DOCUMENT RESUME

ED 115 879   CE 005 717

TITLE   Fall Department Head Report--Reporting Booklet 2.0 to
                 the Massachusetts Division of Occupational Education
                 (Fiscal Year Ending June 30, 1975) for Electronics
                 Program.
INSTITUTION   Management and Information System for Occupational
                 Education, Winchester, Mass.
SPONS AGENCY   Massachusetts State Dept. of Education, Boston. Div.
                 of Occupational Education.
PUB DATE   30 Jun 75
NOTE   204p.; For related documents, see ED 062 553; ED 068
                 646-647; ED 072 225; ED 072 228; ED 072 303-304; CE
                 005 687-727; Instructions for completing the booklet
                 are available in CE 005 701

EDRS PRICE   MF-$0.76 HC-$10.78 Plus Postage
DESCRIPTORS   Annual Reports; Census Figures; Data Collection;
                 Demonstration Projects; *Educational Objectives;
                 *Electronics; Job Skills; *Management Information
                 Systems; Program Design; Program Evaluation; *Records
                 (Forms); State Programs; Trade and Industrial
                 Education; *Vocational Education
IDENTIFIERS   Census Data System; *Management Information System
                 Occupational Educa; MISOE; Terminal Performance
                 Objectives; TERMOBS

ABSTRACT
                 The reporting booklet is required for the Census Data
System (CDS) of the Management Information System for Occupational
Education (MISOE); it contains the reporting forms which collect data
that describe program structure and job-entry skill outcomes expected
of program completors in the individual occupational education area
of electronics. Utilization of instructional area is also determined.
This booklet contains the terminal performance objectives (TERMOBS)
for this program area. They are actually the forms by which the
skills of program completors are reported by department heads. CDS,
one of two major subsystems of the integrated management information
system, was developed to provide occupational education managers with
comprehensive data on which to base rational management decisions.
Essentially, CDS contains descriptive information systematically
structured in a manner which allows it to be used as a basis for
sampling evaluative research studies. CDS collects and stores census
data for all school systems offering occupational education programs,
including all data formerly collected by the Annual Federal Report
for Occupational Information, except followup data. (Author/AJ)

Miso. Number	Due Date

Name of School System	System ID No.

Name of School	School ID No.

Name of Preparer of Report	Title	Telephone No.

Name of Department or Instructional Area

THE COMMONWEALTH OF MASSACHUSETTS

DEPARTMENT OF EDUCATION

FALL DEPARTMENT HEAD REPORT-REPORTING BOOKLET 2.0

to the

DIVISION OF OCCUPATIONAL EDUCATION
(Fiscal Year Ending June 30, 1975)

for

ELECTRONICS PROGRAM

Before filing said statement, the superintendent shall submit it to the chair-
man of the school committee, who shall countersign it on oath, If, after ex-
amination, he finds it correct.
(General Laws Relating to Education 1970: Chapter 72, Sec. 2A, Item 4, and
Sec. 3, Item 2)

I hereby certify that all the statements contained in this report are true to
the best of my knowledge and belief, and that this is a true statement, made
under the penalties of perjury.

THE COMMONWEALTH OF MASSACHUSETTS

DEPARTMENT OF EDUCATION

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the best of my knowledge and belief, and that this is a true statement, made
under the penalties of perjury.

_____   _____
      (Date)   Superintendent of Schools

_____   _____
      (Date)   Chairman of School Committee

TABLE OF CONTENTS

REPORTING TERMINAL PERFORMANCE OBJECTIVES (TERMOBs)

TERMOBs

Table 2.1 Enrollment in Final Grade by Student Group & Terminal Objectives (TERMOB)

		1	2		3	
1.	Grade		0			
2.	Student Group Name and Number		101		102	
3.	USOE Code(s)					
4.	Level Code					
5.	Type Code					
6.	Session Code					
7.	Program Length (Years)		<1 1 2 3 4		<1 1 2 3 4	
8.	Cooperative		Yes No		Yes No	
9.	Workstudy		Yes No		Yes No	
10.	Exploratory		Yes No		Yes No	
11.	Instructors and Teacher's Aides					
	A. Full Time					
	B. Percentage of Time					
12.	Enrollment		Male	Female	Male	Female

TERMOB Applicability

13. TERMOB Numbers										

4.	Level Code		
5.	Type Code		
6.	Session Code		
7.	Program Length (Years)	<1 1 2 3 4	<1 1 2 3 4
8.	Cooperative	Yes No	Yes No
9.	Workstudy	Yes No	Yes No
10.	Exploratory	Yes No	Yes No
11.	Instructors and Teacher's Aides		
	A. Full Time		
	B. Percentage of Time		

12.	Enrollment	Male	Female	Male	Female

TERMOB Applicability

13. TERMOB Numbers								

6

2

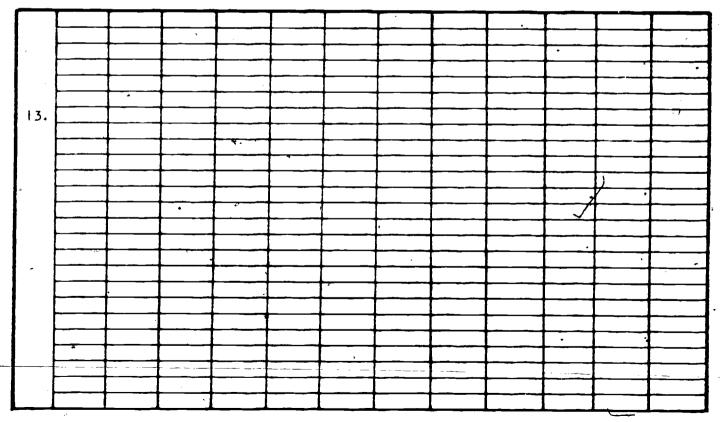Table 2.1 (Cont'd) Enrollment in Final Grade by Student Group

	4	5	6
1.			
2.	103	104	105
3.			
4.			
5.			
6.			
7.	< 1 2 3 4	< 1 2 3 4	< 1 2 3 4
8.	Yes No	Yes No	Yes No
9.	Yes No	Yes No	Yes No
10.	Yes No	Yes No	Yes No
11.			
12.	Male Female	Male Female	Male Female

TERMOB Applicability

13.											

4.			
5.			
6.			
7.	<1 1 2 3 4	<1 1 2 3 4	<1 1 2 3 4
8.	Yes No	Yes No	Yes No
9.	Yes No	Yes No	Yes No
10.	Yes No	Yes No	Yes No
11.			
12.	Male Female	Male Female	Male Female

TERMOB Applicability

13.

8 3

Table 2.1 Enrollment in Final Grade by Student Group & Terminal Objective (TERMOB)

		7	8	9
1.	Grade			
2.	Student Group Name and Number		106	107
3.	USOE Code(s)			
4.	Level Code			
5.	Type Code			
6.	Session Code			
7.	Program Length (Years)		<1 1 2 3 4	<1 1 2 3 4
8.	Cooperative		Yes No	Yes No
9.	Workstudy		Yes No	Yes No
10.	Exploratory		Yes No	Yes No
11.	Instructors and Teacher's Aides			
	A. Full Time			
	B. Percentage of Time			
12.	Enrollment		Male	Female	Male	Female

TERMOB Applicability

13. TERMOB Numbers								

4.	Level Code		
5.	Type Code		
6.	Session Code		
7.	Program Length (Years)	<1 1 2 3 4	<1 1 2 3 4
8.	Cooperative	Yes No	Yes No
9.	Workstudy	Yes No	Yes No
10.	Exploratory	Yes No	Yes No
11.	Instructors and Teacher's-Aides		
	A. Full Time		
	B. Percentage of Time		
12.	Enrollment	Male Female	Male Female

TERMOB Applicability

13.	TERMOB Numbers	

Misoe Number

Table 2.1 (Cont'd) Enrollment in Final Grade by Student Group
and Terminal Objectives (TERMOBS)

	10	11	12
1.			
2.			
3.	108	109	110
4.			
5.			
6.			
7.	<1　1　2　3　4	<1　1　2　3　4	<1　1　2　3　4
8.	Yes　　No	Yes　　No	Yes　　No
9.	Yes　　No	Yes　　No	Yes　　No
10.	Yes　　No	Yes　　No	Yes　　No
11.			
12.	Male　　Female	Male　　Female	Male　　Female

TERMOB Applicability

13.			

4.					
5.					
6.					
7.	<1 1 2 3 4	<1 1 2 3 4	<1 1 2 3 4
8.	Yes No	Yes No	Yes No
9.	Yes No	Yes No	Yes No
10.	Yes No	Yes No	Yes No
11.			
12.	Male Female	Male Female	Male Female

TERMOB Applicability

13.

Table 2.11 Enrollment in Lower Grades by Student Group

Misoe Number

	2		3		4		5		6	
	201		202		203		204		205	
	1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4		1 2 3 4	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female

Table 2.11 Enrollment in Lower Grades by Student Group

	1	2	3	4	5
1. Grade		201	202	203	204
2. Student Group Name and Number					
3. USOE Code(s)					
4. LEVEL Code					
5. Type Code					
6. Session Code					
7. Program Length (Years)	<1 1 2 3 4	<1 1 2 3 4	<1 1 2 3 4	<1 1 2 3 4	
8. Cooperative	Yes No	Yes No	Yes No	Yes No	
9. Workstudy	Yes No	Yes No	Yes No	Yes No	
10. Exploratory	Yes No	Yes No	Yes No	Yes No	
11. Instructors and Teacher's Aides					
A. Full Time	Male Female	Male Female	Male Female	Male Female	
B. Percentage of Time					
12. Enrollment	Male Female			Male Female	

Table 2.11 (Cont'd) Enrollment in Lower Grades by Student Group

Misoe Number

	8	9	10	11	13
	206	207	208	209	210

	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Yes No	Yes No	Yes No	Yes No	Yes No	Yes No
Yes No	Yes No	Yes No	Yes No	Yes No	Yes No
Yes No	Yes No	Yes No	Yes No	Yes No	Yes No

Male Female | Male Female | Male Female | Male Female | Male Female | Male Female

Table 2.11 (Cont'd) Enrollment in Lower Grades by Student Group

		206	207	208	209
1.	Grade				
2.	Student Group Name and Number	206	207	208	209
3.	USOE Code(s)				
4.	Level Code				
5.	Type Code				
6.	Session Code				
7.	Program Length (Years)	<1 1 2 3 4	<1 1 2 3 4	<1 1 2 3 4	<1 1 2 3 4
8.	Cooperative	Yes No	Yes No	Yes No	Yes No
9.	Workstudy	Yes No	Yes No	Yes No	Yes No
10.	Exploratory	Yes No	Yes No	Yes No	Yes No
11.	Instructors and Teacher's Aides	Male Female	Male Female	Male Female	Male Female
	A. Full Time				
	B. Percentage of Time				
12.	Enrollment	Male Female	Male Female	Male Female	Male Female

7   16

Table 2.11 · Enrollment in Lower Grades by Student Group (Cont'd)

	14	15	16	17	18
	211	212	213	214	215

(ears)	<1	1	2	3	4
	Yes	Yes		No	
	Yes	Yes		No	
	Yes	Yes		No	

	Male		Female		

(columns: Male / Female repeated for each group; rows labeled "Time" and "of Time")

Table 2.11 Enrollment in Lower Grades by Student Group (Cont'd)

		13	14	15	16	17
1.	Grade					
2.	Student Group Name and Number		211	212	213	214
3.	USOE Code(s)					
4.	Level Code					
5.	Type Code					
6.	Session Code					
7.	Program Length (Years)		<1 1 2 3 4	<1 1 2 3 4	<1 1 2 3 4	<1 1 2 3 4
8.	Cooperative		Yes No	Yes No	Yes No	Yes No
9.	Workstudy		Yes No	Yes No	Yes No	Yes No
10.	Exploratory		Yes No	Yes No	Yes No	Yes No
11.	Instructors and Teacher's Aides — A. Full Time / B. Percentage of Time	Male Female	Male Female	Male Female	Male Female	Male Female
12.	Enrollment	Male Female	Male Female	Male Female	Male Female	Male Female

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Table 2.11 Enrollment in Lower Grades by Student Group (Cont'd)

Misoe Number

	20	21	22	23	24
	216	217	218	219	220
(ears)	<1 1 2 3 4	<1 1 2 3 4	<1 1 2 3 4	<1 1 2 3 4	<1 1 2 3 4
	Yes No	Yes No	Yes No	Yes No	Yes No
	Yes No	Yes No	Yes No	Yes No	Yes No
	Yes No	Yes No	Yes No	Yes No	Yes No
	Male Female	Male Female	Male Female	Male Female	Male Female
Time					
f Time					

Table 2.11 Enrollment in Lower Grades by Student Group (Cont'd)

	19	20	21	22	23
1. Grade	19	20	21	22	23
2. Student Group Name and Number		216	217	218	219
3. USOE Code(s)					
4. Level Code					
5. Type Code					
6. Session Code					
7. Program Length (Years)		<1 1 2 3 4	<1 1 2 3 4	<1 1 2 3 4	<1 1 2 3 4
8. Cooperative		Yes No	Yes No	Yes No	Yes No
9. Workstudy		Yes No	Yes No	Yes No	Yes No
10. Exploratory		Yes No	Yes No	Yes No	Yes No
11. Instructors and Teacher's Aides					
A. Full Time					
B. Percentage of Time		Male Female	Male Female	Male Female	Male Female
12. Enrollment		Male Female	Male Female	Male Female	Male Female

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Table 2.2 Utilization of Student Class Time: Final Grade

MIsoe Number

2	3	4	5	6	7	8	9	10	11
101	102	103	104	105	106	107	108	109	110

eas

Ion

Table 2.2 Utilization of Student Class Time: Final Grade

	2	3	4	5	6	7	8	9
1. Student Group Number	101	102	103	104	105	106	107	108
2. Grade								
3. USOE Code(s)								
4. In Occupational Shop/Lab Area(s)								
5. In Occupational Related Area(s)								
6. Total Occupational Time (Lines 4 + 5)								
7. In Nonoccupational Areas								
8. Total All Areas (Lines 6 + 7)								
9. Length of Grade Session (weeks)								
10. Schedule Variation								
11. Additional Notes Necessary to Explain Lines 4 through 10								

Table 2.2 Utilization of Student Class Time (Cont'd): Final Grade

Misoe Number

	13	14	15	16	17	18	19	20	21	22
	111	112	113	114	115	116	117	118	119	120

Table 2.2 Utilization of Student Class Time (Cont'd): Final Grade

	11	12	13	14	15	16	17	18	19	20
	111	112	113	114	115	116	117	118		
1. Student Group Number										
2. Grade										
3. USOE COde(s)										
4. In Occupational Shop/Lab Area(s)										
5. In Occupational Related Area(s)										
6. Total Occupational Time (Lines 4+ 5)										
7. In Nonoccupational Areas										
8. Total All Areas (Lines 6 + 7)										
9. Length of Grade Session (weeks)										
10. Schedule Variation										
11. Additional Notes Necessary to Explain Lines 4 through 10										

Table 2.21 Utilization of Student Class Time: Lower Grade

MIsoe Number

	201	202	203	204	205	206	207	208	209	2.0
	2	3	4	5	6	7	8	9	10	11
eas										
on										

Table 2.21 Utilization of Student Class Time: Lower Grade

	2	3	4	5	6	7	8	9
1. Student Group Number	201	202	203	204	205	206	207	208
2. Grade								
3. USOE Code(s)								
4. In Occupational Shop/Lab Area(s)								
5. In Occupational Related Area(s)								
6. Total Occupational Time (Lines 4 + 5)								
7. In Nonoccupational Areas								
8. Total All Areas (Lines 6 + 7)								
9. Length of Grade Session (Weeks)								
10. Schedule Variation								
11. Additional Notes Necessary to Explain Lines 4 through 10								

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Table 2.21 (Cont'd) Utilization of Student Class Time: Lower Grade

Misoe Number

13	14	15	16	17	18	19	20	21	22
211	212	213	214	215	216	217	218	219	220

Table 2.21 (Cont'd) Utilization of Student Class Time: Lower Grade

12	13	14	15	16	17	18	19	20
1. Student Group Number	211	212	213	214	215	216	217	218
2. Grade								
3. USOE Code(s)								
4. In Occupational Shop/Lab Area(s)								
5. In Occupational Related Area(s)								
6. Total Occupational Time (Lines 4 + 5)								
7. In Nonoccupational Areas								
8. Total All Areas (Lines 6 + 7)								
9. Length of Grade Session (Weeks)								
10. Schedule Variation								
11. Additional Notes Necessary to Explain Lines 4 through 10								

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Table 2.3 Utilization of Departmental Instructional Area by Rooms

Check Applicable Program Schedule

1. a. [ ] Weekly   2. a. [ ] Semester Schedule Change
   b. [ ] Alternating   b. [ ] No Semester Schedule Change
   c. [ ] Variable

1	2	3 Morning 7:00 a.m.-12:00N		4 Afternoon 12:00N-6:00 p.m.		5 Evening 6:00 p.m.-11:00 p.m.	
Room No. or Name	Day of the Week	No. of Hrs.Used	No. of Stud. Hrs.	No. of Hrs. Used	No. of Stud. Hrs.	No. of Hrs. Used	No. of Stud. Hrs.
1A	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
2A	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
3A	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
4A	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
5A	Mon.						
	Tues.						

Room No. or Name	Day of the Week	Morning 7:00 a.m.-12:00N		Afternoon 12:00N-6:00 p.m.		Evening 6:00 p.m.-11:00 p.m.	
		No. of Hrs.Used	No. of Stud. Hrs.	No. of Hrs. Used	No. of Stud. Hrs.	No. of Hrs. Used	No. of Stud. Hrs.

WEEKLY OR SCHEDULE A

1	2	3		4		5	
1A	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
2A	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
3A	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
4A	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
5A	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							

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Table 2.3 (Cont'd) Utilization of Departmental Instructional Area by Rooms

Check Applicable Program Schedule

1. a. [ ] Weekly   2. a. [ ] Semester Schedule Change
    b. [ ] Alternating   b. [ ] No Semester Schedule Change
    c. [ ] Variable

		WEEKLY OR SCHEDULE B					
6	7	8		9		10	
Room No. or Name	Day of the Week	Morning 7:00 a.m.-12:00N		Afternoon 12:00N-6:00 p.m.		Evening 6:00 p.m.-11:00 p.m.	
		No. of Hrs.Used	No. of Stud. Hrs.	No. of Hrs. Used	No. of Stud. Hrs.	No. of Hrs. Used	No. of Stud. Hrs.
1 B	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
2 B	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
3 B	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
4 B	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
5 B	Mon.						

c. [ ] Variable

		WEEKLY OR SCHEDULE B					
5	7	8		9		10	
Room No. or Name	Day of the Week	Morning 7:00 a.m.-12:00N		Afternoon 12:00N-6:00 p.m.		Evening 6:00 p.m.-11:00 p.m.	
		No. of Hrs.Used	No. of Stud. Hrs.	No. of Hrs. Used	No. of Stud. Hrs.	No. of Hrs. Used	No. of Stud. Hrs.
1 B	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
2 B	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
3 B	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
4 B	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
5 B	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							

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Misoe Number

Table 2.5 (Cont'd) Utilization of Departmental Instructional Area by Room

Check Applicable Program Schedule

1. a. [ ] Weekly   2. a. [ ] Semester Schedule Change
    b. [ ] Alternating   b. [ ] No Semester Schedule Change
    c. [ ] Variable

		WEEKLY OR SCHEDULE A					
11	12	13		14		15	
Room No. or Name	Day of the Week	Morning 7:00 a.m.-12:00N		Afternoon 12:00N-6:00 p.m.		Evening 6:00 p.m.-11:00 p.m.	
		No. of Hrs.Used	No. of Stud. Hrs.	No. of Hrs. Used	No. of Stud. Hrs.	No. of Hrs. Used	No. of Stud. Hrs.
6A	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
7A	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
8A	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
9A	Mon						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
	Mon.						

b. [ ] Alternating
c. [ ] Variable

		WEEKLY OR SCHEDULE A					
11	12	13		14		15	
Room	Day	Morning		Afternoon		Evening	
No. or	of the	7:00 a.m.-12:00N		12:00N-6:00 p.m.		6:00 p.m.-11:00 p.m.	
		No. of Hrs.Used	No. of Stud. Hrs.	No. of Hrs. Used	No. of Stud. Hrs.	No. of Hrs. Used	No. of Stud. Hrs.
Name	Week						
6A	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
7A	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
8A	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
9A	Mon						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
10A	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							

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Table 2.3 (Cont'd) Utilization of Departmental Instructional Area by Room

Check Applicable Program Schedule

1. a. [ ] Weekly
    b. [ ] Alternating
    c. [ ] Variable

2. a. [ ] Semester Schedule Change
    b. [ ] No Semester Schedule Change

16	17	18		19		20	
		WEEKLY OR SCHEDULE B					
Room No. or Name	Day of the Week	Morning 7:00 a.m.-12:00N		Afternoon 12:00N-6:00 p.m.		Evening 6:00 p.m.-11:00 p.m.	
		No. of Hrs.Used	No. of Stud. Hrs.	No. of Hrs. Used	No. of Stud. Hrs.	No. of Hrs. Used	No. of Stud. Hrs.
6B	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
7B	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
8B	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
9B	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
10B	Mon.						

16	17	18		19		20	
		Morning		Afternoon		Evening	
Room	Day	7:00 a.m.-12:00N		12:00N-6:00 p.m.		6:00 p.m.-11:00 p.m.	
No. or	of the	No. of	No. of	No. of	No. of	No. of	No. of
Name	Week	Hrs. Used	Stud. Hrs.	Hrs. Used	Stud. Hrs.	Hrs. Used	Stud. Hrs.
6B	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
7B	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
8B	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
9B	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
10B	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							

WEEKLY OR SCHEDULE B

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Table 2.3 (Cont'd) Utilization of Departmental Instructional Area by Room

Check Applicable Program Schedule

1. a. [ ] Weekly
   b. [ ] Alternating
   c. [ ] Variable

2. a. [ ] Semester Schedule Change
   b. [ ] No Semester Schedule Change

		WEEKLY OR SCHEDULE A					
21	22	23		24		25	
Room No. or Name	Day of the Week	Morning 7:00 a.m.-12:00N		Afternoon 12:00N-6:00 p.m.		Evening 6:00 p.m.-11:00 p.m.	
		No. of Hrs.Used	No. of Stud. Hrs.	No. of Hrs. Used	No. of Stud. Hrs.	No. of Hrs. Used	No. of Stud. Hrs.
11A	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
12A	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
13A	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
14A	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
15A	Mon.						
	Tues.						

WEEKLY OR SCHEDULE A						
21	22	23		24		25
Room No. or Name	Day of the Week	Morning 7:00 a.m.-12:00N		Afternoon 12:00N-6:00 p.m.		Evening 6:00 p.m.-11:00 p.m.
		No. of Hrs. Used	No. of Stud. Hrs.	No. of Hrs. Used	No. of Stud. Hrs.	No. of Hrs. Used	No. of Stud. Hrs.
11A	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
12A	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
13A	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
14A	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
15A	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							

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Table 2.5 (Cont'd) Utilization of Departmental Instructional Area by Room

Check Applicable Program Schedule

1. a. [ ] Weekly   2. a. [ ] Semester Schedule Change
   b. [ ] Alternating   b. [ ] No Semester Schedule Change
   c. [ ] Variable

WEEKLY OR SCHEDULE B						
26	27	28		29		30
Room	Day	Morning		Afternoon		Evening
No. or	of the	7:00 a.m.-12:00N		12:00N-6:00 p.m.		6:00 p.m.-11:00 p.m.
Name	Week	No. of Hrs.Used	No. of Stud. Hrs.	No. of Hrs. Used	No. of Stud. Hrs.	No. of Hrs. Used	No. of Stud. Hrs.
11B	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
12B	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
13B	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
14B	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TALS							
15B	Mon.						

c. [ ] Variable

		WEEKLY OR SCHEDULE B					
26	27	28		29		30	
Room	Day	Morning		Afternoon		Evening	
No. or	of the	7:00 a.m.-12:00N		12:00N-6:00 p.m.		6:00 p.m.-11:00 p.m.	
Name	Week	No. of Hrs.Used	No. of Stud. Hrs.	No. of Hrs. Used	No. of Stud. Hrs.	No. of Hrs. Used	No. of Stud. Hrs.
11B	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
12B	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
13B	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
14B	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
15B	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							

Misoe Number

Table 2.3 Utilization of Departmental Instructional Area By Room

Check Applicable Program Schedule

1. a. [ ] Weekly   2. a. [ ] Semester Schedule Change
   b. [ ] Alternating   b. [ ] No Semester Schedule Change
   c. [ ] Variable

		WEEKLY OR SCHEDULE A					
31	32	33		34		35	
Room	Day	Morning		Afternoon		Evening	
No.or	of the	7:00 a.m.-12:00N		12:00N-6:00 p.m.		6:00 P.M.-11:00 p.m.	
Name	Week	No. of Hrs.Used	No. of Stud. Hrs.	No. of Hrs. Used	No. of Stud. Hrs.	No. of Hrs. Used	No. of Stud. Hrs.
16A	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
17A	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
18A	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
19A	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						

1. a. [ ] Weekly   2. a. [ ] Semester Schedule Change
   b. [ ] Alternating   b. [ ] No Semester Schedule Change
   c. [ ] Variable

WEEKLY OR SCHEDULE A

31	32	33		34		35	
Room No. or Name	Day of the Week	Morning 7:00 a.m.-12:00N		Afternoon 12:00N-6:00 p.m.		Evening 6:00 P.M.-11:00 p.m.	
		No. of Hrs. Used	No. of Stud. Hrs.	No. of Hrs. Used	No. of Stud. Hrs.	No. of Hrs. Used	No. of Stud. Hrs.
15A	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
17A	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
18A	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
19A	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
20A	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							

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Table 2.5 (Cont'd) Utilization of Departmental Instructional Area by Room

Check Applicaboe Program Schedule

1. a. [ ] Weekly   2. a. [ ] Semester Schedule Change
    b. [ ] Alternating   b. [ ] No Semester Schedule Change
    c. [ ] Variable

		WEEKLY OR SCHEDULE B					
36	37	38		39		40	
Room No.or Name	Day of the Week	Morning 7:00 a.m.-12:00N		Afternoon 12:00N-6:00 p.m.		Evening 6:00 p.m.-11:00 p.m.	
		No. of Hrs.Used	No. of Stud. Hrs	No. of Hrs. Used	No. of Stud. Hrs.	No. of Hrs. Used	No. of Stud. Hrs.
16B	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
17B	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
18B	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
19B	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
20B	Mon.						
	Tues.						
	Wed.						

