

FLEMINGS

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ELECTRONICS  
INDICES

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EDITOR

AIDAN PAUL

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Aidan Paul  
February 1989

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## ABOUT THE EDITOR

Aidan Paul has over ten years technical, marketing and planning experience in the electronics industry. He has a degree in electronics, is a Chartered Engineer, a qualified management accountant and qualified in marketing.

Aidan initially worked in the process control industry, on submarine nuclear reactor (PWR) control instrumentation. This was followed by work on fibre optic communications and laser rangefinding devices, and medical cardiac monitors.

For the last eight years Aidan has contributed to the development of US, UK and international data communications and computing standards, including the Ethernet local area network standard with DEC, Xerox, Hewlett Packard and Intel, and the range of Open System Interconnection standards being developed by The International Standards Organisation (ISO).

While working for BICC, the UK electrical and civil engineering conglomerate, Aidan contributed to the planning and establishment of a new data communications subsidiary, which now has a significant share of the world market in Ethernet components and sub-systems.

Prior to joining Flemings, Aidan worked as a consultant with the PA Consulting Group, and provided advice on telecommunications systems and strategy to, amongst others, the Belgian Government Scientific Policy and Planning Service, the Society for World International Financial Telecommunications (SWIFT), IBM, ICI, British Telecom, the UK Meteorological Office and Plessey.

Since joining Flemings, in 1986, Aidan has been involved in a number of private and public acquisitions and disposals, and is responsible for supporting the development of Flemings international corporate finance business in the electronics, computing and telecommunications industry.

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## ABOUT THIS BOOK

This book consists of information on the quoted (USM and full listings, but not third market) UK electronics companies, categorised by activity. For each of these categories, such as component manufacturing or, say, computer hardware distribution, Flemings has instructed Datastream, providers of on-line financial information, to construct an index, similar in nature to the FT SE 100 Index, which represents the weighted share price performance of companies in that category.

For each company, we have provided a brief description of the company's business, and any significant acquisition, disposal, merger or fund raising undertaken between February 1987 and August 1988.

In addition to this, we have provided fundamental financial information and the share price performance of the company relative to the FT SE 100 Index, the Flemings Electronic Index of all the constituent electronic companies, and the relevant Flemings index of the category to which it belongs.

We have relied upon public domain information to compile this book and, while we have made every effort to ensure its accuracy, we cannot be held responsible for any errors or omissions. A form is included at the back of the book for suggestions for improvements, or to tell us of any inaccuracy.

There are many directories of electronics companies, but few combine, as this one does, a concise description of a company together with its corporate activities, and financial and share price performance.

We expect this book to be of use not only to institutional investors but also to any company based in the UK or elsewhere that has an interest in the UK electronics industry, together with its advisors, auditors, brokers and investment bankers.

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## ABOUT FLEMINGS

Flemings is an international investment banking group with offices throughout the USA, Europe, the Middle East, the Far East and Australasia.

Flemings has a worldwide brokerage and securities distribution operation, and has corporate finance offices in all the major financial centres. These are involved in raising capital and undertaking mergers and acquisitions for a wide range of companies. During 1988 we advised on over 90 major corporate finance transactions, worth over £6.5bn. Flemings has a particular strength in electronics, and has an international reputation for its analysis and understanding of the industry.

Flemings is one of the largest London fund managers of pension and other institutional funds, with over £21bn currently under management.

Any senior executive of a company that could benefit from our services should contact our nearest office, listed overleaf.

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# INTRODUCTION

## The structure of the indices

A list of the Flemings Electronics Indices is given below along with the aggregate market values of their constituents.

<i>Index Name</i>	<i>Number of Constituents</i>	<i>Market Value £m (31 Aug 1988)</i>
Flemings Electronics Index	171	43383
Flemings Major Electronic Equipment Companies	11	16052
Flemings Major Electronic Service Companies	3	19526
Flemings Smaller Electronic Companies	157	7805
Flemings Electronic Component Manufacturers	17	900
Flemings Electronic Component Distributors	11	1267
Flemings Computer Software and Services	26	1094
Flemings Computer Hardware Manufacturers	11	223
Flemings Computer Hardware Distributors	15	390
Flemings Aerospace and Defence Electronics	7	191
Flemings Electronic Security	8	653
Flemings Communications	10	839
Flemings Consumer Electronics	4	91
Flemings Office Automation	8	307
Flemings Audio-Visual Professional Electronics	5	56
Flemings Miscellaneous Electronics	35	1794

The indices operate at three levels. First, there is the 'Flemings Electronics Index'. This includes all the companies we have identified as being electronics companies. Our criteria for including and excluding companies are set out below.

Second, there are the 'Flemings Major Electronic Equipment Companies Index', the 'Flemings Major Electronic Service Companies Index' and the 'Flemings Smaller Electronics Companies Index'. Taken together these indices include all the companies in the 'Flemings Electronics Index'. Third, there are twelve indices based on industry subsectors. Taken together these include all the companies in the 'Flemings Smaller Electronics Companies Index'.

This structure reflects the shape of the UK quoted electronics sector, which divides between several very large diversified manufacturing companies, a smaller number of very large service companies, dominated by British Telecom, and a large number of smaller companies operating in subsectors of the industry.

