

LAN Cable Solution

User's Guide



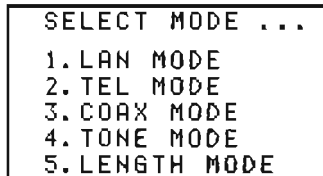
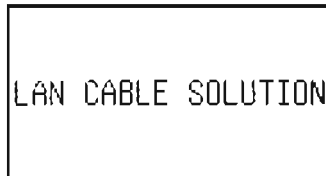
Specifications:

Name	LAN Cable Solution
Display	Text Mode : 2 x 8 Chinese fonts or 4 x 16 English fonts. Graphic Mode : 144 x 65 dots. LCD Module size : 70mm x 38 mm
Connector type	RJ45 , RJ12 (RJ11) & F connector
Button	(1) LAN . (2) TEL . (3) COAX . (4) TONE . (5) LENGTH . (6) TEST . (7) POWER .
Cable type	Shielded or unshielded, CAT -6, CAT -5E, CAT -5, CAT -4, CAT -3 and Coax
Error status	Open circuit, short circuit, jumper wire, reverse , connection or cross-talk interference and split pairs
Measure types	Measures cable length via TDR Checks and verifies wire map Generates four different tracing tones to help identify users
Cable length & accuracy	Accuracy of the length measurement is $\pm 5\%$ length: 1-350 meters (3-1200 feet)
Minimum cable length for testing of split pairs	1 meter (3 feet)
Power source	9 Volt alkaline battery Detects a low battery condition.
Turns off automatically	Auto-off in any mode and low power consumption for long battery life

Input protection	Protection against excess voltage , transients ringer signal
Physical Dimension	195 mm (L) , 90 mm (W) , 40 mm (H)
Environmental	Operating Temperature: 0° to 50° C (32° to 122° F) Storage Temperature: -10° to 60° C (14° to 140° F) Humidity: 10% to 90 % non-condensing
Accessories	ToolBag * 1 pcs , F to BNC Adapter * 2 pcs

Instructions for Operation

- * Power On · Beep one time · Starting picture as follow :
- For a moment display select mode as follow :



Press ▲ ▼ KEY Select what mode to test then press TEST KEY to start testing.

Testing LAN Mode :

Testing LAN MODE have 2 way of MAIN to LOOPBACK & MAIN to REMOTE TERMINATOR.

- (1). Testing from MAIN connector to LOOPBACK connector : LAN cable connected from MAIN to LOOPBACK.

Test Function :

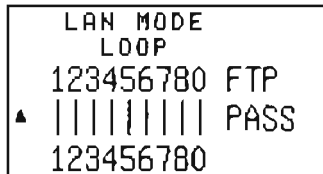
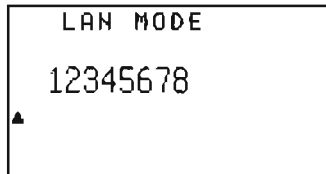
- PASS · OPEN · SHORT · CROSS · SPLIT etc. Display wrong cables .
- Test FTP or UTP LAN cable .
- When LAN cable OPEN FAIL , Can display distance from MAIN connector to broken point.



- * LAN MODE Test Initial picture as follow :
- Press LAN KEY or TEST KEY Start to Test

Test Result:

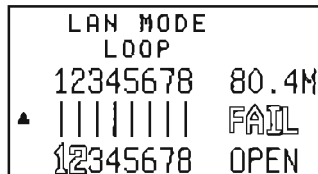
- * If LAN cable is correct & FTP type Will display PASS as follow :



Press ▲ KEY Back to Initial picture.

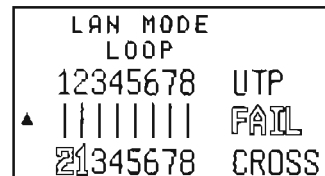
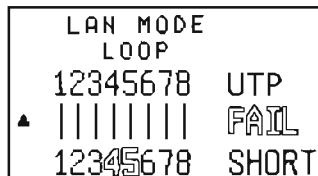
- FTP : Shielded · UTP : Unshielded.
- 0 : Shielded.
- LOOP : LAN cable connected from MAIN connector to LOOPBACK connector.
- REMOTE : LAN cable connected from MAIN connector to remote terminator connector.

