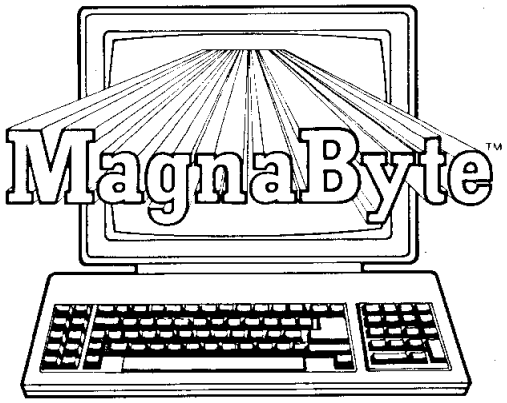

MAGNABYTE II ELECTRONIC IMAGING SYSTEM

OPERATOR INSTRUCTIONS FOR MODEL NO. 5220-I COLOR SYSTEM

38109-117 Litho U.S.A. August 1987

IMPORTANT FCC STATEMENT

The equipment described in this booklet generates and uses radio frequency energy. If it is not installed and used properly in strict accordance with the instructions, it may cause interference to radio and television reception. It has been type-tested and found to comply with the limits for a Class-A computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules* which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause 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:

Reorient the receiving antenna.

Relocate the device with respect to the receiver.

Move the computer away from the receiver.

Plug the computer into a different outlet so that the computer and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The Federal Communications Commission (FCC) also publishes a helpful booklet titled "How to Identify and Resolve Radio-TV Interference Problems". This booklet is available by writing to the U.S. Government Printing Office, Washington, D.C. 20402. Request stock no. 004-000-00345-4.

*See palette for additional listings.

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INTRODUCTION

Thank you for selecting this fine-quality visual product from Telex. We sincerely hope that it will provide years of satisfactory performance.

This booklet contains information to assist you in installing, connecting and using the various components of the MagnaByte II Electronic Imaging System. Other specialized instructions have also been packed with your system to aid in the installation and use of particular components. This booklet will inform you when to refer to these other instructions.

Please take the time to read all instructions before you begin. Be sure to retain all instructions for future reference.

If you have any problems or comments concerning the equipment which your local dealer is unable to address, feel free to contact:

Customer Technical Service Department
Telex Communications, Inc.
9600 Aldrich Avenue South
Minneapolis, Minnesota 55420 U.S.A.
(612) 884-4051

WHAT IS MAGNABYTE?

The Telex MagnaByte II Electronic Imaging System works with a personal computer and overhead projector to display computer-generated text and graphics on a wall or screen for large-audience viewing.

The system can be used to display text or graphics which are generated from virtually any of the popular software programs available. In addition, when using the MagnaGraph-X software package (also offered with this system) you can create and save images and then organize them on diskette for later recall and display during lectures, boardroom presentations, etc. You can even assemble custom presentations.

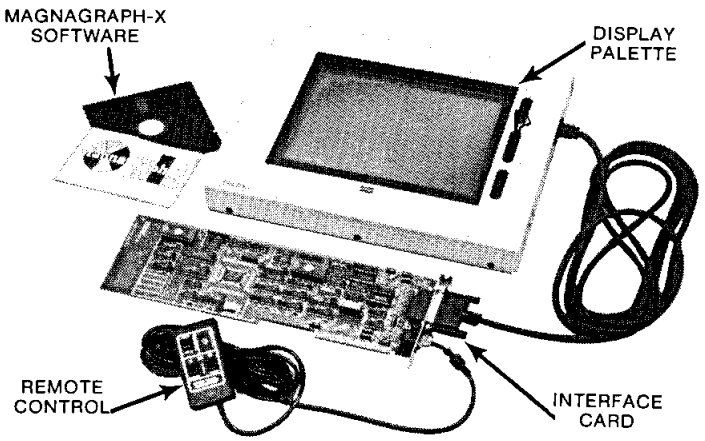
UNPACKING AND INSPECTION

CAUTION

Do not remove the interface card from the special plastic anti-static bag in which it is packed until you are ready to install it and have thoroughly read the installation instructions packed with it.

1. Unpack the System and inspect for missing and/or damaged components. If you have purchased a complete MagnaByte System, the components included are:

   - A MagnaGraph-X software package containing one program diskette with instructions for use.
   - Warranty and customer registration cards.
   - An interface card with installation instructions.
   - A remote control unit.
   - A liquid crystal display (LCD) palette.



MagnaByte II Electronic Imaging System
(Appearance may vary slightly)

2. **Retain all packing materials in case future shipping or servicing is necessary.**
3. Be sure to fill out your customer registration card, and mail within 10 days to validate your warranty. Also, fill out your warranty card, and retain it for your records.

   NOTE: Serial numbers are located on the bottom of the display palette and on top of the interface card.

INSTALLATION/CONNECTIONS

Locate the Interface Card Installation Instructions which were packed with the card, and proceed with the installation. Be sure and observe the precautionary statements contained in the installation instructions concerning proper handling.

OPERATION

After all connections have been completed, the system may be checked for proper operation.

CAUTION

The cooling fan in the display palette only operates when the computer is turned on. Always turn the computer on first. Then turn on the overhead projector.

