



WATCHMAKER 3RD GENERATION AUTO VACUUM WATCH WATERPROOF TESTER PRODUCT MANUAL



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WATCHMAKER



CONGRATULATIONS!

SELECTING OUR PRODUCT IS A WISE CHOICE.

THANK YOU FOR PURCHASING THE WATCHMAKER M+ S AUTO VACUUM WATCH WATERPROOF TESTER, A PRECISION INSTRUMENT THAT IS EASY TO USE AND OPERATE. SPECIFICALLY DESIGNED FOR WATCH SERVICE CENTERS AND WATCH REPAIRING TOOLS RETAILERS, OUR WATERPROOF TESTER IS AN IDEAL CHOICE FOR DAILY TESTING.

THE PRE-SET UNIVERSAL TESTING PROCEDURES AND CUSTOMIZABLE EDITABLE TESTING PROGRAMS MAKE THE WATCHMAKER M+ S AUTO VACUUM WATCH WATERPROOF TESTER CONVENIENT AND EASY TO USE. IT ENSURES THAT EVERYDAY WATCHES, WITH OR WITHOUT A STRAP, CAN BE TESTED WITH OUR TESTER.

TO ACHIEVE ACCURATE TESTING RESULTS AND AVOID DAMAGING THE WATCH DURING TESTING, IT IS CRUCIAL TO THOROUGHLY UNDERSTAND THE CORRECT WAY OF USING THE INSTRUMENT. THIS USER MANUAL ASSISTS USERS TO OPERATE THE WATCHMAKER S VACUUM WATCH WATERPROOF TESTER EFFECTIVELY AND CORRECTLY, AND PROVIDES INSTRUCTIONS FOR THE SAFE USE AND MAINTENANCE OF THE INSTRUMENT.

PLEASE KEEP THE PRODUCT MANUAL CAREFULLY FOR FUTURE NEED, AND KINDLY PROVIDE THE MANUAL TO NEW USERS IF NEEDED.

EXTENDING THE WATCH WATERPROOF TESTER'S SERVICE LIFE CAN BE ACHIEVED BY ADHERING TO THE PROVIDED INSTRUCTIONS FOR OPTIMAL USE AND MAINTENANCE.

01 PRODUCT OVERVIEW

KEY FUNCTIONS & FEATURES



3RD GENERATION AUTO VACUUM WATCH WATERPROOF TESTER

PRECISE TEST RESULTS INDICATE WHETHER THE WATCH IS WATERPROOF AND SEALED



KEY FUNCTIONS AND FEATURES:

- FULLY AUTOMATED OPERATION AND TESTING
- EXQUISITE WORKMANSHIP
- HUMANIZED DESIGN OF USER INTERFACE
- PRECISE RESULTS INDICATE LEAKPROOFNESS
- NEWLY UPGRADED UI
- ACCURATELY LOCATE THE LEAK POINT
- EQUIPPED WITH VARIOUS TESTING PROGRAMS
- USER-DEFINED TESTING PROGRAMS
- TESTING RECORDS AVAILABLE
- HUMANIZED DESIGN OF SYSTEM SETTINGS
- CHINESE/ENGLISH UI AVAILABLE
- PRINT THE TEST RESULTS

02 PRODUCT SPECIFICATIONS

DETAILED SPECIFICATIONS & PACKING LIST



DETAILED SPECIFICATIONS

PRODUCT NAME:	3ND GENERATION AUTO VACUUM WATCH WATERPROOF TESTER
DIMENSION, L*W*H	233MM*235MM*245MM
DIMENSION, L*W*H (WITH THE LID OPEN)	233MM*235MM*370MM
NET WEIGHT	6.7KG
PACKAGE SIZE:	310MM*310MM*335MM
TARE WEIGHT	8.4KG
RATED POWER:	24W
FREQUENCY:	50(HZ)
RATED CURRENT:	2A
INPUT VOLTAGE:	AC100~240V
TESTING RANGE:	-0.7BAR—+10BAR
LANGUAGE:	CHINESE/ENGLISH/FRENCH
AIR PIPE SIZE:	6MM AIR PIPE

PACKING LIST



WATERPROOF TESTER*1



POWER PLUG*1



PRINTER*1



CABLE OF PRINTER*1



ADAPTOR*1PACK



WATCH TRAY*2



AIRTUBE*10M

NOTE: THE DC POWER ADAPTER IS 12V2A, WITH AN INPUT VOLTAGE OF AC100~240V, 50/60HZ.

