\\\\\\\VideoBrain™ Family Computer Model 101 Owner's Manual

VideoBrain™

OWNER'S MANUAL
MODEL 101

Table Of Contents

Congratulations! You have joined the computer revolution with a high-quality, reliable product of the future. Your VideoBrain computer is a basic piece of equipment you can use for entertainment, education, and home management. To get the most from your VideoBrain, *read this manual thoroughly before operating the computer.* Please retain the manual for future reference.

Important Safeguards

1. Do not open the VideoBrain cabinet. Opening the cabinet will void your warranty. The VideoBrain computer is not a kit and there are no user-serviceable parts inside.

2. Allow adequate air circulation to prevent internal heat build-up. Do not place the computer on soft surfaces (rugs, blankets, etc.) or near materials (drapes, curtains) that may block the ventilation holes.

3. Do not expose the VideoBrain computer to rain or moisture. Do not allow any liquids or solid objects to fall into the ventilation holes, the keyboard, or the cartridge carrier.

4. Do not install the computer near heat sources such as radiators or heat ducts, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.

Unpacking

Unpack the VideoBrain computer carefully and save the original packing materials. You should save the cartons and the packing materials in case you need to ship the computer or move it to a new address. The VideoBrain box should contain the following:

1. VideoBrain Console
2. Antenna Switchbox
3. AC Power Adaptor
4. Two Joysticks
5. Owner's Manual
6. Abbreviated Instruction Card
7. Warranty With Warranty Registration Card

A screwdriver is all you'll need to connect the computer to your TV. Before you start you'll need to look at the back of your TV to see whether your antenna lead-in wire is 300 ohm or 75 ohm, and follow the directions accordingly.

300 Ohm

If your antenna is a flat twin-lead wire that attaches to two screws on the back of your TV, it is a 300-ohm lead-in.

1. Disconnect the two 300-ohm VHF antenna lead-in wires from the antenna connection screws on the back of your television set (See Figure 1). Connect these wires to the two screws on the VideoBrain antenna switch box marked "300 ohm."

2. Connect the two antenna lead-in wires from the antenna switch box to the antenna connection screws on the TV.

3. Plug the computer signal cable from the back of the VideoBrain console into the socket marked "computer" on the VideoBrain antenna switchbox.

4. Move the switch on the antenna switch box from TV to Computer. (To watch TV again you must switch back to TV).

5. Turn TV to channel 3. If you regularly receive a TV broadcast signal on channel 3, turn your TV to channel 4. *Make sure that the channel selector switch on the back of the VideoBrain console is set to the same channel as your TV.*
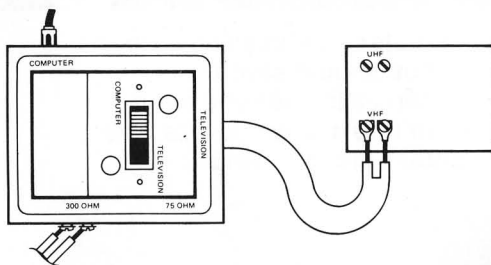

Figure 1—Antenna Switchbox connection for 300-ohm antenna input.

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If you have a round antenna cable that screws onto the back of your TV, it is a 75-ohm lead-in.

1. Disconnect the 75-ohm cable from the TV and screw the cable onto the socket marked 75 ohm on the antenna switch box. (See Figure 2.)

2. Connect the two antenna lead-in wires from the antenna switch box to the antenna connection screws on the TV.

3. Plug the computer signal cable from the back of the VideoBrain console into the socket marked "computer" on the VideoBrain antenna switchbox.

4. Push the slide switch on the back of your TV to the side marked 300 ohm. If your TV has a U-shaped slider rather than a slide switch, move the slider to make a connection between the two screws.

