güralp

FORTIS

STRONG MOTION ACCELEROMETER

QUICK-START GUIDE

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Deployment Log

Serial number: _____

Date deployed	Date recovered	Location	Comments

Fortis

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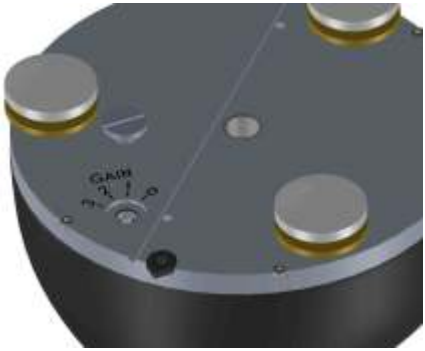
QUICK-START GUIDE

Initial Hardware Setup

Setting the Gain

The Fortis has user-selectable gain that can be switched remotely (via a Güralp Minimus digitiser) or locally via a rotary switch on the base of the instrument. Remove the cover screw using a large, flat-bladed screwdriver.



Rotary switch

Using a small, flat-bladed screwdriver, turn the switch to one of the four marked positions, then reattach the cover screw.

Engraved switch position	Amplifier gain	Full-scale (g)
3	1	4
2	2	2
1	4	1
0	8	0.5

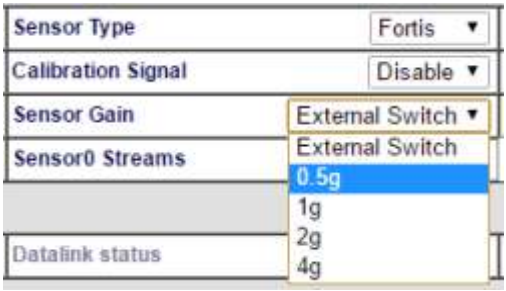
Remote gain control

1. To control the gain remotely, ensure that the switch is set to position '3', as described in the previous section.

2. Launch Discovery software. The serial number (as shown on the base of the Minimus) should appear in the main window. If the instrument does not appear, check your Ethernet connection and press the **Scan locally** button.

3. To configure the gain of the Fortis, right-click on the Minimus in Discovery's main window and select **View Web Page**.
Click to the **Setup** tab.

4. Make sure that **Sensor Type** is set to **Fortis** in the Analogue Sensor section. You can then change the gain from the **Sensor Gain** drop-down menu (expressed in full scale). The default setting is **External Switch**.

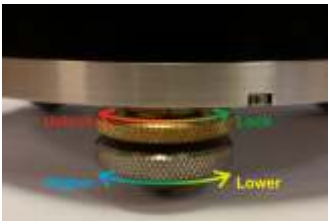


Permanent Installation

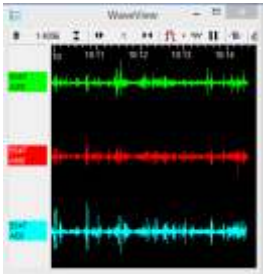
1. Unpack the equipment onto a clean surface. Check that you have all components and cables.
You will need a suitable digitiser / data-logger that can provide a 10-36 V DC power supply, such as the Güralp Minimus.

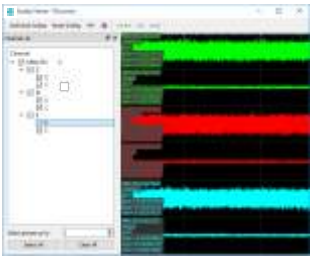
2. Prepare a flat surface by scribing an accurate North-South line and drilling a suitable bolt-hole. Place the accelerometer over the fixing bolt and line up the orientation line with pointers on the Fortis.

3. Level the sensor using its adjustable feet until the bubble level on the lid lies entirely within the inner circle of the level indicator. Secure the instrument using a nut.
Do not over-tighten!



4. Connect a sensor cable between the Fortis and the digitiser, then power up the digitiser. If you are using a Minimus, you can now view real-time waveforms from the Fortis using Güralp Scream! or Discovery software.





Temporary Installations

The Fortis is ideal for monitoring vibrations at field sites. Dig a shallow pit, make a smooth base, level the sensor and then cover with a box or bucket, bringing the cable out from under the bottom. The pit can be covered and back-filled with soil, sand, or polystyrene beads.

Next steps

For detailed information on usage, control & configuration of the Fortis, Güralp highly recommends first reading the Minimus Manual, MAN-MIN-0001, available for download from our web site at
http://www.guralp.com/documents/MAN-MIN-0001
followed by the Fortis Manual, MAN-FOR-0001:
http://www.guralp.com/documents/MAN-FOR-0001
It may also be important to update firmware on the Minimus - refer to Section 5.15 of MAN-MIN-0001 for more details.

For further assistance please contact our technical support team on support@guralp.com or call us on +44 118 981 9056.

Caution: Although the Fortis is a strong motion instrument, it contains sensitive mechanical components which can be damaged by mishandling. If you are at all unsure about the handling or installation of the device, you should contact Güralp Systems for assistance.

Notes

Notes

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