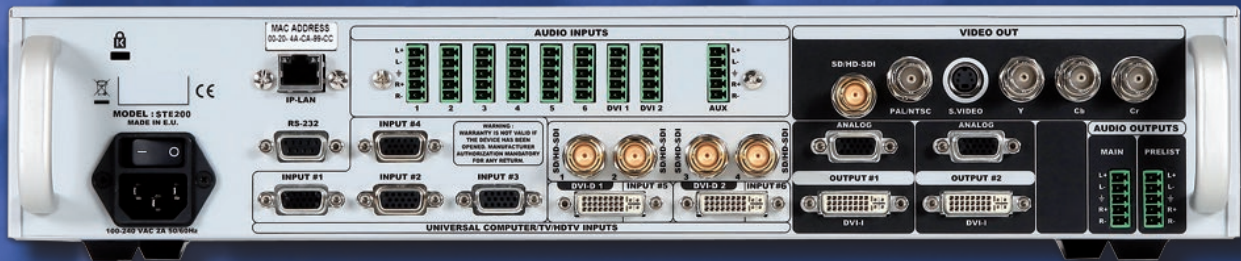


Smart Edge FX



THANK YOU

Thank you for choosing Analog Way. By following these simple steps, you should be able to operate the powerful **STE200**.

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1-1. THE STE200 OPERATING MODE

Before you start setting up your **STE200** for the first time, be sure you know what you actually want to do with it. The **STE200** offers one operating mode, 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 STE200*” chapter, p26).

Edge Blending Mode

This mode allows for a single **STE200** to seamlessly switch and blend any of its 12 analog/digital inputs with any other of the inputs. The Edge Blending Mode is the **STE200** native mode, and with no less than 4 layers (1 background Live + 1PIP + 1 logo + 1 background frame).

1-2. USEFUL TERMS AND DEFINITIONS

LAYER: a “Layer” is an image display element (such as a Key) that has an associated visual priority — either in front of background Live.

The **STE200** can simultaneously view no less than 4 layers (1 background Live and 1 layer like a key or 2 PIPs on a background frame + 1 logo).

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. **STE200** 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 the warnings regarding 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 is the only way 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 I / 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.

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 erroneo 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.

- **CAUIDADO:** 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 I / Apagar O), 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

- 1 x **Smart Edge FX (STE200)**
- 1 x Power supply cord
- 2 x DVI-I male to HD15 female and DVI-D female breakout cable
- 1 x HD15 to 5 BNC cable
- 1 x Ethernet cross cable
- 1 x Set of 11 audio 5 pin screw terminals
- 1 x RCS - Remote Control Software (PC only)*
- 1 x User Manual (PDF version)*
- 1 x Quick Start Guide *

Optional:

- 1 x Sync Cable for multiple machine mode (Ref: AW212080)

* Download on our website: www.analogway.com

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 **STE200** can be used directly on a table, the unit is equipped with 4 handy anti-slip rubber feet.

Rack mounting: The **STE200** 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 **STE200** 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 **STE200**.
- 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 **STE200**. It is strongly advised to avoid using front handles as rests for your **STE200**, 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 **STE200**. 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 **STE200**.

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 / 292M
1080p	1920x1080	23.97Hz / 24Hz / 25Hz / 29.97Hz / 30Hz	SMPTE 274M / 292M / 424M
1080sF	1920x1080	50Hz / 59.94Hz / 60Hz	SMPTE 274M
1080p	1920x1080	50Hz / 60Hz	HDTV 1080

• 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	EDTV HDTV Computer	Digital EDTV	DVI#1: DIGITAL PART	YES
8		Digital HDTV Digital Computer	DVI#2: DIGITAL PART	YES
9	SDTV HDTV	Digital SDTV Digital HDTV	BNC#1: SDI	NO
10			BNC#2: SDI	NO
11			BNC#3: SDI	NO
12			BNC#4: SDI	NO

• COMPUTER FORMATS

The **STE200** 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.

SETTING 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	YES ⁵	YES ⁵	YES ⁵	YES ⁵
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

5/ Only interlaced source

2/ Only Video Input

4/ Only interlaced 59.94 Hz to 60 Hz

Input specifications

• ANALOG COMPUTER

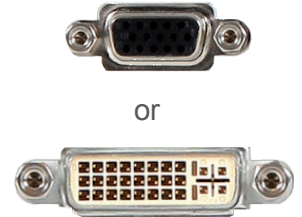
Connectors: Inputs #1 to #4: female HD15. Inputs #5 & #6: female DVI-I (analog pins).

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.



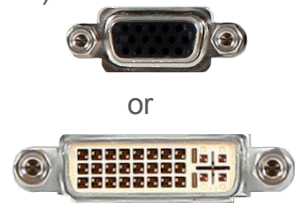
• RGB/S - RGsB VIDEO

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.



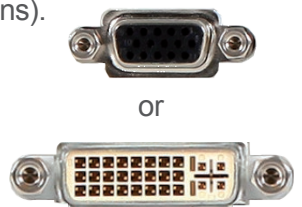
• COMPONENT

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

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

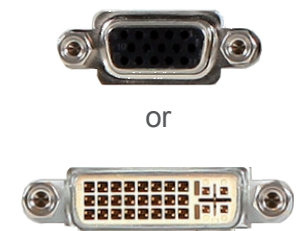
Connectors: Inputs #1 to #4: female HD15. Inputs #5 & #6: female DVI-I (analog pins).

Formats: 720p (50/60Hz), 1080i (50/60Hz), 1080p (30/50/59.94/60Hz), EDTV.

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

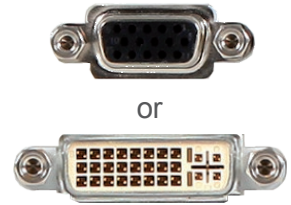
Sync.: Tri-level: $\pm 0.3V$ (positive/negative).
Bi-level: 0.3V (negative).

Impedance: 75 ohms.



• S.VIDEO

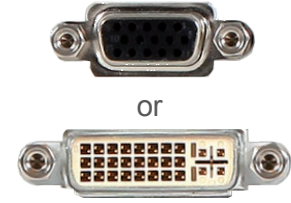
Connectors: Inputs #1 to #4: female HD15. Inputs #5 & #6: female DVI-I (analog pins).
 Standard: PAL/SECAM: 15.625 kHz - 50 Hz - 625 lines.
 NTSC (3.58 - 4.43 MHz): 15.734 kHz / 60 Hz / 525 lines.
 Levels: Y = 1 Vp/p (0.7 V Luma + 0.3 V Sync.).
 C = 0.3 Vp/p (Chroma Burst).
 Impedance: 75 ohms.



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	Connectivity
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)	Non applicable (Embedded Audio SDI)
10			
11			
12			
AUX		YES	Connectors Phoenix 5 pins

AUDIO SETTINGS

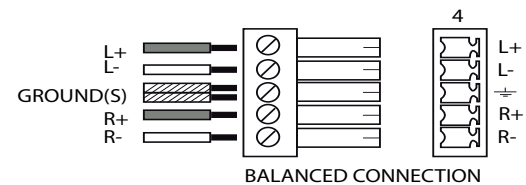
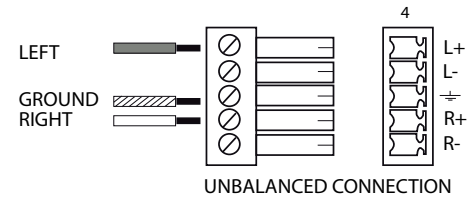
Settings	Availability
GAIN	YES: from $-\infty$ to + 18dB
Balanced Audio	YES: Left and Right

- 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

Outputs #1 to #2: Balanced & unbalanced connection



Output specifications

• ANALOG OUTPUTS

Connector: Outputs #1 (Main #1) & #2 (Main #2): 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 Blankings
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



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 & #2: 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 1080C	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).

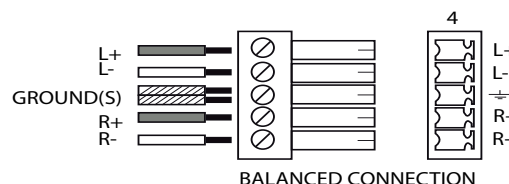
Balanced = +21dBu (at 600Ω load).

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 / 11.90 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- Receive 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		



• 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)	



HDCP compliance

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”

Your 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 when using a Mac:

Input Menu > DVI# > HDCP detection

The output status can provides 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.

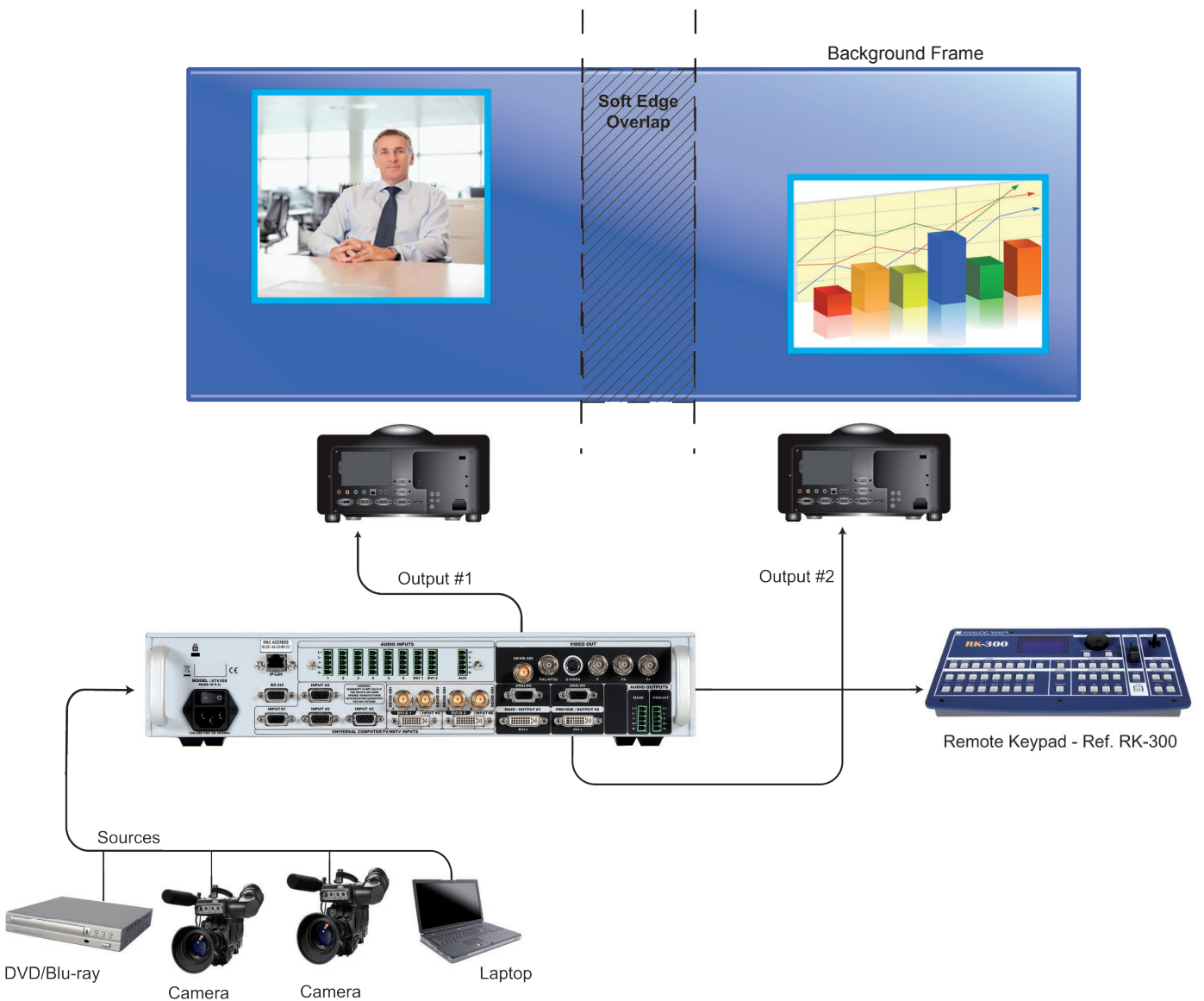


*** NOTE *:** as part of our policy of continuous improvement, Analog Way reserves the right to make design and specification changes for product improvements without prior notice. The performance specification figures indicated are nominal values of production units. There may be some deviations from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

3-1. CONNECTING THE STE200

The **STE200** can be set up with up to 12 different sources, and will drive up to 2 digital DVI-D sources, 4 3G/HD/SD-SDI sources and 6 analog computer/video sources simultaneously. The versatility of the **STE200** will allow for almost any event configuration and cater for all your projection needs.

The intuitive rear panel of the **STE200** will let you set up for the first time quickly and easily. Here is an example of a typical **STE200** setup.



3-2. THE STE200 REAR PANEL

Overview

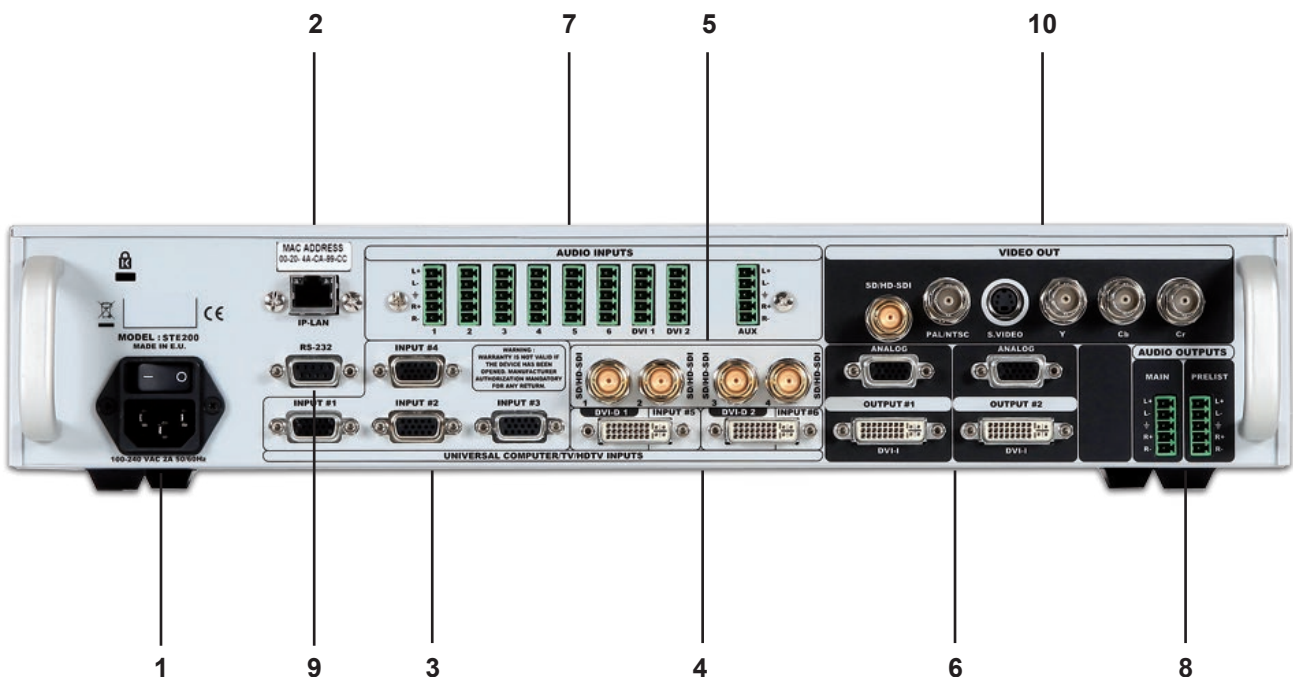
The **STE200** rear panel is equipped with 6 universal digital and analog inputs. Inputs #1 through #4 (3) are universal analog inputs. Inputs #5 & #6 share a DVI-D signal and a universal analog signal (plug the shipped Analog Way DVI/HD15 adaptor cable to use DVI-D and analog signals simultaneously).

