HP250 Utilities Manual

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Printing History

New editions of this manual will incorporate all material updated
since the previous edition. Update packages may be issued be-
tween editions and contain replacement and additional pages to be
merged into the manual by the user. Each updated page will be
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pages which are rearranged due to changes on previous page are
not are not considered revised.

The manual printing date and part number indicate its current
edition. The printing date changes when a new edition is print-
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reprint do not cause the date to change.) The manual part number
changes when extensive technical changes are incorporated.

NOTICE

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Media Initialization

The INIT Program

The INIT program is a run-only BASIC language utility which tests
media for defective tracks, establishes physical records, and
creates both main and spare file directories. To run the
program, first be sure that the medium containing utilities is
on-line. Then execute the following:

```
RUN"INIT"
```

The initial menu is:

```
                         INITIALIZATION UTILITY
   HP250


   INITIALIZE         - Tests the disc medium and prepares the medium
                        for use by the HP250.

   PURGE ALL          - Eliminates all files currently stored on
                        the specified medium.

   EXIT PROGRAM       - Terminates program.

   EXIT               - Returns to the previous menu.


   ────────────────────────────────────────────────────────────────
   Please select a function.


   ┌─────────┬─────────┬─────────┬─────────┬─────────┬─────────┬─────────┐
   │  INIT-  │         │         │         │ PURGE   │         │  EXIT   │
   │ IALIZE  │         │         │         │  ALL    │         │ PROGRAM │
   └─────────┴─────────┴─────────┴─────────┴─────────┴─────────┴─────────┘
```

To initialize a blank medium, first press the INITIALIZE
softkey. The display now indicates the mass storage devices
which are on-line; "unavailable" indicates an empty drive;
"uninitialized" indicates a blank medium.

Initialize

Press the appropriate softkey to select the medium to be
initialized. The next menu is one of the following:

Flexible Disc

```
                         INITIALIZATION UTILITY
   HP250                        INITIALIZE

   Selected device is FLEX DISC :F2,6,0.

   Media will be initialized with Interleave = 4 with standard format.

   CHANGE FORMAT   - Specifies the media format used
                     (see BASIC programming manual).

   INTERLEAVE      - Allows you to specify the
                     number of revolutions required to
                     read a track of information
                     (see BASIC programming manual).


   _____
   Please press CONTINUE to proceed.


   | CONTINUE |   |   | CHANGE  | INTER- |   |   | EXIT |
   |          |   |   | FORMAT  | LEAVE  |   |   |      |
```

5 Mb. Disc

```
                         INITIALIZATION UTILITY
   HP250.4.E                     INITIALIZE

   Selected device is 5MB  DISC :G2,7,0.

   Media will be initialized with standard format.

   CHANGE FORMAT   - Specifies the media format used
                      (see BASIC programming manual).

   DIRECTORY       - Changes directory capacity
                     (see BASIC programming manual).


   _____
   Please press CONTINUE to proceed.


   | CONTINUE |   |   | CHANGE  | DIRECTORY |   |   | EXIT |
   |          |   |   | FORMAT  |   2:768   |   |   |      |
```

Tape Cartridge

```
                         INITIALIZATION UTILITY
  HP250                        INITIALIZE

  Selected device is CTD        :K2,7,1.

  Media will be initialized with standard format.




  _____

  Please press CONTINUE to proceed.

  _____
  CONTINUE  |       |       |       ||       |       |  EXIT
            |       |       |       ||       |       |
```

If a message indicates that a tape is unavailable when a tape is really in the drive, you may have one of these situations:

1) Disc is uninitialized. In this case, switch from disc buffered mode to memory buffered mode. Use the DIRECT command as described in Chapter 6 of the BASIC manual.

2) Tape was removed from another drive. Run TAPFIX as described in Chapter 6 to check the status of the tape.

3) Drive is waiting for another tape. Run TAPFIX as described in Chapter 6 to check the status of the tape.

