VPE-300 Series

Installation Information

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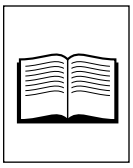


Important Safeguards and Regulatory Notices

Information on the following pages provides important safety guidelines for both Operator and Service Personnel. Specific warnings and cautions will be found throughout the manual where they apply, but may not appear here. Please read and follow the important safety information, noting especially those instructions related to risk of fire, electric shock or injury to persons.

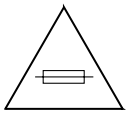
WARNING

Any instructions in this manual that require opening the equipment cover or enclosure are for use by qualified service personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

Symbols and Their Meanings

The lightning flash with arrowhead symbol, within an equilateral triangle, alerts the user to the presence of “dangerous voltage” within the equipment’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle alerts the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the equipment.



The fuse symbol indicates that the fuse referenced in the text must be replaced with one having the ratings indicated.

This symbol represents an internal protective grounding terminal. Such a terminal must be connected to earth ground prior to making any other connections to the equipment.

This symbol represents an external protective grounding terminal. Such a terminal may be connected to earth ground as a supplement to an internal grounding terminal.

CAUTION

This equipment contains static sensitive components. Use anti-static grounding equipment whenever handling or servicing modules and components. When circuit modules are removed from the frame, place them on a flat static-controlled surface. Failure to follow this precaution can result in component damage due to electrostatic discharge.

Danger

- Electrical potential is still applied to some internal components even when the power switch / breaker is in the off position. To prevent electrical shock when working on this equipment, disconnect the AC line cord from the AC source before working on any internal components.
- A residual voltage may be present immediately after unplugging the system due to slow discharge of large power supply capacitors. Wait 30 seconds to allow capacitors to discharge before working on the system

Warnings

- Heed all warnings on the unit and in the operating instructions.
- Do not use this equipment in or near water.
- Disconnect ac power before installing any options.
- The attachment plug receptacles in the vicinity of the equipment are all to be of a grounding type, and the equipment grounding conductors serving these are to be connected to earth ground at the service equipment.
- This equipment is grounded through the grounding conductor of the power cord. To avoid electrical shock, connect the power cord to the equipment and plug it into a properly wired receptacle before connecting the equipment inputs and outputs.
- Route power cords and other cables so that they are not likely to be damaged.
- Disconnect power before cleaning. Do not use liquid or aerosol cleaners; use only a damp cloth.

- Dangerous voltages exist at several points in this equipment. To avoid personal injury, refer all servicing to qualified personnel.
- Do not wear hand jewelry or watches when troubleshooting high current circuits, such as the power supplies.
- During installation, do not use the door handles or front panels to lift the equipment as they may open abruptly and injure you.
- To avoid fire hazard, use only components of the the specified type, voltage and current rating as referenced in the appropriate parts list. Always refer fuse replacement to qualified service personnel.
- To avoid explosion, do not operate this equipment in an explosive atmosphere unless it has been specifically certified for such operation.
- Have qualified personnel perform safety checks after any completed service.
- Risk of electric shock is present. A grounded circuit conductor (neutral) is provided with over current protection. Test all components before touching.

Cautions

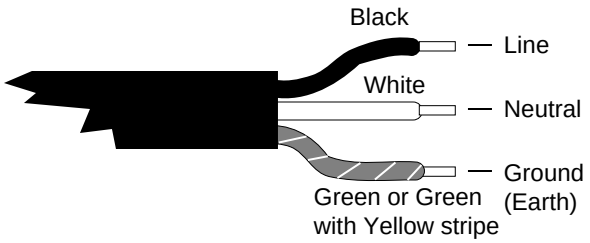
- To prevent damage to equipment when replacing fuses, locate and correct the trouble that caused the fuse to blow before applying power.
- Verify that all power supply lights are off before removing the power supply or servicing equipment.
- Use only specified replacement parts.
- Follow static precautions at all times when handling this equipment.
- Leave the back of the frame clear for air exhaust cooling and to allow room for cabling. Slots and openings in the cabinet are provided for ventilation. Do not block them.
- The front door is part of the fire enclosure and should be kept closed during normal operation.
- To prevent damage to this equipment read the instructions in this document for proper input voltage range selection.
- Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.
- Circuit boards in this equipment are densely populated with surface mount and ASIC components. Special tools and techniques are required to safely and effectively troubleshoot and repair modules that use SMT or ASIC components. For this reason, service and repair of products incorporating surface mount technology are supported only on a module exchange basis. Customers should not attempt to troubleshoot or repair modules that contain SMT components. Editware assumes no liability for damage caused by unauthorized repairs. This applies to both in- and out-of-warranty products.

Power Cord Notices

North American Power Supply Cords

This equipment is supplied with a molded grounding plug (NEMA 5-15P) at one end and a molded grounding receptacle (IEC 320-C13) at the other end. Conductors are color coded white (neutral), black (line) and green or green / yellow (ground).

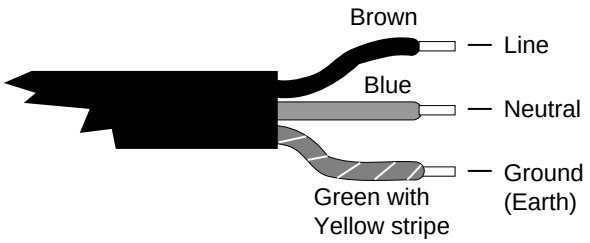
Operation of this equipment at voltages exceeding 130 Vac will require power supply cords which comply with NEMA configurations.



NOTE: The illustrated U.S. cord is for 110/125 Vac only.
For 220 Vac, the line cord has two hot lines and no neutral.

International Power Supply Cord

This equipment is supplied with a molded grounding receptacle (IEC 320-C13) at one end and stripped conductors (50 / 5 mm) at the other end. Conductors are CEE color coded—light blue (neutral), brown (line) and green / yellow (ground). Other IEC 320 C-13 type power supply cords can be used if they comply with the safety regulations of the country in which they are installed.



NOTE: This international cord is for both 110 and 220 Vac.
Europe uses single- or 3-phase 230 Vac, with one hot line and one neutral.

1 *Before You Install*

Introduction

Congratulations on your purchase of one of the finest video tape editing systems on the market. The Video Production Editor (VPE) is manufactured by Editware, Inc., the recognized leader in quality and service for video tape editing systems. This is the Installation Instructions manual for the VPE. It covers installation of the VPE models listed below:

- VPE-331
- VPE-341
- VPE-351

Throughout this manual, when information or discussions are inclusive of all the models listed above, the VPEs are referred to as the Editor. Where differences exist, they are so noted. In addition, a table listing the differences between the Editors is provided in Appendix A.

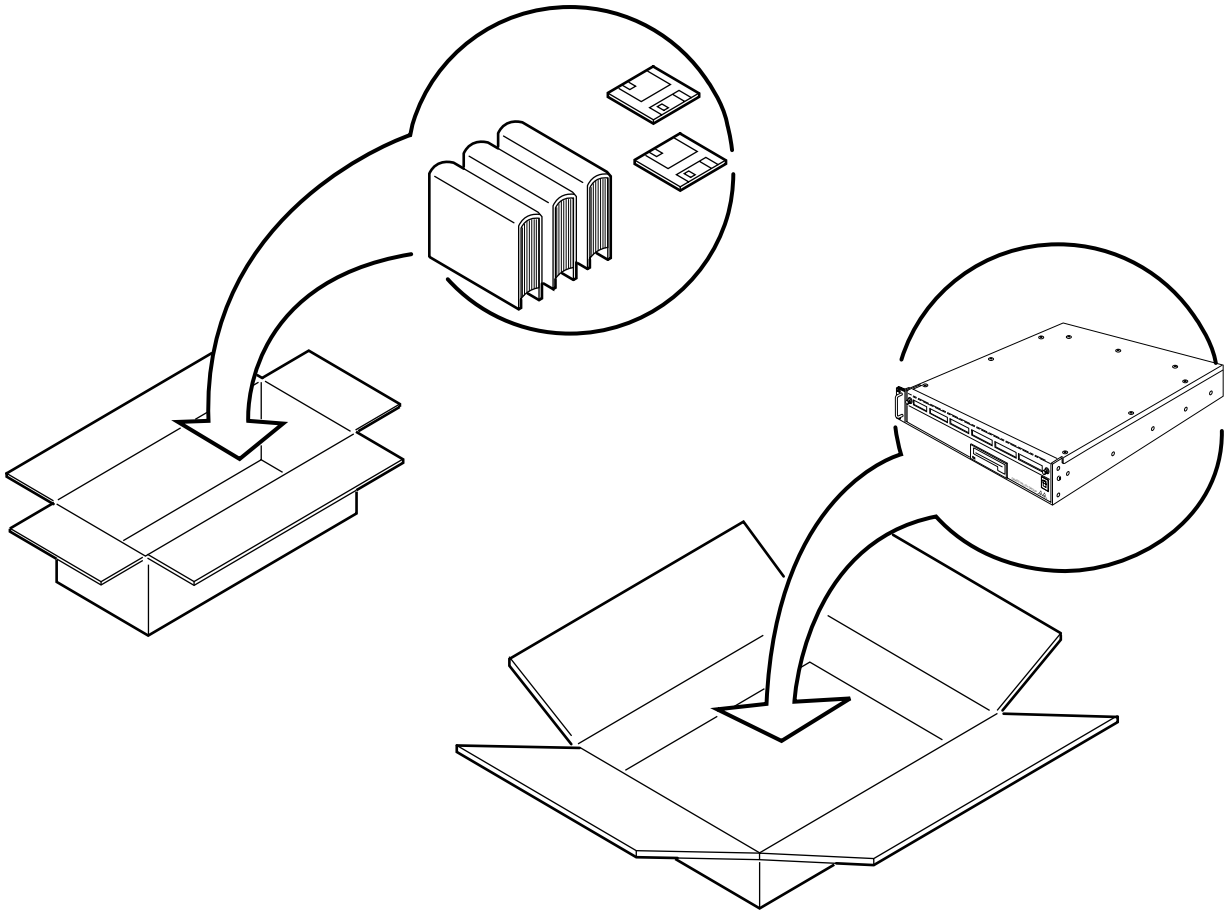
The next few pages provide information about what to look for when you receive and unpack your Editor. A facilities checklist is included.

Receiving Inspection

Inspect all shipping containers for any signs of damage. If any is found, notify the shipping company. If there is no obvious damage, continue with the unpacking instructions.

Unpacking Instructions

Place the containers on a flat level surface with enough room to move the containers around as needed. In the Manual Set container, locate the Manual Set Inventory sheet. Remove all the remaining manuals and the Floppy Disk software set. Compare the manuals against the Inventory sheet and make a note of any discrepancies.



Locate the container with a small plastic pouch taped to its top, open the pouch, and remove the Packing List. In turn, open each of the remaining containers. One contains the VPE Chassis. Others contain the Keyboard, cables, and any other installation hardware. See Figure 1-1. (One or more options may be in any of these containers.)

Carefully remove the contents of each container and place on a flat level surface. Compare the contents with the Packing List to ensure that there are no missing items. Make a note of any discrepancies.

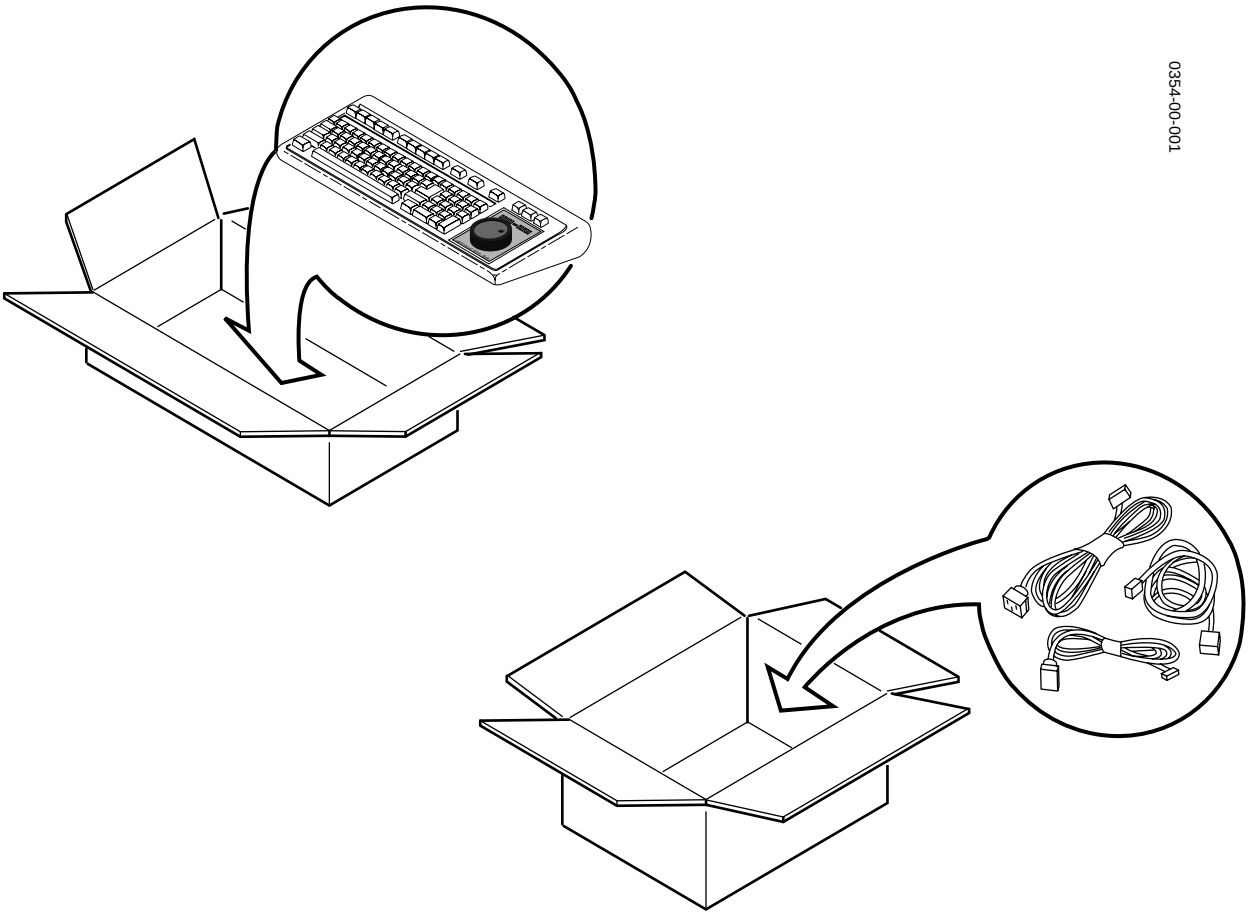


Figure 1-1. Unpacking Your Editor

Equipment Inspection

Inspect all equipment for damage. Items to specifically check, and damage to look for, are listed below:

- All connectors for bent or broken pins
- Cables for crimped or broken wires
- Floppy diskettes for any obvious signs of damage

If any damage is found, contact Editware Customer Service at the telephone number in the front of this manual. If any item is damaged, DO NOT make any power or signal connections to the unit unless otherwise advised to do so by Editware Customer Service.

If there are any discrepancies between the Manual Set Inventory sheet and the manuals received, or between the Packing List and items received, contact Editware Customer Service at the telephone number at the front of this manual. If there are no discrepancies and either no damage, or GVG-advised correction action is made, continue with this manual.

Facility Checklist

The following checklist is a synopsis of information found in the appropriate Installation Planning Guide. The Planning Guide should be referred to for detailed site preparation information.

- If your facility includes an equipment rack, ensure that the rack is within 50 feet (16 meters) of your work space.
- Ensure that there are sufficient AC power outlets of the required 3-prong grounded type and amp rating for the intended equipment.
- To maintain consistent signal quality throughout your facility, there should be a minimum of two Distribution Amplifiers (DAs).
- Depending on the video switcher, you may need Sync, Subcarrier, and Blanking in addition to Black Burst.
- Ensure that the work space is at least large enough to accommodate the following:

  The K2, K3, or K5 Keyboard

  One or more monitors

  Control Panels for any other equipment

2 *General Information*

Introduction

If you have not had experience with video tape editing, Editing Systems, or with Editware, Inc., please take a few minutes to get acquainted with this manual. Also, we recommend that you read all step-by-step instructions through at least once before performing them.

About The Manual

Your VPE-300 Series Editor is self-contained and this is the Installation Instructions manual for it. The manual is part of a Manual Set shipped with your Editor. A list of available manuals can be found at the front of this book. For ease of use, the manual is divided into topical sections. Sections are identified and briefly described below.

General Information - This section provides introductory material about your Editor. It includes a description of the Editor and its specifications, power requirements, and environmental & safety information.

Installing The Editor - This section gives you step-by-step instructions on installing your Editor. It has cabling information and a start-up procedure.

Glossary - The Glossary is an alphabetical listing of terms used in the manual which you may not be familiar with. This includes acronyms.

The manual may also contain one or more appendices, which are supplemental information included as a convenience for you.

Manual Conventions

Items of discussions within a topic are indicated by titles in the right-hand column. Pages, figures (illustrations), and tables are numbered to reflect the section of the manual within which they are located. For example, in this section, page, figure, and table numbers begin with 2-.

NOTE: *At this point, you may want to go directly to Installing The Editor (the next section) and return to this section at the completion of installation. However, it is recommended that you become more familiar with your Editor by continuing with this section.*

Editor Description

Your Editor is designed to control videotape machines, video switchers, and audio mixers in a post-production environment. It can also control other devices such as a printer. The Editor consists of a Computing Chassis and a Keyboard, and, for the VPE-351, an Expansion Chassis. A color monitor is required (purchased separately from Editware and an optional printer may also be used.

