TRS-80®

Model 100 Portable Computer

INTERACTIVE SOLUTIONS

IMPORTANT NOTICE FOR ROM MODULE USERS

The ROM module for your portable computer is extremely sensitive to static. Before removing the ROM module from its protective container, please read the following important notes:

- Because of the ROM module's sensitivity to static, it is packed in aluminum foil. Remove this foil before installing the ROM module and retain it for re-storing the module.
- Synthetic fabrics, including clothing and carpeting, can create static buildup. If possible, install the ROM in a noncarpeted room.
- Before handling the ROM module, ground yourself by touching a large metallic object, preferably one that is grounded.
- Be sure that all power to the computer is turned off before inserting or removing the module.
- You can keep the ROM module in the compartment of your portable computer. You do not have to remove it after each use. If, however, you do remove it, always wrap it in aluminum foil and store it in its protective container.

Thank you!

Radio Shaek

CUSTOM PACKAGED BY RADIO SHACK A DIVISION OF TANDY CORPORATION FORT WORTH, TEXAS 76102 TERMS AND CONDITIONS OF SALE AND LICENSE OF RADIO SHACK COMPUTER EQUIPMENT AND SOFTWARE PURCHASED FROM A RADIO SHACK COMPANY-OWNED COMPUTER CENTER, RETAIL STORE OR FROM A RADIO SHACK FRANCHISEE OR DEALER AT ITS AUTHORIZED LOCATION

LIMITED WARRANTY

I. CUSTOMER OBLIGATIONS

- A. CUSTOMER assumes full responsibility that this Radio Shack computer hardware purchased (the "Equipment"), and any copies of Radio Shack software included with the Equipment or licensed separately (the "Software") meets the specifications, capacity, capabilities, versatility, and other requirements of CUSTOMER.
- B. CUSTOMER assumes full responsibility for the condition and effectiveness of the operating environment in which the Equipment and Software are to function, and for its installation.

II. RADIO SHACK LIMITED WARRANTIES AND CONDITIONS OF SALE

- A. For a period of ninety (90) calendar days from the date of the Radio Shack sales document received upon purchase of the Equipment, RADIO SHACK warrants to the original CUSTOMER that the Equipment and the medium upon which the Software is stored is free from manufacturing defects. THIS WARPANTY IS ONLY APPLICABLE TO PURCHASES OF RADIO SHACK EQUIPMENT BY THE ORIGINAL CUSTOMER FROM RADIO SHACK COMPANY-OWNED COMPUTER CENTERS, RETAIL STORES AND FROM RADIO SHACK FRANCHISEES AND DEALERS AT ITS AUTHORIZED LOCATION. The warranty is void if the Equipment's case or cabinet has been opened, or if the Equipment or Software has been subjected to improper or abnormal use. If a manufacturing defect is discovered during the stated warranty period, the defective Equipment must be returned to a Radio Shack Computer Center, a Radio Shack retail store, participating Radio Shack franchisee or Radio Shack dealer for repair, along with a copy of the sales document or lease agreement. The original CUSTOMER'S sole and exclusive remedy in the event of a defect is limited to the correction of the defect by repair, replacement, or refund of the purchase price, at RADIO SHACK'S election and sole expense. RADIO SHACK has no obligation to replace or repair expendable items
- B. RADIO SHACK makes no warranty as to the design, capability, capacity, or suitability for use of the Software, except as provided in this paragraph. Software is licensed on an "AS IS" basis, without warranty. The original CUSTOMER's exclusive remedy, in the event of a Software manufacturing defect, is its repair or replacement within thirty (30) calendar days of the date of the Radio Shack sales document received upon license of the Software. The defective Software shall be returned to a Radio Shack Computer Center, a Radio Shack retail store, participating Radio Shack franchisee or Radio Shack dealer along with the sales document.
- C. Except as provided herein no employee, agent, franchisee, dealer or other person is authorized to give any warranties of any nature on behalf of RADIO SHACK.
- D. Except as provided herein, radio shack makes no warranties, including warranties of merchantability or fitness for a particular purpose.
- E. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation(s) may not apply to CUSTOMER.

III. LIMITATION OF LIABILITY

A. EXCEPT AS PROVIDED HEREIN, RADIO SHACK SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO CUSTOMER OR ANY OTHER PERSON OR ENTITY WITH RESPECT TO ANY LIABILITY. LOSS OR DAMAGE CAUSED OR ALLEGED TO BE CAUSED DIRECTLY OR INDIRECTLY BY "EQUIPMENT" OR "SOFTWARE" SOLD, LEASED, LICENSED OR FURNISHED BY RADIO SHACK. INCLUDING, BUT NOT LIMITED TO, ANY INTERRUPTION OF SERVICE. LOSS OF BUSINESS OR ANTICIPATORY PROFITS OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR OPERATION OF THE "EQUIPMENT" OR "SOFTWARE". IN NO EVENT SHALL RADIO SHACK BE LIABLE FOR LOSS OF PROFITS, OR ANY INDIRECT, SPECIAL, OR CONSEQUENTIAL DAMAGES ARISING OUT OF ANY BREACH OF THIS WARRANTY OR IN ANY MANNER ARISING OUT OF OR CONNECTED WITH THE SALE, LEASE, LICENSE, USE OR ANTICIPATED USE OF THE "EQUIPMENT" OR "SOFTWARE"

continued

NOTWITHSTANDING THE ABOVE LIMITATIONS AND WARRANTIES. RADIO SHACK'S LIABILITY HEREUNDER FOR DAMAGES INCURRED BY CUSTOMER OR OTHERS SHALL NOT EXCEED THE AMOUNT PAID BY CUSTOMER FOR THE PARTICULAR "EQUIPMENT" OR "SOFTWARE" INVOLVED.

- B. RADIO SHACK shall not be liable for any damages caused by delay in delivering or furnishing Equipment and/or Software.
- C. No action arising out of any claimed breach of this Warranty or transactions under this Warranty may be brought more than two (2) years after the cause of action has accrued or more than four (4) years after the date of the Radio Shack sales document for the Equipment or Software, whichever first occurs.
- D. Some states do not allow the limitation or exclusion of incidental or consequential damages, so the above limitation(s) or exclusion(s) may not apply to CUSTOMER.

IV. RADIO SHACK SOFTWARE LICENSE

RADIO SHACK grants to CUSTOMER a non-exclusive, paid-up license to use the RADIO SHACK Software on one computer, subject to the following provisions:

- A. Except as otherwise provided in this Software License, applicable copyright laws shall apply to the
- B. Title to the medium on which the Software is recorded (cassette and or diskette) or stored (ROM) is transferred to CUSTOMER, but not title to the Software.
- C. CUSTOMER may use Software on one host computer and access that Software through one or more terminals if the Software permits this function.
- D. CUSTOMER shall not use, make, manufacture, or reproduce copies of Software except for use on one computer and as is specifically provided in this Software License. Customer is expressly prohibited from disassembling the Software.
- CUSTOMER is permitted to make additional copies of the Software only for backup or archival purposes or if additional copies are required in the operation of one computer with the Software, but only to the extent the Software allows a backup copy to be made. However, for TRSDOS Software, CUSTOMER is permitted to make a limited number of additional copies for CUSTOMER'S own use.
- F. CUSTOMER may resell or distribute unmodified copies of the Software provided CUSTOMER has purchased one copy of the Software for each one sold or distributed. The provisions of this Software License shall also be applicable to third parties receiving copies of the Software from CUSTOMER
- G. All copyright notices shall be retained on all copies of the Software.

V. APPLICABILITY OF WARRANTY

- A. The terms and conditions of this Warranty are applicable as between RADIO SHACK and CUSTOMER to either a sale of the Equipment and/or Software License to CUSTOMER or to a transaction whereby RADIO SHACK sells or conveys such Equipment to a third party for lease to CUSTOMER.
- B. The limitations of liability and Warranty provisions herein shall inure to the benefit of RADIO SHACK, the author, owner and/or licensor of the Software and any manufacturer of the Equipment sold by RADIO SHACK.

VI. STATE LAW RIGHTS

The warranties granted herein give the **original** CUSTOMER specific legal rights, and the **original** CUSTOMER may have other rights which vary from state to state.

INTERACTIVE SOLUTIONS



INTERACTIVE SOLUTIONS Program: © 1984, DCM Data Products Licensed to Tandy Corporation. All Rights Reserved.

All portions of this software are copyrighted and are the proprietary and trade secret information of Tandy Corporation and/or its licensor. Use, reproduction or publication of any portion of this material without the prior written authorization by Tandy Corporation is strictly prohibited.

INTERACTIVE SOLUTIONS Program Manual: © 1984, Tandy Corporation All Rights Reserved.

Reproduction or use, without express written permission from Tandy Corporation and/or its licensor, of any portion of this manual is prohibited. While reasonable efforts have been taken in the preparation of this manual to assure its accuracy, Tandy Corporation assumes no liability resulting from any errors or omissions in this manual, or from the use of the information contained herein.

