

# Value<sup>+</sup>



FHW12200p-002-14-00N

# WT22

Series  
Manual

The Value+ Model WT22A and WT22B wire tracker (the equipment) is for circuit identification. With careful use, the equipment will provide years of reliable service.



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## READ BEFORE USE – SAFETY INFORMATION

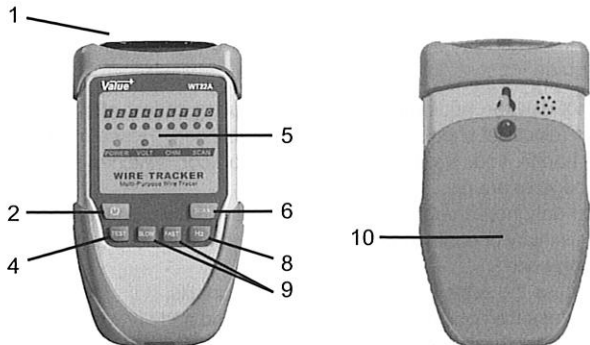
### WARNING

To ensure safe operation and service of the equipment, please follow these guidelines:

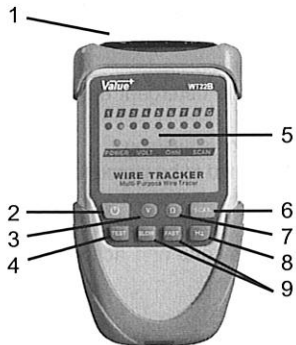
- Do not use the equipment just before, during or just after an electrical storm (electrical shock / high energy overvoltage!). Please make sure that your hands, your shoes, your clothing, the floor, switches and switching components are dry.
- Trace only non-energized wiring. Contact with live circuits can result in serious injury or death. Always disconnect power to the circuit prior to using the earphone.
- Never use the cable testing features on live circuits.
- Do not use the equipment if they look damaged and / or wet.
- Never use the equipment if it just brought from a place with great temperature difference.
- Avoid to use the equipment in the environment with strong magnetic fields, strong electrostatic fields and strong RF fields.
- Read the instruction before use and follow all safety instructions.
- Use the equipment only as specified in the instruction card; otherwise, the equipment's safety features may not protect you.
- Clean the case with a damp cloth and mild detergent only. Do not use abrasives or solvents.
- Replace the battery(ies) if the power indicator is flashing.
- Remove the batteries if the equipment planned to be stored for long period.
- A " Warning" statement identifies hazardous conditions and actions that could cause bodily harm or death.
- A " Caution" statement identifies conditions and actions that could damage the Meter or the equipment under test.

## THE EQUIPMENT

### TRANSMITTER



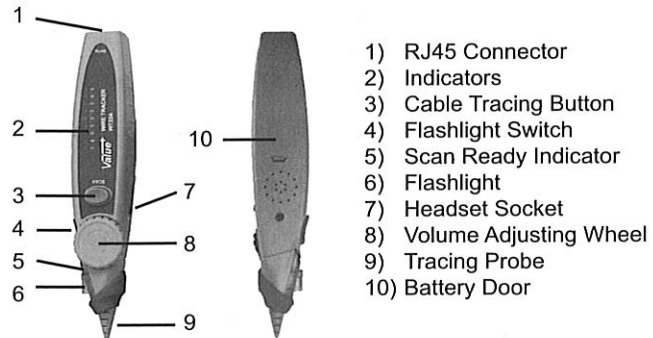
**WT22A**



**WT22B**

- 1) External Probe Connector
- 2) Power Switch
- 3) Voltage Detecting Button
- 4) Cable Testing Button
- 5) LED Indicators
- 6) Cable Tracing Button
- 7) Continuity Test Button
- 8) Tone Adjusting Button
- 9) Pairing Speed Adjusting Button
- 10) Battery Door

### RECEIVER



- 1) RJ45 Connector
- 2) Indicators
- 3) Cable Tracing Button
- 4) Flashlight Switch
- 5) Scan Ready Indicator
- 6) Flashlight
- 7) Headset Socket
- 8) Volume Adjusting Wheel
- 9) Tracing Probe
- 10) Battery Door

## OPERATING THE EQUIPMENT

### A. TRACING PAIRS

- 1) Connect the cable with alligator clip to the transmitter.
- 2) Connect the red clip to one of the tracing wire and the black clip to the other.
- 3) Switch on the transmitter.
- 4) Push the "**SCAN**" button on the transmitter and the SCAN indicator will switch on.
- 5) Activate the receiver by pressing and holding the "**SCAN**" button. The scan ready indicator will switch on.
- 6) At the opposite end of the wire, move the receiver tip near each pair. The pair with the loudest tone is the intended pair.

