

LongShot

Seismic Source Controller



Tailored to the Needs of Small and Medium Seismic Sources



Standard Features

- Synchronize 1 to 32 guns with 0.1 msec resolution.
- Simultaneous graphic display of all gun signatures.
- 16 Bit Hydrophone Signature, Gun Depth, and Manifold Pressure.
- Sensor configuration for hydrophone, shuttle, or PCB sensor.
- Injector Solenoid and Bubble Detection for G.I. Guns.
- Intuitive menu-driven user interface.
- Real-Time Q/C Alarms for gun timing errors and autofire detection.
- Line Q/C and Statistics Reports.
- Master/Slave Multiple Offset Shooting.

Control Processor Components

- Embedded 486-100 DX4 for powerful GUI interface.
- Real Time Control Processor for data acquisition and timing.
- State-of-the-art radio modem technology for error free radio transmission.
- Modular design approach for simple upgrades (4/8 channel increments).
- Many standard features that are typically options on other units.

Solenoid Power Supply Components

- Four/Eight Channel Solenoid Power Supply.
- Sensor test mode for system self-test.
- Automatic Leakage/Continuity Testing of Sensor and Firing Lines.
- 75 to 150 VDC Programmable firing voltage for long umbilicals.



From top to bottom: LongShot, FourShot Power Supply, GCS Link

LongShot Specifications

General Specifications

Number of Guns	1 - 32 guns
Gun Types	Bolt, Sleeve, G and G.I.
Sensor Types	Shuttle, Accelerometer, Hydrophone, PCB
Timing Resolution	0.1 msec
Radio Sync Accuracy	50 usecs (1 usec in GPS mode)
Control Software	DOS 5.0 and up
Embedded Processors	486-100 and Motorola 68332

I/O Pins

Sensor IN	Military Circular Style
Trigger IN	Closure, TTL Low or Opto-isolated TTL High-going
Hydrophone (1 -5 chans) IN	Differential (Header programmable Input)
Manifold Pressure (1 chan) IN	4 - 20ma
Gun Depth (1 -9 chans) IN	Freq Coded (Sercel, AG or I/O transducer)
Navigation Pass thru (I/O)	RS232 level

Fire Pulse Out Connector Type	Military Circular Style
Record Out	100 msec TTL or closure (programmable time)
Predicted Fire Out	5 msec TTL high going
Field Time Break Out	Analog Summed Sensor or Hydrophone
Navigation String I/O	RS232
Serial Status String (out)	RS232

Menu Programmable Features (a sampling of important ones)

Aim Point	25 - 10,000 msec after trigger
Fire Pulse Width	1 - 80 msec
Delta Error Q/C Limits	0.1 - 5.0 msec
Auto-Fire Detect Level	0 - 10 volts
Sensor Signal Gain	x.1 - x5
Sensor Detection Look window	2 - 40 msec
Sensor Peak Threshold	0 - 10 volt
Sensor Pick Type	Threshold, Peak or Zero Cross

Size

Controller Dimensions	3.47 in. by 18 in. deep (19 in. rack mount)
Controller Weight	9 lb.
4 Channel Supply Dimensions	3.47 in. by 12 in. deep
Power Supply weight	8 lb.
8 Channel Supply Dimensions	3.47 in. by 12 in. deep (19 in. rack mount)
Power Supply weight	16 lb.

Power

Controller	90-240 VAC 55 Watts
8 Channel Supply	90-240 VAC 55 Watts (355 Watts Peak)