TeleEye iii+ VX Series

Video Recording Transmitter

VX-4001 / VX-4002
VX-8002 / VX-8004
VX-16004 / VX-16008

Installation Guide

TeleEye
www.TeleEye.com

Notice:

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Version 1.0

Limits of Liability and Disclaimer of Warranty

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Features and specifications are subject to change without prior notice.

FCC Statement on Class B

WARNING

Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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. These limits are designed to provide reasonable protection against harmful interference 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 determine 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 needed.**
- **Consult the dealer or an experienced radio/TV technician for help.**

Shielded cables must be used with this unit to ensure compliance with the Class B FCC limits.

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SECTION 1

INTRODUCTION

The revolutionary ***TeleEye III+* VX Series Video Recording Transmitter** (***TeleEye III+* VX**) is an all-in-one video recording transmitter with dual composite video outputs and removable hard disk for standalone and remote operations.

Powered by its proprietary video compression technology and remote accessibility, ***TeleEye III+* VX** provides simultaneous remote monitoring, recording and playback. Users can keep track of live video and play back recorded video from any remote locations.

***TeleEye III+* VX** is not only designed for connectivity but a total solution for video monitoring and digital recording!

Features

- Standalone operations
- Dual composite video outputs
- OSD menus
- 16 video & alarm inputs
- Programmable video recording
- Video back-up function
- 4 relay switches

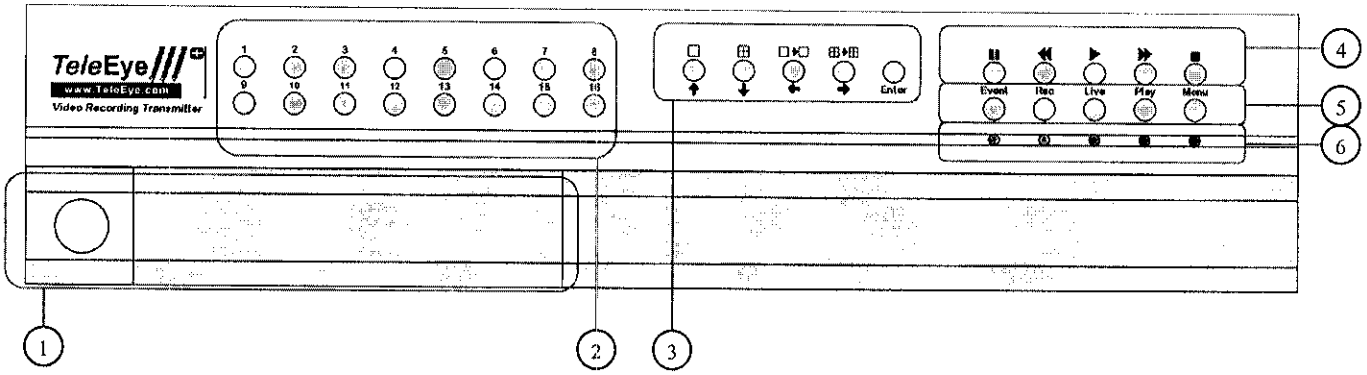
Introduction

Removing the Package

After removing the package, make sure you have the following items:

- ***TeleEye III+* VX** transmitter
- Hard disk cartridge (with or without hard disk)
- Hard disk cartridge Key x 2
- AC to DC Power Adapter with cord
- Modem cable with 9-pin RS232 header
- Serial number and registration code card

Front Panel Descriptions



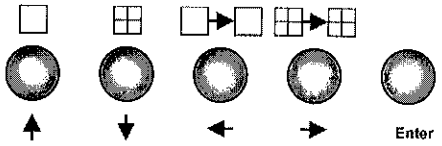
1. Removable Hard Disk

- Key lock is provided to lock the hard disk from un-authorized removing
- Key is used to enable/disable the power supply to the system

2. Live camera control buttons

- **VX–4001 / VX–4002**: 1 – 4
- **VX–8002 / VX–8004**: 1 – 8
- **VX–16004 / VX–16008**: 1 – 16
- Camera control buttons allow user to fast switch to a specific camera for local monitoring
- The buttons are also used for password input

