



MODELS: NTX8022A & NTX8022A-D

User's Manual



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SAFETY INSTRUCTIONS

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

CAUTION:

WARNING: To prevent the risk of electric shock and fire, do not expose this device to rain, humidity or intense heat sources (such as heaters or direct sunlight). Slots and openings in the device are provided for ventilation and to avoid overheating. Make sure the device is never placed on or 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 or on 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: Use the On (I) / Off (O) switch to power On or Off devices equipped with that switch. All other devices should be plugged and unplugged from wall outlet. In both cases, please follow these instructions:

- The power cord of the device should be unplugged from the outlet when left unused for several days.
- To unplug the device, 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 you 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 you 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 SÉCURITÉ

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. Conserver les instructions de sécurité et de fonctionnement afin de pouvoir les consulter ultérieurement. Respecter 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 proximité de 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 bouche 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 ou sur son bloc alimentation. Pour les appareils équipés d'une alimentation principale avec fil de terre, ils 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 : Pour les appareils équipés d'un interrupteur général (Marche I / Arrêt O), la mise sous tension et la mise hors tension se fait en actionnant cet interrupteur général. Pour les appareils sans interrupteur général, la mise sous tension et la mise hors tension se fait directement en connectant et déconnectant le cordon d'alimentation de la prise murale.

Dans les 2 cas ci-dessus appliquer les consignes suivantes :

- 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 cet appareil avec un cordon endommagé, un câble abîmé peut provoquer un risque d'incendie ou un choc électrique. Vérifier le câble d'alimentation de temps en temps. Contacter 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, risque d'exposer l'utilisateur à des chocs électriques ou autres dangers. Contacter le service après vente ou votre revendeur ou s'adresser à un personnel qualifié uniquement.

OUVERTURES ET ORIFICES : Les appareils peuvent comporter des ouvertures (aération, fentes, etc...), veuillez ne jamais y introduire d'objets et ne jamais obstruer ses ouvertures. Si un liquide ou un objet pénètre à l'intérieur de l'appareil, débranchez immédiatement l'appareil et faites le contrôler par un personnel qualifié avant de le remettre en service.

ISTRUZIONI DI SICUREZZA

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

ATTENZIONE : Al fine di prevenire qualsiasi rischio di shock elettrico e d'incendio, non esporre l'apparecchiatura a pioggia, umidità e a sorgenti di eccessivo calore.

INSTALLAZIONE : Assicuratevi che vi sia una sufficiente circolazione d'aria per evitare qualsiasi surriscaldamento all'interno dell'apparecchiatura. Non collocare l'apparecchiatura in prossimità o su superfici tessili suscettibili di ostruire il funzionamento della ventilazione. Non installate l'apparecchiatura in prossimità di sorgenti di calore come un radiatore o una fuoruscita d'aria calda, né in un posto esposto direttamente ai raggi del sole, a polvere eccessiva, a vibrazioni o a shock meccanici. Ciò potrebbe provocare un erraneo funzionamento e un incidente.

ALIMENTAZIONE : Far funzionare l'apparecchiatura solo con la sorgente d'alimentazione indicata sull'apparecchiatura o sul suo alimentatore. Per le apparecchiature fornite di un'alimentazione principale con cavo di terra, 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 : Per le apparecchiature fornite di interruttore generale (Acceso I / Spento O), l'accensione e lo spegnimento dell'apparecchiatura si effettuano attraverso l'interruttore. Per le apparecchiature senza interruttore generale, l'accensione e lo spegnimento si effettuano direttamente inserendo o disinserendo la spina del cavo nella presa murale.

In entrambe i casi applicare i seguenti consigli :

- 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 è 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.

VORSICHT & WARNUNG

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 oder dem Netzteil angegebenen Netzspannung betreiben. Geräte mit geerdeter Hauptstromversorgung müssen an eine Stromquelle mit effizienter Erdung angeschlossen werden. Diese Erdung darf auf keinen Fall geändert, umgangen oder entfernt werden.

STROMKABEL : Für Geräte mit einem Hauptschalter (Ein/Aus) erfolgt die Stromversorgung und Unterbrechung mittels dieses Hauptschalters. Geräte ohne Hauptschalter werden durch das Einstecken oder Herausziehen des Steckers in den Wandanschluß ein- oder ausgeschaltet. Für beide Fälle gelten folgende Richtlinien :

- Den Stecker aus dem Wandanschluß herausziehen wenn Sie das Gerät mehrere Tage oder länger nicht benutzen.
- 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 lea cuidadosamente 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.

PRECAUCIONES Y OBSERVACIONES

CUIDADO : Para prevenir cualquier riesgo de choque eléctrico y de incendio, no exponga este aparato a la lluvia, a la humedad ni a fuentes de calor intensas.

INSTALACIÓN : Cerciórese de que haya una circulación de aire suficiente para evitar cualquier sobrecalentamiento al interior del aparato. No coloque el aparato cerca ni sobre una superficie textil que pudiera obstruir los orificios de ventilación. No instale el aparato cerca de fuentes de calor como radiador o boca de aire caliente, ni en un lugar expuesto a los rayos solares directos o al polvo excesivo, a las vibraciones o a los choques mecánicos. Esto podría provocar su mal funcionamiento o un accidente.

ALIMENTACIÓN : Ponga a funcionar el aparato únicamente con la fuente de alimentación que se indica en el aparato o en su bloque de alimentación. Los aparatos equipados con una alimentación principal con hilo de tierra 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 : Para los aparatos equipados con un interruptor general (Marcha I / Paro O), la puesta bajo tensión y la puesta fuera de tensión se hace accionando este interruptor general.. En los aparatos que no tienen interruptor general, la puesta bajo tensión y la puesta fuera de tensión se hace directamente conectando y desconectando el enchufe mural.

En ambos casos, se deberá respetar las siguientes consignas:

- 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 sufre 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.

NATIX™ (NTX8022A)**Chapter 1 : INTRODUCTION****1-1. SUPPLIED EQUIPMENT**

- 1 NATIX™ (NTX8022A).
- 1 AC power supply cord.
- 1 Remote Control Software (3.5" disk).
- 1 User's Manual.
- 1 set of 11 MCO (5-pin) female connector (for audio connection).

Supplied equipment with the OPT-iX-SDTV D1 option:

- 1 "video output" cable (DB9 M to 4BNC + mini DIN 4).

1-2. GENERAL INFORMATION

NATIX™ by Analog Way is an 8x2 Hi-res Scaled Native Matrix with 8 universal inputs and different resolutions on each output. NATIX™ performs ultra smooth and fast switching transitions with no artifacts (independently on the 2 outputs). The switching or transition can be performed with a fading effect, using a color, black, or one of the two images saved as a frame store. NATIX™ features logo insertion and frame store functions.

CHARACTERISTICS

NATIX™ can switch any of the 8 inputs to 1 or 2 outputs. The scaled inputs can be displayed on output 1 and/or 2 with different resolutions. NATIX™ provides a high quality image thanks to its Auto Pixel Clock, digital decoder, state of the art 3:2 and 2:2 pull down circuitry, auto-adaptative pixel by pixel 3D motion compensation, time base corrector and frame rate converter & follower. Each input image control can be individually set up and stored in non-volatile memories.

LOGO INSERTION AND FRAME STORE

Record 2 full screen images and up to 8 logos in 16 million colors using a non-volatile memory. Images and logo(s) can be flash captured from any video or computer source by keying or image cut-out. Up to 2 logos can be allocated per input and positioned anywhere on the screen. The frame store can be used as a welcome image or transition image while switching between 2 sources.

AUDIO INPUT/OUTPUT

NATIX™ features 8 balanced stereo inputs and 2 balanced stereo (+ mono) outputs, and 1 auxiliary input mixed (not switched) with the 8 inputs with settable levels and master volume. NATIX™ is especially designed for hi-res A/V presentations, boardrooms and exhibition centers. NATIX™ offers a user-friendly interface with its front panel control, its large 4 line LCD display, and its Windows compatible software supplied. Equipped with an IP interface, it can easily be integrated in an Ethernet network. It can also be controlled & upgraded via its RS232, TCP IP or by using the optional remote keypad.

NATIX™ offers exceptional image quality with great flexibility for glitch free and professional presentations.

1-3. REFERENCES

REFERENCES	DESIGNATIONS
NTX8022A	NATIX™ (without option)
NTX8022A-D	NATIX™ with optional SDI & DVI inputs.
OPT-iX-SDTVD1	Optional SDTV video output (COMPOSITE VIDEO + S.VIDEO + YUV + SDI).

1-4. OPTIONAL ACCESSORIES

REFERENCES	DESIGNATIONS
RK8022	Remote keypad for CENTRIX™ / EVENTIX™ / NATIX™.
RK8022-T	Remote keypad with T-BAR for CENTRIX™ / EVENTIX™ / NATIX™.
TRC8022	TripliX Remote Console for 3 x CENTRIX™ / EVENTIX™ / NATIX™.

1-5. INSTALLATION

IMPORTANT: Please read all of the safety instructions (pages 4 to 6) before starting.

- Table top mounting: The device can be used directly on a table: the unit is equipped with 4 plastic feet.
- Rack mounting: The device is compatible with a 19" enclosure. Please follow the instructions below to install the device in a 19" rack.
 - ① Place the device in your rack.
 - NOTE: Your rack must be equipped with some braces.**
 - ② Attach the device to the rack by using 4 screws in the front panel holes (screws are not included).
 - ③ Connect all of the cables of the device and attach them to the rack with some tie wraps.

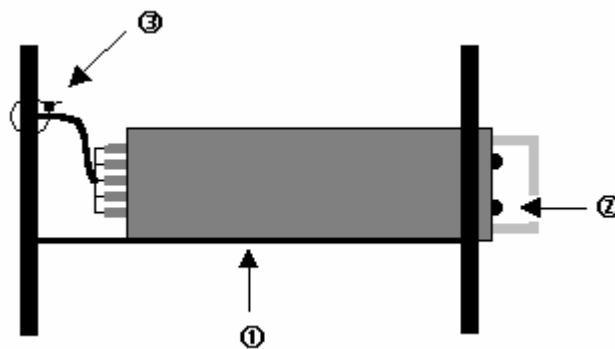
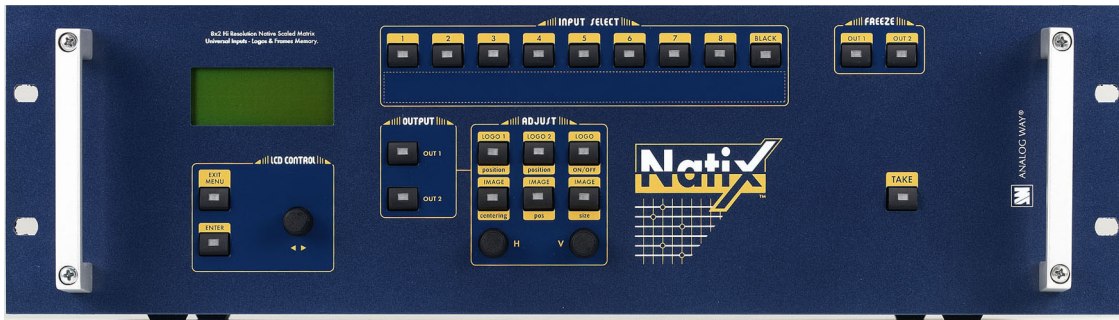


Figure 1

- IMPORTANT:**
- The openings in the side and in the rear panel are for cooling. Do not cover these openings.
 - Be sure that no weight in excess of 2 kg (4.4 Lbs.) is added onto the NATIX™.
 - The maximum ambient operating temperature must not exceed 40 °C (104 °F).
 - The rack and all mounted equipment in it must be reliably grounded to national and local electrical codes.

1-6. FRONT PANEL DESCRIPTION**Figure 2****LCD CONTROL**

- EXIT/MENU:** Switches between Status and Control mode.
ENTER: Validates a selected item.
◀ ▶ : Allows scrolling thru the different menus.

INPUT SELECT

- 1 to 8:** Input source selection.
BLACK: Black screen selection.
NOTE: The turn ON LED indicates the selected input (displayed on OUTPUT 1). The blinking LED indicates the pre-selected input (displayed on OUTPUT 2).

FREEZE

- OUT 1:** Allows to freeze the OUTPUT 1.
OUT 2: Allows to freeze the OUTPUT 2.

OUTPUT

- OUT 1:** OUTPUT 1 selection for adjustments or input selection.
OUT 2: OUTPUT 2 selection for adjustments or input selection.

ADJUST

- LOGO 1 POSITION:** Horizontal & Vertical logo #1 position adjustment. Adjust with **H** & **V** knobs.
LOGO 2 POSITION: Horizontal & Vertical logo #2 position adjustment. Adjust with **H** & **V** knobs.
LOGO ON/OFF: Display ON or OFF the assigned logos of the displayed input.
IMAGE CENTERING: Automatically position the selected source in the centering pattern.
IMAGE POS: IMAGE position adjustment. Adjust with **H** & **V** knobs.
IMAGE SIZE: IMAGE size adjustment. Adjust with **H** & **V** knobs.
H: Horizontal adjustment.
V: Vertical adjustment.

TAKE

- Switch the pre-selected input (blinking key) on the selected output with the selected EFFECT (EFFECT KEYS).

1-7. REAR PANEL DESCRIPTION

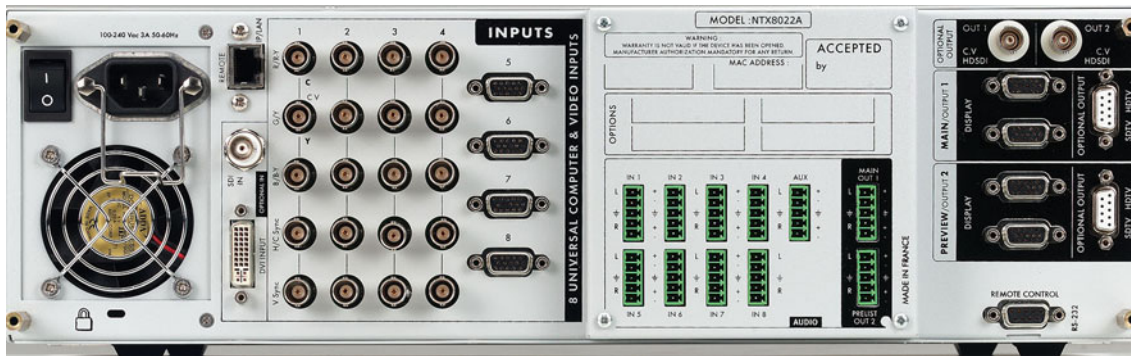


Figure 3

100-240 Vac 3A 50-60Hz: IEC standard power connector.

O / I : Power switch (O = OFF, I = ON)

INPUTS

1 to 8:

8 Universal Computer & Video Inputs. Each of the 8 inputs can accept both **COMPUTER sources** (RGBHV, RGBS, and RGsB (SOG) signals), **standard TV/VIDEO sources** (Composite video, S.VIDEO, Component (YUV), RGBS & RGsB (SOG)), and **HDTV sources** (720p & 1080i).

The inputs 1 to 4 are provided with 5 BNC female connectors, and the inputs 5 to 8 are provided with a HD15 female connector.

OPTIONAL IN

DVI INPUT:

Optional DVI (digital visual interface) input on a DVI connector.

SDI IN:

Optional SDI input on a BNC connector.

REMOTE IP/LAN

LAN communication port on a RJ45 connector.

MAIN / OUTPUT 1

DISPLAY:

OUTPUT 1 for the display devices (video projector, PLASMA, data monitor) on HD15 female connectors.

OPTIONAL OUTPUT:

Optional video (SDTV) output #1 on DB9 female connector.

PREVIEW / OUTPUT 2

DISPLAY:

OUTPUT 2 the display devices (video projector, PLASMA, data monitor) on HD15 female connectors.

OPTIONAL OUTPUT

OUT 1:

Optional video output #1 (SDI).

REMOTE CONTROL RS-232: RS-232 communication port & 3 tally outputs (on DB9 female connector).

AUDIO

IN 1 to IN 8:

Optional audio inputs.

AUX:

Auxiliary input for mixing with the diffused source

MAIN / OUT 1:

Audio output 1.

PRELIST / OUT 2:

Audio output 2.

Chapter 2 : CONNECTING

2-1. CONNECTING THE NATIX™

- ① Turn OFF all of your equipment before connecting.
- ② Connect your computers (PC, MAC, workstation) and your video sources to the inputs (1 to 8) of the device.
- ③ Connect your display devices (data projector, plasma screen...) to the outputs 1 & 2.
- ④ Connect your control monitors to the outputs 1 & 2.
- ⑤ Connect the AC power supply cord to the device and to a power outlet.
- ⑥ Turn ON the projector, the local monitors, the device (rear panel switch) and then all of your input sources.

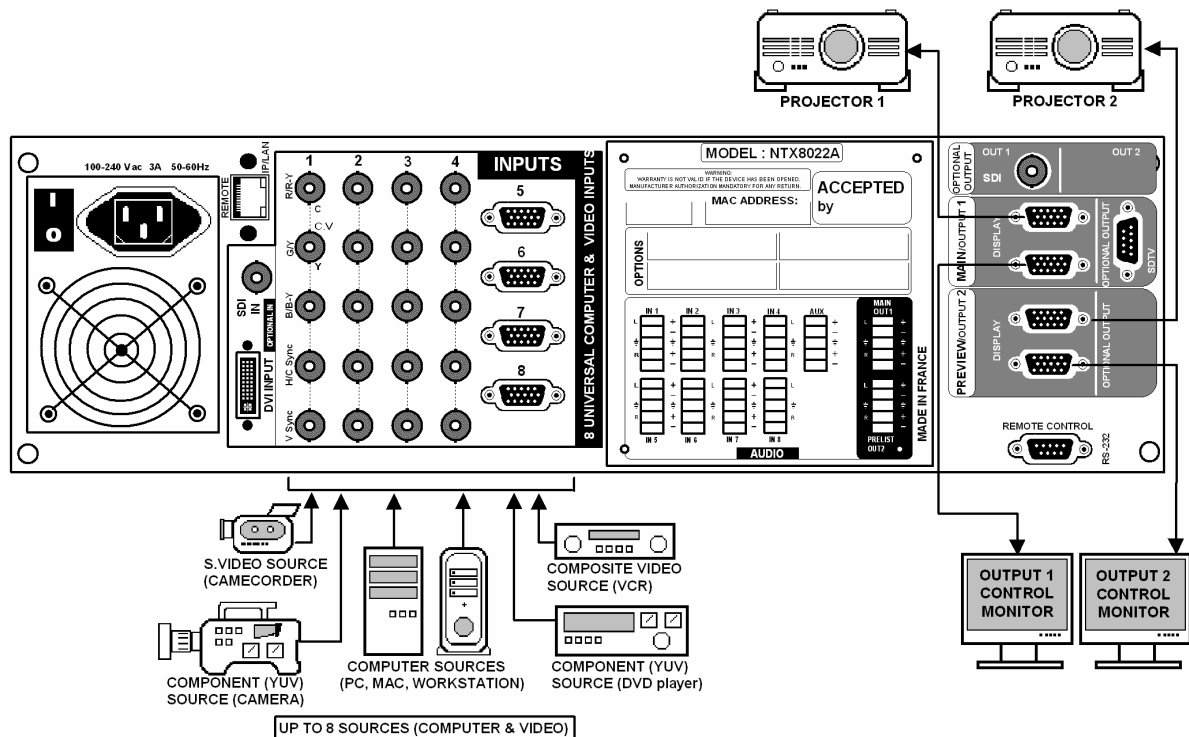


Figure 4

2-1-1. UNIVERSAL COMPUTER & VIDEO INPUTS

The UNIVERSAL INPUTS can accept both **COMPUTER** sources (RGBHV, RGBS, and RGsB (SOG) signals), **standard TV/VIDEO** sources (Composite video, S.VIDEO, Component (YUV), RGBS & RGsB (SOG)), and **HDTV** sources (720p & 1080i).

