Megger

BITE5

Battery tester

USER MANUAL

Notice

The information presented in this manual is believed to be adequate for the intended use of the product. If the product or its individual instruments are used for purposes other than those specified herein, confirmation of their validity and suitability must be obtained from Megger. Refer to the warranty information below. Specifications are subject to change without notice.

WARRANTY

Products supplied by Megger are warranted against defects in material and workmanship for a period of 1 years following shipment. The warranty is void in the event of abuse (failure to follow recommended operating procedures) or failure by the customer to perform specific maintenance as indicated in this manual.

Contents

Table of contents

Introduction

Thank you for your purchase of the Megger BITE5 Battery Tester. Be assured that your unit has been designed with emphasis on reliability, simplicity, and ease of use. It will provide you with the information you need to reliably test batteries.

Purpose of this manual

This document is the operator manual for the Megger BITE5 Battery Tester. It provides a description of the operation of the unit as well as operating instructions. Read this manual before installing or using the equipment. Special emphasis should be placed on all safety discussions.

Audience

This manual is written for technical personnel who are familiar with the various measurements performed by volt meters and current meters and have a general understanding of their use and operation. Such personnel should also be thoroughly familiar with the hazards associated with the use of this equipment and should have received proper safety training.

If you find any discrepancies in the BITE5 or have any comments, please send them to Megger via fax, e-mail, or phone.

Items received

Items received

Qty	Description	Image
1	BITE5 Battery Tester	
1	Duplex Probes	
1	Voltage Leads	
1	Charger	
1	Micro SD Card	
1	Micro SD Card Reader	
1	Mini USB Cable	
1	Neck Strap	
1	Zero Bar	
1	Stylus	
Optional	AC/DC CT	
Optional	TC solo CA	

Qty	Description	Image
Optional	11.75 mm (¼") Tip Concentric Probes	
Optional	25.4 mm (1") Tip Concentric Probes	

Warnings and safety precautions

Safety

Warnings and safety precautions

WARNING!

Death, serious injury, or fire hazard could result from improper use/installation of this instrument. Read and understand this manual before installing this instrument.

Installation of this instrument MUST be performed in compliance with the National Electric Code and any additional safety requirements applicable to your installation.

Installation, operation, and maintenance of this instrument MUST be performed by qualified personnel only. The National Electrical Code defines a qualified person as one familiar with the construction and operation of the equipment and the hazards involved.

Safety Precautions

The following safety precautions MUST be taken whenever the instrument is installed:

- Wear safety glasses and insulated gloves when making connections to power circuits
- Hands, shoes, floor/ground must be dry when making any connection to a powered line

These warnings and safety precautions are to be used where appropriate when following instructions in this manual.

CAUTION!

The equipment could be impaired from improper use. Read the complete manual before use.

WARNING!

The equipment should not be used while its battery door is removed or if there is any visible damage to the case or if the hardware holding the unit together has been loosened.

Technical Specificaions

Power supply	
AC charging adapter	Input 100 – 240 V AC (50/60 Hz)Output 12 V DC at 2.5 A
Battery pack	Li-Ion rechargeable pack > 5.2Ah Voltage rating 7.2V Charge time 4 hrs Battery life > 8 hrs 300 charge/discharge cycles
Mechanical specifications	
Dimensions	240 x 160 x 65 mm 9.45" x 6.30" x 2.56"
Weight	0.9kg 1.98lbs
Shock and vibration	EN61010-1
Ingress/protection	IP54 EN60529 Electric IP2X terminal
Operating specifications	
Operating temperature	0 ~50 °C 32~122 °F
Storage temperature	-20 ~50 °C -4~122 °F
Charging temperature	10 ~40 °C 50~104 °F
Altitude	Operational 0 ~ 2000 m
Relative humidity	10 ~ 85 % NC
Safety specifications	
CAT rating	600V CAT III, Pollution Degree 2
Standards	IEC61010-1:2010 (3rd Ed) EN61010-1:2010 (3rd Ed) IEN61326-1:2013 EN55011/A1:2010 (Class A) EN61000-3-2:2014 EN61000-3-3:2013
Markings	Double Insulated CE UKCA
Record capacity	
Memory	16 M Flash Storage
Impedance record	Max 1000 records
VA record	Max 512 records

Technical specifications

Electrical specifications		
Internal impedance		
Range	Resolution	Accuracy
3 mΩ	1 µΩ	+/- 1 % of reading +/- 10 digits
30 mΩ	10 µΩ	+/- 0.8 % of reading +/- 10 digits
300 mΩ	100 µΩ	
3 Ω	1 mΩ	
30 Ω	10 mΩ	
300 Ω	100 mΩ	
Voltage DC/AC		
Range	Resolution	Accuracy
5 V DC	0.00 1 V	+/- 0.5 % of reading +/- 5 digits
50 V DC	0.0 1 V	
500 V DC	0.1 V	
1000 V DC	1 V	
5 V AC	.001 V	+/- 0.75 % of reading +/- 5 digits (40 Hz – 100 Hz)
50 V AC	0.01 V	
500 V AC	0.1 V	
600 V AC	1 V	
Current DC/AC		
Range	Resolution	Accuracy
4 A DC	0.001 A	+/- 0.5 % of reading +/- 5 digits + (CT Tolerance)
40 A DC	0.01 A	
400 A DC	0.1 A	
1000 A DC	1 A	
4 A AC	0.001 A	+/- 0.75 % of reading +/-10 digits + (CT Tolerance)
40 A AC	0.01 A	
400 A AC	0.1 A	
1000 A AC	1 A	
Temperature		
Range	Resolution	Accuracy
10 °C ~ 100 °C		
50 °F ~ 212 °F	0.1 °C	+/-1 °C +/- 2 digits
Ripple Voltage		
Range	Resolution	Accuracy
0 - 5 V	0.001 V	+/- 0.5 % of reading +/- 10 digits (40 Hz – 10 KHz)

Accuracy specifications assume an ambient temperature of 18 °C to 28 °C, stable within +/-1 °C and a warm-up time of 30 minutes.

Connections and controls

Connections

Mini USB input and micro SD card slot

Current probe input

Voltage lead inputs

Impedance probe inputs

ON/OFF switch

DC power adapter input

Controls

Lock and unlock screen

Ohmic testing

VA testing

Data and string records

Recorded data charts

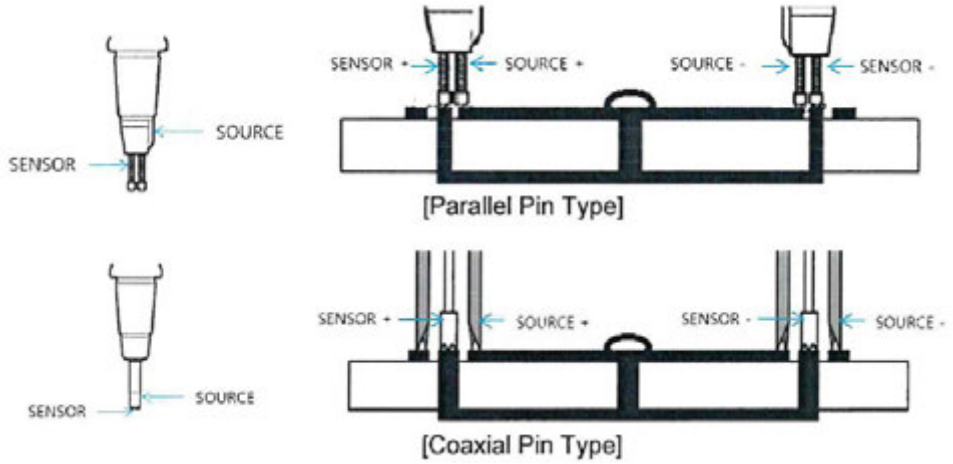
Instrument configuration

Zero adjustment

For accurate ohmic measurements, it is recommended that a zero adjust is performed when changing probes.

To perform a zero adjust, use the included zero bar.

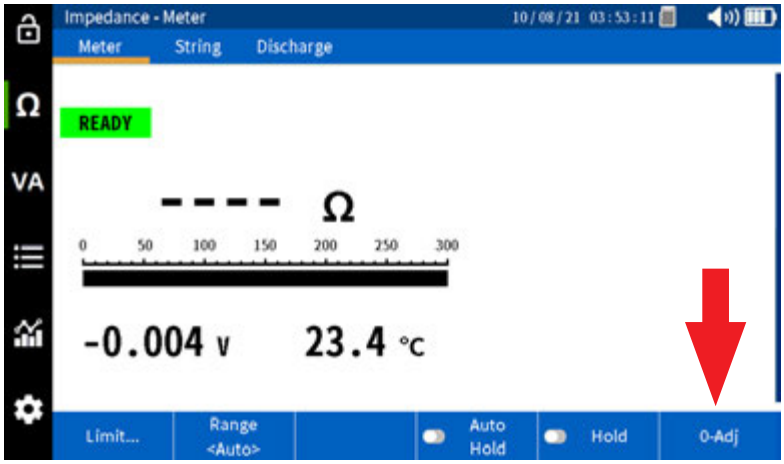
When performing a zero adjustment, place the source pin on the outer copper surface of the zero bar and place the sensor pin in one of the holes of the zero adjust bar.



Configuration of BITE5

Zero adjustment procedure

Select “0-ADJ”.

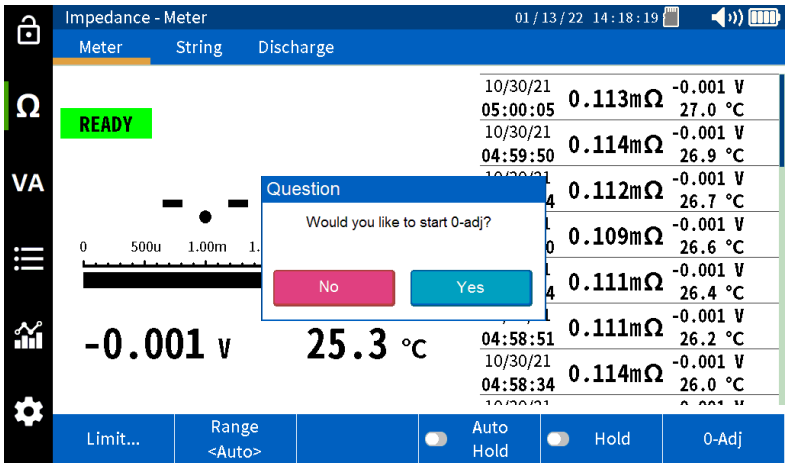


The BITE5 will prompt you to make a zero adjustment bar.

Select YES.

NOTE: Place the probes on the zero adjustment bar as shown within 10 seconds of selecting YES, or the BITE5 will time out.

This zero adjustment will begin. Hold probes on zero bar until adjustment is complete.



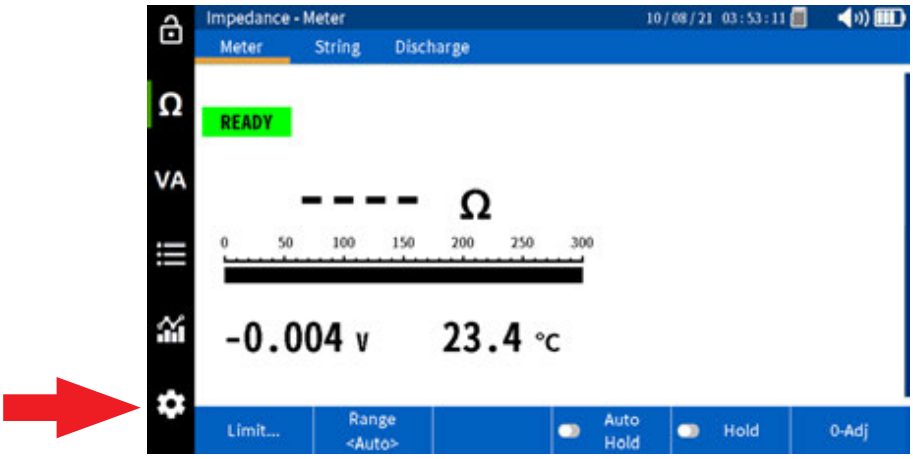
Operation

Configuration of BITE5

The BITE5 allows you to customize the unit for your needs. You can set the desired language, the date and time format, the screen brightness setting, a unit and display auto off time out, temperature format, and the desired buzzer volume. This screen also allows you to format the micro SD card and reset the unit to defualt conditions.

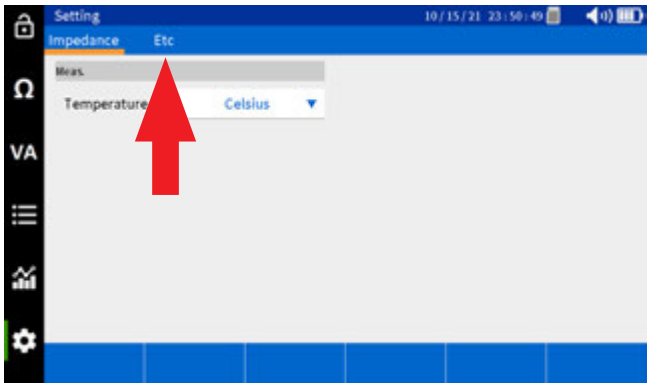
CONFIGURATION ICON

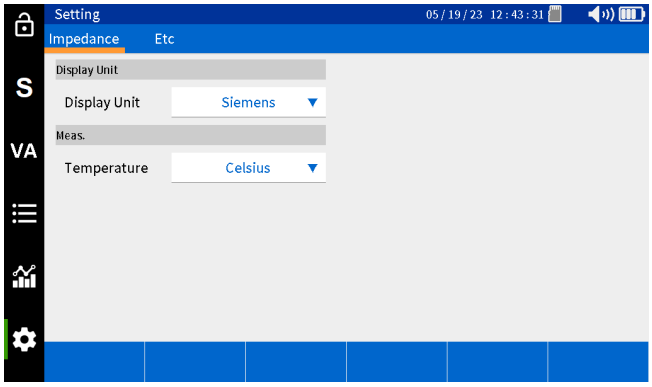
To configure the unit, select the
CONFIGURATION ICON.



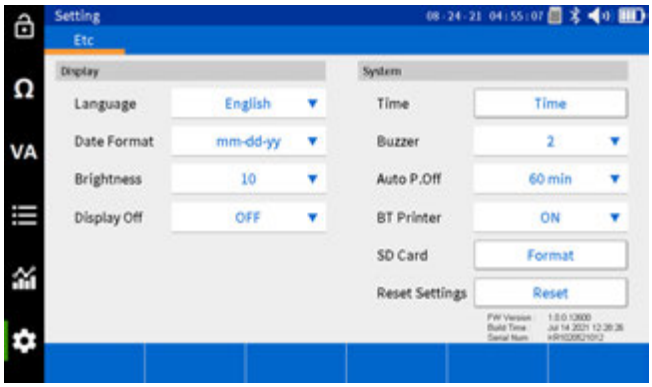
Under the impedance tab, the temperature measurment scale can be selected (Celcius or Fahrenheit). On the BITE5-SE model the display units can be set to either Ohms or Siemens. This will allow the measured values and displayed data to be viewed in either Ohms or Siemens.

Then select the "Etc" tab.





This screen allows you to customize the settings of your BITE5.



From this screen you can select the following:

Language	Set the instrument language
Date format	Select the desired date format

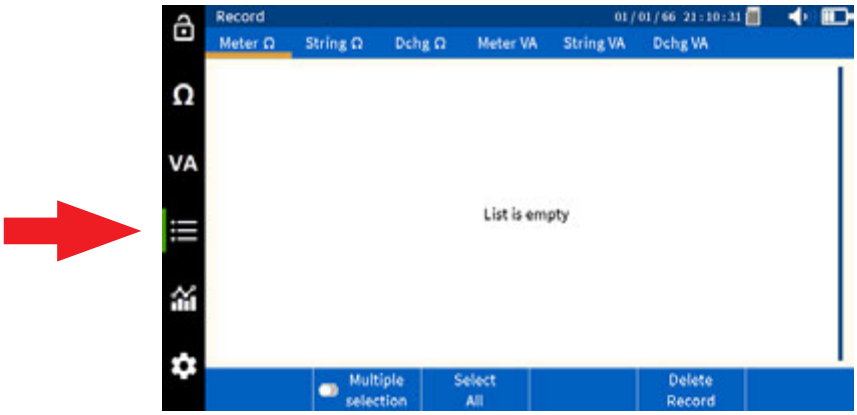
Configuration of string

Brightness	Set the brightness setting of the display screen
Display off	Set a display time out. After an amount of time of no activity, the display will turn off. Simply touch the screen to re-activate the display
Time	Set the date and time of the instrument
Buzzer	Set the volume of the buzzer or disable it
Auto P. off	Set a unit power off time out. After an amount of time of no activity, the instrument will turn off
BT printer	Enable or disable the optional bluetooth printer
SD card	Format the micro SD card. NOTE: This will cause all data and configurations to be erased
Reset settings	Resets the instrument settings to default factory settings

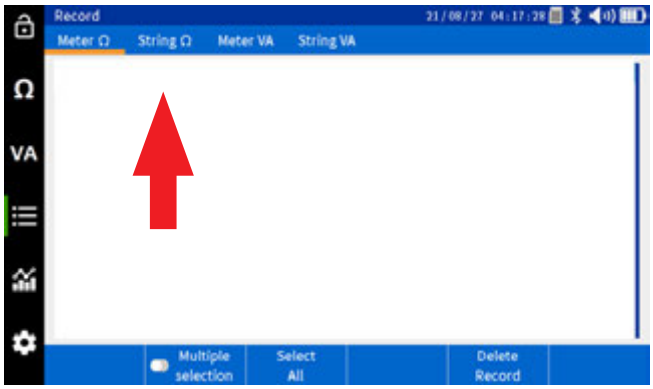
Configuration of string

The BITE5 allows you to configure strings. The configuration allows you to assign the string a name, input the type of battery, the number of batteries, and the model of the battery. In addition, you cen enter baseline reference data as well as warning and alarm limits.

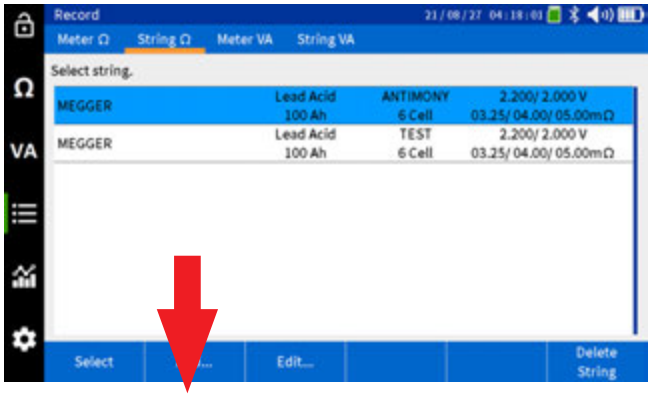
To configure a new battery string press the RECORD ICON.