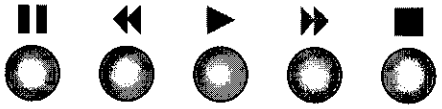
3. Screen mode control / Menu control buttons



- There are 2 modes for these buttons, either in live mode or menu control mode
- In live mode, the buttons are used to change video display mode in full screen, quad screen, full screen page mode and quad screen page mode

In menu control mode, the buttons are used as "up", "down", "left", "right" and "Enter" control

4. Local Playback control buttons



- These 5 buttons are used for recording playback control only
- The functions are pause, fast backward, play, fast forward, and stop

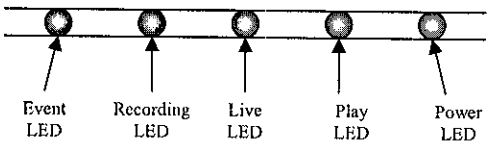
5. Mode control buttons

- These 5 buttons are used for switching between the control modes
- Event button: fast switch to event menu at any time
- Rec button: enable/disable normal recording at any time
- Live button: view live video at any time
- Play button: fast switch to playback log menu
- Menu button: switch to menu for system settings, recording settings and event settings etc.

6. Notification LEDs

There are 5 notification LEDs, 3 blue color and 2 red color from right to left

Introduction



Power LED: this LED will be ON when hard disk rack key is locked and power switch is turned on. This LED will blink during system initiation, and remains ON after initiation.

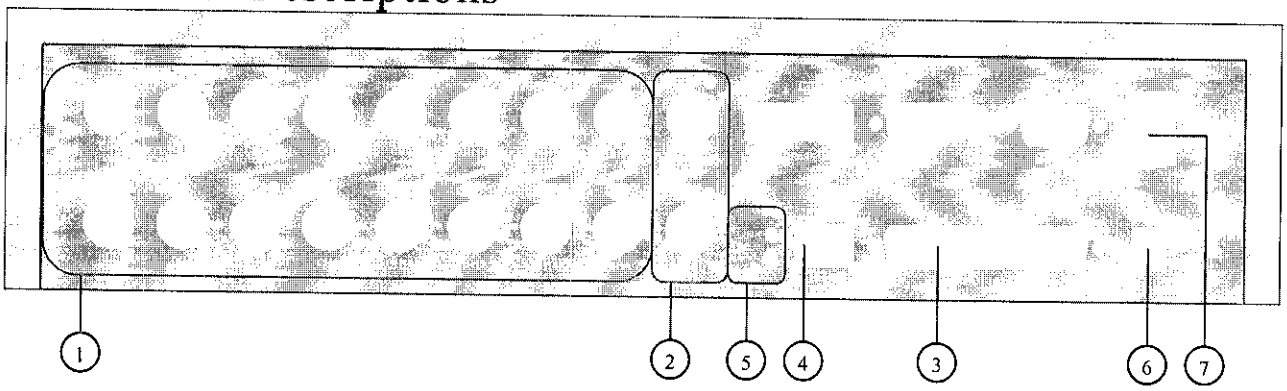
Play LED: this LED will be ON when user press the **[Play]** button, it will turn OFF when the system is in live mode

Live LED: this LED is ON indicating that video from the video out connectors are live videos. During recording video playback, this LED turns OFF

Recording LED: this LED will turn ON when ***TeleEye III+* VX** is doing recording

Event LED: this LED will blink when event is triggered

Rear Panel Descriptions



1. VIDEO INPUT Connectors

- **VX–4001 / VX–4002**: 1 – 4
- **VX–8002 / VX–8004**: 1 – 8
- **VX–16004 / VX–16008**: 1 – 16
- Standard BNC connectors for color and black and white video sources
- A composite video signal should be supplied to these connectors

2. VIDEO OUTPUT Connectors

- VIDEO OUT1 and VIDEO OUT2
- A composite video signal with 1V p-p is output from these connectors
- PAL/CCIR format with 625 lines, 50 fields per second OR NTSC/EIA format with 525 lines, 60 fields per second

3. RELAY OUT / ALARM IN Port

- 4 control switches are available for all models.
- **VX–4001 / VX–4002**: 4 alarm ports
- **VX–8002 / VX–8004**: 8 alarm ports
- **VX–16004 / VX–16008**: 16 alarm ports
- All alarm ports are NC/NO type input

4. Ethernet Socket (10/100 Base-T)

- This socket is used for connecting ***Tele*Eye *III+* VX** to the corporate computer network (e.g. LAN)

Introduction

5. Power Jack

- A 2.1mm D.C. power jack for the connection to the power supply (12V D.C.) 

