X-75375

relay data

CODE INFORMATION FOR U UA Y TYPE RELAYS

JULY 1, 1956

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37	7-1-56	95	7-1-56								
38	7-1-56	96	7-1-56								
39	7-1-56	97	7-1-56								
40	7-1-56	98	7-1-56								
41	7-1-56	99	7-1-56								
42	7-1-56	100	7-1-56								
43	7-1-56	101	7-1-56								
44	7-1-56	102	7-1-56								
45	7-1-56	103	7-1-56								
46	7-1-56	104	7-1-56								
47	7-1-56	105	7-1-56								
48	7-1-56	107	7-1-56								
49	7-1-56	108	7-1-56								
50	7-1-56	109	7-1-56								
51	7-1-56	110	7-1-56								
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This specification X-75375 contains complete information on all coded U, UA, and Y relays which were rated Standard on the date of its issue. This specification is arranged in this form to facilitate selection of relays to meet particular circuit requirements.

The relay code information, that is, code number, spring combinations, contact metal, winding, and adjustment information, is listed in Tables I to VI, inclusive, according to the number of contact springs on each code. For example, relays having five make contacts will be listed under 10 contact springs; relays having two BM contacts will be listed under 6 contact springs. These tables are the ones which will ordinarily be used to find codes which will be satisfactory for particular circuit applications.

To facilitate determining winding, spring combination, and adjusting information when only the code number is known, lists of codes in numerical order are provided which show the table number and number of contact springs where this information can be found. For example, relay code U50 refers to Table I and 21 contact springs.

The adjustment life (number of operations before readjustment is necessary) of the various relays are shown in the code lists for the U and UA relays. The adjustment life is dependent on the spring combination used on the relay. Whenever possible, relays should be selected with an adjustment life that is comparable to the number of operations required in the circuit under consideration. Sometimes a more satisfactory life may be obtained by using a slightly different arrangement of springs and selecting a relay with extra springs.

In selecting relays, special effort should be made to select relays marked with (P) which indicates the code that has the preferred use. By concentrating demand on a smaller number of codes, it is expected that savings will be realized due to manufacturing individual codes in larger quantities and also the variety of codes that the operating companies may be required to stock for emergencies will be reduced. For these reasons, it is recommended that preferred codes having extra springs according to the following table be used before resorting to the use of nonpreferred codes.

RELAY CODE AVAILABLE HAS REQUIRED CONTACT METAL

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Where the available relay code has the proper contact metal for the particular application being engineered, extra springs can be justified economically on the following basis:

	Permissible Extra Springs
2500 to 5000 annual demand	1
1250 to 2500 annual demand	2
900 to 1250 annual demand	3
700 to 900 annual demand	4
500 to 700 annual demand	5
300 to 500 annual demand	7
Less than 300 annual demand	Up to 10

RELAY CODE AVAILABLE HAS NO. 2 CONTACTS BUT SILVER CONTACTS ARE SATISFACTORY

Where silver contacts are satisfactory for the particular circuit applications being engineered, the use of a relay code with No. 2 metal and extra springs can be justified on the following basis:

	Permissible Extra Springs		
Number of contact springs required	2 to 9	10 to 19	20 to 24
2500 to 5000 annual demand	0	0	0
1250 to 2500 annual demand	0	0	0
900 to 1250 annual demand	1	0	0
700 to 900 annual demand	2	1	0
500 to 700 annual demand	3	2	0
300 to 500 annual demand	5	3	1
Less than 300 annual demand		Up to 10	

For all questionable cases and where a suitable relay is not available, send the standard relay request form to the Relay Requirements Group for a recommendation.

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SELECTION OF RELAYS

For convenience in selecting relays, the iron U types are divided into three tables; the single-wound relays are in Table I, double-wound relays in Table II, and slow-acting relays in Table III. The Y relays are in Table IV, permalloy U relays in Table V, and UA relays in Table VI.

PROCEDURE

Count the number of makes, breaks, transfers, etc., required for use in the circuit. Then count the total number of contact springs.

For general purpose relays, select single- or double-wound relays which will be found in Table I or II.

Where slow operate or slow release is required, select iron U relays with copper sleeves from Table III or if required, select Y relays from Table IV.

In general, permalloy relays, Table V, should be used only where a higher percentage release is required than can be obtained with iron relays. Where fast release is required, there is very little advantage in using permalloy relays when contact protection is connected around their coils.

The UA relays in Table VI are designed for special functions, such as supervisory relays, or where the greater sensitivity of this structure is required.

ADJUSTMENTS

The current flow requirements shown in the tables are readjust requirements. For the Y relay, Table IV, both readjust and test requirements are shown because the margin between test and readjust for these relays is figured on an ampere turn basis. The test requirements for all other relays are 105 per cent of the operate and hold requirements and 95 per cent of the nonoperate and release requirements.

The nonoperate requirements for any of these relays should only be shown on the circuit requirements table where there is a nonoperate circuit condition or where slower operation is required.

All Y relays will use the operate, hold, and release requirements in all applications. For other relays, the hold and release need only be specified as required for marginal circuit conditions.

Additional current flow adjustments within the capability of the relay can be obtained from the Relay Requirements Group.

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CONTACT PRESSURES

Show Spl in the Contact Pressure column of the circuit requirements table where special spring tension notes or contact make 6 readjust, 4 test are specified. Show H for all other relays.

Show Spl in the Armature Travel column of the circuit requirements table when the armature travel is different than standard for spring combinations used.

Show FS in the After Soak column of the circuit requirements table when soak currents are given, provided the full soak is equal to or greater than the soak current given but does not exceed 0.7 ampere.

RESISTANCE TOLERANCES

Unless otherwise stated, the resistances of all inductive windings vary ±10 per cent and all noninductive windings vary ±5 per cent.

RELAY OPERATE TIMES

The operate times for the commonly used windings are shown on the following pages.

Page 135 - Maximum Operate Time
Page 136 - Minimum Operate Time
Page 137 - Maximum Operate Time - Slow-acting Relays
Page 138 - Minimum Operate Time - Slow-acting Relays
Page 139 - Average Operate Time

The maximum operate time curves show the operate time to close the last contact for any value of test operate current. The minimum operate time curves show the operate time to close the first contact with any value of nonoperate test current. On the minimum time curve, there is a line designated "Min time required to move armature and close first contact." The intersection of this line with the time curve for any winding shows the minimum operate time that should be obtained with a relay using that winding regardless of the test nonoperate, since it represents the inertia time required to move the armature enough to close the earliest contact.

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Code List and Cross Reference Sheets

(For Tables I, II, and III)

Code	Table No.	Cont. Spgs	Adj† Life	Code	Table No.	Cont. Spgs	Adj† Life	Code	Table No.	Cont. Spgs	Adj† Life
*U50	I	21	90	U100	I	20	30	U150	I	4	>200
*U51	I	19	24	*U101	I	17	110	U151	I	7	100
*U52	I	18	36	*U102	II	13	60	U152	I	12	>200
*U53	I	15	90	*U103	II	10	160	U153	I	11	150
*U54	I	24	60	U104	I	14	50	U154	I	4	>200
*U55	I	16	110	*U105	I	15	76	U155	I	21	46
U56	II	12	120	U106	I	23	36	U156	-	M.D.	
*U57	I	20	150	U107	I	8	160	*U157	I	8	160
*U58	I	21	50	*U108	I	11	120	*U158	I	7	160
*U59	I	24	30	*U109	I	20	24	U159	I	12	50
U60	I	17	24	U110	II	21	90	U160	-	M.D.	
U61	I	15	76	*U111	II	15	50	U161	II	5	160
U62	I	8	>200	*U112	I	10	>200	*U162	I	8	160
U63	I	16	76	*U113	I	5	160	U163	-	M.D.	
*U64	I	24	120	*U114	I	6	150	*U164	I	8	100
*U65	I	24	120	*U115	I	24	120	*U165	I	5	160
*U66	I	8	180	U116	II	14	90	*U166	I	11	120
*U67	I	12	120	*U117	II	24	24	U167	I	18	50
*U68	I	15	70	U118	I	24	60	*U168	I	8	150
*U69	I	20	46	*U119	I	13	120	U169	II	6	>200
U70	I	19	60	*U120	I	15	120	U170	II	10	60
U71	I	24	24	U121	I	16	90	U171	I	14	76
U72	I	10	150	*U122	I	12	60	U172	III	3	150
*U73	I	18	60	U123	I	13	120	*U173	I	14	60
*U74	I	9	100	U124	-	M.D.		U174	III	9	160
*U75	I	6	160	U125	II	6	160	U175	I	5	160
U76	I	18	46	U126	II	10	60	U176	I	10	80
U77	I	15	70	*U127	II	12	60	*U177	I	18	70
*U78	II	18	30	U128	III	24	60	U178	I	16	70
*U79	I	18	50	U129	I	10	60	*U179	I	16	110
U80	I	24	30	U130	I	18	76	*U180	I	7	160
*U81	I	24	120	U131	-	M.D.		U181	I	22	120
U82	I	12	150	U132	I	7	160	U182	I	3	>200
U83	-	M.D.		*U133	I	12	60	U183	I	20	24
U84	I	13	120	U134	I	24	30	U184	II	11	60
U85	-	M.D.		U135	I	11	100	*U185	I	5	160
U86	I	20	24	U136	I	18	150	U186	II	8	>200
U87	I	13	150	*U137	III	14	200	U187	I	16	50
*U88	I	24	16	*U138	I	13	60	*U188	I	24	30
*U89	II	15	70	U139	I	17	76	*U189	I	14	60
*U90	II	13	120	U140	I	16	50	U190	I	8	60
U91	II	8	180	*U141	I	6	160	U191	I	12	110
U92	I	23	24	*U142	I	11	100	*U192	I	11	120
U93	I	21	36	*U143	I	9	160	U193	I	19	110
*U94	III	10	150	*U144	I	24	120	U194	I	21	24
U95	I	9	160	U145	II	11	120	U195	I	13	120
U96	-	M.D.		U146	-	M.D.		U196	I	22	120
U97	-	M.D.		U147	I	22	30	U197	I	15	60
*U98	I	16	90	*U148	I	11	150	U198	I	10	>200
U99	I	11	160	U149	I	11	100	*U199	I	12	120

*Preferred codes.
†Operations in millions.

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IRON U-TYPE RELAYS

Code List and Cross Reference Sheets

(For Tables I, II, and III)

Code	Table No.	Cont. Spgs	Adj† Life
*U200	I	17	90
U201	I	12	150
U202	I	23	24
U203	I	8	150
U204	I	9	60
U205	III	4	>200
U206	I	16	50
*U207	I	12	>200
U208	I	10	60
U209	I	14	60
→U210	-	M.D.	
U211	I	12	60
U212	II	12	120
U213	I	9	120
U214	I	10	60
*U215	II	9	160
*U216	I	9	160
*U217	I	8	160
*U218	I	10	150
*U219	I	10	160
*U220	I	11	150
U221	I	16	30
U222	I	22	100
*U223	I	14	200
*U224	II	15	60
U225	II	4	>200
*U226	I	18	70
U227	I	23	24
U228	I	15	30
U229	II	15	60
U230	I	10	180
*U231	I	6	160
U232	I	12	100
U233	I	7	150
*U234	I	10	60
U235	I	16	90
*U236	I	20	150
U237	I	14	120
U238	I	16	110
U239	I	14	90
U240	I	8	100
U241	I	14	50
U242	I	8	160
U243	I	17	50
U244	II	11	150
U245	-	M.D.	
U246	III	12	60
*U247	II	10	160
U248	II	10	>200
U249	-	M.D.	
U250	-	M.D.	
U251	I	7	100
U252	I	8	60
U253	-	M.D.	
*U254	I	10	160
U255	I	12	120
U256	I	10	60
U257	-	M.D.	
U258	I	16	90
*U259	I	10	60
*U260	II	9	160
*U261	II	7	160
U262	-	M.D.	
U263	I	12	100
U264	I	13	100
U265	I	7	180
U266	II	19	46
U267	I	6	150
U268	I	16	50
U269	I	11	120
*U270	I	10	100
*U271	II	11	150
*U272	II	10	150
U273	II	19	60
U274	II	13	60
*U275	I	18	50
U276	I	9	160
U277	I	9	100
U278	I	10	60
U279	I	10	160
U280	I	5	160
U281	I	5	160
U282	-	M.D.	
U283	III	2	>200
U284	I	21	24
U285	I	5	160
U286	I	9	160
U287	I	9	100
*U288	I	10	100
U289	II	15	76
U290	II	11	60
U291	I	16	200
U292	II	11	100
U293	I	7	160
U294	II	14	76
U295	II	17	50
U296	II	10	180
U297	I	11	100
U298	I	10	100
U299	I	7	160
*U300	II	16	60
U301	I	17	60
U302	I	8	>200
U303	III	12	>200
U304	II	12	46
U305	I	6	>200
*U306	II	8	>200
*U307	III	4	>200
U308	I	14	76
U309	I	4	>200
U310	I	12	120
*U311	I	8	60
U312	I	14	50
U313	I	22	60
U314	I	24	16
U315	-	M.D.	
U316	I	8	180
U317	I	6	80
U318	I	20	50
U319	I	13	100
U320	III	10	150
U321	I	15	60
U322	I	15	76
U323	I	24	16
U324	I	24	16
U325	I	19	24
U326	I	8	60
U327	I	10	76
U328	I	17	50
U329	-	M.D.	
U330	I	20	36
U331	I	11	100
U332	I	14	60
*U333	I	20	50
U334	I	14	76
*U335	III	15	50
U336	II	16	200
U337	-	M.D.	
*U338	I	24	46
U339	I	22	16
*U340	I	8	>200
U341	I	19	50
U342	I	6	160
U343	-	M.D.	
U344	-	M.D.	
U345	I	15	60
*U346	II	7	160
U347	-	M.D.	
U348	III	19	110
U349	I	10	160

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*Preferred codes.
†Operations in millions.

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Code List and Cross Reference Sheets

(For Tables I, II, and III)

Code	Table No.	Cont. Spgs	Adj† Life
U350	II	6	180
*U351	I	15	90
U352	I	10	160
U353	III	6	180
U354	III	10	76
U355	I	9	100
U356	III	5	160
U357	I	16	50
U358	I	13	50
U359	-	M.D.	
U360	I	16	50
U361	I	14	76
U362	-	M.D.	
U363	I	14	22
U364	I	14	22
U365	-	M.D.	
U366	I	7	80
U367	-	M.D.	
*U368	II	4	> 200
U369	-	M.D.	
U370	I	10	150
U371	I	9	120
U372	I	14	50
U373	II	24	16
U374	-	M.D.	
U375	II	6	160
U376	II	8	160
U377	-	M.D.	
U378	I	8	160
U379	III	10	160
U380	I	14	22
*U381	III	7	180
U382	I	24	30
U383	I	21	24
U384	I	18	36
U385	II	12	150
*U386	I	14	60
U387	I	9	160
U388	I	19	60
U389	II	10	60
U390	I	12	90
U391	I	14	60
U392	-	M.D.	
U393	I	12	60
U394	I	3	> 200
U395	I	11	120
U396	II	10	150
U397	II	8	> 200
U398	II	14	76
U399	II	12	100

Code	Table No.	Cont. Spgs	Adj† Life
U400	II	5	160
U401	II	13	60
U402	II	10	150
→U403	-	M.D.	
U404	I	11	50
U405	-	M.D.	
U406	-	M.D.	
*U407	I	10	> 200
U408	I	7	> 200
*U409	II	23	24
U410	I	21	36
U411	-	M.D.	
U412	-	M.D.	
U413	III	5	> 200
*U414	II	11	100
U415	I	12	120
U416	-	M.D.	
U417	I	21	24
U418	III	4	> 200
*U419	I	7	160
U420	I	8	160
*U421	I	8	180
*U422	I	5	160
U423	I	6	160
U424	I	10	60
*U425	I	8	100
*U426	I	12	60
U427	-	M.D.	
U428	-	M.D.	
U429	II	13	46
U430	I	13	30
*U431	III	9	160
U432	I	15	30
U433	I	5	150
U434	I	10	160
U435	I	9	120
U436	-	M.D.	
U437	I	20	36
U438	I	22	90
U439	I	11	150
*U440	I	6	160
U441	I	20	110
U442	I	10	76
U443	III	6	> 200
U444	I	13	46
*U445	I	15	200
*U446	III	8	180
*U447	I	8	100
U448	II	13	90
U449	-	M.D.	

Code	Table No.	Cont. Spgs	Adj† Life
U450	I	21	60
U451	I	20	24
U452	I	19	50
U453	III	13	60
U454	II	10	60
U455	II	13	100
*U456	I	14	150
*U457	I	15	60
U458	-	M.D.	
*U459	I	14	76
*U460	I	10	160
*U461	I	5	160
U462	II	7	100
U463	II	9	160
U464	II	13	60
U465	II	9	100
U466	II	7	150
*U467	III	9	160
U468	II	8	180
U469	II	12	46
U470	I	9	60
U471	II	10	160
U472	II	12	100
U473	-	M.D.	
U474	I	15	30
*U475	III	15	120
*U476	III	3	160
U477	I	12	50
U478	II	7	80
*U479	II	23	90
U480	I	7	160
*U481	III	9	100
U482	I	5	160
U483	-	M.D.	
U484	-	M.D.	
*U485	I	16	30
U486	III	6	180
U487	-	M.D.	
U488	I	11	60
U489	I	9	80
U490	II	6	160
U491	II	9	100
U492	I	15	30
U493	I	10	60
U494	I	13	150
*U495	I	24	120
U496	I	19	36
*U497	I	6	150
U498	-	M.D.	
*U499	I	9	160

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*Preferred codes.
†Operations in millions.

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IRON U-TYPE RELAYS

Code List and Cross Reference Sheets

(For Tables I, II, and III)

Code	Table No.	Cont. Spgs	Adj† Life
*U500	I	14	90
U501	-	M.D.	
*U502	I	12	60
U503	I	17	70
U504	I	10	180
U505	I	8	160
*U506	I	14	60
U507	II	6	160
U508	-	M.D.	
U509	-	M.D.	
U510	I	5	160
U511	II	5	150
U512	II	8	160
U513	II	9	120
U514	-	M.D.	
U515	I	16	50
U516	I	12	100
U517	I	17	22
U518	-	M.D.	
U519	I	6	150
*U520	I	8	180
*U521	I	10	160
*U522	I	9	160
U523	I	7	150
U524	III	14	120
U525	III	5	150
U526	-	M.D.	
U527	II	14	60
U528	-	M.D.	
U529	-	M.D.	
*U530	I	14	120
U531	I	9	160
*U532	II	10	160
U533	I	9	160
U534	-	M.D.	
U535	I	23	16
*U536	III	3	160
U537	-	M.D.	
U538	-	M.D.	
U539	-	M.D.	
*U540	I	11	60
*U541	I	7	160
*U542	I	8	160
*U543	I	8	> 200
U544	I	9	100
U545	-	M.D.	
*U546	III	12	60
*U547	III	14	60
U548	I	8	100
U549	I	8	160
U550	-	M.D.	
U551	II	15	120
U552	III	6	> 200
U553	I	10	160
U554	I	14	60
U555	I	16	50
U556	II	14	90
U557	III	5	160
U558	I	8	> 200
*U559	I	12	76
U560	III	14	60
U561	III	16	76
U562	I	7	150
U563	III	13	120
U564	I	8	176
U565	-	M.D.	
*U566	I	8	180
*U567	III	7	150
U568	I	12	50
*U569	III	10	160
U570	III	12	100
U571	II	8	180
U572	II	10	150
U573	I	16	76
U574	I	17	50
U575	I	19	60
*U576	I	14	60
U577	I	21	30
U578	I	19	50
U579	I	15	120
*U580	I	6	160
U581	I	10	60
*U582	I	17	46
U583	-	M.D.	
U584	I	13	76
U585	I	9	80
U586	II	12	120
U587	II	12	> 200
*U588	I	24	60
U589	I	8	> 200
U590	I	10	60
*U591	I	24	60
*U592	III	13	60
U593	I	16	90
*U594	I	12	150
U595	I	13	50
U596	II	5	160
U597	II	16	46
U598	I	23	24
U599	I	9	180
U600	I	11	100
*U601	I	16	110
U602	I	14	50
*U603	III	5	160
U604	III	8	160
U605	-	M.D.	
U606	-	M.D.	
*U607	I	12	60
*U608	III	6	180
U609	I	15	76
U610	I	14	200
*U611	I	18	70
U612	I	17	70
U613	I	16	46
U614	-	M.D.	
U615	-	M.D.	
U616	I	12	50
U617	I	7	100
U618	I	8	180
U619	II	6	180
*U620	III	7	160
*U621	III	16	50
U622	I	17	70
U623	II	11	160
*U624	I	4	>200
U625	III	12	100
U626	II	17	50
U627	I	11	100
U628	II	10	>200
U629	II	12	> 200
U630	II	10	> 200
U631	I	8	> 200
U632	II	8	> 200
U633	-	M.D.	
U634	-	M.D.	
U635	-	M.D.	
U636	I	8	100
*U637	I	7	150
U638	I	23	24
*U639	I	23	30
U640	III	11	120
U641	I	17	50
U642	I	23	24
U643	II	23	24
U644	I	18	50
U645	III	17	60
U646	II	8	100
U647	I	13	100
U648	I	21	30
U649	-	M.D.	

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Code List and Cross Reference Sheets

(For Tables I, II, and III)

Code	Table No.	Cont. Spgs	Adj† Life
U650	I	12	>200
U651	I	19	50
U652	I	8	180
U653	I	6	180
U654	II	3	150
U655	II	15	50
U656	III	19	24
→*U657	-	M.D.	
U658	I	20	110
U659	-	M.D.	
*U660	III	16	110
*U661	III	11	160
U662	I	10	100
*U663	III	18	50
U664	I	17	80
*U665	III	10	60
U666	-	M.D.	
U667	I	12	46
U668	II	7	160
U669	II	14	160
U670	II	12	120
U671	I	5	160
U672	I	12	60
U673	I	14	76
U674	I	9	160
*U675	I	23	30
U676	II	10	30
U677	I	16	76
U678	I	18	110
*U679	I	10	160
U680	II	12	30
U681	II	13	120
U682	I	24	60
U683	II	12	46
U684	III	12	>200
U685	III	14	76
U686	I	10	60
*U687	II	11	150
U688	III	13	30
U689	-	M.D.	
U690	III	9	160
U691	II	8	180
U692	I	18	70
U693	II	12	110
U694	I	16	76
U695	I	24	120
*U696	II	10	100
*U697	III	18	110
U698	-	M.D.	
U699	I	16	200

Code	Table No.	Cont. Spgs	Adj† Life
U700	I	19	70
U701	II	19	36
*U702	III	22	46
U703	II	14	46
U704	I	22	46
U705	I	20	36
*U706	III	10	60
U707	III	12	60
U708	I	15	30
U709	II	3	150
U710	-	M.D.	
U711	II	8	180
*U712	II	15	90
U713	III	6	160
U714	II	23	24
U715	III	14	120
U716	III	7	150
*U717	I	8	180
→*U718	-	M.D.	
U719	I	24	16
U720	I	16	50
U721	I	12	120
*U722	I	14	60
U723	II	8	180
U724	II	14	36
U725	II	6	180
U726	I	17	46
U727	III	8	30
U728	II	6	160
U729	I	12	150
U730	I	8	180
U731	-	M.D.	
U732	II	6	180
U733	II	6	180
U734	I	2	>200
*U735	I	6	160
U736	I	4	>200
U737	I	14	76
→*U738	-	M.D.	
U739	I	12	150
U740	I	14	120
U741	II	8	180
U742	I	19	30
U743	I	10	100
U744	-	M.D.	
U745	II	4	>200
U746	III	12	46
U747	I	8	180
U748	III	6	>200
U749	-	M.D.	

Code	Table No.	Cont. Spgs	Adj† Life
U750	I	14	76
U751	II	8	180
U752	-	M.D.	
U753	I	11	60
U754	-	M.D.	
U755	-	M.D.	
→U756	-	M.D.	
U757	I	11	120
U758	II	9	120
U759	I	2	>200
U760	I	7	150
U761	-	M.D.	
U762	-	M.D.	
U763	II	12	60
U764	-	M.D.	
U765	I	15	50
U766	I	11	160
U767	I	18	46
U768	II	20	110
U769	II	19	36
U770	II	16	90
U771	II	24	120
U772	II	11	120
U773	-	M.D.	
U774	-	M.D.	
U775	-	M.D.	
U776	II	9	60
U777	I	4	>200
U778	-	M.D.	
U779	I	16	50
U780	I	24	30
U781	I	15	50
U782	I	13	60
U783	III	4	>200
U784	-	M.D.	
U785	I	19	110
U786	-	M.D.	
U787	I	6	160
U788	-	M.D.	
U789	-	M.D.	
U790	III	12	76
U791	-	M.D.	
U792	-	M.D.	
U793	-	M.D.	
U794	I	24	60
U795	-	M.D.	
U796	-	M.D.	
U797	-	M.D.	
U798	II	16	36
U799	-	M.D.	

*Preferred codes.
†Operations in millions.

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Code List and Cross Reference Sheets

(For Tables I, II, and III)

Code	Table No.	Cont. Spgs	Adj† Life
U800	-	M.D.	
U801	I	17	50
U802	II	6	>200
U803	I	13	60
→ U804	-	M.D.	
U805	II	7	160
*U806	III	13	76
U807	I	8	200
U808	III	8	60
*U809	I	19	110
U810	I	15	70
U811	I	22	30
U812	I	12	110
U813	III	12	100
*U814	I	7	160
U815	I	12	30
U816	I	15	50
U817	I	22	22
U818	-	M.D.	
U819	-	M.D.	
U820	-	M.D.	
U821	I	18	46
U822	I	14	76
U823	III	6	160
U824	-	M.D.	
U825	II	7	60
*U826	I	24	30
U827	I	15	76
*U828	I	18	150
U829	I	11	100
U830	II	8	180
U831	II	13	46
U832	I	20	50
U833	I	22	24
*U834	I	14	200
*U835	I	15	70
U836	II	4	180
U837	II	2	>200
U838	II	7	160
U839	-	M.D.	
U840	III	12	50
U841	I	4	>200
U842	-	M.D.	
U843	I	14	46
*U844	I	16	90
U845	-	M.D.	
U846	-	M.D.	
U847	-	M.D.	
U848	-	M.D.	
U849	-	M.D.	

Code	Table No.	Cont. Spgs	Adj† Life
U850	-	M.D.	
U851	II	10	46
U852	-	M.D.	
U853	II	11	60
U854	-	M.D.	
U855	-	M.D.	
U856	-	M.D.	
U857	-	M.D.	
U858	-	M.D.	
U859	-	M.D.	
U860	-	M.D.	
U861	-	M.D.	
U862	-	M.D.	
U863	-	M.D.	
U864	-	M.D.	
U865	-	M.D.	
U866	II	10	60
U867	-	M.D.	
U868	-	M.D.	
U869	I	11	100
U870	II	12	150
U871	-	M.D.	
U872	-	M.D.	
U873	-	M.D.	
U874	I	11	160
U875	-	M.D.	
U876	-	M.D.	
U877	-	M.D.	
U878	-	M.D.	
U879	III	10	60
U880	II	11	120
U881	II	14	60
U882	II	12	120
U883	I	20	36
U884	-	M.D.	
U885	I	10	60
U886	I	20	30
U887	III	13	76
U888	I	14	22
*U889	III	16	50
*U890	II	24	16
*U891	II	23	90
*U892	II	16	60
U893	I	14	76
U894	I	20	110
U895	III	10	150
U896	-	M.D.	
U897	I	9	100
*U898	I	10	100
U899	I	5	160

Code	Table No.	Cont. Spgs	Adj† Life
U900	I	8	60
U901	-	M.D.	
U902	I	9	160
U903	I	17	50
U904	-	M.D.	
U905	-	M.D.	
U906	-	M.D.	
U907	-	M.D.	
U908	I	7	160
U909	-	M.D.	
U910	-	M.D.	
U911	-	M.D.	
U912	-	M.D.	
U913	-	M.D.	
U914	I	17	60
U915	-	M.D.	
U916	-	M.D.	
U917	-	M.D.	
U918	I	20	30
U919	III	6	150
U920	I	10	>200
U921	I	15	76
U922	II	21	36
U923	II	15	50
U924	I	23	60
U925	II	13	60
U926	II	15	60
U927	II	11	160
U928	II	10	60
U929	II	21	36
U930	I	23	30
*U931	III	22	24
U932	I	10	110
U933	III	12	110
*U934	I	19	50
U935	II	14	50
U936	I	18	70
*U937	I	19	70
U938	I	12	>200
U939	II	19	70
U940	I	22	90
U941	I	21	30
U942	I	22	30
U943	II	12	46
U944	I	6	180
U945	III	9	100
U946	II	9	100
U947	I	23	24
U948	I	9	46
U949	-	M.D.	

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Code List and Cross Reference Sheets

(For Tables I, II, and III)

Code	Table No.	Cont. Spgs	Adj† Life
U950	-	M.D.	
U951	II	12	>200
*U952	III	3	160
U953	I	25	36
U954	III	13	60
U955	II	10	100
U956	III	10	150
U957	II	8	46
U958	I	11	100
U959	II	20	30
U960	II	14	110
U961	II	8	180
U962	I	16	50
U963	I	18	46
U964	I	24	22
U965	III	6	>200
U966	I	9	100
U967	I	11	60
U968	I	8	>200
U969	I	19	60
U970	I	9	60
U971	II	10	160
U972	I	13	76
U973	I	17	36
U974	III	12	60
U975	I	16	50
U976	III	4	>200
U977	I	10	60
U978	I	8	60
U979	I	16	30
U980	I	13	120
U981	III	13	60
U982	I	25	30
U983	II	5	160
*U984	II	13	100
U985	I	6	160
U986	II	10	>200
U987	-	M.D.	
*U988	I	6	160
U989	I	10	90
U990	I	11	120
*U991	I	23	30
U992	II	19	50
U993	II	7	150
U994	III	6	160
U995	II	19	50
U996	III	6	180
U997	I	13	50
U998	II	6	80
U999	I	12	150

Code	Table No.	Cont. Spgs	Adj† Life
U1000	I	17	50
U1001	I	12	>200
U1002	I	7	100
U1003	I	19	24
U1004	II	19	50
U1005	I	23	60
U1006	I	19	50
U1007	II	17	50
U1008	I	20	24
U1009	III	14	50
U1010	I	16	50
U1011	I	9	160
U1012	I	12	100
U1013	II	11	60
U1014	I	19	50
U1015	I	5	120
U1016	III	20	50
U1017	I	16	50
*U1018	I	12	100
U1019	I	14	120
U1020	I	24	120
U1021	I	18	46
U1022	I	10	160
U1023	I	15	50
U1024	I	20	30
U1025	I	21	30
U1026	I	17	36
U1027	III	8	>200
U1028	I	25	30
U1029	I	13	100
U1030	I	4	>200
U1031	I	26	30
U1032	III	21	24
U1033	I	14	50
U1034	I	18	36
U1035	I	12	60
U1036	I	14	76
U1037	I	12	100
U1038	-	M.D.	
U1039	I	22	20
→ U1040	-	M.D.	
U1041	II	20	46
U1042	III	8	60
U1043	-	M.D.	
U1044	I	6	150
U1045	III	6	>200
U1046	I	24	120
U1047	I	22	24
U1048	II	15	76
U1049	III	13	46

Code	Table No.	Cont. Spgs	Adj† Life
U1050	II	6	150
U1051	I	16	110
→ U1052	-	M.D.	
U1053	I	21	30
*U1054	I	16	76
U1055	I	13	100
U1056	II	8	180
U1057	I	23	30
U1058	III	6	>200
U1059	I	22	24
U1060	I	22	20
U1061	III	4	80
U1062	I	8	>200
U1063	I	16	76
→ U1064	-	M.D.	
U1065	I	10	100
U1066	II	15	36
U1067	II	7	160
U1068	II	12	46
U1069	III	8	150
U1070	II	14	30
U1071	III	10	160
U1072	I	24	30
*U1073	I	23	30
U1074	-	M.D.	
U1075	I	15	50
U1076	II	18	50
U1077	I	14	50
U1078	I	24	30
U1079	-	M.D.	
U1080	I	19	50
U1081	I	18	50
U1082	I	16	50
U1083	I	16	50
U1084	II	19	36
U1085	II	11	150
→ U1086	-	M.D.	
U1087	I	22	30
U1088	II	21	24
U1089	I	19	60
U1090	III	12	150
U1091	II	16	50
U1092	-	M.D.	
U1093	-	M.D.	
U1094	-	M.D.	
U1095	II	6	>200
U1096	I	12	150
U1097	III	11	100
U1098	I	21	30
U1099	II	22	46

*Preferred codes.
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(For Tables I, II, and III)

Code	Table No.	Cont. Spgs	Adj† Life
U1100..	I	20	50
U1101..	-	M.D.	
U1102..	I	17	36
U1103..	I	24	16
U1104..	I	17	36
U1105..	I	6	180
U1106..	I	12	120
U1107..	I	21	24
U1108..	I	6	150
U1109..	I	10	120
U1110..	II	15	110
U1111..	I	17	46
U1112..	I	22	30
*U1113..	I	20	110
U1114..	III	8	>200
U1115..	III	8	100
U1116..	II	16	46
U1117..	II	17	36
U1118..	I	13	50
U1119..	I	10	60
U1120..	I	11	100
U1121..	I	12	30
U1122..	II	12	100
U1123..	III	14	90
U1124..	III	11	60
U1125..	I	13	60
U1126..	II	13	76
U1127..	II	17	60
U1128..	I	17	76
U1129..	III	6	160
U1130..	-	M.D.	
U1131..	I	20	50
U1132..	III	19	50
U1133..	I	13	76
U1134..	-	M.D.	
U1135..	III	6	>200
U1136..	I	17	70
U1137..	I	10	60
U1138..	II	6	>200
U1139..	III	24	36
U1140..	III	23	24
U1141..	II	17	110
U1142..	III	6	150
U1143..	I	22	24
*U1144..	II	24	120
U1145..	I	2	>200
U1146..	I	12	120
U1147..	II	7	160
U1148..	I	6	>200
*U1149..	I	15	60
U1150..	I	20	36
U1151..	I	4	>200
U1152..	I	15	50
U1153..	II	13	90
U1154..	II	11	110
U1155..	I	16	50
U1156..	I	24	30
U1157..	II	22	30
U1158..	I	25	30
U1159..	II	20	50
*U1160..	II	17	50
U1161..	-	M.D.	
U1162..	-	M.D.	
U1163..	III	15	60
U1164..	I	22	16
U1165..	II	21	24
U1166..	-	M.D.	
U1167..	II	12	60
U1168..	III	12	60
U1169..	II	13	46
U1170..	I	5	160
U1171..	II	20	30
U1172..	I	18	50
U1173..	I	14	46
U1174..	I	10	160
*U1175..	II	12	150
U1176..	I	11	160
U1177..	III	24	120
*U1178..	II	20	36
U1179..	III	11	50
U1180..	I	18	36
*U1181..	I	22	30
U1182..	I	24	30
U1183..	II	20	60
U1184..	II	4	>200
U1185..	III	15	50
U1186..	I	10	60
U1187..	-	M.D.	
*U1188..	I	18	30
U1189..	I	8	180
U1190..	I	26	30
U1191..	II	5	120
U1192..	II	14	120
U1193..	I	24	24
U1194..	II	21	46
→U1195..	-	M.D.	
U1196..	II	8	100
U1197..	II	3	160
U1198..	I	22	16
U1199..	-	M.D.	
U1200..	III	7	160
U1201..	III	11	120
U1202..	II	13	46
U1203..	I	14	46
U1204..	II	13	50
U1205..	I	12	150
U1206..	III	14	90
U1207..	II	6	>200
U1208..	I	17	50
U1209..	-	M.D.	
U1210..	-	M.D.	
U1211..	II	12	50
*U1212..	I	12	60
U1213..	-	M.D.	
U1214..	-	M.D.	
U1215..	I	21	100
U1216..	-	M.D.	
U1217..	I	3	>200
U1218..	-	M.D.	
U1219..	-	M.D.	
U1220..	III	14	76
U1221..	III	4	>200
*U1222..	I	6	180
U1223..	I	6	>200
*U1224..	II	6	180
U1225..	I	5	150
U1226..	I	6	180
*U1227..	I	8	180
*U1228..	I	6	>200
U1229..	I	6	>200
U1230..	I	5	150
*U1231..	II	5	150
U1232..	I	6	>200
U1233..	III	6	>200
*U1234..	III	6	180
*U1235..	II	6	>200
U1236..	I	6	180
U1237..	I	6	>200
*U1238..	I	6	180
U1239..	I	3	160
U1240..	I	6	180
U1241..	II	5	150
U1242..	II	5	150
*U1243..	III	6	>200
*U1244..	I	6	180
*U1245..	II	6	180
*U1246..	II	6	180
*U1247..	III	6	180
*U1248..	I	6	>200
U1249..	I	6	>200

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*Preferred codes.
†Operations in millions.

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IRON U-TYPE RELAYS

Code List and Cross Reference Sheets

(For Tables I, II, and III)

Code	Table No.	Cont. Spgs	Adj† Life
*U1250..	I	6	>200
U1251..	II	6	180
U1252..	I	3	160
U1253..	I	6	>200
U1254..	I	6	>200
U1255..	I	6	>200
U1256..	-	M.D.	
U1257..	I	6	100
*U1258..	I	15	60
U1259..	II	6	>200
U1260..	II	6	>200
*U1261..	I	19	50
*U1262..	I	16	50
U1263..	I	3	160
U1264..	I	6	>200
U1265..	II	6	180
U1266..	II	6	180
U1267..	II	6	>200
U1268..	I	6	180
U1269..	II	3	150
U1270..	I	6	180
*U1271..	III	6	>200
U1272..	I	5	150
*U1273..	III	8	180
U1274..	-	M.D.	
U1275..	I	6	>200
U1276..	II	3	160
U1277..	-	M.D.	
U1278..	II	6	>200
U1279..	-	M.D.	
U1280..	-	M.D.	
U1281..	-	M.D.	
U1282..	II	16	200
U1283..	II	15	46
U1284..	II	11	50
U1285..	-	M.D.	
U1286..	II	22	30
U1287..	-	M.D.	
U1288..	I	22	36
*U1289..	I	18	90
*U1290..	I	20	24
U1291..	II	19	30
U1292..	II	14	76
U1293..	-	M.D.	
U1294..	III	9	160
U1295..	II	23	24
U1296..	II	24	24
U1297..	-	M.D.	
*U1298..	I	9	120
*U1299..	I	6	150
*U1300..	I	8	>200
*U1301..	I	12	>200
U1302..	II	24	120
U1303..	II	8	>200
*U1304..	I	18	60
U1305..	I	19	36
*U1306..	I	7	150
*U1307..	I	18	60
U1308..	II	12	150
U1309..	II	16	76
*U1310..	I	13	50
U1311..	I	14	46
*U1312..	I	21	24
*U1313..	II	18	30
*U1314..	II	10	60
*U1315..	I	9	160
*U1316..	I	13	76
*U1317..	I	16	110
*U1318..	I	8	60
*U1319..	I	16	110
*U1320..	I	17	76
*U1321..	II	17	50
*U1322..	I	22	24
*U1323..	I	13	90
*U1324..	I	22	30
U1325..	I	24	120
*U1326..	I	21	46
*U1327..	II	12	60
*U1328..	I	20	150
*U1329..	I	13	120
*U1330..	I	18	36
*U1331..	I	22	46
*U1332..	I	18	30
*U1333..	I	18	46
*U1334..	I	8	>200
U1335..	II	7	>200
*U1336..	I	6	150
*U1337..	I	24	30
U1338..	I	14	76
U1339..	I	6	150
*U1340..	I	7	100
*U1341..	I	16	50
*U1342..	I	18	46
U1343..	-	M.D.	
U1344..	I	15	110
U1345..	I	22	120
U1346..	I	5	160
U1347..	I	16	110
*U1348..	I	22	30
U1349..	I	16	200
U1350..	I	7	160
U1351..	-	M.D.	
U1352..	-	M.D.	
U1353..	-	M.D.	
*U1354..	I	10	160
U1355..	I	16	110
*U1356..	I	7	160
U1357..	I	22	120
*U1358..	I	6	180
*U1359..	I	9	160
*U1360..	I	11	100
*U1361..	I	22	60
*U1362..	I	13	120
*U1363..	I	18	76
*U1364..	I	10	150
U1365..	II	10	80
U1366..	I	10	>200
U1367..	I	8	>200
U1368..	I	20	150
U1369..	I	20	150
*U1370..	I	12	150
*U1371..	I	8	180
U1372..	II	6	160
*U1373..	I	2	>200
U1374..	II	12	120
*U1375..	I	10	160
U1376..	-	M.D.	
*U1377..	I	16	36
U1378..	-	M.D.	
*U1379..	I	12	60
*U1380..	II	24	46
*U1381..	I	24	60
*U1382..	I	12	50
*U1383..	I	22	36
*U1384..	I	24	120
U1385..	III	18	36
*U1386..	I	17	60
*U1387..	I	10	60
U1388..	-	M.D.	
U1389..	I	12	>200
U1390..	I	10	100
*U1391..	I	12	>200
*U1392..	I	15	120
*U1393..	I	3	160
*U1394..	I	10	>200
U1395...	-	M.D.	
*U1396..	I	21	90
U1397..	-	M.D.	
*U1398..	I	11	160
*U1399..	I	18	70

*Preferred codes.
†Operations in millions.

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IRON U-TYPE RELAYS

Code List and Cross Reference Sheets

(For Tables I, II, and III)

Code	Table No.	Cont. Spgs.	Adj† Life
U1400..	-	M.D.	
*U1401..	I	21	90
U1402..	II	9	160
U1403..	I	6	100
*U1404..	I	18	60
*U1405..	I	22	36
*U1406..	I	13	76
*U1407..	I	17	110
*U1408..	I	14	50
U1409..	II	6	>200
U1410..	II	6	>200
*U1411..	II	9	100
*U1412..	I	11	100
*U1413..	II	18	70
*U1414..	I	24	16
*U1415..	I	23	36
U1416..	I	8	160
U1417..	II	18	90
*U1418..	I	24	60
U1419..	-	M.D.	
*U1420..	II	20	24
*U1421..	I	23	24
U1422..	I	22	30
U1423..	I	25	16
U1424..	I	25	16
U1425..	II	5	160
*U1426..	I	19	46
*U1427..	I	21	36
U1428..	II	12	60
*U1429..	II	18	110
*U1430..	I	14	50
*U1431..	II	22	24
U1432..	I	18	50
U1433..	II	11	60
U1434..	I	18	36
U1435.....	Not used		
U1436..	I	26	16
U1437..	I	15	50
U1438..	I	22	36
U1439..	I	20	30
U1440..	Spl	U1326	46
U1441..	I	12	150
U1442..	I	24	36
U1443..	I	22	36
U1444..	I	20	36
U1445..	II	24	90
U1446..	II	24	24
U1447..	II	19	46
U1448..	I	11	150
U1449..	II	16	60
U1450..	I	17	90
U1451..	I	11	100
U1452..	I	4	>200
U1453..	-	M.D.	
U1454..	I	4	>200
U1455..	I	19	60
U1456..	III	7	160
U1457..	I	12	100
U1458..	I	15	60

*Preferred codes.
†Operations in millions.

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Y-TYPE RELAYS

Code List and Cross Reference Sheets

(For Table IV)

Code	Contact Springs	Code	Contact Springs	Code	Contact Springs	Code	Contact Springs
*Y50	6	Y100	M.D.	Y150	10	Y200	M.D.
Y51	M.D.	Y101	6	Y151	2	Y201	15
Y52	M.D.	Y102	9	Y152	M.D.	→ Y202	M.D.
*Y53	18	*Y103	10	*Y153	8	Y203	6
Y54	6	Y104	2	Y154	8	Y204	11
Y55	20	Y105	8	Y155	16	*Y205	20
Y56	5	Y106	M.D.	Y156	M.D.	Y206	6
*Y57	21	*Y107	7	Y157	14	Y207	6
Y58	M.D.	Y108	M.D.	Y158	M.D.	Y208	15
*Y59	22	*Y109	9	Y159	M.D.	Y209	6
Y60	8	Y110	4	Y160	M.D.	Y210	8
Y61	6	*Y111	17	Y161	M.D.	Y211	M.D.
*Y62	6	Y112	5	Y162	M.D.	*Y212	14
*Y63	4	Y113	24	Y163	M.D.	Y213	12
Y64	17	Y114	2	Y164	M.D.	Y214	6
Y65	M.D.	*Y115	4	Y165	M.D.	Y215	10
Y66	M.D.	Y116	M.D.	*Y166	6	Y216	17
*Y67	3	Y117	14	Y167	M.D.	Y217	M.D.
Y68	18	Y118	3	Y168	M.D.	Y218	14
*Y69	14	*Y119	4	Y169	7	Y219	10
Y70	M.D.	Y120	8	Y170	M.D.	*Y220	16
Y71	5	→ Y121	M.D.	Y171	8	Y221	2
Y72	6	Y122	6	Y172	5	Y222	M.D.
*Y73	8	Y123	6	Y173	M.D.	*Y223	8
Y74	6	Y124	M.D.	Y174	11	Y224	10
Y75	4	Y125	3	Y175	M.D.	*Y225	10
Y76	M.D.	*Y126	3	*Y176	4	Y226	11
Y77	M.D.	*Y127	3	Y177	9	*Y227	20
*Y78	2	Y128	M.D.	Y178	5	Y228	8
Y79	6	*Y129	10	Y179	M.D.	Y229	9
*Y80	4	Y130	24	Y180	8	Y230	4
*Y81	8	Y131	7	Y181	M.D.	Y231	16
Y82	22	Y132	M.D.	Y182	5	Y232	12
Y83	5	Y133	M.D.	Y183	2	Y233	M.D.
Y84	6	Y134	M.D.	Y184	7	Y234	8
Y85	10	Y135	M.D.	*Y185	14	Y235	6
*Y86	10	Y136	M.D.	Y186	16	Y236	9
Y87	10	Y137	M.D.	*Y187	5	Y237	6
*Y88	3	Y138	M.D.	Y188	M.D.	Y238	M.D.
Y89	8	*Y139	4	Y189	2	Y239	17
Y90	4	Y140	M.D.	Y190	M.D.	Y240	8
Y91	15	*Y141	25	Y191	2	*Y241	7
Y92	M.D.	Y142	3	Y192	7	Y242	6
Y93	20	Y143	5	Y193	5	*Y243	8
Y94	M.D.	Y144	6	Y194	M.D.	Y244	6
*Y95	5	Y145	M.D.	Y195	18	Y245	2
Y96	M.D.	Y146	M.D.	Y196	12	Y246	6
Y97	M.D.	Y147	6	Y197	M.D.	Y247	11
*Y98	4	Y148	12	Y198	22	Y248	8
Y99	4	Y149	10	Y199	M.D.	Y249	6

*Preferred codes.

