

ENGLISH

User manual



Table of contents

1. SAFETY PRECAUTIONS AND PROCEDURES	2
1.1. Preliminary instruction	2
1.2. During use	2
1.3. After use	2
2. GENERAL DESCRIPTION	3
3. PREPARATION FOR USE	4
3.1. Initial	4
3.2. Power supply	4
3.3. Calibration	4
3.4. Storage	4
4. OPERATING INSTRUCTIONS	5
4.1. Instrument description	5
4.1.1. Front panel	5
4.1.2. Switch on of instrument	5
4.1.3. Selection of cable type	5
5. MEASUREMENTS	6
5.1. Cabling test verify	6
5.2. Cabling errors	7
5.3. Split pairs explanation note	8
6. MAINTENANCE	9
6.1. General informations	9
6.2. Battery replacement	9
6.3. Cleaning	9
6.4. End of life	9
7. TECHNICAL SPECIFICATIONS	10
7.1. Technical specifications	10
7.2. General specifications	10
7.3. Environment	10
7.3.1. Environmental conditions	10
7.4. Accessories	10
7.4.1. Standard accessories	10
7.4.2. Optional accessories	10
8. SERVICE	11
8.1. Warranty conditions	11
8.2. Service	11

1. SAFETY PRECAUTIONS AND PROCEDURES



CAUTION

For your own safety as well as that of the apparatus you are recommended to follow the procedures described in this instruction manual and carefully read all the notes preceded by the symbol . No compliance with the CAUTIONS and/or Instructions may damage the apparatus and/or its components or injure the operator.

1.1. PRELIMINARY INSTRUCTION

- Read this instruction manual and the instrument's one before starting use.
- Any instruction preceded by the caution symbol must be observed in order to avoid accidents or damages.
- Check that battery has been correctly placed.
- Only qualified personnel practicing applicable safety precautions must use this product.
- Do not effect any measurement under conditions beyond the limits specified in this manual.



CAUTION

Connect the tester only to inactive cables. Connection to active telephone lines and networks may damage the instrument.

1.2. DURING USE

Read carefully the following recommendations and instructions:



CAUTION

If the display shows the symbol “-” interrupt testing and replace batteries. Never replace batteries while the instrument is connected to conductors.

- Do not use the instrument if damaged.
- Do not use the instrument outdoor.
- Do not perform measurements under environmental conditions beyond the limits specified in § 7.3.1.
- Do not expose the instrument to water splashes.

1.3. AFTER USE

- After using the instrument switch it off.
- Remove batteries if you expect not to use the instrument again for a long period.

2. GENERAL DESCRIPTION

QUICKLAN 6055 is an easy cable tester for LAN cables with RJ45 connector of whatsoever category. It's able to detect cable failures and check wirings in UTP (Unshielded Twisted Pair) and STP (Shielded – screened shielded Twisted Pair) cables.

The instrument not only identifies wiring faults, such as open wires, shorted wires, miswires and split pairs, but also tests up to 8 different cables at one end thanks to eight different optional remote units (see § 7.4.2).



Fig. 1: Instrument and remote units #1 and #2

3. PREPARATION FOR USE

3.1. INITIAL

This instrument was checked both mechanically and electrically prior to shipment. All possible cares and precautions were taken to let you receive the instrument in perfect conditions.

Notwithstanding we suggest you to check it rapidly (eventual damages may have occurred during transport).

Make sure that all standard accessories mentioned in § 7.4.1 are included.

Should you have to return back the instrument for any reason please follow the instructions mentioned in § 8.

3.2. POWER SUPPLY

The instrument is battery supplied with 1x9V alkaline battery type IEC 6F22 included in the package. When the “” low battery indication symbol is displayed replace it immediately, following the instructions given in § 6.2. Don't replace the battery while the instrument is connected to the plant.

3.3. CALIBRATION

The instrument complies with the technical specifications contained in this manual and such compliance is guaranteed for 1 year. Afterwards the instrument may need recalibration.

