2.2 Safety Instructions

The following symbols appear throughout the manual:



The “note symbol” marks text passages, which contain important information/hints about the installation. Follow these information to ensure a proper functioning of the detector.



The “caution symbol” marks warnings, which are given to prevent an accidentally damaging. Do **NOT** ignore these warnings and follow them **strictly**. Otherwise no guarantee is given for arose damages.

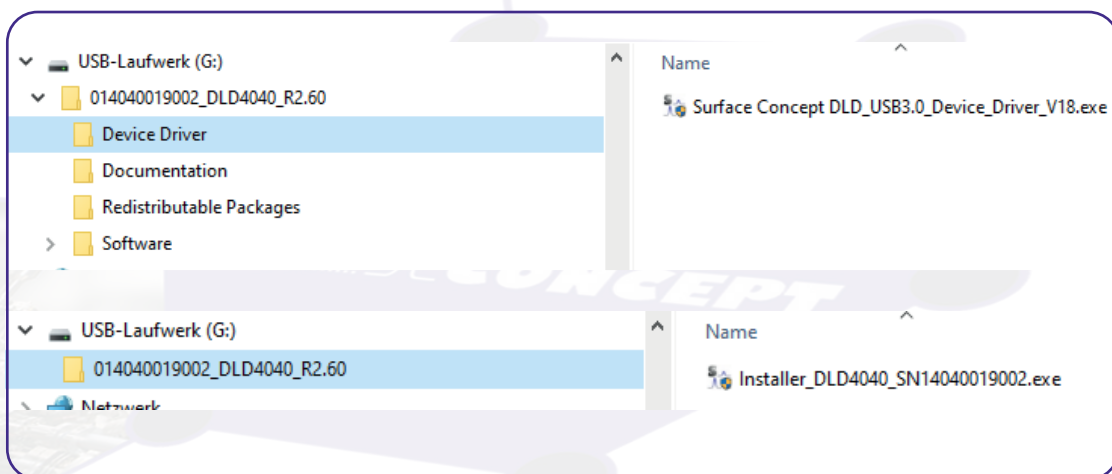
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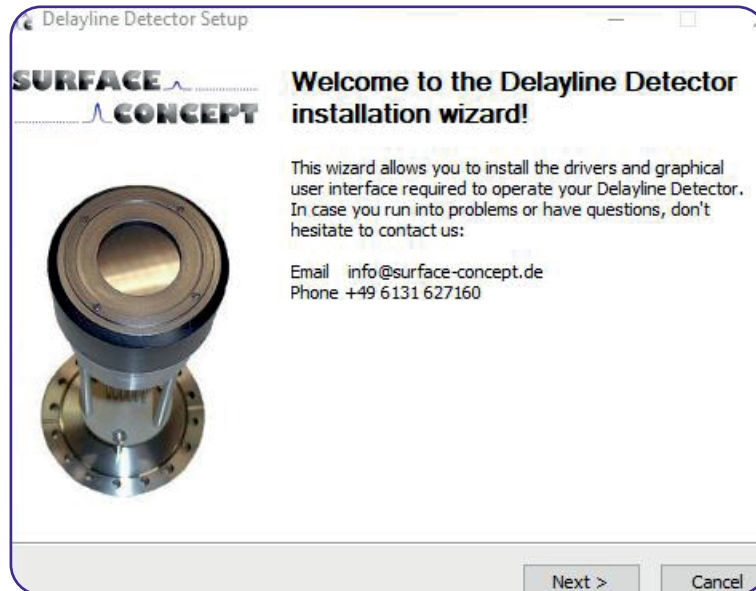
3 Installation

3.1 USB Device Driver Installation

- The USB device driver can be found on a storage medium (USB stick, CD etc.) which is part of the delivery of the device itself.
- Connect the storage medium to your PC.
- The installer file can either be found in the main folder of the storage medium or in a sub-folder named "device driver", depending on the specific installer layout (which comes either as a single complete installer package for device driver, software, documentation etc. or only for the USB device driver with separate folders for software, documentation etc).
- Execute the installer file manually to start the USB driver/ software installation.



