

# current meter/probe

# T305 T304B T272A

## Features

- Small Size
- Lightweight
- Self-Contained
- Battery Operated
- Battery Test Function
- Measures 50 - 3000 Hz
- Seven Selectable Current Ranges
- Wide Dynamic Current Range 10 mA - 100 A

## Description

The T304B Current Meter is a light weight, rugged, easy to use test set that is designed to measure alternating currents from 10 mA to 100 A. When used with either a T305 or T272A Current Probe, the T304B will measure cable shield currents without disrupting or disconnecting cable shield connections. The T304B's bond checking feature allows immediate on-site bond condition assessments to be made.

The T304B Current Meter is a battery powered test set designed to display the output of the T305 and T272A Current Probes. These probes connect to the T304B through dual banana jack connectors. The T304B features a seven position switch selecting current ranges of 100mA, 300mA, 1A, 3A, 10A, 30A and 100A. A battery test button allows instantaneous display of battery status. In addition to an on/off switch, which is mechanically forced to the off position when the cover is closed, a switch selects use of either the T305 or T272 probes. The T304B is powered by four 9V batteries which will provide approximately 300 hours of normal (intermittent) operation.

In addition to the above features, the T304B allows rapid and accurate evaluation of any cable shield bond or connection, analyzing whether or not they are defective. A current induced upon the cable shield is used to evaluate the bond state. For those instances where such induced currents are either too low or are non-existent, the T304B has a built-in current source which will supply local current through the shield connections to allow the bond check to be made.



### Model T305

The T305 Current Probe is a clamp-on current transducer. It is hinged to open, allowing conductors or cables up to approximately two inches in diameter to be measured. A five foot cord with a dual banana plug allows connection to the T304B. The T305/T272 Selector Switch on the T304B should be in the T305 position when this probe is used.

### Model T272A

The T272A Current Probe is a clamp-on current transducer which allows cables and conductors up to 4 inch overall diameter to be measured. It can be used with the T304B. The probe selector switch on the T304B should be set to T305 when using the T-272A.

## Description cont.

### Model T172

A third clamp-on Probe is used with the Wilcom T124 Test Set. The T172 can be used with the T304B by using a connector cable adapter. The probe selector switch on the T304B should be set to T305 when using the T172.

### Environment:

Operating Temperature:	0°C to 50°C
Humidity:	95% @ 35°C
Altitude (non-operating)	15,000m

### Dimensions:

Width	4 3/8" (111.0 mm)
Height	6 3/8" (162.0 mm)
Depth	6 3/8" (162.0 mm)
Weight	3 lbs. (1.36 kg)

## Specifications

### T304B

#### Current Range:

10mA - 100A in seven selectable ranges;  
100ma, 300mA, 1A, 3A, 10A, 30A, 100A (full scales).

#### Frequency Range:

50 Hz to 1000 Hz with T305/T172 probes  
50 Hz to 3000 Hz with T272A probe

#### Accuracy:

±(10% of reading +3% of full scale) with T305/T172 probes  
±( 5% of reading +2% of full scale) with T272A probe

#### Operating Power:

#### Batteries:

Four 9 Volt type 216 or equivalent

#### Battery Life:

Approximately 300 hours under normal conditions. Less usage is available from the T304B if there is frequent or prolonged use with the signal generator function.

## Ordering Information

T304B	Current Meter & Cable Bond Test Set	30304030
T305	Current Probe for 2" Diameter Cables	30305015
T272A	Current Probe for 4" Diameter Cables	30272050
T272A-01	Adapter Cable for T-124 <i>Used with the measuring set portion of the Wilcom T124 Shield Continuity Test Set.</i>	30272052
T272A-02	Adapter Cable for Transmission or Noise Set <i>A general purpose adapter equipped with a dual banana plug connector which fits the T&amp;R input of most Noise (or Transmission &amp; Noise) Measuring sets such as the Wilcom T-132EZ.</i>	30272055
T172	Clamp-on Probe*	30172027

CLEI Code: (T304B) TEAMZAA1AA

\* (Please order Connector Cable Adapter 20007126 to use the T172 Clamp-on Probe)

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