Operation Manual



VKM01 Video / Keyboard / Mouse Extender System: VKM02 - Local Module VKM03 - Remote Module





Installation and Safety Instructions

For Models without a Power Switch:

The socket outlet shall be installed near the equipment and shall be accessible.

For Models with 110 / 220V Power Selector:

Caution: Before applying power to this unit, the voltage selector must be set to the appropriate setting to match local A/C line voltage. Improper setting of the voltage selector may cause damage to the unit and create a potential fire hazard.

The voltage selector is a round switch located next to the A/C power input connector which looks like this:

Using a straight slot screwdriver or small coin, rotate the selector to the correct position so that the arrow lines up with 110 or 220 as appropriate for local power line voltage as indicated in the chart below:

| Local A/C Voltage | Voltage Selector Setting |
|-------------------|--------------------------|
| 110 ~ 120 VAC | 110 |
| 220 ~ 240 VAC | 220 |



For all Models:

No serviceable parts inside the unit. Refer service to a qualified technician.

For Models with Internal or External Fuses:

For continued protection against fire hazard, replace only with same type and rating of fuse.

For IN2001 / IN3234 / IN3236 / IN3502 / IN3504 / IN3506 / IN3562 / IN3564 / IN3566 / IN3572 / IN3574 / IN3576: Caution: Double pole / neutral fusing.

For all Models with Integral Lithium Battery:

Caution: Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.



Instructions d'installation et de sécurité

Pour les modèles sans interrupteur de courant:

La prise de courant d'alimentation sera installé près de l'équipement et sera accessible.

Pour les modèles avec un sélecteur d'alimentation 110V/220V:

Attention: Avant de connecter l'appareil au circuit d'alimentation, le sélecteur de courant doit être positionné sur la sélection appropriée correspondant au voltage du circuit de courant alternatif local. Une mauvaise sélection peut engendrer des dommages à l'appareil et créer un danger d'incendie.

Le sélecteur d'alimentation est un commutateur rond positionné près du connecteur d'alimentation. Il se représente comme suit:



A l'aide d'un tourne-vis plat ou d'une pièce de monnaie, le sélecteur peut être tourné dans la position adéquate en veillaut que la flèche corresponde avec 110 ou 220, en fonction de la valeur du circuit de courant local. (Voir tableau ci-dessous)

| Circuit local AC | Position Sélecteur |
|------------------|--------------------|
| 110 ~ 120 VAC | 110 |
| 220 ~ 240 VAC | 220 |

Pour tout les modèles:

Pas de composants à entretenir à l'intérieur. Confiez toute réparation à un technicien qualifié.

Pour les modèles équipés de fusibles internes ou externes:

Afin d'éviter tout danger d'incendie, ne remplacer qu'avec le même type et la même valeur de fusible.

Pour IN2001 / IN3234 / IN3236 / IN3502 / IN3504 / IN3506 / IN3562 / IN3564 / IN3566 / IN3572 / IN3574 / IN3576:

Attention: Double pôle / fusible au neutre.

Pour tout les modèles avec une batterie au lithium interne:

Attention: Danger d'explosion si la batterie est incorrectement remplacée. Ne remplacez la batterie qu'avec le même modèle, ou avec un modèle recommandé par le constructeur. Traitez les batteries usagées selon les instructions du fabricant, ou selon les normes écologiques en viguer.



Installations und Sicherheitshinweise

Für Geräte ohne Netzschalter:

Die Netzsteckdose soll in de Nähe des Gerätes installiert und frei zugänglich sein.

Für Geräte mit 110 / 220V Spannungswähler:

Achtung: Bevor Sie dem Gerät Spann ung zuführen, muß der Spannungswähler entsprechend der Spannung des lokalen Wechselspannungsnetzes eingestellt werden. Die falsche Stellung des Spannungswählers kann eine Beschädigung des Gerätes und möglicherweise ein Feuer verursachen.

Der Spannungswähler ist ein runder Schalter in der Nähe der Netzeingangsbuchse mit folgendem Aussehen:



Drehen Sie den Wähler mit einem normalen Schraubenzieher oder einer kleinen Münze so, daß der Pfeil auf die 110 oder 220 zeigt, entsprechend der Spannung Ihr es lokalen Netzes wie hier angezeigt:

| Lokale Netzwechselspannung | Stellung des Spannungswählers |
|----------------------------|----------------------------------|
| 110 ~ 120 V | 110 |
| 220 ~ 240 V | 220 |

Für alle Geräte:

Keine Wartung innerhalb des Gerätes notwendig. Reparaturen nur durch einen Fachmann!

