

# INSTA

  

## INSTA-CALC™

BY DON LIEBERMAN  
& LASZLO ORY

A PERSONAL SPREADSHEET SYSTEM FOR  
THE COMMODORE 64 COMPUTER



## CIMARRON



# INSTA-CALC

T.M.

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FOR THE COMMODORE 64 COMPUTER

BY  
DON LIEBERMAN  
and LASZLO ORY

## CIMARRON

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## INTRODUCTION

Congratulations on your purchase of **INSTA-CALC**. **INSTA-CALC** is a low cost, multi-featured spreadsheet and calculator program for the Commodore-64 Computer. It can be used in conjunction with the **INSTA-GRAPH** visual graphics program.

A spreadsheet is an electronic "grid" of intersecting columns and rows. At each intersection is a **CELL** which can hold a title, number, or a formula to be calculated. **INSTA-CALC** will allow you to design completely customized personal spreadsheets for all kinds of financial management scenarios. You may also print them and optionally display them (in line graphics form) as a visual representation, using the **INSTA-GRAPH** interface software module.

**INSTA-CALC** has been engineered primarily for the personal or professional use of anyone who has a need for improving his/her financial management efficiency. With the advent of the home and personal computer, the convenience of automated data processing is now both affordable and increasingly comprehensible to the uninitiated.

With **INSTA-CALC**, the operator, after just a few minutes' study, can create a complete and sophisticated spreadsheet, change any single or multiple value and have it automatically recalculated in just a few seconds. The final result is a well organized "financial picture" which can be "magnetically stored" on diskette or cassette for subsequent use.

We hope you enjoy **INSTA-CALC** and its many features.

### **THE USER'S GUIDE...READ EVERYTHING FIRST...!!!**

This documentation is designed to assist you in learning **INSTA-CALC** in the shortest possible time. Operationally, **INSTA-CALC** is very simple to use. With a little practice, proficiency should be attained quickly.

Sincerely,

A handwritten signature in cursive script that reads "Dan Gomez".

Dan Gomez  
President,  
**CIMARRON CORPORATION**

## INSTA-CALC CHECK LIST AND START UP PROCEDURE

1. Make sure that all your equipment is installed and operating properly. You **MUST** have the following equipment:
  - Commodore 64 computer
  - Television set (Color or Black & White)
  - Assorted connecting cables
  - **INSTA-CALC** diskette or cassette
  - **INSTA** loading Cartridge
  - 1541 diskette drive with a **NEWED** diskette (Refer to your VIC-1541 User's Manual, page 15 to learn how to **NEW** or format a '64 diskette) OR;
  - 1530 Datasette tape drive

### OPTIONAL EQUIPMENT:

- 1525 or 1526 Printer or;
  - Compatible printers
  - Industry standard Monitor
2. Thoroughly **READ** the **Commodore-64 User's Guide** and **INSTA-CALC User's Guide** and follow the step by step introductory examples.
  3. **READ** the TUTORIAL SECTION, following along on your computer, to learn by doing. Refer to the F KEY FUNCTIONS section while building your test spreadsheet.
  4. Review the "How to Use **INSTA-CALC**" page and read through the **INSTA-CALC FEATURES AND FUNCTIONS** section.
  5. **CAUTION!!** MAKE CERTAIN THE INSTA LOADING CARTRIDGE IS INSTALLED WITH THE LABEL UP AND THAT **POWER IS OFF** WHEN INSERTED AND REMOVED. IRREPARABLE DAMAGE MAY RESULT IF THE COMPUTER IS ON DURING INSTALLATION OR REMOVAL.

## HOW TO USE INSTA-CALC

- STEP ONE** Read your Commodore-64 and peripheral (cassette drive, diskette drive, printer) manuals.
- STEP TWO** Be sure you have all the proper equipment to operate **INSTA-CALC** and if you are using a diskette drive that diskettes are **NEWED**. Refer to the **CHECKLIST** and page 15 of your 1541 printer user's manual.
- STEP THREE** You must have an **INSTA** loading cartridge and an **INSTA-CALC** cassette or diskette.
- STEP FOUR** Set up your computer, disk or tape drive, optional printer, TV set or monitor, and attach your cables. Plug them in properly grounded circuits and verify that all systems are **GO**.
- STEP FIVE** Familiarize yourself with the **INSTA-CALC** manual. Review the various features of **INSTA-CALC** in the sections on **F KEY FUNCTIONS** and **ROW/COLUMN COMMANDS**.
- STEP SIX** Turn your computer **OFF**, insert your **INSTA** loading cartridge with the label **UP**, turn your computer **ON**. You will see the stylized letters of **CIMARRON** appear on your screen, changing quickly to the **INSTA** logo along with the prompt.
- Now insert your diskette or cassette in the appropriate peripheral (diskette drive or Datasette recorder). Indicate which you are using by pressing "**D**" or "**T**" for **DISK** or **TAPE**. Allow about two minutes for the program to be loaded into the system from disk; it may take considerably longer from cassette.
- STEP SEVEN** Read the **TUTORIAL SECTION** of the manual while following along on your computer. Create your own test spreadsheet according to the example. Practice **LOADING**, **CREATING**, **DISPLAYING**, **SAVING** and **RESAVING**.
- STEP EIGHT** Now create your own spreadsheet. Use the various **ROW/COLUMN COMMANDS** to make building your spreadsheets quick and efficient.
- STEP NINE** Make a "backup" (duplicate) of your "**INSTA**" master diskette by using **<F4>** "**DISKETTE UTILITIES**" on your main menu (refer to the section on "Backup" for details).
- Use this new diskette as your primary and store the "**INSTA**" diskette in a safe, dry place.
- Be sure to attach a "write protect label" since writing or storing data to a "master" disk is not permitted without damaging the main program.
- Format separate data diskettes for data storage. (Refer to lesson two.)

## INSTA-CALC TUTORIAL SECTION

This section will teach you how to set up a sample spreadsheet as you work at your computer. First, read through the entire manual. Then, come back to this section for step by step instructions.

### STARTING UP

Now that you have finished setting up your computer and you are sure that all the connections between the computer, the disk drive, the printer, and your T.V. are all correct, make certain your system is OFF. Insert your **INSTA** cartridge with the label UP and then turn your computer ON.

Watch the stylized letters "CIMARRON" turn into the "INSTA" logo and follow the prompts at the bottom of your screen.

Next, be sure your disk drive is ON or that your cassette is plugged in properly, and insert your **INSTA-CALC** diskette/cassette.

Press "D" or "T" for DISK or TAPE and your screen will say "Loading, please stand by." Allow about 2 minutes for the system to load the program into memory for the diskette version and several minutes longer for the cassette program to load.

### YOUR SCREEN SHOULD LOOK LIKE THIS

Insta Calc  
Cimarron Corporation  
Copyright 1983

- < F1 > Load Spreadsheet
- < F3 > Display Spreadsheet
- < F5 > Save Spreadsheet
- < F7 > Print Spreadsheet
- < F2 > System Exit
- < F4 > Disk Utilities
- < F6 > Disk Directory
- < F8 > Help Screens

\*\*\*\*\*

Selection?

## IF IT DOESN'T...

Make certain all your connections are good and solid, and that all equipment is plugged into a properly grounded circuit.

Now, turn all equipment OFF, remove the **INSTA** cartridge and reinsert it. Once again, turn the equipment ON.

If you still do not see the **INSTA-CALC** main menu on your screen, you may have a faulty system, faulty cartridge, or defective media. Check another program cartridge/diskette/cassette to help isolate the cause and take the appropriate action.

## Function Keys

Locate the **F Keys** on the right side of your computer. Use these keys to utilize the **SPECIAL FUNCTIONS** of the program. Each key can serve two functions. Odd numbered values (F1, F3, F5, F7) are activated by pressing the key itself. Even numbered values (F2, F4, F6, F8) are located on the front of the key, and are used by holding the **SHIFT** key at the same time you press the function key. See the section on "F Key Functions" for more details.