① COMPUTER SOURCES:

The device accepts COMPUTER signals (RGBHV, RGB/S, and RGsB) on its 8 inputs. The inputs #1 to #4 are provided with a 5x BNC female connectors. The inputs #5 to #8 are provided with a HD15 female connector.

NOTE: For RGBS signals, connect the Sync cable to the **H/C sync** BNC connector.

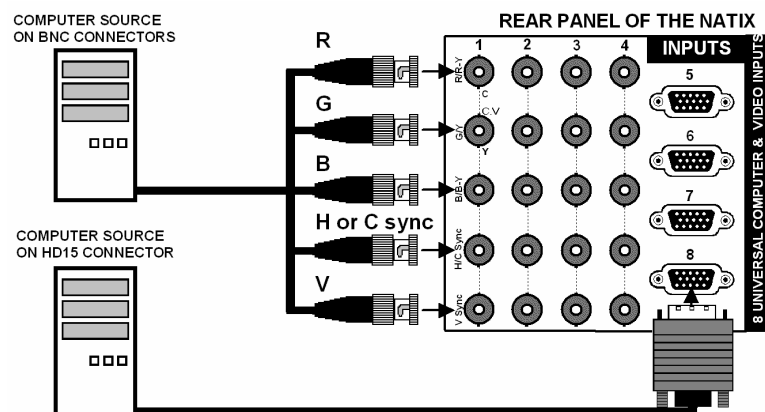


Figure 5

2-1. CONNECTING THE NATIX™ (continued)

2-1-1. UNIVERSAL COMPUTER & VIDEO INPUTS (continued)

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 a RCA or a BNC connector.

For the inputs #1 to #4: connect a BNC coaxial cable between your Composite video sources and the **C.V (G/Y)** BNC connector of the device.

For the inputs #5 to #8: connect a HD15 to BNC cable between the HD15 connector of the device and your Composite source as follow:

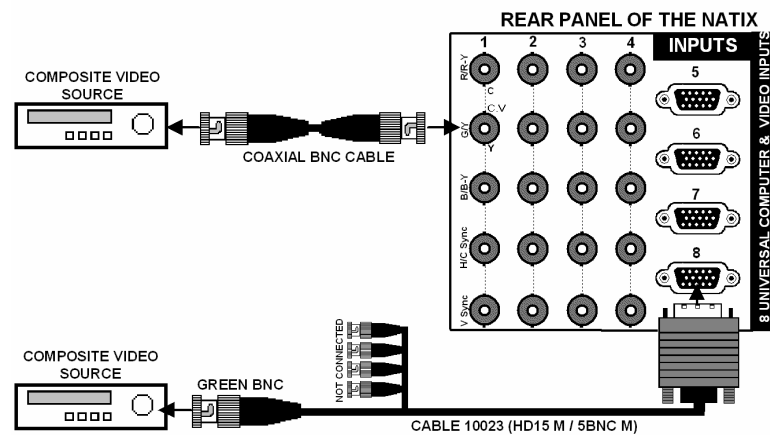


Figure 6

③ 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 (2 wires) 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 the inputs #1 to #4: connect a BNC to 4-pin mini DIN cable between your S.VIDEO sources and the **Y (G/Y) & C (R/R-Y)** BNC connectors of the device.

For the inputs #5 to #8: connect a HD15 to BNC cable between the HD15 connector of the device and your S.VIDEO source as follow:

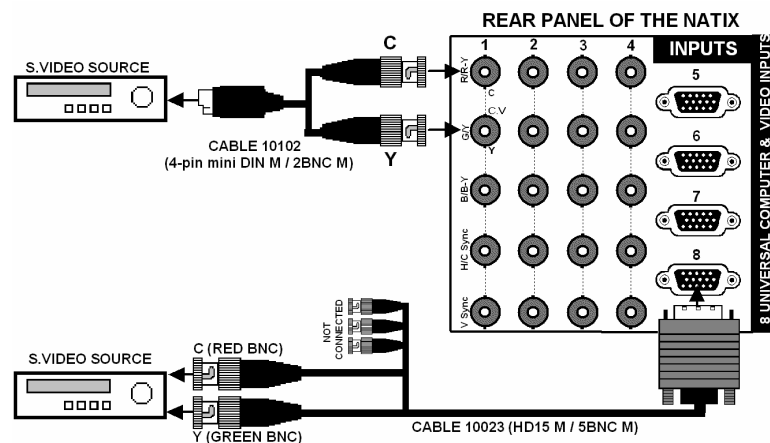


Figure 7

2-1. CONNECTING THE NATIX™ (continued)

2-1-1. UNIVERSAL COMPUTER & VIDEO INPUTS (continued)

④ COMPONENT VIDEO SOURCES:

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

For the inputs #1 to #4: connect a 3 x BNC cable between your Component sources and the **Y, R-Y & B-Y** BNC connectors of the device.

For the inputs #5 to #8: connect a HD15 to BNC cable between the HD15 connector of the device and your Component source as follow:

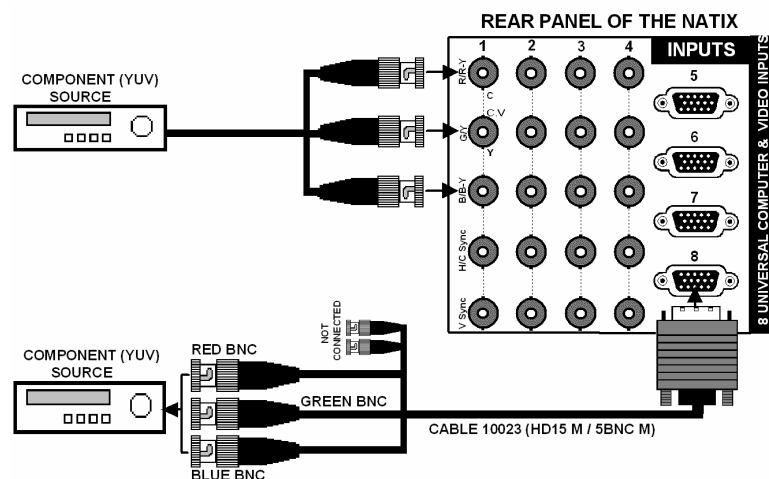


Figure 8

⑤ 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 the inputs #1 to #4: connect a 3xBNC cable between your RGB/S sources and the **R, G, B & H/C sync** BNC connectors of the device.

For the inputs #5 to #8: connect a HD15 to BNC cable between the HD15 connector of the device and your RGB/S source as follow:

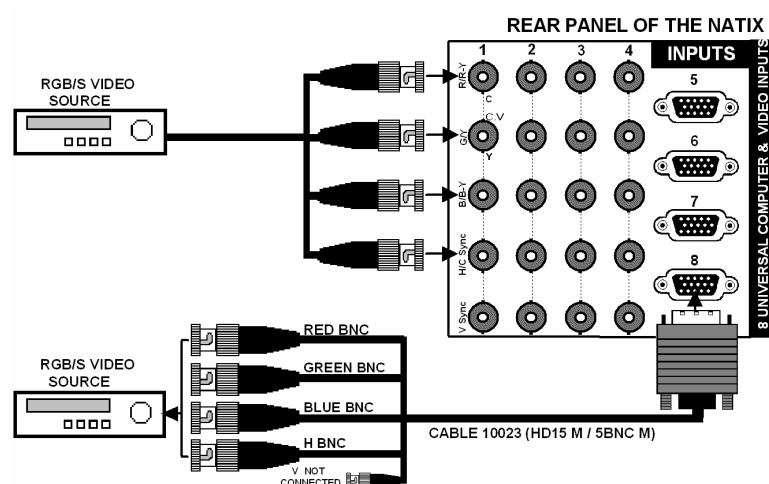


Figure 9

⑥ HDTV SOURCES:

The device accepts the 720p & 1080i HDTV formats. Connect your HDTV signal as a Component source.

2-1. CONNECTING THE NATIX™ (continued)

2-1-2. OUTPUT 1 AND OUTPUT 2

The device is equipped with 2 outputs 1 on HD15 female connector, and two outputs 2 on HD15 female connector. Connect the display devices and the control monitor to the output 1 & 2.

2-1-3. OPTIONAL SDTV VIDEO OUTPUT (OPT-iX-SDTV D1 option)

The device equipped with this option provides simultaneously 4 SDTV video output signals (composite video, S.VIDEO, YUV and SDI). These four video outputs display the same image as the output 1. Therefore you can record your presentation onto one or many video recorders of your choice.

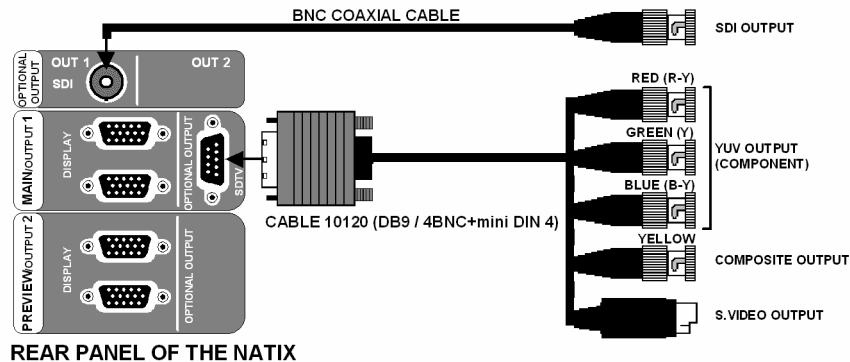


Figure 10

2-1-4. AUDIO INPUTS

The device is equipped with 8 audio inputs & 1 auxiliary input (on 5-pin MCO male connectors). This connector allows connecting BALANCED or UNBALANCED audio sources. Connect your audio sources as follow:



2-1-5. AUDIO OUTPUTS

The device is equipped with 2 audio outputs (MAIN / OUT1 & PRELIST / OUT2 on 5-pin MCO male connectors). This connector allows connecting BALANCED or UNBALANCED audio systems. Connect your audio systems as follow:



2-2. CONNECTING A CONTROL DEVICE FOR USING THE REMOTE CONTROL SOFTWARE

Your NATIX™ is shipped with a Windows 95 or later compatible Remote Control Software (3.5" disk). This software allows you to control and make all adjustments by a simple mouse click.

NOTE: Preferably use Windows NT, 2000, or XP for LAN operation.

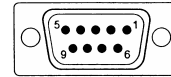
2-2-1. CONNECTING TO THE RS-232 PORT

- Connect the serial port of your control device to the **RS-232** port (DB9 Female connector) of the NATIX™ with a **straight** cable (DB9 Female / DB9 Male).

- **Speed transmission:** 9600 bauds, 8 data bits, 1 stop bit, no parity bit, no flow control.

- **Pin-out:**

PIN #	FUNCTIONS
2	TRANSMIT DATA (Tx)
3	RECEIVE DATA (Rx)
5	GROUND (Gnd)



DB9 female (Rear panel of the NTX8022)

2-2-2. CONNECTING TO THE LAN PORT

- Connect the LAN port (RJ45 connector) of the NATIX™ to your network according to your installation.

2-3. CONNECTING THE REMOTE KEYPAD

2-3-1. CONNECTING TO A NATIX™ WITH THE RS-232 PORT

- ① Turn OFF your NATIX™ (rear panel switch).
- ② Connect the RS-232 connector (DB9 female) of your NATIX™ to the DB9 male connector of the REMOTE KEYPAD with the supplied DB9 M/F cable.
- ③ Turn ON your NATIX™ (REAR panel switch).

NOTE: The REMOTE KEYPAD is powered by the NATIX™ via its DB9 (RS-232) connector.

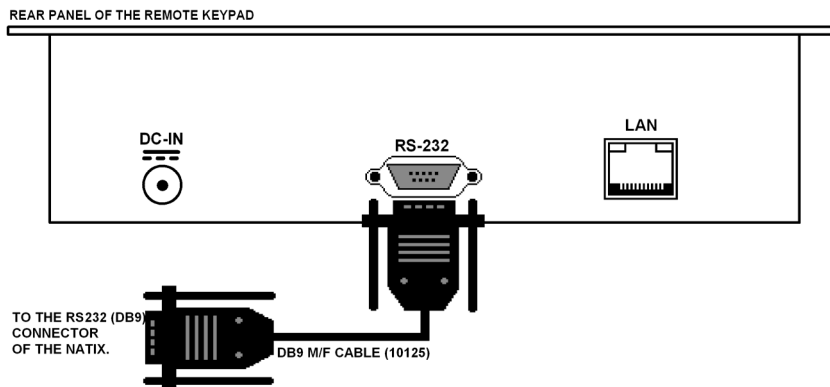


Figure 11

2-3-2. CONNECTING TO A NETWORK (LAN)

- ① Connect the power supply to a power outlet and to the DC-IN connector (rear panel).
- ② Connect the REMOTE KEYPAD to your network according to your installation.

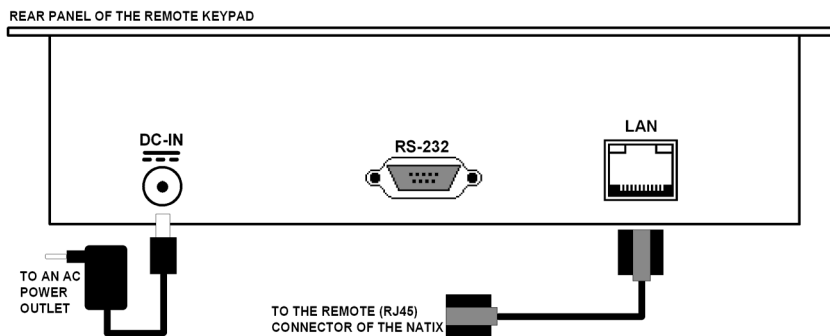


Figure 12

Chapter 3 : OPERATING MODE

3-1. OPERATING WITH THE REMOTE CONTROL SOFTWARE

Your NATIX™ is shipped with a WINDOWS 95 or later compatible software. This software allows you to control and make adjustments by a simple mouse click.

3-1-1. SOFTWARE INSTALLATION

- ① Turn your computer ON and wait for Windows to completely start.
- ② Insert the disk into the floppy drive.
- ③ In the Windows **START** menu, click on RUN.
- ④ Choose the disk drive and click on **setup.exe** (ex: A:\setup.exe if disk 3.5" is drive A).
- ⑤ Follow the Windows installation instructions.

3-1-2. COMMUNICATION SETUP

• CASE OF RS-232 PORT:

- ① Connect the RS-232 cable between the NATIX™ and the control device according to your installation, as indicating in the section 2-2-1.
- ② Then only power ON all of the devices.
- ③ Click on the program files **ix8022** in **Start > program > ANALOGWAY > ix8022** to run the software.
- ④ Click on **Controls** menu and select **RS232/LAN setup**, then:
 - With the **Controls** menu of the software, select **RS232/LAN setup**, then select the **COM** port number corresponding to the connection of the NATIX™ device.

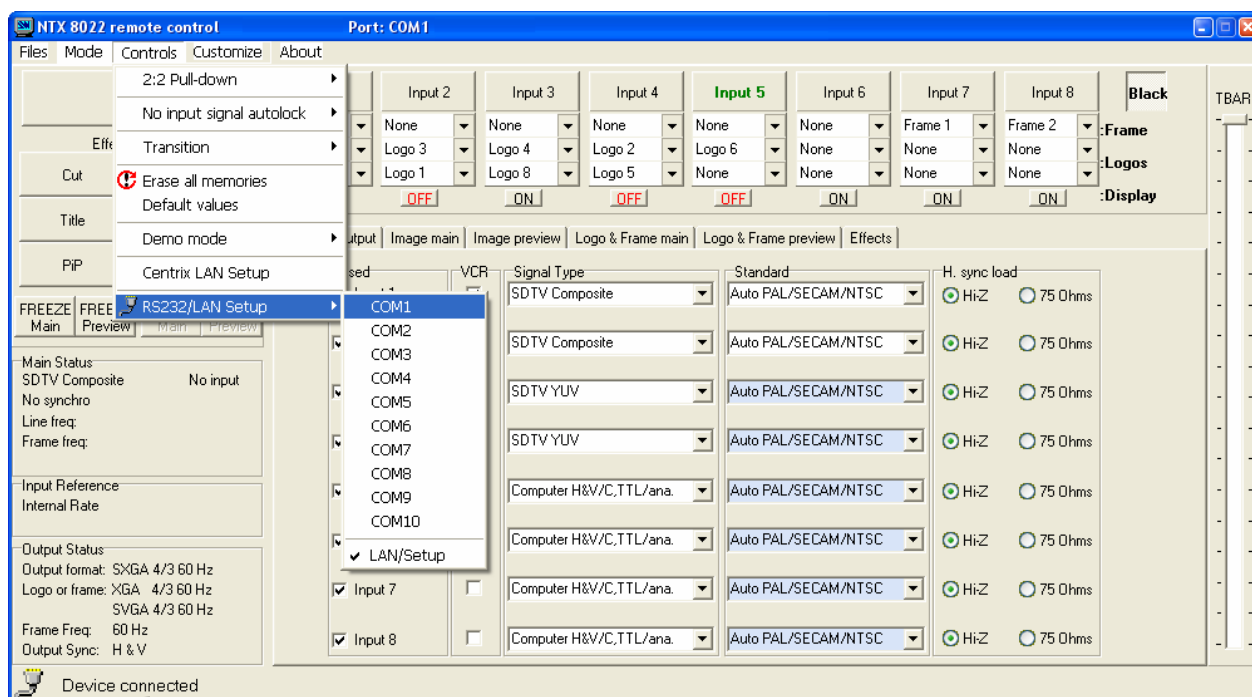
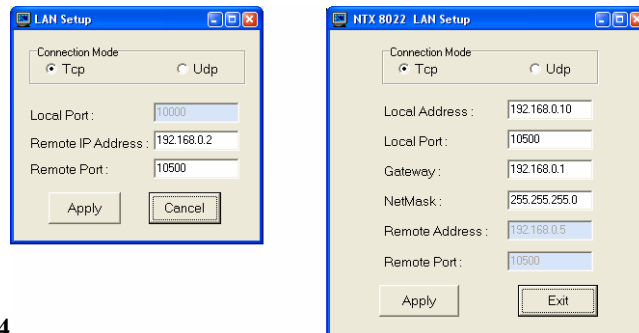


Figure 13

If the communication is OK, the message "Device connected" is displayed.

