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#### USB CONNECTION IN EBL512 G3 AND EBLSniffer

Fire alarm solutions technical description

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This document describes the USB connection in EBL512 G3 and EBLSniffer.

# 2. USB DRIVER INSTALLATION FOR EBL512 G3

EBLWin communicates with the control unit via USB. Since EBL512 G3 is unknown to Windows, drivers must be installed.

The first time a PC is connected to a EBL512 G3 control unit you will need to install drivers. The drivers are available on our homepage.

The control unit will be installed as two devices; one USB controller and one USB serial port.

The procedure below is described for Windows 10.

#### 2.1. INSTALLATION

- a) Download the drivers and unzip them to a new folder.
- b) Connect a USB cable from PC to EBL512 G3.
- c) Windows displays two messages 'We are setting up a new device' and a few seconds later 'Your device is set up and ready to go'. Ignore these messages.
- d) Open the device manager by right-clicking on the Windows Start-button and select Device manager. You need to be an administrator of the PC to access the device manager.

e) Locate 'Fire Alarm CU EBL512 G3' under 'Other devices':

📇 Device Manager	_	×
<u>File Action View H</u> elp		
← →   □   □   □   □   □   □   ↓ × •		
<ul> <li>SEMM01CW-0A8459</li> <li>Audio inputs and outputs</li> <li>Computer</li> <li>Disk drives</li> <li>Display adapters</li> <li>DVD/CD-ROM drives</li> <li>Firmware</li> <li>POUD/CD-ROM drives</li> <li>Firmware</li> <li>Mice and other pointing devices</li> <li>Monitors</li> <li>Monitors</li> <li>Monitors</li> <li>Ports (COM &amp; LPT)</li> <li>Print queues</li> <li>Security devices</li> <li>Smart card readers</li> <li>Software devices</li> <li>Sound, video and game controllers</li> </ul>		
System devices     Juiversal Serial Bus controllers		

f) Right-click and select 'Update driver'.

g)	The	following	dialog	is	shown:
J/		· · J			

		×
$\leftarrow$	Update Drivers - Fire Alarm CU EBL512 G3	
	How do you want to search for drivers?	
	$\rightarrow$ Search automatically for updated driver software	
	Windows will search your computer and the Internet for the latest driver software for your device, unless you've disabled this feature in your device installation	
	settings.	
	→ Browse my computer for driver software Locate and install driver software manually.	
		Cancel
h)	Select Browse my computer for driver software.	

i) The following dialog is shown:



- j) Browse to the folder which contains the un-zipped drivers and click Next.
- k) Windows will now install the drivers.
   You should now see the following dialog:

		×
~	Update Drivers - Fire Alarm Control Unit EBL512 G3	
	Windows has successfully updated your drivers	
	Windows has finished installing the drivers for this device:	
	Fire Alarm Control Unit EBL512 G3	

I) Click Close.

The installation of the USB controller is now complete.

- $\times$ 🗄 Device Manager <u>Action View H</u>elp <u>F</u>ile 🦛 🔿 🗖 🔄 🗐 👘  $\mathcal{A}$ 🛃 🗙 🕀 SEMM01CW-0A8459 ^ > 4 Audio inputs and outputs > Computer > 👝 Disk drives lisplay adapters > DVD/CD-ROM drives > > 🎽 Firmware 🛺 Human Interface Devices > TDE ATA/ATAPI controllers > Keyboards > > II Mice and other pointing devices Monitors > Network adapters > Other devices 🙀 USB Serial Port Ports (COM & LPT) 📑 Print queues > > Processors > Security devices > 📃 Smart card readers > Software devices Sound, video and game controllers > > 🍇 Storage controllers > to System devices Universal Serial Bus controllers Fire Alarm Control Unit EBL512 G3 Generic SuperSpeed USB Hub 🏺 Generic SuperSpeed USB Hub Generic USB Hub
- Go back to the device manager and locate 'USB Serial Port' under 'Other devices': m)

Right-click and select 'Update driver'. The following dialog is shown: n)



o) Select Browse my computer for driver software. The following dialog is shown:

		$\times$
÷	Update Drivers - USB Serial Port	
	Browse for drivers on your computer	
	Search for drivers in this location:	
	C:\Temp\Drivers for EBL512 G3 and EBLSniffer - v2.18.28 V Browse	
	✓ Include subfolders	
	→ Let me pick from a list of available drivers on my computer This list will show available drivers compatible with the device, and all drivers in the same category as the device.	
	<u>N</u> ext Cance	I

- p) Browse to the folder which contains the un-zipped drivers (same folder as before) and click Next. Windows will now install the drivers.
- q) You should now see the following dialog:

		×
÷	Update Drivers - EBL512 G3 Serial Port (COM7)	
	Windows has successfully updated your drivers	
	Windows has finished installing the drivers for this device:	
	CEBL512 G3 Serial Port	
		]

r) Before clicking Close, make a note of the COM-port number shown in the title row of this dialog (COM7 in this case). This COM-port number should be used in EBLWin / EBLFirmwareManager when logging on or downloading firmware to the control unit.

The driver installation is now complete. In the device manager there should now be two entries for EBL512 G3:

Here you can also see the COM-port number.



## 3. UNINSTALL USB DRIVER FOR EBL512 G3

If you want to replace an old driver, you must first uninstall the old driver completely, before installing the new one. Otherwise the old driver will remain, and the PC will select it in first hand.

