

CORDIN

SCIENTIFIC IMAGING

HIGH ENERGY PULSER

Model 640

- **High Voltage Output:** up to 10 kV
- **Fast Response Time:** 2.2 microseconds
- **Low Jitter:** 6 nanoseconds
- **High Reliability**
- **Interlock and keyed safety switching**



The **Cordin Model 640** High Energy Pulser is a highly reliable and accurate firing unit that has been a standard for initiating explosive and other events for decades. It is capable of producing pulsed output of up to 10 kV.

The high voltage output of the Model 640 ensures reliable and accurate initiation of events. The unit interfaces seamlessly with Cordin Model 454 and Model 458 time delay generators. Output voltage can be precisely set with a ten turn knob on the front panel.

Arming and disarming the unit is actuated from the front panel. The unit may be manually fired from the front panel, or from a low voltage (+5V) rising edge trigger supplied to the front panel, or a high voltage (+25V to +185V) rising edge trigger supplied to the back panel.

Load testing can be done right up until immediately before firing to verify continuity across a bridge wire or initiator from the front panel. Voltage across the output can be monitored from a BNC connector on the front panel. The unit can also be safely and quickly disarmed from the front panel.

Operation of the unit is safety controlled with a switch closure interlock through a back panel connector. Power to the unit is switched with a keyed switch.

The Model 640 is available in high voltage (750V to 2.5kV or 2kV to 5kV) and very high voltage (4kV to 10kV) versions. It is also available in a remote configuration, where the control panel is in a separate chassis as the high voltage circuitry, and the two units are separated by a control cable up to 50 feet in length.

OPTIONS

Remote operation

Current monitor

+2.5kV, +5kV or +10 kV maximum voltage

Negative Polarity Pulse

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SPECIFICATIONS

Firing Voltage	750V to 2.5kV, 2.0 kV to 5.0 kV or 4.0 kV to 10.0 kV	Monitoring	Voltage monitoring from front BNC connector Optional current monitoring from rear BNC connector
Polarity	Positive, Ground Neutral	Power Input	90-260 VAC 47-63Hz, 300 Watts
Trigger Input	+5V rising edge (front) +25V to +185V rising edge (rear)	Weight	7 kg (16 lbs.)

TYPICAL PERFORMANCE (2-5 kV Model, 5kV @ 50-Ohm Load)

Firing Current	100 A for 1.4 milliseconds
+5V Trigger Delay	2.2 microseconds
+25V Trigger Delay	1.2 microseconds
Jitter	±6 ns

