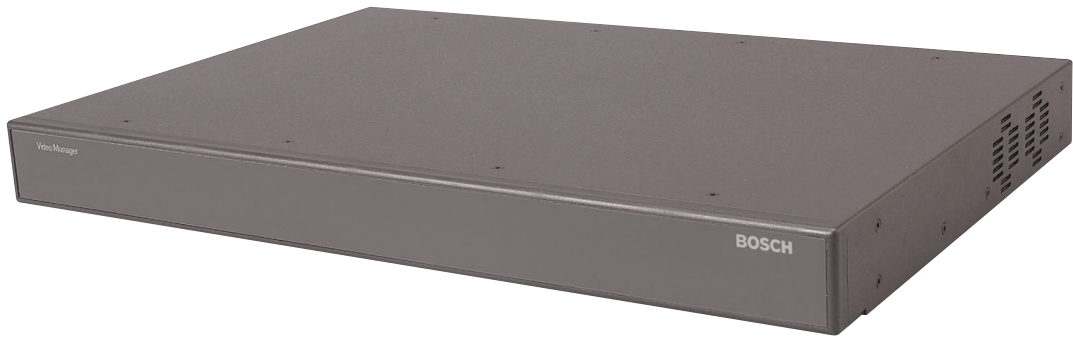


# LTC 2605/91



**Security Systems**

EN | Instruction Manual  
Video Manager

# BOSCH

## Important Safeguards

1. **Read, Follow, and Retain Instructions** - All safety and operating instructions should be read and followed before operating the unit. Retain instructions for future reference.
2. **Heed Warnings** - Adhere to all warnings on the unit and in the operating instructions.
3. **Attachments** - Attachments not recommended by the product manufacturer should not be used, as they may cause hazards.
4. **Installation Cautions** - Do not place this unit on an unstable stand, tripod, bracket, or mount. The unit may fall, causing serious injury to a person and serious damage to the unit. Use only manufacturer-recommended accessories, or those sold with the product. Mount the unit per the manufacturer's instructions. Appliance and cart combination should be moved with care. Quick stops, excessive force, or uneven surfaces may cause the appliance and cart combination to overturn.
5. **Cleaning** - Unplug the unit from the outlet before cleaning. Follow any instructions provided with the unit. Generally, using a damp cloth for cleaning is sufficient. Do not use liquid cleaners or aerosol cleaners.
6. **Servicing** - Do not attempt to service this unit yourself. Opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
7. **Damage Requiring Service** - Unplug the unit from the main AC power source and refer servicing to qualified service personnel under the following conditions:
  - When the power supply cord or plug is damaged.
  - If liquid has been spilled or an object has fallen into the unit.
  - If the unit has been exposed to water and/or inclement weather (rain, snow, etc.).
  - If the unit does not operate normally, when following the operating instructions. Adjust only those controls specified in the operating instructions. Improper adjustment of other controls may result in damage, and require extensive work by a qualified technician to restore the unit to normal operation.
  - If the unit has been dropped or the cabinet damaged.
  - If the unit exhibits a distinct change in performance, this indicates that service is needed.
8. **Replacement Parts** - When replacement parts are required, the service technician should use replacement parts specified by the manufacturer or that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electrical shock or other hazards.
9. **Safety Check** - Upon completion of servicing or repairs to the unit, ask the service technician to perform safety checks to ensure proper operating condition.
10. **Power Sources** - Operate the unit only from the type of power source indicated on the label. If unsure of the type of power supply to use, contact your dealer or local power company.
  - For units intended to operate from battery power, refer to the operating instructions.
  - For units intended to operate **with External Power Supplies**, use only the recommended approved power supplies.
  - For units intended to operate with a limited power source, this power source must comply with EN60950. Substitutions may damage the unit or cause fire or shock.
  - For units intended to operate at 24VAC, normal input voltage is **24VAC**. Voltage applied to the unit's power input should not exceed 30VAC. User-supplied wiring, from the 24VAC supply to unit, must be in compliance with electrical codes (Class 2 power levels). Do not ground the 24VAC supply at the terminals or at the unit's power supply terminals.
11. **Coax Grounding** - If an outside cable system is connected to the unit, ensure that the cable system is grounded. U.S.A. models only - Section 810 of the National Electrical Code, ANSI/NFPA No.70, provides information regarding proper grounding of the mount and supporting structure, grounding of the coax to a discharge unit, size of grounding conductors, location of discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.
12. **Grounding** - This unit may be equipped with a 3-wire grounding plug (a plug with a third pin, for grounding). This safety feature allows the plug to fit into a grounding power outlet only. If unable to insert the plug into the outlet, contact an electrician to arrange replacement of the obsolete outlet. Do not defeat the safety purpose of the grounding plug.
  - Outdoor equipment should only be connected to the unit's inputs after this unit has had its grounding plug connected to a grounded outlet or its ground terminal properly connected to a ground source.
  - The unit's input connectors must be disconnected from outdoor equipment before disconnecting the grounding plug or grounding terminal.
  - Proper safety precautions such as grounding should be followed for any outdoor device connected to this unit.
13. **Lightning** - For added protection during a lightning storm, or when this unit is left unattended and unused for long periods of time, unplug the unit from the wall outlet and disconnect the cable system. This will prevent damage to the unit due to lightning and power line surges.

### For Indoor Product

1. **Water and Moisture** - Do not use this unit near water - for example, in a wet basement, in an unprotected outdoor installation or in any area classified as a wet location.
2. **Object and Liquid Entry** - Never push objects of any kind into this unit through openings, as they might touch dangerous voltage points or create short circuits, resulting in a fire or electrical shock. Never spill liquid of any kind on the unit.
3. **Power Cord and Power Cord Protection** - For units intended to operate with 230VAC, 50Hz, the input and output power cord must comply with the latest versions of IEC Publication 227 or IEC Publication 245.  
Power supply cords should be routed so they are not likely to be walked on or pinched. Pay particular attention to location of cords and plugs, convenience receptacles, and the point of exit from the appliance.
4. **Overloading** - Do not overload outlets and extension cords; this can result in a risk of fire or electrical shock.

### For Outdoor Product

**Power Lines** - An outdoor system should not be located in the vicinity of overhead power lines, electric lights or power circuits, or where it may contact such power lines or circuits. When installing an outdoor system, extreme care should be taken to keep from touching power lines or circuits, as this contact might be fatal. U.S.A. models only - refer to the National Electrical Code Article 820 regarding installation of CATV systems.

### For Rack-mount Product

1. **Ventilation** - Do not place this equipment in a built-in installation or rack, unless proper ventilation is provided, or the manufacturer's instructions were followed. The equipment must not exceed its maximum operating temperature requirements.
2. **Mechanical Loading** - When rack-mounting the equipment, ensure that a hazardous condition is not created by uneven mechanical loading.

## Safety Precautions



### CAUTION

RISK OF ELECTRIC SHOCK. DO NOT OPEN!



**CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**



This symbol indicates the presence of uninsulated "dangerous voltage" within the product's enclosure that can cause an electric shock.