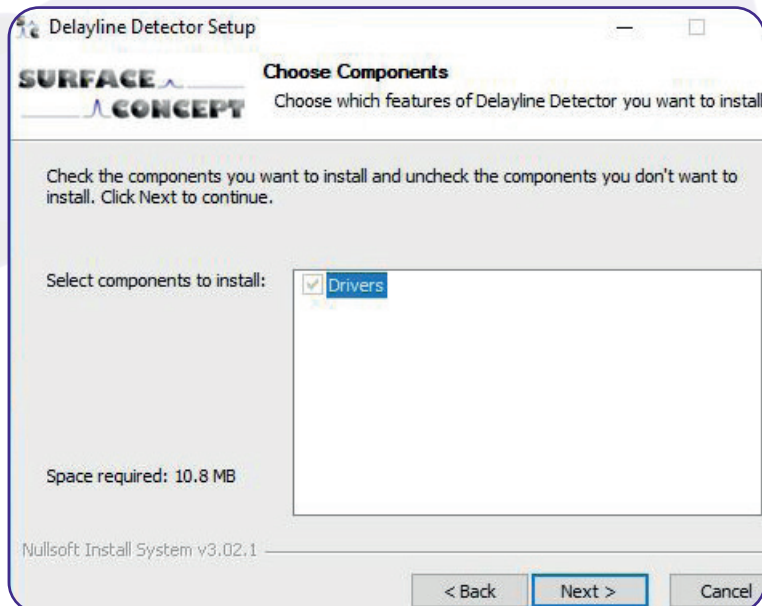
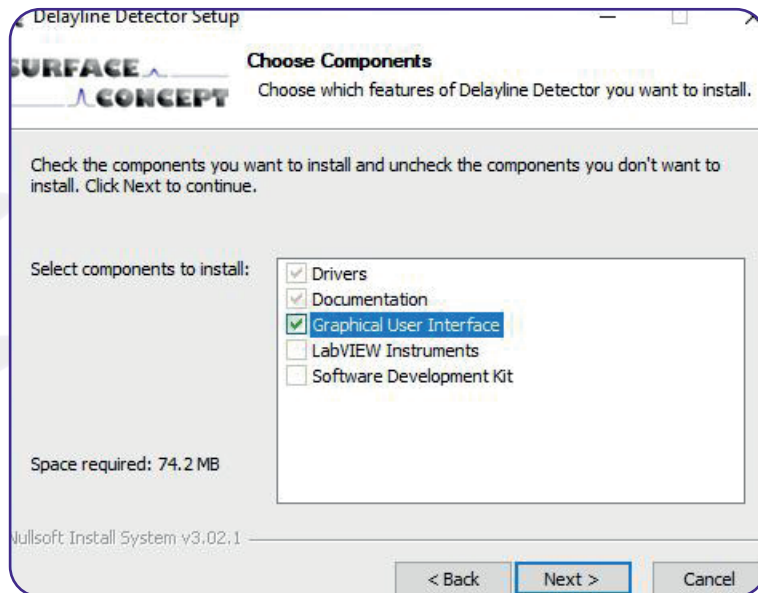
- The installer starts with opening the main window.
- Click "Next" to continue the installation.



- Accept the License Agreement by clicking on "I Agree".