3-1. OPERATING WITH THE REMOTE CONTROL SOFTWARE (continued)**3-1-2. COMMUNICATION SETUP (continued)****• CASE OF LAN PORT:**

- ① Connect the control device to the NATIX™ with the RS-232 port as indicated in the previous page, then configure the LAN communication port (local address & port, remote address & port, netmask and gateway) of the device with the Remote Control Software (**CONTROL menu > NATIX LAN setup**).
- ② Connect the LAN port (RJ45 connector) of the device to your network according to your installation.
- ③ Select the LAN communication port of the device with the remote control software (**CONTROL menu > RS232/LAN setup > LAN setup**) and configure the control device (**Local port, Remote IP address & Remote Port**). Click on **Apply** to setup the new values. The software will also display **Device connected**. Then you can disconnect the RS232 cable.

**Figure 14**

3-1. OPERATING WITH THE REMOTE CONTROL SOFTWARE (continued)

3-1-3. OPERATING

• SETTINGS

- ① We recommend resetting the device to its default values (**Controls menu > default value**) before proceeding.
- ② Click on **Settings** then click on the **Input** tab and select the **signal type** of each source connected to the inputs.
- ③ Click on the **Output 1** tab and select the **output sync** according to your display device.
- ④ Select the **output rate** mode (Internal rate or follow input...). Then select the **frame rate**.
- ⑤ Select one of the **output formats**.

NOTE: For fixed pixels display device (DMD, LCD, PLASMA...), always select the output format corresponding to the native resolution of your display device. Thus, the display device will not have to scale the image and the result will be better.

- ⑥ Select the **type of screen** (4/3 or 16/9), according to your wall mounted projection screen shape.
- ⑦ Click on the **Output 2** tab. Then renew the steps ⑤ to ⑦ for the display device connected to the OUTPUT 2.

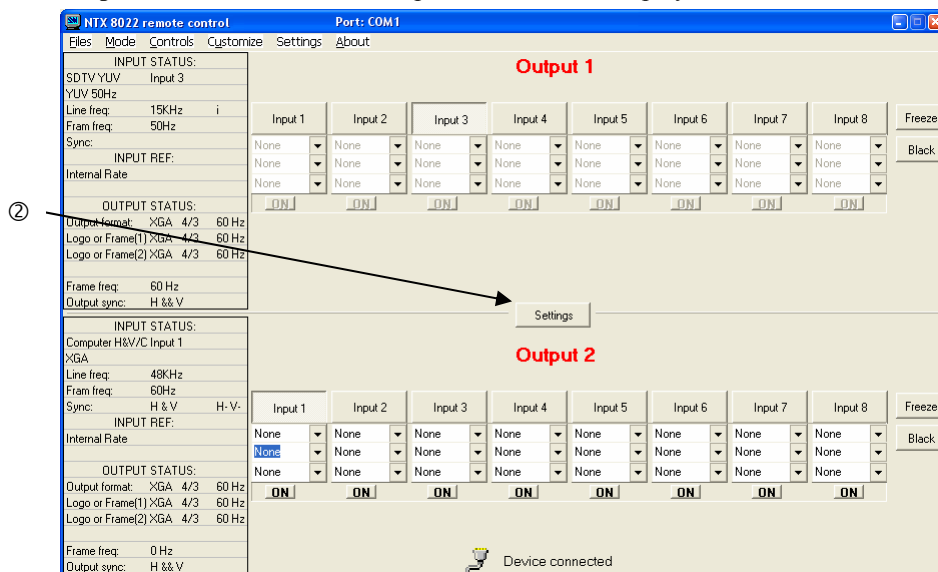


Figure 15

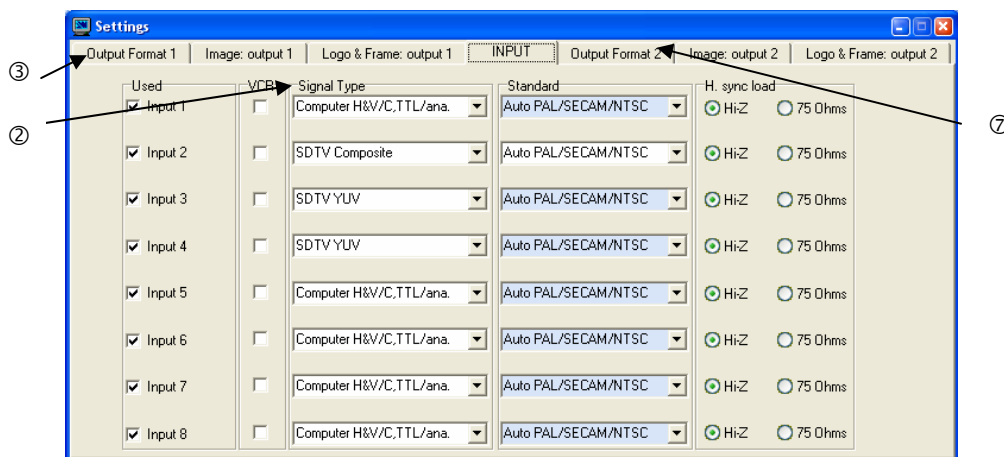


Figure 16

• INPUT SELECTION

- ① Pre-select an input with the INPUT SELECT keys of the corresponding OUTPUT. The key starts blinking.
- ② Press on TAKE to display the pre-selected input onto the output. The transition operates with a fading to black.

NOTE: You can switch simultaneously on the **OUTPUT 1 & 2**: pre-select an input for the **OUTPUT 1**, then pre-select an input for the **OUTPUT 2**, finally press the TAKE key.

NOTE: To switch directly from the input select key (without pressing the TAKE key), you should activate the auto TAKE function (**Controls menu > auto TAKE: ON**).

3-1. OPERATING WITH THE REMOTE CONTROL SOFTWARE (continued)

3-1-3. OPERATING (continued)

• DISPLAY DEVICES ADJUSTMENTS

For each OUTPUT:

- ① Click on the Output tab and select the centering pattern.
- ② Adjust directly the display device itself, using its controls, to fill the centering pattern in full screen.

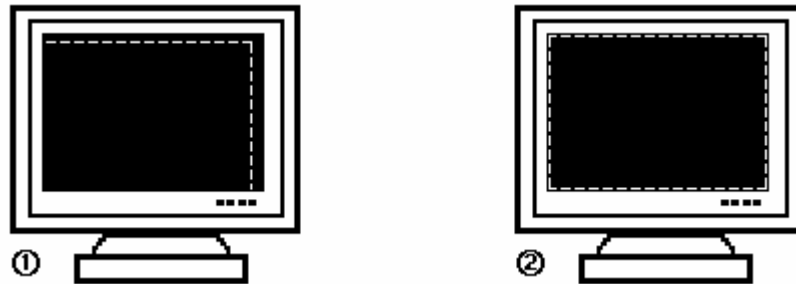


Figure 17: Centering pattern.

• IMAGE ADJUSTMENTS

For each input source connected to the device, make the following adjustments:

- ① Select the source you want to adjust.
- ② Click on the **Image : output 1** or **Image : output 2** tab.
- ③ Use the **Centering** function to automatically position the image in the **Centering pattern**.

IMPORTANT: For best results, display a full size bright image (no black border) to perform a centering. If necessary, correct the adjustment with the position & size functions.

NOTE: The centering function is only available for computer sources.

NOTE: In case of same Input/Output resolution, the centering also achieves automatic pixel clock adjustments. It may be useful, to improve manually the pixel **clock** and **phase**.

- ④ If needed, make the others adjustments, available in the **IMAGE** menu (color, brightness...).

NOTE: To set the image adjustments to the factory settings, use the **Preset** function.

NOTE: The adjustments are automatically stored in NON-volatile memories. The NATIX™ is provided with 40 NON-volatile image memories. Each of these memories contains the input channel number, the input and output format parameters and all of the image adjustments (position, size, brightness...). When the 40 memories are used, each new memorization erases the oldest record.

• OPTIONAL VIDEO OUTPUT ADJUSTMENTS

Click on the **Video** tab, then make the following adjustment:

- ① Select the output standard (**video standard**).
- ② Select the video "**output rate**".
- ③ Select a level of anti-flicker (**flicker adjustment**), and select a zoom mode (**U/Over scan**).

• AUDIO ADJUSTMENTS

Click on the **Audio** tab, and make for each AUDIO output the following adjustment:

- ① Adjust the master volume.
- ② Select the mono or stereo audio mode.
- ③ Select an AUDIO input (**breakaway** mode) or automatic (**auto follow** mode):
 - **auto follow** = the audio switching follows automatically the video switching.
 - **breakaway** = the selected audio input is permanently diffused.
- ④ For each audio input, adjust the level (**audio level**) and the balance (**audio balance**).

IMPORTANT: If the auxiliary audio input (AUX) is used, don't forget to activate it with (**AUX input = ON**).

3-2. OPERATING WITH THE FRONT PANEL OF THE NATIX™

3-2-1. OPERATING MODE

• SETTINGS

- ① We recommend resetting the NATIX™ device to its default values, with the LCD menu (**CONTROL > default value > yes**) before proceeding.
 - ② Select the **input type** connected to the inputs with the LCD menu (**INPUT > input type**).
 - ③ Make the following adjustments for the display device connected to the OUTPUT 1:
 - Select the **output sync** according to your display device with the LCD menu (**OUTPUT X > output sync**).
 - Select the **output rate** mode with the LCD menu (**OUTPUT X > output rate**).
 - Select one of the **output formats** with the LCD menu (**OUTPUT X > output format**).
- NOTE:** For fixed pixels display device (DMD, LCD, PLASMA...), always select the output format corresponding to the native resolution of your display device. Thus, the display device will not have to scale the image and the result will be better.
- Select the **type of screen** (4/3 or 16/9) with the LCD menu (**OUTPUT X > type of screen > 4/3 or 16/9**), according to your wall mounted projection screen shape.
 - ④ Then renew the adjustments of the step ④ for the display device connected to the OUTPUT 2.

• INPUT SELECTION

- ① Select an output (**OUT 1** or **OUT 2**) with the OUTPUT SELECT keys.
- ② Pre-select an input with the INPUT SELECT keys. The key starts blinking.
- ③ Press on TAKE to display the pre-selected input onto the selected output. The transition operates with a fading to black.

NOTE: You can switch simultaneously on the **OUTPUT 1 & 2**: do the operations ① and ② for the **OUTPUT 1**, then do the operations ① and ② for the **OUTPUT 2**, finally press the TAKE key.

NOTE: To switch directly from the input select key (without pressing the TAKE key), you should activate the auto TAKE function (**CONTROL > auto TAKE: ON**).

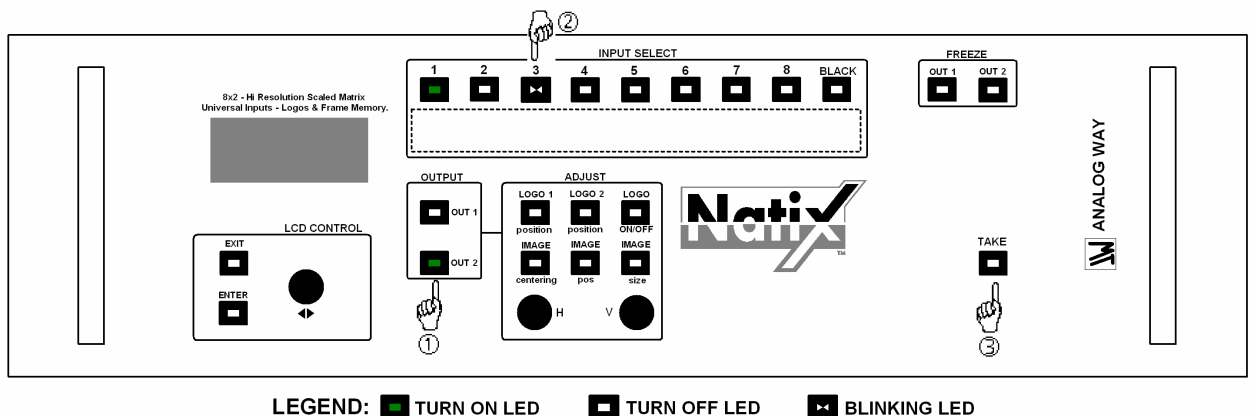


Figure 18

3-2. OPERATING WITH THE FRONT PANEL OF THE NATIX™ (continued)

3-2-1. OPERATING MODE (continued)

• DISPLAY DEVICES ADJUSTMENTS

For each OUTPUT:

- ① Select the centering pattern with the LCD menu (**OUTPUT X > test pattern > centering pattern**).
- ② Adjust directly the display device itself, using its controls, to fill the centering pattern in full screen.

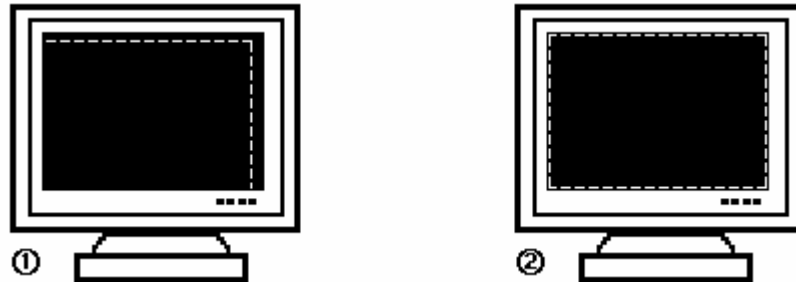


Figure 17: Centering pattern.

• IMAGE ADJUSTMENTS

For each input source connected to the NATIX™, make the following adjustments:

- ① Select the source you want to adjust.
- ② Select the aspect ratio of your input source with the LCD menu (**IMAGE > aspect ratio**).
- ③ Use the **Centering** function (**IMAGE > centering**) to automatically position the image in the **Centering pattern**.

IMPORTANT: For best results, display a full size bright image (no black border) to perform a centering. If necessary, correct the position & size with the **IMAGE POS. SIZE** key or with the LCD menu (**IMAGE > pos settings**).

NOTE: The centering function is only available for computer sources.

NOTE: In case of same Input/Output resolution, the centering also achieves automatic pixel clock adjustments. It may be useful, to improve manually the pixel **clock** and **phase** using the LCD menu (**IMAGE > optimize > clock or phase**).

- ④ If needed, make the others adjustments, available in the LCD **IMAGE** menu (color, brightness...).

NOTE: To set the image adjustments to the factory settings, use the **Preset** function (**IMAGE > preset > yes**).

NOTE: The adjustments are automatically stored in NON-volatile memories. The NATIX™ is provided with 40 NON-volatile image memories. Each of these memories contains the input channel number, the input and output format parameters and all of the image adjustments (position, size, brightness...). When the 40 memories are used, each new memorization erases the oldest record.

• OPTIONAL VIDEO OUTPUT ADJUSTMENTS

- ① Select the output standard (**OUTPUT menu > video output > video standard > NTSC or PAL**).
- ② Select the video "output rate" (**OUTPUT menu > video output > output rate >...**).
- ③ Select a level of anti-flicker (**OUTPUT menu > video output > flicker adj. >...**).
- ④ Select the zoom mode (**OUTPUT menu > video output > U/Over scan > underscan or overscan**).

• AUDIO ADJUSTMENTS

For each AUDIO output, make the following adjustment.

- ① Adjust the master volume (**AUDIO xxxx > master volume**).
- ② Select the mono or stereo audio mode (**AUDIO xxxx > audio mode > mono or stereo**).
- ③ Select the **auto follow** or **breakaway** audio mode (**AUDIO > audio source > auto follow or input # x**):
 - **auto follow** = the audio switching follows automatically the video switching.
 - **breakaway** = the selected audio input is permanently diffused.
- ④ For each audio input, adjust the level (**AUDIO xxxx > audio level**) and the balance (**AUDIO xxxx > audio balance**).

IMPORTANT: If the auxiliary audio input (AUX) is used, don't forget to activate it with the LCD menu (**AUDIO xxxx > AUX input > ON**).

3-3. OPERATING WITH THE REMOTE KEYPAD

3-3-1. COMMUNICATION SETUP

• CASE OF RS-232 PORT

- ① Connect the REMOTE KEYPAD to the NATIX™ according to your installation (see section 2-3-1.)
- ② Then only power ON all the devices.
- ③ Activate the REMOTE KEYPAD RS232 communication port with the LCD of the REMOTE KEYPAD (**CONSOLE > RS232/LAN port > RS232**).

• CASE OF LAN PORT

- ① Connect the REMOTE KEYPAD to the NATIX™ with the RS-232 port as indicated above, then configure the LAN communication port of the NATIX™ with the REMOTE KEYPAD LCD menu (**CONTROL > LAN setup**).
- ② Select the LAN communication port of the NATIX™ with the LCD menu (**CONSOLE > RS232/LAN port > LAN**).
- ③ Connect the LAN port (RJ45 connector) of the NATIX™ to your network according to your installation.
- ④ Connect the LAN port (RJ45 connector) of the REMOTE KEYPAD to your network according to your installation.
- ⑤ Then configure the REMOTE KEYPAD LAN communication port with the LCD menu (**CONSOLE > LAN setup**).
- ⑥ Activate the REMOTE KEYPAD LAN communication port with the LCD menu (**CONSOLE > RS232/LAN port > LAN**).

3-3. OPERATING WITH THE REMOTE KEYPAD (continued)

3-3-2. OPERATING IN MATRIX MODE

• SETTINGS

- ① We recommend resetting the NATIX™ device to its default values, with the LCD menu (**CONTROL > default value > yes**) before proceeding.
- ② Set the NATIX™ in MATRIX MODE with the LCD menu (**MODE > matrix mode**).
- ③ Select the **input type** connected to the **INPUTS** (# 1 to # 8) with the LCD menu (**INPUT > input type**).
- ④ Make the following adjustments for the display device connected to the OUTPUT 1:
 - Select the **output sync.** type which corresponds to the display device with the LCD menu (**OUTPUT X > output sync**).
 - Select the **output rate** mode with the LCD menu (**OUTPUT X > output rate**).
 - Select one of the **output formats** with the LCD menu (**OUTPUT X > output format**).

NOTE: For fixed pixels display device (DMD, LCD, PLASMA...), always select the output format corresponding to the native resolution of your display device. Thus, the display device will not have to scale the image and the result will be better.

 - Select the **type of screen** (4/3 or 16/9) with the LCD menu (**OUTPUT X > type of screen > 4/3 or 16/9**), according to your wall mounted projection screen shape.
- ⑤ Then renew the adjustments of the step ④ for the display device connected to the OUTPUT 2.

