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WAY AHEAD IN CORROSION CONTROL

**POLATRAK<sup>®</sup>**

# PRODUCT CATALOGUE





Polatrak® probes are designed with dual reference electrodes for accuracy and interchangeable spare parts for service in the field. Unlike other cathodic-protection testing equipment, all Polatrak probes are designed with dual elements. Silver chloride electrodes provide the greatest accuracy offshore, but they can also require frequent re-calibration.

Dual elements allow the technician to constantly monitor calibration during the survey. If one electrode begins to drift, the survey can continue by calibrating with the second electrode. All of the internal electrodes and other components in the ROV-II™ and CP Gun™ are replaceable and easily changed during routine maintenance. Our probes are available for every type of offshore survey: Topsiside drop-cell, diver-held contact and proximity, and ROV contact and proximity.

#### Electrode elements\*

All Polatrak® probes have two electrode elements, and the CP Gun™ and ROV-II™ feature two types of removeable elements that are interchangeable to suit specific water environments.

#### Ag/AgCl (Silver/Silver Chloride)

Material	Ag/AgCl with silver wire core
Dimensions	Ø 8 mm x 45 mm [ Ø 0.3" x 1.8" ]
Accuracy	± 5 mV
Applications	Seawater

#### Cu/CuSO<sub>4</sub> (Copper/Copper Sulphate)

Material	Cu/CuSO <sub>4</sub> with copper wire core
Dimensions	Ø 8 mm x 36 mm [ Ø 0.3" x 1.4" ]
Accuracy	± 5 mV
Applications	Fresh water / slightly brackish water

\*Ag/AgCl elements are provided as standard

# TOP SIDE

## Applications

- Platforms
- Risers
- Wind turbines
- Floating production

The standard model, shown above, has 75 m (250 ft) of cable. The DC II is available with extra-long cable up to 450 m (1,500 ft) and a high-capacity reel, shown below.



# DC II™ DROP CELL

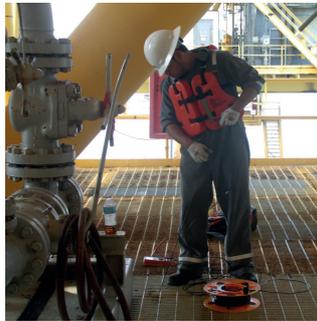
The Polatrak® DC-II is the first and only twin-element portable reference electrode of its kind. The twin elements provide on-board calibration, which reduces the chances of topside survey inaccuracies.

The standard DC-II comes with 75 m (250 ft) of cable and can be ordered with custom lengths up to 450 m (1,500 ft) on a high-capacity cable reel, making it ideal for any topside cathodic-protection survey.

The Polatrak® DC-II is used to survey more offshore structures worldwide than any other portable drop-cell-style cathodic protection probe. It has been specified by a large number of operators as the only acceptable choice of equipment.

### Parts list

<b>DC20003</b>	DC-II with 75 m reel
<b>DC20004</b>	DC-II with 450 m reel



## Specifications

Depth rating	450 m [ 1,500 ft ]
Operating temp.	1°C to 40°C
Elements	2 x Ag/AgCl ±5mV (sealed)

## Overall weights & dimensions

### DC-II drop cell

Dimensions (W x H x L)	89 x 240 x 420 mm [ 3.5" x 9.5" x 16.5" ]
Weight (Air)	2.9 kg [ 2.4 lb ]

### DC-II 500-ft reel

Dimensions (W x H x D)	355 x 560 x 230 mm [ 15" x 22" x 9" ]
Packed weight	10 kg [ 22 lb ]



# SUBSEA



### Specifications

Depth rating	300 m [ 1000 ft ]
Operating temp.	1°C to 40°C [ 34°F to 104°F ]
Voltage range	0 mV to -1999 mV
Input resistance	1 M-Ohm
Power supply	2 No. 9V PP3 alkaline batteries (disposable)
Material	Black acetal
Dimensions (W x H x L)	89 x 240 x 420 mm [ 3.5" x 9.5" x 16.5" ]
Weight (air)	2.9 kg [ 6.5 lbs ]
Weight (water)	0.7 kg [ 1.5 lbs ]

### Offshore storm case

Dimensions (W x H x L)	355 x 560 x 230 mm [ 14" x 22" x 9" ]
Packed weight	9.5 kg [ 21 lb ]



CP Gun™ kit with case and spares



Ultra-bright LED displays

## CP GUN™

The CP Gun™ is the most user-friendly diver-held cathodic protection probe on the market, outperforming all other available bathycorrometer-type devices in both accuracy and convenience. An on-off switch for longer battery life, interchangeable freshwater / seawater electrodes and ultra-bright LED displays for limited visibility conditions make the CP Gun™ the best choice for divers conducting surveys.

