

Appendix A: Results from 1990

of the 1990 census, the Bureau of the Census conducted a post-

enumeration survey to determine the accuracy of the 1990 census.

The post-enumeration survey (PES) was a mail questionnaire sent

to a sample of households that did not respond to the 1990 census

or whose responses were incomplete or inconsistent.

APPENDIX A

System Parameter Settings

The calculator has several parameters which can be set and reset to different conditions. These parameters are affected when you change batteries, reset the calculator, turn the calculator off and on, clear the calculator, or use the HELP function. This information in this table lists the effects of these actions on each parameter.

Effect of Parameter (Default Condition)	Effect of [RESET] or [OFF]	Effect of [CLEAR]	Effect of [HELP] <YES>
Display cleared	cleared	cleared	cleared
Display format standard	standard	standard	removes EE standard
Decimal point floating	floating	no effect	floating
Number base decimal	decimal	no effect	decimal
Memory partition	125 data registers, 1000 program steps, and 5200 file bytes	no effect	no effect
Data registers cleared	no effect	no effect	no effect
Program registers cleared	no effect	no effect	no effect
File space cleared	no effect	no effect	no effect
Statistics registers cleared	no effect	no effect	no effect
Temporary register cleared	cleared	cleared	cleared
AOS TM stack cleared	cleared	cleared	cleared
User subroutine stack cleared	cleared	cleared	no effect

Effect of Parameter (Default Condition)	Effect of [RESET] or [OFF]	Effect of [CLEAR]	Effect of [HELP] <YES>
Angle mode degrees	no effect	no effect	degrees
Alpha mode reset	reset	reset	no effect
Alpha registers TI-95 PROCALL	TI-95 PROCALL	no effect	no effect
Uppercase/ lowercase	uppercase	uppercase	no effect
Learn mode reset	reset	reset	no effect
Printer device number	set to 12	* usually no effect	no effect
Print width	set to 24	** usually no effect	no effect
Word break off	off	no effect	no effect
Trace off	off	no effect	no effect
User flags reset	reset	no effect	resets flag 15 (Halt On Error) only
System memory protected	protected	protected	protected
Halt on error off	off	off	no effect

* You can use a PC-324 printer (if available) to power the calculator while you change batteries to avoid these effects.

** Memory not used as file space is equally divided into program steps and data registers.

* Set to 12 if PC-324 printer is attached

** Set to 24 if original device was not 12, but PC-324 is attached now

System Menus

The following lists show the functions assigned to the F_1 – F_5 keys when certain other keys are pressed. Many of these redefined keys also have inverse functions. Although they do not appear in the menu, they are shown here. Detailed information on how to use these system menus is contained in sections of this manual and in the TI-95 Programming Guide.

ALPHA	DEL: delete alpha character INS: insert alpha characters COL: move cursor to column MRG: merge with alpha register RCA: recall to alpha register STA: store from alpha register CHR: enter a character code L.C: set/reset lowercase lock	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12
MET: metric conversions	F-C: Fahrenheit to Celsius INV F-C: Celsius to Fahrenheit G-L: gallons to liters INV G-L: liters to gallons #-K: pounds to kilograms INV #-K: kilograms to pounds i-m: inches to millimeters INV i-m: millimeters to inches f-M: feet to meters INV f-M: meters to feet	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12
DMS: degrees/minutes/seconds to decimal degrees INV DMS: decimal degrees to degrees/minutes/seconds		F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12
CONV conversions		F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12
ANG: degrees/radians/grads	D-R: degrees to radians INV D-R: radians to degrees D-G: degrees to grads INV D-G: grads to degrees R-G: radians to grads INV R-G: grads to radians	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12
P-R: polar to rectangular INV P-R: rectangular to polar	DEC: decimal mode HEX: hexadecimal mode OCT: octal mode 2sC: two's complement mode INV 2sC: signed mode UNF: unformatted mode	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12
NUM numeric functions	INT: integer FRC: fraction R#: random number INV R#: random number generator seed RND: round internal value SGN: signum LCM: least common multiple/greatest common divisor PF: prime factors ABS: absolute value	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12
REG: list registers LST PGM: list program LBL: list program labels ST: list calculator status	1st: start at first step PC: start at current step 1st: start search at first step PC: start search at current step	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12

