



Addendum For Model II Mailing List System

Version 2.0 of the MLS contains changes to MLS/BAS, SETUP/BAS and MLSFIX/BAS which accomplish the following:

1. The user's index file (name1, where "name" is the system name assigned by the user during Setup) has been changed to a DIRECT access file instead of a Sequential access file. This change reduces the amount of diskette space required to hold the file and avoids the occasional disk write failures that some users have experienced with sequential access files. The time to load or save the index file is approximately the same as before. For users who have data files saved under previous versions of MLS, it is only necessary to run MLSFIX after the Version 2.0 program files have been transferred to the user's old diskette. MLSFIX/BAS will kill the old (sequential) name1 file, re-sort all records and create a new (direct) name1 file.
2. SETUP/BAS was changed to pre-allocate diskette space for the user's index and data files. During an initial Setup, after the user has specified a system name and selected either Compressed or Expanded Format, the following question will be asked:

Reserve space for how many records (MAX = nnnn)?

(nnnn can be a maximum of either 3000 or 2000, depending on format.) You may respond with any number from 1 to MAX and space for that many data and index records will be reserved on the diskette. This will prevent excessive segmentation of the user files, avoiding a possible directory overflow and speeding up disk I/O. Note that if, in the future, the user should exceed the selected number of records, the files will be extended automatically and no failure will occur. Reserving space less than MAX will be of most use to those users who want to have several sets of MLS files on the same diskette.

3. Line Printer II Users: Two optional program modules have been added to the MLS diskette. These are SETUPLP2/ASC and MLSLP2/ASC, both ASCII format BASIC files. They allow owners of the Line Printer II to configure SETUP/BAS and MLS/BAS to print labels in the two formats designed by Trinity Forms to fit on the fixed 9½" carrier width of the Line Printer II. These are 3¾" by 1" and 3¾" by 2" labels, both in a two label across configuration. To re-configure the system, do the following:

1. Go to BASIC and type: LOAD "SETUP/BAS" and press ENTER
2. Type: MERGE "SETUPLP2/ASC" and press ENTER
3. Type: SAVE "SETUP/BAS" and press ENTER
4. Type: LOAD "MLS/BAS" and press ENTER
5. Type: MERGE "MLSLP2/ASC" and press ENTER
6. Type: SAVE "MLS/BAS" and press ENTER

The preceding steps will replace the five original label format options with the two options which are compatible with the Line Printer II. The change to SETUP/BAS merely establishes the initial default label as 3¾" by 1", two across.

ADDENDUM

CONVERSION PROGRAM FOR USE IN 50 Hz COUNTRIES

This Disk contains conversion programs for operating under 50 Hz power sources. If you have a 60 Hz power source (USA, etc.) these programs must not be executed, and should be removed from the Disk.

Converting to 50 Hz

The Model II diskette in this package contains a program called HERZ50. You should use the HERZ50 modification provided **BEFORE** you run programs.

To perform this modification, follow these steps:

1. Power-up normally
2. After entering the Date and Time, type: **DOHERZ50**
3. Press **ENTER** after each of the messages:

This conversion program will permanently convert the operating system to 50 Hertz operation. Once a disk is converted, it cannot be converted back to 60 Hertz operation.

Removing 50 Hz Programs

Now you should remove the HERZ50 program by following these steps:

1. After Power-up, entering the Date and Time
2. The screen will show:
DOS READY
ENTER PASSWORD OF DISK TO PURGE (1-8)
FILENAME*DELETE (Y/N/Q)
*Various filenames will appear, continue to press **N** until you reach the one you want.
You type:
PURGE
PASSWORD and press **ENTER**
N and press **ENTER** (until filename PATCH appears.
Type **Y** and press **ENTER** to delete PATCH.
Type **N** and press **ENTER** until HERZ50 appears.
Type **Y** to delete HERZ50, then type **Q** to QUIT.
- 3.
- 4.
- 5.
6. You may now run the Main Program.

Radio
Shack®

Mailing List System

TRS-80™
MODEL II

First Edition — 1979

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Introduction

One of the most tedious jobs in any business or organization is keeping track of names and addresses. Normally, the poor secretary assigned to the task has to wade through hundreds of index cards, selecting dozens of specific articles for selective mailing. Then comes the time-consuming task of addressing envelopes.

The Model II Mailing List System (MLS) is designed to make the secretary's life much easier. This program can store up to 30000 names and addresses, available for update at any time. Each name may also be assigned to up to eight special mailing lists. Any number of names may be selected through the computer and printed for future use. Finally, the program will print the selected addresses plus your return address on the envelopes.

Features

1. Automatically puts records in alphabetical and Zip Code order.
2. Rapid access to any name on the list.
3. Easy error correction.
4. Prints listings and mailing labels.
5. Prints your own return address labels.
6. Revise or update any information at any time.
7. Stores up to 30000 names.

A Note to the First-Time Computer User

If you have never operated a computer before, don't worry. This manual was written to help you through every section of the program step-by-step. We'll tell you exactly what to do, and when to do it. We'll also point out some special features as we go along that will make running the program easier.

Some Decisions You Must Make Before Running MLS

When you type your list of names into the computer, you will be using a format that looks like this:

```
ADD NEW RECORDS TO FILE

LAST RECORD 4 .....

First Name Middle Initial -----
Last or Company Name -----
Company Name or Tel. Number -----
Street Address or Box Number -----
City or Town -----
State (Use Letter Abbrev.) -----
Zip Code or Country -----

Categories:
1 -
2 -
3 -
4 -
5 -
6 -
7 -
8 -
9 -
10 -
11 -

Remarks -----

Press F1 to exit to MAIN MENU or F2 to store record.
```

As you can see, this format will include important information about each name in your mailing list. Every item is followed by a line, where you will type the information. Each line can hold a certain number of characters.

There are two types of formats that you may use:

Compressed Format — this gives you less room for entering information, but lets you enter more names (30000).

Expanded Format — this gives you more room for entering information, but you use less names (20000).

Decisions You Must Make (continued)

Here are the exact amounts of space you are allowed for each item:

	Compressed	Expanded
First Name, Middle Initial	Up to 9 characters	Up to 16 characters
Last or Company Name	Up to 14 characters	Up to 18 characters
Company Name or Telephone Number	Up to 17 characters	Up to 20 characters
Street Address	Up to 18 characters	Up to 20 characters
City	Up to 14 characters	Up to 20 characters
State (2 Letters)	2 characters	2 characters
Zip Code or Country	Up to 9 characters	Up to 9 characters
Remarks	0 characters	Up to 20 characters

Each of the names can also be assigned to any of eight special mailing lists. This will allow you much more versatility in selecting and printing names. This will be explained in detail later on.

Using the expanded format, you also get up to 20 characters for Remarks. This remark line can be used for general comments or for telephone numbers.

Setting Up the Mailing List System

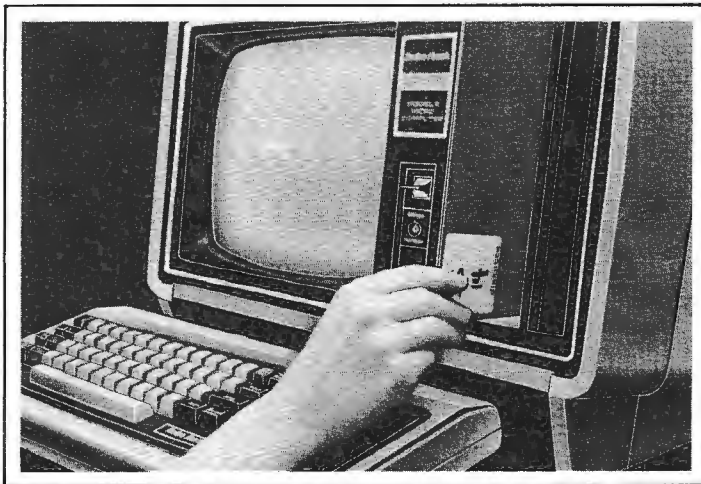
IMPORTANT NOTE: There are two Disks included with this package. One is for use with United States (60 cycle) current, the other is for 50 cycle operation. Choose the appropriate Disk as your master and erase the other. After erasing and reformatting, Backup your Master onto this extra Disk.

Diskettes can be damaged through contact with magnetic fields, mishandling, etc. To insure against loss of your program, before you begin running Mailing List System, you must make a copy (Backup) of your MLS Diskette, and keep the original in a safe place. See page 28 for detailed "Backup" instructions.

Follow these steps in exact order:

1. Turn on the TRS-80 Model II Computer, the printer, and the Expansion Disk Drives (if any).
2. Press the light bar (on the Disk Drive door) to open Drive door.
3. Insert the Backup Copy of the MLS Program in Drive #0. (See Picture) You will hear the Diskette click into place. The disk **must** have a piece of gummed foil over one of the notches. (See page 28)
4. Close the Disk Drive door firmly.

Note: Once a diskette has been seated in the drive, you must shut the drive door before you can remove the diskette.



Inserting a diskette (Label might extend vertically across the diskette).

Setting Up Mailing List (continued)

The screen will show:

INITIALIZING

ENTER TODAY'S DATE (MM/DD/YY)

ENTER THE TIME

TRSDOS READY

You will type:

Press the "ON LINE" button (if you have a printer with an "ON LINE" button).

0170171980 and press
(Example for January 1, 1980)

Press

Make sure the key is pressed down. Type and press

The screen will show:

Is this an (I)ntial setup or a (R)evision__?

Since this is the Initial Set Up, press .

Enter the name to be assigned to the system: _ _ _ _

Type the name you want to give to this Mailing List and press .

Are the records to be (C)ompressed or (E)xpanded format?__

Note: Remember, with the (C)ompressed format, you get less room for information, but you may enter more names. With the (E)xpanded format, you get more room for information, but are allowed less names.

Press or .

Setting Up MLS (continued)

The screen will show:

```

SYSTEM PARAMETERS
SYSTEM NAME : TANDY      FORMAT : Extended    CAPACITY : 2000 Records
-----
YOUR NAME OR COMPANY NAME: 
TITLE/COMPANY NAME : 
YOUR STREET ADDRESS : 
CITY, STATE, AND ZIP CODE: 

YOUR ASSIGNED CATEGORIES :
1 - 
2 - 
3 - 
4 - 
5 - 
6 - 
7 - 
8 - 

Press F1 to exit from program or F2 to store parameters.
```

Note: When you enter information in this program, some of the computer's keys will work in a special way. We will describe these as we go along.

You will now enter the information you want to appear on your own return address labels.

Type your Name or Company Name on the first line and press **ENTER** .

Notice that there is a white rectangle or block on the line where you type. When you press **ENTER** , the block moves down to the next line. You can use the **↑** and **↓** keys to move the block as well. Go ahead and try them.

The **→** key and the **←** key will move the cursor right and left without deleting characters. Pressing the **TAB** key inserts a space at the cursor and moves the rest of the line to the right. Depressing the **CTRL** key and pressing **D** deletes a character and moves the rest of the line to the left.

These keys, along with the **↑** and **↓** keys make it easy for you to edit and correct your entries. It might help if you want to practice with them until you feel comfortable with them. You will use them in the same manner throughout the entire program.

Setting Up MLS (continued)

Type your Title or Company Name on the second line and press **ENTER** .

If you change one of your entries and then wish to restore it to whatever it was before, simply press the **ESC** key.

Type your Street Address on the third line and press **ENTER** .

Type your City, State, and Zip Code, and press **ENTER** .

MLS Categories

When you enter names in the Mailing List, you may also assign them to any of eight Special Lists. These Special Lists are Categories that you define yourself. For example, you could categorize people by their relationship to you (Employees, Customers, Distributors, etc.). You could also place them on a special list, such as a Christmas list or a bowling league.

You will enter the Categories you wish to use during the Setup. When making entries, you will simply type the number of the Category that applies to each individual name.

You will now enter the names of your special categories (up to eight). Type each one and press **ENTER**.

When you have finished, press the **F2** key, and the computer will store the information.

Press **F1** to exit from the program.

Running MLS

The screen will show:

TRSDOS READY

You type:

MLS and press **ENTER**

The screen will show:

Enter the name you assigned to the system: _ _ _ _

Type the name you previously entered for your MLS program and press **ENTER**.

The Computer's Table of Contents

The Computer's Table of Contents is called a "Main Menu". This is how it appears on your screen:



This is what each function does:

- | | |
|---------------------------|--|
| (A)DD NEW RECORDS TO FILE | Allows you to add new names to the Mailing List. |
| (F)ILE MAINTENANCE | Lets you change, delete, and print individual records. |
| (P)RINT LISTINGS | This allows you to print all or part of the names. |
| (L)ABEL PRINTING | Prints mailing labels using the names on file and return address labels. |
| (F1) EXIT FROM PROGRAM | Lets you exit to DOS. |

Right now, we are going to begin Adding Names.

Press **A**.

Adding New Records and Assigning Categories

Adding New Records To The File

You will now begin adding names to your Mailing List. The editing features are the same as during Setup. You may skip any line except for the second (Last or Company Name). This line must have an entry.

The line titled Company Name or Tel. Number will only appear on the mailing labels if the first character is a **letter**. If the first character is another symbol (or a space) the line will not be printed. This can be handy for short comments or telephone numbers.

