

Eikos LE



THANK YOU

Thank you for choosing Analog Way. By following these simple steps, you should be able to operate the powerful **Eikos LE (EKS400)**.

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1-1. THE EIKOS LE (EKS400) OPERATING MODES

Before you start setting up your **Eikos LE** for the first time, be sure you know what you actually want to do with it. The **Eikos LE** offers a choice of two operating modes, which results in a versatile video production tool for live event staging and fixed installation applications.

*** NOTE * :** We recommend resetting the device to its default values every time you set up your shows or events (see the “Operating The **Eikos LE**” chapter, p28).

MIXER MODE

This mode allows for a single **Eikos LE** to seamlessly switch and blend any of its 12 analog/digital inputs with any other of the inputs, add PIP, titling or logo insertion to the live frame, while previewing your every move before going live, to avoid embarrassing errors on your main screen. The Mixer mode is the **Eikos LE** native mode, and with no less than 6 layers (of which 3 live layers). The Video output allows to have a full Main screen for recording or broadcasting.

MATRIX MODE

This mode turns your **Eikos LE** into a true 12 x 2 scaled matrix, while preserving seamless switching capabilities. Main and Preview outputs can be set to different resolutions and rates. Switching between any of the inputs can be done with the various effects (Cut, Fade, Slides...) and synchronized on both outputs.

1-2. USEFUL TERMS AND DEFINITIONS

BACKGROUND: a “Background” is a source, typically originating from a computer. **Eikos LE** enables you to work with live or still (frame) background sources - visually in back of all other sources.

LAYER: a “Layer” is an image display element (such as a PIP window, Key, Logo(s) or Background) that has an associated visual priority — either in front (or in back) of another layer.

The **Eikos LE** can simultaneously view no less than 6 layers (3 video, or live layers, 1 frame layer, or background, and 2 logo layers).

Eikos LE can insert up to 2 PIPs on a live background, plus 2 logos.

PIP: a “PIP” (Picture In Picture), is a picture, typically of reduced size, which is positioned over another background image or PIP. PIPs can be reduced, enlarged and bordered. PIPs can overlap, depending on their visual priority.

Eikos LE allows for Dynamic PIP on the opening and closing of the sequence, vertically or horizontally. A “flying” PIP is also possible over the screen with vertical, horizontal or diagonal animation. A PIP is considered as a live layer.

FRAME: a “Frame” is a full screen image which is selected from one of the eight still frames which you can capture with the **Eikos LE**. A Frame can be flash captured and imported from any video or computer source plugged into the machine.

LOGO: a “Logo” is a part of screen image that can be flash captured and imported from any Video or Computer source, by keying or image cut-out. **Eikos LE** can record up to 8 still logos. They can be positioned anywhere on the screen. An animated logo is also available on the eighth input.

KEYING: a “Key” is an electronic process whereby an image is electronically superimposed over another source or background, by cutting out either a color (Chroma Key), or its brightness or luminance levels (Luma Key). Keys are typically used for titles, logos and special effects.

Eikos LE allows to use a live source with green or blue background and to key it over any other live input.

2-1. SAFETY INSTRUCTIONS

SAFETY INSTRUCTIONS

CAUTION:

All of the safety and operating instructions should be read before the product is operated and should be maintained for further reference. Please follow all of the warnings on this product and its operating instructions.

- **WARNING:** To prevent the risk of electric shock and fire, do not expose this device to rain, humidity, intense heat sources (such as heaters and direct sunlight). Slots and openings in the device are provided for ventilation and to avoid overheating. Make sure the device is never placed near a textile surface that could block the openings. Also keep away from excessive dust, vibrations and shocks.
- **POWER:** Only use the power supply indicated on the device of the power source. Devices equipped with a grounding plug should only be used with a grounding type outlet. In no way should this grounding be modified, avoided or suppressed.
- **POWER CORD:** The device is equipped with a main switch (On (I) /Off (O)). The Switch ON and OFF is initiated by the main switch.
 - Caution:** The power cord constitute the only mean to totally disconnect the equipment from the main power.
Apply the following guidelines :
 - The equipment connected to the network must have a release system easily accessible and located outside the unit.
 - Unplug the power cord, do not pull on the power cord but always on the plug itself.
 - The outlet should always be near the device and easily accessible.
 - Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them.

If the power supply cord is damaged, unplug the device. Using the device with a damaged power supply cord may expose your device to electric shocks or other hazards. Verify the condition of the power supply cords once in a while. Contact your dealer or service center for replacement if damaged.

- **CONNECTIONS:** All inputs and outputs (except for the power input) are TBTS defined under EN60950.
- **SERVICING:** Do not attempt to service this product yourself by opening or removing covers and screws since it may expose your device to electric shocks or other hazards. Refer all problems to qualified service personnel.
- **OPENINGS:** Never push objects of any kind into this product through the openings. If liquids have been spilled or objects have fallen into the device, unplug it immediately and have it checked by a qualified technician.

INSTRUCTIONS DE SECURITE

Afin de mieux comprendre le fonctionnement de cet appareil nous vous conseillons de bien lire toutes les consignes de sécurité et de fonctionnement de l'appareil avant utilisation. Conservez les instructions de sécurité et de fonctionnement afin de pouvoir les consulter ultérieurement. Respectez toutes les consignes marquées dans la documentation, sur le produit et sur ce document.

- **ATTENTION:** Afin de prévenir tout risque de choc électrique et d'incendie, ne pas exposer cet appareil à la pluie, à l'humidité et aux sources de chaleur intense.
- **INSTALLATION:** Veillez à assurer une circulation d'air suffisante pour éviter toute surchauffe à l'intérieur de l'appareil. Ne placez pas l'appareil sur ou à proximité d'une surface textile susceptible d'obstruer les orifices de ventilation. N'installez pas l'appareil à proximité de sources de chaleur comme un radiateur ou une poche d'air chaud, ni dans un endroit exposé au rayonnement solaire direct, à des poussières excessives, à des vibrations ou à des chocs mécaniques. Ceci pourrait provoquer un mauvais fonctionnement et un accident.
- **ALIMENTATION:** Ne faire fonctionner l'appareil qu'avec la source d'alimentation indiquée sur l'appareil. Les appareils doivent être obligatoirement connectés sur une source équipée d'une mise à la terre efficace. En aucun cas cette liaison de terre ne devra être modifiée, contournée ou supprimée.
- **CORDON D'ALIMENTATION:** Les appareils sont équipés d'un interrupteur général (Marche / Arrêt O), la mise en tension et la mise hors tension se fait en actionnant cet interrupteur général. **Attention:** le cordon d'alimentation constitue le seul moyen de débrancher l'appareil totalement de l'alimentation secteur. Pour être certain que l'appareil n'est plus alimenté, ce cordon doit être débranché de la prise murale.
Appliquer les consignes suivantes :
 - Le matériel relié à demeure au réseau, doit avoir un dispositif de sectionnement facilement accessible qui doit être incorporé à l'extérieur de l'appareil.
 - Débrancher le cordon d'alimentation de la prise murale si vous prévoyez de ne pas utiliser l'appareil pendant quelques jours ou plus.
 - Pour débrancher le cordon, tirez-le par la fiche. Ne tirez jamais sur le cordon proprement dit.
 - La prise d'alimentation doit se trouver à proximité de l'appareil et être aisément accessible.
 - Ne laissez pas tomber le cordon d'alimentation et ne posez pas d'objets lourds dessus.

Si le cordon d'alimentation est endommagé, débranchez-le immédiatement de la prise murale. Il est dangereux de faire fonctionner un appareil avec un cordon endommagé; un câble abîmé peut provoquer un risque d'incendie ou un choc électrique. Vérifiez le câble d'alimentation de temps en temps. Contactez votre revendeur ou le service après-vente pour un remplacement.

- **CONNEXIONS:** Toutes les entrées et sorties (exceptée l'entrée secteur) sont de type TBTS (Très Basse Tension de Sécurité) définies selon EN 60950.
- **RÉPARATION ET MAINTENANCE:** L'utilisateur ne doit en aucun cas essayer de procéder aux opérations de dépannage, car l'ouverture des appareils par retrait des capots ou de toutes autres pièces constituant les boîtiers ainsi que le dévissage des vis apparentes à l'extérieur, risquent d'exposer l'utilisateur à des chocs électriques ou autres dangers. Contactez le service après-vente, votre revendeur ou s'adresser à un personnel qualifié uniquement.
- **OUVERTURES ET ORIFICES:** Les appareils peuvent comporter des ouvertures (aération, fentes, etc...), veuillez ne jamais y introduire d'objets et ne jamais obstruer ses ouvertures. Si un liquide ou un objet pénètre à l'intérieur de l'appareil, débranchez immédiatement l'appareil et faites-le contrôler par un personnel qualifié avant de le remettre en service.

ISTRUZIONI DI SICUREZZA

Allo scopo di capire meglio il funzionamento di questa apparecchiatura vi consigliamo di leggere bene tutti i consigli di sicurezza e di funzionamento prima dell'utilizzo. Conservare le istruzioni di sicurezza e di funzionamento al fine di poterle consultare ulteriormente. Seguire tutti i consigli indicati su questo manuale e sull'apparecchiatura.

- **ATTENZIONE:** Al fine di prevenire qualsiasi rischio di shock elettrico e d'incendio, non esporre l'apparecchiatura a pioggia, umidità e a sorgenti di eccessivo calore.
- **INSTALLAZIONE:** Assicuratevi che vi sia una sufficiente circolazione d'aria per evitare qualsiasi surriscaldamento all'interno dell'apparecchiatura. Non collocare l'apparecchiatura in prossimità o su superfici tessili suscettibili di ostruire il funzionamento della ventilazione. Non installate l'apparecchiatura in prossimità di sorgenti di calore come un radiatore o una fuoruscita d'aria calda, né in un posto esposto direttamente ai raggi del sole, a polvere eccessiva, a vibrazioni o a shock meccanici. Ciò potrebbe provocare un erraneo funzionamento e un incidente.
- **ALIMENTAZIONE:** Far funzionare l'apparecchiatura solo con la sorgente d'alimentazione indicata sull'apparecchiatura. Le apparecchiature queste devono essere obbligatoriamente collegate su una sorgente fornita di una efficiente messa a terra. In nessun caso questo collegamento potrà essere modificato, sostituito o eliminato.
- **CAVO DI ALIMENTAZIONE:** Gli apparecchi con un interruttore (commutatore) generale (Accesso I : Speuto 0), accendere ou spagnere l'apparecchio si fa usando l'interruttore. **Attenzione:** il cavo di alimentazione è il solo modo di disconnettere l'apparecchio dell'alimentazione. Per assicurarsi che totalmente l'apparecchio non è più collegato, il cavo deve essere disconnesso della presa murale.
Seguire le istruzioni seguenti :
 - Il materiale collegato a residenza alla rete, deve avere un dispositivo di sezionamento facile da raggiungere e che deve essere inserito all'esterno del apparecchio.
 - Disconnettere l'apparecchiatura dalla presa murale se si prevede di non utilizzarla per qualche giorno.
 - Per disconnettere il cavo tirare facendo forza sul connettore.
 - La presa d'alimentazione deve trovarsi in prossimità dell'apparecchiatura ed essere facilmente accessibile.
 - Non far cadere il cavo di alimentazione né appoggiarci sopra degli oggetti pesanti.

Se il cavo di alimentazione é danneggiato, spegnere immediatamente l'apparecchiatura. E' pericoloso far funzionare questa apparecchiatura con un cavo di alimentazione danneggiato, un cavo graffiato può provocare un rischio di incendio o uno shock elettrico. Verificare il cavo di alimentazione spesso. Contattare il vostro rivenditore o il servizio assistenza per una sostituzione.
- **CONNESSIONE:** Tutti gli ingressi e le uscite (eccetto l'alimentazione) sono di tipo TBTS definite secondo EN 60950.
- **RIPARAZIONI E ASSISTENZA:** L'utilizzatore non deve in nessun caso cercare di riparare l'apparecchiatura, poiché con l'apertura del coperchio metallico o di qualsiasi altro pezzo costituente la scatola metallica, nonché svitare le viti che appaiono esteriormente, poiché ciò può provocare all'utilizzatore un rischio di shock elettrico o altri rischi.
- **APERTURE DI VENTILAZIONE:** Le apparecchiature possono comportare delle aperture di ventilazione, si prega di non introdurre mai oggetti o ostruire le sue fessure. Se un liquido o un oggetto penetra all'interno dell'apparecchiatura, disconnetterla e farla controllare da personale qualificato prima di rimetterla in servizio.

SICHERHEITSHINWEISE

Um den Betrieb dieses Geräts zu verstehen, raten wir Ihnen vor der Inbetriebnahme alle Sicherheits- und Betriebsanweisungen genau zu lesen. Diese Sicherheits- und Betriebsanweisungen für einen späteren Gebrauch sicher aufbewahren. Alle in den Unterlagen, an dem Gerät und hier angegebenen Sicherheitsanweisungen einhalten.

- **ACHTUNG:** um jegliches Risiko eines Stromschlags oder Feuers zu vermeiden, das Gerät nicht Regen, Feuchtigkeit oder intensiven Wärmequellen aussetzen.
- **EINBAU:** Eine ausreichende Luftzufuhr sicherstellen, um jegliche Überhitzung im Gerät zu vermeiden. Das Gerät nicht auf und in Nähe von Textiloberflächen, die Belüftungsöffnungen verschließen können, aufstellen. Das Gerät nicht in Nähe von Wärmequellen, wie z.B. Heizkörper oder Warmluftkappe, aufstellen und es nicht dem direkten Sonnenlicht, übermäßigem Staub, Vibrationen oder mechanischen Stößen aussetzen. Dies kann zu Betriebsstörungen und Unfällen führen.
- **STROMVERSORGUNG:** Das Gerät nur mit der auf dem Gerät bezeichnete Stromquelle betreiben. Gerät mit geerdeter Hauptstromversorgung muss an eine Stromquelle mit effizienter Erdung angeschlossen werden. Diese Erdung darf auf keinen Fall geändert, umgangen oder entfernt werden.
- **NETZKABEL:** Da die Geräte über einen Hauptschalter (An I/ Aus 0) verfügen, erfolgt die Stromversorgung und -unterbrechung über diesen Hauptschalter.
Achtung: Das Netzkabel stellt die einzige Möglichkeit dar, das Gerät vollständig vom Netzanschluss zu trennen. Um sicherzustellen, dass das Gerät nicht mehr versorgt wird, muss dieses Kabel aus der Netzsteckdose ausgesteckt werden.

Bitte beachten Sie die folgenden Hinweise:

- Wenn Geräte dauerhaft am Netz bleiben, müssen sie über eine leicht zugängliche Trennvorrichtung verfügen, die außen am Gerät angebracht sein muss.
- Das Kabel mittels dem Stecker herausziehen. Niemals am Stromkabel selbst ziehen.
- Die Steckdose muß sich in der Nähe des Geräts befinden und leicht zugänglich sein.
- Das Stromkabel nicht fallen lassen und keine schweren Gegenstände auf es stellen.

Wenn das Stromkabel beschädigt ist, das Gerät sofort abschalten. Es ist gefährlich das Gerät mit einem beschädigten Stromkabel zu betreiben; ein abgenutztes Kabel kann zu einem Feuer oder Stromschlag führen. Das Stromkabel regelmäßig untersuchen. Für den Ersatz, wenden Sie sich an Ihren Verkäufer oder Kundendienststelle.

- **ANSCHLÜSSE:** Bei allen Ein- und Ausgängen (außer der Stromversorgung) handelt es sich, gemäß EN 60950, um Sicherheits Kleinspannungsanschlüsse.
- **REPARATUR UND WARTUNG:** Der Benutzer darf keinesfalls versuchen das Gerät selbst zu reparieren, die Öffnung des Geräts durch Abnahme der Abdeckhaube oder jeglichen anderen Teils des Gehäuses sowie die Entfernung von außen sichtbaren Schrauben zu Stromschlägen oder anderen Gefahren für den Benutzer führen kann. Wenden Sie sich an Ihren Verkäufer, Ihre Kundendienststelle oder an qualifizierte Fachkräfte.
- **ÖFFNUNGEN UND MUNDUNGEN:** Die Geräte können über Öffnungen verfügen (Belüftung, Schlitze, usw.). Niemals Gegenstände in die Öffnungen einführen oder die Öffnungen verschließen. Wenn eine Flüssigkeit oder ein Gegenstand in das Gerät gelangt, den Stecker herausziehen und es vor einer neuen Inbetriebnahme von qualifiziertem Fachpersonal überprüfen lassen.

INSTRUCCIONES DE SEGURIDAD

Para comprender mejor el funcionamiento de este aparato, le recomendamos que le acudadosamente todas las consignas de seguridad y de funcionamiento del aparato antes de usarlo. Conserve las instrucciones de seguridad y de funcionamiento para que pueda consultarlas posteriormente. Respete todas las consignas indicadas en la documentación, relacionadas con el producto y este documento.

- **CUIDADO:** Para prevenir cualquier riesgo de choque eléctrico y de incendio, no exponga este aparato a la lluvia, a la humedad ni a fuentes de calor intensas.
- **INSTALACIÓN:** Cerciórese de que haya una circulación de aire suficiente para evitar cualquier sobrecalentamiento al interior del aparato. No coloque el aparato cerca ni sobre una superficie textil que pudiera obstruir los orificios de ventilación. No instale el aparato cerca de fuentes de calor como radiador o boca de aire caliente, ni en un lugar expuesto a los rayos solares directos o al polvo excesivo, a las vibraciones o a los choques mecánicos. Esto podría provocar su mal funcionamiento o un accidente.
- **ALIMENTACIÓN:** Ponga a funcionar el aparato únicamente con la fuente de alimentación que se indica en el aparato. Los aparatos deben estar conectados obligatoriamente a una fuente equipada con una puesta a tierra eficaz. Por ningún motivo este enlace de tierra deberá ser modificado, cambiado o suprimido.
- **CABLE DE ALIMENTACIÓN:** Los equipos incluyan interruptor general de alimentación (Encender / Apagar 0), la puesta en marcha o desconexión se realiza por medio de este interruptor. El cable de alimentación constituye el único medio de desconectar el aparato totalmente de la red eléctrica. Para estar seguro de que el aparato no está más alimentado, este cable debe de ser desconectado de la toma de corriente.

Aplicar las siguientes consignas:

- El material conectado a residencia a la red informática, debe de tener un dispositivo de seccionamiento fácilmente accesible que debe de ser incorporado al exterior del aparato.
- Desconectar el aparato del enchufe mural si no piensa utilizarlo durante varios días.
- Para desconectar el cable, tire de la clavija. No tire nunca del cable propiamente dicho.
- El enchufe de alimentación debe estar cerca del aparato y ser de fácil acceso.
- No deje caer el cable de alimentación ni coloque objetos pesados encima de él.

Si el cable de alimentación sufriera algún daño, ponga el aparato inmediatamente fuera de tensión. Es peligroso hacer funcionar este aparato con un cable averiado, ya que un cable dañado puede provocar un incendio o un choque eléctrico. Verifique el estado del cable de alimentación de vez en cuando. Póngase en contacto con su distribuidor o con el servicio de posventa si necesita cambiarlo.

- **CONEXIONES:** Todas las entradas y salidas (excepto la entrada del sector) son de tipo TBTS (Muy Baja Tensión de Seguridad) definidas según EN 60950
- **REPARACIÓN Y MANTENIMIENTO:** Por ningún motivo, el usuario deberá tratar de efectuar operaciones de reparación, ya que si abre los aparatos retirando el capó o cualquier otra pieza que forma parte de las cajas o si destornilla los tornillos aparentes exteriores, existe el riesgo de producirse una explosión, choques eléctricos o cualquier otro incidente. Contacte el servicio de posventa, a su distribuidor o diríjase con personal cualificado únicamente.
- **ABERTURAS Y ORIFICIOS:** Los aparatos pueden contener aberturas (aireación, ranuras, etc.). No introduzca allí ningún objeto ni obstruya nunca estas aberturas. Si un líquido o un objeto penetra al interior del aparato, desconéctelo y hágalo revisar por personal cualificado antes de ponerlo nuevamente en servicio.

2-2. UNPACKING AND INSPECTION

1x Eikos LE (EKS400)

1x Power supply cord.

2x DVI male to HD15 female and DVI-D female Breakout Cable

1x HD15 to 5 BNC cable

1x Ethernet cross cable (for device update)

1x Set of 11 audio 5 pin screw terminals

1x RCS - Remote Control Software (PC only) *

4x Screws for handle removal (M4x12mm)

1x User manual

1x Quick Start guide

* Download on our website: www.analogway.com/technical_support/

WARNING !

If required, front handles of the device can be dismantled, but with caution.

The original screws removed must not be reintroduced to their location without handles in place.

Substantial damages can occur, including risk of electric shock from the mains voltage.

Only **M4x12mm** screws can be used.
(They are supplied with the unit)

2-3. RACKMOUNT INFORMATION

Tabletop mounting: The **Eikos LE** can be used directly on a table, the unit is equipped with 4 handy anti-slip rubber feet.

Rack mounting: The **Eikos LE** is compatible with a 19" enclosure. Please follow the instructions below to install the device in a 19" rack.

Place the device in your rack. Attach the device to the rack by using 4 screws through the front panel holes (screws not included).

Rear fixing is also recommended, in particular for permanent installations. The **Eikos LE** is equipped with drill holes designed for compatibility with most rackmount braces.

Connect all of the cables of the device and attach them to the rack with the help of tie wraps.

IMPORTANT:

- The openings in the side and rear panels of the device are for cooling. Do not cover these openings to avoid cutting air circulation.
- Be sure that no weight in excess of 2 kg (4.4 Lbs.) is added onto the **Eikos LE**.
- The maximum ambient operating temperature should not exceed 40°C (104°F).
- The rack and all mounted equipment in it must be reliably grounded according to national and/or local electrical standards.



Dismantling front handles of the device could invalidate warranty on after sales services of your **Eikos LE**. It is strongly advised to avoid using front handles as rests for your **Eikos LE**, they are designed for manipulation purposes only.

If required, front handles of the device can be dismantled, but with caution. The original screws removed must not be reintroduced to their location without handles in place. Substantial damages can occur, including risk of electric shock from the main voltage. Only M4x12mm screws can be used. They are supplied with the unit.

2-4. CABLE AND ADAPTOR INFORMATION

A large choice of cables and adaptors are compatible with the **Eikos LE**. To find which are to be used in your setup, please refer to the Hardware Specifications chapter. Please contact your distributor for a list of available cables and connectors for your **Eikos LE**.

2-5. HARDWARE SPECIFICATIONS

Description of the input formats supported by the device.

• SDTV

Standard	Size	Frame Frequency	Line Frequency
NTSC	525/480i	59.94Hz / 60Hz	15.735 KHz
PAL	625/576i	50Hz	15.625 KHz
SECAM	625/576i	50Hz	15.625 KHz

• EDTV

Standard	Size	Frame Frequency	Line Frequency
480p	525/480i	59.94Hz / 60Hz	31.47 KHz
576p	625/576i	50Hz	31.25 KHz

• HDTV (RGB or YUV)

Standard	Size	Frame Frequency	Standard
720p	1280x720	50Hz / 59.94Hz / 60Hz	SMPTE 296M
1035i	1920x1035	59.94Hz / 60Hz	SMPTE 260M
1080i	1920x1080	50Hz / 59.94Hz / 60Hz	SMPTE 274M
1080p	1920x1080	23.97Hz / 24Hz / 25Hz / 29.97Hz / 30Hz	SMPTE 274M
1080sF	1920x1080	50Hz / 59.94Hz / 60Hz	SMPTE 274M
1080p	1920x1080	50Hz / 60Hz	HDTV

• INPUT FEATURES

Inputs	Format	Signal	Connector	EDID
1	SDTV EDTV HDTV Computer	Analog SDTV Analog EDTV Analog HDTV Analog Computer	HD15#1	YES
2			HD15#2	YES
3			HD15#3	NO
4			HD15#4	NO
5			DVI#1: ANALOG PART	NO
6			DVI#2: ANALOG PART	NO
7	SDTV EDTV HDTV Computer	Digital EDTV Digital HDTV Digital Computer Digital SDTV Digital HDTV	DVI#1: DIGITAL PART	YES
8			DVI#2: DIGITAL PART	YES
9			BNC#1	NO
10			BNC#2	NO
11			BNC#3	NO
12			BNC#4	NO

• COMPUTER FORMATS

The **Eikos LE** recognizes the following computer formats (Subsampled formats will be displayed with a degraded quality. For a pixel clock > 165 MHz).

Format	Size	Reduced Blankings	Subsampling
VGA	640x480		
800x480	800x480		
SVGA	800x600		
WVGA	848x480		
XGA	1024x768		
1152x864	1152x864		
1280x600	1280x600		
720p RGB	1280x720		
WXGA	1280x768		
800p RGB	1280x800		
960p RGB	1280x960		
SXGA	1280x1024		
SWXGA	1360x768		
1360x1024	1360x1024		
1366x768	1366x768		
DILA4/3	1364x1024		
SWXGA+	1366x800		
SXGA+	1400x1050		
900p RGB	1440x900		
1600x900	1600x900		
UXGA	1600x1200		
WSXGA+	1680x1050		
1080p RGB	1920x1080	YES	
WUXGA	1920x1200	YES	
1920x1440	1920x1440		YES
2K	2048x1080	YES	
QXGA	2048x1536		YES

• EDID

The EDID is available on inputs #1 & #2 and #7 & #8. The user can modify the EDID choosing from a list of predefined formats and frequencies.