WEEKLY OR SCHEDULE B

36 Room No. or Name	37 Day of the Week	38 Morning 7:00 a.m.-12:00N		39 Afternoon 12:00N-6:00 p.m.		40 Evening 6:00 p.m.-11:00 p.m.	
		No. of Hrs.Used	No. of Stud. Hrs	No. of Hrs. Used	No. of Stud. Hrs.	No. of Hrs. Used	No. of Stud. Hrs.
16B	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
17B	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
18B	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							
19B	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C.	Sat.						
TOTALS							
20B	Mon.						
	Tues.						
	Wed.						
	Thurs.						
	Fri.						
LS C	Sat.						
TOTALS							

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REPORTING TERMINAL PERFORMANCE OBJECTIVES (TERMOBS)

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TABLE T-1 - INSTRUCTIONAL DIVISION AND UNIT OUTLINE

ELECTRONICS PROGRAM

DOES THIS OUTLINE CONTAIN ALL OF THE INSTRUCTIONAL CONTENT OF YOUR
PROGRAM? YES_____ NO_____

CODE	DIVISION	CODE	UNIT
01	PASSIVE CIRCUITS-DC	01	INTRODUCTION TO ELECTRICITY
		02	ATOMIC STRUCTURE
		03	STATIC ELECTRICITY
		04	ELECTRICAL TERMS AND UNITS
		05	BATTERIES AND CELLS
		06	SERIES CIRCUITS
		07	PARALLEL CIRCUITS
		08	COMPLEX NETWORK CIRCUITS
		09	OHM'S LAWS
		10	FIRCHOFF'S LAWS
		11	POWER
		12	OVERLOAD PROTECTION
		13	CONDUCTANCE
		14	MAGNETISM
		15	ELECTROMAGNETISM
		16	INDUCTANCE
		17	CAPACITANCE
		18	DC MOTORS
		19	DC GENERATORS
		20	BASIC METER CIRCUITS
		21	TEST EQUIPMENT
02	PASSIVE CIRCUITS-AC	01	AC CURRENT AND VOLTAGE
		02	AC GENERATORS
		03	AC MOTOR
		04	PHASE
		05	REACTANCE
		06	IMPEDANCE
		07	AC POWER
		08	TRANSFORMERS
		09	SERIES AC ANALYSIS
		10	PARALLEL AC ANALYSIS
		11	COMPLEX AC ANALYSIS
		12	RESONANCE
		13	BAND PASS AND BAND REJECT FILERS
		14	TIME CONSTANTS
		15	TEST EQUIPMENT
03	ACTIVE CIRCUITS	01	ACTIVE DEVICES
		02	AMPLIFIERS
		03	OSCILLATORS
		04	DETECTORS
		05	POWER SUPPLIES
		06	PULSE CIRCUITS
		07	INTEGRATED CIRCUITS
		08	TRANSDUCERS
		09	TEST EQUIPMENT
04	ELECTRONIC SYSTEMS	01	RECEIVERS
		02	TRANSMITTERS
		03	PHONOGRAPHS

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TABLE T-1 (CONT.) - INSTRUCTIONAL DIVISION AND UNIT OUTLINE

ELECTRONICS PROGRAM

CODE	DIVISION	CODE	UNIT
04	ELECTRONIC SYSTEMS (CONT.)	13	RADAR
		14	SONAR
		15	RADIO DIRECTION FINDER
		16	LORAN
		17	TEST EQUIPMENT
		18	MODULATION
		19	COMMUNICATION SYSTEM
05	SHOP PRACTICES	01	SOLDERING
		02	TOOLS
		03	MACHINES
		04	PRINTED CIRCUITS
		05	WIRING
		06	CABLING
		07	ELECTRONIC EQUIPMENT FABRICATION
		08	SPLICING
		09	DEPARTMENTAL OPERATION
		10	CHASSIS
		11	PREVENTIVE MAINTENANCE
		12	BASIC TROUBLESHOOTING TECHNIQUES
		13	ELECTRONIC DRAFTING

TABLE T-2 - TERMOB DIVISION AND UNIT OUTLINE

ELECTRONICS PROGRAM

DOES THIS OUTLINE CONTAIN ALL TOPICS IN WHICH GRADUATES ACQUIRE
JOB-ENTRY SKILLS?   YES_____   NO_____

CODE	DIVISION	CODE	UNIT
01	CIRCUIT CONSTRUCTION	01	CABLES
		02	CHASSIS WIRING AND ASSEMBLY
		03	PRINTED CIRCUIT BOARDS
		04	WIREWRAP
		05	WAVE GUIDE
02	CIRCUIT DESIGN	01	RECTIFIERS
		02	AMPLIFIERS
		03	OSCILLATORS
		04	SPECIAL CIRCUITS AND DEVICES
		05	DIGITAL CIRCUITS.
03	CIRCUIT CALIBRATION	01	METERS
		02	POWER SUPPLIES
		03	OSCILLOSCOPES
		04	OSCILLATORS AND FUNCTION GENERATORS
		05	SPECIAL INSTRUMENTATION
04	CIRCUIT TESTING	01	AMPLIFIERS
		02	RECTIFIERS
		03	OSCILLATORS
		04	SPECIAL CIRCUITS AND DEVICES
		05	DIGITAL CIRCUITS
05	CIRCUIT DIAGNOSIS	01	SUB ASSEMBLIES
		02	ASSEMBLY

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TERMINAL PERFORMANCE OBJECTIVES (TERMOBS)

and

REPORTING FORMS

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PROGRAM _____ ELECTRONICS _____   DIVISION 01 CIRCUIT CONSTRUCTION

UNIT   01 CABLES _____

TERMOB NO.   13-001

1.00 CONDITION

( ) 1.01 CABLE HARNESS LAYOUT PRINT
( ) 1.02 APPROPRIATE GAUGE WIRE
( ) 1.03 TERMINALS
( ) 1.04 JACKS AND CONNECTORS
( ) 1.05 TIE WRAPS
( ) 1.06 LACING
( ) 1.07 SLEEVING
( ) 1.08 NUMBERING TABS
( ) 1.09 CABLE BOARD
( ) 1.10 ASSOCIATED HARDWARE AS NEEDED
( ) 1.11 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)
( ) 1.12 HIGH VOLTAGE POWER SUPPLY

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( ) 2.01 CONSTRUCT A CABLE HARNESS CONSISTING OF 100 WIRES WITH 3 BREAKOUTS EMPLOYING THE FOLLOWING PROCEDURE:

( ) 2.02 SELECT PROPER MATERIALS FOR THE JOB
( ) 2.03 ASSEMBLE WIRES
( ) 2.04 LACE, WRAP AND SECURE CABLE
( ) 2.05 STRIP WIRES AND MAKE CONNECTIONS TO TERMINALS, JACKS AND CONNECTORS
( ) 2.06 CHECK CONTINUITY
( ) 2.07 HI-POT CABLE

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( ) 3.01 CABLE HARNESS CONSTRUCTED WITH NO SHORTS OR VOLTAGE LEAKS TO THE APPROVAL OF A BOARD OF EXPERT RATERS. TO BE COMPLETED WITHIN 6 HOURS WITH EACH STEP OF THE PROCEDURE JUDGED AS SATISFACTORY OR UNSATISFACTORY

( ) 3.02 TO PRODUCE THE SIMPLEST ASSEMBLY IN THE MOST ECONOMICAL WAY
( ) 3.03 USING ACCEPTED HARNESSING TECHNIQUES. ALL WIRES COLOR CODED AND LABELED
( ) 3.04 USING ACCEPTED HARNESSING TECHNIQUES
( ) 3.05 ALL SOLDERING DONE PROPERLY. HEAT SINKS SHALL BE USED WHERE NECESSARY. HARDWARE (PLUGS, TERMINALS, JACKS AND CONNECTORS) SHALL BE SECURE
( ) 3.06 100% CONTINUITY

( ) 1.02 APPROPRIATE GAUGE WIRE
( ) 1.03 TERMINALS
( ) 1.04 JACKS AND CONNECTORS
( ) 1.05 TIE WRAPS
( ) 1.06 LACING
( ) 1.07 SLEEVING
( ) 1.08 NUMBERING TABS
( ) 1.09 CABLE BOARD
( ) 1.10 ASSOCIATED HARDWARE AS NEEDED
( ) 1.11 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)
( ) 1.12 HIGH VOLTAGE POWER SUPPLY

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( ) 2.01 CONSTRUCT A CABLE HARNESS CONSISTING OF 100 WIRES WITH 3 BREAKOUTS EMPLOYING THE FOLLOWING PROCEDURE:

( ) 2.02 SELECT PROPER MATERIALS FOR THE JOB
( ) 2.03 ASSEMBLE WIRES
( ) 2.04 LACE, WRAP AND SECURE CABLE
( ) 2.05 STRIP WIRES AND MAKE CONNECTIONS TO TERMINALS, JACKS AND CONNECTORS
( ) 2.06 CHECK CONTINUITY
( ) 2.07 HI-POT CABLE

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( ) 3.01 CABLE HARNESS CONSTRUCTED WITH NO SHORTS OR VOLTAGE LEAKS TO THE APPROVAL OF A BOARD OF EXPERT RATERS. TO BE COMPLETED WITHIN 6 HOURS WITH EACH STEP OF THE PROCEDURE JUDGED AS SATISFACTORY OR UNSATISFACTORY

( ) 3.02 TO PRODUCE THE SIMPLEST ASSEMBLY IN THE MOST ECONOMICAL WAY
( ) 3.03 USING ACCEPTED HARNESSING TECHNIQUES. ALL WIRES COLOR CODED AND LABELED
( ) 3.04 USING ACCEPTED HARNESSING TECHNIQUES
( ) 3.05 ALL SOLDERING DONE PROPERLY. HEAT SINKS SHALL BE USED WHERE NECESSARY. HARDWARE (PLUGS, TERMINALS, JACKS AND CONNECTORS) SHALL BE SECURE
( ) 3.06 100% CONTINUITY
( ) 3.07 NO VOLTAGE LEAKAGE DUE TO DEFECTIVE MATERIALS OR WORKMANSHIP

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PROGRAM ELECTRONICS _____ DIVISION 01   CIRCUIT CONSTRUCTION

USOE CODE NO(S)_____ UNIT   01   CABLES

                                 TERMOB NO.   13-001

1.00 CONDITION

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOMB

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MISOE NO. _____

PROGRAM   ELECTRONICS   DIVISION 01   CIRCUIT
                                                       CONSTRUCTION
                                         UNIT   01 CABLES

                                         TERMOB NO.   13-002

1.00   CONDITION

       (')   1.01   SCHEMATIC DIAGRAM OF A COAX CABLE
       ( )   1.02   COAX CABLES
       ( )   1.03   COAX CONNECTORS
       ( )   1.04   ASSOCIATED HARDWARE AS NEEDED
       ( )   1.05   BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00   PERFORMANCE

   ┌───┐
   │ GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME   │
   │ ( )   2.01   CONSTRUCT A COAX CABLE WITH CONNECTORS EMPLOYING   │
   │   THE FOLLOWING PROCEDURE: │
   └───┘

       ( )   2.02   SELECT PROPER MATERIALS FOR THE JOB
       ( )   2.03   STRIP CABLE AND SECURE
       ( )   2.04   CHECK FOR SHORTS AND CONTINUITY

3.00   EXTENT

   ┌───┐
   │ GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME   │
   │ ( )   3.01   COAX CABLE CONSTRUCTED TO THE APPROVAL OF A BOARD OF │
   │   EXPERT RATERS. TO BE COMPLETED WITHIN 4 HOURS WITH   │
   │   EACH STEP OF THE PROCEDURE JUDGED AS SATISFACTORY   │
   │   OR UNSATISFACTORY   │
   └───┘

       ( )   3.02   TO PRODUCE A RUGGED, RELIABLE AND SAFE ASSEMBLY
       ( )   3.03   ALL SOLDERING DONE PROPERLY
       ( )   3.04   NO SHORTS. 100% CONTINUITY

PROGRAM ELECTRONICS

USOE CODE NO(S) _____

DIVISION 01   CIRCUIT
                 CONSTRUCTION
UNIT   01   CABLES

TERMOB NO.   13-002

1.00 CONDITION

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

MISOE NO. _____

PROGRAM   ELECTRONICS _____   DIVISION 01 CIRCUIT
                                                            CONSTRUCTION
          _____   UNIT   01 CABLES _____

                                               TERMOB NO.   13-003 _____

1.00   CONDITION

       ( ) 1.01 SCHEMATIC DIAGRAM OF AN EXTERNAL CONNECTOR CABLE
       ( ) 1.02 WIRE OF APPROPRIATE TYPE AND GAUGE
       ( ) 1.03 CONNECTORS
       ( ) 1.04 TIE WRAPS
       ( ) 1.05 SLEEVING
       ( ) 1.06 ASSOCIATED HARDWARE AS NEEDED
       ( ) 1.07 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00 PERFORMANCE

┌───┐
│ GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME   │
│ ( )   2.01   CONSTRUCT AN EXTERNAL CABLE WITH TWO CONNECTORS   │
│   EMPLOYING THE FOLLOWING PROCEDURE: │
└───┘

       ( )   2.02   SELECT PROPER MATERIALS FOR THE JOB
       ( )   2.03   STRIP WIRE AND SECURE TO CONNECTORS
       ( )   2.04   CHECK FOR SHORTS AND CONTINUITY

3.00   EXTENT

┌───┐
│ GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME   │
│ ( )   3.01   EXTERNAL CONNECTOR CABLE CONSTRUCTED TO THE APPROVAL   │
│   OF A BOARD OF EXPERT RATERS. TO BE COMPLETED WITHIN   │
│   3 HOURS WITH EACH STEP OF THE PROCEDURE JUDGED AS   │
│   SATISFACTORY OR UNSATISFACTORY   │
└───┘

       ( )   3.02   TO PRODUCE A RUGGED, RELIABLE AND SAFE ASSEMBLY
       ( )   3.03   ALL SOLDERING DONE PROPERLY
       ( )   3.04   NO SHORTS. 100% CONTINUITY

PROGRAM ELECTRONICS_____

USOE CODE NO(S)_____

DIVISION 01   CIRCUIT
_____   CONSTRUCTION

UNIT   01   CABLES_____

TERMOB NO.   13-003_____

1.00   CONDITION

2.00   PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00   EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

PROGRAM   ELECTRONICS   DIVISION 01 CIRCUIT
                                                              CONSTRUCTION
                                                 UNIT   02 CHASSIS WIRING &
                                                              ASSEMBLY
                                                 TERMOB NO.   13-004

1.00   CONDITION

    ( )   1.01   SCHEMATIC DIAGRAM OF A FULL WAVE RECTIFIER CIRCUIT
    ( )   1.02   RESISTORS
    ( )   1.03   CAPACITORS
    ( )   1.04   INDUCTORS
    ( )   1.05   VACUUM TUBES
    ( )   1.06   TRANSFORMERS
    ( )   1.07   TOGGLE SWITCH
    ( )   1.08   FUSE AND FUSE HOLDER
    ( )   1.09   CONNECTORS AND TEST JACKS
    ( )   1.10   ASSOCIATED HARDWARE AS NEEDED
    ( )   1.11   BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00   PERFORMANCE

┌───┐
│ GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME   │
│ ( )   2.01   CONSTRUCT A FULL WAVE RECTIFIER ON A CHASSIS USING   │
│   POINT TO POINT WIRING TECHNIQUES EMPLOYING THE   │
│   FOLLOWING PROCEDURE: │
└───┘

    ( )   2.02   SELECT PROPER MATERIALS AND COMPONENTS
    ( )   2.03   PREPARE CHASSIS FOR COMPONENT INSTALLATION
    ( )   2.04   ASSEMBLE CIRCUIT
    ( )   2.05   LOAD CIRCUIT
    ( )   2.06   ENERGIZE CIRCUIT
    ( )   2.07   DEMONSTRATE PROPER OPERATION OF CIRCUIT

3.00   EXTENT

┌───┐
│ GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME   │
│ ( )   3.01   CIRCUIT PRODUCES AN OUTPUT THAT IS STABLE AND OF AN   │
│   EXPECTED NATURE TO THE APPROVAL OF A BOARD OF EXPERT   │
│   RATERS. TO BE COMPLETED WITHIN 8 HOURS WITH EACH STEP   │
│   OF THE PROCEDURE JUDGED AS SATISFACTORY OR UNSATISFACTORY │
└───┘

    ( )   3.02   TO PRODUCE A RUGGED, RELIABLE AND SAFE ASSEMBLY
    ( )   3.03   ALL HOLES DRILLED/PUNCHED TO PROPER SIZE
    ( )   3.04   ENSURING SAFE AND RELIABLE OPERATION. ALL SOLDERING
                 SHALL BE DONE USING ACCEPTED TECHNIQUES. HEAT SINKS
                 SHALL BE USED TO PROTECT HEAT SENSITIVE COMPONENTS.
                 HARDWARE SHALL BE SECURE
    ( )   3.05   WITH AN APPROPRIATE DEVICE/COMPONENT FOR PROPER
                 OPERATION
    ( )   3.06   WITH AN INPUT OF PROPER AMPLITUDE, FREQUENCY AND OUTPUT
                 CHARACTERISTICS

( ) 1.01 SCHEMATIC DIAGRAM OF A FULL WAVE RECTIFIER CIRCUIT
( ) 1.02 RESISTORS
( ) 1.03 CAPACITORS
( ) 1.04 INDUCTORS
( ) 1.05 VACUUM TUBES
( ) 1.06 TRANSFORMERS
( ) 1.07 TOGGLE SWITCH
( ) 1.08 FUSE AND FUSE HOLDER
( ) 1.09 CONNECTORS AND TEST JACKS
( ) 1.10 ASSOCIATED HARDWARE AS NEEDED
( ) 1.11 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( ) 2.01 CONSTRUCT A FULL WAVE RECTIFIER ON A CHASSIS USING
POINT TO POINT WIRING TECHNIQUES EMPLOYING THE
FOLLOWING PROCEDURE:

( ) 2.02 SELECT PROPER MATERIALS AND COMPONENTS
( ) 2.03 PREPARE CHASSIS FOR COMPONENT INSTALLATION
( ) 2.04 ASSEMBLE CIRCUIT
( ) 2.05 LOAD CIRCUIT
( ) 2.06 ENERGIZE CIRCUIT
( ) 2.07 DEMONSTRATE PROPER OPERATION OF CIRCUIT

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( ) 3.01 CIRCUIT PRODUCES AN OUTPUT THAT IS STABLE AND OF AN
EXPECTED NATURE TO THE APPROVAL OF A BOARD OF EXPERT
RATERS. TO BE COMPLETED WITHIN 8 HOURS WITH EACH STEP
OF THE PROCEDURE JUDGED AS SATISFACTORY OR UNSATISFACTORY

( ) 3.02 TO PRODUCE A RUGGED, RELIABLE AND SAFE ASSEMBLY
( ) 3.03 ALL HOLES DRILLED/PUNCHED TO PROPER SIZE
( ) 3.04 ENSURING SAFE AND RELIABLE OPERATION. ALL SOLDERING
SHALL BE DONE USING ACCEPTED TECHNIQUES. HEAT SINKS
SHALL BE USED TO PROTECT HEAT SENSITIVE COMPONENTS.
HARDWARE SHALL BE SECURE
( ) 3.05 WITH AN APPROPRIATE DEVICE/COMPONENT FOR PROPER
OPERATION
( ) 3.06 WITH AN INPUT OF PROPER AMPLITUDE, FREQUENCY AND OUTPUT
CHARACTERISTICS
( ) 3.07 REQUIRED VALUES DISPLAYED ON APPROPRIATE TEST EQUIPMENT

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PROGRAM ELECTRONICS_____

USOE CODE NO(S)_____

_____

DIVISION 01 <u>CIRCUIT</u>
<u>CONSTRUCTION</u>

UNIT   02   <u>CHASSIS WIRING &</u>
<u>ASSEMBLY</u>

TERMOB NO.   <u>13-004</u>

1.00 CONDITION

2.00 PERFORMANCE

<u>GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME</u>

3.00 EXTENT

<u>GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME</u>

MISOE NO. _____ 61

PROGRAM ELECTRONICS   DIVISION 01 CIRCUIT
         _____   CONSTRUCTION
                                        UNIT   02 CHASSIS WIRING &
                                                     ASSEMBLY
                                        TERMOB NO.   13-005

1.00 CONDITION

      ( ) 1.01 SCHEMATIC DIAGRAM OF A VOLTAGE AMPLIFIER
      ( ) 1.02 RESISTORS
      ( ) 1.03 CAPACITORS
      ( ) 1.04 INDUCTORS
      ( ) 1.05 VACUUM TUBES
      ( ) 1.06 TRANSISTORS
      ( ) 1.07 AUDIO OSCILLATOR
      ( ) 1.08 TRANSFORMERS
      ( ) 1.09 SPEAKER
      ( ) 1.10 POWER SUPPLY
      ( ) 1.11 CHASSIS
      ( ) 1.12 ASSOCIATED HARDWARE AS NEEDED
      ( ) 1.13 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00 PERFORMANCE

+---+
| GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME |
| ( ) 2.01 CONSTRUCT A VOLTAGE AMPLIFIER INTO A CHASSIS |
| EMPLOYING THE FOLLOWING PROCEDURE: |
+---+

      ( ) 2.02 SELECT PROPER MATERIALS AND COMPONENTS FOR THE JOB
      ( ) 2.03 PREPARE CHASSIS FOR COMPONENT INSTALLATION
      ( ) 2.04 ASSEMBLE CIRCUIT
      ( ) 2.05 LOAD CIRCUIT
      ( ) 2.06 ENERGIZE CIRCUIT
      ( ) 2.07 DEMONSTRATE PROPER OPERATION OF THE CIRCUIT

3.00 EXTENT

+---+
| GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME |
| ( ) 3.01 CIRCUIT PRODUCES AN OUTPUT THAT IS STABLE, AND OF AN|
| EXPECTED NATURE TO THE APPROVAL OF A BOARD OF EXPERT|
| RATERS. TO BE COMPLETED WITHIN 8 HOURS WITH EACH STEP|
| OF THE PROCEDURE JUDGED AS SATISFACTORY OR |
| UNSATISFACTORY |
+---+

      ( ) 3.02 TO PRODUCE A RUGGED, RELIABLE AND SAFE ASSEMBLY
      ( ) 3.03 ALL HOLES DRILLED/PUNCHED TO PROPER SIZE
      ( ) 3.04 USING POINT TO POINT WIRING TECHNIQUES ENSURING
                 SAFE AND RELIABLE OPERATION. ALL SOLDERING SHALL
                 BE DONE USING ACCEPTED TECHNIQUES. HARDWARE SHALL
                 BE SECURE
      ( ) 3.05 WITH AN APPROPRIATE DEVICE FOR PROPER OPERATION
      ( ) 3.06 WITH AN INPUT OF PROPER AMPLITUDE, FREQUENCY AND CURRENT

```
( )   1.01   SCHEMATIC DIAGRAM OF A VOLTAGE AMPLIFIER
( )   1.02   RESISTORS
( )   1.03   CAPACITORS
( )   1.04   INDUCTORS
( )   1.05   VACUUM TUBES
( )   1.06   TRANSISTORS
( )   1.07   AUDIO OSCILLATOR
( )   1.08   TRANSFORMERS
( )   1.09   SPEAKER
( )   1.10   POWER SUPPLY
( )   1.11   CHASSIS
( )   1.12   ASSOCIATED HARDWARE AS NEEDED
( )   1.13   BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)
```

2.00   PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( )   2.01   CONSTRUCT A VOLTAGE AMPLIFIER INTO A CHASSIS
EMPLOYING THE FOLLOWING PROCEDURE:

```
( )   2.02   SELECT PROPER MATERIALS AND COMPONENTS FOR THE JOB
( )   2.03   PREPARE CHASSIS FOR COMPONENT INSTALLATION
( )   2.04   ASSEMBLE CIRCUIT
( )   2.05   LOAD CIRCUIT
( )   2.06   ENERGIZE CIRCUIT
( )   2.07   DEMONSTRATE PROPER OPERATION OF THE CIRCUIT
```