The 2 DVI inputs are available on the DVI-D plugs (4). All DVI inputs are HDCP compliant. The unit has no less than 4 3G/HD/SD-SDI sources that allow you to connect all your video sources formats from PAL/NTSC up to HDTV 1080p 60Hz.

The Output #1 and Output #2 (6) outputs will allow for the **STE200** high resolution digital and analog signals to be viewed on large screen.

Finally, the audio in and output card will let users trigger 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 Analog Computer/TV/HDTV inputs
- 4 : DVI Inputs #1 & #2 (female DVI-I)
- 5 : 3G/HD/SD-SDI inputs #1 to #4: female BNC
- 6 : Outputs #1 & #2: female HD15, DVI-I (simultaneous analog and digital outputs)
- 7 : Audio inputs
- 8 : Audio outputs
- 9 : RS232 connector
- 10 : Video out



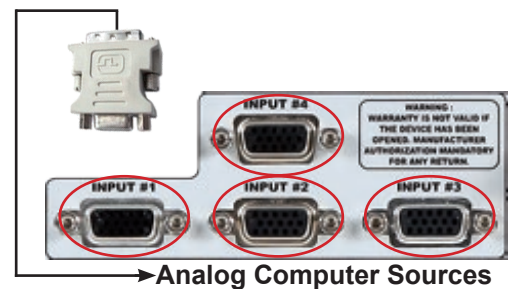
Inputs #1 to #4

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 & 1080p).
HD15: 1 x Universal Analog input on female HD15 connector.

COMPUTER SOURCES:

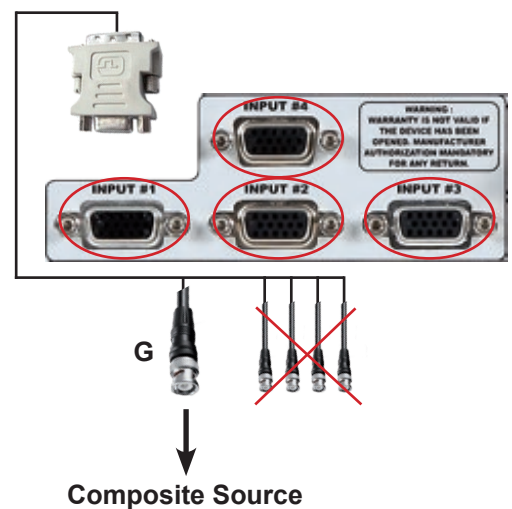
The device accepts the following computer signals: RGBHV, RGB/S, and RGsB on inputs #1 to #4 and DVI inputs #1 & #2.



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.

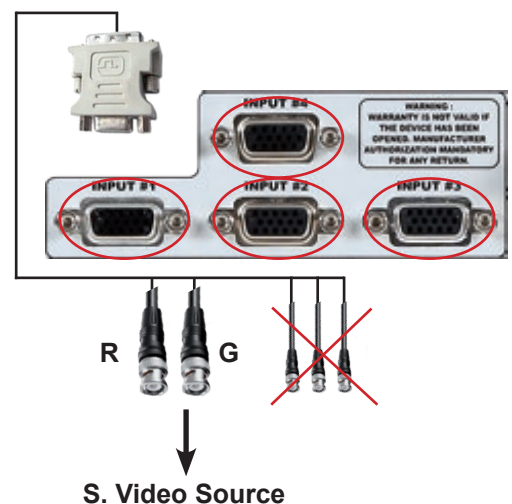
For inputs #1 to #4: connect a 1 x BNC from your composite source, to the HD15 input of the device.



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 2 x BNC from your S.VIDEO, Y (G/Y) & C (R/R-Y), to the HD15 input of the device.

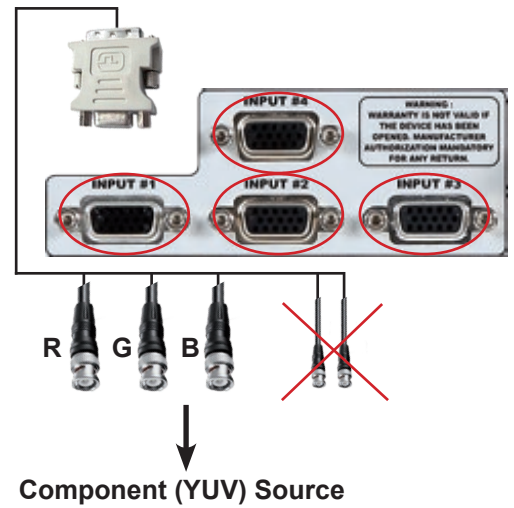


COMPONENT VIDEO SOURCES:

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.

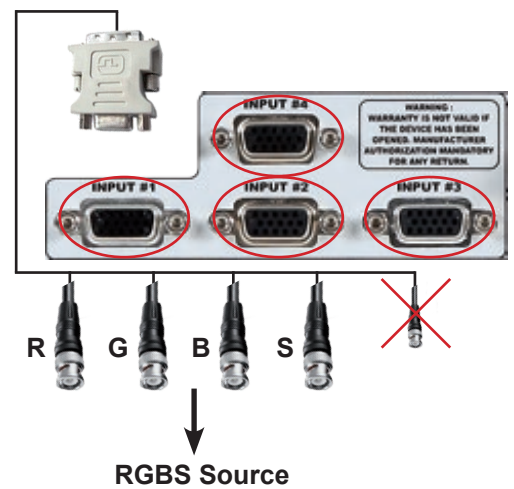
The COMPONENT connectors are usually RCA (x3), or BNC (x3).



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 4 x BNC cable between the HD15 connector of the device and your RGB/S source.



DVI Inputs #1 & #2

DVI AND ANALOG SOURCES:

DVI Inputs #1- #2 on the **STE200** accept up to 2 live sources in Digital format.

DVI-I: 1 x digital (DVI) and 1 x analog input on female DVI-I universal connector.



Analog Computer Source

3G/HD/SD-SDI Inputs #1 to #4

3G/HD/SD-SDI SOURCES:

3G/HD/SD-SDI Inputs #1 to #4 on the **STE200** accept up to 4 live sources in Digital formats.

3G/HD/SD-SDI: 1 x digital input on female BNC connector.



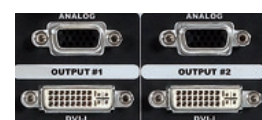
Output #1 & Output #2

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

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

Output #1: Left side of image.

Output #2: Right side of image.



Main Outputs

MAIN OUTPUT:

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

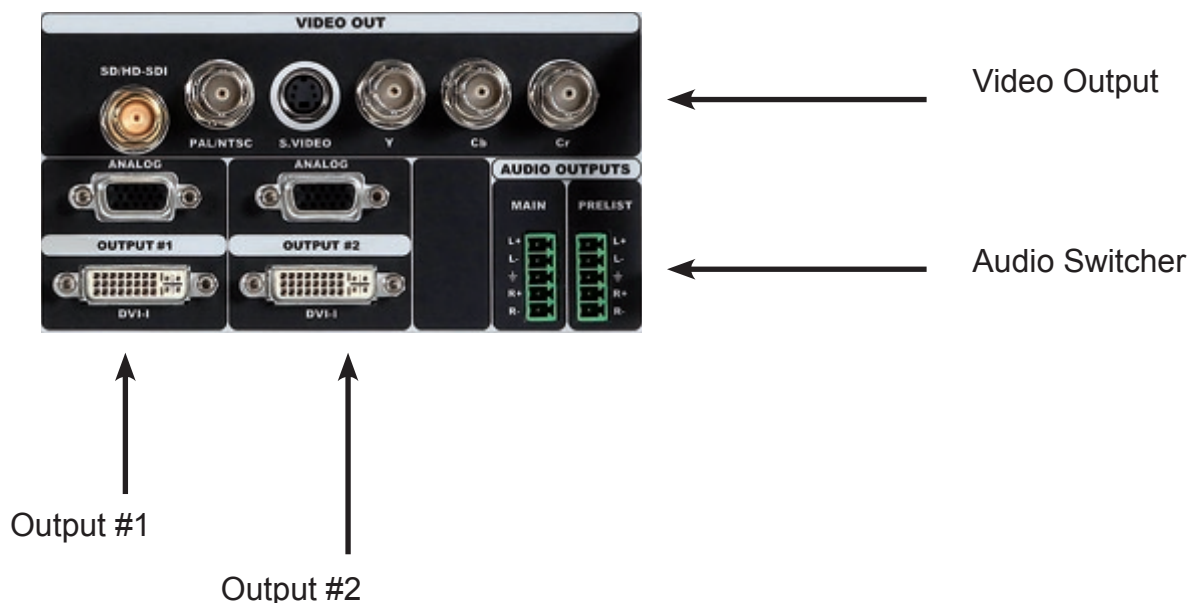
DIGITAL/ANALOG: 1x main output on female DVI-I connector (simultaneous analog and digital).

VIDEO OUTPUT:

Video Output card provides SD or HDTV formats in various signals and connectors from Composite Video to 3G/HD/SD-SDI. This output can be used to record your show by outputting the blended image.

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.



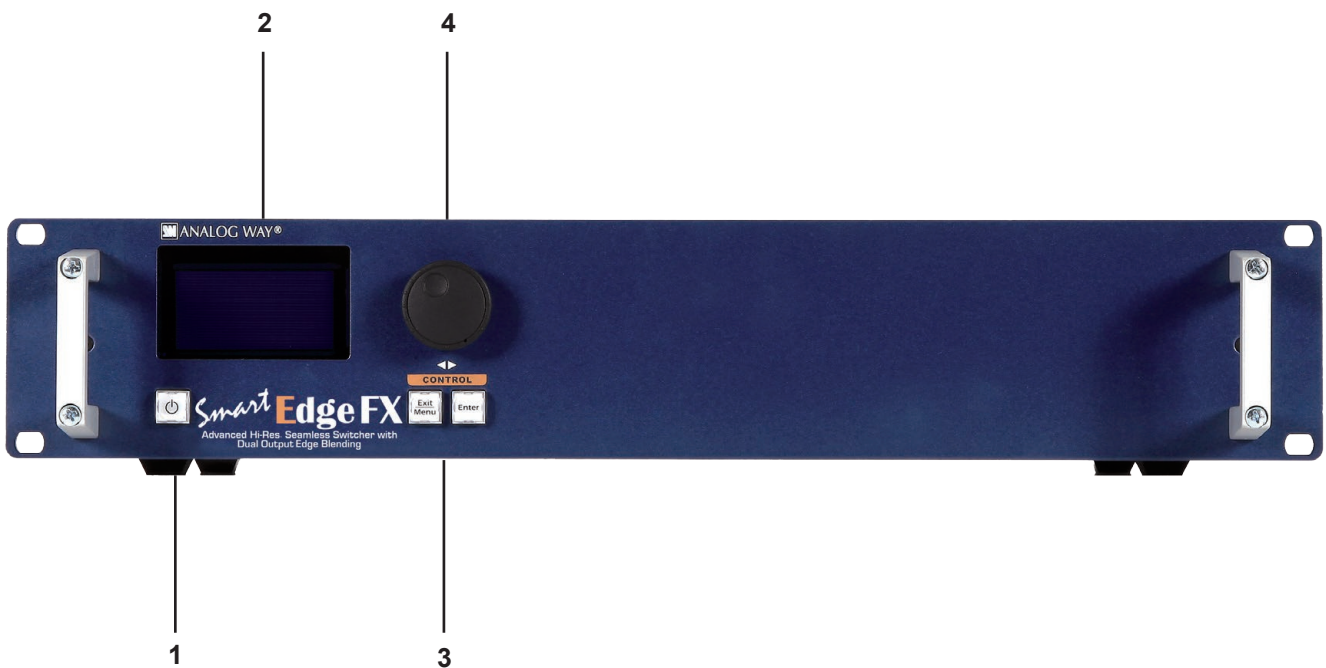
4-1. THE STE200 FRONT PANEL

Overview

The highly intuitive front panel of the **STE200** 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 **STE200** front panel is comprised of several sections.

- 1 : Standby button
- 2 : Menu screen
- 3 : Menu Control section
- 4 : Menu scroll knob



On/Off button

The [STANDBY] button allows users to put the **STE200** 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 **STE200** is the visual interface to your **STE200** 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 **STE200** menu. Simply scroll to the desired menu item, and press the [ENTER] button to confirm your choice.



Control section

The [EXIT/MENU] button and the [ENTER] button in the Control section of the **STE200**, allow users to respectively enter and exit the **STE200** menu, and confirm selected menu items.

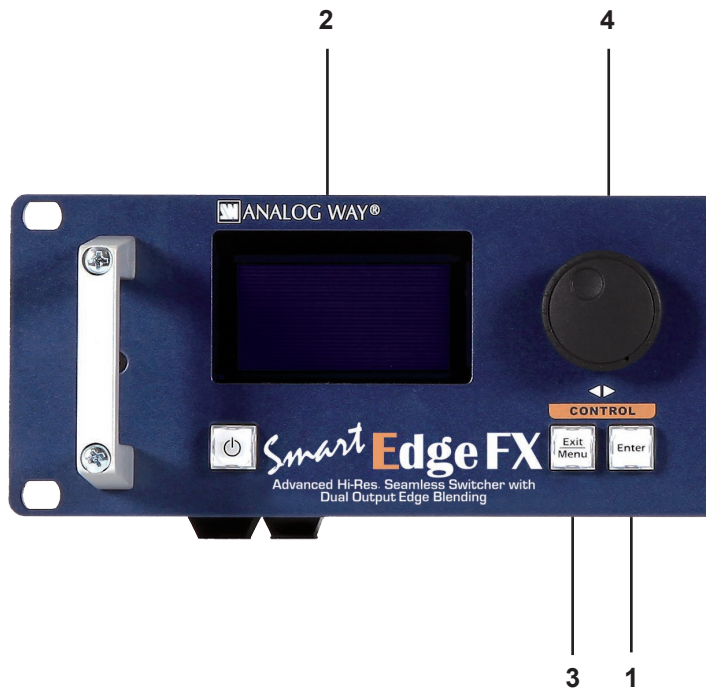


4-2. THE STE200 MENU

Menu navigation

To access the **STE200** 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 (4) left or right to the desired menu item. When you have reached the desired menu item, press the [ENTER] button in the control section (3) to access that menu function. Pressing the [ENTER] button (1) when a selection has been made sets the value to that selection in the **STE200** memory. When all settings have been made, press the [EXIT/MENU] button to exit sub-menus and return to the main menu.

*** IMPORTANT *** : simply selecting a menu item will not set it to that value. Be sure to press the [ENTER] button when parametering the menu items.



Home menu

Pressing the [MENU] button in the menu section of the **STE200**, will display and give you access to the following items on the menu VFD screen:

- **INPUT:** select to configure the 12 individual input types and resolutions.
- **OUTPUT 1:** select to set the output types and resolutions of Output #1.
- **OUTPUT 2:** 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.
- **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.

4-3. WORKING WITH THE STE200

Resetting default values

It is strongly recommended resetting all of the default values of your **STE200** 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 **STE200** with its factory settings. This operation should take approximately 30 seconds.

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 → Autoset all

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 enable

*** 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:

Menu → Control → Sync. Loss → Press Input# or Enabled

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

Source output selection

Once your inputs all have been configured, the output settings of the **STE200** must be set according to the machines plugged on your **STE200** main #1 & #2 outputs (video projector...).

*** NOTE *:** If you want to use HDCP content from your sources, be sure to attach 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 Output #1 or Output #2 menu and choose first the adapted format/resolution, and then the appropriate rate for your screens by using the knob button and the Enter button.