## LESSON ONE

### PURPOSE

This section is designed to teach you how to set up a spreadsheet, use the CURSOR (CRSR) controls, operate the "F" keys and understand other special features required for manipulating numbers. You need have only a rudimentary knowledge of the system (computer and the program). Some typing skills and an interest in learning are certainly helpful.

### MODEL SPREADSHEET

	A	B	C	D	E	F	G
00	Sample Budget						
01							
02	Item	Jan.	Feb.	Mar.	Totals	Percent	Notes
03	-----	-----	-----	-----	-----	-----	-----
04	Mortgage	800.00	800.00	800.00			
05	Utilities	60.00	60.00	60.00			
06	Insurance	35.00	35.00	35.00			
07	Car Payment	150.00	150.00	150.00			
08	-----	-----	-----	-----	-----	-----	-----
09	Total Expenses						
10	-----	-----	-----	-----	-----	-----	-----
11	Income	1500.00	1500.00	1500.00			
12	-----	-----	-----	-----	-----	-----	-----
13	Surplus (+ / -)						

### NOTE

This MODEL SPREADSHEET is stored on your **INSTA-CALC** program disk. Simply LOAD "MODEL" if you wish to compare it to your own later.

Now let's examine the **INSTA-CALC** screen more closely and learn by doing. To **CREATE** a spreadsheet, you must first enter the **DISPLAY SPREADSHEET MODE**. PRESS <F3> from the Main Menu to begin.

### <F3> DISPLAY SPREADSHEET

At this point, you will see on your screen, a blank spreadsheet with columns A, B and C displayed (this is the maximum that the 64 can show at one time. Your screen will "scroll" right/left/up/down to allow you to see the next increment).

Practice moving the CURSOR (reverse lighted BAR found in column A, row 00 of your screen) up, down, left and right throughout the blank spreadsheet by using the HORIZONTAL and VERTICAL KEYS marked "CRSR" located at the bottom right of your keyboard. To move DOWN or RIGHT, simply press the CURSOR KEY itself. To move UP or LEFT, press the SHIFT KEY along with the CURSOR KEY (refer to the 64 User's Guide).

Notice there are **30 rows**, (0 thru 29) and **20 columns**, (A thru T). Multiplied, this represents a maximum spreadsheet of 600 "CELLS" or "FIELDS" (refer to chapter 2 of the 64 User's Guide for more on the keyboard).

- Insert Information** Move your CURSOR back to column "A" and at this point we will begin setting up COLUMN HEADINGS. Up to **15 characters** are allowed in each CELL in column A and **9 characters** in B through T.
- Column Headings** For the purposes of this tutorial, we will be using column "A" as an "ITEM" column and row "0" as a "HEADING" row. The CURSOR will be in column "A," row "0" to begin with, so type "SAMPLE BUDGET" and PRESS the RETURN KEY.
- Notice that as you type, the characters appear in the upper left corner of your screen. Then, when you press the RETURN KEY or a CRSR KEY, the characters move to the proper CELL or FIELD.
- (Refer as often as necessary to the GLOSSARY for definition of terms new to you).
- If you **misspell** a heading, simply use the DELETE key in the upper right hand corner of your keyboard to erase your entry, then retype the correct word. Or, if you have already pressed return, move the CURSOR back to the appropriate CELL, retype the word or number (it is displayed in the upper left corner of your screen) and PRESS RETURN.
- Remember!** This is a **learning experience**. If you make a mistake, start again. **INSTA-CALC** has a number of built in FAIL SAFE messages that help guide you through each process. And remember to THINK as you go.
- Now press the CRSR DOWN KEY to move to Column A, Row 2 (leave row 1 blank. Blank rows make the spreadsheet easier to read). Now type "Item" and PRESS CRSR DOWN. You should now be in A,3. Type in 10 "dashes" to make a dividing line and PRESS CRSR DOWN again.
- Note** You can press RETURN to make an entry. However, by using the CRSR KEYS you can save a key stroke as you move from CELL to CELL.
- Column A** You should now be in A,4. Type in "Mortgage, Utilities, Insurance and Car Payment," A,4 to A,7. Continue through row 13 so all of Column A is completed according to the MODEL SPREADSHEET.
- Now, move your CURSOR to B,2 and type "Jan.," then "Feb." in C,2, "March, Totals, Percent and Notes" to G,2. Now stop and review the ROW/COLUMN COMMANDS section below.

## ROW/COLUMN COMMANDS

ROW/COLUMN COMMANDS allow you to perform a number of special EDIT or CALCULATE functions simply by using pre-programmed "F" KEYS. Refer to the section on ROW/COLUMN COMMANDS or PRESS < F8 > to display built-in HELP SCREENS for reference. Read your screen for instructions.

To use a ROW/COLUMN COMMAND, PRESS the < F6 > key. You will see a "\*" (asterisk) in the upper left corner of your screen. This indicates that you are in the ROW/COLUMN COMMAND MODE. By typing a two letter command digraph, functions such as REPLICATE, COPY, INSERT/DELETE columns and rows and CALCULATE are available.

Again, if you type a letter or digraph in error, use the DELETE key to BACK UP over the misspelled word and retype the correct characters.

Now we will practice some ROW/COLUMN COMMANDS and examine each of their uses. Other commands will be explained later.

### Replicate Row

This is an important feature giving you the ability to copy data in a CELL TO and FROM selected columns, including all points in between. This affords you tremendous speed flexibility in creating and modifying your spreadsheets. Your CURSOR **must** be in the CELL you wish to REPLICATE before you begin.

Move your CURSOR to B,3 and type in 7 "dashes" to make another line on your grid (see MODEL SPREAD-SHEET); PRESS RETURN. Now press < F6 > or the "\*" KEY and type the digraph "rr" for REPLICATE ROW. PRESS RETURN again.

Now you will see:

```
*rr
```

```
F2 to Abort (This STOPS the event)
From Column Number?
```

Indicate Column "B" and press RETURN. Next, you will be asked "To Column Number?". Indicate column "G" and PRESS RETURN.

This tells the system that you want to replicate what is in your cursor location (-----) from column "B" to column "G."

- Numbers** Now move your CURSR to the coordinates B,4 and type in "800." The program will automatically insert the decimal to speed up data entry, so 800 is displayed as 800.00. (To type 800.23, **type** in the decimal along with the numbers and **INSTA-CALC** will reproduce it faithfully).  
Once again, PRESS < F6 >, the digraph "rr" and the RETURN KEY. Replicate from column "B" to column "D." You have now taken the number "800," which is our imaginary mortgage payment, and replicated it 2 times AUTOMATICALLY. A very handy feature.
- Replicate Column** To REPLICATE a COLUMN simply use the digraph "rc" for REPLICATE COLUMN and follow the prompts on your screen. The procedure is the same as "rr" except you will REPLICATE **within** the column instead of between columns.
- Gone Too Far?** If you have REPLICATED in too many CELLS, move the CURSOR to the first CELL to be erased, PRESS the "-" (horizontal arrow key) located at the top left of your keyboard, PRESS RETURN and the unwanted entry disappears. Continue as required.
- COPY vs. REPLICATE** Next, we will learn how to COPY columns and rows. The difference between REPLICATING and COPYING is simple. To REPLICATE means to copy information in a single CELL (your CURSOR location) to and from indicated points WITHIN its column or row. To COPY means to take an entire column or row and copy its contents from one location to another. This is regardless of your CURSOR position.
- Copy Row** To COPY a ROW, press < F6 > and type the digraph "cr" for COPY ROW, then PRESS RETURN.  
You will be asked "From row number?" Type "0." Next, you will be asked "To row number?". Now type row "1." PRESS RETURN again. You will now see the information in row "0" has been COPIED to row "1."  
**Don't worry** about copying over work already done. Continue practicing these selected COMMANDS and we will reconstruct the MODEL SPREADSHEET later.

