

Mini-Converter

3GM

Installation & Operation Guide

Version 1.5

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AJA[®]
VIDEO SYSTEMS

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Notices

Trademarks

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Copyright

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Contacting Support

When calling for support, have all information at hand prior to calling.

To contact AJA Video for sales or support, use any of the following methods:

Telephone: +1.530.271.3190

FAX: +1.530.271.3140

Web: <http://www.aja.com>

Support Email: support@aja.com

Sales Email: sales@aja.com

Chapter 1: 3GM – 3G/1.5G HD-SDI Multiplexer

Overview

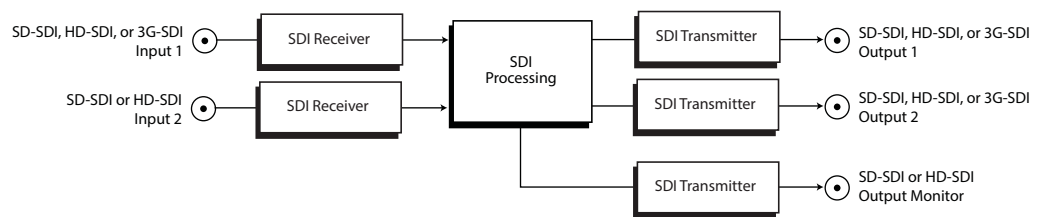
The 3GM is a versatile and economical tool for interconnecting dual-link 1.5G SMPTE372M and 3G SMPTE425M. 3GM is bi-directional, allowing dual 1.5G to 3G or 3G to dual 1.5G conversion. Additionally, 3GM's 3G HD-SDI output is configurable for SMPTE425M type A or B. The 3GM can even convert 3G from/to type A or B. 3GM also provides a monitor output which is a single link SMPTE292M 1.5G HD-SDI. The 3GM is compatible with SMPTE259M 270Mb SDI.

Features

- Compact 3G to/from 1.5G conversion
- SMPTE425M-AB inputs, 3G outputs configurable to A or B
- Converts SMPTE425M A to/from SMPTE425M B
- Provides SMPTE292 monitor output for dual 1.5G or 3G inputs
- Fully equalizing and re-clocking with jitter attenuation
- Passes all ancillary data

Block Diagram

Figure 1. 3GM, Simplified Block Diagram



I/O Connections



NOTE: The Lock LED indicates valid input video by color. Green is SD video, red is HD/Dual Link video, amber is 3G video, off is no input.

User Controls

The user interface for the 3GM is an 8-position DIP switch accessible through a cut-out in the bottom of the unit.

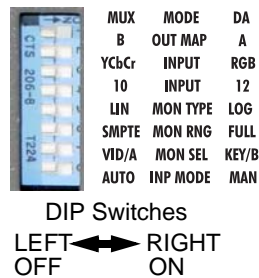


Table 1. 3GM DIP Switch Settings

Switch	FUNCTION	LEFT	RIGHT
1	MODE: Multiplex or DA	<p>MUX: Converts between Dual-link (SMPTE 372M) and 3G (SMPTE 425M).</p> <p>A Dual-Link input results in a 3G output (mode A or B).</p> <p>A 3G-SDI input (mode A or B) results in a Dual-Link output</p>	<p>DA: Places device in distribution amplifier mode.</p> <p>A Dual-Link input results in a Dual-Link output</p> <p>A 3G-SDI input results in a 3G output (either in mode A or B).</p>
		<p>Note: In both cases, the monitor output for a 3G or Dual-Link input will be a downconverted HD (SMPTE 292M compliant) output.</p> <p>Note: In both cases, if a single HD or SD SDI signal is fed to the Link A input connector, 3GM enters DA mode and routes that SDI input signal to all three output connectors.</p>	
2	OUT MAP: 3G A or 3G B output map (when set to output 3G)	<p>B: Selects 3G B output mapping. 3G output is set to the B mapping structure.</p>	<p>A: Selects 3G A output mapping. 3G output is set to the A mapping structure.</p>
3	INPUT: Input signal color space: YCbCr/RGB	<p>YCbCr: If Dipswitch 8 is set to <i>Manual</i> or there is no payload ID, the 3GM will behave as if the input video is in the YC color space.</p>	<p>RGB: If Dipswitch 8 is set to <i>Manual</i> or there is no payload ID, the 3GM will behave as if the input video is in the RGB color space.</p>
		<p>Note: In both cases, if payload ID is present and Dipswitch 8 is set to <i>Auto</i>, the 3GM uses the video specifications in the payload ID.</p>	
4	INPUT: Input signal bit depth: 10 or 12-bit	<p>10-Bit: If Dipswitch 8 is set to <i>Manual</i> or there is no payload ID, the 3GM will behave as if the input video is 10-bit.</p>	<p>12-Bit: If Dipswitch 8 is set to <i>Manual</i> or there is no payload ID, the 3GM will behave as if the input video is 12-bit.</p>
		<p>NOTE: In both cases if payload ID is present and Dipswitch 8 is set to <i>Auto</i>, the 3GM uses the video specifications in the payload ID.</p>	