Computing Chassis

The Computing Chassis, illustrated in Figure 2-1, houses the following components of the Editor:

- Single Board Controller
- Fan
- DC Power Supply
- Backplane

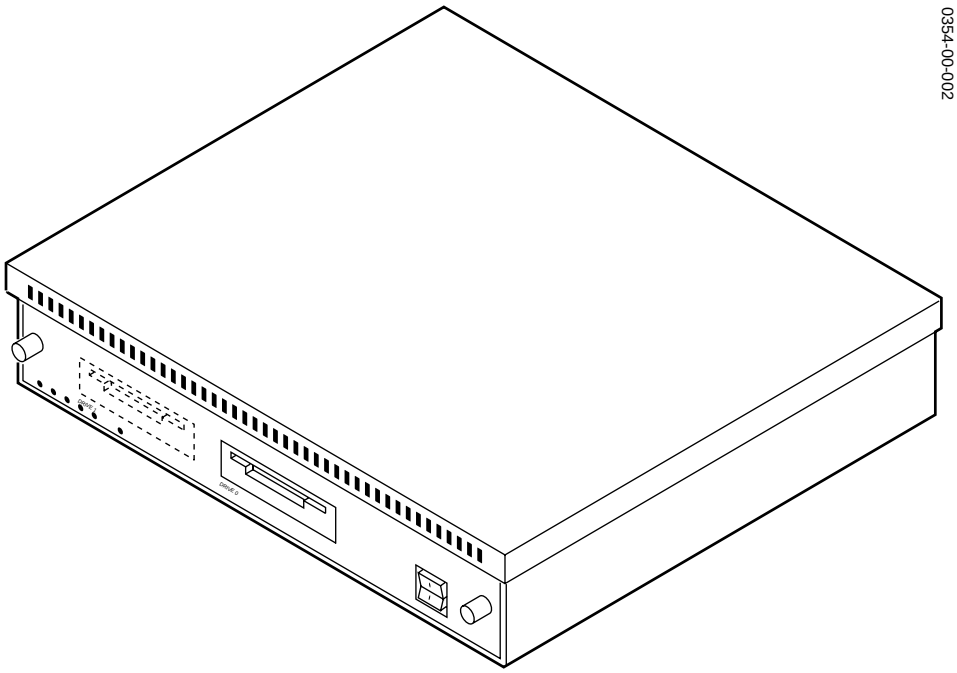


Figure 2-1. Editor Computing Chassis

Single Board Controller (SBC)

The Single Board Controller, mounted inside the Computing Chassis, contains the controller and data processing circuitry for the Editor. It contains all the controls and indicators (except power ON / OFF) for the Editor.

Hard Drive

All VPE models use a Hard Disk Drive, mounted on the SBC board, for long term EDL storage.

Floppy Disk Drives

Two 3.5-inch floppy disk drives, mounted on the SBC board and designated DRIVE Ø (DFØ) and DRIVE 1 (DF1), are standard equipment. The Drive fronts extend through the front panel for easy insertion and removal of floppy disks, and viewing the Run indicator LED on the drives' fronts. They are designed for use with 720K double-sided micro-floppy disks (or diskettes).

NOTE: *Do not use high density (1.4Mb) diskettes.*

Fan

Cooling the Computing Chassis interior is accomplished by a fan mounted on the rear panel. Fan power is +12 VDC from the DC Power Supply through the Backplane. Ambient air is drawn in through a filter in the front and warm interior air is exhausted out the rear of the chassis.

DC Power Supply

The DC Power Supply is mounted on the right-hand side of the Computing Chassis. It receives 115/230 VAC power from the AC line connector on the Input Power Filter Housing at the rear of the chassis. The Power Supply provides the +5 and ±12 VDC voltages required by the Editor. These outputs are distributed to other components through the Backplane.

Backplane

This is a printed circuit board mounted vertically at the interior rear of the chassis. The interior side of the Backplane has connectors which interface power and signals for the Computing Chassis components. For all the Editors, inputs/outputs for external devices are interfaced to the Backplane by connectors attached to its exterior side. These connectors extend through slots on the rear panel. For the VPE-351, the Expansion Chassis provides additional interfaces for external devices.

Figure 2-2 shows the rear panel of the Computing Chassis. Backplane connectors provide signal interfaces between the Computing Chassis, the Keyboard, the Monitor, peripheral devices, and, for the VPE-351, the Expansion Chassis. Backplane Connectors are:

- Fourteen (14) 9-pin D connectors
- Two (2) BNC connectors
- A Serial I/O connector.
- A GPI terminal strip

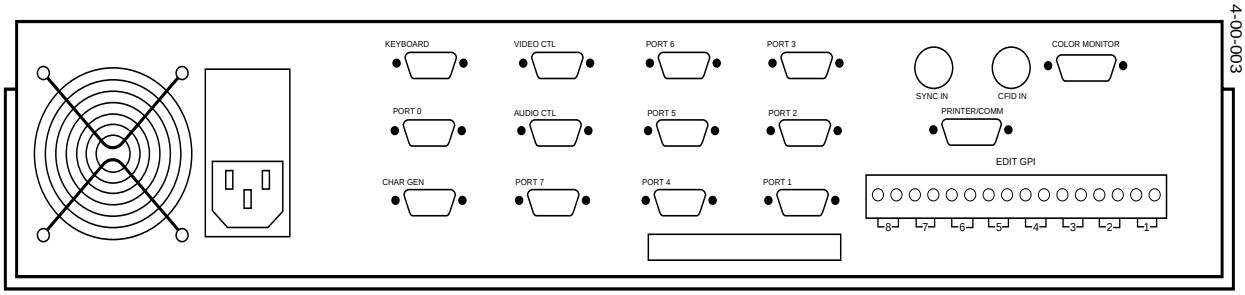


Figure 2-2. Computing Chassis Rear Panel

Expansion Chassis

The Expansion Chassis (VPE-351 only), shown in Figure 2-3, consists of eight (8) 9-pin D connectors and a 64-pin Serial I/O connector. These connectors provide the signal interfaces between the Expansion Chassis, the Computing Chassis, peripheral devices, and, if desired, the K5 Keyboard.

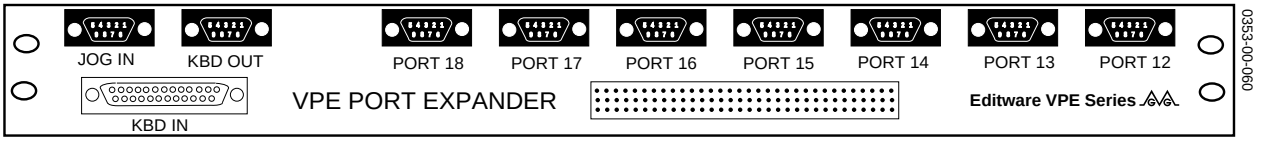


Figure 2-3. Expansion Chassis

Keyboard

The standard Keyboard for your Editor is a model K2 QWERTY style keyboard. (QWERTY refers to the style of keyboard, similar to a typewriter, where the top row of letters, from the left, begins with the letters QWERTY.) An optional K3 style keyboard is available for all models and an optional K5 Keyboard is available for the VPE-351.

NOTE: *The K2 Keyboard has a sticker on the bottom which provides brief operation instructions for the AUTO CAL and MANUAL OVERRIDE features of the Keyboard. See Section 2 of the User's Guide for additional information.*

K2 Keyboard

The K2 Keyboard, illustrated in Figure 2-4, includes a Jog Knob. The Keyboard connects to the KEYBOARD connector at the chassis rear panel. QWERTY keys are used for normal text entries and for some editing and control functions. Other keys provide special functions.

The Jog Knob provides efficient machine control. It is a motion sensitive device allowing quick access to different motion control modes without the need for additional keystrokes.

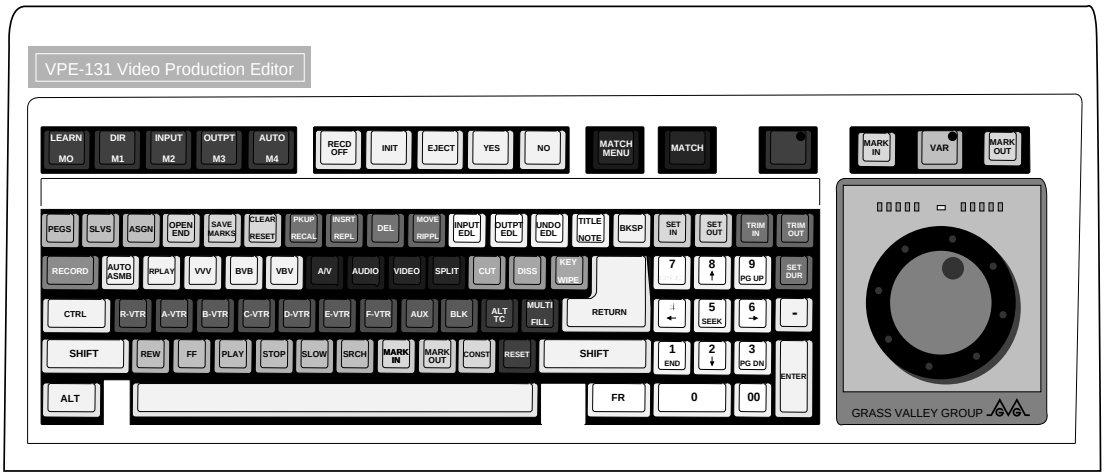


Figure 2-4. K2 QWERTY Style Keyboard

K3 Keyboard

The K3 Keyboard, illustrated in Figure 2-5, is a dedicated keyboard designed for fast, news-style functional applications. It also connects to the KEYBOARD connector. Key layout is designed for maximum speed. This Keyboard is an option for your Editor. The Jog Knob function is identical to the one on the K2 keyboard. (See Appendix C for additional information about the K3 Keyboard.)

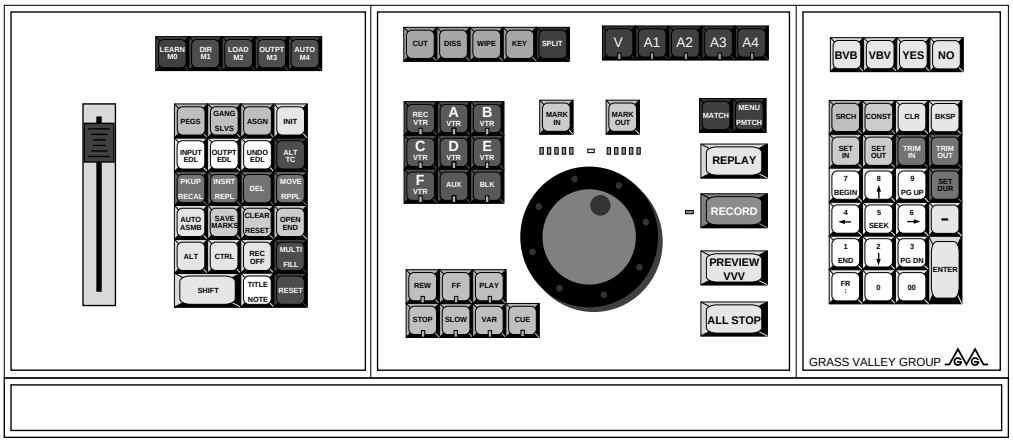


Figure 2-5. K3 Dedicated Functions Keyboard

K5 Keyboard (VPE-351 Only)

The K5 Keyboard, illustrated in Figure 2-6, consists of an expanded keyboard and a separate Jogger panel. The expanded keyboard has special function keys which replace multiple keystrokes which would otherwise be needed with other keyboards. This Keyboard has three connectors on its rear panel. One is for the cable which connects to the Expansion Chassis and one is for the cable from the Jogger panel. The third connector is for power to the Keyboard and, through the Keyboard, to the Jogger panel.

The Jogger panel has a Jog Knob and keys which are duplicates of those on the Keyboard. It also has a direction (forward / reverse) and speed indicator. The Jogger panel is normally connected to the Keyboard and, when so connected, receives power from it. However, the Jogger panel may be connected to the Jogger connector on the Expansion Chassis and then receives power from the Editor.

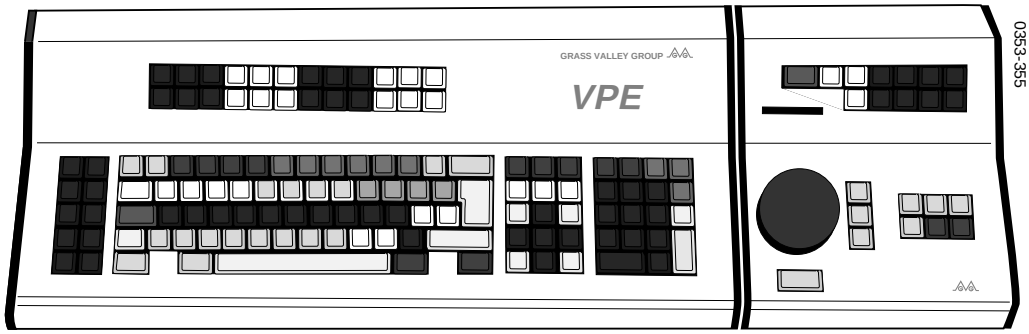


Figure 2-6. K5 Keyboard with Jog Panel

Specifications

The physical and electrical specifications for the Editors are listed in Table 2-1 below.

Table 2-1. PHYSICAL & ELECTRICAL SPECIFICATIONS

		Height	Width	Depth
Dimensions	Computing Chassis	3.5”(8.9cm)	17.0”(43.2cm)*	19.0”(40.0cm)**
	Expansion Chassis	1.6”(4.1cm)	17.0”(43.2cm)	1.0”(2.5cm) 9.0”(22.9cm)
	K2 Keyboard	2.0”(5.1cm)	21”(53.3cm)	9.0”(22.9cm)
	K3 Keyboard	2.0”(5.1cm)	21”(53.3cm)	9.5”(24.1cm)
	K5 Keyboard	4.0”(10.2cm)	21.8”(55.2cm)	9.5”(24.1cm)
	Jogger Panel	4.0”(10.2cm)	8”(20.3cm)	
Weight	Computing Chassis	25.0lbs(11.4kg)		
	Expansion Chassis	1.2lbs(0.5kg)		
	K2 Keyboard	5.4lbs(2.5kg)		
	K3 Keyboard	4.8lbs(2.2kg)		
	K5 Keyboard	7.0lbs(3.2kg)		
	Jogger Panel	4.0lbs(1.8kg)		
Power Consumption	VPE-300 Series	50W		
Input Voltage/Frequency	90 to 264VAC, 47 to 64Hz			
DC Power Supply	Output 1	+5VDC, ±0.05VDC, 5.5A		
	Output 2	+12VDC, ±0.6VDC, 2.5A		
	Output 3	-12VDC, ±0.06VDC, 0.5A		

* Add 2.0”(5.1cm) for brackets on rack mounted unit.

** Add 1.5”(3.8cm) for brackets on rack mounted unit.

NOTE: Dimensions do not include clearances for cabling and air flow.

Safety

Your Editor has been designed to meet UL1419 (3rd Revision) Safety standards. It has also been designed to conform to the emission standards of FCC Part 15, sub-part J for Class A computing equipment.

Environmental Requirements

Your Editor has been designed to operate efficiently in an environment with temperatures of from 0 to 50 degrees Celsius in up to 90% non-condensing humidity.

3 *Installing The Editor*

Introduction

In this section you are given step-by-step instructions on how to install your Editor. We recommend that you read all instructions thoroughly at least once before doing them. The section includes:

- Things to consider when selecting a work space
- Information on cables
- The physical installation of the Editor
- A start-up / power on procedure

The Work Space

The following is a synopsis of work space considerations when installing your Editor. For more complete information, consult the appropriate Installation Planning Guide. The Computing Chassis for your Editor is designed such that it may either be mounted in a standard 19" electronic equipment rack or placed on a level desk or table top. This, along with room for the Keyboard, are considerations in determining the work space. Other considerations are:

- The proximity of electrical outlets. (The power cord for the Computing Chassis is 6' long.)
- Signal cables are 16 meters (approximately 52') long.
- Routing of power cords and signal cables so that they do not present a hazard to personnel.

Cable Information

Your Editor system was shipped with a set of cables. The number of cables depends on which Editor you ordered and what, if any, options were ordered in addition to the basic system. Cables supplied with a basic system are listed in Table 3-1.

Table 3-1. BASIC CABLE SET

Name	Part Number	Qty	Destination/Use
Echo Plug	054557-00	1	for maintenance
Printer Cable	054591-16	1	to a printer
Machine Control Cable	054602-16	*	to VTRs/ATR

* 4 for the VPE-331
  7 for the VPE-341
  14 for the VPE-351

Editor Installation

Installing your Editor consists of installing the Computing Chassis and, for a VPE-351, the Expansion Chassis; placing the Keyboard in the work space; and then making the power cord and signal cable connections. These are discussed in turn on the following pages.

Installing The Computing Chassis

In installing the Computing Chassis, the first thing to determine is whether it is to be mounted in an equipment rack or placed on a console or table top.

Console or Table Top Installation

If the Chassis is to be placed on a console or table top, you may want to protect that surface by installing the four rubber feet provided as illustrated in Figure 3-1. To install the rubber feet, refer to Figure 3-1 and perform the following procedure:

1. Locate the bag containing four grey mounting feet and remove them from the bag.

2. Carefully turn the Computing Chassis over and place it on a flat level work area on its top side.

3. One at a time, remove the backing from each foot and firmly press into place approximately 1" in from each side at the corners on the bottom plate. (See Figure 3-1.)

4. Carefully turn the Computing Chassis back over until it is resting on the mounting feet.

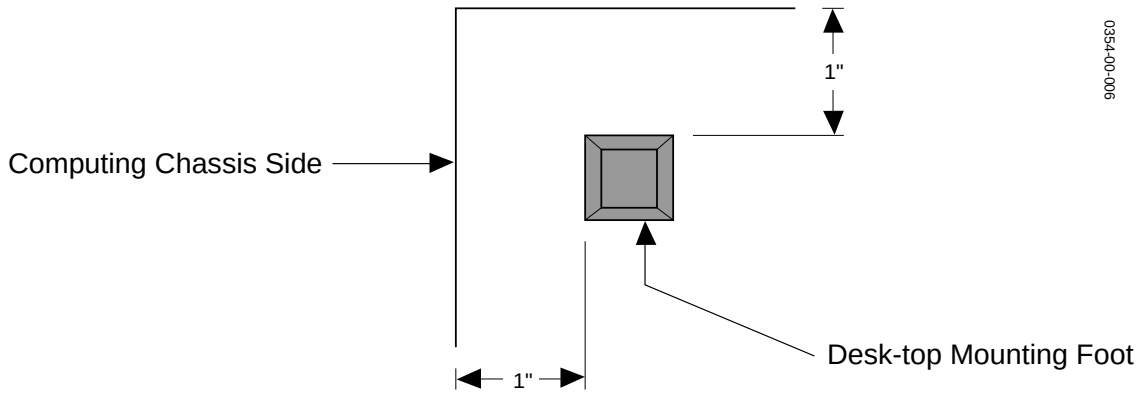


Figure 3-1. Table Top Mounting Foot Installation

Equipment Rack Installation

If the Computing Chassis is to be mounted in an equipment rack, mounting hardware must first be attached to the unit. Hardware consists of handles, mounting brackets and support brackets. Figure 3-2 illustrates handle assembly which must be done before attachment to the Chassis. Figure 3-3 illustrates attachment of the handles and mounting brackets to the Chassis. Figure 3-4 shows installation of the Chassis into the rack.

