



GDJS-6A Auto Insulated Glove(boots) Test sets



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WARNING

- The following instructions are used by qualified person only to avoid electrical shock, do not perform any service beyond operation instructions unless you are qualified to do so.
- Don't operate this device in flammable and moist environment.Keep the surface clean and dry.
- Connect cables correctly.The order is to connect the device with ground first and then to connect with other cables.
- Before large test,please increase test voltage without connecting test product.Proofread every meters and adjust sphere gap.
- Test person should keep secure distance from high voltage device.If the device with electricity,do not touch surface connection points.Keep the speed constant in the process of boost and reduce voltage.
- Cut off electricity after voltage back to zero.If it is DC withstand voltage test,ensure tested products electricity discharge completely after finishing test,then to remove cable connections.
- Please turn off power when test finished or persons left.



Limited Warranty

The warranty period for this series is one year from the date of shipment, please refer to your invoice or shipping documents to determine appropriate warranty dates. Hvhipot corporation warrants to the original purchaser that this product will be free from defects in material and workmanship under normal use. Throughout the warranty period, provide that such defects are not determined by Hvhipot to have been caused by abuse, misuse, alteration, improper installation, neglect or adverse environmental condition, Hvhipot is limited solely to repair or replacement of this instrument during the warranty period.

Maintenance

- Please make sure the arrow on the equipment outer packing is up before open the box. Don't beat equipment heavily avoid equipment damage.
- Put the equipment in dry, clean, ventilative and no corrosive gas indoor places. Putting piled is not allowed if there is no wood box.
- Panel should be up while equipment storage. Underlay moistureproof items at the bottom of equipment to prevent damp.

Applications

Packing	Control table	1pcs
	Withstand flatbed trailer	1pcs
	Withstand test barrel	6pcs
	Power wire	1pcs
	Connecting wire	6pcs
	High voltage contacting ground cable	1pcs
	Ground cable	1pcs
	Sponge	6pcs
	Steel ball	several
	Metal insole	6pcs
	Manual	1pcs
	Warranty card	1pcs
	Test report	1pcs

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General Information

GDJS-6A Automatic Insulated glove(boot) Test sets is special equipment for batch test of insulated glove(boot),which simplify test procedure,improve test speed and reduce test strength.This guarantee test persons' security and identify parameters of leakage current,insulation aging and frequency voltage reliably.It can test 6pcs insulated glove(boot) at the same time.

The device integrate high voltage power with control system.It include the following characteristics: easy wiring and testing, reliable and reasonable layout, convenient moving, flexible dismounting, which is ideal product for updated generation.



Features

- 320x240 LCD screen,high speed thermal printer;
- 8 measurement ways for high voltage,low voltage current,6-way leakage current.High precision sensors and high performance 14-digit AD acquisition chip;
- Full keyboard operation mode,automatic working process.Automatic and manual operation for optional;
- Real time show high voltage,low voltage current,6-way leakage current,time and withstand voltage result;
- Automatic saving data.Show last time data when power cut off and open again;
- Perfect over-voltage,over-current protection.Set output voltage,low voltage current upper limit,leakage current upper limit and timing at random;
- Returning-zero detection function.Safe and reliable;
- Auto timing when arrive at set voltage,auto returning to zero after timing;
- Auto cutting off voltage output if beyond set low voltage current upper limit or leakage current upper limit.While voltage back to zero,sound and light alarm starts;

- Superior anti-interference design, suitable for disgusting electromagnetic environment;
- Auto error diagnosis, easy finding and solving problems;
- Functions of remote communication, alarm lights, door interlock, external divider calibration interference for optional.

