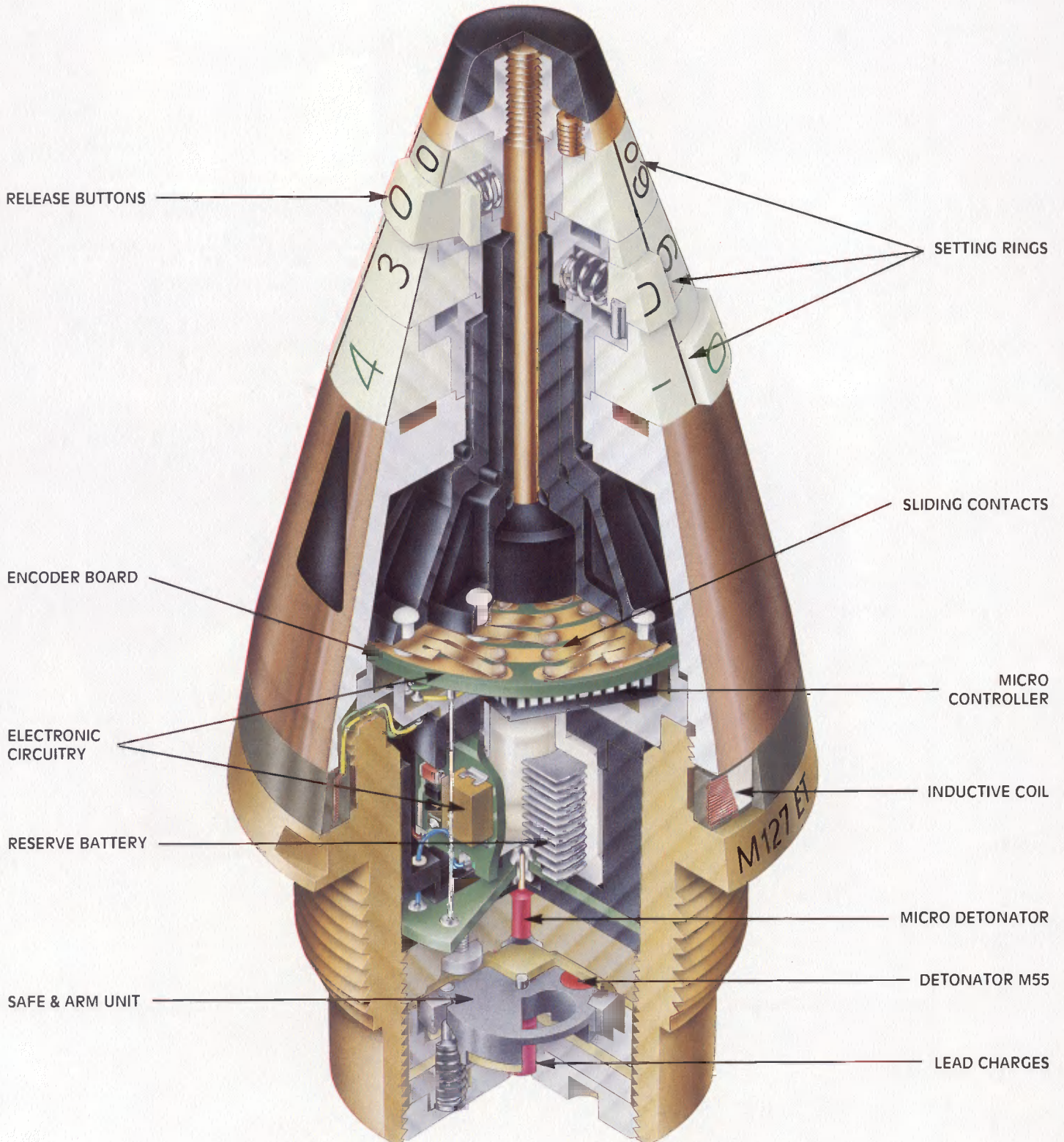


OMEGA - M127 Electronic Time(ET)/Distance Fuze for Tank Ammunition



TECHNICAL SPECIFICATIONS

COMPATIBILITY:

105mm tank guns, for use with APERS-T ammunition.