1. Position the palette on your overhead projector.
2. Turn on the computer and display monitor (if connected).

   NOTE: The cooling fan indicator light (on the side of the display palette) should be illuminated. If not, check connections.
3. Turn on the overhead projector. Any information displayed on an attached monitor should also be displayed by the overhead projector; however, you may have to adjust the controls (steps 4-7) to get a proper image.
4. Check that the ON/OFF button on the remote control operates correctly: press the button once to turn the image off; press it again to restore the image. (When the image is off, a blank screen should display.)
5. Adjust the overhead projector focus to obtain a sharp image.
6. Check that the NOR/REV video button on the remote control operates correctly. Repeated pressing of the button should cause the screen to switch back and forth from normal (positive) to reverse (negative) image.
7. Adjust the image contrast — either lighter or darker as desired — by turning the CONTRAST thumbwheel on the remote control. If the remote control is not used, adjust the CONTRAST control on the side of the display palette.

   NOTE: When the remote control is in use, the palette contrast control is not active. All contrast adjustments must be made using the remote control.
8. The FWD/REV PROGRAM button will not operate until appropriate presentation software has been loaded into the computer and used to create a presentation. You may refer to your MagnaGraph-X software operation instructions at this time; however, be sure and read over the following additional information regarding usage and care of the MagnaByte II Electronic Imaging System.

ADDITIONAL INFORMATION

COLOR GRAPHICS USING MAGNABYTE II

Table 1 shows the corresponding normal and reverse mode colors that MagnaByte II will display for the various colors displayed on a color monitor. The colors shown are typical and may vary depending on several factors:

1. The settings of the color conversion registers in your computer*.
2. The setting of the contrast control.
3. The operating temperature of your overhead projector.

Table 1

COLOR SHOWN ON COLOR MONITOR	COLOR ON THE MAGNABYTE II IN THE "NORMAL" MODE	COLOR ON THE MAGNABYTE II IN THE "REVERSE" MODE
White Gray Yellow Brown	Pale Yellow	Dark Blue
Magenta Red	Deep Yellow (Gold)	Violet/Purple
Green Cyan	Orange	Orange
Blue	Violet/ Purple	Deep Yellow (Gold)
Black Dark Gray	Dark Blue	Pale Yellow

* Table 1 assumes standard IBM settings. In some cases, you may have to experiment with the available colors on your computer to see the corresponding effect on MagnaByte. Refer to your computer user manual for further information on color conversion register settings.

USING MARKING PENS AND TRANSPARENCIES

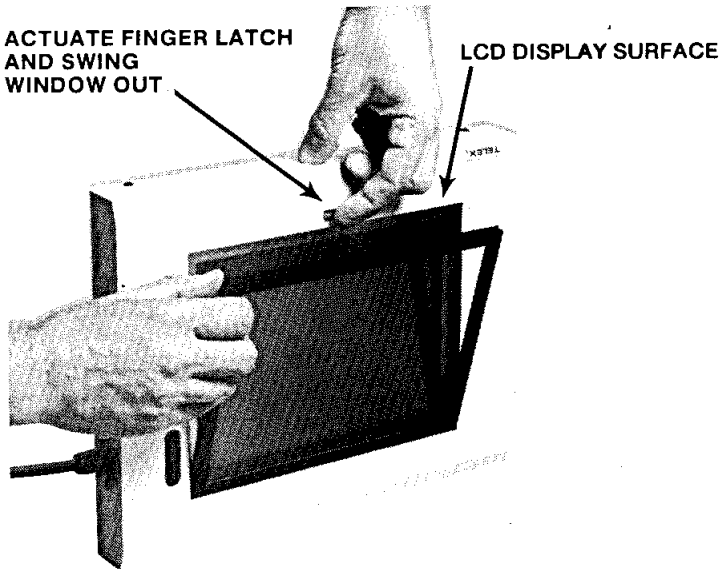
You may use water-soluble marking pens to write on the top window of the palette; however, for best results and easy cleanup, use a conventional transparency placed on top of the palette. You may also project prepared transparencies by placing them on top of the palette. To deactivate the MagnaByte while displaying other information, simply press the remote control ON/OFF button. DO NOT TURN THE COMPUTER OFF TO DEACTIVATE THE DISPLAY AS THIS WILL TURN OFF THE COOLING FAN.

CLEANING

The top and bottom windows of the display palette are removable for cleaning as shown. They may be cleaned using any window cleaner.

When the top and bottom windows are removed, the LCD display may be cleaned with the Telex plastic cleaner kit (Part Number 47756-000).

CAUTION: THE LCD DISPLAY SURFACE IS A SOFT PLASTIC POLARIZER WHICH CAN EASILY BE SCRATCHED, CAUSING LOSS OF IMAGE QUALITY. BE SURE THE CLEANING CLOTH IS COMPLETELY FREE OF ANY DIRT OR DEBRIS BEFORE CLEANING. APPLY A SMALL AMOUNT OF PLASTIC CLEANER TO THE CLOTH, AND WIPE THE SCREEN GENTLY TO AVOID SCRATCHING. DO NOT ATTEMPT TO CLEAN THE LCD UNLESS IT SHOWS SMUDGES. CLEAN ONLY SMUDGED AREAS. DUST SHOULD BE BLOWN OFF.



Cleaning the Palette

ADDITIONAL INFORMATION (CONT)

STORAGE, HANDLING AND TRANSPORTATION

- When transporting the system, protect the LCD palette from jarring impacts and abrasions. Although it is rugged, it can be broken if proper care is not exercised.
- If the system has been stored or transported in an extremely hot, cold or humid environment, allow it to stand at room temperature for at least 30 minutes before use.

