NOTES & ERRATA FOR PROJECTS PUBLISHED IN SILICON CHIP (1999)

LED Ammeter, January 1999: the circuit diagram on page 55 has an error. The 10µF capacitor associated with IC1a should have its negative electrode connected to pin 4.

Digital Capacitance Meter, February 1999: the wiring diagram on page 70 has a number of errors. The 100µF capacitor associated with D1 & D2 is unmarked and is shown with reverse polarity. Also VR3 & VR4 are swapped, although their values are the same. In addition, on the circuit diagram on page 68, trimpot VR4 should be connected to the +5V rail, not 0V. This is correctly shown on the wiring diagram on page 70. Also, on the circuit, the resistor between pins 5 & 6 of IC1b is shown as 20kΩ but appears as 22kΩ on the wiring diagram; either value will work.

LED Fun, February 1999: we have been advised by Dick Smith Electronics that a batch of PIC12C508 microcontrollers have been found to latch into Mode 1 when Mode 3 is selected. The solution is to change all 2.2kΩ resistors in the circuit to 270Ω. All resistors in the supplied kit will now be 270Ω.

Low Distortion Audio Signal Generator, February/March 1999: on the circuit diagram on page 28 of the February issue, trimpot VR4 is incorrectly labelled as 100kΩ rather than 10kΩ. Also on the circuit there should be shown a 10kΩ resistor in between the 20kΩ resistor connecting to the 330µF capacitors at the output of IC1b and the pin 2 inverting input of IC4b. The PC board includes this resistor and this is shown on the overlay diagram, on page 63 on the March issue, as the third 10kΩ resistor below diode D2. The overlay diagram also has transposed the anode & cathodes (A & K) labelling for LED1 & LED2. The package outline orientation is correct. The polarity shown on the circuit is also correct.

Low Distortion Audio Signal Generator, February/March 1999: the published PC board (01402992) shows a short between the 0.18µF capacitor on switch S2 and the adjacent shield track. This was due to a glitch in the conversion from the original Protel file to an HPGL file required for publishing. The overlay diagram on page 64 of the March issue shows the pattern correctly without the glitch connection. The Protel files sent to PC manufacturers were correct.

Also the 12kΩ resistor connecting between the LDR1 and VR3 should be replaced with a parallel combination of a 560kΩ resistor and .0047µF capacitor.

Some constructors are using 3000mCd red LEDs for LED1 and LED2 with improved results. VR6 can be changed to 1kΩ to improve the ease of square wave output adjustment.

Bass Cube Subwoofer, April 1999: the rear panel should be screwed into place but not glued, although some sort of sealant should be used to avoid leaks.

Electric Fence Controller, April 1999: the supply leads to the battery, as shown on the wiring diagram on page 28 (Fig.7) are reversed. In addition, the transformer bobbins for T1 & T2 may differ from those used in our prototype. The difference will be that the five rows of pins on each bobbin may be spaced wider than allowed for on the printed circuit board. You can either bend the pins on the bobbin inward so that they will fit into the original holes or new holes can be drilled at the wider spacing. The larger bobbins mean that the transformers will be easier to wind and there will be more room to insert the ferrite cores. A revised PC board has been produced to provide for both bobbin types.

Rev Limit Controller, April 1999: See notes from October 2007 issue (on separate page).

Line Dancer Robot, May 1999: diode D10 on the circuit diagram on p.18 is shown the wrong way around. Its cathode should connect to pin 2 of IC2. In the circuit diagram on p.18, the 4.7kΩ collector resistor for Q1 should be labelled R5 instead of R3, while the 1.5MΩ base resistor for Q1 should be labelled R6 not R5. On the PC overlay diagram on p.19, the 470Ω resistor below R14 (270Ω) can be replaced with a link (it is in series with R5).

