Electronics for Model Railways

By Davy Dick

Introduction

Unless you are running an antique clockwork train set or have a large outdoor layout running steam trains, you are already using electrical and electronic equipment.
For most railway modellers, power is supplied to the loco's motor through the track.
With the help of electronics, our layouts can be further improved. How about control of points, signals, lights, turntables, crossing gates and barriers, uncouplers, sound effects – and much more.
We can even detect where trains are on our layouts or automate activities, with or without computers.
At first sight, this may seem complicated – but layout wiring and controls often consist of lots of little individual circuits, each carrying out its own function (e.g. switching a point or lighting an LED).
The chapters try to look at each issue and show how they fit together.
If you like, you can read through from start to finish. However, it is not meant to Be read as a book. If you are new to electronics, this book covers a lot of ground.
You are not meant to understand it all after just a quick read through.
You will also find that you already know some parts – and are not currently interested in other parts.
I would suggest that everyone have a read of the first chapter – even if you think you already know all the basics.
Also, as you are working with a hot soldering iron, knives and cutters, drills and so on, be aware of safety at all times.
In particular, please read the safety notes on page 50 of Part A and page 72 of Part B.
Hopefully, there is something of interest in here for all railway modellers.

Davy Dick
Model Electronic Railway Group member 1853

Electronics for Model Railways – Part A

Electronics for Model Railways – Part B

Contents *[each part is page-numbered from 1]*

Part A

Part B

The Model Electronic Railway Group

Electronics for Model Railways

Version: v1 - December 2014

Distributed with MERG Journal 2014 No.4

CD identity: EfMR_v1_MERG_CD

Data compact disk, CDFS file system, two files:

Part_A_v1.pdf 257 pages - size: 19,924 kb

Part_B_v1.pdf 206 pages - size: 25,520 kb Total: 44.4 Mb