Polaroid

Repair Manual

Digital Palette/ProPalette Mini Burn-In System

April 1998

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1. Introduction

The Digital Palette/ProPalette Burn-In system is a PC-based automated test station. It is used to perform a Burn-In test on a Digital Palette or ProPalette system. The Digital Palette or ProPalette is tested for a RGB exposure of simulated images in a repetitive manner with AC power periodically cycled on/off.

This Burn-In system detects video, electromechanical, logic and hardware problems such as brightness, H/V synch, and filter wheel. All errors are detected in real time and saved in a file. The operator can obtain the status of the unit being tested via a printout or a display of exposure count and cumulative errors. The system is also capable of sensing catastrophic errors and automatically terminating the defective unit from the burn-in test.

The software is menu driven and easy to use. System parameters, such as burn-in time, AC power on/off duty cycle, error thresholds, etc., are programmable under password protection.

2. Using the System

System Guidelines

- To use the Digital Palette/ProPalette Burn-In system simply walk through its menus and follow the on-screen instructions. The operator only has to input the serial number for Digital Palette/ProPalette being burned in.

   Note: Serial numbers can only be a maximum of 8 alphanumeric characters. No spaces or special characters are allowed.

   Special characters not allowed are:

   @ ! # $ % ^ & * () _ + - = { } [ ] ' / : ; " ' < > , . ? / and **space**.

- Typically, AC power is cycled **On** and the system is allowed to **warm-up** for 20 minutes before starting any exposures. After the warm-up period, the exposure tests are performed for 60 minutes and then power is then turned **Off** for 20 minutes.

   This cycle is repeated throughout the burn-in test.

   Note: Power is never shut off in the middle of an exposure.

- User input keys:

   <Enter> key used to continue to the next step.

<Backspace> key used to go back to the previous step.

<Esc> key used to quit at any time.

- Status Screen (Figure 1)

Shows up to the minute status of the unit being burned in.

Upper Half

This part of the screen indicates unit status:

void, error, terminated or OK.

Notes: • If the Digital Palette/ProPalette malfunctions at any time during the test, an **error** message appears, which changes to **terminated** if and when that unit crosses any error threshold. The operator can escape (Esc) to the main selection menu and get the error status summary or report at any time.

   • If the test has been terminated, the operator should determine the cause of termination and then remove/disconnect the unit under test. The terminated message then stops blinking. A blank line means that the unit is o.k.

Middle Section

This part of screen displays current step being performed by host computer and the last error encountered, if any.

Last Two Lines

This part of screen indicates time information (start time, current time, elapsed time, finish time and power on/off cycle count).

- Screen Saver

The status screen is saved if the system is unattended and no key is pressed for 10 minutes. This is to prevent pattern burn on the monitor. The screen saver displays the elapsed time and the unit errors. The status screen is restored whenever a key is pressed.

- Time-outs

If the operator does not press a key in response to a question or selection within 3 minutes, a time-out will occur. This action retreats the system to its safe mode.

```
———————————— BURN IN TEST ————————————

1:   Sample            9:      void

2:   void              10:     void

3:   void              11:     void

4:   void              12:     void

5:   void              13:     void

6:   void              14:     void

7:   void              15:     void

8:   void              16:     void
_____

                <<< WARMUP CYCLE >>>

Startup Time  (01/29/98)  14:48    Elapsed Time  00:03    Current Time  16:00
Finish Time  ( / / )  :            Press <Esc> to Exit    Power Cycle     1
```
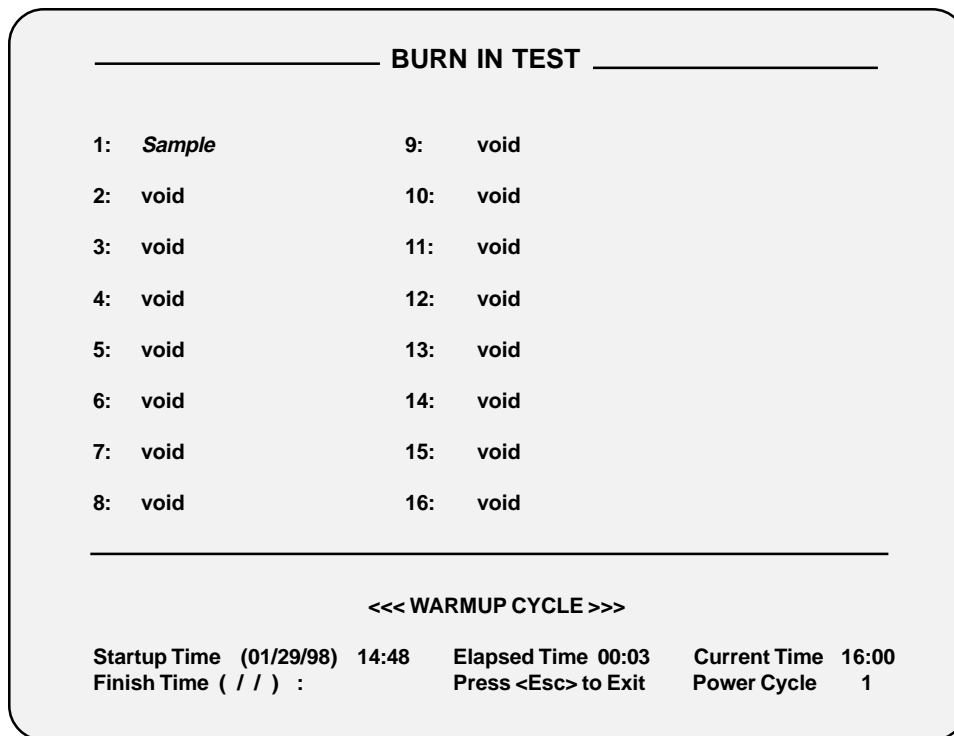
Figure 1. Status screen

Setting Up the System

Required Test Equipment and Tools

- Host PC Computer (486 or Pentium 133 MHz)

- Multi I/O Board

- Burn-In Software

- Camera Back Simulator P/N 13704 (**ProPalette Only**)

- Burn-In Control Box

- A/B Switch Box

- Rosebox, Cable, and Adapter

Equipment Setup (Figure 2)

- Connect the control box cable to the A/B Switch Box.

- Connect the Digital Palette/ProPalette to the applicable A/B Switch Box.

- Plug in the camera adapter (**ProPalette Only**).

CPU Slot Assignment

	Bench	**Rack (Rose Box)**
Slot 1	LPT1 to I/O Connector (A/B Switch Box)	RJ11 (from Rose Box)
Slot 2	Burn-in Box	Burn-in Box
Slot 3	Monitor	Monitor
Slot 4	Blank	Blank
Slot 5	Blank	Blank
Slot 6	Blank	Blank
Slot 7	Blank	Blank
Slot 8	Blank	LPT2 to P (from Rose Box)
Slot 9	Blank	Blank
Slot 10	Blank	Blank

Bench Setup
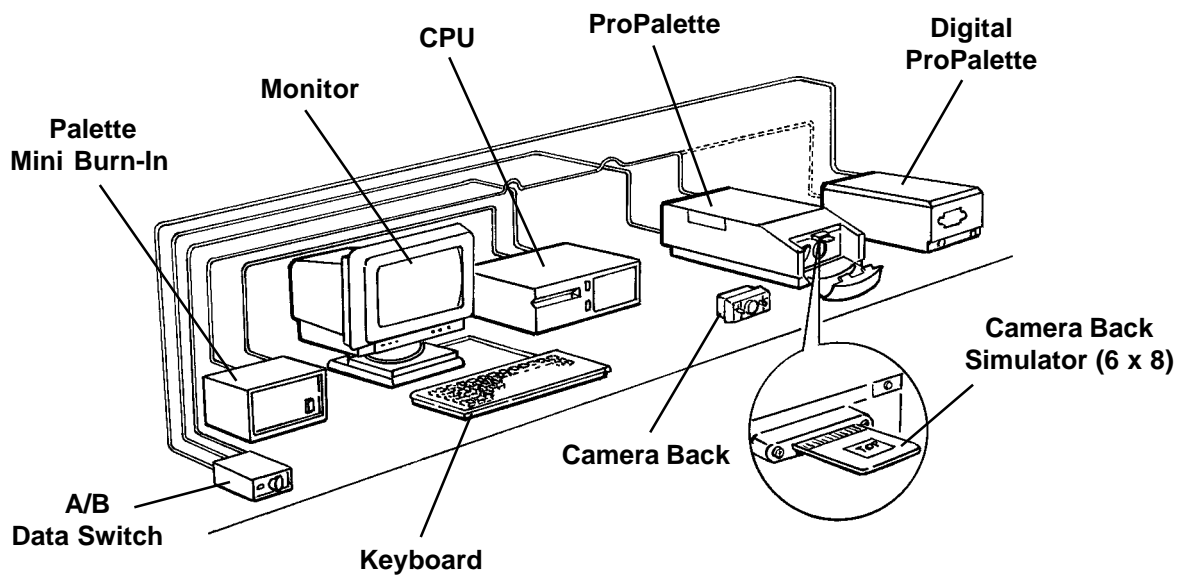
Figure 2. Equipment setup

Burn-In Test Procedure

1. Turn on the host computer.

2. Set the control box **ON/OFF** switch to **ON**.

3. Set the Digital Palette/ProPalette **ON/Off** switch to **ON**.

    The system **Start-Up Menu** appears on the screen (Figure 3).

```
    MS-DOS 6.22 STARTUP MENU


    1.    Setup for ProPalette - 7000/564_704 Firmware
    2.    Setup for ProPalette - 8000/564_704 Firmware
    3.    Digital Palette
    4.    Setup for ProPalette - 7000 & 8000/564_702 Firmware




    Enter a choice :  1
```
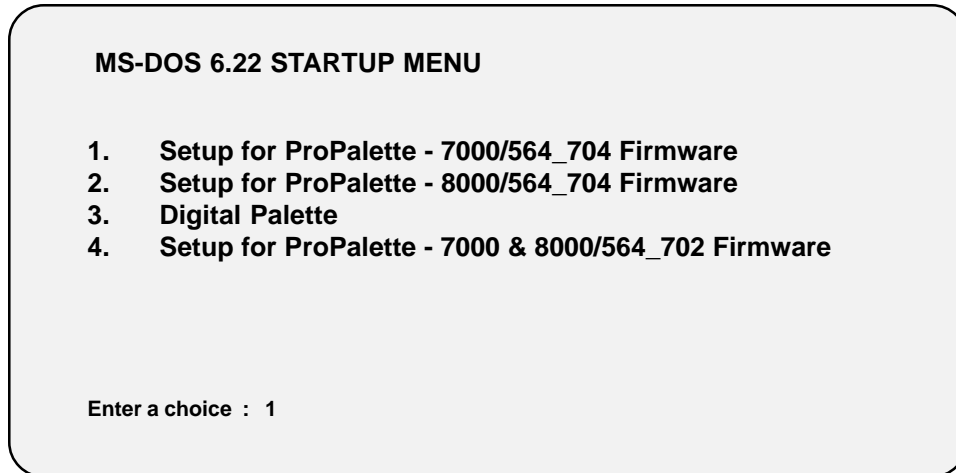
Figure 3. System start-up menu

4. Select the applicable unit number (**1 - 4**) as follows:

    Note: Use the **UP** or **Down** arrow keys to highlight the particular number
    or just press the applicable key to select the particular number.

