

# Wireharness Checker

Continuity ▪ Instantaneous open Test Machine for wireharness, cable, etc.

## WSP series

Line-uped from 10 circuits to 50 circuits machines. Up to 100 circuits connecting 2 (WSP-50) sets



WSP-50 (for 50 circuits)

- Possible to do much more reliable test
  - With simple operation, "OPEN/MIX/SHORT/INSTANTANEOUS OPEN" errors will be detected.
  - "OK sound" (when a continuity test was passed), and "Alarm sound" (when it is an error) will be heard, and outputs the signal.
  - Outputs a non-voltage contact signal for both OK(passed) and NG(error), so it is easy to connect with outer devices.
- Indicates an error position simply
  - Indicates an error point straightforward because a lamp is prepared to each circuit.
  - Possible to fill in the circuit number, wire color, test name, etc. on the circuit display board.
  - If there are instantaneous opens, all instantaneous opened circuits will light up at the same time.

### 1. "Instantaneous open test" is available to eliminate imperfect connections.

Incomplete connections like poor crimping or almost cutting off the electric cable, coming out of terminal, loose connection will be very difficult to find out under the normal test of quiescent conditions.

So, by adding external force such as vibration, bend, tension to the test object, uncertain connection points may happen momentarily open (momentary disconnection) or the continuity resistance value may rise.

By searching out this instantaneous open or the rise of resistance value more than continuity sensitivity, imperfect connections will be eliminated. This inspection purpose is "Instantaneous Open Test".

### 2. Tests the existence or non-existence of "OPEN·MIX·SHORT"

- OPEN TEST : If the circuit which should be connected would have the resistance more than set up value (500 ohms / 10K ohms), it will be searched out as [OPEN].
- MIX TEST : If the alignment of wires is different, it will be searched out as [MIX = improper wiring].
- SHORT : If different circuits are connected with less than the set up value (10K ohms / 70K ohms), it will be search out as [SHORT].

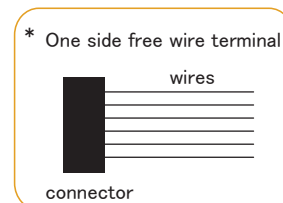
### 3. Continuity failures will be indicated with understandable lamps and buzzer.

Failure points will be shown with lamps prepared to each circuit and outputs alarm sound in manual start.

In the instantaneous open error(s), lamps for all instantaneous open circuits lights up at a time.

### 4. Possible to test the continuity and alignment of one side free wire terminal

By touching one side free wire terminal with test probe (option), possible to test the continuity and alignment/short.



### 5. Others

- Test jig board and wiring technique for models WP-20B to 50B are the same.
- OK sound is switchable to 4 tones. So, even the test machines are adjacency condition, decreases the wrong hear of OK tone sound.

## TEST FLOW

#### • Auto test start mode

Connect (set) the test object → Automatically starts the continuity test → If "OK", confirm tone will ring and shifts to the instantaneous open test → Add outer forces to the test object → If the instantaneous open will not found within the set up time (0 to 30 seconds), rings OK sound, OK lamp lights up, and outputs OK signal / in case that the instantaneous open was found, rings the NG sound, NG lamp lights up, and outputs NG signal → Take out the test object → Wait next test mode.

#### • Manual test start

Connect (set) the test object → Push on the start switch → If found the continuity error, rings alarm sound, blinks NG lamp(s), and output NG signal / If "OK", confirm tone will ring and shifts to the instantaneous open test → Hereafter, same as Auto start test mode.

## 【Front】



WSP-10



WSP-20



WSP-30



WSP-40

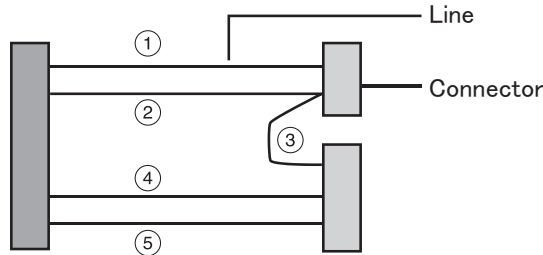
## 【Rear】 WSP-50



Coupling connector

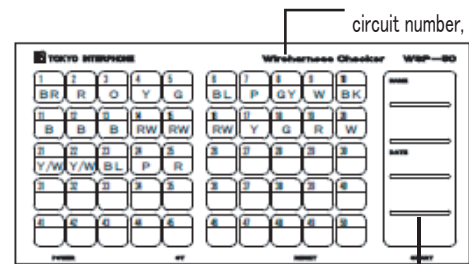
Connector to connect the test object

## 【Numeration of circuit quantity】



① to ⑤ are the lines for test target, and to be counted as 5 circuits

## 【Circuit display board】



Write the cable color, circuit number, etc.

