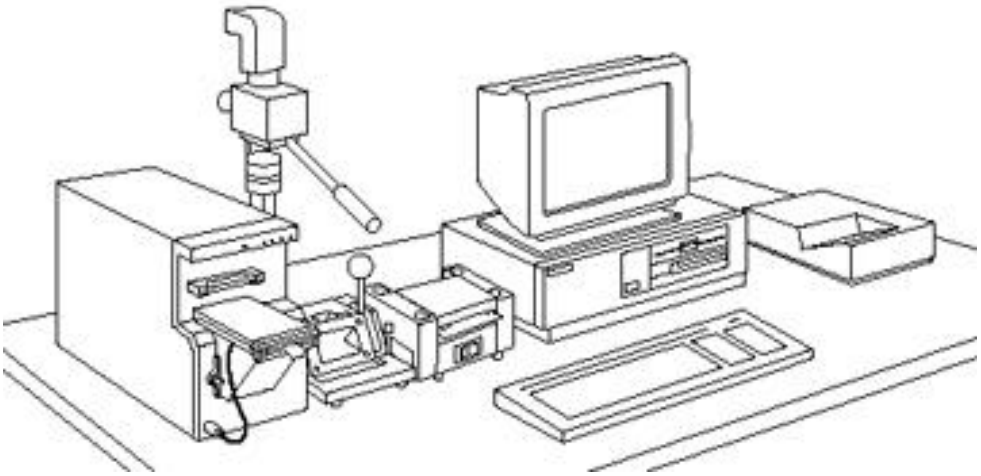
Polaroid

Repair Manual



ID-3000 Digital Security and Identification System

April 1994

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ID-3000 SYSTEM SERVICE MANUAL

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SECTION 1 - DESCRIPTION

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SECTION 1 — ID-3000 SYSTEM DESCRIPTION

ID-3000 System Overview

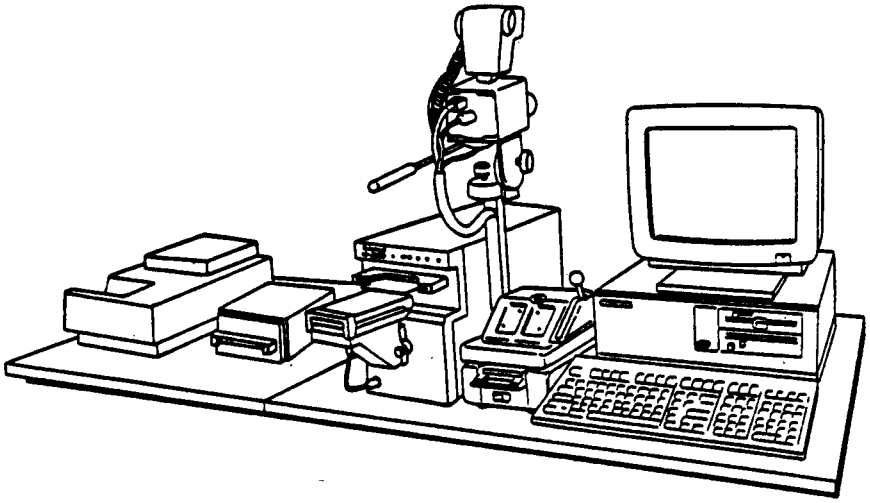
The Polaroid ID-3000 System (Figure 1-1) produces highly secure, color-portrait photo-identification cards, and electronically stores text, portraits and other ID images for each applicant. ID cards consist of several elements, and may include: information about the applicant, his or her portrait, signature, fingerprints and card format elements.

There are presently two versions of the ID-3000 System, differing only in the output device used to produce the photo ID card. The ID-3000F System has a CI-5000 Color Film Recorder which produces the ID card on Polaroid instant color film. The ID-3000T System has a TX-1500 Color Thermal Printer which produces a full- color ID card on heat-sensitive paper.

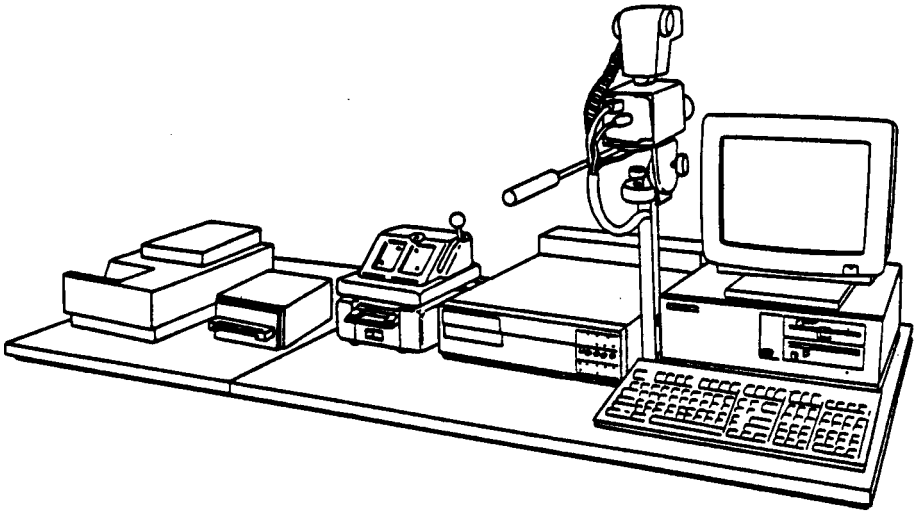
The system can operate as part of a network (LAN, WAN, Mainframe), linked to a host computer, or it can function as a stand-alone system. The system electronically captures the applicant's video portrait and signature and stores them in memory, along with text data about the applicant and identification card formatting data. The data may be stored in either a host computer or in a local disk drive in the System PC.
After information about the applicant has been stored, it can be rapidly retrieved and displayed on the system monitors, for verification, updating or adding missing information. System software combines the applicant data and portrait with specific codes, colors or designs, to produce a custom ID card.

The ID3000 System can be integrated with the CS500i Polaroid Color Scanner, Magstripe Encoder, Bar Code Label Printers, and Still Video Camera systems.

Note: Leave 12" or more between the CI-5000 Color Film Recorder and the VGA Monitor, to prevent electrical interference.



ID-3000F with CI-5000 Film Recorder, CS500i Color Scanner (optional) and Signature Scanner (optional)



ID-3000T with TX-1500 Thermal Recorder, CS500i Color Scanner (optional) and Signature Scanner (optional)

Figure 1-1 ID-3000F and 3000T System configurations

System Hardware Components

All hardware and software needed for acquiring, storing, manipulating, formatting and printing the visual elements of the ID card — and then die-cutting and laminating the card — are included in an ID-3000 System.

Figure 1-2 shows the system hardware in block diagram form, and Table 1-1 explains the component functions.

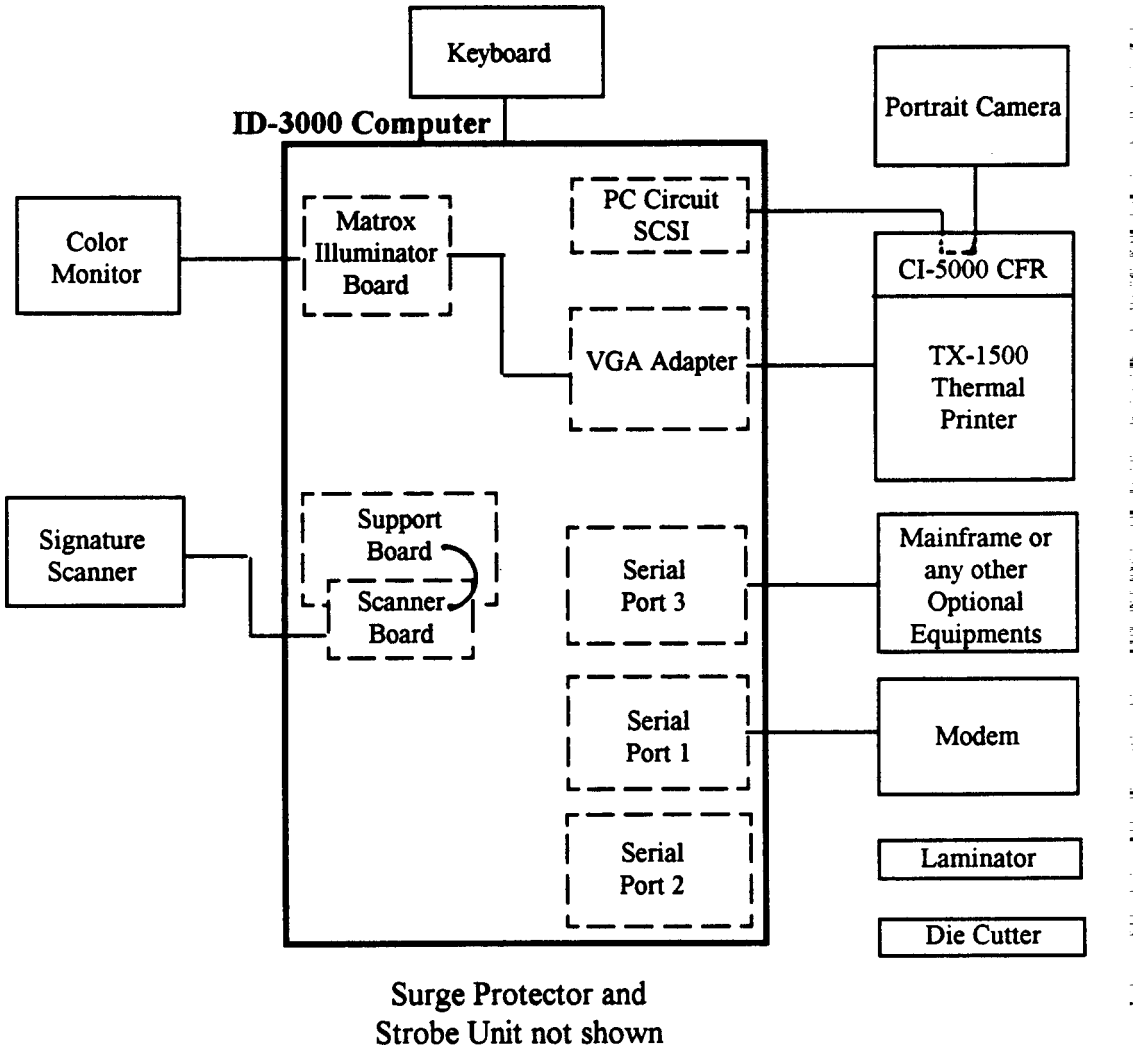


Figure 1-2 ID-3000 System hardware

Table 1-1 ID-3000 System hardware component functions

Workstation Computer	Controls input & output units, stores portraits, data, signatures, and card formats; captures, manipulates and combines portraits, signatures & data with card format, for printing by the color film recorder (CI5000) or thermal printer TX1500. Can be configured to exchange data with a mainframe host.
Keyboard	Enters text data; communicates with computer.
13" Color Monitor	Displays menus, prompts, messages & applicant data. Also displays the applicant's portrait (as captured by the portrait camera or as stored in the system), and any other identification images captured or stored by the system.
Color Camera	Converts the applicant image into a video signal for use in creating the ID Portrait card and for electronic storage. Includes an electronic flash unit for Camera consistently color- balanced high-quality portraits.
Signature Scanner	Scans the applicant's signature from the signature card for storage, monitor display and printing on ID card.
Color Film Recorder (CI5000) and Camera back (ID3000 System only)	Exposes portrait, signature, data and format elements (company name, logo, etc.) on Polaroid instant film, in vertical or horizontal format. Contains power supply and connections for monitor, portrait camera and electronic flash. Camera Back attached to CI5000 holds film pack in position, and initiates development when film is pulled through rollers. Permits one or two cards per film sheet.
Color Thermal Printer TX1500 (ID3000 T Systems only)	Prints full-color ID card image (including portrait and other images), ready for die cutting and laminating. Printer contains a power supply and connections for the display, portrait camera and electronic flash.
Die Cutter	Die cuts developed ID cards from sheet of Polaroid instant film. One card/ film sheet and two cards/film sheet models available.
Laminator	Heat-seals die-cut ID card in a tough, tamper-resistant, long-life plastic enclosure.
Surge Protector	Protects System from AC power line surges.

ID-3000 System Functions

Simple operation is provided by monitor display of menu choices and prompts, to which the operator responds by typing appropriate answers with the keyboard. Automated diagnostics help speed identification and correction of operator errors or system malfunctions.

After log-in by typing a username and password and selecting Issue or Verify Badges from the Main Menu, the system asks the operator to set the film counter by entering the film tab number.

When these two operations have been done correctly, the system then displays the Operator's Menu (Figure 1-3). The six choices offered by this menu are explained below. Menu and screen selections are easily made by either highlighting the choice or typing the first letter of the choice; help screens for most menus and screens further simplify and speed system use. (See the ID-3000 System Operator's Guide for detailed explanations of all operating steps.)

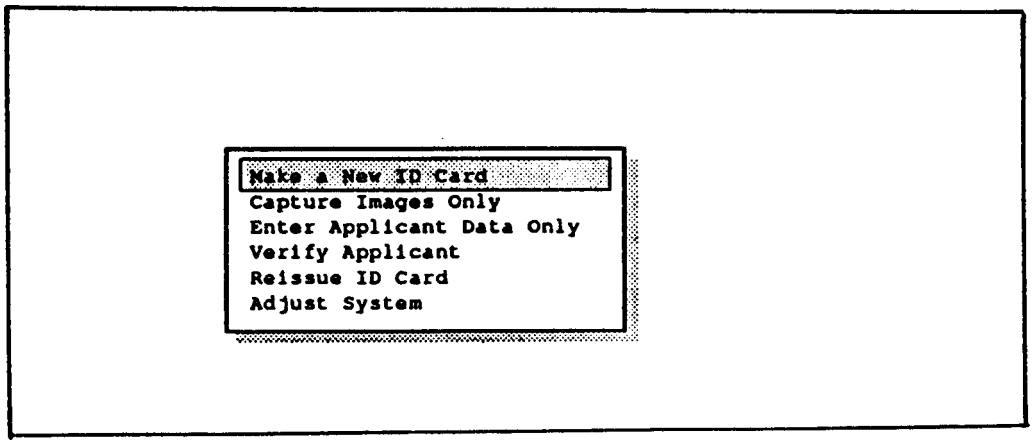


Figure 1-3 Operator's Menu

Make a New ID

Guides the operator in issuing an ID card to an applicant who has not had a card made with this system, or updating an applicant's portrait, signature and data before issuing a replacement card. Steps involve capturing and storing the new portrait, signature and applicant data, and producing an ID card. Film develops in 90 seconds (or thermal image is printed), and is then die cut and laminated. Applicant's portrait, signature and text data previously stored remain in the system or host disk.

Capture Portrait and Signature

Permits capturing and storing the applicant's portrait and signature so that an ID card can be made at a later time.

Enter Applicant Data Only

Used for entering or updating applicant data only, without capturing a portrait or signature.

Verify Applicant

Permits recalling previously stored applicant data, portrait and signature for review.

Reissue ID Card

Permits reissuing an ID card using a portrait and signature previously stored, or, with **Capture Portrait and Signature** menu option, to issue a new ID card using previously stored portrait, signature and data.

Adjust System

Allows changing the ID card tint; lightening or darkening the card or the portrait; changing the film processing time. Adjust the Signature Scanner and Color Portrait Scanner when available.

ID-3000 Workstation Computer

The System computer (Figure 1-4) controls the operation of all other ID-3000 System input and output hardware, and with the keyboard and monitor, provides the means for communication between the system and the operator.

The computer in the ID-3000 workstation is a Hewlett-Packard Vectra Model QS/20 386*, using the 32-bit Intel 80386 microprocessor. Principal features include:

8mb Simm RAM (on HP CPU Board)

1.2mb 5.25" floppy disk drive

SCSI hard disk drive and controller (48mb, 85mb, 120mb, 180mb, 240mb, 340mb or 760mb)

SCSI tape backup (150/250mb or 525mb)

Super VGA Adapter Card

Matrox Illuminator Board

Support Board

Data compression board (DSP)

Network interface - in systems configured for mainframe networks (optional)

Two serial ports and one parallel port are standard; four serial ports and one parallel port are optional

*NOTE: Model currently supplied. The computer and other system hardware is subject to change at any time.

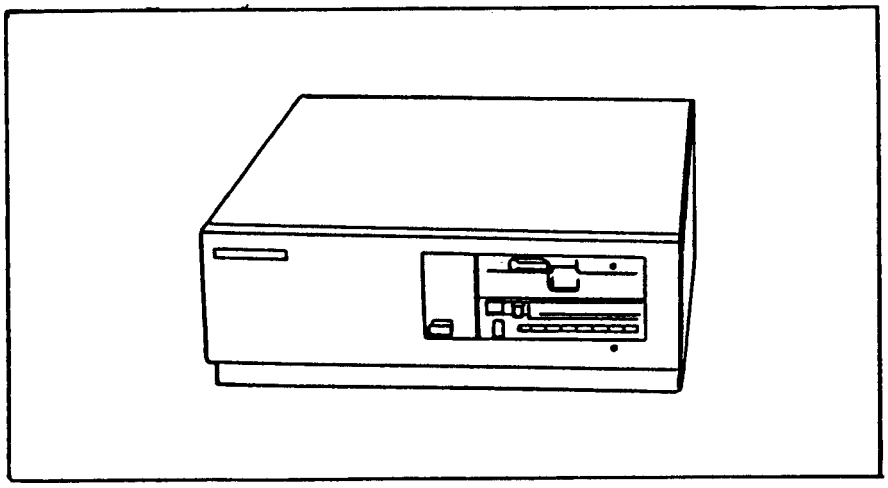


Figure 1-4 ID-3000 HP Vectra QS/20 Workstation Computer

Board Descriptions

Polaroid DSP Board — in conjunction with software algorithms, compresses images from 300 kbytes to and average of 8 kbytes.

AST I/O Board — provides two serial ports and one parallel port.

Matrox Illuminator Board — digitizes analog signal from the portrait video camera; sends digital signal to the Color Film Recorder (CI5000) in ID-3000F System, or Thermal Printer in the ID- 3000T System.

Super VGA Adapter Card — transfers data from the CPU to the color monitor.

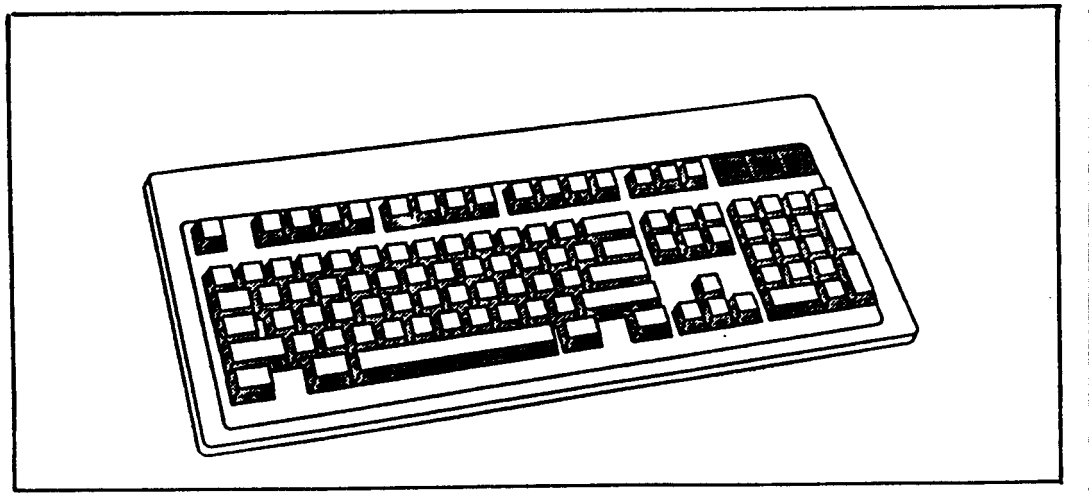
SCSI and Floppy Controller Board — interface between the CPU and system drives and components.

HP CPU Board — computer's central processing unit. Interprets and executes instructions by performing arithmetic operations, controlling instruction processing, and providing timing signals and other housekeeping operations.

Polaroid Support Board — controls strobe firing, auto lens, and signature scanner (when used).

Computer Keyboard

The HP Vectra Enhanced Keyboard, for controlling the system through the computer and inputting applicant data, has 101 keys arranged as shown in Figure 1-5. Keyboards are supplied with the ID-3000 System for either U.S., French, German, Spanish, Japanese, U.K./ English, Italian or French Canadian languages, depending on the customer's choice. (See the HP Vectra QS Operator's Manual, pages 10-9 to 10-14 for illustrations of these keyboards.)



. **Figure 1-5 HP Vectra Enhanced Keyboard**

13" Color Monitor

The HP D1182 Video Graphics Color Display is a high-resolution color CRT display unit with maximum screen resolution of 640 x 480. It offers minimum screen distortion and a 0.28mm dot pitch, analog video input able to display an infinite number of colors, and anti- glare silica screen coating. Power, brightness and contrast controls are located on the front panel.

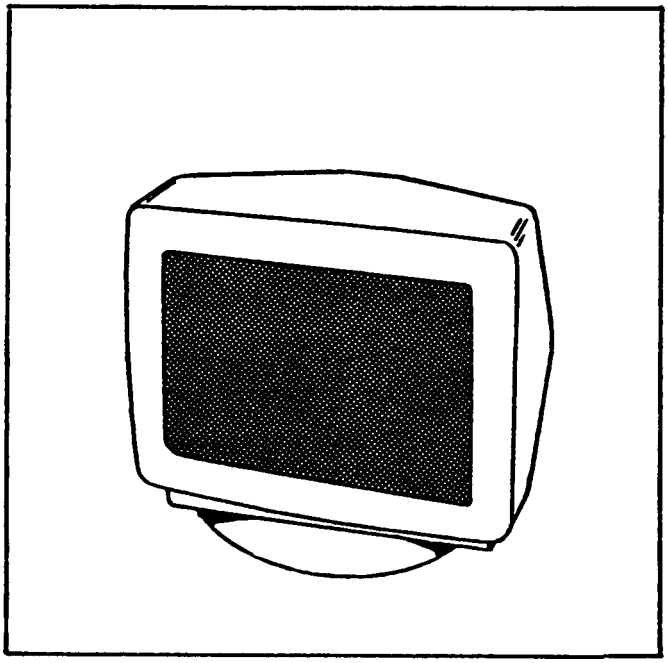


Figure 1-6 13" Color Monitor

Color Portrait Camera

The ID-3000 System camera (Figure 1-7), which captures the live portrait of the applicant, is a JVC TK-87OU color video camera equipped with either a 16mm (standard) or 25mm (optional) auto-iris lens.

The Camera has a solid-state CCD image pickup element capable of producing excellent print quality free of latent images and distortion. Horizontal resolution is 330 TV lines. RGB primary color filter system yields excellent color reproduction. Operating voltage is 12 VDC.

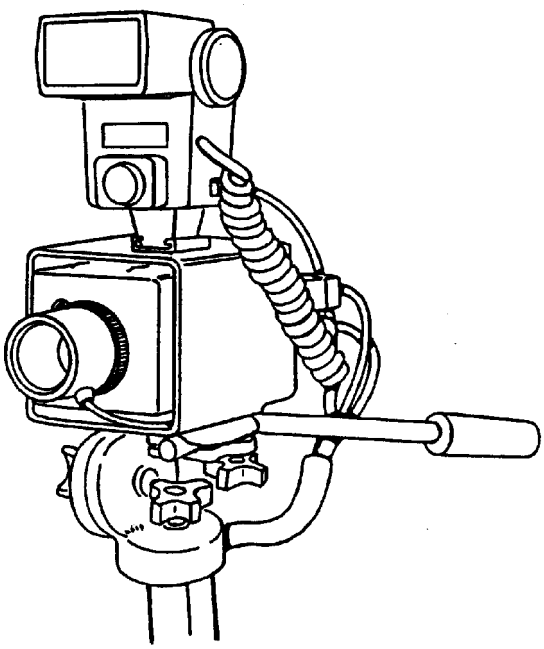


Figure 1-7 Color portrait video camera and strobe unit

Portrait Lighting

Lighting for the applicant's face image is provided by a Vivitar Model 283 Strobe unit mounted in a shoe on the top of the Camera and Strobe Bracket Assembly (Figure 1-7). Strobe light output is triggered by the Support Board in the computer. Strobe operating power is supplied by the power supply in the CI-5000 Assembly or TX-1500 Assembly.

Signature Scanner

The optional Signature Scanner captures the applicant's signature from a specially-designed signature card.

The ID-3000 system prints the signature on the identification card for added security.

The ID-3000 system also stores the signature electronically for card reissue or verification.

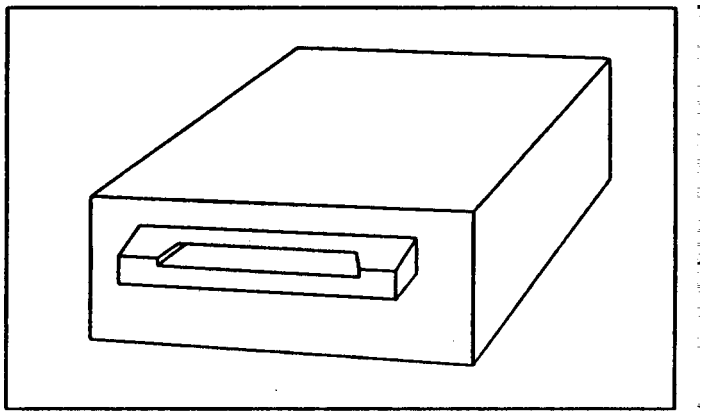


Figure 1-8 Signature Scanner

Color Film Recorder (CFR) and Camera Back

The Polaroid CI-5000 CFR (Figure 1-9) prints full-color ID card images on Polaroid instant film, from digital signals from the Matrox Illuminator Board in the System computer. (An ID-3000 System equipped with a CI-5000 Color Film Recorder is designated as an ID-3000F System.)

Images contain the portrait, signature, text and other distinctive format elements, and are ready for die-cutting and laminating 90 seconds after the start of the exposure cycle.

A single camera back on the CI-5000 can produce either one or two ID cards per sheet of film. When two cards per film sheet are to be made, the CI-5000 electronically stores the first card image in memory until the second card image has been recorded. Both images are then printed on the film sheet when the EXPOSE command is used. (To print a card after only one image has been exposed, the FORCE command is used; see Section 2, “Making an identification card”, step 15.)

A front-panel LED flashes during the exposure process, when EXPOSE is selected after the second exposure has been made in a 2-up system (or FORCE is selected after one exposure). When exposure is completed, the front-panel “Pull Film” LED flashes and an audible beep sounds, signaling the operator to pull the white tab and then the yellow tab of the exposed frame from the camera back. When the 90-second film development time has elapsed, another LED lights to inform the operator to peel the film negative from the print.

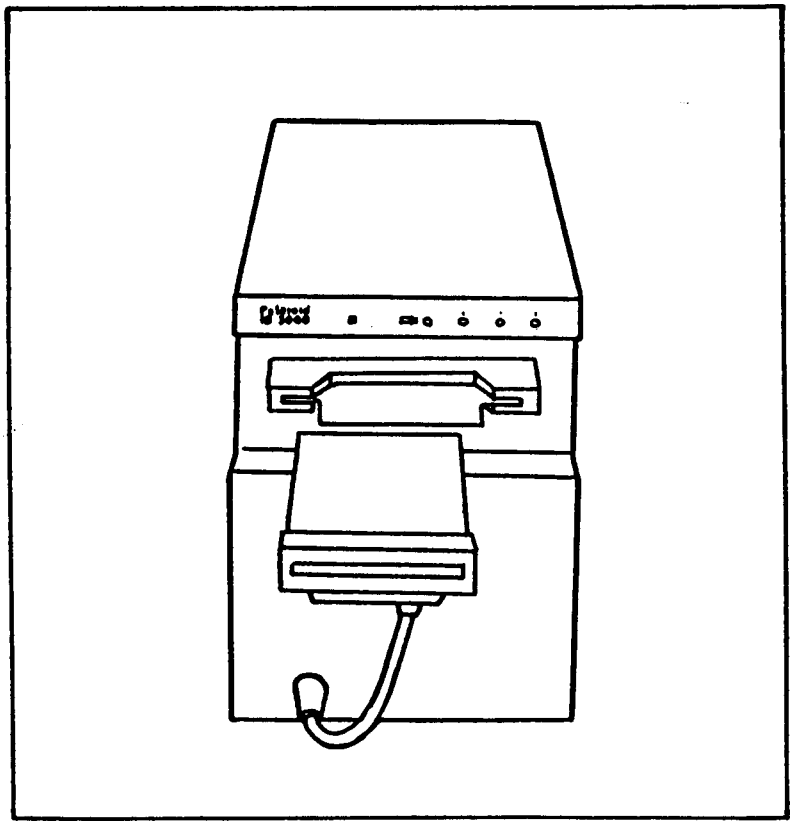


Figure 1-9 Color Film Recorder Assembly used in ID-3000F System

Thermal Color Printer

The Polaroid TX-1500 Color Thermal Printer (Figure 1-10) is a customer-selected output alternative to the CI-5000 CFR described earlier. An ID-3000 System equipped with a TX-1500 Printer is designated as an ID-3000T System.

The TX-1500 produces either one or two full-color ID card images on a single 4 x 5" (100 x 128mm) sheet. Print time is about 110 seconds after the frame button has been pressed. The printing system is a dye diffusion thermal transfer process, which uses a three-color ink cartridge and paper supplied as a set.

Picture quality is characterized by 2.1 million available colors, 128 gray levels and 464 x 616 dots. On screen controls include color, tint, contrast and brightness.

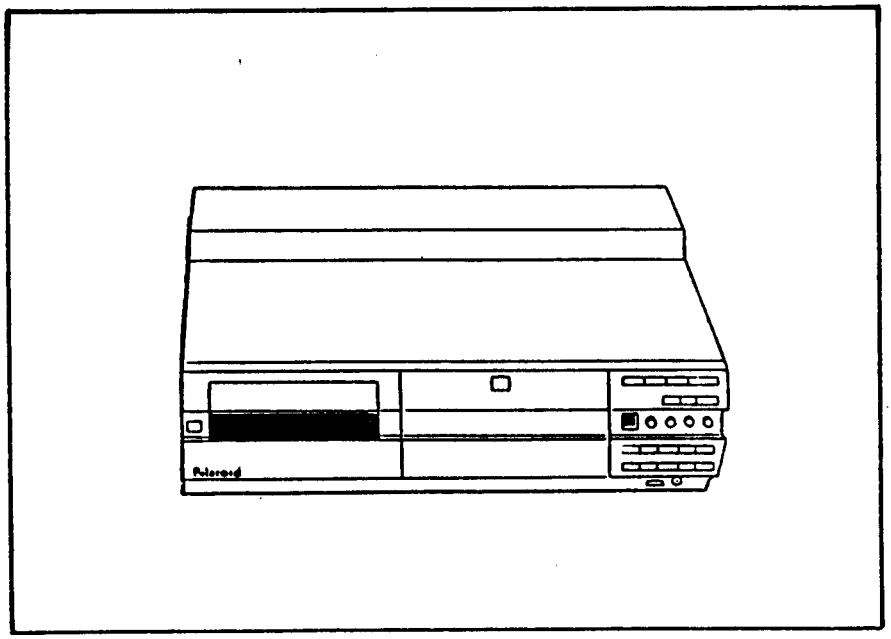


Figure 1-10 TX-1500 Color Thermal Printer used in ID-3000T System

Digital Color Scanner (optional)

The Digital Color Scanner is a high-speed computer peripheral which captures and digitizes images from color and black & white photographs or other reflective graphics. It accepts documents up to 4.12 by 8.50 inches. Maximum scanning area is 4 by 6 inches.

The scanner uses state-of-the-art charge coupled (CCD) technology and scans at very high speeds.

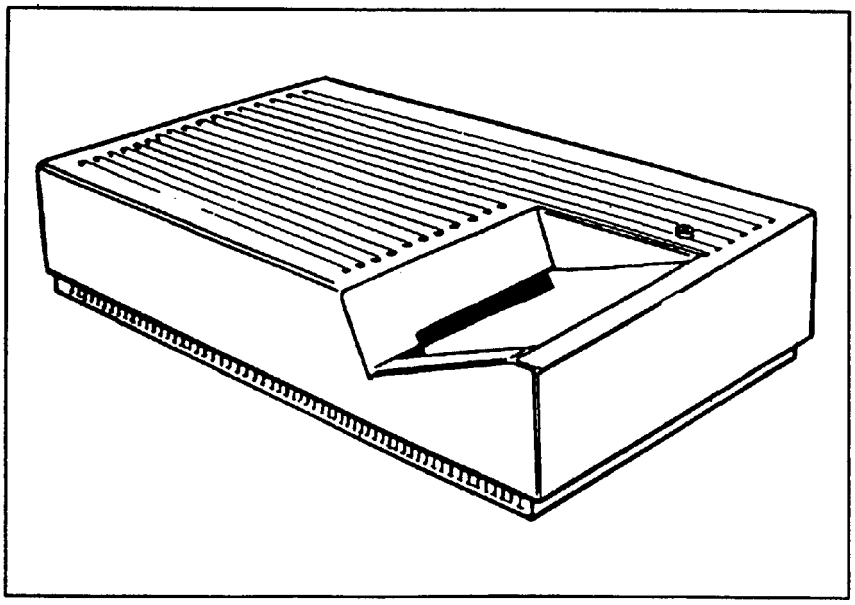


Figure 1-11 Digital Color Scanner

Die Cutter

Die Cutters for the ID-3000 System smoothly and accurately cut the ID card(s) to proper size, from the Polaroid photographic or thermal print. They operate manually when the handle is pulled forward.

Two versions are available:

1-Up CR-80 (2-1/8" x 3-3/8" ID cards)

2-Up std. for CR-60 (1-3/4" x 2-1/4" ID cards)

1-Up or 2-Up CR-79 (1-7/8" x 3-1/8" ID cards)

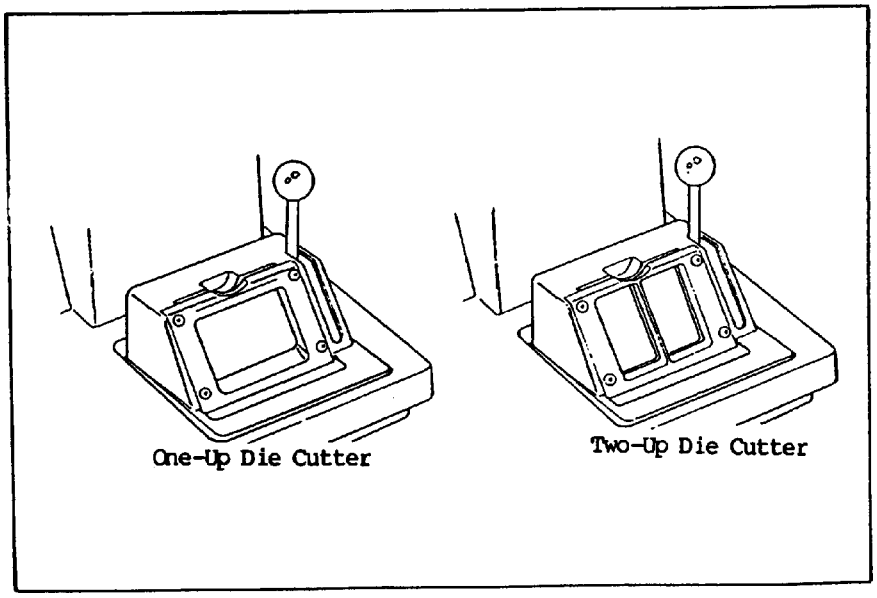


Figure 1-12 ID-3000 System Die Cutters

Laminator

The Laminator (Figure 1-13) for ID-3000 Systems heat-seals the die- cut ID card into a protective, durable plastic pouch.

Features of this self-contained, electrically-operator Laminator include automatic roller start when an optical switch senses a card has been inserted into the Laminator, and automatic AC

voltage level switch for compatibility with line voltages world-wide.

One Laminator model is for use with photographic prints produced by the CI-5000 CFR, another Laminator model is for use with prints produced by the Color Thermal Printer TX1500. (Units are not interchangeable in application.)

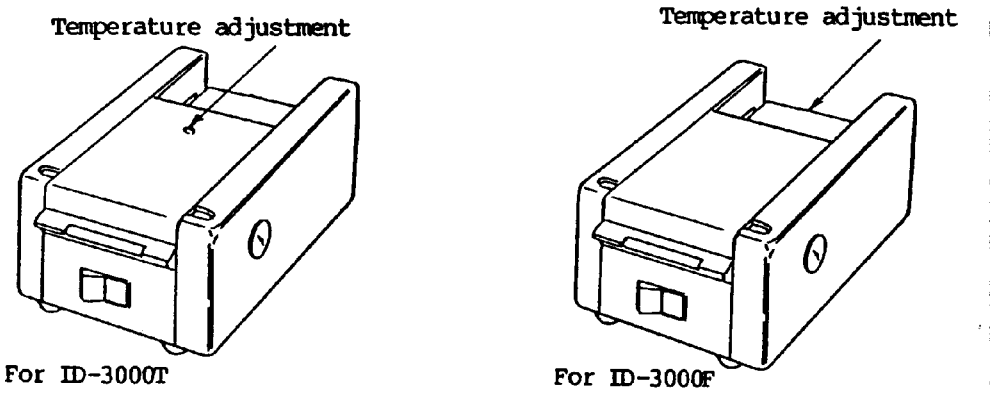


Figure 1-13 ID-3000 System ID card Laminators

Surge Protector/Power Strip

The six-receptacle power outlet strip shown in Figure 1-14 includes a filter/surge protector circuit to protect ID-3000 System components against AC line surges and spikes. An illuminated rocker switch allows turning AC power on or off to all units plugged into the strip.

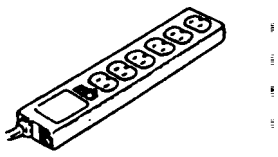


Figure 1-14 Surge Protector/AC Power Outlet Strip

SECTION 2 - SYSTEM INSTALLATION

Contents

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SECTION 2 — ID-3000 SYSTEM INSTALLATION

Software, Tools and Equipment

The following equipment and materials are needed for ID-3000 System installation:

Multimeter
Field Service Toolkit
(see Section 4)
Installation Toolkit
ID-3000 Installation and
Service Manual

Calibration and Diagnostic Diskettes
(may be included within the ID3000
Tools Diskette)
Color Calibration Card #1B2195A
Grounding strap

Major Installation Steps

Installation consists of the following procedures performed in sequence:

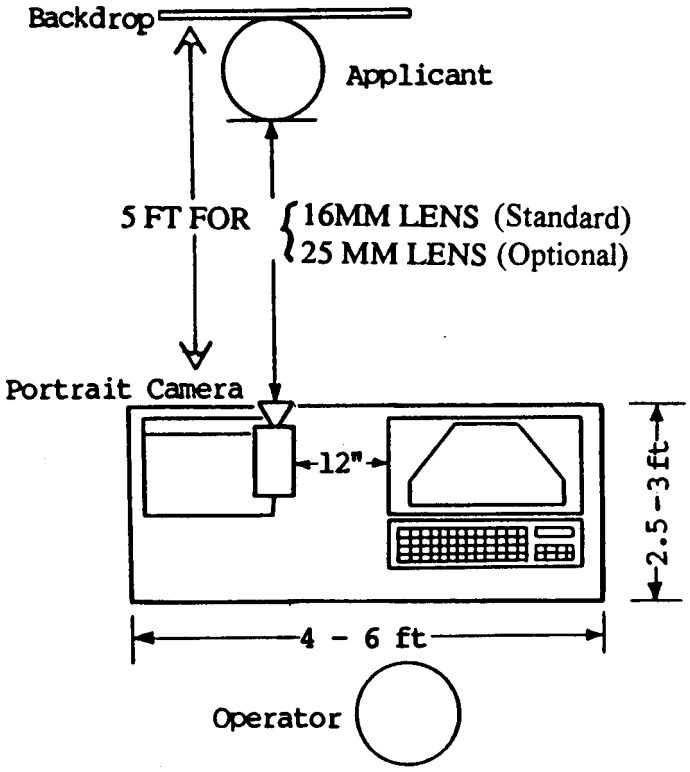
1. Laying out the installation site
2. Unpacking and assembling the system
3. Checking computer internal connections
4. Installing cables
5. Powering up the system, log-in and main menu display
6. Functionally checking system performance:

    Setting film counter
    Making an identification card
    Storing a portrait and signature
    Entering applicant data only
    Verifying applicant data
    Reissuing an identification card
    Adjusting the system
    Exiting from the system

7. Checking Laminator Temperature

Laying out the installation site

Sufficient space must be available to allow the layout shown in Figure 2-1. (The installation technician should call ahead to verify space availability before proceeding to the site.) Particularly important is the camera-to-subject distance.



NOTE: For ID-3000F System, place CI-5000 Color Film Recorder Assembly at least 12" away from VGA Monitor to prevent electrical interference.

Figure 2-1 Typical ID-3000 layout

Unpacking and assembling the system

1. Carefully unpack all system components (computer, keyboard, monitor and swivel base, portrait camera, strobe, thermal printer & power supply assembly (3000T system) or color film recorder & power supply assembly (3000F system), signature scanner (optional), color scanner (optional), power outlet strip, die cutter and laminator), and place them as shown in Figure 2-2 or some comparable arrangement.

NOTE: Figure 2-2 shows an optimal ID-3000 system arrangement. Yours may be different.

NOTE: Computer may be placed on its side, if space is limited.

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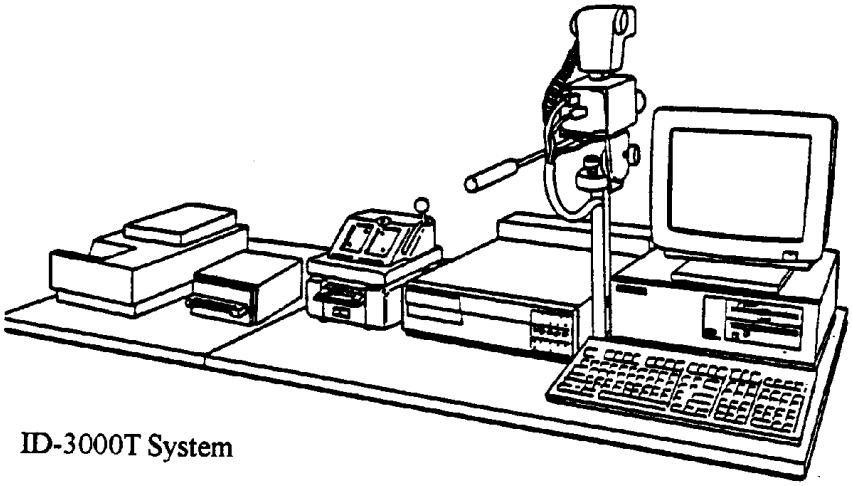
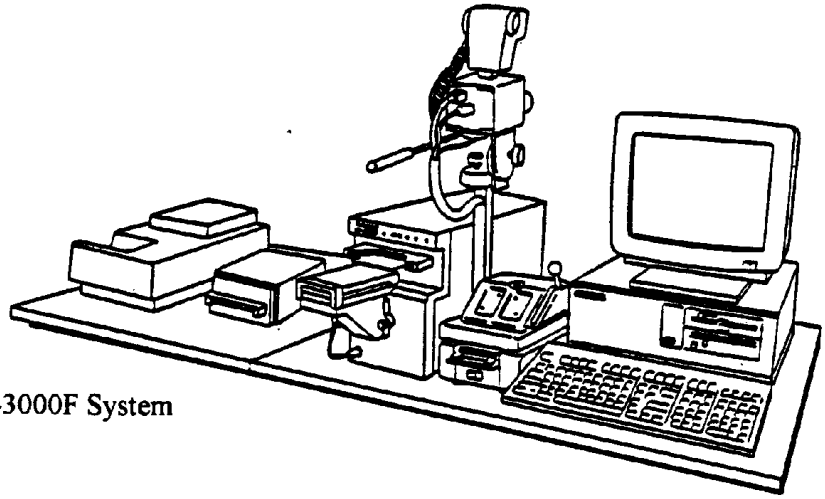


ID-3000T System



ID-3000F System

Figure 2-2 Optimal ID-3000 system setup

2. Mount the monitor on the swivel base (see Figure 2-3): invert the monitor, engage front edge of base under tabs on monitor, snap pin into hole at back of base.

> Note: The latest monitor does not require mounting to the swivel base.

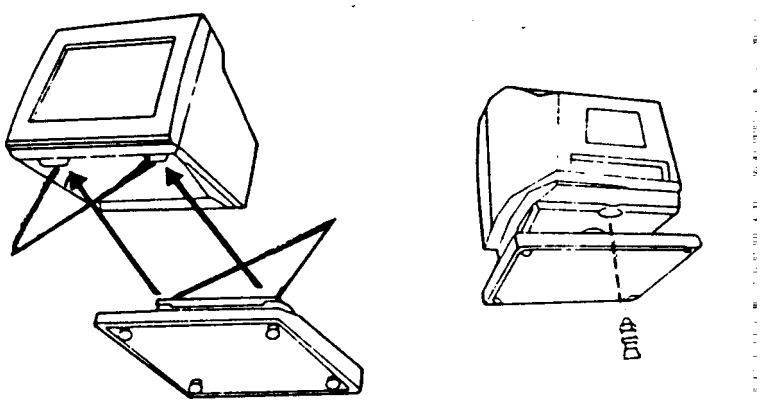


Figure 2-3 Mounting Color Monitor on Swivel Base

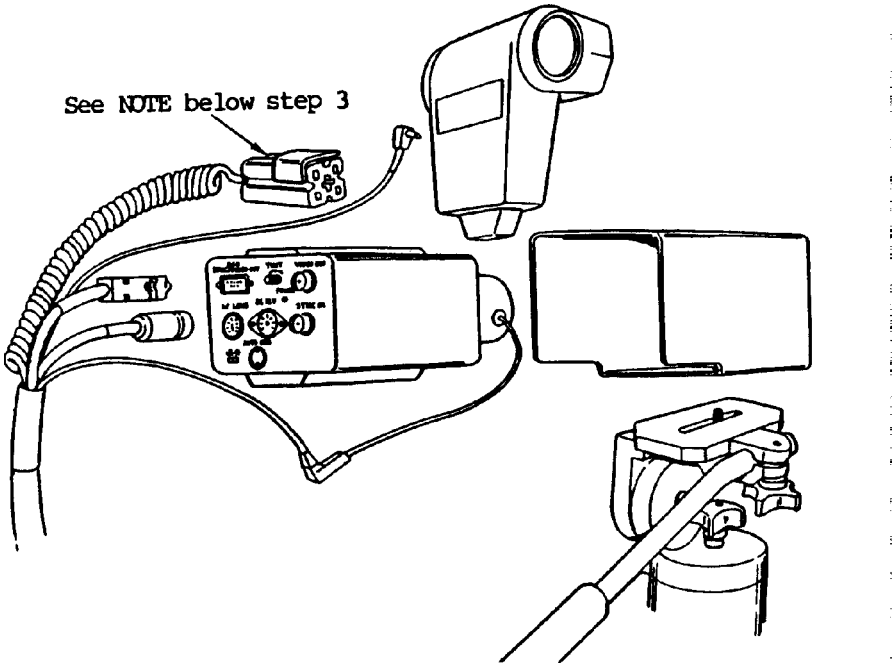


Figure 2-4 Mounting Camera, Strobe and Bracket Assembly

3. Assemble the color portrait camera and strobe as follows (see Figure 2-4): slip camera/ strobe bracket over camera; attach bracket to microfluid tripod head by tightening tripod screw; attach strobe to shoe on top of bracket; connect the five cables in the cable assembly to the appropriate connectors on lens barrel, strobe and back of camera. Hold the camera pole close to the output unit (film recorder or thermal) and insert the two thumb screws and hand-tighten them.

   NOTE: Before inserting the power supply plug into the strobe, be sure the plug locking tab is fully retracted (turn the thumbwheel in the plug to the left as far as it will go). Then open the strobe battery compartment and insert the power plug. Press down on the plug and rotate the thumbwheel in the plug to the right as far as it will go, to engage the plug locking tab with the plug socket.

4. For ID-3000F System, attach the Camera Back to the front of the Color Film Recorder & Power Supply Assembly, as shown in Figure 2-5. Finger-tighten the two thumbscrews.

5. Place the Die Cutter on top of the Laminator and plug the power cord from the Laminator into the Power Strip.

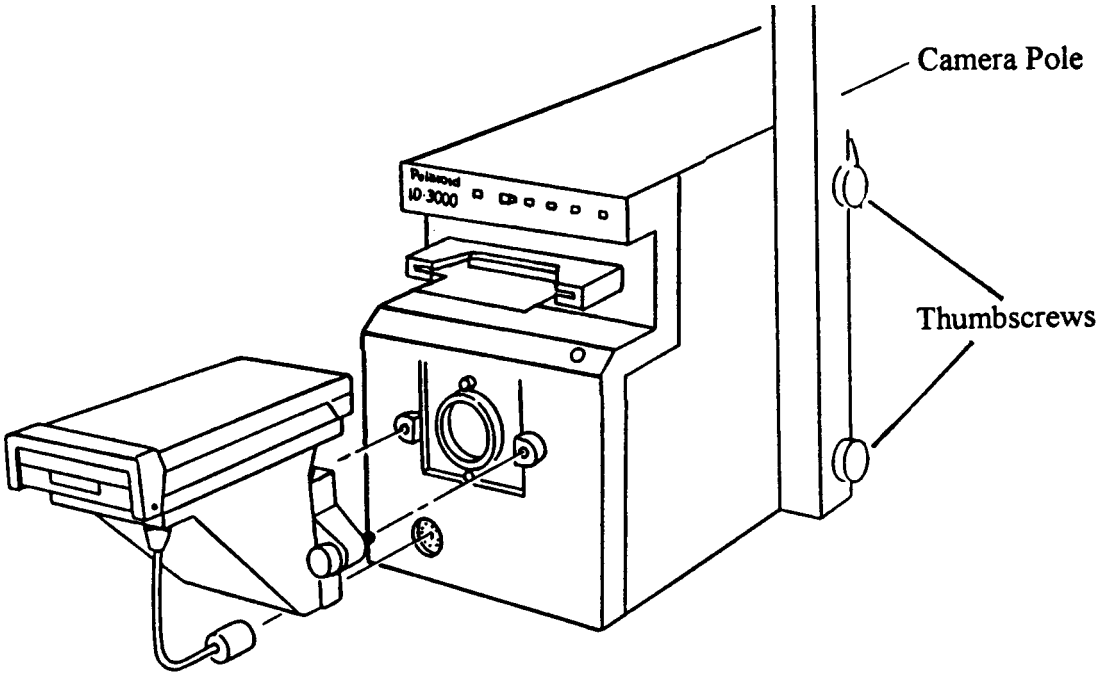


Figure 2-5 Attaching the Camera Back to the Film Recorder

Checking computer internal connections

Computer circuit boards and cables can loosen during shipping and cause malfunctions. Check them as follows before proceeding further with installation:

1. Remove the computer cover (Figure 2-6).

2. Visually inspect all computer components to assure they are fully seated in their slots, sockets and board guides, and that all cable connections are secure, especially the alpha cable that connects between the matrox board and the VGA board.

3. Inspect the battery wire and its connection to the board, and tighten if necessary.

4. Replace the computer cover.

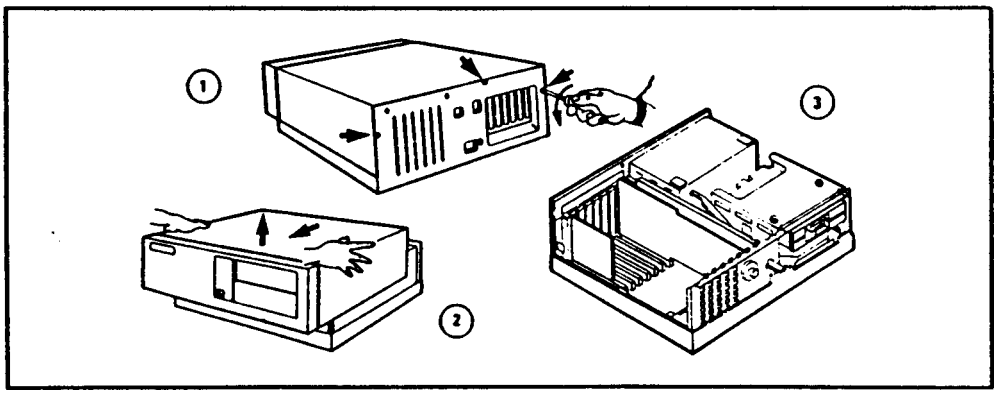


Figure 2-6 Removing the Computer Cover

Installing cables

1. Lay out the cables, checking them against the lists below and Figure 2-7 (ID-3000F system) or Figure 2-8 (ID-3000T system), to assure that you have a complete set.

2. Connect all cables according to either Figure 2-7 or 2-8.

   Caution: Do not connect the surge protector/power strip power cable to AC power until all other connections are secure.

   Warning: To prevent connector damage, use the following procedure:

   a. Before attempting to connect the cable, back out the connector screws until they are flush with the face of the connector.

   b. Gently rock the cable connector onto its mating connector on the console.

   c. Tighten the connector screws.

3. Install tie-wraps as needed to achieve a neat cable arrangement.

ID-3000F System Cables

Digi Cable (optional)
SCSI Cable
Computer Power Cable
Keyboard Cable
Monitor Power Cable
Monitor Video Cable
Support Board Cable
Capture Board Cable
Camera/Strobe Cable Assy
Computer/Modem Cable
CI-5000 Power Cable
Signature Scanner Cable (optional)
CS500I Color Scanner SCSI Cable (optional)
Color Scanner Power Cable (optional)
CI5000 SCSI Terminator (optional)

ID-3000T System Cables

Digi Cable (optional)
Computer Power Cable
Keyboard Cable
Monitor Power Cable
Monitor Video Cable
Support Board Cable
Capture Board (In) Cable
Capture Board (Out) Cable
Camera/Strobe Cable Assy
Computer/Modem Cable
TX-1500 Power Cable
Signature Scanner Cable (optional)
CS500I Color Scanner SCSI Cable (optional)
Color Scanner Power Cable (optional)
CS500I Terminator (optional)

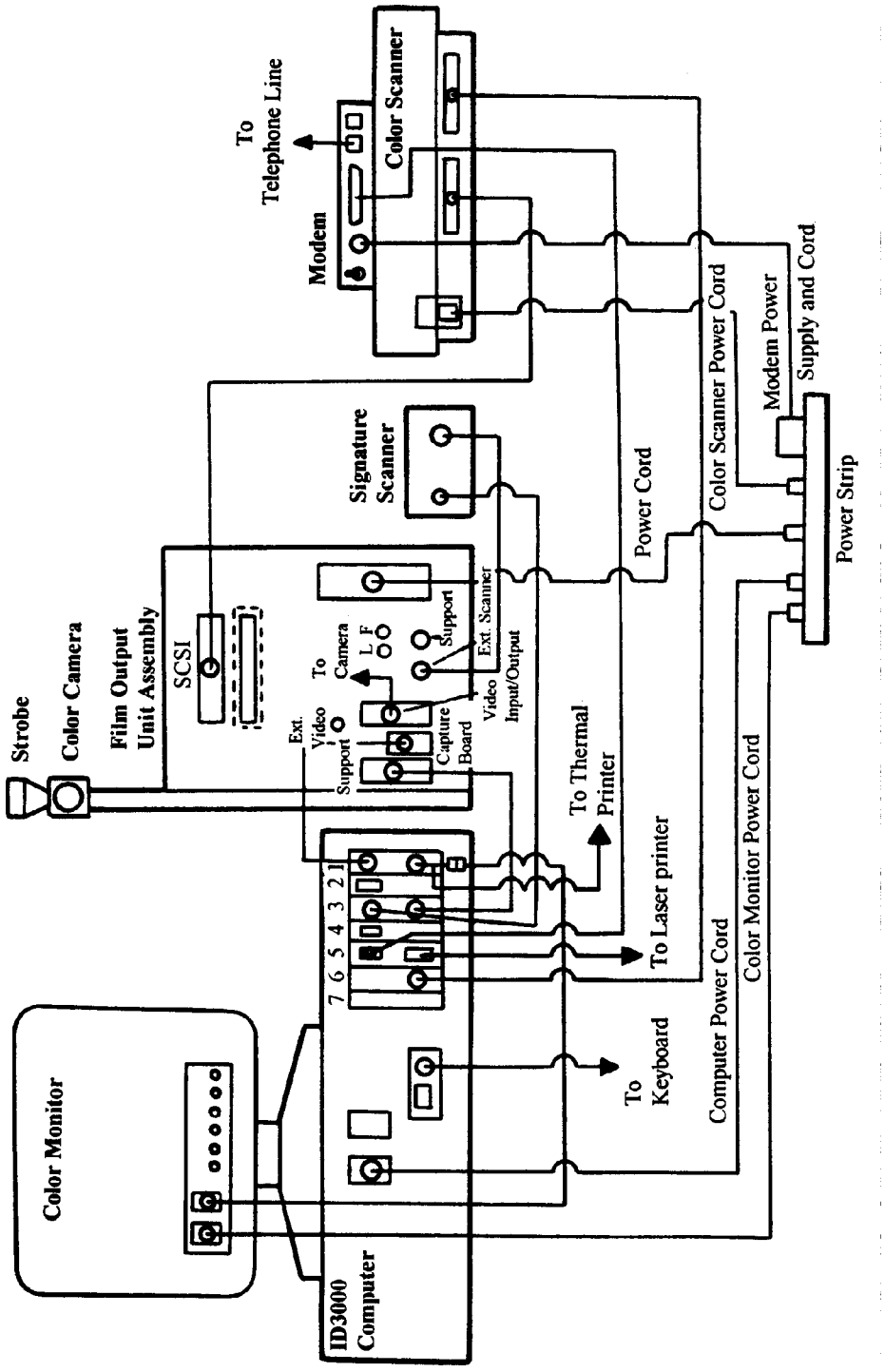


Figure 2-7 ID-3000F System Cable Connections

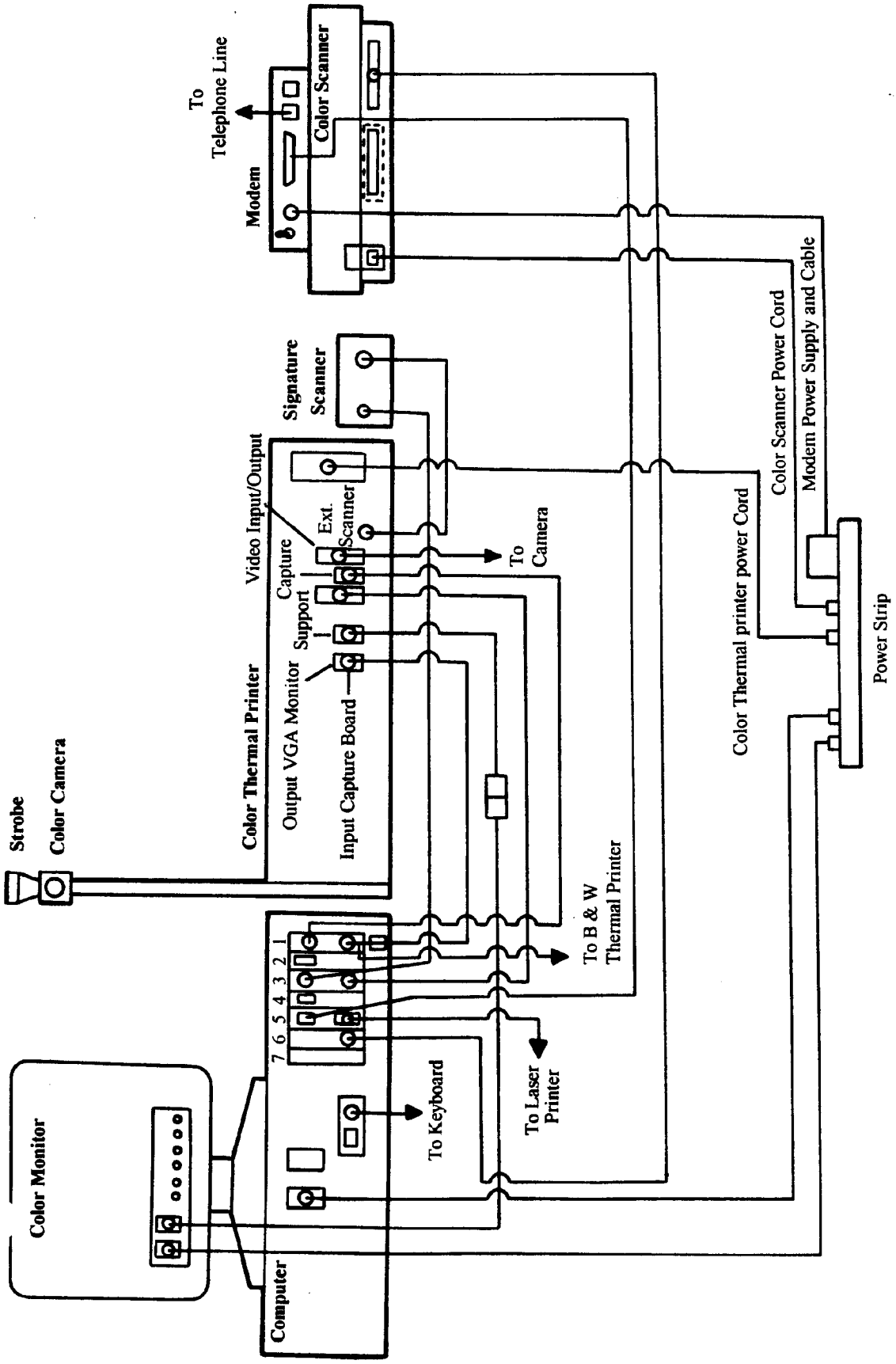


Figure 2-8 ID-3000T System Cable Connections

Powering Up the System

Turn on all ID-3000 components using their individual power switches (Figure 2-9), except for the power strip/surge protector.