5. Once the choice is entered, the applicable burn-in system **Starting New Batch** menu
    appears on the screen (Figure 4) prompting you to connect power and communications
    cables and to insert, if applicable, the camera back adapter to the unit under test.

```
    * * * * * * * * * * * * * * * * * * * * *
    *                                       *
    *            BURN-IN SYSTEM             *
    *                                       *
    * * * * * * * * * * * * * * * * * * * * *


            <<< STARTING NEW BATCH >>>


    Connect Power and Communications cables to all units (max. 1 units)

    Press <Enter> to Continue, <Esc> to Exit to Main Menu :
```
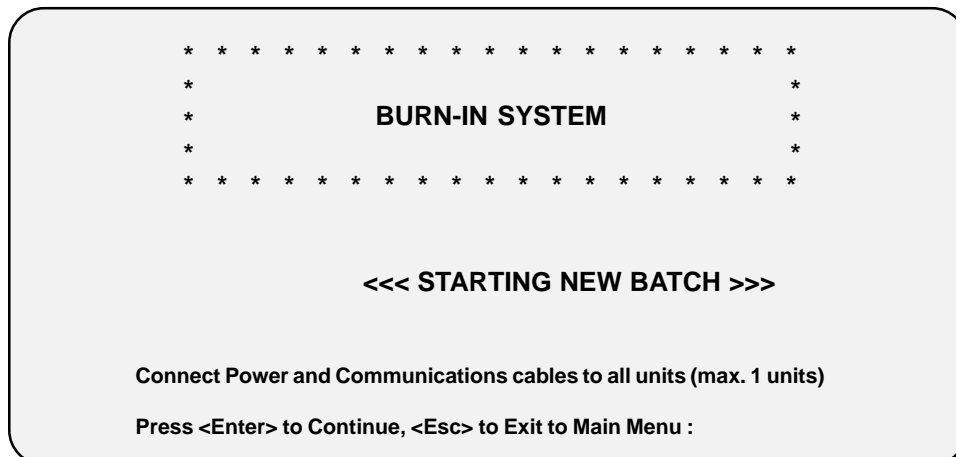
Figure 4. Starting new batch

6. Once the unit under test is properly setup, press the **Enter** key to continue.

   The applicable **Entering Serial Numbers** screen appears (Figure 5) prompting you to enter the serial number for the unit under test.

   Note:　　If the system parameters need to be updated, press Exit (ESC) key to return to the Main Menu. Refer to Setting System Parameters Section of this manual.

```
* * * * * * * * * * * * * * * * * * * *
*                                      *
*              BURN-IN SYSTEM          *
*                                      *
* * * * * * * * * * * * * * * * * * * *

         <<< ENTERING SERIAL NUMBERS>>>

A serial number cannot be more than 8 alphanumeric characters long.
No spaces or special characters are allowed.  If a unit is void just press
 <Enter> without any serial number.  If you make a typing mistake, use
the backspace key to erase the incorrect letters.  Press <Esc> to exit at
any time.

Enter the Serial Number for unit 1 and press <Enter>: Sample
```
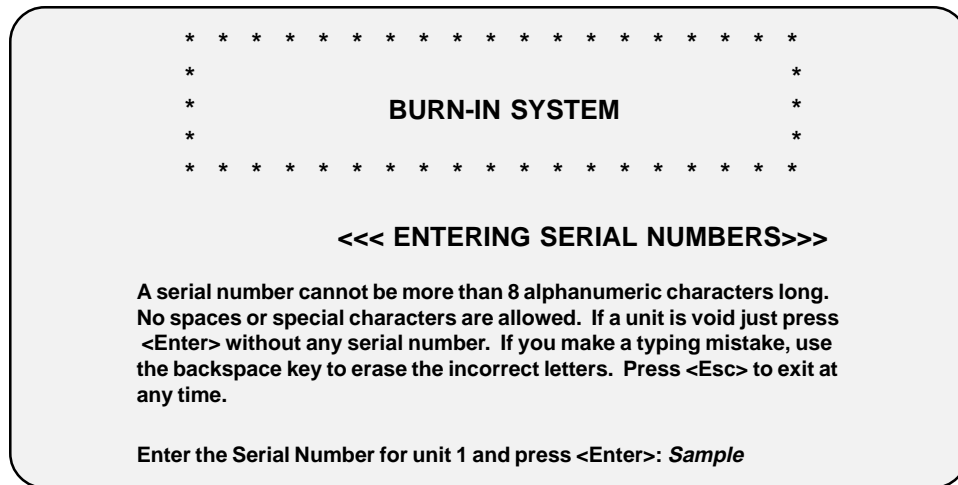
Figure 5. Entering serial numbers

7. Type in the applicable serial number and then press the **Enter** key to continue.

   The serial number confirmation screen appears (Figure 6).

```
            <<< CONFIRMING SERIAL NUMBERS >>>
Unit  1: Sample
Unit  2: void
Unit  3: void
Unit  4: void
Unit  5: void
Unit  6: void
Unit  7: void
Unit  8: void
Unit  9: void
Unit 10: void
Unit 11: void
Unit 12: void
Unit 13: void
Unit 14: void
Unit 15: void
Unit 16: void

      Press < Backspace> to change any of the Serial Numbers.
      Press <Enter> to Continue, <Esc> to Exit to Main Menu.
```
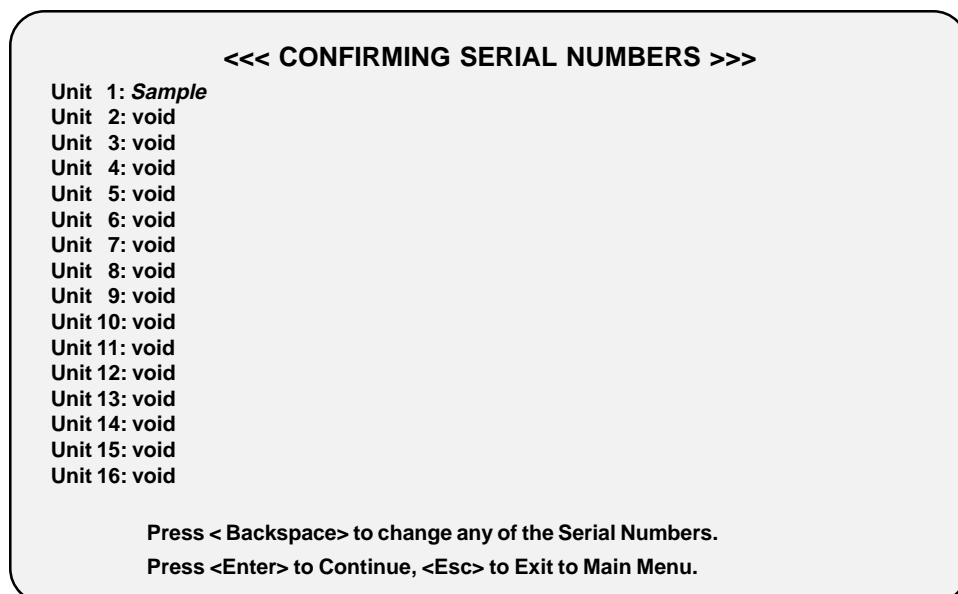
Figure 6. Confirming serial numbers

8. Press the **Enter** key to continue.

    The **Validating Units** screen (Figure 7) appears asking you to please wait.

```
*  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *
*                                                           *
*                    BURN-IN SYSTEM                         *
*                                                           *
*  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *


                <<< VALIDATING UNITS >>>


     Please Wait . . .
```
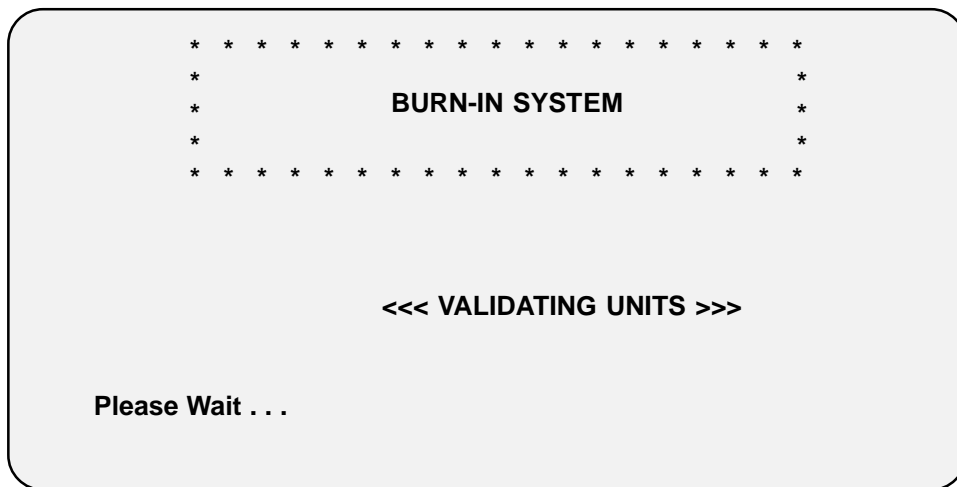
Figure 7. Validation screen

9. Once the waiting period elasped, the burn-in test starts.

    The status (Figure 8) screen appears indicating that the test is running.

```
───────────────── BURN IN TEST ─────────────────


     1:   Sample              9:     void

     2:   void               10:     void

     3:   void               11:     void

     4:   void               12:     void

     5:   void               13:     void

     6:   void               14:     void

     7:   void               15:     void

     8:   void               16:     void
     ─────────────────────────────────────────────

                    <<< WARMUP CYCLE >>>

     Startup Time  (01/29/98)  14:48     Elapsed Time 00:03      Current Time  16:00
     Finish Time ( / / )  :              Press <Esc> to Exit     Power Cycle      1
```

Figure 8. Status screen

3. Setting System Parameters

System Parameters

All parameters are saved on disk after the modifications. Parameters cannot be changed in the middle of a test. Table 1 lists and defines the system parameters that can be modified.

Table 1. Programmable Parameters

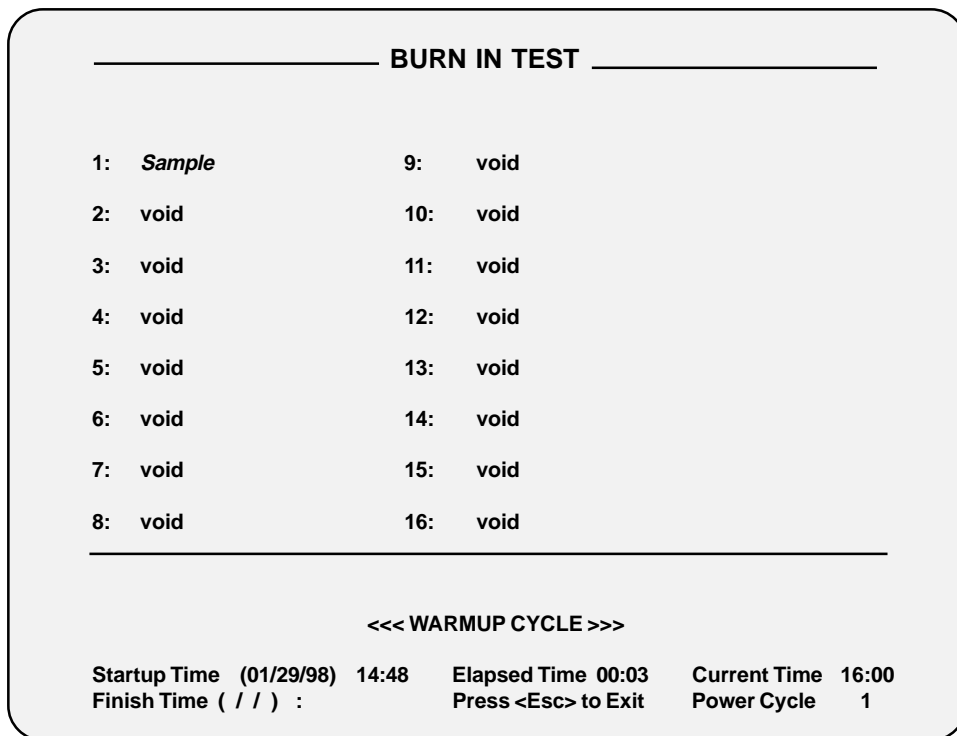| Parameter	Explanation
Password	A four-digit code between 1000 and 9999. Default password is **1234**.
Station ID	The test station ID is a one letter name between A and Z. Each station is to a unique ID at the time of installation.
Domestic/International Power	Domestic power is 110V/60Hz and International power is 220V/50Hz. Default setting is Domestic power.
Burn-In Time	The number of hours a test runs. Default Burn-In Time is 24 hours.
Test Cycle Time	The period following Warm-up when the exposures are taken. Default Test Cycle Time is 60 minutes.
Warm-Up Time	The period between power on and Test Cycle. Default Warm-up Time is 20 minutes.
Power Off Cycle Time	The period when AC power is cycled off. Default Off Cycle Time is 20 minutes.
Error Thresholds	The threshold of a particular error is the point (nth occurrence) at which a unit is terminated.

