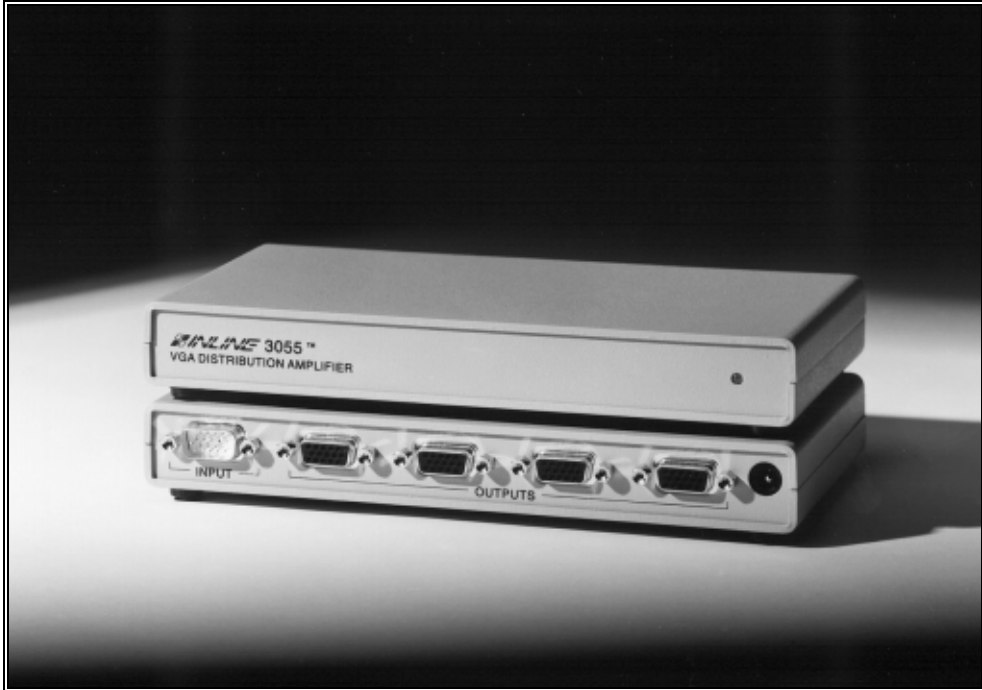


Operation Manual



IN3055 - 1x4 VGA Distribution Amplifier





Installation and Safety Instructions

For Models without a Power Switch:

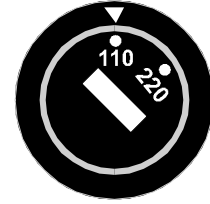
The socket outlet shall be installed near the equipment and shall be accessible.

For Models with 110 / 220V Power Selector:

Caution: Before applying power to this unit, the voltage selector must be set to the appropriate setting to match local A/C line voltage. Improper setting of the voltage selector may cause damage to the unit and create a potential fire hazard.

The voltage selector is a round switch located next to the A/C power input connector which looks like this:

Using a straight slot screwdriver or small coin, rotate the selector to the correct position so that the arrow lines up with 110 or 220 as appropriate for local power line voltage as indicated in the chart below:



Local A/C Voltage	Voltage Selector Setting
110 ~ 120 VAC	110
220 ~ 240 VAC	220

For all Models:

No serviceable parts inside the unit. Refer service to a qualified technician.

For Models with Internal or External Fuses:

For continued protection against fire hazard, replace only with same type and rating of fuse.

For IN2001 / IN3234 / IN3236 / IN3502 / IN3504 / IN3506 / IN3562 / IN3564 / IN3566 / IN3572 / IN3574 / IN3576:

Caution: Double pole / neutral fusing.

For all Models with Integral Lithium Battery:

Caution: Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.



Instructions d'installation et de sécurité

Pour les modèles sans interrupteur de courant:

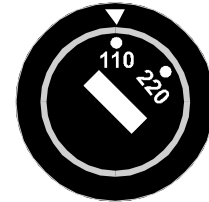
La prise de courant d'alimentation sera installé près de l'équipement et sera accessible.

Pour les modèles avec un sélecteur d'alimentation 110V/220V:

Attention: Avant de connecter l'appareil au circuit d'alimentation, le sélecteur de courant doit être positionné sur la sélection appropriée correspondant au voltage du circuit de courant alternatif local. Une mauvaise sélection peut engendrer des dommages à l'appareil et créer un danger d'incendie.