Now plug the power strip cable into an AC receptacle and turn on the power strip switch.

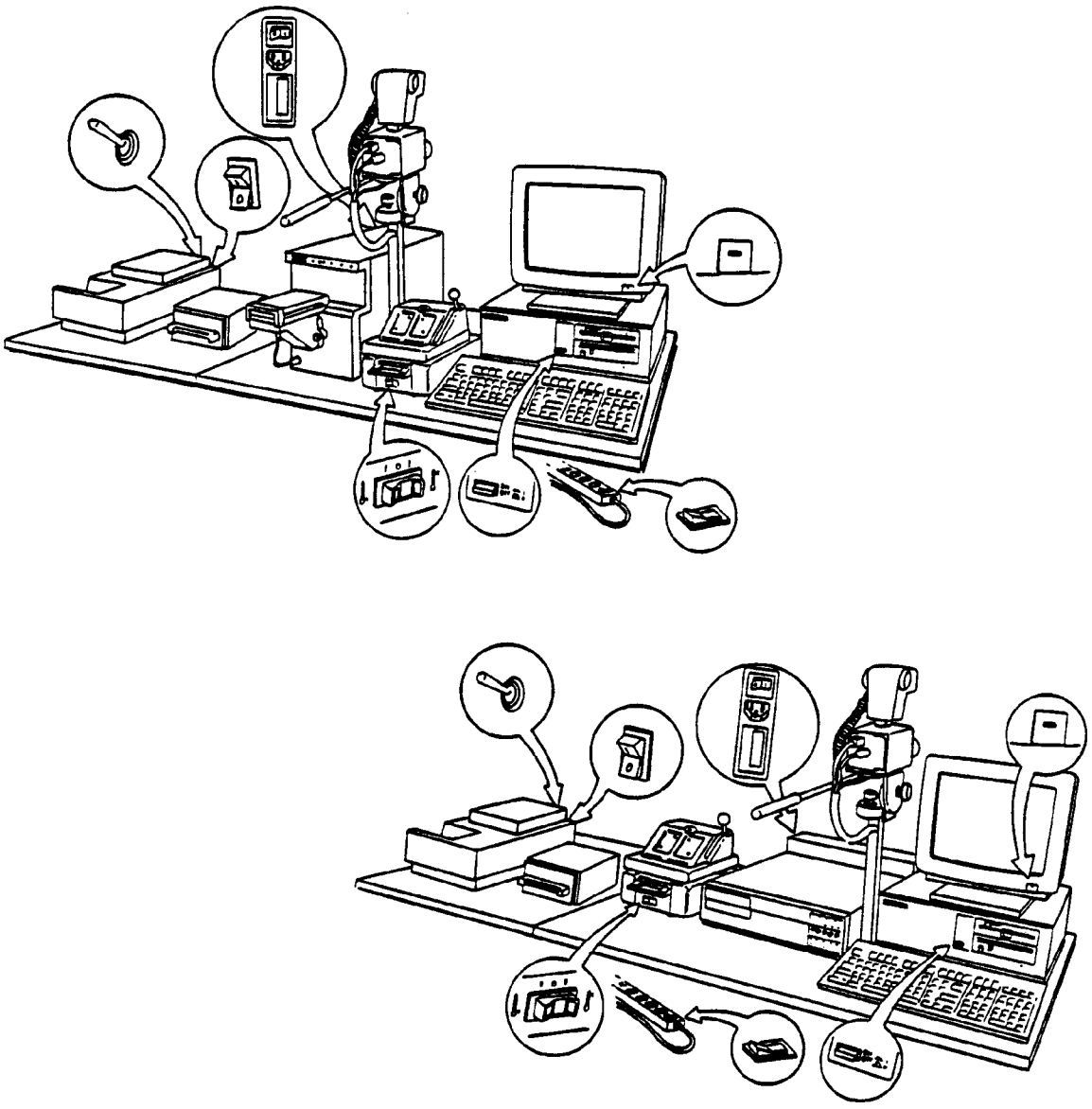


Figure 2-9 ID-3000 System Component Power Switches

Loading Paper and Ink in Thermal Color Printer

A paper/ink set consists of a packet of paper and an easy-to-load ink cartridge. Ink cartridges contain enough ink for the number of paper sheets in the set.

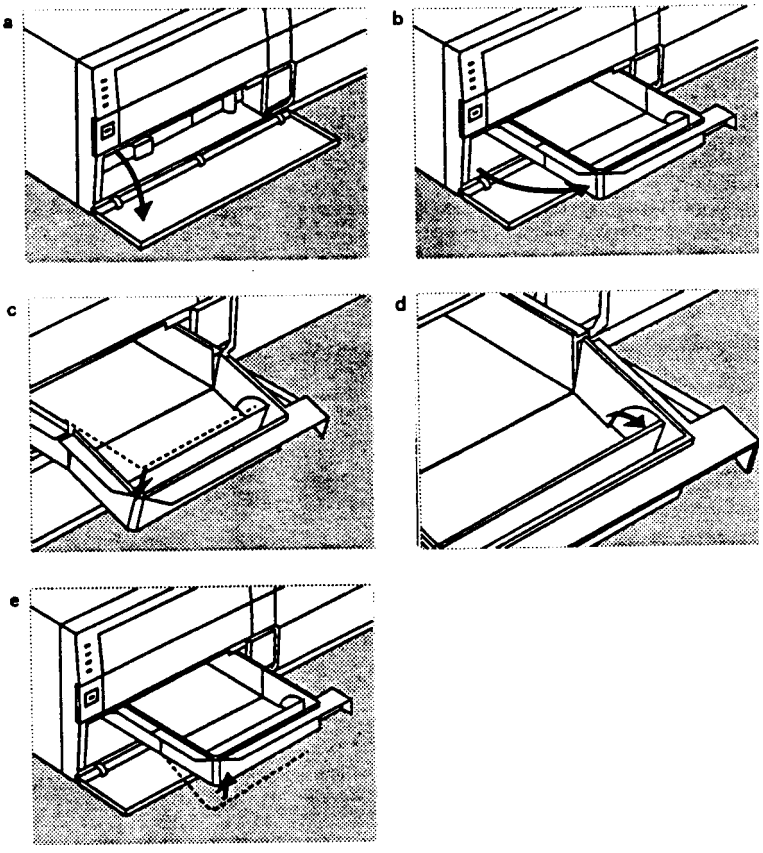
Do not interchange paper and ink cartridges from different sets, or add print paper from a new set without changing the ink cartridge. Doing so may cause a paper jam and/or a poor quality image.

Each paper set (C1500) include 100 sheets of print paper and a high density ink cartridge which produces full color prints.

Loading Paper

Follow instructions precisely, as incorrect loading can cause paper jams and/or defective printing.

Important: Before using the printer for the first time, clean the paper supply belt as described on page 25. This will eliminate any dust or small particles accumulated during shipping which could mar print quality.



1. Open the cassette door by pulling the PULL-OPEN tab (a).

2. Swing out the paper cassette (b).

3. Tilt down the front edge of the paper cassette (c).

4. Make sure the partition in the cassette is in the vertical position (d).

5. Insert the paper into the cassette with the marked side facing up. The paper must not be stacked above the green mark on the inside of the cassette. Overloading the cassette will cause a paper jam.

6. Tilt the front edge of the cassette to its original position (e).

7. Swing the paper cassette back into the unit. Close the paper cassette door.

Note: The paper light will blink when the printer runs out of paper, if the paper is folded, creased or upside down, if the wrong paper is used, or if the paper cassette is not pushed all the way in.

Loading an ink cartridge

1. Open the ink cartridge door by pushing the OPEN/CLOSE button (a).

2. Move the ink lever to the down position (b), being careful not to catch your fingers in the spring. Remove the protective storage insert from the cartridge housing (but keep it for use when transporting the printer).

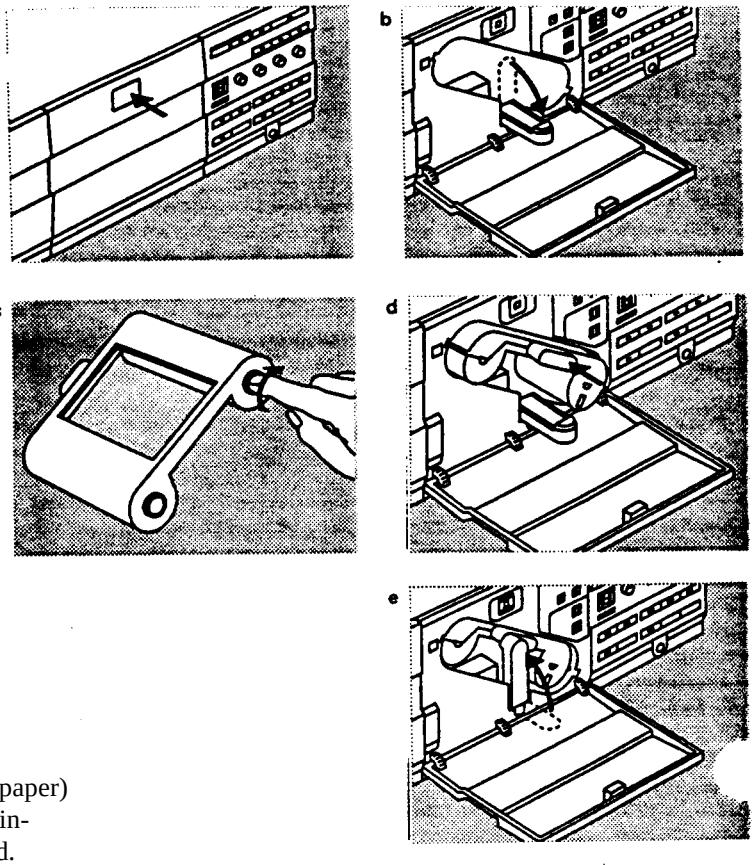
3. Check the tension of the film (ink paper) in the ink cartridge. If the film is loose, tighten it as shown (c).

4. Slide the ink cartridge into the compartment (d), holding the knob on the front of the cassette. Push it all the way in.

5. Return the ink lever to its original position (e).

6. Close the ink cartridge door, and press the OPEN/CLOSE button to latch it.

Note: The ink light will blink if the film (ink paper) runs out, if it is cut, if the ink cartridge is not inserted correctly, or if the ink door is not closed.



Care and handling of paper, ink and prints

For best results, fan the entire packet of film before loading. However, do not touch the printing (unmarked) surface of the paper or allow these surfaces to touch each other. Never use paper that has become wet, folded, scratched, or creased. Protect the paper from dirt or dust. Do not use a piece of print paper twice. Do not leave finished prints face down on a PCV plastic surface.

Store paper/ink sets in a cool, dry place. Avoid storing in direct sunlight. The ink cartridge cannot be reused. Avoid touching the film (ink paper) in the cartridge. When loading, be sure this film is not loose.

Log-in and main menu display

After powering up, allow five minutes for system warmup. During this time the monitor will display a series of messages as the software is automatically loaded.

After the software has been loaded, the ID-3000 log-in screen will appear.

At the Username prompt, type **CPS** and press **<Enter>.**

At the Password prompt, type **Polaroid** or the System ID number and press **<F10>.** The System ID number can be found on the side of the color portrait camera, the back of the film recorder assembly or thermal printer assembly, and on the computer.

Wait for the Main Menu to appear (Figure 2-10). If the main menu fails to appear within a minute of startup, turn the system off and then on again and repeat the log-in procedure. If the main menu still fails to appear, refer to Section 3 of this Manual — On-Site Diagnostic Procedures.

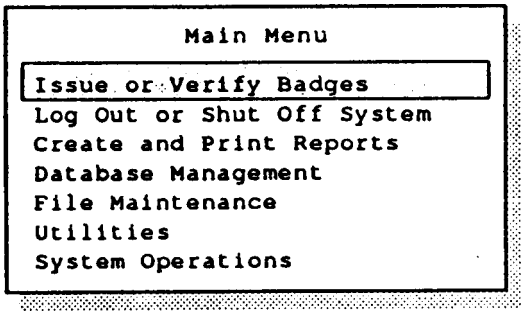


Figure 2-10 ID-3000 main menu

Functional Check of the System

To assure that the ID-3000 hardware and software are operating properly, the functional check consists of:

- Capturing new data, a portrait and a signature*, then using them to make an identification card
- Storing a portrait and signature
- Entering applicant data only
- Verifying applicant portrait, signature and data already stored in the system
- Making an identification card from portrait, signature and data previously stored in the system
- Repeating the previous two steps, using a different applicant ID number.

*NOTE: Not all ID-3000 systems use a signature on the ID card.
Your ID card may not include a signature.

If problems are encountered in any of these operations, refer to the on-site diagnostic procedures in Section 3 of this Manual.

Setting Film Counter (ID-3000F System)

1. After logging in and with main menu displayed (see Figure 2-10), select **Issue or Verify Badges** and press **<Enter>.**

   An ID-3000F System with a CI-5000 Color Film Recorder will then display a film tab selection screen (Figure 2-11).

   Insert a fresh pack of T-2000 film in the camera back and pull the black tab all the way out of the camera back.

2. Type the number printed on the white tab sticking out of the film holder (or highlight that number on the screen, using the up or down arrow keys). Press **<Enter>**.

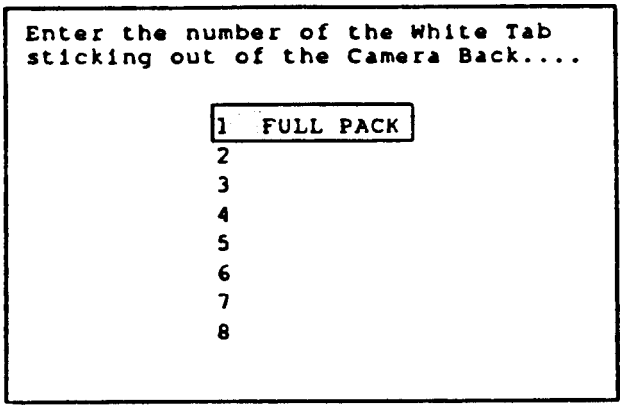


Figure 2-11 Screen for setting system film counter

Synchronizing the color thermal printer (ID-3000T System) when using non-interlaced input only.

1. After logging in and with main menu displayed (see Figure 2-10), select **Issue or Verify Badges** and press **<Enter>**. Check to make sure the Color Thermal Printer is turned ON.

   When you select **Issue or Verify Badges,** the Issue and Verify menu will appear (with an ID-3000T System which has a TX-1500 Color Thermal Printer).

Important note:
Figure 2-12 has been removed because it is no longer applicable; all subsequent Figures remain as originally numbered, i.e. Figure *2-13 is next.*

Making an Identification Card

1. When the Issue and Verify Menu (Figure 2-13) is displayed, select **Make a New ID** (highlight that line using the up/down arrow keys, or simply type the first letter of the selection - m or M) and press <**Enter**>). The applicant data entry screen (Figure 2-14) will appear.

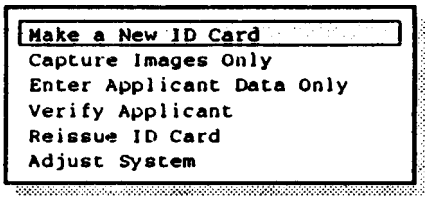
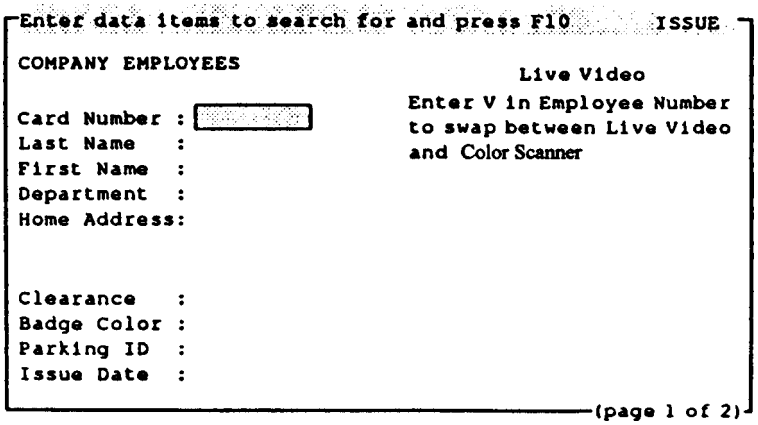


Figure 2-13 Issue and Verify menu

2. Type an applicant identification number, then press <**F10**> to search for the applicant's record.

NOTE: The applicant's data appears if it is available. (A "**working**" message may appear while the system is retrieving the data.)

If data cannot be found, the message This will be a new record will appear in the middle of the screen. Use the space bar to remove this message.



NOTE: This is only a sample data field — yours will have other criteria.

Figure 2-14 Applicant Data Entry screen

3. Type in the requested applicant data (see Figure 2-15). When all data is complete and correct, press **<F10>** to display the signature message (if required). See Figure 2-16. (If the system has no Signature Scanner, the Input Portrait Menu — Figure 2-19 — will be displayed.)

   (This is a sample screen — yours may be different)

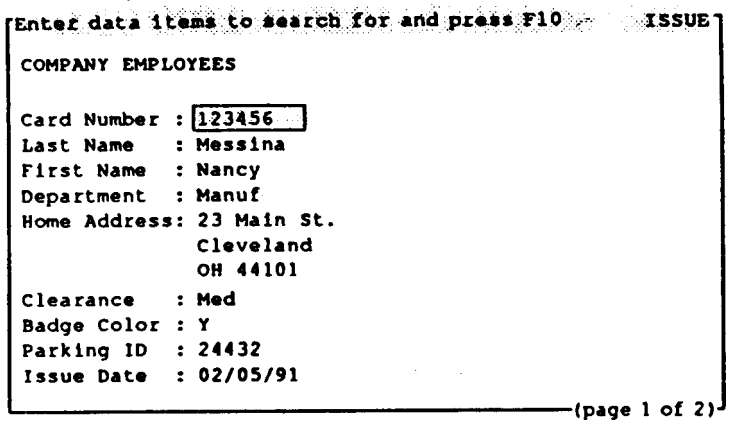


Figure 2-15 Applicant data entries

NOTE: If more than one data screen is used for an applicant (indicated by page 1 of x in the lower right corner of the screen), use the **<Page Down>** and **<Page Up>** keys to move from one screen to another.

NOTE: If the message List element is required appears, you have entered an unacceptable value (for example, entering m in a field requiring y or n). To display a list of acceptable values for the field displayed, press the **<F2>** key.

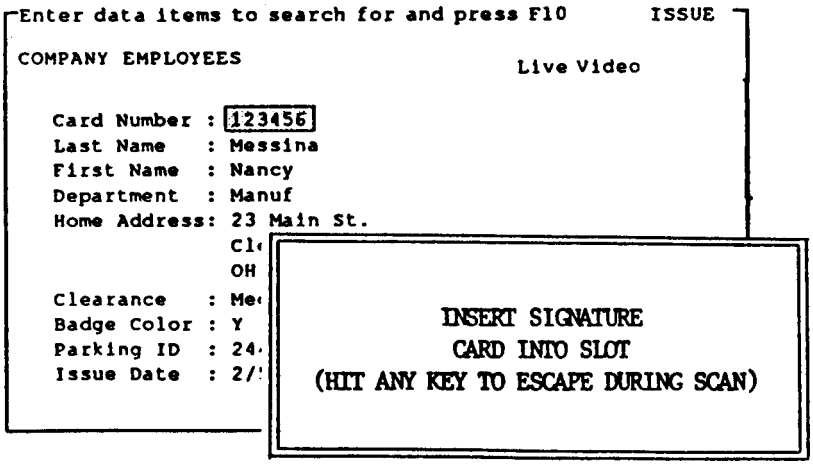


Figure 2-16 Signature prompt screen

4. If your System includes a Signature Scanner, insert a signed signature card into the Scanner as shown in Figure 2-17 — signature side up, cut-corner end first.

   NOTE: The card should be signed with a medium point, black felt tip pen.

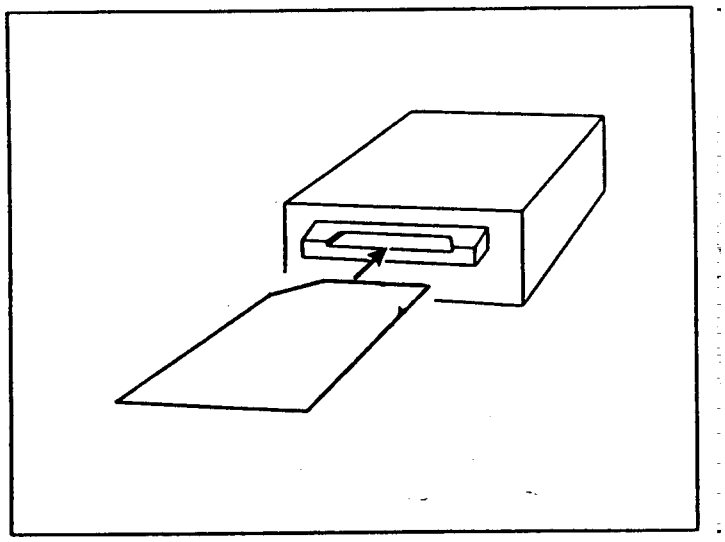


Figure 2-17 Inserting signature card into Scanner

5. The Signature Scanner will pull the card in and then eject it, after electronically storing the signature.

6. Remove the card from the Signature Scanner.

7. The system will now display the Input Portrait Menu (Figure 2-18).

   NOTE: If no image appears on the Monitor, adjust the brightness control on the Monitor or refer to Portrait Camera Adjustment on page 38 of this Section.

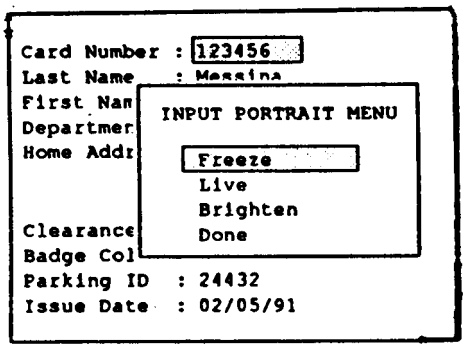


Figure 2-18 Input Portrait menu

8. Seat a person in the portrait chair and adjust the portrait camera (using the handle attached to the camera stand) for proper framing in the monitor. (If necessary, adjust the subject's head size in the portrait by changing the camera- to-subject distance.)

9. Adjust the portrait camera focus ring (Figure 2-19) to achieve a sharp portrait on the monitor.

   If the subject cannot be focused sharply, refer to camera focusing calibration in Section 4 of this Manual.

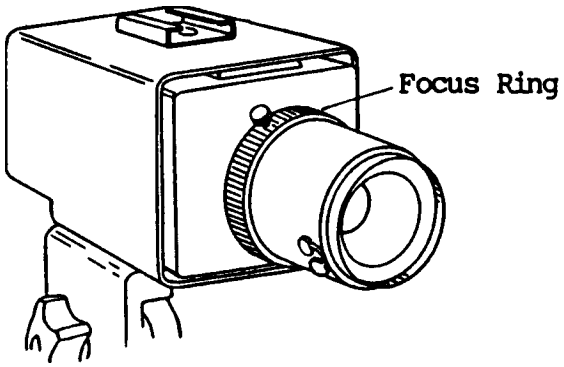


Figure 2-19 Adjusting portrait camera focus

10. Select **Freeze** from the Input Portrait menu (Figure 2-18), to freeze the video image on the monitor. The strobe will fire.

    (If the applicant has a very dark complexion, select **Brighten** before selecting Freeze.)

11. Verify that the image is frozen by moving the portrait camera while watching the monitor.

    NOTE: If the image does not freeze when Freeze is selected, select **Freeze** once or twice again. If the image still fails to freeze, go to the **Freeze/Live** trouble shooting procedure in Section 3 of this manual. Then begin the functional check again.

12. Check the "frozen" portrait. If it is not acceptable, select **Live**, repose the applicant and select **Freeze** again (let the strobe recharge for eleven seconds before selecting **Freeze** a second time.)

    NOTE: If you try to fire the strobe a second time before it has fully recharged, this message will appear:

    Strobe recharging — please wait

13. When the portrait is acceptable, select **Done** to open the Exposure window (Figure 2-20).

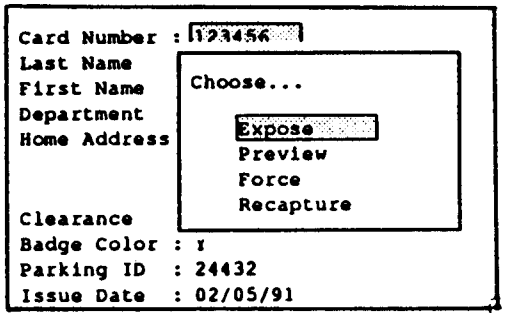


Figure 2-20 Exposure window

14. If you wish to preview the card before exposing the film, select **Preview** from the exposure window. (Vertical cards will be turned horizontal on the monitor screen.)

    If the portrait is not properly centered on the ID card, select **Recapture** and repeat steps 12 through 14 as needed.

15. With a 2-up configuration, selecting **Expose** after the first exposure has been made sends the image to the film recorder to be stored — actual exposure of the film does not occur until the card is made, after the second exposure.

    If you wish to print the image when only one has been made on a 2-up system, select **Force** from the Exposure window.

16. When the Output Unit beeps and the front panel LED flashes, pull the white tab and then the exposed frame (yellow tab) out of the camera back.

    NOTE: If you try to produce a film exposure after all frames in the film pack have been used, the system will display the message shown in Figure 2-21:

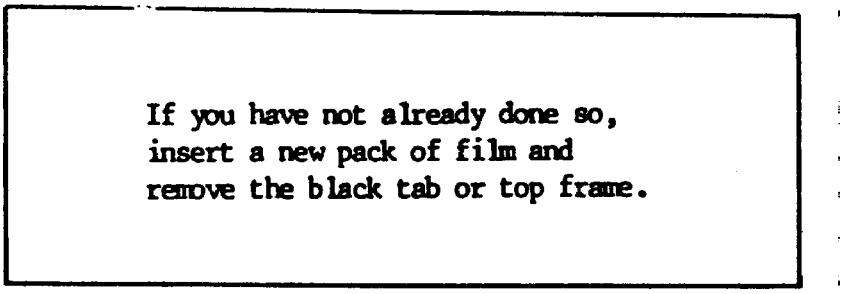


Figure 2-21 Screen instruction to insert new film pack

CAUTION: The instant film process uses a caustic jelly safely packaged in sealed containers within the film pack. If you accidentally get this jelly on your skin, wipe it off immediately. To avoid an alkali burn, wash the area with plenty of water as soon as possible. Keep the jelly away from eyes and mouth. Keep the discarded materials out of the reach of children and animals, and out of contact with clothing and furniture. Discarded materials still contain some jelly.

17. Peel the negative from the print and inspect the photograph for image quality. If the photograph is unsatisfactory, refer to “Image Quality Troubleshooting” in Section 3.

18. Insert the picture into the die cutter. Move the card side to side as needed to align the image with one of the die cutter openings and assure that the image will have no black borders when the card is trimmed. If adjustments need to be made, see Camera Offset Diagnostics in Section 3 of this Manual.

    Note: Step 16 through 18 apply to the ID3000F system only; the ID3000T system produces color thermal ID cards directly.

19. When the image is aligned in the die cutter, pull the handle down. Remove the trimmed card and discard the waste.

20. Place the ID card into a pouch and insert the pouch into the protective carrier. Then insert the carrier into the laminator.

    NOTE: For optimum results, lamination should start within 15 seconds of peeling the photograph from the negative (step 18).

21. When the laminated card emerges from the laminator, inspect it for secure and complete lamination. If any problems with lamination are evident, refer to “Lamination Problem Troubleshooting” in Section 3.

22. Press **<ESC>** to return to the Issue and Verify menu.

Storing a Portrait and Signature

1. Select **Capture Images Only** from the operator's menu.

2. Type an applicant card number, then press **<F10>**. The message **This will be a new ID** will appear.

   NOTE: If the system already contains data for this applicant card number, the data will appear on the screen for verification or editing. If this information appears and is correct, press **<F10>** and omit step 3.

3. Type in the data requested at the various applicant data fields, then press **<F10>**.

4. The message **Insert Signature Card Into Slot** will appear. If your System includes a Signature Scanner, insert a signed signature card into the Scanner as shown in Figure 2-22, signature sideup, cut-corner end first.

   NOTE: The card should be signed with a medium point, black felt tip pen.

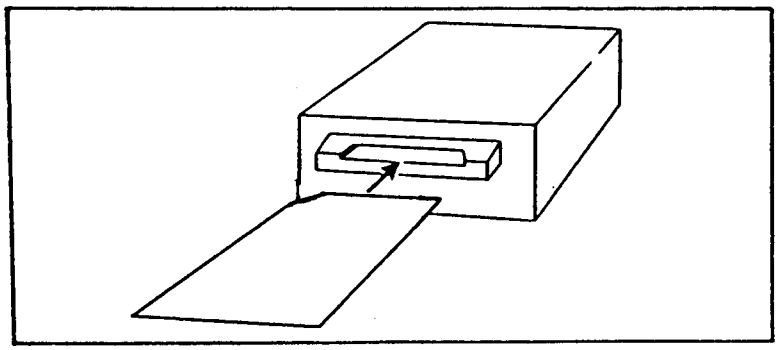


Figure 2-22 Inserting signature card into Scanner

5. The Signature Scanner pulls the card in and then ejects it in 5 seconds, after electronically storing the signature.

6. Remove the card from the Signature Scanner.

7. Seat a person in the portrait chair and adjust the portrait camera (using the handle attached to the camera stand) for proper framing in the monitor.

8. If necessary, adjust the portrait camera focus ring to achieve a sharp portrait on the monitor.

   If the portrait still does not focus sharply, refer to Camera Focusing Calibra tion in Section 4.

9. Select **Freeze** to freeze the video image on the monitor.

10. Verify that the image is frozen by moving the portrait camera while watching the portrait/signature monitor.

    NOTE: If the image does not freeze when Freeze is pressed, press **Freeze** once or twice again. If the image still fails to freeze, perform the Freeze/Live trouble shooting procedure in Section 3 of this manual. Then begin the functional check again.

11. Select **Preview** to display the identification card on the monitor.

12. Select **Done** to store the portrait, signature and applicant A blank data entry screen will appear.

13. Press **<ESC>** to return to the Issue and Verify menu.

Entering Applicant Data Only

1. Select **Enter Applicant Data Only** from the Issue and Verify menu to open the applicant category window (Figure 2-23).

(Sample window — yours may be different)

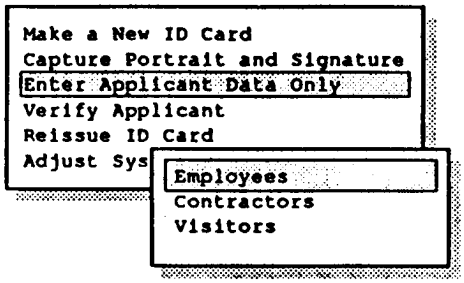


Figure 2-23 Applicant Category window

2. Select an applicant category to open the corresponding data entry screen (Figure 2-24).

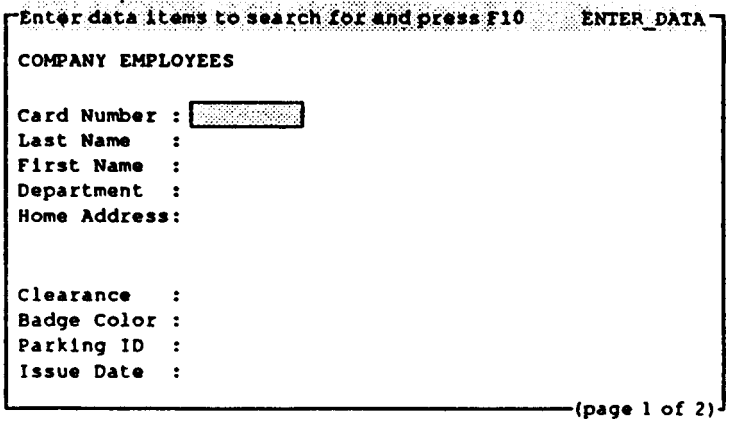


Figure 2-24 Data Entry screen

3. Type the applicant's ID card number, then press **<F10>** to search for the applicant's record.

NOTE: The applicant's data appears if it is available. (A "working" message may appear while the system is retrieving the data.)

If data cannot be found, the message **This will be a new record** will appear in the middle of the screen. Use the space bar to remove this message. Then you can either (1) re-attempt entry of the ID card number by starting step 3 again, or (2) enter new applicant data for the ID card number displayed by continuing at step 4.

NOTE: You can also use the ID-3000 enhanced search feature to locate the applicant's record — refer to the ID-3000 Operator's Manual.

NOTE: If more than one data screen is used for an applicant (indicated by page 1 of x in the lower right corner of the screen), use the <Page Down> and <Page Up> keys to move from one screen to another.

NOTE: If the message List element is required appears, you have entered an unacceptable value (for example, entering m in a field requiring y or n). To display a list of acceptable values for the field displayed, press the **<F2>** key.

4. Check the applicant data to be sure it is correct. If necessary to correct or complete the data, use the up and down arrow keys to position the cursor at the desired location and type the new information.

5. When all data is complete and correct, press **<F10>** to save the data and display a blank entry screen.

6. If another applicant's data is to be entered, start again at step 3. If not, return to the **Issue and Verify** menu by pressing **<Esc**>.

Verifying Applicant Data

1. Select **Verify Applicant** from the Issue and Verify menu to display the applicant category window.

2. Select the appropriate applicant category to bring up the data entry screen.

3. Type the applicant's ID card number used to make the identification card in the previous section (the corresponding data should be stored in the system), then press **<F10>**. The applicant data should appear on the monitor, along with the applicant's portrait. (Waiting . . . may appear while the information is being retrieved.)

   If the information is not available, No Matching Records Found appears in the center of the screen. Try a second time to retrieve the stored data, by repeating step 3. If the message **No Matching Records Found** appears again, press the space bar to remove the message. Then you can enter another ID card number and press **<F10>** to search again.

   You can also use the ID-3000 enhanced search feature described in the operator's instructions to locate the applicant's record.

4. Check the data, portrait and signature for accuracy and image quality. If more than one screen of data exists for an applicant, use <Page Up> and <Page Down> to view data.

   NOTE: If any of the three elements does not display properly (data, portrait or signature), press **<Esc>** to return to the data entry screen and repeat steps 3 and 4. If the displayed items are still unsatisfactory, perform the appropriate troubleshooting procedure in Section 3 of this manual.

5. Any attempt to edit the data displayed is impossible.

6. Verify another applicant by typing a new applicant ID card number (a number not previously entered or stored in the system), then press **<F10>**. The message No matching records were found. Press any key to continue should appear.

7. Press **<Esc>** to return to the Issue and Verify menu.

Reissuing an Identification Card

1. Select **Reissue ID Card** from the issue and verify menu to display the applicant category window (Figure 2-25).

(Sample window — yours may be different)

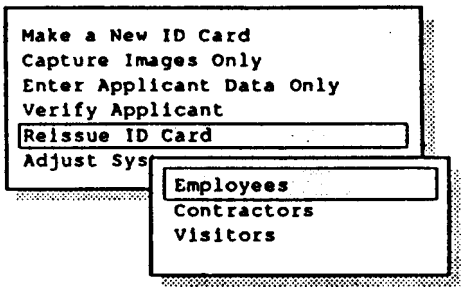


Figure 2-25 Applicant Category window

NOTE: You can stop the card-issuing process at any time before card exposure begins, by pressing **<Esc>**. This will return you to the Reissue ID Card choice.

2. Select the appropriate applicant category to bring up the data entry screen:

(Sample screen — yours may be different)

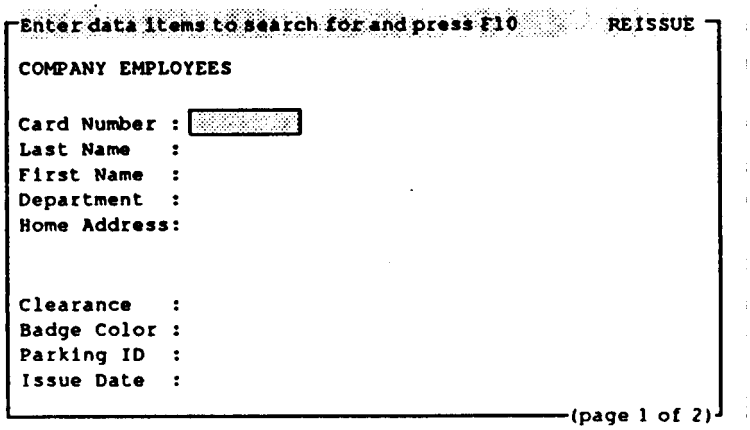


Figure 2-26 Data Entry screen

3. Type the previously stored ID card number, then press **<F10>** to search for the applicant's record.

The screen will display the applicant data if it is available. (Working . . . may appear while the information is being retrieved.)

If the information is not available, **Record Not Found** appears in the center of the screen. Press any key to continue. Then you can try again to enter the ID card number and press **<F10>** to search again.

If this still fails to produce the applicant data, press **<Esc>** twice and select **Make a New ID Card**. (See page 2-13.)

You can also use the ID-3000 enhanced search feature described in the operator's instructions to locate the applicant's record.

4. Check the data for accuracy. If more than one screen of data exists for an applicant, use <Page Up> and <Page Down> to view data. If it is necessary to complete or correct the data, use the up and down arrow keys to position the cursor at the desired location and type the new information.

5. When all information is complete and correct, press **<F10>** to open the exposure window (Figure 2-27):

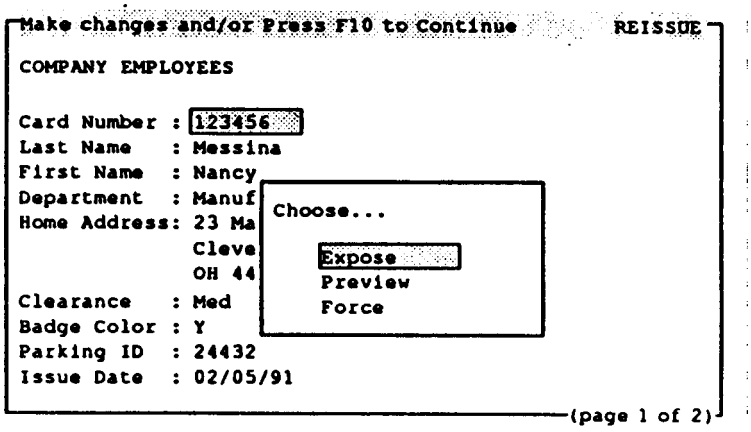


Figure 2-27 Exposure/Preview screen

6. To preview the card before exposure, select **Preview** from the exposure window. The monitor will display the card in full color (vertical cards will be rotated to a horizontal position).

7. With a 2-up system, selecting Expose the first time stores the ID in memory. Actual exposure of the film occurs when **Expose** is selected for the second ID.

   If you wish to print the image when only one has been made on a 2-up system, select **Force** from the Exposure window.

   When a blank data entry screen returns, the next ID card can be made.

   NOTE: If no additional ID cards will be made immediately, press **<Esc>** twice to return to the main menu. The Pull Film message will be displayed. Pull the white and yellow tabs from the film holder to begin film processing.

8. Repeat steps 3 and 4 to enter or correct another applicant's data.

9. Continue with steps 5, 6 & 7 to make the second ID card. After the second ID card is exposed, the message **Pull the Film on the Camera Back** will appear. Pull the white and yellow tabs before making another ID card.

10. Press the blue button on the upper timer and when the green LED flashes and the timer beeps, peel the photograph from the negative.

CAUTION: The instant film process uses a caustic jelly safely packaged in sealed containers within the film pack. If you accidentally get this jelly on your skin, wipe it off immediately. To avoid an alkali burn, wash the area with plenty of water as soon as possible. Keep the jelly away from eyes and mouth. Keep the discarded materials out of the reach of children and animals, and out of contact with clothing and furniture. Discarded materials still contain some jelly.

Note: Steps 9 and 10 apply only to the ID3000F system.

11. Inspect the photograph for image quality. If the photograph is unsatisfactory, refer to "Image Quality Problems" in the On-Site Diagnostic Procedures in Section 3.

12. Insert the picture into the die cutter. Move the card side- to-side as needed to align the image with one of the die cutter openings. If adjustments need to be made, see Camera Offset Diagnostics in Section 3 of this Manual.

13. When the image is aligned in the die cutter, pull the handle down. Remove the trimmed card and discard the trimmed waste. Inspect the trimmed card for proper registration.

. Place the ID card into a pouch and insert the pouch into the protective carrier. Then insert the carrier into the laminator.

NOTE: For optimum results, lamination should start within 15 seconds of peeling the photograph from the negative.

15. When the laminated card emerges from the laminator, inspect it for secure and complete lamination. If any problems with lamination are evident, refer to “Lamination Problem Troubleshooting” in Section 3.

16. Press **<Esc>** to return to the operator’s menu.

Adjusting the Card for the ID3000 Film System

These procedures should be performed at installation of any ID- 3000F System, to insure that all ID card parameters are at normal settings.

1. Bring up the issue and verify menu, select **Adjust System** and press **<Enter>** to open Color Printer/Portrait Camera window (Figure 2-28).

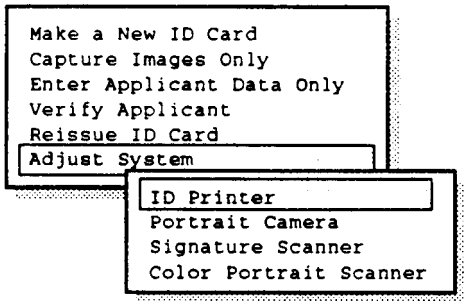


Figure 2-28 Printer/Camera Adjustment window

2. From the window just opened, select **ID Printer** and press **<Enter>** to display the Color Tint Menu (Figure 2-29).

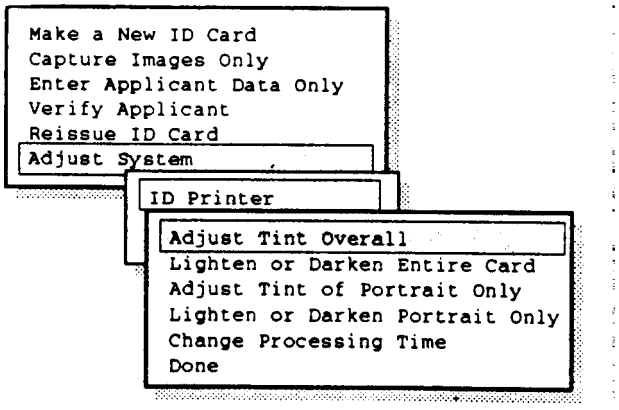


Figure 2-29 Color Printer Adjustment window

3. Select **Adjust Tint Overall** and press **<Enter>**. This will bring up the Red, Green and Blue Adjustment window shown in Figure 2-30.

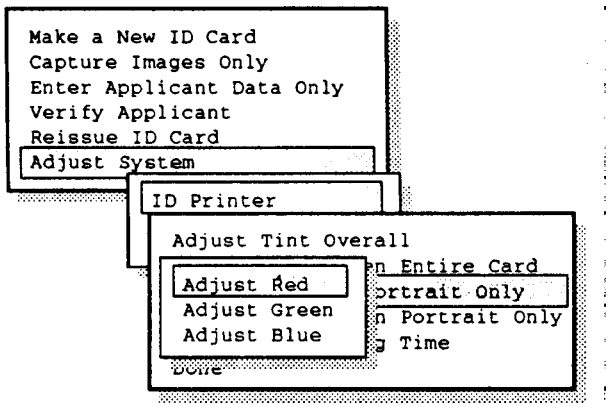


Figure 2-30 Tint Adjustment Colors window

4. Select **Adjust Red** and press **<Enter>**. The Red settings window will open. Select **4** (normal) by using the up and down arrow keys to highlight 4 (normal), or simply type 4, and press **<Enter>**. When you select the setting, the color selection window returns.

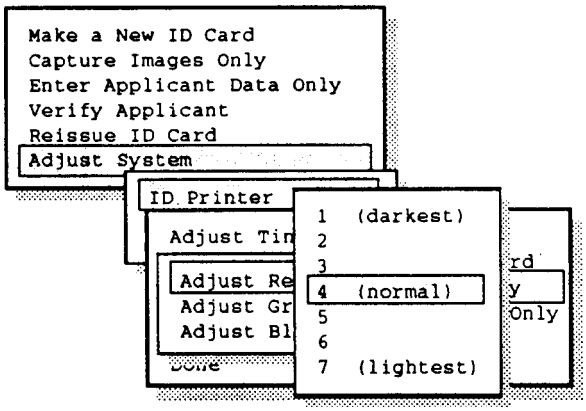


Figure 2-31 Red Tint Settings window

5. Now select **Adjust Green**, press **<Enter>**, again select **4** (normal) and press **<Enter>**.

6. Repeat the process for Blue — select **Adjust Blue**, press **<Enter>**, select **4** (normal) and press <Enter>.

7. Press **<Esc>** to return to the brightness adjustment menu. Select **Lighten or Darken Entire Card** and press **<Enter>**.
This will open the adjustment window shown in Figure 2-32. From this menu, select **4** (normal) and press **<Enter>.**

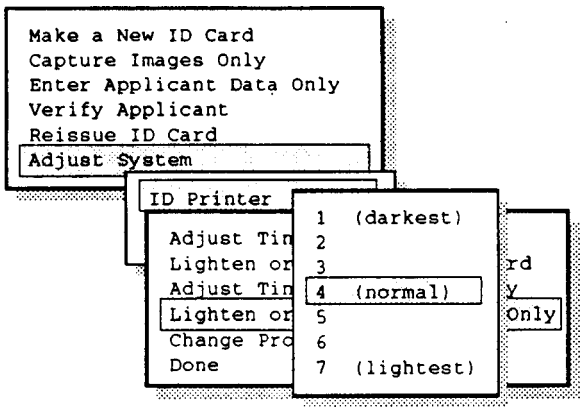


Figure 2-32 Lighten/Darken ID Card settings window

8. In similar fashion, select **Adjust Tint of Portrait Only**, and press **<Enter>**. Then select **Adjust Red**, press **<Enter>,** select **4** (normal) and press <Enter). (See Figure 2-33).

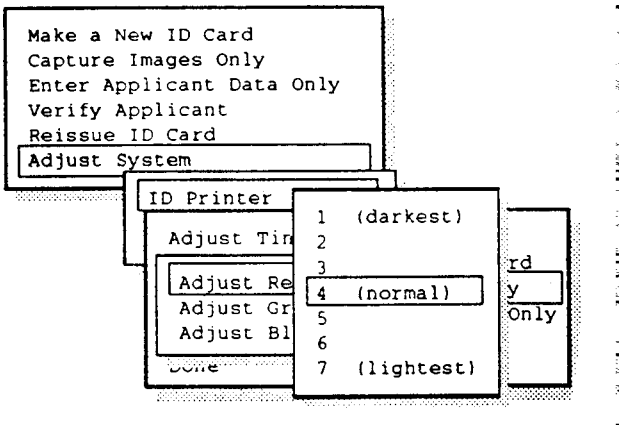


Figure 2-33 Adjusting color tint of portrait only

9. Repeat the process for Green and Blue, setting them to 4 (normal) as done for Red. Press **<Enter>** after each step.

10. In similar fashion, select **Lighten or Darken Portrait**, press **<Enter>**, select **4** (normal) from window menu (see Figure 2-34) and press **<Enter>**.

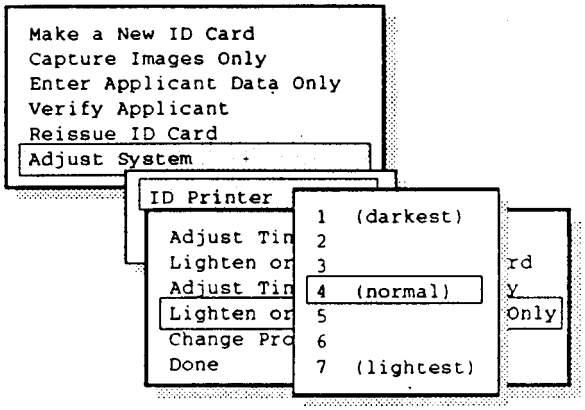


Figure 2-34 Lighten or Darken Portrait settings menu

11. Lastly, select **Change Processing Time**, press **<Enter>**, select **90** from the settings menu (Figure 2-35) and press **<Enter>.**

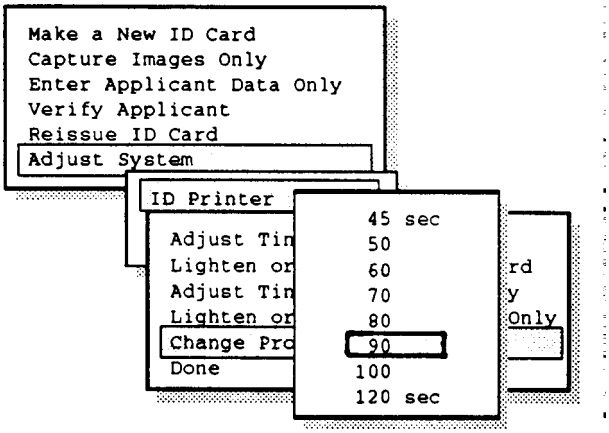


Figure 2-35 Film Processing Time settings menu

12. To exit from this Color Printer System Settings program and save the normal settings you have just made, select **Done** and press **<Enter>** (Figure 2-36).

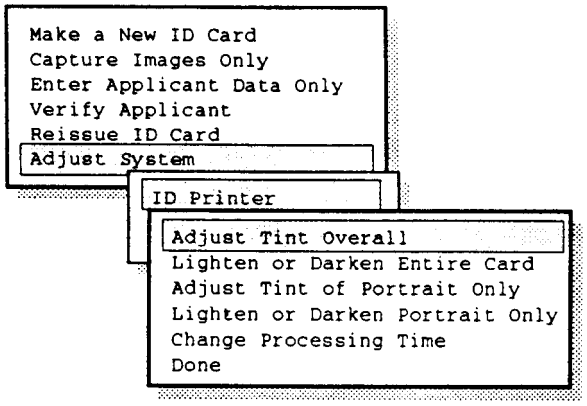


Figure 2-36 Exiting and saving new settings menu

Adjusting the Color Card for the ID3000 Thermal System

You can make several adjustments to the color thermal printer for optimizing ID card image quality:

ID card tint
ID card brightness
Portrait tint
Portrait brightness.

In addition, you can also synchronize the color thermal printer and check the settings on the output unit front panel.

Adjusting ID Card Tint

Adjusting the ID card tint changes the amount of red, green or blue tint in the ID card image. Changes affect all elements of the ID card, including the portrait.

Procedure

1. If the issue and verify menu is not on the screen, display it according to the instructions on page 2-12.

2. Select **Adjust System** from the issue and verify menu to display the component selection window.

3. Select **ID Printer** to display the color thermal printer adjustment menu (Figure 2-37).

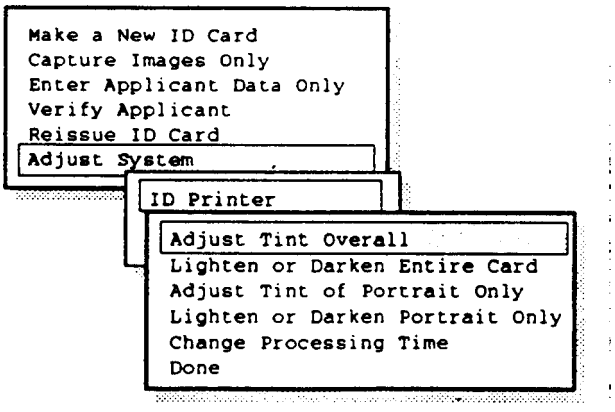


Figure 2-37 Color Thermal Printer adjustment menu

4. Select **Adjust Brightness and Tint** to display the brightness and tint menu (Figure 2-38):

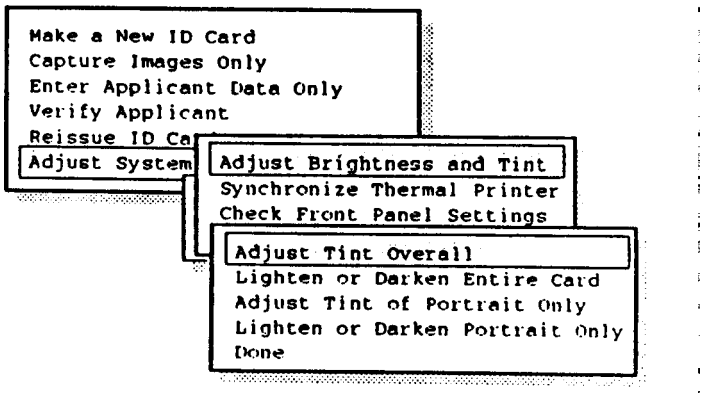


Figure 2-38 Brightness and Tint menu

5. Select **Adjust Tint Overall** to display the color selection window.

6. Select **Adjust Red** to display the color adjustment menu (Figure 2-39):

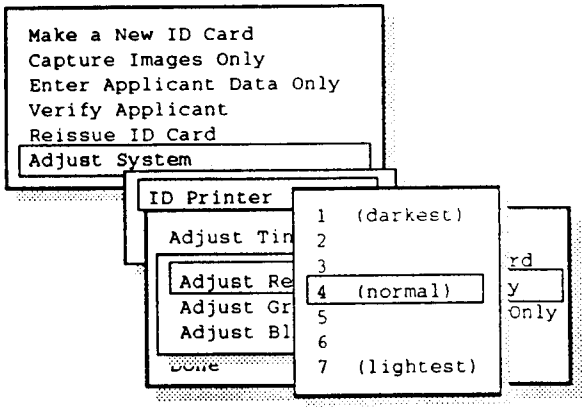


Figure 2-39 Color adjustment menu

7. Select **4** (normal) by using the up and down arrow keys to highlight the setting, then pressing the **<Enter>** key. Or if you prefer, type the number 4. (To return to the color selection window without changing the current setting, press the **<Esc>** key.)

