



SURFACE

Surface Ancillaries

Heater Jacket



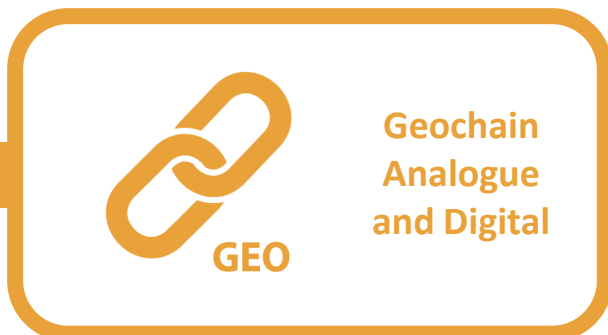
Main Features

- Intelligent PID controller.
- Cascade power connection.
- Configured for 110v or 230v operation.
- Internal temperature of the electronics does not exceed 302°F (150°C).

Functionality

- The 3” heater jacket is designed for use with the Geochain™ system. It is designed to fit around the electronic section of the ASR tool or TAS section and allows the units to be tested for operation at elevated temperatures without needing a dedicated oven. Care must be taken so that the internal temperature of the electronics does not exceed 302°F (150°C) otherwise damage will occur.
- When testing digital ASR’s the internal temperature of the electronics is normally thirty degrees centigrade cooler than the temperature indicated on the heater jacket controller.

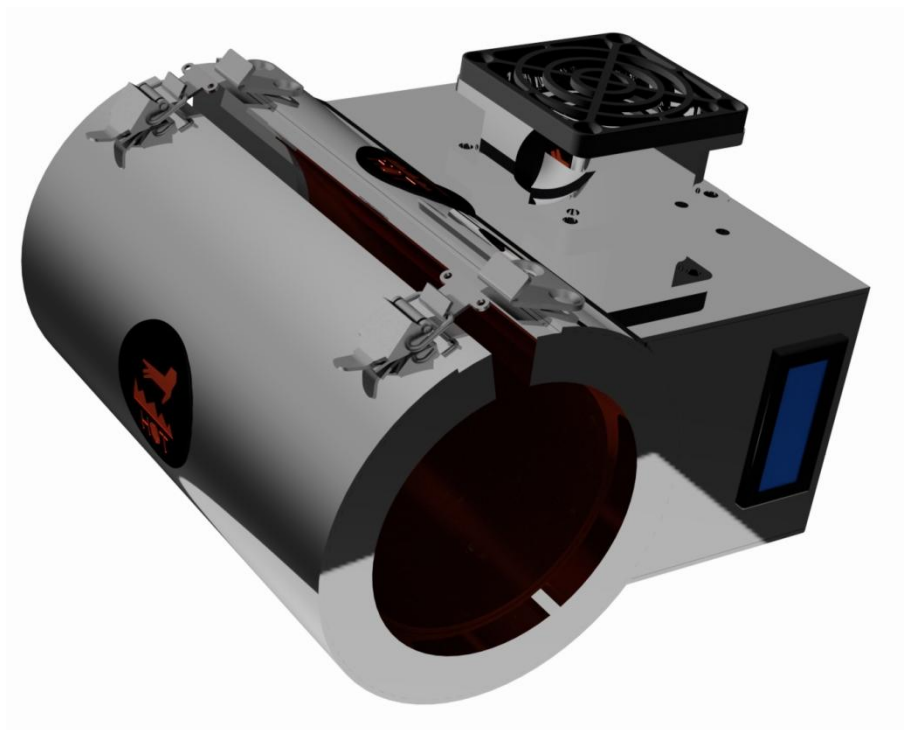
Compatible with



LEADERS IN BOREHOLE SEISMIC TECHNOLOGY

Specifications

Diameter	3”
Max Tool Temperature	185°C
Power requirement	200 watt
Operation Voltage	110 or 220 V





Main Features

- SPAK 10 ASR HP: service pack kit for 9 routine service operations and 1 major service for a Geochain HP.
- SPAK ITC-HP: service pack kit for 9 routine service operations and 1 major service of a Geochain ITC HP.
- SPAK 10 VRS-HP: service pack kit for 9 routine service operations and 1 major service of a Geochain VRS HP.



