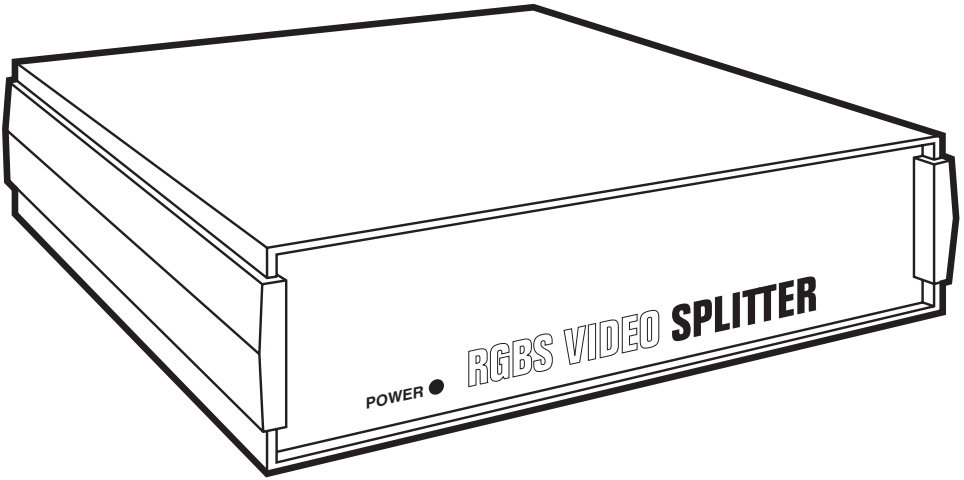




MARCH 1994

AC063A	AC063AE
AC064A	AC064AE
AC065A	AC065AE
AC066A	AC066AE

## RGBS Video Splitters



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**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  
Web site: [www.blackbox.com](http://www.blackbox.com) • E-mail: [info@blackbox.com](mailto: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 J 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.*

## **TRADEMARKS USED IN THIS MANUAL:**

Apple and Macintosh are registered trademarks of Apple Computer, Inc. UL is a trademark of Underwriters Laboratories Incorporated.

*Any other trademarks mentioned in this manual are acknowledged to be the property of the trademark owner.*

# 1. Specifications

<b>Interface</b> —	RGBS video
<b>Maximum Bandwidth</b> —	140 MHz
<b>Maximum Distance</b> —	Input: 6 ft. (1.8 m); Output: up to 350 feet (105 m)
<b>Maximum Resolution</b> —	Up to 1280 x 1024
<b>Indicator</b> —	(1) Power LED
<b>Connectors</b> —	Rear-mounted: (1) 5-pin DIN female power inlet plus (3/5/9/13*) sets of 4 BNC coax female: (1) from CPU, (2/4/8/12*) to display devices

<b>*Total Connector Sets</b>	<b>Output Connector Sets</b>	<b>Product Code</b>	<b>Product Name</b>
3	2	AC063A/AE	RGBS Video Splitter-2
5	4	AC064A/AE	RGBS Video Splitter-4
9	8	AC065A/AE	RGBS Video Splitter-8
13	12	AC066A/AE	RGBS Video Splitter-12

<b>MTBF</b> —	100,000 hrs.
<b>Maximum Altitude</b> —	15,000 ft. (4572 m)
<b>Operating Temperature</b> —	32 to 77°F (0 to 25°C)
<b>Storage Temperature</b> —	32 to 104°F (0 to 40°C)

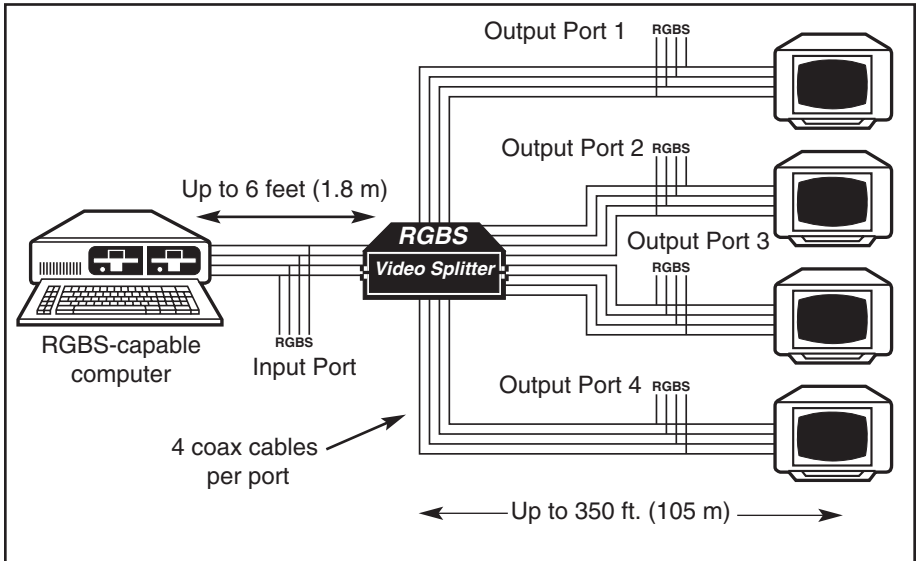
<b>Humidity</b> —	Up to 95% noncondensing
<b>Power</b> —	<i>For 120-VAC, 60-Hz operation:</i> From UL® and CSA approved wallmount power supply PS063: Input range: 100- to 130-VAC, 60 Hz, 100 to 170 mA; Optimal input: 120-VAC, 60 Hz, 100 mA; Output: 17 VAC CT, 700 mA max.; Consumption: 20 W <i>For 240-VAC, 50-Hz operation:</i> From VDE and TUV approved floormount power supply PS063E: Input range: 215- to 250-VAC, 50 Hz, 50 to 85 mA; Optimal input: 230-VAC, 50 Hz, 50 mA; Output: 17 VAC CT, 700 mA max.; Consumption: 20 W
<b>Size</b> —	All but AC066A/AE: 4.6"H x 12"W x 11"D (11.7 x 30.5 x 27.9 cm); AC066A/AE: 5.6"H x 12"W x 11"D (14.2 x 30.5 x 27.9 cm)
<b>Weight (Including Power Supply)</b> —	AC063A/AE: 5.5 lb. (2.5 kg); AC064A/AE: 6 lb. (2.7 kg) AC065A/AE: 6.5 lb. (3 kg) AC066A/AE: 8 lb. (3.6 kg)