TABLE OF CONTENTS

Introduction1Required Equipment2Optional Equipment2Loading Instructions3
Data Manager
Data Manager 5
Creating Forms 9
Modifying A Form13
Storing Data
Examining Records17
Selecting Specific Records18
Updating Records20
Addition and Subtraction20
The Type Function21
The Call Function22
The Delete Function22
Printing Reports23
Copying Reports25
Data Calc
Introduction to INTERACTIVE SOLUTIONS Data Calc27
Marker Movement
Command Menu30
Entering Text
Entering Numbers
Practice Session
Row Formula Entry
Formula Entry
Column Formula Entry
Displaying A Formula44
Calculation
Inserting Data From Data Manager
Printing Reports
Copying to Paste Buffer
Commands in Menu-2

Inserting Rows50
Inserting Columns50
Deleting Rows5
Deleting Columns5
Clearing Rows
Clearing Columns
Changing Column Width52
Loading from Tape55
Saving to Tape
Word Processor5
Introduction to INTERACTIVE SOLUTIONS
Word Processor5
Preparing and Printing Text5
Control Parameters
Dot Commands6
Special Print Modes7
Mail Merge7
Using the Paste Option7
551119 1110 1 1110 1 1 1
Appendix A Examples for Data Manager7
Appendix B Example for Word Processor8
Appendix C Saving and Loading Special Files8

INTRODUCTION

INTERACTIVE SOLUTIONS for the Model 100 is a cross referencing program consisting of a data base program, a spreadsheet program, and a word processing system. INTERACTIVE SOLUTIONS is designed to be self-explanatory and guide you through each process. The manual includes many examples that step through each phase of the program.

You have the option in many cases of using either function keys or designated letter keys to complete an action. Clear and concise labels and menus make decision making easy.

Information stored in Data Manager, the data base, can be utilized by Data Calc, the spreadsheet program, and Word Processor allows you to merge Data Manager information into the text. You can even store information in a buffer to be used at a later time.

While using Data Calc, you can select fields from a Data Manager file, specify selection criteria, and then load the field names in the columns of the worksheet.

You can generate a tabular report in Data Manager and then paste the report into a text file in Word Processor.

You can select any part of a Data Calc worksheet and, by using the paste buffer, add it to any text file in Word Processor.

Using the *Merge* option of Word Processor, you can extract fields from Data Manager selected records. Using these fields you can generate multiple letters and documents, inserting different names, addresses, or other field information.

The options to use underlining, boldface, and other print codes are included as print criteria. You can format print output to meet your own specific needs.

INTERACTIVE SOLUTIONS is a ROM product and therefore increases the amount of memory that can be utilized by your Model 100. In addition, you can save Data Calc results on cassette instead of using valuable RAM memory.

Required Equipment

- TRS-80® Model 100 Computer with at least 16K memory
- AC Power Supply (26-3804) or four AA batteries
- Tandy Parallel printer
- Model 100 printer cable (26-1409)

Optional Equipment

• Cassette recorder such as CCR-81 (26-1208) and cable

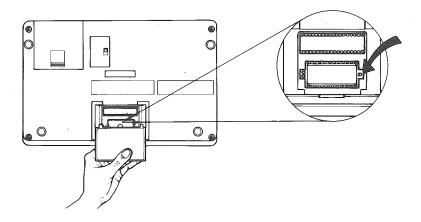
Note: INTERACTIVE SOLUTIONS is not meant to be used on the Disk Video Interface.

Loading Instructions

Note: The ROM module is extremely sensitive to static, be cautious when opening the ROM packaging.

Before installing the INTERACTIVE SOLUTIONS ROM in your Model 100, make sure that your computer is turned off. Unplug the Power Adapter.

- 1. Place the Model 100 face down on a flat surface such as a table.
- 2. Pop open the ROM Module expansion compartment door by inserting a small coin in the indicated slot and exerting light pressure.
- 3. Insert the INTERACTIVE SOLUTIONS ROM Module into the shorter socket in this compartment. Align the ends of the ROM as in the illustration.



- 4. Gently push the ROM into the socket. Don't force the ROM. If you are having trouble, make sure you are aligning the ROM and the socket correctly.
- 5. Close the compartment door, and turn over your Model 100.

DATA MANAGER

Turn on the Model 100. At the Main Menu, press $\overline{\text{ENTER}}$ to select BASIC.

In BASIC, type:

NEW ENTER 10 CLEAR 0,60200 ENTER 20 CALL 63012 (ENTER)

SAVE "INTSOL.BA" ENTER

Press (F8) to return to the Main Menu. INTSOL.BA is the file used for running INTERACTIVE SOLUTIONS. Position the marker (also called a cursor) over INTSOL.BA, and press (ENTER). You will see the INTERACTIVE SOLUTIONS copyright message for two seconds, followed by the INTERACTIVE SOLUTIONS Main Menu:

	INTERACTI	VE SOLUTIONS	
	DWar - D)ata Manager	
	Calc - D)ata Calc	
	Word - Þ	lord Processor	
DMar	Calc	Word	Menu

Press (F2), or press the (D) key for Data Manager.

Press (F3), or press the (C) key for Data Calc.

Press (F5), or press the (W) key for Word Processor.

After you have made your selection and pressed the appropriate key, INTERACTIVE SOLUTIONS prompts for a filename. Respond with a filename of six or fewer characters. Use a name that clearly identifies the type of file that you will be using. The filename must start with a letter.

The screen exhibits the menu for the INTERACTIVE SOLUTIONS program you have chosen.

Introduction to INTERACTIVE SOLUTIONS Data Manager

Data Manager is simple, yet versatile software that converts your Model 100 into a functional personal filing system. With Data Manager you can easily store, examine, update, and list a variety of information. The information can vary from personnel records and inventory facts to lists of clients or lists of suppliers. Whatever your line of work, if you regularly handle information, then Data Manager is a most useful tool.

Data Manager organizes information into record files. A record file is composed of separate, individual records that relate to each other. Each record contains the information pertaining to a single person in your personnel record file, a supplier in your suppliers record file, and so on. You'll find that normally time-consuming and tedious tasks such as reviewing, updating, and listing records can now be easily accomplished.

To use Data Manager, it is necessary to create a record layout form. The record layout form is the design of the way you want your individual file to look. It is the same design that you would create as a form on paper and can resemble the way you have kept your records in the past. Like the paper version, the record layout form contains item labels (NAME:, ADDRESS:, AGE:, and so on) and fields (blank areas) that can be filled in. The layout form can be a maximum of 20 lines long and 40 columns wide and contain a maximum of 254 characters. Only 7 lines (rows) can be displayed at one time, you must scroll the screen to see the entire layout. The examples display the entire form although it is more than 8 rows.

A typical personnel record layout form for a fictitious company is:

Data Manager uses the layout form to enter, retrieve, update, and list any records that you wish. You can also perform addition and subtraction on numeric fields. This capability allows you to keep track of current balances or expenses and maintains numeric information at its most current level. Finally, Data Manager's *autodial* feature lets you call a phone number that has been included in any of your records when the Model 100 is connected to the telephone line by its built-in modem.

When retrieving records, you can specify a set of selection criteria directly on the layout form. You can then choose to extract from your file only those records that interest you. For example, if you want to retrieve the record for Joe Manning and no one else, you would mark the name fields with an equal symbol (=) and his name:

You can also retrieve records on a partial match basis, by using # as the selection symbol. A partial match means that a record with some similarity to the condition specified is selected. In numeric fields, you can set criteria for selecting records containing a value greater than (>) or less than (<) the specified number. For instance, if you specify the selection criteria of AGE:>35, one record that would be retrieved is:

A. B. C. CORPORATION

LAST NAME: Wilson
FIRST NAME: Gloria AGE: 48
ADDRESS: 1752 Blue Bonnet Circle
CITY: Fort Worth ST: Tx ZIP: 76102
TEL: B17-244-3298 STARTED: 07/12/79
TITLE: Sales Manager
UNITED WAY: 35.17

Another would be:

A. B. C. CORPORATION

LAST NAME: Manning
FIRST NAME: Joe AGE: 36
ADDRESS: 2134 Murray Hill
CITY: Fort Worth ST: Tx ZIP: 76112
TEL: 817-244-3732 STARTED: 03/25/82
TITLE: Systems Manager
UNITED WAY: 29.15

You can combine several selection criteria on a layout form and retrieve the first record that satisfies all your specifications. Then, by pressing the Next and Previous function keys, you can thumb through your record file, retrieving only the selected records.

Selected records can be updated, printed as a form, or tabulated in a report and printed. You can also produce the report as a Model 100 Text file. Your report can include as many as 9 items from a record.

When creating a tabular report, specify the items for printing and for column ordering simply by inserting the numbers 1 through 9 in the layout form. For example, to print a report with the NAME, TITLE, and AGE items in a report, in that order, the personnel form would look like this:

The report is sorted in ascending or descending order (according to your decision), on the item specified as l.

LAST, NAME	FIRST NAME	TITLE	AGE
Anderson	James	Managing Editor	32
Horst	Robert N.	Design Manager	41
King	Clara	Vice President	50
Manning	Joe	Systems Manager	36
Rose	George	Research Manager	25
Wilson	Gloria	Sales Manager	48

Creating Forms

Take this opportunity to design a record layout form. The example is based on the A.B.C. Company's personnel form that was just discussed.

Turn on the Model 100 computer, and place the cursor over the filename, INTSOL.BA. Press **ENTER**. The INTERACTIVE SOLUTIONS menu is displayed:

	INTERACT		
	DWar -	Data Manaser	
	Calc -	Data Calc	
	Word -	Word Processor	
DMar	Calc	Word	Menu

Press (F1) or the (D) key to activate INTERACTIVE SOLUTIONS Data Manager. The screen exhibits:

DMsr: Enter File Name:

Answer the prompt by typing a relevant filename, containing as many as 6 characters. An example might be CLIENT or, in this example, STAFF. If you had already used INTERACTIVE SOLUTIONS Data Manager and had previously entered a file name, that name would have been included in the prompt. Press the **ENTER** key if you want to work on the old file. Type over the name with a new name if you want to work on a different file or a new file.

