■ Foreword

Dear User;

Thank you for choosing VC 105 waterproof type digital multimeter. We believe that the innovative functional combination of this product and humanized design will bring great convenience to your on-site testing. Please read this manual carefully, especially for the part "Safety Instruction" before using it. After reading, please keep this manual properly to be read at any time on demand.

If this manual is lost accidentally, please log in the internet forum of WWW.ET521.NET for downloading.

ET521 forum is the professional maintenance forum where various maintenance materials can be downloaded for free or the technical support can be provided; it is also the platform for the insiders to communicate experience. By participating in the forum activity, you can convert the points obtained into the electronic currency. With the currency, special preference for purchasing products can be enjoyed and it also can be transferred with compensation.

■ Intellectual Property

Several proprietary technologies are used for this product. Purchasing or using this product doesn't mean any right related to such intellectual property transferred to the owner. Copying, applying all or part of technologies without the consent of our company may infringe such intellectual property, belonging to the infringement act. The intellectual property includes but is not limited to patent, trademark right, publication and content of website, etc.

- The information in this manual replaces all information published before. The changes only are announced on the official website of our company if any.
- The patents obtained and being reviewed related to the product of our company are protected by the Patent Law of the People's Republic of China.
- Our company reserves the right to change the product specification, price and conduct the software upgrading.
- Our company has the right of final explanation for the manual of product and marketing activities

Content

Content (Continued)

VC105 waterproof type key digital multimeter is designed according to the safety specification of IEC1010-1 with the overvoltage electric measurement of category II CAT III - 1000V and the pollution protection class: Class 1.

1. Before using, please check the enclosure. Do not use the instrument with damaged enclosure and check whether cracks exist or plastic parts are missing. Please notice the insulating layer between pen watch and connection line. In using the pen watch for testing, do not contact the metal part of probe of pen watch with finger;
2. The fully sealing waterproof design is used for this instrument and it can bear the water pressure at the depth of 0.5 meter under the water under the normal air pressure in an hour without water leakage; the purpose of fully sealing structure design is to prevent dust, rain and spilled water damaging the instrument, and the user is not allowed to use the instrument in the water.
3. In case that the instrument falls into the water accidentally, to protect the personal safety and instrument, the sheath of instrument must be taken down and then the surface and USB charging port shall be dried. Afterwards, the instrument can be used;
4. Please do not operate the instrument under high temperature and humidity, on rain days and inflammable and explosive environment and when it is wetted;
5. Do not apply the voltage/current exceeding the maximum limit that the instrument can bear to the instrument;

Measurement Function	Input End for Use	Maximum Limit
V DC	V/Ω, COM	600V DC+AC peak value, in 10 seconds
V AC	V/Ω, COM	600V DC+AC effective value, in 10 seconds
Hz%	V/Ω, COM	600V DC/AC effective value, in 10 seconds
mA AC/ DC	400mA, COM	500mA DC/AC effective value, 250V/400mA fusing type protective tube
A AC/ DC	20A, COM	20A DC/AC effective value, in 30 seconds, cooling interval period of 15 minutes. 500V/20A fusing type protective tube
Ω /⊣⊢/ 🔊	V/Ω, COM	250V DC/AC effective value, in 10 seconds
Capacitance	V/Ω, COM	250V DC/AC effective value, in 10 seconds

4. Conversion measurement function. Be sure to break the probe of pen watch away from the test point;

5. Do not perform the voltage measurement when the voltage to earth on the reference input end "COM" of the instrument reaches 500 V;
6. Do not bridge the pen watch at both ends of voltage source when the measurement function selects the grade of current, resistance, continuity test, diode and capacitance;
7. Before the resistance and diode/ continuity tests are performed, the tested equipment must be powered off and it shall be confirmed that the capacitor in the power circuit is discharged completely;
8. Before the cover of instrument is opened to replace the protective tube, the instrument must be powered off and the pen watch shall be broken away from the tested circuit; the same specification must be used in replacing the protective tube;
9. Do not refit, disassemble the product and its accessories or use them for other applications beyond the product functions designed. All accessories, attachments shall not be replaced at will.