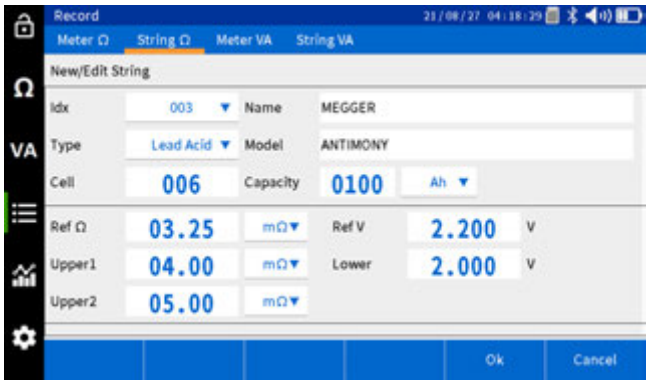
Select "String Ω".



Select "Add…"



This will open the String Configuration screen.



When the setting are complete, select OK to save the string configuration.

Performing an impedance test

Idx	Sets an index number for the string in the BITE5. This is set automatically. It can be set manually if desired
Type	Select the type of battery to be tested: Lead acid Ni-CD Ni-MH Li-ion Li-poly
Cell	Cell
Name	Name of string
Model	Model number of batteries
Capacity	Battery capacity in Ah or mAh
Ref Ω	Baseline reference value On the BITE5-SE model, this value can be in either ohms or Siemens
Warning	Warning upper ohmic limit On the BITE5-SE model, this value can be in either ohms or Siemens
Alarm	Alarm upper ohmic limit On the BITE5-SE model, this value can be in either ohms or Siemens
Ref V	Cell float voltage
Lower	Low voltage limit

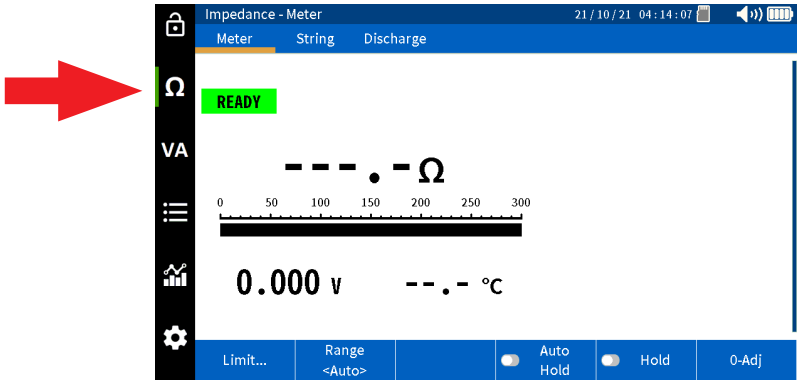
Performing an impedance test

In the ohm mode, the BITE5 will record and save voltages, impedance values and temperature. These measurements can be performed on individual cells or sequentially on battery strings. These measurements can be taken on any individual battery up to 200 V DC.

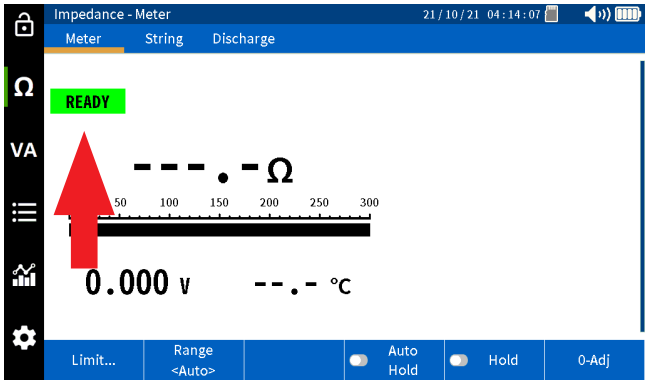
Operation:
Measuring and saving individual battery measurements.

Connect the impedance leads to the input connector of the BITE5.

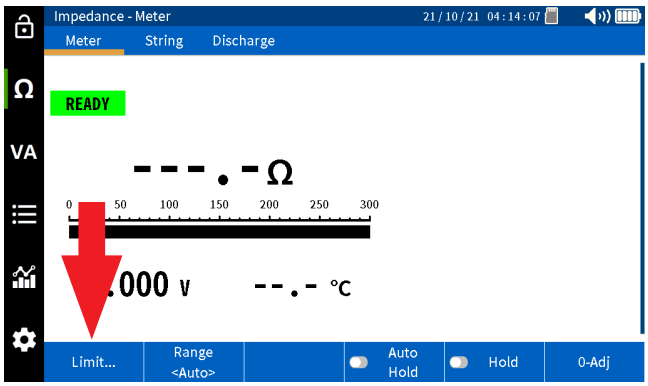
On the BITE5 select “Ω”.



Select “Meter”.

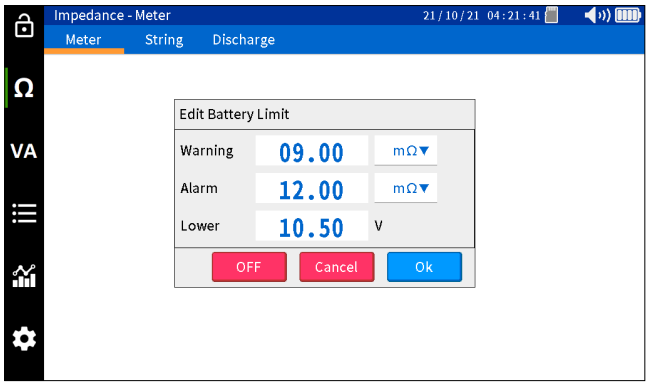


Select “Limit” if you would like to program impedance and voltage limits for the measurement.



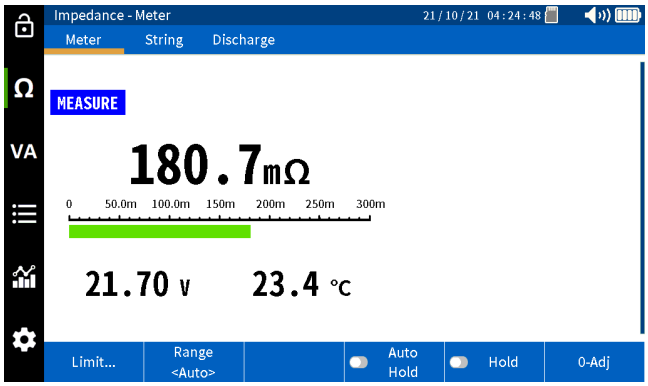
This screen will allow you to program a warning and alarm limit for the impedance value and a lower limit for the voltage. This is an optional step. Select OK when done.

Note this feature can be disabled as well by selecting OFF.



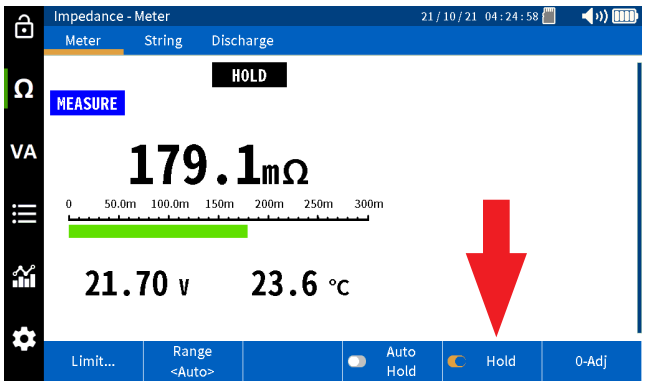
Start testing by place the probes across the battery.

The BITE5 will beep when the measurement is complete.



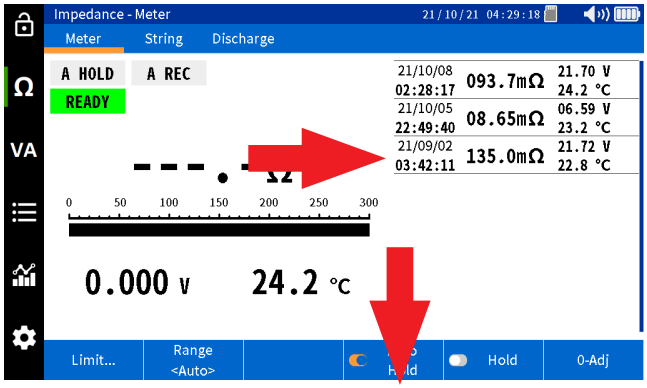
Performing an impedance test on a battery string

Press “Hold” to freeze the value on the screen.



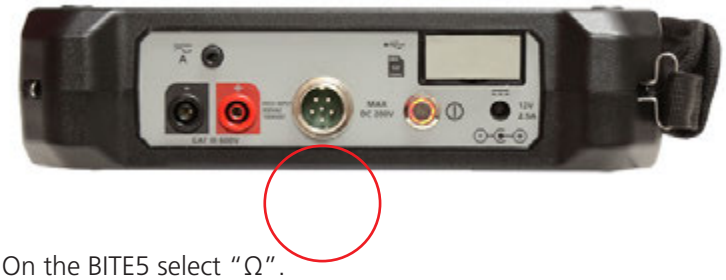
Automatic Saving of Values

Select “Auto Hold” and the BITE5 will automatically save any measurement with a date and time stamp.

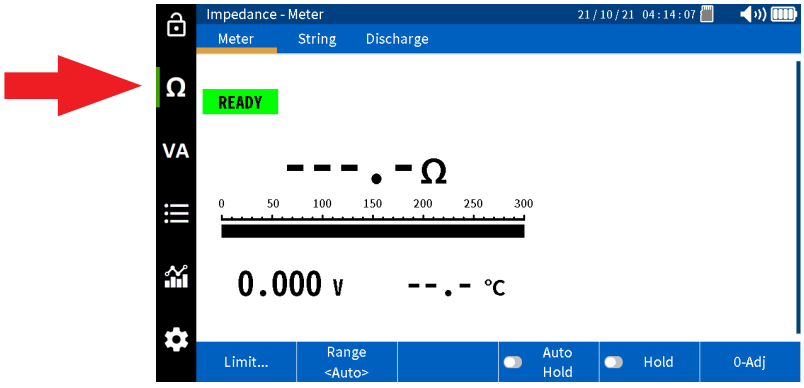


Performing an impedance test on a battery string.

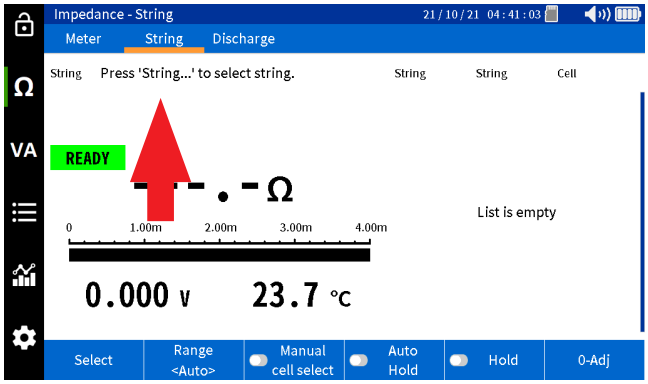
Connect the impedance leads to the input connector of the BITE5.



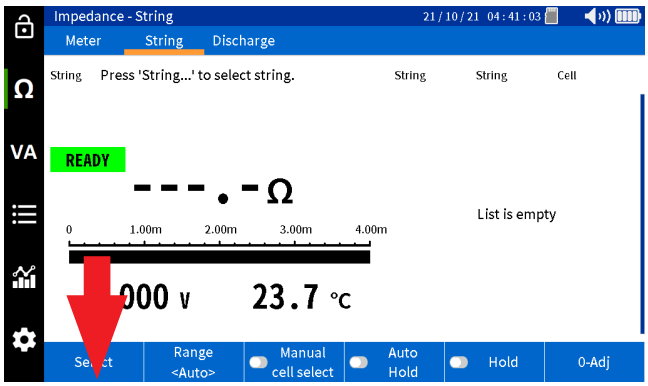
On the BITE5 select “Ω”.



Select “String”.

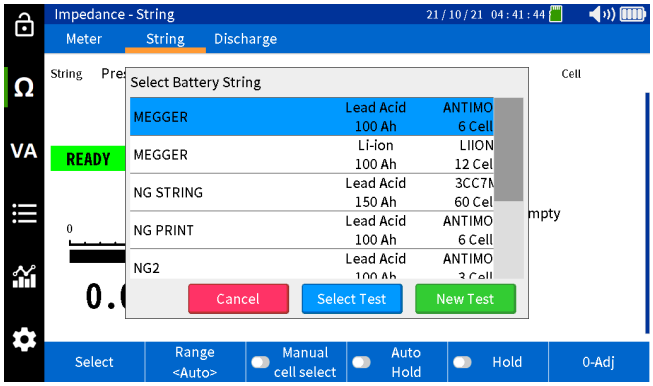


Select “Select”.



Select desired string. Select “New Test” to start a new test on the selected string.

Select “Select Test” if you wish to continue a test that was already in progress.

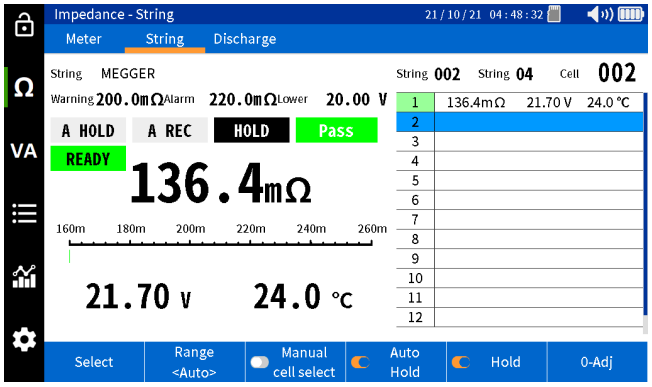


Performing an impedance test on a battery string.

Start testing by placing the probes on the first cell in the string.

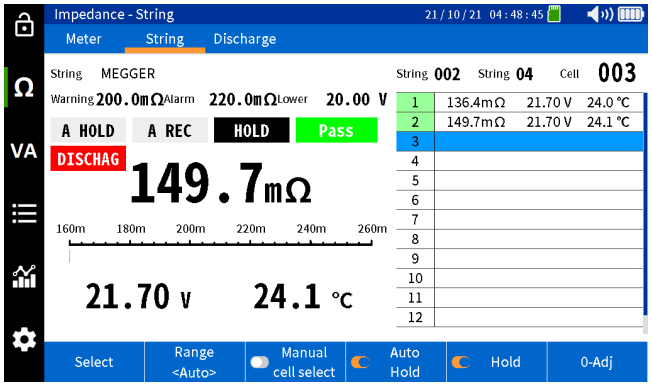
The BITE5 will beep when the measurement is complete and save the cell voltage, cell impedance, and cell temperature to memory automatically.

The results will be displayed on the screen.

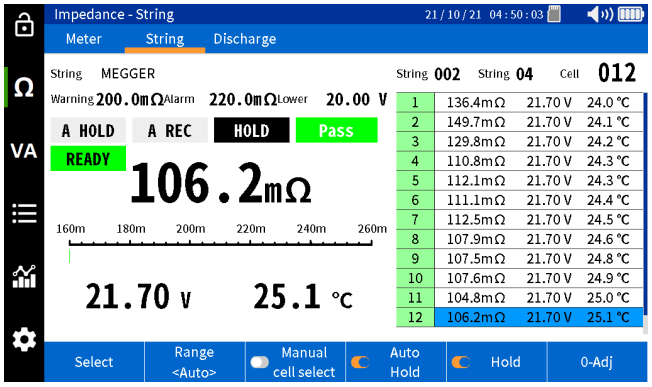


Move to the next battery in the string and take a measurement.

The recorded values will be displayed on the screen.



Continue taking a measurement of each cell in sequence on the string until you reach the last cell in the string.



Measuring and recording solar cell voltages and currents

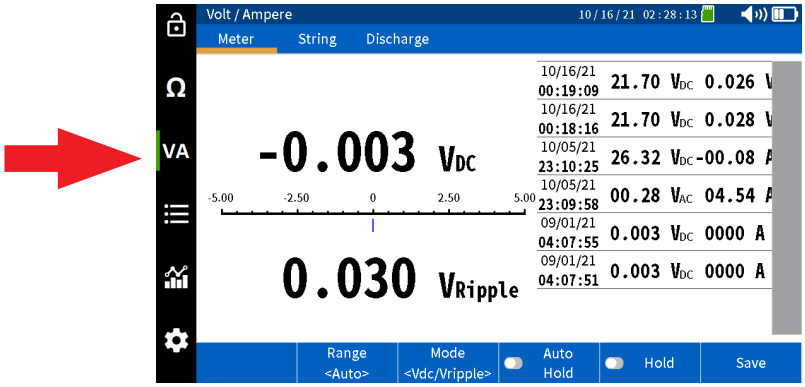
In the VA/METER mode, the BITE5 will record and save voltages and currents with a date and time stamp. These measurements can include solar cells, combiner boxes, DC or AC panels, and UPS output or input voltages. The BITE5 will save values for any voltage up to 1000 V DC and 600 V AC.

Operation:

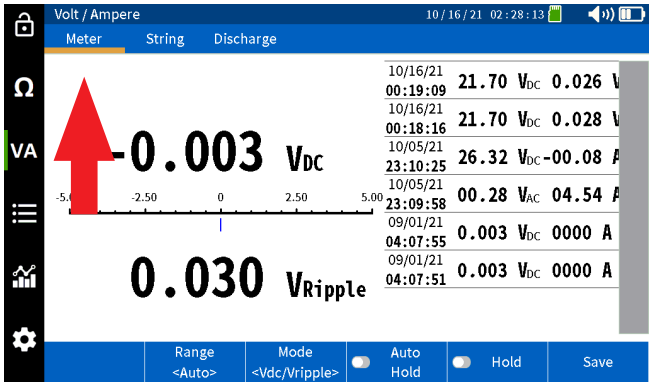
Connect the voltage leads to voltage inputs of the BITE5.

If measuring current, then plug the CT into the BITE5 CT input.

On the BITE5 select “VA”.



Select “Meter”.



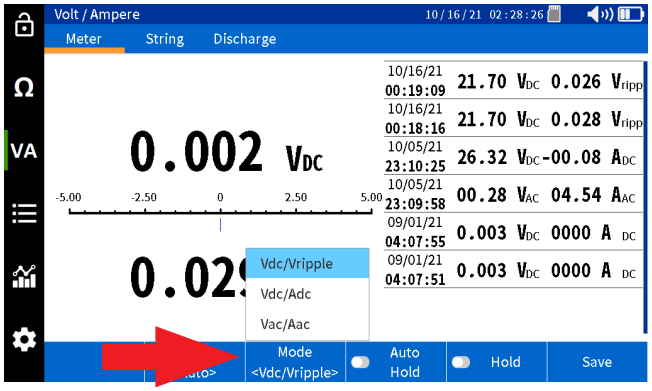
Measuring and recording solar cell voltages and currents

Select desired measurement.

