Appendix

#### Your Guide to Keying In Programs from The Best of 99'er

To save yourself both time and effort, *always* make sure you have all the proper hardware and software to RUN any program. The *No Disk* symbol is used to designate programs which (as listed) will completely fill available memory and cannot be RUN with the Disk Controller (and possibly the RS232 Interface) attached.



Some of the programs in *The Best of 99'er*, *Volume 1*, are short (about twenty lines or less). These brief sections of code are not typeset in our grid format. Lengthy programs with long program lines, however, have been mechanically typeset on a grid background for readability and proper spacing. Even with such clear listings, it is possible for you to make typing mistakes. You should, therefore, carefully read the section on editing program lines in your Texas Instruments *User's Reference Guide* (pp.II-38 and II-39) before beginning to key in programs. Since entering long programs can lead to errors even for the most careful keypuncher, here

are a few of the most common ones to watch for:

### • Typing one symbol for another.

The most common transformations are: substituting the letter O for the number 0, the letter I for the letter J, the lowercase letter L for the number 1, the letter S for the \$, and the uppercase B for the number 8. This error is especially likely if you are working in hexadecimal numbers which are composed of the numbers 0-9 and the uppercase letters A-F.

• Transposing characters.

For example, typing in 000154000 instead of 000145000.

• Adding or deleting spaces.

Make sure you enter the same number of spaces as you find in the listing.

#### • DATA statements are often sources of hidden errors.

For example, if your computer gives you an error message such as "BAD VALUE IN 260" the actual error may not be on line 260, but buried in a DATA statement *used by* line 260. The best way to handle this kind of error is to type in DATA statements very carefully and to verify them, by checking each character before typing the next statement. This is much simpler in the long run than printing out the values of all the variables in a given DATA statement. If you inadvertently leave out a comma, or if you leave out a value or a set of values in a DATA statement, the line that reads that DATA statement will give you an error message when it tries to read the data.

Before you attempt to run your typed-in program, first check it for the kinds of errors listed above to save yourself time and frustration.

If you do have some difficulty typing in the listings, refer to the Key–In Reference strip below. Check the appearance of any character you are in doubt about with the character on the Key–In Reference before you type it in.

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To prevent the loss of a program while you are typing it in, it is a good idea to periodically save portions of it. If you are using a cassette storage system, you may want to refer to *A Beginner's Guide to Cassette Operation with A Home Computer*( on page 20 of this book) which includes many helpful hints as well as a detailed description of an effective method of saving programs on cassette tape. Basically, for each 25-50 lines you type in, use SAVE CS1 to save that program segment onto one of two tapes. Alternate between the two tapes each time you save the program. Be sure to rewind to the beginning of each tape before saving, so that you always record over and replace the shorter segment of program lines with the progressively longer segment. By following this procedure, you'll always retain most of your work even if the lights go out, or someone turns off the computer before you are finished.

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