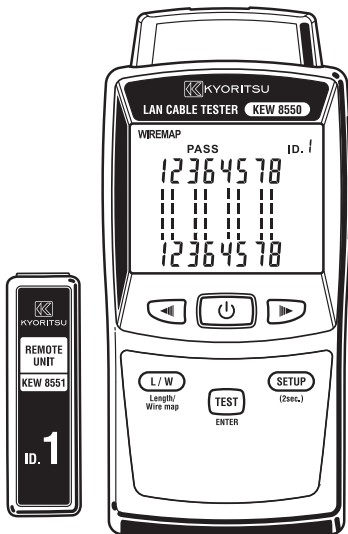


取扱説明書
Instruction Manual

日本語

English



LAN ケーブルテスタ / LAN CABLE TESTER

KEW 8550



共立電気計器株式会社
KYORITSU ELECTRICAL
INSTRUMENTS WORKS, LTD.

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1. Unpacking

We thank you for purchasing our LAN cable tester "KEW 8550". Please check the contents and tester before use.

1 : KEW8550



2 : Remote unit



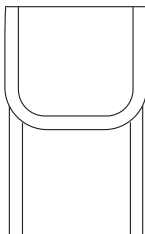
3 : LAN cable



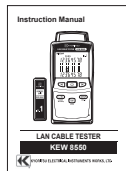
4 : Battery x 6



5 : Soft case



6 : Instruction manual



Items contained in the box:

1	Tester	KEW 8550 x 1
2	Remote unit (No.1)	KEW 8551-1 x 1
3	LAN cable	CAT5 STP cable x 2
4	Battery	Size AAA (LR03) battery x 6
5	Soft case	MODEL 9201 x 1
6	Instruction manual	x 1

2. Safety warnings (Safety precautions)



This instruction manual contains warnings and safety rules which must be observed by the user to ensure safe operation of the tester and to maintain it in safe condition. Therefore, read through these operating instructions before starting to use the tester.




WARNING

Instruction manual:

- Read through and understand instructions contained in this manual before starting to use the tester.
- Keep the manual at hand to enable quick reference whenever necessary.
- The tester is to be used only in its intended applications.
- Understand and follow all the safety instructions contained in the manual. It is essential that the above instructions are adhered to.

Failure to follow the above instructions may cause injury, tester damage and/or damage to the equipment under test. Kyoritsu is by no means liable for any damage resulting from the tester in contradiction to these cautionary notes.

The symbol  indicated on the tester means that the user must refer to the related parts in the manual for safe operation of the tester. It is essential to read the instructions wherever the symbol  appears in the manual.

-  DANGER : is reserved for conditions and actions that are likely to cause serious or fatal injury.
-  WARNING : is reserved for conditions and actions that can cause serious or fatal injury.
-  CAUTION : is reserved for conditions and actions that can cause injury or instrument damage.

⚠ WARNING

- Never install substitute parts or make any modifications to the tester. Send the tester to your local KYORITSU distributor for repair or re-calibration.



⚠ CAUTION

- Power off the tester after use. Remove batteries if the tester is to be stored and won't be used for a long period.
- Do not expose the tester to direct sunlight, high temperature, humidity or dew.
- Use a slightly damp cloth with neutral detergent or water for cleaning. Never use abrasives or solvents.
- Do not use the tester at dusty places or to be splattered.

Symbols:

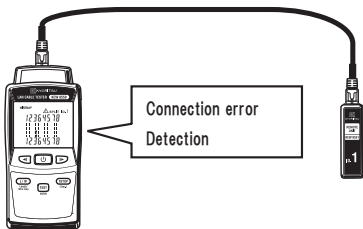
The following symbols are used and marked on the tester and in this instruction manual. Please carefully check before starting to use the tester.