Für Geräte mit interner oder externer Sicherung:

Für dauernden Schutz gegen Feuergefahr darf die Sicherung nur gegen eine andere gleichen Typs und gleicher Nennleistung ausgewechselt werden.

Für IN2001 / IN3234 / IN3236 / IN3502 / IN3504 / IN3506 / IN3562 / IN3564 / IN3566 / IN3572 / IN3574 / IN3576: Achtung: Allpolige Absicherung

Für alle Geräte mit eingebauter Lithium Batterie:

Achtung: Explosionsgefahr bei falschem Batterieeinsatz. Batterie nur erstzen durch den gleichen oder entsprechenden Typ wie vom Hersteller empfohlen. Entsorgung verbrauchter Batterien nur nach den Anweisungen des Herstellers.



Instalacion E Instrucciones de Seguridad

Modelos Sin Interruptor:

La conexión debe ser instalada cerca del equipo y debe ser accesible.

Modelos con Selector de Voltaje de 110/220V:

Precaución: Antes de operar esta unidad, el selector de voltaje debe instalarse de forma que corresponda a la linea de voltaje local. Instalación inadecuada del selector de voltaje puede causar daño a la unidad y originar un incendio.

El selector de voltaje es un cambia vía redondo localizado cerca de la conexión electrica, como se ve en el dibujo:

Use un destornillador comun o una moneda pequeña, mueva el selector a la posición correcta, de forma que las flechas indiquen 110 o 220 de acuerdo con el voltaje local, como esta indicado a continuación.

| Voltaje Local A/C | Selector de Voltaje |
|-------------------|---------------------|
| 110 ~ 120 VAC | 110 |
| 220 ~ 240 VAC | 220 |

Para Todos Los Modelos:

Dentro de la unidad, no hay partes para reparar. Llame un tecnico calificado.

Modelos con Fusibles Internos o Externos:

Para prevenir un incendio, reemplace solo con el mismo tipo de fusible.

Modelos IN2001 / IN3234 / IN3236 / IN3502 / IN3504 / IN3506 / IN3562 / IN3564 / IN3566 / IN3572 / IN3574 / IN3576: Precaución: Double Polo / Fusible Neutral.

Modelos con Bateria de Lithiun Interna:

Precaución: Peligro de explosión si la batería es reemplacada incorrectamente. Reemplace solamente con la misma clase de batería, o una equivalente recomendada por el fabricante. Deseche las baterías usadas de acuerdo con las instrucciones del fabricante.



CE COMPLIANCE

All products exported to Europe by Inline, Inc. after January 1, 1997 have been tested and found to comply with EU Council Directive 89/336/EEC. These devices conform to the following standards:

EN50081-1 (1991), EN55022 (1987) EN50082-1 (1992 and 1994), EN60950-92

Shielded interconnect cables must be employed with this equipment to ensure compliance with the pertinent Electromagnetic Interference (EMI) and Electromagnetic Compatibility (EMC) standards governing this device.

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FCC COMPLIANCE

This device has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide against harmful interference when equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at their own expense.

Product Overview

DESCRIPTION

The VKM01 is a video / keyboard / mouse extension system for personal computers that makes it possible to control one CPU from two separate locations. The system consists of the VKM02 Local Module and VKM03 Remote Module. The two units are connected by one economical CAT5 cable, allowing the remote module to be located up to 500 feet away.

The **VKM01** is an excellent choice for applications where a computer must be controlled from two locations, and / or two users must share data simultaneously. The system is also ideal for presentation / training facilities, computer labs, industrial installations or any application requiring the computer CPU to be placed in a secure central location, while the computer monitor, keyboard and mouse are placed in a remote location that provides easy access for system users.

