### XC5083

# NETWORK CABLE TRACER

## **INSTRUCTION MANUAL**



#### **INTRODUCTION:**

The XC5083 Network Cable Tracer is a combined system of network testing. It is made of a Tone Generator and Probe. These tools offer great support when installing network connection, and checking functionality.

By connecting the signals of the Tone Generator to one side of required testing network and by testing the other side with the Probe, we can quickly and conveniently determine whether the core-wires are on or off.

As the source of signals, the XC5083 can send the signals of the single or dual audio frequency. In addition, the XC5083 can be treated the active or passive test independently.

When the circuit is linked to the converter, joining the XC5083 can judge the link between network and the converter, polarity of core-wires and the signals of bell-flow. Short circuit at one side of the passive circuit can show the circuit is on or off by the Working Indicator Lamp.

The Probe has high probing sensitivity. So it can easily trace the signals. When the probe nearing the core-wires, the network in Tone generator will sense the electric field of transmission signals. The XC5083 combination is specially used in some particular surroundings.

The tracer can audio-visual show the probed signals in 3 modes - luminescence, heating and both of them. The volume can regulate by "VOL". The probe can also used with other source of signals.

### SPECIFICATIONS:

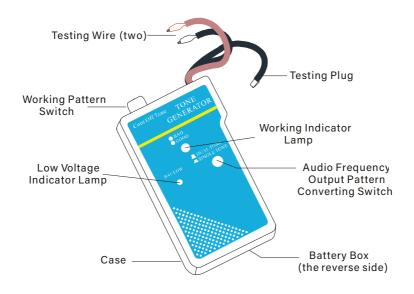
### **TONE GENERATOR:**

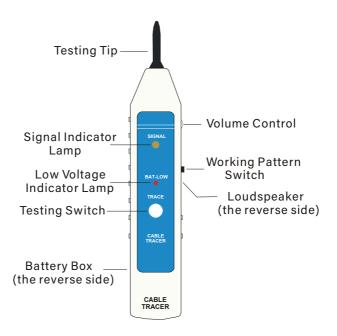
9VDC±15%
10mA (when Tone)
20mA (when Cont)
Approx. 10Vpp square-wave signals
Single Audio Frequency: Approx 900Hz
Dual Audio Frequency: Approx. 900Hz and 1000Hz
(The supersede intermission is about 0.2S)
115(L) × 62(W) × 27(H)
Approx. 130g

### PROBE:

Working Voltage:	9VDC±15%
Working Current:	25mA (when "L")
	80mA (when "SP" largest volume)
	100mA (when "S&L" largest volume)
Highest Receiving Sensitivity:	>30mv
Maximum Output Volume:	Approx. 120dB
Size (mm):	205(L) × 40(W) × 38(H)
Weight:	Approx. 80g

### **PRODUCT OVERVIEW:**





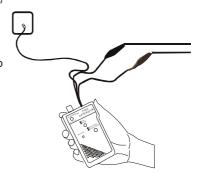
### **OPERATION:**

# Use the Tone Generator to test the link between the network and the phone converter.

Once you have completed your new network setup or need to test an existing network, the Tone Generator can judge the connection condition of the converter from the network to the terminal users and can judge the polarity of the network.

#### **Testing procedure:**

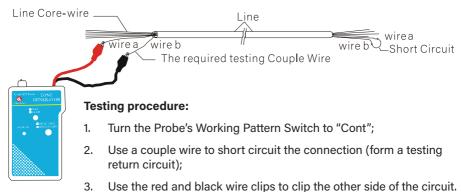
- 1. Switch the Working Pattern Switch to OFF;
- Put the Testing Plug (crystal tip) into the required testing socket. If the network is suspended (that didn't fit in the socket), please use the red and black wires' clips to clip the 2 ends of the network;
- 3. At that time, the Working Indicator Lamp should light up.
  The result of LED is:
  Green means normal polarity
  (red wire "-", black wire "+");
  Red means wrong polarity



### Using the Probe to test if the network is on of off.

(red wire "+", black wire "-").

The Probe can judge the network is on or off when it is necessary to test.



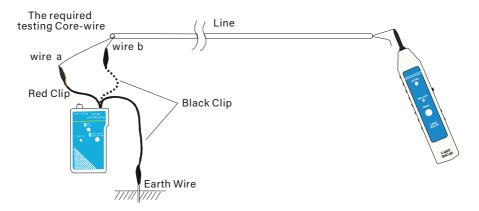
 If the Working Indicator Lamp is green, means the couple wire working and the connection is active. If it does not light up, it indicates a broken circuit or an issue with the couple wire.

**Attention:** When testing, please make sure that the couple wire did not join with other electrified connections. Otherwise, the result of testing would be incorrect.

### **OPERATION:**

### Using both the Tone Generator and Probe to test the network is on or off.

The XC5083 can conveniently judge the core-wires are on or off.



### **Testing procedure:**

- At one side of the required testing line, choose the right "earth" wire.
  Use the Tone Generator's black clip and connect to the earth wire. If you
  cannot find the "earth" point, you may use the black clip to clip one of the
  required testing core-wires (wire b).
- Switch the Tone Generator's Working Pattern Switch to "TONE".
   If you want to hear a single tone, please turn the audio frequency converting switch to "SINGLE TONE". If you want dual tone, please turn to "DUAL TONE".
- Use the Tone Generator's red clip and connect to the required testing corewire (wire a). The Tone Generator will send messages through the corewires.
  - (Attention: when The Tone Generator is set on "TONE", the Working Indicator Lamp should be red. If "wire a" touches the "earth" during the process or if "wire a" & "wire b" touch together when testing, it will both short the output. The Working Indicator Lamp will not light up.)
- 4. At the other side of the testing line, place the Probe on the required testing core-wire and then press the testing switch: when the switch is on "L", the "SIGNAL" Indicator Lamp should light up; when the switch is on "SP", the loudspeaker should produce sound; when it is on "S&L", the "SIGNAL" should light up and the loudspeaker should produce sound. (Regulate "VOL" can control the volume of loudspeaker.)

### **OPERATION:**

### **Additional Information:**

- For better results, ensure the Tone Generator's black clip is connected to the "earth" wire.
- 2. The Probe has high probing sensitivity. It can sense the signals when in close proximity to the required testing core-wires.
- 3. When using the Tone Generator's black clip on "earth" wire, The Probe can sense strong signals of the required testing core-wires (wire a). The "SIGNAL" Lamp will be at it's brightest and the loudspeaker will produce a sound in max output. If the black clip is connected to "wire b", the Probe can sense signals from both "wire a" & "wire b." But the effectiveness is less than connecting to the "earth"
- 4. The Probe functions by using an electric field to sense the signals. So the intensity of signals relate how the Probe is placed. Please pay attention to this during use.
- 5. The Probe can sense obstructive signals round the area. So if the noise of loudspeaker is too loud, maybe it was made by the obstructions.
- 6. Please pay attention to the "BAL.LOW" Indicator Lamp. If the LED is alight, please change the battery promptly.

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