Technical Specifications

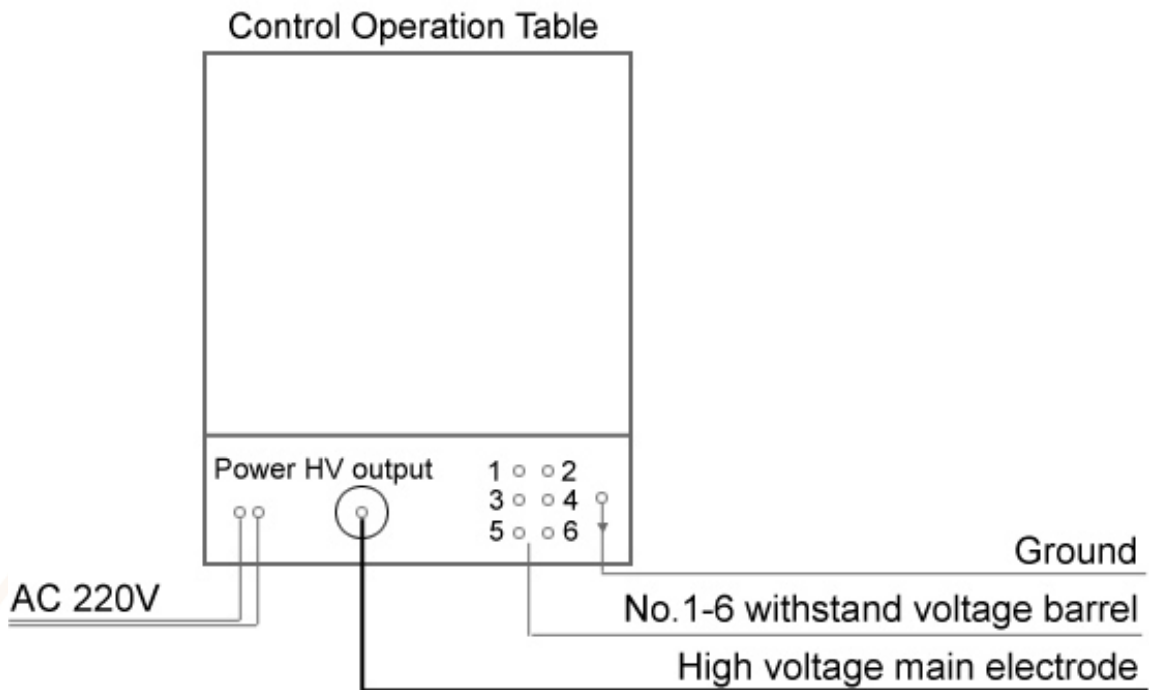
- Rated capacity: 3kVA
- Input voltage: AC220V \pm 10% 50Hz \pm 1
- Output voltage: 0-30kV
- Voltage accuracy: \leq 2.0% (F.S)
- Low voltage current: 0-15A
- Leakage current: 0-20.0mA
- Leakage current resolution: 0.1mA
- Current accuracy: \leq 1.5% (F.S)
- Timing range: 0-999s
- Environmental temperature: -20 $^{\circ}$ C to 50 $^{\circ}$ C

Operation

- When making test of water filled in insulated glove(boot) inside and outside,take off sponges.Inner water is the same height with outer water.Keep 90mm height above water.Please ensure the part without water clean and dry.Then put high voltage electrode into the insulated glove(boot).Clamp the glove(boot) well.
- When making test of steel ball filled in insulated boot,add water to sink until sponge fully soaked.Put metal panel of same size with tested boot into the boot as well as high voltage electrode.Let high voltage electrode contact with metal panel.Then bespread metal ball diameter no less than 4mm on the metal panel.The height is no less than 15mm.
- Locate a right place and connect cables correctly.A special person charged of security is better supported for supervise on-spot.
- As there is high voltage inside control unit,please make sure control unit be grounded reliably.

How to use

- . Connect wires correctly according to test requirement.



Picture 1 Diagram

A. Power cable connection

A red two-core cable connected with AC220V power supply.

B. High voltage cable connection

A red heavy cable, connected from high voltage output terminal of control table to withstand flatbed trailer main electrode terminal.