## Copy Column

To COPY a COLUMN, press <F6> and type "cc" for COPY COLUMN. PRESS RETURN.

You will be asked "From column number?" Indicate column "A" and PRESS RETURN. Now you will be asked "To column number?" Indicate column "B" and PRESS RETURN.

Whoops! We can't copy column "A" because it is the ITEM column and since its CELLS are larger than the rest, they cannot FIT INTO the other columns.

Go back and do the same thing over only this time indicate column "B" as the column to copy and column "C" as the location to copy it to. Now, you will see the information in column "B" copied into column "C."

## ERROR MESSAGES

From time to time you will see ERROR MESSAGES or WARNING MESSAGES displayed. These usually indicate an ILLEGAL ENTRY or INSUFFICIENT DATA was entered for INSTA-CALC to make a decision. For example, you will briefly see the message "Answer out of Range" if you enter illegal or no characters when depicting "from/to" values in copying or replicating columns/rows.

## Insert Row

To INSERT a BLANK ROW into your spreadsheet, PRESS <F6> and type the digraph "ir" for INSERT ROW. PRESS RETURN. This is **essential** for expanding spreadsheets beyond their original size. (If you had already SET PARAMETERS, you would have to redefine your grid. More on parameters later).

You will be prompted "Which Row?" Type row "0" and PRESS RETURN. Your screen will say "Inserting Row at Row 0." When finished, notice row "0" has a blank space inserted into it and the next consecutive lines have moved down to accommodate it.

## Insert Column

To INSERT a BLANK COLUMN into your spreadsheet, PRESS <F6> and type "ic" for INSERT COLUMN. PRESS RETURN.

You will be asked "Which Column?" Indicate you wish to insert a blank at column "B" and PRESS RETURN. Again, your screen will say "Inserting Column at Column B." Notice a blank column has now been inserted into column "B" and the next consecutive columns have been moved to accommodate it.

## Note

To insert a **blank** CELL or to clear a CELL anywhere in the spreadsheet, simply move your CURSOR to the appropriate field, PRESS the "←" (left arrow) and PRESS RETURN.

## Delete Row

To DELETE a ROW from within your spreadsheet, PRESS < F6 > again and type "dr" for DELETE ROW. PRESS RETURN.

Now you are prompted "Which Row?" Indicate row "0" and PRESS RETURN. You will now see that the blank row you inserted at row "0" will be deleted and the next consecutive rows will move into the vacated space.

## Delete Column

To DELETE a COLUMN, PRESS < F6 > and type "dc" for DELETE COLUMN. PRESS RETURN.

You will be asked "Which Column?" Indicate you wish to delete column "B." The blank column you inserted earlier will be deleted and the next consecutive columns will move to the left to fill the empty space.

Now that you have become somewhat accustomed to ROW/COLUMN COMMANDS and you are a bit more familiar with moving about the spreadsheet, go back and continue to fill in your spreadsheet using the MODEL SPREADSHEET on Page 2 as a guide.

Use your HELP SCREENS and your User's Guide reference section to learn additional COMMANDS. Many are very useful for quickly moving from point to point on your grid.

## IMPORTANT

From time to time the computer will PAUSE (appear to "freeze up") for a few seconds to, let us say, "gather its thoughts." This is a characteristic of the 64 computer and although somewhat inconvenient, if you just wait patiently, the CURSOR will reappear and you can continue.

## FORMULAS

At this point, we will begin setting up FORMULAS which will allow you to do the real work of a financial spreadsheet: CALCULATE columns and rows of **numbers**.

## GO TO B9

Be sure that your spreadsheet is now set up correctly and move your CURSOR to the CELL "B9."

### Your First Formula

The formula to ADD a column or row of numbers uses an "@" sign. With your CURSOR in Row "9," Column "B" (the "Total Expenses" row), type a "-" LEFT ARROW and then type "b4," the "@" sign, then "b7" (e.g., "-b4@b7"). PRESS RETURN. Notice that the formula itself does not appear in the CELL (it is seen in the upper left corner), but that the word FORMULA appears in REVERSE TYPE to show there is a FORMULA IMBEDDED in that CELL.

You may create various formulas using these algebraic codes. The program calculates from left to right, in the order below.

- ( ) PARENTHESES
- ^ EXPONENTIATION
- \* or / to MULTIPLY or DIVIDE, respectively
- @, + or - to ADD or SUBTRACT, respectively
- @ is for SUMMING several numbers;
- + ADDS two cells;
- SUBTRACTS.

When using more than one calculation within a formula it is a good idea to separate different parts of the formula with parentheses to make sure the program reads your formula the way it is intended. For example, a formula written like this " $-b4 * (4-c4) / 2$ " would come out "318400." If you separate the operations using parentheses like this; " $-b4 * 4 - c4 / 2$ ," the answer would be "2800.00."

To get a **row total** in Column "E," move your CURSOR to E,4 and type the "-" LEFT ARROW. Then type "b4@d4" (the formula appears in the left corner of your screen). PRESS RETURN.

You will now have a FORMULA in Column "E," row "4" which ADDS Jan., Feb. and March **totals** of your mortgage payments.

Now, REPLICATE (D,4 to D,7) this formula down the column by using the <F6> ROW/COLUMN COMMAND key as we did earlier.

Your screen will prompt: "(R)Relative, (A)Absolute or <F2>" to Abort. Notice a HIGHLIGHT (REVERSE TYPE CHARACTERS) will mark each figure(s) of the formula (shown in the upper left of your screen). In effect, it is asking if you wish to REPLICATE that component "(R)Relative or (A)Absolute;" PRESS "R" twice to replicate both components of the formula (b4 and e4) as "Relative."

This causes the formula to **CHANGE according** to its location. For example, the formula “-b4@e4” would change to “-b5@e5” when it was REPLICATED to Row 5, -b6@e6 in Row 6 and so on.

When you want to REPLICATE a formula and do **not** want it to change its coordinates automatically according to its location, PRESS “A” for “Absolute.”

Remember to do this for each highlighted figure(s) of the formula. Thus, any part of the formula that is “Absolute” will not change according to its location and any part of the formula that is “Relative” will.

Now, do the same for the monthly totals in Row 9 (i.e., “-b9@d9”).

## Note

Please note that a formula can hold an entire row of characters, but the calculated result **cannot** contain more than 9 characters.

## Rule of Thumb

Check each formula for **ERROR** before implementing in a “real time” mode. This is especially important until you become completely familiar with how **INSTA-CALC** performs its computations.

If there is a problem with a **FORMULA**, **INSTA-CALC** will either advise you or ignore the formula during calculation (“ca”).

Note that **ERRORS** such as **DIVISION BY ZERO** (which you can't do) are identified and located by the program to assist your efforts.

After inserting formulas, your **MODEL SPREADSHEET** will look like this (**FORMULAS** are shown as “actual” for reference):

	A	B	C	D	E	F	G
00	Sample Budget						
01							
02	Item	Jan.	Feb.	Mar.	Totals	Percent	Notes
03	-----	-----	-----	-----	-----	-----	-----
04	Mortgage	800.00	800.00	800.00	-b4@d4	-e4/e9	% expense
05	Utilities	60.00	60.00	60.00	-b5@d5	-e5/e9	% expense
06	Insurance	35.00	35.00	35.00	-b6@d6	-e6/e9	% expense
07	Car Payment	150.00	150.00	150.00	-b7@d7	-e7/e9	% expense
08	-----	-----	-----	-----	-----	-----	-----
09	Total Expenses	-b4@b7	-c4@c7	-dr@d7	-b9@d9	-f4@f7	+/- 2%
10	-----	-----	-----	-----	-----	-----	-----
11	Income	1500.00	1500.00	1500.00	-b11@d11		
12	-----	-----	-----	-----	-----	-----	-----
13	Surplus (+/-)	-b11-b9	-c11-c9	-d11-d9	-e11-e9	-e13/e11	% saved

**Refer** to the **MODEL SPREADSHEET** already pre-recorded (**SAVED**) on your cassette or diskette. **LOAD** it using the title (name) “model” (lower case letters) and compare it with your own.