• INPUT SELECTION

- ① Select an output (**OUT 1** or **OUT 2**) with the OUTPUT SELECT keys.
- ② Pre-select an input with the INPUT SELECT keys. The key starts blinking.
- ③ Press on TAKE or move manually the T-BAR to display the pre-selected input onto the selected output. The transition operates with a fading to black.

NOTE: You can switch simultaneously on the **OUTPUT 1 & 2**: do the operations ① and ② for the **OUTPUT 1**, then do the operations ① and ② for the **OUTPUT 2**, finally press the TAKE key.

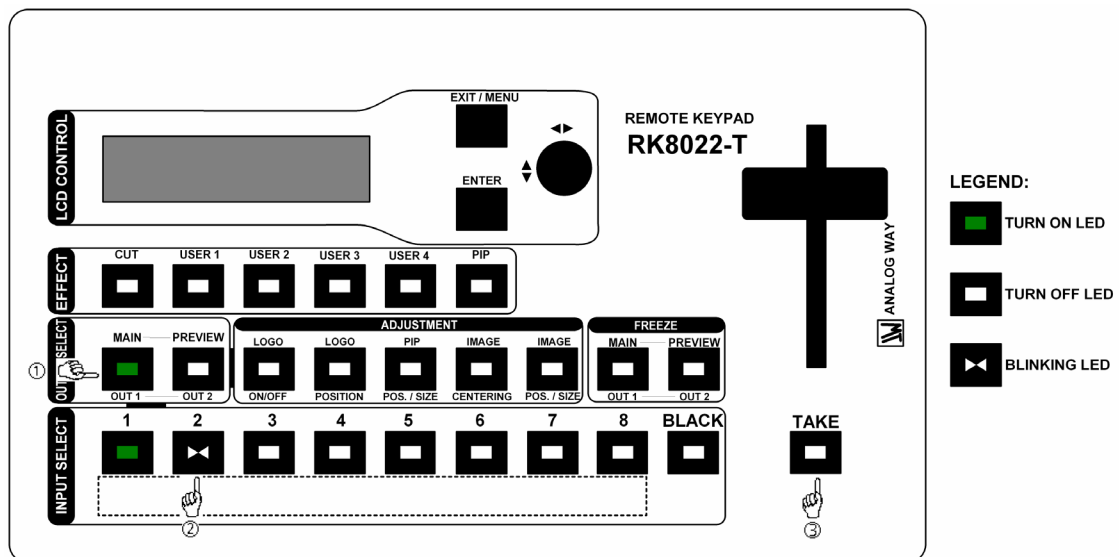


Figure 19

• DISPLAY DEVICES ADJUSTMENTS

For each OUTPUT:

- ① Select the centering pattern (**OUTPUT X > test pattern > centering pattern**).
- ② Adjust directly the display device itself, using its controls, to fill the centering pattern in full screen.

See Figure 17: Centering pattern. Page 19.

3-3. OPERATING WITH THE REMOTE KEYPAD (continued)**3-3-2. OPERATING IN MATRIX MODE (continued)****• IMAGE ADJUSTMENTS**

For each input source connected to the NATIX™ make the following adjustments:

- ① Select the source you want to adjust.
- ② Select the aspect ratio of your input source with the LCD menu (**IMAGE > aspect ratio**).
- ③ Use the **Centering** function (**IMAGE > centering**) to automatically position the image in the **Centering pattern**.

IMPORTANT: For best results, display a full size bright image (no black border) to perform a centering. If necessary, correct the adjustment the position & size with the **IMAGE POS.SIZE** key or with the LCD menu (**IMAGE > pos settings**).

NOTE: The centering function is only available for computer sources.

NOTE: In case of same Input/Output resolution, the centering also achieves automatic pixel clock adjustments. It may be useful, to improve manually the pixel **clock** and **phase** using the LCD menu (**IMAGE > optimize > clock or phase**).

- ④ If needed, make the others adjustments, available in the LCD **IMAGE** menu (color, brightness...).

NOTE: To set the image adjustments to the factory settings, use the **Preset** function (**IMAGE > preset > yes**).

NOTE: The adjustments are automatically stored in NON-volatile memories. The NATIX™ are provided with 40 NON-volatile image memories. Each of these memories contains the input channel number, the input and output format parameters and all of the image adjustments (position, size, brightness...). When the 40 memories are used, each new memorization erases the oldest record.

• OPTIONAL VIDEO OUTPUT ADJUSTMENTS

- ① Select the output standard (**OUTPUT menu > video output > video standard > NTSC or PAL**).
- ② Select the video "output rate" (**OUTPUT menu > video output > output rate >...**).
- ③ Select a level of anti-flicker (**OUTPUT menu > video output > flicker adj. >...**).
- ④ Select the zoom mode (**OUTPUT menu > video output > U/Over scan > underscan or overscan**).

• AUDIO ADJUSTMENTS

For each AUDIO output, make the following adjustment.

- ① Adjust the master volume (**AUDIO xxxx > master volume**).
- ② Select the mono or stereo audio mode (**AUDIO xxxx > audio mode > mono or stereo**).
- ③ Select the **auto follow** or **breakaway** audio mode (**AUDIO > audio source > auto follow or input # x**):
 - **auto follow** = the audio switching follows automatically the video switching.
 - **breakaway** = the selected audio input is permanently diffused.
- ④ For each audio input, adjust the level (**AUDIO xxxx > audio level**) and the balance (**AUDIO xxxx > audio balance**).

IMPORTANT: If the auxiliary audio input (AUX) is used, don't forget to activate it with the LCD menu (**AUDIO xxxx > AUX input > ON**).

Chapter 4 : UPDATING

The NATIX™ can be update thanks a COMPUTER (PC) via its REMOTE (RS-232) connector.

4-1. CONNECTIONS

- ① Connect the "REMOTE CONTROL RS-232" connector of the device to the SERIAL port of your COMPUTER with a DB9 M/F straight cable.
- ② Connect the device to an AC power outlet.
- ③ Switch OFF the device (rear panel switch = O).

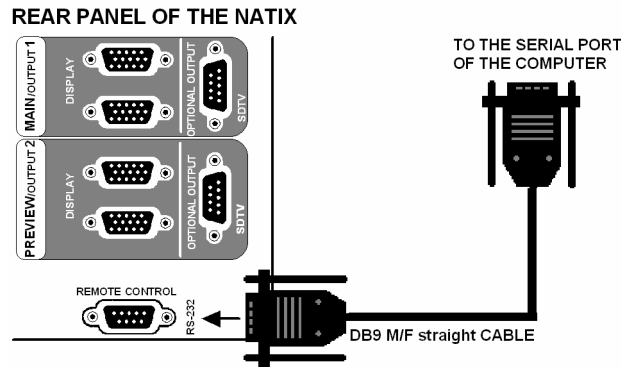


Figure 20: Updating.

4-2. UPDATE INSTRUCTIONS

- ① Open the file "iX updater" (in start/Program/ANALOG WAY/iX8022).
- ② Click on "START" on the SOFTWARE.
- ③ Switch ON the device. The POWER LED blinking slowly and the update will start.
- ④ When the software displays "Program operation completed", SWITCH OFF and ON the device with the rear panel switch.
- ⑤ Click on the "QUIT" button to close the update software.

NOTE: Your NATIX™ is now ready to work.

NOTE: The updater files are available on our web site: <http://www.analogway.com>

Chapter 5 : USING FRAME STORE AND LOGO INSERTION

5-1. USING LOGO INSERTION WITH THE REMOTE CONTROL SOFTWARE

This function allows storing up to 8 logos in order to incrust them into the displayed image (up to 2 logos at a same time).

IMPORTANT: The output format used when displaying logo should be the same that the output format used during the logo storing.

5-1-1. HOW TO STORE A LOGO

- ① Click on the **Logo & Frame out 1** tab to record the logo from the output 1 or click on the **Logo & Frame out 2** tab to record the logo from the output 2.
- ② Then click on the **Record logo** tab: the device displays a white rectangle corresponding to the logo selection area onto the output. Then adjust the position and size of the logo area with the position functions.

NOTE: The logo area is limited to an eighth (1/8) of the displayed area.

- ③ If necessary, adjust the **luma key** level. This function allows to "erase" the darkest portions of the logo selection area in order to make special logo contour. Otherwise set the **luma key** level to zero.

NOTE: You can change the color of the "erased portions" of the logo with the **background color** function.

- ④ Click on **STORE** to store the logo into a memory. The memorization of the logo starts and will take about few seconds.

NOTE: Renew the steps ① to ④ to store another logos (up to 8).

5-1-2. HOW TO ASSIGN A LOGO

NOTE: You can assign the stored logos to one or many of the 8 inputs (up to 2 logos by inputs).

- ⑤ In the **assignment** table, assign for each input the needed logos.

NOTE: To remove a logo of an input, select **none** in the corresponding window.

5-1-3. HOW TO DISPLAY OFF or ON A LOGO

- ⑥ To display OFF or ON the assigned logos of an input, click on the **display** button of the corresponding input to change the status (ON or OFF).

NOTE: When displaying ON or OFF a logo, this one appears/disappears with a fade effect. You can adjust the duration of the fade effect with the **Frame fade duration** function of the **Control** menu.

5-1-4. HOW TO ADJUST THE LOGO POSITION

- ⑦ Select the input of the logo to adjust (with the INPUT SELECTION buttons).
- ⑧ Click on the logo to adjust, then click on the **use** tab of the **Logo & frame** window. Then adjust the logo position with the **H & V position** functions.

NOTE: When you are using 2 logos by input, make sure to not superpose a logo onto an other one. In case of superposition, the logo areas will appear colored.

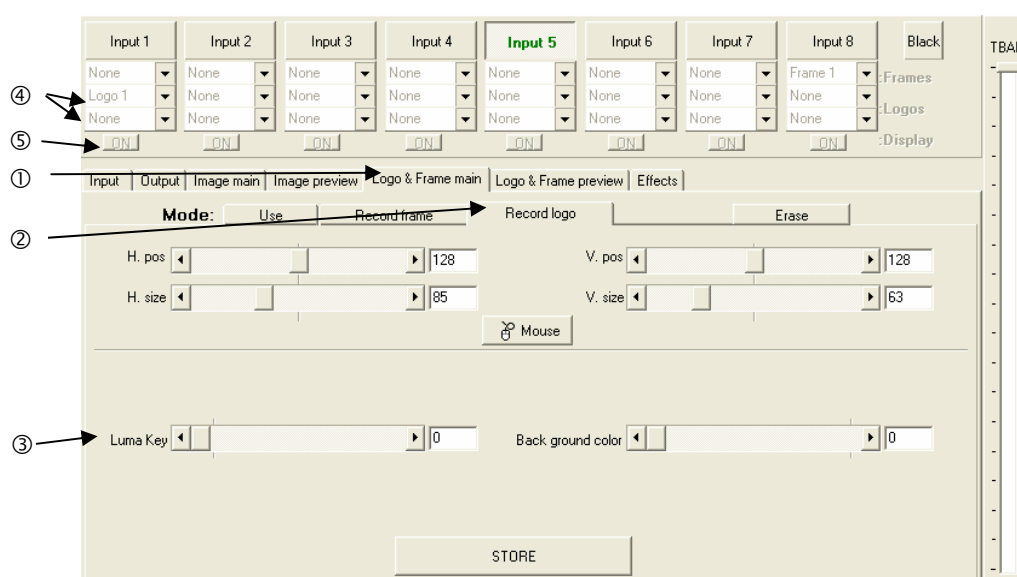


Figure 21

5-1. USING LOGO INSERTION WITH THE REMOTE CONTROL SOFTWARE (continued)

5-1-5. EXAMPLE OF LOGO INSERTION



Figure 22

5-2. USING FRAME STORE WITH THE REMOTE CONTROL SOFTWARE

This function allows memorizing up to 3 frames (images) in order to display it at any time during the show.

IMPORTANT: The output format used when displaying the frame should be the same that the output format used during the frame storing.

5-2-1. HOW TO STORE A FRAME

- ① Click on the **Logo & Frame out 1** tab to record the frame from the output 1 or click on the **Logo & Frame out 2** tab to record the frame from the output 2.
- ② Then click on the **Record frame** tab: the device displays a white rectangle corresponding to the frame selection area onto the output. If necessary adjust the position and size of the frame area with the **position & size** functions.
- ③ Click on **STORE** to store the frame into a memory. The memorization starts and will take about 2 minutes.

NOTE: For motion picture, you can use the FREEZE function, before doing the memorization.

5-2-2. HOW TO ASSIGN A FRAME

- ④ In the assignment table, assign a frame to the needed inputs.

NOTE: To remove the frame of an input, select **none** in the corresponding window.

5-2-3. HOW TO DISPLAY ON or OFF the FRAME

- ⑤ To display OFF or ON the assigned frame of an input, click on the **display** button of the corresponding input to change the status (ON or OFF). The frame appears onto the output, instead of the source connected to this input.

NOTE: When displaying ON or OFF a frame, this one appears/disappears with a fade effect. You can adjust the duration of the fade effect with the **Frame fade duration** function of the **Control** menu.

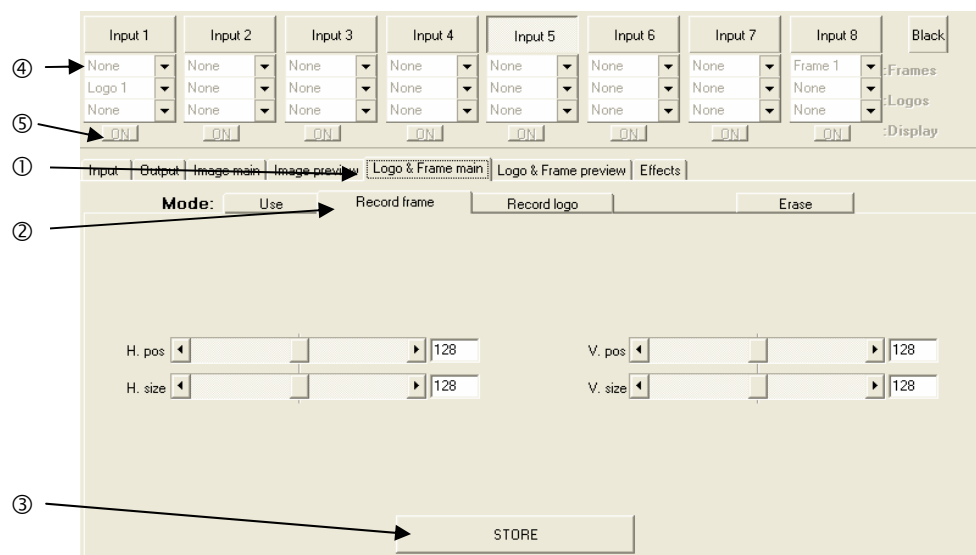


Figure 23

5-3. USING LOGO INSERTION WITH THE REMOTE KEYPAD OR NATIX™

This function allows storing up to 8 logos in order to incrust them into the displayed image (up to 2 logos at a same time).

IMPORTANT: The output format used when displaying logo should be the same that the output format used during the logo storing.

5-3-1. HOW TO STORE A LOGO

- ① Select the source of the logo to be stored (with the INPUT SELECTION buttons).
- ② Select the **OUT 1** or **OUT 2 record logo** mode (**LOGOS/FRAME > record logo > OUT 1 or OUT 2**): the device displays a white rectangle corresponding to the logo selection area onto the output. Then adjust the position and size of the logo selection area with the LCD **record logo** menu functions.
NOTE: The logo area is limited to an eighth (1/8) of the displayed area.
- ③ If necessary, adjust the **luma key** level (**LOGOS/FRAME > record logo > OUT 1 or OUT 2 > luma key level**). This function allows to "erase" the darkest portions of the logo selection area in order to make special logo contour. Otherwise set the **luma key** level to zero.
NOTE: You can change the color of the "erased portions" of the logo (**LOGOS/FRAME > record logo > back. color**).
- ④ Store the logo into a memory (**LOGOS/FRAME > record logo > OUT 1 or OUT 2 > store > empty or logo x**). The memorization of the logo starts and will take about few seconds.
NOTE: Renew the steps ① to ④ to store another logos (up to 8).

5-3-2. HOW TO ASSIGN A LOGO

NOTE: You can assign the stored logos to one or many of the 8 inputs (up to 2 logos by inputs).

- ⑤ In the **assignment** menu (**LOGOS/FRAME > use logo/frame > assignment**), select the displayed input (OUT 1 or OUT 2) that you want to assign a logo, then select an index (1 or 2) and finally select the needed logo.
NOTE: To remove a logo from an input, select the corresponding input & index and select **none**.
NOTE: To assign the same logo to all inputs select **ALL** (instead OUT 1 or OUT 2).
- ⑥ With the **INPUT SELECTION** buttons, display successively all your inputs to verify your logo assignment. If no logo appears on an input: verify that the LCD **display** function of the corresponding input is not set to the **OFF** position. In this case press **ENTER** to set it to the **ON** position (See how to display OFF or ON a logo).

5-3-3. HOW TO DISPLAY OFF or ON A LOGO

- ⑦ To display OFF or ON the assigned logos of an input, select the OUT 1 or OUT 2 displayed input in the **display** menu (**LOGOS/FRAME > use logo/frame > display > OUT 1 or OUT 2**) and press **ENTER** to change the status (ON or OFF).
NOTE: When displaying ON or OFF a logo, this one appears/disappears with a fade effect. You can adjust the duration of this fade effect (**LOGOS/FRAME > use logo/frame > fade duration**).

5-3-4. HOW TO ADJUST THE LOGO POSITION

- ⑧ Press the OUTPUT 1 key or the OUTPUT 2 key.
- ⑨ Press the LOGO position key. Then adjust the logo position with the H & V position functions.
NOTE: When you are using 2 logos by input, make sure to not superpose a logo onto an other one. In case of superposition, the logo areas will appear colored.

5-3-5. EXAMPLE OF LOGO INSERTION



Figure 24

5-4. USING FRAME STORE WITH THE REMOTE KEYPAD OR THE NATIX™

This function allows memorizing up to 2 frames (images) in order to display it at any time during the show.

IMPORTANT: The output format used when displaying the frame should be the same that the output format used during the frame storing.

5-4-1. HOW TO STORE A FRAME

- ① Select the source of the frame to be stored (with the INPUT SELECTION buttons).
- ② Select the **OUT 1 or OUT 2 record frame** mode (**LOGOS/FRAME > record frame > OUT 1 or OUT 2**): the device displays a white rectangle corresponding to the frame selection area. If necessary adjust the position and size of the frame selection area (**IMAGE > pos settings**).
- ③ Store the frame (**LOGOS/FRAME > record frame > OUT 1 or OUT 2 > store**). The memorization starts and will take about 2 minutes.

NOTE: For motion picture, you can use the FREEZE function, before doing the memorization.

5-4-2. HOW TO ASSIGN A FRAME

- ④ In the **assignment** menu (**LOGOS/FRAME > use logo/frame > assignment**), select the displayed input (OUT 1 or OUT 2) that you want to assign the frame, then select **frame index** select a **frame**.

