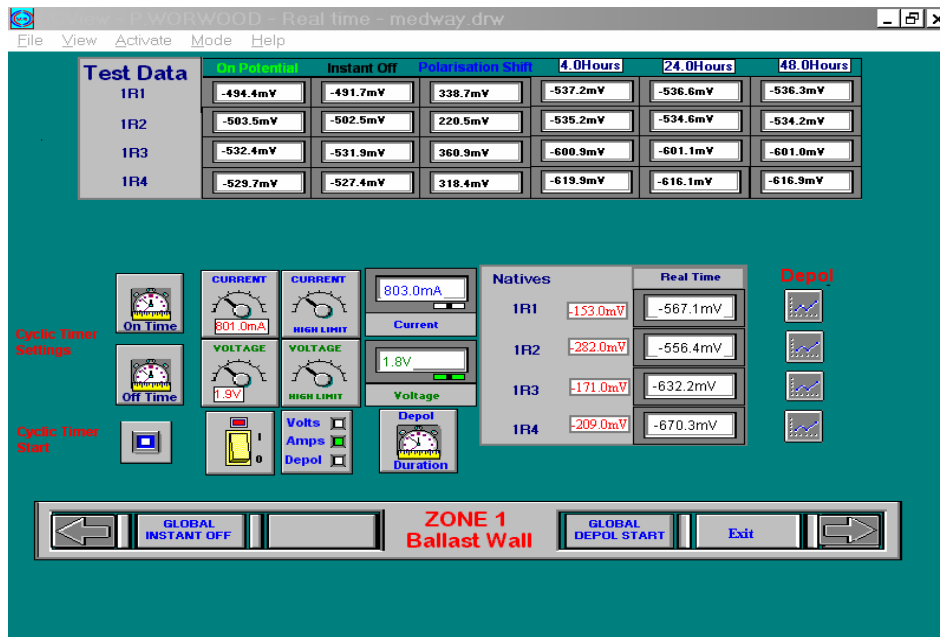


1. Remco Overview



Remco Overview

Remco Systems Ltd have developed a complete range of monitoring and control equipment specifically designed for civil and structural engineering applications. These applications include:

- ◆ Cathodic protection monitoring and control
- ◆ Corrosion monitoring (Condition monitoring)
- ◆ Structural monitoring

The **remco** system offers a comprehensive and cost-effective solution to all remote monitoring and control applications. Key features of the system include:

- ◆ Flexible modular design provides economic solutions
- ◆ Proven fast network communications
- ◆ Monitors a wide range of sensors
- ◆ Alarm reporting to a range of network devices
- ◆ Operates under MS Windows (versions 98, Millennium, 2000, NT & XP)
- ◆ Customised presentation of live and historical data
- ◆ Data acquisition and reporting at operator specified intervals either manually or automatically at pre-scheduled intervals
- ◆ Supports operator friendly supervisor software with on-screen dynamic graphic displays

A comprehensive bureau service is also available whereby **remco** will monitor and/or operate the monitoring system remotely and report to the Client at agreed intervals.

Company Background

Remco Systems Ltd was established in 1995 as a joint venture between Charter Controls Ltd and Maunsell Ltd. Since 2001 It has been solely owned by Charter Controls.

Charter Controls Ltd is a specialist company offering industrial measurement control expertise. In particular, Charter Controls has a wide range of skills and experience in telemetry, remote monitoring and computer based control systems.

Maunsell Ltd now FaberMaunsell is one of the world's largest consultancy firms practicing in civil engineering and related disciplines.

FaberMaunsell provides civil and structural consultancy services through its specialist divisions covering transport infrastructure, bridges and special structures, civil engineering and buildings. Maunsell focuses on providing innovative and cost-effective solutions to its clients.

Maunsell's experience extends across the full range of maintenance and repair techniques and is recognised for its work in the development of innovative repair techniques for a wide variety of structures. Maunsell is committed to continuing research and development in the field of maintenance / repair and has an established track record of developing successful minimum cost repair and maintenance strategies for complex projects.