## CALCULATE MODE

To **activate** the formulas within your spreadsheet, PRESS <F6>, type in "ca" for CALCULATE, PRESS RETURN as prompted in the upper left corner of your screen and **INSTA-CALC** will calculate, in sequence, each formula in your spreadsheet and display an answer in the appropriate CELL. The CURSOR will be at the **beginning** of your spreadsheet when finished.

## Abort

Press <F2> to ABORT or stop calculations.

## NOTE

Each time you REPLICATE or COPY a formula that has already been calculated, you **must** RECALCULATE to get the correct results in all CELLS.

## CHANGE PARAMETERS

Before going any further, let's **define** your spreadsheet by naming and sizing it. The name is actually the spreadsheet TITLE and the PARAMETERS tell the system how much space is needed to store the spreadsheet. This avoids wasting time and space when SAVING and LOADING spreadsheets.

To do this, PRESS the <F6> key on the right side of your computer or PRESS the "\*" KEY.

Now type "cp" for CHANGE PARAMETERS and PRESS RETURN.

## Your Screen Will Look Like This

```
Insta Calc
Spreadsheet Status
Title: ????
Rows: 30
Columns: 20
```

\*\*\*\*\*

Are these Display Values OK? Y or N

Since there is no TITLE yet, question marks are shown. Rows and Columns show the maximum allowed by the computer's 64K memory. Do not use the "?" in your title or you will get an "Illegal filename error."

Answer "N" to the prompt "Are these Display Values OK?". Now name your spreadsheet "test" (use lower case letters, it's easier to SAVE and LOAD) where it asks for the title, then PRESS RETURN.

Next, specify 7 columns and 14 rows, PRESSING RETURN after each input. This tells the computer how much MEMORY SPACE is needed for the spreadsheet (use only as much memory as necessary. The program operates much more efficiently and less disk or cassette space is required).

The screen will display these new values at the appropriate places and ask:

"Are these Display Values O.K? Y or N"

Answer "Y" and your spreadsheet will be displayed with the specified amount of space.

Also, if you need to **enlarge** your spreadsheet later, these parameters may be modified.

## NOTE

When **enlarging** your spreadsheet by INSERTING a ROW or COLUMN, be sure to CHANGE PARAMETERS **first** to make room for the inserted space. If you don't provide room for the new row or column, the program will PUSH your last row or column OFF the screen and you lose it from main memory (however, if already SAVED, you can still recall it intact).

## SUMMARY

In this section, you have learned the basic operations of **INSTA-CALC**. You have set up a SPREADSHEET format, added HEADINGS, listed ITEMS, typed in numbers to be calculated, computed FORMULAS and run CALCULATIONS.

You have also learned to use some of the ROW/COLUMN COMMANDS and are getting an idea of what is needed to set up your own financial spreadsheet.

You now have a feeling of the enormous power of spreadsheet software. You can change any number of variables over and over again and in seconds, see new answers completely re-calculated and displayed. Both numbers and text can be inserted in the grid for maximum clarity.

You also have learned that you must THINK each FORMULA through carefully. **INSTA-CALC** will work faithfully for you but it is only as good as your capabilities and your concentration.

Now, proceed with the tutorial to learn to SAVE, LOAD and PRINT your spreadsheets.

LESSON TWO

**PURPOSE**

Now that you have practiced setting up, changing and calculating your sample spreadsheet, the next thing we will do is learn how to **SAVE** or store your spreadsheet to a separate data disk. You cannot save to your "**INSTA**" disk as it is "write protected."

**FORMAT DISKETTE**

Before you can **SAVE** to a new diskette, you must "new" or "format" it.

**PRESS <F4>**, "Disk Utilities," then **PRESS <F3>**, "New/Format Diskette" and follow the prompts on the screen (refer to your 1541 manual for more information). **ALWAYS** remember to **SAVE** a spreadsheet after you have **CREATED** one or **RESAVE** it if you have made any changes to one.

**<F5> SAVE SPREADSHEET**

To do this, exit the spreadsheet you just created by pressing the **<F7>** key. You will now be back at the **main menu**. Next, press **<F5>** to **SAVE** your spreadsheet.

**Your Screen Will Now Look Like This**

Insta-Calc  
Spreadsheet Selection  
**F1** Entire Spreadsheet  
**F3** Partial Spreadsheet  
**F2** Return to Menu  
Note: Insert Data Disk

\*\*\*\*\*

Selection?

Simply press **<F1>** to **SAVE** the **ENTIRE** spreadsheet. We will save a partial spreadsheet later. Allow just a few seconds to **SAVE** to diskette and several minutes to tape. This **SAVES** your entire spreadsheet under the name "Test" and **RETURNS** you to the main menu.

Now that your spreadsheet has been permanently **SAVED**, go back and make any changes or additions. Simply press the **<F3>** key for **DISPLAY SPREADSHEET**. Next, move the **CURSOR** to the location to be corrected, type in the new, or correct information, and **PRESS RETURN**.

## Resave

Be sure to **RESAVE** your spreadsheet when you have made changes or modifications to it. To do this, exit the spreadsheet by **PRESSING** the **<F7>** key, **PRESS <F5>** for **SAVE Spreadsheet** and **SAVE** as you did before. Next, you will see on your screen:

**Name Already Exists.**

**F1 Change Name?**

**F3 Save over Old Spreadsheet**

To save the new, corrected version over the old one, **PRESS <F3>** and the new version will replace the old. If you had wanted to save both new and old, you would press the **<F1>** key and rename the file (and modify spreadsheet parameters if desired). This would leave the original spreadsheet intact, creating a separate one under a different name.

**SAVING** to disk or tape is a very straightforward process. Just remember to **THINK** before **SAVING** a spreadsheet since you have the capability **TO SAVE** over old ones.

**INSTA-CALC** will assist you with **PROMPTS** while doing many of the routine **SAVE, LOAD** and **PRINT** functions, but only you can make the decision.

## LESSON THREE

**PURPOSE**

This section teaches you how to **CREATE** and **SAVE PARTIAL SPREADSHEETS** for **insertion** into **ENTIRE SPREADSHEETS**. This capability is useful for modifying just the numbers or dollar figures in a spreadsheet **without** the necessity of changing the format.

For example, you may wish to set up a grid for two household expenses, home and the lake cabin. By setting up one **ENTIRE** spreadsheet and then creating a **PARTIAL** spreadsheet using just numbers, you will save yourself much time and energy.

**The Window Effect**

A **PARTIAL** spreadsheet is like a "window" that **OVERLAPS** an **ENTIRE** spreadsheet at its **LOAD OFFSET POINT**. (The **LOAD OFFSET POINT** is the location within the **ENTIRE** spreadsheet where the **PARTIAL** spreadsheet will load from.)

**Two ways to Go**

There are **two** ways to create a partial spreadsheet.

**Cut & Paste**

You may create one from within an entire spreadsheet by setting **top left** and **bottom right** **SAVE BOUNDARIES**, thus "cutting out" a portion of your entire spreadsheet and saving it. Then you may "paste" it on your entire spreadsheet using the load offset; **OR** you may create one from a **clear** screen also using top left and bottom right boundary save commands.

First, we will create one from an entire sheet as if "cutting" and "pasting."

**Create a Partial Spreadsheet**

To make a partial spreadsheet from an entire spreadsheet already created, first **DISPLAY** your spreadsheet using **<F3>**.

In order to make the information in this partial spreadsheet **differ** from that of the entire it is coming from, go through and change all the "sample" dollar figures to "actual" figures, perhaps corresponding to your own finances.

