KISTLER
measure. analyze. innovate.

Quick Start Guide

Handheld Charge Amplifier and Insulation Tester
Type 5811A00…
Handheld Charge Amplifier and Transmitter Monitoring
Type 5811A01…

5811A0x_012-055e-09.23

Foreword

Thank you for choosing a Kistler quality product. Please read these instructions carefully, so that you can take optimum advantage of the versatile features of this product.
The information in this document is subject to change at any time without prior notice. Kistler reserves the right to improve and modify the product in accordance with technical progress without the obligation to inform persons and organizations based on these changes.

Content

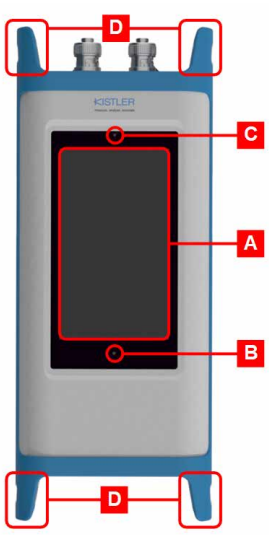
1. General information

The handheld devices Type 5811A00... and 5811A01... can be used wherever mechanical quantities are measured with piezoelectric sensors. The battery-powered devices are designed for environments and applications where the use of a line-powered charge amplifier in combination with a host computer for visualization and data acquisition of the measurement signal is not suitable.
The handheld device Type 5811A00... acts also as a service tool for testing the insulation of piezoelectric measuring chains (sensor and cable) as part of regular maintenance work to verify sensor and cable quality.
The variant Type 5811A01... can be used for monitoring transmitters, Kistler IO-Link devices or any device with ±10 V analog output. The two M12 connectors of variant Type 5811A01... can be configured as transmitter input, analog input or SDCI, making this device suitable for multichannel measurements.
These instructions are intended to support the quick commissioning of the instrument in order to be able to start measurements quickly.

2. Device description

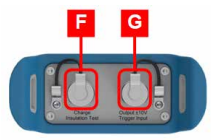
The following brief description explains the basic components of the handheld devices:

Front side



Back side

Top side Type 5811A00...

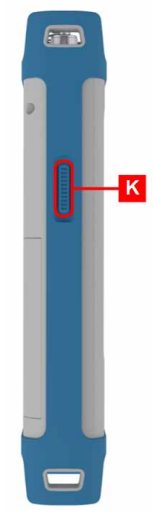


Bottom side Type 5811A00...

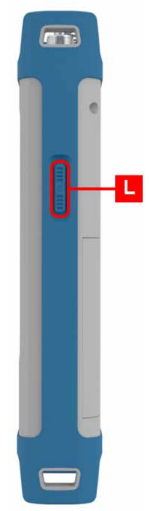
Top side Type 5811A01...

Bottom side Type 5811A01...

Left side



Right side

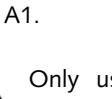
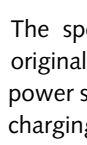
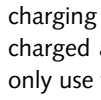
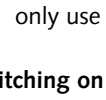
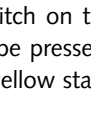


	Description
A	4.3″ touchscreen display for configuration and operation of the device
B	Status LED for indication of device and charging status
C	Ambient light sensor (not used/supported)
D	4x mounting lugs (2x top side, 2x bottom side) for carrying strap
E	Battery cover fixed with 4x screw M3x12 (removable)
F	Charge amplifier & insulation tester input → BNC neg. with protective cover
G	Analog output & trigger input → BNC neg. with protective cover
H	USB 2.0 port for battery charging and data exchange to a host PC → USB type C socket
I	Buzzer output (not used/supported)
K	Left side button: • Measurement mode: o Saving of single measurement value (if recorder inactive) o Start/Stop recording of measurement data (if recorder active) • Evaluation mode: o Saving of result • Insulation test mode: o Saving of result
L	Right side button: • Switching device on/off (long press, >4 s) • Measurement mode: o Measure/Reset switching (short press) • Evaluation mode: o Start/Stop of evaluation (short press) • Insulation test mode: o Start/Cancel insulation measurement (short press)
M	2x M12 connectors with protective caps for analog input, transmitter input or IO-Link devices of Kistler (Type 5028A…and Type 9831D…)
N	Charge input → BNC neg. with protective cover

Status LED (B)

The status LED (B) indicates the general operating status of the device and the charging status.

The table below shows the possible statuses:

	LED Status		Operating/Charging Status
Device off, charger connected		Red	Charging in progress
		Off	Charging completed
		Red flashing	Charging error
Device on		Yellow	Device is booting
		Off	Device is ready to use
		Blue pulsating	Device in stand-by mode

3. Commissioning

Please follow below steps for the commissioning of the handheld device:

1. Power supply and battery charging
When delivered, the battery inserted in the handheld device is in shipping mode. Before using the device for the first time, the battery must be activated by connecting the device to the power supply via the USB C socket (H) and fully charging it. The charging process until the battery is fully charged takes a maximum of 4.5 hours with the power supply unit Type 5791A1.