5. Move the switch on the antenna switch box from TV to Computer. (To watch TV again, you must switch back to TV.)

6. Turn TV to channel 3. If you regularly receive a TV broadcast signal on channel 3, turn your TV to channel 4. *Make sure that the channel selector switch on the back of the VideoBrain console is set to the same channel as your TV.*
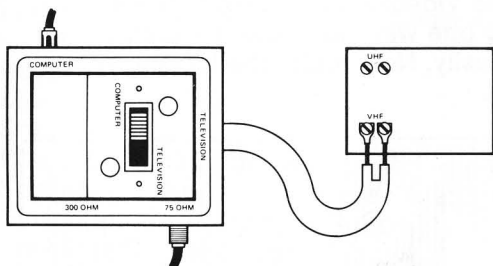

Figure 2—Antenna Switchbox connection for 75-ohm antenna input.

Attaching an antenna switch box to each TV in your house will allow you to easily move your VideoBrain computer from room to room. Extra switch boxes, part number 1000046, are available from VideoBrain Computer Company at a prepaid charge of $8.50.

- Using any more flat twin lead wire from Antenna Switch Box to TV than is supplied

- Connecting flat twin lead wire from Antenna Switch Box to any TV antenna or cable TV outlet

- Attaching loose wires to your TV antenna when computer is in operation

- Connecting more than one TV to computer at one time

  Violation of these regulations could cause interference with other TV sets in the area.

Power Connection

1. *Important*—Use *only* standard household current (120 volts AC in North America).

2. Plug AC adaptor into wall socket. Avoid using a socket that can be switched on and off. Secure transformer to wall socket by removing center screw from cover plate of outlet. Leaving the cover plate on, plug transformer into socket of outlet, and replace screw through the bracket on the transformer.

3. Plug the other end of the power cord into the socket marked power on the back of the VideoBrain console (See Figure 3). The plug will go in only one way, so rotate the plug until it slides into the socket easily. Now rotate the locking ring clockwise until it clicks.
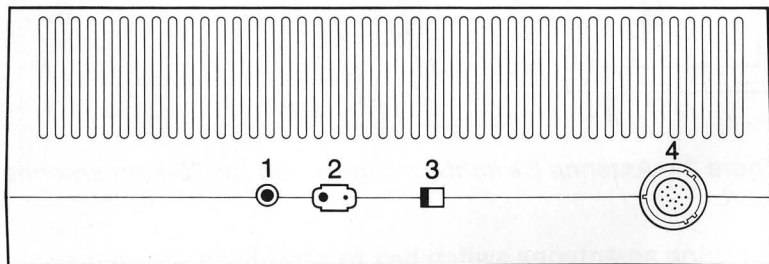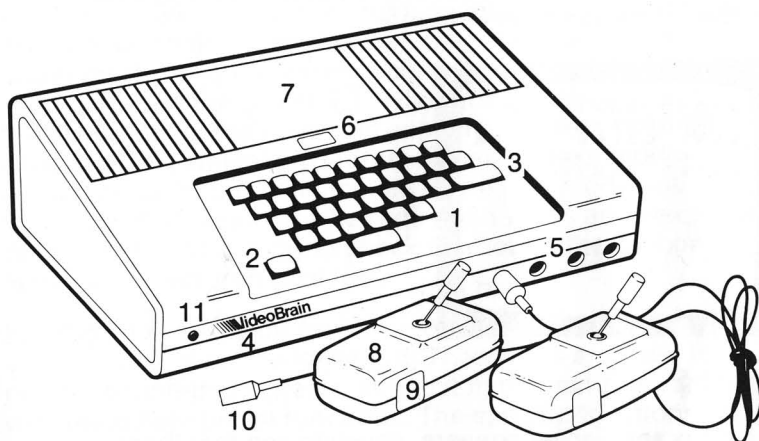

Figure 3—Back of VideoBrain console

1. Computer signal cable
2. Accessory connection socket
3. Channel selector switch
4. Power socket

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Accessory Connection Socket—At the back of the cabinet there is a socket for connections to future VideoBrain products. Watch for such add-ons as permanent memory storage, light pen, telephone interface and home appliance controller. DO NOT connect any unauthorized device whatsoever to the computer, as it could cause severe damage to the VideoBrain circuitry.

Location Of Controls And Features

Controls and features are located as shown in Figure 4.