This symbol indicates the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



Installation should be performed by qualified service personnel only in accordance with the National Electrical Code or applicable local codes.



**Power Disconnect.** Units with or without ON-OFF switches have power supplied to the unit whenever the power cord is inserted into the power source; however, the unit is operational only when the ON-OFF switch is in the ON position. The power cord is the main power disconnect for all units.

## FCC & ICES INFORMATION

### (U.S.A. and Canadian Models Only)

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

**NOTE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules and ICES-003 of Industry Canada. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer, or an experienced radio/TV technician for help.

Intentional or unintentional changes or modifications, not expressly approved by the party responsible for compliance, shall not be made. Any such changes or modifications could void the user's authority to operate the equipment. The user may find the following booklet, prepared by the Federal Communications Commission, helpful: [How to Identify and Resolve Radio-TV Interference Problems](#). This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.







## Sécurité

	<b>ATTENTION</b> RISQUE D'ÉLECTROCUTION. NE PAS OUVRIR !	
ATTENTION : POUR ÉVITER TOUT RISQUE D'ÉLECTROCUTION, N'ESSAYEZ PAS DE RETIRER LE CAPOT (OU LE PANNEAU ARRIÈRE). CET APPAREIL NE CONTIENT AUCUN COMPOSANT SUSCEPTIBLE D'ÊTRE RÉPARÉ PAR L'UTILISATEUR. CONFIEZ LA RÉPARATION DE L'APPAREIL À DU PERSONNEL QUALIFIÉ.		
	Ce symbole signale que le produit renferme une « tension potentiellement dangereuse » non isolée susceptible de provoquer une électrocution.	
	Ce symbole invite l'utilisateur à consulter les instructions d'utilisation et d'entretien (dépannage) reprises dans la documentation qui accompagne l'appareil.	
	Attention : l'installation doit exclusivement être réalisée par du personnel qualifié, conformément au code national d'électricité américain (NEC) ou au code d'électricité local en vigueur.	
	Coupure de l'alimentation. Qu'ils soient pourvus ou non d'un commutateur ON/OFF, tous les appareils reçoivent de l'énergie une fois le cordon branché sur la source d'alimentation. Toutefois, l'appareil ne fonctionne réellement que lorsque le commutateur est réglé sur ON. Le débranchement du cordon d'alimentation permet de couper l'alimentation des appareils.	

## Sicherheitshinweise

	<b>VORSICHT</b> ELEKTRISCHE SPANNUNG. NICHT ÖFFNEN!	
VORSICHT: UM EINEN ELEKTRISCHEN SCHLAG ZU VERMEIDEN, IST DIE ABDECKUNG (ODER RÜCKSEITE) NICHT ZU ENTFERNEN. ES BEFINDEN SICH KEINE TEILE IN DIESEM BEREICH, DIE VOM BENUTZER GEWARTET WERDEN KÖNNEN. LASSEN SIE WARTUNGSARBEITEN NUR VON QUALIFIZIERTEM WARTUNGSPERSONAL AUSFÜHREN.		
	Das Symbol macht auf nicht isolierte „gefährliche Spannung“ im Gehäuse aufmerksam. Dies kann zu einem elektrischen Schlag führen.	
	Der Benutzer sollte sich ausführlich über Anweisungen für die Bedienung und Instandhaltung (Wartung) in den begleitenden Unterlagen informieren.	
	Achtung! Die Installation sollte nur von qualifiziertem Kundendienstpersonal gemäß jeweils zutreffender Elektrovorschriften ausgeführt werden.	
	Unterbrechung des Netzanschlusses. Geräte mit oder ohne Netzschalter haben Spannung am Gerät anliegen, sobald der Netzstecker in die Steckdose gesteckt wird. Das Gerät ist jedoch nur betriebsbereit, wenn der Netzschalter (EIN/AUS) auf EIN steht. Wenn das Netzkabel aus der Steckdose gezogen wird, ist die Spannungszuführung zum Gerät vollkommen unterbrochen.	

## Precauciones de Seguridad

	<b>ATTENZIONE</b> PERICOLO DI SCOSSA ELETTRICA. NON APRIRE.	
PRECAUCIÓN: PARA DISMINUIR EL RIESGO DE DESCARGA ELÉCTRICA, NO RETIRE LA CUBIERTA (NI LA PARTE POSTERIOR). NO EXISTEN PIEZAS DE RECAMBIO EN EL INTERIOR DEL EQUIPO. EL PERSONAL DE SERVICIO CUALIFICADO SE ENCARGA DE REALIZAR LAS REPARACIONES.		
	Este símbolo indica que existen puntos de tensión peligrosos sin aislamiento dentro de la cubierta de la unidad. Estos puntos pueden constituir un riesgo de descarga eléctrica.	
	El usuario debe consultar las instrucciones de funcionamiento y mantenimiento (reparación) en la documentación que se suministra con el aparato.	
	Atención: la instalación la debe realizar únicamente personal cualificado de conformidad con el National Electric Code o las normas aplicables en su país.	
	Desconexión de la alimentación. Las unidades con o sin interruptores de encendido/apagado reciben alimentación eléctrica siempre que el cable de alimentación esté conectado a la fuente de alimentación. Sin embargo, la unidad sólo funciona cuando el interruptor está en la posición de encendido. El cable de alimentación es la principal fuente de desconexión de todas las unidades.	






## Veiligheidsmaatregelen

	<b>VOORZICHTIG</b> GEVAAR VOOR ELEKTRISCHE SCHOK. NIET OPENEN!	
<p><b>VOORZICHTIG: OPEN DE BEHUIZING OF DE ACHTERKANT VAN HET APPARAAT NIET. ZO VERMINDERT U HET RISICO OP ELEKTRISCHE SCHOKKEN. IN HET APPARAAT BEVINDEN ZICH GEEN ONDERDELEN DIE U ZELF KUNT REPAREREN. LAAT SERVICE EN ONDERHOUD UITVOEREN DOOR GEKWALIFICEERD PERSONEEL.</b></p>		
	Dit symbool geeft aan dat er binnen in het apparaat ongeïsoleerde, gevaarlijke spanning aanwezig is die mogelijk elektrische schokken kan veroorzaken.	
	De gebruiker dient de bedienings- en onderhoudsvoorschriften te raadplegen in de documentatie die werd meegeleverd met het apparaat.	
	Attentie: het apparaat mag alleen door gekwalificeerd personeel worden geïnstalleerd. De installatie dient in overeenstemming met de nationale elektrische richtlijnen of de van toepassing zijnde lokale richtlijnen te worden uitgevoerd.	
	Spanning uitschakelen. Apparatuur met of zonder aan-uitschakelaar staat onder spanning zolang de stekker is aangesloten op de wandcontactdoos. De apparatuur is uitsluitend in werking als de aan-uitschakelaar aan staat. Het netsnoer is de "hoofdschakelaar" voor alle apparatuur.	

