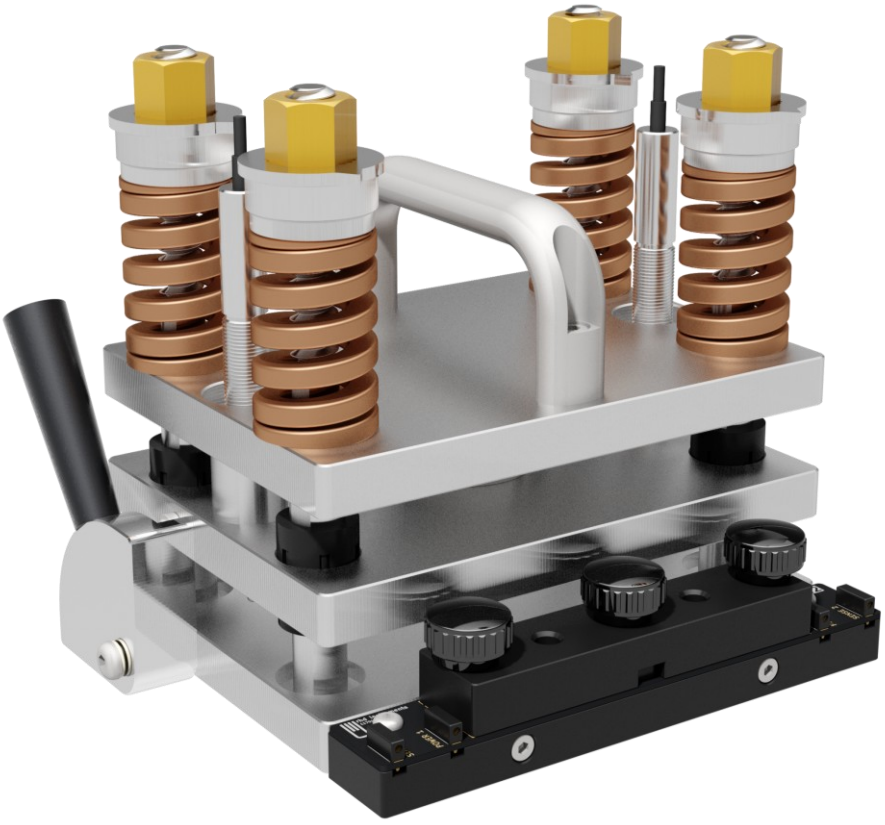
rhd instruments
flexible cell solutions

ComprePouch
User Manual



Version 1.2 EN

rhd instruments GmbH & Co. KG

Contents

1 Product description

The ComprePouch is a system that allows the user to manually apply a mechanical force to a solid, flat sample such as a pouch cell during an electrochemical measurement. As an option it integrates a force sensor, that shows the applied force on an attached display and/or a connected PC.

The mechanical force is applied by sequentially turning four nuts, which tension four springs that apply force to the upper metal plate. This plate transfers the force through the force sensor (or a bespoke metal cylinder) to the middle plate. The pouch cell under test is placed between the middle and the lower metal plate. The geometry of the frame and test cells ensures that the force is applied to the sample as uniaxially and evenly as possible.

The Force Amplifier reads the force of the integrated force sensor and displays it on an external LCD display. The Force Amplifier includes a tare function to remove offsets from the sensor reading.

The measured force can also be monitored and stored via a connected PC. As a convenient interface between Force Amplifier and PC, rhd instruments provides the software packages ForceAmpControl and CompreDriveControl. ForceAmpControl provides a configuration interface PC to Force Amplifier. CompreDriveControl serves multiple functions including data logging and export, as well as a temperature controller interface.

The sample temperature cannot be controlled directly, but by placing the ComprePouch inside a climate chamber.

Please read this manual carefully in order to learn how to use the ComprePouch successfully, safely, and efficiently.

Thank you for choosing the ComprePouch system. We wish you joy and success working with it.

2 Essential features at a glance

» High quality frame for manual pressure application to solid samples, typically pouch cells. Maximum force: 25 kN.

» Stand-alone operation possible.

» Available with and without electronics.

» With electronics: Stack pressure can be recorded using the CompreDriveControl software.

» Universal compatibility with all potentiostats/galvanostats.

Note:

If you have any questions, for example with regard to the compatibility of your measurement devices, do not hesitate to contact us via email (info@rhd-instruments.de) or phone (+49-6151-8707187).

3 General information

The instructions in this manual were checked carefully for correctness. However, liability for any mistakes in form and content will not be assumed. Additionally, rhd instruments GmbH & Co. KG (in the following declared as rhd instruments) reserves the right to change the setup and design of the products presented and described within this manual. Such changes are necessary to guarantee the continuous development of the products and, thus, the improvement of product quality and reliability.

Note: In this manual the main mechanical unit of the ComprePouch system will often be referred to as "ComprePouch".

Please note: This particular manual only describes the usage of the ComprePouch hardware. For instructions about the usage of the ForceAmplifier and ForceAmpControl software, please refer to their dedicated user manuals.

Markings in this manual

Marking	Meaning
 **WARNING**	Indicates a hazardous situation which, if not avoided, could result in serious injury or death.
 **ADVICE**	Indicates potential physical damages and other important information associated with your device.
 **IMPORTANT**	Important pieces of information are emphasized in special boxes. Please take special note of these as they may contain safety-critical information.

4 Important general safety notes

» To avoid physical injuries and damages, please read this instruction manual carefully before using the device for the first time.

» Please pay attention to all safety notes in this instruction manual.

» Please keep this manual safe. In case of selling or leaving the device to third parties, please do not forget to hand this manual over as well.

» The operation of the ComprePouch system should only be performed by properly trained and experienced members of staff.

