PRODUCT CATALOG
VOD RECORDER

ABDIYASA
www.abdiyasa.com

Handi Trap II™

The World's Most Affordable VOD Recorder

Velocity of detonation (VOD) is cited as the performance specification for explosives. If you are not measuring VOD then you cannot be sure that your explosives are performing properly.

If you want to profile the VOD continuously along a sample of explosives or along an explosives column in a single blasthole, the World's most affordable and easiest to use recorder is the HandiTrap II™ VOD Recorder.

Explosives Consumers

You are paying for explosives to provide you with the energy your blasts need under your specific blasting conditions. The HandiTrap II™ VOD Recorder is used by mines and quarries to perform spot checks of explosives performance during blasts to compare the actual VOD results to the VOD specification published by the explosives manufacturer.

To visually capture high-rate phenomena, MREL carries a range of highly capable and powerful High Speed Cameras.

To analyse the data captured at your event, MREL provides our DAS™ Data Acquisition Suite with each of our Recorders.
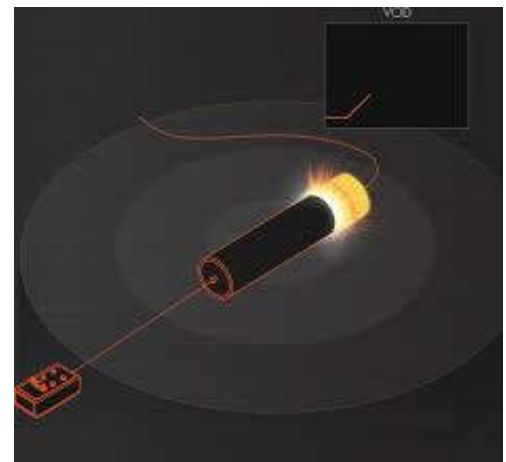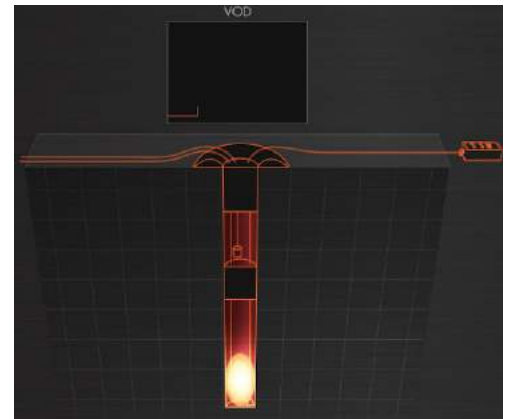
Explosives Manufacturers

Your customers depend on you for their explosives. At explosives plants, the HandiTrap II™ VOD Recorder is used as part of the quality control process to test the VOD performance of samples of explosives including cartridges, boosters, detonating cord, bulk explosives of all types, and military explosives. At the customer's blast site, technicians providing in-hole delivery of explosives use the HandiTrap II™ VOD Recorder to proactively document the VOD performance of the explosives being sold to the customer.

Handi Trap II™

Specification

Number of Channels :   1 VOD channel

Resolution: 12 bits, 1 part in 4,096

Recording Rate: 1 MHz

Recording Time: 131 milliseconds (131,072 data points)

Pre-Trigger Time: 32.8 milliseconds (32,768 data points)

Trigger Mode: Can be triggered automatically on the VOD signal from the blast. Can be triggered externally from a break-wire, which also allows multiple HandiTrap II™ VOD Recorders to be time-synchronized for determining delay times between holes up to

Power: 95 ms.

                         Internal rechargeable NiCad batteries which
Size and Weight: provide 8 hours of active operation on a full charge. Charger provided.

Environmental:
                         12 x 6.5 x 4 cm (4.7 x 2.6 x 1.6 in.) 0.3 kg (0.7 lbs.)

PC Connection:
                         Fully operational at -40 to +60 °C (-40 to +140 °F). Snow, rain, dust and sand proof.

Software: The operator can connect the HandiTrap II™ VOD Recorder to a computer's USB port when the unit is in Standby Mode.

System Components   The HandiTrap II™ VOD Recorder comes
Provided: with the DAS™ Data Acquistion Suite. To learn more about the DAS™ Data Acquistion Suite, please click here.

                         HandiTrap II™ VOD Recorder, 120 or 230
VOD Excitation and   VAC Battery Charger, Communications
Safety: Cable with USB Adapter, External Trigger Adapter, padded carry case, colour Operations Manual, DAS™ Data Acquistion Suite Software.

