

EC-Series Analyzer

Quick Start Guide



Welcome to your EC-Series Analyzer

This Quick Start Guide will quickly get you up to speed on the basic functions of your EC-Series Analyzer. You will learn to set up a test configuration, run a quick test, and review your test results.

We have created a vast library of training materials on www.globalei.com to show you how to take advantage of all the powerful features of your EC-Series Analyzer. Our free IBMS (Intelligent Battery Management System) software makes it easy to log data and keep track of all your batteries. For full details, refer to the User's Manual found on our website. Please review the safety information guide provided with your EC-Series Analyzer before use.

What's inside the box



Analyzer



Li-Ion Battery



AC wall adapter



Infrared thermometer



Mini-SD card



Kelvin clips



USB cable



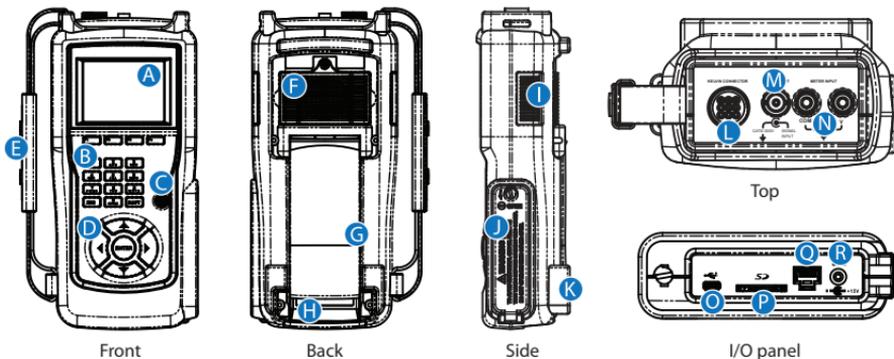
Soft carrying case



Shoulder strap

*Additional accessories available online at www.globalei.com/bms

Basic features of your EC-Series Analyzer



A Color LCD display

B Keypad

C On/off button

D Directional pad

E Carrying strap

F Cooling fan

G Tilt stand

H Lithium-Ion battery (removable)

I Fan vents

J I/O connector panel cover

K Santoprene protective boot

L Kelvin connector

M Oscilloscope probe input

N Meter inputs

O Mini-USB

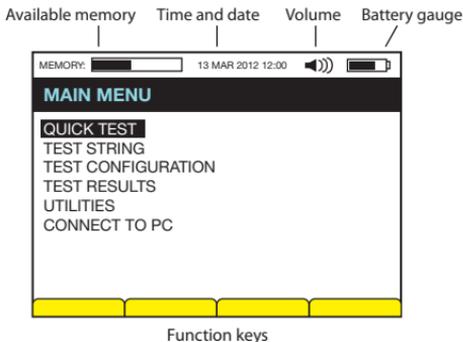
P Mini-SD card slot

Q Ethernet

R DC connector

Getting to know your EC-Series Analyzer

Every time you turn on your EC-Series Analyzer, it will perform a quick calibration before taking you to the Main Menu. From this menu you can access all the main features of the analyzer.



! Be sure to connect your analyzer to the charger before using it for the first time. It takes about 4 hours to fully charge the battery. For safety purposes, **the analyzer will power off while charging.**

The top row of the keypad consists of the function keys. You can use these keys to perform actions that appear on the bottom row of the screen.

Use the alphanumeric keypad to input numbers and text. To enter text, press the corresponding key repeatedly until your letter appears. To capitalize a letter, hold the Shift key. To delete the last character, use the ESC key.

Use the directional pad to navigate menus, and the Enter key to select.

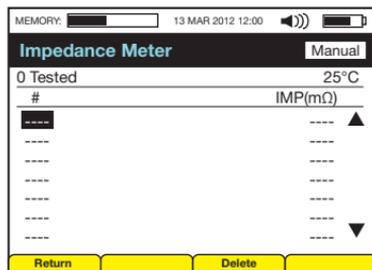
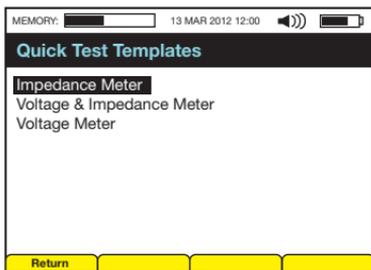


Performing a quick test

Quick test allows you to rapidly assess battery conditions **without keeping track of the results**. Three quick test configurations are provided by default, measuring Impedance, Voltage, or both. You can also create custom quick tests. Consult the training video EC-TC-2 on our website for more information.

! The EC-Series Analyzer can be used on any battery type ranging from 5Ah to 2000Ah with a voltage up to 18V.

To perform a quick test, simply select Quick Tests from the Main Menu. Select one of the three default quick test templates.



*all screenshots may differ slightly and change without notice

Connect your battery using the supplied Kelvin clips, and press Enter on the keypad.

Press F1 on the keypad to return to the previous menu once you have reviewed your test results. Remember that **Quick Test results are not saved**.

Setting up a string configuration

The main function of the EC-Series Analyzer is to collect and log test data of a battery string. Each string is associated to a string configuration, which defines the characteristics of the string for collecting data.

