

# Features

## 10 CleverScope CS328A USB Dual-Channel 100MHz Scope

*This USB oscilloscope provides a large range of functions, including data logging. An optional signal generator is also available – by Mauro Grassi*

## 14 Picaxe-08M 433MHz Data Transceiver

*Purr-fect: the HopeRF 433MHz Transceiver Module & the Picaxe-08M are a marriage made in heaven – by Stan Swan*

## 84 Exposing PC Boards In A Modified Microwave Oven

*Here's a novel approach to exposing photo PC boards – cook 'em in a modified microwave – by Graeme Rixon*

## 94 Cent-a-meter Owl: Watching Your Power Consumption

*Electricity rates are on the rise, so it's important to keep tabs on your power consumption. The Cent-a-meter Owl will keep you power wise – by Stan Swan*

# Projects To Build

## 18 USB Clock With LCD Readout, Pt.1

*It connects to your PC's USB port and synchronises to your PC and ultimately to an internet time server for accurate time keeping – by Mauro Grassi*

## 30 Digital RF Level & Power Meter

*Want to measure small RF signals? This easy-to-build unit measures signals from below 50kHz to above 500MHz, indicates the signal level in volts & dBV and shows the power level in both milliwatts & dBm – by Jim Rowe*

## 62 Versatile Special Function Timer

*This multi-purpose timer operates from a 12V supply and offers accurate timing periods ranging from 0.1s to 16.5 minutes – by John Clarke*

## 68 Railpower Model Train Controller, Pt.2

*Pt.2 this month has the full construction details for our new high-performance train controller. We also describe how the controls work – by John Clarke*

# Special Columns

## 44 Serviceman's Log

*Watch Out For Mura Faults On LCD Panels – by the TV Serviceman*

## 57 Circuit Notebook

*(1) Tester For Ultrasonic Devices; (2) USB-Controlled Desk Lamp; (3) Tacho Interface For Diesel Motors; (4) Smart Pool Pump Controller; (5) Picaxe-Based Mosfet Tester*

## 88 Vintage Radio

*The AWA Radiola 653P AC/Battery Portable – by Rodney Champness*