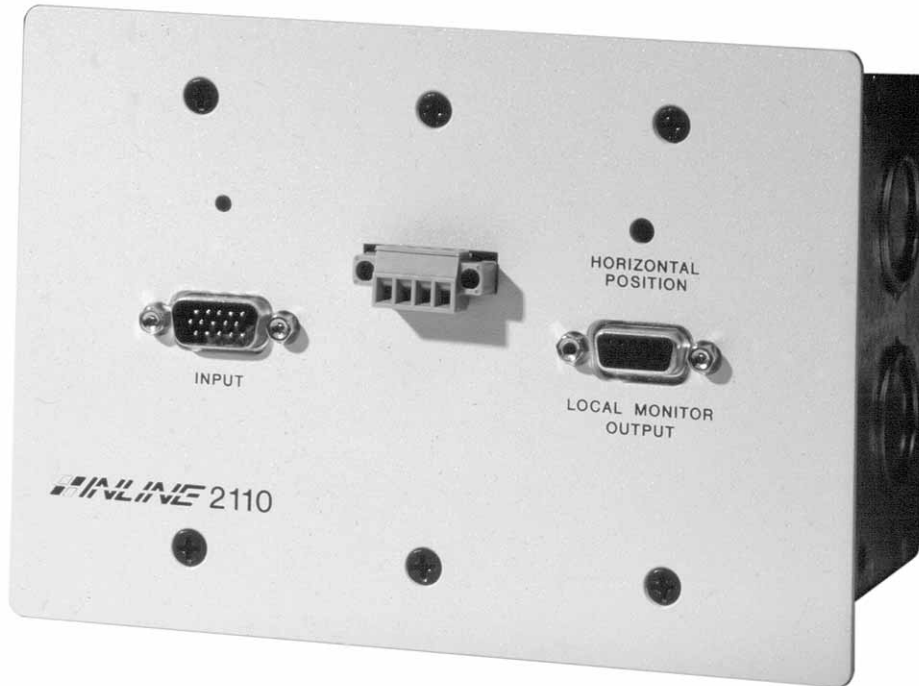


Operation Manual



**IN2110 Wall Mounted
High Resolution Analog Video Interface**

INLINE[®]

PRELIMINARY IN2110 USER MANUAL

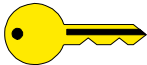
DESCRIPTION

The **IN2110** is a high performance computer video interfaces for analog video signals including VGA, SVGA, XGA, MAC, SUN and other high resolution workstations. The **IN2110** mounts in a standard triple gang outlet box (included with the interface). Like other Inline interfaces, the **IN2110** performs the following functions:

Signal Splitting - allows the simultaneous connection and viewing of both the computer's local monitor and a second output device such as a large screen data projector, monitor, or color printer.

Physical Interfacing - Computers employ many different types of video output connectors, making it difficult to hook up computers directly to data projection devices. The **IN2110** simplify interfacing, routing, and switching tasks by acting as universal adapters. Through the use of removable input cables, the **IN2110** can be attached to different computers and will provide a video output signal on five BNC connectors which can easily be connected to an RGB display device. The output signal format may be set to any of the following formats: RGBHV (default), RGBS, and RGsB.

KEY CONCEPT



*The **IN2110** is not a scan converter. The data projector, monitor, or other output device must be compatible with the horizontal scan rate output by the computer video card.*

The **IN2110** Universal interface offers easy operation and the following features:

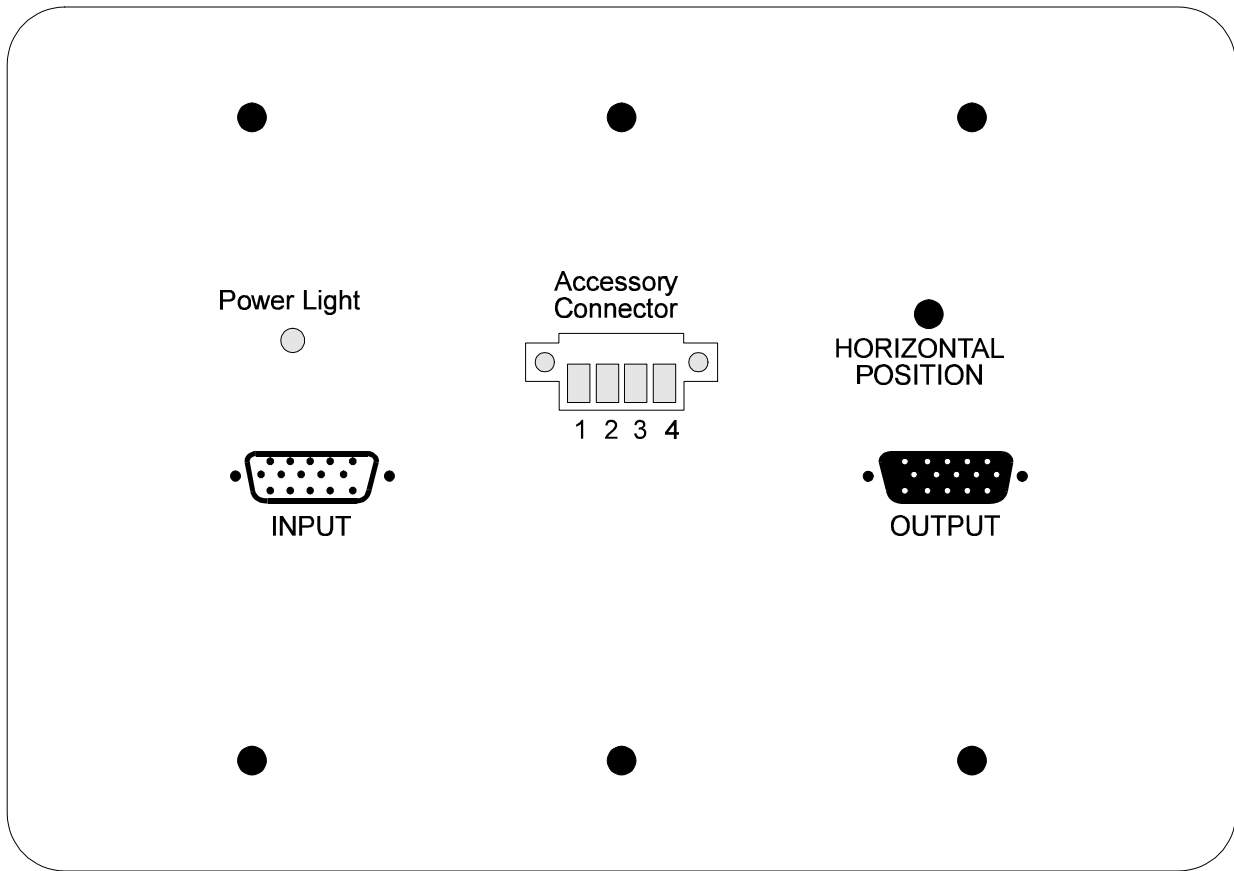
- ◆ **400 MHz Bandwidth** - High performance interface design ensures that video signals will be interfaced with no loss of image detail.
- ◆ **Analog Interface** - the unit will operate with Analog Video with TTL level sync signals. The sync can be separate H & V or composite sync.
- ◆ **VGA Input and Output** - the input and output are directly compatible with VGA, SVGA and XGA graphic cards. Other computer types can be connected via input and output adapters
- ◆ **Buffered Local Monitor Output** - provides a buffered output to be connected to the local computer monitor.
- ◆ **Monitor Emulation Switch** - eliminates the need for a termination plug if a local monitor is not used. Emulates a color VGA monitor or a 13/14" 640x480 Apple monitor.
- ◆ **Flexible Output Signal Formats** - RGBHV (default), RGBS, and RGsB
- ◆ **Horizontal Position Control** - allows picture to be centered precisely on the data display screen.
- ◆ **Sync Polarity Preservation Switch**- for RGBHV signals in and out, enables the sync polarity to be preserved, or to set them for negative polarity.
- ◆ **Serration Pulse Removal Switch** - for RGBS output, enables the user to remove serration pulses from the sync output.