» The setup has been developed for electrochemical measurements of solid samples under force-, temperature-, and potential-controlled conditions. It must not be used for any other purpose.

» To avoid unstable operating conditions and injury, the ComprePouch setup as well as the individual components should not be used if

- they show noticeable damage,
- they were stored or operated under unapproved conditions (see operational condition, storage and rated values),
- they were exposed to high mechanical stress, exceeding normal usage,
- they were altered by members of staff not authorized by rhd instruments.

WARNING: Danger of electric shock or fire through short-circuit.

A short circuit could be caused by defect cables, and by humidity or moisture. A short circuit may warm up the conductors, so that the insulation will melt. This could lead to serious burns when touched, or fire.

» Please only use the original cables included in delivery. They are prepared for your device and guarantee the necessary safety for you and your device.

» Whenever it is likely that electrical protection has been impaired, the system should be disconnected from any power supply and be secured against reconnection.

» Do not operate the device with wet hands.

» Operate the device only in dry rooms.

» Do not operate the device outdoors.

» Please follow only the instructions in the hardware manual for cleaning your device.

» Please follow only the instructions in the hardware manual for maintaining your device.

» Make sure that cables and conductors are not damaged. Damage could be caused by heat, impact, contact with chemicals, or mechanical impacts like rubbing, bending, tearing, and rolling-over.

» Prevent your device from mechanical impact. In case the device fell down, please contact rhd instruments or a technician authorized by rhd instruments before using it again.

» If your device shows any visible damage or defect: Disconnect the power supply by pulling out the power cord. Never operate your device in a damaged state. Never repair the device on your own. The device should only be repaired by either rhd instruments or by a technician authorized by rhd instruments.

» Do not loosen nuts or bolts unless this manual specifically tells you otherwise.

WARNING

ComprePouch contains potentially **dangerous springs**!

Under no circumstances loosen any other nuts or bolts than the spindle nuts while a force is applied!

» Only use original spare parts delivered and approved by rhd instruments.

ADVICE: Connect and disconnect any cable connection carefully.

ADVICE: Handle chemicals with care.

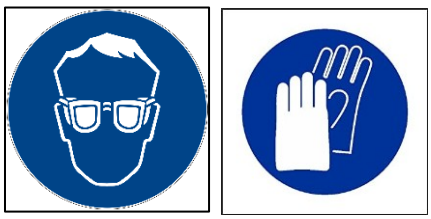
» When handling chemicals during preparation and execution of measurements with the ComprePouch, the usual safety advice in accordance with the H, EUH, and P statements (in the European Union: rating principles according to the CLP regulation) and appropriate safety measures have to be observed. This applies to subsequent cleaning and decontamination as well.

ADVICE: Sufficient cleaning increases the lifetime of your system.

» After using the ComprePouch for electrochemical measurements all components in contact with chemicals need to be thoroughly cleaned. Insufficient cleaning, decontamination, and drying of the components may result in damage due to corrosion and, thus, may affect the quality of your measurement results.

ADVICE: Be careful when bringing chemicals in contact with parts of your system.

» When operating your ComprePouch system please be advised to only use samples that are chemically inert towards the main materials of the system (e.g. aluminium, stainless steel, gold). In general, the ComprePouch system is only allowed to be operated under conditions that correspond to the specifications described in this manual and under which the main components of the system are stable.



Always wear protective gloves and eye protection when working with the system under pressure or with chemicals.

5 Components of the ComprePouch

» Please check if the delivery is complete:

- 1 x ComprePouch (with hard springs)
- 4x rotation indicator
- 1x wrench
- 4x soft spring
- 4x medium spring

Optional:

- 1x force sensor (mounted in the ComprePouch)
- 1 x display
- 1 x Force Amplifier
- 1 x 24V power supply
- 1 x USB to serial converter
- Various cables and accessories

» Please check if the delivered items are undamaged

ADVICE: If the delivered items are incomplete or damaged please contact rhd instruments via e-mail (info@rhd-instruments.de) or via phone (+49-6151-8707187).

rhd instruments will reject any claims for warranty or responsibility in case damaged equipment is used.

In case accessories of other manufacturers are used, rhd instruments will accept no liability.

