



# DC VOLTAGE GRADIENT TECHNOLOGY & SUPPLY LTD

Design, Manufacturer and  
Exporter to 71 Countries  
of Buried Pipeline  
Inspection Equipment.  
35 Years Experience in  
DCVG Technology

**MARKET LEADERS IN ECDA SURVEY EQUIPMENT + SOFTWARE +  
CATHODIC PROTECTION RESEARCH**

Greenbank House  
Swan Lane, Hindley Green

Tel: +44 (0)1942 522180  
Fax: +44 (0)1942 522179

Wigan WN2 4AR  
United Kingdom

E-Mail: sales@dcvg.com  
Web Page: www.dcvg.com

## Technical Datasheet

### Maximus DCVG Set

#### Maximus DCVG Survey Meter

##### Cat. No.: M001

- ❖ Specialized Analogue DCVG meter for locating coating faults and determining the corrosion status of the coating fault. Comes with a digital side to store all DCVG electrical measurements and then for downloading and using supplied software to calculate the %IR Severity rating.
- ❖ Input Impedence: 1 meg ohm
- ❖ 300ms full scale deflection.
- ❖ Ranges: 10mV to 10V.
- ❖ Sensitivity: On 10mV range calibrated to + and -5mV from centre scale position.
- ❖ 10 Volt Analogue and Digital Range.
- ❖ Analogue & Digital Read-out.
- ❖ AC Main Rejection Filtering: 50hz or 60hz.
- ❖ GPS Automatic Logging.
- ❖ Digital LCD Screen to view electrical measurements: Test Post Signal Amplitudes, GPS Readings, Overline to Remote Earth, Features, etc.
- ❖ Store Multiple Surveys.
- ❖ 2Gb internal Memory.
- ❖ Water Resistant, Rated to IP64
- ❖ Battery Pack is a sealed NiMH battery pack, 12V 2Ah.
- ❖ Supplied with analysis software that automatically calculates the %IR and presents all data on Google Earth and on graphs.
- ❖ Quantity: 1x