Updating System Parameters

1. Turn on the system as explained in the Burn-In Test procedure.

2. Once the burn-in system **Starting New Batch** menu appears on the screen (Figure 9), press the Escape (**Esc**) key.

    The Main selection menu appears on the screen (Figure 10).

```
* * * * * * * * * * * * * * * * * * * * *
*                                       *
*              BURN-IN SYSTEM           *
*                                       *
* * * * * * * * * * * * * * * * * * * * *



         <<< STARTING NEW BATCH >>>


Connect Power and Communications cables to all units (max. 1 units)

Press <Enter> to Continue, <Esc> to Exit to Main Menu :
```
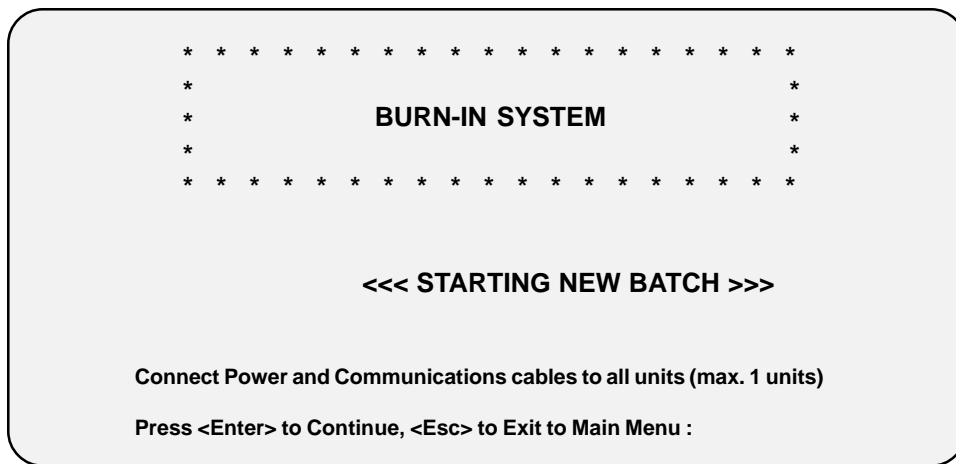
Figure 9. Starting new batch

```
* * * * * * * * * * * * * * * * * * * * *
*                                       *
*              BURN-IN SYSTEM           *
*                                       *
* * * * * * * * * * * * * * * * * * * * *


         <<< MAIN MENU SELECTION>>>

Press <Backspace> to Start New Batch.
Press <Enter> to Re-start Current Batch.
Press <S> to Print Current Summary.
Press <R> to Print Status Report.
Press <L> to Print Luminance Report.
Press <P> to Set System Parameters.
Press >Esc> to Exit to DOS:
```
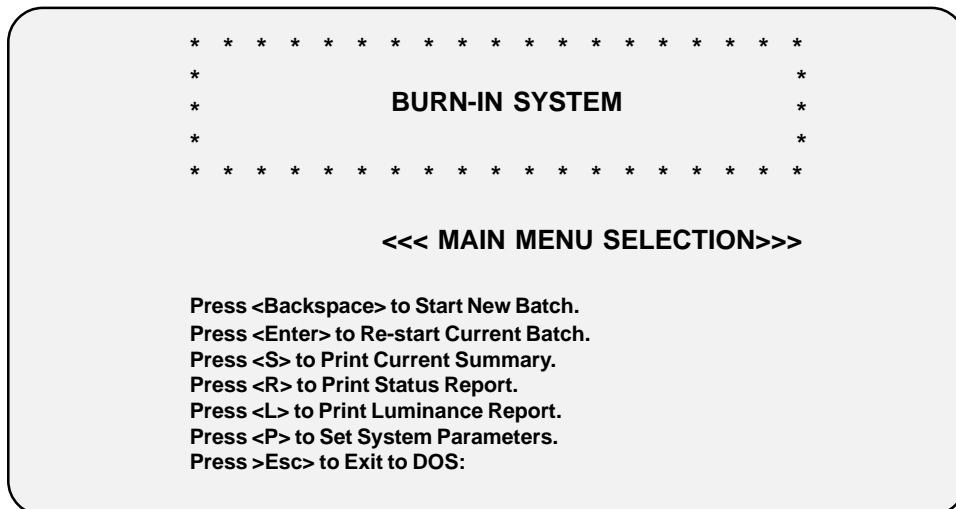
Figure 10. Main menu selection

3. Press the **P** (Set System Parameters) key. The Setting System Parameters screen (Figure 11) appears prompting you to enter the systems 4-digit password code.

```
* * * * * * * * * * * * * * * * * * * * *
*                                       *
*              BURN-IN SYSTEM           *
*                                       *
* * * * * * * * * * * * * * * * * * * * *




         <<< SETTING SYSTEM PARAMETERS >>>



Enter the 4 digit Password code: 1234
```

Figure 11. Setting system parameters (entering password code)

4. Enter the systems 4-digit password code.

    Once the password code is entered, the system automatically displays the first parameter screen (Figure 12).

    Note: Do not press the **Enter** key after the password code is keyed in. Pressing the **Enter** key jumps to the second parameter screen.

```
*  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *
*                                                     *
*                  BURN-IN SYSTEM                     *
*                                                     *
*  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *


          <<< SETTING SYSTEM PARAMETERS >>>


   Burn In time is the number of hours a batch runs.
   The Current Burn In time is 24 hours.
   Press <Enter> to accept the current (default) value, <Esc> t o
   Quit at any time.


   Enter the new Burn In time in hours (0 - 99) : _
```
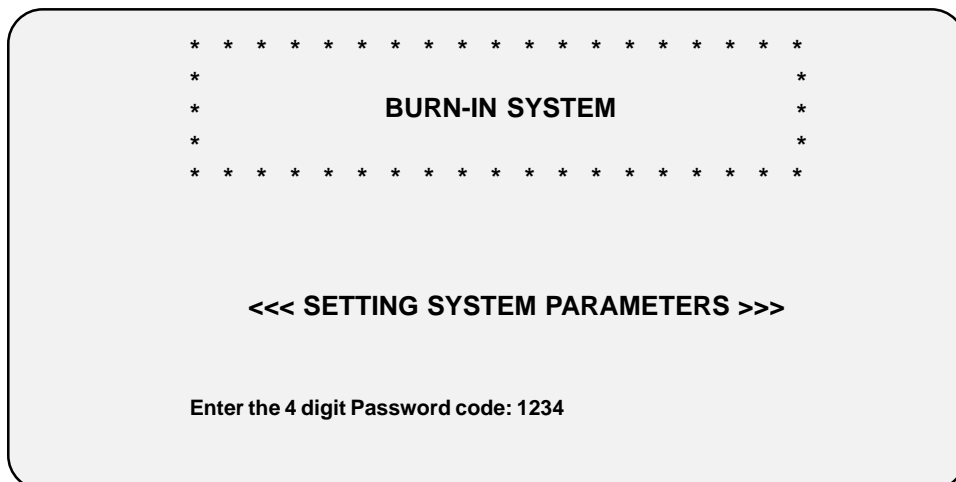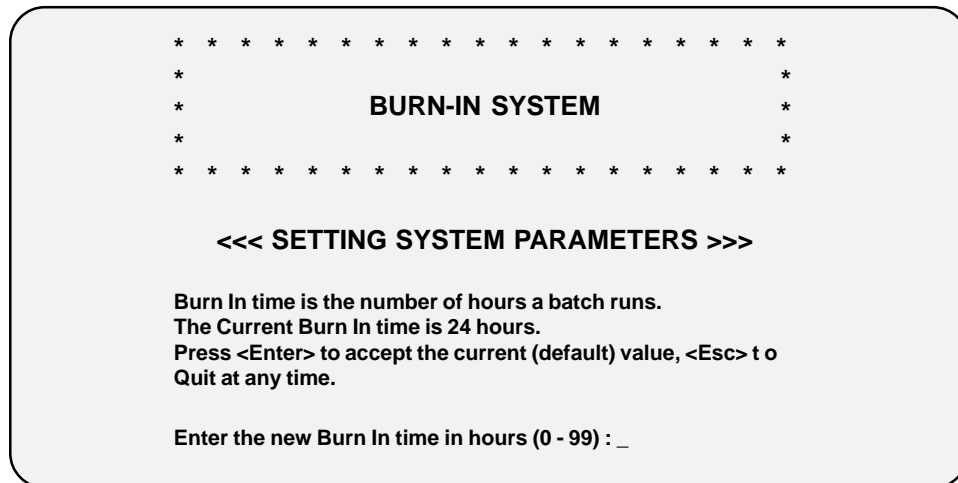
Figure 12. Setting system parameters (current burn-in time)

5. Follow the displayed instructions to update system parameters:

    <u>**Accept Current Parameter**</u>

    Press **Enter** key. The next parameter screen is displayed.

    or

    <u>**Update Parameter**</u>

    Enter the time in hours (**0** to **99**). The next parameter screen is displayed.

    Note: Repeat until all specified parameters are updated then press **Esc** key to quit.

    or

    <u>**Quit**</u>

    Press **Esc** key. Confirmation Parameter setting screen appears (Figure 13).

    Note: If **OK**, press **Esc** key to return to Main Menu.