## Sicurezza

	<b>ATTENZIONE</b> PERICOLO DI SCOSSA ELETTRICA. NON APRIRE.	
<p><b>ATTENZIONE: PER RIDURRE IL RISCHIO DI SCOSSE ELETTRICHE NON RIMUOVERE LA COPERTURA (O IL PANNELLO POSTERIORE). L'UNITÀ NON CONTIENE COMPONENTI INTERNI RIPARABILI DALL'UTENTE. PER QUALSIASI INTERVENTO, RIVOLGERSI A PERSONALE TECNICO QUALIFICATO.</b></p>		
	Questo simbolo indica la presenza di "tensione pericolosa" non isolata all'interno del contenitore del prodotto. Ciò comporta un potenziale rischio di scosse elettriche.	
	Si consiglia di consultare le istruzioni operative e di manutenzione (interventi tecnici) contenute nella documentazione fornita con il dispositivo.	
	Attenzione: l'installazione deve essere effettuata esclusivamente da personale tecnico qualificato in conformità con il National Electrical Code o con le normative locali vigenti.	
	Scollegamento dell'alimentazione. Le unità dotate o sprovviste di interruttori ON-OFF vengono alimentate quando si inserisce il cavo nella presa dell'alimentazione. L'unità è tuttavia in funzione solo quando l'interruttore ON-OFF si trova nella posizione ON. Il cavo di alimentazione costituisce il dispositivo di scollegamento dell'alimentazione principale per tutte le unità.	

## Medidas de Segurança

	<b>CUIDADO</b> RISCO DE CHOQUE ELÉTRICO. NÃO ABRIR!	
<p><b>CUIDADO: PARA REDUZIR O RISCO DE CHOQUE ELÉTRICO, NÃO RETIRE A TAMPA (OU A PARTE POSTERIOR). NO INTERIOR, NÃO EXISTEM PEÇAS QUE POSSAM SER REPARADAS PELO UTILIZADOR. REMETA A ASSISTÊNCIA PARA OS TÉCNICOS QUALIFICADOS.</b></p>		
	Este símbolo indica a presença de "tensão perigosa" não isolada dentro da estrutura do produto, o que pode constituir risco de choque eléctrico.	
	O utilizador deve consultar as instruções de funcionamento e manutenção (assistência) nos documentos que acompanham o aparelho.	
	Atenção: a instalação deve ser executada apenas por técnicos qualificados da assistência, de acordo com o código eléctrico nacional ou os códigos locais aplicáveis.	
	Corte de corrente. As unidades com ou sem interruptores ON-OFF (ligar/desligar) recebem corrente sempre que o fio de alimentação está introduzido na fonte de alimentação; contudo, a unidade apenas está operacional quando o interruptor ON-OFF está na posição ON. O fio de alimentação destina-se a desligar a corrente em todas as unidades.	

## 安全预防措施

	<b>CAUTION</b> RISK OF ELECTRIC SHOCK. DO NOT OPEN!	
<p><b>注意：为避免受到电击，不要拆除机盖（或后盖）。用户不得擅自维修里面的部件。有关维修事项，请咨询合格的维修人员。</b></p>		
	此符号表示产品机壳内存在未绝缘的“危险电压”。这可能导致电击。	
	用户应参照设备附带的操作和维护（维修）说明。	
	注意：安装须由合格的维修人员遵照美国国家电工标准或相关电气规则进行。	
	断开电源。在电源线插入电源时，配备或未配备 ON-OFF 开关的设备都已通电；但设备只有在 ON-OFF 开关处于 ON 位置时才能工作。对于所有设备，电源线是断开电源的主要方式。	

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## 1.0 UNPACKING

This equipment should be unpacked and handled with care. If an item appears to have been damaged in shipment, notify the shipper.

Verify that all parts shown in the *Parts List* have been included. If any items are missing, notify your Bosch Security Systems Sales or Customer Service Representative.

The original packing carton is the safest container in which to transport the unit. Save it for possible future use.

### 1.1 Parts List

Qty	Item
1	Unit (verify model number)
1	Line cord for 120 VAC
1	Line cord for 220-240 VAC
2	Mounting brackets
4	4-40 x 3/8" Machine screws
4	#4 Lock washers
1	This installation manual

## 2.0 SERVICE

If the unit needs servicing, contact the nearest Bosch Security Systems Service Center for authorization to return and shipping instructions.

### Service Centers

#### USA

Phone: 800-366-2283 or 717-735-6638  
 fax: 800-366-1329 or 717-735-6639

#### CCTV Spare Parts

Phone: 800-894-5215 or 408-956-3853 or 3854  
 fax: 408-957-3198  
 e-mail: [BoschCCTVparts@ca.slr.com](mailto:BoschCCTVparts@ca.slr.com)

#### Canada

Phone: 514-738-2434

#### Europe, Middle East & Asia Pacific Region

Phone: 32-1-440-0711

For additional information, see

[www.boschsecurity.com](http://www.boschsecurity.com).

## 3.0 DESCRIPTION

The LTC 2605/91 Video Manager provides advanced switching capability in system configurations that incorporate either Divar™ digital video recorder devices or System4 Series multiplexer devices. The unique video management capability of this unit reduces the number of monitors required in the system so that a single control station can easily control up to sixteen connected devices.

The Video Manager supports a maximum of six monitor outputs. Any one of up to 16 connected devices can be controlled using a single keyboard. Up to four keyboards may be used if an optional LTC 2604 Keyboard Expander is added to the system. The routing of video and alarm displays is dependent upon the number of keyboards used in the system. Each keyboard directs switching of the devices, mode selection, programming, and pan/tilt/zoom functions on the monitors under its control.

When using the Video Manager with at least one IntuiKey Series keyboard, automatic alarm switching is supported. Video Manager monitor outputs 3A and 4A can be used to view the video displays of Monitor A and Monitor B outputs, respectively, from any of the devices in alarm. When no alarms are present, Video Manager monitor outputs 3A and 4A will generate a blank raster signal.

By design, system setup of the Video Manager is quick and easy – just plug it in and it is ready to operate.

## 4.0 CONFIGURATION INFORMATION

### 4.1 General

The Video Manager accepts up to sixteen (16) pairs of the Monitor A and Monitor B outputs from each Divar digital video recorder or System4 multiplexer device connected to it. The Video Manager intelligently routes the A and B video outputs from these devices to monitor outputs 1A and 1B, respectively. Exact functionality depends upon the number of keyboards connected in the system, and is explained as follows:

- One Keyboard Configuration (Reference Figures 1 and 2 in Section 4: Installation Diagram): The video from Monitors A and B of the device controlled by the first keyboard is displayed on outputs 1A and 1B of the Video Manager, respectively.

If an IntuiKey keyboard is being used instead of an LTC 2601/00, an optional pair of alarm viewing monitors can be connected to the Video Manager's outputs 3A and 4A. Output 3A will display Monitor A video from a device in alarm, and output 4A will display Monitor B output from the same device in alarm. When no alarms are present, a blank video raster will be displayed.

- Two Keyboard Configuration using LTC 2604 Keyboard Expander (Reference Figures 3 and 4 in Section 4: Installation Diagram): The video from Monitors A and B of the device controlled by the first keyboard is displayed on outputs 1A and 1B of the Video Manager, respectively.

