

# Quick Start Guide

**KiStudio Lab**  
**Type 2910B**



2910B\_012-040e-06.23

## Foreword

Thank you for choosing KiStudio Lab for your measurement tasks. Please read these instructions carefully to get ready for your first measurements.

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## 1 General Information

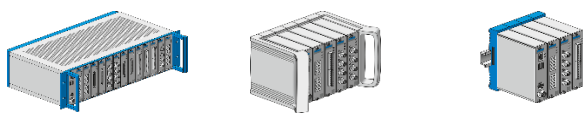
The intuitive KiStudio Lab software is used to configure and operate the KiDAQ device as well other Kistler data acquisition devices like LabAmp. The data export in binary MDF format enables the easy further processing of the acquired signals in analysis software jBEAM.

This Quick Start Guide is intended for quick commissioning of the instrument. Further information can be found in the KiDAQ and KiStudio Lab manual.

## 2 Compatible Devices

### 2.1 KiDAQ Data Acquisition System Type 5500

KiDAQ is a modular data acquisition system that is flexible and can be extended with additional measurement modules. It can be used for various applications and applications thanks to the wide selection of modules for different sensor types and the housing options Rack, Portable and DIN Rail.



### 2.2 LabAmp Types 5165A, 5166A\* and 5167A

The products of the Kistler laboratory amplifier family are designed as high-quality charge amplifiers and data acquisition devices. The inputs cover dynamic and quasi-static charge, differential\* charge as well as voltage and IEPE.



\*) planned for future

## 3 System Requirements and Recommendations

The system requirements using the KiStudio Lab for data acquisition much depends on your measurement need. Please check the data sheet "KiStudio Lab, Type 2910B" for recommendations.

### Requirements:

- Windows 10
- 8 GB RAM (minimum)
- SSD (recommended)
- > 1.2 GB for installation + space for measurement data
- Spare Ethernet port (RJ45 or via USB-to-Gigabit-Ethernet adapter)
- Display resolution 1920 x 1080 / full HD (recommended)

## 4 Software/Firmware Download and Installation

### 4.1 KiStudio Software

The latest KiStudio software version can be downloaded with this link: [www.kistler.com/downloadKiStudio](http://www.kistler.com/downloadKiStudio)

Start the installation by executing *KiStudioInstallation.exe* with administrator rights. At the end of the installation, it is required to allow the change of the firewall settings.

### 4.2 Device Firmware

The measurement devices should be delivered with the most current firmware already installed. In case you need to update the firmware, you can find the files on the corresponding product page on the Kistler website [www.kistler.com](http://www.kistler.com) » just enter the device type number into the search field (i.e., 5551A for KiDAQ Controller or 5165A/5166A/5167A for the LabAmp devices). The firmware update procedure is described in the respective manual.

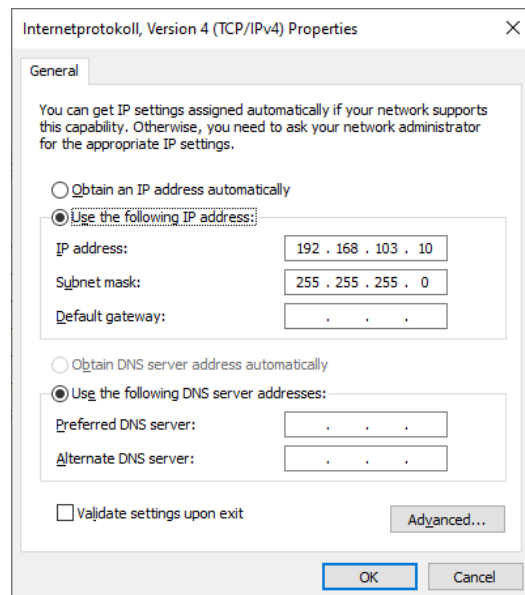
Required device firmware:

- LabAmp Types 5165A/5166A/5167A: v2.2.0 or higher
- KiDAQ Controller Type 5551A: v7.3.0 or higher

## 5 Device Connection

### 5.1 Ethernet Interface Configuration

Connect the device via Ethernet and configure the network interface of your PC with a static IP address: in Windows go to » Network Settings » Change adapter options » right click on the interface » Properties » select Internet Protocol, version 4 » Properties



The KiDAQ device uses the IP address 192.168.103.30 (fix, unless DHCP is used), so the PC interface needs to be configured with an address from the same range, i.e., 192.168.103.10. Set the subnet mask to 255.255.255.0 (gateway may be left empty).

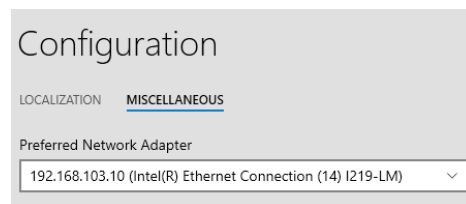
LabAmp devices have a configurable IP address; we recommend using a static address from the private range 192.168.x.x for the network interface of the measurement PC and the devices. (Use 192.168.103.x in mixed setups with KiDAQ). Subnet mask 255.255.255.0 (and empty gateway). Use the *Network Setup Wizard* from [www.kistler.com](http://www.kistler.com) to find and configure the IP settings of connected LabAmp devices.



Using a VPN connection in parallel might influence a proper communication from your PC to the devices.