OVERHEAD PROJECTOR COMPATIBILITY

The MagnaByte works with most good-quality transmissive overhead projectors. (Reflective projectors produce unsatisfactory results.) For best image quality, the projector should be capable of producing a bright, uniformly illuminated image without generating excessive heat. As a general rule, the better the projector quality, the better the results will be. If you experience image-quality problems, or if you require assistance with projector selection, contact your dealer.

NOTE: For excessively hot projectors, the display palette air filters may be removed for further cooling of the palette. The palette will then be subject to dust which will have to be cleaned out occasionally. Check with your dealer for modification.

COMPUTER COMPATIBILITY

When used with the appropriate Telex-supplied interface board and software, the MagnaByte II Electronic Imaging System will work on the following computers:

- IBM PC, PC-XT, PC-AT or other 100% IBM compatible personal computers such as Telex Intelligent Workstations.

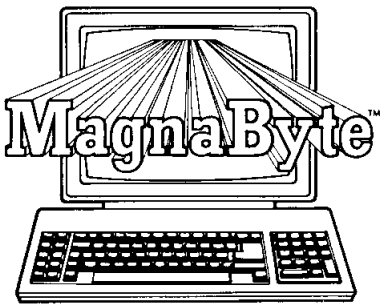
Some computers which claim to be 100% compatible with those listed above may not actually be so. In some cases this may cause inconsistent results when using MagnaByte.

NOTICE

Telex cannot warrant that MagnaByte will function properly in every possible hardware/software environment. Since the seller cannot control the applications in which MagnaByte may be used by the purchaser, Telex makes no warranty, either expressed or implied, and accepts no responsibility relative to the use of this product other than that which is contained in the limited warranty statement for Telex Electronic Imaging Products which accompanied this unit.

Telex recommends that normal safeguards be used to back up programs to insure that they are not lost. When in doubt about special hardware/software combinations, contact the Telex Technical Service Department for information. See page 3.

TELEX COMMUNICATIONS, INC.
9600 Aldrich Ave. So., Minneapolis, MN 55420 U.S.A.



INSTALLATION INSTRUCTIONS FOR MAGNABYTE INTERFACE CARD

CAUTION

THIS DEVICE CAN BE PERMANENTLY DAMAGED BY STATIC DISCHARGES SUCH AS THE TYPE YOU MAY HAVE EXPERIENCED WHEN TOUCHING A METAL OBJECT AFTER WALKING ACROSS CARPETING. TO PREVENT DAMAGE, ALWAYS OBSERVE THE FOLLOWING PRECAUTIONS:

1. WHEN NOT INSTALLED IN THE COMPUTER, ALWAYS STORE AND TRANSPORT THE INTERFACE CARD IN THE SPECIAL, ANTISTATIC BAG IN WHICH IT WAS ORIGINALLY PACKED.
2. NEVER INSTALL OR REMOVE THE INTERFACE CARD, DISPLAY PALATTE, OR REMOTE CONTROL UNIT WITH THE COMPUTER TURNED ON.
3. ALWAYS HANDLE THE INTERFACE CARD BY THE CARD EDGES. DO NOT TOUCH THE CARD CONNECTOR PINS.
4. PRIOR TO REMOVING THE INTERFACE CARD FROM THE ANTISTATIC BAG, TOUCH A METAL PART OF THE COMPUTER SYSTEM. THIS WILL PUT YOUR BODY, THE INTERFACE CARD AND THE COMPUTER AT THE SAME POTENTIAL, THUS MINIMIZING THE POSSIBILITY OF STATIC DISCHARGE DAMAGE.
5. SAVE ALL PACKAGING THAT IS SUPPLIED WITH THE PRODUCT, AND STORE ALL PARTS IN THE SAME MANNER THAT THEY WERE INITIALLY PACKED.

TELEX®

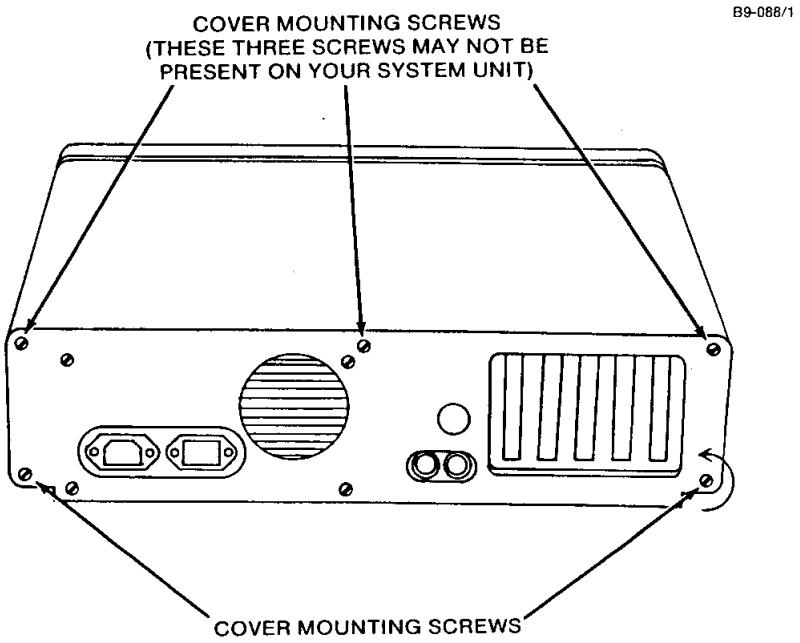
TELEX COMMUNICATIONS, INC.
9600 Aldrich Ave. So., Minneapolis, MN 55420 U.S.A.