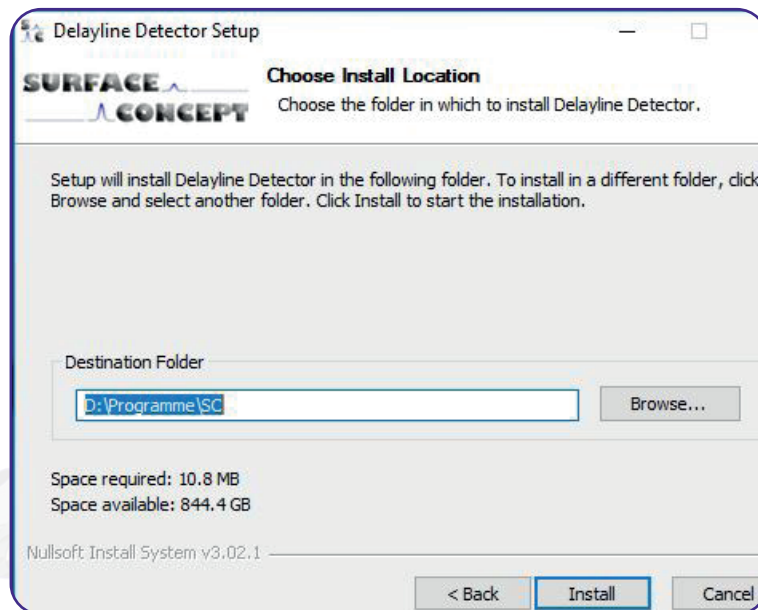


- The components which will be installed are depending on the specific installer package.
- In case of the single complete installer package, some components are fixed (device driver and documentation), while other can be selected manually in addition (e.g. software application). The number of components which can be selected individually can vary between different installer packages.
- There is only one, fixed component, in case of the separate device driver installer.

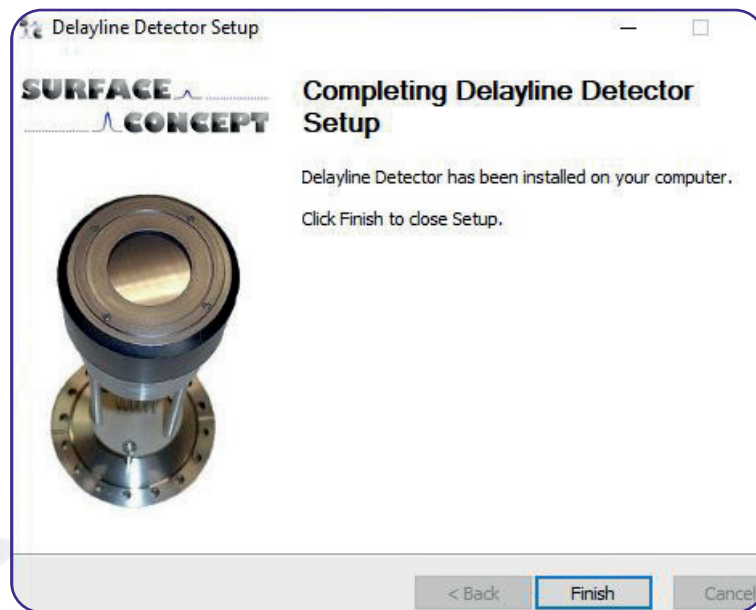


- Continue with "Next".

- In case of the single complete installer package, the installer is asking for a path the software should be installed to. It recommends a path in the “Program Files”-Folder. Browse for the specific folder or type it in the field “Destination Folder”, if a different destination is preferred.
- In case of the separate device driver installer, there is no possibility for selecting an installation path, as only the device driver is installed.
- Continue with “Next”.



- The installation of the software and the drivers is in progress. The “Installation Complete” window will be shown when the installation process has been completed.
- Proceed with the “Next”-button to finish the installation.
- The installation is now complete. Proceed with the “Finish”-button to close the installation program.



- After the installation is complete, the TDC can be connected to the PC via the USB cable (part of the delivery) and can be switched on.
- Windows will detect the TDC as a new USB device within a couple of seconds and the device will be ready to use.