NOTE: To remove the frame from an input, select the corresponding input & index and select **none**.

5-4-3. HOW TO DISPLAY ON or OFF the FRAME

- ⑤ To display ON the frame, select the input corresponding to the frame with the INPUT SELECTION buttons. The FRAME appears onto the output, instead of the source connected to this input.

NOTE: If the frame doesn't appear: verify that the **display** function of the displayed input is not set in the **OFF** position (**LOGOS/FRAME > use logo/frame > display**). In this case, presses **ENTER** to set it in the **ON** position.

- ⑥ To display OFF the frame, set the **display** function in OFF position (**LOGOS/FRAME > use logo/frame > display > OUT 1 or OUT 2 > OFF**).

Chapter 6 : NATIX™ & REMOTE KEYPAD LCD SCREEN DESCRIPTION

6-1. INTRODUCTION

The LCD screen is composed of 2 modes: the STATUS MODE and the CONTROL MODE.

- The STATUS MODE indicates the input and the output status.
- The CONTROL MODE allows to select and adjust the parameters.

6-2. LCD CONTROL BUTTONS

The LCD screen is controlled by 3 buttons :

◀ ▶ knob: To scroll thru the different menus.

EXIT MENU button:

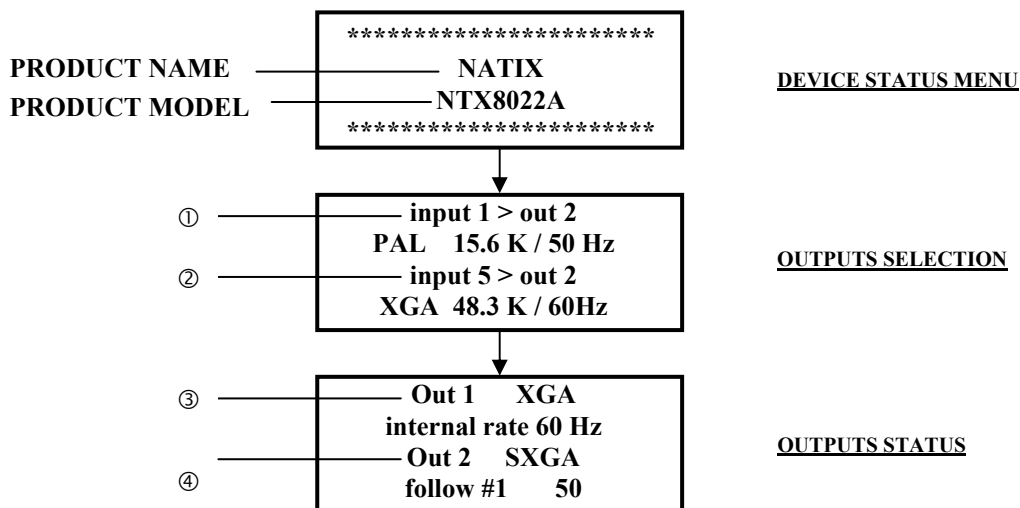
- From the STATUS MODE, press on this button to display the CONTROL MODE.
- From the CONTROL MODE, press on this button to:
 - return to the previous menu without safeguarding the item.
 - return to the STATUS MODE (press several times).

ENTER button :

- From the STATUS MODE, press on this button to display the CONTROL MODE.
- From the CONTROL MODE, press on this button to confirm a selected item.

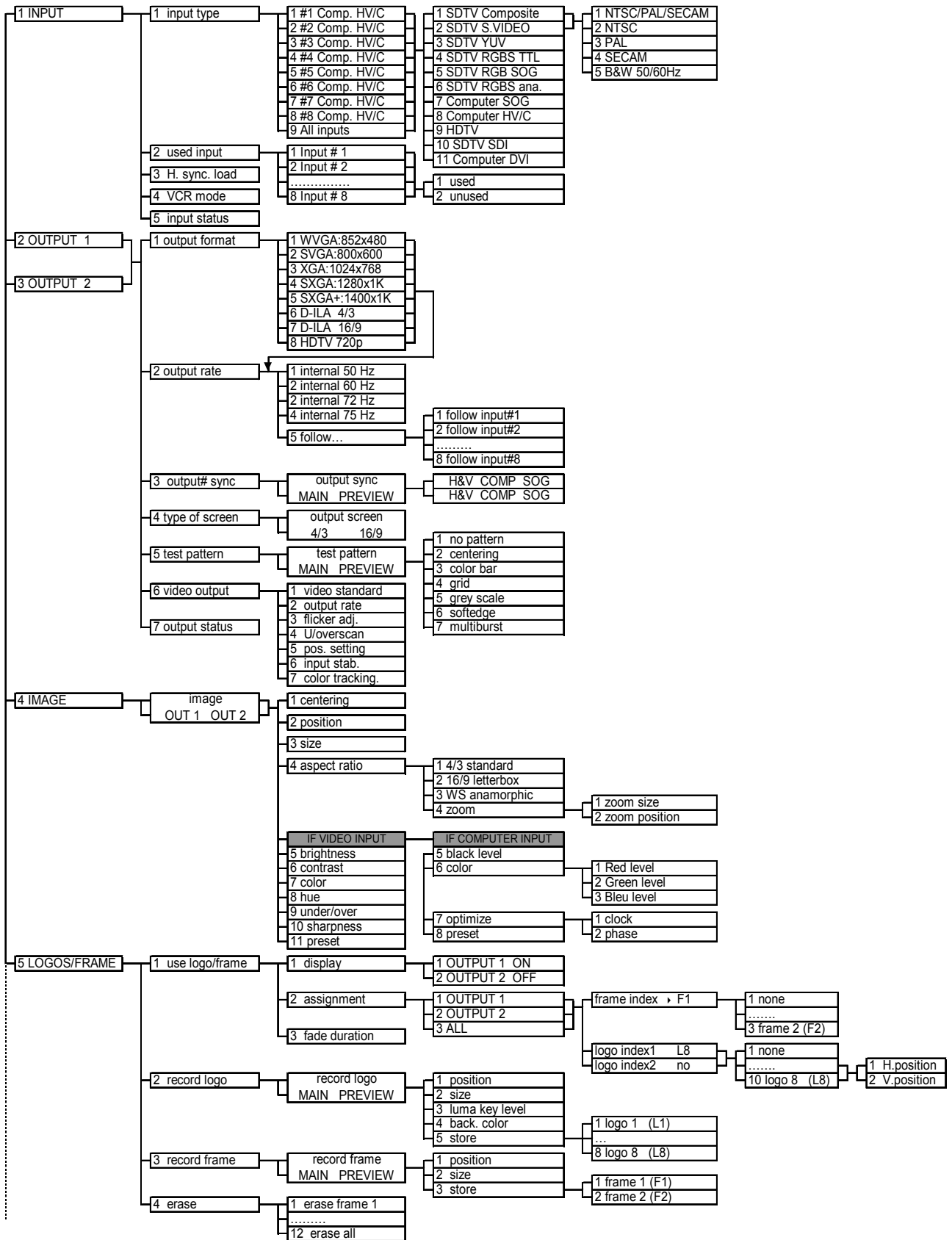
6-3. STATUS MODE

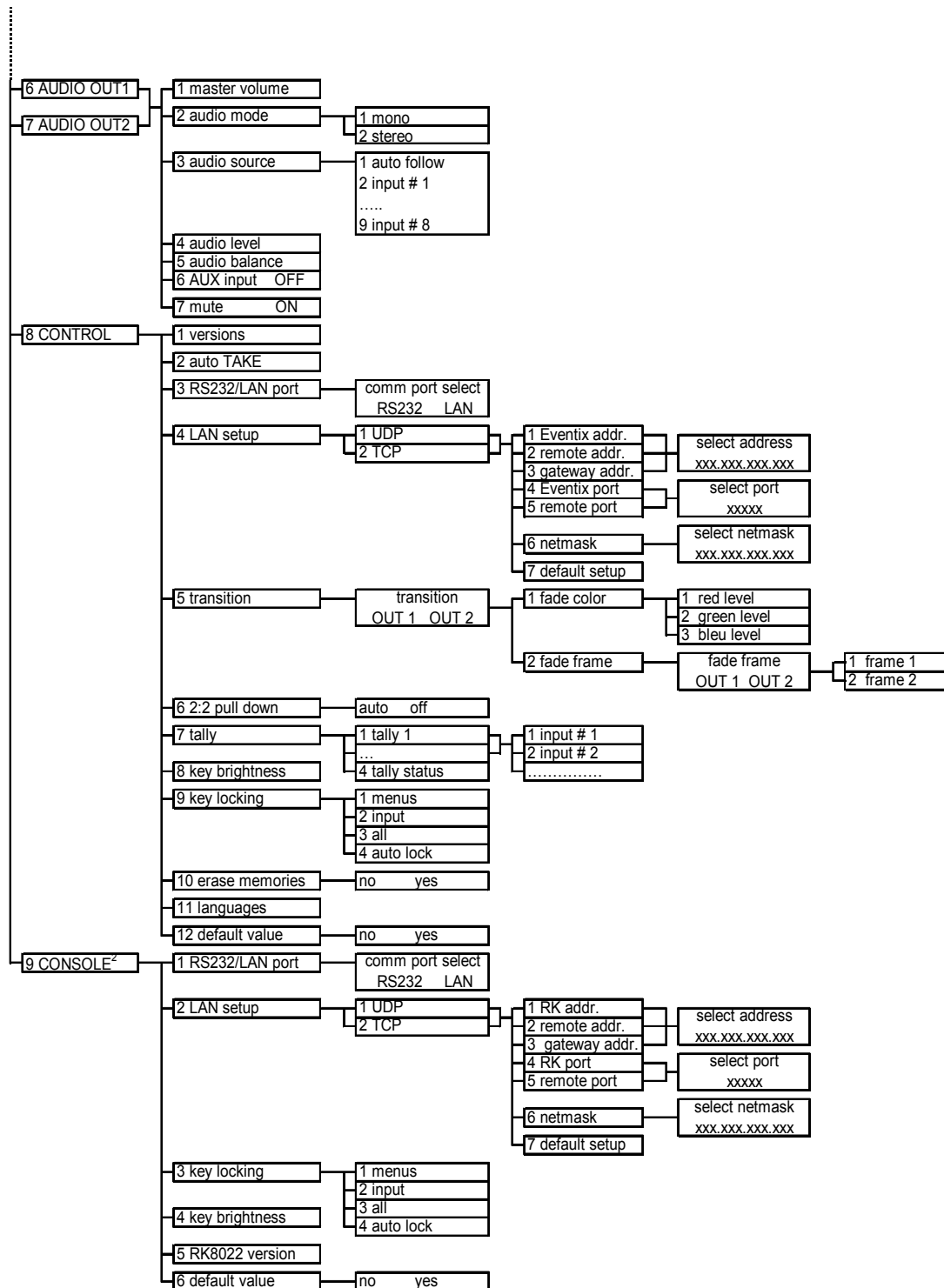
When switching ON the device, the LCD screen shows the product's name and status as follows:



- ① OUTPUT 1 SELECTION
- ② OUTPUT 2 SELECTION
- ③ OUTPUT 1 STATUS
- ④ OUTPUT 2 STATUS

6-4. CONTROL MODE



6-4. CONTROL MODE (continued)

² this menu is available on the REMOTE KEYPAD only.

6-5. LCD FUNCTIONS DESCRIPTION

1 ► [INPUT] + ENTER.

1-1 [input type] + ENTER.

① Select an input with ◀ ▶ + ENTER.

② Select the input signal type with ◀ ▶ + ENTER between:

- [SDTV Composite]
- [SDTV S.VIDEO]
- [SDTV YUV]
- [SDTV RGBS TTL]
- [SDTV RGB SOG]
- [Computer DVI] = optional DVI input.
- [SDTV RGBS ana.]
- [Computer SOG]
- [Computer HV/C]
- [HDTV] = HDTV input format (720p and 1080i).
- [SDTV SDI] = optional SDI input.

③ Then for [SDTV Composite], and [SDTV S.VIDEO], select the video standard with ◀ ▶ + ENTER between:

- [NTSC / PAL / SECAM] = automatic NTSC, PAL, and SECAM standard detection.
- [NTSC] = NTSC standard detection only.
- [PAL] = PAL standard detection only.
- [SECAM] = SECAM standard detection only.
- [B & W 50/60 Hz] = Black and White standard detection.

1-2 [used input] + ENTER.

Select an input and then select an item with ◀ ▶ + ENTER between:

- [used] = A signal is connected to the input.
- [unused] = No signal is connected to the input. The input is unused.

1-3 [H sync load] + ENTER.

Select for each input the load of the H Sync. with ◀ ▶ + ENTER.

1-4 [VCR mode] + ENTER.

This function allows improving the image contour of low quality VHS tapes. Select [on] with ENTER.

1-5 [input status] + ENTER.

Indicates the status of the selected input.

2 ► [OUTPUT #] + ENTER.

2-1 [output format] + ENTER.

Select one of the following output format with ◀ ▶ + ENTER.

- [WVGA:852x480]
- [SVGA:800x600]
- [XGA:1024x768]
- [SXGA:1280x1024]
- [SXGA+:1400x1050]
- [D-ILA - 4/3]
- [D-ILA - 16/9]
- [HDTV 720p]

NOTE: For fixed pixels display devices (DMD, LCD, PLASMA...), always select the output format corresponding to the native resolution of the display device. Thus, the display device will not have to scale the image and the result will be better.

2-2 [output rate] + ENTER.

Select an output rate between:

- [internal 50Hz] = The output frame is generated at 50 Hz by the device.
- [internal 60Hz] = The output frame is generated at 60 Hz by the device.
- [internal 72Hz] = The output frame is generated at 72 Hz by the device.
- [internal 75Hz] = The output frame is generated at 75 Hz by the device.
- [follow] = The output frame is synchronized onto one input signal. Select the needed input with ◀ ▶ and validate with ENTER.

6-5. LCD FUNCTIONS DESCRIPTION (continued)**2-3 [output sync] + ENTER.**

- ① Select an output between OUT 1 & OUT 2 with ◀ ▶ + **ENTER**.
- ② Select the Output Sync. type with ◀ ▶ + **ENTER**.
 - **[H&V]** = H & V Separate Sync.
 - **[COMP]** = Composite Sync.
 - **[SOG]** = Sync On Green.

2-4 [type of screen] + ENTER.

Select an item with ◀ ▶ + **ENTER**.

- **[4/3]** = If your image is displayed on a 4/3 wall mounted projection screen shape.
 - **[16/9]** = If your image is displayed on a 16/9 wall mounted projection screen shape.
- NOTE:** Available only in case of 4/3 output format.

2-5 [test pattern] + ENTER.

- ① Select an output between OUTPUT 1 & OUTPUT 2 with ◀ ▶ + **ENTER**.
- ② Select an item with ◀ ▶ + **ENTER**.
 - **[no pattern]** = No test pattern is displayed.
 - **[centering]** = Displays onto the output a centering pattern (for position and size adjustments).
 - **[color bar]** = Displays onto the output a color bar pattern.
 - **[grid]** = Displays onto the output a grid pattern.
 - **[grey scale]** = Displays onto the output a grey scale pattern.
 - **[multi-burst]** = Displays onto the output a multi-burst pattern.
 - **[softedge]** = Displays onto the output a softedge pattern.

2-6 [video output] + ENTER. (This menu is available with the OPT-iX-SDTV D1 option only).

NOTE: The following functions act on the optional video outputs only (Composite video, S.VIDEO, YUV and SDI).

2-6-1 [video standard] + ENTER.

Select the output standard for the video outputs with ◀ ▶ + **ENTER** between:

- **[NTSC]** = NTSC for composite and S.VIDEO outputs. 60Hz frame rate for YUV & SDI outputs.
- **[PAL]** = PAL for composite and S.VIDEO outputs. 50Hz frame rate for YUV & SDI outputs.
- **[NTSCj]** = Japan NTSC for composite and S.VIDEO outputs. 60Hz frame rate for YUV & SDI outputs.

2-6-2 [output rate] + ENTER.

Select a function with ◀ ▶ + **ENTER** between:

- **[internal]** = The video output rate is generated by the device depending of the selected **video standard**.
- **[input # X]** = The video output rate is synchronized onto an input of your choice (video source only).

NOTE: If the device is already set in follow mode (LCD menu # 3-2 = follow...). This input and the input used for the follow mode should be the same.

2-6-3 [flicker adj.] + ENTER.

Select a level of anti-flicker with ◀ ▶ + **ENTER**.

2-6-4 [U/Over scan] + ENTER.

Select a function with ◀ ▶ + **ENTER** between:

- **[underscan]** = The entire image is visible on the screen. Computer display mode is underscan.
- **[overscan]** = The image is displayed about 8 % bigger than in underscan mode, to avoid seeing the corners and the borders. Standard TV display mode is overscan.

2-6-5 [pos settings] + ENTER.

Adjust the video image position with the following functions:

- **[size]** = Adjust the Horizontal & Vertical size with H and V knobs.
- **[position]** = Adjust the Horizontal & Vertical position with H and V knobs.

2-6-6 [input stab.] + ENTER.

This function allows to improve the input stability of the referenced input. Select the type of the referenced source between DVD & VCR.

2-6-7 [color tracking] + ENTER.

This function allows to improve the image color (act only if **input stab.** = VCR).

2-7 [output status] + ENTER.

6-5. LCD FUNCTIONS DESCRIPTION (continued)**4 ▶ [IMAGE] + ENTER.**

Select an output between OUTPUT 1 & OUTPUT 2 with ◀ ▶ + **ENTER**.

NOTE: The image menu contents will be different in case of computer or video on the input selected.

4-1 [centering] + ENTER.

Adjust automatically the image in the centering pattern.

4-2 [position] + ENTER.

Adjust the image position with **H** and **V** knobs and validate with **ENTER**.

4-3 [size] + ENTER.

Adjust the image size with **H** and **V** knobs and validate with **ENTER**.

4-4 [aspect ratio] + ENTER.

Select the Aspect Ratio of your input source or the zoom mode with ◀ ▶ + **ENTER**.

- **[4/3 standard]** = 4/3 input format.
- **[16/9 letterbox]** = Letterbox input format.
- **[WS anamorphic]** = Widescreen anamorphic input format (video) or 16/9 input format (computer).
- **[zoom]** = Allows to zoom in the image.

• If the selected input is a VIDEO signal the IMAGE MENU displays the following items:

4-5 [brightness] + ENTER.

Adjust the Brightness with ◀ ▶ + **ENTER**.

4-6 [contrast] + ENTER.

Adjust the Contrast with ◀ ▶ + **ENTER**.

4-7 [color] + ENTER.

Adjust the Color with ◀ ▶ + **ENTER**.

4-8 [hue] + ENTER.

Adjust the Tint of the picture (NTSC only) with ◀ ▶ + **ENTER**.

4-9 [u / over scan] + ENTER.

