ANALOG WAY®

OCTO-PLUS™ (OCP802)

User's Manual

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ENGLISH

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. Ció potrebbe provocare un erroneo 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 é danneggiato, spegnere immediatamente l'apparecchiatura. E' pericoloso far funzionare questa apparecchiatura con un cavo di alimentazione danneggiato, un cavo graffiato puó 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 ció puó 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.

DEUTSCH

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 Kleinspannunganschlüsse.

REPARATUE 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 anderenGefahren 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 calorintensas.

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.

ESPAÑOL

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

CONEXIONES : Todas las entradas y salidas (excepto la entrada del sector) son de tipo TBTS (Muy Baja Tensión de Seguridad) definidas según EN 60950.

REPARACIÓN Y MANTENIMIENTO : Por ningún motivo, el usuario deberá tratar de efectuar operaciones de reparación, ya que si abre los aparatos retirando el capó o cualquier otra pieza que forma parte de las cajas o si destornilla los tornillos aparentes exteriores, existe el riesgo de producirse una explosión, choques eléctricos o cualquier otro incidente. Contacte el servicio de posventa, a su distribuidor o dirigirse 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.

ENGLISH

OCTO-PLUS™

Chapter 1 : INTRODUCTION

1-1. SUPPLIED EQUIPMENT

- **1 OCTO-PLUS™ (OCP802).**
- 1 AC Power supply cord.
- 1 VGA cable (HD15 male / male connector).
- 1 S.VIDEO (Y/C) cable (4-pin mini DIN / 2 BNC connectors).
- 1 HD15 to BNC (x5) cable (male/male).
- 1 Set of 6 MCO (5-pin) female connectors (for audio connection).
- 1 Control Software (3.5" Disk).
- 1 User's Manual.

1-2. GENERAL INFORMATION

The **OCTO-PLUS™,** is a Computer & Video UP/DOWN SCALER SWITCHER with 8 Universal A/V inputs. Thus, any signal (computer and video) can be displayed on any Data Display Device. The OCTO-PLUS™ can be used in 2 switching mode:

- The "Ultra Smooth" Switching mode, allows to switch between any sources (computer & video) with a fade colored transition.
- The Seamless mode, allows to switch seamlessly between the "referenced" computer input and the other inputs.

In addition, each of the 8 inputs is fitted with an AUDIO stereo line. It allows the audio to follow your video image or to break away from your video. This ultra compact device is specifically dedicated to the installation market.

1-3. OCTO-PLUS™ REFERENCES

REFERENCE	DESIGNATION
OCP802	OCTO-PLUS™.
OPT-VOV802	Voice Over option.
RK802	Remote KEYPAD for OCTO-PLUS™ (optional).

1-4. INSTALLATION

IMPORTANT: **Please read all the safety instructions (pages 2 to 4) before starting.**

- *Table Top Mounting:* The OCTO-PLUS™ can be used directly on a table: the unit is equipped with 4 plastic feet.

- *Rack Mounting:* The OCTO-PLUS™ is compatible with a 19" enclosure. To install the OCTO-PLUS™ into a 19" rack: Attach the OCTO-PLUS™ to the rack by using 4 screws in the front panel holes (screws are not included).

IMPORTANT:

- **The openings in the rear and sides panels are for cooling. Do not cover these openings.**
- **Be sure that no weight is added to the OCTO-PLUS™ in excess of 2 kg (4.4 lbs.).**
- **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.**

Chapter 2 : TECHNICAL DESCRIPTION

2-1. FRONT PANEL

MIC (bal): Microphone balanced input connector (jack 6.35 mm female connector).
LEVEL: Microphone audio level adjustment.

INPUT 8: Universal (computer and video) input # 8.
- **C.VIDEO:** Composite Video input (RCA female connector).
- **S.VIDEO:** S.VIDEO (Y/C) input (4-pin mini DIN female connector).
- **L+R:** Audio stereo unbalanced input (jack 3.5 mm female connector).
- **COMPUTER/YUV:** Computer (PC, MAC, WORKSTATION), YUV (component) and HDTV input (HD15 female connector).

INPUT SELECTION: Selection of the 8 input sources (short push).
NOTE: A long push (1 second) on the selected input key allows to commute to a black screen. When the black screen is displayed, the input LED is blinking.

FREEZE: Allows to freeze the displayed output. (The Freeze is active when the LED is blinking).

LCD CONTROL
- ◄ ► Allows to select items in the LCD menu (in Control mode) or to adjust the Master volume (in Status mode).
- **EXIT MENU:** Switches between Status and Control mode.
- **ENTER:** Validates a selected item.

ON / OFF: AC power switch (O = OFF, I = ON).

2-2. REAR PANEL

POWER: Standard IEC connector (100-250VAC, 1A, 50-60Hz automatic).

COMPUTER & VIDEO INPUTS: 7 Universal (computer and video) inputs.
- **INPUTS #1, 2 & 3:** Computer, YUV and HDTV signals on the HD15 female input connector.
  S.VIDEO (Y/C) signal on 2 BNC input connectors (Y & C).
  Composite Video on one BNC input connector (C.V).
- **INPUTS # 4, 5, 6, & 7:** All signals on a HD15 female connector.

DISPLAY OUT 2 buffered DATA outputs (RGBHV or RGB/S) on HD15 female connectors.

AUDIO IN:
- 1 to 5: Audio stereo input balanced/unbalanced on a 5-pin MCO male connector.
- 6 & 7: Audio stereo input unbalanced on a jack 3.5 mm female connector.

AUDIO OUT: Audio stereo output balanced/unbalanced on a 5-pin MCO male connector.

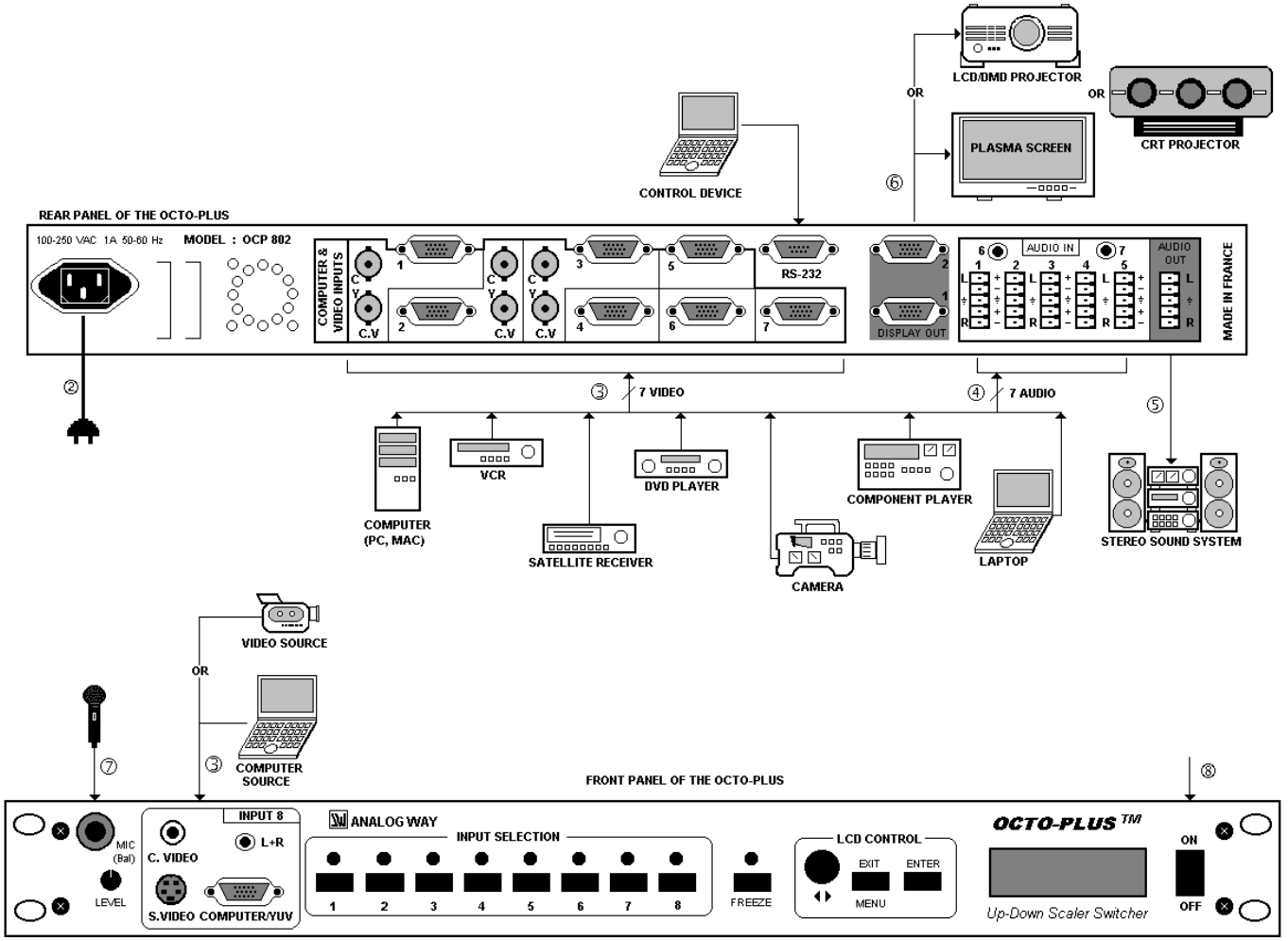
RS-232: Standard remote control (RS-232) on a DB9 female connector.

Chapter 3 : STARTING

3-1. CONNECTIONS

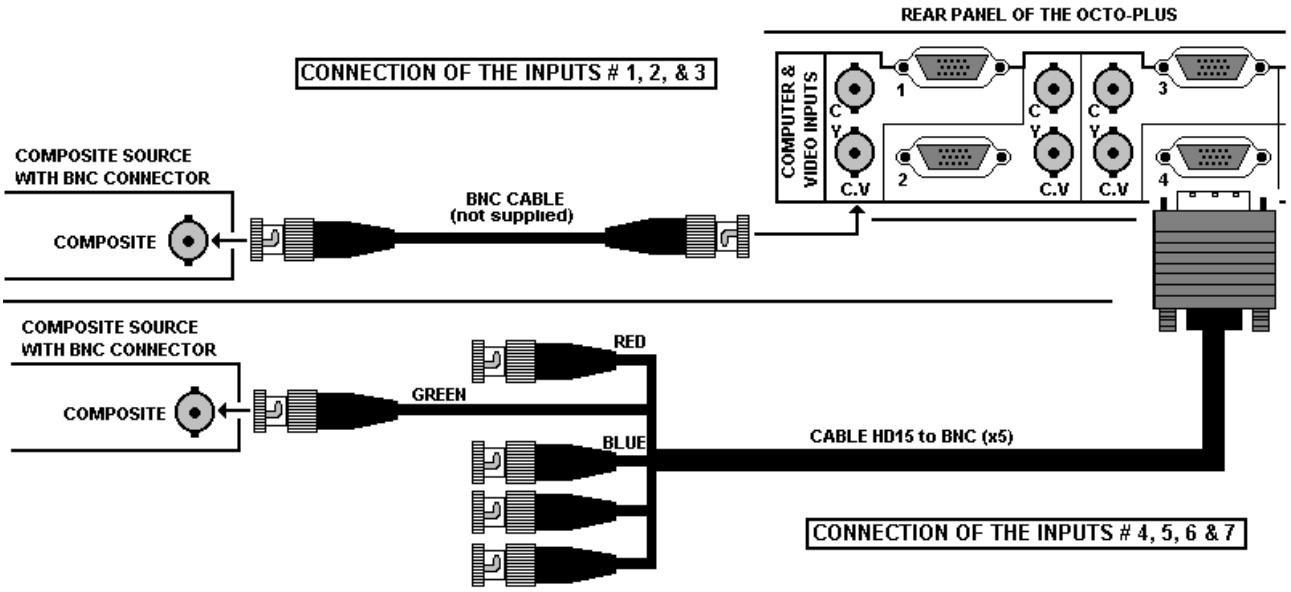
① Turn OFF all of your equipment before connecting.
② Connect the AC Power supply cord to the OCTO-PLUS™ and to an AC power outlet.
③ Connect your Computer and video sources to the 8 inputs of the OCTO-PLUS™ (7 inputs on the rear panel and one input on the front panel). See next paragraphs for more information.
④ Connect all of your audio sources to the corresponding **AUDIO IN** connectors.
⑤ Connect the **AUDIO OUT** connector to your sound system.
⑥ Connect the **DISPLAY OUT** connector to the DATA INPUT of your display device (data projector, plasma screen...).
⑦ Connect your microphone to the front panel **MIC (Bal)** connector (jack 6.35 mm).
⑧ Turn ON the OCTO-PLUS™ (front panel switch).
⑨ Turn ON all your input sources, and then your display device.