   When you select a new setting, the color selection window returns.

8. In the same way, set green and blue to 4 (normal), by repeating steps 6 and 7.

9. Press the **<Esc>** key to return to the brightness and tint menu.

10. Select **Lighten or Darken Entire Card** to display the brightness adjustment menu.

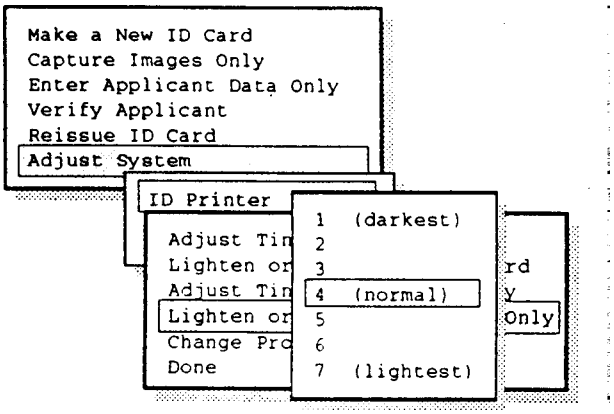


Figure 2-40 Brightness adjustment menu

11. Select **4** (normal) by using the up and down arrow keys to highlight the setting, then pressing the **<Enter>** key. Or if you prefer, type the number 4.

    When you select the setting, the brightness and tint menu returns.

12. Select **Adjust Tint of Portrait** Only to display the color selection window.

13. Select **Adjust Red** to display the color adjustment menu (Figure 2-41):

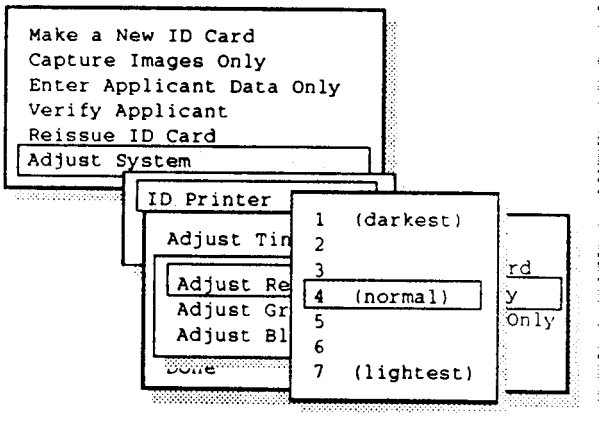


Figure 2-41 Color adjustment window

14. Select **4** (normal) by using the up and down arrow keys to highlight the setting, then pressing the **<Enter>** key. Or if you prefer, type the number 4.

    When you select a new setting, the color selection window returns.

15. In the same way, set green and blue to 4 (normal) by repeating steps 13 and 14.

16. Press the **<Esc>** key to return to the brightness and tint menu.

17. Select **Lighten or Darken Portrait Only** to display the brightness adjustment menu (Figure 2-42):

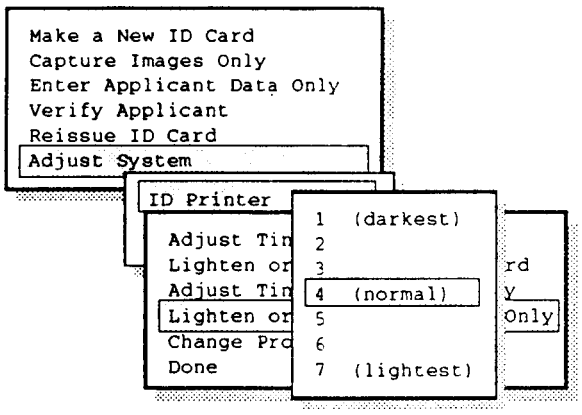


Figure 2-42 Brightness adjustment menu

18. Select **4** (normal) by using the up and down arrow keys to highlight the setting, then pressing the **<Enter>** key. Or if you prefer, type the number 4.

    When you select a new setting, the brightness and tint menu returns.

19. To save all of the new settings and exit from this program, select **Done** from the brightness and tint menu and press **<Enter>**. The system will return to the color thermal printer adjust ment menu.

Note: Step 20 applies to the thermal printer when using the non-interlaced mode only. In the interlaced input mode, the Check Front Panel Settings will be displayed as shown in Figure 2-44.

Note: If the system has lost synchronization with the thermal printer, turn the system OFF and power up again.

Important note:
Figure 2-43 has been removed because it is no longer applicable; all subsequent Figures remain as originally numbered, i.e. Figure *2-44 is next.*

20. If you are unsure of what the printer front panel settings should be, select **Check Front Panel Settings**, press **<Enter>** and follow the screen instructions (see Figure 2-44). Hit any key to continue.

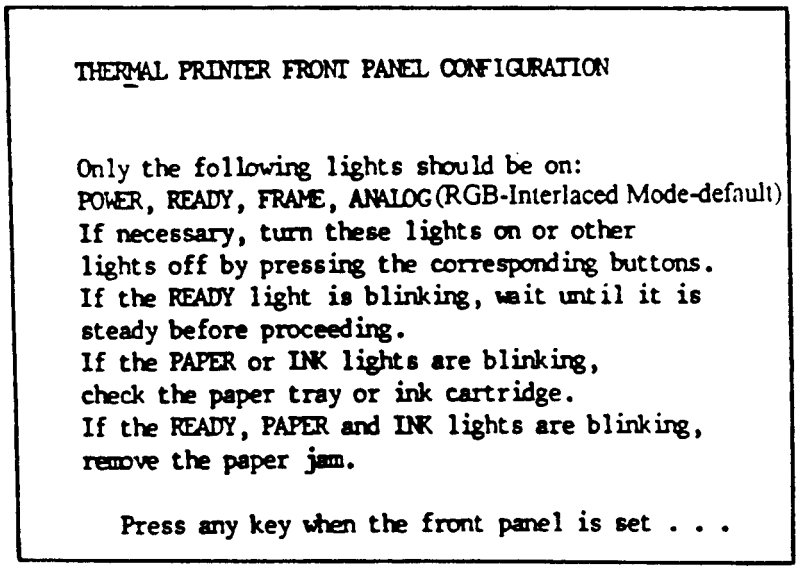


Figure 2-44 Thermal Printer Front Panel Configuration screen

21. Press **<Esc>** to return to the component selection window.

Adjusting the Color Portrait Camera

System settings affecting the appearance of portraits captured by the portrait camera or optional video floppy player can be adjusted by system menus:

Adjustment	Explanation
Input type	Sets portrait values to match the type of camera or video floppy player installed on your system.
Resolution	Sets the system for the resolution of the camera or video floppy player/ copystand installed on your system. Setting should remain at 512x480 unless the copystand is replaced by one with a different resolution.
Freeze contrast (“Freeze gain”)	Determines contrast of portrait displayed on screen when Freeze is selected during portrait capture. Also affects contrast of stored portrait.
Live contrast (“Live gain”)	Determines contrast of “live” portrait displayed on screen during portrait capture. (The “live portrait is the one displayed before Freeze is selected or after Live is selected.)
Freeze brightness (“Freeze Offset”)	Lightens or darkens the portrait displayed on the screen when Freeze is selected during portrait capture. Also affects brightness of stored portrait.
Live brightness offset”)	Lightens or darkens the “live” portrait displayed on the screen during (“Live portrait capture.
Freeze saturation	Increasing saturation boosts colors in “washed out” portraits. Reducing saturation reduces colors that are too intense. Freeze saturation affects the portrait on the screen when Freeze is selected. Also affects saturation of stored portrait.
Live saturation	Affects the “live” portrait displayed during capture. (See Freeze Saturation above for explanation of saturation’s effect on portrait.) Live saturation adjustment applies only to portraits from video floppy player.
Freeze Hue	Increasing hue increases power of primary colors (red, green and blue) where they dominate the secondary colors (yellow, magenta and cyan). Increasing hue also decrease the power of the primary colors where secondary colors dominate. If both saturation and hue are being adjusted, saturation must be adjusted first. Freeze hue affects the portrait dis played on the screen when Freeze is selected during portrait capture.Also affects hue of stored portrait. Freeze hue adjustment applies only to portraits from the video floppy player.

Live Hue	Affects the “live” portrait displayed on the screen during portrait capture. (See Freeze Hue above for explanation of hue’s effect on portrait.) Live hue adjustment applies only to portraits from the video floppy player.

A detailed explanation of each adjustment procedure follows.

Selecting the Image Type

Before making portrait adjustments, select the image type to which the settings will apply: ID-3000 portrait camera images or video floppy player images.

1. If the issue and verify menu is not displayed, select it from the main menu.

2. Select **Adjust System** to display the component selection window.

3. Select **Portrait Camera** to open the camera settings window.

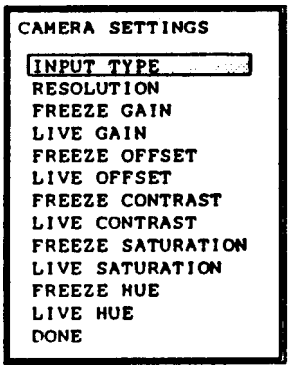


Figure 2-45 Camera Settings window

4. Select Input Type to open the camera type window

5. To adjust portraits from the video portrait camera, select **RGB** and press **<Enter>**.
   To adjust portraits from the video floppy player, select **Composite** and press **<Enter>**.

6. Select **Resolution** from the camera settings list to open the resolution selection window.

7. Select **512x480** and press **<Enter>**. The camera settings list will return to the screen.

8. Select **Freeze Gain** from the camera settings list.

9. Type a value between 0 and 100 (0 produces the greatest contrast) to obtain the desired amount of contrast in the stored portrait and press **<Enter>**.

10. Select **Live Gain** and type a value between 0 and 100 to obtain the desired amount of contrast in the “live” portrait and press **<Enter>**.

NOTE: If the range of 0-100 is insufficient to achieve the desired contrast, select **Freeze Contrast** or **Live Contrast** and adjust it in the same manner as Freeze Gain or Live Gain. But DO NOT adjust Freeze Contrast or Live Contrast until you have reached the limit of Freeze Gain or Live Gain. (The normal setting for Freeze Contrast or Live Contrast is about 65.)

11. Select **Freeze Offset** from the camera settings list. Type a value between 0 and 100 (100 produces the brightest portrait) to obtain the desired brightness in the stored portrait, and press **<Enter>.**

12. Select Live Offset and repeat the process done in step 11. Press **<Enter>**.

NOTE: The next four adjustments apply only to portraits captured by the video floppy player, by selecting **Composite** as the Input Type.

13. Select **Freeze Saturation** from the camera settings list. Type a value between 0 and 100 (100 produces the most saturation) to obtain the desired saturation in the stored portrait. Press **<Enter>.**

14. Select **Live Saturation** and repeat the process done in step 13. Press **<Enter>**.

15. Select **Freeze Hue** from the camera settings list. Type a value between 0 and 100 to obtain the desired contrast in the stored video floppy portrait. Press **<Enter>**.

16. Select **Live Hue**, repeat the process of step 15 and press **<Enter>**.

17. When all Camera Portrait adjustments have been made satisfactorily, select **Done** and press **<Enter>** to save the settings.

Adjusting the Signature Scanner

NOTE: Before performing the Signature Scanner adjustment steps 1 - 8 below, first verify that the two switches and the thumbwheel on the Logitech Scanner are set as follows:

a. Looking at the Scanner from the rear, on the left side, set the switch nearest the front (gray level or bi-level) to the / position ("a" in Figure 2-46).

b. Also on the left side of the Scanner, set the thumbwheel (contrast adjustment) to the center position ("b" in Figure 2-46). (If the signature on a finished print is too light or dark, move the thumbwheel toward the light or dark band accordingly.)

c. Finally, on the right side of the Scanner, set the dots/inch switch at "2" ("c" in Figure 2-46).

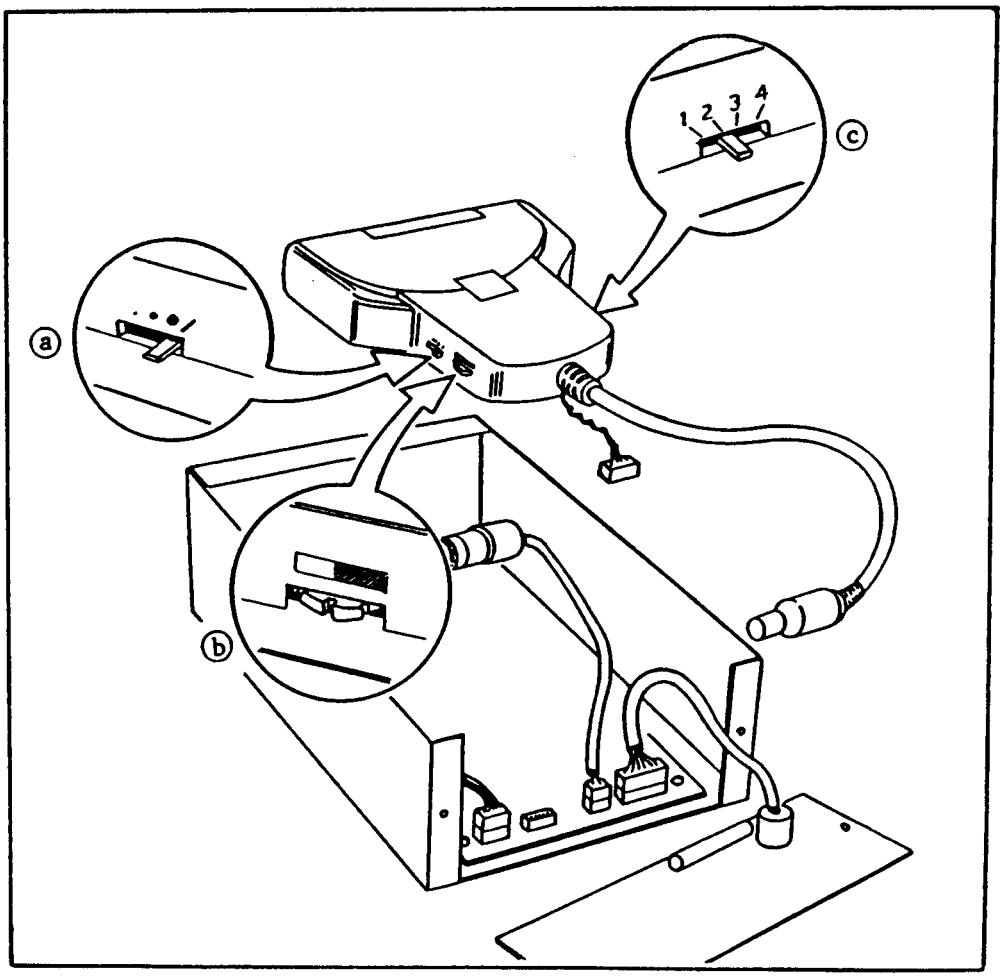


Figure 2-46 Signature Scanner switch settings

Adjustment Procedure

1. Turn on the system and log on as CPS. From the Main Menu, select Issue and Verify **Badges**, and from the Issue and Verify Menu, select **Adjust System**.

2. Next select **Signature Scanner** to display the instructions for adjusting the signature area (Figure 2-47). Follow screen instructions to adjust the signature.

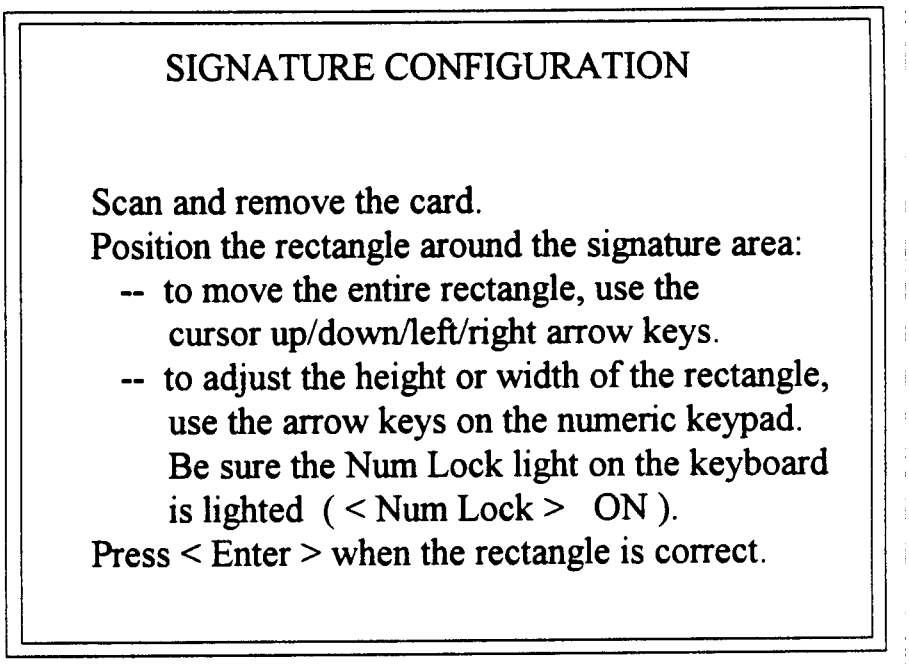


Figure 2-47 Signature box adjustment instructions

3. Press the <Enter> key and the system will now ask you to insert the signature card.

4. After the signature card has been signed with a medium-point black felt tip pen, insert the card signature-side up, cut corner end first, into the Scanner Figure 2-48).

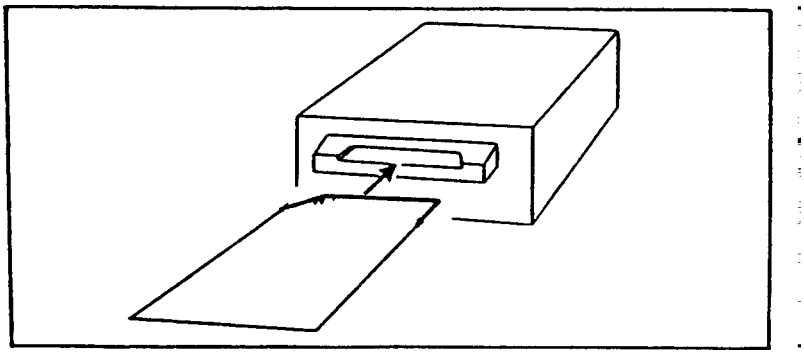


Figure 2-48 Inserting card into Scanner

5. The Scanner will pull the card in and then eject it. Remove the card from the Scanner. The signature will now appear reversed on the screen.

6. Follow these instructions to position the rectangle around the signature area:

   - to move the entire rectangle, use the regular cursor up/down/left/right arrow keys.

   - to change the height or width of the rectangle, use the arrow keys on the numeric keypad. Be sure the Num Loc light on the keyboard is lighted (**<Num Loc> ON**).

7. When the signature rectangle is correctly sized and positioned, press **<Enter>**. The system will return to the Adjust System menu.

8. Check the signature position and contrast by making a print. (A print is the only reliable check on signature quality: monitor display will not show contrast adequately.)

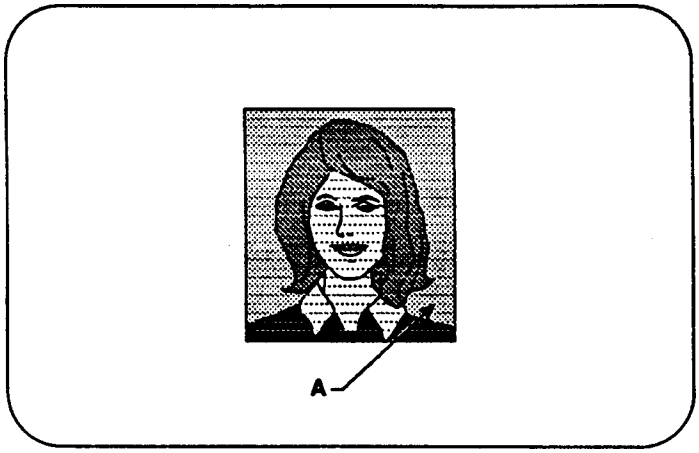
9. If the signature is very light, adjust the contrast thumbwheel on the side of the Signature Scanner (see “b” in Figure 2-44A).

10. To return to the **Issue and Verify** menu, press **<Esc>**.

Portrait Scanner Adjustment

Calibrating the Scanner

Use the following steps to calibrate the scanner whenever fine horizontal lines appear on the scanned portrait (A).

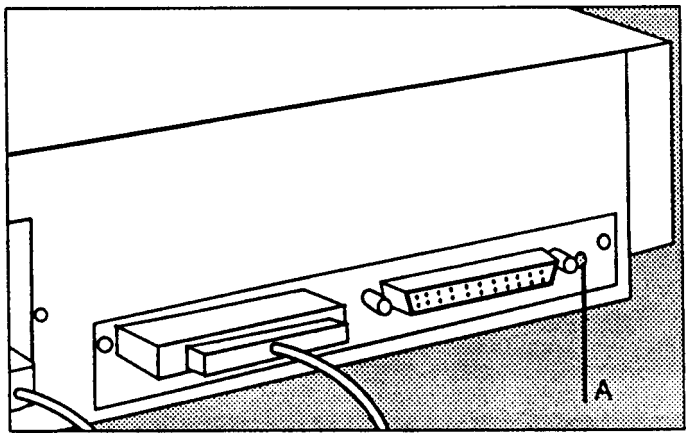


If these lines reappear within a week of calibration, the scanner maay require service. Contact the Polaroid Resource Center.

1. Turn the scanner power switch on.

2. Insert the white calibration card provided with the system - face-up into the scanner feed tray.

3. Using a small screwdriver or a similar tool, momentarily press the calibration button recessed within the back panel of the scanner (A).



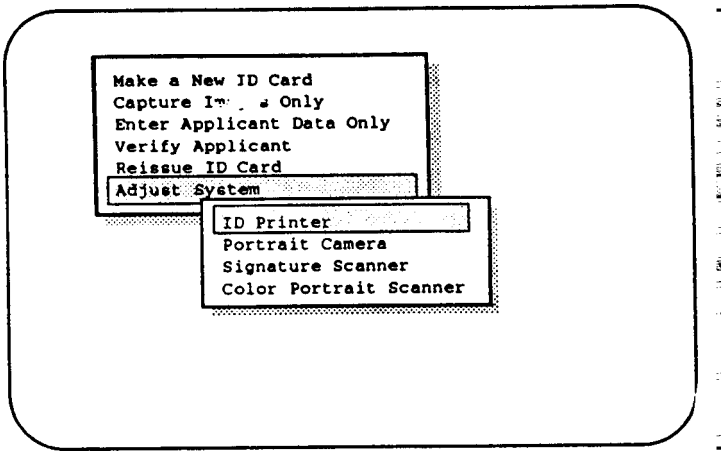
4. Wait for the calibration card to be transported into the scanner and ejected.

5. Remove the white calibration card from the scanner feed tray.

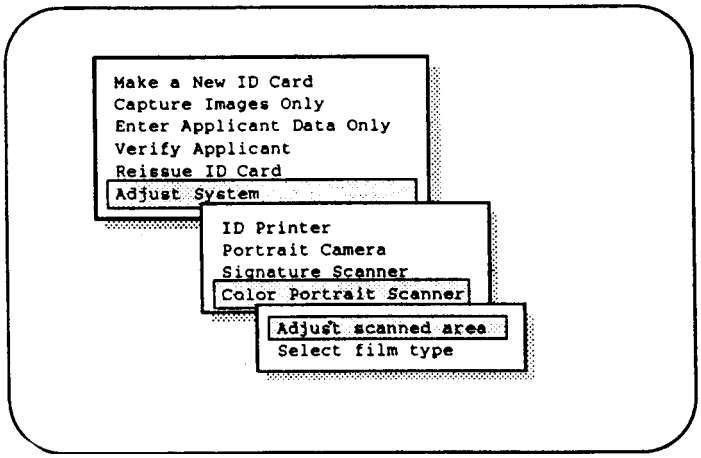
Adjusting the Portrait Capture Area

When scanned portraits are consistently out of position or incorrectly sized, use the following procedure to adjust the area of the portrait captured by the scanner. If necessary, you can also temporarily adjust the capture area to scan photographs with incorrectly sized or placed portraits.

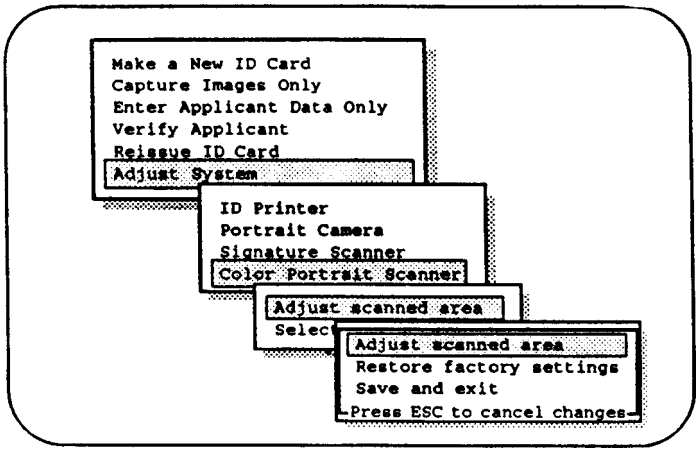
1. Select **Adjust System** from the operator's menu to open the adjust system menu.



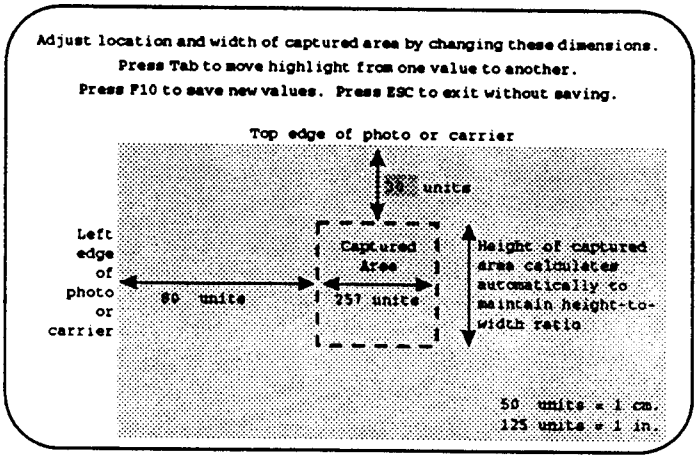
2. Select **Color Portrait Scanner** to display the scanner adjustment menu.



3. Select **Adjust Scanned Area** to display the area adjustment menu.



4. Select **Adjust Scanned Area** to display the capture area adjustment screen.



5. Type the dimension desired between the top edge of the photograph (or the top edge of the carrier if a carrier is being used) and the top of the captured area.

   If necessary, use the dimensional equivalents shown in the lower right of screen to convert the measurement units to inches or centimeters.

   Note: The dimensional equivalents will change if you change the width of the captured area from greater than 1.4 inches to less than 1.4 inches (or vice-versa). If you are not achieving the expected results, recheck the displayed dimensional equivalents.

6. Press the **Tab** key to move the highlight on the adjustment screen. Then type the dimension desired between the left edge of the photograph (or the left edge of the carrier if a carrier is being used) and the left edge of the captured area.

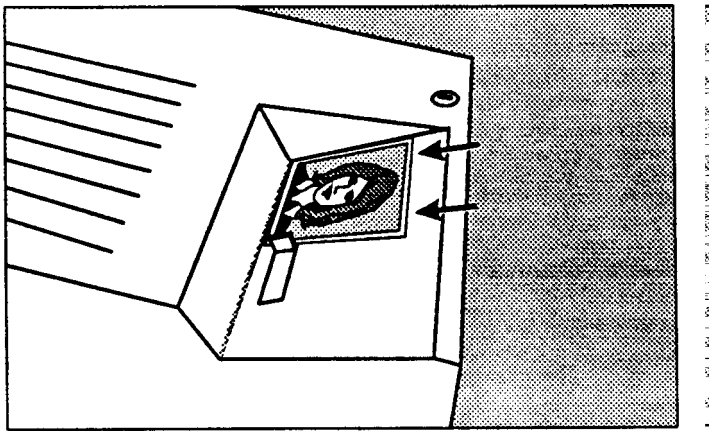
7. Press the **Tab** key to move the highlight on the adjustment screen, then type the dimension desired for the width of the captured area.

   Note: You cannot adjust the height of the captured area directly. The system automatically calculates the height based on the width becaause the height-to-width ratio must remain constant.

8. When all the desired dimensions have been entered, press the **F10** key to save the new values.

   The message **Insert Picture into Color Portrait Scanner** appears.

9. Insert a representative photograph into the scanner as shown, then wait for the scanner to pull the picture in and eject it.



10. Remove the picture from the scanner, then wait for the captured area to appear on the screen.

11. Carefully view the displayed portrait.

    If the captured area is satisfactory, press the space bar to return to the scanner adjustment menu. Then go to step 12.

If the size or placement of the displayed portrait requires more adjustment, press the space bar to return to the scanner adjustment menu. Then go back to step 4.

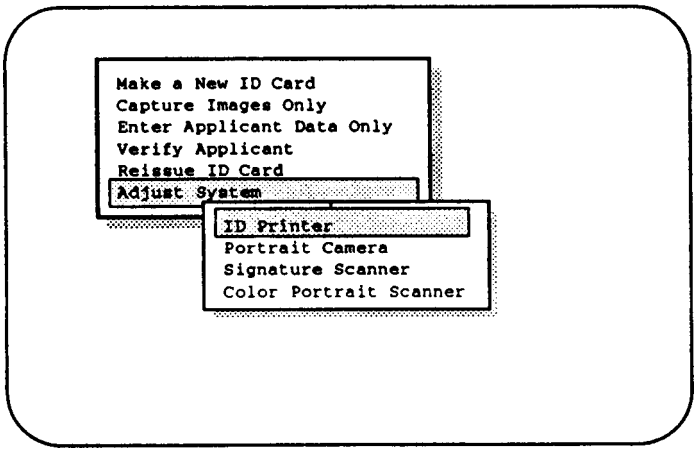
12. Select **Save and Exit** to save the new settings and return to the system adjustment menu.

13. Press the **Esc** key to return to the main menu.

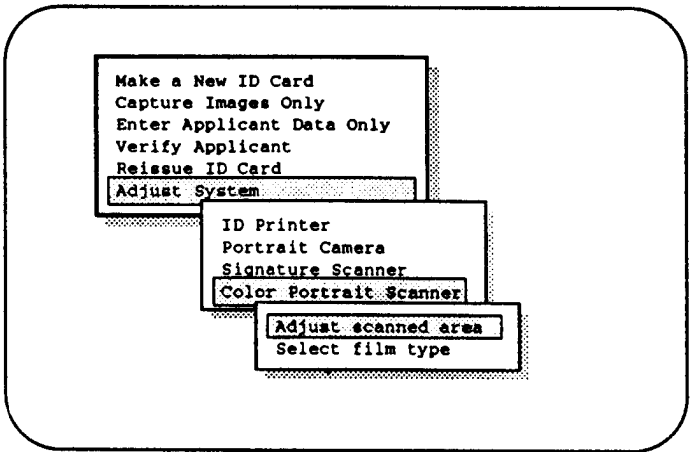
Restoring the Factory-Set Capture Area

If you have adjusted the area captured by the scanner as described on page 115, you can restore the captured area to the original settings as follows:

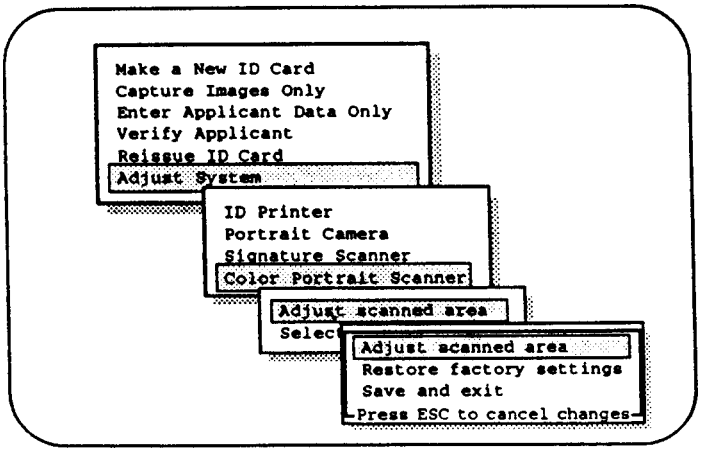
1. Select **Adjust System** from the operator's menu to open the adjust system menu.



2. Select Color Portrait Scanner to display the scanner adjustment menu.

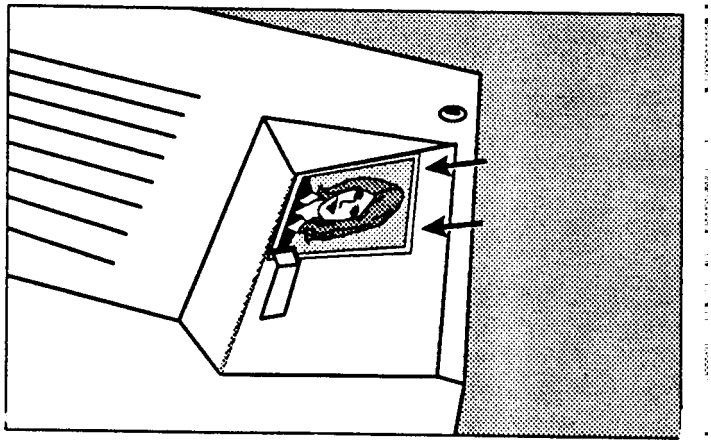


3. Select **Adjust Scanned Area** to display the area adjustment menu.



4. Select **Restore Factory Settings** to restore the settings and display the message **Insert Picture into Color Portrait Scanner**.

5. Insert a representative photograph into the scanner as shown, then wait for the scanner to pull the photograph in and eject it.



6. Remove the photograph from the scanner, then wait for the portrait to appear on the screen.

7. Carefully view the displayed portrait.

   If the captured area is satisfactory, press the space bar to return to the scanner adjustment menu. Then go to step 8.

   If the size or placement of the displayed portrait requires adjustment, press the space bar to return to the scanner adjustment menu. Then go back to step 4 of the capture area adjustment procedure.

8. Select **Save and Exit** to save the new settings and return to the system adjustment menu.

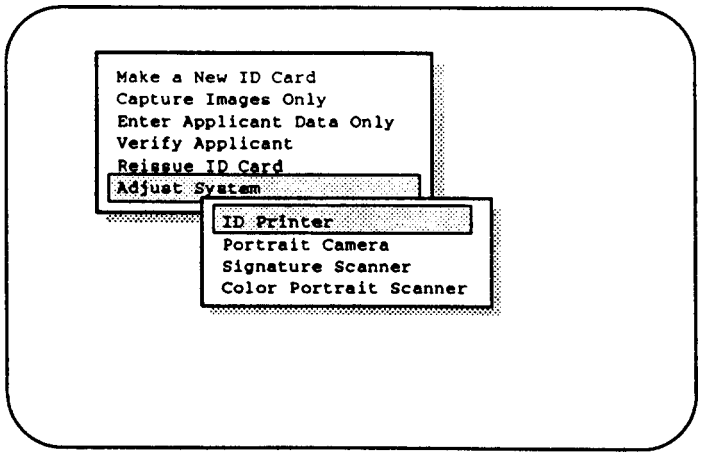
9. Press the **Esc** key to return to the main menu.

Changing the Film Type Setting

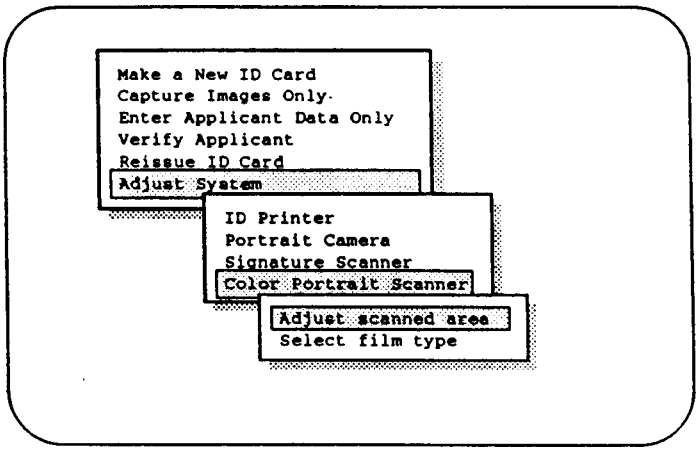
Differences in the photographic film chemistry affect the way the ID3000 scanner senses color. For example, the scanner senses the red background in a Polaroid instant photograph as slightly different from the red background in a 35mm photograph, even though the two colors may appear identical to the eye.

To assure accurate colors in scanned portraits, the ID3000 applies color correction settings for the type of film being scanned. To change the settings being applied, select the type of film to be scanned as follows:

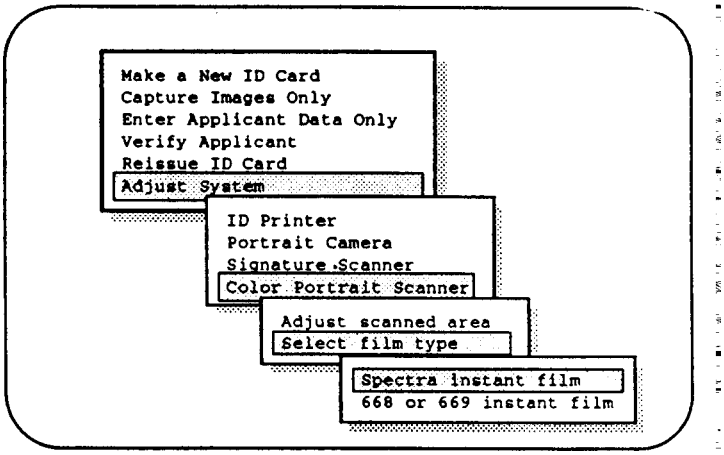
1. Select **Adjust System** from the operator's menu to display the adjust system menu.



2. Select **Color Portrait Scanner** to display the scanner adjustment menu.



3. Chose **Select Film Type** to display the film type menu.



Exiting From the System

If you wish to exit the system at any time, use the following procedure:

1. From any menu, return to the main menu by pressing <Esc> one or more times.

2. From the main menu, select Log Out or Shut Off System.

3. From the next menu displayed, select either Log Out or, to turn off the system, select Turn System Off.

Checking Laminator Temperature

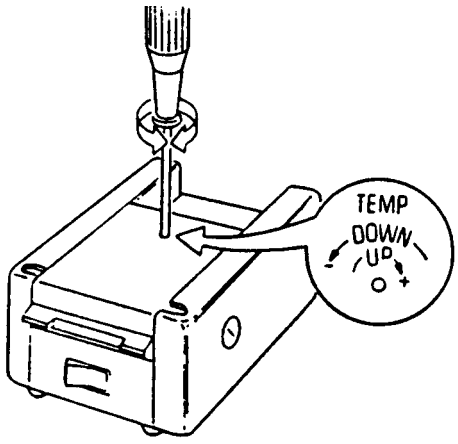
Check the laminator's built-in thermometer (Figure 2-49) for correct temperature (see below). If the temperature is outside specification, change it to the correct temperature required by rotating the adjustment pot on the end or top of the Laminator.

Laminator temperatures

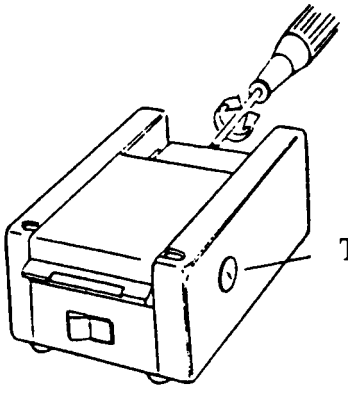
Configuration "A" Laminators produce temperatures from 220 to 300 F, desireable for many non-Polaroid pouches.

Configuration "B" Laminators produce temperatures from 190 to 265 F, max., optimized for Polaroid pouches.

Thermal Laminators produce temperatures from 315 to 335 F.



For ID-3000T Systems



For ID-3000F Systems

Figure 2-49 Adjusting Laminator temperature

SECTION 3 TROUBLESHOOTING/DIAGNOSTICS

Contents

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Signature Scanner Diagnostics

Note: before performing the Signature Scanner Diagnostics, first verify that the two switches and the thumbwheel on the Logitech Scanner are set as follows:

a. Looking at the scanner from the rear, on the left side, set the switch nearest the front (gray level or bi-level) to the "/" position ("a" in Figure 3-1).

b. Also on the left side of the Scanner, set the thumbwheel (contrast adjustment) to the center position ("b" in Figure 3-1). (If the signature on a finished print is too light or too dark, move the thumbwheel toward the light or dark band accordingly).

c. Finally, on the right side of the Scanner, set the dots/inch switch at "2" ("c" in Figure 3-1).

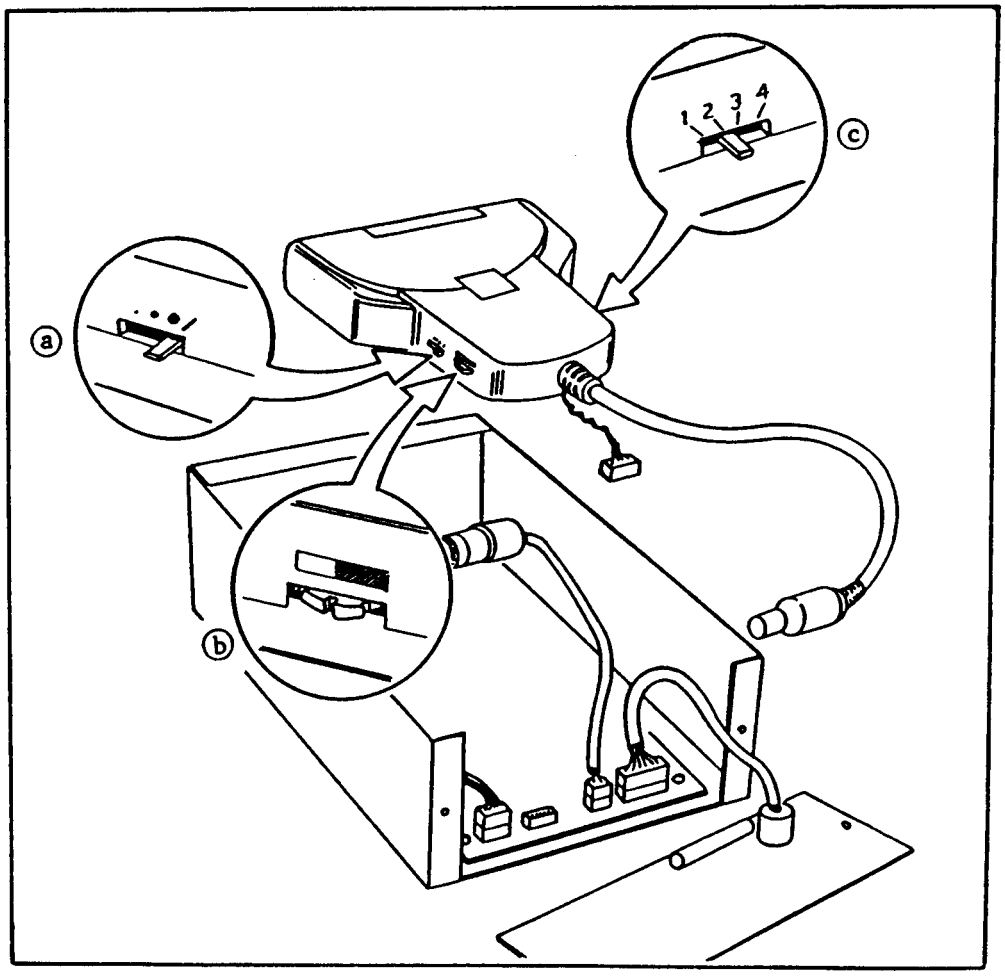


Figure 3-1 Signature Scanner switch settings

Troubleshooting Diagnostics
(Signature Scanner is not working)

1. Select EXIT to DOS from the System Operation menu in the ID software.

2. If the SIS_SCAN.CNF file exists in the AWS3F or AWS3T directory, make sure that the "SIS" variable in the file is set to ON; if it is set to OFF and the application calls for a signature input use any DOS editor to delete OFF and type ON, then save the file. Make sure that the SIS_SCAN.CNF files in the ID2DATA directory have the same variable value and reboot the system.

   To test the motor controls and Card Present Detector (sensor) from the DOS directory, type DEBUG and press <Enter>, then type the following commands.

Delay Command	Action
0 338 74 <Enter>	Motor goes forward (Pull the card in)
0 338 7a <Enter>	Motor stop
0 338 7e <Enter>	Motor goes reverse (Eject the card)

   To test that the Photo-Interrupter is detecting the presence of the signature card, use the following Debug Command.

Debug Command	**Action**
i 339 <Enter>	If card is present, DEBUG will respond with an odd value (02). If card is removed, DEBUG will respond with an even value (03).

The ID3000 software is set up to store images and signatures at one hard drive partition at a time. Once this partition is full, the software will automatically switch to the next partition as defined in a file called DRIVELIS.BB located in the APPS directory. This file is written by the Application Group. It should only be changed when performing a hard drive upgrade. It is recommended to use a DOS editor to add the partitions.

The DRIVELIS.BB defines the water level of each partition which means that when the available free space on the partition reaches that water level mark, the system automatically starts storing on the next defined partition. The water level for the database (D:) partition should be large enough to allow the Database Reindex menu option.

The following table lists the various DRIVELIS.BB values according to each hard drive size.

A. Use the Configuration File option in the Calibration menu or any DOS.

	48MB 85MB	120MB	180MB	240MB	340MB	765MB
"DRIVE_C",	"HARDDISK:5000"; "HARDDISK:5000";	"HARDDISK:5000";	"HARDDISK:5000";	"HARDDISK:5000";	"HARDDISK:5000	"HARDDISK:5000";
"DRIVE_D", (Portrait only) (Port. & Sign.)	"HARDDISK:2200"; "HARDDISK:4780"; "HARDDISK:2360"; "HARDDISK:5110";	"HARDDISK:7350"; "HARDDISK:7860";	"HARDDISK:11330"; "HARDDISK:12120";	"HARDDISK:16020"; "HARDDISK:17140";	"HARDDISK:22700:"; "HARDDISK.24300";	"HARDDISK:46010"; "HARDDISK:49200";
"DRIVE_E",			"HARDDISK:100";	"HARDDISK:100";	"HARDDISK:100";	"HARDDISK:100";
"DRIVE_F".					"HARDDISK:100";	"HARDDISK:100";
"DRIVE_G",						"HARDDISK:100";
"DRIVE_H",						"HARDDISK:100";
"INGLIST". or any other same as defined by the application	"D";	"D";	"E, D";	"E, D";	"E, F, D";	"E, F, G, H, D";

NOTE: ReBoot the system after making any changes in the DRIVELIS.BB File.

The following table which displays the approximate image storage capacity for the different hard drive sizes, is based on the following assumptions:

Image Sizes:

Portrait:	10KB
Signature	2KB

Data Record Sizes:

Data Record length:	512 bytes
PFIELD and SFIELD:	256 bytes each
Indexed fields:	12 character ID#; two 24-byte fields

Image Storage Capacity

Disk size	Portrait Only	Portrait and Signature
48MB	2600	2200
85MB	5700	4700
120MB	8700	7200
180MB	13500	11100
240MB	19000	15600
340MB	27100	22300
765MB	54700	45100

System Controllers and Adjustable Parameters

The Version 2 system devices like color camera, CI5000, TX1500, HP laser jet Etc. are all controlled by specific software modules in the system. These modules are called Device Controllers and there exists exactly one Device Controller for each Device/function pair. For example:

Device/Function	**Controller**
Portrait Capture Matrox Illuminator	MIC_ILUM
Signature Scanner	SIS_SACN

These device controllers require various parameters to be adjustable externally for calibration and control. These parameters are located in a set of configuration files designated by a .CNF extension. These files are named in such a way to correspond to the appropriate device controller. For example:

Controller	**Configuration File**
MIC_ILUIM	MIC_ILUM.CNF
SIS_SCAN	SIS_SCAN.CNF

The following is a list of the currently available controllers for ID3000 version II software system and a brief description of each controller and its necessary configuration file and contents.

MOC_ILUM
- Portrait output controller for Matrox Illuminator.
- Used to render a card layout in video memoryof the Matrox Illuminator image capture board.

MIC_ILUM
- Portrait input controller for Matrox Illuminator.
- Used to capture a portrait with the Matrox

HOC_HPLJ
- Hewlett Packard output hardcopy controller.
- Used to output a badge (DOSSIER) onto the the HP III laser printers.

PIC_COPY
- Portrait input controller for copy stand.
- Used to input portraits by grabbing a picture of an existing picture using the Matrox Illuminator Image Capture Board.

POC_VGA
- Portrait output controller for VGA card.
- Used to render a card layout in the VGA video memory with the Polaroid VGA extender card. This card allows true 15 bit per pixel color from a VGA card. This controller only works with the extender card.

POC_N9
- Portrait output controller for Number 9 board.

	- Used to render a card layout in video memory of a Number 9 corp. pepper plus display adapter.
POC_8514	- Portrait output controller for Paradise 8514a card. - Used to render a card layout in video memory of the Paradise 8514a display adapter Illuminator image capture board.
SIS_SCAN	- Signature input controller for Logitech based scanner.
HOC_CI5K	- CI-5000 color film recorder controller; used to print badges on the CI-5000 plus.
HOC_TP	- TX-1500 thermal printer controller; used to control and print badges on the Polaroid TX1500 Color Thermal Printer.
HOC_BWTP	- Black and white (Sony) video printer controller. Used to print temporary badges. A Matrox board is also required.
PCS	- Input controller for Polaroid Color Scanner. - Used to capture images from color prints using the CS-500i.
SUPPORT	- Not a controller but a toolkit to allow device independent operation of the support board. Several controllers use it.
WS_VERIFY	- Live/still controller for the Advanced Verification Station using the matrox board,

FILES REQUIRED FOR EACH CONTROLLER:

The following lists each controller with it appropriate data files.

HOC_HPLJ

Hoc_hplj.sot	- Screen object file.
Hoc_hplj.cnf	- Configuration file.

PIC_STIL

Pic_scrn.sot	- Screen object file.
Stiltbls.dat	- Tables for decoding from NTSC to RGB.
Pic_stil.cnf	- Configuration file.

PIC_COPY

Pic_scrn.sot	- Screen object file.
Copytbls.dat	- Tables for decoding from NTSC to RGB.
Pic_copy.cnf	- Configuration file.

POC_VGA

Vgalut.dat - Output look up tables for the VGA output controller. Contains an ascii list of 256 levels for portrait drawing with the card language. The format is one ascii number on each line followed by a carraige return line feed. The order is:

256 - RED
256 - GREEN
256 - BLUE
256 - LUMA

Poc_vga.cnf - Configuration file.

POC_N9

Poc_n9.cnf - Configuration file.

POC_8514

P8514lut.dat - Output look up tables for the 8514a output controller. Contains an ascii list of 256 levels for portrait drawing with the card language. The format is one ascii number on each line followed by a caraige return line feed. The order is:

256 - RED
256 - GREEN
256 - BLUE
256 - LUMA

Poc_8514.cnf - Configuration file.

MOC_ILUM

Moc_ilum.cnf - Configuration file.

MIC_ILUM

Mic_scrn.sot - Screen object file.
Mic_ilum.cnf - Configuration file.
Mtrx_lut.dat - Input lookup table

HOC_CI5K

Hoc_scrn.sot - Screen object file.
Dpalette.cfg - Palette toolkit configuration file.
Hoc_ci5k.cnf - Controller configuration file
ID669.FLM - Fast film table
CI5k_lut.dat - Lookup table/color-correction matrix file

HOC_TP

Hoc_tp.sot	- Screen object file
Hoc_tp.cnf	- Configuration file
TP_lut.dat	- Lookup table/color-correction matrix file

BW_TP

Bwtp.sot	- Screen object file
Bwtp.cnf	- configuration file

PCS

Pcsscrn.sot	- Screen object file
Pcs.cnf	- configuration file
Pcsfilm.bb	- current list of supported films

SIS_SCAN

Sis_scrn.sot	- Screen object file
Sis_scan.cnf	- Configuration file

SUPPORT

Support.cnf	- configuration file

WS_VERIFY

Ver_ilum.cnf	- configuration file
Ver_scrn.sot	- screen object file

CONFIGURABLE PARAMETERS FOR EACH CONTROLLER:

The following lists each controllers configuration file and the parameters contained inside. These parameters are loaded by the controller during initialization and may be changed to modify the operation of the system. All parameters are contained in the .cnf files; the format consists of 2 parts - (1) The system bulletin board name, and (2) the data value. Both are enclosed within double quotes as follows:

"NAME","VALUE";

The value may be text or numbers. Always use upper case. All numbers are in decimal unless noted otherwise.

HOC_HPLJ.CNF - Hewlett Packard laser printer output controller.

"DOSSIER_LAYOUT_FILE"

This is the name of the .TOK file (a compiled .IDC program) which defines the layout for the dossier controller which is the default. This value is a filename of the .TOK file.

"DOSSIERLPT","1";
This is the LPT number (1,2,3) of the printer port to be used for generating the DOSSIER. The normal value is 1 which indicates LPT1.

"DOSSIER_DIAG_LAYOUT","";
This value is not currently used.

"HPLJ_ORIENT","";
This value is not currently used.

"HPLJ_BRIGHT","4";
This value controls a simple brightness adjustment for the portraits which are generated with the DOSSIER controller. The values are 0 through 7. "3" is considered the normal value.

"HPLJ_CONTRAST","159";
This value controls a simple contrast adjustment for the portraits which are generated with the DOSSIER controller. The values are 0 through 255. "128" is considered the normal value. 0 indicates ZERO contrast and is a useless value. 255 is 2 times the normal contrast. The generally useful range is about 80-180.

"HPLJ_CURVE",""; (This value is not currently used.)

"HPLJ_FONT1","";
"HPLJ_FONT2","";
"HPLJ_FONT3","";
"HPLJ_FONT4","";
"HPLJ_FONT5","";
These are full path names of font files (in HP format) which should be transmitted to the HPLJ printer when the controller is initialized. When using a series 2 printer this is really the only way to get interesting fonts. With the Series 3 printer the scalable fonts are available.

PCS.CNF - CS-500 Polaroid Color Scanner (PCS)

PCS_COLORMODE -Internal colormode in the CS-500 controller. Possible values:
COLOR - 24 bit color
BW - Black and white
default value: COLOR

PCS_RESOLUTION - Scanning resolution in DPI possible values:
DPI125 - Scan at 125 DPI, positions in 125 dpi
DPI250 - Scan at 250 DPI, positions in 250 dpi
DPI500 - Scan at 500 DPI, positions in 500 dpi
Default value: DPI125

PCS_PIXELFORMAT - Selects the method the CS500 controller uses to store image data in memory. Possible values:

CHUNK = send the data in continuous format of red, green and blue data bytes.
LINE = send scan line's worth of red pixels followed by scan line of green and<+!><-!> then a scan line of blue.
PLANE = send an entire plane of red image data followed by an entire plane of green and then a plane of blue.
Default: PLANE

PCS_AOIX1
PCS_AOIX2
PCS_AOIY1
PCS_AOIY2 - The PCS_AOIxn values define an "Area of Interest" which is the area of the image to be scanned. These values define a rectangle with X1,Y1 being the upper left of the rectangle and X2,Y2 being the lower right. The units specified for these parameters are in DPI for the resolution selected. Default values:

X1 = 080
Y1 = 080
X2 = Maxwidth for 125 DPI
Y2 = Maxheight for 125 DPI
X2-X1 is the width of the image to be scanned in DPI
Y2-Y1 is the height of the image to be scannedin DPI

PCS_DATANAME - The name of the film color lookup table downloaded to the scanner, for color balancing the scannedimages based on the film type. The default table is PCSDFLT.DAT, which is for 35mm film and is also acceptable for Spectra film.

PCS_HARDBUF - The internal size of the PCS hardware buffer. Older models of the scanner have smaller buffers than the newer "FIFO" (CS-500i) models of the scanner. Possible values:

2MEG - 2 Megabyte "FIFO" (CS-500i) scanner.
0MEG - Older 64K model of the scanner.
Default value:
2MEG

PCSWINDOW - This variable enables and disables a menu display when the controller is activated for scanning. Possible values:

OFF - Bypass menu, scan immediately
ON - Display the menu

PCS - This variable enables or disables the entire PCS controller.With this value set to "OFF" the controller behaves as if it did not exist. This

value may also be checked by application scripts to determine if the controller is activiated. Possible values:

ON - All controller entry points are enabled
OFF - All controller entry points are disabled

PCS_RGBBUF - This variable defines the name of the RGB EMS buffer which is to be used for the scanned image. By specifing different names for the destination buffer, the application can flip between different RGB buffers allowing more than one scanned image to reside in the system default:

DRGBB - The standard RGB buffer name

PCS_MOTORADJUST - This variable defines the parameters for the motor.

Default value:

E8,CF,9D,A0,35,230,1E0

Possible values:

These values are in hexadecimal (Base 16)format. Only the last two variables on the line should ever be changed. These variables are the Picture Eject Distance (PED) and the Picture Input Distance (PID), respectively.The PID corresponds to how far the scanner continues to “pull” the image into the machine after it has noticed the trailing edge. The only reasons for changing thesevariables are if the picture is “swallowed” by the scanner, or if any of the wanted data in the picture cannot be captured by manipulating the PCS_AOIxx values also in this .CNF file.