VKM02 Local Module - is located adjacent to the computer and connects directly to the CPU ports. The **VKM02** connects directly to keyboards with PS/2 connectors (6-Pin Mini DIN Male) and PC/AT keyboards when used with an optional **VN591** adapter or **VN590** adapter cable (5-Pin DIN Male to 6-Pin Mini DIN Male). The **VKM02** connects directly to a PS/2 or serial mouse, and a VGA port is provided to drive a local computer monitor. The local module requires no separate power supply because it derives power from the computer.

VKM03 Remote Module - includes ports to connect a remote data monitor, keyboard and mouse. The CAT5 cable allows the unit to be located *up to* 500 feet away from the computer without significant signal loss associated with long cable runs. The 15-Pin VGA video out port connects directly to a VGA monitor. The **VKM03** connects directly to keyboards with PS/2 connectors, and PC / AT keyboards using an optional **VN591** adapter / **VN590** adapter cable.

Note: The VKM03 supports PS/2 mice only.

High Quality Video - The **VKM01** system employs sophisticated video circuitry to maintain excellent video quality with VGA video signals at resolutions *as high as* 1600 x 1200. Monitors may be connected to both the local and remote modules simultaneously. The **Video Gain Control** (VGC) on the **VKM03** Remote Module lets users fine-tune the video signal to optimize the video image for various cable lengths.

Automatic Local / Remote Control Switching - Keyboard and mouse control automatically switches between the VKM02 Local Module and the VKM03 Remote Module based on which keyboard and mouse are currently active. LEDs on each module illuminate to indicate whether the local or remote keyboard and mouse have control. The local and remote units employ special circuitry that saves and restores the settings for each keyboard including Num Lock, Caps Lock and Scroll Lock.

Mounting Brackets - The VKM02 / VKM03 modules can be mounted under a table, inside a rack or on any convenient flat surface using the optional IN9089 mounting brackets.

Applications

In addition to allowing two users / stations to share the same data from one computer, the **VKM01** system is ideal for:

- Work environments in which dust, solvents, intense heat and other harsh atmospheric conditions might otherwise damage a system's CPU (such as in machine shops, warehouses / distribution centers, and fabrication and manufacturing production facilities).
- Places where security necessitates that direct CPU access be restricted to authorized personal only (to reduce the chances of theft, sabotage, vandalism, etc.).
- Operators whose responsibilities require computer access from two locations, such as from an office and production area / remote site.
- Facilities contending with high-traffic, over-crowded or limited work space.

Installation

This section offers step-by-step instructions for installing the **VKM01** Video / Keyboard / Mouse Extender System. An application diagram is included on page 4.

Warning: Make sure that the CPU, monitor(s), remote module and all other system components are turned OFF before you begin the installation. Failure to do so may result in possible damage to the system or having to re-enable / re-synchronize peripherals.



Helpful hint: Before beginning your installation, check the keyboard(s), mouse / mice and monitor(s) for system compatibility by attaching all of them directly to the CPU or to another computer. This could help you avoid timeconsuming problems. Note: When installing more than one monitor, make sure that both units support the same resolution.

- 1. Place / install the **VKM02** Local Module and the **VKM03** Remote Module at their desired locations. Make sure the units are seated on a level surface or are mounted firmly (when using the optional **IN9089** Mounting Brackets).
- 2. Run the appropriate **IN9500 Series** CAT5 cable from the **VKM02** to the **VKM03** (see Optional Accessories / CAT5 Link Cable on page 8).

Note: Always test your cable(s) prior to any permanent installation.

Although CAT5 cable significantly reduces signal loss associated with long cable runs, it does have its limits. High-resolution video signals require a higher bandwidth. The higher the signal bandwidth, the shorter the distance it can be transmitted along any cable before it begins to degrade. The table below provides the maximum recommended cable lengths for the **VKM01** system using CAT5 cable:

| Resolution | Distance |
|-------------|----------|
| 1600 x 1200 | 250' |
| 1280 x 1024 | 300' |
| 1024 x 768 | 350' |
| 800 x 600 | 400' |
| 640 x 480 | 500' |



Running CAT5 or any system cables near machinery or fluorescent lights may cause signal interference. Users will achieve optimal results if they avoid routing the cables near air conditioners, generators, compressors, or any other device that may produce conflicting currents.