The video from Monitors A and B of the device controlled by the second keyboard is displayed on outputs 2A and 2B of the Video Manager, respectively.

Alarm video (Monitor A and B) from connected devices will be displayed on Video Manager outputs 3A and 4A, respectively. At least one of the keyboards must be an IntuiKey if automatic alarm switching will be used.

- Three Keyboard Configuration using LTC 2604 Keyboard Expander (Reference Figures 5 and 6 in Section 4: Installation Diagram):

The video from Monitors A and B of the device controlled by the first keyboard is displayed on outputs 1A and 1B of the Video Manager, respectively.

The video from Monitors A and B of the device controlled by the second keyboard is displayed on outputs 2A and 2B of the Video Manager, respectively.

The video from Monitor A or Monitor B of the device controlled by the third keyboard is displayed on output 3A of the Video Manager.

Monitor B alarm video from connected devices will be displayed on Video Manager output 4A. At least one of the keyboards must be an IntuiKey if automatic alarm switching will be used.

- Four Keyboard Configuration using LTC 2604 Keyboard Expander (Reference Figures 7 and 8 in Section 4: Installation Diagram): The video from Monitors A and B of the device controlled by the first keyboard is displayed on outputs 1A and 1B of the Video Manager, respectively.

The video from Monitors A and B of the device controlled by the second keyboard is displayed on outputs 2A and 2B of the Video Manager, respectively.

The video from Monitor A or Monitor B of the device controlled by the third keyboard is displayed on output 3A of the Video Manager.

The video from Monitor A or Monitor B of the device controlled by the fourth keyboard is displayed on output 4A of the Video Manager. Although alarm processing is still available in the connected devices, no automatic Video Manager alarm switching is supported when four keyboards are connected in the system.

## 4.2 Important Rules

In order to ensure correct system operation, please be certain to follow the items listed below:

1. Apply AC power to the Video Manager only after all system keyboards are connected and all Divar/System4 video devices have been connected and powered up. If video devices or keyboards are later added or removed, it is important that power to the Video Manager is removed, then restored, so that the Video Manager can automatically adapt to the new configuration.
2. Divar Digital Video Recorders and System4 Multiplexers CANNOT be used together on the same Video Manager.
3. At least one keyboard is required in the system for the Video Manager to operate. IntuiKey Series keyboards, or a mix of IntuiKey and LTC 2601/00 keyboards can be used with System4 multiplexers. Only IntuiKey Series keyboards (KBD-Universal or KBD-Digital models) can be used with Divar Digital Video Recorders.
4. When using System4 Multiplexers, at least one IntuiKey Series keyboard is required in the system if the alarm functionality of the Video Manager will be used.
5. Only one Video Manager can be used in a system, with a maximum of sixteen (16) devices. Combining multiple Video Managers in a single system is not supported.
6. In configurations using the LTC 2604 Series Keyboard Port Expander, do not skip any keyboard ports on the Expander unit when connecting system keyboards. In other words, if there are only three keyboards in the system, connect them to ports 1, 2 and 3 rather than to some other combination like 1, 3 and 4.
7. Video Manager input 1A is used to detect the video format (NTSC or PAL) of the system. Ensure that a device with valid video is connected to 1A at all times.



8. If the alarm monitor connection option is used with the Video Manager, each of the devices should be configured to display an alarm response acceptable to your system requirements. For example, if multiple devices will frequently be in alarm conditions, you may want to configure these devices to display their alarm responses using a multi-screen format. This way, the automatic alarm switching by the Video Manager will simply change from one multi-screen display to another among the devices in alarm.

## 5.0 INSTALLATION

NOTE: DO NOT apply AC power to Video Manager until all other devices are connected and powered.

1. The Video Manager is supplied in a desktop enclosure. If the Video Manager is to be installed into a standard EIA 19" rack, remove the four rubber foot pads on the bottom of the unit, and attach the provided rack mounting brackets.
2. Connect all video and keyboard data cables to the Video Manager. Because several configurations are possible based on the number of keyboards being used and the type of devices being connected to the Video Manager, refer to the most appropriate configuration diagrams below.

No connections should be made to the Video Manager's CONSOLE port.

3. The data cabling from the system keyboard is connected in a daisy chain fashion among all the video devices and the Video Manager using the LTC 2609/00 Extension Kit (sold separately). The Video Manager is equipped with an **In** and an **Out** keyboard port for this purpose. Use one of the 3 meter (10 ft) keyboard data cables (supplied with video devices or keyboards) to connect the Video Manager into the chain.

The last device connected on the keyboard data communication line must have the supplied 390 ohm termination accessory attached to it. If the Video Manager is the last device, connect this termination accessory to its **Out** port.

If more than 1 keyboard is used in the system, the LTC 2604 Series Keyboard Expander unit (purchased separately) must be used. The data connection from the Keyboard Expander is wired similar to a single keyboard.

To ensure compatibility with older versions of the LTC 2604 Series Keyboard Expanders, first connect the data line coming from the LTC 2604 Multiplexer Output port to either a Divar or to a multiplexer unit. Then, connect the data line from the Divar or from the multiplexer unit to the Video Manager.

4. Prior to powering up the Video Manager, ensure that any IntuiKey KBD-Universal type keyboards in the system are in the Divar Digital Video Recorder mode, or the System4 Multiplexer mode, rather than in the Allegiant® mode.
5. After all keyboards and video devices have been connected, attach the supplied AC mains cable to the Video Manager and to an appropriate AC line source. Five seconds after power is applied, the Video Manager will be ready for operation. This time is necessary for the Video Manager to properly adapt its operation based on the number of keyboards and video devices being used in the system.
6. No user adjustments or programming is required. For complete details on installing keyboards, Keyboard Expanders, Divar Digital Video Recorders, and System4 Multiplexers, refer to the individual device's installation instructions.

