



USER'S MANUAL



MODEL: OTR401

TABLE OF CONTENTS

SAFETY INSTRUCTIONS	2
Chapter 1 : INTRODUCTION	5
Chapter 2 : STARTING	7
Chapter 3 : OPERATING MODE	11
Chapter 4 : LCD SCREEN DESCRIPTION	12
Chapter 5 : LCD FUNCTIONS DESCRIPTION	14
Chapter 6 : UPDATING THE DEVICE	19
Chapter 7 : CONTROL SOFTWARE	20
Chapter 8 : REMOTE CONTROL PROGRAMMER'S GUIDE	23
Chapter 9 : OPTIONAL ACCESSORY: THE REMOTE KEYPAD (RK802-F)	29
Chapter 10 : TECHNICAL SPECIFICATIONS	30
WARRANTY	33



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.

ISTRUZIONI 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, Schlitz, 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.

OCTO-QUATTRO™

Chapter 1 : INTRODUCTION

1-1. ACCESSORIES SUPPLIED WITH YOUR DEVICE

- 1 AC Power supply cord.
- 1 VGA cable (HD15 male / male connector).
- 1 S.VIDEO (Y/C) cable (4-pin mini DIN male / 2 BNC male connectors).
- 1 Set of 5 MCO (5-pin) female connectors (for audio connection).
- 2 white labels: to rename the input selection buttons.
- 1 CD-ROM (Remote Control Software).
- 1 User's Manual.

1-2. GENERAL INFORMATION

The **OCTO-QUATTRO™** is a computer & video up/down Scaler Switcher with 4 universal A/V inputs. It performs an ultra fast and smooth transition between any scaled sources.

Each of the 4 inputs is fitted with a stereo audio line. The audio can either follow or break down from the video image. The volume of each audio can be individually adjusted.

The **OCTO-QUATTRO™** can fit with the native resolution of the projection display and provide you with a high image quality thanks to its integrated digital decoder, improved 3:2 and 2:2 Pull down circuitry, auto-adaptive pixel by pixel 3D motion compression, Time Base Corrector. All individual image controls settings are stored in non-volatile memories. This compact device is especially dedicated to the installation market, for entry level High Resolution A/V Seamless presentation displays, conference and boardrooms.

Easy to use, the **OCTO-QUATTRO™**, offers auto Image centering, Auto pixel clock, Auto scan. Also an auto projector ON/OFF through RS232 control and a jack Ø 3,5 mm powered by a +12 Vdc output, is provided.

1-3. DEVICES & OPTIONS REFERENCES

REFERENCE	DESIGNATION
OTR401	OCTO-QUATTRO™.
OPT-LAN	LAN communication port (optional)
RK802-F	Remote KEYPAD for controlling an OCTO device (optional).
10077	CABLE (HD15 M / HD15 M) L = 1.8 m
10023	CABLE (HD15 M / 5BNC M) L = 1.8 m
10102	CABLE (4-pin mini DIN M / 2BNC M) L = 1.8 m
10009	CABLE (4-pin mini DIN M / 4-pin mini DIN M) L = 1.2 m (optional).
10123	CABLE (HD15 M / 5BNC F) L = 0.5 m (optional).
10124	CABLE (4-pin mini DIN F / HD15 M) L = 0.2 m (optional).

1-4. INSTALLATION

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

- **Table Top Mounting:** The OCTO-QUATTRO™ can be used directly on a table: the unit is equipped with 4 plastic feet.
- **Rack Mounting:** The OCTO-QUATTRO™ is compatible with a 19" enclosure. To install the OCTO-QUATTRO™ into a 19" rack: Attach the OCTO-QUATTRO™ to the rack by using 4 screws in the front panel holes (screws are not included).

IMPORTANT:

- The openings in the rear and side panels are for cooling. Do not cover these openings.
- Be sure that no weight is added to the OCTO-QUATTRO™ 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.

1-5. REAR PANEL DESCRIPTION



- POWER:** Standard IEC connector (100-250 VAC, 1A, 50-60 Hz automatic).
- LAN:** LAN communication port on a RJ45 connector (optional).
- COMPUTER & VIDEO INPUTS:** 4 Universal (computer and video) inputs.
- INPUTS #1 & 2:** 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 #3 & 4:** All signals on a HD15 female connector.
- DISPLAY OUT:** DATA output (RGBHV, RGB/S or RGSB) on HD15 female connector.
- ROOM OUT:** A room (+ 12 Vdc trigger) command output (3.5 mm jack female), allows to control external functions such as up/down screen, lighting...
- AUDIO IN:** 1 to 4: Audio stereo input balanced/unbalanced on a 5-pin MCO male connector.
- AUDIO OUT:** Audio stereo output balanced/unbalanced on a 5-pin MCO male connector.
- RS-232:** RS-232 communication port on a DB9 female connector.

1-6. FRONT PANEL DESCRIPTION



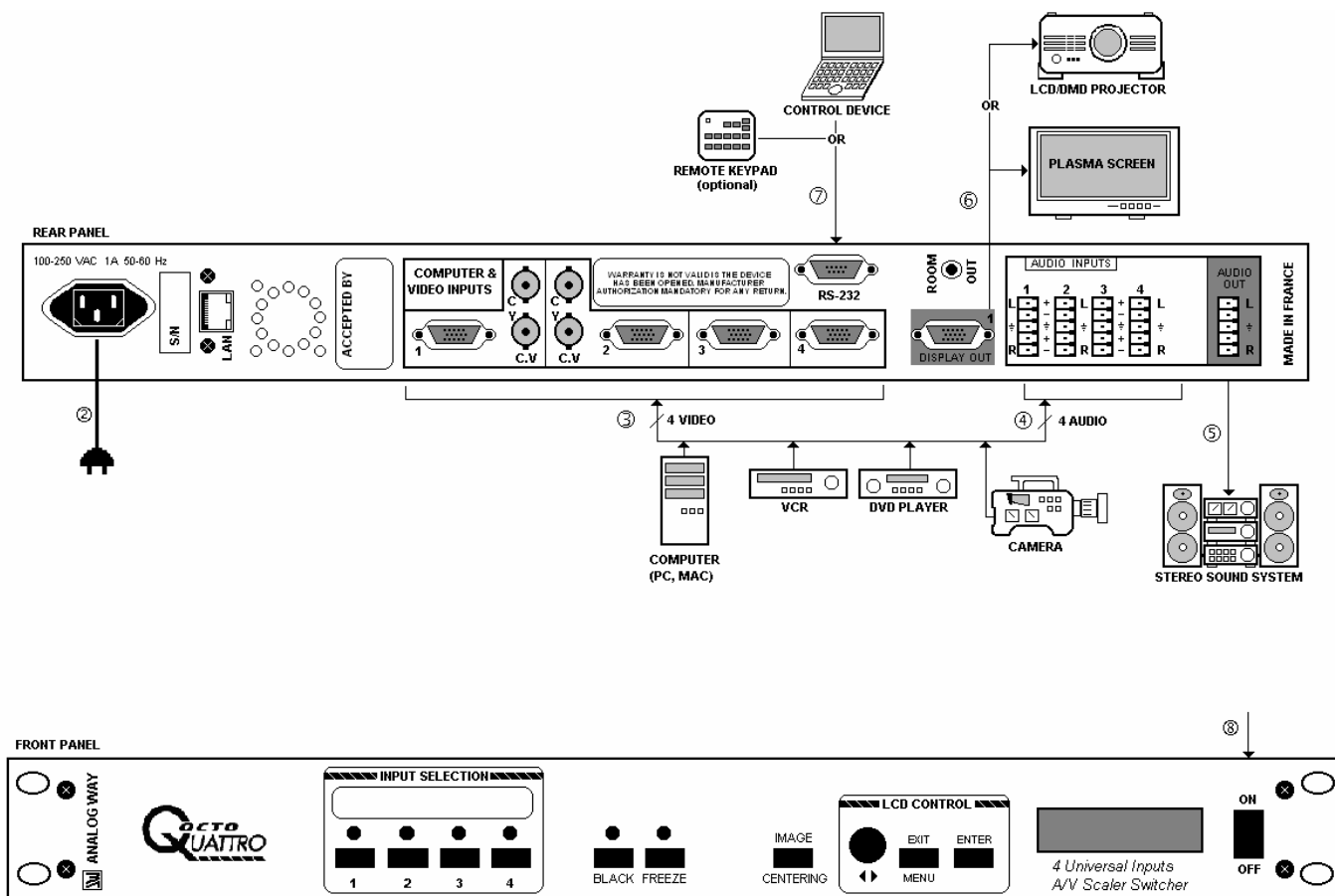
- INPUT SELECTION:** Selection of the 4 input sources.
- BLACK:** Allows to display a **BLACK** screen onto the output (the blinking LED indicates that this function is active).
- FREEZE:** Allows to freeze the displayed output (the blinking LED indicates the FREEZE is active).
- IMAGE CENTERING:** Allows to automatically position the image in the centering pattern.
- LCD CONTROL**
- ◀ ▶ Allows to scroll thru the different menus (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).