The scaling for these variables is approximately 100h (100 hex) to 1 inch. It is a good idea to first change only the PID, then add 50h for the PED. As an example, assume you are scanning a photo laminated with clear plastic. The “electronic eye” of the scanner would not be able to detect the plastic, and would consider the end of the photo to be the trailing edge. In order to pull in the entire card, including the plastic, the PID should be increased about half an inch (80h) to 260h (1E0h + 80h).The PED would then become 2B0h (260h + 50h).

PCS_MUST_REMOVE -

This variable determines whether or not the user must remove the photo once the scan is complete, before he/she can continue. It is a security feature in conjunction with the auto-feed feature. Possible values:

YES - User must remove photo
NO - User need not remove photo

Default value:

YES

POC_VGA.CNF - VGA output controller.
CFR_LAYOUT_FILE- Card layout file to be drawn.

POC_N9.CNF - NUMBER NINE graphics adapter output controller.
CFR_LAYOUT_FILE - Card layout file to be drawn.

POC_8514.CNF - Paradise 8514a output controller.
CFR_LAYOUT_FILE - Card layout file to be drawn.

DSP.CNF
DSP_BASE_ADDRESS - Base I/O Address of the DSP Board, Was 816 in version 1 and early version 2 now moved to 312.

MATROX PORTRAIT INPUT CONTROLLER CONFIGURATION FILE

File Name: MIC_ILUM.CNF

Objects:

MIC_RESOLUTION Type: string
Determines the frame grabber resolution during portrait capture. Available options are “640X480” (2 Mbyte board only), “512X480”, and “512X400”. Only “640X480”, which gives a 1:1 pixel aspect ratio, or “512X480”, which gives a 5:4 aspect ratio, are recommended.

VIDEO_IN Type: string
Determines camera type. Possible settings are “RGB” for RGB camera, or “COMP” for composite (NTSC) camera or still video player.

FAST_SYNC Type: string
Is “YES” if the special Matrox board modified for fast genlock is installed, otherwise it should be “NO”.

SCRUNCHED Type: string
Is “YES” to cause the screen to remain scrunched after exiting the portrait capture menu. If “NO”, the screen is reset after this menu to restore it to normal size. “YES” is required if a TX-1500 thermal printer with non-interlaced input is installed, in order to prevent noise on the print.

RGB_STROBE Type: string
Is “YES” to enable flash unit for RGB camera, otherwise “NO”.

COMP_STROBE Type: string
Is “YES” to enable flash unit for composite camera, otherwise “NO”. Should be “NO” for still video player.

LIVE_IRIS Type: string numeric
The 8 bit value sent to the iris DAC for live mode. Not used for the current support board. May be used if an iris DAC is someday installed.

FREEZE_IRIS Type: string numeric
The 8 bit value sent to the iris DAC for freeze mode. Not used for the current support board.

STROBE_RECHARGE Type: string numeric
The number of seconds required to recharge the strobe. This enforces a minimum time between strobe firings.

RGB_GAIN Type: string numeric
Sets DAC gain at the video input during freeze for RGB cameras. Range “0” to “100”. Note that 0 is highest gain, 100 is lowest gain.

RGB_OFFSET Type: string numeric
Sets the brightness during freeze for RGB cameras. Range “0” to “100”.

RGB_CONTRAST Type: string numeric
Sets the contrast during freeze for RGB cameras. Range “0” to “100”, with 100 being highest contrast.

LIVE_RGB_GAIN
LIVE_RGB_OFFSET
LIVE_RGB_CONTRAST
Same as above, but for live mode.

COMP_GAIN Type: string numeric
Sets DAC gain during freeze for NTSC cameras. Range “0” to “100”. Note 0 is highest, 100 is lowest gain.

COMP_OFFSET Type: string numeric
Sets the brightness during freeze for NTSC cameras. Range “0” to “100”.

COMP_CONTRAST Type: string numeric
Sets contrast during freeze for NTSC cameras. Range “0” to “100”, with 100 being highest contrast.

COMP_SATURATION Type: string numeric
Sets color saturation during freeze for NTSC cameras. Range “0” to “100”. 0 is no color.

COMP_HUE Type: string numeric
Sets hue during freeze for NTSC cameras. Range “0” to “100”.

LIVE_COMP_GAIN Type: string numeric
LIVE_COMP_OFFSET
LIVE_COMP_CONTRAST
LIVE_COMP_SATURATION
LIVE_COMP_HUE
Same as above, but for live mode.

AOI_XMIN Type: string numeric
AOI_XMAX
AOI_YMIN
AOI_YMAX
Defines the area of interest in the portrait. Range is "0" to "255" for AOI_XMIN and AOI_XMAX, and "0" to "383" for AOI_YMIN and AOI_YMAX.

FACE_BRIGHT Type: string numeric
Enables hardware face brightener. "0" disables, "1" enables. Note: may be superseded by software face brightener.

FACE_BRIGHT_VALUE Type: string numeric
The change in gain value used when face brightener is enabled. Reasonable values range from 0 to 20 or so. This can be one or two numbers. If two numbers are used, the face brightener will have two levels (off, level 1, level 2); otherwise it will be one level (off, on). Example: "10 15" for a two-step brightener.

FACE_BRIGHT_OFFSET Type: string numeric
The change in offset value used when face brightener is enabled. This can be one or two numbers. The number of levels must be the same as in FACE_BRIGHT_VALUE. Example: "10 20" for two-step brightener.

PORTRAIT_BACKGROUND_THRESHOLD Type: string numeric
Sets the threshold for determining the background color for Electronic Background (soft ware chroma keying). Typical value is "30". Increase for noisy backgrounds or if parts of the background are not being substituted. Decrease if parts of the person are being cut away.

PORTRAIT_BACKGROUND_ITER Type: string numeric
Controls the halo for Electronic Background. Typical value is "4". Increase to remove more of the halo. Decrease if too much of the person is being shaved off.

NOTE

The following configuration objects are set by the calibration routine (MCAL) and the adjust system menu:

MIC_RESOLUTION
VIDEO_IN
LIVE_IRIS
COMP_GAIN
COMP_OFFSET
COMP_CONTRAST

FREEZE_IRIS	COMP_SATURATION
RGB_GAIN	COMP_HUE
RGB_OFFSET	LIVE_COMP_GAIN
RGB_CONTRAST	LIVE_COMP_OFFSET
LIVE_RGB_GAIN	LIVE_COMP_CONTRAST
LIVE_RGB_OFFSET	LIVE_COMP_SATURATION
LIVE_RGB_CONTRAST	LIVE_COMP_HUE

The following objects can only be set by directly editing the configuration file:

FAST_SYNC	FACE_BRIGHT
RGB_STROBE	FACE_BRIGHT_VALUE
COMP_STROBE	FACE_BRIGHT_OFFSET
SCRUNCHED	AOI_XMIN
STROBE_RECHARGE	AOI_XMAX
PORTRAIT_BACKGROUND_THRESHOLD	AOI_YMIN
PORTRAIT_BACKGROUND_ITER	AOI_YMAX

MATROX PREVIEW OUTPUT CONTROLLER CONFIGURATION FILE

File Name: MOC_ILUM.CNF

Objects:

CFR_LAYOUT_FILE Type: string
Card layout file to be drawn.

MOC_RESOLUTION Type: string
Determines the display resolution during card preview. Available options are "640X480" (2 Mbyte board only), "1024X768" (2 Mbyte board and multiscan monitor only), "512X480", and "512X400".

MOC_INTERLACE Type: string
Determines if the preview screen is interlaced. "Y" is interlaced, "N" is non-interlaced. VGA monitors require "N". 1024X768 resolution requires "Y".

MOC_XSIZE Type: string numeric
MOC_YSIZE
Determines the physical size of the card layout on the screen. The logical card coordinates are mapped to this area. For downward compatibility with card layouts designed for the Paris board, it is possible for these parameters to be larger than the actual monitor resolution, since these cards are drawn with die cutter offsets built into the card graphics commands. New card layouts should not have any die cutter offsets. They should be drawn to the edges of the logical coordinate space.

MOC_XOFFSET Type: string numeric
MOC_YOFFSET
Used to position the card on the preview screen. Can be positive or negative. Use in combination with CARD_XSIZE and CARD_YSIZE to fit the card image to the preview screen.

CI-5000 FILM PRINTER CONFIGURATION FILE

File Name: HOC_CI5K.CNF

Objects:

HOC_RESOLUTION Type: string
Determines the resolution of the printable area of the film. All of the individual cards must fit within this area. Practically any values are allowed, but limited by the amount of memory in the CI5000. Typical values are “1024X768”, “1200X800”, etc.

CARDS_PER_SHEET Type: string numeric
Is “1” for a 1 UP application, “2” for 2 UP.

CARD1_XSIZE Type: string numeric
CARD1_YSIZE
Determines the physical size of the first card on the film. The logical coordinates are mapped to this area. Note that X is always along the long dimension of the film, even for a 2 UP.

CARD1_XOFFSET Type: string numeric
CARD1_YOFFSET
Used to position the first card on the film. Used in conjunction with CARD1_XSIZE and CARD1_YSIZE to fit the card to the die cutter.

CARD2_XSIZE Type: string numeric
CARD2_YSIZE
CARD2_XOFFSET
CARD2_YOFFSET
Determines the size and position of the second card on the film. Used only for a 2 UP application.

PORTNO Type: string numeric
It is ignored for a SCSI CI-5000+.

LIGHTEN_DARKEN Type: string numeric
Lightens or darkens the entire card. Ranges from “0” to “6”, with “3” being the nominal value, “6” twice as light, “0” half as light.

COLOR_BALANCE Type: string
Sets the color balance of the entire card by specifying the brightness of each color plane. It is a sequence of three numbers “R G B”, where R sets the Red brightness, G the Green, and B the Blue. Each number ranges from 0 to 6, with 3 being nominal, 6 twice as light, 0 half as light.

EXPOSURE_TIME Type: string
Allows additional control over the lightness and color balance of the card by adjusting the exposure time of each color plane. It is a sequence of three numbers “R G B”. Each number ranges from 50 to 200, with 100 being nominal.

LUMINANT Type: string
Allows additional control over the lightness and color balance of the card by adjusting the brightness of the CRT. It is a sequence of three numbers “R G B”. Each number ranges from 50 to 200, with 100 being nominal.

LIGHTEN_DARKEN_PORTRAIT Type: string numeric
Allows control over the portrait lightness above and beyond the adjustments described above for the entire card. Ranges from “0” to “6”, with “3” being nominal.

COLOR_BALANCE_PORTRAIT Type: string
Allows control over the color balance of the portrait. It is a sequence of three numbers “R G B”. Each number ranges from 0 to 6, with 3 being nominal.

HOC_TINT_TABLE Type: string
An optional list which modifies how the LIGHTEN_DARKEN_PORTRAIT and COLOR_BALANCE_PORTRAIT work. It is a list of 13 exposure factors indexed by LIGHTEN_DARKEN_PORTRAIT+COLOR_BALANCE_PORTRAIT (note this ranges from 0 to 12). A factor of 64 is equivalent to the nominal exposure, 32 is half the exposure, 128 is twice, etc.

USERDELAY Type: string numeric
Specifies the time out in seconds if the user does not respond to a particular command.

DEVTIME Type: string numeric
Specifies the film development time as in index into a table: 0 - 45 sec, 1 - 50 sec, 2 - 60 sec, 3 - 70 sec, 4 - 80 sec, 5 - 90 sec, 6 - 100 sec, 7 - 120 sec.

FORCE_PRINT Type: string
Set by the application when it wants to force a single card in a 2-up configuration.

DP_FILM_TABLE Type: string
The name of a film table that is to be downloaded into the CI-5000.
Typical file is “ID669.FLM”, the fast film table.

DP_CAMERA_OVERSCAN Type: string numeric
The amount (in percent) that the raster size should exceed the print area on the film. This is to allow for variations between film packs and lots of film. It is read by the calibration program CICAL.

DP_CAMERA_ADJUST_X Type: string numeric
DP_CAMERA_ADJUST_Y
DP_CAMERA_ADJUST_Z
These parameters are set by the calibration program CICAL. Normally the user would not know how to set them. The values are unique to a particular CI-5000/camera back combi nation.

CFR Type: string
Enables or disables the film printer. Can be “ON” or “OFF”.

TX-1500 THERMAL PRINTER CONFIGURATION FILE

File Name: HOC_TP.CNF

Objects:

HOC_TP_RESOLUTION Type: string
Determines the resolution of the printable area of the film. All of the individual cards must fit within this area. This should be “640X480”, which requires the 2Mbyte Matrox board.

HOC_TP_CARDS_PER_SHEET Type: string numeric
Is “1” for a 1 UP application, “2” for 2 UP.

HOC_TP_CARD1_XSIZE Type: string numeric
HOC_TP_CARD1_YSIZE
Determines the physical size of the first card on the film. The logical coordinates are mapped to this area. Note that X is always along the long dimension of the film, even for a 2 UP.

HOC_TP_CARD1_XOFFSET Type: string numeric
HOC_TP_CARD1_YOFFSET
Used to position the first card on the film. Used in conjunction with CARD1_XSIZE and CARD1_YSIZE to fit the card to the die cutter.

HOC_TP_CARD2_XSIZE Type: string numeric
HOC_TP_CARD2_YSIZE
HOC_TP_CARD2_XOFFSET
HOC_TP_CARD2_YOFFSET
Determines the size and position of the second card on the film. Used only for a 2 UP application.

HOC_TP_LIGHTEN_DARKEN Type: string numeric
Lightens or darkens the entire card. Ranges from “0” to “6”, with “3” being the nominal value, “6” twice as light, “0” half as light.

HOC_TP_COLOR_BALANCE Type: string
Sets the color balance of the entire card by specifying the brightness of each color plane. It is a sequence of three numbers “R G B”, where R sets the Red brightness, G the Green, and B the Blue. Each number ranges from 0 to 6, with 3 being nominal, 6 twice as light, 0 half as light.

HOC_TP_LIGHT_DARK_PORT Type: string numeric
Allows control over the portrait lightness above and beyond the adjustments described above for the entire card. Ranges from “0” to “6”, with “3” being nominal.

HOC_TP_COLOR_BAL_PORT Type: string
Allows control over the color balance of the portrait. It is a sequence of three numbers “R G B”. Each number ranges from 0 to 6, with 3 being nominal.

HOC_TP_ALL_TINT_TABLE Type: string
An optional list which modifies how the HOC_TP_LIGHTEN_DARKEN and HOC_TP_COLOR_BALANCE work. It is a list of 13 exposure factors indexed by LIGHTEN_DARKEN + COLOR_BALANCE (note this ranges from 0 to 12). A factor of 64 is equivalent to the nominal exposure, 32 is half the exposure, 128 is twice, etc.

HOC_TP_PORT_TINT_TABLE Type: string
An optional list which modifies how the HOC_TP_LIGHT_DARK_PORT and HOC_TP_COLOR_BAL_PORT work. It is a list of 25 exposure factors indexed by HOC_TP_LIGHT_DARK_PORT + HOC_TP_COLOR_BAL_PORT + HOC_TP_LIGHTEN_DARKEN + HOC_TP_COLOR_BALANCE (note this ranges from 0 to 24). A factor of 64 is equivalent to the nominal exposure, 32 is half the exposure, 128 is twice, etc.

FORCE_PRINT Type: string
Set by the application when it wants to force a single card in a 2-up configuration.

HOC_TP_MAX_PRINT_TIME Type: string numeric
The time required for a sheet to print. This timing is done by the software when status is not available.

HOC_TP_INTERLACE Type: string
Specifies whether the input to the thermal printer is interlaced (“Y”) or non-interlaced (VGA) (“N”). The default as of Ver. 2.3 is “Y”.

COLOR_THERM_PRINT Type: string
Enables or disables the thermal printer. Can be “ON” or “OFF”.

BLACK AND WHITE THERMAL PRINTER CONFIGURATION FILE

File Name: BWTP.CNF

Objects:

BW_TP (string): Enables BW thermal printer. ON=Enabled, OFF= disabled.

BWTP_INTERLACE (string): Determines whether the printer uses an interlaced video signal (YES/NO).

BWTP_REMOTE (string): Determines whether the printer is controlled by a remote button (YES/NO).

BWTP_RESOLUTION (string numeric): Sets the video resolution used by the printer. Normally “640X480”.

BWTP_XOFFSET (string numeric): Sets the printing offset in the X direction.

BWTP_YOFFSET (string numeric): Sets the printing offset in the Y direction.

BWTP_XSIZE (string numeric): Sets the physical size for the ID card or temporary pass, in the x-direction.

BWTP_YSIZE (string numeric): Sets the physical size for the ID card or temporary pass, in the y-direction.

VS-3000 ADVANCED (LIVE/STORED) CONFIGURATION FILE

File Name: VER_ILUM.CNF

Objects:

CFR_LAYOUT_FILE (string): Sets the name of the verification layout file. This layout positions the live and stored images on the verification screen.

VER_LIVE_XSIZE (string numeric):
VER_LIVE_YSIZE (string numeric): Set the number of pixels in the X and Y direction used by the portrait live window. Should correspond to the window size in the verification layout file.

VER_LIVE_XPOS (string numeric):
VER_LIVE_YPOS (string numeric): Set the X,Y location of the upper left corner of the portrait live window. Should correspond to the window position in the verification layout file.

VER_RESOLUTION (string): Determines the frame grabber resolution during portrait capture. Available options are “640X480” (2 Mbyte board only), “512X480”, and “512X400”. Only “640X480”, which gives a 1:1 pixel aspect ratio, or “512X480", which gives a 5:4 aspect ratio, are recommended.

VER_XOFFSET (string numeric):
VER_YOFFSET (string numeric): Used to position the verification layout on the screen. Should be positive. Use in combination with VER_XSIZE and VER_YSIZE to fit the verification layout on the screen.

VER_XSIZE (string numeric):

VER_YSIZE (string numeric): Determines the physical size of the verification layout on the screen. The logical coordinates are mapped to this area.

VER_INTERLACE (string): Determines if the verification screen is interlaced. “Y” is interlaced, “N” is non-interlaced. VGA monitors require “N”. 1024X768 resolution requires “Y”.

VER_VIDEO_IN (string): Determines camera type. Possible settings are “RGB” for RGB camera, or “COMP” for composite (NTSC) camera or still video player. Default is “COMP”.

FAST_SYNC (string): Is “YES” if the special Matrox board modified for fast genlock is installed; otherwise it should be “NO”.

LIVE_IRIS (string hex): The 8 bit value sent to the iris DAC for live mode. Not used for the current support board. May be used if an iris DAC is someday installed.

VER_RGB_GAIN (string numeric): Sets DAC gain at the video input during live mode for RGB cameras. Range “0” to “100”. Note that 0 is highest gain, 100 is lowest gain.

VER_RGB_OFFSET (string numeric): Sets the brightness during live mode for RGB cameras. Range “0” to “100”.

VER_RGB_CONTRAST (string numeric): Sets the contrast during live mode for RGB cameras. Range “0” to “100”, with 100 being highest contrast.

VER_COMP_GAIN (string numeric): Sets DAC gain during live mode for NTSC cameras. Range “0” to “100”. Note 0 is highest, 100 is lowest gain.

VER_COMP_OFFSET (string numeric): Sets the brightness during live mode for NTSC cameras. Range “0” to “100”.

VER_COMP_CONTRAST (string numeric): Sets contrast during live mode for NTSC cameras. Range “0” to “100”, with 100 being highest contrast.

VER_COMP_SATURATION (string numeric): Sets color saturation during live mode for NTSC cameras. Range “0” to “100”. 0 is no color.

VER_COMP_HUE (string numeric): Sets hue during live mode for NTSC cameras. Range “0” to “100”.

COMPARE_LIVE (string): set to “ON” when system is configured with Live Video Comparison (live/still) option. Set to “OFF” otherwise.

SIGNATURE SCANNER CONFIGURATION FILE

File Name: SIS_SCAN.CNF

Objects:

SIG_XSTART & SIG_YSTART (string numeric): Determine the upper left corner of the signature box in dots, where “upper left” is defined as the corner opposite the cut corner of the card regardless of the signature orientation.

SIG_XSIZE & SIG_YSIZE (string numeric): Determine the width and height of the signature box in dots. SIG_XSIZE is always across the short dimension of the card, and SIG_YSIZE is always across the long dimension of the card, regardless of the signature orientation.

SIG_DPI (string numeric): Determines the resolution of the scanner in dots per inch. Possible values are “100”, “200”, “300”, “400”. It must match the switch setting on the scanner.

SIG_DIRECTION (string numeric): Determines the orientation of the signature on the card. Possible values are “0”, “1”, “2”, or “3”. “3” is the orientation of the Paris signature card, assuming the card is inserted with the cut corner going in. “0” is the typical orientation for the scanner hardware which scans on the way in.

SIG_NUM_MARKS (string numeric): Determines the number of index marks to be located in order to set the origin of the card. The origin is set at the bottom of the specified index mark. The value can be 0 if there is no index mark on the card, although without a mark the y-offset (SIG_YSTART) of the area of interest from the origin will not be reliable. The value currently should be 1, since only one image per card should be scanned.

SIG_MAX_CARD (string numeric): The maximum length, in inches, to be scanned while locating index marks. This length should not exceed that of the card, but cannot be less than the distance from the top of the card to the bottom of the index mark.

SIG_MAX_SCAN (string numeric): The maximum scannable length from the card origin (i.e., bottom of specified index mark), in inches. This value determines the length of the area

to be displayed during configuration, and should not exceed the distance from the bottom of the index mark to the point where the motor must be reversed.

SIS (string): ON or OFF, depending on whether or not the application uses the signature scanner.

SIG_COMPRESS (string): Determines the type of compression used. For the ID2000GS or the ID3000, this should be “G3” for CCITT Group 3.

SIG_THRESHOLD (string): Threshold for gray-scale signature scanner. Typical value is “20”.

SUPPORT BOARD CONFIGURATION FILE

File Name: SUPPORT.CNF

Objects:

SUPPORT_BOARD: Enable variable (“ON” or “OFF”)

SUPPORT_BASE_ADDRESS: Base address of module in format “0xhhh” (h is a hex digit)

SUPPORT_NUM_PORTS: Number of ports on board

SB_IDLE_0 and SB_IDLE_1: Idle pattern for each port: “write 0xhh” (port is a decimal port number, write is “RW” for read-write or “RO” for read-only, h is a hex digit)

SB_name: for each assigned line, “port mask” (name is a string of less than 16 characters which is also known to the controller, port is a decimal port number, mask = 0xhh)

“SB_STROBE”,”0 0x01" - strobe fire is port 0, bit 0
“SB_IRIS”,”0 0x02" - iris is port 0, bit 1
“SB_SIG_ENABLE”,”0 0x04" - motor en is port 0, bit 2
“SB_SIG_DIR”,”0 0x08" - motor dir is port 0, bit 3
“SB_BWTP_REMOTE”,”0 0x10" - BWTP print is port 0, bit 4
“SB_CTP_MEM”,”0 0x20" - TX1500 grab is port 0, bit 5
“SB_CTP_PRINT”,”0 0x40" - TX1500 print is port 0, bit 6
“SB_SIG_CARDPRES”,”1 0x01" - Sign card present is port 1, bit 0
“SB_CI5K_PULL”,”1 0x02" - Film pull is port 1, bit 1

The port number ranges from 0 to (SUPPORT_NUM_PORTS - 1), and is equal to the offset of the port from the base address. The port number is separated from the bit pattern by a blank space. The mask consists of all zeros except for the bit in question, which is a 1. The idle state of the bit (and, by implication, its active state) is given by “SB_IDLE_port”, not by the mask value itself.

CNF Files and Typical Contents

The following indicates the default CNF file contents unless listed as customer-specific.

HOC_HPLJ.CNF:

```
”DOSSIER_LAYOUT_FILE”,”dossiers”;          customer-specific
“DOSSIERLPT”,”1";
“DOSSIER_DIAG_LAYOUT”,””;
“HPLJ_ORIENT”,””;
“HPLJ_BRIGHT”,”4";
“HPLJ_CONTRAST”,”159";
“HPLJ_CURVE”,””;
“HPLJ_FONT2”,””;
“HPLJ_FONT4”,””;
“HPLJ_FONT5”,””;
“HPLJ_FONT1”,””;
“HPLJ_FONT3”,””
;
```

POC_VGA.CNF:

```
”CFR_LAYOUT_FILE”,”vga1";          customer-specific
```

APP_CON.CNF:

```
“APP_CON_SOF”,””;              Include only this line for ID-2000+/ID-1000
“COLOR_VIDEO_CAMERA”,”MIP_CON”;
“STILL_VIDEO_CAMERA”,”MIP_CON”;
“WS_PREVIEW”,”MOP_CON”;
“WS_VERIFY”,”LV_CON”;
“SIGNATURE”,”SIS_CON”;
“CFR_CON”,”CI5K
_CON”;                                    or “TPOH_CON” for thermal “SCANNER”,”PCS_CON”;
“DOSSIER”,”DOS_CON”;
“TEMP_PASS”,”BWTP_CON”;
```

REPORT.CNF:

```
”HEADER_LINES”,”2";
“HEADER_LINE1”,”    POLAROID ID2000 REPORT GENERATOR    PAGE @PAGE “;
“HEADER_LINE2”,”            (@HEAD REPORT)”
```

TAPECOMP.CNF

”SCSITID”,”7"; SCSI ID of tape drive

DSP.CNF

”DSP_BASE_ADDRESS”,”312"; /* was 816 */

MIC_ILUM.CNF

”MIC_RESOLUTION”,”512X480";
“VIDEO_IN”,”RGB”;
“FAST_SYNC”,”Y”;
“SCRUNCHED”,”N”; should be “Y” for non-interlaced thermal “RGB_STROBE”,”YES”;
“COMP_STROBE”,”NO”;
“LIVE_IRIS”,”0"; “FREEZE_IRIS”,”0";
“STROBE_RECHARGE”,”11";
“RGB_GAIN”,”91"; see note above regarding automatic cal.
“RGB_OFFSET”,”17";
“RGB_CONTRAST”,”65";
“LIVE_RGB_GAIN”,”40";
“LIVE_RGB_OFFSET”,”30";
“LIVE_RGB_CONTRAST”,”30";
“COMP_GAIN”,”83";
“COMP_OFFSET”,”2";
“COMP_CONTRAST”,”65";
“COMP_SATURATION”,”74";
“COMP_HUE”,”49";
“LIVE_COMP_GAIN”,”83";
“LIVE_COMP_OFFSET”,”2";
“LIVE_COMP_CONTRAST”,”65";
“LIVE_COMP_SATURATION”,”74";
“LIVE_COMP_HUE”,”49";
“FACE_BRIGHT”,”0";
“FACE_BRIGHT_VALUE”,”10 10";
“FACE_BRIGHT_OFFSET”,”10 20";
“AOI_XMIN”,”0"; “AOI_XMAX”,”255";
“AOI_YMIN”,”0";
“AOI_YMAX”,”383";
“ZOWIE_LEVEL”,”5";
“PORTRAIT_BACKGROUND_THRESHOLD”,”35";
“PORTRAIT_BACKGROUND_ITER”,”4";

The following values are optional and are used to customize chroma-keying
“PORTRAIT_BACKGROUND_GAIN”,”40";
“PORTRAIT_BACKGROUND”,””;
“PORTRAIT_BACKGROUND_RED”,””;
“PORTRAIT_BACKGROUND_GREEN”,””;
“PORTRAIT_BACKGROUND_BLUE”,””;

MOC_ILUM.CNF

”CFR_LAYOUT_FILE”,”white”;
“MOC_RESOLUTION”,”640X480";
“MOC_XOFFSET”,”0";
“MOC_YOFFSET”,”0";
“MOC_XSIZE”,”640";
“MOC_YSIZE”,”428";
“MOC_INTERLACE”,”N”;

HOC_CI5K.CNF (for 2-UP CR60 format)

”HOC_RESOLUTION”,”1024X768";
“PORTNO”,”1";
“LIGHTEN_DARKEN”,”3";
“COLOR_BALANCE”,”3 3 3";
“EXPOSURE_TIME”,”100 100 100";
“LUMINANT”,”100 100 100";
“LIGHTEN_DARKEN_PORTRAIT”,”3";
“COLOR_BALANCE_PORTRAIT”,”3 3 3";
“USERDELAY”,”30"; “DEVTIME”,”2";
“FORCE_PRINT“,”NO”;
“DP_FILM_TABLE”,”id669.flm”;
“DP_CAMERA_OVERSCAN”,”3";
“DP_CAMERA_ADJUST_X”,”-6"; these are modified by CICAL.EXE
“DP_CAMERA_ADJUST_Y”,”4";
“DP_CAMERA_ADJUST_Z”,”0";
“CFR”,”ON”;
; Card size info is updated during software installation
; for CR-60/2-up “CARDS_PER_SHEET”,”2";
“CARD1_XOFFSET”,”7";
“CARD1_YOFFSET”,”3";
“CARD1_XSIZE”,”495";
“CARD1_YSIZE”,”762";
“CARD2_XOFFSET”,”502";
“CARD2_YOFFSET”,”3";
“CARD2_XSIZE”,”495";

```
“CARD2_YSIZE”,”762";
;    for CR-79
; “CARDS_PER_SHEET”,”1";
; “CARD1_XOFFSET”,”62";
; “CARD1_YOFFSET”,”120";
; “CARD1_XSIZE”,”870";
; “CARD1_YSIZE”,”532";
;    for CR-80
; “CARDS_PER_SHEET”,”1";
; “CARD1_XOFFSET”,”43";
; “CARD1_YOFFSET”,”84";
; “CARD1_XSIZE”,”938";
; “CARD1_YSIZE”,”596";
```

HOC_TP.CNF (for 2-UP CR60 format)

```
”HOC_TP_RESOLUTION”,”640X480";
“HOC_TP_LIGHTEN_DARKEN”,”3";
“HOC_TP_COLOR_BALANCE”,”3 3 3";
“HOC_TP_LIGHT_DARK_PORT”,”3";
“HOC_TP_COLOR_BAL_PORT”,”3 3 3";
“HOC_TP_PORT_TINT_TABLE”,””;
“HOC_TP_ALL_TINT_TABLE”,””;
“FORCE_PRINT”,”NO”;
“HOC_TP_MAX_PRINT_TIME”,”120";
“HOC_TP_INTERLACE”,”Y”;     /* “N” for non-interlaced */ “COLOR_THERM_PRINT”,”ON”;
; Card size info is updated during software installation
;  for CR-60/2-up
“HOC_TP_CARDS_PER_SHEET”,”2";
“HOC_TP_CARD1_XOFFSET”,”51";
“HOC_TP_CARD1_YOFFSET”,”16";
“HOC_TP_CARD1_XSIZE”,”286";
“HOC_TP_CARD1_YSIZE”,”444";
“HOC_TP_CARD2_XOFFSET”,”337";
“HOC_TP_CARD2_YOFFSET”,”16";
“HOC_TP_CARD2_XSIZE”,”286";
“HOC_TP_CARD2_YSIZE”,”444";
;    for CR-79
; “HOC_TP_CARDS_PER_SHEET”,”1";
; “HOC_TP_CARD1_XOFFSET”,”84";
; “HOC_TP_CARD1_YOFFSET”,”84";
; “HOC_TP_CARD1_XSIZE”,”504";
; “HOC_TP_CARD1_YSIZE”,”311";
;    for CR-80
```

; “HOC_TP_CARDS_PER_SHEET”,”1";
; “HOC_TP_CARD1_XOFFSET”,”67";
; “HOC_TP_CARD1_YOFFSET”,”65";
; “HOC_TP_CARD1_XSIZE”,”542";
; “HOC_TP_CARD1_YSIZE”,”349";

VER_ILUM.CNF

”CFR_LAYOUT_FILE”,””;
“VER_LIVE_XSIZE”,”265";
“VER_LIVE_YSIZE”,”330";
“VER_LIVE_XPOS”,”340";
“VER_LIVE_YPOS”,”65";
“VER_RESOLUTION”,”640X480";
“VER_XOFFSET”,”0";
“VER_YOFFSET”,”0";
“VER_XSIZE”,”640";
“VER_YSIZE”,”480";
“VER_INTERLACE”,”N”;
“VER_VIDEO_IN”,”C
OMP”; “FAST_SYNC”,”Y”;
“LIVE_IRIS”,””;
“VER_RGB_GAIN”,”60";
“VER_RGB_OFFSET”,”30";
“VER_RGB_CONTRAST”,”50";
“VER_COMP_GAIN”,”60";
“VER_COMP_OFFSET”,”30";
“VER_COMP_CONTRAST”,”65";
“VER_COMP_SATURATION”,”74";
“VER_COMP_HUE”,”49";
“COMPARE_LIVE”,”OFF”;

SIS_SCAN.CNF

”SIG_XSTART”,”160";
“SIG_YSTART”,”432";
“SIG_XSIZE”,”440";
“SIG_YSIZE”,”120";
“SIG_DPI”,”200";
“SIG_DIRECTION”,”0";
“SIG_NUM_MARKS”,”1";
“SIG_MAX_CARD”,”3";
“SIG_MAX_SCAN”,”3";
“SIS”,”ON”;

```
“SIG_COMPRESS”,”G3";
“SIG_THRESHOLD”,”20";
```

PCS.CNF:

```
”PCS”,”ON”                      /* turn scanner off/on */
“PCS_COLORMODE”,”COLOR”  /* BW */
“PCS_RESOLUTION”,”DPI125"          /* “PCS_RESOLUTION”,”DPI125" */
“PCS_PIXELFORMAT”,”PLANE”  /* “PLANE” */
“PCS_AOIX1”,”080"               /* “PCS_AOIX1”,”080" */
“PCS_AOIX2”,”336"               /* “PCS_AOIX2”,”336" */
“PCS_AOIY1”,”080"               /* “PCS_AOIY1”,”080" */
“PCS_AOIY2”,”464"               /* “PCS_AOIY2”,”464" */
“PCS_HARDBUF”,”2MEG”     /* 2MEG - FIFO buffer, 0MEG - 64Kb buff */
“PCSWINDOW”,”OFF”                    /* scan controller menu OFF/ON */
“PCS_RGBBUF”,”DRGBB”          /* default RGB buffer name DRGBB */
“PCS_MOTORADJUST”,”E8,CF,9D,A0,35,230,1E0"   /* “E8,CF,9D,A0,35,230,1E0” */
“PCS_DATANAME”,”PCSDFLT.DAT”          /* default film table for scanned images */
“PCS_MUST_REMOVE”,”YES”          /* Must remove photo to continue “YES” */
```

SUPPORT.CNF:

```
”SUPPORT_BASE_ADDRESS”,”0x338";
“SUPPORT_NUM_PORTS”,”2";
“SB_IDLE_0”,”RW 0x7a”;
“SB_IDLE_1”,”RO 0x01";
“SB_STROBE”,”0 0x01";
“SB_IRIS”,”0 0x02";
“SB_SIG_ENABLE”,”0 0x04";
“SB_SIG_DIR”,”0 0x08";
“SB_BWTP_REMOTE”,”0 0x10";
“SB_CTP_MEM”,”0 0x20";
“SB_CTP_PRINT“,”0 0x40";
“SB_SIG_CARDPRES”,”1 0x01";
“SB_CI5K_PULL”,”1 0x02";

“SUPPORT_BOARD”,”ON”;                  /* OFF for VS-3000 */
```

Troubleshooting the TX1500

Problem	Probable Cause	Corrective Action
System software does not recognize the Color Thermal Printer	Data connection lost	Check all data cables; make sure they are properly secured and in their proper connections Make sure the COLOR_THER_PRINT variable is set to ON in all HOC_TP.CNF files.
Black pictures are being printed	Wrong cable connections	Make sure that all cables are properly connected; refer to Installation Section.
	Wrong video settings	Make sure the settings on front panel are set according to the mode being used. For Interlaced Mode the following lights should be ON: POWER, READY, FRAME, RGB. For Non-Interlaced Mode the POWER, READY, FRAME ANALOG lights should be ON.
Printing not possible	Paper is not loaded properly	Reload paper with full white face down.
	Paper light is flashing	Printer is out of paper - add paper. Paper is jammed; remove jammed paper (See page 3-31).
	Ink light is flashing	Ink cartridge has run out; replace cartridge and paper. Perform belt cleaning procedure (Page3-32).

For more troubleshooting details, refer to the Polaroid TX1500 Service Manual

Paper Jams

When paper is jammed in the printer, the READY, INK and PRINT button lights blink at the same time.

In the printer housing

1. Remove the ink cartridge (a).

2. Remove the jammed paper while turning the drum in the direction of the arrow (b).

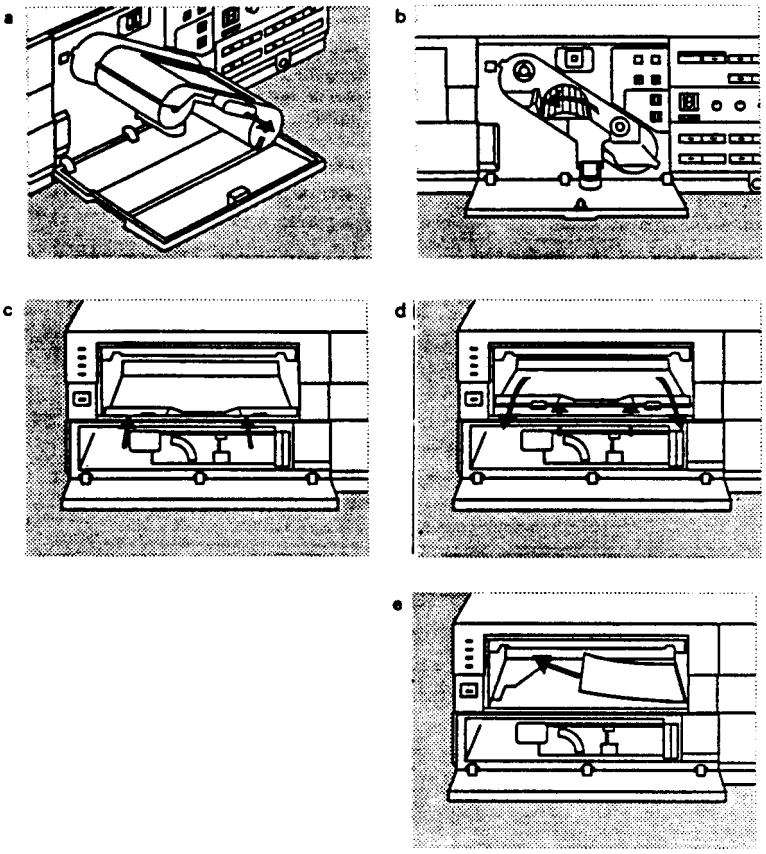
3. Insert the ink cartridge and close the ink cartridge door.

In the paper cassette area

1. Open the paper outlet door and the paper cassette door. Push the bottom plate inward to release, as shown in (c).

2. Then, lift plate and remove it (d).

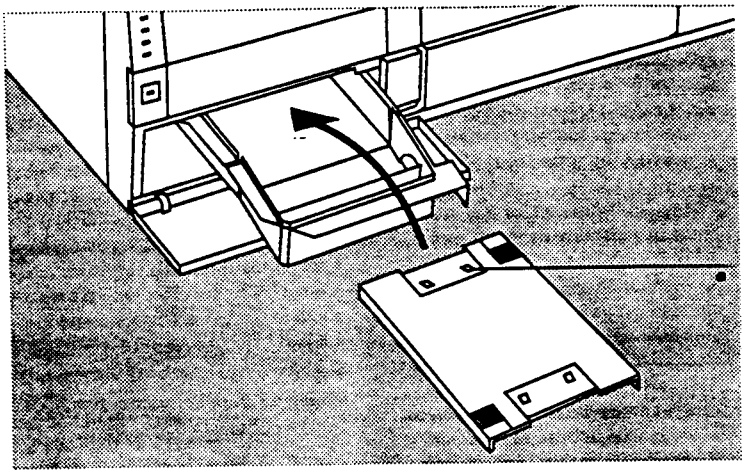
.3. Remove jammed paper (e). Return the bottom plate to its original position. Close the paper cassette door.



Belt cleaning procedure

The belt cleaning plate removes dirt from the paper supply belt inside the printer. Use the belt cleaning plate before you begin to use the printer for the first time, and at routine intervals (after approximately every 200 copies).

Also, clean the belt if you plan to stop using the unit for an extended period of time. In addition, use this plate when paper is not being fed, or if the paper feed is interrupted often.



1. Remove the paper from the paper cassette and insert the belt cleaning plate as shown.

2. Turn the printer POWER or OPERATE switch on. When the READY light stops blinking and stays on, press the PRINT button.

3. The paper light will flash when cleaning is complete.

4. Carefully remove the belt cleaning plate from the paper cassette. If it is difficult to remove dirt from the paper supply belt, moisten the four cleaning tips (a) with isopropyl (rubbing) alcohol for more effective cleaning.

Troubleshooting the CI5000+

Problem	Probable Cause	Corrective Action
No power/no LED	Line cord defective	Check incoming AC power; replace cord if necessary. Replace F1 fuse if necessary. Replace ON/OFF switch.
	Check power supply	Check power supply voltages on J3, J4, J5, Pin 1 -12V, Pin 2 +12V, Pin 3 (GRND), Pin 4 +5V. Check logic Board test points/ voltages: TP12 (GRND), TP13 +5VDC, TP14 +12VDC, TP15 -12VDC. Check wiring and connectors; if problem persists, replace Logic Board.
CI5000 does not work	Film recorder is set to OFF in the system software	Make sure the CFR variable is set to ON in all HOC_CI5K.CNF files.
SOS on front panel LED blinks continuously but unit does not do self diagnostics	Defective Logic Board	Check Logic Board test points: TP12 (GRND), TP13 +5VDC, TP14 +12VDC, TP15 -12VDC. Check wiring and connectors. Run diagnostics to verify Logic Board failure; if it still fails, replace Logic Board and run Diagnostics and Calibration, Film Recorder and Menu options.
CI5000 fails to perform self-diagnostics when power switch is turned ON	Wrong SCSI address	Make sure the SCSI ID switch is set to 2.
	SCSI adapter fails	Check SCSI chain cables; make sure SCSI chain is terminated at both ends (hard drive and CI5000)

Troubleshooting the CI-5000+ (Cont'd)

Problem	Probable Cause	Corrective Action
CI5000 performs self-diagnostics but system does not recognize it; doesn't boot up	SCSI connections are loose	Check all SCSI cables to make sure they are properly connected.
	Film recorder SCSI board is defective	Check F1 fuse on SCSI board; replace fuse or SCSI board as necessary.
No image on film (black image area)	Dark slide still inserted in camera back	Pull dark slide out of camera back before starting exposure.
Distorted image	Electromagnetic interference	Move all electronic devices away from film recorder. Color monitor must be 12" from the film recorder output unit.
Repeating spots on image	Film pulled too quickly from camera	Pull yellow tab at moderate speed.
	Dirty developer rollers in camera back	Clean developer rollers.
Missing corners or orange-red marks on image	Yellow or white tab pulled at an angle	Pull white and yellow tabs straight out of camera back.
	Dirty developer rollers in camera back	Clean developer rollers.
Broad streaks on image	Hesitation during pull of yellow tab	Pull yellow tab smoothly, straight out of camera.
Muddy image, dull colors	Insufficient development time	Develop image for recommended time (90 seconds for 2.3 software).
Dark corner on the ID card	COS^4 is low	Refer to COS adjustment in the Calibration section (page 4-10).

If the CI-5000 is not working properly it should be initialized again; this is done by exiting from the ID3000 menu, turning the system off, then powering up again. Another way to reset the CI-5000 is by pressing the manual RESET button located inside the Color Film Recorder Assembly output unit mounted next to the Power Connector.

The manual reset can be used to expose the resident test image to verify that the CI-5000 is functioning properly. When the RESET switch is pressed, the Reset Control Circuit operates a reset signal that initializes the Microprocessor Control network and associated circuitry. The reset signal from the RC network of the Reset Control Circuit is AC coupled allowing the switch to be pressed for an extended period of time (approximately 30 seconds). In most cases, it releases quickly resulting in a very short signal which causes the Microprocessor and associated circuitry to be initialized.

Once the RESET switch is held in (pressed) for an extended period (approximately 30 seconds) the test image will be exposed, the filter wheel will move, and the LED on the front panel will start blinking. Once the LED stops blinking (50 seconds) the image is exposed. Pull the film from the camera back and wait 70 seconds for the film to develop. The test image consists of seven colored horizontal bars going from red at the top, to white at the bottom. CI-5000 configurations are described just above the test image.

Configurations:

V208:	EPROM version
4K:	Video Random Access Memory (VRAM)
640K:	Dynamic Random Access Memory (DRAM)

SCSI: Indicates the interface type between the computer and the CI-5000

FB:4M: Amount of added memory (4 Megabytes) on the Daughter Board (located on top of the Logic Board).

Troubleshooting the Polaroid Color Scanner

Problem	Probable Cause	Corrective Action
System software does not recognize scanner	Data connection lost	Check SCSI cable connection; make sure SCSI chain is secured at both ends; Make sure the PCS variable is set to ON in all PCS.CNF files.
Scanner fails to start when power switch is turned ON	Loose or broken power connection	Check all power supply wiring and AC power cord; reconnect or repair as necessary.
	Burned out fuse	Replace the main fuse or the power supply fuse as necessary (See Appendix 5, page A-9).
	Faulty power supply	Test power supply and replace if necessary.
Scanner doesn't work	Wrong SCSI address	Make sure the SCSI ID address is set to 4.
	SCSI adapter failure	Check SCSI chain cables Make sure SCSI chain is terminated at both ends (hard drive and CI5000 for film system, or CS500i for thermal system).
Scanner motor runs fast but scanner fails to grip and pull image when it is inserted in film tray	Improperly inserted picture	Remove picture and reinsert.
Scanned picture is out of position	Lost calibration setting	Perform Color Scanner Adjust System Menu option.

For more Polaroid Color Scanner troubleshooting details, refer to the Color Scanner Service Manual

Camera Offset Diagnostics

Problem	Probable Cause	Corrective Action
ID cards are not die cut properly	Film sheet is not correctly inserted into the die cutter	Reinsert the film sheet into the die cutter; try upside down, then die cut.
	Software card position has changed	Using the **Configuration Files** option in the **Calibration & Setup** menu, do the following.

Step 1:
Using two fingers, hold the film sheet up - position the film so that the picture number is in the upper left corner.

Depending on which direction you want to move the ID cards, do the following:

Card 1 and card 2 positions are independent of each other. The variables CARD1_XOFFSET & CARD1_YOFFSET determine the position of card 1; the position of card 2 is determined by CARD2_XOFFSET, CARD2_YOFFSET.

Neither XOFFSET or YOFFSET of both card 1 and card 2 can have a negative value.

Changing the value of YOFFSET moves the card (either 1 or 2) horizontally. Both CARD1_YOFFSET and CARD2_YOFFSET have the same value.The value of XOFFSET affects the vertical position of either card 1 or card 2 accordingly (Figure 3-1).

The top corner of the film exposure area is:

CARD1_XOFFSET "0":
and
CARD1_YOFFSET "0";

The value of CARD2_XOFFSET depends on the X size of card 1. If the value of CARD2_XOFFSET is large enough, it might expose a portion of the card which falls outside of the image area, the exposure will stop and this message will be displayed in the middle of the screen.

Attempted Frame Buffer Exposure Outside of Film Plane - 1
Press Any Key to Continue

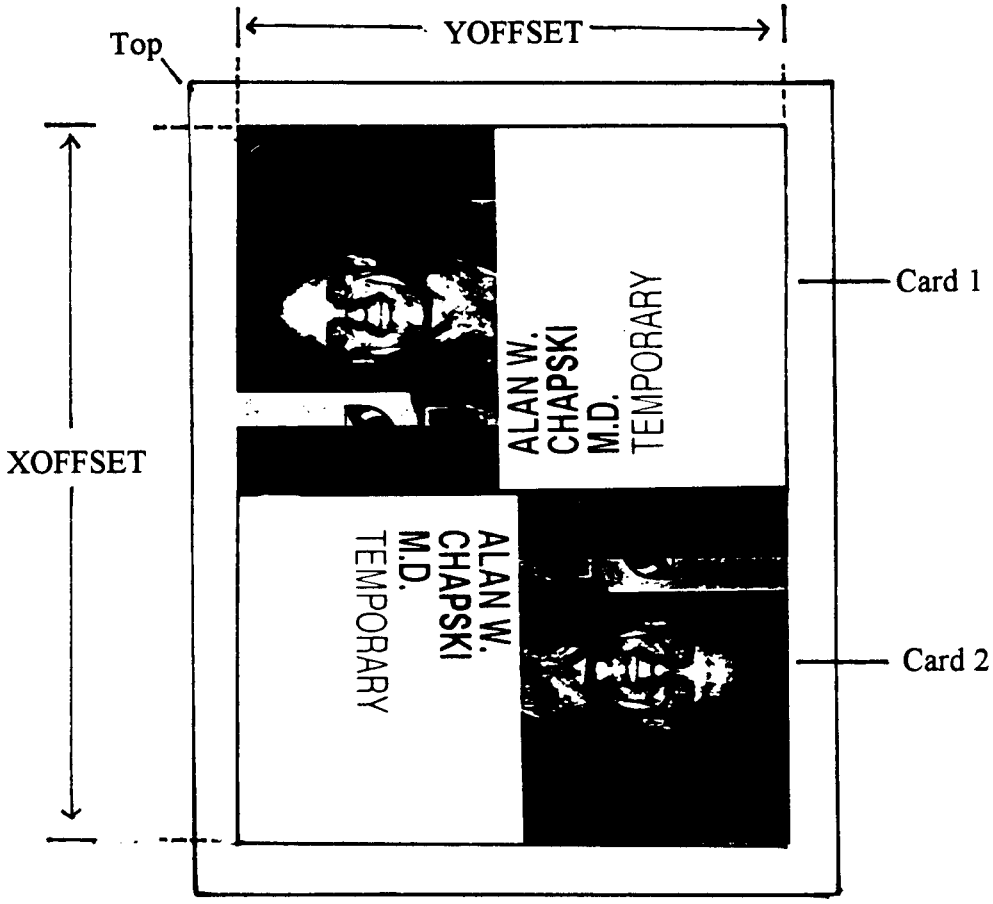


Figure 3-1: YOFFSET for horizontal positioning; XOFFSET for vertical positioning

Troubleshooting Lamination Problems

Problem	Probable Cause	Corrective Action
Bubbles along sealed edge	Temperature too high	Reduce laminator's heater temperature.
Upper edge of finished card is extruded	Temperature setting at extreme end of high side	Lower temperature in proper decrements to reach desired temperature (Section 2, page 2-5).
Voids along edge (incomplete seal)	Temperature too low	Increase laminator temperature.
Parallel ridges across finished card	Carrier improperly inserted into unit	Insert card in exact horizontal position.
CR-80 pouches not sealing properly	User error	Insert CR-80 pouch into two foil/paper carriers to compensate for thinness.
Voids and bubbles on finished card	Uneven heat distribution by rollers ("hot spot" on rollers	Insert an empty pouch to start rollers at least two minutes prior to laminating cards. Note: To avoid bubbles, the optimal temperature for a thermal laminator is approximately 300 degrees F.

Troubleshooting the Strobe

Problem	Probable Cause	Corrective Action
Strobe does not flash	No power to strobe	Make sure the output unit assembly (Film or Thermal) is turned ON. Measure DC voltage (5VDC) at the strobe power connector. If no 5Volts, check the cable connectors, power supply and its fuse; replace any if necessary. If measures 5 Volts, push the manual flashing button on the back of the strobe. If strobe does not flash, replace strobe.
	Loose connections	If strobe flashes, check the camera cable and the connections on the back of the output unit, and the support board on the back of the PC. Check the interface board in the back plate of the output unit; make sure that pin 1 in J7 is connected to pin 22 in J4, and pin 2 in J7 is connected to pin 10 in J4. **Note**: If all of the above are okay and there is no apparent hardware problem, fire the strobe via **debug** to make sure the system is generating the correct signal for the strobe to fire. This is done by selecting **Exit to DOS,** then at the C:AWS3 (F or T) prompt, typing: DEBUG and press <Enter> 0 338 00 (The lens will open) 0 338 FF (The lens will close and the strobe should flash) Type **Q** to quit and press <Enter>.

Troubleshooting Image Quality Problems

Problem	Probable Cause	Corrective Action
Image quality is poor; colors are off, or too light, too dark	Color setting configuration changed	From the system's main menu, set all values in the Adjust System and ID Printer to **Normal.** Select **System Operation** and **Calibration 8Setup**; then run the Image Board Calibration procedure as described in Section 4. Use the **Adjust System ID Printer** option for making minor adjustments to the entire ID card or to the portrait area only.

Note: Check the film to make sure that it has not expired. Refer to the T2000 Product Information Appendix 4.

When using the ID3000 Thermal system, if either the ink or paper run out, it is recommended that both (ink & paper) be replaced.

Card not centered or black borders are showing	CI-5000 out of calibration	Perform CI-5000 Color Film Recorder Assembly Calibration, page 4-14, steps 1-7.
Signature is not centered `	Signature Scanner needs adjustment	Perform Signature Scanner Adjustment, page 2-45.
Signature is too light or too dark	Use another (darker) pen	
Data area not clean white or poor contrast between characters and background.	Film variation for exposure and/or contrast	Adjust overall card exposure using the Lighten Darken Entire Card menu option in the Adjust System (Adjust for data area only, ignore portrait quality adjustment).

Troubleshooting Image Quality Problems (Cont'd)

Problem	Probable Cause	Corrective Action
Portrait too dark or too light	Lighten/Darken in Portrait Only menu not properly adjusted for lighting conditions	Adjust portrait exposure using the Lighten or Darken Portrait Only menu option in the Adjust System.
Portrait to contrasty	Portrait camera needs adjustment via software	Adjust Freeze Contrast and Freeze Offset by selecting Adjust System, then Portrait Camera. Adjusting the Contrast will increse or decrease the contrast; the Offset will compensate for any brightness increase or decrease. See Three Steps to Portrait Adjustments on page 3-45. You must capture new portraits to see the affect of the changes; reissued portraits will not be affected.
Poor portrait color balance		Adjust the proper color balance using Adjust Tint of Portrait Only menu option from the Adjust System and ID Printers menus. If unsure of which way to adjust for color balance, begin by exposing six images while changing the Portrait Tint Red, Green, and Blue values one at a time, $\pm$ 1 unit from nominal. Lay the pictures out, then adjust in appropriate direction, see page 3-46.

Troubleshooting Live/Freeze Image Problems

Problem	Probable Cause	Corrective Action
Too dark or too bright Live Images	Iris lens is not open	Go to **Live Image** and turn the Live pot (marked L) on the back of either the film or thermal output assembly located closest to the VIDEO INPUT/OUTPUT connector; counterclockwise brightens the image and clockwise darkens it. Go the **Adjust System** menu option and select **Portrait Camera**; then perform all the live signal adjustments as described in Section 2, page 2-39) Default Values: LIVE GAIN 40 LIVE OFFSET 30 LIVE CONTRAST 30
Too dark Frozen Images	Strobe does not flash	Check all cable connectors. Go to Strobe Troubleshooting, Section 3, page 3-37.
	Strobe fires, but image is still too dark	Go to **Adjust System** menu option and select **Portrait Cam era**; perform all the Freeze signal adjustments as described in Section 2, page 2-39). Default Values: FREEZE GAIN 91 FREEZE OFFSET 17 FREEZE CONTRAST 65

ERROR MESSAGES

Introduction to Error Messages

Note to service personnel:

The majority of error messages for the ID-3000 is presented on the following pages. However, you should be aware that some of these error messages and their corresponding corrective actions are intended for Software or Applications Engineers only. In these situations, individuals should not attempt to apply the recommended corrective actions. Whenever an error message cannot be understood or resolved, always call the Service Center for instructions.

This page intentionally blank.

Error Message Table

Error no.	*Message*	*Probable cause*	*Corrective Action*
10	Error Loading Card Layout	.TOK file missing from its directory. Applications software is probably not installed.	Locate .TOK file and add to proper directory. All *.TOK files are in the APPS directory except WHITE .TOK in the ID2DATA. Install Applications software.
		Incorrect path specified for .TOK file	Correct the .TOK file path.
11	Card Preview Error	Portrait or signature not captured or not found because of application script bug.	Reinstall the software; or call the service center.
12	Error Executing Card Layout	Internal EMS error.	Check for and resolve hardware memory conflicts or EMS driver problems. Use MFT.EXE file in the QEMM directory.
13	Can't Find Card Layout File	Incorrect path specified for card layout file.	Check card layout file path and correct if necessary. APPS directory contains the card layout files.
		Card layout file missing.	Install card layout file in proper directory, APPS.
14	Can't Allocate Memory For Card Layout	Corrupted header in portrait or signature file.	Check header and correct if necessary.
		EMS error.	Check for and resolve hardware memory conflicts or EMS driver problems. Use MFT.EXE file in the QEMM directory.
15	Can't Draw String	Missing font file.	Verify that fonts are in Card Layout file and correct path names have been specified.
16	Can't Get String Height	Missing font file.	Verify that fonts are in the Card Layout file and correct path names have been specified.

