

switch S-103 depressed to complete the meter circuit. The adjustment of the TONE, LIMITER and A.F. GAIN controls is unimportant.

3.42 With no R.F. input to the receiver, or with the antenna disconnected, the S-meter should read 0, plus or minus 1 S-unit. If it does not, the S-meter circuit requires adjustment. See Section 4.6.

3.43 Measurement of the signal strength of CW signals cannot be made with the CW oscillator in operation.

SECTION 4. ALIGNMENT

4.1 General

4.11 All circuits are carefully aligned before shipment, using precision crystal oscillators which insure close conformability to dial calibration. No readjustment will be required, therefore, unless the receiver is subjected to extremely rough handling.

4.12 The SENSITIVITY vs. FREQUENCY curves of Dwg. No. 9.1 indicate the overall sensitivity of the average Radio Receiving Equipment. These curves, together with the MAXIMUM NOISE LEVEL curves of Dwg. No. 9.2, provide data for definitely checking the Radio Receiver to determine if repairs or realignment are necessary, since the majority of circuit element failures, or any misalignment, will reduce both sensitivity and maximum noise level of the Equipment. The data referred to above will, therefore, also serve to show the efficacy of repairs or realignment.

4.13 The SELECTIVITY, IMAGE ATTENUATION, FIDELITY and AVC characteristics of Dwg. Nos. 9.3 to 9.6 inclusive are necessary where a particular performance check is desired, but are of secondary importance in most cases, since an Equipment having normal SENSITIVITY and MAXIMUM NOISE characteristics will, in all probability, be normal in all other respects.

4.14 Should realignment of the Radio Receiver become necessary, the following alignment data should be carefully studied before making any circuit adjustments. The operator is cautioned against making any adjustments indiscriminately and he should not realign any circuit unless tests definitely indicate that realignment is necessary. It is important that the operator understand the function of each circuit element so that correct alignment may be obtained quickly and accurately.

4.15 Before proceeding with the alignment of any circuit of the Radio Receiver, the Equipment must be set up as specified in Section 2, "Installation", except that the an-