NOTE: For switching operation please see Chapter 4 : OPERATING MODE.



3-2. COMPOSITE VIDEO SOURCES

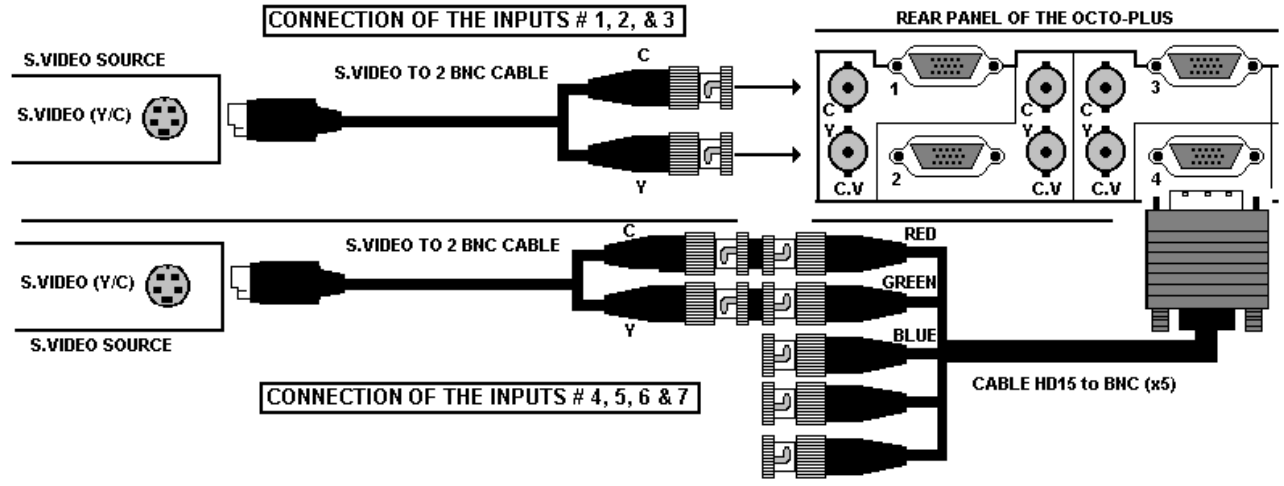
The Composite Video signal, usually called COMPOSITE or VIDEO, is available on most video equipment (VCR, DVD, CAMERA…), but it is also the lowest in picture quality. The video standard of this signal could be NTSC, PAL or SECAM. The signal is transmitted by a single coaxial cable, and is connected to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



NOTE: The INPUT #8 is provided with a RCA connector (Front panel).

3-3. S.VIDEO SOURCES

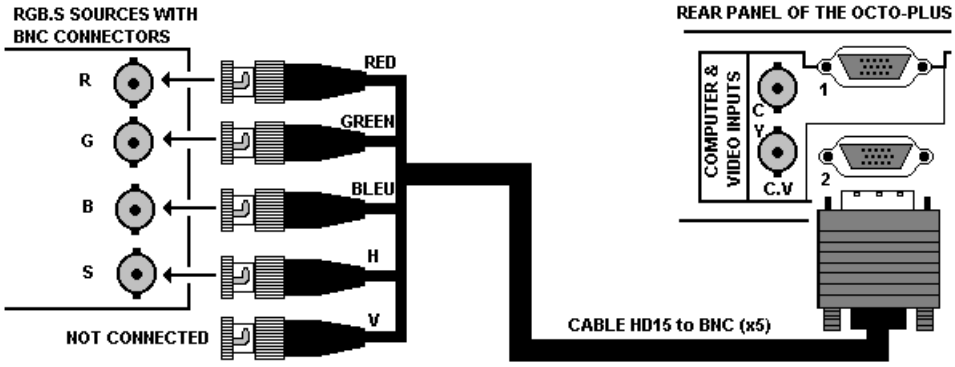
The S.VIDEO signal, also called Y/C, HI-8™, or S.VHS™, is available on most DVD players and high quality VCR (S.VHS). The S.VIDEO signal, in which the Luminance (Y) and Chrominance (C) information are separately transmitted (2 wires), gives a higher quality picture than the Composite video signal. The S.VIDEO connector is usually a 4-pin Mini-DIN connector also called Oshiden™ connector. It can also sometimes be on 2 BNC connectors.



NOTE: The INPUT #8 is provided with a mini DIN female connector (Front panel).

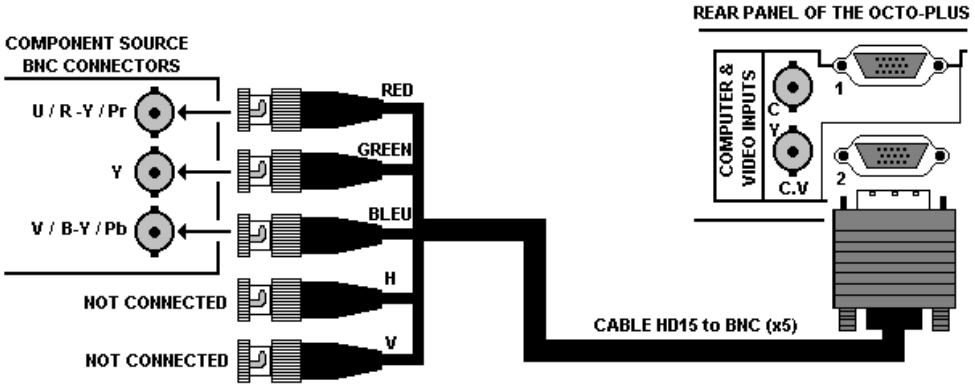
3-4. RGB/S VIDEO SOURCES

The RGB/S signal, also called RGB Sync., is an RGB signal with COMPOSITE Sync. This signal is widely used in broadcasting. The RGB/S signal is transmitted with 4 coaxial cables, and it has a better picture quality than COMPOSITE or S.VIDEO signals. The RGB/S connectors are usually BNC connectors.



3-5. COMPONENT VIDEO SOURCES (YUV)

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 picture quality than COMPOSITE and S.VIDEO signals. The COMPONENT connectors are usually RCA (x3), or BNC (x3) connectors.

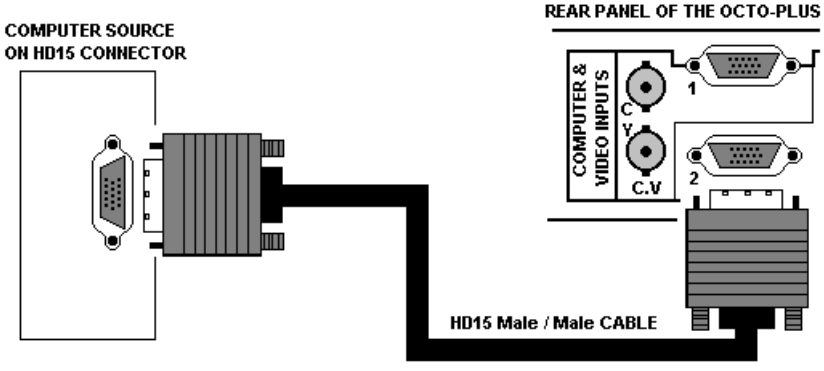


3-6. HDTV SOURCES

The OCTO-PLUS™ accepts the 720p, 1035i and 1080i HDTV formats. Connect your HDTV sources as a component source.

3-7. COMPUTER SOURCES

The OCTO-PLUS™ accepts COMPUTER signals (RGBHV, RGB/S, and RGsB) on its 8 inputs connector (HD15 female). Use a HD15 male / male cable to connect each of your computer sources to the inputs of the OCTO-PLUS™. For MAC and WORKSTATION you may require some adapters.



3-8. DISPLAY OUTPUT

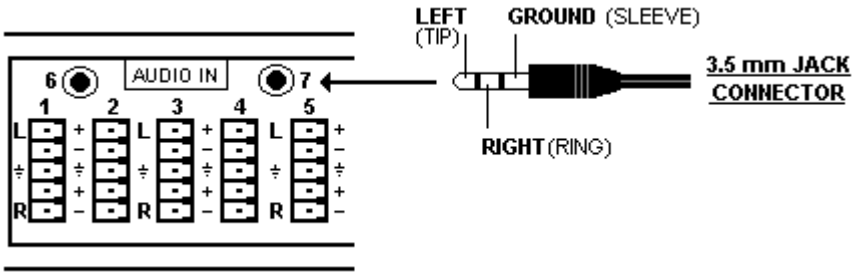
The OCTO-PLUS™ is equipped with 2 buffered data outputs on HD15 female connectors. The OCTO-PLUS™ can provide an RGBHV (H & V Separate Sync.), an RGB/S (Composite Sync.) or a RGsB (SOG) output signal.

3-9. AUDIO INPUTS

Each audio input has a 3.5 mm jack female connector or a 5-pin MCO male connector.

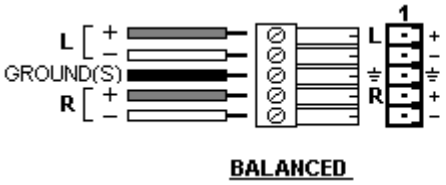
- **3.5 mm jack female connector**

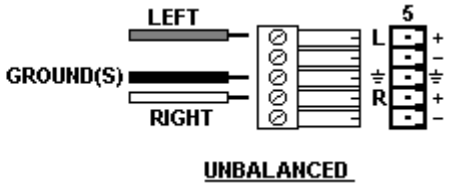
The INPUTS # 6, 7, and 8 are equipped with this audio connector. This connector allows connecting only UNBALANCED audio source. Connect your UNBALANCED audio sources as follow:



- **5-pin MCO male connector**

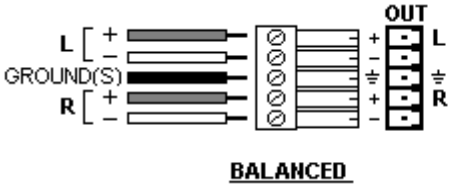
The INPUTS # 1 to 5 are equipped with this connector. This connector allows connecting BALANCED or UNBALANCED audio inputs. Connect your audio sources as follow:

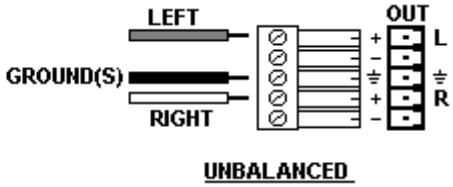




3-10. AUDIO OUTPUT

The audio output is equipped with a 5-pin MCO male connector. This connector allows connecting BALANCED or UNBALANCED audio systems.





