



## Cable Harness Tester - 8681 4-Wire Cable Harness Tester - 8687

- 256 test points
- Fast automatic production testing
- Automatically learn the pin connections
- Statistical reports
- 1 kV AC & DC hipot test
- Six standard measurement functions
- 4-wire testing with 8687

### Learn the cable

This allows the user to connect to the cable under test and automatically identify the pin connections, saving a great deal of time by not having to enter the pin connections manually and reducing operator error.

### Fast automatic testing with up to six different measurements

Once the cable pin connections have been identified up to six different measurements can be selected.

The range of measurements includes open/short, conductance, resistance, capacitance, diode and hipot/insulation resistance. Having set-up the measurement parameters the cable harness tester is ready to test, providing a simple Pass/Fail banner for each cable tested.

The range of tests available allow any cable to be completely tested for correct wiring and safe construction. It does this at great speed allowing fast throughput of manufactured cable assemblies.

### Statistical reporting

Onboard statistical reporting allows the operator to gain up to date statistical information on the number of units tested and number of units that have Passed/Failed.

In addition a more detailed fail analysis is available showing the number of failures per measurement.

### Cable harness testers comparison table

	8681	8687
Measurement functions	Open/Short, Conductance,	Open/Short, Conductance,
	Resistance, Capacitance,	Resistance, Capacitance,
	Zener, Intermittent O/S,	Zener, Intermittent O/S,
	Intermittent Conductance	Intermittent Conductance
Hipot / insulation resistance	1.5 kV DC, 1.0 kV AC	1 kV DC, 1.0 kV AC
Test Points	256	128
Interfaces	Remote control Printer, RS232	Remote control Printer, RS232
4-Wire testing	N/A	Yes
Meter mode	N/A	Yes
Instrument settings	512k SRAM, battery backup	120 set-ups non-volatile
Statistics report	Yes	Yes
Learn cable function	Yes	Yes
Sequence test	Yes	Yes

### 8687 diagnostic meter mode

For the purpose of debugging test sequences or fault finding a broken cable the 8687 provides a facility for individually testing all points on a cable with any of the available tests.

### Print test results and save instrument settings

The Cable Harness Testers have remote control, RS232 and printer interfaces as standard, offering a range of options to the user for controlling the instrument, uploading and downloading instrument settings and printing results.

In addition up to 56 instrument set-ups can be saved in the non-volatile memory in the instrument.

#### Accurate LCR measurements

Offering a higher degree of performance, the 8687 uses a 4-wire connection to the cable under test providing accurate and repeatable measurements of resistance, conductance and capacitance.

#### The economical complete cable harness test system

Providing high performance, wide range of measurements, fast production testing and simple straightforward operation, at an extremely low price, the 8681 and 8687 Cable Harness Testers provide excellent value to cable harness manufacturers worldwide.

#### Test functions

Item	Symbol	Test Range	
		8681	8687
Resistance	R	0.1 $\Omega$ to 1.0 M $\Omega$	1 $\Omega$ to 10 M $\Omega$
Conductance	COND	0.1 $\Omega$ to 50.0 $\Omega$	0.01 $\Omega$ to 50 $\Omega$
Capacitance	C	10pF to 1 $\mu$ F	10 pF to 1 $\mu$ F
Zener	Zener	0 to 7 V	0 to 8 V
Insulation	IR	1 M $\Omega$ to 500 M $\Omega$	0.1 M $\Omega$ to 1.5 G $\Omega$
Hipot	Hipot	Max 5 mA	Max 5 mA
Open/Short	O/S	2 k $\Omega$ to 50 k $\Omega$	1 k $\Omega$ to 50 k $\Omega$
Intermittent O/S test		2 k $\Omega$ to 50 k $\Omega$	1 k $\Omega$ to 50 k $\Omega$
Intermittent conductance		0.1 $\Omega$ to 50.0 $\Omega$	Max 50 $\Omega$
O/S end judgement			
Single-end test			

#### Advanced functions

- 4-wire measurement (8687 only)
- Programmable sequence test
- Auto pin search
- Self diagnostic
- Self calibration

#### Basic accuracy

$\pm 5\%$

#### Scanning mode

Auto/Short switchable

#### Measurement speed

0.1 s basic

#### Test signal

Test signal level 5 V DC  $\pm 5\%$

Insulation 100 V to 1500 V DC  $\pm 5\%$ , 50 V

Resistance Resolution (8681 only)

100 V to 1000 V DC  $\pm 1\%$ , 50 V resolution (8687 only)

Hipot 100 to 1000 V AC  $\pm 1\%$ , 50 V resolution

#### UK

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## Technical data sheet

#### Display & sound

320 x 240 graphic LCD Display. Pass/Fail LED indicator.  
Internal speaker

#### Connections

128 test points  
256 points (8681 only)  
Hipot calibration +/- output  
Auto pin-search jack

#### Front panel control buttons

SysKey/FastKey/EditKey/SoftKey

#### I/O interface

Parallel printer interface, remote control interface,  
RS232 Interface

#### Memory

Built-in 512K SRAM, battery backup (8681 only)  
56 setup files (standard) 120 setup files (option 8687 only)

#### Power Supply

115/230 V AC  $\pm 10\%$ , 50/60 Hz

#### Temperature & Humidity

15°C to 35°C, RH 75%

#### Dimension (W x H x D)

425 x 190 x 350 mm

#### Weight

Approx. 14 kg (without accessories)

#### Cable Capacitance

1  $\mu$ F max.

#### Order codes

##### Description

##### Order code

**8681 Cable Harness Tester with 700 V DC IR** 1J8681

#### 128 test points.

Supplied with: -

User manual, power cord, auto pin-search probe  
and 2-in-1 64 pin DIN-to-horn converter

#### Options

/C2 256 test points  
/H1 500 V AC hipot  
/H2 1.5 kV DC IR and 1.0 kV AC hipot  
/N Chinese language

**8687 4-Wire Cable Harness Tester with** 1J8687

#### 1.0 kV DC IR & 1.0 kV AC hipot, 128 test points

Supplied with: -

User manual, power cord, auto pin-search probe  
and 2-in-1 64Pin DIN-to-horn converter.

#### Option

/N Chinese language

#### Accessories

2 in one 64 Pin-to-Horn Converter  
Fixture Flat Cable (30cm)  
Calibration Fixture Set

**AV-8685DH1**  
**AK-8600F1**  
**KB-8685K1**

#### USA

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