3.00   EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( )   3.01   CIRCUIT PRODUCES AN OUTPUT THAT IS STABLE, AND OF AN
EXPECTED NATURE TO THE APPROVAL OF A BOARD OF EXPERT
RATERS. TO BE COMPLETED WITHIN 8 HOURS WITH EACH STEP
OF THE PROCEDURE JUDGED AS SATISFACTORY OR
UNSATISFACTORY

```
( )   3.02   TO PRODUCE A RUGGED, RELIABLE AND SAFE ASSEMBLY
( )   3.03   ALL HOLES DRILLED/PUNCHED TO PROPER SIZE
( )   3.04   USING POINT TO POINT WIRING TECHNIQUES ENSURING
              SAFE AND RELIABLE OPERATION.  ALL SOLDERING SHALL
              BE DONE USING ACCEPTED TECHNIQUES.  HARDWARE SHALL
              BE SECURE
( )   3.05   WITH AN APPROPRIATE DEVICE FOR PROPER OPERATION
( )   3.06   WITH AN INPUT OF PROPER AMPLITUDE, FREQUENCY AND CURRENT
( )   3.07   REQUIRED VALUES DISPLAYED ON APPROPRIATE TEST
              EQUIPMENT
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PROGRAM __ELECTRONICS__ _____

USOE CODE NO(S)_____

DIVISION 01

UNIT   0.2

TERMOB NO.

CIRCUIT
CONSTRUCTION
CHASSIS WIRING &
ASSEMBLY
13-005

1.00   CONDITION

2.00   PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00   EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

MISOE NO. _____

PROGRAM   ELECTRONICS

DIVISION 01   CIRCUIT CONSTRUCTION

UNIT   02   CHASSIS WIRING & ASSEMBLY

TERMOB NO.   13-006

1.00   CONDITION

( )   1.01   SCHEMATIC DIAGRAM OF A PHASE SHIFT OSCILLATOR
( )   1.02   SCHEMATIC DIAGRAM OF A MULTIVIBRATOR OSCILLATOR
( )   1.03   SCHEMATIC DIAGRAM CF A WEIN BRIDGE OSCILLATOR
( )   1.04   SCHEMATIC DIAGRAM OF A CRYSTAL OSCILLATOR
( )   1.05   SCHEMATIC DIAGRAM OF A RELAXATION OSCILLATOR
( )   1.06   SCHEMATIC DIAGRAM OF A COLPITTS OSCILLATOR
( )   1.07   SCHEMATIC DIAGRAM OF A SPECIALTY CIRCUIT OSCILLATOR
( )   1.08   REACTORS
( )   1.09   CAPACITORS
( )   1.10   INDUCTORS
( )   1.11   VACUUM TUBES
( )   1.12   TRANSISTORS
( )   1.13   POWER SUPPLY
( )   1.14   CHASSIS
( )   1.15   ASSOCIATED HARDWARE AS NEEDED
( )   1.16   BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00   PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( )   2.01   CONSTRUCT AN OSCILLATOR CIRCUIT INTO A CHASSIS
             EMPLOYING THE FOLLOWING OPERATIONS:

( )   2.02   SELECT PROPER MATERIALS AND COMPONENTS
( )   2.03   PREPARE CHASSIS FOR COMPONENT INSTALLATION
(.)   2.04   ASSEMBLE CIRCUIT
( )   2.05   LOAD CIRCUIT
( )   2.06   ENERGIZE CIRCUIT
( )   2.07   DEMONSTRATE PROPER OPERATION OF THE CIRCUIT

3.00   EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( )   3.01   CIRCUIT PRODUCED AN OUTPUT THAT IS STABLE AND OF AN
             EXPECTED NATURE TO THE APPROVAL OF A BOARD OF EXPERT
             RATERS. TO BE COMPLETED WITHIN 8 HOURS WITH EACH
             OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY

( )   3.02   TO PRODUCE A RUGGED, RELIABLE AND SAFE ASSEMBLY
( )   3.03   ALL HOLES DRILLED/PUNCHED TO PROPER SIZE
( )   3.04   USING POINT-TO-POINT WIRING TECHNIQUES ENSURING SAFE
             AND RELIABLE OPERATION. ALL SOLDERING SHALL BE DONE
             USING ACCEPTED TECHNIQUES. HARDWARE SHALL BE SECURE

( )	1.01	SCHEMATIC DIAGRAM OF A PHASE SHIFT OSCILLATOR
( )	1.02	SCHEMATIC DIAGRAM OF A MULTIVIBRATOR OSCILLATOR
( )	1.03	SCHEMATIC DIAGRAM OF A WEIN BRIDGE OSCILLATOR
( )	1.04	SCHEMATIC DIAGRAM OF A CRYSTAL OSCILLATOR
( )	1.05	SCHEMATIC DIAGRAM OF A RELAXATION OSCILLATOR
( )	1.06	SCHEMATIC DIAGRAM OF A COLPITTS OSCILLATOR
( )	1.07	SCHEMATIC DIAGRAM OF A SPECIALTY CIRCUIT OSCILLATOR
( )	1.08	REACTORS
( )	1.09	CAPACITORS
( )	1.10	INDUCTORS
( )	1.11	VACUUM TUBES
( )	1.12	TRANSISTORS
( )	1.13	POWER SUPPLY
( )	1.14	CHASSIS
( )	1.15	ASSOCIATED HARDWARE AS NEEDED
( )	1.16	BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00   PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( )   2.01   CONSTRUCT AN OSCILLATOR CIRCUIT INTO A CHASSIS
             EMPLOYING THE FOLLOWING OPERATIONS:

( )	2.02	SELECT PROPER MATERIALS AND COMPONENTS
( )	2.03	PREPARE CHASSIS FOR COMPONENT INSTALLATION
( )	2.04	ASSEMBLE CIRCUIT
( )	2.05	LOAD CIRCUIT
( )	2.06	ENERGIZE CIRCUIT
( )	2.07	DEMONSTRATE PROPER OPERATION OF THE CIRCUIT

3.00   EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( )   3.01   CIRCUIT PRODUCED AN OUTPUT THAT IS STABLE AND OF AN
             EXPECTED NATURE TO THE APPROVAL OF A BOARD OF EXPERT
             RATERS.   TO BE COMPLETED WITHIN 8 HOURS WITH EACH
             OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY

( )	3.02	TO PRODUCE A RUGGED, RELIABLE AND SAFE ASSEMBLY
( )	3.03	ALL HOLES DRILLED/PUNCHED TO PROPER SIZE
( )	3.04	USING POINT-TO-POINT WIRING TECHNIQUES ENSURING SAFE AND RELIABLE OPERATION. ALL SOLDERING SHALL BE DONE USING ACCEPTED TECHNIQUES. HARDWARE SHALL BE SECURE
( )	3.05	WITH AN APPROPRIATE DEVICE FOR PROPER OPERATION
( )	3.06	WITH AN INPUT OF PROPER AMPLITUDE, FREQUENCY AND CURRENT
( )	3.07	REQUIRED VALUES DISPLAYED ON APPROPRIATE TEST EQUIPMENT

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PROGRAM ELECTRONICS _____

USOE CODE NO(S) _____

DIVISION 01 ____CIRCUIT_____
                CONSTRUCTION

UNIT   02 ___CHASSIS WIRING___
                & ASSEMBLY_____

TERMOB NO.   13-006_____

1.00 CONDITION

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

PROGRAM ___ELECTRONICS_____

DIVISION 01 CIRCUIT
CONSTRUCTION

UNIT 03 PRINTED CIRCUIT
BOARD

TERMOB NO. 13-007_____

1.00 CONDITION

( ) 1.01 SCHEMATIC DIAGRAM OF A FULL WAVE RECTIFIER CIRCUIT
( ) 1.02 RESISTORS
( ) 1.03 CAPACITORS
( ) 1.04 INDUCTORS
( ) 1.05 DIODES
( ) 1.06 TRANSFORMERS
( ) 1.07 COPPER CLAD EPOXY OR PHENOLIC BOARD
( ) 1.08 CHASSIS
( ) 1.09 POWER SUPPLY
( ) 1.10 ASSOCIATED HARDWARE AS NEEDED
( ) 1.11 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( ) 2.01 CONSTRUCT A SOLID STATE RECTIFIER CIRCUIT INTO A CHASSIS USING PRINTED CIRCUIT BOARD TECHNIQUES EMPLOYING THE FOLLOWING OPERATIONS:

( ) 2.02 SELECT PROPER MATERIALS AND COMPONENTS
( ) 2.03 PREPARE CIRCUIT BOARD FOR COMPONENT INSTALLATION
( ) 2.04* ASSEMBLE CIRCUIT
( ) 2.05 SECURE CIRCUIT BOARD TO CHASSIS
( ) 2.06 LOAD CIRCUIT
( ) 2.07 ENERGIZE CIRCUIT
( ) 2.08 DEMONSTRATE PROPER OPERATION OF THE CIRCUIT

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( ) 3.01 CIRCUIT IS SOUND AND PRODUCES AN OUTPUT THAT IS STABLE AND OF AN EXPECTED NATURE TO THE APPROVAL OF A BOARD OF EXPERT RATERS. TO BE COMPLETED WITHIN 10 HOURS WITH EACH OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY

( ) 3.02 TO PRODUCE A RUGGED, RELIABLE AND SAFE ASSEMBLY
( ) 3.03 ALL HOLES DRILLED TO PROPER SIZE. BOARD ETCHED TO PROVIDE SIMPLEST NETWORK USING ACCEPTED TECHNIQUES
( ) 3.04 SOLDER CONNECTIONS SHALL BE STRONG AND NEAT. ALL HARDWARE SHALL BE SECURE
( ) 3.05 SECURELY
( ) 3.06 WITH AN APPROPRIATE DEVICE FOR PROPER OPERATION
( ) 3.07 WITH AN INPUT OF PROPER AMPLITUDE AND FREQUENCY.
( ) 3.08 REQUIRED VALUES DISPLAYED ON APPROPRIATE TEST EQUIPMENT

PROGRAM ELECTRONICS _____   DIVISION 01 ___ CIRCUIT
                                                   CONSTRUCTION
USOE CODE NO(S)_____   UNIT   03 ___ PRINTED CIRCUIT
              _____   BOARD
              _____   TERMOB NO.   ___ 13-007 _____
              _____

1.00 CONDITION

2.00 PERFORMANCE

      GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

      GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

MISOE NO. _____

PROGRAM ELECTRONICS _____

DIVISION 01 CIRCUIT
             CONSTRUCTION
UNIT   03 PRINTED CIRCUIT
             BOARD
TERMOB NO.   13-008

1.00 CONDITION

( ) 1.01 SCHEMATIC DIAGRAM OF A SOLID STATE VOLTAGE AMPLIFIER·
( ) 1.02 RESISTORS
( ) 1.03 CAPACITORS
( ) 1.04 TRANSISTORS
( ) 1.05 AUDIO OSCILLATOR
( ) 1.06 SPEAKER
( ) 1.07 POWER SUPPLY
( ) 1.08 COPPER CLAD EPOXY OR PHENOLIC BOARD
( ) 1.09 CHASSIS
( ) 1.10 ASSOCIATED HARDWARE AS NEEDED
( ) 1.11 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( ) 2.01 CONSTRUCT A SOLID STATE VOLTAGE AMPLIFIER INTO A
           CHASSIS USING PRINTED CIRCUIT BOARD TECHNIQUES
           EMPLOYING THE FOLLOWING OPERATIONS:

( ) 2.02 SELECT PROPER MATERIALS AND COMPONENTS
( ) 2.03 PREPARE CIRCUIT BOARD FOR COMPONENT INSTALLATION
( ) 2.04 ASSEMBLE CIRCUIT
( ) 2.05 SECURE CIRCUIT BOARD TO CHASSIS
( ) 2.06 LOAD CIRCUIT
( ) 2.07 ENERGIZE CIRCUIT
( ) 2.08 DEMONSTRATE PROPER OPERATION OF THE CIRCUIT

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( ) 3.01 CIRCUIT IS SOUND AND PRODUCES AN OUTPUT THAT IS
           STABLE AND OF AN EXPECTED NATURE TO THE APPROVAL OF A
           BOARD OF EXPERT RATERS. TO BE COMPLETED WITHIN 8 HOURS
           WITH EACH OPERATION JUDGED AS SATISFACTORY OR
           UNSATISFACTORY

( ) 3.02 TO PRODUCE A RUGGED, RELIABLE AND SAFE ASSEMBLY
( ) 3.03 ALL HOLES DRILLED TO PROPER SIZE. BOARD ETCHED TO
           PROVIDE SIMPLEST NETWORK USING ACCEPTED TECHNIQUES
( ) 3.04 SOLDER CONNECTIONS SHALL BE STRONG AND NEAT. ALL
           HARDWARE SHALL BE SECURE
( ) 3.05 SECURELY
( ) 3.06 WITH AN APPROPRIATE DEVICE FOR PROPER OPERATION
( ) 3.07 WITH AN INPUT OF APPROPRIATE AMPLITUDE AND FREQUENCY

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( )   1.01   SCHEMATIC DIAGRAM OF A SOLID STATE VOLTAGE AMPLIFIER
( )   1.02   RESISTORS
( )   1.03   CAPACITORS
( )   1.04   TRANSISTORS
( )   1.05   AUDIO OSCILLATOR
( )   1.06   SPEAKER
( )   1.07   POWER SUPPLY
( )   1.08   COPPER CLAD EPOXY OR PHENOLIC BOARD
( )   1.09   CHASSIS
( )   1.10   ASSOCIATED HARDWARE AS NEEDED
( )   1.11   BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)
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2.00 PERFORMANCE

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┌─────────────────────────────────────────────────────────────────┐
│ GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME            │
│ ( )    2.01   CONSTRUCT A SOLID STATE VOLTAGE AMPLIFIER INTO A    │
│               CHASSIS USING PRINTED CIRCUIT BOARD TECHNIQUES.     │
│               EMPLOYING THE FOLLOWING OPERATIONS:                 │
└─────────────────────────────────────────────────────────────────┘
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( )   2.02   SELECT PROPER MATERIALS AND COMPONENTS
( )   2.03   PREPARE CIRCUIT BOARD FOR COMPONENT INSTALLATION
( )   2.04   ASSEMBLE CIRCUIT
( )   2.05   SECURE CIRCUIT BOARD TO CHASSIS
( )   2.06   LOAD CIRCUIT
( )   2.07   ENERGIZE CIRCUIT
( )   2.08   DEMONSTRATE PROPER OPERATION OF THE CIRCUIT
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3.00 EXTENT

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┌─────────────────────────────────────────────────────────────────┐
│ GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME       │
│ ( )    3.01   CIRCUIT IS SOUND AND PRODUCES AN OUTPUT THAT IS     │
│               STABLE AND OF AN EXPECTED NATURE TO THE APPROVAL OF A│
│               BOARD OF EXPERT RATERS.  TO BE COMPLETED WITHIN 8 HOURS│
│               WITH EACH OPERATION JUDGED AS SATISFACTORY OR        │
│               UNSATISFACTORY                                       │
└─────────────────────────────────────────────────────────────────┘
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( )   3.02   TO PRODUCE A RUGGED, RELIABLE AND SAFE ASSEMBLY
( )   3.03   ALL HOLES DRILLED TO PROPER SIZE.  BOARD ETCHED TO
                PROVIDE SIMPLEST NETWORK USING ACCEPTED TECHNIQUES
( )   3.04   SOLDER CONNECTIONS SHALL BE STRONG AND NEAT.  ALL
                HARDWARE SHALL BE SECURE
( )   3.05   SECURELY
( )   3.06   WITH AN APPROPRIATE DEVICE FOR PROPER OPERATION
( )   3.07   WITH AN INPUT OF APPROPRIATE AMPLITUDE AND FREQUENCY
( )   3.08   REQUIRED VALUES DISPLAYED ON APPROPRIATE TEST
                EQUIPMENT
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PROGRAM   ELECTRONICS_____   DIVISION 01 ___ CIRCUIT_____
                                                     CONSTRUCTION
USOE CODE NO(S)_____   UNIT   03 ___ PRINTED CIRCUIT_____
                                                     BOARD
                                      TERMOB NO.   ___13-008_____

1.00   CONDITION

2.00   PERFORMANCE

       GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00   EXTENT

       GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

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MISOE NO. _____

PROGRAM ELECTRONICS_____   DIVISION 01 CIRCUIT
                                                      CONSTRUCTION
                                         UNIT   03 PRINTED CIRCUIT
                                                      BOARD
                                         TERMOB NO.   13-009

1.00 CONDITION

( ) 1.01 SCHEMATIC DIAGRAM OF A TUNED HARTLEY OSCILLATOR
( ) 1.02 SCHEMATIC DIAGRAM OF A PHASE SHIFT OSCILLATOR
( ) 1.03 SCHEMATIC DIAGRAM OF A MULTIVIBRATOR OSCILLATOR
( ) 1.04 SCHEMATIC DIAGRAM OF A WEINBRIDGE OSCILLATOR
( ) 1.05 SCHEMATIC DIAGRAM OF A CRYSTAL OSCILLATOR
( ) 1.06 SCHEMATIC DIAGRAM OF A RELAXATION OSCILLATOR
( ) 1.07 SCHEMATIC DIAGRAM OF A COLPITTS OSCILLATOR
( ) 1.08 RESISTORS
( ) 1.09 CAPACITORS
( ) 1.10 INDUCTORS
( ) 1.11 TRANSISTORS
( ) 1.12 POWER SUPPLY
( ) 1.13 COPPER CLAD EPOXY OR PHENOLIC BOARD
( ) 1.14 CHASSIS
( ) 1.15 ASSOCIATED HARDWARE AS NEEDED
( ) 1.16 BASIC ELECTRONICS TOOLS AND TEST EQUIPMENT (TABLE T-3)

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( ) 2.01 CONSTRUCT AN OSCILLATOR CIRCUIT INTO A CHASSIS USING PRINTED CIRCUIT BOARD TECHNIQUES EMPLOYING THE FOLLOWING OPERATIONS:

( ) 2.02 SELECT PROPER MATERIALS AND COMPONENTS
( ) 2.03 PREPARE CIRCUIT BOARD FOR COMPONENT INSTALLATION
( ) 2.04 ASSEMBLE CIRCUIT
( ) 2.05 SECURE CIRCUIT BOARD TO CHASSIS
( ) 2.06 LOAD CIRCUIT
( ) 2.07 ENERGIZE CIRCUIT
( ) 2.08 DEMONSTRATE PROPER OPERATION OF THE CIRCUIT

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( ) 3.01 CIRCUIT IS SOUND AND PRODUCES AN OUTPUT THAT IS STABLE AND OF AN EXPECTED NATURE TO THE APPROVAL OF A BOARD OF EXPERT RATERS. TO BE COMPLETED WITHIN 8 HOURS WITH EACH OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY

( ) 3.02 TO PRODUCE A RUGGED, RELIABLE AND SAFE ASSEMBLY
( ) 3.03 ALL HOLES DRILLED TO PROPER SIZE. BOARD ETCHED TO
           PROVIDE SIMPLEST NETWORK USING ACCEPTED TECHNIQUES

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( )   1.01   SCHEMATIC DIAGRAM OF A TUNED HARTLEY OSCILLATOR
( )   1.02   SCHEMATIC DIAGRAM OF A PHASE SHIFT OSCILLATOR
( )   1.03   SCHEMATIC DIAGRAM OF A MULTIVIBRATOR OSCILLATOR
( )   1.04   SCHEMATIC DIAGRAM OF A WEINBRIDGE OSCILLATOR
( )   1.05   SCHEMATIC DIAGRAM OF A CRYSTAL OSCILLATOR
( )   1.06   SCHEMATIC DIAGRAM OF A RELAXATION OSCILLATOR
( )   1.07   SCHEMATIC DIAGRAM OF A COLPITTS OSCILLATOR
( )   1.08   RESISTORS
( )   1.09   CAPACITORS
( )   1.10   INDUCTORS
( )   1.11   TRANSISTORS
( )   1.12   POWER SUPPLY
( )   1.13   COPPER CLAD EPOXY OR PHENOLIC BOARD
( )   1.14   CHASSIS
( )   1.15   ASSOCIATED HARDWARE AS NEEDED
( )   1.16   BASIC ELECTRONICS TOOLS AND TEST EQUIPMENT (TABLE T-3)
```

2.00   PERFORMANCE

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GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( )   2.01   CONSTRUCT AN OSCILLATOR CIRCUIT INTO A CHASSIS USING
             PRINTED CIRCUIT BOARD TECHNIQUES EMPLOYING THE
             FOLLOWING OPERATIONS:
```

```
( )   2.02   SELECT PROPER MATERIALS AND COMPONENTS
( )   2.03   PREPARE CIRCUIT BOARD FOR COMPONENT INSTALLATION
( )   2.04   ASSEMBLE CIRCUIT
( )   2.05   SECURE CIRCUIT BOARD TO CHASSIS
( )   2.06   LOAD CIRCUIT
( )   2.07   ENERGIZE CIRCUIT
( )   2.08   DEMONSTRATE PROPER OPERATION OF THE CIRCUIT
```

3.00   EXTENT

```
GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( )   3.01   CIRCUIT IS SOUND AND PRODUCES AN OUTPUT THAT IS
             STABLE AND OF AN EXPECTED NATURE TO THE APPROVAL OF A
             BOARD OF EXPERT RATERS.  TO BE COMPLETED WITHIN 8
             HOURS WITH EACH OPERATION JUDGED AS SATISFACTORY OR
             UNSATISFACTORY
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( )   3.02   TO PRODUCE A RUGGED, RELIABLE AND SAFE ASSEMBLY
( )   3.03   ALL HOLES DRILLED TO PROPER SIZE.  BOARD ETCHED TO
             PROVIDE SIMPLEST NETWORK USING ACCEPTED TECHNIQUES
( )   3.04   SOLDER CONNECTIONS SHALL BE STRONG AND NEAT.  ALL
             HARDWARE SHALL BE SECURE
( )   3.05   SECURELY
( )   3.06   WITH AN APPROPRIATE DEVICE FOR PROPER OPERATION
( )   3.07   WITH AN INPUT OF APPROPRIATE AMPLITUDE
( )   3.08   REQUIRED VALUES DISPLAYED ON APPROPRIATE TEST
             EQUIPMENT              73
```

PROGRAM ELECTRONICS   DIVISION 01   CIRCUIT
                                                       CONSTRUCTION
USOE CODE NO(S)_____   UNIT   03   PRINTED CIRCUIT
                                                       BOARD
       _____   TERMOB NO.   13-009
       _____
       _____

1.00 CONDITION

2.00 PERFORMANCE

      GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

      GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

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MISOE NO. _____

PROGRAM   ELECTRONICS _____

DIVISION 01   CIRCUIT
              CONSTRUCTION
UNIT   03   PRINTED CIRCUIT
              BOARD
TERMOB NO.   13-010

1.00   CONDITION

( ) 1.01   LOGIC/DIAGRAM WITH IN-LINE INTEGRATED CIRCUITS
(-) 1.02   COPPER CLAD BOARD
( ) 1.03   RESISTORS
( ) 1.04   CAPACITORS
( ) 1.05   IC'S
( ) 1.06   DISPLAY LAMPS
( ) 1.07   LED'S
( ) 1.08   TIMING DIAGRAM
( ) 1.09   POWER SUPPLY
( ) 1.10   ASSOCIATED HARDWARE AS NEEDED
( ) 1.11   BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00   PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( ) 2.01   CONSTRUCT A DIGITAL LOGIC CIRCUIT ON A PRINTED CIRCUIT
            BOARD EMPLOYING THE FOLLOWING PROCEDURE:

( ) 2.02   SELECT PROPER MATERIALS AND COMPONENTS
( ) 2.03   PREPARE CIRCUIT BOARD FOR COMPONENT INSTALLATION
( ) 2.04   ASSEMBLE CIRCUIT
( ) 2.05   LOAD CIRCUIT
( ) 2.06   ENERGIZE CIRCUIT
( ) 2.07   DEMONSTRATE PROPER OPERATION OF THE CIRCUIT

3.00   EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( ) 3.01   CIRCUIT IS SOUND AND PRODUCES AN OUTPUT THAT IS STABLE
            AND OF AN EXPECTED NATURE TO THE APPROVAL OF A BOARD
            OF EXPERT RATERS. TO BE COMPLETED WITHIN 15 HOURS WITH
            EACH OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY

( ) 3.02   TO PRODUCE A RUGGED, RELIABLE AND SAFE ASSEMBLY
( ) 3.03   ALL HOLES DRILLED TO PROPER SIZE. BOARD ETCHED TO
            PROVIDE SIMPLEST NETWORK USING ACCEPTED TECHNIQUES
( ) 3.04   SOLDER CONNECTIONS SHALL BE STRONG AND NEAT. ALL
            HARDWARE SHALL BE SECURE
( ) 3.05   WITH AN APPROPRIATE DEVICE FOR PROPER OPERATION
( ) 3.06   WITH AN INPUT OF PROPER AMPLITUDE AND CURRENT
            CHARACTERISTICS
( ) 3.07   REQUIRED VALUES DISPLAYED ON APPROPRIATE EQUIPMENT IN
            CONFORMANCE WITH TIMING DIAGRAM.

```
( )  1.01  LOGIC DIAGRAM WITH IN-LINE INTEGRATED CIRCUITS
( )  1.02  COPPER CLAD BOARD
( )  1.03  RESISTORS
( )  1.04  CAPACITORS
( )  1.05  IC'S
( )  1.06  DISPLAY LAMPS
( )  1.07  LED'S
( )  1.08  TIMING DIAGRAM
( )  1.09  POWER SUPPLY
( )  1.10  ASSOCIATED HARDWARE AS NEEDED
( )  1.11  BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)
```

2.00 PERFORMANCE

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┌─────────────────────────────────────────────────────────────────┐
│ GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME            │
│ ( )  2.01  CONSTRUCT A DIGITAL LOGIC CIRCUIT ON A PRINTED CIRCUIT │
│            BOARD EMPLOYING THE FOLLOWING PROCEDURE:               │
└─────────────────────────────────────────────────────────────────┘
( )  2.02  SELECT PROPER MATERIALS AND COMPONENTS
( )  2.03  PREPARE CIRCUIT BOARD FOR COMPONENT INSTALLATION
( )  2.04  ASSEMBLE CIRCUIT
( )  2.05  LOAD CIRCUIT
( )  2.06  ENERGIZE CIRCUIT
( )  2.07  DEMONSTRATE PROPER OPERATION OF THE CIRCUIT
```

3.00 EXTENT

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┌─────────────────────────────────────────────────────────────────┐
│ GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME       │
│ ( )  3.01  CIRCUIT IS SOUND AND PRODUCES AN OUTPUT THAT IS STABLE │
│            AND OF AN EXPECTED NATURE TO THE APPROVAL OF A BOARD   │
│            OF EXPERT RATERS.  TO BE COMPLETED WITHIN 15 HOURS WITH│
│            EACH OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY│
└─────────────────────────────────────────────────────────────────┘
( )  3.02  TO PRODUCE A RUGGED, RELIABLE AND SAFE ASSEMBLY
( )  3.03  ALL HOLES DRILLED TO PROPER SIZE.  BOARD ETCHED TO
           PROVIDE SIMPLEST NETWORK USING ACCEPTED TECHNIQUES
( )  3.04  SOLDER CONNECTIONS SHALL BE STRONG AND NEAT.  ALL
           HARDWARE SHALL BE SECURE
( )  3.05  WITH AN APPROPRIATE DEVICE FOR PROPER OPERATION
( )  3.06  WITH AN INPUT OF PROPER AMPLITUDE AND CURRENT
           CHARACTERISTICS
( )  3.07  REQUIRED VALUES DISPLAYED ON APPROPRIATE EQUIPMENT IN
           CONFORMANCE WITH TIMING DIAGRAM.
```

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MISOE NO._____

PROGRAM ELECTRONICS_____   DIVISION 01 __ CIRCUIT____
                                              CONSTRUCTION____
USOE CODE NO(S)‾‾‾‾‾‾‾‾‾   UNIT   03 PRINTED CIRCUIT____
          ‾‾‾‾‾‾‾‾‾   BOARD____
          ‾‾‾‾‾‾‾‾‾   TERMOB NO.   13-010____
          ‾‾‾‾‾‾‾‾‾

1.00 CONDITION

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

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MISOE NO. _____

PROGRAM ___ELECTRONICS___

DIVISION 01 CIRCUIT
            CONSTRUCTION
UNIT   04 WIRE WRAP

TERMOB NO. ___13-011___

1.00 CONDITION

( ) 1.01 DIGITAL LOGIC DIAGRAM WITH IN-LINE INTEGRATED CIRCUITS
( ) 1.02 WIREWRAP SOCKETS
( ) 1.03 WIREWRAP BOARD
( ) 1.04 WIREWRAP GUN
( ) 1.05 SLEEVES AND BITS FOR WIREWRAPPING
( ) 1.06 IC'S
( ) 1.07 POWER SUPPLY
( ) 1.08 TIMING DIAGRAM
( ) 1.09 ASSOCIATED HARDWARE AS NEEDED
( ) 1.10 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( ) 2.01 CONSTRUCT A DIGITAL LOGIC CIRCUIT ON A WIREWRAP BOARD EMPLOYING THE FOLLOWING PROCEDURE:

( ) 2.02 SELECT PROPER MATERIALS AND COMPONENTS
( ) 2.03 ASSEMBLE AND WIREWRAP BOARD
( ) 2.04 INSTALL IC'S
( ) 2.05 ENERGIZE CIRCUIT
( ) 2.06 DEMONSTRATE PROPER OPERATION OF THE CIRCUIT

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( ) 3.01 CIRCUIT IS SOUND AND PRODUCES AN OUTPUT THAT IS STABLE AND OF AN EXPECTED NATURE TO THE APPROVAL OF A BOARD OF EXPERT RATERS. TO BE COMPLETED WITHIN 12 HOURS WITH EACH OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY

( ) 3.02 TO PRODUCE THE PROPER TIMING OUTPUTS
( ) 3.03 ENSURING SAFE AND RELIABLE OPERATION
( ) 3.04 NEATLY. FREE OF ANY LOOSE WRAPS
( ) 3.05 WITH AN INPUT OF PROPER POLARITY AND OUTPUT CHAR-
            ACTERISTICS
( ) 3.06 REQUIRED VALUES DISPLAYED ON APPROPRIATE TEST EQUIPMENT

PROGRAM __ELECTRONICS__ DIVISION 01 __CIRCUIT__
                                       __CONSTRUCTION__
USOE CODE NO(S)_____ UNIT 04 __WIRE WRAP__
          _____ TERMOB NO. __13-011__
          _____
          _____

1.00 CONDITION

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

MISOE NO. _____

PROGRAM   ELECTRONICS

DIVISION 01   CIRCUIT
              CONSTRUCTION
UNIT   04 WIREWRAP

TERMOB NO.   13-012

1.00   CONDITION

( )   1.01   SCHEMATIC DIAGRAM OF AN ANALOG IC CIRCUIT
(*)   1.02   WIREWRAP SOCKETS
( )   1.03   WIREWRAP BOARD
( )   1.04   WIREWRAP GUN
( )   1.05   SLEEVES AND BITS FOR WIREWRAPPING
( )   1.06   IC'S
( )   1.07   POWER SUPPLY
( )   1.08   ASSOCIATED HARDWARE AS NEEDED
( )   1.09   BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00   PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( )   2.01   CONSTRUCT AN ANALOG CIRCUIT ON A WIREWRAP BOARD
             EMPLOYING THE FOLLOWING OPERATIONS:

( )   2.02   SELECT PROPER MATERIALS AND COMPONENTS
( )   2.03   ASSEMBLE AND WIREWRAP BOARD
( )   2.04   INSTALL IC'S
( )   2.05   ENERGIZE CIRCUIT
( )   2.06   DEMONSTRATE PROPER OPERATION OF THE CIRCUIT

3.00   EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( )   3.01   CIRCUIT IS SOUND AND PRODUCES AN OUTPUT THAT IS STABLE
             AND OF AN EXPECTED NATURE TO THE APPROVAL OF A BOARD
             OF EXPERT RATERS. TO BE COMPLETED WITHIN 12 HOURS WITH
             EACH OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY

( )   3.02   TO PRODUCE THE SIMPLEST CIRCUIT IN THE MOST
             ECONOMICAL WAY
( )   3.03   NEATLY ENSURING SAFE AND RELIABLE OPERATION
( )   3.04   NEATLY. FREE OF ANY LOOSE WRAPS
( )   3.05   WITH AN INPUT OF PROPER POLARITY AMPLITUDE AND OUTPUT
             CHARACTERISTICS
( )   3.06   REQUIRED VALUES DISPLAYED ON APPROPRIATE TEST EQUIPMENT

PROGRAM ELECTRONICS_____   DIVISION 01 ___CIRCUIT_____

USOE CODE NO(S)_____   UNIT   04 ___WIREWRAP_____
                                             ___CONSTRUCTION_____
       _____   TERMOB NO.   ___13-012_____

1.00 CONDITION

2.00 PERFORMANCE

      GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

      GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

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MISOE NO. _____

PROGRAM. ___ELECTRONICS_____

DIVISION 01 CIRCUIT
                CONSTRUCTION
UNIT   05 WAVEGUIDE

TERMOB NO.   13-013

1.00 CONDITION

( ) 1.01 DIAGRAM OF MICROWAVE OSCILLATOR SYSTEM
( ) 1.02 DIAGRAM OF MICROWAVE TRANSMITTER SYSTEM
( ) 1.03 DIAGRAM OF RADAR TRANSMITTER SYSTEM
( ) 1.04 DIAGRAM OF HIGH FREQUENCY SPECTRUM ANALYZER
( ) 1.05 KLYSTRON TUBE
( ) 1.06 WAVEGUIDE DIODE PROBE AND HOLDER
( ) 1.07 X BAND CONVERTER
(.) 1.08 DISCRIMINATOR
( ) 1.09 AMPLIFIER
( ) 1.10 BARRETTER
( ) 1.11 POWER BRIDGE
( ) 1.12 POWER SUPPLIES
( ) 1.13 SLOTTED LINE
(.) 1.14 WAVEGUIDE TO COAX ADAPTER
( ) 1.15 FREQUENCY METER
( ) 1.16 BALOMETER
( ) 1.17 POWER METER
( ) 1.18 COUPLERS
( ) 1.19 ASSOCIATED HARDWARE AS NEEDED
( ) 1.20 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( ) 2.01 CONSTRUCT A MICROWAVE WAVEGUIDE CHASSIS EMPLOYING THE FOLLOWING OPERATIONS:

( ) 2.02 SELECT PROPER COMPONENTS
( ) 2.03 ASSEMBLE WAVEGUIDE CIRCUIT
( ) 2.04 ENERGIZE CIRCUIT
( ) 2.05 DEMONSTRATE PROPER OPERATION

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( ) 3.01 CIRCUIT PRODUCES AN OUTPUT THAT IS EXPECTED TO APPROVAL OF BOARD OF EXPERT RATERS. TO BE COMPLETED WITHIN 8 HOURS WITH EACH OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY

( ) 3.02 TO PRODUCE THE SIMPLEST CIRCUIT IN THE MOST ECONOMICAL WAY
( ) 3.03 TO ENSURE SAFETY AND RELIABLE OPERATION
( ) 3.04 WITH PROPER INPUT

```
( )   1.01   DIAGRAM OF MICROWAVE OSCILLATOR SYSTEM
( )   1.02   DIAGRAM OF MICROWAVE TRANSMITTER SYSTEM
( )   1.03   DIAGRAM OF RADAR TRANSMITTER SYSTEM
( )   1.04   DIAGRAM OF HIGH FREQUENCY SPECTRUM ANALYZER
( )   1.05   KLYSTRON TUBE
( )   1.06   WAVEGUIDE DIODE PROBE AND HOLDER
( )   1.07   X BAND CONVERTER
( )   1.08   DISCRIMINATOR
( )   1.09   _____
( )   1.10   BARRETTER
( )   1.11   POWER BRIDGE
( )   1.12   POWER SUPPLIES
( )   1.13   SLOTTED LINE
( )   1.14   WAVEGUIDE TO COAX ADAPTER
( )   1.15   FREQUENCY METER
( )   1.16   BALOMETER
( )   1.17   POWER METER
( )   1.18   COUPLERS
( )   1.19   ASSOCIATED HARDWARE AS NEEDED
( )   1.20   BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)
```

2.00   PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( )   2.01   CONSTRUCT A MICROWAVE WAVEGUIDE CHASSIS EMPLOYING THE FOLLOWING OPERATIONS:

```
( )   2.02   SELECT PROPER COMPONENTS
( )   2.03   ASSEMBLE WAVEGUIDE CIRCUIT
( )   2.04   ENERGIZE CIRCUIT
( )   2.05   DEMONSTRATE PROPER OPERATION
```

3.00   EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( )   3.01   CIRCUIT PRODUCES AN OUTPUT THAT IS EXPECTED TO APPROVAL OF BOARD OF EXPERT RATERS. TO BE COMPLETED WITHIN 8 HOURS WITH EACH OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY

```
( )   3.02   TO PRODUCE THE SIMPLEST CIRCUIT IN THE MOST ECONOMICAL
             WAY
( )   3.03   TO ENSURE SAFETY AND RELIABLE OPERATION
( )   3.04   WITH PROPER INPUT
( )   3.05   WITH REQUIRED VALUES DISPLAYED ON APPROPRIATE TEST
             EQUIPMENT
```

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PROGRAM ___ELECTRONICS___   DIVISION 01 ___CIRCUIT___
                                          ___CONSTRUCTION___
USOE CODE NO(S)_____   UNIT   05 ___WAVEGUIDE___

                               TERMOB NO.   ___13-013___

1.00 CONDITION

2.00 PERFORMANCE

      GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

      GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

MISOE NO. _____

PROGRAM ___ELECTRONICS_____   DIVISION 02 CIRCUIT DESIGN _____

UNIT   01 RECTIFIERS _____

TERMOB NO.   13-014 _____

1.00   CONDITION

( ) 1.01 LIST OF FORMULAS, TABLES, GRAPHS
( ) 1.02 SLIDE RULE/CALCULATOR
( ) 1.03 TUBE, DIODE MANUAL

2.00   PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

( ) 2.01 DESIGN A FILTERED, HALF-WAVE RECTIFIER WITH VOLTAGE
           DIVIDER HAVING THE FOLLOWING SPECIFICATIONS:

           INPUT   120 VAC
           OUTPUT   8VDC 200 MA and 5VDC 100 MA
           REGULATION   10%
           RIPPLE   1.0%
           AND EMPLOYING THE FOLLOWING PROCEDURE:

( ) 2.02 SELECT FORMULAS AND COMPUTE VALUES BASED ON OVERALL
           CIRCUIT INPUT/OUTPUT SPECIFICATIONS
( ) 2.03 SELECT FORMULAS AND COMPUTE VALUES BASED ON DEVELOPED
           SUB-ASSEMBLY REQUIREMENTS
( ) 2.04 SKETCH SCHEMATIC DIAGRAM

3.00   EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

( ) 3.01 CIRCUIT OPERATES SATISFACTORILY TO PRODUCE THE
           SPECIFIED RESULT TO THE APPROVAL OF A BOARD OF EXPERT
           RATERS. TO BE COMPLETED WITHIN 3 HOURS WITH EACH
           OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY

( ) 3.02 WHICH DESCRIBE THE CIRCUIT SUFFICIENTLY AND PRODUCE
           VALUES FOR MORE DETAILED COMPUTATION
( ) 3.03 WHICH DESCRIBE SUB-ASSEMBLY SUFFICIENTLY AND PRODUCE
           VALUES FOR DETERMINATION OF COMPONENT VALUES
( ) 3.04 WITH THE VALUES OF ALL CONDUCTORS, COMPONENTS AND
           POTENTIALS CLEARLY SHOWN, USING ACCEPTED ELECTRONIC
           SYMBOLS AND TECHNIQUES FOR SCHEMATICS

PROGRAM ELECTRONICS_____   DIVISION 02 ____CIRCUIT____
                                              DESIGN
USOE CODE NO(S)_____   UNIT   01 ____RECTIFIERS____

                                TERMOB NO.   13-014

1.00   CONDITION

2.00   PERFORMANCE

       GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00   EXTENT

       GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

MISOE NO. _____

1.00 CONDITION

    ( ) 1.01 LIST OF FORMULAS, TABLES, GRAPHS
    ( ) 1.02 SLIDE RULE/CALCULATOR
    ( ) 1.03 TUBE, DIODE MANUAL

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

( ) 2.01 DESIGN A FULL-WAVE RECTIFIER WITH CAPACITOR INPUT
           FILTER AND RESISTIVE LOAD HAVING THE FOLLOWING.
           SPECIFICATIONS
               INPUT   120 VAC
               OUTPUT   10 VAC 500 MA
               REGULATION   10%
               RIPPLE   1.0%

           AND EMPLOYING THE FOLLOWING PROCEDURE:

( ) 2.02 SELECT FORMULAS AND COMPUTE VALUES BASED ON OVERALL
           CIRCUIT INPUT/OUTPUT SPECIFICATIONS
( ) 2.03 SELECT FORMULAS AND COMPUTE VALUES BASED ON DEVELOPED
           SUB-ASSEMBLY REQUIREMENTS
( ) 2.04 SKETCH SCHEMATIC DIAGRAM

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

( ) 3.01 CIRCUIT OPERATES PROPERLY TO PRODUCE THE SPECIFIED
           RESULT TO THE APPROVAL OF A BOARD OF EXPERT RATERS.
           TO BE COMPLETED WITHIN 3 HOURS WITH EACH OPERATION
           JUDGED AS SATISFACTORY OR UNSATISFACTORY

( ) 3.02 WHICH DESCRIBE THE CIRCUIT SUFFICIENTLY AND PRODUCE
           VALUES FOR MORE DETAILED COMPUTATION
( ) 3.03 WHICH DESCRIBE SUB-ASSEMBLY SUFFICIENTLY AND PRODUCE
           VALUES FOR DETERMINATION OF COMPONENT VALUES
( ) 3.04 WITH THE VALUES OF ALL CONDUCTORS, COMPONENTS AND
           POTENTIALS CLEARLY SHOWN, USING ACCEPTED
           TECHNIQUES FOR SCHEMATICS

PROGRAM   ELECTRONICS   DIVISION 02   CIRCUIT DESIGN

USOE CODE NO(S)_____   UNIT   01   RECTIFIERS

                               TERMOB NO.   13-015

1.00 CONDITION

2.00 PERFORMANCE

      GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

      GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

PROGRAM ELECTRONICS

DIVISION 02 CIRCUIT DESIGN

UNIT 02 AMPLIFIERS

TERMOB NO. 13-016

1.00 CONDITION

( ) 1.01 LIST OF FORMULAS, TABLES, GRAPHS
( ) 1.02 SLIDE RULE/CALCULATOR
( ) 1.03 TRANSISTOR MANUAL

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

( ) 2.01 DESIGN A SINGLE-STAGE COMMON EMITTER VOLTAGE AMPLIFIER
WITH BIAS STABILIZATION HAVING THE FOLLOWING
SPECIFICATIONS:

INPUTS	9VDC, 40 MVAC (P-P)
OUTPUT	.4VAC (P-P)
GAIN	100 (MIN)
FREQUENCY RESPONSE	10HZ - 10KHZ $\pm$3DB

AND EMPLOYING THE FOLLOWING OPERATIONS:

( ) 2.02 SELECT FORMULAS AND COMPUTE VALUES BASED ON OVERALL
CIRCUIT INPUT/OUTPUT SPECIFICATIONS
( ) 2.03 SELECT FORMULAS AND COMPUTE VALUES BASED ON DEVELOPED
SUB-ASSEMBLY REQUIREMENTS
( ) 2.04 SKETCH SCHEMATIC DIAGRAM

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

( ) 3.01 CIRCUIT OPERATES SATISFACTORILY TO PRODUCE THE
SPECIFIED RESULT TO THE APPROVAL OF A BOARD OF EXPERT
RATERS. TO BE COMPLETED WITHIN 3 HOURS WITH EACH
OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY

( ) 3.02 WHICH DESCRIBE THE CIRCUIT SUFFICIENTLY AND PRODUCE
VALUES FOR MORE DETAILED COMPUTATION
( ) 3.03 WHICH DESCRIBE SUB-ASSEMBLY SUFFICIENTLY AND PRODUCE
VALUES FOR DETERMINATION OF COMPONENT VALUES
( ) 3.04 WITH THE VALUES OF ALL CONDUCTORS, COMPONENTS AND
POTENTIALS CLEARLY SHOWN, USING ACCEPTED ELEC-
TRONIC SYMBOLS AND TECHNIQUES FOR SCHEMATICS

PROGRAM ___ELECTRONICS___   DIVISION 02 ___CIRCUIT DESIGN___

USOE CODE NO(S)_____   UNIT   02 ___AMPLIFIERS___

_____   TERMOB NO.   ___13-016___

_____

_____

1.00 CONDITION

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

MISOE NO. _____

PROGRAM __ELECTRONICS_____   DIVISION 02 CIRCUIT DESIGN

                                      UNIT   02 AMPLIFIERS

                                      TERMOB NO. 13-017

1.00   CONDITION

       ( ) 1.01 LIST OF FORMULAS, TABLES, GRAPHS
       ( ) 1.02 SLIDE RULE/CALCULATOR
       ( ) 1.03 TUBE, TRANSISTOR MANUAL

2.00   PERFORMANCE

+--+
| GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME |
| ( ) 2.01 DESIGN A TWO STAGE PUSH-PULL POWER AMPLIFIER WITH |
| PROVISIONS FOR FEEDBACK HAVING THE FOLLOWING |
| SPECIFICATIONS: |
| |
| INPUT   9 VDC |
| OUTPUT   2 WATTS INTO 8 OHM SPEAKER |
| GAIN   100 (MIN.) |
| FREQUENCY RESPONSE   10 HZ – 10 KHZ ± 3 DECIBELS |
| |
| AND EMPLOYING THE FOLLOWING OPERATIONS: |
+--+
       ( ) 2.02 SELECT FORMULAS AND COMPUTE VALUES BASED ON OVERALL
                  CIRCUIT INPUT/OUTPUT SPECIFICATIONS
       ( ) 2.03 SELECT FORMULAS AND COMPUTE VALUES BASED ON DEVELOPED
                  SUB-ASSEMBLY REQUIREMENTS
       ( ) 2.04 SKETCH SCHEMATIC DIAGRAM

3.00   EXTENT

+--+
| GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME |
| ( ) 3.01 CIRCUIT OPERATES SATISFACTORILY TO PRODUCE SPECIFIED |
| RESULT TO THE APPROVAL OF A BOARD OF EXPERT RATERS. |
| TO BE COMPLETED WITHIN 3 HOURS WITH EACH STEP JUDGED |
| AS SATISFACTORY OR UNSATISFACTORY |
+--+
       ( ) 3.02 WHICH DESCRIBE THE CIRCUIT SUFFICIENTLY AND PRODUCE
                  VALUES FOR MORE DETAILED COMPUTATION
       ( ) 3.03 WHICH DESCRIBE SUB-ASSEMBLY SUFFICIENTLY AND PRODUCE
                  VALUES FOR DETERMINATION OF COMPONENT VALUES
       ( ) 3.04 WITH THE VALUES OF ALL CONDUCTORS, COMPONENTS AND
                  POTENTIALS CLEARLY SHOWN, USING ACCEPTED ELEC-
                  TRONIC SYMBOLS AND TECHNIQUES FOR SCHEMATICS

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PROGRAM ELECTRONICS_____

USOE CODE NO(S)_____

DIVISION 02 ____CIRCUIT DESIGN_____

UNIT   02 ___AMPLIFIERS_____

TERMOB NO. ___13-017_____

1.00 CONDITION

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

MISOE NO. _____

PROGRAM ___ELECTRONICS_____   DIVISION 02 CIRCUIT DESIGN_____
         _____
                                       UNIT   03 OSCILLATORS_____

                                       TERMOB NO. 13-018_____

1.00 CONDITION

      ( ) 1.01 LIST OF FORMULAS, TABLES, GRAPHS
      ( ) 1.02 SLIDE RULE/CALCULATOR
      ( ) 1.03 TUBE, SEMICONDUCTOR DATA HANDBOOK

2.00 PERFORMANCE

+---+
| GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME |
| ( ) 2.01 DESIGN A TUNABLE OSCILLATOR HAVING THE FOLLOWING |
| SPECIFICATIONS: |
| OUTPUT   SINE WAVE 2V (P-P) |
| TUNABLE RANGE   1000 KHZ - 2000 KHZ |
| |
| AND EMPLOYING THE FOLLOWING OPERATIONS: |
+---+
      ( ) 2.02 SELECT FORMULAS AND COMPUTE VALUES BASED ON OVERALL
                 CIRCUIT INPUT/OUTPUT SPECIFICATIONS
      ( ) 2.03 SELECT FORMULAS AND COMPUTE VALUES BASED ON DEVELOPED
                 SUB-ASSEMBLY REQUIREMENTS
      ( ) 2.04 SKETCH SCHEMATIC DIAGRAM

3.00 EXTENT

+---+
| GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME |
| ( ) 3.01 CIRCUIT OPERATES SATISFACTORILY TO PRODUCE THE |
| SPECIFIED RESULT TO THE APPROVAL OF A BOARD OF EXPERT |
| RATERS. TO BE COMPLETED WITHIN 3 HOURS WITH EACH |
| OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY |
+---+
      ( ) 3.02 WHICH DESCRIBE THE CIRCUIT SUFFICIENTLY AND PRODUCE
                 VALUES FOR MORE DETAILED COMPUTATION
      ( ) 3.03 WHICH DESCRIBE SUB-ASSEMBLY SUFFICIENTLY AND PRODUCE
                 VALUES FOR DETERMINATION OF COMPONENT VALUES
      ( ) 3.04 WITH THE VALUES OF ALL CONDUCTORS, COMPONENTS AND
                 POTENTIALS CLEARLY SHOWN, USING ACCEPTED ELECTRONIC
                 SYMBOLS AND TECHNIQUES FOR SCHEMATICS

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PROGRAM ELECTRONICS_____   DIVISION 02·___ CIRCUIT DESIGN_____

USOE CODE NO(S)_____   UNIT   03 ___ OSCILLATORS_____

                                        TERMOB NO.   13-018_____

1.00 CONDITION

2.00 PERFORMANCE

      GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

      GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

MISOE NO. _____

PROGRAM   ELECTRONICS _____   DIVISION 02 CIRCUIT DESIGN _____

                                               UNIT   03 OSCILLATORS _____

                                               TERMOB NO.   13-019 _____

1.00   CONDITION

       ( )   1.01   LIST OF FORMULAS, TABLES, GRAPHS
       ( )   1.02   SLIDE RULE/CALCULATOR
       ( )   1.03   TUBE, SEMICONDUCTOR DATA HANDBOOK

2.00   PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( )   2.01   DESIGN A SYMMETRICAL, STABLE EMITTER COUPLED MULTI-
             VIBRATOR HAVING THE FOLLOWING SPECIFICATIONS:

                  INPUT   18 VDC
                  OUTPUT   5V (P-P) AT 1 KHZ
                                           SYMMETRICAL SQUAREWAVE
             AND EMPLOYING THE FOLLOWING OPERATIONS:

( )   2.02   SELECT FORMULAS AND COMPUTE VALUES BASED ON OVERALL
             CIRCUIT INPUT/OUTPUT SPECIFICATIONS
( )   2.03   SELECT FORMULAS AND COMPUTE VALUES BASED ON DEVELOPED
             SUB-ASSEMBLY REQUIREMENTS
( )   2.04   SKETCH SCHEMATIC DIAGRAM

3.00   EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( )   3.01   CIRCUIT OPERATES SATISFACTORILY TO PRODUCE THE
             SPECIFIED RESULT TO THE APPROVAL OF A BOARD OF
             EXPERT RATERS. TO BE COMPLETED WITHIN 3 HOURS
             WITH EACH OPERATION JUDGED AS SATISFACTORY OR
             UNSATISFACTORY

( )   3.02   WHICH DESCRIBE THE CIRCUIT SUFFICIENTLY AND PRODUCE
             VALUES FOR MORE DETAILED COMPUTATION
( )   3.03   WHICH DESCRIBE SUB-ASSEMBLY SUFFICIENTLY AND PRODUCE
             VALUES FOR DETERMINATION OF COMPONENT VALUES
(.)   3.04   WITH THE VALUES OF ALL CONDUCTORS, COMPONENTS AND
             POTENTIALS CLEARLY SHOWN, USING ACCEPTED ELEC-
             TRONIC SYMBOLS AND TECHNIQUES FOR SCHEMATICS

PROGRAM ELECTRONICS_____

USOE CODE NO(S)_____

DIVISION 02   CIRCUIT DESIGN_____

UNIT   03   OSCILLATORS_____

TERMOB NO.   13-019

1.00   CONDITION

2.00   PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00   EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

MISOE NO. _____

PROGRAM ___ELECTRONICS_____   DIVISION 02 CIRCUIT DESIGN_____

                                    UNIT   04 SPECIAL CIRCUITS___
                                                  AND DEVICES_____
                                    TERMOB NO.   13-020_____

1.00 CONDITION

      ( ) 1.01 LIST OF FORMULAS, TABLES, GRAPHS
      ( ) 1.02 SLIDE RULE/CALCULATOR
      ( ) 1.03 TUBE, SEMICONDUCTOR DATA HANDBOOK

2.00 PERFORMANCE

```
GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( )   2.01   DESIGN A CURRENT SWEEP CIRCUIT HAVING THE FOLLOWING
             SPECIFICATIONS:

                INPUT                 2V (P-P) PULSE
                OUTPUT                5V (P-P( AT 100 MA

             AND EMPLOYING THE FOLLOWING OPERATIONS:
```

      ( )   2.02   SELECT FORMULAS AND COMPUTE VALUES BASED ON OVERALL
                      CIRCUIT INPUT/OUTPUT SPECIFICATIONS
      ( )   2.03   SELECT FORMULAS AND COMPUTE VALUES BASED ON DEVELOPED
                      SUB-ASSEMBLY REQUIREMENTS
      ( )   2.04   SKETCH SCHEMATIC DIAGRAM

3.00 EXTENT

```
GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( )   3.01   CIRCUIT OPERATES SATISFACTORILY TO PRODUCE THE SPECIFIED
             RESULT TO THE APPROVAL OF A BOARD OF EXPERT RATERS.
             TO BE COMPLETED WITHIN 3 HOURS WITH EACH OPERATION
             JUDGED AS SATISFACTORY OR UNSATISFACTORY
```

      ( )   3.02   WHICH DESCRIBE THE CIRCUIT SUFFICIENTLY AND PRODUCE
                      VALUES FOR MORE DETAILED COMPUTATION
      ( )   3.03   WHICH DESCRIBE SUB-ASSEMBLY SUFFICIENTLY AND PRODUCE
                      VALUES FOR DETERMINATION OF COMPONENT VALUES
      ( )   3.04   WITH THE VALUES OF ALL CONDUCTORS, COMPONENTS AND
                      POTENTIALS CLEARLY SHOWN, USING ACCEPTED ELECTRONIC
                      SYMBOLS AND TECHNIQUES FOR SCHEMATICS

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PROGRAM ELECTRONICS _____

USOE CODE NO(S)_____

DIVISION 02 CIRCUIT DESIGN _____

UNIT   04 SPECIAL CIRCUITS
AND DEVICES

TERMOB NO. 13-020

1.00 CONDITION

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

MISOE NO. _____

PROGRAM ___ELECTRONICS_____ DIVISION 02 CIRCUIT DESIGN

UNIT   05 DIGITAL CIRCUITS

TERMOB NO.   13-021

1.00 CONDITION

( ) 1.01 TEMPLATE
( ) 1.02 DRAWING BOARD AND ACCESSORIES
( ) 1.03 MICROELECTRONICS HANDBOOK - 5400 or 7400 SERIES

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( ) 2.01 DESIGN A BCD DECODER USING A BINARY COUNTER AND
           NECESSARY GATES EMPLOYING THE FOLLOWING OPERATIONS:

( ) 2.02 SELECT GATES FROM THE MICROELECTRONICS HANDBOOK
( ) 2.03 SKETCH A LOGIC DIAGRAM
( ) 2.04 PROVIDE A PARTS LIST

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( ) 3.01 CIRCUIT IS FUNCTIONAL AND PRACTICAL TO APPROVAL OF
           A BOARD OF EXPERT RATERS. TO BE COMPLETED WITHIN
           3 HOURS WITH EACH OPERATION JUDGED AS SATISFACTORY
           OR UNSATISFACTORY

( ) 3.02 GATES SELECTED ARE MOST ECONOMICAL AND PRACTICAL
( ) 3.03 COMPLETED LOGIC DIAGRAM WITH ALL APPLICABLE LABELS
( ) 3.04 COMPLETE PARTS LIST WITH PART NUMBERS AND MANUFACTURER

PROGRAM \ ELECTRONICS_____

USOE CODE NO(S)_____

DIVISION 02 ___CIRCUIT DESIGN_____

UNIT   05   __DIGITAL CIRCUITS___

TERMOB NO.   __13-021___

1.00   CONDITION

2.00   PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00   EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

/

100

MISOE NO. _____

PROGRAM ___ELECTRONICS_____

DIVISION 02 CIRCUIT DESIGN

UNIT 05 DIGITAL CIRCUITS

TERMOB NO. 13-022

1.00 CONDITION

( ) 1.01 LIST OF FORMULAS, TABLES, GRAPHS
( ) 1.02 SLIDE RULE/CALCULATOR
( ) 1.03 DIGITAL LOGIC BOARDS
( ) 1.04 ASSOCIATED HARDWARE AS NEEDED
( ) 1.05 SEMICONDUCTOR DATA HANDBOOK

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

( ) 2.01 DESIGN A 4-BIT BINARY COUNTER WITH PROVISIONS FOR
INDICATOR LIGHTS AND A RESET HAVING THE FOLLOWING
SPECIFICATIONS:

INPUT   1 HZ PULSE 0-3V
OUTPUT   AS SPECIFIED ABOVE

AND EMPLOYING THE FOLLOWING OPERATIONS:

( ) 2.02 SELECT FORMULAS AND COMPUTE VALUES BASED ON OVERALL
CIRCUIT INPUT/OUTPUT SPECIFICATIONS
( ) 2.03 SELECT FORMULAS AND COMPUTE VALUES BASED ON DEVELOPED
SUB-ASSEMBLY REQUIREMENTS
( ) 2.04 SKETCH SCHEMATIC DIAGRAM

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

( ) 3.01 CIRCUIT OPERATES SATISFACTORILY TO PRODUCE THE
SPECIFIED RESULT TO THE APPROVAL OF A BOARD OF
EXPERT RATERS. TO BE COMPLETED WITHIN 3 HOURS
WITH EACH OPERATION JUDGED AS SATISFACTORY OR
UNSATISFACTORY

( ) 3.02 WHICH DESCRIBE THE CIRCUIT SUFFICIENTLY AND PRODUCE
VALUES FOR MORE DETAILED COMPUTATION
( ) 3.03 WHICH DESCRIBE SUB-ASSEMBLY SUFFICIENTLY AND PRODUCE
VALUES FOR DETERMINATION OF COMPONENT VALUES
( ) 3.04 WITH THE VALUES OF ALL CONDUCTORS, COMPONENTS AND
POTENTIALS CLEARLY SHOWN, USING ACCEPTED
ELECTRONIC SYMBOLS AND TECHNIQUES FOR SCHEMATICS

PROGRAM ELECTRONICS

USOE CODE NO(S) _____

DIVISION 02 ___ CIRCUIT DESIGN

UNIT   05   DIGITAL CIRCUITS

TERMOB NO.   13-022

1.00 CONDITION

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

MISOE NO. _____

1.00   CONDITION

( )   1.01   LIST OF FORMULAS, TABLES, GRAPHS
( )   1.02   SLIDE RULE/CALCULATOR
( )   1.03   MICROELECTRONICS DATA HANDBOOK

2.00   PERFORMANCE

```
GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( )   2.01   DESIGN ALL OF THE GATES LISTED BELOW TO THE
             FOLLOWING SPECIFICATIONS:

             AND GATE               INPUT     2 PULSE SOURCES
             OR GATE                          0 TO +3 V
             NAND GATE
             NOR GATE               OUTPUT    0 TO 3 V
             EXCLUSIVE OR GATE

             AND EMPLOYING THE FOLLOWING OPERATIONS:
```

( )   2.02   SELECT APPROPRIATE NAND GATES (7400 SERIES) TO
             DEVELOP THESE GATES.
( )   2.03   SKETCH A LOGIC DIAGRAM FOR EACH
( )   2.04   DRAW TRUTH TABLE FOR EACH GATE.

3.00   EXTENT

```
GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( )   3.01   CIRCUITS OPERATE SATISFACTORILY TO PRODUCE THE
             SPECIFIED RESULT TO THE APPROVAL OF A BOARD OF
             EXPERT RATERS.  TO BE COMPLETED WITHIN 1 HOUR
             WITH EACH OPERATION JUDGED AS SATISFACTORY OR
             UNSATISFACTORY
```

( )   3.02   GATE USEAGE WILL BE MINIMUM
( )   3.03   LOGIC DIAGRAM WILL INCLUDE PIN NUMBERS, PART NUMBERS,
             PROPER SYMBOLOGY, AND CORRECT NOMENCLATURE
( )   3.04   100% ACCURATE ON TRUTH TABLES

PROGRAM ___ELECTRONICS_____   DIVISION 02 ___CIRCUIT DESIGN_____

USOE CODE NO(S)_____   UNIT   05   DIGITAL CIRCUITS .
_____
_____   TERMOB NO.   13-023
_____

1.00 CONDITION

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

MISOE NO. _____

PROGRAM ___ELECTRONICS___   DIVISION 03 CIRCUIT CALIBRATION

_____   UNIT   01 METERS

                             TERMOB.NO.   13-024

1.00 CONDITION

      ( ) 1.01 VOM OUT OF CALIBRATION
      ( ) 1.02 VTVM OUT OF CALIBRATION
      ( ) 1.03 DVM OUT OF CALIBRATION
      ( ) 1.04 SERVICE MANUAL
      ( ) 1.05 TEST LEADS AND PROBER
      ( ) 1.06 REQUIRED TEST EQUIPMENT

2.00 PERFORMANCE

┌───┐
│ GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME   │
│ ( )   2.01   CALIBRATE A METER EMPLOYING THE FOLLOWING PROCEDURE: │
└───┘
      ( ) 2.02 SELECT PROPER TEST EQUIPMENT
      ( ) 2.03 CHECK AND ZERO AS NECESSARY ALL TEST EQUIPMENT USED
      ( ) 2.04 CALIBRATE METER
      ( ) 2.05 VERIFY AND INDICATE AREAS WHICH ARE OUT OF SPECIFICATION

3.00 EXTENT

┌───┐
│ GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME   │
│ ( )   3.01   METER CALIBRATED TO MANUFACTURER'S SPECIFICATIONS   │
│   AND TO THE APPROVAL OF A BOARD OF EXPERT RATERS.   │
│   TO BE COMPLETED WITHIN 3 HOURS WITH EACH OPERATION   │
│   JUDGED AS SATISFACTORY OR UNSATISFACTORY   │
└───┘
      ( ) 3.02 AS SPECIFIED IN SERVICE MANUAL
      ( ) 3.03 IN ACCORDANCE WITH MANUFACTURER'S PROCEDURES
      ( ) 3.04 FOLLOWING PROCEDURES RECOMMENDED IN SERVICE MANUAL
      ( ) 3.05 TO THE SATISFACTION OF THE PANEL

PROGRAM ELECTRONICS _____ DIVISION 03 CIRCUIT CALIBRATION

USOE CODE NO(S) _____ UNIT . 01 METERS

TERMOB NO. 13-024

1.00 CONDITION

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

MISOE NO. _____

1.00 CONDITION

( ) 1.01 POWER SUPPLY OUT OF CALIBRATION
( ) 1.02 SERVICE MANUAL
( ) 1.03 TEST LEADS AND PROBES
( ) 1.04 REQUIRED TEST EQUIPMENT

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( ) 2.01 CALIBRATE A POWER SUPPLY EMPLOYING THE FOLLOWING OPERATIONS:

( ) 2.02 SELECT PROPER TEST EQUIPMENT
( ) 2.03 CHECK AND ZERO AS NECESSARY ALL TEST EQUIPMENT USED
( ) 2.04 CALIBRATE POWER SUPPLY
( ) 2.05 VERIFY AND INDICATE AREAS WHICH ARE OUT OF SPECIFICATION

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( ) 3.01 POWER SUPPLY CALIBRATED TO MANUFACTURER'S SPECIFICATIONS AND TO THE APPROVAL OF A BOARD OF EXPERT RATERS. TO BE COMPLETED WITHIN 2 HOURS WITH EACH OPERATION · JUDGED AS SATISFACTORY OR UNSATISFACTORY

( ) 3.02 AS SPECIFIED IN SERVICE MANUAL
( ) 3.03 IN ACCORDANCE WITH MANUFACTURER'S PROCEDURE
( ) 3.04 FOLLOWING PROCEDURES RECOMMENDED IN SERVICE MANUAL
( ) 3.05 TO THE SATISFACTION PANEL

PROGRAM ELECTRONICS

DIVISION 03   CIRCUIT
                CALIBRATION
USOE CODE NO(S)

UNIT   02   POWER SUPPLIES

TERMOB NO.   13-025

1.00 CONDITION

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

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MISOE NO. _____

PROGRAM __ELECTRONICS_____   DIVISION 03 CIRCUIT
                                                      CALIBRATION
                                         UNIT   03 OSCILLOSCOPES

                                         TERMOB NO.   13-026

1.00 CONDITION

      ( ) 1.01 SINGLE BEAM OSCILLOSCOPE OUT OF CALIBRATION
      ( ) 1.02 DUAL BEAM OSCILLOSCOPE OUT OF CALIBRATION
      ( ) 1.03 TWO CHANNEL OSCILLOSCOPE OUT OF CALIBRATION
      ( ) 1.04 FOUR CHANNEL OSCILLOSCOPE OUT OF CALIBRATION
      ( ) 1.05 APPLICABLE SERVICE MANUAL
      ( ) 1.06 TEST LEADS AND PROBES
      ( ) 1.07 REQUIRED TEST EQUIPMENT

2.00 PERFORMANCE

┌───┐
│ GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME   │
│ ( ) 2.01 CALIBRATE AN OSCILLOSCOPE EMPLOYING THE FOLLOWING   │
│   OPERATIONS: │
└───┘
      ( ) 2.02 SELECT PROPER TEST EQUIPMENT
      ( ) 2.03 CHECK AND ZERO AS NECESSARY ALL TEST EQUIPMENT USED
      ( ) 2.04 CALIBRATE OSCILLOSCOPE
      ( ) 2.05 VERIFY AND INDICATE AREAS WHICH ARE OUT OF
                 SPECIFICATION

3.00 EXTENT

┌───┐
│ GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME   │
│ ( ) 3.01 OSCILLOSCOPE CALIBRATED TO MANUFACTURER'S   │
│   SPECIFICATIONS AND TO THE APPROVAL OF A BOARD OF   │
│   EXPERT RATERS. TO BE COMPLETED WITHIN 2 HOURS   │
│   WITH EACH OPERATION JUDGED AS SATISFACTORY OR   │
│   UNSATISFACTORY   │
└───┘
      ( ) 3.02 AS SPECIFIED IN SERVICE MANUAL
      ( ) 3.03 IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS
      ( ) 3.04 FOLLOWING PROCEDURE RECOMMENDED IN SERVICE MANUAL
      ( ) 3.05 TO THE SATISFACTION OF THE PANEL

PROGRAM ELECTRONICS

USOE CODE NO(S) _____

DIVISION 03   CIRCUIT
               CALIBRATION
UNIT   03   OSCILLOSCOPES

TERMOB NO.   13-026

1.00 CONDITION

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

MISOE NO. _____

PROGRAM   ELECTRONICS   DIVISION 03   CIRCUIT
                                                          CALIBRATION
                                          UNIT   04   FUNCTION
                                                          GENERATOR
                                          TERMOB NO.   13-027

1.00   CONDITION

       ( )   1.01   OSCILLATOR OUT OF CALIBRATION
       ( )   1.02   FUNCTION GENERATOR OUT OF CALIBRATION
       ( )   1.03   PULSE GENERATOR OUT OF CALIBRATION
       ( )   1.04   SQUARE WAVE GENERATOR OUT OF CALIBRATION
       ( )   1.05   APPLICABLE SERVICE MANUALS
       ( )   1.06   TEST LEADS AND PROBES
       ( )   1.07   REQUIRED TEST EQUIPMENT

2.00   PERFORMANCE

┌───┐
│ GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME   │
│ ( )   2.01   CALIBRATE A FUNCTION GENERATOR EMPLOYING THE   │
│   FOLLOWING OPERATIONS: │
└───┘

       ( )   2.02   SELECT PROPER TEST EQUIPMENT
       ( )   2.03   CHECK AND ZERO AS NECESSARY ALL TEST EQUIPMENT USED
       ( )   2.04   CALIBRATE FUNCTION GENERATOR
       ( )   2.05   VERIFY AND INDICATE AREAS WHICH ARE OUT OF SPECIFICATION

3.00   EXTENT

┌───┐
│ GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME   │
│ ( )   3.01   FUNCTION GENERATOR CALIBRATED TO MANUFACTURER'S   │
│   SPECIFICATIONS AND TO THE APPROVAL OF A BOARD OF   │
│   EXPERT RATERS. TO BE COMPLETED WITHIN 2 HOURS   │
│   WITH EACH OPERATION JUDGED AS SATISFACTORY OR   │
│   UNSATISFACTORY   │
└───┘

       ( )   3.02   AS SPECIFIED IN SERVICE MANUAL
       ( )   3.03   IN ACCORDANCE WITH MANUFACTURER'S PROCEDURE
       ( )   3.04   FOLLOWING PROCEDURE RECOMMENDED IN SERVICE MANUAL
       ( )   3.05   TO THE SATISFACTION OF THE PANEL

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PROGRAM ELECTRONICS_____   DIVISION 03   CIRCUIT_____
                                                CALIBRATION_____
USOE CODE NO(S)_____   UNIT   04   FUNCTION_____
              _____   GENERATOR_____
              _____   TERMOB NO.   13-027_____
              _____

1.00 CONDITION

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

MISOE NO. _____

PROGRAM _____ELECTRONICS_____   DIVISION 04 CIRCUIT TESTING

UNIT   01 RECTIFIERS

TERMOB NO. 13-028

1.00 CONDITION

( ) 1.01 FULL WAVE RECTIFIER WITH FILTERING
( ) 1.02 FULL WAVE BRIDGE RECTIFIER WITH FILTERING
( ) 1.03 HALF WAVE RECTIFIER WITH FILTERING
( ) 1.04 RECTIFIER CIRCUIT WITH VOLTAGE DIVIDER
( ) 1.05 SCHEMATIC DIAGRAMS
( ) 1.06 LIST OF FORMULAS, TABLES, GRAPHS, ETC.
( ) 1.07 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( ) 2.01 TEST A RECTIFIER TO DETERMINE CIRCUIT CHARACTERISTICS
           EMPLOYING THE FOLLOWING OPERATIONS:

( ) 2.02 SELECT PROPER TEST EQUIPMENT
( ) 2.03 CHECK AND ZERO AS NECESSARY ALL TEST EQUIPMENT USED
( ) 2.04 SELECT A RECTIFIER CIRCUIT TO BE TESTED
( ) 2.05 DETERMINE % RIPPLE
( ) 2.06 DETERMINE % REGULATION

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( ) 3.01 FOLLOWING PROPER PROCEDURES AND SAFETY PRECAUTIONS
           AS DETERMINED BY A BOARD OF EXPERT RATERS. ALL
           CHECKS TO BE COMPLETED WITHIN 4 HOURS WITH EACH
           OPERATION JUDGED SATISFACTORY OR UNSATISFACTORY

( ) 3.02 USING TEST INSTRUMENTS OF SUFFICIENT SENSITIVITY AND
           CHARACTERISTIC TO PRODUCE VALID DATA
( ) 3.03 IN ACCORDANCE WITH MANUFACTURER'S PROCEDURES
( ) 3.04 TO AN ACCURACY THAT WILL VALIDATE THEORETICAL DATA
           AS DETERMINED BY THE BOARD OF RATERS
( ) 3.05 TO AN ACCURACY THAT WILL VALIDATE THEORETICAL DATA
           AS DETERMINED BY THE BOARD OF RATERS
( ) 3.06 TO AN ACCURACY THAT WILL VALIDATE THEORETICAL DATA
           AS DETERMINED BY THE BOARD OF RATERS

PROGRAM ELECTRONICS _____

USOE CODE NO(S)_____

DIVISION 04 ___CIRCUIT TESTING____

UNIT   01 ___RECTIFIERS_____

TERMOB NO.   ___13-028_____

1.00 CONDITION

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME .

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

MISOE NO. _____

PROGRAM __ELECTRONICS_____ DIVISION 04 CIRCUIT TESTING_____

_____ UNIT   02 AMPLIFIERS_____

                                  TERMOB NO. 13-029

1.00 CONDITION

( ) 1.01 MULTI STAGE VOLTAGE AMPLIFIER
( ) 1.02 SINGLE STAGE VOLTAGE AMPLIFIER
( ) 1.03 COMMON BASE VOLTAGE AMPLIFIER
( ) 1.04 COMMON EMITTER VOLTAGE AMPLIFIER
( ) 1.05 COMMON COLLECTOR VOLTAGE AMPLIFIER
( ) 1.06 SCHEMATIC DIAGRAMS
( ) 1.07 SPECIFICATION SHEET
( ) 1.08 POWER SUPPLY
( ) 1.09 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( ) 2.01 TEST A DISCRETE COMPONENT SOLID STATE VOLTAGE
          AMPLIFIER TO DETERMINE CIRCUIT CHARACTERISTICS
          EMPLOYING THE FOLLOWING OPERATIONS:

( ) 2.02 SELECT PROPER TEST EQUIPMENT
( ) 2.03 CHECK AND ZERO AS NECESSARY ALL TEST EQUIPMENT USED
( ) 2.04 DETERMINE VOLTAGE GAIN
( ) 2.05 DETERMINE INPUT/OUTPUT IMPEDANCE
( ) 2.06 DETERMINE HIGH/LOW FREQUENCY CUTOFFS
( ) 2.07 DETERMINE POWER GAIN
( ) 2.08 DETERMINE FREQUENCY RESPONSE CURVE

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( ) 3.01 FOLLOWING PROPER PROCEDURES AND SAFETY PRECAUTIONS
          TO APPROVAL OF A BOARD OF EXPERT RATERS. TO BE
          COMPLETED WITHIN 6 HOURS WITH EACH OPERATION
          JUDGED AS SATISFACTORY OR UNSATISFACTORY

( ) 3.02 OF SUFFICIENT SENSITIVITY AND CHARACTERISTICS TO
          PRODUCE VALID DATA
( ) 3.03 IN ACCORDANCE WITH MANUFACTURER'S PROCEDURES
( ) 3.04 TO AN ACCURACY THAT WILL VALIDATE THEORETICAL DATA
          AS DETERMINED BY THE BOARD OF RATERS
( ) 3.05 TO AN ACCURACY THAT WILL VALIDATE THEORETICAL DATA
          AS DETERMINED BY THE BOARD OF RATERS
( ) 3.06 TO AN ACCURACY THAT WILL VALIDATE THEORETICAL DATA
          AS DETERMINED BY THE BOARD OF RATERS
( ) 3.07 TO AN ACCURACY THAT WILL VALIDATE THEORETICAL DATA
          AS DETERMINED BY THE BOARD OF RATERS