03 SAFETY INSTRUCTIONS & INSTALLATION

SAFETY INSTRUCTIONS

WHILE OPERATING THE WATCH WATERPROOF TESTER, FOR YOUR SAFETY AND TO ENSURE PROPER MACHINE FUNCTION, PLEASE TAKE NOTE OF THE FOLLOWING:

OPERATING ENVIRONMENT OF THE TESTER:

To guarantee the accuracy of the testing results, it is essential to keep the instrument at room temperature. Please avoid placing the tester near the hearth or open windows. And please do not operate the machine outdoors in extreme hot or cold conditions.

POWER CONNECTION:

Connect the Watchmaker M+ Auto Vacuum Watch Waterproof Tester to the provided DC power supply. The specific voltage for the DC adaptor is AC100~240V, 50/60Hz.

- ⓘ Prior to connecting the tester to the power supply for the first time, please verify that the voltage aligns with the specified voltage indicated on the power adaptor. Please use only the provided power adaptor. If the machine is not in use for an extended period, it is suggested to disconnect the power supply.

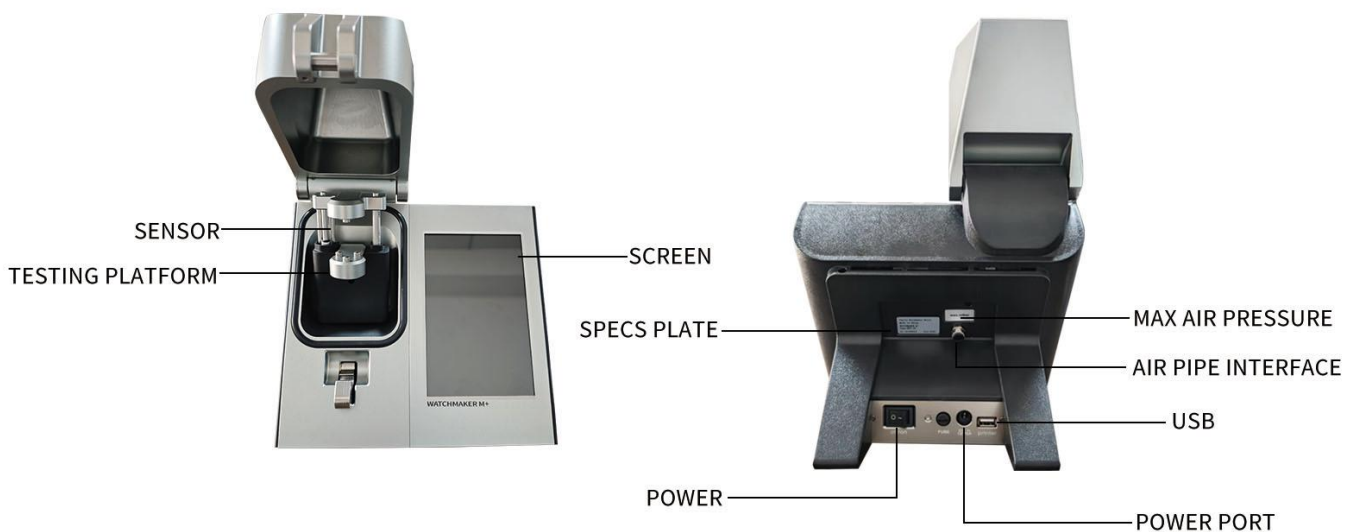
PRINTER CONNECTION:

Connect the printer data cable to the USB interface on the back of the machine.

