

TRIPLE CHANNEL REMOTE TIMER UNIT TYPE 817



The Triple Channel Remote Timer Unit type 817 is a microprocessor-based instrument, which provides direct measurement of projectile velocity and rate of fire. The MSI Optical Detector type 858 connects directly to the unit and draws its power from the 817.

The instrument consists of crystal-controlled chronometer channels, which together with the built-in computer have the capacity to store 256 time intervals. Each chronometer channel has a time resolution of 100 nanoseconds, thus allowing high accuracy short baselength velocity measurements to be made. The unit has three independent chronometer channels, each of which can provide Velocity or Time of Flight and Rate of Fire.

Up to 6 Optical Detectors may be connected to the unit and data is transmitted down a single cable, or via a radio-link, to a Range Processor type 663 or other computerised control system.

The software running on the PC ranges from a simple 813 emulation package to an Integrated Software Package providing accuracy, velocity, rate of fire and pressure data. The software allows the user to control the 817 remotely and retrieve all data, which may be stored to disk and printed out.

As the software has complete control of the 817, this unit is ideally suited to applications where the measurement is to be taken at some distance from the weapon. Gain and other settings are all software-controlled. Where more than two detectors are used, the Ballistic Coefficient of the projectile may be measured. This is used, in conjunction with Ballistic tables, to calculate the 'True' muzzle velocity and intermediate velocities at any point downrange.

OPTIONS

Interface to Acoustic Detector type 588 - 589, Flash Detector type 768 and other standard detectors.

SPECIFICATION

FREQUENCY STANDARD	10MHz \pm 0.002% crystal oscillator Stability : 0.0025% over temperature range -40 °C to +80 °C. Long term stability 10 ppm per year
STORE CAPACITY	256 Velocity or time measurements and 257 Rate of Fire measurements
GAIN SETTINGS	Software controlled.
CONNECTIONS	Up to six Optical Detectors type 858. Data connection to processor.
RATE OF FIRE	30,000 rounds per minute maximum
POWER	9-36 volts D.C.
ENVIRONMENT	The unit is sealed. Operating Temperature: -25 °C to +50 °C
DIMENSIONS	350mm x 140mm x 280mm