Chapter 2 : STARTING

2-1. CONNECTIONS

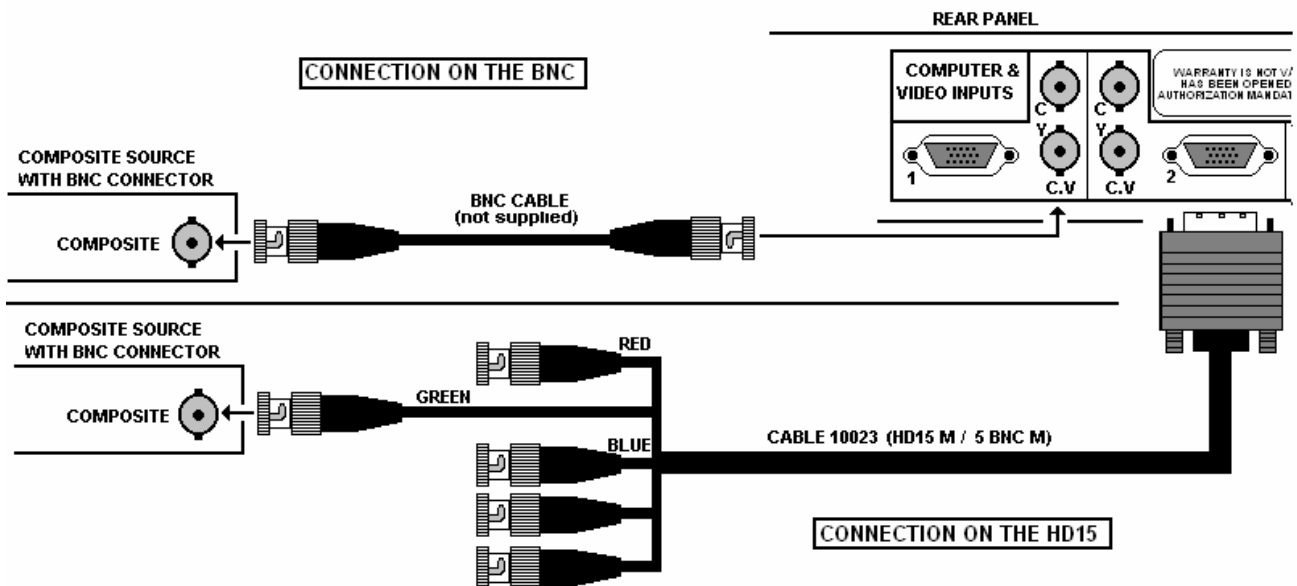
- ① Turn OFF all of your equipment before connecting.
- ② Connect the AC Power supply cord to the **OCTO-QUATTRO™** and to an AC power outlet.
- ③ Connect your Computer and video sources to the 4 inputs of the **OCTO-QUATTRO™**. See next paragraphs for more information.
- ④ Connect all of your audio 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 If needed, connect your control device or the remote keypad to the RS-232 connector.
- ⑧ Turn ON the **OCTO-QUATTRO™** (front panel switch). Then turn ON all yours input sources, and then your display device.

NOTE: For switching operation please see Chapter 3 : OPERATING MODE.



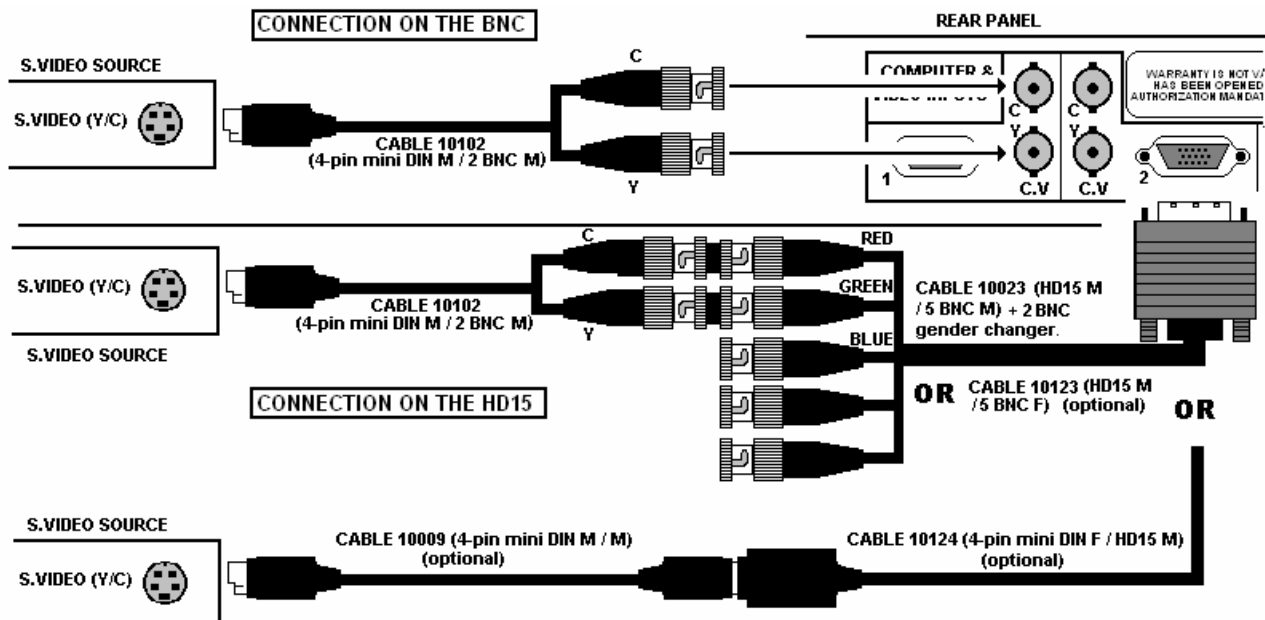
2-2. COMPOSITE VIDEO SOURCES

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.



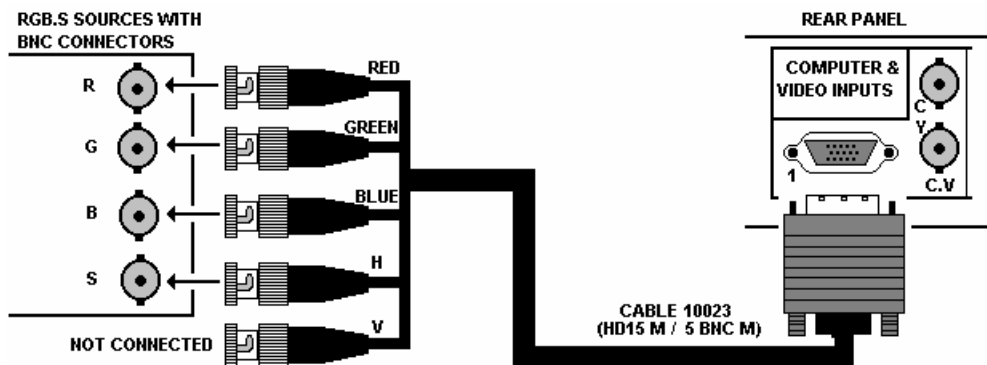
2-3. S.VIDEO SOURCES

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.



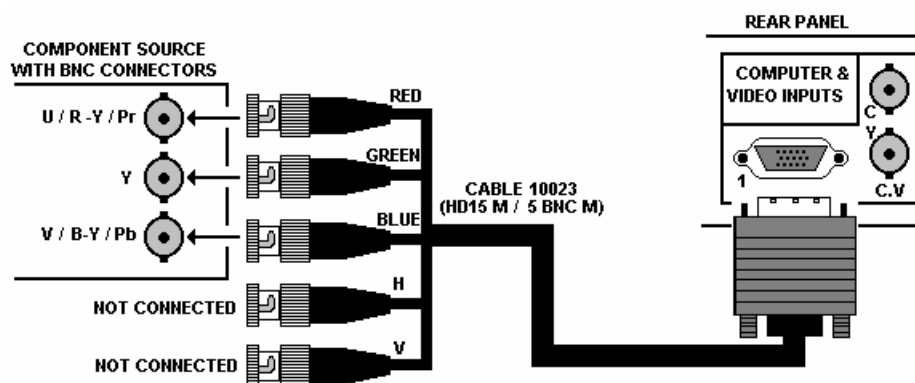
2-4. RGB/S VIDEO SOURCES

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.



