

DATE 11-12-59
 SH. 1 OF 4
 COMPILED BY

TMC SPECIFICATION NO. S 1766

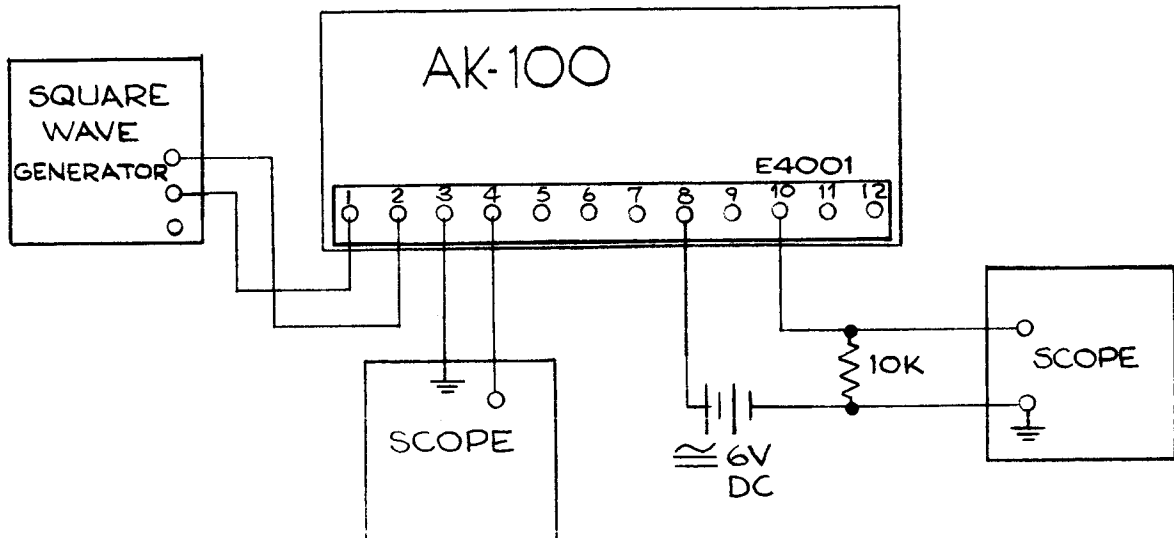
TITLE: COMPLETE TEST INSTRUCTION FOR MODEL AK-100

JOB

APPROVED *[Signature]*

REV. A

A. INSTRUMENT LAYOUT



NOTE:

The square wave generator must not touch chassis of the AK-100 or any other ground.

1. Using a clip-lead, ground terminal #1 of C4001.
2. Using a clip lead, ground terminal #1 of C4002.

B. GENERAL INSPECTION:

1. Inspect the unit for obvious mechanical and electrical imperfections.
2. Check for proper fuses, tubes, plug-in capacitors and relay.
3. Carefully check the wiring of T1 and T2.

C. RESISTANCE AND CONTINUITY TEST:

1. Wiring of E1

<u>FROM TERM.</u>	<u>TO TERM.</u>	<u>RESISTANCE MUST BE BETWEEN THE VALUES SPECIFIED IN Ω</u>	<u>REMARKS</u>
1	2	45K - - 60K	Mode sw. in position "50V"
1	2	85K - - 115K	Mode sw. in position "100V"
1	2	85Ω - - 115K	Mode sw. in position "60ma"
1	2	250 - - 350Ω	Mode sw. in position "20ma"
4	5	Approx. 0 - 12K	Variable by R4014 clock wise for max. R

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<u>FROM TERM.</u>	<u>TO TERM.</u>	<u>RESISTANCE MUST BE BETWEEN THE VALUES SPECIFIED IN</u>	<u>REMARKS</u>
4	Ground	Open	
1	Ground	Open	
8	Ground	Open	
8	9	Short	The unit must be in its operating (upright) pos.
3	Ground	Short	
6	Ground	Short	

2. B1 + B2 + Wiring

NOTE:

Because of selenium rectifiers, it may be necessary to reverse leads of the ohmmeter to read proper resistance.

- a. B1 +: Between terminals 1 and 3 at C4001, 9K - 13K
- b. B2 +: Between terminals 1 and 3 at C4002, open

INITIAL VOLTAGE CHECK:

- D.
 1. Set up the unit as shown in instrument layout.
 2. Turn the voltage adjust and threshold adjust controls to fully counter-clockwise position.
 3. Measure and correlate all voltages as shown in the charts below to be within $\pm 10\%$.

NORMAL READINGS

	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
V4001A	150 #1.1	22 #.4	24 #0					
V4002A	180 #0	-17 #.12	0 #0					
V4001B						150 #38	3.3 #3.3	19 #.5
V4002B						180 #0	-17 #.1	0 #0
C4001	0		155		155			
C4002	0		180		180			

#=A.C. Voltages.
 All voltages measured to ground.

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NORMAL READINGS

	1	2	3	4	5	6	7	8	9	10	11	12
K4001	0		0		0		180	180				
R4001	22	22	0	180	180	0	0	0	0	0	0	0

4. Measure voltage at junction of C4007 and R4016 with respect to ground. The voltage must be between -15 and -20 volts.

E. WAVEFORM TEST:

1. Set the mode switch for "50V" Keying.
2. Set the square wave generator for 50V Keying at 50 cps.
3. Set the voltage adjust control fully counter-clockwise.

Adjust the threshold control (approximately in the middle of the potentiometer) until wave forms appears as shown below.

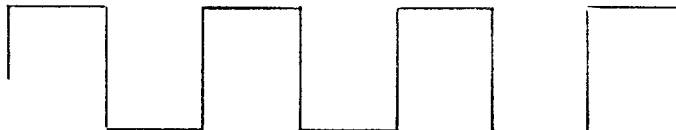
NOTE:

The spacing between positive and negative

- a. Terminal #4



- b. Terminal #8 and 10



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TEST DATA SHEET

ACCEPTED

B. GENERAL INSPECTION

C. RESISTANCE AND CONTINUITY TEST

1. Wiring of K1

2. B₁ + and B₂ + Wiring

D. INITIAL VOLTAGE CHECK

E. WAVEFORM TEST

a. Voltage Keying

b. Contact Keying

ACCEPTED BY _____

DATE _____

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