## 6.0 INSTALLATION DIAGRAMS

### 6.1 Typical Single Keyboard Configurations

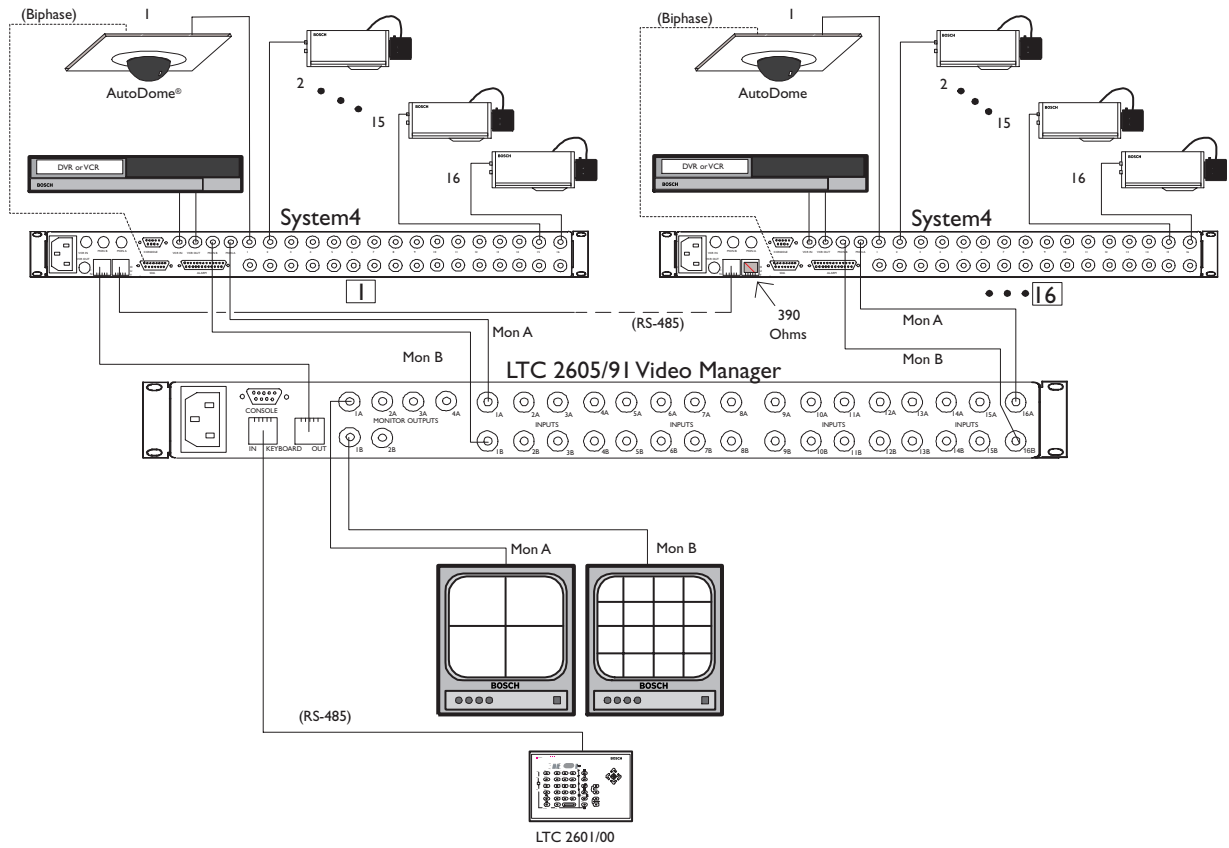


Figure 1 – Video Manager with System4 Multiplexers and LTC 2601/00 Keyboard

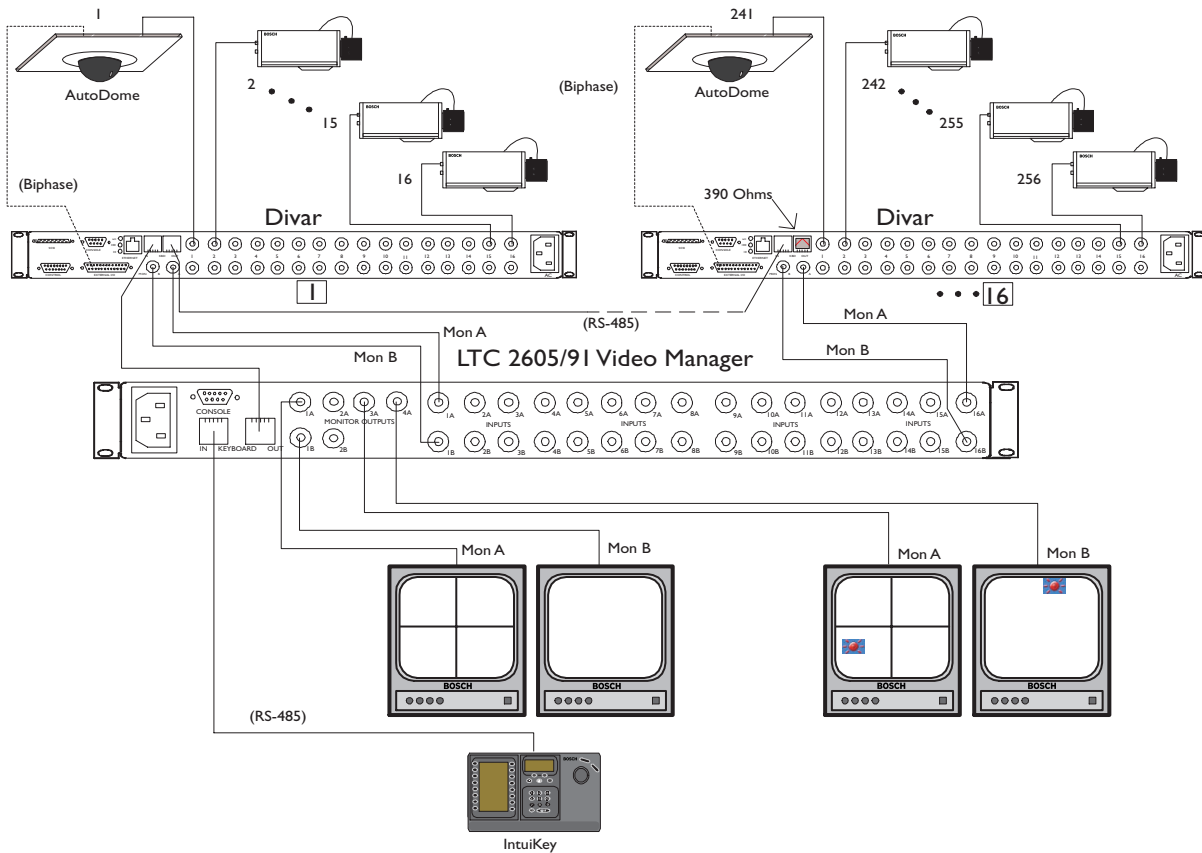


Figure 2 – Video Manager with Divar Digital Video Recorder, Including Alarm Monitor Pair

*Functional Notes for Figures 1 & 2:*

1. Using the keyboard, full control of the selected video device is available on the monitors connected to Video Manager outputs 1A and 1B.
2. Optional monitors can be connected to outputs 3A and 4A of the Video Manager to automatically display alarm video. Output 3A will display the Monitor A video from the device in alarm, and output 4A will display Monitor B video. If multiple simultaneous alarms occur, outputs 3A and 4A will automatically sequence the video from the devices in alarm, at a 3 second rate.

