HGS (INDIA) LIMITED

SPECIFICATION SHEET – Remote Trigger Module-3

Advanced Acquisition Electronics

The Remote Trigger Module 3, or RTM3, is a new generation of seismograph timing device. It is designed to synchronize start times from a seismic source unit operating with a single seismograph. It can also be used to synchronize multiple seismic recorders. The RTM3 units use an internal high accuracy oscillator that is disciplined with GPS information. Each RTM3 unit requires an external GPS receiver with valid satellite information to control its internal clock. Once the internal clock is synchronized the RTM3 can be used without any GPS signal for up to 10 minutes. transfer.

These units can use GPS timing synchronization for the firing of the shots. This allows the operators to acquire data in Autonomous mode without any VHF Radio communication with the Central Recording System. Individual "Time Slots" are allocated to prevent multiple shooters from firing at the same time. All of the shot information is saved on a non-volatile CF card for later download and analysis.

RTM-3

RTM 3 Features

- SSC Compatible – Operates seamlessly with UE 3, Force 3, & Boom Box 3 units
- Equipped with internal memory – can operate autonomously without radio contact
- Integrated Radio Interface – RTM 3 can be used with almost any radio
- Integrated GPS Interface – RTM 3 sends source location back to recording system
- Integrated Ethernet – Control RTM3 directly with SourceLink software
- WiFi Option – Setup and operate RTM3 unit with web browser from phone or tablet
- Dual-purpose design, can be used as Encoder or Decoder

RTM3 along with HGH-500

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High-Productivity solutions

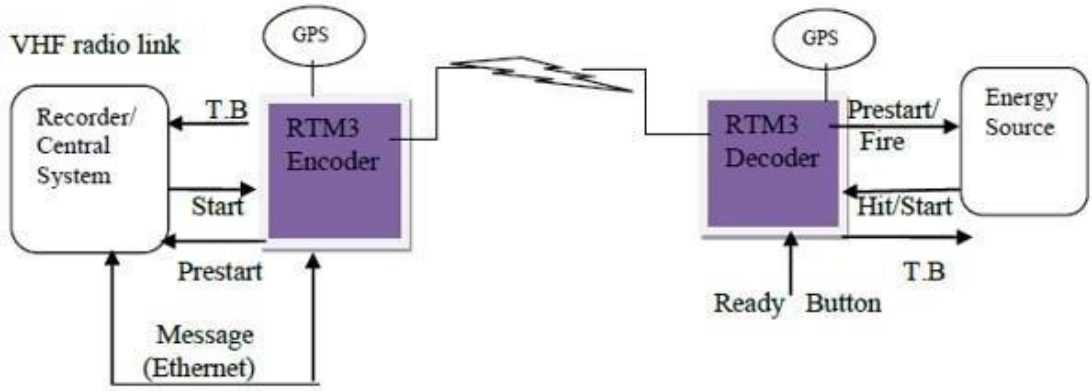
✓ Compatible with Standard Radios
✓ Compatible with Standard Timing
✓ Compatible with Standard Crews

Internal WiFi for Setup and Acquisition

The RTM3 also includes an internal WiFi unit. This WiFi unit is low power and is used for local setup and display of the RTM3 parameters and settings. A standard internet browser is used to connect to the RTM3 unit, so most cell phones, tablets or notebook computers can be used. The Web interface allows viewing and changing of parameters.

Simple Operation

For "Hammer Switch" operation (e.g. sledge hammer or elastic band weight drop) the hammer switch is connected to the RTM 3 unit. When the "Hit" is detected, the decoder immediately keys up the radio and sends a message to the Encoder unit. After the message is received by the Encoder, it outputs a pulse on the "TB line" exactly 1 second after the HIT pulse was received. The Decoder also stores the GPS location of the source and the microsecond accurate TB in its internal memory.



Two-Unit RTM 3 System Configuration

Small Scale Hammer

Medium Scale EWG

Large Scale AWD

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All-Purpose Source Trigger System

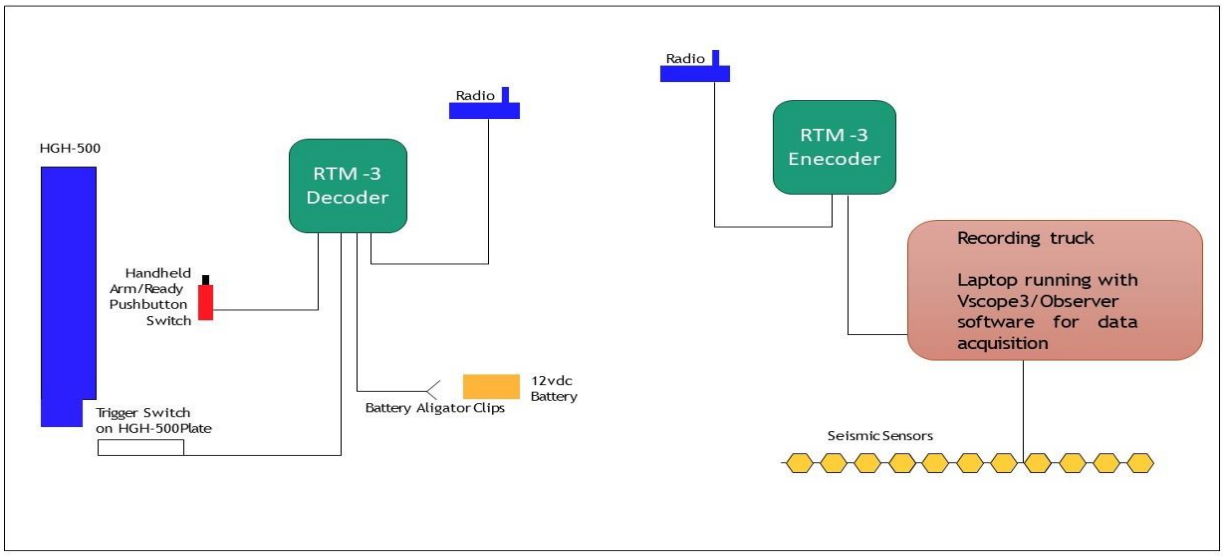
The Remote Trigger module 3 can be used anywhere a start signal needs to be sent from sources to seismographs. One source can start several seismographs, or multiple sources can start a single recording system

WiFi Option for Setup and Acquisition

The WiFi option includes an internal transceiver unit. This WiFi unit is low power and is used for local setup and display of the RTM3 parameters and settings. A standard internet browser is used to connect to the RTM3 unit, so most cell phones, tablets or notebook computers can be used. The Web interface allows viewing and changing of parameters.

Basic Two-Unit Operation

For "Hammer Switch" operation, basically any source that uses a hammer switch to captures hit times, the switch is connected to the RTM3 "Decoder" unit at the source. The "Encoder", which is connected to the seismograph, can be a second RTM3 unit or else a Universal Encoder 3 When the seismograph is ready to acquire data a message is sent to the source, via the radio, so the source operator can press the "Ready Button" to start the acquisition sequence. Once a hit is detected by the Decoder it returns a message to the Encoder with the GPS-based location and microsecond accurate time of the hit. After the message is received by the Encoder, it sends a pulse to the seismograph with an exact one second delay. The Decoder also stores the location of the source and the Time Break in its internal memory.



RTM 3 setup along with HGH 500 weight drop

Ordering Information	
Item Description	**HGS Part No.**
RTM 3 Encoder	MK001252
RTM 3 Decoder	MK001253

Version 1.1

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