

FEATURES

8 Motherboard Capacitor Problem Blows Up

Faulty electrolytic capacitors could be a ticking time-bomb in your PC. Here's how to identify the problem – by Peter Smith

11 HID Car Headlights: How They Work

High-intensity-discharge (HID) headlights are now finding their way into many up-market cars. Here's a look at how they work – by Peter Smith

64 The Brightest White LEDs On Earth

So you think the latest 5mm white LEDs are bright? Well, you "ain't seen nothing" until you've seen these – by Julian Edgar

PROJECTS TO BUILD

22 WidygBox – A Guitar Distortion Effects Unit

Plug into those great guitar sounds with this unit. It's cheap, easy to build and can be run from a 9V battery or a plugpack supply – by Peter Smith

32 A 10MHz Direct Digital Synthesis Generator

This low-cost function generator offers both sine & square wave output and can be set to any frequency between 1Hz and 10MHz – by David L. Jones

56 The Big Blaster Subwoofer

Easy-to-build unit offers thunderous bass, can handle up to 250W.RMS and is built into a compact enclosure – by Julian Edgar

80 Printer Port Hardware Simulator

Simple circuit let's you test printers or other hardware that connects to a PC's parallel port without the need for a PC or software – by Jim Rowe

84 More Fun With The PICAXE, Pt.4: Motor Controller

A few changes to the PICAXE's output circuit and some new code are all that's required to build an effective motor controller – by Stan Swan

SPECIAL COLUMNS

40 Serviceman's Log

Fix the roof, then fix the TV – by the TV Serviceman

53 Circuit Notebook

(1) Single Entrance Vehicle Counter; (2) Test Interface For PC Soundcards; (3) White LED Torch Driver Circuit; (4) Adding Outlets To An Irrigation Controller.

75 Vintage Radio

The HMV C43B console radio – by Rodney Champness