- Simply replaceable
- Usable oil ink marker (Erasable with alcohol)

Write the part number, etc.

# Specifications

- |  |  |
|--|--|
| ① Test circuit capacity                      | : 10~50 circuits. Up to 100-circuit with 2 sets (WSP-50 x 2)                     |
| ② Circuit composition possible to test       | : Straight circuit (1:1 circuit), Joint(Branch) circuit                          |
| ③ Test sensitivity                           | : Continuity test : < 500 ohms/10K ohms (*1), Short test : >10K ohm/70K ohms(*2) |
| ④ Instantaneous open search time and display | : < 2 μ sec (*3), All instantaneous open circuits light up at a time.            |
| ⑤ Instantaneous open test time               | : 0~30sec (or stop by switch operation)  |
| ⑥ Start of test                              | : Automatic or manual start operation  |
| ⑦ Test voltage and current(one circuit)      | : 5V/0.5mA   |
| ⑧ External signal output                     | : OK/NG signal(Non voltage contact output), OK signal (open collector output)    |
| ⑨ OK sound                                   | : 4 tones (switchable)   |
| ⑩ Electrostatic capacity between wires       | : 0.02 / 0.2 μ F   |
| ⑪ Error indication                           | : Red LED for each circuit (50 circuits → 50 LEDs)                               |
| ⑫ Connector for testing                      | : D-sub 37P male connector (for each 10 circuits as a genuine accessory)         |
| ⑬ Input voltage and consumption power        | : AC85V~264V / 10W   |
| ⑭ Dimensions / weight                        | : 260(W) × 180(H) × 210(D)mm / 4kgs  |

(\*1) Open indication more than 500 ohms or 10K ohms

(\*2) Short indication less than 10K ohms or 100K ohms

(\*3) Indicated as an instantaneous open, when exceeded more than 2 μ sec. of short, or continuity test sensitivity.

### 1. Remote switch [RS-50]

- STOP/SKIP : Manual search for error circuits
- START/RESET : Starting the manual search and reset of an error indication
- Dimension and weight : 110(W) × 15(H) × 48(D)mm / 130g



### 2. OK counter [WT-05]

- Displays the total accepted wireharness (Maintains the counts after power off)
- Available up to 8 digits
- Dimension and weight : 60(W) × 40(H) × 85(D)mm / 220g



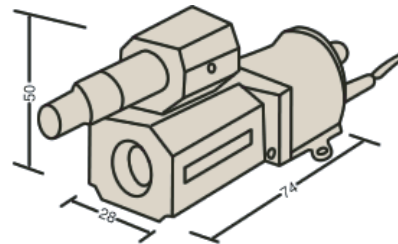
### 3. Tape cutter [WTC-100B]

- When the object is passed the test, the tape will automatically come out, and paste the "OK" mark to the object
- Delivery tape length : 1 ~ 15 cm adjustable)
- Alarm sound when forgot to cut off the tape
- Enable tape : 1 or 3" inner dia. cellophane tape
- Dimension and weight : 91(W) × 128(H) × 178(D)mm / 1.4kg.



### 4. "Passed" stamp marker [OM-02]

- When passed the test, the "passed" mark will be input automatically.
- Available to change the mark (the mark is not included)
- Size and weight : 74(W) × 50(H) × 28(D)mm / 150g



### 5. Test probe [ST-2.0]

- Test probe for one end of stripped and tinned cable line
- Length of cable : 1.2m



### 6. Connection cable [CN-50S]

- 50 core flat cable (with MIL connector)
- Cable length : 0.5m



- Ready to produce your special specification model on request.
- Specifications to be changed without notice for improvement.