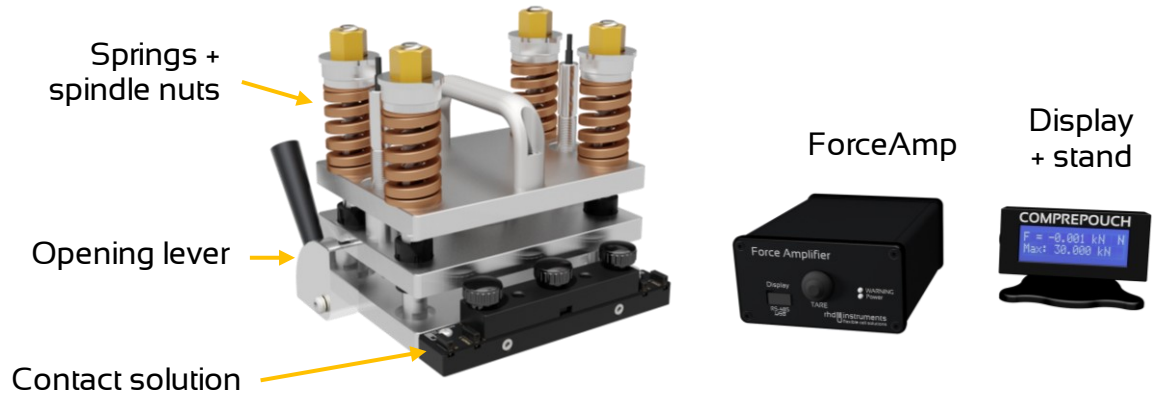


Figure 1: Components of the ComprePouch

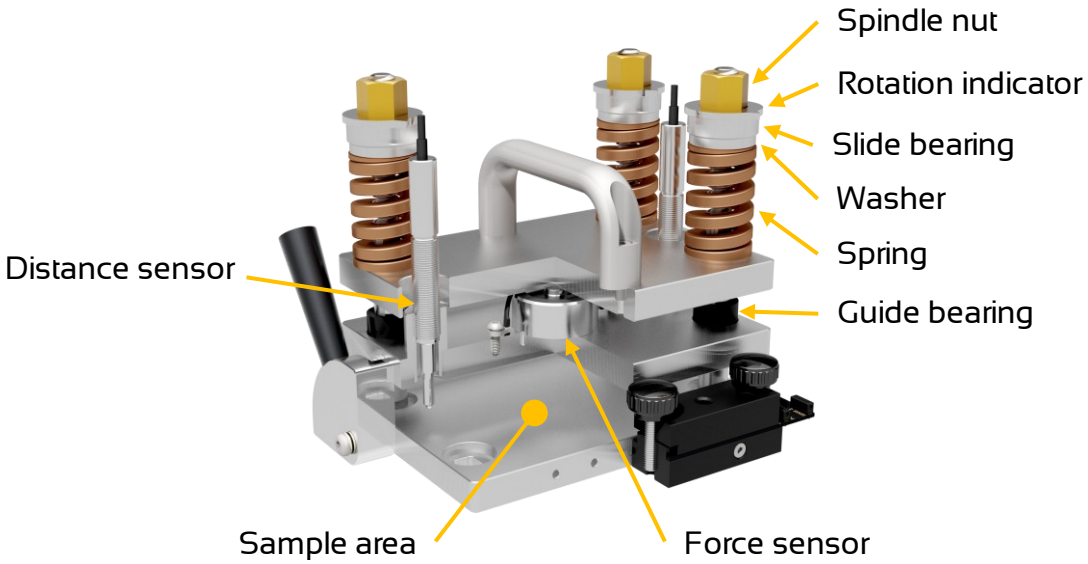


Figure 2: Components of the ComprePouch - Details

6 Operation conditions, storage and rated values

» Maximum sample dimensions	120 x 110 x 20 mm
» Maximum force	25 kN
» Minimum force	Approx. 30N
» Spindle thread pitch	3 mm
» Temperature range during operation (ComprePouch)	$T_{operation}$ = -30 °C to +90 °C
» Temperature range during operation (electronics + accessories): **Note:** See chapter 7.7 for usage of the ComprePouch in a climate chamber	$T_{operation}$ = +10 °C to +40 °C
» Maximum measurement potential	40 V ac/dc
» Maximum measurement current (using supplied contact solution)	5A
» Temperature range during long-term storage:	$T_{storage}$ = +10 °C to +40 °C
» Relative humidity (RH) for working and storage area:	(non-condensing) 0 to 80% RH
» Atmosphere during storage	Non-corrosive
» Rated dimensions	ComprePouch: 189x146x173 mm Force Amplifier: 140x106x60 mm
» Typical weight:	ComprePouch: 4,6 kg ComprePouch with accessories (excluding LVDT sensors): ca. 4,9 kg

Materials:

Part	Material
Metal plates	Aluminium
Spindles	Stainless steel
Nuts	Brass
Contact solution - plastic blocks	Polyoxymethylene (POM)
Contact solution - Screws	Phenolic resin, zinc plated steel
Contact solution - PCB	Glass fiber epoxy laminate, gold, polyamide, gold plated bronze
Springs	Steel
Spring washers + slide bearings	Stainless steel, polyamide
Guide bearings	Steel, plastic
Other Screws, nuts and bolts	Stainless steel, steel

7 General Operation

7.1 Typical order of operations

A typical order of operations would be:

1. Remove the upper part of the contact solution block held in place with thumb screws
2. Unscrew the spindle nuts until they are flush with the ends of the spindles
3. Open the ComprePouch using the lever on the left-hand side
4. If necessary, place Kapton tape on the bottom and middle metal plates to avoid short-circuiting the pouch cell tabs on the metal plates
5. Insert your sample between the bottom and middle metal plates
6. Make sure that the cell stack within the pouch cell is placed centrally and that the tabs make contact with the traces on the contact solution block
7. Close the ComprePouch
8. Clamp the tabs in the contact solution block using the thumb screws
9. Connect your battery cycler or potentiostat
10. Tare the Force Amplifier
11. Tighten the nuts until they just touch the slide bearings
12. Make sure that the upper platform is level
13. Put the rotation indicators on the nuts
14. Tighten the 4 nuts sequentially until your desired force is reached
15. Start your measurement

In the following chapters, different aspects of using the ComprePouch will be described in detail.

7.2 Spring packages

Your ComprePouch comes with 3 different sets of springs:

Spring	Colour	Spring rate (per Spring)	Max. force allowed (with 4 springs)
Soft	Purple	32,3 N/mm	3,3 kN
Medium	Red	272 N/mm	16,6 kN
Hard	Bronze	1150 N/mm	25 kN (limited by frame)

While using the ComprePouch with a force sensor this information is relevant for choosing a spring package the corresponds to the forces you usually require for your experiments. The lower the spring rate, the less change in force you have to expect as a result of e.g. changes in sample height or temperature variations. Furthermore, a lower spring rate results in less change of force per rotation of the nuts, thus making it easier to set up precise force values.

If you want to use the ComprePouch without a force sensor, see chapter 7.8 for more information.

If you need an even stiffer setup, you can contact us for aluminium cylinders to replace the springs.

7.3 Setting up the Force Amplifier

As the Force Amplifier has been made into a standalone product, it has a dedicated manual. Please refer to the Force Amplifier manual for detailed information about hard- and software relating to the Force Amplifier and its display.