SETTINGS AND INPUT FUNCTIONS

Settings / Functions	Analog						DVI-D		SDI			
	1	2	3	4	5	6	7	8	9	10	11	12
Auto Settings	YES	YES	YES	YES	YES	YES	YES	YES	N/A	N/A	N/A	N/A
Auto Framing	YES ¹	YES ¹	YES ¹	YES ¹	YES ¹	YES ¹	NO	NO	NO	NO	NO	NO
Blanking Settings	YES	YES	YES	YES	YES	YES	NO	NO	NO	NO	NO	NO
Cropping	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Optimization	YES ¹	YES ¹	YES ¹	YES ¹	YES ¹	YES ¹	NO	NO	NO	NO	NO	NO
Under/Overscan	YES ²	YES ²	YES ²	YES ²	YES ²	YES ²	YES ²	YES ²	YES ²	YES ²	YES ²	YES ²
Aspect Ratio Settings	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Aspect Input Output	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Color Settings	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Advanced settings	YES	YES	YES	YES	YES	YES	NO	NO	NO	NO	NO	NO
2:2 Pulldown	YES ³	YES ³	YES ³	YES ³	YES ³	YES ³	YES ³	YES ³	YES ³	YES ³	YES ³	YES ³
3:2 Pulldown	YES ⁴	YES ⁴	YES ⁴	YES ⁴	YES ⁴	YES ⁴	YES ⁴	YES ⁴	YES ⁴	YES ⁴	YES ⁴	YES ⁴

1/ Analog Computer Input or Analog Video Input (EDTV or HDTV only)

3/ Only interlaced 50 Hz

2/ Only Vidéo Input

4/ Only interlaced 59.94 Hz to 60 Hz

Input specifications

• ANALOG COMPUTER

Connectors: Inputs #1 to #4: female HD15. Inputs #5-#6: female DVI-I (analog pins).

Line frequency: Up to 130 kHz (165 MHz Max pixel rate).

Resolution: Up to 1600x1200 @ 165Mhz, 1920x1200px.
(RB, Max V size: 1200px, Max H size 2048px).

Sync. types: RGBHV, RGB/S, RGsB (Sync On Green).

Levels: R, G, B = 0.7 Vp/p.

H & V Sync = TTL.

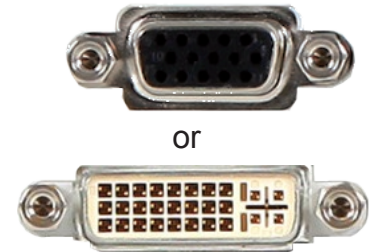
Composite Sync = TTL and 0.3 V (negative).

SOG (Sync On Green) = 0.3 V.

Impedance: R, G, B = 75 ohms.

H = 75 ohms or Hi-Z.

V = Hi-Z.



• RGB/S - RGsB VIDEO

Connectors: Inputs #1 to #4: female HD15. Inputs #5-#6: female DVI-I (analog pins).

Frequency: 15.625 kHz - 50 Hz (625 lines).

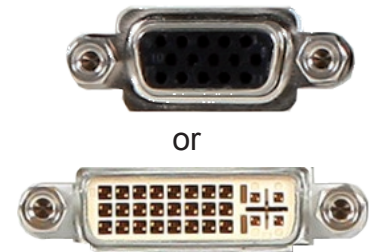
15.734 kHz - 60 Hz (525 lines).

Levels: R, G, B = 0.7 Vp/p.

SYNC. = 0.3 Vp/p or TTL (negative).

Impedance: RGB = 75 ohms.

SYNC. = 75 ohms or Hi-Z.



• COMPONENT

Connectors: Inputs #1 to #4: female HD15. Inputs #5-#6: female DVI-I (analog pins).

Input #8: female HD15.

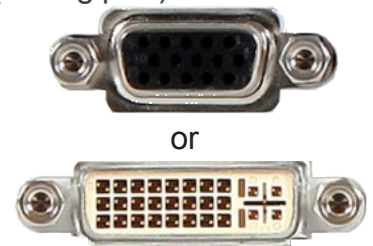
Frequency: 15.625 kHz - 50 Hz (625 lines).

15.734 kHz - 60 Hz (525 lines).

Levels: Y = 1 Vp/p (0.7 V Luma + 0.3 V Sync.).

Cr / Pr & Cb / Pb = 0.7 Vp/p.

Impedance: 75 ohms.



• HDTV - HD-YUV

Connectors: Inputs #1 to #4: female HD15. Inputs #5-#6: female DVI-I (analog pins).

Formats: 720p/576p (60Hz), 1080i (50/60Hz), EDTV.

Levels: Y = 1 Vp/p (0.7 V + sync.).

Cr / Pr & Cb / Pb = 1 Vp/p (0.7 V + sync.).

Sync.: Tri-level: $\pm 0.3V$ (positive/negative).

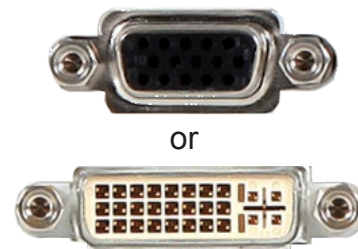
Bi-level: 0.3V (negative).

Impedance: 75 ohms.



• S.VIDEO

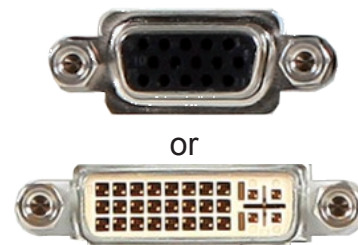
Connectors: Inputs #1 to #4: female HD15. Inputs #5 & #6: female DVI-I (analog pins).
 Standard: PAL/SECAM: 15.625 kHz - 50 Hz - 625 lines.
 NTSC (3.58 - 4.43 MHz) : 15.734 kHz/60 Hz/525 lines.
 Levels: Y = 1 Vp/p (0.7 V Luma + 0.3 V Sync.).
 C = 0.3 Vp/p (Chroma Burst).
 Impedance: 75 ohms.



or

• COMPOSITE VIDEO

Connectors: Inputs #1 to #4: female HD15. Inputs #5 & #6: female DVI-I (analog pins).
 RCA.Standard: PAL / SECAM: 15.625 kHz - 50 Hz - 625 lines.
 NTSC (3.58 - 4.43 MHz): 15.734 kHz/60 Hz/525 lines.
 Level: 1 Vp/p (0.7 V Luma + 0.3 V Sync.).
 Impedance: 75 ohms.



or

• DVI (Digital Video Interface)

Connector: DVI Inputs #1 & #2: female DVI-I (digital pins).
 Line frequency: Up to 130 kHz (165 MHz Max pixel rate).
 Format: Digital Visual Interface (DVI)-TMDS single link.
 Resolution: Up to 1600x1200 @ 165Mhz, 1920x1200px
 (RB, Max V size: 1200px, Max H size 2048px).



• SD-SDI

Connector: SDI Inputs #1 to #4: female BNC.
 Format: SMPTE 259M-C.
 Data rate: 270 Mbps serial digital.
 Impedance: 75 ohms.



• HD-SDI

Connector: SDI Inputs #1 to #4: female BNC.
 Formats: 720p @ 50 / 59.94 & 60 Hz.
 1035i @ 50 / 59.94 & 60 Hz.
 1080i @ 50 / 59.94 & 60 Hz.
 1080p @ 23.97 / 24 / 25 / 29.97 / 30 / 50 / 59.94 & 60 Hz.
 1080sF @ 50 / 59.94 & 60 Hz.
 Data rate: 1.5 Gbps serial digital - SMPTE 292M (Level A)
 2.97 Gbps serial digital - SMPTE 425M (Level A).
 Impedance: 75 ohms.



• AUDIO

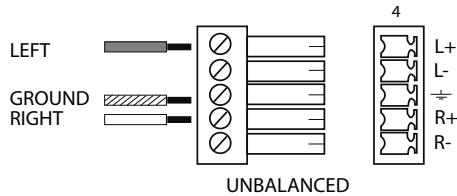
Input#	Stereo	Balanced Audio	Connector
1	YES	YES	Connectors Phoenix 5 pins
2			
3			
4			
5			
6			
7			
8			
9		Non applicable (Embedded Audio SDI)	Non applicable (Embedded Audio SDI)
10			
11			
12			
AUX		YES	Connectors Phoenix 5 pins

AUDIO SETTINGS

Settings	Availability
GAIN	YES: from $-\infty$ to + 18dB
Balanced Audio	YES: Left and Right

- Connector:** Balanced or unbalanced mono/stereo inputs (all pin MCO male connector).
8 audio stereo inputs + 1 auxiliary (all balanced / unbalanced).
 $V_i = +15\text{dBV}$ max.
 $Z_i = 40\text{ Kohms}$ (Balanced).

MCO male connectors
Inputs #1 to #6: Balanced & unbalanced connection
Inputs DVI #1 to DVI #2: Balanced & unbalanced connection
Input AUX: Balanced & unbalanced connection



Output specifications

• ANALOG OUTPUTS

Connector: Outputs #1 (Main) & #2 (Preview): female HD15, DVI-I (analog pins).

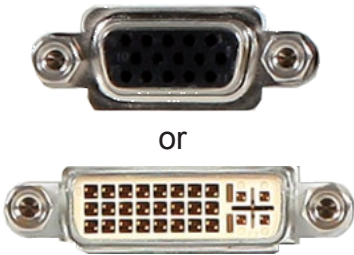
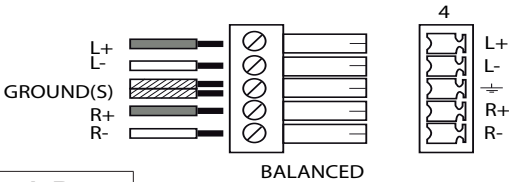
HDTV Resolutions:

Format	Ratio	Available Refresh Rates
720p	16 : 9	50Hz 59.94Hz 60Hz
1035i	16 : 10	59.94Hz 60Hz
1080i	16 : 9	50Hz 59.94Hz 60Hz
1080p	16 : 9	30 Hz 50Hz 59.94Hz 60Hz

Resolutions:

Format	Ratio	Available Refresh Rates	Reduced Blanking
640 x 480	4 : 3	50Hz 60Hz 72Hz 75Hz	
800 x 600	4 : 3	50Hz 60Hz 72Hz 75Hz	
848 x 480	16 : 9	50Hz 60Hz 72Hz 75Hz	
1024 x 768	4 : 3	50Hz 60Hz 72Hz 75Hz	
1280 x 720	16 : 9	50Hz 60Hz	
1280 x 768	15 : 9	50Hz 60Hz 72Hz 75Hz	
1280 x 800	16 : 10	50Hz 60Hz 72Hz 75Hz	
1280 x 1024	5 : 4	50Hz 60Hz 72Hz 75Hz	
1360 x 768	16 : 9	50Hz 60Hz 72Hz 75Hz	
1366 x 768	16 : 9	50Hz 60Hz 72Hz 75Hz	
1366 x 800	15 : 9	50Hz 60Hz 72Hz 75Hz	
1400 x 1050	4 : 3	50Hz 60Hz 72Hz 75Hz	
1440 x 900	16 : 10	50Hz 60Hz 72Hz 75Hz	
1600 x 1200	4 : 3	50Hz 60Hz	
1680 x 1050	16 : 10	50Hz 60Hz	
1920 x 1080	16 : 9	50Hz 60Hz 72Hz 75Hz	YES
1920 x 1080 B	16 : 9	50Hz 60Hz	YES
1920x 1080 C	16 : 9	50Hz 60Hz	YES
1920 x 1080 HD	16 : 9	50Hz 60Hz	YES
1920 x 1200	16 : 10	50Hz 60Hz	YES
2048 x 1080	19 : 10	50Hz 60Hz	YES

Outputs #1 to #2: Balanced & unbalanced connection



Signals: RGBHV, RGBS and RGsB.
 Levels: R, G, B = 0.7 Vp/p.
 Sync. : Separate H & V = TTL
 (negative).
 Composite = TTL (negative).
 SOG = 0.3 Vp/p (negative).
 Impedance: R, G, B = 75 ohms.

• DVI (Digital Video Interface) OUTPUTS

Connector: Outputs #1 (*Main*) & #2 (*Preview*): female DVI-I (digital pins).

Signal: Digital Visual Interface (DVI)-TMDS single link.



HDTV Resolutions:

Format	Ratio	Available Refresh Rates
720p	16 : 9	50Hz 59.94Hz 60Hz
1035i	16 : 10	59.94Hz 60Hz
1080i	16 : 9	50Hz 59.94Hz 60Hz
1080p	16 : 9	30 Hz 50Hz 59.94Hz 60Hz

Resolutions:

Format	Ratio	Refresh Rate	Reduced Blanking
640 x 480	4 : 3	50Hz 60Hz 72Hz 75Hz	
800 x 600	4 : 3	50Hz 60Hz 72Hz 75Hz	
848 x 480	16 : 9	50Hz 60Hz 72Hz 75Hz	
1024 x 768	4 : 3	50Hz 60Hz 72Hz 75Hz	
1280 x 720	16 : 9	50Hz 60Hz	
1280 x 768	15 : 9	50Hz 60Hz 72Hz 75Hz	
1280 x 800	16 : 10	50Hz 60Hz 72Hz 75Hz	
1280 x 1024	5 : 4	50Hz 60Hz 72Hz 75Hz	
1360 x 768	16 : 9	50Hz 60Hz 72Hz 75Hz	
1366 x 768	16 : 9	50Hz 60Hz 72Hz 75Hz	
1366 x 800	15 : 9	50Hz 60Hz 72Hz 75Hz	
1400 x 1050	4 : 3	50Hz 60Hz 72Hz 75Hz	
1440 x 900	16 : 10	50Hz 60Hz 72Hz 75Hz	
1600 x 1200	4 : 3	50Hz 60Hz	
1680 x 1050	16 : 10	50Hz 60Hz	
1920 x 1080	16 : 9	50Hz 60Hz 72Hz 75Hz	YES
1920 x 1080 B	16 : 9	50Hz 60Hz	YES
1920 x 1080 C	16 : 9	50Hz 60Hz	YES
1920 x 1080 HD	16 : 9	50Hz 60Hz	YES
1920 x 1200	16 : 10	50Hz 60Hz	YES
2048 x 1080	19 : 10	50Hz 60Hz	YES

• AUDIO OUTPUT

Connector: Output #1 (*Main*) and #2 (*Prelist*):

2 Balanced or unbalanced

mono/stereo outputs (on 5-pin MCO male connector).

Vo max: Unbalanced = +15dBu (at 300Ω load).

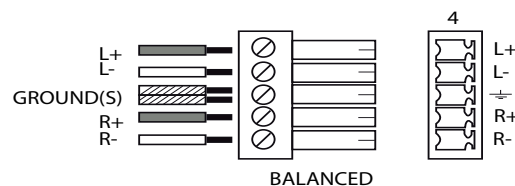
Balanced = +21dBu (at 600Ω load).

Zo = 600Ω balanced.

Zo = 300Ω unbalanced.

G = 0 dB nominal.

Outputs #1 to #2: Balanced & unbalanced connection



The video output generates a SDI signal in which is embedded only one stereo audio stream.

Settings	Availability
Gain	Yes: from $-\infty$ to +18dB
Balanced Audio	Left and Right
Auxiliary Input Mixing	Yes
Adjusting Audio Delay	Yes: from 0 to 80ms (Automatic or Manual)

• VIDEO OUT

Connector: 1x BNC-F: SD/HD-SDI (with audio embedded).

3x BNC-F: Y_Cb_Cr.

1x Mini Din 4: S. Video.

1x BNC-F: Composition video PAL/NTSC.

Impedance: 75 ohms.

Formats: 720p @ 50 / 59.94 & 60 Hz.

1035i @ 59.94 & 60 Hz.

1080i @ 50 / 59.94 & 60 Hz.

1080p @ 23.97 / 24 / 25 / 29.97 / 30 / 50 & 60 Hz.

Data rate: 270Mbps serial digital - SMPTE 259M-C.

1.54 Gbps serial digital - SMPTE 292M-A.

2.97 Gbps serial digital - SMPTE 425M-A.



Communication specifications

• COMMUNICATION PORTS

REMOTE RS232

Connector: DB 9 female.

Protocol: RS232.

Data Rate: 9600 Bauds, 8 data bits, 1 stop bit, no parity bit, no flow control by default.

DTR & RTS needed for upgrade.



• LAN

Connector: RJ45.

Protocol: TCP (Transmission Control Protocol) or UDP (User Datagram Protocol).

Ethernet: Base 10/100.



Environmental specifications

Dimensions: W 480 x D 330 x H 88 mm
19"W x 13"D x 3.50"H
Weight: 5.4 kg / 10.90 lbs
(Compatible with a Standard 19" rack, Height = 2 U)

Cooling air flow from right side to left side.

Max ambient operating temperature: < +40°C (< +104°F).

Operating temperature: 0 to +40°C / +32°F to +104°F

Storage temperature: -40 to +70°C / -40°F to +158°F

Operating humidity: 10 to 80% (non condensing)

Input voltage range: 100-240 VAC, 50/60 Hz

Typical consumption: 90 W

CE Compliancy, test following:

- EN 55022: 2006 / A1: 2007,
- EN 55024: 1998 / A1: 2001 / A2: 2003,
- EN 61000-3-2: 2006,
- EN 61000-3-3: 1995 / A1: 2001 / A2: 2005.

Safety, test following:

- IEC 60950-1: 2005,
- UL 60950-1: 2007,
- CAN/CSA-C22.2 NO. 60950-1.

Power supply: IEC/EN/UL/CSA 60950-1, internal, autoswitching

Mechanical (in carton): Vibration: IEC60068-2-64

Free fall: IEC60068-2-32

RoHS, WEEE



Pin outs

• VGA

STANDARD VGA

1- Red	6- Red Return	11- ID Bit 0
2- Green	7- Green Return	12- ID Bit 1
3- Blue	8- Blue Return	13- H Sync
4- ID Bit 2	9- No Pin	14- V Sync
5- Test (Gnd)	10- Sync Return	15- ID Bit 3



• DIGITAL VISUAL INTERFACE DVI

Pin

1- TMDS Data 2-	7- DDC Data	13- Not used	19- TMDS Data 0 Shield
2- TMDS Data 2+	8- Analog Vertical Sync	14- +5V (Power)	20- Not used
3- TMDS Data 2 Shield	9- TMDS Data 1-	15- Ground for (+5V)	21- Not used
4- Not used	10- TMDS Data 1+	16- Hot Plug Detect.	22- TMDS Clock Shield
5- Not used	11- TMDS Data 1 Shield	17- TMDS Data 0-	23- TMDS Clock +
6- DDC Clock	12- Not used	18- TMDS Data 0+	24- TMDS Clock-

C1- Analog Red Video (or Cr/Pr or C)
 C2- Analog Green Video (or Y or Composite Video)
 C3- Analog Blue Video (or Cb/Pb)
 C4- Analog Horizontal Sync (or Composite Sync)
 C5- Analog Common Ground Return

DDC = Display Data Channel

TMDS = Transition Minimized differential signal



• RS-232 CONNECTOR

Pin

1- NC	6- NC
2- Transmit data to PC (Tx1)	7- NC
3- Transmit data from PC (Rx1)	8- NC (or +12V. dc)
4- Receive data from display unit (Rx2)	9- Transmit data to display unit (Tx2)
5- Ground	



• S-VIDEO (Y/C) CONNECTOR - 4-pin Mini Din

Pin

1- Y Ground
2- C Ground
3- Y Signal
4- C Signal



• VESA DDC

Pin

1- Red	7- Green Return	13- H Sync
2- Green	8- Blue Return	14- V Sync
3- Blue	9- DDC+5 Volt supply	15- Data Clock (SCL)
4- ID Bit 2 0	10- Sync Return	
5- Test	11- ID Bit	
6- Red Return	12- Bi-directional data (SDA)	



If you want to use HDCP content from your sources, be sure plugging HDCP compliant screens or projectors. If it's not the case, the output image could be disabled.

When displaying HDCP protected sources on non HDCP compliant equipment, the following message will be displayed on the device VFD screen:

“Due to HDCP content, non HDCP screens cannot display protected sources”

Screen will go to black without displaying the HDCP input image, or partially layer out non HDCP content.

Concerning the DVI inputs, a specific feature allows enable/disable the HDCP receiver for the input chosen.

It can be very useful especially using a Mac:

Input Menu > DVI# > HDCP detection

The output status can provide you all information about the output in real time.

This feature is particularly needed when HDCP is used with long cable to be sure that the communication is well handled.

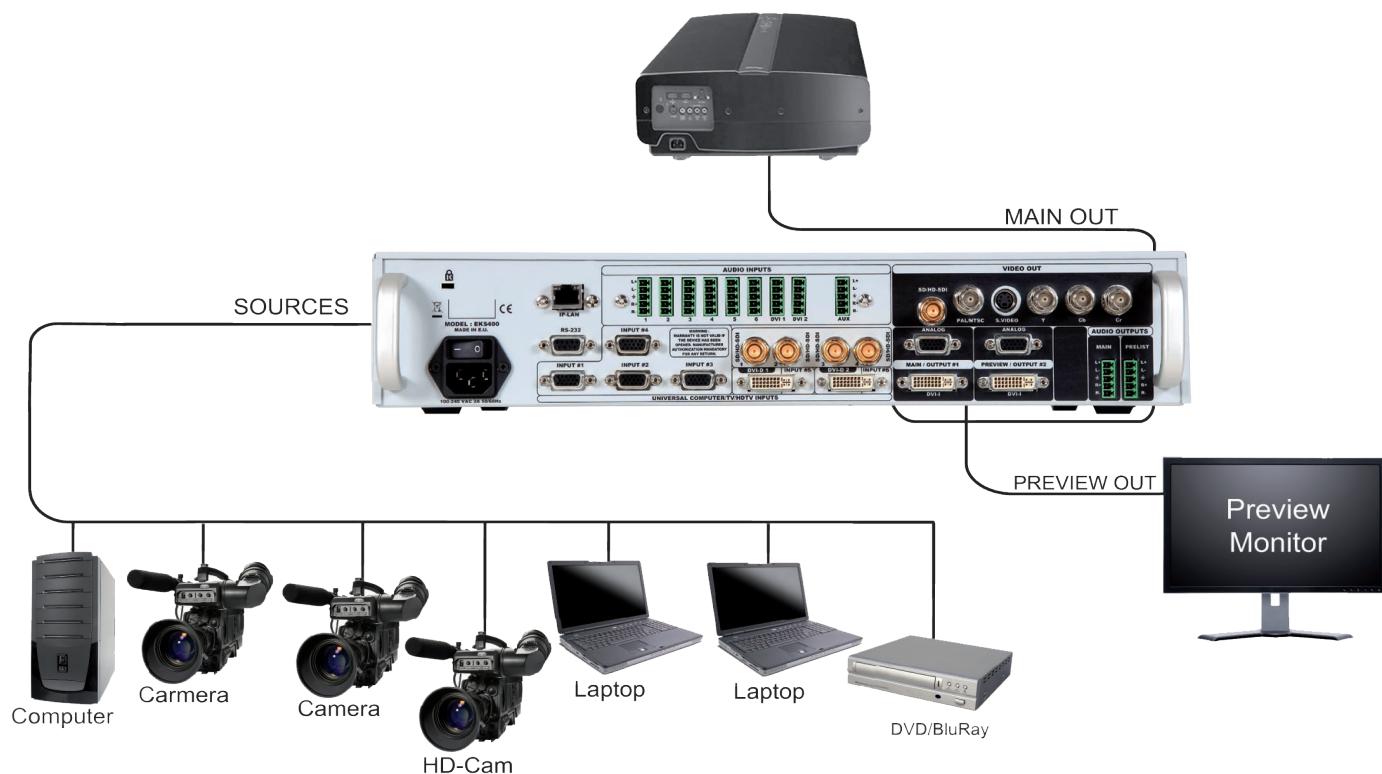


NOTE : as part of our policy of continuous improvement, Analog Way reserves the right to make design and specification changes for product improvements without prior notice. The performance specification figures indicated are nominal values of production units. There may be some deviations from these values in individual units.

3-1. CONNECTING THE EIKOS LE

The **Eikos LE** can be set up with up to 12 different sources, and will drive up to 2 digital DVI-D sources, 2 SD-SDI sources and 8 analog computer/video sources simultaneously. The versatility of the **Eikos LE** will allow for almost any event configuration and cater for all your projection needs.

The intuitive rear panel of the **Eikos LE** will let you set up for the first time quickly and easily. Here is an example of a typical **Eikos LE** setup.



3-2. THE EIKOS LE REAR PANEL

Overview

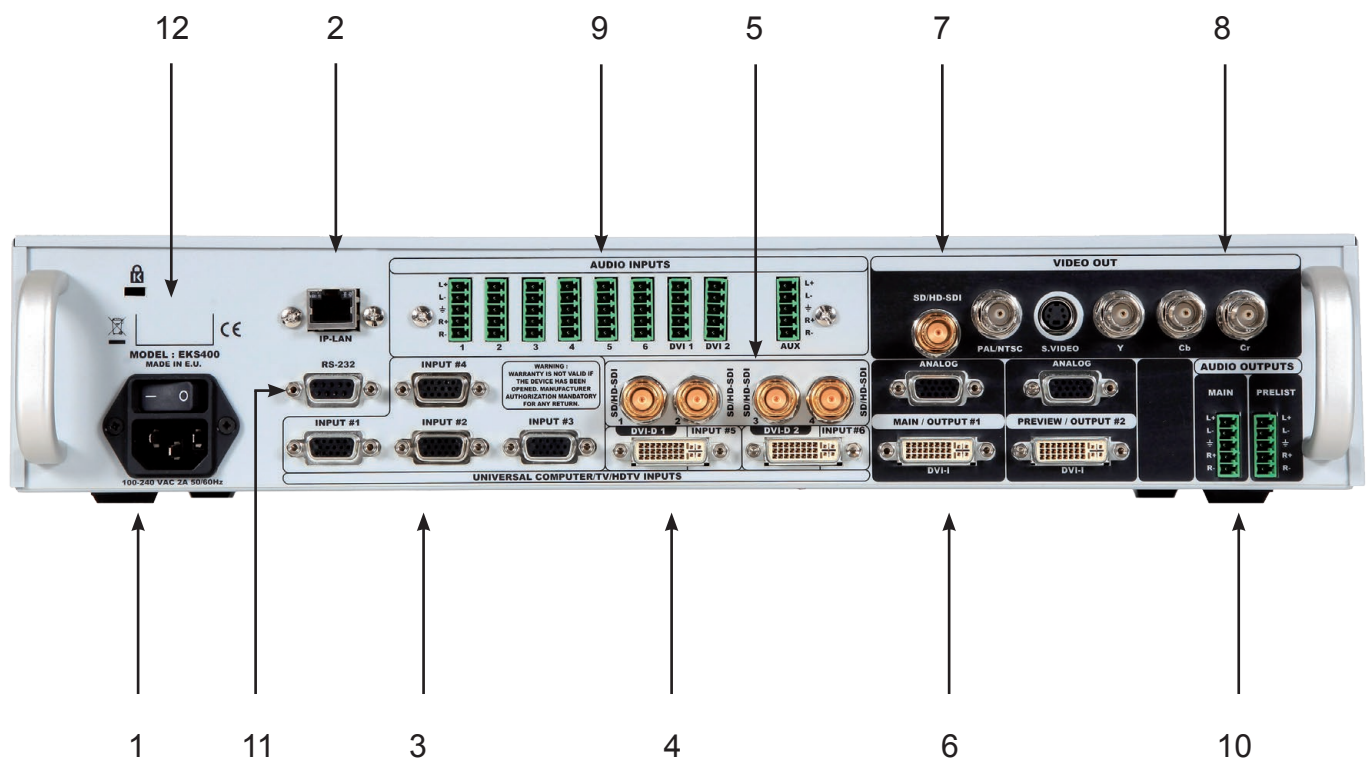
The **Eikos LE** rear panel is equipped with 11 universal digital and analog inputs. Inputs #1 through #4 (3) are universal analog inputs. Inputs #5 & #6 share a DVI-D signal and a universal analog signal (plug the included **Analog Way** DVI/HD15 adaptor cable to use DVI-D and analog signals simultaneously).