To attach the hardware and install the Computing Chassis into the equipment rack, refer to Figure 3-2, 3-3, and 3-4 and proceed as follows:

1. Position the Handle, Face Plate, and Mounting Bracket together as shown in Figure 3-2.

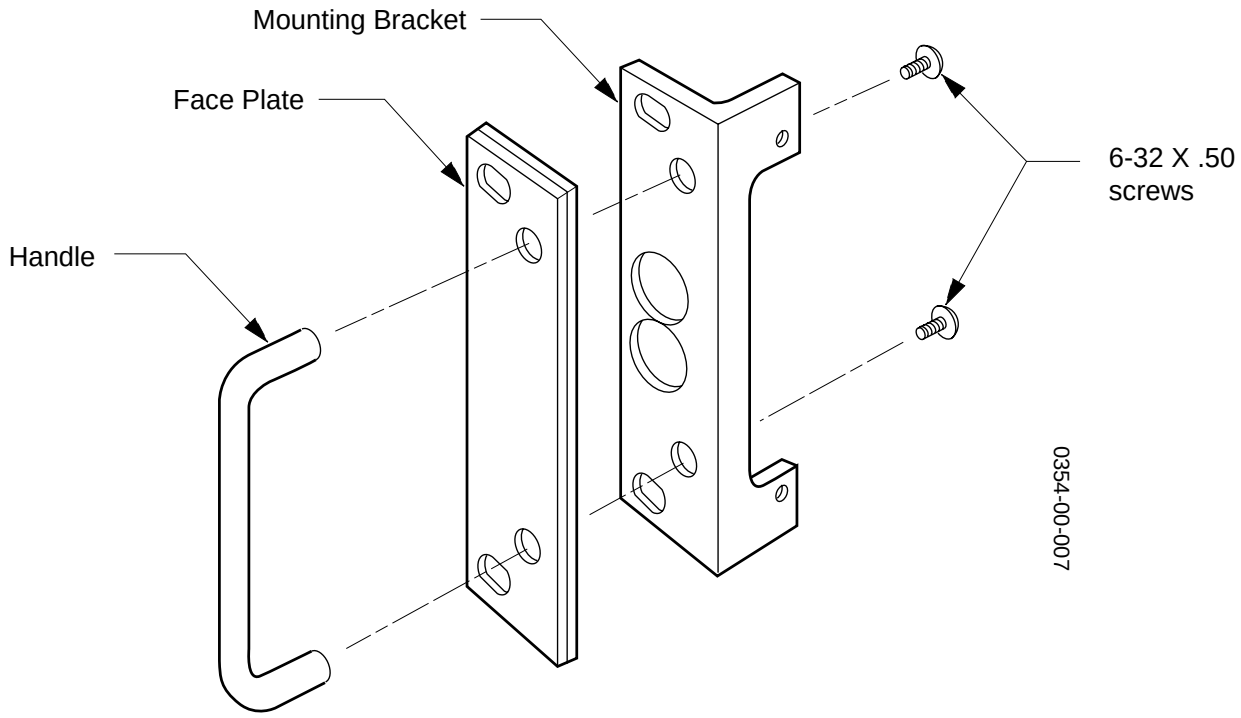


Figure 3-2. Computing Chassis Handle Installation

2. Attach the parts using two of the provided 6-32 x.50 screws.

3. Repeat Steps 1 and 2 to assemble the second Handle.

4. Position one Handle against the chassis and attach it with two of the provided 6-32 x .25 screws as shown in Figure 3-3.

5. Repeat Step 4 to attach the second Handle.

6. Position one of the mounting brackets at the side of the unit as shown in Figure 3-3 and attach it with six of the provided 8-32 x.25 screws.

7. Repeat Step 6 to attach the other mounting bracket.

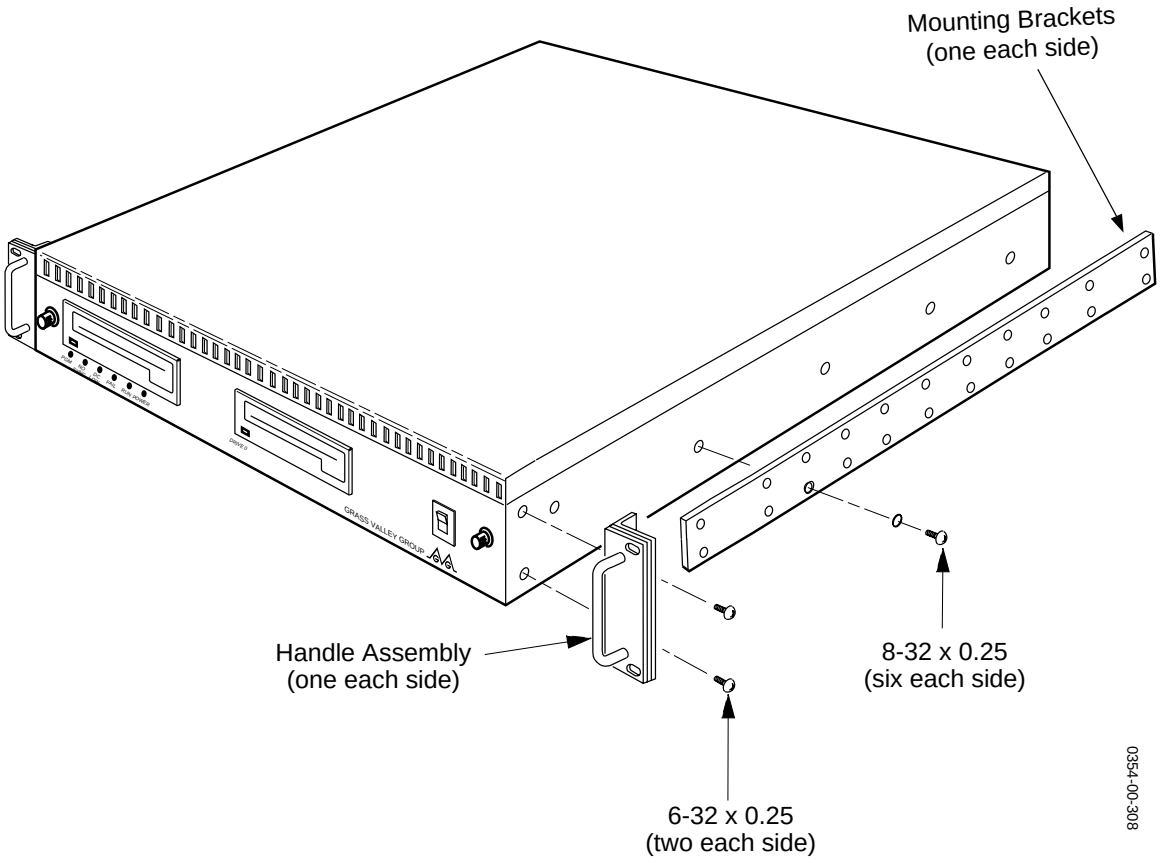


Figure 3-3. Handle & Mounting Bracket Attachment

NOTE: *Due to differences in racks, screws for attaching equipment to the rack are not provided.*

---

8. Attach one of the support brackets to the back of the equipment rack at the height for the Chassis when installed in the rack. (See Figure 3-4.)

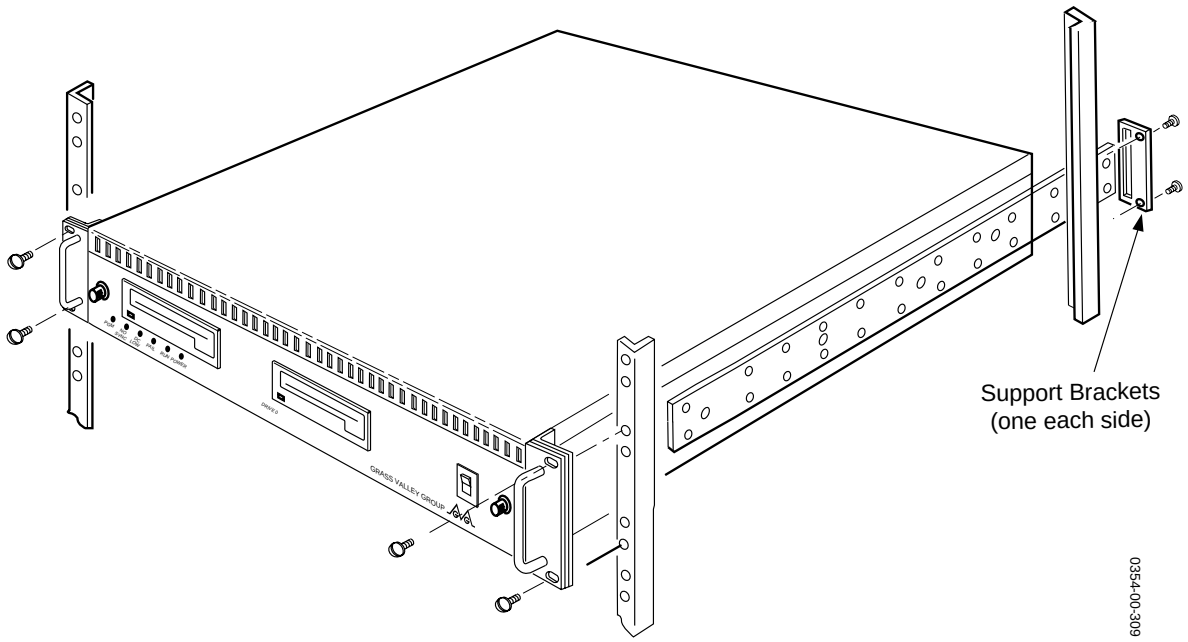


Figure 3-4. Installing The Computing Chassis Into The Equipment Rack

9. Repeat Step 8 to attach the other support bracket, being sure it is at the same height.

10. Supporting the unit, slide the rear of the mounting brackets on the Computing Chassis into the support brackets attached in Steps 8 and 9 and secure it to the equipment rack with two screws on each side at the handles.

This completes installation of the Computing Chassis into the equipment rack. If you are installing a VPE-351, proceed to Installing The Expansion Chassis. Otherwise, proceed with placing the Keyboard in the work space and then making power cord and signal cable connections.

Expansion Chassis Installation

Although the Expansion Chassis may be placed on a desk, it is recommended that it be installed in the equipment rack, preferably at the rear of the rack. This will ensure that cables connected to the Chassis do not impede access to the front of the rack. The Expansion Chassis must be within 3 ft. (1 meter) of the Computing Chassis.

Figure 3-5 illustrates installation of the Expansion Chassis. To install the Expansion Chassis, refer to Figure 3-5. With the Chassis at a convenient height, use two rack mounting screws on each side to secure the Chassis to the equipment rack.

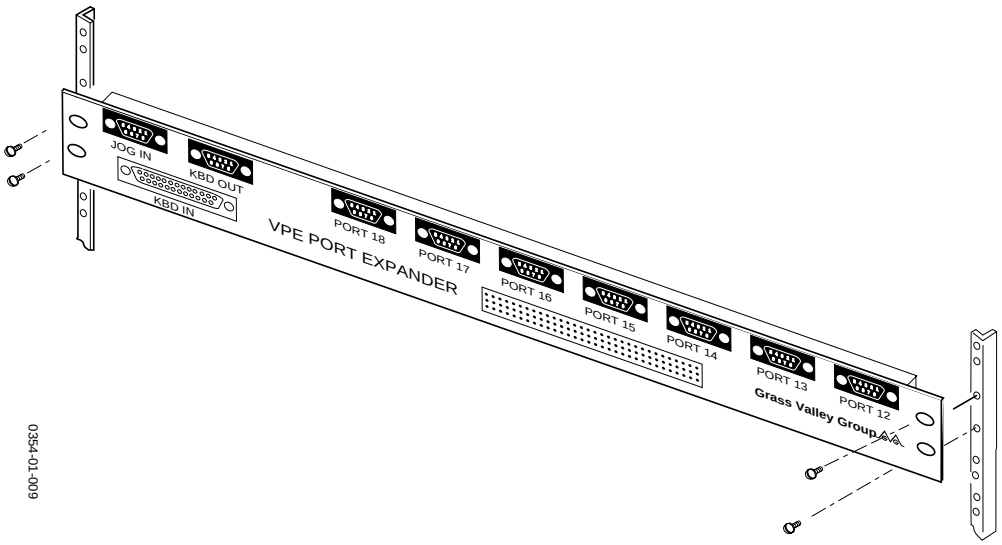


Figure 3-5. Expansion Chassis Installation

Placing The Keyboard

The Keyboard is essentially the control panel in the editing environment. As such, you want to place it in a central location where other equipment is both visually and physically at hand. Ensure that it is within 16 meters (approximately 52 feet) of the Computing Chassis and, if using the optional K5 Keyboard, within 2 meters (6 feet) of a power source.

NOTE: *If you are using the K2 Keyboard extension cable, you must attach the cable grounding wire to an earth ground.*

Making The Connections

For the VPE-300 Series, connections are made at connectors on the rear panel of the Computing Chassis. For the VPE-351, additional connections are made to the Expansion Chassis. Also, for a VPE-351 using the K5 Keyboard, connection for that Keyboard is made on the Expansion Chassis. Appendix E contains some typical interconnecting diagrams.

Computing Chassis Connections

Figure 3-6 illustrates the rear panel of the Computing Chassis and identifies the connections which will be made to it. To make these connections, refer to Figure 3-6 and proceed as follows:

CAUTION

Ensure that the routing of signal cables and power cords does not present a hazard to personnel or equipment.

1. Ensure that power switches of all equipment to be connected are OFF.

2. Connect AC power cords of all equipment to AC power outlets.

NOTE: *The remainder of this procedure is the suggested order of making connections. However, there is no recommended priority for connections.*

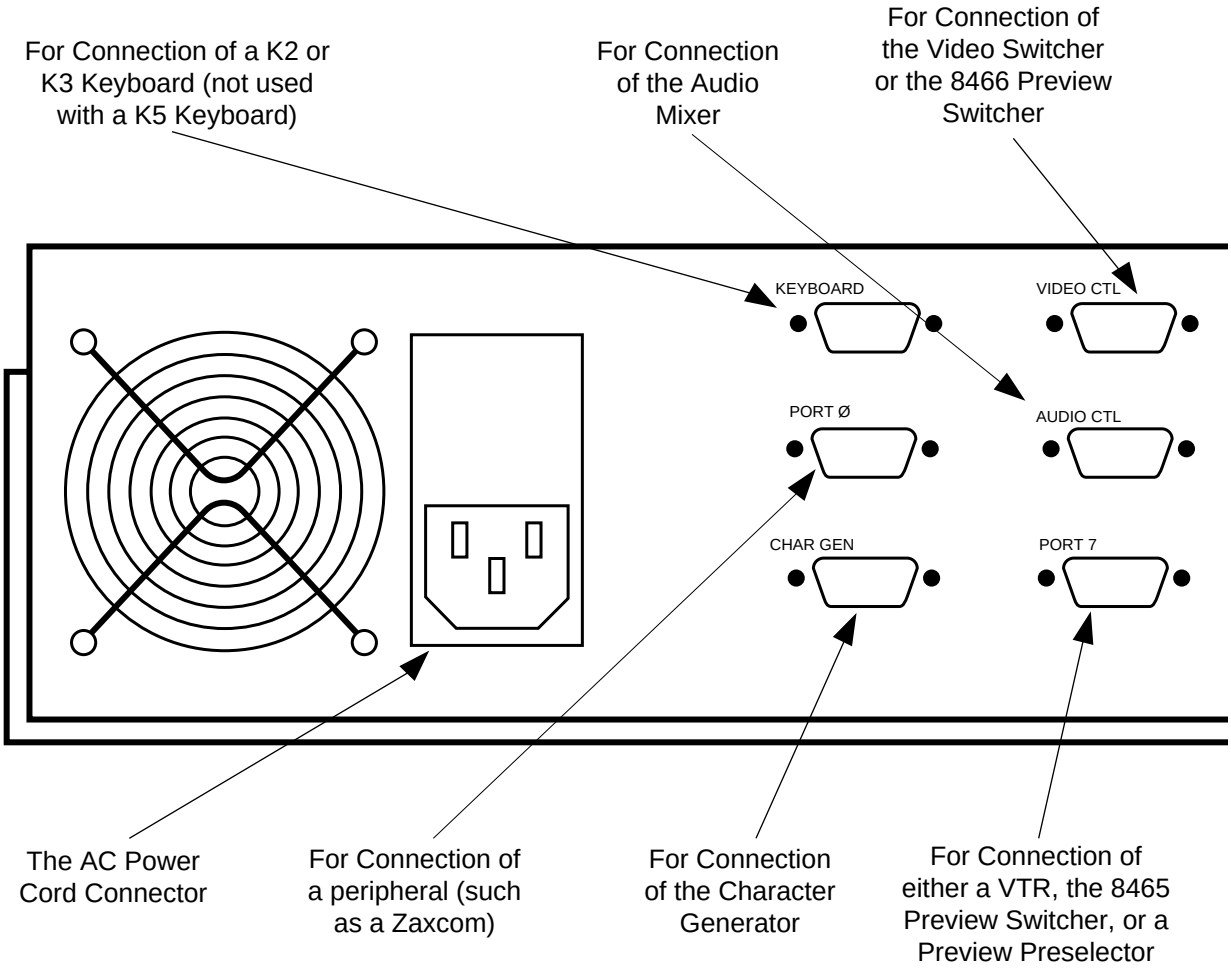
3. If you have a Character Generator, attach the signal cable from it to the CHR GEN connector.

4. Attach the provided VTR cables from the VTRs to the appropriate PORT 1 - PORT 7 connectors. (See the NOTES on Figure 3-6 and especially Appendix B for additional information on VTR port availability and connections.)

Note that connection to these ports does not assign VTRs to the ports. That is done through software during the Start-up Sequence.

5. If using a peripheral device, such as a Zaxcom, attach the cable from it to the PORT Ø connector.

6. Attach a K2 or K3 Keyboard cable to the KEYBOARD connector. (The K5 Keyboard installation will be made later.) Note that if you are using the K2 Keyboard extension cable, you must attach the cable grounding wire to an earth ground.



NOTES

With the VPE-331, neither a Preview Preselector nor the 8465 Preview Switcher can be used. Although you may connect VTRs to as many ports as are available, you may only assign up to 4 ports.

With the VPE-341 and -351:
If using an 8465 Preview Switcher and a Preview Preselector, the 8465 is connected to PORT 7 and the Preview Preselector is connected to PORT 6.
If using a Preview Preselector and NOT an 8465, the Preview Preselector is connected to PORT 7.