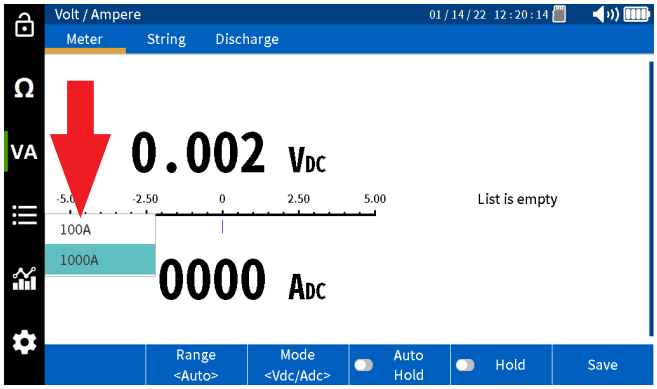
V DC and V ripple

V DC and Amps DC

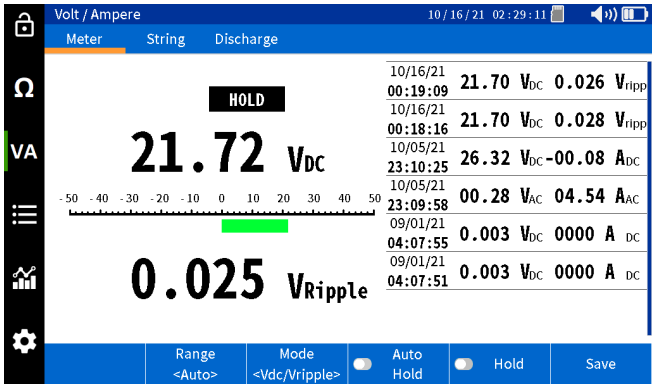
V AC and Amps AC



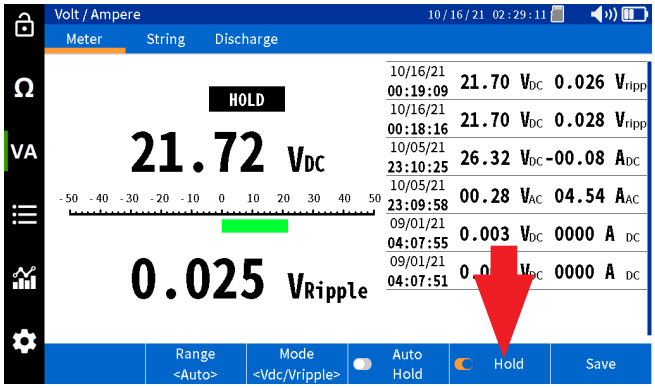
If using the CT set the correct range on the BITE5.



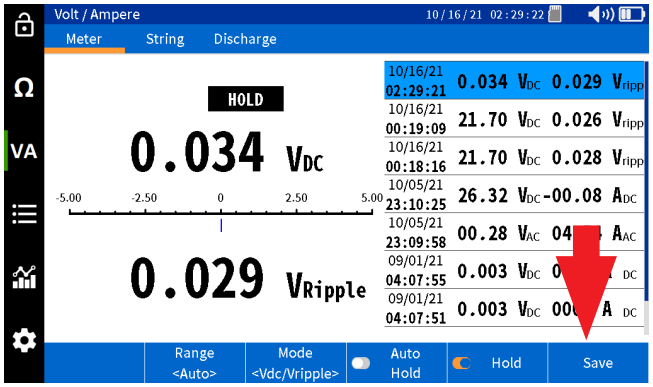
Take measurement.



Press “Hold” to freeze the measurement on the screen.

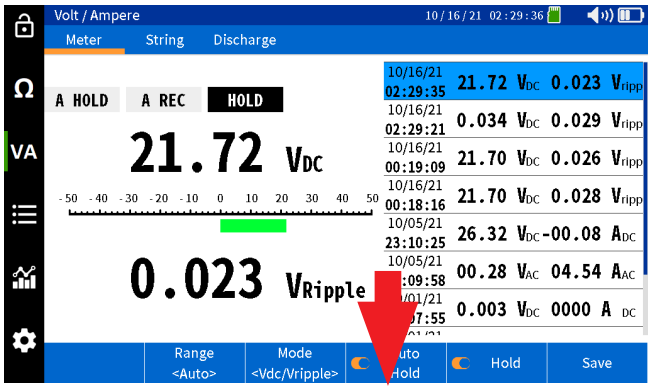


Press “Save” to manually save the value with a date and time stamp.



Automatic saving of values

Select “Auto Hold” and the BITE5 will automatically save any measurement with a date and time stamp.



Measuring and battery string voltages and currents

Measuring and battery string voltages and currents

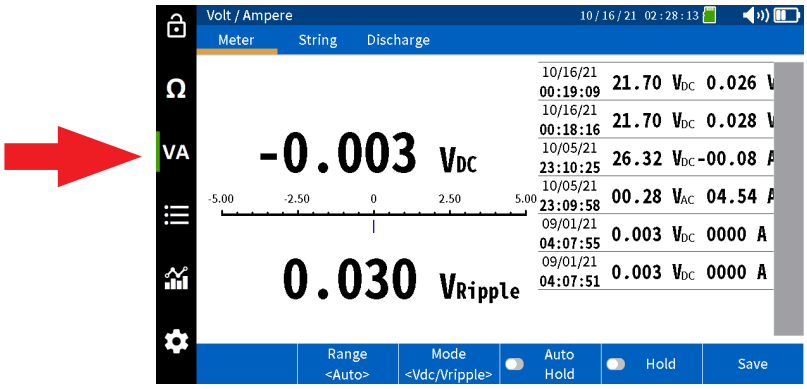
The BITE5 can be used to measure and record the DC voltage across the string, the ripple voltage, the DC float current, and the AC Ripple Current flowing through the string. These values will be saved to the selected string data and will have a date and time stamp.

Operation:

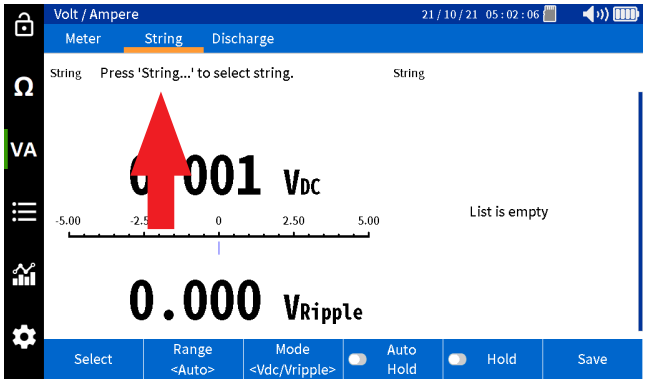
Connect the voltage leads to voltage inputs of the BITE5.

If measuring current, then plug the CT into the BITE5 CT input.

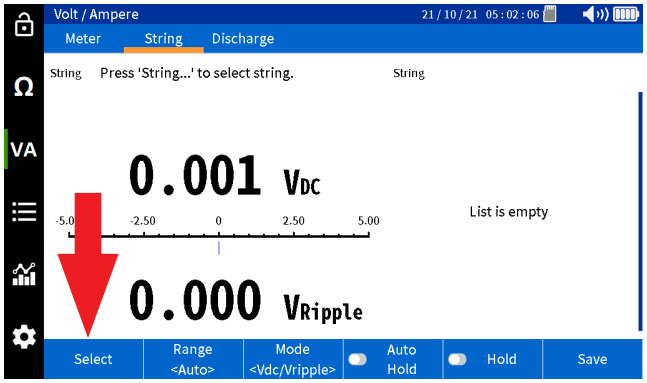
On the BITE5 select “VA”.



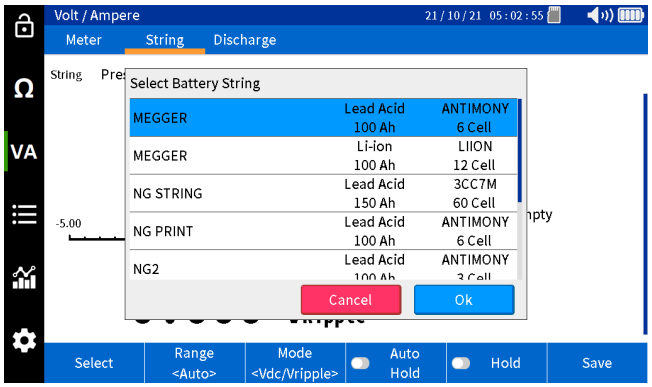
Select “String”.



Select “Select”.



Select desired battery string, then press OK.

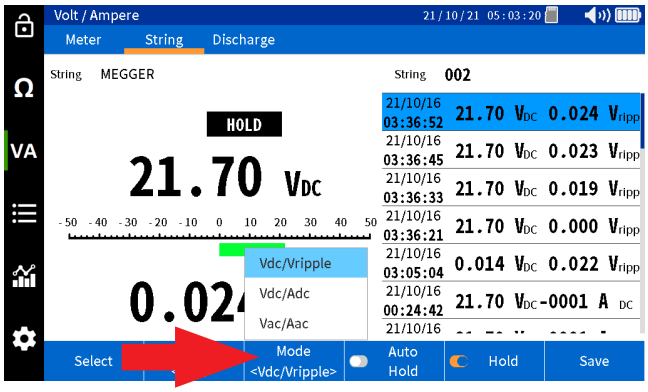


Select desired measurement.

V DC and V ripple

V DC and Amps DC

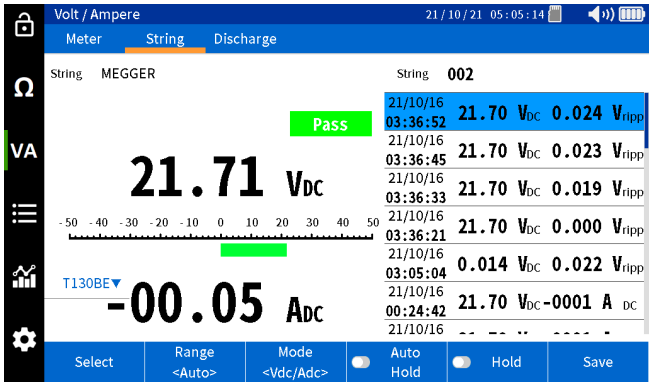
V AC and Amps AC



Measuring and battery string voltages and currents

If using the CT, set the correct range on the BITE5.

Take measurement.



Press “Hold” to freeze the measurement on the screen.

Press “Save” to manually save the value with a date and time stamp.

Automatic saving of values

Select "Auto Hold" and the BITE5 will automatically save any measurement with a date and time stamp.

Performing a discharge test

The BITE5 can be used in conjunction with the Megger Torkel discharge tester. Program the Torkel for the desired discharge test. Place the Torkel across the battery string and start the discharge test. The BITE5 can then be used to take manual measurements of the cell voltage throughout the discharge process.

In this mode, the unit will record the DC voltage of each cell as well as the DC current through the string if the optional Hall Effect CT is used.

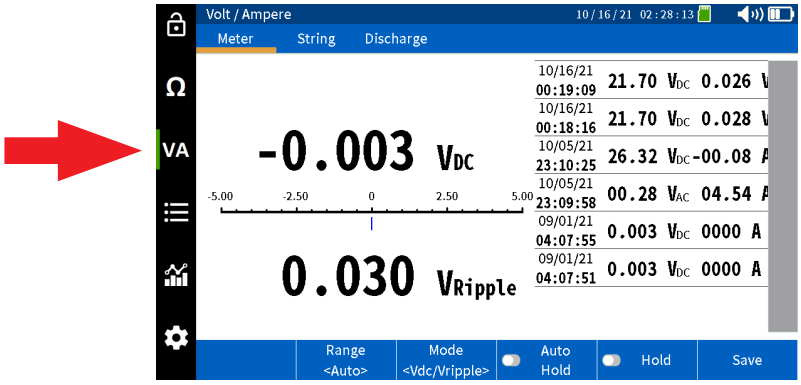
Operation:

Connect the voltage leads to voltage inputs of the BITE5.

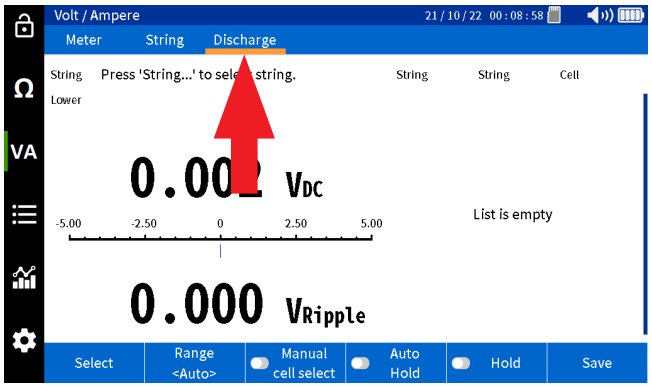
If measuring current, then plug the CT into the BITE5 CT input.

Performing a discharge test

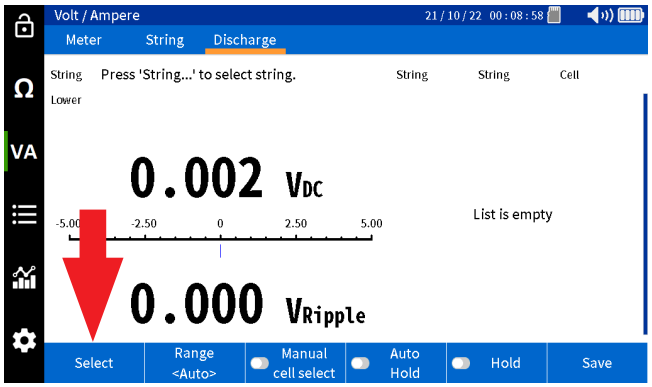
On the BITE5 select “VA”.



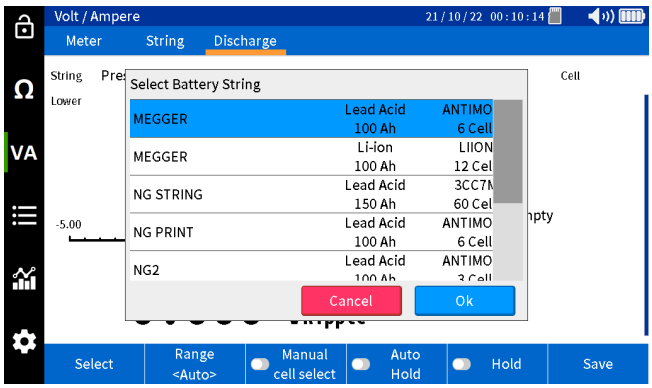
Select “Discharge”.



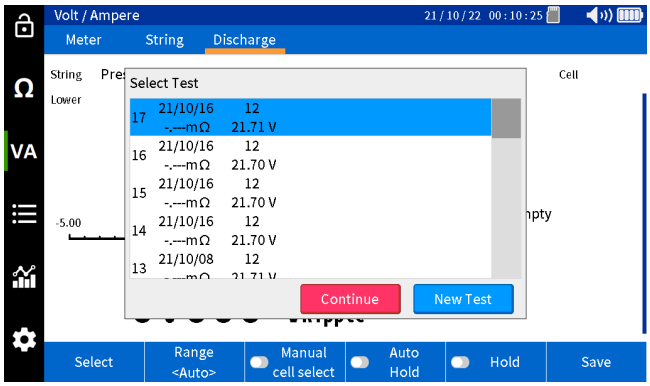
Select “Select”.



Select desired battery string, then press OK.



Choose whether to continue a previous test are start a new test under that string.



If using the CT, set the correct range on the BITE5.

Take measurement of the first cell. The DC voltage and DC current will be saved with a date and time stamp.

Take measurement of the each following cell. Each measurement shall be saved in sequence with a cell number, date and time stamp.

Performing an impedance and discharge test (special testing)

When the end of the string is reached, the unit will prompt the user to either end the test or select “next” to perform the next pass through the string.

Performing an impedance and discharge test (special testing)

The BITE5 can measure the voltage and temperature and impedance throughout a discharge test. Performing this test will allow the trending of the cell impedance throughout the discharge process. This will allow the operator to establish an ohmic value that correlates with the discharged battery. This value can then be set as the alarm (upper 2) limit for the string.

> **NOTE:** This value will be associated with the internal impedance changes associated with sulfated plates. It may not correlate with other causes of cell aging such as plate corrosion.

In this mode the BITE5 will also measure the cell temperature during the discharge. The temperature will be taken off the negative plate. This will be valid only for sealed batteries. Flooded cells the temperature should be taken from the electrolyte.

Program the Torkel for the desired discharge test. Place the Torkel across the battery string and start the discharge test. The BITE5 can then be used to take manual measurements of the cell voltage throughout the discharge process.

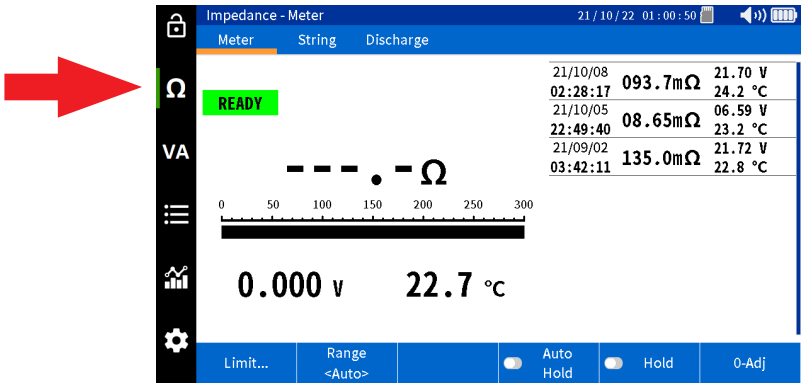
In this mode, the unit will record the DC voltage of each cell as cell impedance and cell temperature.

Operation:

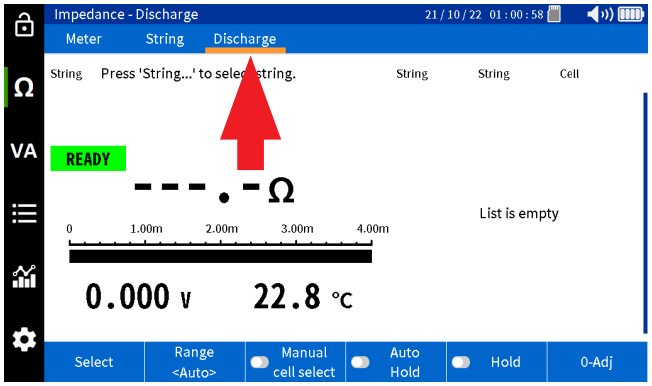
Connect the voltage leads to voltage inputs of the BITE5.

If measuring current, then plug the CT into the BITE5 CT input.