- **[underscan]** = Underscan mode. The entire image is visible on the screen. Computer mode is underscan.
- **[overscan]** = Overscan mode. The image is displayed about 8 % bigger than in underscan mode, to avoid seeing the corners and the borders. Standard TV display mode is overscan.

4-10 [sharpness] + ENTER.

This function allows increasing the sharpness of the image. Select a level with ◀ ▶ + **ENTER**.

4-11 [preset] + ENTER.

This function allows setting all the image parameters to the factory settings. Select **[YES]** and validate with **ENTER**.

• If the selected input is a COMPUTER signal the IMAGE MENU displays:

4-5 [black level] + ENTER.

Adjust the black level with ◀ ▶ + **ENTER**.

4-6 [color] + ENTER.

Select a color (Red, Green, or Bleu) with ◀ ▶ + **ENTER** and adjust the level with ◀ ▶ + **ENTER**.

4-7 [optimize] + ENTER.

- **[clock]** = Manual adjustment of the pixel clock.
- **[phase]** = Manual adjustment of the pixel phase.

4-8 [preset] + ENTER.

This function allows setting all the image parameters to the factory settings. Select **[YES]** and validate with **ENTER**.

6-5. LCD FUNCTIONS DESCRIPTION (continued)**5 ▶ [LOGOS/FRAME] + ENTER****5-1 [use logo/frame] + ENTER.**

Select an item with ◀ ▶ + **ENTER**.

5-1-1 [display] + ENTER.

This function allows to display ON or OFF the assigned logos of the displayed input. Select the OUT 1 or the OUT 2 displayed input with ◀ ▶ and press **ENTER** to display ON or OFF.

NOTE: To display a logo or a frame, the output format should be the same that the output format used during the storing.

5-1-2 [assignment] + ENTER.

This function allows assigning the stored frame and the logos to the inputs of the device (up to 2 logos at the same time).

① Select OUT 1 or OUT 2 displayed input with ◀ ▶ + **ENTER**.

② Select the **frame index** or the **logo index 1** or the **logo index 2** with ◀ ▶ + **ENTER**.

③ Then select a logo, a frame or none with ◀ ▶ + **ENTER**.

④ Adjust the logo position with **H & V position** functions.

NOTE: To assign the same logo to all inputs, select ALL in the step ①.

5-1-3 [fade duration] + ENTER.

This function allows adjusting the fade duration of the logo when you display ON or OFF a logo. Adjust the duration with ◀ ▶ and validate with **ENTER**.

5-2 [record logo] + ENTER.

This mode allows storing up to 8 logos in order to incrust them into the displayed image (up to 2 logos at a same time). Select an item with ◀ ▶ + **ENTER**.

5-2-1 [H position] + ENTER.

Adjust the Horizontal position of the logo area with ◀ ▶ + **ENTER**.

5-2-2 [V position] + ENTER.

Adjust the Vertical position of the logo area with ◀ ▶ + **ENTER**.

5-2-3 [H size] + ENTER.

Adjust the Horizontal size of the logo area with ◀ ▶ + **ENTER**.

5-2-4 [V size] + ENTER.

Adjust the Vertical size of the logo area with ◀ ▶ + **ENTER**.

NOTE: The logo area is limited at an eighth (1/8) of the displayed area.

5-2-5 [luma key level] + ENTER.

This function allows to "erase" the darkest portions of your logo area in order to make special logo contour. Adjust the luma key level with ◀ ▶ + **ENTER**.

5-2-6 [back. color] + ENTER.

This function allows coloring the "erased portions" of the logo when using the luma key. Select a level with ◀ ▶ + **ENTER**.

5-2-7 [store] + ENTER.

This function allows storing the logo into one of the 8 logo memories. Select a logo memory with ◀ ▶ + **ENTER**. The memorization will take few seconds.

6-5. LCD FUNCTIONS DESCRIPTION (continued)**5-3 [record frame] + ENTER.**

This mode allows storing up to 2 frames in order to display them at any time during the show.

5-3-1 [H position] + ENTER.

Adjust the Horizontal position of the frame area with ◀ ▶ + **ENTER**.

5-3-2 [V position] + ENTER.

Adjust the Vertical position of the frame area with ◀ ▶ + **ENTER**.

5-3-3 [H size] + ENTER.

Adjust the Horizontal size of the frame area with ◀ ▶ + **ENTER**.

5-3-4 [V size] + ENTER.

Adjust the Vertical size of the frame area with ◀ ▶ + **ENTER**.

5-3-5 [store]

This function allows storing the frame into one of the 2 frame memories. Select a frame memory with ◀ ▶ + **ENTER**. The memorization will take about 2 minutes.

5-4 [erase mode] + ENTER.

This function allows erasing the memorized frame and/or the logos. Select an item with ◀ ▶ + **ENTER**.

6-5. LCD FUNCTIONS DESCRIPTION (continued)**6 ▶ [AUDIO OUT 1] + ENTER.**

The following commands allow controlling the AUDIO output 1.

6-1 [master volume] + ENTER.

Adjust the audio output level with ◀ ▶ + **ENTER**.

6-2 [audio mode] + ENTER.

Select the output audio mode with ◀ ▶ + **ENTER**.

- **[mono]** = Set the output in mono mode.
- **[stereo]** = Set the output in stereo mode.

6-3 [audio source] + ENTER.

Select an item with ◀ ▶ + **ENTER**:

- **[auto follow]** = The audio follows the video image.
- **[input --]** = The selected audio input (is permanently diffused).

6-4 [audio level] + ENTER.

This function allows to separately adjusting the level of each audio input. Adjust the level with ◀ ▶ + **ENTER**.

NOTE: This function acts on the selected (diffused) audio input.

6-5 [audio balance] + ENTER.

This function allows adjusting for each input the audio balance. Adjust the level with ◀ ▶ + **ENTER**.

NOTE: This function acts on the selected (diffused) audio input.

6-6 [AUX input] + ENTER.

Auxiliary input for mixing with the diffused source.

6-7 [mute off] + ENTER.

Switch ON or OFF the audio output. Validate with **ENTER**.

7 ▶ [AUDIO OUT 2] + ENTER.

The following commands allow controlling the AUDIO output 2.

7-1 [master volume] + ENTER.

Adjust the audio output level with ◀ ▶ + **ENTER**.

7-2 [audio mode] + ENTER.

Select the output audio mode with ◀ ▶ + **ENTER**.

- **[mono]** = Set the output in mono mode.
- **[stereo]** = Set the output in stereo mode.

7-3 [audio source] + ENTER.

Select an item with ◀ ▶ + **ENTER**:

- **[auto follow]** = The audio follows the video image.
- **[input --]** = The selected audio input (is permanently diffused).

7-4 [audio level] + ENTER.

This function allows to separately adjust the level of each audio input. Adjust the level with ◀ ▶ + **ENTER**.

NOTE: This function acts on the selected (diffused) audio input.

7-5 [audio balance] + ENTER.

This function allows adjusting for each input the audio balance. Adjust the level with ◀ ▶ + **ENTER**.

NOTE: This function acts on the selected (diffused) audio input.

7-6 [AUX input] + ENTER.

Auxiliary input for mixing with the diffused source.

7-7 [mute off] + ENTER.

Switch ON or OFF the audio output. Validate with **ENTER**.

6-5. LCD FUNCTIONS DESCRIPTION (continued)**8 ▶ [CONTROL]****8-1 [versions] + ENTER.**

Display the status of the internal firmware.

- A = xxxx • B = xxxx • X = xxxx • Y = xxxx • S = xxxx
- D = xxxx • K = xxxx • V = xxxx (optional) • I = Identification number.

8-2 [auto TAKE]

This function allows to switch directly from the input select key (without pressing the TAKE key).

8-3 [RS232/LAN port] + ENTER.

Select the needed communication port with ◀ ▶ + **ENTER**.

- **[RS232]** = Enables the RS-232 communication port. (Default setting).
- **[LAN]** = Enables the LAN communication port.

IMPORTANT: To avoid addresses conflict, configure the LAN communication port (with the **LAN setup** menu) before activates it.

NOTE: The RS-232 & the LAN communication ports can not be used simultaneously.

8-4 [LAN setup] + ENTER.

Allows configuring the LAN communication port. Select items with ◀ ▶ + **ENTER**.

- **[local addr.]:** Every device connected to an IP network must have a unique IP address. This address is used to reference the specific unit. IP addresses are specified as **x.x.x.x** where each **x** is a number from 1 to 254. Assign the device to a unique IP address with ◀ ▶ + **ENTER**. (Default value: 192.168.0.2).
- **[remote addr.]:** This is the destination IP address used with an outgoing connection. Select the destination IP address with ◀ ▶ + **ENTER**. (Default value: 192.168.0.1).
- **[gateway addr.]:** The gateway address, or router, allows communication to other LAN segments. The gateway address should be the IP address of the router connected to the same LAN segment as the unit. Select the gateway address with ◀ ▶ + **ENTER**. (Default value: 192.168.0.1).
- **[local port]:** Every TCP connection and every UDP datagram is defined by a destination IP address and a port number. Select a local port number with ◀ ▶ + **ENTER** between 10000 and 10999. (Default value: 10500).
- **[remote port]:** You must set the remote TCP port number for the unit to make outgoing connections. This parameter defines the port number on the target host to which a connection is attempted. Select a remote port number with ◀ ▶ + **ENTER** between 00000 and 655000. (Default value: 10500).
- **[netmask]:** A netmask defines the number of bits taken from the IP address that are assigned for the host section. The device prompts for the number of host bits to be entered, then calculates the netmask, which displays in standard decimal-dot notation when the saved parameters are displayed. Select the netmask with ◀ ▶ + **ENTER**. (Default value: 255.255.255.0).
- **[default setup]:** Set all the LAN settings to the default value. Select **[YES]** and validate with **ENTER**.

MAC ADDRESS: The MAC address, also referred to hardware address, is a unique number assigned to each device. The MAC address is available on the rear panel device label.

8-5 [2:2 pull down] + ENTER.

Select an item and validate with **ENTER**.

- **[auto]** = Automatic recognition and correction of the 2:2 pull down.
- **[off]** = disable the 2:2 pull down correction.

8-6 [transition] + ENTER.

Select an item with ◀ ▶ + **ENTER**.

8-6-1 [fade color] + ENTER.

This function allows selecting the color of the fade during the transition. Select a color (red, green and bleu) with ◀ ▶ + **ENTER** and adjust the level with ◀ ▶ + **ENTER**. During the adjustment the color is displayed onto the output. To obtain the black color, set the 3 levels to the minimum. To obtain the white color, set the 3 levels to maximum. To obtain the grey color, set the 3 levels in the middle.

8-6-2 [fade frame] + ENTER.

This function allows switching by a fading image (instead of a color). Then adjust the duration of the transition.

6-5. LCD FUNCTIONS DESCRIPTION (continued)**8-7 [tally] + ENTER.**

- ① First select a tally output with ◀ ▶ + **ENTER**.
- ② Then select an input for this tally output with ◀ ▶ + **ENTER**.

8-8 [key brightness] + ENTER.

Allows to adjust the key brightness.

8-9 [key locking] + ENTER.

Select an item with ◀ ▶ and change the mode with **ENTER**.

- **[menus]** = Locks/unlocks the **LCD CONTROL** switches.
- **[input]** = Locks/unlocks the **INPUT SELECTION** and **FREEZE** switches.
- **[all]** = Locks/unlocks all the front panel switches.

NOTE: To unlock presses simultaneously on **ENTER** and **EXIT**.

- **[autolock]** = Allows to select an input only if a signal is connected.

8-10 [erase all mem] + ENTER.

This function allows erasing all the NON-volatile image memories. Select [YES] and validate with **ENTER**.

8-11 [languages] + ENTER.**8-12 [demo mode] + ENTER.**

This function allows playing a sequence of effect. Select [YES] and validate with **ENTER**.

8-13 [default value] + ENTER.

This function allows setting all the image parameters to the factory settings. Select [YES] and validate with **ENTER**. Then switch OFF and ON the device.

6-5. LCD FUNCTIONS DESCRIPTION (continued)**9 ▶ [CONSOLE]****9-1 [RS232/LAN port] + ENTER.**

Select the needed communication port with ◀ ▶ + **ENTER**.

- **[RS232]** = Enables the RS-232 communication port. (Default setting).
- **[LAN]** = Enables the LAN communication port.

IMPORTANT: To avoid addresses conflict, configure the LAN communication port (with the **LAN setup** menu) before activates it.

NOTE: The RS-232 & the LAN communication ports can not be used simultaneously.

9-2 [key locking] + ENTER.

Select an item with ◀ ▶ and change the mode with **ENTER**.

- **[menus]** = Locks/unlocks the **LCD CONTROL** switches.
- **[input]** = Locks/unlocks the **INPUT SELECTION** and **FREEZE** switches.
- **[all]** = Locks/unlocks all the front panel switches.

NOTE: To unlock presses simultaneously on **ENTER** and **EXIT**.

- **[autolock]** = Allows to select an input only if a signal is connected.

9-3 [LAN setup] + ENTER.

Allows configuring the LAN communication port. Select the UDP or TCP protocol with ◀ ▶ + **ENTER** then select items with ◀ ▶ + **ENTER**.

- **[local addr.]:** Every device connected to an IP network must have a unique IP address. This address is used to reference the specific unit. IP addresses are specified as **x.x.x.x** where each **x** is a number from 1 to 254. Assign the device to a unique IP address with ◀ ▶ + **ENTER**. (Default value: 192.168.0.2).
- **[remote addr.]:** This is the destination IP address used with an outgoing connection. Select the destination IP address with ◀ ▶ + **ENTER**. (Default value: 192.168.0.1).
- **[gateway addr.]:** The gateway address, or router, allows communication to other LAN segments. The gateway address should be the IP address of the router connected to the same LAN segment as the unit. Select the gateway address with ◀ ▶ + **ENTER**. (Default value: 192.168.0.1).
- **[local port]:** Every TCP connection and every UDP datagram is defined by a destination IP address and a port number. Select a local port number with ◀ ▶ + **ENTER** between 10000 and 10999. (Default value: 10500).
- **[remote port]:** You must set the remote TCP port number for the unit to make outgoing connections. This parameter defines the port number on the target host to which a connection is attempted. Select a remote port number with ◀ ▶ + **ENTER** between 00000 and 655000. (Default value: 10500).
- **[netmask]:** A netmask defines the number of bits taken from the IP address that are assigned for the host section. The device prompts for the number of host bits to be entered, then calculates the netmask, which displays in standard decimal-dot notation when the saved parameters are displayed. Select the netmask with ◀ ▶ + **ENTER**. (Default value: 255.255.255.0).
- **[default setup]:** Set all the LAN settings to the default value. Select **[YES]** and validate with **ENTER**.

MAC ADDRESS: The MAC address, also referred to hardware address, is a unique number assigned to each device. The MAC address is available on the rear panel device label.

9-4 [key brightness] + ENTER.

Allows to adjust the key brightness.

9-5 [RK8022 version] + ENTER.

Display the status of the internal firmware.

9-6 [default value] + ENTER.

This function allows setting all the parameters to the factory settings. Select **[YES]** and validate with **ENTER**. Then switch OFF and ON the device.

Chapter 7 : REMOTE CONTROL PROGRAMMER'S GUIDE

7-1. INTRODUCTION

If you need to use your own Control Software from a PC, or WORKSTATION with an RS-232 port, the device allows communicating through an ASCII code protocol.

The device treats any character received on its RS-232 as a possible command but, it only accepts legal commands. There is no starting/ending in a command string.

A command can be 1 or 2 characters typed on a keyboard and does not require any special characters before or after it. (it is not necessary to press "ENTER" on the keyboard). A command can be preceded by a value (see chapter 7-2. COMMANDS STRUCTURE).

When the device receives a valid command, it will execute the command. Then it will send back the status of all the parameters that have changed due to this command from the control device.

For example: When you pre-select an input the device indicates the input that you have pre-selected and the status of all its parameters (input standard, image adjustment,...)

If the command cannot be executed (value out of range, no signal on the selected input), the device just send back the current status of the corresponding parameters.

If the command is invalid, an error response will be returned to the controlling device. All responses sent to the controlling device end with a carriage return <CR> and a line feed <LF> signaling the end of the response character string. (see chapter 7-3. ERROR RESPONSES).

7-2. COMMANDS STRUCTURE

Commands are usually composed of a numerical value followed by the command characters (1 or 2). The characters used without any numerical value return the current setting of the command.

COMMAND structure = VALUE (optional) + CHARACTER(S)

Examples:

COMMAND		RESPONSE	DESCRIPTION
VALUE	CHARACTER(S)		
none	FY	OSYN0	Read the Sync type of the output 1.
10	V	VP10	Set Vertical position to 10.

7-3. ERROR RESPONSES

When the device receives from the controlling device an invalid command or value, it returns an error response:

COMMAND		RESPONSE	DESCRIPTION
VALUE	CHARACTER(S)		
none	BB	E10	Invalid command.
70260	V	E13	Invalid value.

7-4. COMMANDS AND RESPONSES TABLE

The following table resumes all of the commands that are recognized as valid and the responses that will be returned to the control device.

