



**WANG**

**2200**

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**BASIC-2  
Error Codes**

## NONRECOVERABLE ERROR CODES

### MISCELLANEOUS ERRORS

- A01** memory exceeded (01,02) (text -- symbol tbl)
- A02** memory exceed (02) (text -- value stack)
- A03** not enough memory (84) (LISTDC, MOVE, COPY)
- A04** stack overflow (02) (operator stack)
- A05** line too long (45)
- A06** program protected (44)
- A07** illegal immediate mode statement (24)
- A08** statement not legal here
- A09** program not resolved

### SYNTAX ERRORS:

- S10** missing left parenthesis (04)
- S11** missing right parenthesis (05)
- S12** missing equal sign (06)
- S13** missing comma (35)
- S14** missing asterisk (94)
- S15** missing > (76)
- S16** missing letter (21)
- S17** missing hex digit (33)
- S18** missing relation operator (14)
- S19** missing required word (12)
- S20** expected end of statement (10)
- S21** missing line number (11)
- S22** illegal PLOT argument (54)
- S23** missing literal string (39)
- S24** illegal expression or missing variable (15)
- S25** missing numeric scalar variable (16)
- S26** missing array variable (17)
- S27** missing numeric array (= 1)
- S28** missing alpha array (63)
- S29** missing alpha variable (40)

### PROGRAM ERRORS:

- P32** start > end (77)
- P33** line number conflict (46)
- P34** illegal value (18,13)
- P35** no program (23)
- P36** undefined line number of CONTINUE illegal (11)
- P37** undefined special function subroutine (48)
- P38** undefined FN (08)
- P39** FN nested too deep (09)
- P40** NEXT without FOR (26)
- P41** RETURN without GOSUB (25)
- P42** illegal image (37)
- P43** illegal matrix operand (91)
- P44** matrix not square (89)
- P45** operand dimensions not compatible (90)
- P46** illegal microcommand (95)
- P47** missing buffer variable (96)
- P48** illegal device specification (47)
- P49** interrupt table full
- P50** illegal dimensions or variable length (= 3,22)
- P51** variable or value too short (97)
- P52** variable or value too long (= 2,42)
- P53** noncommon variables already defined (30)
- P54** common variable required (87)
- P55** undefined array (22)
- P56** illegal subscripts (22)
- P57** illegal STR() arguments (41)
- P58** illegal field/delimiter specification (95)
- P59** illegal redimension (92,22)

## RECOVERABLE ERRORS

### COMPUTATION ERRORS:

- C60** underflow (03)
- C61** overflow (03)
- C62** division by zero (03)
- C63** zero divided by zero, or zero zero (03)
- C64** zero raised to negative power (03)
- C65** negative number raised to noninteger power (03)
- C66** SQR of negative power (03)
- C67** LOG of zero (03)
- C68** LOG of negative power (03)
- C69** argument too large (03)

### EXECUTION ERRORS:

- X70** insufficient data (27,28)
- X71** value exceeds format (56)
- X72** Singular matrix (93)
- X73** illegal INPUT data (29)
- X74** wrong variable type (43)
- X75** illegal number (20)

### DISK ERRORS:

- D80** file not open (86)
- D81** file full (62)
- D82** file not in catalog (80)
- D83** file already catalogued (79)
- D84** file not scratched (78,73)
- D85** index full (88)
- D86** catalog end error (74)
- D87** no end of file (82)
- D88** wrong record type (52,58)
- D89** sector address beyond EOF (82)

### I/O ERRORS:

- I90** disk hardware error (61) (X'CO' not rec'd)
- I91** disk hardware error (65,83)
- I92** disk hardware error (61 - timeout)
- I93** disk format error (67)
- I94** format key engaged (67)
- I95** seek error (71)
- I96** CRC error (72)
- I97** LRC error (68)
- I98** illegal sector address (64)
- I99** read-after-write error (85)

# BASIC-2 Error Codes

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# ERROR CODES

## MISCELLANEOUS ERRORS (NON-RECOVERABLE)

### ERR A01 – MEMORY OVERFLOW

There is not enough memory free space remaining to enter the program line or to allocate for the variable. System commands (e.g., SAVE) and some Immediate Mode statements still can be executed. (See Chapter 2 of BASIC – 2 LANGUAGE MANUAL for a more detailed explanation of this error.)

Make more space available by entering a CLEARP, N or V command to shorten the program or reduce the number of variables defined.