INSTALLATION

CAUTION: Installation of the IN2110 must only be carried out by qualified technicians. Care must be taken to avoid static shock to the internal components.

This section offers step-by-step instructions for installing the **IN2110**.

1. Install the outlet box and run the video coax, power cable and accessory cables to it.
2. Set the dip switches for the requirements of your installation. The **IN2110** factory default output format is RGBHV. If your display device, routing system, or cabling require a different format, use the dip switches to change the output signal to RGSB or RGsB as desired.
3. Connect the **IN2110** output (5 BNC connectors) to the data display device's RGB input, using three, four, or five high resolution BNC cables or a multi-conductor RGBHV, RGSB, or RGB "snake". The **IN7000 Series**, **IN7100 Series** and **IN7200 Series** high resolution cables are well suited for this purpose. Take care while making connections to insure that the red output is connected to the red input, green output to the green input, etc. (see diagram)
4. Connect the accessory cables as required by your installation.
5. Connect the power. Be extra careful to ensure that the polarity is as shown on the diagram as connecting it backwards may permanently damage the unit. If in doubt, measure with a voltmeter.
6. Carefully attach the **IN2110** to the outlet box being sure no cables are damaged.
7. Turn the computer and computer monitor off. Disconnect the computer monitor (if present) from the video output port on the computer.
8. Connect the local computer monitor (if present) to the local monitor output of the **IN2110**. If no local monitor is used, set the monitor emulation dip switch to emulate a color VGA monitor or a 13/14" MAC 640x480 monitor.
9. Connect the output of the computer to the Input of the **IN2110** with the appropriate input cable.
10. Complete the installation by turning the computer and computer monitor on. If required, adjust the horizontal position control.



HORIZONTAL POSITION CONTROL

The location of the horizontal position control is diagrammed on the next page. The horizontal position control adjusts the position of the image on the data display device from left to right (it has no effect on the local computer monitor).

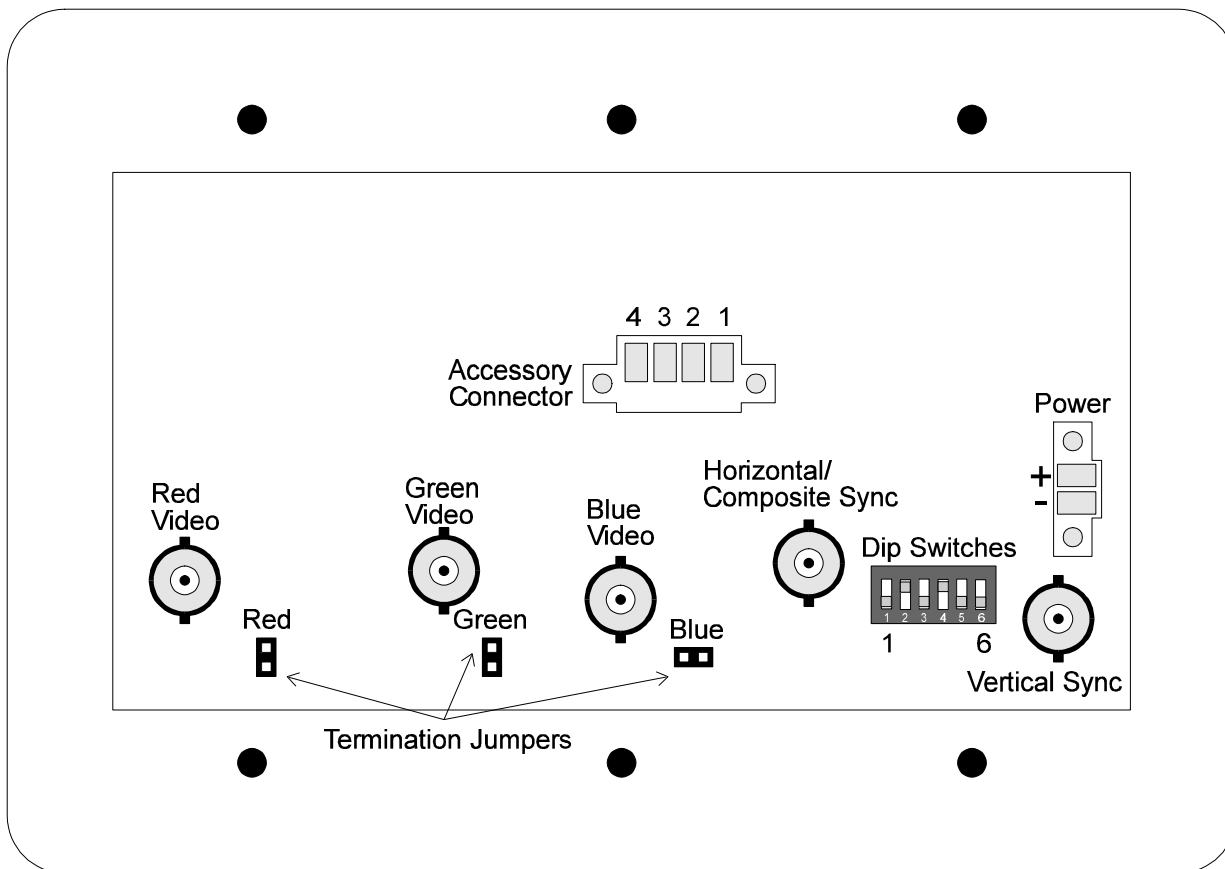
Many data projectors and monitors have their own horizontal position control, and the interaction of the display device's horizontal control and the interface's horizontal control may result in a dark image on the data display. The following procedure is suggested to ensure best results:

1. Adjust the **IN2110** horizontal position control so a good quality image is displayed. This control should not be set to an extreme position.
2. Adjust the display device horizontal position control until the image is centered as desired.
3. If the image appears dark or the colors are not properly displayed, fine tune the controls on both the display device and the interface until the picture is centered and a good quality image is attained.

INTERNAL CONTROLS

The IN2110 has been designed with several controls which may be used by qualified technicians to adjust specialized signal parameters. These controls, consisting of 6 dip switches and three jumpers.

The drawing below diagrams the positions of the dip switches and internal jumpers.



DIP SWITCH SETTINGS

Most installations will not require any changes to the dip switch settings, and the IN2005 / IN2025 will generally be operated with the factory default settings. The Factory Default setting and specialized dip switch settings are indicated below.

Factory Default Settings



Dip Switches ON: 2 & 4

Signal Format: Red / Green / Blue / Horizontal and Vertical Sync

Horizontal Position Control: Enabled

H & V Sync Polarity: Negative, Negative

Monitor Emulation: Disabled

The following table lists the functions of the 6 dip switches:

DIP SWITCH	FUNCTION	SETTING
1	Horizontal Position	1 = Disabled 0 = Enabled
2	RGsB Output (Sync on green)	1 = RGBS or RGBHV 0 = RGsB
3	RGBS or RGBHV Output (dip switch 2 must be set to 1)	1 = RGBS 0 = RGBHV
4	RGBHV Output Sync Polarity	1 = Negative, Negative 0 = Mirror Input Polarities
5	Serration Pulse Removal (for RGBS or RGsB output)	1 = Remove Serration Pulses 0 = Pass Serration Pulses
6	Monitor Emulation (VGA color/MAC 640 x 480)	1 = Emulation Disabled 0 = Emulation Enabled

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- ◆ INLINE warrants the equipment it manufactures to be free from defects in materials and workmanship.
- ◆ If equipment fails because of such defects and INLINE is notified within two (2) years from the date of shipment, INLINE will, at its option, repair or replace the equipment at its plant, provided that the equipment has not been subjected to mechanical, electrical, or other abuse or modifications.
- ◆ Equipment that fails under conditions other than those covered will be repaired at the current price of parts and labor in effect at the time of repair. Such repairs are warranted for ninety (90) days from the day of re-shipment to the Buyer.
- ◆ **This warranty is in lieu of all other warranties expressed or implied, including without limitation, any implied warranty or merchantability or fitness for any particular purpose, all of which are expressly disclaimed.**

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(800) 882-7117 ◆ (310) 690-6767 ◆ FAX (310) 691-5247 ◆ www.inlineinc.com