Safety Signs

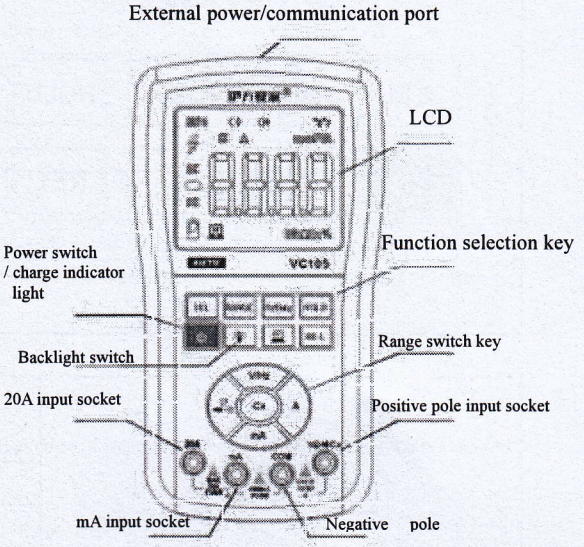
	Careful, dangerous! This sign reminds the user must operate the instrument in compliance with the instrument of this manual to prevent the damage of instrument/ personal injury when located near other signs or socket terminal.
	Careful, shock hazard! When this sign is located near some or more terminals, it indicates that such terminals may have dangerous voltage in being used. To protect the safety to the greatest extent, it shall be avoided to use hands to contact the testing end of pen watch when these terminals have voltage.
Reminder!	Reminder statement points out notice shall be taken in operation. Incorrect operation will cause the wrong measurement result or damage of accessories.
Note!	Note statement points out special care shall be taken in operation. Incorrect or violation operation may cause the damage of this product and other properties.
Warning!	Warning statement points out special concentration shall be taken in operation. Incorrect or violation operation may cause the personal injury and even endanger the life safety.

■ **Main Features**

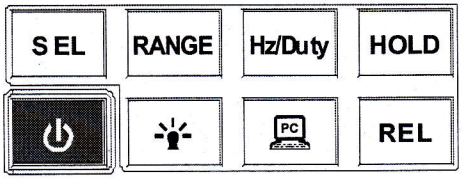
- 3 3/4 auto range, maximum display 3999
- 57mmX68mm large LCD is used
- All-key trigger switch measurement function, eliminating contact of traditional cutter with the bad hidden danger
- Fully sealing waterproof structure is used, preventing dust, spilled water
- Relative value measurement, able to eliminate the measurement errors caused by the wiring resistance, capacitance
- Auto power-off function, entering power-off state if the operation is not performed within 15 minutes
- White LED backlight, still able to be measured under the low light environment
- Manual/automatic range switching, improving the reaction speed of measurement
- 20A current range, 10mmX38mm/500V fast fusing protective tube is built in
- Double advanced testing pen watch for injection molding is configured, durable in use
- Overall PVC flexible glue sheath, preventing the fall, bump and easy damage of instrument
- Li-polymer rechargeable battery is built in, AC adaptor for power supply is equipped externally avoiding often replacement of battery

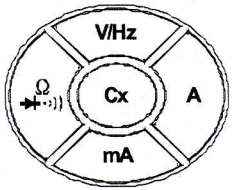
• Under the condition of non-measurement, it can be connected to the USB port for charging

• The reserved extension RS232 communications port is provided to be used by the special user



■ Key Functions

Keys	Name	Function
	SEL	Switching AC/DC and resistance/diode/ continuity test
	RANGE	Switching manual/automatic range mode
	Hz/Duty	Switching frequency/duty ratio measurement
	HOLD	Maintaining function of measurement data
	REL	Measurement function of relative value
	⏻	Continuity/charge indicator light of power of control instrument
	🔆	Controlling the closing of backlight of LCD
	PC	RS232 communication interface control

	Ω	Selecting resistance/diode/continuity test measurement
	V/Hz	Selecting DC/AC voltage, frequency/ duty ratio measurement
	A	Selecting DC/AC 20A current measurement
	mA	Selecting DC/AC mA current measurement
	Cx	Selecting capacitance measurement

■ Power-on and Power-off

Press the key [⏻] and remain for over 2 seconds to power on the instrument. Press the key [⏻] again and remain for over 2 seconds to power it off.