- Connect the RJ45 connector of the CAT5 cable to the CAT5 LINK receptacle on the back of the VKM03 Remote Module. Connect the local video monitor to the VGA video output connector, and the keyboard to the appropriate 6-pin mini DIN female output connector. Use the optional VN591 adapter / VN590 adapter cable for PC / AT keyboards.
- Connect the mouse (PS/2 only). Connect the round connector on the IN9204-1 Power Supply (included) to the POWER input jack (located on the back of the VKM03, immediately adjacent to the POWER button). Connect the adapter box end of the power supply to an A/C power source.

WARNING: **DO NOT turn the power button on**. The **VKM03** must be connected to the Local Module before applying power. Failure to do so could damage the unit. The proper power-up procedure is explained in the KEY CONCEPT in step 10.

5. Connect the RJ45 connector of the CAT5 cable to the CAT5 LINK receptacle on the back of the **VKM02** Local Module.

If the installation requires mouse / keyboard access at the **VKM02** Local Module, complete steps 6 - 8. If no local access is necessary, proceed to step 9.

 Connect the keyboard's PS/2 connector to the VKM02 output ("TO PERIPHERALS"). PC / AT keyboards may also be connected using an optional VN591 adapter / VN590 adapter cable. 7. Connect the mouse to the appropriate output (the **VKM02** connects directly to a PS/2 or serial mouse).

Note: Only one mouse may be connected to either the PS/2 or serial mouse port.

8. Connect the local computer monitor to the VIDEO output using a standard 15-pin VGA cable. The **VKM02** derives power directly from the computer through the keyboard port. Therefore, no separate power supply is required. The unit powers up automatically when the CPU is turned on.

Warning: NEVER connect the VKM02 or the VKM03 to a computer that is already on.

9. Using a VN531M 15-pin VGA cable (included), connect the CPU's video output to the VKM02 video input connector ("TO COMPUTER"). Using the VN576-L6 PS/2 keyboard and mouse cables (included), connect the CPU's keyboard input port to the VKM02 keyboard output connector, and CPU's mouse input port to the VKM02 mouse output port. The VN531M VGA cable and the VN576-L6 PS/2 cables are 6' long. If your installation requires longer cable runs, a list of available cables and extensions can be found on page 8 (Optional Accessories - VGA / Keyboard / Mouse Cables & Extensions).

Note: Mouse cable runs of over 12' can result in signal problems and are not recommended.

10. Complete the installation by turning on the **VKM03** Remote Module, computer and monitor(s).



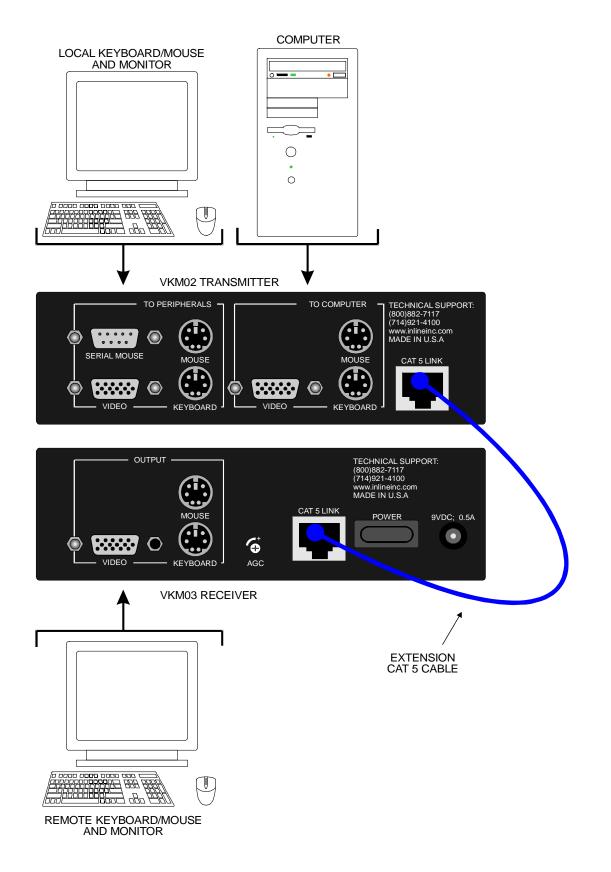
To avoid possible damage to the unit or the need for re-calibration: 1) turn on the VKM03 Remote Module <u>FIRST</u>, 2) turn on the CRUSECOND, and

2) turn on the CPU <u>SECOND</u>, and

3) turn on the monitor(s) / additional pheripheral devices <u>LAST</u>.