3.2 Setup of Ethernet Interface

The TDC can only handle static IP addresses but no dynamically ones given via DHCP. It comes with a predefined factory IP address, which can be used to connect the TDC to a PC. In this case the TDC must be connected directly to a free network connector of the PC (it is recommended to use a PC with a second network connector available, so that the first one can be used for connecting the PC to a general network). There is no device driver which must be installed, when connecting the TDC with an Ethernet interface, but the network port of the PC must be configured with a fixed IP address fitting to the IP address of the TDC:

static IPv4 address of TDC (predefined factory address): 10.0.0.20
subnet mask: 255.255.255.0

static IPv4 address to be configured on PC side (compulsory): 10.0.0.1
subnet mask: 255.255.255.0



It is compulsory to use the 10.0.0.1 as IPv4 address for the host PC. Any other IP address won't work.

The network configuration of your PC can be changed under (WIN Operating Systems only):

systems -> network connections

right click on the correct adapter to change its parameters select:

internal protocol, version 4 (TCP/IPv4) -> properties -> configure IP address

(check the documentation of your operating system for detailed information on changing the IP address of your PCs network connector).

The IP address can also be changed to adapted to the configuration of a local existing network. This would allow to connect the TDC to any Ethernet connector of the network and must not necessarily be connected



It is strongly recommended to connect the TDC directly to the PC via a second network connector, to prevent any variation of the maximum data transfer caused by the current load of the network.

The IP address of the TDC is also given in the tdc_gp3.ini file. Therefore the corresponding entry in the file must be adapted for any change of the IP address.

The corresponding entry in the tdc_gp3.ini file is:

sn = "XXX.XXX.XXX.XXX/Y"

XXX.XXX.XXX.XXX is the IP address of the device, while y is a device index in case that more than one TDCs are connected at a time to the PC.

The default setting is 10.0.0.20/1

To change the IP address one must connect the TDC to a network using the TDC service port (the second, Ethernet connector, see your specific TDC manual for detailed information). This connects to an internal service module, which handles its own, separate IP address, which can be received from any local network via DHCP.

Commands to change the IP address must be passed as command lines via this service module. This can be done by using any SSH and telnet client software (e.g. PuTTY - www.putty.org).

To connect to the TDC via the service port one must provide the host name of the TDC as well a port number. The corresponding entries are:

host name: scXXXXXXXXXX

port: 2553

XXXXXXXXXX are the last 10 digits of the serial number, which can be found on a sticker on the back side of the TDC (e.g. 4517719001).



Instead of using the host name, one can also enter the IP address directly. But here it is referred to the IP address of the internal service module, which is often unknown, because it is received via DHCP. None the less, this might be necessary to do, in cases where no DNS service is available in the network. The DNS service is necessary to link the host name with the IP address of the service module.

The following commands for the service module are available:

- | | | | |
|-----------|----------|------------------------|---|
| fi | i | XXX.XXX.XXX.XXX | XXX.XXX.XXX.XXX is the new IP address of the device, while i is the device index.
The default setting for i is 0. |
| fr | | | Resets the TDC itself. |
| w | | | Resets the service module. |

3.3 Software Installation

- The software can be found on a storage medium (USB stick, CD etc.) which is part of the delivery of the device itself.
- Connect the storage medium to your PC.
- Either that the storage medium contains only one single installer file, this file is an installer package which includes the device driver, the software and the documentation. In this case the software is installed by executing the installer file manually (see **Chapter 3.1** for further details).
- Execute the installer file manually to start the USB driver/ software installation.
- Otherwise the storage medium contains several separate folders for driver, software, documentation etc. In this case the separate folders have to be copied manually to a preferred location on the User-PC (there is no specific installer routine to do this).
- The specific installer layout depends on the specific device delivered.

3.4 Redistributable Packages

The DLD software needs certain dlls from different redistributable packages from Microsoft. It is not uncommon that those packages are already installed on the User-PC, as they are also often used by other software applications. Therefore we recommend to first start the software without installing the redistributable packages. In case that the software won't start, the reason can be the missing dlls. In this case we recommend to install the both re-distributable packages, which can be found on the storage medium in a sub-folder named "redistributable packages". Please install both existing packages (vc_redist.x64.exe and vcredist_x64.exe), as both packages provide different dlls which are needed.