From the analyzer's main menu, select Test Configuration > Company/Region. Select <NEW> to create your own Company and Region settings. Press F2 to save the settings, then press F1 to return to the previous menu, and select String Configurations. If this is your first time setting up a string, this screen will be blank. Select <NEW>, enter your Site Name, and choose your Company/Region with the left and right directional keys. Press F2 to save.

MEMORY: [bar] 13 MAR 2012 12:00 [speaker] [battery]

Location (Site)

SITE ID

<New>

Global Energy Innovations/California

Santa Clara

Return Edit Copy Delete

Select the site you just created, then select <NEW> to create a string.

Go down the list and enter all the necessary information. To learn about all the settings in detail, please watch the EC-TC-3 training video.

Once you have entered the details of your string, press F2 to save your configuration.

MEMORY: [bar] 13 MAR 2012 12:00 [speaker] [battery]

String Configuration

SETTING NAME	VALUE
STRING ID:	String 5
BASELINE STATUS	YES ▲
NUMBER OF BATTERIES(S):	256
BATTERY TYPE:	<UNDEF>
TEST SETTING:	<VIEW>
ALARM SETTING:	<VIEW>
TEST VOLTAGE:	YES
TEST IMPEDANCE:	YES
TEST CELScan@	YES
# STRAP(S) PER BATTERY:	1
FLOAT CHARGE:	YES
VOLT. REF. (CELL)(V):	2.25
VOLT. REF. (BATTERY)(V):	2.25
USE AUTO-CALC. BASELINE:	YES
BASELINE IMP. REF. (mΩ):	----
BASELINE ACF:	----
USE AUTO-CAL STRAP REFERENCE:	NO
STRAP REFERENCE (mΩ)	0.985 ▼

Cancel Save Dates Abc

Testing a string

Once you have set up a string configuration, you are ready to start testing. From the main menu, select Test String. In the next screen, select the site you have created, and then the string.

MEMORY: [] 13 MAR 2012 12:00 [] []

String Selection

SITE: Santa Clara BASELINED

String 5 NO

Return

MEMORY: [] 13 MAR 2012 12:00 [] []

Test Series

Santa Clara (String 5) COMPLETE

<NEW TEST SERIES>

Return

Select <NEW TEST SERIES> to start a new test session. Enter the test temperature, then press F2 to start testing.

MEMORY: [] 13 MAR 2012 12:00 [] []

Start Testing

TEST SETTINGS VALUE

TEST TEMPERATURE (°C): ---

SITE: Santa Clara

STRING ID: String 5

TEST START DATE: 2012/03/13

TEST END DATE:

BASELINE STATUS: No

Return Start Rep. Test

MEMORY: [] 13 MAR 2012 12:00 [] []

Battery 2: Testing AUTO

0 of 5 TESTS COMPLETED 30.0°C

IMP(mΩ) VOLT(V) SULF(%) DRY(%)

--- --- --- ---

STRAP 0:1-1 ---

BATTERY 1 PASS

STRAP 1:1-1 ---

BATTERY 2 ---

Return Baseline Temp 65%

To initiate testing, select a battery or strap and press enter. When all the batteries are measured, you may exit the test by pressing F1, and confirm with F2.

Reviewing test results

To review the results of your test, select Test Results from the Main Menu. Select the site, string, and test date you would like to review.

TEST DATE	TEST TIME
2012/03/10	08:34:00
2012/03/11	09:34:00
2012/03/12	10:34:00
2012/03/13	11:34:00

Return Delete

90 OF 96 TESTED: 84 PASS / 5 WARN / 1 FAIL

STRAP 0:1-1	----	▲
BATTERY 1	PASS	
STRAP 1:1-1	----	
BATTERY 2	PASS	
STRAP 1:2-1	----	
BATTERY 3	WARNING	
STRAP 1:3-1	----	▼

Return Config.

To view the details of the test result, select a battery or strap and press enter.

Battery 4 / Cell 3 of 3 - RESULT - Fail

BATTERY:	ABSOLUTE 1-100G39	
VOLTAGE(V):	12.234	Pass
IMPEDANCE(mΩ):	0.1450	
IMPEDANCE(%):	0.1480	Warn
SULFATION(%):	26	Fail
DRYOUT(%):		
TEMPERATURE(°C):	28.8	

Return Alarms Data log

Strap 0:1-1 RESULT: WARNING

MEASURED VALUE(mΩ):	0.045
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Return Alarms

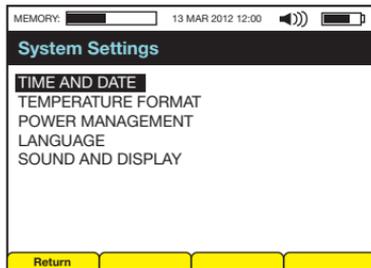
You can review the alarms with the F2 key, or enter additional information and view test temperatures by pressing F3.

Changing the system settings

The EC-Series Analyzer supports multiple languages and has various customizable features. From the Main Menu, select Utilities > System Settings to access these settings.

Advanced features

The EC-Series Analyzer is loaded with additional features such as the advanced voltmeter and oscilloscope. You can also connect the analyzer to your PC using our free companion IBMS (Intelligent Battery Management System) software. To learn more about these features, consult the user manual or visit www.globalei.com. We have created a series of training videos designed to help you get up to speed with your analyzer.



Additional support

To request help or download documentations, visit support.globalei.com. To download our companion software IBMS, visit www.globalei.com/software-ibms-downloads. For warranty information, consult the document provided with your EC-Series Analyzer.

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