Le sélecteur d'alimentation est un commutateur rond positionné près du connecteur d'alimentation. Il se représente comme suit:

A l'aide d'un tourne-vis plat ou d'une pièce de monnaie, le sélecteur peut être tourné dans la position adéquate en veillant que la flèche corresponde avec 110 ou 220, en fonction de la valeur du circuit de courant local. (Voir tableau ci-dessous)



Circuit local AC	Position Sélecteur
110 ~ 120 VAC	110
220 ~ 240 VAC	220

Pour tout les modèles:

Pas de composants à entretenir à l'intérieur. Confiez toute réparation à un technicien qualifié.

Pour les modèles équipés de fusibles internes ou externes:

Afin d'éviter tout danger d'incendie, ne remplacer qu'avec le même type et la même valeur de fusible.

Pour IN2001 / IN3234 / IN3236 / IN3502 / IN3504 / IN3506 / IN3562 / IN3564 / IN3566 / IN3572 / IN3574 / IN3576:

Attention: Double pôle / fusible au neutre.

Pour tout les modèles avec une batterie au lithium interne:

Attention: Danger d'explosion si la batterie est incorrectement remplacée. Ne remplacez la batterie qu'avec le même modèle, ou avec un modèle recommandé par le constructeur. Traitez les batteries usagées selon les instructions du fabricant, ou selon les normes écologiques en vigueur.



Installations und Sicherheitshinweise

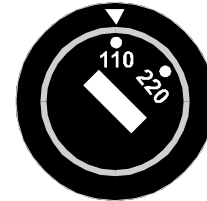
Für Geräte ohne Netzschalter:

Die Netzsteckdose soll in der Nähe des Gerätes installiert und frei zugänglich sein.

Für Geräte mit 110 / 220V Spannungswähler:

Achtung: Bevor Sie dem Gerät Spannung zuführen, muß der Spannungswähler entsprechend der Spannung des lokalen Wechselspannungsnetzes eingestellt werden. Die falsche Stellung des Spannungswählers kann eine Beschädigung des Gerätes und möglicherweise ein Feuer verursachen.

Der Spannungswähler ist ein runder Schalter in der Nähe der Netzeingangsbuchse mit folgendem Aussehen:



Drehen Sie den Wähler mit einem normalen Schraubenzieher oder einer kleinen Münze so, daß der Pfeil auf die 110 oder 220 zeigt, entsprechend der Spannung Ihres lokalen Netzes wie hier angezeigt:

Lokale Netzwechselspannung	Stellung des Spannungswählers
110 ~ 120 V	110
220 ~ 240 V	220

Für alle Geräte:

Keine Wartung innerhalb des Gerätes notwendig. Reparaturen nur durch einen Fachmann!

Für Geräte mit interner oder externer Sicherung:

Für dauernden Schutz gegen Feuergefahr darf die Sicherung nur gegen eine andere gleichen Typs und gleicher Nennleistung ausgewechselt werden.

Für IN2001 / IN3234 / IN3236 / IN3502 / IN3504 / IN3506 / IN3562 / IN3564 / IN3566 / IN3572 / IN3574 / IN3576:

Achtung: Allpolige Absicherung

Für alle Geräte mit eingebauter Lithium Batterie:

Achtung: Explosionsgefahr bei falschem Batterieeinsatz. Batterie nur ersetzen durch den gleichen oder entsprechenden Typ wie vom Hersteller empfohlen. Entsorgung verbrauchter Batterien nur nach den Anweisungen des Herstellers.



Instalacion E Instrucciones de Seguridad

Modelos Sin Interruptor:

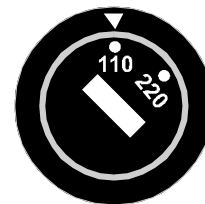
La conexión debe ser instalada cerca del equipo y debe ser accesible.

Modelos con Selector de Voltaje de 110/220V:

Precaución: Antes de operar esta unidad, el selector de voltaje debe instalarse de forma que corresponda a la línea de voltaje local. Instalación inadecuada del selector de voltaje puede causar daño a la unidad y originar un incendio.

El selector de voltaje es un cambio vía redondo localizado cerca de la conexión eléctrica, como se ve en el dibujo:

Use un destornillador común o una moneda pequeña, mueva el selector a la posición correcta, de forma que las flechas indiquen 110 o 220 de acuerdo con el voltaje local, como está indicado a continuación.