Go ahead and fill out the first record.

Assigning Categories

The Special Categories you selected are numbered at the bottom of the screen. When you reach the question about Categories, press the corresponding number for each Category you wish to assign to the name. If you want to assign the name to All of the Categories, press **[A]**. If you do Not wish to assign the name to any of the categories, press **[N]**.

If you are using the Expanded format, you can add Remarks.

When you have finished, press **[F2]**, and the name will be stored.

Go ahead and enter all of the names.

When You Finish

Once you have finished entering names, press **[F1]** and you will return to the Main Menu.

File Maintenance

The File Maintenance section is used to make corrections or adjustments to your Mailing List.

Press **F** at the Main Menu and the screen will show the same format used in Entering New Records.

Notice the command list at the bottom of the screen. Let's go through each command and discuss what each one does.

Command List

(S)earch

This is used to find a particular name.

1. Type the person's last name and press **ENTER**.
2. The record will appear on the screen.

Note: Search will also work if you type in the first few letters of the name you want. For example, if you are looking for "Williams", you could type **WI**, and the computer would find a name that started with those letters.

(N)ext or (P)revious Record

1. With a name already displayed on the screen, press **N** for Next or **P** for Previous.
2. This will cause the MLS to step backward or forward, one name at a time, in alphabetical sequence.

(U)pdating Records

If you need to change information on a record for any reason, here's how to do it:

1. Get the desired name on the screen.
2. Press **U** at the Command List.
3. Change the record, using the same editing features as in Setup.
4. Once you are satisfied with the entry, press **F2** to store it.
5. If you do not have any changes to make, press **F1** to exit from the Update.

File Maintenance (continued)

(D)eleting Records

1. Get the desired name on the screen.
2. Press **D** for Ddelete.
3. The screen will show:

DELETE requested. Approve (Y/N)?_
4. If you press **Y**, the record will be erased from the screen and will no longer exist.
5. If you press **N**, the record will not be deleted.

(L)abel Print

This command can be used to print a mailing label for the name on the screen. The printer must be on before you use this function.

1. Get the name on the screen and press **L**
2. The label will begin to print immediately.

Once you have completed all File Maintenance, press **F1** and you will return to the Main Menu.

Printing Listings, Complete Records, and Selected Records

Printing Listings

Press **[P]** at the Main Menu. The printer must be turned on and ready to print.

The screen will show:

Is the printing to be in (A)lphabetic or in (Z)ip Code Sequence?__

Press **[A]** or **[Z]** .

(C)omplete or (S)electd records?__

Complete Records

If you would like a printout of all the names in your Mailing List, press **[C]** for Complete records. Press **[F2]** and printing will begin immediately.

Selected Records

If you wish to print only certain names in the Mailing List, press **[S]** for Selected records.

Once again, the editing features are the same as during Setup. Notice the extra column on the left hand side of the format. In this column, next to the line you wish to search by, you will type one of three letters:

E — for Equal to

G — for Greater than

L — for Less than

Selected Records (continued)

In other words, if you wanted to print every name that began with the letter K, you would type an **K** next to the Name or Company Name line.

```
PRINT LISTINGS

Options: ( F read) for G greater than or L less than ?
First Name, Middle Initial -----
Last or Company Name ----- K
Company Name or Tel. Number -----
Street Address or Box Number -----
City or Town -----
State (Two Letter Abbrev.) -----
Zip Code or Country -----
Categories:
1 - -----
2 - -----
3 - -----
4 - -----
5 - -----
6 - -----
7 - -----
8 - -----

Remarks: -----

Press F1 to exit to MENU or F2 to start printing.
```

If you wanted to print every name with a Zip Code starting with numbers less than 61, you would type the letter **L** next to the Zip Code Line.

```
PRINT LISTINGS

Options: ( F read) for G greater than or L less than ?
First Name, Middle Initial -----
Last or Company Name -----
Company Name or Tel. Number -----
Street Address or Box Number -----
City or Town -----
State (Two Letter Abbrev.) -----
Zip Code or Country ----- L
Categories:
1 - -----
2 - -----
3 - -----
4 - -----
5 - -----
6 - -----
7 - -----
8 - -----

Remarks: -----

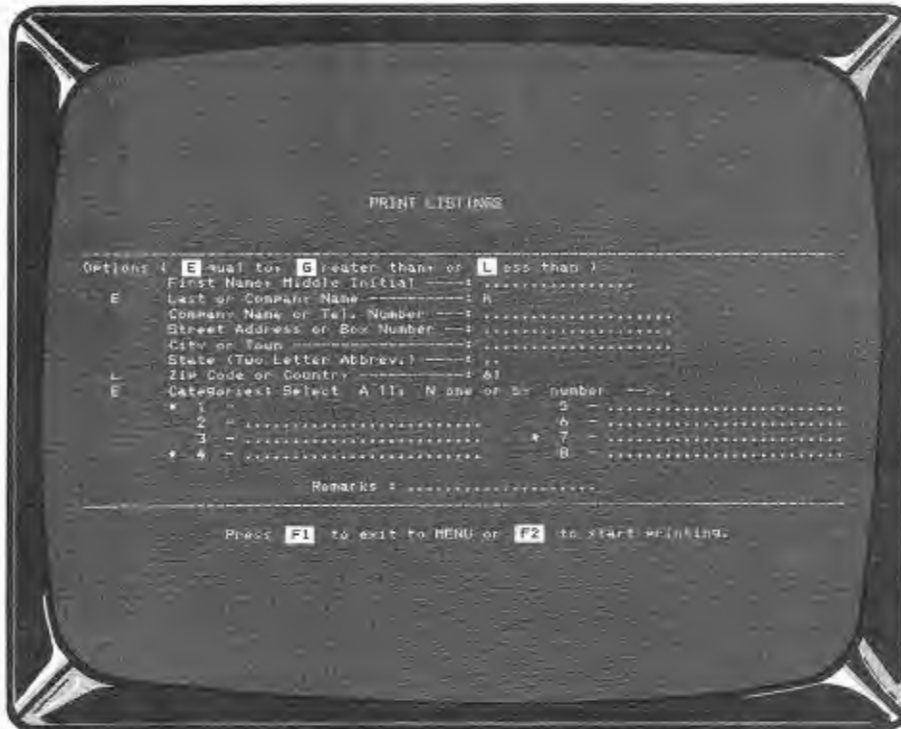
Press F1 to exit to MENU or F2 to start printing.
```

Selected Records (continued)

You may designate as many of these conditions as you like.

If you want to print by Category, type **[E]** next to the Category line. You may then select which Categories you wish to print by placing asterisks just as in (A)dd Records.

Suppose you placed all three of these conditions on your printing:



Only those records which meet all your conditions will be printed.

Press **[F2]** to begin printing.

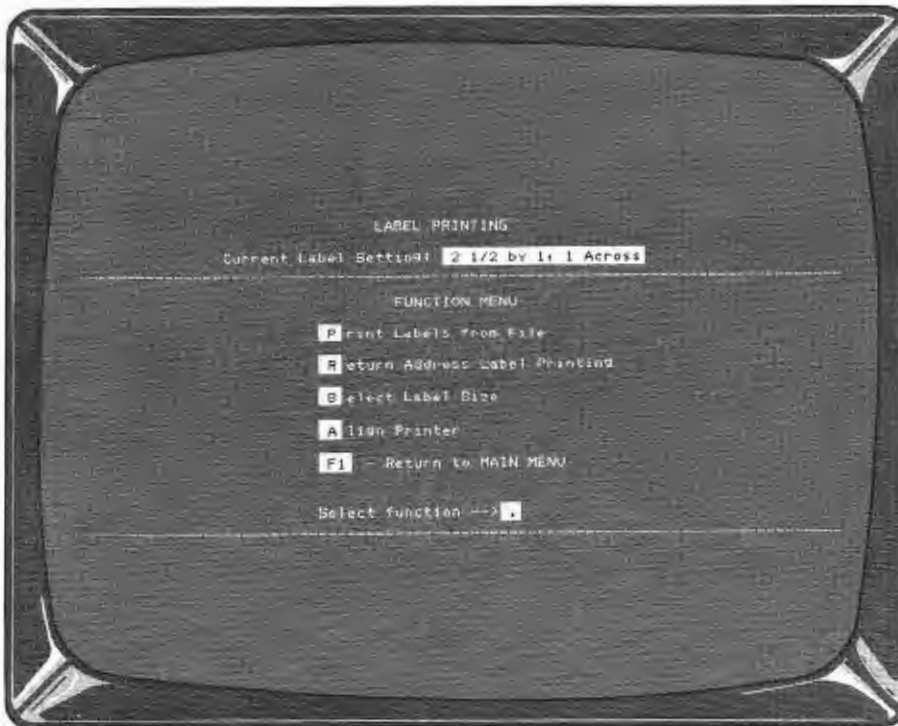
You may stop the printing at any time by pressing **[F1]**. After printing has completed, you will return to the Main Menu.

Printing Mailing Labels

The program has been designed to use standard self-adhesive mailing labels, mounted on a tractorfeed paper backing. These labels are available from Radio Shack stores in boxes of 5000 (Catalog No. 26-1404). Load the labels into the printer and align them for printing. Printing always begins directly under the 1 on the printer paper guide. With the labels loaded and the line printer turned on, you should print a few test labels to check the alignment.

Press **[L]** at the Main Menu for Label Printing.

The screen will show:

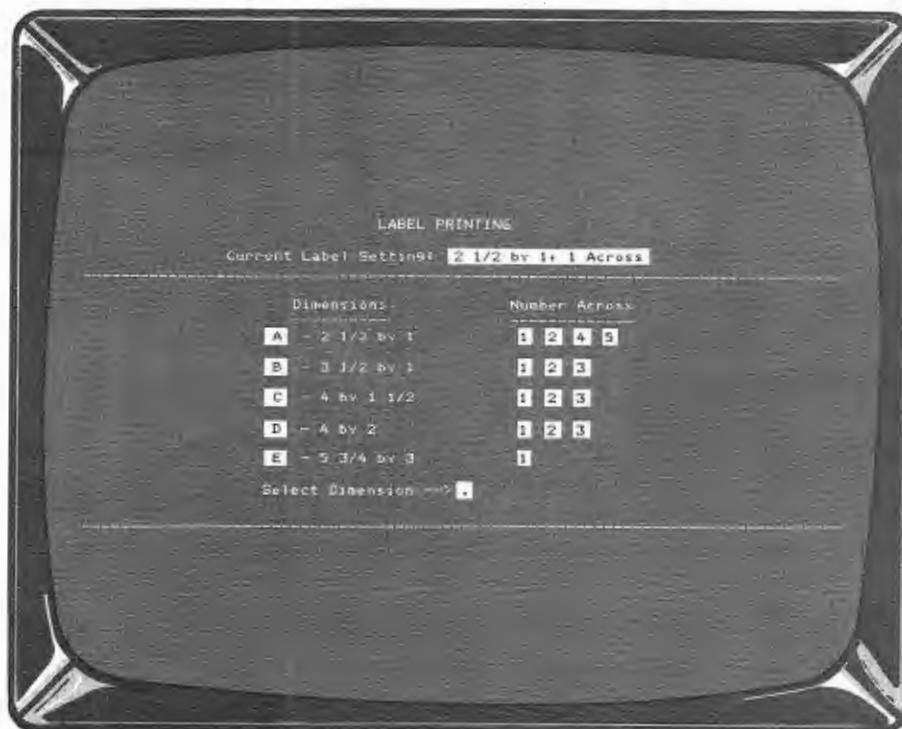


Printing Mailing Labels (continued)

Setting the Label Size

Press **[S]** to Select Label Size.

The screen will show:



The dimensions referred to are the sizes of the labels themselves, in inches. The number across is the number of labels across on the sheet you are printing on. For example, if you had a sheet of 2-1/2" by 1" labels, four across on the paper, you would press **[A]** and **[4]**.

Press the appropriate letter and number to choose your desired label size. MLS always remembers the last setting used and the next time the program is run, the label setting will be the same.

Press **[F1]** to return to the Label Printing Menu.

Press **[A]** for Align Printer. This will print four rows of X's, the same size as your printing labels. This will allow you to adjust the printer for best centering.

Print Labels From File

Press **P** for Print Labels From File. The questions will appear:

Is the printing to be in (A)lphabetic or (Z)ip Code sequence?

Press **A** or **Z**.

(C)omplete File or (S)electd Records?__

If you press **C** you may begin printing by pressing **F2**. Press **S** and you will see the same selection format used in the Print Listings function.

After you set your criteria, press **F2**, and the labels will begin to print. When the printing finishes, you will return to the Label Printing Menu.

Return Address Label Printing

Press **R**.

HOW MANY LABELS (1 TO 999) ?__

Type in the number and press **ENTER**.

Press **F2** and the computer will begin printing labels.

(There are examples of Mailing Labels in Appendix 4.)

Note: You can always terminate printing by holding down the **F1** key until the printer stops.

Once you have finished printing, you will return to the Label Printing Menu. Press **F1** and you will return to the Main Menu. Press **F1** again, and you will exit to DOS.

Expansion and Revision of the System

As conditions change within your business, you may decide that MLS needs revising or expanding. You may use the Setup program to do this.

The Revision option of the Setup program can be used to:

- Change your name and address on the mailing lists.
- Change your category titles (Christmas, Birthdays, etc.).

