TMC SPECIFICATION

NO. S 1167

REV: ø A

COMPILED: CHECKED: APPD: SHEET 1 OF 6

TITLE:

typed by vita 12/21/66

MCG-2I TEST PROCEDURE

I. TEST EQUIPMENT

A. Lambda Model 25 Power Supply (or equivalent).

B. 6.3VAC at 3A (floating) for 2 ovens.

C. Tektronic Scope 545A (or equivalent).

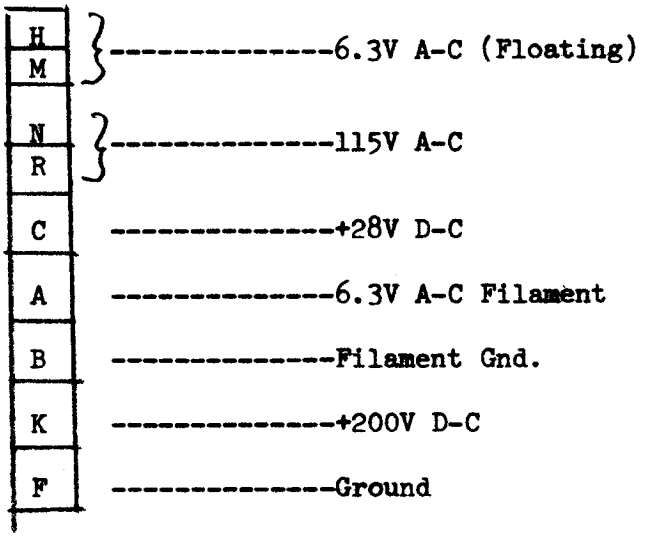
D. H-P Counter 524C (or equivalent).

E. Test Cable (Figure A).

F. 5 terminations TMC #DL-100-4.

FIGURE A

TMC PL 212-2



G. 28V D-C Supply - Harrison Model 865B (or equivalent).

II. PRELIMINARY

A. Visually inspect unit for any mechanical defects.

B. Check for any power shorts to ground. J6015 pins N, R, K, H, M.

C. Set switch to AFC position and check for continuity between J6001, J6003, J6004, J6005 and J6006.

D. Set switch to SYN position and check for continuity between J6002, J6003, J6004 and J6006. Set switch to INT position.

E. Place dummy 47 ohm load (TMC #DL100-4) on J6003, J6005, J6007, J6009 and J6011.

F. Apply power and adjust power supply for 200V output.

ALLOW UNIT TO WARM UP 30 MINUTES BEFORE MAKING ANY ADJUSTMENTS.

III. 100 KC ADJUSTMENT

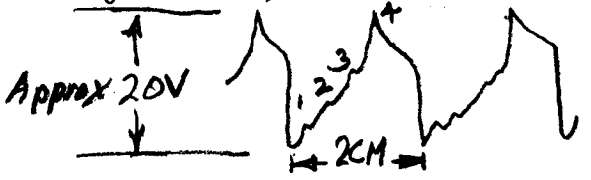
A. Connect counter on Pin 1 of V6003.

B. Adjust Z6001 (accessible from rear) for 100 KC ±.01 cps.

IV. [redacted]STRON ADJUSTMENTS

A. Connect scope to Pin 2 of V6004.

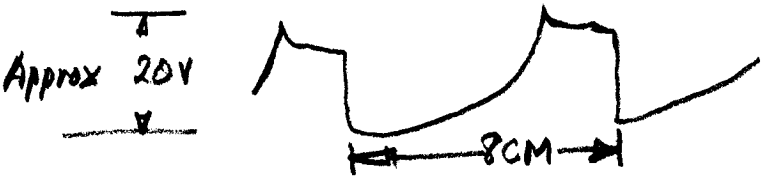
B. Adjust C6049 for a 4:1 division - waveshape shown below:



SCOPE SETTINGS:

1..20 u sec/CM
2. 5 V/CM

C. Connect scope to Pin 2 of V6005. Adjust C6050 for a 4:1 division - waveshape shown below:



Scope settings remain the same.

D. Connect scope and counter to Pin 7 of V6006. Counter should read 6250 cps. The scope should show a clean sine wave (approx. 10 p-p).

V. 250 KC ADJUSTMENT

A. Conn ct scope and count r to J6003 on rear panel.

B. **Peak T6001 for maximum. Lock nut.**

C. **Adjust C6002 for 250.000 KC ±.2 cps.**

D. **Adjust R6001 for 2.8V out (peak-to-peak).**

E. **Repeat steps C and D until conditions are met.**

VI. BALANCE ADJUSTMENT

A. Remove V6005 temporarily.

B. Connect scope to arm of R-6045.

C. Adjust balance pot (R-6045) for a symetrical wave shape. Lock pot after setting.

D. Replace V6005.

VII. 705 KC ADJUSTMENT

A. Connect scope to J6011 and counter to J6012.

B. Adjust C6010 for 705 KC ±.7 cps.

C. Adjust R-6014 for 2.8V out (peak-to-peak).

D. Repeat Steps B and C until conditions are met.

VIII. OUTBOARD CARRIERS ADJUSTMENTS

A. Connect scope to J6008 and counter to J6007. Adjust T6006 for 2.8V p-p. Lock nut. Counter should read 243.750KC ±.2 cps.

B. Connect scope to J6010 and counter to J6009. Adjust T6007 for 2.8V p-p. Lock nut. Counter should read 256.250KC ±.2 cps.

IX. FINAL CHECK

A. Using a scope, recheck all carriers for a clean sine wave. This indicates no modulation or mixing between carriers.

B. Touch up frequency adjustments on 250 KC, 705 KC, and 100 KC oscillators.

THE TECHNICAL MATERIEL CORPORATION
MAMARONECK, N.Y.

MCG-2I TEST DATA SHEET

SERIAL NO.:_____

MFG. NO.:_____

II. A. Mechanical Check_____OK

II. B, C, D. Wiring Check_____OK

100 KC ADJUSTMENT

III. B. KC Oscillator ±.01 cps_____KC

PHANTASTRON ADJUSTMENT

IV. B. Phantastron 4:1 division_____OK

IV. C. Phantastron 4:1 division_____OK

IV. D. Output 6250 cps_____CPS
Output clean sine wave_____OK

BALANCE ADJUSTMENT

VI. D. Balanced Mixer_____OK

250 KC ADJUSTMENT

V. C. 250.000 KC ±.2 cps_____KC

V. D. Output 2.8V ±5%_____V Peak-to-peak

705 KC ADJUSTMENT

VII. B. 705 KC ±.7 cps_____KC

VII. C. Output 2.8V ±5%_____V Peak-to-peak

OUTBOARD CARRIER ADJUSTMENT

VIII. A. 243.750 KC ±.2 cps_____KC

VIII. B. 256.250 KC ±.2 cps_____KC

Cont'd.....

MCG-2I TEST DATA SHEET- Cont'd fr. Page 5

FINAL CHECK

IX. A. Check for cross modulation or mixing of carriers _____ OK

IX. B. Check Frequency Adjustments:

100.00 KC osc. _____ KC
705 KC osc. _____ KC
250 KC osc. _____ KC

DATE: _____

TESTER: _____

REVISION SHEET	THE TECHNICAL MATERIEL CORP. MAMARONECK, NEW YORK	S 1167 LIST NO.

DATE	REV.	SHEET	EMN #	DESCRIPTION	APP.
12/29/66	Ø			ORIGINAL RELEASE FOR PRODUCTION	
2/8/67	A	ALL	17804	Revised per EMN	ae

TMC FORM MLR-1 2-65—AINS.