When you answer the name prompt, the screen changes to the Data Manager Menu:

			A M /		ER	
ST	Define F Store Fo Print Re	rm		EX Ex	define Form amine/Updat py Report	e
DF	RF	ST	EΧ	PR	CR	Exit

Press (F1) or (D). You can make this choice only when you are working on a new file. If the filename you entered at the name prompt was an old file, you would see an error message:

Data/Layout File already exists

Define Form allows you to design a layout form. The layout form is stored as a text file containing item labels and fields and serves as a pattern for arranging the information you want in your record files. $Record\ Files$ are documents in which actual information is kept.

Define Form has some rules to guide you in creating a layout form:

- The form can be as many as 20 lines long and 40 columns wide. Use the arrow key to display subsequent lines.
- There can be as many as 20 item labels, blanks, and comments in any layout form. A comment is a title or a string of characters not followed by a colon.
- An item label can be 15 characters long, excluding the colon.
- End every item label with a colon (for example, NAME:).

- A comment can be as many as 40 characters long; however, every 16 characters consume the equivalent of an item label and decrease the possible maximum of 20 item labels.
- Alphanumeric fields (those in which you can enter both alphabetical and numerical characters) are specified by a string of lowercase a's (for example, ADDRESS: gagggggggggggggggggg).
- Numeric fields (in which you can enter numbers only) are specified by a string of 9s (example, ZIP: 99999). A numeric field cannot exceed a total of 14 digits, including a decimal point.
- Enter decimal fractions in numeric fields by inserting α decimal into the string of 9s (for example, BALANCE: 999.99).
- The field for the prime telephone number is indicated by α series of p's (for example, TEL: ppppppppp).
- Additional telephone numbers are indicated with a's.
- If you plan to use the autodial feature and it is necessary to include a pause in the dialing sequence (as in calling an outside line), insert an = sign after the number requiring the pause (for example, 9=327-8567 or 1=603-376-2981). Design the layout form with enough p's to accept the entire telephone number.
- Determine the length of α field by counting the number of α 's, 9s, or p's used in the field.
- Fields cannot extend beyond 2 display lines.
- Leave at least 1 space between the item label and the string of a's, 9s, and p's, and at the end of the field (for example, CITY: aaaaaaaaaaaa ST: aa ZIP: 99999).

- Use the arrow keys to position the cursor anywhere on the screen.
- To erase, position the cursor over the error and use the space bar or simply type new text.

When you are ready to design your layout form as it appears below, the screen will guide you with a message, reminding you of the field identifiers. The bottom of the screen will display:

{ Layout Creation } Ok

After reading the message, press the **F5**—Ok key. The screen clears and displays:

{ Create Form } OK Redo Exit

This message indicates that you can begin typing the form. Enter the following form:

A. B. C. CORPORATION

When you have completed typing your layout form, press the (F5)-Ok key. If you have typed the layout form correctly and have followed the rules for designing a layout form, the label line changes to:

No errors OK UPdt Redo Exit

The **F6** function key label indicates *Update*. Although the layout form you have just completed has no errors, you have the option to modify it at this time.

The F7-Redo key allows you to retype your entire layout form completely. If you press F7, the old layout form is erased.

When the layout form appears exactly as you want it and contains no errors, press the F5-Ok function key.

If there are any errors, or if any rule was violated, a beep sounds, and the item label for the area in which the mistake was made place is highlighted. The instruction line indicates:

nn errors UPdt Redo Exit

The number of mistakes made is indicated by nn. Press the (F6)-Updt key, and correct the errors. When completed, press the (F5)-Ok key. If there are no errors, you return to the Data Manager Main Menu.

If you were to press (F8) and return to the Main Menu, you would notice that you created 2 new files, STAFF.DO, the file in which actual records will be stored, and STALAY.DO, the file that contains the layout form for STAFF.

Modifying A Form

Once you have created a layout form, you can start entering information using Data Manager. However, if you decide later (even after entering information) that you would like to change the design of the form, you are able to.

The rules for modifying a form are:

- You can change the wording of any item label, provided that the new label does not exceed 15 characters, excluding the colon.
- You cannot increase or decrease the number of spaces allotted for any field.
- You can change the position on the screen of any item, but not the order. That is, if you had typed: NAME:, ADDRESS:, ACCOUNT NUMBER:, you cannot change to ACCOUNT NUMBER:, NAME:, ADDRESS:. The order of precedence is left to right and top to bottom.
- You cannot change the placement of the decimal in a number field.
- \bullet You can change the wording of a Comment label but not the length.
- You cannot add new labels or delete existing ones.

For example, suppose you have created a layout form that looks like this:

After modifying the form, it might look like this:

Α.	В, С.	CORPOR	ATION		
LAST NAME:					
FIRST NAME:					
CITY:					
TEL:					
STARTED:					
UNITED WAY:					

To modify a layout form, press the function key, **F2**, or **R** at the Data Manager Main Menu. The screen shows:

	ra Manage		
DF Define Fo	orm RF	Redefine Form	
ST Store Fo PR Print Re		Examine/Updat Copy Report	e
DF RF S	ST EX PR	CR Exit	

The layout form appears on the screen, and the instruction line displays:

(Modify form) Ok Redo Exit

You can make changes by moving item labels and blanks anywhere in the space allowed for the layout. Use the arrows and the space bar, or type over old text to make changes. When you are satisfied with the changes, press the F5-Ok key.

If the modification has been completed without any problems, the message, No Errors, appears on the instruction line. Press (F5)-Ok.

If any errors occurred, when you press (F5), the message, Inconsistent item, appears. Use the (F6) key to update the highlighted areas. Make corrections until the Noerrors message is displayed when you press (F5). Use (F7)—Redo to return to the original layout you had previously designed.

When all changes meet with your approval and you see a No errors message, press (F5)-Ok, and return to the Main Menu.

Storing Data

At the Data Manager Main Menu, press the [3] key, or press [3] for Store Data. The layout form appears on the screen, and the a's, p's, and 9s have been replaced by dots. The first item field appears highlighted. The instruction line displays a message:

- Press ENTER, (A), or (1) to move from field to field.
- Use CTRL and ① or CTRL and ① together to view the next screen or the previous screen (frame rolling).
- Use \bigcirc and \bigcirc to move the cursor within a field.

Use ← or ← to correct mistαkes.

Type the information you want in your record. When you have completed typing the last field, a beep sounds, and a new, blank record appears. If you do not fill in the last field at this time, press the (F5)-Ok key to save the record and display a blank one. To follow the examples being used, type and store the information listed in Appendix A.

During the Store function, the F7-Redo key lets you completely erase a record you are currently typing. The F8 key returns you to the Data Manager Menu so that you can select another function.

Examining Records

The Examine Data feature of Data Manager allows you to examine any record, update the information stored in a record, autodial, subtract or add in a number field, or delete a record.

To examine records, return to the Data Manager Main Menu, and press the function key, $\boxed{\textbf{F4}}$, or $\boxed{\textbf{E}}$ for Examine Data. The layout form for your record appears on the screen. The instruction line displays:

{ Conditions } OK Redo Exit

Selecting Specific Records

To examine selected records containing a specified set of criteria, use one or a combination of the *selection symbols*. Type the appropriate selection symbol in the space following the colon on the form layout, and follow it with a series of characters or numbers to be used as a *search string*. If you enter more than one condition, only the records that satisfy all conditions are retrieved.

= The equal sign (used in both alphanumeric and numeric fields) means that the string you type in α field, immediately after the =, must exactly match the characters typed in the field of α record if that record is to be retrieved.

Lower- and uppercase characters are considered equal.

Gaps of one or more spaces are treated as one space in alphanumeric selections.

- # The pound sign (used in alphanumeric fields) means that the string you type for a particular field has to be at least a partial match to that which has been typed in the record field before the record can be retrieved.
- > The greater than sign (used in numeric fields) means that only those records containing a number larger than specified in the particular field will be selected.
- The less than symbol (used in numeric fields) means that only those records containing a number smaller than specified will be selected.

Any selection symbol preceded by a slash (/) produces the inverse retrieval condition. For example, by typing /= Joe Manning in the name field of your staff file, all records not equal to Joe Manning will be selected. The slash (/) does not appear on the screen, but the selection symbol appears in reverse.

Erase selection conditions by placing the cursor on the appropriate field and pressing the spacebar. To erase reverse-condition fields, press \bigcirc before pressing the spacebar. You can also press \bigcirc Redo to start over.

The screen below shows selection symbols in the Staff layout form for those members of the staff living in Fort Worth who have contributed more than \$30.00 to United Way.

i de Naces sesso (17)	A. B. C. CORPORATION	
	FIRST NAME: A	GE:
	ADDRESS:	ZIP: ····
	TEL: STARTED	
. I have	UNITED WAY:>30.00	

After providing the selection symbols and search strings, press (F5)—Ok. The first record you stored that meets all the selection criteria, is displayed.

A. B. C. CORPORATION
LAST NAME: Wilson FIRST NAME: Gloria AGE: 48
FIRST NAME: Gloria AGE: 48
Harving Carole Manager 1752 Blue Bonnet Circle
CITY: Fort Worth ST: Tx ZIP: 76102
TITLE: Sales Manager
ELECTION AND UNITED WAY: 35.17 - COMPANIES DE ESTA PARTE DE
Million by the state of the comment of the state of the s
Updt Type Call Next Prev Dlt Exit

Press (F5) or (N) to see the next selection, or press (F6) or (P) to see the previous selection that meets the set criteria. If the record extends beyond 7 lines, it is necessary to use the frame roll ((CTRL) and (V) simultaneously) to display the additional lines.