Run the Setup program.

IS THIS THE (I)NITIAL SET UP OR A (R)EVISION?_

Press **[R]**. The screen will show:

Enter the name assigned to the system: _ _ _ _

Type the MLS System name and press **[ENTER]**. You will see all of the information you entered in the initial Setup. This will give you a chance to check over all of it before making any changes.

Type in the new information. (If you do not want to change data, just press **[ENTER]**. This will keep the original information.)

Note: In the case of the title categories, you may add, delete, or change the existing categories.

When you have finished, press **[F2]** and the system will store the new information.

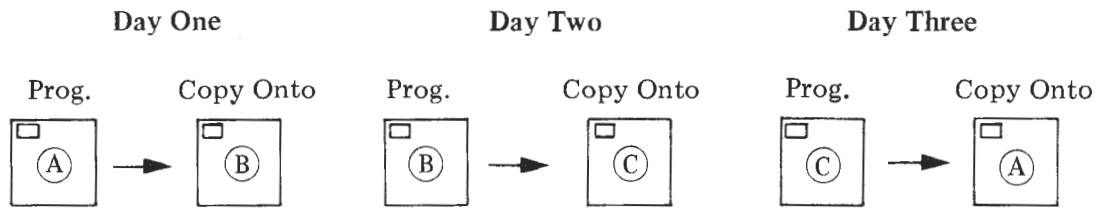
Press **[F1]** and you will exit from the program.

Appendix 1-Rotating Diskettes

When you're using your system, get in the habit of making copies of both diskettes at the end of the day. The next day, use the copies that you just made. It's a very inexpensive form of insurance. You might consider even carrying the backup copies home at night in case of fire, theft, or vandalism. You must also save the diskettes that contain the last completed month.

Here's an example, using two extra diskettes:

The first day's diskettes we will call A and B. The next day's diskettes will be called C and D.



On the second day, you will take A and B, and use them as blank diskettes to copy C and D. If something happens to a diskette, you still have the last backup copy to rely on. Four extra diskettes will give you three days of record protection.

Be sure to keep the last **completed** month's set of diskettes till you complete the current month. This is very important in case of a major problem.

Note: The most effective method for erasing diskettes is by using a Radio Shack Bulk Tape Eraser, Stock No. 44-210.

Appendix 2-Backing Up Your Program Diskette

The Mailing List System Program Diskette must never be used to actually store your information. It is only used as a source to make copies that will be used. If you run this Master Disk even once, new programs are created on the disk which destroy the disk's function as a Master Disk. You must only use the Master Diskette to make working fresh Backup copies.

After you load a Backup copy with your Mailing List System information, you should make a Backup of the copy, using the working copy as your source disk.

The instructions for Backing Up the Master Diskette and Backing Up your working diskette are identical. Follow these instructions exactly.

1. Make sure the Diskette has all notches exposed (No gummed foil tape on the upper notch.)
2. Place a gummed foil tape over the notch on the new blank disk.
3. Turn on the Model-II computer. Press the light bar (on the Disk Drive door) to open the Drive door. Insert the Program Diskette in the Drive (see picture on page 5). You will feel the diskette click into place.
4. Close the Drive door firmly.

The screen will show:

ENTER THE DATE MM/DD/YY

ENTER THE TIME HH.MM.SS.

TRSDOS READY

ENTER 'Y' TO START ETC.

You will type:

01/01/1980 and press
ENTER. That was an example for
January 1, 1980.

Press **ENTER**

FORMAT 0 {ID=FORMAT,PW=PW}
and press **ENTER**. The two symbols are braces,
not parentheses.

Remove the Program Diskette and
insert the new blank diskette. Close
the door. Press **Y**.

The disk will format (create tracks to store information) automatically. The entire Format procedure takes about 6 minutes. When the disk is completely formatted, the screen will show "00 FLAWED TRACKS". If you get any number other than 00, you must reFORMAT the new diskette. Remove and erase the new blank diskette. Insert the Program Diskette and repeat from Step 4 (above). When the new diskette is successfully Formatted.

Backing Up Your Program Diskette (continued)

The screen will show:

00 FLAWED TRACKS
TRSDOS READY

You will type:

Remove the new diskette (Destination Diskette), and insert the Program Diskette (Source Diskette), Now type: **BACKUP** and press **ENTER**.

SOURCE DRIVE (0-3) ETC.

0

KEY PASSWORD FOR SOURCE
DISK

P A S S W O R D

DESTINATION DRIVE (0-3)

0

SOURCE DISKETTE READY (Y) **Y**

At this point, the Model II will load PART of the information from the Source Diskette into its memory. When the computer memory is full the screen will show DESTINATION DISKETTE READY (Y).

Remove the Source (Program) Diskette, and insert the Destination (New, Formatted) Diskette and close the door. Press **Y**.

The computer will store information onto the new Destination Diskette. When it has completed the first transfer, the READY SOURCE DISKETTE (Y) message will appear again. Remove the Destination (Formatted) Diskette, and insert the Source (Program) Diskette, and press **Y**. You must keep repeating this cycle of swapping the two diskettes until you have transferred all the information onto the new Diskette. When the transfer is completed, the screen will show: PRESS ANY KEY TO CONTINUE. You can now file the Original Program Diskette in a safe place. The new Diskette is now ready to use. Simply press any key to begin.

Appendix 3-File Printing

WED NOV 7 1979

MAILING LIST SYSTEM FOR:

JONATHAN SMITH
SMITH TITLE AND LOANS
3443 W 6TH STREET
FT. WORTH, TX 76116

ALPHABETIC SEQUENCE

COMPLETE FILE

BRADY	J. T. CATEGORIES: 3 4 8	WISCONSIN ELECTRIC	8943 S. HAMPTON REMARKS:	MADISON	WI	57842
HOUSE	REBECCA CATEGORIES: 1 2 3 4 5 6 7 8	TEXAS CREDIT UNION	1223 N. CENTRAL REMARKS:	DALLAS	TX	76123
HUBBARD	FRANCIS CATEGORIES: 1 3 6	TERRELL PLASTICS	3245 SOUTHERN REMARKS: (555) 555-3432	PITTSBURGH	PA	25789
LUCKHARDT	WILLIAM CATEGORIES: 2 4 6	DONNER & DONNER	4325 E. 5TH STREET REMARKS:	SAN FRANCISCO	CA	98745
MEINTSER	ERIK CATEGORIES:	RADIO SHACK	900 TWO TANDY CENTER REMARKS:	FT. WORTH	TX	76102

** END OF LISTING **

WED NOV 7 1979

MAILING LIST SYSTEM FOR:

JONATHAN SMITH
SMITH TITLE AND LOANS
3443 W 6TH STREET
FT. WORTH, TX 76116

ZIP CODE SEQUENCE

COMPLETE FILE

HUBBARD	FRANCIS CATEGORIES: 1 3 6	TERRELL PLASTICS	3245 SOUTHERN REMARKS: (555) 555-3432	PITTSBURGH	PA	25789
BRADY	J. T. CATEGORIES: 3 4 8	WISCONSIN ELECTRIC	8943 S. HAMPTON REMARKS:	MADISON	WI	57842
MEINTSER	ERIK CATEGORIES:	RADIO SHACK	900 TWO TANDY CENTER REMARKS:	FT. WORTH	TX	76102
HOUSE	REBECCA CATEGORIES: 1 2 3 4 5 6 7 8	TEXAS CREDIT UNION	1223 N. CENTRAL REMARKS:	DALLAS	TX	76123
LUCKHARDT	WILLIAM CATEGORIES: 2 4 6	DONNER & DONNER	4325 E. 5TH STREET REMARKS:	SAN FRANCISCO	CA	98745

** END OF LISTING **

Appendix 4-Mailing Labels

J. T. BRADY
WISCONSIN ELECTRIC
8943 S. HAMPTON
MADISON WI 57842

REBECCA HOUSE
TEXAS CREDIT UNION
1223 N. CENTRAL
DALLAS TX 76123

FRANCIS HUBBARD
TERRELL PLASTICS
3245 SOUTHERN
PITTSBURGH PA 25789

WILLIAM LUCKHARDT
DONNER & DONNER
4325 E. 5TH STREET
SAN FRANCISCO CA 98745

ERIK MEINTSER
RADIO SHACK
900 TWO TANDY CENTER
FT. WORTH TX 76102

Appendix 5—Using Continuous Form Envelopes

Printing Addresses on Envelopes

There are many styles of continuous envelopes available from various suppliers. The Mailing List package can be modified to print address information directly on these envelopes. This will require some additional work on your part.

Samples of these envelopes will need to be measured to determine the relative print positions. Changes will then be made to the program itself to allow for these special conditions.

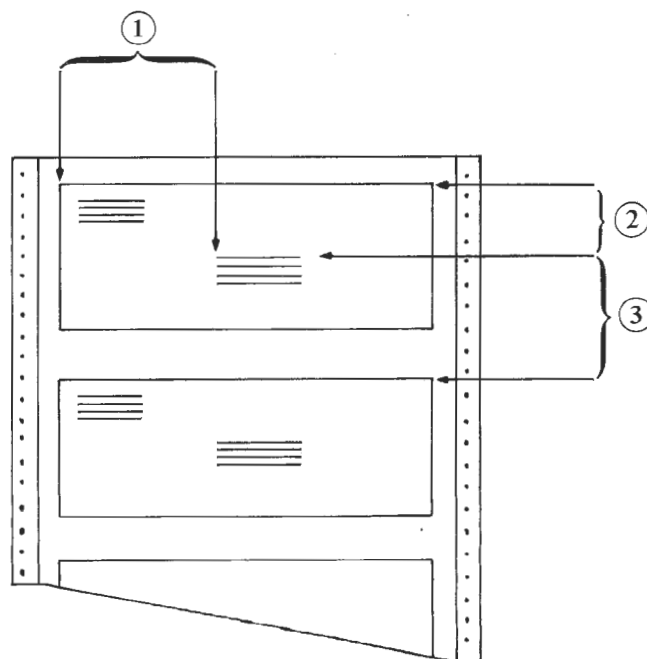
Envelope Measurements

The following measurements will need to be made and recorded in inches:

- #1 — The distance from the left edge of the envelope to the position where the address is to be printed. (This will later be converted to 10ths of inches.)
- #2 — The distance from the top of the envelope to the position where the first line of the address is to be printed. (This will later be converted to 6th of inches.)
- #3 — The distance from the first line of the address to the top of the next envelope. (This will later be converted to 6ths of inches.)

Note: Whenever possible, these measurements should be made to the nearest whole inch.

This is a diagram of the 3 measurements that are required:



Appendix 5—Using Continuous Form Envelopes (continued)

Converting the Measurements for Horizontal and Vertical Spacing

1. Measurement #1

This value is converted to the 10ths of inches by multiplying by 10

Example: 4" x 10 = 40 (10ths)

2. Measurement #2

This value is converted to 6ths of inches by multiplying by 6.

Example: 2" x 6 = 12 (6ths)

3. Measurement #3

This value is converted to 6ths of inches by multiplying by 6.

Example: 4" x 6 = 24 (6ths)

Then this value in 6ths is adjusted by 4 (the number of address lines possible) by subtracting 4. This will give the number of lines from the bottom of the address to the top of the next envelope.

Example: 24 - 4 = 20 (6ths)

Note: This should always be 4. The program will automatically adjust the number of lines if there are only 3 lines of address.

Making the Program Modifications

The program "MLS/BAS" will be modified to incorporate the envelope printing format. The envelope format will replace the 5 3/4 by 3 Shipping Label format. If you also need the ability to print on shipping labels, you will need to keep two disks: one with the shipping label option and another with the envelope option.

To make the program changes, you must first load the "MLS/BAS" program. To do this, follow these steps:

- 1) At the TRSDOS Ready condition, type **BASIC**. BASIC will then be loaded from the disk and the screen will show:

```
READY.  
>
```

- 2) Type: **LOAD"MLS/BAS"** and press **ENTER**.

- 3) The screen will again show:

```
READY  
>
```

Appendix 5—Continuous Form Envelopes (continued)

Make the changes outlined in one of the following two sections.

- 4) To Save the changes, type: **SAVE"MLS/BAS"** and press **ENTER**.

Program Modifications for Envelopes With Pre-printed Return Addresses

To modify the program to print on continuous envelopes with the return addresses already on the envelopes, 4 lines will need to be changed. The changes required are:

- 1) Change line number 4810.

FROM :

4810 LA=1:LD=3:LH=38:LT=1:LB=2:GOTO4820
 = =

TO :

4810 LA=1:LD=3:LH=30:LT=12:LB=20:GOTO4820
 == ==

From # 2 From # 3

- 2) Change line number 3190.

FROM :

3190 IFLS=5THENGOSUB3370:LM=21
 =====

TO :

3190 IFLS=5THENLM=40
 =====

From # 1

- 3) Change line number 4680.

FROM :

4680 PRINT@ (15,19),R\$:I\$"D"N\$:I\$" -
 5 3/4 by 3"TAB(45)R\$:I\$"1"N\$:I\$
 =====

TO :

4680 PRINT@ (15,19),R\$:I\$"D"N\$:I\$" -
 ENVELOPES"TAB(45)R\$:I\$"1"N\$:I\$
 =====

Appendix 5—Continuous Form Envelopes (continued)

- 4) Change line number 2960.