7. Attach the signal cable from the Audio Mixer to the AUDIO CTL connector.

8. If using an 8466 Preview Switcher with a GVG serial video switcher, attach the signal cable from the 8466 to the VIDEO CTL connector. If not, attach the Video Switcher to the VIDEO CTL connector. (Also see Appendix B.)

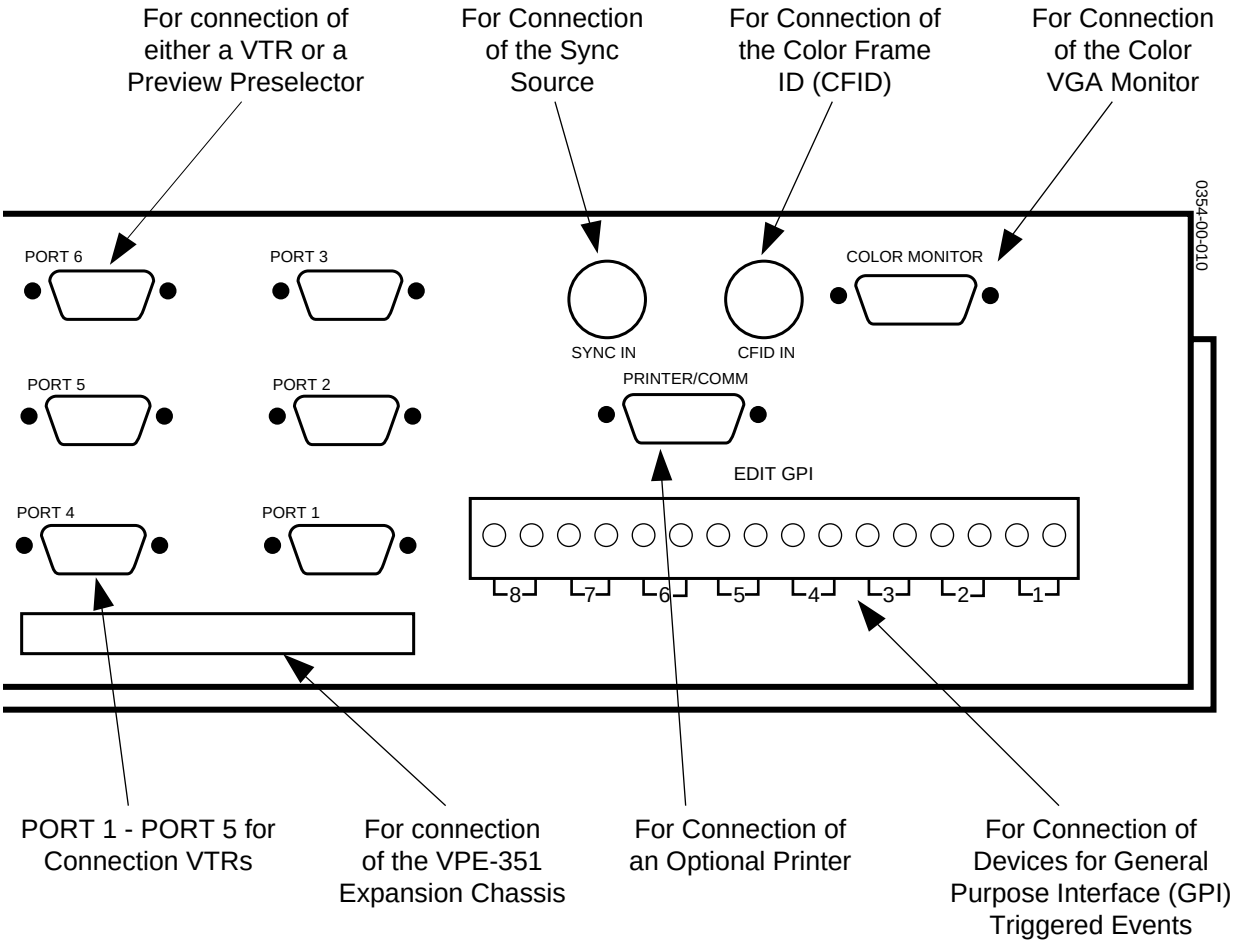


Figure 3-6. Computing Chassis Rear Panel Connectors

9. See the NOTES on Figure 3-6 if using an 8465 or 8466 Preview Switcher and / or a Preview Preselector. Also see Appendix B.

10. Make appropriate connections to the EDIT GPI connector.

11. If using a Printer, attach the provided cable from the printer to the PRINTER / COMM connector.

12. Attach a cable with BNC connectors from a composite video Sync generator to the SYNC IN connector.

13. If a CFID signal is available, attach a cable with BNC connectors from the CFID source to the CFID IN connector.

14. Attach the cable from your VGA Monitor to the COLOR MONITOR connector.

This completes the physical installation of the Computing Chassis for the VPE-300 Series. If you are installing a VPE-351, continue on with making the Expansion Chassis connections. Otherwise, proceed to the Start-up Sequence.

Expansion Chassis Connections

Figure 3-7 illustrates the rear panel of the Expansion Chassis and identifies the connections which will be made to it. To make these connections, refer to Figure 3-7 and perform the following procedure:

1. Attach the provided ribbon cable from the Computing Chassis I/O connector to the Expansion Chassis 96-pin connector.

2. Attach the provided VTR cables from the VTRs to the PORT 12 - PORT 18 connectors.

This completes physical installation of the VPE-351 Editor. However, if you are using a K5 Keyboard, continue with K5 Keyboard Connections listed on the following page. Otherwise, proceed to the Start-up Sequence.

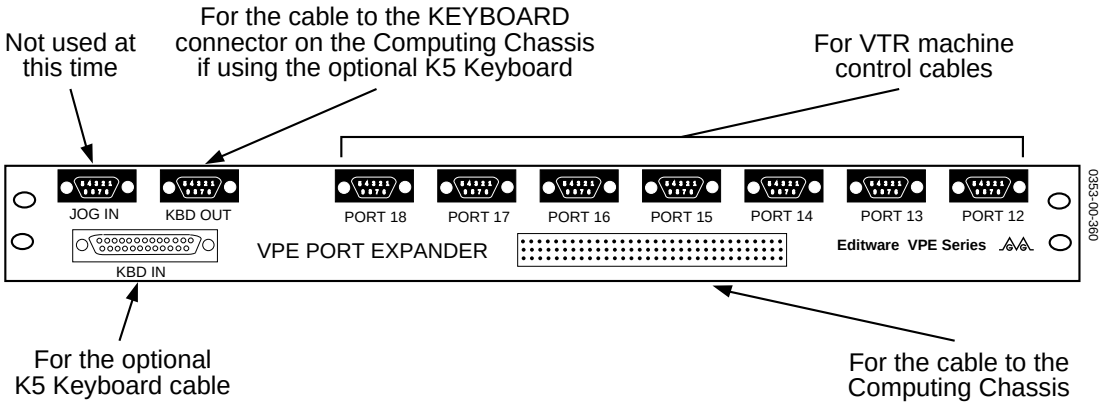


Figure 3-7. Expansion Chassis Connectors

K5 Keyboard Connections

Figure 3-8 illustrates the rear panel of the K5 Keyboard and identifies the connections which will be made to it. To make these connections, refer to Figure 3-8 and proceed as follows:

1. Attach the keyboard cable from the RACK connector on the Keyboard to the KEYBOARD connector on the Expansion Chassis.

2. Attach the power cable from the POWER connector on the Keyboard to an AC Power outlet.

3. Attach the cable from the Jogger panel to the JOG connector on the Keyboard.

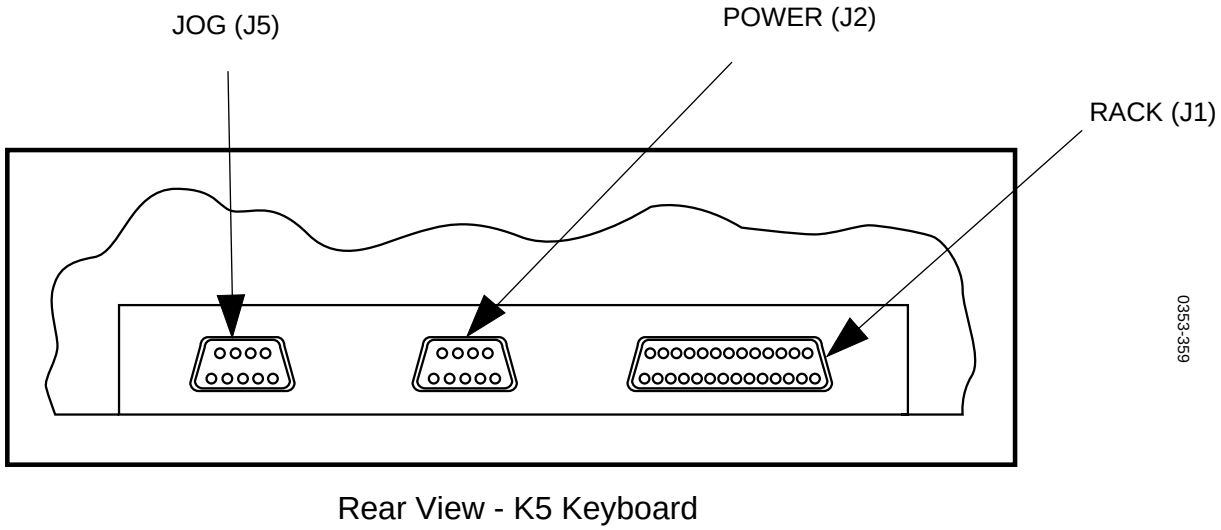


Figure 3-8. K5 Keyboard Connectors

4. If using the K5 Keyboard

   a. Attach the K5 Keyboard cable to the KBD IN connector.

   b. Attach the provided cable from the KBD OUT connector on the Expansion Chassis to the KEYBOARD connector on the Computing Chassis.

This completes physical installation of the K5 Keyboard. Proceed to the Start-up Sequence.

The Start-up Sequence

The following provides information to ensure that your Editing system is properly installed and ready for use. It begins with turning power on and Monitor Settings, goes on to Making Assignments and Basic Checks, and then concludes with installation troubleshooting.

Turning Power On

The recommended order for turning the power on to your editing system is as follows:

- All VTRs and ATR(s)
- The video switcher and the audio mixer
- The printer, monitor(s), and peripheral equipment
- The Editor Computing Chassis

After power up the Super Edit™ Main Menu, illustrated in Figure 3-9, appears on the screen. (Super Edit is the software program for your Editor.) If the Main Menu does not appear, see Installation Troubleshooting and / or Appendix F, System Software Installation.

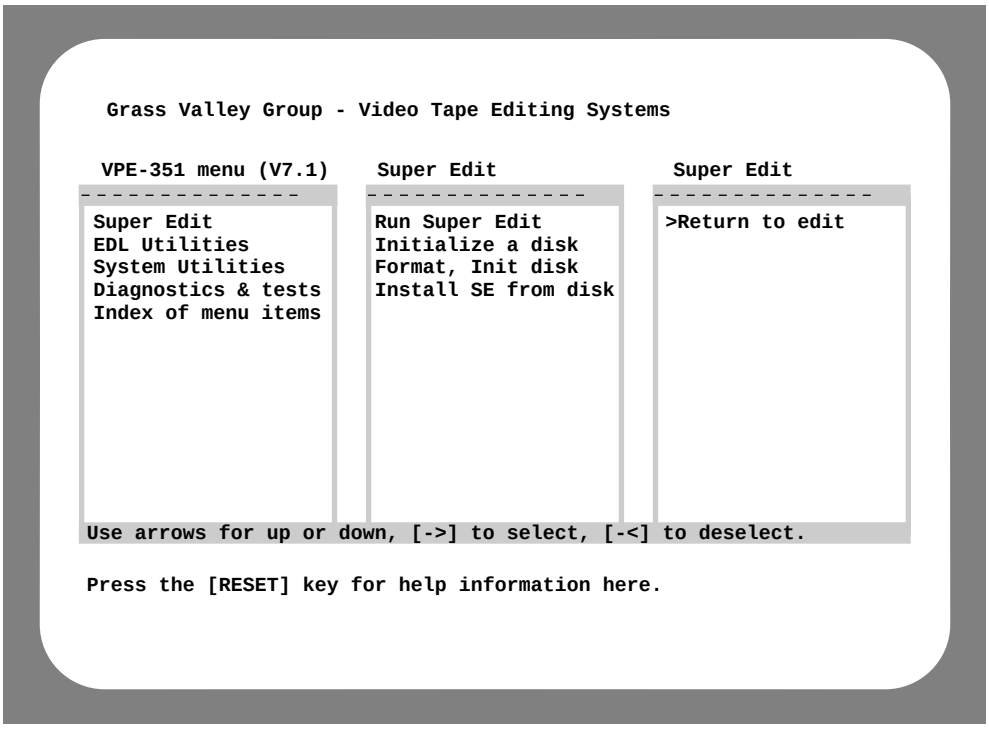


Figure 3-9. Super Edit Main Menu

Menu Selection And Control

The MENU is divided into three sections on the editor screen. Use the **[→]** and **[←]** keys to move through the sections and use the **[↑]** and **[↓]** keys to move the cursor (>) up and down within the selected section.

To execute a MENU item, select it with the cursor and press **[ENTER]**. This accesses the feature, or in some instances, presents you with a sub-menu or prompt. Prompts appear at the bottom of the screen and request user specific information (e.g, **FROM DRIVE), TO DRIVE),** etc.).

Pressing **[←]** with the cursor in the left column, places the system in the RT-11 operating system environment. To return to the Main Menu with a K2 Keyboard, type MENU at the RT> prompt and press **[ENTER]**; with a K5 Keyboard, press **[MAIN MENU];** with a K3 keyboard press **[SHIFT] [MENU]**.

Running PROM-based Self Test

1. Use the [←], [→], [↑], and [↓] keys until the Diagnostics & Tests selection in the left hand column is highlighted and press [ENTER]. The Diagnostics & tests menu appears. (See Figure 3-10 for an example.)

2. Use the **[←]**, **[→]**, **[↑]**, and **[↓]** keys until the **PROM-based self-test** selection is highlighted and press **[ENTER]**. After a few moments, test results appear. (See Figure 3-11 for an example.)

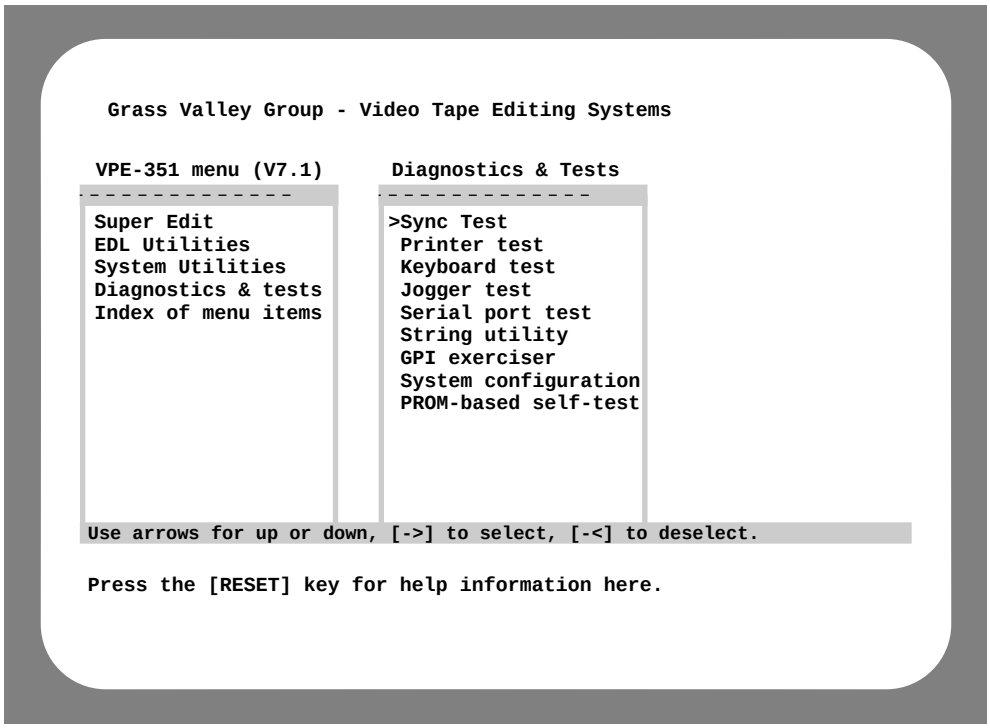


Figure 3-10. Diagnostics & Test Menu

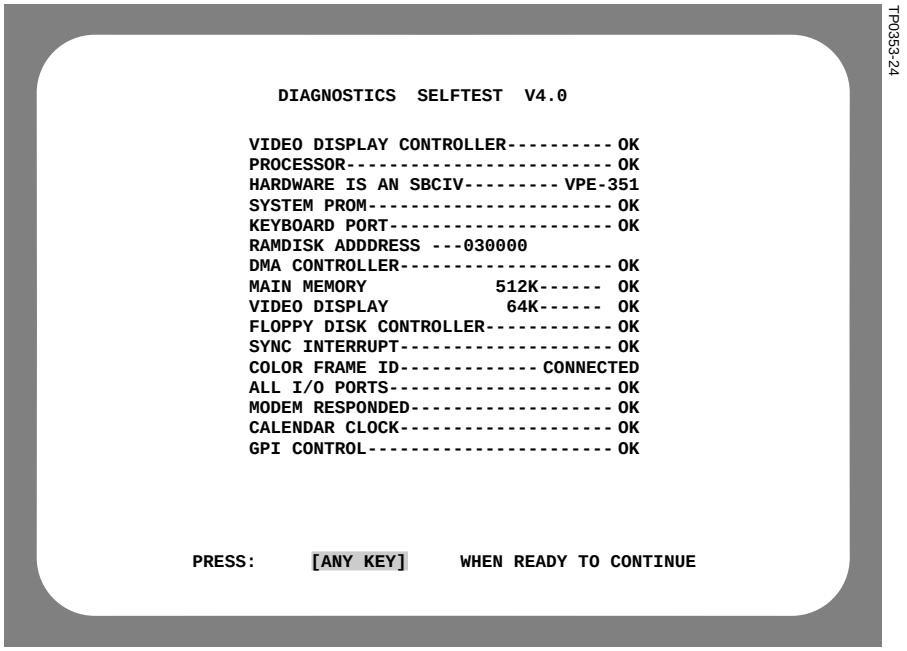


Figure 3-11. PROM-based Self-test Results

3. Press any key. The Boot Device Selection menu appears. (See Figure 3-12 for an example.)

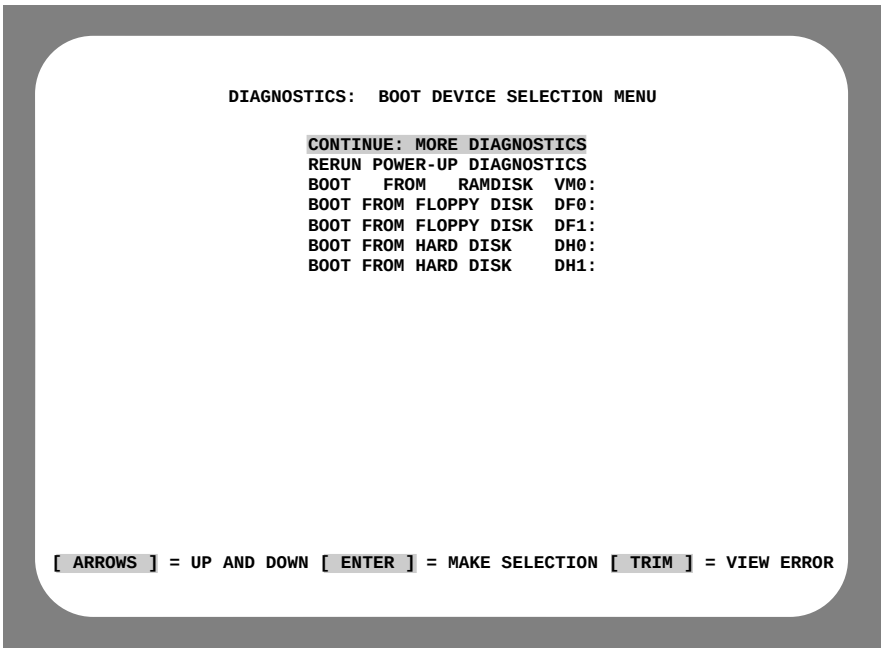


Figure 3-12. Boot Device Selection Menu

4. Use the [←], [→], [↑], and [↓] keys until the BOOT FROM HARD DRIVE DH0: selection is highlighted and then press **[ENTER]**. After a few seconds, the Main Menu appears.