#### Note:

Press "**Hz**" button to adjust the tone for easily identify the signal from the environmental noise.

## B. TRACING CABLES

- 1) Connect the cable with alligator clip to the transmitter.
- 2) Connect the red clip to:
  - a) A wire in the unknown cable for cables with multiple wires.
  - b) The outer shield for tracing a shielded / coaxial cable.
- 3) Connect the black clip to :
  - a) Another wire in the unknown cable but not in the same pair or to ground for cables with multiple wires.
  - b) The center conductor or ground for tracing a shielded / coaxial cables.
- 4) Switch on the transmitter.
- 5) Push the "**SCAN**" button on the transmitter and the SCAN indicator will switch on.
- 6) Activate the receiver by pressing and holding the SCAN button. The scan ready indicator will switch on.
- 7) Move the receiver towards a section of the wall where the cable could be located. When the loudest tone is obtained, the cable is located there.

**Note:**

**Press "Hz" button to adjust the tone for easily identify the signal from the environmental noise.**

## C. TRACING PHONE LINES

- 1) Connect the RJ-11 cable with the transmitter and phone jack.
- 2) Switch on the transmitter.
- 3) Push the "**SCAN**" button on the transmitter and the SCAN indicator will switch on.
- 4) Activate the receiver by pressing and holding the "**SCAN**" button. The scan ready indicator will switch on.
- 5) Move the receiver close to each phone line. The line with the loudest tone is the intended line.

**Note:**

**Press "Hz" button to adjust the tone for easily identify the signal from the environmental noise.**

## D. TRACING DATA / LAN CABLE

- 1) Connect the RJ-11 / RJ-45 cable with the transmitter and phone jack.
- 2) Switch on the transmitter.
- 3) Push the "**SCAN**" button on the transmitter and the SCAN indicator will switch on.
- 4) Activate the receiver by pressing and holding the "**SCAN**" button.
- 5) Move the receiver close to each phone line. The line with the loudest tone is the intended line.

**Note:**

- It is allowed to plug in the testing cable to the transmitter directly if the testing cable was installed with plug.
- Press "Hz" button to adjust the tone for easily identify the signal from the environmental noise.

## E. CABLE TESTING

### Warning

Never use the Cable Testing features on live circuits.

The equipment is designed to test the following cables.

Network cables : IEEE 10Base-T, EIA/TIA 568A, EIA/  
EIA568B, AT&T258A, Token Ring  
Phone lines : Both 2 and 4 lines  
Any metallic connection cables

- 1) Connect the testing cable with the transmitter and receiver.
- 2) Switch on the transmitter.
- 3) Push the "TEST" button and the "OHM" indicator will switch on, the "SCAN" indicator flashing.
- 4) The result of measurement is indicated over the status of green LEDs at both devices.

### Note:

Press the "SLOW" and "FAST" to adjust the scanning speed.

## F. PHONE LINE VOLTAGE TESTING (WT22B)

### Warning

Never use the equipment to test AC voltage and other Hi-volt circuit.

- 1) Connect the testing cable with the transmitter.
- 2) Switch on the transmitter.
- 3) Push the "V" button and the VOLT indicator will switch on to indicate the transmitter is standby.
- 4) If voltage is present in the testing cable, either the SCAN or OHM indicator will switch on.

## G. BATTERY VOLTAGE POLARITY TESTING (WT22B)

- 1) Connect the cable with alligator clip between the transmitter and the testing 9V battery.
- 2) Switch on the transmitter.
- 3) Push the "V" button and the VOLT indicator will switch on to indicate the transmitter is standby.
- 4) If the red clip is connect to the positive side, the SCAN indicator will switch on. Otherwise, the OHM indicator will switch on.

## H. CONTINUITY TEST (WT22B)

- 1) Plug the cable with alligator clip in the transmitter
- 2) Connect the cable with alligator clip to the two ends of the testing cable
- 3) Switch on the transmitter.
- 4) Push the "Ω" button and the OHM indicator will switch on.
- 5) SCAN indicator will switch on if the cable is good enough to let current pass though.

## AUTO POWER OFF

The equipment will automatically switch off if there is no function or button press for 30 minutes.