CONNECTING TO THE AIR COMPRESSOR:

The WATCHMAKER S Auto Vacuum Watch Waterproof Tester exclusively relies on compressed air as its testing source. The instrument has a built-in vacuum generator for connection to various sources of compressed air.

To fully utilize the testing range of the WATCHMAKER S Auto Vacuum Watch Waterproof Tester, you need a compressed air compressor with an output pressure of ≤ 10 bar. (The maximum pressure of the air compressor sets the limit for the maximum testing pressure)



(The diagram illustrates each machine component in details)

03 SAFETY INSTRUCTIONS & INSTALLATION

SAFE OPERATION & INSTALLATION GUIDE

During the installation, please give special attention to the following:

- ONLY connect to oil-free, dry, and dust-free compressed air (with a filter).
- THE minimum input air pressure must be at least 1.0 bar higher than the air pressure used for testing.
- WHEN using vacuum testing, the compressor must contain at least 4 liters of compressed air.
- DURING testing, ensure the compressor's power supply is connected, and the air path is connected.
- THE instrument may be damaged if impurities enter the watch waterproof tester through compressed air, so it is necessary to conduct routine maintenance on the air compressor and filter.
- THE instrument has a maximum input air pressure of 10bar.
- SUDDEN release of compressed air can cause damage. Be especially mindful when operating the air compressor or handling gas hoses, and double-check to ensure proper functioning.
- THE gas input plug of the instrument is pressure safety plug. Insert the gas hose with a controlled amount of force until it clicks into place. When it is necessary to move the instrument, ensure that the gas tube is disconnected. Push the black o-ring on the plug to disconnect the gas tube completely. (Before disconnect the gas hose, make sure the compressed air source is turned off and the piping system is in a depressurized or no-pressure condition.)
- THE tube provided in the set is a high-pressure tube. The pressure rating of tubes commonly available in the market is less than 8 bar, and not suitable for the watch waterproof tester. The tubes cannot be used as substitutes.
- PLEASE ensure that, when placing the watch, the strap remains within the confines of the sealing compartment to prevent any potential risks or dangers.
- ENSURE the watch is positioned in a balanced manner on the three supporting points of the holding tray. The included set of three holding trays is designed to facilitate the adjustment of the watch's position. Incorrect placement may adversely affect testing results and, in extreme cases, lead to the breakage of the watch crystal.

04 OPERATING INSTRUCTIONS

POWER & STANDARD TEST



POWERING ON THE WATCH WATERPROOF TESTER:

Toggle the I/O switch at the back of the instrument to turn it on. After powering on, the instrument will automatically release the locking device and open the lid. Do not intervene during the process.

Note: Bubble wraps have been inserted in the testing platform to provide protection against damage during transportation. After powering on the machine for the first time, please remove the protective wrap. The instrument is active when the UI is displayed on the screen. Place the watch on the testing platform to begin.

PLACING THE WATCH

Place the watch on the three support points of the supporting platform. Ensure the watch is placed balanced and securely. If the back case of the watch is irregular (due to battery compartment), it is recommended to position the watch crystal facing downwards. Make sure the watch is correctly positioned and securely fixed in the three supporting points. The watch strap or bracelet must be placed inside the sealing platform.

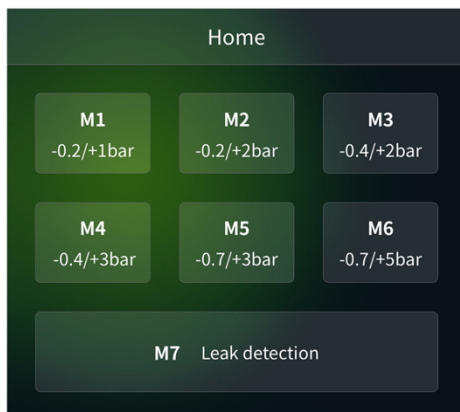
Ensure that labels or any other debris on the watch do not obstruct the proper closure of the lid. Take note that protective stickers on the watch back case or crystal could influence the accuracy of waterproof testing.