FROM :

2960 PRINT " 5 3/4 by 3,"LA"Across "N\$::RETURN
=====

TO :

2960 PRINT " ENVELOPES "N\$::RETURN
=====

- 5) Then Save the changes.

Modifications for Envelopes Without Pre-printed Return Addresses

To print both return addresses and addressee addresses, the following procedures are required:

- 1) Adjust measurement #2 to allow for the lines required to print the return addresses by subtracting 5 (4 for the maximum number of line and 1 for a blank line at the top of the envelope).

Example: 12 (6ths) – 5 = 7 (6ths)

- 2) Change the following lines in the MLS/BAS program:

- a) Change line number 4810.

FROM :

4810 LA=1:LD=3:LH=38:LT=1:LB=2:GOTO4820
==

TO :

4810 LA=1:LD=3:LH=38:LT=1:LB=20:GOTO4820
===

From # 3

- b) Change line number 3190.

FROM :

3190 IFLS=5THENGOSUB3370:LM=21
===

TO :

3190 IFLS=5THENGOSUB3370:LM=40
===

From # 2

Appendix 5—Continuous Form Envelopes (continued)

- c) Change line number 3370.

FROM :

```
3370 LPRINT"FROM: ";
```

=====

TO :

```
3370 REM
```

=====

- d) Change line number 3410.

FROM :

```
3410 FORI=1TO7:LPRINTCHR$(10):NEXT:
```

=

```
LPRINTTAB(17)"TO: "":RETURN
```

=====

TO :

```
3410 FORI=1TO7:LPRINTCHR$(10):NEXT:RETURN
```

=

From adjusted #1 section deleted
(same in this case)

- e) Change line number 4680.

FROM :

```
4680 PRINT@ (15,19);R$;I$"D"N$;I$" -
```

```
5 3/4 by 3"TAB(45)R$;I$"1"N$;I$
```

=====

TO :

```
4680 PRINT@ (15,19);R$;I$"D"N$;I$" -
```

```
ENVELOPES"TAB(40)R$;I$;"1"N$;I$
```

=====

- f) Change line number 2960.

FROM :

```
2960 PRINT" 5 3/4 by 3,"LA"Across "N$::RETURN
```

=====

TO :

```
2960 PRINT" ENVELOPES "N$::RETURN
```

=====

- g) Then Save the changes.

Appendix 6—Recovering Lost Mailing List Information

Recovering Lost Mailing List Information

Power failures or improper exits from the Mailing List System may cause some or all of your information to be lost. A recovery program has been included to retrieve information which has been lost.

THIS PROCEDURE SHOULD ONLY BE DONE IN CASES WHERE A BACKUP COPY CAN NOT BE USED OR DOES NOT EXIST.

To perform this operation, do the following:

- 1) At TRSDOS READY, type: **MLSFIX**
- 2) Enter the "System Name".
- 3) Press the **F2** key to begin the recovery and sorting process.

Be patient. This process could take up to 10 hours if the system is full and should probably be done overnight.

This re-sorting process may also recover some items which have been deleted. If this occurs, these items will need to be deleted again.

When the process is complete, the system will return to TRSDOS READY. You can now resume normal operation of the Mailing List System.

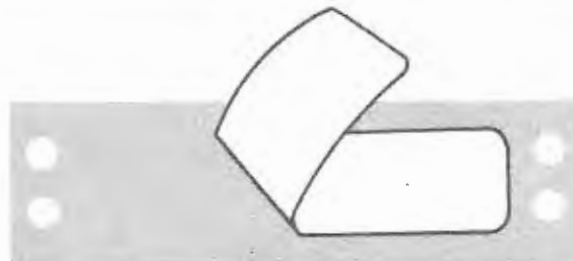


TRS-80TM ORDER FORM FOR CUSTOM PIN FEED LABELS

* DESIGNED FOR USE ON TRS-80 TRACTOR FEED PRINTER

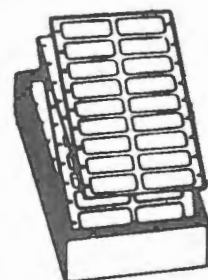
FEATURES OF TRS-80TM PINFEED LABELS

- PRODUCED ON THE HIGHEST QUALITY, SMUDGE PROOF, WHITE STOCK
- PERMANENT SELF-ADHESIVE
- FAN FOLDED FLAT – DESIGNED FOR USE WITH TRS-80 PRINTERS EQUIPPED WITH TRACTOR OR PINFEEDS
- PRECISION DIE CUT
- SUPER STRONG, CONTINUOUS CARRIER SHEET FOR TROUBLE-FREE PRINTOUT
- PACKED IN CONVENIENT, HEAVY-DUTY CORRUGATED BOXES FOR SHIPPING



ALL YOU HAVE TO DO IS "Peel and Press"

Available in both — Single and Multiple widths up to 5 wide to conform to various pinfeed width limitations.



TO ORDER LABELS —

1. Fill in the number of boxes desired in the column below entitled "Quantity".
NOTE: Be sure to insert this number in the proper label number line.
2. Fill in your company name and address.
3. Enclose your check for the total amount (including tax if applicable), and mail with this order form.
Allow 5 to 7 days for shipment.
4. Individual orders accepted in box quantities only.

LABEL NO.	SIZE WIDTH x HEIGHT	INDIVIDUAL LABELS PER BOX	COST PER BOX*	QUANTITY/BOXES
TFC-25/15-1 (Across)	2-1/2 x 15/16	5,000	\$ 26.00	
TFC-25/15-2 (Across)	2-1/2 x 15/16	10,000	40.50	
TFC-25/15-4 (Across)	2-1/2 x 15/16	20,000	61.50	
TFC-25/15-5 (Across)	2-1/2 x 15/16	25,000	73.75	
TFC-35/15-1 (Across)	3-1/2 x 15/16	5,000	17.50	
TFC-35/15-2 (Across)	3-1/2 x 15/16	10,000	32.50	
TFC-35/15-3 (Across)	3-1/2 x 15/16	15,000	48.75	
TFC-35/15-4 (Across)	3-1/2 x 15/16	20,000	65.00	
TFC-4/115-1 (Across)	4 x 1-15/16	5,000	70.88	
TFC-4/115-2 (Across)	4 x 1-15/16	10,000	95.75	
TFC-4/115-3 (Across)	4 x 1-15/16	15,000	138.75	
TFC-534/215-1 (Across)	5-3/4 x 2-15/16	2,500	56.20	

ALL SHIPMENTS SENT FREIGHT PREPAID.

*TEXAS RESIDENTS ADD 5% SALES TAX.

Your Company Name _____
Address _____
City _____ State _____ Zip _____
Phone _____

* SEND THIS FORM WITH YOUR CHECK FOR FULL AMOUNT TO:

TRINITY FORMS CO.
NO. 1 FORMS DRIVE
CARROLLTON, TEXAS 75006


```

10 REM ** Business MLS SETUP Program - Version 1.1 **
20 REM ** Copyright 1979 by Tandy Corp. Licensed from T.D. Price **
30 REM ** 09/26/1979 **
40 PRINTCHR$(25):CLS:CLEAR1000:DEFINTA-Z:DIMC$(7):R=5:C=0:I$=CHR$(157)
50 ONERRORGOTO970 :GOSUB340
54 GOTO60
55 XX=USR3(0)
60 NA$=FNFD$(23):TL$=FNFD$(23):AD$=FNFD$(23):CSZ$=FNFD$(23)
70 FORI=0TO7:C$(I)=FNFD$(25):NEXT
80 GOTO1060
90 REM - Start of subroutine area
100 REM - Alphanumeric Input
110 IN$=MID$(F$,1,ABS(FL)):WE=0:GOTO130
120 WE=1:IN$=MID$(S$,1,ABS(FL)):MID$(IN$,1,LEN(ED$))=ED$
130 CF=0:W1$=R$:IFFL>0THENW1$=N$
140 W=1:PRINTCF$:W1$IN$:MID$(B$,1,ABS(FL)):CO$:
150 W$=INKEY$:IFW$=""THEN150
160 IFW>ABS(FL)THEN200 ELSEIFW$>=""ANDW$<=""~"THEN270
170 IFW$=CHR$(29)THENIFW<=ABS(FL)THENPRINTMID$(IN$,W,1):W=W+1:GOTO280
180 IFW$=CHR$(9)THENIFW<=ABS(FL)THENMID$(IN$,W+1,ABS(FL)-W)=
MID$(IN$,W,ABS(FL)-W):MID$(IN$,W,1)=" ":GOTO290
190 IFW$=CHR$(4)THENIFW<=ABS(FL)THENMID$(IN$,W,ABS(FL)-W)=
MID$(IN$,W+1,ABS(FL)-W):MID$(IN$,ABS(FL),1)=" ":GOTO290
200 CF=INSTR(CC$,W$):IFCF<>0THENW$=CHR$(13):GOTO240
210 IFW=1THEN230 ELSEIFW$=CHR$(8)THENPRINTW$:FL$:B1$:W=W-1:MID$(IN$,W,1)=
FL$:GOTO150
220 IFW$=CHR$(28)THENPRINTW$:W=W-1:GOTO150
230 IFW$=CHR$(27)THENPRINTMID$(B$,1,W-1):ONWE+1GOTO110 ,120
240 IFW$<>CHR$(13)THEN150 ELSEIFWE=0THENIN$=MID$(IN$,1,W-1)
250 IFCF=0ANDW=1THENC=5
260 PRINTCF$:MID$(B$,1,W-1):N$:IN$:SPC(ABS(FL)-LEN(IN$)):RETURN
270 MID$(IN$,W,1)=W$:W=W+1:PRINTW$:
280 IFABS(FL)=1THENW$=CHR$(13):GOTO240 ELSE150
290 PRINTCF$:MID$(B$,1,W-1):IN$:MID$(B$,1,ABS(FL)-W+1):CO$:GOTO150
300 REM - Video screen reader
310 ED$=MID$(S$,1,ABS(FL)):MID$(ED$,1,ABS(FL))=USR(ED$)
320 IFED$=MID$(F$,1,ABS(FL))THENED$="":RETURNELSERETURN
330 REM - Parameter assignments
340 B1$=CHR$(28):B$=STRING$(40,B1$):FL$="":F$=STRING$(40,FL$)
350 S$=STRING$(40,32):R$=CHR$(26):N$=CHR$(25):CF$=CHR$(2):CO$=CHR$(1)
360 EL$=CHR$(23):ES$=CHR$(24):DG$="0123456789":CC$=CHR$(1)+CHR$(2)+CHR$(30)
+CHR$(31)
370 DEFFNUC$(A$)=CHR$((255 XOR (2+5))AND ASC(A$)):DEFUSR3=&HF240
380 DEFUSR0=&HF200:DEFUSR1=&HF220:DEFFNFD$(N)=STRING$(N,".")
390 RETURN
400 REM - Parameter display heading
410 CLS:PRINTTAB(30)"SYSTEM PARAMETERS"
420 PRINT@ (2,0),"SYSTEM NAME : "SN$ TAB(30)"FORMAT : ";
430 IFFM$="C"THENPRINT"Compressed";ELSEPRINT"Expanded";
440 PRINTTAB(55)"CAPACITY : "CP"Records
450 PRINT@ (3,0),STRING$(80,95):RETURN