SPAK 10 ITC
service pack kit



Compatible with

LEADERS IN BOREHOLE SEISMIC TECHNOLOGY

SPAK 10 ASR HP

Part Number	Description	Quantity
AVO17	O ring 58x3 V1238-95	11
AVO15	BS/AS O ring 112 747	20
AVO26	BS/AS O ring 112 V1238	20
AVO21	BS/AS O ring 036 Viton 75	1
SVO07	BS4518-0546-24 Viton 75	1
ASR-150	Shear Pin	1
AVO24	BS/AS O ring 119 V1238	20
AVO24 BU	BS/AS Backup Ring 199 Scarf Cut Arlon 1000	2
AVO17 BU	Backup Ring 59.48x64. 13x1.2 PEEL Scarf Cut	4

SPAK 10 ITC HP

Part Number	Description	Quantity
AVO17	O ring 58x3 V1238-95	22
AVO17 BU	Backup Ring 59.48X64 13x1.22 PEEK Scarf Cup	4
AVO21	BS/AS O ring 036 Viton 75	2
AVO22	BS/AS O Ring 134 Silicone 70	1
ASR-058W	Cable Head Weak Link Screw Size W	2
W61370R (ASR)	12.5x8.89x0.18mm Wave Spring Washer	2

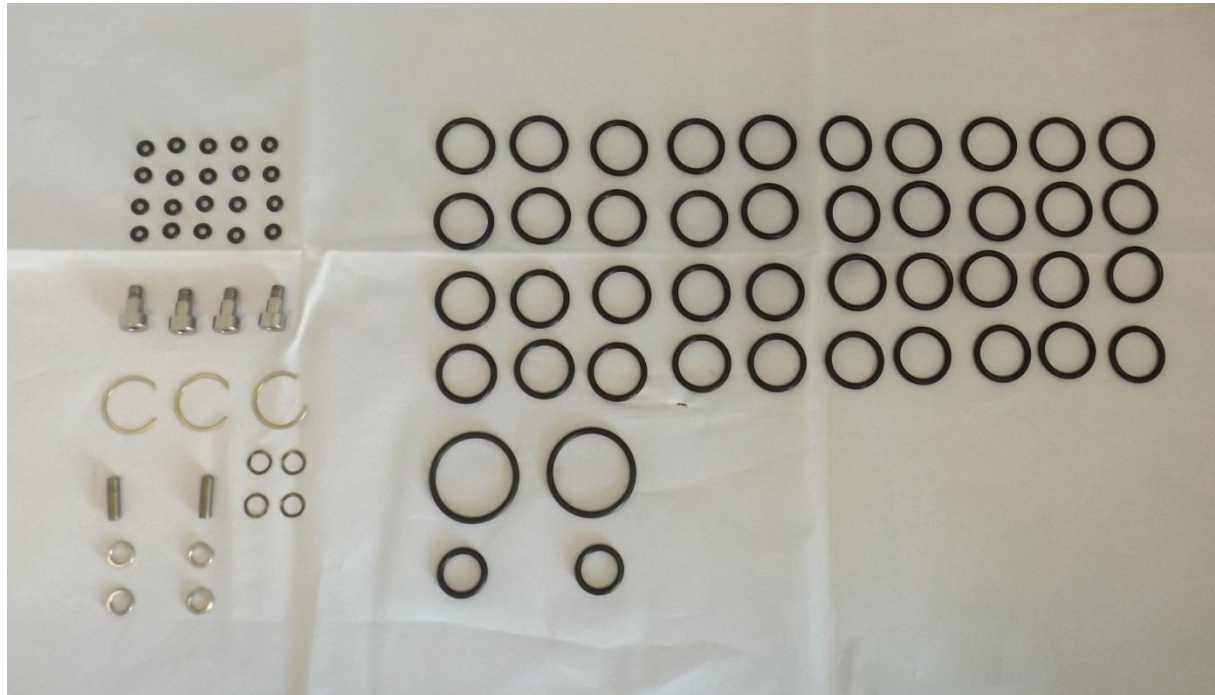
SPAK 10 VRSHP

Part Number	Description	Quantity
AVO17	O ring 58x3 V1238-95	11
AVO17 BU	Backup Ring 59.48X64 13x1.22 PEEK Scarf Cup	4
AVO20	BS/AS O ring 135 V1238	20
AVO20 BU	BS/AS Back Up Ring 135	20
AVO7	BS45118-0546-25 Viton 75	2



Main Features

- SPAK 10 GSR: service pack kit for 9 routine service operations and 1 major service for a Geochain Slim.
- SPAK Slim ITC-4: service pack kit for 9 routine service operations and 1 major service of a Geochain Slim ITC.



