Operation Manual

IN2067 RGBS to RGsB Sync Combiner

IN2069 RGsB to RsGsBs Sync Combiner

Installation and Safety Instructions

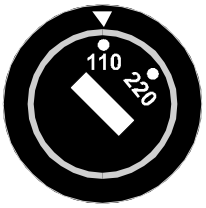
For Models without a Power Switch:

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

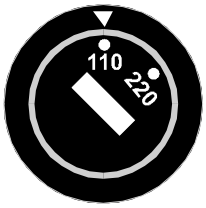
Pour les modèles sans interrupteur de courant:

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 veillaut 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 viguer.

Installations und Sicherheitshinweise

Für Geräte ohne Netzschalter:
Die Netzsteckdose soll in de Nähe des Gerätes installiert und frei zugänglich sein.

Für Geräte mit 110 / 220V Spannungswähler:

Achtung: Bevor Sie dem Gerät Spann ung 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 Ihr es 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 erstzen 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 linea 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 cambia vía redondo localizado cerca de la conexión electrica, como se ve en el dibujo:

Use un destornillador comun 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 esta 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 tecnico 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 Bateria de Lithiun Interna:
Precaución: Peligro de explosión si la batería es reemplacada 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.

CE

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 **IN2067** and **IN2069** are high resolution sync processors. The **IN2067** is a specialized sync combiner designed to convert RGBS video signals to either RGsB (sync on green) or RsGsBs (sync on all). This allows an RGBS signal to be used with a monitor, projector, or other output device which will only accept an RGsB signal. The **IN2067** is also employed in installations where an RGBS signal must be converted to RGsB or RsGsBs in order to be transmitted on three coaxial cables. The **IN2069** is a sync combiner which accepts an RGsB input and converts it to an RsGsBs output. The **IN2069** is ideal for use with fiber optic drivers and other applications where an RGsB signal must be converted to RsGsBs.

COMPATIBILITY

The **IN2067** and **IN2069** offer a video bandwidth of 150 MHz, ensuring input compatibility with analog video signals over a wide range of horizontal scan rates. Each unit requires a specific input signal format:

IN2067 - Input signals must be analog video with separate composite sync (RGBS).
IN2069 - Input signals must be analog video with composite sync combined on the green signal (RGsB).

INSTALLATION

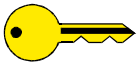
1. **IN2067** - Connect the Red, Green, Blue and Composite Sync signals from the source equipment to the RGBS input connectors.
   IN2069 - Connect the Red, Green with Sync and Blue signals from the source equipment to the RGsB input.

2. Connect the **IN2067 / IN2069** RGsB output to the RGsB or RsGsBs input on the display device, fiber optic drivers, or other output equipment.