This concludes the Turning Power On procedure. Continue on to Making Basic Checks.

Making Basic Checks

Making Basic Checks consists of making the assignments listed below and discussed on the following pages and then doing Communications Testing.

- Assign VTR control ports
- Assign video crosspoints
- Assign audio crosspoints
- VTR Model / Manufacturer Assignments
- Set VTR Sync QC

Machine Assignments

Machine assignments allow you to assign control ports, video crosspoints, and audio crosspoints, and to identify the VTR model / manufacturer to the software. These assignments are made from the Assignment Page and must be done prior to editing. An example of an Assignment Page is illustrated in Figure 3-13.

LABEL	REEL	PORT	MODEL	QC	VIDX	AUDX	PSLX	CFRM	TYPES AVAILABLE
R-VTR	001	01	--	03	000	000	01	00	00 = BETA-SP
A-VTR	002	02	--	03	001	001	02	00	01 = VPR3
B-VTR	003	03	--	03	002	002	03	00	02 = AJD350
C-VTR	---	--	--	--	---	---			
D-VTR	---	--	--	--	---	---			
E-VTR	---	--	--	--	---	---			
F-VTR	---	--	--	--	---	---			
AUX	AUX				007	007			
BLK	BLK				000	000			
PVWSW	8466	PORT	09	38.4	ODD				
VIDSW	GVG100	PORT	09	38.4	ODD				
MIXER	AMX170	PORT	08	38.4	ODD				
PRSEL	GV10XL	PORT	--						
PERIF	NONE	PORT	--						
CHRGN	NONE	PORT	--						

ASGN=GREEN KEYS OR ALLSTP NO=DEASGN SCROLL=ARROWS RESET=EXIT

TP0353-80

Figure 3-13. Machine Assignment Page

The Assignment Page consists of essentially three sections. The first section, headed by LABEL, REEL, PORT, etc., identifies machines (and AUX and BLK) to be assigned. Note that the lower portion of this section is used to identify devices other than VTRs and the headings do not apply.

The second section, TYPES AVAILABLE, lists the models of VTRs (and codes) to which you have protocols included in your Super Edit™ software. Basic instructions for the Assignment Page are in the third section at the bottom.

Note the following:

- A **[NO]** to a question de-assigns the selected VTR (i.e., makes it unavailable).
- For a VTR, AUX, and BLK to appear in the Mark Table, VTRs must be assigned via the Assignment Page, and AUX and BLK must have crosspoints.
- Pressing **[ENTER]** at a prompt accepts the factory default setting.
- You may exit the Assignment Page by pressing either **[RESET]** or an invalid key at any time as long as you are not at a prompt.
- Cable connections between the VTRs and the video switcher and audio mixer must be known before making video and audio crosspoint assignments.

VTR Machine Assignments

To make Machine Assignments, follow the steps listed below:

1. With a K2 Keyboard, press **[SHIFT][ASGN]**; with a K5 Keyboard, press **[VTR ASGN]**. A display similar to Figure 3-13 appears with the R-VTR device (top line) highlighted.

2. If you are making assignments for the R-VTR, press **[ENTER]** or **[SPACEBAR]** (K2 / K5), or **[ALL STOP]** (K3). Otherwise, either press the appropriate green key or use **[↑]** and **[↓]** to highlight the desired machine and press **[ENTER]**. At the bottom left hand corner, the system prompts:

   ENTER REEL #

3. Enter up to six alphanumeric characters, and then press **[ENTER]**. The Reel ID you entered appears on the line with the selected device and the REEL ID in the Mark Table changes accordingly. The system prompts:

   PORT = ?

Before making port assignments, note the following items:

- You cannot assign more software ports than hardware ports connected.
- Multiple keys may not be assigned to the same port.
- VTR (green) keys should be assigned to only those ports having machines attached and set for remote operation.
- For the VPE, the following are factory set port assignments:

  PORT 8 - Audio mixer
  PORT 9 - Video Switcher
  PORT 10 - Character Generator

- For the VPE-351, the factory set assignment for PORT 11 is the JOGGER panel.

4. Enter the port number to which the selected machine is connected at the Editor chassis rear panel (e.g., if the R-VTR is connected to PORT 1, enter 01) and then press **[ENTER]**. The port number you entered appears on the line with the selected device and the system prompts:

   MODEL = ?

5. Enter the number from the right-hand column of Figure 3-15 which corresponds to the VTR you are using for the selected VTR and press **[ENTER]**. (For example, if the R-VTR is a VPR-3, you would enter 01.) The model code you entered appears on the line with the selected device and the system prompts:

   QC VALUE = ?

6. The default QC value is 3. To accept this value, press **[ENTER]** or enter a value from -1 to 5 and then press **[ENTER]**. Note that a QC value of -1 tells Super Edit™ to make every attempt to synchronize the machine right up to the IN-point, but DO NOT abort the edit if the source is not properly positioned. The edit will occur and, based on the machine assignment, Super Edit™ will attempt to have the source properly positioned for the event. The QC value you entered appears on the line with the selected device and the system prompts:

   VID XPNT = ?

Before making video crosspoint assignments, note the following items:

- Color bars, digital effects systems, cameras, and other special video signals can also be assigned to switcher crosspoints.
- For E-E previewing, the R-VTR cannot be changed from crosspoint zero.

7. Enter the desired video crosspoint and press **[ENTER]**. The video crosspoint you entered appears on the line with the selected device and the system prompts:

AUD XPNT = ?

Before making audio crosspoint assignments, note the following items:

- Non-audio sources are assigned to crosspoint 0.
- For E-E previewing, the R-VTR cannot be changed from crosspoint zero.

8. Enter the desired audio crosspoint and press **[ENTER]**. The audio crosspoint you entered appears on the line with the selected device.

9. If you have the Preview Preselector option, the system prompts:

PRSEL XPNT = ?

10. Enter the desired Preview Preselector crosspoint and press **[ENTER]**. Your entry appears on the display.

11. Super Edit provides PAL users the opportunity to assign a color frame offset. Enter the desired color frame offset value (from 0 to 3) and press **[ENTER]**. The frame offset you entered appears on the display.

12. Repeat Steps 1 through 11 for all connected VTRs.

AUX and BLK Crosspoint Assignments

Default video and audio crosspoints are 007 for AUX and 000 for BLK. To change the AUX and BLK assignments, perform the following steps:

1. Use **[↑]** and **[↓]** to highlight AUX or BLK. The system prompt indicates:

VID XPNT = ?

2. Enter the desired video crosspoint and press **[ENTER]**. The crosspoint you entered appears on the selected AUX or BLK line and the system prompts:

AUD XPNT = ?

3. Enter the desired audio crosspoint and press **[ENTER]**. The crosspoint you entered appears on the selected AUX or BLK line.

Fast Column Data Entry

The Assignment Page also provides a fast mode of entering data by column. That is, all vertical column data (reel, port, model, etc.) can be entered at the same time without having to go through the dialog for each source line-by-line.

This mode is activated by selecting a column with the **[→]** or **[←]** keys and pressing **[ENTER]**. You may now enter data vertically in the selected column. To go from one line to the next in the column, either after entering data or to skip a line, press **[ENTER]**.

There are two ways to terminate the column mode. One is to press **[ENTER]** when at the bottom of the column. The other, which is a fast way of terminating the column mode, is by pressing either **[→]** or **[←]** while in the column.

Other Machine Assignments

Other machines are listed below the AUX and BLK assignment sections. If the protocol for a particular machine is built into your software, it is identified. If a machine protocol is not built into your software, NONE appears next to it.

For example, if (as in Figure 3-13) you have the protocol for a GVG Model 100 Video Switcher, but not a Character Generator, GVG100 appears next to VIDSW and NONE appears next to CHRGN. Assignment choices are limited to port number, baud rate, and EVEN or ODD parity. The assignment procedure is:

1. Use **[↑]** and **[↓]** to highlight the desired machine and then press **[ENTER]**. The system prompts:

   PORT # = ?

2. Enter the port number the selected machine is connected to and press **[ENTER]**. The port number you selected appears on the display next to the selected machine and the system prompts:

   0 = 38.4 1 = 9600 BAUD =

3. Press, as applicable, either **[Ø]** for 38.4K baud or **[1]** for 19.6K baud and then press **[ENTER]**. The baud rate you selected appears on the display on the same line as the selected machine and the system prompts:

   0 = NONE 1 = ODD 2 = EVEN PARITY =

4. Press, as applicable, either **[Ø], [1]**, or **[2]** and then press **[ENTER]**. The EVEN / ODD parity selected appears on the display on the same line as the selected machine.

5. Repeat Steps 1 - 4 for the remaining machines.

NOTE: *Press **[SHIFT][RESET]** (all keyboards) to re-establish communication between the Edit System and all peripheral devices.*

Communications Testing

Before performing communications testing, all peripheral equipment should be set up and timed. Refer to the Peripheral Equipment Setup and Timing Manual, P/N TP0377-01, for those procedures.

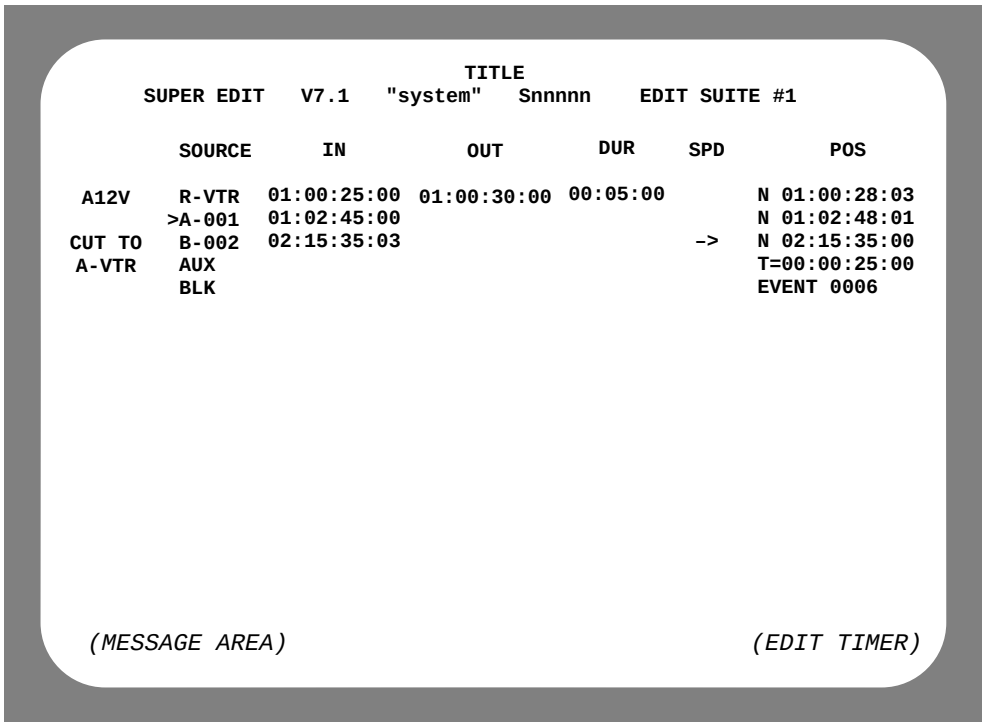


Figure 3-14. Edit Screen Example

To do the communications testing, refer to the Edit Screen illustration, Figure 3-14, and perform the following steps:

1. Load tapes with time code into your machines.

2. Activate the EDIT ENABLE buttons on the video switcher and the audio mixer.

3. Press **[SHIFT]** and the dark grey **[RESET]** key.

4. Alternately press the dark green R-VTR, A-VTR, and B-VTR keys. The Mark Table cursor (**) moves from source to source, and video switcher and audio mixer crosspoints switch to the assigned crosspoints as you press the different keys.

5. Select the A-VTR and press the light blue **[FF]** key. The A-VTR fast forwards.

6. When video appears, press the light blue **[STOP]** key. The A-VTR stops.

7. Press the light blue **[PLAY]** key. Video and audio play at normal speed. In the Mark Table, the time code numbers in the selected source's POS column increment.

8. Press **[STOP]**. The A-VTR and the time code numbers in the POS column of the Mark Table stop.

9. Press the yellow **[MARK IN]** key. The time code currently displayed in the A-VTR's POS column appears in its IN column.

10. Press the yellow **[MARK OUT]** key. The time code currently displayed in the A-VTR's POS column appears in its OUT column.

11. Press the **[FF]**, **[REW]**, and **[SLOW]** keys and ensure the VTR reacts accordingly.

12. Repeat steps 5 through 11 for the remaining VTRs.

If any of the above indications do not occur, check cabling and connections. If any cabling or connection had to be corrected, repeat the procedure. If after repeating the procedure, any indication was still in error, or if cabling and connections were correct, proceed to Installation Troubleshooting.

Installation Troubleshooting

If any problems arise during the installation, you will want to begin checking the most obvious possible causes first. Verify the following items are true:

- All power cords are connected to the correct power source
- All power switches are in the ON positions
- All cables are attached to the correct connectors
- All machines are in their correct mode of operation (i.e., local or remote)

If during the Start-up Sequence the Super Edit Main Menu did not appear on the Monitor, the checks listed below and discussed on the following pages are starting points for Installation Troubleshooting. Note that if you suspect the software is the problem, re-install system software before proceeding. See Appendix F for the System Software Installation procedure.

- Chassis front panel status indicators
- Program failed to execute
- Switches not set correctly
- Jumpers not placed correctly

NOTE: *Make notes of all troubleshooting activities. They will help service personnel in the event that more detailed troubleshooting is required.*

Front Panel Status Indicators

There are six (6) LEDs visible at the front panel. These LEDs provide a quick check of the Editor status. Figure 3-15 shows their locations and the following is a brief description of them. (The Service Information Manual contains a more detailed description of these LEDs.)

- PGM (Program) - This green LED is not normally lit. It lights to indicate successful completion of the PROM-based self-test.
- NO SYNC - This red LED is not normally lit. If lit, it indicates that either house sync is not connected or has been lost.
- DC LOW - This red LED is not normally lit. If lit, it indicates that the +5 VDC output of the DC Power Supply is not within proper operating range.

- FAIL - This red LED is not normally lit. If lit, it indicates that the microprocessor failed its internal start-up diagnostics.
- RUN - This green LED is normally lit. If not, the RUN / HALT toggle switch on the SBC board may be in the wrong (HALT) position.
- POWER - This red LED is normally lit when the power switch is in the On position.

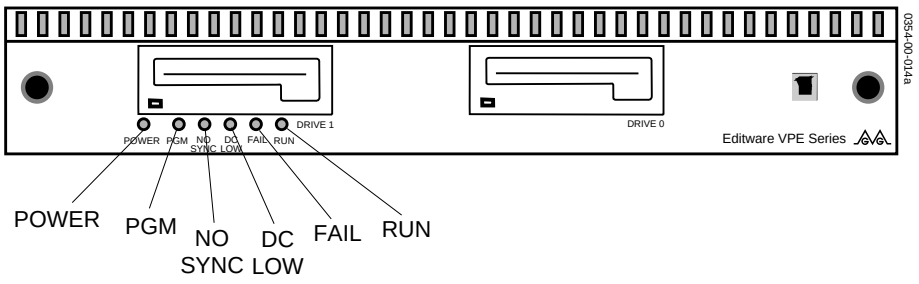


Figure 3-1. Computing Chassis Front Panel Indicators

Program Execution

Check for the possibility that the program failed to execute. This can be done by re-booting the Editor from the Distribution Floppy Disk. (See Appendix F, System Software Installation.)

SBC Switches

There are three switches on the SBC (see Figure 3-16). They are accessible without removing the SBC from the Chassis. Two are toggle switches (RUN / HALT and BOOT) and one is a rotary thumbwheel switch (MODE).

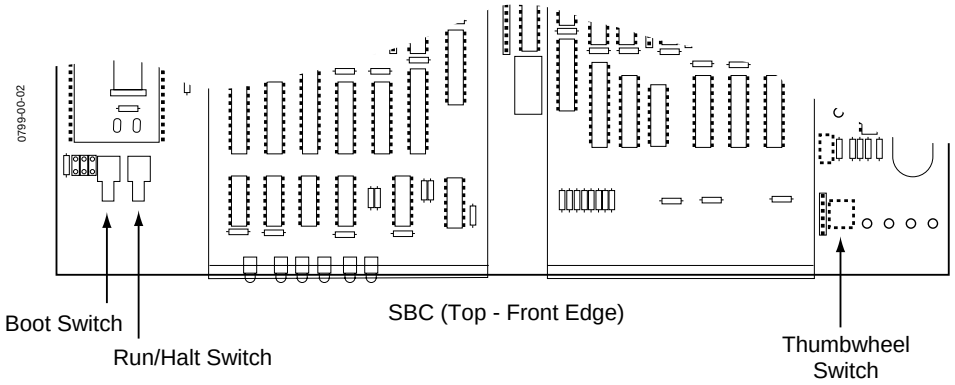


Figure 3-2. SBC Switch Locations

SBC Jumpers

There are numerous jumpers on the SBC which set the operating conditions of the Editor. To check jumper positions, it is necessary to remove the SBC from the Chassis. Refer to Figure 3-17 below which illustrates removal of the SBC.