Table 1. 3GM DIP Switch Settings

Switch	FUNCTION	LEFT	RIGHT
5	MON TYPE: Linear or log color	LIN: Configure input video as linear color. Will colorspace convert and resample as needed.	LOG: Configure input video as logarithmic color. Will perform a 10-bit Cineon to 8-bit linear conversion before colorspace converting and resampling the monitor output.
		Note: Switches 5, 6, and 7 only affect the monitor output. This switch has no effect on the primary outputs.	
6	MON RNG: SMPTE or Full range color values	SMPTE: Defines input video as SMPTE color range (040h-3ACh).	FULL: Defines input video as FULL color range (004h- 3FBh).
		Note: Switches 5, 6, and 7 only affect the monitor output. This switch has no effect on the primary outputs.	
7	MON SEL: Video or Key for Monitor output	VID/A: For video input with an Alpha channel, this sets the monitor output to Video in the case of 4:4:4:4 video input. For video input without an Alpha channel, this sets the monitor output to be Link A.	KEY/B: For video input with an Alpha channel, this sets monitor output to the Alpha (key) in the case of 4:4:4:4 video input. For video input without an Alpha channel, this sets the monitor output to be Link B.
		Note: Switches 5, 6, and 7 only affect the monitor output. This switch has no effect on the primary outputs.	
8	INP MODE: Automatic or Manual Setup	AUTO: If payload ID is present, the 3GM uses data from the payload ID information to set color space and bit depth (switches 3 and 4). If payload ID is not present, the 3GM reverts to switches 3 and 4 for input information.	MAN: The 3GM uses switches 3 and 4 for color space and bit depth, regardless of whether payload ID is present or not.

Installation

In normal operation the 3GM uses between 4 and 6 watts of power. Because it is designed to use the outer case and the attached cables for heat dissipation, the case can feel warm to the touch. This is normal. Although the 3GM has been tested for proper operation in an ambient temperature up to 45 degrees Celsius (113 F), it is recommended to not position the 3GM in close proximity to other warm surfaces or airflow.

To install, connect BNC cables to the desired source and destination devices and apply power to the converter (AJA power supply included).

Appendix A: Specifications

Video

Input	SDI - 3G/HD/SD-SDI, SMPTE-259/292/296/424/425, 2x BNC
Formats	3Gb, 1.5Gb, 270Mb Auto Select See Table 2, "3GM Video Format Support," on page 8 for details.
Output	SDI - 3G/HD/SD-SDI, SMPTE-259/292/296/424/425, 3x BNC
Cable Equalization	(1694 coax) <ul style="list-style-type: none">• 270mb, 350m• 1.5Gb, 200m• 3Gb, 120m
Input/Output Return Loss	>15db, 270Mb - 3Gb