2-5. 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.

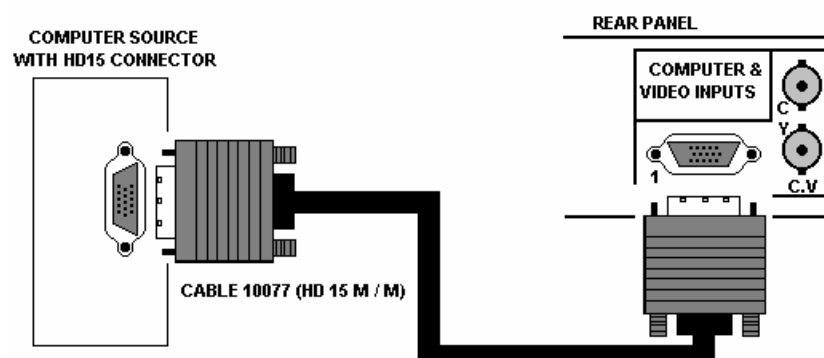


2-6. HDTV SOURCES

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

2-7. COMPUTER SOURCES

The OCTO-QUATTRO™ accepts COMPUTER signals (RGBHV, RGB/S, and RGsB) on its 4 inputs connector (HD15 female). Use a HD15 male / male cable to connect each of your computer sources to the inputs of the OCTO-QUATTRO™. For MAC and WORKSTATION you may require some adapters.

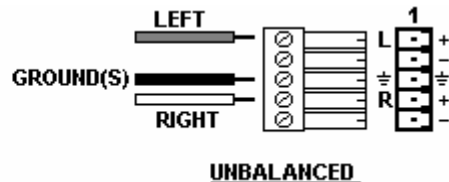
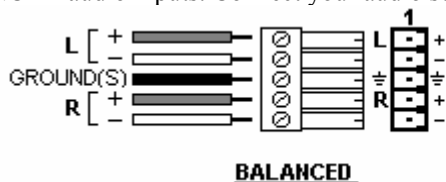


2-8. DISPLAY OUTPUT

The **OCTO-QUATTRO™** is equipped with a data outputs on HD15 female connector. The OCTO-QUATTRO™ can provide an RGBHV (H & V Separate Sync.), an RGB/S (Composite Sync.) or a RGSB (SOG) output signal.

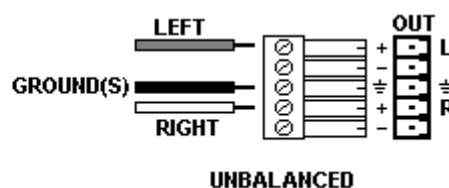
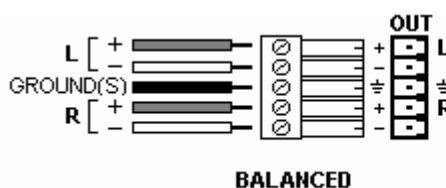
2-9. AUDIO INPUTS

Each audio is equipped with a 5-pin MCO male connector. This connector allows connecting **BALANCED** or **UNBALANCED** audio inputs. Connect your audio sources as follow:



2-10. AUDIO OUTPUT

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



Chapter 3 : OPERATING MODE

3-1. SETTINGS

- ① We recommend resetting the OCTO-QUATTRO™ device to all of its **default values**, with the LCD menu (**CONTROL > default value > yes**) before proceeding.
- ② Select the **input type** connected to the **INPUTS** (#1 to #4) with the LCD menu (**INPUT > input type**).
- ③ Select the **output sync.** which corresponds to your display device with the LCD menu (**OUTPUT > output sync**).
- ④ Select an output rate mode with the LCD menu (**SWITCHING > fast switching > output rate > internal or follow**).
- ⑤ Select one of the **output formats** with the LCD menu (**OUTPUT > 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.
- ⑥ Select the **type of screen** (4/3 or 16/9) with the LCD menu (**OUTPUT > type of screen**), according to your wall mounted projection screen shape.

3-2. SWITCHING OPERATIONS

The OCTO-QUATTRO™ allows switching between its inputs with 2 different manner: with a **FADE COLOR** or with a **CLEAN CUT**. The FADE COLOR allows to switch between the 2 sources with a fading to the color of you choice.

NOTE: You can select the color of the fading with the LCD menu (**CONTROL > transition > fade color**).

The CLEAN CUT allows a clean switching thanks to a fast freeze of the displayed source. Activate the CLEAN CUT with the LCD menu (**CONTROLS > transition > clean cut**).

3-3. DISPLAY DEVICE ADJUSTMENTS

- ① Display a black output (with the front panel BLACK button).
- ② Display the **centering pattern** with the LCD menu (**OUTPUT > test pattern > centering**).
- ③ Adjust directly the display device itself, using its position and size controls, to fill the centering pattern in full screen.



3-4. IMAGE ADJUSTMENTS

For each input source connected to the OCTO-QUATTRO™, make the following adjustments:

- ① Select the source you want to adjust (with the front panel "INPUT SELECTION" buttons).
- 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 with the position & size functions (**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 OCTO-QUATTRO™ 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.

3-5. AUDIO ADJUSTMENTS

- ① Adjust the master volume (**AUDIO > master volume**).
- ② Set 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.
- ③ For each audio input, adjust the level (**AUDIO > audio level**) and the balance (**AUDIO > audio balance**).

Chapter 4 : LCD SCREEN DESCRIPTION

4-1. 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-QUATTRO™.
- The CONTROL MODE allows selecting and adjusting the parameters of the OCTO-QUATTRO™.

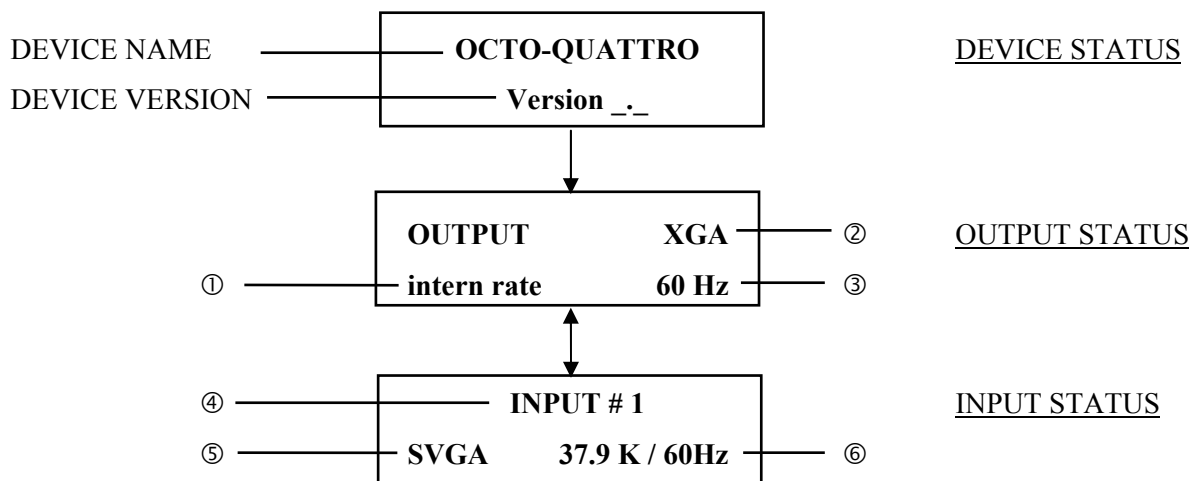
4-2. CONTROL BUTTONS

The LCD screen is controlled by 2 buttons and 1 knob:

- ◀ ▶ knob:
 - In the STATUS MODE, turns this knob to adjust the Master volume.
 - In the CONTROL MODE, turn this knob to scroll thru the different menus.
- EXIT / MENU** button:
 - In the STATUS MODE, press this button to display the CONTROL MODE.
 - In the CONTROL MODE, press this button to:
 - return to the previous menu without safeguarding the selection.
 - return to the STATUS MODE (press several times).
- ENTER** button:
 - From the STATUS MODE, press this button to display the CONTROL MODE.
 - From the CONTROL MODE, press this button to confirm a selected item.

