

# Cor-Map® II

**PROMAT**  
YOUR SOLUTION TO TESTING INSTRUMENTS

**NDT**  
**JAMES INSTRUMENTS**  
Non Destructive Test Equipment

**Test Well. Build Well.**

Advanced system for  
corrosion potential data  
acquisition and analysis

## Product Information

By measuring and mapping the voltage potential found in the concrete we are able to determine rapidly the presence of corroded steel reinforcement without costly and time consuming demolition of the concrete.

This is done by recording the voltage between the rebar and a half cell, which is mapped across the surface of the concrete. Areas of rust with high corrosion will exhibit significantly lower voltages than areas without corrosion, thus areas of corroding steel reinforcing bar in concrete can be rapidly found.

There is no need to know the exact position of the steel reinforcing bar or the amount of cover, the presence of the steel is all that is required. However, the voltmeter has to be connected to an exposed piece of the rebar network, and because the concrete is being tested, any material on the surface should be removed.

## Features & Benefits

- Ruggedized Electronics allows rapid analysis of data in the field or office.
- Conforms to ASTM C--876, BS1881:201, UNI9535, and other international standards.
- Electrode is designed for use on horizontal, vertical and inverted positions.
- Temperature and humidity sensors facilitate inclusion of environmental conditions in data analysis.



## Applications

- Locate corroding steel reinforcement
- Repair cost estimation

**Strength**

**Locators**

**Ultrasonics**

**Corrosion**

**Moisture**

# Cor-Map® II



Test Well. Build Well.

## Half Cell Reference Electrode

The Cor-Map® II system comes complete with a rugged half-cell designed for the tough construction environment. Porous ceramic tips are used in order to provide a long life, and eliminate problems from clogs in the Cu/CuSO4 half-cell. These specially shaped tips have been designed to allow the half cell to take readings in the vertical, horizontal or inverted position. There is also a semi transparent full-view window, allowing liquid level observation without removal of the sealed ends; while still protecting the half cell from damage by sunlight.



Sensor in Carrying Case

## Data Analysis

The fully integrated data acquisition and analysis unit has been designed for the rapid analysis of data in the field or office. As large amounts of data are normally generated, interpretation of this information can be very difficult. Employing the simple to use menu driven CorMap® main unit, data can not only be collected quickly and easily, but it can also be analyzed directly in the field on the graphic display. The unit produces a symbolic map of the structure, where symbols represent various half-cell

potential voltage levels previously acquired. This symbolic map can then be interpreted like a contour map where areas of high potential represent areas most likely to be corroding.

Not only can this information be acquired and analyzed but the unit will also read the general environmental parameters of temperature and relative humidity.

All this data can also be stored and uploaded to a P.C. This allows the user to include the data in subsequent reports and spreadsheets for further analysis. Each data point is also recorded with the time and date to simplify later analysis.

## Specifications

Instrument Weight:	6 lbs. ( 2.75 Kg )
Ship Weight:	15 lbs. ( 6.8 Kg )
Instrument Dimensions:	4.5 in. x 8.5 in. x 10.5 in. (115mm x 225mm x 267 mm )
Battery:	12 Volt 4 - 10 Hours Continuous Operation
Display:	320 x 240 pixels backlit for daylight use
Storage:	Over 5000 readings
Operating Temperature:	0 - 50 C
Temperature Reading Range:	-273 - +130 C
Temperature Accuracy:	+/- 0.5%
Humidity Reading Range:	0 - 100%
Humidity Accuracy:	+/- 5%

## Sales Numbers

C-CM-5000-CU Cor-Map® II System



Cor-Map® II with Components

PROMAT (HK) Limited 寶時（香港）有限公司

☎ : 2661 2392 ☎ : 5196 8860 ✉ : info@promat.hk 🌐 : http://www.promat.hk



Strength

Locators

Ultrasonics

Corrosion

Moisture