Two switches may be brought into play as follows:

Sense Switch D	ON	- repeats the program as often as desired.
	OFF	- performs the program once and loads the program for the next test if tests are performed from cards.
		- performs the program once and stops the machine if tests are performed from tape.
Process Check	ON	- stops the machine for process errors.
Stop Switch	OFF	- prints the location of the invalid character in print positions 261-263.

The program does not include the standard Title and Headings Print-Out Routine. Therefore, no title print-out will occur.

The program is executed in the following manner:

When the test is run from cards, the program starts at Location 400 from which point a series of instructions is executed only once to select the desired highest storage address. This is determined by one of six characters stored by the program in Location S65 as follows:

1	for 1.4K	- card number 90
2	for 2K	- card number 91
4	for 4K	- card number 92
8	for 8K	- card number 93
-	for 12K	- card number 94
&	for 16K	- card number 95

After selecting the proper storage capacity, the highest location for a given capacity plus 1 is then stored in Location 362-364. Starting with Location 370, Pattern A is then loaded one character at a time, erasing any instructions that may be stored from that point on, in the following manner:

Location 370 to 999	- RRRRRWWWWWRRRRRWWWWWRRRRRWWWWWetc,	etc,RRRRRWWWWW
Location 1000 to 1999	- WWWWWRRRRRWWWWWRRRRRWWWWWRRRRR "	" WWWWWRRRRR
Location 2000 to 2999	- RRRRRWWWWWRRRRRWWWWWRRRRRWWWWW "	" RRRRRWWWWW
Location 3000 to 3999	- WWWWWRRRRRWWWWWRRRRRWWWWWRRRRR "	" WWWWWRRRRR

and so on up to the highest location. Location 370 is advanced to 371 to 372 to 373, etc. by adding a "1" to the units position of the B address of the load instruction. The pattern is reversed from R's to W's to R's to W's, etc. by testing the units position of the last storage address loaded for a 0 or a 5. When this position is 0-4 the pattern is five R's; when it is 5-9 the pattern is five W's. A further test is made at each thousand block of storage to transpose the pattern so that when Locations 995-999 have WWWWW, Locations 1000-1004 will store WWWWW; when Locations 1995-1999 have RRRRR, Locations 2000-2004 will store RRRRR, etc. to the highest location. The load instruction for Pattern A is then changed to a move instruction and, under control of a loop counter in Location 365, the operation for Pattern A is repeated a second time.

The load instruction is used for the first loop for two reasons: (1) to erase any invalid characters that may be in storage from a previous operation; (2) to transfer a valid pattern character (W or R) including word mark from one location to another. If the position into which a valid character is transferred results into an invalid character, a process error will occur.

The move instruction is used for succeeding loops in order to check for valid characters. If the result is an invalid character, a process error will occur.