Output #1 → Output Format → Output rate

Use the native resolution of your screens/projectors in order to obtain the best image quality. In the Output #2 menu, you can also match the output configuration the Output #1 to the Output #2 by checking the case Sync w/Out 1. It allows you to set up your outputs via the output 1 menu.

Output #2 → 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.
- Analog type: set up the type of synchronisation of your Analog output.
- DVI type: set up the type of color space of your Digital output.
- HDCP detection: set up to enable/disable the HDCP detection on the output.
- Background colour: add a background colour in place of the default black one.
- Test pattern: use test pattern on Main or screen to configure your projectors.

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.

Working with Layers with an Analog Way Controller

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 program screen.

To delete a Layer: **Press Layers # → Press Black button**
Press Take to view the result on the Main screen.

To freeze a source: **Select a Layer with this source → Press Freeze button**

Working with Layers Functions with an Analog Way Controller

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
Position	YES	YES
Size	YES	YES
Zoom	YES	YES
Transparency	YES	YES
Border	YES	YES
Opening effects	YES	YES
Closing effects	YES	YES
Smooth Move	YES	YES
H Flip / V Flip	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 4 layers stacked from bottom to top as follows:

- **The Background Frame:** One stored frame selected from 4 available,
- **The Background Live/ PIP#1:** One source selected from 12 inputs available,
- **The PIP#2:** One source selected from 12 inputs available,
- **The Logo#1:** One stored Logo selected from 4 available.

Opening transitions and closing Live Layers

When transitioning live layers, depending on how many scalars are in use, the **STE200** 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 scalars for making a transition
- All inputs are locked on to scalars
- There are no constraints for closing **before** the Take
- All opening and closing transitions can be performed simultaneously.

• Take 2- shot: Case #2

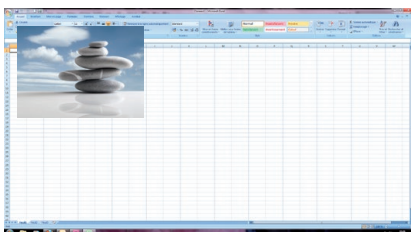
- There are enough scalars for making a transition
- All inputs are locked on to scalars before the Take
- There are no constraints for closing **during** the Take
- All the necessary closing transitions are performed to free occupied scalars and then the **STE200** performs all openings.

• Take sequenced- shot: Case #3

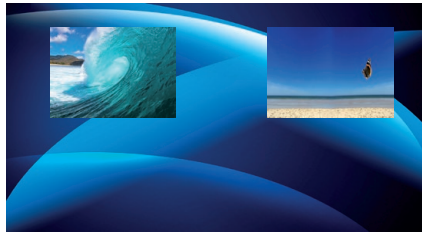
- There are not enough scalars for making a transition
- All inputs are not locked on to scalars
- All the necessary closing transitions are performed to free occupied scalars. The **STE200** locks on to new sources and performs all openings.

Working with PIPs

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



1 PIP + Live Background



2 PIPs + Still Background

PIP adjustment menu with an Analog Way Controller

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.

PIPs as Layers

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

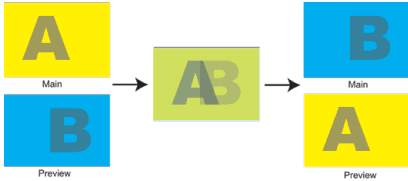
PIPs with Transitions & Borders with an Analog Way Controller

Transitions:

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

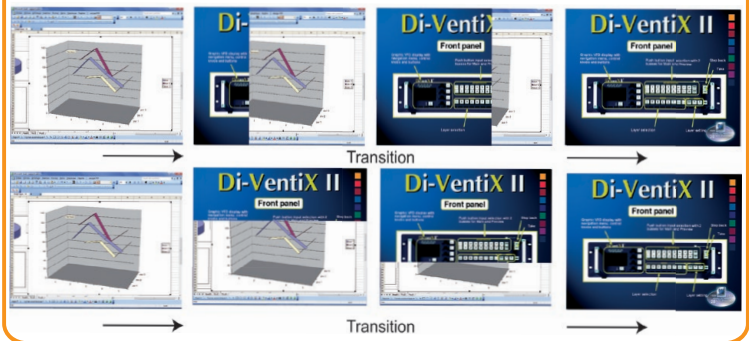
Fade

- 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
- Horizontal: from left, center -or- vertical: from up, down, center

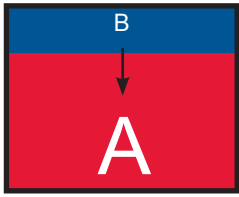


Slide

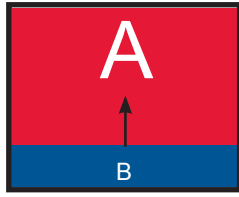
- Sliding of video or computer images during the transition
- Horizontal: from/to left, -or- vertical: from/to up, down



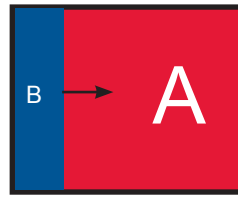
The **STE200** offers 33 seamless transition effects including 31 options, in addition to a dissolve (fade) and a cut effect.



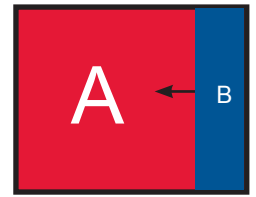
WIPE DOWN HARD



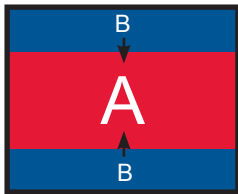
WIPE UP HARD



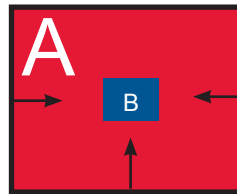
WIPE RIGHT HARD



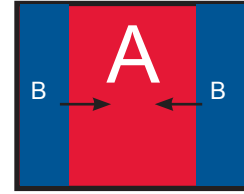
WIPE LEFT HARD



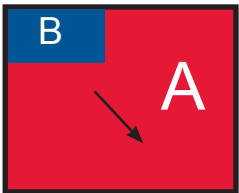
WIPE CENTER IN HARD



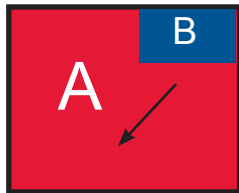
WIPE CENTER OUT HARD



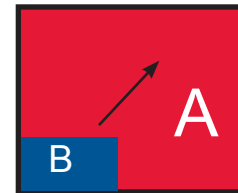
WIPE CURTAIN IN HARD



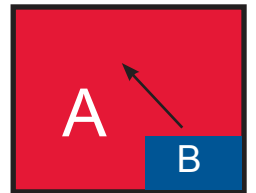
WIPE ANGLE
TOP LEFT
CORNER HARD



WIPE ANGLE
TOP RIGHT
CORNER HARD



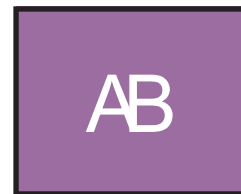
WIPE ANGLE
BOTTOM LEFT
CORNER HARD



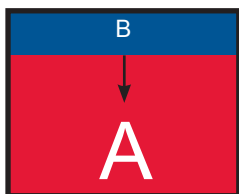
WIPE ANGLE
BOTTOM RIGHT
CORNER HARD



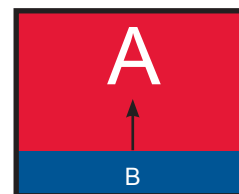
CUT



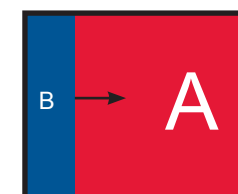
FADE



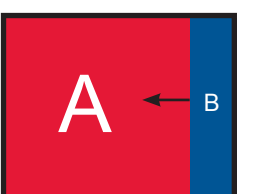
SLIDE DOWN HARD



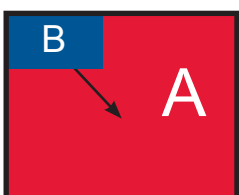
SLIDE UP HARD



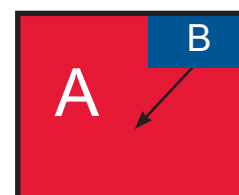
SLIDE RIGHT HARD



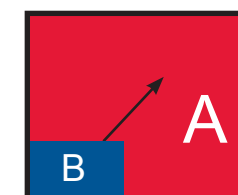
SLIDE LEFT HARD



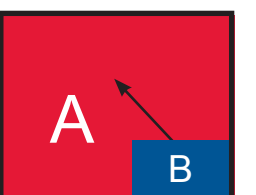
SLIDE ANGLE
TOP LEFT
CORNER HARD



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 (on an Analog Way Controller or Remote Control Software (RCS)):

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



**Shadow border
(Four possible orientations)**

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



A transparency can be applied to the shadow border

Capturing still Frames with an Analog Way Controller and RCS

To capture a frame, display the exact content you want to save on 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 disappearance of frames on the Main output is normal when saving frames.

A frame captures the state of the output at the 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 with an Analog Way Controller or RCS

It is possible to store up to 4 frames in the **STE200** non volatile memory. Frames are mainly used as backgrounds in a typical show or event setup, and can be recorded from any of the **STE200's** 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 **STE200 [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 with an Analog Way Controller

The **STE200** can memorize up to 4 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. Press the **[TAKE]** button to display that source on the main display.
2. Select Logos/Frames in the menu. Select the output you want to record in capture source menu.
3. Select *Record Frames* in the *Logo/Frames* menu. A white rectangle will appear on your main display, 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.
4. The **STE200** 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 #4) you just recorded, and press the **[TAKE]** button. Your background frame will appear on your program output.

Frame input setup menu with an Analog Way Controller

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 with an Analog Way Controller

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 next preset using the same way the layers do:

Delete: 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 with an Analog Way Controller

The **STE200** offers a wide variety of transitions between the scenes you create for your shows and events. It allows for live recall of 8 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 **STE200** will also deliver some of what you could expect from a dedicated mixer, along with its switcher and scaler capabilities.
2. In the *Layer Menu*, make the position, size, border and transparency settings you like, then select *Opening Effect* in the layer options and select *Type*. Select *Slide Left - Right* for example. Navigate to *Duration* in the *Opening Effect* sub-menu, and set the duration of your effect.

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.

3. Select a source.
4. Use the [TAKE] button to see the result on the next transition.

Mixer Functions with an Analog Way Controller

The **STE200** 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 **STE200** Layer menu.

Capturing Logos with an Analog Way Controller

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 / 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 4 logos with the STE200.

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

- The disappearance of logos on Main output is normal when saving logos.

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.

Memorizing logos in the STE200 with an Analog Way Controller

1. In the Input Selection section, press the source button (#1 to #12) of the source you wish to record as a logo. Please take this source.
2. Select the *Logos/Frames* menu.
3. Select *Record Logos* in the *Logos/Frames* menu. 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 to memorize logo settings.
5. Select an empty logo memory (empty logos are indicated in the sub-menu) to store the logo into. The **STE200** will display a progress status bar on the VFD screen.
6. In the Layer Selection section, press the **[LOGO #1]** button, and select logo number (#1 to #4) 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 with an Analog Way Controller

In the Logos/Frames menu, the logos can be deleted in the Erase menu:

Logos/Frames menu → Erase menu → Select Logo#

Working with Logos with an Analog Way Controller

A Logo can be manipulated on the main menu. 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 #4 are available directly by the input # button on the front panel.

You can change logos or delete logos on the next preset using the same way the layers do:

Clear: Press Logo (#1) button → Press Black

Change: Press Logo (#1) button → Press another Input#

Logos as Layer with an Analog Way Controller

Logos are under the Layer rules, you will have direct access to settings by pressing the Logo Layer button. You have 1 Logos Layer available.

Working with Presets with an Analog Way Controller

The eight user presets of the **STE200** can be recalled at any stage during your show or event.

1. Press the [PRESET] button, then press one of the 8 presets to load it.
2. Once you have selected your preset, simply press the [TAKE] button to view the result on your main screen.

Creating Presets with an Analog Way Controller

The **STE200** allows the creation of user defined presets very easily. Any setup you have configured on screen, can be stored into one of the 8 available user presets.

1. After having configured Layers, PIP transitions, logos... on your screen (see "Working with the STE200", p.29), go to the *Preset* menu, and select *Preset*.
2. In the sub-menu, choose *Save From Main* or *Save From Preview* to determine which screen you want to save.

Working with Audio with an Analog Way Controller

The **STE200** allows to work with up to 8 stereo inputs, 1 auxiliary input, and 4 stereo embedded SDI audio inputs (via the SDI BNC connectors), all accessible via the *Audio* menu of the **STE200**, and which can be assigned to one or both of the 2 independant symmetrical/asymmetrical outputs of the device.

Working with DSK (Chroma / Luma key) (using RCS or Analog Way Controller)

- **STE200** allows to use a live source with green or blue (or any color) background and to key it over another live input.
- Title can be keyed ([DSK]) on Analog or Digital Sources.



To use keying, first select a source in the desired layer (using RCS or Analog Way Controller):

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 **STE200** provides you some keying advance setting:

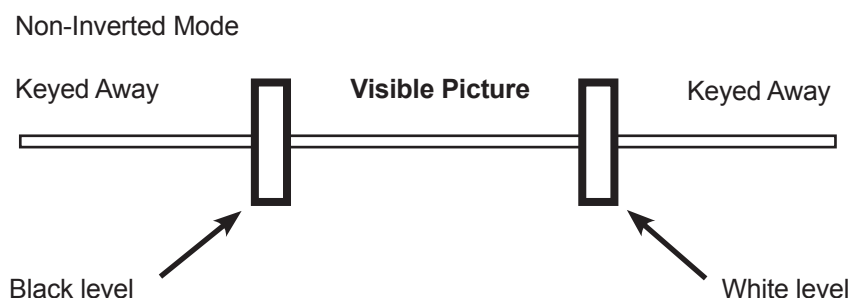
For Luma Key:

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 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.

Titling alpha:

If you have selected one of the two Titling mode, 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.

How to do a Soft Edge Blending ?

- What is Soft Edge Blending?

Soft Edge Blending is essentially a term used for creating a large screen image using multiple video projectors with seamless overlapping areas. Creating a seamless image across a wide surface is important if one wishes to display different elements on multiple screens, with the flexibility of merging all the images into one large, panoramic display.