11. Adjust the VGC control located on the back of the VKM03 Remote Module. This control lets you fine-tune the signal peaking circuitry to compensate for different cable lengths. The ideal setting for this control will vary depending on the resolution of the computer video signal and the length of the CAT5 link cable between the VKM02 and VKM03 modules. Turning the VGC pot clockwise will increase the cable compensation, while turning it counterclockwise decreases the cable compensation. Using the IN9333 adjustment tool provided, gently adjust the VGC so that a good quality image is displayed. *Note: The entire rotation range of the VGC control is just over 180 degrees, so care must be taken not to force or over-rotate the pot.*

The **VKM01** requires no special software or dipswitch / jumper settings. Simply connect the cables, turn it on (in the proper sequence), adjust the cable compensation control and your system is fully operational.



Operation

This section offers step-by-step instructions for operating the **VKM01** Video / Keyboard / Mouse Extender System.

- 1. Turn the **VKM03** Remote Module power switch on. The switch is located on the back of the unit between the RJ45 CAT5 LINK and the **IN9204-1** power adapter connectors.
- 2. Turn the CPU and the monitors on. Since the **VKM02** Local Module derives power directly from the computer, the unit automatically powers up when the CPU is turned on.
- 3. Both the **VKM02** and **VKM03** modules feature dual, front panel LED indicators (labeled LOCAL and REMOTE). After power has been applied to both units, the red LEDs will illuminate for about three seconds. The system is ready to be used when the LEDs begin flashing.
- 4. Operators gain control of the system when they move the mouse or commence using the keyboard at either location. The system automatically senses which location has control and the LEDs illuminate accordingly. If the operator at the local module has control of the system, the LOCAL LEDs will illuminate on both the VKM02 and VKM03. If the operator at the remote module has control of the system, the REMOTE LEDs will illuminate on both units. The operator maintains control of the system until their keyboard / mouse activities cease. At this point (after about three seconds), the LEDs on both modules will begin flashing, indicating that the system is available to either location. Regardless of which station is controlling the computer, both the local and remote monitors will display the same data.
- 5. The VGC control on the back of the **VKM03** Remote Module allows the operator to adjust the signal to achieve optimal video quality at various input resolutions and with different CAT5 cable lengths. Turning the VGC pot clockwise increases the cable compensation, while turning it counterclockwise will decrease the cable compensation. Using the **IN9333** adjustment tool provided, gently adjust the VGC so that a good quality image is displayed. The VGC pot is recessed to increase durability and help avoid accidental changes to the setting. *Note: The entire rotation range of the VGC control is just over 180 degrees, so care must be taken not to force or over-rotate the pot.*

Specifications

| VKM01 Video / Keyboard / Mouse Extender System | | |
|--|---|--|
| VKM02 Local Module - Computer CPU Connections | | |
| Video | (1) 15-Pin HD Female - Supports VGA | |
| Video | signals at resolutions up to 1600 x 1200 | |
| Keyboard | (1) 6-Pin Mini DIN Female | |
| Mouse | (1) 6-Pin Mini DIN Female | |
| CAT5 Link | (1) RJ45 Female | |
| VKM02 Local Module - Peripheral Connections | | |
| VGA Video Out | (1) 15-Pin HD Female | |
| K as the a and | (1) 6-Pin Mini DIN Female for PS/2 Type Keyboards | |
| Keyboard | (PC / AT Keyboard Support via Optional Adapter / Cable) | |
| Mouse | (1) 6-Pin Mini DIN Female for PS/2 Mouse | |
| Wouse | (1) 9-Pin D Female for Serial Mouse | |
| VKM03 - Remote Module Connections | | |
| VGA Video Out | (1) 15-Pin HD Female | |
| K and a surf | (1) 6-Pin Mini DIN Female for PS/2 Type Keyboards | |
| Keyboard | (PC/AT Keyboard Support via Optional Adapter) | |
| Mouse | (1) 6-Pin Mini DIN Female for PS/2 Mouse | |
| CAT5 Link | (1) RJ45 Female | |
| Power Supply | 9VDC, 500mA Extender Adapter (Included) | |
| General | | |
| Shipping Weight | 5 lbs. / 2.3 kg. | |
| Product Weight | 2.5 lbs. / 1.1 kg. | |
| Dimensions - VKM02 | 1.65" x 5.6" x 3.75" / 4.2 cm x 14.2 cm x 9.5 cm | |
| Dimensions - VKM03 | 1.65" x 5.6" x 3.75" / 4.2 cm x 14.2 cm x 9.5 cm | |
| | UL1950, CAN/CSA-22.2 No. 950, Third Edition | |
| Regulatory Approvals | CE: EN55022 (1987), EN50081-1 (1991) | |
| | EN50082-1 (1992 and 1994), EN60950-92 | |