- * If LAN cable is OPEN will display FAIL as follow :



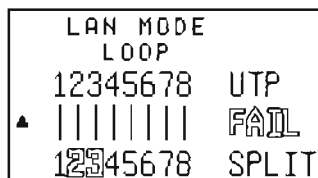
- Display the OPEN LAN cable pair 's distance from MAIN connector to broken point , and the open pair's numbers will be blinking.

- * If LAN cable is SHORT will display FAIL as follow :
- * If LAN cable is CROSS will display FAIL as follow :



- The short pair's numbers will be blinking.
- The CROSS cable's numbers will be blinking & show different arrangement .

- * If LAN cable is SPLIT will display FAIL as follow :



- The SPLIT cable's numbers will be blinking .



(2). Testing from MAIN connector to REMOTE terminator connector :
LAN cable connected from MAIN to REMOTE terminator.

Test Function :

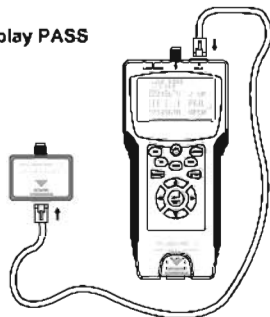
- (a). PASS · OPEN · SHORT · CROSS etc. display wrong cables .
(No available SPLIT)
- (b). Test FTP or UTP LAN cable .
- (c). When LAN cable OPEN FAIL , Can display distance from MAIN connector to broken point.

Press LAN KEY or TEST KEY Start to test

Test Result :

* If LAN cable is correct & FTP type will display PASS as follow :

LAN MODE	
REMOTE	ID-1
123456780	FTP
▲	PASS
123456780	



- Display the remote terminator ID number
(For example : ID-1) and Buzzer beeping .

* If LAN cable is OPEN will display FAIL as follow :

* If LAN cable is SHORT will display FAIL as follow :

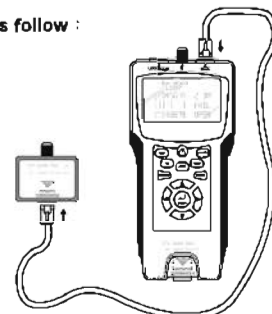
LAN MODE	
REMOTE	ID-?
123456780	27.4M
▲	FAIL
123456780	OPEN

LAN MODE	
REMOTE	ID-?
12345678	UTP
▲	FAIL
12345678	SHORT

- Display the OPEN LAN cable pair 's distance from MAIN connector to broken point , and the open pair's numbers will be blinking , Display ID-? .
- The short pair's numbers will be blinking.

* If LAN cable is CROSS will display FAIL as follow :

LAN MODE	
REMOTE	ID-1
12345678	UTP
▲	FAIL
12354687	CROSS



- The CROSS cable's numbers will be blinking & show different arrangement .

(3). MEMORY KEY . Can memorize the test result and show MR-1 one moment then disappear .

LAN MODE	MR-1
REMOTE	ID-?
12345678	UTP
▲	FAIL
12345678	SHORT

LAN MODE	
REMOTE	ID-?
12345678	UTP
▲	FAIL
12345678	SHORT

- MR-01 : 1-st set memory · Total 8 sets memory .
(LAN MODE & TEL MODE have 8 sets memory) .
(COAX MODE & LENGTH MODE have 4 sets memory) .

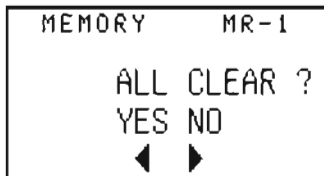
* Press MEMORY KEY over 3 seconds · Into the picture of memorize test result :

Press ▲ ▼ KEY Display the data of different sets memory .
Press another MODE KEY departed from MEMORY MODE .