Warranty:
                         The HandiTrap II™ VOD Recorder is
Technical Support: physically unable to output as much as 50 mA of current to a VOD PROBEROD or VOD PROBECABLE-HT.

                         MREL's 1 year Comprehensive Parts and Labour Warranty.

                         MREL's Unlimited Technical Support Program by secure customer portal, email, and telephone.

Micro Trap™

The World's Most Popular VOD/Data Recorder

Velocity of detonation (VOD) is cited as the performance specification for explosives. If you are not measuring VOD then you cannot be sure that your explosives are performing properly.

If you want to profile the VOD continuously along the explosives columns in multiple blastholes, along an explosives sample, or determine the delay times between blastholes, the most affordable and easiest to use recorder is the MicroTrap™ VOD/Data Recorder. It is the World's most popular VOD recorder and can be optionally extended to record any sensor that outputs DC voltage such as pressure sensors and accelerometers.

Explosives Consumers

You are paying for explosives and delay detonators to provide you with the energy and timing your blasts need under your specific blasting conditions. The MicroTrap™ VOD/Data Recorder is used by mines and quarries to perform spot checks of explosives and detonator delay time performance during blasts to compare the actual VOD and delay time results to the specifications published by the explosives manufacturer.

To visually capture high-rate phenomena, MREL carries a range of highly capable and powerful High Speed Cameras.

To analyse the data captured at your event, MREL provides our DAS™ Data Acquisition Suite with each of our Recorders.
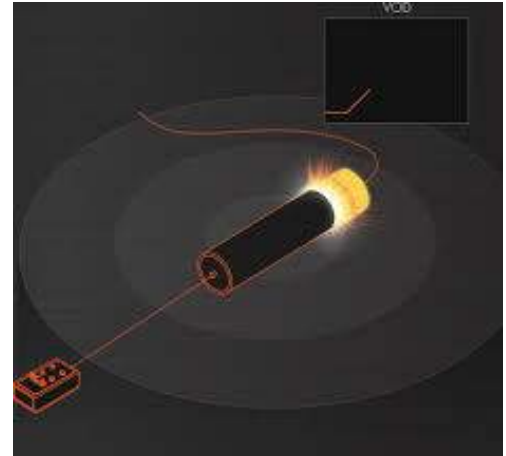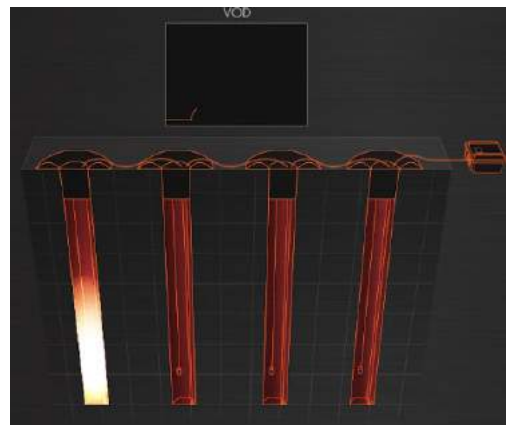
Explosives Manufacturers

Your customers depend on you for their explosives and detonators. At the customer's blast site the MicroTrap™ VOD/Data Recorder is used by your technical service representative to document the VOD performance of the explosives and delay times of the delay detonators being sold to the customer. At explosives plants, the MicroTrap™ VOD/Data Recorder is used as part of the quality control process to test VOD, airblast overpressure, or underwater pressure of samples of explosives including cartridges, boosters, detonating cord, bulk explosives of all types, and military explosives.

Micro Trap™

Specification

Number of Channels :	Standard: 1 VOD channel Optional: 1 VOD + 4 Scope channels
Resolution:	14 bits, 1 part in 16,384
Recording Rate:	Selectable from 1 Hz to 2 MHz
Non-Volatile Memory:	Standard: 4 million data points Optional: 8 million data points
Recording Time (@ 2 MHz Recording Rate):	Standard: 2 seconds Optional: 4 seconds
Trigger Mode:	Trigger internally on the signal from the event (2 to 98%) or trigger externally from a trigger wire.
Multiple Event Storage:	1 to 16 tests can be stored in the internal memory.
Power:	AC mains or internal rechargeable NiCad battery which provides 12 hours of active operation on a full charge. Charger provided.
Size and Weight:	21 x 17 x 9 cm (8.3 x 6.7 x 3.5 in.) 2 kg (4.4 lbs.)
Environmental:	Fully operational at -40 to +60 °C (-40 to +140 °F). Snow, rain, dust and sand proof.
PC Connection:	The operator can connect the MicroTrap™ VOD/Data Recorder to a computer's USB port when the unit is in Standby Mode.
Software:	The MicroTrap™ VOD/Data Recorder comes with the DAS™ Data Acquistion Suite. To learn more about the DAS™ Data Acquistion Suite.
System Components Provided:	MicroTrap™ VOD/Data Recorder, 120 or 230 VAC Battery Charger, Communications Cable with USB Adapter, padded carry case, colour Operations Manual, DAS™ Data Acquistion Suite Software.
VOD Excitation and Safety:	The MicroTrap™ VOD/Data Recorder is physically unable to output as much as 50 mA of current to a VOD PROBEROD or VOD PROBECABLE-HT.
Warranty:	MREL's 1 year Comprehensive Parts and Labour Warranty.
Technical Support:	MREL's Unlimited Technical Support Program by secure customer portal, email, and telephone.