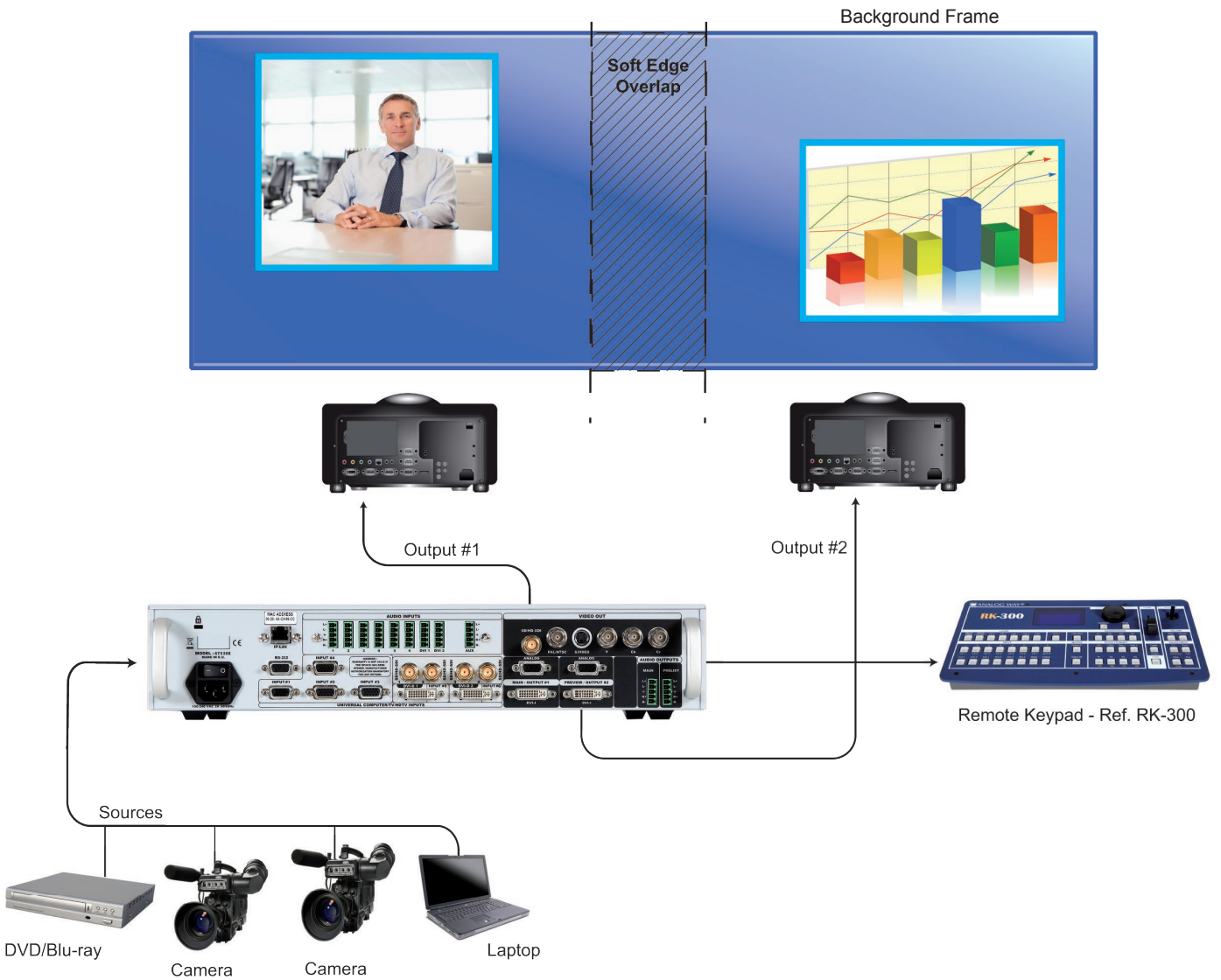
The Soft Edge Blending is often used in Rental and Staging, live events, corporate, government and church market.

- Soft Edge Blending configuration

To make an image as seamless as possible, the first element you need to consider is the configuration of your projection. You will also have to know which video projectors you plan to use.

The quality of your projectors will have a direct impact on the end result of the Soft Edge. The video projectors must be physically aligned to provide an image on the screen within one pixel precision, with no distortion. They need to be perfectly horizontal and perpendicular to the screen in both the horizontal and the vertical axes. This alignment must also include an overlap between the projectors of from 10 to 25 percent of the total screen width.

Now that your video projectors are perfectly positioned, you can begin to adjust the settings that will create your seamless blend.



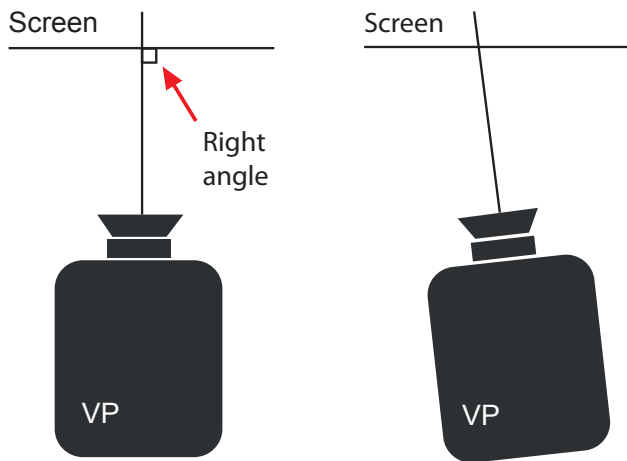
- Soft Edge Blending Adjustments

The principle of Soft Edge Blending lies in projecting an image on a wide screen thanks to two or more video projectors displaying the same content. Overlapping or covering areas are created on the screen where two adjacent projectors meet. Basically, each overlap zone receives the light of two video projectors and receives the content projected twice.

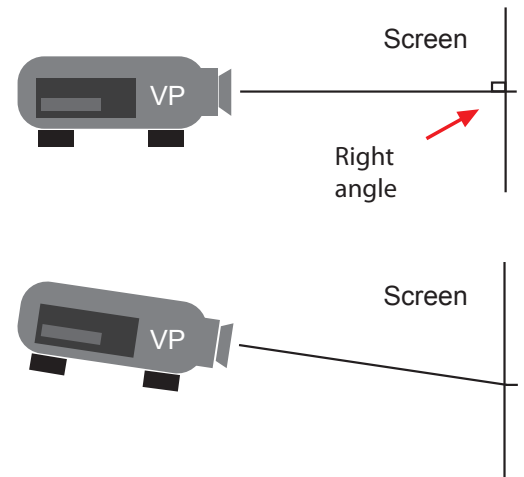
The art of Soft Edge Blending is to harmonize, or blend the overlapping area with the rest of the image. You can use different test patterns provided by your Mixer/Seamless Switcher to make all the necessary adjustments outside and inside the overlapping area.

To deal with Black level, the solution consists of raising the luminance in the left and right areas of the projection, outside the overlapping zone, to match the luminance of the overlapping area.

HORIZONTAL POSITION



VERTICAL POSITION

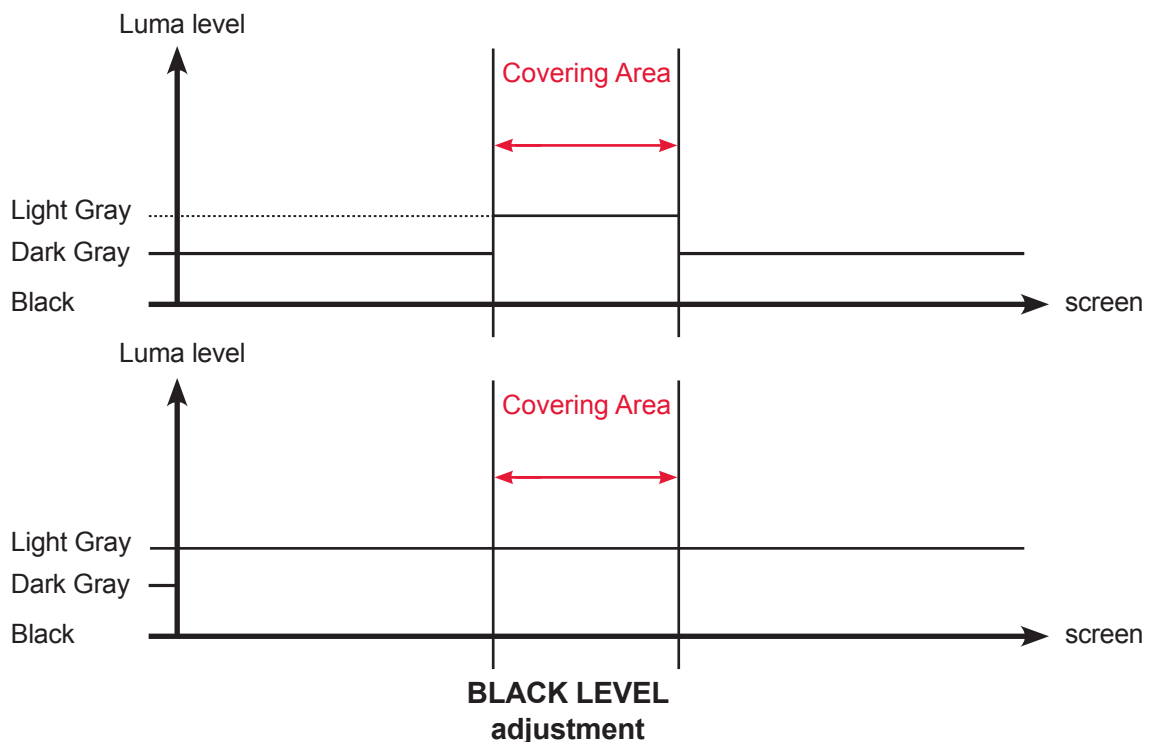


* NOTE *:

- If you must move image, laterally, always move VP.
- When moving image vertically, use the lens shift on your VP.

NEVER USE KEYSTONE

The solution consists in adjusting the BLACK LEVELS of the image outside the covering area.



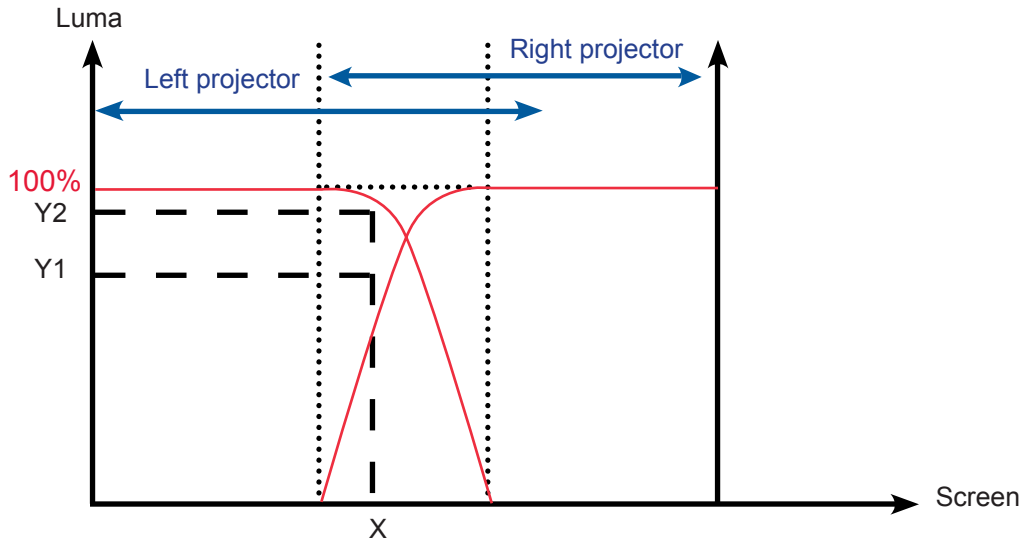
- Soft Edge Blending Adjustments (continued)

Finally, since the overlapping zone receives the same image from the video projectors twice, adjustments have to be done inside the overlapping area.

Making a perfect blend entails gradually decreasing the light provided by the video projector on the left side of the overlapping zone, while gradually increasing the light provided by the video projector on the right side, at the same time.

With the help of these different adjustments, the overlapping areas are less visible, and you are ready to achieve a projection that is as seamless as possible.

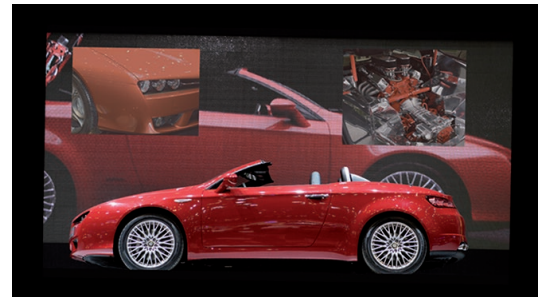
Result is:



- Soft Edge Blending Contents for Projection

To develop an effective presentation, you are encouraged to use various types of sources: computer, camera, VCR, DVD, Blu-Ray... Many options are possible and they will help you create an attractive presentation that compellingly conveys your message.

Here are a few tips to obtain the best possible results. To ensure a successful Edge Blend it is fundamentally important that the image used as the background be at the same resolution and aspect ratio as the blended projection. In other words, the image needs to fit with the size of your screen. If your image is too large, part of it will not appear on the screen. If too small, the image will not cover the entire surface of the screen, which will not produce a satisfying result.



To help you calculate the correct screen/picture ratio, Analog Way offer free software to facilitate the calculation of key parameters. By entering basic information, such as your projector matrix size and your image size, you can automatically obtain all the essential variables (Projector image size, distance between projectors, etc.) to make your Soft Edge. It is also recommended to use a Hi-Res DVI computer source for this background.

The Soft Edge Blended presentation will be much more impressive with contrasted images and saturated colors.

Soft Edge Blending presentations will offer you the opportunity to change the overall look of a space in a few minutes. With the flexibility of displaying multiple sources of video, with the option of merging the image into one, the impact of your services and presentations is increased exponentially.



Smooth Move

The smooth Move function manages a different time between the opening and closing transition. The movement is both fast and slow. The function is enabled or disabled in Menu Layer of the controller.

Audio configuration

To configure audio settings of the **STE200**, 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 air the selected audio source, while the *Top Layer Follow* mode will air audio from the toptmost active layer of the **STE200**.

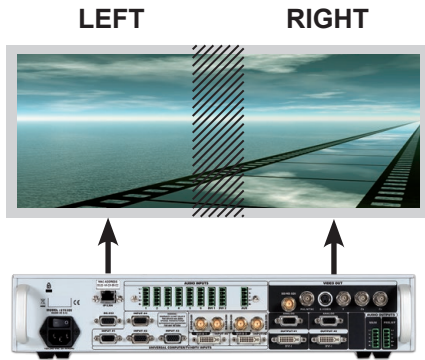
2. Select *Source Settings* from the *Audio* menu to select the audio source you wish to work with, then set levels and left/right balance for each input.
3. Select *Auxiliary Settings* to determine level and balance of the auxiliary input.
4. Select the *Main Output* menu to determine main audio output level, balance and delay settings, or to mute main audio output.
5. Select *Delay Mode*, to determine how the **STE200** deals with audio delay. Select *Auto Adjust* to let the **STE200** 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.

Multiple Machine Mode

Up to 3 x STE200 for Large Wide Screen with 6 Video Projectors.

>> 1 x STE200 = 2 Video Projectors

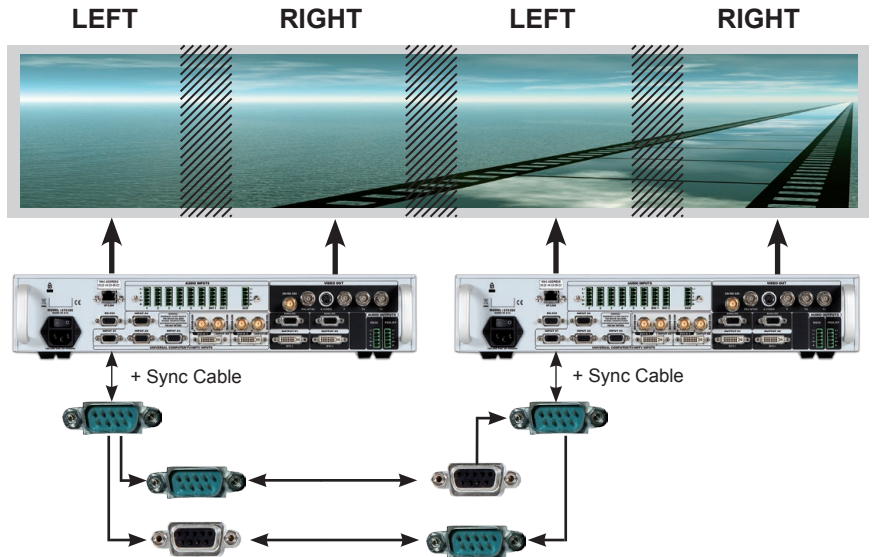


No Sync Cable.

WARNING!

Sync Cable **OPTIONAL**.
For multiple machine mode, use one cable per STE200 (Ref: AW212080).
For a perfect functioning, the follow mode is recommended on all units.