Note: In the event that the size of the watch does not fit the supporting platform, three spare supporting trays are available. The suggested watch back case dimensions for each supporting tray are as follows:



STANDARD TEST:

Click on the standard program icon, and choose the corresponding testing program. (As follows)



Test M1 to M6

M1 -0.2/+1 bar

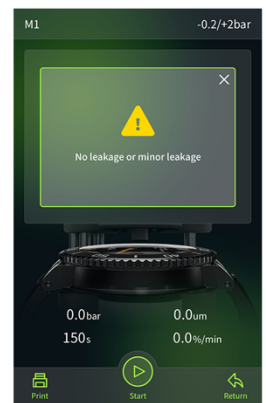
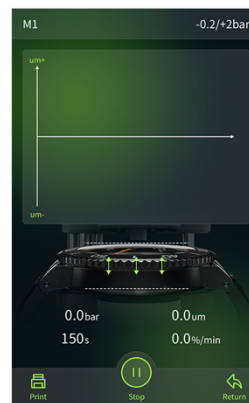
M2 -0.2/+2 bar

M3 -0.4/+2 bar

M4 -0.4/+3 bar

M5 -0.7/+3 bar

M6 -0.7/+5 bar

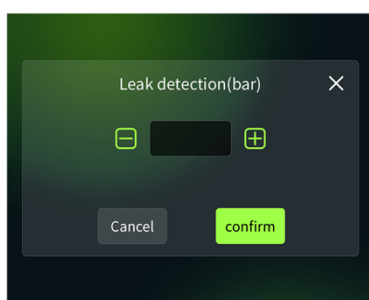


** All Pre-setting accuracy is 75%

[Press Start / Stop to conduct test]

M7 Leak Detection

1. Put watch to test (we suggest to use watch case w/o movement)
2. Press cancel / confirm
3. After Pressure test, put the watch case in water immediately
4. In water, you could observe the position of leakage



04 OPERATING INSTRUCTIONS

QUICK TEST & USER-DEFINED TEST



QUICK TEST & USER DEFINED TEST

The Customized program allows for individualized settings of testing pressure, testing time, and gas resistance.

Each customized test can perform up to three waterproof tests.

(GAS RESISTANCE = ACCURACY LEVEL OF THE QUICK TEST)



PRESS NP(BAR)/TIME(S) SETTING

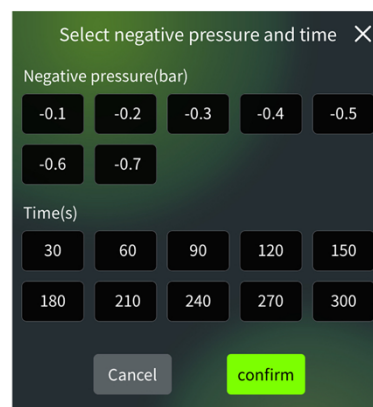
1.Set Negative pressure bar

From -0.1 to 0.7

2.Set Time

30, 60, 90, 120, 150, 180, 210, 240, 300

3.Press Cancel or Confirm



PRESS PP(BAR)/TIME(S) SETTING

1.Set Positive pressure bar

From 1 to 10 bar

2.Set Time

30, 60, 90, 120, 150, 180, 210, 240, 300

3.Press Cancel or Confirm

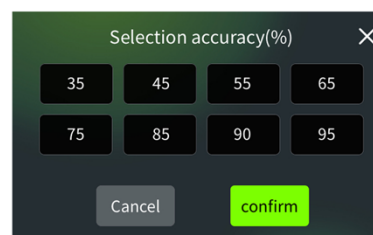


PRESS ACCUARACY (%) SETTING

1.Select accuracy (%)

35, 45, 55, 65, 75, 85, 90, 95

2. Press Cancel or Confirm



** For All Diver Watch, Accuracy 75% Is Good Enough For Universal Standard

NOTE: THE WATERPROOF TESTER SUPPORTS WATCHES WITH A MAXIMUM DIAMETER OF 70MM
A THICKNESS OF 28MM, A STRAP LENGTH OF 85MM, AND A SUPPORTING HEIGHT OF 75MM

04 OPERATING INSTRUCTIONS



TEST PROCESS, RESULTS & SUGGESTED AIR PRESSURE

TEST PROCESS:

Touch the start code on the screen panel after ensuring the watch is correctly positioned on the testing platform and the appropriate testing program has been selected, the instrument's lid will close automatically, and the sealing testing platform will be locked.