Data Trap II™

The World's Most Capable Data/VOD Recorder

Your PC based Data Acquisition System (DAS) could cause a failure of your testing program. When confronted by dust, high or low temperatures, moisture, or even rough handling, a typical DAS will fail. If you want to record acceleration, pressure, and other dynamic sensors under tough outdoor conditions, then the DataTrap II™ Data/VOD Recorder is the only rugged recorder that provides this capability and the optional ability to record dynamic strain, and explosives velocity of detonation (VOD) continuously along explosives columns in multiple blastholes, along explosives samples, as well as to determine the delay times between blastholes.

Explosives Consumers

You are running a sophisticated testing program involving measurement of the performance and/or effect of energetic materials. The DataTrap II™ Data/VOD Recorder is used by corporate, university and government researchers to record signals from airblast overpressure and underwater pressure sensors, accelerometers, thermocouples, strain gauges, VOD probes in explosives samples and other sensors on outdoor testing ranges without the requirement of running long signal cables to a distant instrumentation shelter.

To visually capture high-rate phenomena, MREL carries a range of highly capable and powerful High Speed Cameras.

To analyse the data captured at your event, MREL provides our DAS™ Data Acquisition Suite with each of our Recorders.

Explosives Manufacturers

Your explosives and delay detonators must provide the energy and timing your blasts need under your specific blasting conditions. The DataTrap II™ Data/VOD Recorder is used to document the VOD performance of the explosives and delay times of the delay detonators during blasts to compare the actual VOD and delay time results to the published specifications. It also records near-field blast vibrations using high-G uniaxial and triaxial accelerometers.

Data Trap II ™

Specification

Number of Channels :	Standard: 8 Scope channels. Multiple recorders can be connected together and time-synched for up to 56 channels. Optional: Conduct VOD testing on one or more channels with the VOD Upgrade. Optional: Conduct strain testing on one or more channels with the Strain Upgrade. 12 bits, 1 part in 4,096
Input Ranges:	OFF, 0-2.5 VDC, 0-5 VDC, 0-7.5 VDC, 0-10 VDC, ±2.5 VDC, ±5 VDC, ±7.5 VDC, ±10 VDC, VOD
Resolution:	14 bits, 1 part in 16,384
Recording Rate:	Selectable from 1 Hz to 10 MHz per channel
Non-Volatile Memory:	Standard: 64 million data points allocated across the channels in use Optional: 128 million data points Optional: 256 million data points
Trigger Mode:	Trigger internally on the signal from the event (2 to 98%) or trigger externally from TTL or a trigger wire.
Multiple Event Storage:	1 to 32 tests can be stored in the internal memory.
Power:	AC mains or internal rechargeable NiCad battery providing 6 hours of active operation on a full charge. Charger provided Optional: Battery Adapter
Size and Weight:	28 x 25 x 18 cm (11 x 10 x 7 in.) 4 kg (8.8 lbs.)
Environmental:	Fully operational at -40 to +60 °C (-40 to +140 °F). Snow, rain, dust and sand proof.
PC Connection:	The operator can connect the DataTrap II™ Data/VOD Recorder to a computer's USB port when the unit is in Standby Mode.
Software:	The DataTrap II™ Data/VOD Recorder comes with the DAS™ Data Acquistion Suite. To learn more about the DAS™ Data Acquistion Suite.
System Components Provided:	DataTrap II™ Data/VOD Recorder, 120 or 230 VAC Battery Charger, USB Communications Cable, Operations Manual, DAS™ Data Acquistion Suite Software.
Warranty:	MREL's 1 year Comprehensive Parts and Labour Warranty.
Technical Support:	MREL's Unlimited Technical Support Program by secure customer portal, email, and telephone.