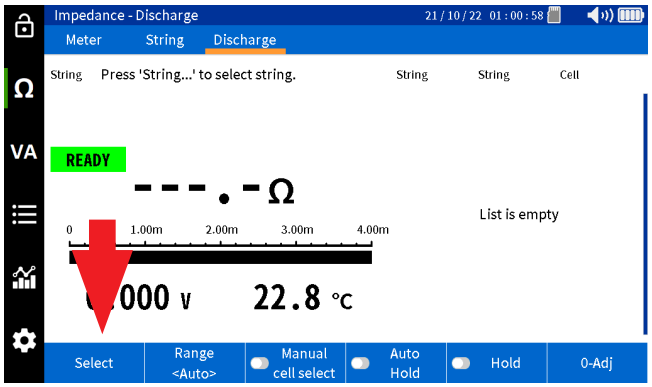
On the BITE5 select “Ω”.



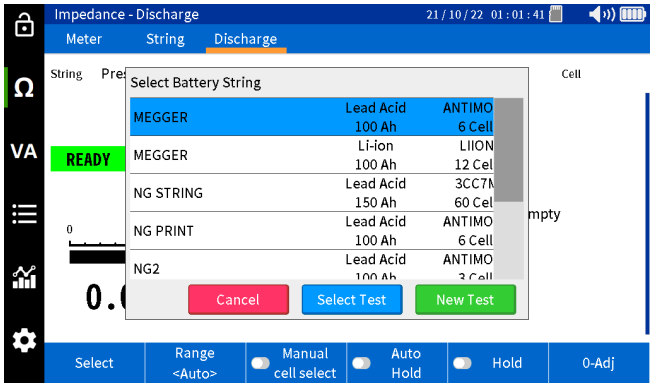
Select “Discharge”.



Select “SELECT”.



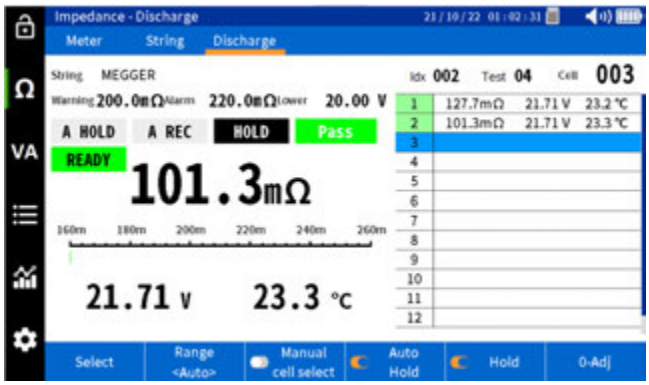
Select desired battery string, then either press “Select Test” to continue a test or select “New Test” to start a new test.



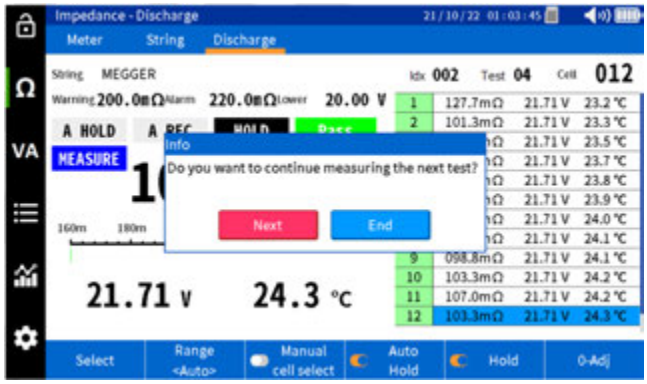
Performing an impedance and discharge test (special testing)

Take measurement of the first cell. The DC voltage and DC current will be saved with a date and time stamp.

Take measurement of the each following cell. Each measurement shall be saved in sequence with a cell number, date and time stamp.



When the end of the string is reached, the unit will prompt the user to either end the test or select next to perform the next pass through the string.



Trending recorded data

Trending recorded impedance data:

The BITE5 will allow trending for the following:

Cell impedance trending – Trends every impedance value of an individual cell.

String impedance trending – Trends the impedance of all cells in a string for a given test.

Cell voltage trending – Trends every voltage value of an individual cell.

String voltage trending – Trends the voltage of all cells in a string for a given test.

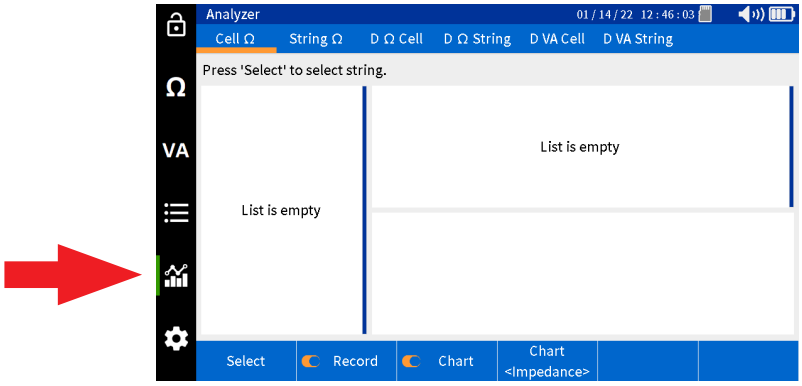
Cell temperature trending – Trends every temperature value of an individual cell.

String temperature trending – Trends the temperature of all cells in a string for a given test.

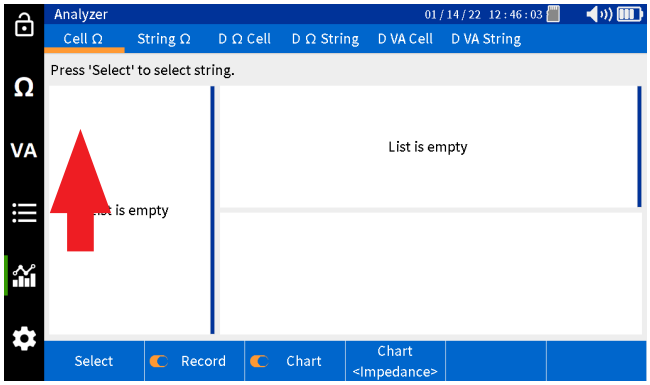
Operation:

Trending individual cells

On the BITE5 select the chart ICON.

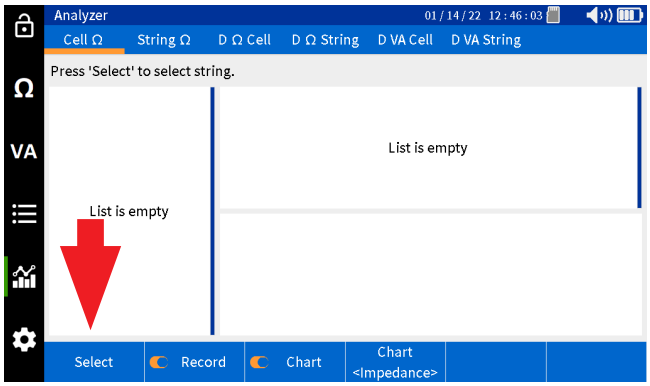


Select “Cell”.

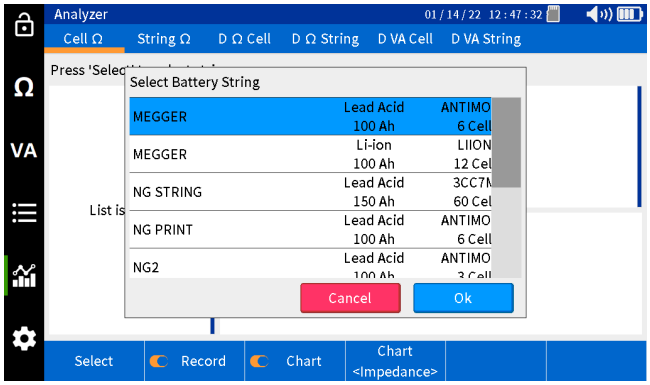


Trending recorded impedance data

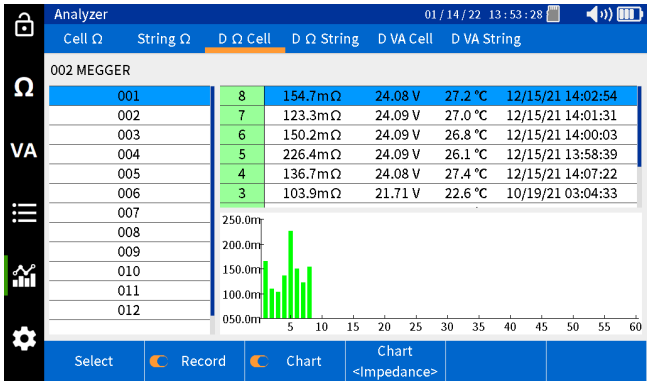
Select “Select”.



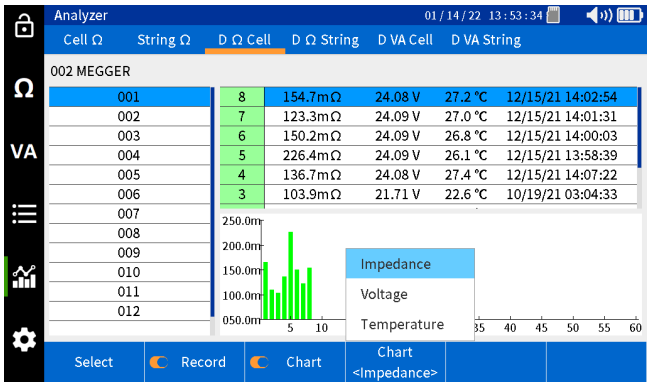
Select string, then press “OK”.



Select desired cell in the left column.

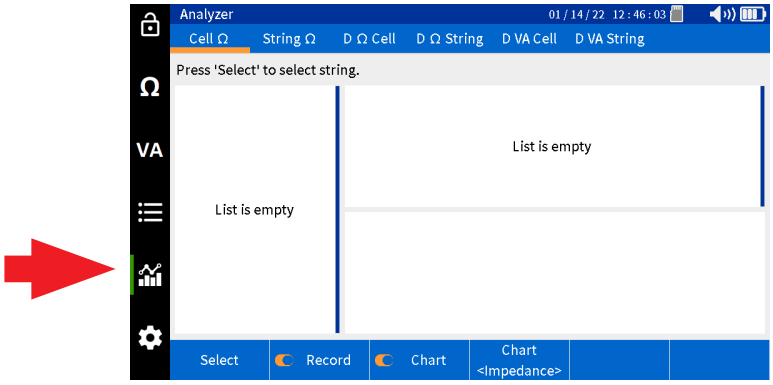


Select “Chart” to change the parameter being trended.

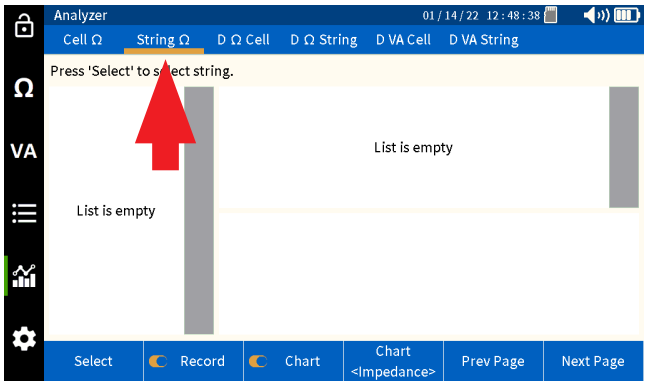


Trending string data

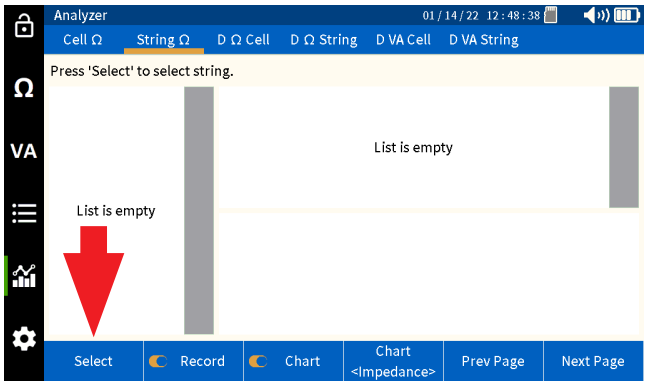
On the BITE5 select the chart ICON.



Select “String”.

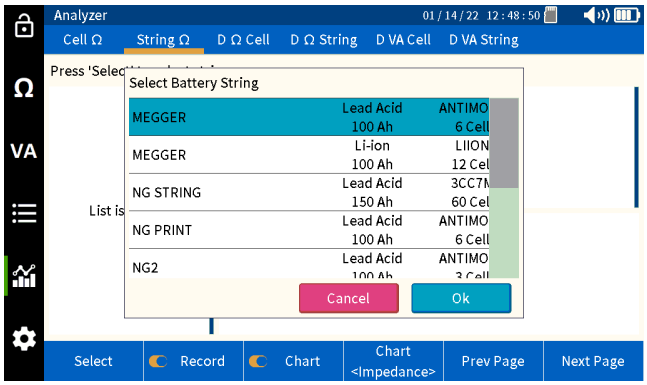


Select “Select”.

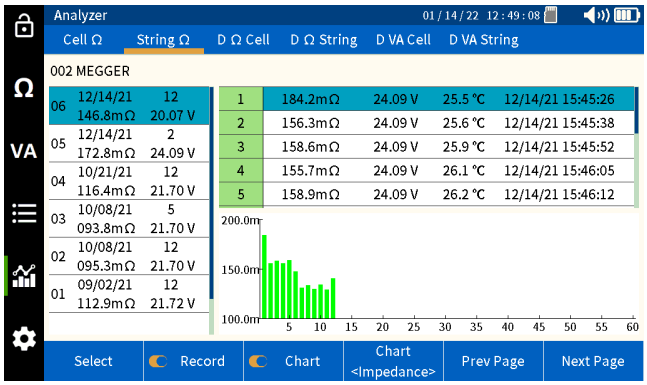


Trending recorded VA discharge data

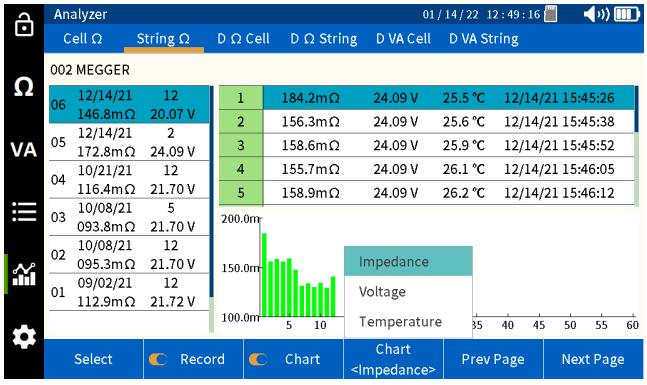
Select string, then press “OK”.



Select the desired test to trend in the left column.



Select “Chart” to change the parameter being trended.



Trending recorded VA discharge data:

The BITE5 will allow trending for the following:

Discharge VA cell voltage trending – Trends every impedance value of an individual cell.

Discharge VA string voltage trending – Trends the impedance of all cells in a string for a given test.

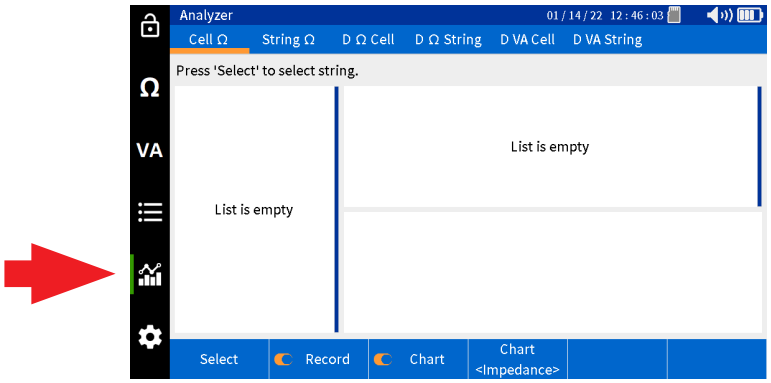
Discharge VA cell current trending – Trends every voltage value of an individual cell.

Discharge VA string current trending – Trends the voltage of all cells in a string for a given test.

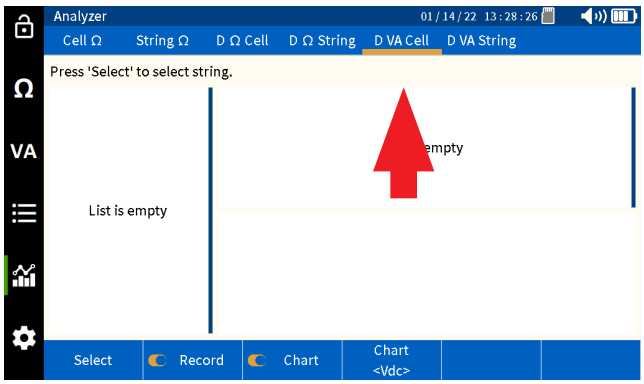
Operation:

Trending individual cell data

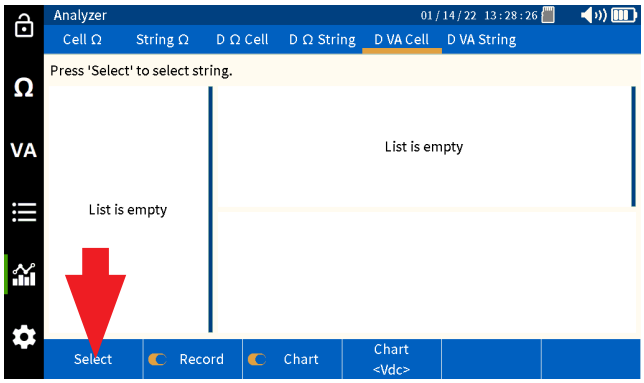
On the BITE5 select the chart ICON.



Select "D VA Cell".

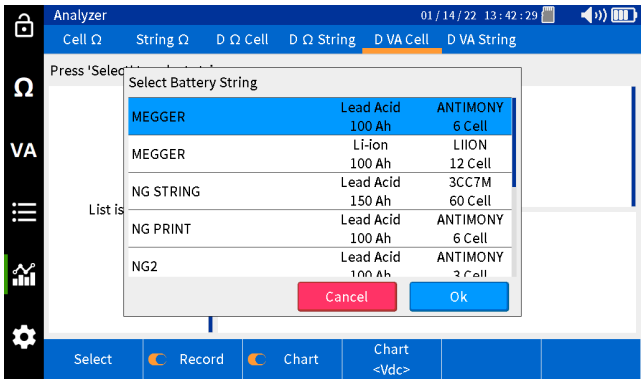


Select "Select".

