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The first two pages are condensed.....

(1.) CUSTOM CONVERSION #9

(Code Name: MonGoose)

Chassis: Realistic TRC-424 (21-1522)

Parts Cost to modify including SAMS, $25 maximum....
Time to Modify will vary - initial unit 6 Hrs, without all parts on hand.
Gain in Unit: Frequency Range 26.425-27.555MHz (See Note #1)
"Illegal Frequency Alert"
(See Note #2)
Loss in Unit: P.A. capability

Initial conversion performed on S/N 73702907, Production Run 2A7

(2.) Realistic TRC-424 (21-1522).....Code-MonGoose, S/N:_____

This unit is extensively modified for operation between the frequency range of 26.425-27.555MHz. (See note #1).

Frequency is determined by the Channel Selector and Frequency Range Selector switches.

At any time unit is capable of transmitting on an "Illegal Frequency", the RF/S Meter light will be out.

Do Not use an amplified microphone with this unit if the modulation limiter is removed. Also use caution on the AMC adjustment, as unit will distort the audio very easily.

A Bandit antenna will tune over the entire frequency range with no problems. Do not exceed an SWR of 1.5 if possible.

For complete Frequency Code Chart: See SCB Vol. 16, pg. 15.

Abbreviated Fo's: Red Code - Selector Pos. 9-24, 26.425-26.595MHz.
Red/Yellow Code - Selector Pos. 12-40, 26.605-26.915MHz.
Yellow Code - Selector Pos. 12-24, 27.425-27.555MHz.

NOTE 1: Wiring is installed for Wild Goose configuration (Frequencies), circuitry realignment is all that is needed. See SCB Vol. 20, 8-15.

NOTE 2: See SCB Vol. 20; pg. 12, step 29.

The alignment proceedure on pg. 15, step 46; of the same volume will be of some help if you attempt to realign for the lower portion.

Read thru this and write down all parts you will need to perform the conversion before attempting! DO NOT ATTEMPT TO CONVERT WITHOUT THE FOLLOWING: SAMS #189, Dummy Load, Frequency Counter, and Power/Modulation Meter are the minimum needed.

1. Remove covers, mark one of the speaker wires for correct polarity.

2. Do a complete line-up per SAMS #189. CAUTION: Do not move any slugs that are fixed with glue, as will bust the slug!!!

3. Remove C-518 (3.3mf electrolytic 35 or 50VDC), no replacement.

4. Cut any cable ties when necessary in moving wires!

5. Remove NB, PA/CB switch assembly. (2 screws on inside of front chassis).

6. Follow directions to the letter...Modification of the Noise Blanker Sw:
   - A. Blue Cable-cut Red and white wires off, trace to PCB, undo at standoffs-remove completely.
   - B. Cut Orange wire off assy.
   - C. Cut Violet wire off assy.
   - D. Unsolder carefully the green choke from assy., clean it up.
   - E. Remove Orange wire from standoff.
   - F. Solder one leg of choke to standoff.
   - G. Solder Violet wire to other leg of choke.

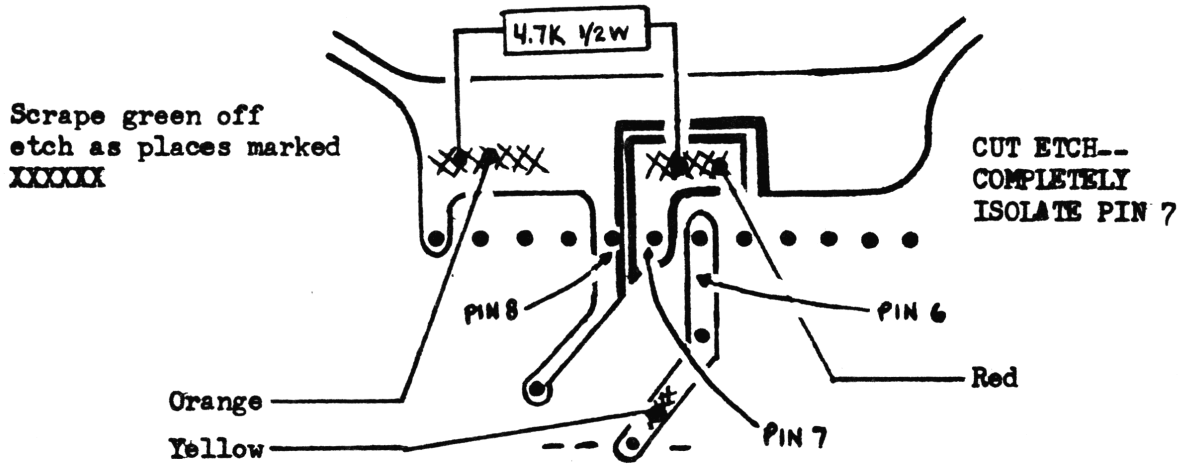
7. Follow directions to the letter..Modification of PA/CB Sw:
   - A. Cut Pink (SAMS, calls out a red wire, but is pink), off assy.
   - B. Cut Gray wire off assy.
   - C. Trace both back to Squelch/sw-pot.
   - D. Cut about 1½" from pot., strip insulation and solder together, cover with 2 layers of heat shrink.
   - E. There are 3 separate wires (Blue, Gray, and Yellow) which run along the left to the rear and over to the right. (Blue-goes to the audio transformer).
   - F. Cut all three wires off assy.
   - G. Remove Yellow wire completely from standoff.
   - H. Leave about 2" of the Gray and Blue wires to work with-strip insulation and solder together, cover with 2 layers of heat shrink.
   - I. Cut Green wire off assy.
   - J. Cut White wire off assy. (Note: This white wire should trace to a standoff between L-902 and L-903..some units have a different colored wire)
   - K. Remove Green wire at standoff.
   - L. Strip about 1½" insulation off white wire, and wire wrap to the standoff where the Green wire was.
   - M. Gray cable on assy. cut off, trace to volume pot-remove completely, easier to cut off!
   - N. Cut remaining Blue cable off assy., trace to PCB, remove completely, cut the shield off as is a tight spot.
   - O. Remove the 3.9K resistor from Sw. assy. board carefully, clean it!
   - P. Solder one end of 3.9K to standoff labeleded (SW3-3-3).
   - Q. Solder Yellow wire to other end of resistor (use wire discarded in Step 6-F) Sleeve entire resistor/solder joint.
   - R. Wire wrap other end of yellow wire to standoff labeled (SW3-3-2).

