User Instructions for
VIP-380™ PC Keyboard and PS/2 Mouse Extender System

FEDERAL COMMUNICATIONS COMMISSION

This equipment 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 reasonable protection 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 this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

CE

This equipment has been tested and found to conform to the directives and standards for a Class A Information Technology Equipment type and for the Commercial and Light Industrial equipment class.

INTRODUCTION

Vetra's Model VIP-380™ PC Keyboard/Mouse Extender System allows a PS/2 compatible keyboard and a PS/2 compatible mouse to be located remotely from the PC. The Extender System consists of one VIP-380-R Receiver Unit, one VIP-380-T Transmitter Unit and one VIP-210 Power Supply (5Vdc. 2 A, reg. 100 – 240 Vac 50/60 Hz). The Receiver Unit is powered from the PC while the Transmitter Unit receives it's power from the VIP-210.

NOTE: If a Power Supply other then the VIP-210 is used, then all claims to FCC and or CE regulations cease to exist.

INSTALLATION

Follow these steps to install the VIP-380 Keyboard/Mouse Extender System.

Connection of the Receiver Unit to the PC must be made with the PC powered off !!!

1. Connect the Receiver Unit to the PC. Use the male-male keyboard extension cable (6-pin DIN) supplied with the system to connect the PC's keyboard input to the female 6-pin DIN connector of the Receiver marked "TO PC KBD IN". An adapter the VIP-301-5M6F (maybe purchased separately) is needed for connection to an AT style PC.

Use the male-male keyboard extension cable (6-pin DIN) to connect the PC's PS/2 compatible mouse input to the female 6-pin DIN connector of the Receiver marked "TO PC MSE IN".

2. Connect the remote keyboard and mouse to the Transmitter Unit. Use the normal keyboard cable to connect to the 6-pin female DIN Connector marked "KEYBOARD IN" and normal 6-pin mouse cable to connect to the 6-pin female DIN connector marked "MOUSE IN". An adapter the VIP-301-5F6M (maybe purchased separately) is needed to connect an AT style keyboard to the transmitter.

3. Connect the Power Supply to the Transmitter Unit. Connect the PL6 connector of the Power Supply to the PL6 female connector on the Transmitter Unit marked "+5VDC IN".

4. Connect the Transmitter and Receiver Units. Use a quality RS-232 cable with female DB9 connectors at both ends for this connection. The cable should be wired as follows:

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DB9 FEMALE CONNECTOR PIN #	DB9 FEMALE CONNECTOR PIN #	SIGNAL NAME
2	2	RXD
3	3	TXD
5	5	GND
7	7	RTS
8	8	CTS
SHIELD	SHIELD	SHIELD

OPERATION

With the Receiver and Transmitter Units connected, the Extender System is ready for operation. The Transmitter can be powered up at any time. It does not have to be coordinated with the power up of the PC.

If the Transmitter is powered up after the PC is powered up, or if it is powered down while the PC remains powered up, it is possible that the keyboard status indicators, Caps, Num, and Scroll Lock, are "out of step". This can be corrected by operating any one of the respective keys. This will cause a "refresh" of these indicators.

THEORY OF OPERATION

The VIP-380 Extender System uses a proprietary RS-232 protocol to communicate between the Transmitter Unit and the Receiver Unit. The RS-232 protocol permits essentially unlimited distance between the two units by use of standard RS-232 techniques to extend distance. Keyboard and mouse data are multiplexed onto one data stream for transmission. Transmission data rate is 9600 baud. The Transmitter will assert RTS (DB9 pin 7) when either the remote keyboard and/or mouse are active. The Transmitter will also send data only when incoming CTS (which is checked at DB9 pin 8) is asserted.

SPECIFICATIONS

Power: The Transmitter is powered from an external power supply, supplying 5 volts regulated, rated at 2 A. The Receiver Unit is powered from the PC.

Dimensions: Both the Receiver and Transmitter units are 1.50 in H x 5.08 in W x 5.25 in W (3.81 cm x 12.90 cm x 13.34 cm).

Connection of PS/2 type Mouse: By mouse's captive cable to a female 6-pin DIN connector on the Transmitter, marked "MOUSE IN".

Connection of Keyboard: By keyboard's captive cable to female 6-pin DIN connector on the Transmitter, marked "KEYBOARD IN". An adapter the VIP-301-5F6M (purchased separately) is needed to connect an AT style keyboard to the transmitter.

Connection to PC: By male-male 6-pin DIN cables (supplied with system), to connect the Receiver Unit to the PC's keyboard and mouse ports. An adapter the VIP-301-5M6F (purchased separately) is needed for connection to an AT style PC.

PARTS LIST

QTY	MODEL #	DESCRIPTION
1	VIP-380-R	Receiver Unit
1	VIP-380-T	Transmitter Unit
1	VIP-210	Power Supply
2	VIP-300-6MM-06	Extension cable 6-pin male to male
1	User Instructions	

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