**NOTE:** These alarm features are available only when an IntuiKey Series keyboard is being used.

## 6.2 Typical 2-Keyboard Configurations

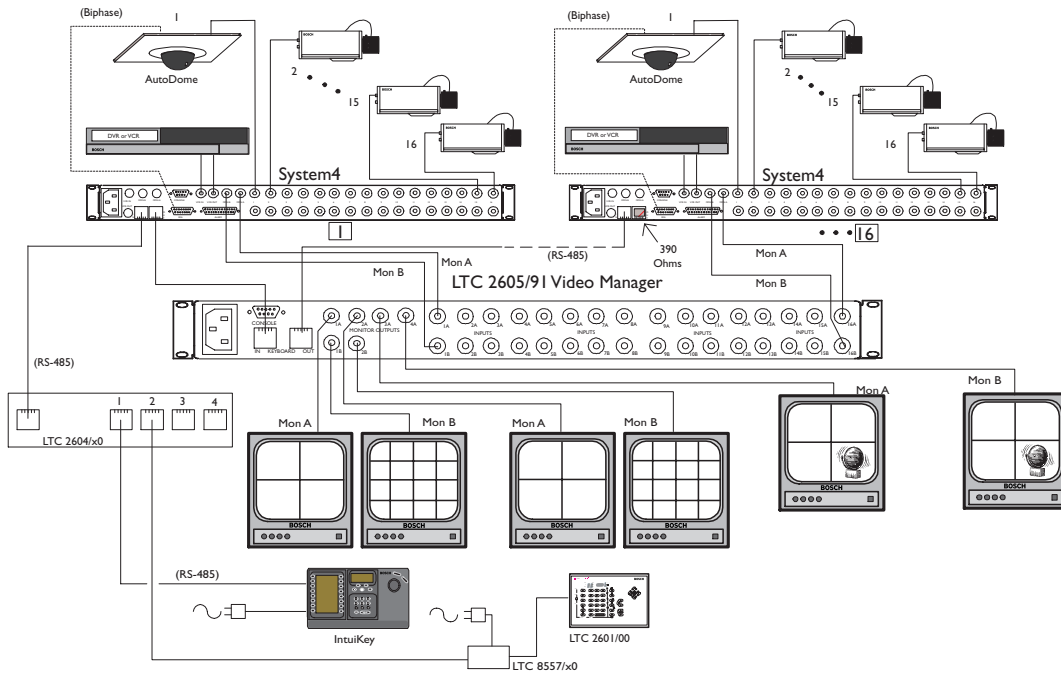


Figure 3 – Video Manager with System4 Multiplexers, an IntuiKey Keyboard, and a LTC 2601/00 Keyboard, Including Alarm Monitor Pair

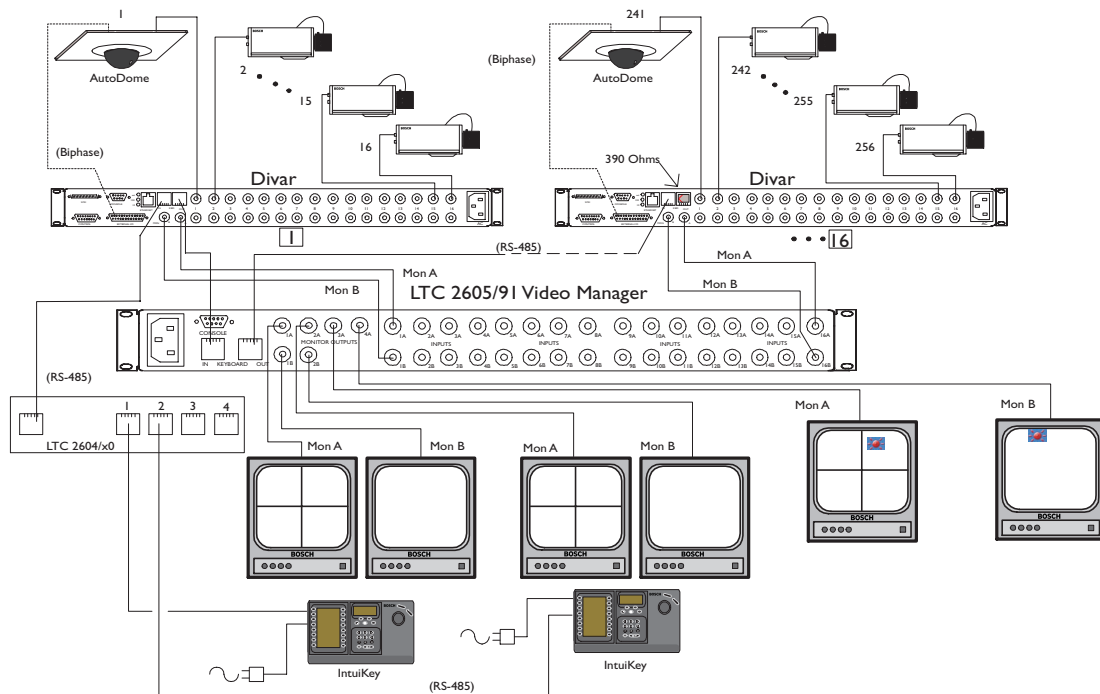


Figure 4 – Video Manager with Divar Digital Video Recorders, Including Alarm Monitor Pair

*Functional Notes for Figures 3 & 4:*

1. Using keyboard 1, full control of the selected video device is available on the monitors connected to Video Manager outputs 1A and 1B.
2. Using keyboard 2, full control of the selected video device is available on the monitors connected to Video Manager outputs 2A and 2B.
3. Optional monitors can be connected to outputs 3A and 4A of the Video Manager to automatically display alarm video. Output 3A will display the Monitor A video from the device in alarm, and output 4A will display Monitor B video from the same device. If multiple simultaneous alarms occur, outputs 3A and 4A will automatically sequence the video from the devices in alarm at a 3 second rate.

**NOTE:** These alarm features are available only when an IntuiKey Series keyboard is included in the system.

### 6.3 Typical 3-Keyboard Configurations

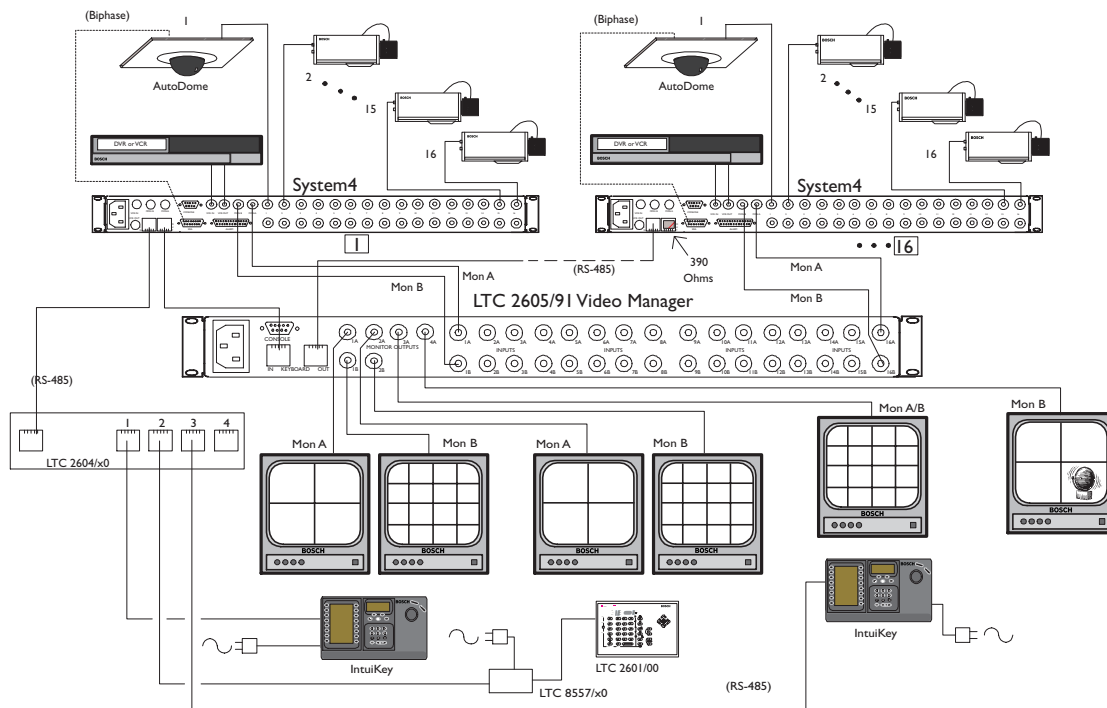


Figure 5 – Video Manager with IntuiKey Keyboards, an LTC 2601/00 Keyboard, and an Alarm Monitor

