REV NO.

278A3008

CONT ON SHEET 2 SH NO. 1

TITLE

TEST SPECIFICATIONS

FIRST MADE FOR 44C372635-G01

REVISIONS

ACTIVE FOR G1

BY JJC DATE 3-8-95

STANDING INSTRUCTIONS

For

Test Oscillator

PRINTED CIRCUIT BOARD

44C372635-G01

Distribution:

1 QC Test
1 QC Engr.
1 Engr.

3EL1
4QA3
1RA2
4EK1
DL13

PRINTS TO

MADE BY R.K.Gerlitz 790606

ISSUED 6/7/79

APPROVALS WLL

Drive Systems DIV OR DEPT.

Salem, Va. LOCATION

278A3008

CONT ON SHEET 2 SH NO. 1

CODE IDENT NO.

TITLE

278A3008 CONT ON SHEET 3 SH NO. 2

TEST SPECIFICATIONS

FIRST MADE FOR 44C372635-G01

REVISIONS

I. Test Equipment Required

A. Printed Circuit Board Test Stand 44C931365.

B. Adaptor - Amp. Mod. II 30 Pin.

C. Cable - Power Supply.

D. Patchboard PB-7.

E. Drawings
44C931365	Test Fixture
44C372635	Assembly
44C309572	Elementary
MI 217000 V-62 CMOS applies (2)	

II. Connections

A. Connect the Amp. Mod. II adaptor to "PL-1" on the Universal Tester. (U.T.)

B. Connect the power supply cable to "PL-3" on the U.T. and to the D.C. power supplies per lead markings.

C. Connect a D.C. digital voltmeter to "BJ-1" on the U.T.

(1) ~~D. Connect Baffco set for sine output to "BJ-11". Set for 30 ± 0.1 Hz.~~

(1) D. ~~E.~~ Connect AC digital true RMS voltmeter to "BJ-10".

III. Resistance Check

Visual

50R	4.99K (ohms)	46R	10K (ohms)
54R	4.22K	42R	10K
71R	3.32K	36R	3.3K
61R	20K	39R	10K
35R	33K	25R	20K

3EL1
4QA3
1RA2
4EK1
DL13

PRINTS TO

MADE BY R.K.Gerlitz 790606

ISSUED 6/7/79

APPROVALS W22

Drive Systems DIV OR DEPT.

Salem, Va. LOCATION

278A3008 CONT ON SHEET 3 SH NO. 2

CODE IDENT NO.

FF-803 WF (11-77) PRINTED IN U.S.A.

TITLE

TEST SPECIFICATIONS

2 7 8 A 3 0 0 8
CONT ON SHEET 4 SH NO. 3

FIRST MADE FOR 44C372635-G01

REVISIONS

IV. Setup

A. Turn all switches to OFF or Normal on both the U.T. and Universal Power Supply (U.P.S.).

B. Turn all DC power supplies to zero.
Turn all variacs on the U.P.S. to zero.

C. Apply power to test stand.

D. Install PB-7 into receiver of U.T. and close.

E. Connect 1%/100% jumper (1TB) on B.U.T. to Ter. 2-3 (100%).

F. Install board under test (B.U.T.) into amp. mod. II adaptor.

V. Electrical Test

1. Close "SW-1".
Depress "LPB-1"
Adjust PS-1 to 24 ± 0.1 VDC at "BJ-1".

NOTE: Should it become necessary to remove all DC power, open "SW-1".

2. Depress "LPB-2".
Adjust PS-2 to 15 ± 0.1 VDC at "BJ-1".

3. Depress "LPB-3".
Adjust PS-3 to - 15 ± 0.1 VDC at "BJ-1".

4. Measure the DC voltage 3Z (+) to 1TP (-) = 11 ± 0.75 VDC
4Z (-) to 1TP (+) = 11 ± 0.75 VDC

measure the frequency 16TP to 1TP (using the universal counter) = 10,000 ± 10 Hz.

