

Texas Instruments
Home Computer
Accessory

**Video
Modulator**
Model UM1381

OPERATING GUIDE

The UM1381 unit is a combination video modulator and isolation switch designed for use with the Texas Instruments Home Computer. With the Video Modulator, your own television set (color or black & white) can be used as a computer display, eliminating the need for a monitor for your Home Computer.



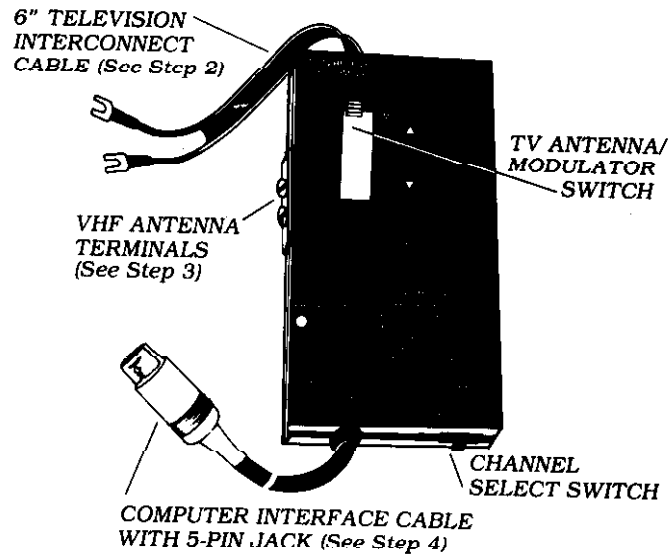
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The UM1381 Video Modulator is designed to be used with a standard television set having 300-ohm, flat, twin-lead antenna connections. If you have a coaxial antenna system that connects *directly to your television set* with a round screw-on connection, you have a low-impedance antenna system (typically 75 ohms). To comply with Federal Communications Commission guidelines, you will need to purchase a "Balun matching transformer" from a local television or electronics shop to permit connection of the antenna cable to the Video Modulator. If your television has a low impedance antenna system *and* receives UHF stations (Channel 13 and up), be sure to obtain a Balun matching transformer with both VHF and UHF output leads to the television set. Connect the transformer and check your television for normal reception of all channels before connecting the UM1381 Video Modulator.

INSTALLATION

The Video Modulator includes the following parts:

- The modulator/switch unit
- An attached 6-inch television interconnect cable (connects to your television set)
- An attached computer interface cable (connects to the computer console)



No special tools are required to connect the compact, easy-to-install Video Modulator to your television set. A screwdriver is the only tool you'll need. Two self-gripping strips (on the back of the unit) allow you to mount the Video Modulator directly on your television set.

Follow these steps to install the unit.

- Step 1. Turn the television OFF. Then, loosen the screws on the VHF antenna terminals on your television set, and remove the antenna cable.
- Step 2. Connect the Video Modulator television interconnect cable, marked TO TV RECEIVER VHF TERMINAL, to the VHF antenna terminals on the television set. Then retighten the screws.

- Step 3. Connect the television VHF antenna cable to the Video Modulator antenna terminals, marked ANTENNA, and tighten the screws.
- Step 4. Plug the computer interface cable's 5-pin jack into the 5-pin socket on the right side of the back of the main console (when console is viewed from rear). Be sure the pins are properly aligned with the socket to avoid bending or breaking them. Connect the plug firmly, but do not force it into position.
- Step 5. Use the attached self-gripping strips to mount the Video Modulator on the television set. Peel off the paper backing and press the unit against a flat surface on your television set. (The strips will support the modulator's weight and relieve strain on the cable connections.)