38109-088 Rev A

October 1987

INSTALLATION

1. Turn off the IBM computer system unit and IBM computer expansion unit (if attached), and unplug the power cords.
2. Turn off all equipment connected to the rear panel of the system unit, and disconnect all cables from the system unit.
3. Remove the cover mounting screws from the rear of the system unit as shown.



4. Slide the cover back until it will go no further, and then tilt it up to remove as shown.

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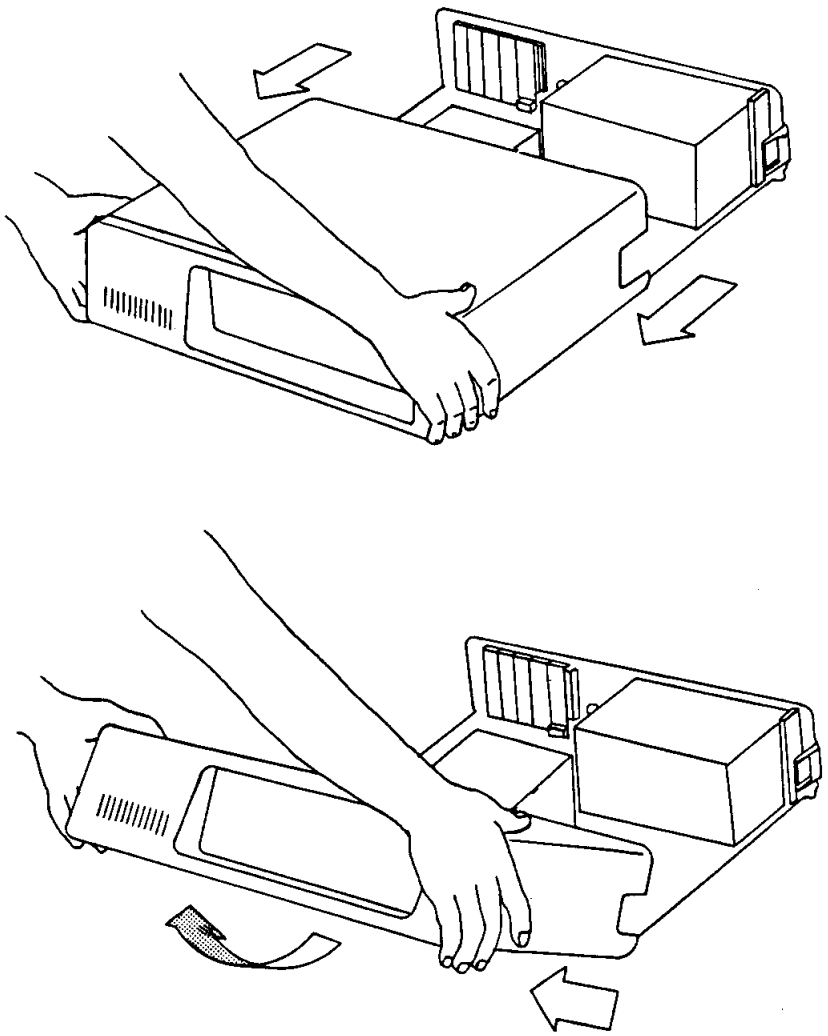
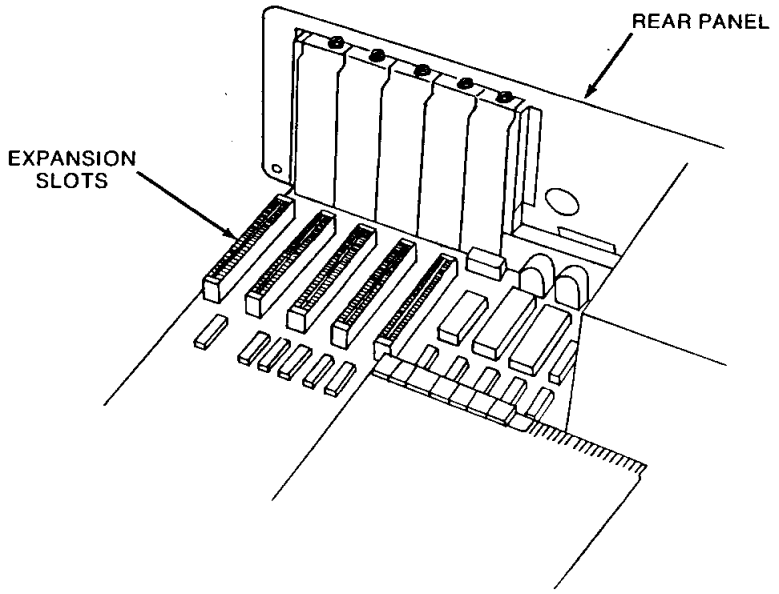
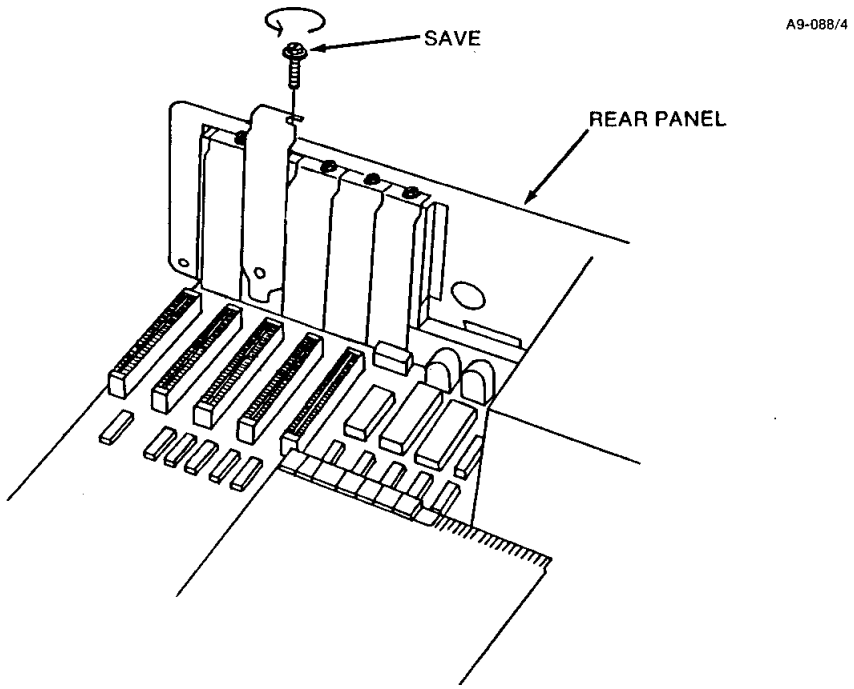