Figure 4—Front of VideoBrain Console

1. Keyboard
2. Master Control Key
3. Shift Key
4. Power Switch (under front panel)
5. Sockets for joysticks numbered 1, 2, 3, 4 left to right
6. Cartridge Carrier Release Button
7. Cartridge Carrier Cover
8. Joystick
9. Joystick Hit Button
10. Joystick Plug
11. Power Light

1. Before "powering up," check to make sure that all directions under Antenna Connection and Power Connection have been followed exactly.

2. Without inserting a cartridge, switch the power switch on the front of the console to ON. The red light near the power switch should go on immediately. If it does not, recheck switch and instructions under Power Connection.

3. Push the *Master Control* button at the lower left corner of the keyboard. The Title/Choose Key Display should appear on the TV screen as in Figure 5.

Figure 5

If a different display appears, check to see that there is no cartridge in the cartridge carrier. (See instructions for Inserting A Cartridge.) Then push *Master Control* again while making sure not to push any other keys.

Learning The Keyboard

Figure 6—VideoBrain Keyboard

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Master Control—At any point in any built-in program or cartridge program, the *Master Control* key will return the computer to the start of the program. Without a program cartridge, pressing *Master Control* will immediately return the computer to the Title/Choose Key Display shown in Figure 5.

Remember—If any program ever seems lost or stuck, you can always get back to the beginning by pushing *Master Control.*

Shift—Like a typewriter, the shift key indicates to the computer whether you want it to respond to the characters, functions or built-in programs shown on the upper half of the other 35 keys, or the characters and functions shown on the lower half. When the keyboard is shifted into the upper mode, a light-colored rectangle appears at the lower right corner of the screen ☐ . When the keyboard is in the lower mode, the rectangle appears in a dark color ■ . Pressing *Shift* will take you from upper to lower mode, or vice versa. You remain locked in the new mode until you press *Shift* again. If a key you push yields an unexpected response, the first thing to check is whether the keyboard is in the correct shift position.

Function Keys—Aside from the *Shift* key, there are six other blue keys on the keyboard. These keys are used to enter the built-in programs, edit text in the text program, and execute other special functions. The specific functions of these keys are described later in this manual and in the instructions for individual cartridge programs.

Character Keys—In programs where user-entered information is called for (for example, the text and clock built-in programs), you can enter textual or numerical information on the TV screen by typing it in on the black character keys. Letter keys are laid out similarly to a typewriter and are used in the down-shifted mode ■ . Remember to shift up ☐ for numbers and for some punctuation.

Built-In Program Concept

VideoBrain has four built-in programs that are designed to provide useful applications for the user while also providing the basic text and timekeeping capabilities which most of the cartridge programs will utilize. The four built-in programs are *Text, Clock, Alarm,* and *Color.*

First, a word about the WRONG KEY display. When you give information to the VideoBrain computer it doesn't recognize, it displays WRONG KEY for two seconds and then offers the choices or asks the question again. Look carefully at the question or choices and try to give it a response it can understand. Check to make sure the keyboard is in the correct shift mode.

Text

The text program will allow you to write on the screen and store in memory a message, a poem, a quote or a list up to 7 lines long with 16 characters in each line.

1. **Entering the Text Program**—Make sure there is no cartridge in the cartridge carrier. Now you can enter the text program no matter what is being displayed on the screen by first *checking that the keyboard is in the upper-shifted mode* (light-colored rectangle appears in lower right corner). Now press the *Text* key in the bottom row of the keyboard. This will yield the following display:

Figure 7 Text Display and Cursor

2. **Writing Text**—Now you can type much as you would on a typewriter. When you type your first character, the cursor will move one space to the right. The cursor is the underline that shows you where the next character you type will appear. When you get to the end of a line, the cursor will automatically jump to the beginning of the next line.

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3. **Editing Text**—You can move the cursor around the screen and change what you have written by use of the following text-editing keys:

Space—Moves cursor one space to the right. Leaves the character the cursor was pointing to without erasing it.

Back—Moves the cursor back one space without erasing character.

Erase—Erases the character the cursor is pointing to. To enter new text, you can also simply type over old text without erasing.