Chapter 4 : OPERATING MODE

The OCTO-PLUS™ can be used in two different switching modes.

- The **SEAMLESS MODE**, allows switching seamlessly between the "referenced" COMPUTER input and the others inputs. These ones are scaled to the same format as the "referenced" COMPUTER format.
  NOTE: The inputs, which can be used as the "referenced" Computer input, are the Input # 1 and # 8.

  NOTE: The "referenced" Computer is not scaled.

- The **FAST SWITCHING MODE (ultra smooth)** allows selecting an output format corresponding to your application. All video inputs are scaled to the selected format. The switching between two inputs will go through a fade colored transition. The output rate can be selected between 60 Hz, 75 Hz or can be synchronized onto one of the video input frame rate in order to improve the motion picture. In this case, the output frame rate will be 50 Hz if the input is in PAL or SECAM, and 59.94 Hz if the input is in NTSC.

4-1. SETTINGS

① We recommend resetting the OCTO-PLUS™ to all of its **default values**, with the LCD control menu, before proceeding.

② Select the **input type** connected to the **INPUTS** (# 1 to # 8) with the LCD menu # 1-2.

③ Select the **output sync**. type which corresponds to your display device with LCD menu # 2-3.

④ Select a **switching** mode (**fast switching** or **seamless**) with the LCD menu # 3. Please see the **Switching mode table** below.

⑤ If you have selected the **fast switching** mode: select one of the **output formats** available in the LCD menu # 2-2.
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.

NOTE: In **seamless** mode, the output format is the same as the "referenced" computer format.

⑥ Select the **type of screen** (4/3 or 16/9) with the LCD menu # 2-4, according to your wall mounted projection screen shape.

SWITCHING MODE TABLE

SWITCHING MODE (LCD menu # 3)	FAST SWITCHING		SEAMLESS
	internal rate	"input # x"	
TRANSITION	All switching with a fast COLORED FADE.	All switching with a fast COLORED FADE.	• Seamless transition between the "referenced" computer and all the inputs. • All other switching with a fast COLORED FADE.
OUTPUT FRAME RATE	Generated by the OCTO-PLUS (60 Hz or 75 Hz).	Synchronized on the selected input frame rate (50 Hz if PAL or SECAM and 59.94 Hz if NTSC).	Synchronized on the "referenced" Computer frame rate (input # 1 or input # 8).
OUTPUT FORMAT AVAILABLE (LCD menu # 2-2).	• VGA 60 Hz 4/3. • VGA 75 Hz 4/3. • SVGA 60 Hz 4/3. • SVGA 75 Hz 4/3. • XGA 60 Hz 4/3. • XGA 75 Hz 4/3. • SXGA 60 Hz 4/3. • SXGA 75 Hz 4/3. • D-ILA 75 Hz 4/3. • D-ILA 75 Hz 16/9. • HDTV 480p. • HDTV 720p.	• 640 x 480 L. • 800 x 600 L. • 1024 x 768 L. • 1280 x 1024 L. • 1365 x 1024 L. • 1365 x 768 L. • HDTV 480p. • HDTV 720p.	Same format as the "referenced" Computer format.

4-2. DISPLAY DEVICE ADJUSTMENTS

- **IN SEAMLESS MODE**
  - ① Select the "referenced" COMPUTER input with the front panel "INPUT SELECTION" buttons.
  - ② Adjust directly the display device itself, using its position and size control parameters, to fill the image in full screen.

- **IN FAST SWITCHING MODE**
  - ① Display the **test pattern** available in the LCD output menu.
  - ② Adjust directly the display device itself, using its position and size control parameters, to fill the test pattern in full screen.

4-3. IMAGE ADJUSTMENTS

For each input source connected to the OCTO-PLUS™, make the following adjustments:
NOTE: In seamless mode the referenced computer input can not be adjusted.

① Select the source you want to adjust with the front panel "INPUT SELECTION" buttons.

② Select the aspect ratio of your input source (LCD menu # 4-3).

③ Adjust the image in the test pattern: modify the vertical and horizontal position & size with the LCD menu # 4-2.

④ If needed, make the others adjustments, available in the LCD menu # 4 (color, brightness, image process…).
NOTE: To set the image adjustments to the factory settings, use the **Preset** function (LCD menu # 4).

NOTE: The adjustments are automatically stored in NON-volatile memories. The OCTO-PLUS™ 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.

4-4. AUDIO ADJUSTMENTS

① Adjust the master volume (LCD menu # 5-1).

② Set the "auto follow" or "break away" audio mode (LCD menu # 5-2):
- "auto follow" = the audio switching follows automatically the video switching.
- "break away" = the selected audio input is permanently diffused.

③ Adjust for each audio input the audio level (LCD menu # 5-3) and the audio balance (LCD menu # 5-4).

④ Adjust your microphone with the LCD menu # 5-5 (mic-control).

Chapter 5 : LCD SCREEN DESCRIPTION

5-1. INTRODUCTION

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

- The STATUS MODE indicates the input and output status of the OCTO-PLUS™.
- The CONTROL MODE allows selecting and adjusting the parameters of the OCTO-PLUS™.

5-2. CONTROL BUTTONS

The LCD screen is controlled by 3 buttons:

◂ ▸ knob:
- From the STATUS MODE, turns this knob to adjust the Master volume.
- From the CONTROL MODE, turn this knob to scroll thru the different menus.

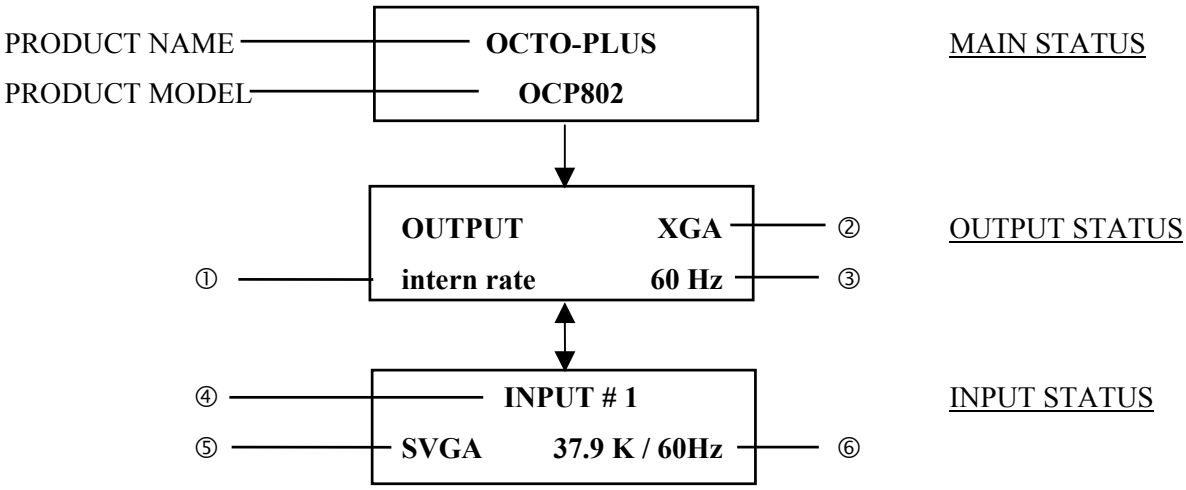
EXIT / **MENU** button:
- From the STATUS MODE, press this button to display the CONTROL MODE.
- From the CONTROL MODE, press this button to:
  - return to the previous menu.
  - return to the STATUS MODE (press several times).
  - return without safeguarding the item.

ENTER button:
- From the STATUS MODE, press this button to return to the last consulted menu.
- From the CONTROL MODE, press this button to confirm a selected item.

NOTE: When entering in the CONTROL MODE, the LCD window will automatically display the STATUS MODE after 60 seconds of inactivity of the front panel buttons.

5-3. STATUS MODE

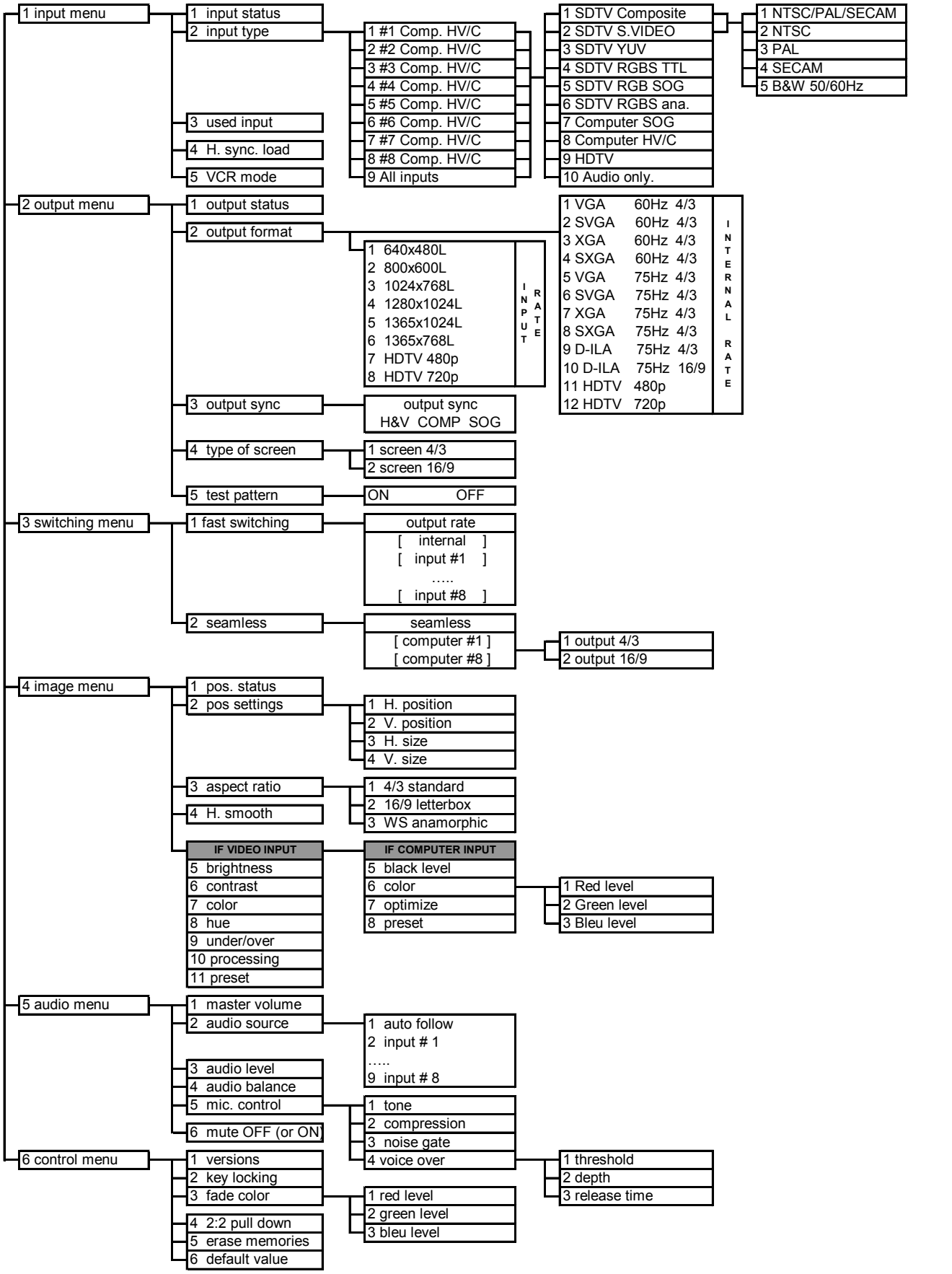
When switching ON, the LCD SCREEN shows the product's name and reference as follows:



① SEAMLESS MODE or FAST SWITCHING MODE (OUTPUT RATE).
② OUTPUT FORMAT.
③ OUTPUT FRAME RATE.
④ SELECTED INPUT (DISPLAYED).
⑤ INPUT FORMAT OR INPUT STANDARD.
⑥ INPUT LINE / FRAME FREQUENCY.