SPAK Slim ITC-4

Compatible with



LEADERS IN BOREHOLE SEISMIC TECHNOLOGY

SPAK 10 GSR

Part Number	Description	Quantity
GSR-Heatshink 38.1mm	Black heatshrink 38.1mm x 145mm long	2
AVO28 BU	ESR Back-up Ring	2
AVO44	14x3 V80	20
AVO39	BS/AS O Ring 126	40
AVO40	BS/AS O Ring 125	40
AVO37	BS/AS O Ring 019 Viton 75	2
AVO59-60	GSR Spring Seal and Backup P252048	1
Bal Seal X584378	Canted Spring ID 19.8 Width 1.7	2
ESR-045	ESR Shear Pin	1

SPAK Slim ITC-4

Part Number	Description	Quantity
100A Oil	500ml Silicone oil 100A	1
AVO56	BS 006 O-ring V70 for use in ITC-4	20
AVO38	BS/AS O ring 116 V1238	40
AVO28	BS/AS O ring 113 V1238	2
AVO 19 (for supplying SPARES)	BS/AS O ring 123 V90	2
SRO15	Smalley Ring XVHB-81-S02	3
ESR-046 (Size 5)	ESR Tension Fail Screw Size 5	4
W61340R (GSR)	Wave Spring Washer	4
AVF004804	M6 Spring Washer (Form A) A2 SS	4
AVF006342	M5x0.8x16 LG Socket Set Screw (Cup Point) A2 SS	2



Main Features

- SPAK 10 ASR EHP: service pack kit for 9 routine service operations and 1 major service for a Geochain ASR EHP.
- SPAK ASR EHP ITC: service pack kit for 9 routine service operations and 1 major service of a Geochain EHP ITC.
- SPAK ASR EHP VRS: service pack kit for 9 routine service operations and 1 major service of a Geochain VRS EHP.

SPAK 10 VR EHP

Part Number	Description	Quantity
AVO17	O Ring 58x3 V1238-95	22
AVO17 BU	Backup Ring 59.48x64.13x1.2 PEEK Scarf cut	4
AVO20	BS/AS O ring 135 V1238	4
AVO55 (Inc. AVO55BU)	Special AVO17 C-Seal 58x3 Energised REV A	6

Compatible with



LEADERS IN BOREHOLE SEISMIC TECHNOLOGY

SPAK 10 ASR EHP

Part Number	Description	Quantity
AVO17	O ring 58x3 V1238-95	11
AVO15	BS/AS O Ring 112 747	20
AVO26	BS/AS O Ring 112 V1238	20
AVO21	BS/AS O Ring 036 Viton 75	1
AVO07	BS4218-0546-24 Viton	1
ARS-150	Shear Pin	1
AVO24	BS/AS O Ring	20
AVO24 BU	BS/AS Backup Ring 119 Scarf Cut Arlon 1000	2
AVO17 BU	Backup Ring 59.48x64.13x1.2 PEEK Scarf cut	4
AVO55 (Includes AVO55 BU)	Special AVO17 C-Seal 58x3 Energised REV A	2
AVO61	EHP Shaft Seal P253724, PTFE	2
AVO62	EHP Insert Seal P246107, PFE	2
AVO63	EHP Bal Screw Nut Seal P252449 incl. Back up Ring	2
ASR-EHP 126	EHP Backup Support Ring	2
ASR-EHP 127	EHP Backup Ring	2

SPAK ASR EHP ITC-4

Part Number	Description	Quantity
AVO17	O Ring 58x3 V1238-95	22
AVO17BU	Backup Ring 59.48x64.13x1.2 PEEK Scarf cut	4
AVO21	BS/AS O Ring 036 Viton 75	2
AVO22	BS/AS O Ring 134 Silicone 70	1
ASR-058W	Cable Head Weak Line Screw W	2
W61370R	12.50x8.89x0.18mm Wave Spring Washer	2
AVF006359 (M8X25 SS)	M8x1.25x25 LG Hex Socket Set Screw (Cup Point) A2 St STL DIN 916	2
AVO55 (Inc. AVO55BU)	Special AVO17 C-Seal 58x3 Energised REV A	4
AVO47	BS/AS O Ring 008 V91A	4
AVO64	M6 Bonded Washer	4



Main Features

- Tool kit for servicing a Geochain ASR, Geochain ITC and Geochain Gamma Ray Tool.