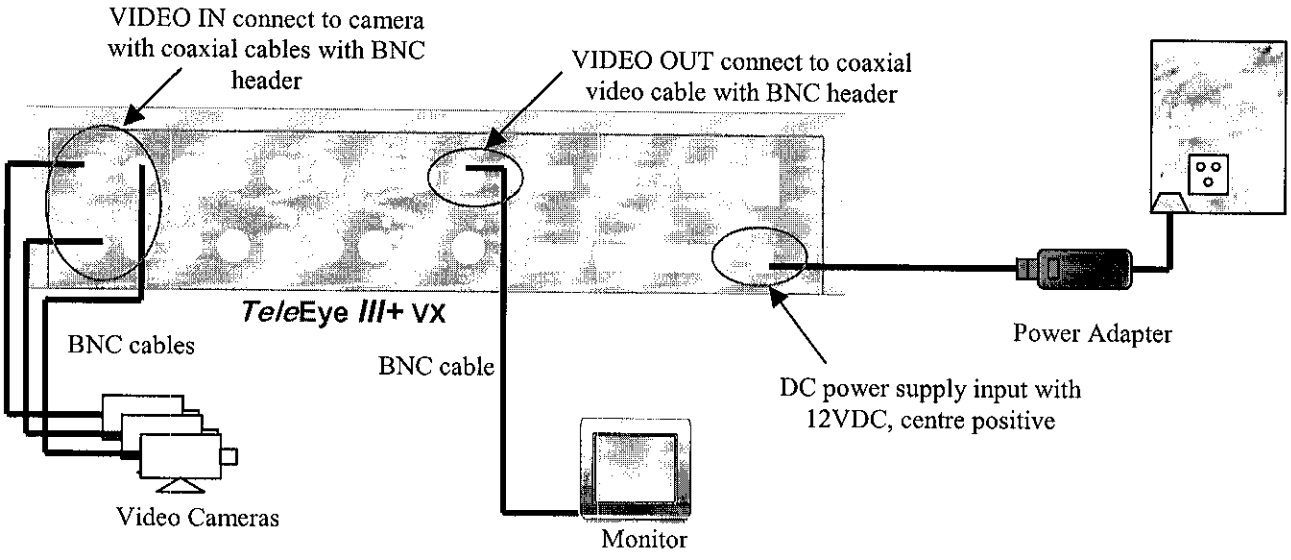
6. Switch

- A power switch to switch on or off the ***Tele*Eye III+ VX** transmitter

SECTION 2

INSTALLATION OF *Tele*Eye *III+* VX FOR LOCAL MONITORING

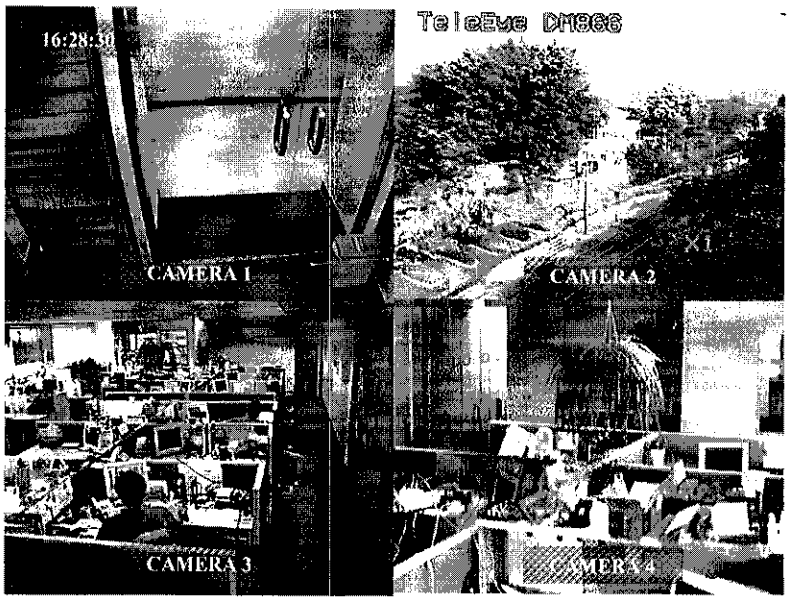
Install *Tele*Eye *III+* VX for Local Video Display