### ERR A02 – MEMORY OVERFLOW

There is not enough memory free space remaining to execute the program or Immediate Mode line. Commands (e.g., SAVE) and some Immediate Mode statements still can be executed. (See Chapter 2 of BASIC - 2 LANGUAGE MANUAL for a more detailed explanation of this error.)

Make more space available by shortening the program or reducing the amount of variable space used (with a CLEARP, N, or V command).

**ERR A03 – MEMORY OVERFLOW**

There is not sufficient free space in memory to execute the LIST DC, MOVE, or COPY statement (a minimum of 2K of free space is required for MOVE and COPY).

Make more space available by executing a CLEAR P, N, or V command.

**ERR A04 – STACK OVERFLOW**

A fixed-length system stack (the Operator Stack) has overflowed. A maximum total of 64 levels of nesting for subroutines, FOR/NEXT loops, and expression evaluation are permitted. Often this error occurs because the program repeatedly branches out of subroutines or loops without executing a terminating RETURN or NEXT statement.

Correct the program text, possibly by using a RETURN CLEAR statement to clear subroutine or loop information from the stacks.

**ERR A05 – PROGRAM LINE TOO LONG**

The program line being entered is too long to be saved in one disk sector (more than 253 bytes). The line can be executed, but cannot be saved on disk.

Shorten the line by breaking it up into two or more smaller lines.

**ERR A06 – PROGRAM PROTECTED**

A program or program overlay loaded into memory was protected; therefore no program

text in memory can be **SAVED**, **LISTED**, or **modified** (except by **LOAD** or **CLEAR**).

Protect mode must be deactivated with a **CLEAR** command. (However, this also clears all of memory.)

**ERR A07 – ILLEGAL IMMEDIATE MODE STATEMENT**

An attempt was made to execute an illegal statement in Immediate Mode.

Delete the illegal statement and reexecute the line.

**ERR A08 – STATEMENT NOT LEGAL HERE**

The statement cannot be used in this context.

Correct the program line.

**ERR A09 – PROGRAM NOT RESOLVED**

An attempt was made to execute an unresolved program.

Resolve the program by running it with **RUN**.

**COMPUTATIONAL ERRORS  
(RECOVERABLE)**

**ERR C60 – UNDERFLOW**

The absolute value of the calculated result was less than **1E-99** but not zero.

Correct program or data. Underflow errors can be suppressed by executing **SELECT ERROR <60**; a default value of zero will be used.





64; a default value of  $\pm 9.999999999999999E+99$  will be used.

**ERR C65 – NEGATIVE NUMBER RAISED TO NON-INTEGER POWER**

This is a mathematically undefined operation.

Correct program or data. This error can be suppressed by executing `SELECT ERROR > 65`; a default value of the absolute value of the number raised to the negative power will be used.

**ERR C66 – SQUARE ROOT OF NEGATIVE VALUE**

This is a mathematically undefined operation.

Correct program or data. This error can be suppressed by executing `SELECT ERROR > 66`; a default value of `SQR(ABS(X))` will be used.

**ERR C67 – LOG OF ZERO**

This is a mathematically undefined operation.

Correct program or data. This error can be suppressed by executing `SELECT ERROR > 67`; a default value of  $-9.999999999999999E\pm 99$  will be used.

**ERR C68 – LOG OF NEGATIVE VALUE**

This is a mathematically undefined operation.

## **ERR C68 – CODE D81**

Correct the program or data. This error can be suppressed by executing SELECT ERROR > 68; a default value of the LOG of the absolute value of the number will be used.

## **ERR C69 – ARGUMENT TOO LARGE**

The absolute value of the SIN, COS, or TAN function is  $> = 1E+10$ ; the system cannot evaluate the function meaningfully. Or, the absolute value of the ARCSIN, ARCCOS, or ARCTAN argument is  $> 1.0$ ; the value of the function is mathematically undefined.

Correct the program or data. This error can be suppressed by executing SELECT ERROR > 69; a default value of zero will be used.

# **DISK ERRORS (RECOVERABLE)**

## **ERR D80 – FILE NOT OPEN**

The file was not opened.

Open the file before attempting to read from it or write to it.

## **CODE D81 – FILE FULL**

The file is full; no more information may be written into the file.

Correct the program, or use MOVE to move the file to another platter and reserve additional space for it.

**ERR D82 – FILE NOT IN CATALOG**

A non-existent file name was specified, or an attempt was made to load a data file as a program file or a program file as a data file.