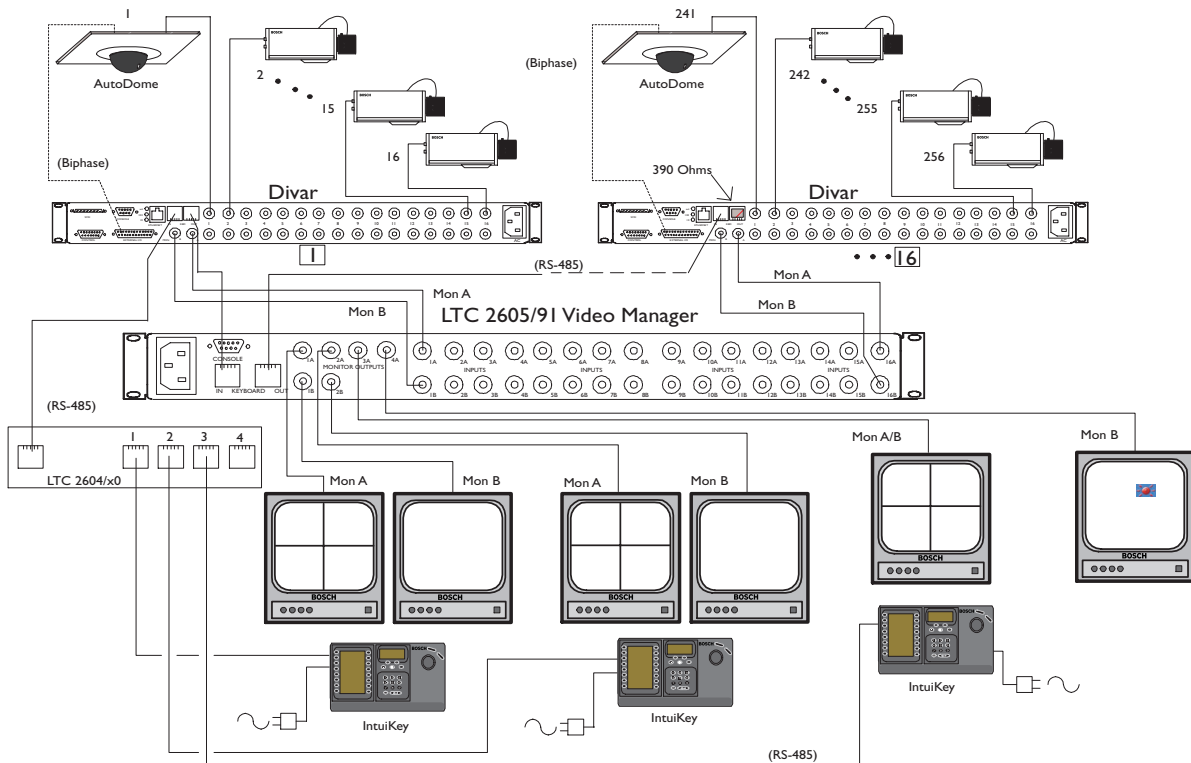


Figure 6 – Video Manager with Divar Digital Video Recorder Including Alarm Monitor

*Functional Notes for Figures 5 & 6:*

- Using keyboard 1, full control of the selected video device is available on the monitors connected to Video Manager outputs 1A and 1B.
- Using keyboard 2, full control of the selected video device is available on the monitors connected to Video Manager outputs 2A and 2B.
- Using keyboard 3, full control of the Monitor A or Monitor B outputs of the selected video device is available on the monitor connected to Video Manager output 3A.
- An optional monitor can be connected to output 4A of the Video Manager to automatically display alarm video. Output 4A will display the Monitor B video from the device in alarm. If multiple simultaneous alarms occur, output 4A will automatically sequence the video from the devices in alarm at a 3 second rate.

**NOTE:** The alarm features are available only when an IntuiKey Series keyboard is included in the system.

### 6.4 Typical 4-Keyboard Configurations

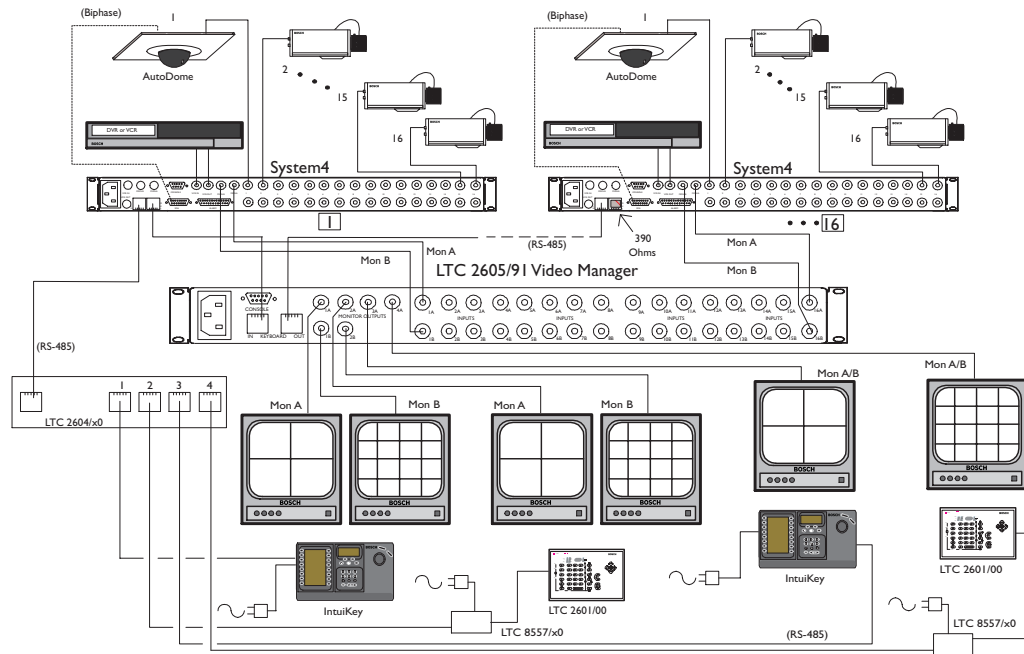


Figure 7 – Video Manager with System4 Multiplexers having 4 Control Locations Using Both IntuiKey Keyboards and LTC 2601/00 Keyboards