Error No.	*Message*	*Probable cause*	*Corrective action*
17	Can't Get String Width	Missing font file.	Verify that fonts are in the Card Layout file and correct path names have been specified.
18	Error In Font Mapping Pages	Corrupted font file or EMS error.	Reinstall the fonts.
19	Can't Open Font File	Missing font file.	Check font paths in Card Layout file and correct if necessary.
20	Can't Allocate Enough Memory For Fonts	EMS error.	Check for and resolve hardware memory conflicts or EMS driver problems. Use MFT.EXE file in the QEMM directory.
21	Error Selecting Font	EMS error.	Check for and resolve memory conflicts or EMS driver problems. Use MFT.EXE file in the QEMM directory.
22	Error Saving Font State	EMS error.	Check the EMS driver; use EMSSTAT command to check available memory.
23	Error Restoring Font State	EMS error.	Check the EMS driver; use EMSSTAT command to check available memory.
50	Invalid Controller Entry Point	Software not compiled with this controller.	Check the application script and correct as needed.
80	Could Not Find DSP Driver File	Wrong path specified for DRIVER.OUT	Check DRIVER.OUT path specification and correct if necessary. DRIVER.OUT is located in the ID2PROG directory.
81	DSP Driver File Corrupt (Bad header)	Corrupted DSP driver.	Install a new copy of DRIVER.OUT from the corresponding core software.
82	DSP Driver File Corrupt (Bad Header Magic Number)	Wrong version of DSP driver.	Obtain and install the latest revision of DRIVER.OUT, from the core software.
83	DSP Driver File Corrupt (Partially Linked)	Corrupted DSP driver.	Install a new copy of DRIVER.OUT from the corresponding core software.

Error No.	*Message*	*Probable cause*	*Corrective action*
84	DSP Driver File Corrupt (Bad Optional header)	Corrupted DSP driver.	Install a new copy of DRIVER.OUT from the corresponding core software.
85	DSP Driver File Corrupt (Bad Optional Header Magic Number)	Corrupted DSP driver.	Install a new copy of DRIVER.OUT from the corresponding core software.
86	DSP Driver File Corrupt (Bad Section Header)	Corrupted DSP driver.	Install a new copy of DRIVER.OUT from the corresponding core software.
87	Seek Error While Loading DSP Driver	Corrupted DSP driver.	Install a new copy of DRIVER.OUT from the corresponding core software.
100	Init Signature Error	Configuration file cannot be located.	Verify that SIS-SCAN.CNF is installed and correct path specified, ID2DATA directory.
		Faulty image capture ("Paris") board.	Run Image Board diagnostics and repair or replace as necessary.
101	Get Signature Error	Signature size too large.	Check signature coordinates in SIS_SCAN.CNF and correct if necessary, ID2DATA directory.
102	Signature Load Error	Corrupted signature file.	Run hard drive diagnostics and replace if necessary, ID2DATA directory.
103	Signature Store Error	Signature size too large.	Check signature coordinates in SIS_SCAN.CNF and correct if necessary, ID2DATA directory.
104	Couldn't Get Signature Coordinates From Config File	Configuration file cannot be located.	Verify that SIS_SCAN.CNF is installed and correct path is specified, ID2DATA directory.
105	Error Storing Signature Coordinates To Config File	Unable to write to SIS_SCAN.CNF.	Verify that SIC_PARI.CNF is installed and correct path is specified, ID2DATA directory.
106	Problem Initiating Matrox Board.	Unable to find Matrox illuminator Board.	Make sure the Matrox board is seated correctly.

Error No.	*Message*	*Probable cause*	*Corrective action*
190	Support Board Initialize Error	Unable to find Support Board.	Run TCINIT program as described in Section 5, page 5-20.
191	Support Board Write Error	Support Board is set to wrong address.	Check the switches on Support Board to reflect the correct memory address. See Section 5 of Service Manual.
192	Support Board Close Error	Wrong SUPPORT-BOARD ON/OFF variable in the SUPPORT.CNF file.	Correct the SUPPORT-BOARD variable to ON in the SUPPORT.CNF file in the ID2DATA directory.
193	Support Board Read Error	Missing or corrupted SUPPORT.CNF or SOT files.	Reinstall all SUPPORT CNF and SOT files in proper directory.
200	Init CFR Error	Unable to find .SOT or .CNF file.	Check that HOC_SCRN.SOT and HOC_CI5K.CNF are installed and that correct paths are specified, ID2DATA directory.
201	Set User Delay Error	Faulty color film recorder serial connection.	Check serial cables and connections to film recorder.
		Faulty color film recorder.	Run color film recorder diagnostics and repair or replace as necessary.
202	CFR Status Error	Faulty color film recorder serial connection.	Check serial cables and connections to film recorder.
203	CFR Expose Error	Corrupted RGB.DAT file.	Reinstall RGB.DAT, ID2DATA directory.
204	CFR Move Filter Wheel Error	Jammed film recorder filter wheel.	Turn film recorder off briefly and turn it back on. Then restart the system.
205	CFR Invalid Command Error	Faulty color film recorder serial connection.	Check serial cables and connections to film recorder.
		Faulty color film recorder.	Run color film recorder diagnostics and repair or replace CFR or logic board as required.
206	CFR Invalid Argument Error	Faulty color film recorder serial connection.	Check serial cables and connections to film recorder.

Error No.	*Message*	*Probable cause*	*Corrective action*
206 cont.		Faulty color film recorder.	Run color film recorder diagnostics and repair or replace as necessary.
207	CFR Filter Wheel Error	Faulty color film recorder serial connection.	Check serial cables and connections to film recorder.
		Faulty color film recorder.	Run color film recorder diagnostics and repair or replace CFR or logic boards as necessary.
208	CFR Communications Error	Faulty color film recorder serial connection.	Check serial cables and connections to film recorder.
		Faulty color film recorder.	Run color film recorder diagnostics and repair or replace CFR or logic boards as necessary.
209	CFR No Vertical Sync Error	I/O cable assembly disconnected or broken.	Check the cables and connections; reconnect or replace if necessary.
210	CFR Auto Lumina Error	Faulty color film recorder.	Run film recorder diagnostics, calibrate or repair if necessary.
211	CFR Camera Back Out Of Position	Film holder in wrong position.	Make sure the film holder is completely at the end of its travel and that the bracket inside the camera back is not bent.
		Disconnect or loose film holder cable.	Check film holder cable and reconnect or tighten as necessary.
212	CFR 1-UP Back Of Film Pull	White and yellow film tabs not pulled from film holder after exposure.	Pull white and yellow tabs to process film.
		Disconnect or loose film holder cable.	Check film holder cable and reconnect or tighten as necessary.
213	CFR Back Camera Moved	White and yellow film tabs nor pupped from film holder after exposure.	Pull white and yellow tabs to process film.
		Disconnect or loose film cable holder.	Check film holder cable and reconnect or tighten as necessary.

Error No.	*Message*	*Probable cause*	*Corrective action*
214	CFR Pull Film Error	Disconnected or loose film holder cable.	Check film holder cable and reconnect or tighten as necessary.
		Faulty film pull button in film holder.	Check film pull button and repair or replace as necessary.
215	CFR Timeout On Response	Film recorder turned off.	Turn film recorder on.
		Loose or broken serial cable to film recorder.	Check serial cable and connections; tighten connections or replace cable if necessary.
216	CFR Query Back Type	Disconnected or loose film holder cable.	Check film holder cable and reconnect or tighten as necessary.
		Loose or broken serial cable to film recorder.	Check serial cable and connections; tighten connections or replace cable if necessary.
217	CFR Turned Off	Film recorder turned off or serial cable disconnected.	Verify that film recorder is on and the serial cable is connected.
		Loose or broken serial cable to film recorder.	Check serial cable and connections; tighten connections or replace cable if necessary.
		Wrong CFR "ON/OFF" setting in HOC_CI5K.CNF.	Check CFR "ON/OFF" setting in HOC_CI5K.CNF and correct if necessary. (See CNF filed and Typical Contents in Section 3)
218	CFR Not Found Or Not Present	Film recorder turned off or serial cable disconnected.	Verify that film recorder is on and the serial cable is connected.
		Loose or broken serial cable to film recorder.	Check serial cable and connections; tighten connections or replace cable if necessary.
250	Thermal Printer Initialization Error	Thermal Printer is off or not connected properly.	Turn OFF the ID System. Connect all the cables to the thermal output unit and turn all components ON.
251	Thermal Printer Status Error	Thermal Printer is displaying error code.	Check the front panel of the thermal printer. Check the counter for error display and/or any flashing light on the printer. Ready light on the thermal printer is not ON steady.

Error No.	*Message*	*Probable cause*	*Corrective action*
252	Thermal Printer Print Error	Thermal Printer is displaying error code.	Check the front panel of the thermal printer. Check the counter for error display and/or any flashing light on the printer. Ready light on the thermal printer is not ON steady.
253	Thermal Priner Invalid Command Error	Thermal Printer is displaying error code.	Check the front panel of the thermal printer. Check the counter for error display and/or any flashing light on the printer. Ready light on the thermal printer is not ON steady.
254	Thermal Printer Invalid Argument Error	Defective Thermal Printer.	Replace or repair Thermal Printer.
255	Thermal Printer Timeout On Response	Thermal Printer is OFF. COLOR_THERM_PRINT variable is set to OFF in the HOC_TP.CNF file.	Turn the printer ON. Correct the variable in the HOC_TP.CNF file in the ID2DATA directory.
256	Thermal Printer Turned Off	Thermal Printer is OFF. COLOR_THERM_PRINT variable is set to OFF in the HOC_TP.CNF file.	Turn the printer ON. Correct the variable in the HOC_TP.CNF file in the ID2DATA directory.
257	Thermal Printer NOT Found OR Not Present	Thermal Printer is OFF. COLOR_THERM_PRINT variable is set to OFF in the HOC_TP.CNF file.	Turn the printer ON. Correct the variable in the HOC_TP.CNF file in the ID2DATA directory.
301	Unable to Read Username/Password File	Missing or corrupted Password file.	Reinstall the PASSWD file in the ID2DATA. See Reinstall CPS password in Appendix ??
302	Unable to Update Username/Password File	Missing or corrupted Password file.	Reinstall the PASSWD file in the ID2DATA. See Reinstall CPS password in Appendix ??
303	Unable to Read Font Mapping File	Unable to find or missing Fonts files.	Check the C:\Fonts directory files.

Error No.	*Message*	*Probable cause*	*Corrective action*
400	Serial Port Timeout	Film recorder turned off or serial cable disconnected.	Verify that film recorder is on and the serial cable is connected.
		Loose or broken serial cable to film recorder.	Check serial cable and connections; tighten connections or replace cable if necessary.
		Wrong CFR "ON/OFF" setting in HOC_CI5K.CNF.	Check CFR "ON/OFF" setting in HOC_CFR.CNF and correct if necessary. (See CNF files and Typical Contents in Section 3.)
401	Serial Function Parameter Error	Serial board is not set-up correctly.	See Section 5 for proper board jumper and switch settings.
402	No Serial Ports Found	Serial board is not set-up correctly.	See Section 5 for proper board jumper and switch settings.
500	Generic Memory Error	Corrupted EMS memory.	Check for and resolve hardware memory conflicts or EMS driver problems.
501	Memory Segment Error	Corrupted EMS memory.	Check EMS driver memory address.
502	Memory Count Error	Corrupted EMS memory.	Check EMS driver memory error.
503	Memory Allocation Error	EMS out of memory.	Check available EMS size and run EMSSTAT CLEAR from DOS if necessary.
510	Error Freeing Memory Block	Corrupted EMS memory.	Check available EMS memory and EMS driver.
511	Error Unloading Memory Block	Corrupted EMS memory.	Check available EMS memory and EMS driver.
512	Error Adding Handle To Uselist	Corrupted EMS memory.	Check available EMS memory and EMS driver.
513	EMS Detail Handle From Uselist	Corrupted software.	Reinstall software.
514	Error Deleting Handle From Uselist	Corrupted EMS memory.	Check for memory conflicts and check EMS driver.

Error No.	*Message*	*Probable cause*	*Corrective action*
600	Error While Initializing Bulletin Board	No EMS available.	Verify that EMS and the EMS driver are installed.
601	Bulletin Board Putting Object	Corrupted EMS.	Check available EMS memory and EMS driver.
		Corrupted software.	Reinstall software.
602	Bulletin Board Getting Object	Corrupted EMS.	Check available EMS memory and EMS driver.
		Corrupted software.	Reinstall software.
603	Bulletin Board Error Getting Object Size	Corrupted EMS.	Check available EMS memory and EMS driver.
		Corrupted software.	Reinstall software.
604	Bulletin Board Error Deleting Object	Corrupt EMS.	Check available EMS memory and EMS driver.
		Corrupted software.	Reinstall software.
605	Bulletin Board Error Loading Object File	Corrupted EMS.	Check available EMS memory and EMS driver.
		Corrupted software.	Reinstall software.
606	Bulletin Board Error Saving Object File	Corrupt EMS.	Check available EMS memory and EMS driver. Reinstall software.
		Corrupted software.	
620	Bulletin Board Full (Too Many Objects)	Application Software Problem.	Check available EMS memory and EMS driver. Reinstall software.
621	Bulletin Board Full (Not Enough Memory)	Application Software Problem.	Check available EMS memory and EMS driver. Reinstall software.
622	Bulletin Board Cannot Delete Object	Application Software Problem.	Check available EMS memory and EMS driver. Reinstall software.
611	Bulletin Board Object Too Large	Application Software Problem.	Check available EMS memory and EMS driver. Reinstall software.

Error No.	*Message*	*Probable cause*	*Corrective action*
651	Nmalloc Free Chain Inconsistency	Corrupted EMS. Corrupted software.	Check available EMS memory and EMS driver. Reinstall software
DOS EXTENDER SYSTEM FAULTS (TRAPPED BY ID SOFTWARE)			
666	Unrecoverable Application Error (GP Fault)	Corrupted Core Code or Applications Software.	Reinstall Software; if continues, Contact the Service Center.
667	Unrecoverable Application Error (Stack Fault)	Corrupted Core Code or Applications Software.	Reinstall Software; if continues, Contact the Service Center.
668	Unrecoverable Application Error (Division by Zero)	Corrupted Core Code or Applications Software.	Reinstall Software; if continues, Contact the Service Center.
669	Unrecoverabel Application Error	Corrupted Core Code or Applications Software.	Reinstall Software; if continues, Contact the Service Center.
IDCL ERRORS			
703	Duplicate Declaration In Card Layout	Function or variable declared more than once.	Remove duplicate declarations from card layout.
704	Card Layout Symbol Table Overflow	Function or variable declared more than once.	Record events leading to error and contact the Service Center.
705	DCL Out Of Heap Memory	Card layout out of heap memory.	Increase heap memory allocated in card layout.
706	Undeclared Function In Card Layout	Called function has not been declared.	Correct card layout.
707	Syntax Error in Card Layout	Application Software problem.	Contact the Service Center.
708	Syntax Error In Card Layout (Paren Missing)	Syntax error in card layout.	Check card layout and correct errors.
709	Syntax Error In Card Layout (Brace Missing)	Syntax error in card layout.	Check card layout and correct errors.

Error No.	*Message*	*Probable cause*	*Corrective action*
710	Syntax Error In Card Layout (Symbol Missing)	Syntax error in card layout.	Check card layout and correct errors.
711	Invalid Declaration In Card Layout (Not a Function)	Called function has not been declared.	Correct card layout.
712	Misplaced Break	Application Software problem.	Contact the Service Center.
713	Syntax Error In Card Layout (Symbol Out Of Place)	Syntax error in card layout.	Check card layout and correct errors.
716	Division By Zero In Card Layout	Card layout attempts division by zero.	Check card layout and correct error.
717	Invalid Declaration In Card Layout (Early Run)	Syntax error in card layout.	Check card layout and correct error.
719	Not Enough Memory To Load Card Layout	Insufficient EMS memory.	Add EMS memory.
720	Memory Error While Loading/Executing Card Layout	Internal Code or Application Problem.	Record events leading to error and contact the Service Center.
721	Card Layout File Corrupt	Internal code failure.	Record events leading to error and contact the Service Center.
722	Recompile Card Layout With Newer Version Of Tokenizer	Obsolete Card Layout Token file.	Recompile the card layout with the correct tokenizer ver.
723	Card Layout Too Large To Execute	Internal code failure.	Recompile the card layout with the correct tokenizer version.
725	Card Layout File Not Found	Missing Card Layout file.	Reinstall Application Disk or call the Service Center.
726	Memory Error Prior To Running Card Layout	Internal code failure.	Record events leading to error and contact the Service Center.
727	Card Layout Corrupted By Standard Function	Internal code failure.	Record events leading to error and contact the Service Center.

Error No.	*Message*	*Probable cause*	*Corrective action*
728	Card Layout Corrupted By External Function	Internal code failure.	Record events leading to error and contact the Service Center.
729	Card Layout Corrupted By Local Function	Internal code failure.	Record events leading to error and contact the Service Center.
730	Card Layout Symbol Table Corrupt	Self-corrupting card layout.	Record events leading to error and contact the Service Center.
731	Card Layout String Table Corrupt	Self-corrupting card layout.	Record events leading to error and contact the Service Center.
IMAGE LOAD/SAVE ERRORS			
751	File Open Error While Loading Image	Missing Image file.	Check hard drive, repair or replace if necessary. Check Image file in database and restore.
752	Not Enough System Memory Available to Load Image	Internal code failure.	Record events leading to error and contact the Service Center.
753	Not Enough Memory Available To Load Image	Insufficient EMS memory.	Add EMS memory or check the files and buffer parameter in the CONFIG.SYS file
754	Error Memory 1 While Loading Image	Internal code failure.	Record events leading to error and contact the Service Center.
755	Memory Error 2 While Loading Image	Internal code failure.	Record events leading to error and contact the Service Center.
756	ead Error While Loading Image	Disk error.	Record events leading to error and contact the Service Center.
757	Memory Error 3 While Loading Image	Internal code failure.	Record events leading to error and contact the Service Center.
758	System Error While Storing Image	Internal code failure.	Record events leading to error and contact the Service Center.
759	Memory Error 1 While Storing Image	Internal code failure.	Record events leading to error and contact the Service Center.

Error No.	*Message*	*Probable cause*	*Corrective action*
760	Memory Error 2 While Storing Image	Internal Code Failure	Record events leading to error and contact the Service Center.
761	Imge To Be Stored Has Invalid Header	Internal code failure.	Record events leading to error and contact the Service Center.
762	File Open Error While Storing Image	Disk full.	Delete unnecessary files to create more space, i.e., ERROR.LOG or any other unused directories. Check DRIVELIS.BB file.
		Disk error.	Record events leading to error and contact the Service Center.
763	Write Error While Storing Image	Disk full.	Delete unnecessary files to create more space. Check DRIVELIS.BB file.
		Disk error.	Record events leading to error and contact the Service Center.
764	Memory Error 3 While Storing Image	Internal code failure.	Record events leading to error and contact the Service Center.
765	Invalid Selector Passed To Imaging Function	Internal code failure.	Record events leading to error and contact the Service Center.
PRINTER SUPPORT MODULE			
770	Printer Module: Unable To Load Screen File (PRINTER.SOT)	Missing or corrupted PRINTER.SOT file.	Reload or reinstall DOSSIER module.
TOG SYSTEM ERRORS			
780	TOG Generator Bad Semaphore File	TOG file missing.	Install TOG file.
		Setup error.	Check setup and correct as needed.
781	TOG Generator: TOG File Attempt To Lock Timed Out	Network I/O problem.	Correct network problem.
782	TOG Generator: TOG File Unreadable	Disk error.	Record events leading to error and contact the Service Center.

Error No.	*Message*	*Probable cause*	*Corrective action*
783	TOG Generator: TOG File Corrupt	Corrupted TOG file.	Record events leading to error and contact the Service Center.
784	TOG Generator: TOG File Missing	Setup error.	Check setup and correct as needed.
785	TOG Generator: TOG File Checksum Error	Corrupted TOG file.	Record events leading to error and contact the Service Center.
786	TOG Generator: Error Updating TOG File	Disk error.	Record events leading to error and contact the Service Center.
787	TOG Generator: TOG File And Backup Do Not Agree	Corrupted TOG file.	Record events leading to error and contact the Service Center.
788	TOG Generator: TOG Filename Too Long	Setup error.	Check setup and correct as needed.
789	TOG Generator: TOG File Bad Path	Setup error.	Check setup and correct as needed.
790	TOG Generator: TOG File Has Reached Number Limit	TOG file reached its limit.	Reconfigure the system.
791	TOG Generator: TOG File Has Exceeded Number Limit	TOG file exceeded its limit.	Reconfigure the system.

CONTROLLER ERRORS

800	Image Processing Error While Reading Decode Tables	Unable to find RGBTBLS.DAT.	Verify that RGBTBLS.DAT is installed and correct path is specified, ID2DATA directory.
801	Input Controller Error While Reading SOT File	Unable to find MIC_SCRN.SOT.	Verify that MIC_SCRN.SOT is installed and correct path is specified, ID2DATA directory.
802	Input Controller Menu Error	Corrupted MIC_SCRN.SOT file.	Reinstall MIC_SCRN.SOT, ID2DATA directory.

Error No.	*Message*	*Probable cause*	*Corrective action*
803	Image Processing Error On NTSC Buffer	EMS error.	Check EMS driver.
		Faulty image capture ("Paris") board.	Run Image Board calibration and repair or replace as necessary.
804	Image Processing Error On Color Buffer	EMS error.	Check available EMS and EMS driver.
805	Image Board Initialization Error	Faulty image capture ("Paris") board.	Run Image Board calibration and repair or replace as necessary.
810	Output Controller Error While Loading SOT File	Unable to find MOC_SCRN.SOT.	Verify that MOC_SCRN.SOT is installed and correct path is specified.
811	Error Initializing Display Output Controller	Unable to find MOC_SCRN.SOT.	Verify that MOC_SCRN.SOT is installed and correct path is specified, ID2DATA directory.
812	Error Initializing Signature Input Controller	Unable to find SIS_SCAN.CNF or SIS_SCRN.SOT.	Verify that SIS_SCAN.CNF and SIS_SCRN.SOT are installed and correct paths are identified, ID2DATA directory.
820	Signature Controller Error Loading SOF File	Unable to find SIC_SCRN.SOT.	Verify that SIS_SCRN.SOT is installed and correct path is specified, ID2DATA directory.
821	Signature Display Window Error	Signature coordinates too large.	Check the X and Y coordinates in SIC_PARI.CNF and correct if necessary. See CNF Files and Typical Contents Section 3.
822	Signature Controller Bulletin Board Error	Signature coordinates too large.	Check the X and Y coordinates in SIC_PARI.CNF and correct if necessary. (Maximum: 500 x 500.)
823	Signature Controller Buffer Error	Signature coordinates too large.	Check the X and Y coordinates in SIS_SCAN.CNF and correct if necessary. (Maximum: 500 x 500.)

Error No.	*Message*	*Probable cause*	*Corrective action*
824	Signature Controller Enhance Buffer Support	Signature coordinates too large.	Check the X and Y coordinates in SIS_SCAN.CNF and correct if necessary. (Maximum: 500 x 500.)
		Faulty image capture ("Paris") board.	Run Image Board calibration and diagnostics and repair or replace as necessary.
825	Signature Controller Error Getting Coordinates	Unable to find SIS_SCAN.CNF.	Verify that SIS_SCAN.CNF is installed and correct path is specified, ID2DATA directory.
826	Signature Controller Setting Coordinates	Unable to find SIS_SCAN.CNF.	Verify that SIS_SCAN.CNF is installed and correct path is specified, ID2DATA directory.
827	Signature Controller DMA Buffer Error	Application Software Problem.	Contact the Service Center.
828	Signature Card Configuration Error	Application Software Problem.	Contact the Service Center.
830	CFR Load SOT file	Unable to find HOC_SCRN.SOT	Verify that HOC_SCRN.SOT is installed and correct path is specified, ID2DATA directory.
831	CFR Error Getting Port Number	Incorrect serial port number specified in HOC_CI5K.CNF.	Check the setting of CFR_PORT in HOC_CI5K.CNF. See CNF Files and Typical Contents in Section 3.
832	Get FilmTab Error	Unable to determine number of exposures remaining.	Verify that HOC_CI5K.CNF is installed and correct path is specified, ID2DATA directory.
833	Error Getting CFR Bulletin Board Parameter	Corrupted EMS memory.	Check for and resolve EMS memory conflicts; check EMS driver.
834	CFR Menu Error	Corrupted or missing HOC_SCRN.SOT.	Reinstall HOC_SCRN.SOT.
835	CFR Window Error	Corrupted or missing HOC_SCRN.SOT	Reinstall HOC_SCRN.SOT.
851	Thermal Printer Bulletin Board Parameter Error	Applications Problem.	Contact the Service Center.

Error No.	*Message*	*Probable cause*	*Corrective action*
852	Thermal Printer Control Menu Error	Applications Problem.	Contact the Service Center.
853	Thermal Printer Controller Window Error	Applications Problem.	Contact the Service Center.
854	Therma Printer Controller Load SOT File Error	Applications Problem.	Contact the Service Center.
855	Thermal Printer Controller Configuration File Error	Problems with Black & White Thermal Printer CNF file.	Reinstall and configure software with a B&W thermal printer.
860	Live Verification Controller Load SOT file Error	Application Problem. Missing APILoad.SOF screen.	Contact the Service Center.
861	Live Verification Controller Bulletin Board Parameter Error	Trying to write current settings to Bulletin Board and CNF files.	Missing *.BB or *.CNF files.
862	Live Verification Controller Menu Error	Problem with live menu (APIINIT Menu).	Contact Applications or Service Center.
863	Live Verification Controller Window Error	Problem with live menu (APIINIT Menu).	Contact Applications or Service Center.
864	Live Verification Controller Configuration File Error	Problem Initialize Matrox Board & Live Camera.	Contact Applications or Service Center.
865	Live Verification Controller Initialization Error	Proglem with Live comparison and stored image.	Contact Applications or Service Center.
866	Live Verification Controller Status Error	Internal code failure.	Contact Applications or Service Center.
870	Support Board Controller Bulletin Board Parameter Error	Problem Initializing Data Entry Screen with Support Board.	Contact Applications or Service Center.
871	Support Board Controller Load SOT File Error	Missing Support BRD.SOT file used in MCON.EXE.	Contact Applications or Service Center.
872	Support Board Controller Configuration File Error	Missing SUPPORT.CNF file.	Contact Applications or Service Center.

Error No.	*Message*	*Probable cause*	*Corrective action*
873	Support Board Controller Bit Mask Error	Comparing Bit Mask and Port number mask error.	Contact Applications or Service Center.
DOSSIER ERRORS			
841	DOSSIER: Layout File Not Found	Corrupted DOSSIER software	Reload all DOSSIER related software.
842	DOSSIER: Error Displaying DOSSIER	Corrupted DOSSIER software	Reload all DOSSIER related software.
843	DOSSIER: Can Not Load HP Softfont	Missing fonts files definition	Reload the DOSSIER disks and the DOSSSIER.TOK files.
844	DOSSIER: Error In DOSSIER Layout)	Missing or corrupted DOSSIER.TOK files	Reload the .TOK files in the APPS directory.
845	DOSSIER: Can't Allocate Temporary Image Buffer	Internal code failure	Record events leading to the error and contact the Service Center.
846	DOSSIER: Print Spooler Not Loaded	Wrong or missing port definition for printout in the HOC_HPLJ.CNF file	Correct the "DOSSIERLPT" variable in the HOC_HPLJ.CNF file to reflect the correct port.
847	DOSSIER: DOSSIER Configuration (HOC_HPLJ.CFG) Not Found	Missing HOC_HPLJ.CNF file, or located in the wrong directory	Load HOC_HPLJ.CNF file in the ID2DATA directory.
848	Dossier: Signature Too Large	Internal code failure	Record events leading to the error and contact the service center.
849	DOSSIER: Memory Failure	Internal code failure	Record events leading to the error and contact the Service Center.
850	DOSSIER: Unable To Load Specified Response Curve File	Internal code failure	Record events leading to the error and contact the Service Center.
API ERRORS: 900-999			
900	Could Not Open SOT File	Can not load Screen Object file.	Contact Applications Group or the Service Center.

Error No.	*Message*	*Probable cause*	*Corrective action*
901	Out Of Memory	Not enough memory.	Check the RAM or the computer and make sure there is 8 megabytes.
902	Putting Object on the Bulletin Board	Missing BB files.	Contact Applications Group or the Service Center.
903	Too Many SOTF Objects Defined	Applications Problem.	Contact Applications Group or the Service Center.
904	Windor Too Small	Window too small for API message.	Contact Applications Group or the Service Center.
905	Recursive Call of Script File	Recurssive Call for API message.	Contact Applications Group or the Service Center.
906	Error Loading BB file	Missing Bulleting Board files.	Reload Core Software.
907	SET_FIELD Error	Problem Setting Field in Database through API Apps.	Contact Applications Group or the Service Center.
908	SOTF Syntax Error	Missing Closing Quotation Mark.	Contact Applications Group or the Service Center.
909	Getting Object from the Bulletin Board	Missing Group.	Contact Applications Group or the Service Center.
910	Command Line Error	The command is less than 2 characters.	Contact Applications Group or the Service Center.
911	Spawn Error	Error with API tools.	Contact Applications Group or the Service Center.
912	Version Error	The version of software is no longer valid for the current application.	Contact Applications Group or the Service Center.
913	IDCL Error	Can not load file.	Contact Applications Group or the Service Center.
914	SOTF Object Name Not Defined	Wrong Object Name in SOT file.	Contact Applications Group or the Service Center.
915	Data Type Error	Error Checking Time Format.	Contact Applications Group or the Service Center.

Error No.	*Message*	*Probable cause*	*Corrective action*
916	Data Format Error	Error Checking Data Format.	Contact Applications Group or the Service Center.
917	Error Opening SOT file	Application Incomplete or missing.	Contact Applications Group or the Service Center.
918	Error Writing SOT File	Application Incomplete or missing.	Contact Applications Group or the Service Center.
919	Error Reading SOT File	Application Incomplete or missing.	Contact Applications Group or the Service Center.
920	Error Object Not Initialized	Object File not Initialized.	Contact Applications Group or the Service Center.
921	Error Object Not Removed	Problem with API Remove SOF function.	Contact Applications Group or the Service Center.
922	Error Data Type String Not Found	Error in Screen update in APPS.	Contact Applications Group or the Service Center.

PAK-REINDEX UTILITY ERROR FROM 950-969

950	PACK-REINDEX: Failed to Delete Backup	Can not delete backup in Reindexing	Contact Applications Group or the Service Center.
951	PACK-REINDEX: Failed to Check Drive Space	Failed on Pack or Reindex.	Contact Applications Group or the Service Center.
952	PACK-REINDEX: Failed to Open DBF File	Failed on Pack and Reindex, or Database File is missing.	Contact Applications Group or the Service Center.
953	PACK-REINDEX: Failed to Close DBF File	Failed on Pack and Reindex, or Database File is missing.	Contact Applications Group or the Service Center.
954	PACK-REINDEX: Failed to Open NDX File	Missing Index Files	Contact Applications Group or the Service Center.
955	PACK-REINDEX: Failed to Close NDX File	Missing Index Files	Contact Applications Group or the Service Center.
956	PACK-REINDEX: Not Enough Memory	Failed on Pack and Reindex, low or bad memory.	Check for 8 meg of memory.

Error No.	*Message*	*Probable cause*	*Corrective action*
957	PACK-REINDEX: Failed to Allocate Memory	Failed on Pack and Reindex, low or bad memory	Check for 8 meg of memory.
958	PACK-REINDEX: Failed to Read File	Failed on Pack and Reindex.	Contact Applications Group or the Service Center.
959	PACK-REINDEX: Failed to Write File	Failed on Pack and Reindex.	Contact Applications Group or the Service Center.
960	PACK-REINDEX: Failed to Seek Position in a File	Failed on Pack and Reindex.	Contact Applications Group or the Service Center.
961	PACK-REINDEX: System Function Error	Failed on Pack and Reindex.	Contact Applications Group or the Service Center.
962	PACK-REINDEX: Failed to Select a View	Failed on Pack and Reindex.	Contact Applications Group or the Service Center.
DATA TRANSPORT ERROR FROM 970-989			
970	DT ERROR: API Function Failed	Calls to the API Function fail.	Contact Applications Group or the Service Center.
971	DT ERROR: Viewmgr Function Failed	Problem with Viewmanager in DATA TRANSPORT	Contact the Service Center.
972	DT ERROR: Can't Open File	Problem Opening Range file.	Contact the Service Center.
973	DT ERROR: Read File Error	Problem trying to read the fixed file section of the rule.	Contact the Service Center.
974	DT ERROR: Write File Error	Error updating rule file for image type.	Contact the Service Center.
975	DT ERROR: Out of Memory	Ran out of DOS memory.	Contact the Service Center.
977	DT ERROR: Selecting Item from Browse List	PRoblem selecting Item from Browse List on Data Transport OUT	Contact the Service Center.

Error No.	*Message*	*Probable cause*	*Corrective action*
978	DT ERROR: Selecting View	Problem with select View from Data Transport IN	Contact the Service Center.
979	DT ERROR: Getting Fields from View	Problem getting fields from Database	Contact the Service Center.
980	DT ERROR: Check Record Failed	Record already exists in Database.	Contact the Service Center.
982	DT ERROR: Transport Failed	Data Transport Failed	Contact the Service Center.
983	DT ERROR: Failed to Add Record	Data Transport output could not add record.	Contact the Service Center.
984	DT ERROR: Failed to Establish Range	Problem with screen handle or range file.	Contact the Service Center.
985	DT ERROR: Failed to Select Item from Browse	Problem with Item Selection.	Contact the Service Center.
986	DT ERROR: Failed to Build View Field Info	Problem in building source view and data selection	Contact the Service Center.
987	DT ERROR: Failed to Allocate Memory	Problem in marking common fields and image fields index.	Contact the Service Center.

BULLETIN BOARD EDITOR ERROR FROM 990-999

990	BB Editor: Failed to Open Variable Database	Problem opening text data file.	Contact the Service Center.
991	BB Editor: Failed to Save variable Database	Problem writing to text file.	Contact the Service Center.
992	BB Editor: Failed to Read Variable Database	Problem reading text file.	Contact the Service Center.
993	BB Editor: Failed to Initialize Variable Database	Problem initializing text file.	Contact the Service Center.
994	BB Editor: Failed to Operate on the Variable Database	Failed to initialize 2 lists from 2 TXT base files.	Contact the Service Center.

Error No.	*Message*	*Probable cause*	*Corrective action*
995	BB Editor: Failed to Allocate Memory	Problem with Porse line to get Field. Ran out of memory.	Contact the Service Center.
GDI ERRORS			
1000	GDI Error Getting Header Pointer	Problem making a pointer to the header in EMS buffer.	Contact the Service Center.
1001	GDI Memory Error 1	Problem saving memory context.	Contact the Service Center.
1002	GDI Memory Error 2	EMS page mapping error.	Contact the Service Center.
1501	Application Script: Failed To Load Object File	Missing or corrupted APP_CON.CNF file	Install APP_CON.CNF.
1502	Application Script: Failed To Load SOT	Missing or corrupted Application Script Screen file.	Install Application Script Screen file.
1503	Application Script: Failed To Find Card Name	Missing or corrupted Application Script Card layout.	Install Application Script Card layout.
1504	Application Script: Error Loading Card	Internal code failure.	Record events leading to error and contact the Service Center.
1505	Application Script: Error Executing Card	Problem with APP.Card handle.	Contact the Service Center.
1506	Application Controller Not Initialized	Problem with Application Initializing flag not set.	Contact the Service Center.
1507	Application Script: Unknown Input Controller Card	Wrong file name or external hardware missing.	Contact the Service Center.
1508	Application Script: Unknown Controller Output Called	Missing output option.	Contact the Service Center.
1509	Application Script	Trying to run diagnostics on controller is missing.	Contact the Service Center.
1510	Application Script	Missing Video In.	Contact the Service Center.

Error No.	*Message*	*Probable cause*	*Corrective action*
1511	Application Script	Missing Video In.	Contact the Service Center.
1512	Application Script	Missing output controller.	Contact the Service Center.
2001	View Manager: Search Request Cannot Be Processed	Internal code failure.	Record events leading to error and contact the Service Center.
2002	View Manager: Bad Range Operation Requested	Internal code failure.	Record events leading to error and contact the Service Center.
2003	View Manager: Image Functions Not Implemented	Internal code failure.	Record events leading to error and contact the Service Center.
2004	View Manager: Bad Search Operation Requested	Internal code failure.	Record events leading to error and contact the Service Center.
2005	View Manager: System Out Of Memory	Insufficient memory.	Record events leading to error and contact the Service Center.
2007	View Manager: View Table Corrupted	Internal code failure.	Record events leading to error and contact the Service Center.
2008	View Manager: Too Many Open Views	Internal code failure.	Record events leading to error and contact the Service Center.
2009	View Manager: Too Many Records Requested in Range	Internal code failure.	Record events leading to error and contact the Service Center.
2010	View Manager: The Shutdown Operation Was Not Complete	The view is not open (probably because of an earlier database error).	Find the database error and correct it.
2011	View Manager: Invalid View Handle	The view is not open (probably because of an earlier database error).	Find the database error and correct it; use dBase software.
2012	View Manager: The View Requested Is Not Open	The view is not open (probably because of an earlier database error).	Find the database error and correct it.
2013	View Manager: The Field Requested Is Not In The Proper View	Internal code failure	Record events leading to error and contact the Service Center.

Error No.	*Message*	*Probable cause*	*Corrective action*
2014	View Manager: The View Name Requested Does Not Exist	Internal code failure.	Record events leading to error and contact the Service Center.
2015	View Manager: There Is Not Enough EMS To Open the View	Insufficient EMS memory.	Add EMS.
2016	View Manager: Error Mapping View EMS	Internal code failure.	Record events leading to error and contact the Service Center.
2017	View Manager: Unable To Allocate COM Buffer	Internal code failure.	Record events leading to error and contact the Service Center.
2018	View Manager: Unable To Allocate View Structure	Internal code failure.	Record events leading to error and contact the Service Center.
2019	View Manager: Unable to Allocate Fields	Internal code failure.	Record events leading to error and contact the Service Center.
2020	View Manager: View Memory Failure	Internal code failure.	Record events leading to error and contact the Service Center.
2021	View Manager: View Memory Failure	Internal code failure.	Record events leading to error and contact the Service Center.
2022	View Manager: Could Not Map View Memory	Internal code failure.	Record events leading to error and contact the Service Center.
2023	View Manager: View Memory Error 2	Internal code failure.	Record events leading to error and contact the Service Center.
2024	View Manager: View Memory Inconsistent .	Internal code failure.	Record events leading to error and contact the Service Center.
2025	View Manager: Error Writing Checkpoint File	Disk full	Delete unnecessary files to create more disk space.
		Disk error.	Record events leading to error and contact the Service Center.
2026	View Manager: Error Reading Checkpoint File	Disk full.	Delete unnecessary files to create more disk space.
		Disk error.	Record events leading to error and contact the Service Center.

Error No.	*Message*	*Probable cause*	*Corrective action*
2027	View Manager: No Checkpoint Exists For The Range	Internal code failure.	Record events leading to error and contact the Service Center.
2028	View Manager: Could Not Checkpoint Range	Disk full.	Delete unnecessary files to create more disk space.
		Disk error.	Record events leading to error and contact the Service Center.
2029	View Manager: A Range Operation Is Not In Progress	Internal code failure.	Record events leading to error and contact the Service Center.
2030	View Manager: Error Restoring Old Range	Disk full.	Delete unnecessary files to create more disk space.
		Disk error.	Record events leading to error and contact the Service Center.
2031	View Manager: Browse Group Mismatch	Internal code failure.	Record events leading to error and contact the Service Center.
2032	View Manager: Current Mode Does Not Allow Previous Record	Internal code failure.	Record events leading to error and contact the Service Center.
2033	View Manager: Unable to Set Modification Date or Time	Internal code failure.	Record events leading to error and contact the Service Center.
2034	View Manager: Search Request is Larger than Field Length	Internal code failure.	Record events leading to error and contact the Service Center.
2035	View Manager: Search Request is Empty (Invalid)	Internal code failure.	Record events leading to error and contact the Service Center.
2050	Image Interface: Error Trying To Find Image Field	Corrupted database.	Record events leading to error and contact the Service Center.
2051	Image Interface: Image Field Is Corrupt	Corrupted database.	Record events leading to error and contact the Service Center.
2052	Image Interface: No Image Exists For the Specified Field	Corrupted image field in database.	Record events leading to error and contact the Service Center.

Error No.	*Message*	*Probable cause*	*Corrective action*
3001	An Interrupt Vector Is Missing	Internal code failure.	Record events leading to error and contact the Service Center.
3003	A View Control Block Is Missing	Internal code failure.	Record events leading to error and contact the Service Center.
3004	The Data Dictionary Open Failed	Internal code failure.	Record events leading to error and contact the Service Center.
3006	There Are More Databases Defined In The Views	Internal code failure.	Record events leading to error and contact the Service Center.
3008	An Invalid Function Was Requested	Internal code failure.	Record events leading to error and contact the Service Center.
3014	The Databases Must Have Exact Field Matches	Internal code failure.	Record events leading to error and contact the Service Center.
3020	An Invalid Parameter List Was Passed To The DBserver	Internal code failure.	Record events leading to error and contact the Service Center.
3021	A Function Sequence Error Occurred	Internal code failure.	Record events leading to error and contact the Service Center.
3022	Bound Database File Damaged	Internal code failure.	Record events leading to error and contact the Service Center.
3023	View File Must Be Rebound	Internal code failure.	Record events leading to error and contact the Service Center.
3030	An Invalid Checkpoint Number Was Requested	Internal code failure.	Record events leading to error and contact the Service Center.
3036	The Interrupt To Service This View Has No Vector	Internal code failure.	Record events leading to error and contact the Service Center.
3039	There Are Not Enough Field Control Blocks	Internal code failure.	Record events leading to error and contact the Service Center.
3042	The Interrupt Vector Is Incorrect For Your View	Internal code failure.	Record events leading to error and contact the Service Center.
4001	Host Program Linkage Error	Host error in the CICS table definitions.	Make the necessary corrections in the transaction and program tables.
4002	Data Dictionary Not Open	Closed host data dictionary.	Ensure that the CICS initial-ization opens the host data dictionary.

Error No.	*Message*	*Probable cause*	*Corrective action*
4003	Database Not Defined In Data Dictionary	Requested database not defined in the host data dictionary.	Ensure the data dictionary is defined with the same name on both the host and the ID-3000 workstation.
4004	Field Not Defined In Data Dictionary	Inconsistent host and ID-3000 workstation data dictionaries.	Ensure the same field names are used in both dictionaries.
4005	View Not Defined In View Index	Host does not recognize view name.	Ensure the same view names are used by the host and the ID-3000 workstation.
4006	Database Name Not Defined To CICS	Named database not defined to CICS.	Verify that the database files are defined in all CICS tables and that "DB" statements are in the CICS jobstream.
4007	Requested File Operation Failed	Failed CICS operations; file has wrong share options.	Use the CICS diagnostic tools to identify the cause.
4008	Requested Key Not Found	Requested record no longer exists.	Restore the record to the database.
4009	Database Not Open	Closed host database file.	Make sure CICS initialization opens the host databases.
4012	Database Name Transmitted Does Not Match Host View Name	Inconsistent host and ID-3000 workstation data dictionaries.	Ensure the same field names are used in both dictionaries.
4014	Primary Key Must Be Unique	Primary key of record being added already exists in the database.	Change the value of the primary key.
4016	Key of Binary Zeros Is Not Allowed	Record has a primary key of all binary zeros.	Change the value.
4017	Primary Key Is Required To Add A New Record	Record being added has no primary key.	Add a primary key.
4018	The View Must Contain A Primary Key To Perform Database Adds	Database primary key fields not part of the view.	Include the primary key field in all views that add records to the database.

Error No.	*Message*	*Probable cause*	*Corrective action*
4019	Range Update Cannot Change The VSAM Primary Key	Update range attempting to change the primary key field.	Correct the application to prevent unique fields from being updated.
4020	Field Data Format Does Not Match the Data Dictionary.	Inconsistent host and ID-3000 workstation data dictionaries.	Ensure the dictionaries are the same.
4021	Date or Time Format Does Not Match the Data Dictionary	Inconsistent host and ID-3000 workstation data dictionaries.	Ensure the dictionaries are the same.
4998	Command Sequence Error	Read lock did not precede an update command.	Correct the application to provide a Read Lock.
4999	Protocol Error Unknown Data	Transmission error.	Reestablish communications and retry the operation. If the error persists, run with Log Level 5 and send the log file to Service Center.
5001	An Invalid Function Is Specified	Unknown function requested.	Correct the application.
5002	A Protocol Violation Error Has Occurred	Transmission error.	Reestablish communications and retry the operation. If the error persists, run with Log Level 5 and send the log file to Service Center.
5003	Communications With The Host Have Been Lost	Transmission error.	Reestablish communications and retry the operation. If the error persists, run with Log Level 5 and send the log file to Service Center.
5006	The HLLAPI_C Module Is Not Resident	DCA code not resident.	Load the DCA code before the ID-3000 applications.
5007	Unable To Open The "PHY" File For The Current View	View file not found.	Verify that a view (.VUE) file is present.
5009	The 3274 Controller Is Not Powered On	3274 controller off.	Turn on the 3274 controller.
5011	A Temporary Communications Failure Has Occurred	Transmission error.	Reestablish communications and retry the operation. If the error persists, run with log level 5 and send the log file to Service Center.

Error No.	*Message*	*Probable cause*	*Corrective action*
5015	A Formatted Screen Definition Is Incorrect	Relative field specified by the log on script does not exist.	Ensure the relative field is a formatted field.

ERROR CODES FOR THE SERIAL HANDLER

5200	Serial Handler: Circular Buffers Not Available	Trying to find unused buffer.	Check the PC I/O port and DOS configuration.
5201	Serial Handler: Memory Allocation Failure	Can not allocate free memory.	Check the computer memory configuration.
5202	Serial Handler: Bad Handle	Problem with Interupt Handler	Check the computer interrupts.
5203	Serial Handler: Bad Water Level Specification	Internal Serial Buffer problems.	Check the computer interrupts.
5204	Serial Handler: Circular Buffer Full	Internal Serial Buffer problems.	Check the computer interrupts.
5205	Serial Handler: Circular Buffer Empty	Internal Serial Buffer problems.	Check the computer interrupts.

ERROR CODES FOR IMAGE FILE NAMING SYSTEM

16001	Image Namer: File Name Prefix Too Long	File name prefix in application program or script exceeds __ characters	Correct the application program or script.
16002	Image Namer: File Name Suffix Too Long	File name suffix in application program or script exceeds __ characters	Correct the application program or script
16003	Image Namer: Unable To Get Image Tog	Missing .TOG files	Reload .TOG files.
16004	Image Namer: Unable To Create File path	.PHY file specifies the wrong path	Correct the path variable in the .PHY file.

Error No.	*Message*	*Probable cause*	*Corrective action*
ERROR DEFINES FOR THE IMAGE COMPONENT ERROR 30000-30999			
30001	LL Image: Error On GET_OBJECT ( )	Internal code failure.	Record events leading to error and contact the Service Center.
30002	LL Image: Error On PUT_OBJECT ( )	Internal code failure.	Record events leading to error and contact the Service Center.
30003	LL Image: Error On Finding An Image Physical Definition File	Pfield variable in the .PHY file is defined wrong	Correct the Pfield definition in the .PHY file.
30004	LL Image: Error Memory Source Handle	Corrupted memory	Defective memory modules or Config files.
30005	LL Image: Bad Image Subfield Code	Invalid or missing Pfield definition in the .PHY file	Correct the Pfield definition in the .PHY file.
30006	LL Image: Failed To Get Image Field	Invalid or missing Pfield definition in the .PHY file	Correct the Pfield definition in the .PHY file.
30007	LL Image: Invalid Image View Field Name	Invalid or missing Pfield definition in the .VUE and .PHY files	Correct the Pfield definition in the suspected .VUE and .PHY files.
30008	LL Image: Too Many Paths Defined In Physical File	Invalid Pfield definition in the .PHY file	Correct the Pfield definition or reload the .PHY file in the database directory.
30009	LL Image: No Image Field Defined	No Pfield was defined in the .PHY directory	Correct the Pfield definition or reload the .PHY file in the database directory.
30010	LL Image: Failed To Extract File name From Image Destination Path	Missing Image file that was defined in the database file	Locate the database record and check the Pfield for the Image file.
30011	LL Image: Failed Swap Volume	Internal code failure	Record events leading to the error and contact the Service Center.
30012	LL Image: Failed To Read Image File	Corrupted Image files	Locate the Image file and check it using Norton Disk Doctor.
30013	LL Image: Failed To Store Image File	Problems with the drive	Run Norton Disk Doctor.
30014	LL Image: Failed tT Get View Name	Missing .VUE file	Reload .VUE in the database directory.

Error No.	*Message*	*Probable cause*	*Corrective action*
30015	LL Image: Undefined Image Type	Corrupted Image file	Reload the .PHY and .VUE files.
30016	LL Image: Invalid Image Storage Type	Corrupted Image file	Reload the .PHY and .VUE files.
30017	LL Image: Logical drive Name Too Long In .PHY	Corrupted .PHY file	Reload the specified .PHY file from the Customer Application Disk to the database directory.
30018	LL Image: Image File Name Too Long	Corrupted .PHY file	Reload the specified .PHY file from the Customer Application Disk to the database directory.
30019	LL Image: Image Default Too Long In .PHY	Corrupted .PHY file	Reload the specified .PHY file from the Customer Application Disk to the database directory.
30020	LL Image: Can't Locate Available Drive In Drive List	Drive specified in Drivelis.bb for Imglist does not exist	Correct Drivelis.bb to reflect the proper drive, or mount the drive the system is looking for.
30021	LL Image: Failed To Extract Logical Drive Name From Image_Path In .PHY	Corrupted .PHY file	Reload the .PHY files only, from the Customer Applications Disk to the database directory.
30022	LL Image: Failed To Extract Default Path From Image_Path In .PHY	Corrupted Pfield length	Reload the .PHY files only, from the Customer Applications Disk to the database directory.
30023	LL Image: A Required BB Object Was Empty	No logical drive was designated for image storage in Drivelis.bb	Enter a valid logical drive in the last line of Drivelis.bb file and reboot the system.
30024	LL Image: Unknown Drive Type In Drivelis.bb	Wrong information about logical drives in Drivelis.bb	Enter a valid logical drive in the last line of Drivelis.bb file and reboot the system.
30025	LL Image: Bad Drive Letter In Drivelis.bb	No logical drive was entered for image storage in Drivelis.bb	Enter a valid logical drive in the last line of Drivelis.bb file and reboot the system.
30026	LL Image: No Usable Drives Found	Wrong logical drive was entered in Drivelis.bb	Enter a valid logical drive in the last line of Drivelis.bb file and reboot the system.

Error No.	*Message*	*Probable cause*	*Corrective action*
30027	LL Image: Drive Search List Is Invalid	Wrong logical drive was entered in Drivelis.bb	Enter a valid logical drive in the last line of Drivelis.bb file and reboot the system .
30028	LL Image: Cannot Create Destination Directory	Wrong logical drive was entered in Drivelis.bb	Enter a valid logical drive in the last line of Drivelis.bb file and reboot the system.
30029	LL Image: Cannot Create Fullname For An Image	Internal code failure	Record events leading to the error and contact the Service Center.
30030	LL Image: No Corel Drive On Drive List	Internal code failure	Record events leading to the error and contact the Service Center.
30100	Can't Find Image In The Specified Drive List	Image file was deleted	Go to the database, locate the Pfield in the specified record and try to locate the Image file. Run Reindex Database from the menu.
DB COMPONENT ERROR MESSAGES			
6001	DBC3+: Failure to Open File or Other DBC3+ Error	Database or index file failed to open properly.	Examine the error log to determine the exact nature of the error, then take the necessary corrective action.
		Major database problem.	Record events leading to error and contact the Service Center.
6002	DBC3+: Invalid Database Specification or Corrupt Database	Incorrect database name specified in .PHY.	Examine the .PHY file and correct the database name.
		Corrupted database file.	Verify the database contents and restore the Database file if necessary.
6003	DBC3+: Record Deleted By Another Station Or Index Problem	Index file problem.	Reindex the database files (use Reindex Database Files in the file maintenance menu).
6004	DBC3+: Write Failure - Disk Space May Be Low	Current disk is full	Purge the audit trail databases, ERROR.LOG files or take other steps to create more disk space.
		Disk failure.	Contact the Service Center.

Error No.	*Message*	*Probable cause*	*Corrective action*
6005	DBC3+: Invalid Index Specification Or Corrupt Index File	Invalid index file specified by .PHY.	Check .PHY and correct the index file name.
		Corrupted index file.	Reindex the database files (use Reindex Database Files on the file maintenance menu).
6007	DBC3+: Record Deleted By Another Station Or Index Problem	Invalid index file specified by .PHY.	Check .PHY and correct the index file name.
		Corrupted index file.	Reindex the database files (use Reindex Database Files on the file maintenance menu).
6012	DBC3+: Internal Memory Allocation Problem	Internal code failure.	Record events leading to error and contact the Service Center.
6015	DBC3+: Invalid Date Format Encountered	Incorrectly formatted data entered.	Verify the format of the entered data and correct if necessary.
		Incorrectly formatted data found in database.	Verify database contents and correct if necessary.
		Internal code failure.	Record events leading to error and contact the Service Center.
6020	Share Not Installed, It Is Needed	Internal code error.	Record events leading to error and contact the Service Center.
6021	DBC3+: Internal Database Already Locked By Your Station	Internal code failure	Record events leading to error and contact the Service Center.
3051	DBC3+: Database Not Open	Internal code failure in viewmanager or database server	Record events leading to error and contact the Service Center
3052	DBC3+: Database Already Open	Internal code failure in viewmanager or database server.	Record events leading to error and contact the Service Center.

Error No.	*Message*	*Probable cause*	*Corrective action*
3053	DBC3+: Index Operation Failed	No disk space remaining in current working directory.	Check available disk space in directory used for database storage and delete unused files.
		Protection problem on network.	Check the network protection rights for the current user.
3054	DBC3+: Memory Allocation Failure	Internal code failure in viewmanager or database server.	Record events leading to error and contact the Service Center.
3055	DBC3+: No Previous Range Defined	Internal code failure in viewmanager or database server.	Record events leading to error and contact the Service Center.
3056	DBC3+: No Search List Defined	Internal code failure in viewmanager or database server.	Record events leading to error and contact the Service Center.
3057	DBC3+: Database Never Opened, Cannot Close	Internal code failure in viewmanager or database server.	Record events leading to error and contact the Service Center.
3058	DBC3+: Bad Field Name In View	Error in .PHY file.	Correct the system configuration and correct if necessary.
			Verify that the .VUE file matches the database and the .PHY file, DATABASE directory.
3060	DBC3+: Database Or Index Write Failed	No disk space remaining in current working directory.	Check available disk space in directory used for database storage and delete unused files.
		Protection problem on network.	Check the network protection rights for the current user.
3062	DBC3+: No .PHY File Defined.	.PHY file is missing or in wrong path	Locate the correct .PHY file and move it to the proper directory; or reload application software
3063	DBC3+: Field In View Not In Database	A field defined in the .PHY and .VUE files does not exist in the database structure.	Correct the .PHY and .VUE files, DATABASE directory.

Error No.	*Message*	*Probable cause*	*Corrective action*
3064	The Record Has Changed, It Must Be Re-read	This application record has been changed by another ID-3000 workstation.	Return to the data entry screen and retrieve the record again.
3065	A Duplicate ID Has Been Detected In The Database	Import.	Use QUERY/BROWSE or DBASE to delete one record that does not have PField/SField.
3066	DBC3+: There Is No Current Record In The Database	Update requested for a record that does not exist.	Record events leading to error and contact the Service Center.
3067	DBC3+: There is No Current Record in the Database	Error trying to append to DBC3 base file.	Record events leading to error and contact the Service Center.
3068	DBC3+: Unable to Create Temporary Index	Failure to open intermediate index.	Record events leading to error and contact the Service Center.
3069	DBC3+: Key for Intermediate Index Too Long	KEY_EXPL_INDEX too long	Record events leading to error and contact the Service Center.
3070	DBC3+: Failure in Intermediate Index	Problem witn DBC_GPT.C file	Record events leading to error and contact the Service Center.
3071	DBC3+: Memory Allocation Failure	PRoblem in DBC_UTIL.C file	Record events leading to error and contact the Service Center.

MENU SYSTEM ERROR MESSAGES

11700	Menu: Executable Program not Found	Program references incorrectly in menu script.	Check the menu script and correct the referenced program name or path.
11701	Menu: Internal Recursion Error	Program referenced by manu script is missing.	Install missing program.
11702	Menu: Bad Parameter in Menu Command		
11703	Menu: Missing Parameter in Menu Command	Required parameter missing from menu script.	Check the script and insert the missing parameter.
11704	Menu: Unable to Store Next Command Before Execute	Required parameter missing from menu script.	Check the script and insert the missing parameter.

Error No.	*Message*	*Probable cause*	*Corrective action*
11705	Menu: Loader Program Not Found, No Transfer Address	V2LOADER.EXE not in memory.	Check the batch files and system startup configuration, and correct any errors.
IMAGING ERRORS			
1100	DSP Timeout	DSP driver disabled during operation.	Reboot system to reload the driver. Verify the correct DSP address in DSP.CNF; see CNF files and Typical Contents in Section 3.
16502	Audit Log Write Failure	Internal code failure.	Contact the Service Center.
16503	Audit Log Full	Internal code failure.	Contact the Service Center.
16504	Failed to Load Audit Log Screens	Internal code failure.	Contact the Service Center.
16505	Audit Log Reserve File Contains Data	Internal code failure.	Contact the Service Center.
16506	Audit Log Configuration File Missing	Internal code failure.	Contact the Service Center.
16507	Unable to Purge Audit Log	Internal code failure.	Contact the Service Center.
TAPE COMPONENT ERRORS			
3151	Tape Component Not Open	Trying to close files with current view.	Contact the Service Center.
3152	Attempt to Open Tape Twice	Tape already open.	Contact the Service Center.
3153	Write Failure on Tape	Tape has write failure.	Tape may be in Read-only mode.
3154	TAPE: Memory Allocation Failure	Can not allocate memory for tape.	Contact the Service Center.
3155	No SCSI Tape Controller in System	Missing or corrupted TAPECOM.CNF file.	Reload TAPECOM.CNF and check the SCSITID variable.
3156	Invalid Search Specified	Can not generate a search list.	Contact the Service Center.

