

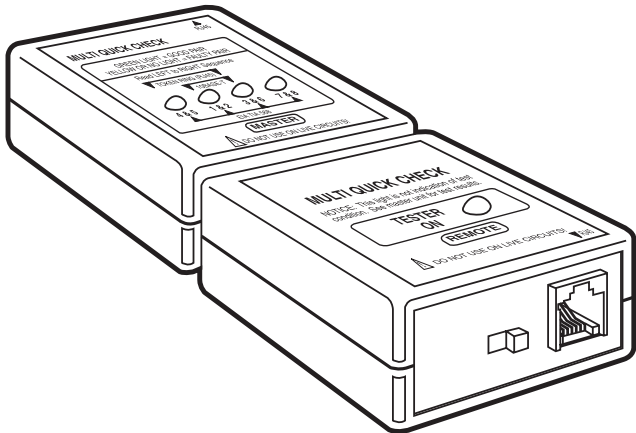


BLACK BOX
NETWORK SERVICES



TS031A

Multi Quick Check RJ-11/RJ-45 Tester



CUSTOMER SUPPORT INFORMATION

Order **toll-free** in the U.S.: Call **877-877-BBOX** (outside U.S. call **724-746-5500**)

FREE technical support 24 hours a day, 7 days a week: Call **724-746-5500** or fax **724-746-0746**

Mailing address: **Black Box Corporation**, 1000 Park Drive, Lawrence, PA 15055-1018

Web site: www.blackbox.com • E-mail: info@blackbox.com

**FEDERAL COMMUNICATIONS COMMISSION
AND
INDUSTRY CANADA
RADIO FREQUENCY INTERFERENCE STATEMENTS**

This equipment generates, uses, and can radiate radio-frequency energy, and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio communication. It has been tested and found to comply with the limits for a Class A computing device in accordance with the specifications in Subpart B of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when the equipment is operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user at his own expense will be required to take whatever measures may be necessary to correct the interference.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This digital apparatus does not exceed the Class A limits for radio noise emission from digital apparatus set out in the Radio Interference Regulation of Industry Canada.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de classe A prescrites dans le Règlement sur le brouillage radioélectrique publié par Industrie Canada.

NORMAS OFICIALES MEXICANAS (NOM) ELECTRICAL SAFETY STATEMENT

INSTRUCCIONES DE SEGURIDAD

1. Todas las instrucciones de seguridad y operación deberán ser leídas antes de que el aparato eléctrico sea operado.
2. Las instrucciones de seguridad y operación deberán ser guardadas para referencia futura.
3. Todas las advertencias en el aparato eléctrico y en sus instrucciones de operación deben ser respetadas.
4. Todas las instrucciones de operación y uso deben ser seguidas.
5. El aparato eléctrico no deberá ser usado cerca del agua—por ejemplo, cerca de la tina de baño, lavabo, sótano mojado o cerca de una alberca, etc..
6. El aparato eléctrico debe ser usado únicamente con carritos o pedestales que sean recomendados por el fabricante.
7. El aparato eléctrico debe ser montado a la pared o al techo sólo como sea recomendado por el fabricante.
8. Servicio—El usuario no debe intentar dar servicio al equipo eléctrico más allá a lo descrito en las instrucciones de operación. Todo otro servicio deberá ser referido a personal de servicio calificado.
9. El aparato eléctrico debe ser situado de tal manera que su posición no interfiera su uso. La colocación del aparato eléctrico sobre una cama, sofá, alfombra o superficie similar puede bloquea la ventilación, no se debe colocar en libreros o gabinetes que impidan el flujo de aire por los orificios de ventilación.

10. El equipo eléctrico deber ser situado fuera del alcance de fuentes de calor como radiadores, registros de calor, estufas u otros aparatos (incluyendo amplificadores) que producen calor.
11. El aparato eléctrico deberá ser connectado a una fuente de poder sólo del tipo descrito en el instructivo de operación, o como se indique en el aparato.
12. Precaución debe ser tomada de tal manera que la tierra fisica y la polarización del equipo no sea eliminada.
13. Los cables de la fuente de poder deben ser guiados de tal manera que no sean pisados ni pellizcados por objetos colocados sobre o contra ellos, poniendo particular atención a los contactos y receptáculos donde salen del aparato.
14. El equipo eléctrico debe ser limpiado únicamente de acuerdo a las recomendaciones del fabricante.
15. En caso de existir, una antena externa deberá ser localizada lejos de las líneas de energia.
16. El cable de corriente deberá ser desconectado del cuando el equipo no sea usado por un largo periodo de tiempo.
17. Cuidado debe ser tomado de tal manera que objetos liquidos no sean derramados sobre la cubierta u orificios de ventilación.
18. Servicio por personal calificado deberá ser provisto cuando:
 - A: El cable de poder o el contacto ha sido dañado; u
 - B: Objetos han caído o líquido ha sido derramado dentro del aparato; o
 - C: El aparato ha sido expuesto a la lluvia; o
 - D: El aparato parece no operar normalmente o muestra un cambio en su desempeño; o
 - E: El aparato ha sido tirado o su cubierta ha sido dañada.

TRADEMARKS

Any trademarks mentioned in this manual are acknowledged to be the property of the trademark owners.

WARNING

This tester is not intended to be used on live lines.
Connecting to live lines may result in damage to the tester.