Next—Moves cursor down to the beginning of the next line without erasing or changing any characters.

Previous—Press once and cursor moves to the start of the line. Press *Previous* again and cursor moves to the beginning of the previous line.

Special—The *Special* key puts the computer in a mode where special effects may be added to the display. After you program in the special effects, you key *Special* again and view your text display with the special effects incorporated into it. After *Special* is pushed one time, the following display appears:

Figure 8 Special Mode Display

The functions of the Special Mode keys are as follows:

B—With Color TV's, the B key changes the background color every time it is pushed. For one color, the text will disappear because it will be the same color as the background.

F—Changes the foreground or text color through a sequence of eight high-intensity colors.

R—Repeats the top line of text in all seven lines. The computer still remembers what was in the other six lines so you can display them again. After viewing your text with the first line repeated, re-entering the *Special Mode* eliminates the repeat feature so you can read the whole *Special Mode Display.*

V—Halves the size of each character in the vertical direction. This will make the letters easier to read if you're working close to the screen. Pushing V again zooms the characters back up to full size.

Erase—When used in the special mode *Erase* eliminates all the text in the text display.

Special—After any of the above changes has been made, press *Special* again. The computer is released from the special mode and the text you have been writing reappears— with all the changes you made in color, size and the repeat feature!

4. **Storing a Message**—VideoBrain has the capability of remembering any message you write as long as the power to the computer is kept on and a cartridge is not inserted. The computer can even recall the message at a future time you set. To store and recall a message, use the following procedure.

a. Type the message on the screen exactly as you want it stored. Try it with HELLO THERE.

b. Push *Master Control.* Now you can use any of the other built-in programs, leave the computer unattended, change the TV channel, turn the TV off, or even disconnect the computer from the TV. The message will remain ready to be displayed.

c. To recall the message at any time, simply push *Text.* You can store, recall, edit and store the message again as many times as you want.

d. To set a time for the message to be recalled automatically, simply follow directions (a) and (b) above. Then you must key both *Clock* and *Alarm* functions (see instructions on pages 13 and 16). If the TV is on and switched to the right channel when the pre-set alarm time comes, the message will appear on the TV screen and the computer will emit a tone through the TV to let you or someone else know there is a message to be read. You can use this stored message feature to remind yourself and other family members about appointments, lessons, meetings, lunches, and phone calls.

Clock
The computer Clock of the VideoBrain can keep track of the month, date, year, day of the week, plus time for years into the future.

1. **Entering the Clock Program**—Make sure there is no cartridge in the cartridge carrier. Make sure the keyboard is in the up-shifted mode ☐. Now you can enter the clock program, no matter what display is on the screen, simply by pressing the *Clock* key. If the clock has been set, the date and time will appear. If the clock has never been set or if the power has been off since it was last set, the following display will appear:
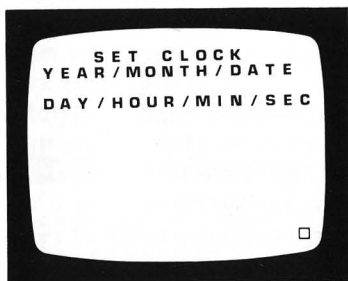
Figure 9 SET CLOCK Display

2. **Setting the Clock**—The clock is set by entering numbers in sequence. *To enter numbers you must shift the computer to the up-shift mode* ☐. You begin to set the clock by entering a *four-digit number for the year.* For instance, if you want to enter December 25, 1977, you first enter 1977 under *Year.* You must type in the correct four digits for the year. If you should make a mistake and put in the wrong number, you can start over by keying *Restart.*

The next item on the agenda is the *Month. This requires a 2-digit number,* so the following codes must be used.

01	January	07	July
02	February	08	August
03	March	09	September
04	April	10	October
05	May	11	November
06	June	12	December

Now type in the day of the month. As in the *Month,* you must always have a 2-digit number entered here (like 01, 09, or 31).