```

```

=====
460 PRINT@ (R,C+10),"YOUR NAME OR COMPANY NAME: ";
470 PRINT@ (R,C+38),NA$;
480 PRINT@ (R+1,C+10),"TITLE/COMPANY NAME      : ";PRINT@ (R+1,C+38),TL$;
490 PRINT@ (R+2,C+10),"YOUR STREET ADDRESS     : ";
500 PRINT@ (R+2,C+38),AD$;
510 PRINT@ (R+3,C+10),"CITY, STATE, AND ZIP CODE: ";
520 PRINT@ (R+3,C+38),CSZ$;
530 PRINT@ (R+7,C),"YOUR ASSIGNED CATEGORIES : ";
540 FOR I=0 TO 7:PRINT@ (R+9+(I AND 3),C+4-(40*(I>3))),I+1" - "C$(I);:NEXT
550 PRINT@ (R+14,C),STRING$(80,95):RETURN
560 PRINT@ (R+16,C+10),"Press "R$" F1 "N$" to exit from program or "R$" F2 "N$;
570 PRINT" to store parameters.":RETURN
580 IX=1
590 ON I X GOSUB 620 ,640 ,670 ,700 ,740
600 IF WE=1 AND IN$=MID$(S$,1,ABS(FL)) THEN PRINT MID$(B$,1,ABS(FL));MID$(F$,1,ABS
    (FL));
610 ON CF+1 GOTO 590 ,780 ,780 ,590 ,590 ,590
620 PRINT@ (R,C+38),:FL=-23:GOSUB 310 :GOSUB 120 :NA$=IN$
630 IF CF=4 OR CF=0 OR CF=5 THEN IX=2:RETURN ELSE RETURN
640 PRINT@ (R+1,C+38),:FL=-23:GOSUB 310 :GOSUB 120 :TL$=IN$
650 IF CF=4 OR CF=0 OR CF=5 THEN IX=3 ELSE IF CF=3 THEN IX=1
660 RETURN
670 PRINT@ (R+2,C+38),:FL=-23:GOSUB 310 :GOSUB 120 :AD$=IN$
680 IF CF=4 OR CF=0 OR CF=5 THEN IX=4 ELSE IF CF=3 THEN IX=2
690 RETURN
700 PRINT@ (R+3,C+38),:FL=-23:GOSUB 310 :GOSUB 120 :CSZ$=IN$
710 IF CF=4 OR CF=0 OR CF=5 THEN IX=5:I=0:ELSE IF CF=3 THEN IX=3
720 RETURN
730 REM - Categories
740 PRINT@ (R+9+(I AND 3),C+10-(40*(I>3))),:FL=-25:GOSUB 310 :GOSUB 120 :C$(I)=IN$
750 IF CF=3 AND I=0 THEN IX=4:RETURN
760 IF CF=3 THEN I=I-1:RETURN
770 IF (CF=4 OR CF=0 OR CF=5) AND I<>7 THEN I=I+1:RETURN
780 RETURN
790 F0$=SN$+"0":F1$=SN$+"1":F2$=SN$+"2":RETURN
800 OPEN "O",1,F0$
810 PRINT#1,SN$:PRINT#1,NA$:PRINT#1,TL$:PRINT#1,AD$:PRINT#1,CSZ$:PRINT#1,FM$
820 PRINT#1,CP:M:M0:M1:M2:M3:M4:M5:M6:M7:M8
830 FOR I=0 TO 7:PRINT#1,C$(I):NEXT:CLOSE 1
840 RETURN
850 N=0:TN=1:F=0
860 OPEN "O",1,F1$
870 PRINT#1,N:TN:F:1:1:4:26:0:1:CLOSE 1
880 RETURN
890 OPEN "D",1,F2$,M:CLOSE 1
900 RETURN
910 OPEN "I",1,F0$
920 LINE INPUT#1,SN$:LINE INPUT#1,NA$:LINE INPUT#1,TL$:LINE INPUT#1,AD$
930 LINE INPUT#1,CSZ$:LINE INPUT#1,FM$
940 INPUT#1,CP,M,M0,M1,M2,M3,M4,M5,M6,M7,M8
950 FOR I=0 TO 7:LINE INPUT#1,C$(I):NEXT:CLOSE 1

