

NOTES & ERRATA FOR PROJECTS PUBLISHED IN SILICON CHIP (2008)

Please note: errata apply primarily to the print edition of SILICON CHIP as online issues are normally changed when an error is identified. However some errata may still apply to the online edition; check carefully before making any changes to a project.

Minispot 455kHz Modulated Oscillator, January 2008: The PC board overlay on page 74 shows R8 with a value of 330k Ω . It should be 10M Ω , as shown on the circuit on page 72. (07/08)

PIR Sensor Triggered Mains Switch, February 2008: The O11 output mentioned in the text on pages 58 and 59 and on the circuit should be the O10 output. (03/08)

UHF Remote Mains Switch Transmitter, February 2008: Transistor Q1 is a BC327 (PNP) as listed in the parts list. The circuit labelling is incorrect. In addition, the parts list should have 5 10k resistors not 4. (03/08)

Digital VFO With LCD Graphics Display, March 2008: Due to the demise of Geocities and their hosted websites, the information explaining to readers where they can obtain downloads of the DDS VFO software and updates mentioned in that article is no longer valid. Andrew Woodfield has a new website now where this information can be downloaded, as well as other new details for using the DDS VFO with different IF offsets etc. The new website is: www.zl2pd.com (28/06/10)

12V-24V High-Current Motor Speed Controller, March & April 2008: (1) A 12-way pin header (Altronics P-5502) should be added to the parts list for the Display Board. You also need two header plugs (Altronics P-5482) to terminate the 12-way cable. (04/08)

(2) The component overlay (page 65, April 2008) shows a 100 μ F capacitor immediately to the right of LK14. This should be a 470 μ F 16V electrolytic. Similarly, the component overlay shows a 220nF MKT capacitor in parallel with zener diode ZD6. This should be a 100nF MKT capacitor. (05/08)

(3) The circuit on page 33 (March 2008) has two errors. The 1k resistor connected to pin 6 of IC1 should be connected directly to the base of Q3 instead. Also, the wiper of trimpot VR2 is shown connected to earth whereas it should be connected to the 1k resistor on its high side. The PC board overlay on page 65 of the April 2008 issue is correct. (07/08)

12V Charge Controller, April 2008: A 10 μ F 16V PC electrolytic capacitor is missing from the circuit diagram (Fig.5) and the parts list. This capacitor connects between the adjust terminal and ground of the LM317 regulator, REG1. The wiring diagram (Fig.6) is correct. (09/09)

dsPIC/PIC Programmer, May 2008: (1) On page 67, describing the dsPIC/PIC Programmer, we explained that the MCLR-bar/ V_{PP} line was deliberately switched between 0V and +13V. This was done to avoid possible damage to the microcontroller when it is in the ZIF socket.

However, if you wish to use the external programming header (CON3) with a microcontroller on a breadboard, for example, you should connect pin 1 of CON3 (the MCLR-bar/ V_{PP} line) as shown in the diagram on page 97 of the June 2008 issue, adding a resistor (R) and diode (D) to the breadboard.

The diode and resistor allow the microcontroller to run when the MCLR-bar/ V_{PP} line from the programmer is at 0V. There will be no possibility of damaging the microcontroller in this case as the microcontroller is accessed outside the ZIF socket. Hence the diode and resistor allow the microcontroller's MCLR input pin to switch between V_{DD} and V_{PP} . This is more convenient while still developing the software. The PGC, PGD and GND lines can be connected directly to the pins on the microcontroller, as explained in the article. (06/08)

(2) Table 4 showing the jumper settings is incorrect for PICs requiring the external adaptor PCB (ie, the 10F, 12F and 16F63X/67X/68X devices). The V_{PP} connection must be selected using either JP4 or JP3. For example, for the PIC12F675, JP3 should be inserted to connect its pin 4 to the V_{PP} supply. Check the data sheet for the device you are using to verify which pin is V_{PP} . (12/11)

USB Power Injector For External Hard Drives, June 2008: The 100nF capacitor on the output of the LM2940CT-5 regulator (REG1) should be increased to a 22 μ F 16V (or larger) electrolytic to ensure stability. In addition, the front panel label should indicate the power supply input as 6V DC, not 9VAC/DC. The corrected panel artwork appears in the *Ask Silicon Chip* pages of the July 2008 issue. (07/08)

DSP Musicolour Lightshow, June 2008: In the Main Board schematic on pages 34-35, there are a number of minor errors. The labels P6C and P6D on pins 26 and 25 of IC1 should read PGC and PGD. The labels TRIAC2 and TRIAC3 should be swapped and pin 18 (OC2)- of IC1 actually connects to OPTO3 while pin 22 (OC3) connects to pin 1 of OPTO2.