The testing procedure will commence based on the selected program, and the testing time will be automatically determined by the instrument's internal processor.

Upon completion of the testing procedure and the release of pressure from the sealing compartment, the instrument's lid will open automatically. After taking out the watch from the testing platform, the testing results will be displayed on the touch screen.

TEST RESULTS:

The test results will be presented on the screen as a curve graph, with test result 1 displayed in the upper section and test result 2 in the bottom section.

✓ indicates that the watch is waterproof, while an X indicates that it's not waterproof.

The curve graph serves as a visual representation of the waterproof performance.

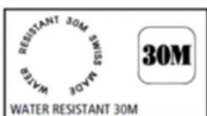
Note: Positive & negative pressure results solely indicate whether the watch is gas leakage, and do not confirm that the tested watch is completely waterproof when submerged in water.

SUGGESTED PRESSURE LEVEL:

- Watches with durable cases (diving watches) must undergo test within the pressure range of -0.5 to 0.7 bar. This range ensures sufficient deformation and facilitates the generation of quick and reliable test results.
- In an industrial context, vacuum generation can achieve a maximum negative vacuum pressure of 85%. Additionally, since air pressure decreases with altitude, the vacuum level may not reach its maximum at higher altitudes. Our instrument can reliably sustain an air pressure of -0.7 bar, making it convenient for conducting waterproof tests on watches. The table below shows how altitude relates to maximum vacuum values:

ALTITUDE	0m	500m	1000m	1500m	2000m
MAX VACUUM PRESSURE	-0.85bar	-0.81bar	-0.76bar	-0.72bar	-0.68bar

- The testing of everyday waterproof watches is limited to a maximum pressure level of 2 bar.
- During testing, it is acceptable to adhere to the maximum indicated air pressure or water depth specified for each watch to ensure accurate assessments of their waterproof capabilities. (10m water depth=1 bar)



- Note that watch movements in certain models with plastic cases may be damaged if subjected to severe compression by excessive air pressure. The test's pressure on the interior vacuum, watch crystal, and watch back case is outlined in the table below:

SIZE OF THE WATCH	NEGATIVE PRESSURE			POSITIVE PRESSURE			
	-0.2bar	-0.4bar	-0.7bar	1bar	2bar	5bar	10bar
WATCH CRYSTAL/WATCH BACK CASE Ø20MM	0.6kg	1.3kg	2.2kg	3.2kg	6.3kg	15.7kg	31.4kg
WATCH CRYSTAL/WATCH BACK CASE Ø28MM	1.2kg	2.5kg	4.3kg	6.2kg	12.3kg	30.8kg	61.6kg
WATCH CRYSTAL/WATCH BACK CASE Ø36MM	2.0kg	4.1kg	7.1kg	10.2kg	20.4kg	50.9kg	101.8kg

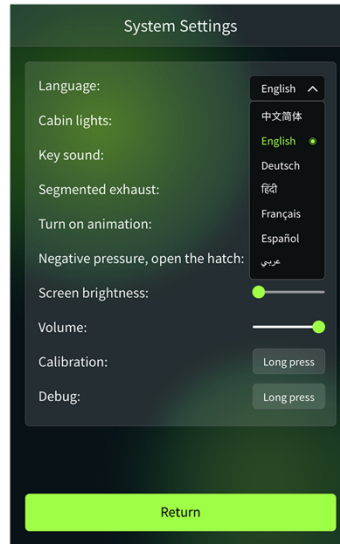
04 OPERATING INSTRUCTIONS



SYSTEM SETTINGS, SLEEP SETTINGS & POWER OFF

SYSTEM SETTINGS

Language supports Chinese, English, French. The sound of button click can be opened and closed. Adjust the screen bright. Light setting. Machine calibration and debugging.