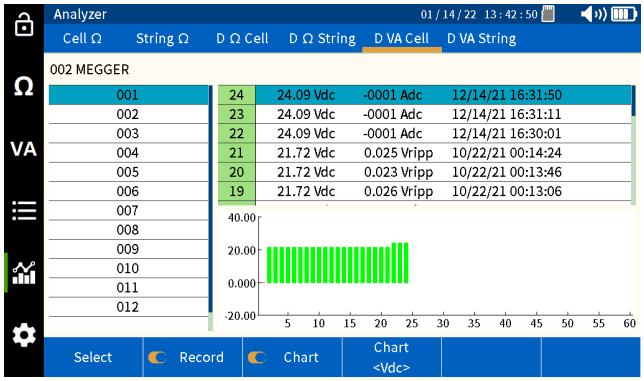


Trending recorded VA discharge data

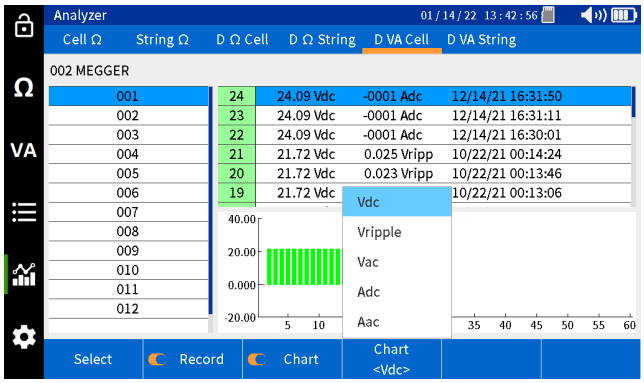
Select string, then press “OK”.



Select desired test in the left column.

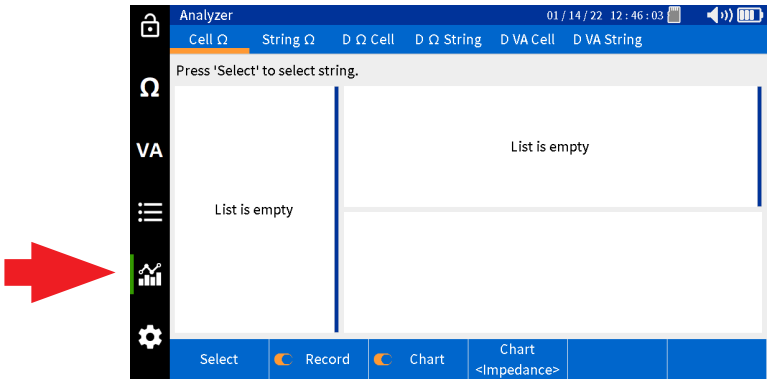


Select “Chart” to change the parameter being trended.

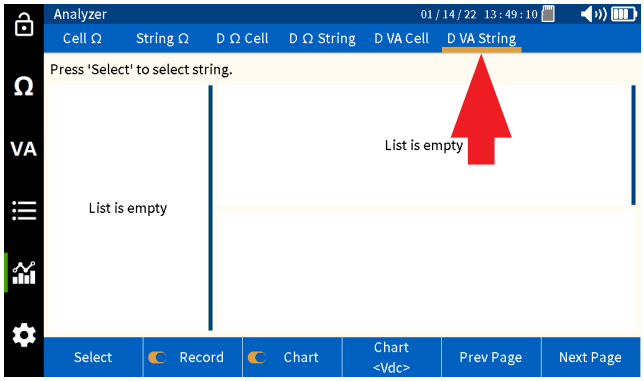


Trending string data

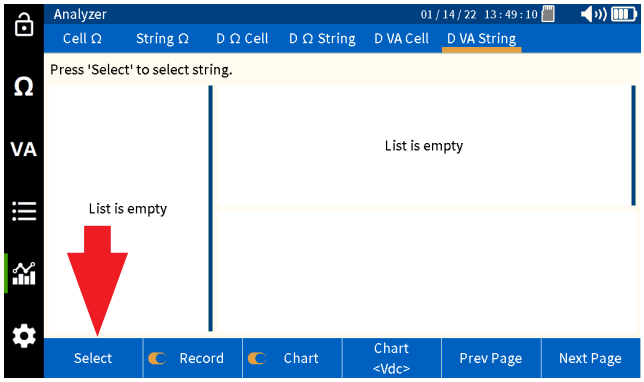
On the BITE5 select the chart ICON.



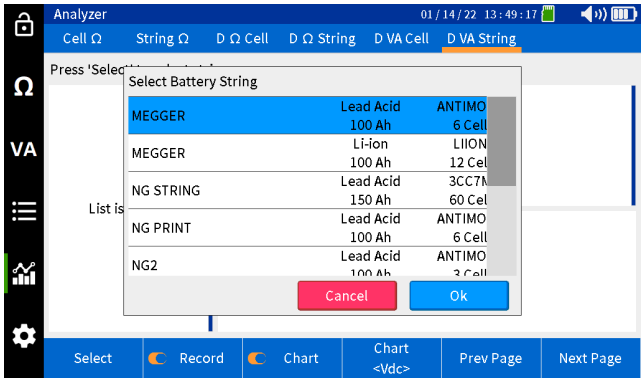
Select “D VA String”.



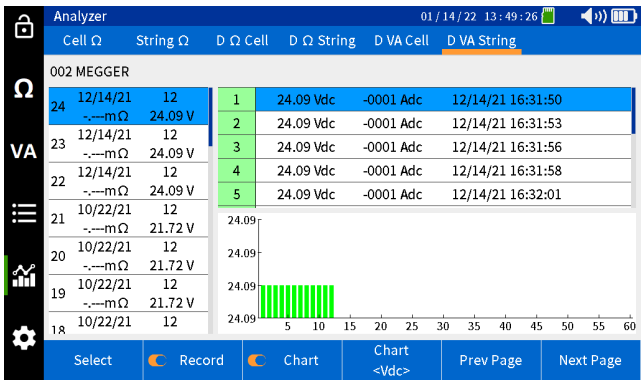
Select “Select”.



Select string, then press “OK”.

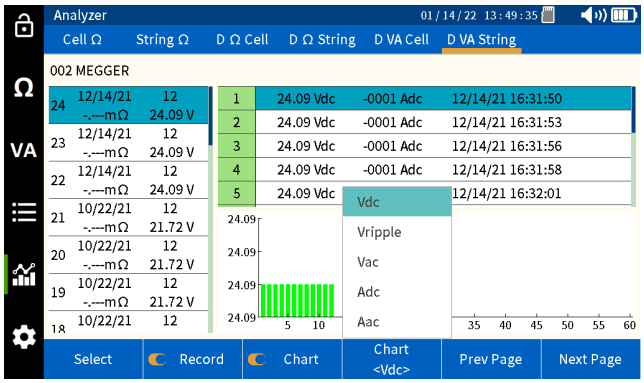


Select the desired test to trend in the left column.



Trending recorded impedance - discharge data

Select "Chart" to change the parameter being trended.



Trending recorded impedance - Discharge data:

The BITE5 will allow tending for the following:

Discharge cell voltage trending – Trends every impedance value of an individual cell.

Discharge string voltage trending – Trends the impedance of all cells in a string for a given test.

Discharge cell impedance trending – Trends every voltage value of an individual cell.

Discharge string impedance trending – Trends the voltage of all cells in a string for a given test.

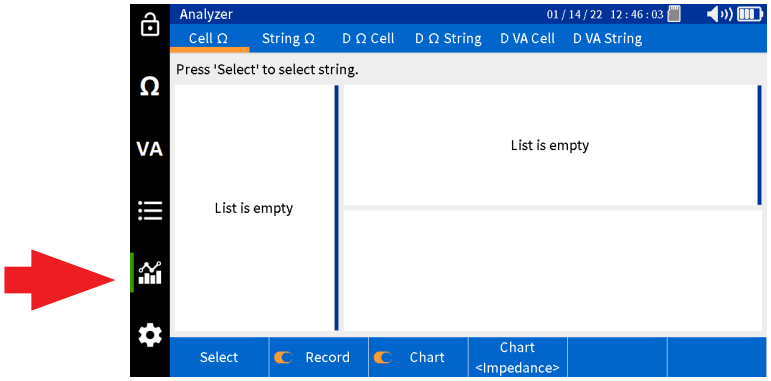
Discharge cell temperature trending – Trends every temperature value of an individual cell.

Discharge string temperature trending – Trends the temperature of all cells in a string for a given test.

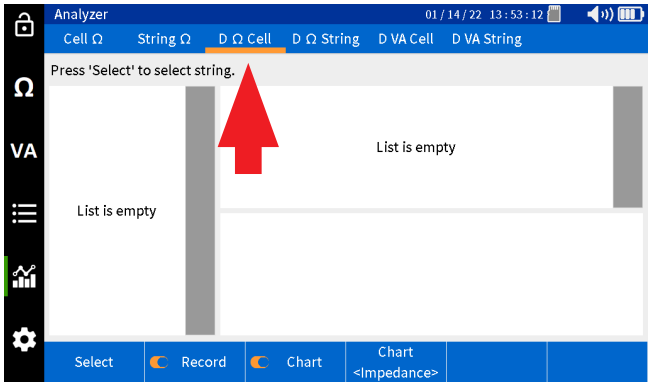
Operation:

Trending individual cell data

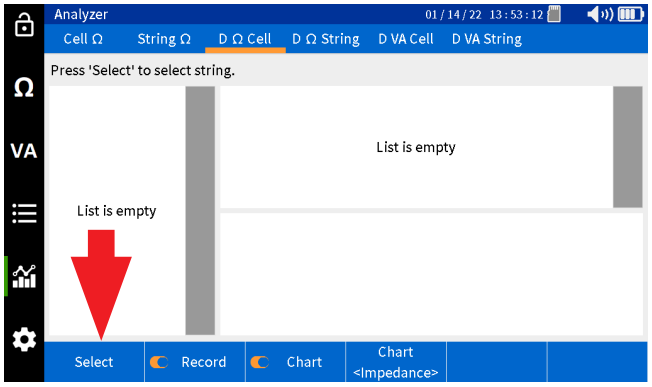
On the BITE5 select the chart ICON.



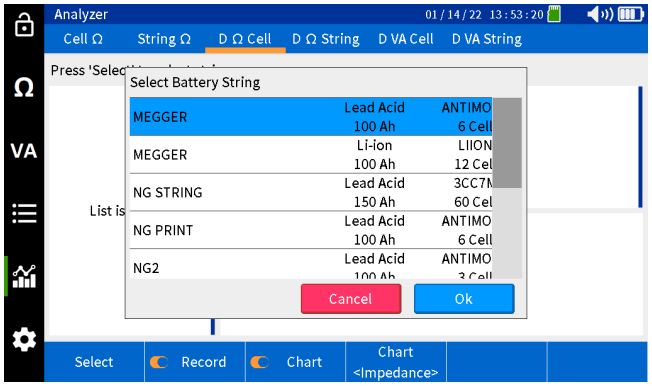
Select “D Ω Cell”.



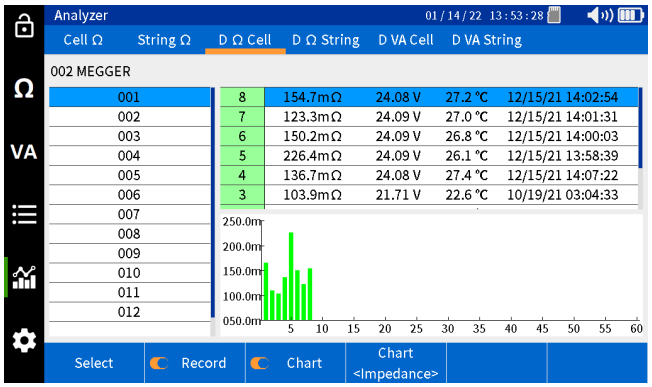
Select “Select”.



Select string then press “OK”.

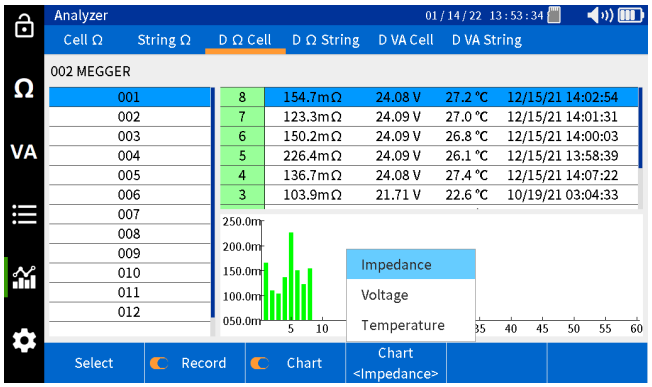


Select desired cell in the left column.



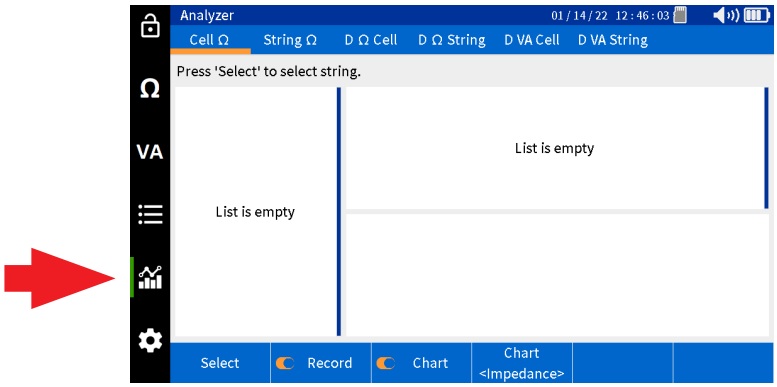
Trending recorded impedance - discharge data

Select “Chart” to change the parameter being trended.

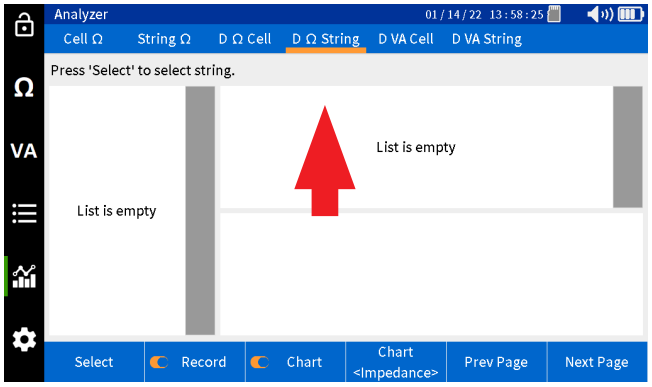


Trending string data

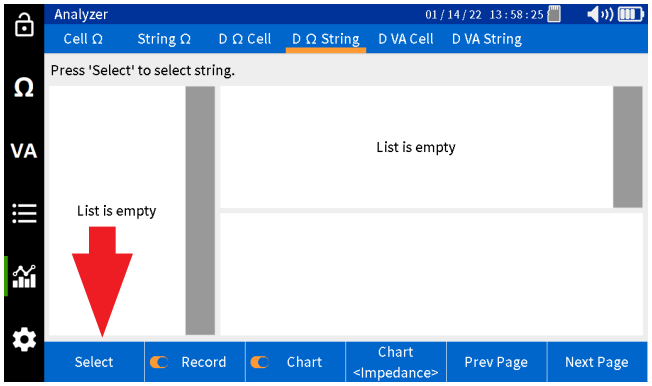
On the BITE5 select the chart ICON.



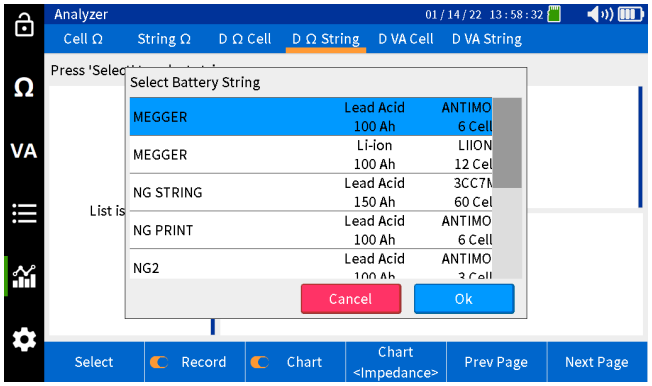
Select “D Ω String”.



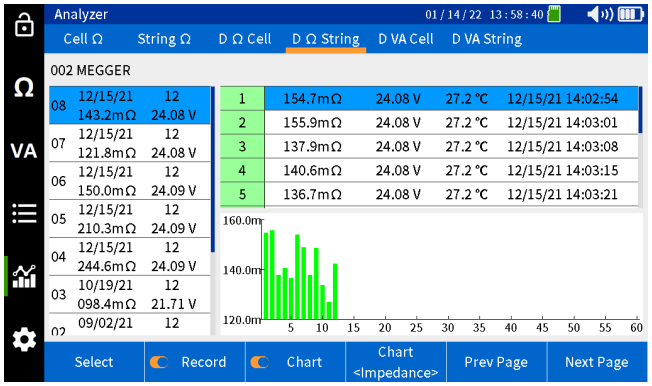
Select “Select”.



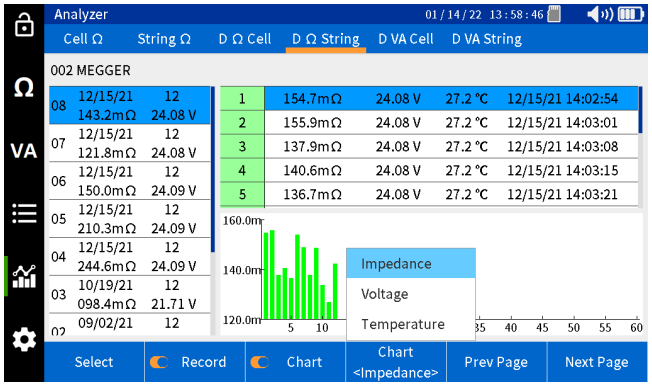
Select string, then press “OK”.



Select desired test in the left column.



Select “Chart” to change the parameter being trended.



Viewing a record

Viewing a record

The BITE5 allows the viewing of various recorded values or records. These records include the following:

Meter Ω - These will be the individual recorded impedance measurements that were made with the BITE5. These recorded values are not associated with any battery strings.

String Ω - These will be the recorded values of individual impedance tests made on strings.

D Ω String - These will be the recorded values of individual impedance measurements made during a discharge test on a string.

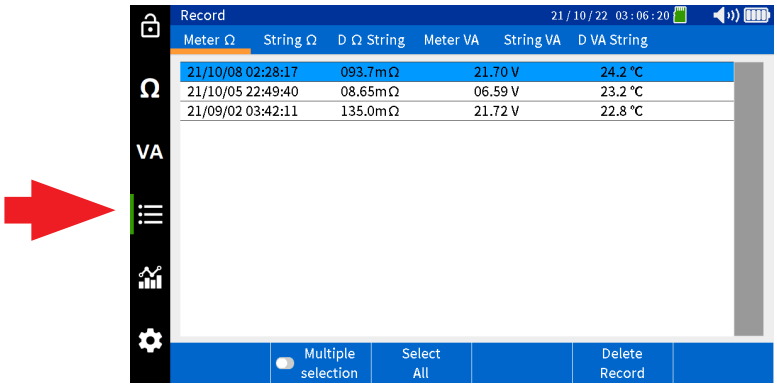
Meter VA - These will be the individual recorded voltage and current measurements that were made with the BITE5. These recorded value are not associated with any battery strings.