4) Tape is not loaded properly. Eject the tape from the drive, and reinsert it, allowing it to load properly.

7908 Disc

```
                           INITIALIZATION UTILITY
      HP250                      INITIALIZE

      Selected device is 7908 DISC :Q2,7,0.

      Media will be initialized with Interleave = 1 with standard format.

      INTERLEAVE      - Allows you to specify the
                        number of revolutions required to
                        read a track of information
                        (see BASIC programming manual).

      DIRECTORY       - Changes directory capacity
                        (see BASIC programming manual).


      _____

      Please press CONTINUE to proceed.


      _____
      CONTINUE  |         |         |         ||  INTER- |DIRECTORY|     | EXIT
                |         |         |         ||  LEAVE  | 4:1472  |     |
```

7906 Disc

```
                           INITIALIZATION UTILITY
      HP250                      INITIALIZE

      Selected device is 7906 CART :C2,5,0.

      Media will be initialized with standard format.

      CHANGE FORMAT   - Specifies the media format used
                        (see BASIC programming manual).

      DIRECTORY       - Changes directory capacity
                        (see BASIC programming manual).



      _____

      Please press CONTINUE to proceed.


      _____
      CONTINUE  |         |         |  CHANGE ||DIRECTORY|        |     | EXIT
                |         |         |  FORMAT ||  2:1200 |        |     |
```

7911 Disc

```
                         INITIALIZATION UTILITY
HP250                          INITIALIZE

Selected device is 7911 DISC   :R2,7,0

Media will be initialized with Interleave = 1 with standard format.

   INTERLEAVE       - Allows you to specify the
                      number of revolutions required to
                      read a track of information
                      (see BASIC programming manual).

   DIRECTORY        - Changes directory capacity
                      (see BASIC programming manual).



_____

Please press CONTINUE to proceed.


_____
CONTINUE  |       |       |       ||  INTER- |DIRECTORY|       | EXIT
          |       |       |       ||  LEAVE  | 4:1472  |       |
```

7912 Disc

```
                         INITIALIZATION UTILITY
HP250                          INITIALIZE

Selected device is 7912 DISC   :S2,7,0

Media will be initialized with Interleave = 1 with standard format.

   INTERLEAVE       - Allows you to specify the
                      number of revolutions required to
                      read a track of information
                      (see BASIC programming manual).

   DIRECTORY        - Changes directory capacity
                      (see BASIC programming manual).



_____

Please press CONTINUE to proceed.


_____
CONTINUE  |       |       |       ||  INTER- |DIRECTORY|       | EXIT
          |       |       |       ||  LEAVE  | 4:1472  |       |
```

To specify an alternate flexible disc media format, press CHANGE
FORMAT until the desired format appears on the screen. The HP
interchange format allows you to use the media on other
compatible HP systems. The IBM format allows you to use the
media on both HP 250 and compatible IBM systems.* A disc
interleave of 1 should be used with the IBM format.

Track Interleave refers to the number of disc revolutions needed
to read a complete track of information from a disc. You may
want to alter the disc interleave for certain less common
applications. Refer to the chart below for the default
interleave and legal range for each disc.

Disc	Default Interleave	Possible Interleave Values
7908	1	1-29
7906	1	1
Flexible	4	1-29
7911	1	1-29
7912	1	1-29
5 Mb. Disc	1	1

To specify an alternate interleave format, press the INTERLEAVE
softkey and enter the desired format number for the disc.

Applications involving a large number of files may necessitate
an increase in the size of the directory. The directory
softkey displays the current number of tracks specified for the
directory itself and the number of files that the directory
may contain.

See the table of Directory Sizes on the next page.

NOTE
When duplicating one disc from another,
both discs must have the same directory
sizes.

---

*Specifying the IBM initialization format only allows flexible
 discs to be used on either an HP 250 or an IBM system. It
 does not enable one system to read data written on disc by
 the other system; that requires unique software. In addition,
 an IBM data structure may need to be established on the disc.
 Refer to the system's operating procedures for more details.

