

ELLIOTT

903

Volume 1: FUNCTIONAL SPECIFICATION
Part 2: THE BASIC 903 COMPUTER UNIT
Section 4: PRIORITY INTERRUPT SYSTEM

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Chapter 1: GENERAL DESCRIPTION OF SYSTEM

1.1 Introduction

In the Elliott 903 computer, in addition to the ordinary program level, there are also three levels of interrupt. A priority system is provided to enable a particular program priority level to be selected, although the additional three levels are not normally used for general-purpose work.

1.2 General Description

A program in the 903 may be run at any one of the four priority levels. To each level is assigned a sequence control register and a modifier register. These registers are special store locations and are allocated the addresses given in the table below.

Store Address		Priority Level Number
Sequence Control Register (SCR)	Modifier Register (B-Register)	
0	1	1
2	3	2
4	5	3
6	7	4

These store locations are used instead of hardware registers.

Priority level 1 has the highest priority, level 2 the next highest, etc.

A program running on a particular level can only be interrupted by a program of higher priority. The stimulus for the change is a signal on the appropriate INTERRUPT line and, when the new level has been entered, the signal is normally removed.

When the instruction 15 7168, Program Level Terminate, is given, the next lower priority level with a stimulus present is selected. If no stimulus is present, the program returns to priority level 4.

Since the sequence control and modifier registers are held in the store, care should be taken in altering these locations.