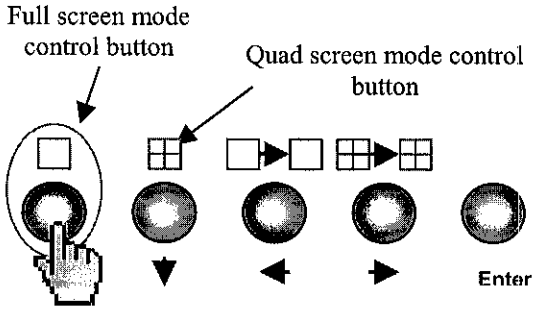
Procedures:

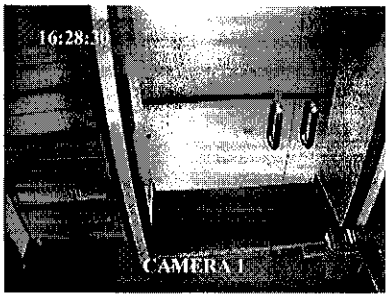
1. Insert the hard disk cartridge into the hard disk tray of ***Tele*Eye *III+* VX**
2. Using the key provided to lock the hard disk cartridge
3. Connect video cameras to input video channels with BNC cable
4. Connect the VIDEO OUT1 to a monitor using BNC cable
5. Plug the DC supply to the power jack from the power adapter

6. Switch on the ***TeleEye III+ VX*** and you will see the live video on the monitor. For the first time you use ***TeleEye III+ VX***, the live display mode is in quad mode, which means you will see four cameras on the screen at the same time

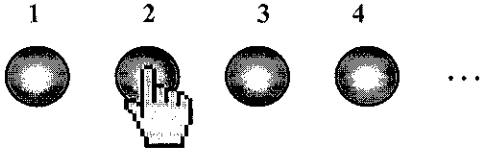


7. Press the **[full screen mode control]** button to switch to the full screen mode. You can press the **[quad screen mode control]** button again to switch back to quad mode





8. Press the **[live camera control]** button to switch to a different camera



SECTION 3

INSTALLATION OF *Tele*Eye *III*+ VX FOR REMOTE MONITORING

Install *Tele*Eye *III*+ VX for Remote Monitoring with Network

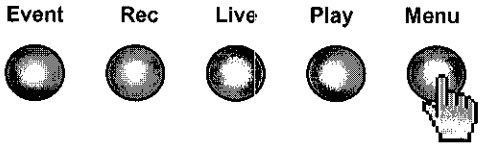
Setup *Tele*Eye *III*+ VX for connection in LAN environment

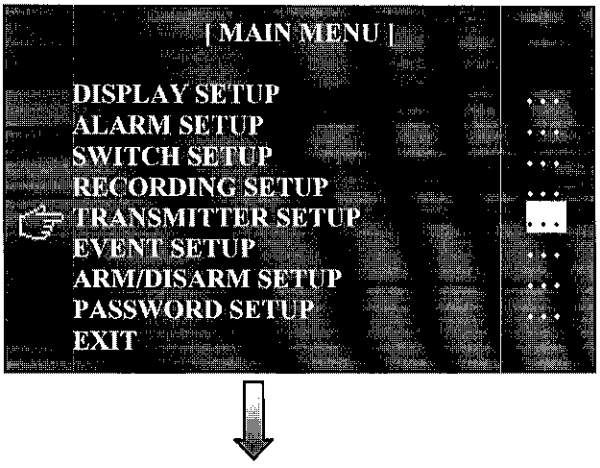
Before setting up the transmitter on LAN, you need to prepare the following items:

- A straight through RJ45 Ethernet cable
- An IP address which is unique in your LAN network. Consult your network administrator if you don't have