Directory Sizes

Tracks for Directory	File Entries		Tracks for Directory	File Entries
5 Mb. Disc			**7910**	
1	368		1	384
2	768		2	800
3	1168		3	1200
4	1568		4	1616
5	1968		5	2032
6	2352		6	2432
7	2752		7	2848
8	3152		8	3248
9	3552		9	3664
10	3952		10	4080
11	4336		11	4480
12	4736		12	4896
13	5136		13	5296
14	5536		14	5712
15	5936		15	6128
7906			**7911**	
1	592		1	656
2	1200		2	1344
3	1824		3	2032
4	2432		4	2704
5	3056		5	3392
6	3664		6	4080
7	4272		7	4752
8	4896		8	5440
9	5504		9	6128
10	6128		10	6800
11	6736		11	7488
12	7344		12	8176
13	7968		13	8848
14	8576		14	9536
15	9200		15	10224
7908			**7912**	
1	352		1	656
2	720		2	1344
3	1104		3	2032
4	1472		4	2704
5	1840		5	3392
6	2224		6	4080
7	2592		7	4752
8	2960		8	5440
9	3344		9	6128
10	3712		10	6800
11	4080		11	7488
12	4464		12	8176
13	4832		13	8848
14	5200		14	9536
15	5584		15	10224

A tape cartridge has a fixed directory size. 384 sectors allow for 4080 file entries.

To begin initialization, press CONTINUE. Times are as follows:

Disc	Size	Initialization Time *
7912	64 megabyte	35 minutes
7911	27.5 megabyte	15 minutes
7908	16.7 megabyte	25 minutes
7906	9.8 megabyte	30 seconds
Flexible	1.2 megabyte	10 minutes
5 Mb. Disc	4.7 megabyte **	3 minutes
Tape	16 megabyte	20 minutes
Tape	67 megabyte	70 minutes

 * These times may vary if bad tracks/sectors/blocks are spared.

** The space available to you on the 5 Mb. Disc is 4.7 Mb. The
   balance of the disc is used for the directory.

The display indicates each test being performed. If a defective
disc track is found, its number remains displayed. For tapes,
only the total number of spared blocks is displayed.

```
                          INITIALIZATION UTILITY
   HP250                          INITIALIZE

   Selected device is FLEX DISC :F2,6,1.

   INITIALIZATION IN PROGRESS    (Interleave = 4 with standard format)

   Pattern test # 1




   _____

   System busy.


   _____
       |       |        |       ||       |       |       |
```

While tape initialization is done with one pattern test, disc
initialization is performed with varying numbers of pattern
tests. Each media has its own limit in regard to the tolerated
number of spared tracks. (See the charts on the next page.)

Disc	Pattern Tests	Maximum Tracks Spared Before Media is Unusable
7912	8	15
7911	8	15
7908	8	15
7906	1	20
Flexible	5	4
5 Mb. Disc	1	1 sector per track spared - no track sparing

If you do not exceed these limits, the number of tracks "spared"
or substituted for defective tracks is shown. As mentioned
previously, block sparing not track sparing, is done on tapes.

Tape	Pattern Tests	Number of Blocks Spared Before Tape is Unusable
150 ft.	1	32
600 ft.	1	128

The final display is:

```
                        INITIALIZATION UTILITY
    HP250                     INITIALIZE

    Selected device is FLEX DISC :F2,6,0.




    Tracks spared:






    INITIALIZATION COMPLETE.
    ─────────────────────────────────────────────────────────────
    Press RESTART to select another device or EXIT PROGRAM to stop.


    ┌──────┬──────┬──────┬──────┬┬──────┬────────┬──────┬────────┐
    │      │      │      │      ││      │RESTART │      │EXIT    │
    │      │      │      │      ││      │        │      │PROGRAM │
```

If a data-recovery error occurs during initialization, the
utility cannot read data from the media. This may be caused by a
defective media, or dust on the media surface. To verify the
error, attempt to initialize the media again.