5. Locate an unused expansion slot on the system unit.



6. Remove the screw securing the expansion slot cover, and then remove the cover. Save the screw, as it will be used to secure the interface card.



7. Locate the card support bracket (which was packed with the MagnaByte Interface Card), and press it into the appropriate holes in the front panel of the system unit as shown. The holes you select should correspond to the expansion slot you have selected.

NOTE: Some computers may have built-in card support brackets: In such cases, the supplied bracket is not required.

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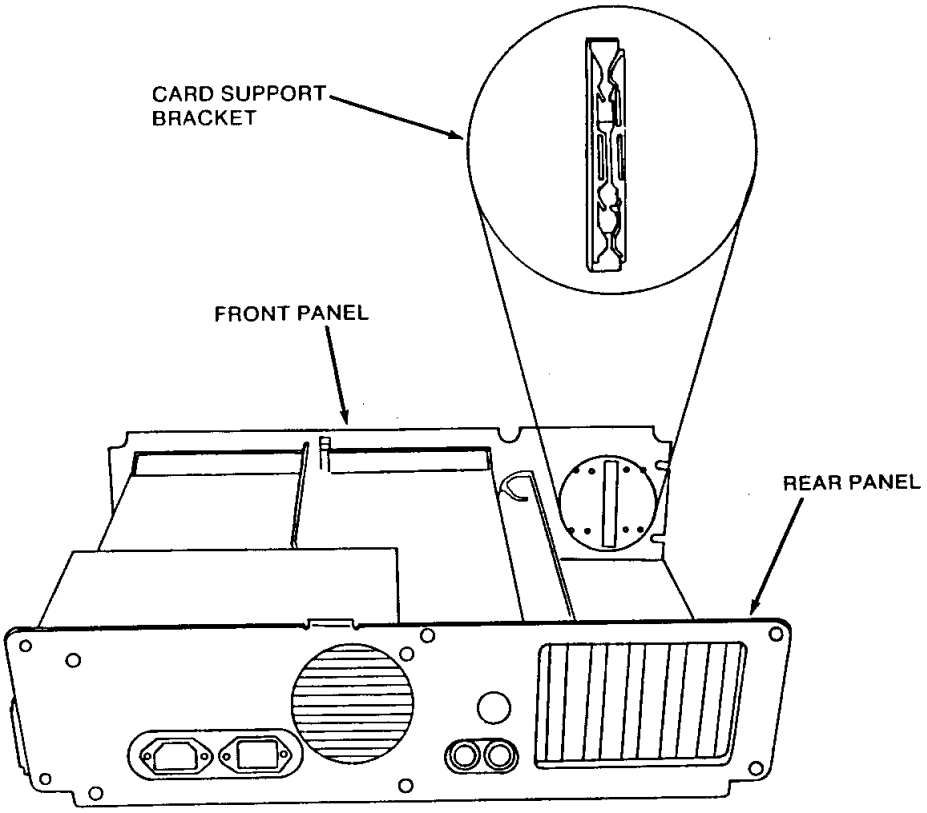
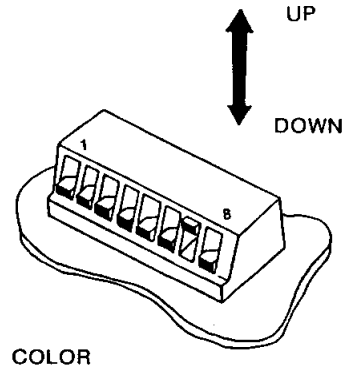


8. Set the MagnaByte Interface Card option switches for the desired application (either color or monochrome display emulation) and address location as shown.