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Y-TYPE RELAYS

Code List and Cross Reference Sheets

(For Table IV)

Code	Contact Springs	Code	Contact Springs	Code	Contact Springs	Code	Contact Springs
*Y250	18	Y300	16				
Y251	M.D.	Y301	22				
Y252	8	Y302	13				
Y253	11	Y303	8				
*Y254	14	Y304	18				
Y255	12	Y305	M.D.				
*Y256	12	Y306	8				
Y257	12	Y307	M.D.				
Y258	8	Y308	14				
Y259	10	Y309	14				
Y260	10	Y310	M.D.				
Y261	10	Y311	8				
Y262	10	Y312	11				
*Y263	5	Y313	20				
Y264	10	Y314	22				
Y265	5	Y315	10				
Y266	13	Y316	11				
Y267	7	Y317	12				
Y268	12	Y318	14				
*Y269	7	Y319	8				
Y270	10	Y320	11				
Y271	12	Y321	12				
Y272	10	Y322	12				
→ Y273	M.D.	Y323	Spl				
Y274	10		Y125				
*Y275	12	Y324	9				
*Y276	11	Y325	22				
Y277	10	Y326	7				
Y278	14	Y327	10				
*Y279	12	Y328	10				
Y280	8	Y329	13				
Y281	10						
Y282	9						
Y283	10						
Y284	14						
*Y285	13						
Y286	8						
→ Y287	M.D.						
Y288	4						
Y289	M.D.						
Y290	M.D.						
*Y291	12						
*Y292	14						
Y293	16						
*Y294	16						
*Y295	11						
*Y296	19						
*Y297	10						
*Y298	8						
*Y299	20						

*Preferred codes.

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PERMALLOY U-TYPE RELAYS

Code List and Cross Reference Sheets

(For Table V)

Code	Contact Springs	Adj† Life
U6000	2	>200
U6001	2	>200
U6002	4	>200
U6003	M.D.	
U6004	9	120
U6005	4	>200
U6006	6	150
U6007	3	160
U6008	3	160
U6009	2	>200
U6010	8	76
U6011	9	120
U6012	M.D.	
U6013	6	180
U6014	4	>200
U6015	14	76
U6016	11	100
U6017	10	100
U6018	12	150
U6019	12	150
U6020	4	>200
U6021	8	150
U6022	4	>200
U6023	6	>200
U6024	4	>200
U6025	8	150
U6026	8	150
U6027	4	>200
U6028	15	50
U6029	14	76
U6030	10	160
U6031	15	50
U6032	12	120
U6033	10	150
U6034	6	180
U6035	6	150
U6036	20	150
U6037	10	60
U6038	16	50
U6039	6	150
U6040	M.D.	
U6041	6	180
U6042	18	110
U6043	10	100
U6044	6	150
U6045	4	>200
U6046	9	100
U6047	13	76
U6048	15	50
U6049	3	160

Code	Contact Springs	Adj† Life
U6050	8	100
U6051	10	160
U6052	8	180
U6053	6	150
U6054	12	>200
U6055	4	>200
U6056	10	60
U6057	24	46
U6058	15	50
U6059	4	>200
U6060	16	76
U6061	11	150
U6062	6	180
U6063	8	>200
U6064	6	160
U6065	13	76
U6066	10	160
U6067	12	150
U6068	M.D.	
U6069	M.D.	
U6070	4	>200
U6071	4	>200
U6072	6	180
U6073	6	180
U6074	15	76
U6075	M.D.	
U6076	M.D.	
U6077	M.D.	
U6078	16	76
U6079	6	180
U6080	6	160
U6081	23	30
U6082	8	>200
U6083	6	150
U6084	2	>200
U6085	4	>200
U6086	12	60
U6087	20	90
U6088	7	160
U6089	6	>200
U6090	6	100
U6091	M.D.	
U6092	19	50
U6093	12	100
U6094	16	50
U6095	12	>200
U6096	M.D.	
U6097	17	76
U6098	M.D.	
U6099	M.D.	

Code	Contact Springs	Adj† Life
U6100	24	120
U6101	11	76
U6102	2	>200
U6103	18	50
U6104	14	76
U6105	M.D.	
U6106	4	>200
U6107	8	180
U6108	17	90
U6109	12	100
U6110	20	50
U6111	M.D.	
U6112	12	150
U6113	12	150
U6114	8	180
U6115	6	>200
U6116	10	150
U6117	24	60
U6118	M.D.	
U6119	M.D.	
U6120	M.D.	
U6121	M.D.	
U6122	M.D.	
U6123	M.D.	
U6124	10	100
U6125	12	100
U6126	M.D.	
U6127	M.D.	
U6128	Not used	
U6129	Not used	
U6130	Not used	
U6131	20	60
U6132	10	60
U6133	15	76
U6134	10	150
U6135	10	100
U6136	12	100
U6137	8	180

†Operations in millions.

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UA-TYPE RELAYS

Code List and Cross Reference Sheets

(For Table VI)

Code	Contact Springs	Adj† Life
UA1	4	>200
UA2	2	>200
UA3	2	>200
UA4	4	>200
UA5	19	46
UA6	6	180
UA7	M.D.	
UA8	M.D.	
UA9	2	>200
UA10	10	150
UA11	10	60
UA12	8	180
UA13	6	160
UA14	4	>200
UA15	6	180
UA16	9	100
UA17	3	160
UA18	9	120
UA19	4	>200
UA20	6	150
UA21	12	>200
UA22	8	>200
UA23	10	160
UA24	M.D.	
UA25	M.D.	
UA26	M.D.	
UA27	M.D.	
UA28	8	76
UA29	9	120
→UA30	M.D.	
UA31	3	160
UA32	2	>200
UA33	5	150
UA34	6	180
UA35	4	>200
UA36	4	>200
UA37	5	160
UA38	6	180
UA39	10	150
UA40	6	160
UA41	4	>200
UA42	4	>200
UA43	9	120
UA44	7	160
UA45	4	>200
UA46	10	150
UA47	8	180
UA48	4	>200
UA49	4	>200
UA50	4	>200
UA51	11	60
UA52	4	>200
UA53	8	>200
UA54	4	180
UA55	4	>200
UA56	16	30
UA57	8	>200
UA58	6	180
UA59	16	50
UA60	8	180
UA61	16	50
UA62	12	>200
UA63	6	>200
UA64	6	>200
UA65	5	150
UA66	6	180
UA67	M.D.	
UA68	M.D.	
UA69	4	>200
UA70	5	160
UA71	6	>200
UA72	5	160
UA73	M.D.	
UA74	8	180
UA75	6	180
UA76	5	150
UA77	11	60
UA78	24	16
UA79	6	160
UA80	17	50
UA81	4	>200
UA82	M.D.	
UA83	15	46
UA84	2	>200
UA85	M.D.	
UA86	6	160
UA87	M.D.	
UA88	4	>200
UA89	12	100
UA90	10	80
UA91	6	160
UA92	11	50
UA93	8	180
UA94	12	100
UA95	6	>200
UA96	18	50
UA97	6	180
UA98	+	
UA99	2	>200
UA100	11	46
UA101	7	160
UA102	12	120
UA103	4	>200
UA104	15	36
UA105	4	>200
UA106	8	180
UA107	18	46
UA108	16	76
UA109	8	160
UA110	22	30
UA111	22	30
UA112	4	>200
UA113	M.D.	
UA114	6	>200
UA115	21	24
UA116	18	46
UA117	12	>200
UA118	18	24
UA119	8	160
UA120	Special	
UA121	6	150
UA122	M.D.	
UA123	24	16
UA124	+	
UA125	2	>200
UA126	10	100
UA127	10	150
UA128	8	>200
UA129	8	180
UA130	10	150
UA131	4	>200
UA132	24	16
UA133	6	>200
UA134	4	>200
UA135	2	>200
UA136	Spl UA13	
UA137	6	>200
UA138	7	160
UA139	6	160
UA140	2	>200
UA141	6	160
UA142	6	160
UA143	4	>200
UA144	4	>200
UA145	12	160
UA146	8	>200
UA147	7	160
UA148	16	100

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+A fixed impedance.
†Operations in millions.

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TABLE I - SINGLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS					SPRING COMB.	CODES	WINDING		ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS				SEE NOTE
M	B	BM	MB	OTHER			TURNS	RES				OPER	NON-OPR	HOLD	RLS	
						2-CONTACT SPRINGS										
1	-	-	-	-	101/136	U1373(P)	9000	950	29	15	2	12.8				
1	-	-	-	-	115/136	U734	11300	750	29	10	S	9.8	-	-	2.4	
-	1	-	-	-	144/136	U759	4750	200	35	15	2	27.5				
-	1	-	-	-	144/187	U1145	9500	700	35	25	S	21.5	14.8	12.7	7.8	
						3-CONTACT SPRINGS										
-	-	1	-	-	132/136	U1263	1660	16	47	10	S	85	62	-	-	X
						U1252	9450	500	47	10	S	15.5	-	-	-	(RA)
						U1393(P)	9500	700	47	15	S	17				
						U1239	18800	2500	47	10	S	7.7				
-	-	-	-	(MM)	104/136	U182	12350	1000	44	10	S	11				
						U1217	12350	1000	44	10	2	11				
						U394	18800	2500	44	5	S	6.7				
						4-CONTACT SPRINGS										
2	-	-	-	-	101/101	U150	12350	1000	29	15	S	9.5				
						U624(P)	18800	2500	29	15	S	6.3				
						U154	23400	4000	29	15	S	5	3.7	-	-	U
2	-	-	-	-	192/192	U841	12350	1000	29	15	S	9.5				
2	-	-	-	-	111/187	U309	18800	2500	29	15	2	6.3				
2	-	-	-	-	242/101	U1454	23400	4000	29	10	2	4.8	-	-	-	U ←
-	2	-	-	-	144/144	U736	16600	1775	35	5	S	(Soak 15.5 (8.1	- -	-	0.6	C

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Notes:

C. Use only on approval of Relay Group.
U. Copper tinsel over core.
X. No. 1 metal stop pins.
(RA). Primary winding resistance ±5 per cent.

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TABLE I - SINGLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPER	NON-OPR	HOLD	RLS	SEE NOTE
						4-CONTACT SPRINGS (Contd)										
												(Soak 13.3				
-	2	-	-	-	144/144	U777	18800	2500	35	5	2	(7.2	-	-	0.5	C
					(Contd)	U1151	23400	4000	35	15	S	6.8	4.6	-	-	U
-	-	-	-	(M-M)	305/136	U1030	4750	200	47	10	2	34.5				
→						U1452	23400	4000	Spl 41	5	2	5.8	-	-	-	U
						5-CONTACT SPRINGS										
1	-	1	-	-	132/101	U482	1300	10	47	5	S	100				
						U280	3220	150	47	10	S	45	-	33		
						U510	4750	200	47	5	S	28.5	-	-	-	X
						U899	4750	200	47	5	2	28	-	-	-	X
						U1346	5300	400	47	5	2	25				
						U422(P)	9500	700	47	5	S	13.7				
						U165(P)	9000	950	47	15	S	18				
						U285	9000	950	47	5	S	14.5				
						U461(P)	14600	1500	47	5	S	8.9				
						U113(P)	18800	2500	47	5	S	7				
						U175	18800	2500	47	10	S	7.8	5.2			
						U185(P)	18800	2500	47	5	2	6.9				
1	-	1	-	-	132/115	U671	9000	950	47	15	S	19	-	-	5.4	
												(After soak 130				
-	1	1	-	-	132/131	U1170	5950	305	47	15	S	(32	-	22.5	16.5	C,(RA)
-	1	1	-	-	132/144	U281	3220	150	47	10	S	53.5	32			
1	-	-	1	-	106/101	U1230	2630	34	44	10	S	59				
						U433	2700	235	44	15	S	63				
						U1272	14600	1500	44	10	2	10.6				
-	1	-	1	-	144/106	U1225	9500	700	44	10	S	19.5				
-	-	1	-	(Prel M)	334/164	U1015	16600	1775	Spl 47	5	2	17	-	-	-	T,(AK)

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Notes:

C. Use only on approval of Relay Group.
T. Special contact pressure.
U. Copper tinsel over core.
X. No. 1 metal stop pins.
(AK). Contacts make 6 readjust, 4 test.
Minimum spring tension (2T) 10 grams readjust, 8 grams test.
(RA). Primary winding resistance ±5 per cent.

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TABLE I - SINGLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS					SPRING COMB.	CODES	WINDING		ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS				SEE NOTE
M	B	BM	MB	OTHER			TURNS	RES				OPER	NON-OPR	HOLD	RLS	
						6-CONTACT SPRINGS										
3	-	-	-	-	111/101	U1255	1300	10	29	10	S	85	63			
						U1249	1300	10	29	10	2	85				
						U1232	1100	50	29	10	S	95	70	-	-	(RA)
						U1223	4000	82	29	10	S	28	-	-	-	U
									Spl							
						U1264	3750	99	23	10	S	26.5				
						U1253	7400	300	29	10	S	16				
						U1229	12350	1000	29	10	S	8.9				
						U1254	12350	1000	29	10	2	8.9				
						U1248(P)	14600	1500	29	10	S	7.7				
						U1237	16000	2000	29	10	2	6.9				
						U1228(P)	18800	2500	29	10	S	6				
						U1250(P)	18800	2500	29	10	2	6				
									Max							
						U1275	23400	4000	23	10	S	4.6	-	-	-	U
2	1	-	-	-	110/101	U944	6250	265	35	10	2	19	-	-	4.4	C
						U1238(P)	9000	950	35	10	S	13.3				
						U1268	16600	1775	35	10	S	7.1				
						U1105	18800	2500	35	15	2	6.9				
						U1244(P)	18800	2500	35	10	2	6.3				
-	3	-	-	-	128/144	U1257	2630	34	41	10	S	62				
						U1403	23400	4000	41	15	S	8.6	4.6	-	-	U
1	2	-	-	-	110/144	U1358(P)	1660	16	35	10	2	80	-	-	-	X
						U1236	2630	34	35	10	2	50.5				
						U1226	6000	220	35	10	S	21.5				
						U1270	6000	220	35	10	2	21.5				
						U653	9000	950	35	15	S	16.5				
						U1240	12350	1000	35	10	S	10.7				
						U1222(P)	18800	2500	35	10	S	7	4.7			
-	-	2	-	-	132/132	U988(P)	5300	400	47	15	2	34	19.5	-	8.8	(RA)
						U423	8800	450	47	5	S	18				
						U580(P)	9500	700	47	5	S	16.5				
						U735(P)	9500	700	47	5	2	16.5				
						U985	10550	900	47	5	S	14.7	-	-	-	E
						U141(P)	9000	950	47	5	2	17.5				
						U75(P)	14600	1500	47	5	S	10.5				
						U440(P)	18800	2500	47	5	S	8.3				
-	-	2	-	-	175/132	U1108	2630	34	47	25	S	95	-	-	36.5	(RA)

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Notes:

C. Use only on approval of Relay Group.
E. Permalloy shells next to core.
U. Copper tinsel over core.
X. No. 1 metal stop pins.
(RA). Primary winding resistance ±5 per cent.

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RELAY DATA - CODE INFORMATION

TABLE I - SINGLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPER	NON-OPR	HOLD	RLS	SEE NOTE
						6-CONTACT SPRINGS (Contd)										
-	-	1	1	-	132/106	U1336(P)	1660	16	47	10	2	120	-	-	-	X
						U1299(P)	5300	400	47	10	2	36.5				
						U267	9000	650	47	5	S	19.5				
						U497(P)	9500	700	47	15	S	22.5				
						U519	9500	700	47	15	2	22.5				
						U114(P)	18800	2500	47	5	S	9.2				
						U1339	23400	4000	47	5	2	7.4	-	-	-	U
-	-	1	-	(MM)	132/104	U231(P)	9500	700	47	15	S	19				
						U342	18800	2500	47	5	S	7.8				
						U787	23400	4000	47	5	S	6.3	-	-	-	U
-	-	-	2	-	106/106	U1044	8400	500	44	5	2	21	-	-	-	(RA)
-	-	-	-	(2MM)	104/104	U305	6000	220	44	5	S	23.5				
1	-	-	-	(M-B)	304/101	U317	18800	2500	59	5	S	9.9				
1	-	-	-	(M-M)	305/101	U1148	9500	700	47	5	S	16.5				
						7-CONTACT SPRINGS										
2	-	1	-	-	132/111	U1350	2630	34	47	15	2	65.5	-	-	-	X
						U419(P)	9500	700	47	5	S	14.8				
						U180(P)	9000	950	47	5	2	15.5				
						U480	12350	1000	47	15	S	13.2				
						U265	14600	1500	47	5	S	9.6				
						U541(P)	14600	1500	47	10	2	10.5				
						U158(P)	18800	2500	47	5	S	7.5				
						U908	23400	4000	47	5	S	5.8	-	-	-	U
1	1	1	-	-	132/110	U1356(P)	5300	400	47	15	2	36	-	-	-	X
						U132	9500	700	47	5	S	16.5				
						U293	9500	700	47	5	2	16.5				
						U299	9500	700	47	15	S	20				
						U814(P)	9500	700	47	15	2	20				
2	-	-	1	-	111/106	U562	9500	700	44	5	2	14.8				
						U1306(P)	14600	1500	44	5	S	9.6				
						U760	23400	4000	44	5	S	6	-	-	-	U

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Notes:

U. Copper tinsel over core.
X. No. 1 metal stop pins.
(RA). Primary winding resistance ±5 per cent.

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RELAY DATA - CODE INFORMATION

TABLE I - SINGLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPER	NON-OPR	HOLD	RLS	SEE NOTE
						7-CONTACT SPRINGS (Contd)										
1	1	-	1	-	110/106	U523	14600	1500	44	5	S	11				
						U233	16600	1775	44	5	S	8.5	-	-	-	(RA)
						U637(P)	18800	2500	44	5	2	8.6				
-	2	1	-	-	128/132	U151	9000	950	47	5	S	18.5				
						U1340(P)	9000	950	47	25	S	26	-	-	9.3	←
-	2	-	1	-	128/106	U617	8800	450	44	5	2	19.5				
2	-	-	-	(MM)	111/104	U408	18800	2500	44	5	S	6.7				
1	1	-	-	(MM)	188/104	U1002	3000	210	44	15	S	71.5	46.5	-	35	
-	2	-	-	(MM)	128/104	U251	9500	700	44	5	S	16				
-	-	1	-	(M-B)	304/132	U366	9500	700	59	5	2	22.5				
						8-CONTACT SPRINGS										
4	-	-	-	-	111/111	U1300(P)	1660	16	29	5	S	61	-	-	-	X
						U1062	4000	82	29	5	S	25	18			
						U968	7400	300	29	5	S	14.5				
						U1367	5300	400	29	15	2	27.5				
						U62	8800	450	29	5	S	11.4				
						U1334(P)	9000	950	29	10	S	13.6				
						U302	16000	2000	29	5	S	6.3				
						U340(P)	18800	2500	29	15	S	7.6				
						U543(P)	18800	2500	29	5	2	5.4				
						U558	18800	2500	29	15	2	7.8				
3	1	-	-	-	111/110	U1371(P)	1660	16	35	10	2	75	-	-	-	X
						U316	4950	145	35	5	S	22	16			
						U717(P)	9500	700	35	15	S	15				
						U66(P)	18800	2500	35	5	S	6				
						U1189	23400	4000	35	15	S	6	4.5	-	-	U
2	2	-	-	-	110/110	U618	4000	82	35	15	S	40.5	-	-	12.4	
						U652	4750	200	35	10	2	28	19			
						U421(P)	9500	700	35	5	S	12.3				
						U520(P)	9000	950	35	5	S	12.9				

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Notes:

U. Copper tinsel over core.
X. No. 1 metal stop pins.
(RA). Primary winding resistance ±5 per cent.

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TABLE I - SINGLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPER	NON-OPR	HOLD	RLS	SEE NOTE
						8-CONTACT SPRINGS (Contd)										
2	2	-	-	-	110/110 (Contd)	U730	16600	1775	35	5	S	7				
						U566(P)	18800	2500	35	5	S	6.2				
						U1227(P)	18800	2500	35	5	2	6.1				
						U747	23400	4000	35	5	S	5	-	-	-	U
-	1	2	-	-	160/132	U252	8800	450	47	5	S	19				
						U311(P)	9000	950	47	15	S	23				
						U326	9000	950	47	5	S	18.5				
						U900	9000	950	47	5	2	18.5				
						U1318(P)	18800	2500	47	5	2	8.9				
1	-	2	-	-	108/132	U549	2630	34	47	5	2	61.5				
						U378	5300	400	47	5	S	27.5				
						U242	8800	450	47	5	S	17.5				
						U420	9500	700	47	5	S	16				
						U162(P)	9000	950	47	5	S	17				
						U505	9000	950	47	10	S	19.5				
						U217(P)	14600	1500	47	5	S	10.5				
						U542(P)	18800	2500	47	5	2	8.1				
						U157(P)	18800	2500	47	5	S	8.1				
						U107	23400	4000	47	5	S	6.5	-	-	-	U
						U1416	23400	4000	47	5	2	6.5	-	-	-	U
-	4	-	-	-	128/128	U164(P)	18800	2500	41	5	S	8.3				
→ -	1	1	1	-	160/106	U190	18800	2500	47	5	S	9.6				
1	-	1	1	-	108/106	U203	6000	220	47	5	2	28				
						U168(P)	9500	700	47	5	S	18.5				
1	3	-	-	-	128/110	U548	2630	34	41	5	2	58				
						U240	8800	450	41	5	S	16.5				
						U425(P)	9000	950	41	5	S	16				
1	-	1	1	-	130/132	U447(P)	18800	2500	47	5	S	9.4				
-	1	1	-	(MM)	160/104	U978	9500	700	47	15	S	19.5				
-	1	1	1	-	142/132	U564	12350	1000	53	5	S	15.5				
1	-	-	2	-	130/106	U636	8800	450	44	5	S	20.5				
-	-	-	-	(2MM)	105/105	U807	16000	2000	62	5	S	13.8				
2	-	-	-	(M-M)	305/111	U589	9000	950	47	5	S	18				
-	-	-	-	(2M-M)	305/305	U631	9500	700	47	5	2	20				

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Notes:

U. Copper tinsel over core.

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TABLE I - SINGLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPER	NON-OPR	HOLD	RLS	SEE NOTE
						9-CONTACT SPRINGS										
3	-	1	-	-	108/111	U1315(P)	1660	16	47	15	S	115	-	-	-	X
						U522(P)	9500	700	47	15	S	17				
						U902	11300	750	47	15	2	14.4	-	-	4.9	(RA)
						U286	9000	950	47	5	S	15				
						U216(P)	18800	2500	47	5	S	7.2				
						U387	18800	2500	47	15	S	8.5				
2	1	1	-	-	108/110	U1359(P)	1660	16	47	10	2	105	-	-	-	X
						U533	4000	82	47	5	2	39				
						U499(P)	9000	950	47	10	S	19.5				
						U143(P)	18800	2500	47	5	2	8.3				
						U1011	18800	2500		5	S	8.3				
1	2	1	-	-	128/108	U966	4950	145	47	5	2	33				
						U74(P)	9500	700	47	5	S	18				
3	-	-	1	-	130/111	U287	9000	950	44	10	S	18				
						U897	9000	950	44	10	2	18				
						U544	18800	2500	44	5	2	7.6				
2	1	-	1	-	130/110	U355	6000	220	44	5	2	26.5				
						U277	18800	2500	44	5	S	8.7				
2	1	1	-	-	160/111	U970	4000	82	47	5	2	36	24.5			
-	-	3	-	-	121/132	U435	3900	350	50	15	S	56.5				
						U213	14600	1500	50	5	S	12.3				
						U371	18800	2500	50	15	2	11.3				
-	-	2	1	-	102/132	U470	2630	34	53	5	2	80				
						U204	6000	220	53	5	2	31				
-	-	2	1	-	121/106	U1298(P)	5300	400	50	10	2	41				
1	-	1	-	(BMM)	108/105	U95	18800	2500	62	5	S	11				
1	-	1	-	(BMM)	105/108	U674	18800	2500	62	5	S	11.7				
2	1	-	-	(MM)	122/110	U599	18800	2500	44	5	S	7.6				
1	-	1	-	(M-M)	108/305	U531	4950	145	47	5	2	33				
						U276	5300	400	47	5	S	30				
1	-	-	1	(M-B)	130/304	U489	4750	200	59	5	2	50				
1	-	1	-	(M-B)	108/304	U585	9500	700	59	5	S	22.5				
1	1	-	1	(Prel M)	321/144	U948	23400	4000	53	5	2	7.7	4.5	-	-	U

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Notes:

U. Copper tinsel over core.
X. No. 1 metal stop pins.
(RA). Primary winding resistance ±5 per cent.

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TABLE I - SINGLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS					SPRING COMB.	CODES	WINDING		ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS				SEE NOTE
M	B	BM	MB	OTHER			TURNS	RES				OPER	NON-OPR	HOLD	RLS	
						10-CONTACT SPRINGS										
2	-	2	-	-	108/108	U553	2630	34	47	5	2	62.5				
						U1174	7400	300	47	25	2	34	-	-	15.5	
						U434	3900	350	47	15	S	48.5				
						U1354(P)	5300	400	47	5	2	29.5	-	-	-	X
						U279	8800	450	47	5	S	18				
						U349	8800	450	47	5	2	18				
						U254(P)	9500	700	47	5	S	16.5				
						U1375(P)	9500	700	47	5	2	16.5				
						U521(P)	9500	700	47	15	S	20.5				
						U219(P)	9000	950	47	5	S	17.5				
						U679(P)	9000	950	47	5	2	17.5				
						U352	12350	1000	47	5	S	12.7				
						U460(P)	14600	1500	47	5	S	10.6				
5	-	-	-	-	123/111	U1394(P)	1660	16	29	10	2	85	-	-	-	X
						U920	5950	305	(Spl (26 Min (29 Max	15	S	((32	After soak 130 -	22.5	16.5	C,(RA)
						U1366	5300	400	29	10	2	25.5				
						U112(P)	9500	700	29	5	2	11.6				
						U198	9000	950	29	10	S	15				
						U407(P)	18800	2500	29	5	2	5.8				
4	1	-	-	-	123/110	U230	6000	220	35	15	S	26				
						U504	9000	950	35	10	S	15				
4	1	-	-	-	120/111	U370	7300	400	35	5	2	15.5	-	-	-	E
						U1364(P)	5300	400	35	15	2	30	-	-	-	X
2	3	-	-	-	137/110	U1390	5300	400	41	15	2	34.5				
						U898(P)	9000	950	41	10	2	18				
						U288(P)	9000	950	41	10	S	18				
						U270(P)	18800	2500	41	5	S	7.9				
3	2	-	-	-	120/110	U72	9500	700	35	5	S	13				
						U218(P)	18800	2500	35	5	S	6.4				
3	2	-	-	-	181/110	U1065	9000	650	Spl 53	25	2	26	-	-	9.8	(AF),(RA)
1	1	2	-	-	160/108	U977	6000	220	47	10	2	28	16.5			
						U278	8800	450	47	5	S	19.5				
→						U208	8400	500	47	5	S	20	-	-	-	(RA)
						U234(P)	9500	700	47	5	2	18				

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Notes:

C. Use only on approval of Relay Group.
E. Permalloy shells next to core.
X. No. 1 metal stop pins.
(AF). Springs 3T-4T and 1B-2B shall break with a 20-mil gauge inserted between stop discs and core.
(RA). Primary winding resistance ±5 per cent.

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TABLE I - SINGLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPER	NON-OPR	HOLD	RLS	SEE NOTE
						10-CONTACT SPRINGS (Contd)										
1	1	2	-	-	160/108 (Contd)	U1137	11300	750	47	15	2	18	-	-	5.4	(RA)
						U256	9000	950	47	5	S	19				
						U259(P)	18800	2500	47	5	2	9				
						U686	23400	4000	47	5	2	7.2	-	-	-	U
1	1	1	1	-	142/108	U327	9000	950	53	5	S	21				
1	1	1	1	-	160/130	U424	3550	660	47	5	S	44.5	-	-	-	(RA)
1	1	-	2	-	142/130	U442	12350	1000	53	5	S	17				
2	-	-	2	-	130/130	U298	4750	200	44	15	2	47.5				
2	-	1	1	-	130/108	U743	8400	500	47	5	S	20	-	-	-	(RA)
1	4	-	-	-	137/128	U662	9500	700	41	5	2	16.5				
-	2	2	-	-	160/160	U581	2630	34	47	5	2	72				
						U1186	8800	450	47	10	2	24	-	-	4.8	
						U1387(P)	9000	950	47	10	2	23				
						U214	18800	2500	47	5	S	9.6				
1	1	1	-	(MM)	160/122	U129	12350	1000	47	5	S	13.3				
						U885	12350	1000	47	5	2	13.3				
-	2	1	-	(MM)	165/160	U590	9500	700	56	5	2	23				
-	2	1	1	-	160/142	U493	9000	950	53	5	S	24				
-	-	2	-	(M-B)	121/304	U176	14600	1500	59	5	S	16.5				
2	-	1	-	(Prel BM)	327/108	U932	18800	2500	53	5	2	10.5				
-	-	2	-	(2Prel M)	319/319	U1022	9500	700	53	5	2	25				
2	2	-	-	(Prel M)	318/111	U1119	9500	700	44	5	S	16				
-	-	2	-	(2Prel M)	334/334	U1109	16600	1775	Spl 47	5	S	18	-	-	-	T,(AJ)
-	-	-	2	(2Prel M)	333/333	U989	9500	700	53	5	S	25				

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Notes:

T. Special contact pressure.
U. Copper tinsel over core.
(AJ). Contact make 6 readjust, 4 test.
Minimum spring tension (2T and 2B)
10 grams readjust, 8 grams test.
(RA). Primary winding resistance ±5 per cent.

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TABLE I - SINGLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPER	NON-OPR	HOLD	RLS	SEE NOTE
						11-CONTACT SPRINGS										
1	-	3	-	-	121/108	U757	4750	200	50	15	S	45.5				
						U192(P)	9000	950	50	5	S	20				
						U990	12350	1000	50	5	2	14.6				
						U269	14600	1500	50	5	S	12.4				
						U166(P)	14600	1500	50	5	2	12.4				
						U108(P)	18800	2500	50	5	S	9.6				
3	1	1	-	-	120/108	U220(P)	9000	950	47	5	S	18				
						U148(P)	18800	2500	47	5	2	8.5				
						U153	23400	4000	47	5	S	6.9	-	-	-	U
									Spl							
→						U1448	8800	450	50	15	2	23	-	-	6.2	
4	-	1	-	-	123/108	U1398(P)	1660	16	47	15	S	110	-	-	-	X
						U766	18800	2500	47	5	S	7.3				
2	2	1	-	-	137/108	U1360(P)	5300	400	47	5	2	31.5				
						U149	9000	950	47	5	2	18.5				
						U142(P)	18800	2500	47	5	2	8.9				
1	-	2	1	-	102/108	U540(P)	18800	2500	53	5	2	10.1				
→						U1451	23400	4000	53	5	2	8.1	-	-	-	U
1	-	2	1	-	121/130	U135	9500	700	50	5	S	21				
						U829	9500	700	50	5	2	21				
4	-	-	1	-	123/130	U1120	9500	700	44	10	2	17.5				
-	1	3	-	-	121/160	U967	4950	145	50	5	2	38				
3	1	-	1	-	120/130	U869	9000	950	44	15	S	23				
2	2	-	1	-	137/130	U1412(P)	9000	950	44	10	2	19.5				
						U958	18800	2500	44	5	S	8.7				
1	3	-	1	-	138/130	U753	16000	2000	47	5	2	11.5				
2	2	-	1	-	156/110	U404	18800	2500	53	5	2	10.1				
1	-	2	-	(MM)	121/122	U395	18800	2500	50	5	S	9.2				
2	2	-	-	(MM)	137/122	U627	9500	700	44	5	S	16				
2	2	-	-	(MM)	137/185	U297	18800	2500	44	5	S	8.1				
						U331	18800	2500	44	5	2	8				
1	1	1	-	(M-M)	303/108	U99	9000	950	59	5	2	24.5				
3	-	1	-	(Frel M)	123/319	U874	18800	2500	53	5	S	9.5				

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Notes:

U. Copper tinsel over core.
X. No. 1 metal stop pins.

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TABLE I - SINGLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS					SPRING COMB.	CODES	WINDING		ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS				SEE NOTE
M	B	BM	MB	OTHER			TURNS	RES				OPER	NON-OPR	HOLD	RLS	
						11-CONTACT SPRINGS (Contd)										
1	1	1	-	(M-M)	307/160	U488	14600	1500	47	15	S	15.5				
2	-	-	1	(M-M)	307/130	U600	18800	2500	47	5	S	10				
2	-	1	-	(2Prel M)	343/319	U1176	7660	350	59	5	2	32				
2	-	-	-	(MM) (M-M)	307/185	U439	9500	700	47	5	S	18.5				
						12-CONTACT SPRINGS										
6	-	-	-	-	123/123	U1001	6000	220	29	5	2	19.5				
						U1389	5300	400	29	10	2	28				
						U1391(P)	9000	950	29	5	2	13.6				
						U1301(P)	9000	950	29	5	S	13.4				
						U650	12350	1000	29	5	S	9.8				
						U207(P)	18800	2500	29	5	S	6.8				
						U152	23400	4000	29	5	2	5.2	-	-	-	U
4	2	-	-	-	120/120	U1370(P)	1660	16	35	5	S	73.5	-	-	-	X
						U999	6000	220	35	5	2	19.5				
						U1205	5300	400	35	5	2	23	-	-	-	X
						U82	9500	700	35	5	S	12.7				
						U729	9500	700	35	5	2	13.1				
						U201	9000	950	35	5	S	13.8				
						U1096	12600	1200	35	5	S	9.6	-	-	-	(RA)
						U739	16600	1775	35	5	2	7.3				
									Spl							
						U1441	9430	500	29	5	2	11	-	-	-	(CO)
5	1	-	-	-	123/120	U594(P)	18800	2500	35	5	2	6.5				
3	3	-	-	-	137/120	U516	9500	700	41	5	2	15.5				
						U232	13250	1300	41	5	S	11	-	-	-	(RA)
3	3	-	-	-	181/137	U263	14600	1500	41	5	S	10				
-	6	-	-	-	138/138	U133(P)	18800	2500	47	5	S	10.4				

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Notes:

U. Copper tinsel over core.
X. No. 1 metal stop pins.
(CO). Contact springs 3T and 3B make,
6 readjust, 4 test.
Minimum tension (1T and 1B)
10 grams readjust, 8 grams test.
(RA). Primary winding resistance ±5 per cent.

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TABLE I - SINGLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS					SPRING COMB.	CODES	WINDING		ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS				SEE NOTE
M	B	BM	MB	OTHER			TURNS	RES				OPER	NON-OPR	HOLD	RLS	
						12-CONTACT SPRINGS (Contd)										
2	4	-	-	-	137/137	U1018(P)	9000	950	41	10	2	19.5				
						U1037	18800	2500	41	5	2	8.3				
-	-	4	-	-	121/121	U721	9500	700	50	5	2	20.5				
						U255	9000	950	50	5	S	22				
						U1146	12350	1000	50	5	2	16	-	-	2.2	
						U199(P)	18800	2500	50	5	2	10.4				
3	-	2	-	-	145/108	U415	8800	450	47	5	S	18.5				
						U67(P)	9500	700	47	5	S	17				
3	-	2	-	-	183/108	U191	12350	1000	47	5	2	13.2				
2	1	2	-	-	148/108	U1379(P)	1660	16	47	10	2	115	-	-	-	X
						U1035	8800	450	47	5	S	19				
						U426(P)	9500	700	47	5	S	18				
-	3	2	-	-	166/160	U159	12350	1000	47	5	S	15.5				
						U616	12350	1000	47	5	2	15.5				
-	-	3	-	1	121/102	U211	6000	220	53	5	2	35				
						U502(P)	5300	400	53	5	S	38.5				
						U1212(P)	5300	400	53	5	2	38.5	-	-	-	X
2	1	1	1	-	148/130	U607(P)	9500	700	47	5	2	19.5				
						U122(P)	18800	2500	47	5	S	9.9				
3	-	1	1	-	145/130	U1012	12350	1000	47	15	S	17.5				
-	-	2	2	-	102/102	U393	4750	200	53	15	2	58				
3	-	-	2	-	147/130	U559(P)	9500	700	44	5	S	19.5				
1	2	2	-	-	148/160	U672	2630	34	47	5	2	72				
1	-	2	-	(BMM)	118/105	U390	6000	220	62	5	2	38				
2	1	-	2	-	156/130	U568	4750	200	53	15	2	55				
						U477	9500	700	53	5	S	22.5				
1	-	2	-	(M-M)	121/307	U310	9500	700	50	5	S	20.5				
						U1106	9500	700	50	5	2	20.5				
-	3	-	2	-	230/138	U1382(P)	1660	16	47	10	2	155	-	-	-	X
1	1	2	-	(Prel M)	324/108	U667	9000	650	53	15	2	31	-	-	7.8	
2	-	2	-	(Prel M)	320/108	U812	18800	2500	53	5	S	10.5				

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Notes:

X.' No. 1 metal stop pins.

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TABLE I - SINGLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS					SPRING COMB.	CODES	WINDING		ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS				SEE NOTE
M	B	BM	MB	OTHER			TURNS	RES				OPER	NON-OPR	HOLD	RLS	
						12-CONTACT SPRINGS (Contd)										
1	-	-	1	(M-B) (Prel BM)	326/300	U815	6000	220	71	5	2	47.5	-	-	3.9	
-	-	-	2	(2Prel BM)	326/326	U1121	7400	300	71	5	2	45				
2	-	-	-	(2 M-M)	307/307	U938	9000	950	47	5	2	21.5				
2	-	-	1	(1Prel M) (1MM)	321/185	U1457	4950	145	53	5	S	40				
						13-CONTACT SPRINGS										
5	-	1	-	-	145/123	U1362(P)	5300	400	47	10	2	30.5	-	-	-	X
						U119(P)	9500	700	47	5	S	14.9				
						U123	18800	2500	47	5	2	7.5				
4	1	1	-	-	145/120	U195	12350	1000	47	5	2	13.5				
						U980	12350	1000	47	5	S	13.5				
						U1329(P)	18800	2500	47	5	S	8.6				
2	3	1	-	-	148/137	U1310(P)	18800	2500	47	5	S	9.7				
1	4	1	-	-	166/137	U1118	9500	700	47	15	2	25.5				
3	2	1	-	-	183/137	U264	14600	1500	47	5	S	12				
-	5	1	-	-	166/138	U997	18800	2500	47	5	2	10.4				
4	1	1	-	-	183/181	U319	12350	1000	47	10	2	15.5	8.7			
3	2	1	-	-	200/148	U1125	9000	950	47	5	S	17.5	-	10.9	5.2	
2	-	3	-	-	118/108	U1323(P)	14600	1500	50	5	2	12.3				
2	2	1	-	(Prel M)	184/319	U1133	9500	700	53	5	2	24				
4	1	-	1	-	147/120	U1316(P)	1660	16	44	15	S	130	-	-	-	X
						U1406(P)	9500	700	44	5	2	18	10			
5	-	-	1	-	147/123	U972	9500	700	44	5	2	16	10.4			
						U584	18800	2500	44	5	S	8				

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Notes:

X. No. 1 metal stop pins.

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TABLE I - SINGLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPER	NON-OPR	HOLD	RLS	SEE NOTE
						13-CONTACT SPRINGS (Contd)										
1	1	2	1	-	148/102	U803	12350	1000	53	5	2	17.5				
						U782	18800	2500	53	5	S	11.4				
2	-	2	1	-	153/108	U494	4750	200	53	5	S	41.5	22.5			
						U358	9500	700	53	5	S	20.5				
						U595	16000	2000	53	5	S	12.2				
1	-	2	1	(Prel M)	335/130	U1055	12350	1000	59	5	2	22				
4	1	-	-	(MM)	158/120	U87	9500	700	44	5	S	16				
1	1	1	1	(MM)	174/102	U138(P)	9500	700	56	5	S	23.5				
3	2	-	-	(MM)	158/137	U1029	9500	700	44	5	S	16				
-	-	3	-	(M-M)	311/121	U84	9500	700	59	5	S	25.5				
1	-	1	-	(2 M-B)	309/300	U430	9500	700	68	5	S	31				
3	-	1	-	(M-B)	183/300	U444	18800	2500	59	5	2	12				
1	2	1	-	(M-M)	311/137	U647	18800	2500	59	5	S	13.1	5.8			
						14-CONTACT SPRINGS										
7	-	-	-	-	109/123	U834(P)	9500	700	29	10	2	20	15			
						U223(P)	18800	2500	29	5	S	7				
						U610	18800	2500	29	5	2	7				
6	1	-	-	-	109/120	U456(P)	18800	2500	35	5	S	7				
6	1	-	-	-	134/123	U361	18800	2500	35	5	S	7				
						U893	18800	2500	35	5	2	7				
5	2	-	-	-	134/120	U1338	12350	1000	35	5	2	10.6				
						U308	18800	2500	35	5	S	7				
						U750	18800	2500	35	5	2	7				
5	2	-	-	-	182/181	U239	18800	2500	35	5	S	7.2				
4	3	-	-	-	151/120	U1036	9450	500	41	10	2	18	-	-	5	(RA)

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Notes:

(RA). Primary winding resistance ±5 per cent.