In constructing the indices in this fashion we have excluded the major companies from sub-indices which might in some cases seem more appropriate. Our aim has been to avoid where possible indices that are dominated by a small number of their constituents. If, for example, the 'Flemings Office Automation Index' were to contain the Rank Organisation it would, being

market value weighted, reflect merely the performance of its largest constituent.

### **The allocation of companies to the sub-indices**

The allocation of companies to sub-indices was made as follows. The 'Majors' were separated from the 'Smaller Companies'. No precise rule was followed, but there does appear to be a natural division between companies with a market capitalization in excess of £500 million and pre-tax profits in excess of £50 million and companies below this level. As for whether a 'Major' is an equipment company or a service company, the answer is usually self-evident.

In allocating companies to the sub-indices based on industry subsectors we decided on the basis of the company's preponderant electronics activity. For example, Unitech's electronics activities include component manufacture, component distribution, computer hardware distribution and professional and industrial electronics; however, its preponderant activity is component distribution. In allocating companies we relied largely on published material. Our prime source of information, in most cases, was the company's latest published annual report and accounts, supplemented by the company's literature, and other public domain information such as product announcements and trade reviews.

### **The operation of the indices**

The indices are market value weighted and are calculated by Datastream, under our instructions, on principles similar to those used for the FT-Actuaries Share Indices. The principle is that the value of an index on any day is the value of the index on the previous day multiplied by the relative change in the aggregate market value of its constituents. If the index was 1000 'yesterday' and the aggregate market value of its constituents has risen by 10 per cent 'today', 'today's' index is 1100. Adjustment factors are built into the formulae to take account of additional issues of shares by the constituents. Full details of the formulae and the 'rules' for the inclusion and exclusion of constituents are given in Appendix A.

The indices begin on 3 January 1984 and all have a base value of 1000, the same base value as the FT-SE 100 Share Index. From 3 January 1984 companies are added when they come to the market, or when changes in the shape of their business mean that they qualify

for inclusion. Companies are removed as a result of acquisition, permanent suspension of listing or a change in the shape of their business so that they no longer have 30 per cent of their turnover in electronics. Prior to 3 January 1984, the indices have been run back to 1 September 1981 on the basis of the constituents at 3 January 1984. Companies have been included only from the date they came to the market.

### **Using the indices**

This document provides investors with information on the indices and their constituents. It is designed as a reference work. The pages which follow show charts of the indices since 1 September 1987 and the indices as calculated back to 1 September 1981. Also included are descriptions of each of the constituents of the indices. For each of the constituents, these descriptions include: a review of its activities; a chronological outline of major acquisitions and divestments over the past eighteen months; and a brief comparison of year-on-year financial performance. There are tables of information showing the recent share price performance of the constituents of the indices and tables of basic financial information calculated according to the principles set out in Appendix A.

Investors can also examine the indices on Datastream. The indices are calculated weekly by Datastream. The values of the indices and information regarding their constituents can be accessed as if the indices were Datastream industry groups. Details of the mnemonics for the indices are given in Appendix A.

### **The identification of companies for the indices**

In identifying companies for inclusion in the Flemings Electronics Indices we have restricted ourselves to companies whose primary quotation is on either the London Stock Exchange or the London Unlisted Securities Market. We have, therefore, included overseas companies whose primary quotation is in London (for example Pacer Systems Inc.) but have excluded UK companies whose primary quotation is overseas (for example Rodime, whose primary quotation is on NASDAQ).

To be included in the indices a company must have thirty per cent or more of its turnover in products or services that are highly dependent on electronics. (In the case of companies, such as the Rank Organisation, that have associates involved in electronics we

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have taken into consideration the relevant portion of the associates' turnover).

The main activities that we regard as 'electronics' are:

- 1 the manufacture and wholesale distribution of data processing equipment and related peripherals;
- 2 the production and wholesale distribution of computer software;
- 3 the manufacture and wholesale distribution of telecommunications equipment;
- 4 the provision of telecommunications services;
- 5 the manufacture and wholesale distribution of electronic security equipment;
- 6 the provision of electronic security services;
- 7 the manufacture and wholesale distribution of data communications equipment;
- 8 the manufacture and wholesale distribution of consumer electronics goods;
- 9 the manufacture and distribution of office automation equipment;
- 10 the manufacture and distribution of electronic capital goods;
- 11 the manufacture and distribution of electronic components.

As at 31 August 1988 there were 171 companies that met our criteria for inclusion in the indices.

We feel that there will be relatively little disagreement over which companies we have included. There is almost certainly room for disagreement over the companies we have not included. The electronics industry is pervasive and many companies can lay claim in differing ways to being 'electronic'. There are certain activities that we do not regard as 'electronic'. These are:

- 1 the manufacture and distribution of electrical equipment, including small domestic appliances and white goods, even though some of these products may incorporate some electronics;
  - 2 radio and television broadcasting;
  - 3 the provision of television and film production and editing facilities;
  - 4 commercial printing;
  - 5 the retail and rental of consumer electronics goods;
  - 6 the provision of non-electronic products and services to the electronics industry;
  - 7 the management of portfolios of electronic shares.
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