If you do not want to choose specific files, after pressing **F4** to examine data, press **F5**—Ok to see your first stored file.

Updating Records

As the function keys indicate, you have several options from which to choose.

Update — press (F2) or press (U).

You can move the cursor anywhere within the field and make any corrections by typing over the existing information.

Add Ok Sub

Redo

If you are not satisfied with the changes made, press F7-Redo to return to the pre-changed screen. Press F5-Ok if you approve the corrections. The Redo option works only if you have not yet pressed F5.

Addition and Subtraction

The Add and Subtract features are subfunctions of the update mode. Using this feature, you can perform addition and subtraction operations on any numeric field.

- 1. Provide selection criteria (if desired), and begin retrieving records.
- 2. When a record on which you wish to perform addition appears, press the F2-Updt key. Move the cursor to the desired numeric field. Press F4-Add.
- 3. The field clears, and the bottom line displays the message, { ADD }. Enter the amount that you wish to add, and press **ENTER**. The amount in the field immediately reflects the addition.
- 4. If you choose to subtract from a field (for example, for partial payment of a due bill), after pressing the **F2** key, press **F6**—Sub. (Note: Do not use a negative number.)
- 5. The field clears, and the bottom line displays the message, { SUB }. Enter the amount to subtract and the result is immediately displayed in the number field.
- 6. You can use the F7-Redo key if you have not yet pressed F5.

The Type Function

Press (F3)—Type to print a copy of each stored record. To use Type, a parallel printer must be attached. The Type function prints the entire record. Review selected records by pressing (F5)—Next (or (N)) repeatedly. To scan backwards, press (F6)—Prev (or (P)).

The Call Function

One of the options offered by Examine Data is the Call function. To have the Model 100 automatically dial a number in your file, you must first have the Model 100 connected to a phone via its built-in modem.

- 1. Make choices by providing selection criteria (if desired), and begin retrieving records.
- 2. When a record for which you wish to make a phone call appears, press the F4-Call key. The field you indicated with p's is brought to the top of the display, and the bottom line displays the message, Calling. The cursor flashes through each digit as the number is dialed. Pick up the phone receiver before the dialing is complete.
- 3. It is possible to design fields for more than one phone number. Use a's in all the *non-prime phone* fields. There can be only one field containing p's.

The Delete Function

Use all the Examine Data functions to choose or examine any of your records. Use the (F5) and (F6) keys to thumb through the files. When you have completely gone through all the files, a beep sounds, and the message, {No more}, appears on the last line.

Delete the record from your file by pressing F7-Dlt (D) after you have selected it. The instruction line displays the message, Sure?. Respond by pressing Y. If you answer N, the request to delete is cancelled.

To delete the entire file, return to BASIC and type: KILL "filename.DO" ENTER and KILL "filenameLAY.DO" ENTER. (The layout file filename is the first 3 characters of the actual filename plus LAY, so the STAFF.DO layout file is STALAY.DO.)

Another useful option of the Data Manager program is its ability to print reports. At the Data Manager Menu, press (F5) or (P) to print reports.

As in Examine Data, the print option lets you provide conditions for printing only the records that interest you. To select the fields to be printed, insert a number (1-9) in the appropriate field. The number determines the ordering of the column. The lowest number column is the leftmost column, and the highest number column is furthest right. You can start with any number when determining the order of the columns.

The printed report can contain as many as 9 columns, headed by the fields of your choice. The maximum width of the report is 80 characters. Total the number of characters in each field of the layout form, and add 1 character for the space between fields. The columns appear in the order that you design. The printed reports are automatically sorted on the field marked with l. The field can be alpha or numeric. You are given the choice of sorting in ascending or descending order. To avoid automatic sorting, do not use l in any field.

You must have a printer connected to the Model 100 (see "Required Equipment") to print the report. However, if the printer is not connected or if it is off line, the report is still assembled and sorted. The report will then scroll on your screen whether it is printing or not.

Press the space bar to stop scrolling and printing. Press the space bar again to resume.

• When you press the key for Print Reports, the screen displays the layout form, and the cursor is positioned on the first field. Use the arrow keys to move around the form. $^{\circ}$ You can choose the column headings for your tabular report by marking the field with a number. If you put l in any field, your records will be sorted by that field. Use the Redo key if you want to start over.

Note the following example of a layout containing column heading choices for report printing:

- After marking the desired fields for columnar printing, press the Ok function key.
- ullet If you used l in any field, the message on the bottom of the display changes to:

Sort order A/D ?

- Repond with (A) for ascending or (D) for descending.
- If you did not indicate a sort field, the message is:

{ Conditions }

- You also have the option to determine conditions after choosing (A) or (D) for the sort.
- The column numbers disappear from the layout chart.

- Use the search and select criteria to print specified or all records. Press the Ok key. If you included a *l* in any field, the message, Sorting Data, appears momentarily.
- The report starts printing.

LAST NAME	FIRST_MAME_	_UNITED_WAY_	TITLE
Anderson	James	58.17	Managing Editor
Horst	Robert	13.29	Design Manager
King	Clara	48.36	Vice President
Manning	Joe	29.15	Systems Manager
Rose	George	15.29	Research Manager
Wilson	Gloria	35.17	Sales Manager

Note that all fields are left-aligned and that the decimals are lined up.

Copying Reports

Press (F6) or (C) for the Copy Report Function. This function allows you to use portions of your records as part of a letter or a document that you write later. After copying the report into the buffer, you can move to the Word Processor program and paste the report in your document.

The Copy Report function allows you to store a report to be printed when a printer is not readily available (for instance, when traveling).

1. Press (F6). The layout form is displayed. The message, { Report Columns }, appears at the bottom of the screen.

- 2. Determine the order of the fields that you want in your report by typing a number 1-9, in the appropriate field. Remember that the field marked *l* will be the sort field. Press the **F7** key to redo the numbering or to erase any choices made at another time.
- 3. Press (F5)-Ok. Respond to the Sort order A/D? prompt. Decide on any conditional criteria for choosing records if desired. Press (F5)-Ok again.
- 4. The message, SORTING DATA, appears if you used the number, 1, in any field. The records scroll on the screen. You can stop or restart scrolling by pressing the space bar.
- 5. Exit to the INTERACTIVE SOLUTIONS menu by pressing F8-Exit.

Note: If you exit to the Main Menu (out of Interactive Solutions), the paste buffer is cleared.

- 6. Move to Word Processor. Open α text file. Give the file α name. (See the instructions in the Word Processor section.)
- 7. Paste the copied report into the text file. Examine the report file. Some report lines may wrap around and cover two lines. They will print normally. You can use all the TEXT editing functions on this pasted report.

Introduction to INTERACTIVE SOLUTIONS Data Calc

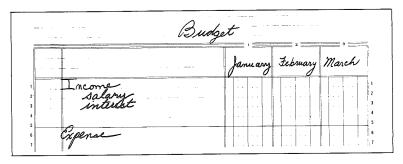
Data Calc is a computer worksheet program that gives your Model 100 a multifaceted spreadsheet capability.

Not only does Data Calc print spreadsheet results, but you can determine whether to print your results in decimal form or as integers.

You can perform addition, subtraction, multiplication, division, and exponentiation, as well as devise complicated projections by combining math formulas and functions. You can save time typing information by utilizing the math functions that perform averaging, find square roots, find sine or cosine, and other tasks.

Data Calc information is organized in the same way as the worksheet pad that you have used in the past for record keeping or accounting tasks. As in the paper version, the Data Calc worksheet stores information in rows and columns and can have personally designed headings and titles. The worksheet can be a maximum of 99 rows long and 99 columns wide.

A typical spreadsheet on paper might look like the following:



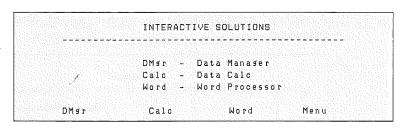
The same information in Data Calc would look like this:

	1 2	,	3	4	5	6	
					, in the second	U	
1				BUDGET			
2		JAN	FEB	MAR	APR	MAY	
3	INCOME						
4	salary						
5	interest						
6	EXPENSE						

Data Calc has the ability to use Data Manager fields as headings and can load data from Data Manager into the spreadsheet. Data Calc can also copy information into a paste buffer and incorporate that information into a text file.

Before you start using Data Calc, be sure that you have followed the instructions in the beginning of this manual for loading the INTERACTIVE SOLUTIONS program from ROM to the memory of the Model 100.

Turn on the Model 100. Position the marker over INTSOL, BA, and press **ENTER**. You will see the INTERACTIVE SOLUTIONS copyright message for two seconds, followed by the INTERACTIVE SOLUTIONS Main Menu:



Press [3] or press the C key for Data Calc.

INTERACTIVE SOLUTIONS prompts for a filename:

Calc: Enter File Name:

Respond with a filename of 6 or fewer characters. Use a name that identifies the type of file you will be using. The filename must start with a letter. Use BUDGET for this example.

If you have already used Data Calc and want to return to the file you were previously using, respond to the prompt with the old filename. If Data Calc includes the filename in the prompt, press (ENTER) to accept it, or type over it to change the name.

The Data Calc screen displays 6 rows and 6 columns. The segment of a column intersected by a row or the segment of a row intersected by a column is called a cell. You can adjust cell size, but a cell is 6 character spaces wide by default.

The entire display area of 6 rows and 6 columns is called a window.