Make sure the correct file name is being used; make sure the proper disk is mounted.

**ERR D83 – FILE ALREADY CATALOGUED**

An attempt was made to catalog a file with a name that already exists in the Catalog Index.

Use a different name, or catalog the file on a different platter.

**ERR D84 – FILE NOT SCRATCHED**

An attempt was made to rename, or write over a file that has not been scratched.

Scratch the file before renaming it.

**ERR D85 – CATALOG INDEX FULL**

There is no more room in the Catalog Index for a new name.

Scratch any unwanted files and compress the catalog using a MOVE statement, or mount a new disk platter and create a new catalog.

**ERR D86 – CATALOG END ERROR**

The end of the Catalog Area is defined to fall within the Catalog Index, or an attempt has been made to move the end of the Catalog Area to fall within the area already occupied

## **ERR D86 – ERR D89**

by cataloged files (with MOVE END), or there is no room left in the Catalog Area to store more information.

Correct the SCRATCH DISK or MOVE END statement; or increase the size of the Catalog Area with MOVE END; or scratch unwanted files and compress the catalog with MOVE; or open a new catalog on a separate platter.

### **ERR D87 – NO END-OF-FILE**

No end-of-file record was recorded in the file (with DATASAVE DC END or DATASAVE DA END), and therefore none could be found by the DSKIP END statement.

Correct the file by writing an end-of-file trailer after the last data record.

### **ERR D88 – WRONG RECORD TYPE**

A program record was encountered when a data record was expected, or vice-versa.

Correct program. Be sure the proper platter is mounted and be sure the proper drive is being accessed.

### **ERR D89 – SECTOR ADDRESS BEYOND END-OF-FILE**

The sector address being accessed by the DATALOAD DC or DATASAVE DC operation is beyond the end-of-file. This error can be caused by a bad disk platter.

Run the program again. If error persists use a different platter or re-format the platter. If

error still exists, contact Wang service personnel.

## **I/O ERRORS (RECOVERABLE)**

### **ERR 190 – DISK HARDWARE ERROR**

The disk did not recognize or properly respond to the System at the beginning of a read or write operation (the read or write has not been performed).

Run program again. If error persists, reformat disk platter. If error still occurs, contact Wang Service personnel.

### **ERR 191 or ERR 192 DISK HARDWARE ERROR**

The disk did not respond to the system at the beginning of a read or write operation in the proper amount of time (time-out). The read or write has not been performed.

Run program again. If error persists, reformat disk platter. If error still occurs, contact Wang service personnel.

### **ERR 193 – DISK FORMAT ERROR**

A disk format error was detected during a disk read or write. The disk is not properly formatted. The error can be either in the disk platter or in the disk hardware.

Format the disk again; if error persists, call Wang Service personnel.

**ERR 194 – FORMAT KEY ENGAGED**

The disk format key is engaged. (The key should be engaged only when formatting a disk.)

Turn off the format key.

**ERR 195 – DISK SEEK ERROR, OR PLATTER PROTECTED**

A disk seek error occurred, indicating that the specified sector could not be found on the disk platter. This error may indicate a bad format, or it may result from an attempt to read a protected diskette.

Make sure the diskette is not protected, and run program again. If error persists, re-initialize (reformat) the disk. If error still occurs call Wang Service personnel.

**ERR 196 – CYCLIC READ ERROR**

A cyclic redundancy check error occurred during a disk read operation; the sector being addressed has never been written to or was incorrectly written. This usually means the disk was never initially formatted.

Format the disk. If the disk was formatted, rewrite the bad sector, or reformat the disk. If error persists call Wang Service personnel.

**ERR 198 – ILLEGAL SECTOR ADDRESS OR PLATTER NOT MOUNTED**

The disk sector being addressed is not on the disk, or the disk platter not mounted. (Max-

imum legal sector address depends upon the model of disk used.)

Correct the program statement in error, or mount a platter in the specified drive.

**ERR I99 – READ-AFTER-WRITE ERROR**

The comparison of read-after-write to a disk sector failed, indicating that the information was not written properly. This error usually indicates a bad disk platter.

Write the information again. If error persists, try a new platter; if error still persists, call Wang Service personnel.

**PROGRAM ERRORS  
(RECOVERABLE)**

**ERR P32 – START > END**

The starting value is greater than the ending value.

Correct the statement in error.