All the jumpers are shown in Figure 3-18 and listed in Table 3-2. The table describes the default settings of the jumpers, which are set at the factory. A detailed description of all the jumpers are on the pages following the table.

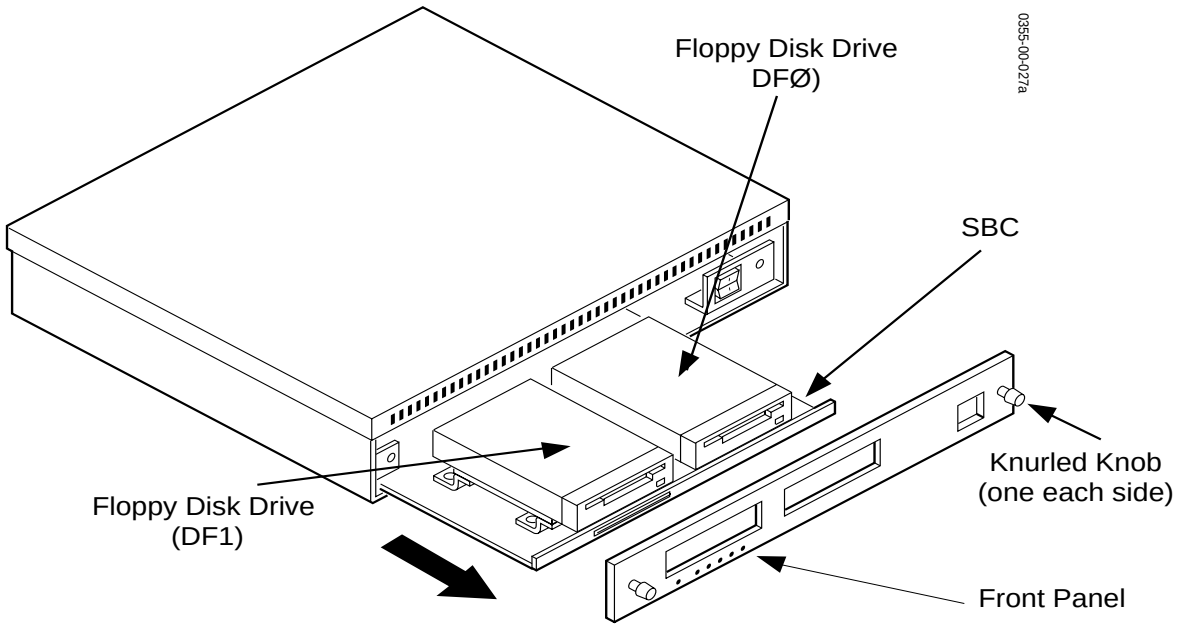


Figure 3-3. Removing the SBC

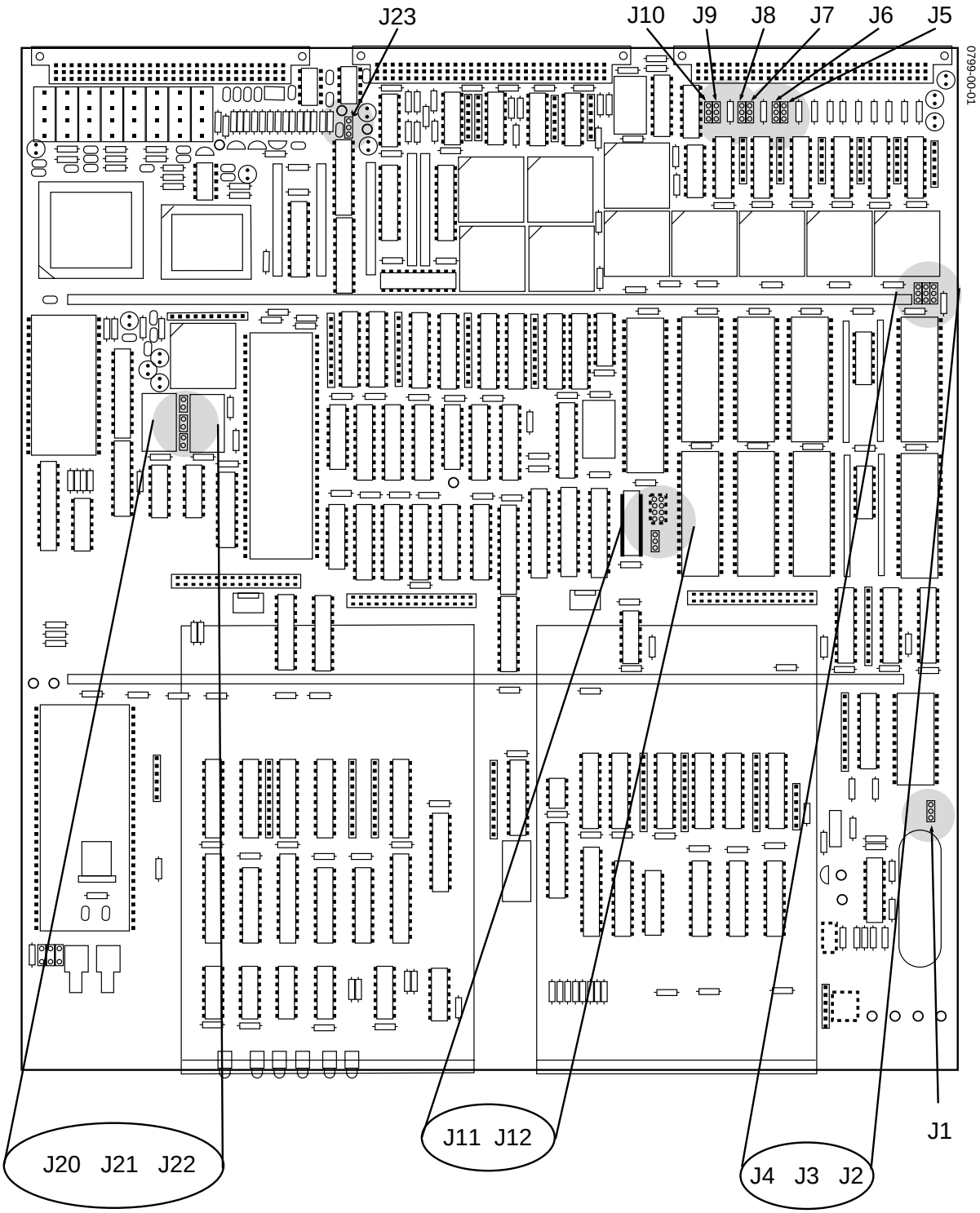
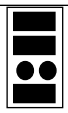


Figure 3-4. SBC Jumper Locations

Table 3-2. SBC DEFAULT JUMPER SETTINGS

Jumper	Position	Setting
J1	1 	Jumper block at pins 1-2. Connects the battery to the circuitry.
J2	1 	Jumper block at pins 1-2. With jumpers J3 & J4, selects 27C256 as the type of EPROM (see Table 3-4).
J3	1 	Jumper block at pins 1-2. With jumpers J2 & J4, selects 27C256 as the type of EPROM (see Table 3-4).
J4	1 	Jumper block at pins 1-2. With jumpers J2 & J3, selects 27C256 as the type of EPROM (see Table 3-4).
J5	1 	With jumper J6, selects RS-422 (block at pins 1-2) or RS-232 (block at pins 2-3) as the Port 7 serial interface.
J6	1 	With jumper J6, selects RS-422 (block at pins 1-2) or RS-232 (block at pins 2-3) as the Port 7 serial interface.
J7	1 	With jumper J8, selects RS-422 (block at pins 1-2) or RS-232 (block at pins 2-3) as the Port 6 serial interface.
J8	1 	With jumper J7, selects RS-422 (block at pins 1-2) or RS-232 (block at pins 2-3) as the Port 6 serial interface.
J9	1 	Jumper block at pins 1-2. With jumper J10, selects RS-422 as the Keyboard Port serial interface.
J10	1 	Jumper block at pins 1-2. With jumper J9, selects RS-422 as the Keyboard Port serial interface.
J11	1 	Jumper block at pins 2-3. Selects 60Hz as the frequency for the on-board EVENT clock signal. (Also see jumper J23.)
J12	1 	Jumper blocks at pins 3-4 and 7-8. Selects 9,600 as the baud rate for the Keyboard Port. Jumper block must always be at pins 1-2 to enable programmable baud rate selection through software.
J13 - J19		These jumper numbers not used on this board
J20	1 	Jumper block installed. Selects MOTOR-ON line low to the Floppy Disk drive connector.
J21	1 	Jumper block not installed. selects a precompensation value of 125 nS for the floppy disk drive.
J22	1 	Jumper block not installed. Disables the DISK CHANGE drive feature for the Floppy Disk drive.
J23	1 	Jumper block at pins 1-2. Selects the house sync input as the EVENT clock signal.

J1 – Battery Voltage Enable

A 3-pin jumper used to control battery power to the VBATT bus per the following jumper placement:

1-2 Connects the battery to VBATT bus

2-3 Disconnect battery from VBATT bus

J2, J3 & J4 - Memory Type

These 3-pin jumpers select the type of EPROM memory devices being used. Selection is per the jumper placement listed in Table 3-3.

Table 3-3. EPROM SELECTION JUMPERS

J2	J3	J4	EPROM Type
1 - 2	1 - 2	1 - 2	27C256
1 - 2	1 - 2	2 - 3	27C010
1 - 2	2 - 3	1 - 2	27F256 Flash, Non-program
2 - 3	2 - 3	1 - 2	27F256 Flash, Program
1 - 2	2 - 3	2 - 3	28F010 Flash, Non-program
2 - 3	2 - 3	2 - 3	28F010 Flash, Program

J5 & J6 - Port 7 Serial Interface Selection

These two 3-pin jumpers, which must agree, select the type of interface for Port 7 per the following jumper placements:

1-2 selects RS-422

2-3 selects RS-232

J7 & J8 - Port 6 Serial Interface Selection

These two 3-pin jumpers, which must agree, select the type of interface for Port 6 per the following jumper placements:

1-2 selects RS-422

2-3 selects RS-232

J9 & J10 - Keyboard Port Serial Interface Selection

These two 3-pin jumpers, which must agree, select the type of interface for the Keyboard Port per the following jumper placements:

1-2 selects RS-422

2-3 selects RS-232

J11 - 50/60 Hertz EVENT Clock Source Select

A 3-pin jumper used to select an on-board EVENT clock source of either 50Hz or 60Hz. (It is only active when the jumper at J23 is placed at the 2 - 3 position.) Selection is per the following jumper placements:

1-2 selects 50 Hz

2-3 selects 60 Hz

J12 - Keyboard Port Baud Control/Select

This jumper consists of four sets of two pins each. Pins 1 & 2 are used to inhibit/enable programmable baud selection through software. The remaining pins are used to select the baud rate for the Keyboard Port according to the jumper placements shown in Table 3-4.

Table 3-4. KEYBOARD PORT BAUD RATE SELECTION JUMPERS

Pins 3 & 4	Pins 5 & 6	Pins 7 & 8	Baud Rate
OFF	OFF	OFF	300
OFF	OFF	ON	600
OFF	ON	OFF	1,200
OFF	ON	ON	2,400
ON	OFF	OFF	4,800
ON	OFF	ON	9,600
ON	ON	OFF	19,200
ON	ON	ON	38,400

J20, 21 & J22 - Floppy Drive Selection

These three 2-pin jumpers are used to match the requirements of the floppy disk drive installed. Matching is per the following jumper placements:

J20 Jumper on, the MOTOR LINE signal to the drive connector(s) is low.

Jumper off, the MOTOR LINE signal to the drive connector(s) is high

J21 Jumper on, compensation value is 187 nS

Jumper off, compensation value is 125 nS

J22 Jumper on, enables the DISK CHANGE drive feature.

Jumper off, disables the DISK CHANGE drive feature.

J23 - EVENT Signal Source Selection

This 3-pin jumper is used to select the source of the EVENT signal to the microprocessor.

1-2 selects house sync input as the EVENT clock

2-3 selects the on-board sync as the EVENT clock (see J11)

This concludes Installation Troubleshooting. If after performing all the checks described here, your Editing System is not working, refer to the Troubleshooting and Diagnostics section of the Service Information Manual.

SPECIAL NOTE: At the completion of this Installation Instructions Manual, it is recommended that you go through the Super Edit Tutorial Set.

Appendix A: System Differences

Introduction

This appendix consists of Table A-1 which lists the hardware differences and Table A-2 which the software differences between the Editor models of the VPE series. The tables are included here as a convenience for you.

Table A-1. VPE SERIES EDITING SYSTEMS HARDWARE DIFFERENCES

	VPE-331	VPE-341	VPE-351
RAM	1.5Mb	2Mb	4Mb
VTRs Assignable	7	7	14
Std Keyboard	K2	K2	K2
Opt. Keyboards	K3	K3	K3, K5
Pvw Switcher	Optional	Optional	Optional
Upgradability	VPE-341, VPE-351	VPE-351	–

Table A-2. VPE EDITING SYSTEMS SOFTWARE DIFFERENCES

	VPE-331	**VPE-341**	**VPE-351**
VTRs Controlled	4	7	14
EDL Lines	2001	8004	16008
Bins	1	4	8
SWAP	-	yes	yes
Pvw Preselector	-	yes	yes
Configs in RAM	25+	50+	50+

Appendix B: Port Availability With Options

Introduction

Tables B-1 through B-6 indicate the Serial Port availability for the VPE-300 Series systems when configured with specific video production products.

Table B-1. VPE System VTR Port Availability With GVG Model 100/110, 200 Family, GVG Model 300, 1000, 3000, 4000, GVG Kadenza or Ampex Vista

OPTION	VPE-331	VPE-341	VPE-351
E-E Preview	OK (no port)	OK (no port)	OK (no port)
8465 Preview	PORT 7	PORT 7	PORT 7
8466 Preview	VID CTL	VID CTL	VID CTL
Performer Preview	PORT 7	PORT 7	PORT 7
ESP-1 (TBC Ctl)	PORT Ø	PORT Ø	PORT Ø
Preview Preselector	PORT 7*	PORT 7*	PORT 7*
Kadenza	not available	PORT 1	PORT 1

* If 8465 is used, then Preselector is on PORT 6.

NOTE: *When PORT 1 through PORT 7 are used for devices in the previous table, the number of ports available for VTRs are correspondingly reduced.*

Table B-2. VPE System VTR Port Availability With GVG TEN-XL/Performer, GVG Model 1600/1680, Ross, CDL, Ampex AVC or Century

OPTION	VPE-331	VPE-341	VPE-351
E-E Preview	not available*	not available*	not available*
8465 Preview	PORT 7	PORT 7	PORT 7
8466 Preview	PORT 4	PORT 4	PORT 4
Performer Preview	not available	not available	not available
ESP-1 (TBC Ctl)	not available	not available	not available
Preview Preselector	not available	not available	not available

* E-E is supported with Ross (with Ross Encore option).

NOTE: *When PORT 1 through PORT 7 are used for devices in the previous table, the number of ports available for VTRs are correspondingly reduced.*

Appendix C: K3 Keyboard Information

Introduction

This appendix consists of information about the K3 Keyboard. The information includes the following:

1. A list of new features
2. Embedded functions
3. Embedded alpha character keystrokes
4. A procedure to adjust keyboard sensitivity
5. A procedure to upload / re-upload keyboard software
6. Troubleshooting after uploading keyboard software
7. Settings of the internal keyboard DIP switches

1. K3 Keyboard New Features

The following is a list of special features that have been added to the K3 Keyboard:

- LED display of the current VTR (green key).
- LED display of motion state (REW, FF, etc.) of VTR (blue keys).
- LED display of individual V, A1, A2, A3, A4 selections.
- Volume control of a remote audio monitor when using an 8466 Preview Switcher.
- Use of a PC or a K2 Keyboard for text entry.

1. K3 Keyboard New Features (continued)

- Current Shuttle or Variable speed can be programmed into [FF] or [REW] keys. (Pressing [FF] or [REW] twice in succession returns to normal FF or REW speed.)
- [ALT][SEARCH] searches to Out point.
- Use of the beige [CLEAR] key for numeric entries.
- Use of Cue to Preroll and Select New VTR to automatically switch Jogger control to either R-VTR or Source VTR.
- Pressing [SHIFT][WIPE] performs the same function as [SHIFT][DISS] except for a Wipe.
- The LED on the [RECORD] key flashes for 2 seconds each time the [RECORD] key is pressed.
- All selected V and As flash when in the Assemble Mode.
- [SHIFT][↑], [SHIFT][↓], [SHIFT][←], and [SHIFT][→] are usable for editing Macros.
- LED modes are displayed during setup of an ALT SPLIT edit.

2. Embedded Functions

[SHIFT][ALT][CTRL][V] toggles status requests to the Editor On / Off.

[SHIFT][ALT][CTRL][A1] turns Audio Level On.

[SHIFT][ALT][CTRL][A2] turns Audio Level Off.

[SHIFT][ALT][CTRL][RESET] resets the keyboard.

[SHIFT][ALT][CTRL][ENTER] returns to the Main Menu from RT-11.

[SHIFT][ALT][CTRL][BEGIN(7)] reloads Super Edit.

[SHIFT][ALT][CTRL][CLR] prepares for upload of keyboard software.

Hold [2] and re-plug in keyboard to re-initialize keyboard.