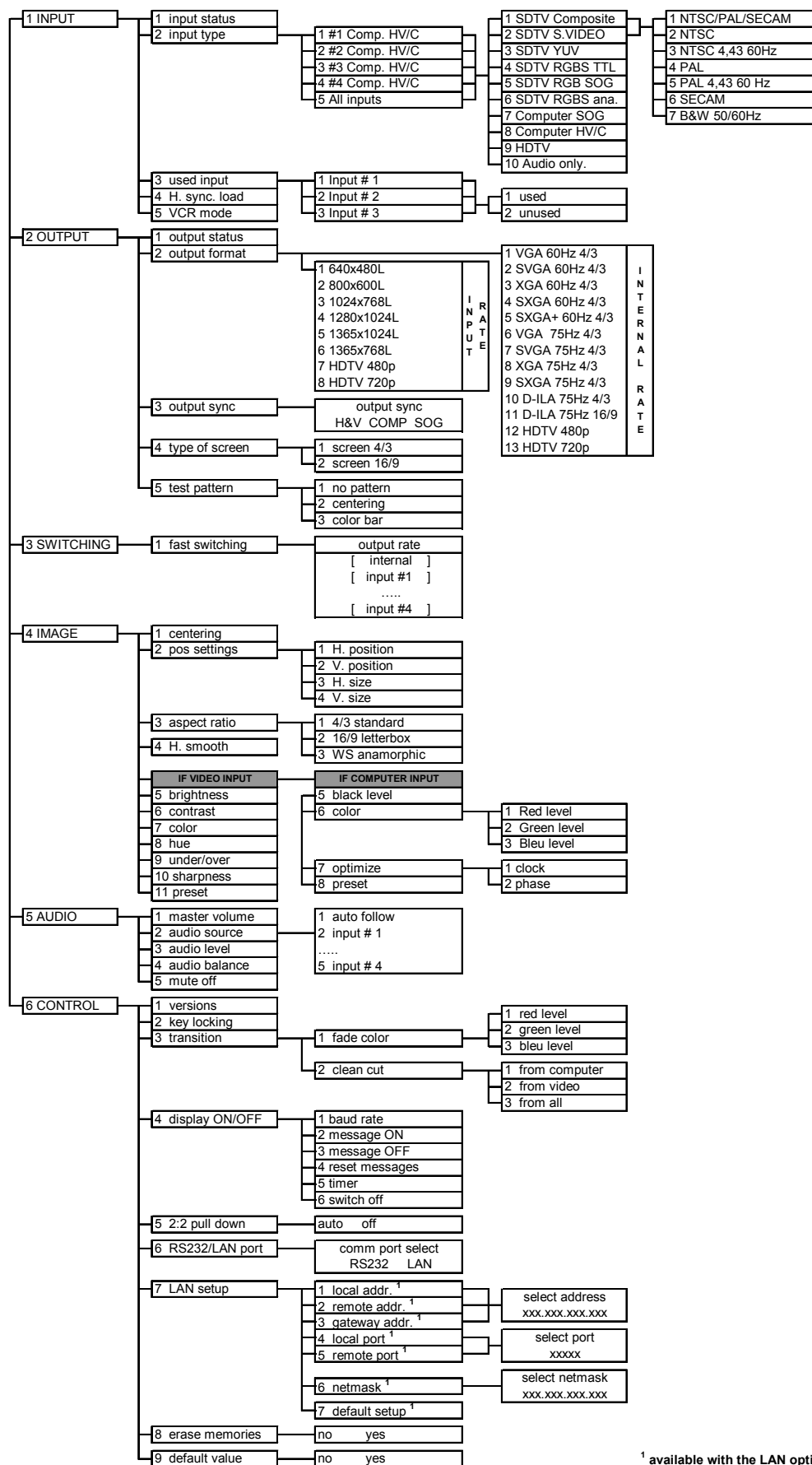
4-3. STATUS MODE

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



- ① OUTPUT RATE.
- ② OUTPUT FORMAT.
- ③ OUTPUT FRAME RATE.
- ④ SELECTED INPUT (DISPLAYED).
- ⑤ INPUT FORMAT OR INPUT STANDARD.
- ⑥ INPUT LINE / FRAME FREQUENCY.

The menus of the CONTROL MODE are configured as follow:



¹ available with the LAN option.

Chapter 5 : LCD FUNCTIONS DESCRIPTION

1 ► [INPUT] + 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]
- [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).
- [SDTV RGB SOG]
- [SDTV RGBS ana.]
- [Computer SOG]
- [Computer HV/C]

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.
- [NTSC 4.43 60 Hz] = NTSC 4.43 60Hz detection.
- [SECAM] = SECAM standard detection only.
- [PAL] = PAL standard detection only.
- [PAL 4.43 60Hz] = PAL 4.43 60Hz detection.
- [B & W 50/60 Hz] = Black and White standard detection.

1-3 [used input] + ENTER.

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

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

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

2 ► [OUTPUT] + 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.
- [SXGA+ 60 Hz 4/3] = 1400 x 1050 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.

• 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.
- [1400 x 1050 L] = 1400 x 1050 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.
- **[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.

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.

3 ▶ [SWITCHING] + ENTER.**3-1 [fast switching] + ENTER.**

Select an item with ◀ ▶ + **ENTER**.

- **[internal]** = 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.

4 ▶ [IMAGE] + 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 [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 (video) or 16/9 input format (computer).

4-4 [H. smooth] + ENTER.

Adjust the horizontal smooth with ◀ ▶ + **ENTER**.

• **If the selected input is a VIDEO signal (input type =SDTV---) 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.**
Select Underscan or Overscan with ◀ ▶ + **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 (input type = Computer---) 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.**
Select an item with ◀ ▶ + **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.**

5 ▶ **[AUDIO] + 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 video image.
 - **[input --]** = 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 **[mute off] + ENTER.**
Switch ON or OFF the audio output. Validate with **ENTER.**

6 ▶ [CONTROL] + ENTER.**6-1 [versions] + ENTER.**

Version __ = update version. I = Identification number. K, S, F, O, V = status of the internal firmware versions.

6-2 [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.

6-3 [transition] + ENTER.

Select an item with ◀ ▶ + **ENTER**

6-3-1 [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.

6-3-2 [clean cut] + ENTER.

This function allows a clean switching thanks to a fast freeze of the displayed source. Select a function with ◀ ▶ + **ENTER**.

- **[from computer]** = The CLEAN CUT operates only when switching from a computer source. The others switching operates with a fade color.
- **[from video]** = The CLEAN CUT operates only when switching from a computer source. The others switching operates with a fade color.
- **[from all]** = The CLEAN CUT operates when switching from all sources.

6-4 [display ON/OFF] + ENTER.**6-4-1 [baud rate] + ENTER.**

Select the baud rate of the display device with ◀ ▶ + **ENTER** between 9600, 2400 & 1200.

6-4-2 [message ON] + ENTER.

This function allows to store the ON message of your display device. Then your **OCTO-QUATTRO™** coming out the **STANDBY** mode, this one send the stored message to your display device. The ON message can be composed up to 50 bytes. For each byte, select the needed ASCII code with ◀ ▶ and validate with **ENTER**.

NOTE: The 0 value allows to displays: no data.

6-4-3 [message OFF] + ENTER.

This function allows to store the OFF message of your display device. Then your **OCTO-QUATTRO™** going into the **STANDBY** mode, this one send the stored message to your display device. The OFF message can be composed up to 50 bytes. For each byte, select the needed ASCII code with ◀ ▶, then press **ENTER**.

NOTE: The 0 value allows to displays: no data.

6-4-4 [reset messages] + ENTER.

Allows to reset the ON & OFF messages.

6-4-5 [timer: off] + ENTER.

When the device any more detect a signal on the selected input, this one is set in the **STANDBY** mode after the duration of your choice. Select a duration with ◀ ▶ + **ENTER**.

NOTE: Select OFF to inactive this function.

6-4-6 [switch off] + ENTER.

Allows to set the device in **STANDBY** mode. To coming out the **STANDBY** mode, press one of the front panel buttons.

6-5 [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.

6-6 [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.

6-7 [LAN setup] + ENTER.

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

NOTE: If the LAN option is not installed in the device the LCD display: "LAN OPTION NOT INSTALLED".

- **[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 bottom device label.

6-8 [erase memories] + ENTER.