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Purge All

The purge-all routine re-initializes the main and spare direc-
tories on a medium, in effect performing a "fast initializa-
tion". This routine does not test the entire media, and cannot
be used on new (blank) media.

To purge all files, first press the PURGE ALL softkey. Then
select the drive holding the medium to be purged. Next, press
the CONTINUE softkey to start the routine. PURGE ALL takes
only a few seconds.

```
                          INITIALIZATION UTILITY
    HP250                      PURGE ALL

    Selected device is FLEX DISC :F2,6,0.













    ALL FILES PURGED.
   _____
    Press RESTART to select another device or EXIT PROGRAM to stop.
   _____

   |     |     |     |     ||     | RESTART |     |  EXIT
   |     |     |     |     ||     |         |     | PROGRAM
```

Backup and Software Duplication

The Full Volume Backup Utility

The FVBACK (full volume backup) program is a BASIC-language
utility which allows you to rapidly copy the entire contents of a
disc to a backup file contained on a cartridge tape. Backup
files may also be restored from the tape to a disc using this
program. Your system must have either an HP 7908, 7911, or 7912
disc with an integrated cartridge tape drive (CTD) to use this
program.

The FVBACK program is not file oriented; it copies entire
volumes. If a selective file backup is desired, use the BACKUP
program described in this chapter.

A special file type, BKUP, is used for the backup data. When
more than one BKUP file is required because the source device is
larger than 65535 sectors, the FVBACK program will automatically
allocate additional BKUP files.

Backup and Software Duplication

To run FVBACK, execute the following:

RUN ''FVBACK''

The initial menu is:

```
HP250                        FULL VOLUME BACKUP UTILITY



        BACKUP    - Backup an entire volume to a cartridge tape.


        RESTORE   - Restore an entire volume from a cartridge tape.




                        VERIFY IS OFF


_____
Please select a function.


_____
 BACKUP  |         | RESTORE |         ||         | CHANGE  |       | EXIT
         |         |         |         ||         | VERIFY  |       | PROGRAM
```

To copy a disc to a tape file, press the BACKUP key.

To restore a disc from a previously created backup file on the tape, press the RESTORE key.

The VERIFY key will toggle the verify mode from ON to OFF or from OFF to ON.

To exit the utility, press EXIT PROGRAM.

When the BACKUP key is selected in the initial menu, the program prompts you for the source volume and the volume to contain the destination file. A menu displaying all discs on the system appears in the format shown on the following page.

```
HP250                      FULL VOLUME BACKUP UTILITY
                                  BACKUP VOLUME


                 LABEL          DEVICE              COMMENT

                 UTILITY    FLEX DISC :F2,6,0
                            FLEX DISC :F2,6,1    unavailable
                            7908 DISC :Q2,7,0




    _____
    Please select source volume.



    ┌─────────┬─────────┬─────────┬─────────┬────┬─────────┬─────────┬────────────┐
    │ UTILITY │         │         │         │    │         │         │       EXIT │
    │ :F2,6,0 │ :F2,6,1 │ :Q2,7,0 │         │    │         │         │            │
```

Press the key labeled with the disc you wish to backup.

The EXIT key causes the program to return to the main menu.

After the source device has been selected, the program prompts you for the destination device. A menu displaying all of the Cartridge Tape Drive (CTD's) on the system appear. The menu looks like the following:

```
HP250                      FULL VOLUME BACKUP UTILITY
                                  BACKUP VOLUME


                 LABEL          DEVICE              COMMENT

                            CTD     :K2,7,1






    _____
    Please select destination volume to contain backup file.


    ┌─────────┬─────────┬─────────┬─────────┬────┬─────────┬─────────┬────────────┐
    │         │         │         │         │    │         │         │       EXIT │
    │ :K2,7,1 │         │         │         │    │         │         │            │
```

Backup and Software Duplication

Press the key labeled for the tape to contain the backup file.