```
( )  1.01  MULTI STAGE VOLTAGE AMPLIFIER
( )  1.02  SINGLE STAGE VOLTAGE AMPLIFIER
( )  1.03  COMMON BASE VOLTAGE AMPLIFIER
( )  1.04  COMMON EMITTER VOLTAGE AMPLIFIER
( )  1.05  COMMON COLLECTOR VOLTAGE AMPLIFIER
( )  1.06  SCHEMATIC DIAGRAMS
( )  1.07  SPECIFICATION SHEET
( )  1.08  POWER SUPPLY
( )  1.09  BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)
```

2.00   PERFORMANCE

```
+------------------------------------------------------------------+
| GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME           |
| ( )   2.01  TEST A DISCRETE COMPONENT SOLID STATE VOLTAGE        |
|             AMPLIFIER TO DETERMINE CIRCUIT CHARACTERISTICS       |
|             EMPLOYING THE FOLLOWING OPERATIONS:                  |
+------------------------------------------------------------------+

( )   2.02  SELECT PROPER TEST EQUIPMENT
( )   2.03  CHECK AND ZERO AS NECESSARY ALL TEST EQUIPMENT USED
( )   2.04  DETERMINE VOLTAGE GAIN
( )   2.05  DETERMINE INPUT/OUTPUT IMPEDANCE
( )   2.06  DETERMINE HIGH/LOW FREQUENCY CUTOFFS
( )   2.07  DETERMINE POWER GAIN
( )   2.08  DETERMINE FREQUENCY RESPONSE CURVE
```

3.00   EXTENT

```
+------------------------------------------------------------------+
| GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME      |
| ( )   3.01  FOLLOWING PROPER PROCEDURES AND SAFETY PRECAUTIONS   |
|             TO APPROVAL OF A BOARD OF EXPERT RATERS.  TO BE      |
|             COMPLETED WITHIN 6 HOURS WITH EACH OPERATION         |
|             JUDGED AS SATISFACTORY OR UNSATISFACTORY             |
+------------------------------------------------------------------+

( )   3.02  OF SUFFICIENT SENSITIVITY AND CHARACTERISTICS TO
            PRODUCE VALID DATA
( )   3.03  IN ACCORDANCE WITH MANUFACTURER'S PROCEDURES
( )   3.04  TO AN ACCURACY THAT WILL VALIDATE THEORETICAL DATA
            AS DETERMINED BY THE BOARD OF RATERS
( )   3.05  TO AN ACCURACY THAT WILL VALIDATE THEORETICAL DATA
            AS DETERMINED BY THE BOARD OF RATERS
( )   3.06  TO AN ACCURACY THAT WILL VALIDATE THEORETICAL DATA
            AS DETERMINED BY THE BOARD OF RATERS
( )   3.07  TO AN ACCURACY THAT WILL VALIDATE THEORETICAL DATA
            AS DETERMINED BY THE BOARD OF RATERS
( )   3.08  TO AN ACCURACY THAT WILL VALIDATE THEORETICAL DATA
            AS DETERMINED BY THE BOARD OF RATERS
```

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PROGRAM ELECTRONICS _____   DIVISION 04   CIRCUIT TESTING _____

USOE CODE NO(S)_____   UNIT   02   AMPLIFIERS _____
           _____
           _____   TERMOB NO.   13-029
           _____
           _____

1.00 CONDITION

2.00 PERFORMANCE

    GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

    GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

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PROGRAM __ELECTRONICS_____

DIVISION 04 __CIRCUIT TESTING__

UNIT __ 02 __AMPLIFIERS__

TERMOB NO. __13-030__

1.00 CONDITION

( ) 1.01 VACUUM TUBE POWER AMPLIFIER
( ) 1.02 CATHODE FOLLOWER AMPLIFIER
( ) 1.03 VACUUM TUBE VOLTAGE AMPLIFIER
( ) 1.04 CLASS A AMPLIFIER
( ) 1.05 CLASS B AMPLIFIER
( ) 1.06 CLASS C AMPLIFIER
( ) 1.07 SPECIFICATION SHEET
( ) 1.08 SCHEMATIC DIAGRAM
( ) 1.09 LIST OF FORMULAS, TABLES, GRAPHS, ETC.
( ) 1.10 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( ) 2.01 TEST A VACUUM TUBE AMPLIFIER TO DETERMINE CIRCUIT
CHARACTERISTICS EMPLOYING THE FOLLOWING OPERATIONS:

( ) 2.02 SELECT PROPER TEST EQUIPMENT
( ) 2.03 CHECK AND ZERO AS NECESSARY ALL TEST EQUIPMENT USED
( ) 2.04 DETERMINE VOLTAGE GAIN
( ) 2.05 DETERMINE INPUT/OUTPUT IMPEDANCE
( ) 2.06 DETERMINE HIGH/LOW FREQUENCY CUTOFFS
( ) 2.07 DETERMINE POWER GAIN
( ) 2.08 DETERMINE FREQUENCY RESPONSE CURVE

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( ) 3.01 FOLLOWING PROPER PROCEDURES AND SAFETY PRECAUTIONS
TO APPROVAL OF BOARD OF EXPERT RATERS. TO BE
COMPLETED WITHIN 6 HOURS WITH EACH OPERATION
JUDGED AS SATISFACTORY OR UNSATISFACTORY

( ) 3.02 OF SUFFICIENT SENSITIVITY AND CHARACTERISTICS TO
PRODUCE VALID DATA
( ) 3.03 IN ACCORDANCE WITH MANUFACTURER'S PROCEDURES
( ) 3.04 TO AN ACCURACY THAT WILL VALIDATE THEORETICAL DATA
AS DETERMINED BY THE BOARD OF RATERS
( ) 3.05 TO AN ACCURACY THAT WILL VALIDATE THEORETICAL DATA
AS DETERMINED BY THE BOARD OF RATERS
( ) 3.06 TO AN ACCURACY THAT WILL VALIDATE THEORETICAL DATA
AS DETERMINED BY THE BOARD OF RATERS
( ) 3.07 TO AN ACCURACY THAT WILL VALIDATE THEORETICAL DATA
AS DETERMINED BY THE BOARD OF RATERS

( ) 1.01 VACUUM TUBE POWER AMPLIFIER
( ) 1.02 CATHODE FOLLOWER AMPLIFIER
( ) 1.03 VACUUM TUBE VOLTAGE AMPLIFIER
( ) 1.04 CLASS A AMPLIFIER
( ) 1.05 CLASS B AMPLIFIER
( ) 1.06 CLASS C AMPLIFIER
( ) 1.07 SPECIFICATION SHEET
( ) 1.08 SCHEMATIC DIAGRAM
( ) 1.09 LIST OF FORMULAS, TABLES, GRAPHS, ETC.
( ) 1.10 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( ) 2.01 TEST A VACUUM TUBE AMPLIFIER TO DETERMINE CIRCUIT
CHARACTERISTICS EMPLOYING THE FOLLOWING OPERATIONS:

( ) 2.02 SELECT PROPER TEST EQUIPMENT
( ) 2.03 CHECK AND ZERO AS NECESSARY ALL TEST EQUIPMENT USED
( ) 2.04 DETERMINE VOLTAGE GAIN
( ) 2.05 DETERMINE INPUT/OUTPUT IMPEDANCE
( ) 2.06 DETERMINE HIGH/LOW FREQUENCY CUTOFFS
( ) 2.07 DETERMINE POWER GAIN
( ) 2.08 DETERMINE FREQUENCY RESPONSE CURVE

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( ) 3.01 FOLLOWING PROPER PROCEDURES AND SAFETY PRECAUTIONS
TO APPROVAL OF BOARD OF EXPERT RATERS. TO BE
COMPLETED WITHIN 6 HOURS WITH EACH OPERATION
JUDGED AS SATISFACTORY OR UNSATISFACTORY

( ) 3.02 OF SUFFICIENT SENSITIVITY AND CHARACTERISTICS TO
PRODUCE VALID DATA
( ) 3.03 IN ACCORDANCE WITH MANUFACTURER'S PROCEDURES
( ) 3.04 TO AN ACCURACY THAT WILL VALIDATE THEORETICAL DATA
AS DETERMINED BY THE BOARD OF RATERS
( ) 3.05 TO AN ACCURACY THAT WILL VALIDATE THEORETICAL DATA
AS DETERMINED BY THE BOARD OF RATERS
( ) 3.06 TO AN ACCURACY THAT WILL VALIDATE THEORETICAL DATA
AS DETERMINED BY THE BOARD OF RATERS
( ) 3.07 TO AN ACCURACY THAT WILL VALIDATE THEORETICAL DATA
AS DETERMINED BY THE BOARD OF RATERS
( ) 3.08 TO AN ACCURACY THAT WILL VALIDATE THEORETICAL DATA
AS DETERMINED BY THE BOARD OF RATERS

PROGRAM ELECTRONICS   .   DIVISION 04   CIRCUIT TESTING

USOE CODE NO(S):_____   UNIT   02   AMPLIFIERS
          _____
          _____   TERMOB NO.   13-030
          _____
          _____
          _____

1.00 CONDITION

2.00 PERFORMANCE

   GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

   GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

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PROGRAM ___ELECTRONICS_____   DIVISION 04 CIRCUIT TESTING

_____   UNIT . 02 AMPLIFIERS

                                         TERMOB NO.   13-031

1.00 CONDITION

```
( )  1.01  AUDIO IC AMPLIFIER
( )  1.02  OPAMP
( )  1.03  DC IC AMPLIFIER
( )  1.04  VHF IC AMPLIFIER
( )  1.05  SCHEMATIC DIAGRAM
( )  1.06  LIST OF FORMULAS, TABLES, GRAPHS, ETC.
( )  1.07  POWER SUPPLY
( )  1.08  BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)
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2.00 PERFORMANCE

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GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( )  2.01  TEST AN INTEGRATED CIRCUIT AMPLIFIER TO DETERMINE
           CIRCUIT CHARACTERISTICS EMPLOYING THE FOLLOWING
           OPERATIONS:
```

```
( )  2.02  SELECT PROPER TEST EQUIPMENT
( )  2.03  CHECK AND ZERO AS NECESSARY ALL TEST EQUIPMENT USED.
( )  2.04  DETERMINE VOLTAGE GAIN
( )  2.05  DETERMINE INPUT/OUTPUT IMPEDANCE
( )  2.06  DETERMINE HIGH/LOW FREQUENCY CUTOFFS
( )  2.07  DETERMINE POWER GAIN
( )  2.08  DETERMINE FREQUENCY RESPONSE CURVE
```

3.00 EXTENT

```
GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( )  3.01  FOLLOWING PROPER PROCEDURES AND SAFETY PRECAUTIONS
           TO APPROVAL OF A BOARD OF EXPERT RATERS.  TO BE
           COMPLETED WITHIN 2 HOURS WITH EACH OPERATION
           JUDGED AS SATISFACTORY OR UNSATISFACTORY
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```
( )  3.02  OF SUFFICIENT SENSITIVITY AND CHARACTERISTICS TO
           PRODUCE VALID DATA
( )  3.03  IN ACCORDANCE WITH MANUFACTURER'S PROCEDURES
( )  3.04  TO AN ACCURACY THAT WILL VALIDATE THEORETICAL DATA
           AS DETERMINED BY THE BOARD OF RATERS
( )  3.05  TO AN ACCURACY THAT WILL VALIDATE THEORETICAL DATA
           AS DETERMINED BY THE BOARD OF RATERS
( )  3.06  TO AN ACCURACY THAT WILL VALIDATE THEORETICAL DATA
           AS DETERMINED BY THE BOARD OF RATERS
( )  3.07  TO AN ACCURACY THAT WILL VALIDATE THEORETICAL DATA
           AS DETERMINED BY THE BOARD OF RATERS
( )  3.08  TO AN ACCURACY THAT WILL VALIDATE THEORETICAL DATA
```

```
( )  1.01  AUDIO IC AMPLIFIER
( )  1.02  OPAMP
( )  1.03  DC IC AMPLIFIER
( )  1.04  VHF IC AMPLIFIER
( )  1.05  SCHEMATIC DIAGRAM
( )  1.06  LIST OF FORMULAS, TABLES, GRAPHS, ETC.
( )  1.07  POWER SUPPLY
( )  1.08  BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)
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2.00 PERFORMANCE

> GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
> ( ) 2.01 TEST AN INTEGRATED CIRCUIT AMPLIFIER TO DETERMINE
>   CIRCUIT CHARACTERISTICS EMPLOYING THE FOLLOWING
>   OPERATIONS:

```
( )  2.02  SELECT PROPER TEST EQUIPMENT
( )  2.03  CHECK AND ZERO AS NECESSARY ALL TEST EQUIPMENT USED
( )  2.04  DETERMINE VOLTAGE GAIN
( )  2.05  DETERMINE INPUT/OUTPUT IMPEDANCE
( )  2.06  DETERMINE HIGH/LOW FREQUENCY CUTOFFS
( )  2.07  DETERMINE POWER GAIN
( )  2.08  DETERMINE FREQUENCY RESPONSE CURVE
```

3.00 EXTENT

> GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
> ( ) 3.01 FOLLOWING PROPER PROCEDURES AND SAFETY PRECAUTIONS
>   TO APPROVAL OF A BOARD OF EXPERT RATERS. TO BE
>   COMPLETED WITHIN 2 HOURS WITH EACH OPERATION
>   JUDGED AS SATISFACTORY OR UNSATISFACTORY

```
( )  3.02  OF SUFFICIENT SENSITIVITY AND CHARACTERISTICS TO
           PRODUCE VALID DATA
( )  3.03  IN ACCORDANCE WITH MANUFACTURER'S PROCEDURES
( )  3.04  TO AN ACCURACY THAT WILL VALIDATE THEORETICAL DATA
           AS DETERMINED BY THE BOARD OF RATERS
( )  3.05  TO AN ACCURACY THAT WILL VALIDATE THEORETICAL DATA
           AS DETERMINED BY THE BOARD OF RATERS
( )  3.06  TO AN ACCURACY THAT WILL VALIDATE THEORETICAL DATA
           AS DETERMINED BY THE BOARD OF RATERS
( )  3.07  TO AN ACCURACY THAT WILL VALIDATE THEORETICAL DATA
           AS DETERMINED BY THE BOARD OF RATERS
( )  3.08  TO AN ACCURACY THAT WILL VALIDATE THEORETICAL DATA
           AS DETERMINED BY THE BOARD OF RATERS
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PROGRAM ___ELECTRONICS___

USOE CODE NO(S)_____

DIVISION 04 ___CIRCUIT TESTING___

UNIT 02 ___AMPLIFIERS___

TERMOB NO. ___13-031___

1.00 CONDITION

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

PROGRAM ___ELECTRONICS_____   DIVISION 04   CIRCUIT TESTING

                                      UNIT   .02 OSCILLATORS

                                      TERMOB NO.   13-032

1.00 CONDITION

    ( ) 1.01 TUNED HARTLEY OSCILLATOR
    ( ) 1.02 MULTI-VIBRATOR OSCILLATOR
    ( ) 1.03 PHASE SHIFT OSCILLATOR ·
    ( ) 1.04 WEINBRIDGE OSCILLATOR
    ( ) 1.05 CRYSTAL OSCILLATOR
    ( ) 1.06 RELAXATION OSCILLATOR
    ( ) 1.07 COLPITTS OSCILLATOR
    ( ) 1.08 SPECIALTY CIRCUIT OSCILLATOR
    ( ) 1.09 SCHEMATIC DIAGRAMS
    ( ) 1.10 SPECIFICATIONS SHEET ·
    ( ) 1.11 .LIST OF FORMULAS; TABLES, GRAPHS, ETC.
    ( ) 1.12 POWER SUPPLY
    ( ) ·1.13 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( ) 2.01 TEST AN OSCILLATOR TO DETERMINE CIRCUIT CHARACTERISTICS EMPLOYING THE FOLLOWING OPERATIONS:

    ( ) 2.02 SELECT PROPER TEST EQUIPMENT
    (.) 2.03 .CHECK AND ZERO AS NECESSARY ALL TEST EQUIPMENT USED
    ( ) 2.04 DETERMINE OUTPUT IMPEDANCE
    ( ) 2.05 DETERMINE TUNING RANGE
    ( ) 2.06 DETERMINE OUTPUT VOLTAGE

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( ) .3.01 FOLLOWING PROPER PROCEDURES AND SAFETY PRECAUTIONS .TO APPROVAL OF BOARD OF EXPERT RATERS.   TO BE COMPLETED WITHIN 2 HOURS WITH EACH STEP JUDGED AS SATISFACTORY OR UNSATISFACTORY

    ( ) 3.02 OF SUFFICIENT SENSITIVITY AND CHARACTERISTICS TO PRODUCT VALID DATA
    ( ) 3.03 IN ACCORDANCE WITH MANUFACTURER'S PROCEDURES
    ( ) 3.04 TO AN ACCURACY THAT WILL VALIDATE THEORETICAL DATA AS DETERMINED BY THE BOARD OF RATERS
    ( ) 3.05 TO AN ACCURACY THAT WILL VALIDATE THEORETICAL DATA AS DETERMINED BY THE BOARD OF RATERS
    ( ) 3.06 TO AN ACCURACY THAT WILL VALIDATE THEORETICAL DATA AS DETERMINED BY THE BOARD OF RATERS

PROGRAM   ELECTRONICS   DIVISION 04   CIRCUIT TESTING

USOE CODE NO(S)_____   UNIT   02   OSCILLATORS

_____   TERMOB NO.   13-032

1.00   CONDITION

2.00   PERFORMANCE

   GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00   EXTENT

   GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

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MISOE NO. _____

1.00 CONDITION

( ) 1.01 SAWTOOTH/TRAPEZOIDAL GENERATOR
( ) 1.02 SQUARE WAVE GENERATOR
( ) 1.03 RAMP GENERATOR
( ) 1.04 PULSE GENERATOR
( ) 1.05 TRIANGULAR WAVE GENERATOR
( ) 1.06 SCHEMATIC DIAGRAM
( ) 1.07 LIST OF FORMULAS, TABLES, GRAPHS, ETC.
( ) 1.08 SPECIFICATION SHEETS
( ) 1.09 POWER SUPPLY
( ) 1.10 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( ) 2.01 TEST A FUNCTION GENERATOR TO DETERMINE CIRCUIT
           CHARACTERISTICS EMPLOYING THE FOLLOWING OPERATIONS:

( ) 2.02 SELECT PROPER TEST EQUIPMENT
( ) 2.03 CHECK AND ZERO AS NECESSARY ALL TEST EQUIPMENT USED
( ) 2.04 DETERMINE OUTPUT VOLTAGE
(�) 2.05 DETERMINE DAMPING TIME CONSTANT
( ) 2.06 DEMONSTRATE WAVE FORMS

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( ) 3.01 FOLLOWING PROPER PROCEDURES AND SAFETY PRECAUTIONS TO
           APPROVAL OF A BOARD OF EXPERT RATERS. TO BE
           COMPLETED WITHIN 2 HOURS WITH EACH OPERATION JUDGED
           AS SATISFACTORY OR UNSATISFACTORY

( ) 3.02 USE TEST INSTRUMENTATION OF SUFFICIENT SENSITIVITY
           AND CHARACTERISTICS TO PRODUCE VALID DATA
( ) 3.03 IN ACCORDANCE WITH MANUFACTURER'S PROCEDURES
( ) 3.04 TO AN ACCURACY THAT WILL VALIDATE THEORETICAL DATA
           AS DETERMINED BY THE BOARD OF RATERS
( ) 3.05 TO AN ACCURACY THAT WILL VALIDATE THEORETICAL DATA
           AS DETERMINED BY THE BOARD OF RATERS
( ) 3.06 TO SATISFACTION OF THE BOARD

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PROGRAM ELECTRONICS_____

USOE CODE NO(S)_____

_____

_____

DIVISION 04 ____CIRCUIT TESTING____

UNIT   04 ____SPECIAL CIRCUITS____

TERMOB NO.   ____13-033____

1.00 CONDITION

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

PROGRAM __ ELECTRONICS _____   DIVISION 04 CIRCUIT TESTING

                                   UNIT   04 SPECIAL CIRCUITS
                                                AND DEVICES
                                   TERMOB NO.   13-034

1.00 CONDITION

  ( ) 1.01 COLOR TELEVISION HORIZONTAL DEFLECTION CIRCUIT AND
             FLYBACK POWER SUPPLY
  ( ) 1.02 SCHEMATIC DIAGRAM
  ( ) 1.03 LIST OF FORMULAS, TABLES, GRAPHS, ETC.
  ( ) 1.04 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)
  ( ) 1.05 OSCILLOSCOPE
  ( ) 1.06 VTVM
  ( ) 1.07 VOM (CONVENTIONAL/DIGITAL)
  ( ) 1.08 TEST JIGS

2.00 PERFORMANCE

┌──┐
│ GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME   │
│ ( ) 2.01 TEST A COLOR TELEVISION HORIZONTAL DEFLECTION CIRCUIT │
│   WITH FLYBACK POWER SUPPLY TO DETERMINE CHARACTERISTICS │
│   EMPLOYING THE FOLLOWING OPERATIONS: │
└──┘

  ( ) 2.02 SELECT PROPER TEST EQUIPMENT
  ( ) 2.03 CHECK AND ZERO AS NECESSARY ALL TEST EQUIPMENT USED
  ( ) 2.04 DETERMINE REGULATION
  ( ) 2.05 DETERMINE HIGH VOLTAGE VOLTAGE
  ( ) 2.06 DETERMINE DAMPER VOLTAGE
  ( ) 2.07 DETERMINE HORIZONTAL EFFICIENCY
  ( ) 2.08 DETERMINE HORIZONTAL LOCKING RANGE
  ( ) 2.09 DEMONSTRATE WAVE FORMS

3.00 EXTENT

┌──┐
│ GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME   │
│ ( ) 3.01 FOLLOWING PROPER PROCEDURES AND SAFETY PRECAUTIONS   │
│   TO THE APPROVAL OF A BOARD OF EXPERT RATERS. TO BE   │
│   COMPLETED WITHIN 2 HOURS WITH EACH OPERATION JUDGED   │
│   SATISFACTORY OR UNSATISFACTORY   │
└──┘

  ( ) 3.02 OF SUFFICIENT SENSITIVITY AND CHARACTERISTICS TO
             PRODUCE VALID DATA
  ( ) 3.03 IN ACCORDANCE WITH MANUFACTURER'S PROCEDURES
  ( ) 3.04 TO AN ACCURACY THAT WILL VALIDATE MANUFACTURER'S
             SPECIFICATIONS
  ( ) 3.05 TO AN ACCURACY THAT WILL VALIDATE MANUFACTURER'S
             SPECIFICATIONS
  ( ) 3.06 TO AN ACCURACY THAT WILL VALIDATE MANUFACTURER'S
             SPECIFICATIONS
  ( ) 3.07 TO AN ACCURACY THAT WILL VALIDATE MANUFACTURER'S

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( )  1.01  COLOR TELEVISION HORIZONTAL DEFLECTION CIRCUIT AND
           FLYBACK POWER SUPPLY
( )  1.02  SCHEMATIC DIAGRAM
( )  1.03  LIST OF FORMULAS, TABLES, GRAPHS, ETC.
( )  1.04  BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)
( )  1.05  OSCILLOSCOPE
( )  1.06  VTVM
( )  1.07  VOM (CONVENTIONAL/DIGITAL)
( )  1.08  TEST JIGS
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2.00 PERFORMANCE

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┌─────────────────────────────────────────────────────────────────┐
│ GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME            │
│ ( )  2.01  TEST A COLOR TELEVISION HORIZONTAL DEFLECTION CIRCUIT  │
│            WITH FLYBACK POWER SUPPLY TO DETERMINE CHARACTERISTICS  │
│            EMPLOYING THE FOLLOWING OPERATIONS:                     │
└─────────────────────────────────────────────────────────────────┘
( )  2.02  SELECT PROPER TEST EQUIPMENT
( )  2.03  CHECK AND ZERO AS NECESSARY ALL TEST EQUIPMENT USED
( )  2.04  DETERMINE REGULATION
( )  2.05  DETERMINE HIGH VOLTAGE VOLTAGE
( )  2.06  DETERMINE DAMPER VOLTAGE
( )  2.07  DETERMINE HORIZONTAL EFFICIENCY
( )  2.08  DETERMINE HORIZONTAL LOCKING RANGE
( )  2.09  DEMONSTRATE WAVE FORMS
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3.00 EXTENT

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┌─────────────────────────────────────────────────────────────────┐
│ GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME       │
│ ( )  3.01  FOLLOWING PROPER PROCEDURES AND SAFETY PRECAUTIONS     │
│            TO THE APPROVAL OF A BOARD OF EXPERT RATERS.  TO BE     │
│            COMPLETED WITHIN 2 HOURS WITH EACH OPERATION JUDGED     │
│            SATISFACTORY OR UNSATISFACTORY                          │
└─────────────────────────────────────────────────────────────────┘
( )  3.02  OF SUFFICIENT SENSITIVITY AND CHARACTERISTICS TO
           PRODUCE VALID DATA
( )  3.03  IN ACCORDANCE WITH MANUFACTURER'S PROCEDURES
( )  3.04  TO AN ACCURACY THAT WILL VALIDATE MANUFACTURER'S
           SPECIFICATIONS
( )  3.05  TO AN ACCURACY THAT WILL VALIDATE MANUFACTURER'S
           SPECIFICATIONS
( )  3.06  TO AN ACCURACY THAT WILL VALIDATE MANUFACTURER'S
           SPECIFICATIONS
( )  3.07  TO AN ACCURACY THAT WILL VALIDATE MANUFACTURER'S
           SPECIFICATIONS
( )  3.08  TO AN ACCURACY THAT WILL VALIDATE MANUFACTURER'S
           SPECIFICATIONS
( )  3.09  TO SATISFACTION OF THE BOARD
```