3.4. STORAGE

After a period of storage in extreme environmental conditions exceeding the limits mentioned in § 7.3 let the instrument return to normal measuring conditions before using it.

4. OPERATING INSTRUCTIONS

4.1. INSTRUMENT DESCRIPTION

4.1.1. Front panel



Fig. 2: Instrument description

4.1.2. Switch on of instrument

To switch on the instrument press the **ON/OFF** key. For an instant all display segments light up, then the firmware release appears on the top right side. When “on” is displayed the instrument is ready to start.

4.1.3. Selection of cable type

By pressing **UTP** or **STP** keys it's possible to select the type of cable to be tested, with the following difference: STP performs also tests on the shield (continuity and proper connections) while UTP doesn't.

Consequently STP must be pressed for all shielded cables such as:

- FTP (Foiled Twisted Pair cable)
- STP (Shielded Twisted Pair cable)
- SSTP (Shielded/Shielded Twisted Pair cable)
- SFTP (Shielded/Foiled Twisted Pair cable)

CAUTION



By default the selected cable is STP. Any time the instrument is turned off and on such type of cable is automatically selected

5. MEASUREMENTS

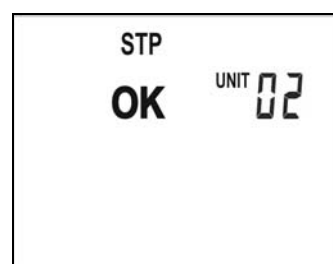
5.1. CABLING TEST VERIFY

The wire mapping of RJ45 LAN cables is tested in accordance with its defined cabling layout. To test a cable perform the below operation:

1. Select the type of cable UTP or STP under test (see § 4.1.3).
2. Connect the cable under test to the meter (see Fig. 1 – part 1) and to the remote unit by using if necessary through supplied patch cables
3. Press **GO** key to perform all tests related to the selected type of cable

The remote unit must be necessarily connected otherwise no measurement is performed

If cabling is correct, a screen like this is displayed (OK).
The identification number refers to the remote identifier connected to the other end of the cable being tested.



If cabling is not correct, a screen like this is displayed.
Referring to this example:

- “NOT OK” indication and caution symbol means that the test have given some errors
- “FAULT 1/3” means that the detected errors are 3, of which the first one is currently displayed. By pressing arrow keys it's possible to run over the remaining screens and display other cabling errors
- Details on the detected error are given on the left side: the couple 1-2 is OPEN



If the instrument detects the presence of a voltage > **0.2V** on the RJ45 input, it shows the message in the screen on the right and do not perform the test.
Eliminate the cause of the presence of voltage (e.g.: coupling due to the presence of electrical cables close to cable of LAN networks)



CAUTION

It's indispensable to select the right type of cable. If UTP is selected although a STP cable is tested, test results may be not reliable due to the shield affecting the measurement.

5.2. CABLING ERRORS

Cabling error	Description	Visualization	Mapping
OPEN PAIR	One or both conductors of the pair are interrupted (open)	STP NOT OK   12 OPEN	1 2 3 4 5 6 7 8 S 1 2 3 4 5 6 7 8 S
REVERSED PAIR	The conductors of the same pair are reversed	STP NOT OK   12 REVERSE	1 2 3 4 5 6 7 8 S 1 2 3 4 5 6 7 8 S
SHORTED CABLES	Two conductors are in short circuit between each other	STP NOT OK   1 8 SHORT	1 2 3 4 5 6 7 8 S 1 2 3 4 5 6 7 8 S
TRANPOSED (CROSSED) PAIRS	Two pairs are crossed	STP NOT OK   12 78 CROSS	1 2 3 4 5 6 7 8 S 1 2 3 4 5 6 7 8 S
MISWIRE	Generic cabling error, such as for example two conductors belonging to different pairs are exchanged	STP NOT OK   36 45 MISWIRE	1 2 3 4 5 6 7 8 S 1 2 3 4 5 6 7 8 S
SPLIT PAIRS	The pin to pin correspondence is hold, but physically the conductors of two pairs are crossed	STP NOT OK   36 45 SPLIT	1 2 3 4 5 6 7 8 S 1 2 3 4 5 6 7 8 S

