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WAY AHEAD IN CORROSION CONTROL

# **POLATRAK<sup>®</sup>**

## PRODUCT CATALOG





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 allows 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 are interchangeable and easily replaced during routine maintenance. Our probes are available for every type of offshore survey: Topside drop-cell, diver-held contact and proximity, and ROV contact and proximity.



## TOP SIDE



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.

## 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 additional length 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.

### Applications

- Platforms
- Risers
- Wind Turbines



### 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



## 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. Longer battery life, interchangeable freshwater / seawater electrodes and ultrabright 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.

### Electrode Elements\*

CP Gun has two electrode elements which are interchangeable to suit specific water environments

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

Material	Ag/AgCl with silver wire core
Dimensions	Ø 0.3" x 1.8" [ Ø 8 mm x 45 mm ]
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 0.3" x 1.4" [ Ø 8 mm x 36 mm ]
Accuracy	± 5 mV
Applications	Fresh water / slightly brackish water

\*Ag/AgCl elements provided as standard

### Specifications

Depth rating	1000 ft [300 m]
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)

## ROV-II™

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).



### Electrode Elements\*

ROV-II has two electrode elements which are interchangeable to suit specific water environments

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

Material	Ag/AgCl with silver wire core
Dimensions	Ø 0.3" x 1.8" [ Ø 8 mm x 45 mm ]
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 0.3" x 1.4" [ Ø 8 mm x 36 mm ]
Accuracy	± 5 mV
Applications	Fresh water / slightly brackish water

\*Ag/AgCl elements provided as standard

### Specifications

Depth rating	3000 m
Operating temp.	1°C to 40°C [ 34°F to 104°F ]
Voltage range	0 mV to -1999 mV

## PROXIMITY PROBE

The Polatrak proximity probe is designed specifically for diver use when conducting subsea platform services. Like all Polatrak probes, it has twin Ag/AgCl elements to allow real-time calibration checks.

The standard SEA CON RM-3-FS connector allows it to be rapidly plugged into a diver's inspection umbilical. The proximity probe can only be used with a topside ground; Polatrak can supply a mating umbilical cable if required.

The probe can also be interfaced to micro ROVs, providing proximity measurements when grounded topside to the structure (like a guided drop cell). The general-proximity probe costs about the same as old-fashioned, single-element electrodes.



# ROV SYSTEMS



## DEEP C METER 3000AD

The Deep C Meter™ 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 electric field gradient (EFG) probe (optional) 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. The redundancy of having a visual backup of the data gives you more confidence during the survey and an easy way to double-check your results when you come back to shore.

### Works with ROV power

The Deep C Meter 3000 AD is 24VDC 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.

### Easily serviced / repaired

All parts for both the Deep C Meter readout and the ROV II probe are serviceable, and each unit comes with a comprehensive spares package. Additional spare parts and repair service are available from [polatrak.stoprust.com](http://polatrak.stoprust.com)

### Specifications

Depth rating	10,000 ft [3000 m]
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

### Electrode Elements\*

ROV-II has two electrode elements which are interchangeable to suit specific water environments

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

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

#### Cu/CuSO4 (Copper/Copper Sulphate)

Material	Cu/CuSO4 with copper wire core
Dimensions	Ø 0.3" x 1.4" [ Ø 8 mm x 36 mm ]
Accuracy	± 5 mV
Applications	Fresh water / slightly brackish water

\*Ag/AgCl elements provided as standard

**Deep C Meter 3000 (Non-AD) units are also available.**

These units are battery powered and do not interface at all with ROV systems. Readings are taken from the subsea readout via the ROV camera.

Upgrade kits for non-AD units are also available.

**Please contact us for information on these products.**

# 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).

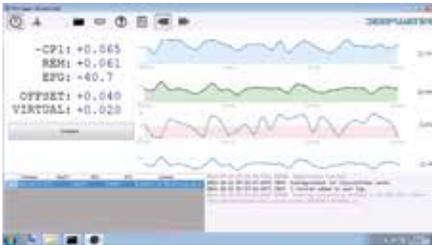
This kit is compatible with any AD (analog to digital) series Deep C Meter and requires at least one copper signal wire from the remotely operated vehicle (ROV) to either the tether management system (TMS) or the survey vessel. With the remote electrode kit installed, the polarity of the first display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



# 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 during on the boat.

# 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:

**E [enquiries@stoprust.com](mailto:enquiries@stoprust.com)**

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Long term lease and storage of leased equipment at Deepwater's facilities is available on request.