    If **incorrect**, press the **backspace** key to highlight and then change.

```
<<< CONFIRMING PARAMETER SETTINGS>>>

(BENCH) Station ID:          A
Data Port:              LPT1
Screen Saver Timeout:    10 minutes

Burn In Time:          99 hours
'Test' Cycle Time:      60 minutes
'Warm-ups' Time:        20 minutes
Power 'Off' Cycle Time: 20 minutes

Luminance Drift Allowed:  99%
Min. Luminance Limit:     100
Max. Luminance Limit:     800


Press any key to Continue . . .
```
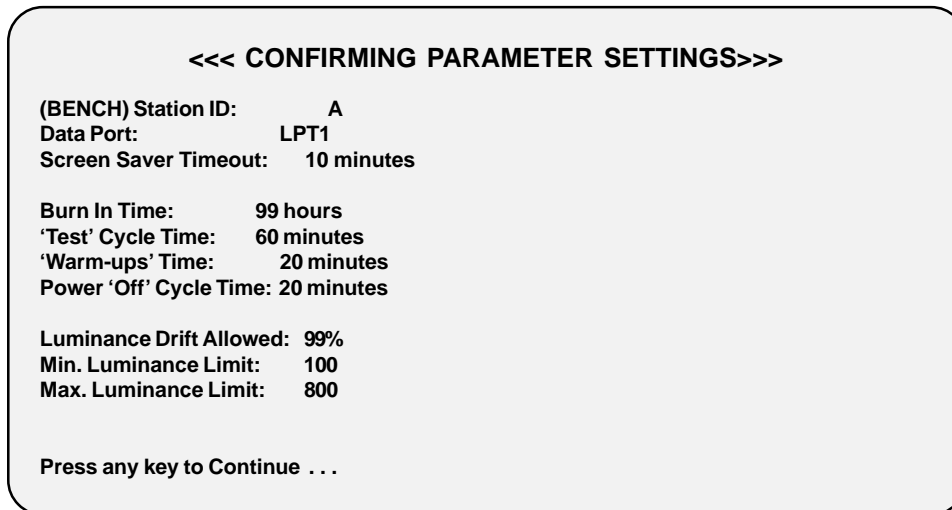
Figure 13. Confirming parameter settings

6. Once parameters are set, press any key to continue. The **Error Thresholds** screen appears (Figure 14).
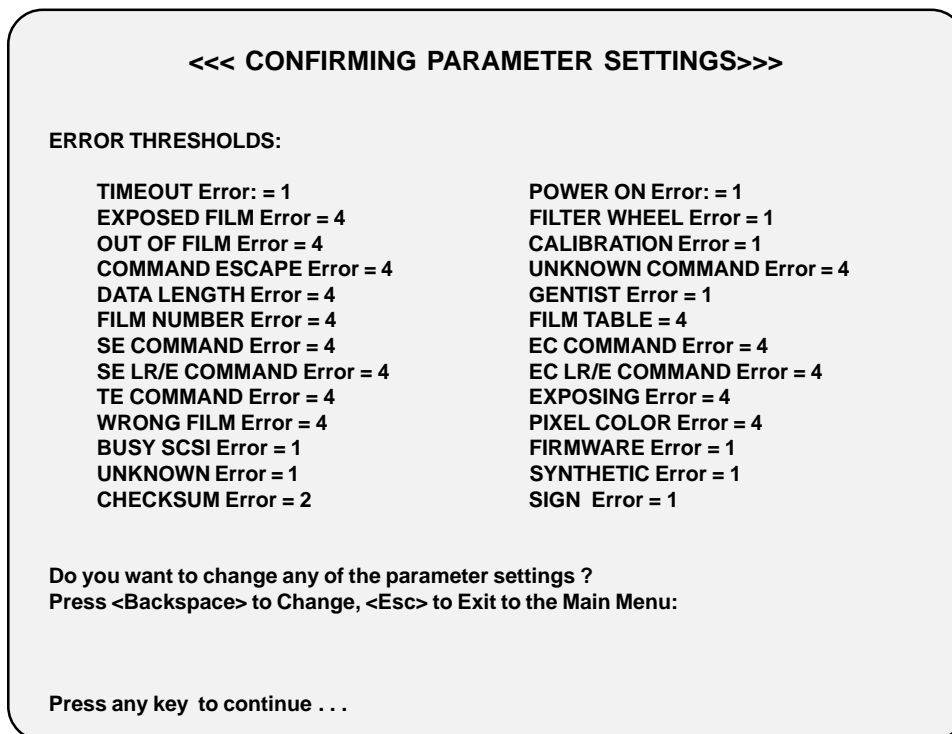
```
<<< CONFIRMING PARAMETER SETTINGS>>>

ERROR THRESHOLDS:

   TIMEOUT Error: = 1              POWER ON Error: = 1
   EXPOSED FILM Error = 4         FILTER WHEEL Error = 1
   OUT OF FILM Error = 4          CALIBRATION Error = 1
   COMMAND ESCAPE Error = 4       UNKNOWN COMMAND Error = 4
   DATA LENGTH Error = 4          GENTIST Error = 1
   FILM NUMBER Error = 4          FILM TABLE = 4
   SE COMMAND Error = 4           EC COMMAND Error = 4
   SE LR/E COMMAND Error = 4      EC LR/E COMMAND Error = 4
   TE COMMAND Error = 4           EXPOSING Error = 4
   WRONG FILM Error = 4           PIXEL COLOR Error = 4
   BUSY SCSI Error = 1            FIRMWARE Error = 1
   UNKNOWN Error = 1              SYNTHETIC Error = 1
   CHECKSUM Error = 2             SIGN  Error = 1


Do you want to change any of the parameter settings ?
Press <Backspace> to Change, <Esc> to Exit to the Main Menu:


Press any key  to continue . . .
```

Figure 14. Confirming parameter settings (thresholds)

7. Once all system parameters are set, press the **Esc** key to return to the Main Menu.

4. System Error Messages

Types of Error Messages

There are 26 error messages that the Burn-In System is presently capable of reporting. The error messages are grouped into 5 classes:

- Configuration   -   Configuration File not found.
- Communications   -   Unit powered off, Disconnected, or the Wrong Port.
- Hardware   -   Hardware problem preventing exposures from continuing.
- Illegal Command or   -   Illegal command or data sent to the unit.
  Data
- Warnings   -   Buffer Unavailable, Active Exposure and Remove Film
                            Warnings.

The most common errors are **POWER ON**, **FILTER WHEEL**, **FIRMWARE**, **CALIBRATION** and **TIMEOUT**.

· Table 2 lists and defines the error messages.

Table 2. Error Messages

Error	Explanation
#0 TIMEOUT	Communication difficulties with the unit. Default threshold for TIMEOUT error is 3 (test terminates on 3rd occurrence).
#1 POWER ON	Unit just powered on. The palette is in a default state and may need to be configured before taking any exposures. Default threshold for POWER ON error is 1 (test terminates on 1st occurrence).
#2 EXPOSED FILM	Film previously exposed. The palette has determined that an image area has been exposed or partially exposed. Default threshold for EXPOSED FILM error is 4 (test terminates on 4th occurrence).
#3 FILTER WHEEL	Filter wheel not turning properly. Default threshold for FILTER WHEEL error is 4 (test terminates on 4th occurrence).
#4 OUT OF FILM	Camera back out of film. Default threshold for OUT OF FILM error is 4 (test terminates on the 4th occurrence).

Table 2. Error Messages (Con't)

| Error	Explanation
#5 CALIBRATION	Self calibration failure. This error occur if the palette is not warming up properly. Default threshold for CALIBRATION error is 1 (test terminates on the 1st occurrence).
#10 COMMAND ESCAPE	The first character of the command is not an Escape. The palette has received data that it cannot interpret. Default threshold for COMMAND ESCAPE error is 4 (test terminates on 4th occurrence).
#11 UNKNOWN COMMAND	Not a valid command. The palette has received command data that it cannot interpret. Default threshold for UNKNOWN COMMAND error is 4 (test terminates on 4th occurrence).
#12 DATA LENGTH	Inappropriate data length for the command. The palette has received illegal data. Default threshold for DATA LENGTH error is 4 (test terminates on 4th occurrence).
#13 GENTEST	Gentest was not initialized prior to a command. The palette is in a diagnostic test mode. Default threshold for GENTEST error is 4 (test terminates on the 4th occurrence).
#14 FILM NUMBER	Film number out of range. The Burn-In program has referenced a film type that is not supported by the palette. Default threshold for FILM NUMBER error is 4 (test terminates on 4th occurrence).
#15 FILM TABLE	Command parameter invalid. Illegal data has been sent to the palette. Default threshold for FILM TABLE error is 4 (test terminates on 4th occurrence).
#16 SE COMMAND	Start exposure command issued out of sequence. The palette is currently exposing an image, and has received a command out of sequence or without proper initialization. Default threshold for SE COMMAND error is 4 (test terminates on 4th occurrence).

Table 2. Error Messages (Con't)

Error	Explanation
#17 EC COMMAND	Exposure color command issued out of sequence. An attempt has been made to move the filter wheel to an exposure position, but the palette is not currently exposing an image. Default threshold for EC COMMAND error is 4 (test terminates on 4th occurrence).
#18 SE LR/E COMMAND	Print issued out of sequence with no start exposure command. An attempt has been made to send the data for exposing an image, but the palette is not currently exposing an image. Default threshold for SE LR/E COMMAND error is 4 (test terminates on 4th occurrence).
#19 ECLR/E Command	Print issued out of sequence with no exposure color command. An attempt has been made to send the data for exposing an image, but the filter wheel is not in an exposure position. Default threshold for ECLR/E COMMAND error is 4 (test terminates on 4th occurrence).
#20 TE COMMAND	Terminate exposure command issued with no prior start exposure command. A command has been issued to the palette out of sequence. Default threshold for TE COMMAND error is 4 (test terminates on 4th occurrence).
#21 EXPOSING	Still exposing a prior image. The palette is exposing an image and cannot accept another image until it has finished. Default threshold for EXPOSING error is 4 (test terminates on 4th occurrence).
#22 WRONG FILM	Incorrect film for the camera. An inappropriate film type has been selected for the current camera back. Default threshold for WRONG FILM error is 4 (test terminates on 4th occurrence).
#23 PIXEL COLOR	Wrong pixel color for black-and-white film. Incorrect black-and-white values have been sent to the palette. Default threshold for PIXEL COLOR error is 4 (test terminates on 4th occurrence).
#24 BUSY SCSI	Another application program has instructed the palette to expose an image via SCSI port. Default threshold for BUSY SCSI error is 4 (test terminates on 4th occurrence).

Table 2. Error Messages (Con't)

Error	Explanation
#30 FIRMWARE	Firmware failure. Default threshold for FIRMWARE error is 1 (test terminates on 1st occurrence).
#31 UNKNOWN	Default threshold for UNKNOWN error is 4 (test terminates on 4th occurrence)
#69 SYNTHETIC	User generated error. This error indicates a forced error condition. Default threshold for SYNTHETIC error is 4 (test terminates on 4th occurrence).
#70 CHECKSUM	Checksum mismatch on a line of image data. Data being transferred from the host computer to the palette has been corrupted. Default threshold for CHECKSUM error is 4 (test terminates on 4th occurrence).
#255 SIGN	Error sign not in error table. Default threshold for SIGN error is 4 (test terminates on 4th occurrence).

Saving Error Messages

Error messages are **automatically logged** and **saved** in a file called **xmmddhh.LOG**:

Month   **Day**

x mm dd hh.LOG

Test Station ID   **Hour Batch Started**
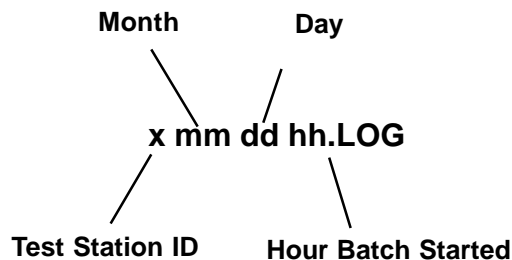
All recorded error messages include **name**, **number**, **class**, **message**, **exposure**, **power cycle** and **elapsed time**, and are stored directly to the disk. The file name is the same as DOS path name.

5. Getting Status Report

Types of Status Reports

Two types of status reports are provided:

- Quick Summary   -   This report is an instantaneous **snapshot** of the current test. **Quick Summary report is display only.**

- Detailed   -   This report is a complete status report of the current test or any user specified test. **Detailed** report has two display options: screen display and hard copy printout.

It is recommended that status reports or summaries of current tests be retrieved during the AC power off or the warm-up duty cycle.

The hard copy report includes errors sorted by class, whereas the display option does not. The display option only gives the unit report. The unit report in the hard copy option prints out the status for a unit in sections separated by perforated lines so that they can be cut and attached to each unit ready for the repair technician to check.

A blinking red * in the status report display and -> in the hard copy printout means that the unit was terminated at that point.