Error No.	*Message*	*Probable cause*	*Corrective action*
3157	Tape Component Never Opened	Missing or corrupted TAPECOM.CNF file.	Reload or reinstall TAPECOMP.CNF file in ID2DATA directory.
3158	TAPE: Bad Field Reference	Index is wrong.	The database from tape and drive are different.
3159	TAPE: Field Count Mismatch	Internal error.	Contact the Service Center.
3160	Write Failure on Tape	Write failure.	Check the Read Only switch or tape.
3161	TAPECOMP.SOT Missing	Missing or corrupted TAPECOMP.SOT file.	Reload or reinstall TAPECOMP.SOT file in the ID2DATA directory.
3162	Physical Definition File Missing	Missing .PHY file.	Reload APPS software.
3163	TAPE: Field Name Mismatch	Rewriting tape field mismatch.	Contact the Service Center.
3167	TAPE: Drive Not Ready	Tape drive is not ready or loose cables.	Turn OFF the system, check all cable connections to the tape and jumper settings.
3168	TAPE: Memory Allocation Failure	Internal error code.	Contact the Service Center.
3169	TAPE: Image Data Missing on Tape	Internal error code.	Contact the Service Center.
3170	TAPECOMP.CNF File Missing	Missing TAPECOMP.CNF file.	Reload or reinstall TAPECOMP.CNF file in the ID2DATA directory.
3171	Insert a New (Different) Tape	Bad tape or full.	Change tape and continue.
3172	Bad Format on Tape	Defective tape.	Re-tension the tape or use another tape cartridge.
3173	Tape Failure	Unable to access the tape.	Re-tension the tape or use another tape cartridge.
3177	Checksum Failure on Tape	Bad tape.	Insert new tape and start over.

Error No.	*Message*	*Probable cause*	*Corrective action*
3178	Tape Mode Failure	Internal code failure.	Contact the Service Center.
3179	Bad Object Length on Tape	Internal code failure.	Contact the Service Center.
3180	The Specified View is Not Available	Internal code failure.	Contact the Service Center.
3181	Bad Header on Tape	Internal code failure.	Contact the Service Center.
3182	Tape Operation Aborted	Internal code failure.	Contact the Service Center.
CS500 SCANNER ERRORS			
25000	Could Not Load Scanner Configuration File	Missing or bad PCS.CNF file.	Reload or reinstall PCS.CNF file in the ID2DATA directory.
25001	TKIL MODE Error	Can not scan in SM_HW DEFAULT Mode.	Contact the Service Center.
25005	TKIL STATE Error	Can not scan in SM-HW DEFAULT Mode.	Contact the Service Center.
25010	Scanner Not Ready	Scanner is turned off or not connected.	Turn OFF the system, connect all cables, check the SCSI address, turn the color scanner ON.
25015	Data Transfer Error	Scanner not initialized properly	Turn off system, then power up again; or replace system
25025	Scan Operation Aborted	Scanner not initialized properly	Turn off system, then power up again; or replace system
25030	Unknown Hardware Error Occurred	Loose color scanner cable or defective color scanner.	Turn system off, check all cables and turn system ON. Replace color scanner.
25032	Unknown Software Error Occurred	Corrupted data files.	Reboot the system.
25035	Bad Parameter Error - Re-Initialize Scanner	Loose color scanner cable.	Turn system OFF, check all cable connections and switches. Turn system ON.
25038	TKIL Expanded Memory Error	Memory problems, or defective scanner	Check memory, or replace scanner.

Error No.	*Message*	*Probable cause*	*Corrective action*
25040	Could Not Load Scanner Screen File	Missing or bad PCSSCRN.SOT file.	Reload or reinstall PCSSCRN.SOR in the ID2DATA directory.
25045	CS-500 Not Calibrated	Color scanner is out of calibration.	Turn system OFF. Turn the color scanner ON and perform White Card calibration.
25050	CS-500 Timeout While Trying to Grab Image	Loose cables.	Turn system OFF and ON again and scan a new image. Record event leading to the error and call the Service Center.
25055	Scan Data Lost During Transfer	Loose cables.	Turn system OFF and ON again and scan a new image. Record event leading to the error and call the Service Center.
3183	Too Many Images in Temp List	Internal error.	Contact the Service Center.
3184	No Tape in Drive On Hardware	Missing or bad tape.	Insert a new tape cartridge.
APPLICATION ERRORS (8000-8999)			
8021	Viewmgr-field-count Failed	Internal error.	Contact the Applications Group or Service Center.
8022	Viewmgr_nonblank_field Failed	Internal error.	Contact the Applications Group or Service Center.
8023	Viewmgr_range Failed	Internal error.	Contact the Applications Group or Service Center.
8024	Viewmgr_previous Failed	Internal error.	Contact the Applications Group or Service Center.
8025	Viewmgr_next_error	Internal error.	Contact the Applications Group or Service Center.
8026	Viewmgr_retrieve_record Failed	Internal error.	Contact the Applications Group or Service Center.
8027	Could Not Log Criteria to File	Internal error.	Contact the Applications Group or Service Center.

Error No.	*Message*	*Probable cause*	*Corrective action*
8028	Viewmgr_fine_good_key Failed	Internal error.	Contact the Applications Group or Service Center.
8029	Viewmgr_establish_range Failed	Internal error.	Contact the Applications Group or Service Center.
8030	Viewmgr_expand_range Failed	Internal error.	Contact the Applications Group or Service Center.
8031	Could Not Open Template File	Internal error.	Contact the Applications Group or Service Center.
8032	Get_object_size Failed	Internal error.	Contact the Applications Group or Service Center.
8033	Get_object Failed	Internal error.	Contact the Applications Group or Service Center.
8034	Can Not Open Export File	Internal error.	Contact the Applications Group or Service Center.
1105	Compress: Image Too Wide for Buffer	Value of width variable defined in the image header exceeds 512.	Verify that image has been created correctly and header is not corrupted.
1106	Decompress: Image Too Wide for Buffer	Value of width variable defined in the image header exceeds 512.	Verify that image header is correct and compatible with ID-XOOO Version 2 headers.
1110	Decompress: Can not Handle This Image Type	Image has no image identifier (identifies image as a signature or portrait).	Verify that the fiel being decompressed is a valid image file.
1150	RGB Image for GIF Conversion Not Found	No longer supported.	Contact the Service Center.
1152	Could Not Allocate Memory VGA LUT Buffer	No longer supported.	Contact the Service Center.
1154	Could Not ALlocate Memory Histogram Buffer	No longer supported.	Contact the Service Center.
1156	Mappage Table Could Not Be Allocated	No longer supported.	Contact the Service Center.
1158	Invalid RGB Header for GIF Conversion	No longer supported.	Contact the Service Center.

Error No.	*Message*	*Probable cause*	*Corrective action*
1160	Could Not Allocate Work Buffer for GIF Conversion	No longer supported.	Contact the Service Center.
1162	Could Not Allocate CGA Memory Buffer	No longer supported.	Contact the Service Center.
1164	Could Not Create GIF File	No longer supported.	Contact the Service Center.
16500	Audit Log Not Initialized Image Namer: File	No longer supported.	Contact the Service Center.
16501	Audit Log Data Line Too Long	No longer supported.	Contact the Service Center.

SECTION 4 — ON-SITE CALIBRATION PROCEDURES

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SECTION 4 — ON-SITE CALIBRATION PROCEDURES

Introduction and Purpose of Procedures

The following calibration procedures must be used whenever a CI-5000 Color Film Recorder, color portrait camera, Matrox Illuminator board or strobe unit is replaced in the ID-3000 system, or whenever a diagnostic procedure indicates the need for recalibrating any of these system components.

Tools and Equipment Required:

Video Photometer (P/N 13149)

Oscilloscope - 40 MHz

Oscilloscope Probe (Tektronix 6131) (P/N CPS 212)

Multimeter/DVM

Final Assembly Alignment Gauge (P/N 13443)

Color Calibration Card (P/N 1B2195A)

Centronics Cable (P/N 1A5556A)

Electrostatic Discharge Warning

Sensitive electronic components in the CI-5000, computer and other parts of the system can easily be damaged by small static discharges.

Always use a wrist strap and grounded anti-static mat
when removing equipment covers and servicing equipment.

CI-5000 Film Recorder Calibration

A. Electrical/Final Assembly Alignment of the CRT

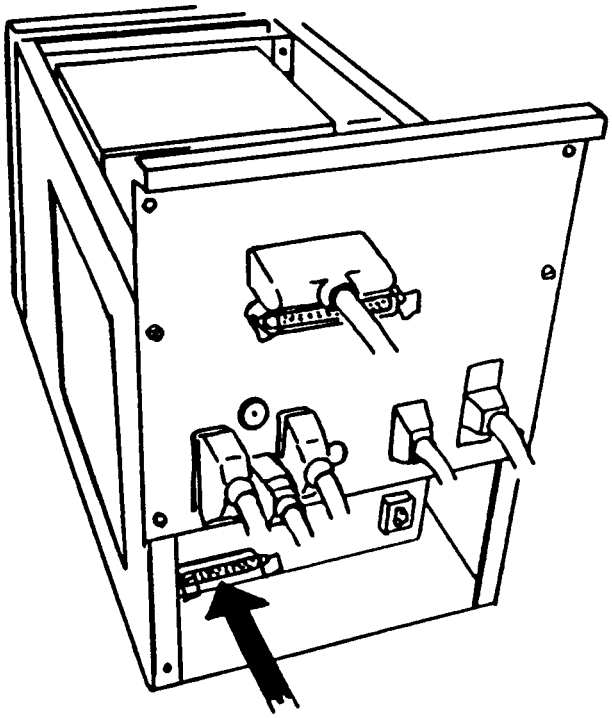
Setup:

1. Disconnect power cable from the Color Film Recorder Assembly.

2. Remove Camera Post Assembly and Output Unit cover.

3. Remove the six screws from the backplate of the Color Film Recorder Assembly. Slide the backplate up one set of holes, so that the bottom holes in the backplate line up with the middle holes in the case, and replace four screws. (This is to give access to the back of the CI-5000 chassis.)

4. Connect the Centronics cable #1A5556A between the parallel port of the CPU and the 25- pin connector on the back of the CI-5000 (see Figure 4-1). Reconnect the power cable.



NOTE: Both SCSI and Centronics cables required

Centronics cable connection

Figure 4-1 Connecting CI-5000 to CPU with Centronics cable

5. Install the system Camera Back on the color film recorder (see Figure 4-2).

6. Insert the Final Assembly Alignment Gauge into the Camera Back (Figure 4-2).

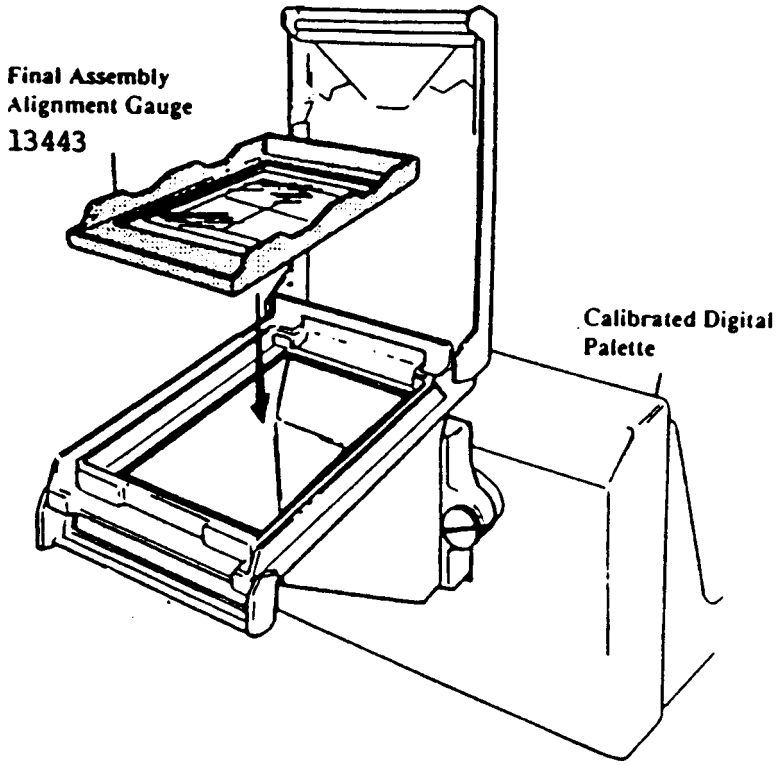


Figure 4-2 Electrical/Final Assembly Alignment of the CRT

WARNING: Most of the following steps must be done with the power ON.
USE EXTREME CAUTION TO PREVENT ELECTRICAL SHOCK!

Procedure:

1. Turn the power ON and log on as CPS. From the main menu select **System Operations** and press **<Enter>**.

2. From the next menu select **Calibration & Setup** and press **<Enter>.** Then select Film Recorder and press **<Enter>**. A full white screen will appear.

3. Adjust R46 Luma Adjustment (Figure 4-3) to a level that is easily visible to the eye — approximately 6 f-l or 3mV.

4. Press **<F1>**, then **<F10>**.

5. Bring up the tennis court pattern by selecting **DP.GTI** or **<F8>** from the Gentest menu. Reverse the image so there are black lines on a white court: do this by selecting REVERSE VIDEO OFF <F5> from the Gentest menu.

6. View the displayed image on the Final Assembly Alignment Gauge.

   NOTE: Be sure the two scribed lines on the Alignment Gauge are always visible, to eliminate parallax problems.

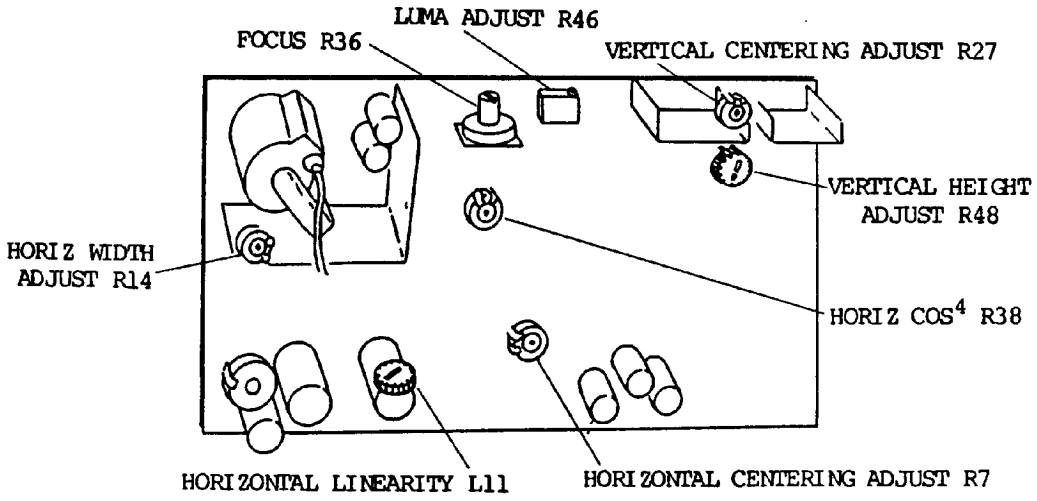


Figure 4-3 Adjustment locations

7. Visually inspect the tennis court to be sure it is properly centered horizontally and vertically. Be sure the image is not tilted.

   If the tennis court is significantly out of center alignment, check the camera back for a loose mirror. Reposition and secure the mirror, if necessary.

8. If the image is tilted, loosen the bracket on the CRT tube and turn the yoke to square the image with the face of the CRT (see Figure 4-4).

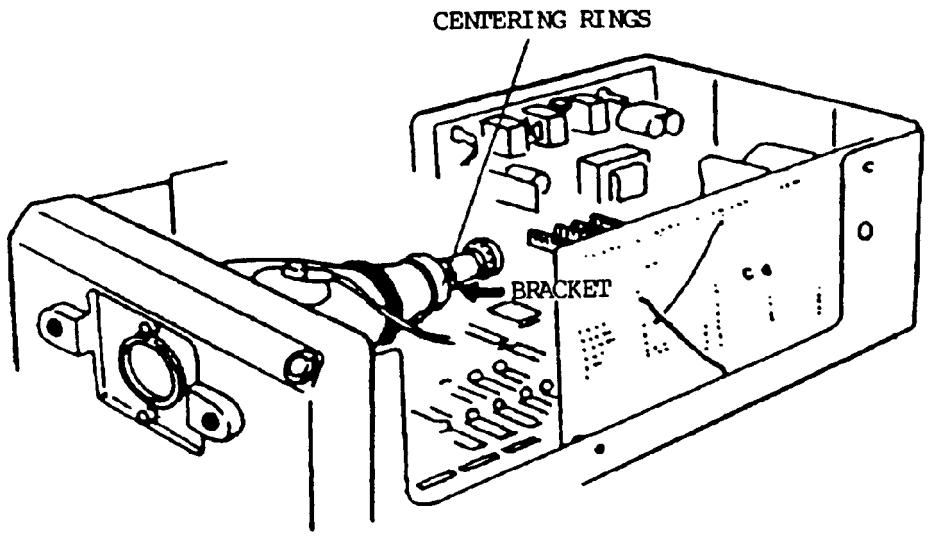


Figure 4-4 Centering Rings

9. The displayed image should coincide with the scribed lines in the center of the gauge. The outside image lines should fall within the two scribed lines along the perimeter of the gauge (see Figure 4-5).

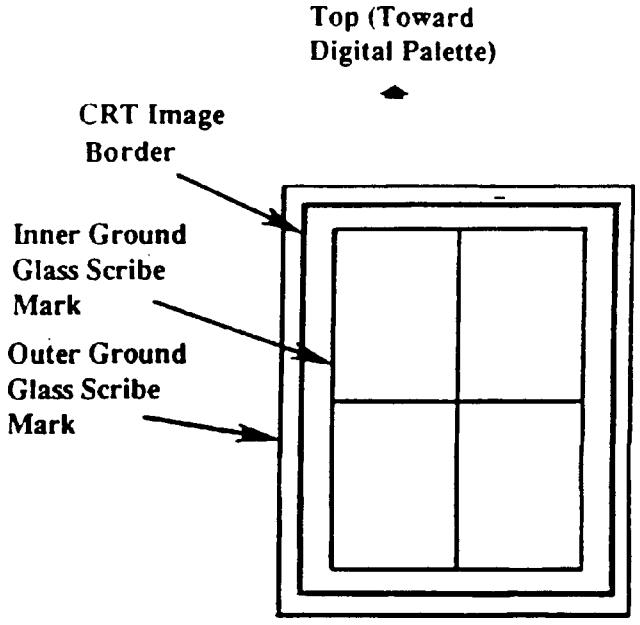


Figure 4-5 Correct alignment of displayed image with gauge lines

IF THE ABOVE ALIGNMENT IS NOT DISPLAYED, DO THE FOLLOWING:

1. Adjust R7 on the Monitor Board to fine-tune horizontal centering (see Figure 4-3).
2. Adjust R27 on the Monitor Board to fine-tune vertical centering (Figure 4-3).
3. Adjust R48 on the Monitor Board to obtain proper vertical height (Figure 4-3).
4. If the cross hairs do not coincide with the gauge, return the Vertical Centering pot (R27 in Figure 4-3) and Horizontal Centering pot (R7) to their nominal (center) positions.
5. Cut the hot melt securing the two centering rings on the yoke of the CRT (see Figure 4-4).
6. Adjust the centering rings to obtain proper vertical and horizontal centering. When centering is correct, secure the centering rings with hot melt adhesive.
7. Adjust R7 on the Monitor Board to fine-tune horizontal centering (see Figure 4-3).
8. Adjust R27 on the Monitor Board to fine-tune vertical centering (Figure 4-3).
9. Adjust R48 on the Monitor Board to obtain proper vertical height (Figure 4-3).
10. Adjust R14 to obtain proper horizontal width (Figure 4-3).
11. Adjust L11 to obtain proper horizontal linearity (Figure 4-3).

IF THE IMAGE IS STILL TILTED, MECHANICALLY ADJUST THE CRT AS FOLLOWS:

1. Loosen (do not remove) the four screws holding the CRT mount
2. Bring up the tennis court pattern by selecting DP.GTI from the Gentest menu.
3. Carefully move the CRT while observing the pattern on the gauge.
4. When the pattern meets the conditions shown in Figure 4-5, tighten the mounting screws and replace the CI-5000 cover.
5. After tightening the mounting screws, recheck the image alignment with the template (refer to Figure 4-5).

B. Autoluminance Adjustment

Always perform this adjustment when replacing the Logic Board or Monitor Board.

Setup:

Turn on the CI-5000 and allow it to warm up for at least 15 minutes. To prevent ambient light from affecting the readings, cover the CI-5000 during these adjustments.

Procedure:

The objective is for the Gentest to have a reading of 200 with the Photometer level at 6.0 f-l (or 3.0 mV +_0.1 mV).

1. Rotate the filter wheel to the clear (no filter) position.
2. Bring up the main menu.
3. Press <F9> to access the test adjust menu.
4. Press <F2> autoluminant adjustment to access the dark current adjust menu.
5. Follow the Gentest procedure, setting the dark current to 4 by adjusting VR3 on the Logic Board (see Figure 4-6). The dark current level will appear on the Gentest menu.

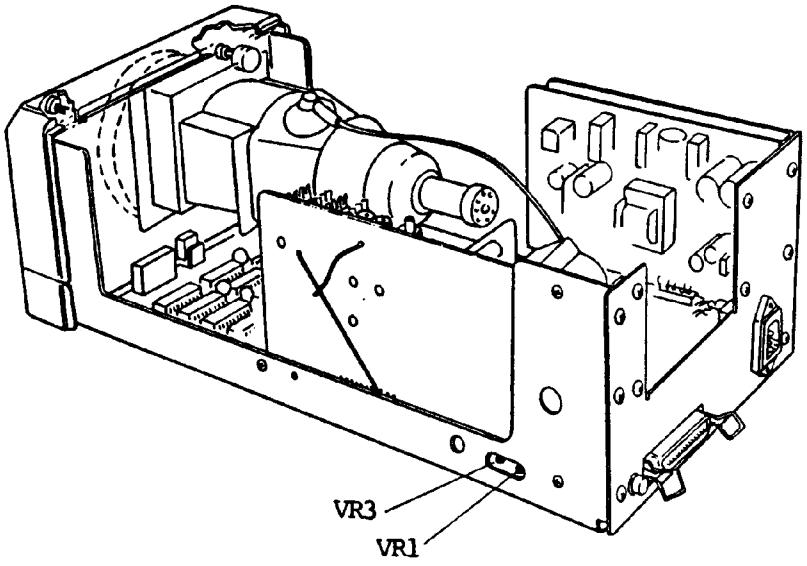


Figure 4-6 Autoluminance adjustment

6. To end dark current adjust, press <F1). Program defaults to AUTOLUMA.

7. Install the Photometer, turn it on and set it to 0 - 20 f-l.

8. Adjust the brightness to 6.0 f-l on the photometer (or 3.0mV), using Luma Adjust pot R46 (Figure 4-3).

9. Adjust the VR1 pot on the Logic Board (Figure 4-6) until the Gentest Autoluma on the screen reads 200.

10. Press <Esc> to return to the previous menu.

C. COS Adjustment

This adjustment is done to achieve uniform brightness between the four corners and the center of the CRT screen. It should be performed whenever the Monitor or Logic Board is replaced.

Procedure:

The objective is to set Horizontal pot R38 (Figure 4-7) for 1500 mV measured at E4 (green wire at CRT cap).

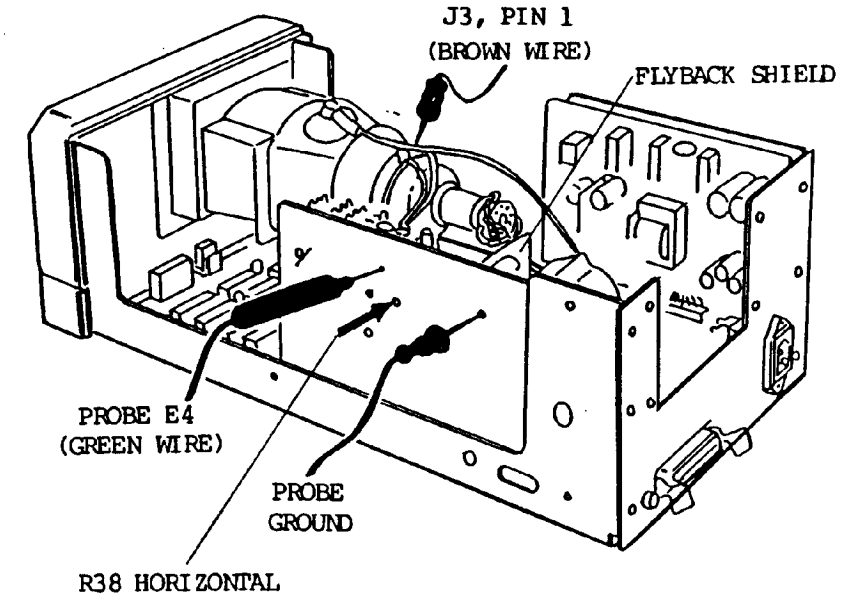


Figure 4-7 COS Adjustment

IMPORTANT:	**Before continuing, be sure to escape from Gentest after** completing the Autoluminance Adjustment.

1. Place the probe ground on the pin side of the flyback shield

2. Attach the Probe to E4 on the Monitor Board (green wire from the CRT cap).

3. Attach the external input triggering probe to J3, pin 1 (brown wire at yoke).

4. To obtain proper signal, set the oscilloscope to AC Coupled and to 20 usec at 200 mv/div.

   Check resistor R40 on the monitor board. It should be 10K ohm, 1/4 watt. If it is not, replace the exisitng resistor with a 10K ohm, 1/4 watt resistor.

   Then set Horizontal (R38) for 1500 mV (1.5V) p-p. Refer toFigure 4-8

   The signal could go up to 16500 mV in order to achieve a constant brightness in the ID card (no dark corners).

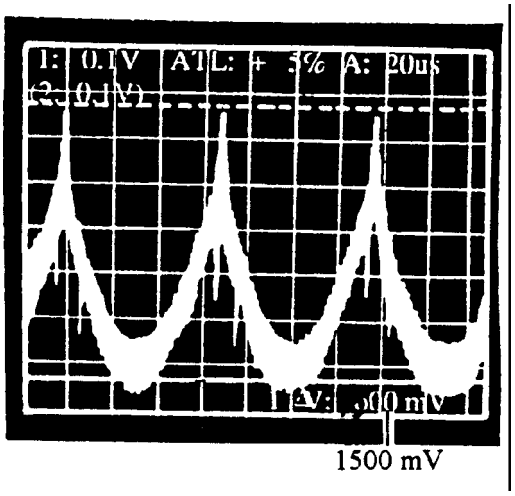


Figure 4-8 Correct Horizontal setting at 1500 mV p-p

D. Electrical Focus Adjustment (done at depot facilities only)

Setup:

Bring up the tennis court pattern by selecting DP.GTI from the Gentest menu.

Procedure:

1. Install the CRT collimator on the CI-5000, using the thumbscrews to secure it (see Figure 4-9).

2. Turn the focus wheel on the collimator while looking through the collimator eye piece. Focus the collimator until the phosphors on the screen are the sharpest possible: look at the center cross pattern.

3. When the image is the sharpest, adjust R36 Focus (Figure 4-3) for optimal focus.

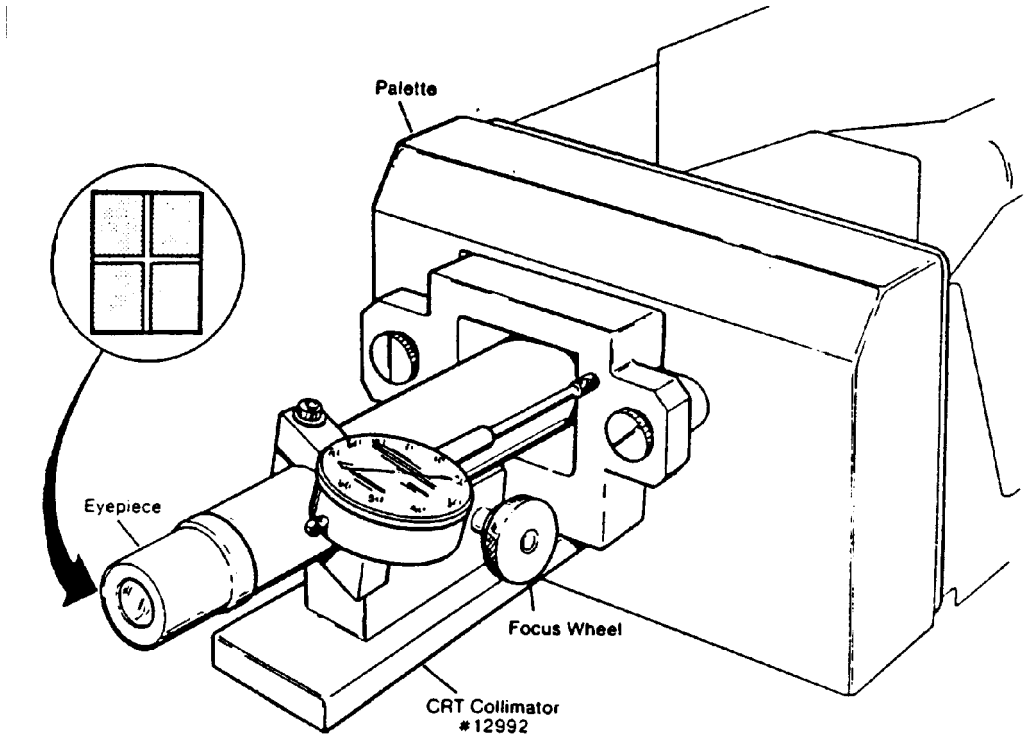


Figure 4-9 Installing CRT Collimator on CI-5000

E. Taking a Test Picture

Procedure:

1. Select Expose Gentest Image <F2> from the main menu. Press More Images <F10>.

2. Scroll down the Gentest image menu and select DP.GTI <F8>.

3. Enter the serial number from the CI-5000 and press <Enter> (the serial number is located on the right side of the CI- 5000 as you face it from the rear).

4. The screen will instruct you to Prepare Camera for Exposure.
   Pull out the dark slide from the film pack.

5. Press <Enter> and the Exposure Sequence will start. The LED will blink during exposure.

   Be sure the CI-5000 operates as described above.

   If it doesn't, determine the reason, correct it and repeat this procedure.

CI-5000 Color Film Recorder Assembly Calibration (ID-3000F Systems)

Purpose

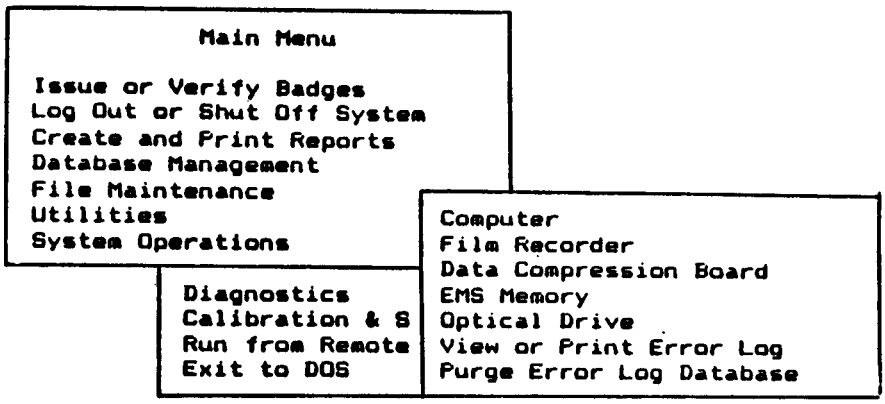
The following procedure calibrates the complete color film output assembly and the illuminator board in the computer, to assure correct size, color and focus in the final ID card image.

Procedure

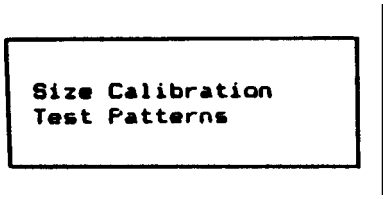
1. Turn on the system and log on as CPS. From the Main Menu, select **System Operations**.

2. From there select **Diagnostics**, then **Film Recorder**.

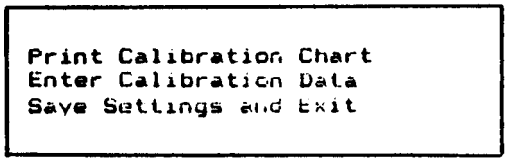
   NOTE: The Calibration Program can also be run from the DOS prompt as CICAL.



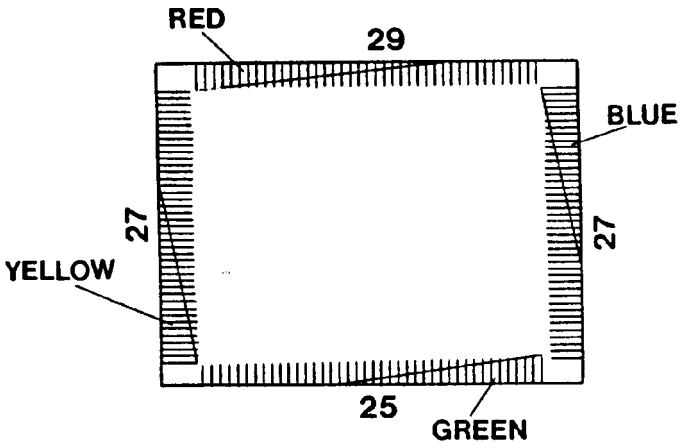
3. From the resulting menu, select **Size Calibration**.



4. Next select **Print Calibration Chart.** (The message "Working . . ." will be dis played while the system prints the calibration chart on film.



5. When the Working . . . message disappears and Enter Calibration Data is high lighted, the chart is ready. From the Camera Back, pull the white tab, then the yellow tab to start the film processing Timer.

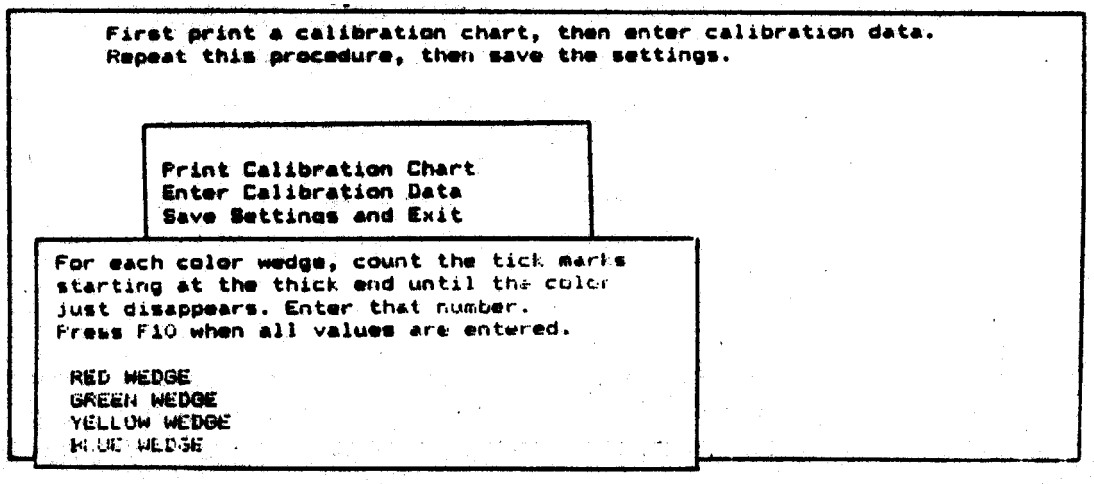


NOTE: This is an illustrative example only, to show how tick marks are counted. Your calibration print may have different tick mark counts.

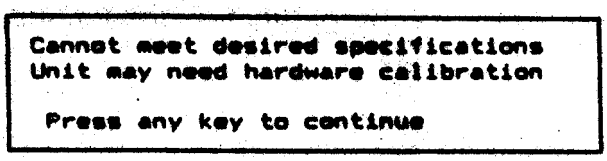
Nominal values of R, G and B are about 35 +_3.

6. Next select **Enter Calibration Data** and follow the screen instructions for entering the information from the calibration print just produced. Count the number of tick marks along the red wedge, going from the thick, left end to the right end where it tapers off the edge.

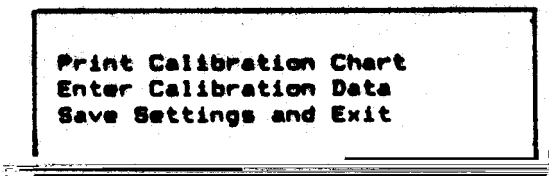
Type the number of tick marks next to RED WEDGE and press **<Enter>**. The highlight will automatically move to the next color. Repeat the process for each color wedge, pressing **<Enter>** after each number entered. When all data has been entered, press **<F10>.**



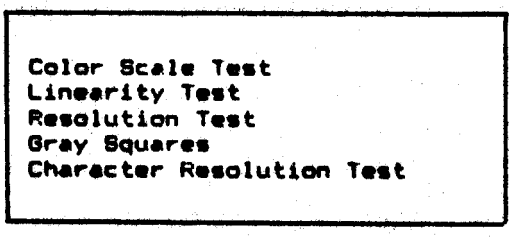
NOTE: If the system cannot calibrate itself, the following message will be displayed. Should this occur, go to (Page 4-7, step 1-11of the Alignment procedures and The Size of Image Adjust; enlarge the image with the outside borders of the alignment template); otherwise continue with step 7 below.



7. Now repeat the entire procedure (steps 4 - 6) for accuracy. Then select **Save Settings and Exit**, which saves the results and returns you to the Size Calibration/ Test Patterns menu.

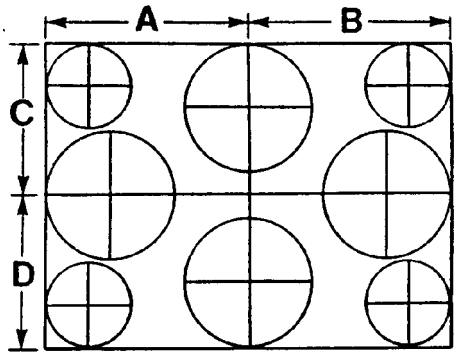


8. Select **Test Patterns** and from the resulting menu, perform each test in order, making a test print from each.



9. The Color Scale Test prints six colors plus white, ranging from black to maximum brightness. This test is used to check the monotonicity of the film table. The blue, green, cyan, red, purple, orange and white colors should each be strongly evident

as their respective value ranges from black to very bright.
The Linearity Test prints the tennis court pattern of eight circles of two different sizes as shown below, to check CRT linearity.



Distance A should equal distance B within 1/16", and C should equal D within 1/16". Moreover, the circles should be round and not elliptical.

If these characteristics are not present, linearity should be corrected (see steps 1 - 11 on page 4-7).

The Resolution Test prints checkerboards ranging in width from one pixel to 10 pixels. This test is used during manufacturing, for checking CRT spot size and focus. Pixel size should increase linearly, from the lower right corner of the print to the upper left corner.

The Gray Squares test prints 16 squares ranging from black to white, for verifying gray scale linearity with a densitometer.

Sixteen squares should be clearly visible: if they are not, check film to see whether it is out of date. If the film is fresh, go to Gentest and check Brightness.

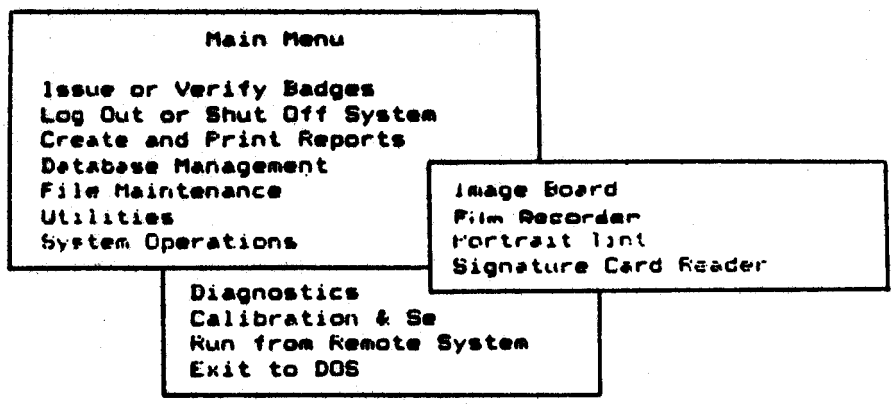
The Character Resolution Test prints an entire field of E's, for checking focus consistency over the entire film plane. The E's in the four corners of the film frame should be as legible as those in the center. If they are not, check the film date. If the film is fresh, perform the Electronic Focus Calibration procedure (see page 4-12 of this section).

Illuminator Board Calibration

1. Turn on the system and log on as CPS. Adjust the Monitor contrast and brightness settings to give a normal-appearing display.

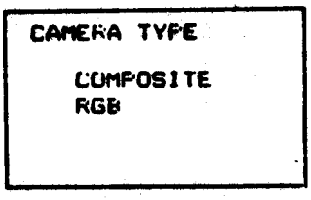
   Make sure that all options in the Adjust System are set to Normal.

   From the main menu select **System Operations**, then **Calibration and Setup**, then **Image Board.**

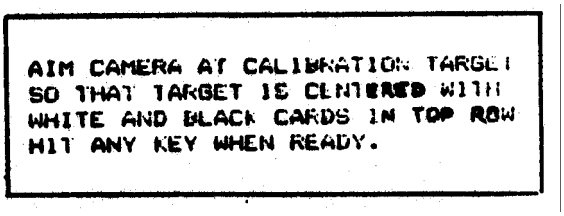


   NOTE: The Illuminator Board Calibration Program can also be run from the DOS prompt as MCAL.

2. At the Camera Type window, select RGB. (RGB is normally used for the live portrait camera input, Composite (i.e., NTSC) for input from the optional still video camera or copy stand.)



3. The program will next ask you to aim the camera at the Color Calibration Card, an 8-1/2" x 11" card containing white, black, tan and gray rectangles.

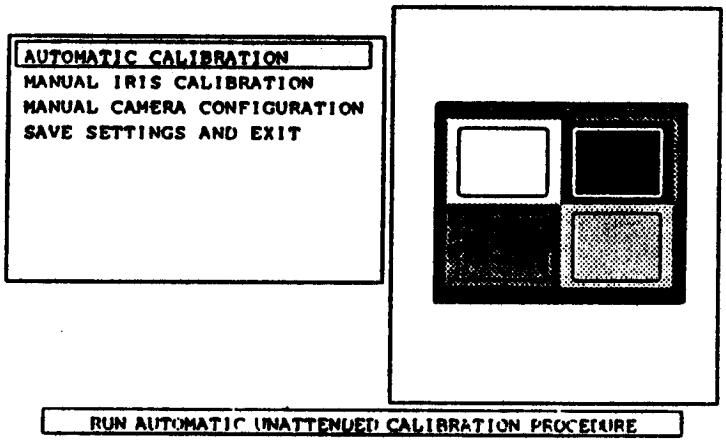


   Place the card in front of the camera (or if using a still video player, refer to its operating instructions), so that the card is centered in the picture and with the black and white rectangles on top.

Be sure the camera distance is correct (60" with a 16mm or 25mm lens), and that the camera is aimed perpendicular to the card.

The white rectangle in the upper left corner will appear slightly yellow. All colors should be clearly visible on the monitor, and not so dark that they cannot easily be differentiated. If they are too dark, adjust the Live pot at the rear of the CI-5000 Assembly or TX-1500 Assembly (access is through the hole on the left). Rotating the pot counter- clockwise lightens the colors.

4. When these steps have been done, press any key. The program will search for the card and create an outline within each rectangle. If no outlines appear within the color rectangles, move the camera upward/downward so that the target is centered in the upper portrait area and start over again. Repeat this step until you get the outline within each rectangle.

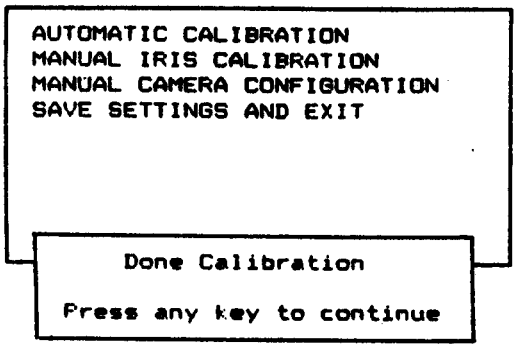


5. From the next menu displayed, select **Automatic Calibration**.

   Next select **Freeze** and press **<Enter>**. If the system displays a value of 200 ± 5, go to step 10. If another value is displayed, press **<Esc>** and do steps 6 -10.

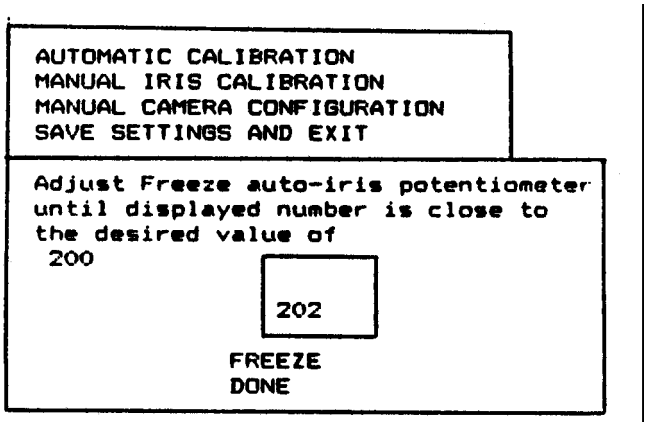
6. Select **Manual Iris Calibration** and adjust the Freeze auto- iris pot on the back of the CI- 5000 or TX-1500 Assembly (right-hand pot when viewed from rear), to bring the displayed value within 200 ±5. Rotating the Freeze pot clockwise lowers the value.

7. Select **Freeze** from the menu and compare the value now displayed to the desired value of 200 ±5.



8. If the value is still not with ±5 units of 200, repeat the procedure.

9. When the desired value has been obtained, select Done. The program will return to the Calibration Menu screen.



10. Select **Automatic Calibration**, then **Freeze**, then **Done**.

11. The program will now perform the automatic calibration, during the next two minutes or so. The outlines within the rectangles should be clearly visible.

12. When the message Done Calibration appears, press any key to continue.

NOTE: For **Manual Camera Configuration**, see Section 2 of this manual — Portrait Camera Adjustments.

Camera Focus Calibration

1. Turn on the system and log on as CPS. From the main menu, select **Issue and Verify Badges**, and from the issue and verify menu, select **Adjust System**.

2. Press **<Enter>** to open the component selection window. From this menu, select **Portrait Camera** and press **<Enter>** to open the camera settings window.

3. Now select **Live Gain** from the settings menu and press <**Enter**>.

   NOTE: Be sure you have a live signal on the monitor.

   NOTE: Be sure that camera-subject distance is correct (60" when using a 16mm or 25mm lens).

4. Unscrew the camera mounting screw from beneath the camera mounting bracket to free the camera.

   Slide the camera forward slightly to expose the Lock and Focus screws on the top of the camera (see Figure 4-10).

5. Rotate the focus ring to the middle of its range.

6. Turn the Lock screw one-quarter turn counter-clockwise.

7. Turn the Focus adjustment screw clockwise or counter- clockwise while observing the image on the monitor.

   Turn the Focus screw carefully until the image is as sharp as possible.

8. When the image is at maximum sharpness, tighten down the Lock screw, slide the camera back into position in its bracket and retighten its mounting screw.

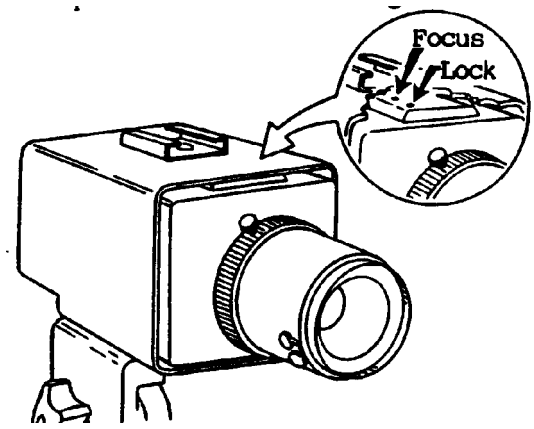


Figure 4-10 Focus adjustment and lock screws

.Signature Calibration

Note. Before performing the Signature Scanner calibration, first verify that the two switches and the thumbwheel on the Logitech Scanner are set as follows:

a. Looking at the Scanner from the rear, on the left side, set the switch nearest the front (gray level or bi-level) to the "/" position ("a" in Figure 4-11).

b. Also on the left side of the Scanner, set the thumbwheel (contrast adjustment) to the center position ("b" in Figure 4-11). (If the signature on a finished print is too light or dark, move the thumbwheel toward the light or dark band accordingly.

c. Finally, on the right side of the Scanner, set the dots/inch switch at "2" ("c" in Figure 4-11).

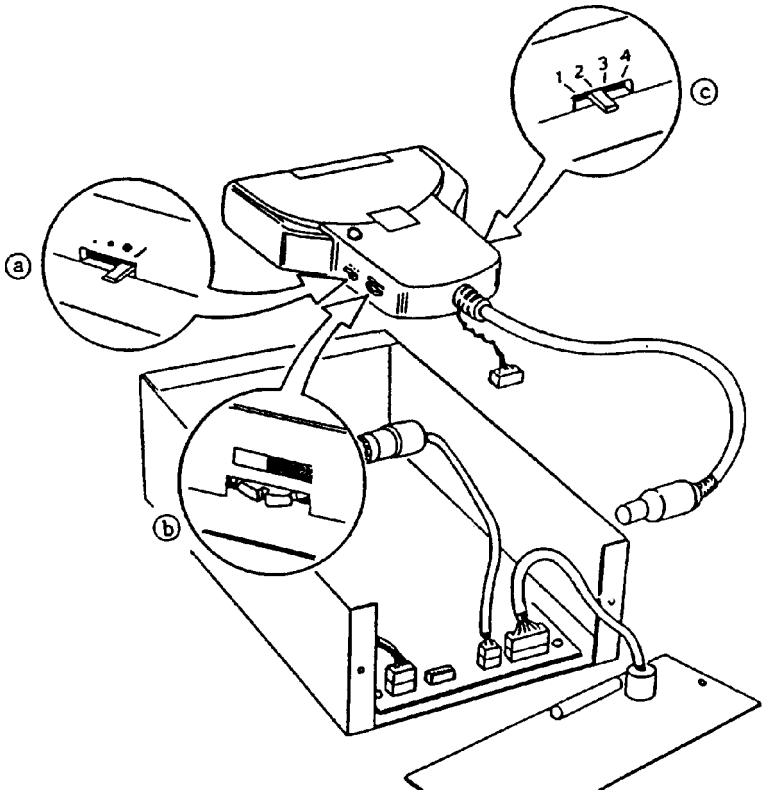


Figure 4-11 Signature Scanner switch settings

Perform the Capture Area Size Adjustment described on page 2-44.

To adjust the motor speed, use the Adjust Camera Control option from the Signature Scanner menu to repeatedly scan the signature while adjusting the motor speed pot. The speed is adjusted correctly when the LED on top of the Scanner (near the Logitech logo) turns steaady green.

If the LED is blinking, turn the pot R19 on the signature board clockwise until the LED becomes steady.

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SECTION 5 — ON-SITE PARTS REPLACEMENT

Contents

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Replacing the Portrait Camera

1. Unpack the new portrait camera and save all packing materials. Verify that the switch in the lower left corner of the rear panel of the new camera is set to the right-hand position (see Figure 5-1).

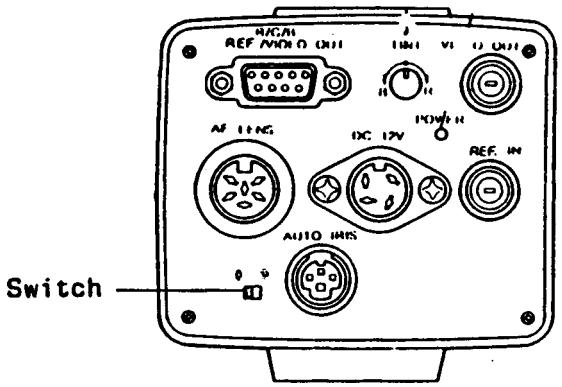


Figure 5-1 Set Camera Switch to right-hand position

2. Shut off the power switch on the CI-5000 Assembly or the Thermal Printer Assembly.

3. Disconnect the cables from portrait camera.

4. Remove the camera from camera bracket by loosening the knurled screw from the bottom (Figure 5-2).

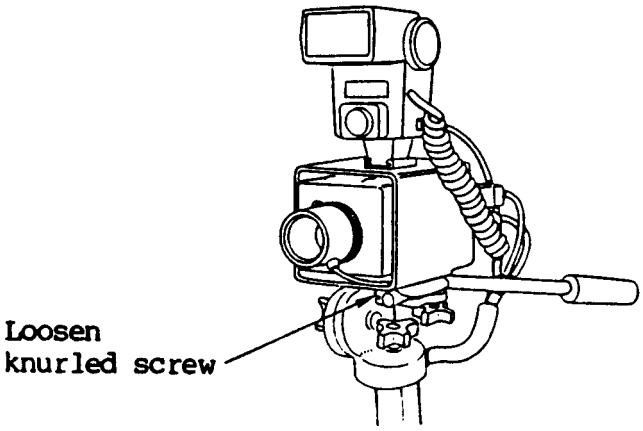


Figure 5-2 Removing Camera from Bracket

5. Remove the two covers on the new camera by unscrewing the six screws; make sure the Automatic Gain switch is OFF (Refer to Figure 5-3A for switch positions.

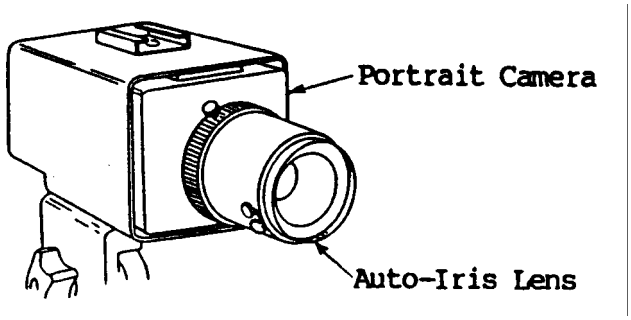


Figure 5-3 Remove auto-iris lens and mount on replacement camera

6. Remove the auto-iris lens from the portrait camera (Figure 5-3) and install it on the replacement camera.

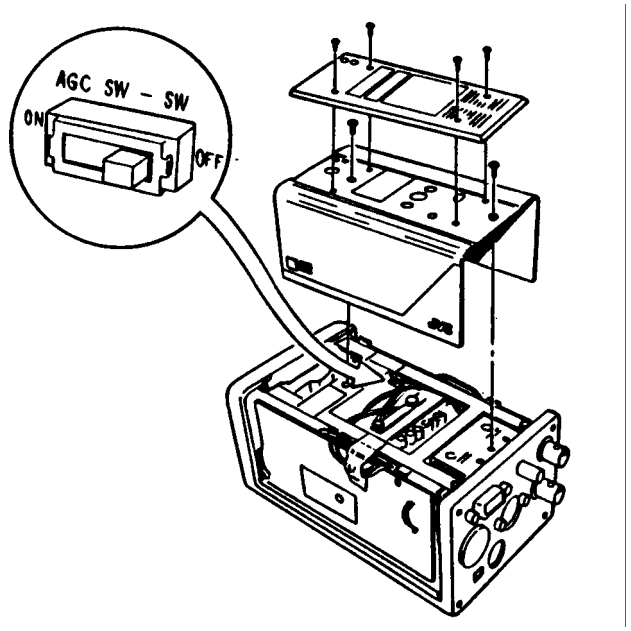


Figure 5-3A Remove the two covers on the camera

7. Attach the camera to the bracket and support arm (Figure 5-2) with the Focus and Lock screws on top, facing front.

8. Reconnect the camera cables to the camera.

9. Power up the system according to the operating instructions.

10. Perform the Illuminator Board Calibration procedure described in Section 4 of this Manual.

11. Perform functional check described in Section 2.

12. Repackage the replaced portrait camera for return shipment.

Replacing the TX-1500 Color Thermal Printer & Power Supply Assembly

1. Unpack the new TX-1500 Printer and save all packing materials to use in returning the old printer.

2. Unplug all cables from the rear of the Printer.

3. While supporting the Camera Post, remove the two thumbscrews holding the Post to the Printer (Figure 5-4). Put the Post, Camera and Strobe in a safe, protected place.