NOTE

Performance is maximized when a disc containing
an integrated CTD is backed up to that CTD.

Press the key labeled EXIT to return to the main menu.

After the devices have been selected, the following form is
displayed:

```
  HP250                    FULL VOLUME BACKUP UTILITY
                                 BACKUP VOLUME


        DATE (optional)      09/18/81            SOURCE        :Q2,7,0

        TIME (optional)      14:18               DESTINATION   :K2,7,1

        BACKUP FILE NAME     FVBFIL



        Comment (optional)   ████████████████████████████



   Please complete this form and press CONTINUE.


   CONTINUE                                                    EXIT
                                                               PROGRAM
```

The DATE, TIME and COMMENT fields need not be filled in. If the
TIMER DROM is loaded and the date and time are set, they are
automatically displayed. The date and time are stored in a
header for the backup file. The COMMENT field is also stored in
the backup file header. The default backup file name is filled
in by the program. You can change this to any valid file name.
If you want to have more than one backup file on a tape, the
files must have different names.

The source and destination devices are displayed only, and cannot
be changed on this screen.

When the data is correct, press the CONTINUE key to continue with
the backup.

3-4

The BACKUP mode selected from the previous screen is displayed, along with the default values for the checkread option, mark files option, and printer select code. If you wish to change any of the options listed, press the appropriate softkey. When you have the options you desire, press CONTINUE BACKUP and the next screen will appear, asking you for source file selections.

If you change the printer, you will be asked to input a new printer select code. It is highly recommended that you respond with the select code for a hard copy device. This will give you a reference listing of all the backed up files as well as the usual CRT displays that the utility is operating. Changing the checkread to "NO" means that an automatic checkread will not be performed on each file as it is duplicated, saving some time, but sacrificing some reliability.

The Source Volume Select screen lists the drives on-line and the label of each disc inserted. "Unavailable" in the comments field indicates that a disc is not inserted, the medium is not initialized, or the disc has an IBM format.

```
                            VOLUME BACKUP UTILITY
     HP250.4.C                SOURCE VOLUME SELECT                 09/30/81

     The source volume is the volume that contains the information to be backed up.
     You may select any one of the available volumes listed below.

                    LABEL        DEVICE              COMMENT
                    VOL1         FLEX DISC :F2,6,0
                    FILES        5MB  DISC :G2,7,0




     _____
     Please select the volume to be backed up.


     _____
       VOL1  |  FILES  |        |       ||       |       |       |     EXIT
      :F2,6,0| :G2,7,0 |        |       ||       |       |       |
```

Softkey #7 will be set to MORE DEVICES if there are more than seven volumes on-line. Pressing this key will cause up to 4 more device softkeys to be set.

The key for an empty disc drive, or a drive with an uninitialized disc will be labeled NOT AVAILABLE. Nothing will happen when this key is pressed.

Backup and Software Duplication

If you choose the Selected Files Mode, the Source File Menu will
appear next. Otherwise, you will go directly to the Destination
Volume Select.

When you identify the drive containing the source disc by
pressing the appropriate softkey, the new menu appears.


```
                          VOLUME BACKUP UTILITY
    HP250                 SOURCE FILE SELECT                09/30/81


    You may now do a CATalog of the source volume.  You may enter a line
    of the CATalog displayed or you may type and enter the name of a file
    to be backed up.  You may enter up to 50 files.













    _____
    Please select a function or enter names of files to be backed up.


    ┌─────────┬─────────┬─────────┬─────────┬─────────┬─────────┬─────────┬─────────┐
    │ SOURCE  │CONTINUE │         │         │         │         │ CHANGE  │  END    │
    │ CATALOG │ BACKUP  │         │         │         │         │ SOURCE  │ UTILITY │
    └─────────┴─────────┴─────────┴─────────┴─────────┴─────────┴─────────┴─────────┘
```


If you enter file names in response to this menu, each name is
checked to be sure that it exists and is not a data base file.
If you made a mistake, an error message appears next to the
incorrect file name and you will be asked to correct the
information.