```



```
960 RETURN
970 IFERR<>53THEN1020
980 PRINT(20,20),R$ " NO FILE ON DISKETTE WITH THAT NAME "N$;
990 FORT=1T08000:NEXT
1000 PRINT(20,20),CHR$(23);
1010 RESUME1260
1020 CLS:PRINT(11,20),R$ " Unexpected ERROR, Code"ERR"in Line"ERL;
1030 PRINT(13,30)," PROGRAM TERMINATED "N$;PRINT(20,0),;GOTO1340
1040 PRINT(20,30),R$ " Loading parameters."N$;RETURN
1050 REM - Start of main program
1060 PRINT(4,26),"BUSINESS MAILING LIST SYSTEM"
1070 PRINT(6,25),"System Parameter Setup Program"
1080 PRINT(8,0),STRING$(80,95)
1090 PRINT(14,18),"Is this the "R$;I$"I"N$;I$"nitial setup or a "R$;I$"R"N$;I$"
    "evision ? ";
1100 FL=-1:GOSUB110 :IFCF=1THEN1330 ELSEIFCF<>0THEN1090 ELSE SE$=FNUC$(IN$)
1110 IFSE$<>"I"ANDSE$<>"R"THENPRINTCHR$(8);:GOTO1100
1120 IFSE$="R"THEN1260
1130 PRINT(16,15),"Enter the name to be assigned to the system : ";
1140 FL=-7:GOSUB110 :IFCF=1THEN1330 ELSEIFCF<>0THEN1130 ELSE SN$=IN$
1150 PRINT(18,11),"Are the records to be "R$;I$"C"N$;I$"ompressed or ";
1160 PRINTR$;I$"E"N$;I$"xpanded format ? ";
1170 FL=-1:GOSUB110 :IFCF=1THEN1330 ELSEIFCF<>0THEN1150 ELSE FM$=FNUC$(IN$)
1180 IFFM$<>"C"ANDFM$<>"E"THENPRINTCHR$(8);:GOTO1170
1190 IFFM$="C"THENC$=3000:M=85:M0=9:M1=14:M2=17:M3=18:M4=14:M5=2:M6=9:M7=2:
    M8=0:GOTO1210
1200 CP=2000:M=127:M0=16:M1=18:M2=20:M3=20:M4=20:M5=2:M6=9:M7=2:M8=20
1210 GOSUB410 :GOSUB460 :GOSUB560
1220 GOSUB580 :IFCF=1THEN1330
1230 PRINT(23,19),R$ " Initializing System - Storing parameters."N$;
1240 GOSUB790 :GOSUB800 :GOSUB850 :GOSUB890
1250 PRINT(23,10),CHR$(23);:GOTO1220
1260 PRINT(16,18),"Enter the name assigned to the system : ";
1270 FL=-7:GOSUB110 :IFCF=1THEN1330 ELSEIFCF<>0THEN1260 ELSE SN$=IN$:GOSUB1040
1280 GOSUB790 :GOSUB910 :GOSUB410 :GOSUB460 :GOSUB560
1290 GOSUB580 :IFCF=1THEN1330
1300 PRINT(23,23),R$ " Storing revised system parameters."N$;
1310 GOSUB790 :GOSUB800
1320 PRINT(23,18),CHR$(23);:GOTO1290
1330 CLS:PRINT(11,30),R$ " END OF SETUP PROGRAM "N$;PRINT(20,0),;
1334 GOTO1340
1335 XX=USR3(0)
1340 CLOSE:CLEAR100:SYSTEM
```

```

10 REM ** Business MLS Main Program - Version 1.1 **
20 REM ** Copyright 1979 by Tandy Corp. Licensed from T.D.Price **
30 REM ** 09/26/1979 **
40 PRINTCHR$(25):CLS:CLEAR1550:DEFINT A-Z:DIMC$(7),P(3),L$(4,4):BL$=
  STRING$(23,32):I$=CHR$(157):FP=1
50 ONERRORGOTO790 :GOSUB310 :GOSUB370
54 GOTO60
55 XX=USR3(0)
60 DT$=LEFT$(DATE$,3)+" "+MID$(DATE$,4,3)+" "+MID$(DATE$,7,2)+" "+MID$(DATE$,
  9,4)
70 GOTO3380
80 IN$=MID$(F$,1,ABS(FL)):WE=0:GOTO100
90 WE=1:IN$=MID$(S$,1,ABS(FL)):MID$(IN$,1,LEN(ED$))=ED$
100 CF=0:W1$=R$:IFFL>0THENW1$=N$
110 W=1:PRINTCF$:W1$IN$:MID$(B$,1,ABS(FL)):CO$:
120 W$=INKEY$:IFW$=""THEN120
130 IFW>ABS(FL)THEN170 ELSEIFW$>=""ANDW$<=""~"THEN240
140 IFW$=CHR$(29)THENIFW<=ABS(FL)THENPRINTMID$(IN$,W,1):W=W+1:GOTO250
150 IFW$=CHR$(9)THENIFW<=ABS(FL)THENMID$(IN$,W+1,ABS(FL)-W)=
  MID$(IN$,W,ABS(FL)-W):MID$(IN$,W,1)="" :GOTO260
160 IFW$=CHR$(4)THENIFW<=ABS(FL)THENMID$(IN$,W,ABS(FL)-W)=
  MID$(IN$,W+1,ABS(FL)-W):MID$(IN$,ABS(FL),1)="" :GOTO260
170 CF=INSTR(CC$,W$):IFCF<>0THENW$=CHR$(13):GOTO210
180 IFW=1THEN200 ELSEIFW$=CHR$(8)THENPRINTW$:FL$:B1$:W=W-1:MID$(IN$,W,1)=
  FL$:GOTO120
190 IFW$=CHR$(28)THENPRINTW$:W=W-1:GOTO120
200 IFW$=CHR$(27)THENPRINTMID$(B$,1,W-1):ONWE+1GOTO80 ,90
210 IFW$<>CHR$(13)THEN120 ELSEIFWE=0THENIN$=MID$(IN$,1,W-1)
220 IFCF=0ANDW=1THENCF=5
230 PRINTCF$:MID$(B$,1,W-1):N$:IN$:SPC(ABS(FL)-LEN(IN$)):RETURN
240 MID$(IN$,W,1)=W$:W=W+1:PRINTW$:
250 IFABS(FL)=1THENW$=CHR$(13):GOTO210 ELSE120
260 PRINTCF$:MID$(B$,1,W-1):IN$:MID$(B$,1,ABS(FL)-W+1):CO$:GOTO120
270 FL=-1:GOSUB80 :IFIN$<>""THENIN$=FNUC$(IN$):IFIN$="Y"ORIN$="N"THENRETURN
280 PRINTCHR$(8):GOTO270
290 ED$=MID$(S$,1,ABS(FL)):MID$(ED$,1,ABS(FL))=USR(ED$)
300 IFED$=MID$(F$,1,ABS(FL))THENED$="" :RETURNELSERETURN
310 B1$=CHR$(28):B$=STRING$(40,B1$):FL$="." :F$=STRING$(40,FL$)
320 S$=STRING$(40,32):R$=CHR$(26):N$=CHR$(25):CF$=CHR$(2):CO$=CHR$(1)
330 EE$=CHR$(23):ES$=CHR$(24):DG$="0123456789":CC$=CHR$(1)+CHR$(2)+CHR$(30)
  +CHR$(31)
340 DEFFNUC$(A$)=CHR$(223ANDASC(A$)):UL$=STRING$(80,95):DEFUSR3=&HF240
350 DEFUSR0=&HF200:DEFUSR1=&HF220:DEFUSR2=&HF000:DEFFNFD$(N)=STRING$(N,".")
360 RETURN
370 IFFP=1THENFP=0:ERROR56:RETURNELSERETURN
380 OPEN"I",1,F1$
390 INPUT#1,N,TN,F,LS,LA,LD,LH,LT,LB:IFN=0THEN410
400 FORI=1TOTN-1:INPUT#1,V(I,0),V(I,1):NEXT:LINEINPUT#1,EL$
410 CLOSE1
420 OPEN"R",1,F2$,M
430 FIELD1,(M1)ASD1$,(M0)ASD0$,(M2)ASD2$,(M3)ASD3$,(M4)ASD4$,(M5)ASD5$,

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(M6)ASD6$, (M7)ASD7$, (M8)ASD8$
440 RETURN
450 PRINT@ (0,26), "ADD NEW RECORDS TO FILE";
460 PRINT@ (2,45), "LAST RECORD : ";EL$;
470 PRINT@ (3,0), UL$;
480 RETURN
490 REM
500 PRINT@ (R,C), "First Name, Middle Initial ----: ";FNFD$(M0)
510 PRINT@ (R+1,C), "Last or Company Name -----: ";FNFD$(M1)
520 PRINT@ (R+2,C), "Company Name or Tel. Number ---: ";FNFD$(M2)
530 PRINT@ (R+3,C), "Street Address or Box Number --: ";FNFD$(M3)
540 PRINT@ (R+4,C), "City or Town -----: ";FNFD$(M4)
550 PRINT@ (R+5,C), "State (Two Letter Abbrev.) ----: ";FNFD$(M5)
560 PRINT@ (R+6,C), "Zip Code or Country -----: ";FNFD$(M6)
570 PRINT@ (R+7,C), "Categories: ";
580 FORI=0TO7:PRINT@ (R+8+(IAND3),C-(38*(I>3))),CHR$(32);:NEXT
590 FORI=0TO7:PRINT@ (R+8+(IAND3),C+2-(38*(I>3))),I+1" - "C$(I);:NEXT
600 IFM8<>0THENPRINT@ (R+13,C+15), "Remarks : ";FNFD$(M8)
610 E7=0:RETURN
620 PRINT@ (19,0), UL$;
630 PRINT@ (21,12), "Press "R$" F1 "N$" to exit to MAIN MENU or "R$" F2 "N$;
640 PRINT " to store record.";
650 RETURN
660 GOSUB710 :LSETD0$=E0$:LSETD1$=E1$:LSETD2$=E2$:LSETD3$=E3$:LSETD4$=E4$:
    LSETD5$=E5$:LSETD6$=E6$:LSETD7$=MKI$(E7):LSETD8$=E8$
670 PUT1,J:RETURN
680 GET1,J:RETURN
690 E0$=D0$:E1$=D1$:E2$=D2$:E3$=D3$:E4$=D4$:E5$=D5$:E6$=D6$:E7=CVI(D7$):
    E8$=D8$:RETURN
700 H0$=D0$:H1$=D1$:H2$=D2$:H4$=D4$:H6$=D6$:RETURN
710 IFJ>1THENGET1,J-1:RETURNELSERETURN
720 F0$=SN$+"0":F1$=SN$+"1":F2$=SN$+"2":RETURN
730 OPEN"I",1,F0$
740 LINEINPUT#1,SN$:LINEINPUT#1,NA$:LINEINPUT#1,TL$:LINEINPUT#1,AD$
750 LINEINPUT#1,CSZ$:LINEINPUT#1,FM$
760 INPUT#1,CP,M,M0,M1,M2,M3,M4,M5,M6,M7,M8
770 FORI=0TO7:LINEINPUT#1,C$(I):NEXT:CLOSE1:DIMV(CP+2,1)
780 EL$=FNFD$(M1):RETURN
790 IFERR<>53THEN840
800 PRINT@ (18,23),R$ " NO FILE ON DISKETTE WITH THAT NAME "N$;
810 FORT=1TO8000:NEXT
820 PRINT@ (18,0),CHR$(23);
830 RESUME3400
840 IFERR<>56THEN890 ELSEIFFP=1THEN880
850 IF0=USR1(0)THENFP=0:RESUMENEXT
860 PRINT@ (22,0),EE$;TAB(28)R$" ** PRINTER NOT READY ** "N$
870 FORT=1TO8000:NEXT:PRINT@ (22,0),EE$
880 FP=1:RESUMENEXT
890 CLS:PRINT@ (11,20),R$ " Unexpected ERROR, Code"ERR"in Line"ERL;
900 PRINT@ (13,30), " PROGRAM TERMINATED "N$::PRINT@ (20,0),:CLOSE:GOTO4800
910 PRINT@ (23,31),R$ " Storing record "N$::RETURN

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920 PRINT@ (23,15),CHR$(23);:RETURN
930 PRINT@ (18,31),R$ " Loading system files."N$;:RETURN
940 IX=1
950 ONIXGOSUB980 ,1000 ,1030 ,1060 ,1090 ,1120 ,1150 ,1180 ,1300
960 IFWE=1ANDIN$=MID$(S$,1,ABS(FL))THENPRINTMID$(B$,1,ABS(FL));
      MID$(F$,1,ABS(FL));
970 ONCF+1GOTO950 ,1500 ,1500 ,950 ,950 ,950
980 PRINT@ (R,C+33),;:FL=-M0:GOSUB290 :GOSUB90 :E0$=IN$
990 IFCF=4ORCF=0ORCF=5THENIX=2:RETURNELSERETURN
1000 PRINT@ (R+1,C+33),;:FL=-M1:GOSUB290 :GOSUB90 :E1$=IN$
1010 IFCF=4ORCF=0ORCF=5THENIX=3ELSEIFCF=3THENIX=1
1020 RETURN
1030 PRINT@ (R+2,C+33),;:FL=-M2:GOSUB290 :GOSUB90 :E2$=IN$
1040 IFCF=4ORCF=0ORCF=5THENIX=4ELSEIFCF=3THENIX=2
1050 RETURN
1060 PRINT@ (R+3,C+33),;:FL=-M3:GOSUB290 :GOSUB90 :E3$=IN$
1070 IFCF=4ORCF=0ORCF=5THENIX=5ELSEIFCF=3THENIX=3
1080 RETURN
1090 PRINT@ (R+4,C+33),;:FL=-M4:GOSUB290 :GOSUB90 :E4$=IN$
1100 IFCF=4ORCF=0ORCF=5THENIX=6ELSEIFCF=3THENIX=4
1110 RETURN
1120 PRINT@ (R+5,C+33),;:FL=-M5:GOSUB290 :GOSUB90 :E5$=IN$
1130 IFCF=4ORCF=0ORCF=5THENIX=7ELSEIFCF=3THENIX=5
1140 RETURN
1150 PRINT@ (R+6,C+33),;:FL=-M6:GOSUB290 :GOSUB90 :E6$=IN$
1160 IFCF=4ORCF=0ORCF=5THENIX=8ELSEIFCF=3THENIX=6
1170 RETURN
1180 PRINT@ (R+7,C+12),"Select "R$;I$"A"N$;I$";, "R$;I$"N"N$;I$"one or by ";
1190 PRINTR$;I$"number"N$;I$ " --> ";
1200 FL=-1:GOSUB80 :CN$=IN$:IFCF=0THEN1220
1210 IFCF=4ORCF=5THENIX=9:GOTO1500 ELSEIFCF=3THENIX=7:GOTO1500 ELSE1500
1220 IFFNUC$(CN$)="A"THEN1290
1230 IFFNUC$(CN$)<>"N"THEN1250
1240 FORI=0TO7:PRINT@ (R+8+(IAND3),C-(38*(I>3))),CHR$(32);:NEXT:E7=0:GOTO1180
1250 IFCN$<"1"ORCN$>"8"THENPRINTCHR$(8);:GOTO1180
1260 CN=VAL(CN$)-1
1270 E7=E7 OR 2+CN
1280 PRINT@ (R+8+(CNAND3),C-(38*(CN>3))),"*";:GOTO1180
1290 FORI=0TO7:PRINT@ (R+8+(IAND3),C-(38*(I>3))),"*";:NEXT:E7=255:GOTO1180
1300 IFM8=0THENIX=8:RETURN
1310 PRINT@ (R+13,C+25),;:FL=-M8:GOSUB290 :GOSUB90 :E8$=IN$
1320 IFCF=3THENIX=8
1330 RETURN
1340 PE=0:GOSUB1370 :PN=PT:PE=1:GOSUB1370 :PZ=PT
1350 V(TN,0)=-TN:V(TN,1)=-TN:PF=0:P(0)=-ABS(TN):GOSUB1450
1360 J=ABS(P(0)):IFJ<>TNTHENTN=TN-1:F=F-1:RETURNELSERETURN
1370 NL=0:NH=TN
1380 IFPE=0THENCX$=E1$+E0$:GOSUB1570 :CQ$=CX$ELSECX$=E6$:GOSUB1570 :CQ$=CX$
1390 K1=INT((NH-NL)/2):IFK1=0THENPT=NL+1:RETURNELSEN1=K1+NL
1400 J=ABS(V(N1,PE)):GOSUB680
1410 IFPE=0THENCX$=D1$+D0$:GOSUB1570 :CP$=CX$ELSECX$=D6$:GOSUB1570 :CP$=CX$
