

Instruction Sheet

High Frequency Triaxial Geophone

The High Frequency Triaxial Geophone is intended for use with Minimate Pro4/Pro6 monitoring units. The geophone may be attached to the "Channel 1-3" connector on both the Minimate Pro4 and Minimate Pro6 or on the "Channel 4-6" connector on the Minimate Pro6. Extension cables can also be used to operate the Minimate Pro4/Pro6 unit a safe distance from the vibration source.



Tools and Materials Required

- High Frequency Triaxial Geophone (P/N: 720A4701)
- Minimate Pro4 monitoring unit (P/N: 720A2301) or
- Minimate Pro6 monitoring unit (P/N: 720A2401)
- Extension cables, as required
 - 30 m (100 ft) (P/N: 720A3301)
 - 75 m (250 ft) (P/N: 720A3302)
 - Custom Length (P/N: 301-000034-000)
 - Custom Cable Connector Assembly (P/N: 720A3305)
- Wall Mount Kit, as required (P/N: 718A0101)
- THOR Advanced software (P/N: 72300201)
- Leveling Plate, as required (P/N: 714A1801)

Range of Applications

- Construction Activity
- Near-Field Blast Analysis
- Multi-Point Monitoring
- Pile Driving
- Demolitions
- Research/Education
- Environmental
- Structural
- Compaction

Physical Installation

The High Frequency Triaxial Geophone can be bolted or securely attached to a surface, either directly or with the aid of the optional leveling plate. Position the sensor with leveling plate, if attached, on the surface and mark the position of the bolt. Use a 9.5 mm (3/8 inch) bolt or threaded rod. Install the bolt according to the manufacturer's instructions. Slide the geophone, and leveling plate over the bolt. Slide a 9.5 mm (3/8 inch) washer and a 9.5 mm (3/8 inch) lock washer over the bolt. If using the leveling plate, level the geophone using the leveling feet and integrated bubble level. Tighten the retaining nut to complete the installation.

Specifications	Metric	Imperial
Amplitude Range	2540 mm/s	100 in/s
Frequency Range	30 - 1,000 Hz	
Sensitivity	0.00126874 V/mm/s	0.032226 V/in/s
Resolution	0.0788 mm/s	0.00310 in/s
Trigger Levels	1.27 to 2543 mm/s	0.05 to 100 in/s
Sensor Density	2.3 g/cc	144 lbs/ft ³
Recommended Sample Rate	4,096 S/s	
Cable Length	1.8 m	6 ft

Software Setup

The High Frequency Triaxial Geophone setup requires InstanTel's THOR Advanced software.

1. Click on the **Unit Tab**.
2. Click on the **Unit Setup** icon.
3. In the **Unit Setup** section, right-click and select "**New Unit Setup File**".
4. Fill in the details and select **Unit Type: Minimate Pro**, then Setup Type: **Advanced**.
5. Under **Active Channels**, add the necessary channels.
6. Under **Sensor Type** select "**Other**".
7. Fill in the **Sensitivity** of the Geophone. (To setup all three axes, you must add three channels in the this manner.)
8. Click on **OK** to save the Setup File.
9. Select the Minimate Pro unit and click **Send to Unit(s)** to send the configuration file to the Minimate Pro unit.

Warranty

InstanTel products come with a one-year warranty. Monitoring units and sensors will have the warranty extended for a second year if they are returned to the InstanTel factory for service and calibration within 30 days of the 'Next Calibration' date printed on the calibration label located on the product. If within a period of one year from the date of shipment to a customer, the instrument fails to perform in accordance with InstanTel's published specifications and the operator's manual, due to a defect in materials or workmanship, it will be repaired or replaced at InstanTel's option, free of charge. This warranty is void if the equipment has been dismantled, altered or abused in any way. This warranty is nontransferable. This warranty does not include any implied warranty of functionality for a particular purpose. InstanTel assumes no responsibility for damages of any description resulting from the operation or use of its products. Since it is impossible to anticipate all of the conditions under which its products will be used either by themselves or in conjunction with other products, InstanTel cannot accept responsibility for the results unless it has entered into a contract for services which clearly define such an extension of responsibility and liability. Any shipments returned directly to InstanTel Inc. must have our prior approval and all packages must display the Return of Material Authorization (RMA) number issued by InstanTel. Shipping charges to InstanTel's plant will be paid by the customer and those for return to the customer will be paid by InstanTel. To protect your warranty, you must complete and return a Warranty Registration Certificate, or complete the online Warranty Registration Form, within ten days of purchase. Products will be assumed out of warranty if there is no warranty card on file at InstanTel. Retain this portion and the proof of purchase for your records.

EC Warning

This is a Class B product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.