**Connecting Video**

There are two types of video signal which can be used with the TTX81X. The "RF in" jack will accept a VHF/UHF signal such as you would obtain from either a cable outlet or a rooftop antenna for local broadcast. A threaded (type F) jack is used on the "North American" model (TTX815); an IEC aerial jack is used on the "European" model (TTX816). If you have an RF signal, connect it as shown below. If it is the threaded type, tighten it fully using your fingers.

The "Video In" jack will accept a composite video signal such as you would obtain from the "video out" jack of a satellite receiver, component tuner or VCR. This jack is a reliable BNC type; if your video signal source uses another type of jack (for example, phono), you will need an adaptor to connect it to the TTX81X. If you have a video signal, connect it as shown below.
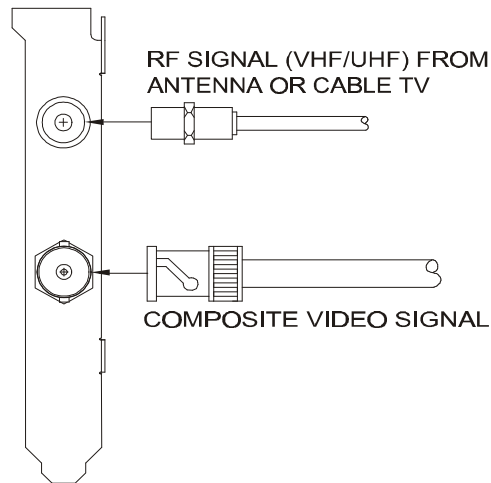
You are now ready to install and use your application software. To proceed, refer to the manual supplied with the software.

---

norpak corporation
Telephone: 613-592-4164.
Fax: 613-592-6560
web: http://www.norpak.ca

Document 85-098xx-01, Revision A

norpak corporation
TTX81X TV Data Receiver
Installation Guide

Introduction
This guide describes how to install the TTX81X TV Data Receiver in your computer, how to connect the video signal to it, and how to check that it operates properly in your computer.

Once you have completed these steps, you will be ready to install application software to work with the TTX81X.

Please follow these steps carefully, to ensure a successful installation.

Information to User
The following warning is provided in compliance with the regulations of the United States Federal Communications Commission (FCC):

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 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:

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

Changes or modifications not expressly approved by Norpak Corporation could void the user's authority to operate the equipment.

System Requirements

To use the TTX81X, you need a computer with a vacant 16-bit ISA slot, and Windows 95, 98 or NT.

Installation

1. With the power off and the power cord unplugged, remove the cover from your computer, following the manufacturer's instructions.
2. Locate an unused "16-bit ISA slot" in the computer. If you are unsure what this means, look closely at the computer's bus connectors. There is only one type which will accept the TTX81X; it will not fit in other connectors such as "PCI". If there are 2 or more empty ISA slots, try to leave one slot vacant on each side of the TTX81X; this will ensure the best possible data reception.
3. Remove the blank mounting bracket from the selected slot, and retain the screw for later use.
4. Ensure that the "DIP switches" on the TTX81X are all in the OPEN position, which is how they are set at the factory. This is the best setting for most computers, since it allows the software to set up the card automatically.
5. Insert the TTX81X into the connector for the desired slot;. some pressure will normally be required. Align the hole in the upper edge of the TTX81X mounting bracket with the screw hole and replace the screw you removed in step 3.
6. Replace the computer's cover and apply power.
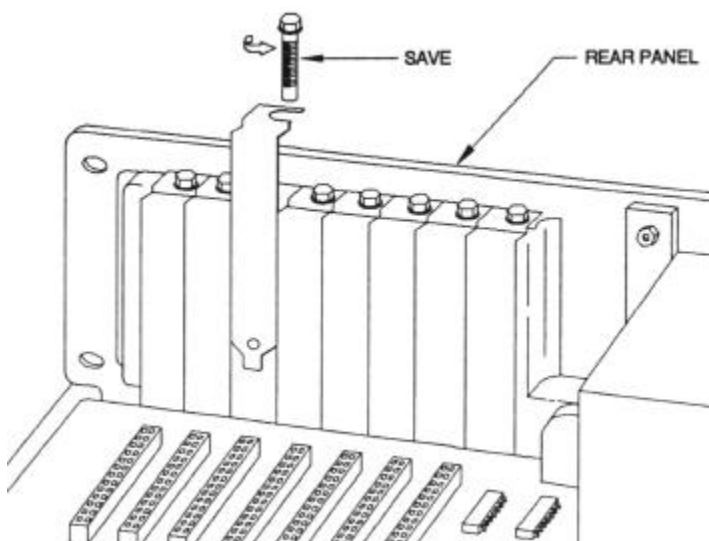
Testing

After Windows is running, run the hardware test program as follows: click "Start", then "Run", then "Browse". Locate the XXX program and run it. This will tell you whether the software was able to correctly identify the TTX81X card. If this was successful, proceed to **Connecting Video**. If not, follow the **Troubleshooting** instructions.

Troubleshooting

There are two common conditions which can cause the software to be unable to detect the TTX81X card:

1 None of the addresses or interrupts which the TTX81X can use are available; or
2 The setup address which the TTX81X uses to find an available address and IRQ is assigned to the PCI or other local bus.

In case 1, you need to disable or reconfigure another device in the computer which is using one of the addresses needed by the TTX81X. Normally, this is done by using the PC's setup facility or by setting switches or jumpers on the conflicting device. The TTX81X needs to use one of the following address ranges: 200-207, 210-217, 300-307, or 310-317; it also needs one of the following interrupts: IRQ7, IRQ10, IRQ11 or IRQ12. Once you have reconfigured your computer so that at least one address range and one IRQ are available, repeat the test.

In case 2, first try to use your computer's setup facility to assign either address 2EF or 3EF to the ISA bus; if available, this may be in a menu with a name such as "PnP/Legacy" or "PCI/ISA". If you are able to make this change, repeat the test. If not, you will need to turn off the computer by exiting from Windows and remove the computer cover. Then, use the DIP switches on the TTX81X to select a free address and IRQ. The switch settings are shown in a table printed on the card and are repeated below. Once you have set the switches, close the computer, apply power and repeat the test.

Switch		IRQ
1	2	
Closed	Closed	7
Closed	Open	10
Open	Closed	11
Open	Open	12*

Switch		Address
3	4	
Closed	Closed	200-207
Closed	Open	210-217
Open	Closed	300-307
Open	Open	310-317*

* If all switches are open, address/IRQ selection is automatic