Note!	• Be sure to break the test probe away from the test point before the power-off. • It shall be always powered off after the instrument is used.

■ Auto Power-off

The instrument will enter the auto power-off state if no any key operations are performed in 15 minutes. If using the instrument continuously, the user shall press the key [⏻] and remain for over 2 seconds to repower it on.

■ Use of Backlight

Using the backlight can improve the displaying effect under the low light environment. However, overuse of backlight will shorten the continuous working time of battery.

Press the key [☼] to light the backlight; the user can repress the key [☼] if wanting to turn off the backlight manually.

■ Battery Charge

When the electric quantity of battery for power supply in the instrument is lower than the operating voltage, the sig"  " will be displayed at the left bottom of LCD screen to remind low battery. At this moment, the instrument must be charged. Otherwise, the measurement precision may be affected.

Once AC power adapter is connected to, the battery in the instrument will be at the charge state and the charge indicator light in the key  will be red.

When the battery charge is completed, the charge indicator light will be changed into yellow; the instrument will maintain this indicator state until the AC adapter is disconnected.

If the instrument is at the on state in connecting it to the AC adapter, the power supplied by the AC adapter maintain the operation of instrument on the one hand and charge the battery in the instrument at the same time.

Notes!	• In using AC adapter for power supply, the instrument needs to be connected with the AC power source. Therefore, the safety indicator may be reduced and more electromagnetic interference may be caused. Thus, it's recommended to use the lithium battery inside the instrument in normal measurement. • AC adapter is 5V/500mA isolated switching power supply, having electromagnetic interference, features of low ripple voltage, wide input voltage range and short-circuit self-protection, etc., so it can't be replaced or substituted at will. • In case that the instrument is not used for a long time, the instrument shall be charged once at the interval of 90 days, preventing the self-discharge of battery affecting the normal charge and use of instrument. • In using it by carrying, attention shall be paid to avoid pressing the key for a long time, causing the over-discharge of battery and affecting the use. • In case that the instrument can't be powered on by pressing the key , it shall be charged timely. If it still can't be powered on after the AC adapter power is connected, the technical service center of our company shall be phoned for consulting.

Warning!	• In using AC adapter for power supply, measuring the voltage 250VAC or 360VDC above may cause the damage of instrument and even endanger the personal safety! • In emergency circumstances, the USB port of computer can be connected to charge this instrument, but do not use the charging instrument for measurement. Otherwise, the computer may be damaged!

Warning!	• Please read, understand and comply with the safety rules and operation methods pointed in the following content. • In performing the conversion measurement, please break the probe of pen watch away from the test point firstly.

■ Manual/Automatic Range Selection

The initial state after power-on or switching measurement function is automatic range. For most application occasions, this is the most convenient measurement method. The manual range can be selected at the occasion that some range needs to be fixed to improve the reaction speed. The operation sequence is as follows:

1. Press the key RANGE, and the automatic range sign "**AUTO**" on the display will disappear and the instrument enters the manual range state.
2. Whenever the key RANGE is pressed once, the instrument will be switched into the next range.
3. Press the key RANGE and remain for over 2 seconds to return to the automatic range state.

Note!	• In switching into the manual range measurement, be sure to break the probe of pen watch away from the test point firstly. Otherwise, it may damage the instrument due to the excessive input voltage.

■ Relative Value Measurement Mode

Relative value mode is a measurement mode displaying the difference between the actual measurement value and reference value. The relative value mode can be used for most functions of this instrument.