5-4. CONTROL MODE

The menus of the CONTROL MODE are configured as follow:



Chapter 6 : LCD FUNCTIONS DESCRIPTION

1 ▸ [INPUT MENU] + ENTER.

1-1 [input status] + ENTER.
Indicates the status of the selected input.

1-2 [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]**
- **[SDTV RGBS ana.]**
- **[Computer SOG]**
- **[Computer HV/C]**
- **[HDTV] =** HDTV input format (720p, 1035i and 1080i).
- **[Audio only] =** select this function if you only want to connect an audio source (no video signal needed).

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 (at 50 or 60 Hz) standard detection.

1-3 [used input] + ENTER.
Disable the unused input key with ◂ ▸ + **ENTER.**

1-4 [H sync load] + ENTER.
Select for each input the load of the H Sync. with ◂ ▸ + **ENTER.**

1-5 [VCR mode] + ENTER.
This function allows to improve the image contour of low quality VHS tapes. Select **[on]** with **ENTER.**

2 ▸ [OUTPUT MENU] + ENTER.

2-1 [output status] + ENTER.
Indicates the status of the output.

2-2 [output format] + ENTER.
Select one of the following output format with ◂ ▸ + **ENTER.**
- If **[fast switching]** = **[internal rate]**, the LCD window displays the following formats :
  - **[VGA 60 Hz 4/3]** = 640 x 480 at 60 Hz.
  - **[SVGA 60 Hz 4/3]** = 800 x 600 at 60 Hz..
  - **[XGA 60 Hz 4/3]** = 1024 x 768 at 60 Hz.
  - **[SXGA 60 Hz 4/3]** = 1280 x 1024 at 60 Hz.
  - **[D-ILA - 4/3]** = 1365 x 1024 at 75 Hz.
  - **[D-ILA - 16/9]** = 1365 x 768 at 75 Hz.
  - **[HDTV 480p]** = 853 x 480 at 60 Hz.
  - **[HDTV 720p]** = 1280 x 720 at 60 Hz.
  - **[VGA 75 Hz 4/3]** = 640 x 480 at 75 Hz.
  - **[SVGA 75 Hz 4/3]** = 800 x 600 at 75 Hz.
  - **[XGA 75 Hz 4/3]** = 1024 x 768 at 75 Hz.
  - **[SXGA 75 Hz 4/3]** = 1280 x 1024 at 75 Hz.

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.

- If **[fast switching]** = **[input # X]**, the LCD window displays the following formats:
  - **[640 x 480 L]** = Line doubler: 480p/59.94 Hz or 576p/50 Hz.
  - **[800 x 600 L]** = 800 x 600 at 50 Hz or 59.94 Hz.
  - **[1024 x 768 L**] = 1024 x 768 at 50 Hz or 59.94 Hz.
  - **[1280 x 1024 L]** = 1280 x 1024 at 50 Hz or 59.94 Hz.
  - **[1365 x 1024 L]** = 1365 x 1024 at 50 Hz or 59.94 Hz.
  - **[1365 x 768 L]** = 1365 x 768 at 50 Hz or 59.94 Hz - 16/9.
  - **[HDTV 480p]** = 853 x 480 at 50 Hz or 59.94 Hz - 16/9.
  - **[HDTV 720p]** = 1280 x 720 at 50 Hz or 59.94 Hz - 16/9.

NOTE: The output rate is 50 Hz for PAL & SECAM video inputs, or 59.94 Hz for NTSC video inputs.

2-3 [**output sync**] + **ENTER.**
Select the Output Sync. type with ◂ ▸ + **ENTER.**
- [**H&V**] = H & V Separate Sync.
- [**COMP**] = Composite Sync.

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.

2-5 [**test pattern**] + **ENTER.**
This function allows displaying a test pattern for position and size adjustments. Select an item with ◂ ▸ + **ENTER**.
- [**ON**] = Displays a test pattern onto the output.
- [**OFF**] = Turns OFF the test pattern.

3 ▸ [SWITCHING MENU] + ENTER.

3-1 [**fast switching**] + **ENTER.**
Select an item with ◂ ▸ + **ENTER.**
- [**internal rate**] = The output frame rate is 60 Hz or 75 Hz depending of the selected output format (LCD menu # 2-2). A higher frame frequency gives a better visual aspect when displaying static pictures.
- [**input # x**] = The output frame rate is identical to the "Input # x" Frame Rate : 50 Hz if the input video standard is PAL or SECAM and 59.94 Hz if the input video standard is NTSC. This function allows improving the motion pictures.

3-2 [**seamless**] + **ENTER.**
① Select the computer input take as reference with ◂ ▸ + **ENTER.**
- [**computer #1**] = the OCTO-PLUS™ is in **Seamless mode**. The output is synchronized on Computer #1.
- [**computer #8**] = the OCTO-PLUS™ is in **Seamless mode**. The output is synchronized on Computer #8.

② Then select the aspect ratio (4/3 or 16/9) of your display device.

4 ▸ [IMAGE MENU] + ENTER.
WARNING: In Seamless mode this menu is not available for the "referenced" Computer source.

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

• If the selected input is a VIDEO signal (LCD menu # 1-2 =SDTV---) the IMAGE MENU displays the following items:

4-1 [**pos. status**] + **ENTER.**
This menu displays the horizontal & vertical position & size status.

4-2 [**pos. settings**] + **ENTER.**
Select one of the following function with ◂ ▸ + **ENTER.**

4-2-1 [**H position**] + **ENTER.**
Adjust the Horizontal position with ◂ ▸ + **ENTER.**

4-2-2 [**V position**] + **ENTER.**
Adjust the Vertical position with ◂ ▸ + **ENTER.**

4-2-3 [**H size**] + **ENTER.**
Adjust the Horizontal size with ◂ ▸ + **ENTER.**

4-2-4 [**V size**] + **ENTER.**
Adjust the Vertical size with ◂ ▸ + **ENTER.**

4-3 [**aspect ratio**] + **ENTER.**
Select the Aspect Ratio of your input source with ◂ ▸ + **ENTER.**
- [**4/3 standard**] = 4/3 input format.
- [**16/9 letterbox**] = Letterbox input format.
- **[WS anamorphic]** = Widescreen Anamorphic input format.

4-4 [**H. smooth**] + **ENTER.**
Adjust the horizontal smooth with ◂ ▸ + **ENTER.**

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.**
Select Underscan or Overscan with ◄ ► + **ENTER.**

- [**underscan**] = Underscan mode. The entire image is visible on the screen. Computer display 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 [**processing**] + **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 (LCD menu # 1-2 = Computer---) the IMAGE MENU displays:

4-1 [**pos. status**] + **ENTER.**
This menu displays the horizontal & vertical position & size status.

4-2 [**pos. settings**] + **ENTER.**
Select one of the following function with ◄ ► + **ENTER.**

4-2-1 [**H position**] + **ENTER.**
Adjust the Horizontal position with ◄ ► + **ENTER.**

4-2-2 [**V position**] + **ENTER.**
Adjust the Vertical position with ◄ ► + **ENTER.**

4-2-3 [**H size**] + **ENTER.**
Adjust the Horizontal size with ◄ ► + **ENTER.**

4-2-4 [**V size**] + **ENTER.**
Adjust the Vertical size with ◄ ► + **ENTER.**

4-3 [**aspect ratio**] + **ENTER.**
Select the Aspect Ratio of your input source with ◄ ► + **ENTER.**

- [**4/3 standard**] = 4/3 input format.
- [**16/9 letterbox**] = Letterbox input format.
- **[WS anamorphic]** = Widescreen Anamorphic or 16/9 input format.

4-4 [**H. smooth**] + **ENTER.**
Adjust the horizontal smooth with ◄ ► + **ENTER.**

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.**
Optimize your image with ◄ ► + **ENTER.**

4-8 [**preset**] + **ENTER.**
This function allows setting all the image parameters to the factory settings. Select **[YES]** and validate with **ENTER**.

5 ▸ [AUDIO MENU] + ENTER.

5-1 **[master volume] + ENTER.**
Adjust the audio output level with ◂ ▸ + **ENTER.**

5-2 **[audio source] + ENTER.**
Select an item with ◂ ▸ + **ENTER**:
- **[auto follow]** = The audio follows the displayed video / computer output.
- **[xxxx]** = The selected audio input is permanently diffused.

5-3 **[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.

5-4 **[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.

5-5 **[mic. control] + ENTER.**
Select an item with ◂ ▸ + **ENTER**:

5-5-1 **[tone] + ENTER.**
Adjust the microphone tone with ◂ ▸ + **ENTER.**

5-5-2 **[compression] + ENTER.**
Select an item with ◂ ▸ + **ENTER.**
- **[no]** = linear output versus input.
- **[2/1]** = the output is compressed in order to reduce the dynamic.

5-5-3 **[noise gate] + ENTER.**
Adjust the noise gate threshold with ◂ ▸ + **ENTER.**
NOTE: This function eliminates very low noises.

5-5-4 **[voice over] + ENTER. This function is available with the voice over option (OPT-VOV802).**
This option allows to automatically tone down the audio background when the microphone is used. Select an adjustment with ◂ ▸ + **ENTER.**

5-5-4-1 **[threshold] + ENTER.**
Adjust the threshold level of the toning down with ◂ ▸ + **ENTER.**

5-5-4-2 **[depth] + ENTER.**
Adjust the toning down level with ◂ ▸ + **ENTER.**

5-5-4-3 **[release time] + ENTER.**
Adjust the release time of the audio background with ◂ ▸ + **ENTER.**
- **[fast]** = 0.5 second.
- **[slow]** = 2 seconds.

5-6 **[mute off] + ENTER.**
Switch ON or OFF the audio output**.** Validate with **ENTER.**

6 ▸ [CONTROL MENU] + ENTER.

6-1 [versions] + ENTER.
Status of the internal firmware: K = xxxx S = xxxx F = xxxx O = xxxx V = xxxx I =xxxx.

6-2 [key locking] + ENTER.
This function allows to lock the front panel switches. Select an item with ◂ ▸ and change the locking mode with **ENTER**.

- [**menus**] = Locks the **LCD CONTROL** switches.
- [**input**] = Locks the **INPUT SELECTION** and **FREEZE** switches.
- **[all]** = Locks all the front panel switches.
  NOTE: To unlock presses simultaneously on **ENTER** and **EXIT**.

6-3 [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.

6-4 [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.

