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APRIL 1975

Thanks to those of you who have written to me with additional Signal/One information for use in the newsletter. Continue to write -- I need your help to keep things going. Any information concerning Signal/One owners will also be appreciated.

I have received a few serial numbers but many have not written in with theirs. This listing would be useful so drop a note when you can. Serial numbers received so far fall into two categories: Three digit numbers between 100 and 1000 and 9 or 10 digit numbers such as 027229452. I have not deciphered what these mean but I presume that at least the short numbers belong to one manufacturer (Florida?) and the other to another (California?). Does anybody know?

I apologize but I am too busy these days to run a net. I think a net is an excellent idea and we should get one going. Does anyone feel like being a net control station? I could check in on a 20-meter net from time to time. Previously suggested frequency and times was 3815 at 0200Z Thursdays and Sunday evenings. I would also like to see a 20-meter net sometime during the weekend -- say late Sunday. Suggestions please.

MODIFICATIONS AND REPAIR INFORMATION

W6RW suggests that if your rig sticks in the TRANSMIT mode, temporarily lift wire #397 (wire to pin 361 on counter board). This will allow the unit to operate with manual keying or PTT operation. The problem is most probably Q8 located on the counter board. The existing transistor can be replaced with Motorola MPS3702.

W4SXK notes that Don Payne still has a few sets of front panel PUSH-BUTTONS available (set is incomplete, however) for $3.90. However, Don also has some new PUSH-BUTTONS that have been specially engraved (complete) at a cost of $20.00.

W4SXK also notes that B5750 nixies are available at $1.67 each (5 or more) from R&F Enterprises, 119 Foster Street, Peabody, Mass., 01960. EDITORS NOTE: If I receive enough interest, I will call B&F and see if we can make a "bulk buy" of these units. I will be glad to make the purchase and send them out.

POWER SUPPLY NOTES. For those of you who have asked concerning the differences in those units available. The "standard" boards in the CX7A's had zener diode protection whereas the "B" boards are completely new and utilize IC regulators (much improved).

S/1 NEWS is published monthly by R. Sullivan, WØYVA/4; POB 6216, Arlington, Va., 22206. Subscription rate is $4.00 per year. News items should go to myself or WB4RSK, 2334 Regal Ct., Lawrenceville, Ga., 30245. Advertising should go to the editor. Tnx.

Bob, WØYVA/4

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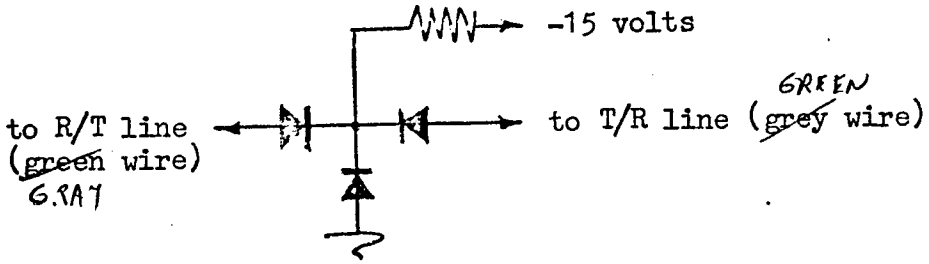
14. INSTALL 5 MF-50V IN UNUSED HOLES OF Q7 & Q8 LOCATION (+ TO R29/PIN 137 & − TO GROUND) AND A .01 MF DISC IN PARALLEL.

15. INSTALL 150 MF-35V IN 1 HOLE WHERE R-32 WAS & DRILL HOLE THRU FOIL TO FOIL STRIP GOING ACROSS BOARD TO GROUND SIDE OF NEW 5 MF 50V. CAPACITOR — RELOCATE 1N4735A ZENER TO UNDERSIDE OF BOARD. CATHODE TO PIN 136 OR COLLECTOR.

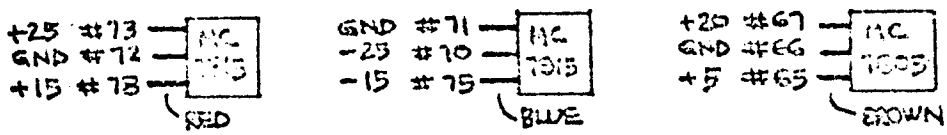
K3NPV suggests a noval way to achieve Receiver Incremental Tuning without any modifications: Use VFO A to offset mode and tune the receiver with the calibrator knob. This will disturb calibration of course but might be handy for contest work.