VKM01 Video / Keyboard / Mouse Extender System - Parts Included

- (1) VKM02 Local Module
- (1) **VKM03** Remote Module
- (1) **IN9204-1** 9VDC; 500mA External Power Adapter (for U.S. applications only)
- (1) **IN8006M** VGA Cable, 15-Pin HD Male to 15-Pin HD Male, 6' Long Connects CPU VGA Port to **VKM02**
- VN576-L6 PS/2 Keyboard Cable, 6-Pin Mini DIN Male to Male, 6' Long -Connects CPU Keyboard Port to VKM02
- VN576-L6 PS/2 Mouse Cable, 6-Pin Mini DIN Male to Male, 6' Long -Connects CPU Mouse Port to VKM02
- (1) IN9333 Adjustment Tool
- (1) Operation Manual

| Optional Accessories | | |
|---|--|--|
| CAT5 Link Cable | | |
| IN9550 - 50' Long | | |
| IN95100 - 100' Long | | |
| IN95150 - 150' Long | | |
| IN95200 - 200' Long | | |
| IN95250 - 250' Long | | |
| IN95300 - 300' Long | | |
| (Longer CAT5 Cables are available via special order. Call INLINE at (800) 882-7117) | | |
| VGA / Keyboard / Mouse Cables & Extensions | | |
| IN8003 - 3' 15-Pin HD VGA Cable (Male to Female) | | |
| IN8006 - 6' 15-Pin HD VGA Cable (Male to Female) | | |
| IN8008M - 8' 15-Pin HD VGA Cable (Male to Male) | | |
| IN8012M - 12' 15-Pin HD VGA Cable (Male to Male) | | |
| VN351-L12 - PS/2 Keyboard Cable, 6-Pin Mini DIN Male to Male, 12' Long - | | |
| Connects CPU Keyboard Port to VKM02 | | |
| VN351-L12 - PS/2 Mouse Cable, 6-Pin Mini DIN Male to Male, 12' Long - Connects | | |
| CPU Mouse Port to VKM02 | | |
| Keyboard / Mouse Adapter Cables | | |
| IN9198 Serial Mouse Adapter Cable - Connects CPU serial mouse port and VKM02, | | |
| 9-pin D female to 6-pin mini DIN male, 6' long | | |
| VN590 Keyboard Adapter Cable - Connects CPU PC/AT keyboard port to VKM02, | | |
| 5-pin DIN male to 6-pin mini DIN male, 6' long | | |
| VN591 Keyboard Adapter - Connects PC/AT keyboard to VKM02 / VKM03, 5-pin | | |
| DIN male to 6-pin mini DIN male | | |
| Miscellaneous Accessories | | |
| IN9089 Mounting Brackets - One pair of "L" brackets, mounts VKM02 / VKM03 to | | |
| any flat surface | | |
| IN9204-1 Power Supply - Replacement external 9VDC, 500mA power supply | | |

Troubleshooting

Problem 1: There is no response from the keyboard / mouse / local monitor connected to the VKM02 Local Module.

- Solution 1: Check the LEDs on the front of the unit. If they are off, make sure the CPU is on.
- **Solution 2:** Make sure that the keyboard / mouse / VGA cable is securely connected to the correct local module port ("TO PERIPHERALS").
- **Solution 3:** Make sure that the keyboard / mouse / VGA cable connecting the **VKM02** to the CPU is securely seated at both ports.
- **Solution 4:** (Monitor only) Make sure the local monitor is on.
- Solution 5: (Mouse only) Only one mouse may be connected to either the PS/2 or serial mouse port. If both input ports are in use, one mouse must be disconnected.
- Solution 6: (Keyboard and mouse only) See Problem 4.