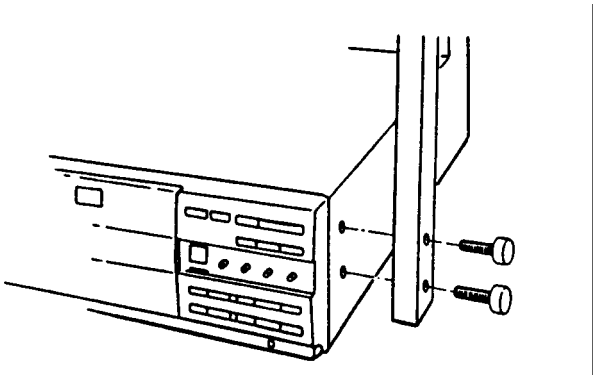
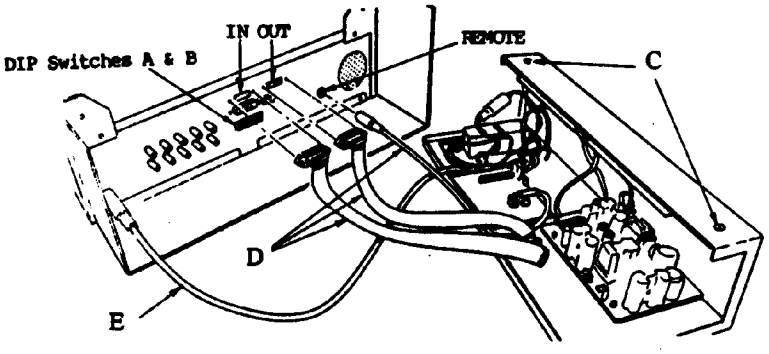


Figure 5-4 Removing thumbscrews from Camera Post

3. Remove the five screws “C” holding the Housing Component to the Chassis Adapter (two from the top, three from the bottom —see Figure 5-5). Lift off the Housing Component.

4. Unplug the three cables “D” from the rear of the Printer.

5. Cut the tie wraps securing the power cable “E”. Disconnect the black and white wires from the terminal strip and the ground wire from its chassis tie point.



NOTE: Be sure DIP switches A & B are all set correctly. For interlaced or non-interlaced input, refer to Appendix 2.

Figure 5-5 Removing Power Supply chassis assembly

6. Remove the four screws “F” holding the inner Chassis Adapter to the rear of the Printer (see Figure 5-6); set the Adapter aside.

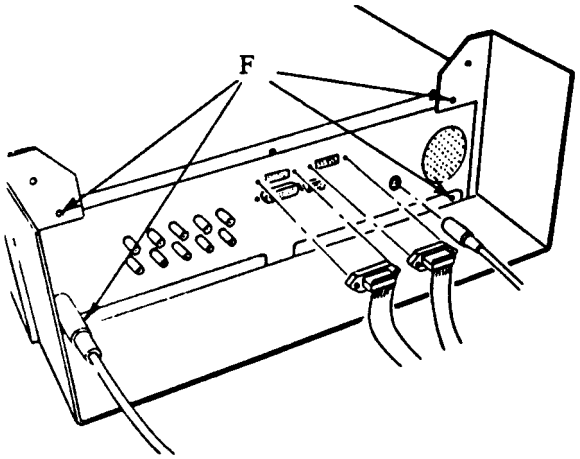


Figure 5-6 Removing the Chassis Adapter from rear of Printer

7. Remove the Printer Cover by removing five screws “G” (two from each side, one from the rear — see Figure 5-7). Lift the rear of the Cover slightly while pushing the sides outward, then slide the Cover back and off.

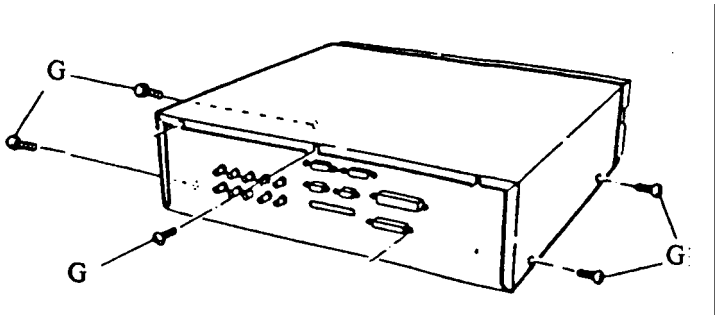


Figure 5-7 Removing Cover from Thermal Printer

8. Remove the two Allen head screws holding the Post Mounting Bracket to the side of the Printer chassis (see Figure 5-8).

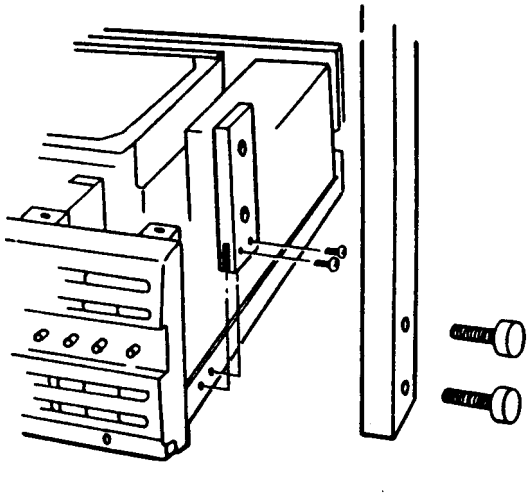


Figure 5-8 Removing Post Mounting Bracket from Printer chassis

Reassembly

1. Perform steps 1 - 8 in reverse order, installing the parts removed from the old Printer Assembly on the new Printer, reconnecting all cables, black and white power wires to terminal strip, and power ground to chassis tie point.

NOTE: When replacing the Post Mounting Bracket (removed in step 8) on the side of the Printer chassis, gently slide the Bracket toward the front of the Printer until it stops (do not force it past its natural stopping point). This will help assure that the Bracket holes for the Thumbscrews will line up with the holes in the Printer Cover.

NOTE: If the Cover of the replacement Printer does not have holes for the Post-mounting Thumbscrews, use the Cover from the old Printer.

Replacing the CI-5000 Color Film Recorder

1. Unpack the replacement Color Film Recorder and save all packing materials for return shipment of the old CI-5000.

2. Turn the system off, using the switch on the power strip.

3. Disconnect cable from the CI-5000 Assembly backplate.

4. Remove the two thumbscrews holding the camera mounting post (Figure 5-9); set the post, camera and strobe aside in a safe place.

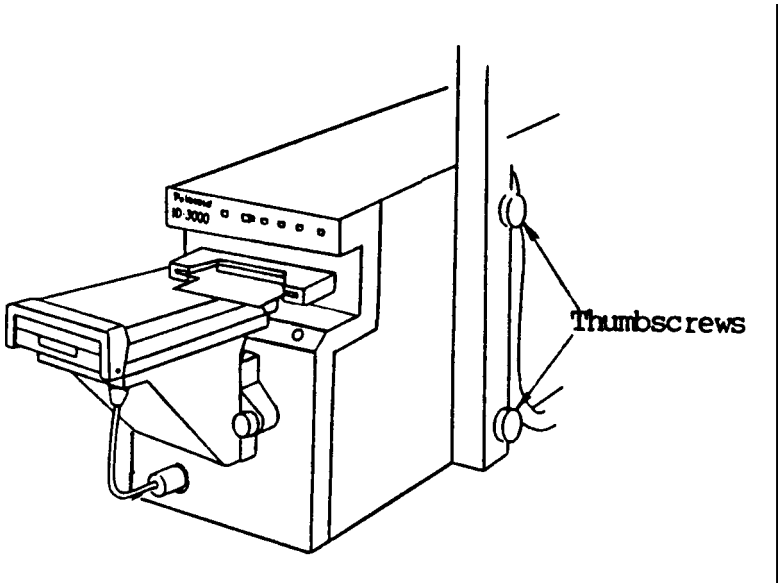


Figure 5-9 Removing Camera Mounting Post thumbscrews

5. Remove the six screws holding the cover, from the bottom of the CI-5000 Assembly.

6. Spring out the sides of the cover slightly and lift cover up and off.

7. Remove the six screws holding the backplate; remove the backplate.

8. Disconnect the power cable from the Color Film Recorder.

9. Disconnect the SCSI cable from the logic board of the Recorder. Note (for future reassembly) that the red marker in the ribbon cable is closest to the power connector — on the right as you face it from the rear.

10. To remove the Color Film Recorder from the Assembly, remove the six mounting screws f rom the underside which secure the CFR chassis to the Assembly base.

11. Slide the Color Film Recorder out horizontally from the rear, being careful not to damage components during removal.

12. Remove the memory daughter board on top of the logic board.

13. Remove the EPROM chipsVer 2.08 from the defective CI5000. (Make a note of where the even and odd chip go.)

14. Remove the cover from the new CI5000.

15. Carefully replace the EPROM chips in the new CI5000.

16. Replace the daughter board on top of the logic board.

NOTE: The CI5000 typically comes setup as SCSI device ID1. The SCSI ID is located on the back of the DP2000, near the SCSI connector. Set the switch to 2.

17. Install the replacement Color Film Recorder in the Assembly by performing steps 2 - 11 in reverse order.

18. Perform the CI-5000 Film Recorder and the CI-5000 Film Recorder Assembly calibration procedures described in Section 4 of this Manual.

Replacing the Keyboard

1. Shut off the computer.

2. Unplug the keyboard cable from the rear of the keyboard (Figure 5-10).

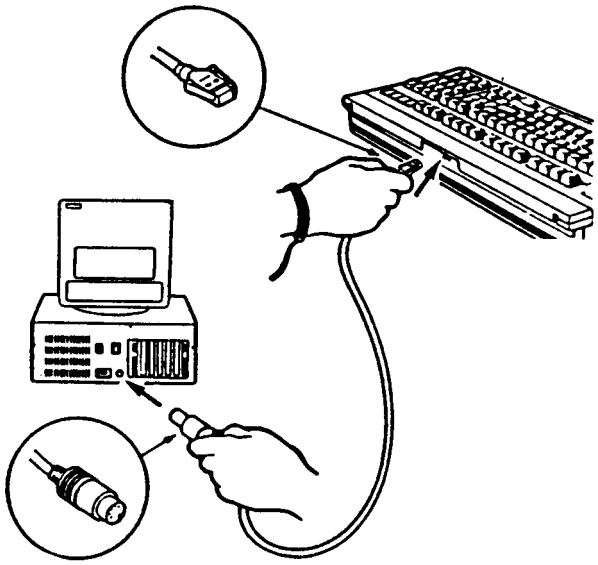


Figure 5-10 Keyboard cable connection on back of keyboard

3. Unpack the replacement keyboard.

4. Connect the keyboard cable to the back of the keyboard.

5. Power up the system according to the operating instructions.

8. Repackage the replaced keyboard (Figure 5-11) for return shipment.

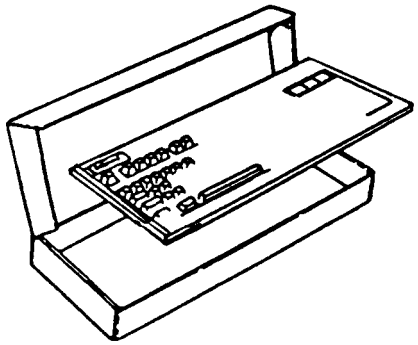


Figure 5-11 Repacking the keyboard

Replacing the Signature Scanner

1. Unplug all cables from the rear of the defective c\scanner

2. Unpack the new signature scanner and save all packing.

3. Remove the cover from the scanner and check all switches and connectors in the unit. (See Figure 5-12)

4. Perform the Signature Calibration Procedure (Page 4-22).

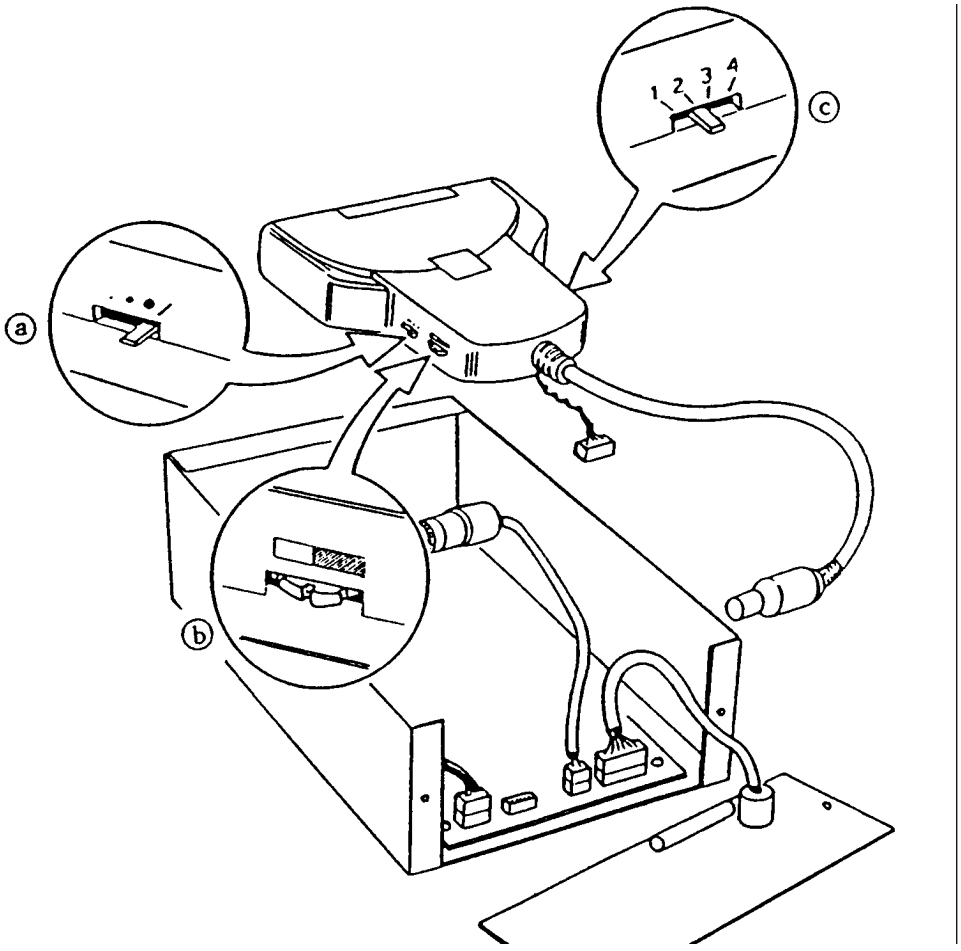


Figure 5-12 Signature Scanner Switch settings

Replacing the Color Scanner

1. Unplug the power and SCSI cables from the back of the defective color scanner.

2. Unpack the new CS-500i Color Scanner. Save all the packaging.

.3. The CS500i scanner should be set up as SCSI device ID4. The SCSI ID switch is located .on the back of the scanner, near the SCSI connectors. If the switch is not set at 4, set it at 4 now.

4. Connect both the SCSI cable and the power cable.

5. Turn ON the scanner.

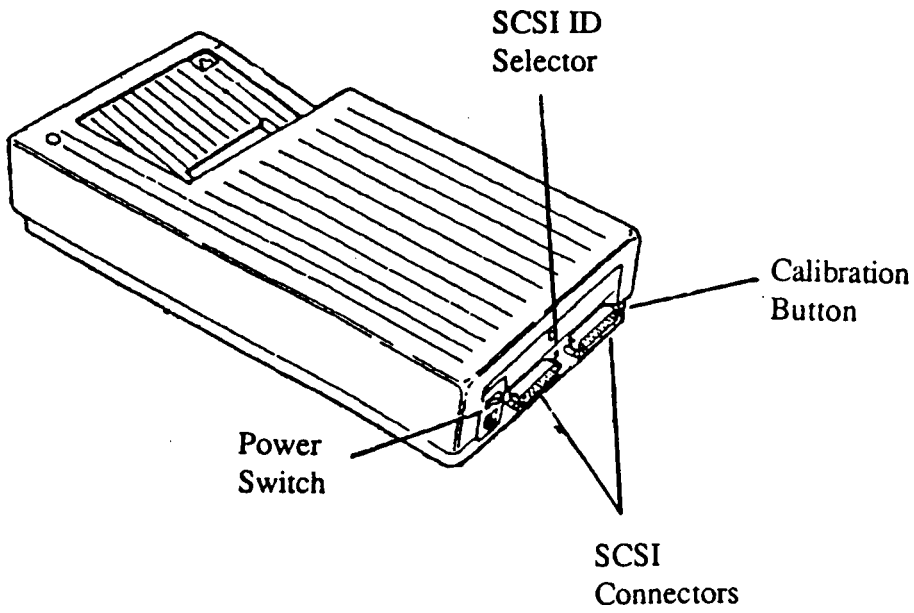


Figure 5-13 Scanner operator controls

Replacing the B/W Sony Thermal Printer

Unpack the B/W Thermal Printer and save all the packing materials. Leave all switches set to the factory setting.

The factory settings are:

Front Panel	Back Panel
Contrast : Center	GAMMA : 11
Brightness : Center	DIP Switches : 1 : OFF
	2 : ON
Thru/EE : Thru	3 : ON
	4 : ON
Posi/Nega : Posi	5 : ON
	6 : ON
	7 : ON
	8 : ON
	9 : ON
	10: ON
	D ADJ:CENTER

Connect the BNC Cable from the Breakout Video Cable Part # 1B8811B to the Video In of the B/W Thermal Printer.

Replacing the Computer

1. Shut off the entire ID-3000 system according to the operating instructions.

2. Unplug the computer power cable from the back of the computer.

3. Disconnect all other cables from the back of the computer.

4. Carefully unpack the replacement computer.

   NOTE: Install hard drive, tape drive and any new circuit boards or boards out of the computer being replaced before proceeding further. (See the following procedure for computer circuit board replacement.)

5. Connect all cables to the rear of the computer according to cable installation instructions in Section 2.

6. Power up the system according to the operating instructions.

7. Perform the functional check procedure in Section 2 and complete any calibration proce dures (Section 4) indicated by the functional check.

8. Repackage the replaced computer as shown in Figure 5-14.

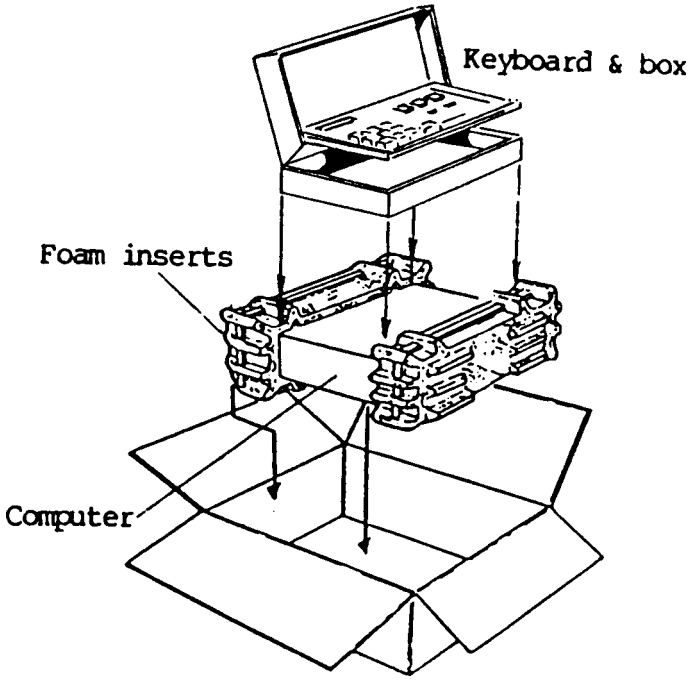


Figure 5-14 Computer packaging

Replacing Computer Circuit Boards

Follow the steps below to replace any of the following computer circuit boards:

Support board with Signature Scanner board
(if Signature Scanner is used)
DSP Data Compression board
AST I/O Mini board
DigiBoard DigiChannel PC/4 (optional)
Illuminator board (see procedure on page 5-20)
VGA board
FD 885 or 885M SCSI Controller board
HP CPU board
Network interface board (optional)

CAUTION: Be sure to use a ground strap. The CMOS integrated circuits on the boards are easily damaged by small, unnoticeable static electricity discharges. If a strap is not available, frequently ground yourself to the computer chassis by momentarily grasping the grounding prong of the computer's AC power plug.

1. Assure that the computer power switch is OFF and the computer AC power cord is not plugged in.

2. Remove the computer cover (Figure 5-15).

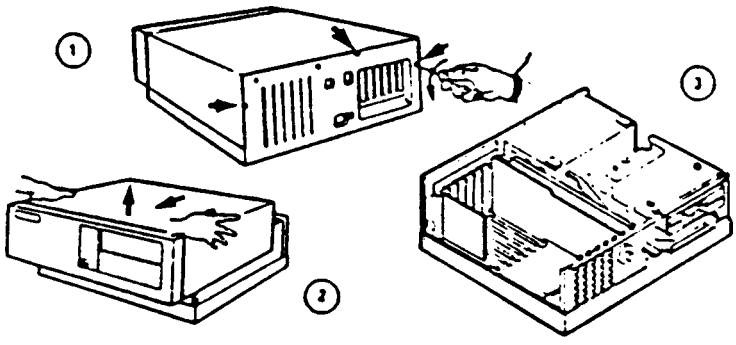


Figure 5-15 Computer cover removal

3. Locate the board to be replaced (Figure 5-16), disconnect any cables connected to the board, and remove the board's retaining screw.

4. Handle the board only by the edges (do not touch board components or edge connectors). Gently loosen the board and lift it straight out of its connector and board guide.

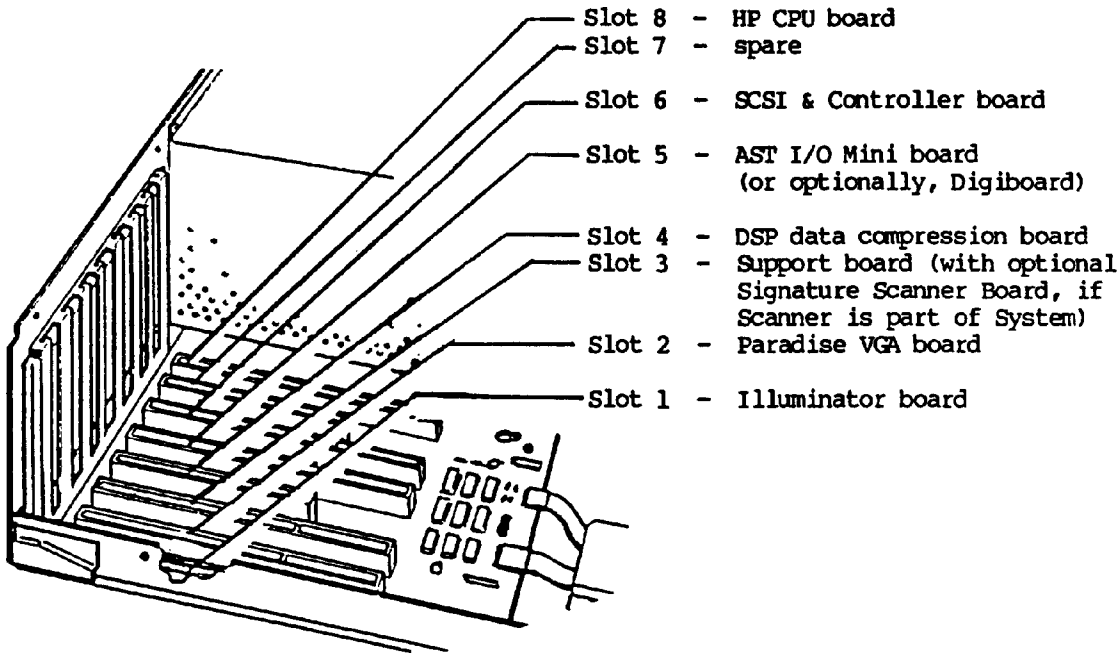


Figure 5-16 Board locations in HP Vectra QS/20 computer

5. Carefully unpack each board to be installed and handle the boards by their edges whenever possible.

   Set the switches and jumpers by matching the settings shown in the following illustrations:

Board	Fig. No.	Slot No.
Support board, with Signature Scanner board (if Signature Scanner is used)	5-17	3
DSP Data Compression Board	5-18	4
AST I/O Mini board	5-19	5
DigiBoard Digichannel PC/4 (optional)	5-20	5
Illuminator board	5-21	1
VGA board	5-22	2
FD 885 SCSI & Controller board	5-23	6
FD 885M SCSI & Controller board	5-24	6
HP CPU board with 8mb Simm RAM	5-25	8

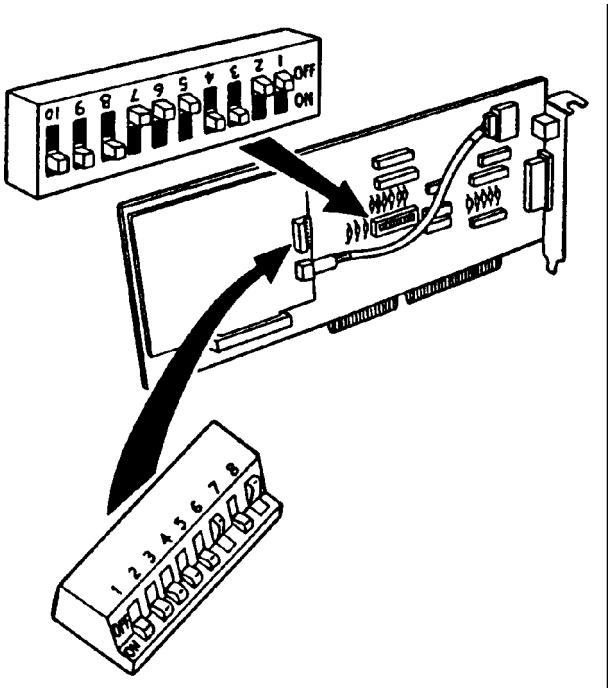


Figure 5-17 Support Board with optional Signature Scanner Board

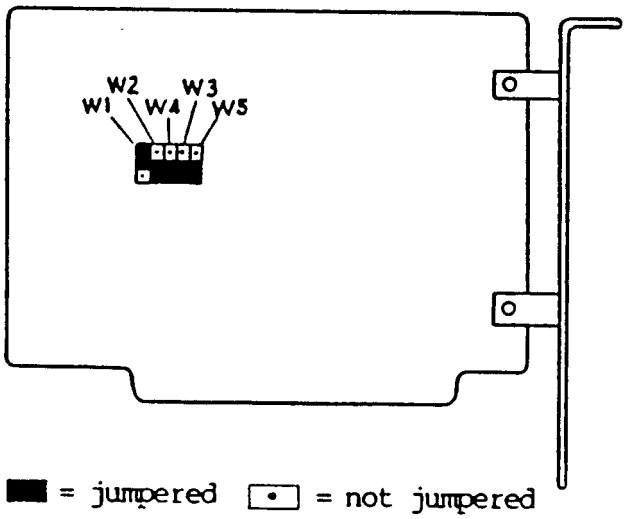
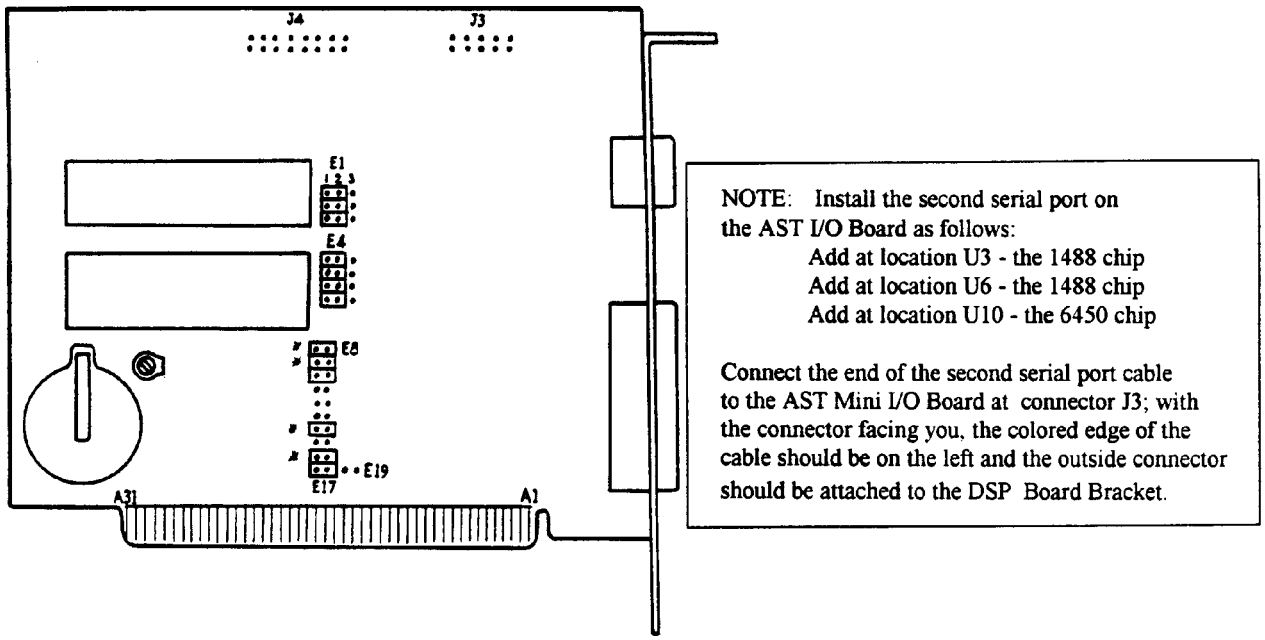


Figure 5-18 DSP Data Compression Board



Remove jumper on all (*) when using Digiboard with the system.

Figure 5-19 AST I/O Mini board

CAUTION: Capacitor on edge of Board is easily damaged/dislodged.

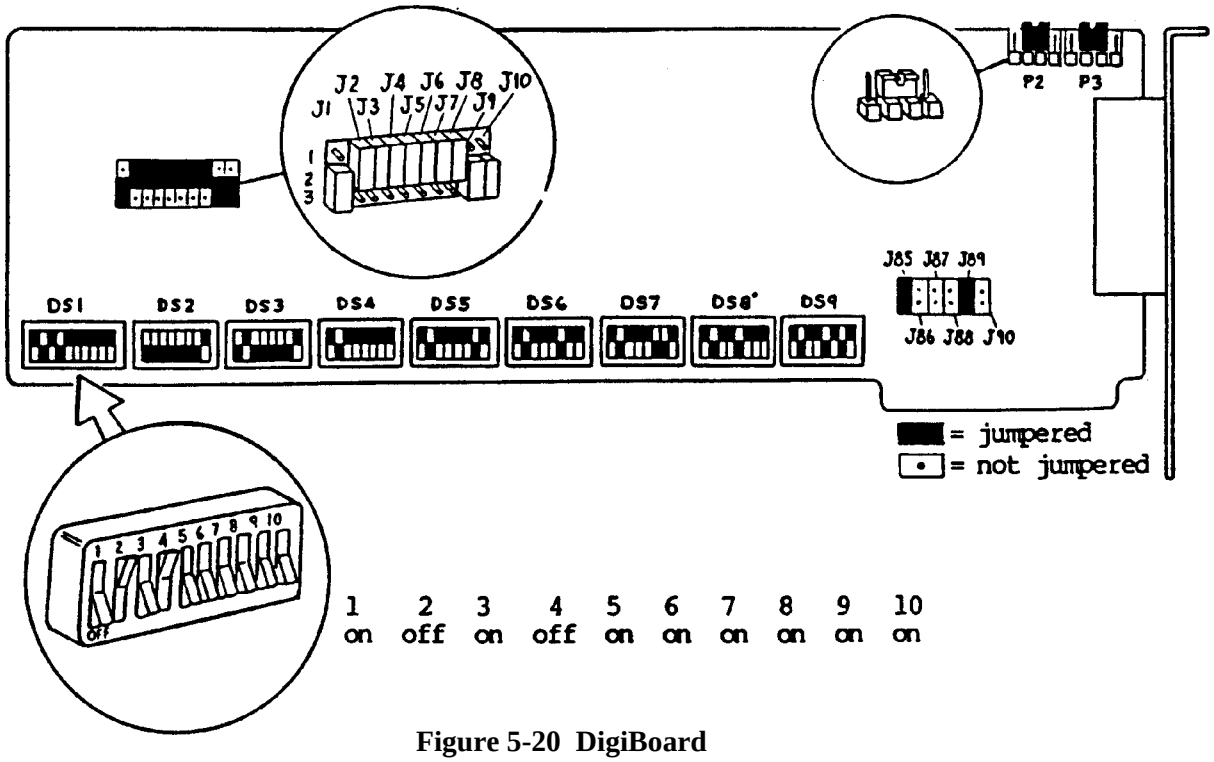


Figure 5-20 DigiBoard

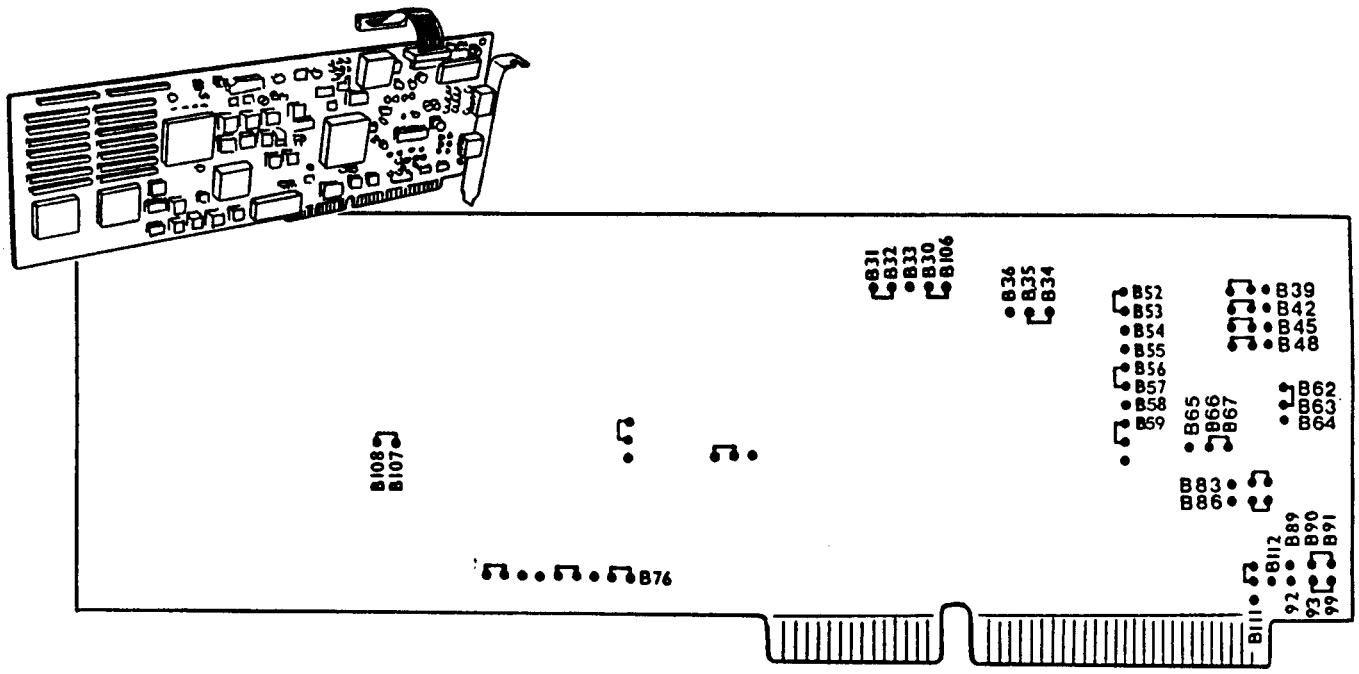


Figure 5-21 Illuminator Board

(See procedure on page 5-17 when replacing the Illuminator Board)

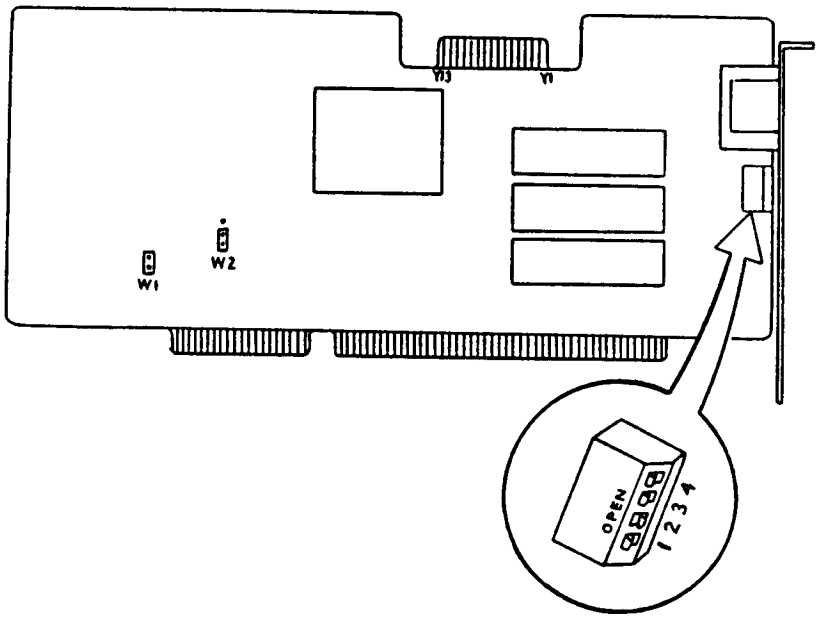


Figure 5-22 Paradise VGA Board

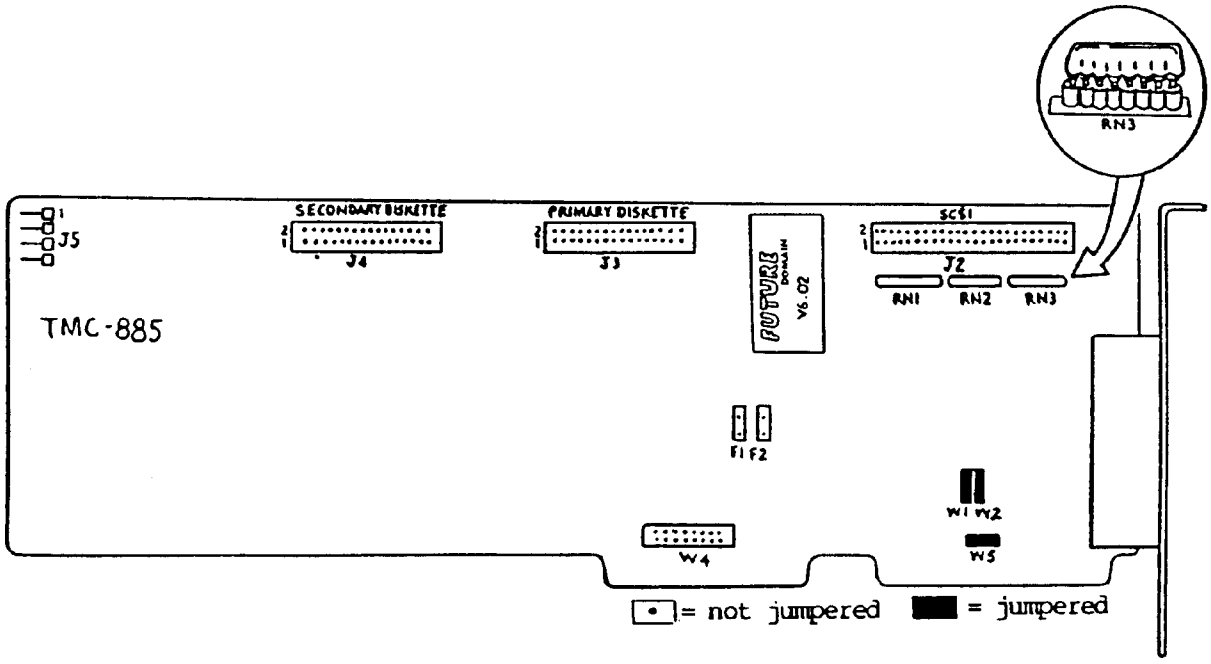


Figure 5-23 FD 885 SCSI and Floppy Controller Board

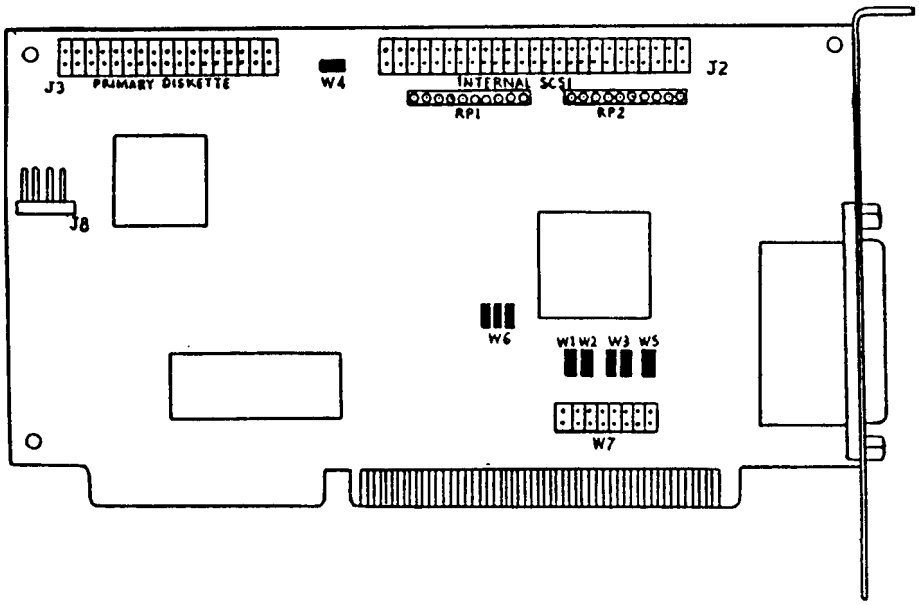


Figure 5-24 FD 885M SCSI & Controller Board

See Appendix A for jumper settings and cable information

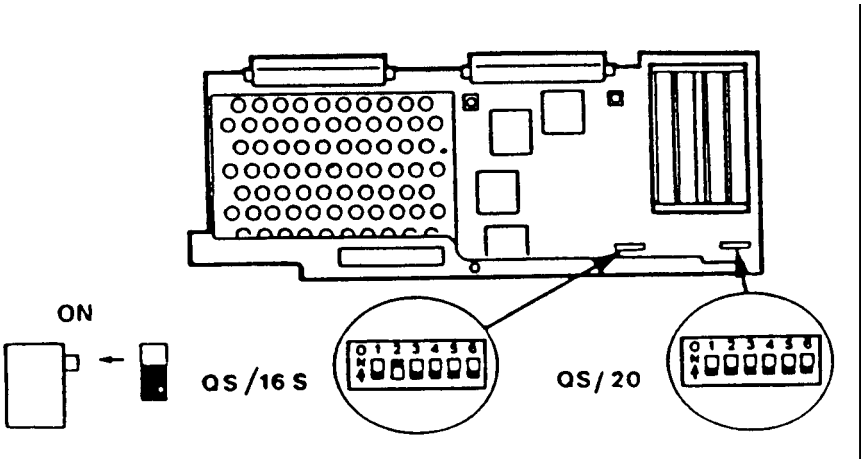


Figure 5-25 HP CPU Board with 4 mb Simm RAM

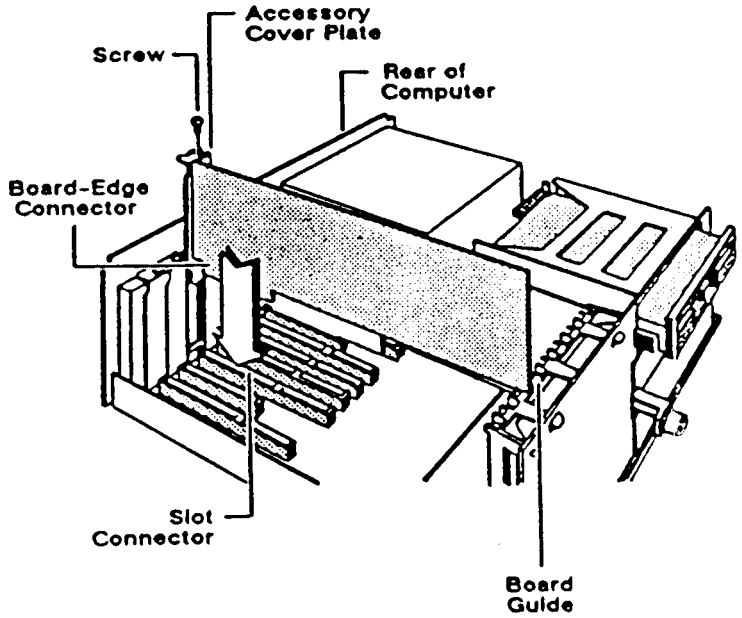


Figure 5-26 Inserting a PC board in the computer

6. Locate the correct slot for the board being replaced (Figure 5-26).

7. Handling each board only by the edges (do not touch board components or edge connectors), carefully align each board edge connector with its slot, then gently and firmly press downward to slide the edge connector into the slot connector (Figure 5-26). If the board is full length, be sure the end toward the front of the computer slides into the board guide.

8. Install and tighten the board retaining screw.

9. Connect all necessary cables to the back of the computer.

NOTE: If the Illuminator board has been replaced, power up the system. The system may display the Illumination Board Configuration Error message. If it does, go to DOS and do the following:

a. Be sure TCEINIT.EXE and TCEDRV.SYS are found in C:\TCEUTIL. (There are copies on the ID-3000 disk 3 in the \TCEUTIL directory.) In systems earlier than Version 2.3, they are also on the Matrox Rev 3 Update Disk.

b. Be sure the following line is in C:\CONFIG.SYS file:

DEVICE=C:\TCEUTIL\TCEDRV.SYS

If it is, go to step c. If it isn't, use any text editor and type the above line in the CONFIG.SYS file. Reboot the system, go to DOS and continue with step c.

c. Follow the procedure below to set up the Illuminator board.

NOTE: To select an item, use the arrow keys to move the cursor to the highlighted area, then press <Enter>.

- From the C:\ prompt, type

\TCEUTIL\TCEINIT

then:

select OPERATIONAL MODE
select ILLUMINATOR BOARD
select BOARD CONFIGURATION
select FRAME BUFFER
select SIZE
select TWO 16K BUFFERS
select BASE ADDRESS
set to A0000H
select A0000H

Press <Esc> to go to the BOARD CONFIGURATION MENU and:

select I/O REGISTER
select I/O MODE
select I/O REGISTER DISABLED

Press <Esc> to go to the BOARD CONFIGURATION MENU and:

select INTERRUPT LINE
select NO INTERRUPT

Press <Esc> to go to the MAIN MENU and:
select DISPLAY CONFIGURATION
select SINGLE SCREEN MODE
select SINGLE SCREEN MODE ENABLED
select VGA SELECT
select VGA TYPE 2
select SCREEN SIZE
select 640x480
select OUTPUT MODE
select NON-INTERLACED OUTPUT
select VIDEO OUTPUT LEVEL (rev. 03 Matrox boards)
select 0 IRE

Press <Esc> to go to the MAIN MENU and:
select INPUT CONFIGURATION
select INPUT SOURCE
If channel 1 prompt appears (rev 03 boards),
select RGB INTERLACED for channel 1 — otherwise
(rev 02 boards), select RGB INTERLACED
select GENLOCK MODE
select GENLOCK ENABLED
select SOURCE QUALITY
select LIVE SOURCE

Press <Esc> to go to the MAIN MENU and:
select SAVE SETTING
select POWER UP

Press <Esc> to go to the MAIN MENU and:
select QUIT
select YES

NOTE: If, when trying to quit, a message appears telling you that you haven't saved yet (even tough you have), select NO and save to POWER UP again, then quit.

The above settings are contained in the ILUMSET.ILU that is on the ID-3000 installation disks.

NOTE: The Matrox Illuminator Board is connected to the Paradise VGA Board via a ribbon cable supplied with the Matrox Board. Be sure this ribbon cable is not twisted and is secured in proper position; use RTV or hot melt glue if necessary.

d. Now reboot the system, log in and perform the Illuminator board calibration procedure in Section 4 before proceeding to the next step.

10. Perform the functional check in Section 2.

NOTE: Install each board initially in its designated slot (see Step 5). If the board does not operate properly in its designated slot, try it in a different, spare slot before deciding it is faulty.

11. Shut off the computer and replace the cover (Figure 5-27).

12. Repackage the replaced board for return shipment.

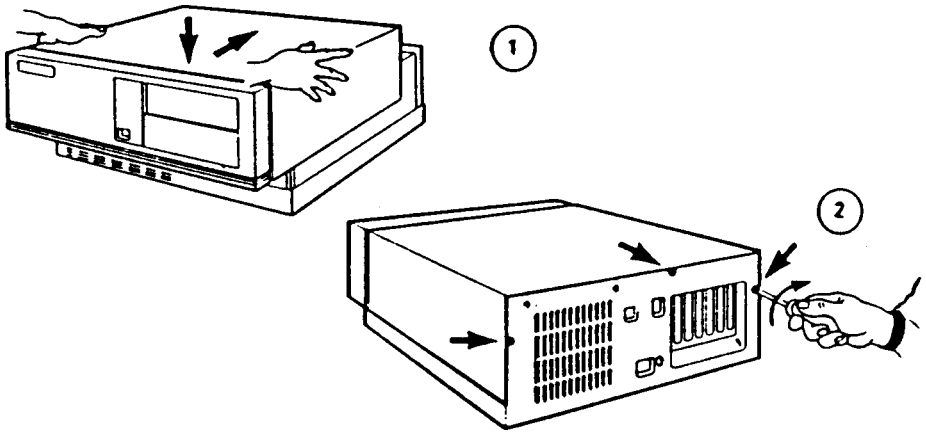


Figure 5-27 Replacing the Computer Cover

Replacing the Computer Tape Drive

1. Turn the computer power switch OFF and unplug the power cord.

2. Remove the computer cover (see Figure 5-15).

3. Depress the latches on each side of the floppy drive (Figure 5-28) and slide the floppy drive half way out of the top shelf. Make a written note of the orientation of the cable connectors, unplug them and remove the floppy drive.

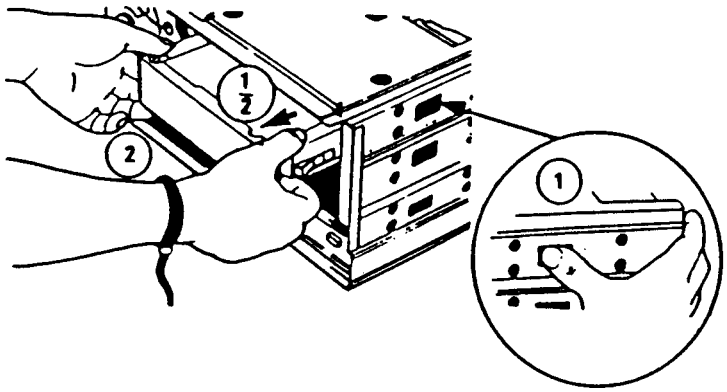


Figure 5-28 Removing Floppy Disk Drive

4. Repeat step 3 for the old tape drive and remove it. Note the cable connector orientation before unplugging!

5. Unpack the new replacement tape drive, handling it carefully by its edges. Save all packing materials for use in returning the old unit.

6. Remove the side rails from the old tape drive and install them on the new replacement drive, in the original orientation.

For Archive Viper and Cipher 150mb Tape Drives:

a. If the drive is used with a SCSI hard drive, remove the terminating resistors and connect the drive to the middle connector of the SCSI cable. The terminating resistors are in SIP form, located between the 50-pin SCSI connector and the circuit board at the rear of the drive.

b. If the drive is to be used without a SCSI hard drive, install the terminating resistors and connect the drive to the end of the SCSI cable.

NOTE: Be sure the red line on the 50-pin connector is closest to the power connector.

For Archive Viper tape drives only:

a. The factory configuration of this tape drive has only two jumpers installed — three additional jumpers (not provided with the drive) must be added.

b. Install and/or reconfigure the existing jumpers as shown:

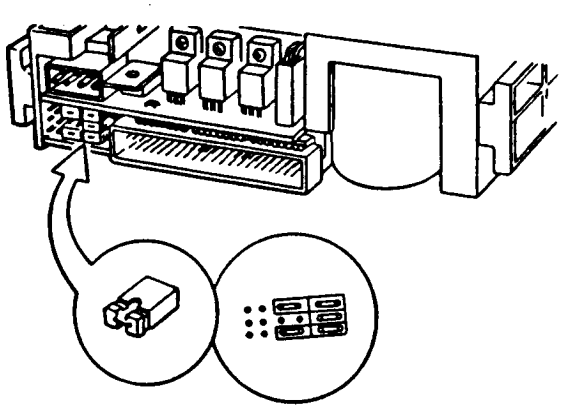


Figure 5-29 Archive Viper Tape Drive jumper settings

For Cipher 150 MB tape drives only:

a. The factory configuration of this drive has three jumpers installed on jumper set J5 and none on J4. Two additional_jumpers (not provided with the drive) must be added.

b. Install and/or reconfigure the existing jumpers as follows (jumper blocks are in a slot cut in the left side, lower rear corner of the drive):

(viewed from the left side of the drive)

J5	J4	
1 2 3	1 2 3 4 5	
O O O	O I I I I	(O = open I = installed)

7. Install the new tape drive with side rails and reconnect the cable (see Figure 5-30).

8. Replace the floppy drive removed in step 3 and reconnect the cable.

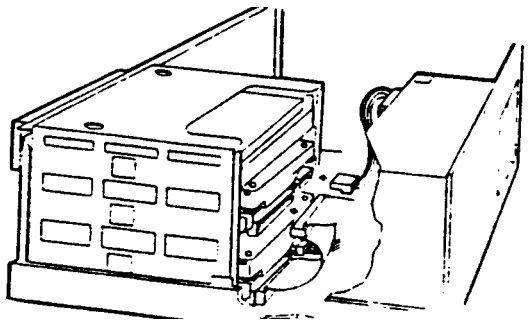


Figure 5-30 Cable connections to drives

Replacing the Computer Hard Disk Drive

1. If the hard disk drive being replaced is inoperable, omit this step and go directly to step 2. If the drive is operable, however, be sure to first back up the APPS directory, database directory and AWS directory.

   NOTE: If the customer has a tape drive, make a backup of the entire hard disk.

2. To remove the defective hard disk drive:

   a. Turn the computer power OFF and unplug the power cord.

   b. Remove the computer cover (Figure 5-31).

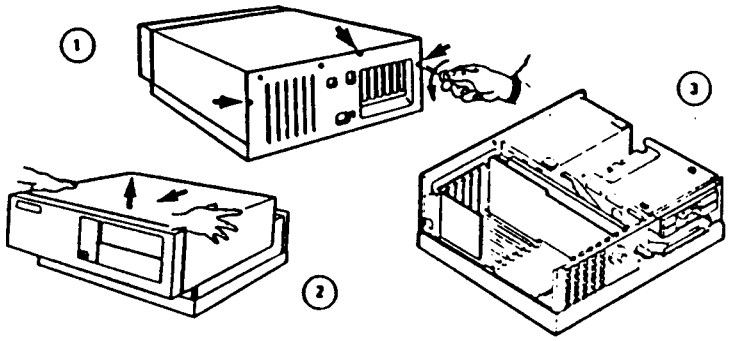


Figure 5-31 Removing Computer Cover

   c. Depress the latches on each side of the floppy drive (Figure 5-32), slide the floppy drive half way out of the top shelf, unplug the connectors, then remove the floppy drive.

   NOTE: BEFORE removing cables, make a written note of connector orientation!

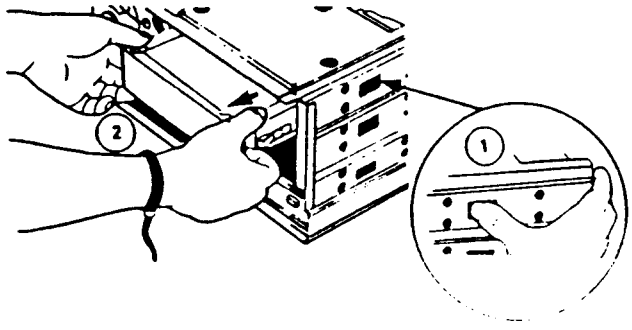


Figure 5-32 Removing Floppy Disk Drive

d. Now depress the latches on the sides of the tape drive, slide it half way out (Figure 5-33), record the orientation of the cable connectors, unplug cables and remove tape drive.

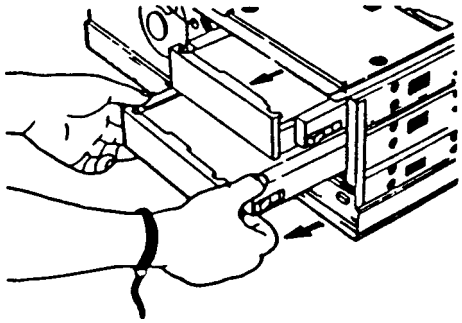


Figure 5-33 Removing Tape Drive

e. Slide the hard drive forward slightly, then disconnect the two cables A and B from the rear of the drive (Figure 5-34) and remove the hard drive from the computer.

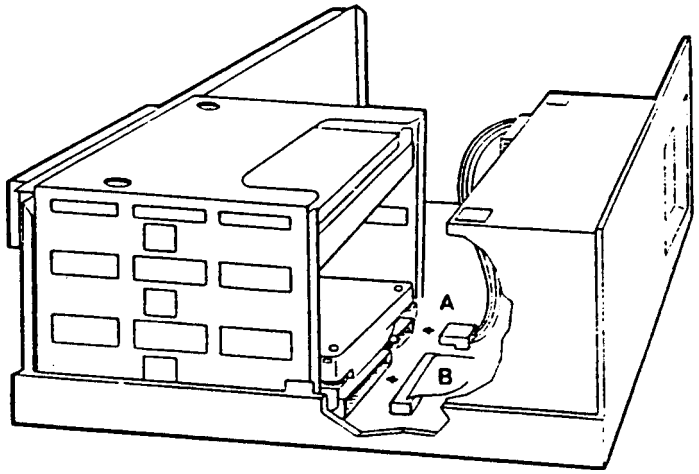


Figure 5-34 Disconnecting power and control cables from Hard Drive

3. To install the new, replacement hard drive:

   a. Unpack the replacement drive and handle it carefully by its edges. (Keep it in its anti-static bag until you are ready for installation.)

   b. Remove the side rails from the old hard drive and install them on the new drive, in their original orientation.

   c. Be certain terminators located on the bottom of the new drive are pushed in fully.

   d. Slide the replacement hard drive into the computer and connect the two cables to the rear of the drive.