The Main and Preview (6) outputs will allow for the **Eikos LE** high resolution digital and analog signals to be viewed on screen and/or on a preview monitor (see also Output Specifications in this chapter).

The extra Video Out card installed on the **Eikos LE**, can be used for recording, broadcasting or previewing purposes in a wide range of formats for maximum compatibility with industry viewing or recording equipment.

Finally, the audio in and output card will let users mix audio with any source, accurately balance or tweak sound sources and outputs.

- 1 : AC outlet and on/off switch
- 2 : IP-LAN connector
- 3 : Universal Computer/TV/HDTV inputs
- 4 : DVI-D inputs
- 5 : HD-SDI inputs
- 6 : Main and Preview outputs
- 7 : SD-HD/SDI output
- 8 : SD/HDTV output
- 9 : Audio inputs
- 10 : Audio outputs
- 11 : RS-232 connector
- 12: Serial #

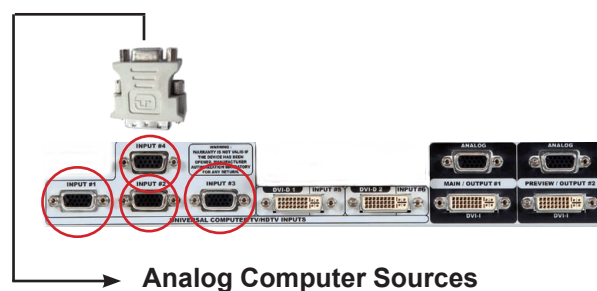


Inputs #1 to #6

UNIVERSAL COMPUTER & VIDEO INPUTS:

Universal Inputs accept computer sources (RGBHV, RGBS, and RGsB (SOG) signals), standard TV/VIDEO sources (Composite video, S.VIDEO), Component video (YUV, RGBS & RGsB (SOG)), and HDTV sources (480p, 720p & 1080i).

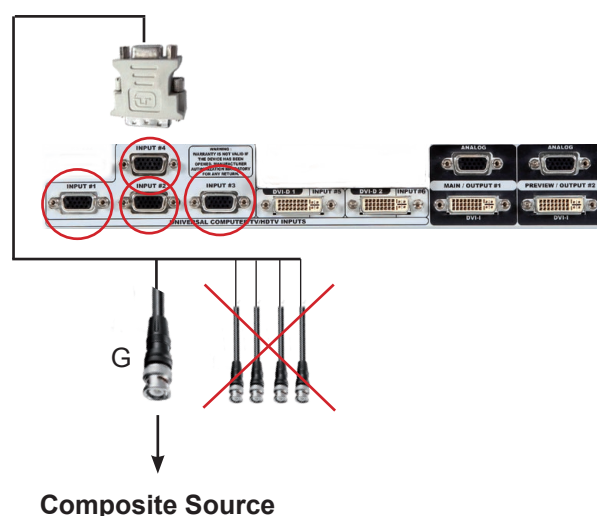
HD15: 1x Universal Analog input on female HD15 connector.



COMPOSITE VIDEO SOURCES:

The Composite Video signal, usually called COMPOSITE or VIDEO, is available on most video equipment (VCR, DVD, CAMCORDER...), but is also the lowest in picture quality. The video standard of this signal can be NTSC, PAL or SECAM. The signal is transmitted on a single coaxial cable, and is connected to the video equipment with an HD15 connector.

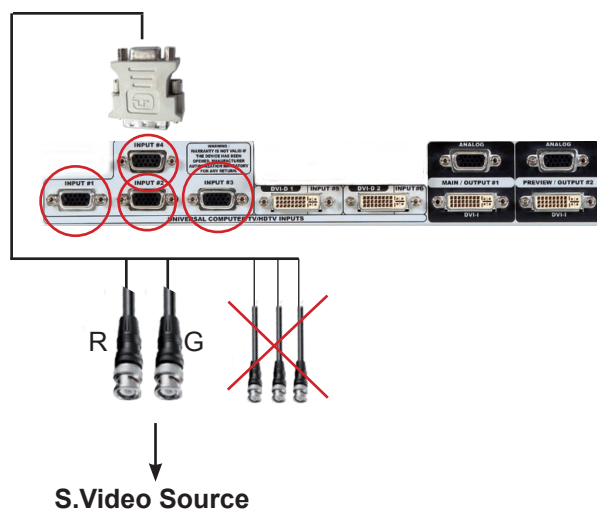
For inputs #1 to #4: connect a 1x BNC from your composite source, to the HD15 input of the device.



S.VIDEO SOURCES:

The S.VIDEO signal, also called Y/C, HI-8™, or S.VHS™, is available on DVD players and high quality VCRs (S.VHS). The S.VIDEO signal in which the Luminance (Y) and Chrominance (C) information are separately transmitted, gives a higher quality picture than the Composite video signal. The S.VIDEO connector is usually a 4-pin Mini-DIN connector also called Oshiden™ connector.

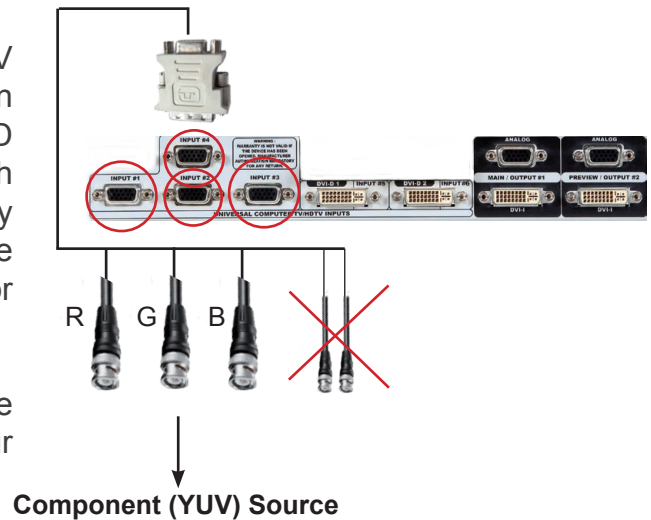
For inputs #1 to #4: connect a 2x BNC from your S.VIDEO, Y (G/Y) & C (R/R-Y), to the HD15 input of the device.



COMPONENT VIDEO SOURCES:

The Component Video signal, also called YUV (Y, Pr, Pb) or BETACAM™, is widely used in broadcasting and is available on high-quality DVD players. The COMPONENT signal is transmitted with 3 coaxial cables, and also has a better quality picture than COMPOSITE and S.VIDEO signals. The COMPONENT connectors are usually RCA (x3), or BNC (x3).

For inputs #1 to #4: connect a HD15 to 3x BNC cable between the HD15 connector of the device and your Component source.



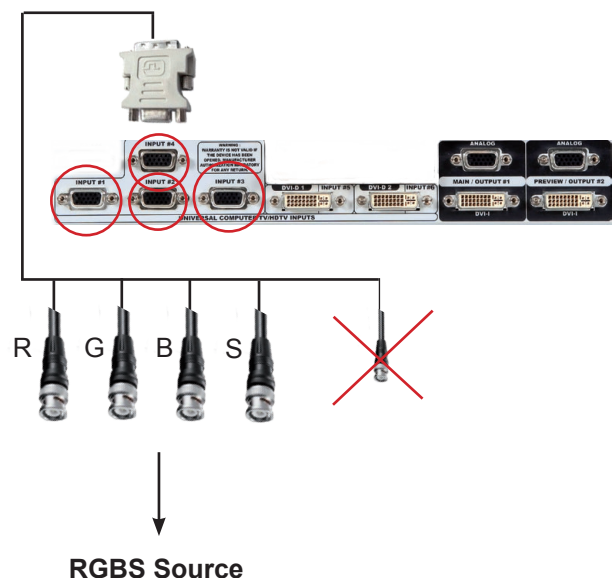
COMPUTER SOURCES:

The device accepts the following computer signals: RGBHV, RGB/S and RGsB on inputs #1 to #6.

RGBS VIDEO SOURCES:

This signal is widely used in broadcasting and is available on European DVD player. The RGB/S signal is transmitted with 4 coaxial cables, and also has a better picture quality than COMPOSITE and S.VIDEO signals. The RGB/S connectors are usually BNC connectors for Broadcasting equipment, and SCART connector for DVD players.

For inputs #1 to #4: connect a HD15 to 4x BNC cable between the HD15 connector of the device and your RGB/S source.



DVI Inputs #1 - #2

DVI & ANALOG SOURCES:

DVI Inputs #1-#2 on the **Eikos LE** accept up to 2 live sources in Digital format.
DVI-I : 1x digital (DVI) and 1 x analog input on female DVI-I universal connector.

For analog sources, please use the breakout cable supplied.



Analog Computer Sources

SD/HD-SDI Inputs #1 - #2

SD/HD-SDI SOURCES:

SD/HD-SDI Inputs #1- #2 on the **Eikos LE** accept up to 2 live sources in Digital formats.
SD/HD-SDI: 1x digital input on female BNC connector.



HD/SDI Source

Preview Outputs

PREVIEW OUTPUT:

ANALOG: 1x analog output for the main display device on female HD15 connector.
DIGITAL/ANALOG: 1x main output on female DVI-I connector (simultaneous analog and digital).



Main Outputs

MAIN OUTPUT:

ANALOG: 1x analog output for the main display device on female HD15 connector.

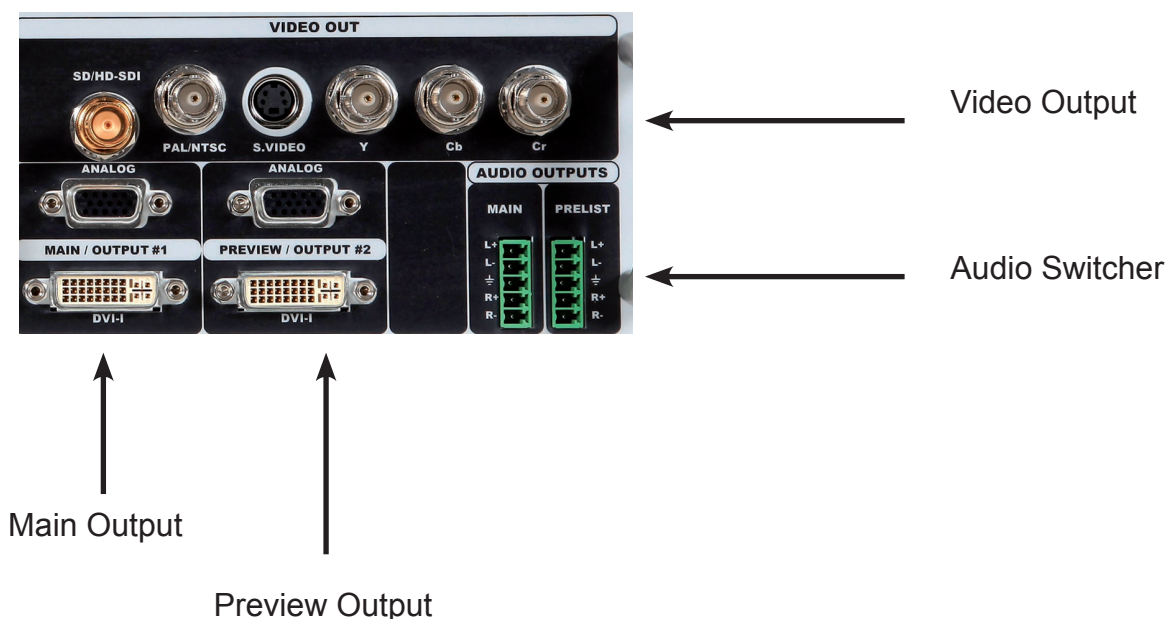
DIGITAL/ANALOG: 1x main output on female DVI-I connector (simultaneous analog and digital).

VIDEO OUTPUT:

Video Output card provides SD or HDTV formats in various signals and connectors from Composite Video to HDSDI. This output can be used to record your show by outputting the same content as the Main output in Mixer Mode, or a choice between output 1 or 2 in Matrix Mode (see also **Eikos LE** Modes, p.5).

AUDIO SWITCHER:

Audio Stereo Switcher card features 12 inputs and 2 outputs. An additional auxiliary input can be mixed with any other input. Master Volume and individual input level can be adjusted. Each input and output offers balanced or unbalanced connections. It should be noted that the management of the audio output follows the selection of video layers. Two modes are available: Top Follow or Breakaway. In Top Follow Mode, the audio follows the topmost video layer (after having pressed TAKE). In Breakaway Mode, it is the selected audio layer input that is permanently diffused.



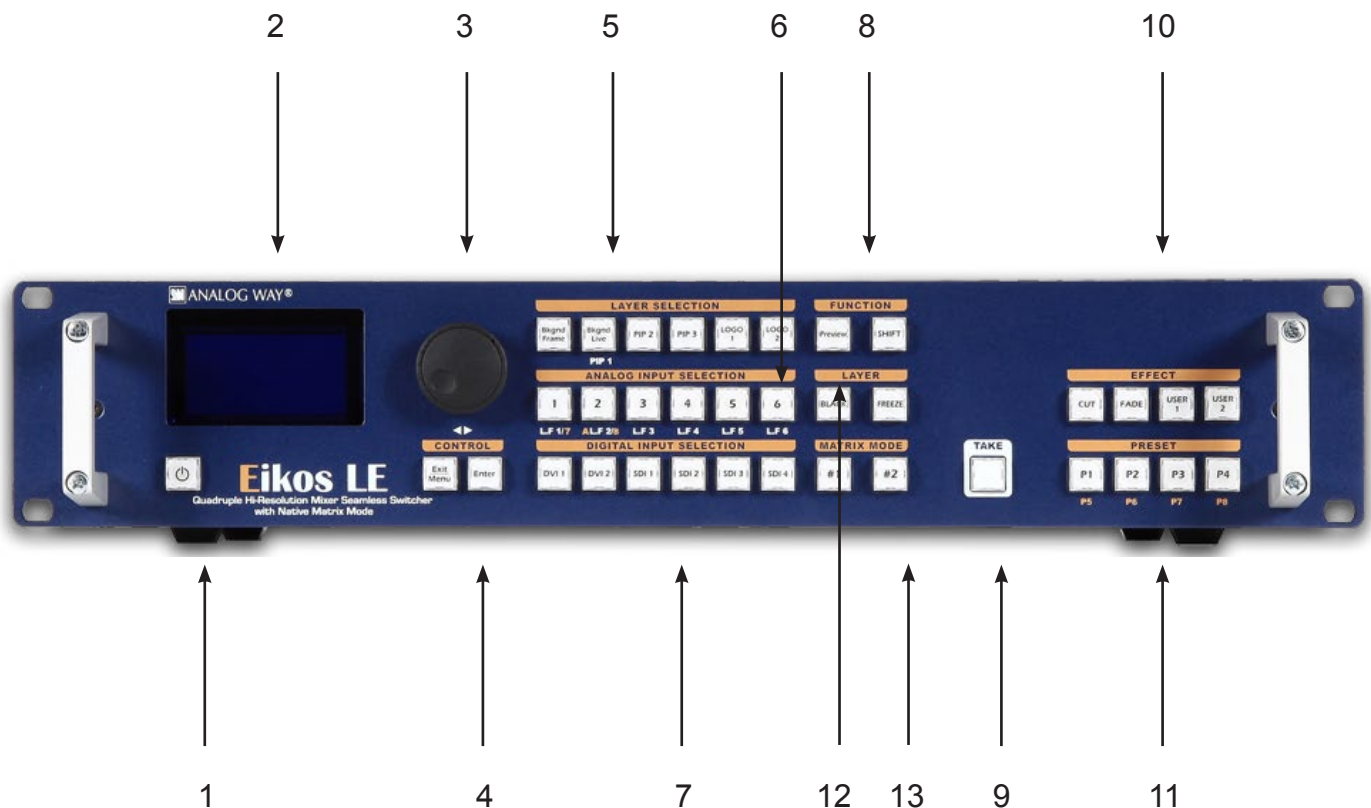
4-1. THE EIKOS LE FRONT PANEL

Overview

The highly intuitive front panel of the **Eikos LE** was designed by **Analog Way** engineers to simply and quickly meet all of your event needs. Within minutes, you will be able to enjoy its full potential and easily parameter most of its functions, without having to be an expert audio-visual engineer, leaving room for what is most important to our users: concentrating on their event.

The **Eikos LE** front panel is comprised of several sections, each carefully labelled and self explanatory, corresponding to all the machine's versatile functions.

- 1 : Standby button
- 2 : Menu screen
- 3 : Menu scroll knob
- 4 : Control section
- 5 : Layer selection section
- 6 : Analog Input selection section
- 7 : Digital Input selection section
- 8 : Function buttons
- 9 : Take button
- 10 : Effect selection buttons
- 11 : Preset selection buttons
- 12 : Layer section
- 13 : Matrix Mode section



On/Off button



The STANDBY button allows users to put the **Eikos LE** into sleep mode, and startup again. The STANDBY button does not replace the ON/OFF switch at the rear of the unit, and is implemented essentially for ease-of-use in rackmount situations.

--> Hold for 3 seconds for stand-by mode

Menu screen



The Menu Screen of the **Eikos LE** is the visual interface to your **Eikos LE** menu. It gives users a constant indication of available menu options, parameters of any selected object, system information, and everything you need to know to control the device.

Menu scroll knob



The Menu scroll knob allows users to quickly scroll through menu items and increase or decrease any modifiable value in the **Eikos LE** menu. Simply scroll to the desired menu item, and press the ENTER button to confirm your choice.

The **ENTER** Function is also available by pressing the scroll Knob.

Control section

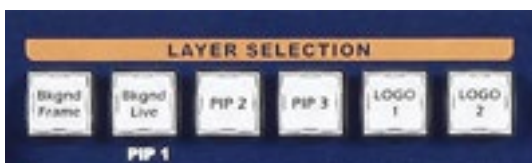


The EXIT/MENU button and the ENTER button in the Control section of the **Eikos LE**, allow users to respectively enter and exit the **Eikos LE** menu, and confirm selected menu items.

Layer selection section

The Layer Selection section allows to select which type of layer to work with:

- **Background Frame** (non-positionable, non-resizable static background),
- **Background Live** (positionable, resizable animated background),
- **PIP** (positionable, sizable floating window), or
- **Logo** (positionable, key sensitive layer).



Input selection section

The Input Selection section allows to select which input (#1 to #12) to display in a selected layer. Select one of 12 simultaneous inputs, (6 analog inputs, 2 DVI-D inputs, 4 SDI inputs) by simply pressing one of the Input buttons.



Freeze button

The Freeze button of the **Eikos LE** allows users to freeze the Main output current display or the active layer, depending on the freeze mode: Freeze All or to freeze the current selected layer [Input Freeze].



The **BLACK** button allows users to remove layer content on screen.

Take button

The **Eikos LE** TAKE button allows to switch from Preview to Main outputs. By pressing the TAKE button, what you have setup on your preview screen will be transitioned to the Main output display.



Effect selection button

The **Eikos LE** EFFECT SELECTION button selects the assigned Effect to the active layer.



Preset selection button

The **Eikos LE** PRESET SELECTION button allows you to instantly recall a saved preset.



4-2. THE EIKOS LE MENU

Menu navigation

To access the **Eikos LE** menu, press the EXIT/MENU button in the control section (4). To highlight items in the menu which will appear on the VFD screen (2), turn the scroll knob (3) left or right to the desired menu item. When you have reached the desired menu item, press the ENTER button in the control section (4) to access that menu function. Pressing the ENTER button when a selection has been made sets the value to that selection in the **Eikos LE** memory. When all settings have been made, press the EXIT/MENU button to exit sub-menus and return to the main menu.



Simply selecting a menu item will not set it to that value. Be sure to press the ENTER button when parametering the menu items or to push the scroll knob.



Home menu

Pressing the MENU button in the menu section of the **Eikos LE**, will display and give you access to the following items on the menu VFD screen:

- **MODE**: select to choose which mode the **Eikos LE** will work (in Mixer or Matrix Mode, see **Eikos LE** Modes p.5).
- **INPUT**: select to configure the 12 individual input types and resolutions.
- **MAIN OUT**: in Mixer mode, select to set the output types and resolutions of the Main output.
- **OUTPUT 1**: in Matrix mode, select to set the output types and resolutions of Output 1.
- **PREVIEW OUT**: in Mixer mode, select to set the output types and resolutions of the Preview output.
- **OUTPUT 2**: in Matrix mode, select to set the output types and resolutions of Output 2.
- **VIDEO OUT**: select to configure Video output card settings.
- **PRESET**: select to store and use presets.
- **IMAGE**: select to change source image settings of an input.
- **KEYING/TITLING**: select to access keying and titling controls and parameters when video layer is selected.
- **LAYER**: select to adjust layer size, position, border, transparency or transitions.
- **LOGO/FRAME**: select to store (record), use and manage logos and frames into the **Eikos LE**.
- **AUDIO**: select to access all audio input and output parameters.
- **CONTROL**: select to access device software information, LAN settings, reset factory settings, amongst other user oriented functions.
- **VIRTUAL T-Bar**: select to access the Virtual T-Bar.

4-3. WORKING WITH THE EIKOS LE

Operating modes

The **Eikos LE** offers 2 modes to work from: the **Mixer Mode**, which is the **Eikos LE** default mode and the **Matrix Mode**, which turns your **Eikos LE** into a true 12 x 2 scaled matrix with numerous effects and PIPs and logos.

*** NOTE * :** In Mixer Mode, the **Eikos LE** will only let you work on your preview screen (direct access to main screen is locked).

To choose which mode the **Eikos LE** will work in, press the EXIT/MENU button and select *Mode* in the menu by rotating the scroll knob. Then press the ENTER button to enter the *Mode* sub-menu. Select the desired mode by rotating the scroll knob, and press the ENTER button to confirm your choice. Press the EXIT/MENU button to return to the main menu.



Reseting default values









It is strongly recommended resetting all of the default values of your **Eikos LE** unit before setting up your shows and events. To do so, press the EXIT/MENU button and select *Control* in the menu by rotating the corresponding knob. Then press the ENTER button to enter the *Control* sub-menu. Select *Default Values* by rotating the scroll knob, and press the ENTER button to enter your choice to restart your **Eikos LE** with its factory settings. This operation should take approximately 30 seconds.

Eikos LE color codes

Analog Way engineers have developed a handy, user friendly way of identifying machine status on the front panel, via the use of color codes on the buttons of the machine. All new **Analog Way** machines use the same codes, for quick recognition of the status of any device of the range, at any given time.

For the **Eikos LE**, button color codes are as follow:

- Sources on the Main output are indicated in **red** when active,
- Sources on the Preview output are indicated in **green** when active,
- Buttons in the layer section turn **red** or **green**, depending on whether the selected layer is active in respectively the Main or Preview window,
- Menu buttons are indicated in **green**,
- Selecting a button with an available source or function will cause that button to blink **green** on the preview, or **red** once it is on the Main output,
- TAKE button reacts as follows:
 - If take function is available, the button will appear in **green**.
 - When the take function is active, it will light up **red**.

No light:		#1 = Input not available on autolock #2 = Frame or Logo not available #3 = Layer not available #4 = Button not available depending on the user mode
Solid red:		#1 = Source, Layer or Window is on Main #2 = Mosaic Preview enable #3 = Freeze enable
Solid green:		#1 = Source or Layer is on Preview #2 = Function available for modification #3 = Current output on Matrix Mode
Dim green:		Button available for selection
Blinking red:		Active Layer or Source for modification on Main
Blinking green:		Active Layer or Source for modification on Preview
Dim red:		Stand-by button
Solid orange:		#1 = Shift button #2 = Function available by Shift button

A- SETTINGS IN MIXER MODE

Source Input selection

Plug your sources thanks to the 6 universal inputs, 2 DVI-I Inputs or 4 SDI inputs. Don't forget that the 2 DVI-I inputs can be used with DVI-D computer sources (DVI#1 & DVI#2) but also with a DVI-A adaptor for analog sources too (source #5 & #6) shipped with your unit.

Be sure that all connectors are firmly attached using all available locking screws.

Input selection settings

To set up your inputs:

Input menu → Auto settings

You can also do it manually on each input# using the ENTER and the Knob button and set up the inputs type one by one.

You can also check your actual input configuration using the config status:

Input menu → Config Status

You can find several settings for each input (some settings are specific to some signal type):

- **Type:** to set up your input type (Computer, Video, etc..)
- **Enabled/disabled:** to enable/disable input#
- **Audio input:** to set up the audio regarding the input
- **H sync. load:** to change the load of the Sync. signal (Hi-Z, 75 ohms)
- **EDID:** to set up the EDID in terms of resolution and rate
- **Status:** to summarize the input status

Concerning the DVI inputs, a specific feature allows enable/disable the HDCP receiver for the input chosen. It can be very useful especially using a Mac:

Input menu → DVI # → HDCP detection

*** NOTE * :** The input status is available at any time in status input menu and can give you information about format rate and HDCP.

Input Sync. Loss Function

Allows to display a frame or a source in case of sync loss of the selected input. To set up the Sync. Loss function:

Root menu → Control → Sync. Loss → Press Input# or Enabled

The selected input must be activated for being visible in case of sync loss.

