

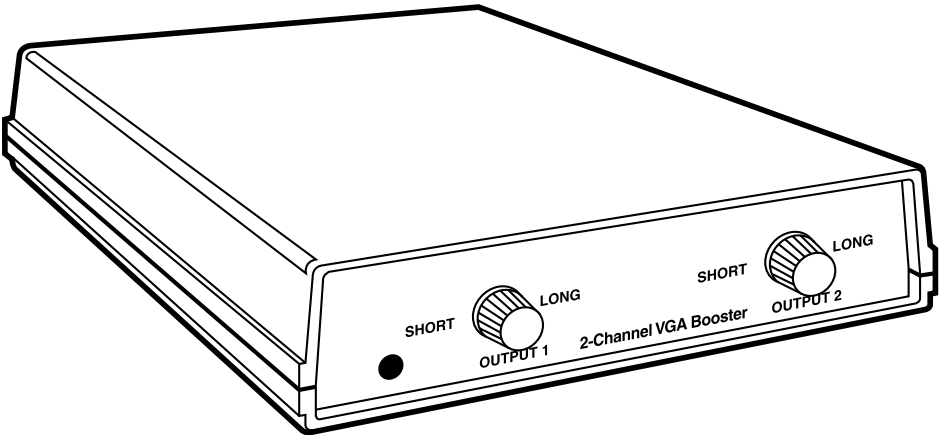


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2-Channel VGA Booster



**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**
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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.

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 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 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.

2-CHANNEL VGA BOOSTER

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Contents

Chapter	Page
1. Specifications	6
2. Introduction	7
3. Installation	8
3.1 The Installation Procedure	8
3.2 Typical Application	10
4. Operation	11
5. Troubleshooting	12

1. Specifications

Connectors: Input: (1) DB15HD female; Output: (2) DB15HD female

Resolution Supported: Up to 1024 x 768 for VGA, SVGA, and XGA

Distance Limits (each output): Up to 700 ft. (213 m) @ 640 x 480 pixels;
up to 600 ft. (183 m) @ 800 x 600 pixels;
up to 500 ft. (152 m) @ 1024 x 768 pixels

Horizontal Frequency: 31.5 to 35.52 kHz

Signal: Analog

Signal Format: RGBS

Temperature: Operating: 32 to 104°F (0 to 40°C); Storage: -40 to +176°F
(-40 to +80°C)

Humidity: Operating: Up to 80%, noncondensing; Storage: Up to 90%,
noncondensing

Mean Time Between Failures (MTBF): 10,000 hours

Power: 9 VDC, 500/600 ma (part number 10155)

Size: 1.5"H x 7.25"W x 6.25"D (3.8 x 18.4 x 15.9 cm)

Weight: 2.2 lb. (0.9 kg)

2. Introduction

With the 2-Channel VGA Booster, you can view the output of a VGA adapter on 1 or 2 monitors simultaneously. You can place each monitor up to 700 feet (213 m) away from the Booster, depending on the operating mode.

The Booster package contains the following:

- (1) 2-Channel VGA Booster
- (1) 9-VDC power supply
- (1) 6-ft. (1.8-m) male-to-male VGA input cable
- This users' manual

You may also order optional monitor extension cables, specially designed for use with this product.

3. Installation

3.1 The Installation Procedure

Follow these steps to install your 2-Channel VGA Booster.

1. Place the Booster within 6 ft. (1.8 m) of the computer.
2. Connect the 6-ft. VGA input cable (included) from the VGA output of the computer to the connector marked “VGA.”
3. Connect the VGA compatible monitor(s) to the connector(s) marked “Output” on the rear of the Booster. You may use monitor extension cables to extend the distance up to 700 feet (213.4 m) as shown in Table 3-1.
4. Plug the 9-VDC wall power transformer (included) into the jack on the rear of the Booster.
5. Plug the power transformer into an AC wall outlet. When the unit is properly powered, the front-panel LED will glow red.
6. Turn on the computer and the monitor(s). The monitor(s) will display the computer’s output.
7. Use the front-panel knobs to adjust the gain and peaking of the Booster’s amplifiers to compensate for the long extension cable. The knobs have 6 positions from SHORT to LONG and correspond to cable lengths for standard VGA (up to 480 lines), or Super VGA (up to 768 lines), as shown in Table 3-1.