## NOTE

Once you have changed the values, be sure to CALCULATE ("ca") again. **INSTA-CALC SAVES** numbers and values, **not** formulas when using the **PARTIAL SPREADSHEET** feature.

## Top Left Save Boundary

Now, move your **CURSOR** to the **top left corner** of the entire spreadsheet where there is a dollar figure (in this case coordinates B,4). This will be the top left **SAVE BOUNDARY**. Press <F6> and type "tl." **PRESS RETURN twice**. This sets column B, row 4 as the top left corner.

## Bottom Right Save Boundary

Next, move your **CURSOR** to the **bottom right corner** of the spreadsheet (column "G," row "13") and **PRESS <F6>** again. This time type "br" and **PRESS RETURN** **twice**. This sets the ending point as the bottom right corner of your spreadsheet.

## NOTE

When creating a partial spreadsheet, there is no need to bother with title and parameters using the <F6> key. The computer will **REMEMBER** the parameters you set, using the "tl" (top left) and "br" (bottom right) **SAVE BOUNDARIES** and the name you title it when you are **SAVING** it.

## Save a Partial Spreadsheet

Now, to **SAVE** this spreadsheet, exit by **PRESSING <F7>** and **PRESS <F5>** to **SAVE** (be sure to insert the correct data disk/cassette). This time, indicate you are saving a partial spreadsheet by pressing <F3> and use the name "testpart."

You have now "cut out" a part of an entire spreadsheet and **SAVED** it as a **PARTIAL** spreadsheet which you will "paste onto" another **ENTIRE** spreadsheet at the **LOAD OFFSET POINT**.

## Another way to Create a Partial Spreadsheet

You may also create a partial spreadsheet from a **clear screen**. You may do this by either clearing the spreadsheet that is currently in the screen by using the <F6> ROW/COLUMN command key and "cl," or, if you have just started up for the day, you may not have loaded anything yet and your work grid is clear. In either case, read on.

Simply type in your dollar amount figures in the columns (do not enter headings), corresponding to the headings that are in your entire spreadsheet. Remember, this partial spreadsheet will **only** hold dollar figures and calculated formulas and will **OVERLAP** at the **LOAD OFFSET POINT**.

### For Example

	B	C	D
4	778.00	778.00	778.00
5	58.68	67.87	55.67
6	34.99	34.99	34.99
7	148.78	148.78	148.78

Now move the **CURSOR** to the top left corner of the spreadsheet (column "B," row "4") and set the **TOP LEFT SAVE BOUNDARY**.

Next, move the **CURSOR** to the bottom right corner of this spreadsheet (column "D," row "7") and set the **BOTTOM RIGHT SAVE BOUNDARY**. Now, **SAVE** this partial spreadsheet, naming it "testpart1."

### Resave

If you need to make any corrections or updates to your partial spreadsheet information, now is the time to do it. Simply press <F3> to **DISPLAY SPREADSHEET** and make the necessary changes.

(If your partial spreadsheet was not already loaded and in memory, you would need to **LOAD** it and **DISPLAY** it.)

To resave a new version of a partial spreadsheet over an old one, exit to the main menu by **PRESSING <F7>** and then **PRESS <F5>** for **SAVE**.

Next, indicate that you are saving a **PARTIAL SPREADSHEET** by **PRESSING <F3>**. Indicate the name of the **PARTIAL SPREADSHEET** and **PRESS RETURN**.

## NOTE

If you named the new version the same as the old, your screen will say:

Name Already Exists

**F1:** Change Name

**F3:** Save New Over Old Spreadsheet

Press <F3>. If, however, you wanted to save the corrected version as a separate partial spreadsheet from the old one, PRESS <F1>. You will have to name the new file differently from the old. Do this where indicated and PRESS RETURN. You would now have **two** separate PARTIAL SPREADSHEETS.

## Formulas not Copied

If the area you are saving as a partial spreadsheet contains any formulas, you must CALCULATE ("ca") before you "cut out" and SAVE the spreadsheet. This is because formulas themselves are not copied.

In this section, you have learned how to make two different kinds of PARTIAL spreadsheets;

1.) By "cutting" a selected block from an ENTIRE spreadsheet and separately SAVING it as a PARTIAL spreadsheet for subsequent "pasting" or:

2.) By creating a partial numerical grid, naming it and then "pasting" it onto an ENTIRE spreadsheet.

The PARTIAL SPREADSHEET facility of **INSTA-CALC** provides you with the flexibility to quickly and easily create completely new scenarios using pre-existing grid formats (including all headings but not formulas) by "cutting and pasting" with "windows" of numerical data. Much time and effort can be saved by simply moving these blocks of numbers from grid to grid rather than re-creating ENTIRE spreadsheets. This facility is also very useful in conjunction with **INSTA-GRAPH**.

## LESSON FOUR

### PURPOSE

This section will teach you how to LOAD a PARTIAL spreadsheet **over** an ENTIRE spreadsheet. With this facility, you can "paste" new numbers over old numbers, thus creating an entirely new spreadsheet without having to re-type titles and headings.

### Load "Entire" Spreadsheet

First you will need to LOAD your ENTIRE spreadsheet. Go to the main menu and if your disk/cassette is already inserted, PRESS <F1> to LOAD SPREADSHEET. Now, your screen will look like this:

```

Insta Calc
Spreadsheet Selection
<F1> Entire Spreadsheet
(Clears current spreadsheet)
<F3> Partial Spreadsheet
<F2> Return to Menu
Note: Insert data diskette
    
```

\*\*\*\*\*

Selection?

Press <F1> to load an ENTIRE spreadsheet. Type in the filename, "test," and PRESS RETURN.

**INSTA-CALC** will first clear out any other spreadsheets currently in memory before loading in a new one. After the spreadsheet has loaded, PRESS <F3> to DISPLAY.

### Set Load Offset

In order to load your partial spreadsheet "testpart" into the entire spreadsheet, "test," you must first SET LOAD OFFSET. Remember, the LOAD OFFSET is the point in which you indicate, within the ENTIRE spreadsheet, where the PARTIAL spreadsheet will begin loading.

Move the CURSOR to the **exact** location, in this case B,4, within your spreadsheet, "test," where you want to "paste" the partial spreadsheet, "testpart."

PRESS the <F6> ROW/COLUMN COMMANDS key, and type "so" for SET OFFSET. Press RETURN **twice**.

### NOTE

Please note that if you fail to SET OFFSET before LOADING, the computer will DEFAULT to the top of the spreadsheet and will load **over** your headings. If this happens, clear your screen ("\*cl") and start over again.

### Load Partial Spreadsheet

Now, to LOAD the PARTIAL spreadsheet, "testpart," into the entire spreadsheet "test," exit to the main menu by PRESSING <F7>. Next, PRESS <F1> to LOAD.

Indicate that you want to load a PARTIAL spreadsheet by PRESSING <F3> and type in the name "testpart." PRESS RETURN.

When it has finished loading, PRESS <F3> to DISPLAY.

### TUTORIAL SUMMARY

This section completes the tutorial for **INSTA-CALC**.

You have now learned most of the basic functions of a financial spreadsheet program. While each one is somewhat different in scope and performance, they are all fundamentally the same in purpose.

**INSTA-CALC** has been specifically designed for simplicity of operation while providing the most asked for features of other, powerful and highly complex programs. Continue now with the **FEATURES** and **FUNCTIONS** section of the manual to learn more of **INSTA-CALC's** facilities. Practice makes perfect, so go through each feature, understand its operation and then, with the assistance of the User's Guide and the **HELP SCREENS**, begin setting up your "real" spreadsheets.

Good Luck!

## INSTA-CALC FEATURES AND FUNCTIONS

### PURPOSE

This section defines **INSTA-CALC's** MAIN MENU functions and is designed to assist you in learning **INSTA-CALC's** many features. Refer to this section when you need an answer to specific questions regarding program management.

