



**APLICACIONES  
TECNOLOGICAS**

S.A.

# DAT TESTER

**Verificador de pararrayos**

OPERATING  
INSTRUCTIONS

## 1 – General Description



**DAT Tester** is an electronic system based on a microcontroller, able to verify the working of all Aplicaciones Tecnológicas, S.A. Lightning Air Terminals. DAT Tester indicates their proper working and diagnoses their failure if it occurs.

DAT Tester performs the test applying a voltage over 5000 volts to the air terminal. Therefore, it is very important not to manipulate the device while the security key is in H.V.ON position.

### Dimensions

140 x 180 x 65 mm.

### Weight

1,33 kg.

### Enclosure material

ABS white

### Power supply

Rechargeable 12V Battery (Ni-Cd). Approximate duration: 6 hours (depending on the generated High Voltage and the test duration).

### Included Accessories:

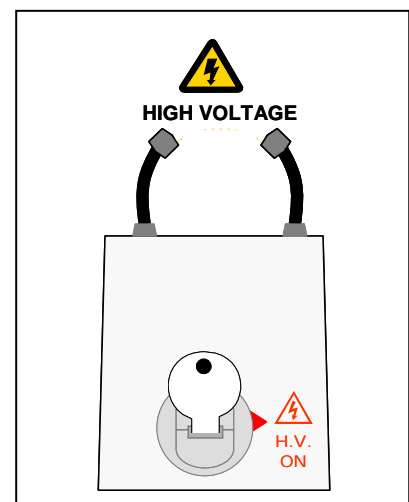
- Test cables with security jacks and clamps..
- Battery Charger with power supply plug (220Vac).

## 2 – Security measures



**WARNING. This device produces high voltage. Follow carefully the following security measures:**

1. Verify that the clamps are connected and the security key is in the position **HV OFF** before switching on the Tester.
2. Don't leave the cables or the clamps in a wet place between tests.
3. Don't manipulate the clamps while the security key is in HV ON position.
4. Don't use this tester in explosive atmospheres.
5. Always check the cables and clamps before any measurement in order to verify that there is no anomaly or defect.

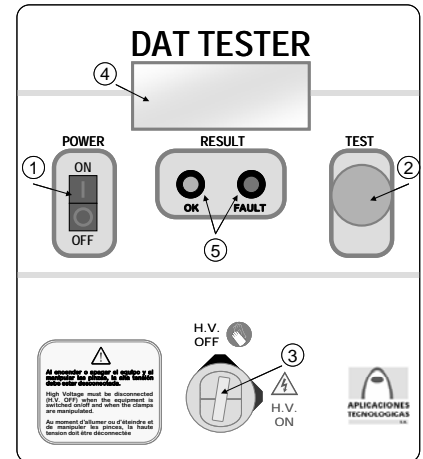


When the key is in "HV ON" position, the voltage between the clamps reaches thousands of volts.

### 3 – User Interface

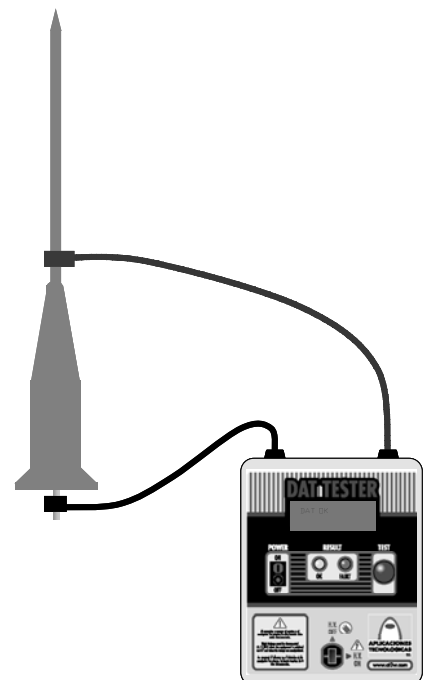
**DAT Tester** provides a friendly interface to the user, since the measurement procedure is fully automated. This interface comprises:

- ① Power switch (ON/OFF)
- ② Test push button, for starting a new measurement procedure.
- ③ Security key that avoids inadequate or dangerous equipment misuse.
- ④ LCD Display that provides information to the user about the state of the air terminal, the device and the battery.
- ⑤ Two leds indicating the test result, thus allowing the use of the tester even with low visibility.



### 4 – Measurement procedure

- Switch on the tester with the “Power” button.
- Connect the tester clamps, one to the mast and the other to the armature of the lightning air terminal .
- Turn the security key to HV ON.
- Push the Test button. The procedure will start automatically. Don't remove the clamps until the result is written in the display and in the OK / FAULT indicators.
- An acoustic signal indicates the end of the test. The display shows the test result:
  - **DAT OK** indicates that the test is correct and the lightning air terminal works properly.
  - **Short Circuit** or **Open Circuit** indicates that the lightning air terminal is faulty.
- Turn the security key to HV OFF and disconnect the clamps out of the lightning air terminal.



## 5 Battery state

For testing the DAT Tester battery status, switch on the tester and maintain the security key in HV OFF position. Battery test is automatically carried out periodically, showing the result in the display.

The DAT Tester does not allow the lightning air terminal test while the battery level is low in order to guarantee the result reliability. If the message “Low Battery” appears when trying to perform the test, connect the charger and turn the security key to HV OFF until the message “Battery OK” appears.



CONNECTOR FOR THE BATTERY CHARGER.

Messages:

- **Battery OK** indicates that the battery charge is high enough for a reliable test.
- **Low Battery** indicates that it is necessary to recharge the battery for obtaining a reliable result in the next test.

## 6 Considerations

DAT Tester is a portable lightning air terminal testing system, based on digital technology. Its misuse or an excess of discharges could damage the control and visualization system. If this happens, switch of the DAT Tester and switch it on again after 10 seconds. If the problem remains, please contact Aplicaciones Tecnológicas S.A. Technical Department.

Don't open or drill the DAT Tester enclosure. The High Voltage generator could be dangerous in case of misuse.

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