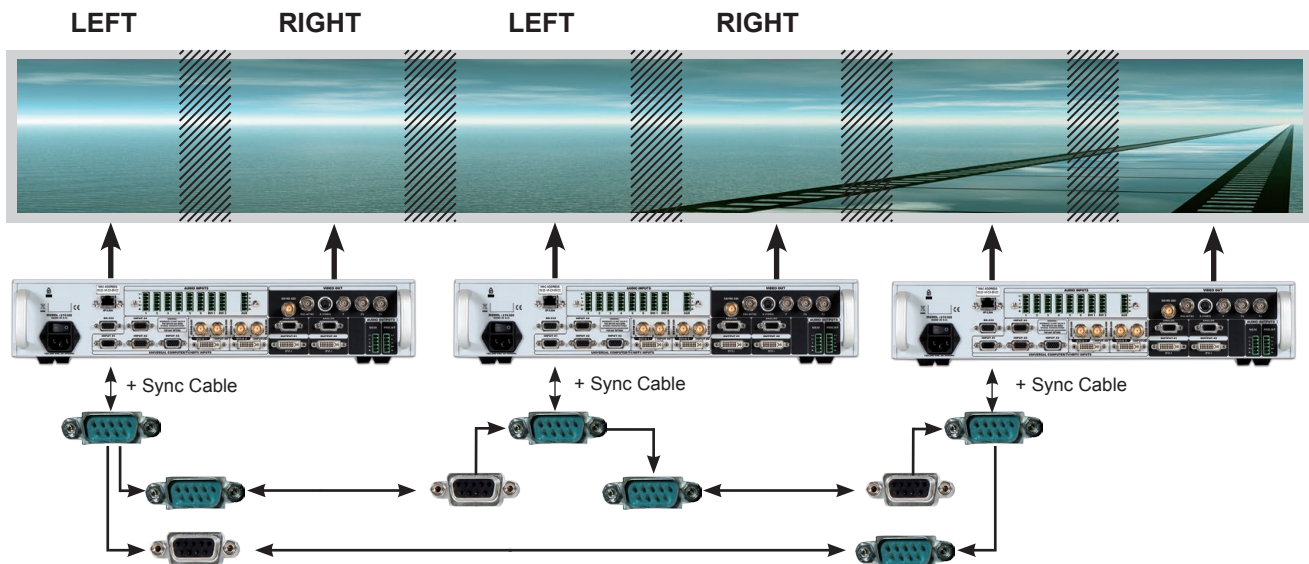
>> 2 x STE200 = 4 Video Projectors



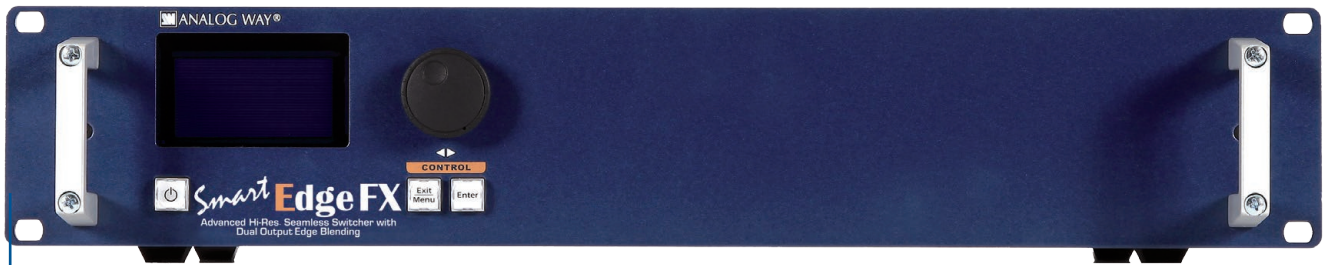
Thank you for using 2 x Sync Cable for multiple machine mode.

The Analog Way's solution can edge blend up to 6 Video Projectors with 3 x STE200 either vertically or horizontally.

>> 3 x STE200 = 6 Video Projectors



Thank you for using 3 x Sync Cable for multiple machine mode.



MIXER MODE

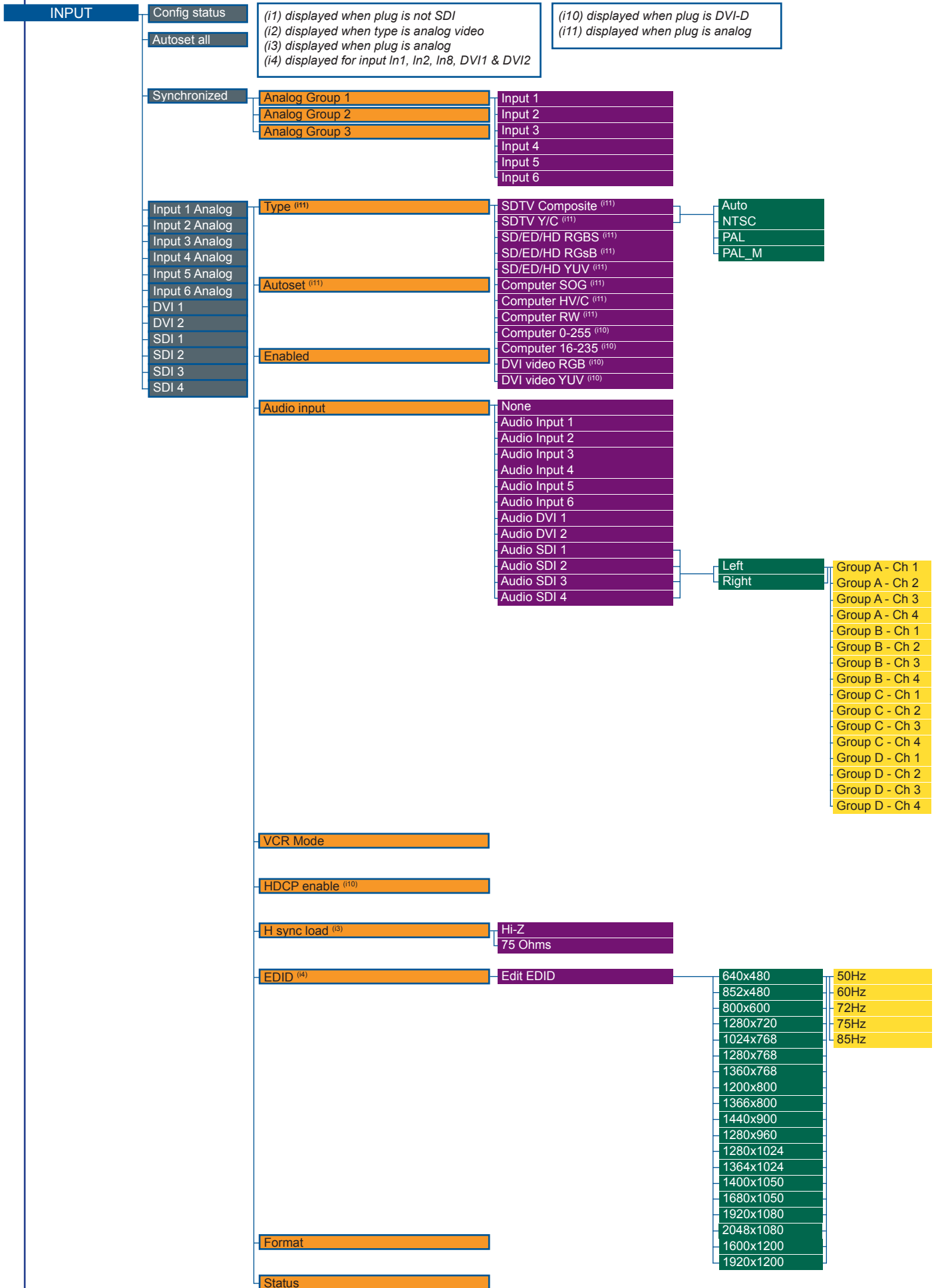
[MAIN]

Format: 1920 x 1080

Rate: 50Hz

Lock: Internal

	[MAIN]	[PREVIEW]
Logo1	Logo#1	Logo#7
PIP2	DVI 1	DVI 2
PIP1	Input1	Input8
Frame	Frame1	Frame4



OUTPUT 1

Output status

OUTPUT 2

Output format ^(o1)

- HDTV 720p
- HDTV 1035i
- HDTV 1080i
- HDTV 1080p
- HDTV 1080sF
- 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

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

Output rate

- Internal ref
- Follow x 1/2
- Follow x1
- Follow x2
- Follow x3

- 23.97 Hz ^(o2)
- 24 Hz ^(o2)
- 25 Hz ^(o2)
- 29.97 Hz ^(o2)
- 30 Hz ^(o2)
- 50 Hz ^(o2)
- 59.94 Hz ^(o2)
- 60 Hz ^(o2)
- 72 Hz ^(o2)
- 75 Hz ^(o2)

- Input 1 Analog
- Input 2 Analog
- Input 3 Analog
- Input 4 Analog
- Input 5 Analog
- Input 6 Analog
- DVI 1
- DVI 2
- SDI 1
- SDI 2

Out Sync Polarity

- H-, V-
- H-, V+
- H+, V-
- H+, V+

Gamma

Flicker filter ^(o4)

Analog Type

- RGB HV
- RGBS
- RGB (SOG)
- YUV

DVI Type

- RGB full (0-255)
- RGB limited (16-235)
- YUV

HDCP Detection

- Disabled
- Automatic

Background color

- Predefined color
- Hue
- Saturation
- Luma

Test Pattern

- OFF
- V Grey scale
- H Grey scale
- V Color bar
- H Color bar
- Grid
- SMPTE
- Burst ^(o3)
- Centering