Table 3-1. Front panel knob positions.

Knob Position	Cable Length for VGA	Cable Length for Super VGA
1	0 to 125 ft. (0 to 38 m)	0 to 100 ft. (0 to 30.4 m)
2	125 to 250 ft. (38 to 76 m)	100 to 175 ft. (30.4 to 53.2 m)
3	250 to 375 ft. (76 to 112.5 m)	175 to 250 ft. (53.2 to 76 m)
4	375 to 500 ft. (112.5 to 152 m)	250 to 325 ft. (76 to 98.8 m)
5	500 to 600 ft. (152 to 182.4 m)	325 to 425 ft. (98.8 to 129.2 m)
6	600 to 700 ft. (182.4 to 212.8 m)	425 to 500 ft. (129.2 to 152 m)

NOTE

For Super-VGA modes operating at 800 lines, the maximum recommended length is 600 ft. (182.4 m). For Super-VGA modes operating at 768 lines, the maximum recommended length is 500 ft. (152 m).

8. As shipped, the Booster is internally jumpered to support a standard color VGA monitor. The internal jumpers are located on jumper block JP1. You may change these jumpers for different monitor types as shown in Table 3-2.

Table 3-2. Jumper settings.

Monitor Type	JP1 Jumpers to Install
Color VGA	Positions 2 and 5
Monochrome VGA	Positions 3 and 5
8514/A VGA	Positions 1 and 3
XGA	Positions 1 and 4

2-CHANNEL VGA BOOSTER

3.2 Typical Application

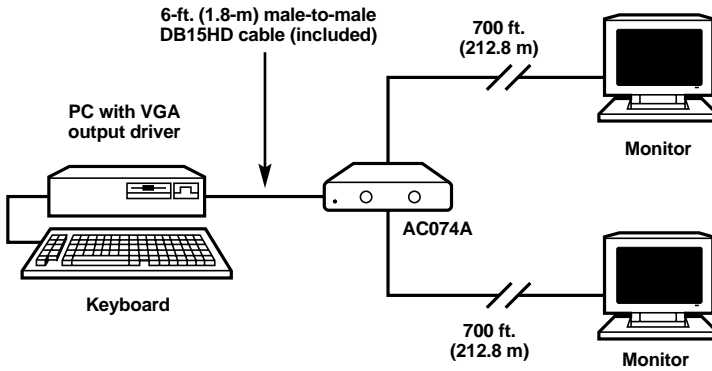


Figure 3-1. Typical application of the AC074A.

4. Operation

Once you install the 2-Channel VGA Booster, it requires no ongoing adjustments. The Booster works continuously, and you can place it out of sight if you wish.

The Booster extended the viewing position of VGA monitors, so you must compensate for the normal signal losses that will occur when you add cable to a VGA monitor. The Booster compensates for this loss via *equalized amplification*, so that the signal at the remote end closely matches the signal as it left the VGA adapter. You receive true detail and color fidelity in the VGA image.

Each monitor output is independently buffered. This insures isolation and proper signal levels, regardless of the number of monitors you use. You can cascade the boosters to achieve multiple outputs at different distances from the computer. Call Technical Support for help with your application.

NOTE

The plug-in transformer will feel warm after the unit is on for awhile. This is normal, since the Booster draws a significant amount of power.

5. Troubleshooting

Problem: Power LEDs glow but no video.

Solution: Disconnect all video cables. Is the LED off? Check AC power at the outlet. Check the power-supply plug for proper seating.

Problem: One channel is OK, but the other is not.

Solution: Swap extension cables. If the problem follows the cables, replace the defective cable.

Problem: Output is not clear or some colors are blurred.

Solution: Change the video software driver. Use another driver that supports the distance you are using. (Under Windows®, this can be changed using Windows Setup in the Main Menu. Select “Options” and then “Change System Settings.”)

Problem: Brightness, size, or position are different from original settings.

Solution: Use the monitor’s brightness, size, and/or position controls to adjust the display.

Problem: One or two colors are missing on one of the VGA monitors.

Solution: Make sure all connections to the Booster are secure. Make sure the monitor screwlocks are tightened.