Place the Force Amplifier next to the ComprePouch.

Connect the necessary cables and power supply.

The LCD display is delivered mounted to a stand. Loosening the knurled nut allows for changing the pitch of the display.

Figure 3: Display

7.4 Opening and closing the ComprePouch

The ComprePouch is equipped with an opening lever, that can be used to lift all parts from the middle platform upwards.

The middle and upper platform can either be locked in place by gravity and the opening lever **or** by the spindle nuts.

ADVICE

To avoid permanent damage to your system, make sure that:

- The nuts are flush with the ends of the spindles before opening the ComprePouch
- The opening lever is not locked in the "Open" position when tightening the nuts

When looked at from the side of the lever the directions of travel are:

» Counterclockwise: Move the platform up

» Clockwise: Move the platform down

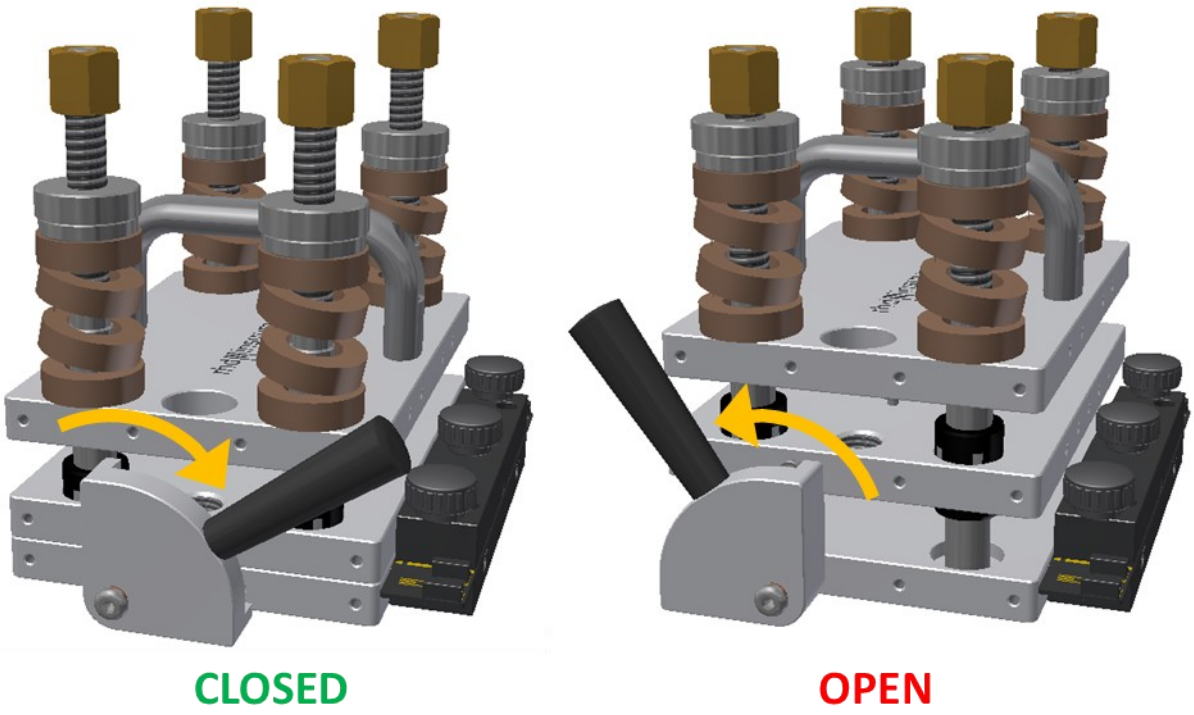


Figure 4: Opening lever

7.5 Sample placement

» Remove the clamping block from the contact solution

» Open the ComprePouch

» Place your sample on the lower platform

WARNING

Always make sure that the pouch cell tabs are not touching the metal parts of the ComprePouch, to avoid short-circuiting your cell!

Use Kapton tape to insulate the lower and middle metal plates as necessary.

