



Job Performance Review

**ZEB Maxam
Acoustic
Ground
Detector**

**Individual
Level
Competency**

JPR Title

ZEB Maxam Acoustic Ground Detector

JPR Number

JPR-TR-11

Reference

NFPA 1670 – Standard on Operations and Training for Technical Search and Rescue Incidents
NFPA 1006 – Standard for Technical Rescuer Professional Qualifications
IFSTA Essentials of Firefighting
ZEB Maxam Acoustic Ground Detector Product Specifications Model HG-1U
ATFD Standards of Cover and Risk Analysis

Performance Criteria

Firefighter is able to articulate the various aspects of establishing and using the ZEB Maxam Acoustic Ground Detector listening device

Firefighter is able to effectively communicate to a 3rd party what is being monitored and effectively provide feedback information for effective rescue operations and identification of what is being observed or heard

Identifies the importance for the removal of the batteries upon completion of using the device

Time Parameters

15 minutes from staging to area search activity

Safety Precautions

Space allocation to prevent injury to self or others while operating
Appropriate PPE
Attention to surroundings

Procedure

The firefighter is able to identify and operate the following elements of the ZEB Maxam Acoustic Ground Detector listening device:

- Control Box Power ON/OFF Switch
- Battery Compartment
- Amplifier Filter Controls for Minimizing Background Noise

- Sound Transducer
- Head Set and Microphone
- Intercom
- Microphone Cord – 30 foot Section
- Microphone Cord – Cord Reel Extension – 300 foot Length
- Low Frequency Geophone Probe(Box)

Operational Support Information

The **microphone probe** can be introduced into a 1 ¾” borehole or cavity. It can be used to assist in the location of trapped victims in confined spaces or cavities by responding to extremely faint cries for help, moaning and breathing noises. At the same time it is possible to establish contact with the victims by speaking to them over the speaker-microphone probe and the headset.

The **low-frequency probe** can be used to monitor for weak and ultra-low frequency ground motions which can detect an acoustic trace even in soft soils, compact sand, rubble and loose rock where audible frequencies are often completely lacking at certain distances.



Above – Control Box



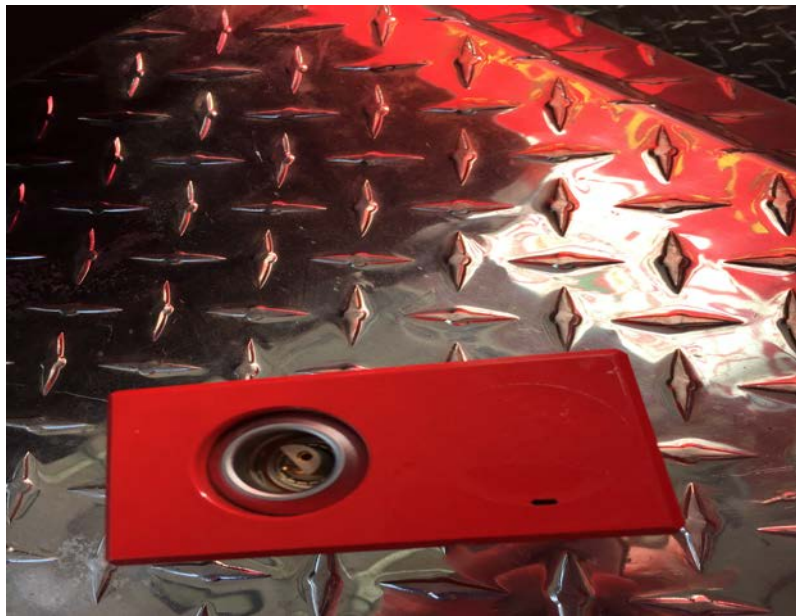
Above – Headset and Microphone



Above – Sound Transducer



Above – 300 foot Extension Cable



Above – Low Frequency Geophone Probe(box)

Firehouse Software Evaluator Notes

Link to “General Training in the Rescue Section” of FHS

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