Audio

Input	Up to 32-channel embedded SDI audio input <ul style="list-style-type: none">• (3G-A, HD, SD only 16-ch supported)
Output	Up to 32-channel embedded SDI audio output <ul style="list-style-type: none">• (3G-A, HD, SD only 16-ch supported)

User Controls

External DIP switch

Physical

Size	4.6" x 2.4" x 1" (117 x 61 x 25 mm)
Power	Uses AJA Power Supply model DWP-U-R1 (included) 100-240V, 50/60Hz Universal Input +5V DC regulated, 7.5 watt capacity
NOTE:	<i>3GM is not recommended for use with AJA DRM chassis rackmount kit.</i>

Table 2. 3GM Video Format Support

Video Format Support

Video Formats (SMPTE 372/425)				Monitor output Formats					
Image Size	Signal format	Pixel Depth	Frame/Field Rates	Color Space Convert	Chroma Resample	Image Format	Signal Format	Pixel Depth	Frame/Field Rates
1920x1080 2048x1080	4:2:2 YCbCr	10 bit	60, 59.94, 50, 48, and 47.95 progressive	No	No	1920x1080	4:2:2 (YCbCr)	10 bit	60, 59.94, 50, 48, and 47.95 interlaced
1280x720	4:4:4:4 (RGB+A) (Alpha opt.)	10 bit	60, 59.94 and 50 progressive 30, 29.97, 25, 24, 23.98 progressive (Note 1)	Yes	Yes	1280x720	4:2:2 (YCbCr) 4:2:2 (A opt.)	10 bit	60, 59.94 and 50 progressive 30, 29.97, 25, 24, 23.98 progressive
1280x720	4:4:4:4 (YCbCr+A) (Alpha opt.)	10 bit	60, 59.94 and 50 progressive 30, 29.97, 25, 24, 23.98 progressive (Note 1)	No	Yes	1280x720	4:2:2 (YCbCr) 4:2:2 (A opt.)	10 bit	60, 59.94 and 50 progressive 30, 29.97, 25, 24, 23.98 progressive
1920x1080 2048x1080	4:4:4:4 (RGB+A) (Alpha opt.)	10 bit	60, 59.94 and 50 interlaced 30, 29.97, 25, 24, 23.98 progressive	Yes	Yes	1920x1080 2048x1080	4:2:2 (YCbCr) 4:2:2 (A opt.)	10 bit	60, 59.94 and 50 interlaced 30, 29.97, 25, 24, 23.98 progressive
1920x1080 2048x1080	4:4:4:4 (YCbCr+A) (Alpha opt.)	10 bit	60, 59.94 and 50 interlaced 30, 29.97, 25, 24, 23.98 progressive	No	Yes	1920x1080 2048x1080	4:2:2 (YCbCr) 4:2:2 (A opt.)	10 bit	60, 59.94 and 50 interlaced 30, 29.97, 25, 24, 23.98 progressive
1920x1080 2048x1080	4:4:4 (RGB)	12 bit	60, 59.94 and 50 interlaced 30, 29.97, 25, 24, 23.98 progressive	Yes	Yes	1920x1080 2048x1080	4:2:2 (YCbCr)	10 bit	60, 59.94 and 50 interlaced 30, 29.97, 25, 24, 23.98 progressive
1920x1080 2048x1080	4:4:4 (YCbCr)	12 bit	60, 59.94 and 50 interlaced 30, 29.97, 25, 24, 23.98 progressive	No	Yes	1920x1080 2048x1080	4:2:2 (YCbCr)	10 bit	60, 59.94 and 50 interlaced 30, 29.97, 25, 24, 23.98 progressive
1920x1080 2048x1080	4:4:4 (XYZ)	12 bit	48 interlaced 24 progressive	NOT SUPPORTED					
1920x1080 (Note 2)	4:2:2:4 (YCbCr+A) (Alpha opt.)	12 bit	60, 59.94 and 50 interlaced 30, 29.97, 25, 24, 23.98 progressive	No	No	1920x1080	4:2:2 (YCbCr) 4:2:2 (A opt.)	10 bit	60, 59.94 and 50 interlaced 30, 29.97, 25, 24, 23.98 progressive