Source output selection

Once your inputs all have been configured, the output settings of the **Eikos LE** must be set according to the machines plugged on your **Eikos LE** main and preview outputs (video projector, preview monitor...).

*** NOTE *: If you want to use HDCP content from your sources, be sure to attached HDCP compliant screens or projectors. If it's not the case, the output image could be disabled.**

Output selection settings

To set up the output, go in the Main Output or Preview Output menu and choose first the appropriate format/resolution, and then the appropriate rate for your screens by using the knob button and the Enter button.

Main Output → Output Format → Output Rate

Use the native resolution of your screens/projectors in order to obtain the best image quality. In the Preview Output menu, you can also match the output configuration from the Main Output to the Preview Output by checking the case Sync w/Out 1. It allows you to set up your outputs via the output #1 menu.

Preview output → Synch w/Out 1

Some other settings are available too:

- The Output sync polarity.
- The Gamma: use this feature to set up the output Gamma.
- Flicker Filter (Video Out only): apply a flicker filter on your video output.
- Analog type: set up the type of synchronisation of your Analog output.
- DVI type: set up the type of color place of your Digital output.
- HDCP detection: set up to enable/disable the HDCP detection on the output.
- Background colour: add a background color space in place of the default black one.
- Test pattern: use test pattern on Main or Preview screen to configure your projectors and/or your softedge.

All changes have to be validated by pressing the **ENTER button in order to be saved**

*** NOTE *: The output status can provide you all information about the output in real time. This feature is particularly needed when HDCP is used with long cable to be sure that the communication is well handled.**

Video Out

The Video Out allows you the same settings as other outputs with some additional specific options:

- **Sharpness**: set up the sharpness on the video out image.
- **Flicker Filter**: apply a flicker filter on your video output to eliminate flickering.

In Matrix mode, the menu “**Connection Mode**” appears. It allows you to choose recording Output #1 or Output #2.

Preview Features

The Preview output can display all adjustments before the Take.

All current layers for the Main are defined by a colorful frame on Preview. They are identified by a letter and a number with the same color.

Background Frame: BFx, with x of 1 to 8

Background Live: Axx, with xx of 1 to 12

PIP#1: Bxx, with xx of 1 to 12

PIP#2: Cxx, with xx of 1 to 12

Logo#2: 2Lx, with x of 1 to 8

Logo#1: 1Lx, with x of 1 to 8

Because the number of resources available is limited, the Preview displays only one live or still layer. The others are only identified by their colorful frame and their number.

Blinking of the Frame of the Preview allows to display the selected layer.

Preview Id

The function disables all the display of information in Preview Mode. The colorful frames and numbers with the same color are disable. To set up your Preview Id:

Menu → Control → Preview Id

How to use the Mosaic Preview feature

The Mosaic Preview displays all inputs on one screen with live information about the input status. There are 3 lines of 4 pictures.

Information	Availability
Name of input	YES
Displaying (Green: Preview - Red: Main - Grey: No source)	YES
Resolution if recognized input	YES
Line frequency if recognized input	YES

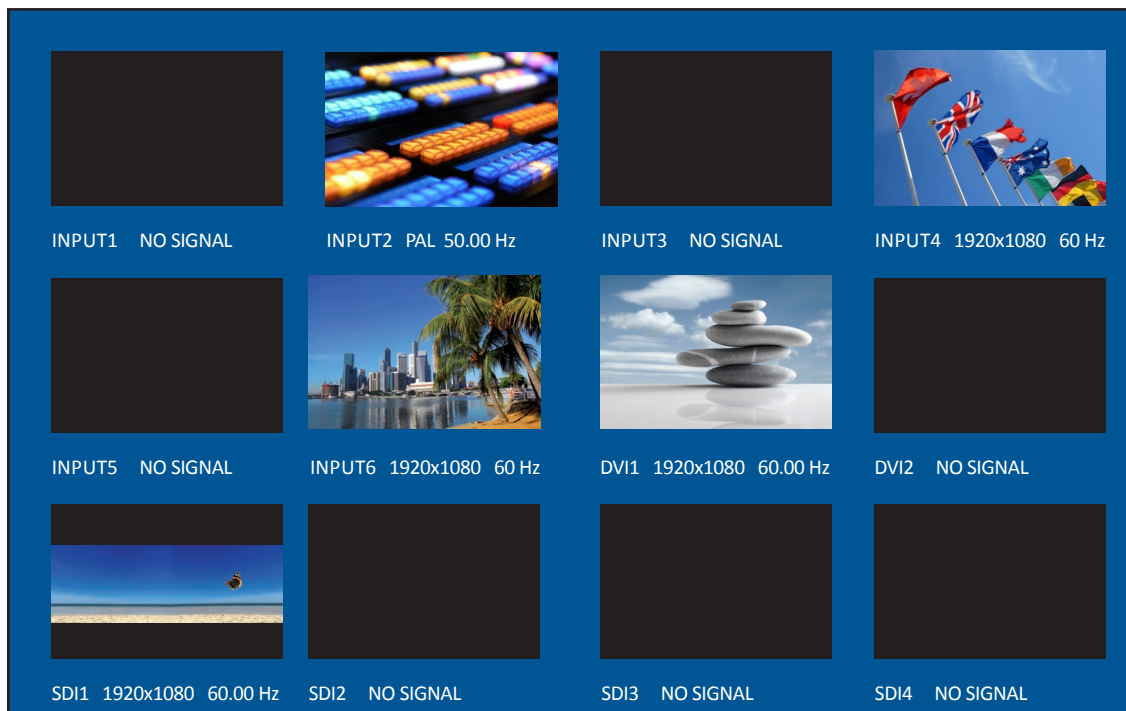
To have better visualize all aspects of your inputs, two modes are available, when the Mosaic Preview button is activated (Red light solid button):

- One live source mode: Select your Layer and the source you want to put on it. The input selected will be displayed at full frame rate on your Mosaic Preview

Press a Layer button (Bkgnd Live, PIP1 or 2) --> Press the Live source chosen

- Refresh still source mode: To have a cyclic refreshment of all your inputs, select a layer and put it to black. All sources will be automatically refreshed.

Press a Layer button (Bkgnd Live, PIP1 or 2) --> Press the Black Button



Working with Layers

To attach a source to a layer, press the Layer button, press the Source# you want to attach.

Ex: Background Live → Source #4

The source number 4 will be displayed in the Background live.

Press Take to view the result on the main screen.

To delete a Layer from the Preview screen:

Press Layers # → Press Black button

Press Take to view the result on the Main screen.

To delete every Layers on your Preview screen:

Hold the Black button briefly

Press Take to view the result on the Main screen.

To freeze a layer:

Select a Layer → Press Freeze button

Working with Layers Functions

Once a source is attached to a layer, you will have access to some layer settings in the Layer menu or directly by pressing the layer button.

The settings available depend on the layer selected:

- **Layer adjusts:** set up layer size and position.
- **Layer zoom:** set up layer zoom size and position.
- **Transparency:** adjust the Layer transparency.
- **Border:** choose the border and adjust its properties.
- **Opening and Closing effect:** adjust the Open/Close effect type and duration.
- **Smooth move:** enable/disable smooth move.
- **Status:** get the selected layer status.

All changes have to be validated by pressing the OK button in order to be saved

Press Take to view the result on the main screen.

Settings available:

Settings	Background Live / PIP#1	PIP#2	PIP#3
Position	YES	YES	YES
Size	YES	YES	YES
Zoom	YES	YES	YES
Transparency	YES	YES	YES
Border	YES	YES	YES
Opening effects	YES	YES	YES
Closing effects	YES	YES	YES
Smooth Move	YES	YES	YES
H Flip / V Flip	YES	YES	YES

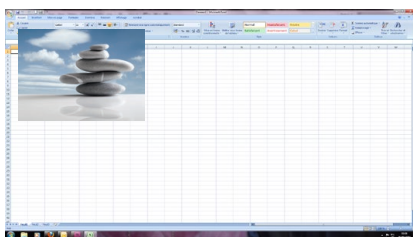
Even the Logo and Frame buttons can access to their own settings, but a source # has to be affected too.

The Main output can displayed simultaneously up to 6 layers stacked from bottom to top as follows:

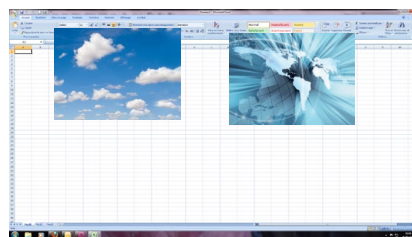
- **The Background Frame:** One stored frame selected from 8 available,
- **The Background Live/PIP#1:** One source selected from 12 inputs available,
- **The PIP#2:** One source selected from 12 inputs available,
- **The PIP#3:** One source selected from 12 inputs available,
- **The Logo#1:** One stored Logo selected from 8 available,
- **The Logo#2:** One stored Logo selected from 8 available.

Working with PIPs

A PIP is used as a layer. Please report to *WORKING WITH LAYERS* section.



1 PIP + Live Background



2 PIPs + Live Background



3 PIPs + Still Background

Opening transitions and closing Live Layers

When transitioning live layers, depending on how many scalers are in use, the **Eikos LE** TAKE function will act in one of 3 different ways when transitioning the Next Preset (Preview) to the Current Preset (Main):

• Take 1- shot: Case #1

- There are enough scalers for making a transition
- All inputs are locked on to scalers
- There are no constraints for closing **before** the Take
- All opening and closing transitions can be performed simultaneously.

• Take 2- shot: Case #2

- There are enough scalers for making a transition
- All inputs are locked on to scalers before the Take
- There are no constraints for closing **during** the Take
- All the necessary closing transitions are performed to free occupied scalers and then the **Eikos LE** performs all openings.

• Take sequenced- shot: Case #3

- There are not enough scalers for making a transition
- All inputs are not locked on to scalers
- All the necessary closing transitions are performed to free occupied scalers. The **Eikos LE** locks on to new sources and performs all openings.

PIP adjustment menu

To have access to the PIP adjustment menu, a source has to be affected to your PIP:

Press PIP# button → Press source #

Once a source is attached to PIP, you can have access to the PIP adjustment Menu:

Press PIP # button

Press Take to view the result on the main screen.

To adjust PIPs, there is a shortcut on a front panel too:

Press PIP# button → Press Pos/size/zoom button

PIP configuration

All the settings and shortcuts available for layers are available for PIPs. Please refer to “Working with Layer” and “Working on Layer functions” sections.

PIPs as Layers

A PIP is considered as a layer and has the same properties. All of the same manipulations are possible.

Transitions:

All the settings are available in the **Layer Menu** after pressing the selected PIP.

The transition effects have some shortcut on the front panel too.

To Use it: **Press the selected PIP# → Press the Cut, Fade, User #1 or User #2 button**

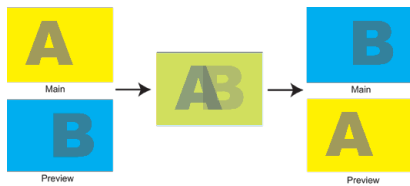
The effect will be immediately attached to the selected PIP.

Concerning the User 1 and User 2 button, they have to be set up before in the :

Control menu → Prog. Keys

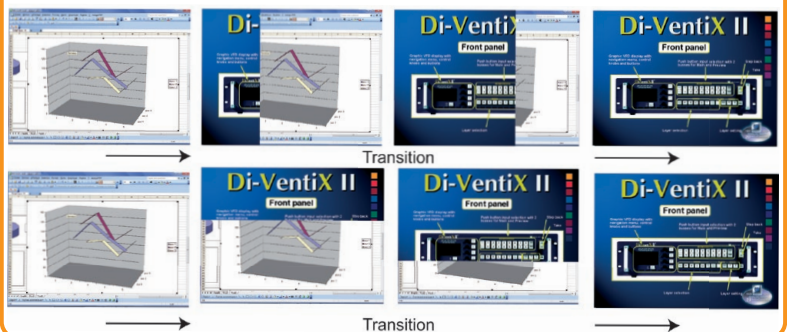
Fade

- Adjustable pre-timed fades or manual transition with T-Bar
- Fade between any input, computer or video
- Adjustable cross-fading duration



Wipe

- Numerous wipes can be selected horizontal and vertical, from the center or outside, in circle, Zoom in and out
- Horizontal: from left, center -or- vertical: from up, down, center

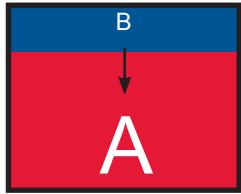


Slide

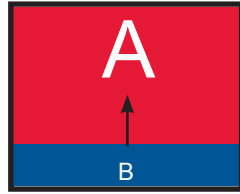
- Sliding of video or computer images during the transition
- Horizontal: from/to left, -or- vertical: from/to up, down



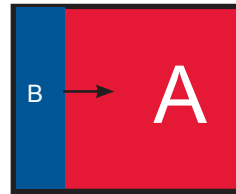
The **Eikos LE** offers 33 seamless transition effects including 31 options, in addition to a dissolve (fade) and a cut effect.



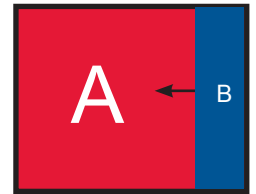
WIPE DOWN HARD



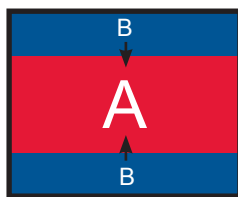
WIPE UP HARD



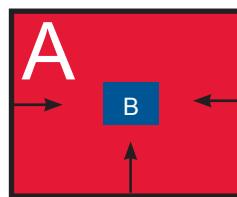
WIPE RIGHT HARD



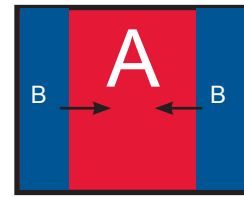
WIPE LEFT HARD



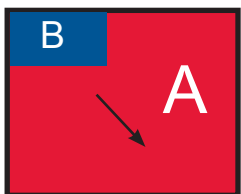
WIPE CENTER IN HARD



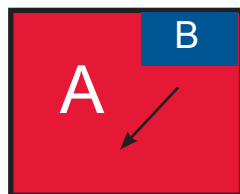
WIPE CENTER OUT HARD



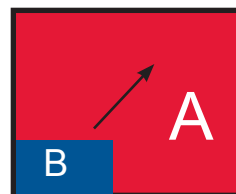
WIPE CURTAIN IN HARD



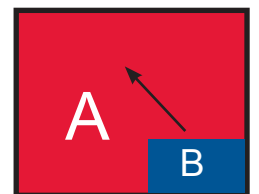
WIPE ANGLE
TOP LEFT
CORNER HARD



WIPE ANGLE
TOP RIGHT
CORNER HARD



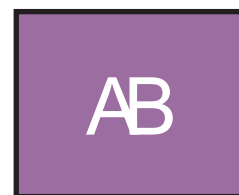
WIPE ANGLE
BOTTOM LEFT
CORNER HARD



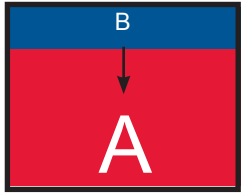
WIPE ANGLE
BOTTOM RIGHT
CORNER HARD



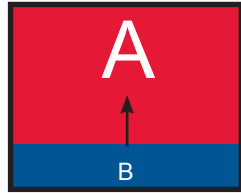
CUT



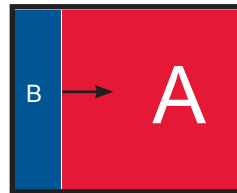
FADE



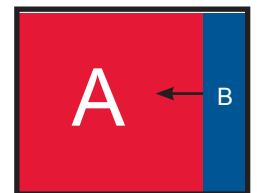
SLIDE DOWN HARD



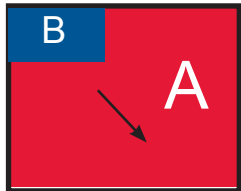
SLIDE UP HARD



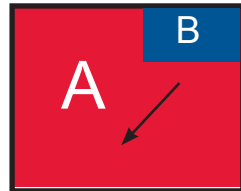
SLIDE RIGHT HARD



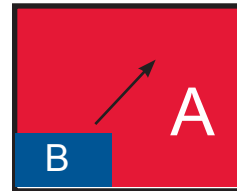
SLIDE LEFT HARD



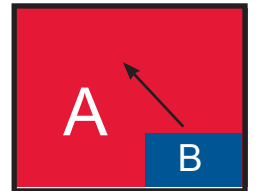
SLIDE ANGLE
TOP LEFT
CORNER HARD



SLIDE ANGLE
TOP RIGHT
CORNER HARD



SLIDE ANGLE
BOTTOM LEFT
CORNER HARD



SLIDE ANGLE
BOTTOM RIGHT
CORNER HARD

Border:

The border has to be setting up in the Layer menu:

Press PIP# button → go in border menu → select and set your border with colour and size
Press Take to view the result on the main screen.

No border



Color border



- Size and style of PIP border are adjustable
- The background or PIP image can be switched

Capturing still Frames

To capture a frame, display the exact content you want to save on one of your outputs, at the exact resolution, you can use the freeze button if you want. Then follow this step:

Logos/Frames menu → record Frame menu → Frame #

Choose the frame number slot and wait until the unit to finish saving. Your frame is now saved and you can use it through the background frame button.

The capture of frames can be done only under the following conditions:

- The unit can be in Mixer Mode or Matrix Mode,
- The capture can be done the Main output or the Preview output,
- The disappearance of frames on the Preview and Main output is normal.

A frame captures the state of the specified output at the main output resolution, and must be recalled using the same output resolution. Resizing or other image manipulation of the captured frame is not possible. Attempting to use a Frame at a different resolution will result in a partial Frame display or a Frame which does not fill the step.

The captured output is outlined by a white border and includes the pixels beneath the white border.

Working with Frames

It is possible to store up to 8 frames in the **Eikos LE** non volatile memory. Frames are mainly used as backgrounds in a typical show or event setup, and can be recorded from any of the **Eikos LE**' 12 sources and called back at the press of a single button. To use a frame, be sure first that it is well saved, then:

Press Background frame button → Press Frame # button

*** NOTE * : Frames may be used only one at a time and can be placed only in the background Frame Layer.**

Opening transitions & closing Still Layers (Logos or Frames)

When transitioning still layers, depending on how many scalars are in use, the **Eikos LE** TAKE function will act in one of 2 different ways when transitioning the Next Preset (Preview) to the Current Preset (Main):

• Take shot: #1

- All still frames make an opening and closing phase.
- All sources of the same layer are completely different between the Current Preset and the Next Preset. The opening and closing effects of the Layer are set to Cut.

• Take shot: #2

- One of the Layer makes a change of source which be not in Cut.
- The opening and closing phases can be done with different effects.
- The still frame appears and disappears of the layer with the following effects: Cut, Fade, Slide or Wipe.

Memorizing Frames

The **Eikos LE** can memorize up to 8 frames from any resolution (see *Capturing still Frames*).

1. In the Input Selection section, press the source button (#1 to #12) of the source you wish to record as a frame. The source button will start blinking. Press the TAKE button to display that source on the main display.
2. Select Logos/Frames in the menu by rotating the scroll knob, then press the ENTER button.
3. Select *Record Frames* in the *Logo/Frames* menu by rotating the scroll knob, then press the ENTER button. A white rectangle will appear on your main display or your Preview, indicating the frame which will be captured. Select an empty frame memory (empty frames are indicated in the sub-menu) to store the frame into. Press the corresponding ENTER button.
4. The **Eikos LE** will display a progress status bar on the VFD screen. Your frame is stored when the menu reappears on the VFD screen.
5. Press the BACKGROUND FRAME button, select the frame number (1 to 8) you just recorded, and press the TAKE button. Your background frame will appear on your preview output.

Frame input setup menu

In the frame input setup menu, you have the possibility to save a frame, and the possibility to erase a stored frame:

Logos/Frames menu → save frame → Frame #

Logos/Frames menu → Erase → Frame #

Frames as Layer

The background frame is considered as a layer and has some settings available:

Transparency, Opening/Closing effect, Smooth move and Status.

Those settings have to be used as Layer settings.

Press background frame button to have access to the Layer menu settings

You can change frame or delete frame on the preview screen using the same way the layers do:

Clear: Press background frame button → Press Black

Change: Press background frame button → Press another Frame #

Press Take to view the result on the main screen.

Layer transitions & effects

The **Eikos LE** offers a wide variety of transitions between the scenes you create for your shows and events. It allows for live recall of 4 user presets, each of which you can edit at any given time.

1. Whether catering for complex event setups, or putting together intricate shows, your **EikosLE** will also deliver some of what you could expect from a dedicated mixer, along with its switcher and scaler capabilities.
2. In the Layer Selection section, press the PIP1 button. The button will start blinking. On your Preview screen, PIP1 will appear as a color rectangle. The parameters of the layer will automatically appear on your **Eikos LE** VFD menu screen.
3. In the *Layer* menu, make the position, size, border and transparency settings you like, then select *Opening Effect* in the layer options, press the ENTER button and select *Type*. Select *Slide Left - Right* for example, and press the ENTER button to confirm. Navigate to *Duration* in the *Opening Effect* sub-menu, and set the duration of your effect by rotating the SCROLL knob and pressing ENTER.

Repeat the procedure in the *Closing Effect* sub-menu to determine the way your layer will close. Try *Slide From Left - Right* for the closing type with a duration of 1.5 seconds for example.

Mixer functions

In Multi Layer Mixer mode, the **Eikos LE** offers a variety of mixer type transitions, including wipes, fades, and cuts. The transitions, transition times and fade/wipe effects can all be setup through the **Eikos LE** Layer menu.

Capturing Logos

To capture a Logo, display the exact content you want to save on the main screen, you can use the freeze button if you want. Then follow these steps:

Logos/Frames menu → Record Logo menu → Set up your logo → Store menu → logo#

To set up your logo, you have several features available:

- Position/size Adjustment
- Keying type
- Luma key/ Chroma key
- Cut out color

Select the logo number you want to save and wait until the unit finish saving. Your logo is now saved and you can use it through the background logo button.

You can save up to 8 logos with the Eikos LE.

The capture of logos can be done only with the following conditions:

- The unit can be in Mixer Mode or Matrix Mode
- The capture can be done on the Main output or the Preview output
- The disappearance of logos on the Preview and Main output is normal.

The logos are captured with the same size as is visible on the Main output without any form of adjustments. If zooming is required resize the PIP or use the layer or input zoom.

A logo captures the state of the defined area on the specified output at the Main output resolution, and must be recalled using the same output resolution. Resizing or other image manipulation of the captured logo is not possible.

The capture zone is outlined by a white rectangle and includes the pixels beneath the white border. The non-captured area is reduced in brightness.

Logo capture is limited in the number of pixels being captured. When the logo capture area is resized, extending the horizontal size may reduce the vertical size to compensate.

Logos can also be captured and displayed with transparent areas. By adjusting the keyer in the logo capture menu, the portions of the captured area can be keyed away and captured as transparent.

The Logo “Cut out color” can help display which portions of the image will be captured as transparent.

*** NOTE *:** The cut out color is only a visual tool to help identify the transparent areas of the logo. These colored regions will not be captured but later displayed as transparent area.

*** NOTE*:** Capturing a “Logo” is limited to a small percentage of the output resolution. To capture and display a full screen image, use the still “Frame”.

Capturing an animated Logo

To capture animated Logo, display the exact content you want to save on the main screen, you can use the freeze button. Then follow this step:

Logos/Frames menu → Record Anim menu → Set up your Anim → Store menu → logo#

To set up your anim, you have several features available:

- Position/size Adjustment
- Keying type
- Luma key/ Chroma key
- Recording time
- Cut out color

Select the anim logo #8 and wait until the unit finishes saving. Your animation is now saved and you can use it through the background logo button.

Only one Animated logo can be saved in the Eikos LE.

Memorizing logos in the Eikos LE

1. In the Input Selection section, press the source button (#1 to #12) of the source you wish to record as a logo. The source button will start blinking.
2. Select the *Logos/Frames* menu by scrolling through the menu with the scroll knob, then pressing the ENTER button.
3. Select *Record Logos* in the *Logos/Frames* menu by rotating the scroll knob, then pressing ENTER. A small white rectangle will appear on your main display, indicating the logo that will be captured.
4. Adjust logo size, position, and fine tune key attributes by rotating the scroll knob and pressing ENTER to memorize logo settings.
5. Select an empty logo memory (empty logos are indicated in the sub-menu) to store the logo into. Press the ENTER button. The **Eikos LE** will display a progress status bar on the VFD screen.
6. In the Layer Selection section, press the LOGO1 button, and select logo number (#1-#8) you wish to use. Your logo will appear on the preview screen above any existing layer on screen.
7. Press the TAKE button. Your logo will appear on the main display.

Logos input setup menu

In the Logos/frames menu, the logos can be deleted in the erase menu:

Logos/Frames menu → Erase menu → Select Logo#

Working with Logos

A simple or animated Logo can be manipulated through the front panel. On the front panel, the logo # are associated to the input # respectively. To assign a logo# to the logo layer:

Press Logo1 Layer button → Press Input#

Logos #1 to #6 are available directly by the input # button on the front panel. For logo #7 and #8, you have to use the Shift button first:

**Press Logo1 Layer button → Press Shift button → Press Input #
(for logo 7 or 8 use Shift then Input# button)**

You can change logos or delete logos on the preview screen using the same way the layers do:

**Clear: Press Logo (1 or 2) button → Press Black
Change: Press Logo (1 or 2) button → Press another Input #**

Logos as Layer

Logos are under the layer rules, you will have direct access to settings by pressing the Logo Layer button. You have 2 logos layers buttons available.

You can use the Pos/Size/Zoom adjustment button and the Effect button from the front panel too.

Working with Presets

The four user presets of the **Eikos LE** can be recalled at any stage during your show or event.

1. Press the PRESET button, then press one of the eight first Input Selection section buttons to choose which memory (#1 to #8) you wish to use. The preset will be displayed on your preview screen.
2. Once you have selected your preset, simply press the TAKE button to view the result on your main screen.

Creating Presets

The **Eikos LE** allows the creation of user defined presets very easily. Any setup you have configured on screen, can be stored into one of the 4 available user presets.

