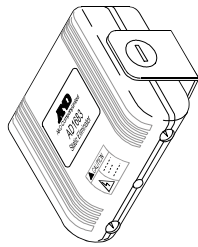


Instruction Manual



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The contents of this manual and the specifications of the instrument covered by this manual are subject to change for improvement without notice.



WHM-PD-0000962

To Use the AD-1683 Safety

Thank you for your purchasing the AD-1683 DC static eliminator. Please read this manual completely before using the AD-1683.

The warning described in this manual has the following meaning:

Caution

When operating this instrument, be sure to observe the following safety precautions

- Do not open the case to repair the AD-1683. Only qualified personnel can do that. Attempting repairs yourself may cause damage to the AD-1683. Damage caused by attempting to do the repair yourself will void the warranty.
Do not use the AD-1683 in a closed environment. Ozone Ventilates well.
The AD-1683 is not explosion-protected. Do not use the instrument where flammable solvents or dust exists.
Use the specified AC adapter only. Please confirm that the AC adapter type is correct for your local voltage and receptacle type. If an AC adapter other than specified is used, static elimination performance may not be guaranteed or it may cause an electrical shock.
Be sure to insert the AC adapter into a grounding-type electrical outlet and earth ground the grounding cable. Otherwise, static electricity may not be eliminated or it may cause an electrical shock.

*1: Use the AC adapter identification label to identify the AC adapter.

- Caution: Do not keep the AC adapter connected to the electrical outlet for a long period of time. Dust that has collected on the outlet may cause a fire.
When relocating the AD-1683, remove the AC to avoid a possible electrical shock.

Precautions on Usage

- Caution: If the AD-1683 malfunctions, stop using it immediately. Place the instrument on a flat surface and use the instrument in a place where it cannot be used by mistake as it is very dangerous to continue using the instrument under such conditions. Ask the nearest dealer for services.
Do not face the front of the AD-1683 directly toward an electronic balance, ionized air from the AD-1683 may affect the measurement and cause a measurement error.
When used with a balance of other manufacturers, static elimination can not be guaranteed.
Do not place the sample closer to the AD-1683 than specified. The sample may become charged.
Do not place any obstacle between the AD-1683 and the sample.
The stand can be attached to the workbench. The stand has three holes with a diameter of 6 mm in 42.5 mm interval for that purpose.
To secure the stand: Bend the side plates outward to remove the AD-1683, using much care not to separate the upper and lower cases. Attach the stand to the workbench using the screws. Replace the AD-1683 on the stand.

1. Introduction

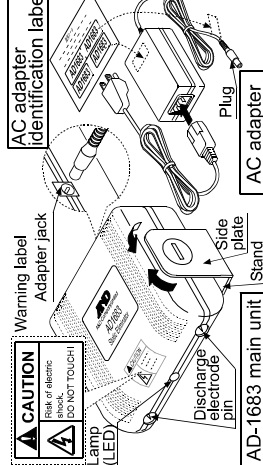
This manual describes how the AD-1683 works and how to get the most out of it in terms of performance. Please read this manual completely before using the AD-1683.

2. Features

The AD-1683 generates bipolar ions continuously by DC corona discharge separately from positive and negative discharge electrodes and directs the ionized air onto the charged body to eliminate static electricity. The generated ions are well-balanced in polarity and can eliminate static electricity regardless of the polarity of the charged body. (See Fig. 3.)

Static electricity. Generated by rubbing plastics, etc. with static electricity when the ambient relative humidity is below 45%RH. This may affect weighing and cause a measurement error of several milligrams. The AD-1683 can eliminate static electricity very effectively.

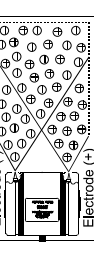
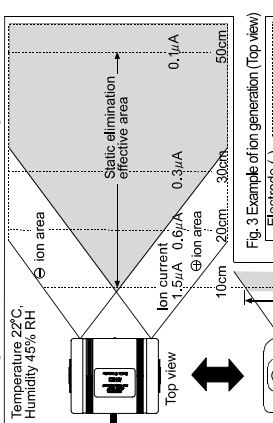
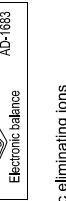
3. Part Names



Note: Please confirm that the AC adapter type is correct for your local voltage and receptacle type. To prevent electrical shock, insert the POWER cable into a grounding-type outlet and earth ground the grounding cable.

4. How to Use the AD-1683

- 4-1. Installing the AD-1683: Choose the installation site so that the AD-1683 can be placed on a flat surface. Place the AD-1683 on a sample and a space wide enough to place a sample (10 cm to 30 cm from the front of the AD-1683) can be secured. Place the sample in front of the AD-1683 inside the specified area and perform static elimination. Then, weigh the sample using the electronic balance.

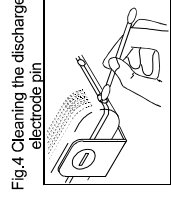


- 4-2. Turning the power on: Insert the AC adapter plug into the AC adapter jack located on the rear of the AD-1683. The red LED at the center of the AD-1683 illuminates to indicate that static elimination is available.
Note: Please confirm that the AC adapter type is correct for your local voltage and receptacle type.

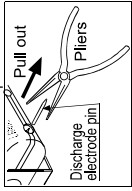
4-3. Finishing the use: Remove the AC adapter from the electrical outlet.

5. Maintenance

- 5-1. Cleaning: Remove the AC adapter from the electrical outlet.
Caution: Remove the AC adapter from the AD-1683 before cleaning.
When used for a long period of time, dust may collect around the discharge electrode pins and static elimination performance will be lowered. To maintain the elimination performance, clean the discharge electrode pins once a week. Use a cotton swab to clean the electrode pins.



- 5-2. Replacing the discharge electrode pin: When the elimination performance remains low even after cleaning the discharge electrode pins, replace the discharge electrode pins with new ones. Remove the AC adapter from the receptacle and the AD-1683. Using a pair of pliers, pull the discharge electrode pin. Insert a new pin, using much care not to bend the pin tip. Be sure to insert the pin till stopped.

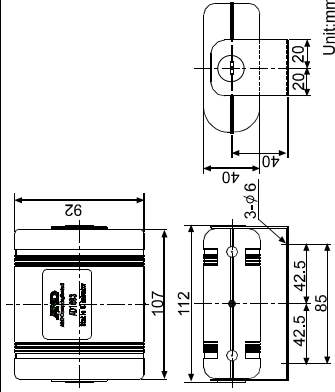


Replacement discharge electrode pins (Sold separately): AX-054016580-S

6. Specifications

Table with specifications: Static elimination method (DC corona discharge), Elimination range (Distance: Approx. 10 cm to 30 cm), Elimination performance (Discharge: 10cm, 20cm, 30cm, 50cm), Ambient temperature and humidity (0°C to 40°C, 80%RH or less), Power supply (AC adapter), Power consumption (Discharge electrode pin: 0.07WPPM), Discharge electrode pin Mass (Approx. 300g).

External Dimensions



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