

DATE 3/6/61

SH. 1 OF 4

COMPILED BY
C.M. Groven

TMC SPECIFICATION NO. S-551

TITLE: Test Procedure for SYM-1089

JOB

APPROVED *FOS*

EQUIPMENT.

| | |
|------------------|--|
| Signal Generator | Standard Generator Model 82 Measurements Corpora- tion. |
| Voltmeter | VTVM Voltmeter Heathkit. |
| Pad | 20 db Attenuation Pad. |

TEST PROCEDURE.

- A. Sensitivity for 10 db signal to noise ratio.
1. Connect the equipment as shown in Figure 1.
 2. Set the signal generator to the first test frequency on the test chart. Modulate this test signal at 30% with a 1000 cps tone.
 3. Set the signal generator output at 3 to 4 microvolts.
 4. Set the MSR bandsread control to its center position. The manual/xtal switch in the manual position, and the sideband switch in the USB position.
 5. Tune the GPR-90RX to the signal from the signal generator.
 6. Detune the frequency of the signal generator.
 7. Observe the reading of the voltmeter placed across the 600 ohms output of the MSR (terminals 5 and 6).
 8. Retune the signal generator to its original frequency. Increase the output of the signal generator until a 10 db increase of voltage is observed on the voltmeter.
 9. This amount of signal required for a 10 db signal to noise ratio can be read directly from the signal generator.

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10. Enter this reading on the test data table.

B. MSR Operation

1. Set the signal generator to the first frequency of the test data table. Modulate this signal at 30 % with a 1000 cps tone.
2. Set the signal generator output at about 3 microvolts.
3. Set the MSR to its upper sideband position, manual/xtal switch in manual position, set its bandspread control to its center position.
4. Tune the GPR-90RX to the signal generator output frequency.
5. Record normal operation of the MSR(USB position). An audio tone will be heard as the bandspread tuning control is turned from left to right.
6. Repeat for the lower sideband.

C. LSP-7 Operation

1. Record normal operation of the loudspeaker, A nice and clean sound should be heard from the loudspeaker.

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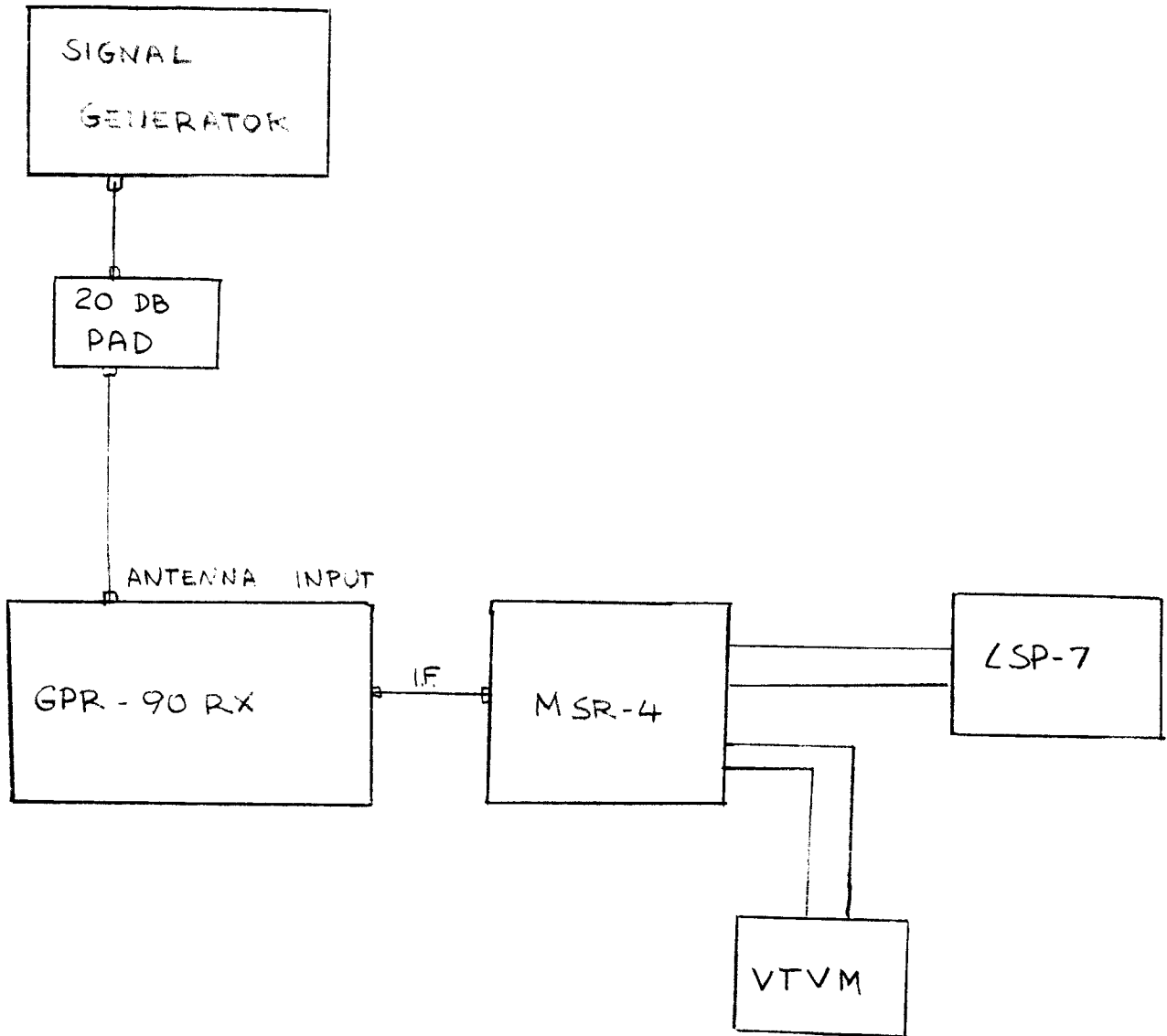
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TEST DATA

| R.F. In MCS | Required uv For 10 db S+N/N * | MSR-4 Operation | | LSP-7 Operation |
|----------------|-------------------------------------|--------------------|-----|--------------------|
| | | USB | LSB | |
| 2.5 | | | | |
| 5.0 | | | | |
| 7.5 | | | | |
| 10.0 | | | | |
| 15.0 | | | | |
| 20.0 | | | | |
| 25.0 | | | | |
| 30.0 | | | | |

* To be less than 1 microvolt for stated signal to noise ratio.