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

6-9 [default value] + ENTER.

This function allows setting the following functions to the factory settings. Select **[YES]** and validate with **ENTER**.

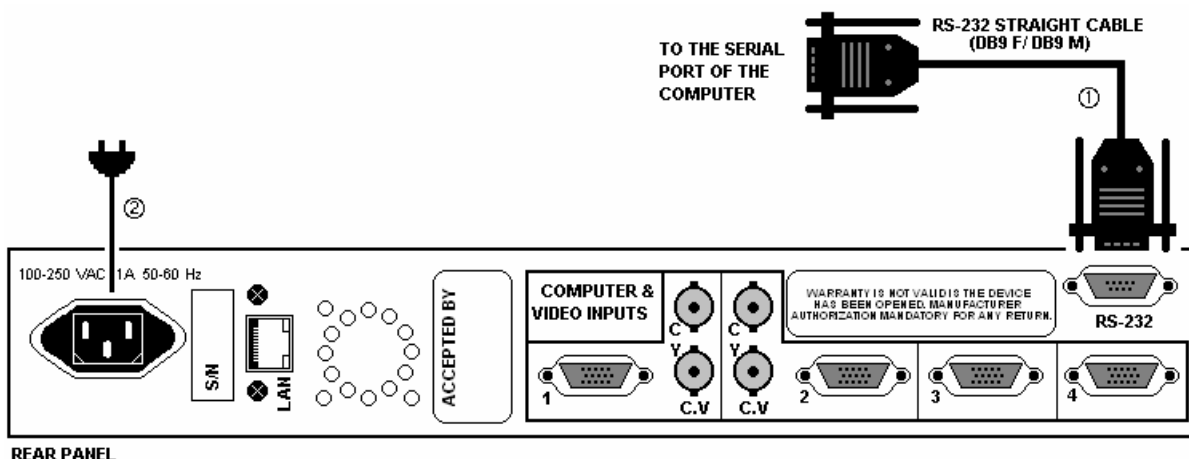
FUNCTION	POSITION	FUNCTION	POSITION
1-2 [input type]	Computer HV/C.	4-7 [color]	0
1-3 [used input]	All used.	4-7 [optimize]	0
1-4 [H sync load]	All Hi-Z.	4-8 [hue]	0
1-5 [VCR mode]	All off	4-9 [under/overscan]	overscan
2-2 [output format]	XGA 60Hz 4/3.	4-10 [sharpness]	3
2-3 [output sync]	H&V.	5-1 [master volume]	191
2-4 [type of screen]	4/3	5-2 [audio source]	auto follow
2-4 [test pattern]	no	5-3 [audio level]	48
3-1 [fast switching]	internal rate	5-4 [audio balance]	0
4-2 [pos. settings]	0	5-5 [mute]	OFF
4-3 [aspect ratio]	4/3 standard	6-2 [key locking]	all unlock
4-4 [H. smooth]	OFF	6-3-1 [fade color]	R, G, B = - 64
4-5 [brightness]	0	6-5 [2:2 pull down]	auto
4-5 [black level]	0	6-6 [RS232/LAN port]	RS232
4-6 [contrast]	0	FREEZE	inactive.
4-6 [color]	0		

Chapter 6 : UPDATING THE DEVICE

The OCTO-QUATTRO™ can be updated thanks a COMPUTER (PC) via its RS-232 communication port only.

6-1. CONNECTIONS

- ① Connect the "RS-232" connector of the OCTO-QUATTRO™ to the SERIAL port of your COMPUTER with a DB9 M/F straight cable.
- ② Connect the OCTO-QUATTRO™ to an AC power outlet.
- ③ Switch OFF the OCTO-QUATTRO™ (FRONT PANEL SWITCH = 0).



6-2. UPDATE INSTRUCTIONS

- ① Open the file: Octo-Range-Update.exe (in **Start > Program > ANALOGWAY > Octo-Range**).
- ② In the Port menu select the COM port connected to the device.
- ③ Click on "START" on the SOFTWARE.
- ④ Press the ENTER button of the OCTO-QUATTRO™ (FRONT PANEL), and SWITCH it ON simultaneously (FRONT PANEL SWITCH = I). The LCD screen displays Downloading, and the upgrade will start. Then you can release the ENTER button.
- ⑤ When the software displays "Program operation completed", SWITCH OFF and ON the OCTO-QUATTRO™ with the FRONT PANEL SWITCH.
- ⑥ Click on the "Quit" button to close the update SOFTWARE.

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

NOTE: If the "BAD TYPE DEVICE" message appears, selects the devices type in the Device menu, and renew the previous operations (③ to ⑥).

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

Chapter 7 : CONTROL SOFTWARE

Your **OCTO-QUATTRO™** is shipped with a Windows 95 or later compatible "OCTO-RANGE REMOTE CONTROL" software (3.5" disk). This software allows you to control and make all adjustments by a simple mouse click.

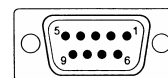
NOTE: Preferably use Windows NT, 2000, or XP for LAN operation.

7-1. CONNECTIONS

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 **OCTO-QUATTRO™** 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 OCTO)

② CONNECTING TO THE LAN PORT (optional):

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

7-2. SOFTWARE INSTALLATION

- ① Turn your computer ON and wait for Windows to completely start.
- ② Insert the CD-ROM into your drive: the ANALOG WAY home window will open automatically.
- ③ Select the language of the CD-ROM menus, then click on "Install a Remote Control Software" and select the name of your device.

IMPORTANT: If the Autorun is not enabled: From the Windows desktop, open My Computer and select the CD-ROM drive. Select the Autorun folder, then select the autorun.exe file.

- ④ Follow the Windows installation instructions.

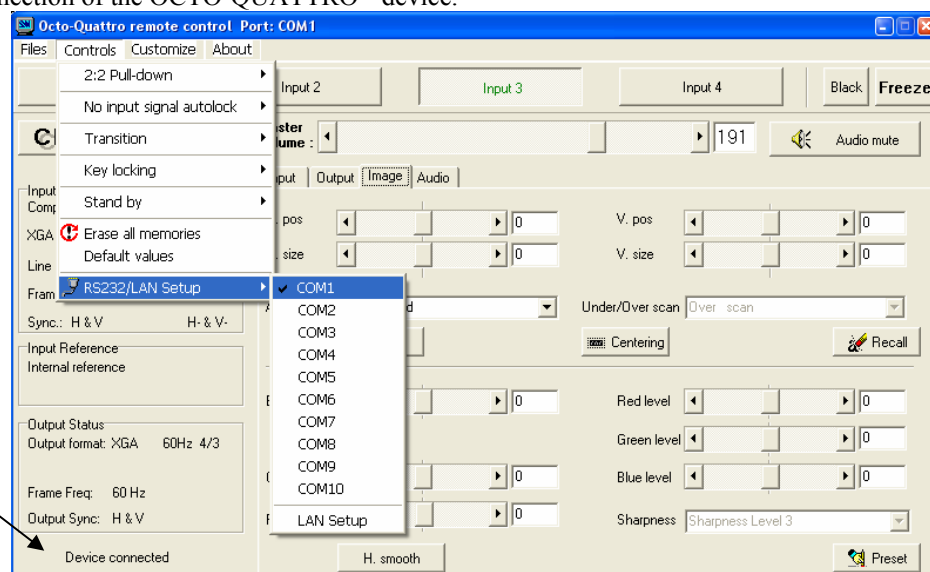
7-3. COMMUNICATION SETUP

- ① Connect the RS-232 or RJ45 cable between the OCTO-QUATTRO™ and the control device as indicated in the section 7-1.
- ② Then only power ON all of the devices.
- ③ Click on the program files **Octo_range** in **Start>program>ANALOGWAY>Octo-Range** to run the software.
- ④ Click on **Controls** menu and select **RS232/LAN setup**, then:

• CASE OF RS-232 PORT:

- With the LCD menu of the OCTO-QUATTRO™ device, verify that the RS-232 port is activate (**CONTROL > RS232/LAN port > RS232**).
- With the **Controls** menu of the software, select **RS232/LAN setup**, then select the **COM** port number corresponding to the connection of the OCTO-QUATTRO™ device.

If the communication is OK, the message "Device connected" is displayed as well as the OCTO model in the windows title bar.