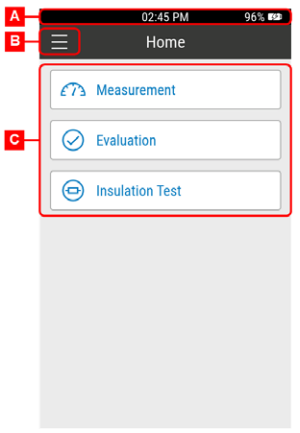
Only use the original accessories to charge the battery!

The specified charging time only applies with the original power supply unit Type 5791A1. If other power supply units are used to charge the battery, the charging time may deviate or the battery may not be charged at all. For this reason, it is recommended to only use the original power supply unit Type 5791A1.

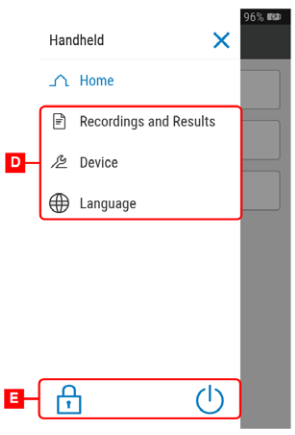
2. Switching on handheld device
To switch on the handheld device the right side button (L) must be pressed for >4 s. Booting of the device is indicated by a yellow status LED (B) followed by a splash screen.

3. Home screen & main menu
After booting of the handheld device the home screen is dis-played. The home screen is the starting point for the configuration and execution of the different modes (section C). The measurement recordings/results, device settings and display language can be accessed via the main menu (B). Furthermore, there is the option to lock the screen and access the power options (standby or shutdown) (E).

Home screen



Main menu



	Description
A	Status bar indicating time, battery/charging status and screen lock
B	Access to main menu
C	Access to different modes (functionality depending on device type and purchased licenses)
D	Access to recorded measurement data and stored results, device settings and display language
E	Access to screen lock and power options (standby or shutdown)

4. Repairs at Kistler

Repairs at the Kistler factory can be arranged via the local sales company.

Information can be found at www.kistler.com. Please contact your sales partner directly for additional product information.

5. Conformations

CE (Europe)
Hereby, Kistler Instrumente AG declares that the radio equipment Type 5811A00… and 5811A01... are in compliance with Directive 2014/53/EU.

FCC (USA)
FCC-ID: 2AWIT-5811A

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

IC (Canada)
IC : 28487-5811A

Operation is subject to the following two conditions: this device may not cause interference, and this device must accept any interference, including interference that may cause undesired operation of the device.

Son utilisation est soumise aux deux conditions suivantes: Cet appareil ne doit pas causer d'interférences et il doit accepter toutes interférences reçues, y compris celles susceptibles d'avoir des effets indésirables sur son fonctionnement.

6. Safety instructions

As an environmentally aware company, Kistler does not send out operating instructions in paper form. For this reason, please refer to the following information regarding the installation and operation of Kistler products:

- **The safety and warning information set out below**
- **The specifically applicable instruction manual for the purchased product**

Instruction manuals for each product are available on the Kistler website and can be accessed via the type number at www.kistler.com or with the QR code. Paper instruction manuals can also be requested from Kistler's customer service or the responsible Kistler sales department.

NOTE

Instruction manuals are subject to change at any time without advance notification, in particular regarding equipment modifications (conversions, retrofits etc.). Instruction manuals must be accessed regularly on the internet for this reason.

Safety and warning information

6.1 General
Kistler offers a wide range of products in the dynamic measurement technology sector for recording pressure, force, torque and acceleration, designed exclusively for use in industry and research with an emphasis on automotive development, industrial automation and further applications engaged in pushing back the frontiers of physical science. These products are high-precision devices that acquire and process data which can be transmitted electronically to other systems.

At the time of purchase, each Kistler product is compliant with the necessary and applicable safety regulations and all other relevant requirements. Every product is in perfect condition with respect to safety requirements when it leaves Kistler's factory.

6.2 Setting up and using your product
Only qualified individuals with the necessary technical know-how are allowed to install and operate Kistler products. These qualified individuals must adhere to all requirements contained in this safety and warning information and in the applicable instruction manual for the respective product. They must also comply with the applicable national safety provisions for installation and operation in each case.

If a product is not installed, used or maintained in the proper manner, this could result in serious injuries or fatal accidents and damage to the product and its surroundings.

Please check for any damage to the packaging before unpacking the product. Any damage found must be reported to the shipping company and the Kistler Sales Center or its distributor.

The delivery scope must be checked before starting to set up the product. If a part is missing, the responsible Kistler Sales Center or its distributor must be notified.

If the product has visible signs of damage, no longer works, is stored for lengthy periods in unfavorable conditions and/or was exposed to major stresses during shipping, safe operation is no longer guaranteed and the product must immediately be returned for repair to Kistler or the responsible distributor.