(continued)

System Menus (Continued)

		GET: load program or data from files INV GET: load program or data from RAM cartridge (program only)
FILES		PUT: save program or data in files INV PUT: save program or data in RAM cartridge (program only)
		DF: delete specified file INV DF: delete specified file in RAM cartridge (program only)
		CAT: show catalog of directory INV CAT: show catalog of RAM cartridge (program only)
		CD: clear all files in directory INV CD: clear all files in RAM cartridge (program only)
		NAM: rename a RAM cartridge
I/O	TAP: tape storage functions	RD: read from tape WRT: write to tape VFY: verify tape
	PRT: printer setup	DEV: set printer device # WID: set print width WB: word break on INV WB: word break off
	CIO: call I/O subroutine KW: key wait	
TESTS	IF>; if greater than INV IF>; if less than or equal IF<; if less than INV IF<; if greater than or equal IF=;; if equal INV IF=;; if not equal DSZ: decrement and skip if zero INV DSZ: decrement and skip if not zero Y/N: yes/no input test	

RUN -----
PGM: run program in program memory
MEM: run program from file space
MTI, STA, or NEW: run program in named cartridge*
ESC: escape

RUN	PGM: run program in program memory MEM: run program from file space
LEARN	MTF, STA, or NEW: run program in named cartridge* ESC: escape
PART	1st: show first step PC: show current step END: show last step ESC: escape
HELP	PS: specify program steps REG: specify registers FILE: specify file space SET: accept current setting ESC: escape
FLAGS	YES: set all defaults NO: set selected defaults ESC: escape
FUNC	CLB: clear flags SF: set flag RF: reset flag TF: test for flag set INV TF: test for flag reset
QAD	QAD: quadratic equations
CUB	CUB: cubic equations
SYS	SYS: system functions
STB	STB: store byte
RCB	RCB: recall byte
SBA	SBA: call assembly language subroutine

* The name may be the name of a library cartridge or a name assigned to a Constant Memory™ cartridge.

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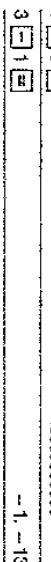
Accuracy Information

The calculator maintains values internally to greater accuracy than the values it displays. Occasionally, the difference between a displayed number and its internal value can produce unexpected results.

Numeric Accuracy Any displayed number is a rounded representation of an internally stored 13-digit value. This internal value, not the displayed number, is used during calculations.

The additional digits kept internally are referred to as "guard digits." Although you can usually disregard these digits, they can be important in interpreting unexpected results.

As an example of the effect of guard digits, it is possible for an expression equal to zero to produce a nonzero result (for example $1 \div 3 \times 3 - 1$).

Press  Display 

Differences in guard digits are especially important if you write a program that compares two values for equality.

If you suspect these differences are responsible for an unexpected result of a comparison, use the ROUND numeric function before making the comparison. This sets the internal value of the number to the value shown in the display.

Internal Values The 13 digits of the mantissa are displayed when you use the **2nd [1]adj** key sequence.

All the digits of the internal value are shown in the unformatted mode (a selection of **[CONV] (BAS)**). An unformatted number has three parts:

- The left 13 digits are the base 10 mantissa with the decimal implied after the first digit.
- The 14th digit conveys the sign of both the mantissa and the exponent. (Because the signs are indicated by a digit, the **[+/-]** key has no effect in this mode.)

Mantissa Sign	Exponent Sign	Sign Digr
+	+	0
-	-	4
+	+	8
-	-	C

- The last two digits are the exponent of scientific notation.

The main use of the unformatted mode is the entry of hexadecimal values for CIO (call I/O) instead of numeric calculations.

Number limits

The range of numbers that can be displayed depends on the display format in use. This table lists the allowable range of numbers for each format.

Display Format	Allowable Range
Standard notation	-999999999 to -0.000000001 0.000000001 to 999999999
Scientific or engineering notation	-9.999999×10 ⁹⁹ to -1×10 ⁻⁹⁹ 1×10 ⁻⁹⁹ to 9.999999×10 ⁹⁹
Hexadecimal	-FFFFFFFFFF to FFFFFFFFFF
Octal	-7777777777 to 7777777777

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Use this list of items to find a topic of reference. Also see the Key Index inside the front cover.

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