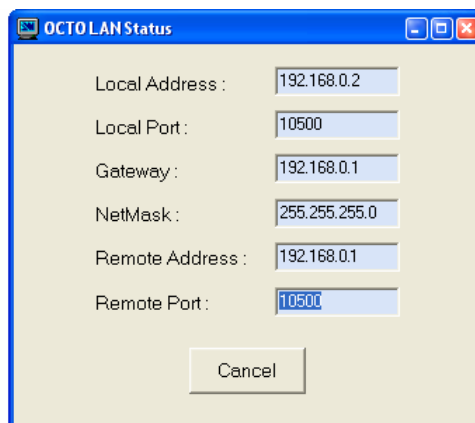
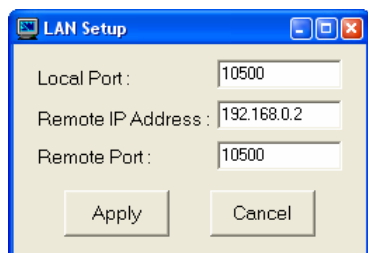


7-3. COMMUNICATION SETUP (continued)**• CASE OF LAN PORT:**

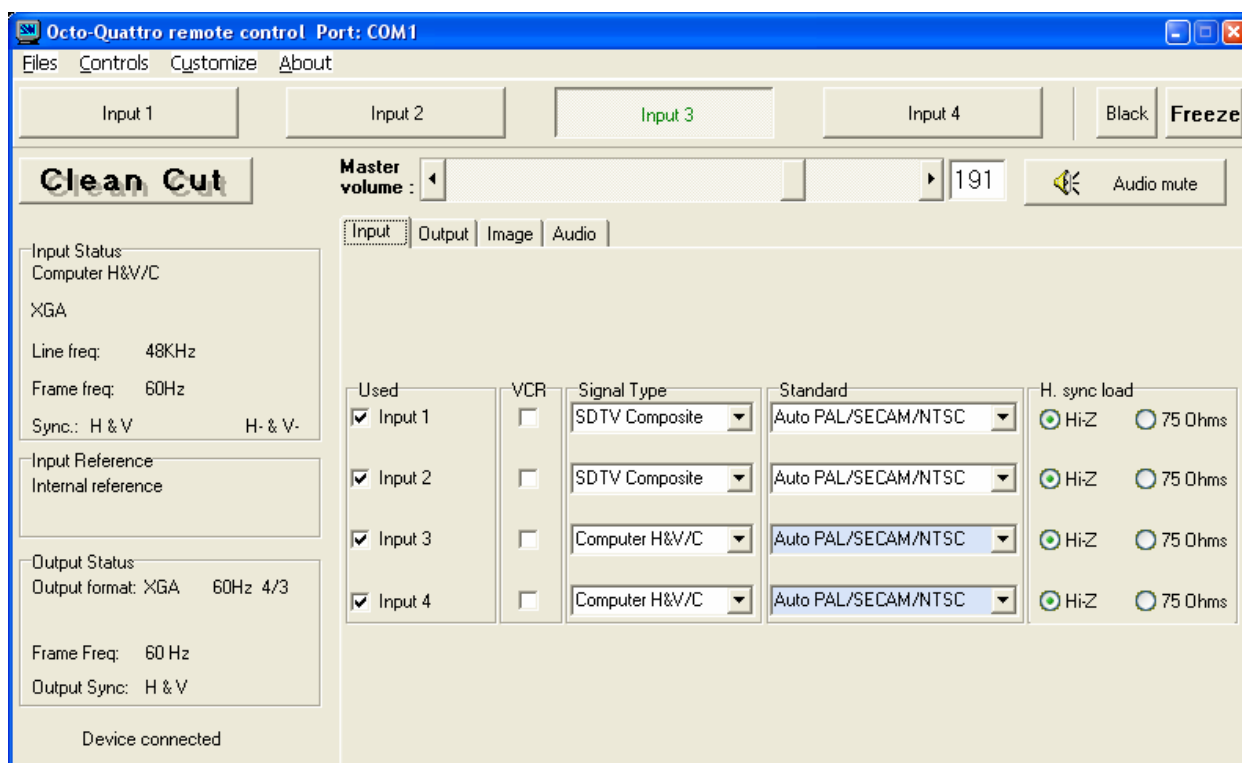
- With the LCD menu of the OCTO-QUATTRO™ device, verify the configuration of the LAN communication port (**CONTROL > LAN setup**), then activate the LAN communication port (**CONTROL > RS232/LAN port > LAN**).

- With the **Controls** menu of the software, select **RS232/LAN setup**, and **LAN Setup**. Then configure the **Local port**, the **Remote IP address** and the **Remote port**, and click on **Apply** to setup the new values. The software will also display **Device connected**.

NOTE: To verify the LAN status of your OCTO-QUATTRO™ device, select **OCTO LAN status** in the **Controls** menu.

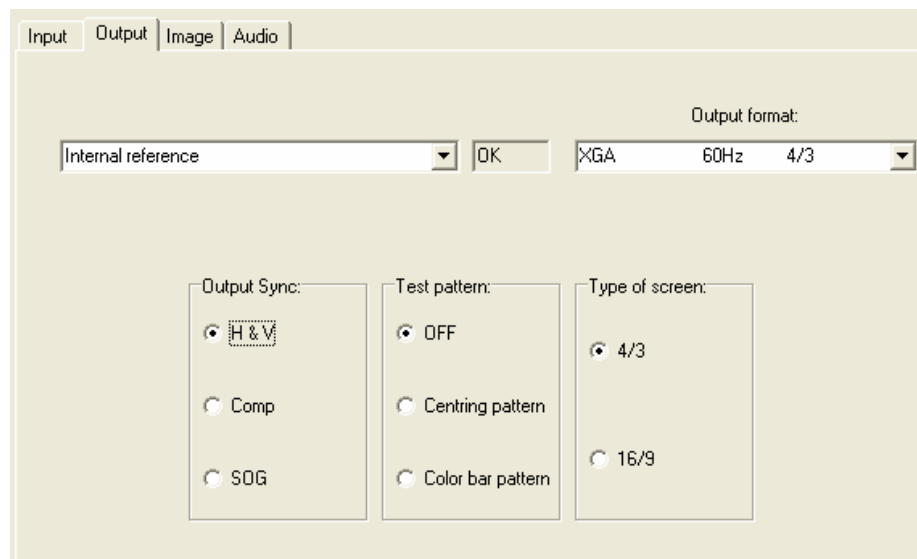
**7-4. USING THE SOFTWARE**

- ① Click on the **Input** tab and select the **Signal Type** for each input. Then, if needed make the others adjustments (video **Standard...**) and disable the unused inputs (**Used** section).



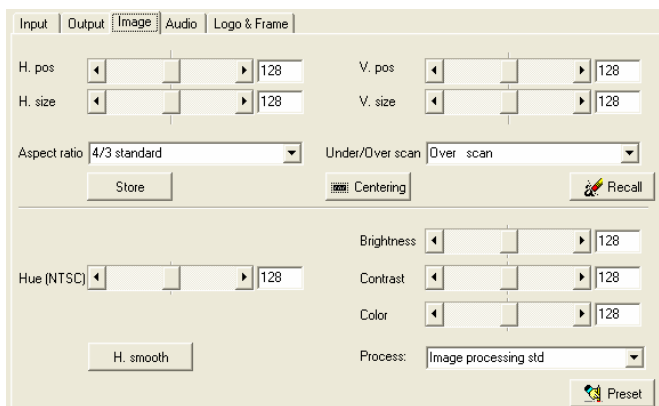
7-4. USING THE SOFTWARE (continued)

- ② Click on the **Output** tab, then select the **Output rate** (internal or follow), the **Output Sync.**, the **Type of screen**, and the **Output format** (in FAST mode only).

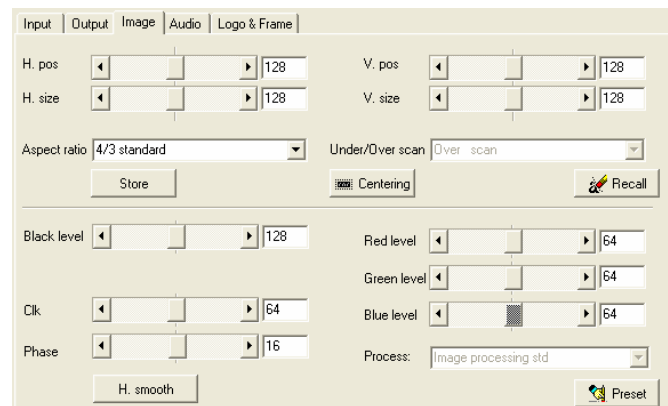


- ③ Click on the **Image** tab and adjust all your inputs.