The following suggestion is from Dick, KØHHP. The network below will cure frequency shift when switching from one transmit VFO to another: Diodes are 1N4001 or equivalent and the resistor is 220-ohm/2-watt.



Dick also sent me the following information concerning his modifications to the power supply. (The modifications are straightforward but do not attempt them unless you feel qualified..ed.). The modifications greatly improve the performance of the supply by utilizing solid-state regulators.

1. Remove Q1, Q2, Q3, Q4, Q7, and Q8 from the existing power supply board *
2. Run a wire through the board where the emitters of Q2, Q3, Q4, and Q8 AND Q7 were originally. Solder the top end of the wire to the ground plane and the lower end to the original emitter line.
3. Install a jumper wire across R12. ~~R11~~ REMOVE R12 AND R11.
4. Install a jumper wire across R21 ~~R20~~ REMOVE R20 AND R21
5. ~~Install a jumper wire from the junction of R10 and R11 to pin 174 which is the low voltage side of R13.~~ - REMOVE & JUMPER ~~R13~~ AND R22.
6. Install a jumper wire from the junction of R19 and R20 to pin 171 which is the low voltage side of R22.
7. Replace existing R29 with a ~~7.5-ohm, 10 watt unit~~. 10 OHMS - 13 WATTS
8. Install a MC7815 in place of Q1, a MC7915 in place of Q2, and a MC7805 in place of Q3. (These units are located on the rear panel). The MC7815 and MC7805 are bolted directly to the chassis but MC7915 must be insulated (use insulating hardware that was used with Q2). Use plenty of thermal compound. Wire the new transistors as follows:



9. If the 5-volt regulator (MC7805) oscillates (can be heard in receiver) install a 5 to 25 uf, 25-volt electrolytic from the low voltage side of R29 to ground.
10. If the KØHHP counter board is being installed, remove R47 from the power supply board. To reduce current drain from +5-volt supply, replace meter lamp with a 12-volt unit and power it from filament voltage supply. Lamp brightness can be reduces by using a 22-ohm/½-watt resistor between lamp and ground. (This step is optional of course)
11. REPLACE CR-12, 13, 14, 15 WITH 3 AMP DIODES. - INSTALL 1 Ω 3 W RESISTORS FROM DIODE OUTPUTS TO PIN # 148 & 149
* editors note: All associated components should also be removed. FOIL CUT REQ'D.
12. REMOVE R31 & R32, BUT RECONNECT & ZENER DIODES (ONLY (SEE STEP 15)) REMOVE C10, R28, C24, R18, R24, R16, R17, R10, C5, R15,
13. DO NOT REMOVE CR-11, ~~R19~~, R19, C8

FOR T-R MODIFICATION

1. ADD JUMPER ACROSS R-11
2. CUT FOIL AT TERMINALS OF R-13 BOTH ENDS.
3. WIRE FROM -15 BUSS (BLUE) TO ONE SIDE OF R-13 TERMINAL
4. REMOVE R13 JUMPER ~~FROM TOP OF BOARD.~~ — LEAVE .01 CAP IN PLACE
5. INSTALL ~~NEW~~ .01 CAP IN OPEN HOLES OF Q-2 LOCATION, CUT FOIL AWAY ON BASE (CENTER LEAD) AND BEND CAPACITOR LEAD TO EMITTER (GROUNDED) PIN

The following is from WB8CTA: If AGC adjustment difficulties arise or if "S"meter readings seem low perform the following check: Tune is a WEAK signal and place AGC in OFF. There should be no increase in the audio level. If there is, AGC trouble is indicated in that it is energizing on the noise level and desensitizing the front end. Check voltages on pins 478 and 509 on A9, the AGC Detector board while adjusting R26 per the manual. If adjustment is not possible, change R8 (on A9) from 10K to 150K. This changes the bias on AGC amplifier, Q1 and it will now take a stronger signal to bias Q1 to the "on" state for AGC action.

INFORMATION WANTED AND CLASSIFIED

Has anyone experienced instability in the 43.1 Mhz oscillator circuit? (The problem is most apparent during initial turn-on).

Write to the editor concerning the availability of Signal/One parts (including 200-hz filters).

COMMENT OF THE MOHTH (from WB8CTA)

"I'm beginning to think that owning a Signal One is a lot like owning a British Motorcycle. I seem to spend more time under them than on them...." (hmmmm.... ed.)

73

Bob, WØYVA/4

SIGNAL/ONE TROUBLE GUIDES (NUMBER 5) ARE AVAILABLE AT ~~$1.75~~ 2 PER COPY.