VGA Video Splitters

2-Channel, 4-Channel and 8-Channel

Call our technical support specialists to discuss your application.
For technical support: Call (412) 746-5565 8:00 A.M. to 8:00 P.M. EST Or Fax: (412) 746-0746
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Mail order: Black Box Corporation, P.O. Box 12800, Pittsburgh, PA 15241
VGA VIDEO SPLITTERS

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<td>VGA VIDEO SPLITTER (2-CHANNEL)</td>
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1.0 INTRODUCTION

This family of VGA Video Splitters enables a computer's VGA (Video Graphics Array) output to be sent to up to eight VGA monitors at once. Each VGA monitor can be connected directly into a VGA splitter and located up to 200 feet away. Short and Long gain switches, located on the front panel, help to compensate for cable loss. The VGA Video Splitters can be located up to six feet away from the computer.

A typical application for one of these splitters would find a PC and its monitor displaying in one location while up to seven remote monitors display the same information on other monitors located around the room or in another room up to 200 feet away.

The VGA output of a computer is designed to drive only one monitor a limited distance from the computer. There are many instances, however, when it is required to drive one or several monitors at remote distances from the computer. These splitters are perfect for conference rooms, classrooms, public information displays, show exhibits, and demonstrations. They provide an easy means to display a monitor's image without having to crowd around one monitor next to a computer. There are many applications for these products. Refer to Section 4.

If additional monitors must be hooked up for viewing (over and above the number that each VGA Video Splitter can accommodate) more than one Splitter can be connected together (called cascading) so that a more extensive arrangement can be set up.

The VGA Video Splitter comes in a compact, attractive desk-top package. It is powered by a wall mounted power supply and draws no power from the computer.
2.0 INSTALLATION

Installing the VGA Video Splitter is easily accomplished using the following steps.

1. Place the VGA Video Splitter within six feet of the computer.

2. Connect the six foot VGA cable (supplied with the unit) to the computer and the VGA Video Splitter.

3. There are three DIP switches on the front panel of the VGA Video Splitter marked "Monitor Type." These switches tell the VGA adapter in your computer the type of monitor you have connected when the computer boots up. Set the switches according to the following chart.

<table>
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<th>DIP SWITCH</th>
<th>MONITOR TYPE</th>
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<tr>
<td>1 Up</td>
<td>2 Down</td>
</tr>
<tr>
<td>8503 (Mono)</td>
<td>8512 (Color)</td>
</tr>
<tr>
<td>8514 (Hi-Res Color)</td>
<td></td>
</tr>
</tbody>
</table>

Note: For a standard VGA color monitor, set the switches:

1. DOWN
2. UP
3. DOWN

4. Connect the outputs from the monitors to the "Monitor" outputs on the rear of the VGA Video Splitter.

5. Plug the 9 VDC wall-mount power transformer into the rear of VGA Video Splitter in the socket marked "Power."

6. Plug the power transformer into a 115 VAC wall outlet. The front panel LED should glow red indicating the unit is properly powered.

7. Turn on the computer and the monitor(s). The monitors will now display the computer's output.
8. If the monitor is connected 100 feet or more away from the VGA Video Splitter, set the front panel switch for that monitor to the “Long” position. For shorter distances, set the switch to the “Short” position. You will notice a slight change in brightness between the two positions.

9. Once installed, the VGA Video Splitter requires no adjustments. If desired, it can be placed out of sight.

3.0 SYSTEM OPERATION

The VGA Video Splitter provides a reliable means of extending the viewing position of VGA monitors. This means compensating for the normal signal losses which will occur when adding cable to a VGA monitor. This is achieved through equalized amplification so that the signal at the remote end matches closely to the signal as it left the VGA adapter. This insures the truest representation of the VGA image as it relates to detail and color fidelity.

Each monitor output is independently buffered. This insures isolation and proper signal levels regardless of the number of monitors used.

The plug-in wall-mounted transformer will feel warm after the unit is on for a period of time. This is normal since the unit draws a significant amount of current.

Multiple Splitters can be combined to establish a more complex network where additional remote displays are required.

4.0 APPLICATIONS

VGA Video Splitters are used where a number of monitors need to be connected to one computer. Typical applications would include classrooms, business meetings, and trade shows.

In a conference room or demonstration room, for example, the VGA Video Splitter can feed the PC's own VGA monitor plus others located around the room or on the demonstration table. This avoids people crowding around the PC for a look at the display.

In a classroom, instructional material on your computer can be easily viewed by all the students at their desks.

Presentations can be made by creating an electronic slide show on your computer and using the VGA Video Splitter to drive the computer's own monitor plus a large screen projection monitor.
Typical Applications For The VGA Video Splitter

Example Of A 2-Channel VGA Video Splitter Being Cascaded To A 4-Channel Splitter In A Remote Location

Example Of An 8-Channel VGA Video Splitter
5.0 TROUBLESHOOTING

If the display colors on all the monitors seem to be "reversed," this might be caused by improper setting of the "Monitor Type" DIP switches on the front panel. Recheck the switch setting.

If one or two colors are missing on one of the VGA monitors, make sure all connections to the VGA Video Splitter are secure. Make sure the monitor connector jackscrews are tightened.

If problems persist, call for Technical Support.

6.0 SPECIFICATIONS

Connectors:  
- Inputs: VGA Input: HD15S
- Outputs: Monitor: HD15S
- Power input: 2.5 mm subminiature phone jack

Controls:  
- Monitor Type Selection: 3-position front panel DIP switch
- Gain selection: Front panel DIP switch for each output
  - SHORT position for cable lengths under 100 feet
  - LONG position for cable lengths over 100 feet

Indicators:  
- 1 red LED for power

Power:  
- Input: 115 VAC 60 Hz using wall mounted transformer
  - Output of transformer is 9 VDC, 600 mA on 2 and 4 channel units
    and 1 amp on the 8 channel unit. (Domestic version)
- Input: 230 VAC 50 Hz
  - Output of transformer is 9 VDC, 500 mA on 2 and 4 channel units
    and 1 amp on the 8 channel unit. (International version)

Size:  
- AC056A: 4.25" W x 1.5" H x 5.5" D
  (10.8 cm x 3.8 cm x 14 cm)
- AC057A: 7.25" W x 1.5" H x 6.25" D
  (18.4 cm x 3.8 cm x 15.9 cm)
- AC058A: 7.25" W x 2.5" H x 6.25" D
  (18.4 cm x 6.4 cm x 15.9 cm)

Weight:  
- 2-Channel unit: 0.9 lb (0.4 kg)
- 4-Channel unit: 1.6 lb (0.7 kg)
- 8-Channel unit: 2.3 lb (1 kg)
Enclosure: Metal

Temperature: 0 to 50 degrees C
            32 to 125 degrees F

Humidity: 5 to 95% (non-condensing)

Certifications: FCC Class A certified
                UL® listed power supply
                CSA approved power supply

WHAT IS INCLUDED

1 - VGA Video Splitter
1 - Wall mounted transformer power supply
1 - 6 ft HD-15P to HD15P jumper cable for computer’s VGA output to the VGA Video Splitter. (This cable has male connectors on both ends)
1 - User’s manual

FEDERAL COMMUNICATIONS COMMISSION
RADIO FREQUENCY INTERFERENCE STATEMENT

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 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 required to correct the interference.