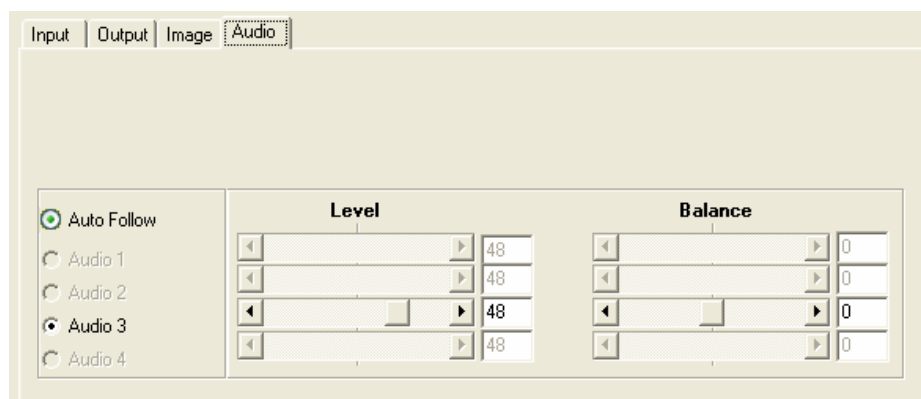
• If the selected input is a video source:



• If the selected input is a computer source:



- ④ Click on the **Audio** tab and select **Auto follow** (follow switching mode) or an Audio source (breakaway mode). Then adjust the **Level** and the **Balance** of each audio source.



Chapter 8 : REMOTE CONTROL PROGRAMMER'S GUIDE

8-1. INTRODUCTION

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

The **OCTO-QUATTRO™** 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 8-2. COMMANDS STRUCTURE).

When the OCTO-QUATTRO™ 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-QUATTRO™ will just send 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 8-3. ERROR RESPONSES).

8-2. 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.

8-3. ERROR RESPONSES

When the OCTO-QUATTRO™ 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.

8-4. COMMANDS AND RESPONSES TABLE

The following table resumes commands that 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.	Rd	1	4	1 = INPUT #1 2 = INPUT #2
c	ch	Input selection.	Rd/Wr	1	4	3 = INPUT #3 4 = INPUT #4
o	OBLK	Black screen selection.	Rd/Wr	0	1	1 = black screen
G	TAKE	Transition status.	Rd	0	1	1 = transition in process (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	4	0 = All inputs 1 = INPUT #1 2 = INPUT #2 3 = INPUT #3 4 = INPUT #4
PE	PEN	Input disabling (according to PCH).	Rd/Wr	0	1	0 = Input disable 1 = Input enable
PL	PLD	H sync load selection (according PCH)	Rd/Wr	0	1	0 = Hi-Z load 1 = 75Ω load
PR	PRGB	Input signal type selection. (according to PCH).	Rd/Wr	0	9	0 = SDTV Composite 1 = SDTV S.VIDEO 2 = SDTV YUV 3 = SDTV RGBS TTL 4 = SDTV RGsB 5 = SDTV RGBS ana. 6 = Computer (SOG) 7 = Computer H&V/C 8 = HDTV 9 = Audio only
PI	PSTD	Input standard selection (according to PCH).	Rd/Wr	0	6	0 = NTSC / PAL / SECAM 1 = NTSC 2 = PAL 3 = NTSC 4.43 60Hz 4 = PAL 4.43 60 Hz 5 = SECAM 6 = Black & White
PP	PPRC	VCR mode (according to PCH).	Rd/Wr	0	1	0 = OFF 1 = ON
OUTPUT COMMANDS						
F	OFMT	Output format selection.	Rd/Wr	0	12	If fast switching =
						internal rate input # X
						0 = VGA 60 Hz 0 = 640x480L
						1 = SVGA 60 Hz 1 = 800x600L
						2 = XGA 60 Hz 2 = 1024x768L
						3 = SXGA 60 Hz 3 = 1280x1024L
						4 = SXGA+ 60Hz 4 = 1400 x1050 L.
						5 = VGA 75 Hz 5 = 640x480L
						6 = SVGA 75 Hz 6 = 800x600L
						7 = XGA 75 Hz 7 = 1024x768L
						8 = SXGA 75 Hz 8 = 1280x1024L
						9 = D-ILA 4/3 9 = 1365x1024L
						10 = D-ILA 16/9 10 = 1365x768L
						11 = HDTV 480p 11 = HDTV 480p
						12 = HDTV 720p 12 = HDTV 720p.
fm	OSYN	Output sync selection.	Rd/Wr	0	2	0 = H & V 1 = Composite 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	2	0 = no pattern 1 = centering 2 = color bar
SWITCHING COMMANDS						
XR	REFR	Input "reference" selection.	Rd/Wr	0	4	0 = internal rate
XA	REFA	Reference input.	Rd	0	4	1 = INPUT #1
		NOTE: REFA can be different from REFR, if no sync is connect to the corresponding input.				2 = INPUT #2. 3 = INPUT #3. 4 = INPUT #4.
XI	REFI	Aspect ratio of the reference input.	Rd/Wr	0	2	0 = 4/3 2 = 16/9
NOTE: Rd/Wr = Read and write command. Rd = Read only command.						

8-4. COMMANDS AND RESPONSES TABLE (continued)

ASCII COMMAND	RESPONSE	COMMAND DESCRIPTION	TYPE	VALUE		
				MIN	MAX	DESCRIPTION
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	
yC	ACAD	Automatic centering.	Rd/Wr	0	1	1 = CENTERING action (automatic reset).
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	Sharpness 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	
mc	CLK	Number of pixels per line (computer).	Rd	0	65535	
mC	DLCK	Pixels clock adjustment (computer). This function is active if CLK ≠ 0.	Rd/Wr	0	127	
QF	QF	Optimize adjustment (computer). This function is active if CLK = 0 only.	Rd/Wr	0	255	
mP	DPHA	Pixels phase adjustment (computer).	Rd/Wr	0	31	
yp	PRES	PRESET.	Rd/Wr	0	1	1 = PRESET action (automatic reset).
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 input selection.	Rd/Wr	1	4	1 = AUDIO IN #1. 2 = AUDIO IN #2 3 = AUDIO IN #3 4 = AUDIO IN #4
AL	ALVL	Audio level (works with PC command).	Rd/Wr	0	63	
AB	ABAL	Audio balance (works with PC).	Rd/Wr	0	63	
AM	AMUT	Audio mute.	Rd/Wr	0	1	0 = MUTE OFF 1 = MUTE ON
NOTE: Rd/Wr = Read and write command. Rd = Read only command.						

8-4. COMMANDS AND RESPONSES TABLE (continued)

