

NOTES & ERRATA FOR PROJECTS PUBLISHED IN SILICON CHIP (2014)

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.

Mini Entertainment Unit, February 2014: The modified version of the MiniReg Adjustable power supply (pages 46 & 47) should specify a higher-rated diode for D1, to match the current rating of the LM338 adjustable 3-terminal regulator. We suggest a BY229 fast switching diode. It has low forward voltage and a current rating of 8A. It comes in a TO-220 package which can be mounted upright on the PCB. (03/14)

Stereo Echo & Reverb Unit, February 2014: (1) On page 35, the article states that this unit can be built from a delay unit kit (Jaycar KC-5506). Unfortunately, this kit is for the delay unit from December 2011 rather than November 2013 and is not suitable. *SILICON CHIP* can supply the PCB, programmed microcontroller and some of the parts for this project; see our Online Shop ad or website for more details. (03/14)

(2) IC2 must be a WM8731. Do not use the specified alternative part (TLV320A-IC23BIPW) as this has the function of two pins swapped (21 & 22). (This note also applies to the Dual Channel Audio Delay in November 2013.) (05/14)

230V 10A Universal Motor Speed Controller, February & March 2014: (1) A 100nF MKT polyester capacitor was omitted from the circuit and parts list (there should be five, not four). It connects between the wiper of VR3 (pin 2 of ICI) and ground. The PCB pattern and the PCB overlay published in this issue are correct. The capacitor is immediately adjacent to CON10. (03/14)

(2) The STGW40N120KD IGBT used in this project is no longer available. Several suitable alternatives are available; the best option is the IGW40N120H3FKSA1 (1200V, 80A). (09/20)

Precision 10V DC Reference, March 2014: An erratum for this project was published as a Circuit Notebook entry in the August 2014 issue. Due to excessive current consumption of the 4541B timing IC, leading to premature drain of the 'lower' 9V battery, the IC has been completely removed from the circuit. It is replaced with a simple RC network instead, providing the timing period for Mosfet Q1. To do this, remove IC2, bridge pins 6 & 8, connect a 47µF capacitor between pins 7 & 8 (positive lead to pin 8) and add a 2.2MΩ resistor between pin 6 and the 0V line. (CNB/08/14)

Burp Charger for Nicad and NiMH Batteries, March 2014: Disconnecting power using switch S1 allows current flow from the supply into IC3 and Mosfet Q2 via the 0.1Ω and 1kΩ resistors. This causes Q2 to switch on and so battery current flows through the 0.1Ω resistor. This problem can be solved by removing S1 and bridging the two switch contact points on the PCB. Power is then switched either via the DC plug or at the input power source. It is also recommended to connect a 100kΩ resistor between pins 6 & 7 of IC3b. This prevents a possible partial conduction of Q2 in an especially low switch-on threshold Mosfet. This resistor can be placed under the PCB across the terminals of the 100nF capacitor that also connects between pins 6 & 7 of IC3b. (11/14)

40V Switchmode/Linear Bench Supply, April-June 2014: (1) In part 3 (June 2014), the statement "with the pot fully anti-clockwise, there should be minimum resistance between the left-most and centre pins on CON5 & CON6" is for the pins as viewed from the front of the unit (ie, opposite orientation of the PCB overlay diagram). (07/14)

(2) The parts list (May 2014) swaps the part numbers for Q6 and Q7. Q6 is the BC327 and Q7 is the BC337. This is shown correctly on the circuit and parts layout diagrams and on the PCBs we supply. (09/14)

Micromite Microcontroller, May 2014: A new version (Ver 4.5C) of MMBasic for the Micromite is available from the *SILICON CHIP* website. This version fixes a bug which could, in rare cases, cause the Micromite to partially erase its firmware and disable MMBasic when used with some low-cost USB serial adapters. Other than that, no new functionality has been added. All but three chips we have supplied have the latest firmware version and those three customers have been notified. (06/14)

The Majestic Loudspeaker System, June & September 2014: (1) Constructors should be aware that there were a number of errors in the June 2014 issue on building the Majestic Loudspeaker which were corrected in the September 2014 issue. For example, there was confusion over the size of the gap between the angled panel and rear panel; its specified 1.5mm width is correct but this results in a gap area of 6.3cm², not 63cm² as stated in the original article. The acoustic wadding used in the prototype is acrylic, not BAF and some of the dimensions in Fig.5 were wrong or missing. Corrected diagrams were published in the September issue.

Also note that the horn used in the original prototype, as specified in the June 2014 issue is no longer available so constructors will need to use the better Celestion horn as explained in the September update.

Some readers have been unable to purchase the eTone type 1525 woofer. While this would still be our preferred part, the Celestion 28/FTR15-4080FD woofer is a valid alternative. This will fit in the same cut-out and has greater power handling capability. It costs more than the eTone woofer but may be easier to obtain. (09/15)

(2) In the September issue, the two screws used to attach the tweeter to the horn are listed as 6BA x 20mm when they should be M6 x 20mm. These same two screws are not mentioned in the parts list in the June issue. (05/18)

ASCII Video Terminal For The Micromite, July 2014: Version 1.3 of the firmware has been released. This fixes two bugs, including one which caused USB data corruption in PAL composite video mode. Escape commands have also been added to turn the cursor on and off (see accompanying PDF file). The new firmware is available from both Geoff Graham's website (www.geoffg.net) and the *SILICON CHIP* website. It can be loaded onto units which have already been built using the USB bootloader via a Windows PC. Programmed chips supplied for this project will use this new firmware. (07/15)

Improved Tweeter Horn for the Majestic Loudspeaker, September 2014: Fig.3 on page 89 has a misprint in the printed edition, which shows a distance of 377mm between the front of the lower panel of the speaker and the end of the hyperbolic horn panel. It should read 37mm instead. The online version of this article shows the correct dimension. (07/17)

Bistro Paging System, Circuit Notebook, October 2014: The column connections to the keypad are reversed, ie, the "star" key should be column 1 and pin 3 while the "hash" key should be column 3 and pin 5. The part number above the keypad is for the piezo buzzer not the keypad; the correct keypad number is Jaycar SP0770. The part number (Jaycar AB3452) for the 400Hz buzzer was also omitted; this specifies the correct electro-mechanical or solid state style buzzer compatible with a micro output. (11/14)

Currawong 2×10W Stereo Valve Amplifier, November 2014-January 2015: (1) The relays intended to switch the signal over from speakers to headphones do not operate correctly. Three components must be changed or added to fix this and these changes can be made without removing the PCB from the case. The two diagrams on page 104 of the March 2015 issue show the modifications to the circuit and PCB in red. The 10kΩ resistor can simply be shunted with a 470Ω resistor. The added capacitor is shown on its side for clarity however it should go above D6. Make sure the leads of the added diode can't short to the leads of the 560Ω resistor or pin 2 of REG1. With these changes, the relay holding voltage is around 3.6V which is sufficient. Finally, in the parts list on page 35 of the November 2014 issue, the 8×220μF 630V polyester capacitors should be 8×220nF 630V instead. (03/15)

(2) In the November 2014 issue on page 32, circuit diagram Fig.2 shows T1's secondary voltages incorrectly. The two bottom windings should be shown as 15VAC, not 37VAC. (04/15)