Note 1: Not supported in 3G-A
 Note 2: Only supported in 3G-A with proper payload ID

Not Supported

Appendix B: Safety and Compliance

Federal Communications Commission (FCC) Compliance Notices

Class A Interference Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15, Subpart B of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Canadian ICES Statement

Canadian Department of Communications Radio Interference Regulations

This digital apparatus does not exceed the Class A limits for radio-noise emissions from a digital apparatus as set out in the Radio Interference Regulations of the Canadian Department of Communications. This Class A digital apparatus complies with Canadian ICES-003.

Règlement sur le brouillage radioélectrique du ministère des Communications

Cet appareil numérique respecte les limites de bruits radioélectriques visant les appareils numériques de classe A prescrites dans le Règlement sur le brouillage radioélectrique du ministère des Communications du Canada. Cet appareil numérique de la Classe A est conforme à la norme NMB-003 du Canada.

European Union and European Free Trade Association (EFTA) Regulatory Compliance

This equipment may be operated in the countries that comprise the member countries of the European Union and the European Free Trade Association. These countries, listed in the following paragraph, are referred to as The European Community throughout this document:

AUSTRIA, BELGIUM, BULGARIA, CYPRUS, CZECH REPUBLIC, DENMARK, ESTONIA, FINLAND, FRANCE, GERMANY, GREECE, HUNGARY, IRELAND, ITALY, LATVIA, LITHUANIA, LUXEMBOURG, MALTA, NETHERLANDS, POLAND, PORTUGAL, ROMANIA, SLOVAKIA, SLOVENIA, SPAIN, SWEDEN, UNITED KINGDOM, ICELAND, LICHTENSTEIN, NORWAY, SWITZERLAND

Declaration of Conformity

Marking by this symbol indicates compliance with the Essential Requirements of the EMC Directive of the European Union 2004/108/EC.



This equipment meets the following conformance standards:

Safety: CB- IEC 60065:2001 + A1:2005
NRTL - UL 60065:2003 R11.06, CSA C22.2 NO. 60065:2003 + A1:06
GS - EN 60065:2002 + A1
Additional licenses issued for specific countries available on request.

Emissions: EN 55103-1: 1996
EN61000-3-2:2006, EN61000-3-3:1995 +A1:2001 +A2:2005

Immunity: EN 55103-2: 1996
EN61000-4-2:1995 + A1:1999 + A2:2001, EN61000-4-3:2006, EN61000-4-4:2004,
EN 61000-4-5: 2005, EN 610004-6:2007, EN61000-4-11:2004

The product is also licensed for additional country specific standards as required for the International Marketplace.



Warning!

This is a Class A product. In a domestic environment, this product may cause radio interference, in which case, the user may be required to take appropriate measures.

Achtung! Dieses ist ein Gerät der Funkstörgrenzwertklasse A. In Wohnbereichen können bei Betrieb dieses Gerätes Rundfunkstörungen auftreten, in welchen Fällen der Benutzer für entsprechende Gegenmaßnahmen verantwortlich ist.

Attention! Ceci est un produit de Classe A. Dans un environnement domestique, ce produit risque de créer des interférences radioélectriques, il appartiendra alors à l'utilisateur de prendre les mesures spécifiques appropriées.

Korean KCC Compliance Statement

A급 기기 (업무용 방송통신기자재)	이 기기는 업무용(A급) 전자파적합기기로서 판매자 또는 사용자는 이 점을 주의하시기 바라며, 가정외의 지역에서 사용하는 것을 목적으로 합니다.
Class A (Broadcasting Communication Equipment for Office Use)	As an electromagnetic wave equipment for office use (Class A), this equipment is intended to use in other than home area. Sellers or users need to take note of this.

Taiwan Compliance Statement

警告使用者：
這是甲類的資訊產品，在居住的環境中使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當的對策。

This is a Class A product based on the standard of the Bureau of Standards, Metrology and Inspection (BSMI) CNS 13438, Class A.