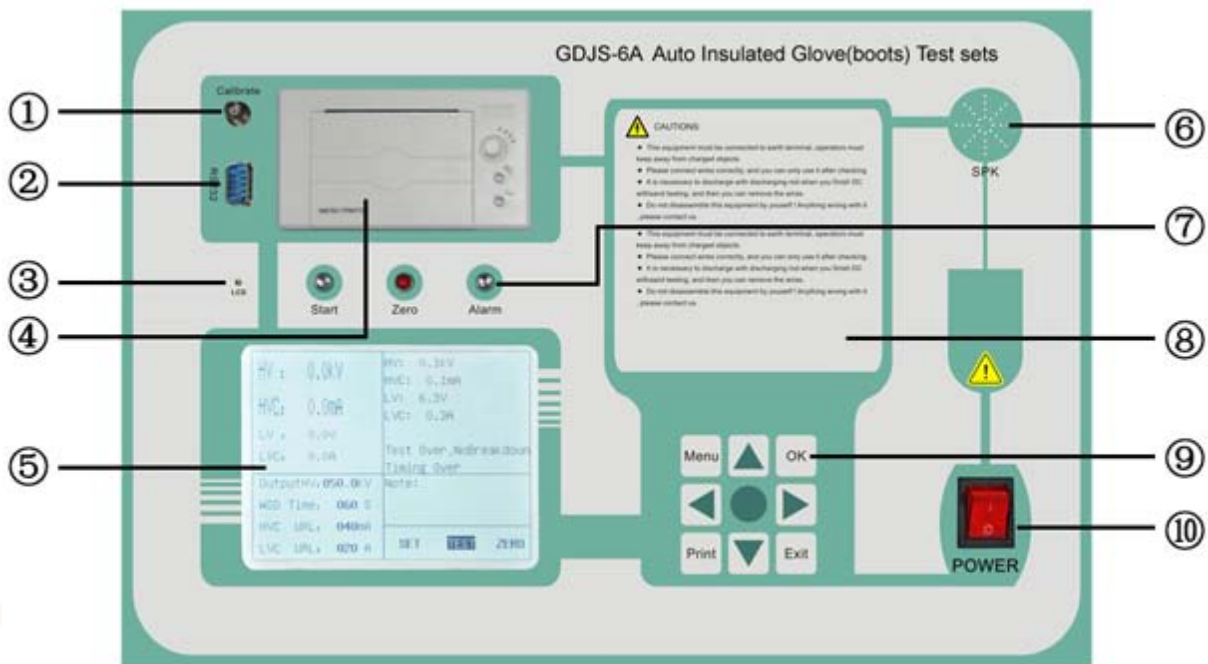
C. High voltage ground terminal cable connection

6pcs black cable from control table terminal connected with barrel terminal accorded with withstand flatbed trailer.

D. Ground wire

Control table should be connected with ground. Using a transparent line end with clamp connected with ground terminal of control table, the other end connected with reliable ground.

. Control box panel



Picture 2 Panel Chart

Numbers	Panelkeys	Function
1	Divider interface(Optional)	It is set for voltage divider outer connection.Input voltage is 100V.We do not make this interface unless customers require.
2	RS232(Optional)	It connects with PC serial communication port. We do not make this interface unless customers
3	LCD Contrast	Adjust backlight to proper brightness.
4	Printer	Press "Print" button to get test results.Do not print before returning voltage to zero.
5	LCD screen	320x240 pixel dot matrix white LCD,clear in strong light and dark environment.
6	Tips	Some brief tips about Safety and wiring scheme.
7	Indicator	Consist of start light, Zero light, Alarm light.Start light and alarm light is highlight seven-color lights.
8	Buzzer	Automatically send a security alert in emergency situations
9	Keyboard	The function is prompted at corresponding location at prompt column on the display.
10	Power supply switch	Power Supply switch with indicator light.

.Software application

A. Open the device

When opening the device,you can find interface below as Picture 3



Picture 3

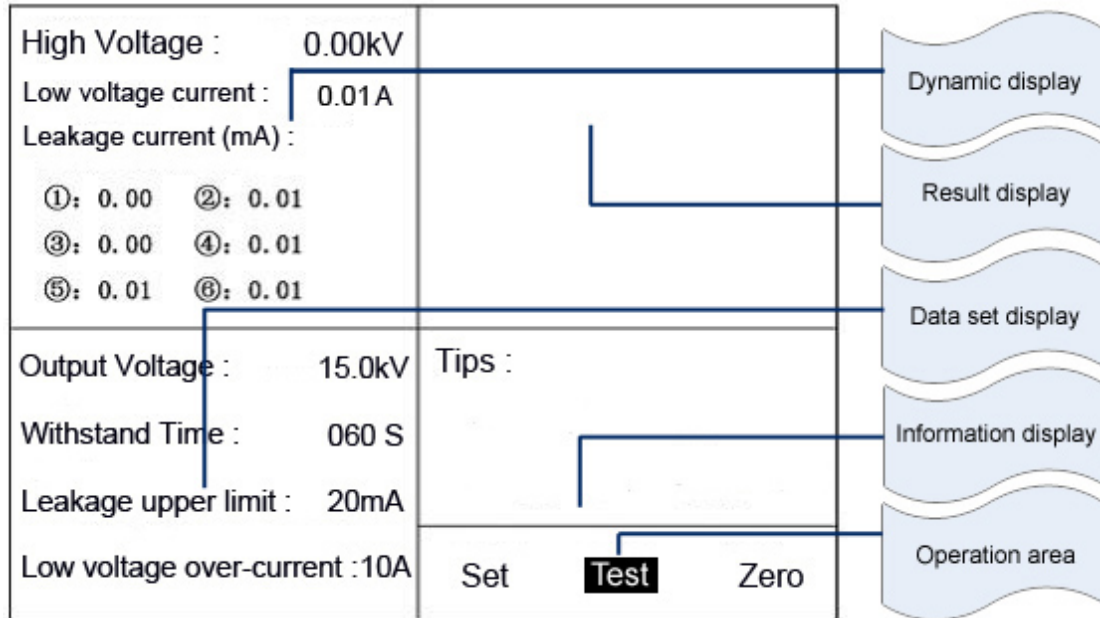
SeePicture4 about keyboard interface,press