After you have loaded **INSTA-CALC** into the main memory of your computer, your screen should look like this:

Insta-Calc  
By Cimarron Corporation  
Copyright 1983

- <F1> Load Spreadsheet
- <F3> Display Spreadsheet
- <F5> Save Spreadsheet
- <F7> Print Spreadsheet
- <F2> System Exit
- <F4> Disk Utilities
- <F6> Disk Directory
- <F8> Help Screens

### <F1> LOAD SPREADSHEET

This function allows you to LOAD a spreadsheet from diskette or cassette. **INSTA-CALC** will automatically find your spreadsheet on diskette when the correct file name is typed in. When using cassette, be sure that the tape is rewound to a location BEFORE the spreadsheet's beginning point on the tape (just like looking for your favorite Carly Simon tune on a stereo cassette).

### Load an "Entire" Spreadsheet

Indicate the name of the spreadsheet you wish to LOAD and PRESS RETURN. Your spreadsheet will now be loaded into main memory and ready for use. PRESS <F3> to DISPLAY it.

### Load a "Partial" Spreadsheet

A PARTIAL spreadsheet LOADs the same way as an ENTIRE spreadsheet unless you are loading it into an ENTIRE spreadsheet. Then, you must be sure you have set the LOAD OFFSET (i.e., column B, row 4, point first. (Refer to tutorial, lesson 4.)

### **<F3> DISPLAY SPREADSHEET**

This will allow you to DISPLAY a spreadsheet you have loaded, or CREATE a new one.

#### **Display an "Entire" Spreadsheet**

To DISPLAY an ENTIRE spreadsheet, simply LOAD the file by name. Once loaded, you will be returned to the main menu. Next, PRESS <F3> and your sheet will be DISPLAYED.

#### **Display a "Partial" Spreadsheet**

To DISPLAY a PARTIAL spreadsheet, LOAD the PARTIAL spreadsheet by typing its name. Then, PRESS <F3> to DISPLAY the partial spreadsheet.

#### **Create an "Entire" Spreadsheet**

To CREATE an ENTIRE SPREADSHEET, simply PRESS <F3> for DISPLAY SPREADSHEET rather than loading one. This gives you an empty screen ready for your input. Or, if your screen has an unwanted spreadsheet, to discard it simply PRESS <F6>, type "c" for CLEAR SCREEN, answer "Y" to the prompt "Are you sure?" and your screen will be erased. Be sure to SAVE the unwanted spreadsheet **before** clearing screen.

## Notes and Suggestions on Creating Spreadsheets

Insert your spreadsheet information in any format you desire.

We suggest, however, that you use the FIRST row, row "0," as a HEADING row, and column "A" as an ITEM column. Simply type the information and PRESS RETURN, or use a CURSOR (CRSR) CONTROL KEY (up, down, sideways movement).

**CELL Size** Up to 9 characters can be inserted into each CELL with the exception of formulas which can accept an entire row of characters (the end product of a formula can only contain up to 9 characters however).

In addition, note that column A will accept up to 15 characters for item descriptions.

Use the ROW/COLUMN COMMANDS to make building a spreadsheet quick and efficient (refer to the section on ROW/COLUMNS for details).

**Formulas** Formulas may be inserted into a field by typing a " $\leftarrow$ " (left arrow) and the formula desired. You can ADD, SUBTRACT, MULTIPLY and/or DIVIDE. The "ca" (for CALCULATE) command sequentially calculates all formulas imbedded in a spreadsheet.

There is an order in which calculations are performed within a formula:

( ) PARENTHESES first

^ EXPONENTS next

\* or / MULTIPLICATION or DIVISION next

@, + or - ADDITION or SUBTRACTION next, left to right

**For Example** " $\leftarrow$ (a1@a4)\*(a4-a5)/a2 $\uparrow$ 2" would calculate "(a1@a4)" first, "(a4-a5)" next, and "a2 $\uparrow$ 2" last. It would then multiply the result of the first parentheses "(a1@a4)" by the second "(a4-a5)" and then divide that by the product of "a2 $\uparrow$ 2."

**Title and Parameters** Title is the name of your spreadsheet and parameters define the amount of "grid" space needed for memory and storage. The <F6> ROW/COLUMN COMMAND key is used to activate the two letter digraph "cp" which sets these values. They can be changed as needed.

**Create a "Partial" Spreadsheet** Creating a PARTIAL SPREADSHEET is different than creating an entire one. There are basically two ways of making PARTIALS and LESSON THREE covers these in detail. PARTIAL SPREADSHEETS can be inserted into ENTIRE spreadsheets, OVERLAYING new values over old. This is useful for "cutting" out data from one spreadsheet and "pasting" it onto another.

## **<F5>SAVE SPREADSHEET**

Use this feature to **SAVE** your spreadsheets. It is important that you **SAVE** them; otherwise they are lost when the computer's power is switched off. Also, **remember** to **RESAVE** after each modification.

## **Save an "Entire" Spreadsheet**

The process of **SAVING** an entire spreadsheet is simple. From the main menu, **PRESS <F5>** for **SAVE SPREADSHEET**.

Be sure you insert your **DATA DISK/CASSETTE**. Indicate you are **SAVING** an **ENTIRE SPREADSHEET** by **PRESSING <F1>**. (Note that you must establish the name and parameters first. **INSTA-CALC** won't let you progress further until these conditions are met).

Your spreadsheet will be magnetically **SAVED** or stored for easy future access.

## **Resave**

To save a **NEW** version of an **ENTIRE SPREADSHEET** over an old version, simply **SAVE** as you did earlier. The screen will indicate that the file already exists. Verify that you want to **<F1> SAVE** over the old file or, perhaps, rename it using the **<F3>** function key.

## **Save a "Partial" Spreadsheet**

The process for saving a partial spreadsheet is a little more involved. You must define the spreadsheet by using the "tl" (top left save boundary) and "br" (bottom right save boundary). These digraphs define a "window" that can be inserted or "pasted" onto another spreadsheet. Then, exit to the main menu by **PRESSING <F7>** and then **<F5>** for **SAVE**.

Now, **PRESS <F3>** to **SAVE PARTIAL SPREADSHEET**. Following the next **PROMPT** on your screen, give it a **FILENAME** which you can easily recognize as a **PARTIAL** spreadsheet (e.g., "testpart").

### **<F7> PRINT SPREADSHEET**

This control PRINTS your spreadsheet with 6 columns to a page. (That is, 5 columns plus column "A," the heading column.) Load paper and set it to TOP OF FORM, then, PRESS <F1> when you are ready to print. Define the number of lines per page, or, if you prefer, press RETURN and the printer will DEFAULT to 66 lines (the size of an 8½ x 11 page).

### **Abort**

To ABORT printing, simply press the <F2> key and printing will automatically stop.  
Be sure you have LOADED the appropriate spreadsheet before you try PRINTING it!

<F2>  
**SYSTEM**  
**EXIT**

This function key is used throughout the program to ABORT the procedure in progress, or to EXIT to the last previous menu. When this key is pressed from the main menu, it will EXIT the program and the stylized "CIMAR-  
RON" and "INSTA" logos are alternately displayed.

**RESTART**

If you change your mind and wish to RESTART the program after you have already exited it, simply PRESS SHIFT and RETURN **at the same time**. This restarts the program without your having to turn the computer "off" and "on" again.

**<F4>  
DISK UTILITIES  
(single drive)**

Disk Utilities contains two programs: DISK BACKUP and DISK FORMAT. Use "Backup" to make copies of your data diskettes and the "INSTA" master diskette. Use "Format" to create or "new" fresh diskettes out of the box (see lesson two).

Diskette Backup provides a method of data protection for your spreadsheets. Through a 6 step process, you may duplicate or "clone" all fields and records from one diskette to another so that you have two copies. This is like "xeroxing" your birth certificate or other important document so that if one is lost or destroyed, you will still have another copy.