	1	2	3	4	5	6	
1 2 3 4 5	Ro	w	COLUMN				WINDOW
G							

Marker Movement

To move the entry marker (cursor) up, down, right, or left, use the four arrow keys. The entry marker moves to the next cell in the direction of the arrow pressed and does not erase the contents of a cell over which it passes. The worksheet scrolls in the direction of the arrow pressed until you reach the border of a screen, after which the next row or column appears. (For example, if you press — when the marker is on Column 6, Column 7 becomes visible, and Column 1 scrolls off the screen.)

To move the entry marker to the next window, hold down the (SHIFT) key and the arrow key simultaneously. The next window starts with the last row and last column number of the current window. For example, if the marker is currently on Row 1, and you press (SHIFT) (1), the marker moves to Row 6, and Rows 6 through 11 become visible.

Command Menu

There are two command menus for the Data Calc program. The command labels are displayed just above the function keys. Press the (\overline{TAB}) key to move from one command menu to the other. Press a function key to select a command.

Press ? to receive command help.

INTERACTIVE SOLUTIONS displays the Data Manager layout form for the desired file. Select up to 9 fields for loading into the Data Calc worksheet. To select the fields to be used, enter numbers from 1-9 into the fields on the layout form. The fields will be loaded into consecutive columns in the numerical order you have chosen. The unnumbered fields are not loaded into the worksheet.

If a field is marked as 1, the data is sorted by that field, and you are prompted to respond to the sorting order question. Respond with (A) (ascending), or press (ENTER) if the A is already displayed on the screen. Respond with (D) if you choose descending order.

If you have not entered 1 in any field, the records are loaded into the worksheet in the same order in which they appear in the data file.

After selecting the fields, you are prompted with the layout form again. Specify selection conditions (if desired) for the data records. The conditions are identical to those explained in Data Manager:

=	exact match	alpha and numeric
/=	not exact match	alpha and numeric
#	partial match	alpha
/#	no match at all	alpha
>	greater than	numeric
/>	not greater than	numeric
<	less than	numeric
/<	not less than	numeric

The records are then selected from the data file, matched for the selection conditions, and sorted. The specified fields are extracted and loaded into the worksheet.

The column width in the Data Calc worksheet is automatically modified to accommodate full data and title size.

Printing Reports

Define the area that you want to print. Take into consideration the width of your columns. Move the entry marker to the first cell to be printed. On the printed copy, this cell appears in the upper-left corner. Next, press (TAB) until you see the menu with the PRINT command, and then press (F6). Move the entry marker to the last cell to be printed, and then press (ENTER) to start printing. On the printed copy, this cell appears in the lower-right corner. Use (SHIFT) with the arrow keys to quickly move the entry marker to the next window. After printing, you return to command mode automatically.

For example, suppose you want to print data between Cells 3,1 and 10,8. You would move the entry marker to Cell 3,1, press TAB until you see the menu with the PRINT command, and then press F6. Position the entry marker on Cell 10,8 and press (ENTER). After you press (ENTER), the printing begins.

If the message, Printer not ready, appears on the screen after you select the PRINT command, check all cables and plugs. Be sure that the printer is ready and on-line, and then press (ENTER) to continue. Move the entry marker to the last cell to be printed, and then press (ENTER) to start the printer.

If you can't get the printer ready or you have selected the PRINT command by mistake, press SHIFT PAUSE. The command menu previously displayed reappears.

To center a worksheet on a page, use the Insert Column command at Column 1 to create some blank columns on the left of the page. Usually, 3 columns are sufficient.

Copying to Paste Buffer

This function copies part of the worksheet into the paste buffer for insertion (pasting) into a text file in the Word Processor of INTERACTIVE SOLUTIONS. For example, you can save data from a worksheet to be included in a letter to investors.

Before selecting the Copy command, move the entry marker to the first cell to be saved. Then press TAB to get to the Command Menu-1. Press F7 to select the Copy command. Move the entry marker to the last cell to be saved, and press ENTER). The control returns to command mode.

Commands in Menu-2

			Comma	nd Menu	-2		
Col	Inst	Clr	Dlt	Width	Tlod	Tsav	Exit
(F1)	F2	(F3)	(F4)	(F5)	F6	(F7)	F8
	(F1)	Colu	mn and	row sw:	itch		
	(F2)	Inse	rt (co	lumn or	(אסז		
	F3	Clea	r (col	umnor	row)		
	(F4)	Dele	te (co	lumn or	row)		
	(F5)	Set (Column	width	(defa	ultwic	th 6)
	(F6)	Load	works	heet fr	om tai	e cas	sette
	(F7)	Save	works	heet to	tape	casset	tte

The column and row switch toggle in Command Menu-2 allows you to control the significance of the formula function key as follows:

(F1) sets command as Col, then (F2) defines Insert a Column, (F3) defines Clear a Column, and (F4) defines Delete a Column.

(F1) sets command as Row, then (F2) defines Insert a Row, (F3) defines Clear a Row, and (F4) defines Delete a Row.

Note: Always recalculate formulas prior to using the insert or delete commands.

Inserting Rows

To insert a blank row, move the entry marker to the desired row. Press $\overline{\text{TAB}}$ until you see the menu with the INST (Insert Row) command. Be sure that $\overline{\text{F1}}$ is displaying ROW. If so, press $\overline{\text{F2}}$ to insert a row.

The data and formula originally in that row (and all succeeding rows) shift downward one row. The row numbers in formulas are changed so that the same values are used in calculations. You stay in command mode, and the menu line remains on the screen.

Inserting Columns

To insert a blank column, move the entry marker to the desired column. Press (\overline{AB}) until you see the menu with the INST (Insert Column) command, and then press $(\overline{F2})$.

The data and formula originally in that column (and all succeeding columns) shift to the right one column. If the column did not contain data, another blank column is created. You stay in command mode, and the menu line remains on the screen.

Deleting Rows

To erase text and numbers in a row and any formula associated with that row, you must first position the entry marker on that row. Press (TAB) until you see the menu with the DLT (Delete Row) command at the bottom of the screen, and be sure that (F1) is displaying Row. Press (F4).

Next you are asked, Delete row? (Y/N). Press Y if you are sure you want to delete all contents of the row. Press N if you change your mind.

The data (and any formula, if entered) in that row is erased. The data (and formula) in the row below shifts up to the row in which the entry marker is positioned. The row numbers in formulas are changed so that the same values are used in calculations. Data (and formulas) in succeeding rows also shifts up one row. You return to command mode with the previous menu line displayed on the screen.

Deleting Columns

To erase data in a column and any formula associated with that column, move the entry marker to that column. Press (TAB) until you see the menu with the DLT (Delete Column) command. Be sure that (F1) is displaying COL. Press (F4).

Next you are asked, Delete row? (Y/N). Press Y to delete the column. Press N to keep the contents of the column intact.

The data in the column to the right shifts left to the column in which the entry marker is positioned. Data (and formulas) in all succeeding columns shifts one column to the left. You return to command mode with the previous menu line displayed on the screen.

Clearing Rows

To erase calculated values in a row, move the entry marker to the desired row. Press (\overline{TAB}) until you see the menu with the CLR (Clear Row) command at the bottom of the screen. Be sure that $(\overline{F1})$ is displaying Row. Press $(\overline{F3})$.

Only calculated numbers are erased — if a formula has been entered for that row, it is not affected. Data in succeeding rows remains in the original rows.

The calculated data is erased, and you stay in command mode. You can now enter new formulas with the same data, or enter new data with the same formulas, and then use the Calculate command to see the computed values.

Clearing Columns

To erase calculated values in a column (leaving the column formulas intact), move the entry marker to the desired column. Press $\overline{\text{TAB}}$ until you see the menu with CLR (Clear Column) command at the bottom of the screen. Be sure that $\overline{\text{F1}}$ is displaying Col. Press $\overline{\text{F3}}$ to clear the column. Data in succeeding columns remains in the original columns.

Changing Column Width

You can change the column width (the number of spaces a column contains) from the default value of 6 to any value from 3-36. After the width has been changed, the worksheet is displayed using the new width.

Press $\overline{\text{TAB}}$ until you see the menu with the WIDTH (Change Width) command at the bottom of the screen, and then press $\overline{\text{F5}}$).

There are three ways to change column width:

- 1. Position the marker in the desired column. Type the width of the column. Press **ENTER**).
- 2. Type the column number, α comma, and the column width. Press (ENTER).
- 3. To change the column width of all the columns, type ALL, a comma, and the column width. Press ENTER.

The worksheet displays the changes automatically and returns to command mode.

Be careful when using this command. If you make the width smaller, and the data (numbers or text) contains more characters than the newly specified width, some of the characters are not displayed. Don't worry, however, because the original data is still in the computer's memory. If you change the width again to the original value, the data in its entirety is displayed.

Loading From Tape

Note: The worksheet screen must be blank when you use this command. You cannot load a worksheet over another worksheet or attached to a worksheet. You will hear a beep if you try to use the TLOD command when there is data in the current worksheet. Return to the Model 100 Main Menu to restart with a blank worksheet.

When you load a worksheet from tape, the worksheet is saved automatically as a RAM file under the most recent filename you specified in response to the Worksheet filename? prompt.

To load a worksheet from tape back into memory, press (TAB) until you see the menu with the TLOD (Load from Tape) command at the bottom of the screen, and then press (F6). The menu is replaced with an input line so that you can enter the name of the file you want to load.

Place the cassette tape containing the worksheet file you wish to load in the tape recorder. Rewind the tape, and put the recorder in "Play" mode. Type the filename of the worksheet, and press **ENTER**).