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PROGRAM __ELECTRONICS__   DIVISION 04   __CIRCUIT TESTING__

USOE CODE NO(S)_____   UNIT   04   __SPECIAL CIRCUITS__
_____   __AND DEVICES__
_____   TERMOB NO.   __13-034__
_____

1.00   CONDITION

2.00   PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00   EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

130

MISOE NO. _____

1.00   CONDITION

       ( ) 1.01   VACUUM TUBE RADIO
       ( ) 1.02   SCHEMATIC DIAGRAM
       ( ) 1.03   SERVICE MANUAL
       ( ) 1.04   TUBE TESTER
       ( ) 1.05   BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00   PERFORMANCE

   ┌───┐
   │ GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME   │
   │ ( ) 2.01   TEST A VACUUM TUBE RADIO TO DETERMINE CIRCUIT   │
   │   CHARACTERISTICS EMPLOYING THE FOLLOWING OPERATIONS: │
   └───┘

       ( ) 2.02   SELECT PROPER TEST EQUIPMENT
       ( ) 2.03   CHECK AND ZERO AS NECESSARY ALL TEST EQUIPMENT USED
       ( ) 2.04   TEST TUBES
       ( ) 2.05   TEST POWER SUPPLY VOLTAGE
       ( ) 2.06   ALIGN IF'S
       ( ) 2.07   TEST SPEAKER
       ( ) 2.08   DEMONSTRATE RADIO OPERATION

3.00   EXTENT

   ┌───┐
   │ GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME   │
   │ ( ) 3.01   RADIO TESTED FOLLOWING PROPER PROCEDURES AND SAFETY   │
   │   PRECAUTIONS TO THE APPROVAL OF A BOARD OF EXPERT   │
   │   RATERS. TO BE COMPLETED WITHIN 6 HOURS WITH EACH   │
   │   OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY   │
   └───┘

       ( ) 3.02   OF SUFFICIENT SENSITIVITY AND CHARACTERISTICS TO
                   PRODUCE VALID DATA
       ( ) 3.03   IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS
       ( ) 3.04   FOLLOWING LOGICAL PROCEDURE
       ( ) 3.05   FOLLOWING LOGICAL PROCEDURE
       ( ) 3.06   FOLLOWING LOGICAL PROCEDURE
       ( ) 3.07   FOLLOWING LOGICAL PROCEDURE
       ( ) 3.08   TO SATISFACTION OF THE BOARD

PROGRAM ___ELECTRONICS_____   DIVISION 04   ___CIRCUIT TESTING____

USOE CODE NO(S) _____   UNIT   04   ___SPECIAL CIRCUITS___
                _____   ___AND DEVICES_____
                _____   TERMOB NO.   ___13-035_____
                _____
                _____

1.00   CONDITION

2.00   PERFORMANCE

       GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00   EXTENT

       GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

MISOE NO. _____

PROGRAM   ELECTRONICS _____   DIVISION 04 CIRCUIT TESTING

           _____   UNIT   04 SPECIAL CIRCUITS

                                                   AND DEVICES

                                      TERMOB NO. 13-036

1.00 CONDITION

( ) 1.01 SOLID STATE RADIO
( ) 1.02 SCHEMATIC DIAGRAM
( ) 1.03 SERVICE MANUAL
( ) 1.04 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( ) 2.01 TEST A SOLID STATE RADIO TO DETERMINE CIRCUIT CHARACTERISTICS EMPLOYING THE FOLLOWING OPERATIONS:

( ) 2.02 SELECT PROPER TEST EQUIPMENT
( ) 2.03 TEST TRANSISTORS
( ) 2.04 TEST POWER SUPPLY VOLTAGE
( ) 2.05 ALIGN IF'S
( ) 2.06 TEST SPEAKER
( ) 2.07 DEMONSTRATE RADIO OPERATION

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( ) 3.01 RADIO TESTED FOLLOWING PROPER PROCEDURE AND SAFETY PRECAUTIONS TO THE APPROVAL OF A BOARD OF EXPERT RATERS. TO BE COMPLETED WITHIN 6 HOURS WITH EACH OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY

( ) 3.02 OF SUFFICIENT SENSITIVITY AND CHARACTERISTICS TO PRODUCE VALID DATA
( ) 3.03 IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS .
( ) 3.04 FOLLOWING LOGICAL PROCEDURE
( ) 3.05 FOLLOWING LOGICAL PROCEDURE
( ) 3.06 FOLLOWING LOGICAL PROCEDURE
( ) 3.07 TO SATISFACTION OF THE BOARD

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PROGRAM ELECTRONICS   DIVISION 04   CIRCUIT TESTING

USOE CODE NO(S)_____   UNIT   04   SPECIAL CIRCUITS
                                             AND DEVICES
                             TERMOB NO.   13-036&

/ 1.00 CONDITION

2.00   PERFORMANCE

       GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00   EXTENT

       GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

MISOE NO. _____

PROGRAM ___ELECTRONICS___   DIVISION 04 CIRCUIT TESTING

_____   UNIT   04 SPECIAL CIRCUITS
                                                     AND DEVICES
                                         TERMOB NO. 13-037

1.00 CONDITION

      ( ) 1.01 COLOR TV PICTURE TUBE
      ( ) 1.02 BLACK & WHITE TV PICTURE TUBE
      ( ) 1.03 SPECIFICATION SHEET
      ( ) 1.04 SERVICE MANUAL
      ( ) 1.05 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00 PERFORMANCE

+--+
| GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME |
| ( )   2.01 TEST A PICTURE TUBE TO DETERMINE ITS CHARACTERISTICS |
| EMPLOYING THE FOLLOWING PROCEDURE: |
+--+

      ( ) 2.02 SELECT PROPER TEST EQUIPMENT
      ( ) 2.03 CHECK AND ZERO AS NECESSARY ALL TEST EQUIPMENT USED
      ( ) 2.04 TEST TUBE
      ( ) 2.05 DEMONSTRATE TUBE CHARACTERISTICS

3.00 EXTENT

+--+
| GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME |
| ( )   3.01 PICTURE TUBE TESTED FOLLOWING PROPER PROCEDURES AND |
| SAFETY PRECAUTIONS TO THE APPROVAL OF A BOARD OF |
| EXPERT RATERS. TO BE COMPLETED WITHIN 6 HOURS WITH |
| EACH OPERATION JUDGED AS SATISFACTORY OR |
| UNSATISFACTORY |
+--+

      ( ) 3.02 OF SUFFICIENT SENSITIVITY AND CHARACTERISTICS TO
                 PRODUCE VALID DATA
      ( ) 3.03 IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS
      ( ) 3.04 FOLLOWING LOGICAL PROCEDURE
      ( ) 3.05 TUBE CONFORMS TO MANUFACTURER'S SPECIFICATIONS

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PROGRAM ELECTRONICS

USOE CODE NO(S) _____

DIVISION 04

UNIT 04

TERMOB NO.

CIRCUIT TESTING

SPECIAL CIRCUITS
AND DEVICES

13-037

1.00 CONDITION

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

MISOE NO. _____

PROGRAM ___ELECTRONICS___   DIVISION 04 CIRCUIT TESTING

                               UNIT   05 DIGITAL CIRCUITS

                               TERMOB NO.   13-038

1.00 CONDITION

( ) 1.01 4 BIT BINARY COUNTER LOGIC CIRCUIT
( ) 1.02 OCTAL DECODER LOGIC CIRCUIT
( ) 1.03 DECIMAL DECODER LOGIC CIRCUIT
( ) 1.04 BCD COUNTER LOGIC CIRCUIT
( ) 1.05 CLOCK OSCILLATOR WITH TIME INCREMENTS LOGIC CIRCUIT
( ) 1.06 UP/DOWN COUNTER WITH PRESET LOGIC CIRCUITS
( ) 1.07 LOGIC DIAGRAMS
( ) 1.08 SCHEMATIC DIAGRAM
( ) 1.09 LIST OF FORMULAS, TABLES, GRAPHS, ETC.
( ) 1.10 POWER SUPPLY
( ) 1.11 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( ) 2.01 TEST A LOGIC CIRCUIT TO DETERMINE CIRCUIT
           CHARACTERISTICS EMPLOYING THE FOLLOWING OPERATIONS:

( ) 2.02 SELECT PROPER TEST EQUIPMENT
( ) 2.03 CHECK AND ZERO AS NECESSARY ALL TEST EQUIPMENT USED
( ) 2.04 DETERMINE TIMING DIAGRAM
( ) 2.05 DETERMINE OUTPUT VOLTAGE
( ) 2.06 DEMONSTRATE WAVEFORMS

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( ) 3.01 FOLLOWING PROPER PROCEDURES AND SAFETY PRECAUTIONS
           TO THE APPROVAL OF A BOARD OF EXPERT RATERS. TO BE
           COMPLETED WITHIN 2 HOURS WITH EACH STEP JUDGED AS
           SATISFACTORY OR UNSATISFACTORY

( ) 3.02 OF SUFFICIENT SENSITIVITY AND CHARACTERISTICS TO
           PRODUCE VALID DATA
(·) 3.03 IN ACCORDANCE WITH MANUFACTURER'S PROCEDURES
( ) 3.04 100% ACCURATE
( ) 3.05 ALL OUTPUTS AND INPUTS TO HAVE A LEVEL WITHIN
           MANUFACTURER'S SPECIFICATIONS
( ) 3.06 TO SATISFACTION OF THE BOARD

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PROGRAM ELECTRONICS _____   DIVISION 04   CIRCUIT TESTING

USOE CODE NO(S)_____   UNIT   05   DIGITAL CIRCUITS

                                   TERMOB NO.   13-038

1.00   CONDITION

2.00   PERFORMANCE

       GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00   EXTENT

       GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

MISOE NO. _____

1.00   CONDITION

( )   1.01   J-K FLIP-FLOP GATE
(✓)   1.02   R-S FLIP-FLOP GATE
( )   1.03   D FLIP-FLOP GATE
( )   1.04   NAND GATE
( )   1.05   OR GATE
( )   1.06   NOR GATE
( )   1.07   AND GATE
( )   1.08   EXCLUSIVE OR GATE
( )   1.09   TRUTH TABLE
( )   1.10   SCHEMATIC DIAGRAM
( )   1.11   LIST OF FORMULAS, TABLES, GRAPHS, ETC.
( )   1.12   BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00   PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( )   2.01   TEST A GATE TO DETERMINE CIRCUIT CHARACTERISTICS EMPLOYING THE FOLLOWING OPERATIONS:

( )   2.02   SELECT PROPER TEST EQUIPMENT
( )   2.03   DETERMINE TIMING DIAGRAM
( )   2.04   TEST TRUTH TABLES
( )   2.05   DETERMINE OUTPUTS
( )   2.06   DEMONSTRATE OUTPUTS

3.00   EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( )   3.01   FOLLOWING PROPER PROCEDURES AND SAFETY PRECAUTIONS TO THE APPROVAL OF A BOARD OF EXPERT RATERS.   TO BE COMPLETED WITHIN 2 HOURS WITH EACH OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY

( )   3.02   OF SUFFICIENT SENSITIVITY AND CHARACTERISTICS TO PRODUCE VALID DATA
( )   3.03   100% ACCURATE
( )   3.04   100% ACCURATE
( )   3.05   ALL OUTPUTS AND INPUTS TO HAVE A LEVEL WITHIN MANUFACTURER'S SPECIFICATIONS
( )   3.06   TO SATISFACTION OF THE BOARD

PROGRAM ELECTRONICS   DIVISION 04 _____CIRCUIT TESTING_____

USOE CODE NO(S)_____   UNIT   05 _____DIGITAL CIRCUITS_____

_____   TERMOB NO.   _____13-039_____

_____

1.00   CONDITION

2.00   PERFORMANCE

       GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00   EXTENT

       GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

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MISOE NO. _____

PROGRAM ___ELECTRONICS_____   DIVISION 05 <u>CIRCUIT DIAGNOSIS</u>

                                   UNIT   01 <u>SUB-ASSEMBLY</u>

                                   TERMOB NO. <u>13-040</u>

1.00 CONDITION

   ( ) 1.01 SOLID STATE VOLTAGE AMPLIFIER WITH ONE OR MORE OF THE
                FOLLOWING CIRCUIT DEFECTS RESULTING IN FAILURE
                OF THE CIRCUIT TO OPERATE PROPERLY
   ( ) 1.02 OPEN CIRCUIT
   ( ) 1.03 LOOSE CONNECTION
   ( ) 1.04 WEAK/DEFECTIVE COMPONENT (TRANSISTOR, DIODE, RESISTOR,
                CAPACITOR, TRANSFORMER, SPEAKER, SWITCH, OR
                INDUCTOR)
   ( ) 1.05 SHORT CIRCUIT
   ( ) 1.06 SCHEMATIC DIAGRAM
   ( ) 1.07 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( ) 2.01 TROUBLE-SHOOT A DEFECTIVE SOLID STATE AMPLIFIER EMPLOYING THE FOLLOWING OPERATIONS:

   ( ) 2.02 ANALYZE SYMPTOMS
   ( ) 2.03 MAKE DC VOLTAGE MEASUREMENTS
   ( ) 2.04 MAKE RESISTANCE MEASUREMENTS
   ( ) 2.05 MAKE OTHER MEASUREMENTS AS REQUIRED
   ( ) 2.06 REPAIR AMPLIFIER

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( ) 3.01 TO THE EXTENT THAT THE SPECIFIC FAULTY PART, WIRE, CONTACT, ETC., IS LOCATED AND REPAIRED TO THE APPROVAL OF A BOARD OF EXPERT RATERS. TO BE COMPLETED WITHIN 6 HOURS WITH EACH OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY

   ( ) 3.02 ALL SYMPTOMS NOTED
   ( ) 3.03 FAULTY COMPONENT IS LOCATED
   ( ) 3.04 FAULTY COMPONENT IS LOCATED
   ( ) 3.05 FAULTY COMPONENT IS LOCATED
   ( ) 3.06 AMPLIFIER 100% OPERATIONAL

PROGRAM __ELECTRONICS__   DIVISION 05   __CIRCUIT DIAGNOSIS__

USOE CODE NO(S)_____   UNIT   01   __SUB-ASSEMBLY__

                                 TERMOB NO.   __13-040__

1.00   CONDITION

2.00   PERFORMANCE

       GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00   EXTENT

       GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

PROGRAM ___ELECTRONICS_____   DIVISION 05 CIRCUIT DIAGNOSIS
_____   UNIT   01 SUB-ASSEMBLY

                                     TERMOB NO.   13-041

1.00 CONDITION

( ) 1.01 VACUUM TUBE AMPLIFIER WITH ONE OR MORE OF THE FOLLOWING
           CIRCUIT DEFECTS RESULTING IN FAILURE OF THE CIRCUIT
           TO OPERATE PROPERLY
( ) 1.02 BROKEN WIRE
( ) 1.03 LOOSE CONNECTION
( ) 1.04 DIRTY CONTACT
( ) 1.05 BROKEN SWITCH
( ) 1.06 WEAK/BAD VACUUM TUBE
( ) 1.07 THERMAL FAILURE OF COMPONENT (RESISTOR, CAPACITOR,
           DIODE, TRANSFORMER, ETC.)
( ) 1.08 OVER DRIVEN COMPONENT (CAPACITOR, DIODE, RESISTOR,
           ETC.)
( ) 1.09 SHORT CIRCUIT
( ) 1.10 OPEN CIRCUIT
( ) 1.11 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)
( ) 1.12 APPLICABLE TEST EQUIPMENT
( ) 1.13 SCHEMATIC DIAGRAM

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( ) 2.01 TROUBLE-SHOOT A DEFECTIVE VACUUM TUBE AMPLIFIER EMPLOYING THE FOLLOWING OPERATIONS:

( ) 2.02 ANALYZE SYMPTOMS
( ) 2.03 TEST ALL STAGES
( ) 2.04 MAKE DC VOLTAGE MEASUREMENTS
( ) 2.05 MAKE RESISTANCE MEASUREMENTS
( ) 2.06 MAKE OTHER MEASUREMENTS AS REQUIRED
( ) 2.07 REPAIR AMPLIFIER

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( ) 3.01 TO THE EXTENT THAT THE SPECIFIC FAULTY PART, WIRE, CONTACT, ETC., IS LOCATED AND REPAIRED TO THE APPROVAL OF A BOARD OF EXPERT RATERS. TO BE COMPLETED WITHIN 6 HOURS WITH EACH OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY

( ) 3.02 ALL SYMPTOMS NOTED
( ) 3.03 FAULTY STAGE IS LOCATED
( ) 3.04 FAULTY COMPONENT IS LOCATED
( ) 3.05 FAULTY COMPONENT IS LOCATED

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( )   1.01   VACUUM TUBE AMPLIFIER WITH ONE OR MORE OF THE FOLLOWING
             CIRCUIT DEFECTS RESULTING IN FAILURE OF THE CIRCUIT
             TO OPERATE PROPERLY
( )   1.02   BROKEN WIRE
( )   1.03   LOOSE CONNECTION
( )   1.04   DIRTY CONTACT
( )   1.05   BROKEN SWITCH
( )   1.06   WEAK/BAD VACUUM TUBE
( )   1.07   THERMAL FAILURE OF COMPONENT (RESISTOR, CAPACITOR,
             DIODE, TRANSFORMER, ETC.)
( )   1.08   OVER DRIVEN COMPONENT (CAPACITOR, DIODE, RESISTOR,
             ETC.)
( )   1.09   SHORT CIRCUIT
( )   1.10   OPEN CIRCUIT
( )   1.11   BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)
( )   1.12   APPLICABLE TEST EQUIPMENT
( )   1.13   SCHEMATIC DIAGRAM
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2.00   PERFORMANCE

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┌─────────────────────────────────────────────────────────────────┐
│ GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME            │
│ ( )   2.01   TROUBLE-SHOOT A DEFECTIVE VACUUM TUBE AMPLIFIER      │
│              EMPLOYING THE FOLLOWING OPERATIONS:                  │
└─────────────────────────────────────────────────────────────────┘
( )   2.02   ANALYZE SYMPTOMS
( )   2.03   TEST ALL STAGES
( )   2.04   MAKE DC VOLTAGE MEASUREMENTS
( )   2.05   MAKE RESISTANCE MEASUREMENTS
( )   2.06   MAKE OTHER MEASUREMENTS AS REQUIRED
( )   2.07   REPAIR AMPLIFIER
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3.00   EXTENT

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┌─────────────────────────────────────────────────────────────────┐
│ GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME      │
│ ( )   3.01   TO THE EXTENT THAT THE SPECIFIC FAULTY PART, WIRE,   │
│              CONTACT, ETC., IS LOCATED AND REPAIRED TO THE        │
│              APPROVAL OF A BOARD OF EXPERT RATERS.  TO BE COM-    │
│              PLETED WITHIN 6 HOURS WITH EACH OPERATION JUDGED     │
│              AS SATISFACTORY OR UNSATISFACTORY                    │
└─────────────────────────────────────────────────────────────────┘
( )   3.02   ALL SYMPTOMS NOTED
( )   3.03   FAULTY STAGE IS LOCATED
( )   3.04   FAULTY COMPONENT IS LOCATED
( )   3.05   FAULTY COMPONENT IS LOCATED
( )   3.06   FAULTY COMPONENT IS LOCATED
( )   3.07   AMPLIFIER 100% OPERATIONAL
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PROGRAM ___ELECTRONICS_____   DIVISION 05 ___CIRCUIT DIAGNOSIS___

USOE CODE NO(S)_____   UNIT   01 ___SUB-ASSEMBLY___

            _____   TERMOB NO.   ___13-041___

            _____

            _____

1.00   CONDITION

2.00   PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00   EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

PROGRAM   ELECTRONICS _____   DIVISION 05 CIRCUIT DIAGNOSIS

UNIT   01 SUB-ASSEMBLY

TERMOB NO.   13-042

1.00   CONDITION

( ) 1.01 OSCILLATOR WITH ONE OR MORE OF THE FOLLOWING CIRCUIT
           DEFECTS RESULTING IN FAILURE OF THE CIRCUIT TO
           OPERATE PROPERLY
( ) 1.02 A MULTI-VIBRATOR OSCILLATOR WITH ONE OR MORE OF THE
           FOLLOWING DEFECTS RESULTING IN FAILURE OF THE
           CIRCUIT TO OPERATE PROPERLY
( ) 1.03 BROKEN WIRE
( ) 1.04 LOOSE CONNECTION
( ) 1.05 DIRTY CONTACT
( ) 1.06 BROKEN SWITCH
( ) 1.07 WEAK/BAD VACUUM TUBE
( ) 1.08 THERMAL FAILURE OF COMPONENT (RESISTOR, CAPACITOR,
           DIODE, TRANSISTOR, TRANSFORMER, ETC.)
( ) 1.09 OVER DRIVEN COMPONENT (CAPACITOR, DIODE, TRANSISTOR,
           I.C., ETC.)
( ) 1.10 SHORT CIRCUIT
( ) 1.11 OPEN CIRCUIT
( ) 1.12 INCORRECT FREQUENCY
( ) 1.13 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)
( ) 1.14 APPLICABLE TEST EQUIPMENT
( ) 1.15 SCHEMATIC DIAGRAM

2.00   PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( ) 2.01 TROUBLE SHOOT A DEFECTIVE OSCILLATOR EMPLOYING THE FOLLOWING OPERATIONS:

( ) 2.02 ANALYZE SYMPTOMS
( ) 2.03 TEST ALL STAGES
( ) 2.04 MAKE DC VOLTAGE MEASUREMENTS
( ) 2.05 MAKE RESISTANCE MEASUREMENTS
( ) 2.06 MAKE OTHER MEASUREMENTS AS REQUIRED
( ) 2.07 REPAIR OSCILLATOR

3.00   EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( ) 3.01 TO THE EXTENT THAT THE SPECIFIC FAULTY PART, WIRE, CONTACT, ETC., IS LOCATED AND REPAIRED TO THE APPROVAL OF A BOARD OF EXPERT RATERS. TO BE COMPLETED WITHIN 3 HOURS WITH EACH OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY

( ) 1.01 OSCILLATOR WITH ONE OR MORE OF THE FOLLOWING CIRCUIT
          DEFECTS RESULTING IN FAILURE OF THE CIRCUIT TO
          OPERATE PROPERLY
( ) 1.02 A MULTI-VIBRATOR OSCILLATOR WITH ONE OR MORE OF THE
          FOLLOWING DEFECTS RESULTING IN FAILURE OF THE
          CIRCUIT TO OPERATE PROPERLY
( ) 1.03 BROKEN WIRE
( ) 1.04 LOOSE CONNECTION
( ) 1.05 DIRTY CONTACT
( ) 1.06 BROKEN SWITCH
( ) 1.07 WEAK/BAD VACUUM TUBE
( ) 1.08 THERMAL FAILURE OF COMPONENT (RESISTOR, CAPACITOR,
          DIODE, TRANSISTOR, TRANSFORMER, ETC.)
( ) 1.09 OVER DRIVEN COMPONENT (CAPACITOR, DIODE, TRANSISTOR,
          I.C., ETC.)
( ) 1.10 SHORT CIRCUIT
( ) 1.11 OPEN CIRCUIT
( ) 1.12 INCORRECT FREQUENCY
( ) 1.13 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)
( ) 1.14 APPLICABLE TEST EQUIPMENT
( ) 1.15 SCHEMATIC DIAGRAM

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( ) 2.01 TROUBLE SHOOT A DEFECTIVE OSCILLATOR EMPLOYING THE FOLLOWING OPERATIONS:

( ) 2.02 ANALYZE SYMPTOMS
( ) 2.03 TEST ALL STAGES
( ) 2.04 MAKE DC VOLTAGE MEASUREMENTS
( ) 2.05 MAKE RESISTANCE MEASUREMENTS
( ) 2.06 MAKE OTHER MEASUREMENTS AS REQUIRED
( ) 2.07 REPAIR OSCILLATOR

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( ) 3.01 TO THE EXTENT THAT THE SPECIFIC FAULTY PART, WIRE, CONTACT, ETC., IS LOCATED AND REPAIRED TO THE APPROVAL OF A BOARD OF EXPERT RATERS. TO BE COMPLETED WITHIN 3 HOURS WITH EACH OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY

( ) 3.02 ALL SYMPTOMS NOTED
( ) 3.03 FAULTY STAGE IS LOCATED
( ) 3.04 FAULTY COMPONENT IS LOCATED
( ) 3.05 FAULTY COMPONENT IS LOCATED
( ) 3.06 FAULTY COMPONENT IS LOCATED
( ) 3.07 OSCILLATOR 100% OPERATIONAL

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PROGRAM ELECTRONICS _____

USOE CODE NO(S)_____

DIVISION 05   CIRCUIT DIAGNOSIS

UNIT · 01   SUB-ASSEMBLY

TERMOB NO.   13-042 .

1.00   CONDITION

2.00   PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00   EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

MISOE NO. _____ 149

PROGRAM ___ELECTRONICS_____   DIVISION 05 CIRCUIT DIAGNOSIS
                                        UNIT   01 SUB-ASSEMBLY
                                        TERMOB NO.   13-043

1.00 CONDITION

( ) 1.01 COLOR T.V. HORIZONTAL DEFLECTION CIRCUIT WITH FLYBACK
           POWER SUPPLY WITH ONE OR MORE OF THE FOLLOWING
           CIRCUIT DEFECTS RESULTING IN FAILURE OF THE CIRCUIT
           TO OPERATE PROPERLY
( ) 1.02 BROKEN WIRE
( ) 1.03 LOOSE CONNECTION
( ) 1.04 DIRTY CONTACT
( ) 1.05 BROKEN SWITCH
( ) 1.06 WEAK/BAD VACUUM TUBE
( ) 1.07 THERMAL FAILURE OF COMPONENT (RESISTOR, CAPACITOR,
           DIODE, TRANSISTOR, TRANSFORMER, ETC.)
( ) 1.08 OVER DRIVEN COMPONENT (CAPACITOR, DIODE, TRANSISTOR,
           I.C., ETC.)
( ) 1.09 SHORT CIRCUIT
( ) 1.10 OPEN CIRCUIT
( ) 1.11 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)
( ) 1.12 APPLICABLE TEST EQUIPMENT
( ) 1.13 SCHEMATIC DIAGRAM

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( ) 2.01 TROUBLE SHOOT A DEFECTIVE TELEVISION HORIZONTAL
           CIRCUIT WITH A FLY BACK POWER SUPPLY EMPLOYING
           THE FOLLOWING OPERATIONS:

( ) 2.02 ANALYZE SYMPTOMS
( ) 2.03 TEST ALL STAGES
( ) 2.04 MAKE DC VOLTAGE MEASUREMENTS
( ) 2.05 MAKE RESISTANCE MEASUREMENTS
( ) 2.06 MAKE OTHER MEASUREMENTS AS REQUIRED
( ) 2.07 REPAIR CIRCUIT

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( ) 3.01 TO THE EXTENT THAT THE SPECIFIC FAULTY PART, WIRE,
           CONTACT, ETC., IS LOCATED AND REPAIRED TO THE
           APPROVAL OF A BOARD OF EXPERT RATERS. TO BE COM-
           PLETED WITHIN 3 HOURS WITH EACH OPERATION JUDGED
           AS SATISFACTORY OR UNSATISFACTORY

( ) 3.02 ALL SYMPTOMS NOTED
( ) 3.03 FAULTY STAGE IS LOCATED.