Japanese Compliance Statement

1. Class A ITE

この装置は、クラスA 情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。V C C I - A

This is a Class A product based on the standard of the VCCI Council (VCCI V-3/2008.04). If this equipment is used in a domestic environment, radio interference may occur, in which case, the user may be required to take corrective actions.

Translated Warning and Caution Messages

The following caution statements, warning conventions, and warning messages apply to this product and manual.





Warning Symbol



Caution Symbol

Before Operation Please Read These Instructions

	<p>Warning! Read and follow all warning notices and instructions marked on the product or included in the documentation.</p> <p>Avertissement ! Lisez et conformez-vous à tous les avis et instructions d'avertissement indiqués sur le produit ou dans la documentation.</p> <p>Warnung! Lesen und befolgen Sie die Warnhinweise und Anweisungen, die auf dem Produkt angebracht oder in der Dokumentation enthalten sind.</p> <p>¡Advertencia! Lea y siga todas las instrucciones y advertencias marcadas en el producto o incluidas en la documentación.</p> <p>Aviso! Leia e siga todos os avisos e instruções assinalados no produto ou incluídos na documentação.</p> <p>Avviso! Leggere e seguire tutti gli avvisi e le istruzioni presenti sul prodotto o inclusi nella documentazione.</p>
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	<p>Warning! Do not use this device near water and clean only with a dry cloth.</p> <p>Avertissement! N'utilisez pas cet appareil près de l'eau et nettoyez-le seulement avec un tissu sec.</p> <p>Warnung! Das Gerät nicht in der Nähe von Wasser verwenden und nur mit einem trockenen Tuch säubern.</p> <p>¡Advertencia! No utilice este dispositivo cerca del agua y límpielo solamente con un paño seco.</p> <p>Aviso! Não utilize este dispositivo perto da água e limpe-o somente com um pano seco.</p> <p>Avviso! Non utilizzare questo dispositivo vicino all'acqua e pulirlo soltanto con un panno asciutto.</p>
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**Warning!**

Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

Avertissement ! Ne bloquez aucune ouverture de ventilation. Suivez les instructions du fabricant lors de l'installation.

Warnung! Die Lüftungsöffnungen dürfen nicht blockiert werden. Nur gemäß den Anweisungen des Herstellers installieren.

¡Advertencia! No bloquee ninguna de las aberturas de la ventilación. Instale de acuerdo con las instrucciones del fabricante.

Aviso! Não obstrua nenhuma das aberturas de ventilação. Instale de acordo com as instruções do fabricante.

Avviso! Non ostruire le aperture di ventilazione. Installare in conformità con le istruzioni del fornitore.

**Warning!**

Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

Avertissement ! N'installez pas l'appareil près d'une source de chaleur telle que des radiateurs, des bouches d'air de chauffage, des fourneaux ou d'autres appareils (amplificateurs compris) qui produisent de la chaleur.

Warnung! Nicht in der Nähe von Wärmequellen wie Heizkörpern, Heizregistern, Öfen oder anderen Wärme erzeugenden Geräten (einschließlich Verstärkern) aufstellen.

¡Advertencia! No instale cerca de fuentes de calor tales como radiadores, registros de calor, estufas u otros aparatos (incluidos amplificadores) que generan calor.

Aviso! Não instale perto de nenhuma fonte de calor tal como radiadores, saídas de calor, fogões ou outros aparelhos (incluindo amplificadores) que produzam calor.

Avviso! Non installare vicino a fonti di calore come termosifoni, diffusori di aria calda, stufe o altri apparecchi (amplificatori compresi) che emettono calore.

**Warning!**

Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

Avertissement! La sécurité de la prise polarisée ou de la prise de type mise à la terre ne doit en aucun cas être empêchée de fonctionner. Une prise polarisée a deux broches, l'une étant plus large que l'autre. Une prise de type mise à la terre a deux broches et une troisième broche pour la mise à la terre. La broche large ou la troisième broche sont fournies pour votre sécurité. Si la prise fournie ne s'insère pas dans votre prise femelle, consultez un électricien pour le remplacement de la prise femelle obsolète.