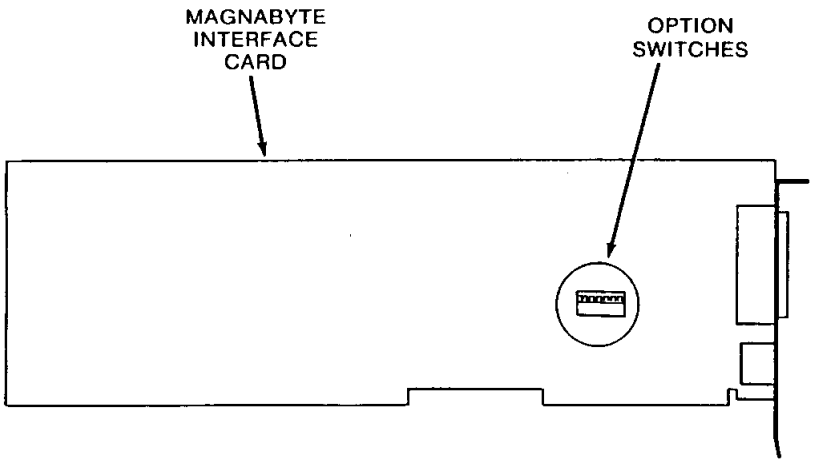
NOTE: The MagnaByte Interface Card option switches were factory set for color graphics adapter emulation and card address location D000:0. For further information regarding these option switches, see Tables 1 and 2.

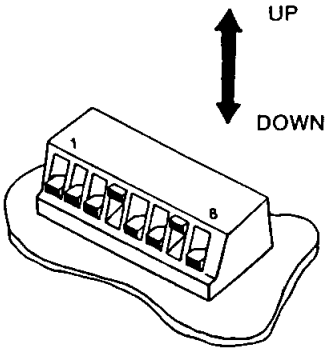
Switch Number	Switch Name	Color Setting	Monochrome Setting
1	Game	Down	Down
2	Gray	Down	Down
3	None	Down	Down
4	Color	Down	Up
5	A14	Down	Down
6	A15	Down	Down
7	A16	Up	Up
8	A17	Down	Down

B9-088/6



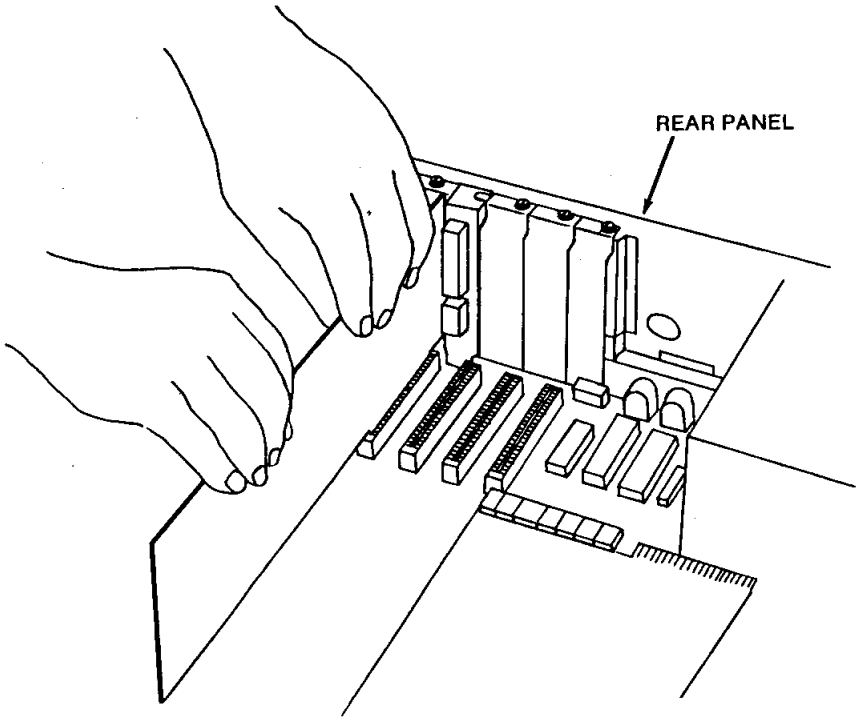
COLOR SETTING



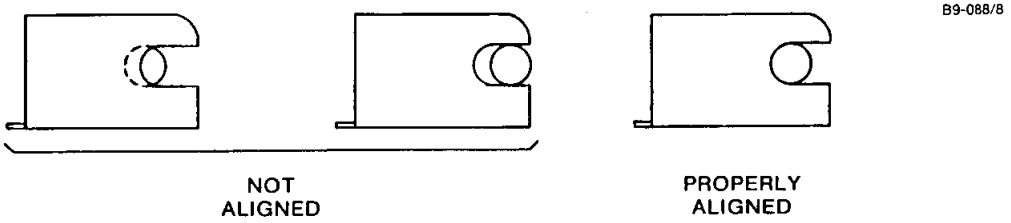


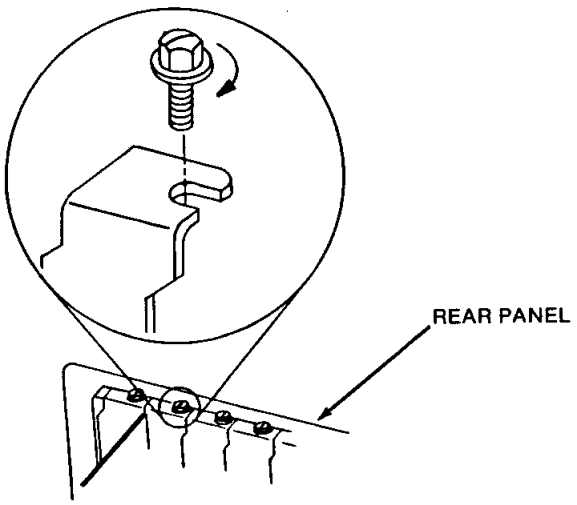
MONOCHROME SETTING

9. Hold the MagnaByte Interface Card by the top, and press it firmly into the expansion slot as shown. Make sure the front end of the card is properly seated in the card support bracket on the front panel of the system unit.