UP"▲",DOWN"▼",RIGHT"▶",LEFT"◀",switch "Auto withstand voltage test" or "Manual withstand voltage test".



Picture 4 Keyboard

After selecting test mode,press"**OK**" to enter into main interface.See Picture 5.



Picture 5 Main interface

Dynamic display	Collect signals, shows high voltage, low voltage current, 6-way leakage current.
Result display	If current is not more than upper limit, it shows average high voltage, average low voltage current, 6-way average leakage current. Otherwise, it shows peak high voltage, peak low voltage current, 6-way peak leakage current.
Data set display	Output voltage: target boost voltage withstand value in the mode of auto withstand voltage. Withstand voltage time: Time in the process of withstand voltage. Leakage upper limit: 6-way leakage current peak upper limit. Low voltage over-current: low voltage current peak upper
Information Display	Show test status and tip information in the process of test.
Operation area	Select command "Set, Test, Returning-zero"
Tips	Some brief tips about Safety and wiring scheme.

B. Set parameter

In the main interface,select"**Set**",then press"**OK**" to enter into set interface.See picture 6

High Voltage : 0.00kV low voltage current : 0.01A Leakage current(mA) : ①: 0.00 ②: 0.00 ③: 0.00 ④: 0.00 ⑤: 0.00 ⑥: 0.00	
Output voltage : 15.0kV Withstand time : 060 S Leakage upper limit : 20mA Low voltage over-current : 10A	Tips: Set Test Zero

Picture 6 Set interface

Press LEFT"◀",RIGHT"▶" to switch cursor movement position,press UP"▲",DOWN"▼" to change data value.Cursor position and data all can be cycled automatically.When all parameters are set finished,press"Cancel" to exit and back to main interface.

C. Manual Withstand Voltage Test

Zero position---When select "**Test**",press "**OK**" to enter into test status.If voltage regulator is not at the position of zero.it will show"please return to zero position before test".Then exit test and return to zero position.

Test process---Test starts after back to zero position.Select "**Test**" and press "**OK**",contactor switch on.At this moment,Input voltage is nearly to Zero.See picture 7.

High Voltage : 0.00kV Low voltage current : 0.02A Leakage current (mA) : ①: 0.00 ②: 0.01 ③: 0.00 ④: 0.01 ⑤: 0.01 ⑥: 0.01	
Output Voltage : 15.0kV Withstand Time : 060 S Leakage upper limit : 20mA Low voltage over-current : 10A	Tips : Boost ↑ Timing ← Reduction ↓ Cancel →
	Set Test Zero

Picture 7 Manual tip interface



Press Key" ▲ ",high voltage is boosting continuously.Loose the key,it is stop to boost.If up to upper limit,it will show Full Range.

Press Key" ▼ ",high voltage is reducing continuously.Loose the key,it is stop to reduce.If up to lower limit,it will show Zero.

Press Key" ◀ ", it starts to timing.When withstand voltage timing finished,test finish.

Press Key" ▶ ",test canceled.

In the process of voltage boost,if low voltage current peak exceed "low voltage over-current"value or 6-way leakage current peak exceed"leakage upper limit" value,it is current super range.Contactor switch on at once and shows test result,including peak high voltage,peak low voltage current,6-way peak leakage current.Voltage regulator starts to zero.Test finished when it is back to zero.If low voltage current peak is no more than "low voltage over-current"value and 6-way leakage current peak value is no more than "Leakage upper limit"value,withstand voltage process finished when timing finish.Result display shows average high voltage,average low voltage current,6-way average leakage current. Voltage regulator starts to zero.Contractor switch off test finished when back to zero.

D. Auto withstand voltage test

Auto withstand voltage test is similar with process of manual withstand voltage test. After returning to zero, press "**OK**" to enter into below interface. See picture 8.