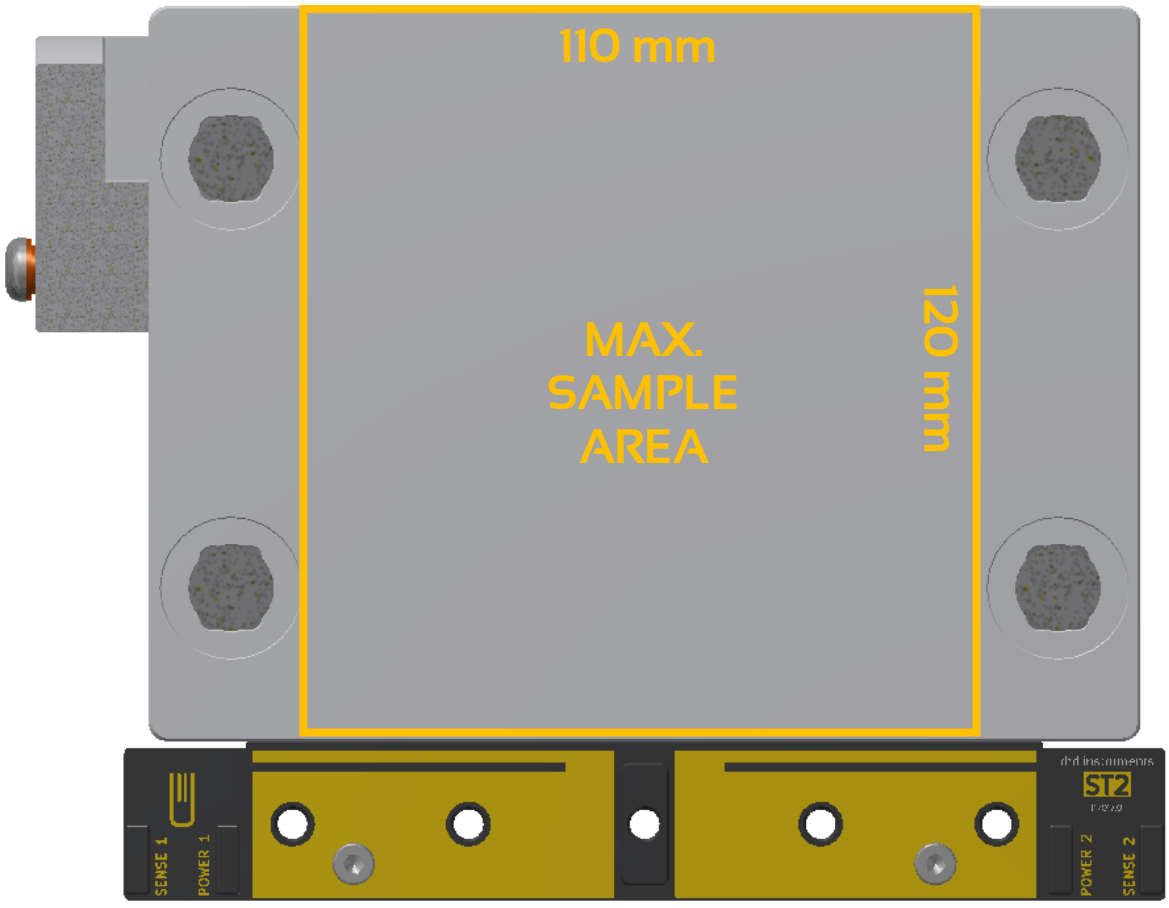


Figure 5: Sample area

» Center your sample to ensure an even pressure distribution

WARNING

Applying pressure to the ComprePouch while your sample is not centered, can lead to permanent damage or

catastrophic failure, due to local stress in parts exceeding the limits the CompreCell was designed for.

» Close the CompreCell
» Clamp the tabs in the contact solution block as described in the next section

If your sample is significantly smaller than 120x110mm, we advise to cover the part of the lower platform, that is beneath the tabs of your pouch cell with e.g. Kapton-tape to avoid short circuiting your cell.

You can place compression pads between your sample and the aluminium platforms to compensate for uneven samples. While the pressure distribution is typically better with suitable pads, they do thermally insulate your sample to some extent. For more information about the advantages and disadvantages of using pads, feel free to check out our application note "Mapping Pouch Cell Pressure Distribution in Operando" on our website.

7.6 Battery cycler connection

The ComprePouch is designed to facilitate connection of a battery cycler or potentiostat to the sample.

The standard configuration is equipped with the ST2 PCB, which has big gold-plated contact areas for the tabs of your pouch cell and 2 mm sockets.

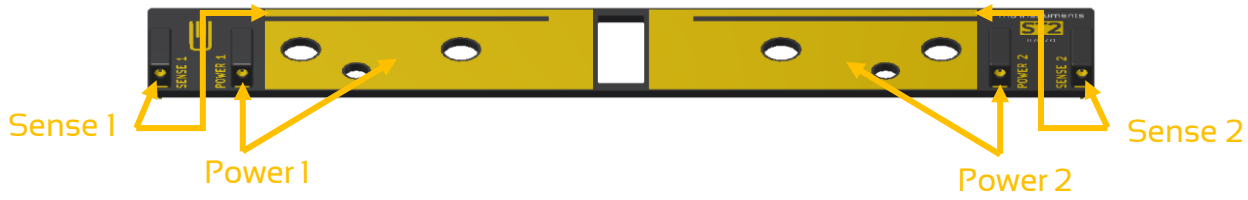


Figure 6: Connection points ST2

To establish the connection to your battery cycler or potentiostat, simply plug in the cables in the corresponding sockets on the PCB and clamp the tabs of your pouch cell on the gold-plated contact zones by tightening the knurled screws on the clamping block. You can choose which screw positions to use depending on your pouch cell tab spacing.

The ST2 connection block features separate Power and Sense lines for both electrodes. For best results, make sure that the tabs make contact with the large contact areas marked "Power" in Figure 6. For a two-electrode configuration, use only the Power connections. For improved potential measurements, connect the "Working Sense", "Counter Sense", and/or "Reference" lines to the Sense connectors instead.

7.7 Applying pressure / force

» With your sample inserted and connected, you can close your ComprePouch.

ADVICE

Do not tighten the spindle nuts when the ComprePouch is in its "Open" position, as this would apply all of the force to the opening system, which can cause permanent damage to the ComprePouch.

» Tare the force sensor.

» Tighten the spindle nuts until they just touch the slide bearings.

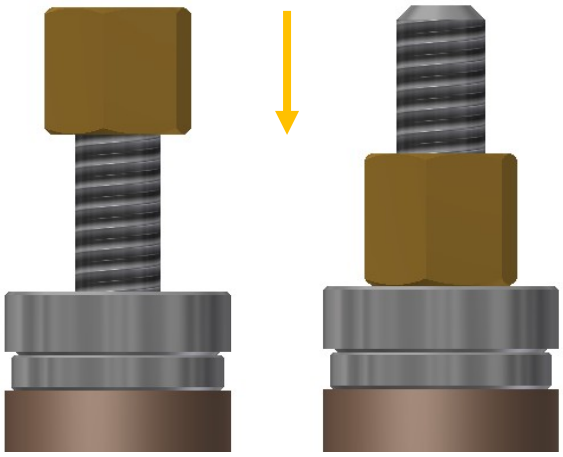


Figure 7: Tightening spindle nuts

ADVICE

While a little bit of tilt of the upper platform is not a problem, too much tilt will can cause the upper platform to catch on the spindles, which can cause permanent damage to your ComprePouch.