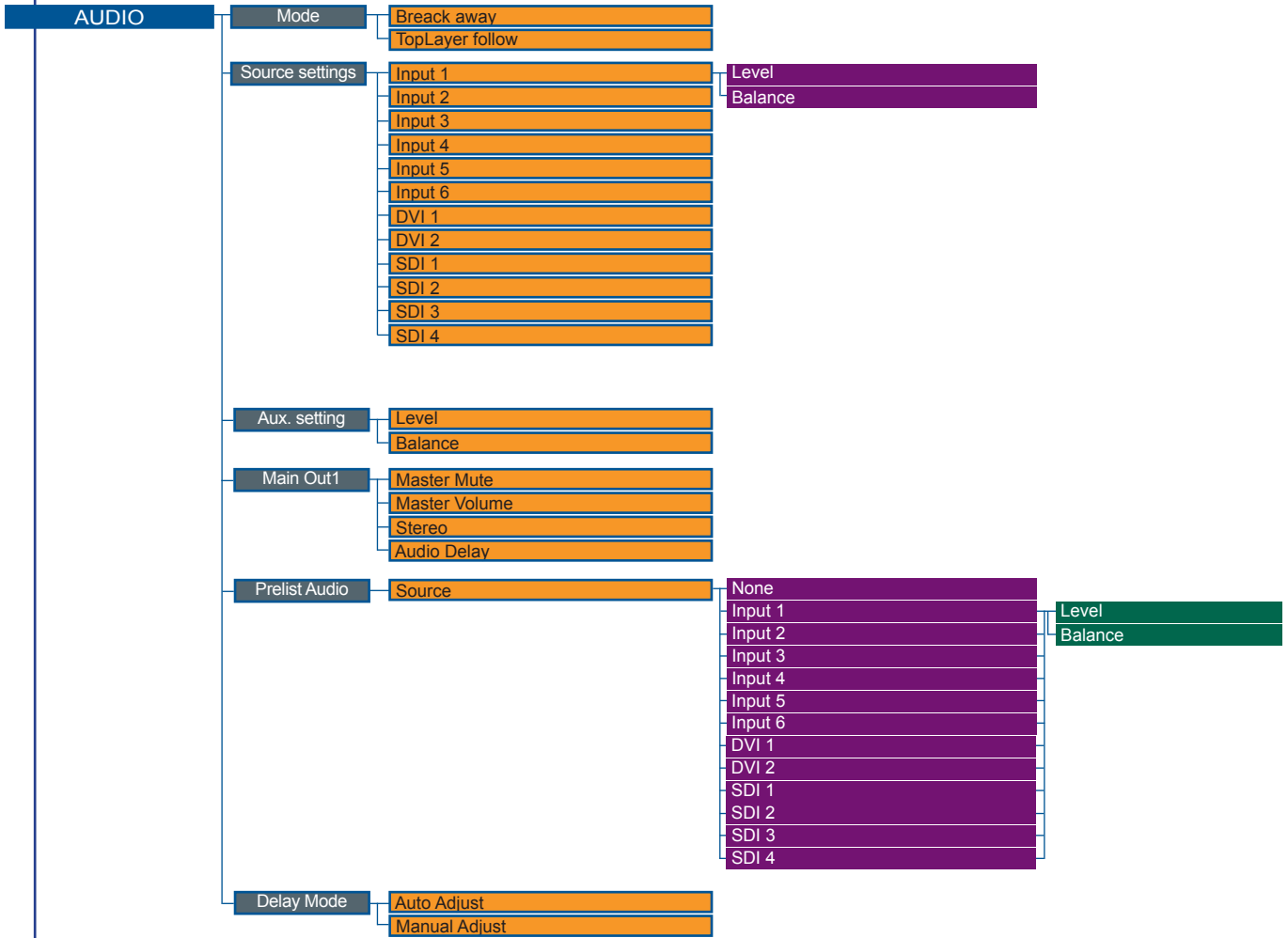
VIDEO OUT

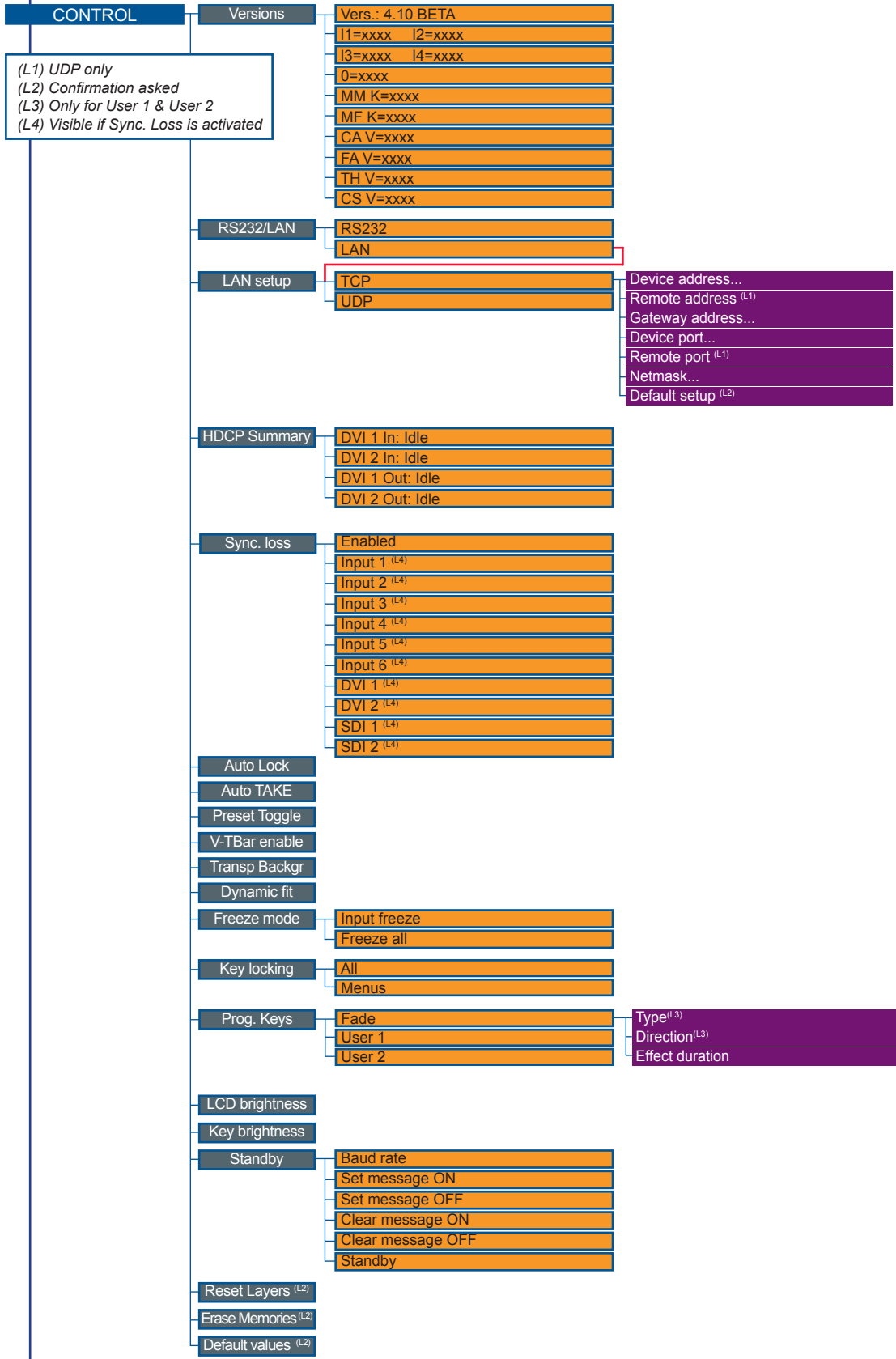
- Connection
 - Output1
 - Output2
 - Output Tiled Horizontally
 - Output Tiled Vertically
- Output status
- Output format
 - SDTV PAL
 - SDTV NTSC
 - EDTV 480p
 - EDTV 576p
 - HDTV 720p
 - HDTV 1035i
 - HDTV 1080i
 - HDTV 1080p
 - HDTV 1080 sF
- Output rate
 - 23.97 Hz ^(o1)
 - 24 Hz ^(o1)
 - 25 Hz ^(o1)
 - 29.97 Hz ^(o1)
 - 30 Hz ^(o1)
 - 50 Hz ^(o1)
 - 59.94 Hz ^(o1)
 - 60 Hz ^(o1)
- Adjust
 - H Pos
 - V Pos
 - H Size
 - V Size
- Gamma
- Flicker filter
- Sharpness
- Under/Overscan
- Test pattern
 - OFF
 - V Grey scale
 - H Grey scale
 - V Color bar
 - H Color bar
 - Grid
 - SMPTE
 - Burst
 - Centering

(o1) depending on output format

PRESET

- Step Back
- Save Preset
 - Save from
 - Main
 - Preview
 - Save to
 - Memory 1
 - Memory 2
 - Memory 3
 - Memory 4
 - Memory 5
 - Memory 6
 - Memory 7
 - Memory 8
- Load Preset
 - Save from
 - Main
 - Preview
 - Save to
 - Memory 1
 - Memory 2
 - Memory 3
 - Memory 4
 - Memory 5
 - Memory 6
 - Memory 7
 - Memory 8





5-1. THE STE200 RCS

RCS presentation

The RCS is a powerful tool to exploit all the features of your **STE200** 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 very quickly be able to manipulate the RCS tool.

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

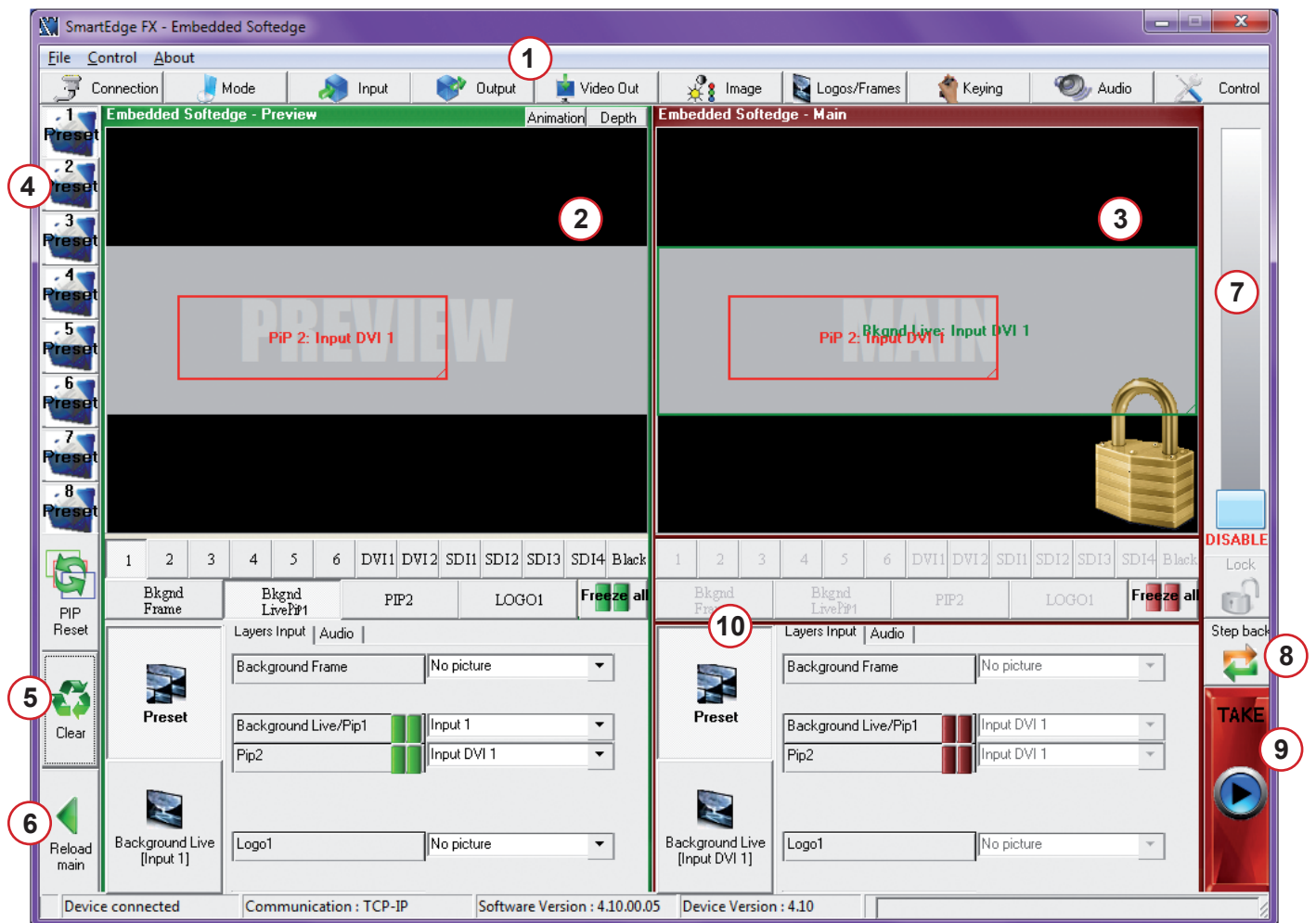
The RCS software for your **STE200** is composed of several easily identified sections.

The tabs menu (1) allows you to navigate through the equivalent of the **STE200** front panel menu items (see also “*The STE200 Menu*” p.28).

The green window of the RCS (2) 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 (3) represents your Main window, and can also be used much like the front panel of the **STE200**. Create user presets directly in the RCS main window, by clicking on one of the four available Preset icons (4) and setting up your preset in the Preview window.

Clear unwanted steps with the [CLEAR] button (5), reload a fresh copy of your screen via the [RELOAD MAIN] button (6), make smooth takes directly with your mouse or trackpad with the virtual T-bar (7). The [TAKE] button (9) will allow you to view any changes made to your preview screen on your main screen, **Analog Way** engineers have even implemented a [STEPBACK] button (8) to quickly return to your previous setup in case of a manipulation error (recall of Preset before [TAKE]).

The status section (10) allows for easy monitoring of the connection status.

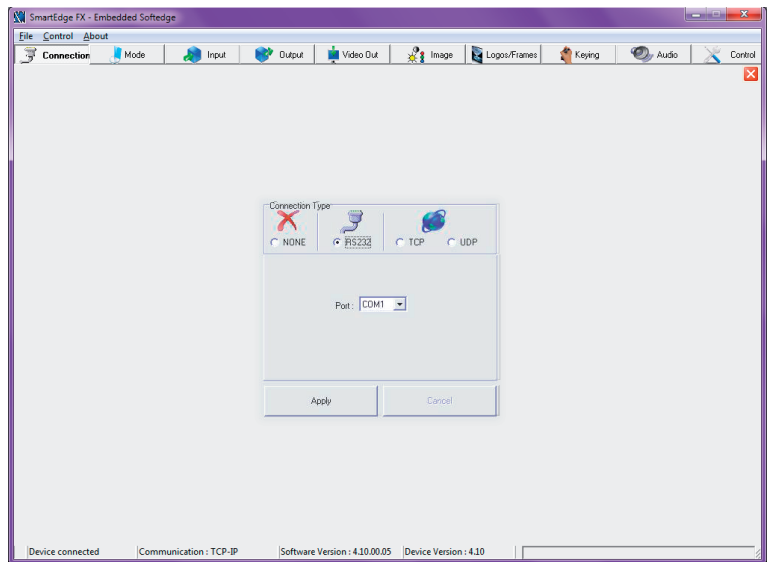


The RCS software for your **STE200** can be viewed as the software version of the **STE200** front panel menu section. It allows you to quickly access all of the **STE200** functions via a single page interface, and easily edit your settings directly from your laptop or PC.

Before starting with the RCS software, you must establish a connection from your laptop to the **STE200** you wish to run.

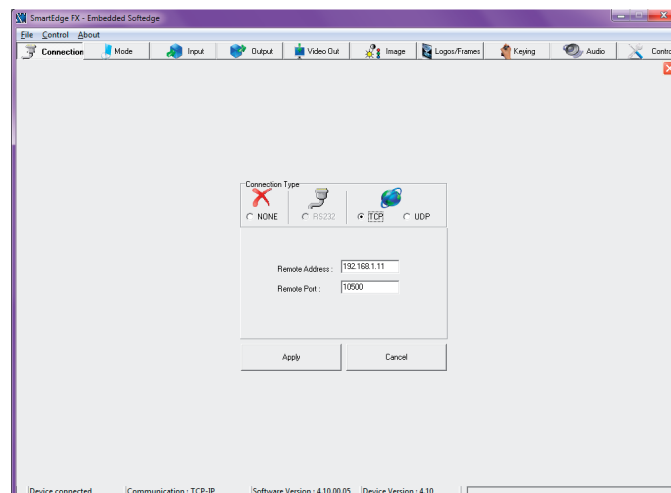
Serial connection

1. Connect a RS-232 cable between the **STE200** 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 dropdown menu, select the COM port number corresponding to the connected device (default is Port Com 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 **STE200** and your PC, then power on your devices. Use a straight RJ45 cable 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 **STE200** you wish to control (see also “*Working with the STE200*”, p.29).
5. In the “Remote Port” field, enter the remote port number of the **STE200** you wish to control (see also “*Working with the STE200*”, p. 29).
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.

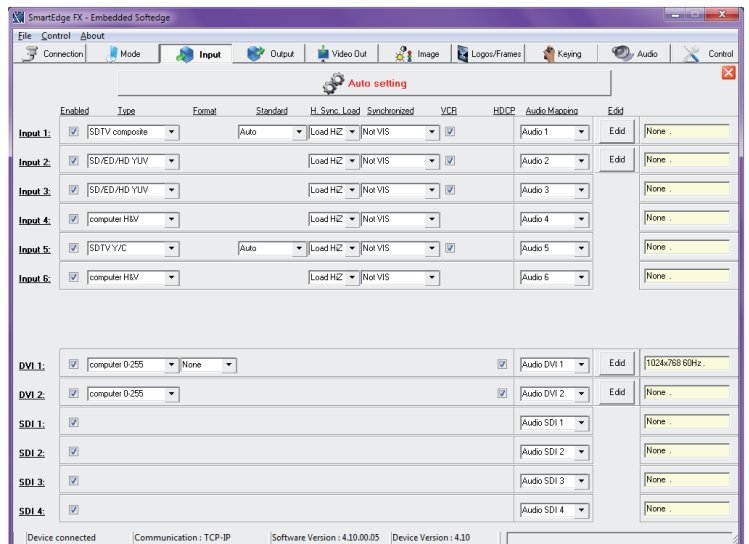


5-2. WORKING WITH THE RCS

Source input configuration

Once your **STE200** 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 **STE200**.
6. Click on the “Inputs” tab to return to the main screen.

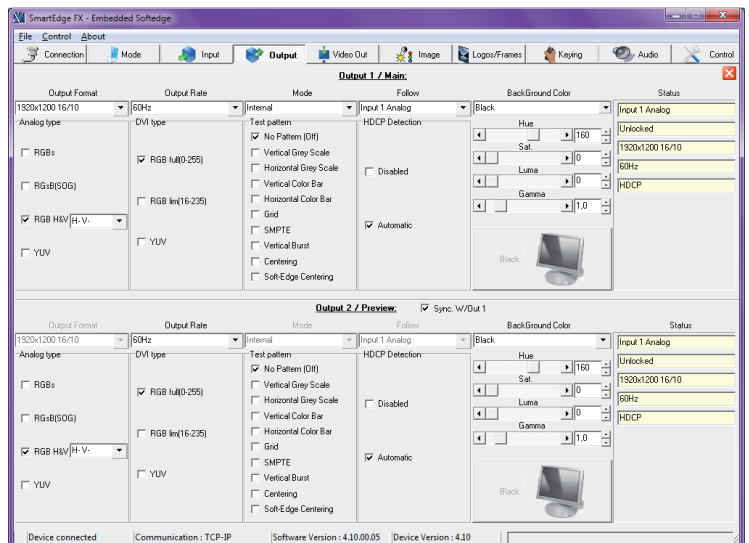


*** NOTE *:** Autosetting mode allows an easy setup of sources. Sometimes problems might appear with analog or HDCP sources.

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 **STE200** 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.



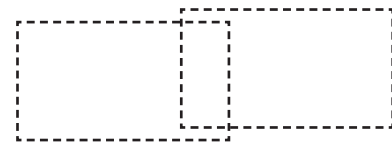
*** NOTE *:** Be sure to turn the test pattern off to display your sources again.

Embedded Edge Blending Mode

In Edge Blending mode, **Smart Edge FX** can drive 2 video-projectors for horizontal or vertical Soft Edge. Used as an 12 input switcher.

IMPORTANT: Before doing the following adjustments, make sure the 2 projectors are the same (mark, model, type) with same lenses. The projector matrices should be imperatively at the same resolution. The parameters of the 2 projectors should be homogenous (color, gamma, lamp lifetime...). The screen projection should be vertical and perpendicular to the projectors to avoid geometric distortion like bow or keystone. Use only mechanical lens shifts, and avoid using them in their maximal values. Don't use wide-angle lenses.

- 1) Connect your Computer & Video sources to the inputs of the **Smart Edge FX** and connect the two projectors to the Output #1 & Output #2.
 - Output #1 = Left projector in horizontal SEB configuration & Top projector in vertical SEB configuration.
 - Output #2 = Right projector in horizontal SEB configuration & Bottom projector in vertical SEB configuration.
 - 2) Select the input signal type.
 - 3) Select the output format corresponding to the native matrix of the projectors.
 - 4) Display the centering pattern (Output tab > test pattern > centering).
 - 5) Adjust the test pattern in full screen (matrix) of each projector, with the Auto adjust, position or size adjustment of the projector. Then align mechanically the projectors to have a covering area between 10 and 20% (of each matrix) and to have the test pattern well aligned one on top of the other. As required, you can use the burst pattern available in the output tab to adjust your projector.
- **Example:** Test pattern in horizontal SE configuration.