The dual-electrode elements and readouts providing self-calibration capabilities make it the most accurate unit offered, and its rugged, modular design allows repairs to be done in the field.



### Replacement /spare parts list

Part no.	Description
<b>CPG0001</b>	CP-Gun kit with case and spares
<b>ROV0004</b>	Contact tip
<b>ROV0016</b>	Nose cone assembly
<b>MLT0004</b>	Silver/silver chloride reference element
<b>CPG0006</b>	Copper/copper sulphate reference element
<b>MLT0011</b>	Pressure housing
<b>MLT0010</b>	LED readout unit
<b>MPT0001</b>	CP Gun on/off switch
<b>MLT0014</b>	Readout lens
<b>GSK0009</b>	Lens O-ring
<b>GSK0008</b>	Lens backup O-ring
<b>FAS0104</b>	Lens retaining screws
<b>MFR0015</b>	Lens cover
<b>352-MN01-ENG</b>	Instruction manual
<b>GSK0006</b>	Tube O-ring lubricant
<b>EOR0015</b>	Tube silicone grease insulating compound
<b>ROV0018</b>	Zinc calibration coupon
<b>CALL</b>	Transit case

## ROV-II™



**T-handle mount for work class ROV**  
6" W X 5" H (including U-bolts) X 21" L

The ROV-II is the most dependable and widely-used general-purpose, tip-contact cathodic-protection probe on the market. The ROV-II™ probe is designed with ROV use in mind, but can also be integrated to a diver's umbilical as a combination proximity and contact probe.

Depending on the type of cathodic protection survey required, the ROV-II™ can be used as a stabbing tip-contact probe or as a proximity electrode by using a surface ground wire (usually accessed through the diver's umbilical).

### Specifications

Dimensions (W x H x D)	57 x 57 x 292 mm [ 2.25" x 2.25" x 11.5" ]
Depth rating	3000 m [ 10,000 ft ]
Operating temp.	1°C to 40°C [ 34°F to 104°F ]
Voltage range	0 mV to -1999 mV
Material	Black acetal
Weight (air)	2.9 kg [ 6.5 lb ]
Weight (water)	0.7 kg [ 1.5 lb ]
Packed weight	3.2 kg [ 7 lb ]

Reference element



Contact tips



### Replacement /spare parts list

Part no.	Description
<b>ROV0008</b>	ROV-II kit with case and spares
<b>ROV0004</b>	Contact tip
<b>ROV0016</b>	Nose cone assembly
<b>MLT0004</b>	Silver/silver chloride reference element
<b>CPG0006</b>	Copper/copper sulphate reference element
<b>MLT0011</b>	Pressure housing
<b>352-MN01-ENG</b>	Instruction manual
<b>GSK0006</b>	Tube O-ring lubricant
<b>EOR0015</b>	Tube silicone grease insulating compound
<b>ROV0018</b>	Zinc calibration coupon
<b>CALL</b>	Transit case

## EFG™ PROBE



### Specifications

Depth rating	3,000 m
Operating temp.	1°C to 40°C [34°F to 104°F]
Voltage range	0 mV to -1999 mV
Material	Black acetal
Dimensions (W x H x L)	57 x 57 x 432 mm [ 2.25" x 2.25" x 17" ]
Weight (air)	2.9 kg [ 6.5 lbs ]
Weight (water)	0.7 kg [ 1.5 lbs ]

### Offshore storm case

Dimensions (W x H x L)	Ø115 x 525 mm [ Ø 4.5" x 20.75" ]
Packed weight	3.6 kg [ 8 lb ]

### Replacement /spare parts

Part no.	Description
<b>ROV0022</b>	EFG probe
<b>DCM0043</b>	Tail assembly
<b>DCM0045</b>	Nose
<b>DCM0053</b>	EFG upgrade kit
<b>UWC0047</b>	EFG flying lead
<b>DCM0035</b>	EFG cradle, full
<b>DCM0036</b>	EFG cradle, half
<b>DCM0053</b>	EFG upgrade kit
<b>DCM0027</b>	Isolation plate
<b>DCM0032</b>	Isolation washer
<b>DCM0041</b>	Isolated T-Handle
<b>UWC0077</b>	Rugged EFG whip 13'

The EFG™ provides a contactless method of determining anode activity and of measuring electric fields in seawater. When passing near a structure such as a pipeline, the

current density reading can confirm that an anode is properly activated. It's intended for use with the Deep C Meter 3000AD™ ROV survey system shown on page 6.