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TABLE I - SINGLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPER	NON-OPR	HOLD	RLS	SEE NOTE
						14-CONTACT SPRINGS (Contd)										
4	3	-	-	-	151/120 (Contd)	U334	9500	700	41	5	S	16				
						U737	11300	750	41	5	2	13.2				
						U459(P)	14600	1500	41	5	2	10.2				
3	4	-	-	-	151/137	U171	18800	2500	41	5	S	8.5				
						U673	18800	2500	41	15	2	10.8				
2	5	-	-	-	152/137	U372	9500	700	47	5	S	20				
						U104	9000	950	47	5	S	21				
1	6	-	-	-	152/138	U241	12350	1000	47	5	S	16				
3	1	2	-	-	148/145	U391	9500	700	47	5	S	18				
						U722(P)	9500	700	47	15	2	21	-	-	7.3	
						U173(P)	18800	2500	47	5	2	9.1				
2	2	2	-	-	148/148	U506(P)	5300	400	47	5	2	32.5				
						U209	8400	500	47	5	2	21.5	-	-	-	(RA)
						U576(P)	9000	950	47	5	2	20				
						U386(P)	18800	2500	47	5	S	9.6				
						U189(P)	18800	2500	47	5	2	9.6				
1	3	1	1	-	153/138	U1408(P)	5300	400	53	10	2	42	-	-	-	X
-	4	2	-	-	166/166	U1033	18800	2500	47	5	2	10.4				
4	-	2	-	-	145/145	U1019	8800	450	47	5	S	18.5				
						U740	8400	500	47	5	2	19.5	-	-	-	(RA)
						U237	18800	2500	47	5	S	8.7				
						U530(P)	18800	2500	47	5	2	8.7				
1	-	3	1	-	153/121	U1430(P)	5300	400	53	5	2	41				
1	-	4	-	-	118/121	U500(P)	9500	700	50	5	S	21				
3	1	1	1	-	148/147	U554	18800	2500	47	5	2	10				
2	2	1	1	-	156/148	U1077	16000	2000	53	5	S	13.4	6.6			
4	-	1	1	-	147/145	U822	18800	2500	47	5	S	9.8				
2	2	-	2	-	156/156	U602	9500	700	53	5	S	24				
1	-	2	1	(MM)	153/186	U312	9500	700	56	5	S	22				
3	1	1	-	(MM)	158/148	U332	18800	2500	47	5	2	8.9				

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Notes:

X. No. 1 metal stop pins.
(RA). Primary winding resistance ±5 per cent.

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TABLE I - SINGLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPER	NON-OPR	HOLD	RLS	SEE NOTE
						14-CONTACT SPRINGS (Contd)										
2	3	-	-	(M-B)	306/181	U363	12350	1000	71	5	2	23.5				
1	2	1	1	(Prel M)	313/148	U1311	9500	700	59	15	S	31	-	-	8.8	
1	1	2	-	(2Prel M)	320/324	U843	12350	1000	53	5	2	19.5				
2	-	-	2	(2Prel M)	321/321	U1173	12350	1000	53	15	2	25				
2	-	-	2	(2Prel M)	336/336	U1203	16600	1775	Spl 44	5	S	18	-	-	-	T,(AG)
-	3	-	-	(2M-B)	306/302	U364 U888	12350 12350	1000 1000	71 71	5 5	S 2	28 28				
1	2	-	-	(2M-B)	306/300	U380	5300	400	71	5	2	60				
						15-CONTACT SPRINGS										
3	-	3	-	-	118/145	U351(P) U53(P)	9500 18800	700 2500	50 50	5 5	S S	19.5 9.7				
2	1	3	-	-	118/148	U457(P) U1258(P)	14600 14600	1500 1500	50 50	5 5	S 2	13.5 13.5				
6	-	1	-	-	109/145	U579 U1392(P) U120(P)	4750 5300 18800	200 400 2500	47 47 47	5 5 5	S 2 S	31.5 28 7.9				
5	1	1	-	-	109/148	U1149(P) U321	9500 18800	700 2500	47 47	5 5	S S	16 8.1				
-	3	3	-	-	208/166	U1075	8400	500	50	5	2	26	13.6			
3	3	1	-	-	151/148	U197	14600	1500	47	5	2	12.6				
3	3	1	-	-	184/148	U345	2630	34	47	5	2	74.5				
4	2	1	-	-	151/145	U105(P) U609	18800 18800	2500 2500	47 47	5 5	S 2	9.5 9.5				

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Notes:

T. Special contact pressure.
(AG). Minimum spring tension (1T and 1B) 20 grams readjust, 18 grams test.

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TABLE I - SINGLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS					SPRING COMB.	CODES	WINDING		ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS				SEE NOTE
M	B	BM	MB	OTHER			TURNS	RES				OPER	NON-OPR	HOLD	RLS	
						15-CONTACT SPRINGS (Contd)										
1	5	1	-	-	149/138	U1023	9500	700	47	5	2	20.5				
-	-	5	-	-	139/121	U810	9450	500	59	5	2	26				
						U68(P)	9500	700	59	5	S	26				
						U835(P)	9000	950	59	5	2	27.5				
						U77	16000	2000	59	5	S	15.5				
6	-	-	1	-	109/147	U322	8800	450	44	5	2	18	12.2			
						U921	18800	2500	44	15	2	11.3				
3	3	-	1	-	152/147	U781	9450	500	47	15	S	25	-	-	-	(RA)
2	1	2	1	-	118/156	U765	13250	1300	53	5	S	16.5				
2	1	2	1	-	153/148	U816	8400	500	53	5	S	25	-	-	-	(RA)
3	-	2	1	-	153/183	U1152	4000	82	53	10	S	55				
1	2	1	2	-	177/102	U708	4950	145	59	5	S	52				
5	1	-	1	-	134/147	U827	23400	4000	44	5	2	7.5	-	-	-	U
5	1	-	-	(MM)	134/158	U61	9500	700	44	5	S	17				
6	-	-	-	(MM)	109/158	U445(P)	18800	2500	44	5	S	8.7				
2	-	1	-	(2M-B)	301/300	U474	12350	1000	68	5	S	24.5				
						U492	12350	1000	68	5	2	24.5				
1	1	1	-	(2M-B)	310/309	U228	9000	950	68	5	S	33				
1	-	2	1	(M-B)	309/153	U432	9500	700	68	5	S	30.5				
1	-	3	-	(2Prel M)	335/320	U1344	14600	1500	59	5	2	18.5				
1	-	2	1	(M-M)	153/311	U1437	8800	450	59	5	2	29				
2	3	1	-	(1Prel M)	152/320	U1458	18800	2500	53	5	2	12				

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Notes:

U. Copper tinsel over core.
(RA). Primary winding resistance ±5 per cent.

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RELAY DATA - CODE INFORMATION

TABLE I - SINGLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPER	NON-OPR	HOLD	RLS	SEE NOTE
						16-CONTACT SPRINGS										
8	-	-	-	-	109/109	U1349	5300	400	29	10	2	33.5				
						U291	12350	1000	29	5	2	13.4	9			
						U699	18800	2500	29	5	2	7.8				
5	3	-	-	-	151/134	U1054(P)	18800	2500	41	5	2	8.2				
4	4	-	-	-	151/151	U573	12350	1000	41	5	2	13.2				
						U63	18800	2500	41	5	S	8.7				
						U1063	18800	2500	41	5	2	8.7				
2	6	-	-	-	152/152	U357	12350	1000	47	5	S	16				
5	-	2	-	-	117/145	U1347	1660	16	47	10	2	115	-	-	-	X
						U179(P)	9000	950	47	5	2	18.5				
						U238	9000	950	47	5	S	18.5				
						U55(P)	18800	2500	47	5	S	8.8				
4	1	2	-	-	117/148	U1051	5300	400	47	5	2	30.5	-	-	-	X
						U1355	5300	400	47	10	2	36.5				
						U601(P)	9500	700	47	5	S	18				
						U1317(P)	9500	700	47	5	2	18				
						U1319(P)	14600	1500	47	5	2	11.7				
2	3	2	-	-	149/148	U515	9500	700	47	5	2	20				
						U187	14600	1500	47	5	S	12.8				
3	2	2	-	-	149/145	U555	8400	500	47	5	S	20.5	-	-	-	(RA)
						U206	18800	2500	47	5	S	9.1				
3	2	2	-	-	151/118	U677	9500	700	50	5	S	21				
3	2	2	-	-	149/183	U268	14600	1500	47	5	S	11.8				
						U1262(P)	14600	1500	47	5	2	12.2				
1	4	2	-	-	149/166	U1083	9500	700	47	5	2	20.5				
-	5	2	-	-	155/166	U1377(P)	5300	400	50	10	2	45.5	-	-	-	X
1	1	4	-	-	150/121	U975	9500	700	50	5	2	21.5				
2	-	4	-	-	118/118	U235	8800	450	50	5	2	22.5				
						U593	9500	700	50	5	S	21				
						U844(P)	9500	700	50	15	2	25				
						U98(P)	9000	950	50	5	2	22				
						U258	18800	2500	50	5	S	10.6				
-	2	4	-	-	208/208	U1082	9500	700	50	5	2	22				

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Notes:

X. No. 1 metal stop pins.
(RA). Primary winding resistance ±5 per cent.

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TABLE I - SINGLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPER	NON-OPR	HOLD	RLS	SEE NOTE
						16-CONTACT SPRINGS (Contd)										
5	-	1	1	-	117/147	U694	18800	2500	47	5	2	9.8				
3	2	1	1	-	149/147	U1010	18800	2500	47	5	2	11	6.7			
2	-	3	1	-	153/118	U1155	6000	220	53	5	S	35				
						U720	9450	500	53	5	2	23				
						U140	9500	700	53	5	S	22.5				
						U779	18800	2500	53	5	2	11.4				
2	-	2	2	-	153/153	U1017	8800	450	53	5	2	26				
						U1341(P)	9000	950	53	15	S	31				
3	2	1	1	-	153/184	U360	18800	2500	53	5	S	11.7				
1	1	3	1	-	126/148	U613	18800	2500	59	5	2	12.8	5.8			
2	3	-	2	-	177/156	U485(P)	9500	700	59	5	2	28				
1	1	3	-	(MM)	159/118	U121	12350	1000	62	5	2	21.5	9.8			
2	2	-	-	(2M-B)	310/310	U979	9500	700	68	5	2	31				
						U221	14600	1500	68	10	S	22				
-	-	4	-	(M-M)	139/311	U178	14600	1500	59	5	S	18				
4	2	-	-	(M-M)	193/307	U962	18800	2500	47	5	2	9.8				
						17-CONTACT SPRINGS										
7	-	1	-	-	117/109	U101(P)	9500	700	47	5	S	17				
						U1407(P)	9000	950	47	5	2	17				
6	1	1	-	-	117/134	U1128	4750	200	47	5	S	32	22	25.5	10.1	
						U139	9500	700	47	5	S	18				
5	2	1	-	-	117/151	U1320(P)	9000	950	47	5	2	20	11			
4	3	1	-	-	215/151	U1386(P)	5300	400	47	10	2	37				
4	-	3	-	-	117/118	U200(P)	18800	2500	50	5	2	9.9				
3	1	3	-	-	150/145	U1000	9450	500	50	5	S	21				
						U243	12350	1000	50	5	S	16				

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TABLE I - SINGLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPER	NON-OPR	HOLD	RLS	SEE NOTE
						17-CONTACT SPRINGS (Contd)										
2	2	3	-	-	149/118	U328	14600	1500	50	5	2	13.7				
						U1208	18800	2500	50	5	S	10.7				
-	4	3	-	-	107/166	U60	16000	2000	50	5	2	14.1				
1	-	5	-	-	139/118	U622	7660	350	59	15	S	37.5	-	-	11.1	
						U612	7660	350	59	5	2	31				
						U503	9500	700	59	5	S	26				
						U1136	9500	700	59	5	2	26				
2	2	2	1	-	149/153	U903	9500	700	53	5	S	24				
3	1	2	1	-	150/147	U801	12350	1000	50	10	S	19				
1	3	2	1	-	155/153	U1102	16600	1775	53	5	S	13.8				
-	4	2	1	-	126/171	U1111	9450	500	59	5	2	29				
2	2	1	2	-	177/153	U641	8800	450	59	5	2	30.5				
						U574	9500	700	59	5	S	28.5				
1	-	4	1	-	126/118	U582(P)	9500	700	59	5	2	25.5				
5	2	-	1	-	146/184	U301	8800	450	44	5	2	21				
5	2	-	1	-	146/151	U914	16600	1775	44	5	S	11				
1	-	4	-	(MM)	173/118	U664	16600	1775	62	5	2	16				
1	2	3	-	(Prel M)	150/324	U726	6000	220	53	5	2	38.5				
1	2	3	-	(Prel M)	329/148	U973	6000	220	59	5	2	40				
3	-	2	1	(Prel M)	323/211	U1026	8800	450	56	5	2	26.5				
2	-	2	1	(2Prel M)	323/335	U1104	14600	1500	59	5	2	20.5				
-	-	3	-	(2M-B)	308/309	U517	9500	700	71	5	S	36				
→ 4	-	2	1	-	146/118	U1450	23400	4000	50	5	2	8.9	-	-	-	U

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Notes:

U. Copper tinsel over core.

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TABLE I - SINGLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPER	NON-OPR	HOLD	RLS	SEE NOTE
						18-CONTACT SPRINGS										
9	-	-	-	-	112/109	U136	9500	700	29	5	S	16.5				
						U828(P)	9500	700	29	5	2	16.5				
8	1	-	-	-	112/134	U1363(P)	9500	700	35	10	2	20				
						U130	18800	2500	35	5	2	8.3				
6	3	-	-	-	129/151	U1304(P)	1660	16	41	10	S	110	-	-	-	X
6	3	-	-	-	162/120	U963	12350	1000	41	10	2	15	8.3			
3	6	-	-	-	157/151	U1180	11300	750	50	10	2	20.5	12.5	-	-	(RA)
1	8	-	-	-	157/171	U384	14600	1500	50	5	2	15				
2	4	2	-	-	149/149	U79(P)	9500	700	47	5	S	20.5				
5	1	1	1	-	215/146	U1404(P)	1660	16	47	15	2	145	-	-	-	X
4	2	2	-	-	215/215	U1307(P)	9500	700	47	5	2	20.5	10.4			
4	2	2	-	-	180/149	U275(P)	18800	2500	47	5	S	9.5				
3	3	2	-	-	114/152	U167	12350	1000	50	5	2	17				
5	1	2	-	-	150/109	U1432	4750	200	50	5	S	35.5	22	32	9.2	
						U644	8400	500	50	5	S	20	12.2	-	-	(RA)
						U1172	9000	950	50	5	S	19				
						U1081	18800	2500	50	5	S	9				
6	-	2	-	-	117/117	U678	9500	700	47	5	S	18.5				
1	5	2	-	-	155/149	U1330(P)	9000	950	50	5	S	23.5				
3	-	4	-	-	114/118	U1289(P)	9500	700	50	10	S	23.5				
-	-	6	-	-	139/139	U1399(P)	1660	16	59	10	2	175	-	-	-	X
						U226(P)	5300	400	59	5	S	47				
						U611(P)	9500	700	59	5	2	28.5				
						U936	12350	1000	59	5	2	21.5				
						U177(P)	14600	1500	59	5	S	18				
						U692	16600	1775	59	5	S	16				
6	-	1	1	-	146/117	U73(P)	9500	700	47	5	S	20				
3	-	3	1	-	141/118	U821	12350	1000	53	5	S	18				
						U767	12350	1000	53	5	2	18				

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Notes:

X. No. 1 metal stop pins.
(RA). Primary winding resistance ±5 per cent.

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TABLE I - SINGLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS					SPRING COMB.	CODES	WINDING		ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS				SEE NOTE
M	B	BM	MB	OTHER			TURNS	RES				OPER	NON-OPR	HOLD	RLS	
						18-CONTACT SPRINGS (Contd)										
-	3	3	1	-	155/126	U52(P)	14600	1500	59	5	2	19				
-	-	5	1	-	139/126	U76	8800	450	59	15	S	36.5				
						U1021	9500	700	59	5	S	28				
-	-	4	2	-	126/126	U1342(P)	9500	700	59	5	S	29				
						U1333(P)	9500	700	59	5	2	29				
3	3	-	2	-	177/225	U1188(P)	9500	700	59	5	S	27	11.5			
2	3	2	-	(Prel M)	329/184	U1034	6000	220	59	5	2	44				
3	-	1	1	(2Prel BM)	328/347	U1332(P)	14600	1500	71	5	2	22.5				
1	4	2	-	(Prel M)	150/325	U1434	9500	700	53	5	2	23.5				
						19-CONTACT SPRINGS										
8	-	1	-	-	112/117	U193	9500	700	47	5	S	18				
						U809(P)	9500	700	47	5	2	18				
7	1	1	-	-	129/117	U575	9000	950	47	5	2	19				
						U1089	23400	4000	47	5	S	7.7	-	-	-	U
→						U1455(P)	18800	2500	47	5	2	8.9				
5	3	1	-	-	172/149	U341	9500	700	47	5	2	20				
2	6	1	-	-	157/149	U496	9500	700	50	5	S	22.5				
-	5	3	-	-	107/155	U51(P)	14600	1500	50	5	2	16				
5	-	3	-	-	114/117	U785	4950	145	50	10	2	41.5				
4	1	3	-	-	150/117	U1006	4000	82	50	5	S	48.5				
						U452	18800	2500	50	5	S	10.3				
						U1261(P)	18800	2500	50	5	2	12.6				
3	2	3	-	-	114/149	U1080	9450	500	50	5	S	22	-	-	-	(RA)
						U578	9500	700	50	5	S	21.5				

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Notes:

U. Copper tinsel over core.
(RA). Primary winding resistance ±5 per cent.

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TABLE I - SINGLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPER	NON-OPR	HOLD	RLS	SEE NOTE
						19-CONTACT SPRINGS (Contd)										
3	2	2	1	-	150/225	U1426(P)	9500	700	53	5	2	25	11			
2	3	3	-	-	150/149	U651	8400	500	50	5	S	25	-	-	-	(RA)
1	1	5	-	-	150/139	U934(P)	9500	700	59	5	2	28				
						U1014	14600	1500	59	10	S	18				
2	-	5	-	-	179/139	U937(P)	9500	700	59	5	S	27				
-	2	5	-	-	107/139	U1003	4750	200	59	10	S	58				
						U325	7660	350	59	5	2	35				
7	1	-	1	-	172/146	U969	8800	450	44	5	2	21.5				
7	1	-	-	(MM)	129/116	U70	9500	700	44	5	S	19.5				
						U388	12350	1000	44	15	2	23				
5	2	1	-	(Prel M)	338/117	U1305	14600	1500	47	15	S	16.5	-	-	6.1	
2	-	2	2	(Prel BM)	328/126	U742	9500	700	71	5	2	36				
3	-	3	-	(BMM)	179/133	U700	9450	500	68	5	2	30.5				
						20-CONTACT SPRINGS										
10	-	-	-	-	112/112	U1369	1660	16	29	5	2	105	-	-	-	X
						U1328(P)	5300	400	29	5	S	32.5				
						U1368	5300	400	29	10	2	38.5				
						U57(P)	9000	950	29	5	S	19				
						U236(P)	18800	2500	29	5	S	8.6				
7	3	-	-	-	193/129	U832	23400	4000	41	5	S	7	-	-	-	U
5	5	-	-	-	157/129	U437	14600	1500	50	5	S	13.2				
5	5	-	-	-	172/157	U330	18800	2500	50	5	2	11.6				
-	10	-	-	-	176/176	U918	8800	450	56	5	S	29.5				
						U100	12350	1000	56	5	S	21				

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Notes:

U. Copper tinsel over core.
X. No. 1 metal stop pins.
(RA). Primary winding resistance ±5 per cent.

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TABLE I - SINGLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS					SPRING COMB.	CODES	WINDING		ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS				SEE NOTE
M	B	BM	MB	OTHER			TURNS	RES				OPER	NON-OPR	HOLD	RLS	
						20-CONTACT SPRINGS (Contd)										
3	7	-	-	-	168/152	U86	9500	700	50	5	S	24.5				
4	3	2	-	-	193/150	U1100	18800	2500	50	5	S	11.1				
4	-	4	-	-	114/114	U1113(P)	9500	700	50	5	2	21				
						U441	18800	2500	50	5	S	10.7				
						U658	18800	2500	50	5	2	10.7				
4	-	4	-	-	Spl*/114	U894	9500	700	50	5	2	21				
2	2	4	-	-	150/150	U333(P)	14600	1500	50	5	2	14.4				
3	1	4	-	-	150/179	U318	18800	2500	50	5	2	11.1				
1	3	4	-	-	107/150	U183	9000	950	50	5	S	23.5				
									Spl							
-	4	4	-	-	107/107	U1008	8400	500	50	5	2	26	12.2			
						U109(P)	14600	1500	50	5	2	14.9				
6	1	1	1	-	141/172	U69(P)	9000	950	53	5	S	24.5				
1	-	5	1	-	163/139	U886	8800	450	59	5	2	30				
						U1024	9000	950	59	5	2	29.5				
						U1439	1660	16	59	5	2	165				
1	-	6	-	-	221/139	U1131	18800	2500	62	5	S	14.6	-	-	-	(CA)
-	1	5	1	-	167/139	U1290(P)	9500	700	65	5	S	31				
1	2	4	-	(Prel M)	329/150	U1150	6000	220	59	5	2	44.5				
3	-	3	1	(Prel M)	322/179	U883	16600	1775	59	5	S	15.5				
2	4	1	1	(Prel M)	157/322	U705	16600	1775	59	10	S	17.5				
1	4	2	-	(BMM)	169/133	U451	12350	1000	68	5	S	25.5				
6	1	-	2	-	135/225	U1444	18800	2500	53	5	2	12.3				

*Same as 114 except for clamp plate ground terminal.

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Notes:

(CA). Waive "no make requirement" on contacts (10T-11T).

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TABLE I - SINGLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPER	NON-OPR	HOLD	RLS	SEE NOTE
						21-CONTACT SPRINGS										
9	-	1	-	-	127/112	U1401(P)	1660	16	47	10	2	135	-	-	-	X
						U50(P)	18800	2500	47	5	2	9.8				
6	3	1	-	-	103/112	U417	18800	2500	50	5	S	9.3				
5	1	3	-	-	127/150	U58(P)	18800	2500	50	5	2	10.7				
4	5	1	-	-	154/149	U93	9500	700	47	5	S	21.5				
3	3	3	-	-	103/114	U194	12350	1000	50	5	2	17				
3	6	1	-	-	168/149	U383	18800	2500	50	5	2	11.4				
2	4	3	-	-	103/150	U284	12350	1000	50	5	2	17.5				
						U1312(P)	18800	2500	50	5	2	11.3				
6	-	3	-	-	127/114	U1396(P)	5300	400	50	10	2	41	-	-	-	X
6	-	2	1	-	178/141	U155	9500	700	53	15	2	28.5				
						U1326(P)	9500	700	53	5	2	21				
5	4	-	1	-	135/157	U1427(P)	9000	950	50	5	S	24				
3	-	4	1	-	163/179	U1053	18800	2500	59	5	S	13.2				
-	3	4	1	-	167/107	U1107	8400	500	65	5	2	38	14.6			
2	1	4	1	-	163/150	U577	9500	700	59	5	S	28				
						U1025	9000	950	59	5	2	29.5				
						U941	12350	1000	59	5	2	21.5				
3	2	1	2	(Prel M)	140/322	U1098	12350	1000	59	5	S	22	8.9			
2	1	3	1	(MM)	163/189	U648	8800	450	59	5	2	30				
9	-	-	-	(MM)	170/112	U1215	9450	500	44	5	2	21.5	-	-	-	(RA)
8	1	-	-	(MM)	119/116	U450	18800	2500	44	5	S	10.6				
5	4	-	-	(MM)	170/157	U410	14600	1500	50	5	S	13				

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Notes:

X. No. 1 metal stop pins.
(RA). Primary winding resistance ±5 per cent.

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TABLE I - SINGLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS					SPRING COMB.	CODES	WINDING		ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS				SEE NOTE
M	B	BM	MB	OTHER			TURNS	RES				OPER	NON-OPR	HOLD	RLS	
						22-CONTACT SPRINGS										
11	-	-	-	-	113/112	U1357	1660	16	29	10	2	135	-	-	-	X
						U196	4050	300	29	5	S	46.5				
						U1345	5300	400	29	10	2	41.5				
						U181	9000	950	29	5	S	19.5				
10	1	-	-	-	113/172	U222	18800	2500	35	5	S	9.7				
10	1	-	-	-	113/129	U1361(P)	5300	400	35	5	S	34				
						U313	12350	1000	35	5	S	14.7	9			
8	3	-	-	-	162/129	U1331(P)	1660	16	41	10	S	130	-	-	-	X
1	10	-	-	-	125/157	U1198	8800	450	62	5	2	29.5				
						U339	12350	1000	62	5	S	24.5				
8	-	2	-	-	127/127	U940	9500	700	47	5	2	20				
						U438	14600	1500	47	5	S	12.9				
3	5	1	1	-	197/157	U1383(P)	1660	16	59	10	2	170	-	-	-	X
6	2	2	-	-	195/195	U704	16600	1775	47	10	S	14.1				
8	-	1	1	-	178/135	U1288	9500	700	47	5	S	20				
8	-	1	1	-	135/127	U1438	8800	450	47	5	2	24				
7	1	1	1	-	195/135	U1405(P)	1660	16	47	15	2	175	-	-	-	X
7	1	1	1	-	161/172	U147	9500	700	53	5	2	22.5				
						U1181(P)	9500	700	53	5	S	22.5				
5	-	3	1	-	178/163	U811	16000	2000	59	5	S	16				
4	1	3	1	-	161/150	U1348(P)	1660	16	53	10	2	170	-	-	-	X
2	3	3	1	-	197/107	U833	16600	1775	59	5	2	17				
1	4	3	1	-	169/163	U1322(P)	9000	950	59	5	S	30				
2	-	4	2	-	163/163	U1324(P)	14600	1500	59	10	S	21.5				
						U1112	16600	1775	59	5	2	16.5				
-	2	4	2	-	167/167	U1047	14600	1500	65	5	2	22				
1	1	4	2	-	167/163	U1143	4750	200	65	10	S	74				
						U1059	9500	700	65	5	2	32.5	13.1			

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Notes:

X. No. 1 metal stop pins.

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TABLE I - SINGLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS					SPRING COMB.	CODES	WINDING		ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS				SEE NOTE
M	B	BM	MB	OTHER			TURNS	RES				OPER	NON-OPR	HOLD	RLS	
22-CONTACT SPRINGS (Contd)																
4	1	-	2	(Prel BM) (MM)	204/328	U942	12350	1000	71	5	S	28				
1	3	2	2	(Prel M)	202/322	U1164	9500	700	71	5	2	39				
3	1	3	1	(Prel M)	161/329	U1422	12350	1000	59	5	2	25	8.9			
1	5	2	-	(2Prel M)	330/329	U817	14600	1500	59	5	S	21.5				
2	4	2	-	(2Prel M)	339/339	U1087	12350	1000	56	5	S	23	13.8			
-	1	3	1	(2 BMB)	214/167	U1060	9450	500	71	5	2	39.5	13.6	-	-	(CB)
-	-	2	-	(4 BMB)	214/214	U1039	9500	700	71	5	2	39.5	13.1	-	-	(CC)
8	2	-	-	(1Prel M)	338/113	U1443	9000	950	47	10	2	25	-	-	9.3	
23-CONTACT SPRINGS																
9	1	1	-	-	119/127	U924	18800	2500	47	5	2	10.5				
7	3	1	-	-	154/127	U1415(P)	5300	400	47	10	2	42.5				
6	4	1	-	-	119/103	U227	18800	2500	50	5	2	10.5				
5	5	1	-	-	162/103	U92	9500	700	50	5	2	23.5				
2	8	1	-	-	124/103	U202	14600	1500	59	5	S	19				
2	8	-	1	-	125/140	U535	9500	700	62	5	S	32.5				
10	-	-	1	-	113/135	U106	9500	700	44	5	S	21				
7	-	2	1	-	161/178	U675(P)	9500	700	53	15	2	33				
						U991(P)	14600	1500	53	5	S	16				
6	1	2	1	-	161/195	U639(P)	9500	700	53	15	2	32				
						U1057	18800	2500	53	5	2	13				

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Notes:

(CB). Waive "no make requirements" on contacts (5T-6T and 9T-10T).

(CC). Waive "no make requirements" on contacts (5T-6T, 9T-10T, 5B-6B, and 9B-10B).

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TABLE I - SINGLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS					SPRING COMB.	CODES	WINDING		ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS				SEE NOTE
M	B	BM	MB	OTHER			TURNS	RES				OPER	NON-OPR	HOLD	RLS	
						23-CONTACT SPRINGS (Contd)										
4	-	3	2	-	161/163	U1073(P)	9500	700	59	5	2	30	14.1			
3	4	2	1	-	169/161	U598	4750	200	56	5	2	58.5				
						U642	12350	1000	56	5	2	21				
						U1421(P)	18800	2500	56	5	2	13.8	-	10		
1	6	2	1	-	124/167	U947	14600	1500	65	5	S	22.5				
9	1	-	-	(MM)	119/170	U1005	18800	2500	44	5	S	11.2				
5	5	-	-	(MM)	168/194	U638	9500	700	50	5	S	22.5				
5	4	1	-	(Prel M)	330/178	U930	14600	1500	59	5	2	19				
						24-CONTACT SPRINGS										
12	-	-	-	-	113/113	U1384(P)	1660	16	29	10	2	145	-	-	-	X
						U1046	4050	300	29	5	2	49				
						U1325	5300	400	29	10	2	45				
						U65(P)	9500	700	29	5	S	19.5				
						U64(P)	9500	700	29	5	2	19.5				
						U1020	9500	700	29	10	2	25				
						U81(P)	9000	950	29	5	S	20.5				
						U144(P)	9000	950	29	5	2	20.5				
						U495(P)	14600	1500	29	10	2	16.5				
						U115(P)	18800	2500	29	5	S	9.9				
						U695	18800	2500	29	5	2	9.9				
11	1	-	-	-	119/113	U1381(P)	5300	400	35	10	2	44.5	-	-	-	X
						U682	9450	500	35	5	S	20.5				
						U118	8400	500	35	15	S	36				
						U591(P)	9500	700	35	10	2	25				
						U54(P)	18800	2500	35	5	S	10.4				
10	2	-	-	-	119/119	U794	9000	950	35	5	S	21				
						U588(P)	14600	1500	35	5	2	13				
9	3	-	-	-	162/119	U1418(P)	1660	16	41	10	S	140	-	-	-	X

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Notes:

X. No. 1 metal stop pins.

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TABLE I - SINGLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS					SPRING COMB.	CODES	WINDING		ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS				SEE NOTE
M	B	BM	MB	OTHER			TURNS	RES				OPER	NON-OPR	HOLD	RLS	
						24-CONTACT SPRINGS (Contd)										
8	4	-	-	-	162/162	U338(P)	9500	700	41	5	2	19.5				
6	6	-	-	-	168/162	U71	9500	700	50	5	2	24				
2	10	-	-	-	124/124	U1337(P)	5300	400	59	10	2	60.5				
						U59(P)	9500	700	59	5	S	29.5				
						U382	9500	700	59	5	2	29.5				
						U134	14600	1500	59	5	S	19				
						U826(P)	14600	1500	59	5	2	19				
1	11	-	-	-	125/124	U324	4950	145	62	5	S	60				
						U88(P)	9500	700	62	5	S	32				
-	12	-	-	-	125/125	U323	4950	145	62	5	S	60				
						U719	7660	350	62	5	S	40				
						U314	12350	1000	62	5	S	25				
5	1	2	2	-	197/161	U1078	7400	300	59	5	2	37.5				
						U1182	9500	700	59	5	S	30				
						U1072	16600	1775	59	5	2	17				
						U780	16600	1775	59	5	S	17				
4	5	1	1	-	124/161	U80	16000	2000	59	5	S	17				
2	4	3	1	-	198/169	U1193	14600	1500	59	5	2	19	-	-	-	(BS)
3	3	2	2	-	202/161	U1414(P)	9500	700	71	5	2	37	13.1			
6	-	2	2	-	161/161	U188(P)	14600	1500	53	5	2	17.5				
3	5	1	1	(Prel M)	124/340	U1156	16600	1775	59	5	S	18.5				
-	10	-	-	(2Prel M)	332/332	U964	9500	700	65	10	S	44.5	-	-	7.4	
-	3	1	1	(3 BMB)	217/218	U1103	9450	500	71	5	2	41.5	15.5	-	-	(CD)
4	2	2	2	-	197/197	U1442	1660	16	59	10	2	195	-	-	53	

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Notes:

(BS). Waive "no make requirement" on contacts (12T-13T).

(CD). Waive "no make requirements" on contacts (6T-7T, 10T-11T, and 10B-11B).

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RELAY DATA - CODE INFORMATION

TABLE I - SINGLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS					SPRING COMB.	CODES	WINDING		ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS				SEE NOTE
M	B	BM	MB	OTHER			TURNS	RES				OPER	NON-OPR	HOLD	RLS	
							25-CONTACT SPRINGS									
11	-	-	1	-	210/113	U1028	9500	700	44	5	2	23.5	-	-	-	(RA)
8	-	2	1	-	207/161	U982	9500	700	53	5	2	24	-	-	-	(CE)
7	1	2	1	-	297/197	U953	9500	700	(Spl Max) (59)	5	2	26	-	-	-	(CE)
7	1	3	-	-	207/223	U1158	18800	2500	Spl 50	5	2	10.8	-	-	-	(CF)
2	3	3	2	-	198/202	U1423	9500	700	71	5	2	34	13.1	-	-	(BS)
3	2	-	1	(1 MBM) (2 BMB)	226/217	U1424	8400	500	71	5	2	38	14.8	-	-	(AN)
							26-CONTACT SPRINGS									
10	-	-	2	-	210/210	U1031	18800	2500	44	5	2	12.3				
→ 5	-	2	2	(MBM)	226/198	U1190	8800	450	59	5	2	30	-	-	-	(CG)
→ -	10	2	-	-	241/241	U1436	9500	700	65	5	S	34.5	-	-	-	(CR)

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Notes:

(AN). Waive "no make requirements" on contacts (10T-11T, 6B-7B, and 10B-11B).
(BS). Waive "no make requirement" on contacts (12T-13T).
(CE). Waive "no make requirements" on contacts (2T-3T).
(CF). Waive "no make requirements" on contacts (2T-3T and 11B-12B).
(CG). Waive "no make requirements" on contacts (10T-11T and 12B-13B).
(CR). Waive "no make requirements" on contacts (12T-13T and 12B-13B).
(RA). Primary winding resistance ±5 per cent.

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TABLE II - DOUBLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPER	NON-OPR	HOLD	RLS	SEE NOTE
							2-CONTACT SPRINGS									
1	-	-	-	-	115/164	U837	P 4425 S 1350	140 250	29	5		P 30 S 105	-	8.5	6.8	C,J,(CP),(RB)
							3-CONTACT SPRINGS									
-	-	-	1	-	106/136	U1269	P 12350 S (NI)	1000 1000	44	10	S	P 12.6	-	-	-	W
-	-	-	1	-	106/164	U709	P 11000 S (NI)	870 2100	44	15	S	P 15.5	-	-	4.4	K
-	-	1	-	-	132/136	U1276	P 8330 S (NI) T (NI)	500 330 330	47	10	2	P 17.5	-	-	-	R,(RA)
-	-	1	-	-	132/164	U1197	P 4000 S 3940	200 200	47	10	S	P/S 19	-	-	5.8	A,J
-	-	1	-	-	175/164	U654	P 2700 S (NI)	67 1000	47	15	S	P 105	-	-	18.5	W
							4-CONTACT SPRINGS									
2	-	-	-	-	101/101	U225	P 1600 S 1600 T 1600	49 54 52	29	15	S	P 90 S 90 T 90	61	-	-	(AH),(RD)
						U368 (P)	P 8300 S 10750	850 1750	29	15	S	P 14.1 S 11.5	-	-	-	J
-	2	-	-	-	131/144	U836	P 1500 S 5300	30 400	35	15	2	P 110 S 33	-	-	40	J

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Notes:

A. P/S indicates primary and secondary windings in series aiding.
C. Use only on approval of Relay Group.
J. Winding arrangement No. 2.
K. Winding arrangement No. 3.
R. Winding arrangement No. 16.
W. Winding arrangement No. 8.

(AH). Winding arrangement No. 6.
(CP). Silver contact metal on 1T springs, No. 2 on 2T spring.
(RA). Primary winding resistance ±5 per cent.
(RB). Secondary winding resistance ±5 per cent.
(RD). Tertiary winding resistance ±15 per cent.

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TABLE II - DOUBLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS					SPRING COMB.	CODES	WINDING		ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS				SEE NOTE
M	B	BM	MB	OTHER			TURNS	RES				OPER	NON-OPR	HOLD	RLS	
						4-CONTACT SPRINGS (Contd)										
→ 1	1	-	-	-	144/101	U1184	P 3400 S 9250	300 850	35	5	S	(After soak of 20 (P/S 10	- -	6	0.8	A,J
→ 1	1	-	-	-	192/144	U745	P 6080 S 6060	510 515	35	25	S	P/S 14.7	-	-	5.9	A,P
						5-CONTACT SPRINGS										
1	-	-	1	-	106/101	U1241	P 6870 S (NI)	300 200	44	10	S	P 22.5	-	-	-	W
						U1231(P)	P 8000 S 14300	1000 2700	44	10	S	P 19.5 S 11	-	-	-	M
1	-	1	-	-	132/101	U400	P 1100 S 6900	14 1000	47	10	S	P 130 S 22	-	-	-	J
						U983	P 4120 S 5175	120 1200	47	5	S	P 31.5 S 26.5	23.5	-	-	J
						U596	P 6870 S (NI)	300 200	47	15	2	P 23	-	-	-	W
						U1425	P 3950 S 3965	330 330	Spl 62	15	2	P/S 26.5	19	-	-	A,J, (RC)
						U161	P 12350 S (NI)	1000 1000	47	15	S	P 12.8	-	-	-	K
						U511	P 8700 S 8700	1100 1100	47	5	S	P 15.5 S 16.5	-	-	-	J,(RC)
-	1	-	1	-	144/106	U1242	P 6870 S (NI)	300 200	44	10	S	P 26	-	-	-	W
-	-	1	-	(Prel M)	334/164	U1191	P 6900 S 7000	1850 1850	Spl 47	5	2	P//S 38	-	-	-	B,J,T, (AK), (RC)

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Notes:

A. P/S indicates primary and secondary windings in series aiding.
B. P//S indicates primary and secondary windings in parallel.
J. Winding arrangement No. 2.
K. Winding arrangement No. 3.
M. Winding arrangement No. 7.
P. Winding arrangement No. 13.
T. Special contact pressure.
W. Winding arrangement No. 8.
(AK). Contacts make 6 readjust, 4 test. Minimum spring tension (2T) 10 grams readjust 8 grams test.
(RC). All windings resistance ±5 per cent.

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TABLE II - DOUBLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPER	NON-OPR	HOLD	RLS	SEE NOTE
						6-CONTACT SPRINGS										
2	1	-	-	-	110/101	U1265	P 1530 S 3700	60 3000	35	10	S	P 80	58	-	-	J,(RA), (RF)
						U1266	P 2150 S 5700	100 1000	35	10	S	P 55.5 S 21.5	41.5	-	-	J,(RA)
						U733	P 6875 S 12175	675 1925	35	5	2	After soak of 36.5 P 16.5 S 9.9	-	-	1.8	C,J, (RB) ←
						U1246(P)	P 8300 S 10750	850 1750	35	10	S	P 14.4 S 11.2	-	-	-	M
						U1224(P)	P 8000 S 14300	1000 2700	35	10	S	P 14.8 S 8.3	-	-	-	M
						U1251	P 8700 S 8700	1100 1100	35	10	S	P 13.6 S 13.8	-	-	-	J,(RA), (RB)
						U619	P 10850 S 2650	1200 475	35	15	S	P 14.1 S 47.5	- 38	-	-	J,(RF)
3	-	-	-	-	111/101	U1410	P 600 S 4170	2.2 570	Spl 23	15	S	P 185 S 26.5	160	-	-	J,T,Z, (RG)
						U1409	P 960 S 4170	5.5 570	Spl 23	10	S	P 105 S 23.5	90	-	-	J,T,Z,(RG)
						U1260	P 1770 S 8950	55 1000	29	10	S	P/S 10.6 P 62.5 S 12.7	-	-	-	A,J, (RA)
						U1259	P 4000 S 3940	200 200	29	10	S	P 27.5 S 30.5	-	-	-	J
						U1207	P 5450 S (NI)	200 700	29	5	2	After soak of 46 P 18	13.5	-	2.3	C,K
						U1267	P 4050 S 4150	300 700	29	10	S	P 27.5 S 27.5	-	-	-	J
						U1138	P 4780 S 6575	350 500	29	15	2	S 22 P 30.5	16.5	-	7.5	J,(RA), (RB)
						U1278	P 7800 S 4650	450 1050	29	10	S	P 14.4 S 24.5	-	-	-	J,(RA)
						U802	P 6080 S 6060	510 515	29	15	2	P/S 10.1	-	-	3.2	A,P
						U1235(P)	P 8300 S 10750	850 1750	29	10	S	P 13.6 S 10.7	-	-	-	J

X-75375

Notes:

A. P/S indicates primary and secondary windings in series aiding.
C. Use only on approval of Relay Group.
J. Winding arrangement No. 2.
K. Winding arrangement No. 3.
M. Winding arrangement No. 7.
P. Winding arrangement No. 13.
T. Special contact pressure.
Z. Contact make 6 readjust, 4 test.
(RA). Primary winding resistance ±5 per cent.
(RB). Secondary winding resistance ±5 per cent.
(RF). Secondary winding resistance ±2 per cent.
(RG). Primary winding resistance ±15 per cent.

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TABLE II - DOUBLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPER	NON-OPR	HOLD	RLS	SEE NOTE
						6-CONTACT SPRINGS (Contd)										
-	-	-	2	-	106/106	U1050	P 8675 S 5175 T 5850	1100 940 1075	44	5	S	P 20.5 S 36.5 T 32	-	-	-	(AH)
1	2	-	-	-	110/144	U350	P 2500 S 2480	135 130	35	5	S	After soak of 50.5 P/S 22.5	-	-	2.3	A,C,E,P
						U725	P 3800 S 3760	200 200	35	15	S	P/S 22.5	-	-	6.9	A,P
						U1245(P)	P 8000 S 14300	1000 2700	35	10	S	P 16.5 S 9.3	-	-	-	J
1	2	-	-	-	131/110	U732	P 6080 S 6060	510 515	Spl 23 Min 26 Max	10	S	P/S 8.5	-	-	2.3	A,P,T, (BT)
-	-	2	-	-	132/132	U728	P 3800 S 3760	200 200	47	15	2	P/S 26	-	-	6.8	A,P
						U375	P 6870 S (NI)	300 200	47	5	S	P 22.5	-	-	-	W
						U125	P 12350 S (NI)	1000 800	47	5	2	P 12.6	8.3	-	-	(AL)
						U490	P 12350 S (NI)	1000 1000	47	5	2	P 12.6	-	-	-	K
						U507	P 8700 S 8700	1100 1100	47	5	S	P 18 S 19	-	-	-	J,(RA), (RB)
						U1372	P 8700 S 8700	1100 1100	47	5	2	P 18 S 18.5	-	-	-	J,(RA), (RB)
1	-	-	-	(M-B)	304/101	U998	P 17400 S 2200	2650 500	59	5	S	S 90 P 11.4	57	-	-	J,(RB)
1	-	-	-	(M-M)	305/101	U169	P 8000 S 14300	1000 2700	47	5	S	P 19.5 S 11.4	-	-	-	M
-	1	-	-	(M-M)	305/144	U1095	P 8400 S 5350	590 920	47	5	S	P 18 S 30	-	-	-	J

X-75375

Notes:

A. P/S indicates primary and secondary windings in series aiding.
C. Use only on approval of Relay Group.
E. Permalloy shells next to core.
J. Winding arrangement No. 2.
K. Winding arrangement No. 3.
M. Winding arrangement No. 7.
P. Winding arrangement No. 13.
T. Special contact pressure.
W. Winding arrangement No. 8.
(AH). Winding arrangement No. 6.
(AL). Winding arrangement No. 11.
(BT). Minimum spring tension (1T and 1B) 10 grams readjust, 8 grams test.
(RA). Primary winding resistance ±5 per cent.
(RB). Secondary winding resistance ±5 per cent.

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TABLE II - DOUBLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPER	NON-OPR	HOLD	RLS	SEE NOTE
							7-CONTACT SPRINGS									
2	-	1	-	-	108/101	U838	P 1370 S 8350	27 800	47	5	2	P/S 14.7 P 100	-	-	-	A,J
1	1	-	1	-	110/106	U466	P 12350 S (NI)	1000 1000	44	5	S	P 13	-	-	-	K
						U805	P 8700 S 8700	1100 1100	44	5	S	P 18.5 S 19.5	-	-	-	J
2	-	-	-	(MM)	111/104	U1335	P 2700 S 9000	100 1100	44	5	2	P 46.5 S 14.2	-	-	-	J
2	-	-	1	-	111/106	U993	P 12350 S (NI)	1000 380	44	5	S	P 11.4	-	-	-	K,(RA)
-	2	-	1	-	128/106	U462	P 12350 S (NI)	1000 1000	44	5	S	P 13.8	-	-	-	W
1	1	1	-	-	132/110	U668	P 6250 S 6400	500 500	47	10	S	P/S 12.4	-	-	2.6	A,J
						U1147	P 6250 S 6400	500 500	47	10	2	P/S 12.4	-	-	2.6	A,J
2	-	1	-	-	132/111	U1067	P 3950 S 3965	330 330	47	15	S	P/S 24.5 P 49.5	18	-	7.2	A,J,(RC)
						U261(P)	P 8300 S 10750	850 1750	47	5	S	P 17 S 13.8	-	-	-	J
						U346(P)	P 8000 S 14300	1000 2700	47	5	2	P 17.5 S 10.3	-	-	-	J
-	1	1	-	(Prel M)	316/132	U825	P 1650 S 9800	34 1500	47	5	S	P 95 S 17	-	-	-	J
-	-	-	1	(M-B)	304/106	U478	P 7000 S 9850	850 1200	59	5	2	P 34 S 25.5	-	-	-	C,J

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Notes:

A. P/S indicates primary and secondary windings in series aiding.
C. Use only on approval of Relay Group.
J. Winding arrangement No. 2.
K. Winding arrangement No. 3.
W. Winding arrangement No. 8.
(RA). Primary winding resistance ±5 per cent.
(RC). All windings resistance ±5 per cent.