8. Turn unit on (use external speaker) check for receive audio, power out, and modulation. Note: Modulation should be about 100% +, on an un-amplified microphone. ANY USE OF AN AMPLIFIED MICROPHONE MAY DAMAGE UNIT, ITS USE IS NOT RECOMMENDED AS CAN DAMAGE TRANSMIT SECTION..

9. Remove the bottom cover plate from the PLL circuit carefully.

10. Clean completely the switch assembly board, remove the capacitor, double check that there are no shorts, make sure all top pins are open as wiring modifications will be made there.

11. Use diagram below for the PLL wiring changes/modification:



___ USE ISOLATED TIP SOLDERING IRON WHEN WORKING AROUND PLL ___

12. Scrape off insulation at places marked with XXXXXX.

13. Completely isolate Pin 7 from Pin 8, make cut between pins exactly as shown above.

14. Use a 4.7K resistor and bridge cut, exactly as shown above: Note.. Resistor must be laid down onto the board or cover will not fit when replaced.

15. Use color coded solid copper wire and solder wires in place, wire length must be at least 14" long.

16. Check for shorts and make sure that wires are laid down flat before replacing cover.

17. Replace the cover carefully-you must use extreme caution that the tabs do not short out anything when replacing. NOTE: some covers do not have insulation on the bottom, if not place strips of electrical tape in place.

18. Feed the wires to the component side via gap next to meter-lay down permanently and tie up the cable bundle for support.

19. Trace meter lamp white wire to PCB, remove the white wire at point marked PL. Clean out the hole.

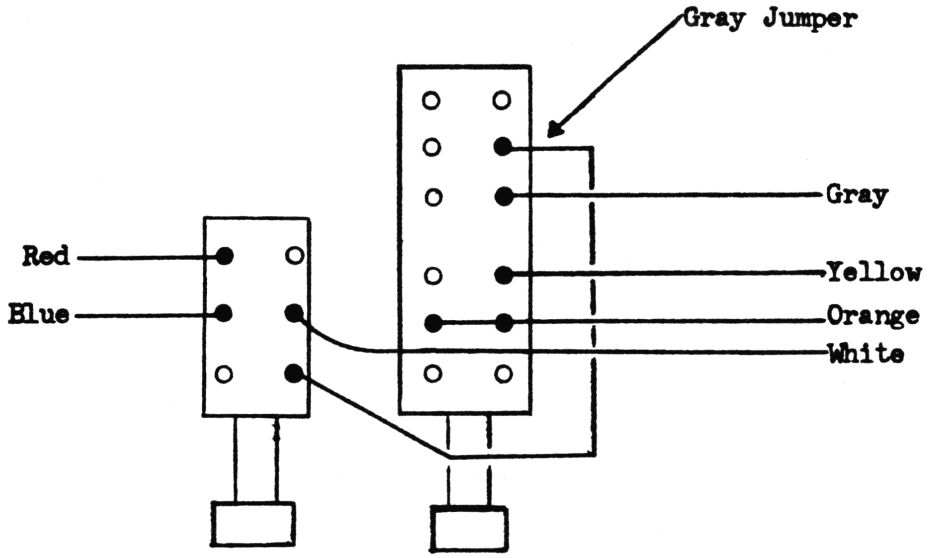
20. Solder Gray wire removed in Step 6-F (long Gray wire) to that point.

21. Re-install the NB, PA/CB Switch assembly in chassis, use small lock washers.

22. Use a paper punch and punch out the holes in colored electrical tape. Put Red on the NB button and Yellow on the PA/CB button.

23. Solder a Blue wire removed in Step 6-F (long wire) to D.C. ground on etch side of PCB. Feed up thru gap with other wires.

24. Wire-up per diagram the P.A. and Noise Blanker Switches exactly as shown below. Cut all wires to length and bundle as you go.



25. Turn unit on and check that RF/S meter light will go out when either or both buttons are pushed in.

26. Check to see the frequency spread as it is..Do Not Adjust Anything.

27. Adjust L-901, L-902, L-903 for balance of power and frequency range, do not adjust anything else.

28. The high frequencies are usually there with no trouble, the lower band is the hardest to tune in.

29. CAUTION: If the VCO slug is <u>not</u> glued you may now realign it slightly to try to get the lower frequency band in. If it is glued and you bust the slug, good luck!!

30. Try to align the 3 slugs in Step 27 for maximum power across all frequencies you can obtain. (Not all units will stretch down to 26.425).

31. Adjust L-904 for maximum forward modulation at 27.005Mhz.

32. Peak L-905 for maximum power at 26.905Mhz.

33. Re-check the frequencies and mark which ones are not present on frequency chart.

34. Tie up all cables.

35. Place electrical tape on bottom of cover which might come in contact with NB-PA buttons. Resolder speaker wires correctly. Replace covers.

36. Recheck frequencies., enjoy!