Descriptions

	<p>User must refer to the explanations in the instruction manual for safety purpose.</p>
	<p>Crossed-out wheel bin symbol (according to WEEE Directive: 2002/96/EC) indicating that this electrical product may not be treated as household waste, but that it must be collected and treated separately.</p>

3. Features

KEW 8550 is ideal to test network connections: the tester can detect twisted-pair cables and connected ports, and also can measure cable length. The tester can identify multiple cables by using optional remote units.



The tester provides the following functions.

- Connection check
Detects connection errors such as open-/ short-circuited cables, transposed connections, and split pairs.
- Wiremap
Quickly and easily verifies cable connections: easy-to-read display.
- Cable length measurement
Measures the length of a pair of cables.
- Cable identification
Tracks multiple cables (8 points max.) by using optional remote units.
- Backlight
Automatically turns on to facilitate working at dimly illuminated location. The light automatically turns off if there's no operation for 30 sec.
- Auto-power-off
When the tester is inactive for about 15 min., it turns off automatically to save battery life.
- Complied with IEC 61326-1.

4. Specifications

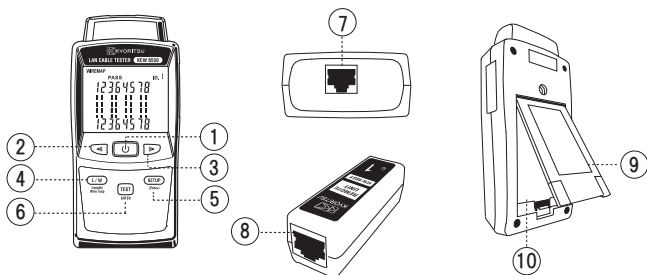
Specifications and accuracy

- Measurable cable Twisted-pair cable: Characteristic impedance of 100 Ω shielded wire (STP), unshielded wire (UTP) CAT5, CAT5e, CAT6, CAT6A
- Measurable connector RJ-45 connector
- Wiremap function Measuring range: 100 m max.
Detectable fault: Opens, shorts, crossed, reversed, transposed, split pairs, and shielded/ unshielded
- Cable length measurement Measuring range: 255 m max.
Minimum resolution: 0.1 m
Measurement accuracy: $\pm 10\% \pm 1$ m
- Cable identification Tracks multiple cables (8 points max.) by using optional remote units.

General specifications

- LCD : 58(L) \times 45(W) with backlight
- Power source : 9 V DC (Size AAA, R03/LR03 x 6)
- Current consumption: 30 mA or less
- Battery life : Approx. 200 times (continuous use)
- Operating altitude : 2000 m or less
- Operating temp. & humidity : 0 to 40 $^{\circ}$ C, relative humidity of 80% or less (no condensation)
- Storage temp. & humidity : -10 to 60 $^{\circ}$ C, relative humidity of 70% or less (no condensation)
- Applicable standard : IEC 61326-1
- Dimension : KEW 8550 : 156(L) \times 73(W) \times 35(D)mm
Remote unit : 72(L) \times 23(W) \times 24(D)mm
- Weight : KEW 8550: Approx. 245 g (including batteries)
Remote unit : Approx. 25 g
- Accessories : Instruction manual x 1
Size AAA battery (LR03) x 6
Remote unit KEW 8551-1 x 1
Soft case MODEL 9201 x 1
LAN cable x 2
- Optional accessories KEW 8551-25 (A set of remote unit No. 2 – 5)
KEW 8551-68 (A set of remote unit No. 6 – 8)

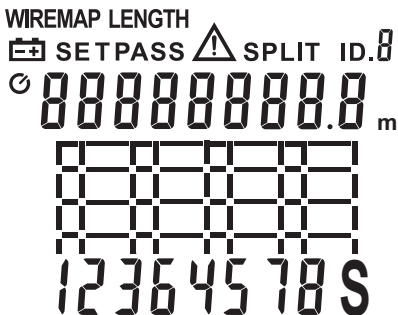
5. Tester layout






Names and function of parts:

	Name	Description
①	Power key	Turns on/ off the tester.
②	Cursor key (Left)	Toggles the measured cable length results to be displayed/ alters setting values in setup mode.
③	Cursor key (Right)	Toggles the measured cable length results to be displayed/ alters setting values in setup mode.
④	L/W key	Switches wiremap display (network connections) and cable length display in measurement result display screen.
⑤	SETUP key	Enters setup mode by holding down the key 2 sec. or longer and works as enter key in setup mode.
⑥	TEST key	Gets a test started. Completes settings in setup mode.
⑦ , ⑧	RJ-45 test connector	Cable under test to be connect to this connector.
⑨	Tilt stand	Used to stand the tester.
⑩	Battery compartment cover	To be removed at battery replacement.

<Symbols and indicators displayed in the LCD>




Symbols and indicators

WIREMAP	Indicates the tester is in wiremap test mode.
LENGTH	Indicates the tester is in cable length measurement mode.
	Indicates battery exhausted and needs to be replaced.
SET	Indicates the tester is in setup mode.
PASS	Indicates wiremap test verified cables are connected correctly.
	Indicates mis-wire is found at wiremap test.
SPLIT	Indicates split pair (mis-wire) is found at wiremap test.
ID.	Indicates the ID No. of remote unit connected with the tester.
	Indicates the auto-power-off function is turned off.
m	Meter: Unit of the cable length
S	Shield indicator – in wiremap test mode, setting for the cable to be tested is set to “Shielded”.

6. Getting started

Preparations before starting to use the tester:

- (1) Install batteries in KEW 8550 with reference to “11. Battery replacement” in this manual.
- (2) Press power key on KEW 8550 to turn on the tester.
 - * If battery warning indicator “” is displayed in the LCD, please replace the batteries with new ones.
- (3) Hold down SETUP key (at least 2 sec.) and confirm the cable settings are harmonized with the cables to be tested. To modify or change the settings, please refer to “8. Setting procedures”.

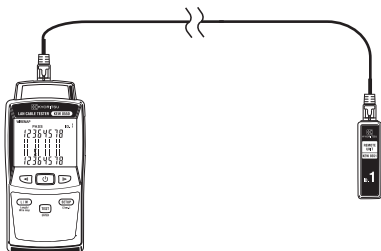
7. Measurement method

CAUTION

- Do not test cables connected to the network in operation as it may damage devices.
- Do not connect any cables other than twisted-pair cable.
 - * The tester may be damaged if connected with a live wire, for example a telephone wire, to which voltages are applied.
- Disconnect the cables to be tested from a network hub or any devices before connecting to the tester as it may damage the tester or devices.

7.1 Connection

Connect the cable to be tested with KEW 8550 and a remote unit as shown below.



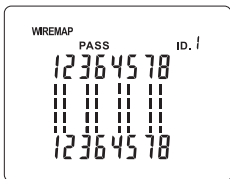
7.2 Cable test

Press power key to turn on KEW 8550. The tester automatically tests the connected cable when it gets started. To test another cable, change the settings to be harmonized with the cable under test, and then press TEST key.

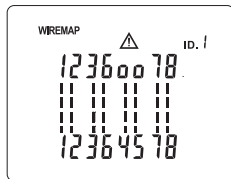
7.3 Wiremap test result display

The LCD shows "PASS" for correct wiring and blinking \triangle symbol for incorrect wiring. When any faults are found, the LCD shows fault status together with blinking \triangle symbol.

Correct wiring: PASS

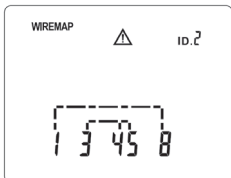


Incorrect wiring: Open



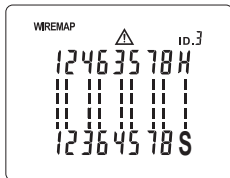
Indicating open between No. 4 and 5.