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TABLE II - DOUBLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS					SPRING COMB.	CODES	WINDING		ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS				SEE NOTE
M	B	BM	MB	OTHER			TURNS	RES				OPER	NON-OPR	HOLD	RLS	
						8-CONTACT SPRINGS										
4	-	-	-	-	111/111	U397	P 4350 S 4240 T (NI) P//T	162 875 1000 140	29	10	S	P//T 28.5 S 27	-	-	-	B,(AM), (RA),(RH)
						U1303	P 4000 S 3940	200 200	29	15	S	P 37 S 37	- -	- -	- 15	J
						U186	P 7000 S 9850	850 1200	29	5	S	P 14.3 S 10.7	-	-	-	J
						U306(P)	P 8000 S 14300	1000 2700	29	5	S	P 12.5 S 7	-	-	-	J
3	1	-	-	-	111/110	U1056	P 3070 S 3070	200 200	35	5	2	P/S 19	-	16	-	A,E,P
						U468	P 5300 S (NI) P//S	400 650 245	35	5	2	P//S 34	-	-	-	B,L,(RR)
						U830	P 3340 S 3340	250 250	35	10	2	P/S 20	-	-	5.2	A,P
						U723	P 6080 S 6060	510 515	35	10	2	P/S 9.8	-	-	2.7	A,P
						U751	P 13100 S 9200	1800 1900	35	5	S	P 8.7 S 13.5	-	-	-	J
2	2	-	-	-	110/110	U571	P 1650 S 9800	34 1500	35	5	2	70.5 12.5	-	-	-	J
						U741	P 3200 S 3160	260 260	35	15	2	P/S 23.5	-	-	7.6	A,E,P
						U691	P 3775 S 3900	300 700	35	5	2	P 31 S 31.5	-	-	-	J
						U91	P 5925 S 16950	700 3300	35	5	S	P 19.5 S 6.8	-	-	-	J
						U961	P 8300 S 10750	850 1750	35	5	S	S 10.8 P 14.7	-	8.3	-	J
1	-	2	-	-	108/132	U376	P 6870 S (NI)	300 200	47	5	S	P 22.5	-	-	-	W
						U512	P 8700 P 8700	1100 1100	47	5	S	P 17.5 S 18.5	-	-	-	J,(RC)

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Notes:

A. P/S indicates primary and secondary windings in series aiding.
B. P//S indicates primary and secondary windings in parallel.
E. Permalloy shells next to core.
J. Winding arrangement No. 2.
L. Winding arrangement No. 5.
P. Winding arrangement No. 13.
W. Winding arrangement No. 8
(AM). Winding arrangement No. 10.
(RA). Primary winding resistance ±5 per cent.
(RC). All windings resistance ±5 per cent.
(RH). Resistance of primary and tertiary windings in parallel ±5 per cent.
(RR). Resistance of primary and secondary windings in parallel ±7.5 per cent.

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TABLE II - DOUBLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS					SPRING COMB.	CODES	WINDING		ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS				SEE NOTE
M	B	BM	MB	OTHER			TURNS	RES				OPER	NON-OPR	HOLD	RLS	
						8-CONTACT SPRINGS (Contd)										
1	-	1	1	-	130/132	U646	P 12350 S (NI)	1000 1000	47	5	S	P 14.2	-	-	-	K
1	-	-	2	-	130/106	U1196	P 4530 S 2820	155 230	44	5	2	S 63 P 41.5	-	-	-	J
2	-	-	-	(M-M)	305/111	U632	P 8400 S 5350	590 920	47	5	S	P 22 S 36.5	15	12.8	-	J,(RA)
1	1	-	-	(M-M)	305/110	U711	P 10000 S 8850	1300 1400	47	5	2	P 17 S 20.5	-	-	-	J
2	-	-	-	(M-B)	300/101	U957	P 6060 S 6745	730 500	59	10	S	S 31 P 35	17	-	-	J
						9-CONTACT SPRINGS										
-	-	1	2	-	102/106	U776	P 12350 S (NI)	1000 800	53	5	S	P 17	-	-	-	W
2	1	1	-	-	108/110	U260(P)	P 8300 S 10750	850 1750	47	5	S	P 19 S 15.5	-	-	-	J
						U463	P 12350 S (NI)	1000 1000	47	5	S	P 12.7	-	-	-	W
3	-	1	-	-	108/111	U1402	P 3950 S 3965	330 330	Spl 50	15	2	P/S 28.5	21	-	9.5	A,J,(RC)
						U215(P)	P 8000 S 14300	1000 2700	47	5	S	P 16.5 S 9.6	-	-	-	M
-	-	3	-	-	121/132	U758	P 2000 S 2000	36 125	50	15	S	P 110 S 120	-	85	-	J
						U513	P 8700 S 8700	1100 1100	50	5	S	P 21 S 22.5	-	-	-	J,(RC)

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Notes:

A. P/S indicates primary and secondary windings in series aiding.
J. Winding arrangement No. 2.
K. Winding arrangement No. 3.
M. Winding arrangement No. 7.
W. Winding arrangement No. 8.
(RA). Primary winding resistance ±5 per cent.
(RC). All windings resistance ±5 per cent.

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TABLE II - DOUBLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS					SPRING COMB.	CODES	WINDING		ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS				SEE NOTE
M	B	BM	MB	OTHER			TURNS	RES				OPER	NON-OPR	HOLD	RLS	
						9-CONTACT SPRINGS (Contd)										
3	-	-	1	-	130/111	U1411(P)	P 7100 S 7150	700 700	44	5	2	S 20 P 20.5	-	-	-	J
						U946	P 9900 S 1500	1500 215	44	5	S	P 16 S 100	- 68.5	-	-	J
1	2	1	-	-	128/108	U465	P 12350 S (NI)	1000 1000	47	5	S	P 13.6	-	-	-	K
2	1	-	1	-	130/110	U491	P 9000 S (NI)	950 650	44	10	S	P 20.5	-	-	-	K
						10-CONTACT SPRINGS										
2	-	2	-	-	108/108	U971	P 1190 S 6650	34 465	47	5	S	P/S 19.5 S 23	-	-	-	A,J,(RC)
						U471	P 6450 S 6700	350 1150	47	5	S	P 24.5 S 25	-	-	-	J
						U103(P)	P 8300 S 10750	850 1750	47	5	S	P 19 S 15.5	-	-	-	J
						U247(P)	P 8300 S 10750	850 1750	47	15	S	P 23.5 S 18.5	-	-	-	J
						U532(P)	P 8300 S 10750	850 1750	47	5	2	P 19 S 15.5	-	-	-	J
3	2	-	-	-	120/110	U402	P 1100 S 6900	14 1000	35	10	S	P 125 S 21	-	-	-	J
						U396	P 4350 S 4240 T (NI) P//T	162 875 1000 140	35	10	S	P//T 37 S 34	-	-	-	B,(AM), (RA),(RH)
						U572	P 5925 S 16950	700 3300	35	5	S	P 21 S 7.7	-	-	-	J

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Notes:

A. P/S indicates primary and secondary windings in series aiding.
B. P//S indicates primary and secondary windings in parallel.
J. Winding arrangement No. 2.
K. Winding arrangement No. 3.

(AM). Winding arrangement No. 10.
(RA). Primary winding resistance ±5 per cent.
(RC). All windings resistance ±5 per cent.
(RH). Resistance of primary and tertiary windings in parallel ±5 per cent.

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TABLE II - DOUBLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPER	NON-OPR	HOLD	RLS	SEE NOTE
						10-CONTACT SPRINGS (Contd)										
4	1	-	-	-	120/111	U272(P)	P 8300 S 10750	850 1750	35	5	S	P 13.5 S 11	-	-	-	J
4	1	-	-	-	123/110	U296	P 8000 S 14300	1000 2700	35	5	S	P 14 S 8.2	-	-	-	J
5	-	-	-	-	123/111	U628	P 4000 S 3940	200 200	29	5	S	S 28 P 28	-	-	-	J
						U630	P 8700 S 8700	1100 1100	29	5	S	P 13.8 S 14.5	-	-	-	M
						U248	P 10000 S 8850	1300 1400	29	15	S	P 19 S 12.5	12.9	-	-	J
5	-	-	-	-	123/190	U986	P 2600 S 3700 T 3900	85 560 550	Spl 23	25	2	P 85 S 60.5 T 57.5	60.5	-	45.5	T,Z,(AH),(RA)
2	-	1	1	-	130/108	U696(P)	P 8000 S 14300	1000 2700	47	5	S	P 22 S 12.9	12.3	13.9	-	J
2	-	-	1	(MM)	130/122	U955	P 3950 S 3965 T 3620	330 330 420	44	10	2	P/S 29 T 64	20.5	22.5	7.1	A,(AH),(RC)
1	1	2	-	-	160/108	U170	P 1190 S 6650	34 465	47	5	S	P/S 21 P 150	- -	- -	13.2 95	A,J,(RC)
						U928	P 6250 S 6400	500 500	47	5	S	P 27 S 28	-	-	-	J
1	1	1	1	-	160/130	U454	P 12350 S (NI)	1000 1000	47	5	S	P 14.8	-	-	-	W
						U866	P 8700 S 8700	1100 1100	47	5	S	P 21 S 22.5	-	-	-	J
-	2	1	1	-	160/142	U389	P 7000 S 9850	850 1200	53	5	2	P 30.5 S 22	-	-	-	J
						U1314(P)	P 8300 S 10750	850 1750	53	5	S	P 26 S 20	-	-	-	J

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Notes:

A. P/S indicate primary and secondary windings in series aiding.
J. Winding arrangement No. 2.
M. Winding arrangement No. 7.
T. Special contact pressure.
W. Winding arrangement No. 8
Z. Contact make 6 readjust, 4 test.
(AH). Winding arrangement No. 6.
(RA). Primary winding resistance ±5 per cent.
(RC). All windings resistance ±5 per cent.

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TABLE II - DOUBLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPER	NON-OPR	HOLD	RLS	SEE NOTE
							10-CONTACT SPRINGS (Contd)									
-	2	2	-	-	160/160	U126	P 12350 S (NI)	1000 800	47	5	2	P 14.6	-	-	-	(AL)
2	1	-	-	(M-B)	181/304	U1365	P 8300 S 10750	850 1750	59	5	S	P 26 S 20	-	-	-	J
-	3	-	-	(2 Prel M)	314/316	U676	P 9500 S 3200 T 360	700 710 1800	50	0	S	P 29.5 P/S/T 10	-	-	-	(C,T,(AP), ((CN), ((RE),(RJ) 2 Step
1	2	-	-	(2 Prel M)	315/316	U851	P 10400 S 2500	800 750	44	5	S	P/S 23.5	-	-	-	A,J,(RB)
							11-CONTACT SPRINGS									
1	-	2	1	-	102/108	U290	P 4530 S 2820	155 230	53	5	S	P 42 P/S 26.5	-	-	-	A,J
-	1	1	2	-	102/142	U853	P 12350 S (NI)	1000 1000	53	5	S	P 18.5	11.3	-	-	K
3	1	1	-	-	120/108	U1085	P 5700 S (NI)	435 225	47	15	S	P 41	-	-	12.8	W
						U271(P)	P 8300 S 10750	850 1750	47	5	S	P 19.5 S 16	-	-	-	J
						U687(P)	P 8300 S 10750	850 1750	47	5	2	P 19.5 S 16	-	-	-	J
3	1	-	1	-	120/130	U414(P)	P 8000 S 14300	1000 2700	44	5	S	P 21 S 12.3	-	-	-	J
4	-	-	-	(MM)	123/185	U244	P 8300 S 10750	850 1750	44	5	2	P 17 S 13.2	-	-	-	J

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Notes:

A. P/S indicates primary and secondary windings in series aiding.
C. Use only on approval of Relay Group.
J. Winding arrangement No. 2.
K. Winding arrangement No. 3.
T. Special contact pressure.
W. Winding arrangement No. 8.

(AL). Winding arrangement No. 11.
(AP). Winding arrangement No. 14.
(CN). P/S/T indicates primary, secondary, and tertiary windings in series aiding.
(RB). Secondary winding resistance ±5 per cent.
(RE). Tertiary winding resistance ±5 per cent.
(RJ). Primary winding resistance +5 per cent, -10 per cent.

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TABLE II - DOUBLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPER	NON-OPR	HOLD	RLS	SEE NOTE
							11-CONTACT SPRINGS (Contd)									
2	2	-	1	-	137/130	U292	P 4530 S 2820	155 230	44	5	2	P 38 P/S 24	-	-	-	J
1	-	3	-	-	121/108	U772	P 12350 S (NI)	1000 1000	50	5	S	P 14.6	-	-	-	W
						U145	P 10000 S 8850	1300 1400	50	5	S	P 18 S 21.5	-	-	-	J
						U880	P 10000 S 8850	1300 1400	50	5	2	P 18 S 21.5	-	-	-	J
-	1	3	-	-	121/160	U1433	P 5060 S 4300	200 1300	50	5	2	P 38.5 S 46	20	-	5	J,(RC)
4	-	1	-	-	123/108	U623	P 4000 S 3940	200 200	47	10	2	P 39 S 40	-	-	-	J
						U927	P 5060 S 4300	200 1300	47	5	2	P 27 S 33.5	19.5	-	4.1	J,(RC)
1	1	1	-	(M-M)	148/305	U184	P 12350 S (NI)	1000 800	47	10	S	P 17	-	-	-	(AL)
2	2	1	-	-	160/120	U1013	P 7100 P 7150	700 700	47	5	2	P 19.5 S 20	-	-	-	J
3	1	1	-	-	183/188	U1154	P 3950 S 3965 T 6800	330 330 1500	Spl 71	5	S	P/S 26 T 31	154AT 19.5 -	92AT 11.6 13.7	38AT 4.8	A,(AH),(BA),(RC)
1	-	1	2	-	230/108	U1284	P 6450 S 6700	350 1150	47	5	2	P 34 S 33	-	-	-	J
							12-CONTACT SPRINGS									
6	-	-	-	-	123/123	U951	P 1930 S 3820	34 316	29	15	2	P/S 31.5	-	-	-	A,J,(RB)
						U629	P 3170 S 3170 T 3000	370 400 400	29	5	S	P 38 S 40 T 42.5	-	-	-	(AH),(RA)
						U587	P 8000 S 14300	1000 2700	29	5	S	P 15 S 8.8	-	-	-	J

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Notes:

A. P/S indicates primary and secondary windings in series aiding.
J. Winding arrangement No. 2.
W. Winding arrangement No. 8.
(AH). Winding arrangement No. 6.
(AL). Winding arrangement No. 11.
(BA). Operate relay electrically on primary winding when testing tertiary winding.
(RA). Primary winding resistance ±5 per cent.
(RB). Secondary winding resistance ±5 per cent.
(RC). All windings resistance ±5 per cent.

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TABLE II - DOUBLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS					SPRING COMB.	CODES	WINDING		ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS				SEE NOTE
M	B	BM	MB	OTHER			TURNS	RES				OPER	NON-OPR	HOLD	RLS	
						12-CONTACT SPRINGS (Contd)										
5	1	-	-	-	123/120	U385	P 7750 S (NI)	780 100	35	5	2	P 15.5	-	-	-	K
						U870	P 8000 S 14300	1000 2700	35	5	S	P 15.5 S 9.1	-	-	-	J
4	2	-	-	-	120/120	U1308	P 2700 S 9000	100 1100	35	5	2	P 44.5 P/S 10.5	32	-	-	A,J
						U1175(P)	P 7100 S 7150	700 700	35	5	2	P 17 S 17.5	11.8	-	-	J
3	3	-	-	-	137/120	U399	P 1100 S 6900	14 1000	41	5	S	P 135 S 23	-	-	-	J
→						U1122	P 9125 S 5575	800 740	Spl 35	5	2	S 20 P 13.6	-	-	-	J,T, (AS)
2	4	-	-	-	137/137	U472	P 2250 S (NI)	34 800	41	5	2	P 70	-	-	-	K
3	-	2	-	-	145/108	U212	P 5530 S 11800	350 2400	47	5	S	P 29 S 14.3	-	-	-	J
						U586	P 10000 S 8850	1300 1400	47	5	S	P 16 S 19	-	-	-	J
						U56	P 16000 S (NI)	2000 650	47	15	S	P 12	-	-	-	K
2	1	2	-	-	148/108	U127(P)	P 8300 S 10750	850 1750	47	5	S	P 20.5 S 17	-	-	-	J
						U1167	P 11000 S (NI) P//S	870 2100 615	47	5	2	P//S 23	-	-	-	A,L,(RO)
2	1	1	1	-	148/130	U1327(P)	P 8300 S 10750	850 1750	47	5	S	P 22.5 S 17.5	-	-	-	J
						U763	P 10000 S 8850	1300 1400	47	5	2	P 18.5 S 22	-	-	-	M
2	1	-	2	-	156/130	U1211	P 16000 S (NI)	2000 540	53	5	2	P 13.2	-	-	-	K
-	-	4	-	-	121/121	U670	P 6250 S 6400	500 500	50	5	2	P//S 31 P 33 S 32.5	-	20.5	-	B,J

X-75375

Notes:

A. P/S indicates primary and secondary windings in series aiding.
B. P//S indicates primary and secondary windings in parallel.
J. Winding arrangement No. 2.
K. Winding arrangement No. 3.
L. Winding arrangement No. 5.
M. Winding arrangement No. 7
T. Special contact pressure.
(AS). Contacts make 6 readjust, 4 test. Minimum spring tension (1T, 3T, and 1B) 10 grams readjust, 8 grams test.
(RO). Resistance of primary and secondary windings in parallel ±8 per cent.

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TABLE II - DOUBLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPER	NON-OPR	HOLD	RLS	SEE NOTE
							12-CONTACT SPRINGS (Contd)									
-	-	4	-	-	121/121 (Contd)	U882	P 7000 S (NI) T (NI)	850 300 16500	50	5	2	P 28	-	-	-	R,(RK)
						U1374	P 8700 S 8700	1100 1100	50	5	2	P 22.5 S 23	-	-	-	J,(RA),(RB)
2	1	1	1	-	148/130	U1428	P 3950 S 3965 T 6800	330 330 1500	Spl 59	5	S	P/S 27.5 T -	20 -	12.8 15	4.1 -	A,(AH),(BA),(RA),(RB)
1	3	-	-	(2 Prel M)	314/315	U680	P 9500 S 3200 T 360	700 710 1800	Spl 47 Twostep	0	S	P/S/T 8.5 P 29.5	-	-	-	C,T,(AP),(CN),(RE),(RJ)
1	-	2	-	(2 Prel M)	320/319	U693	P 8700 S 8700	1100 1100	53	5	2	P 24.5 S 26	-	-	-	M
1	-	-	2	(2 Prel M)	336/337	U1068	P 13100 S 9200	1800 1900	56 Tw Step	5	2	S 44.5 P 32	-	22.5	-	J,(RC)
-	2	2	-	(Prel M)	324/160	U943	P 8000 S 14300	1000 2700	53	5	S	S 14.6 P 28	-	-	-	J
3	1	-	-	(M-B)	300/181	U304	P 10000 S 8850	1300 1400	59	5	S	P 22.5 S 27	-	-	-	J
1	3	-	-	(M-B)	138/300	U683	P 2700 S 9000	100 1100	59	10	2	P 95 S 30	-	-	-	J
2	-	-	-	(2M-B)	300/300	U469	P 6850 S (NI) P//S	540 750 315	59	5	2	P//S 67	-	-	-	B,L,(RL)

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Notes:

A. P/S indicates primary and secondary windings in series aiding.
B. P//S indicates primary and secondary windings in parallel.
C. Use only on approval of Relay Group.
J. Winding arrangement No. 2.
L. Winding arrangement No. 5.
M. Winding arrangement No. 7.
R. Winding arrangement No. 16.
T. Special contact pressure.
(AH). Winding arrangement No. 6.
(AP). Winding arrangement No. 14.
(BA). Operate relay electrically on primary winding when testing tertiary winding.
(CN). P/S/T indicates primary, secondary, and tertiary windings in series aiding.
(RA). Primary winding resistance ±5 per cent.
(RB). Secondary winding resistance ±5 per cent.
(RC). All windings resistance ±5 per cent.
(RE). Tertiary winding resistance ±5 per cent.
(RJ). Primary winding resistance +5 per cent, -10 per cent.
(RK). Tertiary winding resistance ±1 per cent.
(RL). Resistance of primary and secondary windings in parallel ±8.5 per cent.

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TABLE II - DOUBLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPER	NON-OPR	HOLD	RLS	SEE NOTE
							13-CONTACT SPRINGS									
5	-	1	-	-	145/123	U681	P 3400 S 9250	300 850	47	5	2	P 41.5 S 16.5	-	-	-	J
						U90(P)	P 8300 S 10750	850 1750	47	5	2	P 17 S 13.8	-	-	-	J
3	2	1	-	-	183/201	U1153	P 3950 S 3965 T 6800	330 330 1500	Spl 71	5	S	P/S 26 T -	19.5 -	11.6 13.7	4.8 -	A,(AH), (BA), (RA),(RB)
3	2	1	-	-	145/137	U984(P)	P 8300 S 10750	850 1750	47	5	2	P 20.5 S 17	-	-	-	J
						U455	P 12350 S (NI)	1000 1000	47	5	S	P 14	-	-	-	W
2	3	1	-	-	148/137	U464	P 12350 S (NI)	1000 1000	47	5	S	P 14.7	-	-	-	W
2	-	3	-	-	118/108	U102(P)	P 8300 S 10750	850 1750	50	5	2	P 22 S 18	-	-	-	J
4	1	-	1	-	147/120	U1126	P 12600 S 5500	1425 970	44	5	S	S 31 P 13.7	-	-	5.6	J
2	-	2	1	-	183/102	U401	P 6870 S (NI)	300 200	53	5	S	P 28.5	-	-	-	W
1	1	2	1	-	148/102	U274	P 4530 S 2820	155 230	53	5	S	P 47.5 P/S 31	-	-	-	A,J
-	2	2	1	-	166/102	U925	P 6400 S (NI)	250 550	53	15	S	P 41	-	29.5	11.4	W
1	1	1	2	-	156/102	U1204	P 12350 S (NI)	1000 1000	53	5	S	P 19	9.7	-	3.3	K

X-75375

Notes:

A. P/S indicates primary and secondary windings in series aiding.
J. Winding arrangement No. 2.
K. Winding arrangement No. 3.
W. Winding arrangement No. 8.

(AH). Winding arrangement No. 6.
(BA). Operate relay electrically on primary winding when testing tertiary winding.
(RA). Primary winding resistance ±5 per cent.
(RB). Secondary winding resistance ±5 per cent.

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TABLE II - DOUBLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPER	NON-OPR	HOLD	RLS	SEE NOTE
							13-CONTACT SPRINGS (Contd)									
1	1	2	-	(MM)	118/165	U448	P 7000 S 9850	850 1200	56	5	S	P 31 S 23.5	-	-	-	M
2	1	-	1	(2 Prel M)	336/315	U1202	P 8400 S 2700	500 300	56	5	S	S 125 P/S 31	36	-	14.4	A,J,(RA)
1	-	3	-	(Prel M)	320/121	U831	P 5250 S 9000	400 1100	53	5	2	P 41 S 25.5	-	-	-	J
2	1	1	-	(M-B)	148/300	U429	P 10000 S 8850	1300 1400	59	5	S	P 26 S 27.5	-	-	-	J
						U1169	P 1000 S 8850	1300 1400	59	5	2	P 26 S 27.5	-	-	-	J
							14-CONTACT SPRINGS									
4	3	-	-	-	134/137	U398	P 1100 S 6900	14 1000	41	5	S	P 130 S 19.5	85	-	-	J
2	5	-	-	-	152/137	U935	P 8700 S 8700	1100 1100	47	5	2	P 21.5 S 23	-	-	-	J
2	2	2	-	-	148/148	U527	P 8700 S 8700	1100 1100	47	5	S	P 21 S 22.5	-	-	-	J,(RC)
						U881	P 8700 S 8700	1100 1100	47	5	2	P 21 S 22.5	-	-	-	J
1	-	4	-	-	118/121	U556	P 8400 S 2700	500 300	50	5	2	P 23.5 S 80	-	15.5	-	J,(RA)

X-75375

Notes:

A. P/S indicates primary and secondary windings in series aiding.
J. Winding arrangement No. 2.
M. Winding arrangement No. 7.
(RA). Primary winding resistance ±5 per cent.
(RC). All windings resistance ±5 per cent.

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TABLE II - DOUBLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPER	NON-OPR	HOLD	RLS	SEE NOTE
							14-CONTACT SPRINGS (Contd)									
4	-	1	1	-	183/147	U294	P 4530 S 2820	155 230	47	5	S	P 41 P/S 25.5	-	-	-	A,J
4	-	2	-	-	145/145	U1192	P 9200 S 7550	800 1300	47	5	S	P 17.5 S 22.5	-	-	-	J
2	-	2	-	(2 Prel M)	320/320	U960	P 8700 S 8700	1100 1100	53	5	2	P 27 S 28.5	12	-	-	J
-	2	2	-	(2 Prel M)	317/317	U1070	P 8400 S 2700	500 300	59	5	2	S 130 P/S 32	-	-	-	A,J,(RA)
-	3	2	-	(Prel M)	325/121	U724	P 8330 S (NI) T (NI)	500 560 560	53	5	2	P 27.5	-	-	-	R,(RA),(RK),(RP)
2	-	-	2	(2 Prel M)	321/321	U703	P 4000 S 3940	200 200	53	5	2	S 64.5 P 63	-	-	-	J
3	2	-	-	(M-M)	184/307	U1292	P 3700 S 8450	215 950	47	15	S	P 57.5 S 26	-	-	25.5	J
1	1	2	-	(M-M)	118/303	U116	P 7000 S 9850	850 1200	59	5	2	P 35.5 S 26.5	-	-	-	J
2	-	-	-	(2 BM-M)	312/312	U669	P 6250 S 6400	500 500	68	5	2	P//S 46 P 47 S 45.5	-	23.5	-	B,J
							15-CONTACT SPRINGS									
6	-	1	-	-	109/145	U551	P 8000 S 14300	1000 2700	47	5	2	P 18.5 S 10.8	-	-	-	J
5	1	-	1	-	182/147	U289	P 4530 S 2820	155 230	44	5	S	P 39 P/S 24.5	-	-	-	A,J
4	2	-	1	-	151/147	U1048	P 8700 S 8700	1100 1100	44	5	2	P 20.5 S 22	-	-	-	J
3	-	3	-	-	118/145	U712(P)	P 8300 S 10750	850 1750	50	5	2	P 22 S 18	-	-	-	J

X-75375

Notes:

A. P/S indicates primary and secondary windings in series aiding.
B. P//S indicates primary and secondary windings in parallel.
J. Winding arrangement No. 2.
R. Winding arrangement No. 16.
(RA). Primary winding resistance ±5 per cent.
(RK). Tertiary winding resistance ±1 per cent.
(RP). Secondary winding resistance ±1 per cent.

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TABLE II - DOUBLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPER	NON-OPR	HOLD	RLS	SEE NOTE
							15-CONTACT SPRINGS (Contd)									
2	4	1	-	-	152/148	U111(P)	P 8300 S 10750	850 1750	47	5	S	P 23 S 19	-	-	-	J
2	1	1	2	-	153/156	U655	P 9000 S (NI)	950 600	53	5	2	P 25	-	-	-	K
1	2	2	1	-	153/166	U923	P 4530 S 2820	155 230	53	5	S	P 50 P/S 31.5	-	-	-	A,J
-	-	5	-	-	130/121	U89(P)	P 7100 S 7150	700 700	59	5	S	P 34.5 S 34.5	-	-	-	J
2	1	3	-	-	118/148	U926	P 4530 S 2820	155 230	50	5	S	S 60 P 39.5	-	-	-	J
						U229	P 4950 S 4450	340 940	50	5	S	P 40 S 47	- -	28.5 33.5	- -	J,(AT)
						U224(P)	P 8300 S 10750	850 1750	50	5	S	P 24 S 19.5	-	-	-	J
1	4	1	-	(Prel M)	325/148	U1066	P 9050 S (NI) P//S	950 800 434	53	5	2	P//S 61.5	37	-	-	B,L,(RO)
2	-	3	-	(Prel M)	335/183	U1110	P 6400 S (NI)	250 550	59	5	2	P 37.5	-	-	-	W
-	2	3	-	(Prel M)	208/324	U1283	P 6450 S 6700	350 1150	53	5	2	P 36.5 S 35.5	16.5	-	-	J
							16-CONTACT SPRINGS									
8	-	-	-	-	109/109	U1282	P 4000 S 3940	200 200	29	5	2	P 36.5 S 37.5	22	-	-	J
						U336	P 8300 S 10750	850 1750	29	5	S	P 17.5 S 13.5	-	-	-	J

X-75375

Notes:

A. P/S indicates primary and secondary windings in series aiding.
B. P//S indicates primary and secondary windings in parallel.
J. Winding arrangement No. 2.
K. Winding arrangement No. 3.
L. Winding arrangement No. 5.
W. Winding arrangement No. 8.
(AT). Operate relay electrically on primary winding when testing secondary winding.
(RO). Resistance primary and secondary windings in parallel ±8 per cent.

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TABLE II - DOUBLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPER	NON-OPR	HOLD	RLS	SEE NOTE
						16-CONTACT SPRINGS (Contd)										
6	2	-	-	-	134/134	U1309	P 2700 S 9000	100 1100	35	5	2	P 52 P/S 12.3	32	-	-	A,J
						U798	P 7800 S 4650	450 1050	35	5	2	P 17 S 30	-	-	-	J,(RA)
-	8	-	-	-	171/171	U1116	P 6250 S 6400	500 500	50	5	2	P//S 34.5 P 37 S 36	-	19	-	B,J
4	1	2	-	-	117/148	U300(P)	P 8300 S 10750	850 1750	47	5	S	P 20 S 16	-	-	-	J
						U892(P)	P 8300 S 10750	850 1750	47	5	2	P 23 S 18	15	-	-	J
3	2	2	-	-	149/145	U1091	P 8000 S 14300	1000 2700	47	5	S	P 21.5 S 12.6	-	-	-	M
2	-	4	-	-	118/118	U770	P 10000 S 8850	1300 1400	50	5	S	S 22.5 P 21	-	-	-	J
3	-	1	1	(M-B)	141/300	U597	P 8000 S 14300	1000 2700	59	5	S	P 34 S 20	- -	20 11.7	-	J,(AT)
→ 4	1	2	-	-	179/120	U1449	P 4850 S 5050	425 415	50	5	2	P//S 36 P 36.5 S 35.5	-	30.5	-	B,J
						17-CONTACT SPRINGS										
7	-	1	-	-	117/109	U1141	P 10000 S 8850	1300 1400	47	5	2	P 16 S 19	11.1	-	-	J
5	2	-	1	-	146/151	U1127	P 12600 S 5500	1425 970	44	5	S	S 31 P 13.7	-	-	6.9	J
4	3	-	1	-	146/152	U1160(P)	P 8000 S 14300	1000 2700	47	5	S	P 24 S 14	-	17.5	-	J

X-75375

Notes:

A. P/S indicates primary and secondary windings in series aiding.
B. P//S indicates primary and secondary windings in parallel.
J. Winding arrangement No. 2.
M. Winding arrangement No. 7.
(AT). Operate relay electrically on primary winding when testing secondary winding.
(RA). Primary winding resistance ±5 per cent.

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TABLE II - DOUBLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPER	NON-OPR	HOLD	RLS	SEE NOTE
							17-CONTACT SPRINGS (Contd)									
4	-	2	1	-	180/153	U295	P 4530 S 2820	155 230	53	5	S	P 45.5 P/S 28	-	-	-	A,J
						U1321(P)	P 8300 S 10750	850 1750	53	5	S	P 25 S 19.5	-	-	-	J
3	1	3	-	-	150/145	U626	P 8700 S 8700	1100 1100	50	5	S	P 23 S 24.5	-	-	-	J
2	2	3	-	-	149/118	U1007	P 9200 S 7550	800 1300	50	5	S	P 22 S 28.5	-	-	-	J
3	-	2	1	(Prel M)	323/211	U1117	P 6250 S 6400	500 500	56	5	2	P//S 37 P 39.5 S 38.5	-	25.5	-	B,J
							18-CONTACT SPRINGS									
-	-	6	-	-	139/139	U1413(P)	P 7100 S 7150	700 700	59	5	S	P 37 S 37	-	-	-	J
-	9	-	-	-	176/171	U78(P)	P 7100 S 7150	700 700	59	5	S	P 39 S 39.5	-	-	-	M
2	4	1	1	-	177/149	U1313(P)	P 7100 S 7150	700 700	59	5	2	P 38 S 38	15.5	-	-	J
4	2	2	-	-	180/149	U1076	P 10000 S 8850	1300 1400	47	5	S	P 17.5 S 21	-	-	-	J
3	-	4	-	-	114/118	U1417	P 3950 S 3965 T 3620	330 330 420	50	10	2	P/S 31 T 68	18	-	10.3	A,(AH),(RC)
6	-	2	-	-	117/117	U1429(P)	P 8300 S 10750	850 1750	47	5	2	P 21 S 16.5	-	-	-	J

X-75375

Notes:

A. P/S indicates primary and secondary windings in series aiding.
B. P//S indicates primary and secondary windings in parallel.
J. Winding arrangement No. 2.
M. Winding arrangement No. 7.
(AH). Winding arrangement No. 6.
(RC). All windings resistance ±5 per cent.

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TABLE II - DOUBLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPER	NON-OPR	HOLD	RLS	SEE NOTE
							19-CONTACT SPRINGS									
7	1	-	1	-	172/146	U273	P 4530 S 2820	155 230	44	5	S	P 41 P/S 25.5	-	-	-	A,J
6	2	1	-	-	193/117	U992	P 7000 S 9850	850 1200	47	5	2	P 26 S 19.5	-	-	-	J
4	4	1	-	-	193/149	U995	P 2670 S 2670	115 115	47	5	S	P/S 31.5	-	-	-	A,P
4	1	3	-	-	150/117	U1004	P 8400 S 5350	590 920	50	5	S	S 36.5 P 24.5	-	-	-	J
3	5	1	-	-	193/155	U769	P 10000 S 8850	1300 1400	50	5	S	P 20.5 S 22	-	-	-	J
2	-	5	-	-	179/139	U939	P 8300 S 10750	850 1750	59	5	2	P 30.5 S -	- -	21 17.5	- -	J,(AT)
2	-	4	1	-	163/118	U1291	P 9125 S 5575	800 740	59	5	S	P 26.5 S 44	-	-	-	J
→ 1	1	4	1	-	150/126	U266	P 4530 S 2820	155 230	59	5	2	P 58.5 P/S 36	-	-	-	A,J
→						U1447	P 3980 S 3070	250 235	59	5	2	P 66.5 S 90	- -	35.5 46.5	- -	J
3	4	1	-	(Prel M)	338/149	U1084	P 16000 S (NI)	2000 1300	47	5	S	P 13.5	7.2	-	-	K,(RA),(RP)
3	-	1	2	(2 Prel M)	322/323	U701	P 4000 S 3940	200 200	59	5	2	S 80 P 80	-	-	-	J
							20-CONTACT SPRINGS									
8	2	-	-	-	129/129	U1183	P 6250 S 6450	500 500	35	5	2	P 26 S 26	-	-	-	J
6	1	2	-	-	195/117	U1041	P 10000 S 8850	1300 1400	47	5	S	P 20 S 21	-	-	-	J

X-75375

Notes:

A. P/S indicates primary and secondary windings in series aiding.
J. Winding arrangement No. 2.
K. Winding arrangement No. 3.
P. Winding arrangement No. 13.

(AT). Operate relay electrically on primary winding when testing secondary winding.
(RA). Primary winding resistance ±5 per cent.
(RP). Secondary winding resistance ±1 per cent.

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TABLE II - DOUBLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPER	NON-OPR	HOLD	RLS	SEE NOTE
							20-CONTACT SPRINGS (Contd)									
4	6	-	-	-	193/157	U1178(P)	P 8300 S 10750	850 1750	50	5	2	S 18.5 P 25.5	-	-	3.2	J
4	-	4	-	-	114/114	U768	P 10000 S 8850	1300 1400	50	5	S	P 21.5 S 23	-	-	-	J
3	1	4	-	-	150/114	U1159	P 8400 S 5350	590 920	50	5	S	S 38 P 25.5	-	-	-	J
2	2	3	1	-	107/141	U1420(P)	P 8300 S 10750	850 1750	53	5	S	P 25 S 19.5	-	-	-	J
1	-	5	1	-	163/139	U1171	P 9200 S 7550	800 1300	59	5	S	P 28.5 S -	- -	19.5 25	- -	J,(AT)
5	-	2	-	(M-B)	178/301	U959	P 5925 S 11700	700 1400	68	5	2	P 47 S 25	-	-	-	J
							21-CONTACT SPRINGS									
8	1	-	1	-	135/129	U922	P 4530 S 2820	155 230	44	5	S	P 43.5 P/S 27.5	-	-	-	A,J
6	-	3	-	-	127/114	U110	P 16000 S (NI)	2000 650	50	10	S	P 15.5	-	-	-	K
5	4	1	-	-	103/129	U1088	P 3950 S 3965 T 3620	330 330 420	50	5	S	P/S 24.5 T 54	18 -	18 -	5.2 -	A,(AH), (RC)
4	2	3	-	-	195/150	U1194	P 10000 S 8850	1300 1400	50	5	2	P 20 S 24	-	14.8	-	J
3	3	3	-	-	103/114	U1165	P 6875 S 12175	675 1925	50	5	S	P 31 S 18	18.5	-	-	J,(RB)
4	1	2	1(Prel M)		195/322	U929	P 1370 S 8350	27 800	59	5	2	P 190 P/S 28	-	-	-	A,J

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Notes:

A. P/S indicates primary and secondary windings in series aiding.
J. Winding arrangement No. 2.
K. Winding arrangement No. 3.
(AH). Winding arrangement No. 6.
(AT). Operate relay electrically on primary winding when testing secondary winding.
(RB). Secondary winding resistance ±5 per cent.
(RC). All windings resistance ±5 per cent.

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TABLE II - DOUBLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS					SPRING COMB.	CODES	WINDING		ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS				SEE NOTE
M	B	BM	MB	OTHER			TURNS	RES				OPER	NON-OPR	HOLD	RLS	
22-CONTACT SPRINGS																
6	2	2	-	-	195/195	U1099	P 10000 S 8850	1300 1400	47	5	S	P 17.5 S 21	-	-	-	M
2	3	3	1	-	163/103	U1431(P)	P 7100 S 7150	700 700	59	5	2	P 35.5 S 37	-	-	-	J
2	9	-	-	-	124/157	U1286	P 7100 S 7150	700 700	59	5	2	P 39 S 39.5	-	-	-	M
4	-	4	-(Prel M)		341/179	U1157	P 10000 S 8850	1300 1400	59	5	2	P 24 S 28.5	- -	16.5 20	6.4	J,(AT),(CH)
23-CONTACT SPRINGS																
10	-	1	-	-	113/127	U891(P) U479(P)	P 8300 S 10750 P 8300 S 10750	850 1750 850 1750	47 47	5 5	2 S	P 24 S 19.5 P 24 S 19.5	- - -	- - -	- - -	J J
6	4	1	-	-	119/103	U714	P 10000 S 8850	1300 1400	50	5	2	P 20.5 S 22	-	-	-	J
6	4	-	-	(MM)	168/170	U409(P)	P 8300 S 10750	850 1750	50	5	S	P 23.5 S 19	-	-	-	M
5	5	1	-	-	162/103	U643	P 10000 S 8850	1300 1400	50	5	2	P 21 S 24	-	17	-	J
4	3	2	1	-	161/103	U1295	P 12350 S (NI)	1000 380	53	5	S	P 20	-	-	-	K

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Notes:

J. Winding arrangement No. 2.
K. Winding arrangement No. 3.
M. Winding arrangement No. 7.

(AT). Operate relay electrically on primary winding when testing secondary winding.
(CH). Waive "no make requirement" on contacts (9T-10T).

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TABLE II - DOUBLE-WOUND U-TYPE RELAYS

CONT. ARRANGEMENTS					SPRING COMB.	CODES	WINDING		ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS				SEE NOTE
M	B	BM	MB	OTHER			TURNS	RES				OPER	NON-OPR	HOLD	RLS	
						24-CONTACT SPRINGS										
12	-	-	-	-	113/113	U1302	P 4000 S 3940	200 200	29	5	S	P 50 S 50	-	-	-	J
						U1144(P)	P 8300 S 10750	850 1750	29	5	S	S 17.5 P 24	-	13.4	-	J
						U771	P 10000 S 8850	1300 1400	29	5	S	P 19.5 S 21	-	-	-	J
9	3	-	-	-	162/119	U1380(P)	P 7100 S 7150	700 700	41	5	2	P 26.5 S 26.5	-	-	-	J
-	12	-	-	-	125/125	U890(P)	P 7100 S 7150	700 700	62	5	2	P 43 S 45	-	-	-	J
4	8	-	-	-	168/168	U117(P)	P 8300 S 10750	850 1750	50	5	2	P 27.5 S 21	-	18.5	-	J
1	11	-	-	-	125/124	U373	P 9200 S 7550	800 1300	62	5	S	P 33 S 41	- -	16 19.5	-	J,(AT)
5	3	1	1(Prel M)		350/103	U1296	P 10175 S (NI)	640 500	56	10	S	P 29	-	-	9.2	K,(RF)
10	2	-	-	-	119/119	U1445	P 12600 S 5500	1425 970	35	5	S	S 34.5 P 15.5	-	-	-	J ←
8	4	-	-	-	162/162	U1446	P 8300 S 10750	850 1750	41	5	2	P 22 S 17	-	-	-	J ←

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Notes:

J. Winding arrangement No. 2.
K. Winding arrangement No. 3.
(AT). Operate relay electrically on primary winding when testing secondary winding.
(RF). Secondary winding resistance ±2 per cent.

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TABLE III - SLOW-ACTING U-TYPE RELAYS

CONT. ARRANGEMENTS					SPRING		WINDING			ARM.	STOP	CONT.	CURRENT FLOW REQUIREMENTS					SEE
M	B	BM	MB	OTHER	COMB.	CODES	TURNS	RES	SLEEVE	TRVL	PINS	METAL	SOAK	OPER	NON-OPR	HOLD	RLS	NOTE
									2-CONTACT SPRINGS									
1	-	-	-		101/136	U283	14250	2000	13/32" cu	29	10	2	18	7.8	-	-	0.7	C
									3-CONTACT SPRINGS									
-	-	1	-	-	132/136	U476(P)	9200	2000	5/8" cu	47	15	S	-	17.5	11.8			
						U536(P)	15900	2300	13/32" al	47	15	2	-	10				
						U952(P)	15900	2300	13/32" cu	47	15	S	-	10.6	7.5			
-	-	-	1	-	106/136	U172	9850	1200	1/2" cu	44	5	S	25.5	13.9	9.6	-	0.8	C
									4-CONTACT SPRINGS									
2	-	-	-	-	101/101	U976	15900	2300	13/32" al	29	15	S	-	7.4				
						U783	7600	1300	5/8" cu	Spl 26	5	2	33	13.7	10.3	-	1.3	C
1	1	-	-	-	144/115	U205	P 5700 S 5700 T (NI)	1000 1000 1000	1/2" cu	35	5	S	- -	P 18 S 18	12.2 -	- -	2.8 -	O(RF), (RK), (RS)

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Notes:

C. Use only on approval of Relay Group.
O. Winding arrangement No. 12.
(RF). Secondary winding resistance ±2 per cent.
(RK). Tertiary winding resistance ±1 per cent.
(RS). Primary winding resistance ±2 per cent.

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TABLE III - SLOW-ACTING U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	RES	SLEEVE	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS SOAK	OPER	NON-OPR	HOLD	RLS	SEE NOTE
									4-CONTACT SPRINGS (Contd)									
1	1	-	-	-	144/101	U1221	9000	640	13/32" cu	35	5	2	-	13.2	9.6	-	-	C
-	2	-	-	-	144/144	U307(P)	9850	1200	1/2" cu	35	15	S	-	15				
						U418	7600	1300	5/8" cu	35	15	S	-	19.5				
-	-	-	-	(M-B)	304/136	U1061	P 7100	850	13/32" cu	59	5	S	-	S 24.5	15	-	-	J
							S 7350	1250					-	P 27				
									5-CONTACT SPRINGS									
1	-	1	-	-	132/101	U356	3560	235	5/8" cu	47	15	S	-	44.5	35			
						U557	3560	235	5/8" cu	47	5	S	-	36.5				
-	1	1	-	-	132/144	U603(P)	7600	1300	5/8" cu	47	15	S	-	25	14.2			
1	-	-	-	(MM)	104/101	U413	14250	2000	13/32" cu	44	5	S	-	8.9				
1	-	-	1	-	106/101	U525	7600	1300	5/8" cu	44	5	S	33	18.5	13.6	-	1.4	C
									6-CONTACT SPRINGS									
2	1	-	-	-	110/101	U353	P 5070 S 2800	255 250	13/32" cu	Spl 41	5	S	49.5 -	P 24 S 43.5	17	-	2.4	C,J,(RA)

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Notes:

C. Use only on approval of Relay Group.
J. Winding arrangement No. 2.
(RA). Primary winding resistance ±5 per cent.

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TABLE III - SLOW-ACTING U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES		WINDING TURNS	RES	SLEEVE	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS SOAK	OPER	NON-OPR	HOLD	RLS	SEE NOTE
										6-CONTACT SPRINGS (Contd)									
2	1	-	-	-	110/101	U486		4400	1000	5/8" cu	35	15	2	-	29	-	-	-	(RS)
						U996	P	4370	720	1/2" cu	35	5	2	57.5	S 25.5	19	-	2.7	C,J,(RC)
							S	4370	890					-	P 26				
						U1247(P)		7600	1300	5/8" cu	35	10	S	-	16				
						U1234(P)		15900	2300	13/32" cu	35	10	S	-	7.5				
1	2	-	-	-	110/144	U608(P)		8750	850	1/2" cu	35	10	S	-	15.5				
2	1	-	-	-	111/144	U1135		5200	550	5/8" cu	35	15	2	-	31	26	-	-	(RA)
-	-	1	1	-	132/106	U1142		7600	1300	5/8" cu	47	5	S	-	23	13			
3	-	-	-	-	111/101	U443		3700	285	13/32" al	29	5	S	68	26.5	-	-	3.5	
						U1045	P	5000	850	1/2" cu	29	15	S	-	P 25.5	-	-	-	J
							S	9100	2000					-	S 14.8				
						U1058		8750	850	1/2" cu	29	15	S	-	14.6				
						U1271(P)		7600	1300	5/8" cu	29	10	2	-	14.5	10.8	-	-	(RA)
						U552		14250	2000	13/32" cu	29	5	2	18	6.9	-	-	0.9	C
						U748		9200	2000	5/8" cu	29	5	2	27.5	10.7	-	-	1.4	C
						U1233		14250	2000	13/32" cu	29	10	2	-	7.8				
						U1243(P)		15900	2300	13/32" cu	29	10	S	-	7				
1	2	-	-	-	191/144	U919		3550	210	1/2" cu	Spl 32 Min 35 Max	15	2	-	56	38	32.5	20	C

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Notes:

C. Use only on approval of Relay Group.
J. Winding arrangement No. 2.
(RA). Primary winding resistance ±5 per cent.
(RC). All windings resistance ±5 per cent.
(RS). Primary winding resistance ±2 per cent.