If the cassette contains several files or programs, Data Calc skips over them until the specified file is found. FOUND: filename, is displayed, once the filename has been located. The worksheet saved under that filename soon appears on the screen. You return to command mode, and the previous menu line reappears at the bottom of the screen. If the filename is not found and you wish to terminate the loading procedure, press (SHIFT) (PAUSE). Do not press RESET from the loading screen, as it could result in a loss of all the data stored in memory.

Saving to Tape

To save the worksheet currently on the screen onto a cassette tape, press $\overline{\text{TAB}}$ until you see the menu with the TSAV (Save on Tape) command at the bottom of the screen, and then press $\overline{\text{F7}}$. You return to command mode, and the previous menu line reappears at the bottom of the screen. The menu is replaced with an input line so that you can enter a filename under which you want to save the worksheet.

Place a cassette tape in the tape recorder. Either rewind the tape to the beginning, or position the tape to a blank area at which you want the copy to start. Put the recorder in "Record" mode, type a filename (up to 6 characters), and press ENTER. After the worksheet has been saved and the recorder has stopped running, you return to command mode, and the previous menu line reappears at the bottom of the screen.

WORD PROCESSOR

Introduction to INTERACTIVE SOLUTIONS Word Processor

INTERACTIVE SOLUTIONS Word Processor uses your Model 100 text editor to give you many of the word processing features of the larger word processing programs along with a special feature called mail-merge. Mail-merge will help you in multiple mailings and mailing list applications.

Data from the Data Calc program and selected fields from the Data Manager program can be included in text written in the Word Processor program. You have the opportunity to include in your text files information stored in and utilized by the other parts of the INTERACTIVE SOLUTIONS program.

If you are already familiar with the Model 100 Text program, you are well on the way to knowing how to use this special word processing system that allows you to perform text preparation and editing, format printing, editing the control parameters of formatted printing, and mail merging.

To begin using INTERACTIVE SOLUTIONS Word Processor, position the cursor over INTSOL at the Main Menu and press ENTER. The INTERACTIVE SOLUTIONS menu is displayed:

Press (F5) or the (W) key for Word Processor.

The screen displays the prompt:

Word: Enter File Name:

Respond to the prompt by typing the name of the file in which you intend to prepare your text or generate letters. To practice, call the file **PRCTCE**. A filename should represent the contents, and contain no more than 6 characters. The first 3 characters must be unique. For example you cannot have files named TEXT1 and TEXT2.

If you had already used the INTERACTIVE SOLUTIONS Word Processor, the filename prompt displayed after pressing ($\overline{\textbf{F5}}$) or $\overline{\textbf{W}}$ would have included the name of the last file. Press $\overline{\textbf{ENTER}}$ to use that file, or type over it with a new name.

Preparing and Printing Text

After you enter the filename, you see the Word Processor menu on the screen:

	TE	XT-WRITE	R		
Text -	Create/	Update			
Prnt -	Format	& Print			
Mers -	Mail Me	rse			
Cntl -	Edit Co	ntrols			
Text	Prnt	Mers	Cntl	Exit	
[F1]	[F3]	[F5]	[F7]	[F8]	

Press [1] to prepare and edit your text.

Press (F3) to print your text.

Press (F5) to generate letters that can merge with other files.

Press F7 to change the default printer settings and format parameters.

To use Word Processor, be sure that you have connected your Model 100 to a parallel printer. (See your owner's manual for instructions.) Press [F1] to start using the text monitor.

All the features and options of the Model 100 Text program are available. F1 is used for the Find function. It allows you to search for a particular string of characters. F2 is used for Load, and F3 is used for Save. Both these functions (F2 and F3) allow you to load and save to a cassette and help save memory used for storage. The F7 key Selects (with the cursor movement keys) specific portions of text, and the F5 key (Copy) duplicates the defined text. The F6 key (Cut) deletes text that has been defined by F7. However, in the Word Processor program, the F8 key returns you to the INTERACTIVE SOLUTIONS Word Processor Menu.

Type a short paragraph, such as the example in Appendix B, taken from the introduction to TRS-80 MODEL 100 PORTA-BLE COMPUTER, your owner's manual.

Press (F8) to return to the menu. Press (F3)—Prnt (or press (P)). The prompt at the bottom of the screen displays:

Press any key when printer ready Exit

Press any key to start printing. If you changed your mind and decided to stop printing, you could have pressed the (F8) key.

As soon as you press any key to start the printing operation, you see the name of the file and the following three options displayed:

Hold Resume Cancel
[F5] [F6] [F8]

• Halt the printing process by pressing **F5**.

- Resume printing by pressing **F6**.
- Cancel the printing process by pressing [F8].

If you have activated *Pause between pages* (see "Control Parameters"), then after printing each page, the printing will stop with a prompt on the last line:

Press any key when printer ready exit

Press any key to resume printing the next page.

When all copies (see "Control Parameters" for making multiple copies) of your text have been printed, the prompt displayed is:

Page Feed Y/N?

Press Υ if you want an extra blank page, or press $\mathbb N$ if you do not want a page.

As you can see by simply pressing (F3), your document will be printed with margin and default settings that meet most ordinary needs. For special or unusual documents, these and other print parameters can be changed.

Introduction

Congratulations for selecting the TRS-80 Model 100 Portable Computer. The Model 100 which fits easily into a regular sized briefcase, has many special features and functions that make it the perfect portable computer for home or office — or anywhere in between!

Whether you're a computer professional or novice, you'll find the Model 100 simple to operate. Its special features include five "built-in" Application Programs:

- . TEXT for text and word processing preparation.
- . TELCOM for communication with other computers.
- . SCHEDL to keep track of appointments and other schedules.
- . ADDRSS to maintain addresses and phone numbers.
- . BASIC lets you write your own program easily and quickly.

The Model 100 offers the convenience of battery operation for portability or AC power for home and office use.

Control Parameters

Press (F7) or (C) at the Word Processor Menu. The Cntl function allows you to change the default parameters that format your print output. You see the following display on your screen:

Page Length: GG Justification C/R/N: R
Page Width: BØ Para Spacing Ø/1/2: Ø
Right Margin: 1Ø Line Spacing 1/2/3: 1
Left Margin: 1Ø Starting Page: 1
Top Margin: G Pages to Print: 99
Bottom Margin: G Header/Footer Y/N: N
No of Copies: 1 Pause between pages: N
OK Save Redo

Page Length: 66

The page length of 66 is the default value (the value to which the parameter automatically returns when you begin a new file). Normal letter-sized paper $(8\frac{1}{2}" \times 11")$ uses a page length of 66. You can change 66 to any number, 4-99.

Page Width: 80

The default value of 80 characters is the number of characters which can be printed across a letter sized sheet. Page width can be changed to any two-digit number, between 15-132.

Right Margin: 10

The number of spaces from the right margin to the right edge of the paper. The right margin can be changed from \emptyset to a figure that is less than half the value for page width. For example, on a page with a width of $\$\emptyset$, a right margin can be \emptyset -39.

Left Margin: 10

The number of spaces from the left edge of the paper to the left margin. The default is 10, and the margin can be changed from 0 to a figure that is less than half the value for page width.

Top Margin: 6

This establishes the number of lines that you want to leave between the top of the paper and the first line of text to be printed on the paper. The default is 6, and the top margin can be changed from 0 to a figure that is less than half the value for page length.

Bottom Margin: 6

Bottom margin determines the number of lines to leave between the bottom edge of the paper and the last printed line of text. The default of 6 can be changed from \emptyset to a figure that is less than half the value for page length.

No. of Copies: 1

By changing this parameter, you can print multiple copies of the text. You can change this parameter to a number 1-99.

Justification Code N/C/R: R

The value, R, means right-justification of your printing (alignment on the right edge). N means no right-justification; therefore, the right edge will be ragged. Type C for centering your text.

Para Spacing: 0

You can choose \emptyset , 1, or 2 spaces between paragraphs. The default is \emptyset .

Line Spacing: 1

The default value, 1, indicates single line spacing. This default can be changed to 2 (double line spacing) or 3 (triple line spacing).

Starting Page: 1

The value of this parameter indicates the page at which printing will start. If you give it the value, 10, the first 9 pages will not be printed, and printing will start at page 10. You can set this parameter to any value (1-99) based on the maximum number of pages to print.

Pages to Print: 99

This tells you the maximum number of pages that can be printed. You can alter the figure to any two-digit number.

Header/Footer Y/N: N

The default value, N, indicates that you do not want a header or footer to appear during printing. If you want a header or footer to appear, change this parameter to Y. You will have to specify details on the header or the footer when saving the control parameters.

If you specify Y for Header/Footer, then, when you press $(\overline{\mathbf{5}})$ -Ok or $(\overline{\mathbf{6}})$ -Save to save the new control codes, you are shown the following screen:

HEADER Mar	gin: 2 Justif:	ication N/C	/R: C
FOOTER Mar	gin: 2 Justif:	ication N/C	/R: C
First Page 1		Save Redo	

Make any changes desired at the default character. The first two dotted lines are for the text of the Header.

Header Margin: 2

The header margin, 2, indicates that 2 lines will be skipped from the top of the page before the Header is printed. You can change the 2 to any single-digit number, but the value must be 2 less than the value assigned to Top Margin. (If the difference between Top Margin and Header Margin is not 2, the system automatically changes the Header Margin.)

Justification N/C/R: C

The header is centered during printing. You can change to right-aligned printing by typing R. The header can be printed at the left margin with no right alignment by typing N.