**ERR P33 – LINE-NUMBER CONFLICT**

The RENUMBER command cannot be executed. The renumbered program text must fit between existing (non-renumbered) program lines.

Correct RENUMBER command.

**ERR P34 – ILLEGAL VALUE**

The value exceeds the allowed limit.

Correct program or data.

**ERR P35 – NO PROGRAM IN MEMORY**

A RUN command was entered but there are no program statements in memory.

Enter program statements or load a program.

**ERR P36 – UNDEFINED LINE-NUMBER OF ILLEGAL CONTINUE**

A referenced line-number is undefined, or the user is attempting to continue program execution after one of the following conditions: A stack of memory overflow error, a new variable has been entered, a CLEAR command has been entered, the user program text has been modified, or the RESET key has been pressed.

Correct Statement text, or rerun program with RUN.

**ERR P37 – UNDEFINED MARKED SUBROUTINE**

There is no DEFFN' in the program corresponding to the GOSUB' statement that was to be executed.

Correct the program.



**ERR P38 – UNDEFINED FN FUNCTION**

An undefined FN function was referenced.

Correct program by defining the function or referencing it correctly.

**ERR P39 – FN's NESTED TOO DEEP**

More than five levels of nesting were encountered when evaluating an FN function.

Reduce the number of nested functions.

**ERR P40 – NO CORRESPONDING 'FOR' for 'NEXT' STATEMENT**

There is no companion FOR statement for a NEXT statement, or a branch was made into the middle of a FOR/NEXT loop.

Correct the program.

**ERR P44 – MATRIX NOT SQUARE**

The dimensions of the operand in a MAT inversion or identity are not equal.

Correct the array dimensions.

**ERR P45 – OPERAND DIMENSIONS NOT COMPATIBLE**

The dimensions of the operands in a MAT statement are not compatible; the operation cannot be performed.

Correct the dimensions of the arrays.

**ERR P46 – MISSING BUFFER VARIABLE**

A buffer (Arg 3) in the \$GIO statement was omitted for a data input, data output, or data verify microcommand.

Define the buffer if it was omitted.

**ERR P48 – UNDEFINED FILE SPECIFICATION OR ILLEGAL DEVICE ADDRESS.**

The #n file specification in a program statement is undefined, or the device address is illegal.

Define the specified file number in a SELECT statement, or correct the device address.

**ERR P49 – INTERRUPT TABLE FULL**

Interrupts were defined for more than eight devices. The maximum number of devices allowed is eight.

Reduce the number of interrupts.

**ERR P50 – ILLEGAL ARRAY DIMENSIONS OR VARIABLE LENGTH**

An array dimension or alpha variable length exceeds the legal limits. The limits are as follows:

One-dimensional array:  $1 \leq \text{dimension} < 65536$

Two-dimensional array:  $1 \leq \text{dimension} < 256$

Alpha-variable length:  $1 \leq \text{length} < 125$

Correct the dimension or variable length.

**ERR P51 – VARIABLE OR VALUE TOO SHORT**

The length of the variable or value is too small for the specified operation.

Correct the program.

**ERR P52 – VARIABLE OR VALUE TOO LONG.**

The length of the variable or value is too long for the specified operation. For example, the program or data file name is too long (a maximum of eight characters is allowed).

Correct the statement or command.

**ERR P53 – NONCOMMON VARIABLES ALREADY DEFINED**

A COM statement was preceded by a non-common variable definition.

Correct program by making all COM statements the first numbered lines, or clear non-common variables with a CLEAR command.

**ERR P54 – COMMON VARIABLE REQUIRED**

The variable in the LOAD DA statement (used to receive the sector address of the next available sector after the load), or the variable containing the program name(s) in a multiple-file LOAD command, is not a common variable.

Define the variable to be common.

**ERR P55 – UNDEFINED VARIABLE (PROGRAM NOT RESOLVED)**

An array which was not defined properly in a DIM or COM statement is referenced in the program, or a variable has been encountered which was not defined because the program was not resolved (e.g., a special function key was pressed but the program was never RUN).

Correct text or run program.

**ERR P56 – ILLEGAL SUBSCRIPTS**

The variable subscripts exceed the array dimensions; or the dimensionality of the variable does not agree with the array definition (DIM or COM).

Change variable subscript or variable definition in DIM or COM statement.

**ERR P57 – ILLEGAL STR( ARGUMENTS**

The STR( function arguments exceed the maximum defined length of the alpha-variable.