3. Connect the 9V 200 mA power supply between the **IN2067 / IN2069** power input and an A/C power source.

4. If required, adjust the internal sync level control (see INTERNAL CONTROLS).

KEY CONCEPT

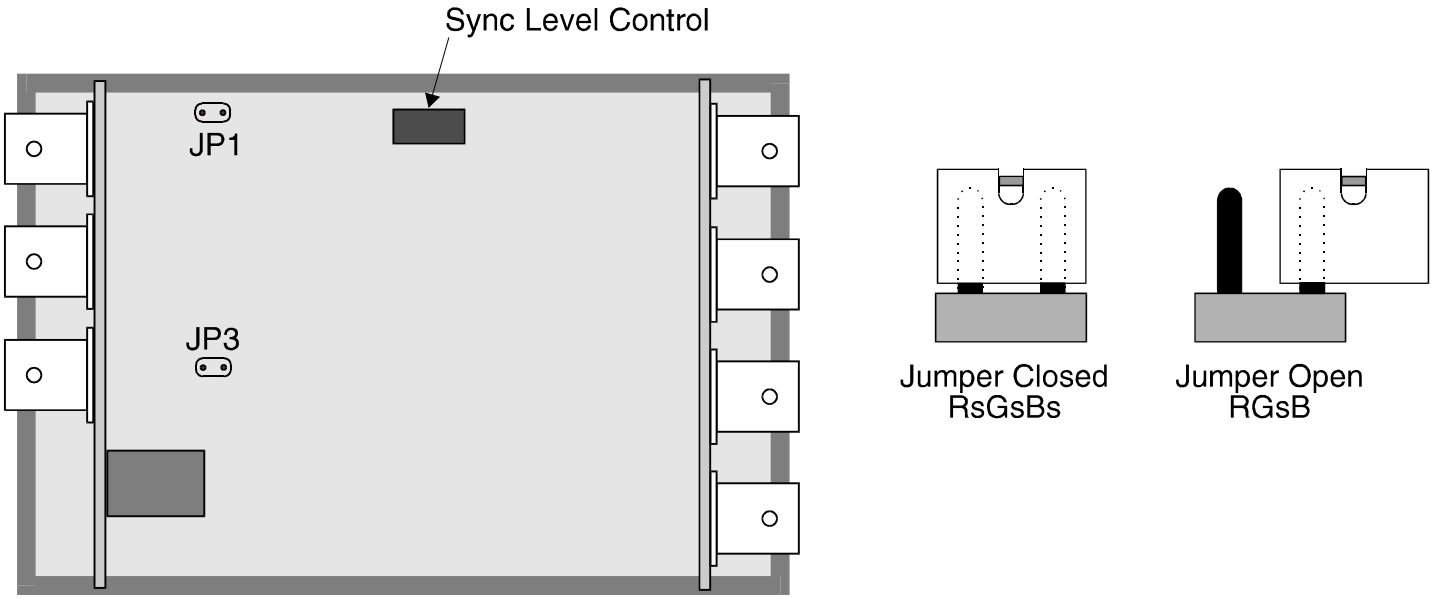


*Cable selection is critical to total system performance especially if the video signals have very high horizontal scan rates or will be transmitted on long cable runs. All input and output connections should be made using high resolution coaxial cables. The **IN7200 Series** ultra high resolution and **IN7300 Series** super high resolution cables are ideally suited for this purpose.*

INTERNAL CONTROLS

Users will generally find that the **IN2067 / IN2069** factory default adjustments and jumper settings are correct for the majority of installations, and will not have to open the case or adjust the internal controls. The location and adjustment procedures for the internal controls is contained in the section below.

IN2067 / IN2069 INTERNAL CONTROLS



Sync Level Control
This control adjusts the sync amplitude on the output green with sync signal. The location of the Sync Level Control is shown in the diagram above. The following procedure is recommended if the sync level control requires adjustment.

1. Remove the screw on the bottom of the unit and slide the top cover off.
2. Gently adjust the sync level control until the desired level is obtained using a small tweeker tool:
   Adjust the control clockwise to increase the sync.
   Adjust the control counter-clockwise to decrease the sync.
3. Replace the top cover and tighten the case screw.

Jumpers (IN2067 Only)
The factory default output setting for the **IN2067** is sync on green (RGsB). Users who require an RsGsBs output signal may use the following procedure to change the output sync format:

1. Unplug the power from the unit.
2. Remove the screw on the bottom of the unit and slide the top cover off.
3. Gently remove the jumper connectors from jumpers **JP1** and **JP3** (see diagram above).
4. Replace the jumpers, repositioning them to the left so that they contact both jumper prongs.
5. Replace top cover and tighten screw.

SPECIFICATIONS

	IN2067 RGBS to RGsB	IN2069 RGsB to RsGsBs
Input		
Connector type	4 - BNC Female	3 - BNC Female
RGB Signals	RGB Analog, 1.5V p-p max., 75 ohm impedance	
Sync	0.3 to 5V p-p	
Output		
Connector Type	3 - BNC Female	3 - BNC Female
RGB Signals	Analog Video, 75 ohm impedance	
Bandwidth	150 MHz @ -3 dB	
Rise and Fall Times	2.6 nano seconds	
Dimensions		
Size	1" x 4.1" x 2.8"	
Weight	1 lb.	
Power Consumption	9V 200 mA	
Accessories Included		
	IN2067 Sync Combiner **IN9202** 9V 200 mA Power Supply Operation Manual	**IN2069** Sync Combiner **IN9202** 9V 200 mA Power Supply Operation 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 merchantibility or fitness for any particular purpose, all of which are expressly disclaimed.**

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(800) 882-7117 ♦ (714) 921-4100 ♦ FAX (714) 921-4160 ♦ www.inlineinc.com