

**Radio Shack**

**TRS-80**

PROGRAM  
CONVERSION  
AND  
DATA  
CONVERSION

Catalog Number 26-1120A

## **User Instruction Manual**

## IMPORTANT NOTES

1. The method used to prepare the conversion tapes could possibly cause you some problems; therefore, when you are converting your tapes, always set the Recorder's volume level at 7 or 8 for reading-in Level I tapes and to 4 or 5 when you go back to Level II instructions.
2. The Program Conversion tape does not have routines to indicate a tape load error. Because of the different volume settings used, it is easy to forget to change the settings while doing conversions; hence, load errors occur often. Simply LIST the converted program before you CSAVE it. If a load error occurs, you will see invalid line numbers in the listing.
3. There is no wrap-around in Level II graphics. If you have a SET, RESET or point statement with arguments that exceed the maximum coordinates ( $X = 127$ ,  $Y = 47$ ), a function call error will be generated in Level II.
4. Level II does not allow a variable to be inputted as a value for another variable as could be done in Level I.

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## PROGRAM CONVERSION

The Level I to Level II Conversion Program converts a program written in Level I BASIC for the TRS-80, to make it compatible with Level II.

The Conversion Program is loaded under the 'SYSTEM' command in Level II BASIC. The file name for the program is 'CONV'.

After the program is loaded, its execution is started by typing in a '/' followed by its entry point which is 19190 for a 4K machine and 31478 for a 16K machine.

The program starts off by prompting you to read in the Level I tape that you want to convert, with the message:

'LOAD TAPE & PRESS ENTER'

If the tape does not get read in properly, the above message will be displayed again. Rewind the tape and try to read it in again.

If the program is too long to be read in, the computer will print:

'PROGRAM TOO LONG'

and will return to BASIC.

If this happens and you have a 4K machine, you must do the conversion on a 16K machine.

After the Level I tape is read in, the computer will prompt you with:

**'PRESS ENTER TO BEGIN'**

When you press ENTER, the Conversion Program will start converting your program. It may take anywhere from 1 second to 1 minute to do this, depending on the size of the program being converted.

If the conversion is completed, the computer will prompt you with:

**'CONVERSION COMPLETE  
PRESS ENTER TO CONTINUE.'**

If you now press ENTER you will be returned to BASIC (with a 'READY') with the converted program in memory. You may then 'LIST', 'CSAVE', 'EDIT', 'RUN' or perform any of the normal BASIC functions with the program.

It is possible that during conversion your program might become too large to be held in available memory. If that happens, the computer will print:

**'PROGRAM TOO LONG'**

and will return control to BASIC. Follow the instructions mentioned earlier for this message.

**NOTE:** If you have used an array in the Level I program, you might need to insert a DIM statement in the converted program before you 'RUN' it.

If you want to execute the Conversion Program more than once without having to reload it each time, you will have to reserve some memory for it. This is done by entering a suitable number for memory size on power up.

For a 4K machine, enter the number 19189. For a 16K machine, enter the number 31477.

## DATA CONVERSION

The Data Conversion Program converts data, as punched on tape by the 'PRINT #' statement in Level I BASIC, so that it can be read by the 'INPUT #' statement in Level II BASIC.

Before the program can be used, an explanation of the data format on the data tapes (punched by the 'PRINT #' statement) is needed.

The data on the tape is in the form of blocks following one another. Each block consists of all the data punched out by the execution of a single 'PRINT #' statement. During the course of execution of a BASIC program, a number of such blocks may be punched out on tape. The Data Conversion Program reads a block at a time, which then has to be punched out.

The program is loaded and executed under the 'SYSTEM' command in Level II BASIC. Its file name is 'DCONV' and entry point is 17152.

The program begins by asking you to read in the Level I data tape. It reads in a block and then prompts you to punch it out on a new tape.

Remove the old tape but do not rewind it. There may be more data that needs to be converted. Then insert a new tape (called the Level II tape) and punch out the data.

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**NOTE:** Good data processing procedure dictates that the user test the program, run and test sample sets of data, and run the system in parallel with the system previously in use for a period of time adequate to insure that results of operation of the computer or program are satisfactory.

Refer to User's Manual for warranties. Failure to adhere to procedures set forth in User's Manual may result in the loss of warranties.

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#### ADDENDUM TO PROGRAM CONVERSION

NOTE: The Program Conversion tape does not have routines to indicate a tape load error. Because of the different volume settings used ( 5 for program conversion and 8 for Level 1 programs), it is easy to forget to change the settings while doing conversions, hence load errors occur often. Simply LIST the converted program before CSAVEing it. If a load error occurred you will see invalid line numbers in the listing.