MEMORY	MR-1
LOOP	
12345678	UTP
▲	FAIL
▼ 12345678	SPLIT

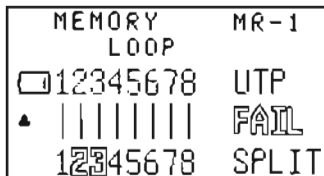
- If the data of memory is FAIL , The wrong cable numbers will be blinking .

* Press TEST KEY will display as follow :



• Press ◀KEY clear memory , Press ▶KEY Not to clear memory & back to last picture.

(4). Battery low when voltage of battery is lower than 6.0V , will display as follow :



 The picture will be blinking .

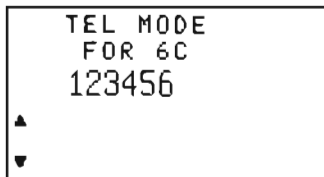
Testing TEL Mode :

TEL MODE only can connected from MAIN connector to LOOPBACK connector .

Test Function :

- (a). PASS · OPEN · SHORT · CROSS etc. Display wrong cables .
- (b). When LAN cable OPEN FAIL , Can display distance from MAIN connector to broken point .
(Just for reference)

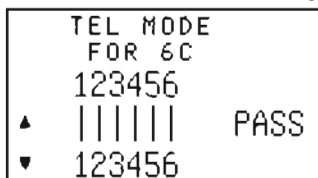
* TEL MODE test Initial picture as follow :



- TEL (6C · 4C · 2C) Cable connected from MAIN connector to LOOPBACK connector.
- Press TEL KEY or TEST KEY start to test .

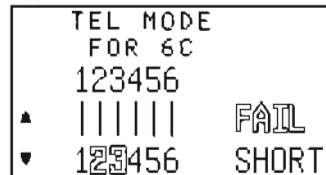
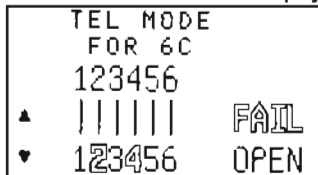
Test Result :

* If TEL cable is correct will display PASS as follow :



* If TEL cable is OPEN will display FAIL as follow :

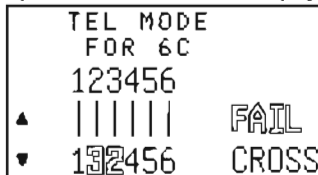
* If TEL cable is SHORT will display FAIL as follow :



- The OPEN cable's numbers will be blinking .
- The SHORT cable's numbers will be blinking .

* If TEL cable is CROSS will display FAIL as follow :

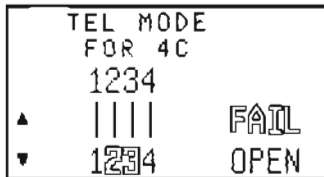
(CROSS FAIL : would not display FAIL)



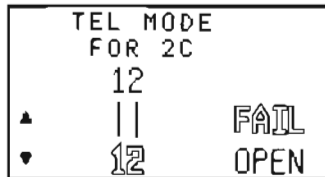
- The CROSS cable's numbers will be blinking & show different arrangement .

* TEL MODE Push ▲ ▼ KEY can select 6C · 4C · 2C · will display as follow :

Picture of 4C



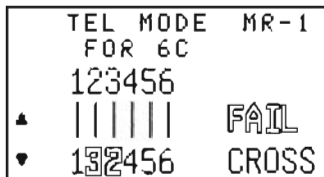
Picture of 2C



• The wrong cable numbers will be blinking .

* Press MEMORY KEY · Can memorize the test result and show MR-1 one moment then disappear .

* MR-01 : 1-st set memory · Total 8 sets memory .