ASCII COMMAND	RESPONSE	COMMAND DESCRIPTION	TYPE	VALUE		
				MIN	MAX	DESCRIPTION
CONTROLS COMMANDS						
xu	VERU	Device version.	Rd	0	65535	Example: 104 = Version 1.4
xi	I	Identification number.	Rd	0	65535	Value displayed in hexadecimal in the device.
yo	OPT	Options available.	Rd	0	65535	0 = without 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
yi	EISP	Auto-lock	Rd/Wr	0	1	0 = off 1 = on.
LF	LFAD	Transition mode.	Rd/Wr	0	4	0 = fade color 2 = Clean cut (from computer) 3 = Clean cut (from video) 4 = Clean cut (from all)
at	AFRA	Auto frame	Rd/Wr	0	1	0 = OFF 1 = ON
wp	STBE	standby delay	Rd/Wr	0	255	0 = OFF 1 = 1 minute 2 = 2 minutes 255 = 255 minutes
wo	MESO	ON message for the display device.	Rd/Wr	0	255	The ON/OFF messages can be composed up to 50 bytes. Set this command to the first byte with the wt command, then send successively the value and the command letters for each byte
wf	MESF	OFF message for the display device.	Rd/Wr	0	255	i.e: If your ON message is ABC, send: 1wt 65wo 66wo 67wo 0wo . NOTE: 0 value = no data.
wt	MCTR	ON/OFF message controls.	Rd/Wr	0	8	1 = set the wo command to the first byte. 2 = set the wf command to the first byte. 4 = read the ON message. 8 = read the OFF message.
ws	STDB	Standby mode	Rd/Wr	0	1	0 = standby inactive 1 = standby active.
wr	RATE	Baud rate selection to the display device	Rd/Wr	0	2	0 = 9600 1 = 2400 2 = 1200 bauds.
br	BFCR	Red level adjustment of the fade.	Rd/Wr	0	255	
bb	BFCB	Bleu level adjustment of the fade.	Rd/Wr	0	255	
bg	BFCG	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).
STATUS COMMANDS						
U	UNIT	Measures unity in kHz.	Rd	0	65535	
IL	ILD	This command allows to calculate the input line frequency in Hz.	Rd	0	65535	Line frequency (in kHz) = (UNIT VALUE) ÷ (ILD VALUE).
ID	IFD	This command allows to calculate the input frame frequency in Hz.	Rd	0	65535	Frame frequency (in Hz) = (Line frequency in Hz) ÷ (IFD VALUE).
IP	IPS	Input Sync. detection.	Rd	0	1	0 = not 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 (ana)
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	0 = no signal. 1 = not compatible. 2 = NTSC (3.58/60). 3 = NTSC (4.43/60). 4 = PAL (4.43/50). 5 = PAL (4.43/60). 6 = SECAM (50Hz). 7 = B & white (50Hz). 8 = B & white (60Hz). 9 = YUV 50 Hz. 10 = YUV 60 Hz. 11 = RGB 50 Hz. 12 = RGB 60 Hz. 13 = VGA1 350L. 14 = VGA2 400L. 15 = VGA3 480L. 16 = PLASMA 42". 17 = SVGA. 18 = MAC. 19 = XGA. 20 = PLASMA 50'. 21 = MAC 21'. 22 = SXGA. 23 = UXGA. 24 = 1080i @ 50 Hz. 25 = 1080i @ 59.94/60. 26 = 480p @ 59.94/60. 27 = 720p @ 59.94/60.
XF	REFP	Standard of the reference input.	Rd	0	27	
XT	REFT	Frame frequency of the reference input	Rd	0	65535	Value in Hz.
NOTE: Rd/Wr = Read and write command. Rd = Read only command.						

8-4. 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
OTHERS COMMANDS						
M	STO	Image parameters storing.	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	26 = OTR401.
#	DEV.....	Send all device parameters.	Rd			
NOTE: Rd/Wr = Read and write command. Rd = Read only command.						

8-5. ASCII / HEX / DEC TABLE

ASCII	HEX	DEC	ASCII	HEX	DEC	ASCII	HEX	DEC
LF	0A	10	@	40	64	b	62	98
CR	0D	13	A	41	65	c	63	99
space	20	32	B	42	66	d	64	100
!	21	33	C	43	67	e	65	101
"	22	34	D	44	68	f	66	102
#	23	35	E	45	69	g	67	103
\$	24	36	F	46	70	h	68	104
%	25	37	G	47	71	i	69	105
&	26	38	H	48	72	j	6A	106
'	27	39	I	49	73	k	6B	107
(	28	40	J	4A	74	l	6C	108
)	29	41	K	4B	75	m	6D	109
*	2A	42	L	4C	76	n	6E	110
+	2B	43	M	4D	77	o	6F	111
,	2C	44	N	4E	78	p	70	112
-	2D	45	O	4F	79	q	71	113
.	2E	46	P	50	80	r	72	114
/	2F	47	Q	51	81	s	73	115
0	30	48	R	52	82	t	74	116
1	31	49	S	53	83	u	75	117
2	32	50	T	54	84	v	76	118
3	33	51	U	55	85	w	77	119
4	34	52	V	56	86	x	78	120
5	35	53	W	57	87	y	79	121
6	36	54	X	58	88	z	7A	122
7	37	55	Y	59	89	{	7B	123
8	38	56	Z	5A	90	 	7C	124
9	39	57	[	5B	91	}	7D	125
:	3A	58	\	5C	92	~	7E	126
;	3B	59	]	5D	93	DEL	7F	127
<	3C	60	^	5E	94			
=	3D	61	_	5F	95			
>	3E	62	`	60	96			
?	3F	63	a	61	97			

Chapter 9 : OPTIONAL ACCESSORY: THE REMOTE KEYPAD (RK802-F)

9-1. GENERAL INFORMATION

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



9-2. STARTING

- ① Turn OFF your OCTO (front panel switch).
- ② Connect the RS-232 connector (DB9 female) of your OCTO to the DB9 male connector of the REMOTE KEYPAD with the supplied RS-232 cable.
- ③ Turn ON your OCTO (front panel switch).
- ④ Select the wanted source with the **INPUT SELECTION** buttons.
- ⑤ Make the audio adjustment with the **AUDIO** buttons.

9-3. TECHNICAL DESCRIPTION

EFFECT: Not available with the OCTO-QUATTRO™.

AUDIO

MUTE: Allows to switch OFF the audio output (short push).

BREAKAWAY: Allows to permanently diffuse an audio source. Select a source with the **INPUT SELECTION** button, then press and hold on the BREAKAWAY button (LED = double-blinking).

VOLUME (+ /-): Audio level adjustment.

LOGO: Not available with the OCTO-QUATTRO™.

FREEZE: Allows to freeze the displayed output.

INPUT SELECTION:

- Selection of the input source (short push).
- A long push (1 second) on the selected input button allows to active the **BLACK** function: black output screen.
- The lit ON LED indicates the displayed input. The blinking LED indicates the last displayed input (when **black** is active). The double-blinking LED indicates the diffused audio source (when **breakaway** is active).

DB9 male connector: RS-232 & power connection.

Jack 3.5 F connector: Input connector for optional infra red receiver.

9-4. TECHNICAL SPECIFICATIONS

Power Supply: + 12 Vdc (by the OCTO-QUATTRO™'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.

Chapter 10 : TECHNICAL SPECIFICATIONS

10-1. COMPUTER & VIDEO INPUTS

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

<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 = Hi-Z.

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

<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 female connector).**

<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 female connector).**

<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 4-pin mini DIN connector or 2 BNC connectors or HD15 female connector).**

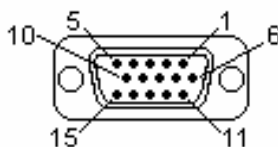
<i>Standard:</i>	PAL / SECAM: 15.625 kHz / 50 Hz - 625 lines. NTSC (3.58 MHz / 4.43 MHz): 15.735 kHz / 60 Hz - 525 lines.
<i>Levels:</i>	Y = 1 Vp/p (0.7 V Luma + 0.3 V Sync.). C = 0.3 Vp/p (Chroma Burst).
<i>Impedance:</i>	75 ohms.

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

<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.

10-1. 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-QUATTRO™.

10-2. DISPLAY OUTPUT (HD15 female connector)

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

Impedance: R, G, B = 75 ohms.

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

10-3. AUDIO INPUTS (5-pin MCO male connector)

- **INPUTS #1 to #4** (on 5-pin MCO male connector) = Balanced and unbalanced* stereo inputs.

$V_i = +0$ dBu (sensitivity), $+4$ dBu (max).

$Z_i = 22$ k Ω unbalanced.

$Z_i = 44$ k Ω balanced.

Gain = $+0$ db / $-\infty$ adjustable.

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

10-4. AUDIO OUTPUT (5-pin MCO male connector)

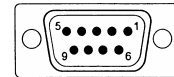
- Balanced and unbalanced stereo output.
- $V_o = +0$ dBu (nominal), +4 dBu (max).
- $Z_o = 600\ \Omega$ balanced.
- $Z_o = 300\ \Omega$ unbalanced.
- $G = 0$ dB nominal, $-\infty$ with Master volume.

10-5. COMMUNICATION PORTS• **RS-232 (on DB9 female connector)**

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

Pin-out:

PIN #	FUNCTIONS
2	Tx1 (transmit data to the control device)
3	Rx1 (receive data from the control device)
4	Rx2 (receive data from the display device)
5	GROUND (Gnd)
8	Reserved for manufacturer.
9	Tx2 (transmit data to the display device)



DB9 female connector of the OCTO-QUATTRO™.

• **LAN (Optional on RJ45 connector)**

Protocol: UDP (User Datagram 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.

10-6. ROOM OUT

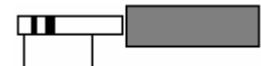
Connector: Jack 3.5 mm female.

Command levels: ON = +12 Vdc trigger.
OFF = 0 Vdc.

Output Current: 0.1 A max at +12 Vdc.

NOTE: The ROOM OUT is activate with the AC Power Switch (ON/OFF).

Jack 3.5 connection



+12 Vdc Ground

10-7. 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.

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.