3EL1
4QA3
1RA2
4EK1
DL13

PRINTS TO

TITLE

278A3008
CONT ON SHEET 5 SH NO. 4

TEST SPECIFICATIONS

FIRST MADE FOR 44C372635-G01

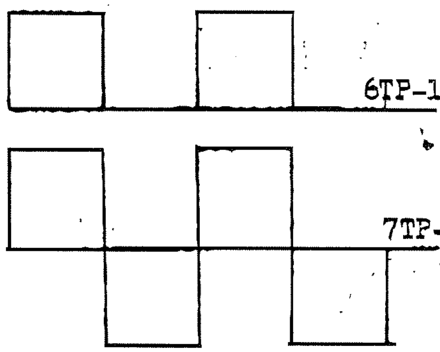
REVISIONS

5. On the PC Board adjust 1SW to Pos. 2 Hundreds
2SW to Pos. 5
3SW to Pos. 0

Measure the frequency 6TP to 1TP
shall be value of step 4 ÷ 500 ± 0.01 Hz ~~500ms~~

20 hz → 50m

6. Using the Oscilloscope the wave form shall be as follows with
50 ± 1% duty cycle.



6TP-1TP 10.5 ± 0.5 V_p

7TP-1TP 9.5 ± 0.5 V_p

-9.5 ± 0.5 V_p

7. Adjust 1P — 11TP to 1TP (V_p) RMS

CW	8.3 ± 0.3 (5.86 RMS ±.25)
CCW	10.2 ± 0.3 (7.21 ±.25)
Set	9.0 ± 0.5 [6.36 ~~6.7 rms~~] (±.35)

8. The wave form 10TP to 1TP and 11TP to 1TP shall be sinusoidal.
10TP shall lag 11TP by 90° ± 4°.

9. Connect 1TB jumper for 1% range (Ter. 1-2)
Place "RS1" to position 3. PIN 29 TO 4 — why connect meter to BJ10 then use scope?
Adjust 2P on the PC Board for zero output at "BJ-10". (use scope)
Place 5SW on the PC Board to 4800 position.
Adjust 4P for 10 ± 0.005 VDC 12TP (+) to 1TP (-).
Adjust 5P for 10,000 ± 10 Hz 13TP to 1TP. (use counter)

3EL1
4QA3
1RA2
4EK1
DL13

.35

.707 8.3
.707 9 7.21 5.656 5.687
6.363
.707 .5 .353

PRINTS TO

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ISSUED 6/7/79
APPROVALS WLL
Drive Systems DIV OR DEPT.
Salem, Va. LOCATION

TITLE

2 7 8 A 3 0 0 8
CONT ON SHEET 6 SH NO. 5

TEST SPECIFICATIONS
FIRST MADE FOR 44C372635-G01

REVISIONS

10. Place "RS1" to position 8.
Adjust 4P for 9.6 ± 0.005 VDC 12TP (+) to 1TP (-).
Frequency 13TP to 1TP shall be 9600 ± 10 Hz. (use counter).
PIN 13 ← "BJ-10" = 0 volts (use scope)
2TP to 1TP = 0 volts (use scope)