Before printing any report make sure that the printer is set to the top of the page.

Note: Printer must be set for 9600 baud rate, no parity and 8 character bits.

Default printer port for the Burn-In system is **COM2**.

Getting Status Report

1. Turn on the system as explained in the Burn-In Test procedure.

2. Once the burn-in system **Starting New Batch** menu appears on the screen (Figure 15), press the **Esc** key.

   The Main selection Menu appears on the screen (Figure 16).

3. Press the applicable key for the report needed.

```
*  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *
*                                                      *
*                 BURN-IN SYSTEM                       *
*                                                      *
*  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *


              <<< STARTING NEW BATCH >>>


Connect Power and Communications cables to all units (max. 1 units)

Press <Enter> to Continue, <Esc> to Exit to Main Menu :
```

Figure 15. Starting new batch

```
*  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *
*                                                      *
*                 BURN-IN SYSTEM                       *
*                                                      *
*  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *  *


              <<< MAIN MENU SELECTION>>>

Press <Backspace> to Start New Batch.
Press <Enter> to Re-start Current Batch.
Press <S> to Print Current Summary.
Press <R> to Print Status Report.
Press <L> to Print Luminance Report.
Press <P> to Set System Parameters.
Press >Esc> to Exit to DOS:
```

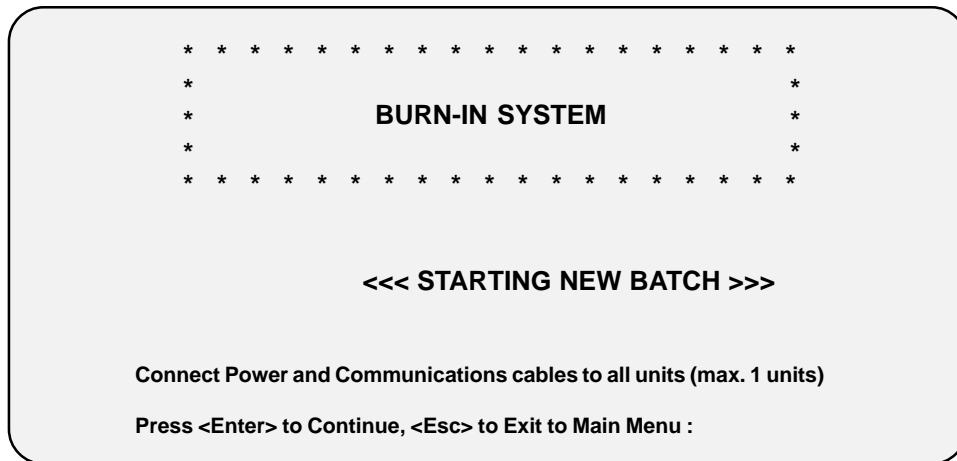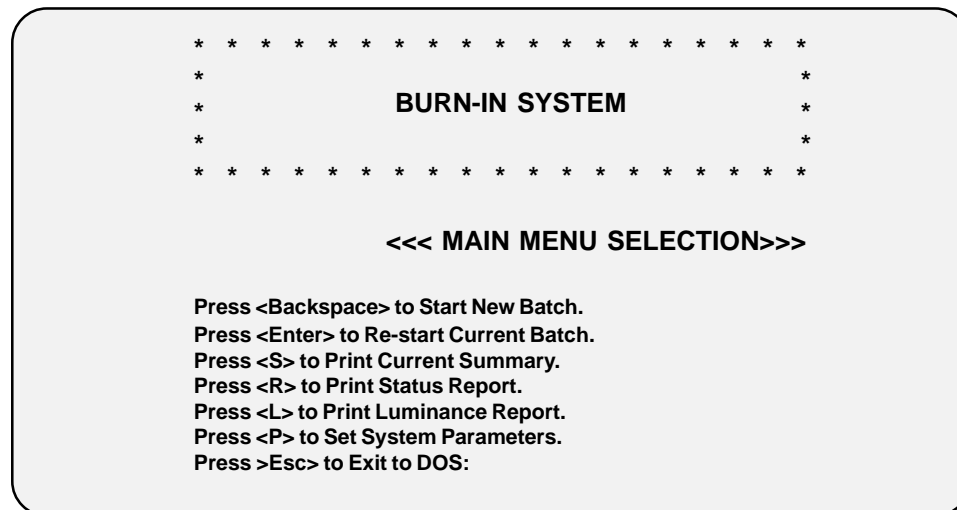**Figure 16. Main menu selection**

6. Maintenance

- It is recommended that on the first of each month the repair technician cleanup the hard drive by exporting all the accumulated log files for the past month to a floppy disk and run the Norton utility **SD** to speed up the disk by condensing it.

- It is also recommended to keep one spare Burn-In system as a back up or replacement.

- The system clock can be set by **TIMER/I** command followed by a system reboot.

- If the system hangs up at any time, reboot by pressing the **<Ctrl><Alt><Del>** keys simultaneously.

    Note: If the problem still does not go away, the fault could be with the cable, A/B switch box or parallel port.

Appendix A

Menu Selection and Flow Diagram
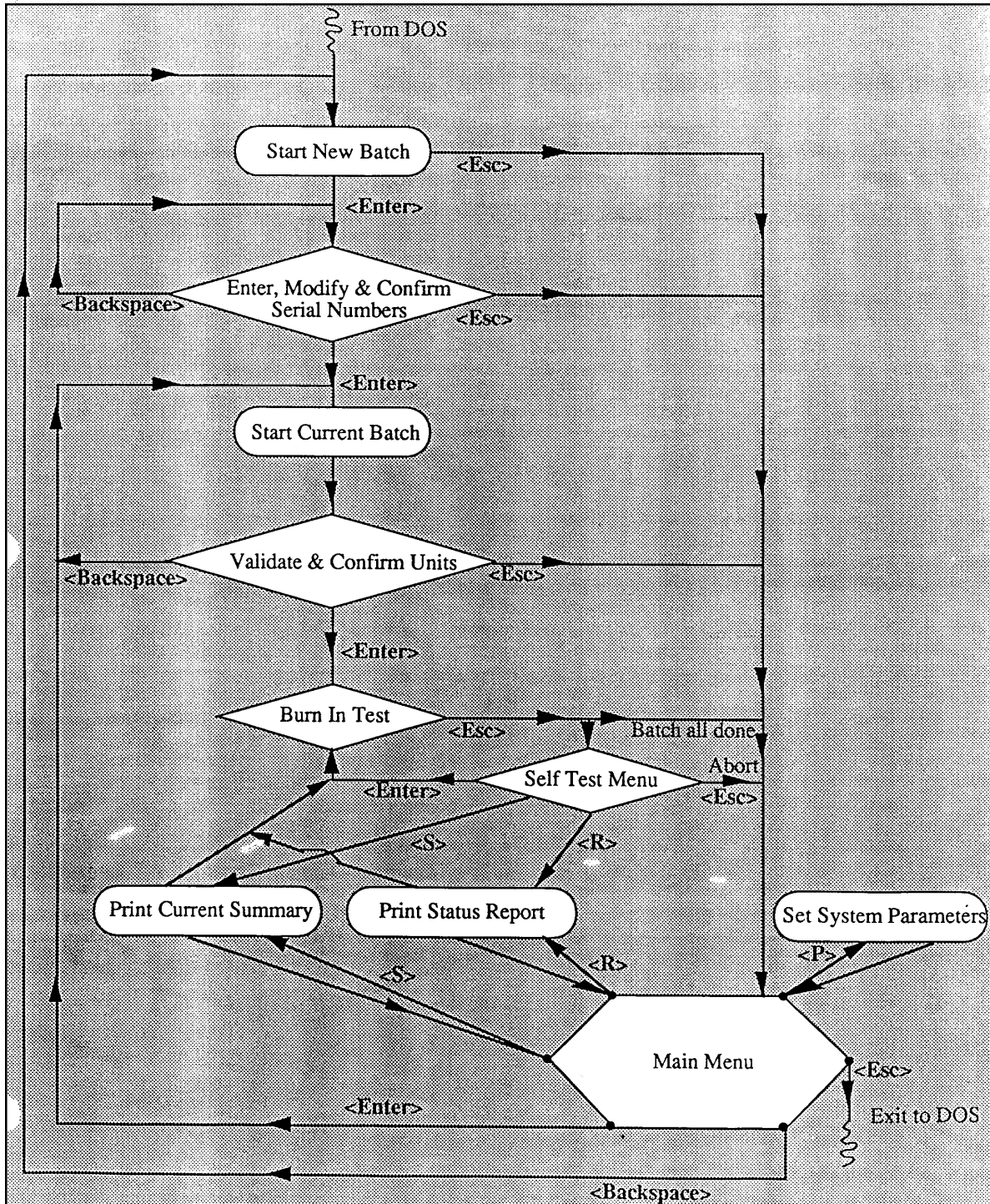
Appendix B

AUTOEXEC.BAT

```
goto %config%
:DigitalPalette
path c:\dpalette
set  dpalette=c:\dpalette\dpalette.cfg
cd hrburn
dpburnin.exe


goto end
:ProPalette
path c:\dpalette
set  dpalette=c:\dpalette\dpal.cfg
cd kaburn
dpburnin.exe
goto end
:end
```

Appendix C

Partitioning System Hard Drive
(Drive C and D)

Required Software:

•   MS-DOS 6.2 Plus Enhanced Tools (Disk 1, 2 and 3)

Note: Make sure all Error and Luminance files are backed up (saved)
before partitioning the system hard drive.

1.   When the **Starting - MS - DOS ....** message appears, press the shift key.

The MS-DOS **C:** prompt appears on the screen.

2.   At the **C:** prompt, type **FDISK**, then press **Enter**. The **FDISK Option** menu appears.

FDISK Options

Current fixed disk drive: 1
Choose one of the following:

1.   Create DOS Partition or Logical DOS Drive
2.   Set Active Partition
3.   Delete Partition or Logical DOS Drive
4.   Display Partition Information

Enter Choice: [3]

Press ESC to exit FDISK

---

3. Type menu choice **3**, then press **Enter**. The **Delete DOS Partition or Logical DOS Drive** menu appears.

Delete DOS Partition or Logical DOS Drive

Current fixed disk drive: 1
Choose one of the following:

1.   Delete Primary DOS Partition
2.   Delete Extended DOS Partition
3.   Delete Logical DOS Drive (s) in the Extended DOS Partition
4.   Delete Non-DOS Partition

Enter Choice: [1]

Press ESC to return to FDISK Option

---

4. Type menu choice **1**, then press **Enter**. A warning message appears indicating that the Primary partition will be lost.