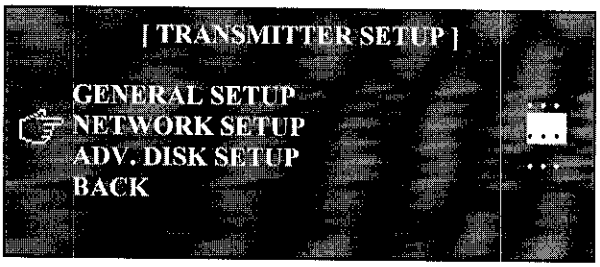
Procedures:

1. Follow the steps of setting up ***Tele*Eye *III*+ VX** for local video display, now you can see the live video and OSD on the monitor
2. Press the **[Menu]** button on front panel of ***Tele*Eye *III*+ VX** such that the OSD main menu will popup on the monitor as follows

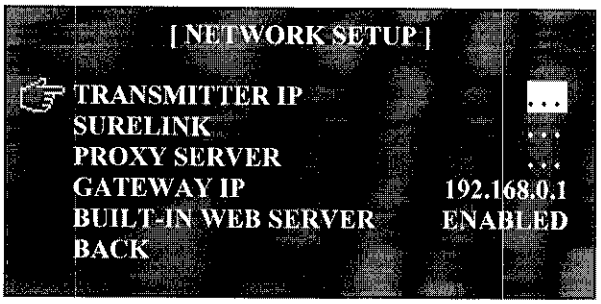




- Use the arrow button to move down to select the **[TRANSMITTER SETUP]** menu. The selected item will be pointed by a hand icon.
- Press the **[Enter]** button to enter the selected sub-menu

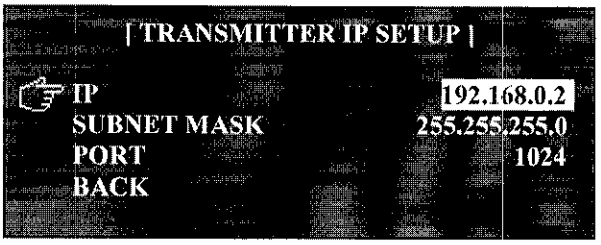


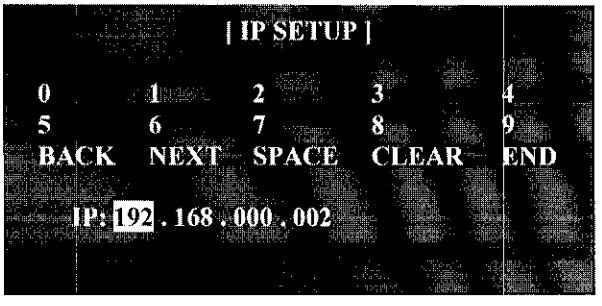
- In the **[TRANSMITTER SETUP]** menu, move the cursor to **[NETWORK SETUP]**
- Press the **[Enter]** button to enter the selected sub-menu
- If you have selected the wrong sub-menu, you can select the **[BACK]** item to go back to the previous menu



- Later on you can go back to this menu to enable the built-in web server so that you can use a web browser (eg. IE) to test the connection