### 5.2 Select the Preferred Network Adapter

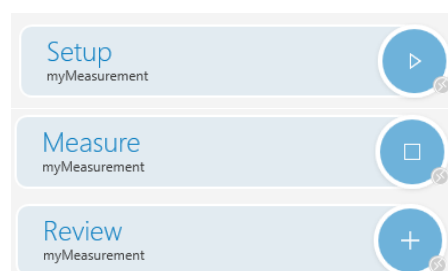
In the KiStudio application you need to select the network adapter which shall be used: go to » Configuration » Miscellaneous and pick the configured adapter from the list.



## 6 Setting-up a Simple Measurement

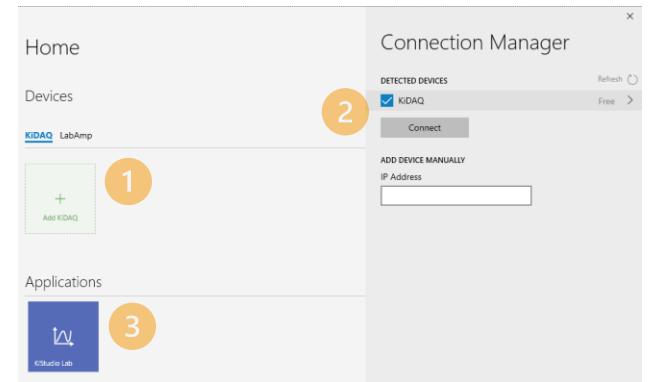
### 6.1 Introduction to KiStudio workflow

The KiStudio software follows the logical steps to SETUP up a measurement, MEASURE (and record) and REVIEW (and export). Click on the corresponding buttons to cycle through the workflow:



### 6.2 Adding a Device to the Setup

Click on "Add KiDAQ/LabAmp" to search for connected devices (1). Use "Refresh" if the device does not yet appear in list. Click on "Connect" to add the device to your setup (2) and start a new project by clicking on the application tile (3).



### 6.3 Setup the Measurement

Configure all your input channels (1), don't forget to select suitable filters (2) and apply the settings (3) before changing to measure state (required for KiDAQ devices only; LabAmp settings are applied automatically)



Please remark: the project setup is not saved automatically, if you want to keep the settings for future measurements, you need to export it with "Save as" in the toolbar at the right.

### 6.4 Measure and Record

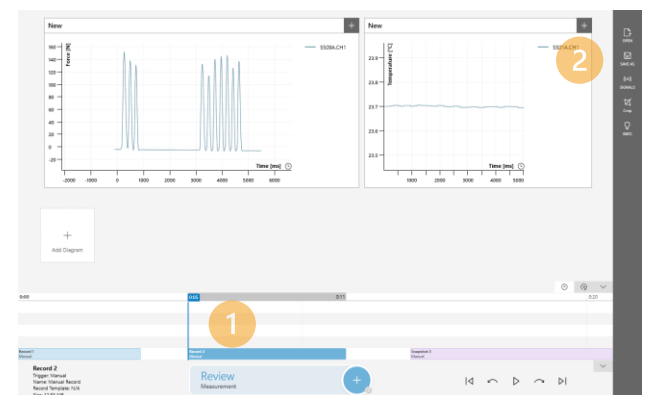
After switching to measure state, you can add diagrams (1) with the required signals with clicking on [+] in the top right corner (2). For y/t diagrams just double-click in the middle for autoscaling.



Start and stop a manual recording with [Start] or create a snapshot with [Snapshot] (3).

### 6.5 Review and Export

The recordings and snapshots from the previous measuring session are represented as horizontal bars in the timeline at the bottom of the screen. Click on the bar to reopen the recording and analyse (1). You may export the data of selected recording for further analysis in jBEAM with "Save as" in the toolbar (2).



## 7 Expert Tips

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### 7.1 Working with X/Y Graphs

General:

- Right-click in graph for options
- Hover over axis numbers to change visible range

In MEASURE mode (live view):



- Click on label 'Time' to switch from rolling to accumulating mode
- Double-click on data area for autoscaling in y-axis
- Use mouse scroll wheel within data area to scale y-axis
- Click and drag on data area to shift y-axis up/down

In REVIEW mode:

- Double-click on data area for autoscaling in y-axis
- Click and drag on data area to shift x- and y-axis left/right and up/down
- Right-click and draw rectangle to zoom in

### 7.2 Using Triggers

Triggers can only be configured in SETUP mode.

- 'Manuel Record'  and 'Manual Capture'  (snapshot) are defining the pre- and post-data of the always present manual triggers
- Select 'Create Trigger' to define a customized start-and stop-triggers (based on a signal, date and time or duration)
  - Double click on the name to rename your trigger
  - Select principal behavior 'Record' or 'Snapshot'
  - Use the operation = (equal sign) only for digital inputs (0/1 or counter values), for analog use > or >= instead

## 8 Troubleshooting

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### 8.1 Streaming Inactivity detected

If you face such a message, you might try following steps:

- Check if all connectivity settings are correct (according to chapter 5), close and start KiStudio again.
- Do a 'Factory Reset and Remove' of the affected device and add again.
- Make sure that your firewall allows incoming TCP/UDP traffic on port 5555 for the configured Ethernet interface and network category (Private/Domain/Public)

### 8.2 Clear User Settings

If you want to start like with a fresh, clean installation, delete the file which can be found under following path:

%appdata%\Kistler\KiBox2\%userdomain%\%username%\user  
Settings.xml