TMC SPECIFICATION

NO. S1379

REV: A

COMPILED: MAC CHECKED: APPD: 2-6 SHEET OF

TITLE: SYSTEM CHECK FOR ATS-2B

SYSTEM CHECK

FOR

ATS-2B

A. MECHANICAL INSPECTION _____

B. ELECTRICAL INSPECTION _____

SET-UP PROCEDURE

Set up ATS-2B system as per figure 1. Place the MCU-2A power switch (S101) to OFF. Connect the AC power cord to the line power switch. Turn switch (S101) to X1 or X10. The power light should light and the system should be ready to operate.

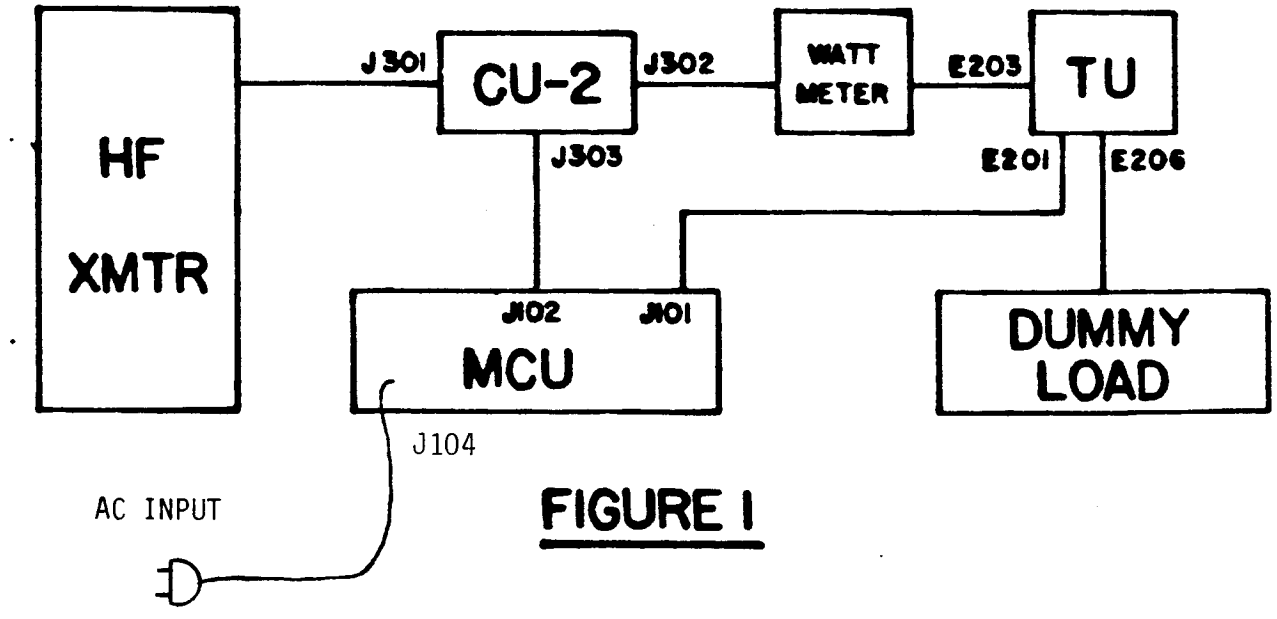

FIGURE 1

UPPER/LOWER STOP LIMITS

The operation of switch (S103) will increase or decrease reactance.

Upper limit stop light should indicate at upper limits reactance extremes.

Lower limit stop light should indicate at lower limits reactance extremes.

Upper limit full scale on meter M102 _____

Lower limit minimum on meter M102 _____

REACTANCE ADJUSTMENTS

Reactance meter (M102) reading scale (top) should indicate maximum and minimum reactance ranges. Press reactance switch (S103) to increase (INCR.). Meter readings should read minimum scale. Press reactance S103 to decrease (DECR.). Meter readings should read full scale.

Full scale _____

Minimum scale _____

RESISTANCE ADJUSTMENTS

Resistance is calibrated on center scale of meter M102. The range of the scale is from 1 to 6. By turning the meter switch (S104) CCW to the RES position the resistance is read directly on the center meter scale. By pressing the resistance pushbutton (S102) to operate, resistance scales are stepped one position at a time from 1 to 6.

Operational _____

NOTE: The motor braking system is operational when the resistance switch (S102) steps one position at a time and does not over shoot.

Operational _____

HUMIDITY

Humidity is indicated on the lower scale of meter (M102). When the meter switch (S104) is turned to (HUM) the meter (M102) will indicate the humidity status. This reading should not exceed the white portion and extend into the red area. To check the operation of the humidity sensor circuits, moisture can be simulated at the sensor by blowing on the humidity element (R210) located in the TU-2B unit. The (M102) meter scale will indicate the presence of humidity in the TU-2B unit.

METER CALIBRATION AT 15 MHz

Set up reactance and resistance setting for minimum SWR. The forward and reflected meters are checked against a standard wattmeter on both X10 and X1 scales. Reflected scales are checked by reversing RF inputs to the CU-2B coupler. Meter calibration should be within $\pm$ 15% of standard wattmeter.

Operational _____

OVERLOAD AT 15 MHz

Put switch (S106) in the OPERATE position. Overload should be set to trip out on a X1 scale at approximately 120 watts. Overload should be set to trip out at approximately 350 watts on the X10 scale. Overload light should indicate overload condition. Reset button will turn IND OFF when depressed.

Operational _____

SWR OVERLOAD AT 15 MHz

Put switch (S106) in the operate position. SWR overload should trip when a 5:1 SWR is obtained in the ATS-2B system. This is accomplished by detuning the ATS-2B until SWR is 5:1. Overload should trip on X1 or X10 positions.

Operational _____

TUNE/OPERATE

When tune/operate switch (S106) is in tune position overloads are set up to trip at low power level (approximately 150 watts). When in the operate position trip out circuits are restored to normal operation.

Operational _____

OPERATIONAL CHECKS

The system is checked at 3 frequencies: 2, 15, and 30 MHz. The system is tuned for minimum SWR and reading recorded SWR should be within 2.5:1.

FREQ MHz	VSWR	RESISTANCE	REACTANCE
2	____	_____	_____
15	____	_____	_____
30	____	_____	_____

Tested by _____

Date _____