1. After the key REL is pressed, the measured value displayed currently will be stored as the reference value, and then the relative value mode is activated.
2. At this moment, the display shows the sign "△" and displays the reference value at the same time to indicate that the relative value mode has been activated.
3. The value displayed on the screen is the difference between the current measurement value and the prestored reference value.
4. Press the key REL repeatedly to exit the relative value measurement mode.
5. After entering the relative value mode, the instrument will switch the range control mode as manual mode automatically.
6. When changes occur to the measurement function or range, the relative value mode will be relieved automatically.

Holding of Measurement Data

Press the data holding key HOLD, and the reading being displayed will be held. At this moment, LCD screen will display the icon of data holding "H". Press the key HOLD again, switch the range or change the measurement function, the instrument will exist the holding state automatically.

AC and DC Voltage Measurement

Warning!	• To avoid the damage of instrument, do not apply 600V AC or DC voltage at the measurement end for over 10 seconds.

1. Insert the banana plug of black testing line into the **COM** socket with negative polarity and insert the banana plug of red testing line into **V** socket with the Positive polarity.
2. Press the key V/Hz to select the voltage measurement function. After selecting, the unit symbol mV (or V) will appear at the top of the screen to remind the User that it has been at the function of voltage measurement at present.
3. Press the key SEL to switch AC and DC measurement mode (set as DC by default) and the display of instrument will display AC or DC range mark synchronously.
4. Use the pen watch to contact the test point.
5. Read the voltage value displayed on the instrument. The displaying result includes the value, decimal point and DCV polarity.
6. ACmV only can be switched by manual range.

AC and DC Current (400mA, 20A) Measurement

Warning!	• To avoid the electric shock, do not perform the AC current measurement to the circuit with the AC voltage of over 250V. • In using 20 A grade measurement current, the measurement time in 15 minutes shall not exceed 30 seconds. Otherwise, the wiring of instrument and pen watch for testing may be damaged.

1. Insert the banana plug of black testing line into the **COM** socket with negative polarity and insert the banana plug of red testing line into **mA** or **20A** socket with the positive polarity.
2. Press the key mA or A to select the measurement function of mA or 20A. After selecting, the display of instrument will display the unit symbol of mA or A range, reminding it is at the current measurement function range.
3. Press the key SEL to switch the AC and Dc measurement mode (set as DC by default).
4. Connect the pen watch into the tested circuit in series and read the current value and decimal point, DCA polarity, etc. displayed on the instrument.

Frequency Counting and Duty Ratio Measurement

The mode of FIV (Frequency in Voltage) and FIA (Frequency in Ampere) is used for frequency/ duty ratio measurement of this instrument. For the user, this mode has more practical value: While the value of voltage/current signal is being observed, using single button to switch can observe the frequency of tested voltage/current and duty ratio "by the way". In this way, the frequency counting and duty ratio measurement have become the extension function under the function of voltage and current measurement.

1. Insert the banana plug of black testing line into the **COM** socket with negative polarity and insert the banana plug of red testing line into **mA** or **20A** socket with the positive polarity.
2. Press the key V/Hz or mA or A to select the voltage or current function and use the appropriate range to read the current voltage or current value.
3. Press Hz/Duty to switch and select the extension function: displaying the frequency of tested voltage or current or duty ratio.

Notes!	• In frequency and duty ratio measurement, the signal must reach certain amplitude: amplitude of voltage signal ≥1Vp-p; the one of current signal ≥20mA RMS. For the signal close to 5MHz or higher frequency, the signal with higher amplitude (voltage/current) may be required. • In performing the frequency counting measurement, the manual mode can't be used and the relative value (REL) measurement function can't be used either.

■ Resistance Measurement

Warning!	To avoid the electric shock, in performing the resistance measurement, the tested device shall be powered off firstly (taking down the battery/ pulling out the power line) and the capacitor in the power shall be discharged.