String VA - These will be the recorded values of voltage and current measurements made on strings.

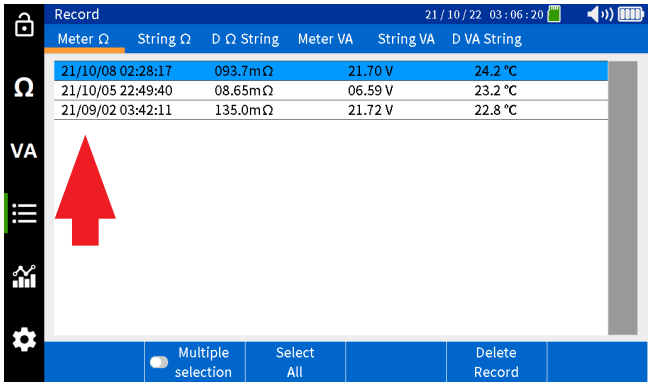
D VA String - These will be the recorded values of the voltage and current measurements made during a discharge test on a string.

Viewing Meter Ω records

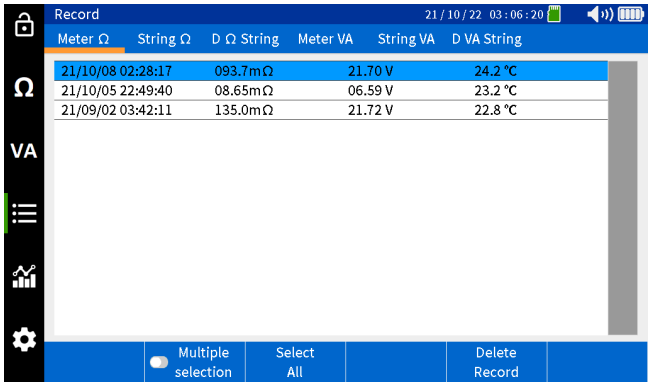
On the BITE5 select the record ICON.



Select "Meter Ω".

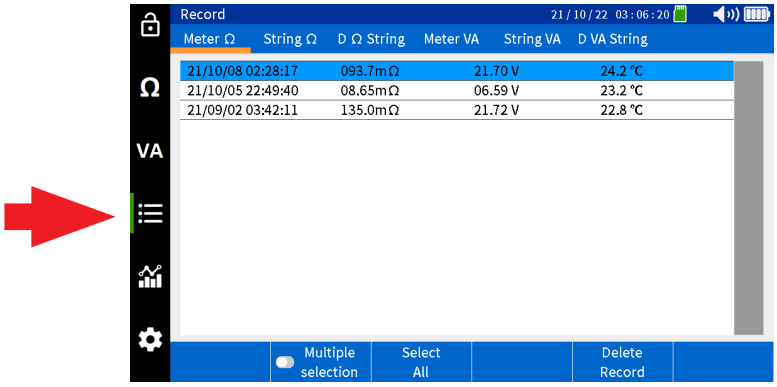


All recorded values shall be displayed with a date and time stamp.

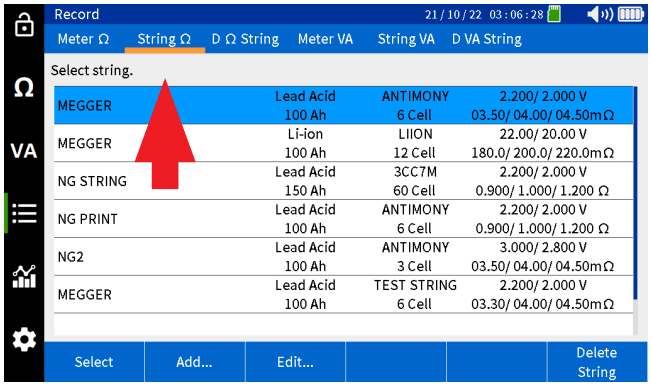


Viewing String Ω records

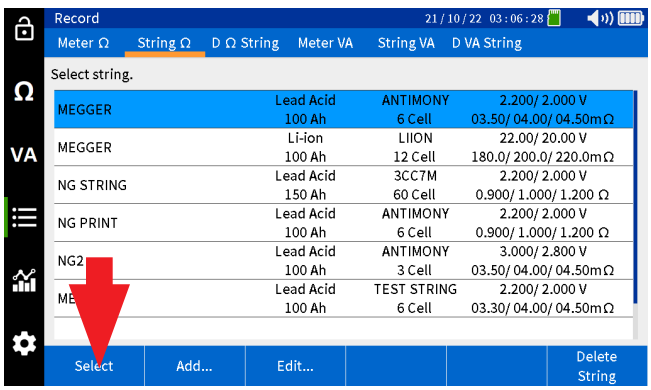
On the BITE5 select the record ICON.



Select “String Ω”.

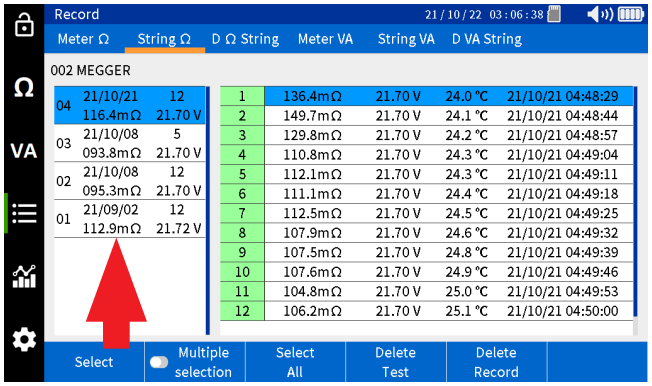


Select desired string, then press “Select”.

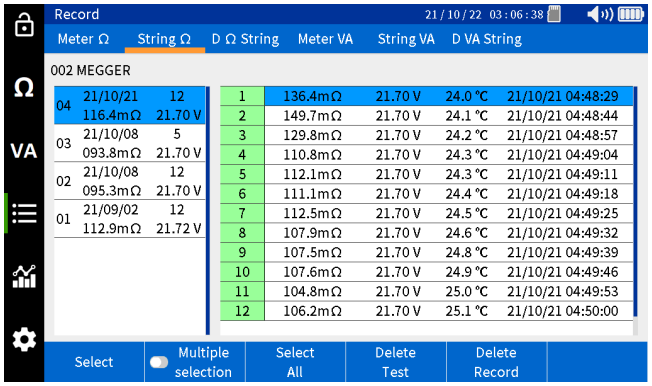


Viewing D Ω String records

Select desired test in the left column.

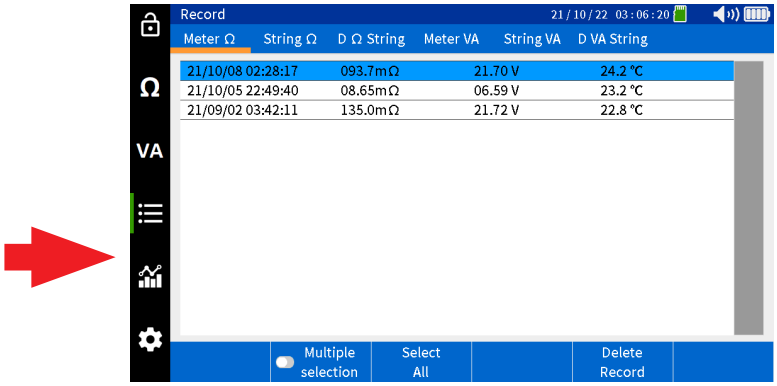


Recorded values will be displayed in the right column.

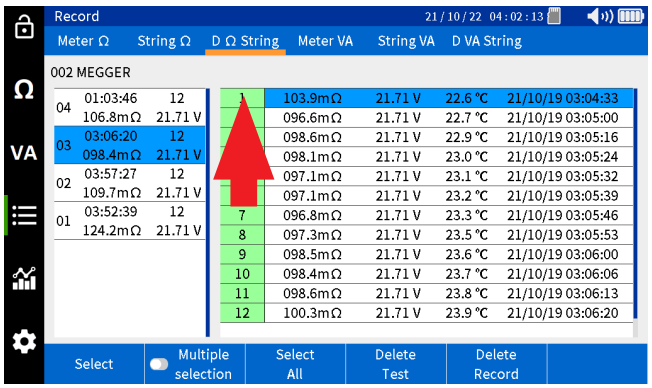


Viewing D Ω String records

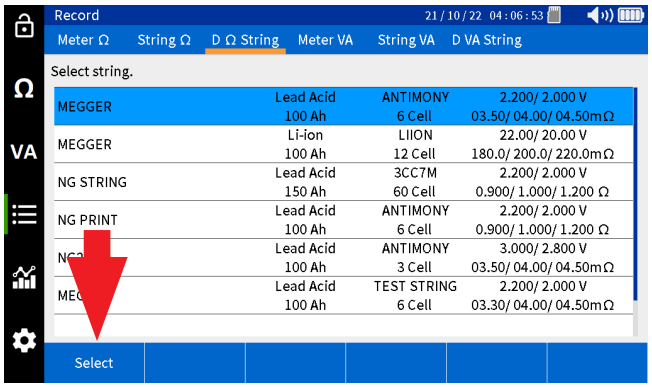
On the BITE5 select the record ICON.



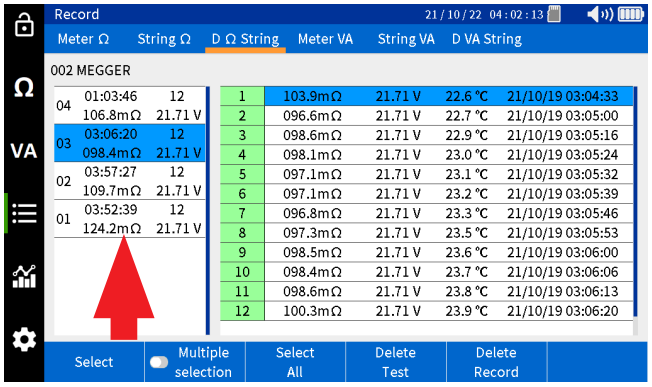
Select “D Ω String”.



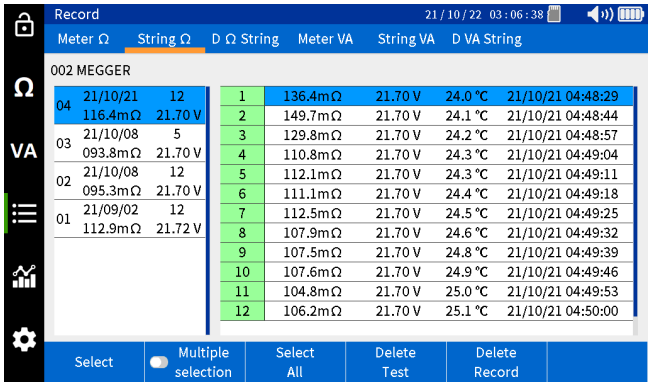
Select desired string, then press “Select”.



Select desired test in the left column.

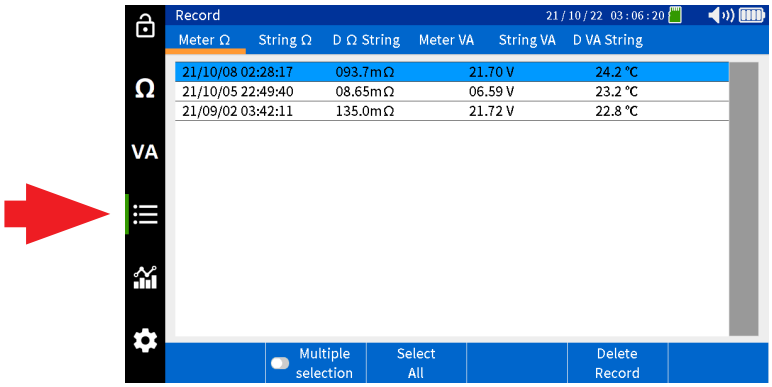


Recorded values will be displayed in the right column.



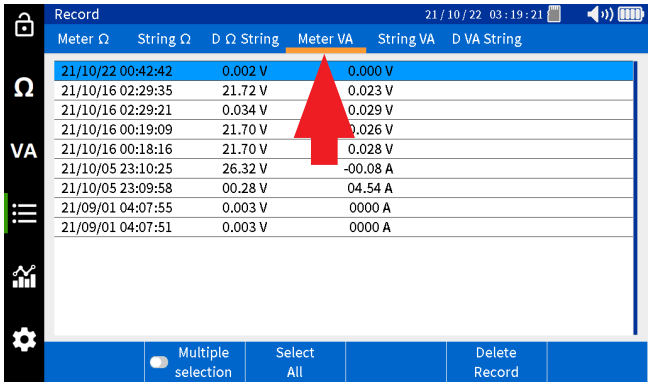
Viewing Meter VA records

On the BITE5 select the record ICON.

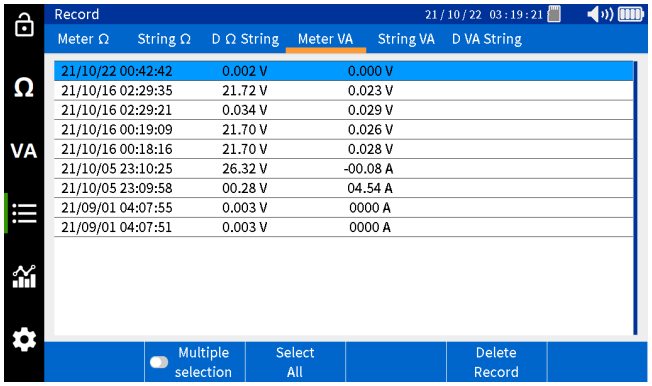


Viewing string VA records

Select “Meter VA”.

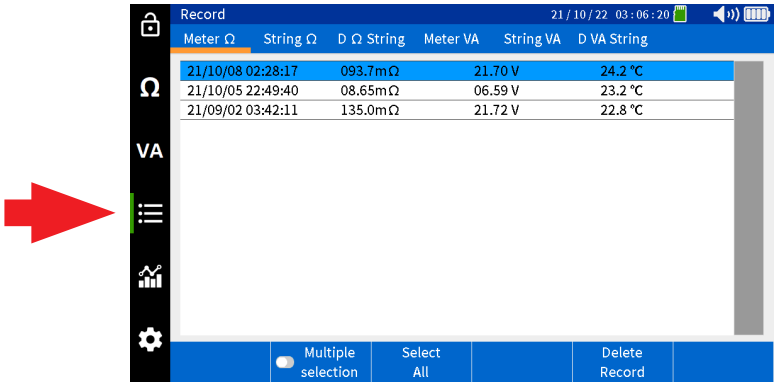


All recorded values will be displayed with a date and time stamp.

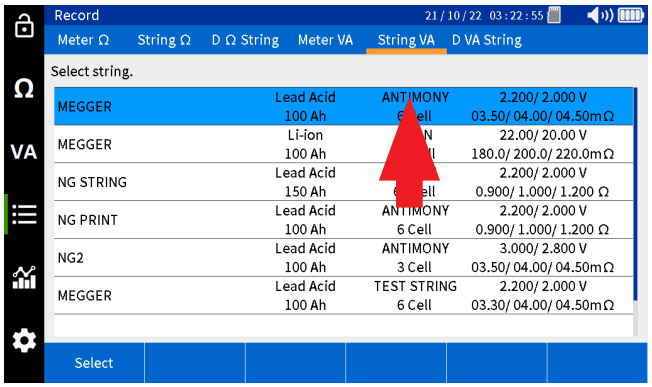


Viewing string VA records

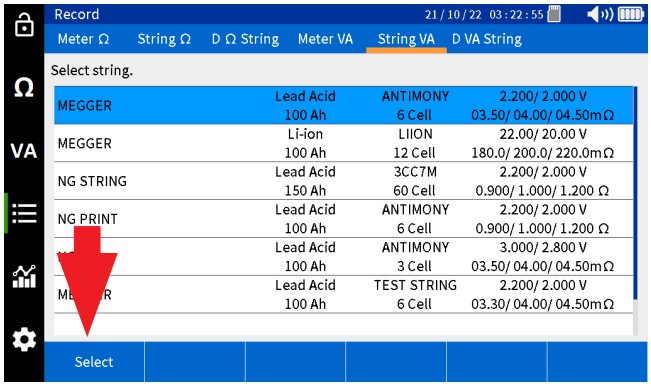
On the BITE5 select the record ICON.



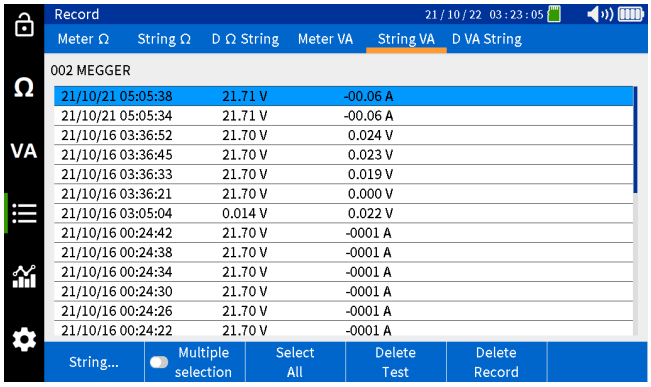
Select “String VA”.



Select desired string, then press on “Select”.

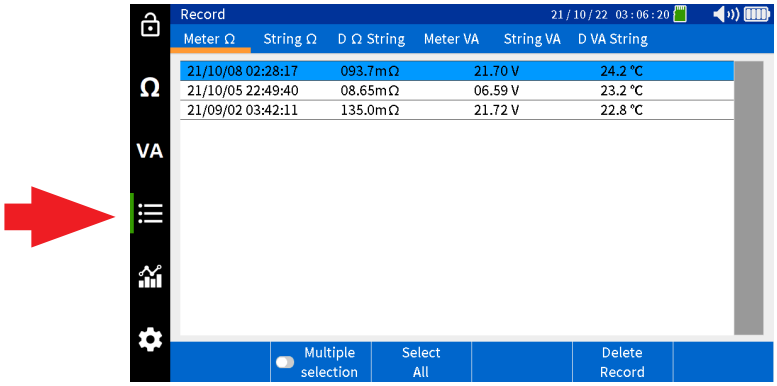


All recorded values will be displayed with a date and time stamp.