In a nutshell, DISK BACKUP is a step by step process which takes data from your SOURCE or "original" disk, temporarily holds it in the computer's internal memory and then, after changing to your DESTINATION or backup diskette, WRITES this data onto it.

**BEGIN BACKUP**

To backup your diskette, PRESS <F4> from the main menu. To begin, PRESS <F1>, as prompted on your screen (if you change your mind, press <F2> to exit to the main menu).

Your screen will show an "Empty" to "Full" scale that looks like the gas gauge in your car. This graphically illustrates what the program is doing.

The screen will prompt you to enter your "Destination Disk" (disk to be copied to) so that it can be formatted (newed) and "Headered" (like a title printed at the top of a sheet of paper).

### Note

When backing up your "INSTA" master diskette, make certain you attach a "write protect label."

No data storage is permitted on the "master" or backups of the master without damaging the main program.

Use separate formatted data diskettes for storage.

Next, the screen will prompt you to "Insert Source Disk." Insert your original disk to be copied from, then PRESS RETURN and follow instructions on your screen.

The program will take several moments to "gather" information for the first PASS. After it is full, the gauge will read "F" for FULL. Your screen will tell you to "Insert Destination Disk" (disk to be copied to). Do this and PRESS RETURN.

Now, the data that was temporarily stored in internal memory will be WRITTEN to the new disk. When it is finished with the first PASS, the gauge will read "E" for EMPTY. Next, the screen will tell you to "Insert Source Disk." Insert the original disk again, and PRESS RETURN.

Continue doing this until your entire diskette is backed up. When it is finished, PRESS <F2> to exit back to the main menu.

### IMPORTANT

Again, although this is a time consuming procedure, it is very important that this be done as often as possible after new information has been added, so that you will always have a backup copy in case your original disk fails. PRESS SHIFT and RETURN **simultaneously** to **restart**.

**<F6> DISK  
DIRECTORY**

**Delete**

Using this control allows you to see what documents are currently stored on your diskette.

You may DELETE or discard outdated files using the <F1> function key.

Documents that you have created will be listed by name and will be preceded by an "S" for SEQUENTIAL FILE. The entries preceded by a "P" designate PROGRAMS used by **INSTA-CALC** itself.

**Note**

A DIRECTORY is only available on the diskette version of **INSTA-CALC**. This is because cassette devices do not support this feature.

**<F8> HELP**

The HELP SCREENS are for quick reference and you will decrease your need for this guide after just a short period of time. Use these screens as often as required when designing your spreadsheets. Also, see the "F Key Functions" section of this manual.

## F KEY FUNCTIONS

### PURPOSE

This section describes the operation of the "F" (SPECIAL FUNCTION) KEYS on the right hand side of your computer. These keys are under "software control" and have been pre-programmed to facilitate setting up and managing a spreadsheet. Familiarize yourself with their uses as they will enable you to exploit INSTA-CALC more effectively.

### THE FUNCTION KEYS

- <F1> To top of Current Display
- <F2> To bottom of Current Display
- <F3> To top of Spreadsheet
- <F4> To bottom of Spreadsheet
- <F5> Movement to specified location
- <F6> Row/Column Commands
- <F7> Return to Main Menu

- <F1> Moves the CURSOR to the TOP of the CALC DISPLAY currently on your screen.
- <F2> Moves the CURSOR to the BOTTOM of the DISPLAY currently on the screen.
- <F3> Moves the CURSOR to the TOP of the SPREADSHEET currently in main memory.
- <F4> Moves the CURSOR to the BOTTOM of the SPREADSHEET currently in main memory.
- <F5> This control moves the CURSOR to a location you specify. Simply indicate the ROW and COLUMN where you want to move the CURSOR, pressing RETURN after each entry. Press <F2> to ABORT this function.
- <F6> This key allows you to use various ROW/COLUMN COMMANDS listed below. You will see an "\*" in the upper left corner of your screen. Simply type in the desired digraph (two letter code) and press RETURN. Use the DELETE key in the upper right hand corner of your computer to ABORT this function.
- <F7> This allows you to EXIT to the main menu from the DISPLAY mode so that you may LOAD, SAVE, or PRINT other spreadsheets.

## ROW/COLUMN COMMANDS

### PURPOSE

This section defines the ROW/COLUMN COMMANDS associated with the <F6> FUNCTION KEY. They provide you with a useful range of special facilities for formatting and editing spreadsheets.

To use the ROW/COLUMN COMMANDS, press <F6> and the proper two letter code for the command you want to use. Whenever you wish to stop a function, press the <F2> FUNCTION KEY to ABORT.

### DIGRAPH

### DESCRIPTION

#### br/bottom right save boundary

Used in conjunction with "tl" (top left save boundary), this function defines the lower right save boundary of a partial spreadsheet. Move the CURSOR to the bottom right corner, PRESS <F6>, type "br," and press RETURN twice. Now SAVE this portion of your spreadsheet as a PARTIAL SPREADSHEET, naming it when indicated. See LESSON THREE for additional instruction.

#### ca/calculate:

Sequentially CALCULATES all FORMULAS imbedded in the spreadsheet, and replaces the word "FORMULA" with an answer in each pre-designated location (if an error occurs in calculation, the program will stop at that point so you can correct the problem).

#### Formulas

A FORMULA is entered at a given location much the same way that all your other information is entered. Type a "←" (left arrow indicates a formula to the computer), the formula, and RETURN. Your formula will be IMBEDDED in the location you inserted it.

Also, note that a well structured formula will result in the expected answer. Implement "parentheses" as much as possible to help define different parts of the formula. It is a good idea to verify your formulas before calculating.

Refer to LESSON ONE and the section on FEATURES AND FUNCTIONS for more information on setting up FORMULAS.

#### cc/copy column:

COPIES a COLUMN from one location to another regardless of your cursor location. You will see a prompt on your screen, "From column number?". Type the letter representing the column you wish to copy, and press RETURN. Next, you will see another prompt asking "To column number?". Simply indicate the location to copy the column TO, and press RETURN. The specified COLUMN is then COPIED from one location to another.

#### cl/clear entire spreadsheet

This command clears the spreadsheet from the screen. Be sure you have SAVED your spreadsheet before you do this or your information will be IRRETRIEVABLY lost. Answer "Y" or "N" and press RETURN.

- NOTE 1** Use this function when you want to discard data currently in main memory. This does not, however, clear out the parameters you have set. Therefore, you need to SET PARAMETERS each time you create a new ENTIRE spreadsheet or the computer will allow space according to the previous spreadsheet's parameters and will assume the title is to remain the same.
- NOTE 2** When creating a new PARTIAL spreadsheet after clearing out an ENTIRE spreadsheet, you needn't change parameters as a PARTIAL spreadsheet uses TOP LEFT and BOTTOM RIGHT save boundaries to define its space, and you define the title when SAVING. However, when making a PARTIAL that happens to be bigger than your last ENTIRE spreadsheet, you may have to change parameters simply so you will have more room in your spreadsheet to accommodate it.
- co/change color** This function allows you to change colors (characters, background, and border) on your screen. You can scroll through the available colors using the <F1>, <F2> and <F3> keys as specified on the screen. Press RETURN to set the controls.
- cp/change parameters** Allows you to SET UP and/or CHANGE the TITLE and the PARAMETERS of your spreadsheet according to space available. For instance, if your sheet uses 10 rows and 10 columns, you should set your parameters to these limits. This prevents the computer from wasting space as well as time in loading and saving. You can make your sheet larger or smaller as needed by using this function. **Insta-Calc** can store up to 30 rows and 20 columns per spreadsheet (600 CELLS).
- cr/copy row:** COPIES a ROW from one location to another regardless of your CURSOR position. You will see a prompt on your screen asking you "From row number?". Indicate the row to be copied, and press RETURN. Next, you will see on your screen "To row number?". Indicate the row number you wish to copy TO and press RETURN. The specified row is then COPIED from one row to another.
- dc/delete column** Deletes a COLUMN. Again, you will get a prompt on your screen asking "which column?" (to delete). Indicate the correct column and press RETURN. This DELETES the selected COLUMN and moves the corresponding columns to fill the empty space.

