



# Model 7016 IN

## 15kV High Voltage Insulation Tester



### Accessories

- Instruction manual
- Test report.
- Test leads (AL-30AG AL-30HB)
- Alligator clip (AL-23CA)
- H.V Line probe with (AL-58)
- Data transmission cable (CA-232)
- Charger (CHA-7015)
- Compact disk(CD).

### Features

- Protection class: IP66 (Lid closed)
- Test insulation resistance up to 30TΩ (30000GΩ).
- Short-circuit current up to 5mA
- Microprocessor controlled.
- 30 insulation test voltages :  
500V, 1kV, 1.5kV, 2kV, 2.5kV, 3kV, 3.5kV, 4kV, 4.5kV, 5kV, 5.5kV, 6kV, 6.5kV, 7kV, 7.5kV, 8kV, 8.5kV, 9kV, 9.5kV, 10kV, 10.5kV, 11kV, 11.5kV, 12kV, 12.5kV, 13kV, 13.5kV, 14kV, 14.5kV, 15kV
- AC/DC voltmeter (600V).
- PI (Polarization Index) indication.
- DAR (Dielectric Absorption ratio) indication.
- Auto-ranging on all insulation ranges.
- Backlight function.
- Menu driven.
- Visual and audible warning if external voltage is present ( ≥30Vac or ≥30Vdc)
- Auto-hold function to freeze the reading.
- Overload protection.
- Adjustment for testing time (duration): 1~30 minutes
- Auto-off.
- Calendar.
- Optical USB to RS-232 data transmission.
- 200 measurement results can be saved in the memory and recalled on the display.
- Safety standard : EN 61010-1 CAT IV 600V  
EN 61010-2-030,  
EN 61326-1



Test report  
Instruction manual  
CD



AL-58

AL-30AG  
AL-30HB



AL-23CA



CA-232



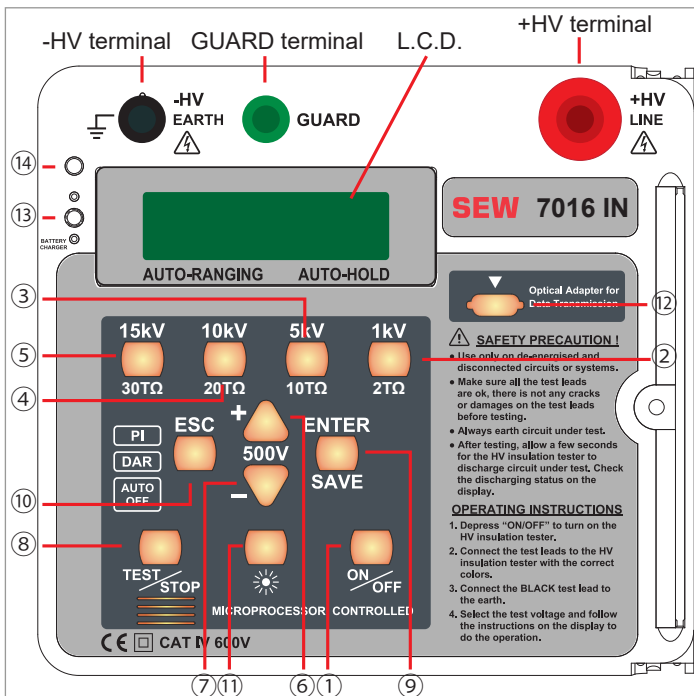
CHA-7015  
ISL-6237



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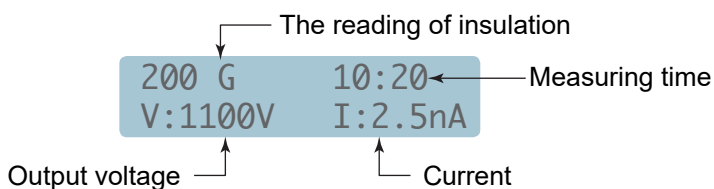
## 15kV High Voltage Insulation Tester

### Instrument Layout



- |  |   |
|--|---|
| (1) Power ON/OFF button                                | (7) To subtract (-500V) button to the selected test voltage |
| (2) Insulation resistance test at 1kV button           | (8) TEST/STOP button  |
| (3) Insulation resistance test at 5kV button           | (9) ENTER & SAVE button                                     |
| (4) Insulation resistance test at 10kV button          | (10) ESC button   |
| (5) Insulation resistance test at 15kV button          | (11) BACKLIT button   |
| (6) To add (+500V) button to the selected test voltage | (12) CA-232 connection socket                               |
|  | (13) Battery-charge socket                                  |
|  | (14) Charge indicator                                       |

2 Lines x 16 characters, large intelligent LCD module.



Tests on lower insulation resistance take longer, which tends to deteriorate the test specimen. Thus, higher DAR or PI readings (closer to 1) would indicate a better grade of insulation.