When you enter the day of the week, type in a 2-digit number from the following code:

01	Monday
02	Tuesday
03	Wednesday
04	Thursday
05	Friday
06	Saturday
07	Sunday

Because the VideoBrain is an international computer, it operates on the 24-hour international clock. That means that the VideoBrain computer calls one hour after 12:00 noon "13:00," not "1:00 P.M." To help those who may be unfamiliar with the 24-hour clock, following is a table of corresponding times.

12 Hour Clock	24 Hour Clock	12 Hour Clock	24 Hour Clock
1:00 AM	1:00	1:00 PM	13:00
2:00 AM	2:00	2:00 PM	14:00
3:00 AM	3:00	3:00 PM	15:00
4:00 AM	4:00	4:00 PM	16:00
5:00 AM	5:00	5:00 PM	17:00
6:00 AM	6:00	6:00 PM	18:00
7:00 AM	7:00	7:00 PM	19:00
8:00 AM	8:00	8:00 PM	20:00
9:00 AM	9:00	9:00 PM	21:00
10:00 AM	10:00	10:00 PM	22:00
11:00 AM	11:00	11:00 PM	23:00
Noon	12:00	Midnight	00:00

When you type in the hour, all numbers under 10 must be entered with a 0 in front. So when you want to enter the hour, enter a number from 00 to 23.

The final items that need to be entered into the clock are the minutes (MIN) and seconds (SEC). For the correct time, enter in any two-digit number from 00 to 59.

If, after you enter the seconds, you get a WRONG KEY display and the SET CLOCK display reappears, it means that the computer has received a number higher than 12 for the month, or higher than 07 for the day of the week. Before entering your corrected data, remember to up-shift the keyboard again.

When you have finished entering the correct time, the set clock display will remain briefly as in Figure 10A and then switch to Figure 10B as shown on the next page.

Figure 10A Clock Display

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```
PUSH  G  TO   START
     24  DEC  1977
     18 : 04 : 25


                        □
```
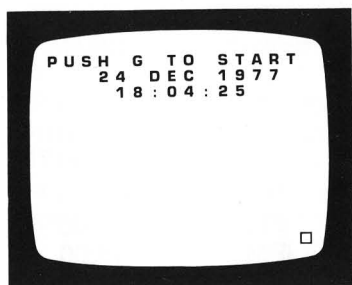
When you want the clock to start, simply push "G." There is no need to downshift the keyboard to key G this time.

To reset the clock at any time, key S while the clock is running on the screen. The SET CLOCK display will reappear.

Figure 10B Clock Ready To Start

Alarm

To enter the alarm program, first make sure there is no cartridge in the cartridge carrier and the keyboard is shifted up □. Now you can push the alarm key and the alarm time or SET ALARM display will appear. If an alarm time is already set and you want to set a new one, key S and the set alarm display will appear. The procedure for setting the Alarm is the same as for setting the clock. Unlike the clock, however, you may push the Erase key two times to erase an alarm setting.

When the clock time exactly equals the time on the alarm, the alarm will interrupt any other built-in program or cartridge program and will emit a tone through the TV. If you have stored a message in the computer memory, and have not used a cartridge in the meantime, the alarm will display the message when it goes off. As soon as you have read the message, you can push any key to shut off the alarm and display the correct clock time. If there is no message, the VideoBrain computer will emit a tone and display the alarm time. Once again, you can push any key to shut off the alarm and display the clock.

Color Bars

You can check the color on your own TV by pushing the Color key. This will show you a fixed picture of all Video-Brain colors in a horizontal color bar format. You can now experiment with the user-accessible color controls on your TV to learn their varying effects on colors. The color bars are also good for fine tuning your TV to bring in the best VideoBrain signal.

Important:

The Metal Contacts In The Cartridge Are Delicate. Do Not Damage Them Or Allow Them To Become Dirty Or Wet.

Do Not Force Cartridge Into Carrier.

Do Not Insert Cartridge If Contacts Are Damaged, Wet Or Soiled.

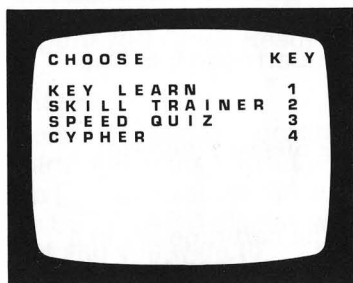Do Not Put Anything Other Than The Cartridge Into The Cartridge Carrier.

Store The Cartridge In The Cartridge Sleeve When Not In Use.

Directions for using the program in the cartridge are in a brochure included in the cartridge sleeve. Read each cartridge program instruction booklet before inserting the cartridge into the VideoBrain console.

Inserting The Cartridge

1. Make sure your VideoBrain computer is attached to your TV as described in the Owner's Manual. Check that power is on.

2. Push the cartridge carrier release button above the VideoBrain keyboard in order to swing the cartridge carrier door up.

3. With the label facing up, slide the cartridge into the tracks suspended from the cartridge carrier door.

4. Gently push the cartridge door down into the computer until it locks.

5. Push the *Master Control* button. The title of the cartridge should appear on your TV for two seconds.

The cartridge program starts immediately after the title
display. Every cartridge program is designed to make it as
easy as possible for you to use the program. It will ask you
which sub-program you want and such questions as time
limit, or number of players. It will sometimes even ask your
name! In some cartridges with more than one program (like
2 versions of one game), the first display after the title
display will ask you to choose the version you want.
Following is an example from the Wordwise ™ 2 cartridge:


```
CHOOSE              KEY

KEY  LEARN              1
SKILL  TRAINER          2
SPEED  QUIZ             3
CYPHER                  4
```

Figure 11 Choose Key Display (Example)

From the beginning of the program onward, you should let
the program brochure and the program itself be your
best guides to getting maximum value and enjoyment from
the program.

Joystick Operation

The VideoBrain computer comes with two self-calibrating
joysticks that can move an object on the screen in any
direction. They are used with such VideoBrain cartridges as
Gladiator and Blackjack. You can use the hit button on
each joystick to fire an arrow or flip a flipper.
The exact way the joystick and hit button are used in any
program is described in the brochure that comes with
cartridge. For cartridge programs using two joysticks, plug
the joysticks into the joystick sockets numbered 1 and 2 on
the front of the cabinet. Joystick sockets number 3 and 4
are for adding joysticks in future cartridge programs.

The VideoBrain computer is built for years of reliable service. If you do have a problem, it can very likely be solved by carefully working through the following troubleshooting guide.

Problem
No Picture.

Checklist

- TV plugged in and wall outlet switch on?

- TV turned on?

- If power light on VideoBrain is not on, check *Off/On* switch, transformer and cord connection, and wall outlet.

- TV on channel 3 or 4?

- VideoBrain channel selector on proper channel?

- VideoBrain computer signal cable attached to Antenna Switchbox as described on page 4:

- VideoBrain Antenna Switchbox attached to TV as described on page 4:

- VideoBrain Antenna Switch Box switched to computer?

- If you have inserted a cartridge, try taking it out and re-inserting it.

- If TV has terminal switch, is it switched to 300 ohms?

- Did you push *Master Control?*

- Fine-tune TV to bring in VideoBrain signal.

- Check brightness control on TV to make sure it is not turned all the way down.

- Switch antenna switch box back to TV and check to see that TV works on regular broadcast signals from TV stations.

Problem

Good picture. No sound.

Checklist

- Turn up volume control on TV.

- Check Owner's Manual or program brochure to be sure program includes sound output.

Problem

Poor picture or sound.

Checklist

- Check that terminal switch on back of TV is switched to 300 ohms.

- Fine-tune TV.
  (Remember, your VideoBrain display will only be as good as your normal TV picture.)

Problem

Picture jitters or breaks up.

Checklist

- Eliminate all detectable interference (vacuum cleaner, hair dryer, etc.)

Problem

Screen repeats one line of text or shows background with no text.

Checklist

- Remove Cartridge. Key *MASTER CONTROL*. Key *SHIFT* to shift down ■. Key *SPECIAL*. Key *MASTER CONTROL*.

For service on your VideoBrain Computer, consult your warranty card. If you have any questions about installation, servicing, warranty, authorized dealers, VideoBrain cartridges or accessories please write to:

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