

FEATURES

8 60 Years Of The Atomic Bomb

It's 60 years since the first atomic bombs were used in warfare. Here's a look at the two designs used and their deadly effect – by Keith Walters

22 Direct Petrol Injection

Complex electronics control and direct fuel injection into the combustion chambers can provide big fuel savings. Here's how it works – by Julian Edgar

102 Hellschreiber Revisited

Feedback from readers suggests that it's not as it appears at first glance

PROJECTS TO BUILD

30 The Mudlark A205 Valve Stereo Amplifier

Want to build a valve stereo amplifier for your hifi system? This class-A2 triode unit produces 20W/channel and has good performance – by David Whitby

38 Programmable Flexitimer

It's easy to build, easy to program and can be set to give two sequential time periods of up to 99 minutes and 59 seconds. What's more, you can program it for up to 99 cycles of the time periods – by Jim Rowe

61 Carbon Monoxide Alert

Carbon monoxide can kill. This sensitive unit not only detects this deadly gas but can automatically control the air vents in your car as well – by John Clarke

74 Serial LCD Driver

Want to use an LCD with your next PC or PICAXE project? Here's an LCD driver that's really cheap and easy to connect – by Graeme Matthewson

82 Enhanced Sports Scoreboard

This upgraded version of the Professional Sports Scoreboard now includes 2-digit fouls displays for the home and away teams – by Jim Rowe

SPECIAL COLUMNS

48 Serviceman's Log

Tracking down a really rotten fault – by the TV Serviceman

70 Circuit Notebook

(1) Vertical Sync For The Component Video To RGB Converter; (2) LED Noughts & Crosses; (3) Audio Level Threshold Control; (4) Cheap Pump Controller; (5) DC-DC Converter For USB Supply Or PICAXE Projects

90 Salvage It!

Washing machine pressure switches – by Julian Edgar

94 Vintage Radio

The AWA Radiola B32 transistor portable – by Rodney Champness