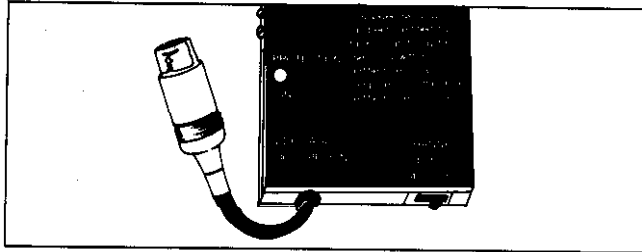
A NOTE ABOUT FCC RESTRICTIONS

In order to prevent possible interference with other television sets in your area, please observe the following Federal Communications Commission restrictions:

1. DO NOT add any extra lead-in wire to the television interconnect cable when attaching the UM1381 Video Modulator to your television set.
2. DO NOT connect the UM1381 Video Modulator to more than one television set at a time.
3. DO NOT attach the television interconnect cable on the UM1381 Video Modulator to any television antenna lead-in wire or cable television outlet.
4. DO NOT connect any wires, other than the UM1381 Video Modulator cables, to your television set and/or antenna when you are using the computer system.

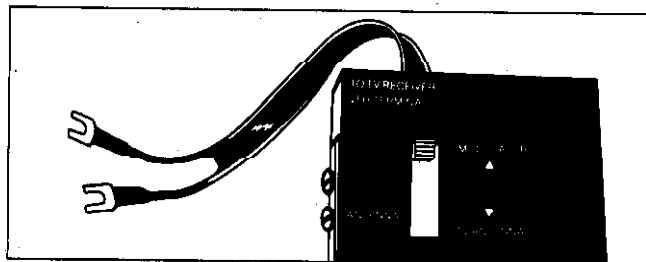
OPERATION

There are two switches on the Video Modulator. At one end is a channel select switch, marked CHANNEL SELECT 4 3. Set the switch to either Channel 3 or 4. *If there is a television station operating on one of these channels in your area, select the other channel on the modulator.* Then, set your television to the same channel.



CHANNEL SELECT
SWITCH

On the top of the Video Modulator you'll see a switch (the isolation switch) marked TV ANTENNA at one end and MODULATOR at the other. Set this switch to MODULATOR.



TV/MODULATOR
SWITCH

That's all there is to it. Turn on your television set and computer, and you're ready to start. Adjust the controls (including "fine tuning") of the television set for optimal picture clarity and most pleasing colors, just as you would for normal television reception.

You can leave the Video Modulator attached to your television set all the time. Whenever you want to watch your favorite television programs, just slide the TV ANTENNA/MODULATOR switch back to the TV position.

PROTECTION INDICATOR

The protection indicator light should be off under normal operating conditions. If for some reason the light is on, turn the computer off, wait several seconds, and turn it on again. The indicator light should then be off.

IN CASE OF DIFFICULTY

The picture that you get on the screen when using your television as a computer display will only be as good as the picture you normally get on your television set. Before attaching your Video Modulator, make sure that your television set is in good working order.

If your television/computer system does not seem to be working properly, check first to be sure that both the television set and the computer are turned on. Then follow this checklist to identify and correct the problem.

Problem

No picture at all

Solution Steps

1. Check all connections to be sure the modulator is correctly attached to the television and computer (see INSTALLATION). Make sure the VHF antenna cable is connected to the VHF antenna terminals (not the UHF antenna terminals, if your TV has UHF terminals).

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Problem**Solution Steps**

Poor-quality picture

2. Check the wall outlet where the television set is plugged in. Is it "live"? (Test it by plugging in a lamp.)
 3. Be sure the TV ANTENNA/MODULATOR switch is set to MODULATOR.
 4. Be sure the Channel Select switch on the modulator is set to the same channel as the television set.
 5. Adjust the fine-tuning control through its full range.
 6. Be sure the television set operates without the UM1381 Video Modulator connected.
1. Use the fine-tuning control on your television set to bring in the best possible picture.
 2. If your television set has a 300/75-ohm antenna terminal switch, make sure the switch is set to 300 ohms.
 3. Check to see if any power appliance or equipment (hair dryer, mixer, drill, saw, etc.) is causing interference.
 4. If your television has a sharpness (or "peaking") control, adjust it for optimal character sharpness.

If you continue to have difficulty with the Video Modulator, consult the service information below or see the "Maintenance and Service Information" section in the *User's Reference Guide*.