## SPECIFICATIONS

Temperature	Operating: 0°C ~ 40°C Storage: -10°C ~ 50°C
Relative Humidity	< 90%
Battery	Transmitter: 3 x 1.5V AA (R6) Receiver: 9V (6F22)
Size	Transmitter: 65 x 120 x 32mm Receiver: 35 x 187 x 29mm
Weight	Transmitter: 90g (include battery) Receiver: 70g (Include battery)

	WT22A	WT22B
<b>Basic Functions</b>		
Tracking network or phone cable in bundle of	✓	✓
Checking the correctness and quality of wire connections	✓	✓
Testing network and phone circuit voltage		✓
Testing continuity of wires		✓
Maximum cable length can be tested	1km	
<b>Special Features</b>		
Emergency lighting in dark area	✓	✓
Adjustable loudness of buzzer	✓	✓
Headset support for working in noisy area	✓	✓
Change of buzzer tone for identification of buzzer sound	✓	✓
Low power indication	✓	✓

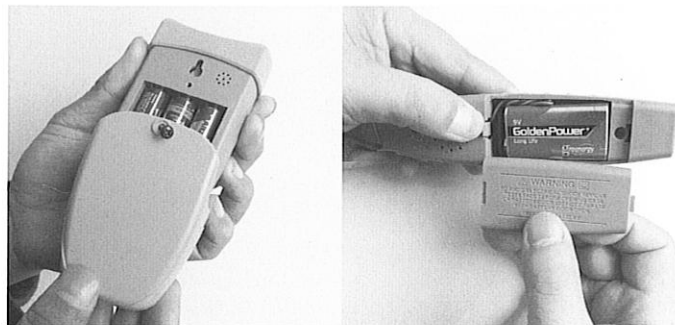
## MAINTENANCE

### CHANGING BATTERY

#### ⚠ Warning

To avoid shock, injury, or damage to the equipment, remove all the connection before opening the battery doors.

Replace the battery if the power indicator on the transmitter is flashing and/or the power indicator on the receiver do not switch on. To replace the battery, switch off the transmitter. Open the battery doors as following photos.



Replace the 3 x 1.5V AA (R6) batteries for the transmitter and 1 x 9V (6F22) battery for the receiver.

## CLEANING

### Caution

To avoid damaging the equipment, do NOT submerge them in water. Do not use abrasive cleaners, they will damage the case.

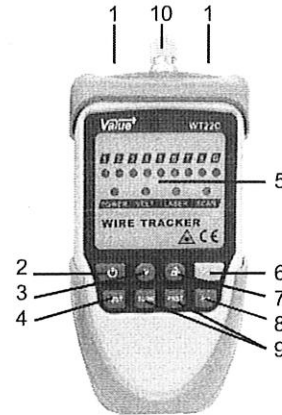
Wipe the case with a damp cloth and mild detergent. Do not use abrasives or solvents. Dirt or moisture in the jacks can affect the measurement.



# ADDITIONAL INFORMATION FOR WT22C

## THE EQUIPMENT

### TRANSMITTER



- 1) Transmitter Signal Connector
- 2) Power Switch
- 3) Voltage Detecting Button
- 4) Cable Testing Button
- 5) LED Indicators
- 6) Cable Tracing Button
- 7) Laser Beam Switch
- 8) Tone Adjusting Button
- 9) Pairing Speed Adjusting Button
- 10) Laser Beam Transmitter

### WT22C

## OPERATING THE EQUIPMENT

### SECTION A-G

Please refer WT22 Series Manual for the respective sections.

## I. VISUAL IDENTIFICATION OF THE OPTICAL FIBRE AND CONTINUITY


### WARNING

Never point laser () directly at eye or indirectly off the reflective surfaces.

- 1) Connect one end of the optical fibre being tested to the laser beam transmitter

#### Note:

In case of needs, use adaptor to fit for different connectors

- 2) Press  to switch on the laser beam;
- 3) Observe the other end;
- 4) If red light is observed, the fibre is in good condition;
- 5) Otherwise, the fibre is broken at somev : : : : : .

## SPECIFICATIONS

Temperature	Operating: 0°C ~ 40°C Storage: -10°C ~ 50°C
Relative Humidity	< 90%
Battery	Transmitter: 3 x 1.5V AA (R6) Receiver: 9V (6F22)
Size	Transmitter: 65 x 120 x 32mm Receiver: 35 x 187 x 29mm
Weight	Transmitter: 90g (include battery) Receiver: 70g (include battery)

	WT22C
<b>Basic Functions</b>	
Tracking network or phone cable in bundle	✓
Checking the correctness and quality of wire connections	✓
Testing network and phone circuit voltage	✓
Testing continuity of optical fibre	✓
Maximum length of optical fibre can be tested	1km
Laser Power Output	Single laser, wavelength 630 ~ 670 nm Class III, <10mW
<b>Special Features</b>	
Emergency lighting in dark area	✓
Adjustable loudness of buzzer	✓
Headset support for working in noisy area	✓
Change of buzzer tone for identification of buzzer sound	✓
Low power indication	✓