

PROGRESSIVE ELECTRONICS INC.

325 S. El Dorado, Mesa, Arizona 85202
(480) 966-2931 or (800) 528-8224
FAX (480) 967-8602

- Description
- Operation
 - Battery Test
 - Sending Tone to Identify Cables
 - Testing Cable Connections
- Maintenance

Description

The Model 468 Modular Cable Tester consists of a 468T transmitter, 468R receiver, two modular adapter cables, and a rugged carrying case. It is used to confirm proper termination of 2, 4, 6 and 8 conductor modular voice and data cabling. In addition, the 468T can be used to apply tone signal to a cable for tracing and locating purposes.

The Model 468 provides 8-position modular jacks for the three most common modular cable configurations. These include: USOC, 568A and 568B sequencing. Other common configurations that can be tested include: 258, 10 Base-T (ethernet) and 6-position USOC terminations.

Operation

Battery Test

Prior to any testing or tone operations, check the Model 468 for sufficient battery power. The power switch located on the side of the transmitter controls both test and tone functions. Turn the unit on and, using the supplied adapter cable, connect the 468T to the 468R using any of the RJ-45 ports. Be sure to use the same port on both the transmitter and receiver (i.e. USOC to USOC). Check the brightness and sequence of the LEDs. Dim or erratic sequencing lights indicate a low battery condition. Replace battery as required (see maintenance).

Sending Tone to Identifying Cables

Before connecting a cable to the 468T, confirm the wiring sequence of the modular plug then connect the cable to the applicable 468T jack. Tone can be delivered down any modular terminated cable by simply connecting the cable to the Model 468T transmitter. With the transmitter turned on, a sequencing tone is applied to each of the four jack pairs.

Model 468 Modular Cable Tester Operating Instructions

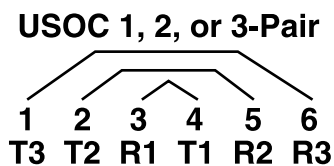
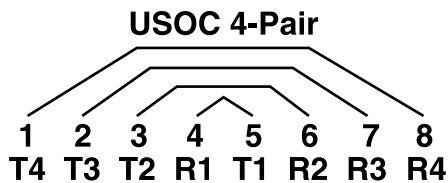


Using any Progressive Electronics inductive amplifier (probe), confirm tone signal is being applied by checking for tone at the near end (transmitter side) of the cable. Move to the remote end of cable and locate the signal using the probe by moving near or touching the probe tip to the insulation of the suspect conductors or termination sites. Tone signal will be loudest on the subject cable or conductor. Progressive Electronics' Models 200EP and 200FP Inductive Amplifiers are ideally suited for this application.

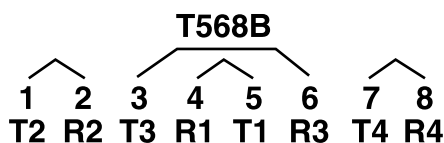
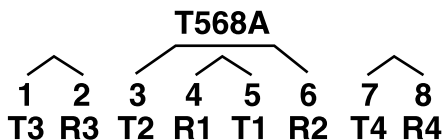
Testing Cable Connections

Select the modular jack on the 468T that conforms to wiring specifications of the cable under test. The sequence of terminated wires is defined by the application to a specific system. The Model 468 provides testing of the following configurations:

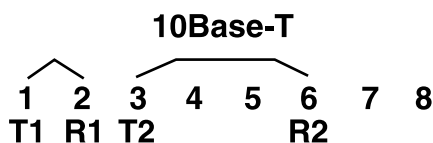
USOC wiring can be applied to 1, 2, 3 or 4 pair of terminated conductors. Traditionally found in telecommunication systems, USOC wiring sequence provides limited compatibility between 8 position and 6 position modular plugs. Although the 6 position plug sequence matches the 8 position plug sequence, inserting a 6 position plug into an 8 position jack can damage the #1 and #8 pins within the jack. The use of a 6-position to 8-position adapter cord is recommended for this application.



T568A and T568B configurations are used in both data and telecommunications applications. The two configurations are similar in format with the exception of pairs 2 and 3 being reversed. T568A is often preferred, as it is compatible with pairs 1 and 2 of the USOC wiring specifications. The T568A wiring configuration is comparable to the AT&T 258A specifications.



10Base-T wiring is commonly found in network applications. The 10Base-T wiring sequence uses only two pairs and is compatible to pairs two and three of T568A and T568B sequencing.



Connect the cable to the 468T and note the condition of LEDs. Any constant green LED indicates polarity correct battery is present on that pair. Battery must be removed before additional testing is performed.

If no LEDs are lit, connect the far end of the cable under test to the corresponding jack on the 468R. Note the condition and sequence order of LEDs on both the 468T (master) and 468R (remote). The following are examples of LED conditions:

Correctly terminated cable:

The green LEDs will sequence from 1 to 4 on both units. The pair 1 LED is lit for a shorter duration than the other LEDs indicating the start of a new sequence.

Shorts:

The 468T LEDs will operate normally. The 468R will show no LED lit on the shorted pair.

Crosses:

In a shorted condition, multiple LEDs will simultaneously be lit on both the 468T and 468R.

Opens:

No LEDs will be present on the 468T or 468R on the open pair. NOTE: A pair with reversed polarity battery will look like an open to the 468T with the 468R showing a green LED on that pair.

Reversals:

A pair terminated with a tip/ring reversal will show a green LED on the 468T and a red LED on the 468R.

Transposed pairs:

Green LEDs on both the 468T and 468R that are sequencing out of order indicate one or more transposed pairs.

Battery presence:

The presence of correct polarity telephone standard battery on a pair will cause the 468T to glow a solid bright green on that pair. Battery must be removed to continue testing. Reversed polarity battery will appear as an open to the 468T on that pair while the 468R showing a solid green LED. The Model 468 is protected against telephone battery and ring voltage.

Maintenance

Battery Replacement

The Model 468 requires one standard 9 volt for operations. To replace battery remove the battery cover on the 468T unit, replace battery and re-assemble.

Progressive Electronics assumes no responsibility for errors in or omission of information within this document. Specifications or information is subject to change without notice.