güralp

FORTIMUS

STRONG MOTION DIGITAL SEISMOMETER

QUICK START GUIDE

FORTIMUS

Initial Hardware Setup

Power cable (with bare ends), GPS receiver, GPS cable and Ethernet cable are supplied with the Fortimus 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 Fortimus will behave as shown in the table.

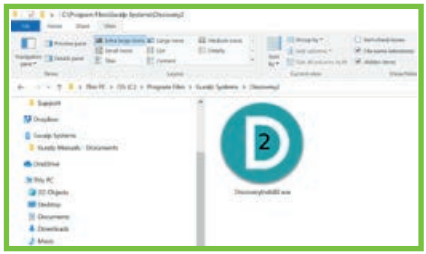
LED Flash	Status
WHITE flashing rapidly	Booting-up (10-20s)
Quick **RED** flash followed by 1s pause	Removable microSD present, no fixed microSD card
2 quick **RED** flashes followed by 1s pause	Fixed microSD present, no removable microSD
3 quick **RED** flashes followed by 1s pause	microSD cards present 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

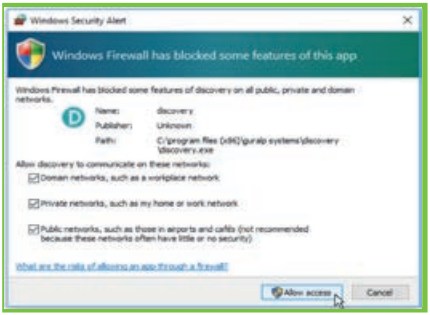
(Please contact support@guralp.com for other operating systems)



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 Allow access.



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



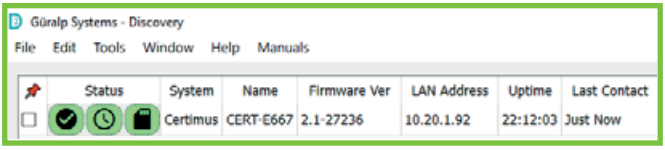
Ensure that your version of Discovery is up to date. To do this, in Discovery, click on the **Help** menu and select **About**. Click on the **Update** button and follow the on-screen instructions.

Connect to the Fortimus

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

1. Discovery software

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

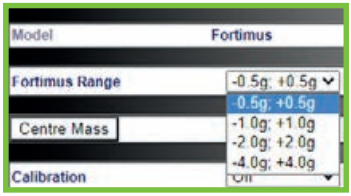


2. LCD touch screen

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

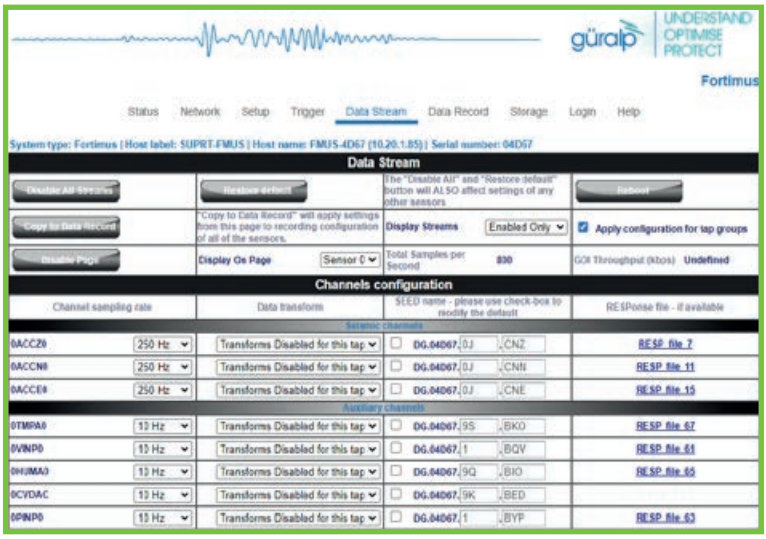


Configure the Response



With Fortimus, you can select the desired long-period corner (Response Period). To configure the Response Period, right-click on the Fortimus 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).

Configure the Sample Rate



The outputs of a Fortimus can be streamed and/or saved to the SD cards. Sample rates for both streamed and recorded channels can be configured via the Fortimus' web interface, using the Data Stream and Data Record tabs respectively.

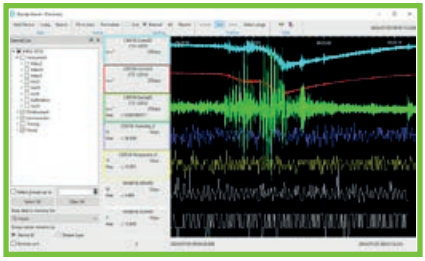
Note: Each of these tabs has a drop-down menu called **Display Streams**, located just above the **Channels Configuration** section. It offers the choice of **Enabled Only**, **Disabled Only** and **All**. If the channels that you wish to configure do not appear in the table below, set this control to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

View Live Waveform



Open the Discovery software and locate your Fortimus. Right-click on the Fortimus and select Live View then GDI.

The Live View window will open and start streaming all available data from the Fortimus. Streams can be added or removed from the viewer using the Channel List panel on the left-hand side.



Instrument Status



To view instrument state-of-health information, configure station metadata and network preferences, navigate the Status, Network and Setup tabs of the web interface.

Güralp Systems Limited
Midas House
Calleva Park
Aldermaston
Reading
RG7 8RA
United Kingdom

T +44 1189 819056
F +44 1189 819943
E sales@guralp.com
E accounts@guralp.com
E admin@guralp.com
E support@guralp.com
www.guralp.com

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:

EU Declaration of Conformity

We

Guralp Systems Ltd
Midas House, Calleva Park, Aldermaston
READING, RG7 8EA.

Tel: +44 118 981 9056
E-mail: technical@guralp.com

Declare under our sole responsibility that the following product

Equipment name: Fortimus with GPS
Model Number: FMUS-0001 and appropriate variants

Is in conformity with the

Radio Equipment Directive 2014/53/EU
Electromagnetic Compatibility Directive 2014/30/EU
Low Voltage Directive 2014/35/EU
Restriction of Hazardous Substances (RoHS) Directive 2011/65/EU

by applying the following harmonised standards and technical specifications:

EN 55011, EN 55016:2009 +A1:2010 – Conducted Emissions
EN 55011, EN 55032 :2009 +A1:2010 – Radiated Emissions
EN 61000-4-2:2009 – Electrostatic Discharge Immunity
EN 61000-4-3:2006 +A1:2008 +A2:2010 – Radiated RF Immunity
EN 61000-4-4:2012 – Electrical Fast Transients Immunity
EN 61000-4-5:2014 – Voltage Surge Immunity
EN 61000-4-6:2014 – Conducted RF Immunity
EN 61000-4-8:2010 – Power Frequency Magnetic Field Immunity
IEC 61010-1 3rd Edition - Low voltage Safety
2011/65/EU - RoHS

Signed for and on behalf of
Guralp Systems Ltd
on 12 April 2021

Systems Director



CE

Notes

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Güralp Systems
Limited
Midas House
Calleva Park
Aldermaston
Reading
RG7 8EA
United Kingdom

T +44 118 981 9056
F +44 118 981 9943
E sales@guralp.com

www.guralp.com

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