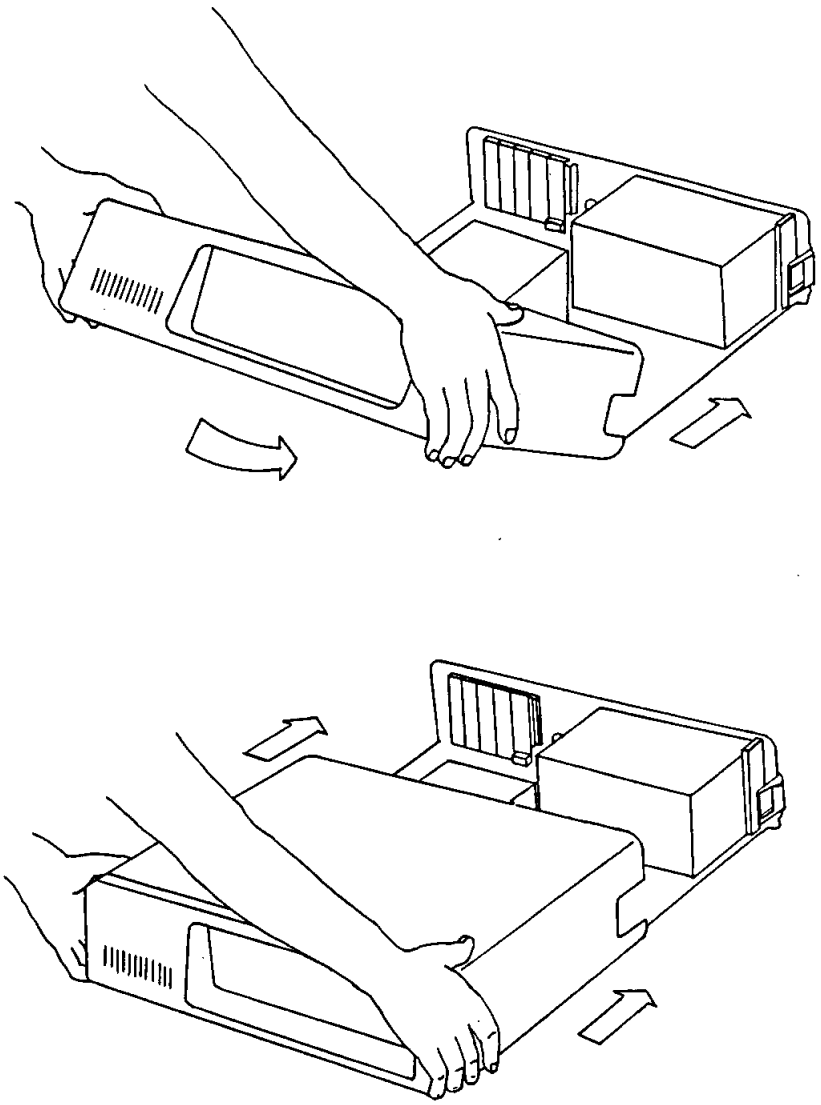


10. Secure the MagnaByte Interface Card to the rear panel of the system unit using the screw removed in step 6. Be sure the bracket on the interface card is properly aligned with the screw hole as shown; otherwise, the card will not be held vertically in the expansion slot.





11. Reinstall the system unit cover by positioning it as shown and carefully sliding it to the rear of the unit. Replace cover screws.



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12. Reconnect all cables to the system unit.
13. Plug the MagnaByte display palette and remote control (optional) into the rear panel MagnaByte Interface Card connectors as shown. Be sure to tighten the thumbscrews on the display palette connector. Installation is complete.