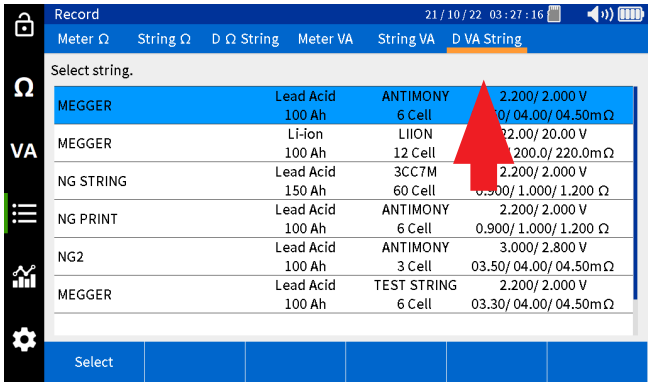


Viewing D VA String records

On the BITE5 select the record ICON.

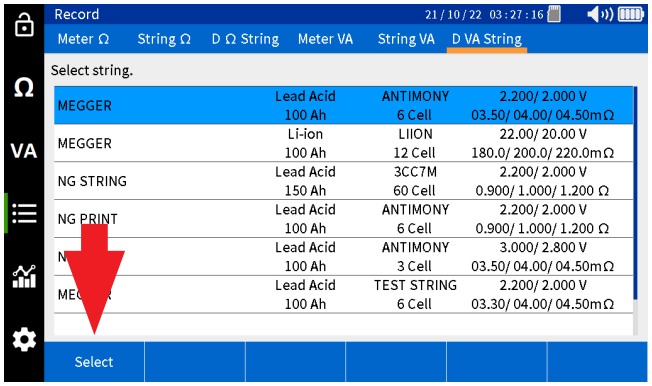


Select “D VA String”.

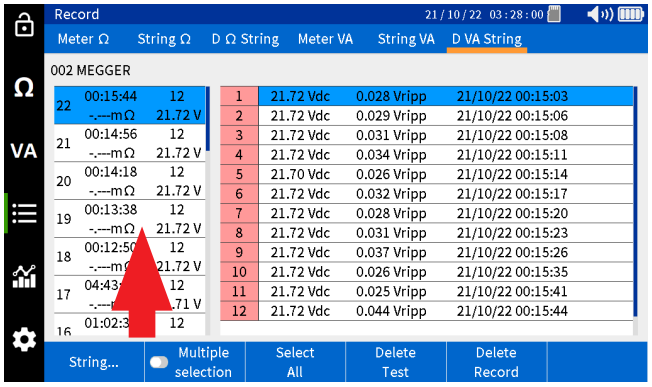


Viewing D VA String records

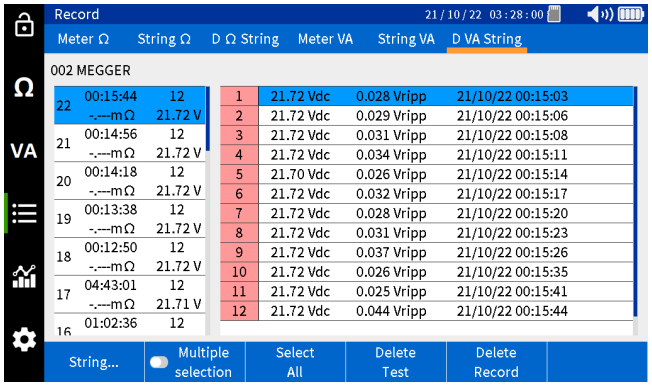
Select desired string, then press on “Select”.



Select desired test in the left column.



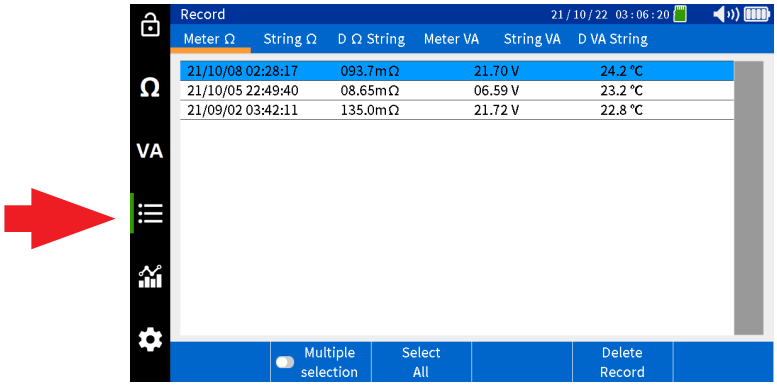
Recorded values will be displayed in the right column.



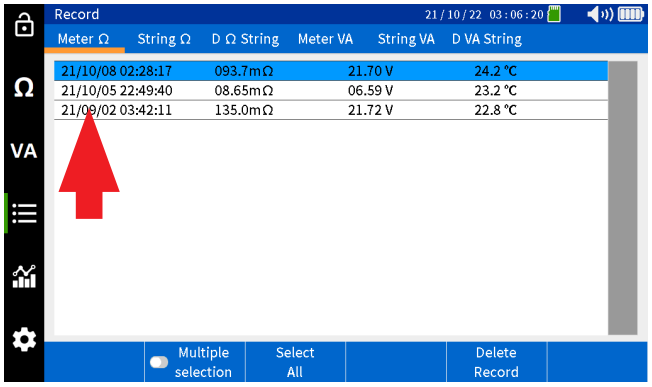
Deleting recorded data

Deleting Meter Ω data
This refers to the impedance measurements not associated with a battery string.

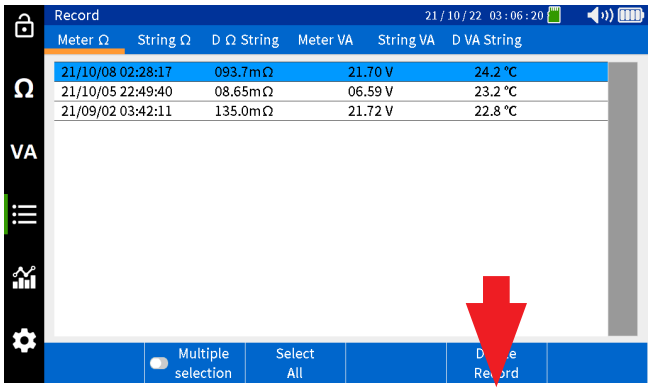
On the BITE5 select the record ICON.



Select “Meter Ω”.

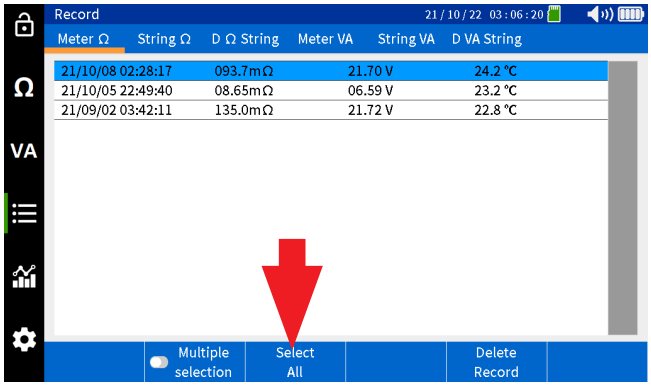


Select desired measurement, then select “Delete Record”.



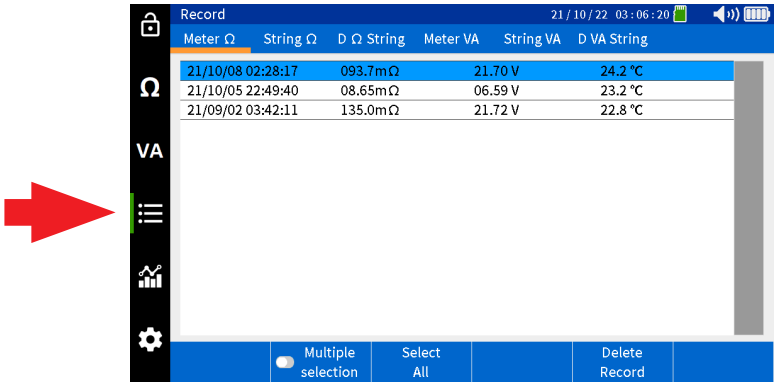
Deleting D Ω String data

To delete all records, select “Select All” then select “Delete Record”.

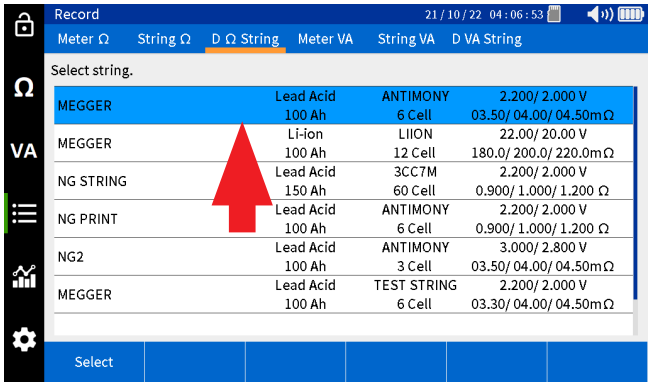


Deleting D Ω String data
This is impedance data recorded during a discharge test.

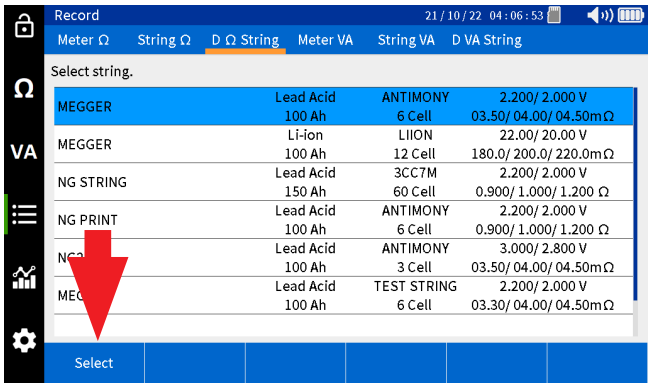
On the BITE5 select the record ICON.



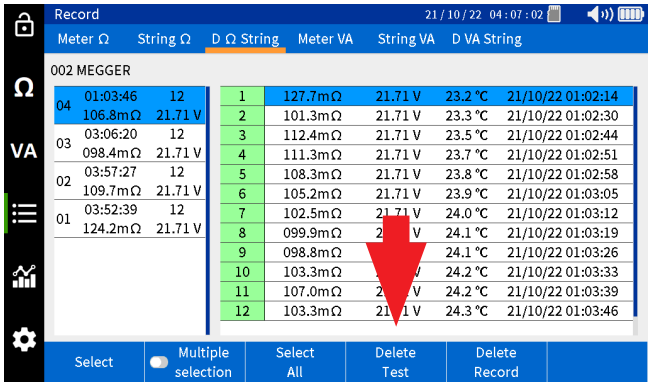
Select “D Ω String”.



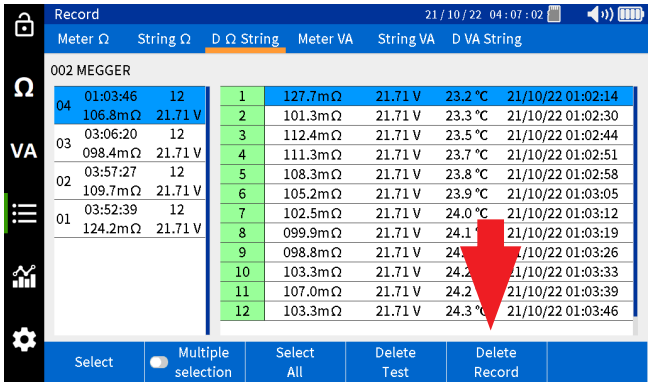
Select desired string, then press “Select”.



Select desired test in the left column, then press “Delete Test” to delete the test.



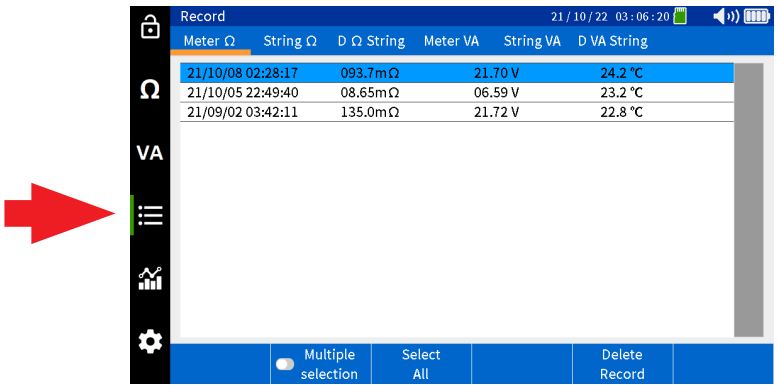
To delete an individual record, select the desired record on in the right column then select “Delete Record”.



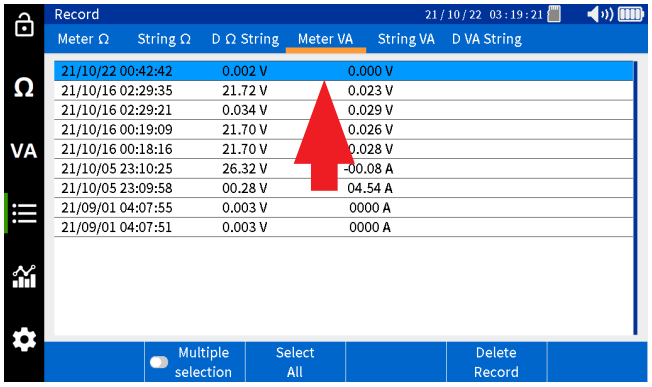
Deleting Meter VA data

Deleting Meter VA data
This refers to the voltage and current measurements not associated with a battery string.

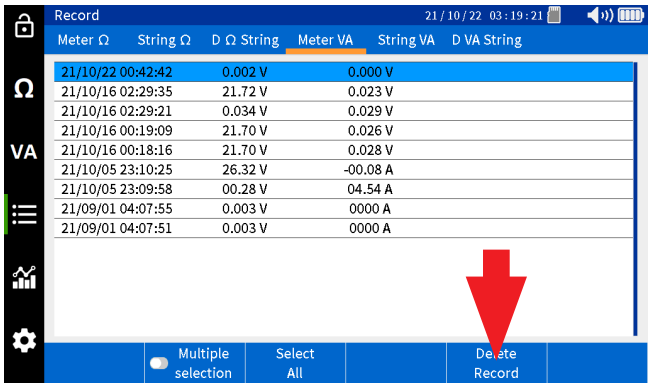
On the BITE5 select the record ICON.



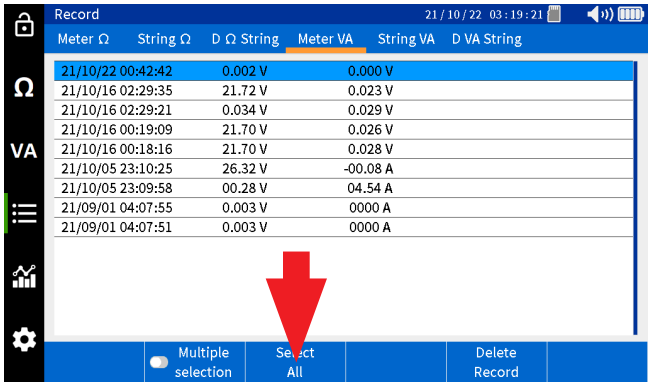
Select "Meter VA".



Select desired measurement, then select "Delete Record".



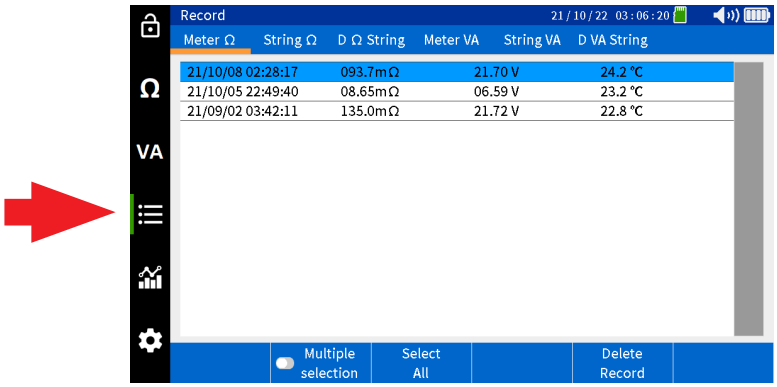
To delete all records, select "Select All" then select "Delete Record".



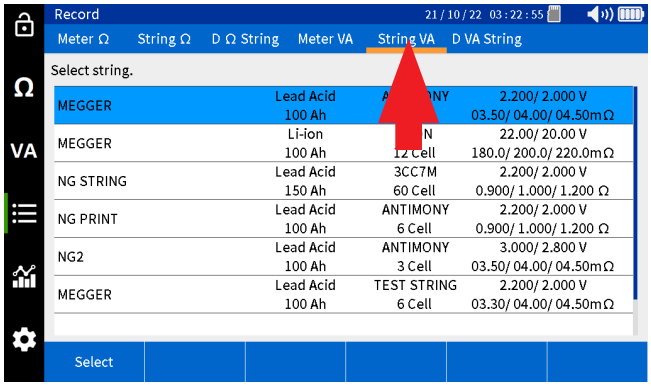
Deleting String VA data

This refers to the voltage and current measurements associated with a particular battery string.

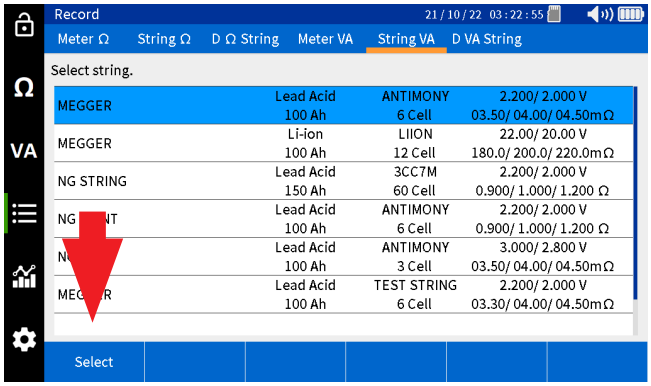
On the BITE5 select the record ICON.



Select "String VA".

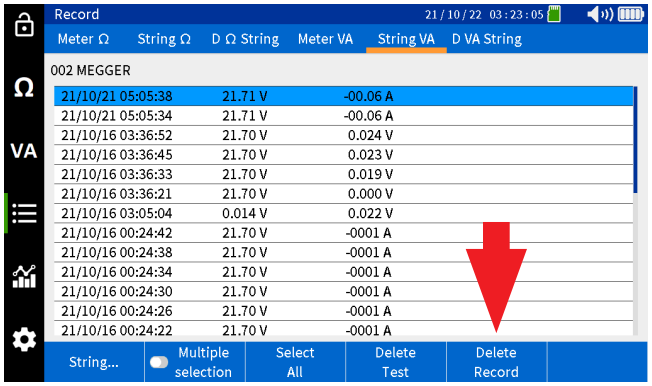


Select desired string, then press "Select".



