



## SL-86 Porosity/Holiday Detector

Instructions



Haian Discory Detecting Instrument CO.,Ltd

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## Foreword

Thank you for using sl-86Porosity/Holiday Detector. It is great honor to service for you. In order to make sure that you can use this instrument as soon as possible, the instrument is equipped with manual.

This manual is an important part of instrument. It can provide you a safety guideline. Please read this manual carefully before use our instrument. And after read please keep this manual in a good way.

Haian Discory Detecting Instrument CO.,Ltd reserves the right to improvement and innovation of the instrument without prior notice. If any problem during using, customer can connect us by following ways.

- 1、Service tel: 400-012-6866;
- 2、E-mail: postmaster@dscr.com.cn ;
- 3、Our web side: <http://www.dscr.com.cn>。

Thank you!

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## 1、 Overview

**s1-86 Porosity/Holiday Detector** is professional equipment used to detect the porosity of anticorrosive layer such as Oil and gas pipelines, cables, enamel, metal tank, and hull. s1-86 have installation of imported Electronic high voltage generator, and it was adopt computer control technology, meet the national standards.GB7993 and German standardD2N51163.

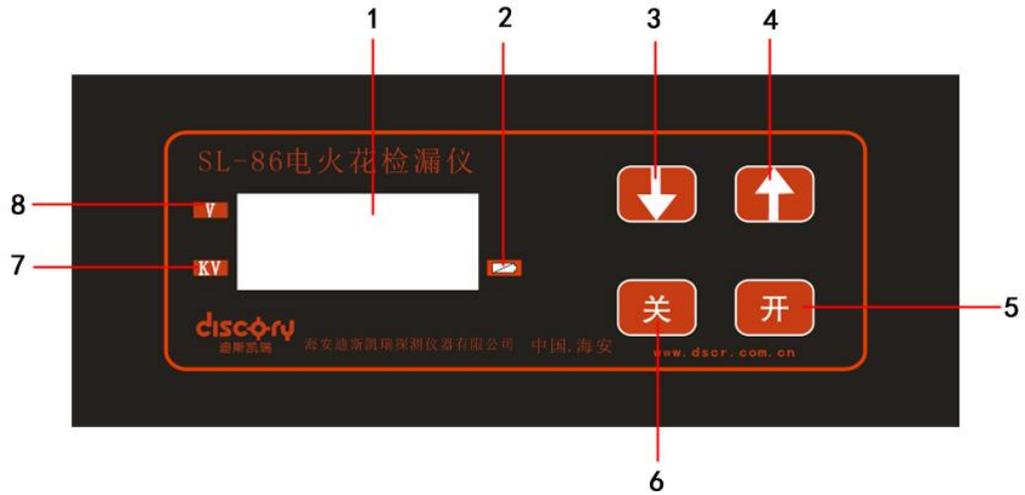
## 2、 Introduction

### 【Characteristic】

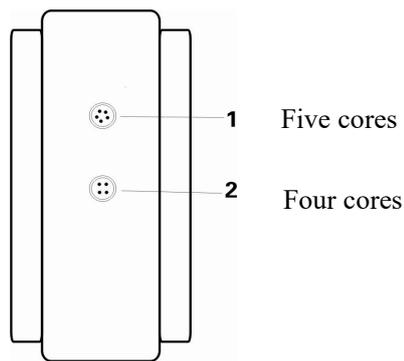
- 1、 Microelectronic integrated high voltage generator, to overcome the electrostatic;
- 2、 digital display, high-precision;
- 3、 Automatic switch for High voltage and source voltage; ;
- 4、 Power on self test function;
- 5、 protective function when mistakenly entered.

### 【Main technical index】

- 1、 Measuring range: A:0.03-3.5mm  
B:3.5-10. mm
  - 2、 Output high voltage: A:0.5-15KV  
B:15-36KV
  - 3、 Display: digital display
  - 4、 High voltage control system: digital governer
  - 5、 12V dc power supply
  - 6、 Consumption: <5w
  - 7、 Alarm delay: 1-2s
  - 8、 High voltage probe: high pressure generator (import)
  - 9、 Packing: ABS engineering plastic box
  - 10、 Main dimension: 165mm×155mm× 68mm
  - 11、 Weight: 1.5kg
- (2) Host panel:



- (1) digital display: display power and high voltage;
- (2) Battery: When battery lower than 11V, the display panel will show an alarm lamp, then should be charge;
- (3) ↓: Decrease output high voltage;
- (4) ↑: Increase output high voltage;
- (5) ON;
- (6) OFF;
- (7) Output high voltage。
- (8) Power;
- (3) **Right side**



1,High voltage gun socket 2,Ground wire socket

### 三、Detection principle

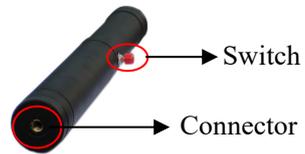
(1) Detection principle: Metal surface insulation coating too thin or leakage, when the high voltage go through, will have Spark discharge, then it has sound alarm.

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(2) structure: host、High voltage gun、The brush plate。

1、 host: Digital control circuit with sound alarm and battery

2、 High voltage gun: connect the brush plate, Electronic high voltage generator inside



3、 The brush plate: The brush plate(Standard) and The elastic Fan Brush(optional)。

#### 4、 notes

1、 DO NOT use the equipment in any combustibile, flammable or other atmosphere where an arc or spark may result in an explosion.

2、 technicians should wear insulated gloves during working.

3、 keep pipe line 20cm form ground.