5.3. SPLIT PAIRS EXPLANATION NOTE

A LAN cable contains 8 conductors, twisted two by two thus forming 4 pairs: 1-2, 3-6, 4-5, 7-8. The error "SPLIT PAIRS" consists in the exchange of two conductors belonging to different pairs. The pin to pin correspondence seems intact, but physically the conductors of two couples are split. Such interaction hardly affects (or even makes impossible) the exchange of data at high frequency/speed.

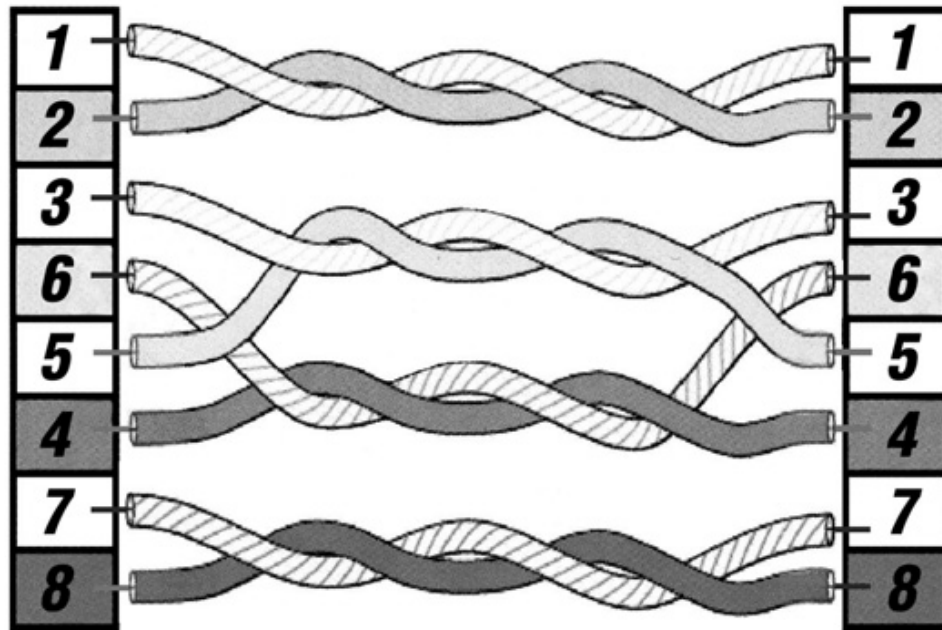


Fig. 3: Description of "Split pairs" error

CAUTION



The error condition "SPLIT PAIRS" is verified only when the cable mapping is fully correct.

6. MAINTENANCE

6.1. GENERAL INFORMATIONS

1. This model is a precision instrument. Whether in use or in storage, please do not exceed the specification requirements to avoid possible damages or dangers
2. Do not place this meter at high temperatures or humidity or expose it to direct sunlight
3. Be sure to turn off the meter after use. If you expect not to use the tester for a long time, remove the battery in order to avoid leakages of battery liquid that would damage the internal parts

6.2. BATTERY REPLACEMENT

When “” appears on the display, replace the battery.

CAUTION



Only skilled technicians can open the instrument and replace batteries. Before removing batteries disconnect the test leads from any energized circuits to avoid electrical shocks.

1. Switch off the instrument and remove the cable from the input socket.
2. Press the battery cover and push in the direction of the arrow to open.
3. Remove the battery.
4. Replace the battery with a new one of the same type (refer to § 7.2) observing the proper polarities.
5. Replace the battery cover.
6. Use the appropriate battery disposal methods for your area.

6.3. CLEANING

To clean the instrument use a soft dry cloth. Never use a wet cloth, solvents or water.

6.4. END OF LIFE



CAUTION: this symbol indicates that equipment and its accessories shall be subject to a separate collection and correct disposal.