1. After having configured layers, PIP transitions, logos... on your screen (see *Working with the Eikos LE*, p.32), go to the *Preset* menu by pressing the EXIT/MENU button, and select *Preset* by rotating the scroll knob. Then, press the ENTER button to enter the *Preset* sub-menu. Choose *Preset Copy* by scrolling with the corresponding knob, and press the ENTER button to access the sub-menu.
2. In the sub-menu, choose *Save From Main* or *Save From Preview* to determine which screen you want to memorize the preset from, then set the preset memory (#1-#8) you wish to use as your "User Preset" (by default, the **Eikos LE** will choose the next available preset in the **Eikos LE** memory).
3. By pressing the ENTER button, the **Eikos LE** will ask you to confirm. Select *Yes*, your screen is memorized as a preset.

Working with Audio

The **Eikos LE** allows to work with up to 10 stereo inputs, 1 auxiliary input, and 2 stereo embedded SDI audio inputs (via the SDI BNC connectors), all accessible via the *Audio* menu of the **Eikos LE**, and which can be assigned to one or both of the 2 independant symetrical/asymetrical outputs of the device.

Audio configuration

To configure audio settings of the **Eikos LE**, plug all audio inputs into the device, and navigate to the *Audio* Menu.

1. Choose the audio mode, *Break Away* or *Top Layer Follow*, which you wish the audio to work in.
*** NOTE * : the *Break Away* mode will route the selected audio source, while the *Top Layer Follow* mode will route audio from the topmost active layer of the **Eikos LE**.**
2. Select *Source Settings* from the *Audio* menu to select the audio source you wish to work with, then set levels and left/right balance for each input.
3. Select *Auxiliary Settings* to determine level and balance of the auxiliary input.
*** NOTE * : the auxiliary input is combined with the selected input.**
4. In Mixer Mode, select the *Main Output* menu to determine main audio output level, balance and delay settings, or to mute main audio output.
*** NOTE * : in Matrix Mode, all output parameters can be assigned separately to outputs #1 and #2.**
5. In Mixer Mode, select *Audio Prelist*, from the *Audio* menu, to determine pre-listen audio output level, balance and delay settings, for each audio input, or to mute Prelist audio output.
*** NOTE * : in Matrix Mode, select *Out1 Prelist* or *Out2 Prelist* from the *Audio* menu to set audio pre-listen output parameters.**
6. Select *Delay Mode*, to determine how the **Eikos LE** deals with audio delay. Select *Auto Adjust* to let the **Eikos LE** determine audio output delay. Select *Manual Adjust* to determine audio delay manually.
*** NOTE * : selecting *Manual Adjust* will give access to audio delay value (in milliseconds) of the main and Prelist audio output menus.**

Dynamic Fit

- Dynamic & Automatic adjustment of the PIP to fit the source image borders (Black Stripe)



PIP

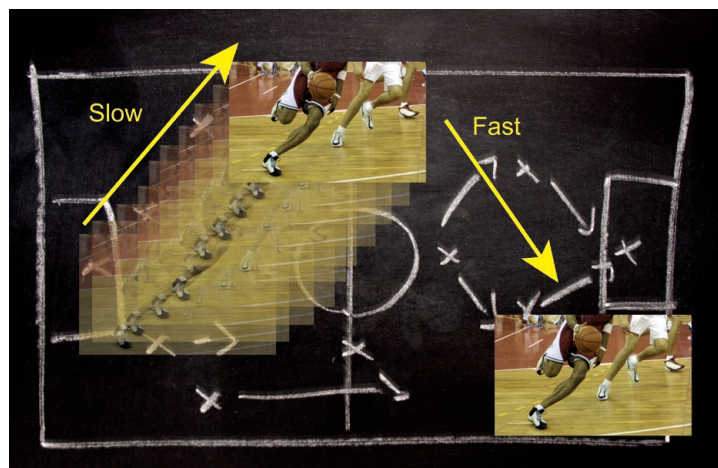


- Automatic adjustment of the PIP (Ratio) to fit the source image borders during a transition



Smooth Move effect

- Smooth Move PIP control the acceleration of the PIP. The time can be different between the opening and closing PIP.



Transparent Background

- Transparent Background allows you to remove the black band on sources in the background live layer in order to display behind a background frame or background color.



Background Frame



Image Live



Working with DSK (Chroma / Luma key)

- **Eikos LE** allows to use a live source with green or blue (or any color) background and to key it over another live input
- Background is removed and replaced by another source.
- Title can be keyed (DSK) on Analog or Digital Sources.



To use Keying, first select a source in the desired layer:

Layer button -> source number button

Then in the main menu, select the Keying/Titling menu.

You now have several choices to key your sources. The Luma Key and the Chroma Key based on the Luma pixel values and the Chroma pixel values and for both an additional Titling menu which can be useful to choose the transparency value of your keying.

Keying/Titling menu -> Type menu -> Select your keying type

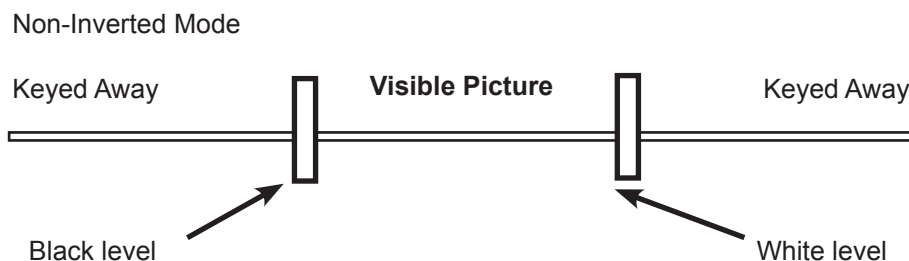
Once your keying mode is selected, the **Eikos LE** provides you some keying advance setting:

For Luma Key:

Luma Keying is used to key from a particular luminous intensity. It produces a hard edged key based on intensity, which is most suitable for titling effects. You can choose to key things that are extremely dark or extremely bright and keep everything in between, or invert to key only things that are of a medium intensity.

The black and white levels define where to begin the keying. In the range 0 to 255, 0 represents no luminance, or black and 255 represents full luminance, or white.

- **Level Black:** As the Black Level is changed from 0 to 255, things that are black are first keyed out, followed by dark grey, then light grey, and so forth, until the entire picture is keyed out at 255.
- **Level White:** As the White Level is changed from 255 to 0, things that are white are first keyed out, followed by light grey, then dark grey, and so forth, until the entire picture is keyed out at 0.



For Chroma Key:

Chroma Keying is used to key from a particular color. It produces a soft-edged key which is most suitable for moving images and “weatherman” style applications.

Color grabber:

Select Chroma Key menu -> Select Color grabber menu

Using a crosshair, you can select a particular hue based on what is on screen. Once you have adjusted the crosshairs to a desired position, press set/enter to capture the color value at that instant. You can then adjust the other parameters such as Tolerance to further refine your key.

Manual Setting:

Select Chroma Key menu -> Manual Settings menu

R,G,B:

These controls allow you to manually select a hue, defined by its Red, Green, and Blue values as you can find in Windows (Paint software).

Tolerance:

The Tolerance parameter allows you to expand your key color selection to include colors which are similar to the selected value. A tolerance of 1 will select only the desired hue, whereas a tolerance of 255 will select nearly all hues.

Black Level:

This option permits adjustment of the luminance levels of the keyed hue. The Black Level is the luminance lower bound. Colors in the selected hue range with a luminance brighter than the Black Level but darker than the White Level will be considered part of the key.

White Level:

This option permits adjustment of the luminance levels of the keyed hue. The White Level is the luminance upper bound. Colors in the selected hue range with a luminance brighter than the Black Level but darker than the White Level will be considered part of the key.

Titling alpha:

If you have selected one of the two Titling modes, the titling menu appears.

This option places a transparent black backdrop behind the entire layer to which the key is applied. This effect is useful for using bright titles on bright backgrounds, such as clouds.

Invert keying:

By default, this mode is disabled. When this mode is activated, the key selection will remain on screen, and all other portions of the image will be keyed away. For example, you would see the green screen behind the actor, while the actor would be keyed away.

B- SETTINGS IN MATRIX MODE

Source Input selection

Same as MIXER Mode.

Input selection settings

Same as MIXER Mode.

Working with Layers

Same as MIXER Mode.

Settings	Background Live (Output #1 & Output #2)	PIP #1	PIP #2
Position	YES	YES	YES
Size	YES	YES	YES
Zoom	YES	YES	YES
Transparency	YES	YES	YES
Border	YES	YES	YES
Opening effects	YES	YES	YES
Closing effects	YES	YES	YES
Smooth move	YES	YES	YES
H Flip / V Flip	YES	YES	YES

Source output selection

Same as MIXER Mode.

*** NOTE *:** If you want to use HDCP content from your sources, be sure to plug HDCP compliant screens or projectors. If it's not the case, the output image could be disabled.

Output selection settings

To set up the outputs, go in the **Output #1** or **Output #2** menu and choose first the appropriate format/resolution and then the adapted rate for your screens by using the knob button and the Enter button.

Output# → Output Format → Output rate

You can also in the **Output 2** menu, synchronise all the changes from the **Output #1** to the **Output #2** by checking the case **Synch w/Out 1**. It allows you to set up both outputs at the same time.



Output #2 → Synch w/Out 1

*** NOTE *:** The output status can provide you all information about the output in real time. This feature is particularly needed when HDCP is used thanks to the HDCP status.

All changes have to be validated by pressing the OK button in order to be saved

Video Out

Almost the same than in mixer mode except that in Native Matrix mode, the menu “connection mode” appears. It allows you to choose recording Output #1 or Output #2.

Display Mode	Presentation	Availability
Output #1 Menu → Video Out → Connection → Output #1		YES
Output #2 Menu → Video Out → Connection → Output #2		YES

Working with Native Matrix Mode

To activate the Native Matrix Mode:

Mode Menu → Native Matrix mode menu → Standard Mode or Mirror Mode

You'll find all menus from the Mixer Mode in the main menu except some specific Matrix function added.

To work with Native Matrix Mode, it's the same way than in the Mixer Mode except the fact that you have to use the Matrix # buttons first.

For instance, if you want to put the Frame #1 on the Output #1 and the Live source #3 on the output #2:

Press Matrix #1 button → Press Background Frame button → Press input #1
Press Matrix #2 button → Press background live button → Press input #3

Press Take to view the result on both screens

All the shortcut, menu and settings are available in the same way than in the Mixer Mode. Nevertheless don't forget to press the correct Matrix # button before pressing the Layer selection button, in order to be sure doing the manipulation on the correct output.

Working with Cut, Fade or Transitions

All the transitions available in the Mixer Mode are available in the Native Matrix Mode too. Although the matrix mode is activated, you will be able to perform powerful transition effects seamlessly. It can depend on your configuration.

The **Eikos LE** has 4 scalers, to understand how your effect will be performed, you need to know how many scalers are used on your outputs. Don't forget that you always need one free scaler to perform clean transition. Example:

1 background live on each output → 2 scalers used → 2 seamless transitions

1 background frame on each output + 1 PIP on each output → 2 scalers used → 2 seamless transitions available

The background Frame and the Logos are not considered as live layers and are not counted as using a scaler.

Working with PIP

The PIPs are used in the same way as the Mixer Mode. A source has to be selected to activate the PIP settings. Each PIP has its own settings, PIP 1 on output #1 is not linked to PIP 1 on output #2 in terms of settings.

*** NOTE *: Take a look at the blinking of the Matrix Mode button to always know on which output you are working on.**

In the EKS400, you can have 1 PIP over a Background Frame. In order to use this PIP, you will have to use the Background live layer and to resize it. You will use this layer as a PIP. The PIP button is used only for a titling effect, select the PIP layer, select a source and adjust the keying level after having activated the keying in this PIP.

In the EKS400, into the Matrix mode, the second live layer has to be keyed otherwise the layer will stay black.

Working with Mirror Modes

The Mirror Matrix Mode is a specific Matrix Mode where the output #2 will be the perfect mirror copy of the output #1. In that way, each settings apply to output#1 will be performed on the output #2 too.

Mode Menu → Native Matrix mode menu → Mirror Mode

To use the Mirror mode, just perform your setting and operation from the Matrix output #1. Nevertheless you can do manipulation on the output #2 at any time.

For a perfect use, set up the output format and rate for the output #2 as for the output #1 using the synchronise button:
Output 2 → Synch w/Out 1

Using the Matrix Mode, several configuration are available, the Simple Mode and the Mirror Mode.

Using the Mirror Mode:

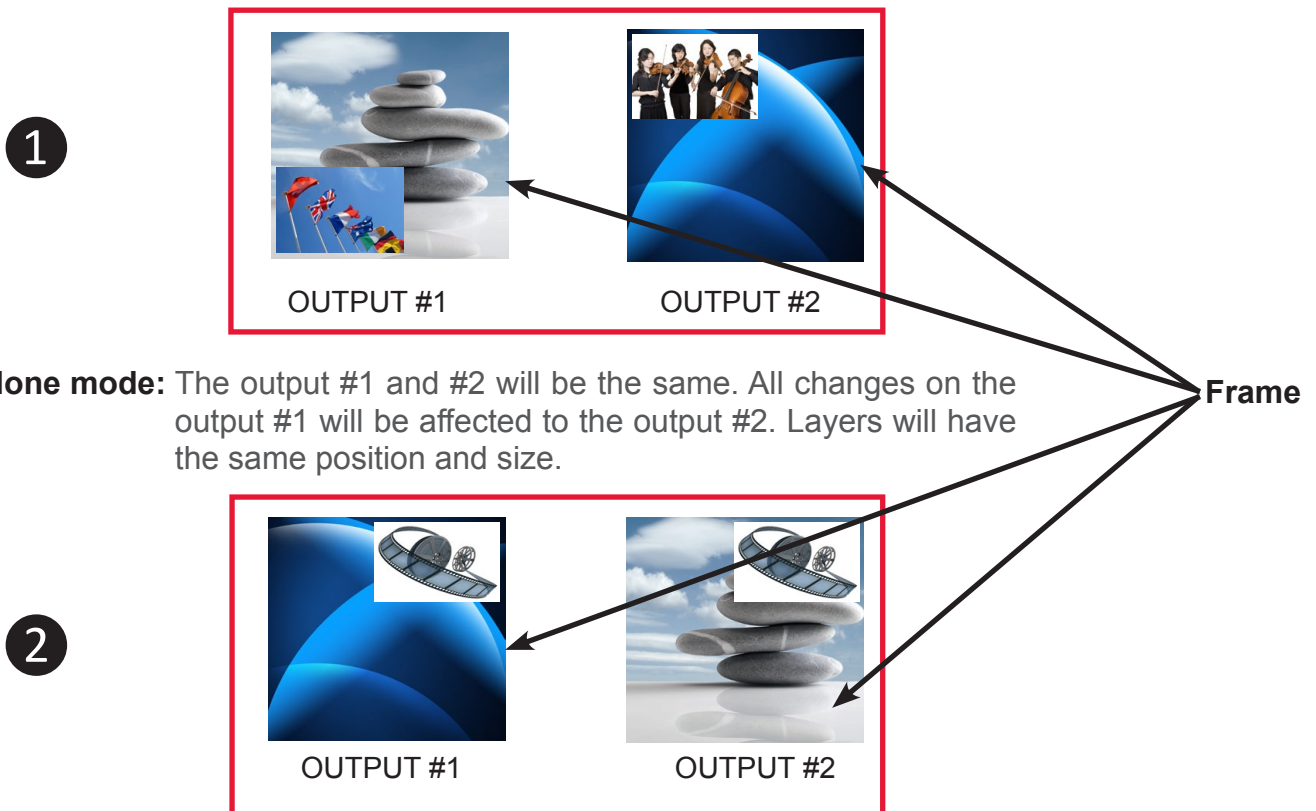
To use the Mirror Mode, simply select the Matrix Mode by the Main menu, then the Mirror Mode can be activated thanks to the PIP layers menu.

Select the PIP layer and go in the Layer menu, then select the “Layer Copy Mode” menu. There are several mirror positioning options:

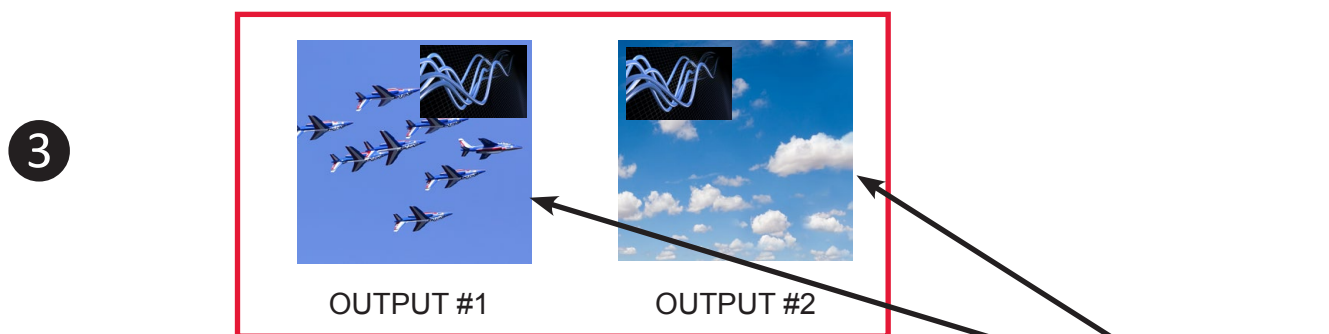
For the **1**, **2**, **3** & **4** modes: **Mirror Mode activated only for the PIP layer**

All backgrounds are Frames

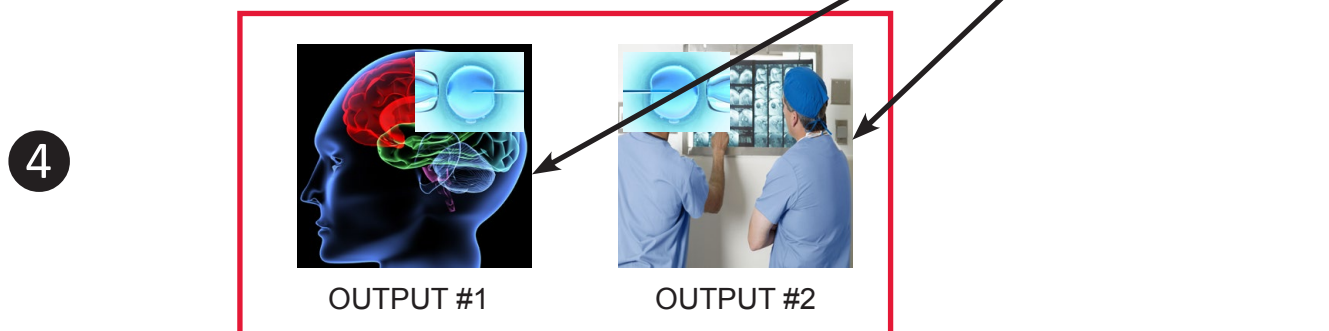
1- No Copy: this mode is the standard Matrix Mode, output #1 and #2 are independent...



3- Copy & H.pos Flip mode: the output #2 will be exactly the same as the output #1 except the fact that the selected layer will have its H position flipped (standard Mirror Mode).



4- Copy & H.Flip all modes: the output #2 will be exactly the same as the output #1 except the fact that the selected layer will have its H position and data flipped.



***NOTE*:** Remember that to simplify the use of this feature, you need to manipulate the Output #1. While in mirror mode, the Output #2 will follow the desired steps.

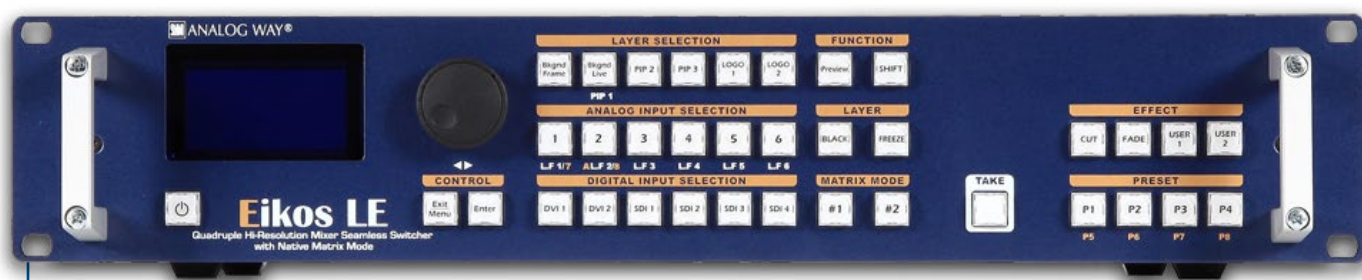
***NOTE*:** Every change on the Output #2 will have an effect only on the Output #2, but remember that if a change occurs on the Output#1 after that, the Output #2 will update automatically to match output #1 (in mode 2/3/4).

Working with Frames/Logos

The Frame/Logo is still memorized on the **Output #1**. To record a Frame/Logo, please refer to the chapter “Capturing still Frame/Logo” in the Mixer Mode.

To use a Frame/Logo, refer to “Working with frame/logo” in the Mixer Mode.

As a source, each Frame/Logo can be used by both outputs, you just have to select the correct matrix# button first.



MIXER MODE

[MAIN]
Format : 1920 x 1080
Rate : 50Hz
Lock : internal

MAIN PREVIEW

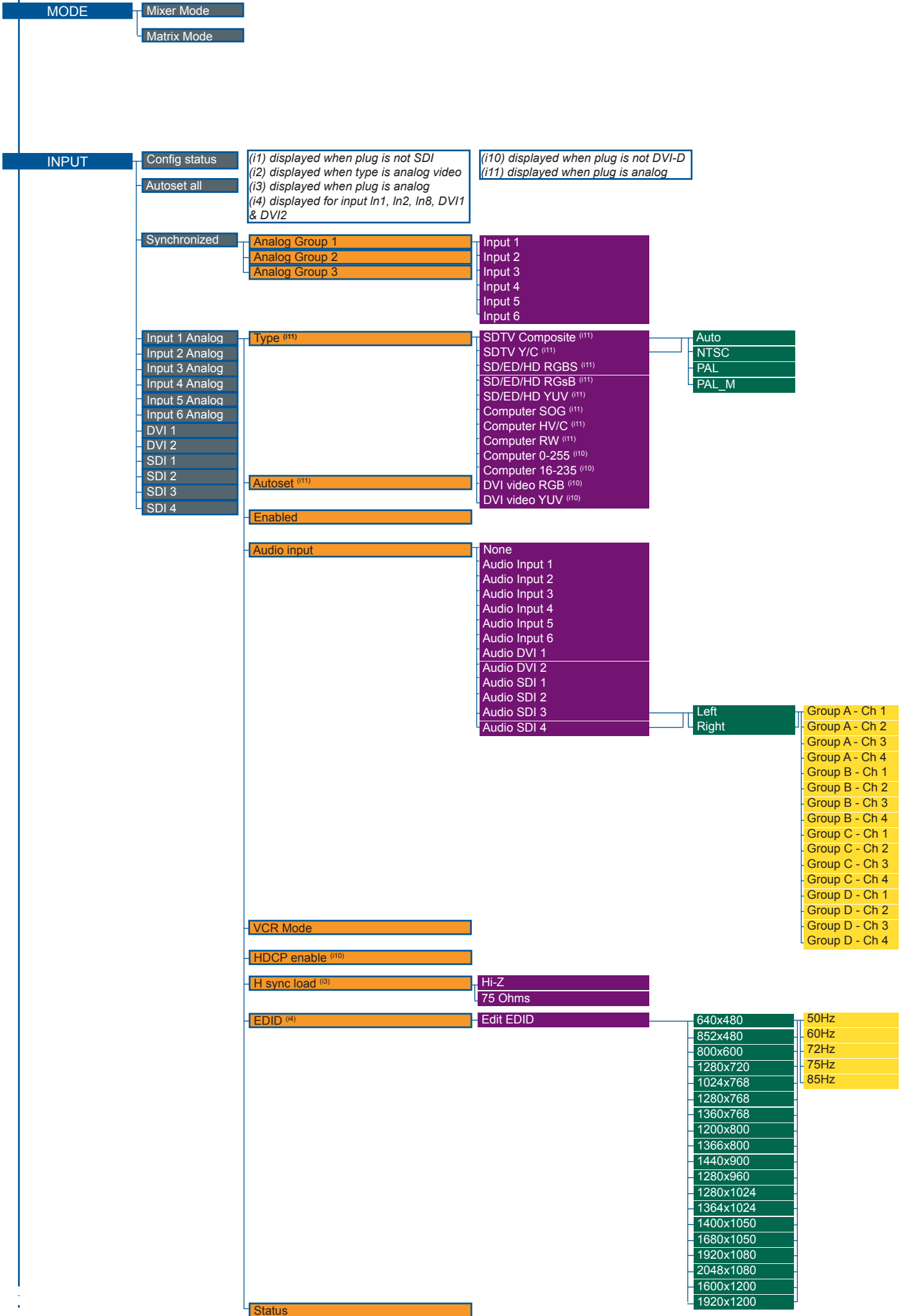
Logo2	Logo #1	Logo #8
Logo1	Logo #1	Logo #7
Pip2	SDI 1	SDI 4
Pip1	DVI 1	DVI 2
Live	Input 1	Input 8
Frame	Frame 1	Frame 8

