

# ELLIOTT

# 900

In compiling this Manual every possible care has been taken to ensure its accuracy, but it must be understood that this Manual is not a Contract Document and we accept no responsibility for errors or omissions or for any damage caused to or by the equipment.

If the equipment described in this Manual is transferred by the Purchaser to another party, we recommend use by such other party of this Manual or parts. We are willing that this Manual or appropriate contents should in such event be used as part of, or in conjunction with, a Manual which may be issued by the purchaser, subject to suitable acknowledgment being made to us and subject to our approval as to the content.

903 TECHNICAL MANUAL  
VOLUME 3 : OPERATING INSTRUCTIONS

Contents List

903 Introduction

Newsletters

Amendments

PART	1:	BASIC EQUIPMENT
	Section 1	: Central Processor
	Section 2	: Paper Tape Equipment
	Section 3	: Teleprinter
PART	2:	PROGRAM OPERATING INSTRUCTIONS
	Section 1	: Notes on Program Operating
	Section 2	: Operating Procedures for S. I. R. Programs
	Section 3	: Operating Procedure for ALGOL Programs
	Section 4	: Operating Procedures for FORTRAN Programs
	Section 5	: Operation of Utility Programs
PART	3:	OPTIONAL UNITS
PART	4:	PERIPHERAL EQUIPMENT
	Section 1	: 9kc/s Magnetic Tape System
	Section 2	:
	Section 3	: Digital Plotter

## ELLIOTT 903 TECHNICAL MANUAL

### INTRODUCTION

#### Contents

Scope of the Manual	Symbols, Terms & Abbreviations
Conditions of Issue	Updating Service
Organisation of the Manual	Manual & Tape Supplies

#### SCOPE OF THE MANUAL

The Elliott 903 Technical Manual has been planned to assist the customer from planning through to operation and maintenance of an Elliott 903 Computer. To this end, the Manual contains concise specifications of the entire range of 903 equipment, installation details, programming information, operating instructions and engineering maintenance details.

To cover all possible needs (e. g. training of programmers) is beyond the scope of this Manual and, to do this, a full range of supporting services is available. Details of these services can be obtained from:-

Elliott-Automation Computers Limited,  
Elstree Way,  
BOREHAMWOOD,  
Herts.

#### CONDITIONS OF ISSUE

Software, program descriptions and similar matter which may be made available by Elliott in connection with a sale, hiring or other disposition, or otherwise, is proprietary to Elliott and may be subject to protection. Such matter is provided to you for your own use only and may not be copied or made available to others without prior written consent in specific cases. If such matter is provided in connection with a computer, it must be used only with such computer, and no other equipment.

In compiling this Manual, every possible care has been taken and the contents have been checked by qualified personnel. However, it is not a contract document and Elliott-Automation Computers Ltd. accept no responsibility for errors or omissions or for any damage caused to or by the equipment.

## ORGANISATION OF THE MANUAL

The Manual is divided for the convenience of the readers into four Volumes:-

Volume 1	Functional Specification and Installation Information
Volume 2	Programming Information.
Volume 3	Operating Instructions.
Volume 4	Engineering Maintenance.

Any of the four Volumes may fill more than one binder, the contents of each binder being shown on the card on the spine of the binder.

The content of each Volume is divided into Parts and these Parts are further sub-divided into Sections. A Part is a major sub-division of the subject covered in a Volume, while a Section is the basic unit of the Manual and is, as far as possible, complete in itself.

Within a Volume, the contents are arranged first by Part number and then by the Section numbers within that Part. A contents list at the front of every binder lists all Sections within that particular Volume.

Each Section has a unique, three-part number that appears on the title page and at the top of each page and figure underneath the 903 motif. The significance of the three parts is that the first stands for the Volume number, the second for the Part within that Volume and the third for the Section. Thus, Section 1. 4. 2. means Volume 1, Part 4, Section 2, and this numbering system will be used for updating and reference purposes.

## SYMBOLS, TERMS AND ABBREVIATIONS

Wherever possible the relevant British Standard is used for symbols, terms and abbreviations. The British Standards most widely used are:-

BS 1991	Letter Symbols, Signs and Abbreviations.
BS 3527	Glossary of Terms used in Automatic Data Processing.
BS 3939	Graphical Symbols for Electrical & Electronics Diagrams.

Apart from the abbreviations in BS 1991, the following abbreviations are used throughout the Manual:-

A	Accumulator
a	Contents of accumulator
a, q	Double-length number held in A & Q
1B, etc.	B-register for level 1, etc.
1b, etc.	The contents of the B-register for level 1, etc.
1b1, etc.	Bit 1 of the B-register for level 1, etc.
C	Process counter
c	The contents of (e.g. c(200) is the contents of location 200)
CN	Channel number
d	Device
dr	Device response time
F	Group of function digits (i.e. bits 17 to 14 of an instruction)
G	G-register (i.e. buffer register)
g	Contents of G-register
I	I-register (i.e. instruction register)
i	Contents of I-register
II	Initial instructions
J	J-register (i.e. store-address register)
j	Contents of J-register
M	M-register (i.e. store-access register) or store location accessed by address in M-register
m	Contents of M-register or contents of store location accessed by address in M-register
N	Group of address digits (i.e. bits 13 to 1 of an instruction)
n	Value of group of address bits of an instruction
P	P-register (i.e. peripheral-access register)
p	Contents of P-register

Q	Q-register
q	Contents of Q-register
IS, etc.	S-register (i. e. sequence control register) for level 1, etc.
ls, etc.	The contents of the S-register for level 1, etc.
ls, l, etc.	Bit l of the S-register for level 1, etc.
V	Collate unit
v	Contents of collate unit
WG	Word generator
:=	Becomes equal to

## UPDATING SERVICE

To ensure that all users of the Manual are aware of the latest developments in equipment and programming techniques, the Manual is automatically updated as necessary. However, this service does not start until Receipt Card A at the front of the Manual is completed and returned. This not only ensures that the Manual will be updated, but also shows that it has been safely delivered and provides an address for future deliveries.

When a page of text or a figure is amended, its issue is raised and a bold line is drawn in the margin to indicate the amended part.

To ensure the minimum delay in notifying Manual holders of amendments, Newsletters will be issued when necessary. These will contain instructions for modifying the Manual to bring it up to the latest standard.

Check lists will be circulated to all manual holders at reasonable intervals, giving full details of all updating that has been done, so that they can check that their Manuals are up to date.

## MANUAL AND TAPE SUPPLIES

Extra copies of complete Volumes, individual Sections or Tapes can be supplied at an additional charge and prices will be quoted on request.

The Elliott 903 Technical Manual and Tapes are issued by:-

Technical Manuals and Tapes Section,  
Data Processing Division,  
Elliott-Automation Computers Limited,  
Elstree Way,  
BOREHAMWOOD,  
Hertfordshire,  
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