Voltaje Local A/C	Selector de Voltaje
110 ~ 120 VAC	110
220 ~ 240 VAC	220

Para Todos Los Modelos:

Dentro de la unidad, no hay partes para reparar. Llame un técnico calificado.

Modelos con Fusibles Internos o Externos:

Para prevenir un incendio, reemplace solo con el mismo tipo de fusible.

Modelos IN2001 / IN3234 / IN3236 / IN3502 / IN3504 / IN3506 / IN3562 / IN3564 / IN3566 / IN3572 / IN3574 / IN3576:

Precaución: Double Polo / Fusible Neutral.

Modelos con Batería de Lithium Interna:

Precaución: Peligro de explosión si la batería es reemplazada incorrectamente. Reemplace solamente con la misma clase de batería, o una equivalente recomendada por el fabricante. Deseche las baterías usadas de acuerdo con las instrucciones del fabricante.

CE COMPLIANCE

All products exported to Europe by Inline, Inc. after January 1, 1997 have been tested and found to comply with EU Council Directive 89/336/EEC. These devices conform to the following standards:

EN50081-1 (1991), EN55022 (1987)

EN50082-1 (1992 and 1994), EN60950-92

Shielded interconnect cables must be employed with this equipment to ensure compliance with the pertinent Electromagnetic Interference (EMI) and Electromagnetic Compatibility (EMC) standards governing this device.

**FCC COMPLIANCE**

This device has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide against harmful interference when equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at their own expense.

DESCRIPTION

The **IN3055** is a dedicated VGA video distribution amplifier. The unit features a high impedance loop-through output and four buffered outputs, a design which allows for the simultaneous viewing of a local monitor and up to four additional output devices such as monitors, LCD projectors, and other compatible display devices. The **IN3055** does not alter the video or sync signals, but merely amplifies the signals to a level needed to extend the external displays as far as 100 feet away. The **IN3055** distribution amplifier is fully automatic, offering easy operation and the following features:

- ◆ **Loop-through Input Cable** allows the local computer monitor to continue operating while feeding an input signal to the **IN3055**
- ◆ **Four buffered outputs** - connectors and sync format are identical to the input (standard VGA pin outs), ideal for use with multiple VGA monitors, LCD panels, and other display devices
- ◆ **Gain of 1.1** provides signal boost to compensate for 75 to 100 feet of high resolution coaxial cable
- ◆ **100 MHz bandwidth**

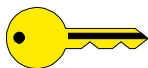
INPUT COMPATIBILITY

The **IN3055** VGA distribution amplifier operates with analog video input from a wide variety of IBM and compatible computer video signal formats including VGA, SVGA, XGA, and 8514A. Input signals to the **IN3055** must be in the RGBHV format and provided on a 15 pin HD connector.

OUTPUT COMPATIBILITY

The **IN3055** offers four buffered video output signals in the same format and using the same connector as the original input signal. This is ideal for use with devices such as LCD panels, which often must see a specific type of connector and sync format in order to recognize and lock up to various frequencies. VGA, SVGA, and XGA type video cards operate in several different modes encompassing a wide range of resolutions and horizontal scan rates. ***The IN3055 is not a scan converter and the data projector or data monitor must be compatible with the horizontal scan rate put out by the computer video card.*** Please check the documentation for both the computer video card and the data projection device in order to ensure compatibility.

KEY CONCEPT



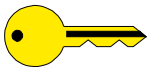
*It is very important that all input / output connections be made utilizing high resolution coaxial cables such as the **IN8000 Series**. Proper cable selection is critical to overall system performance, especially when working with high frequency signals and/or long cable runs.*

INSTALLATION

This section offers step-by-step instructions for installing the **IN3055**. A detailed application drawing showing all equipment connections is included on the next page.

1. Turn the computer and computer monitor off. Disconnect the computer monitor (if present) from the video output port on the computer.
2. The **IN3055** utilizes a special loop-through input cable, the **IN9041**, which has a single male 15 pin HD connector on one end and a double headed (male and female) connector on the loop-through end. Connect the **male side** of the **IN9041** loop-through input connector to the computer's video output port.
3. Connect the local computer monitor (if present) to the **female side** of the **IN9041** loop-through connector.

KEY CONCEPT



If no local monitor is used, a termination plug must be installed on the female side of the loop-through connector to provide the proper 75 ohm input termination. The **IN9031** 15-pin HD VGA terminator plug (optional) provides 75 ohm termination for the RGB signals and emulates a color VGA monitor.