## 3.1. UNINSTALLATION

- a) Open device manager.
- b) Right click on the EBL512 G3-port.
- c) Select properties.
- d) Select driver.
- e) Click 'Uninstall Device'
- f) Check the check box.
- g) Uninstall.

Uninstall	Device	×		
	EBL512 G3 Serial Port (COM5)			
Waming:	You are about to uninstall this device from your system			
Delete the driver software for this device.				
	Uninstall Cancel			

If you can't see the COM port, select "Show hidden devices".

				X
File Action View	Help			
• • 🗊 💽	Devices by type			
G7 (	Devices by connection	irtual Miniport Adapter for Windows x64		- 0
(2) I	Resources by type			
<u>21</u>	Resources by connection			
014	Show hidden devices			
21	Customise			
WAN M WAN M	Microsoft Wi-Fi Direct Virtual Adapter WAN Miniport (IKEv2) WAN Miniport (IPv6) WAN Miniport (IPv6) WAN Miniport (I2TP) WAN Miniport (Network Monitor) WAN Miniport (Network Monitor) WAN Miniport (STP) WAN Miniport (SSTP) WAN Miniport (SSTP) Non-Plug and Play drivers Other devices Portable Pervices Ports (COM & LPT) EBL512 G3 Serial Port (COM7) EBLSniffer Serial Port (COM9)			

Also, if you have EBL512 G3 as a post under "Universal Serial Bus controllers", uninstall this as well.



## 4. USB DRIVER INSTALLATION FOR EBLSniffer

The PC program EBLSniffer communicates with the physical EBLSniffer via USB. Since EBLSniffer is unknown to Windows, drivers must be installed.

The first time a PC is connected to a EBL512 G3 control unit you will need to install drivers. The drivers are available on our homepage.

The EBLSniffer will be installed as two devices; one USB controller and one USB serial port.

If drivers for EBL512 G3 have been installed before, Windows may find the drivers for EBLSniffer automatically. If the device manager already shows the two entries in step 5 below, no driver installation is necessary.

The procedure below is described for Windows 10.

#### 4.1. INSTALLATION

- a) Download the drivers and unzip them to a new folder.
- b) Connect the EBLSniffer to the PC.
- c) Windows displays two messages 'We are setting up a new device' and a few seconds later 'Your device is set up and ready to go'. Ignore these messages.
- d) Open the device manager by right-clicking on the Windows Start-button and select Device manager. You need to be an administrator of the PC to access the device manager.
- e) Follow the same procedure as for driver installation for EBL512 G3 in chapter 2. Look out for 'EBLSniffer' instead of 'Fire alarm CU EBL512 G3'. When the installation is finished two entries should be found in the device manager:

Here you can see the COM-port number that you need to use in the EBLSniffer SW.

着 Device Manager	_	×
<u>File Action View Help</u>		
✓ ♣ SEMM01CW-0A8459		^
Audio inputs and outputs		
> 🛄 Computer		
> _ Disk drives		
> 🔙 Display adapters		
> 🖉 DVD/CD-ROM drives		
> 🎽 Firmware		
> 🐺 Human Interface Devices		
> 📹 IDE ATA/ATAPI controllers		
> 🔤 Keyboards		
> III Mice and other pointing devices		
> 🛄 Monitors		
> 🚽 Network adapters		
✓ Ports (COM & LPT)		
EBL512 G3 Serial Port (COM7)		
EBLSniffer Serial Port (COM17)		
Intel(R) Active Management Technology - SOL (COM3)		
USB Serial Port (COM11)		
> 🚍 Print queues		
> D Processors		
> 🛐 Security devices		
> 🔚 Smart card readers		
> 📱 Software devices		
> I Sound, video and game controllers		
> 🍇 Storage controllers		
> 📰 System devices		
V Universal Serial Bus controllers		
EBLSniffer		
Fire Alarm Control Unit EBL512 G3		
Generic SuperSpeed USB Hub		
Generic SuperSpeed USB Hub		
Generic USB Hub		
Generic USB Hub		4

# 5. ABOUT THE USB CONNECTION

There are two things that are good to know about the USB connection.

## 5.1. DRIVERS

The EBL512 G3 control unit and the EBLSniffer contains a standard USB-to-serial port chip. The same chip is used in many USB-to-serial port dongles. This is the reason why some of the driver files may already be on the computer even if EBL512 G3 / EBLSniffer drivers have not been installed.

Or, if a USB-to-serial port dongle is installed in a PC after the EBL512 G3 / EBLSniffer drivers are installed the same message about some files already on the computer may occur.

In any case, always select to either install or keep the newest files.

# 5.2. COM-PORT NUMBER

#### 5.2.1. EBL512 G3

The standard procedure in Windows is to handle each USB device as a new unit even if it is of the same type as installed before. This would have caused all EBL512 G3 control units to get unique COM-port numbers which would not be very practical for a technician.

To override this feature all EBL512 G3 control units have the same USB serial number set in production. This way Windows thinks that it is always the same control unit as before that is connected and it will always assign the same COM-port number. The down-side with this approach is that it is not possible to connect more than one EBL512 G3 control unit to a PC at a time.

#### 5.2.2. EBLSniffer

EBLSniffer uses the standard Windows procedure to handle each USB device as a new unit. This is because sometimes it is necessary to connect several EBLSniffers to the same PC.

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