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1420 IFCP$=CQ$THENPT=N1+1:RETURN
1430 IFCP$>CQ$THENNH=N1:GOTO1390
1440 NL=N1:GOTO1390
1450 V(0,0)=VARPTR(V(PN,0)):V(0,1)=VARPTR(V(PZ,1))
1460 P(1)=PF:P(2)=VARPTR(V(0,0)):P(3)=VARPTR(V(0,1))
1470 GOSUB1490
1480 RETURN
1490 P(0)=USR2(VARPTR(P(0))):RETURN
1500 PRINT@ (R+7,C+12),CHR$(23);
1510 IFCF=1THENRETURN
1520 IFE1$=SPACE$(M1)THENGOSUB1610:IX=2:GOTO950 ELSERETURN
1530 OPEN"O",1,F1$
1540 PRINT#1,N;TN;F;LS;LA;LD;LH;LT;LB:IFN=0THEN1560
1550 FORI=1TOTN-1:PRINT#1,V(I,0);V(I,1):NEXT:PRINT#1,EL$
1560 CLOSE1:RETURN
1570 FORI=1TOLEN(CX$)
1580 IFASC(MID$(CX$,I,1))>96THENMID$(CX$,I,1)=CHR$(ASC(MID$(CX$,I,1))AND223)
1590 NEXT:RETURN
1600 EQ$=SPACE$(M1):E1$=SPACE$(M1):E6$=SPACE$(M6):RETURN
1610 PRINT@ (23,18),R$ " CANNOT WRITE RECORD WITH BLANK LAST NAME ! "N$;
1620 FORT=1TO8000:NEXT:PRINT@ (23,18),CHR$(23):RETURN
1630 PRINT@ (0,30),"FILE MAINTENANCE";
1640 PRINT@ (2,60),"MODE: ";
1650 PRINT@ (3,0),UL$;
1660 PRINT@ (19,0),UL$;
1670 RETURN
1680 PRINT@ (2,67),R$ " SEARCH "N$::RETURN
1690 PRINT@ (2,67),R$ " COMMAND "N$::RETURN
1700 PRINT@ (2,67),R$ " INDEX "N$::RETURN
1710 PRINT@ (2,67),R$ " UPDATE "N$::RETURN
1720 PRINT@ (2,67),R$ " DELETE "N$::RETURN
1730 PRINT@ (2,67),R$ " LABEL "N$::RETURN
1740 PRINT@ (2,67),CHR$(23):RETURN
1750 NL=0:NH=TN:CX$=E1$:GOSUB1570:E1$=CX$
1760 K1=INT((NH-NL)/2):IFK1=0THEN1820 ELSEN1=K1+NL
1770 J=ABS(V(N1,0)):GOSUB680
1780 CX$=LEFT$(D1$,LEN(E1$)):GOSUB1570:CP$=CX$
1790 IFCP$=E1$THENE1$=D1$:GOTO1830
1800 IFCP$>E1$THENNH=N1:GOTO1760
1810 NL=N1:GOTO1760
1820 PRINT@ (21,0),CHR$(23):PRINT@ (21,25),R$ " RECORD NOT IN FILE ! "N$::
      FORT=1TO8000:NEXT:CF=6:RETURN
1830 IFSGN(V(N1,0))=-1THEN1820
1840 GOSUB690:GOSUB1850:RETURN
1850 FORI=0TO7:PRINT@ (R+8+(IAND3),C-(38*(I>3))),CHR$(32):NEXT
1860 PRINT@ (R,C+33),,:IFE0$<>SPACE$(M0)THENPRINTE0$ELSEPRINTFNFD$(M0)
1870 PRINT@ (R+1,C+33),E1$
1880 PRINT@ (R+2,C+33),,:IFE2$<>SPACE$(M2)THENPRINTE2$ELSEPRINTFNFD$(M2)
1890 PRINT@ (R+3,C+33),,:IFE3$<>SPACE$(M3)THENPRINTE3$ELSEPRINTFNFD$(M3)
1900 PRINT@ (R+4,C+33),,:IFE4$<>SPACE$(M4)THENPRINTE4$ELSEPRINTFNFD$(M4)
1910 PRINT@ (R+5,C+33),,:IFE5$<>SPACE$(M5)THENPRINTE5$ELSEPRINTFNFD$(M5)
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1920 PRINT@ (R+6,C+33),:IFE6$<>SPACE$(M6)THENPRINTE6$ELSEPRINTFNFD$(M6)
1930 FORI=0TO7:IF(E7 AND 2+I)THENPRINT@ (R+8+(IAND3),C-(38*(I>3))),":*";
1940 NEXT
1950 PRINT@ (R+13,C+25),:IFE8$<>SPACE$(M8)THENPRINTE8$ELSEPRINTFNFD$(M8)
1960 RETURN
1970 PRINT@ (20,0),CHR$(24):RETURN
1980 PRINT@ (21,12),"Press "R$" F1 "N$" to exit from UPDATE or "R$" F2 "N$;
1990 PRINT" to store record.":RETURN
2000 PRINT@ (9,5),"Is the printing to be in "R$;I$"A"N$;I$"lphabetic or in ";
2010 PRINTR$;I$"Z"N$;I$"iF Code sequence ? ";
2020 FL=-1:GOSUB80 :IFCF=1THENRETURNELSEIFCF<>0THEN2000 ELSEQ$=FNUC$(IN$)
2030 IFQ$<>"A"ANDQ$<>"Z"THEN2000 ELSEQ=INSTR("AZ",Q$)-1
2040 S0=0:S1=0:S2=0:S3=0:S4=0:S5=0:S6=0:S7=0:S8=0
2050 PRINT@ (12,20),R$;I$"C"N$;I$"omplete file or "R$;I$"S"N$;I$"elected records
? ";
2060 FL=-1:GOSUB80 :IFCF=1THENRETURNELSEIFCF<>0THEN2050 ELSESR$=FNUC$(IN$)
2070 IFSR$<>"C"ANDSR$<>"S"THEN2050 ELSERETURN
2080 GOSUB2800 :GOSUB490
2090 PRINT@ (R-1,0),"Options ( "R$;I$"E"N$;I$"ual to, "R$;I$"G"N$;I$"reater than
, ";
2100 PRINT"or "R$;I$"L"N$;I$"ess than )":FORI=RTOR+13:PRINT@ (I,C-2),CHR$(149):;

NEXT
2110 RETURN
2120 IX=1
2130 SF=0:ONIXGOSUB2150 ,2190 ,2230 ,2270 ,2310 ,2350 ,2390 ,2430 ,2470
2140 ONCF+1GOTO2130 ,2520 ,2520 ,2130 ,2130 ,2130
2150 PRINT@ (R,3),:FL=-1:GOSUB290 :GOSUB90
2160 S0=INSTR("EGL",FNUC$(IN$)):IFS0=0ANDCF=0THENPRINTCHR$(8):GOTO2150
2170 IFCF=0THENGOSUB980 :GOSUB2510 :IFSF<>0THENS0=0:PRINT@ (R,3)," ":RETURN
ELSERETURN
2180 IFCF=4ORCF=5THENIX=2:RETURNELSERETURN
2190 PRINT@ (R+1,3),:FL=-1:GOSUB290 :GOSUB90
2200 S1=INSTR("EGL",FNUC$(IN$)):IFS1=0ANDCF=0THENPRINTCHR$(8):GOTO2190
2210 IFCF=0THENGOSUB1000 :GOSUB2510 :IFSF<>0THENS1=0:PRINT@ (R+1,3)," ":RETURN
ELSERETURN
2220 IFCF=4ORCF=5THENIX=3ELSEIFCF=3THENIX=1:RETURNELSERETURN
2230 PRINT@ (R+2,3),:FL=-1:GOSUB290 :GOSUB90
2240 S2=INSTR("EGL",FNUC$(IN$)):IFS2=0ANDCF=0THENPRINTCHR$(8):GOTO2230
2250 IFCF=0THENGOSUB1030 :GOSUB2510 :IFSF<>0THENS2=0:PRINT@ (R+2,3)," ":RETURN
ELSERETURN
2260 IFCF=4ORCF=5THENIX=4ELSEIFCF=3THENIX=2:RETURNELSERETURN
2270 PRINT@ (R+3,3),:FL=-1:GOSUB290 :GOSUB90
2280 S3=INSTR("EGL",FNUC$(IN$)):IFS3=0ANDCF=0THENPRINTCHR$(8):GOTO2270
2290 IFCF=0THENGOSUB1060 :GOSUB2510 :IFSF<>0THENS3=0:PRINT@ (R+3,3)," ":RETURN
ELSERETURN
2300 IFCF=4ORCF=5THENIX=5ELSEIFCF=3THENIX=3:RETURNELSERETURN
2310 PRINT@ (R+4,3),:FL=-1:GOSUB290 :GOSUB90
2320 S4=INSTR("EGL",FNUC$(IN$)):IFS4=0ANDCF=0THENPRINTCHR$(8):GOTO2310
2330 IFCF=0THENGOSUB1090 :GOSUB2510 :IFSF<>0THENS4=0:PRINT@ (R+4,3)," ":RETURN
ELSERETURN

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2340 IFCF=4ORCF=5THENIX=6ELSEIFCF=3THENIX=4:RETURNELSERETURN
2350 PRINT@ (R+5,3),:FL=-1:GOSUB290 :GOSUB90
2360 S5=INSTR("EGL",FNUC$(IN$)):IFS5=0ANDCF=0THENPRINTCHR$(8):GOTO2350
2370 IFCF=0THENGOSUB1120 :GOSUB2510 :IFSF<>0THENS5=0:PRINT@ (R+5,3)," " :RETURN
      ELSERETURN
2380 IFCF=4ORCF=5THENIX=7ELSEIFCF=3THENIX=5:RETURNELSERETURN
2390 PRINT@ (R+6,3),:FL=-1:GOSUB290 :GOSUB90
2400 S6=INSTR("EGL",FNUC$(IN$)):IFS6=0ANDCF=0THENPRINTCHR$(8):GOTO2390
2410 IFCF=0THENGOSUB1150 :GOSUB2510 :IFSF<>0THENS6=0:PRINT@ (R+6,3)," " :RETURN
      ELSERETURN
2420 IFCF=4ORCF=5THENIX=8ELSEIFCF=3THENIX=6:RETURNELSERETURN
2430 PRINT@ (R+7,3),:FL=-1:GOSUB290 :GOSUB90
2440 S7=INSTR("E",FNUC$(IN$)):IFS7=0ANDCF=0THENPRINTCHR$(8):GOTO2430
2450 IFCF=0THENGOSUB1180 :IFE7=0THENS7=0:PRINT@ (R+7,3)," " :RETURNELSERETURN
2460 IFCF=4ORCF=5THENIX=9ELSEIFCF=3THENIX=7:RETURNELSERETURN
2470 IFM8=0THENIX=8:RETURNELSEPRINT@ (R+13,3),:FL=-1:GOSUB290 :GOSUB90
2480 S8=INSTR("EGL",FNUC$(IN$)):IFS8=0ANDCF=0THENPRINTCHR$(8):GOTO2470
2490 IFCF=0THENGOSUB1300 :GOSUB2510 :IFSF<>0THENS8=0:PRINT@ (R+13,3)," " :RETURN
      ELSERETURN
2500 IFCF=3THENIX=8:RETURNELSERETURN
2510 IFWE=1ANDIN$=MID$(S$,1,ABS(FL))THENPRINTMID$(B$,1,ABS(FL)):
      MID$(F$,1,ABS(FL)):SF=1:RETURNELSERETURN
2520 RETURN
2530 PRINT@ (21,15),"Press "R$" F1 "N$" to exit to MENU or "R$" F2 "N$;
2540 PRINT" to start printing.":RETURN
2550 I=LEN(CX$)
2560 IFMID$(CX$,I,1)=" "ANDI>1THENI=I-1:GOTO2560
2570 CX$=LEFT$(CX$,I):RETURN
2580 IFLEFT$(CX$,LEN(CY$))=CY$THENRETURNELSER=1:RETURN
2590 IFLEFT$(CX$,LEN(CY$))>CY$THENRETURNELSER=1:RETURN
2600 IFLEFT$(CX$,LEN(CY$))<CY$THENRETURNELSER=1:RETURN
2610 CX$=CY$:GOSUB1570 :GOSUB2550 :CY$=CX$:CX$=CZ$:GOSUB1570 :CZ$=CX$
2620 ONSZGOSUB2580 ,2590 ,2600 :RETURN
2630 GOSUB2880
2640 PRINT@ (23,35),R$" PRINTING "N$;
2650 FORSR=1TOTN-1:RS=0
2660 J=V(SR,Q):IFSGN(J)=-1THEN2780
2670 GOSUB680 :IFSR$="C"THEN2770
2680 IFS0<>0THENSZ=S0:CY$=E0$:CZ$=D0$:GOSUB2610 :IFRS=1THEN2780
2690 IFS1<>0THENSZ=S1:CY$=E1$:CZ$=D1$:GOSUB2610 :IFRS=1THEN2780
2700 IFS2<>0THENSZ=S2:CY$=E2$:CZ$=D2$:GOSUB2610 :IFRS=1THEN2780
2710 IFS3<>0THENSZ=S3:CY$=E3$:CZ$=D3$:GOSUB2610 :IFRS=1THEN2780
2720 IFS4<>0THENSZ=S4:CY$=E4$:CZ$=D4$:GOSUB2610 :IFRS=1THEN2780
2730 IFS5<>0THENSZ=S5:CY$=E5$:CZ$=D5$:GOSUB2610 :IFRS=1THEN2780
2740 IFS6<>0THENSZ=S6:CY$=E6$:CZ$=D6$:GOSUB2610 :IFRS=1THEN2780
2750 IFS8<>0THENSZ=S8:CY$=E8$:CZ$=D8$:GOSUB2610 :IFRS=1THEN2780
2760 IFS7<>0THENIF (E7ANDCVI(D7$))<>E7THEN2780
2770 GOSUB3330 :IFINKEY$=CHR$(1)THENSR=TN-1
2780 NEXT:IFOP$="P"THENLPRINTTAB(50)"** END OF LISTING **":SYSTEM"FORMS T":
      RETURN
2790 GOTO4500
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2800 FORI=4T018:PRINT@ (I,0),CHR$(23):NEXT:RETURN
2810 PRINT@ (2,H),"Current Label Setting: "R$;
2820 ONL$GOTO2830 ,2840 ,2850 ,2860 ,2870
2830 PRINT" 2 1/2 by 1,"LA"Across "N$::RETURN
2840 PRINT" 3 1/2 by 1,"LA"Across "N$::RETURN
2850 PRINT" 4 by 1 1/2,"LA"Across "N$::RETURN
2860 PRINT" 4 by 2,"LA"Across "N$::RETURN
2870 PRINT" 5 3/4 by 3,"LA"Across "N$::RETURN
2880 LPRINTDT$:LC=1
2890 LPRINT"Mailing List System'for:":LC=LC+1
2900 IFNA$<>BL$THENLPRINTTAB(25)NA$:LC=LC+1
2910 IFTL$<>BL$THENLPRINTTAB(25)TL$:LC=LC+1
2920 IFAD$<>BL$THENLPRINTTAB(25)AD$:LC=LC+1
2930 IFCSZ$<>BL$THENLPRINTTAB(25)CSZ$:LC=LC+1
2940 LPRINT" "
2950 IFQ=0THENLPRINT"Alphabetic ";ELSELPRINT"Zip Code ";
2960 LPRINT"sequence":LPRINT" ":LC=LC+3
2970 IFSR$="C"THENLPRINT"Complete File":GOTO3080 ELSELPRINT"Selected Records":
      LC=LC+1
2980 SW$="=><"
2990 IFS0<>0THENLPRINT"First name "TAB(16)MID$(SW$,S0,1)" "E0$:LC=LC+1
3000 IFS1<>0THENLPRINT"Last name "TAB(16)MID$(SW$,S1,1)" "E1$:LC=LC+1
3010 IFS2<>0THENLPRINT"Co. name/tel.# "TAB(16)MID$(SW$,S2,1)" "E2$:LC=LC+1
3020 IFS3<>0THENLPRINT"Street "TAB(16)MID$(SW$,S3,1)" "E3$:LC=LC+1
3030 IFS4<>0THENLPRINT"City "TAB(16)MID$(SW$,S4,1)" "E4$:LC=LC+1
3040 IFS5<>0THENLPRINT"State "MID$(SW$,S5,1)" "E5$:LC=LC+1
3050 IFS6<>0THENLPRINT"Zip Code "TAB(16)MID$(SW$,S6,1)" "E6$:LC=LC+1
3060 IFS7<>0THENLPRINT"Categories      =":FORI=0T07:IF(2+I AND E7)THEN
      LPRINTI+1::NEXT:LPRINT:LC=LC+1ELSENEXT:LPRINT:LC=LC+1
3070 IFS8<>0THENLPRINT"Remarks "TAB(16)MID$(SW$,S8,1)" "E8$:LC=LC+1
3080 LPRINTSTRING$(131,"="):LC=LC+1:RETURN
