



**BLACK BOX**<sup>®</sup>  
NETWORK SERVICES



April 2005  
AC1030A

## 2-Channel Component Video Splitter/Switch

AC1030A



**CUSTOMER  
SUPPORT  
INFORMATION**

Order **toll-free** in the U.S. 24 hours, 7 A.M. Monday to midnight Friday: **877-877-BBOX**  
FREE technical support, 24 hours a day, 7 days a week: Call **724-746-5500** or fax **724-746-0746**  
Mail order: **Black Box Corporation**, 1000 Park Drive, Lawrence, PA 15055-1018  
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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 the Canadian Department of Communications.*

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

**EUROPEAN UNION DECLARATION OF CONFORMITY**

This product complies with the requirements of the European EMC directive 89/336/EEC



### 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 de 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 bloquear 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 debe 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 conectado 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 física 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 energía.
16. El cable de corriente deberá ser desconectado del equipo cuando el equipo no sea usado por un largo periodo de tiempo.
17. Cuidado debe ser tomado de tal manera que objetos líquidos 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.

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# 1. Introduction

## 1.1 General

The Model AC1030A is a versatile dual-purpose unit that can function as either a Video Splitter (1 in x 2 out) or a Switcher (2 in x 1 out). Its mode of operation is set via a convenient front panel switch. The device is compatible with analog Component Video (YCbCr, or YPbPr) and RGB (sync-on-green) signals. It supports all RGB, TV, and HDTV resolutions up to 1080i.



Figure 1 – Rear and Front of the AC1030A

The AC1030A features 3 BNC connectors per channel and comes with RCA-to-BNC adapters for all connections allowing the use of either 3-BNC or 3-RCA cables.



Figure 2 – BNC to RCA Adapters

## **1.2 Features**

- Dual-purpose unit; can work as a splitter or as a switch
- Perfect for high quality video
- Supports all resolutions including 720p and 1080i
- LED Indicators
- Compact and Economical
- Installs in minutes
- Includes BNC-to-RCA adapters to allow use of either cable
- Universal Power Supply

## 2. Installation

1. Your package includes the Splitter/Switch box, a power supply, 9 pieces of RCA-to-BNC adapters, and this Manual. No cables are included with this device, if you need to purchase Component cables for inputs and outputs please contact Black Box.
2. Prior to applying the power supply to the unit, decide if the application calls for a Splitter (1 in x 2 out) or a Switch (2 in x 1 out) and set the mode of operation via the front panel switch. Once power is applied, if the unit is acting as a splitter both LED's on the front panel (labeled A and B) will be on, and when acting as a switch, only one LED (the selected port) will be lit.



Figure 3- Front Panel

3. Plug the input and output cables to the unit
4. Plug the power supply into the unit.
5. Turn on the monitor(s) and the video source.



Figure 4 – Rear Panel



## 3. Operation

When the AC1030A is configured as a Splitter, both LED's on the front panel (labeled A and B) will be lit and the push-button switches are disabled.

Alternatively, if the unit is acting as a Switch, only one of the LED's on the front panel will be lit. Use the push-buttons on the front panel to select the input channel to be routed to the output. By default, upon power-on reset, channel 1 is selected.

Note that the unit can also be used for Composite Video signals, which only require one connection for each port. In this case, we recommend that you use the Y connector on each port.

## 4. Troubleshooting

### 4.1 FAQ

#### No Sync or Color Distortion

Most common problem can be attributed to incorrect cable connection to the unit. The Component video and RGB signals have 3 components each. This means that each port has 3 connections and their proper usage is imperative. In general use the following guidelines:

G or Y → green cable

B or Pb → blue cable

R or Pr → red cable

### 4.2 Calling Black Box

If you determine that your unit is malfunctioning, do not attempt to repair the unit. Contact Black Box Tech. Support at 724-746-5500.

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;
- The components involved in the problem—that is, what type of cable, makes and models of computers and monitors, etc.
- The results of any testing you've already done.

### 4.3 Shipping and Packaging

If you need to transport or ship your Splitter:

- Package it carefully. We recommend that you use the original container.
- Before you ship the unit back to Black Box for repair or return, contact us to get a Return Authorization (RA) number.

## 5. Specifications

|                      |   |
|----------------------|---|
| <b>Standards</b>     | Analog Component Video YPbPr or YCbCr and RGB signals with sync-on-green.   |
| <b>Resolutions</b>   | All Standard TV, HDTV and PC resolutions Including: 640 X 480, 720 X 480, 720 X 576, 800 X 600, 1024 X 768, 1280 X 720, 1280 X 768, 1280 X 1024, 1600 X 1200, 1920 X 1080 |
| <b>Temperature</b>   | Operating: 32 to 122°F (0 to 50°C);<br>Storage: -40 to +185°F (-40 to +85°C)  |
| <b>Enclosure</b>     | Steel   |
| <b>MTBF</b>          | 90,000 hours (calculated estimate)  |
| <b>Power</b>         | From utility-power (mains) outlet, through included external power supply. Output Voltage: 6v DC Center-Positive. Average Power Consumption: 1 Watt                       |
| <b>Size (hxwx d)</b> | 1.38"H X 8.38"W X 3.00"D  |
| <b>Weight</b>        | 1.2 lbs   |







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