ASCII COMMAND	RESPONSE	COMMAND DESCRIPTION	TYPE	VALUE		
				MIN	MAX	DESCRIPTION
SELECTION COMMANDS						
CC	CH	Selected input.	Rd	0	8	0 = black
CN	CHN	Input pre-selection for OUTPUT 1.	Rd/Wr	0	8	1 = input #1
cc	ch	Pre-selected input (read only).	Rd	0	8	2 = input #2
cn	chn	Input pre-selection for OUTPUT 2.	Rd/Wr	0	8	3 = input #3
						4 = input #4
						5 = input #5
						6 = input #6
						7 = input #7
						8 = input #8
G	TAKE	TAKE (transition).	Rd/Wr	0	1	1 = start the transition (automatic reset at the end of the effect duration). 0 = stop the transition (for holding effect).
Z	FRZ	FREEZE OUT 1.	Rd/Wr	0	1	0 = inactive 1 = active.
z	frz	FREEZE OUT 2.	Rd/Wr	0	1	0 = inactive 1 = active.
INPUT COMMANDS						
PC	PCH	Input selection for adjustment.	Rd/Wr	0	8	0 = all inputs. 1 = input #1 2 = input #2..... 8 = input #8
PE	PEN	Input disabling (works with PC)	Rd/Wr	0	1	0 = Input disable 1 = Input enable.
PL	PLD	H sync load selection (works with PC).	Rd/Wr	0	1	0 = Hi-Z load 1 = 75Ω load.
PR	PRGB	RGB input type selection (works with PC command).	Rd/Wr	0	10	0 = SDTV composite 6 = SDTV SDI. 1 = SDTV S.VIDEO 7 = computer (SOG) 2 = SDTV YUV 8 = comp (HV or C.) 3 = SDTV RGBS (TTL) 9 = comp DVI 4 = SDTV RGsB (SOG) 10 = HDTV. 5 = SDTV RGBS (ana)
PI	PSTD	Input standard selection (works with PC command).	Rd/Wr	0	4	0 = NTSC/PAL/SECAM. 1 = NTSC. 3 = SECAM 2 = PAL. 4 = Black & White.
PP	PPRC	VCR mode	Rd/Wr	0	1	0 = OFF 1 = ON.
OUTPUT COMMANDS						
FM	OFTM	Output formats selection (M).	Rd/Wr	0	20	0 = SVGA 50Hz 11 = SXGA 75Hz 1 = SVGA 60Hz 12 = SXGA+ 50Hz 2 = SVGA 72Hz 13 = SXGA+ 60Hz 3 = SVGA 75Hz 14 = SXGA+ 72Hz 4 = XGA 50Hz 15 = SXGA+ 75Hz 5 = XGA 60Hz 16 = D-ILA 4/3 75Hz 6 = XGA 72Hz 17 = D-ILA 16/9 75 Hz 7 = XGA 75Hz 18 = WVGA 16/9 60Hz 8 = SXGA 50Hz 19 = HDTV 720p 50Hz 9 = SXGA 60Hz 20 = HDTV 720p 60Hz 10 = SXGA 72Hz
fp	oftp	Output formats selection (P).	Rd/Wr	0	20	
FY	OSYN	Output sync selection (M).	Rd/Wr	0	2	0 = H & V sync. 2 = SOG
fy	osyn	Output sync selection (P).	Rd/Wr	0	2	1 = Composite sync.
FS	SCRM	Type of screen selection (M)	Rd/Wr	0	1	0 = 4/3 screen 1 = 16/9 screen
fs	scrp	Type of screen selection (P)	Rd/Wr	0	1	0 = 4/3 screen 1 = 16/9 screen
pm	PAT	Test pattern selection (M).	Rd/Wr	0	6	0 = no pattern 1 = centering 2 = color
pp	pat	Test pattern selection (P).	Rd/Wr	0	6	3 = grey scale 4 = grid. 5 = softedge 6 = multi-burst.
XR	REFR	Output 1 rate selection.	Rd/Wr	0	8	0 = internal rate 1 = follow input #1
xr	refr	Output 2 rate selection.	Rd/Wr	0	8	2 = follow input #2... 8 = follow input #8
NOTE:						

7-4. COMMANDS AND RESPONSES TABLE (continued)

ASCII COMMAND	RESPONSE	COMMAND DESCRIPTION	TYPE	VALUE		
				MIN	MAX	DESCRIPTION
IMAGE COMMANDS						
yC	ACAD	Automatic centering (M).	Rd/Wr	0	1	1 = centering action (automatic reset).
H	HP	Horizontal position (M).	Rd/Wr	0	255	
V	VP	Vertical position (M).	Rd/Wr	0	255	
W	HW	Horizontal size (M).	Rd/Wr	0	255	
S	VS	Vertical size (M).	Rd/Wr	0	255	
B	BRG	Brightness adjustment (M).	Rd/Wr	0	255	
D	CON	Contrast adjustment (M).	Rd/Wr	0	255	
O	COL	Color adjustment (M).	Rd/Wr	0	255	
T	HUE	Hue adjustment (M).	Rd/Wr	0	255	
QP	PRO	Sharpness adjustment (M).	Rd/Wr	0	7	0 = level 1..... 7 = level 8.
QO	OVR	Underscan / overscan (M)	Rd/Wr	0	1	0 = underscan 1 = overscan
A	ASP	Input aspect ratio selection (M)	Rd/Wr	0	2	0 = 4/3 1 = letterbox 2 = 16/9 anamorphic 3 = zoom.
QR	RLV	Red level adjustment (M)	Rd/Wr	0	255	
QG	GLV	Green level adjustment (M)	Rd/Wr	0	255	
QB	BLV	Bleu level adjustment (M)	Rd/Wr	0	255	
MC	CLK	Number of pixels per line (M)	Rd/Wr	0	65535	
MP	PHA	Pixels phase adjustment (M)	Rd/Wr	0	31	
yP	PRES	PRESET (M).	Rd/Wr	0	1	1 = PRESET action (automatic reset).
yc	acad	Automatic centering (P).	Rd/Wr	0	1	1 = centering action (automatic reset).
h	hp	Horizontal position (P).	Rd/Wr	0	255	
v	vp	Vertical position (P).	Rd/Wr	0	255	
w	hw	Horizontal size (P).	Rd/Wr	0	255	
s	vs	Vertical size (P).	Rd/Wr	0	255	
b	brg	Brightness adjustment (P).	Rd/Wr	0	255	
d	con	Contrast adjustment (P).	Rd/Wr	0	255	
o	col	Color adjustment (P).	Rd/Wr	0	255	
t	hue	Hue adjustment (P).	Rd/Wr	0	255	
qp	pro	Image process adjustment (P)	Rd/Wr	0	7	0 = level 1..... 7 = level 8.
qo	ovr	Underscan / overscan (P)	Rd/Wr	0	1	0 = underscan 1 = overscan
a	asp	Input aspect ratio selection (P)	Rd/Wr	0	2	0 = 4/3 1 = letterbox 2 = 16/9 anamorphic 3 = zoom.
qr	rlv	Red level adjustment (P)	Rd/Wr	0	255	
qg	glv	Green level adjustment (P)	Rd/Wr	0	255	
qb	blv	Bleu level adjustment (P)	Rd/Wr	0	255	
mc	clk	Number of pixels per line (P)	Rd/Wr	0	65535	
mp	pha	Pixels phase adjustment (P)	Rd/Wr	0	31	
yp	pres	PRESET (P).	Rd/Wr	0	1	1 = PRESET action (automatic reset).
yS	STO	STORE.	Rd/Wr	0	1	1 = STORE action (automatic reset).
NOTE:		(M) = output 1. (P) = output 2.	Rd/Wr = Read and write command. Rd = Read only command.			

7-4. COMMANDS AND RESPONSES TABLE (continued)

ASCII COMMAND	RESPONSE	COMMAND DESCRIPTION	TYPE	VALUE		
				MIN	MAX	DESCRIPTION
STATUS COMMANDS						
U	UNIT	Measures unity in tens of kHz.	Rd	0	65535	ex: 14500 = 145 MHz
IL	ILD	Horizontal period of input signal (M)	Rd	0	65535	Line frequency (in kHz) = (UNIT VALUE)x10 ÷ (ILD VALUE).
il	ild	Horizontal period of input signal (P)	Rd	0	65535	Line frequency (in kHz) = (UNIT VALUE)x10 ÷ (ild VALUE).
ID	IFD	Vertical period of input signal (M)	Rd	0	65535	Frame frequency (in Hz) = (Line frequency in Hz) ÷ (IFD VALUE).
id	ifd	Vertical period of input signal (P)	Rd	0	65535	Frame frequency (in Hz) = (Line frequency in Hz) ÷ (ifd VALUE).
IP	IPS	Input Sync. detection (M).	Rd	0	1	0 = no Sync. detected 1 = Sync. detected.
ip	ips	Input Sync. detection (P).	Rd	0	1	0 = no Sync. detected 1 = Sync. detected.
IH	IHP	Sign of the horizontal input Sync. (M)	Rd	0	1	0 = negative 1 = positive.
ih	ihp	Sign of the horizontal input Sync. (P)	Rd	0	1	0 = negative 1 = positive.
IV	IVP	Sign of the vertical input Sync. (M)	Rd	0	1	0 = negative 1 = positive.
iv	ivp	Sign of the vertical input Sync. (P)	Rd	0	1	0 = negative 1 = positive.
IK	IST	Input Sync type detection (M).	Rd	0	3	0 = Separate H & V sync. 1 = Composite sync. (TTL).
ik	ist	Input Sync type detection (P).	Rd	0	3	2 = SOG (Sync. On Green). 3 = Composite sync. (analog).
II	IIN	Interlaced signal detection (M).	Rd	0	1	0 = not interlaced 1 = interlaced.
ii	iin	Interlaced signal detection (P).	Rd	0	1	0 = not interlaced 1 = interlaced.
IO	IOO	"Out of range" signal detection (M).	Rd	0	1	0 = In range 1 = Out of range.
io	ioo	"Out of range" signal detection (P).	Rd	0	1	0 = In range 1 = Out of range.
IF	IFA	Standard input signal detection (M).	Rd	0	29	0 = no signal 15 = SVGA 1 = wrong signal 16 = MAC 2 = NTSC std (3.58/60) 17 = XGA 3 = PAL std (4.43/50) 18 = PLASMA 50' 4 = SECAM (50Hz) 19 = MAC 21' 5 = B&W (50Hz) 20 = SXGA 6 = B&W (60Hz) 21 = UXGA 7 = YUV 50Hz 22 = SXGA+
if	ifa	Standard input signal detection (P).	Rd	0	29	8 = YUV 60Hz 23 = DILA 4/3 9 = RGB 50Hz 24 = DILA16/9 10 = RGB 60Hz 25 = 1080i 50Hz 11 = VGA1 350L 26 = 1080i 60Hz 12 = VGA2 400L 27 = 480p 60Hz 13 = VGA3 480L 28 = 720p 50Hz 14 = PLASMA 42" 29 = 720p 60Hz
XA	REFA	Synchronized input (M).	Rd	0	8	Identical as XR command.
xa	refa	Synchronized input (P).	Rd	0	8	
XF	REFF	Synchronized input standard (M).	Rd	0	29	Identical as XF command.
xf	reff	Synchronized input standard (P).	Rd	0	29	
XT	REFT	Frame frequency of the synchronized input (M).	Rd	0	65535	Value in hundredth of Hz.
xt	reft	Frame frequency of the synchronized input (P).	Rd	0	65535	Value in hundredth of Hz.
NOTE:		(M) = output 1. (P) = output 2.	Rd/Wr = Read and write command. Rd = Read only command.			

7-4. COMMANDS AND RESPONSES TABLE (continued)

ASCII COMMAND	RESPONSE	COMMAND DESCRIPTION	TYPE	VALUE		
				MIN	MAX	DESCRIPTION
CONTROLS COMMANDS						
ja	TALA	Input number for TALLY1	Rd/Wr	1	7	0 = input #1. 7 = input #8.
jb	TALB	Input number for TALLY2.	Rd/Wr	1	7	
jc	TALC	Input number for TALLY3.	Rd/Wr	1	7	
JA	TAON	TALLY1 status.	Rd	0	1	0 = TALLY1 inactive 1 = TALLY1 active.
JB	TBON	TALLY2 status.	Rd	0	1	0 = TALLY2 inactive 1 = TALLY2 active.
JC	TCON	TALLY3 status.	Rd	0	1	0 = TALLY3 inactive 1 = TALLY3 active.
QE	EPD	2:2 pull down correction.	Rd/Wr	0	1	0 = off 1 = auto.
ye	EPOS	Erase all memories.	Rd/Wr	0	1	1 = erase all memories (automatic reset).
yd	DEMO	Demo mode.	Rd/Wr	0	1	0 = demo mode inactive. 1 = demo mode active.
yi	EISP	Auto-lock	Rd/Wr	0	1	0 = off 1 = on.
fr	BFCR	Red level adjustment of the FADE.	Rd/Wr	0	255	
fb	BFCB	Blue level adjustment of the FADE.	Rd/Wr	0	255	
fg	BFCG	Green level adjustment of the FADE.	Rd/Wr	0	255	
fR	bfcR	Red level adjustment of the FADE.	Rd/Wr	0	255	
fB	bfcB	Blue level adjustment of the FADE.	Rd/Wr	0	255	
fG	bfcG	Green level adjustment of the FADE.	Rd/Wr	0	255	
xI	I_	Identification number.	Rd	0	65535	Values displayed in hexadecimal in the device.
xK	K_	"K" Firmware Version.	Rd	0	65535	
xE	E_	"E" Firmware Version.	Rd	0	65535	
xF	F_	"F" Firmware Version.	Rd	0	65535	
xP	P_	"P" Firmware Version.	Rd	0	65535	
xV	V_	"V" Firmware Version.	Rd	0	65535	
xU	VERU	Update version.	Rd	0	65535	Example: VERU104 = version 1.4
Y	FRES	DEFAULT VALUE.	Rd/Wr	0	1	1 = Default value action (automatic reset).
OTHERS COMMANDS						
N	TBP	T-BAR position.	Rd/Wr	0	255	
ub	TBA	Executed percentage of the effect.	Rd	0	16383	0 = 0% 16383 = 100%
uv	TBAV	T-BAR availability.	Rd	0	1	0 = T-BAR unavailable. 1 = T-BAR available.
?	DEV	Device type.	Rd	0	65535	31 = NTX8022A.
#	#1,...#0	Send all device parameters.	Rd			
NOTE:		(M) = output 1. (P) = output 2.	Rd/Wr = Read and write command. Rd = Read only command.			

7-4. COMMANDS AND RESPONSES TABLE (continued)

ASCII COMMAND	RESPONSE	COMMAND DESCRIPTION	TYPE	VALUE		
				MIN	MAX	DESCRIPTION
FRAME & LOGOS COMMANDS						
LM	LMOD	Frame/logo mode.	Rd/Wr	0	3	0 = use & assignment mode. 1 = logo recording mode. 2 = frame recording mode. 3 = erasing mode.
LX	LSTA	Status of the logo programmer	Rd	0	4	0 = free. 1 = logo/frame in recalling process. 2 = logo/frame in storing process. 3 = output format incompatible with the logo. 4 = logo/frame in erasing process.
LA	LPGA	Logo 1 & frame assignment.	Rd/Wr	0	10	0 = none 1 = frame 1
LB	LPGB	Logo 2 & frame assignment.	Rd/Wr	0	10	2 = frame 2 3 = logo 1 4 = logo 2..... 10 = logo 8
LC	LCUR	• In logo recording mode: Number of the logo to be store (3 to 10). • In frame recording mode: Number of the frame to be store (1 or 2). • In erase mode: number of the logo to be erase (0 = erase all).	Rd/Wr	0	10	0 = no logo 1 = frame 1 2 = frame 2 3 = logo 1 4 = logo 2..... 10 = logo 8
LD	LDYS	Display logo (according to PCH)	Rd/Wr	0	1	0 = Display OFF 1 = Display ON
LU	LHCP	Horiz. position of the logo storing area.	Rd/Wr	0	255	
Lu	LVCP	Vert. position of the logo storing area.	Rd/Wr	0	255	
LW	LHSA	Horizontal size of the logo storing area.	Rd/Wr	5	255	5 = 3% 255 = 100%
LS	LVSA	Vertical size of the logo storing area.	Rd/Wr	5	255	5 = 3% 255 = 100%
LH	LHPA	Horizontal position of the logo 1.	Rd/Wr	0	255	
Lh	LHPB	Horizontal position of the logo 2.	Rd/Wr	0	255	
LV	LVPA	Vertical position of the logo 1.	Rd/Wr	0	255	
Lv	LVPB	Vertical position of the logo 2.	Rd/Wr	0	255	
LP	LPXA	Pixels number in a line of the logo 1.	Rd	0	65535	These 2 commands allow calculating the duration of the storing.
LL	LLNA	Lines number in a logo 1.	Rd	0	65535	
Lp	LPXB	Pixels number in a line of the logo 2.	Rd	0	65535	These 2 commands allow calculating the duration of the storing.
Li	LLNB	Lines number in a logo 2.	Rd	0	65535	
LT	LTYA	Logo 1 type.	Rd/Wr	0	1	0 = frame 1= logo
Lt	LTYB	Logo 2 type.	Rd/Wr	0	1	0 = frame 1= logo
LO	LOFA	Output format during the logo1 storing.	Rd	0	11	Identical as F command.
Lo	LOFB	Output format during the logo2 storing.	Rd	0	11	
LR	LSTO	• In recording mode: frame/logo storing. • In erase mode: frame/logo erasing.	Rd	0	1	1 = STORE (automatic reset). 1 = ERASE (automatic reset).
Lr	LABT	Stop the frame storing.	Rd/Wr	0	1	1 = stop the frame storing (automatic reset).
LF	LFAD	Frame fading selection.	Rd/Wr	0	2	0 = fade color 1 = frame 1 2 = frame 2.
LE	LLEV	Luma key level.	Rd/Wr	0	255	
IE	LEMP	Status of the frame/logo memories. (according to LCUR)	Rd	0	1	0 = logo/frame memorized. 1 = empty memory.
Lb	LBKC	Background color.	Rd/Wr	0	7	
Ld	LLD	Fade logo duration (0.01 second step).	Rd/Wr	15	255	15 = 0.15 second 255 = 2.5 seconds
Lf	LLD	Fade frame duration (0.1 second step).	Rd/Wr	5	50	5 = 0.1 second 50 = 5 seconds
NOTE: To store a logo from the OUTPUT 1 display you should: ① Select the logo recording mode with the LM command (1LM). ② Adjust the position and size of the logo storing area with the LU, Lu, LW and LS commands. ③ Adjust the luma key level (with LE command) and the background color (with Lb command). ④ Select a logo memory with the LC command and make a store with LR command (1LR). To store a frame from the OUTPUT 1 display you should: ① Select the frame recording mode with the LM command (2LM), and make a store with the LR command (1LR).						
NOTE: To assign a logo/frame to an input on the OUTPUT 1 display you should: ① Select the assignment mode with the LM command (0LM). ② Select a stored logo/frame with LA or LB commands. ③ Adjust the horizontal & vertical position of the logo with the LH, Lh, LV & Lv commands.						