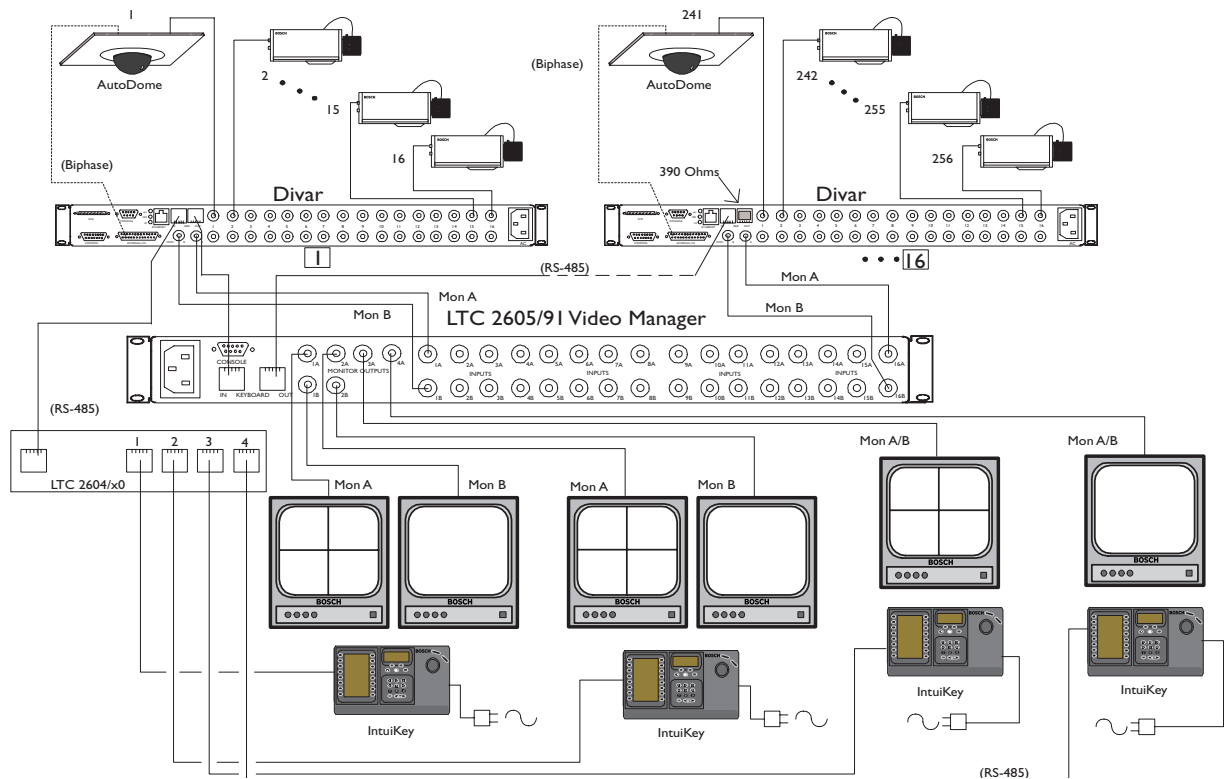


Figure 8 – Video Manager with Divar Digital Video Recorders having 4 Control Locations

*Functional Notes for Figures 7 & 8:*

1. Using keyboard 1, full control of the selected video device is available on the monitors connected to Video Manager outputs 1A and 1B.
2. Using keyboard 2, full control of the selected video device is available on the monitors connected to Video Manager outputs 2A and 2B.
3. Using keyboard 3, full control of the Monitor A or Monitor B outputs of the selected video device is available on the monitor connected to Video Manager output 3A.
4. Using keyboard 4, full control of the Monitor A or Monitor B outputs of the selected video device is available on the monitor connected to Video Manager output 4A.

**NOTE:** No special alarm monitor switching is supported when four keyboards are connected in the system.

## 7.0 OPERATION

Video Manager operation is automatic. The unit completely configures itself during the power-on process, based on the quantity of keyboards and the types of video devices being used.

Refer to the instructions supplied with the video devices and/or the keyboards for complete information on the operation of the video devices and any pan/tilt/zoom equipped cameras connected to them.

## 8.0 MAINTENANCE

The Video Manager does not require any special maintenance.

## 9.0 REPLACEMENT PARTS

<b>Item:</b>	<b>Part number:</b>
Replacement Rack Mount Kit	303 1895 501
Replacement Keyboard Data Cable	303 0239 001
Replacement 390 Ohm Termination Device	303 2728 001
Replacement AC Line Cord, 120 VAC	Source from local supplier
Replacement AC Line Cord 220-240 VAC	Source from local supplier



## 10.0 TROUBLESHOOTING

Problem	Possible Causes
<p>1. Erratic or improper operation when Video Manager system is first operated after being installed.</p>	<ul style="list-style-type: none"> <li>a) The Video Manager did not auto-configure properly because it was powered up before system keyboards were attached and/or before Divar/System4 devices were powered up.</li> <li>b) Incorrect connection of system keyboard data communication link. Check keyboard data connections.</li> <li>c) Invalid system configuration. Review items found in IMPORTANT RULES section of this manual.</li> </ul>
<p>2. Incorrect video displayed on Video Manager monitor output.</p>	<ul style="list-style-type: none"> <li>a) Incorrect video connections between Video Manager and video device. Check cabling.</li> </ul>
<p>3. No video display on Video Manager outputs 3A or 4A.</p>	<ul style="list-style-type: none"> <li>a) With 1 or 2 keyboards in the system, outputs 3A and 4A generate a black video raster signal when the system is not in an alarm condition.</li> <li>b) With 3 keyboards in the system, output 4A generates a black video raster signal when the system is not in an alarm condition.</li> </ul>
<p>4. The video displayed on outputs 2A and 2B is following instructions being sent by keyboard 1.</p>	<ul style="list-style-type: none"> <li>a) The Video Manager is recognizing only a single keyboard in the system. If 2 or more keyboards are in use, check data connections between keyboard 2 and Keyboard Port Expander.</li> <li>b) If only a single keyboard is being used in the system, this is normal operation because only monitor outputs 1A and 1B can be controlled in a system having a single keyboard.</li> </ul>

## 11.0 DEVICE OUTLINE

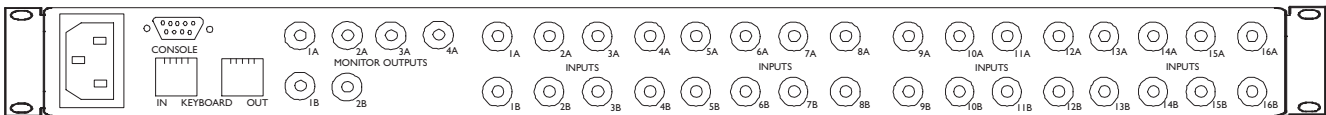


Figure 9 -- Rear Panel



Figure 10 -- Front Panel





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