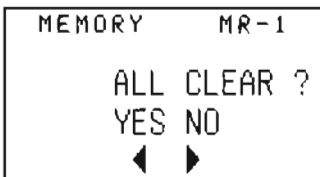
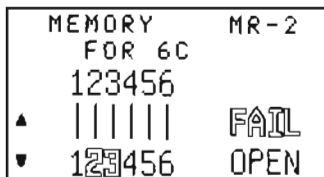


* Press MEMORY KEY over 3 seconds · Into the picture of memorize test result :

Press ▲ ▼ KEY display the data of different sets memory .

Press another MODE KEY departed from MEMORY MODE .

* Press TEST KEY will display as follow :



• The wrong cable numbers will be blinking .

• Press ◀KEY clear memory · Press ▶KEY Not to clear memory & back to last picture .

(5). Testing COAX Mode :

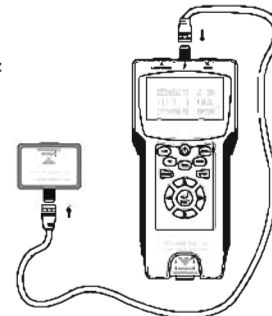
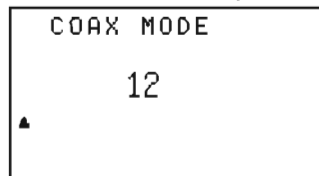
COAX MODE only can connected from MAIN connector to REMOTE terminator connector .

Test Function :

(a). PASS · OPEN · SHORT etc. Display FAIL .

(b). When LAN cable OPEN FAIL , Can display distance from MAIN connector to broken point .
(Just for reference)

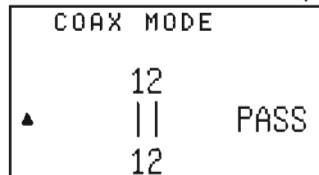
* COAX MODE test initial picture as follow :



* Press TEL KEY or TEST KEY start to test

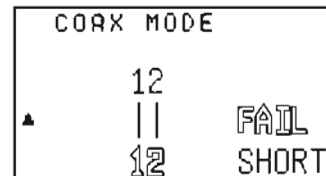
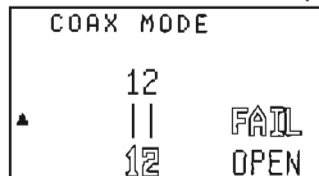
Test Result :

* If COAX cable is correct will display PASS as follow :



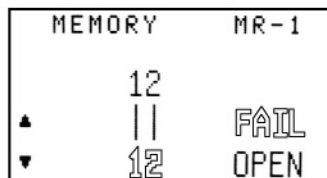
* If COAX cable is OPEN will display FAIL as follow :

* If COAX cable is SHORT will display FAIL as follow :



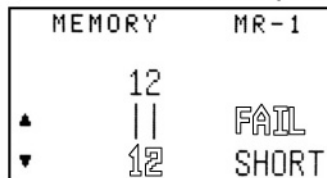
* Press MEMORY KEY · Can memorize the test result and show MR-1 one moment then disappear .

MR-01 : 1-st set memory · Total 4 sets memory .

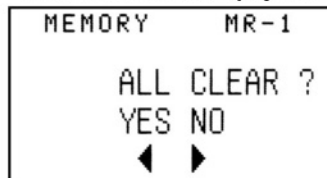


* Press MEMORY KEY over 3 seconds · into the picture of memorize test result :

Press ▲ ▼ KEY display the data of different sets memory .
Press another MODE KEY departed from MEMORY MODE .



* Press TEST KEY will display as follow :



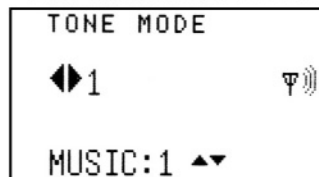
* Press ◀KEY clear memory · Press ▶KEY Not to clear memory & back to last picture .

(6). To use TONE Mode :

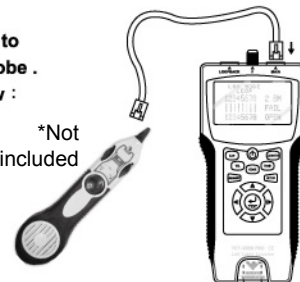
Tone Mode :

Transmit audio frequency from cable to detect the cable's broken point by probe .

