

# 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/ft³
Recommended Sample Rate	4,096 S/s	
Cable Length	1.8 m	6 ft



# Calibration Certificate

Part Number: 720A4701

Description: High Frequency Geophone

Serial Number: SF12660

Calibration Date: **DEC 23 2020**

Calibration Reference Equipment: RV-SPECA 714J5601

*Instantel certifies that the above product was calibrated in accordance with the applicable Instantel procedures. These procedures are part of a quality system that is designed to assure that the product listed above meets or exceeds Instantel specifications.*

*Instantel further certifies that the measurement instruments used during the calibration of this product are traceable to the National Institute of Standards and Technology; or National Research Council of Canada. Evidence of traceability is on file at Instantel and is available upon request.*

*The environment in which this product was calibrated is maintained within the operating specifications of the instrument.*

*Please note that the sensor check function is intended to check that the sensors are connected to the unit, installed in the proper orientation and sufficiently level to operate properly. This function should not be confused with a formal calibration, which requires the sensors be checked against a reference that is traceable to a known standard. Instantel recommends that products be returned to Instantel or an authorized service and calibration facility for annual calibration.*

Calibrated By: \_\_\_\_\_

Andrew Stockwell



**Instantel**

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