6-5 [erase memories] + ENTER.
This function allows erasing all the NON-volatile image memories. Select **[YES]** and validate with **ENTER.**

6-6 [default value] + ENTER.
This function allows setting all the image parameters to the factory settings. Select **[YES]** and validate with **ENTER.**

FUNCTION	POSITION	FUNCTION	POSITION
1-2 [input type]	Computer HV/C.	4-8 [hue]	0
1-3 [used input]	All used.	4-9 [under/overscan]	overscan
1-4 [H sync load]	All Hi-Z.	4-10 [processing]	0
1-5 [VCR mode]	All off	5-1 [master volume]	191
2-2 [output format]	XGA 60Hz 4/3.	5-2 [audio source]	auto follow
2-3 [output sync]	H&V.	5-3 [audio level]	48
2-4 [type of screen]	4/3	5-4 [audio balance]	0
2-4 [test pattern]	no	5-5-1 [tone]	0
3-1 [fast switching]	internal rate	5-5-2 [compression]	2/1
4-2 [pos. settings]	0	5-5-3 [noise gate]	low
4-3 [aspect ratio]	4/3 standard	5-5-4-1 [threshold]	191
4-4 [H. smooth]	OFF	5-5-4-2 [depth]	5
4-5 [brightness]	0	5-5-4-3 [release time]	slow
4-5 [black level]	0	5-6 [mute]	OFF
4-6 [contrast]	0	6-2 [key locking]	all unlock
4-6 [color]	0	6-3 [fade color]	R, G, B = - 64
4-7 [color]	0	6-4 [2:2 pull down]	auto
4-7 [optimize]	0		

Chapter 7 : UPDATING THE OCTO-PLUS™

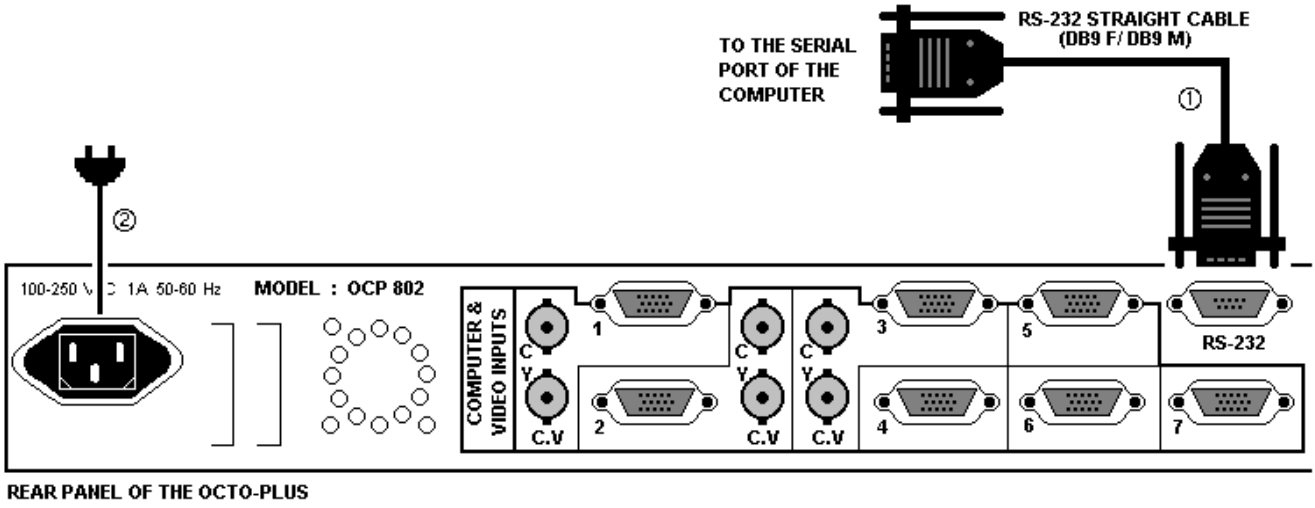
The OCTO-PLUS™ can be updated thanks a COMPUTER (PC) via its REMOTE CONTROL (RS-232) connector.

7-1. CONNECTIONS

① Connect the "RS-232" connector of the OCTO-PLUS™ to the SERIAL port of your COMPUTER with a DB9 M/F straight cable.

② Connect the OCTO-PLUS™ to an AC power outlet.

③ Switch OFF the OCTO-PLUS™ (FRONT PANEL SWITCH = O).



REAR PANEL OF THE OCTO-PLUS

7-2. UPDATE INSTRUCTIONS

① Open the file "OCP802 updater" (in start/Program/ANALOG WAY/ OCTO-PLUS).

② Click on "START" on the SOFTWARE.

③ Press the ENTER button of the OCTO-PLUS™ (FRONT PANEL), and SWITCH it ON simultaneously (FRONT PANEL SWITCH = I). All front panel LEDs switch ON and OFF, the LCD screen displays Downloading, and the upgrade will start. Then you can release the ENTER button.

④ When the software displays "Program operation completed", SWITCH OFF and ON the OCTO-PLUS™ with the FRONT PANEL SWITCH.

⑤ Click on the "Quit" button to close the update SOFTWARE.

NOTE: YOUR OCTO-PLUS™ IS NOW READY TO WORK.

NOTE: THE UPDATER FILES ARE AVAILABLE ON OUR WEB SITE: www.analogway.com

Chapter 8 : TECHNICAL SPECIFICATIONS

8-1. COMPUTER & VIDEO INPUTS

- **COMPUTER (on HD15 female connector).**

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

- **RGB/S VIDEO (on HD15 female connector).**

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

- **COMPONENT (on HD15 female connector).**

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

- **HDTV (on HD15 female connector).**

Formats:	720p, 1035i, 1080i.
Levels:	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.).
Sync.:	Tri-level: ±0.3V (positive/negative). Bi-level: 0.3V (negative)
Impedance:	75 Ohms.

- **S.VIDEO (on 4-pin mini DIN connector or 2 BNC connectors or HD15 female connector).**

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

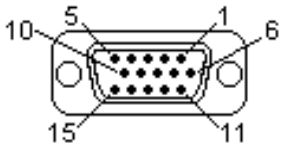
- **COMPOSITE VIDEO (on BNC connector or HD15 female connector).**

Standard:	PAL / SECAM: 15.625 kHz / 50 Hz - 625 lines. NTSC (3.58 MHz / 4.43 MHz): 15.735 kHz / 60 Hz - 525 lines.
Levels:	Y = 1 Vp/p (0.7 V Luma + 0.3 V Sync.).
Impedance:	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 OCTO-PLUS™.

8-2. DISPLAY OUTPUT (HD15 female connectors)

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

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

Format: One of the formats available in the LCD menu.

8-3. AUDIO INPUTS (5-pin MCO male connector or jack 3.5 connector)

- **INPUTS #1 to # 5** (on 5-pin MCO male connector) = Balanced and unbalanced* stereo inputs.
  Vi = + 0 dBu (sensibility), + 4 dBu (max).
  Zi = 22 kΩ unbalanced.
  Zi = 44 kΩ balanced.
  Gain = + 0 db / - ∞ adjustable.

- **INPUTS # 6 to # 8** (on jack 3.5 female connector) = Unbalanced stereo inputs.
  Vi = + 0 dBu (sensibility), + 4 dBu (max).
  Zi = 22 kΩ unbalanced.
  Gain = + 6 / - 12 dB adjustable.

  * Improved "unbalanced" by special "Pseudo-Differential" circuitry.

8-4. MICROPHONE INPUT (jack 6.35 mm female stereo connector)

- Balanced.
- Vi = - 68 dBu (sens), - 62 dBu (sat).
- Zi = 600 Ω (balanced), 300 Ω unbalanced.
- Gain = 68 dB (maxi).
- High / low frequency filter = 1.3 kHz : ±3 steps.
- Compression: Ratio = 1:1 dB (linear), 2:1 dB.
  Limiter = 10:1 (dB).
- Noise gate = - 54 dBu & - 63 dBu (max sens), expander threshold.

8-5. AUDIO OUTPUT (5-pin MCO male connector)

- Balanced and Unbalanced stereo output.
- Vo = + 0 dBu (nominal), + 4 dBu (max).
- Zo = 600 Ω balanced.
- Zo = 300 Ω unbalanced.
- G = 0 dB nominal, - ∞ with Master volume.

8-6. REMOTE PORT (DB9 female connector)

Levels:	RS-232.
Data Rate:	9600 Bauds, 8 data bits, 1 stop bit, no parity bit, no flow control.

8-7. ENVIRONMENTAL

Power Supply:	Internal CE / UL / CSA / IEC 950 (50 W), universal, automatic. Input: 100 VAC to 250 VAC; 50-60 Hz; I = 1 A Max.
Storage Temperature:	- 25 °C to + 85 °C (- 13 °F to + 185 °F).
Operating temperature:	0 °C to + 50 °C (32 °F to 122 °F).
Maximum ambient operating temperature:	< 40 °C (< 104 °F).
Hygrometry:	10% to 80% (without condensation).
Dimensions:	D 300 x W 482 x H 44 mm / D 11.8" x W 19" x H 1.74". Compatible with the 19" rack (height = 1 unit).
Weight:	3.7 kg / 8.16 lbs.

Chapter 9 : CONTROL SOFTWARE

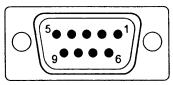
9-1. CONNECTION

- **CONNECTING THE RS-232:**

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

- **PIN-OUT:**

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



DB9 female (Rear panel of the OCTO-PLUS™)

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

9-2. "OCTO-PLUS™ REMOTE CONTROL" SOFTWARE

Your OCTO-PLUS™ is shipped with a WINDOWS 95/98/2000/Me/XP compatible "OCTO-PLUS™ REMOTE CONTROL" software (3.5" disk). This software allows you to control and make adjustments by a simple mouse click (output format, image adjustments, etc...).

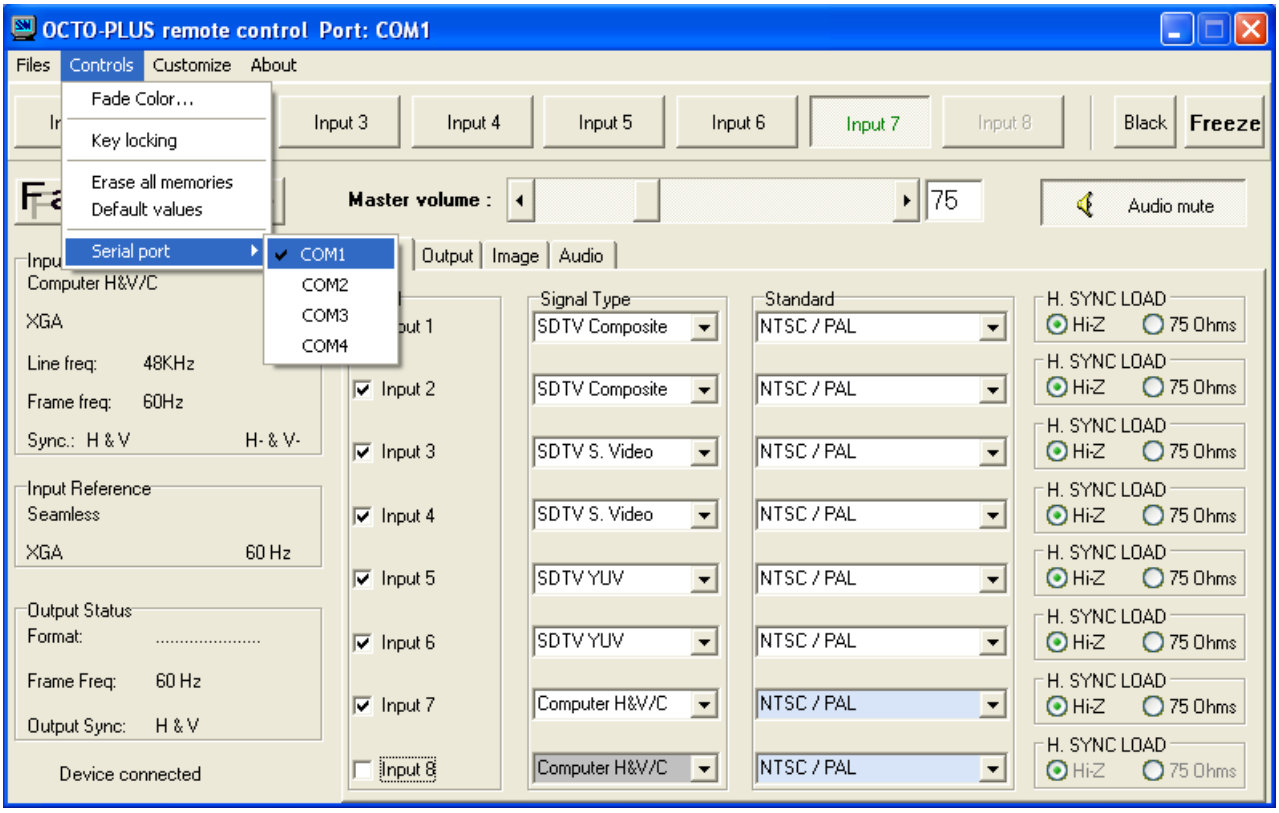
- **SOFTWARE INSTALLATION:**
  ① Turn your computer ON and wait for WINDOWS to completely start.
  ② Insert the disk into the floppy drive.
  ③ In the WINDOWS **START** menu, click on RUN.
  ④ Choose the disk drive and click on **setup.exe** (ex: A:**setup.exe** if disk 3.5" is drive A).
  ⑤ Follow the WINDOWS installation instructions. WINDOWS will create a file C:\Programfiles\ANALOGWAY\ OCTO-PLUS remote control.