## 2. Introduction

The models in our family of RGBS Video Splitters take a computer's RGBS video signal and display it on two, four, eight, or twelve RGBS display devices (monitors, TVs, video projectors, etc.) simultaneously. Display devices can be placed up to a distance of 350 feet (105 m) from the Splitter.

Simply place the Splitter within six feet (1.8 m) of your computer's video output port, connect the computer, the Splitter, and your displays with BNC coaxial cable, and you're ready to go. See Fig. 2-1, below, for an illustration.

The RGBS Video Splitter sets up quickly and easily for "on the road" demonstrations, where it replaces conventional slide or videotape presentations. You can walk viewers through CAD/CAM demonstrations, sales presentations, or training sessions without having to have them crowd around one monitor. Follow these steps to set up your RGBS Video Splitter application:



**Fig. 1. Sample setup for the RGBS Video Splitter-4 (AC064 units).**

## 3. Installation

1. Locate the Splitter within 6 feet (1.8 m) of the computer's RGSB video-output port. Connect the computer's video output to the Splitter's inputs, Red to Red, Green to Green, Blue to Blue, and Sync to Sync. (See **Figure 1** on the previous page.)

### NOTE

**The RGSB Video Splitters also support RGB video with sync on green. Call our technical support personnel for help with your application.**

**RGSB Video Splitters cannot be cascaded.**

2. Connect the Splitter's output ports to the display devices' RGSB inputs, Red to Red, Green to Green, etc., as in Step 1. Each monitor can be located up to 350 feet (105 m) from the Splitter's output.

### Cabling Notes:

- Four coaxial cables are required for each device connected to the Splitter: one for each of the color signals (Red, Green and Blue) and one for the sync (S) signal (see **Figure 2-1** on the previous page). Note, however, that our EYNRGSB2 cable bundles these four cables into one easy-to-work-with jacket.
  - All cable ends connected to the Splitter must be terminated with BNC coaxial male connectors.
  - The RGSB Video Splitter has been designed to drive signals through 75-ohm RG59/U coaxial cables. (See the **Appendix** for the RGSB coaxial cables we offer.)
3. Connect the power supply to the Splitter by inserting the power supply's 5-pin DIN output plug into the connector marked "Power" on the back of the unit. Then plug the power supply into an outlet providing stable AC power.

After these steps are completed, the system is ready to operate. The Splitter can remain powered-up continuously. There is no need to disconnect the unit between uses, unless you are moving your setup.

## 4. Troubleshooting

### 6.1 Calling BLACK BOX

If you determine that your RGBS Video Splitter is malfunctioning, *do not attempt to alter or repair the unit*. Contact Black Box Technical Support at 724-746-5500.

Before you do, make a record of the history of the problem. We'll 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.

### 6.2 Shipping and Packaging

If you need to transport or ship your RGBS Video Splitter:

- Package it carefully. We recommend that you use the original container.
- If you are shipping the Splitter for repair, make sure you include its power supply. If you are returning the Splitter, make sure you include its manual as well. Before you ship, contact Black Box to get a Return Materials Authorization (RMA) number.

# Appendix: Cables You Might Need

Use these cables to carry your computer's RGBS video signals to the RGBS Video Splitter and from there to your remote display devices:

**EYNRGBS2** — 75-ohm coaxial cable available in 5-, 10-, 25-, and 50-foot (1.5-, 3-, 7.6-, and 15.2-m) stock lengths and any desired custom length; it consists of color-coded red, green, blue, and sync cables bundled into one jacket and terminated with four BNC male connectors on both ends. Run this cable from a computer with four BNC female (R, G, B, and S) video-output connectors to the Splitter; also run this cable from the Splitter to any standard RGBS display device.

**EYRGBS3** — Standard Apple® Macintosh® RGBS cable. 75-ohm coaxial cable available in a 6-ft (1.8-m) stock length; it consists of color-coded red, green, blue, and sync cables bundled into one jacket and terminated with four BNC male connectors on one end and a DB15 male on the other end. Run this cable from a Macintosh computer with a DB15 female video port to the Splitter. Run EYNRGBS2 from the Splitter to any standard Macintosh monitor or other RGBS display device.





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