If you press the SOURCE CATALOG softkey a catalog of the source
volume will appear one-screen-at-a-time. During the time the
catalog is being displayed, the following softkeys change
function:

            softkey 1 becomes CONTINUE CATALOG
            softkey 8 becomes STOP CATALOG

All other softkeys cease to function until the catalog is
stopped. When there are no more files to be displayed in the
catalog, the CONTINUE CATALOG softkey is erased.

Pressing CONTINUE BACKUP causes the destination volume select screen to appear.

```
                             VOLUME BACKUP UTILITY
   HP250.4.C                 DESTINATION VOLUME SELECT                09/30/81

   The destination volume is the volume that will receive the backup.  It cannot
   have the same address as the source volume and should be removable.

                 LABEL          DEVICE                COMMENT
                 VOL1       FLEX DISC :F2,6,0
                 FILES      5MB  DISC :G2,7,0     SOURCE






   _____
   Please select the volume to receive the backup.


   _____
   | VOL1  |  NOT     |        |       ||       |       |       |  EXIT     |
   |:F2,6,0|AVAILABLE |        |       ||       |       |       |           |
```

After selecting the source volume, the next menu appears. To identify the drive containing the destination volume, press the softkey with the appropriate label. The destination medium cannot be the same as the source medium, and should be removable. The "Device" column shows the drives on-line and the label of each media inserted. "Unavailable" in the comments column indicates that either a media is not inserted or that the medium is not initialized. "SOURCE" in the comments column means that this volume cannot be used for the destination.

When you press the softkey to choose your destination volume, a volume confirmation form appears.

The Confirmation Menu lists the source volume name and address, the destination volume and location, and a sequence number. The sequence number is the current number of the backup volume.

```
                            VOLUME BACKUP UTILITY
    HP250               DESTINATION VOLUME CONFIRMATION              09/30/81

    The destination volume is the volume that will receive the backup.  It cannot
    have the same address as the source volume and should be removable.  Currently
    the source volume is  on :Q2,7,0 and the desired destination volume is
     on :K2,7,1.

    SOURCE:███████  ON :Q2,7,0  DESTINATION:███████  ON :K2,7,1 SEQUENCE #1
                        7908 DISC                         CTD
    The destination disc contains files.  You may erase the disc prior to
    continuing.  The largest available space is 59452 physical records.




    _____
    Please select a function.


    ┌─────────┬─────────┬─────────┬─────────┬─┬─────────┬─────────┬─────────┬─────────┐
    │ DEST.   │ ERASE   │         │ CONTINUE│ │         │         │ CHANGE  │ END     │
    │ CATALOG │ DEST.   │         │ BACKUP  │ │         │         │ DEST.   │ UTILITY │
    └─────────┴─────────┴─────────┴─────────┴─┴─────────┴─────────┴─────────┴─────────┘
```

At this time, you can ask for a catalog of the destination
volume, change the destination volume, or erase the volume.

Pressing DEST. CATALOG produces the same kind of catalog produced
for the source volume. The ERASE DEST. label only appears if
there are files on the destination disc. Pressing softkey #2
will cause a menu to appear in which you are asked to CONFIRM
ERASE or CANCEL ERASE. The RELABEL DEST. label only appears if
the medium label does not match what you have specified.