» Check the spirit level and make sure the upper platform is level.

» Put the rotation indicators on the spindle nuts, all pointing in the same direction.

Figure 8: Top view ComprePouch with rotation indicators

ADVICE

Do not tighten the spindle nuts when the ComprePouch is in its "Open" position, as this would apply all of the force to the opening system, which can cause permanent damage to the ComprePouch.

WARNING

Never exceed the force ratings of the ComprePouch or force sensor to avoid permanent damage!

If switched on, the Force Amplifier monitors the gross force and outputs a warning sound and turns on an error LED if the limits are exceeded.

WARNING

Tightening the nuts unevenly or too much at a time can cause permanent damage or catastrophic failure, due to local stress in parts exceeding the limits the ComprePouch was designed for.

» Start tightening the nuts equally and sequentially, e.g. in quarter turns, with the supplied wrench until you reach the desired force. The rotation indicators will always point in the same direction, if you have rotated all the nuts equally.
Note: It can be helpful to lean on the handle of the ComprePouch while tightening the nuts to keep it from rotating. While this is not a problem for the ComprePouch, the force put onto the handle is transferred to the force sensor and sample, thus temporarily increasing the measured force.

7.7.1 Applying low forces

For applying low forces, we recommend using the soft springs (purple) as described in chapter 7.2.

» Align the springs with the spindles, washers and bearings.
» Start turning the nuts, until they just barely touch the glide bearing, while making sure that the upper plate is horizontal (as indicated by the spirit level).
» Then slowly start turning 2 opposite nuts at once, followed by the other 2.
» Proceed like this until the desired force is reached.

The minimum force, that can usually be applied using this technique is 5 N (0.005 kN). In addition, there is the force applied by the weight of all parts on top of the sample, as described in the following chapter .

7.7.2 Force sensor offset, relevant for low forces

For very low applied forces, the following paragraph might be interesting. For most use cases the described offset of approximately 25 N should be irrelevant, especially when compared to errors caused by e.g. temperature drift of the force sensor.

There are two groups of parts, which are not accounted for in the standard procedure of taring the force sensor:

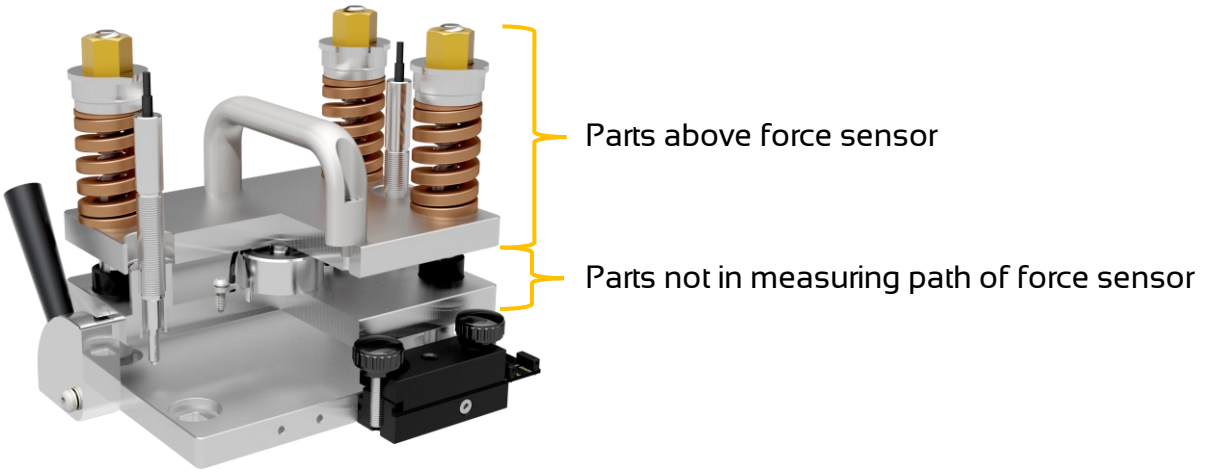


Figure 9: Part groups relevant for precise taring of force sensor

The parts above the force sensor can be tared out by lifting the upper platform, springs etc. by the handle, then taring the Force Amplifier. As soon as the parts are placed on the force sensor, you will have an accurate reading of those parts.

The parts, which are not in the measuring path of the force sensor, but do apply a small force to your sample are: middle platform, guide bearings, force sensor, sensor fixation. This force has to be added to the measured force values for the highest level of accuracy possible with this setup.

As of January 2026, you have to add the forces specified below in your experiment evaluation. We are working on a feature for CompreDriveControl, that will enable you to tare the force value can to a desired value, rather than zero.

Weights:

Parts	**Weight**
Above force sensor (with hard springs)	16,9 N
Between upper platform and sample (not in force sensor measuring path)	8,3 N

7.8 Exchanging the force sensor

This chapter describes how to unmount and mount the force sensor.

The ComprePouch must not be used with either an actual force sensor or a "Dummy sensor" in place!

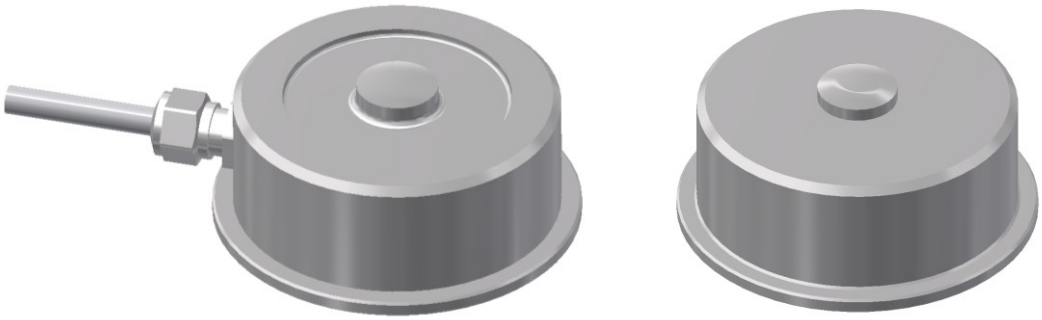


Figure 10: Force sensor (left), sensor dummy (right)

» Unscrew the nuts and remove them, as well as the slide bearings, washers and springs from the spindles.