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TABLE III - SLOW-ACTING U-TYPE RELAYS

CONT. ARRANGEMENTS					SPRING COMB.	CODES	WINDING		SLEEVE	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS					SEE NOTE
M	B	BM	MB	OTHER			TURNS	RES					SOAK	OPER	NON-OPR	HOLD	RLS	
						6-CONTACT SPRINGS (Contd)												
3	-	-	-	-	111/115	U965	P 1950	85	13/32" al	Spl 23	25	S	-	P 85	63.5	-	47	C,T,Z
							S 3050	270					-	S 55	-	-	-	(AH),(RA)
							T 3070	275					-	T 54.5				
-	-	2	-	-	132/132	U713	4475	375	5/8" cu	47	10	2	-	39	23.5	-	6.8	
						U994	7600	430	13/32" cu	47	5	2	-	20.5				
						U823	11000	1000	13/32" cu	47	5	2	-	14.1				
→						U1129	9200	2000	5/8" cu	Spl 65	5	2	-	17	14.5	-	-	(CU),(CV),(RA)
						7-CONTACT SPRINGS												
1	1	-	-	(MM)	110/104	U381(P)	9850	1200	1/2" cu	44	5	S	-	14.2	9.6			
1	1	-	1	-	110/106	U716	14250	2000	13/32" cu	44	5	S	-	11.2	6.6	-	-	(RA)
2	-	-	1	-	111/106	U567(P)	9200	2000	5/8" cu	44	5	2	-	15.5				
2	-	1	-	-	132/111	U1200	12700	2000	1/2" cu	47	15	2	-	12.9	-	-	4.9	
						U620(P)	15900	2300	13/32" cu	47	10	S	-	9.5				
→						U1456	3840	125	13/32" al	47	10	S	-	4.0				

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Notes:

C. Use only on approval of Relay Group.
T. Special contact pressure.
Z. Contact make 6 readjust, 4 test.
(AH). Winding arrangement No. 6.
(CU). The armature may leave the backstop on the nonoperate, but there shall be a perceptible stud gap.
(CV). With the armature electrically operated against a 0.047-inch gauge, there shall be a minimum 0.006-inch stud gap.
(RA). Primary winding resistance ±5 per cent.

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TABLE III - SLOW-ACTING U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	RES	SLEEVE	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS SOAK	OPER	NON-OPR	HOLD	RLS	SEE NOTE
									8-CONTACT SPRINGS									
4	-	-	-	-	111/111	U1114	8750	850	1/2" cu	29	10	S	-	14				
						U1027	14250	2000	13/32" al	29	5	2	-	7.1				
2	2	-	-	-	110/110	U446(P)	7600	1300	5/8" cu	35	15	S	-	19.5	12.6			
						U1273(P)	7600	1300	5/8" cu	35	15	2	-	19.5	12.6			
2	2	-	-	-	191/191	U1069	3550	210	1/2" cu	Spl 32 Min 35 Max	15	2	-	56	38	32.5	20	
1	-	2	-	-	108/132	U604	11000	1000	13/32" al	47	15	S	-	17	9.8			
-	1	2	-	-	160/132	U808	9000	640	13/32" cu	47	5	2	-	18.5				
						U1042	7600	1300	5/8" cu	47	10	S	-	24.5	13.7			
-	4	-	-	-	128/128	U1115	P 2900	450	5/8" cu	41	5	2	-	P//S 51.5	-	28.5	-	B,J
							S 3160	450					-	P 56.6				
													-	S 52				
1	-	-	1	(Prel BM)	326/101	U727	2350	45	13/32" cu	71	5	2	-	95	-	-	6	
									9-CONTACT SPRINGS									
2	1	1	-	-	108/110	U690	11000	1000	13/32" al	47	10	S	-	16				
						U467(P)	7600	1300	5/8" cu	47	5	2	-	21	13.6			

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Notes:

B. P//S indicates primary and secondary windings in parallel.
J. Winding arrangement No. 2.

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TABLE III - SLOW-ACTING U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	SLEEVE	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS SOAK	OPER	NON-OPR	HOLD	RLS	SEE NOTE
						9-CONTACT SPRINGS (Contd)												
2	1	1	-	-	108/110 (Contd)	U1294	12700	2000	1/2" cu	47	15	S	-	15				
3	-	1	-	-	108/111	U174	9850	1200	1/2" cu	47	15	S	-	16				
						U431(P)	7600	1300	5/8" cu	47	15	S	-	21				
1	2	1	-	-	128/108	U481(P)	15900	2300	13/32" al	47	5	S	-	10.6				
1	2	1	-	-	137/199	U945	6600	500	1/2" cu	47	5	2	-	25	18.5	-	-	(RA)
						10-CONTACT SPRINGS												
2	-	2	-	-	108/108	U379	P 5000	850	1/2" cu	47	5	2	-	P 31	20.5	-	-	J
							S 9100	2000						S 18				
						U569(P)	7600	1300	5/8" cu	47	15	2	-	25				
3	2	-	-	-	120/110	U94(P)	7600	1300	5/8" cu	35	15	S	-	20				
						U956	9200	2000	5/8" cu	35	10	S	-	18	13.5	-	-	(RA)
4	1	-	-	-	120/111	U320	7600	1300	5/8" cu	35	15	S	-	21				
						U895	7600	1300	5/8" cu	35	15	2	-	24.5	18			
1	1	1	1	-	142/108	U354	3560	235	5/8" cu	53	5	S	-	53.5				
1	1	2	-	-	160/108	U879	6000	1000	5/8" cu	47	15	2	-	31.5	18	-	10.5	(RA)
						U665(P)	15900	2300	13/32" cu	47	5	2	-	10.6				

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Notes:

J. Winding arrangement No. 2.
(RA). Primary winding resistance ±5 per cent.

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TABLE III - SLOW-ACTING U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	RES	SLEEVE	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS SOAK	OPER	NON-OPR	HOLD	RLS	SEE NOTE
									10-CONTACT SPRINGS (Contd)									
-	2	2	-	-	160/160	U706(P)	7600	1300	5/8" cu	47	5	2	-	24	13			
1	-	2	-	(Prel M)	319/108	U1071	P 4580	225	13/32" cu	Spl 47 Min 50 Max	5	2	-	P 32	28.5	-	-	J,T,(AU), (AW)
							S 4420	800					-	S 39				
									11-CONTACT SPRINGS									
1	-	2	-	(MM)	121/185	U640	4475	375	5/8" cu	50	5	2	-	39	22.5	-	5.8	(RA)
						U1201	7600	1300	5/8" cu	50	5	2	-	23	13.4	-	3.6	
4	-	1	-	-	123/108	U661(P)	7600	1300	5/8" cu	47	5	2	-	18				
2	2	1	-	-	137/108	U1097	9850	1200	1/2" cu	47	5	2	-	17				
2	2	-	1	-	156/188	U1179	9100	900	13/32" cu	53	5	S	-	20	13.3	9.4	4.9	
-	1	3	-	-	121/160	U1124	8600	1000	1/2" cu	50	15	2	-	25	13.2	-	8	(RA)
									12-CONTACT SPRINGS									
-	-	3	1	-	121/102	U246	7900	650	13/32" al	53	5	2	-	27.5				

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Notes:

J. Winding arrangement No. 2.
T. Special contact pressure.
(AU). With 32-mil gauge at stop disc and relay energized, springs 4T-5T shall make and springs 2T-3T and 2B-3B shall not break.
(AW). Operates (4T-5T) springs only.
(RA). Primary winding resistance ±5 per cent.

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TABLE III - SLOW-ACTING U-TYPE RELAYS

CONT. ARRANGEMENTS					SPRING COMB.	CODES	WINDING			SLEEVE	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS					SEE NOTE
M	B	BM	MB	OTHER				TURNS	RES					SOAK	OPER	NON-OPR	HOLD	RLS	
						12-CONTACT SPRINGS (Contd)													
6	-	-	-	-	123/123	U303		3560	235	5/8" cu	29	15	S	-	50.5	-	-	-	(RA)
						U684		9200	2000	5/8" cu	29	5	S	-	14	10.4			
4	2	-	-	-	120/120	U1090	P	5000	850	1/2" cu	35	5	S	-	P 24	-	-	-	J
							S	9100	2000					-	S 13.9				
2	4	-	-	-	137/137	U625		15900	2300	13/32" al	41	5	2	-	9.9				
3	3	-	-	-	137/120	U570	P	5000	850	1/2" cu	41	5	2	-	P 29.5	-	-	-	J
							S	9100	2000					-	S 17				
3	-	1	1	-	145/130	U813		15900	2300	13/32" cu	47	5	2	-	11.2				
3	-	-	2	-	147/130	U790		12700	2000	1/2" cu	44	5	S	-	14.6				
2	1	2	-	-	148/108	U974		3560	235	5/8" cu	47	5	2	-	50	31.5			
						U546(P)		7600	1300	5/8" cu	47	15	2	-	27				
2	1	1	1	-	148/130	U1168		11000	1000	13/32" cu	47	5	S	-	17				
1	2	2	-	-	166/108	U840		7150	550	1/2" cu	47	5	2	-	23.5				
-	-	2	2	-	102/102	U707		7600	430	13/32" cu	53	5	2		30				
3	-	-	-	(2Prel BM)	312/327	U933		8750	850	1/2" cu	68	10	2	-	36	17			
-	2	2	-	(Prel M)	324/160	U746	P	4580	225	13/32" cu	53	5	2	-	P 51.5	-	27	-	J
							S	4420	800					-	S 56				

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Notes:

J. Winding arrangement No. 2.
(RA). Primary winding resistance ±5 per cent.

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TABLE III - SLOW-ACTING U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	RES	SLEEVE	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS SOAK	OPER	NON-OPR	HOLD	RLS	SEE NOTE
13-CONTACT SPRINGS																		
2	-	2	1	-	145/102	U592(P)	15900	2300	13/32" cu	53	5	2	-	12.4				
4	1	-	1	-	147/120	U806(P)	7600	1300	5/8" cu	44	5	S	-	24.5	15.5			
1	1	2	1	-	148/102	U954	3560	235	5/8" cu	53	5	2	-	56.5	34			
						U981	12700	2000	1/2" cu	53	5	2	-	17				
4	1	1	-	-	145/120	U563	P 5000	850	1/2" cu	47	5	2	-	P 32.5	-	-	-	J
							S 9100	2000						S 19				
2	1	1	-	(M-B)	148/300	U1049	7900	650	13/32" cu	59	5	2	-	30.5				
2	3	1	-	-	151/160	U453	5200	550	5/8" cu	47	15	2	-	44				
3	2	-	-	(Prel BM)	327/151	U887	3560	235	5/8" cu	53	5	2	-	50.5				
1	3	1	-	(Prel M)	317/196	U688	P 1550	150	5/8" cu	59	5	2	155	P 155	-	-	-	J
							S 3300	475						S 75				
14-CONTACT SPRINGS																		
7	-	-	-	-	109/123	U137(P)	9850	1200	1/2" cu	29	10	S	-	17				
4	3	-	-	-	151/120	U1220	5200	550	5/8" cu	41	5	2	-	31.5	22			
4	-	2	-	-	145/145	U715	P 5000	850	1/2" cu	47	5	2	-	P 32.5	-	-	-	J
							S 9100	2000					-	S 19				

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Notes:

J. Winding arrangement No. 2.

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TABLE III - SLOW-ACTING U-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES		WINDING TURNS	RES	SLEEVE	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS SOAK	OPER	NON-OPR	HOLD	RLS	SEE NOTE
										14-CONTACT SPRINGS (Contd)									
4	-	2	-	-	145/145 (Contd)	U524		14250	2000	13/32" cu	47	5	2	-	11.4				
3	1	2	-	-	148/145	U560	P	5000	850	1/2" cu	47	5	S	-	P 34	-	-	-	J
							S	9100	2000					-	S 19				
						U547(P)		15900	2300	13/32" cu	47	5	S	-	10.7				
2	2	1	1	-	156/148	U1009		8560	1300	13/32" cu	53	5	2	-	25	12.3			
1	-	4	-	-	118/121	U1206		4475	375	5/8" cu	50	5	2	-	42.5	22.5	-	-	(RA)
						U1123		9850	1200	1/2" cu	50	15	S	-	24.5				
6	1	-	-	-	134/123	U685		7600	1300	5/8" cu	Spl 50	15	S	-	30	27	-	-	(RA)
										15-CONTACT SPRINGS									
6	-	1	-	-	109/145	U475(P)		7600	1300	5/8" cu	47	5	S	-	19.5	13.5			
3	3	1	-	-	151/148	U1163		5600	600	5/8" cu	47	5	2	-	37.5	24.5			
1	2	3	-	-	166/118	U335(P)		7600	1300	5/8" cu	50	5	S	-	26.5				
1	2	2	1	-	153/166	U1185	P	4850	425	13/32" cu	53	5	2	-	P//S 45.5	-	27.5	-	B,J
							S	5050	415					-	P 47				
														-	S 45				

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Notes:

B. P//S indicates primary and secondary windings in parallel.
J. Winding arrangement No. 2.
(RA). Primary winding resistance ±5 per cent.

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TABLE III - SLOW-ACTING U-TYPE RELAYS

CONT. ARRANGEMENTS					SPRING			WINDING			ARM.	STOP	CONT.	CURRENT FLOW REQUIREMENTS					SEE
M	B	BM	MB	OTHER	COMB.	CODES		TURNS	RES	SLEEVE	TRVL	PINS	METAL	SOAK	OPER	NON-OPR	HOLD	RLS	NOTE
								16-CONTACT SPRINGS											
5	3	-	-	-	151/134	U561	P	5000	850	1/2" cu	41	5	2	-	P 31	-	-	-	J
							S	9100	2000					-	S 18				
5	-	2	-	-	117/145	U660(P)		7600	1300	5/8" cu	47	5	2	-	22				
2	3	2	-	-	149/148	U621(P)		15900	2300	13/32" cu	47	5	2	-	11.8				
1	4	2	-	-	149/166	U889(P)		15900	2300	13/32" al	47	5	2	-	12.3				
								17-CONTACT SPRINGS											
5	2	-	1	-	146/151	U645	P	5000	850	1/2" cu	44	5	2	-	S 24.5	13	-	-	J
							S	7500	1300					-	P 38				
								18-CONTACT SPRINGS											
3	6	-	-	-	157/151	U1385		6200	830	5/8" cu	50	5	2	-	32.5	23			
6	3	-	-	-	193/134	U663(P)		7600	1300	5/8" cu	41	5	2	-	26	19			
6	-	2	-	-	117/117	U697(P)		8750	850	1/2" cu	Spl 50	10	S	-	30	22			

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Notes:

J. Winding arrangement No. 2.

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TABLE III - SLOW-ACTING U-TYPE RELAYS

CONT. ARRANGEMENTS					SPRING COMB.	CODES	WINDING		SLEEVE	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS					SEE NOTE
M	B	BM	MB	OTHER			TURNS	RES					SOAK	OPER	NON-OPR	HOLD	RLS	
									19-CONTACT SPRINGS									
4	1	3	-	-	150/117	U1132	8750	850	1/2" cu	50	5	2	-	22.5				
2	3	2	1	-	103/153	U656	9850	1200	1/2" cu	53	5	2	-	24.5	12.2			
8	-	1	-	-	112/117	U348	7600	430	13/32" cu	47	5	2	-	22.5				
									20-CONTACT SPRINGS									
2	2	4	-	-	150/150	U1016	9850	1200	1/2" cu	50	5	2	-	21.5				
									21-CONTACT SPRINGS									
3	3	3	-	-	103/114	U1032	8750	850	1/2" cu	50	10	2	-	26.5	-	-	8	
									22-CONTACT SPRINGS									
6	2	2	-	-	162/114	U702(P)	9850	1200	1/2" cu	50	5	2	-	21.5				
1	4	3	1	-	169/163	U931(P)	9850	1200	1/2" cu	59	5	2	-	26.5				

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TABLE III - SLOW-ACTING U-TYPE RELAYS

CONT. ARRANGEMENTS					SPRING	CODES	WINDING		SLEEVE	ARM.	STOP	CONT.	CURRENT FLOW REQUIREMENTS					SEE
M	B	BM	MB	OTHER	COMB.		TURNS	RES		TRVL	PINS	METAL	SOAK	OPER	NON-OPR	HOLD	RLS	NOTE
23-CONTACT SPRINGS																		
3	4	1	1	(MM)	204/103	U1140	8750	850	1/2" cu	53	5	2	-	29				
24-CONTACT SPRINGS																		
12	-	-	-	-	113/113	U1177	3560	235	5/8" cu	29	5	S	-	50		31.5		
10	2	-	-	-	119/119	U128	15900	2300	13/32" al	35	5	S	-	11.9				
4	2	2	2	-	197/197	U1139	8750	850	1/2" cu	59	5	2	-	33				

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TABLE IV - Y-TYPE RELAYS

CONT. ARRANGMENTS					SPRING		WINDING		ARM.		CONT.	CURRENT FLOW REQUIREMENTS				RELEASE TIME		SEE
M	B	BM	MB	OTHER	COMB.	CODES	TURNS	RES	TRVL	SLEEVE	METAL	SOAK	OPR	HOLD	RLS	MIN	MAX	NOTE
												2-CONTACT SPRINGS						
1	-	-	-	-	115/164	Y114	P 1770	55	29	-	S	R(P)140	75	5.7	4	-	-	C,J
							S 8950	1000				T(P)140	79	6.2	3.4	-	-	
												T(S)	16					
						Y189	3560	235	29	5/8" cu	S	R 70	44.5	3.7	2.5			
												T 70	47	4.	1.9	290	585	
						Y191	3560	235	29	5/8" cu	2	R 70	44.5	3.7	2.5			
												T 70	47	4.	1.9	290	585	
						Y151	4750	500	29	5/8" cu	S	R 53	33.5	2.7	1.9			
												T 53	35.5	3.	1.5	290	575	(RA)
						Y78(P)	10000	880	29	13/32" cu	S	R 25	16	1.4	0.9			
												T 25	17	1.5	0.7	110	255	
						Y183	7600	1300	29	5/8" cu	S	R 31.5	21	1.7	1.2			
												T 31.5	22.5	1.8	0.9	295	585	
-	1	-	-	-	131/164	Y104	P 760	32	35	-	2	R(S)28	18	1.5	1			G,J
							S 9000	640				T(S)28	19	1.6	0.8	40	90	
									Spl									
						Y221	3560	235	59	5/8" cu	S	R -	51	3.8	2.5			
												T -	54	4.1	1.9	285	585	
						Y245	7600	1300	35	5/8" cu	2	R 31	20.5	1.7	1.1			
												T 31	22	1.8	0.9	300	585	(RA)
												3-CONTACT SPRINGS						
-	-	1	-	-	175/164	Y118	3840	125	47	13/32" al	2	R 65	39	3.7	24			
												T 65	41	3.9	1.8	80	170	
						Y125	P 3020	600	47	5/8" cu	S	R(P/S)						
							S 3470	500				37	23	2	1.4			A,J
												T(P/S)						
												37	24.5	2.2	1.1	290	575	
						Y67(P)	6200	830	47	5/8" cu	S	R 40	24	2.1	1.5			
												T 40	25.5	2.3	1.1	290	585	
						Y127(P)	8750	850	47	1/2" cu	2	R 29	17	1.6	1			
												T 29	18	1.7	0.8	205	415	(RA)
						Y126(P)	7600	1300	47	5/8" cu	S	R 31.5	20	1.7	1.2			
												T 31.5	21	1.8	0.9	295	585	

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Notes:

A. P/S indicates primary and secondary windings in series aiding.
C. Use only on approval of Relay Group.
G. Primary winding short-circuited at terminals.
J. Winding arrangement No. 2.
(RA). Primary winding resistance ±5 per cent.

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TABLE IV - Y-TYPE RELAYS

CONT. ARRANGMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	RES	ARM. TRVL	SLEEVE	CONT. METAL	CURRENT FLOW REQUIREMENTS SOAK	OPR	HOLD	RLS	RELEASE TIME MIN	MAX	SEE NOTE
						3-CONTACT SPRINGS (Contd)												
-	-	1	-	-	175/164 (Contd)	Y142	9200	2000	47	5/8" cu	2	R 20	16.5	1.4	1			
												T 20	17.5	1.5	0.8	295	565	
						Y88(P)	15900	2300	47	13/32" al	S	R 16	9.6	0.9	0.6			
												T 16	10.1	1	0.5	80	155	
						4-CONTACT SPRINGS												
-	2	-	-	-	131/131	Y90	2700	225	35	5/8" cu	S	R 100	59	4.9	3.4			
												T 100	62	5.2	2.5	290	585	
						Y80(P)	7600	1300	35	5/8" cu	S	R 31.5	21	1.8	1.2			
												T 31.5	22.5	2	0.9	277	585	
						Y119(P)	12700	2000	35	1/2" cu	S	R 18	12.6	1.2	0.7			
												T 18	13.3	1.3	0.5	193	435	
2	-	-	-	-	115/115	Y110	3560	235	29	5/8" cu	S	R 70	40	3.7	2.5			
												T 70	42	4	2	290	580	
						Y63(P)	7600	1300	29	5/8" cu	2	R 31.5	18.5	1.7	1.2			
												T 31.5	19.5	1.9	0.9	295	585	
						Y98(P)	7600	1300	Spl 53	5/8" cu	S	R 31.5	21	1.7	1.2			
												T 31.5	22.5	1.9	0.9	285	585	
						Y288	14250	2000	29	13/32" cu	2	R 18	9.7	1	0.6			
												T 18	10.2	1.1	0.4	110	285	
2	-	-	-	-	222/222	Y230	5600	600	Spl 68	5/8" cu	2	R -	48	3.2	1.6			C
												T -	50.5	3.4	1.2	240	585	
1	1	-	-	-	131/115	Y75	3560	235	35	5/8" cu	S	R 69	43	3.6	2.7			
												T 69	45.5	4.1	2.1	275	555	
						Y176(P)	5600	600	35	5/8" cu	S	R 45	27	2.4	1.6			
												T 45	28.5	2.6	1.3	285	585	
						Y115(P)	10000	880	35	13/32" cu	S	R 25	15	1.3	0.9			
												T 25	16	1.4	0.7	117	255	
						Y139(P)	7600	1300	35	5/8" cu	2	R 31	20	1.8	1.2			
												T 31	21	2	0.9	277	585	
						Y99	14250	2000	35	13/32" cu	S	R 18	10.5	0.9	0.6			
												T 18	11.1	1	0.5	115	255	

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Notes:

C. Use only on approval of Relay Group.

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TABLE IV - Y-TYPE RELAYS

CONT. ARRANGMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	RES	ARM. TRVL	SLEEVE	CONT. METAL	CURRENT FLOW REQUIREMENTS SOAK	OPR	HOLD	RLS	RELEASE TIME MIN	MAX	SEE NOTE
						5-CONTACT SPRINGS												
1	-	1	-		175/115	Y172	700	3.8	47	13/32" cu	2	R 360	220	25	12.8			
												T 360	235	27	10	95	255	
						Y56	1950	34	47	13/32" cu	S	R 130	80	9	4.6			
												T 130	85	9.5	3.6	95	255	
						Y71	2450	100	47	1/2" cu	S	R 100	62	7.1	3.6			
												T 100	65	7.5	2.8	180	420	
						Y83	2700	225	47	5/8" cu	2	R 95	56.5	6	3.3			
												T 95	59.5	6.4	2.6	255	580	
						Y193	P 4850	425	47	13/32" cu	S	R(P)48	31.5	3.6	1.9			
							S 5050	415				T(P)48	33.5	3.8	1.5	95	250	J
												T(S)48	34					
						Y112	P 2900	450	47	5/8" cu	2	R(P//S)						
							S 3160	450				80	50	5.4	3			
												T(P//S)						
												80	52.5	5.7	2.3	255	580	B,J
												T(P) -	56.5					
												T(S) -	52					
						Y143	9850	1200	47	1/2" cu	S	R 32	15.5	1.8	0.9			
												T 32	16.5	1.9	0.7	175	415	
						Y95(P)	7600	1300	47	5/8" cu	2	R 27.5	20	2.2	1.2			
												T 27.5	21	2.4	0.9	250	585	
						Y182	18800	2500	47	-	S	R -	8.1	0.9	0.5			
												T -	8.5	1	0.3	-	-	
-	1	1	-	-	175/131	Y178	3560	235	47	5/8" cu	2	R 70	43.5	4.5	2.7			
												T 70	46	4.8	2.1	255	555	
						Y187(P)	8750	850	47	1/2" cu	2	R 29	18	1.8	1.1			
												T 29	19	2	0.9	185	385	(RA)
1	-	-	1	-	235/115	Y263(P)	6200	830	44	5/8" cu	2	R 40	25	2.3	1.5			
												T 40	26.5	2.5	1.2	275	560	
-	-	-	1	(Prel M)	349/164	Y265	3700	285	53	13/32" cu	2	R 68	47.5	4.5	2.5			
												T 68	50	4.8	1.9	100	255	
						6-CONTACT SPRINGS												
2	1	-	-	-	188/115	Y61	2700	225	35	5/8" cu	2	R 95	52.5	6	3.3			
												T 95	55.5	6.3	2.6	255	565	

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Notes:

B. P//S indicates primary and secondary windings in parallel.
J. Winding arrangement No. 2.
(RA). Primary winding resistance ±5 per cent.

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TABLE IV - Y-TYPE RELAYS

CONT. ARRANGMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	SLEEVE	CONT. METAL	CURRENT FLOW REQUIREMENTS SOAK	OPR	HOLD	RLS	RELEASE TIME MIN	MAX	SEE NOTE
										6-CONTACT SPRINGS (Contd)								
2	1	-	-	-	188/115 (Contd)	Y74	3560	235	35	5/8" cu	S	R 70	40	4.5	2.5			
												T 70	42	4.8	1.9	255	580	C,(RA)
						Y101	3560	235	35	5/8" cu	2	R 70	40	4.5	2.5			
												T 70	42	4.8	1.9	255	580	(RA)
									Spl									
						Y214	P//S	603	50	-	S	R(P//S)						
												47	30	3	1.7			
							P 9000	950				T(P//S)						
							S (NI)	1650				47	31.5	3.2	1.3	47	100	B,L,(RO)
						Y62(P)	7600	1300	35	5/8" cu	S	R 31.5	19.5	2.2	1.3			
												T 31.5	20.5	2.4	1	245	555	
									Spl									
						Y203	7600	1300	29	5/8" cu	S	R 31.5	18.5	1.8	1.2			
												T 31.5	19.5	1.9	0.9	290	585	T,(BB)
						Y249	15400	3000	35	1/2" cu	2	R 14	9.5	1.1	0.6			
												T 14	10	1.2	0.5	170	395	(RA)
2	1	-	-	-	110/115	Y207	P 2220	200	35	-	S	R(P)90	59	7	3.1			
							S 1500	30				T(P)90	62	7.4	2.5	90	215	C,D,J,(RN)
3	-	-	-	-	190/115	Y123	P 630	2.9	29	-	S	R(P)400	205	29	14.3			
							S 5700	1200				T(P)400	220	30.5	11.1	35	70	H,Q,(BP),(RE),(RM)
							T(NI)	1500										
							S//T	670				T(S//T)	46					
						Y84	2700	225	29	5/8" cu	2	R 95	48	6.5	3.3			
												T 95	50.5	6.9	2.6	240	585	
						Y72	3560	235	29	5/8" cu	S	R 69	36	4.9	2.5			
												T 69	38	5.2	2	245	585	
						Y144	6200	830	29	5/8" cu	2	R 40	21	2.8	1.4			
												T 40	22	3	1.1	240	585	
									Spl									
						Y242	6200	830	26	5/8" cu	2	R 40	21	2.2	1.5			
												T 40	22.5	2.4	1.2	280	560	T,Z
						Y122	P 7100	850	29	13/32" cu	2	R(P)35	18	2.6	1.3			
							S 7350	1250				T(P)35	19	2.8	1	90	255	J
												T(S)	18.5					

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Notes:

B. P//S indicates primary and secondary windings in parallel.
C. Use only on approval of Relay Group.
D. Secondary winding short-circuited at terminals.
H. Secondary and tertiary windings in parallel.
J. Winding arrangement No. 2.
L. Winding arrangement No. 5.
Q. Winding arrangement No. 15.
T. Special contact pressure.
Z. Contact make 6 readjust, 4 test.

(BB). Contacts make 6 readjust, 4 test. Minimum spring tension (1T) 10 grams readjust, 8 grams test.
(BP). S//T indicates secondary and tertiary windings in parallel.
(RA). Primary winding resistance ±5 per cent.
(RE). Tertiary winding resistance ±5 per cent.
(RM). Resistance of secondary and tertiary windings in parallel ±7.5 per cent.
(RN). Secondary winding resistance ±3 per cent.
(RO). Resistance of primary and secondary windings in parallel ±8 per cent.

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TABLE IV - Y-TYPE RELAYS

CONT. ARRANGMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	SLEEVE	CONT. METAL	CURRENT FLOW REQUIREMENTS SOAK	OPR	HOLD	RLS	RELEASE TIME MIN	MAX	SEE NOTE
6-CONTACT SPRINGS (Contd)																		
3	-	-	-	-	190/115 (Contd)	Y50(P)	7600	1300	29	5/8" cu	S	R 31.5 T 31.5	17 18	2.3 2.5	1.2 0.9	235	565	
-	-	2	-	-	175/175	Y209	7600	430	47	13/32" cu	S	R 33 T 33	23 24.5	2.7 2.9	1.7 1.4	85	195	(RA)
						Y54	5600	600	47	5/8" cu	S	R 45 T 45	31 33	3.4 3.6	1.6 1.3	255	570	
						Y166(P)	15900	2300	47	13/32" cu	S	R 16 T 16	10.9 11.5	1.3 1.4	0.6 0.5	80	235	
						Y244	15900	2300	Spl 41	13/32" cu	2	R 16 T 16	9.3 9.8	1.1 1.2	0.6 0.4	95	270	T,Z
-	-	1	-	(MM)	175/104	Y147	7600	1300	47	5/8" cu	S	R 31.5 T 31.5	22.5 24	3.3 3.5	1.3 1	180	575	
1	2	-	-	-	188/131	Y235	4750	500	35	5/8" cu	S	R 53 T 53	32.5 34.5	3 3.2	2 1.5	280	575	
						Y206	23400	4000	35	-	2	R 10 T 10	6.6 7	0.7 0.8	0.4 0.3	22	55	
						Y79	P 2220 S 1500	200 30	Spl 32	-	2	R(P)200 T(P)200	74 80	8.4 8.9	6.8 6.4	75	125	C,D,J,(BM),(RM)
1	2	-	-	-	188/144	Y246	8750	850	35	1/2" cu	2	R 29 T 29	15 16	1.8 1.9	0.7 0.6	190	480	C
1	1	-	-	(PrelM)	342/115	Y237	P 2220 S 1500	200 30	38	-	2	R200 T200	74 80	8.4 8.9	6.8 6.4	75	125	C,D,J,(BL),(BM),(RN)
7-CONTACT SPRINGS																		
1	1	1	-	-	188/175	Y169	3560	235	Spl 41	5/8" cu	2	R 54 T 54	42 44.5	5.3 5.6	2.5 1.9	210	585	T,(BD)

X-75375

Notes:

C. Use only on approval of Relay Group.
D. Secondary winding short-circuited at terminals.
J. Winding arrangement NO. 2.
T. Special contact pressure.
Z. Contact make 6 readjust. 4 test.
(BD). Contact 6T make 6 readjust, 4 test. Minimum spring tension (1T and 2B) 10 grams readjust, 8 grams test.
(BL). With a 13-mil gauge between armature and core, and relay energized, springs (1T-2T) shall not break.
(BM). Buffer spring tension maximum 125 grams.
(RA). Primary winding resistance ±5 per cent.
(RN). Secondary winding resistance ±3 per cent.

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TABLE IV - Y-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	RES	ARM. TRVL	SLEEVE	CONT. METAL	CURRENT FLOW REQUIREMENTS SOAK	OPR	HOLD	RLS	RELEASE TIME MIN	MAX	SEE NOTE
						7-CONTACT SPRINGS (Contd)												
1	1	1	-	-	188/175 (Contd)	Y107(P)	12700	2000	47	1/2" cu	2	R 18	13.6	1.6	0.9			
												T 18	14.3	1.7	0.7	160	355	
2	-	1	-	-	190/175	Y131	3560	235	47	5/8" cu	S	R 54	44	5.9	3.2			
												T 54	46.5	6.2	2.6	200	490	
						Y192	3560	235	47	5/8" cu	2	R 70	44	5.9	3.2			
												T 70	46.5	6.2	2.6	210	490	
						Y241(P)	8750	850	47	1/2" cu	2	R 29	18	2.6	1.3			
												T 29	19	2.8	1	145	360	
→						Y326	9450	500	47	-	2	R 27	17.5	2.3	1.6			
												T 27	18.5	2.5	1.5	17	28	(BM)
→																		
-	2	-	1	-	142/131	Y184	6200	830	53	5/8" cu	S	R 40	33	2.8	1.1			
												T 40	35	3	0.9	240	650	C
1	1	-	1	-	188/235	Y267	3700	285	44	13/32" cu	2	R 63.5	46.5	4.9	2.9			
												T 63.5	49	5.2	2.3	90	230	
1	1	1	-	-	203/131	Y269(P)	8750	850	47	1/2" cu	S	R 29	20	2.3	1.3			
												T 29	21	2.5	1	160	360	
						8-CONTACT SPRINGS												
4	-	-	-	-	190/190	Y154	9000	640	29	13/32" cu	2	R 28	15.5	2.5	1.3			
												T 28	16.5	2.7	1	75	220	
3	1	-	-	-	190/188	Y120	3560	235	35	5/8" cu	S	R 70	37	5.6	2.6			
												T 70	39	5.9	1.9	220	580	
						Y180	3700	285	35	13/32" cu	S	R 68	35	5.7	2.4			
												T 68	37	6	1.9	85	255	
						Y311	9450	500	35	-	2	R 29	16	1.5	1.1			
												T 29	17	1.6	0.9	24	55	(RA)
						Y81(P)	5600	600	35	5/8" cu	2	R 45	23.5	3.6	1.6			
												T 45	25	3.8	1.2	215	580	(RA)
						Y243(P)	5600	600	35	5/8" cu	2	R 45	29	3.6	2.4			
												T 45	30.5	3.8	2	218	425	(RA)

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Notes:

C. Use only on approval of Relay Group.
(BM). Buffer spring tension maximum 125 grams.
(RA). Primary winding resistance ±5 per cent.

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TABLE IV - Y-TYPE RELAYS

CONT. ARRANGMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	SLEEVE	CONT. METAL	CURRENT FLOW REQUIREMENTS SOAK	OPR	HOLD	RLS	RELEASE TIME MIN	MAX	SEE NOTE
										8-CONTACT SPRINGS (Contd)								
3	1	-	-	-	190/188 (Contd)	Y252	6200	830	Spl 29	5/8" cu	S	R 40 T 40	22.5 24	2.6 2.8	1.5 1.1	255	560	T,(BC)
2	2	-	-	-	188/188	Y105	6200	830	35	5/8" cu	2	R 40 T 40	23.5 25	3 3.2	1.5 1.1	230	560	
						Y153(P)	6200	830	35	5/8" cu	S	R 40 T 40	23.5 25	3 3.2	1.5 1.1	230	585	
						Y223(P)	6200	830	35	5/8" cu	2	R 40 T 40	27 28.5	3 3.2	2 1.7	230	450	
1	-	2	-	-	239/199	Y258	5600	600	Spl 41	5/8" cu	S	R - T -	40 42	3 3.2	1.1 0.9	250	680	C,T,(AJ)
1	-	2	-	-	175/108	Y73(P)	7600	1300	47	5/8" cu	2	R 31.5 T 31.5	 23	3.1 3.3	1.2 0.9	190	585	
1	-	1	1	-	175/130	Y228	700	3.8	47	13/32" cu	2	R 360 T 360	295 310	31.5 33.5	11.7 10.3	75	255	C
						Y210	6200	830	47	5/8" cu	2	R 40 T 40	33.5 35	3.6 3.8	1.3 1.1	205	585	
1	3	-	-	-	224/188	Y303	P 2220 S 1500	200 30	41	-	2	R(P)200 T(P)200	74 80	8.4 8.9	6.8 6.4	75	125	C,D,J,(BL),(BM),(BR),(RN)
1	3	-	-	-	201/131	Y280	9000	640	41	13/32" cu	S	R 28 T 28	18.5 19.5	2.2 2.4	1.3 1	85	220	
-	1	2	-	-	234/175	Y298(P)	12700	2000	47	1/2" cu	S	R 20 T 20	14.4 15.5	1.9 2	0.9 0.7	140	355	
1	-	1	-	(MM)	175/122	Y60	7600	1300	47	5/8" cu	2	R 31.5 T 31.5	22.5 24	4 4.2	1.2 0.9	150	585	
-	3	-	-	(Prel M)	224/342	Y234	3700	285	41	13/32" cu	S	R 68 T 68	47.5 50	4.6 4.9	3.2 2.6	97	210	
2	1	-	-	(Prel M)	342/227	Y240	6200	830	Spl 29	5/8" cu	S	R 41 T 41	23.5 25	2.2 2.4	1.4 1.1	280	585	T,(BB)

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Notes:

C. Use only on approval of Relay Group.
D. Secondary winding short-circuited at terminals.
J. Winding arrangement No. 2.
T. Special contact pressure.
(AJ). Contacts make 6 readjust, 4 test. Minimum spring tension (2T and 2B) 10 grams readjust, 8 grams test.
(BB). Contacts make 6 readjust, 4 test. Minimum spring tension (1T) 10 grams readjust, 8 grams test.
(BC). Contacts make 6 readjust, 4 test. Minimum spring tension (1B) 10 grams readjust, 8 grams test.
(BL). With a 13-mil gauge between armature and core, and relay energized, springs (1T-2T) shall not break.
(BM). Buffer spring tension maximum 125 grams.
(BR). Minimum armature back tension 35 grams.
(RN). Secondary winding resistance ±3 per cent.

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TABLE IV - Y-TYPE RELAYS

CONT. ARRANGMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	RES	ARM. TRVL	SLEEVE	CONT. METAL	CURRENT FLOW REQUIREMENTS SOAK	OPR	HOLD	RLS	RELEASE TIME MIN	MAX	SEE NOTE
							8-CONTACT SPRINGS (Contd)											
3	-	-	-	(Prel M)	346/190	Y248	14250	2000	35	13/32" cu	S	R 18 T 18	10.6 11.2	1.6 1.7	0.9 0.7	75	205	
2	-	-	-	(M-M)	305/190	Y171	5600	270	47	13/32" al	2	R 45 T 45	31 33	4.8 5.1	1.6 1.2	44	175	
1	1	-	-	(2 Prel M)	346/304	Y286	3700	285	59	13/32" cu	2	R - T -	65 68.5	7.3 7.7	2.8 2.2	65	235	
1	-	2	-	-	203/175	Y306	9450	500	47	-	2	R 27 T 27	16 17	2 2.2	1.1 0.9	17	50	
→ 1	3	-	-	-	224/188	Y319	5300	400	Spl 35	-	2	R 42.5 T 42.5	22 23.5	1.9 2	1.3 1.2	35	66	T,(AS)
							9-CONTACT SPRINGS											
2	1	1	-	-	188/203	Y282	3560	235	Spl 41	5/8" cu	S	R 70 T 70	39.5 41.5	5 5.3	2.6 2	240	585	T,(BD)
1	2	-	-	(MM)	165/188	Y102	6200	830	56	5/8" cu	S	R - T -	35.5 37.5	4.9 5.2	2 1.7	150	450	
3	-	1	-	-	190/108	Y109(P)	7600	1300	47	5/8" cu	S	R 31.5 T 31.5	20.5 22	3.3 3.5	1.2 0.9	180	585	
1	1	-	1	(Prel M)	313/115	Y236	3700	285	59	13/32" cu	2	R 67.5 T 67.5	60.5 64	6.6 7	2.4 1.9	70	255	
3	-	-	-	(Prel BM)	327/190	Y177	4300	200	Spl 47	1/2" cu	2	R 60 T 60	44.5 47	6.6 7	2.1 1.6	120	415	T,(BE)
						Y229	P//S P 6400 S (NI)	210 250 1300	Spl Max 53	-	2	R(P//S) 50 T(P//S) 50	36.5 38.5	4.8 5.1	1.7 1.3	32	105	B,L

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Notes:

B. P//S indicates primary and secondary windings in parallel.
L. Winding arrangement No.5.
T. Special contact pressure.
(AS). Contact make 6 readjust, 4 test. Minimum spring tension (1T, 3T, and 1B) 10 grams readjust, 8 grams test.
(BD). Contact 6T make 6 readjust, 4 test. Minimum spring tension (1T and 2B) 10 grams readjust, 8 grams test.
(BE). Contacts (1T-2T) make 6 readjust, 4 test

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TABLE IV - Y-TYPE RELAYS

CONT. ARRANGMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	RES	ARM. TRVL	SLEEVE	CONT. METAL	CURRENT FLOW REQUIREMENTS SOAK	OPR	HOLD	RLS	RELEASE TIME MIN	MAX	SEE NOTE
												9-CONTACT SPRINGS (Contd)						
1	2	-	1	-	201/235	Y324	9450	500	44		2	R -	20	2.5	1.1			
												T -	21	2.7	1	15	46	
												10-CONTACT SPRINGS						
5	-	-	-	-	123/190	Y150	3840	125	29	13/32" cu	S	R 65	30	7	2.3			
												T 65	31.5	7.4	1.8	65	260	
						Y215	P 2900	450	29	5/8" cu	2	R(P//S) 80	38	8.5	3			B,J
							S 3160	450				T(P//S) 80	40	9	2.3	175	580	
												T(P) -	44.5					
												T(S) -	40.5					
3	2	-	-	-	120/188	Y149	3560	235	35	5/8" cu	2	R 70	39	6.5	2.6			
												T 70	41	6.9	2	194	580	
						Y87	9000	640	35	13/32" cu	S	R 28	15.5	2.7	1			
												T 28	16.5	2.9	0.8	70	250	
						Y103(P)	6200	830	35	5/8" cu	S	R 40	22.5	3.7	1.5			
												T 40	24	3.9	1.1	197	585	
						Y328	P 3400	300	35	-	2	R(P)74	39	6	2.7	-	-	J,(BM), (CX)
							S 9250	850				T(P)74	41	6.3	2.1			
												R(S)	15.5					
												T(S)	16.5					
2	-	2	-	-	121/190	Y129(P)	10000	880	50	13/32" al	2	R 25	17.5	2.9	0.9			
												T 25	18.5	3.1	0.7	45	170	
2	-	-	-	(2MM)	122/122	Y86(P)	12700	2000	44	1/2" cu	2	R 20	13.3	3.3	0.8			
												T 20	14	3.5	0.6	80	395	

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Notes:

B. P//S indicates primary and secondary windings in parallel.
J. Winding arrangement No. 2.
(BM). Buffer spring tension maximum 125 grams.
(CW). Primary winding nonoperate readjust 24.5, test 23 milliamperes.