TIME DELAY SETTING:

Automatic setting -

Range data is derived from the fire control system of the tank, then translated into time-setting which is transmitted into the fuze by the Fuze Setter, employing induction methods.

Automatic setting system -

By the system Fuze Setter through a receiving coil when fuze is set to "auto". Data is kept in memory for a practically unlimited period of time, or until reset by new data generated by the fire control system and transmitted by the Fuze Setter.

Manual setting -

Setting is performed on "range to target" data. Range indication is internally translated into time-setting. From 0 to 200 m to provide muzzle action. From 210 m to 4990 m in 10 m increments.

Manual setting system -

Digital setting, positive self-locking by three setting rings.

ACCURACY:

The maximum range deviation of the fuze is 10 m, at a fixed given muzzle velocity. The standard deviation of the delay error is smaller than 0.01 seconds (in the automatic setting mode).

FUZE INITIATION:

The fuze will be initiated at 60 m in front of the requested distance.

SAFETY & ARMING:

By two independent arming mechanisms -

Setback force of 50 g minimum.
Spin rate of 1200 RPM minimum.

Electronic timer redundancy -

Fuze operation is enabled only if the primary and secondary time bases agree to within $\pm 15\%$ to prevent early timeout.

POWER SUPPLY:

The fuze utilizes a reserve battery as a power supply.

Voltage - Nominal 18.5 V
Maximum current - 15 milliamp.
Maximum operating time - 10 seconds

EXPLOSIVE OUTPUT:

Detonator - Microdetonator - M100
S & A unit - Detonator - M55
Lead charge - PA510

TEMPERATURE CONDITIONS:

Per ammunition limitations:

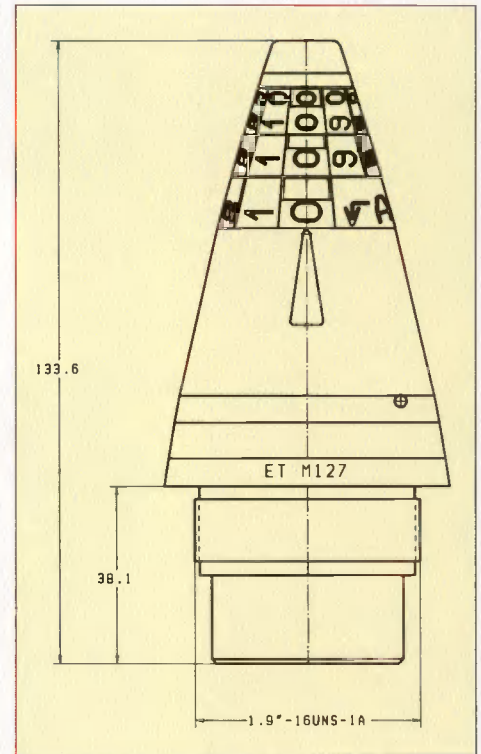
Operation - From -32°C to $+63^{\circ}\text{C}$
Storage - From -40°C to $+70^{\circ}\text{C}$

PHYSICAL DESCRIPTION:

Overall length - 133.6 mm maximum
Intrusion length - 38.1 mm maximum
Cross section diameter - 61.2 mm
Thread size - 1.9"-16UNS-1A
Weight - 0.68 kg

MILITARY STANDARDS:

MIL-STD-331B Environmental and performance tests for fuze and fuze components.
MIL-STD-333A Fuze, projectiles and accessory contours.
MIL-STD-1316D Fuze design, safety criteria.
MIL-STD-1900 Inductive set projectile fuze systems.
STANAG-4187 Fuzing system - safety design requirements.
STANAG-4369 Auto setting of electronic projectile fuzes.



Fuze Setting System



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