

## REFRACTION SEISMIC TIMER



Travel times of seismic waves are the raw data required for seismic studies of the sub-surface of the earth. The Timer measures the shortest travel time of seismic waves between any two given locations. The time versus distance information can be interpreted in terms of geology. This instrument is useful for:

1. Locating probable aquifers
2. Determining the attitude of and depth to bedrock in engineering applications.

### **Working Principle:**

The seismic shock wave generated by the hammer stroke on a steel stake is received by an electromagnetic geophone placed at a known distance from the hammering point (shot point). The elapsed time, between shock generation and its reception is recorded by an electronic stopwatch. The clock is set on at the instant of generation of the shock wave (the striking of the hammer on the stake) and put 'Off' at the time of its arrival at the receiving point. Travel time is read off a digital indicator.

### **Specifications:**

Number of Channels	:	One
Accuracy of Measurement	:	0.1 millisecond (short) 1.0 millisecond (long)
Data Display	:	Visual, 3 digit LCD
Signal indication	:	Visual on LCD
Operating temperature	:	5° to 45°C
Seismic energy source	:	Hammer blow on steel plate
Size	:	19 x 11 x 85 cm (Fixed in Briefcase)
Weight	:	1 Kg
Power Supply	:	Built-in source composed of four 9V batteries of Eveready. Type No.216
Shock Sensor	:	Electromagnetic geophone Natural frequency 10 Hz Damping: Less than critical
Maximum Depth of Investigations	:	10 to 15 Meters.

Specifications are likely to change with R&D.

IGIS also makes custom-build resistivity meters to individual specifications and under take repairs

IGIS Instruments carry one year guarantee against manufacturing defects.



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