Incorrect wiring: Short



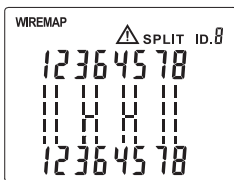
Indicating shorts between :
No. 3, 4, and 5 and No. 1 and 8.

Incorrect wiring: Transposed



Indicating No. 3 and 4 are reversed.

Incorrect wiring: Split pair^{*1}

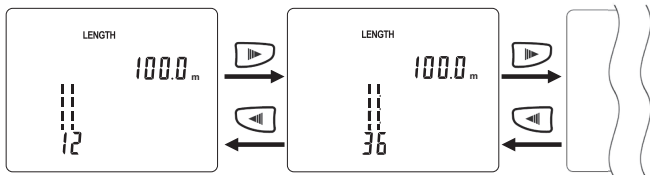


Split pair is detected between No. 3 and 6 and between No. 4 and 5. (Split pair: wiring error where two different twisted pairs are tied together by mistake)

^{*1} Cable length shall be at least 5 m long for split pair detection.

7.4 Cable length measurement

A press of L/W key while testing wiremap triggers a measurement and indication of the connected cable. Press the cursor keys to switch the indications of the pair of connected cables.

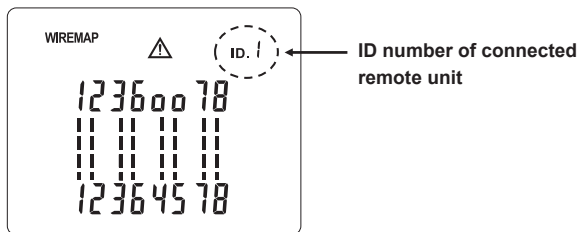


* If the LCD shows \triangle symbol, there may be a break or short in the connected cables.

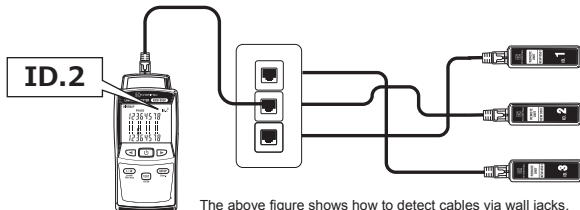
7.5 Cable detection

In wiremap test result screen, the ID number of the connected remote unit is displayed. The ID number of the supplied remote unit is "1".

* If no remote unit is connected, "0" is displayed.



Multiple cable connections can be checked by using optional remote units.



The above figure shows how to detect cables via wall jacks.

8. Setting procedures

Making pre-settings with the same type of twisted pair cable as that to be tested increases accuracy of cable length test (7.4)

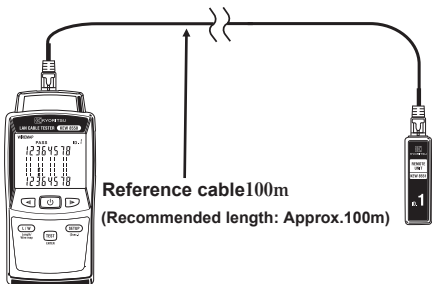
8.1 Reference cable

Prepare a cable which is the same type as the cable to be tested and its length is already known. (Recommended length: Approx.100m)

* Measure and check the length of a cable to be used as a reference cable.

8.2 Connection of reference cable

Connect KEW 8550 and remote unit with the reference cable as shown below.

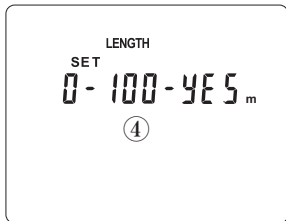
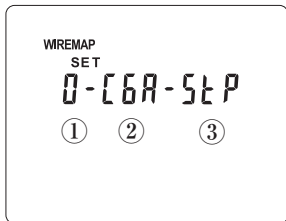


8.3 Settings for the reference cable

Press power key and turn on KEW 8550.

Holding down SETUP key (2 sec or longer) enters setup mode.