Warnung! Der Sicherheitszweck des gepolten bzw. Schukosteckers ist zu berücksichtigen. Ein gepolter Stecker verfügt über zwei Pole, von denen einer breiter als der andere ist. Ein Schukostecker verfügt neben den zwei Polen noch über einen dritten Pol zur Erdung. Der breite Pol bzw. der Erdungspol dienen der Sicherheit. Wenn der zur Verfügung gestellte Stecker nicht in Ihren Anschluss passt, konsultieren Sie einen Elektriker, um den veralteten Anschluss zu ersetzen.

¡Advertencia! No eche por tierra la finalidad del tipo de enchufe polarizado con conexión a tierra. Un enchufe polarizado tiene dos espigas, una más ancha que la otra. Un enchufe con conexión a tierra tiene dos espigas iguales y una tercera espiga que sirve para la conexión a tierra. La espiga ancha, o la tercera espiga, sirven para su seguridad. Si el enchufe suministrado no encaja en el tomacorriente, consulte con un electricista para reemplazar el tomacorriente obsoleto.

Aviso! Não anule a finalidade da segurança da ficha polarizada ou do tipo ligação terra. Uma ficha polarizada tem duas lâminas sendo uma mais larga do que a outra. Uma ficha do tipo de ligação à terra tem duas lâminas e um terceiro terminal de ligação à terra. A lâmina larga ou o terceiro terminal são fornecidos para sua segurança. Se a ficha fornecida não couber na sua tomada, consulte um electricista para a substituição da tomada obsoleta.

Avviso! Non compromettere la sicurezza della spina polarizzata o con messa a terra. Una spina polarizzata ha due spinotti, di cui uno più largo. Una spina con messa a terra ha due spinotti e un terzo polo per la messa a terra. Lo spinotto largo o il terzo polo sono forniti per motivi di sicurezza. Se la spina fornita non si inserisce nella presa di corrente, contattare un elettricista per la sostituzione della presa obsoleta.

**Warning!**

Since the Mains plug is used as the disconnection for the device, it must remain readily accessible and operable.

Avertissement! Puisque la prise principale est utilisée pour débrancher l'appareil, elle doit rester aisément accessible et fonctionnelle.

Warnung! Da der Netzstecker als Trennvorrichtung dient, muss er stets zugänglich und funktionsfähig sein.

¡Advertencia! Puesto que el enchufe de la red eléctrica se utiliza como dispositivo de desconexión, debe seguir siendo fácilmente accesible y operable.

Aviso! Dado que a ficha principal é utilizada como a desconexão para o dispositivo, esta deve manter-se prontamente acessível e funcional.

Avviso! Poiché il cavo di alimentazione viene usato come dispositivo di sconnessione, deve rimanere prontamente accessibile e operabile.

**Warning!**

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the device.

Avertissement! Protégez le cordon d'alimentation pour que l'on ne marche pas dessus ou qu'on le pince, en particulier au niveau des prises mâles, des réceptacles de convenance, et à l'endroit où il sort de l'appareil.

Warnung! Vermeiden Sie, dass auf das Netzkabel getreten oder das Kabel geknickt wird, insbesondere an den Steckern, den Steckdosen und am Kabelausgang am Gerät.

¡Advertencia! Proteja el cable de energía para que no se le pise ni apriete, en especial cerca del enchufe, los receptáculos de conveniencia y el punto del que salen del equipo.

Aviso! Proteja o cabo de alimentação de ser pisado ou de ser comprimido particularmente nas fichas, em tomadas de parede de conveniência e no ponto de onde sai do dispositivo.

Avviso! Proteggere il cavo di alimentazione in modo che nessuno ci cammini sopra e che non venga schiacciato soprattutto in corrispondenza delle spine e del punto in cui esce dal dispositivo.

**Warning!**

Unplug this device during lightning storms or when unused for long periods of time.