POWER SUPPLY WITH ONE OR MORE OF THE FOLLOWING
CIRCUIT DEFECTS RESULTING IN FAILURE OF THE CIRCUIT
TO OPERATE PROPERLY

( ) 1.02 BROKEN WIRE
( ) 1.03 LOOSE CONNECTION
( ) 1.04 DIRTY CONTACT
( ) 1.05 BROKEN SWITCH
( ) 1.06 WEAK/BAD VACUUM TUBE
( ) 1.07 THERMAL FAILURE OF COMPONENT (RESISTOR, CAPACITOR,
        DIODE, TRANSISTOR, TRANSFORMER, ETC.)
( ) 1.08 OVER DRIVEN COMPONENT (CAPACITOR, DIODE, TRANSISTOR,
        I.C., ETC.)
( ) 1.09 SHORT CIRCUIT
( ) 1.10 OPEN CIRCUIT
( ) 1.11 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)
( ) 1.12 APPLICABLE TEST EQUIPMENT
( ) 1.13 SCHEMATIC DIAGRAM

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( ) 2.01 TROUBLE SHOOT A DEFECTIVE TELEVISION HORIZONTAL
          CIRCUIT WITH A FLY BACK POWER SUPPLY EMPLOYING
          THE FOLLOWING OPERATIONS:

( ) 2.02 ANALYZE SYMPTOMS
( ) 2.03 TEST ALL STAGES
( ) 2.04 MAKE DC VOLTAGE MEASUREMENTS
( ) 2.05 MAKE RESISTANCE MEASUREMENTS
( ) 2.06 MAKE OTHER MEASUREMENTS AS REQUIRED
( ) 2.07 REPAIR CIRCUIT

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( ) 3.01 TO THE EXTENT THAT THE SPECIFIC FAULTY PART, WIRE,
          CONTACT, ETC., IS LOCATED AND REPAIRED TO THE
          APPROVAL OF A BOARD OF EXPERT RATERS. TO BE COM-
          PLETED WITHIN 3 HOURS WITH EACH OPERATION JUDGED
          AS SATISFACTORY OR UNSATISFACTORY

( ) 3.02 ALL SYMPTOMS NOTED
( ) 3.03 FAULTY STAGE IS LOCATED
( ) 3.04 FAULTY COMPONENT IS LOCATED
( ) 3.05 FAULTY COMPONENT IS LOCATED
( ) 3.06 FAULTY COMPONENT IS LOCATED
( ) 3.07 CIRCUIT 100% OPERATIONAL

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PROGRAM ELECTRONICS

USOE CODE NO(S)_____

DIVISION 05 CIRCUIT DIAGNOSIS

UNIT   01 SUB-ASSEMBLY

TERMOB NO. 13-043

1.00 CONDITION

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

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PROGRAM ELECTRONICS _____   DIVISION 05 CIRCUIT DIAGNOSIS

                                          UNIT   01 SUB-ASSEMBLY

                                          TERMOB NO.   13-044

1.00 CONDITION

( ) 1.01 4-BIT BINARY COUNTER WITH ONE OR MORE OF THE
           FOLLOWING CIRCUIT DEFECTS RESULTING IN FAILURE
           OF THE CIRCUIT TO OPERATE PROPERLY
( ) 1.02 BROKEN WIRE
( ) 1.03 LOOSE CONNECTION
( ) 1.04 DIRTY CONTACT
( ) 1.05 BROKEN SWITCH
( ) 1.06 THERMAL FAILURE OF COMPONENT (RESISTOR, CAPACITOR,
           DIODE, TRANSISTOR, TRANSFORMER, ETC.)
( ) 1.07 OVER DRIVEN COMPONENT (CAPACITOR, DIODE, TRANSISTOR,
           I.C., ETC.)
( ) 1.08 SHORT CIRCUIT
( ) 1.09 OPEN CIRCUIT
( ) 1.10 BINARY COUNTER
( ) 1.11 BCD COUNTER
( ) 1.12 SHIFT REGISTER
( ) 1.13 UP/DOWN COUNTER
( ) 1.14 PRESETABLE UP/DOWN COUNER
( ) 1.15 PREPROGRAMMABLE READ ONLY MEMORY (PROM)
( ) 1.16 READ ONLY MEMORY (ROM)
( ) 1.17 DIVIDE BY N LOGIC CIRCUIT
( ) 1.18 LOGIC DIAGRAMS
( ) 1.19 SCHEMATIC DIAGRAMS
( ) 1.20 TIMING DIAGRAMS/TRUTH TABLES
( ) 1.21 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( ) 2.01 TROUBLE SHOOT A DEFECTIVE COUNTER EMPLOYING THE FOLLOWING OPERATIONS:

( ) 2.02 ANALYZE SYMPTOMS
( ) 2.03 TEST ALL STAGES
( ) 2.04 ISOLATE FAULTY OUTPUT
( ) 2.05 REPAIR OR REPLACE FAULTY COMPONENT
( ) 2.06 TEST CIRCUIT FOR OPERATION

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( ) 3.01 TO THE EXTENT THAT THE SPECIFIC FAULTY PART, WIRE CONTACT, ETC., IS LOCATED AND REPAIRED TO THE APPROVAL OF A BOARD OF EXPERT RATERS. TO BE

( ) 1.01 4-BIT BINARY COUNTER WITH ONE OR MORE OF THE
FOLLOWING CIRCUIT DEFECTS RESULTING IN FAILURE
OF THE CIRCUIT TO OPERATE PROPERLY
( ) 1.02 BROKEN WIRE
( ) 1.03 LOOSE CONNECTION
( ) 1.04 DIRTY CONTACT
( ) 1.05 BROKEN SWITCH
( ) 1.06 THERMAL FAILURE OF COMPONENT (RESISTOR, CAPACITOR,
DIODE, TRANSISTOR, TRANSFORMER, ETC.)
( ) 1.07 OVER DRIVEN COMPONENT (CAPACITOR, DIODE, TRANSISTOR,
I.C., ETC.)
( ) 1.08 SHORT CIRCUIT
( ) 1.09 OPEN CIRCUIT
( ) 1.10 BINARY COUNTER
( ) 1.11 BCD COUNTER
( ) 1.12 SHIFT REGISTER
( ) 1.13 UP/DOWN COUNTER
( ) 1.14 PRESETABLE UP/DOWN COUNER
( ) 1.15 PREPROGRAMMABLE READ ONLY MEMORY (PROM)
( ) 1.16 READ ONLY MEMORY (ROM)
( ) 1.17 DIVIDE BY N LOGIC CIRCUIT
( ) 1.18 LOGIC DIAGRAMS
( ) 1.19 SCHEMATIC DIAGRAMS
( ) 1.20 TIMING DIAGRAMS/TRUTH TABLES
( ) 1.21 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( ) 2.01 TROUBLE SHOOT A DEFECTIVE COUNTER EMPLOYING THE
FOLLOWING OPERATIONS:

( ) 2.02 ANALYZE SYMPTOMS
( ) 2.03 TEST ALL STAGES
( ) 2.04 ISOLATE FAULTY OUTPUT
( ) 2.05 REPAIR OR REPLACE FAULTY COMPONENT
( ) 2.06 TEST CIRCUIT FOR OPERATION

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( ) 3.01 TO THE EXTENT THAT THE SPECIFIC FAULTY PART, WIRE
CONTACT, ETC., IS LOCATED AND REPAIRED TO THE
APPROVAL OF A BOARD OF EXPERT RATERS. TO BE
COMPLETED WITHIN 3 HOURS WITH EACH OPERATION JUDGED
AS SATISFACTORY OR UNSATISFACTORY

( ) 3.02 ALL SYMPTOMS NOTED
( ) 3.03 FAULTY STAGE IS LOCATED
( ) 3.04 FAULTY COMPONENT IS LOCATED
( ) 3.05 DEFECT(S) CORRECTED
( ) 3.06 COUNTER IS 100% OPERATIONAL

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PROGRAM ___ELECTRONICS___   DIVISION 05   ___CIRCUIT DIAGNOSIS___

USOE CODE NO(S)_____   UNIT   01   ___SUB-ASSEMBLY___

                                      TERMOB NO.   ___13-044___

1.00 CONDITION

2.00 PERFORMANCE

   GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

   GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

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MISOE NO. _____

PROGRAM ___ELECTRONICS_____   DIVISION 05 _CIRCUIT DIAGNOSIS_

_____   UNIT   01 _SUB-ASSEMBLY_____

                                          TERMOB NO. _13-045_____

1.00 CONDITION

( ) 1.01 AN INTEGRATED CIRCUIT AMPLIFIER WITH ONE OR MORE OF
           THE FOLLOWING CIRCUIT DEFECTS RESULTING IN FAILURE
           OF THE CIRCUIT TO OPERATE PROPERLY
( ) 1.02 OPEN CIRCUIT
( ) 1.03 LOOSE CONNECTION
( ) 1.04 BAD I.C.
( ) 1.05 DEFECTIVE COMPONENT (SWITCH, RESISTOR, CAPACITOR, ETC.)
( ) 1.06 SHORT CIRCUIT
( ) 1.07 SCHEMATIC DIAGRAM
( ) 1.08 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( ) 2.01 TROUBLE SHOOT AN INTEGRATED CIRCUIT AMPLIFIER
           EMPLOYING THE FOLLOWING OPERATIONS:

( ) 2.02 ANALYZE SYMPTOMS
( ) 2.03 MAKE DC MEASUREMENTS
( ) 2.04 MAKE RESISTANCE MEASUREMENTS
( ) 2.05 REPAIR OR REPLACE DEFECTIVE COMPONENT
( ) 2.06 TEST AMPLIFIER

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( ) 3.01 TO THE EXTENT THAT THE SPECIFIC DEFECT IS LOCATED
           AND REPAIRED TO THE APPROVAL OF A BOARD OF EXPERT
           RATERS. TO BE COMPLETED WITHIN 4 HOURS WITH EACH
           OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY

( ) 3.02 ALL SYMPTOMS NOTED
( ) 3.03 FAULTY COMPONENT IS LOCATED
( ) 3.04 FAULTY COMPONENT IS LOCATED
( ) 3.05 DEFECT(S) CORRECTED
( ) 3.06 AMPLIFIER IS 100% OPERATIONAL

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PROGRAM ELECTRONICS _____   DIVISION 05 ___ CIRCUIT DIAGNOSIS

USOE CODE NO(S)_____   UNIT   01   SUB-ASSEMBLY

_____   TERMOB NO.   13-045

1.00 · CONDITION

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

MISOE NO. _____

PROGRAM   ELECTRONICS _____   DIVISION 05   CIRCUIT DIAGNOSIS
           _____   UNIT   01   SUB-ASSEMBLY

                                              TERMOB NO.   13-046

1.00   CONDITION

   ( )   1.01   VOLTAGE RECTIFIER WITH FILTER AND RESISTIVE LOAD WITH
                ONE OR MORE OF THE FOLLOWING CIRCUIT DEFECTS
                RESULTING IN FAILURE OF THE CIRCUIT TO OPERATE
                PROPERLY
   ( )   1.02   OPEN CIRCUIT
   ( )   1.03   LOOSE CONNECTION
   ( )   1.04   WEAK/DEFECTIVE COMPONENT (TUBE, DIODE, RESISTOR,
                TRANSFORMER, CHOKE, CAPACITOR, SWITCH, OR FUSE)
   ( )   1.05   SHORT CIRCUIT
   ( )   1.06   SCHEMATIC DIAGRAM
   ( )   1.07   BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00   PERFORMANCE

   +---+
   | GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME |
   | ( )   2.01   TROUBLE SHOOT A DEFECTIVE RECTIFIER EMPLOYING THE |
   | FOLLOWING OPERATIONS: |
   +---+

   ( )   2.02   ANALYZE SYMPTOMS
   ( )   2.03   TEST ALL STAGES
   ( )   2.04   MAKE DC VOLTAGE MEASUREMENTS
   ( )   2.05   MAKE RESISTANCE MEASUREMENTS
   ( )   2.06   MAKE OTHER MEASUREMENTS AS REQUIRED
   ( )   2.07   REPAIR RECTIFIER

3.00   EXTENT

   +---+
   | GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME |
   | ( )   3.01   TO THE EXTENT THAT THE SPECIFIC FAULTY PART, WIRE, |
   | CONTACT, ETC., IS LOCATED AND REPAIRED TO THE |
   | APPROVAL OF A BOARD OF EXPERT RATERS. TO BE COM- |
   | PLETED WITHIN 3 HOURS WITH EACH OPERATION JUDGED |
   | AS SATISFACTORY OR UNSATISFACTORY |
   +---+

   ( )   3.02   ALL SYMPTOMS NOTED
   ( )   3.03   FAULTY STAGE IS LOCATED
   ( )   3.04   FAULTY COMPONENT IS LOCATED
   ( )   3.05   FAULTY COMPONENT IS LOCATED
   ( )   3.06   FAULTY COMPONENT IS LOCATED
   ( )   3.07   RECTIFIER IS 100% OPERATIONAL

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PROGRAM ELECTRONICS _____   DIVISION 05 ____CIRCUIT DIAGNOSIS____

USOE CODE NO(S) _____   UNIT   01   ____SUB-ASSEMBLY____

_____   TERMOB NO.   ____13-046____

_____

1.00 CONDITION

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

MISOE NO. _____

1.00 CONDITION

( ) 1.01 GIVEN A BLACK AND WHITE T.V. WITH A DEFECT INDICATED
            BY ONE OR MORE OF THE FOLLOWING SYMPTOMS:
( ) 1.02 NO SOUND
( ) 1.03 STATIC
( ) 1.04 AUDIBLE HUM
( ) 1.05 INTERMITTENT SOUND
( ) 1.06 NO PICTURE
( ) 1.07 BAD FOCUS
( ) 1.08 FLASHES ON SCREEN
( ) 1.09 SMOKE
( ) 1.10 INTERMITTENT PICTURE
( ) 1.11 BURNING SMELL
( ) 1.12 SERVICE MANUAL
( ) 1.13 APPLICABLE TEST EQUIPMENT
( ) 1.14 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( ) 2.01 TROUBLE SHOOT A DEFECTIVE BLACK AND WHITE T.V. EMPLOYING THE FOLLOWING OPERATIONS:

( ) 2.02 CHECK ALL CIRCUIT BREAKERS/FUSES/TUBES
( ) 2.03 LOCATE SPECIFIC PROBLEM(S) USING TROUBLE SHOOTING
            CHART AND/OR CIRCUIT SCHEMATIC
( ) 2.04 REPAIR CIRCUIT
( ) 2.05 DEMONSTRATE NORMAL OPERATION

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( ) 3.01 TO THE EXTENT THAT THE FAULTY PART, WIRE, CONTACT, ETC., IS LOCATED AND REPAIRED TO THE APPROVAL OF A BOARD OF EXPERT RATERS. TO BE COMPLETED WITHIN 3 HOURS WITH EACH OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY

( ) 3.02 FOLLOWING LOGICAL SEQUENCE AND STRICTEST SAFETY
            PRECAUTIONS
( ) 3.03 FOLLOWING LOGICAL SEQUENCE AND STRICTEST SAFETY
            PRECAUTIONS
( ) 3.04 ACCORDING TO PROCEDURES RECOMMENDED IN SERVICE MANUAL
            BY ACCEPTED ELECTRONICS REPAIR PROCEDURE
( ) 3.05 TO THE SATISFACTION OF THE BOARD   159

PROGRAM __ELECTRONICS_____   DIVISION 05 CIRCUIT DIAGNOSIS_____

USOE CODE NO(S)_____   UNIT   02 ASSEMBLY_____

_____   TERMOB NO. 13-047_____

1.00 CONDITION

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

MISOE NO. _____

PROGRAM ___ELECTRONICS___   DIVISION 05 CIRCUIT DIAGNOSIS

                                    UNIT   02 ASSEMBLY

                                    TERMOB NO.   13-048

1.00 CONDITION

      ( ) 1.01 GIVEN A TRANSISTOR RADIO WITH A DEFECT INDICATED BY
                 ONE OR MORE OF THE FOLLOWING SYMPTOMS:
      ( ) 1.02 NO SOUND
      ( ) 1.03 STATIC
      ( ) 1.04 AUDIBLE HUM
      ( ) 1:05 INTERMITTENT SOUND
      ( ) 1.06 SMOKE
      ( ) 1.07 BURNING SMELL
      ( ) 1.08 SERVICE MANUAL
      ( ) 1.09 APPLICABLE TEST EQUIPMENT
      ( ) 1:10 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00 PERFORMANCE

      +--+
      | GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME |
      | ( ) 2.01 TROUBLE SHOOT A DEFECTIVE TRANSISTOR RADIO EMPLOYING |
      | THE FOLLOWING OPERATIONS: |
      +--+

      ( ) 2.02 CHECK ALL CIRCUIT BREAKERS/FUSES
      ( ) 2.03 LOCATE SPECIFIC PROBLEM(S) USING TROUBLE SHOOTING
                 CHART AND/OR CIRCUIT SCHEMATIC
      ( ) 2.04 REPAIR CIRCUIT
      ( ) 2.05 DEMONSTRATE NORMAL OPERATION

3.00 EXTENT

      +--+
      | GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME |
      | ( ) 3.01 TO THE EXTENT THAT THE SPECIFIC FAULTY PART, WIRE |
      | CONTACT, ETC., IS LOCATED AND REPAIRED TO THE |
      | APPROVAL OF A BOARD OF EXPERT RATERS. TO BE COM- |
      | PLETED WITHIN 3 HOURS WITH EACH OPERATION JUDGED |
      | AS SATISFACTORY OR UNSATISFACTORY |
      +--+

      ( ) 3.02 FOLLOWING LOGICAL SEQUENCE AND STRICTEST SAFETY
                 PRECAUTIONS
      ( ) 3.03 FOLLOWING LOGICAL SEQUENCE AND STRICTEST SAFETY
                 PRECAUTIONS TO LOCATE SMALLEST FAULTY COMPONENT
      ( ) 3.04 ACCORDING TO PROCEDURES RECOMMENDED IN SERVICE MANUAL
                 BY ACCEPTED ELECTRONICS REPAIR PROCEDURE
      ( ) 3.05 TO THE SATISFACTION OF THE BOARD

PROGRAM ELECTRONICS _____   DIVISION 05   CIRCUIT DIAGNOSIS

USOE CODE NO(S)_____   UNIT   02   ASSEMBLY
_____
_____   TERMOB NO.   13-048
_____

1.00 CONDITION

2.00 PERFORMANCE

      GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

      GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

MISOE NO. _____ ✓163

1.00 CONDITION

( ) 1.01 HAM TRANSMITTER
( ) 1.02 CB TRANSMITTER
( ) 1.03 UHF TRANSMITTER
( ) 1.04 VHF TRANSMITTER
( ) 1.05 MF TRANSMITTER
( ) 1.06 LF TRANSMITTER
( ) 1.07 VHF TRANSCEIVER
( ) 1.08 LORAN TRANSMITTER/RECEIVER
( ) 1.09 SERVICE MANUALS
( ) 1.10 NO/IMPROPER RF OUTPUT
( ) 1.11 STATIC IN SOUND
( ) 1.12 NO MODULATION
( ) 1.13 AUDIBLE HUM
( ) 1.14 INTERMITTENT SOUND MODULATION
( ) 1.15 SMOKE
( ) 1.16 BURNING SMELL
( ) 1.17 IMPROPER OUTPUT VOLTAGE
( ) 1.18 IMPROPER OUTPUT CURRENT
( ) 1.19 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( ) 2.01 TROUBLE SHOOT A DEFECTIVE TRANSMITTER EMPLOYING
           THE FOLLOWING OPERATIONS:

( ) 2.02 CHECK ALL CIRCUIT BREAKERS/FUSES
( ) 2.03 LOCATE SPECIFIC PROBLEM(S) USING TROUBLE SHOOTING
           CHART AND/OR CIRCUIT SCHEMATIC
( ) 2.04 REPAIR CIRCUIT
( ) 2.05 DEMONSTRATE NORMAL OPERATION

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( ) 3.01 TO THE EXTENT THAT THE SPECIFIC FAULTY PART, WIRE,
           CONTACT, ETC., IS LOCATED AND REPAIRED TO THE
           APPROVAL OF A BOARD OF EXPERT RATERS. TO BE COM-
           PLETED WITHIN 3 HOURS WITH EACH OPERATION JUDGED
           AS SATISFACTORY OR UNSATISFACTORY

( ) 3.02 FOLLOWING LOGICAL SEQUENCE AND STRICTEST SAFETY
           PRECAUTIONS
( ) 3.03 FOLLOWING LOGICAL SEQUENCE AND STRICTEST SAFETY

( ) 1.01 HAM TRANSMITTER
( ) 1.02 CB TRANSMITTER
( ) 1.03 UHF TRANSMITTER
( ) 1.04 VHF TRANSMITTER
( ) 1.05 MF TRANSMITTER
( ) 1.06 LF TRANSMITTER
( ) 1.07 VHF TRANSCEIVER
( ) 1.08 LORAN TRANSMITTER/RECEIVER
( ) 1.09 SERVICE MANUALS
( ) 1.10 NO/IMPROPER RF OUTPUT
( ) 1.11 STATIC IN SOUND
( ) 1.12 NO MODULATION
( ) 1.13 AUDIBLE HUM
( ) 1.14 INTERMITTENT SOUND MODULATION
( ) 1.15 SMOKE
( ) 1.16 BURNING SMELL
( ) 1.17 IMPROPER OUTPUT VOLTAGE
( ) 1.18 IMPROPER OUTPUT CURRENT
( ) 1.19 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( ) 2.01 TROUBLE SHOOT A DEFECTIVE TRANSMITTER EMPLOYING THE FOLLOWING OPERATIONS:

( ) 2.02 CHECK ALL CIRCUIT BREAKERS/FUSES
( ) 2.03 LOCATE SPECIFIC PROBLEM(S) USING TROUBLE SHOOTING CHART AND/OR CIRCUIT SCHEMATIC
( ) 2.04 REPAIR CIRCUIT
( ) 2.05 DEMONSTRATE NORMAL OPERATION

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTINC OUTCOME
( ) 3.01 TO THE EXTENT THAT THE SPECIFIC FAULTY PART, WIRE, CONTACT, ETC., IS LOCATED AND REPAIRED TO THE APPROVAL OF A BOARD OF EXPERT RATERS. TO BE COMPLETED WITHIN 3 HOURS WITH EACH OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY

( ) 3.02 FOLLOWING LOGICAL SEQUENCE AND STRICTEST SAFETY PRECAUTIONS
( ) 3.03 FOLLOWING LOGICAL SEQUENCE AND STRICTEST SAFETY PRECAUTIONS TO LOCATE SMALLEST FAULTY COMPONENT
( ) 3.04 ACCORDING TO PROCEDURES RECOMMENDED IN SERVICE MANUAL BY ACCEPTED ELECTRONICS REPAIR PROCEDURE
( ) 3.05 TO THE SATISFACTION OF THE BOARD

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PROGRAM ELECTRONICS

USOE CODE NO(S)_____

DIVISION 05   CIRCUIT DIAGNOSIS

UNIT   02   ASSEMBLY

TERMOB NO.   13-049

1.00 CONDITION

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

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MISOE NO. _____

PROGRAM ____ELECTRONICS_____   DIVISION 05 CIRCUIT DIAGNOSIS

_____   UNIT   02 ASSEMBLY

                                     TERMOB NO.   13-050

1.00 CONDITION

    ( ) 1.01 GIVEN A VACUUM TUBE RADIO WITH A DEFECT INDICATED
                   BY ONE OR MORE OF THE FOLLOWING SYMPTOMS:
    ( ) 1.02 NO SOUND
    ( ) 1.03 STATIC
    ( ) 1.04 AUDIBLE HUM
    ( ) 1.05 INTERMITTENT SOUND
    ( ) 1.06 SMOKE
    ( ) 1.07 BURNING SMELL
    ( ) 1.08 NONE OF THE ABOVE
    ( ) 1.09 SERVICE MANUAL
    ( ) 1.10 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00 PERFORMANCE

    ┌───┐
    │ GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME   │
    │ ( ) 2.01 TROUBLE SHOOT A DEFECTIVE VACUUM TUBE RADIO EMPLOYING │
    │   THE FOLLOWING OPERATIONS: │
    └───┘

    ( ) 2.02 CHECK ALL CIRCUIT BREAKERS/FUSES/TUBES
    ( ) 2.03 LOCATE SPECIFIC PROBLEM(S) USING TROUBLE SHOOTING
                   CHART AND/OR CIRCUIT SCHEMATIC
    ( ) 2.04 REPAIR CIRCUIT
    ( ) 2.05 DEMONSTRATE NORMAL OPERATION

3.00 EXTENT

    ┌───┐
    │ GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME   │
    │ ( ) 3.01 TO THE EXTENT THAT THE SPECIFIC FAULTY PART, WIRE,   │
    │   CONTACT, ETC., IS LOCATED AND REPAIRED TO THE   │
    │   APPROVAL OF A BOARD OF EXPERT RATERS. TO BE COM-   │
    │   PLETED WITHIN 3 HOURS WITH EACH OPERATION JUDGED   │
    │   AS SATISFACTORY OR UNSATISFACTORY   │
    └───┘

    ( ) 3.02 FOLLOWING LOGICAL SEQUENCE AND STRICTEST SAFETY
                   PRECAUTIONS
    ( ) 3.03 FOLLOWING LOGICAL SEQUENCE AND STRICTEST SAFETY
                   PRECAUTIONS TO LOCATE SMALLEST FAULTY COMPONENT
    ( ) 3.04 ACCORDING TO PROCEDURES RECOMMENDED IN SERVICE MANUAL
                   BY ACCEPTED ELECTRONICS REPAIR PROCEDURE
    ( ) 3.05 TO THE SATISFACTION OF THE BOARD   66

MISOE NO._____

PROGRAM ELECTRONICS   DIVISION 05   CIRCUIT DIAGNOSIS

USOE CODE NO(S)_____ UNIT   02   ASSEMBLY

                              TERMOB NO.   13-050

1.00   CONDITION

2.00   PERFORMANCE

       GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00   EXTENT

       GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

MISOE NO. _____

PROGRAM ELECTRONICS _____   DIVISION 05 CIRCUIT DIAGNOSIS
_____   UNIT   02 ASSEMBLY
                                         TERMOB NO.   13-051

1.00 CONDITION

( ) 1.01 GIVEN A LOW VOLTAGE DC POWER SUPPLY WITH A DEFECT
           INDICATED BY ONE OR MORE OF THE FOLLOWING
           SYMPTOMS:
( ) 1.02 NO VOLTAGE OUTPUT
( ) 1.03 LOW VOLTAGE OUTPUT
( ) 1.04 INTERMITTENT OUTPUT
( ) 1.05 EXCESSIVE HUM
( ) 1.06 POOR REGULATION
( ) 1.07 BURNING SMELL
( ) 1.08 NONE OF THE ABOVE
( ) 1.09 SERVICE MANUAL
( ) 1.10 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( ) 2.01 TROUBLE SHOOT A DEFECTIVE LOW VOLTAGE DC POWER SUPPLY EMPLOYING THE FOLLOWING OPERATIONS:

( ) 2.02 CHECK ALL CIRCUIT BREAKERS/FUSES
( ) 2.03 LOCATE SPECIFIC PROBLEM(S) USING TROUBLE SHOOTING
           CHART AND/OR CIRCUIT SCHEMATIC
( ) 2.04 REPAIR CIRCUIT
( ) 2.05 DEMONSTRATE NORMAL OPERATION

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( ) 3.01 TO THE EXTENT THAT THE SPECIFIC FAULTY PART, WIRE CONTACT, ETC., IS LOCATED AND REPAIRED TO THE APPROVAL OF A BOARD OF EXPERT RATERS. TO BE COMPLETED WITHIN 3 HOURS WITH EACH OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY

( ) 3.02 FOLLOWING LOGICAL SEQUENCE AND STRICTEST SAFETY
           PRECAUTIONS
( ) 3.03 FOLLOWING LOGICAL SEQUENCE AND STRICTEST SAFETY
           PRECAUTIONS TO LOCATE SMALLEST FAULTY COMPONENT
( ) 3.04 ACCORDING TO PROCEDURES RECOMMENDED IN SERVICE MANUAL
           BY ACCEPTED ELECTRONICS REPAIR PROCEDURE
( ) 3.05 TO THE SATISFACTION OF THE BOARD

PROGRAM   ELECTRONICS _____   DIVISION 05 _____ CIRCUIT DIAGNOSIS

USOE CODE NO(S)_____   UNIT   02 _____ ASSEMBLY

_____   TERMOB NO. _____ 13-051

_____

_____

1.00   CONDITION

2.00   PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00   EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

MISOE NO. _____

PROGRAM ELECTRONICS   DIVISION 05 CIRCUIT DIAGNOSIS

                                UNIT   02 ASSEMBLY

                                TERMOB NO.   13-052

1.00 CONDITION

    ( ) 1.01 GIVEN AN OSCILLOSCOPE WITH A DEFECT INDICATED BY
                   ONE OR MORE OF THE FOLLOWING SYMPTOMS:
    ( ) 1.02 NO TRACE
    ( ) 1.03 BAD FOCUS
    ( ) 1.04 FLASHES ON SCREEN
    ( ) 1.05 SMOKE
    ( ) 1.06 INTERMITTENT TRACE
    ( ) 1.07 BURNING SMELL
    ( ) 1.08 NONE OF THE ABOVE
    ( ) 1.09 SERVICE MANUAL
    ( ) 1.10 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00 PERFORMANCE

┌───┐
│ GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME   │
│ ( ) 2.01 TROUBLE SHOOT A DEFECTIVE OSCILLOSCOPE EMPLOYING   │
│   THE FOLLOWING OPERATIONS: │
└───┘

    ( ) 2.02 CHECK ALL CIRCUIT BREAKERS/FUSES/TUBES
    ( ) 2.03 LOCATE SPECIFIC PROBLEM(S) USING TROUBLE SHOOTING
                   CHART AND/OR CIRCUIT SCHEMATIC
    ( ) 2.04 REPAIR CIRCUIT
    ( ) 2.05 DEMONSTRATE NORMAL OPERATION

3.00 EXTENT

┌───┐
│ GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME   │
│ ( ) 3.01 TO THE EXTENT THAT THE SPECIFIC FAULTY PART, WIRE,   │
│   CONTACT, ETC., IS LOCATED AND REPAIRED TO THE   │
│   APPROVAL OF A BOARD OF EXPERT RATERS. TO BE COM-   │
│   PLETED WITHIN 3 HOURS WITH EACH OPERATION JUDGED   │
│   AS SATISFACTORY OR UNSATISFACTORY   │
└───┘

    ( ) 3.02 FOLLOWING LOGICAL SEQUENCE AND STRICTEST SAFETY
                   PRECAUTIONS
    ( ) 3.03 FOLLOWING LOGICAL SEQUENCE AND STRICTEST SAFETY
                   PRECAUTIONS TO LOCATE SMALLEST FAULTY COMPONENT
    ( ) 3.04 ACCORDING TO PROCEDURES RECOMMENDED IN SERVICE MANUAL/
                   BY ACCEPTED ELECTRONICS REPAIR PROCEDURE
    ( ) 3.05 TO THE SATISFACTION OF THE BOARD   170

PROGRAM ELECTRICAL   DIVISION 05 ____CIRCUIT DIAGNOSIS____

USOE CODE NO(S)_____   UNIT   02   ____ASSEMBLY_____
       _____   TERMOB NO.   ____13-052_____
       _____
       _____

1.00 CONDITION

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

MISOE NO. _____

PROGRAM   ELECTRONICS   DIVISION 05   CIRCUIT DIAGNOSIS
           _____   UNIT   02   ASSEMBLY
                                                TERMOB NO.   13-053