MATRIX MODE

[OUT 1]
Format : 1920 x 1080
Rate : 50Hz
Lock : internal

	OUT 1	OUT 2
Logo1	Logo #1	Logo #8
Live	Input 1	SDI 4
Frame	Frame 1	Frame 8

[OUT 2]
Format : 1920 x 1080
Rate : 50Hz
Lock : internal

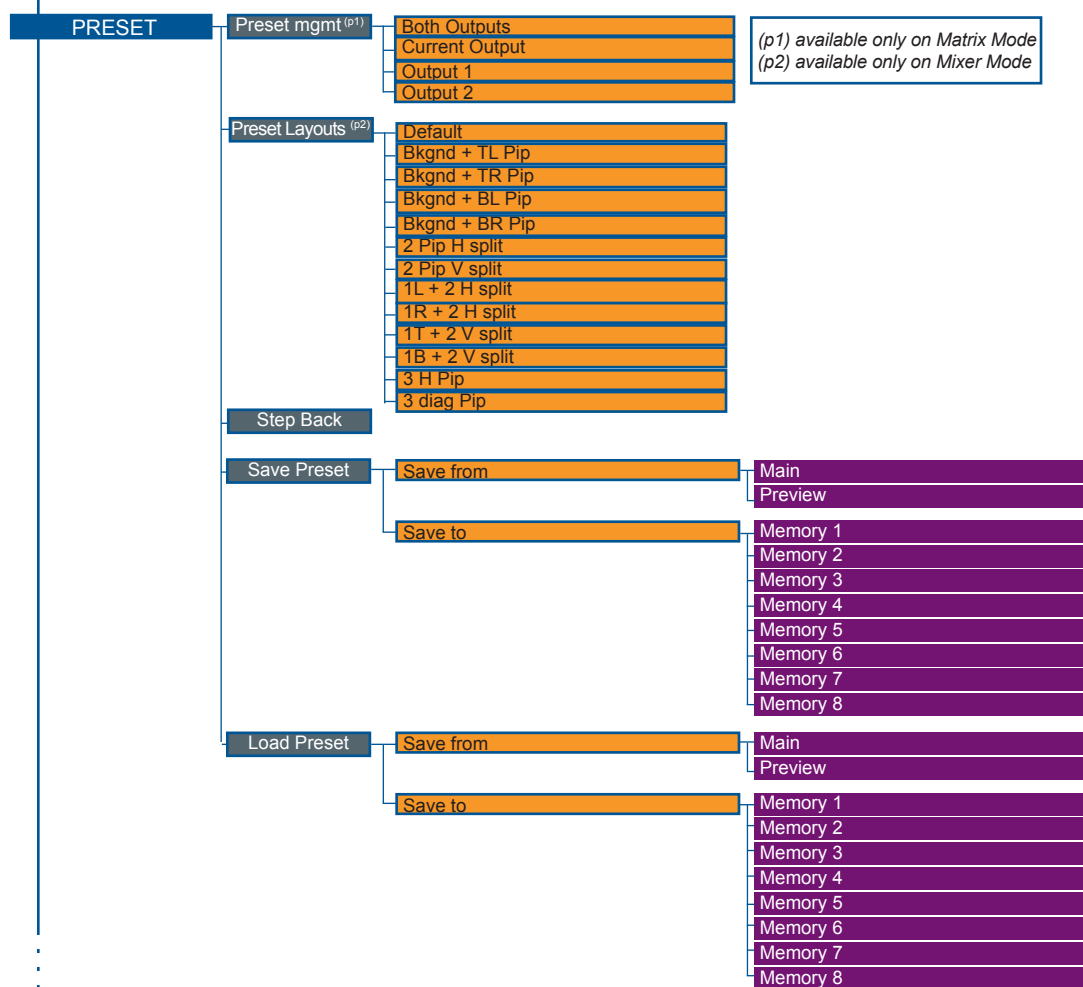
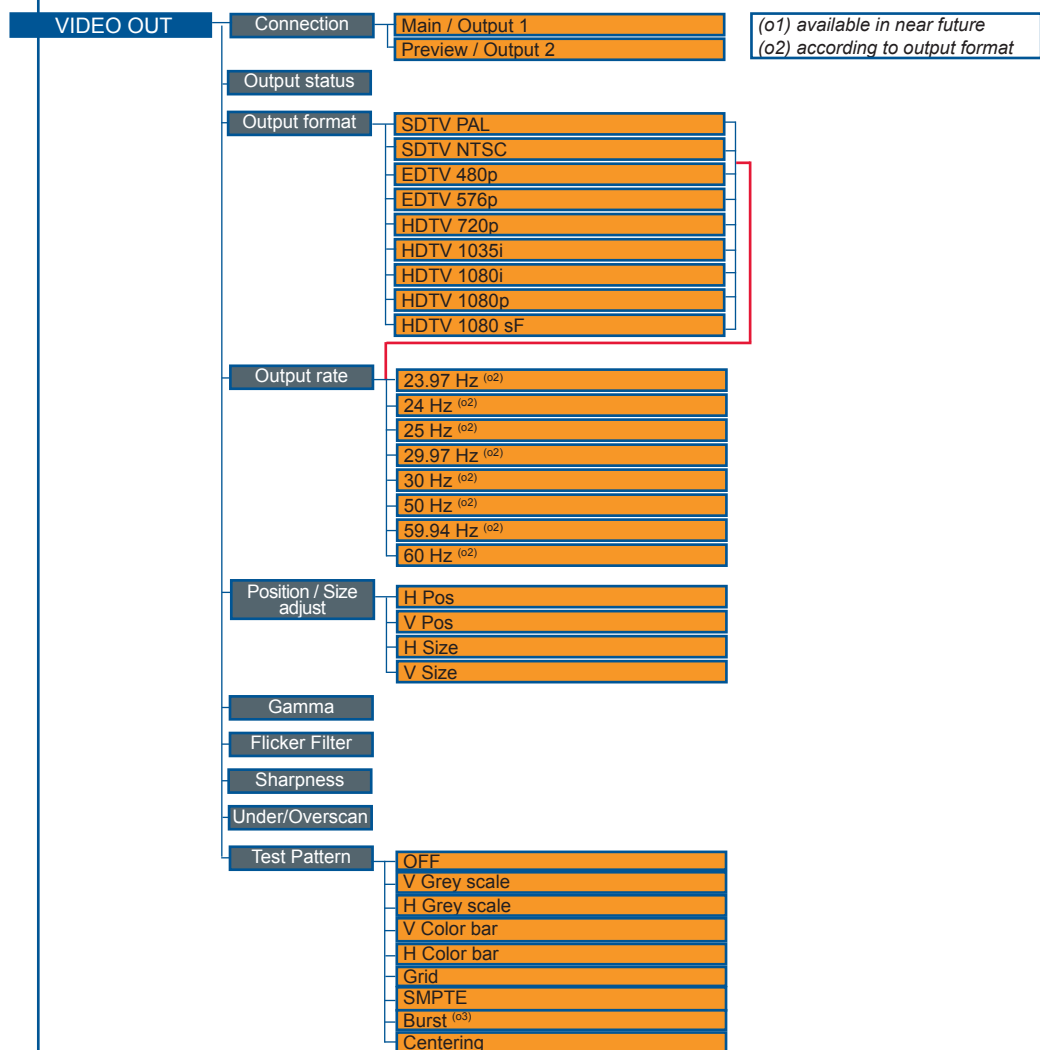


MAIN OUT ^(A1)	Sync w/OUT 1 ^(o1)
OUTPUT 1 ^(A2)	
PREVIEW OUT ^(A1)	
OUTPUT 2 ^(A2)	Output status

(A1) displayed in Mixer & QuadraVision Mode
(A2) displayed in Matrix Mode

(o1) only for Preview out/Output2
(o2) depending on output format
(o3) computer & HDTV only
(o4) Interlaced output only

Output format	<table> <tr><td>640x480</td><td>4/3</td></tr> <tr><td>800x600</td><td>4/3</td></tr> <tr><td>848x480</td><td>16/9</td></tr> <tr><td>1024x768</td><td>4/3</td></tr> <tr><td>1280x720</td><td>16/9</td></tr> <tr><td>1280x768</td><td>15/9</td></tr> <tr><td>1280x800</td><td>16/10</td></tr> <tr><td>1280x1024</td><td>5/4</td></tr> <tr><td>1360x768</td><td>16/9</td></tr> <tr><td>1366x800</td><td>15/9</td></tr> <tr><td>1400x1050</td><td>4/3</td></tr> <tr><td>1440x900</td><td>16/10</td></tr> <tr><td>1600x1200</td><td>4/3</td></tr> <tr><td>1680x1050</td><td>16/10</td></tr> <tr><td>1920x1080</td><td>16/9</td></tr> <tr><td>1920x1080</td><td>HD</td></tr> <tr><td>1920x1080</td><td>B</td></tr> <tr><td>1920x1080</td><td>C</td></tr> <tr><td>1920x1200</td><td>16/9</td></tr> <tr><td>2048x1080</td><td>19/10</td></tr> </table>	640x480	4/3	800x600	4/3	848x480	16/9	1024x768	4/3	1280x720	16/9	1280x768	15/9	1280x800	16/10	1280x1024	5/4	1360x768	16/9	1366x800	15/9	1400x1050	4/3	1440x900	16/10	1600x1200	4/3	1680x1050	16/10	1920x1080	16/9	1920x1080	HD	1920x1080	B	1920x1080	C	1920x1200	16/9	2048x1080	19/10
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Out Sync Polarity	<table> <tr><td>H-, V-</td></tr> <tr><td>H-, V+</td></tr> <tr><td>H+, V-</td></tr> <tr><td>H+, V+</td></tr> </table>	H-, V-	H-, V+	H+, V-	H+, V+																																				
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Gamma																																									
Flicker filter ^(o4)																																									
Analog Type	<table> <tr><td>RGB HV</td></tr> <tr><td>RGBS</td></tr> <tr><td>RGsB (SOG)</td></tr> <tr><td>YUV</td></tr> </table>	RGB HV	RGBS	RGsB (SOG)	YUV																																				
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HDCP Detection	<table> <tr><td>Disabled</td></tr> <tr><td>Automatic</td></tr> </table>	Disabled	Automatic																																						
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Background color	<table> <tr><td>Predefined color</td></tr> <tr><td>Hue</td></tr> <tr><td>Saturation</td></tr> <tr><td>Luma</td></tr> </table>	Predefined color	Hue	Saturation	Luma																																				
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Test Pattern	<table> <tr><td>Main</td></tr> <tr><td>Preview</td></tr> </table> <table> <tr><td>OFF</td></tr> <tr><td>V Grey scale</td></tr> <tr><td>H Grey scale</td></tr> <tr><td>V Color bar</td></tr> <tr><td>H Color bar</td></tr> <tr><td>Grid</td></tr> <tr><td>SMPTE</td></tr> <tr><td>Burst ^(o3)</td></tr> <tr><td>Centering</td></tr> </table>	Main	Preview	OFF	V Grey scale	H Grey scale	V Color bar	H Color bar	Grid	SMPTE	Burst ^(o3)	Centering																													
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Centering																																									



- MOSAIC MODE ^(A6)
 - Refresh current
 - Refresh all

(A6) displayed when an input is active

- IMAGE ^(A3)
 - Auto Centering ^(R1)
 - Blanking Adjust ^(R2)

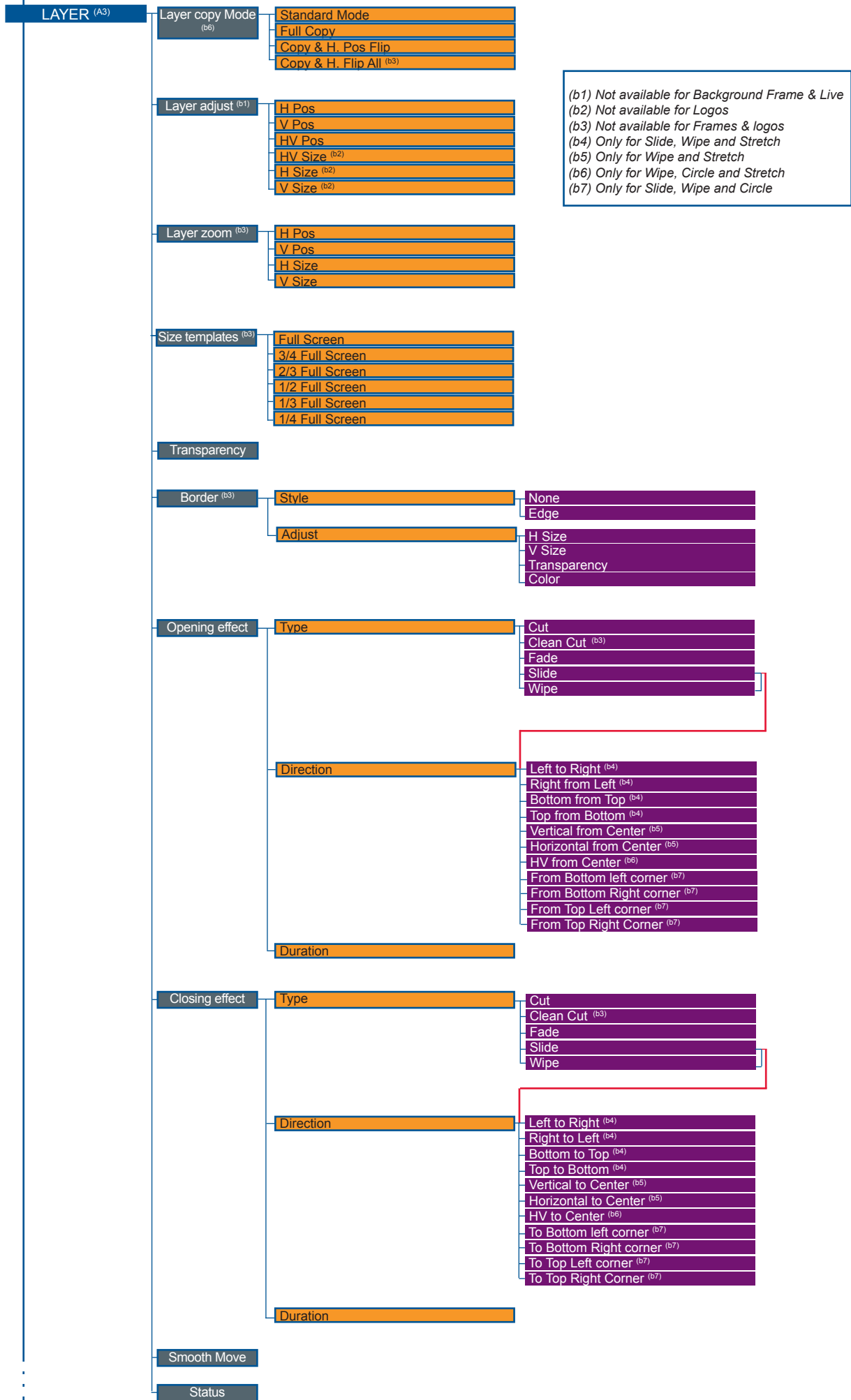
(A3) displayed when an input is active

- H position
- V position
- H size
- V size...
- Cropping ^(R2)
 - H position
 - V position
 - H size
 - V size...
- Optimize ^(R1)
 - Phase
 - H Total
- Under/Over ^(R3)
 - Underscan
 - Overscan
- Aspect IN
 - Native
 - LetterBox 1 78
 - LetterBox 2 35
 - Anamorphic
 - Pillar Box
- Aspect OUT
 - Full screen
 - Centered
 - Cropped
 - 1 1
- Colorimetry
 - Brightness
 - Contrast
 - Color
 - Hue ^(R6)
- Advanced ^(R2)
 - Component Level ^(R2)
 - Red Level ^(R5)
 - Green Level ^(R5)
 - Blue Level ^(R5)
 - Motion Correct ^(R11)
- 2:2 Pulldown ^(R7)
- 3:2 Pulldown ^(R8)
- Force 4:3 ^(R9)
- Reset settings

(R1) Analog Computer Input
(R2) Analog Input
(R3) Video Input
(R4) EDTV/HDTV Input
(R5) RGB or YUV or YC or CV
(R6) NTSC Input
(R7) Interlaced 50 Hz
(R8) Interlaced 60 Hz
(R9) SDTV

- KEYING/TITLING
 - Type
 - None
 - Lumakey
 - ChromaKey
 - Lumakey+Titling
 - ChromaKey+Titling
 - Lumakey ^(t1)
 - Level Black
 - Level White
 - ChromaKey ^(t2)
 - Color grabber
 - H position
 - V position
 - Tolerance
 - Level Black
 - Level White
 - Manual setting
 - Red key
 - Green key
 - Blue key
 - Tolerance
 - Level Black
 - Level White
 - Titling alpha ^(t3)
 - Invert keying ^(t4)

(t1) only displayed for Type = Luma Key or LumaKey+Titling
(t2) only displayed for Type = Chroma Key or ChromaKey+Titling
(t3) only displayed for Type = LumaKey +Titling or ChromaKey+Titling
(t4) only displayed for Type = different from



LOGOS/FRAMES

Record Frames

Frame 1
Frame 2 (Empty) ^(If1)
Frame 3
Frame 4
Frame 5 (Empty) ^(If1)
Frame 6 (Empty) ^(If1)
Frame 7
Frame 8

(If1) Empty if slot is free for a Frame
 (If2) Empty if slot is free for a logo
 (If3) Displays only list of valid Frames and Logos
 (If4) Displays only for animated Logo
 (If5) Displays according to keying type chosen

Record Logos

Position / Size Adjust
H. Pos.
V. Pos.
H. Size
V. Size

Record Anim

Keying type
None
Luma
Chroma

Luma key ^(If5)
Level black
Level white

Chroma key ^(If5)
Color grabber
H position
V position
Tolerance
Level Black
Level White
Manual setting
Red key
Green key
Blue key
Tolerance
Level Black
Level White

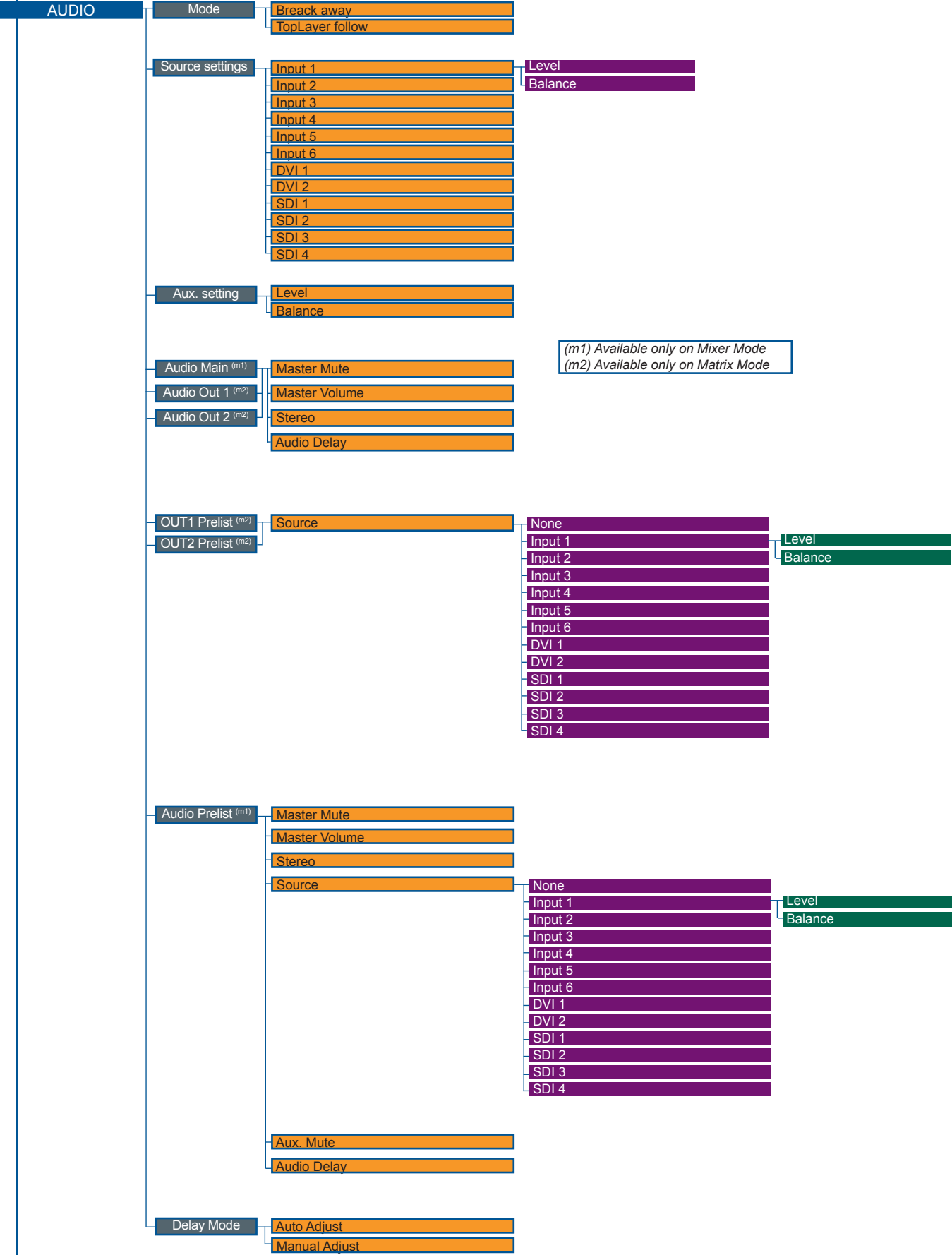
Cut out color ^(If5)
Cut out black
Cut out white

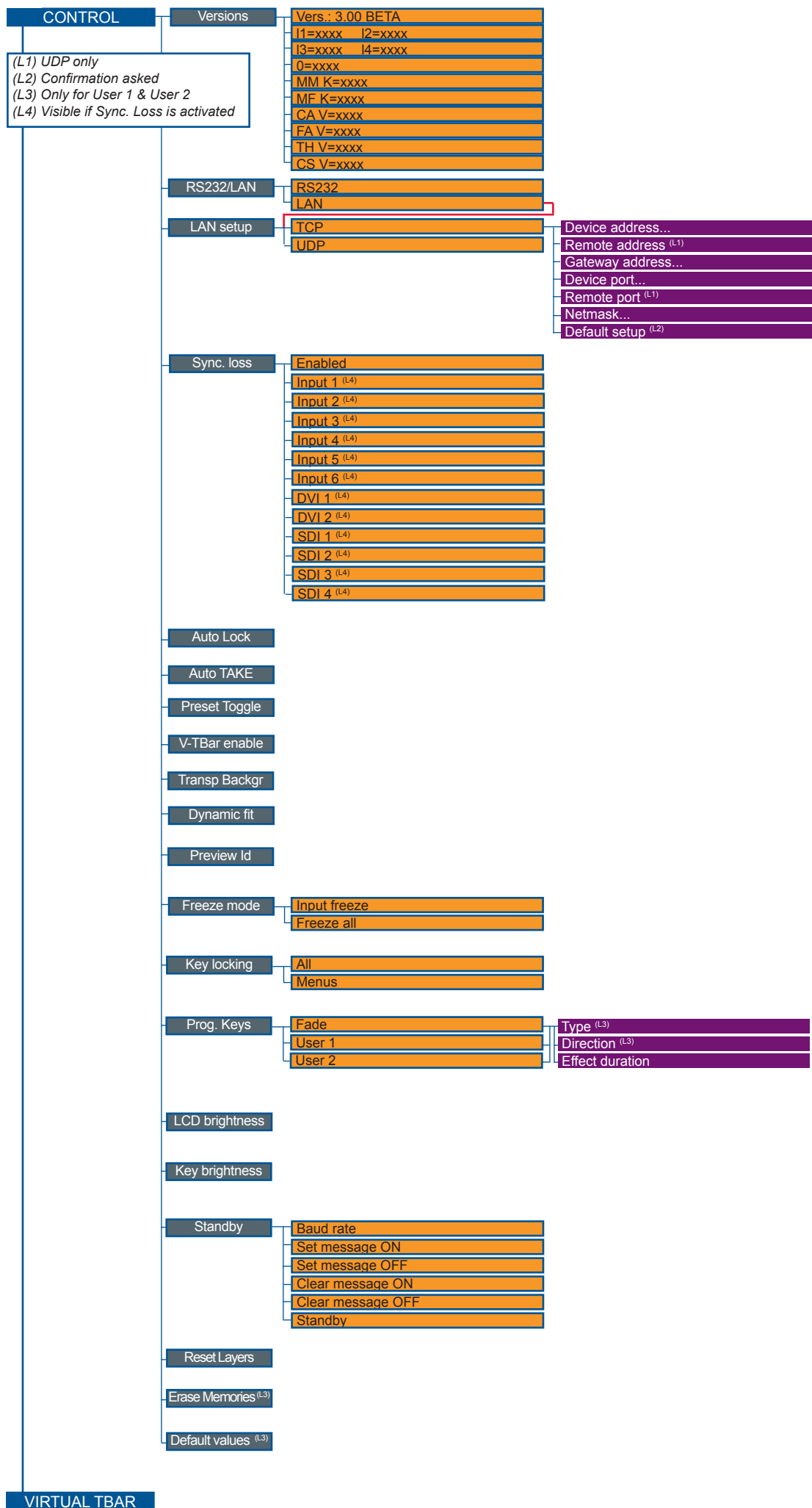
Recording time ^(If4)

Store
Logo 1
Logo 2
Logo 3 (empty) ^(If2)
Logo 4 (empty) ^(If2)
Logo 5 (empty) ^(If2)
Logo 6 (empty) ^(If2)
Logo 7 (empty) ^(If2)
Logo 8

Erase

Frame 1 ^(If3)
Frame 3 ^(If3)
Frame 4 ^(If3)
Frame 7 ^(If3)
Frame 8 ^(If3)
Logo 1 ^(If3)
Logo 2 ^(If3)
Logo 8 ^(If3)





5-1. THE EIKOS LE RCS

RCS presentation

The RCS will give you a powerful tool to exploit all the features of your **Eikos LE** at distance. By LAN, or RS-232, you will be able to do exactly the same manipulation as you could do from the front panel. User-friendly and easy-to-use, you will take the hand quickly with it.

How to use the RCS ?

You have to install the software on a Computer and have a LAN board or RS-232 link to use the RCS. After the installation, launch the program and proceed to the network establishment.