The text for the header can be a maximum of 80 characters, depending on the number of characters set for page width. Figure the number of characters that can be printed in header text as page width minus the total of the page margins. For example, if page width is 80, left margin is 10, right margin is 10, then header text is 60.

If you leave the dotted lines blank, there will be no header.

To print the date in a header, type @ wherever you want the date to appear, and leave 10 spaces after the $\widehat{\omega}$.

If you want the pages numbered in the header, type # in the position at which you want the page number to appear, and leave 2 spaces. A sample header might look like this:

HEADER Margin: 3 Justification N/C/R:N
INTERACTIVE SOLUTIONS Word Processor

@ Page:#

The @ and # must have a minimum of the required number of spaces stated, or those areas can be written over.

Footer Margin: 2

The footer margin, 2, indicates that 2 lines will be left between the footer and the bottom edge of the page. Just as in the heading codes, you can change the 2 to any single-digit number, but the value must be two less than the value assigned to the bottom margin. (If the difference between the Bottom Margin and Footer Margin is not 2, the system automatically changes the Footer Margin.)

Justification N/C/R: C

The footer is centered during printing. You can change to right-aligned printing by typing R. The footer can be printed at the left margin with no right alignment by typing N.

The same rules apply for the text in the footer as do for the header. Use the next 2 lines to write the footer text. You can use a maximum of 80 characters, depending on the number of characters set for page width.

If you leave the dotted lines blank, there will be no footer.

To print the date in a footer, type @ at which you want the date to appear, and leve 10 spaces after the @.

If you want the pages numbered in the footer, type # in the position at which you want the page number to appear, and leave 2 spaces.

First Page No: 1

This is the number that you want printed on your first document page. If you choose to use 5 rather than 1, then the subsequent pages will be 6, 7, 8, and so on. This is helpful when your text file has been broken up into more than one file.

Pause Between Pages: N

The value, N, determines that there will be continuous printing of your document, whereas changing this default to Y causes the printing to stop at the end of each page. The screen prompts you to strike a key to start printing again.

To see the results of changing the control parameters, reenter the word processing mode from the INTERACTIVE SOLUTIONS Main Menu. Press (F5) or (W), and recall the file called "PRCTCE", which was created earlier.

Press (F7). At the control parameter screen, do the following:

Change Right Margin from 10 to 16 Change Left Margin from 10 to 16 Change No. of Copies from 1 to 2 Change Justification from R to N Change Para Spacing from 0 to 2 Type Y to Header/Footer Type Y to Pause between Pages

Press (F6) to save your changes. Answer the Header/Footer screen as follows;

HEADER Marsin: 3 Justification N/C/R: N Introduction to Model 100 @ Ps: #

Press (F6) to save the header changes. Print the "PRCTCE" file. Notice the date in the Header. Instructions for setting the date are in the Model 100 owner's manual.

Introduction to Model 100 Jan 10,1900 Pg: 1

Introduction

Congratulations for selecting the TRS-80 Model 100 Portable Computer. The Model 100 which fits easily into a regular sized briefcase, has many special features and functions that make it the perfect portable computer for home or office - or anywhere in between!

Whether you're a computer professional or novice, you'll find the Model 100 simple to operate. Its special features include five "built-in" Application Programs:

- . TEXT for text and word processing preparation.
- . TELCOM for communication with other computers.
- . SCHEDL to keep track of appointments and other schedules.
- . ADDRSS to maintain addresses and phone numbers.
- . BASIC lets you write your own program easily and quickly.

The Model 100 offers the convenience of battery operation for portability or AC power for home and office use.

Press (F7) to return all control parameters to their default values. Press (F6) to save the default values.

Dot Commands

It is possible to change the parameter settings within formatted printing, temporarily. The process for these temporary changes is called *embedding dot commands*. The dot or period is followed by a letter and/or a number. The dot command precedes a paragraph. Dot commands do not appear in the printed text, but they appear in your screen text when you are editing it. The dot commands follow. Note that n following a letter stands for any number to a maximum of 99:

.P - Skip to a new page

.Pn - Skip to new page if 'n' number of lines do not fit on current page

.JC - Activate center justification

.JN - No justification

.JR - Right-justification (aligned right edge)

.Ln - Change left margin to 'n'

.Rn - Change right margin to 'n'

.n - skip 'n' lines

.Sn - Change line spacing to 'n' (1/2/3)

.Gn $\,-$ Change spacing between paragraphs to 'n'

.HY - Activate header printing

.HN - Deactivate header printing

Go to INTERACTIVE SOLUTIONS Word Processor, request the "PRCTCE" file, and press (F1) for Text.

Start by centering "Introduction". The text editor allows you to insert text by merely typing it in. Move the cursor to the left of Introduction. Type .JC (ENTER).

Move to the first paragraph. Type .JR $\overline{\text{ENTER}}$ to return to right-justification. Type .L15 $\overline{\text{ENTER}}$ for a change in left margin. Type .R15 $\overline{\text{ENTER}}$ for a corresponding change in right margin.

Scroll to the second paragraph. Place the cursor to the left of "Whether", and type .L10 $\overline{\text{ENTER}}$. Type .R10 $\overline{\text{ENTER}}$.

Move to the left of ".TEXT". Type .1 (ENTER)
Move to the left of ".TELCOM". Type .1 (ENTER)
Move to the left of ".SCHEDL". Type .1 (ENTER)
Move to the left of ".ADDRSS". Type .1 (ENTER)
Move to the left of ".BASIC". Type .1 (ENTER)

Scroll to the final paragraph, and insert the dot commands to change the left and right margins to 15. Press **ENTER** after each dot command.

Introduction

.JR .L15

.R15 Congratulations for selecting the TRS-80 Model 100 Portable Computer. The Model

Model 100 Portable Computer. The Model 100 which fits easily into a regular sized briefcase, has many special features and functions that make it the perfect portable computer for home or office - or anywhere in between!

Find Load Save Copy Cut Sel Exit

.Ll0 .Rl0
Whether you're a computer professional or novice, you'll find the Model 100 simple to operate. Its special features include five "built-in" Application Find Load Save Copy Cut Sel Exit

Programs:

.1 . TEXT for text and word processing preparation.

. TELCOM for communication with other Find Load Save Copy Cut Sel Exit

computers.

SCHEDL to keep track of appointments and other schedules.

. ADDRSS to maintain addresses and phone numbers.
Find Load Save Copy Cut Sel Exit

.1
. BASIC lets you write your own programs easily and quickly.

.R15

The Model 100 offers the convenience of Find Load Save Copy Cut Sel Exit

easily and quickly.

.L15

The Model 100 offers the convenience of battery operation for portability or AC power for home and office use.
Find Load Save Copy Cut Sel Exit

Press (F8) to return to the Word Processing Menu, and press (F3) to print the document.

Introduction

Congratulations for selecting the TRS-80 Model 100 Portable Computer. The Model 100 which fits easily into a regular sized briefcase, has many special features and functions that make it the perfect portable computer for home or office - or anywhere in between!

Whether you're a computer professional or novice, you'll find the Model 100 simple to operate. Its special features include five "built-in" Application Programs:

- . TEXT for text and word processing preparation.
- . TELCOM for communication with other computers.
- . SCHEDL to keep track of appointments and other schedules.
- . ADDRSS to maintain addresses and phone numbers.
- . BASIC lets you write your own program easily and quickly.

The Model 100 offers the convenience of battery operation for portability or AC power for home and office use.

Special Print Modes

A file has been included in your program called PRT.DO. PRT.DO includes the information necessary to print underlining and boldface on the Tandy DW and Tandy DMP printers that support those modes.

If you are using a different printer, and if your printer supports special printing such as underlining, boldfaced print, expanded letters, etc., you can include these special print features when using your Model 100.

Look in your own printer manual to find the codes available to you. Make a note of the code that turns a special selection on and the code that turns it off. Be aware that printers differ from one another in the codes that apply.

From the Model 100 Main Menu, enter TEXT. Call for the file, PRT. Decide on a letter that will remind you of the print mode, such as L for UnderLine or F for BoldFace. These codes have been listed as U and B in the PRT file for the Tandy printers mentioned.

Write the code for turning on underline (using your own manual's code) by writing the letter, the on code, a slash, and the off code, for example, L0f/0E.

Write the code for turning on the boldface in the same manner, for example, F1B1F/1B1E.

If your printer supports underlined, boldfaced letters, then create another code with a new letter for the combination.

Use (F8) to return to the Main Menu, and return to INTERACTIVE SOLUTIONS and the Word Processor. Enter TEXT by pressing (F1).

Respond to the filename with PRCTCE.

To under line the word, "Introduction," type ①u before the word, and type ① after it. To print the ① character, type (SHIFT) 6. The ①u turns underline on, and ① turns it off. If you designed your own codes, use the appropriate letters.

Scroll to the names of the application programs. Type \(^\mathcal{B}\) before TEXT, and \(^\mathcal{D}\) after. Put the Boldface on code before each application program name and the off code \(^\mathcal{D}\) after each. Again, if you designed your own codes, use the appropriate letters.

Mail Merge

If you want to generate the same letter for different persons, as is used in multiple mailings, the Mail Merge feature of INTERACTIVE SOLUTIONS will help you.

Enter the Word Processor TEXT section, and write a brief letter. Copy the following example:

A.B.C. Company Office Memo Re: United Way

TO: [First Name:] [Last Name:] FROM: Sam Wittingham, V.P.