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TABLE IV - Y-TYPE RELAYS

CONT. ARRANGMENTS					SPRING		WINDING		ARM.		CONT.	CURRENT FLOW REQUIREMENTS				RELEASE TIME		SEE
M	B	BM	MB	OTHER	COMB.	CODES	TURNS	RES	TRVL	SLEEVE	METAL	SOAK	OPR	HOLD	RLS	MIN	MAX	NOTE
10-CONTACT SPRINGS (Contd)																		
2	3	-	-	-	200/128	Y219	P 2900	450				R(P//S)						
							S 3160	450	41 5/8"	cu	2	80	52.5	7.6	3	-	-	B,J
												T(P//S)						
												80	55.5	8	2.3	195	580	
												T(P) -	61					
												T(S) -	56					
2	3	-	-	-	201/188	Y224	6200	830	41 5/8"	cu	2	R 40	29	3.5	2.2			
												T 40	30.5	3.7	1.9	200	415	
									Spl									
						Y270	6200	830	32 5/8"	cu	2	R 40	23	3.4	1.5			
												T 40	24.5	3.6	1.2	210	560	T,(BF)
						Y281	8750	850	41 1/2"	cu	2	R 21	18	2.6	1			
												T 21	19	2.8	0.8	145	415	
									Spl									
3	2	-	-	-	200/188	Y297(P)	5600	600	29 5/8"	cu	2	R 45	25.5	3.1	1.6			
												T 45	27	3.3	1.2	240	590	T,(AA)
4	1	-	-	-	200/190	Y225(P)	6200	830	35 5/8"	cu	2	R 40	25	4	2.3			
												T 40	26.5	4.2	2.1	185	385	
									Spl									
						Y259	6200	830	23 5/8"	cu	2	R 40	19.5	2.5	1.5			
												T 40	20.5	2.7	1.2	260	560	T,(BB)(BW)
									Spl									
						Y260	6200	830	23 5/8"	cu	S	R 40	19.5	2.5	1.5			
												T 40	20.5	2.7	1.2	260	560	T,(BB)(BW)
-	2	1	-	(MM)	165/234	Y283	7600	1300	56 5/8"	cu	S	R 33	26.5	4.2	1.4			
												T 33	28	4.5	1.1	140	525	(RA)
1	1	2	-	-	234/108	Y264	4300	200	47 1/2"	cu	2	R 60	42.5	6.3	2.2			
												T 60	47	6.7	1.7	125	405	
						Y261	2700	225	47 5/8"	cu	S	R 100	67.5	9.7	3.4			
												T 100	71	10.2	2.6	175	585	
						Y262	2700	225	47 5/8"	cu	2	R 100	67.5	9.7	3.4			
												T 100	71	10.2	2.6	175	585	

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Notes:

B. P//S indicates primary and secondary windings in parallel.
J. Winding arrangement No. 2.
T. Special contact pressure.
(AA). Contacts make 6 readjust, 4 test. Minimum spring tension (1T and 1B) 10 grams readjust, 8 grams test.
(BB). Contacts make 6 readjust, 4 test. Minimum spring tension (1T) 10 grams readjust, 8 grams test.
(BF). Minimum spring tension (1T, 3T, and 1B) 10 grams readjust, 8 grams test.
(BW). Minimum stud gap shall be perceptible.
(RA). Primary winding resistance ±5 per cent.

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TABLE IV - Y-TYPE RELAYS

CONT. ARRANGMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	RES	ARM. TRVL	SLEEVE	CONT. METAL	CURRENT FLOW SOAK	OPR	REQUIREMENTS HOLD	RLS	RELEASE TIME MIN	MAX	SEE NOTE
10-CONTACT SPRINGS (Contd)																		
2	-	2	-	-	236/190	Y272	6200	830	Spl 44	5/8" cu	2	R 40	24	3.5	1.5			
												T 40	25.5	3.7	1.2	205	560	T,(BG)
2	-	2	-	-	203/108	Y274	7150	550	47	1/2" cu	2	R 33	24.5	3.9	1.3			
												T 33	26	4.1	1	125	410	
2	1	-	-	(M-B)	300/188	Y85	6200	830	59	5/8" cu	S	R 40	37.5	4.5	1.5			
												T 40	39.5	4.8	1.2	160	560	
1	1	1	-	(Prel BM)	327/234	Y277	5600	600	53	5/8" cu	2	R 45	40	4.9	1.7			
												T 45	42	5.2	1.3	165	565	
5	-	-	-	-	238/190	Y315	3560	235	29	5/8" cu	2	R 70	29.5	5.4	2.1			
												T 70	31	5.7	1.5	225	665	
1	1	2	-	-	234/203	Y327	9450	500	47	-	2	R 27	17.5	2.3	1.7			
												T 27	18.5	2.5	1.5	21	-	(BM)
11-CONTACT SPRINGS																		
2	2	1	-	-	213/188	Y226	6200	830	Spl 41	5/8" cu	2	R 40	24.5	3.1	2			
												T 40	26	3.3	1.7	225	535	T,(AC)
2	2	1	-	-	201/203	Y204	10000	880	47	13/32" al	2	R 25	18	2.7	1.5			
												T 25	19	2.9	1.3	46	108	
-	1	3	-	-	121/234	Y253	9850	1200	50	1/2" cu	2	R 26	21	3.1	1			
												T 26	22.5	3.3	0.8	110	380	
1	-	2	1	-	236/130	Y276(P)	6200	830	50	5/8" cu	S	R 40	35	4.8	1.5			
												T 40	37	5.1	1.2	150	560	

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Notes:

T. Special contact pressure.

(AC). Contacts make 6 readjust, 4 test. Minimum spring tension (1T, 4T, and 1B) 10 grams readjust, 8 grams test.

(BG). Contacts make 6 readjust, 4 test. Minimum spring tension (2T and 5T) 10 grams readjust, 8 grams test.

(BM). Buffer spring tension maximum 125 grams.

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TABLE IV - Y-TYPE RELAYS

CONT. ARRANGEMENTS					SPRING		WINDING		ARM.		CONT.	CURRENT FLOW REQUIREMENTS				RELEASE TIME		SEE
M	B	BM	MB	OTHER	COMB.	CODES	TURNS	RES	TRVL	SLEEVE	METAL	SOAK	OPR	HOLD	RLS	MIN	MAX	NOTE
							11-CONTACT SPRINGS (Contd)											
4	-	-	1	-	147/190	Y295(P)	5600	600	44 5/8" cu		S	R 45	29	4.7	1.6			
												T 45	30.5	5	1.2	165	590	T,Z
						Y312	7150	550	44 1/2" cu		S	R 35	20	2.1	0.9			
												T 35	21	2.3	0.7	195	485	T,Z
1	-	2	1	-	102/203	Y174	12700	2000	53 1/2" cu		S	R 18	16	2.4	0.9			
												T 18	17	2.6	0.7	100	355	
1	-	3	-	-	121/108	Y247	8750	850	50 1/2" cu		2	R 29	22.5	3.5	0.8			
												T 29	24	3.7	0.7	110	465	C
3	1	1	-	-	120/203	Y316	6200	830	47 5/8" cu		2	R 40	25	3.7	1.4			
												T 40	26.5	3.9	1.1	195	600	
4	-	1	-	-	238/203	Y320	7150	550	47 1/2" cu		2	R 35	19	3.3	1.2			
												T 35	20	3.5	1	147	357	
							12-CONTACT SPRINGS											
1	5	-	-	-	201/138	Y196	7600	1300	47 5/8" cu		S	R 31	25.5	3.2	1.2			
												T 31	27	3.4	0.9	185	585	
5	1	-	-	-	238/200	Y255	6200	830	Spl 26 5/8" cu		2	R 40	18.5	3.6	1.5			
												T 40	19.5	3.8	1.2	200	560	T,(BC),(BW)
2	1	2	-	-	213/108	Y271	3560	235	47 5/8" cu		2	R 70	51.5	8.4	2.6			
												T 70	54.5	8.8	2	150	575	
3	-	2	-	-	216/203	Y213	9000	640	50 13/32" cu		2	R 28	21	3.6	1.9			C
												T 28	22.5	3.8	1.7	55	140	
3	3	-	-	-	201/120	Y279 (P)	7600	1300	41 5/8" cu		S	R 30.5	21	3.3	1.2			
												T 30.5	22.5	3.5	0.9	180	585	

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Notes:

C. Use only on approval of Relay Group.
T. Special contact pressure.
Z. Contact make 6 readjust, 4 test.
(BC). Contacts make 6 readjust, 4 test. Minimum spring tension (1B) 10 grams readjust, 8 grams test.
(BW). Minimum stud gap shall be perceptible.

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TABLE IV - Y-TYPE RELAYS

CONT. ARRANGMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	SLEEVE	CONT. METAL	CURRENT FLOW REQUIREMENTS SOAK	OPR	HOLD	RLS	RELEASE TIME MIN	MAX	SEE NOTE
										12-CONTACT SPRINGS (Contd)								
1	2	2	-	-	213/160	Y257	3560	235	47	5/8" cu	S	R 70 T 70	55 58	8.1 8.5	2.6 2	160	575	
						Y256	12700	2000	47	1/2" cu	S	R 20 T 20	15.5 16.5	2.3 2.5	0.8 0.6	115	395	
4	2	-	-	-	200/120	Y275(P)	7600	1300	35	5/8" cu	S	R 30.5 T 30.5	17.5 18.5	3.6 3.8	1.3 1	165	555	
2	1	1	1	-	213/130	Y291(P)	7600	1300	47	5/8" cu	S	R 31.5 T 31.5	26.5 28	3.8 4	1.2 0.9	160	585	
3	3	-	-	-	201/200	Y148	P 7100	850	41	13/32" cu	2	R(S)32.5 T(S)32.5 T(P)	21.5 23 24	3.7 3.9	1.8 1.5	65	195	J
2	3	-	-	(Prel M)	200/318	Y268	P 11000 S 4350	1450 1000	Spl 50	13/32" cu	S	(R(P)23 (T(P)23 (R(P)23 (T(P)23 (T(P/S) (	14 14.7 20 21 15.5	- 2.5 2.7	- 0.9 0.7	- 63	- 240	(BN) A,J, (BO)
5	1	-	-	-	200/123	Y232	8750	850	Spl 29	1/2" cu	S	R 29 T 29	13.1 13.7	2.7 2.9	1 0.8	140	415	T,(BB)
3	-	2	-	-	216/203	Y317	12350	1000	47	-	2	(R 20 (T 20	10.7 11.3	2.1 2.3	1.1 0.9	13	50	
5	1	-	-	-	238/200	Y321	7150	550	35	1/2" cu	2	(R 23 (T 23	18.5 19.5	3.4 3.6	2.1 1.8	135	270	
-	-	4	-	-	236/236	Y322	12700	2000	50	1/2" cu	2	(R 20 (T 20	15 16	2.2 2.4	1.2 1	120	262	

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Notes:

A. P/S indicates primary and secondary windings in series aiding.
J. Winding arrangement No. 2.
T. Special contact pressure.
(BB). Contacts make 6 readjust, 4 test. Minimum spring tension (1T) 10 grams readjust, 8 grams test.

(BN). Only springs (5B-6B) shall make.
(BO). With a 15-mil gauge between armature and core, and relay energized, springs (1B-2B) shall not break.

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TABLE IV - Y-TYPE RELAYS

CONT. ARRANGMENTS					SPRING		WINDING		ARM.		CONT.	CURRENT FLOW REQUIREMENTS				RELEASE TIME		SEE
M	B	BM	MB	OTHER	COMB.	CODES	TURNS	RES	TRVL	SLEEVE	METAL	SOAK	OPR	HOLD	RLS	MIN	MAX	NOTE
												13-CONTACT SPRINGS						
5	-	1	-	-	145/238	Y285(P)	12700	2000	47	1/2" cu	S	R 20	13	2.8	0.9			
												T 20	13.7	3	0.7	95	355	
2	-	3	-	-	188/203	Y302	14250	2000	50	13/32" cu	2	R 18	13.8	2.4	0.7			
												T 18	14.5	2.6	0.5	50	255	C
1	1	2	1	-	213/102	Y266	9850	1200	53	1/2" cu	2	R -	23	3.3	1.1			
												T -	24.5	3.5	0.9	105	360	
→ -	-	3	1	-	236/102	Y329	P 8900	1080	53	13/32" cu	2	R(P)28	23	3.2	1	-	-	J
							S 5975	1000				T(P)28	24.5	3.4	0.8	65	255	
												R(S) -	36					
												T(S)	38					
												14-CONTACT SPRINGS						
4	-	2	-	-	145/145	Y212(P)	8750	850	47	1/2" cu	2	R 29	24.5	4.6	1			
												T 29	26	4.9	0.8	83	415	
7	-	-	-	-	109/123	Y69(P)	7600	1300	29	5/8" cu	2	R 31.5	17	4.6	1.2			
												T 31.5	18	4.9	0.9	130	585	
7	-	-	-	-	212/123	Y284	3560	235	29	5/8" cu	2	R 54	47	7.9	2.6			
												T 54	49.5	8.3	2	160	575	T,Z
6	1	-	-	-	134/123	Y157	7600	1300	35	5/8" cu	2	R 30.5	17.5	4.5	1			
												T 30.5	18.5	4.8	0.8	135	625	C
3	4	-	-	-	151/201	Y254(P)	6200	830	41	5/8" cu	S	R 40	27	4.6	1.6			
												T 40	28.5	4.9	1.2	160	560	
4	-	-	-	(2MM)	158/158	Y185(P)	7600	1300	44	5/8" cu	S	R 31.5	23	6.4	1.7			
												T 31.5	24.5	6.8	1.4	90	495	
→ 3	1	2	-	-	213/145	Y278	P 7100	850	47	13/32" cu	2	R(S)32	24	4.7	1.3			
							S 7350	1250				T(S)32	25.5	5	1	50	255	J
												T(P) -	27					

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Notes:

C. Use only on approval of Relay Group.
J. Winding arrangement No. 21.
T. Special contact pressure.
Z. Contact make 6 readjust, 4 test.

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TABLE IV - Y-TYPE RELAYS

CONT. ARRANGMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	RES.	ARM. TRVL	SLEEVE	CONT. METAL	CURRENT FLOW REQUIREMENTS SOAK	OPR	HOLD	RLS	RELEASE TIME MIN	MAX	SEE NOTE
14-CONTACT SPRINGS (Contd)																		
5	2	-	-	-	134/200	Y292(P)	6200	830	35	5/8" cu	S	R 40	21.5	5.1	1.9			
												T 40	23	5.4	1.5	145	490	
2	-	2	-	(2 Prel M)	320/320	Y218	5600	600	53	5/8" cu	2	R 45	41	6	1.9			
												T 45	43.5	6.3	1.5	135	520	
-	2	-	2	(2 Prel M)	313/313	Y117	12350	1000	Spl 47	-	2	R -	20	2.5	0.7			
												T -	21	2.7	0.5	-	-	C, T, (AG), (BU), (nA)
4	-	2	-	-	216/216	Y309	9450	500	47	-	2	R 27	17	2.9	1.4			
												T 27	18	3.1	1.1	10	45	
-	1	4	-	-	219/236	Y308	9450	500	50	-	2	R 27	22.5	4	1.9			
												T 27	24	4.2	1.7	12.5	38	(RA)
1	3	2	-	-	219/201	Y318	6000	220	50	-	2	R 42	27.5	6.9	1.9			
												T 42	29	7.3	1.5	12	57	
15-CONTACT SPRINGS																		
6	-	-	-	(MM)	109/158	Y201	7150	550	44	1/2" cu	S	R 35	23.5	6.4	1.5			
												T 35	25	6.7	1.2	70	365	
-	3	3	-	-	155/121	Y91	9850	1200	50	1/2" cu	S	R 26	21.5	3.5	0.9			
												T 26	23	3.7	0.7	100	415	
5	1	1	-	-	212/213	Y208	7600	1300	Spl 41	5/8" cu	S	R 31.5	19.5	3.7	2			
												T 31.5	20.5	3.9	1.7	160	385	T, (BH)

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Notes:

C. Use only on approval of Relay Group.
T. Special contact pressure.
(AG). Minimum spring tension (1T and 1B) 20 grams readjust, 18 grams test.
(BH). Contacts make 6 readjust, 4 test. Minimum spring tension (1B and 4B) 10 grams readjust, 8 grams test.
(BU). Minimum contact separation (1T-2T and 1B-2B) shall be 5 mils.
(RA). Primary winding resistance ±5 per cent.

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TABLE IV - Y-TYPE RELAYS

CONT. ARRANGEMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	RES	ARM. TRVL	SLEEVE	CONT. METAL	CURRENT FLOW REQUIREMENTS SOAK	OPR	HOLD	RLS	RELEASE TIME MIN	MAX	SEE NOTE
16-CONTACT SPRINGS																		
1	1	4	-	-	150/121	Y186	10000	880	50	13/32" cu	2	R 25 T 25	21 22.5	4 4.2	0.9 0.7	45	255	
1	1	4	-	-	219/220	Y220(P)	10000	800	50	13/32" cu	S	R 25 T 25	21 22.5	3.7 3.9	2.4 2	48	113	
2	-	4	-	-	118/118	Y231	9850	1200	50	1/2" cu	2	R - T -	22 23.5	4.2 4.4	0.9 0.7	80	415	
4	1	2	-	-	215/145	Y293	8750	850	47	1/2" cu	2	R 29 T 29	21.5 23	4.1 4.4	1.3 1	95	365	
5	3	-	-	-	151/134	Y294(P)	6200	830	41	5/8" cu	2	R 40 T 40	28.5 30	5.9 6.2	1.4 1.1	125	585	
						Y300	6200	830	41	5/8" cu	S	R 40 T 40	28.5 30	5.9 6.2	1.4 1.1	125	585	
→ 6	2	-	-	-	134/134	Y155	P 4900 S 3270	1000 775	35	5/8" cu	2	R(P) 40 T(P) 40 T(S) -	28 29.5 45.5	7.3 7.7	2 1.6	125	505	
17-CONTACT SPRINGS																		
4	-	2	1	-	180/153	Y111(P)	5600	600	53	5/8" cu	2	R - T -	37 39	7.5 7.9	1.8 1.4	110	540	
6	1	-	1	-	146/134	Y239	P 11000 S 4350	1450 1000	44	13/32" cu	2	R(P) 23 T(P) 23 T(S) -	17.5 18.5 -	3.7 3.9 9.9	1 0.8	45	225	J,(AT)
6	1	-	-	(MM)	116/134	Y64	P 5000 S 7550	850 1300	44	1/2" cu	2	R(P) 48 T(P) 48 T(S)	36 38 26.5	9.8 10.3	2.4 2	60	330	J
1	1	3	-	(2 Prel M)	329/320	Y216	10000	880	59	13/32" cu	2	R - T -	32 34	4.3 4.5	0.9 0.7	45	255	

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Notes:

J. Winding arrangement No. 2.
(AT). Operate relay electrically on primary winding when testing secondary winding.

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TABLE IV - Y-TYPE RELAYS

CONT. ARRANGMENTS					SPRING		WINDING		ARM.		CONT.	CURRENT FLOW REQUIREMENTS				RELEASE TIME		SEE
M	B	BM	MB	OTHER	COMB.	CODES	TURNS	RES	TRVL	SLEEVE	METAL	SOAK	OPR	HOLD	RLS	MIN	MAX	NOTE
18-CONTACT SPRINGS																		
9	-	-	-	-	112/109	Y68	3560	235	29	5/8" cu	2	R 70	40.5	12.4	2.9			
												T 70	42.5	13	2.3	105	525	
8	1	-	-	-	129/109	Y53(P)	12700	2000	35	1/2" cu	2	R 20	11.9	3.1	0.8			
												T 20	12.5	3.3	0.6	85	395	
6	-	2	-	-	180/180	Y304(P)	8750	850	47	1/2" cu	2	R 29	20.5	4.7	1.4			
												T 29	22	5	1.1	80	340	
4	5	-	-	-	193/152	Y195	7150	550	47	1/2" cu	2	R 33	28	5.2	1.3			
												T 33	29.5	5.5	1	90	410	
						Y250(P)	6200	830	47	5/8" cu	2	R 40	32	5.8	1.6			
												T 40	34	6.1	1.2	130	560	
19-CONTACT SPRINGS																		
7	1	1	-	-	195/212	Y296(P)	10000	880	47	13/32" al	2	R 25	18	4.6	1.6			
												T 25	19	4.9	1.4	25	100	
20-CONTACT SPRINGS																		
8	2	-	-	-	129/129	Y55	3560	235	35	5/8" cu	2	R 70	42.5	11.6	3.8			
												T 70	45	12.2	3.2	110	420	
						Y205(P)	6200	830	35	5/8" cu	2	R 41	24.5	6.7	2.2			
												T 41	26	7.1	1.8	110	430	
4	-	4	-	-	114/114	Y227(P)	10000	880	50	13/32" cu	S	R 25	21.5	5	1.2			
												T 25	23	5.3	1	40	205	
-	10	-	-	-	176/176	Y93	3700	285	56	13/32" cu	2	R -	71	9.4	3			
												T -	75	9.9	2.4	50	220	
8	2	-	-	-	162/212	Y299(P)	10000	880	41	13/32" al	2	R 25	17.5	4.7	1.6			
												T 25	18.5	5	1.4	25	100	
7	3	-	-	-	154/212	Y313(P)	6200	830	47	5/8" cu	2	R 40	26	5.6	2.3			
												T 40	27.5	5.9	1.9	135	410	

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TABLE IV - Y-TYPE RELAYS

CONT. ARRANGMENTS M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	SLEEVE	CONT. METAL	CURRENT FLOW REQUIREMENTS SOAK	OPR	HOLD	RLS	RELEASE TIME MIN	MAX	SEE NOTE
21-CONTACT SPRINGS																		
3	-	4	1	-	163/179	Y57(P)	10000	800	59	13/32" al	2	R -	26	4.4	1.3			
												T -	27.5	4.7	1.1	27	125	
22-CONTACT SPRINGS																		
2	-	4	2	-	163/163	Y198	4600	175	59	13/32" cu	2	R -	60	11.3	2.9			
												T -	63	11.9	2.5	40	185	
						Y314	18800	2500	59	-	S	R -	11.9	1.8	0.4			
												T -	12.5	1.9	0.3	11	72	T,(BJ)
						Y301(P)	10000	880	59	13/32" al	2	R -	30	5.5	1.6			
												T -	32	5.7	1.4	30	100	
3	5	2	-	-	168/150	Y82	9000	640	50	13/32" cu	2	R 28	24.5	5.1	1.2			
												T 28	26	5.4	1	40	220	
1	1	4	2	-	167/163	Y59	10000	880	65	13/32" al	2	R -	32.5	4.6	1.6			
												T -	34.5	4.9	1.4	30	100	
5	3	2	-	-	162/150	Y325	7600	1300	50	5/8" cu	2	R 31.5	23.5	5.4	1.4			
												T 31.5	25	5.7	1.1	110	525	
24-CONTACT SPRINGS																		
11	1	-	-	-	119/113	Y113	P 3020	600	35	5/8" cu	2	R(P//S)						
							S 3470	500				65	53	17.5	4.8			
												T(P//S)						
												65	56	18.5	4.2	70	370	B,J
												T(P)	60					
												T(S)	52.5					

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Notes:

B. P//S indicates primary and secondary windings in parallel.
J. Winding arrangement No. 2.
T. Special contact pressure.

(BJ). Contacts make 6 readjust, 4 test. Miminum spring tension (5T, 8T, 5B, and 8B) 10 grams readjust, 8 grams test.

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TABLE IV - Y-TYPE RELAYS

CONT. ARRANGMENTS					SPRING		WINDING		ARM.		CONT.	CURRENT FLOW REQUIREMENTS				RELEASE TIME		SEE
M	B	BM	MB	OTHER	COMB.	CODES	TURNS	RES	TRVL	SLEEVE	METAL	SOAK	OPR	HOLD	RLS	MIN	MAX	NOTE
							24-CONTACT SPRINGS (Contd)											
6	-	2	2	-	161/161	Y130	P 4100 S 3500	165 225	53	-	2	R(P) - T(P) - T(S) -	64.5 68 85	14.7 15.5	3.5 3	-	-	J
							25-CONTACT SPRINGS											
5	-	3	2	-	198/161	Y141	5600	600	59	5/8" cu	2	R - T -	48 50.5	10.4 11	2.9 2.5	65	350	(BS)

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Notes:

J. Winding arrangement No. 2.
(BS). Waive "no-make requirement" on contacts (12T-13T).

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TABLE V - U-TYPE PERMALLOY RELAYS

CONT. ARRANGEMENT M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPERATE	NON-OPR	HOLD	RLS	SEE NOTE
							2-CONTACT SPRINGS									
1	-	-	-	-	101/136	U6009	4750	200	29	15	2	21.5	-	-	-	X
1	-	-	-	-	101/187	U6000	P 3000 S 3000	260 260	Spl 23	15	S	P/S 18	-	-	9	A,C,E,P
						U6001	P 3000 S 3000	260 260	Spl 23	25		P/S 30	-	-	15.5	A,C,E,P
1	-	-	-	-	115/136	U6102	9450	500	29	10	S	11.7	8.7	-	3.9	
-	1	-	-	-	144/136	U6084	P 6250 S 6400	500 500	35	10	S	P 18 S 18.5	- -	8.3 -	3.6	J
							3-CONTACT SPRINGS									
-	-	1	-	-	132/136	U6007	P 2090 S 755	45 6	47	5	S	P 62 S 180	- -	33	-	J
						U6008	4750	200	47	15	S	34	-	-	-	X
-	-	1	-	-	132/164	U6049	9000	950	47	15	S	17.5	-	-	6.6	
							4-CONTACT SPRINGS									
2	-	-	-	-	101/101	U6106	P 1050 S 14200	30 2075	29	5	2	P 100 P/S 7.2	85	-	-	A,J
						U6045	4950	145	29	5	S	20				
						U6070	4950	145	29	10	2	22				

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Notes:

A. P/S indicates primary and secondary windings in series aiding.
C. Use only on approval of Relay Group.
E. Permalloy shells next to core.
J. Winding arrangement No. 2.
P. Winding arrangement No. 13.
X. No. 1 metal stop pins.

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TABLE V - U-TYPE PERMALLOY RELAYS

CONT. ARRANGEMENT M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPERATE	NON-OPR	HOLD	RLS	SEE NOTE
							4-CONTACT SPRINGS (Contd)									
2	-	-	-	-	101/101 (Contd)	U6014	1800	300	29	15	S	64	-	-	-	(RA)
						U6024	P 3450	400	29	5	2	P 28	-	-	-	J,X,(RB)
							S 1750	65				S 57.5				
						U6027	P 8000	1000	29	5	S	P 12.3	-	-	-	J,(RA),(RB)
							S 4000	950				S 25				
						U6005	18800	2500	29	15	S	7.9	5.3	-	-	U
2	-	-	-	-	192/192	U6022	3450	400	29	5	2	28	-	-	-	X
1	1	-	-	-	144/101	U6059	600	2	35	5	2	190	-	-	-	(RG)
						U6020	P 4050	300	35	5	2	P 28	19	-	-	J,X
							S 4150	700				S 28.5				
						U6085	12350	1000	35	5	2	9.1	-	-	1.6	C
-	2	-	-	-	144/144	U6055	9500	700	35	5	S	12.1				
						U6071	12350	1000	35	5	2	9.3	-	-	1.7	
									Max							
2	-	-	-	-	115/101	U6002	P 3000	260	23	10	2	P/S 18	-	-	9	A,C,E,P
							S 3000	260								
							6-CONTACT SPRINGS									
3	-	-	-	-	111/101	U6115	1000	5	29	10	2	110	-	-	-	X
						U6089	4750	200	29	15	2	25.5				
2	1	-	-	-	110/101	U6062	P 4050	300	35	15	S	P 34	-	-	-	J
							S 4150	700				S 35				
						U6034	5300	400	35	15	2	23	-	-	-	X
						U6073	P 6060	510	35	15	2	P/S 10.8	8	-	4.4	A,P
							S 6060	515								
						U6072	9500	700	35	15	S	13.5	-	-	4	
						U6013	P 5000	1000	35	15	S	24	-	-	-	K,(RA)
							S (NI)	350								
						U6079	18800	2500	35	15	S	6.8	6.1	-	-	U,(RA)

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Notes:

A. P/S indicates primary and secondary windings in series aiding.
C. Use only on approval of Relay Group.
E. Permalloy shells next to core.
J. Winding arrangement No. 2.
K. Winding arrangement No. 3.
P. Winding arrangement No. 13.
U. Copper tinsel over core.
X. No. 1 metal stop pins.
(RA). Primary winding resistance ±5 per cent.
(RB). Secondary winding resistance ±5 per cent.
(RG). Primary winding resistance ±15 per cent.

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TABLE V - U-TYPE PERMALLOY RELAYS

CONT. ARRANGEMENT					SPRING COMB.	CODES	WINDING		ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS				SEE NOTE
M	B	BM	MB	OTHER			TURNS	RES				OPERATE	NON-OPR	HOLD	RLS	
						6-CONTACT SPRINGS (Contd)										
2	1	-	-	-	191/192	U6053	4750	200	35	15	S	29				
1	2	-	-	-	128/101	U6090	4750	200	41	15	2	32				
1	2	-	-	-	110/144	U6041	9500	700	35	15	2	16				
-	-	2	-	-	132/132	U6080	P 3000 S 3000	260 260	47	5	2	P/S 26.5	-	-	-	A,E,P
-	-	1	1	-	132/106	U6039 U6006	9000 12350	950 1000	47 47	15 15	2 2	23.5 17				
-	-	1	-	(MM)	132/104	U6064	5600	400	47	5	S	26				
-	-	-	2	-	106/106	U6083 U6035 U6044	4750 9500 18800	200 700 2500	44 44 44	15 5 15	S .2 2	45.5 18 11.2	-	-	-	U
-	-	-	-	(2-MM)	104/104	U6023	18800	2500	44	15	2	12.6	8.5	-	-	U
						7-CONTACT SPRINGS										
2	-	1	-	-	132/111	U6088	P 2000 S 2000	89 90	47	5	2	P/S 34	-	-	-	A,E,P
						8-CONTACT SPRINGS										
4	-	-	-	-	111/111	U6082	P 5530 S 11800	350 2400	29	5	S	P 18.5 P/S 6.1	-	-	4	A,J
						U6063	12350	1000	29	10	S	9.5	7			

X-75375

Notes:

A. P/S indicates primary and secondary windings in series aiding.
E. Permalloy shells next to core.
J. Winding arrangement No. 2
P. Winding arrangement No. 13.
U. Copper tinsel over core.

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TABLE V - U-TYPE PERMALLOY RELAYS

CONT. ARRANGEMENT M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPERATE	NON-OPR	HOLD	RLS	SEE NOTE
						8-CONTACT SPRINGS (Contd)										
3	1	-	-	-	111/110	U6107	P 2400 S 2410	100 100	35	5	2	P/S 23.5	-	-	-	A,E,P
						U6052	P 5600 S 8200	245 1800	35	15	S	P 24.5 S 17.5	-	-	-	J
2	2	-	-	-	110/110	U6114 U6137	4000 1650	82 16	35 35	10 15	2 2	35.5 90	-	-	-	X
2	2	-	-	-	191/191	U6021	P 3450 S 2850	120 125	35	5	2	P 33.5 S 43	-	-	-	J,X
						U6025	6250	1200	35	10	2	20.5	-	-	-	X,(RA)
1	3	-	-	-	128/110	U6050	9500	700	41	5	S	14.6				
-	1	1	1	-	142/132	U6010	2700	200	53	15	2	85	-	-	-	(RT)
1	-	1	1	-	108/106	U6026	P 8650 S (NI)	440 650	47	15	S	24.5	-	16.5	5.6	W
						9-CONTACT SPRINGS										
3	-	-	1	-	130/111	U6046	P 4530 S 5280	145 1200	44	5	2	P 33 P/S 15.5	-	20	-	A,J
-	-	3	-	-	121/132	U6011	4000	550	50	5	2	44.5	-	-	-	(RT)
-	-	2	1	-	121/106	U6004	12350	1000	50	10	2	17.5				

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Notes:

A. P/S indicates primary and secondary windings in series aiding.
E. Permalloy shells next to core.
J. Winding arrangement No. 2.
P. Winding arrangement No. 13.
W. Winding arrangement No. 8.
X. No. 1 metal stop pins.
(RA). Primary winding resistance ±5 per cent.
(RT). Primary winding resistance ±1 per cent.

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TABLE V - U-TYPE PERMALLOY RELAYS

CONT. ARRANGEMENT M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPERATE	NON-OPR	HOLD	RLS	SEE NOTE
									10-CONTACT SPRINGS							
2	-	2	-	-	108/108	U6066	5300	400	47	5	S	28				
						U6030	9500	700	47	10	2	18				
						U6051	P 5925	700	47	15	S	P 34.5	-	-	-	J
							S 11700	1400				S 16.5				
2	3	-	-	-	137/110	U6043	9500	700	41	15	2	19.5				X
						U6135	4000	82	41	10	2	(After soak of 75				
												(42	-	-	12.7	X
3	2	-	-	-	120/110	U6033	5300	400	35	5	2	21				X
						U6134	5300	400	35	10	2	(After soak of 47				
												(26	17.5	-	10	(RU)
4	1	-	-	-	120/111	U6116	P 2400	100	35	5	2	P/S 24.5	-	-	-	A,E,P
							S 2410	100								
1	1	2	-	-	160/108	U6056	9500	700	47	5	S	18				
2	-	1	1	-	130/108	U6124	1660	16	47	15	2	(After soak of 200				X
												(130	70.5	-	42	
						U6017	9500	700	47	5	2	18.5				
1	1	1	1	-	160/130	U6132	2700	200	47	15	2	85	-	-	26	X,(RT)
									11-CONTACT SPRINGS							
3	1	1	-	-	120/108	U6061	6000	220	47	15	2	31.5	23.5	-	-	X
3	1	-	1	-	120/130	U6016	9500	700	44	5	2	17.5	9.9			
2	2	-	1	-	181/142	U6101	3630	100	53	15	2	66.5	32			
1	1	1	-	(M-M)	148/305	U6037	4750	200	47	5	S	37.5				

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Notes:

A. P/S indicates primary and secondary windings in series aiding.
E. Permalloy shells next to core.
J. Winding arrangement No. 2.
P. Winding arrangement No. 13.

X. No. 1 metal stop pins.
(RT). Primary winding resistance ±1 per cent.
(RU). Primary winding resistance -5 per cent, +10 per cent.

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TABLE V - U-TYPE PERMALLOY RELAYS

CONT. ARRANGEMENT M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPERATE	NON-OPR	HOLD	RLS	SEE NOTE
							12-CONTACT SPRINGS									
6	-	-	-	-	123/123	U6054	9500	700	29	5	S	11.9				
						U6095	P 7100	700	29	5	S	P 16				
							S 7150	700				S 17	-	-	-	M
4	2	-	-	-	120/120	U6067	8800	450	35	10	S	16.5				
						U6019	12350	1000	35	15	2	13.6				
						U6113	4000	82	35	10	2	36	-	-	-	X
5	1	-	-	-	123/120	U6112	4000	82	35	10	2	35.5				
						U6018	P 8300	850	35	5	2	P 13.7	9.3	-	-	J
							S 10750	1750				S 11.1				
3	3	-	-	-	137/120	U6125	1000	5	41	5	2	145	-	-	-	X
						U6109	1660	16	41	5	2	90	-	-	19	X
-	-	4	-	-	121/121	U6032	9500	700	50	5	2	21				
3	-	1	1	-	145/130	U6093	12350	1000	47	15	2	17.5				
						U6136	9500	700	47	5	2	(After soak of 32				
												(19.5	10.7	-	3.8	
							13-CONTACT SPRINGS									
4	1	-	1	-	147/120	U6065	8800	450	44	5	S	20				
3	2	-	1	-	147/137	U6047	P 4050	300	44	5	2	P 47.5	-	-	-	J
							S 4150	700				S 48.5				
4	1	1	-	-	148/123	U6086	8800	450	47	10	S	19				

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Notes:

J. Winding arrangement No. 2.
M. Winding arrangement No. 7.
X. No. 1 metal stop pins.

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TABLE V - U-TYPE PERMALLOY RELAYS

CONT. ARRANGEMENT					SPRING COMB.	CODES	WINDING		ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS				SEE NOTE
M	B	BM	MB	OTHER			TURNS	RES				OPERATE	NON-OPR	HOLD	RLS	
						14-CONTACT SPRINGS										
5	2	-	-	-	134/120	U6104	P 9125 S 5575	800 740	35	5	2	S 21.5 P 13.9	-	-	-	J
						U6015	P 8300 S 10750	850 1750	35	5	2	P 14.7 S 12	10	-	-	J
3	4	-	-	-	151/137	U6029	9500	700	41	5	2	17				
						15-CONTACT SPRINGS										
3	-	2	-	(MM)	118/158	U6028	9500	700	50	5	2	19				
4	2	1	-	-	151/145	U6074 U6133	6000 5300	220 400	47 47	10 5	2 2	31.5 (After soak of 47 (28.5	23.5 19.5	 -	 7.9	←
1	2	3	-	-	149/121	U6031	9500	700	50	5	2	22				
2	1	1	2	-	153/156	U6048	P 4050 S 4150	300 700	53	5	2	P 60 S 61	-	-	-	J
3	-	2	1	-	153/183	U6058	4000	82	53	5	2	48.5				←
						16-CONTACT SPRINGS										
4	4	-	-	-	151/151	U6060 U6078	3630 9500	100 700	41 41	15 10	2 2	57 19.5	28.5 9.8			
2	-	3	1	-	153/118	U6038	9000	950	53	5	2	24				
2	-	2	2	-	153/153	U6094	P 4050 S 4150	300 700	53	5	2	P 60 S 61	-	-	-	J

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Notes:

J. Winding arrangement No. 2.

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TABLE V - U-TYPE PERMALLOY RELAYS

CONT. ARRANGEMENT					SPRING COMB.	CODES	WINDING		ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS				SEE NOTE
M	B	BM	MB	OTHER			TURNS	RES				OPERATE	NON-OPR	HOLD	RLS	
						17-CONTACT SPRINGS										
6	1	1	-	-	117/134	U6097	9500	700	47	10	2	20				
4	-	3	-	-	117/118	U6108	9500	700	50	5	S	22	-	-	7.2	
						18-CONTACT SPRINGS										
5	1	2	-	-	150/109	U6103	4750	200	50	15	S	50	24.5			
6	-	1	-	(MM)	117/116	U6042	9500	700	47	5	2	18.5				
						19-CONTACT SPRINGS										
1	1	5	-	-	150/139	U6092	6000	220	59	10	2	46				
						20-CONTACT SPRINGS										
10	-	-	-	-	112/112	U6036	9500	700	29	5	2	18				
7	-	2	-	-	127/117	U6087	9000	950	47	5	2	20.5				
8	2	-	-	-	129/129	U6131	4000	82	35	5	2	38.5				
7	3	-	-	-	193/129	U6110	4000	82	41	5	2	40.5				

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TABLE V - U-TYPE PERMALLOY RELAYS

CONT. ARRANGEMENT					SPRING COMB.	CODES	WINDING		ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS				SEE NOTE
M	B	BM	MB	OTHER			TURNS	RES				OPERATE	NON-OPR	HOLD	RLS	
						23-CONTACT SPRINGS										
2	5	2	1	-	124/163	U6081	9500	700	59	5	2	29				
						24-CONTACT SPRINGS										
9	3	-	-	-	162/119	U6057	6000	220	41	5	2	29.5				
12	-	-	-	-	113/113	U6100	9500	700	29	10	2	24.5				
10	2	-	-	-	119/119	U6117	5300	400	35	10	2	46.5				

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TABLE VI - UA-TYPE RELAYS

CONT. ARRANGEMENT M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPERATE	NON-OPR	HOLD	RLS	SEE NOTE
2-CONTACT SPRINGS																
1	-	-	-	-	101/136	UA2	P 3100	200	Max 29	25	2	P/S 20.5	-	-	11.2	A,E,P,(CL)
							S 3100	200								
						UA32	P//S	275	29	15	S	24	18	-	-	B,N,(CL), (RR)
							P 8750	550								
							S (NI)	550								
							T (NI)	550								
						UA9	P 14100	1800	29	10	2	P 5.7	-	3.1	-	B,M,(RA), (CL)
							S 2040	85				P//S 33.5	-			
						UA99	4120	90	29	5	S	14.4	-	-	-	(CL)
									Spl							
						UA125	33150	6375	23	5	2	1.6				Z,T,(CL) ←
						UA140	P 5050	475	29	5	2	P/S 2.6	1.9	-	0.2	A,J,(CJ), ← (RA)
							S 16300	3050								
1	-	-	-	-	205/136	UA3	P 3100	200	Max 23	25	S	P/S 13.5	10	-	6.5	A,E,P, (CL)
							S 3100	200								
						UA84	P 5100	295	Max 23	15	S	(After soak of 25	-		-	A,P,(CL)
							S 5100	295				(P/S 6.1	4.5	-	1.8	
												P 12.3				
-	1	-	-	-	144/136	UA135	33150	6375	35	5	2	2.3			0.2	(CL)
3-CONTACT SPRINGS																
-	-	1	-	-	132/136	UA17	P 2100	45	47	5	S	P 52.5	35	31.5	-	J,(CL)
							S 790	6				S 145				
						UA31	4600	200	47	15	S	28	-	-	-	(CL)

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Notes:

A. P/S indicates primary and secondary windings in series aiding.
B. P//S indicates primary and secondary windings in parallel.
E. Permalloy shells next to core.
J. Winding arrangement No. 2.
M. Winding arrangement No. 7.
N. Winding arrangement No. 9.
P. Winding arrangement No. 13.
T. Special contact pressure.
Z. Contact make 6 readjust, 4 test.
(CJ). 5/16-inch core, 1/8-inch armature.
(CL). 1/4-inch core, 0.083-inch armature.
(RA). Primary winding resistance ±5 per cent.
(RR). Resistance of primary and secondary windings in parallel ±7.5 per cent.

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TABLE VI - UA-TYPE RELAYS

CONT. ARRANGEMENT M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPERATE	NON-OPR	HOLD	RLS	SEE NOTE
						4-CONTACT SPRINGS										
2	-	-	-	-	101/101	UA14	5300	145	29	5	S	15	-	-	-	(CL)
						UA69	9450	500	29	10	S	9.5	-	-	-	(CJ)
						UA112	16600	1775	29	5	2	3.9	-	3.1	-	(CJ)
						UA19	18300	2500	29	15	S	6.5	4.6	-	-	(CL)
						UA134	4900	115	29	10	2	16.5				(CL)
→						UA143	P 5050	475								
									Spl			(After soak of 10				
							S 16300	3050	23	5	2	(P/S 2.6	1.9	-	0.2	A,J,T,Z, (CJ),(RA)
→						UA144	P 7125	880	29	5	2	P 8.7	6.2	-	-	J,(CJ)
							S 16200	3100				S 4.1				
1	1	-	-	-	110/136	UA54	P 20100	6000	35	10	2	P 5	-	-	1	J,U,(CK), (RA)
							S 4250	1000				S 25.5				
2	-	-	-	-	192/192	UA55	P 3100	200	29	25	2	P/S 28.5			14.5	A,E,P,(CL)
							S 3100	200								
									Spl							
2	-	-	-	-	111/136	UA4	21350	2650	23	5	2	3.1	2.3	1.7	-	S,T,Z,(CK)
1	1	-	-	-	144/101	UA41	2630	34	35	5	S	29	-	-	-	(CJ)
									Spl							
						UA50	9000	640	29	5	S	7.2 (13/32" cu sleeve)				(BB),(CK), (RA)
									Spl							
						UA45	12200	1000	29	10	S	6.2	-	-	1.6	T,Y,(CK)
						UA52	P 24100	5000	35	25	2	P 5.7	3.4	-	2.9	K,T,U,Y, (CL),(RA)
							S (NI)	1675								
									Max							
1	1	-	-	-	144/205	UA81	P 3100	200	35	25	S	(After soak of 40				
→							S 3100	200				(P/S 19 - 22		-	9.3	A,E,P,(CL)
									Max							
						UA105	P 5100	295	29	25	S	(After soak of 25				
							S 5100	295				(P/S 9.4	-	-	3.5	A,P,T,Y, (CL)
									Spl							
→2	-	-	-	-	205/205	UA88	1900	15	23	10	2	32	22	-	-	(CL)
						UA103	P 5100	295	29	15	S	P/S 9.4	-	-	-	A,P,(CL)
							S 5100	295								
						UA35	6620	200	29	15	2	(After soak of 38				
												(14.4	-	10.8	5.4	(CL)

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Notes:

A. P/S indicates primary and secondary windings in series aiding.
E. Permalloy shells next to core.
J. Winding arrangement No. 2.
K. Winding arrangement No. 3.
P. Winding arrangement No. 13.
S. Winding arrangement No. 17.
T. Special contact pressure.
U. Copper tinsel over core.
Y. Minimum spring tension (1T) 10 grams readjust, 8 grams test.
Z. Contact make 6 readjust, 4 test.
(BB). Contacts make 6 readjust, 4 test. Minimum spring tension (1T) 10 grams readjust, 8 grams test.
(CJ). 5/16-inch core, 1/8-inch armature.
(CK). 1/4-inch core, 1/8-inch armature.
(CL). 1/4-inch core, 0.083-inch armature.
(RA). Primary winding resistance ±5 per cent.

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TABLE VI - UA-TYPE RELAYS

CONT. ARRANGEMENT M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPERATE	NON-OPR	HOLD	RLS	SEE NOTE
										4-CONTACT SPRINGS (Contd)						
2	-	-	-	-	205/205 (Contd)	UA1	P 3100 S 3100	200 200	Max 23	25	S	P/S 18	-	-	9.6	A,E,P,(CL)
						UA42	P 3100 S 3100	200 200	Max 23	25	2	(P/S 16 (After soak of 48	-	-	5.8	A,E,P,(CL)
						UA49	10250	500	29	5	2	6.9	4.2	-	-	(CL),(RA)
						UA48	14300	1070	Max 17	5	2	3.42	-	-	-	T,Z,(CL),(RA)
2	-	-	-	-	206/205	UA36	P 3100 S 3100	200 200	Max 23	25	S	P/S 23	-	-	14.3	A,E,P,(CL)
1	1	-	-	-	144/101	UA131	P 2420 S 2420	67 67	35	10	2	P/S 18.5	-	-	5.1	A,P,(CL)
										5-CONTACT SPRINGS						
1	-	1	-	-	132/101	UA70	1000	5	47	25	2	140	-	-	46.5	(CJ)
						UA72	7400	300	47	5	2	15.5	-	-	-	(CJ)
						UA37	9300	700	47	10	2	12.5	8.3	-	-	(CL)
1	-	-	1	-	106/101	UA76	6000	220	44	5	2	16.5	-	-	-	(CJ)
						UA33	5100	400	44	15	2	28.5	-	-	-	(CL)
						UA65	18300	2500	44	10	S	6.3	-	-	-	(CK),(RA)

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Notes:

A. P/S indicates primary and secondary windings in series aiding.
E. Permalloy shells next to core.
P. Winding arrangement No. 13.
T. Special contact pressure.
Z. Contact make 6 readjust, 4 test.
(CJ). 5/16-inch core, 1/8-inch armature.
(CK). 1/4-inch core, 1/8-inch armature.
(CL). 1/4-inch core, 0.083-inch armature.
(RA). Primary winding resistance ±5 per cent.