11. Place 5SW on the PC Board to 3600 position.
Adjust 3P for 7200 ± 10 Hz 13TP to 1TP. (use counter).

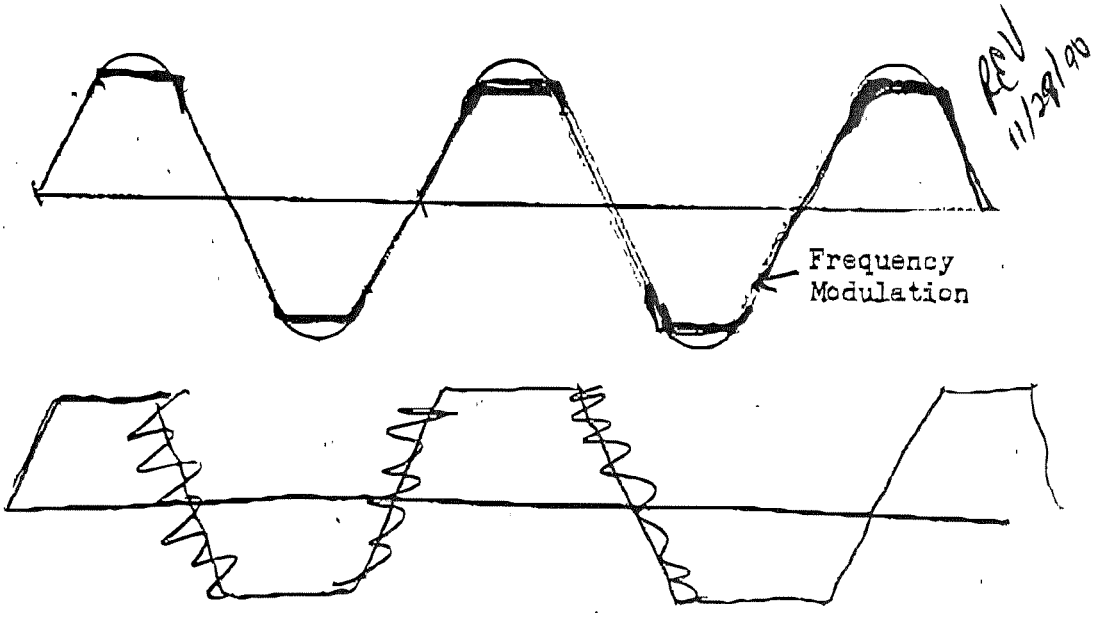
12. Place "SW-17" down. Connects PIN 11 to PIN 7
"BJ-10" = 0 volts
Place ON/OFF sw. on the PC Board to ON.
PIN 13 → "BJ-10" = 3600 ± 5 Hz
50 ± 1% duty cycle
9.5 ± 0.5 V_p

SYMETRICAL WAVE SHAPE
+9.5V
-0-
-9.5V

FM Jack (+) to 1TP (-) = 0 ± 0.1 VDC

13. Adjust 2P on the PC Board for ~~90 ± 2 MV~~ peak
2TP (FM) to 1TP. (use scope) 95 ± 10 MV.

14. Observe out test jack with scope.
Shall be frequency modulated



3EL1
4QA3
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PRINTS TO

MADE BY R.K.Gerlitz 790606
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2 7 8 A 3 0 0 8
CONT ON SHEET 6 SH NO. 5
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FF-803 WF (11-77)
PRINTED IN U.S.A.

15. On the PC Board Set 1SW to 5
2SW to 0
3SW to 0

11TP to 1TP and 2TP to 1TP shall be a clean sinusoidial wave form of 10 ± 0.1 Hz. 2TP to 1TP much lower Amplitude (95 mV)

16. On the PC Board Set 1SW to 1
2SW to 0
3SW to 0

11TP to 1TP shall now be 50 ± 0.2 Hz.

17. While monitoring 11TP to 1TP perform the following switch functions.
SWitch Function

1SW	2SW	3SW	11TP to 1TP (freq.)
2	0	0 —— .0400 ~~.0012~~	25 ± 0.2
3	0	0 —— ~~.0600~~	~~16.67~~ ± 0.2 each
4	0	0 —— .0600 ±.001	12.~~50~~ ± 0.15 reading
4	1	0 —— .0820	12.20 ± 0.15 must be
4	2	0 —— .0840	11.9 ± 0.15 lower than
4	3	0 —— .0859	11.63 ± 0.15 previous
4	4	0 —— .0880 ±.001	11.36 ± 0.1 reading
4	5	0 —— .0900	11.11 ± 0.1
4	5	1 —— .0902	11.086 ± 0.1
4	5	2 —— .0903	11.062 ± 0.1
4	5	3 —— .0906	11.037 ± 0.1
4	5	4 —— .0908	11.013 ± 0.1
? 4	5	5 —— .0910	10.~~99~~ ± 0.1

10/12/81

PERIOD READINGS IN SECONDS
(.0400 = 40 ms PERIOD)

18. Open "SW-1". Then open or return to normal all remaining switches. Turn all power supplies to Zero.

.0900
.0990
.0810
.0820

3EL1
4QA3
1RA2
4EK1
DL13
PRINTS TO