# ROV SYSTEMS



## DEEP C METER 3000AD™

The Deep C Meter 3000 AD™ is the premier ROV cathodic-protection survey system for use in deep water. It is designed for rugged service on a work-class ROV at water depths up to 3000 meters (10,000 feet). The unit can integrate fully with ROV systems for power and RS-232 serial data transfer. The ROV-II™ contact probe (included) is mounted on a convenient, shock-absorbing T-handle. In addition to the digital data stream, the always-on display allows survey teams to operate even when serial communications are not available. The display brightness can be remotely adjusted in real-time to accommodate a variety of lighting and camera conditions.

The optional electric field gradient (EFG) probe enables any AD series meter to detect electric currents in seawater, allowing touchless measurement of anode activity.

### Accurate video and digital output

The Deep C Meter 3000 AD™ provides real-time data through three LED

displays and a continuous RS232 (standard ASCII string) digital feed. The included Survey™ software makes planning, executing and reporting a CP survey much more reliable, convenient and precise than ever before. Having a visual backup of the data provides more confidence during the survey and an easy way to double-check your results when you return to shore.

### Works with ROV power

The Deep C Meter 3000 AD™ is 24V DC ROV powered, which eliminates the need to open the pressure housing to change batteries and replace O-rings. Cabling can be interfaced with the ROV either through a splice or oil-filled cables.

### Stand-alone version available

We also offer the Deep-C-Meter 3000™ unit, which is a battery powered version that does not interface at all with ROV systems. All readings are taken from the subsea readout via the ROV camera. Upgrade kits for these non-AD units are also available.

### Specifications

Depth rating	3000 m [10,000 ft]
Operating temp.	1°C to 55°C [ 34°F to 131°F ]
Voltage range	+2499 mV to -2499 mV
Input resistance	1 G-Ohm
Power supply	24VDC nominal (9-36VDC)
Communication protocol	RS 232
Data type	Continuous ASCII stream with delimiters 2 data sets per second
Precision	24 bit analogue digital converter
Dimensions (Ø x L)	89 x 178 mm [ Ø 3.5" x 7" ]
Weight (Air)	4 kg [ 9 lb ] [ 34°F to 131°F ]
Weight (Water)	3.6 kg [ 8 lb ]
Packed weight of kit in offshore travel case	9.5 kg [ 8 lb ]
Pressure housing material	316 stainless steel

### Replacement /spare parts

<b>DCM0003-3000</b>	Pressure housing
<b>DCM0001</b>	Articulating mount
<b>MLT0014</b>	Lens
<b>GSK0009</b>	Lens - O ring
<b>GSK0008</b>	Lens - backup ring
<b>FAS0104</b>	Lens retaining screw
<b>MFR0015</b>	Lens cover
<b>UWC0038</b>	Power bulkhead dummy plug (f)
<b>UWC0044</b>	EFG bulkhead dummy plug (m)
<b>UWC0045</b>	ROV II bulkhead dummy plug (f)
<b>UWC0041</b>	ROV II flying lead
<b>UWC0049</b>	Power cable whip
<b>UWC0061</b>	EFG flying lead
<b>Call</b>	EFG probe
<b>ROV0016</b>	ROV II probe nose cone
<b>ROV0004</b>	Contact tip
<b>MLT0045</b>	Silver / silver chloride element
<b>Call</b>	Voltmeter module
<b>ROV0014</b>	T-Handle for work-class ROV
<b>GSK0006</b>	Tube O-ring lubricant
<b>EOR0015</b>	Tube connector sealant
<b>ROV0018</b>	Zinc calibration block
<b>DCM0053</b>	EFG upgrade kit
<b>DCM0057</b>	Bottle upgrade
<b>358-MN03-ENG</b>	Instruction manual
<b>Call</b>	Protective case

# REMOTE ELECTRODE KIT (REK)

The Polatrak® Remote Electrode Kit™ upgrades the Deep C Meter™ with EFG and ROV-II to perform “remote electrode” pipeline surveys (also known as “three electrode”, “remote variance”, “gradient” or “close interval” survey).

This kit is compatible with any AD (analog to digital) series Deep C Meter™ and requires at least one copper signal wire from the remotely operated vehicle (ROV) to either the tether management system (TMS) or the survey vessel. With the remote electrode kit installed, the polarity of the first display line is reversed and the second display will now report the remote potential variance while traversing the pipeline.

