

güralp

# CERTIMUS

MEDIUM MOTION DIGITAL SEISMOMETER

QUICK START GUIDE

# CERTIMUS

## Initial Hardware Setup

Power cable (with bare ends), GPS receiver, GPS cable and Ethernet cable are supplied with the Certimus Accessory Pack.

No power supply is included.



1. Connect all hardware using the cables supplied, as shown above.
2. Switch on the power supply (12-36V DC). The LED indicator on the Certimus will behave as shown in the table.

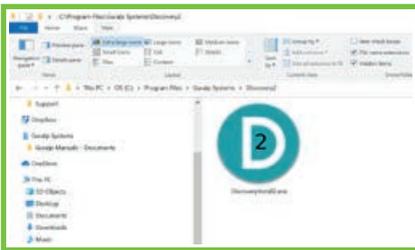
LED Flash	Status
WHITE flashing rapidly	Booting-up (10-20s)
Quick RED flash followed by 1s pause	Removable microSD present, no fixed microSD card
2 quick RED flashes followed by 1s pause	Fixed microSD present, no removable microSD
3 quick RED flashes followed by 1s pause	microSD cards present missing or poor GPS
GREEN flash every 4 seconds	microSD cards and GPS all OK (may take up to 10 min)

## Güralp Discovery Software

Download Güralp Discovery from:

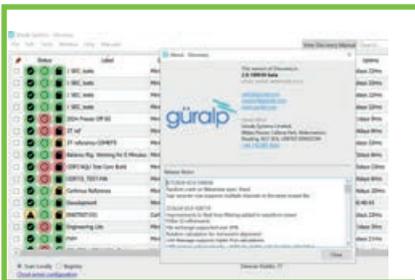
<https://guralp.com/sw/download-discovery.shtml>

(Please contact [support@guralp.com](mailto:support@guralp.com) for other operating systems)



Run the installer that you have downloaded, follow the on-screen instructions to install and then launch Discovery.

If you see a dialogue from Windows Firewall saying that it has “blocked some features of this app”, select one or more networks from the list provided and then click .



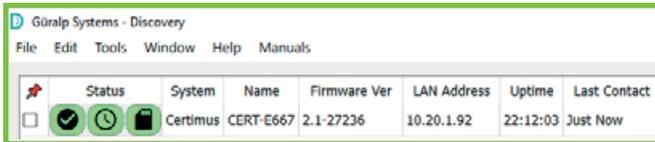
Ensure that your version of Discovery is up to date. To do this, in Discovery, click on the **Help** menu and select **About**. Click on the **Update** button and follow the on-screen instructions.

## Connect to the Certimus

Use one of the methods below to find out what the I.P. address of the Certimus is.

### 1. Discovery software

Run Discovery and click on the Scan Locally button to show the Certimus on the main window. The I.P. address shows under the LAN address column as shown below.



Status	System	Name	Firmware Ver	LAN Address	Uptime	Last Contact
<input checked="" type="checkbox"/>	Certimus	CERT-E667	2.1-27236	10.20.1.92	22:12:03	Just Now

### 2. LCD touch screen

If your Certimus has an LCD display, in the main menu select Status. The Status page shows information about the Certimus I.P. address as shown below.



## Configure the Response

With Certimus, you can select the desired long-period corner (Response Period). To configure the Response Period, right-click on the Certimus in Discovery's main window and select View Web Page.

Click on the Setup tab and select View Web Page. Click on the Setup tab and select the desired response (1s, 10s, 120s).



Model	Certimus	
Response period		120s ▼
		1s
Tilt	+0.26 deg	10s
AccelZ	9.714 m/s	120s

## Configure the Sample Rate



The screenshot shows the Certimus web interface for configuring the Data Stream. The 'Display Streams' dropdown is set to 'Enabled Only'. The 'Channels configuration' table is as follows:

Channel	Channel sampling rate	Data location	SEED name - please use check-box to modify the default	REServe file - if available
<b>Station channels</b>				
IVEL20	250 Hz	Transform Disabled for this tap	<input type="checkbox"/> DG-RE667, T1, CH2	RESP_Std_7
IVELN6	250 Hz	Transform Disabled for this tap	<input type="checkbox"/> DG-RE667, T1, CH1	RESP_Std_12
IVEL68	250 Hz	Transform Disabled for this tap	<input type="checkbox"/> DG-RE667, T1, CH1	RESP_Std_12
<b>SEED acquisition channels</b>				
ISAR20	5 Hz	Transform Disabled for this tap	<input type="checkbox"/> DG-RE667, T1, SAR1	RESP_Std_23
ISAR60	5 Hz	Transform Disabled for this tap	<input type="checkbox"/> DG-RE667, T1, SAR2	RESP_Std_42
ISAR66	5 Hz	Transform Disabled for this tap	<input type="checkbox"/> DG-RE667, T1, SAR2	RESP_Std_47
<b>Factory channels</b>				
IVELC6	250 Hz	Transform Disabled for this tap	<input type="checkbox"/> DG-RE667, T1, CCA	RESP_Std_55
STMFD8	5 Hz	Transform Disabled for this tap	<input type="checkbox"/> DG-RE667, T1, MCO	RESP_Std_78
ICVDAC	5 Hz	Transform Disabled for this tap	<input type="checkbox"/> DG-RE667, T1, MEO	RESP_Std_9

The outputs of a Certimus can be streamed and/or saved to the SD cards. Sample rates for both streamed and recorded channels can be configured via the Certimus' web interface, using the Data Stream and Data Record tabs respectively. The three main seismic channels can be found by selecting Sensor1 from the Display On Page drop-down menu.

**Note:** Each of these tabs has a drop-down menu called **Display Streams**, located just above the **Channels Configuration** section. It offers the choice of **Enabled Only**, **Disabled Only** and **All**. If the channels that you wish to configure do not appear in the table below, set this control to **All** or **Disabled Only**, configure the desired sample rates for the missing channels and then set this control back to **Enabled Only**.





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## Quality Certificate

It is hereby certified that the product identified below has been fully tested and calibrated in accordance with the Güralp Quality Assurance Program.

It is further certified that any product designed and manufactured by Güralp Systems Ltd is carried out in accordance with the applicable Original Manufacturer Approvals.

The Güralp Quality Management System has been assessed and is certified to meet the requirements of ISO 9001:2015 for the design and manufacture of low noise Broadband Seismometers, Accelerometers, Digitisers and associated networking equipment.

All our calibrated reference equipment is certified by an independent test laboratory, and in compliance with the international standard ISO/IEC 17025:2005.

Certificate Serial Number:

Product Serial / BatchNo:

Final Quality Approval:

Date of Issue:

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## Notes

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