**Pictures of the Maximus DCVG on the next page**



USB Download

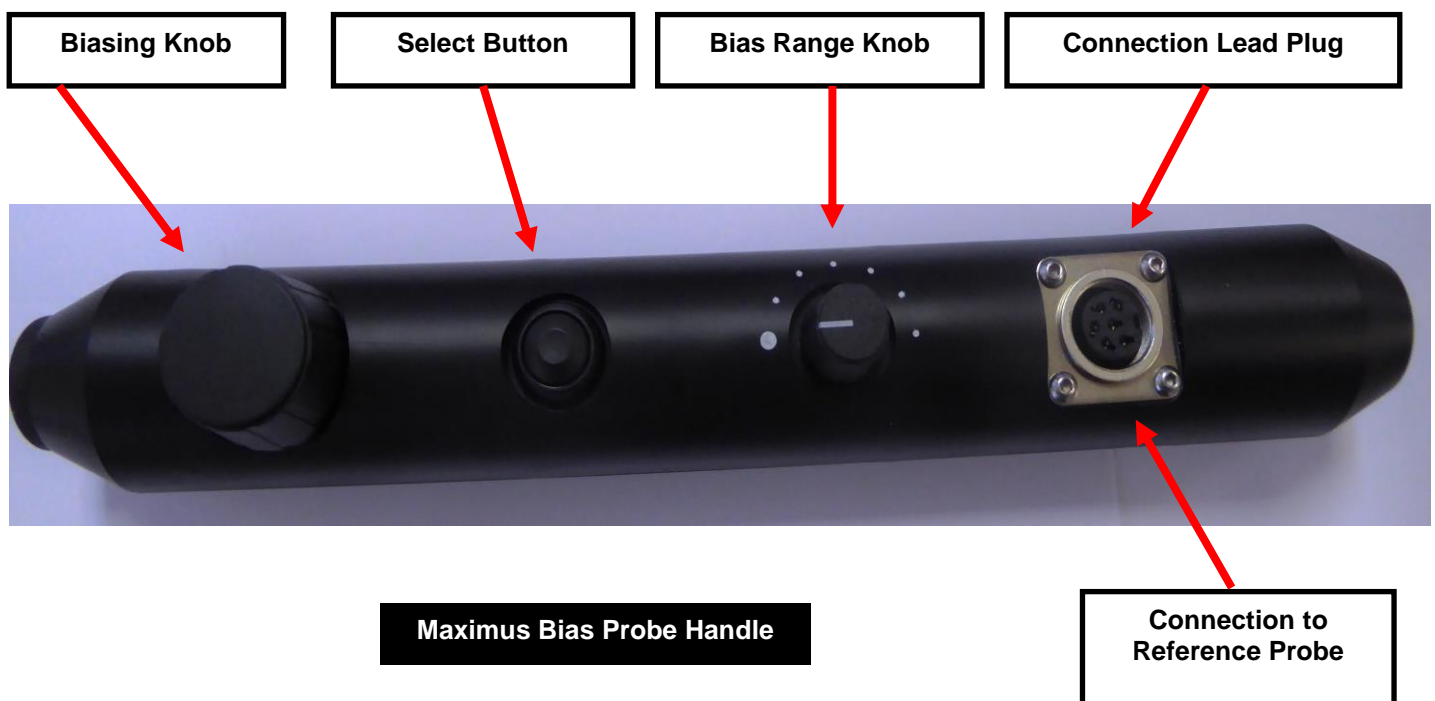


**Maximus DCVG Meter With Harness**

## **Maximus Probe Handle: Bias**

### **Cat. No.: M003**

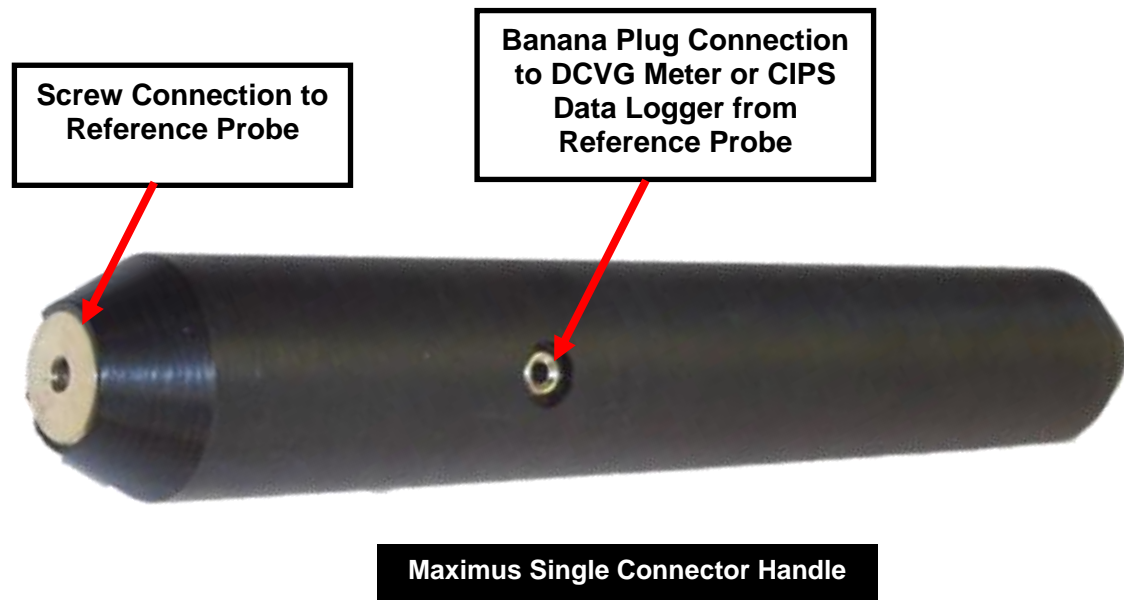
- ❖ Maximus Bias probe handle used for biasing away any DC influence and for adjusting analogue meter movement to ensure that both ends of the pulse are viewable on the meter screen.
- ❖ Single 5-way pole connection socket point for right hand connection leads to connect Maximus bias probe handle/reference probe to Maximus DCVG meter.
- ❖ One Maximus DCVG Bias Probe Handle per set.
- ❖ Maximus Bias Probe Handle is charged off the Maximus DCVG meter so does not have a battery inside it.
- ❖ Small voltage range knob to select the range according to range selected on analogue Maximus DCVG meter. Increasing to bias in a clockwise fashion from off position. 7 Positions: Pos 1: Off, Pos 2: 250mV Range, Pos 3: 500mV Range, Pos 4: 1000mV Range, Pos 5: 2500mV Range, Pos 6: 5000mV Range, Pos 7: 10000mV Range,
- ❖ Large biasing knob used to bias the analogue DCVG meter pulse which works in conjunction with the small voltage range switch to ensure analogue pulsing DCVG meter needle is viewable on the meter scale.
- ❖ Black small selector button to press and store electrical measurements into the Maximus DCVG memory.
- ❖ At bottom of bias probe handle is a brass threaded socket that allows the copper/copper sulphate reference probe to be screwed into the bias probe handle to make electrical connection.
- ❖ Quantity: 1x