Menu items ended with **[...]** indicate sub-menu exist



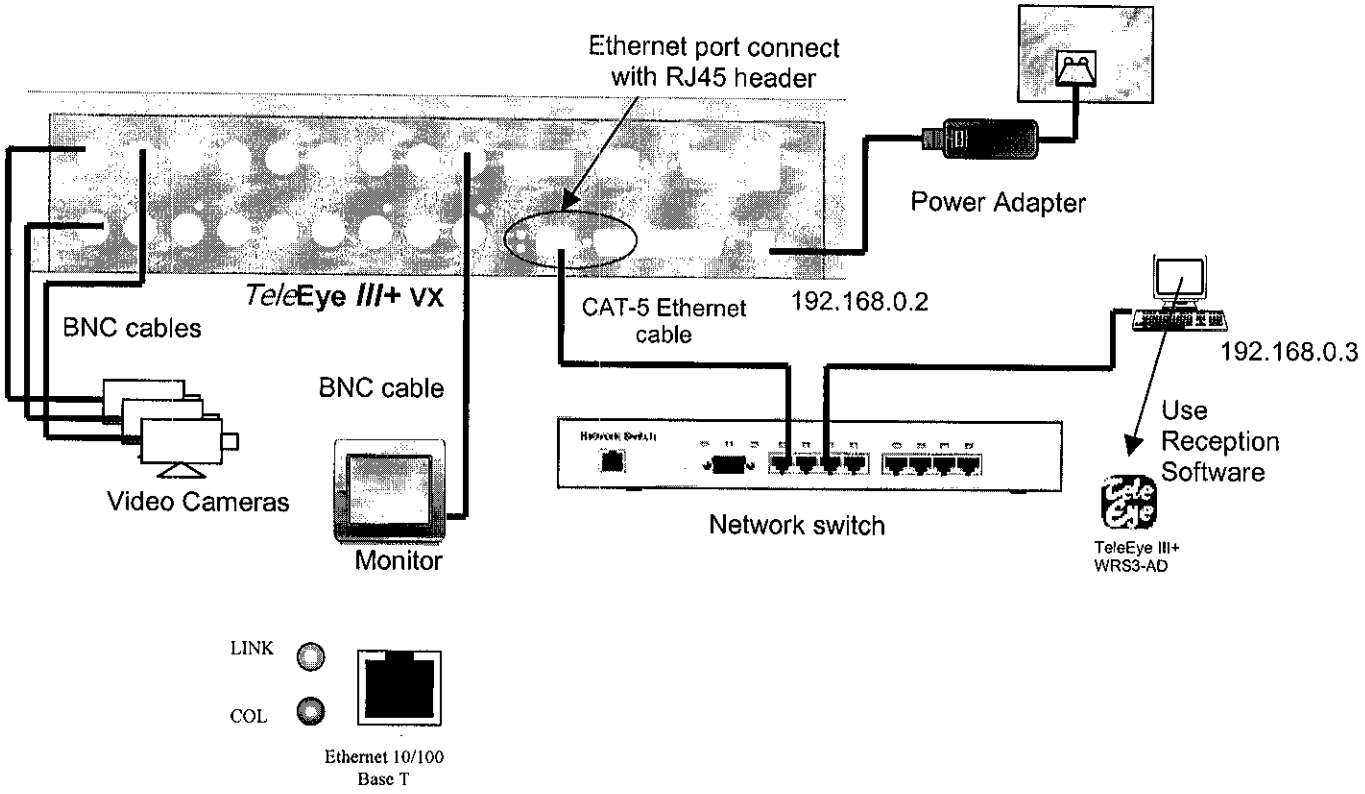


- Use Cursor button to move the cursor to select **0-9**, **[BACK]**, **[NEXT]**, etc.
- Use the **[Enter]** button to confirm selection
- After entering the IP address, select **[END]** and press **[Enter]** button to go back to previous menu for subnet mask and port number setting

3. After setting up the IP address, you need to setup the subnet mask and port number in the similar way

4. After changing any network settings, you should back to the **[MAIN MENU]** and **[EXIT]** the main menu to save all the settings. Or you can press the **[Live]** button to fast exit the menu operation

5. Now connect the ***TeleEye III+ VX*** to your LAN using Ethernet cable as shown in the following diagram



6. Power on the ***TeleEye III+ VX***. You will notice the **LINK LED** is on and **COL LED** is off which indicate you have connected to your LAN network properly.

7. If you have enabled the built-in web server of ***TeleEye III+ VX***, you can connect to ***TeleEye III+ VX*** using a web browser (eg. IE) on a PC inside the network. Type the address as (eg. http://192.168.0.2), you are prompt to enter the password (default is "000000"). Please see section 5 for detail on built-in web server access.

8. If all the settings are correct, you can view the video through the browser.

APPENDIX A

RECEPTION SOFTWARE

About the Reception Software

Tele*Win** Reception Software is a Windows 95/98/ME/NT/2000/XP application program (IBM compatible PC). It implements the system controls as well as image decoding of the ***VX transmitter. The compressed data are decoded and displayed through the PC monitor.

Software Installation

Before setting up ***Tele*Win**, please change the video setting to *800 x 600 true colour* or *16-bit high colour* in Windiw's **Display Properties**.

***Tele*Win** software CD contains an installation program, **SETUP.EXE**. Please use this program to setup the necessary files into the hard disk of the reception unit.