4、 using in outside, if battery low, should be charge immediately

5、 keep coating surface dry and clean

6、 if idled too long, should be charge every 3 month

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## Operation steps

1、 Connect the long cable: connect the long cable with four-pin plug to the right side four-pin socket. (Host will not work without long cable)



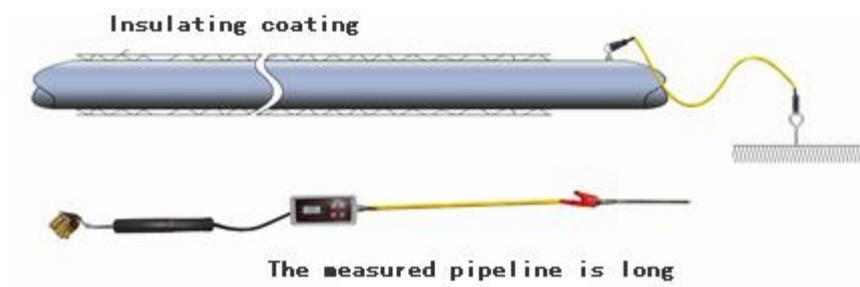
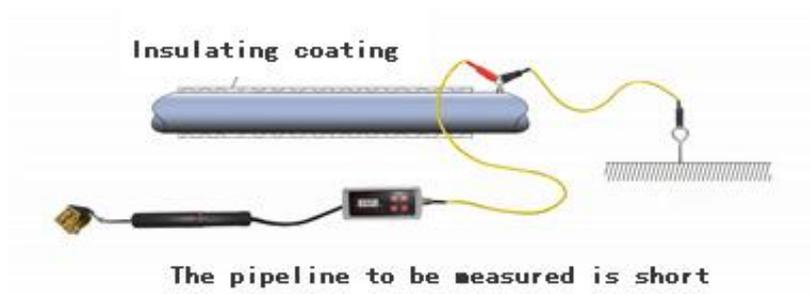
2、 Turn on the host: push the **ON** button, and the LCD will displays voltage should be  $\geq 11V$ . if lower should charge



3、 Before detecting, connect the high voltage gun with five-pin plug to the right side five-pin socket.



4、 Put the connecting magnet on the pipeline, and connect between long cable and the short connecting line, make sure the short connecting line have effective ground connection.



5、put the brush plate into high voltage gun

6、Test voltage schedule

Anticorrosion material	Coating thickness	Detection voltage	Remarks
Epoxy coal tar pitch Two oil cloth	0.2 0.4 0.6 0.8	4-5KV Or self	If standard shall be implemented according to the standard
Petroleum pitch	2 3 5.5 7 9	11 15 18 20 24	
Polyethylene tape	According to: $3249TC=V$ formula conversion V: voltage TC: anti-corrosion layer thickness Standard implementation of SY4014-92 acceptance criteria		
Glass lined	Depending on the experience, the detection voltage is generally 8KV-20KV		
Other anticorrosive materials	Depending on the design of the design department to detect the insulation performance of the voltage or the material itself.		

7、Try to draw near or touch the measured object (not short circuit, so as to avoid the load and damage the instrument), can see the discharge sparks (the length of the output voltage and the output voltage level), and a sound alarm, probe into the times of the object to be measured, while the host display count.



8、Press the high-pressure gun button at the same time, press up key on the host, the host shows high-pressure gun output high voltage and unclip the high-pressure gun button, the host will return to power supply voltage value, and then press key machine shutdown (display normal count to 99), if need to count numerical reset, please reboot.

9、Start to work.

The main parts

Date:        y    m    d

No.	Name	Item No.	Quantity	Picture
1	host		1	
2	High voltage gun		1	
3	The brush plate		1	
4	charger		1	
5	Long cable		1	
6	Short cable		1	
7	Connecting magnet		1	
8	Earth rod		2	
9	high pressure gloves		1	
10	manual		1	Manual certificate

The supervisor:

Packing:

Check:

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## Certificate of inspection

Hai Yi (word) No. 325th

Manufacturer: Haiian Discory Detecting Instrument CO., Ltd

Product name: Porosity/Holiday Detector

Specifications:

Factory no. :

Test conclusion:

Executive director :

Test :

Verification :

date:        y        m        d

validity period: one year

## warranty card

date      y      m      d

Product name	Porosity/Holiday Detector	Purchase date	
model		No.	
Quantity		Customer name	
tel		tel	
add		Zip No.	

### Repair records

Repair times	1	2	3
trouble			
situation			
Repair date			
Repair personnel			

### warranty card:

- 一、 the warranty period: 1 year
- 二、 the warranty conditions: customer used instrument normally, and In the warranty period
- 三、 Paid repair:
  - (1) no warranty card or invoice
  - (2) remove Voluntarily
  - (3) improperly secured,
  - (4) Man-made damage、 Natural disasters or improper operation of irresistible cause
  - (5) over the warranty period
- 四、 Users should keep a good this card, this card shall not be altered.
- 五、 With the card and certificate of inspection to repair

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## service

### dear customer:

thank you for using our product, Quality is our lifeblood of a brand, develop on credit, good service is our purpose.

### Our commitment

1、 our production process strictly implement the ISO9002 international quality standard system

2、 24hours service

3、 provide training

4、 one year warranty, life-long maintenance

5、 provide technical support and spare parts replacement

6、 pay attention to the feedback and suggestions

7、 The on-line service, online interpretation

### After-sale service

1、 24hours hot-line (400-012-6866)

We guarantee 4 hours to solve the problem, after we received your phone call

if solving problem on site is necessary. We guarantee 24 hours on the main city, and 48-72 hours on others

if hardware failure, we guarantee solving problem after 2days

2、 E-mail service (postmaster@dscr.com.cn)

reply not over 12 hours

3、 web side (www.dscr.com.cn)

Introduction and connection

4、 fax (0513-88931551)

reply not over 4 hours

5、 Emergency service

we will arrive at the customer scene in the shortest time

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