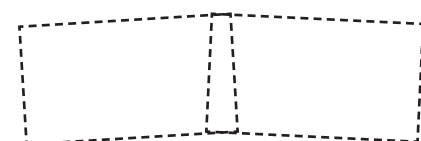
☹ Top and bottom not aligned.



☺ Projectors well aligned.



☹ Too small covering area.



☹ Edges not paralleled.

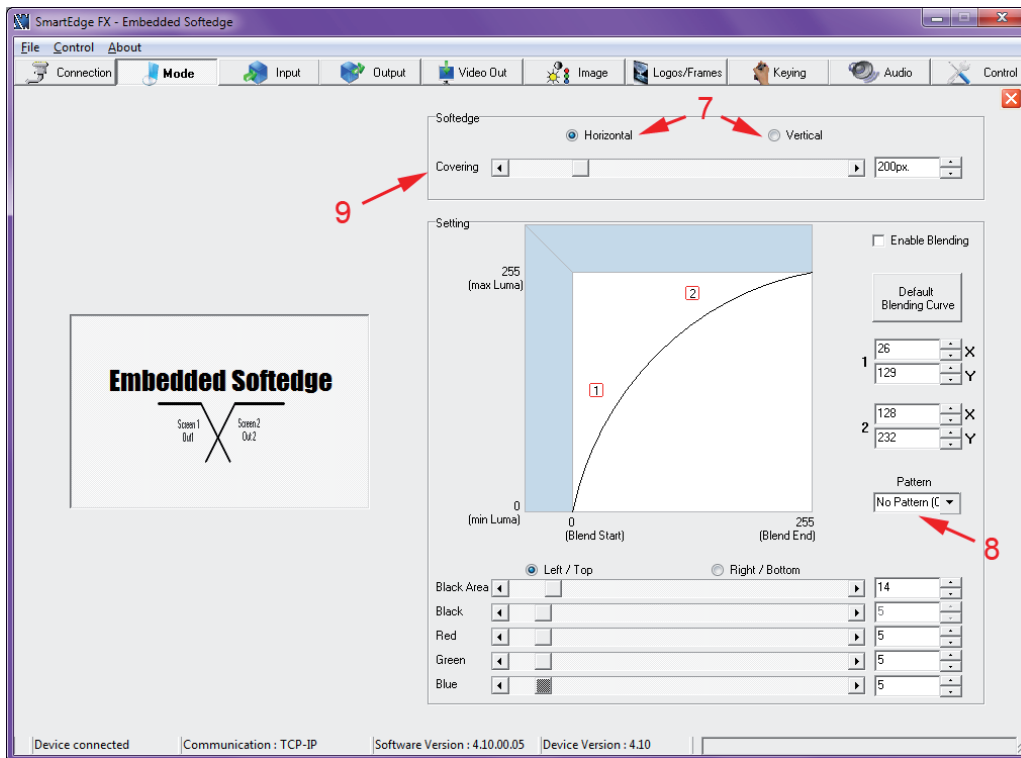
6) Adjust and size each input so that they are full screen in the test pattern.

- For computer sources: click on the Centering button in the Image main tab. As required, adjust the position with the H & V position adjustments.
- For video sources: Select the Image main tab and adjust the position with the H & V position adjustments.

7) Select the Horizontal or Vertical edge blending mode by clicking on the horizontal or vertical button.

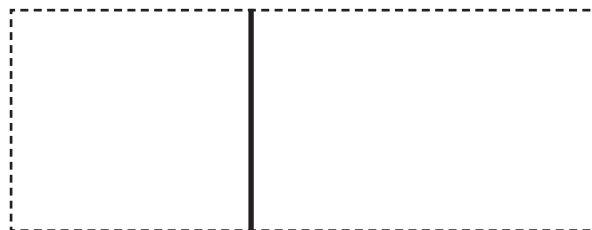
8) Display a Black screen (click on the BLACK button in the input selection row) and click on the Covering button to activate the Covering Pattern.

*** NOTE *:** Verify that the Soft Edge is not enable (Enable Soft Edge button not activates).



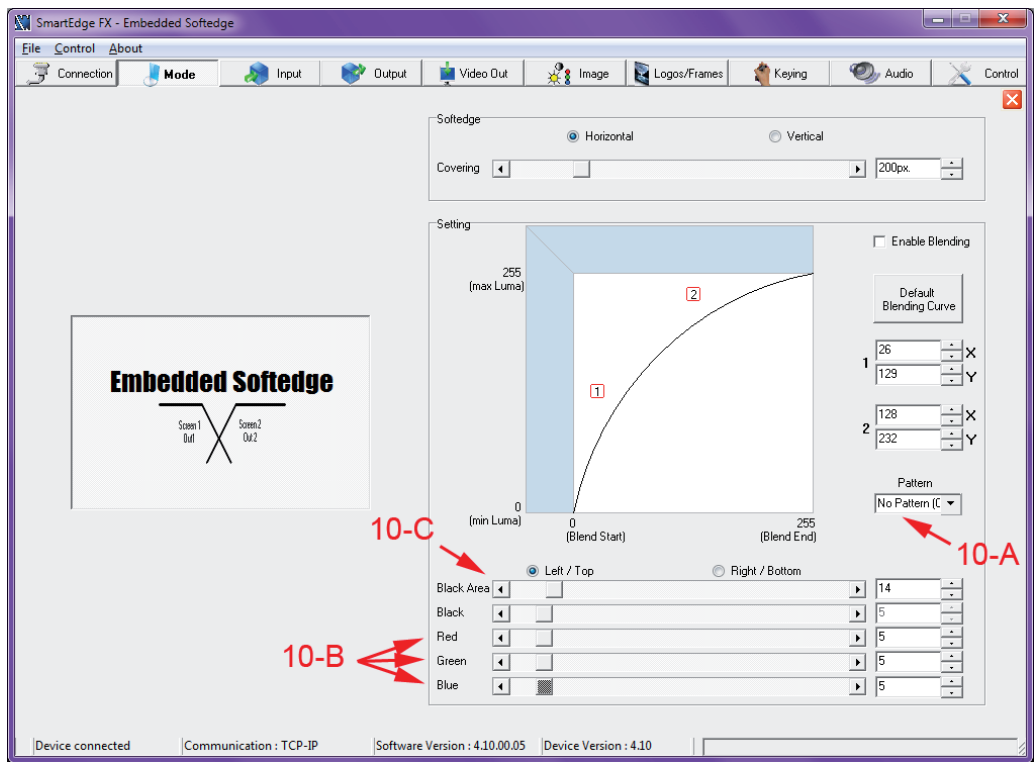
9) Adjust the Covering size so that the test pattern overlaps each other at the junctions of the projectors.

• **Example:** Test pattern in horizontal SE configuration.



This operation is to match physical covering with software covering value used for calibration of the source covering image area.

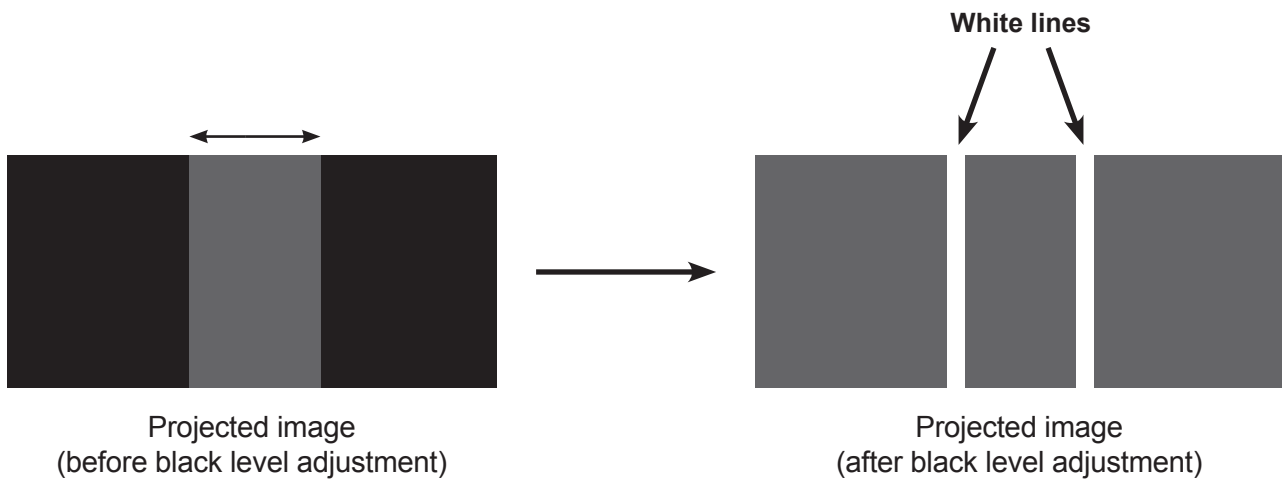
10) Select the Black tab to display the following windows:



10-A) Turn OFF the test pattern (Pattern > No Pattern).

10-B) The covering area will appear brighter than the non-covering areas. With the Black level function adjust the 2 non-covering areas (Left and right) to obtain a uniform dark grey on all the screen: Select the 3 colors and adjust the black level. As required, you can also separately adjust the colors of each projector with the Red, Green & Blue adjustments.

*** NOTE *:** Two white lines may appear at the junctions of the covering areas.



10-C) Use the Black Area function to remove the 2 white lines: adjust the Right & Left function (Top or Bottom in vertical SE) to remove the white lines. A uniform dark grey image is then displayed.

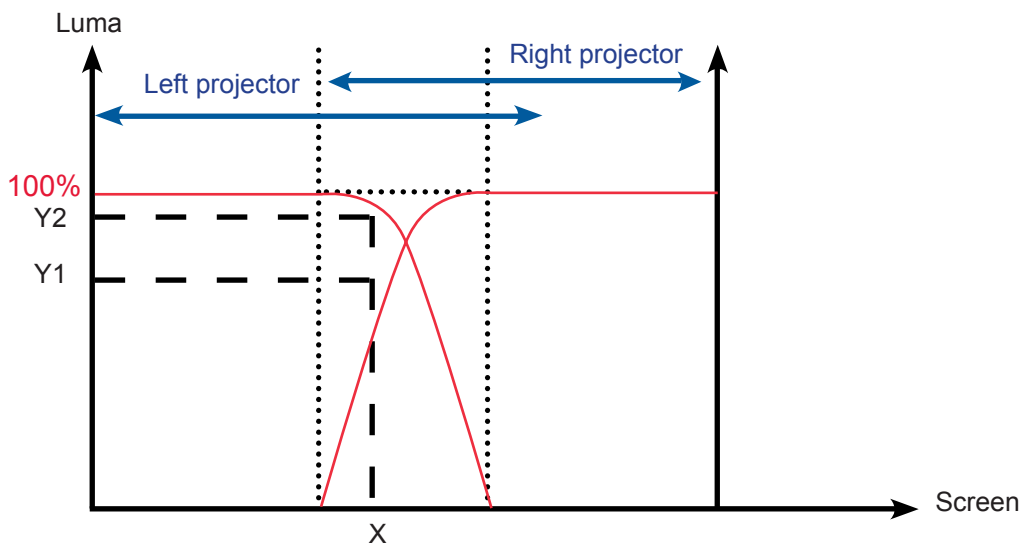


11) Soft Edge curve explanations & adjustments:

• EXPLANATIONS:

--> The operation consist of attenuate progressively the light diffused of one projector and in the same time increase symmetrically the light of the other one. Thus, at any point (X) of the covering area, the sum of light (Y1+Y2) provided by each projector must be equal to the light that would be provided by one projector alone.

The luminance curves of each projector are represented as follow:



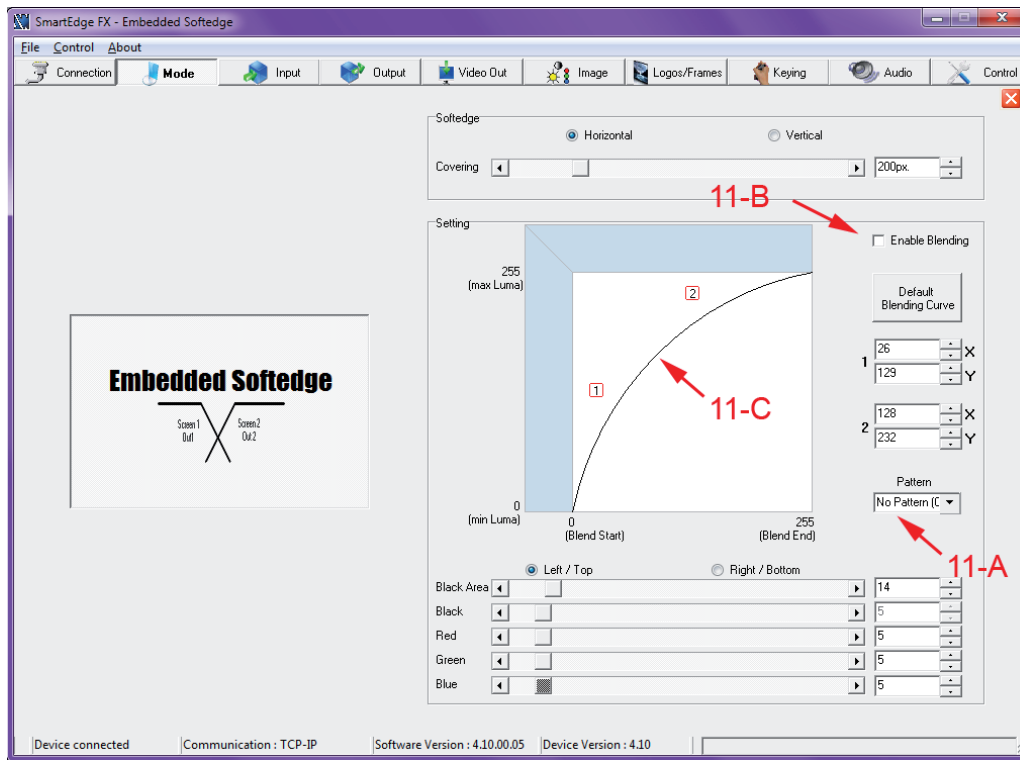
--> In the software we represent the curve of one projector only: the device automatically calculate the inverted curve for the other projector of the covering area.

• ADJUSTMENTS:

11-A) Display your background source or display the grey scale pattern (horizontal grey scale pattern for horizontal Soft Edge and vertical grey scale pattern for vertical Soft Edge) available in the output tab.

11-B) Click on the Enable Soft Edge button to activate the attenuation. The default value of the Soft Edge curves is also applied. The covering area may appear brighter or darker than the other areas of the screen.

11-C) Adjust the Soft Edge Curve in order to have a uniform image:
Move the 2 points of a curve by clicking on the arrows in the Bezier tab or directly by clicking-hold on a point and drag. Then click on the Send button to display the adjustments.