Push TONE KEY will display as follow :



*Not included



- Press ◀▶KEY to select TONER output signal from difference pair .
- Press ▲ ▼KEY to select difference audio frequency from TONER . (2 Audio Frequency) .

(7). Testing LENGTH Mode :

LENGTH MODE may connected from MAIN connector to Open .€

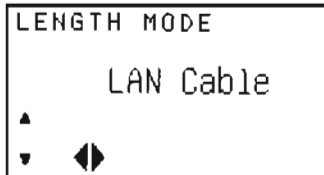
Test Function :

- (a). Can measure the Length of LAN cable or COAX cable .
- (b). Can memorize the data of test result about LAN cable or COAX cable .
- (c). SET MODE to calibrate : If the test result of measure length is over error of specification .

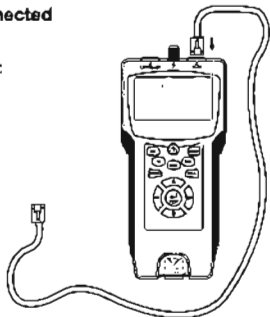
* Can use the function of LAN Cable ADJ or COAX Cable ADJ to make the length calibration Or restore to the default value of initial .
(The operational method refer to SETUP MODE) .

1. Testing LAN Cable : LAN cable connected from MAIN connector to open .

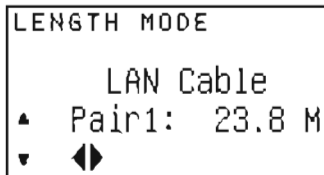
* LENGTH MODE Initial picture as follow :



* Push LENGTH KEY or TEST KEY start to test .



* Test result will display as follow :



* Press ▲ KEY to return to the last picture .
 Press ◀▶KEY to select the test result of the different pair's length .
 Press ▼ KEY to select the length measurement of COAX cable .

* If the LAN cable is connected from MAIN connector to REMOTE Terminator .

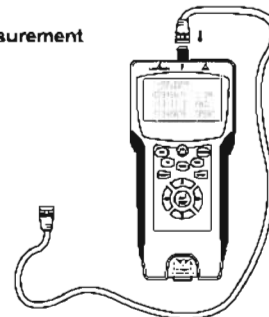
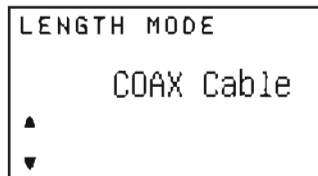
* Will display " Keep OPEN " as follow :



2. Testing COAX cable : COAX cable connected from MAIN connector to open .

* Push ▼ KEY to select the length measurement of COAX cable .

* COAX cable Initial picture as follow :

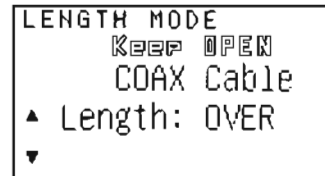
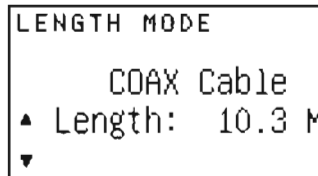


* Push LENGTH KEY or TEST KEY start to test .

* Test result will display as follow :

* If the COAX cable is connected from MAIN connector to REMOTE terminator .

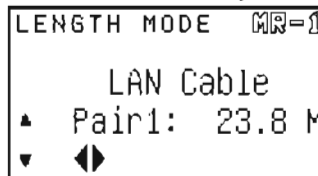
* Will display " Keep OPEN " as follow :



* Press ▲ KEY to return to the last picture .

* Press MEMORY KEY · Can memorize the test result and show MR-01 one moment then disappear .

* MR-01 : 1-st set memory · Total 4 sets memory .