## **Maximus Single Connector Handle**

**Cat. No.: Q004S**

- ❖ Nylon plastic Single Connector Handle for connection to the Maximus DCVG Meter.
- ❖ Brass Screw Connection to the Reference Probe.
- ❖ Banana plug connection to connect the Maximus DCVG Survey Meter to the Reference Probe Set.
- ❖ Quantity: 1x



## **120/240V Battery Charger**

**Cat. No.: L004**

- ❖ Battery charger comes in small black plastic box with a lead out either end.
- ❖ Comes with a moulded plug dependent on country of use.
- ❖ At rear of battery charger is cable for connection to mains electricity.
- ❖ At other end is black panel with the mains voltage range switch, 120 or 240V AC selection.
- ❖ Also a one ampere fuse for protection and red LED charging light.
- ❖ Low voltage cable at front of black panel that has a two pin plug to connecting to Interrupter for charging.
- ❖ Quantity: 1x



**120/240V Batter Charger**

### **3-Way Battery Charger Adaptor**

#### **Cat. No.: L013**

- ❖ Used to charge multiple items of equipment (up to three items) at a time when plugged into the battery charger. Figure of eight socket is sited on the bottom side of the small black casing for which the battery charger must be plugged into to charge three items at a time. Three Sheathed cables with figure of eight sockets on each end situated on the top of the small black casing, which connects to items in the set to be charged.
- ❖ Quantity: 1x



**3-Way Battery  
Charger Adaptor**

### **Maximus Backpack with GPS Aerial Mount**

#### **Cat. No.: M005**

- ❖ Includes a cam-lock antenna pole for holding into position the GPS aerial.
- ❖ adjustable straps, several interior pockets, belt loop straps, and rain flap.
- ❖ Interior dimensions: 15 x 9 x 4 inches (38.1 x 22.86 x 10.16 cm).
- ❖ The pole extends from 16.5 to 36.5 inches (41.91 to 92.71 cm).
- ❖ Orange.
- ❖ Weighs 2.00 lb (0.91 kg).



**Maximus Backpack with GPS  
Aerial Mount**

## **Lead, Right Hand Connection**

### **Cat. No.: L006**

- ❖ 1metre long shielded cable fitted with a 5-pin connection and 5 pin connection socket for connection of Maximus Bias Probe Handle/Reference Probe Handle to Maximus DCVG Meter.
- ❖ Only connects right-hand Maximus Bias Probe Handle/Reference Probe to right-hand side of the Maximus DCVG Meter.
- ❖ Quantity: 1x

## **Lead, Left Hand Connection**

### **Cat. No.: L007**

- ❖ 1metre long shielded cable fitted with a 5-pin connection and banana plug for connection of Maximus Single Connector Handle/Reference Probe to Maximus DCVG Meter.
- ❖ Only connects left-hand Single Connector Handle/Reference Probe to left hand-side of the Maximus DCVG Meter.
- ❖ Quantity: 1x



**Left Hand & Right Hand  
Connection Leads**

## **Mini USB Download Cable**

### **Cat. No.: M004**

- ❖ Male USB A to Male Mini USB B USB.
- ❖ 1metre long Cable.
- ❖ USB 2.
- ❖ Download survey data into the Maximus DCVG software package.



**Mini USB Down Load Cable**

## **Maximus DCVG Meter GPS Satellite Aerial**

### **Cat. No.: L005-QSA**

- ❖ Satellite aerial for logging on to the satellites. GPS sensor including embedded receiver and antenna.
- ❖ Used to track multiple satellites at a time whilst providing fast time-to-first-fix, one second navigation updates and low power consumption.
- ❖ This GPS sensor includes the capability of FAA Wide Area Augmentation System (WAAS) differential GPS or RTCM corrections yielding submeter up to 3-5 metre position accuracy.
- ❖ Designed to withstand rugged operating conditions and are waterproof to IEC60529IPX7, immersion in 1 meter of water for 30mins.
- ❖ High accurate one pulse per second (PPS) output for precise timing and measurements. Pulse width is configurable in 20-millisecond increments from 20ms to 980ms with 1µs accuracy.



