VOL I
NOS 1→6

ORIGINALS

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This is a trial first issue for a monthly newsletter covering the SIGNAL/ONE transceivers. I have sent out quite a number of my "Trouble Guides" and many owners have returned comments concerning setting up some sort of SIGNAL/ONE club and net. I think the best way to build a club is with a monthly newsletter covering topics of interest to owners such as modifications, trouble shooting information, where to procure parts, and so forth.

Mailing out a monthly newsletter is not free so I am going to ask for a $4.00 per year fee to cover the cost of paper, printing, duplicating, and mailing. If response is good I am certain you will receive $4.00 worth of good advice and interesting news each year!

A SIGNAL/ONE net would be very desirable. I would like to have suggestions for possible times and frequencies. Rob, WB4RSK suggests that based on past club experience, 80 meters in the evening is an excellent choice. What do you think?

I am an engineer and not a writer/publisher so I gladly welcome any suggestions for this newsletter. The success of this newsletter is dependent on your writing me or Rob, WB4RSK at the addresses given below with your ideas and suggestions for SIGNAL/ONE improvements, modifications, your trouble shooting experience, etc. Your idea may seem trivial to you but remember there are probably dozens of us who didn't think of it!

The SIGNAL/ONE requires careful attention for top performance. This newsletter can be an excellent way for all of us to keep these fine rigs on the air. Write me at P. O. Box 6216, Arlington, Virginia, 22206. Rob, WB4RSK has offered to help and you may write him at 2334 Regal Court, Lawrenceville, Ga., 30245.

GENERAL INFORMATION

Doug Stevens, WB2VYA, of Signal/One in New Jersey tells me that they are still upgrading CX7 and CX7A's to CX7B's. Cost is between $465 and $850. The modifications are extensive and include such items as a new power supply board (overload and thermal protection) and many mechnical and electrical changes. A 4-digit LED display is also available. If you would like additional information, write to Signal/One, P. O. Box 127, Franklin Lakes, New Jersey, 07417.

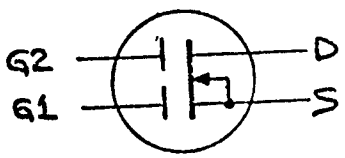
A future newsletter will describe the new CX11 in detail including such items as cost, delivery, circuit improvements, etc.

Payne Radio is still a source of parts for the CX7 and CX7A. Don says parts are in short supply but many are still available. Write to him for what you require at P. O. Box 525, Springfield, Tenn., 37172. Don also mentioned that deliveries for the new CX11 will begin sometime in February. If you are interested he has literature available.

Many Signal/One problems are associated with the power supply and improved power supply boards are available with built-in short circuit and thermo protection on all low voltage supplies. These boards are available from H. E. Johnson and Associates, 211 South Ewing, Clearwater, Florida, 33156 at $95. Standard CX7A boards are available for $40.

MODIFICATIONS & REPAIR INFORMATION

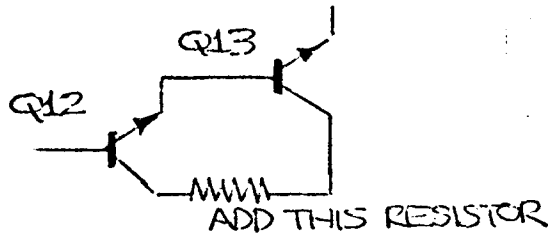
Rob, WB4RSK suggests the following method for checking the operation of MOSFETS (such as 40603, 40604, etc) without removing them from the circuit. (See figure below): Carefully measure the voltage at G2 and make certain it is positive. You may have to switch some controls on the Signal/One to achieve this condition such as going to dual receive mode, etc. Now with zero or a positive voltage at G2, connect G2 to -15 VDC through a 1K resistor and measure the voltage at S. S should be zero or slightly positive. Now do the same thing with G1. This is only a static test but in general if there is a small positive voltage at the source (S) with eigher gate (G1 or G2) negative, the MOSFET will be good.



Rob also notes that a single gate MOSFET can be synthesized from a dual-gate version by simply connecting the two gates together. This is handy if you run out of 40468A's.

WBØLGY suggests the following modification when using a preselector to avoid digging into the front end board: Run a short jumper from the AUX connection of S9 (the COM - AUX switch on the rear apron) to the unused J19 jack on the rear. Connect the preamp in at J16 (EXT RCVR ANT) and out at J19. He uses an old RME-23 with excellent results and says don't scoff until you've tried it!

Rob, WB4RSK, suggests the following for CX7 owners: Adding one resistor as shown below will eliminate loud pops in receive due to AGC action. Q12 and Q13 are located on IF board, A8. Value is 6800 ohms, ¼ watt.



IF it becomes necessary to adjust the 8.8 Mhz carrier using R46 located on BFO board, A4, a frequency counter is required. However, according to Rob, WB4RSK, it is possible to use the CX7's frequency readout circuitry to adjust R46: Disconnect shielded line #5 (Input "A") to the counter board and carefully connect this input to the AGC board shielded line #182 which is board pin #500. This point is the output of the LSB/USB crystal oscillators. Set the CARRIER OUTPUT control to zero. Select TUNE to measure frequency. IGNORE THE FIRST DIGIT. For example when reading the LSB crystal which is 8.8135, the counter will read X135. Ignore digit "X". Be certain that you have previously zeroed the 100 Khz calibrator with WWV. Refer to page 5-15 of the Thomas manual for additional details.

I have updated Trouble Guides available at $1.75 for those who are interested.

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73,

Bob Sullivan
WØYVA/4