Delete Primary DOS Partition

Current fixed disk drive: 1

Partition	Status	Type	Volume Label	Mbytes	System	Usage
C: 1	A	PRI DOS	MS-DOS_6	620	FAT16	50%

Total disk space is 1240 Mbytes (1 Mbyte = 1048576 bytes)

WARNING: Data in the deleted Primary DOS Partition will be lost.
What Primary partition do you want to delete ....?   [1]

Press ESC to return to FDISK Option

---

5. If applicable, type menu choice **1**, then press **Enter**. The **Enter Volume Label** message appears.

Delete Primary DOS Partition

Current fixed disk drive: 1

Partition	Status	Type	Volume Label	Mbytes	System	Usage
C: 1	A	PRI DOS	MS-DOS_6	620	FAT16	50%

Total disk space is 1240 Mbytes (1 Mbyte = 1048576 bytes)

WARNING: Data in the deleted Primary DOS Partition will be lost.
What Primary partition do you want to delete ....?   [1]
Enter Volume Label ....?   [MS-DOS_6   ]

Press ESC to return to FDISK Option

---

6. Type **MS-DOS_6** (volume label), then press **Enter**. A yes/no (**y/n**) message appears.

Delete Primary DOS Partition

Current fixed disk drive: 1

Partition	Status	Type	Volume Label	Mbytes	System	Usage
C: 1	A	PRI DOS	MS-DOS_6	620	FAT16	50%

Total disk space is 1240 Mbytes (1 Mbyte = 1048576 bytes)

WARNING: Data in the deleted Primary DOS Partition will be lost.
What Primary partition do you want to delete ....?   [1]
Enter Volume Label ....?   [MS-DOS_6   ]
Are you sure [Y/N] ....   [Y]

Press ESC to return to FDISK Option

---

7. Type yes (**Y**), then press **Enter**. A message appears indicating that the primary DOS partition was deleted.

Delete Primary DOS Partition

Current fixed disk drive: 1

Total disk space is 1240 Mbytes (1 Mbyte = 1048576 bytes)

Primary DOS partition deleted

Press ESC to continue

---

8. Press **Esc** key to continue. The **FDISK Option** menu reappears.

FDISK Options

Current fixed disk drive: 1
Choose one of the following:

1.   Create DOS Partition or Logical DOS Drive
2.   Set Active Partition
3.   Delete Partition or Logical DOS Drive
4.   Display Partition Information

Enter Choice: [1]

Press ESC to exit FDISK

---

9. If applicable, type menu choice **1**, then press **Enter**. The **Create DOS Partition or Logical DOS Drive** menu appears.

> **Create DOS Partition or Logical DOS Drive**
>
>
> Current fixed disk drive: 1
> Choose one of the following:
>
> 1.   Create Primary DOS Partition
> 2.   Create Extended DOS Partition
> 3.   Create Logical DOS Drive (s) in the Extended DOS Partition
>
>
> Enter Choice: [1]
>
>
> Press ESC to return to FDISK Option

10. Type menu choice **1**, then press **Enter**. The **Create Primary DOS Partition** screen appears.

> **Create Primary DOS Partition**
>
>
> Current fixed disk drive: 1
>
>
> Do you wish the maximum available size for a primary DOS Partition and
> make the Partition active (Y/N) ....?   [N]
>
>
>
>
> Press ESC to return to FDISK Option

11. Type no (**N**), then press **Enter**. A message appears indicating the total disk space.

> **Create Primary DOS Partition**
>
> Current fixed disk drive: 1
>
> Total disk space is 1240 Mbytes (1 Mbyte = 1048576 bytes)
> Maximum space available for partition is 1240 Mbytes (100%)
> Enter partition size in **Mbytes** or **percent of disk space** (%) to
> create a Primary DOS Partition ....   [50%]
>
> No Partition defined
>
> Press ESC to return to FDISK Option
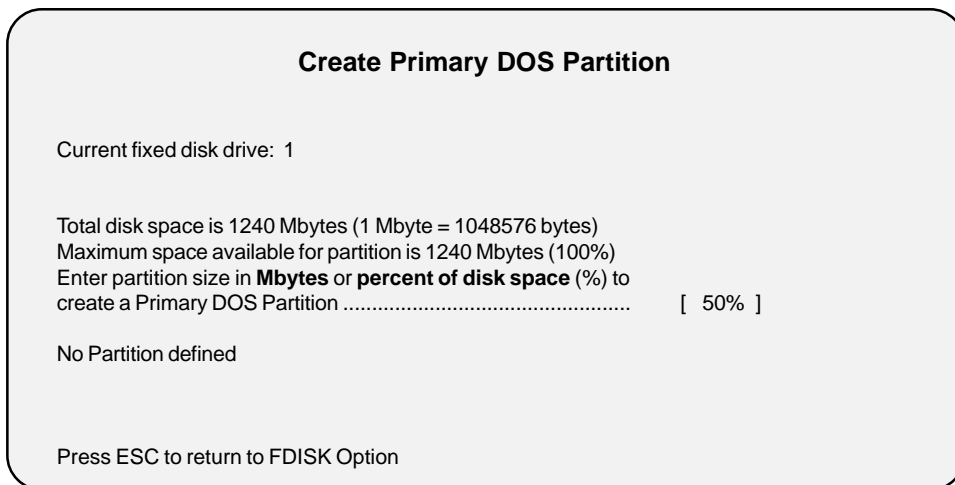
12. Type **50%** or **620** (1/2 of available space), then press **Enter**. The **Create Primary DOS Partition** screen appears indicating that the primary DOS (C) partition was created.

> **Create Primary DOS Partition**
>
> Current fixed disk drive: 1
>
> | Partition | Status | Type | Volume Label | Mbytes | System | Usage |
> |-----------|--------|------|--------------|--------|--------|-------|
> | C: 1 | A | PRI DOS | MS-DOS_6 | 620 | UNKNOWN | 50% |
>
> Press ESC to return to continue
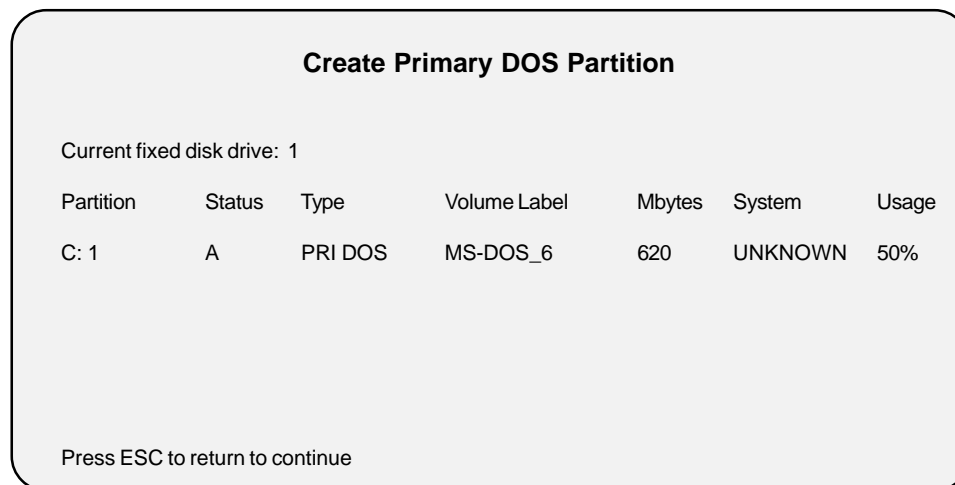
13. Press **Esc** key to continue. The **FDISK Option** menu reappears with a warning stating that no partitions set active.

FDISK Options

Current fixed disk drive: 1
Choose one of the following:

1.   Create DOS Partition or Logical DOS Drive
2.   Set Active Partition
3.   Delete Partition or Logical DOS Drive
4.   Display Partition Information

Enter Choice: [2]

WARNING: No Partitions are set active - disk 1 is not startable unless
a partition is set active

Press ESC to exit FDISK

---

14. Type menu choice **2**, then press **Enter**. The **Set Active Partition** screen appears.

Set Active Partition

Current fixed disk drive: 1

Partition	Status	Type	Volume Label	Mbytes	System	Usage
C: 1	A	PRI DOS	MS-DOS_6	620	UNKNOWN	50%

Total disk space is 1240 Mbytes (1 Mbyte = 1048576 bytes)

Enter the number of the partition you want to make active........................ :   [1]

Press ESC to return to FDISK Option

30

15. Type **1** (C), then press **Enter**. The **Set Active Partition** screen appears indicating the active status of partition 1 (C).

Set Active Partition

Current fixed disk drive: 1

Partition	Status	Type	Volume Label	Mbytes	System	Usage
C: 1	A	PRI DOS	MS-DOS_6	620	UNKNOWN	50%

Total disk space is 1240 Mbytes (1 Mbyte = 1048576 bytes)

Partition 1 made active

Press ESC to return to FDISK Option

---

16. Press **Esc** key to continue. The **FDISK Option** menu reappears.

FDISK Options

Current fixed disk drive: 1
Choose one of the following:

1.   Create DOS Partition or Logical DOS Drive
2.   Set Active Partition
3.   Delete Partition or Logical DOS Drive
4.   Display Partition Information

Enter Choice: [1]

Press ESC to exit FDISK

---

17. If applicable, type menu choice **1**, then press **Enter**. The **Create DOS Partition or Logical DOS Drive** menu appears.

Create DOS Partition or Logical DOS Drive

Current fixed disk drive: 1
Choose one of the following:

1.   Create Primary DOS Partition
2.   Create Extended DOS Partition
3.   Create Logical DOS Drive (s) in the Extended DOS Partition

Enter Choice: [2]

Press ESC to return to FDISK Option

---

18. Type menu choice **2**, then press **Enter**. The Create Extended DOS Partition screen appears.

Create Extended DOS Partition

Current fixed disk drive: 1

Partition	Status	Type	Volume Label	Mbytes	System	Usage
C: 1	A	PRI DOS	MS-DOS_6	620	UNKNOWN	50%

Total disk space is 1240 Mbytes (1 Mbyte = 1048576 bytes)
Maximum space available for partition is 1240 Mbytes (100%)
Enter partition size in **Mbytes** or **percent of disk space** (%) to
create a Primary DOS Partition ....   [620]
No Partition defined

Press ESC to return to FDISK Option

---

19.   If applicable type **50% or 620** (1/2 of available space), then press **Enter**. The **Create Extended DOS Partition** screen appears indicating that the extended DOS (2) partition was created.

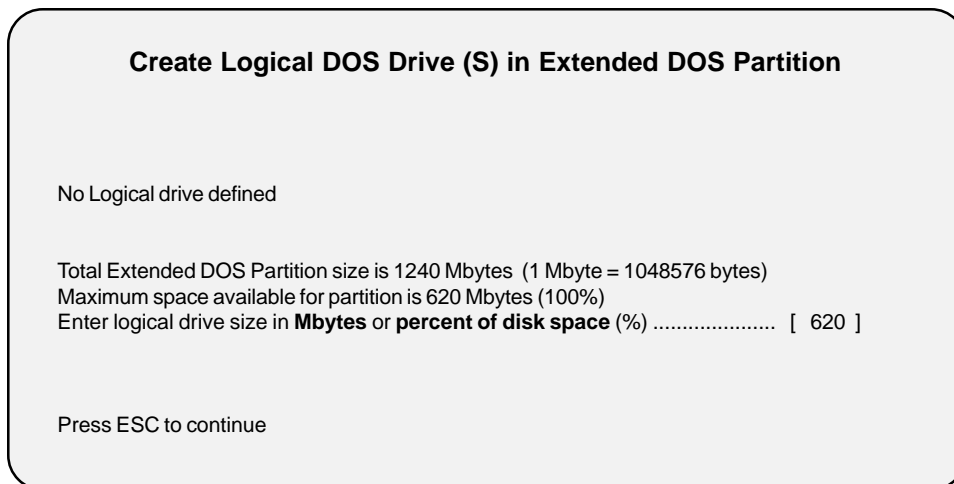
Create Extended DOS Partition

Current fixed disk drive: 1

Partition	Status	Type	Volume Label	Mbytes	System	Usage
C: 1	A	PRI DOS	MS-DOS_6	620	UNKNOWN	50%
2		EXT DOS		620	UNKNOWN	50%

Extended DOS Partition created

Press ESC to continue

---
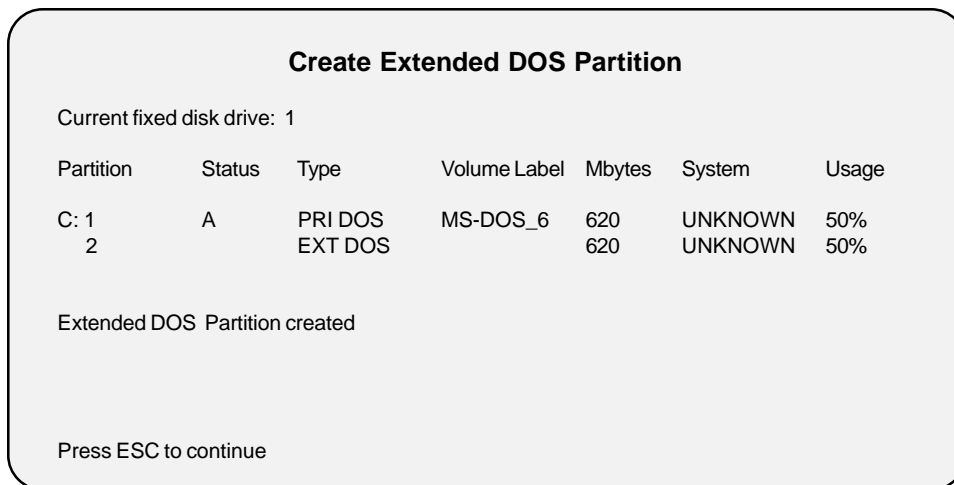
20.   Press **Esc** key to continue. The **Create Logical DOS Drive (S) in Extended DOS Partition** screen appears indicating that no logical drive was defined.