Compatible with



LEADERS IN BOREHOLE SEISMIC TECHNOLOGY

Tkit-1 (ASR Geochain)

Part Number	Description	Quantity
WX54079	Geochain Maintenance Tool Roll	1
ST-07 (VET-1)	VRS Extractor Tool	1
ST-019	Kemlon Boot Tool	1
Socket Set	¼ inch Kamasa Socket Set	1
ST-006	Middle Connector Mount Tool	1
M15570-16 OR M81969/14-03	MIL 6020 Connector Extractor Tool	2
DCF.92.090.3LT	Lemo Connector Extractor	1
M819696/1-02	Insertion/Removal tool for Positronic D15	1
ST-005	Motor Mount Extractor Tool	1
2mm Parallel Punch	2mm Parallel Punch	1
3mm Parallel Punch	3mm Parallel Punch	1
ST-007 (12mm ASR)	Small C-Spanner for Fuji Nut	1
ASR-191	Drive Puller	1
ST-021 (OST-1)	O-ring Over Splined Shaft Tool (Metal)	1
TL-ASR-01	Middle Connector Test Lead	1
TL-ASR-03	Lemo test lead (female)	1
M5 Bolts for Puling Insert	Hexagon Socket Head Cap Screw M5x50	1
M6 Nipple	M6 Grease Nipple	2
ST-028	M12 Fuji Nut Box Spanner	1
ST-002	Brass O-Ring Removal Tool	1



Main Features

- Tool kit for servicing a Geochain GSR, Geochain ITC-4 and Geochain Slim Gamma Ray Tool.



Compatible with



LEADERS IN BOREHOLE SEISMIC TECHNOLOGY

Tkit-2 (GSR Geochain)

Part Number	Description	Quantity
WX54079	Geochain Maintenance Tool Roll	1
ST-011	GRS Removal Tool	1
TL-005	GSR-063 Test Lead	1
WX38797	Tkit GSR Twin Pack Metric & imperial	1
DCF.92.090.3LT	Lemo Connector Extractor	1
ST-003	Clutch Adaptor Tool	1
ST-026	Small C-Spanner for Fuji Nut	1
ST-007 (12mm ASR)	Small C-Spanner for Fuji Nut	1
ST-027	M10 Fuji Nut Box Spanner	1
ST-028	M12 Fuji Nut Box Spanner	1
ST-002	Brass O-Ring Removal Tool	1
¼ UNF Grease Nipple	Grease Nipple	2
ST-025	AVO39 O Ring Assembly Aid	1
ST-024	Splined Shaft Assembly Tool	1
ST-016	AVO40 O-Ring Assembly Aid	1
RS 707-7322	Vinyl Pouch for Test Lead	1
ST-015	GSR Boot Assembly Tool	1
ST-023	AVO38 O-Ring Assembly Aid	1



Main Features

- Tool kit for servicing a Geochain EHP ASR, Geochain EHP ITC and Geochain EHP Gamma Ray Tool.



Part Number	Description	Quantity
ST-028	M12 Fuji Nut Box Spanner	1
ST-002	Brass O-Ring Removal Tool	1
ST-035	EHP Seal Insert Pusher	1
ST-037	Bullet for AVO55	1
ST-040	Pusher for AVO55	1
ST-042	Re-Sizer for AVO55	1
ST-043	Bullet for AVO63	1
ST-044	Pusher for AVO63	1
ST-045	Re-sizer For AVO63	1
ST-046	AVO55 Fitting Sleeve	1
ST-047	AVO55 Assy Tool for ASR-EHP 100	1
RS 707-7322	Vinyl Pouch for Test Leads.	1