- **STARTING UP:**
  ① Connect the RS-232 cable between the control device and the OCTO-PLUS™ as indicated in section 9-1.
  ② Then only power ON all of the devices.
  ③ Click on the program files **OCP802** in **Start-program-ANALOGWAY-OCTO-PLUS** to run the software.
  ④ Click on **Controls** menu and select the **Serial port**.

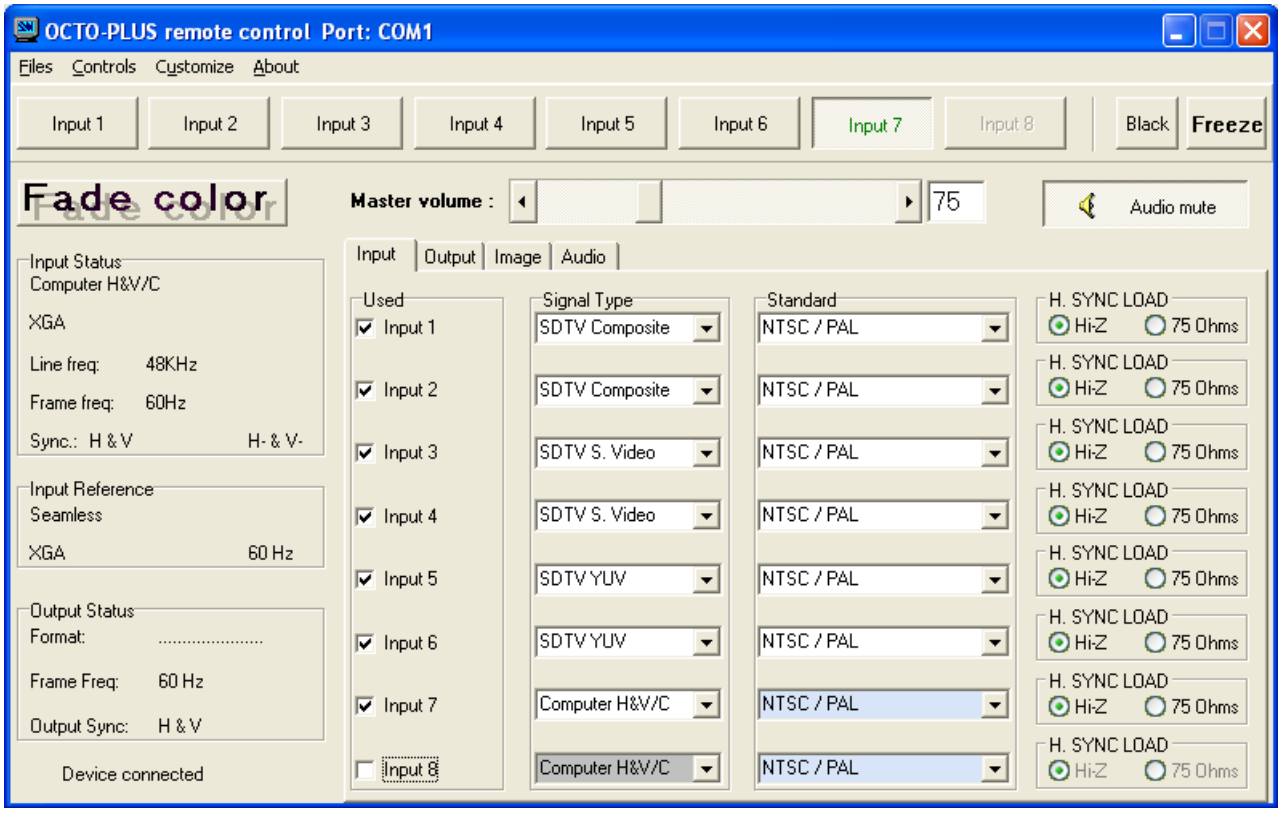
  The OCTO-PLUS™ is now connected to the computer (if not, verify the DB9 serial connection and the selected serial port).

9-3. SOFTWARE SET UP

① Select the **Serial Port** in the **Controls** menu.
The OCTO-PLUS™ is now connected to the computer.

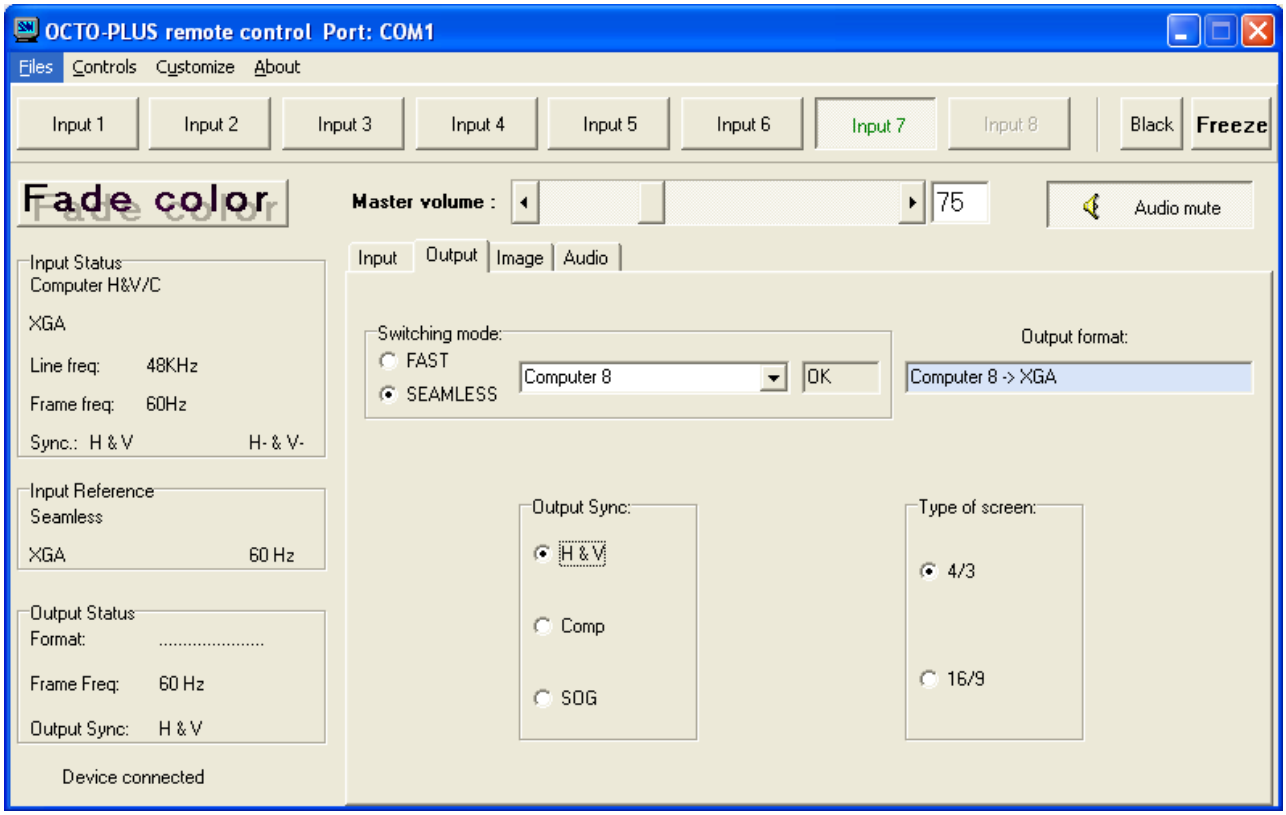


② In the **Input** menu, select the **Signal Type**, the **Standard**, the **H SYNC LOAD** (RGB/S signal), and disable the unused inputs (**Used** section).



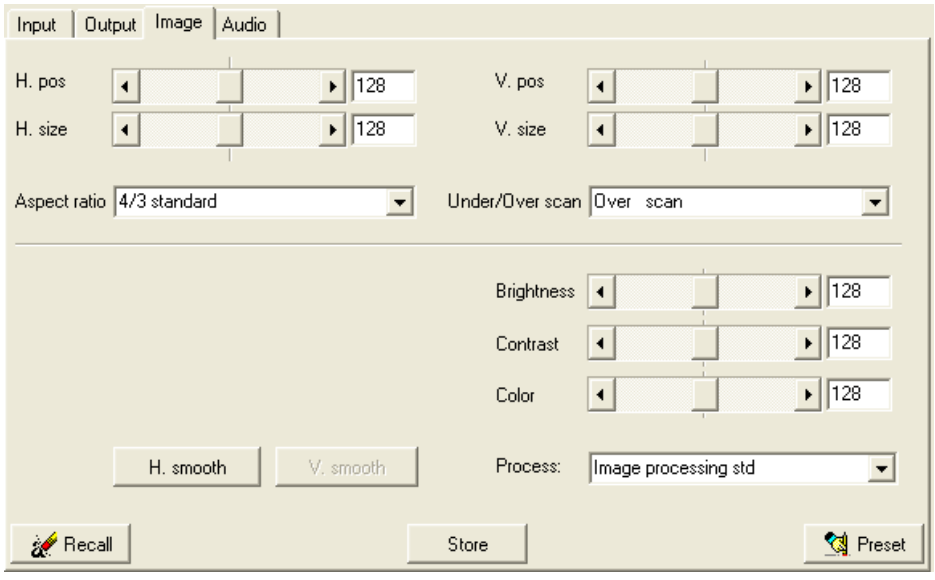
9-3. SOFTWARE SET UP (continued)

③ In the **Output** menu, select the **Switching mode** (**SEAMLESS** or **FAST**), the **Output Sync.** type, the **Type of Screen,** and the **Output Format** (in **FAST** mode only).