3090 IFLT<>0THENFORI=1TOLT:LPRINTCHR$(10):NEXT
3100 IFLS=5THENGOSUB3280 :LM=21
3110 FORID=0TOLV:FORIA=0TOLZ
3120 LPRINTTAB (IA* LH+LM)L$(IA,ID);
3130 NEXTIA:LPRINT:NEXTID
3140 FORI=1TOLB:LPRINTCHR$(10):NEXT:LM=0:RETURN
3150 GOSUB700 :IFLEFT$(H2$,1)<"A"THENH=1ELSEH=0
3160 IFH0$=SPACE$(M0)THENL$(LZ,H)=H1$:GOTO3200
3170 CX$=H0$:GOSUB2550 :H0$=CX$:CX$=H1$:GOSUB2550 :H1$=CX$
3180 IFLEN(H0$+H1$)>LH-4THENH0$=LEFT$(H0$,1)+". "
3190 L$(LZ,H)=H0$+" "+H1$
3200 CX$=H4$:GOSUB2550 :H4$=CX$:CX$=H6$:GOSUB2550 :H6$=CX$
3210 IFH=0THENL$(LZ,1)=H2$ELSEL$(LZ,0)=SPACE$(LH-3)
3220 L$(LZ,2)=D3$
3230 IFLEN(H4$+D5$+H6$)>LH-5THENL$(LZ,3)=H4$+" "+D5$:GOTO3250
3240 L$(LZ,3)=H4$+" "+D5$+" "+H6$:H6$=SPACE$(M6)
3250 L$(LZ,4)=H6$
3260 IFLZ=LA-1THENGOSUB3090 :LZ=0ELSELZ=LZ+1
3270 RETURN
3280 LPRINT"From: ";

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3290 LPRINTTAB(7)NA$:IFTL$<>BL$THENLPRINTTAB(7)TL$
3300 LPRINTTAB(7)AD$:LPRINTTAB(7)CSZ$
3310 IFTL$=BL$THENLPRINTCHR$(10)
3320 FORI=1TO7:LPRINTCHR$(10):NEXT:LPRINTTAB(17)"To: ";:RETURN
3330 IFOP$="L"THEN3150 ELSELPRINTD1$TAB(22)D0$TAB(42)D2$TAB(66)D3$TAB(90)D4$
      TAB(114)D5$TAB(120)D6$
3340 LPRINTTAB(22)"Categories:":;FORI=0TO7:IF(2+I AND CVI(D7$))THENLPRINTI+1;;
      NEXTELSENEXT
3350 IFM8<>0THENLPRINTTAB(66)"Remarks: ";D8$ELSELPRINT
3360 LPRINTSTRING$(131,"-"):LC=LC+3:IFLC>57THENLC=0:SYSTEM"FORMS T"
3370 RETURN
3380 PRINT$(5,26),"BUSINESS MAILING LIST SYSTEM"
3390 PRINT$(8,0),UL$;
3400 PRINT$(14,19),"Enter the name assigned to the system: ";
3410 FL=-7:GOSUB80 :IFCF=1THEN4790 ELSEIFCF<>0THEN3400 ELSE SN$=IN$:
      GOSUB930
3420 GOSUB720 :GOSUB730 :GOSUB380
3430 CLS:PRINT$(0,0),"Mailing List System for:":PRINT
3440 IFNA$<>BL$THENPRINTTAB(25)NA$
3450 IFTL$<>BL$THENPRINTTAB(25)TL$
3460 IFAD$<>BL$THENPRINTTAB(25)AD$
3470 IFCSZ$<>BL$THENPRINTTAB(25)CSZ$
3480 PRINT$(7,0),"SYSTEM NAME: "SN$ TAB(30)"FORMAT: ";
3490 IFFM$="C"THENPRINT"Compressed";ELSEPRINT"Expanded";
3500 PRINTTAB(55)"CAPACITY: "CP"Records";
3510 PRINT$(8,17),R$:N$N$ "active records currently in the system.";
3520 PRINT$(9,0),UL$;
3530 PRINT$(11,30),"M A I N M E N U"
3540 R=13:C=18
3550 PRINT$(R,C),R$:I$"A"N$:I$" D D N E W R E C O R D S T O F I L E ";
3560 PRINT$(R+2,C),R$:I$"F"N$:I$" I L E M A I N T E N A N C E ";
3570 PRINT$(R+4,C),R$:I$"P"N$:I$" R I N T L I S T I N G S ";
3580 PRINT$(R+6,C),R$:I$"L"N$:I$" A B E L P R I N T I N G ";
3590 PRINT$(R+8,C),R$:I$"F1"N$:I$" - E X I T F R O M P R O G R A M ";
3600 FORI=1TO10:XX$=INKEY$:NEXT
3610 PRINT$(23,24),"Select desired function --> ";
3620 FL=-1:GOSUB80 :IFCF=1THEN4780 ELSEIFCF<>0THEN3610 ELSEOP$=FNUC$(IN$):
      ON1+INSTR("AFPL",OP$)GOSUB3640 ,3650 ,3680 ,4090 ,4180
3630 IFINSTR("AFPL",OP$)=0THEN3610 ELSE3430
3640 RETURN
3650 CLS:R=5:C=4:GOSUB450 :GOSUB620
3660 IFN=3000THENCLS:PRINT$(11,25),R$: "SYSTEM IS FULL ("CP"RECORDS )"N$::
      FORT=1TO8000:NEXT:RETURNELSEGOSUB460 :GOSUB490 :GOSUB1600 :
      GOSUB940 :IFCF=1THENRETURN
3670 J=TN:GOSUB910 :GOSUB1340 :N=N+1:GOSUB660 :GOSUB920 :TN=TN+1:EL$=E1$:
      IW=1:GOTO3660
3680 CLS:R=5:C=4:GOSUB1630 :GOSUB370 :H=5:GOSUB2810
3690 GOSUB490 :N1=TN-1:GOTO3830
3700 GOSUB490 :GOSUB1740 :GOSUB1680
3710 GOSUB1970
3720 PRINT$(21,10),"Enter Last Name or Company Name: ";

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3730 FL=-M1:GOSUB80 :IFCF=1THEN3750 ELSEIFCF<>0THEN3720 ELSEE1$=IN$
3740 GOSUB1750 :IFCF=6THEN3720
3750 GOSUB1740 :GOSUB1690
3760 GOSUB1970
3770 PRINT(20,5),R$;I$"S"N$;I$"earch"TAB(30)R$;I$"N"N$;I$"ext record"
      TAB(55)R$;I$"P"N$;I$"revious record";
3780 PRINT(21,5),R$;I$"U"N$;I$"edate record"TAB(30)R$;I$"D"N$;I$"elete record"
      TAB(55)R$;I$"L"N$;I$"abel print";
3790 PRINT(23,5),"Select command (by letter) or press "R$" F1 "N$" TO ";
3800 PRINT"exit to MAIN MENU --> ";
3810 FL=-1:GOSUB80 :IFCF=1THENRETURNELSEIFCF<>0THEN3770 ELSE0$=FNUC$(IN$)
3820 ON1+INSTR("NPSUDL",0$)GOTO3790 ,3830 ,3870 ,3700 ,3910 ,3970 ,4170
3830 GOSUB1740 :GOSUB1700
3840 IFN1+1=TNTHENN1=1ELSEN1=N1+1
3850 J=V(N1,0):IFSGN(J)=-1THEN3840
3860 GOSUB680 :GOSUB690 :GOSUB1850 :GOTO3750
3870 GOSUB1740 :GOSUB1700
3880 IFN1-1=0THENN1=TN-1ELSEN1=N1-1
3890 J=V(N1,0):IFSGN(J)=-1THEN3880
3900 GOSUB680 :GOSUB690 :GOSUB1850 :GOTO3750
3910 GOSUB1970 :GOSUB1740 :GOSUB1710
3920 GOSUB1980 :GOSUB940
3930 IFCF=1THENGOSUB690 :GOSUB1850 :GOTO3750
3940 IFE0$=D0$ANDE1$=D1$ANDE6$=D6$THENGOSUB910 :GOSUB660 :GOSUB920 :GOTO3920
3950 GOSUB910 :JT=J:PF=1:PE=0:GOSUB1370 :PN=PT:PE=1:GOSUB1370 :PZ=PT:J=JT:
      P(0)=-ABS(J)
3960 GOSUB1450 :GOSUB660 :GOSUB1750 :IW=1:GOSUB920 :GOTO3920
3970 GOSUB1970 :GOSUB1740 :GOSUB1720
3980 PRINT(21,20),R$" DELETE "N$" requested. Approve (Y/N) ? ";
3990 GOSUB270 :IFCF=1THEN3750 ELSEIFCF<>0THEN3980
4000 IFIN$="N"THEN3750 ELSEGOSUB4050
4010 FORNX=1TOTN-1:IFABS(V(NX,1))=JTHENV(NX,1)=-J:NX=TN-1:NEXTELSENEXT
4020 FORNX=1TOTN-1:IFABS(V(NX,0))=JTHENV(NX,0)=-J:NX=TN-1:NEXTELSENEXT
4030 N=N-1:F=F+1:IW=1:N1=N0
4040 GOSUB490 :GOTO3830
4050 PRINT(23,30),R$" DELETION IN PROGRESS "N$;
4060 E1$=STRING$(M1,127):E6$=STRING$(M6,127):N0=N1-1
4070 JT=J:PF=1:PE=0:GOSUB1370 :PN=PT:PE=1:GOSUB1370 :PZ=PT:J=JT:P(0)=-ABS(J)
4080 GOSUB1450 :GOSUB660 :GOSUB920 :RETURN
4090 CLS:R=5:C=9:PRINT(0,30),"PRINT LISTINGS":GOSUB370 :IFFP=1THENRETURN
4100 PRINT(3,0),UL$;:PRINT(19,0),UL$;
4110 GOSUB2000 :IFCF=1THENRETURN
4120 IFSR$="S"THENGOSUB2080 :GOSUB2530 :GOSUB2120 :IFCF=2THENGOSUB2630 :RETURN
      ELSERETURN
4130 GOSUB2530
4140 QP$=INKEY$:IFQP$<>CHR$(1)ANDQP$<>CHR$(2)THEN4140
4150 IFQP$=CHR$(2)THENGOSUB2630
4160 RETURN
4170 GOSUB1740 :GOSUB1730 :LZ=0:LV=LD:GOSUB3150 :GOSUB4500 :GOTO3750
4180 CLS:R=5:C=9:PRINT(0,31),"LABEL PRINTING":GOSUB370 :IFFP=1THENRETURN
4190 PRINT(3,0),UL$;:PRINT(19,0),UL$;
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4200 GOSUB2800 :H=15:GOSUB2810 :PRINT(5,33),"FUNCTION MENU";
4210 PRINT(7,25),R$;I$;"P"N$;I$;"rint Labels from File";
4220 PRINT(9,25),R$;I$;"R"N$;I$;"eturn Address Label Printing";
4230 PRINT(11,25),R$;I$;"S"N$;I$;"elect Label Size";
4240 PRINT(13,25),R$;I$;"A"N$;I$;"lign Printer";
4250 PRINT(15,25),R$;I$;"F1"N$;I$;" - Return to MAIN MENU";
4260 PRINT(18,25),"Select function --> ";
4270 FL=-1:GOSUB80 :IFCF=1THENRETURNELSEIFCF<>0THEN4260 ELSEOL$=FNUC$(IN$)
4280 ON1+INSTR("PRSA",OL$)GOSUB4300 ,4310 ,4380 ,4510 ,4740
4290 GOSUB1970 :GOTO4200
4300 RETURN
4310 GOSUB2800 :GOSUB2000 :IFCF=1THENRETURN
4320 IFSR$="S"THENGOSUB2080 :GOSUB2530 :GOSUB2120 :GOTO4360
4330 GOSUB2530
4340 QP$=INKEY$:IFQP$<>CHR$(1)ANDQP$<>CHR$(2)THEN4340
4350 CF=ASC(QP$)
4360 IFCF=2THENLZ=0:LV=LD:GOSUB2640
4370 RETURN
4380 GOSUB2800 :PRINT(10,25),"HOW MANY LABELS (1 TO 999) ? ";
4390 FL=-3:GOSUB80 :IFCF=1THENRETURNELSEIFCF<>0THEN4380
4400 IFIN$<"1"ORIN$>"999"THEN4380 ELSELO=VAL(IN$)
4410 GOSUB2530
4420 QP$=INKEY$:IFQP$<>CHR$(1)ANDQP$<>CHR$(2)THEN4420 ELSEIFQP$=CHR$(1)THEN
RETURN
4430 LZ=0:LV=LD
4440 FORLR=1TOLO:IFLS=5THENGOSUB3280 :FORI=1TO7:LPRINTCHR$(10):NEXT:GOTO4490
4450 IFTL$<BL$THENL$(LZ,0)=NA$ELSEL$(LZ,0)=BL$:L$(LZ,1)=NA$:GOTO4470
4460 L$(LZ,1)=TL$
4470 L$(LZ,2)=AD$:L$(LZ,3)=CSZ$:L$(LZ,4)=BL$
4480 IFLZ=LA-1THENGOSUB3090 :LZ=0ELSELZ=LZ+1
4490 NEXT
4500 IFLZ<>0THENLZ=LZ-1:GOSUB3090 :RETURNELSERETURN
4510 GOSUB2800
4520 PRINT(5,22),"Dimensions"TAB(45)"Number Across"
4530 PRINTTAB(22)"-----"TAB(45)"-----"
4540 PRINT(7,19),R$;I$;"A"N$;I$;" - 2 1/2 by 1"TAB(45)R$;I$;"1"N$;I$;R$;I$;"2"N$;
I$;R$;I$;"4"N$;I$;R$;I$;"5"N$;I$
4550 PRINT(9,19),R$;I$;"B"N$;I$;" - 3 1/2 by 1"TAB(45)R$;I$;"1"N$;I$;R$;I$;"2"N$;
I$;R$;I$;"3"N$;I$
4560 PRINT(11,19),R$;I$;"C"N$;I$;" - 4 by 1 1/2"TAB(45)R$;I$;"1"N$;I$;R$;I$;"2"N$;
I$;R$;I$;"3"N$;I$
4570 PRINT(13,19),R$;I$;"D"N$;I$;" - 4 by 2"TAB(45)R$;I$;"1"N$;I$;R$;I$;"2"N$;I$;
R$;I$;"3"N$;I$
4580 PRINT(15,19),R$;I$;"E"N$;I$;" - 5 3/4 by 3"TAB(45)R$;I$;"1"N$;I$
4590 PRINT(17,19),"Select Dimension --> ";
4600 FL=-1:GOSUB80 :IFCF=1THENRETURNELSEIFCF<>0THEN4590ELSEIN$=FNUC$(IN$)
4610 LS=INSTR("ABCDE",IN$):IFLS=0THEN4590
4620 HM$="How many across ? ":ONLSGOTO4630 ,4650 ,4670 ,4690 ,4710
4630 PRINT(17,45),HM$;FL=-1:GOSUB80 :IFCF<>0THEN4630 ELSELA=INSTR
("12345",IN$)
4640 IFLA=0ORLA=3THEN4630 ELSELD=4:LH=26:LT=0:LB=1:GOTO4720

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4650 PRINT@ (17,45),HM$;:FL=-1:GOSUB80 :IFCF<>0THEN4650 ELSELA=INSTR("123",IN$)
4660 IFLA=0THEN4650 ELSELD=3:LH=36:LT=1:LB=1:GOTO4720
4670 PRINT@ (17,45),HM$;:FL=-1:GOSUB80 :IFCF<>0THEN4650 ELSELA=INSTR("123",IN$)
4680 IFLA=0THEN4670 ELSELD=3:LH=41:LT=2:LB=3:GOTO4720
4690 PRINT@ (17,45),HM$;:FL=-1:GOSUB80 :IFCF<>0THEN4690 ELSELA=INSTR("123",IN$)
4700 IFLA=0THEN4690 ELSELD=3:LH=41:LT=4:LB=4:GOTO4720
4710 LA=1:LD=3:LH=38:LT=1:LB=2:GOTO4720
4720 PRINT@ (2,0),CHR$(23);:GOSUB2810 :IW=1:RETURN
4730 RETURN
4740 LZ=LA-1:LV=LD:FORI=0TOLZ:FORJ=0TOLV
4750 L$(I,J)=STRING$(LH-3,"X")
4760 NEXTJ,I
4770 GOSUB3090 :RETURN
4780 CLOSE:IFIW=1THENGOSUB1530 :CLOSEELSECLOSE
4790 CLS:PRINT@ (11,33),R$" END OF PROGRAM "N$:PRINT@ (20,0);,
4794 GOTO4800
4795 XX=USR3(0)
4800 CLEAR100:SYSTEM
```


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