

# YF-78 Digital LCR Multimeter

is designed and built according to the BS EN 61010-1 CAT III. Probe Kit comply with IEC 1010-2-31.



## DISPLAY

- 3 1/2 digits LCD with maximum reading of 1999
- Overload indication: " OL "
- Low battery indication: "BAT"

## FUNCTIONS

- Function keys: ON/OFF, MAX., DC/AC.
- Test ranges: ACV, ACA, DCV, DCA,  $\Omega$ , Diode, Transistor, Continuity, Frequency, AC/DC10A, Inductance(H), Capacitance

## SAMPLING SPEED

- Sampling rate: 2.5 times per second for digital display.

## ACCESSORIES

- User's manual • Test leads
- 9V battery x 1pc
- Holster

## POWER SUPPLY

- Battery type: 9V NEDA 1604 IEC 6F22 JIS 006P battery x 1pc.
- Battery life: About 100 hours.

## DIMENSION

- Size: 186 x 86 x 39mm (L x W x H)
- Weight: About 390g (including battery)

## SPECIFICATIONS

|                                  |               |                               |                        |  |                         |
|----------------------------------|---------------|-------------------------------|------------------------|--|-------------------------|
| ACV                              | Range         | Resolution                    | Accuracy<br>40Hz~500Hz | Input<br>impedance   | Overload<br>protection  |
|                                  | 200mV         | 100 $\mu$ V                   | $\pm (1.2\%+4)$        | 10M $\Omega$   | DC 1000V<br>AC 750V rms |
|                                  | 2V            | 1mV                           |                        |  |                         |
|                                  | 20V           | 10mV                          |                        |  |                         |
|                                  | 200V          | 100mV                         | $\pm (1.5\%+4)$        |  |                         |
| 750V                             | 1V            |                               |                        |  |                         |
| ACA                              | Range         | Resolution                    | Accuracy<br>40Hz~500Hz | Voltage<br>burden  | Overload<br>protection  |
|                                  | 200 $\mu$ A   | 100nA                         | $\pm (1.5\%+3)$        | <0.7V  | 0.5A/250V Fuse          |
|                                  | 20mA          | 10 $\mu$ A                    |                        |  |                         |
|                                  | 200mA         | 100 $\mu$ A                   |                        |  |                         |
| 10A                              | 10mA          | $\pm (2.5\%+3)/60\text{sec.}$ | <0.3V                  | 10A/600V Fuse  |                         |
| DCV                              | Range         | Resolution                    | Accuracy               | Input<br>impedance   | Overload<br>protection  |
|                                  | 200mV         | 100 $\mu$ V                   | $\pm (0.5\%+1)$        | 10M $\Omega$   | DC 1000V<br>AC 750V rms |
|                                  | 2V            | 1mV                           | $\pm (0.5\%+3)$        |  |                         |
|                                  | 20V           | 10mV                          |                        |  |                         |
|                                  | 200V          | 100mV                         |                        |  |                         |
| 1000V                            | 1V            |                               |                        |  |                         |
| DCA                              | Range         | Resolution                    | Accuracy               | Voltage<br>burden  | Overload<br>protection  |
|                                  | 200 $\mu$ A   | 100nA                         | $\pm (1.2\%+2)$        | <0.7V  | 0.5A/250V Fuse          |
|                                  | 2mA           | 1 $\mu$ A                     |                        |  |                         |
|                                  | 20mA          | 10 $\mu$ A                    |                        |  |                         |
|                                  | 200mA         | 100 $\mu$ A                   |                        |  |                         |
| 10A                              | 10mA          | $\pm (2.5\%+2)/60\text{sec.}$ | <0.3V                  | 10A/250V Fuse  |                         |
| Resistance                       | Range         | Resolution                    | Accuracy               | Open-circuit<br>voltage  | Overload<br>protection  |
|                                  | 200 $\Omega$  | 0.1 $\Omega$                  | $\pm (1.2\%+4)$        | Max 3.3V   | DC/AC 500V rms          |
|                                  | 2K $\Omega$   | 1 $\Omega$                    | $\pm (1.0\%+2)$        | >0.3V  |                         |
|                                  | 20K $\Omega$  | 10 $\Omega$                   |                        |  |                         |
|                                  | 200K $\Omega$ | 100 $\Omega$                  |                        |  |                         |
|                                  | 2M $\Omega$   | 1K $\Omega$                   |                        |  |                         |
| 20M $\Omega$                     | 10K $\Omega$  | $\pm (2\%+5)$                 |                        |  |                         |
| Frequency test<br>(Auto ranging) | Range         | Resolution                    | Accuracy               | Max.<br>sensitivity  | Overload<br>protection  |
|                                  | 2KHz          | 1Hz                           | $\pm (0.8\%+3)$        | Lo:500mV rms<br>10K-1MHz<br>5V rms<br>1MHz-10MHz<br>Hi:2V rms<br>10-100KHz | DC/AC 350V rms          |
|                                  | 20KHz         | 10Hz                          |                        |  |                         |
|                                  | 200KHz        | 100Hz                         |                        |  |                         |
|                                  | 2MHz          | 1KHz                          |                        |  |                         |
| 10MHz                            | 10KHz         |                               |                        |  |                         |
| Capacitance test                 | Range         | Resolution                    | Accuracy               | Measurement<br>frequency   | Overload<br>protection  |
|                                  | 2nF           | 1pF                           | $\pm (5\%+10)$         | $\approx$ 200Hz<br>1.5 sec.<br>$\approx$ 2Hz/8 sec.                        | 0.5A/250V Fuse          |
|                                  | 20nF          | 10pF                          |                        |  |                         |
|                                  | 2 $\mu$ F     | 1nF                           |                        |  |                         |
|                                  | 20 $\mu$ F    | 10nF                          |                        |  |                         |
| 2000 $\mu$ F                     | 1 $\mu$ F     |                               |                        |  |                         |
| Diode test                       | Range         | Resolution                    | Test current           | Open-circuit<br>voltage  | Overload<br>protection  |
|                                  | Diode         | 1mV                           | 0.7mA                  | 3.3Vmax.   | AC/DC 500V rms          |
| Transistor<br>hFE test           | Range         | Measurement<br>range          | Measuring<br>voltage   | Measuring<br>current   | Overload<br>protection  |
|                                  | NPN PNP       | 0-1000                        | <3.2V                  | IB $\approx$ 0.7mA   | ---                     |
| Continuity test                  | Range         | Resolution                    | Sound level            | Open-circuit<br>voltage  | Overload<br>protection  |
|                                  | Beeper        | 0.1 $\Omega$                  | Below 75 $\Omega$      | Max. 3.3V  | DC/AC 500V rms          |
| Inductance test                  | Range         | Resolution                    | Accuracy               | Measurement<br>frequency   | Overload<br>protection  |
|                                  | 2mH           | 1 $\mu$ H                     | $\pm (5\%+10)$         | $\approx$ 1000Hz<br>$\approx$ 200Hz  | 0.5A/250V Fuse          |
|                                  | 20mH          | 10 $\mu$ H                    |                        |  |                         |
|                                  | 200mH         | 100 $\mu$ H                   |                        |  |                         |
|                                  | 2H            | 1mH                           |                        |  |                         |
| 20H                              | 10mH          |                               |                        |  |                         |