In the Display Board schematic published on page 37, there is an extra 470Ω resistor shown immediately to the right of pin 7 (Q7) of IC4. This resistor is not required – the component overlays and parts list in the July 2008 issue reflect this. (07/08)

DSP Musicolour Lightshow, July & August 2008: In the component overlay of the DSP Musicolour display board shown on page 26 of the July 2008 issue, the labelling on the ICs is incorrect. IC1 should be IC3, IC2 should be IC4, IC3 should be IC5 and IC4 should be IC6. (09/08)

Ultra-LD Mk.2 200W Power Amplifier, August & September 2008: (1) See Part 2 in September 2008 (page 70) for minor circuit modifications. There are also some corrections: the 470uF 63V capacitor on the -55V rail is shown with reversed polarity on the circuit diagram (Fig.1), ie, its negative lead should go to the -55V rail. As well, the voltages marked across the 0.1Ω resistors are out by a factor of 10. They should be 7-10mV, not 70-100mV.

In addition, the 68Ω resistor in series between the +55V rail and Q7's collector has been reduced to 47Ω, while a 22k resistor has been added in series between Q8's collector and ground (this change has been incorporated onto the PC board patterns sent to the parts retailers).

Finally, the following changes should be made to the parts list: add 1 x 22k 0.25W resistor, add 1 x 47Ω 0.25W resistor, add 1 x 10Ω 0.25W resistor, delete 1 x 68Ω 0.25W resistor and change the two 470Ω 5W test resistors to 68Ω 5W. There should also be 5 x 100nF 63V MKT polyester capacitors (not four). (09/08)

(2) In the printed version of the magazine, on page 71, the panel "Bullet-Proofing The Ultra-LD Mk.2" reads "Fortunately, this was relatively simple and involved adding a 22kΩ collector current-limiting resistor to Q9 (ie, this resistor is connected between Q9's collector and ground)." This statement is incorrect. The resistor is, in fact, added between Q8's collector and ground to limit the current through Q9, as shown in Fig.18 on page 70 of the same issue.

Note that the panel has been removed from the on-line version as the circuit diagram in the August 2008 issue on the website already incorporates the changes mentioned in the print edition. (06/16)

Railpower Mk.IV, September 2008: On the circuit diagram (Fig.2), the 10k resistor shown between the collector and emitter of Q9 should be removed. The parts overlay diagram (Fig.1 in October 2008) is correct and does not include this resistor. (12/10)

USB Clock with LCD Readout, October 2008: There is an error in the circuit on page 21. Pin 43 (D+) of the microcontroller should connect to pin 3 of the USB type B socket. Similarly, Pin 42 (D-) of the microcontroller should connect to pin 2 of the USB type B socket. The circuit shows these two connections swapped. (11/08)

AirNav RadarBox, November 2008: The contact email address given on page 16 should be jparncut@bigpond.net.au (12/08)

How Oxygen Sensors Work/Wideband Air-Fuel Mixture Display Unit, November 2008: Reference to the narrowband Bosch sensor as an LSU11 is incorrect. It should be an LSM11. Bosch part numbers for the LSM11 are 0 258 104 002 (250cm cable) and 0 258 104 004 (65cm cable). (01/09)

Brownout Protector, December 2008: The wiring diagram (Fig.2) on page 64 shows a number of 6.4mm spade connectors on the IEC mains connector. Most IEC connectors have 4.8mm terminals, so be sure to use the correct fully insulated 4.8mm spade connectors with this type. (01/09)

Car Scrolling Display, December 2008: On the schematic published on pages 32-33 of the December 2008 issue, the ground connections to pins 15, 18 and 19 of CON6 have not been shown. These connect to the ground rail of the display board via CON7. (02/09)