FM Radio Tuner Card, June 1999: the board numbers and "SC" logo on the PC artworks (page 26) will short out unused pins in the ISA slot on the motherboard if left intact. To avoid this problem, remove the board numbers and logo from the artwork before etching the board. Suitably modified patterns have been posted at **www.siliconchip.com.au**

Burglar Alarm Extension, June 1999: on the circuit on page 83, IC5a adjacent to IC4a should be labelled IC5c. IC6b's output should be pin 8. The "ZONE 3" label on the line to pin 5 of IC8 should actually be on the line to pin 7 of IC8. In addition, the output of IC8 driving the Zone 1 relay should be pin 12.

The second last paragraph of page 84 should read, "Pins 4, 10 and 12 of IC3 are connected to the roller door switches".

Audio-Video Transmitter, July 1999: on the overlay diagram on page 38, the .001µF capacitor shown connecting pin 3 of IC1 to ground should be .01µF. Also, the two regulators are shown swapped. The circuit diagram is correct.

Daytime Lights For Cars, August 1999: on the overlay diagram (p.33) the 470Ω & 1kΩ resistors shown below diode D3 should be 4.7kΩ & 470Ω respectively. The circuit is correct.

A modification to allow the circuit to be used with cars having headlight switching in the negative line is published in Circuit Notebook, November 1999.

Switching Temperature Controller, August 1999: two capacitors are marked C6 on the circuit. The 100µF capacitor associated with diode D1 should be C2. Also, the text in the last paragraph on page 58 is wrong. It should read: the BUK453 is for cooling, the IRF9530 is for heating.

The reference on page 55 to the Seeburg effect is wrong; it should be the Seebeck effect. Seeburg is a brand of juke-box!

PC Monitor Checker, August 1999: circuit modifications to give more ideal scan frequencies are published in Circuit Notebook, November 1999.

Remote Modem Controller, August 1999: the circuit on page19 shows the LED incorrectly connected. It should be connected between the +5.12V rail and pin 16, rather than between pin 16 and 0V, as shown. The PC board is correct.

Voice Direct Speech Recognition, September 1999: both the circuit on page 38 and the PC board overlay diagram incorrectly show the 4081 AND gate packages connected to the +12V rail rather than the +5V rail as they should be. If you have built the board as published, the +12V rail from the relay to pin 14 of both 4081s should be broken and the line connected to +5V instead. An amended PC pattern has been produced and can be downloaded from our website: **www.siliconchip.com.au**

Autonomouse Robot, September 1999: there are a number of errors on the circuit on pages 20-21. The IN914 below D3 should be D4, not Q4. The collector leads of Q5 & Q13 are labelled "B" instead of "C". The text on p.23 refers to a 100kΩ resistor associated with IC3. The value is 390kΩ, as indicated on the circuit & wiring diagrams.

Surveillance Lights With Buzzer, Circuit Notebook, September 1999: NAND gate IC1a is shown reversed. Input pins 1 & 2 should connect to the PIR output.

LED Christmas Tree, November 1999: three 0.1µF monolithic capacitors are required, not two as specified in the parts list. One of these (C6) is not identified on the PC board component diagram but is adjacent to pin 1 of the microcontroller. Also the PC board overlay shows two 15pF capacitors but these should be 27pF as shown on the circuit and parts list.

RailPower Model Train Controller, November 1999: there are two errors in the PC board component overlay on page 82. IC5 is identified as a 4052; it should be a 4053. The circuit diagram in the October 1999 issue is correct. Also, IC8 (the IC closest to the 2000µF capacitors) is identified as IC3. IC3 (top right corner) is itself correctly identified. Fortunately both IC3 and IC8 are LM324 quad op amps.

Refinements To PC Monitor Checker, Circuit Notebook, November 1999: the rotary switch is incorrectly labelled 12345 in an anticlockwise direction from top to bottom. The correct labelling sequence is 43215.

PC Powerhouse, December 1999: if this project is used to drive powered loudspeakers for a PC, you should first check that the ground of the signal line (ie, shield connection) is not connected to the positive supply for the speakers. While we have not encountered this situation, it is not suitable for the PC Powerhouse as it would cause a short circuit to occur across the 5V output.