3. Embedded Alpha Character Keystrokes

A	=	[REC VTR]	or	[ALT][A-VTR]
B	=	[SLOW]	or	[ALT][B-VTR]
C	=	[PLAY]	or	[ALT][C-VTR]
D	=	[B-VTR]	or	[ALT][D-VTR]
E	=	[PREVIEW VVV]	or	[ALT][E-VTR]
F	=	[C-VTR]	or	[ALT][F-VTR]
G	=	[D-VTR]	or	[ALT][AUX]
H	=	[E-VTR]	or	[ALT][BLK]
I	=	[SHIFT][V]		
J	=	[F-VTR]		
K	=	[AUX]		
L	=	[BLK]		
M	=	[MARK IN]		
N	=	[SHIFT][CUE]		
O	=	[SHIFT][SPLIT]		
P	=	[CUT]		
Q	=	[AUTO ASMB]		
R	=	[BVB]	or	[ALT][REC VTR]
S	=	[A-VTR]		
T	=	[VBV]		
U	=	[SHIFT][A1]		
V	=	[STOP]		
W	=	[REPLAY]		
X	=	[FF]		
Y	=	[SHIFT][A2]		
Z	=	[REW]		
*	=	[SHIFT][DEL]		
.	=	[CONST]		
:	=	[MULTI FILL]		
;	=	[ALT TC]		
-	=	[-]		
/	=	[RESET]		
=	=	[UNDO]		

4. Keyboard Sensitivity Adjustment

Note that the K3 keyboard sensitivity adjustment does not require routine adjustment. Erratic or unreliable operation may be a symptom of an actual fault with the keyboard. Refer to "Tips on using the Touch Control Jogger" supplied with your keyboard.

Some versions of the K3 keyboard will have two holes in the bottom cover. One hole is located over the internal reset switch, and one hole is above the sensitivity adjustment potentiometer. If you have a keyboard with two holes in the bottom cover, proceed to Step 5; if not, complete following steps:

CAUTION

To prevent static damage to sensitive components, use a grounded wrist strap, mat, and tools when handling components and printed circuit modules.

1. Turn the system power OFF, disconnect the keyboard from the editor, and place the keyboard on a static-free work surface where you can disassemble it.

2. Position the keyboard on a stable padded surface, and remove the six screws that hold the bottom cover onto the plastic housing.

3. Lift the bottom cover by rotating the bottom edge upward, and turn it over. Note that there are three cables attached between the cover and the module assembly.

4. Reconnect the keyboard cable.

5. Locate R53 in the upper right corner of the keyboard module. R53 is located beneath the right-most hole on the "two-holed" keyboard systems. Located to the left of R53 is an LED that will assist this adjustment procedure.

6. Firmly grasp the outer ring of the jog knob, but do not touch the metal center. Adjust R53 anti-clockwise until the LED lights. Then slowly adjust R53 clockwise slightly until the LED flickers off.

7. For the keyboards with two holes in the bottom cover, the adjustment procedure is complete. For the keyboards that require the bottom cover to be removed, replace the six screws that secure the cover to the keyboard case.

Should this procedure not correct your operational problem, please contact Editware Customer Service.

5. Uploading/Re-uploading Keyboard Software

Note that you should not have to re-upload keyboard software as your K3 Keyboard was shipped with software already uploaded. However, if a problem occurs or if you receive an updated version of keyboard software, use the following procedure to upload / re-upload keyboard software.

1. Insert the supplied K3 Keyboard disk into DFØ.

2. Disconnect the keyboard. While re-connecting the keyboard cable, simultaneously hold the **[2]** key down and press the reset button, located on the back of the K3 keyboard case.

The software takes 1 to 2 minutes to upload and the Super Edit Main Menu appears. Note that this procedure does not erase your EDL or adversely affect the Super Edit program currently running.

6. Troubleshooting After Downloading

If the Super Edit Main Menu does not appear after any of the download procedures given above, perform the following:

1. Disconnect and then re-connect the K3 Keyboard.

2. Perform the full re-load procedure listed in Item 5 above.

3. If a problem still exists, and a K2 Keyboard is available:

   a. Disconnect the K3 Keyboard.

   b. Connect the K2 Keyboard.

   c. Access the RT-11 prompt (RT>).

   d. At the RT-11 prompt, enter @DF:LOADKB and press [ENTER].

   e. Disconnect the K2 Keyboard.

   f. Re-connect the K3 keyboard while simultaneously hold the **[2]** key down and press the reset button, located on the back of the K3 keyboard case.

   g. After approximately 15 seconds, insert the Distribution Disk in Drive Ø.

In approximately two (2) minutes the Super Edit Main Menu should appear. If the problem still occurs, contact Editware Customer Service.

7. Internal Keyboard DIP Switch Settings

There are two internal keyboard DIP switches: SW1 and SW2. Each DIP switch consists of 8 switches identified as SW1-1 through SW1-8 and SW2-1 through SW2-8. A switch is Off or Open and On or Closed.

For SW1, normal settings: SW1-1 and SW1-6 through SW8 Off; SW1-2 through SW1-5 On. It is recommended that these settings not be changed.

For SW2, SW2-1, SW2-7, and SW2-8 are not used. Functions of the remaining SW2 switches are described as follows:

SW2-2 Off selects a normal Split when the [SPLIT] key is pressed; On selects Alt Split when the [SPLIT] key is pressed.

SW2-3 with an 8466, Off provides normal audio control. If level control is reversed, On corrects direction.

SW2-4 Off inhibits output of slide volume control data.

SW2-5 provides normal green key mapping (i.e., R, A, B, etc.) On remaps these keys to A, B, C, . . ., R.

SW2-6 Off inhibits request of status reports from Super Edit.

Appendix D: K2 Keyboard Information

Introduction

This appendix consists of information about the K2 Keyboard. The information includes the following:

1. A procedure to manually override the Jog Knob automatic mode

2. A procedure to adjust the keyboard sensitivity

1. Manual Override of Jog Knob Automatic Mode

To manually override the automatic mode of Jog Knob operation, simultaneously press the right-hand [SHIFT] and [VAR] keys. The keyboard beeps once. Repeatedly pressing [VAR] now switches your from Shuttle to Variable, to Jog, and back to Shuttle.

To re-enter the automatic mode from the manual mode, simultaneously press the right-hand [SHIFT] and [VAR] keys.

Note that for quick reference, a decal with the above information is affixed to the underside of the K2 Keyboard.

2. Keyboard Sensitivity Adjustment

Note that the K2 keyboard sensitivity adjustment does not require routine adjustment. Erratic or unreliable operation may be a symptom of an actual fault with the keyboard. Refer to "Tips on using the Touch Control Jogger" supplied with your keyboard. However, if your keyboard is responding erratically, complete the following adjustment procedure:

CAUTION

To prevent static damage to sensitive components, use a grounded wrist strap, mat, and tools when handling components and printed circuit modules.

---

1. Turn the system power OFF; disconnect the keyboard from the editor, and place the keyboard on a static-free work surface where you can disassemble it.

2. Position the keyboard on a stable padded surface, and remove the jog knob. To do so, pull off the rubber ring that surrounds the knob and use a 1/16" hex wrench to loosen the 2 set screws inside the rim of the knob. Then lift the knob off the shaft. (The knob may be snug; use a firm grip.)

3. Turn the keyboard upside down and remove the six screws that hold the bottom cover onto the plastic housing.

4. Remove the bottom cover.

5. Reconnect the keyboard cable.

6. Locate the small hole in the lower left corner of the Keyboard module to the right of the "Softpot" Jogger assembly. Through this hole, the trim pot used to light the LED can be adjusted. Located near the hole is an LED that will assist this adjustment procedure.

7. Firmly grasp the outer ring of the jog knob, but do not touch the metal center. Adjust the trim pot anti-clockwise until the LED lights. Then slowly adjust the trim pot clockwise slightly until the LED just flickers off.

8. Return the module to the keyboard case, reinstall the jog knob (as necessary), and replace the six screws that secure the cover to the keyboard case.

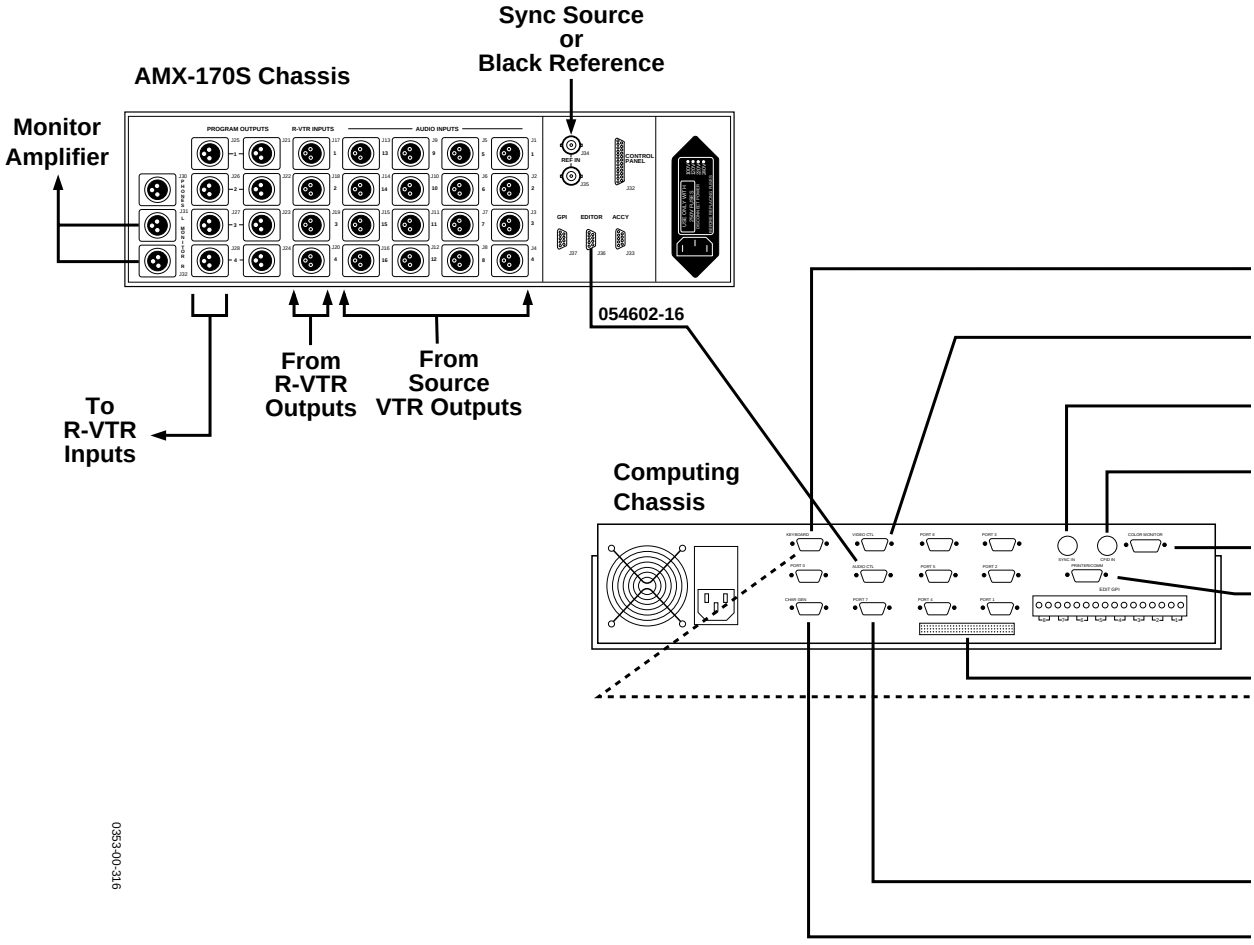
Should this procedure not correct your operational problem, please contact Editware Customer Service.

Appendix E: Interconnecting Diagrams

Introduction

This appendix consists of interconnecting diagrams as examples of installations. Your system may not be exactly as diagrammed.

Figure E-1 is an example of interconnection of a system without an 8466 Preview Switcher.



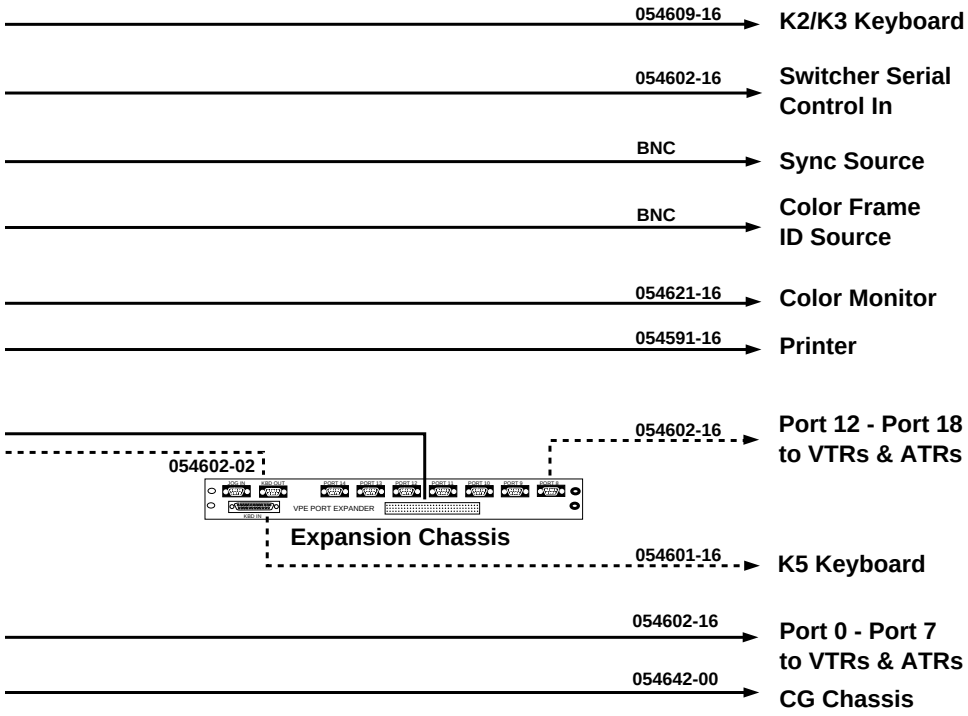
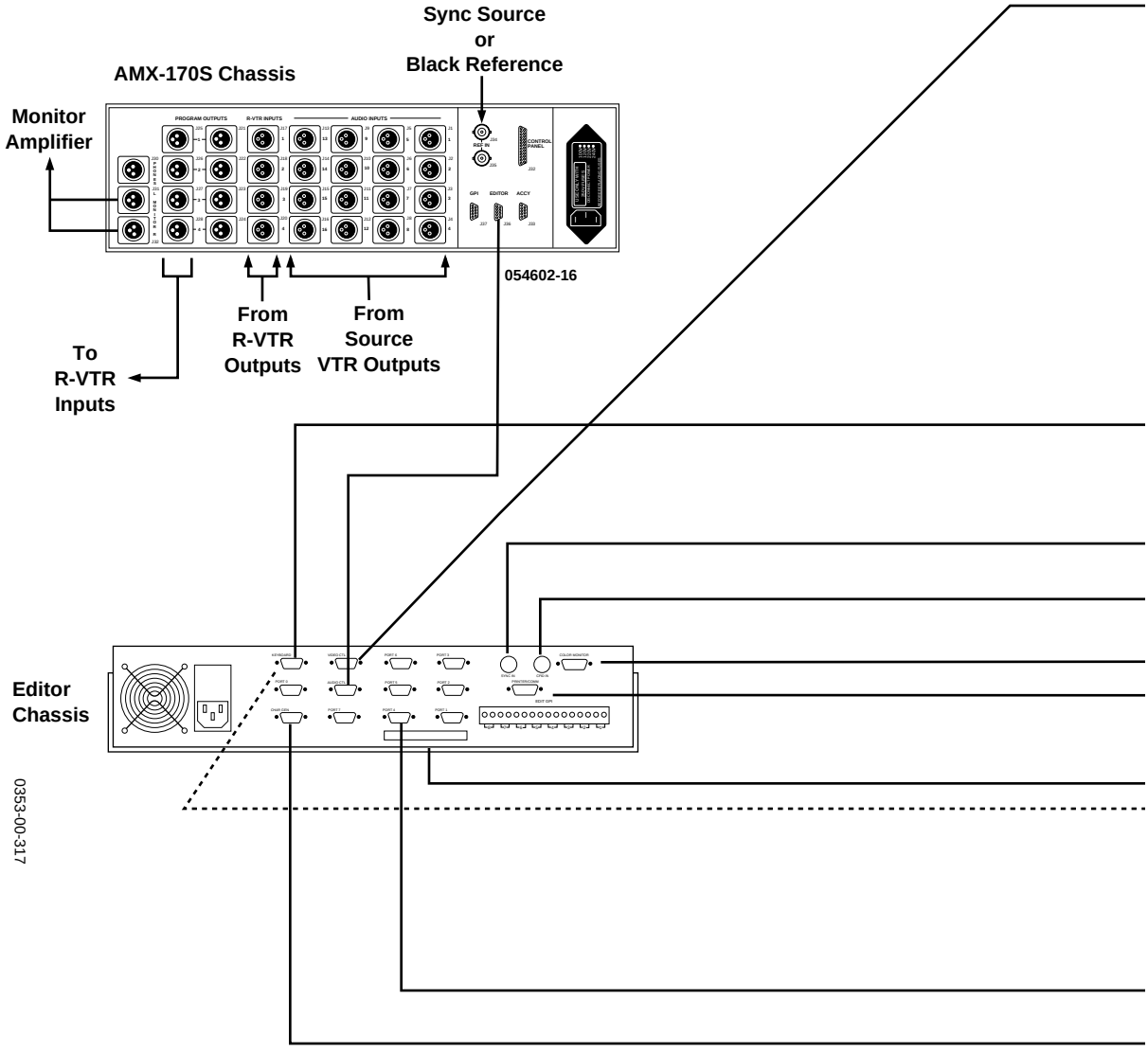


Figure E-1. Example of System Interconnection Without an 8466 Preview Switcher

Figure E-2 is an example of interconnection of an Editing System with an 8466 Preview Switcher.