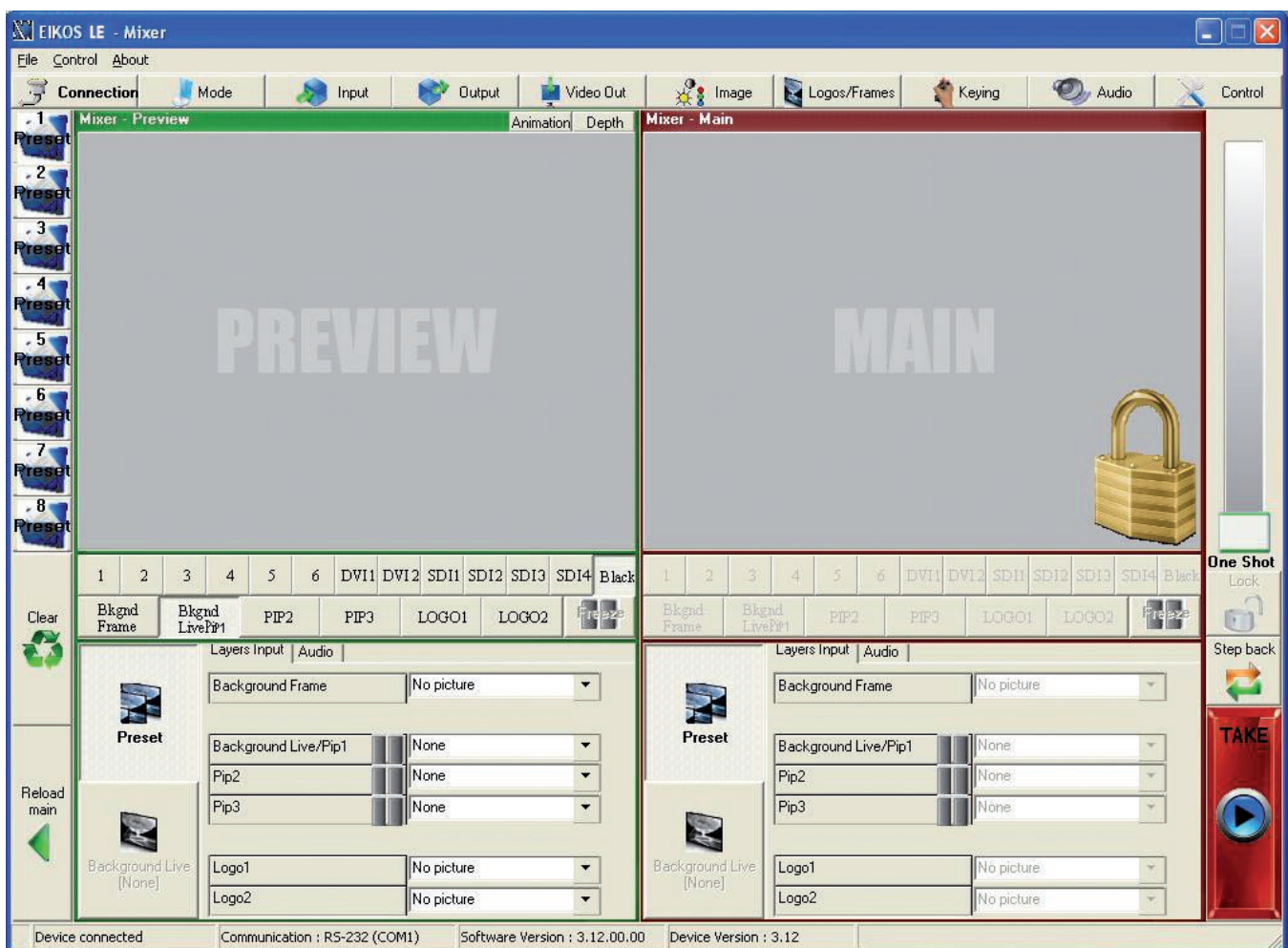
Software installation

1. Connect you on www.analogway.com.
2. In the menu, select [Technical Support] menu, then click on [Remote Control Software], select the name of your device and click on [Download].
3. Click on [Open with] or [Register the file], select the .exe file.
4. Follow the Windows installation instructions.

Software overview

The RCS software for your **Eikos LE** is composed of several easily identified sections. The tabs menu allows you to navigate through the equivalent of the **Eikos LE** front panel menu items (see also “*The EIKOS LE Menu*” p.60). The green window of the RCS represents your Preview window, and can be used to parameter sources, frames, layers and logos directly by clicking on the corresponding button, then navigating through the different available tabs. The red window of the RCS represents your Main window, and can also be used much like the front panel of the **Eikos LE**.

Create user presets directly in the RCS main window by clicking on one of the four available Preset icons and setting up your preset in the Preview window. Clear unwanted steps with the clear button, reload a fresh copy of your screen via the Reload Main button, make smooth takes directly with your mouse or trackpad with the virtual T-bar. The Take button will allow you to view any change made to your Preview screen on your Main screen. Analog Way engineers have even implemented a Stepback button to quickly move back to your previous setup in the case of a manipulation error. The status section allows for easy monitoring of the connection status.

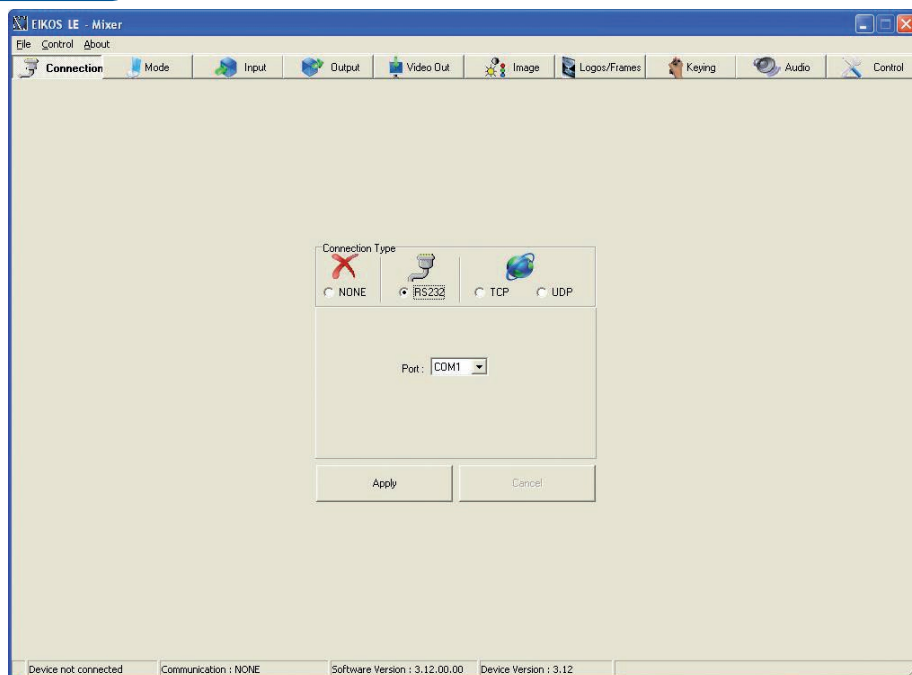


The RCS software for your **Eikos LE** can be viewed as the software version of the **Eikos LE** front panel menu section. It allows you to quickly access all of the **Eikos LE** functions via a single page interface, and easily edit your settings directly from your laptop or PC.

Before starting with the RCS software, you must establish a connection from your laptop to the **Eikos LE** you wish to run.

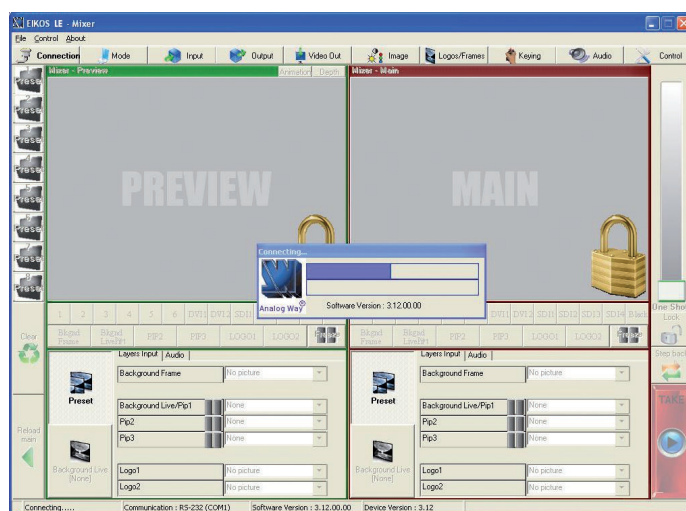
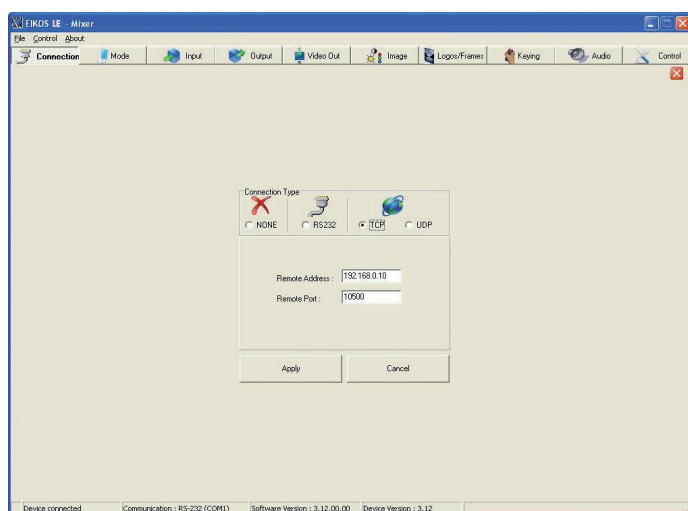
Serial connection

1. Connect a RS-232 cable between the **Eikos LE** and your PC, then power on your devices.
2. Click on the RCS program file on your PC to run the software.
3. Click on the “Connections” tab and select RS-232 as the connection type. In the drop-down menu, select the COM port number corresponding to the connected device (default is Port 1).
4. Click apply, and wait for devices to synchronize. The RCS will display the following connection message : “Device Connected”.
5. Click on the “Connections” tab to return to the main screen.



Ethernet connection

1. Connect a crossed RJ45 cable between the **Eikos LE** and your PC, then power on your devices. Use straight RJ45 if connecting through a network switcher.
2. Click on the RCS program file on your PC to run the software.
3. Click on the “Connections” tab and select LAN as the connection type.
4. In the “Remote Address” field, enter the IP address of the **Eikos LE** you wish to control (see also “Working with the Eikos LE”, p.33).
5. In the “Remote Port” field, enter the remote port number of the **Eikos LE** you wish to control (see also “Working with the Eikos LE”, p. 33).
6. Click Apply, and wait for devices to synchronize. The RCS will display a connection message.
7. Click on the “Connections” tab to return to the main screen.

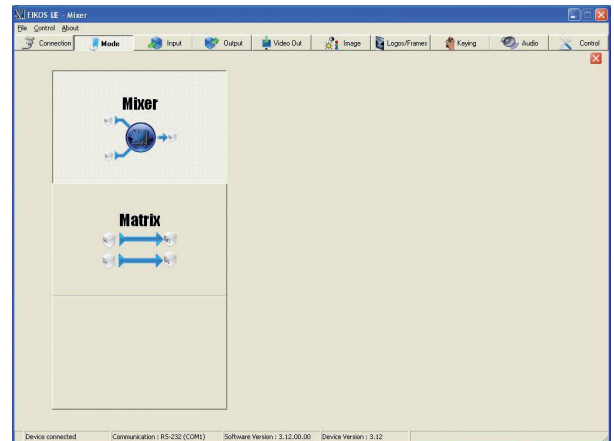


5-2. WORKING WITH THE RCS

Operating mode

To choose the operating mode you want your **Eikos LE** to work in, simply click the “Mode” tab, then select the desired mode by clicking on one of the two mode buttons (Mixer or Sync Matrix).

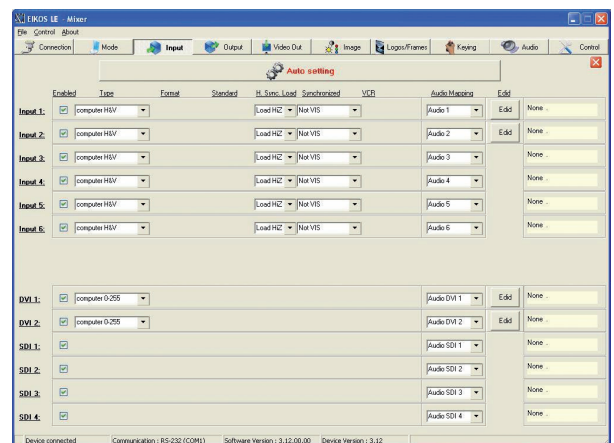
*** NOTE ***: for further details on different modes, restrictions and settings, please refer to the “Working with the Eikos LE” chapter, p.33, and the “Home Menu” chapter p.60.



Source input configuration

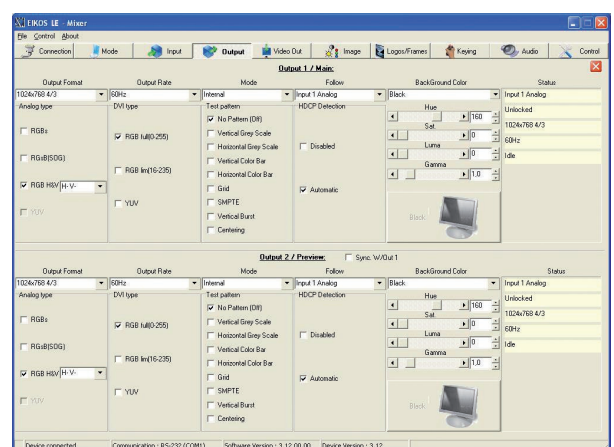
Once your **Eikos LE** is wired up to your PC, the first step in properly configuring your machine is to individually select and parameter your inputs.

1. Click on the “Inputs” tab of the RCS.
2. In the Plug column of the “Input” page, select the plug type by clicking the appropriate field.
3. Activate the input in the Enabled column if it is not.
4. In the scroll-down menu of the Type column, select the signal type connected to that plug.
5. Repeat steps 2 to 4 for all sources connected to the rear panel of your **Eikos LE**.
6. Click on the “Inputs” tab to return to the main screen.



Source output configuration

1. Click on the “Outputs” tab of the RCS.
2. Select the type of plug which is connected to outputs #1 & #2 of your **Eikos LE** by clicking in the appropriate field in Analog Type or DVI Type for both Main and Preview outputs.
3. Select the appropriate output format and output rate.
4. Click on the “Outputs” tab to return to the main screen.



The *Output* menu also allows you to generate test patterns. The test patterns available through the *Output* menu let you quickly and reliably setup your projectors.

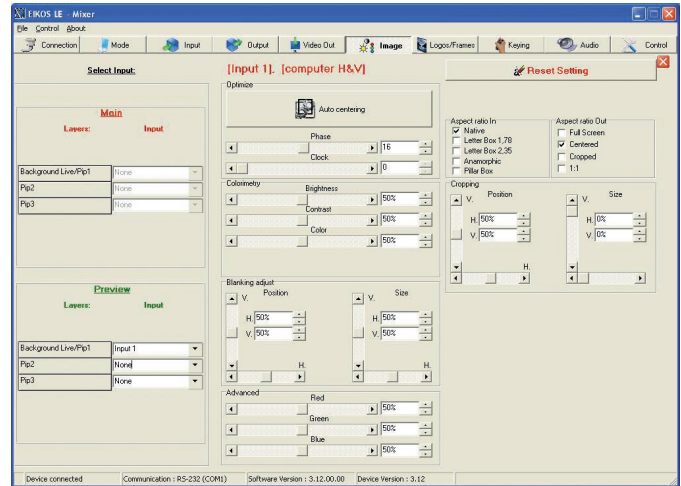
*** NOTE *** : Be sure to turn the test pattern off to display your sources again.

Working with PIPs

The **Eikos LE** allows users to manipulate 2 PIPs (Picture In Picture) which you can move, size, crop or zoom, apply transparency or transitions to.

PIP configuration

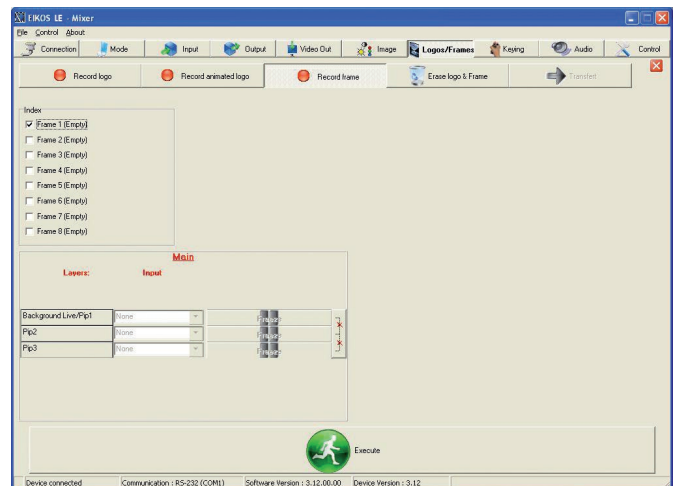
1. Click on the *Image* tab of the RCS interface. The empty *Image* screen will appear on screen.
2. By clicking on the drop-down menu in the Preview section, situated next to the layer you wish to use as a PIP, you will access the image parameters of the PIP source you select (#1 to #12).
3. Set the desired PIP attributes (size, position, zoom, border, transparency...).
4. Click on the *Image* tab to return to the main screen.



Working with Frames

It is possible to store up to 8 frames in the **Eikos LE** non volatile memory. Frames are mainly used as backgrounds in a typical show or event setup, and can be recorded from any of the 8 **Eikos LE** sources and called back at the click of a single button.

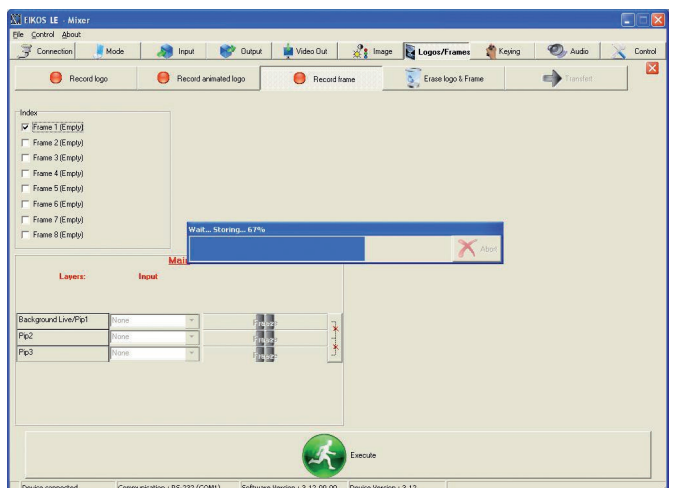
*** NOTE * :** To memorize a frame, select an input, and take it to the Main screen. Once the frame is displayed on your Main output, it is then possible to store it to the **Eikos LE** non volatile memory.



*** NOTE * :** Frames may be used only one at a time. A frame may not be used as a Live Background.

Memorizing Frames in the Eikos LE

1. In the Input Selection section, click on the source button (#1 to #12) of the source you wish to record as a frame.
2. Click on the *Logos/Frames* tab of the RCS interface. Then click on the *Record Frame* button.
3. Click on the field next to the first free Frame to select it.
4. Click on the *Execute* button.



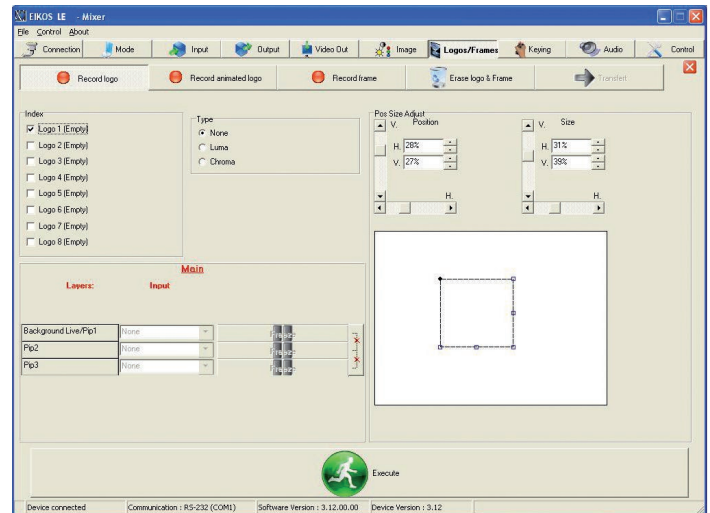
Working with Logos

It is possible to store up to 8 logos in the **Eikos LE** non volatile memory. Logos work in much the same way as frames, and can be recorded from any of the **Eikos LE**' 12 sources.

Logos have more attributes than frames. They can be sized, positioned, but also keyed via color cutout selection or Luma Key.

Memorizing Logos

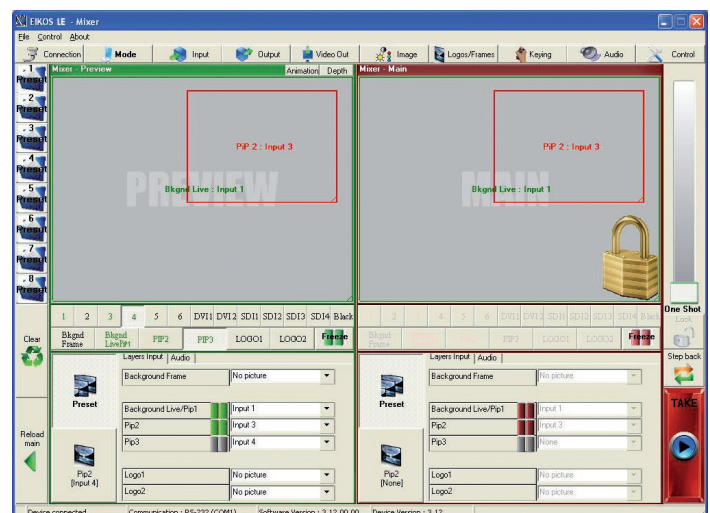
1. In the Input Selection section, click on the source button (#1 to #12) of the source you wish to record as a logo.
2. In the *Logos/Frames* tab, click on *Record Logo*, then select an empty logo memory slot (#1 to #8) to record your logo into.
3. Adjust position, size and keying attributes for your logo.
4. Click *Execute* to record your logo into the selected memory slot. The **Eikos LE** RCS will display a progress bar while recording the logo.
5. In the Input Selection section, click the LOGO1 button, and select logo number (#1 to #8) you wish to use. Your logo will appear on the preview screen above any existing layer on screen.
6. Click on the TAKE button. Your logo will appear on the main display.



Layer transitions & effects

The **Eikos LE** offers a wide variety of transitions between the scenes you create for your shows and events. It allows for live recall of 4 user presets, each of which you can edit at any given time.

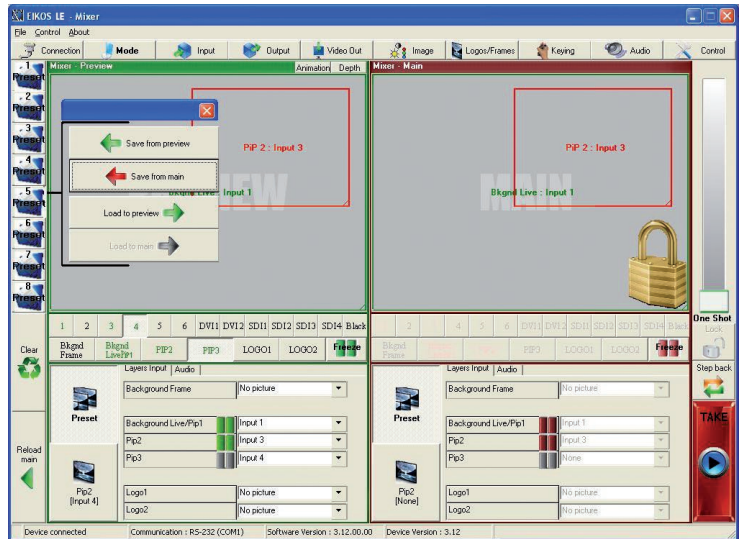
1. In the Layer Selection section, click on the PIP1 button. On your Preview screen, PIP1 will appear as a color rectangle. The parameters of the layer will automatically appear in the RCS Preview section.
2. At the bottom of the Preview section, click on the *Transition* tab, then select the transition type from the left dropdown menu, and the effect behaviour from the right dropdown menu.
3. Determine effect duration by sliding the duration bar left (shorter) or right (longer), or by manually setting the value in the duration value box.
4. Repeat the procedure in the *Closing Effect* tab to determine the way your layer will close.



Creating Presets

The **Eikos LE** allows the creation of user defined presets very easily. Any setup you have configured on screen, can be stored into one of the 4 available user presets.

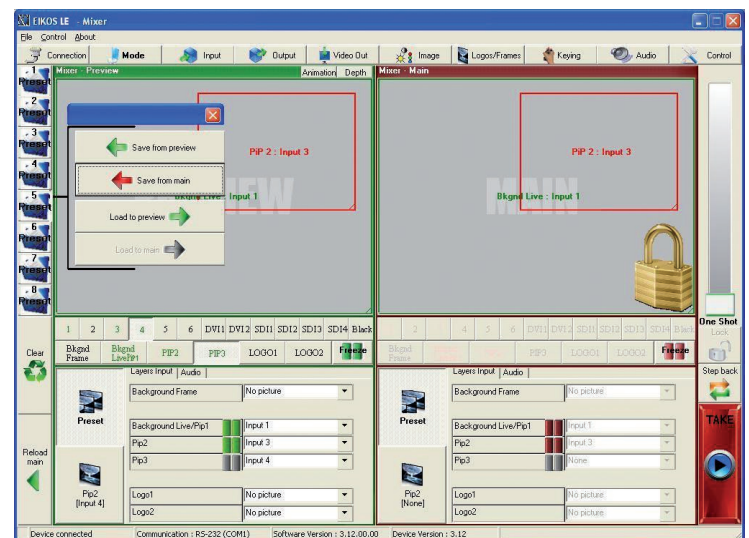
1. After having configured layers, PIP transitions, logos... on your screen (see “*Working with the RCS*” chapter, p. 72), click on one of the four available *Preset* buttons.
2. In the dropdown menu, choose *Save From Main* or *Save From Preview* to determine which screen you want to memorize the preset from.
3. By clicking one of the two options, the RCS will automatically load and preview the selected Preset.
4. Click on the *Take* button to view your preset on the Main screen.



Working with Presets

The four **Eikos LE** user presets can be called back at any stage during your show or event.

1. Click on one of the four available *Preset* buttons to choose which memory you wish to use. Select *Load to Preview* from the dropdown menu, your preset will appear on the Preview screen.
2. Once you have selected your preset, simply click on the *Take* button to view the result on your main screen.



