



STEVE ROBERTS

# TELEPHONE INSTALLATION HANDBOOK

SECOND EDITION



# Telephone Installation Handbook

# Dedication

To the memory of Mike Thompson G4HEU

Friend, colleague, and fellow engineer of the old school.

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# Telephone Installation Handbook

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Second edition

Steve Roberts IEng. MIIE(elec)



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FOR EVERY TITLE THAT WE PUBLISH, BUTTERWORTH-HEINEMANN  
WILL PAY FOR BTCV TO PLANT AND CARE FOR A TREE.

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# Preface

## **Current telephone legislation**

Up until 1 January 1985, British Telecom held the monopoly for the supply of the primary telephone instrument to be connected to the Public Switched Telephone Network (PSTN) in the United Kingdom. (Such networks are currently owned and operated by British Telecommunications plc, Kingston Communications (Hull) plc, Mercury Communications Ltd, and various cable companies.) Government legislation that came into force on that date opened the way for companies in the private sector to supply approved telephones for connection to domestic direct exchange lines.

A further relaxation, introduced on 1 December 1986, allowed users, or their agents, to install extension wiring and telephone sockets and to connect them to the PSTN. However, in order to do this, the user must have a master socket installed by the appropriate network operator.

To the general public, this change of policy meant that the telephone apparatus could be purchased outright, in some cases for less than £10, instead of paying a rental charge of around £12 a year. It also opened the way for enterprising individuals, or other people, to install extensions of their own.

## **Rules and regulations**

Just as there are requirements when installing mains wiring, there are a few regulations governing the installation of telephone wiring. These regulations are intended to prevent both damage to existing equipment and injury to personnel using it. Armed with the knowledge of these regulations, plus a few tools and the necessary materials, most people should be capable of planning and implementing an installation.

Supported by an extensive glossary of technical terms, abbreviations and acronyms, this book is aimed at the inexperienced. It is intended to strip away the mystique surrounding telephone wiring, to give information and guidance, to help in the selection of tools, materials, and telephone apparatus, and to help the reader avoid some possible pitfalls. Above all, it is meant to be a practical book. It is for those who set out, within the private sector, to install extensions and systems for others; for managers in industry, to enable them to communicate effectively with their own installers and maintainers; and for those who prefer to do their own work around the house. While many new types of apparatus and equipment will continue to come to market, the fundamental techniques of connecting them, set out in this book, will be of lasting value.

## **Second edition**

Since the first edition of this book was published, advancements have been made in a number of areas, most notably in the more widespread use of ISDN and of structured cabling. Additional material has therefore been included to cover these topics, and the opportunity has been taken to clarify, enhance, or update some sections where the need has arisen. However, the purpose of the book remains unchanged – to be a practical guide to installation.

Steve Roberts

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