To begin duplication, press CONTINUE BACKUP.

```
                         VOLUME RECOVERY UTILITY
 HP250.4.C              DESTINATION VOLUME CONFIRMATION              09/30/81

 The destination volume is the volume that will be restored by the recovery.
 It may not be the same volume as the source volume.

 Important notes: Database files can not be recovered with this utility.

 Recovery mode VOLUME RECOVERY  Destination volume FILES    on :G2,7,0
 Printer is      8                                          5MB   DISC


 The destination disk contains files.  If there is a file with the same name
 in the backup file, the backup copy will not be restored.



 _____
 Please select a function.


 _____
 | CHANGE  | CHANGE | CHANGE | DEST.   ||CONTINUE |        |        |  END    |
 | PRINTER |  MODE  | DEST.  | CATALOG ||RECOVERY |        |        | UTILITY |
```

If you press the softkey CHANGE PRINTER, you will be asked to
enter a new printer select code. It is recommended that you
respond with the select code for a hard copy device. This will
give you a reference listing of the recovered files and all of
the CRT displays. If you CHANGE MODE to "selected files" or
have previously chosen this mode and now press CONTINUE RECOV,
the next screen to appear will ask you to input the names of the
files to be recovered. Otherwise, the next screen will be the
Source Volume Select.

```
                              VOLUME RECOVERY UTILITY
  HP250                        RECOVER FILE SELECT                    09/30/81

  The HP250 Recovery Utility will allow you to enter up to 10 names of files
  to be recovered.  You may enter them now.

  Please select a function or enter names of files to be backed up.
  _



















  _____
  CONTINUE |        |        |        ||        |        |        |
  RECOVERY |        |        |        ||        |        |        | EXIT
```

The next screen asks you to specify the name of the BACKUP file
and the protect code. The recovery displays entries for both
fields, which you may alter. When you have entered the required
information, press PROCESS DATA to continue. This causes the
Source Volume Select to appear. Having provided the names of
individual files and the name of the BACKUP file in which they
reside, you are now asked to mount and select the appropriate
disc.

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Remote I/O Configuration (RFIG)

To review and/or change the configuration for each I/O port, either enter 9 during the initial CONFIG menu or run the RFIG program. The initial menu is as follows:

```
HP250                HP 250 MULTIPLE TASK AND REMOTE I/O CONFIGURATION
Port   Class      ID   Type Format Nulls TSKID Memory Remarks
DESK   Workstn         INTG                  1   32K
  1    Workstn         2649                  2   64K
  2    Workstn         2622                  3   32K
  3    Printer    13   26xx   8N1
  4    Terminal   14   TTY    8N1      ---
  5    Terminal   15   26xx   8N1                         PLOTTER
  6             none
  7             none
  8             none
  9             none
 10             none
S-TASK  *YES*                            4   32K
S-TASK
S-TASK
S-TASK
S-TASK

Please select a function.

  ALTER                                      RESTART      NEXT MENU
  FIELD
```

The configuration table shows the device class (computer, terminal, printer, or workstation), device type, data transfer format, and size of user memory block assigned to each workstation or background task. The appropriate information of each I/O port is entered when a device is added to your system and should not be altered until system configuration changes. Here's a summary of each field:

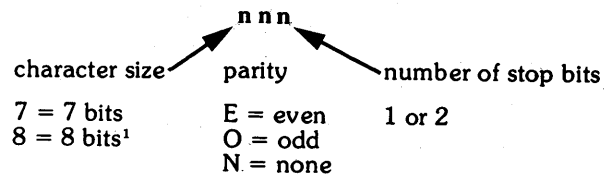ID - Device address for each port.

Class - Device class designation: terminal, printer, computer, or none.

Port - I/O port number on ASI, or secondary task.

Type - Specific HP product number or general class (e.g., TTY indicates teletype). Default type is entered for each class, but should be altered to indicate product number.

2-13

Format - This code summarizes the data format used:

$$\underset{\text{character size}}{\nearrow} \quad nnn \quad \underset{\text{number of stop bits}}{\nwarrow}$$

character size   parity   number of stop bits

7 = 7 bits   E = even   1 or 2
8 = 8 bits[1]   O = odd
                    N = none

The format needed for each device is shown in the device manual.

Nulls - indicates the number of null characters sent after every carriage return. This is to ensure that the remote device has sufficient time to do a carriage return and linefeed before it receives additional data. The manual accompanying the device describes the number of nulls necessary. (HP264x, HP263x, and HP 3000 ports do not need nulls.)

