



# **ICSA- CIPS /DCVG System**

*(Close Interval Survey & Voltage Gradient Survey System)*

*This is capable of performing close interval surveys (CIPS) as well as direct current voltage gradient (DCVG) surveys.*

## **Description**

It is capable of performing close interval surveys (CIPS) as well as direct current voltage gradient (DCVG) surveys

- CIPS for Potential Surveys
- DCVG for Coating Condition Surveys

It is equipped with a 12-satellite GPS engine for interruption synchronization as well as coordinate display and logging. It can store GPS time and pipeline chainage. It comes with 1 Mbyte of non-volatile CMOS RAM, factory upgradeable to 2 Mbytes. It comes with a LCD display and keyboard for data entry. It is shipped ready to use and includes new CuCuSO<sub>4</sub> half cells and a spool of wire.

## **CIPS + DCVG**

It unit can simultaneously measure and record structure-to-electrolyte potentials as well as the voltage gradient between two half-cells. It can measure and store the rectifier ON and Instant OFF structure-to-electrolyte potentials, voltage gradients, chainage, GPS coordinates, and UTC time. It has a built-in active filter to minimize the effect of induced AC voltages on the measured structure-to-electrolyte potentials. The active AC filter combined with software rejection results in over 80 dB of AC rejection.

The unit is equipped with software to capture and display electrical interference on the structure-to-electrolyte potential. The output of the system can be imported directly into any spreadsheet or database software.

## **Features**

- Close Interval Survey (CIPS)
- Direct Current Voltage Gradient (DCVG)
- Data Logger
- 12-satellite WAAS GPS engine and 4 ampere-hour/7.2v NiCd battery.
- 20 x 4 LCD display and Keyboard for data entry.
- 1 MB of CMOS RAM standard, 2 MB optional.

- Measures and records distance
- GPS interruption synchronization.
- Stores GPS time and coordinates.
- CMOS circuitry for low power consumption
- Memory supports 3600 readings for CIPS mode and 4200 readings for DCVG
- Memory can be expandable to meet further requirement

## Kit Includes

- ✓ WAAS enabled GPS engine and antenna.
- ✓ Rugged carrying case and Battery charger
- ✓ Two CuCuSO4 half-cells, extension poles and cables
- ✓ Wire dispenser and one spool of wire
- ✓ Hip or backpack wire dispenser
- ✓ RS-232 cable and Operator manual

## Technical Specifications

Capabilities	CIPS, DCVG, distance measurement, GPS interruption synchronization
Case	Machined aluminum
Coating	Fusion-bonded polyester
Dimensions	210 X 185 X 65 mm
Weight	2.0 kg
Display	LCD display
Keyboard	Key board
Circuitry	CMOS for low power consumption
Memory	1 Mbyte non-volatile CMOS expandable to 2 Mbytes
A/D conversion	12-bit, 15,000 readings per Second
Read rate	> 1 per second
Battery	7.2V/4 AH NiCd
Com Port	9-pin male D
AC Rejection	> 80 dB
GPS Engine	12-satellite, WAAS enabled
Ports	- 2 independent $\pm 5000$ mV structure-to-electrolyte inputs. - 1 X 15-pin D 5-channel $\pm 5000$ mV data logger input. - Battery charger connector - RS-232 port and & Wire counter input

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