GURALP SYSTEMS

CMG-5T
Accelerometer

Installation

1

Check you have all components and cables.

- CMG-5T strong motion broadband accelerometer
- Thick grey signal cable
- Sensor calibration data booklet

You will need a suitable digitizer or recording equipment, a 12–24 V DC power supply, a 120 mm × 6 mm fixing bolt, and a fixing nut with spring washer.

Keep the packaging, in case you need to transport the sensor at a later date.

2

Prepare the installation site. Any solid surface, such as a concrete floor, is suitable to install the instrument.

To create a suitable surface in temporary sites:
1. Dig a pit, or machine-auger a suitable hole for the sensor.
2. Prepare a quick-setting cement/sand mixture, and pour it into the hole.
3. "Puddle" the mixture by agitating, until the surface is level.
4. Leave the mixture for 2 - 12 hours depending on the cement type.



3

If you are not using a base plate and ring:

1. Scribe an accurate North/South line on the surface, and grout in the fixing bolt around the middle of the line.

2. Place the sensor over the bolt, and rotate until the studs and orientation lines on the instrument align with the North/South line.

3. Fix the instrument in place.

Installation

3ᵇ
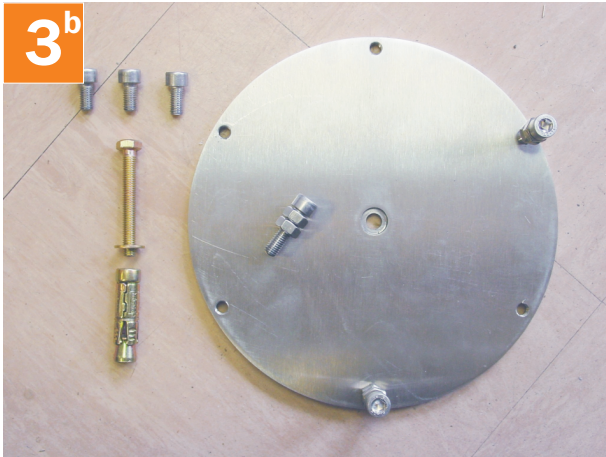
Alternatively, if you are using a base plate and ring:

1. Place the base plate on the surface in the required orientation.
2. Fit two nuts to each of the longer 3 screws provided, and screw them into every other hole so that the plate is level. Tighten the nuts.
3. Unscrew the sensor feet.
4. Screw the ring onto the bottom of the sensor, into the holes for the feet.
5. Fix the ring onto the base plate using the shorter set of 3 screws.

4
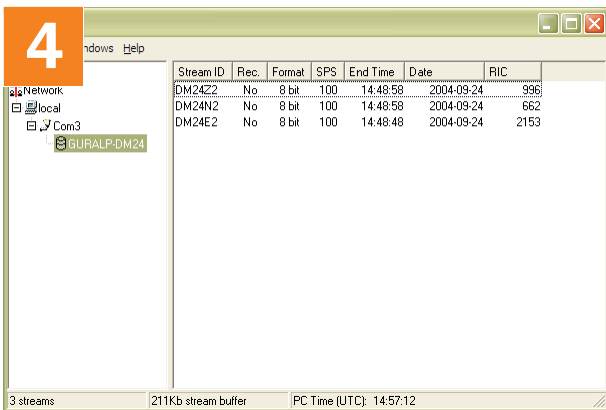
After installing, you will need to zero the sensor outputs. This is most easily done through a Güralp digitizer.

Connect the sensor's output port to the digitizer, and power them up. Connect the digitizer's serial output to a PC.

Start the PC and run Scream!. Choose *File → Setup...* from the main menu and view the *Com Ports* tab.

Set the *Baud Rate* to the correct value and click *OK*.

5

Remove the screw-on cap protecting the offset adjusters.

With a small screwdriver, adjust each offset until the corresponding output is close to zero. Zoom in as necessary.

Replace the pressure cap. The sensor is now ready for use.

Please refer to the full manual for detailed usage instructions, calibration and troubleshooting.