* Press MEMORY KEY over 3 seconds · Into the picture of memorize test result :

Press ▲▼ KEY Display the data of different sets memory .

Press another MODE KEY departed from MEMORY MODE .

* Press TEST KEY will display as follow :

```
MEMORY MR-2
COAX Cable
▲ Length: 10.3 M
▼
```

```
MEMORY MR-1
ALL CLEAR ?
YES NO
◀ ▶
```

• Press ◀KEY clear memory · Press ▶KEY Not to clear memory & back to last picture .

(8). The function of the SETUP Mode :

If change the value on SETUP MODE . You must push the MEMORY KEY to save the value.

Otherwise the value you set would not save in the memory when power off .

If you departed from SETUP MODE , must into the SETUP MODE again & push MEMORY KEY To save the set value .

Otherwise the value you set would not save in the memory when power off.

* Press SETUP KEY will display as follow :

1. Unit Setting :

```
SETUP MODE
▲ 1.UNIT..
▼ M◀ ▶FT
```

• Press ◀▶KEY to change setting .

Press ▲▼KEY to jump to next picture setting .

(Be selected value will be blinking)

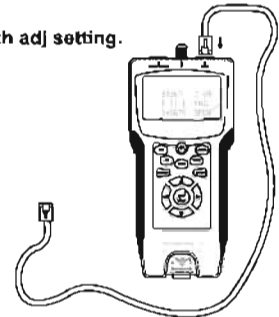
2. LAN Length adj setting :

Press ▼KEY to jump to LAN length adj setting.

Will display as follow :

```
SETUP MODE
▲ 2.LAN Length Adj
▼ TEST KEY
```

(TEST KEY will be blinking)



* Connected the LAN Cable is known the length from MAIN connector to open .

(For Example : 100m)

* Push TEST KEY to measure the length .

* Test result will display as follow :

```
SETUP MODE
▲ Pair1: 28.4 M
▼ -◀ ▶+
```

• Press ◀▶KEY to adjust the value is same as known length you measured .

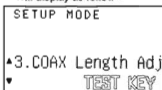
• Press MEMORY KEY To save the calibration value .

• Press ▲▼KEY to jump to last or next picture setting .

3. COAX Length adj setting :

Press ▼KEY to jump to COAX length adj setting.

Will display as follow :



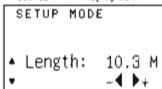
(TEST KEY will be blinking)



* Connected the COAX cable is known the length from MAIN connector to Open . (For Example : 100m)

* Press TEST KEY to measure the length .

* Test result will display as follow :



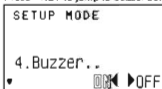
• Press ◀▶KEY to adjust the value is same as known length you measured .

• Press MEMORY KEY To save the calibration value .

• Press ▲▼KEY to jump to last or next picture setting .

4. Buzzer ON OFF setting :

Press ▼KEY to jump to buzzer setting . will display as follow :



- Press ◀▶KEY to change the setting . (Be selected value will be blinking)
- Press MEMORY KEY To save the change setting .
- Press ▲▼KEY to jump to last or next picture setting .

5. Back Light ON OFF Setting :

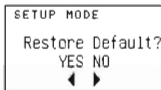
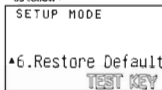
Press ▼KEY to jump to Back Light Setting . Will display as follow :



- Press ◀▶KEY to change the setting . (Be selected value will be blinking)
- Press MEMORY KEY To save the change setting .
- Press ▲▼KEY to jump to last or next picture setting .

6. Restore to default value setting :

Press ▼KEY to jump to Restore to default value Setting . Will display as follow :



- Press ▲KEY to jump to last picture setting.
- Press TEST KEY Will display as follow :
- Press ◀KEY YES Restore to initial default value .
- Press ▶KEY NO Back to last picture .

⚠ If do not touch any key over 5 minutes would be auto power off in all MODE , except TONE MODE .

⚠ If do not touch any key over 30 minutes would be auto power off in TONE MODE .