Problem 2: There is no response from the keyboard / mouse / local monitor connected to the VKM03 Remote Module.

- Solution 1: Check the LEDs on the front of the unit. If they are off, make sure the power button on the back of the VKM03 is on. If the LEDs do not engage, see Problem 5.
- Solution 2: Make sure that the keyboard / mouse / VGA cable is securely seated in the proper VKM03 output port.
- **Solution 3:** Make sure that the CAT5 cable is securely seated in the CAT5 LINK receptacle at both modules.
- Solution 4: (Keyboard and mouse only) See Problem 4.

KEY CONCEPT

If keyboard / mouse / monitor problems persist, test the peripheral by plugging it directly into the CPU or another computer. If the unit(s) continues to malfunction it is probably defective and should be replaced. Note: Before unplugging / replacing the component in question, make sure that the computer, monitor(s) and VKM03 are turned off.

Problem 3: The video quality of the monitor connected to the VKM03 Remote Module is very poor.

- Solution 1: Make sure that the VGA cable is securely seated in the VKM03 video output port.
- **Solution 2:** Make sure that the CAT5 cable is securely seated in the CAT5 LINK receptacle at both modules.
- **Solution 3:** Adjust the VGC on the back of the **VKM03** to increase / decrease the cable compensation until an acceptable video image appears.
- Solution 4: Although CAT5 cable significantly reduces signal loss associated with long cable runs, it does have its limits. The table on page 2 provides the maximum recommended cable lengths for the VKM01 system using CAT5 cable.
- **Problem 4:** The VKM02 local module was plugged into the CPU while it was already powered up, the mouse / keyboard was accidentally unplugged, or power to the VKM03 has been turned off. The mouse / keyboard is either not responding or the mouse is responding erratically.
- **Solution:** All components in the **VKM01** system must be OFF during installation. In the event that components are connected / disconnected while the computer is ON (or the peripherals are powered-up in the wrong sequence), the mouse / keyboard may have to be re-enabled / re-synchronized. See the KEY CONCEPT at the bottom of page 3 for the correct power-up sequence.

If the mouse is not responding:

- Press and release the Ctrl key, and type the letter **R**. This will initialize the mouse.
- Press and release the **Shift** key, and type the letter **R**. This will enable the mouse.
- If the problem persists, refer to Problems 2 or 5.

If the mouse responds erratically:

• Press and release the **Ctrl** key, and type the letter **N**. This will re-synchronize the mouse. If the mouse is two bytes out of sync, the procedure must be repeated.

Note: Issuing this command while the mouse is in sync will throw it off track. Issuing the *Ctrl N* command twice will re-synchronize the mouse.

If the keyboard is not responding:

- (In order to rectify this problem, the keyboard must first be disabled)
- Press and release the Shift key, and type the letter Z. This will disable the keyboard.
- Press and release the **Shift** key, and type the letter **Y**. This will re-enable the keyboard.

Problem 5: The VKM03 power switch is on but there is no response from the keyboard, mouse or local monitor, and the LEDs are dark.

- **Solution 1:** Make sure that the **IN9204-1** power adapter is securely plugged into the unit and the A/C source.
- **Solution 2:** Make sure the A/C source is live.
- Solution 3: The IN9204-1 power adapter may have failed. It should feel warm to the touch after it has been plugged in for a few minutes. If the adapter feels cool, replace it.

If problems persist, call INLINE Technical Services at (800) 882-7117 for further assistance.

Warranty

- INLINE warrants the equipment it manufactures to be free from defects in materials and workmanship.
- If equipment fails because of such defects and INLINE is notified within two (2) years from the date of shipment, INLINE will, at its option, repair or replace the equipment at its plant, provided that the equipment has not been subjected to mechanical, electrical or other abuse or modifications.
- Equipment that fails under conditions other than those covered will be repaired at the current price of parts and labor in effect at the time of repair. Such repairs are warranted for ninety (90) days from the day of re-shipment to the Buyer.
- This warranty is in lieu of all other warranties expressed or implied, including without limitation, any implied warranty or merchantability or fitness for any particular purpose, all of which are expressly disclaimed.

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