APPLIED ACOUSTICS
Underwater Technology



: Technical Specification

CSP-D Seismic Energy Source

The CSP-D is a seismic energy source for boomer and sparker applications which has been developed from the proven CSP1500 and CSP2200 versions. Uprated to 2400 Joules and with a higher rated thyristor 'switch' the CSP-D sets the new industry standard.

The unit, with the same chassis and 1500J/second HV engine, is available in three variants; the CSP-D700, CSP-D1200 and the CSP-D2400. Additional settings allow for longer boomer pulse widths with the potential of more boomer seabed penetration.

CSP-D

Key Features

: Cutting edge power supply technology evolved from years of field use.

: Unique dual voltage output provides exceptional versatility.

: Contains proprietary Variable Input Power Circuitry (AVIP) enabling slow start to minimise marine mammal disturbance and operation from the smallest possible generator.

: Reliability and security with global after sales service and support from the world's leading seismic power source manufacturer.

: Contains proprietary pulse shaping circuitry for optimisation of high resolution boomer data.

: Meets EC emissions regulations enabling interference-free field and laboratory use.

: Additional safety/protection features including over current shut-down, Safety OFF button and key-switch operation.

: All settings externally selectable including voltage/output power increments from 50 to 2400J, dependant on model.

: LED fault indicators display Over-temperature, Low Input Voltage and Capacitor Fault warnings.

: High current and voltage solid state (semiconductor) discharge method.

: Supplied with robust transit case, H.V. junction box, mains lead and H.V. connector plug.

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PHYSICAL SPECIFICATION

Dimensions	Transit case (7U) with cover in place and handles flat: H 50cm x W 58cm x D 74cm
Weight	CSP-D, case and cover: Max 63.5kg (CSP-D2400 model)

ELECTRICAL SPECIFICATION

Mains Input	200 - 240 VAC. 115V Units available to order, 45-65Hz @ 3.0kVA Single Phase, 3 pin connector, Contains AVIP soft start circuitry to minimise marine mammal disturbance and reduce generator requirements
Voltage Output	2500 - 4000 volts DC, 4 pin interlocked connector, Solid state semi-conductor discharge method
Output Energy	Three models available. Externally selectable in Joules as follows:-
	CSP-D700 50;100;150;200;250;300;350;400;500;600;700
	CSP-D1200 50;100;150;200;250;300;350;400;450;500;550;600; 700;800;900;1000;1100;1200
	CSP-D2400 50;100;150;200;300;400;500;600;700;750;800;900; 1000;1250;1500;1750;2000;2250;2400
Charging Rate	1500J/second for continuous operation at 0 - 45°C ambient
Capacitance	240µf, 10^8 shot life
Trigger	+ve key opto isolated or closure set by front panel switch, BNC connector on front panel and remote box (optional)
Repetition Rate	6 pps maximum. To 5 pps at 300 Joules (or 1 pps at 1500J)
Earth	M8 stainless steel stud on front panel
Internal Design	A Modular approach allows for easy servicing and capacitor replacement (For safety reasons, only factory trained technicians should attempt a repair)

SAFETY FEATURES

Main electronic control circuits and secondary layer of safety circuitry
Specially designed HV connector with interlock
High speed dump resistors for high voltage components
Capacitor bleed resistors
Open circuit shutdown
Timer shutdown
Output current monitor & shutdown
Over temperature shut-down
Cover and connector interlocks
Remote control available for triggering and operation

COMPATIBILITY SOUND SOURCES

CSP-D700	AA201 and AA301 Boomer Plates, Squid 500 Sparker
CSP-D1200	As above plus Squid 2000 Sparker for high resolution operations
CSP-D2400	As above plus Squid 2000 Sparker and Delta Sparker

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