The product may not be disassembled, opened, repaired or otherwise modified because this may impair its operation and, in particular, can result in electric shocks. Any attempt to open or modify the product or to damage or remove labels will automatically result in the voiding of all warranty claims.

The product must not be used in potentially explosive environments unless it is specifically designated for such use.

6.3 Disposable and rechargeable batteries
Please note the following points if the product contains disposable or rechargeable batteries:

Incorrect use of disposable or rechargeable batteries may result in injury, death, material damage or damage to the respective product due (for example) to battery fluid leakages, fire, overheating or explosion.
Leaking battery fluid is corrosive and can be toxic. It may result in burns on the skin and eyes and is damaging to health if swallowed. The following instructions must be followed to minimize the risk of injury:

- Remove disposable or rechargeable batteries from the device when they are empty, or if the device is not being used for a lengthy period.
- Old, weak or empty disposable and rechargeable batteries should be disposed of according to local or national regulations, or should be recycled directly.
- If a disposable or rechargeable battery leaks, it must be removed by following the steps in the installation procedure in reverse order. When doing so, please ensure that the leaking fluid does not come into contact with skin or clothes. If the fluid does come into contact with skin or clothes, immediately rinse the affected areas thoroughly with water. Clean the battery compartment with a dry cloth before inserting new disposable or rechargeable batteries. Please follow the recommendations of the disposable or rechargeable battery manufacturer.
- Disposable and rechargeable batteries must not be opened, perforated, damaged or heated.
- Disposable and rechargeable batteries must not be exposed to direct heat or fire.
- Disposable and rechargeable battery-driven equipment must not be exposed to direct sunlight for lengthy periods.
- Different types of new and old disposable or rechargeable batteries must not be mixed.
- The connections of rechargeable or disposable batteries must not be short-circuited.
- Disposable and rechargeable batteries must not be immersed in water or allowed to become wet.
- Disposable and rechargeable batteries must not be thrown, struck or exposed to other severe physical influences.
- Disposable and rechargeable batteries must not be disassembled or modified.
- Disposable and rechargeable batteries must not be charged close to fire or in hot environments.
- Do not recharge batteries if they are not specifically designed to be rechargeable.
- Rechargeable batteries are highly sensitive, and they may expand and explode if handled incorrectly.
- Rechargeable batteries must only be charged with accessories designed for this purpose.
- Rechargeable batteries must be protected against major temperature fluctuations, impacts, overheating and all other external influences that may have an effect on the function of the rechargeable battery or the device.

6.4 Transportation and storage
All the following safety precautions must be taken if the product is to be shipped or stored for a lengthy period:

- All BNC, Fischer and Triax connections must be covered with the dust caps that are supplied.
- The plug connections must be kept dry and dust-free.
- It must be ensured that no dirt can penetrate the product.
- The storage environment must be dry and must provide protection against vibrations.
- Compliance with the storage temperature is required according to the specifications on the relevant data sheet or in the relevant operating instructions.
- The product must be stored in the original packaging.

6.5 Product use
During storage and operation, the specifications on ambient temperature stated in the technical data must also be observed. The product may be permanently damaged if the permissible ambient temperature is exceeded to a significant extent.

The product may only be used under the specified operating conditions; in particular, high relative air humidity and temperature fluctuations that might result in condensation should be avoided.

Under no circumstances must the protective ground conductor be interrupted or rendered ineffective. Its purpose is to provide protection against electric shocks and it must therefore be connected to the relevant equipment.

Defective fuses must only be replaced by appropriate substitute types with the specified current rating. "Repaired" fuses must not be used, and fuse holders must not be short-circuited.

Do not perform tuning, maintenance or repair work on live, open devices.

6.6 Electromagnetic compatibility
To ensure that electromagnetic compatibility (EMC) is maintained for the entire measuring chain, particular attention must be paid to connection of the inputs and outputs of the cable screen, and to the cable installation:

- Cables must not be run parallel to wiring that causes interference.
- Only the supplied or optionally available cables must be used.
- Please ensure a reliable connection between shielding, connector boxes and device enclosures.
- Machinery and hardware must also comply with the EMC standards.

6.7 Software upgrades and updates
The software and firmware available on the Kistler website must always be used.

Kistler accepts no liability whatsoever for direct or consequential damage caused by products with outdated firmware.

6.8 Disposal information for electrical equipment

The product must not be disposed of as domestic waste. It must be taken instead to a suitable collection point for the recycling of disposable or rechargeable batteries, electrical and electronic equipment. Sorting, collecting and recycling helps to preserve natural resources and prevents impairment of human health and the environment by hazardous substances that may be released through the incorrect disposal of disposable or rechargeable batteries, electrical and electronic equipment.

Please contact your Kistler Sales Center if you have any questions about disposal.

Contact addresses and further information are available at this internet address: www.kistler.com

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