TSKID - indicates the priority level assigned to the workstation, or background task.

Memory - indicates the size block of user memory assigned to the workstation.

Remarks - a 28-character field for task comments.

When system configuration is changed (e.g., a new terminal is added, or printer is removed), the appropriate line(s) in the table must be altered to reflect current configuration. To alter each field, position the cursor within the field and press the ALTER FIELD softkey.

*The most-significant bit (8th bit) is ignored.

For example, to alter the printer "TYPE" field in the previous
table:

```
HP250              HP 250 MULTIPLE TASK AND REMOTE I/O CONFIGURATION
Port  Class       ID   Type Format Nulls TSKID Memory Remarks
DESK  Workstn          INTG                 1    32K
  1   Workstn          2649                 2    64K
  2   Workstn          2622                 3    32K
  3   Printer     13   TTY  8N1    ---
  4   Terminal    14   TTY  8N1    ---
  5   Terminal    15   26xx 8N1                        PLOTTER
  6     none
  7     none
  8     none
  9     none           _
 10     none
S-TASK *YES*                             4    32K
S-TASK
S-TASK
S-TASK
S-TASK
```

Please select a function.

| ALTER FIELD | | | | | | RESTART | | NEXT MENU |

Now select a new assignment for port 2 by positioning the cursor
in the second "CLASS" field, and pressing "ALTER FIELD", then
"none". To alter the Remarks line for port 2, move the cursor to
the field and press ALTER FIELD:

```
HP250              HP 250 MULTIPLE TASK AND REMOTE I/O CONFIGURATION
Port  Class       ID   Type Format Nulls TSKID Memory Remarks
DESK  Workstn          INTG                 1    32K
  1   Workstn          2649                 2    64K
  2     none
  3   Printer     13   TTY  8N1    ---
  4   Terminal    14   TTY  8N1    ---
  5   Terminal    15   26xx 8N1                        PLOTTER
  6     none
  7     none
  8     none
  9     none
 10     none
S-TASK *YES*                             3    32K
S-TASK
S-TASK
S-TASK
S-TASK
```

| | | | | | | | | EXIT |

Type the new remark and press ⟨↑⟩ .

When a 2622D personal workstation is connected to a port, the
configuration of that port must be changed. Move the cursor to
the "TYPE" column for the port, and select ALTER FIELD. Two keys
will appear and you select the type of workstation you have
connected to the port.

To record the new I/O configuration, press NEXT MENU and then
RECORD CONFIG. The new I/O configuration is not loaded, however,
until the operating system is reloaded.

```
HP250              HP 250 MULTIPLE TASK AND REMOTE I/O CONFIGURATION
Port  Class     ID  Type Format Nulls TSKID Memory Remarks
DESK  Workstn       INTG                 1    32K
  1   Workstn       2649                 2    64K
  2    none                                          NOTHING HERE NOW
  3   Printer   13  TTY  8N1    ---
  4   Terminal  14  TTY  8N1    ---
  5   Terminal  15  26xx 8N1                         PLOTTER
  6    none
  7    none
  8    none
  9    none
 10    none
S-TASK *YES*                             3    32K
S-TASK
S-TASK
S-TASK
S-TASK
────────────────────────────────────────────────────────────────
Please select a function.
────────────────────────────────────────────────────────────────
  RECORD    │        │        │  PRINT  │ │ PREVIOUS │       │ EXIT RFIG
  CONFIG    │        │        │  CONFIG │ │  MENU    │       │
```

RECORD CONFIG - Records the configuration (including changes just
                made) on the disc. Reload the operating system
                to use the new configuration.

PRINT CONFIG - Prints a copy of the current table.

PREVIOUS MENU - Returns you to the initial I/O configuration
                menu.

EXIT RFIG -   Returns you to the initial CONFIG menu.