

Hexcorder PRO CIPS/DCVG/ACVG/GIS System



Benefits

- Can perform four different types of survey at the same time, CIPS, DCVG, ACVG and GIS mapping
- All data obtained at the same place & time under the same field conditions
- Easily correlate cathodic protection data with coating integrity data to better prioritize remediation
- Stored waveforms allow the user to capture electrical interference
- GPS location data can be imported into mapping software
- Available integration with Bluetooth enabled pipe locators allows storage of depth of cover and signal strength data
- PODS compatible data stored as a .csv text file
 - ⇒ **No special software required**
 - ⇒ Easy to open and graph in any standard spreadsheet or import into your database program
- Software upgradeable by customer
- Optional sub-meter GPS with <10cm global precision available
- Optional custom tailored on-site survey training is available
- Comprehensive 2 year warranty!



User Experience

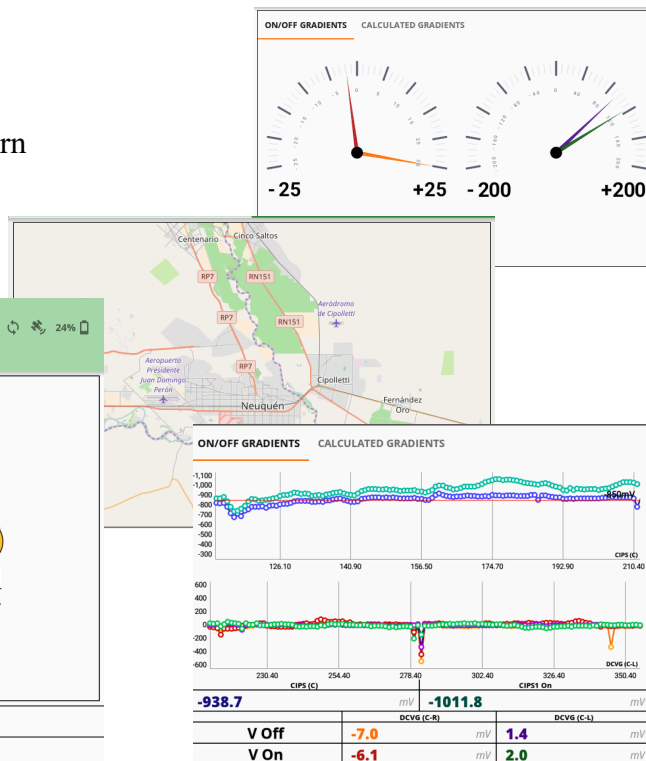
- Purpose built by corrosion professionals for corrosion professionals
- Large rugged Mil Spec touchscreen tablet user interface
- Custom graphics based App, easy to navigate, easy to learn
- Multiple languages supported
- View any 2 of 5 available screens,
 - ⇒ Table, Graph, Map, Bird's Eye, Analog Gauge

Connected: DEMO 24%

| ON/OFF GRADIENTS | CALCULATED GRADIENTS | | ½ CELL OFFSET |
|------------------|----------------------|----------|---------------|
| | V Off | V On | |
| DCVG (C-R) | 10.4 mV | 22.1 mV | |
| DCVG (C-L) | 17.1 mV | 39.0 mV | |
| DCVG (C-F) | -17.4 mV | -35.5 mV | |
| DCVG (C-B) | 22.0 mV | 2.3 mV | |

| ON/OFF GRADIENTS | CALCULATED GRADIENTS | |
|------------------|----------------------|----------|
| ON 39.0 | OFF 17.1 | ON 22.1 |
| OFF 22.0 | ON 2.3 | OFF 10.4 |

| | | | |
|-------------|-------------------------|--------------|------------------------------------|
| Survey Name | Survey Date | Chainage | 67.40 |
| | Apr 29, 2022 7:20:39 PM | GPS Position | 40° 25' 41.69"N 86° 51' 50.60"W |