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TABLE VI - UA-TYPE RELAYS

CONT. ARRANGEMENT M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPERATE	NON-OPR	HOLD	RLS	SEE NOTE
						6-CONTACT SPRINGS										
3	-	-	-	-	111/101	UA64	P 3700	215	29	10	S	P/T//S				F,O,(CJ),
												19.5	-	-	-	(RA)
							S 8630	1000				S 10.9				
							T (NI)	34								
									Spl							
						UA63	P 5050	475	23	5	2	P 17	-	-	-	J,(CJ),
							S 16300	3050				S 5.4				(RA)
						UA95	9500	700	29	5	2	8	-	-	-	(CJ)
						UA71	18800	2500	29	5	2	4.4	3.2	-	-	(CJ)
						UA114	P 3100	200	29	10	S	P/S 18.5	-	-	-	A,E,P,
							S 3100	200								(CL)
2	1	-	-	-	110/101	UA66	11300	750	35	10	2	7.8	-	-	-	(CJ)
						UA15	18300	2500	35	5	2	5	-	-	-	(CL)
						UA75	P 2730	85	35	25	S	P 47	-	-	21.5	J,(CJ),
							S 11200	1800				S 11.7				(RC)
									Spl							
→						UA38	6620	200	29	10	2	14.2	-	-	5.3	T,(BB),
																(CL)
1	2	-	-	-	110/144	UA97	P 5650	520	35	10	S	P/S 9.5	-	-	2.8	A,E,P,
							S 5650	520								(CL)
						UA34	12200	1000	35	5	2	8.9	-	-	-	(CL)
						UA58	P 11300	1500	35	5	2	P 8.9	5.5	-	-	R,(CJ)
							S (NI)	700								
							T (NI)	300								
-	-	2	-	-	132/132	UA40	2360	23	47	5	2	55	31.5	-	-	(CK)
						UA13	18800	2500	47	5	2	6.1	-	-	-	(CJ)
→						UA141	9500	700	47	5	2	12	-	-	-	(CJ)
→						UA142	6000	220	47	10	2	20	-	-	4.7	(CJ)
						UA86	P 2700	100	47	10	S	P 45.5	-	-	-	J,(CJ)
							S 9000	1100				S 14				
						UA91	P 7700	850	47	15	2	P 22	-	-	-	J,(CL)
							S 11800	1750				S 14.5				
1	2	-	-	-	131/110	UA6	P 6080	510	35	10	S	P/S 8.5	-	-	2.3	A,P,(CJ)
							S 6060	515								
-	-	1	1	-	132/106	UA20	12200	1000	47	15	S	14.7	-	-	-	(CK)
						UA121	4000	82	47	5	2	36.5	25	-	-	(CJ)

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Notes:

A. P/S indicates primary and secondary windings in series aiding.
E. Permalloy shells next to core.
F. P/T//S indicates primary and tertiary windings in series shunted by secondary winding.
J. Winding arrangement No. 2.
O. Winding arrangement No. 12.
P. Winding arrangement No. 13.
R. Winding arrangement No. 16.

T. Special contact pressure.
(BB). Contacts make 6 readjust, 4 test. Minimum spring tension (1T) 10 grams readjust, 8 grams test.
(CJ). 5/16-inch core, 1/8-inch armature.
(CK). 1/4-inch core, 1/8-inch armature.
(CL). 1/4-inch core, 0.083-inch armature.
(RA). Primary winding resistance ±5 per cent.
(RC). All windings resistance ±5 per cent.

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TABLE VI - UA-TYPE RELAYS

CONT. ARRANGEMENT M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPERATE	NON-OPR	HOLD	RLS	SEE NOTE
6-CONTACT SPRINGS (Contd)																
3	-	-	-	-	229/205	UA133	P 2750 S 2750	93 93	Spl 17	5	2	P/S 10	7	-	-	P,Z,(CK)
3	-	-	-	-	111/101	UA137	P 6070 S 6070	400 400	Spl 17	10	S	P/S 7.5	3.8	-	3.5	A,P,(CL)←
-	-	2	-	-	132/132	UA139	10250	950w	47	5	2	12.1	-	-	-	(CL)
7-CONTACT SPRINGS																
1	1	1	-	-	132/110	UA44 UA79 UA147	11900 24100 4900	720 5500 115	47 47 47	5 5 10	2 2 2	10.3 4.1 28	4.6 (13/32" al sleeve) -	- -	- -	(CK) (CJ) (CL) ←
2	-	1	-	-	111/132	UA101	P 3700 S 8630 T (NI)	215 1000 34	47	5	S	P//S 21 S 11.7	-	-	-	B,O,(CJ), (RA)
2	-	1	-	-	132/111	UA138	9300	700	47	10	2	17	6.1		5.5	(CL)
8-CONTACT SPRINGS																
4	-	-	-	-	111/111	UA57 UA22 UA146	P 5050 S 16300 12200 P 360 S 360	475 3050 1000 1.9 1.9	Spl 23 29 29	5 10 5	2 S 2	S 17 S 5.6 10.4 P 285 S 300	12 - -	- - -	- - -	J,(CJ), (RA) (CL) J,(CK), ← (RG),(RV)
3	1	-	-	-	111/110	UA129	P 2410 S 2410	100 100	35	5	2	P/S 18.5	-	-	-	A,E,P, (CJ)

X-75375

Notes:

A. P/S indicates primary and secondary windings in series aiding.
B. P//S indicates primary and secondary windings in parallel.
E. Permalloy shells next to core.
J. Winding arrangement No. 2.
O. Winding arrangement No. 12.
P. Winding arrangement No. 13.
Z. Contact make 6 readjust, 4 test.
(CJ). 5/16-inch core, 1/8-inch armature.
(CK). 1/4-inch core, 1/8-inch armature.
(CL). 1/4-inch core, 0.083-inch armature.
(RA). Primary winding resistance ±5 per cent.
(RG). Primary winding resistance ±15 per cent.
(RV). Secondary winding resistance ±15 per cent.

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TABLE VI - UA-TYPE RELAYS

CONT. ARRANGEMENT M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPERATE	NON-OPR	HOLD	RLS	SEE NOTE
						8-CONTACT SPRINGS (Contd)										
3	1	-	-	-	111/110 (Contd)	UA47	P 3100 S 3100	200 200	35	10	2	P/S 23.5	-	-	6.6	A,E,P,(CL)
						UA60	26650	6000	35	5	S	4.2	-	-	-	U,(CL),(RA)
2	2	-	-	-	110/110	UA12	P 3100 S 3100	200 200	35	10	2	P/S 21.5	-	-	6.8	A,E,P,(CL)
						UA93	18800	2500	35	5	S	4.9	-	-	-	(CJ)
						UA74	P 10700 S 10700	2500 2500	35	5	S	P 8.5 S 8.7	- -	- -	-	J,(CJ),(RC)
						UA106	25700	4000	35	5	2	3.7	-	-	-	U,(CK)
1	-	2	-	-	108/132	UA109	1175	5.6	47	10	2	155	-	-	49	(CL)
						UA119	11900	720	Spl 38	5	2	8	4.1	-	-	T,(AJ),(CK)
4	-	-	-	-	229/229	UA53	7400	300	Spl 17	5	S	8.8	7	-	-	T,Z,(CJ)
→						UA128	P 7900 S 10900 T 10900	1000 2030 2780	Spl 23	5	S	P 8.9 S 6.6 T 6.6	-	-	-	(AH),(CL)
-	1	1	1	-	142/132	UA28	2700	200	53	15	S	85	-	-	-	(CK),(RA)

X-75375

Notes:

A. P/S indicates primary and secondary windings in series aiding.
E. Permalloy shells next to core.
J. Winding arrangement No. 2.
P. Winding arrangement No. 13.
T. Special contact pressure.
U. Copper tinsel over core.
Z. Contact make 6 readjust, 4 test.
(AH). Winding arrangement No. 6.
(AJ). Contacts make 6 readjust, 4 test. Minimum spring tension (2T and 2B) 10 grams readjust, 8 grams test.
(CJ). 5/16-inch core, 1/8-inch armature.
(CK). 1/4-inch core, 1/8-inch armature.
(CL). 1/4-inch core, 0.083-inch armature.
(RA). Primary winding resistance ±5 per cent.
(RC). All windings resistance ±5 per cent.

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TABLE VI - UA-TYPE RELAYS

CONT. ARRANGEMENT M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPERATE	NON-OPR	HOLD	RLS	SEE NOTE
								9-CONTACT SPRINGS								
3	-	-	1	-	130/111	UA16	P 4600 S 7050	145 1200	44	5	2	P 30 P/S 11.9	-	26	-	A,J,(CL)
-	-	3	-	-	121/132	UA29 UA43	2700 9500	200 700	50 50	5 5	S 2	55 13.3	- -	- -	- -	(CK),(CJ), (RA)
-	-	2	1	-	121/106	UA18	12200	1000	50	10	2	16	-	-	-	(CK)
								10-CONTACT SPRINGS								
3	2	-	-	-	120/110	UA39	P 2730 S 11200	85 1800	Spl 29	5	2	S 6.8 P//S 25.5	4.3	-	-	B,J,T,(AA), (CJ),(RC)
						UA46	P 4000 S 2300	95 440	35	5	2	P 23.5 P/S 15	-	-	-	A,J,(CJ)
						UA10	4950	145	35	5	S	21	14	-	-	(CJ)
						UA127	23400	4000	35	10	2	4.7	2.2	-	1.6	(CJ)
1	1	2	-	-	160/108	UA23	9300	700	47	5	2	15.5	-	-	-	(CK)
2	1	-	-	(M-B)	181/304	UA90	P 5925 S 16950	700 3300	59	5	2	S 9.3 P 27	-	-	-	J,(CJ)
-	2	-	-	(M-M) (Prel M)	318/305	UA11	P 1830 S 5175	21 1200	47	5	2	P 67.5 S 24.5	-	-	-	J,(CJ), (RC)
2	3	-	-	-	137/110	UA126	28500	4475	Spl 35	5	2	3.4	-	-	-	(BD),(CK)
4	1	-	-	-	120/111	UA130	P 2410 S 2410	100 100	35	5	2	P/S 21.5	-	-	-	A,E,P,(CJ)

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Notes:

A. P/S indicates primary and secondary windings in series aiding.
B. P//S indicates primary and secondary windings in parallel.
E. Permalloy shells next to core.
J. Winding arrangement No. 2.
P. Winding arrangement No.13.
T. Special contact pressure.
(AA). Contacts make 6 readjust, 4 test. Minimum spring tension (1T and 1B) 10 grams readjust, 8 grams test.
(BD). Contact 6T make 6 readjust, 4 test. Minimum spring tension (1T and 3T) 10 grams readjust, 8 grams test.
(CJ). 5/16-inch core, 1/8-inch armature.
(CK). 1/4-inch core, 1/8-inch armature.
(CL). 1/4-inch core, 0.083-inch armature.
(RA). Primary winding resistance ±5 per cent.
(RC). All windings resistance ±5 per cent.

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TABLE VI - UA-TYPE RELAYS

CONT. ARRANGEMENT M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPERATE	NON-OPR	HOLD	RLS	SEE NOTE
									11-CONTACT SPRINGS							
-	1	3	-	-	121/160	UA77	4000	82	50	5	2	35.5 -2.9v	-	-	-	(CJ)
						UA51	11300	750	50	5	2	14.2	-	-	-	(CJ)
-	1	2	1	-	234/102	UA92	4750	200	Spl 47	25	S	38	-	-	20	T,(AB),(CJ),(CM)
1	2	1	-	(Prel M)	324/110	UA100	P 1830 S 5175	21 1200	Max 41	5	S	S 20 P 57	-	-	-	J,T,(AC),(CJ),(RC)
									12-CONTACT SPRINGS							
6	-	-	-	-	123/123	UA21	P 6750 S 7000	700 700	29	5	2	P 25.5 S 25.5	-	-	-	M,(CK)
2	4	-	-	-	137/137	UA89	1660	16	41	5	2	73	-	-	-	(CJ)
-	-	4	-	-	121/121	UA102	9450	500	50	5	2	17.5	-	-	6.4	(CJ),(RA)
4	2	-	-	-	181/181	UA94	18800	2500	35	5	2	5.4	-	-	-	(CJ)
2	2	-	-	(2 Prel M)	348/348	UA62	P 2560 S 2570	130 130	41	5	2	P/S 21.5	-	-	4.2	A,E,P,(CJ)
						UA117	P 1830 S 5175	21 1200	41	5	S	S 24 P 69	10.6	-	-	J,(CJ),(RA)
→ 3	-	2	-	-	145/108	UA145	P 3100 S 3100	200 200	Spl 38	5	2	P/S 19.5	-	-	-	A,E,P,T,(CK),(CT)

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Notes:

A. P/S indicates primary and secondary windings in series aiding.
E. Permalloy shells next to core.
J. Winding arrangement No. 2.
M. Winding arrangement No. 7.
P. Winding arrangement No. 13.
T. Special contact pressure.
(AB). Contacts make 6 readjust, 4 test. Minimum spring tension (1T, 4T, and 5B) 10 grams readjust, 8 grams test.
(AC). Contacts make 6 readjust, 4 test. Minimum spring tension (1T, 4T, and 1B) 10 grams readjust, 8 grams test.
(CJ). 5/16-inch core, 1/8-inch armature.
(CK). 1/4-inch core, 1/8-inch armature.
(CM). Minimum spring tension (1B) 30 grams readjust, 28 grams test.
(CT). Contacts 2T, 5T, and 2B, make 6 readjust, 4 test. Minimum spring tension (2T and 2B) 10 grams readjust, 8 grams test.
(RA). Primary winding resistance ±5 per cent.
(RC). All windings resistance ±5 per cent.

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TABLE VI - UA-TYPE RELAYS

CONT. ARRANGEMENT					SPRING COMB.	CODES	WINDING		ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS				SEE NOTE
M	B	BM	MB	OTHER			TURNS	RES				OPERATE	NON-OPR	HOLD	RLS	
							15-CONTACT SPRINGS									
1	1	3	-	(Prel M)	118/324	UA83	P 8300 S 10750	850 1750	53	5	2	S 16 P 21	-	-	-	J,(CJ)
2	3	-	1	(Prel M)	325/147	UA104	P 8000 S 14300	1000 2700	53	5	S	P 21.5 S 12.1	-	-	-	J,(CJ)
							16-CONTACT SPRINGS									
2	-	2	2	-	153/153	UA61	12600	1200	53	5	S	13.4	-	-	-	(CJ)
3	2	1	1	-	184/153	UA59	12600	1200	53	5	2	11.9	-	-	-	(CJ)
2	1	2	-	(M-B)	310/118	UA56	P 7000 S 9850	850 1200	68	5	S	P 30 S 21	-	-	-	J,(CJ)
3	1	2	-	(Prel M)	118/344	UA108	P 8000 S 14300	1000 2700	50	5	2	S 10.6 P 19.5	-	-	-	J,(CJ)
4	4	-	-	-	151/151	UA148	12350	1000	41	5	2	10.2	-	-	-	(CJ) ←
							17-CONTACT SPRINGS									
2	2	2	1	-	149/153	UA80	P 8300 S 10750	850 1750	53	5	S	P 22 S 17	-	-	-	J,(CJ)

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Notes:

J. Winding arrangement No. 2
(CJ). 5/16-inch core, 1/8-inch armature.

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TABLE VI - UA-TYPE RELAYS

CONT. ARRANGEMENT M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPERATE	NON-OPR	HOLD	RLS	SEE NOTE
							18-CONTACT SPRINGS									
-	-	4	2	-	126/126	UA107	5300	400	59	5	S	40	-	-	-	(CJ)
4	2	2	-	-	180/149	UA96	P 6950 S 15300	840 6300	Max 38	5	S	P/S 4.8 P 16	-	-	-	J,(AD),(CJ),(RA),(RF)
4	2	1	1	-	141/184	UA116	P 12600 S 5500	1425 970	53	5	S	S 32.5 P 14.4	-	-	7.8	J,(CJ)
1	2	3	1	-	107/153	UA118	P 8300 S 10750	850 1750	53	5	S	P 22 S 17		-	-	J,(CJ)
							19-CONTACT SPRINGS									
2	-	3	2	-	141/126	UA5	9450	500	59	5	2	21	-	-	-	(CJ)
							21-CONTACT SPRINGS									
3	3	2	1	-	103/141	UA115	9500	700	53	5	2	15	-	-	-	T,(AE),(CJ)

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Notes:

J. Winding arrangement No. 2.
T. Special contact pressure.
(AD). Contacts make 6 readjust, 4 test. Minimum spring tension (6T,1B,3B,6B) 10 grams readjust, 8 grams test.
(AE). Contacts make 6 readjust, 4 test. Minimum spring tension (1T,3T,5T,8T,7B) 10 grams readjust, 8 grams test.
(CJ). 5/16-inch core, 1/8-inch armature.
(RA). Primary winding resistance ±5 per cent.
(RF). Secondary winding resistance ±2 per cent.

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TABLE VI - UA-TYPE RELAYS

CONT. ARRANGEMENT					SPRING COMB.	CODES	WINDING		ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS				SEE NOTE
M	B	BM	MB	OTHER			TURNS	RES				OPERATE	NON-OPR	HOLD	RLS	
						22-CONTACT SPRINGS										
2	-	4	2	-	163/163	UA110	9500	700	59	5	S	29.5	-	-	-	(BK),(CJ)
						UA111	9500	700	59	5	2	29.5	-	-	-	(BK),(CJ)
						24-CONTACT SPRINGS										
3	3	2	2	-	202/161	UA78	9000	950	71	5	S	32	-	-	-	(CJ)
1	11	-	-	-	125/124	UA123	7400	300	62	5	2	33	-	-	-	(CJ)
-	12	-	-	-	125/125	UA132	9500	700	Spl 59	5	2	17	-	-	-	T,(CS) ←

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Notes:

T. Special contact pressure.
(CJ). 5/16-inch core, 1/8-inch armature.

(CS). Minimum tension springs 1,3,5,7,9,11T and B 10 grams, readjust, 8 grams test.
(BK). Minimum spring tension (1T and 1B) 30 grams readjust, 28 grams test.

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TABLE VI - UA-TYPE RELAYS

CONT. ARRANGEMENT M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPERATE	NON-OPR	HOLD	RLS	SEE NOTE
2-CONTACT SPRINGS																
1	-	-	-	-	101/136	UA2	P 3100	200	Max 29	25	2	P/S 20.5	-	-	11.2	A,E,P,(CL)
							S 3100	200								
						UA32	P//S	275	29	15	S	24	18	-	-	B,N,(CL), (RR)
							P 8750	550								
							S (NI)	550								
							T (NI)	550								
						UA9	P 14100	1800	29	10	2	P 5.7	-	3.1	-	B,M,(RA), (CL)
							S 2040	85				P//S 33.5	-			
						UA99	4120	90	29	5	S	14.4	-	-	-	(CL)
									Spl							
						UA125	33150	6375	23	5	2	1.6				Z,T,(CL) ←
						UA140	P 5050	475	29	5	2	P/S 2.6	1.9	-	0.2	A,J,(CJ), ← (RA)
							S 16300	3050								
1	-	-	-	-	205/136	UA3	P 3100	200	Max 23	25	S	P/S 13.5	10	-	6.5	A,E,P, (CL)
							S 3100	200								
						UA84	P 5100	295	Max 23	15	S	(After soak of 25	-		-	A,P,(CL)
							S 5100	295				(P/S 6.1	4.5	-	1.8	
												P 12.3				
-	1	-	-	-	144/136	UA135	33150	6375	35	5	2	2.3			0.2	(CL)
3-CONTACT SPRINGS																
-	-	1	-	-	132/136	UA17	P 2100	45	47	5	S	P 52.5	35	31.5	-	J,(CL)
							S 790	6				S 145				
						UA31	4600	200	47	15	S	28	-	-	-	(CL)

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Notes:

A. P/S indicates primary and secondary windings in series aiding.
B. P//S indicates primary and secondary windings in parallel.
E. Permalloy shells next to core.
J. Winding arrangement No. 2.
M. Winding arrangement No. 7.
N. Winding arrangement No. 9.
P. Winding arrangement No. 13.
T. Special contact pressure.
Z. Contact make 6 readjust, 4 test.
(CJ). 5/16-inch core, 1/8-inch armature.
(CL). 1/4-inch core, 0.083-inch armature.
(RA). Primary winding resistance ±5 per cent.
(RR). Resistance of primary and secondary windings in parallel ±7.5 per cent.

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TABLE VI - UA-TYPE RELAYS

CONT. ARRANGEMENT M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPERATE	NON-OPR	HOLD	RLS	SEE NOTE
						4-CONTACT SPRINGS										
2	-	-	-	-	101/101	UA14	5300	145	29	5	S	15	-	-	-	(CL)
						UA69	9450	500	29	10	S	9.5	-	-	-	(CJ)
						UA112	16600	1775	29	5	2	3.9	-	3.1	-	(CJ)
						UA19	18300	2500	29	15	S	6.5	4.6	-	-	(CL)
						UA134	4900	115	29	10	2	16.5				(CL)
→						UA143	P 5050	475								
									Spl			(After soak of 10				
							S 16300	3050	23	5	2	(P/S 2.6	1.9	-	0.2	A,J,T,Z, (CJ),(RA)
→						UA144	P 7125	880	29	5	2	P 8.7	6.2	-	-	J,(CJ)
							S 16200	3100				S 4.1				
1	1	-	-	-	110/136	UA54	P 20100	6000	35	10	2	P 5	-	-	1	J,U,(CK), (RA)
							S 4250	1000				S 25.5				
2	-	-	-	-	192/192	UA55	P 3100	200	29	25	2	P/S 28.5			14.5	A,E,P,(CL)
							S 3100	200								
									Spl							
2	-	-	-	-	111/136	UA4	21350	2650	23	5	2	3.1	2.3	1.7	-	S,T,Z,(CK)
1	1	-	-	-	144/101	UA41	2630	34	35	5	S	29	-	-	-	(CJ)
									Spl							
						UA50	9000	640	29	5	S	7.2 (13/32" cu sleeve)				(BB),(CK), (RA)
									Spl							
						UA45	12200	1000	29	10	S	6.2	-	-	1.6	T,Y,(CK)
						UA52	P 24100	5000	35	25	2	P 5.7	3.4	-	2.9	K,T,U,Y, (CL),(RA)
							S (NI)	1675								
									Max							
1	1	-	-	-	144/205	UA81	P 3100	200	35	25	S	(After soak of 40				
→							S 3100	200				(P/S 19 - 22		-	9.3	A,E,P,(CL)
									Max							
						UA105	P 5100	295	29	25	S	(After soak of 25				
							S 5100	295				(P/S 9.4	-	-	3.5	A,P,T,Y, (CL)
									Spl							
→2	-	-	-	-	205/205	UA88	1900	15	23	10	2	32	22	-	-	(CL)
						UA103	P 5100	295	29	15	S	P/S 9.4	-	-	-	A,P,(CL)
							S 5100	295								
						UA35	6620	200	29	15	2	(After soak of 38				
												(14.4	-	10.8	5.4	(CL)

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Notes:

A. P/S indicates primary and secondary windings in series aiding.
E. Permalloy shells next to core.
J. Winding arrangement No. 2.
K. Winding arrangement No. 3.
P. Winding arrangement No. 13.
S. Winding arrangement No. 17.
T. Special contact pressure.
U. Copper tinsel over core.
Y. Minimum spring tension (1T) 10 grams readjust, 8 grams test.
Z. Contact make 6 readjust, 4 test.
(BB). Contacts make 6 readjust, 4 test. Minimum spring tension (1T) 10 grams readjust, 8 grams test.
(CJ). 5/16-inch core, 1/8-inch armature.
(CK). 1/4-inch core, 1/8-inch armature.
(CL). 1/4-inch core, 0.083-inch armature.
(RA). Primary winding resistance ±5 per cent.

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TABLE VI - UA-TYPE RELAYS

CONT. ARRANGEMENT M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPERATE	NON-OPR	HOLD	RLS	SEE NOTE
										4-CONTACT SPRINGS (Contd)						
2	-	-	-	-	205/205 (Contd)	UA1	P 3100 S 3100	200 200	Max 23	25	S	P/S 18	-	-	9.6	A,E,P,(CL)
						UA42	P 3100 S 3100	200 200	Max 23	25	2	(P/S 16 (After soak of 48	-	-	5.8	A,E,P,(CL)
						UA49	10250	500	29	5	2	6.9	4.2	-	-	(CL),(RA)
						UA48	14300	1070	Max 17	5	2	3.42	-	-	-	T,Z,(CL),(RA)
2	-	-	-	-	206/205	UA36	P 3100 S 3100	200 200	Max 23	25	S	P/S 23	-	-	14.3	A,E,P,(CL)
1	1	-	-	-	144/101	UA131	P 2420 S 2420	67 67	35	10	2	P/S 18.5	-	-	5.1	A,P,(CL)
										5-CONTACT SPRINGS						
1	-	1	-	-	132/101	UA70	1000	5	47	25	2	140	-	-	46.5	(CJ)
						UA72	7400	300	47	5	2	15.5	-	-	-	(CJ)
						UA37	9300	700	47	10	2	12.5	8.3	-	-	(CL)
1	-	-	1	-	106/101	UA76	6000	220	44	5	2	16.5	-	-	-	(CJ)
						UA33	5100	400	44	15	2	28.5	-	-	-	(CL)
						UA65	18300	2500	44	10	S	6.3	-	-	-	(CK),(RA)

X-75375

Notes:

A. P/S indicates primary and secondary windings in series aiding.
E. Permalloy shells next to core.
P. Winding arrangement No. 13.
T. Special contact pressure.
Z. Contact make 6 readjust, 4 test.
(CJ). 5/16-inch core, 1/8-inch armature.
(CK). 1/4-inch core, 1/8-inch armature.
(CL). 1/4-inch core, 0.083-inch armature.
(RA). Primary winding resistance ±5 per cent.

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TABLE VI - UA-TYPE RELAYS

CONT. ARRANGEMENT M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPERATE	NON-OPR	HOLD	RLS	SEE NOTE
						6-CONTACT SPRINGS										
3	-	-	-	-	111/101	UA64	P 3700	215	29	10	S	P/T//S				F,O,(CJ),
												19.5	-	-	-	(RA)
							S 8630	1000				S 10.9				
							T (NI)	34								
									Spl							
						UA63	P 5050	475	23	5	2	P 17	-	-	-	J,(CJ),
							S 16300	3050				S 5.4				(RA)
						UA95	9500	700	29	5	2	8	-	-	-	(CJ)
						UA71	18800	2500	29	5	2	4.4	3.2	-	-	(CJ)
						UA114	P 3100	200	29	10	S	P/S 18.5	-	-	-	A,E,P,
							S 3100	200								(CL)
2	1	-	-	-	110/101	UA66	11300	750	35	10	2	7.8	-	-	-	(CJ)
						UA15	18300	2500	35	5	2	5	-	-	-	(CL)
						UA75	P 2730	85	35	25	S	P 47	-	-	21.5	J,(CJ),
							S 11200	1800				S 11.7				(RC)
									Spl							
→						UA38	6620	200	29	10	2	14.2	-	-	5.3	T,(BB),
																(CL)
1	2	-	-	-	110/144	UA97	P 5650	520	35	10	S	P/S 9.5	-	-	2.8	A,E,P,
							S 5650	520								(CL)
						UA34	12200	1000	35	5	2	8.9	-	-	-	(CL)
						UA58	P 11300	1500	35	5	2	P 8.9	5.5	-	-	R,(CJ)
							S (NI)	700								
							T (NI)	300								
-	-	2	-	-	132/132	UA40	2360	23	47	5	2	55	31.5	-	-	(CK)
						UA13	18800	2500	47	5	2	6.1	-	-	-	(CJ)
→						UA141	9500	700	47	5	2	12	-	-	-	(CJ)
→						UA142	6000	220	47	10	2	20	-	-	4.7	(CJ)
						UA86	P 2700	100	47	10	S	P 45.5	-	-	-	J,(CJ)
							S 9000	1100				S 14				
						UA91	P 7700	850	47	15	2	P 22	-	-	-	J,(CL)
							S 11800	1750				S 14.5				
1	2	-	-	-	131/110	UA6	P 6080	510	35	10	S	P/S 8.5	-	-	2.3	A,P,(CJ)
							S 6060	515								
-	-	1	1	-	132/106	UA20	12200	1000	47	15	S	14.7	-	-	-	(CK)
						UA121	4000	82	47	5	2	36.5	25	-	-	(CJ)

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Notes:

A. P/S indicates primary and secondary windings in series aiding.
E. Permalloy shells next to core.
F. P/T//S indicates primary and tertiary windings in series shunted by secondary winding.
J. Winding arrangement No. 2.
O. Winding arrangement No. 12.
P. Winding arrangement No. 13.
R. Winding arrangement No. 16.

T. Special contact pressure.
(BB). Contacts make 6 readjust, 4 test. Minimum spring tension (1T) 10 grams readjust, 8 grams test.
(CJ). 5/16-inch core, 1/8-inch armature.
(CK). 1/4-inch core, 1/8-inch armature.
(CL). 1/4-inch core, 0.083-inch armature.
(RA). Primary winding resistance ±5 per cent.
(RC). All windings resistance ±5 per cent.

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TABLE VI - UA-TYPE RELAYS

CONT. ARRANGEMENT M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPERATE	NON-OPR	HOLD	RLS	SEE NOTE
6-CONTACT SPRINGS (Contd)																
3	-	-	-	-	229/205	UA133	P 2750 S 2750	93 93	Spl 17	5	2	P/S 10	7	-	-	P,Z,(CK)
3	-	-	-	-	111/101	UA137	P 6070 S 6070	400 400	Spl 17	10	S	P/S 7.5	3.8	-	3.5	A,P,(CL)←
-	-	2	-	-	132/132	UA139	10250	950w	47	5	2	12.1	-	-	-	(CL)
7-CONTACT SPRINGS																
1	1	1	-	-	132/110	UA44 UA79 UA147	11900 24100 4900	720 5500 115	47 47 47	5 5 10	2 2 2	10.3 4.1 28	4.6 (13/32" al sleeve) -	- -	- -	(CK) (CJ) (CL) ←
2	-	1	-	-	111/132	UA101	P 3700 S 8630 T (NI)	215 1000 34	47	5	S	P//S 21 S 11.7	-	-	-	B,O,(CJ), (RA)
2	-	1	-	-	132/111	UA138	9300	700	47	10	2	17	6.1		5.5	(CL)
8-CONTACT SPRINGS																
4	-	-	-	-	111/111	UA57 UA22 UA146	P 5050 S 16300 12200 P 360 S 360	475 3050 1000 1.9 1.9	Spl 23 29 29	5 10 5	2 S 2	S 17 S 5.6 10.4 P 285 S 300	12 - -	- - -	- - -	J,(CJ), (RA) (CL) J,(CK), ← (RG),(RV)
3	1	-	-	-	111/110	UA129	P 2410 S 2410	100 100	35	5	2	P/S 18.5	-	-	-	A,E,P, (CJ)

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Notes:

A. P/S indicates primary and secondary windings in series aiding.
B. P//S indicates primary and secondary windings in parallel.
E. Permalloy shells next to core.
J. Winding arrangement No. 2.
O. Winding arrangement No. 12.
P. Winding arrangement No. 13.
Z. Contact make 6 readjust, 4 test.
(CJ). 5/16-inch core, 1/8-inch armature.
(CK). 1/4-inch core, 1/8-inch armature.
(CL). 1/4-inch core, 0.083-inch armature.
(RA). Primary winding resistance ±5 per cent.
(RG). Primary winding resistance ±15 per cent.
(RV). Secondary winding resistance ±15 per cent.

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TABLE VI - UA-TYPE RELAYS

CONT. ARRANGEMENT M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPERATE	NON-OPR	HOLD	RLS	SEE NOTE
						8-CONTACT SPRINGS (Contd)										
3	1	-	-	-	111/110 (Contd)	UA47	P 3100 S 3100	200 200	35	10	2	P/S 23.5	-	-	6.6	A,E,P,(CL)
						UA60	26650	6000	35	5	S	4.2	-	-	-	U,(CL),(RA)
2	2	-	-	-	110/110	UA12	P 3100 S 3100	200 200	35	10	2	P/S 21.5	-	-	6.8	A,E,P,(CL)
						UA93	18800	2500	35	5	S	4.9	-	-	-	(CJ)
						UA74	P 10700 S 10700	2500 2500	35	5	S	P 8.5 S 8.7	- -	- -	-	J,(CJ),(RC)
						UA106	25700	4000	35	5	2	3.7	-	-	-	U,(CK)
1	-	2	-	-	108/132	UA109	1175	5.6	47	10	2	155	-	-	49	(CL)
						UA119	11900	720	Spl 38	5	2	8	4.1	-	-	T,(AJ),(CK)
4	-	-	-	-	229/229	UA53	7400	300	Spl 17	5	S	8.8	7	-	-	T,Z,(CJ)
→						UA128	P 7900 S 10900 T 10900	1000 2030 2780	Spl 23	5	S	P 8.9 S 6.6 T 6.6	-	-	-	(AH),(CL)
-	1	1	1	-	142/132	UA28	2700	200	53	15	S	85	-	-	-	(CK),(RA)

X-75375

Notes:

A. P/S indicates primary and secondary windings in series aiding.
E. Permalloy shells next to core.
J. Winding arrangement No. 2.
P. Winding arrangement No. 13.
T. Special contact pressure.
U. Copper tinsel over core.
Z. Contact make 6 readjust, 4 test.
(AH). Winding arrangement No. 6.
(AJ). Contacts make 6 readjust, 4 test. Minimum spring tension (2T and 2B) 10 grams readjust, 8 grams test.
(CJ). 5/16-inch core, 1/8-inch armature.
(CK). 1/4-inch core, 1/8-inch armature.
(CL). 1/4-inch core, 0.083-inch armature.
(RA). Primary winding resistance ±5 per cent.
(RC). All windings resistance ±5 per cent.

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TABLE VI - UA-TYPE RELAYS

CONT. ARRANGEMENT M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPERATE	NON-OPR	HOLD	RLS	SEE NOTE
								9-CONTACT SPRINGS								
3	-	-	1	-	130/111	UA16	P 4600 S 7050	145 1200	44	5	2	P 30 P/S 11.9	-	26	-	A,J,(CL)
-	-	3	-	-	121/132	UA29 UA43	2700 9500	200 700	50 50	5 5	S 2	55 13.3	- -	- -	- -	(CK),(CJ), (RA)
-	-	2	1	-	121/106	UA18	12200	1000	50	10	2	16	-	-	-	(CK)
								10-CONTACT SPRINGS								
3	2	-	-	-	120/110	UA39	P 2730 S 11200	85 1800	Spl 29	5	2	S 6.8 P//S 25.5	4.3	-	-	B,J,T,(AA), (CJ),(RC)
						UA46	P 4000 S 2300	95 440	35	5	2	P 23.5 P/S 15	-	-	-	A,J,(CJ)
						UA10	4950	145	35	5	S	21	14	-	-	(CJ)
						UA127	23400	4000	35	10	2	4.7	2.2	-	1.6	(CJ)
1	1	2	-	-	160/108	UA23	9300	700	47	5	2	15.5	-	-	-	(CK)
2	1	-	-	(M-B)	181/304	UA90	P 5925 S 16950	700 3300	59	5	2	S 9.3 P 27	-	-	-	J,(CJ)
-	2	-	-	(M-M) (Prel M)	318/305	UA11	P 1830 S 5175	21 1200	47	5	2	P 67.5 S 24.5	-	-	-	J,(CJ), (RC)
2	3	-	-	-	137/110	UA126	28500	4475	Spl 35	5	2	3.4	-	-	-	(BD),(CK)
4	1	-	-	-	120/111	UA130	P 2410 S 2410	100 100	35	5	2	P/S 21.5	-	-	-	A,E,P,(CJ)

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Notes:

A. P/S indicates primary and secondary windings in series aiding.
B. P//S indicates primary and secondary windings in parallel.
E. Permalloy shells next to core.
J. Winding arrangement No. 2.
P. Winding arrangement No.13.
T. Special contact pressure.
(AA). Contacts make 6 readjust, 4 test. Minimum spring tension (1T and 1B) 10 grams readjust, 8 grams test.
(BD). Contact 6T make 6 readjust, 4 test. Minimum spring tension (1T and 3T) 10 grams readjust, 8 grams test.
(CJ). 5/16-inch core, 1/8-inch armature.
(CK). 1/4-inch core, 1/8-inch armature.
(CL). 1/4-inch core, 0.083-inch armature.
(RA). Primary winding resistance ±5 per cent.
(RC). All windings resistance ±5 per cent.

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TABLE VI - UA-TYPE RELAYS

CONT. ARRANGEMENT M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPERATE	NON-OPR	HOLD	RLS	SEE NOTE
									11-CONTACT SPRINGS							
-	1	3	-	-	121/160	UA77	4000	82	50	5	2	35.5 -2.9v	-	-	-	(CJ)
						UA51	11300	750	50	5	2	14.2	-	-	-	(CJ)
-	1	2	1	-	234/102	UA92	4750	200	Spl 47	25	S	38	-	-	20	T,(AB),(CJ),(CM)
1	2	1	-	(Prel M)	324/110	UA100	P 1830 S 5175	21 1200	Max 41	5	S	S 20 P 57	-	-	-	J,T,(AC),(CJ),(RC)
									12-CONTACT SPRINGS							
6	-	-	-	-	123/123	UA21	P 6750 S 7000	700 700	29	5	2	P 25.5 S 25.5	-	-	-	M,(CK)
2	4	-	-	-	137/137	UA89	1660	16	41	5	2	73	-	-	-	(CJ)
-	-	4	-	-	121/121	UA102	9450	500	50	5	2	17.5	-	-	6.4	(CJ),(RA)
4	2	-	-	-	181/181	UA94	18800	2500	35	5	2	5.4	-	-	-	(CJ)
2	2	-	-	(2 Prel M)	348/348	UA62	P 2560 S 2570	130 130	41	5	2	P/S 21.5	-	-	4.2	A,E,P,(CJ)
						UA117	P 1830 S 5175	21 1200	41	5	S	S 24 P 69	10.6	-	-	J,(CJ),(RA)
→ 3	-	2	-	-	145/108	UA145	P 3100 S 3100	200 200	Spl 38	5	2	P/S 19.5	-	-	-	A,E,P,T,(CK),(CT)

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Notes:

A. P/S indicates primary and secondary windings in series aiding.
E. Permalloy shells next to core.
J. Winding arrangement No. 2.
M. Winding arrangement No. 7.
P. Winding arrangement No. 13.
T. Special contact pressure.
(AB). Contacts make 6 readjust, 4 test. Minimum spring tension (1T, 4T, and 5B) 10 grams readjust, 8 grams test.
(AC). Contacts make 6 readjust, 4 test. Minimum spring tension (1T, 4T, and 1B) 10 grams readjust, 8 grams test.
(CJ). 5/16-inch core, 1/8-inch armature.
(CK). 1/4-inch core, 1/8-inch armature.
(CM). Minimum spring tension (1B) 30 grams readjust, 28 grams test.
(CT). Contacts 2T, 5T, and 2B, make 6 readjust, 4 test. Minimum spring tension (2T and 2B) 10 grams readjust, 8 grams test.
(RA). Primary winding resistance ±5 per cent.
(RC). All windings resistance ±5 per cent.

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TABLE VI - UA-TYPE RELAYS

CONT. ARRANGEMENT					SPRING COMB.	CODES	WINDING		ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS				SEE NOTE
M	B	BM	MB	OTHER			TURNS	RES				OPERATE	NON-OPR	HOLD	RLS	
							15-CONTACT SPRINGS									
1	1	3	-	(Prel M)	118/324	UA83	P 8300 S 10750	850 1750	53	5	2	S 16 P 21	-	-	-	J,(CJ)
2	3	-	1	(Prel M)	325/147	UA104	P 8000 S 14300	1000 2700	53	5	S	P 21.5 S 12.1	-	-	-	J,(CJ)
							16-CONTACT SPRINGS									
2	-	2	2	-	153/153	UA61	12600	1200	53	5	S	13.4	-	-	-	(CJ)
3	2	1	1	-	184/153	UA59	12600	1200	53	5	2	11.9	-	-	-	(CJ)
2	1	2	-	(M-B)	310/118	UA56	P 7000 S 9850	850 1200	68	5	S	P 30 S 21	-	-	-	J,(CJ)
3	1	2	-	(Prel M)	118/344	UA108	P 8000 S 14300	1000 2700	50	5	2	S 10.6 P 19.5	-	-	-	J,(CJ)
4	4	-	-	-	151/151	UA148	12350	1000	41	5	2	10.2	-	-	-	(CJ) ←
							17-CONTACT SPRINGS									
2	2	2	1	-	149/153	UA80	P 8300 S 10750	850 1750	53	5	S	P 22 S 17	-	-	-	J,(CJ)

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Notes:

J. Winding arrangement No. 2
(CJ). 5/16-inch core, 1/8-inch armature.

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TABLE VI - UA-TYPE RELAYS

CONT. ARRANGEMENT M	B	BM	MB	OTHER	SPRING COMB.	CODES	WINDING TURNS	WINDING RES	ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS OPERATE	NON-OPR	HOLD	RLS	SEE NOTE
							18-CONTACT SPRINGS									
-	-	4	2	-	126/126	UA107	5300	400	59	5	S	40	-	-	-	(CJ)
4	2	2	-	-	180/149	UA96	P 6950 S 15300	840 6300	Max 38	5	S	P/S 4.8 P 16	-	-	-	J,(AD),(CJ),(RA),(RF)
4	2	1	1	-	141/184	UA116	P 12600 S 5500	1425 970	53	5	S	S 32.5 P 14.4	-	-	7.8	J,(CJ)
1	2	3	1	-	107/153	UA118	P 8300 S 10750	850 1750	53	5	S	P 22 S 17		-	-	J,(CJ)
							19-CONTACT SPRINGS									
2	-	3	2	-	141/126	UA5	9450	500	59	5	2	21	-	-	-	(CJ)
							21-CONTACT SPRINGS									
3	3	2	1	-	103/141	UA115	9500	700	53	5	2	15	-	-	-	T,(AE),(CJ)

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Notes:

J. Winding arrangement No. 2.
T. Special contact pressure.
(AD). Contacts make 6 readjust, 4 test. Minimum spring tension (6T,1B,3B,6B) 10 grams readjust, 8 grams test.
(AE). Contacts make 6 readjust, 4 test. Minimum spring tension (1T,3T,5T,8T,7B) 10 grams readjust, 8 grams test.
(CJ). 5/16-inch core, 1/8-inch armature.
(RA). Primary winding resistance ±5 per cent.
(RF). Secondary winding resistance ±2 per cent.

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TABLE VI - UA-TYPE RELAYS

CONT. ARRANGEMENT					SPRING COMB.	CODES	WINDING		ARM. TRVL	STOP PINS	CONT. METAL	CURRENT FLOW REQUIREMENTS				SEE NOTE
M	B	BM	MB	OTHER			TURNS	RES				OPERATE	NON-OPR	HOLD	RLS	
						22-CONTACT SPRINGS										
2	-	4	2	-	163/163	UA110	9500	700	59	5	S	29.5	-	-	-	(BK),(CJ)
						UA111	9500	700	59	5	2	29.5	-	-	-	(BK),(CJ)
						24-CONTACT SPRINGS										
3	3	2	2	-	202/161	UA78	9000	950	71	5	S	32	-	-	-	(CJ)
1	11	-	-	-	125/124	UA123	7400	300	62	5	2	33	-	-	-	(CJ)
-	12	-	-	-	125/125	UA132	9500	700	Spl 59	5	2	17	-	-	-	T,(CS) ←

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Notes:

T. Special contact pressure.
(CJ). 5/16-inch core, 1/8-inch armature.

(CS). Minimum tension springs 1,3,5,7,9,11T and B 10 grams, readjust, 8 grams test.
(BK). Minimum spring tension (1T and 1B) 30 grams readjust, 28 grams test.