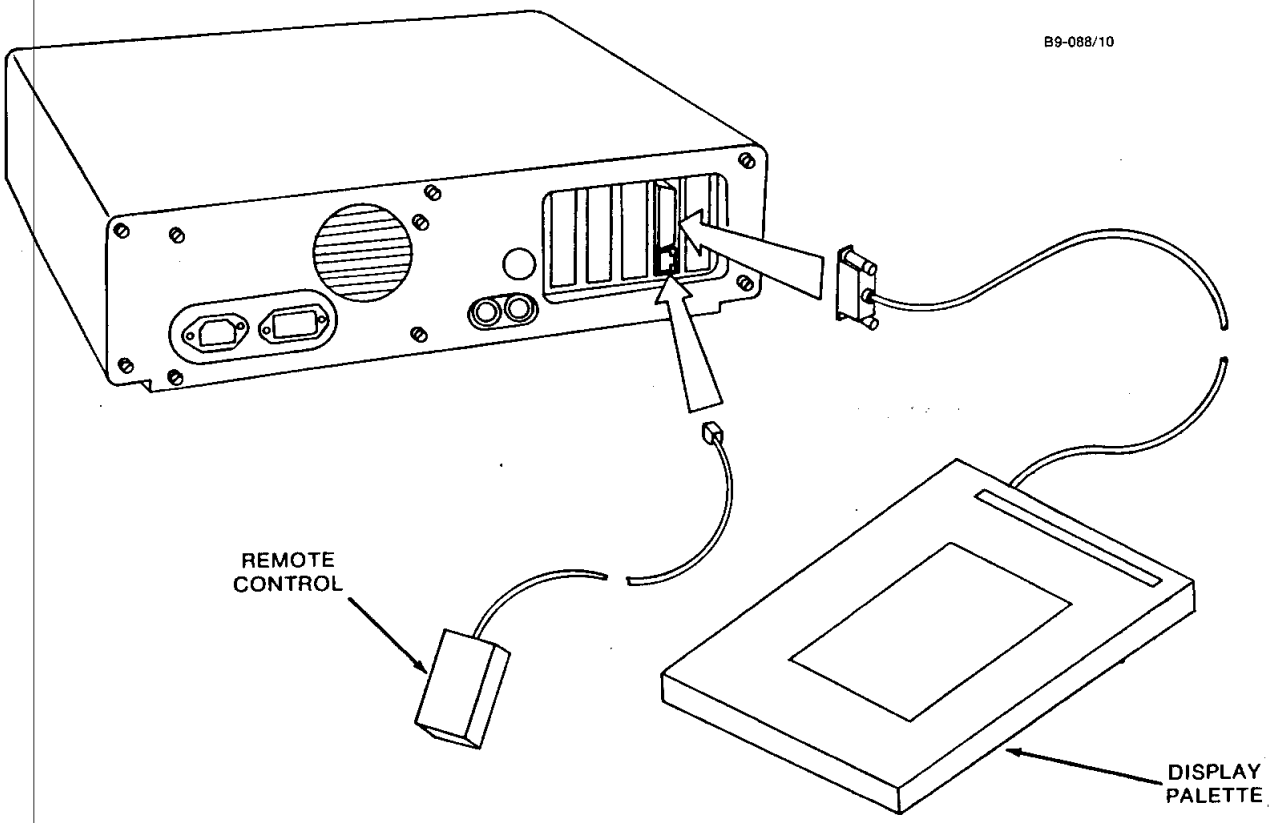

Table 1. MagnaByte Interface Card Option Switches

Option Switch Number	Name	Description/Setting
1	Game	This switch enables/disables the MagnaByte remote control: Up: Remote control disabled Down: Remote control enabled Note: The remote control is seen as a "game port" by the computer. Only one game port can be enabled at a time; therefore, all other game ports must be disabled or removed while using the remote control.
2	Gray	This switch selects the display format: Up: Two-tone display (monochrome adapter emulation) Down: Gray-scale display (color graphics adapter emulation)
3	None	This switch is not used: leave in "down" position.
4	Color	This switch selects the type of adapter card that the MagnaByte interface card will emulate: Up: Monochrome adapter emulation Down: Color graphics adapter emulation
5 to 8	A-14 to A-17	These switches determine where the interface card resides in computer memory. If there is an address conflict between MagnaByte and another card already installed in the computer, these switches can be reset to move MagnaByte to another location. See Table 2 for address options.

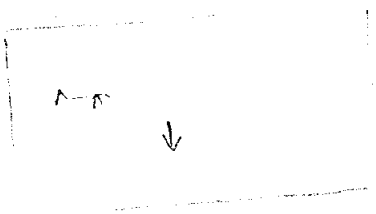

Table 2. MagnaByte Interface Card Address Options

Switch Settings				Address	Comments
SW8	SW7	SW6	SW5		
0	0	0	0	C000:0	Used by some EGA boards.
0	0	0	1	C400:0	
0	0	1	0	C800:0	Used by HDU boards.
0	0	1	1	CC00:0	Used by some EGA boards.
0	1	0	0	D000:0	MagnaByte factory setting.
0	1	0	1	D400:0	
0	1	1	0	D800:0	
0	1	1	1	DC00:0	
1	0	0	0	E000:0	Used by some computers.
1	0	0	1	E400:0	Used by some computers.
1	0	1	0	E800:0	Used by some computers.
1	0	1	1	EC00:0	Used by some LAN boards.
1	1	0	0	F000:0	Reserved, do not use.
1	1	0	1	F400:0	Reserved, do not use.
1	1	1	0	F800:0	Reserved, do not use.
1	1	1	1	FC00:0	Reserved, do not use.

Note: 0 = DOWN 1 = UP (Open)

NOTE: Table 2 shows the available address options for the MagnaByte Interface Card using the option switches. Note that there are 16 possible addresses, but four of these cannot be used. In addition, some other address settings may cause conflicts with other boards installed in the computer. The MagnaByte Interface Card is factory set for address D000:0. Be sure and review the information in the comments column if you wish to change this setting.

CUSTOMER ASSISTANCE

Consulation and technical assistance is available from:

Customer Service Dept.
Telex Communications, Inc.
9600 Aldrich Avenue South
Minneapolis, MN 55420 U.S.A.
Telephone: (612) 884-4051