4. Connect the **IN3055** amplified outputs to the various data displays' RGB analog inputs using the appropriate high resolution coaxial cable such as the IN8000 Series or the IN9045. Unused outputs do not need to be terminated.
5. Connect the round connector on the 9V power supply to the POWER input jack (located next to Output #4). Connect the power adapter box side of the power supply to the A/C power source.
6. Complete the installation by turning the computer and computer monitor on.

INTERNAL JUMPERS

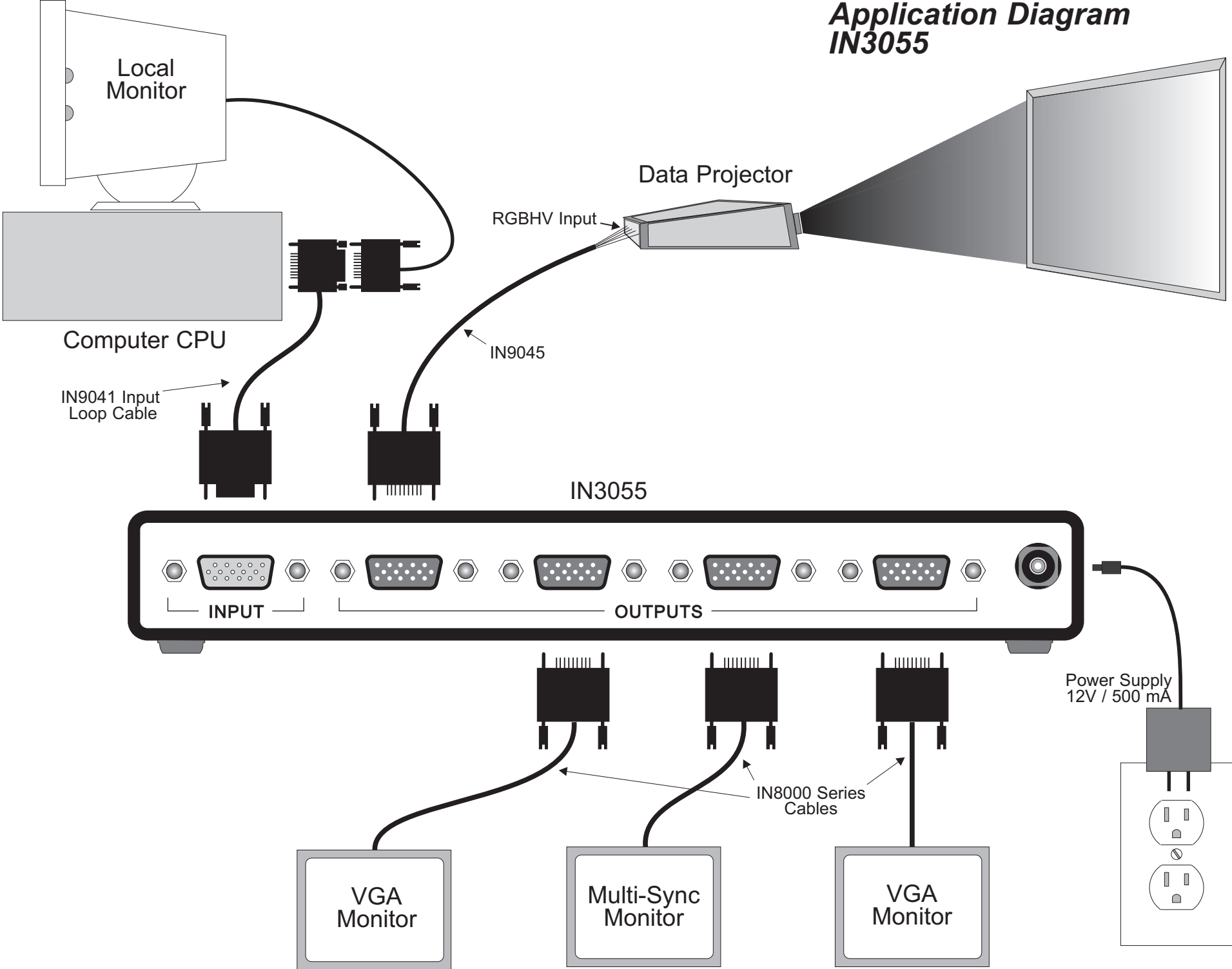
The **IN3055** has three internal jumpers which affect the termination of the Red, Green, and Blue input signals. In normal installations, the **IN9041** loop-through input cable (included with the unit) should be used on the input connector and either a local monitor or termination plug is attached to the female side of the loop-through cable. Certain applications may call for the **IN3055** to be installed without the **IN9041** loop-through input cable. In this case, the **IN3055** internal jumpers should be set to provide a 75 ohm input termination as described below.