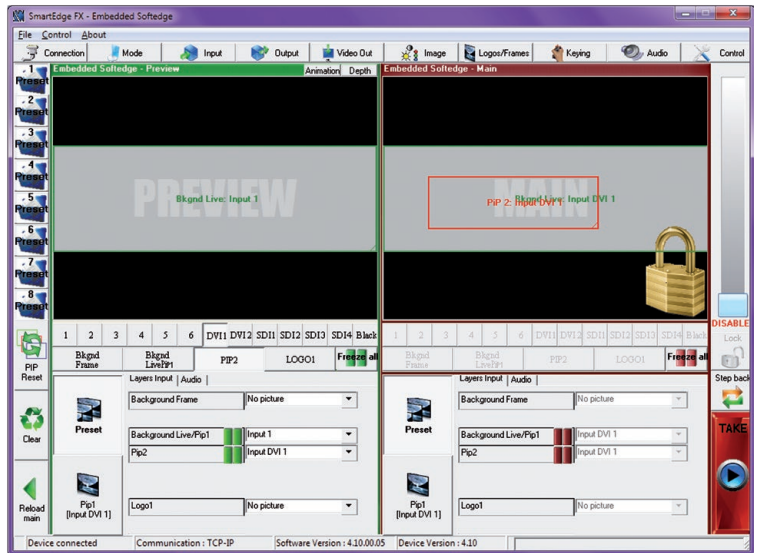
*** NOTE *:**

- To ease the adjustment, one Soft Edge curve is available. Then according to your observation, keep the best curve.
- Most of the time, Bezier curves gives a good and easy to get adjustment. Nevertheless experienced user can try adjustments. Click on the line to have access to more adjustments (11-C).

Using the RCS: Transitions & effects

The **STE200** offers a wide variety of transitions between the scenes you create for your shows and events. It allows for live recall of 8 user presets, each of which you can edit at any given time.

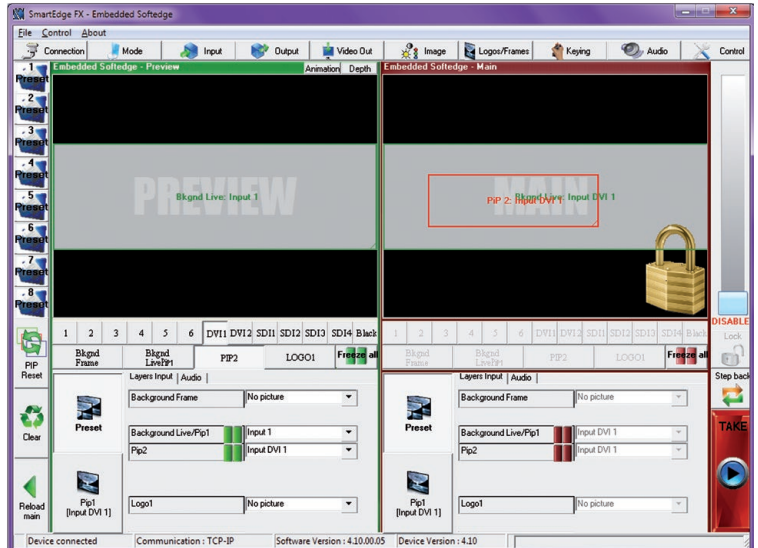
1. In the Layer Selection section, click on the PIP1 button. On your Preview screen, PIP1 will appear as a color rectangle. The parameters of the layer will automatically appear in the RCS Preview section.
2. At the bottom of the Preview section, click on the *Transition* tab, then select the transition 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.
5. Select a source and use the **[TAKE]** button to see the result on Main screen.



Creating Presets

The **STE200** allows the creation of user defined presets very easily. Any setup you have configured on screen, can be stored into one of the 8 available user presets.

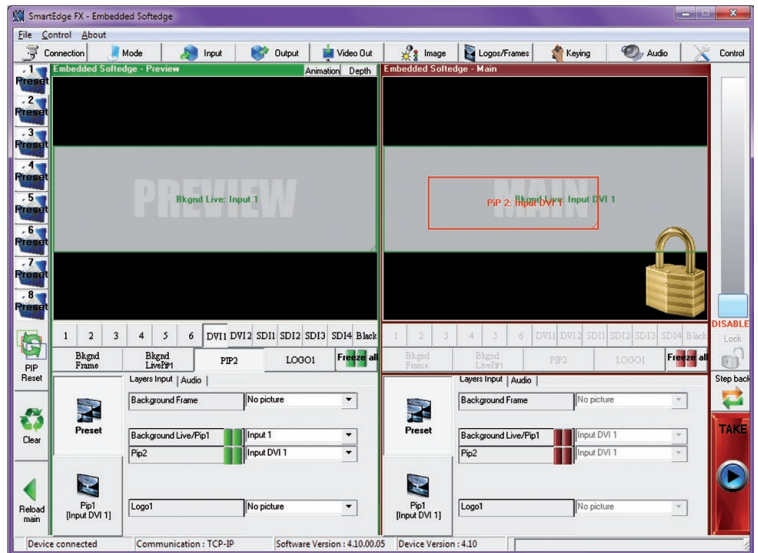
1. After having configured layers, PIP transitions, logos... on your screen (see “*Working with the RCS*” chapter, p. 58), click on one of the 8 available *Preset* buttons.
2. In the dropdown menu, choose *Save From Main* or *Save From Preview* to determine which screen you want to memorize the preset 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 **STE200** user presets can be called back at any stage during your show or event.

1. Click on one of the 8 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 **STE200** allows to work with up to 8 stereo inputs, 1 auxiliary input, and 4 embedded SDI audio inputs (via the SDI BNC connectors), all accessible via the *Audio* menu of the **STE200**, 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 **STE200**, 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.



REMOTE CONTROL SYSTEMS

6-1. MULTIPLE UNITS CONTROL

6-1-1 Axion2



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. The Axion2 integrates a offline mode for setup the devices not connected. A sequences mode is also available for automatic recall of presets.

Required to control the Smart Edge FX in multiple machine mode.

6-1-2. Orchestra

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.

Required to control the Smart Edge FX in multiple machine mode.



6-2. SINGLE UNITS CONTROL

6-2-1. TRK-800

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



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

TRK-800 can not be used in multiple machine mode.

6-2-2. RK-300

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

- > 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.

RK-300 can not be used in multiple machine mode.



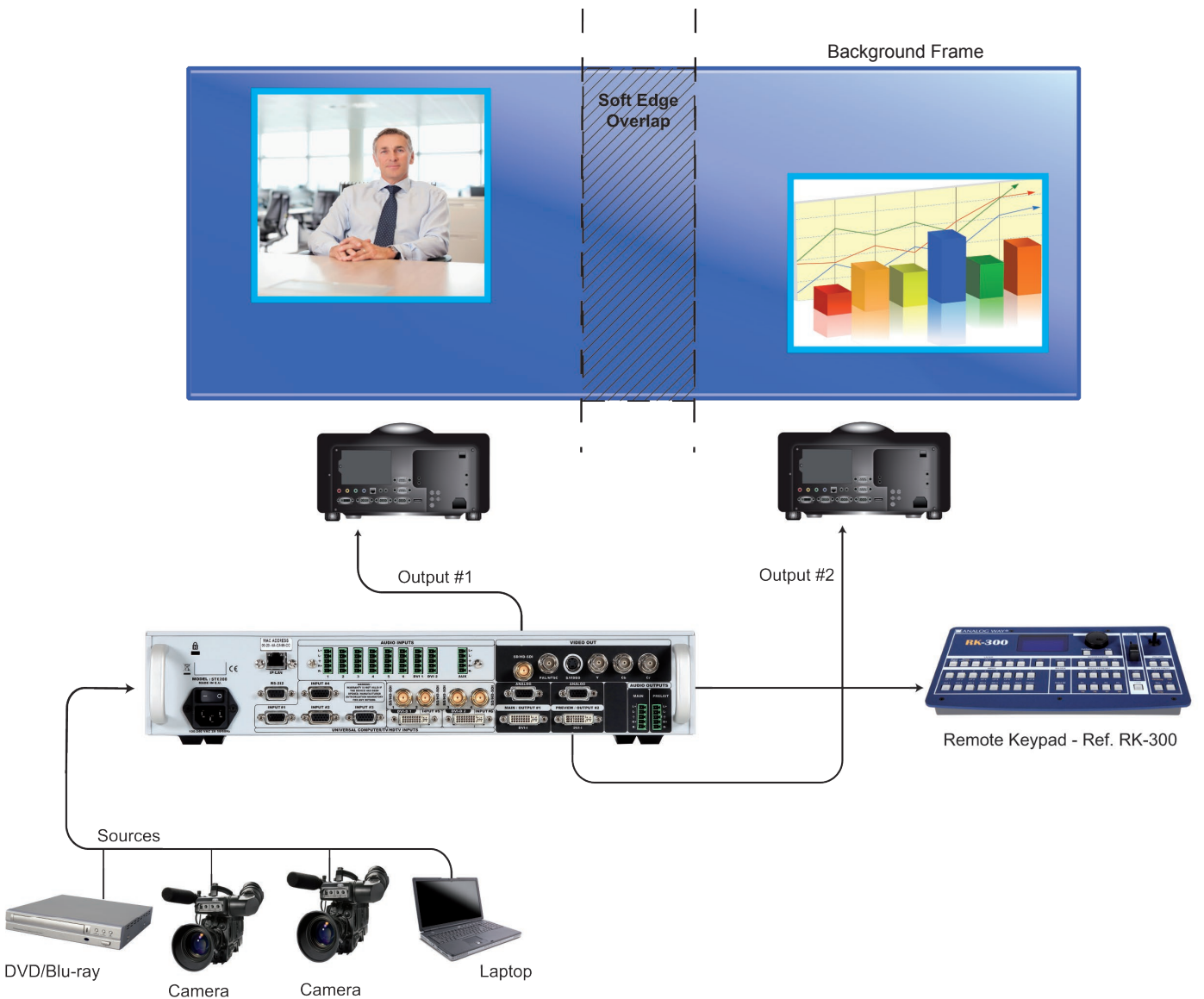
* **NOTE** *: for further information concerning our optional remote controllers, please connect to our website on: www.analogway.com

7-1. ABOUT EXAMPLES

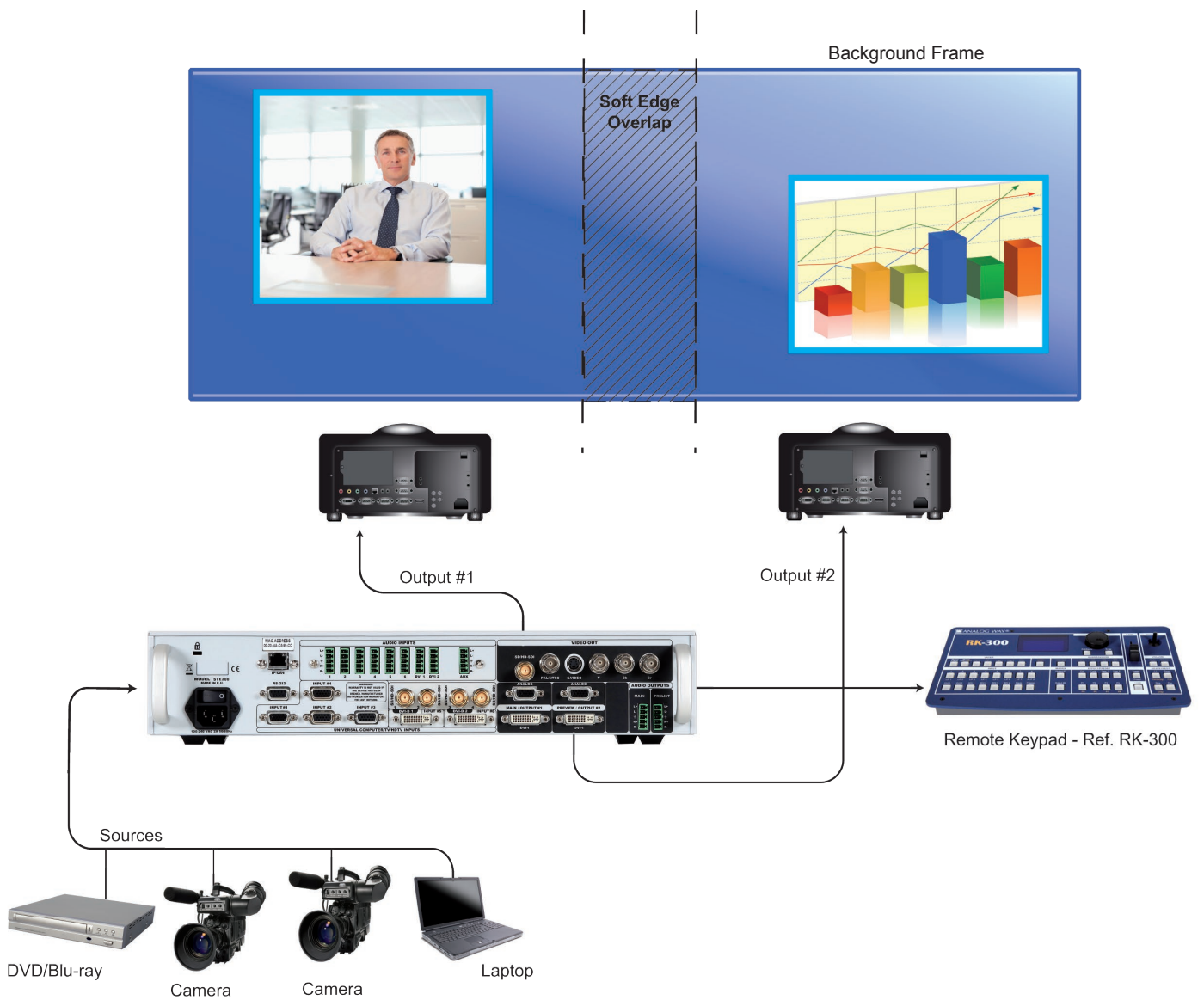
Examples are intended to make the use of the **STE200** as easy as possible, by providing visual help in setting up your equipment. In an effort to make the use of our machines the most pleasant experience possible, the **Analog Way** team is constantly aiming to create easy to follow examples, update information, and furnish our website with useful user information.

Please check on www.analogway.com.

7-2. SINGLE MACHINE MODE



7-3. MULTIPLE MACHINE MODE



7-4. 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 our website: www.analogway.com
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 **STE200** product with an External Remote Controller (PC Software Control - Touch Pad Controller...) follow the indications below:

1. In the "Control" - "STE200 LAN Setup" menu, configure the connection of the **STE200** product in UDP mode and setup the Local and Remote Addresses as well as the Local and Remote Ports in concordance with your Network.

2. Configure the TCP/IP address of your External Remote Controller.
In example: 192.168.000.001

3. 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.

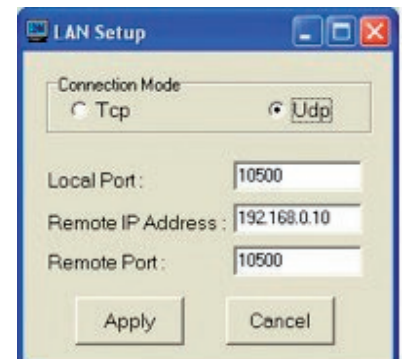
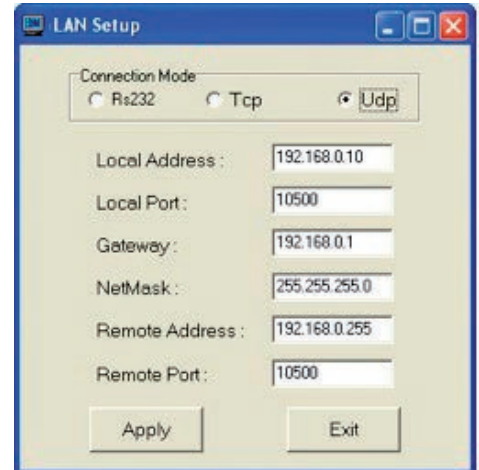
4. Setup the LAN parameters in UDP mode in the "Console" - "LAN Setup" menu.

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

5. Select the LAN communication port in the remote controller console - "RS232/LAN port" menu.

6. You can now control your **STE200** product with an External Remote Controller.



8-1. ANALOG WAY LIMITED WARRANTY

All **Analog Way** products have a 3 year 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 (**STE200**)
- 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 returning of the product. You might be charged for the costs arising from returning 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.



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

VERSION: 4.10 - 18/06/2012
CODE: 140129

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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