## What's in the kit

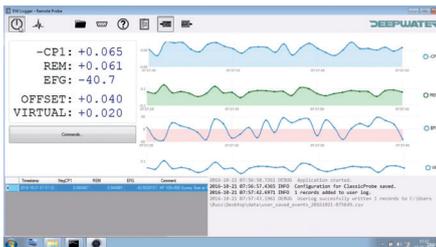
The remote electrode kit comes in a rugged, offshore storm case with all of the components and instructions to configure the Deep C Meter™ for remote survey activities.



### Parts list

DCM-0071 Remote electrode kit

# SURVEY™ SOFTWARE



Survey is designed to make cathodic protection surveys quick and easy. It comes free with every Deep C Meter™ 3000AD purchased. The software can work in multiple three modes, to support any survey requirements:

**Traditional stab + EFG** – The ROV take stabs and EFG readings, but no remote electrode readings.

**Remote electrode** – → Remote electrode - The ROV takes stabs and EFG

readings. In between stabs the ROV also takes remote variance measurements with a remote electrode deployed over the side of the vessel or attached to the ROV's TMS.

**Swain™ meter mode** – for use with the underwater clamp-on ammeter.

## Features include:

**Import telemetry data:** Import ANY data-stream to be recorded in the software alongside the CP readings (telemetry, etc.)

**Remote variance:** Virtual potential in real-time (last calibration + remote variance), just like other survey systems (NOTE: this reading is not an actual CP potential)

**Time machine module:** Allows the user to select any data point from the last 30 seconds (data sampling rate: 2 per second). No more clumsy button pushing at the moment of stab.

**Pre-load survey:** Pre-loaded event comments allows you to enter stab locations and survey points customized to your assets ahead of time. Just tick them off as you survey.

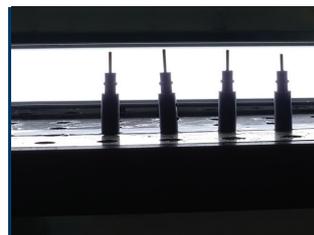
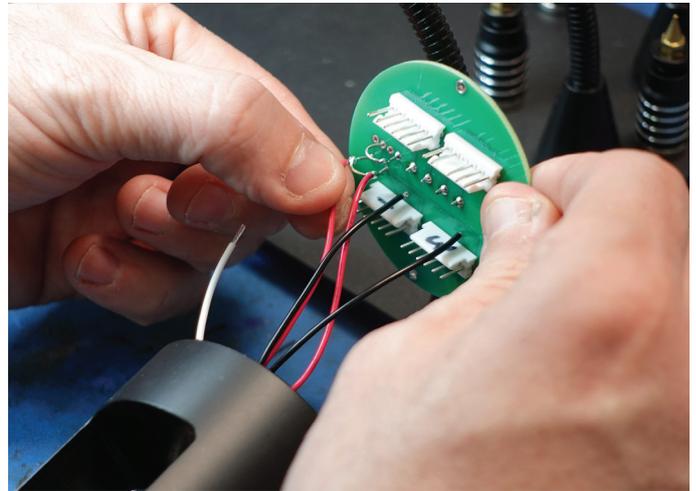
**Logs continuously:** 100% logging all the time (while the software is on, data is being recorded) – no chance for user error.

**CSV Output:** A quick .csv output of event log (stabs, spot readings) allows for stab surveys to be completed on the boat.

# REPAIR AND CALIBRATION SERVICES

Complete repair and calibration services are available for Polatrak® products via each of our worldwide office locations. By design, spare parts can be purchased and Polatrak® probes can be repaired in the field during projects if necessary, but we also offer comprehensive repair and maintenance services through our sales and manufacturing facilities.

Our technicians can inspect, troubleshoot, repair and recalibrate your well-worn probes and readouts after each dive season and have them working as new for your upcoming projects. Fresh contact tips, batteries, electrodes and factory calibration will help ensure a trouble-free start to your next season.



# HOW TO ORDER

Polatrak® products are manufactured at Deepwater's headquarters in Houston and can be ordered by emailing us at [sales@stoprust.com](mailto:sales@stoprust.com) and through any of our offices worldwide:

● **United States**  
 Deepwater Corrosion Services, Inc.  
 13813 FM 529  
 Houston, TX, 77041,  
 USA  
 T +1 713 983 7117

● **Brazil**  
 Deepwater do Brasil Rua Mário Figueiredo Proença, 85 Parque dos Tubos Imboassica, Macaé CEP: 27932-305 RJ, Brasil  
 T +55 21 99110-2154

● **United Kingdom**  
 Deepwater EU Ltd.  
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