Create Logical DOS Drive (S) in Extended DOS Partition

No Logical drive defined

Total Extended DOS Partition size is 1240 Mbytes (1 Mbyte = 1048576 bytes)
Maximum space available for partition is 620 Mbytes (100%)
Enter logical drive size in **Mbytes** or **percent of disk space** (%) .... [620]

Press ESC to continue

33

21. Press **Enter**. The **Create Logical DOS Drive (S) in Extended DOS Partition** screen
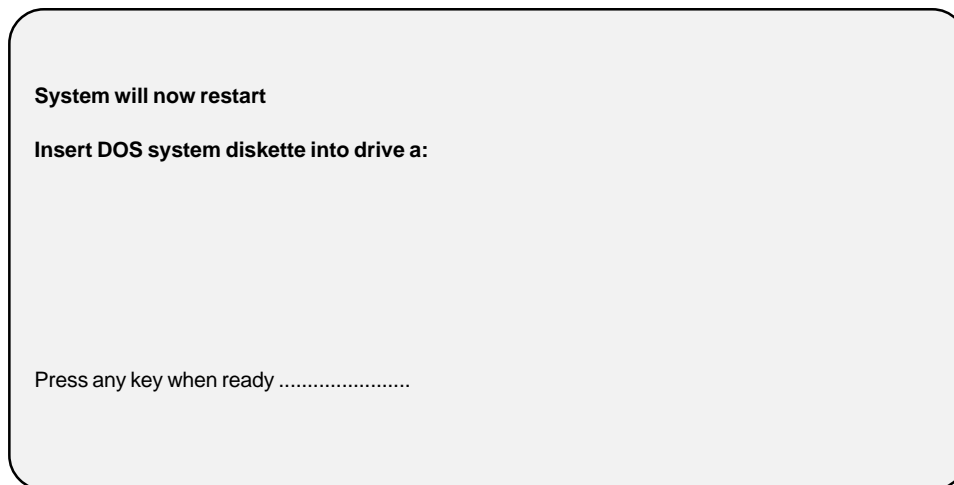   appears indicating that drive **D** was assigned to the Extended DOS partition.

Create Logical DOS Drive (S) in Extended DOS Partition

Current fixed disk drive: 1

DRV	Volume	Label	Mbytes	System	Usage
D:			620	UNKNOWN	50%

All available space in the Extended DOS Partition is assigned to logical drives

Press ESC to continue

---
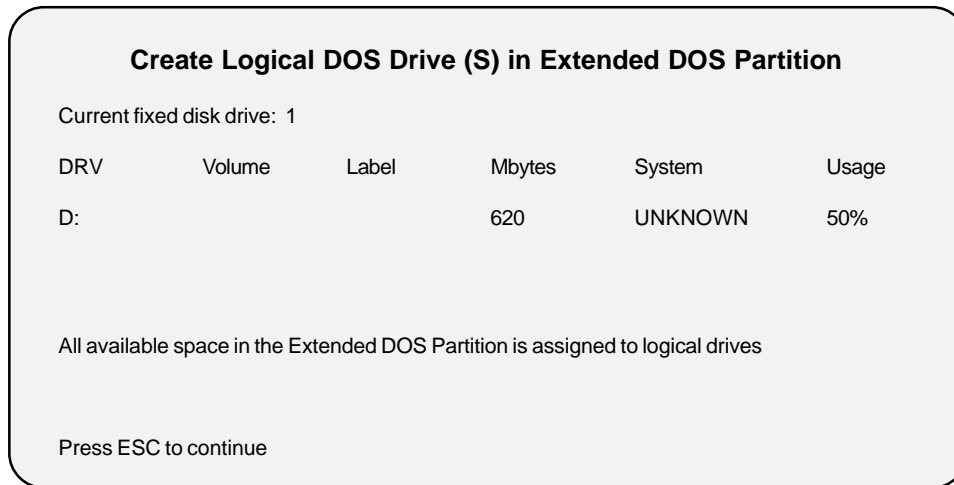
22. Press **Esc** key until system restart message appears.

System will now restart

Insert DOS system diskette into drive a:

Press any key when ready ....

---

23. Follow the on-screen instructions to reload MS-DOS.

24. Once MS-DOS is reloaded, use the DOS **Format** command to format each drive
     (C and D) starting with drive C.

Appendix D

Installing System Software
(Drive C and D)

Required Software

- ProPalette Burn-In # 564-704

- ProPalette/Digital Palette Burn-In # 562-702

Installation Procedure

Drive C

1. Insert system software diskette (ProPalette Burn-In #564-704) into drive **A**.

2. If applicable change to drive **A:** as follows:

   At the **C:** prompt, type **A:**, then **Enter**.

3. At the **A:** prompt, type **Copy A:*.* C:**, then **Enter**. A message appears indicating that the system software files are being copied.   After each message type the appropriate response.

OVERWRITE	C:COMMAND.COM (Y or N)	- Type **N** (no), then **Enter**
OVERWRITE	C:AUTOEXEC.BAT (Y or N)	- Type **Y** (yes), then **Enter**
OVERWRITE	C:CONFIG.SYS (Y or N)	- Type **Y** (yes), then **Enter**
OVERWRITE	C:CONFIG.SAV (Y or N)	- Type **Y** (yes), then **Enter**
OVERWRITE	C:AUTOEXEC.SAV (Y or N)	- Type **Y** (yes), then **Enter**
OVERWRITE	C:WINA20.386 (Y or N)	- Type **Y** (yes), then **Enter**

4. Create system file directories for drive **C:** as follows:

   - Change to drive **C:** as follows:

     At the **A:** prompt, type **C:**, then **Enter**.

   - At the **C:** prompt type:
     MD BURNIN, then **Enter**
     MD DPALETTE, then **Enter**

5. Check to see that the directories were created for drive **C:** as follows:

   At the **C:** prompt type **DIR**, then **Enter**. The created directories for drive **C:** appear.

6. Copy system files to the created directories for drive **C:** as follows:

   • Change to drive **A:** as follows:

     At the **C:** prompt, type **A:**, then **Enter**.

   • Change to the applicable directory as follows:

     At the **A:** prompt, type **CD BURNIN**, then **Enter**. The specified directory prompt
     (**A:\BURNIN>**) appears.

   • At the **A:\BURNIN>** prompt, type **COPY A:*.* C:\BURNIN**, then **Enter**.

   • Repeat steps to copy system files into directory **DPALETTE**.

Drive D

1. Insert system software diskette (Digital Palette Burn-In # 562-702) into drive **A**.

2. If applicable change to drive **A:** as follows:

   At the **D:** prompt, type **A:**, then **Enter**.

3. At the **A:** prompt, type **Copy A:*.* D:**, then **Enter**. A message appears indicating that
   the system software files are being copied.

   D:COMMAND.COM
   D:WINA20.386
   D:CONFIG.SYS
   D:AUTOEXEC.BAT

4. Create system file directories for drive **D:** as follows:

   • Change to drive **D:** as follows:

     At the **A:** prompt, type **D:**, then **Enter**.

   • At the **D:** prompt type:
     MD HRBURN, then **Enter**
     MD KABURN, then **Enter**
     MD DPALETTE, then **Enter**

5. Check to see that the directories were created for drive **D:** as follows:

   At the **D:** prompt type **DIR**, then **Enter**. The created directories for drive **D:** appear.

6. Copy system files to the created directories for drive **D:** as follows:

   - Change to drive **A:** as follows:

     At the **D:** prompt, type **A:**, then **Enter**.

   - Change to the applicable directory as follows:

     At the **A:** prompt, type **CD HRBURN**, then **Enter**. The specified directory prompt (**A:\HRBURN>**) appears.

   - At the **A:\HRBURN>** prompt, type **COPY A:*.* D:\HRBURN**, then **Enter**.

   - Repeat steps to copy system files into directory **KABURN** and **DPALETTE**.

7. If applicable, reboot the system. The system **Start-Up Menu** appears.

```
   MS-DOS 6.22 STARTUP MENU


   1.    Setup for ProPalette - 7000/564_704 Firmware
   2.    Setup for ProPalette - 8000/564_704 Firmware
   3.    Digital Palette
   4.    Setup for ProPalette - 7000 & 8000/562_702 Firmware




   Enter a choice :  1
```

Appendix E

Editing System Dos Parameters
(Bench and Rack)

Editing Parameters

Drive C

1. If applicable, reboot system.

2. When the **Starting - MS - DOS.........** message appears, hold down the shift key.

    The MS-DOS **C:** prompt appears on the screen.

3. Edit drive **C:** directories parameters as follows:

    a. At the **C:** prompt, type **CD BURNIN**, then **Enter**. The specified directory prompt
        (**C:\BURNIN>**) appears.