----- = If using the optional K5 Keyboard

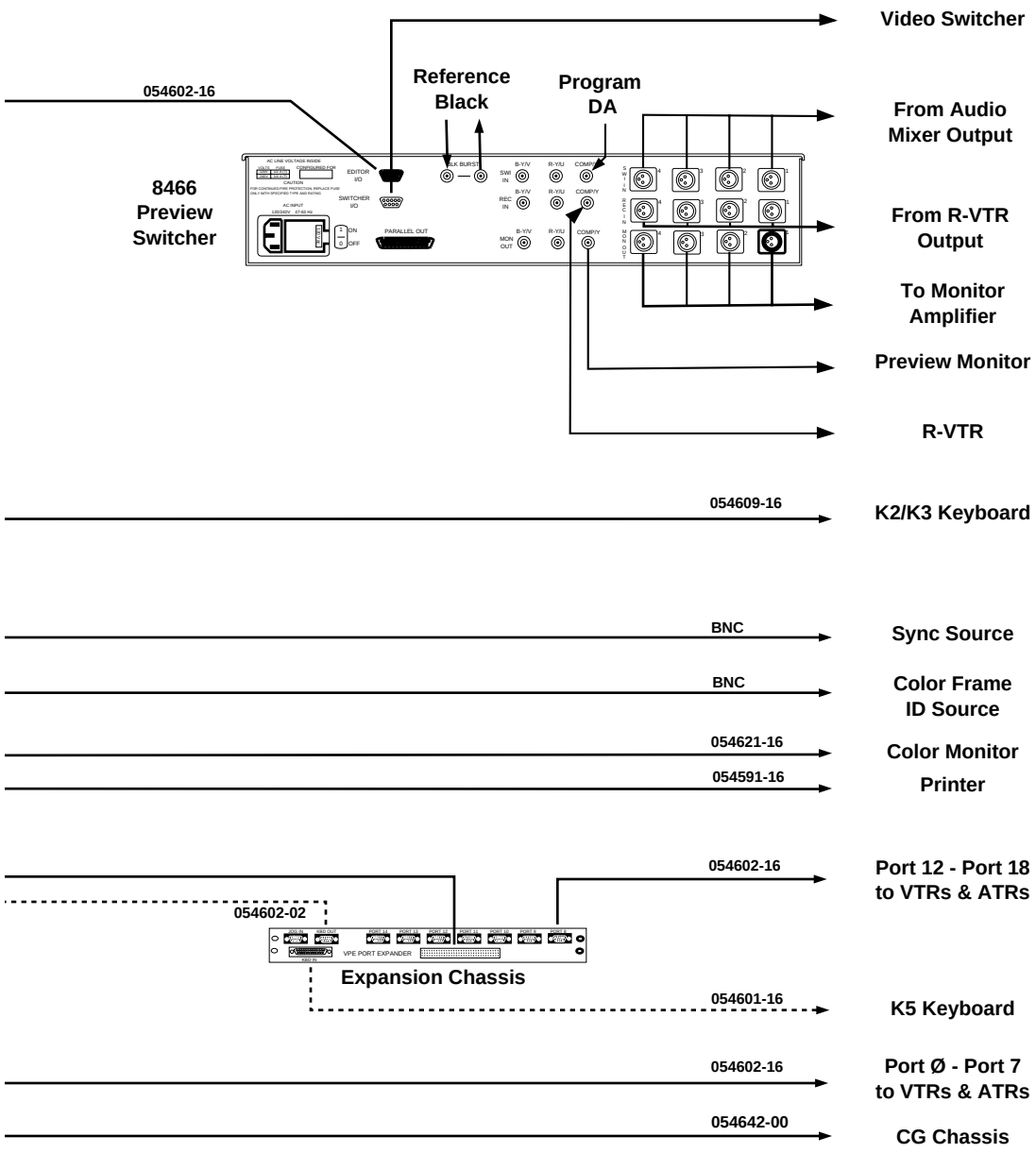


Figure E-2. Example of System Interconnection With an 8466 Preview Switcher

Appendix F: System Software Installation

Introduction

This appendix provides detailed instructions on how to install Super Edit™ software. It is provided here in the event that your Editor fails to boot up when it is turned on. That is, the Main Menu as described in Section 3, Turning Power On, does not appear. Or these instructions may be used in the event the program crashes.

Installing System Software

Note that Super Edit™ is on two (2) Floppy Disks.

The procedure to initially install Super Edit™ software is as follows:

1. Insure that the WRITE ENABLE / DISABLE tabs on the disks are in the WRITE ENABLE (down or closed) position.

NOTE: *Upon receipt of the Super Edit™ software, it is recommended that the UTILITIES, and PROGRAM disks be duplicated for your software library archives.*

---

2. From the Main Menu, press [←] until the RT prompt (RT>) appears.

3. Insert the floppy disk labeled UTILITIES into the DFØ Floppy Disk drive (the slot on the right).

4. Enter BOO DF: and then press **[RETURN]**. This re-boots the system from the Floppy Disk and begins program installation.

5. You are given a choice of doing anUPDATE, an INSTAL or you may answer NO to both and install the system on RAM DISK.

An UPDATE only copies all files necessary to update to the latest version of Super Edit™ ; all other files remain untouched on the system disk. (This is the usual way to update to the latest version.)

An INSTAL erases all files on the system disk. That is, all config files, EDL files, and macros currently on the system disk will be lost. This choice is used to return the system to the state it was in from the factory. (If your system is in an unknown state, or if you prefer starting from scratch, select INSTAL. However, do remember that all files on the system disk will be erased.)

Installing to RAM Disk is not intended for normal operation. In this option, the system software is put into battery-backed RAM rather than on the Hard Drive. If the Hard Drive should fail, chose this option. The installation process is the same as given below.

6. The installation process begins. During installation, various messages appear on the screen and some files are copied to the system disk. Once these files have been copied, the system boots to the system disk to complete the installation process and more files are copied to the system disk.

   You will then be prompted to insert the PROGRAM disk. This disk contains the Super Edit™ files.

7. At the prompt, remove the UTILITIES disk from DFØ: and replace it with the disk labeled PROGRAM. The system prompts:

   PRESS ENTER OR RET WHEN READY.

8. Press **[ENTER]** or **[RETURN]**. The Super Edit™ files are then copied to the system disk (or RAM).

9. After all files have been copied, the system boots to the Main Menu. At this point, installation of the software is complete and the system is ready to use. Remove program disk, and store appropriately.

Glossary

A

Abort: An instruction used to terminate execution of a computer program or routine.

Active Video: The portion of a video signal that contains picture information.

Array: A series of like items arranged in a meaningful pattern, such as a RAM array.

ASCII: American Standard Code for Information Interchange.

Assembly: A major part of a system that consists of more than one component. For example, the main control panel is an assembly within the model 3000. (Also see Component and System.)

Asynchronous: A mode of computer operation where the CPU immediately begins a new task upon completion of the previous task. (Also see Synchronous.)

Audio Mixer: An electronic device that takes audio signals from any of several sources (such as microphones, tape recorders, etc.) to produce audio effects. (Also see Video Switcher.)

Auto Transition: A linear automatic transition made by pressing a button (AUTO TRANS) instead of moving a lever arm.

B

Background Video: (1) Video that forms a background scene into which a key may be inserted. (2) A video output generated by the BACKGROUND generator within a switcher for use as background video in key effects.

Baud Rate: The transmission rate (in bytes per second) of data between communication devices such as computers, modems, and/or printers.

BETA Format: A color difference video format that uses the Y, R-Y, B-Y components.

Binary: A numbering system based on just two digits, 0 and 1. (Also see Hex and Octal.)

Bit (Binary Digit): A single unit of information in a storage device. (Also see Byte and Word.)

Black: A black video output generated within the switcher and selected by the BLACK pushbuttons on the crosspoint buses and by the PST BLK pushbutton.

Blanking: (1) The portion of the video signal during which the picture is shut off to keep the screen dark during vertical and horizontal retrace. (2) A standard signal from a television sync generator used to create blanking in video.

Blanking Processor: A circuit which strips blanking and sync from the source video and replaces it with blanking and sync from a reference source.

Boot: The process of loading a computer program, usually automatically (upon power up) or manually (by pushbutton).

Border: One of the title border modes in which a matte is added around the holes cut by the key signal.

Brightness: The relative intensity of light determined by the sum of responses of the eye to the component wavelengths.

Buffer: An isolating component used to eliminate the loading of a driving circuit by the circuit(s) being driven by it.

Bus: A circuit which provides a path for the transfer of information from any of several sources to any of several destinations.

Bus Master: The device currently in control of the bus in a system where control is shared between the CPU and one or more other devices.

Byte: A sequence of 8 or 16 bits operated on as a unit. (Also see Bit and Word.)

C

Character Generator: An electronic device that produces letters, numbers, and symbols for video output.

Chroma: The attribute of light combining hue and saturation independent of intensity. The color perceived is determined by the relative proportions of the three primaries.

Chroma Key: An insert effect in which the key is derived from the chrominance information (hue and saturation) of the key source.

Chrominance: The colorimetric difference between any color and a reference color of equal luminance. The level of chrominance corresponds to the sensation of saturation.

Clip: A threshold level adjustment to which the key source attribute (e.g., luminance) is compared for generating a key signal.

CMOS (Complementary Metal Oxide Semiconductor): A family of semiconductors characterized by low power consumption.

Color Bars: Standard color test signal of (usually) eight colors.

Color Black: A video signal in which the luminance is at the Black reference level.

Color Burst: A nine-cycle (NTSC) or ten-cycle (PAL) burst of subcarrier on the video signal which serves as the reference for establishing the picture color.

Color Frame: Video frame polarity. To keep the video signal in phase, color frames must alternate polarity with each frame.

Component: A part of an assembly. (Also see Assembly and System.)

Component Video: A set of video signals (usually three), each of which represents a portion of the information needed to generate a full color image.

Composite Video: A video signal which contains both picture and sync information.

Control Processor: A circuit used to generate or alter control signals.

Control Signal: A signal used to moderate the mixing of video signals.

CPU (Central Processing Unit): The section of a computing device that controls and causes the execution of instructions. A CPU on a single chip is called a microcomputer

Crosspoint: An electronic switch, usually controlled by pushbutton, that allows video or audio to pass when the switch is closed.

Crosstalk: Signal interference from one part of a videotape to another.

CRT (Cathode Ray Tube): A television picture tube.

Cut: A transition between video and / or key video signals where one signal is instantaneously replaced by another, or where one signal is instantaneously added or removed.

D

Debug: To detect and correct malfunctions of a computer or errors in a computer program.

Degauss: To demagnetize (erase) all recorded material on a magnetic video or audio tape.

Diagnostics: A program, usually resident in a computer, made up of routines which check for malfunctions and identify faulty components. (Also see Program and Routine.)

Dissolve: A transition where one source of video or audio fades out at the same time another source fades in.

Download: The process of transferring specific information from a large device to a (usually) smaller device.

Dub: To make a copy of a video recording.

Dump: To record the contents of internal memory at a given instant of time as an aid in detecting program errors.

Dupe: A duplicate copy of a videotape.

Duration: The length of time (in hours, minutes, seconds and frames) that a particular effect or event lasts.

DVE®: A registered trademark of Nippon Electric Corporation which stands for Digital Video Effects.

E

Editor: A (usually computerized) system which provides remote control of VTRs, switchers, and other devices from a control panel. An Editor enables production of finished video programs which combine video tape and effects from several sources.

EDL (Edit Decision List): A record of edit decisions made for a program (in-times, out-times, and effects). Often saved on a floppy disk, it can be used for Auto Assemble at a later time.

EEPROM (Electrically Erasable Programmable Read Only Memory): An information storage device on which the information cannot readily be changed. It is nonvolatile memory in that power conditions do not effect the information. (Also see PROM, RAM, and ROM.)

E-MEM® : A registered trademark of Grass Valley Group, Inc. which stands for Effects Memory). It is an effect learned or programmed into the switcher for later recall.

Error Message: A message generated by the program to identify a program error or the area in which a malfunction occurs.

Event Number: Number assigned by the editing system to each performed edit.

Exception Processing: The activity of a CPU in response to an interrupt in its normal execution of instructions.

Execution: The carrying out of a particular set of instructions.

F

Fade: A dissolve from full video to black or from full audio to no audio.

Fade-to-Black: See PRESET BLACK

Fault Isolation: The determination of the cause of a failure by identifying a defective component or circuit.

Field: One complete scan of the TV screen by the electron beam. For NTSC, two interleaved fields of 262 and 263 raster lines make up a frame. For PAL, two interleaved fields of 312 and 313 raster lines make up a frame.

File: A collection of related records in a computer system treated as a unit.

Firmware: Physical devices which house computer programs. (Also see Hardware and Software.)

Flag: A bit of information used to tell the program that some condition has occurred.

Flash: Interference or breakup to one field of video, also known as a hit.

Floppy Disk: An electronic device which is capable of storing data and programs for ease of retrieval and use by a computer. (Also see Hard Disk.)

Frame: Two interleaved fields which form one complete picture.

Frame Lock: Synchronization of the video signal with SMPTE time code.

Freeze Frame: The recording of a single frame of video.

Front Porch: The portion of the video signal that occurs during blanking and extends from the end of active video to the beginning of sync.

G

Generation: The number of times a dupe is removed from the original videotaped material. A copy of the original is a second generation tape, and so on.

GPI (General Purpose Interface): An electronic device containing switches activated by a remote signal. An editing system controls various remote components through GPIs.

Grey Scale: Range of luminance levels from black to white.

H

Hard Copy: A print out on paper of data contained on another media, such as a monitor or disk.

Hard Disk: An electronic device which is capable of storing large amounts of data and programs for retrieval and use by a computer. (Also see Floppy Disk).

Hardware: The electric, electronic, and mechanical equipment used to perform the tasks controlled by a computer. (Also see Firmware and Software).

Head: An electromagnetic device that reads, writes, or erases information in a storage media, such as a floppy or hard disk.

HEX (Hexadecimal): A numerical notation system using a base of 16. (Also see Binary and Octal).

House Sync: The signal generated in the studio as a reference for other timing signals.

I

I/O Device: Equipment used to send information or data signals to and from a computerized editing system.

In-Point: The beginning of an edit; the first frame that is recorded.

Interface: The method by which assemblies within a system and independent systems communicate with each other.

Interrupt: A special control signal which informs the CPU that its attention is needed for some type of exception processing.

J

Jogging: The process of moving the videotape forward or backward at a variable rate of speed.

K

Key: Electronic method of inserting one source of video into another.

Keyboard: A device which displays symbols and functions which serve to provide a human interface into an electronics system.

L

Linear Key: A key which is used by the switcher without processing; clip and gain are bypassed and the key signal is applied directly to the video switcher.

Load: To transfer data to or from a storage device.

M

Macro: A function that provides for one keystroke to take the place of many keystrokes.

Mask: A pattern used to obscure parts of a video key.

Master/Slave: Editing process in which one or more VTRs (slaves) are controlled by another VTR (master).

Matte: An internally generated flat color signal which is adjusted for luminance, hue, and chrominance.

Matrix: An array of signal lines whose intersections form crosspoints.

Mix: A transition limit in which the pattern edge between two video signals is set up with a lever arm and stored in microprocessor memory.

Mix/Effects (M/E): An electronic system capable of processing video signals with other video or control signals.

Modem: A device that converts signals from a form compatible with data processing equipment to a form compatible with transmission facilities (such a telephone lines) and vise versa.

Monitor: A device used for video output.

N

NAB: National Association of Broadcasters.

Nanosecond (ns): One billionth of a second.

Noise: Interference present in a video picture.

NTSC (National Television Standard for Color): The U.S. standard for color TV transmission consisting of 525 lines of information scanned at a rate of 30 frames per second. (Also see PAL.)

O

OCTAL: A numerical notation system using a base of 8. (Also see Binary and Hex.)

Off-Line Editing: Editing which produces an Edit Decision List which will be used to assemble the program.

On-Line Editing: Final editing session in which the finished program master is assembled.

Open-Ended Edit: An edit that has a start time but no designated end (out-point).

Operating Program: The complex sequence of instructions that determine the ability of a computer to both sequentially and concurrently run specific programs. (Also see Program and Routine.)

Out-Point: A designated end of an edit.

P

PAL (Phase Alternating Line): A color TV standard consisting of 625 lines scanned at a rate of 25 frames per second. PAL is used in many countries. (Also see NTSC.)

Port: A connection point between a computer and other hardware devices.

Preset Black: A transition mode in which one video signal is faded to color black before another video signal is faded up.

Preview: To rehearse an edit without recording it.

Printer: A device which converts signals into letters, numbers, symbols, and graphics for output onto paper. (Also see Hard Copy.)

Program: A complex sequence of instructions which tell the computer how to receive, process, store and transmit information for a specific task or related tasks. (Also see Operating Program and Routine.)

PROM (Programmable Read Only Memory): An information storage device on which the information once entered cannot readily be changed. It is nonvolatile memory in that power conditions do not effect the information. (Also see EEPROM, RAM, and ROM.)

Pulse Count: A method of editing in which the system counts control track pulses to find locations on the tape.

R

RAM (Random Access Memory): A computer memory system that allows the storage and rapid retrieval of information. It is (usually) considered volatile in that the information is lost if power is interrupted.

Raster: The area of the TV picture tube that is scanned by the electron beam.

Reaction Time: The delay (in frames) between the time the operator sees the desired edit point and the time the in-point or out-point is actually entered.

Real Time: Actual clock time in which events occur.

Reboot: The process of reloading the computer operating program (see Boot).

Recall: (1) To retrieve a previously performed event. (2) To bring a set up from E-MEM and set up a switcher with it.

Reentry: Entry of a processed video signal into another processing circuit.

Register: A storage location in microprocessor memory which is accessed for storage or recall by one of the pushbuttons on the E-MEM keypad.

Registration: The alignment of various signal components to produce a more exact video image.

RGB Chroma Key: An insert key effect in which the key signal is derived from a video signal on the basis of RGB chroma hue and saturation.

S

Scroll: To move up or down a list.

Self Key: An insert key effect in which the key video signal serves as both the key source and the insert source.

Sequence: An operating mode which allows automatic recall of the contents of a series of E-MEM registers.

Shadow: A title border mode in which the title border is wider and appears only to the right and bottom of the key.

Signal-to-Noise Ratio: A measurement of the amount of unwanted noise present in an audio or video signal.

SMPTE: Society of Motion Picture and Television Engineers.

Software: Computer programs. (Also see Hardware and Firmware.)

Split Key: A key mode in which the key signal and the key video are from different sources.

Streaking: Video irregularity that appears as dark streaks extending toward the right side of the picture.

Sync: Synchronization pulses that coordinate the operation of several interconnected video components.

Sync Roll: Synchronizing and rolling the VTRs for editing purposes.

Synchronous: A mode of computer operation where all task, regardless of the time they take for execution, are allotted identical time cycles. (Also see Asynchronous.)

System: A grouping of assemblies which perform multiple related tasks. (Also see Assembly and Component.)

T

Terminator: A loop back connector which contains a 75 ohm resistive load to ensure proper signal levels.

Time Base Corrector (TBC): An electronic device used to correct video signal instability.

Transition: A change from one picture to another. A transition can be a wipe, mix, or cut.

U

Upload: Transferring information from one device to a (usually) larger device.

V

Video Switcher: An electronic device that takes video signals from any of several sources (such as cameras, VTRs, character generators, etc.) to produce video effects. (Also see Audio Mixer.)

W

White Clip: Circuit that corrects positive over-modulation of a composite video signal.

Wipe: Special effect transition in which one video source wipes (replaces) over another.

Word: A unit of data which occupies one location in memory and is acted upon as a unit. (Also see Bit and Byte.)

Workprint: Edited master recording created during off-line editing.