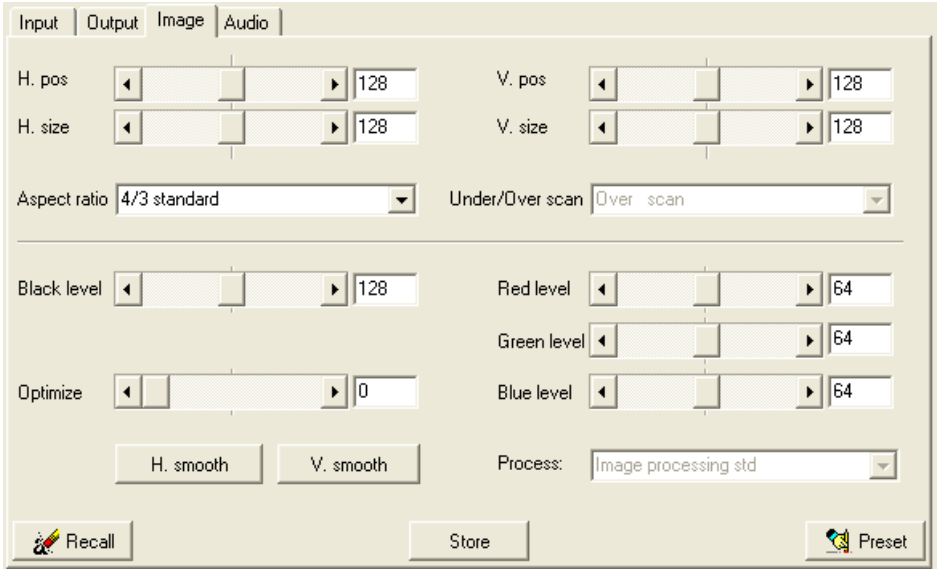
④ In the **Image** menu, make the adjustments for all of your inputs.

- **If the selected input is a video source:**

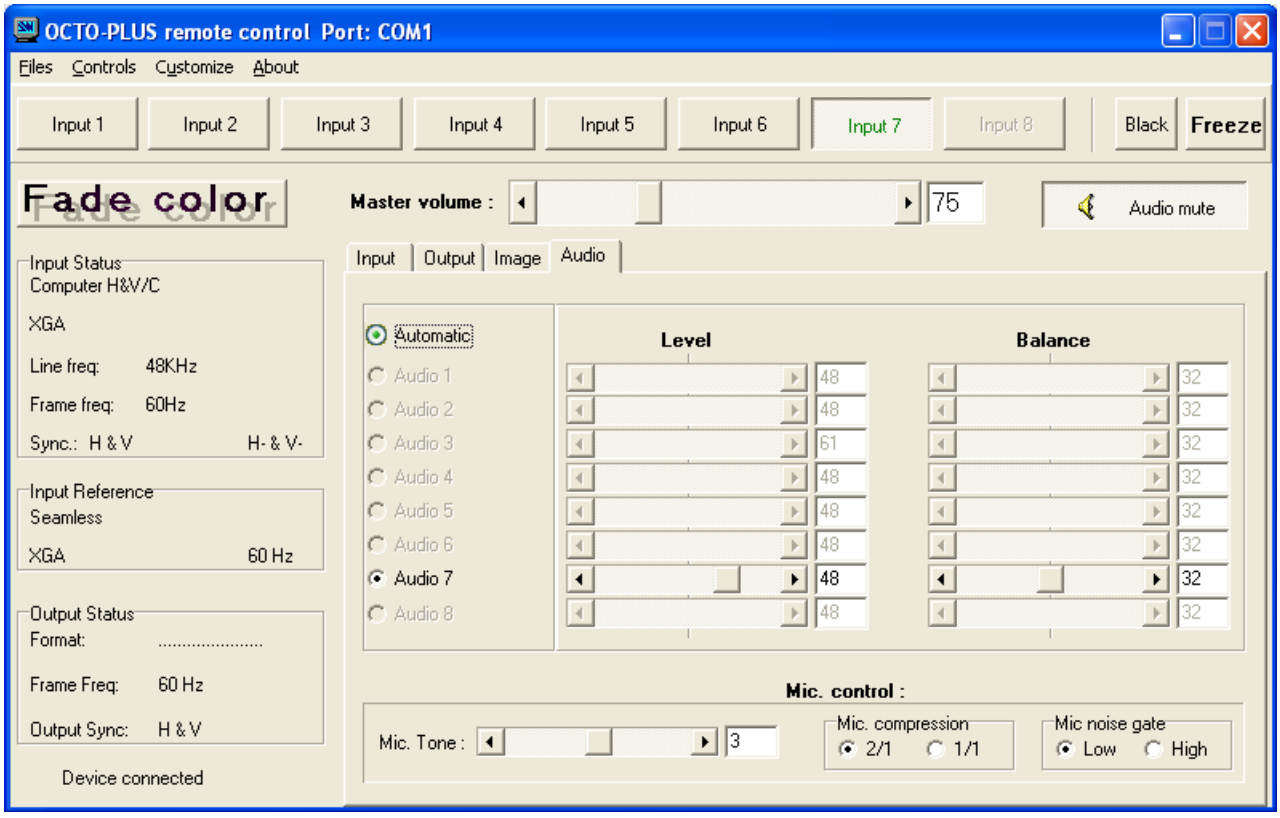


9-3. SOFTWARE SET UP (continued)

- **If the selected input is a computer source:**



⑤ In the **Audio** menu, select the **Master volume**, the audio source (**Source**) and the **Level** of each audio inputs.
NOTE: Select **Automatic** for audio follow switching.



Chapter 10 : RS-232 PROGRAMMER'S GUIDE

10-1. INTRODUCTION

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

The OCTO-PLUS™ treats any character that it receives on the RS-232 as a possible command but only accepts legal commands. There is no starting/ending code needed in a command string.

A command can be a single character typed on a keyboard and does not require any special character before or after it. (It is not necessary to press "ENTER" on the keyboard). A command can be preceded by a value (See chapter 10-2 COMMANDS STRUCTURE).

When the OCTO-PLUS™ receives a valid command, it will execute the command. Then it will send back the status of the parameters that have changed due to this command.
If the command cannot be executed (value out of range, no signal on the selected input), the OCTO-PLUS™ will just sends back the current status of the corresponding parameters.
If the command is invalid, an error response will be returned to the control device. All responses returned to the control device end with a carriage return <CR> and a line feed <LF> signaling the end of the response character string (see chapter 10-3. ERROR RESPONSES).

10-2. COMMANDS STRUCTURE

Commands are usually composed of a numerical value followed by the command character. The characters used without any numerical value return the current setting of the command.

COMMANDS structure = VALUE (optional) + CHARACTER.

Examples:

COMMAND		RESPONSE	DESCRIPTION
VALUE	CHARACTER		
none	**fm**	**OSYN**	Read the output sync type.
10	**V**	**VP10**	Set Vertical position to 10.

10-3. ERROR RESPONSES

When the OCTO-PLUS™ receives from the control device an invalid command or value, it returns an error response:

COMMAND		RESPONSE	DESCRIPTION
VALUE	CHARACTER		
none	**z**	**E10**	Invalid command.
70260	**H**	**E13**	Invalid value.

10-4. COMMANDS AND RESPONSES TABLE

The following table resumes commands which are recognized as valid and the responses that will be returned to the control device (on RS-232 port).

ASCII COMMAND	RESPONSE	COMMAND DESCRIPTION	TYPE	VALUE		
				MIN	MAX	DESCRIPTION
FRONT PANEL COMMANDS						
C	CH	Selected input (read only).	Rd	0	8	Please see value description (next section).
c	ch	Input selection.	Rd/Wr	0	8	Please see value description (next section).
o	OBLK	Black screen selection.	Rd/Wr	0	1	1 = black screen.
G	TAKE	TAKE (transition).	Rd	0	1	1 = transition (automatic reset at the end of the effect transition).
Z	FRZ	FREEZE.	Rd/Wr	0	1	0 = inactive 1 = active.
INPUT COMMANDS						
PC	PCH	Input selection for adjustment.	Rd/Wr	0	8	Please see value description (next section).
PE	PEN	Input disabling (works with PC command)	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	Input signal type selection. (works with PC command).	Rd/Wr	0	8	Please see value description (next section).
PI	PSTD	Input standard selection (works with PC command).	Rd/Wr	0	4	0 = NTSC / PAL / SECAM 1 = NTSC. 2 = PAL 3 = SECAM 4 = Black & White (50 & 60Hz).
PP	PPRC	VCR mode (works with PC command).	Rd/Wr	0	1	0 = OFF 1 = ON
OUTPUT COMMANDS						
F	OFMT	Output format selection.	Rd/Wr	0	11	Please see value description (next section).
fm	OSYN	Output sync selection.	Rd/Wr	0	2	0 = Separate H &V sync (negatives). 1 = Composite TTL sync (negative). 2 = SOG (Sync On Green).
fs	SCRN	Type of screen selection	Rd/Wr	0	1	0 = screen 4/3 1 = screen 16/9
p	OPAT	Test pattern.	Rd/Wr	0	1	0 = yes 1 = no.
SWITCHING COMMANDS						
XR	REFR	Synchronization mode selection (output rate).	Rd/Wr	0	8	Please see value description (next section).
XI	REFI	Aspect ratio of your display device.	Rd/Wr	0	2	0 = 4/3 2 = 16/9.
IMAGE COMMANDS						
H	HP	Horizontal position.	Rd/Wr	0	255	
V	VP	Vertical position.	Rd/Wr	0	255	
W	HW	Horizontal size.	Rd/Wr	0	255	
S	VS	Vertical size.	Rd/Wr	0	255	
QA	ASP	Input aspect ratio selection.	Rd/Wr	0	2	0 = 4/3 standard 1 = 16/9 letterbox 2 = WS anamorphic
QH	QH	Horizontal smoothing.	Rd/Wr	0	1	0 = OFF 1 = ON
B	BRG	Brightness adjustment (video).	Rd/Wr	0	255	
D	CON	Contrast adjustment (video).	Rd/Wr	0	255	
O	COL	Color adjustment (video).	Rd/Wr	0	255	
T	HUE	Hue adjustment (video NTSC).	Rd/Wr	0	255	
QO	OVR	Underscan / overscan (video).	Rd/Wr	0	1	0 = underscan 1 = overscan.
QP	PROC	Processing adjustment (video).	Rd/Wr	0	7	0 = standard level 1 = level 1 2 = level 2..... 7 = level 7.
K	BLK	Black level adjustment (computer).	Rd/Wr	0	255	
QR	RLV	Red level adjustment (computer).	Rd/Wr	0	127	
QG	GLV	Green level adjustment (computer).	Rd/Wr	0	127	
QB	BLV	Bleu level adjustment (computer).	Rd/Wr	0	127	
QF	QF	Optimize adjustment (computer).	Rd/Wr	0	255	
yp	PRES	PRESET.	Rd/Wr	0	1	1 = PRESET action (automatic reset).

NOTE: Rd = Read only command. Rd/Wr = Read and write command.