7. TECHNICAL SPECIFICATIONS

7.1. TECHNICAL SPECIFICATIONS

Connectors

LAN input connectors RJ45

Cables which can be tested

Cable type UTP, STP
Category CAT3, 5, 5E, 6, 6A, 7
Reference guideline: TIA/EIA 568B
Max height of use: 2000m
Length up to 200m⁽¹⁾

(1) To perform the test "SPLIT PAIR" the cable must be at least 1m long

7.2. GENERAL SPECIFICATIONS

Mechanical features

Dimensions (LxWxH): 128 x 67 x 39mm; (5 x 2.6 x 1.5in)
Weight (with battery): 165g; (5.8ounces)
Dimensions rem.units (LxWxH): 72 x 20 x 23mm; (2.8 x 0.8 x 0.9in)
Weight remote units: 25g; (0.9ounces)

Power supply

Battery type 1x9V type IEC 6F22
Battery life about 300 hours
Auto Power Off after 3 minutes of idleness (not disabled)

7.3. ENVIRONMENT

7.3.1. Environmental conditions

Working temperature 0 ÷ 40 °C; (32 ÷ 104°F)
Relative humidity <80%RH
Storage temperature 0 ÷ 40 °C; (32 ÷ 104°F)
Storage humidity <80%RH

This product conforms to the prescriptions of the EMC directive 2004/108/EEC

7.4. ACCESSORIES

7.4.1. Standard accessories

Description	Code
• Remote unit #1	REM1
• Remote unit #2	REM2
• Patch cables RJ45/RJ45, STP, 20cm, 3 pcs	YAAMS0000000
• Battery	
• Carrying bag	B80
• User manual	

7.4.2. Optional accessories

Description	Code
• Remote unit #3 and cable RJ45/RJ45 STP	REM3
• Remote unit #4 and cable RJ45/RJ45 STP	REM4
• Remote unit #5 and cable RJ45/RJ45 STP	REM5
• Remote unit #6 and cable RJ45/RJ45 STP	REM6
• Remote unit #7 and cable RJ45/RJ45 STP	REM7
• Remote unit #8 and cable RJ45/RJ45 STP	REM8
• Remote units #3 - #8 + 6 cables RJ45/RJ45 STP	REM38

8. SERVICE

8.1. WARRANTY CONDITIONS

This instrument is guaranteed for one year against material or production defects, in accordance with our general sales conditions. During the warranty period the manufacturer reserves the right to decide either to repair or replace the product.

Should you need for any reason to return back the instrument for repair or replacement take prior agreements with the local distributor from whom you bought it.

Do not forget to enclose a report describing the reasons for returning (detected fault).

Use only original packaging. Any damage occurred in transit due to non original packaging will be charged anyhow to the customer.

The warranty doesn't apply to:

- Accessories and batteries (not covered by warranty).
- Repairs made necessary by improper use (including adaptation to particular applications not foreseen in the instructions manual) or improper combination with incompatible accessories or equipment.
- Repairs made necessary by improper shipping material causing damages in transit.
- Repairs made necessary by previous attempts for repair carried out by non skilled or unauthorized personnel.
- Instruments for whatever reason modified by the customer himself without explicit authorization of our Technical Dept.

The contents of this manual may not be reproduced in any form whatsoever without the manufacturer's authorization.

Our products are patented and our logotypes registered. We reserve the right to modify specifications and prices in view of technological improvements or developments which might be necessary.

8.2. SERVICE

Shouldn't the instrument work properly, before contacting your distributor make sure that batteries are correctly installed and working, check the test leads and replace them if necessary. Should the instrument still operate improperly check that the operation procedure is correct and conforms to the instructions given in this manual.

If the instrument is to be returned to the after-sales service or to a dealer transportation costs are on the customer's behalf. Shipment shall be however agreed upon. A report must always be enclosed to a rejected product stating the reasons of its return. To ship the instrument use only the original packaging material; any damage that may be due to non-original packing shall be charged to the customer.