Figure 11: Removing nuts, slide bearings, washers and springs

» Remove the upper plate by pulling up the handle.

Figure 12: ComprePouch without upper plate

» Unscrew the two screws holding the force sensor in place.

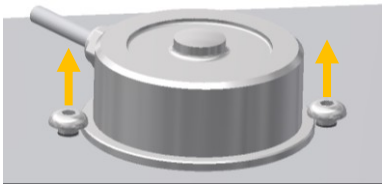


Figure 13: Removing force sensor screws

» Remove the force sensor.

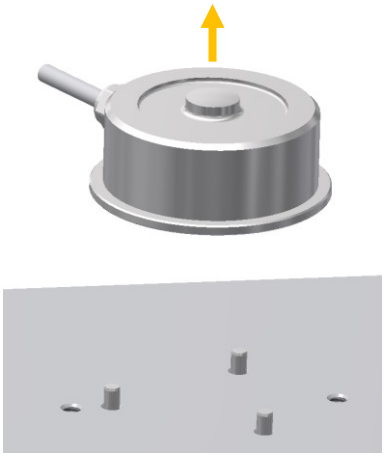


Figure 14: Removing force sensor

» Now either replace it with the "Dummy sensor" or with a recalibrated sensor, while making sure to insert the guiding pins in the corresponding holes of the sensor (dummy).

» Secure the force sensor or dummy with the two screws.

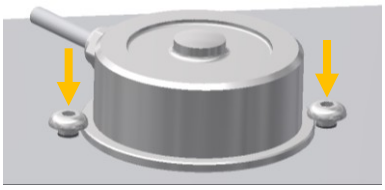


Figure 15: Securing the force sensor

» Place the upper plate on the force sensor.

» Place the springs on the spindles, followed by the thin washer and the slide bearing. Note: The slide bearings have a closed side and an open side. The closed side should be facing upwards.
Screw the nuts back on the spindles.

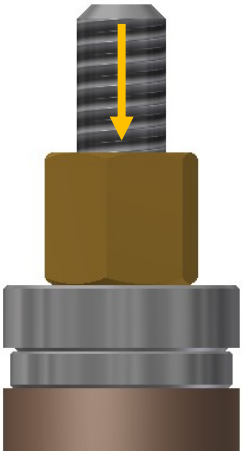


Figure 16: Installation of springs, washers, slide bearings and nuts

7.9 ComprePouch without Force Sensor

If you want to use the ComprePouch without a force sensor, the usage of the system differs from the procedure described in the chapters before in a few steps. As the chapters above explain the usage of the ComprePouch in general, it is still necessary to read them!

For ease of use and maximum accuracy, we recommend the following chapter 7.9.1. That requires the temporary use of a force sensor and ForceAmplifier for a short period of time though.

Chapter 7.9.2 can be followed without ever needing a force sensor or ForceAmplifier. It does reduce the accuracy of the applied force significantly though.

7.9.1 Case 1: Force sensor temporarily available

Preparation (necessary once per sample and specific ComprePouch):

- » Prepare the ComprePouch you want to use without a force sensor later with a force sensor and the exact sample you want to use later, as described in the chapters above, without applying any pressure yet.
- » Tare the force sensor.
- » Now turn the nuts clockwise until they just touch the slide bearings/washers. Make sure to apply as little force as possible while leveling the upper plate (as indicated by the spirit level). Once you are done with that, put the rotation indicators on the nuts, all facing precisely in an easy to remember direction (e.g. towards the back of the ComprePouch).
  Note: This step is critical for the accuracy of the applied force later in the process.
- » Turn all the nuts clockwise (as described in chapter 7.7) until you reach the desired force while counting the number of revolutions.
  Write down the number of revolutions you needed.
  Note: This step is critical for the accuracy of the applied force later in the process.
- » Release the pressure on the system by turning the nuts counterclockwise.
- » Take out the force sensor and replace it with the sensor dummy, see chapter 7.8.

Start of actual experiment:

- » Prepare the ComprePouch (now with the sensor dummy in place) with your sample again.

» Turn the nuts clockwise until they just touch the slide bearings/washers. Make sure to apply as little force as possible while leveling the upper plate (as indicated by the spirit level). Once you are done with that, put the rotation indicators on the nuts, all facing precisely in an easy to remember direction (e.g. towards the back of the CompreTouch).

Note: This step is critical for the accuracy of the applied force later in the process.

» Now turn the nuts clockwise, using the exact number of revolutions you noted down earlier.

Note: This step is critical for the accuracy of the applied force later in the process.

» You have now applied a force that should be extremely close to the one you measured with the force sensor and can continue with your experiment.

7.9.2 Case 2: No force sensor available

While you can use the ComprePouch without ever installing a force sensor, the accuracy of the applied force is significantly lower when using the procedure described beneath compared to the procedures described in chapter 7.9.1 or 7.7.

The reason for this is mainly the influence of your sample acting as an extra spring and to some extent the finite stiffness of the ComprePouch itself.

» Prepare the ComprePouch with your sample as described in the chapters above, without applying any pressure yet.