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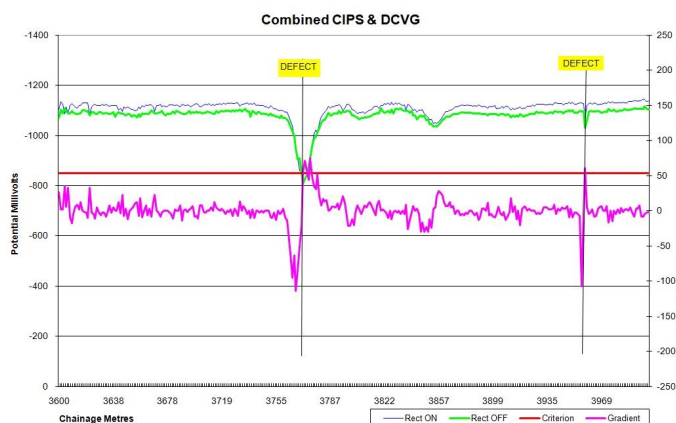


Included

- Hexcorder Pro assembly with integrated tablet
- Wire dispenser with one spool of survey wire
- Choice of:
 - ⇒ Hip pack - short surveys, urban areas
 - ◆ 2 km (1.25 mile) survey wire
 - ⇒ Back pack - long, across country surveys
 - ◆ 16 km (10 mile) survey wire
- 2 x half cell extension poles
- 2 x Cu/CuSO₄ reference electrodes
- Ergonomic four point shoulder harness
- Survey pole and wire dispenser cables
- WAAS enabled GPS antenna
- Universal AC chargers for Hexcorder Pro and tablet
- USB cable
- Rugged carrying case
- Operation manual

Features

- 16 different survey modes including Close Interval (CIPS), multiple DCVG channels, ACVG channels, double impedance
- Work with interruption cycles as fast as 1 second
- User customizable alarms for change in potential, DCVG indication & broken trailing wire can be enabled to help ensure data integrity
- Records chainage, date, time, altitude and GPS location data with each reading
- Integrate with all Bluetooth enabled Radio Detection, Ridgid, and Vivax Metrotech pipe locators to store depth of cover and signal strength data with CIPS, DCVG & ACVG readings
- Active AC filter to remove the effect of induced AC up to 100V
- Run time of Hexcorder Pro is 24 hours, tablet is 11 hours under field conditions, optional extra batteries are available for the tablet
- Rugged, sealed, quick connect push-pull connectors
- Reads and stores DC and AC waveforms
- Comments can be easily entered into the data stream
- User programmable GPS offset to work in local time
- Android app supports multiple languages
- Designed to satisfy IP65 and EN61010 standards
- Comprehensive 2 year warranty



Technical Specification**

- CIPS Range: +/- 5 V DC (opt +/- 10 V DC), resolution 0.1 mV DC
- DCVG Range: +/- 500mV DC, resolution 0.1 mV DC
- ACVG Range: 800mVp-p AC, resolution 1 mV AC
- Memory Capacity: Supplied with 8 GB or larger micro SD card
- CIPS Impedance: 25 M Ohm or 250 M Ohm
- Gradient Impedance: 15 M Ohm
- AC Rejection: -90 dB at 60 Hz, <3mV DC error at 100 V AC RMS superimposed
- Case: ABS plastic, designed for IP65
- Instrument Size: Hexcorder Pro with tablet assembly 30 x 25 x 10 cm @ 2.7 Kg
- Connectors: IP67 rated, push-pull
- Battery: Lithium Ion, 3.7V 33Whr = approx. 24 hours run time
- Communications: USB 2.0, 2 x Bluetooth 2.1
- GPS: Fully integrated WAAS GPS antenna
- Shipping Dims: Hip pack system as 1 piece 10 x 10 x 120 cm @ 2.8 Kg
+ 1 piece 53 x 23 x 45 cm @ 9.8 Kg
Backpack system as 1 piece 108 x 45 x 38 cm @ 24 Kg