**Maximus DCVG Meter GPS  
Satellite Aerial**

## **Overline to Remote Earth Cable**

### **Cat. No.: Q033**

- ❖ 15metre Sheathed cable with banana plug on one end to connect to the Double Connector or Single Connector Handle and socket on the other end to attach to the Quantum CIPS Meter/Datalogger.



**Overline to remote Earth  
Cable**

## **Wooden Probe Tip**

### **Cat. No.: L010-S**

- ❖ Standard wooden probe tip made from hardwood, oak. Used in the Reference Probe to make contact with the survey area.
- ❖ Quantity: 4x



**Wooden Probe Tip**

## **Probe Tip Holder**

### **Cat. No.: L008**

- ❖ Nylon Probe Tip Holder with thread used to hold the wooden probe tip.
- ❖ Quantity: 2x



**Probe Tip Holder**

## **PTFE Sealing Tap**

### **Cat. No.: L011**

- ❖ PTFE tape consists of a thread seal tape normally composed of a film tape that is waterproof.
- ❖ Used to make a tight waterproof seal between the wooden probe tip and the probe tip holder.
- ❖ Quantity: 1x



**PTFE Sealing Tape**



## **Probe Filler Bottle**

### **Cat. No.: L014**

- ❖ Probe Filler Bottle made from plastic. Comes with appointed spout and connected lid. Used to fill the reference probes with copper sulphate solution.
- ❖ Quantity: 1x



**Probe Filler Bottle**

## **Jar of Copper Sulphate**

### **Cat. No.: L015**

- ❖ Laboratory grade powdered copper sulphate.
- ❖ Quantity: 1x

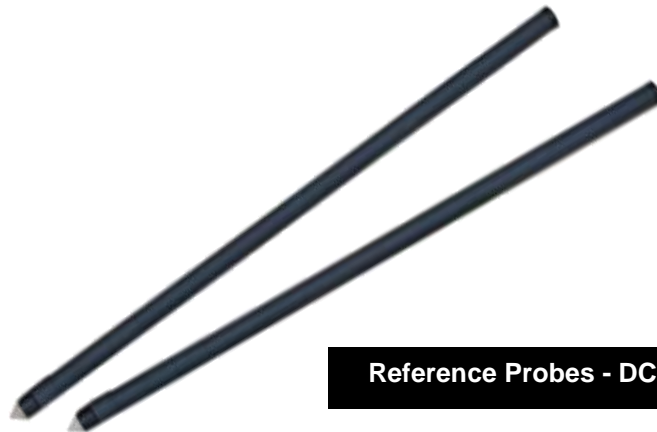


**Jar of Copper Sulphate**

## **Probe Copper Sulphate : Reference Probe For Maximus DCVG**

### **Cat. No.: L005**

- ❖ 1metre Copper/Copper Sulphate Reference Probes made from hollow 100% copper tubing.
- ❖ Black Heat shrink applied to copper tubing.
- ❖ Black nylon top cap placed on top of stainless-steel thread for connection to Bias Probe Handle or Single Connector Handle.
- ❖ Probe tip holder along with a nylon washer screwed onto bottom copper thread and wooden probe tip inserted with PTFE tape to ensure a tight seal.
- ❖ Copper/Copper Sulphate Reference Probe filled with 1-5% copper/copper sulphate solution prior to a DCVG survey and clean it out at the end of the survey.
- ❖ Quantity: 2x



Reference Probes - DCVG

## **Maximus DCVG Carry Cases with Blue Case Insert**

### **Cat. No.: L016-CWBI**

- ❖ Stormproof carry case for the DCVG Survey SET equipment, which is yellow but may be black or green in colour depending on availability and comes with blue or grey foam insert, cut out to fit all components of the Maximus DCVG Set.
- ❖ Vacuum sealed to prevent moisture from coming inside the case.
- ❖ Quantity: 1x



DCVG Carry Case with Blue Insert

## Maximus DCVG Reference Probe Carry Case

### Cat. No.: SFBCASE

- ❖ Black waterproof carry case with handle and shoulder strap used to transport multiple reference probes. Zip on side of case.
  - ❖ Outside Dimensions 115cm by 18cm x 12cm
  - ❖ Internal Dimensions 115cm by 16cm x 10cm
- ❖ Quantity: 1x



**DCVG Reference Probe Carry Case**

# Assembled Maximus DCVG Equipment