1. Insert the banana plug on the connection line of black pen watch for testing into the COM port with the negative polarity; insert the banana plug on the connection line of red pen watch into the resistance Ω socket with the positive polarity.
2. Press the key  to select the range  (Ω measurement function by default). The instrument will display the unit symbol of Ω synchronously to remind that it has been at the resistance measurement function.
3. Use the pen watch to bridge on the tested circuit or component. One end of on-line tested part shall be broken away from the original line connection preferentially, for fear that other parts of circuit affect the reading.
4. Read the resistance value and unit, decimal point, etc. displayed on the instrument.

■ Diode/on-off test

Diode testing

Warning !	In order to avoid electric shock, detection cannot be conducted to the diode with voltage.

1. Take the banana pin of black measurement instrument into COM socket with negative polarity; and take the banana pin of red measurement instrument into Ω socket with positive polarity resistance.
2. Press [Ω] key and select Ω range.
3. Press [SEL] to switch to measure function, and the instrument and monitor will display sign synchronously, indicate it is on the function of diode measurement.
4. Both ends of the diode or PN junction of semi-conductor is joint with instrument and pen. Pay attention to the reading of the instrument.
5. Exchange the position of instrument and pen to reverse their polarity. Pay attention to the reading of the instrument.
6. The nature of the diode or PN junction of semi-conductor can be judged according to the following items:

   If one-off reading shows a voltage values(about between 0.2V and 0.7V), and another reading shows "O.L", the diode is good.

   If twice reading shows "O.L", the diode is turnoff.

   If twice reading shows is tiny or zero, the diode is short out.

On-off test

Warning!	In order to avoid electric shock, on-off test can not be conducted to the circuit with voltage.

1 Take the banana pin of black measurement instrument into COM socket with negative polarity; and take the banana pin of red measurement instrument into Ω socket with positive polarity resistance.

2 Press [Ω] key and select Ω range.

3 Press [SEL] to switch to measure function, and the instrument and monitor will display sign synchronously, indicate it is on the function of on-off test.

4 Take the measurement instrument contact the circuit – under - test, and the buzzer will ring if the resistance is less than 30Ω.

■ Capacitance measurement

Warning	In order to avoid electric shock, on-off test cannot be conducted to the capacitance with voltage.

1 Take the banana pin of black measurement instrument into COM socket with negative polarity; and take the banana pin of red measurement instrument into **Cx** socket with positive polarity.

2 Press [Cx] key and select CAP measure function, and the instrument and monitor will display nF or μ F sign synchronously, indicate it is on the function of capacitance measurement.

3 The instrument range can only adopt automatic mode during capacitance measurement.

4. Take the measurement instrument contact the capacitance, and read the electric capacity, the decimal point and unit etc.

Indication!	When the capacitance range is open circuit, the instrument may show small capacitance value which can be measured after press [REL] key in advance to clear.
Indication!	When measuring capacitance 100μF, the time may be more than 30 seconds.
Attention!	Neither manual range nor relative value （REL）, can not be used for the function of capacitance measurement.

■ Instrument features and technical parameters

General features

Show	3999	Field of view	57mm x 68mm
Backlight	white	Input resistance	10MΩ
Battery	inlay 500mAh Li-polymer battery	Auto power-off	No operation for about 15 minutes
Low power hint		Charging time	4~6 hour
Service time	25 ~ 50 hours	Power adapter	5V/500mA
Service environment	0°C~+40°C;<75%RH	Store condition	-10°C ~ +60°C ; <90%RH
Shape and size	86 mm x 186 mm x 32mm	weight	About 300g (Without other accessories)

Technical features

All the uncertainties of the ranges are: ± (a% indication + number of words). The correction time is one year, if it needs to be adjusted after a year, please read the chapter of after-sales service chapter. Ensure the condition of indeterminacy environment is: 23°C±5°C、<75%RH.