   NOTE: Be sure that the red line on the 50-pin connector is closest to the power connector.

   e. Slide the floppy disk drive into the computer and connect the two cables to the rear of the drive.

   Be sure cable connectors are oriented correctly!

   f. Replace the computer cover and reconnect the computer power cable.

4. Perform the hard disk drive setup procedure described on the following pages.

SCSI Device Address Organization

System SCSI addressing is as follows:

SCSI ID	Device
0	Hard drive 1
1	Hard drive 2
2	CI-5000+
3	Optional
4	Polaroid Color Scanner, CS500I
5	Misc. SCSI device, tape drive, Digital PhotoPrinter CI-700
6	Misc. SCSI device, tape drive, Digital PhotoPrinter CI-700
7	Tape Drive 1

IMPORTANT NOTE: You MUST terminate at both ends of the SCSI line and ONLY at the ends.

FOR ID-3000F FILM SYSTEMS: Remove the three SCSI terminators on the FD 885 SCSI Board (found under the hard disk cable) and connect the CI-5000 cable. If no CI-5000 is available, leave the terminators in temporarily; BE SURE TO REMOVE THEM before connecting the CI-5000.

FOR THE SCSI CONNECTION AND INSTALLATION ON THE UNIVERSAL ID-3000 SYSTEM, see Appendix A at the end of this Manual.

Example:
System has an internal SCSI hard disk and Archive Viper or Cipher tape drive, both driven from the same SCSI board on the same cable.

The hard disk is to be placed at the end of the cable, the tape drive in the center, and the FD885 card at the other end.

The terminating resistors in the tape drive must be removed and the resistors in the hard drive installed (or left in).

If there is a SCSI device attached to the rear panel external connector, the terminating resistors on the FD885 Card must be removed. If there is no external SCSI device, the terminating resistors on the FD885 Card must be left installed.

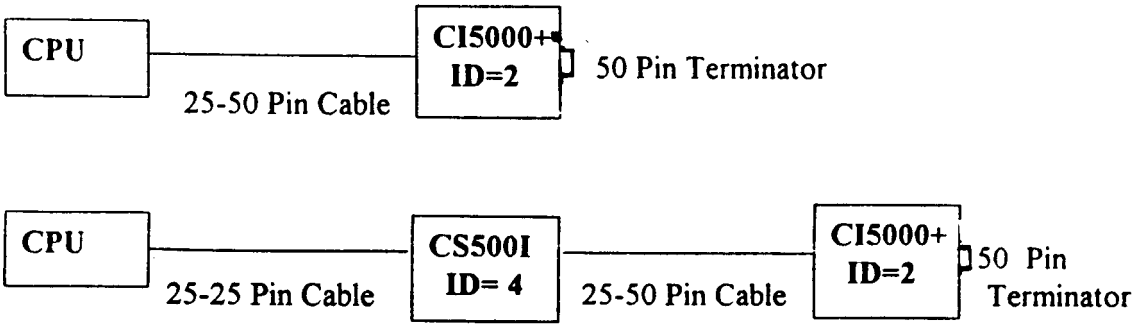
NOTES: If you have a single SCSI device on a multiple device cable, be certain that the device is plugged into the END of the 50-pin SCSI cable.

The red stripe on the cable indicates pin 1: be sure to properly align it with and plug it into pin 1 of the SCSI device and the FD885 board.

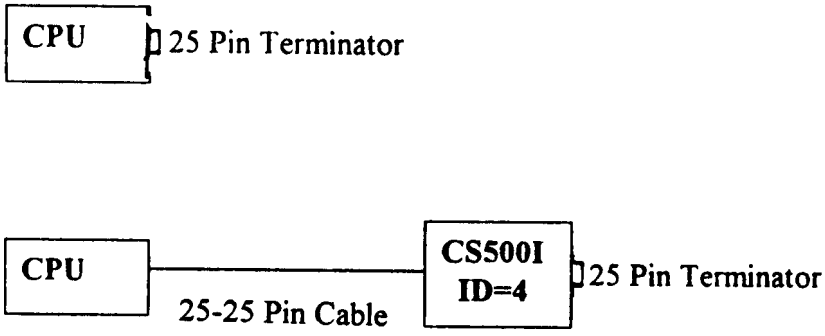
THE SCSI CONNECTORS ARE NOT USUALLY KEYED AND CAN BE PLUGGED TOGETHER INCORRECTLY!

The following charts are examples of SCSI components as setup in Film Systems and Thermal Systems:

FILM SYSTEM



THERMAL SYSTEM



Hard Disk Drive Setup

This procedure requires the following diskettes:

- HP disk labeled “Setup Program and HP Utilities.” This disk comes with the HP computer (not DOS 5.0).
- Future Domain Disk Maestro software Setup Disk that is included with the FD885 SCSI board kit. (It comes in an envelope marked “SETUP UTILITY”.)
- HP DOS 5.0 disks labeled “Setup 1” and “Setup 2”

NOTES: Each of these disks has a program called SETUP. This procedure will refer to the SETUP programs for the CPU and DOS as the “System Setup Program” and the “DOS Setup Program”, respectively.

HP DOS 5 does not come with a DOS 5.0 floppy disk. The installation disks automatically run a setup program which detects your system’s configuration, whether the hard drive is partitioned and formatted, etc. If you need to boot the system with a floppy disk, use Setup #1. Press <F3> at the “Welcome to Setup” screen to exit, and press Y to confirm. You should be at the A> prompt.

The system setup must have the FD885 SCSI card installed and configured as described in Section 2 — Installation. The system SCSI devices must also be installed and cabled as described in Section 2.

1. Insert the HP system setup disk labeled “Setup Program and HP Utilities” in Drive A and power up the system.
2. If the message Invalid Configuration is displayed, press <F1> to continue.
3. When the screen listing various countries is displayed, type the appropriate number and press <Enter>.
4. When the Configuration Menu is displayed, select 1) to configure the system. Correct the time and date if necessary and follow screen instructions.

5. The machine setup screen will then be displayed. Modify the settings, if necessary, to conform to the following standard configuration:

   Flexible Disk Drive A: 1.2 MB
   Flexible Disk Drive B: TAPE/NONE
   Flexible Disk Expander 1 TAPE/NONE
   Flexible Disk Expander 2 TAPE/NONE
   (360 KB drives have an "*" on the front cover)

   Hard disk Drive C: NONE
   Hard Disk Drive D: NONE

   System Base Memory: 640 KB
   Extended Memory: 7167 KB (7 MB)
   (Built-in reserved memory (640 KB to 1.0 MB) = 384 KB

   Primary Display: VGA Display

   Are the above settings correct (Y or N <Enter>)?

6. If the settings are correct, type Y. If they are not correct, type N and follow screen instructions.

7. Type 7 to exit.

8. Now remove the Setup diskette and install the HP-DOS Setup #1 disk.

9. Reboot the system. SCSI ROM Bios messages will appear, as well as messages about each attached SCSI device as it is reset and initialized.

   NOTE: If SCSI messages for each device do not appear, or error messages are displayed, recheck all SCSI ID addresses (by checking board switch settings and jumper positions), cabling and termination resistors.

   NOTE: The Seagate ST157N disk displays ASCII code. Ignore it.

Press <F3> at the "Welcome to Setup" screen to exit and type Y to confirm. You should be at the A:> prompt. The hard drive must be low-level formatted /initialized with the SCSI controller card on which it will be used. This procedure must be done unless the drives are already installed and configured for the system.

Hard Disk Drive Low-Level Formatting/Initializing

If the drive will be used with a Future Domain SCSI card, follow the instructions below. If it will be used with a different controller card, follow the instructions supplied with that card.

1. Insert in drive A the Future Domain Maestro setup software diskette supplied with the FD885 SCSI board kit. Its envelope is marked "SETUP UTILITY."

2. At the A: prompt, type SETUP

3. The software will load and display hard drive information, including:

SCSI ID	Should be 0 or 1
Logical Unit Number	Should be 0
Drive type	Appropriate for drive installed
Capacity	Appropriate for drive installed
Sector size	Should be 512

4. A message may be displayed indicating that the drive selected is not known by this format ting facility. To continue, press <Esc>.

5. When the format utility main menu is displayed, select
1) Format Unit (either move cursor to highlight this choice, or type 1).

6. When the Setup command window is displayed, select the following defaults:

Use Default Interleave?	Y
Edit Format Byte 1?	N
Modify Format Unit Byte 2?	N
Edit Defect Header Byte?	N

Analysis will take about [NN]
minutes. Do surface analysis?Y

ALL DATA WILL BE DESTROYED!
Permission to format? Y

Formatting . . .

NOTE: If you are using drive ST296 (85MB), the manufacturer requires the use of default interleave factor 02. This can be done by answering N to the query Use Default Interleave? This will speed up slightly the low-level formatting process.

The drive will then be analyzed and low-level initialized. The hard disk drive light should light and remain lighted.

After a few minutes, a window will appear showing the analyzing/formatting progress. This operation will require approximately:

Drive	**Capacity**	**Initialization Time**
ST157N	48mb	45 minutes
ST296N	85mb	70 minutes
CP30100	120mb	95 minutes
ST2209N	180mb	139 minutes
LP240s	240mb	191 minutes
1681-4	340mb	260 minutes
1624-7	765mb	526 minutes

When low level initialization is complete, a pop-up window will display any errors detected.

The drive is now ready for partitioning and high-level formatting.

Exit from the Future Domain setup program by pressing <Esc> and following the screen instructions.

Hard Disk Drive Partitioning and High-Level Formatting; Installing DOS 5.0

NOTE: This procedure assumes that the hard disk has neither been partitioned nor formatted. If the hard disk has already been partitioned and needs to be re-partitioned, boot the system with the DOS Startup disk, and run FDISK to delete all logical drives and partitions before starting this procedure.

NOTE: Since not all ID-3000 Plus Systems will have the same size disk installed, the following steps will outline the FDISK program, as well as the questions that will be relevant to all systems.

This procedure has been developed using the FD885M board in an HP Vectra system, using the HP DOS 5.0 supplied with the HP system.

CAUTION: Any other configuration (that is, a different DOS version) may cause unpredictable results in the size of the partitions being created.

NOTE: Follow the instructions carefully: it is easy to become confused between creating partitions and creating logical drives on a partition.

NOTE: To create a set of DOS Ver. 5.0 system disks, see Appendix B at the end of this Manual.

1. Place the DOS Setup #1 disk into drive A: and boot the system, if not already running.

2. When the “Welcome to Setup” screen appears, press <Enter> to continue.

3. When the system settings are displayed, make any changes by moving the cursor to the item to be changed and pressing <Enter>. Follow the instructions on the screen. When everything is correct, leave the cursor on “The settings are correct” and press <Enter> to continue.

4. When the DOS installation options screen is displayed, move the cursor to the “Run shell on startup”. At the next screen, select “Do not run MS-DOS shell on startup.” When the DOS installation options screen reappears, press <Enter> at “The listed options are correct.”

5. At the next screen, select “Allocate some free hard disk space for HP DOS” (second item on the menu). This will run FDISK. When FDISK begins,

   — at the next screen, type 1 at the Enter Choice Option, to create DOS partition. Press <Enter>

— at the next screen, type 1 to create a primary DOS partition. Press <Enter>

— at the next screen, type N in answer to the question Using maximum size? Press <Enter>

— at the next screen, enter the appropriate partition size from the Table 5-1, then press <Enter>.

Drive Size	Primary Partition	Extended Partition	D	E	Logical Drive F	G	H
48MB	16MB	30MB	30MB				
80MB	16MB	65MB	65MB				
120MB	16MB	100MB	100MB				
180MB	16MB	155MB	27MB	128MB			
240MB	16MB	218MB	90MB	117MB			
340MB	16MB	311MB	57MB	127MB	127MB		
760MB	16MB	626MB	117MB	127MB	127MB	127MB	127MB

Table 5-1 DOS partition sizes

7. When the message appears that the primary DOS partition has been created, press <Esc> to return to the original menu.

8. Type 1 to create a DOS partition. Press <Enter>.

9. At the next screen, type 2 to create an extended DOS partition. Press <Enter>.

10. At the next screen, choose the proper partition size from the Table 5-1. Press <Enter>.

11. When the message appears that the extended DOS partition has been created, press<Esc>.

12. When a screen message informs you that no logical drives have been defined and requests a logical drive size, choose the appropriate size from the right-hand columns of Table 5-1. Type the size and press <Enter>.

13. If more logical drive space must be defined, the same screen will appear again asking for the sizes of each drive, until all space is used. Continue entering sizes from the table as before, until the screen message appears

ALL AVAILABLE SPACE IN EXTENDED DOS IS PARTITIONED
press <Esc>.

14. This again brings up the main menu. Select choice 2 Change active partition and press <Enter>.

15. Type 1 as the active partition choice. Press <Enter>.

16. When the screen message informs you that partition 1 is active, press <Esc>.

17. The main menu will reappear. Be sure the DOS diskette is still in drive A: and press <Esc>. The system will again boot to the A: drive.

High-Level Formatting the Hard Disk Partitions

1. Select Format Partition from the next menu that appears. Repeat this procedure until the menu no longer appears (all partitions have been formatted).

2. DOS 5 will automatically be copied to the C: drive when the last partition has been formatted. When the screen tells you to insert disk 2, insert it and press <Enter>. This will copy the rest of DOS to the C: drive.

3. When the DOS Setup program has finished, remove the diskette from the A: drive and press <Enter> to reboot the system. The C:\> prompt will appear.

4. To label each volume, from the C:\> prompt type

   C:\> label <drive letter>:

   Use the names specified by Applications, or names such as

ID 3000	for C:	IMAGE1	for E:
DATABASE	for D:	IMAGE2	for F:

5. After all drives have been labeled, run the CHKDSK program on all of the logical drives you have created, to be sure the disk is good.

6. Copy the System Setup program to the C:\DOS directory by inserting the System Setup disk into the A: drive and from the C:\> prompt, type

   COPY A:SETUP.* C:\DOS

7. Finally, run the Advanced Setup program. At the C:\> prompt type

   SETUP YADA to bring up the Advanced Setup menu:

   a. The first setting (EX_BIOS) should read OFF as the current setting. If not, it can be toggled by selecting Item 1 from the Advanced Setup menu. Type Y<CR> to disable the extended BIOS.

   b Select Option 7 (Shadow RAM video BIOS) from the menu. Type N<CR> to say that the setting is not correct. Then select Option 3 from the next menu to disable VGA shadowing.

   c. Exit from the Advanced Setup menu. If the screen tells you to reboot the system, first remove any diskettes from the A: drive. (It may be necessary to power cycle the system to cause it to reboot.)

   You are now ready to start loading the ID software.

Installing System Software

Assuming that the HP DOS software has been loaded in the hard drive as described in the preceding section, it is preferable to next install all third party software — R&R Report Writer (database reports), Sytos (tape drive), Carbon Copy (remote diagnostics), etc. — before installing ID-3000 core software.

1. MATERIALS REQUIRED:

   a. Manufacturing Installation disks, generic software:

      Manufacturing installation/update disk for ID-3000
      Manufacturing installation disks for ID-3000 Ver X.X.X (13)

   b. Manufacturing Installation disks, optional software:

      Novell Ethernet (IPX/NET5) installation disk
      Novell Token Ring (IPX/NET5) installation disk

   c. Original diskettes of third party software:

      Quarterdeck Expanded Memory Manager 386 v6.0
      R&R Report Writer (database reports)
      Carbon Copy Plus (remote diagnostics v6.0)
      Sytos (tape drive) (2)
      Future Domain Driver Disk for Sytos (1)

      NOTE: QEMM will be installed as part of the Ver 2.x software so that it will be properly configured for the installation software.

   d. Update disks for Polaroid optional and custom software:

      Customer application update disk for ID-3000 VS
      Customer application update disk for ID-3000 WS (includes copystand and functional card modules where applicable)

      Query & Browse update disk
      Import & Export Data update disk
      Dossier Printing update disk
      Data Transport update disk
      Ver X.X.X test applications for ID-3000F or ID-3000T VS (3)
      Tools update disk(s) with documentation

2. REFERENCE DOCUMENTATION

The Tools diskette supplied with this release contains:

Version 2 System Setup and Calibration	SYSSETUP.DOC
ID-3000 vX.X.X software installation procedure	INSTALL3.PRC
ID-2000+ to ID-3000 update procedure	UPD_2K3K.PRC
DOS 3 to DOS 5 update procedure	DOS3TO5.PRC
Ver X.X.X release notes (all changes since 2.1.3)	RELEASE.DOC
Ver X.X.X open STR list	

3. PROCEDURE OVERVIEW

To build a complete ID-3000 system, you will

a. Install all drives, boards and optional hardware
b. Prepare, partition and format the hard disk and install DOS
c. Install Sytos, Carbon Copy, R&R and network drivers per BOM
d. Install the Version X.X.X software and QEMM
e. Install the optional modules, then the customer application
f. Test and calibrate the system

4. PROCEDURE

NOTE: The ID-3000 software is installed standalone. If your system is a LAN system where the database, images and audit log are stored on the LAN, the customer application disk must instruct the system to access these files on the server. The customer disk should copy the database files to the database directory on the server, and change AUTOEXEC.BAT, AUDITLOG.BB, DRIVELIS.BB and *.PHY/*.BND to access these files on the server.

Installing third party software:

Install the following software manually: tape software (Sytos or other); remote diagnostics (Carbon Copy or other); integrated report writer (R&R or other); Novell or other LAN drivers (done on a custom basis).

To install R&R Report Writer Ver. 4.0 in a Standalone ID-3000 System:

The following disks are associated with the R&R Report Writer:

Disk 1 Disk 2 Disk 3

1. At the C: prompt, type MD RR and press <Enter, then type MD TEMP and press <Enter> to create directories. Insert the Installation diskette in drive A:.

2. At the A: prompt, type A: and press <Enter>.

3. Install the software by typing A:RRINSTAL C:\RR /T and press <Enter> (this will install the tutorial software).

4. Change the directory by typing CD RR Run SETUP by typing RRSETUP

5. When the first screen appears, select Configuration and press <Enter>.

6. At the next screen, select Create and press <Enter>.

7. When a filename is requested, type C:\RR.CNF and press <Enter>.

8. Select Default and press <Enter>, then enter the following defaults:

Default data directory:	D:\DATABASE
Default work directory:	C:\TEMP
Default library directory:	C:\RR
Memo editor:	dBase
Display:	Fast Color
Display Adapter:	Video Graphics Array (VGA)
Default index filename extension:	NDX
Allow file write access:	yes

9. Leave the remaining items blank.
   Select Save and press <Enter>

   Select Quit and press <Enter>

   Select Exit and press <Enter>

To Install R&R Report Writer in a Networked ID-3000 System:

This procedure will use Z:\ID3000 as an example directory of where the Polaroid software is installed. The menu system will look for R&R in a directory parallel to the Polaroid software. For that location, contact Applications.

1. At the C: prompt, type MD Z:\ID3000\RR to create a directory. Be sure the directory is readable and writable by all members of the netware group who will be using it.

2. Install the tutorial software by typing A:RRINSTAL Z:\ID3000\RR T

3. Each system which uses R&R must have its own configuration file. Therefore, from each workstation or verification station that will be using R&R, log on to the network, change the directory by typing CD Z:\ID3000\RR and run Setup by typing RRSETUP C:\RR

4. Change the directory to C:\RR by typing CD C:\RR and run Setup by typing RRSETUP

5. When the Setup menu appears, select Configuration AND PRESS <Enter).

6. At the next screen, select Create and press <Enter>.

7. At the filename request, type C:\RR.CNF and press <Enter>.

8. Enter the following defaults:

Default data directory:	Z:\ID3000\DATABASE
Default work directory:	C:\TEMP
Default library directory:	Z:\ID3000\RR
Memo editor:	dBASE
Display:	Fast Color (VGA)
Display adapter:	Fast Color (VGA)
Default index file name extension:	NDX
Allow file write access:	yes

9. Leave the other items blank. Save the defaults entered by pressing <Enter> and exit by pressing <Esc>.

Printer Types

1. You should specify the type of printer actually in use: most installations will use Printer 1 as the normal printer, and a parallel interface.

2. From the printer list displayed by the RRSETUP program, select the appropriate type. (The list includes types such as HP Laserjet, Generic, Custom, etc.) If the printer in use is not listed by name, select Custom. Enter the control sequences from that printer's manual and set up its options, including communication information for a serial interface.

3. When you have entered all printer configuration data, save it by pressing <Enter>.

4. Then do the following (just once), to meet R&R's copy protection requirement:

   From Z:\ID3000\RR type RRLAN

   The program will then read the serial number of R&R Disk 1 of each copy of the software you have, and copy them into the RRUSERS.DAT file.

   Thus if you have three copies of this software, there will be three serial numbers in the file and three users can run R&R simultaneously.

To Install R & R Report Writer in a Standalone ID3000 System

The following disks are associated with the R & R Report Writer:

Disk 1 Disk 2 Disk 3

1. At the C: prompt, type MD RR to create a directory. Insert the Installation diskette in drive A:.

2. Install the software by typing A:RRINSTAL C:\RR/T (This will install the tutorial software).

3. Change the directory by typing CD RR. Run SETUP by typing RRSETUP.

4. When the first screen appears, select **Configuration** and press **<Enter>**.

5. At the next screen, select **Create** and press **<Enter>.**

6. When a filename is requested type C:\RR.CNF and press **<Enter>.**

7. Enter the following defaults:

Default data directory:	**D:\DATABASE**
Default work directory:	**C:\TEMP**
Default library directory:	**C;\RR**
Memo editor:	**dBase**
Display:	**Fast Color (VGA)**
Display adapter:	**Fast Color (VGA)**
Default index filename extension:	**NDX**
Allow file write access:	**yes**

8. Leave the remaining items blank. Save the defaults by pressing <Enter> and exit by pressing <Esc>.

To Install R&R Report Writer Ver. 4.0 in a Standalone System

The following disks are associated with the R&R Report Writer:

Disk 1 Disk 2 Disk 3

1. At the C:prompt, type MD RR and press <Enter>, then type MD TEMP and press <Enter> to create directories. Insert the Installation diskette in drive A.

2. At the A: prompt, type A: and press <Enter>.

3. Install the software by typing RRINSTAL C:\RR/T and press <Enter>. (This will install the tutorial software)

4. Change the directory by typing CD RR.

5. Run SETUP by typing RRSETUP and press <Enter>.

6. When the first screen appears, select **Configuration** and press <Enter>.

7. At the next screen, select **Create** and press <Enter>.

8. When a filename is requested, type C:\RR.CNF and press <Enter>.

9. Select **Default** and press <Enter>, then enter the following defaults:

Default data directory:	**D:DATABASE**
Default work directory:	**C:TEMP**
Default library directory:	**C:RR**
Memo editor:	**dBase**
Display:	**Fast Color**
Display adapter:	**Video Graphics Array (VGA)**
Default index filename extension:	**NDX**
Allow file write access:	**yes**

10. Leave the remaining items blank:

    Select **Save** and press <Enter>.

    Select **Quit** and press <Enter>.

    Select **Exit** and press <Enter>.

To Install Sytos in a Standalone ID-3000 Ver. 2.x System:

The following three disks are associated with Sytos software:

Disk 1 SY-TOS Tape Operating System
Disk 2 SY-CLOCK Unattended Software Administrator
Disk 3 Future Domain SY-TOS Add In Driver

1. Insert the SY-TOS Tape Operating System disk in drive A.
   From the C: prompt, type A: and press <Enter>.

2. Type STINSTALL and press <Enter>.

3. The batch file will then install the software and prompt you when to insert the second disk into drive A.

4. Answer the question asking which drive the software is being installed in, by typing C: and pressing <Enter>.

5. Answer the question asking which directory it is to be installed in, by typing \SYTOS and pressing <Enter>.

   If a Cipher tape drive is installed, do step 7. If a Viper tape drive is installed, go to step 8.

6. After these two disks have been installed, insert the Future Domain SY-TOS Add In Driver diskette into drive A. Type TINSTALL C: and press <Enter>.

7. This will install the required driver into the SYTOS directory.

8. Reboot the system and perform the functional check described in Section 2.

9. For the File Backup and Restore Menu option to work correctly from the ID3000 software, you need to include a file called **Backup.**Lst in the Systos directory. This file is located in the Customer Application floppy disk. It includes the different hard drive partitions; for example: If the system has 180MB hard drive which has partitions C, D and E, then the Backup.Lst file will be like the following - if you use the DOS type <file name> command.

   C:\
   D;\
   E;\

   This will tell the Systos software to backup drives C, D and E.

To Install Carbon Copy Version 6.0 in a Standalone ID-3000 Version_2.X System

Of the four disks associated with Carbon Copy version 6.0, you will be installing these three:

Guest Disk
Host Disk
Utilities Disk

1. Perform the First-Time-Only Installation Procedure

   Before you copy any of the files on the Carbon Copy PLUS master diskettes, you must perform the first-time-only installation procedure. This procedure creates the files necessary to use Carbon Copy PLUS. You need to perform this procedure once on the Guest master diskette and once on the Host master diskette.

2. Insert the Guest master diskette into drive A:. Change to the A: drive and at the A:\> prompt, type CCSTART and press <Enter>.

   The Carbon Copy PLUS Sign-On screen will appear. You are prompted to enter your company name.

3. Type the name of your company and press <Enter>.

4. Verify that your company name is correct. Be sure to double check, because you will NOT be able to change it later. Type Y if the name is correct, or N to change it.

5. Carbon Copy PLUS now converts the *.INS (install) files to *.EXE (executable) files.

6. When the executable files have been created, the message “Carbon Copy Customization Complete” appears on the screen.

7. A series of questions now appear on the screen requesting information about your system. Your answers to these questions provide the basic information necessary to run Carbon Copy PLUS. These questions appear only when you first install Carbon Copy PLUS or if you run CCINSTAL after having deleted the file CC30.CFG.

   Respond to the questions in the order in which they appear. If you are not certain about an answer, it is safe to guess. If you make a mistake, you can change the configuration as described in the Carbon Copy PLUS 6.0 Asynchronous Communications User’s Manual, Chapter 3.

   NOTE: If your modem type does not appear when you run CCSTART, select the AT **Compatible** type for now and finish the installation procedure.

8. When you are finished responding to the first-time-only installation questions, you are asked whether you want to stop now and save the current configuration, or go on to make further changes to the Carbon Copy PLUS configuration.

   - o Type X to complete the installation process and use the current Carbon Copy PLUS configuration.

   - o Press any other key to continue configuring Carbon Copy PLUS. Type X to exit the configuration program and save your changes when you are finished.

9. After you type X to finish the first-time-only installation and configuration, Carbon Copy PLUS creates the following configuration files. These files are updated each time you configure Carbon Copy PLUS:

   CC30.CFG
   MM30.CFG

10. Repeat steps 2 - 9 above for the Host master diskette on the host PC.

11. Make a working copy of Carbon Copy on the hard disk.

    WARNING: Do not copy any files from the master diskettes before you run the first-time-only installation procedure described In the previous section. Any other action may destroy your master diskettes.

12. Place a write-protect tab on the Guest and Host master diskettes.

13. Make a C:\CCPLUS directory on the C: drive and change it to:

    ```
    C:
    CD
    MD CCPLUS
    CD CCPLUS
    ```

14. Insert the Guest master diskette into drive A: and at the C:\CCPLUS> prompt, type COPY A:*.*

15. In the same way, copy the Host master diskette and Utilities diskette onto the C: drive, using the step 14 COPY command.

NOTE: The following files are contained on the Carbon Copy PLUS master diskettes. The *.INS (install) files are converted to *.EXE (executable) files by CCSTART.EXE, the first-time-only installation procedure. On the 720K version, the guest utilities files are included on the Guest & Utilities master diskette.

Guest Master Diskette	**Guest Utilities** Diskette	**Host Master** Diskette
CCHELP.INS	CCLOG.EXE	CC.INS
CCHLP.MSG	CCS.EXE	CC.DISAB.EXE
CCINSTAL.INS	CCSECURE.EXE	CCENAB.EXE
CCSTART.EXE	*.CCS	CCHLP.MSG
MODEM.DSC	*.PRM	CCINSTAL.INS
READ.ME		CCLOG.EXE
		CCREMOVE.EXE
		CCSECURE.EXE
		CCSTART.EXE
		MODEM.DSC
		READ.ME

The following chart describes the contents of the Carbon Copy PLUS files by extension type. The *.CCS and *.PRM files contain predefined Terminal Emulator script files and parameter settings to assist in logging onto popular information services. You may edit the *.CCS script text files with any text editor, then compile them with the Carbon Copy PLUS script file compiler. Read the Terminal Emulator User Guide for details.

Extension	**Description**
CCS	Terminal Emulator script text file
CFG	CCINSTAL configuration file
DSC	List of available modems
EXE	Executable program files
INS	Install file (converted to EXE during first- time installation)
ME	Documentation file, containing information not included in the printed documentation set
MSG	Optional graphics sign-on screen file (may be deleted)
PRM	Terminal Emulator CCINSTAL system parameters file

To install Ver. 2.XX Software in a Standalone ID-3000 System

1. Turn on the computer. It should boot and display the C> prompt.

   NOTE: If you are installing QEMM Ver. 6.00, do steps 2. - 4., then steps 8. - end.

   If you are installing QEMM Ver. 6.02, skip to step 5. and do 5. - end.

2. Insert the "ID-3000 INSTALL" diskette into drive A. At the C> prompt, type A:INSTALL

   The system will copy a few files to the hard disk.

3. When the system prompts you, insert the QEMM diskette into drive A: and press <Enter>. If you are using QEMM Ver. 6.02, see NOTE. If no prompt appears, skip to step 5. Otherwise, when the QEMM startup screen appears —

   a. Press <Enter> to begin.

   b. If the QEMM software is new out-of-the-package, the system will ask you to enter the diskette serial number and owner information.

   c. Press <Enter> again to confirm the owner information

   d. Press <Enter> to select C:\QEMM for the subdirectory.

   e. Press <Enter> again to confirm copying from A: to C:\QEMM

   f. Type C to select C: as the boot disk for configuring system to be updated.

   g. Press <Enter> to select the default configuration

   h. Type N (no) in answer to the query Update CONFIG.SYS / AUTOEXEC.BAT ? y/n)

   NOTE: It is very important to type N here — otherwise the system will hang when you reboot.

   i. Press <Enter> to continue

4. The software will now install itself. When installation is completed —

   j. Press <Enter> to skip the Windows 3 corrections

   k. Type N (no) in answer to the query Type the READ.ME file ? (y/n)

l. Remove the QEMM diskette from the A: drive.

m. Press <Esc>

n. Reboot the system manually_— DON'T press <Enter>. Press <Cntrl> <Alt> <Delete> at the same time.

NOTE: If the system does not reboot, turn the system OFF and then ON again.

5. At the C> prompt, insert QEMM Ver. 6.02 diskette into drive A and type A:INSTALL. When the QEMM startup screen appears:

a. Press <Enter> to begin.

b. If the QEMM software is new out-of-the-package, the system will ask you to enter the diskette serial number and owner information.

c. Press <Enter> again to confirm the owner information.

d. Press <Enter> to select C:\QEMM for the subdirectory.

e. Press <Enter> again to confirm copying from A: to C:\QEMM

f. If required, type C to select C: as the boot disk for configuring system to be updated.

g. Press <Enter> to select the default configuration.

h. Type Y (yes) in answer to the query Update CONFIG.SYS/ AUTOEXEC.BAT ? (y/n)

i. Press <Enter> to continue.

6. The software will now install itself. When installation is completed —

j. Press <Enter> to skip the Windows 3 corrections

k. Type N (no) in answer to Type the READ.ME file? (y/n)

l. Press <Esc> to exit to DOS

m. Reboot the system

7. At the C> prompt, insert the "ID-3000 Install" diskette into drive A and type A:Install

8. Installation of the actual version 2.x software will begin when the system finishes

rebooting.

Menus will be displayed to guide you through the installation procedure sequence. To return to the first menu from any other menu, press <Esc>

The first menu will ask you to select whether to continue the installation or exit to DOS. Select INSTALL (The EXIT TO DOS choice is provided for emergencies.)

9. The next screen will ask which product is being installed. Select the product you are then i nstalling.

10. The next series of menus will ask whether certain devices will be used: signature scanner, color scanner, B&W thermal printer (note that only the B&W thermal printer option appears for VS-3000), and what the card size is (1-up or 2- up). Select YES or NO to indicate whether the device will be used on your system.

11. The final screen allows you to confirm your selections. Press <F10> if the screen lists the correct system configuration, or <Esc> if you need to make changes. Pressing <Esc> repeats the menus.

When all the questions have been answered, the correct software for that system will be installed. As diskettes are needed, the system will prompt you to insert them. (You will insert a total of five disks, plus the Q&B update disk.

12. If the system uses an Illuminator Board, the TCEINIT program will be run automatically. Make the settings listed below.

NOTE: When running this procedure, sometimes a window will appear with a < note >. Press <Enter> to continue.

Select OPERATIONAL MODE
Select ILLUMINATOR MODE

Select BOARD CONFIGURATION
Select INTERRUPT LINE
Select NO INTERRUPT
Press <Esc> until you return to the main menu

Select SAVE SETTING
Select POWER UP
Press <Esc> until you return to the main menu

Select QUIT
Select YES

NOTE: If you continually experience any Matrox board errors, exit to DOS and follow the complete configuration procedure (see Page 5-17).

13. The final screen instructs you to reboot the system, or to press <Esc> if you need to change AUTOEXEC.BAT or CONFIG.SYS manually before rebooting. Changes may be required when non-standard hardware has been installed in the system.

    If needed, press <Esc> and make any required changes to these files.

14. Now reboot the system. The system will prompt you to log in and the main menu should appear.

15. To install any optional modules, select INSTALL SOFTWARE UPDATE from the Utilities menu for each module.

    IMPORTANT: YOU MUST INSTALL ANY OPTIONAL MODULES BEFORE INSTALLING THE CUSTOMER APPLICATION, since the customer application may replace and/or relocate some of the standard files.

16. You need not reboot the system unless instructed on the screen to do so.

17. To install the customer software, select INSTALL SOFTWARE UPDATE from the Utilities menu.
18. Now calibrate and test the system, following the procedures in Sections 2 and 4 of this Manual.

APPENDIX

Contents

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APPENDIX

Appendix 1: ID3000 Verification Station

Starting with ID3000 software version 2.3, two types of verification stations are supported by the system:

1. Standard Verification Station SVS is the basic verification station which enables the system to verify applicants on the screen with no editing.

2. Advanced Verification Station AVS is more like a workstation, however it does not capture portraits or signatures. Update/Verify and Enter Applicant Data menu options allow the user to edit the data record which is not possible with the Live Video Comparison options.

   The AVS allows the operator to verify applicant data and images, to print black and white thermal passes, and to compare a live image from a black and white camera with a stored image.

   The Live Video Comparison option, which is purchase separately, is enabled or disabled during installation. When it is disabled, it allows the operator to view applicant data, then it displays the message, "This option is not available to your system." In addition, this application is capable of preventing users who do not have appropriate security keys, (OPERATOR1, OPERATOR2,...) from editing the data in one or more database views.

   All of the optional utilities (Import/Export, Query and Browse, DataTransport, Dossier, Card History and Access Control) are available on the AVS; the user may update data in all databases (including deleting records in the Card History database). Since data records may be modified on the AVS only, one-way Data Transporting is allowed as with workstation-to-workstation data transporting.

Appendix 2: Switching Thermal Printer Between Interlaced and Non-Interlaced Input.

ID3000 version 2.3 software supports both interlaced and non-interlaced input signals in the Polaroid Color Thermal Printer. Ver. 2.2XX software supports non-interlaced input signal in the Polaroid Color Thermal Printer.

Interlaced input is the default for all ID3000 systems. Interlaced input improves card sharpness and eliminates the "scrunched' screen and Printer Syncronization step necessary for the non-interlaced color thermal printer. The interlaced input yields a different size and position print area than non-interlaced input. The vertical size does not change, however the horizontal size changes from between 0.5 and 1.0mm. Also, the thermal sheet position changes - mostly in the horizontal direction. The configuration variables for Card Size and Offset must change when switching between interlaced and non-interlaced input.

The same application card layout will work with both an interlaced and non-interlaced print, with almost no visible difference.

Modifying an ID3000 thermal system to use a TX1500 with non-interlaced input (from interlaced input) involves both hardware and software changes.

Hardware Changes:

Dip switches in set A should be changed from interlaced to non-interlaced settings as shown in Figure 1 (page A-5). These switches are located at the rear of the TX1500.

The front panel should be set as follows:

For interlaced input the following lights should be on:
POWER, READY, FRAME, RGB

For non-interlaced input the following lights should be on:
POWER, READY, FRAME, ANALOG

Software Changes:
(All changes are given by comments in the .CNF files).

In HOC_TP.CNF (in the C:\ID2DATA directory):
- Change the value of "HOC_TP_INTERLACE" to "N" (non-interlaced input).

- Change the vaues of the following variables to the non-interlaced values given as comments in the file:
"HOC_TP_CARD1_XOFFSET", "HOC_TP_CARD1_YOFFSET",
"HOC_TP_CARD1_XSIZE", "HOC_TP_CARD1_YSIZE",
(and for 2-up cards)

"HOC_TP_CARD2_XOFFSET", "HOC_TP_CARD2_YOFFSET", "HOC_TP_CARD2_XSIZE", and "HOC_TP_CARD2_YSIZE". The new values are also listed below:

In MIC_ILUM.CNF (in the C:ID2DATA directory):

- Change the value of "SCRUNCHED" to "Y" (scrunched screen)

Sizes and Offsets for cards using interlaced (Ver. 2.3 Default) and non-interlaced input:

CR-60 Cards:

Variable	Interlaced	Non-Interlaced
"HOC_TP_CARDS_PER_SHEET"	"2"	"2"
"HOC_TP_CARD1_XOFFSET"	"51"	"30"
"HOC_TP_CARD1_YOFFSET"	"16"	"11"
"HOC_TP_CARD_XSIZE"	"286"	"284"
"HOC_TP_CARD_YSIZE"	"444"	"444"
"HOC_TP_CARD2_XOFFSET"	"337"	"314"
"HOC_TP_CARD2_YOFFSET"	"16"	"11"
"HOC_TP_CARD2_XSIZE"	"286"	"284"
"HOC_TP_CARD_2YSIZE"	"444"	"444"

CR-79 Cards:

"HOC_TP_CARDS_PER_SHEET"	"1"	"1"
"HOC_TP_CARD1_XOFFSET"	"84"	"63"
"HOC_TP_CARD1_YOFFSET"	"84"	"80"
"HOC_TP_CARD1_XSIZE"	"504"	"499"

CR-80 Cards:

"HOC_TP_CARDS_PER_SHEET"	"1"	"1"
"HOC-TP_CARD1_XOFFSET"	"67"	"45"
"HOC_TP_CARD1_YOFFSET"	"65	"61"
"HOC_TP_CARD1_XSIZE'	"542	"536"
"HOC-TP_CARD1_YSIZE"	"349"	"349"

CR-60 Cards Upgraded from ID2000:

"HOC_TP_CARDS_PER_SHEET"	"2"	"2"
"HOC_TP_CARD1_XOFFSET"	"49"	"27"
"HOC_TP_CARD1_YOFFSET"	"17"	"13"
"HOC_TP_CARD1_XSIZE"	"287"	"287"
"HOC-TP_CARD1_YSIZE"	"442"	"442'

Variable	Interlaced	Non-Interlaced
"HOC_TP_CARD2_XOFFSET"	"336"	"314"
"HOC-TP_CARD2_YOFFSET"	"17"	"13"
"HOC_TP_CARD2_XSIZE"	"287"	"287"
"HOC_TP_CARD2_YSIZE"	"442"	"442"

CR-79 & CR-80 Cards, Upgraded from ID2000:

"HOC_TP_CARDS_PER_SHEET"	"1"	"1"
"HOC_TP_CARD1_XOFFSET"	"66"	"45"
"HOC_TP_CARD1_YOFFSET"	"65"	"61"
"HOC_TP_CARD1_XSIZE"	"545"	"539"
"HOC-TP_CARD1_YSIZE"	"347"	"347"

When changing from interlaced to non-interlaced, the thermal printer needs to be synchronized as follows:

From the "Make a New ID Badge" menu:

1. Select "Adjust Camera Controls" and press <Enter>.

2. Select "ID Printer" and press <Enter>.

3. Select "Check Front Panel Setting" and press <Enter>.

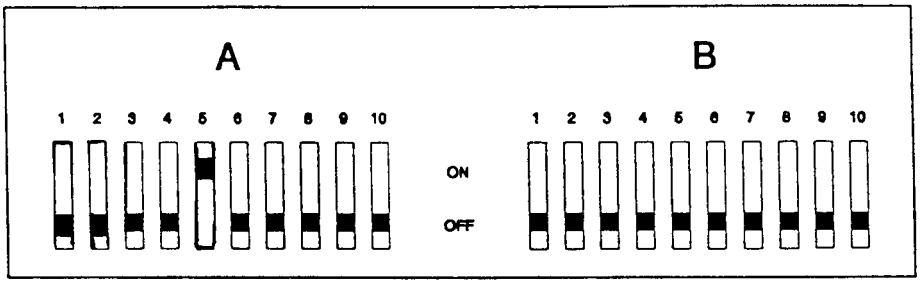
The workstation software will request that you synchronize the thermal printer whenever the computer is turned on or rebooted. Synchronize as follows:

1. If the printer's POWER button is on, turn it off.

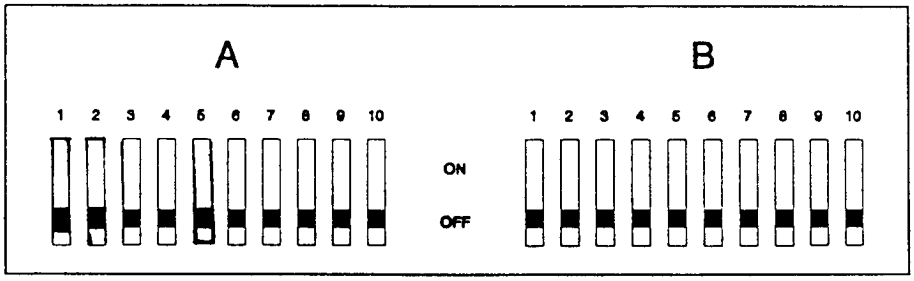
2. Press any key, a blue screen will appear.

3. Turn the POWER switch on and press any key.

Note: These instruction will be displayed on the screen.



Interlaced Input



Non-Interlaced Input

Figure 1: Dip switch settings for interlaced and non-interlaced input

Appendix 3: The SY-CLOCK Timed Backup Utility

The SY-CLOCK utility is a software "alarm clock" that allows SY-TOS batch files to execute at a predetermined time during any specific day, completely unattended. This procedure was developed for a specific need yet could be modified to accommodate various options.

REQUIREMENT:

A backup of 180Mb hard drive with C:, D: and E: partitions is to occur at midnight every Tuesday and Wednesday.

SY-CLOCK SETUP:

1. From the DOS prompt, change to the /SYTOS directory , type SYCLOCK then press <Enter>.
   If "Bad Command or Filename" appears, follow the SYTOS installation procedure outlined in the ID2000 Installation Manual.

2. Press <S>et then use the right/left arrow keys so that Tuesday appears in the high-lighted area.

3. Press <Tab> and type in 12 (hour).

4. Press <Tab> and type in 0 (minutes).

5. Press <Tab> then press the <Spacebar> to select PM.

6. Press <Tab> then press the spacebar to select PERPETUAL.

7. Press <Tab> then type in a filename: C:\SYTOS\SAMPLE.BAT

8. Press <Tab> then type in a description: BACKUP OF DRIVES C D E

9. Press <Enter>.

10. Repeat steps 2 - 9 using Thursday in step 2.

11. From the menu bar, press <Q>uit to return to the DOS prompt.

SY-BATCH FILE CREATION:

1. From the DOS prompt, change to the \SYTOS directory, type STBATCH, then press <Enter>.

2. Type a filename without an extension (SAMPLE), then press <Enter>.

3. Press <O>ptions, <A>ppend, <N>o.

4. Press <S>et, <S>elect, <C>hanged, <N>o.

5. Press <S>et, <S>elect, <T>rees, <Y>es.

6. Press <S>et, <S>elect, <D>ate, <N>o.

7. Press <S>et, <S>elect, <I>nclude, then type in C:/SYTOS/BACKUP.LST then press <Enter>.

8. Press <V>erify, <F>ile, <S>elected.

9. Press <Q>uit to return to DOS.

10. Press <Enter> at the [Y] prompt to save the session.

ACTIVATING SY-CLOCK:

1. At the end of the day, exit to the DOS prompt and type CD\SYTOS

2. Type in SYCLOCK - 1

3. Insert a tape cartridge into the tape drive and close the lever.

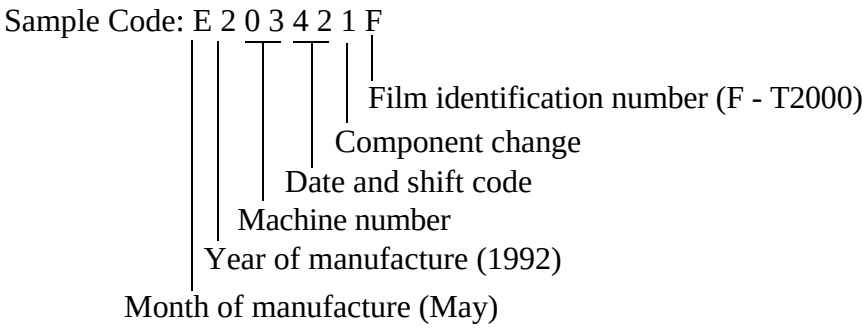
   The utility will automatically perform a backup at the designated time. Remove and store the tape at the start of the following day.

4. Type SYCLOCK - 1 to un-install the utility, then type EXIT to resume normal operation.

Appendix 4: T2000 Product Information

The ID2000 system uses "T2000" film. Film size is 3 1/4 x 4 1/4 inches and required development time is 70 seconds.

There is a code on the back of each film sheet which consists of a letter, followed by six numbers, then another letter. This code is interpreted as follows:



Monthly code breakdown:

A January	G July
B February	H August
C March	J September
D April	K October
E May	L November
F June	M December

Appendix 5: Replacing the Portrait Scanner Fuse

1. Turn the scanner power switch to OFF and unplug the power cord from the back of the scanner.

2. Insert a small screwdriver into the fuse access tab and swing the fuse access door downward.

3. Pull out the gray fuse drawer and remove the fuse from the drawer.

4. Inspect the fuse for a burned or broken filament, and obtain a replacement fuse if necessary.

   Warning: Use only a 5-amp "Slo-Blo" fuse

5. Insert the fuse into the fuse drawer, then reinsert the fuse drawer into the compartment **nearest the center of the scanner**. (The second fuse compartment remains empty)

   Note: Be sure the direction of the white arrow on the drawer matches the white arrow in the compartment.

6. Close the fuse access door, making sure to snap the top tab.

7. Reconnect the scanner power cord and turn the power switch ON.

Appendix 6:SCSI Controller Board Installation in a Universal ID3000 System

Applications

The future domain TMC-885 SCSI Controller Board is for use in Universal ID3000 Systems which will work with both TX1500 Thermal Printer and CI5000 Plus Film Recorder outputs.

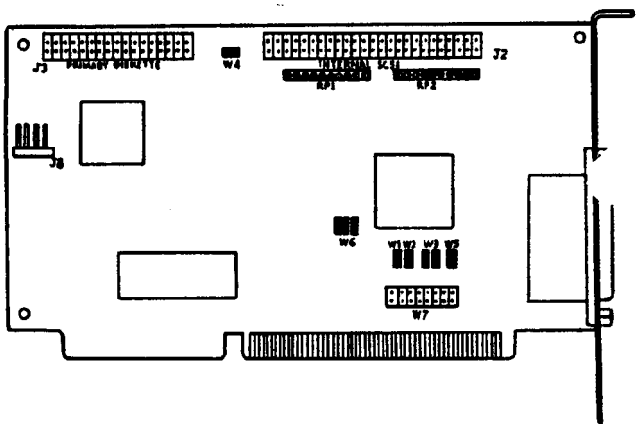
Cables

In systems using the Film Recorder, a 25 to 50-pin MAC SCSI cable is used (P/N 1B0351A).

In systems using the Thermal Printer, termination is external via a 25-pin Apple SCSI terminator connector (P/N 5D003000010).

Jumper settings

Jumper	Setting	Description
W1	Closed	Memory address (DEOOH)
W2	Closed	Memory address
W3	Closed 1-2 Closed 3-4	Extended memory address
W4	Closed	Termination power
W5	Closed	Zero wait state
W6	Closed 1-2 Closed 3-4 Closed 5-6	Floppy enable/disable
W7	All open	Interrupts
RP1	Open	Termination resistor packs
RP2	Open	



Loading Software

On a Universal ID3000 System, first load the core software of the ID3000 film system, then load the thermal and film system application software, using the Install Software Update menu choice.

Appendix 7: Creating a Set of DOS ver. 5.0 Disks

To do this, you will need seven (7) 5-1/4" DS,DD or DS, HD diskettes (see note below). Label them as follows:

Startup
Support
Basic/Edit
Utility
Shell
Help
Supplemental

Procedures

1. Boot the system with DOS Disk 1(labeled "setup #1").

2. Press <Enter> at the Welcome to Setup screen.

3. At the default setting screen, move the curser to the INSTALL TO: HARD DISK option and press <Enter>.

4. The next screen should read INSTALL TO :A:\ and the curser will be next to THE LISTED OPTIONS ARE CORRECT. Press <Enter>.

5. Label your seven disks and press <Enter>. Follow the screen instructions for inserting the disks.

To boot the system to the A> prompt, use the Startup disk.

You can find these other useful files on the following disks:

CHKDSK	on Utility disk
DISKCOPY	on Utility disk
FDISK	on Support disk
PACKING.LST	on Shell disk
README.TXT	on Supplemental disk

NOTE: The contents of these seven disks may be placed on only two 1.2 MB disks, if you wish. If 1.2 MB disks are used, format disk 1 with /S to make it a bootable disk.

Appendix 8: Reinstating the CPS Account (LOGIN)

This procedure may be used whenever:

a. The CPS account has been deleted.
b. The CPS password has been changed and forgotten.
c. The CPS key has been removed from the CPS account.
d. All user accounts have been either disabled or deleted.

Materials required:

DOS 5.0 bootable diskette (setup #1 or Startup diskette)
Installation diskette

Procedure:

Insert the DOS diskette into the A: drive. Turn the system on (if it is already on, cycle the Power Switch).

If you are booting with the DOS 5.0 Setup #1 disk, press **F3** at the Welcome to Setup screen to exit, and press **Y** to confirm. You should be at the A:\> prompt.

At the A:\> prompt, Type **C:** and press <Enter>.

Insert the Installation disk into the A:\ drive. At the C:\> prompt, type **A:PASSWORD** and press <Enter>.

The system will copy the CPS account into any existing password file, or create a new file containing the CPS account if it does not exist.

When this completes, the system will display a message to remove the Installation disk from the A: drive and reboot the system. Doing so will bring up the menu and allow logins by CPS and by any other users who had access to the system after the last time Setup User Access was run.

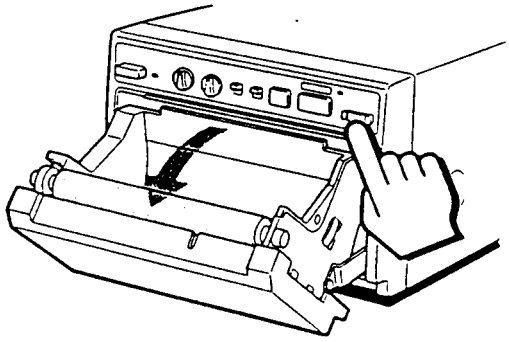
Appendix 9: Maintenance and Troubleshooting of B/W Thermal printer

Loading the Thermal printer:

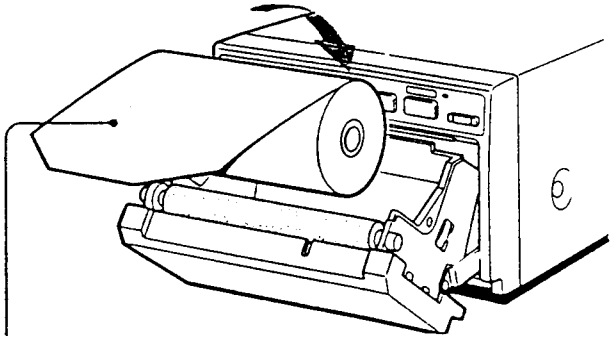
If the thermal printer paper supply is exhausted, install a new roll of paper as follows:

Important: Use only UPP-11OS thermal printing paper.

1. Press the OPEN/CLOSE button to open the paper lid.



2. Place the paper in the printer.



Place the paper with the thermo-sensitive side (printing side) up.

3. Close the paper lid.

Thermal Printer Troubleshooting

Problem	Probable Cause	Corrective Action
No print when **Print** button is pressed	Power off	Press **Power** button to turn power on.
	No image on portrait monitor	Carefully follow instrcutions for issuing a temporary pass.
	Paper installed incorrectly	Check paper installation and verify that the paper is installed with the sensitive side up. (See "Loading the Thermal Printer")
	Paper supply is exhausted (**Alarm** lamp on front of printer will be lit)	Replenish the printer paper. (See "Loading the Thermal Printer")
Pass too dark or too light	Incorrect brightness control setting	Adjust the **BRT** dial on the front of the printer for the desired brightness.
Pass has insufficient or excessive contrast	Incorrect contrast control setting	Adjust the **CONTR** dial on the front of the printer for desired contrast.
Jammed printer paper	Incorrect installation or creased paper supply	Open the printer door then carefully remove the jammed paper. To avoid damage to the platen and printing head, do not use any metallic devices. When the jammed paper is cleared, reinstall the paper. (See "Reloading the Thermal Printer"). Be sure the paper is correctly aligned and free of creases or folds.

Problem	Probable Cause	Corrective Action
Unclear passes	Dirty printing head	Remove the thermal paper and, in its place, insert the special head cleaning sheet (See "Reloading the Thermal Paper"). Pull the cleaning sheet through the printer. (If the printing head is extremely dirty, this procedure may have to be repeated) Then reinstall the thermal paper.
White specks on first few printouts	Dust on paper	Feed the paper until clean paper appears
Printing does not start when Print button is pressed		Is the power turned on? Is the paper loaded with the thermal-side up? Paper not fed.

Appendix 10: ID3000 Ver. 2.3 Software

Below are printouts of standard Config.sys and Autoexec.bat files for both film and thermal media.

Config.sys for ID3000F:

```
SHELL=C:\COMMAND.COM C: \ /P /E:1024
BREAK=OFF
DEVICE=C:\QEMM\QEMM386.SYS NRH NR U8 FRAME=E000 ON MAPS=0 EXCLUDE=A000-BFFF RAM
DOS=HIGH
DEVICE=C:\QEMM\LOADHI.SYS /H C:\DOS:\SMARTDRV.SYS 2048
DEVICE=C:\QEMM\LOADHI.SYS /H C:\TCEUTIL\TCEDRV.SYS
DEVICE=C:\HHSCAND.SYS /I=5
BUFFERS=30
FILES=60
DEVICE=C:\QEMM\LOADHI.SYS /H C:\DOS\ANSI.SYS
```

Autoexec.bat for ID3000F:

```
@ctrlc
echo off
prompt $P$G
verify off
REM c:\qemm\loadhi \net\ipx
REM c:\qemm\loadhi \net\netx
call c:\tceutil\tcesetup
c:\id2prog\initsupb
SET  COMSPEC=C:\COMMAND.COM
SET TEMP=C:\ID2DATA
SET SYSFILES=C:\
SET S=%SYSFILES%
SET DP2000_DEF_IMAGE_DIR=%S%ID2DATA
SET DP2000_PARALLEL_PORT=1
SET DPALETTE=%S%ID2DATA\DPALETTE.CFG
SET DB=D:\DATABASE
SET LIBPATH=%S%ID2PROG
path %S%apps;%S%id2data;%S%id2prog;%DB%;%S%fonts;%S%qgf;c:\dos;c:\qemm;c:\dbase;
cd \AWS3F
v2menu

REM *** Setup illuminator powerup environment (ie. TARGA mode) ***
SET TARGA=
SET TARGASET=
```

Config.sys for ID3000T:

```
SHELL=C\COMMAND.COM C:\  /P /E:1024
BREAK=OFF
DEVICE=C:\QEMM\QEMM386.SYS NRH NR U8 FRAME=E000 ON MAPS=0 EXCLUDE=A000-BFFF RAM
DOS=HIGH
DEVICE=C:\QEMM\LOADHI.SYS /H C:\DOS\SMARTDRV.SYS 2048
DEVICE=C:\QEMM\LOADHI.SYS /H C:\TCEUTIL\TCEDRV.SYS
DEVICE=C:\HHSCAND.SYS /I=5
BUFFERS=30
FILES=60
DEVICE=C:\QEM\LOADHI.SYS /H C:\DOS\ANSI.SYS
```

Autoexec.bat for ID3000T

```
@ctrlc
echo off
prompt $P$G
verify off
REM c:\qemm\loadhi \net\ipx
REM c:\qemm\loadhi \net\netx
call c:\tceutil\tcesetup
c:\id2prog\initsupb
SET COMSPEC=C:\COMMAND.COM
SET TEMP=C:\ID2DATA
SET SYSFILES=C:\
SET S=%SYSFILES%
SET DB=D:\DATABASE
SET LIBPATH=%S%ID2PROG
path %S%apps;%S%id2data;%S%id2prog;%DB%;%S%fonts;%S%qgf;c:\dos;c:\qemm;c:\dbase:
cd \AWS3T
v2menu

REM *** Setup illuminator powerup environment (ie. TARGA mode) ***
SET TARGA=
SET TARGASET=
```

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