

# Troubleshooting

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## Background

It is always possible that you may have some issues while configuring a X45e unit till it runs as required. This guide should help to fix the most usual issues when starting to use X45e units.

## Prerequisites

### Hardware

- PC (Windows 7 or later)
- X45e units (with power cables)
- Parameter Setting Tool cable (X45e) or mini USB cable depending on hardware version

### Software

- X45e – Parameter Setting Tool (PST)

## First step

First thing to do with a new X45e unit should always be to update the firmware. Usually a delivered X45e unit will not have latest firmware version. Current firmware version at X45e unit can be seen at Monitor page of PST. Latest firmware version is available at FlexLink homepage -> Download engineering tools -> Intelligent Conveyor Software (X45e).

## Connection to PST

PST has to be installed and running. X45e unit has to be powered so that LED light up. Connection type is selectable in PST menu Network / X45e.

## CAN-bus

Issue	Reason	Solution
No connection device found.	Kvaser Leaf Light not connected at computer.	Connect Kvaser Leaf Light to computer.
	Kvaser driver not installed.	Install driver from PST installation folder \ resources.
No X45e device found during network scan.	Kvaser Leaf Light not connected to correct connector (A-bus, B-bus) at X45e unit.	Connect Kvaser Leaf Light to correct connector (A-bus, B-bus) at X45e unit.
	Kvaser Leaf Light connected to A-bus but A-bus is not powered.	Use B-bus instead or power the A-bus as described in "User documentation – Electrical System (X45e)".
	Kvaser Leaf Light connected to A-bus but wrong protocol (CANopen, DeviceNet) selected.	Use B-bus to check and maybe change A-bus protocol.

## USB

Issue	Reason	Solution
	USB cable not connected to	

Issue	Reason	Solution
No connection device found.	USB cable is only made for power (2 pins) not for data transfer (4 pins).	Replace USB cable by a cable that is definitely made for data transfer.
	No or wrong driver installed.	A new COM port should appear in Device-Manager when connecting X45e unit via USB. Correct driver is located in PST installation folder \ docs.

## Ethernet/IP

Issue	Reason	Solution
No X45e device found during network scan.	Computer and X45e unit are not in same network.	Make sure that network cables are connected and computer is using same network as X45e unit.
	X45e unit is not configured for Ethernet/IP communication.	Connect X45e unit via USB and configure it for Ethernet/IP communication.
	Firewall is blocking required ports.	Following ports must not be blocked: 2222/UDP, 44817/UDP, 44818/TCP, 3000/TCP
Error during network scan. IOException: java.util.concurrent.ExecutionException: io.netty.handler.codec.DecoderException: unhandled item type: 0x86	An Ethernet/IP device in same network supports security.	Update PST to latest version. This is handled since version 3.5.8

## ProfiNet

Issue	Reason	Solution
No X45e device found during network scan.	Computer and X45e unit are not in same network.	Make sure that network cables are connected and computer is using same network as X45e unit.
	X45e unit is not configured for ProfiNet communication.	Connect X45e unit via USB and configure it for ProfiNet communication.
	Firewall is blocking required ports.	Following ports must not be blocked: 34964/UDP, 49152/UDP, 3000/TCP
	WinPcap library not installed.	Install Wireshark or WinPcap from PST installation folder \ resources.