Correct the STR( arguments, or redefine the alpha-variable.

**ERR P58 – ILLEGAL FIELD / DELIMITER SPECIFICATION**

The field or delimiter specification in a \$PACK or \$UNPACK statement is illegal.

Use only legal specifications.

**ERR P59 – ILLEGAL REDIMENSION**

The space required to redimension the array is greater than the space initially reserved for the array.

Reserve more space for the array in the initial DIM or COM statement, or redimension to fit in the available space.

**SYNTAX ERRORS  
(NON-RECOVERABLE)****ERR S10 – MISSING LEFT PARENTHESIS**

A left parenthesis ('(') was expected.

Correct statement text.

**ERR S11 – MISSING RIGHT PARENTHESIS**

A right (') parenthesis was expected.

Correct statement text.

**ERR S12 – MISSING EQUALS SIGN**

An equals sign (=) was expected.

Correct statement text.

**ERR S13 – MISSING COMMA**

A comma was expected.

Correct statement text.

**ERR S14 – MISSING ASTERISK**

An asterisk (\*) was expected.

Correct statement text.

**ERR S15 – MISSING '>' CHARACTER**

The required '>' character is missing from the program statement.

Correct program statement syntax.

**ERR S16 – MISSING LETTER**

A letter was expected.

Correct statement text.

**ERR S17 – MISSING HEX DIGIT**

A digit or a letter from A to F was expected.

Correct the program text.

**ERR S18 – MISSING RELATIONAL OPERATOR**

A relational operator (<, =, >, <=, >=, <>) was expected.

Correct statement text.

**ERR S19 MISSING REQUIRED WORD**

A required BASIC word is missing (THEN, STEP, etc.)

Correct statement text.

**ERR S20 – EXPECTED END OF STATEMENT**

The end of the statement was expected.

Complete the statement text.

**ERR S21 – MISSING LINE-NUMBER**

A line number in the program statement is missing.

Correct the statement syntax.

**ERR S22 – ILLEGAL PLOT ARGUMENT**

An argument in the PLOT statement is illegal.

Correct the PLOT statement.

**ERR S23 – MISSING LITERAL-STRING**

A literal-string was expected.

Correct the text.

**ERR S24 – ILLEGAL EXPRESSION OR MISSING VARIABLE**

The expression syntax is illegal or a variable is missing.

Correct the Syntax, or insert the missing variable.

**ERR S25 – MISSING NUMERIC-SCALAR-VARIABLE**

A numeric-scalar-variable was expected.

Correct statement text.

**ERR S26 – MISSING ARRAY VARIABLE**

An array variable was expected.

Correct statement text.

**ERR S28 – MISSING ALPHA ARRAY**

An alpha array is required in the specified program statement syntax.

Correct program statement.

**ERR S29 – MISSING ALPHANUMERIC VARIABLE**

An alphanumeric variable was expected.

Correct the statement text.

**EXECUTION ERRORS  
(RECOVERABLE)**

**ERR X70 – INSUFFICIENT DATA**

There are not enough data value to satisfy READ or RESTORE statement requirements.

Correct program to supply additional data, or modify READ or RESTORE statement.

**ERR X71 – VALUE EXCEEDS FORMAT**

The value of the number being packed or converted is greater than the number of integer digits provided for in the PACK or CONVERT Image.

Change the Image specification.



**ERR X72 – SINGULAR MATRIX**

The operand in a MAT inversion statement is singular and cannot be inverted.

Correct the program or data. Inclusion of a normalized determinant parameter in the MAT INV statement will eliminate this error; however, the determinant must be checked by the application program following the inversion.

**ERR X73 – ILLEGAL INPUT DATA**

The value entered as requested by an INPUT statement is in an illegal format.

Reenter data in the correct format starting with erroneous number, or terminate run with the RESET key and run again. Alternatively, LINPUT can be used to enter the data, and the data can be verified within the application program.

**ERR X74 – WRONG VARIABLE TYPE**

The variable type (alpha or numeric) does not agree with the data type. For example, during a DATALOAD DC operation a numeric (or alphanumeric) value was expected but an alphanumeric (or numeric) value was read.

Correct the program or data or make sure the proper file is being accessed.

**ERR X75 – ILLEGAL NUMBER**

The format of a number is illegal.

Correct the number.

**ERR X76 – BUFFER EXCEEDED**

The buffer variable is too small or too large for the specified operation.

Change size of buffer variable.



  
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