## F KEY FUNCTIONS

- dr/delete row** Deletes a ROW. You will see a prompt on your screen which will ask "which row?" (to delete). Indicate by number the correct row, and press RETURN. This DELETES the selected ROW and moves the corresponding rows to fill the empty space.
- ft/change cell's display format** By using this function, you can move the data in the CURSOR location from the right side of the CELL to the left and vice versa. Type the command "ft," and press RETURN. When your CURSOR is located in a CELL with a number value, this command will TRUNCATE (remove the decimal point) the number instead of moving it within the CELL. This command is not compatible with formulas.
- ic/insert column** INSERTS a blank COLUMN at a location you specify. The prompt will ask "which column?". Indicate the column you wish to insert a blank into. PRESS RETURN and a blank COLUMN will be INSERTED at that location.
- NOTE** When inserting columns and rows into **existing** spreadsheets, remember to first **enlarge the spreadsheet** if you are short on room. Use the digraph "cp" for CHANGE PARAMETERS.
- ir/insert row:** INSERTS a blank ROW at a location that you indicate. You will see a prompt on your screen asking "which row?". Simply define which row you wish to insert a blank INTO, press RETURN, and a blank ROW will be INSERTED at that location.
- rc/replicate column** REPLICATES the data in your CURSOR CELL along the COLUMN to and from the rows you specify. The screen will prompt, "From row number?". Indicate the starting point WITHIN the COLUMN to replicate FROM, and press RETURN. Next, the screen will say "To row number?". Indicate the ending point of replication and press RETURN. The data in your CURSOR position will be replicated as ordered.
- NOTE** When replicating a row or column that contains a formula, the screen will ask:  
(R)Relative, (A)Absolute, Or <F2> to ABORT  
Choose "R" for Relative if you wish the formula to change its values according to its location. For example, if the formula you are replicating is in column "C" and says "-C1@C2," and you are moving it to column "D," it would change to "-D1@D2." Choose "A" for Absolute if you want to replicate the formula exactly as is.  
Refer to Lesson One for more information on REPLICATE.

## IMPORTANT!

If you REPLICATE a formula that has already been calculated, you must RE-CALCULATE afterwards to get the correct results in that formula location.

Remember, the difference between COPY and REPLICATE is that COPY reproduces an entire row or column in another location. REPLICATE reproduces a single CELL (your CURSOR location) in another location or locations.

## rr/replicate row

REPLICATES data from your current CURSOR CELL along the ROW from one column to another. Your screen will ask, "From column number?". Indicate by letter, the column to begin replication and PRESS RETURN.

Next, the screen will ask "To column number?". Type the column letter where you wish to end replication. Press RETURN and the row will then be replicated with the data from your current CURSOR position, all along the row and up to the ending location specified.

## so/set load offset

This command is used when "pasting" PARTIAL spreadsheets over ENTIRE spreadsheets.

First, load your entire spreadsheet, then move the CURSOR to the location within the spreadsheet where you want the partial spreadsheet to **begin** the OVERLAP. Press the <F6> key and type "so," pressing RETURN twice. Now you are ready to LOAD your partial spreadsheet.

Refer to LESSON THREE for more details.

## tl/top left save boundary

This is used when you want to save a PARTIAL spreadsheet. It indicates the top left boundary to save from. Simply move your CURSOR to the top left corner where you want to begin the "window." PRESS <F6>, type "tl", and press RETURN twice. Move to the next location and use "br" to indicate the lower boundary.

## CONTROL COMMANDS

**CTRL + U, D, L  
or R**

This command is used with large spreadsheet layouts to further facilitate CURSOR travel from screen to screen. Press the **CTRL** key and then the "U," "D," "L" or "R" key simultaneously.

"**U**" moves **UP**, to show the **TOP** of your spreadsheet in the screen (rows 00 to 15).

"**D**" moves **DOWN**, to show the **BOTTOM** of your spreadsheet in the screen (rows 11 to 29).

"**L**" moves **LEFT** (two columns), to the next **PAGE** in memory and inserts it into your screen.

"**R**" moves **RIGHT** (two columns), to the next **PAGE** and inserts it into your screen.

## GLOSSARY

<b>Abort</b>	To terminate the function in progress. Use of the <F2> key accomplishes this throughout the program.
<b>Absolute</b>	To replicate a formula (or a component of one) from its original location to a new one exactly as it appears in the original cell.
<b>Cell</b>	A Column/Row location (like "A1") where a unit of information will be entered. Also referred to as a "FIELD."
<b>Copy</b>	To reproduce or copy data in an entire row or column to another row or column.
<b>Cursor</b>	Reverse highlighted bar on your screen controlled by CRSR KEYS which indicates where your next entry will be.
<b>Data Disk</b>	Separate storage disk unit to hold spreadsheets and other data.
<b>Default</b>	A software feature which allows the user to automatically insert a predetermined value. For example, when PRINTing your spreadsheet, you must enter the number of lines per page, and by pressing RETURN, the system DEFAULTs to 66 lines (instead of typing in "66").
<b>Digraph</b>	A group of two letters representing a command. For example, "ir" for "INSERT ROW."
<b>Entire Spreadsheet</b>	A spreadsheet created as a whole unit, using parameter settings to indicate its size and title.
<b>Field</b>	Row/Column location (as in "A1") where a unit of information will be entered. Also referred to as a "CELL."
<b>File</b>	A group of Records pertaining to a particular subject (the "model" spreadsheet is considered a "file" on your disk). Similar to a file folder in your desk drawer.
<b>Format</b>	To logically organize a data diskette for SAVING records and files. Must be done before data can be stored. Also called "Newing."
<b>Function Key</b>	Large keys located on the far right side of your Commodore 64 which facilitates the operation of INSTA-CALC.
<b>Imbedded Control</b>	A control set within a spreadsheet that does not appear directly on the screen. A formula is an example of an imbedded control.
<b>Load Offset</b>	Grid location set within an ENTIRE spreadsheet (like "B1") where a PARTIAL spreadsheet will load from.
<b>Menu</b>	Screen listing of features or functions available. Starting point at which the user decides what he/she would like to do.

<b>Parameters</b>	Row and Column limitations indicating the size of an ENTIRE spreadsheet. Also indicates the title.
<b>Partial Spreadsheet</b>	A spreadsheet designed to load into an ENTIRE spreadsheet, OVERLAPPING where it LOADS. Uses "Top Left" and "Bottom Right" BOUNDARY SAVE COMMANDS to define its space instead of parameters.
<b>Relative</b>	To replicate a formula (or a component of one) from one location to another, and change it according to its location. For example, this formula: " $-B1@B2$ " in column "B" would change to " $-C1@C2$ " when reproduced in column "C."
<b>Replicate</b>	To reproduce data in your cursor location from one point to another and along all points in between.
<b>Resave</b>	To save a spreadsheet again, after making modifications to it.
<b>Row/Column Commands</b>	Various <b>INSTA-CALC</b> commands accessed by pressing the <F6> FUNCTION KEY.
<b>Save Boundary</b>	Top left ("tl") and bottom right ("br") grid locations set to indicate a PARTIAL spreadsheet's size. Used much like the PARAMETERS setting used with an ENTIRE spreadsheet.
<b>Shift and Return</b>	PRESS SHIFT and RETURN at the same time to restart program when " <b>CIMARRON</b> " and " <b>INSTA</b> " logos are displayed.
<b>Truncate</b>	To round up or down, to the nearest whole number. "46.70" truncated would be "47"; and "46.07" truncated would be "46." Truncation occurs when numbers within the spreadsheet are "left-justified", using the "change cell's display format" ("ft") row/column command.
<b>Write Protect Label</b>	A small, adhesive label which fits over a diskette notch to prevent recording of data.

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