

Electrostatic Discharge Simulator

# ESS-PS1 & GT-31S (ESD Gun)



## Make your electrostatic testing easier!

This tester simulates the electrostatic discharge phenomenon from a charged human body and evaluates the resistance of electronic devices to electrostatic discharge.

Electrostatic discharge occurs when a charged human body approaches an operation panel, button switches, or housing of electronic devices. It generates a high-voltage, high-frequency noise which can cause malfunctions in the electronic devices.

Electrostatic testing reproducing noise caused by electrostatic discharge is one of the essential immunity tests to prevent troubles caused by noise in the market.

- IEC 61000-4-2 / ISO 10605 Standards compliance.
- Touch panel operation discharge gun improves operability.
- Portable battery unit offer convenient testing for large equipment.
- Pre-check function for simple pre-start inspection to ensure correct testing.
- One-touch replacement of CR unit.



### Greater freedom in testing! Touch panel and portable battery for easier testing

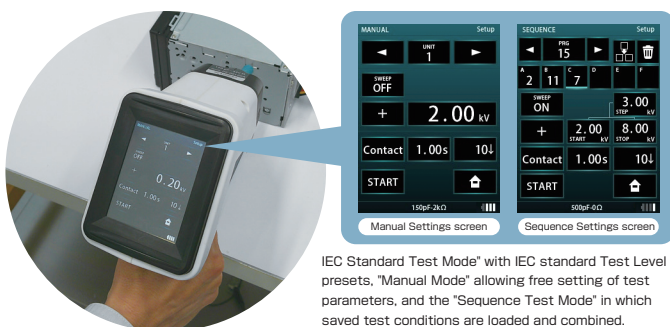
The discharge gun is equipped with a touch panel and is battery-powered for improved portability. This is effective when testing mobility devices, large medical devices, office equipment, etc.



\*Product image is for illustration purpose only.

### Easy setting of test conditions Intuitive Operation Screen

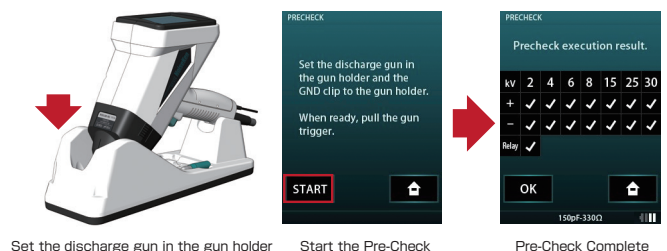
Easy setting of test conditions using the touch panel on the discharge gun. User-friendly intuitive design with English/Japanese multilanguage support.



IEC Standard Test Mode\* with IEC standard Test Level presets. \*Manual Mode\* allowing free setting of test parameters, and the \*Sequence Test Mode\* in which saved test conditions are loaded and combined.

### More reliable testing Pre-check Function

Three pre-check functions to ensure more reliable testing: "High voltage power supply output check," "Insulation failure check," and "Discharge relay operation check." Three pre-check functions allow early detection of abnormalities in the testing equipment. Does not require a dedicated measuring device, anyone can easily operate this function.



Set the discharge gun in the gun holder

Start the Pre-Check

Pre-Check Complete

\*Image during development

ESS-PS1 & GT-31S Specifications

Parameter	Features / Specifications
Output voltage	0.2kV ~ 30.0kV
Polarity	Positive / negative
Repetition cycle	0.05s ~ 600s
Discharge number of times	1 - 60,000 times, continuous
Discharge mode	Contact discharge / Air discharge
Test mode	IEC standard test mode Manual test mode Sequence test mode
Trigger mode	Gun trigger / External trigger
Discharge detection	present
Pre-check function	present

Parameter	Features / Specifications
CR-cup check	IEC & ISO detection
Operation panel	Color LCD touch panel (resistive film type)
Language	English / Japanese
External Control	Optical connector connection for PC communication
Power Supply	AC100V ~ 240V / battery
Dimensions	Power Supply Unit: (W)180×(H)124×(D)292mm Gun: (W)90×(H)236.2×(D)285.4mm <i>* protrusions excluded</i>
Weight	Power Supply Unit: 3kg (excluding AC adapter) Gun: 1.2kg (cables included/connector excluded)
Gun Holder	Included in the package

Electrostatic Discharge Simulator  
**ESS-S3011A & GT-30RA**

Free you from the hassle of testing by the pre-check function and the weight reduction of the discharge gun

Achieve more reliable test!  
Equipped with "3 Pre-check Functions"



**PRE CHECK SET UP**

**STEP 1**  
設置の先ず、ホルダにセットし、[START]キーを押す。  
Please set the ESD GUN to the gunholder, and press [START] key.

**STEP 2**  
試験端子に、[PRE CHECK]端子を接触させ、[START]キーを押す。  
Please set the contact discharge tip to the [PRE CHECK] terminal, and pull the GUN TRIGGER.

**Pre-check completed!**

PRE CHECK	RESULT
[CHECK 1] ... PASS	
[CHECK 2] ... PASS	
[CHECK 3] ... PASS	20

**PRE CHECK RESULT**

PRE CHECK	RESULT
[CHECK 1] ... PASS	
[CHECK 2] ... PASS	
[CHECK 3] ... FAILED	

Press any key to MAIN MENU.  
**In case of failure, a "FAILED" message is displayed.**

- [Check 1] High-voltage power output check: Check the error from the set value.
  - [Check 2] Insulation defect check: Checks for defective insulation withstand voltage.
  - [Check 3] Discharge relay operation check: Check the relay for wear. Check the wear of the discharge relay by bringing the discharge gun into contact with the check terminal and discharging.
- When the discharge gun is placed in the attached gun holder, you can check the output of the high-voltage power supply and check for insulation defects.

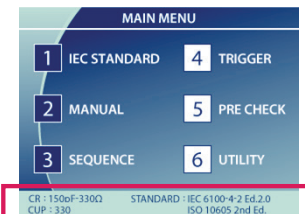
"CR constant indicator" to make sure the correct unit attachment



Whether the gun head corresponds to IEC or ISO ?



What values are the charge capacitor and discharge resistor ?



Indicated on the display of the generator

\*There are restrictions on the display pattern.

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