

2-Wire Cable Tester

8740NAK/8740NK

Specification

- Auto diagnosis and correction function
- 1024 test pins
- On-resistance, instance conduction, O/S, instance O/S, fast instance O/S.
- Safety test (AC Hipot/ DC Hipot/ IR / Leakage current)
- Component test (R/C/Diode)
- Support USB Host, RS-232, Remote, Print.

Application

- Automobile harnesses
- Wire harnesses/connectors for consuming electronic products.
- Power application PCB/FPC multi points withstanding test.



Accessories

Standard

- Power Core
- 64P/3KV cable(AK-8600F3)
- Probe
- FX-000C16

Optional

- PC link
- Remote cable
- Calibration kit (KB-8750K1)
- Expansion box (F874001)
- Printer
- Networking fixture
- D-Sub Foot switch (F760001)

Features



Automobile harness

Most of harnesses are made of copper. Several to dozen thin harness were covered by plastic insulating tube. They are soft and not easy to break. The normal cross-sectional area are 0.5, 0.75, 1.0, 1.5, 2.0, 2.5, 4.0, 6.0. There are all with different load current values for different power devices.

Example

| Specification | Application |
|---------------|---|
| 0.5 | Dashboard light, side light, door light |
| 0.75 | Plate light |
| 1.0 | Fog light, indicator |
| 1.5 | Head light, horn |
| 2.5-4 | Main power cable, Generator cable |

Common production defect

Insulation layer or dislocation might happen during manufacturing process. That may cause poor connection or insulation.

Electrical Inspection

| | |
|-------------------|--|
| Conductivity Test | Detect the contact resistance problem on the terminal. |
| Hipot Test | Detect the circuit contact fit the insulation value. |
| Resistance Test | Detect the O/S problem on the contact point of the terminal. |

| TEST | TestTime | Result | ITEM SEL. | File:1 | PRINT |
|-------------------|----------|--------|-----------------------|--------|-------|
| TEST-1 | PASS:1 | FAIL:0 | ITEM | TEST | |
| PASS | | | | | |
| Extract the Cable | | | | | |
| | | | (1) OPEN/SHORT | ✓ | |
| | | | (2) CONDUCTANCE | ✓ | |
| | | | (3) COMPONENT | ✓ | |
| | | | (4) AC HIPOT | ✓ | |
| | | | (5) DC INSUL./HIPOT | ✓ | |
| | | | (6) Ω CONDUCTANCE | ✓ | |
| | | | (7) INTERMITTENCE O/S | ✓ | |
| | | | (8) Ω INTERMITT. OPEN | ✓ | |

A. Auto learning/Conductivity/Hipot/Component Test

O/S Test

Detect the harnesses/ connectors in the circuit which should connect but doesn't, or opposite.

Hipot Test

Apply a stable high voltage and test the insulation or any leakage happen.

| STATISTIC | File:1 | TEST | DATE |
|---------------|--------|------|------|
| PASS | 100.0% | | |
| FAIL | 0.0% | | |
| FAIL ANALYSIS | | | |
| O/S | | | |
| COMP. | | | |
| INSUL. | | | |
| HIPOT | | | |
| INTC. | | | |



PCB/FPC Electrical Test



B. Calculation Function

8740NAK offer result calculation which can show the number of pass/fail and the reason caused.

Specification

| Model Name | 8740NAK | 8740NK | |
|-----------------------|---|--|------------|
| AC Hipot | 100-700V | - | |
| DC Hipot | 50-1000V | 50-1000V | |
| Technology | 2-Wire | | |
| Test pins | 1024 | | |
| Hipot output accuracy | ±5% | | |
| Hipot test accuracy | ±5% | | |
| Rate output | 5Vdc | | |
| Hipot test time | 0.01s | | |
| Cable spec. request | Max. capacitance 5uF | | |
| Test items and range | Cond. Resistance | 100mΩ-52Ω | |
| | Intermittence Cond. Resistance | 100mΩ-52Ω | |
| | AC withstanding voltage leakage current | 0.01mA -5mA | 1* |
| | AC arching detect | | |
| | DC withstanding voltage leakage current | 0.1uA-1000uA | 2* |
| | DC arching detect | | |
| | DC withstanding voltage insulation resistance | 1MΩ-1GΩ | |
| | O/S/Instant O/S/Fast instant short | 1kΩ-100kΩ | |
| | Support O/S point inspection | ● | |
| | Single side test | ● | |
| | Resistance | Range | 100mΩ-2MΩ |
| | | Signal Level | Rated 2.4V |
| | Conductance | Current signal | 35mA |
| | | Range | 10pF-3uF |
| Capacitance | Frequency signal | AUTO (Rated) 48Hz/ 480Hz/ 4.8kHz/ 48kHz | |
| | Level | Rated 1.2V | |
| | Diode test | Range | 0-7V |
| Advance function | Programable continuous test/ auto search/ auto diagnose | | |
| Scanning mode | Auto/ Manual/ External | | |
| Memory | Max. 500 sets | | |
| Dashboard | System/ Fast/ Edit/ Function key | | |
| Indicator | Pass/Fail (LED) / Red/ Green light/ Display/ Sound | | |

1*(Must do correction before test when spec. is lower than 0.1mA)

2*(Please read the manual carefully before doing this test)

| | |
|-----------------------|--|
| Power | Fix voltage 115/230 Vac ±10% Freq. 60/50Hz |
| Power consuming | 250VA |
| Interface | RS-232, USB Host, Print, Remote |
| Launch mode | Manual, Auto, Remote Control |
| Display | 320*240 |
| Operation Environment | Temperature : 15°C-35°C Humidity : RH≤70% |
| Dimension(W*H*D) | 435×270×360mm |
| Weight | 18kg |