10-4. COMMANDS AND RESPONSES TABLE (continued)

ASCII COMMAND	RESPONSE	COMMAND DESCRIPTION	TYPE	VALUE		
				MIN	MAX	DESCRIPTION
STATUS COMMANDS						
U	UNIT	Measures unity in kHz.	Rd	0	65535	
IL	ILD	Horizontal period of the input signal.	Rd	0	65535	Please see value description (next section).
ID	IFD	Vertical period of the input signal.	Rd	0	65535	Please see value description (next section).
IP	IPS	Input Sync. detection.	Rd	0	1	0 = no Sync. detected 1 = Sync. detected.
IH	IHP	Sign of the horizontal input Sync.	Rd	0	1	0 = negative 1 = positive.
IV	IVP	Sign of the vertical input Sync.	Rd	0	1	0 = negative 1 = positive.
IK	IST	Input Sync type detection.	Rd	0	3	0 = H &V. 2 = SOG. 1 = Composite (TTL). 3 = Composite (analog).
II	IIN	Interlaced signal detection.	Rd	0	1	0 = not interlaced 1 = interlaced.
IO	IOO	"Out of range" signal detection.	Rd	0	1	0 = In range 1 = Out of range.
IF	IFA	Standard input signal detection.	Rd	0	27	Please see value description (next section).
XR	REFR	Synchronization mode selection (output rate).	Rd/Wr	0	8	Please see value description (next section).
XA	REFA	Synchronized input status.	Rd	0	8	Identical as XR command.
XF	REFF	Standard of the referenced input.	Rd	0	25	Please see value description (next section).
XT	REFT	Referenced input frame frequency.	Rd	0	65535	Value in Hz.
AUDIO COMMANDS						
AV	AVOL	Master volume adjustment.	Rd/Wr	0	255	
+	AVOL	Increase the master volume.	Rd/Wr	0	255	10+ : increase the master volume of 10 steps.
-	AVOL	Decrease the master volume.	Rd/Wr	0	255	10- : decrease the master volume of 10 steps.
AO	AMOD	Auto follow or breakaway mode.	Rd/Wr	0	1	0 = auto follow 1 = breakaway
AC	ACH	Audio channel selection.	Rd/Wr	0	8	Please see value description (next section).
AL	ALVL	Audio level (works with PC command).	Rd/Wr	0	63	
AB	ABAL	Audio balance (works with PC command).	Rd/Wr	0	63	
AT	ATON	Tone adjustment.	Rd/Wr	0	6	
AR	ACMP	Compression.	Rd/Wr	0	1	0 = 2:1 1 = 1:1.
AG	AGAT	Noise gate adjustment.	Rd/Wr	0	1	0 = low 1 = high.
AM	AMUT	Audio mute.	Rd/Wr	0	1	0 = MUTE inactive 1 = MUTE active (ON).
Ad	ADPH	Depth level (OPT-VOV802).	Rd/Wr	0	7	
Al	ADLV	Threshold level (OPT-VOV802).	Rd/Wr	0	255	
Ar	ARLS	Release time (OPT-VOV802).	Rd/Wr	0	1	0 = fast 1 = slow
CONTROLS COMMANDS						
xi	I	Identification number.	Rd	0	65535	
xk	K_	"K" Firmware Version.	Rd	0	65535	
xs	S_	"S" Firmware Version.	Rd	0	65535	
xf	F_	"F" Firmware Version.	Rd	0	65535	
xv	V_	"V" Firmware Version.	Rd	0	65535	
xr	VERR	RK802 firmware version.	Rd	0	65535	
yo	OPT	Options available.	Rd	0	65535	0 = without option. 1 = voice-over option.
QE	EPD	2:2 pull down correction.	Rd/Wr	0	1	0 = off 1 = auto.
yl	LOCK	Key locking.	Rd/Wr	0	1	0 = unlocks 1 = locks.
br	BCFR	Red level adjustment of the fade.	Rd/Wr	0	255	
bb	BCFB	Bleu level adjustment of the fade.	Rd/Wr	0	255	
bg	BCFG	Green level adjustment of the fade.	Rd/Wr	0	255	
yc	EPOS	Erase memories.	Rd/Wr	0	1	1 = erase all memories (automatic reset).
Y	FRES	DEFAULT VALUE.	Rd/Wr	0	1	1 = Default value action (automatic reset).
OTHERS COMMANDS						
M	STO	STORE : Memorize all the image parameters.	Rd/Wr	0	1	1 = STORE action (automatic reset).
R	REC	RECALL: Recall the image parameters.	Rd/Wr	0	1	1 = RECALL action (automatic reset).
?	DEV	Device type.	Rd	0	65535	18 = OCTO-PLUS™
#	DEV18.....	Send all device parameters.	Rd			

10-5. VALUE DESCRIPTION

ASCII COMMAND	RESPONSE	COMMAND DESCRIPTION	VALUE DESCRIPTION	
C	CH	Selected input (read only).	1 = INPUT #1. 2 = INPUT #2. 3 = INPUT #3. 4 = INPUT #4.	5 = INPUT #5. 6 = INPUT #6. 7 = INPUT #7. 8 = INPUT #8.
c	ch	Input selection.	1 = INPUT #1. 2 = INPUT #2. 3 = INPUT #3. 4 = INPUT #4.	5 = INPUT #5. 6 = INPUT #6. 7 = INPUT #7. 8 = INPUT #8.

F	OFMT	Output format selection.	**If fast switching = internal rate**
			0 = VGA 60 Hz
			1 = SVGA 60 Hz
			2 = XGA 60 Hz
			3 = SXGA 60 Hz
			4 = VGA 75 Hz
			5 = SVGA 75 Hz
			6 = XGA 75 Hz
			7 = SXGA 75 Hz
			8 = D-ILA 4/3 75 Hz.
			9 = D-ILA 16/9 75 Hz
			10 = HDTV 480p
			11 = HDTV 720p
				If fast switching = input # X
				0 = 640x480L
				1 = 800x600L
				2 = 1024x768L
				3 = 1280x1024L
				4 = 640x480L
				5 = 800x600L
				6 = 1024x768L
				7 = 1280x1024L
				8 = 1365x1024L
				9 = 1365x768L
				10= HDTV 480p.
				11 = HDTV 720p.

PC	PCH	Input selection for adjustment.	0 = All inputs 1 = INPUT #1. 2 = INPUT #2. 3 = INPUT #3. 4 = INPUT #4.	5 = INPUT #5. 6 = INPUT #6. 7 = INPUT #7. 8 = INPUT #8.
PR	PRGB	Input signal type selection.	0 = SDTV Composite. 1 = SDTV S.VIDEO. 2 = SDTV YUV 3 = SDTV RGBS TTL 4 = SDTV RGsB (SOG)	5 = SDTV RGBS (analog). 6 = Computer (SOG). 7 = Computer H&V or C. 8 = HDTV. 9 = Audio only.
XR	REFR	Synchronization mode selection. (output rate).	0 = internal rate. 1 = INPUT #1. 2 = INPUT #2. 3 = INPUT #3. 4 = INPUT #4. 5 = INPUT #5.	6 = INPUT #6. 7 = INPUT #7. 8 = INPUT #8. 9 = Seamless Computer 1. 10 = Seamless Computer 8.
IL	ILD	This command allows to calculate the input line frequency in Hz.	Line frequency (in kHz) = (UNIT VALUE) ÷ (ILD VALUE).	
ID	IFD	This command allows to calculate the input frame frequency in Hz.	Frame frequency (in Hz) = (Line frequency in Hz) ÷ (IFD VALUE).	
IF	IFA	Input standard detection (MAIN).	0 = no signal. 1 = incompatible signal. 2 = NTSC std (3.58 / 60). 3 = PAL std (4.43 / 50). 4 = SECAM (50Hz). 5 = Black and white (50Hz). 6 = Black and white (60 Hz). 7 = YUV 50 Hz. 8 = YUV 60 Hz. 9 = RGB 50 Hz. 10 = RGB 60 Hz. 11 = VGA1 350L. 12 = VGA2 400L.	13 = VGA3 480L. 14 = PLASMA 42". 15 = SVGA. 16 = MAC. 17 = XGA. 18 = PLASMA 50'. 19 = MAC 21'. 20 = SXGA. 21 = UXGA. 22 = 1080i @ 50 Hz. 23 = 1080i @ 59.94/60 Hz. 24 = 480p @ 59.94/60 Hz. 25 = 720p @ 59.94/60 Hz.
XF	REFF	Standard of the referenced input (read only).	Identical as IF command.	
AC	ACH	Audio channel selection.	1 = AUDIO INPUT #1. 2 = AUDIO INPUT #2. 3 = AUDIO INPUT #3. 4 = AUDIO INPUT #4.	5 = AUDIO INPUT #5. 6 = AUDIO INPUT #6. 7 = AUDIO INPUT #7. 8 = AUDIO INPUT #8.

10-6. 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
/	2 F	47	O	4 F	79	o	6 F	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 11 : OPTIONAL ACCESSORY : THE REMOTE KEYPAD (RK802)

11-1. GENERAL INFORMATION

The REMOTE KEYPAD (RK802) is a control device for the OCTO-PLUS™ that enables to drive its main functions from as far as 100m / 333ft. The REMOTE KEYPAD is very easy to use and to install, since it only requires one cable to connect it to the OCTO-PLUS™. The RK802 does not need any power supply as it is powered by the OCTO-PLUS™.

11-2. STARTING

① Turn OFF your OCTO-PLUS™ (front panel switch).
② Connect the RS-232 connector (DB9 female) of your OCTO-PLUS™ to the DB9 male connector of the REMOTE KEYPAD with the supplied RS-232 cable.
③ Turn ON your OCTO-PLUS™ (front panel switch).
④ Select the wanted source with the input selection button.
⑤ Make the audio adjustment with the audio control button.

11-3. TECHNICAL DESCRIPTION

AUDIO CONTROL

BREAK AWAY:	Allows to permanently diffuse an audio source. Select a source with the INPUT SELECTION button and press on the BREAK AWAY button (the BREAK AWAY LED lights ON).
MUTE:	Allows to switch OFF the audio output.
VOLUME (+ /-):	Audio level adjustment.
BLACK:	Allows to display a black screen.
FREEZE:	Allows to freeze the displayed output.
INPUT SELECTION:	Selection of the 8 input sources. The lights ON LED, indicate the displayed video input. The blinking LED, indicate the last diffused source (only when **black** is active). The double-blinking LED indicates the diffused audio source (only when **break away** is active).
DB9 connector:	RS-232 & power connection.
Jack 3.5 connector:	Input connector for optional Infra red receiver.

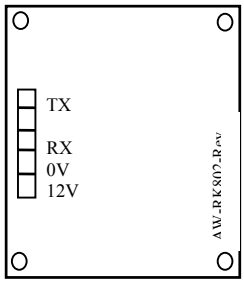
11-4. TECHNICAL SPECIFICATIONS

Levels:	RS-232.
Data Rate:	9600 Bauds, 8 data bits, 1 stop bit, no parity bit, no flow control.
Power Supply:	+ 12Vdc (by the OCTO-PLUS™'s DB9 connector).
Storage Temperature:	- 25 °C to + 85 °C (- 13 °F to + 185 °F).
Maximum ambient operating temperature:	< 40 °C (< 104 °F).
Hygrometry:	10% to 80% (without condensation).
Dimensions:	D 115 x W 117 x H 55 mm / D 4.5" x W 4.6" x H 2.16".
Weight:	0.5 kg / 1.1 lbs.

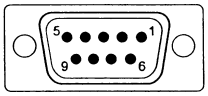
11-5. WALL MOUNTING

① Remove the front panel of the REMOTE KEYPAD (4 screws).
② Disconnect the 5-pin MC connector (screw terminal) from the REMOTE KEYPAD'S PCB and disconnect the 4 wires from the 5-pin MC connector.
③ Connect the new cable on the 5-pin MC connector as shown below :
- Connect TX on PIN 3 of the OCTO-PLUS™'s DB9 connector.
- Connect RX on PIN 2 of the OCTO-PLUS™'s DB9 connector.
- Connect 0V on PIN 5 of the OCTO-PLUS™'s DB9 connector (only 1 wire is necessary).
- Connect 12V on PIN 8 of the OCTO-PLUS™'s DB9 connector.

PCB OF THE RK802:



OCTO-PLUS™ DB9 F CONNECTOR:



④ Connect the 5-pin MC connector to the PCB of the REMOTE KEYPAD and install the front panel into the standard 2-gang electrical box.
⑤ Secure the front panel with the 4 screws.

WARRANTY

Analog Way warrants the product against any defects in material 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 unit, including free material 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.