

PREFACE

While the neon glow lamp has been around for many years, its widespread use in electronic circuitry is relatively new. Prior to Signalite's development of close tolerance lamps, which are compatible with other electronic components in terms of quality and reliability, the neon lamp was limited to non-critical applications. To utilize neon indicator lamps for sophisticated electronic circuitry, it was usually necessary to test and discard many lamps in order to find the few which would meet the more stringent requirements. From a cost standpoint, the inexpensive lamp suddenly became quite expensive.

However, with the advent of lamps which consistently exhibit close tolerance characteristics has come an ever-widening spectrum of uses for this component. It is in recognition of this fact that this book has been compiled.

The circuits and applications that are described in the book have come primarily from actual applications on which our customers and friends have consulted us. Many longtime readers of *Signalite Application News* will undoubtedly recognize some of the circuits published here. We have drawn heavily on the *News* and on our own Applications Engineering files in order to provide down to earth, workable examples of uses of neon lamps, rather than to concentrate on theory. With most

circuits, for example, values for components are given and the recommended Signalite glow lamp is indicated. Specifications for these lamps are listed in the appendix.

It has been our intention to provide a thoroughly useful reference tool which, while it may not necessarily answer a given circuit question directly, should provide the reader with representative answers and a direction to follow that is most likely to be productive.

It is not possible, of course, to illustrate every conceivable circuit application for neon glow lamps. What we are attempting to demonstrate are representative types of applications. The reader is encouraged to extrapolate from the specific examples included here to solve problems of a similar nature.

We are always eager to learn of new uses for neon glow lamps, for through this means we are provided the opportunity to develop new and better products. Through the medium of Signalite's *Application News*, we regularly disseminate just this type of information. In addition, our Applications Engineering Department is set up to answer specific questions on the use of glow lamps and, when desired, will assist designers with circuit design information.

We recognize that in the exploration of new fields and the development of new products we have a responsibility to share the knowledge we gain with as many people as possible. We hope that through the pages of this book, and with our *Application News*, we are living up to that responsibility.

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EDWARD BAUMAN

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APPLICATIONS OF NEON LAMPS
AND GAS DISCHARGE TUBES