

I receive quite a few letters each month with a variety of useful information and I use this input for S/1 NEWS pretty much in the order I receive it. This info is what keeps the newsletter alive and as useful as it seems to be. For reasons of time and money I cannot thank everyone who writes by letter .. let me thank all of you who have provided information, or who will, for your time and consideration for all S/1 owners.

The following subscription renewals are due:

W6DGH, WA6NGM, WA6YLT, W2IWC/6

Paul, W8CXS, notes an error in the drawing attached as the last page to Volume I, Number 11 (power supply schematic). Connection pins #2 and #3 are interchanged on the MC7805, MC7818, MC7815 IC regulators. Pin #2 should be ground for all the regulators.

I have installed the Cunningham LED display board in my rig and recommend it highly - a great improvement in readability and no flicker in the last digit makes the readout much easier on the eyes! Installation is straightforward and Dick provides easy instructions.

Both W2HYY and W2LL report pleasant experiences with Dick Cunningham repairing their Signal/Ones. W2LL notes that if Dick's work results in any problems, he will insist the rig be returned for additional repairs (at no cost) or will provide parts so the repair may be effected without additional shipping problems.

Dick advises me that LED readout boards are available at \$149 (with instructions, of course) and for \$159 you not only get the board but all IC's, resistors for the power supply modifications (Three IC regulators are used as described previously in S/1 NEWS). This is a good deal since you cannot purchase the three IC's required for much less than \$10, if at all.

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I still need serial numbers for my file. If you have not already advised me of the serial for your S/1 please let me know when you have occasion to write.

W4BYG reports the following repairs on his S/1:

1. Symptom was poor sensitivity and sensitivity would change when going from transceive to split receive-transmit modes. A check of the power supply voltages showed the R/T voltage (in receive) to be +15 volts whereas normal is +.4 volt. Problem was defective diode on Audio board, CR2, a 1N270.
2. Symptom was sporadically noisy audio output. The problem was traced to poor connections at the flea clips making connections to the audio board. The cure was effected by soldering all flea clips to board pins. Ray points out that this only caused a slight inconvenience when servicing. He also notes that these flea clips have disappeared in commercial equipment designs because they corrode very slightly with age and create a noisy junction which is especially bad in low level audio circuits. Ray suggests carefully soldering ALL flea clips in the audio circuits including grounds, to their pins.

Joe, W1NXY, writes with additional information concerning lock-up and hang-up in the transmit mode. In my trouble guide I refer to the problem of lock-up in transmit as being caused by defective Q16 and Q17 on the audio board, A6. In previous issues of S/1 NEWS, I noted the cause of hang-up in the transmit mode as a defective Q8 or SN7420 on the counter board, A7. Joe notes a significant difference in these two failure modes and suggests that although the symptoms are common in some aspects, it is possible to recognize the two different conditions: He writes, "Referring to figure 3-5 in the Thomas manual, the radio is in the TRANSMIT MODE when the voltage on the GRAY lines at the power supply board (pins 103, etc) is at -15 volts and the voltage on the GREEN lines (pins 108, etc) is at zero volts. However, the radio is not actually transmitting RF output power until either modulation is applied via the mike input in the AM, SSB modes or the key or keyer is actuated in the CW or FSK mode. As the TROUBLE GUIDE indicates, a failure on the A6 audio board of Q16 and/or Q17 will cause a symptom in which either zero volts will appear on both the GRAY and GREEN lines or there will be -15 volts on the GRAY and zero on the GREEN which is a lock-up in the TRANSMIT MODE and the reed relay will close. A failure on the counter board will not produce zero volts on both lines but only the normal transmit condition of -15 volts on the GRAY and zero on the GREEN line. In addition the transmitter will be keyed on and in the CW or FSK mode it will be generating RF output power. Such a failure as caused by a defective Q8 or SN7420 on the counter board may be more disastrous than one on the audio board because the output stage and associated components may also fail due to inadvertent manipulation of controls in the process of looking for the problem"

more...

Joe also writes that he has been working on serial number 00264 and that this set was the second of several radios he has worked on in which the ceramic switch in the final compartment has had the gold plated contact completely burned away! Joe notes that this is most probably due to switching from BROADBAND to MANUAL while in the transmit mode with RF output or while in TUNE. DON'T SWITCH WHILE IN THE TRANSMIT MODE! The TROUELE GUIDE makes this point in a couple of places.

Finally Joe notes that in the voltage/resistance charts on the audio board there is no indication of PTT or XMIT mode. He notes that for Q15 it is for the XMIT mode and for Q16 and Q17 it is for the PTT mode. Joe also sent me a copy of the CX7B power supply schematic. I cannot make copies due to its size so if you are interested, you might drop Joe a note. (Many thanks to Joe for taking the time to provide us with all the above info ... ed)

Joe, W4SXK, notes that although TRW type PT3657 make neat RF drivers, if they are mounted in the same manner as the original units, this practically guarantees that any stress on the transistors will cause them to separate from their studs. Joe uses the following mounting technique: The transistors have been mounted on the bottom of the driver board and fastened to a heat sink 1/8-inch thick slightly larger than the board which is attached to the 4 posts at the corners. The board then floats on spacers at each corner. Joe also notes that WØNVE indicates TRW PT-3657's are available from TRW but only in 100 lots! Anyone interested in a bulk purchase? (WØNVE, Harry Snyder, is available at 402 721 4457 or RFD 3, Fremont, Neb., 68025)

INFORMATION WANTED, FOR SALE, ETC.

WANTED: RTTY Filter (trade for something...?) Contact Ray LaRue, W4BYG, 7442 Roslyn Road, Jacksonville, Fl., 32210

I have not received renewals from the following: WB6UIB, WB4RSK, ~~W6JMO~~, WB8CTA, W6AXX, W3HII, K4HTY, W20QO, W5RR, WB6AJR, W8JQ, K8KEC, W2RID/4, K4LSD, W6OAU, ~~W6SWP~~, WØESO, and ~~K6G~~. (the above lists reflects renewals due for Jan and Feb. Thx... ed.