(IMAGE: SYSTEM SETTINGS INTERFACE)

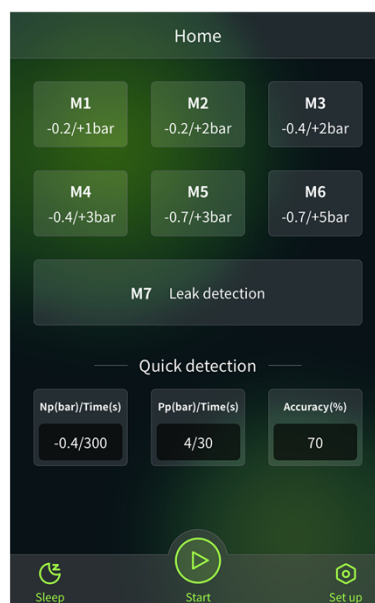
SLEEP SETTINGS

Activate the sleep mode by touching the **sleep button** on the screen, causing the lid to close automatically. The instrument will then enter standby mode. To wake it up, simply touch any part of the screen, and the lid will open automatically.

POWERING OFF THE WATCH WATERPROOF TESTER

To ensure the optimal condition of the instrument, it is essential to follow a proper shutdown procedure. Before turning off the machine, ensure that no watches or other objects are on the supporting platform.

Activate the sleep mode to close the sealing lid, and then toggle the I/O switch to turn off the machine. (Please remember to disconnect the power supply if the machine will not be used for an extended period)



(IMAGE: HOME INTERFACE)

05 HELPFUL HINTS



FACTORS THAT MAY AFFECT TEST RESULTS

● THE WATCH IS NOT PLACED IN A BALANCED OR STABLE MANNER

The watch should be positioned on all three supporting points of the platform to ensure balance and stability. Placing the watch on only two of the supporting points may result in instability and could potentially impact the accuracy of the instrument's sensor measurements due to potential swinging. The presence of a hump or irregular shape on the watch back case may prevent it from fitting securely on the three supporting points of the platform. Additionally, oversized or watches that are too small may pose a similar challenge. Three supporting trays of different sizes are provided, which can be utilized to adjust the position of the watch for optimal fitting.

● STICKER ON THE BACK CASE OR A PROTECTIVE FILM ON THE WATCH CRYSTAL

Stickers on the watch back case may be compressed under the pressure. During test, the presence of stickers or protective film on the watch may lead to deformation, which is similar to the deformation of the watch itself, and will affect the accuracy of the sensor's measurement. To ensure precise results, it is recommended to remove both the sticker and protective film from both sides of the watch. Typically, the protective coating on the watch back case does not influence the test results.

● TEMPERATURE MISMATCH BETWEEN THE WATCH AND THE ROOM

When the watch temperature is excessively high or low, it hinders the prediction of deformation during the waterproof test, impacting the accuracy of the results. It is not advisable to perform a waterproof test on the watch immediately upon entering indoors from a cold environment or entering an air-conditioned room from the outdoors on hot summer days. To ensure the accuracy of test results, we recommend placing the watch in the same environment as the instrument for at least an hour to ensure that the watch temperature aligns with the room temperature before conducting the test.

● VIBRATION OF THE INSTRUMENT

During test, vibration of the instrument caused by unstable placement and external vibration can impact test result accuracy. Therefore, placing the instrument stably in a proper environment is crucial.

● CONTINUOUS HIGH-PRESSURE TESTING

Allow the watch to remain stationary for a few minutes to ensure deformation recovery following high-pressure testing. For watches with potential leakage points, positive-pressure testing can result in pressure buildup within the watch. There is a delay in pressure relief, conducting a test immediately after high-pressure testing may yield inaccurate results. (When testing at two different air pressure levels, it is crucial to start with the lower level before proceeding to the higher one)

● EMERGENCY UNLOCKING OF THE INSTRUMENT

Do not forcibly open the sealed lid under any circumstances. Follow the designated procedures for unlocking the sealed lid when the watch is secured inside.