Introduction

The Multi Quick Check tester verifies the continuity of unshielded twisted pair (UTP) cabling following EIA-568 wiring standards (1,2; 3,6; 4,5; 7,8). It can check one, two, or three pairs of cabling as long as the same pairs are used (for example, Ethernet 10BASE-T, Token Ring, TP-PMD). See Figures 1 through 7 for modular jack pin and pair assignments. The tester will detect crossed pairs, open pairs, and shorted pairs.

NOTE

The tester will NOT properly identify near-end crosstalk (NEXT) or full split pairs.

CAUTION

To keep your tester working properly for years to come, please keep this information in mind during use.

1. The tester is intended for testing passive cabling only. Connecting this tester to lines where voltage is present may damage the unit.
2. We recommend using short patch cords or socket savers during testing, since this will limit the wear on the tester's connectors.

Modular Jack Pin and Pair Assignments



Figure 1. Handset USOC 4.



Figure 2. RJ-11 USOC 4.

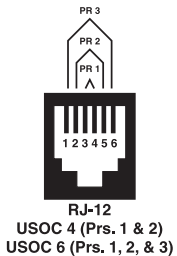


Figure 3. RJ-12 USOC 4 and 6.



Figure 4. RJ-45 USOC 8.



Figure 5. RJ-45 EIA/TIA-568A.



Figure 6. RJ-45 EIA/TIA-568B, AT&T® 258A.



Figure 7. RJ-45 Ethernet 10BASE-T/100BASE-T.

Operation

Patch Cord Test

Slide the power switch on the remote unit to the left. The red LED will blink, indicating that the power is on. Insert one end of an 8-position (RJ-45) patch cord into the master's RJ-45 jack. Insert the other end of the patch cord into the remote's RJ-45 jack. Green LEDs on the master unit should blink in a left-to-right sequence as shown in Figure 8. Yellow lights, unlit lights, or out-of-sequence lights indicate improper wiring.

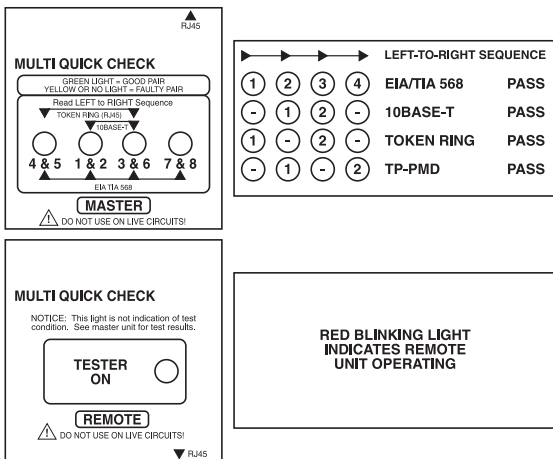


Figure 8. LED sequence on the tester. Good wiring is indicated by green LEDs flashing in sequence from left to right. Faulty wiring is indicated by yellow LEDs, unlit LEDs, or out-of-sequence LED flashing.

Premise Wiring Test

Obtain two four-pair patch cords and verify that they are good by doing a patch cord test (see previous text). Detach the master and the remote units from each other. Turn the remote unit on and plug one end of the first patch cord into the modular jack on the tester. Go to the wiring closet or central wiring point and insert the other end of the patch cord into the patch panel port of the cable run to be verified. See Figure 9 on the next page.

Take the master unit to the opposite end of the cable run to be verified (for example, modular wallplate at an office drop). Plug one end of the patch cord into the master unit and the other into the wallplate. Observe the lights on the master unit. Green lights sequencing from left to right signify good cabling. Yellow lights, unlit lights, or out-of-sequence lights indicate improper wiring.

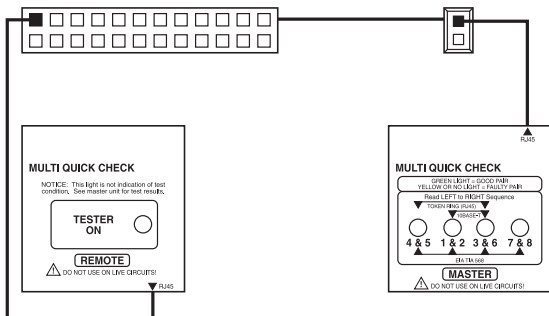


Figure 9. Premise wiring test.

Battery Installation and Troubleshooting

If the remote LED does not blink when the switch is pushed to the left (ON) position, the battery needs to be replaced. Remove the two screws on the bottom of the remote unit. Remove the top cover from the tester, trying to keep the slide lock, circuit board, and metal plate intact with the case bottom. Remove the 9-volt battery and replace it. (We recommend alkaline batteries for best performance.) Reinstall the case top and the screws. If the remote LED still does not blink, the tester was probably connected to a line where excessive voltage was present.

Calling Black Box

If you determine that your Multi Quick Check is malfunctioning, do not attempt to alter or repair it. Contact Black Box at 724-746-5500. The problem might be solvable over the phone.

Before you do, make a record of the history of the problem. We will be able to provide more efficient and accurate assistance if you have a complete description, including:

- The nature and duration of the problem.
- When the problem occurs.
- The components involved in the problem.
- Any particular application that, when used, appears to create the problem or make it worse.

If you cannot solve the problem over the phone, return the Multi Quick Check to the place of purchase.



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