Avertissement! Débranchez cet appareil pendant les orages avec éclairso s'il est inutilisé pendant de longues périodes.

Warnung! Das Gerät ist bei Gewitterstürmen oder wenn es über lange Zeiträume ungenutzt bleibt vom Netz zu trennen.

¡Advertencia! Desenchufe este dispositivo durante tormentas eléctricas o cuando no se lo utilice por largos periodos del tiempo.

Aviso! Desconecte este dispositivo da tomada durante trovoadas ou quando não é utilizado durante longos períodos de tempo.

Avviso! Utilizzare soltanto i collegamenti e gli accessori specificati e/o venduti dal produttore, quali il treppiedi e l'esoscheletro.

**Warning!**

Refer all servicing to qualified service personnel. Servicing is required when the device has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the device, the device has been exposed to rain or moisture, does not operate normally, or has been dropped.

Avertissement ! Référéz-vous au personnel de service qualifié pour tout entretien. L'entretien est exigé quand l'appareil a été endommagé de quelque manière que ce soit, par exemple lorsque le cordon d'alimentation ou la prise sont endommagés, que du liquide a été versé ou des objets sont tombés dans l'appareil, que l'appareil a été exposé à la pluie ou à l'humidité, ne fonctionne pas normalement ou est tombé.

Warnung! Das Gerät sollte nur von qualifizierten Fachkräften gewartet werden. Eine Wartung ist fällig, wenn das Gerät in irgendeiner Weise beschädigt wurde, wie bei beschädigtem Netzkabel oder Netzstecker, falls Flüssigkeiten oder Objekte in das Gerät gelangen, das Gerät Regen oder Feuchtigkeit ausgesetzt wurde, nicht ordnungsgemäß funktioniert oder fallen gelassen wurde.

¡Advertencia! Consulte al personal calificado por cuestiones de reparación. El servicio de reparación se requiere cuando el dispositivo ha recibido cualquier tipo de daño, por ejemplo cable o espigas dañadas, se ha derramado líquido o se han caído objetos dentro del dispositivo, el dispositivo ha sido expuesto a la lluvia o humedad, o no funciona de modo normal, o se ha caído.

Aviso! Remeta todos os serviços de manutenção para o pessoal de assistência qualificado. A prestação de serviços de manutenção é exigida quando o dispositivo foi danificado mediante qualquer forma, como um cabo de alimentação ou ficha que se encontra danificado/a, quando foi derramado líquido ou caíram objectos sobre o dispositivo, quando o dispositivo foi exposto à chuva ou à humidade, quando não funciona normalmente ou quando foi deixado cair.

Avviso! Fare riferimento al personale qualificato per tutti gli interventi di assistenza. L'assistenza è necessaria quando il dispositivo è stato danneggiato in qualche modo, ad esempio se il cavo di alimentazione o la spina sono danneggiati, è stato rovesciato del liquido è stato rovesciato o qualche oggetto è caduto nel dispositivo, il dispositivo è stato esposto a pioggia o umidità, non funziona correttamente o è caduto.

**Warning!**

This device is a Class A product. Operation of this equipment in a residential area is likely to cause harmful interference, in which case users will be required to take whatever measures may be necessary to correct the interference at their own expense.

Attention! Le périphérique est un produit de Classe A. Le fonctionnement de cet équipement dans une zone résidentielle risque de causer des interférences nuisibles, auquel cas l'utilisateur devra y remédier à ses propres frais.

Achtung! Dies ist ein Gerät der Klasse A. Bei Einsatz des Geräts in Wohngebieten kann es Störungen des Radio- und Fernsehempfangs verursachen. In diesem Fall muss der Benutzer alle notwendigen Maßnahmen ergreifen, die möglicherweise nötig sind, um die Störungen auf eigene Rechnung zu beheben.

¡Precaución! Este es un producto clase A. El uso de este equipo en áreas residenciales puede causar interferencias nocivas, en cuyo caso, se requerirá que los usuarios tomen cualquier medida necesaria para corregir la interferencia por cuenta propia.