Tkit-3 (EHP Geochain)

Part Number	Description	Quantity
WX54079	Geochain Maintenance Tool Roll	1
DCF.92.090.3LT	Lemmo Connector Extractor	1
Socket Set	¼ inch Kamasa Socket Set	1
ST-006	Middle Connector Mount Tool	1
M15570-16 OR M81969/14-03	MIL 6020 Connector Extractor Tool	2
ST-005	Motor Mount Extractor	1
ST-007 (12mm ASR)	Small C-Spanner for Fuji Nut	1
2mm Parallel Punch	2mm Parallel Punch	1
3mm Parallel Punch	3mm Parallel Punch	1
ST-007 (12mm ASR)	Small C-Spanner for Fuji Nut	1
M5 Bolts for Pulling Inserts	Hexagon Socket Head Cap Screw M5x50	1
ST-019	Kemlon Boot Tool Short	1
M81969	Insertion/Removal Tool For Positronic D15	1
ASR-191	Drive Puller	1
TL-ASR-01	ASR Test Lead	1
ASR-TL-3	Lemo Test Lead (Female)	1
ST-003	Clutch Adaptor Tool	1
M6 Nipple	M6 Grease Nipple	2

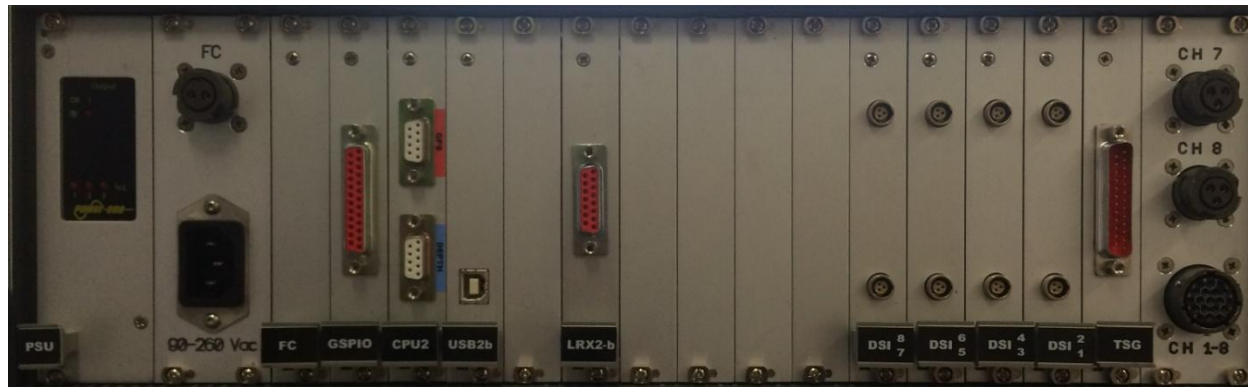
Compatible with





Main Features

- **Firing Circuit (FC)** module allows GSP to trigger a single air gun without any additional equipment.
- **GSPIO** module includes: external source control interface, power control circuitry and controls the FC.
- **Dual seismic interface (DSI)** module allows between 2-16 Analogue channels.
- **CPU2** offers both a GPS time stamp and depth encoded interface.
- **Test signal generator (TSG)** module able to generate either precision sine wave signals or single sample impulses.
- **USB+DSP** module provides a standard USB device interface, enabling the GSP to be easily connected to almost any recent desktop or notebook PC.
- **Line Receiver (LRX)** module.
- **Power Supply (PSU)** module accepts a universal mains AC supply voltage of 95-260 V ac at either 50 or 60Hz.



GSP back panel

Compatible with



GSP Spares Kit

Part Number	Description	Quantity
LM3020	Assembled PSU module for GSP	1
ASS-GSP-Spares Bag		1
ASS-GSP-Spares-Rack	GSP USB+DSP Module	1
AS2087A-02-USB2	GSP IO Module	1
AS2076B-LRX 2	GSP Line Receiver Module	1
AS2072D-DSI	Dual Seismic Input Module	1
AS2060E-CPU2	GSP CPU Module	1
AS20373D-TSG	Test Signal Generator Module	1
AS2025C-FC	GSP Firing Circuit Module	1



GSP Spares Kit