The LCD shows "P-ON" or "P-OFF". Press cursor key (left or right) to display the screen for reference cable setting and then press SETUP key.



- ① Memory No. starts blinking. Select the desired Memory No. with cursor keys and confirm the No. with SETUP key. (Memory No. 0 to 9 are available: 10 (max.) individual settings of reference cables can be saved.)
- ② Cable category indicator starts blinking. Press cursor keys to select the appropriate category and confirm with SETUP key.

CA5: Category 5

C5E: Category 5e

CA6: Category 6

C6A: Category 6A

* These indicators are just to confirm cable settings: change of these settings won't affect each measurement result.

- ③ Cable type indicator starts blinking. Press cursor keys to select the desired Memory No. and confirm with SETUP key.

UTP: Un-shielded wire

STP: Shielded wire

* If STP is selected, check for continuity is performed at testing wiremap.

- ④ Cable length indicator starts blinking. Press cursor keys to select the length of the reference cable (from 10 to 250 m) and confirm with TEST key.

* When the LCD shows "x-xxx-bad" when pressing TEST key, disconnect the remote unit and repeat the setting procedure again.

* To restore the altered settings to default (factory settings), press L/W key at step ④ described above.

* To check the settings of the reference cable, perform step ① to ④ described above again.

When cable length settings are done, the LCD shows "O-O-O-O-YES". If the LCD shows "O-O-O-O-no", default settings are adopted.

* If you wish to stop making setting changes and canceling changes, press power key and turn off KEW 8550.

9. Auto-power-off setting

Auto-power-off function can be turned on/ off.

The tester automatically powers off after 15 minutes of no use when the function is set to "ON".

* Default setting: "ON".

- 1) Press POWER key to power on the tester.
Hold down SETUP key at least 2 seconds to enter setup mode.
- 2) The LCD shows "P-ON" or "P-OFF". Press SETUP key.
- 3) Then the LCD shows blinking "ON" or "OFF". Press cursor key (left or right) to switch ON and OFF and confirm the setting by pressing SETUP key.

10. Backlight setting

Backlight function can be turned on/ off.

The tester automatically powers off after 15 minutes of no use when the function is set to ON.

* Default setting: "OFF".

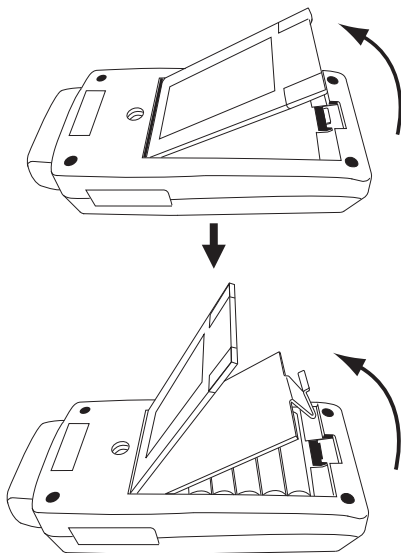
- 1) Press POWER key to power on the tester.
Hold down SETUP key at least 2 seconds to enter setup mode.
- 2) The LCD shows "P-ON" or "P-OFF". Press cursor key (left or right) to display "L-ON" or "L-OFF" screen and press SETUP key.
- 3) Then the LCD shows blinking "ON" or "OFF". Press cursor key (left or right) to switch ON and OFF and confirm the setting by pressing SETUP key.

11. Battery replacement

CAUTION

- Do not mix new and old batteries nor different types of batteries.
- Install batteries in correct polarity as marked inside.
- Turn off the tester before opening the battery compartment cover and ensure that no cables are connected to.

- (1) Turn off KEW 8550.
- (2) Gently flip the tilt stand and open the battery compartment cover.
- (3) Replace the batteries with new ones. (Size AAA LR03 x 6)
- (4) Close the cover and fold down the stand.



MEMO

English

DISTRIBUTOR

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