Once you have completed the following installation procedure, you can run ***Tele*Win** directly from your hard disk.

Connecting *Tele*Win to *VX*

Step 1: Make sure your video setting of Window's environment is *800 x 600 true colour* or *800 x 600 16-bit High Colour*. To start ***Tele*Win Reception Software**, click on the **Start** button on the taskbar, then choose **Programs -> *Tele*Eye *III* -> *Tele*Eye *III*+ WRS3-AD.**

Step 2: To connect to the ***VX***, click **Connect** under the **Connection** menu or the ***Connect*** button.

Step 3: In the ***Connect Using*** box, select **TCP/IP** and enter the IP address as **192.168.0.2**. This allows the ***Tele*Win** to communicate with the ***VX*** through the RJ45 LAN cable.

Step 4: Fill in the password for connection. The **default password** is **000000**.

Step 5: You may now click the ***connect*** button to make connection.

*Tele*Win Operation

You may connect/disconnect the connection by selecting **Connect/Disconnect** under the **Connections** menu or clicking the **Connect/Disconnect** button.

Reception Software

You may reset the alarms by clicking **Reset Alarm** under the **Event->Alarm** menu or with the **Reset Alarm** button.

You may enable/disable recording by clicking the **VX REC** button.

You may playback the recorded video by clicking the **Remote Retrieval** under the **Remote** menu.

You may change the video mode from remote retrieving to monitoring by clicking the **Remote Monitoring** under the **Remote** menu.

Trouble Shooting:

If you encounter problem in connecting the ***VX*** transmitter, you should check the following.

Please make sure your PC has a network card and is configured with network settings. Go to **Control Panel->Network** to enter the following network settings.

- IP = 192.168.0.3
- Subnet mask = 255.255.255.0

Pin Definitions of the crossover RJ45 CABLE

When linking ***VX*** to PC, you need the crossover RJ45-to-RJ45 cable. Table 1 lists the definitions for the crossover RJ45-to-RJ45 cable.

Terminal A			Terminal B		
White orange	1	TD+	3	RD+	White green
Orange	2	TD-	6	RD-	Green
White green	3	RD+	1	TD+	White orange
White blue	4	BI_1+ (Not used by 10BaseT)	7	BI_2+ (Not used by 10BaseT)	White brown
Blue	5	BI_1- (Not used by 10BaseT)	8	BI_2- (Not used by 10BaseT)	Brown
Green	6	RD-	2	TD-	Orange
White brown	7	BI_2+ (Not used by 10BaseT)	4	BI_1+ (Not used by 10BaseT)	White blue
Brown	8	BI_2- (Not used by 10BaseT)	5	BI_1- (Not used by 10BaseT)	Blue

Table 1: Crossover RJ45-to-RJ45 cable definitions.

Reception Software

APPENDIX B

SPECIFICATIONS

MODEL	VX-4001	VX-4002	VX-8002	VX-8004	VX-16004	VX-16008
VIDEO INPUT						
STANDARD	(P): PAL/CCIR, 625 lines, 50 fields per second (N): NTSC/EIA, 525 lines, 60 fields per second composite video, 1 V_{p-p}, BNC					
NO. OF CHANNELS	4		8		16	
VIDEO OUTPUT						
STANDARD	(P): PAL/CCIR, 625 lines, 50 fields per second (N): NTSC/EIA, 525 lines, 60 fields per second composite video, 1 V_{p-p}, BNC					
NO. OF CHANNELS	2					
COMMUNICATION						
MODEM PORT	RS-232C: DB-9 male, asynchronous, 8 data bits, 1 stop bit, no parity, 9.6k-115.2kbps, hardware flow control					
AUX PORT	RS-232C or RS-422/485 RS-232C: DB-9 female, asynchronous, 8 data bits, 1 stop bit, no parity, 2.4k-19.2kbps, hardware flow control RS-422/485: 2-way terminal, asynchronous, 5-8 data bits, 1-2 stop bits, no/odd/even parity, 2.4k-19.2kbps					
RELAY SWITCH						
NO. OF CHANNELS	4					
MAX. RATING	24V AC, 1000mA					
POWER						
VOLTAGE	12V DC					
MAX. RATING	40W		44W		51W	