1.00   CONDITION

( )   1.01   INDUSTRIAL ULTRASONIC WASHER WITH A DEFECT INDICATED
                 BY ONE OR MORE OF THE FOLLOWING SYMPTOMS:
( )   1.02   NO CLEANING ACTION
( )   1.03   INADEQUATE CLEANING ACTION
( )   1.04   BURNING SMELL
( )   1.05   NONE OF THE ABOVE
( )   1.06   SERVICE MANUAL
( )   1.07   BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00   PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( ) 2.01   TROUBLE SHOOT A DEFECTIVE ULTRASONIC WASHER EMPLOYING THE FOLLOWING OPERATIONS:

( )   2.02   CHECK ALL CIRCUIT BREAKERS/FUSES/TUBES
( )   2.03   LOCATE SPECIFIC PROBLEM(S) USING TROUBLE SHOOTING
                 CHART AND/OR CIRCUIT SCHEMATIC
( )   2.04   REPAIR CIRCUIT
( )   2.05   DEMONSTRATE NORMAL OPERATION

3.00   EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( ) 3.01   TO THE EXTENT THAT THE SPECIFIC FAULTY PART, WIRE, CONTACT, ETC., IS LOCATED AND REPAIRED TO THE APPROVAL OF A BOARD OF EXPERT RATERS. TO BE COMPLETED WITHIN 3 HOURS WITH EACH OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY

( )   3.02   FOLLOWING LOGICAL SEQUENCE AND STRICTEST SAFETY
                 PRECAUTIONS
( )   3.03   FOLLOWING LOGICAL SEQUENCE AND STRICTEST SAFETY
                 PRECAUTIONS TO LOCATE SMALLEST FAULTY COMPONENT
( )   3.04   ACCORDING TO PROCEDURES RECOMMENDED IN SERVICE MANUAL
                 BY ACCEPTED ELECTRONICS REPAIR PROCEDURE
( )   3.05   TO THE SATISFACTION OF THE BOARD

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PROGRAM ELECTRONICS_____

USOE CODE NO(S)_____

DIVISION 05   CIRCUIT DIAGNOSIS

UNIT   02   ASSEMBLY

TERMOB NO.   13-053

1.00 CONDITION

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

MISOE NO. _____

PROGRAM   ELECTRONICS   DIVISION 05 CIRCUIT DIAGNOSIS

                                          UNIT   02 ASSEMBLY

                                          TERMOB NO.   15-054

1.00 CONDITION

    ( ) 1.01 RADAR SET WITH DEFECT INDICATED BY ONE OR MORE OF
                  THE FOLLOWING SYMPTOMS:
    ( ) 1.02 NO VIDEO
    ( ) 1.03 NO SYNCHRO
    ( ) 1.04 FLASHES ON SCOPE
    ( ) 1.05 PHONY CONTACTS
    ( ) 1.06 BURNING SMELL
    ( ) 1.07 NONE OF THE ABOVE
    ( ) 1.08 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)
    ( ) 1.09 SERVICE MANUAL

2.00 PERFORMANCE

    +---+
    | GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME |
    | ( ) 2.01 TROUBLE SHOOT A DEFECTIVE RADAR SET EMPLOYING THE |
    | FOLLOWING OPERATIONS: |
    +---+

    ( ) 2.02 CHECK ALL CIRCUIT BREAKERS/FUSES/TUBES
    ( ) 2.03 LOCATE SPECIFIC PROBLEM(S) USING TROUBLE SHOOTING
                  CHART AND/OR CIRCUIT SCHEMATIC
    ( ) 2.04 REPAIR CIRCUIT
    ( ) 2.05 DEMONSTRATE NORMAL OPERATION

3.00 EXTENT

    +---+
    | GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME |
    | ( ) 3.01 TO THE EXTENT THAT THE SPECIFIC FAULTY PART, WIRE, |
    | CONTACT, ETC., IS LOCATED AND REPAIRED TO THE |
    | APPROVAL OF A BOARD OF EXPERT RATERS. TO BE COM- |
    | PLETED WITHIN 3 HOURS WITH EACH OPERATION JUDGED |
    | AS SATISFACTORY OR UNSATISFACTORY |
    +---+

    ( ) 3.02 FOLLOWING LOGICAL SEQUENCE AND STRICTEST SAFETY
                  PRECAUTIONS
    ( ) 3.03 FOLLOWING LOGICAL SEQUENCE AND STRICTEST SAFETY
                  PRECAUTIONS TO LOCATE SMALLEST FAULTY COMPONENT
    ( ) 3.04 ACCORDING TO PROCEDURES RECOMMENDED IN SERVICE MANUAL
                  BY ACCEPTED ELECTRONICS REPAIR PROCEDURE
    ( ) 3.05 TO THE SATISFACTION OF THE BOARD

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PROGRAM ELECTRONICS   DIVISION 05   CIRCUIT DIAGNOSIS

USOE CODE NO(S)_____   UNIT   02   ASSEMBLY

                                TERMOB NO.   13-054

1.00 CONDITION

2.00 ·PERFORMANCE

   GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

   GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

MISOE NO. _____

PROGRAM ___ELECTRONICS_____   DIVISION 05 CIRCUIT DIAGNOSIS

                                            UNIT   02 ASSEMBLY

                                            TERMOB NO.   13-055

1.00 CONDITION

( ) 1.01 GIVEN A RADIO DIRECTION FINDER WITH A DEFECT INDICATED
           BY ONE OR MORE OF THE FOLLOWING SYMPTOMS:
( ) 1.02 NO SOUND
( ) 1.03 STATIC
( ) 1.04 AUDIBLE HUM
( ) 1.05 INTERMITTENT SOUND
( ) 1.06 SMOKE
( ) 1.07 BURNING SMELL
( ) 1.08 NONE OF THE ABOVE
( ) 1.09 SERVICE MANUAL
( ) 1.10 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00 PERFORMANCE

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+-----------------------------------------------------------------+
| GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME          |
| ( )  2.01  TROUBLE SHOOT A DEFECTIVE RADIO DIRECTION FINDER     |
|            EMPLOYING THE FOLLOWING OPERATIONS:                  |
+-----------------------------------------------------------------+
```

( ) 2.02 CHECK ALL CIRCUIT BREAKERS/FUSES/TUBES
( ) 2.03 LOCATE SPECIFIC PROBLEM(S) USING TROUBLE SHOOTING
           CHART AND/OR CIRCUIT SCHEMATIC
( ) 2.04 REPAIR CIRCUIT
( ) 2.05 DEMONSTRATE NORMAL OPERATION

3.00 EXTENT

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+-----------------------------------------------------------------+
| GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME     |
| ( )  3.01  TO THE EXTENT THAT THE SPECIFIC FAULTY PART, WIRE,   |
|            CONTACT, ETC., IS LOCATED AND REPAIRED TO THE        |
|            APPROVAL OF A BOARD OF EXPERT RATERS.  TO BE COM-    |
|            PLETED WITHIN 3 HOURS WITH EACH OPERATION JUDGED     |
|            AS SATISFACTORY OR UNSATISFACTORY                    |
+-----------------------------------------------------------------+
```

( ) 3.02 FOLLOWING LOGICAL SEQUENCE AND STRICTEST SAFETY
           PRECAUTIONS
( ) 3.03 FOLLOWING LOGICAL SEQUENCE AND STRICTEST SAFETY
           PRECAUTIONS TO LOCATE SMALLEST FAULTY COMPONENT
( ) 3.04 ACCORDING TO PROCEDURES RECOMMENDED IN SERVICE MANUAL
           BY ACCEPTED ELECTRONICS REPAIR PROCEDURE
( ) 3.05 TO THE SATISFACTION OF THE PANEL

PROGRAM ELECTRONICS   DIVISION 05   CIRCUIT DIAGNOSIS

USOE CODE NO(S)_____   UNIT   02   ASSEMBLY

                              TERMOB NO.   13-055

1.00 CONDITION

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

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MISOE NO. _____

PROGRAM ___ELECTRONICS_____

DIVISION 05 CIRCUIT DIAGNOSIS

UNIT   02 ASSEMBLY

TERMOB NO.   13-056

1.00 CONDITION

( ) 1.01 GIVEN A TAPE RECORDER WITH A DEFECT INDICATED BY
            ONE OR MORE OF THE FOLLOWING·SYMPTOMS:
( ) 1.02 NO SOUND
( ) 1.03 STATIC
( ) 1.04 AUDIBLE HUM
( ) 1.05 INTERMITTENT SOUND
( ) 1.06 SMOKE
( ) 1.07 BURNING SMELL
( ) 1.08 NONE OF THE ABOVE
( ) 1.09 SERVICE MANUAL
( ) 1.10 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00 PERFORMANCE

┌───┐
│ GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME   │
│ ( ) 2.01 TROUBLE SHOOT A DEFECTIVE TAPE RECORDER EMPLOYING │
│   THE FOLLOWING OPERATIONS: │
└───┘

( ) 2.02 CHECK ALL CIRCUIT BREAKERS/FUSES
( ) 2.03 LOCATE SPECIFIC PROBLEM(S) USING TROUBLE SHOOTING
            CHART AND/OR CIRCUIT SCHEMATIC
( ) 2.04 REPAIR CIRCUIT
( ) 2.05 DEMONSTRATE NORMAL OPERATION

3.00 EXTENT

┌───┐
│ GENERAL STATEMENT OF EXTENT AND EXTENT·OF RESULTING OUTCOME   │
│ ( ) 3.01 TO THE EXTENT THAT THE SPECIFIC FAULTY PART, WIRE │
│   CONTACT, ETC., IS LOCATED AND REPAIRED TO THE   │
│   APPROVAL OF A BOARD OF EXPERT RATERS. TO BE   │
│   COMPLETED WITHIN 3 HOURS WITH EACH OPERATION   │
│   JUDGED AS SATISFACTORY OR UNSATISFACTORY   │
└───┘

( ) 3.02 FOLLOWING LOGICAL SEQUENCE AND STRICTEST SAFETY
            PRECAUTIONS
( ) 3.03 FOLLOWING LOGICAL SEQUENCE AND STRICTEST SAFETY
            PRECAUTIONS SO THAT THE SMALLEST FAULTY COMPONENT
            IS LOCATED
( ) 3.04 ACCORDING TO PROCEDURES RECOMMENDED IN SERVICE MANUAL
            BY ACCEPTED ELECTRONICS REPAIR PROCEDURE
( ) 3.05 TO THE SATISFACTION OF THE PANEL

PROGRAM ELECTRONICS _____

USOE CODE NO(S)_____

DIVISION 05   CIRCUIT DIAGNOSIS

UNIT   02   ASSEMBLY

TERMOB NO.   13-056

1.00 CONDITION

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

MISOE NO. _____

PROGRAM ___ELECTRONICS___   DIVISION 05 CIRCUIT DIAGNOSIS

_____   UNIT   02 ASSEMBLY

                                          TERMOB NO.   13-057

1.00 CONDITION

    ( ) 1.01 GIVEN A VOM, VTVM, OR DVM WITH A DEFECT INDICATED
                  BY ONE OR MORE OF THE FOLLOWING SYMPTOMS:
    ( ) 1.02 NO READING
    ( ) 1.03 NO CURRENT SCALE
    ( ) 1.04 NO DC SCALE
    ( ) 1.05 NO AC SCALE
    ( ) 1.06 NO OHM SCALE
    ( ) 1.07 BROKEN TEST LEADS
    ( ) 1.08 BROKEN CASE
    ( ) 1.09 SERVICE MANUAL
    ( ) 1.10 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3).

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( ) 2.01 TROUBLE SHOOT A DEFECTIVE METER EMPLOYING THE FOLLOWING PROCEDURE:

    ( ) 2.02 CHECK CALIBRATION
    ( ) 2.03 ISOLATE DEFECT
    ( ) 2.04 REPAIR DEFECT
    ( ) 2.05 DEMONSTRATE OPERATION

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( ) 3.01 TO THE EXTENT THAT THE SPECIFIC DEFECT IS LOCATED AND REPAIRED TO NBS STANDARDS AND TO THE APPROVAL OF A BOARD OF EXPERT RATERS. TO BE COMPLETED WITHIN 3 HOURS WITH EACH OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY

    ( ) 3.02 LOCATING FAULT
    ( ) 3.03 SPECIFIC DEFECT IS ISOLATED
    ( ) 3.04 USING STRICTEST SAFETY PRECAUTIONS
    ( ) 3.05 100% OPERATIONAL

PROGRAM ELECTRONICS

USOE CODE NO(S) _____

DIVISION 05   CIRCUIT DIAGNOSIS

UNIT   02   ASSEMBLY

TERMOB NO.   13-057

1.00   CONDITION

2.00   PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00   EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

MISOE NO. _____

1.00 CONDITION

( ) 1.01 GIVEN ONE OF THE INSTRUMENTS BELOW ISOLATE DEFECT
           THAT PREVENTS ITS NORMAL OPERATION
( ) 1.02 UNIVERSAL COUNTER
( ) 1.03 MULTI-FUNCTION COUNTER
( ) 1.04 FREQUENCY COUNTER
( ) 1.05 MICROWAVE FREQUENCY COUNTER
( ) 1.06 PRESET CONTROLLER/COUNTER
( ) 1.07 NORMALIZING COUNTER
( ) 1.08 PERIOD-RATIO COUNTER
( ) 1.09 TIME-INTERVAL OR EPUT COUNTER
( ) 1.10 SERVICE MANUALS
( ) 1.11 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( ) 2.01 TROUBLE SHOOT A DEFECTIVE COUNTER ASSEMBLY EMPLOYING THE FOLLOWING OPERATIONS:

( ) 2.02 CHECK ALL CIRCUIT BREAKERS
( ) 2.03 LOCATE SPECIFIC PROBLEM(S) USING SERVICE MANUAL
( ) 2.04 REPAIR CIRCUIT
( ) 2.05 DEMONSTRATE NORMAL OPERATION

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( ) 3.01 TO THE EXTENT THAT THE DEFECT IS ISOLATED AND REPAIRED TO APPROVAL OF A BOARD OF EXPERT RATERS. TO BE COMPLETED WITHIN 5 HOURS WITH EACH OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY

( ) 3.02 CIRCUIT BREAKER OPERATIONAL
( ) 3.03 FOLLOWING LOGICAL SEQUENCE AND STRICTEST SAFETY
           PRECAUTIONS
( ) 3.04 SUBMIT FINALIZED JOB REPORT. CIRCUIT REPAIRED
( ) 3.05 COUNTER IS 100% OPERATIONAL ON ALL FUNCTIONS

PROGRAM ELECTRONICS_____   DIVISION 05 ____CIRCUIT DIAGNOSIS____

USOE CODE NO(S)_____   UNIT   02   ____ASSEMBLY_____

_____   TERMOB NO.   ____130-58_____

_____

1.00   CONDITION

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00   EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

MISOE NO. _____

PROGRAM   ELECTRONICS   DIVISION 05   CIRCUIT DIAGNOSIS

                                                UNIT   02   ASSEMBLY

                                                TERMOB NO.   13-059

1.00   CONDITION

      ( )   1.01   GIVEN ONE OF THE ASSEMBLIES BELOW ISOLATE THE DEFECT
                       THAT PREVENTS NORMAL OPERATION
      ( )   1.02   8 TRACK STEREO
      ( )   1.03   CASSETTE TAPE STEREO
      ( )   1.04   FM STEREO
      ( )   1.05   8 TRACK - FM STEREO
      ( )   1.06   CASSETTE - FM STEREO
      ( )   1.07   BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)
      ( )   1.08   SERVICE MANUALS

2.00   PERFORMANCE

      GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
      ( )   2.01   TROUBLE SHOOT A DEFECTIVE STEREO ASSEMBLY EMPLOYING
                       THE FOLLOWING OPERATIONS:

      ( )   2.02   CHECK ALL FUSE RESISTORS, FUSES, AND/OR CIRCUIT
                       BREAKERS
      ( )   2.03   LOCATE SPECIFIC PROBLEM(S) USING SERVICE MANUAL
      ( )   2.04   REPAIR CIRCUIT
      ( )   2.05   DEMONSTRATE NORMAL OPERATION

3.00   EXTENT

      GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
      ( )   3.01   TO THE EXTENT THAT THE DEFECT IS ISOLATED AND
                       REPAIRED TO THE APPROVAL OF A BOARD OF EXPERT
                       RATERS.   TO BE COMPLETED WITHIN 6 HOURS WITH EACH
                       OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY

      ( )   3.02   FUSES AND BREAKER ARE OPERATIONAL
      ( )   3.03   FOLLOWING LOGICAL SEQUENCE AND STRICTEST SAFETY
                       PRECAUTIONS
      ( )   3.04   SUBMIT FINALIZED REPORT. CIRCUIT REPAIRED
      ( )   3.05   STEREO IS 100% OPERATIONAL ON ALL FUNCTIONS

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PROGRAM ELECTRONICS

USOE CODE NO(S)_____

DIVISION 05   CIRCUIT DIAGNOSIS

UNIT   02   ASSEMBLY

TERMOB NO.   13-059

1.00   CONDITION

2.00   PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00   EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

MISOE NO. _____

PROGRAM ___ELECTRONICS_____   DIVISION 05 CIRCUIT DIAGNOSIS

_____   UNIT   02 ASSEMBLY

                                           TERMOB NO.   13-060

1.00 CONDITION

      ( ) 1.01 PA SYSTEM
      ( ) 1.02 BASIC ELECTRONIC TOOLS AND EQUIPMENT (TABLE T-3)
      ( ) 1.03 INSTALLATION MANUAL

2.00 PERFORMANCE

+--+
| GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME |
| ( )   2.01 INSTALL A PA SYSTEM ASSEMBLY EMPLOYING THE FOLLOWING |
| OPERATIONS: |
+--+

      ( ) 2.02 LOCATE SPEAKER FOR BEST ACOUSTICAL RESULTS
      ( ) 2.03 RUN CABLING
      ( ) 2.04 CHECK FOR SECURE CABLE CONNECTIONS
      ( ) 2.05 DEMONSTRATE NORMAL OPERATION

3.00 EXTENT

+--+
| GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME |
| ( )   3.01 SPEAKER IS INSTALLED CORRECTLY TO APPROVAL OF A |
| BOARD OF EXPERT RATERS. TO BE COMPLETED WITHIN 8 |
| HOURS WITH EACH OPERATION JUDGED AS SATISFACTORY |
| OR UNSATISFACTORY |
+--+

      ( ) 3.02 SPEAKERS PROPERLY LOCATED
      ( ) 3.03 FOLLOWING LOGICAL SEQUENCE AND STRICTEST SAFETY
                    PRECAUTIONS
      ( ) 3.04 NO SHORTS OR LOOSE CONNECTIONS
      ( ) 3.05 PA SYSTEM IS 100% OPERATIONAL ON ALL FUNCTIONS

PROGRAM ELECTRONICS_____

USOE CODE NO(S)_____

DIVISION 05   CIRCUIT DIAGNOSIS____

UNIT   02   ASSEMBLY____

TERMOB NO.   13-060____

1.00   CONDITION

2.00   PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00   EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME.

MISOE NO. _____

1.00   CONDITION

( )   1.01· GIVEN ONE OF THE INSTRUMENTS BELOW LOCATE DEFECT
              THAT PREVENTS NORMAL OPERATION
( )   1.02 RESISTANCE DECADE ASSEMBLY
( )   1.03 CAPACITOR DECADE ASSEMBLY
( )   1.04 INDUCTOR DECADE ASSEMBLY
( )   1.05 SERVICE MANUALS
( )   1.06 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00   PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( )   2.01   TROUBLE SHOOT A DEFECTIVE DECADE ASSEMBLY EMPLOYING
              THE FOLLOWING OPERATIONS:

( )   2.02 LOCATE DEFECT
( )   2.03 REPAIR OR REPLACE FAULTY COMPONENT
( )   2.04 DEMONSTRATE NORMAL OPERATION

3.00   EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( )   3.01   TO THE EXTENT THAT THE DEFECT IS ISOLATED AND
              REPAIRED TO THE APPROVAL OF A BOARD OF EXPERT
              RATERS. TO BE COMPLETED WITHIN 2 HOURS WITH
              EACH OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY

( )   3.02 FOLLOWING LOGICAL SEQUENCE AS DEFINED BY SERVICE
              MANUAL
( )   3.03 SUBMIT FINALIZED JOB REPORT. CIRCUIT REPAIRED
(·)   3.04 DECADE ASSEMBLY IS 100% OPERATIONAL ON ALL FUNCTIONS

PROGRAM   ELECTRONICS _____

USOE CODE NO(S) _____

_____

DIVISION 05   CIRCUIT DIAGNOSIS

UNIT   02   ASSEMBLY

TERMOB NO.   13-061

1.00 CONDITION

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT
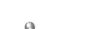
GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

MISOE NO. _____

PROGRAM ___ELECTRONICS_____   DIVISION 05 CIRCUIT DIAGNOSIS

                                           UNIT   02 ASSEMBLY

                                           TERMOB NO. 13-062

1.00 CONDITION

( ) 1.01 DEFECTIVE DIGITAL LOGIC ASSEMBLY EMPLOYING THE USE
           OF 7400 SERIES ICS
( ) 1.02 OSCILLOSCOPE
( ) 1.03 VOM/DVM
( ) 1.04 TIMING DIAGRAM
( ) 1.05 LOGIC DIAGRAMS
( ) 1.06 WIRE LISTS
( ) 1.07 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME
( ) 2.01 TROUBLE SHOOT A DEFECTIVE DIGITAL LOGIC ASSEMBLY EMPLOYING THE FOLLOWING OPERATIONS:

( ) 2.02 LOCATE DEFECTIVE GATE
( ) 2.03 REPAIR OR REPLACE IC
( ) 2.04 DEMONSTRATE NORMAL OPERATION

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME
( ) 3.01 TO THE EXTENT THAT THE DEFECT IS ISOLATED AND REPAIRED TO THE APPROVAL OF A BOARD OF EXPERT RATERS. TO BE COMPLETED WITHIN 4 HOURS WITH EACH OPERATION JUDGED AS SATISFACTORY OR UNSATISFACTORY

( ) 3.02 FOLLOWING LOGICAL SEQUENCE AS DEFINED BY THE TIMING
           AND LOGIC DIAGRAMS
( ) 3.03 IC REPAIRED OR REPLACED
( ) 3.04 DIGITAL ASSEMBLY IS 100% OPERATIONAL ON ALL FUNCTIONS

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MISOE NO. _____

PROGRAM ELECTRONICS   DIVISION 05   CIRCUIT DIAGNOSIS

USOE CODE NO(S)_____   UNIT   02   ASSEMBLY

_____   TERMOB NO.   13-062

1.00 CONDITION

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

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MISOE NO. _____

PROGRAM   ELECTRONICS_____   DIVISION 05 CIRCUIT DIAGNOSIS

                                            UNIT   02 ASSEMBLY

                                            TERMOB NO.   13-063

1.00 CONDITION

( ) 1.01 GIVEN ONE OF THE INSTRUMENTS BELOW ISOLATE DEFECT
               THAT PREVENTS NORMAL OPERATION
( ) 1.02 QUARTZ OSCILLATOR
( ) 1.03 AUDIO OSCILLATOR
( ) 1.04 SINE, SQUARE OSCILLATOR
( ) 1.05 FUNCTION GENERATOR
( ) 1.06 SIGNAL GENERATOR
( ) 1.07 FREQUENCY SYNTHESIZER
( ) 1.08 RF AND VHF OSCILLATOR
( ) 1.09 VHF SIGNAL GENERATOR
( ) 1.10 FM-AM SIGNAL GENERATOR
( ) 1.11 UHF SIGNAL GENERATOR
( ) 1.12 SWEEP OSCILLATOR
( ) 1.13 SERVICE MANUALS
( ) 1.14 BASIC ELECTRONICS TOOLS AND EQUIPMENT (TABLE T-3)

2.00 PERFORMANCE

┌───┐
│ GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME   │
│ ( ) 2.01 TROUBLE SHOOT A DEFECTIVE OSCILLATOR ASSEMBLY   │
│   EMPLOYING THE FOLLOWING OPERATIONS: │
└───┘

( ) 2.02 LOCATE SPECIFIC PROBLEM(S) USING SERVICE MANUAL
( ) 2.03 CHECK ALL CIRCUIT BREAKERS
( ) 2.04 REPAIR CIRCUIT
( ) 2.05 DEMONSTRATE NORMAL OPERATION

3.00 EXTENT

┌───┐
│ GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME   │
│ ( ) 3.01 TO THE EXTENT THAT THE DEFECT IS ISOLATED AND   │
│   REPAIRED TO THE APPROVAL OF A BOARD OF EXPERT   │
│   RATERS. TO BE COMPLETED WITHIN 5 HOURS WITH   │
│   EACH OPERATION JUDGED AS SATISFACTORY OR   │
│   UNSATISFACTORY   │
└───┘

( ) 3.02 FOLLOWING LOGICAL SEQUENCE AND STRICTEST SAFETY
               PRECAUTIONS
( ) 3.03 CIRCUIT BREAKER OPERATIONAL
( ) 3.04 SUBMIT FINALIZED JOB REPORT. CIRCUIT REPAIRED
( ) 3.05 ASSEMBLY IS 100% OPERATIONAL ON ALL FUNCTIONS

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PROGRAM __ELECTRONICS_____   DIVISION 05 ____CIRCUIT DIAGNOSIS____

USOE CODE NO(S)_____   UNIT   02· ____ASSEMBLY_____

_____   TERMOB NO.   ____13-063_____

1.00 CONDITION

2.00 PERFORMANCE

GENERAL STATEMENT OF PERFORMANCE AND RESULTING OUTCOME

3.00 EXTENT

. GENERAL STATEMENT OF EXTENT AND EXTENT OF RESULTING OUTCOME

TABLE T-3

BASIC ELECTRONICS TOOLS AND EQUIPMENT

SOLDERING IRON WITH ASSORTED TIPS

SOLDER OF VARIOUS

SOLDERING AID

SOLDER SUCKER

HEAT SINK TOOL

FLUX

LINE CORD

INSULATED WIRE, ASSORTED LENGTHS AND GAUGES

TEST LEADS AND PROBES

ALLIGATOR CLIPS AND BOOTS

LACING

TIE WRAPS

SLEEVING

NUMBERING TABS

HEAT SHRINK TUBING

TERMINALS, JACKS AND CONNECTORS

WIRE STRIPPERS

WIRE CUTTERS

CRIMPING TOOL

NEEDLE NOSE PLIERS

SLIP JOINT PLIERS

HEX DRIVER

SCREWDRIVER

KNIFE

ADJUSTABLE WRENCHES

DENTAL MIRROR

TEST JIGS AND DEVICES

SAFETY GLASSES

CHASSIS PUNCHES

SOCKET PUNCHES

ELECTRIC DRILL AND BITS

DISTORTION ANALYZER

FREQUENCY COUNTER

PULSE GENERATOR

OSCILLOSCOPE

SIGNAL GENERATOR

VOM (CONVENTIONAL/DIGITAL)

VTUM

SOLDERING AID

SOLDER SUCKER

HEAT SINK TOOL

FLUX

LINE CORD

INSULATED WIRE, ASSORTED LENGTHS AND GAUGES

TEST LEADS AND PROBES

ALLIGATOR CLIPS AND BOOTS

LACING

TIE WRAPS

SLEEVING

NUMBERING TABS

HEAT SHRINK TUBING

TERMINALS, JACKS AND CONNECTORS

WIRE STRIPPERS

WIRE CUTTERS

CRIMPING TOOL

NEEDLE NOSE PLIERS

SLIP JOINT PLIERS

HEX DRIVER

SCREWDRIVER

KNIFE

ADJUSTABLE WRENCHES

SCRIBER

TWEEZER

SAFETY GLASSES

CHASSIS PUNCHES

SOCKET PUNCHES

ELECTRIC DRILL AND BITS

DISTORTION ANALYZER

FREQUENCY COUNTER

PULSE GENERATOR

OSCILLOSCOPE

SIGNAL GENERATOR

VOM (CONVENTIONAL/DIGITAL)

VTUM

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Table T-4 Additional TERMOB Performance Statements

This form is provided for the addition of TERMOB performance statements to ensure more complete coverage of your program. Please provide a comprehensive performance statement (coded 2.01 on each TERMOB) for each area of deficiency that you have identified.

The performance statement need only be listed identified by the division and unit numbers of the deficient areas; the conditions and extents will be incorporated later.

1. Division_____   Performance Statement_____

   Unit_____   _____

                     _____

                     _____

2. Division_____   Performance Statement_____

   Unit_____   _____

                     _____

                     _____

3. Division_____   Performance Statement_____

   Unit_____   _____

                     _____

                     _____

4. Division_____   Performance Statement_____

   Unit_____   _____

                     _____

                     _____

5. Division_____   Performance Statement_____

   Unit_____   _____

                     _____

                     _____

6. Division_____   Performance Statement_____

   Unit_____   _____

                     _____

Unit_____   _____

                         _____

                         _____

2. Division_____   Performance Statement_____

    Unit_____   _____

                          _____

                          _____

3. Division_____   Performance Statement_____

    Unit_____   _____

                          _____

                          _____

4. Division_____   Performance Statement_____

    Unit_____   _____

                          _____

                          _____

5. Division_____   Performance Statement_____

    Unit_____   _____

                          _____

                          _____

6. Division_____   Performance Statement_____

    Unit_____   _____

                          _____

                          _____

7. Division_____   Performance Statement_____

    Unit_____   _____

                          _____

                          _____

Table T-4 (Cont'd) Additional TERMOB Performance Statements

       This form is provided for the addition of TERMOB performance statements to ensure more complete coverage of your program. Please provide a comprehensive performance statement (coded 2.01 on each TERMOB) for each area of deficiency that you have identified.

       The performance statement need only be listed identified by the division and unit numbers of the deficient areas; the conditions and extents will be incorporated later.

8. Division_____   Performance Statement_____

    Unit_____

9. Division_____   Performance Statement_____

    Unit_____

10. Division_____   Performance Statement_____

    Unit_____

11. Division_____   Performance Statement_____

    Unit_____

12. Division_____   Performance Statement_____

    Unit_____

13. Division_____   Performance Statement_____

    Unit_____

Unit_____

9.   Division_____   Performance Statement_____

     Unit_____

10. Division_____   Performance Statement_____

     Unit_____

11. Division_____   Performance Statement_____

     Unit_____

12. Division_____   Performance Statement_____

     Unit_____

13. Division_____   Performance Statement_____

     Unit_____

14. Division_____   Performance Statement_____

     Unit_____

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