Remco has drawn on this experience to develop a versatile and economic remote monitoring and control system which has been designed to meet the needs of the maintenance and repair practitioner.

Remco Products and Services

The **remco** system utilises the same technology used for industrial monitoring and control applications, such as the controlling of air conditioning systems for buildings. The technology uses established industry standard communication protocols so that the **remco** system may be integrated into existing building management systems and even alarms systems if required.

The particular strengths of the **remco** system are: the ability to monitor and control a wide range of sensors; proven communications capabilities enabling economic monitoring solutions for a wide range of applications from the smallest installation to the largest controlling extensive networks of structures.

Equipment for the **remco** system can be supplied fully programmed to allow operation by a technical client under license or alternatively, a comprehensive bureau service is available 24 hours a day, 365 days a year whereby **remco** will monitor and/or operate as appropriate the monitoring system remotely and report to the Client at agreed intervals.

Remco is continually reviewing and developing new and innovative applications for it's flexible and powerful monitoring and control system. Through this, **remco** is able to offer a range of equipment and systems for remote monitoring and control requirements satisfying the highest levels of quality and excellence for the maintenance and repair practitioner.

REMCO PRODUCTS AND SERVICES	
Base units UC12E/CP	The UC12E/CP base units are the basic building blocks of the remco monitoring and control system. The UC12E/CP base units are data acquisition and control units with a built-in data communications capability. The base units are small and modular and may operate as a stand-alone monitoring and control system or several units may be linked together to form large monitoring and control installations.
Network Communications Controllers (UCC4's)	The UCC4 network communications controller units link together up to 63 No. modular UC12E/CP base units to form a sub-network. In turn up to 255 No. sub-networks (UCC4's) may be linked together using an ultra fast ARCNET communications network. This enables the remco system to monitor and/or control a wide range of applications from the smallest installation up to the largest controlling over 192,000 sensors/devices in a single ultra fast local network. The addition of an industry standard modem enables a full remote monitoring and control capability for an unlimited number of ARCNET networks.
Supervisor Software	The supervisor software may be installed on a computer in the Client's and/or Remco's offices enabling full remote monitoring and control. The supervisor software is operator friendly and runs under MicroSoft Windows versions 98, Millennium, 2000, NT & XP.
Power Supplies	Power supplies are available to provide an integrated monitoring and control capability for cathodic protection systems and corrosion monitoring systems. Power supplies conform to all the requirements of the latest European standards for cathodic protection and are approved to European EMC standards.
Comprehensive Bureau Service	Remco provides a comprehensive monitoring and control service for Client's installations. Remco will maintain the monitoring and control system and provide the Client with appropriate reports on the condition of structures. Remco can also initiate maintenance actions when required on behalf of the Client.
TYPICAL MONITORING AND CONTROL APPLICATIONS	
Cathodic Protection Monitoring and Control	<ul style="list-style-type: none"> ◆ Performance monitoring - Instantaneous-off potentials, Absolute potentials, Full potential decay curves ◆ Remote control of power supply - Integrated fine control power supplies ◆ Automatic control - Programmable control limits for automatic control
Corrosion Monitoring (Condition Monitoring)	<ul style="list-style-type: none"> ◆ Risk of corrosion - Half cell reference electrodes, Resistivity (4 pin Wenner probe) ◆ Rate of corrosion - Linear polarisation resistance ◆ Environment – Temperature, humidity and air quality sensors
Structural Monitoring	<ul style="list-style-type: none"> ◆ Crack monitoring - Vibrating wire strain gauges ◆ Deflections - LVDT displacement transducers ◆ Loads - Load cells ◆ Strains - Bonded ERS gauges, Vibrating wire strain gauges
Future developments	Remco are continually reviewing and developing new and innovative applications for it's flexible and powerful monitoring and control system.

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Information Sheets:

1. **Remco Overview**
2. Intelligent Data Acquisition
3. Networked Solutions
4. Cathodic Protection Monitoring & Control
5. Corrosion Monitoring
- 6.