» Turn the nuts clockwise until they just touch the slide bearings/washers. Make sure to apply as little force as possible while leveling the upper plate (as indicated by the spirit level). Once you are done with that, put the rotation indicators on the nuts, all facing precisely in an easy to remember direction (e.g. towards the back of the ComprePouch).

Note: This step is critical for the accuracy of the applied force later in the process.

» Calculate the number of revolutions needed to reach your desired force with the help of the following table:

Spring	Colour	Spring rate	Max. force allowed (with 4 springs)	Change of force per revolution of all 4 nuts
Soft	Purple	32,3 N/mm	3,3 kN	388 N
Medium	Red	272 N/mm	16,6 kN	3,26 kN
Hard	Bronze	1150 N/mm	25 kN (limited by frame)	13,8 kN

Table 1: Change of force per nut revolution

» **Write down the number of revolutions you need for your experiment.**

» Turn all the nuts clockwise (as described in chapter 7.7) until you reach the number of revolutions you just calculated.

Note: This step is critical for the accuracy of the applied force.

7.10 Usage of the ComprePouch with Distance Add-On

Please refer to the "Distance Add-On for ComprePouch" manual for further instructions.

7.11 Usage of the ComprePouch in a climate chamber

The main mechanical unit of the ComprePouch and the force sensor including connection cable are suitable for use in a climate chamber (temperature limits see chapter 6).

However, other included cables, the spirit level, Force Amplifier and display are designed for use at room temperature only!

7.12 Usage of the ComprePouch in a glovebox

The ComprePouch is designed to work in a glovebox without any limitations to its main functions.

However, the lubricants might leak small amounts of gas. In high purity environments we therefore recommend using vacuum approved cables and lubricants. The electronics should be kept outside of the glovebox for the same reason.

7.13 Transporting or shipping the ComprePouch

To avoid loose parts moving uncontrolled, remove any sample from the ComprePouch, close the frame and hand tighten the nuts to apply some force to the system before carrying it around.

For shipping we recommend to apply 2-5 kN before packaging the system.

8 Maintenance

8.1 Cleaning

ADVICE

The bearings are lubricated as required and must not be contaminated with other fluids.

Never clean these parts with solvents like isopropanol or water to avoid damage to the components.

The rest of the metal parts can be cleaned with isopropanol or water, while paying attention not to contaminate the bearings. However, the area in which the bearings move up and down should not be cleaned frequently as too much lubricant would be removed from the bearings otherwise.

Thoroughly clean the gold contacts before each use. Contaminants, powder or dust could be pressed into the plate during use, causing damage to the gold surface.

Occasionally clean the remaining surfaces of the CompreTouch of dust using a plain cloth and deionized water or isopropanol. Do not use other solvents.

8.2 Lubrication

Regular re-lubrication of the parts is not required or advised. If done regardless, always use the correct lubricants. Using incompatible lubricants can cause permanent damage to the ComprePouch!

Lubricants used on the ComprePouch parts are:

- Ball bearings: High load bearing grease (i.e. SKF LGEP 2)
- Trapezoidal threads of spindles and nuts: General purpose oil or grease suitable for desired temperatures

8.3 Sensor recalibration

The force sensor should be recalibrated occasionally. This is usually done as an exchange of the current force sensor with a different one provided by rhd instruments together with an up-to-date calibration sheet. Please contact rhd instruments and follow the instructions in this manual for changing the force sensor in order to swap the replacement sensor into your device.

9 Troubleshooting

Generally, if something seems to be wrong with your ComprePouch and you are unsure how to fix it or a problem persists despite your attempts of fixing the issue, please contact rhd instruments.

9.1 ComprePouch is not closing

Make sure the lift mechanism is in the closed position, as described in chapter 7.2.

9.2 ComprePouch is making unusual noise when moving the plates

Make sure to follow the procedures described in chapter 7 to keep the moving plates level while applying force.

Make sure the spindles are clean (apart from lubricant).

Make sure there is not dirt between spindles and spindle nuts.

Make sure there is no dirt in the ball bearings.

All of the above issues can be resolved by cleaning and relubricating the parts, if the issue is resolved soon enough.

10 Settlement

Warranty will be granted for a period of 2 years starting at the date of delivery.

Explicitly left out from warranty are parts that are subject to premature wear and tear due to use or other natural wear and tear (such as, for example, insulation sleeves, hard metal parts, electrodes in general, and all sealing materials). These components are regarded as consumables.

rhd instruments has to be notified of apparent defects and damages which occurred during production or delivery within 14 days after receiving the delivery. If a notification of apparent defects and damages does not occur within this period of time, the goods shall be deemed to have been accepted; as a result, the order will be assumed to be completed and approved.

Please note: Only workshops authorized by rhd instruments are allowed to perform repairs on the devices. If any mechanical or electronic components of the products are altered by customers themselves or by unauthorized workshops, a claim for warranty against rhd instruments is forfeited.

In case of a claim or sending back goods for repairs to be performed, please ask for the decontamination form beforehand. In general, rhd instruments must be contacted via e-mail or phone prior to any shipping of damaged goods.

11 Contact and Technical Support

For any questions with regard to our products, orders, or request for repairs please contact rhd instruments:

info@rhd-instruments.de

Phone: +49 6151 8707187

Fax: +49 6151 8707189

Web: https://www.rhd-instruments.com

rhd instruments GmbH & Co. KG

Otto-Hesse-Straße 19 / T3

64293 Darmstadt

Germany

Sitz der Gesellschaft: Darmstadt

Amtsgericht Darmstadt HRA 85824

WEEE-Reg.-Nr. DE 54715752

Haftende Gesellschafterin: rhd instruments Verwaltungs GmbH

(Sitz: Darmstadt, Amtsgericht Darmstadt HRB 96374)

Geschäftsführer: Dr. Benedikt Huber und Dr. Marcel Drüschler