NOTES & ERRATA FOR PROJECTS PUBLISHED IN SILICON CHIP (1991)

Stereo AM Tuner, February-April 1991: some clarification of the alignment procedure has become necessary following a number of letters on this subject. First, there is an error in the text under the heading of IF alignment on page 58 of the April 1991 issue. The text should read: "To align the IF stages connect the multimeter between TP1 and GND and select the 2V range".

Second, when adjusting C1, be sure that the dip in the AGC at TP1 is not the minimum capacitance point of C1 since this will indicate a false peaking point. To be sure C1 is peaked correctly, its capacitor plates should at least be partially closed. Note: there are two positions of C1 which will give the correct setting.

If the peaking point cannot be achieved correctly, then the 4.7pF capacitor across VC1 may need to be reduced.

The 18k resistors in series with VR1 and VR3 may need to be increased to 22k should the respective trimpots be low in value (eg, when 4.7k trimpots are used for VR1 and VR3 instead of 5k types specified). We also recommend initially setting VR2 & VR4 fully clockwise as mentioned in the alignment procedure.

A small piece of PC track may be missing from some boards. The missing track is in the right channel twin T filter and the symptoms of a missing track is that the notch in the right channel is unadjustable and that this channel will burst into high frequency oscillation. The missing track is above the 'K' ground connection pin for the left and right audio outputs on the PC board. Find the second 270pF capacitor above this 'K' pin and join this 270pF capacitor's copper pad on the side which also connects to a 100pF capacitor, to the adjacent 68k and 1.8MΩ resistors. A simple blob of solder between these two points will be suitable since the gap is small.

Garage Door Controller, March & April 1991: two 10µF capacitors associated with IC7 need to be changed to 1µF to make sure the controller always comes on in the Down mode when power is reconnected. They are the capacitors connected to pins 3 and pin 5 of IC7.

The designer has advised us that the timing resistor between pin 15 and 16 of IC1 in the transmitter should now be 1MΩ while the equivalent resistor between pins 15 and 16 of IC2 in the receiver should be 1.2MΩ. The higher resulting transmitter code frequency allows for the inevitable drop in battery voltage. IC2 can cope with the different code frequency.

A 4.7k supply decoupling resistor was not shown on the UHF receiver circuit but was included on the PC overlay diagram although it is shown unlabelled. A 470k resistor from pin 11 of IC1a to 0V was omitted from both the circuit and PC overlay diagram. It will need to be soldered onto the copper side of the board.

A small section of PC track is missing from the pattern near TP1. It joins the 4.7MΩ resistor and 15pF capacitor together.

Only one of the two diodes associated with the paralleled relays RLA1 and RLA2 is needed; the other one can be omitted. The same applies for the diodes for relays RLA3 and RLA4.

Also for best operation, roller doors should have a 2kg to 3kg weight added adjacent to their bottom edge.

See also "Circuit Notebook", October 1991, for improved battery charging circuit.

Stereo Audio Expander, May 1991: the circuit diagram on page 26 shows the rectifier diode D2 the wrong way around while the wiring diagram on page 27 shows the 3-terminal regulator connected the wrong way around. The photo on page 27 shows it correctly connected.

Digital Altimeter for Gliders & Ultralights, September, October & November 1991: the wiring diagram on page 33 of the November 1991 issue shows the two outer wires to the Barometer Adjust potentiometer (VR6) transposed. The circuit diagram is correct.

PC Talking Voltmeter, October & November 1991: diode D4 on the circuit diagram on page 57 of the October issue is shown connected the wrong way around.

Battery Charger for Solar Panels, November 1991: inductor L1 should be wound with 56 turns of 0.4mm wire, not 200 turns as stated in the text. Also, one 680Ω resistor has been omitted from the parts list.

Infrared Light Beam Relay, December 1991: the A & K designations should be transposed for diode D2 on the wiring diagram. Also the chamfer shown on the pinout diagram of the LT536 (one the main circuit) should be on the cathode (K) pin side. The position of the chamfer is shown correctly on the wiring diagram.

On the circuit of Fig.3, the pin numbering for IC1 has been scrambled. Pins 5,6 & 7 should be swapped for pins 12, 13 & 14 respectively and pins 2 & 3 should also be swapped. Also, the chamfer shown on the pinout diagram of the LT356 should be on the cathode (K) side. On the wiring diagram of Fig.4, diode D2 is shown the wrong way around. Finally, the parts list specifies a 470µF capacitor; this should be 100µF.