### Applications

For testing the insulation resistance of cables, motors, generators, transformers, insulators, high-pressure switches, wiring installations.....etc.

### Special Functions

#### Voltmeter

Conventional insulation testers are highly susceptible to damage when testing insulation resistance while voltage is present on the measured object (whether ACV or DCV). To safely prevent damage, this new line of testers has the unique ability to sense voltage on a measured object. If any voltage is sensed, the tester will automatically switch to voltage detection mode and display the voltage finding on the LCD screen. This allows the user to prevent damage caused by attempting to measure insulation resistance while voltage is present.

#### DAR = Dielectric Absorption Ratio

The dielectric absorption ratio is the ratio of the insulation resistance measured at 1 min divided per the insulation resistance measured at 30 seconds. 30 seconds after starting a test, the tester will beep, indicating the operator that the resistance value measured at 30 seconds now has been saved internally. 1 minute after starting a test, the tester will beep again, indicating the user that the DAR result is now computed, and change the display format to now display the DAR result.

$$\text{DAR} = \frac{1\text{-min insulation resistance}}{30\text{-sec insulation resistance}}$$

#### PI = Polarization Index

The polarization index or PI is the ratio of the insulation resistance measured at 10 minutes divided per the insulation resistance measured at 1 minute. 10 minutes after starting a test, the tester will beep again, indicating the user that the PI result is now computed, and change the display format to now display the PI result.

$$\text{PI} = \frac{10\text{-min insulation resistance}}{1\text{-min insulation resistance}}$$



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## 15kV High Voltage Insulation Tester

### Specifications

|                                   |   |   |
|-----------------------------------|---|---|
| Test voltage                      | From 500Vdc to 15kVdc<br>Adjustable in 500V steps   |   |
| Preset buttons                    | 1kV, 5kV, 10kV, 15kV  |   |
| Insulation resistance             | 1000GΩ / 0.5kV<br>1000GΩ at 0.5kV ~ 30TΩ at 15kV  |   |
| Accuracy                          | 1kV: 0~200GΩ<br>5kV: 0~1TΩ<br>10kV: 0~2TΩ<br>15kV: 0~3TΩ                                    | ±(5%rdg+5dgt)   |
|                                   | 1kV: .200GΩ~2TΩ<br>5kV: 1TΩ~10TΩ<br>10kV: 2TΩ~20TΩ<br>15kV: 3TΩ~30TΩ                        | ±20%  |
| Resolution                        | 1GΩ : 0.001GΩ<br>10GΩ : 0.01GΩ<br>100GΩ : 0.1GΩ<br>1TΩ : 1GΩ<br>10TΩ : 10GΩ<br>30TΩ : 100GΩ |   |
| Short circuit current             | up to 5mA   |   |
| PI (Polarization Index)           | √   |   |
| DAR (Dielectric Absorption Ratio) | √   |   |
| Voltmeter                         | ACV : 30~600V (50/60Hz)<br>DCV : 30~600V<br>Accuracy : ±(2.0%rdg+3dgt)<br>Resolution : 1V   |   |
|                                   | Current measurement   | .0.5nA ~ 0.55mA<br>(Depending on the insulation resistance) |
| Power source                      | Rechargeable battery  |   |
| Adapter                           | Input : 100-240Vac, 0.4A, 50-60Hz<br>Output : 24Vdc, 0.62A                                  |   |
| Dimensions                        | 430(L) x 324(W) x 127(D)mm  |   |
| Weight                            | Approx : 6.56kg   |   |

### Data Communication Function

- Downloading saved data to a PC.
- Transferring and showing real-time data to a PC.
- 200 measurement results can be saved in the memory and recalled on the display.



Measure the insulation of cable

