DESCRIPTION OF CIRCUIT REQUIREMENT TABLE FOR ELECTROLYTIC CAPACITORS

1. GENERAL

1.01 This section describes the electrolytic capacitor test requirement tables shown on circuit drawings.

1.02 Information in the electrolytic capacitor test requirement tables is revised when necessary in connection with circuit changes and is accordingly kept up to date by this means.

2. DESCRIPTION OF TABLE

2.01 *Title of Table:* Each electrolytic capacitor test requirement table has the title "ELECTROLYTIC CAPACITOR TEST REQUIREMENTS (1000 CYCLE TEST, USING 73A TEST SET BETWEEN 600 OHM LINES).

2.02 *Form of Table:* The electrolytic capacitor test requirements table shown on circuit drawings is illustrated in Figs. 1 and 2. It is divided into three parts. At the upper left a space is reserved for a circuit diagram of capacitors to be tested and associated apparatus. At the upper right the overall losses of capacitors and associated fuses are listed. Where only condensers are involved the losses for capacitor alone will be specified in this part of the table. The third part of the table is at the bottom and covers the losses for individual apparatus, i.e., the individual losses for the capacitors and for the fuses are specified in this part of the table.

Circuit Diagram

2.03 The circuit diagram given in the upper left section of the table, as shown in Figs. 1 and 2, shows a schematic of that part of the circuit which includes the electrolytic capacitors, fuses, battery and ground connections and other associated apparatus, which must be considered in testing the capacitors or associated fuses. Points for connecting test clips, opening the circuit or disconnecting fuses are indicated on the diagram by letter designations. The reference points and designations may or may not be shown on the circuit itself.

Overall Losses

2.04 The information in the part of the table under this heading as shown in Figs. 1 and 2, is subdivided into five columns as follows:

2.05 Column 1, *TEST:* In this column is listed the apparatus (fuse or capacitor) to be tested and its designation.

2.06 Column 2, *TEST CONNECTIONS — TEST SET TERMINALS:* The terminal designations on the No. 73A test set to which the test leads are to be connected are specified in this column.

2.07 Column 3, *TEST CONNECTIONS — CONNECT TO:* The designations specified in this column are the reference points shown on the circuit diagram to which the test leads from the No. 73A test set, covered in 2.06, are to be connected.

2.08 Column 4, *MIN. LOSS IN db:* The minimum loss in db is covered in this column. Where "dev." and a numerical value is specified for fuses, it represents the maximum deviation in db from the short circuited loss. This short circuited loss is specified in the table covering short circuited and open circuited losses for the No. 73A test set, to be found in the section covering Electrolytic Capacitors. This deviation should always be considered +.0, − the value specified.

Example: If "dev. 0.5" is specified and the measured loss of the test set with the specified terminals shorted is 11.9 then the minimum loss requirement for the apparatus under test should be 11.9 − 0.5 or min. 11.4 db.

2.09 Column 5, *REMARKS:* This column covers any special information requisite to making the tests.

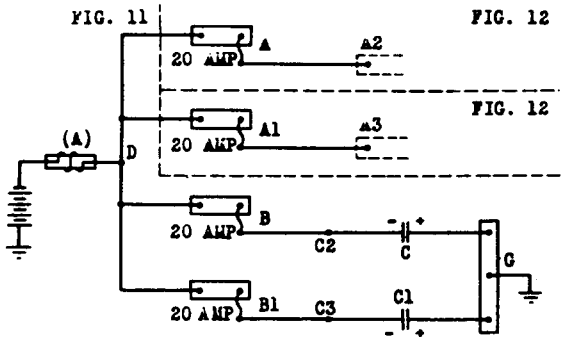
Individual Apparatus Losses

2.10 The information in the lower portion of the table, as shown in Figs. 1 and 2, is headed "INDIVIDUAL APPARATUS LOSSES" and is subdivided into seven columns.

2.11 The individual apparatus losses are for use only in those cases in which the circuit fails to meet the overall requirement and it becomes necessary, therefore, to measure the individual pieces of apparatus to determine the cause.

2.12 The first three columns of the individual apparatus loss tables cover (1) the type of apparatus (capacitor or fuse), (2) designation as covered in the circuit diagram and (3) code or capacity of the apparatus respectively. The fourth, fifth, sixth and seventh columns are similar respectively to the second, third, fourth and fifth columns of the table covering overall losses.

ELECTROLYTIC CAPACITOR TEST REQUIREMENTS
(1000 Cycle Test Using 73A Test Set Between 600 Ohm Lines)



TEST	TEST CONNECTIONS: TEST SET TERMINALS	TEST CONNECTIONS: CONNECT TO	† MIN. LOSS IN db	REMARKS
	OVER-ALL LOSSES			
FUSES A, A1	3-4	A2-A3	dev 0.7	TESTED IN SERIES
FUSES B, B1	3-4	C2-C3	dev 1.2	TESTED IN SERIES
CAPACITORS C, C1	3-4	C2-C3	5.8	REMOVE FUSE B CAP. TESTED IN SERIES

INDIVIDUAL APPARATUS LOSSES

APPARATUS	DESIG.	CODE	TEST CONNECTIONS: TEST SET TERMINALS	TEST CONNECTIONS: CONNECT TO	† MIN. LOSS IN db	REMARKS
CAPACITOR	C	KS-8056	3-4	C2-G	7.3	REMOVE FUSE B
CAPACITOR	C1	KS-8056	3-4	C3-G	7.3	REMOVE FUSE B1
FUSES	A	20 AMP.	3-4	A2-D	dev 0.3	
FUSES	A1	20 AMP.	3-4	A3-D	dev 0.3	
FUSES	B	20 AMP.	3-4	C2-D	dev 0.3	
FUSES	B1	20 AMP.	3-4	C3-D	dev 0.3	

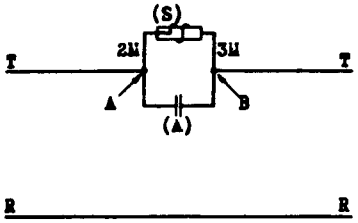
† dev = MAX. DEVIATION FROM SHORT CIRCUITED READING.

Caution: Discharge capacitors in accordance with the BSP section covering the testing of electrolytic capacitors. Do not short circuit capacitors.

Fig. 1

ELECTROLYTIC CAPACITOR TEST REQUIREMENTS
(1000 Cycle Test Using 73A Test Set Between 600 Ohm Lines)

OVER-ALL LOSSES



TEST	TEST CONNECTIONS		MIN. LOSS IN db	REMARKS
	TEST SET TERMINALS	CONNECT TO		
CAPACITOR	3-6	2M 3M (S)	7.4	

INDIVIDUAL APPARATUS LOSSES

APPARATUS	DESIG.	CODE	TEST CONNECTIONS		MIN. LOSS IN db	REMARKS
			TEST SET TERMINALS	CONNECT TO		
CAPACITOR		KS-8223	3-6	A-B	7.4	DISCONNECT CAP. FROM CKT.

Caution: Discharge capacitors in accordance with section covering the testing of electrolytic capacitors. Do not short circuit capacitors.

Fig. 2