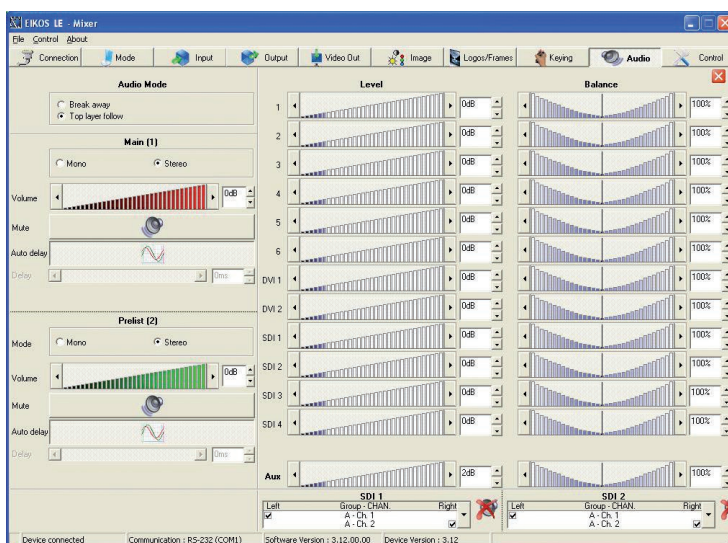
Working with Audio

The **Eikos LE** allows to work with up to 10 stereo inputs, 1 auxiliary input, and 2 embedded SDI audio inputs (via the SDI BNC connectors), all accessible via the *Audio* menu of the **Eikos LE**, and which can be affected to one or both of the 2 independent symmetrical/asymmetrical outputs of the device.

Audio configuration

To configure audio settings of the **Eikos LE**, plug all audio inputs into the device, and click on the *Audio* tab of the RCS home page.

1. Set the Main audio output level and delay (accessible only if Delay Mode is set to Manual Adjust), or click on the Mute button to mute Main audio output.
2. Repeat step 2 for the Prelist audio output.
3. Individual source settings (level and balance) for each audio input can be configured in the right hand section of the *Audio* tab.



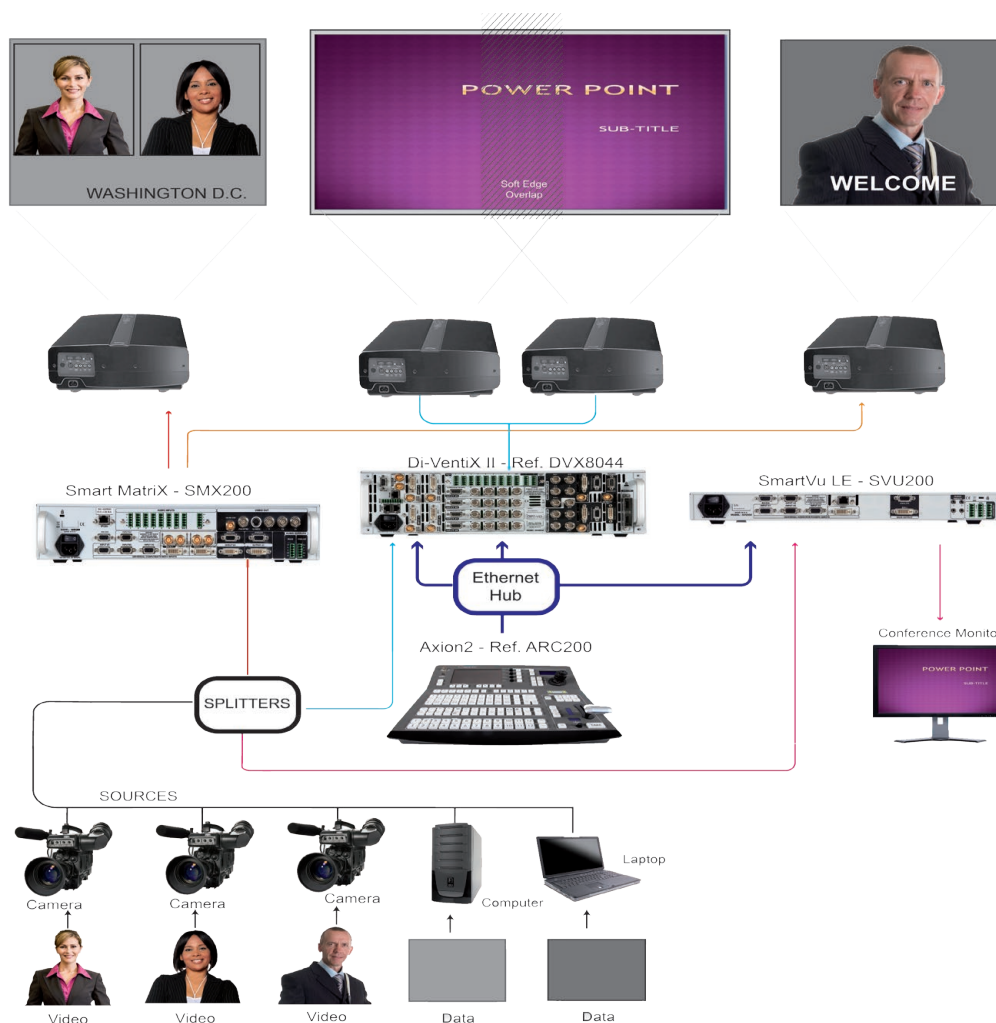
6-1. Axion2



Analog Way engineers have designed several remote controllers specifically made for easy control of the **Di-VentiX II**, **Eikos**, **Eikos LE**, **OPS300**, **OPS200**, **Pulse**, **Pulse LE**, **SmartVu** and **SmartVu LE**, **Smart MatriX**, **Smart MatriX LE**, **Smart Edge**, **Smart Quad**.

Axion2: The Axion2 is an ergonomic and reliable remote controller for rental & staging/multi-venues at an optimal price/performance ratio. It controls simultaneously up to 6 screens in a single or multiple display configuration.

***NOTE*:** for further information concerning our optional remote controllers, please connect to our website on:
www.analogway.com



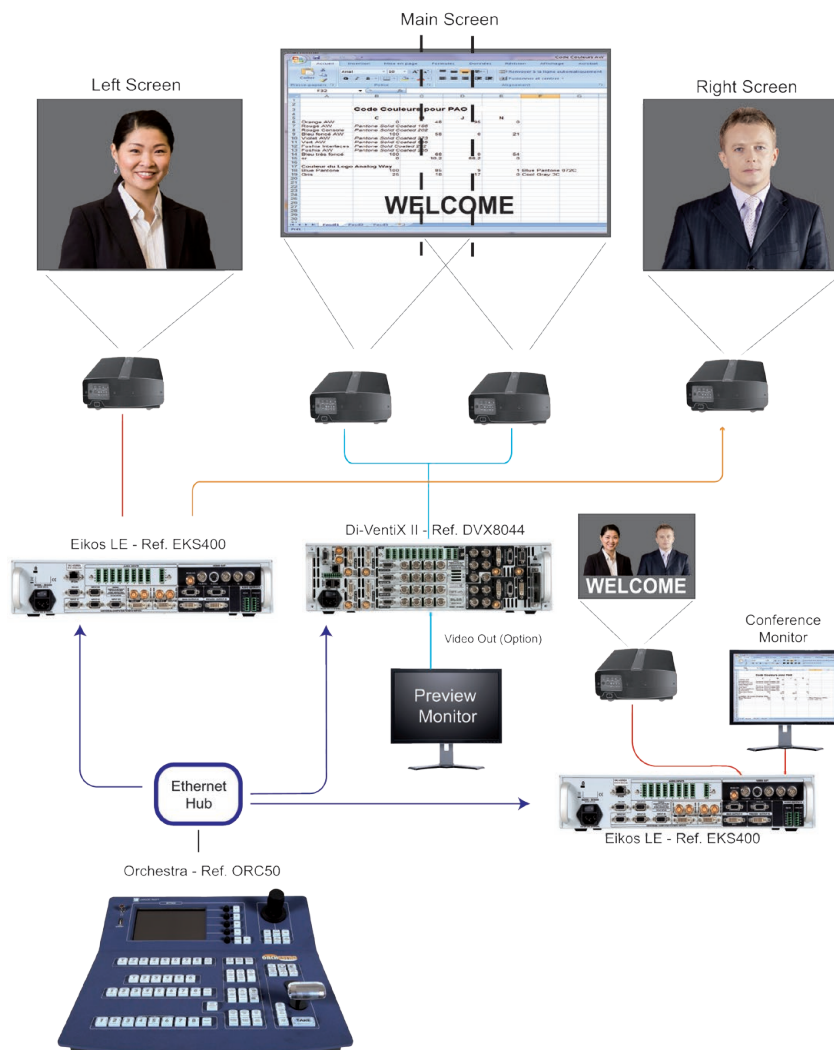
6-2. ORCHESTRA

Analog Way engineers have designed several remote controllers specifically made for easy control of the **Di-VentiX II**, **Eikos**, **Eikos LE**, **OPS300**, **OPS200**, **Pulse**, **Pulse LE**, **SmartVu** and **SmartVu LE**, **Smart MatriX**, **Smart MatriX LE**, **Smart Edge** and **Smart Quad**.

Orchestra: The Orchestra is an ergonomic and reliable remote controller for rental & staging/multi-venues at an optimal price/performance ratio. It controls simultaneously up to 6 screens in a single or multiple display configuration.



***NOTE*:** for further information concerning our optional remote controllers, please connect to our website on: www.analogway.com



6-3. TRK-800

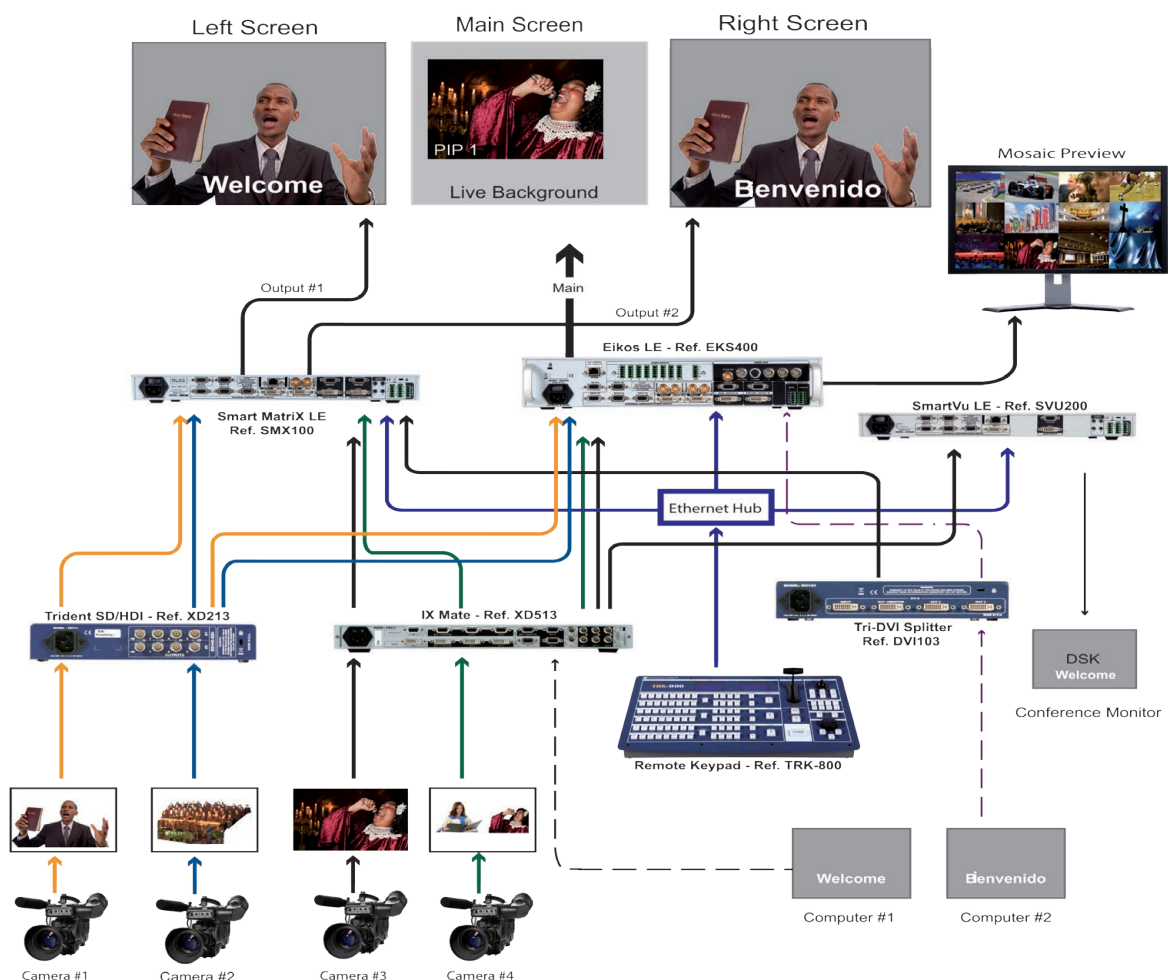


Analog Way engineers have designed several remote controllers specifically made for easy control of the Ekos, Eikos LE, OPS300, OPS200, Pulse, Pulse LE, SmartVu and SmartVu LE, Smart MatriX, Smart MatriX LE, Smart Edge and Smart Quad.

TRK-800: Triple Remote Keypad designed to control up to 3 units.

- > Powerful High End Remote Controller
- > Controls up to 3 switchers
- > Mini Joystick for easy element control
- > Ethernet LAN RJ45 connector for easy connection
- > Double Large VFD display offering high contrast menu and status

***NOTE*:** for further information concerning our optional remote controllers, please connect to our website on : www.analogway.com



6-4. RK-300

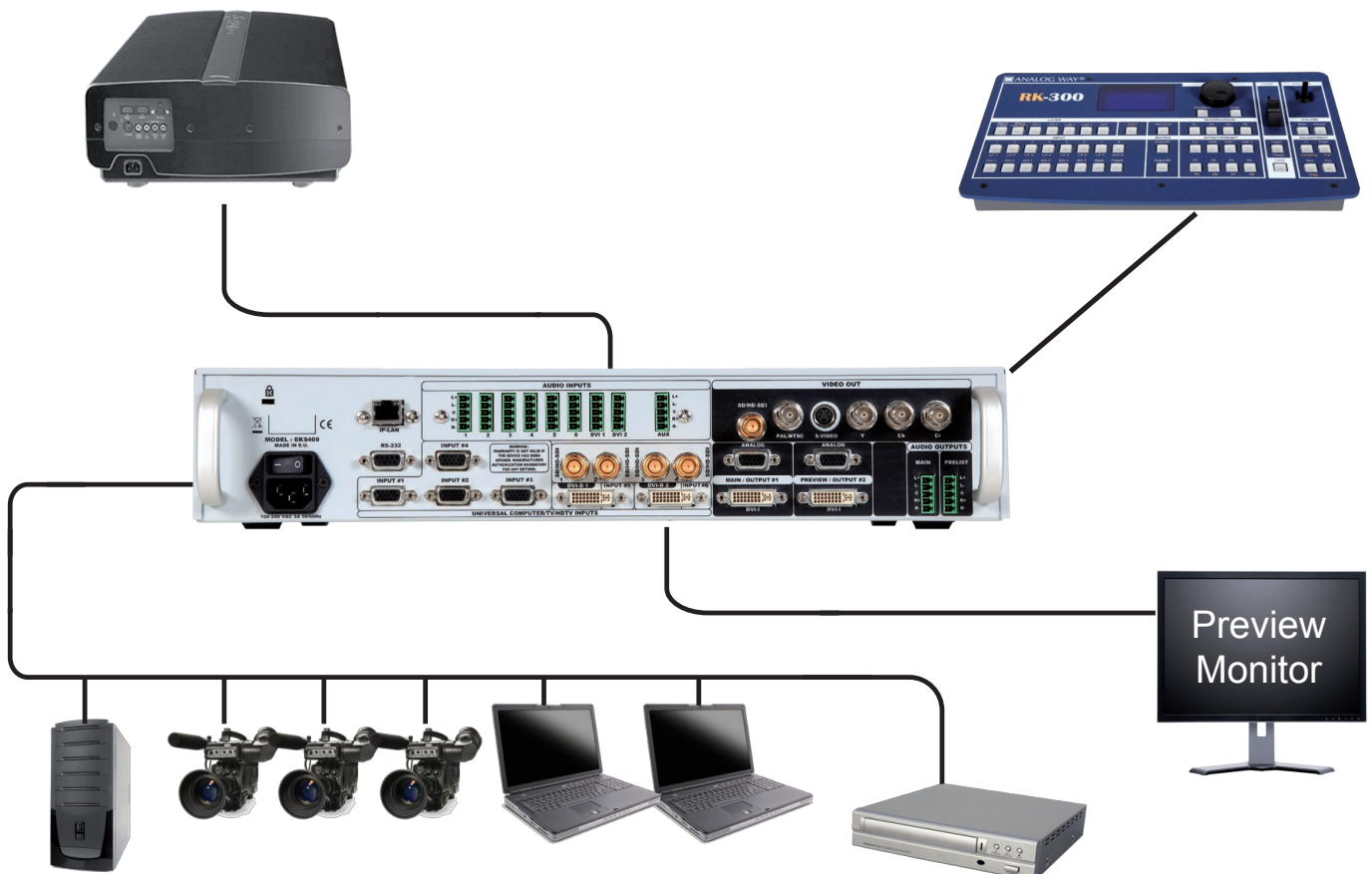
Analog Way engineers have designed several remote controllers specifically made for easy control of the Eikos, Eikos LE, OPS300, OPS200, Pulse, Pulse LE, SmartVu and SmaVu LE, Smart Matrix, Smart MtriX LE, Smart Edge and Smart Quad.



RK-300: Remote Control Keypad designed to control Analog Way's new Seamless Switcher

- > Very User-friendly Remote Control Keypad
- > Controls different Switchers
- > Mini Joystick for easy element control
- > Ethernet LAN RJ45 connector for easy connection
- > Large VFD display offering high contrast menu

***NOTE*:** for further information concerning our optional remote controllers, please connect to our website on: www.analogway.com

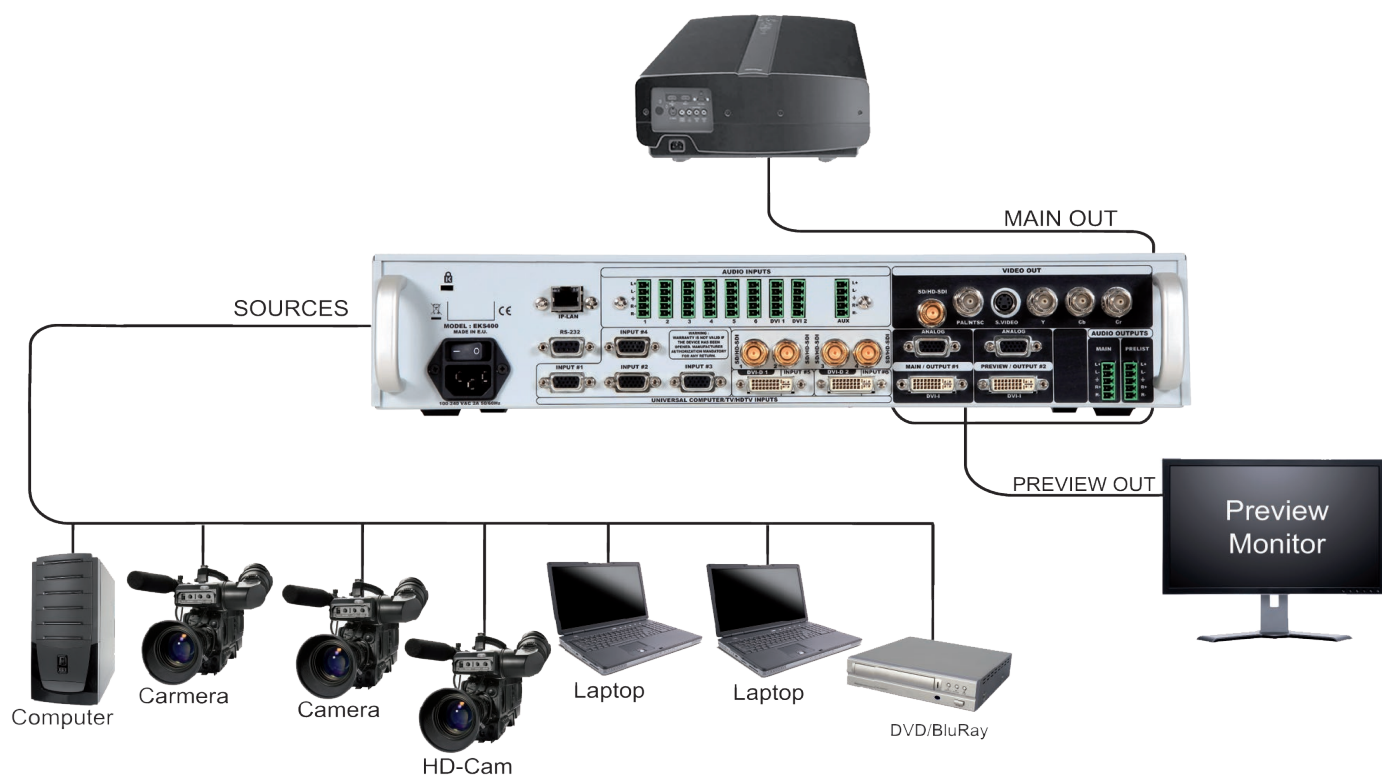


7-1. ABOUT APPLICATION NOTES

Application notes are intended to make the use of the **Eikos LE** as easy as possible, by providing visual help in setting up your equipment. In an effort to make the use of our machines the most pleasant experience possible, the **Analog Way** team is constantly aiming to create easy to follow examples, update information, and furnish our website with useful user information.

Please check on www.analogway.com.

7-2. APPLICATION NOTES



7-3. EXTERNAL PROGRAMMING

If you need to use your own Software Control program from a PC or automation, the device allows communication through an ASCII code protocol. All commands can be found on the CD-Rom shipped with the **Eikos LE** in the “External Programming” file.

Information can also be found in the “Programmer’s Guide” on certain media or documentation (website, CD-Rom,...).

All Analog Way products equipped with an RS232 input are compatible with Crestron, AMX, Medialon, and most major control systems. TCP/IP control ports are also available on most Analog Way products, as standard or as options.

To control an **Eikos LE** product with an External Remote Controller (PC Software Control - Touch Pad Controller...) follow the indications below:

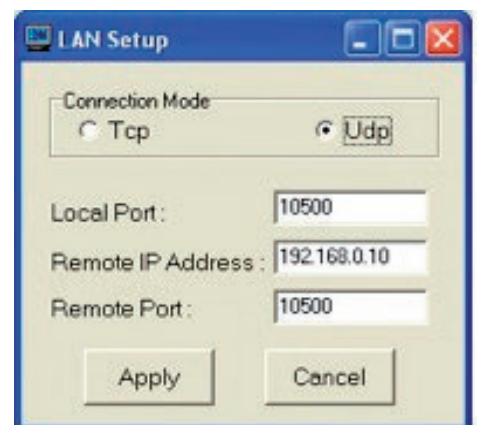
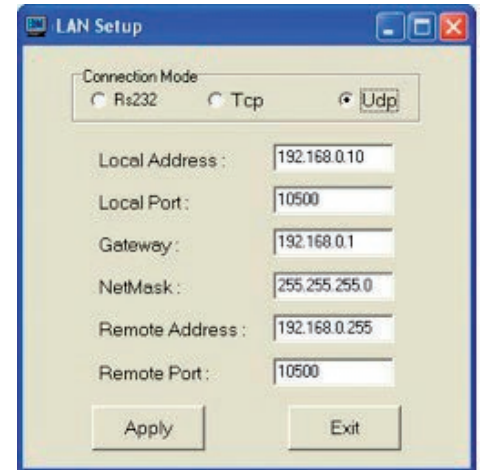
1. First establish an RS-232 communication between the Remote Control Software and the **Eikos LE**, in order to setup the LAN parameters of the product.
2. In the “Control” - “Eikos LE LAN Setup” menu, configure the connection of the **Eikos LE** product in UDP mode and setup the Local and Remote Addresses as well as the Local and Remote Ports in concordance with your Network.
3. Configure the TCP/IP address of your External Remote Controller.
In example: 192.168.000.001
4. Setup the UDP connection of your External Remote Controller in concordance with your Network.

In example on the Remote Software in the “Control” - “RS232/LAN Setup” - “LAN/Setup” menu :

5. Setup the LAN parameters in UDP mode in the “Console” - “LAN Setup” menu.

In example: RK Address:	192.168.000.002
Remote Address:	192.168.000.010
Gateway Address:	192.168.000.001
RK Port:	10500
Remote Port:	10500
Netmask:	255.255.255.000

6. Select the LAN communication port in the remote controller console - “RS232/LAN port” menu.
7. You can now control your **Eikos LE** product with an External Remote Controller.



8-1. ANALOG WAY LIMITED WARRANTY

All **Analog Way** products have a 3 years warranty on parts and labor, back to factory. This warranty does not include faults resulting from user negligence, special modifications, electrical surges, abuse (drop/crush), and/or other unusual damage.

8-2. SERVICES AND RMA

In the unlikely event that a product is required to return for repair, please call the regional Maintenance center / Customer Service, and ask to receive a Return Material Authorization number (RMA). Three regional maintenance centers are available depending on your location. See map below for information on which regional maintenance center you depend on.

RMA Conditions:

1. Prior to returning any item, you must receive a Return Material Authorization (RMA) number.
2. All RMA numbers must appear on the return-shipping label.
3. All shipping and insurance charges on all RMAs must be prepaid by the customer.



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For more documentation, general information, or simply to keep up to date with new releases and upcoming Analog Way products, please log on to www.analogway.com.

Before calling your regional maintenance center, please gather the following information :

- Serial number of the unit
- Firmware version (look in : CONTROL MENU/VERSIONS)
- Model reference (**EKS400**)
- Description of failure

INFORMATION ON UNIT DISPOSAL

In the European Union :

If the product is used for business purposes and you want to discard it :

Please contact your Analog Way dealer who will inform you about take-back of the product. You might be charged for the costs arising from take-back and recycling.

For Spain :

Please contact the established collection system or your local authority for take-back of your used product.

In other countries outside the EU :

If you wish to discard of this product, please contact your local authorities and ask for the correct method of disposal.


```
[MAIN] -- [PREVIEW]
black    black
black    black
black    black
input 1  input 1
black    black
```

1920x1080

Version: 4.00 - 22/06/2012
Code: 140120

Designs and specifications are subject to change without notice
The illustrations and screens described in this manual may be exaggerated or simplified for easy
recognition and may be slightly different from the actual unit.

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