7-4. COMMANDS AND RESPONSES TABLE (continued)

ASCII COMMAND	RESPONSE	COMMAND DESCRIPTION	TYPE	VALUE		
				MIN	MAX	DESCRIPTION
FRAME & LOGOS COMMANDS (continued)						
IM	lmod	Frame/logo mode.	Rd/Wr	0	3	0 = use & assignment mode. 1 = logo recording mode. 2 = frame recording mode. 3 = erasing mode.
IX	lsta	Status of the logo programmer	Rd	0	4	0 = free. 1 = logo/frame in recalling process. 2 = logo/frame in storing process. 3 = output format incompatible with the logo. 4 = logo/frame in erasing process.
IA	lpga	Logo 1 & frame assignment.	Rd/Wr	0	10	0 = none 1 = frame 1
IB	lpgb	Logo 2 & frame assignment.	Rd/Wr	0	10	2 = frame 2 3 = logo 1 4 = logo 2..... 10 = logo 8
IC	lcur	• In logo recording mode: Number of the logo to be store (3 to 10). • In frame recording mode: Number of the frame to be store (1 or 2). • In erase mode: number of the logo to be erase (0 = erase all).	Rd/Wr	0	10	0 = no logo 1 = frame 1 2 = frame 2 3 = logo 1 4 = logo 2..... 10 = logo 8
ID	ldys	Display logo (according to PCH)	Rd/Wr	0	1	0 = Display OFF 1 = Display ON
IU	lhcp	Horiz. position of the logo storing area.	Rd/Wr	0	255	
Iu	lvcp	Vert. position of the logo storing area.	Rd/Wr	0	255	
IW	lhas	Horizontal size of the logo storing area.	Rd/Wr	5	255	5 = 3% 255 = 100%
IS	lvsa	Vertical size of the logo storing area.	Rd/Wr	5	255	5 = 3% 255 = 100%
IH	lhpa	Horizontal position of the logo 1.	Rd/Wr	0	255	
Ih	lhpb	Horizontal position of the logo 2.	Rd/Wr	0	255	
IV	lvpa	Vertical position of the logo 1.	Rd/Wr	0	255	
Iv	lvpb	Vertical position of the logo 2.	Rd/Wr	0	255	
IP	lpxa	Pixels number in a line of the logo 1.	Rd	0	65535	These 2 commands allow to calculate the duration of the storing.
IL	llna	Lines number in a logo 1.	Rd	0	65535	
Ip	lpxb	Pixels number in a line of the logo 2.	Rd	0	65535	These 2 commands allow to calculate the duration of the storing.
Il	llnb	Lines number in a logo 2.	Rd	0	65535	
IT	ltya	Logo 1 type.	Rd/Wr	0	1	0 = frame 1 = logo.
It	ltyb	Logo 2 type.	Rd/Wr	0	1	
IO	lofa	Output format during the logo1 storing.	Rd	0	11	Identical as F command.
Io	lofb	Output format during the logo2 storing.	Rd	0	11	
IR	lsto	• In recording mode: frame/logo storing. • In erase mode: frame/logo erasing.	Rd	0	1	1 = STORE or ERASE (automatic reset).
Ir	labt	Stop the frame storing.	Rd/Wr	0	1	1 = stop the frame storing (automatic reset).
IF	lfad	Frame fading selection.	Rd/Wr	0	2	0 = fade color 1 = frame 1 2 = frame 2
LE	LLEV	Luma key level.	Rd/Wr	0	255	
IE	LEMP	Status of the frame/logo memories. (according to lcur)	Rd	0	1	0 = logo/frame memorized. 1 = empty memory.
Lb	LBKC	Background color.	Rd/Wr	0	7	
Ld	LLD	Fade logo duration (0.01 second step).	Rd/Wr	15	255	15 = 0.15 second 255 = 2.5 seconds
Lf	LLD	Fade frame duration (0.1 second step).	Rd/Wr	5	50	5 = 0.1 second 50 = 5 seconds
NOTE: To store a logo from the OUTPUT 2 display you should: ① Select the logo recording mode with the IM command (1IM). ② Adjust the position and size of the logo storing area with the IU, Iu, IH and Ih commands. ③ Adjust the luma key level (with LE command) and the background color (with Lb command). ④ Select a logo memory with the IC command and make a store with IR command (1IR). To store a frame from the OUTPUT 2 display you should: ① Select the frame recording mode with the IM command (2IM), and make a store with the IR command (1IR). NOTE: To assign a logo/frame to an input on the OUTPUT 2 display you should: ① Select the assignment mode with the IM command (0IM). ② Select a stored logo/frame with IA, or IB commands. ③ Adjust the horizontal & vertical position of the logo with the IH, Ih, IV & Iv commands.						

7-4. COMMANDS AND RESPONSES TABLE (continued)

ASCII COMMAND	RESPONSE	COMMAND DESCRIPTION	TYPE	VALUE		
				MIN	MAX	DESCRIPTION
COMMUNICATION PORT COMMANDS						
ne	LANE	Communication port selection	Rd/Wr	0	1	0 = RS232 1 = LAN
nr	LANR	Reset of the LAN parameters.	Rd/Wr	0	1	1 = reset.
ns	LANS	Store the LAN parameters.	Rd/Wr	0	1	1 = store.
na	ADIP	IP address and port selection (for modification)	Rd/Wr	0	3	0 = all IP address / ports 1 = IP local address / local port 2 = IP remote address / remote port 3 = IP gateway address.
nw	IPA_	First byte of the address selected by the na command.	Rd/Wr	0	255	
nx	IPB_	Second byte of the address selected by the na command.	Rd/Wr	0	255	
ny	IPC_	Third byte of the address selected by the na command.	Rd/Wr	0	255	
nz	IPD_	Forth byte of the address selected by the na command.	Rd/Wr	0	255	
np	PORT	Number of the port (local or remote) selected by the na command.	Rd/Wr	0	65500	local port: 10000 to 10999. remote port: 0 to 65500.
nk	NTMK	netmask.	Rd/Wr	0	24	Value = number of bit to 0 (from right). example: 2 ▶ 255.255.255.252 3 ▶ 255.255.255.248 8 ▶ 255.255.255.0 24 ▶ 255.0.0.0
nt	TCP	protocol selection.	Rd/Wr	0	1	0 = UDP 1 = TCP
OPTIONAL VIDEO OUTPUTS COMMANDS (available with the OPT-iX-SDTV D1 option)						
kR	SREQ	Input reference for the frame rate of the video output.	Rd/W	0	8	0 = internal rate 1= input #1..... 8 = input #8.
kT	SSTA	Status of the frame rate reference.	Rd	0	8	
kM	SFAM	Standard input signal of the reference.	Rd	0	29	Identical as IF command.
kQ	SFRQ	Frame rate of the input reference (in hundredth of Hz)	Rd	0	65535	
kC	SVCR	Input stability.	Rd/W	0	1	0 = DVD 1 = VCR
kA	SAFK	Anti-flicker level.	Rd/W	0	7	
kO	SOVR	Under/overscan mode.	Rd/W	0	1	0 = underscan 1 = overscan
kD	SSTD	Output video standard	Rd/W	0	1	0 = NTSC 1 = PAL 2 = NTSC J
kK	SK_	"SK" firmware version.	Rd	0	65535	
kS	SS_	"SS" firmware version.	Rd	0	65535	
kV	SV_	"SV" firmware version.	Rd	0	65535	
kF	SF_	"SF" firmware version.	Rd	0	65535	
kW	SHPO	Horizontal position.	Rd/W	0	255	
kX	SVPO	Vertical position.	Rd/W	0	255	
kY	SHSZ	Horizontal size.	Rd/W	0	255	
kZ	SVSZ	Vertical position.	Rd/W	0	255	
NOTE:		(M) = output 1. (P) = output 2.	Rd/Wr = Read and write command. Rd = Read only command.			

7-4. COMMANDS AND RESPONSES TABLE (continued)

ASCII COMMAND	RESPONSE	COMMAND DESCRIPTION	TYPE	VALUE		
				MIN	MAX	DESCRIPTION
OPTIONAL AUDIO COMMANDS						
RC	ACH	Audio source selection of the OUT 1.	Rd/W	0	8	1 = audio source #1..... 8 = audio source #8.
rc	ach	Audio source selection of the OUT 2.	Rd/W	0	8	1 = audio source #1..... 8 = audio source #8.
RO	AMOD	Audio mode of the output 1.	Rd/W	0	1	0 = auto follow 1 = breakaway
ro	amod	Audio mode of the output 2.	Rd/W	0	1	0 = auto follow 1 = breakaway
RV	AVOL	Mater volume of the output 1.	Rd/W	0	255	
rv	avol	Mater volume of the output 2.	Rd/W	0	255	
RM	AMUT	Mute of the output 1.	Rd/W	0	1	0 = mute OFF 1 = mute ON
rm	amut	Mute of the output 1.	Rd/W	0	1	0 = mute OFF 1 = mute ON
RS	AMNO	Mono/stereo mode of the output 1.	Rd/W	0	1	0 = stereo 1 = mono
rs	amno	Mono/stereo mode of the output 2.	Rd/W	0	1	0 = stereo 1 = mono
RL	ALVL	Audio level (works with PC command)	Rd/W	0	64	
RB	ABAL	Audio balance (works with PC)	Rd/W	0	64	0 = left to maximum 1 = right to maximum.
RX	AXMU	Auxiliary source to output 1.	Rd/W	0	1	0 = used 1= unused.
rx	axmu	Auxiliary source to output 2.	Rd/W	0	1	0 = used 1= unused.
NOTE:		(M) = output 1. (P) = output 2.	Rd/Wr = Read and write command. Rd = Read only command.			

7-5. ASCII / HEX / DEC TABLE

ASCII	HEX	DEC	ASCII	HEX	DEC	ASCII	HEX	DEC
space	20	32	@	40	64	`	60	96
!	21	33	A	41	65	a	61	97
"	22	34	B	42	66	b	62	98
#	23	35	C	43	67	c	63	99
\$	24	36	D	44	68	d	64	100
%	25	37	E	45	69	e	65	101
&	26	38	F	46	70	f	66	102
'	27	39	G	47	71	g	67	103
(	28	40	H	48	72	h	68	104
)	29	41	I	49	73	i	69	105
*	2A	42	J	4A	74	j	6A	106
+	2B	43	K	4B	75	k	6B	107
,	2C	44	L	4C	76	l	6C	108
-	2D	45	M	4D	77	m	6D	109
.	2E	46	N	4E	78	n	6E	110
/	2F	47	O	4F	79	o	6F	111
0	30	48	P	50	80	p	70	112
1	31	49	Q	51	81	q	71	113
2	32	50	R	52	82	r	72	114
3	33	51	S	53	83	s	73	115
4	34	52	T	54	84	t	74	116
5	35	53	U	55	85	u	75	117
6	36	54	V	56	86	v	76	118
7	37	55	W	57	87	w	77	119
8	38	56	X	58	88	x	78	120
9	39	57	Y	59	89	y	79	121
:	3A	58	Z	5A	90	z	7A	122
;	3B	59	[	5B	91	{	7B	123
<	3C	60	\	5C	92		7C	124
=	3D	61	]	5D	93	}	7D	125
>	3E	62	^	5E	94	~	7E	126
?	3F	63	_	5F	95	DEL	7F	127

Chapter 8 : TECHNICAL SPECIFICATIONS

8-1. COMPUTER & VIDEO INPUTS

- **COMPUTER (on HD15 or BNC female connectors).**

<i>Line frequency:</i>	Up to 110 kHz.
<i>Frame frequency:</i>	Up to 130 Hz.
<i>Resolution:</i>	Up to 1600 x 1280.
<i>Sync. types:</i>	RGBHV, RGB/S, RGSB (Sync On Green).
<i>Levels:</i>	R, G, B = 0.7 Vp/p. H & V Sync = TTL Composite Sync = TTL and 0.3 V. SOG (Sync On Green) = 0.3 V.
<i>Impedance:</i>	R, G, B = 75 ohms. H = 75 ohms or Hi-Z. V = 75 ohms.

- **RGB/S VIDEO (on HD15 or BNC female connectors).**

<i>Frequency:</i>	15.625 kHz / 50 Hz (625 lines). 15.735 kHz / 60 Hz (525 lines).
<i>Levels:</i>	R, G, B = 0.7 Vp/p. SYNC. = 0.3 Vp/p or TTL.
<i>Impedance:</i>	RGB = 75 ohms. SYNC. = 75 ohms or Hi-Z.

- **COMPONENT (on HD15 or BNC female connectors).**

<i>Frequency:</i>	15.625 kHz / 50 Hz (625 lines). 15.735 kHz / 60 Hz (525 lines).
<i>Levels:</i>	Y = 1 Vp/p (0.7 V Luma + 0.3 V Sync.). R-Y = 0.7 Vp/p. B-Y = 0.7 Vp/p.
<i>Impedance:</i>	Y, R-Y, B-Y = 75 ohms.

- **HDTV (on HD15 or BNC female connectors).**

<i>Formats:</i>	720p, 1035i, 1080i.
<i>Levels:</i>	Y = 1 Vp/p (0.7 V + sync.). R-Y = 1 Vp/p (0.7 V + sync.). B-Y = 1 Vp/p (0.7 V + sync.).
<i>Sync.:</i>	Tri-level: $\pm 0.3V$ (positive/negative). Bi-level: 0.3V (negative).
<i>Impedance:</i>	75 ohms.

- **S.VIDEO (on HD15 or BNC female connectors).**

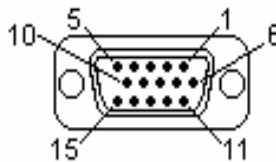
<i>Standard:</i>	PAL / SECAM: 15.625 kHz / 50 Hz - 625 lines. NTSC (3.58 MHz / 4.43 MHz): 15.735 kHz / 60 Hz - 525 lines.
<i>Levels:</i>	Y = 1 Vp/p (0.7 V Luma + 0.3 V Sync.). C = 0.3 Vp/p (Chroma Burst).
<i>Impedance:</i>	75 ohms.

- **COMPOSITE VIDEO (on HD15 or BNC female connectors).**

<i>Standard:</i>	PAL / SECAM: 15.625 kHz / 50 Hz - 625 lines. NTSC (3.58 MHz / 4.43 MHz): 15.735 kHz / 60 Hz - 525 lines.
<i>Level:</i>	1 Vp/p (0.7 V Luma + 0.3 V Sync.).
<i>Impedance:</i>	75 ohms.

8-1. COMPUTER & VIDEO INPUTS (continued)**• HD15 PIN ASSIGNMENT**

SIGNAL PIN #	COMPUTER (RGBHV, RGB/S, RGsB)	RGB/S VIDEO	COMPONENT (YUV)	S.VIDEO (Y/C)	COMPOSITE VIDEO
PIN 1	RED.	RED.	U or Pr (R-Y).	C (chrominance).	
PIN 2	GREEN.	GREEN.	Y.	Y (luminance).	Composite video (NTSC, PAL...)
PIN 3	BLUE.	BLUE.	V or Pb (B-Y).		
PIN 4					
PIN 5					
PIN 6	RED return.	RED return.	U return.	C return.	
PIN 7	GREEN return.	GREEN return.	Y return.	Y return.	return.
PIN 8	BLUE return.	BLUE return.	V return.		
PIN 9					
PIN 10	GND.	GND.			
PIN 11					
PIN 12					
PIN 13	H sync or C sync (S).	C sync (S).			
PIN 14	V sync.				
PIN 15					



HD15 female connector of the NATIX™.

8-2. DISPLAY OUTPUTS

Levels: R, G, B = 0.7 Vp/p.
 Sync.: Separate H & V = TTL.
 Composite = TTL.
 SOG = 0.3 Vp/p.

Impedance: R, G, B, H & V = 75 ohms.

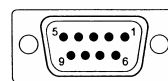
8-3. COMMUNICATION PORTS & TALLY OUTPUTS**• REMOTE RS-232 (on DB 9 female connector)**

Level: RS-232.

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

• TALLY OUT (on DB 9 female connector)

Rating: 20 Vdc MAX, 50 mA MAX (open collector).

**DB9 Female
connector**

PIN #	FUNCTION
1	tally # 1
2	Tx (transmit data)
3	Rx (receive data)
4	reserved for manufacturer
5	Ground
6	tally # 2
7	NC
8	reserved for manufacturer
9	tally # 3

• LAN (on RJ45 connector)

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

Data Rate: 10 / 100 Mbps.

LED functions (on RJ45 connector):

Top LED	Bottom LED	Meaning
OFF	OFF	No link
OFF	ON	100 BASE-T link.
ON	OFF	10 BASE-T link.

8-4. OPTIONAL VIDEO OUTPUTS (OPT-iX-SDTVDI)**• COMPOSITE VIDEO (on DB9 connector)**

PAL / SECAM 15.625 kHz / 50 Hz (625L)

NTSC 3.58 MHz / 4.43 MHz 15.735 kHz / 60 Hz (525L)

Level: 1 Vp/p (0.7 V Luma + 0.3 V Sync.).*Impedance:* 75 ohms.**• S.VIDEO (on DB9 connector)**

PAL / SECAM 15.625 kHz / 50 Hz (625L)

NTSC 3.58 MHz / 4.43 MHz 15.735 kHz / 60 Hz (525L)

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

C = 0.3 Vp/p (chroma burst).

Impedance: 75 ohms.**• Y DR DB (R-Y / Y / B-Y) COMPONENT (on DB9 connector).**

15.625 kHz / 50 Hz 15.735 kHz / 60 Hz (625L525L).

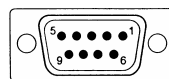
Levels: Y = 1 Vp/p (0.7 V luma + 0.3 V sync).

Dr = 0.7 Vp/p.

Db = 0.7 Vp/p.

Impedance: Y, Dr, Db = 75 ohms.**• SDI OUTPUT***Signal:* 270 Mbps serial digital output conforming to SMPTE 259M.*Impedance:* 75 ohms.**• DB9 PIN ASSIGNMENT**

PIN #	FUNCTION
1	RTN
2	(red, green, bleu, composite)
3	RED (R-Y)
4	GREEN (Y)
5	BLEU (B-Y)
6	Y (S.VIDEO)
7	COMPOSITE VIDEO
8	RTN (Y+C)
9	C (S.VIDEO)



DB9 Female connector

8-5. OPTIONAL SDI INPUT*Signal:* Component (4:2:2) serial digital input conforming to SMPTE-259M.*Data rate:* 270 Mbps.

8-6. AUDIO INPUTS

- 9 Balanced and unbalanced stereo inputs (on 5-pin MCO male connector).
- $V_i = +18$ dBu (max).
- $Z_i = 20$ k Ω unbalanced.
- $Z_i = 40$ k Ω balanced.
- Gain = + 6 dB / - ∞ adjustable.

8-7. AUDIO OUTPUTS

- 2 Balanced and unbalanced mono/stereo outputs (on 5-pin MCO male connector).
- V_o max: Unbalanced = + 18 dBu (+12 dBu with 300 Ω load).
 Balanced = + 24 dBu (+18 dBu with 600 Ω load).
- $Z_o = 600$ Ω balanced.
- $Z_o = 300$ Ω unbalanced.
- $G = 0$ dB nominal.
- $G = + 6$ dB / - ∞ adjustable with Master volume.

8-8. ENVIRONMENTAL*Power Supply:*

Internal CE / UL / CSA / IEC 950 (130W).

Storage Temperature:

Input : 100 VAC to 240 VAC ; 50-60Hz ; I = 3A Max.

Operating temperature:

-25 °C to +85 °C (-13 °F to +185 °F).

Maximum ambient operating temperature:

0 °C to 50 °C (32 °F to 122 °F).

Hygrometry:

< 40 °C (< 104 °F).

Dimension:

10% to 80% (without condensation).

W 480 x D 420 x H 133 mm / 19"W x 16.5"D x 5.25"H.

(Compatible with a Standard 19" rack, Height = 3 U).

Weight:

NTX8022A: 8 kg / 17,6 lbs (without option).

WARRANTY

Analog Way warrants the product against any defects in materials and workmanship for a period of three years from the date of purchase (back to the factory).

In the event of any malfunction during the warranty period, Analog Way will, at its discretion, repair or replace the defective units, including free materials and labor.

This warranty does not apply if the product has been :

- improperly installed or abused,
- handled with improper care,
- used or stocked in abnormal conditions,
- modified, opened,
- damaged by fire, war, or Natural disasters (Acts of God).

In no way shall Analog Way be responsible for direct or indirect loss of profit or consequential damages resulting from any defect in this product.

In case of any problem, get the serial number of the unit, a description of the problem, and then call your authorized dealer.