Function	Range	Resolution	Uncertainty
Direct voltage	400.0mV	0.1mV	±(0.8%rdg + 10dgt)
	4.000V	1mV	
	40.00V	10mV	
	400.0V	100mV	
	600V	1V	±(1.5%rdg + 10dgt)
Alternating voltage Mean effective value	400.0mV	0.1mV	（ACmV, the ranges can only be changed by hands） 50Hz~400Hz ±(1.2%rdg + 10dgt)
	4.000V	1mV	
	40.00V	10mV	
	400.0V	100mV	
	600V	1V	±(1.5%rdg + 10dgt) （50Hz~400Hz）
Direct current	40.00/400.0mA	10μA /100μA	±(1.2%rdg + 10dgt)
	4.000/20.00A	1mA /10mA	
Alternating current Mean effective value	40.00/400.0mA	10μA /100μA	50Hz~400Hz ±(1.5%rdg + 10dgt)
	4.000/20.00A	1mA /10mA	
Resistance	400.0Ω	0.1 Ω	±(1.0%rdg + 5dgt)
	4.000kΩ	1 Ω	
	40.00kΩ	10 Ω	
	400.0kΩ	100 Ω	
	4.000MΩ	1kΩ	
	40.00MΩ	10kΩ	±(3.0%rdg + 5dgt)

Capacitance	51.20nF	1pF	± (2%rdg + 10dgt)
	512.0nF	10pF	
	5.120μF	100pF	
	51.20μF	1nF	
	100.0μF	10nF	± (5%rdg + 3dgt)
Frequency	5.12Hz ~ 5.12MHz	0.1Hz ~ 10Hz	± (1.0%rdg + 5dgt), (Signal amplitude is no less than 1Vp-p, AC V or 20mA RMS, AC A)
Duty ratio	0.1~99.9% (AC 1Vp-p)		
Diode test	Open-circuit voltage is about 1.5v, the maximum test current is about 0.5mA.		
On-off test	Judge resistance: about 30Ω		
Auto range changing	Apply to all measuring function		
Over load hint	"O. L" (Over load)		
Measurement speed	2.5 times/sec		
Fuse standard	Φ5×20, 500mA/250V Φ10×38, 20A/500V		

■ Matching of the instrument

Standard fitting for the instrument: A mainframe of VC105, a pair of advanced test pens, A power adapter of DC5V/500 mA , a portable oxford bag and a user guide.

Keep dry

If the instruments get set, please wipe them as soon as possible, and can not be used if you are not sure whether they are dry.

Use and keep the instruments in a normal temperature

The ultra environment temperature will cut down the lifetime of the electron devices and make the plastic components of the instruments out of shape, it may even make the instruments out of commission.

Carry the instruments carefully

Falling down may damage the LCD, electron devices or the enclosures.

Keep clean

Please often scrub the enclosures of the instruments with wet cloth with a little of detergent. Rough object, chemical solvent or alcohol is forbidden.

Replacement of the protective tube

1. Please be sure to break the test pens away from the test points and turn off the power.
2. Take down the protective jacket with flexible glue, loosen the set screws on the back, take down the backplate, the protective tube is on the reverse side of the test socket. Please gather the waterproof gasket in order to install it back.
3. Take out the protective tube that has been burned, replace a identical new protective tube: fusing protective tube with 500mA /250V（φ5X20） is used for 400mA electric current, fusing protective tube with 20A/500V（φ10X38）is used for 20A electric current.
4. Install the backplate and fix with screws, please remember to install the waterproof gasket back in a right way in order to stay the waterproof of the instruments.

Maintenance of the instruments

1. Our products are precision instruments, the user can not amend the circuit, replace the devices, do calibration or repair the products without the authorization of our company service center.
2. Test pens, the accessories or the options must be taken at random, they can not be replaced, repaired or changed with other parts at will.

