

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.



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)

6" TELEVISION
INTERCONNECT
CABLE (See Step 2)

VHF ANTENNA
TERMINALS
(See Step 3)

COMPUTER INTERFACE CABLE
WITH 5-PIN JACK (See Step 4)

TV ANTENNA/
MODULATOR
SWITCH

CHANNEL
SELECT SWITCH

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.)

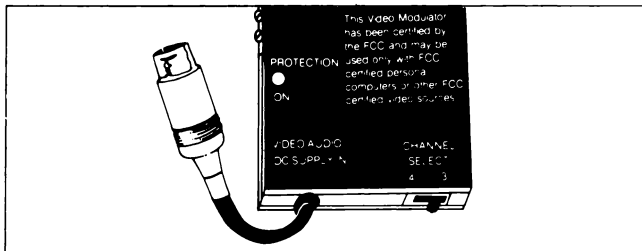
A NOTE ABOUT FCC RESTRICTIONS

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.

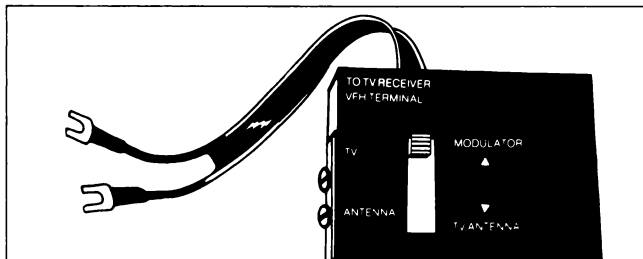
OPERATION

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).

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*.

SERVICE INFORMATION

If the UM1381 Video Modulator is in warranty, it will be repaired or replaced under the terms of the Limited Warranty. Out-of-warranty units in need of service will be repaired or replaced with reconditioned units (at TI's option), and service rates in effect at the time of return will be charged. Because our Service Facility serves the entire United States, it is not feasible to hold units while providing service estimates. For advance information concerning our flat-rate service charges, please call our toll-free number.

EXCHANGE CENTERS

If your Video Modulator requires service, instead of returning the unit to a service facility for repair or replacement, you may elect to exchange the unit for a factory-reconditioned Video Modulator of the same model (or equivalent model specified by TI) by going in person to one of the exchange centers which have been established across the United States. A handling fee will be charged by the exchange center for in-warranty exchanges of the Video Modulator unit. Out-of-warranty exchanges will be charged at the rates in effect at the time of the exchange.

To determine if there is an exchange center in your area, look for Texas Instruments Exchange Center in the white pages of your telephone directory, or look under the Calculator and Adding Machine heading in the yellow pages. Please call the exchange center for availability and exchange fee information. Write the Consumer Relations Department for further details and the location of the nearest exchange center.

FOR GENERAL INFORMATION

If you have questions concerning Video Modulator repair, please call our Customer Relations Department at 800-858-4565 (toll free within the contiguous United States except Texas) or 800-692-4279 within Texas. The operators at these numbers cannot provide technical assistance.

For technical questions, you can call 806-741-2663. Please note that this is not a toll-free number, and we cannot accept collect calls.

As an alternative, you can write to:

Consumer Relations Department
Texas Instruments Incorporated
P.O. Box 53
Lubbock, Texas 79408

THREE-MONTH LIMITED WARRANTY FOR UM1381 VIDEO MODULATOR

THIS TEXAS INSTRUMENTS VIDEO MODULATOR WARRANTY EXTENDS ONLY TO THE ORIGINAL CONSUMER PURCHASER OF THE VIDEO MODULATOR.

WARRANTY DURATION

This Texas Instruments Video Modulator is warranted for a period of three (3) months from the date of original purchase by the consumer.

WARRANTY COVERAGE

This Texas Instruments Video Modulator is warranted against defective materials or workmanship. **THIS WARRANTY IS VOID IF THE VIDEO MODULATOR HAS BEEN DAMAGED BY ACCIDENT, UNREASONABLE USE, NEGLIGENCE, IMPROPER SERVICE OR OTHER CAUSES NOT ARISING OUT OF DEFECTS IN MATERIALS OR WORKMANSHIP.**

WARRANTY PERFORMANCE

During the above three-month warranty period, your Video Modulator will be repaired or replaced with a new or reconditioned unit of the same or equivalent model (at TI's option) when the unit is returned by prepaid shipment to a Texas Instruments Service Facility listed below. The repaired or replacement unit will be warranted for three months from date of repair or replacement. Other than the postage requirement, no charge will be made for the repair or replacement of in-warranty units.

Texas Instruments strongly recommends that you insure the unit for value, prior to shipment.

THREE-MONTH LIMITED WARRANTY, continued

WARRANTY DISCLAIMERS

ANY IMPLIED WARRANTIES ARISING OUT OF THIS SALE, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE ABOVE THREE-MONTH PERIOD. TEXAS INSTRUMENTS SHALL NOT BE LIABLE FOR LOSS OF USE OF THE PRODUCT OR OTHER INCIDENTAL OR CONSEQUENTIAL COSTS, EXPENSES, OR DAMAGES INCURRED BY THE CONSUMER OR ANY OTHER USER.

Some states do not allow the exclusion or limitation of implied warranties or consequential damages, so the above limitations or exclusions may not apply to you in those states.

LEGAL REMEDIES

This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

THREE-MONTH LIMITED WARRANTY, continued

TEXAS INSTRUMENTS CONSUMER SERVICE FACILITIES

U.S. Residents

Texas Instruments Service Facility
2303 North University
Lubbock, Texas 79415

Canadian Residents

Geophysical Services Incorporated
41 Shelley Road
Richmond Hill, Ontario, Canada L4C5G4

Consumers in California and Oregon may contact the following Texas Instruments offices for additional assistance or information.

Texas Instruments Consumer Service
831 South Douglas Street
El Segundo, CA 90245
(213) 973-1803

Texas Instruments Consumer Service
6700 Southwest 105th
Kristin Square, Suite 110
Beaverton, Oregon 97005
(503) 643-6758



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