DATE 4-7-58 SH. 1 OF 3

COMPILED BY

TMC

SPECIFICATION NO

NO. S

P.L.K.

TITLE: MODIFICATION OF MSR-1 TO BECOME MSR-3

JOB

353

APPROVED

FOR COMPANY USE ONLY

## CONFIDENTIAL

- 1. MSR-3 requires all of the following changes to modify a MSR-1.
- 2. The MSR-1 can be improved by making all changes except, I. The 1st Oscillator and Reactance circuit changes.
- I. 1st Oscillator changes for operation with 200 KC I.F.
  - 1. 23 modified.
    - a. T2 changed to A-1507
    - b. C32 changed to CM20C82OG
  - 2. C31 changed to L3-6.4 mh coil.
  - 3. R37 changed to RC20GF104K.
  - 4. R68 RC2OGF273K added to S4.
  - 5. Terminal Board TB-2 rewired.
  - 6. Lead from C29 and L3 rewired on relay K2.
  - 7. Terminal Board TB-4 changed.
  - 8. Rlu changed to RC20GF68LK.
  - 9. R45 changed to RC20GF274K.
  - 10. C45 changed to CC21SL100J.
  - 11. R49 changed to RC20GF471K.
  - 12. R67 RC20GF105K added to V10.
  - 13. C57 added CC-100-16.
  - 14. Y1, Y2 changed.
- II. Additional Changes to Improve Unit.
  - A. Increase Audio Gain.
    - 1. Change V6 12AU7 to 12AT7.
    - 2. Audio Gain control placed in grid circuit of 1st Audio Amplifier  $V6B_{\bullet}$
    - 3. Change R30 to RVhATRD105D.
    - 4. T rminal Board TB-1 changed.

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- 5. Change R32 to RC20GF474K.
- 6. Change R31 to RC2OGF391K.
- 7. Change C24 to CC-100-16.
- 8. Switch S-8 ST-22K added on chassis in place of R54, R54 added to rear apron.
- 9. C31 changed to CN-100-4 added to feedback loop.
- 10. R63 changed to RC20GFl473K, removed from output pad and added to feedback loop.
- 11. R36 changed to RC3OGF333K rewired with C27 to plate circuit of V6B.
- 12. Original R63 changed to R64 RC2OGF681K.
- 13. Original R64 changed to R65 RC2OGF273K.
- 14. Original R65 removed.
- 15. R66 changed to RC20GF681K.
- 16. Second section of S-8 connects output pad to Tl
- 17. Insulated stand off TE-102-2 added to mount C31.
  - B. Noise Limiter Switch rewired.
    - 1. C23 changed to CC-100-16.
    - 2. S3 changed to ST-22N.
  - C. 2nd Mixer
    - 1. R19 changed to RC20GF203K.
    - 2. R2O changed to RC2OGF104K.
    - 3. Cl6 changed to CC26SL820J.
    - 4. R69 RC20GF203K added to 31.
  - D. I.F. Amplifier
    - 1. R5 changed to RC20GF331K.
    - 2. R1 changed to RC20GF394K.
    - 3. R3 changed to RC20GF10LK.
    - R7 changed to RC2OGF471K.

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- E. Power Supply
  - 1. C57 removed.
  - 2. C49 changed to C49A,B CE-102.

III.

- 1. Cable Diagram includes all the changes required for the above.
- 2. Main chassis changed to allow inclusion of S-8 and placing R60 on rear panel.
- 3. Stamping Drawing changed.