Dear [First name:],

The United way volunteer group is having a special get together for all employees who have donated more than \$25 to United Way this quarter. Since you have donated \$[United Way:] and since you live in [City:] you are invited to attend the meeting which is being held at the [City:] Public Library. Please let our United Way Rep know if you will attend.

Sincerely, Sam

The mail merge will generate these letters using the field information from your INTERACTIVE SOLUTIONS Data Manager program. It is necessary to spell the field names in the letter exactly as they were spelled in Data Manager. In this example, you are sending the memo to selected employees.

Press (F8) to return to the menu. Press (F5) or (M) to select Mail Merge.

The following prompt is displayed:

Dmgr:Enter File Name:

Respond with the filename, **STAFF**. If the Data Manager prompt returns with a filename displayed, accept it with (ENTER), or rewrite the name.

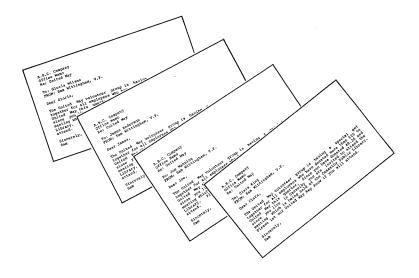
If the filename you request does not exist, the prompt is repeated. If necessary, return to Data Manager and develop a new file.

The layout form for your file will be displayed. Since this memo will be sent to only those employees who have donated \$25 or more, use >24.99 in the United Way field to make your selection.

Press the F5-Ok key.

Press the space bar (or any key) when your printer is ready.

The letters will be printed, one by one, for each of the staff meeting the selection criteria. Each person's first and last name, city, and donation amount will be included. Note how the spacing of the print changes with each individual letter.



Using the Paste Option

Return to the INTERACTIVE SOLUTIONS Main Menu, and access Data Manager. Ask for the filename, STAFF.

When given the options in Data Manager, press F6-CR, or press the C key to enter the Copy Reports function.

Enter 3 in the Last Name field, enter 2 in the first name field, and use the selection symbols to choose all staff members who have donated \$25.00 or more to United Way by typing >24.99 in the United Way field. Press (F5)–Ok.

Exit to the INTERACTIVE SOLUTIONS Menu by pressing (F8)—Exit. Enter Word Processor with a new filename.

In Word Processor, write the following partial memo:

A.B.C. Company Office Memo Re: United Way Response

To: Mr. Sam Wittingham, V.P.

The following staff members who have contributed \$25 or more to United Way have been notified of the meetings being held next month;

Press (ENTER) twice. Press the paste key. The names of the staff members will now be part of your document and will appear as follows:

A.B.C. Company
Office Memo
Re: United Way Response

To: Mr. Sam Wittinsham, V.P.

The following staff members who have contributed \$25 or more to United Way have been notified of the meetings being held next month;

Gloria Wilson
Joe Manning
James Anderson
Clara King

You can edit this text just as any other text can be edited. The memo is not complete yet. Add the following line, save the document, and return to the INTERACTIVE SOLUTIONS Menu:

The contribution made by each employee and the total contributed by this division of the company is as follows:

Enter Data Calc. Create a file called "DONATE". Use the menu with the LOAD function. Press (F5) and respond to DMgr: Enter File Name: by typing STAFF.

Type 1 in the Last Name field, 2 in the Title field, and 3 in the United Way field. Answer the sort questions. Use the same selection criteria to list only those staff members contributing \$25.00 or more.

On the Data Calc sheet, type **TOTAL** in the position two rows below the last title, and in the column left of the word "United Way".

In the row directly below the last United Way entry, type α series of underline characters ----- to fill the column, and in the row below the dotted line write the formula, Sum(R3), for adding the United Way column.

When the calculations are complete, return to the menu that includes Copy. Move the cursor to the first cell to be saved. Press (F7) to select the copy command. Move the cursor to the last cell to be saved, and press (ENTER).

Exit to the INTERACTIVE SOLUTIONS Menu, enter Word Processor, and return to the file you created for the memo.

Paste the Data Calc information into your letter. You can again use the text éditor to organize your letter any way you want.

Add a closing to your memo, and print it.

```
A.B.C. Company
Office Memo
Re: United Way Response
```

To: Mr. Sam Wittingham, V.P.

The following staff members who have contributed \$25 or more to United Way have been notified of the meetings being held next month;

Gloria Wilson Joe Manning James Anderson Clara King

The contribution made by each employee and the total contributed by this division of the company is as follows;

Anderson	Managing Editor	58.17
King	Vice President	48.36
Manning	Systems Manager	29.15
Wilson	Sales Manager	35.17
	TOTAL:	\$178.85

Sincerely,

Gloria Wilson, Rep.

APPENDIX A

Names and other information to be used for Data Manager practice:

Wilson, Gloria Age 48
1752 Bluebonnet Circle
Fort Worth, Texas 76102
817-244-3298 Started 07/12/79
Sales Manager United Way 35.17

Manning, Joe Age 36
2134 Murray Hill
Fort Worth, Texas 76112
817-244-3732 Started Ø3/25/82
Systems Manager United Way 29.15

Rose, George Age 25
1234 Brown Trail Way
Benford, Texas 74902
817-345-5656 Started 08/12/83
Research Manager United Way 15.29

Anderson, James Age 32
261 East Bowen Circle
Brazosville, Texas 75012
817-322-4562 Started 08/12/83
Managing Editor United Way 58.17

King, Clara Age 50
989 Winthrop Row
Casselby, Texas 74021
214-324-6687 Started 12/02/78
Vice President United Way 48.36

Horst, Robert Age 41 89 West 15th Street Fort Worth, Texas 76203 817-356-0209 Started 07/14/82 Design Manager United Way 13.29

APPENDIX B

Text to be copied for Word Processor practice session:

Introduction

Congratulations for selecting the TRS-80 Model 100 Portable Computer. The Model 100 which fits easily into a regular sized briefcase, has many special features and functions that make it the perfect portable computer for home or office - or anywhere in between!

Whether you're a computer professional or novice, you'll find the Model 100 simple to operate. Its special features include five "built-in" Application Programs:

- . TEXT for text and word processing preparation.
- . TELCOM for communication with other computers.
- . SCHEDL to keep track of appointments and other schedules.
- . ADDRSS to maintain addresses and phone numbers.
- . BASIC lets you write your own programs easily and quickly.

The Model 100 offers the convenience of battery operation for portability or AC power for home and office use.

APPENDIX C

To save Data Manager files on cassette, you need a special BASIC program to access the files. Type the following BASIC program:

- 10 FILES: MAXFILES = 2
- 20 INPUT "COPY FROM": A\$
- 30 INPUT "COPY TO"; B\$
- 40 OPEN AS FOR INPUT AS 1
- 50 OPEN B\$ FOR OUTPUT AS 2
- 60 PRINT #2, INPUT\$(1,1);
- 70 IF EOF(1) THEN CLOSE 1,2: PRINT "FINISHED":END
- 80 GOTO 60

Save this program as a memory file. Press $\mathbb{F}3$. When the Save "prompt is displayed, type:

COPY" (ENTER)

Press (F8) to exit to the Main Menu. COPY.BA appears in the Main Menu along with your other programs and files.

Using COPY.BA to Transfer Cassette or Memory Files

Be sure that your cassette is properly connected and is correctly positioned. Position the cursor over COPY.BA and press ENTER. The names of all your files are displayed, as well as:

COPY FROM?

Respond with the appropriate name. If you are saving a file from memory to tape — answer with the filename, including the extension, and press (ENTER). If instead, you are loading a file from tape to memory — answer with CAS: and the name of the file as it is stored on tape, and press (ENTER).

COPY TO?

If you are saving a file from memory to tape — answer with CAS:FILENAME, including the extension, and press **ENTER**. If you are loading a file from tape to memory, answer with FILENAME.

After the file is completely transferred, the message "Fin-ished" appears on the screen.

To save the writer control file on cassette, make sure the cassette is properly connected and the tape is correctly positioned.

- 1. Position the cursor on BASIC, and press **ENTER**.
- 2. Enter LOADM "PRCCTL.CO" ENTER.
- 3. The screen displays Top: 62600 End: 62805 OK
- 4. Type SAVEM "Cas:PRCCTL.CO",62600,62805 and press ENTER.

To load the control file from cassette be sure that the cassette is connected and that the tape is ready.

- 1. Position the cursor on BASIC, and press ENTER.
- 2. Type LOADM "CAS:PRCCTL" (ENTER).
- 3. The file is loaded into memory, and the following is displayed:

Found: PRCCTL Top: 62600 End: 62805 OK

- 4. Type SAVEM "Cas:PRCCTL.CO",62600,62805 and press (ENTER).
- 5. Press F8-MENU to exit BASIC.

ADDENDUM FOR INTERACTIVE SOLUTIONS

Cat. No. 26-3844

Memory Use

If you plan to store more than 75 records in Data Manager, then make the following change to reserve extra memory for those records.

Interactive Solutions Manual

Page 4

Interactive Solutions Quick Reference

Page 1

In Basic, type:

NEW <u>ENTER</u> 10 CLEAR 1999,60200 20 CALL 63012 <u>ENTER</u>

SAVE "INTSOL.BA" ENTER

Data Manager Files

The INTERACTIVE SOLUTIONS Data Manager files and layout forms have names ending in .DO.

DO NOT try to change any Data Manager files or layout forms except with the Data Manager MODIFY command, UPDATE command, or REDO command.

Radio Shack A Division of Tandy Corporation

875-9370

Auto American State of the stat

Cat. No. 26-3844

8749563-4/85-BCo Printed in U.S.A.