1. Remove power from the unit. Remove the two bottom case screws. Slide off the top cover.
2. Gently unplug the internal input cable by pulling up on the connector. Note the orientation of the connector so you can return the cable to the same position after adjusting the jumpers.
3. Position jumpers **JP1**, **JP2**, and **JP3** to terminated or unterminated as required:

Jumpers Open	Red/Green/Blue Unterminated (<i>Factory Default setting</i>)
Jumpers Closed	Red/Green/Blue Terminated to 75 ohms
4. Gently replug the input cable.
5. Replace the top cover and tighten the two bottom case screws.

Please note that these jumpers provide termination but no monitor emulation (ID bits).

Application Diagram IN3055



SPECIFICATIONS

IN3055 1 x 4 VGA Distribution Amplifier	
Input	
Connector type	15 pin HD Male
RGB Signals	Analog Video 1.5V p-p max. 75 ohm impedance
Sync Signals	TTL H & V Sync
Outputs	
Connector type	15-Pin HD Female
RGB Signals	Analog Video
Gain	1.1
Bandwidth	100 MHz @ -3dB
Sync Signals	Separate Horizontal and Vertical TTL Sync. Unit passes sync in the same format as the input signal with sync polarities preserved.
Dimensions	
Power	9V 500 mA DC
Size	Height: 1.0" Width: 7.7" Depth: 4.0"
Shipping Weight	3 lb.

Parts & Accessories Included	
	IN3055 1 x 4 VGA Distribution Amplifier IN9041 Loop-Through Input Cable 9V 500 mA Power Supply Operations Manual

Optional Accessories	
Input / Output Cables	IN8000 Series High Resolution Mini-Coax Cables w/ 15-Pin HD Connectors, available in a variety of lengths from 6' - 100' IN9045 15 Pin HD Male to 5 - Male BNC, 12' long
Termination Plug	IN9031 15 Pin HD Male VGA Termination Plug, provides 75 ohm termination for RGB signals, emulates a color VGA monitor

TROUBLESHOOTING

A display device connected to one of the IN3055 outputs has a bad/scrambled image.

Solution 1: The display device connected to the distribution amplifier may not be compatible with the computer's video output. *Many LCD panels and data monitors will not display signals at resolutions higher than 640 x 480 and horizontal scan rates higher than 36 KHz.* Make sure you know what resolution mode the computer video card is set to output. Standard VGA runs at 31.5 KHz, but SVGA can be as high as 48 - 58 KHz with newer modes such as 1600 x 1200 running at 79 KHz!

Solution 2: The output cable may have a bad sync line. Try another cable.

The output image is missing a color.

Solution: The output cable may be bad. Check both ends of the cable to see if any of the pins are bent or missing. Also inspect the cable to see if the coax may have been pinched or severed internally. Try another cable.

Output image is ghosting.

Solution: The IN3055 is designed to plug directly into the computer's graphic card and a short (6 to 12 ft) monitor cable attached to the loop-through (IN9041) output. An extension cable for the input or a very long cable on the local monitor may cause this problem. The IN3055 must be located immediately adjacent to the source computer. Do not attempt to lengthen the input cable.

The output image of the IN3055 is too bright/blooming.

Solution: There needs to be a termination on the loop-through output. Use a local monitor or an IN9031 termination plug to provide the necessary 75 ohm termination.

When using the IN3055 with no local monitor, the computer output is black and white when it should be color.

Solution: There needs to be a termination on the loop-through so that the computer video card will configure itself for color VGA mode at boot-up. Use a local monitor or the IN9031 termination plug.

The output image of the IN3055 is visible but has poor quality / low definition.

Solution: The output cables may be too long or of poor quality. INLINE offers the IN8000 Series High Resolution Mini-Coax cables in a variety of lengths. This type of cable can be used to transmit VGA signals 75 to 100 feet or more depending on the signal scan rate.

When using the IN3055 with a laptop computer there is no output image.

Solution 1: An IN9031 termination plug should be used on the female side of the loop-through cable.

Solution 2: Many laptop computers (especially older units) require a keystroke combination in order to activate the external VGA video port. Check the laptop owner's manual.

WARRANTY

- ◆ 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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