Cuidado! Este dispositivo é um produto Classe A. Operar este equipamento em uma área residencial provavelmente causará interferência prejudicial; neste caso, espera-se que os usuários tomem as medidas necessárias para corrigir a interferência por sua própria conta.

Attenzione! Questo dispositivo è un prodotto di Classe A. Il funzionamento di questo apparecchio in aree residenziali potrebbe causare interferenze dannose, nel cui caso agli utenti verrà richiesto di adottare tutte le misure necessarie per porre rimedio alle interferenze a proprie spese.

**Warning!**

Do not open the chassis. There are no user-serviceable parts inside. Opening the chassis will void the warranty unless performed by an AJA service center or licensed facility.

Avertissement! Ne pas ouvrir le châssis. Aucun élément à l'intérieur du châssis ne peut être réparé par l'utilisateur. La garantie sera annulée si le châssis est ouvert par toute autre personne qu'un technicien d'un centre de service ou d'un établissement agréé AJA.

Warnung! Öffnen Sie das Gehäuse nicht. Keine der Geräteteile können vom Benutzer gewartet werden. Durch das Öffnen des Gehäuses wird die Garantie hinfällig, es sei denn, solche Wartungsarbeiten werden in einem AJA-Service-Center oder einem lizenzierten Betrieb vorgenommen.

¡Advertencia! No abra el chasis. El interior no contiene piezas reparables por el usuario. El abrir el chasis anulará la garantía a menos que se lo haga en un centro de servicio AJA o en un local autorizado.

Advertência! Não abra o chassi. Não há internamente nenhuma peça que permita manutenção pelo usuário. Abrir o chassi anula a garantia, a menos que a abertura seja realizada por uma central de serviços da AJA ou por um local autorizado.

Avvertenza! Non aprire lo chassis. All'interno non ci sono parti riparabili dall'utente. L'apertura dello chassis invaliderà la garanzia se non viene effettuata da un centro ufficiale o autorizzato AJA.

**Warning!**

Disconnect the external AC power supply line cord(s) from the mains power before moving the unit.

Avertissement! Retirez le ou les cordons d'alimentation en CA de la source d'alimentation principale lorsque vous déplacez l'appareil.

Warnung! Trennen Sie die Wechselstrom-Versorgungskabel vom Netzstrom, bevor Sie das Gerät verschieben.

¡Advertencia! Cuando mueva la unidad desenchufe de la red eléctrica el/los cable(s) de la fuente de alimentación CA tipo brick.

Advertência! Remova os cabos CA de alimentação brick da rede elétrica ao mover a unidade.

Avvertenza! Scollegare il cavo dell'alimentatore quando si sposta l'unità.

Warranty Information

Limited Warranty

AJA Video warrants that this product will be free from defects in materials and workmanship for a period of five years from the date of purchase. If a product proves to be defective during this warranty period, AJA Video, at its option, will either repair the defective product without charge for parts and labor, or will provide a replacement in exchange for the defective product.

In order to obtain service under this warranty, you the Customer, must notify AJA Video of the defect before the expiration of the warranty period and make suitable arrangements for the performance of service. The Customer shall be responsible for packaging and shipping the defective product to a designated service center nominated by AJA Video, with shipping charges prepaid. AJA Video shall pay for the return of the product to the Customer if the shipment is to a location within the country in which the AJA Video service center is located. Customer shall be responsible for paying all shipping charges, insurance, duties, taxes, and any other charges for products returned to any other locations.

This warranty shall not apply to any defect, failure or damage caused by improper use or improper or inadequate maintenance and care. AJA Video shall not be obligated to furnish service under this warranty a) to repair damage resulting from attempts by personnel other than AJA Video representatives to install, repair or service the product, b) to repair damage resulting from improper use or connection to incompatible equipment, c) to repair any damage or malfunction caused by the use of non-AJA Video parts or supplies, or d) to service a product that has been modified or integrated with other products when the effect of such a modification or integration increases the time or difficulty of servicing the product.

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