Deleting D VA String data

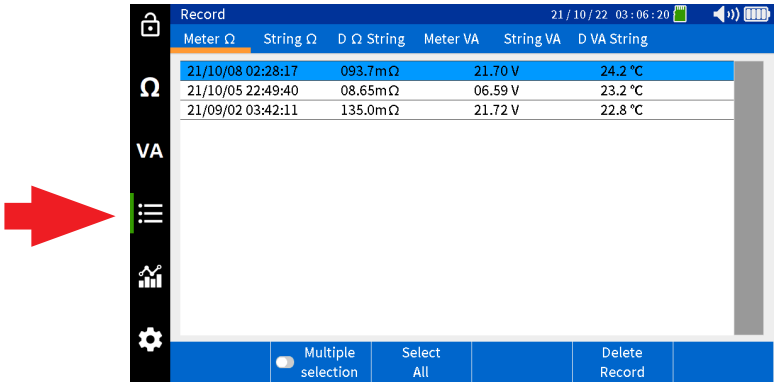
Select desired record, then select “Delete Record”.



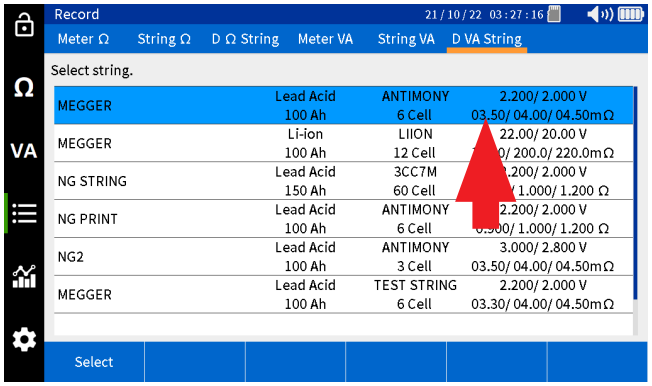
Deleting D VA String data

This refers to the recorded voltages taken during a discharge test.

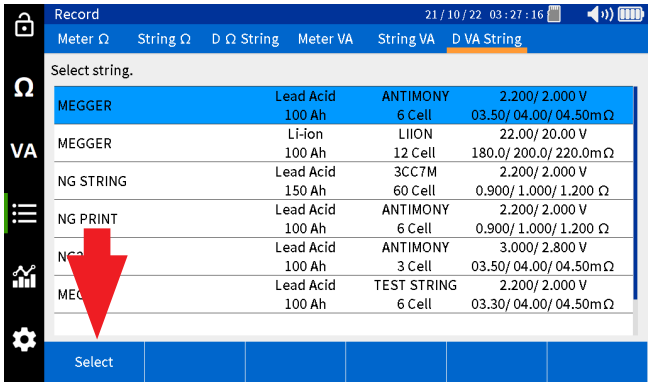
On the BITE5 select the record ICON.



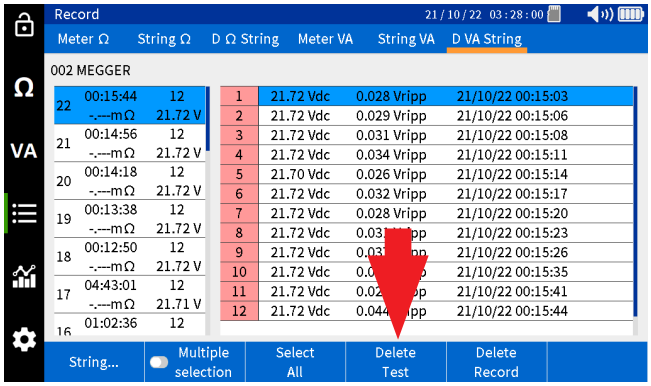
Select “D VA String”.



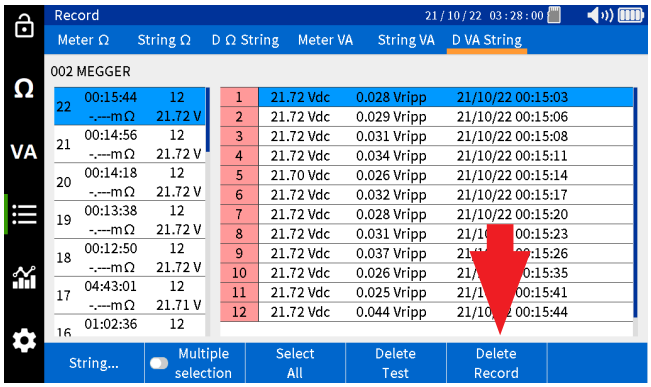
Select desired string, then press “Select”.



Select desired test in the left column, then select “Delete Test”.

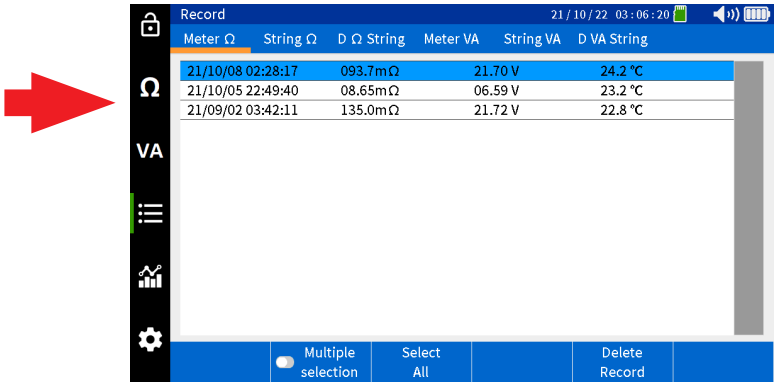


To delete an individual record, select the desired record on in the right column then select “Delete Record”.

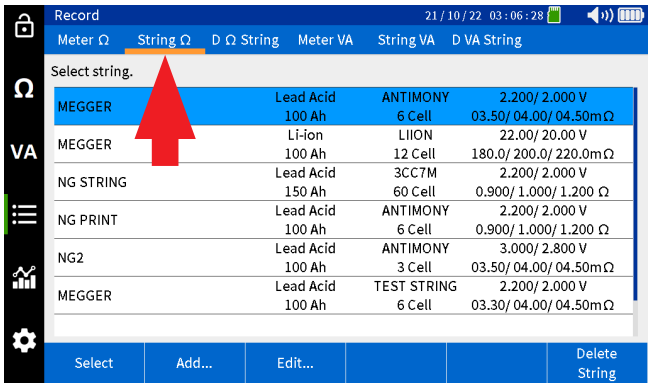


Deleting a string configuration

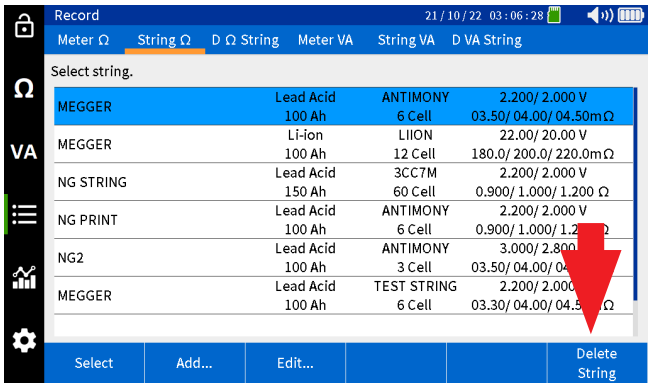
On the BITE5 select the record ICON.



Select "String Ω".



Select desired string then press "Delete String".



Saving a screen snapshot

The BITE5 allows you to save screen images as bitmaps.

To do this, momentarily press and release the Power ON/OFF button.

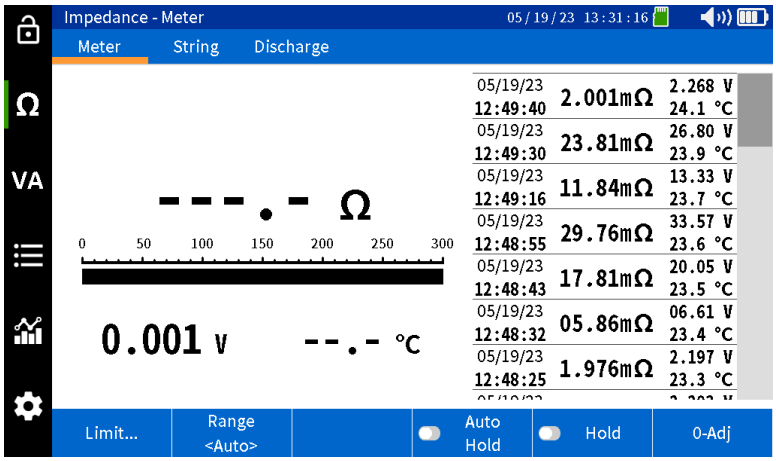
The displayed screen shall be saved to the SD card as a bitmap file.

The bitmap will be located at the following path.

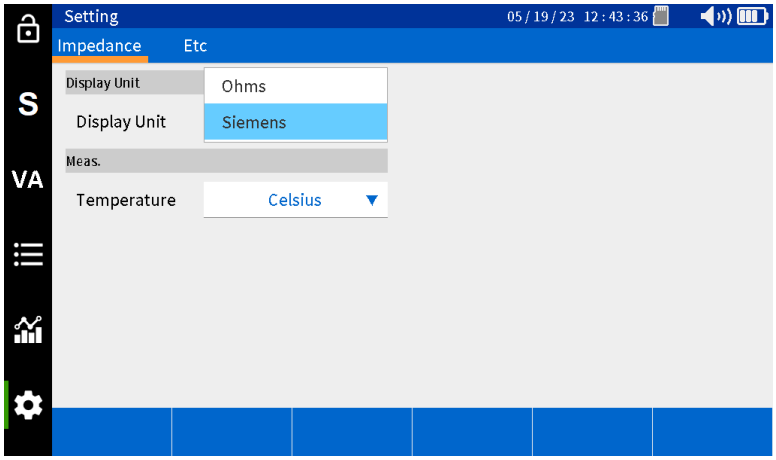
Measure and view data in Siemens. Option available on BITE-SE model

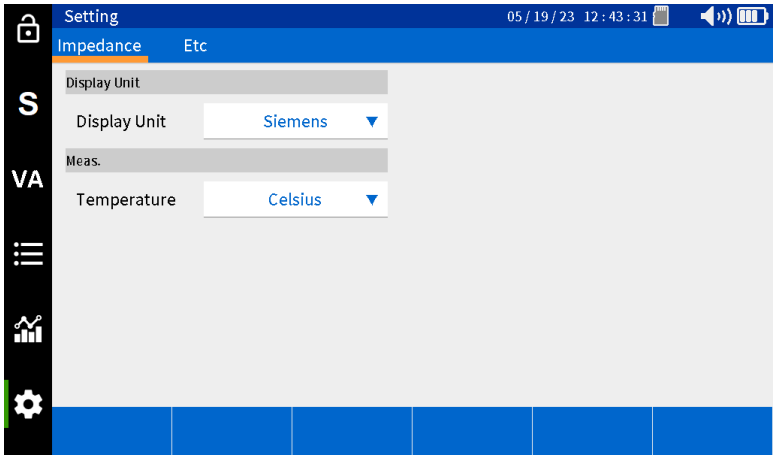
The BITE5-SE can be configured to measure and view data in either ohms or siemens.

To choose the desired selection open the “Configuration” screen by clicking on the configuration ICON.



In the “Display Unit” field select Siemens.

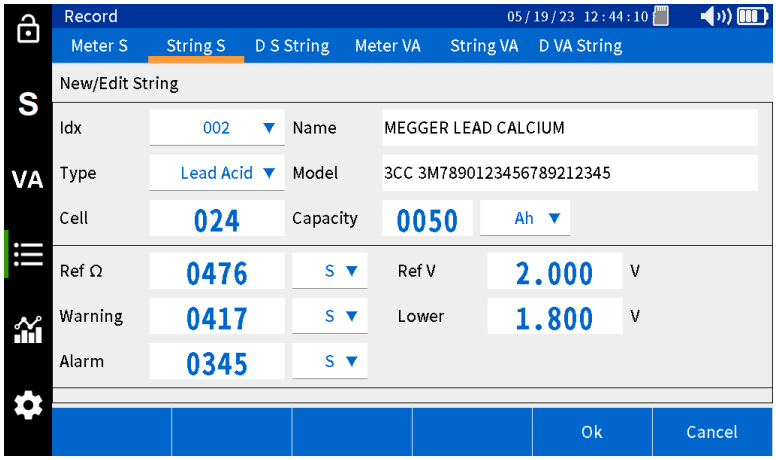




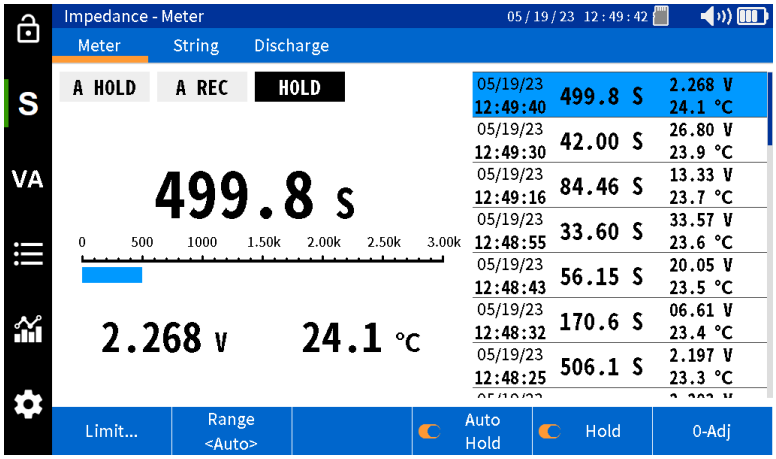
Measure and view data in Siemens. Option available on BITE-SE model

When the BITE5-SE if set to Siemens, the following features will be available.

Reference, warning, and alarm limits can be programmed in Siemens. (Note, these values will automatically toggle between ohms and siemens, based on the chosen unit setting.

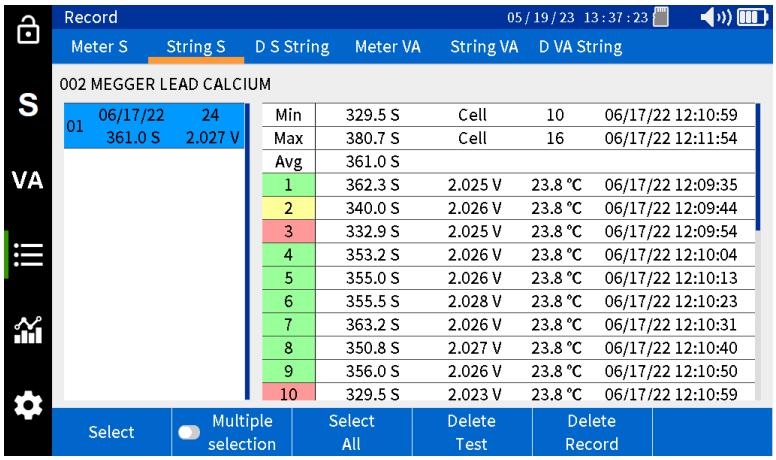


Measured battery value will be recorded in Siemens.



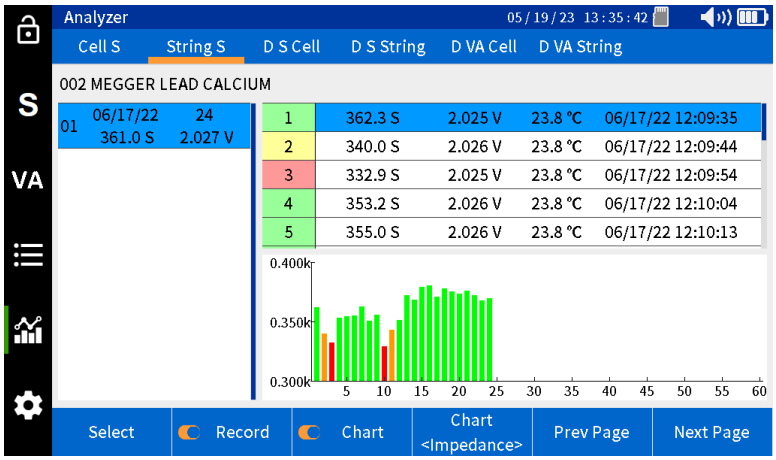
Recorded data can be viewed as text data in Siemens.

The text screen will also display the Minimum recorded cell value, the maximum recorded cell value as well as the average recorded cell value.

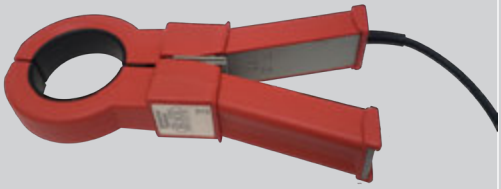


Measure and view data in Siemens. Option available on BITE-SE model

Recorded data can be viewed as a chart in Siemens.



Optoinal Accessories

Description	Image	Part Number
Concentric Probes. These allow measurements of cells through battery caps that have probe access ports. These probes come with either 11.75 mm (¼") tips or 25.4 mm (1") tips.		90037-562 (11.75 mm (1/4") tips) 90037-565 (25.4 mm (1") tips)
0 to 1000Aac/dc CT. Used for measuring and recording DC float current and discharge current. Jaw opening 2 inches (52.0 mm)		MCCV-1KDC-B5
0 to 100Aac CT. Used for measuring and recording AC ripple current. Jaw opening 0.96" ID (24.5mm)		MCV-100B5

Maintenance

Do not leave the instrument connected to the system under test when not in use.

Do not use the instrument or connect it to any external system if it shows any visible signs of damage, malfunction, or if it has been stored in unfavorable conditions.

If this equipment is used in the manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

Battery charging

The BITE5 uses rechargeable Li-ion batteries. Only recharge batteries using the supplied power adapter.

Battery charging starts once the power adapter is connected and plugged into AC.

The battery charge will take approx. 4 hours to complete. If the unit is operated off of the AC adapter, then the charging time will be longer.

The BITE5 can be left connected to the charging adapter for extended periods. The batteries will not be damaged even after full charge.

Battery charging status icon

Icon	Descriptions
	Battery charging amount more than 85 %
	Battery charging amount more than 70 %
	Battery charging amount more than 50 %
	Battery charging amount more than 25 %
	Battery is fully discharged (after warning sounds, unit will shut off)
	Adapter connected, unit charging

Cleaning and Storage

Do not leave the instrument connected to the system under test when storing or cleaning.

Unit Cleaning

Clean with wet cloth and soft soap. Do not use organic solvents or alcohol as markings on the unit may be damaged.

Storage

When storing for long periods of time, there is no need to remove the battery pack.

However, all batteries experience self-discharge. This will lead to a gradually draining of the batteries.

For best battery life, it is recommended that batteries are charged once a month.

Batteries need to be charged a minimum of once every 6 months.

Cleaning probes

Clean with wet cloth and soft soap. Do not use organic solvents or alcohol.

Manufacturing sites

Part No: BITE5_UG_EN_V02d