High Voltage : 0.00kV Low voltage current : 0.02A Leakage current (mA) : ①: 0.00 ②: 0.01 ③: 0.00 ④: 0.01 ⑤: 0.01 ⑥: 0.01	
Output Voltage : 15.0kV Withstand Time : 060 S Leakage upper limit : 20mA Low voltage over-current : 10A	Tips : Start Cancel
	Set Test Zero

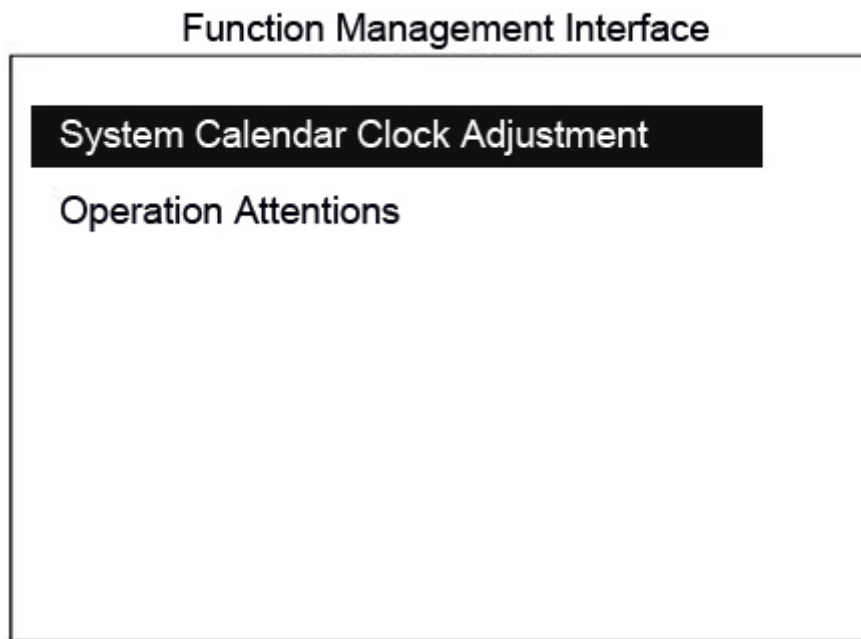
Picture 8 Automatic Tip interface

Switch to "**Start**" and begin to test. For auto withstand voltage test, it will boost voltage automatically to "**Output voltage**" value in the process of voltage boost. Then timing start.

In the process of voltage boost, the voltage is boosted to target value, then adjust it slightly. Make sure high voltage value is nearly output voltage value.

E. Function selection

Press "**Set**" button on the keyboard, enter into function interface. See picture 9.



Picture 8 Automatic Tip interface

After entering into function interface, select interface "**System calendar clock adjustment**" , "**Operation Attentions**".

System calendar clock adjustment: Set clock time, for the purpose of printer time show.

Operation attentions: Supply some operation specification and safety attentions.

F. Print

Press "**Print**" to get test result.

Appendix A: Frequently used electric insulation tool test standard

No.	Name	Voltage grade (kV)	Cycle (year)	AC(kV)	Time (min)	Leakage current(mA)	Remark
1	Insulating board	6~10	once	30	5		
		35		80			
2	Insulating cover	35	once	80	5		
3	Insulating clamp	<35	once	3times line voltage	5		
		110		260			
		220		400			
4	Test pen	6~10	twice	40	5		
		20~35		105			
5	Insulating glove	High voltage	twice	8	1	≤9	
		Low voltage		2.5		≤2.5	
6	Phasing tester	6	twice	6		1.7~2.4	
		10		10		1.4~1.7	
7	Rubber insulating boot	High voltage	twice	15	2	≤7.5	Water inside
8	Rubber insulating boot	High voltage	twice	25	1	≤10	Steel ball inside
9	Insulating rubber mat	High voltage	once	15	1	See if it is breakdown	Using in the place with electricity
		Low voltage	once	3.5	1		

Appendix B: 3KV-10KV(power frequency)insulation boot electric performance

No.	Items	Delivery inspection	Prevent inspection
1	Power frequency voltage(KV)	20	15
2	Leakage current(mA)	≤10	≤7.5
3	Duration time(min)	2.0	1.0
4	Inspection cycle	—	Half year a time

Appendix C: Frequently used electric insulation tool test table

No.	Items	Voltage grade (kV)	Cycle	Power frequency withstand (kV)	Duration time (min)	Leakage current (mA)	Remark
5	Insulating glove	High voltage	Six months a time	8	1	≤9	Half year
		Low voltage		2.5		≤2.5	
6	Rubber insulating boot	High voltage		15	1	≤7.5	