Tablet Specification**

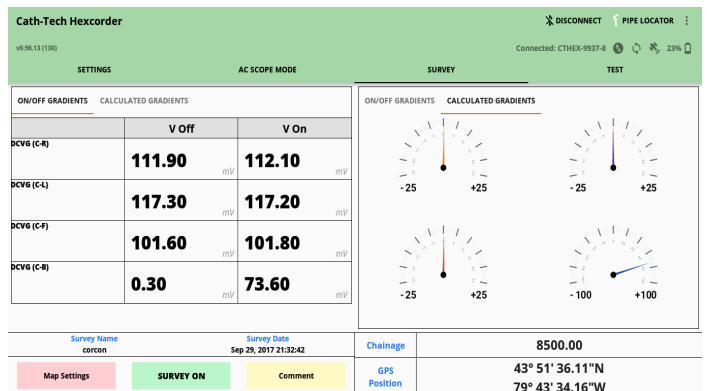
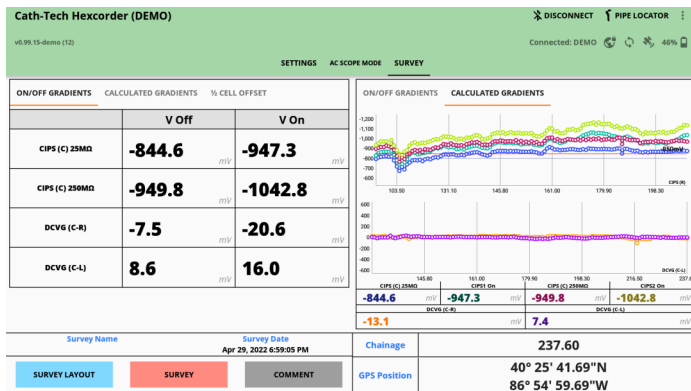
- Ratings: Ruggedized, MIL-STD-810G and IP65
- Processor: Qualcomm Snapdragon 660 octa-core 2.2 GHz
- Operating System: Android 8 Oreo (or higher)
- Memory: 4 GB RAM, 64 GB SSD
- Display: 10.1" WUXGA (1920 x 1200), 500 nits or higher
- Primary Battery: Lithium Ion, 98 Whr, hot swappable = approx. 11 hours run time under normal operating conditions
- Communications: Wireless LAN 802.11ac, Bluetooth 5.0
- Ports: DC power, 2 x USB 2.0, USB-C, Micro SDXC, RJ-45 ethernet, audio
- Camera: 13 MP rear with flash, 5 MP front



** Specifications subject to change without notice

Survey Modes

| Survey Type | Measures | Benefit |
|--|---|--|
| CIPS / CIS | Standard close interval survey | Evaluate the level of Cathodic Protection (CP) |
| DCVG (opt +ACVG) | Standard DCVG survey | Evaluate the coating condition |
| CIPS + DCVG (opt +ACVG) | Combined CIPS and DCVG survey | Evaluate CP and coating in one pass |
| 2 channel DCVG (opt +ACVG) | DCVG survey in two directions, Left & Right) | Confirm defect location & current flow - useful in areas with a lot of stray current |
| CIPS + 2 channel DCVG (opt +ACVG) | Add CP evaluation to 2 channel DCVG | Also called Side Drain Survey |
| 4 channel DCVG | DCVG in 4 directions; left, right, front, rear | For complex survey areas to pinpoint the coating defect |
| Double impedance CIPS | Each CP reading is taken at both input impedances, | Calculate the true polarized potential - very useful in high resistivity soils |
| Double impedance CIPS + DCVG (opt +ACVG) | Double impedance CP survey with DCVG | Add coating evaluation to a true potential survey |
| Parallel CIPS | Evaluate CP on two parallel, electrically connected pipelines | Perform two surveys with one instrument |
| Double impedance CIPS + 2 channel DCVG (opt +ACVG) | Add 2 DCVG readings to double impedance CP survey | Calculate the true potential and confirm defect location in areas of stray current |



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