■ Guarantee clause

1. The buyer enjoys the following rights: The product can be replaced within 15 days, the host can be repaired freely for one year after the date of purchase (The date is based on the time of invoice when the product is from the local dealer; the date is based on the sign-off for nonlocal clients). Any accessory distributed or sold, its quality can be guaranteed freely for three months. If the buyer cannot show the purchase invoice, the company will be responsible for free repair according to the start date (the 60th day after date of production) if the date of host production is still valid.
2. Free repair must be in guarantee period and scope, and the quality problem is checked to be non -man –made damage.
3. Free repair items: Free repair period is one year for the host exclude man –made damage. And battery, measurement instrument, appendix and package is classified to accessory.
4. The host and accessory exclude the free repair scope according to the following items:
   - Damage resulted by the force majeure or nonlocal purchase without feedback of user receipt.
   - Beyond the valid guarantee period, the scope of warranty does not match with guarantee note, include obliterate and lost.
   - Disassemble damage, damage of the label of host (include inside and outsid) by the repairer without authorization by the company
   - Any man –made damage, include unauthorized disassemble, revision upgrade and misuse.
   - Damage caused by accident or natural losses: liquid inflow, shattered broken, worn scratched, leakage caused by LCD squeezed and damage caused by high current charging.
   - Material cost will be paid if the product is beyond the warranty period or warranty scope; if the product is scrap or beyond repair, 60% of the unified price of the product(depreciation for new) will be paid in warranty period; beyond warranty period, 80% of the unified price of the product(depreciation for new) will be paid(exclude the user without return the receipt)

5. Guarantee replacement service

The user can receive a product with free replacement if the quality problem occurs within 15 days. Free warranty service will be provided to the buyer during the guarantee period with more than 15 days, identification and implementation of replacement must be completed under the guide of the company. Replacement service must meet the following items:

- The quality problem is not caused by man-made or natural damage.

  Half of the freight is born by each party.
- The product can not be returned or replaced without quality problem.
- Unauthorized disassemble by the user, is regarded as giving up the replacement and free warranty.
- The damage of LCD monitor caused by the fall, pressure or misuse, exclude the scope of replacement.
- The user has returned user receipt.

6 Nonlocal user replacement or repair

- If quality problem in warranty period is from the product that the nonlocal user purchases through mail-order service, please call the service center of product to confirm whether the product is sent to the company for change or repair.

Only the host can be sent to the company though EMS of China Post or the specified express company! Otherwise loss or accidental failure caused by this, the company will not be responsible for anything.

■ Disclaimer

Damage caused by the following items, the company will be responsible for the maintain of instrument or old-for-new according to the clause: use the product in warranty scope, normal wear, improper operation or keeping; any damage beyond the product, fall outside the scope of after-sale service, the company will not undertake any compensation.

■ Calibration service

The calibration service period is one year from the date of delivery. The various device is burn-in after one year, this will affect the uncertainty of measurement, and it is ok without calibration. The free calibration service is provided by the company, and the round-trip cost is undertaken by the user.

■ Preservation service

1. The user can publish the experience of the product or recommend the product on the website or related media, the user will get some reward, the details can be asked through the company's phone.
2. If the user takes part in ET521.NET forum, he can get more technical support and take part in favorable purchase and old-for-new activites.
3. BBS integral can be converted into electronic cash which is equal to cash for payment or transfer with compensation.

The user will ask for information in the website of the company.

■ User receipt

The user receipt should be completed and returned in the following manner within 15 days, the terms of the warranty, replacement and preservation service will be effective immediately, the user can get more efficient follow-up service; if the user receipt failures to be returned, will be treated as give up the following rights: product upgrade, old-for-new, VIP in Forum, favorable purchase, convenient service.

1. post; East side, Buliding.4, Unit 3, Huawei Road NO.613, Qianshan industrial district, Zhuhai city postcode: 519070
2. Phone: Fax 0756-865 9599 or telephone 0756-865 9191
3. website: login WWW.ET521.NET, WWW.E-ONE.NET.CN website, click on the "after-sale service", fill in user receipt and return it.
4. SMS; Edit SMS with phone number and product serial number to send to SMS platform 158 11668 521(free information)