1. Disconnect the I/O switch located on the back of the instrument to release any remaining pressure inside the compartment.
2. Disconnect the air supply between the air compressor and the instrument.
3. After ensuring there is no air left in the sealing compartment, unlock the latch manually to open the sealed lid.

06 WARRANTY AND AFTER-SALES SERVICE

WARRANTY TERMS & AFTER-SALES SERVICE INFO



WARRANTY TERMS

OUR PRODUCT COMES WITH A ONE-YEAR LIMITED WARRANTY. THIS WARRANTY COVERS ANY MANUFACTURING DEFECTS THAT OCCUR UNDER NORMAL USAGE CONDITIONS. DAMAGES RESULTING FROM ACCIDENTS, MISUSE, OR FAILURE TO FOLLOW THE PRODUCT INSTRUCTIONS ARE NOT COVERED UNDER WARRANTY.

AFTER-SALES FRIENDLY REMINDER:

SAFETY IS ALWAYS THE TOP PRIORITY. WE RECOMMEND CONTACTING OUR CUSTOMER SERVICE TEAM BEFORE UNDERTAKING ANY OPERATIONS THAT COULD POTENTIALLY DAMAGE THE INSTRUMENT.

EXAMPLE: OPENING THE DEVICE FOR INTERNAL CLEANING OR REPAIRS SHOULD BE DONE AFTER CONSULTING OUR CUSTOMER SERVICE. UNAUTHORIZED REPAIRS MAY INVALIDATE THE WARRANTY.

THE WATCHMAKER M+ AUO VACUUM WATERPROOF TESTER IS A POWERFUL INSTRUMENT KNOWN FOR ITS ADVANCED FEATURES AND PRECISE TEST RESULTS. IT IS EXCLUSIVELY INTENDED FOR TESTING THE LEAKPROOFNESS OF WATCHES. THE INSTRUMENT IS MANUFACTURED IN ACCORDANCE WITH RELEVANT LAWS AND SAFETY REGULATIONS. HOWEVER, RISKS MAY STILL ARISE FROM MISOPERATION OR ACTIONS CONTRARY TO THE INSTRUCTIONS PROVIDED IN THE PRODUCT MANUAL. UNDER NORMAL CONDITIONS, THE INSTRUMENT PRODUCES ACCURATE AND RELIABLE TEST RESULTS.

THE COMPANY(PANJIN CHASING LIGHT ELECTRONIC TECHNOLOGY CO., LTD.) DOES NOT GUARANTEE THAT WATCHES PASSING THE TESTER'S TEST ARE COMPLETELY WATERPROOF WHEN SUBMERGED IN WATER.

THE COMPANY IS NOT RESPONSIBLE FOR ANY DAMAGE CAUSED BY THE INSUFFICIENCY OF THE WATCH'S WATERPROOF PERFORMANCE.

THE COMPANY'S AFTER-SALES SERVICE OFFERS COMPREHENSIVE SUPPORT, INCLUDING HANDLING CUSTOMER COMPLAINTS, MAINTENANCE, PARTS REPLACEMENT, REPAIRS, AND OTHER RELATED REQUESTS.

CONTACT US:

FOR INQUIRIES, PLEASE CONTACT US VIA THE OFFICIAL WEBSITE OF THE COMPANY:
WWW.WUQUE.COM

UNAUTHORIZED REPAIRS:

In the event of equipment malfunction, please contact the manufacturer's service center or an authorized repair center. Do not attempt to disassemble or repair the device yourself to prevent the risk of causing more severe issues or personal injury.



DO NOT OPERATE IN
HIGH TEMPERATURES



DO NOT OPERATE IN
LOW TEMPERATURES



USE THE PROVIDED
POWER SUPPLY



ACCURATE POWER
CONNECTIONS



AUTHORIZED REPAIRS
ONLY



**CRAFTED
BRILLIANCE**
