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A.M. Modulation Check

1. Turn Mode Selector Switch (#5 Fig. 1) to the MOD position
2. Switch Set/Modulation rocker (#4 Fig. 1) to SET
3. Switch Modulation Mode rocker (#6 Fig. 1) to AM
4. Turn RF Level control (#7 Fig. 1) to MIN
5. Key Transmitter and turn RF Level Control clockwise to read full scale to SET line on AM Modulation Scale.
6. With Transmitter keyed, switch SET/MOD rocker (#4 Fig. 1) back to MOD position and talk into the microphone or steadily whistle to read modulation percentage on the AM Scale.

NOTE: A.M. modulation check functions must be performed on each wattage range, to prevent possible damage to the meter movements.

SSB Modulation Check

1. Turn Mode Selector Switch (#5 Fig. 1) to MOD position
2. Switch SSB/AM rocker (#6 Fig. 1) to SSB
3. For this test, the Transmitter must be in AM mode for setting modulation on meter to the SET line position on meter. Make sure you use the lower scale marked SSB MOD.
4. With Transmitter keyed, turn Mode Switch on Transmitter to either UPPER or LOWER SIDE BAND and talk or whistle steadily into the microphone. Read modulation on the lower scale of meter, marked SSB MOD.

Meter Scale Reading

0 - 20 Watts.....	20 Scale
0 - 200 Watts	20 Scale X 10
0 - 2000 Watts	20 Scale X 100
0 - 4000 Watts	4000 Scale

General Notation

On Grounded Grid amplifiers, we do not recommend checking modulation at higher powers. Grounded Grid amplifiers will not be able to output 100% modulation in the A.M. mode, however, the feed through power prevents the grounded grid from being fully modulated. This is the reason A.M. modulation should be checked at the transmitter, or with the Linear Amplifier in standby position.

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DOSY TC-4002-SW Test Center Instruction Manual



Figure 1

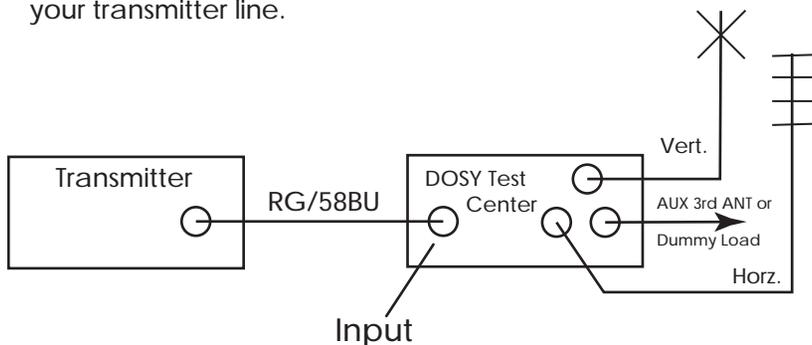
1. Antenna Selector Switch
2. RMS/PEAK Mode Switch
3. 2000/4000 Watt Range Switch
4. SET/MOD Switch
5. Mode Selector Switch
6. SSB/AM Mode Switch
7. RF Level Control Modulation and SWR

IMPORTANT

On the DOSY TC-4002-SW, be **VERY** careful if only one antenna is used. Before the transmitter is keyed, make sure the antenna switch (#1 Fig. 1) is in the proper position for desired antenna. If this switch is in one of the other positions and the transmitter sees an open load, the watt meter diodes may be damaged and the transmitter may also be damaged.

Installation Instructions

The test center can be installed at any point in your transmitter line.



Antenna Selector Switch operation (#1 Fig. 1)

1. VERT position for a VERT antenna or GR plane.
2. HORZ position for a HORZ antenna or BEAMS.
3. AUX position for a third antenna or a dummy load.
4. VERT/HORZ position ties in both VERT and HORZ antennas to the transmitter input at the same time. Make sure (if only one antenna is used) that the antenna selector switch is in the same position as the antenna cable on the back of the test unit.

Operating Instructions

Watts

The TC-4002-SW Test Center will indicate the power output (in watts) of your equipment at the point in the transmission line where you have installed the test center. To measure any power from 1 to 2000 watts, just set the Mode Selector Switch (#5 FIG. 1) to the appropriate range: 20, 200, 2000 watts. If wattage to measure is larger than 2000 watts, the 2000/4000 switch (#3 Fig. 1) must be switched to 4000. When returning back to the 2000 watt scale, you must return the switch (#3 Fig. 1) back to the 2000 watt setting.

NOTE: If power output is uncertain, use the highest range and work down until the range is appropriate to prevent possible damage to the meter movement.

RMS/Peak Watts

The RMS/PEAK mode switch (#2 Fig. 1) permits the selection of either RMS or Peak Watt reading when measuring watts. In the RMS position, there will be steady or very little movement of the watt meter needle. When the RMS/Peak Mode Switch (#2 Fig. 1) is in Peak position, watt meter will indicate peak power output.

SWR Set

1. Turn Mode Selector Switch (#5 Fig. 1) to SWR-SET Position.
2. Turn SWR RF Level Control (#7 Fig. 1) to Min.
3. Key transmitter and turn SWR RF Level Control clockwise (#7 Fig. 1) to give a full scale meter reading to Set Line on the SWR Meter.
4. With Transmitter keyed, switch Mode Selector Switch (#5 Fig. 1) to the SWR position and read SWR ratio directly on SWR Scale.

NOTE: The SWR Functions need to be performed on each wattage range to prevent possible damage to the meter movements.