    b. At the **C:\BURNIN>** prompt, type **EDIT DPBURNIN.PAR**, then **Enter**. The
        DPBURNIN edit screen appears.

```
 File     Edit     Search     Option                          Help

                         ─── DPBURNIN.PAR ───

 R  2  O  E
 2520  60  20  20  31234
 3  1  4  1  4  1  4  4  4  4  4  4  4  4  4  4  4  4  4  4  4  4  4  4  4  4  4  4
 10  10000  65500
```
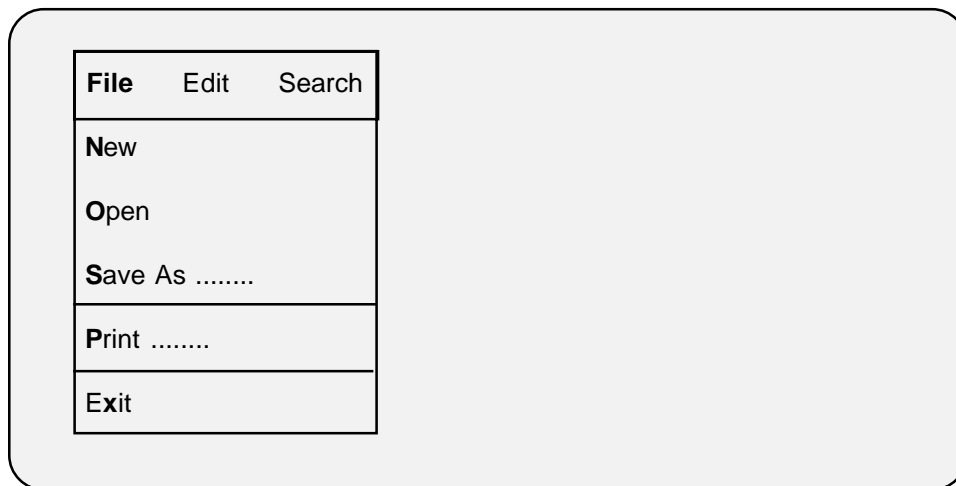
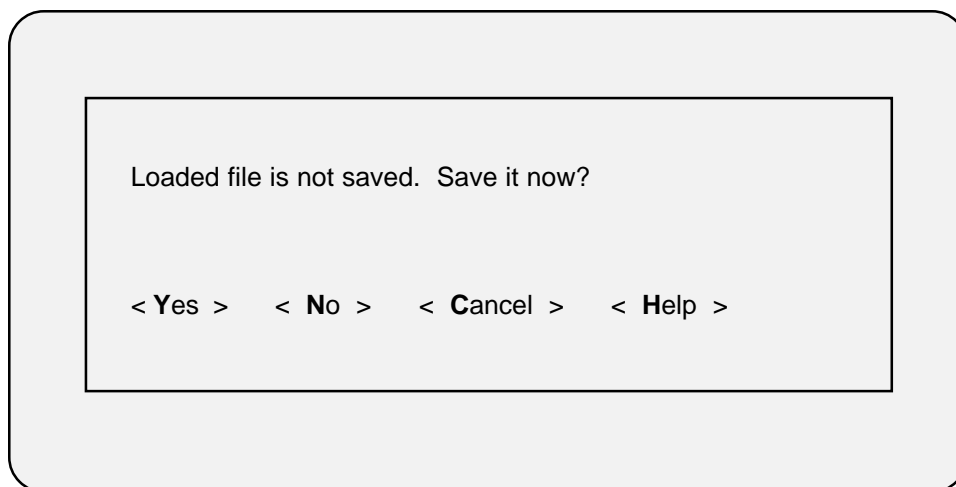c. Change the **DPBURNIN.PAR** file as follows:

Note: Only the information on the first line of the file is edited.

Bench (B) or Rack (R)

R 2 O E

LPT 1, 2, 3

- Enter **R** (Rack) or **B** (Bench).

- Enter **1**, **2**, **3** (Data Port).

d. Save the edited file as follows:

- Type **Alt F**. The File menu appears.

File	Edit	Search
New		
Open		
Save As		
Print		
E**x**it		

- Type **X** to exit. The Save menu appears.

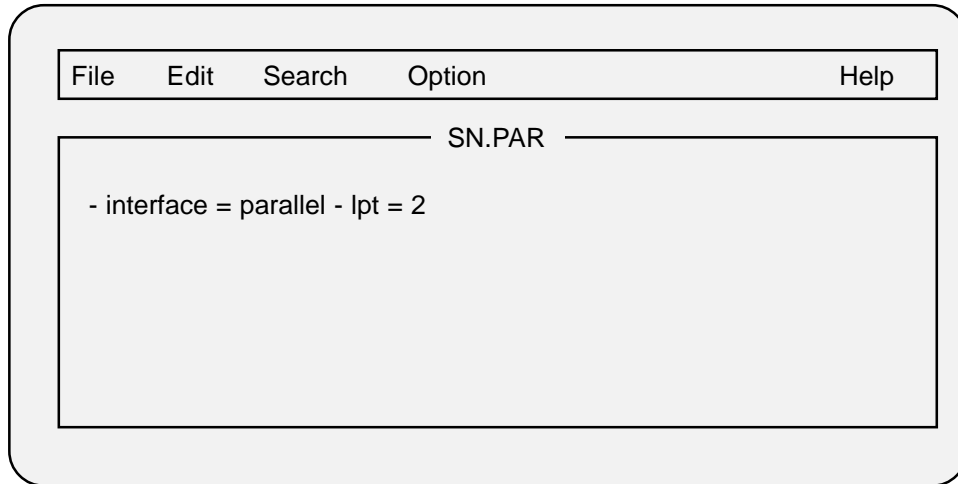Loaded file is not saved. Save it now?

< **Y**es >   < **N**o >   < **C**ancel >   < **H**elp >

- Type **Y** (yes) to save the edited file.

e. At the **C:** prompt, type **CD BURNIN**, then **Enter**. The specified directory prompt (**C:\BURNIN>**) appears.

f. At the **C:\BURNIN>** prompt, type **EDIT SN.ARG**, then **Enter**. The SN.ARG edit screen appears.

```
File     Edit     Search     Option                         Help

                    ┌─── SN.PAR ───┐

  - interface = parallel - lpt = 2
```
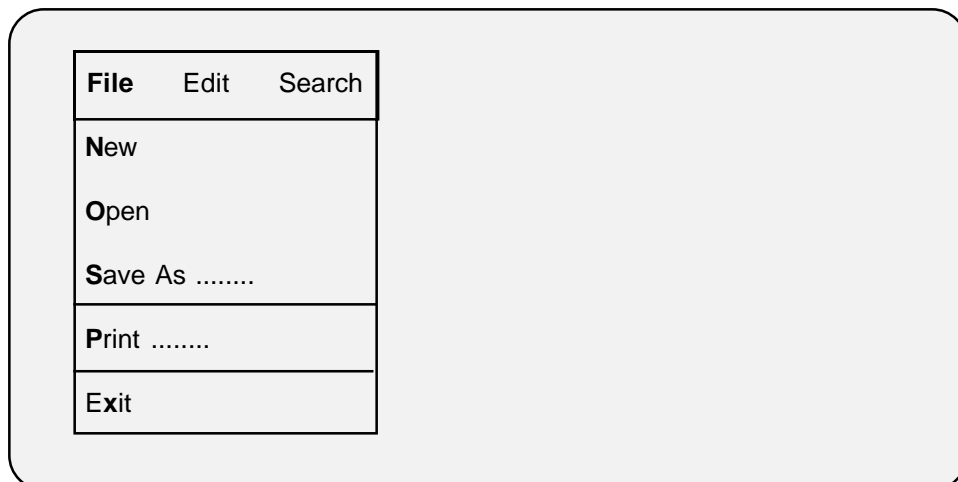
g. Change the **SN.ARG** file as follows:

Note: This file only has one information line to edit.

- interface = parallel - lpt = 2

• Enter **1**, **2**, **3** (Data Port).

h. Save the edited file as follows:

• Type **Alt F**. The File menu appears.

```
File     Edit     Search

New

Open

Save As ........

Print ........

Exit
```

- Type **X** to exit. The Save menu appears.

```
Loaded file is not saved.  Save it now?



< Yes >     < No >     < Cancel >     < Help >
```

- Type **Y** (yes) to save the edited file.

i. Repeat steps a through d to edit the **DPALETTE** file.

Drive D

1. If applicable, reboot system.

2. When the **Starting - MS - DOS.........** message appears, hold down the shift key.

    The MS-DOS **C:** prompt appears on the screen.

3. Edit drive **D:** directories parameters as follows:

    a. At the **D:** prompt, type **CD HRBURN**, then **Enter**. The specified directory prompt (**C:\HRBURN>**) appears.

    b. At the **C:\HRBURN>** prompt, type **EDIT DPBURNIN.PAR**, then **Enter**. The **DPBURNIN** edit screen appears.

```
File     Edit     Search     Option                          Help
───────────────────────── DPBURNIN.PAR ─────────────────────────

R 2 E
2520 60 20 20 31234
3 1 4 1 4 1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
10 10000 65500
```
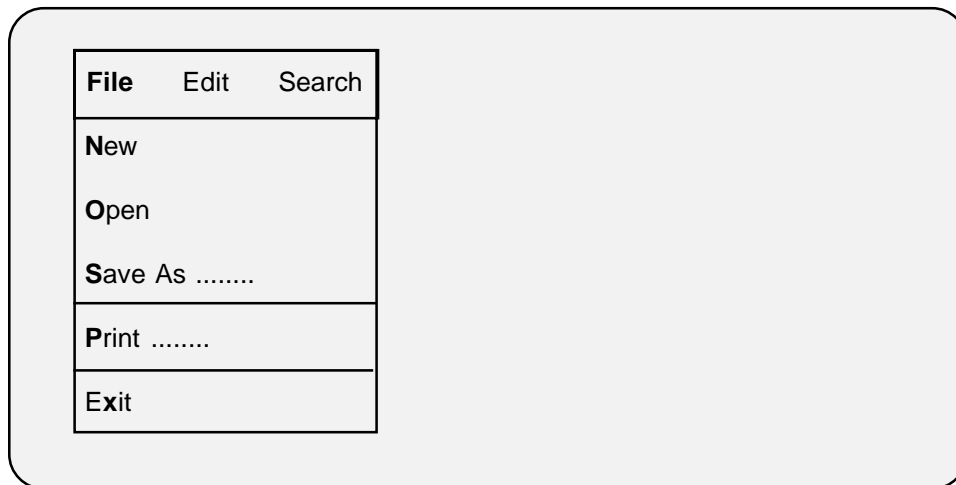
c. Change the **DPBURNIN.PAR** file as follows:

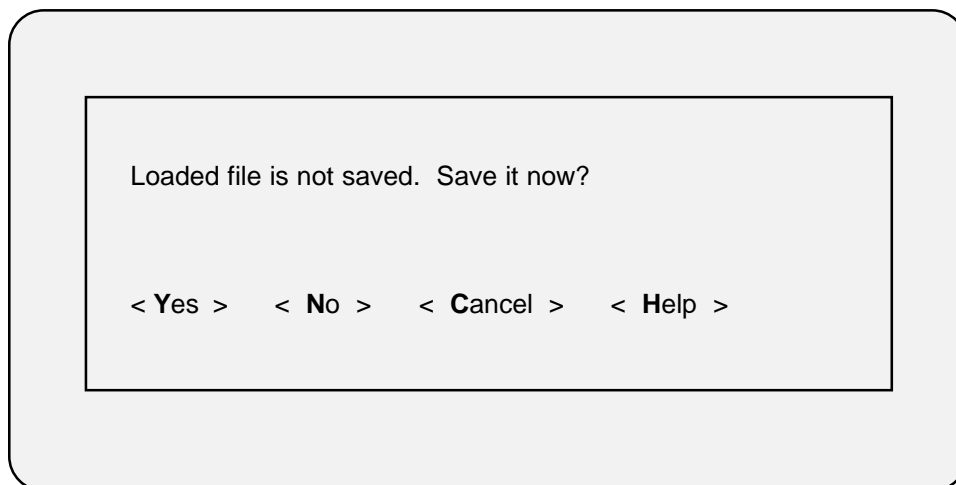   **Note:** Only the information on the first line of the file is edited.

   Bench (B) or Rack (R)

   R 2 E

   LPT 1, 2, 3

   • Enter **R** (Rack) or **B** (Bench).

   • Enter **1**, **2**, **3** (Data Port).

d. Save the edited file as follows:

   • Type **Alt F**. The File menu appears.

File	Edit	Search
New		
Open		
Save As		
Print		
E**x**it		

   • Type **X** to exit. The Save menu appears.

   Loaded file is not saved. Save it now?

   < **Y**es >   < **N**o >   < **C**ancel >   < **H**elp >

   • Type **Y** (yes) to save the edited file.

e. Repeat steps a through d to edit the **KABURN and the DPALETTE** files.

f. If applicable, reboot the system. The system **Start-Up Menu** appears.

 MS-DOS 6.22 STARTUP MENU

 1.   Setup for ProPalette - 7000/564_704 Firmware
 2.   Setup for ProPalette - 8000/564_704 Firmware
 3.   Digital Palette
 4.   Setup for ProPalette - 7000 & 8000/562_702 Firmware

 Enter a choice : 1