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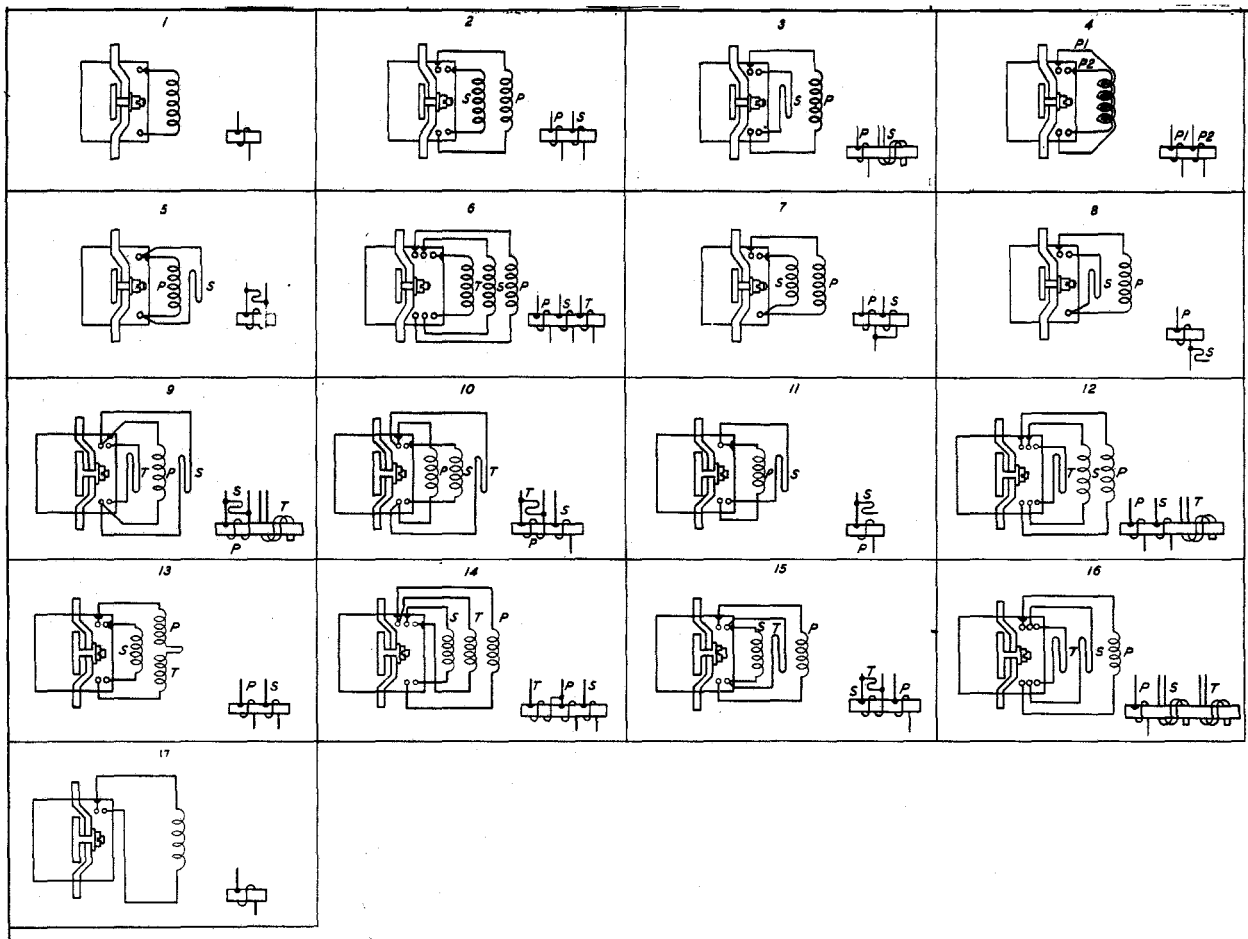
Winding Arrangements Front View

X-75375



NOTE: THE WINDING TERMINALS ARE NUMBERED CONSECUTIVELY FOLLOWING THE SPRINGS FOR EXAMPLE, IF THE LAST SPRING NUMBER IS 6, THE FIRST WINDING TERMINAL WILL BE 7T AND THE SECOND 8T FOR THE TOP COMBINATION, OR 7B AND 8B FOR THE BOTTOM COMBINATION.

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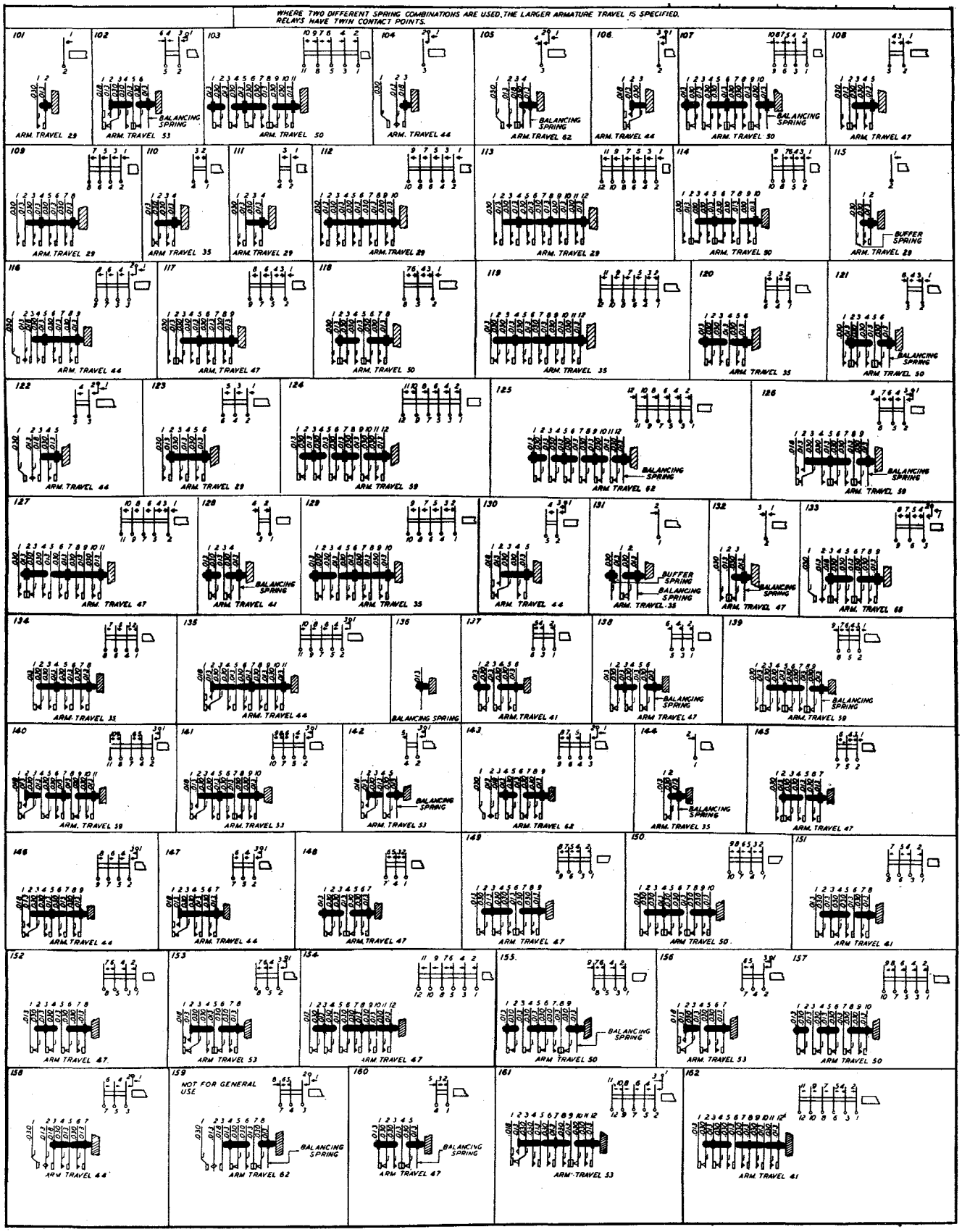
Spring Combinations



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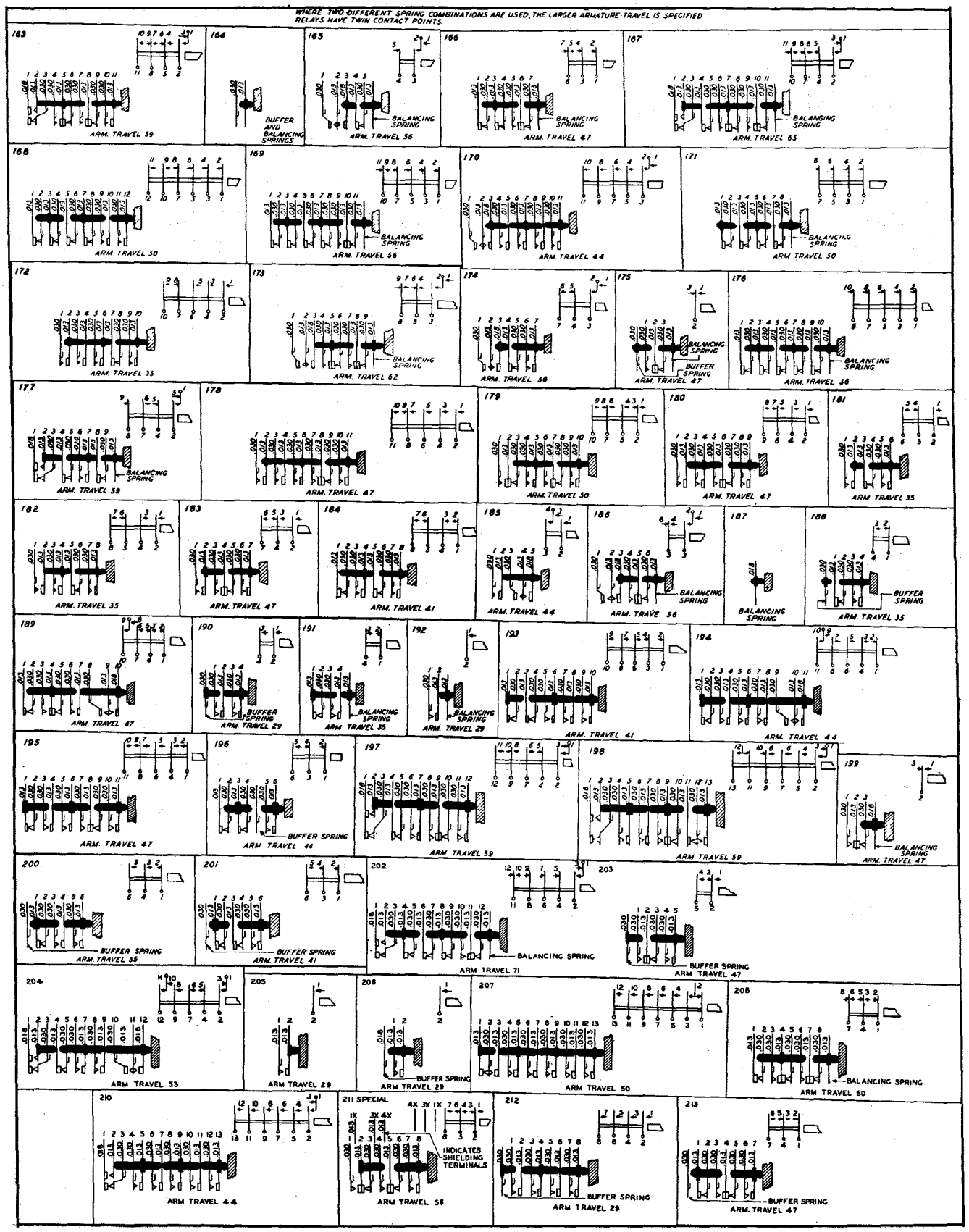
Spring Combinations



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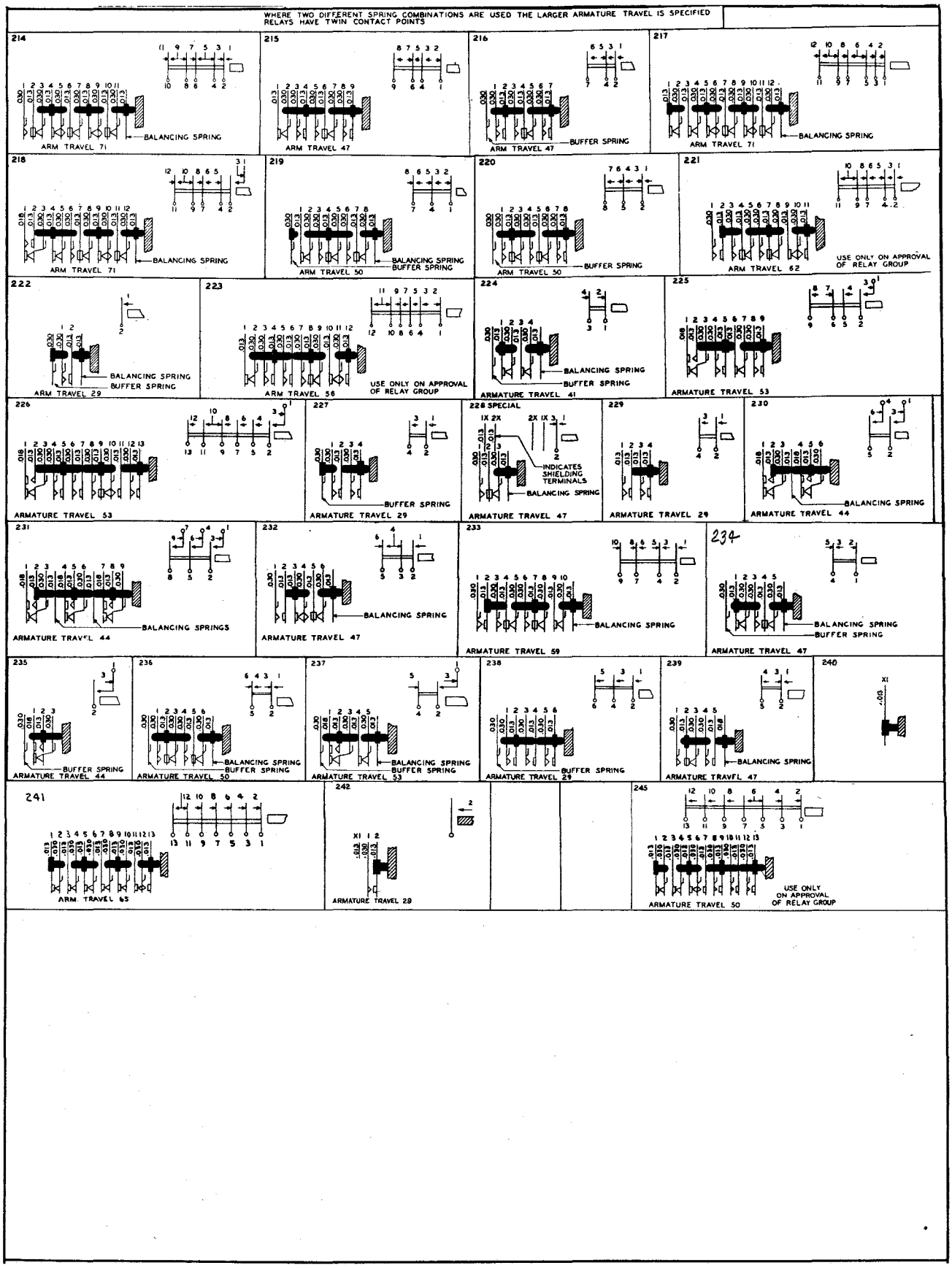
Spring Combinations



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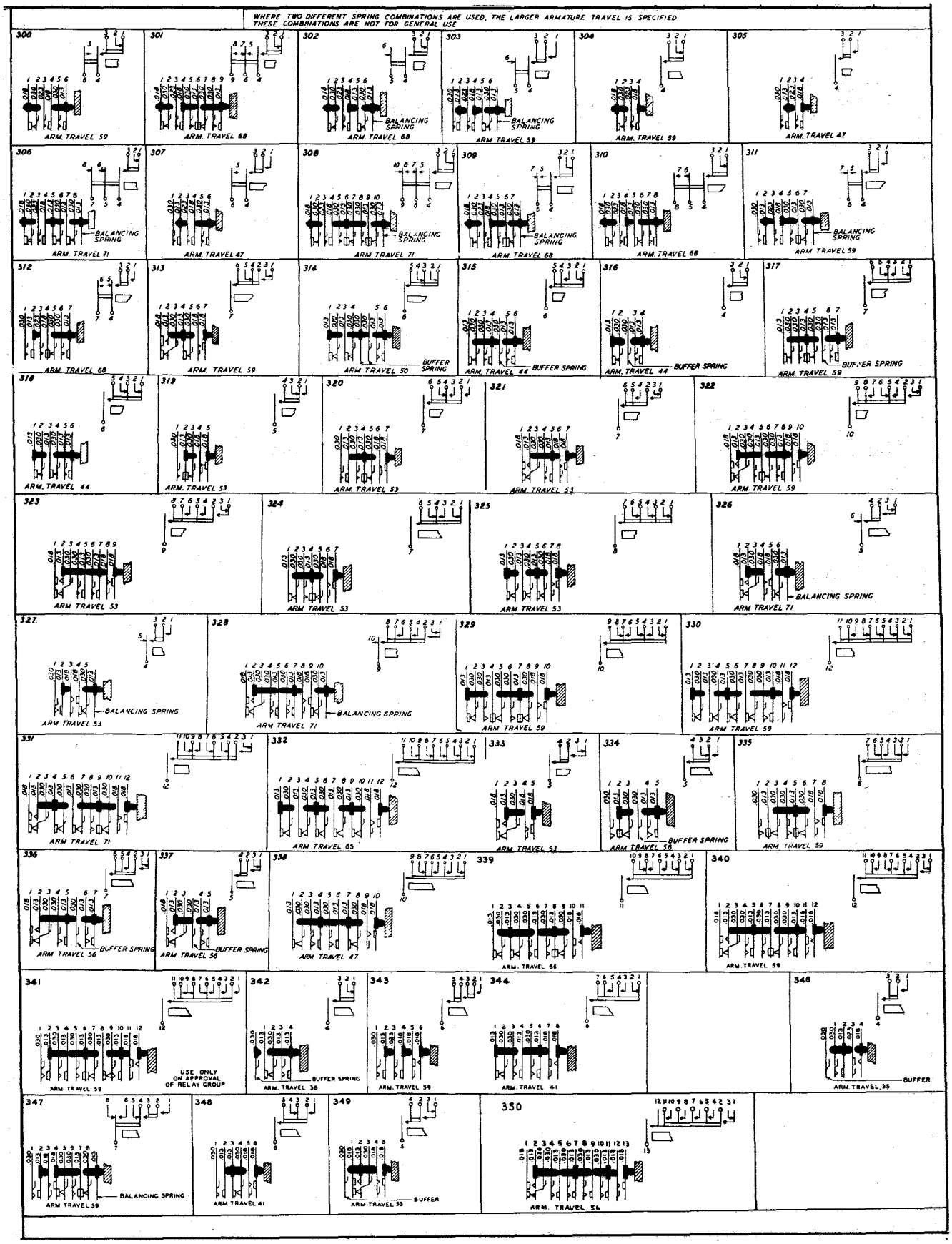
Spring Combinations



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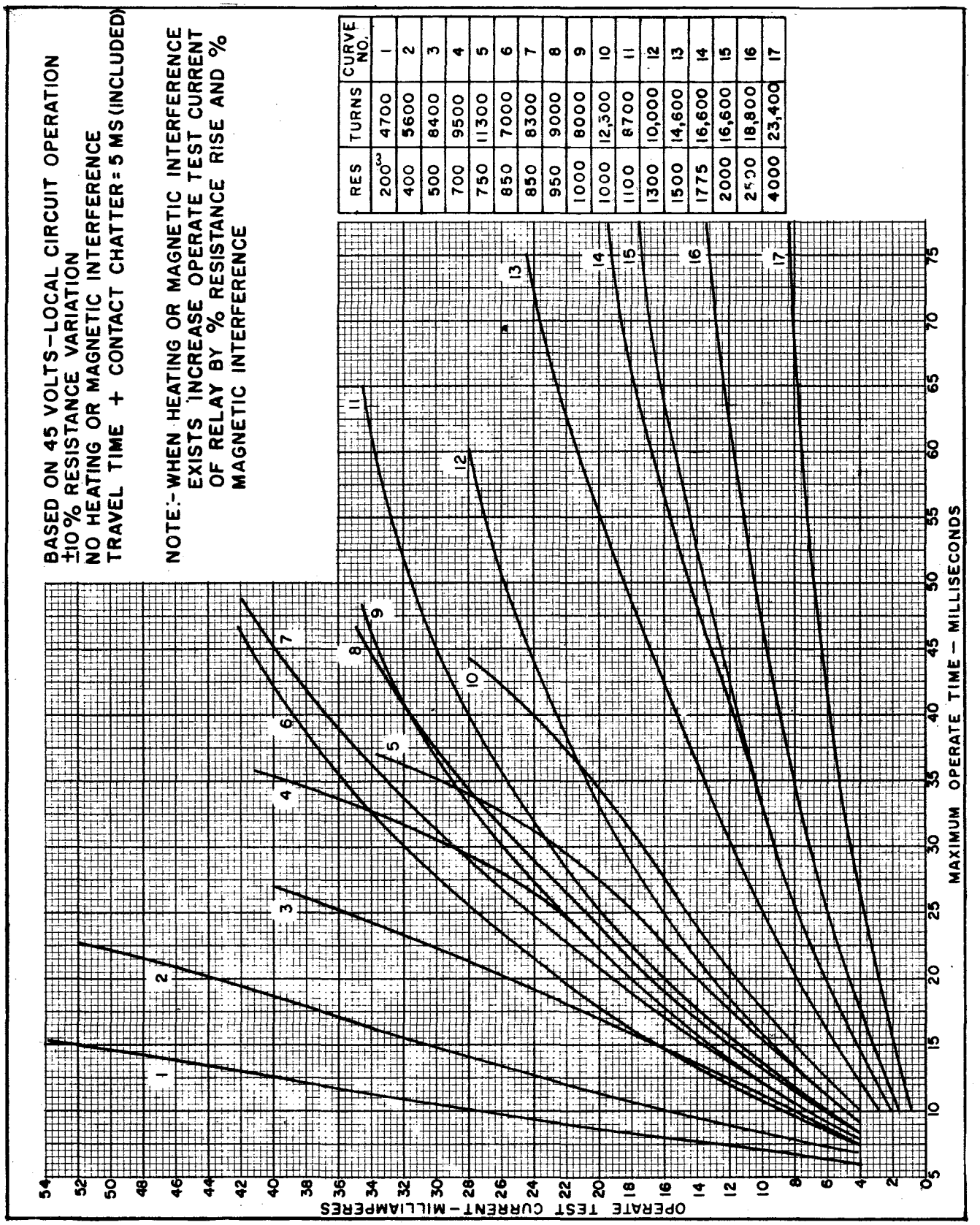
U TYPE RELAY
TIME CURVES
MAXIMUM OPERATE



RES	TURNS	CURVE NO.
200[3]	4700	1
400	5600	2
500	8400	3
700	9500	4
750	11300	5
850	7000	6
850	8300	7
950	9000	8
1000	8000	9
1000	12,300	10
1100	8700	11
1300	10,000	12
1500	14,600	13
1775	16,600	14
2000	16,600	15
2500	18,800	16
4000	23,400	17

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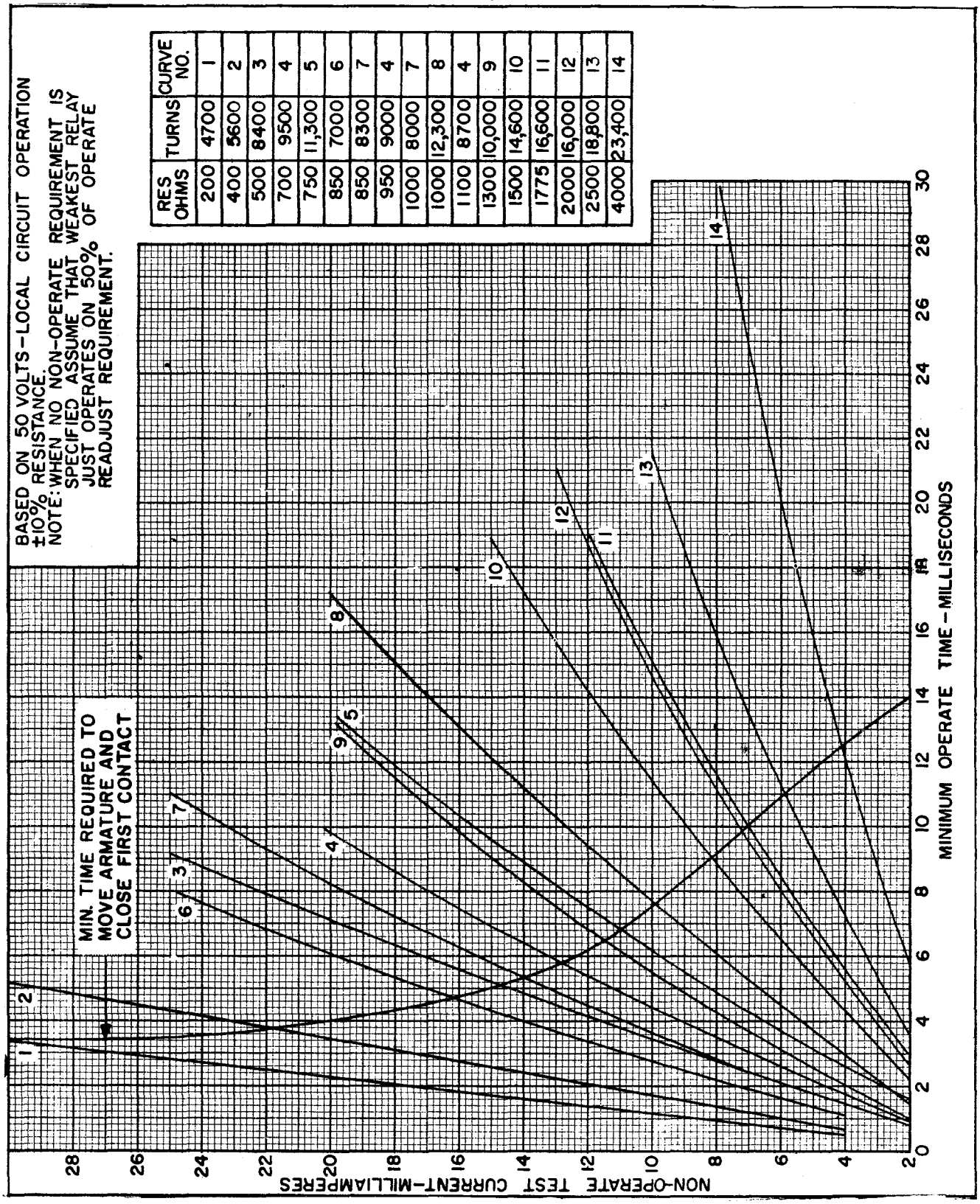
U TYPE RELAY

TIME CURVES
MINIMUM OPERATE



RES OHMS	TURNS	CURVE NO.
200	4700	1
400	5600	2
500	8400	3
700	9500	4
750	11,300	5
850	7000	6
850	8300	7
950	9000	4
1000	8000	7
1000	12,300	8
1100	8700	4
1300	10,000	9
1500	14,600	10
1775	16,600	11
2000	16,000	12
2500	18,800	13
4000	23,400	14

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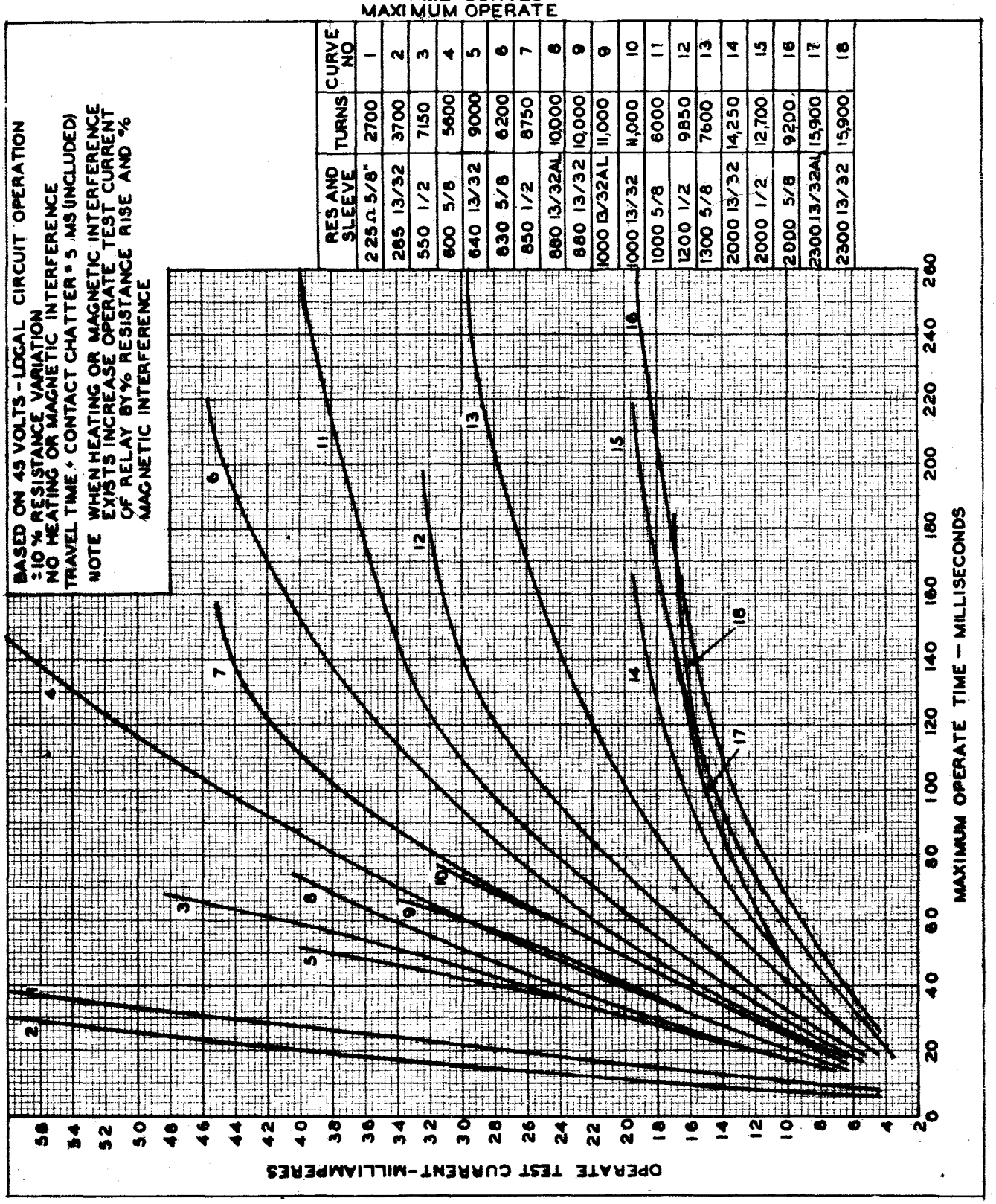
U AND Y TYPE RELAYS

SLOW ACTING
TIME CURVES
MAXIMUM OPERATE



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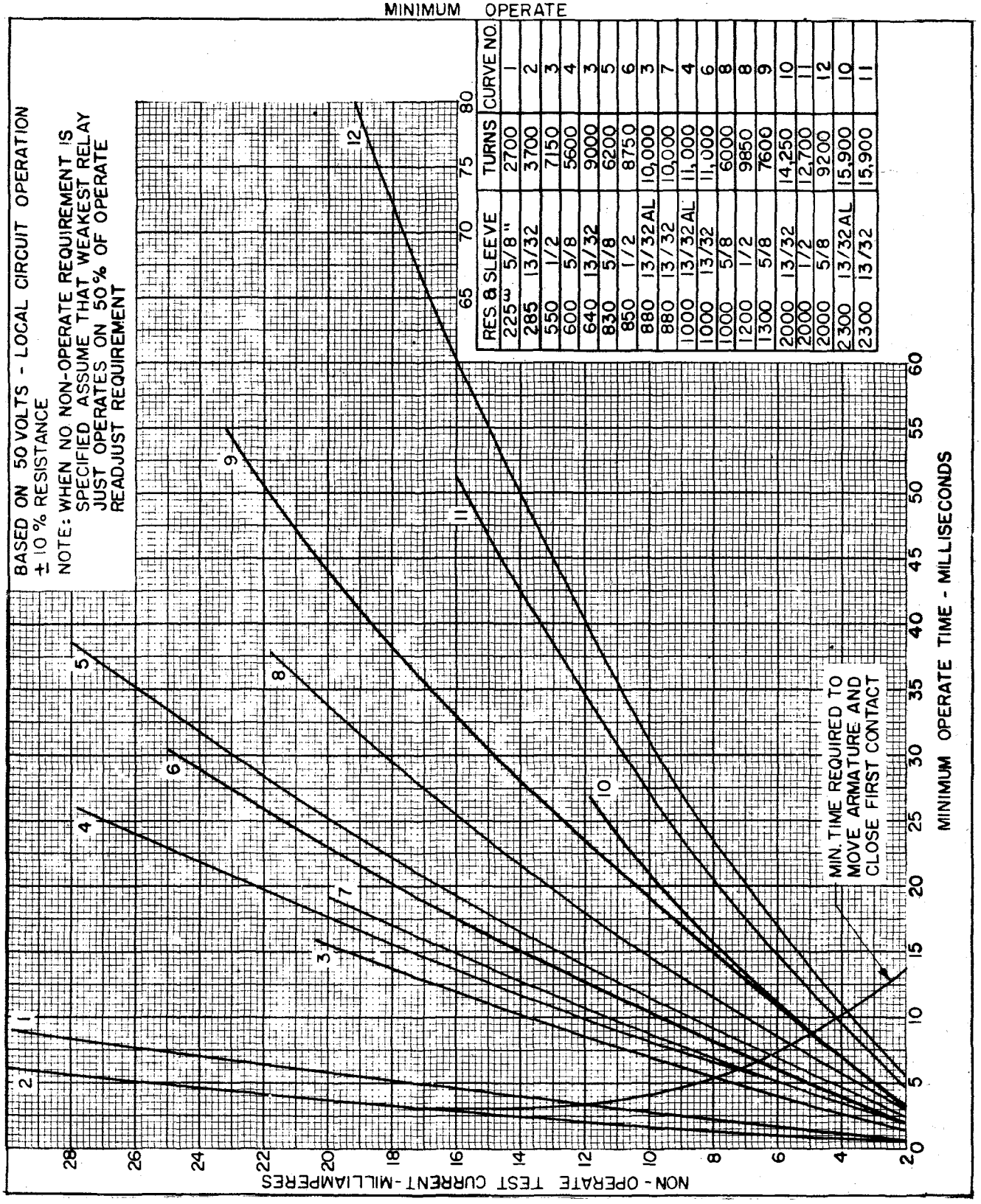
U AND Y TYPE RELAYS

SLOW ACTING
TIME CURVES
MINIMUM OPERATE



RES. & SLEEVE	TURNS	CURVE NO.
225ω 5/8"	2700	1
285 13/32	3700	2
550 1/2	7150	3
600 5/8	5600	4
640 13/32	9000	3
830 5/8	6200	5
850 1/2	8750	6
880 13/32 AL	10,000	3
880 13/32	10,000	7
1000 13/32 AL	11,000	4
1000 13/32	11,000	6
1000 5/8	6000	8
1200 1/2	9850	8
1300 5/8	7600	9
2000 13/32	14,250	10
2000 1/2	12,700	11
2000 5/8	9200	12
2300 13/32 AL	15,900	10
2300 13/32	15,900	11

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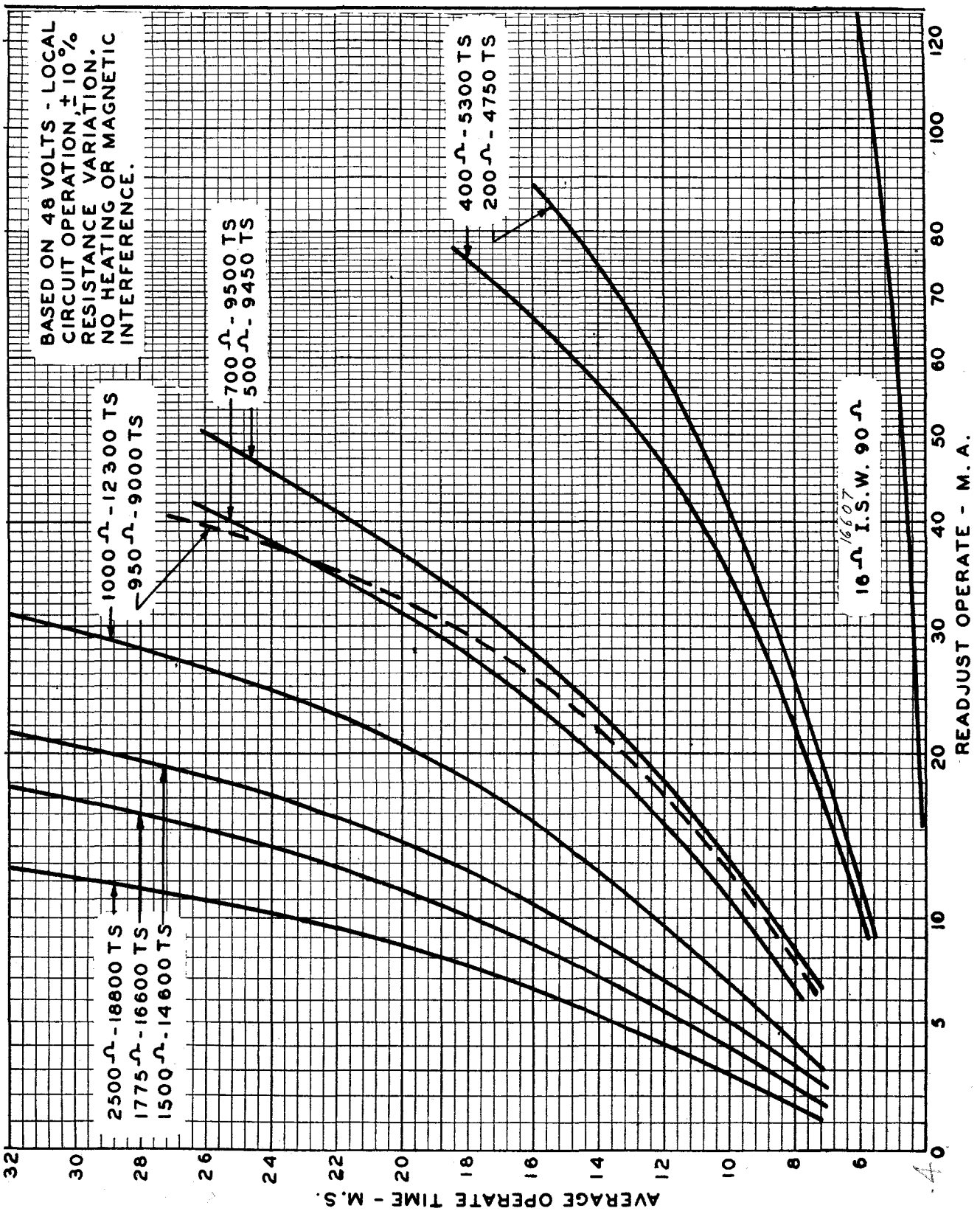
U TYPE RELAY
TIME CURVES
AVERAGE OPERATE



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REFERENCE NOTES

A. P/S indicates primary and secondary windings in series aiding.

B. P//S indicates primary and secondary windings in parallel.

C. Use only on approval of Relay Group.

D. Secondary winding short-circuited at terminals.

E. Permalloy shells next to core.

F. P/T//S indicates primary and tertiary windings in series shunted by secondary winding.

G. Primary winding short-circuited at terminals.

H. Secondary and tertiary windings in parallel.

J. Winding arrangement No. 2.

K. Winding arrangement No. 3.

L. Winding arrangement No. 5.

M. Winding arrangement No. 7.

N. Winding arrangement No. 9.

O. Winding arrangement No. 12.

P. Winding arrangement No. 13.

Q. Winding arrangement No. 15.

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R. Winding arrangement No. 16.

S. Winding arrangement No. 17.

T. Special contact pressure.

U. Copper tinsel over core.

W. Winding arrangement No. 8.

X. No. 1 metal stop pins.

Y. Minimum spring tension (1T) 10 grams readjust, 8 grams test.

Z. Contact make 6 readjust, 4 test.

(AA). Contacts make 6 readjust, 4 test.
Minimum spring tension (1T and 1B) 10 grams readjust, 8 grams test.

(AB). Contacts make 6 readjust, 4 test.
Minimum spring tension (1T, 4T, and 5B) 10 grams readjust, 8 grams test.

(AC). Contacts make 6 readjust, 4 test.
Minimum spring tension (1T, 4T, and 1B) 10 grams readjust, 8 grams test.

(AD). Contacts make 6 readjust, 4 test.
Minimum spring tension (6T, 1B, 3B, 6B) 10 grams readjust, 8 grams test.

(AE). Contacts make 6 readjust, 4 test.
Minimum spring tension (1T, 3T, 5T, 8T, 7B) 10 grams readjust, 8 grams test.

(AF). Springs 3T-4T and 1B-2B shall break with a 20-mil gauge inserted between stop discs and core.

(AG). Minimum spring tension (1T and 1B) 20 grams readjust, 18 grams test.

(AH). Winding arrangement No. 6.

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(AJ). Contacts make 6 readjust, 4 test.
Minimum spring tension (2T and 2B) 10 grams readjust, 8 grams test.

(AK). Contacts make 6 readjust, 4 test.
Minimum spring tension (2T) 10 grams readjust, 8 grams test.

(AL). Winding arrangement No. 11.

(AM). Winding arrangement No. 10.

(AN). Waive "no make requirements" on contacts (10T-11T, 6B-7B, and 10B-11B).

(AP). Winding arrangement No. 14.

(AS). Contact make 6 readjust, 4 test.
Minimum spring tension (1T, 3T, and 1B) 10 grams readjust, 8 grams test.

(AT). Operate relay electrically on primary winding when testing secondary winding.

(AU). With 32-mil gauge at stop disc and relay energized, springs 4T-5T shall make and springs 2T-3T and 2B-3B shall not break.

(AW). Operate (4T-5T) springs only.

(BA). Operate relay electrically on primary winding when testing tertiary winding.

(BB). Contacts make 6 readjust, 4 test.
Minimum spring tension (1T) 10 grams readjust, 8 grams test.

(BC). Contacts make 6 readjust, 4 test.
Minimum spring tension (1B) 10 grams readjust, 8 grams test.

(BD). Contact 6T make 6 readjust, 4 test.
Minimum spring tension (1T and 3T) 10 grams readjust, 8 grams test.

(BE). Contacts (1T-2T) make 6 readjust, 4 test.

(BF). Minimum spring tension (1T, 3T, and 1B) 10 grams readjust, 8 grams test.

(BG). Contacts make 6 readjust, 4 test.
Minimum spring tension (2T and 5T) 10 grams readjust, 8 grams test.

(BH). Contacts make 6 readjust, 4 test.
Minimum spring tension (1B and 4B) 10 grams readjust, 8 grams test.

(BJ). Contacts make 6 readjust, 4 test.
Minimum spring tension (5T, 8T, 5B, and 8B) 10 grams readjust, 8 grams test.

(BK). Minimum spring tension (1T and 1B) 30 grams readjust, 28 grams test.

(BL). With a 13-mil gauge between armature and core, and relay energized, springs (1T-2T) shall not break.

(BM). Buffer spring tension maximum 125 grams.

(BN). Only springs (5B-6B) shall make.

(BO). With a 15-mil gauge between armature and core, and relay energized, springs (1B-2B) shall not break.

(BP). S//T indicates secondary and tertiary windings in parallel.

(BR). Minimum armature back tension 35 grams.

(BS). Waive "no make requirement" on contacts (12T-13T).

(BT). Minimum spring tension (1T and 1B) 10 grams readjust, 8 grams test.

(BU). Minimum contact separation (1T-2T and 1B-2B) shall be 5 mils.

(BW). Minimum stud gap shall be perceptible.

(CA). Waive "no make requirement" on contacts (10T-11T).

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(CB). Waive "no make requirements" on contacts (5T-6T and 9T-10T).

(CC). Waive "no make requirements" on contacts (5T-6T, 9T-10T, 5B-6B, and 9B-10B).

(CD). Waive "no make requirements" on contacts (6T-7T, 10T-11T, and 10B-11B).

(CE). Waive "no make requirements" on contacts (2T-3T).

(CF). Waive "no make requirements" on contacts (2T-3T and 11B-12B).

(CG). Waive "no make requirements" on contacts (10T-11T and 12B-13B).

(CH). Waive "no make requirement" on contacts (9T-10T).

(CJ). 5/16-inch core, 1/8-inch armature.

(CK). 1/4-inch core, 1/8-inch armature.

(CL). 1/4-inch core, 0.083-inch armature.

(CM). Minimum spring tension (1B) 30 grams readjust, 28 grams test.

(CN). P/S/T indicates primary, secondary, and tertiary windings in series aiding.

(CO). Contact springs 3T and 3B make 6 readjust, 4 test.
Minimum tension (1T and 1B) 10 grams readjust, 8 grams test.

→ (CP). Silver contact metal on 1T spring, No. 2 on 2T spring.

→ (CR). Waive "no make requirements" on contacts (12T-13T and 12B-13B).

(CS). Minimum tension springs 1, 3, 5, 7, 9, 11T, and B, 10 grams readjust, 8 grams test.

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→ (CT). Contact springs 2T, 5T, and 2B make 6 readjust, 4 test.
Minimum spring tension (2T and 2B) 10 grams readjust, 8 grams test.

→ (CU). The armature may leave the backstop on the nonoperate, but there shall be a perceptible stud gap.

→ (CV). With the armature electrically operated against a 0.047-inch gauge, there shall be a minimum 0.006-inch stud gap.

→ (CW). Primary winding nonoperate readjust 24.5, test 23 milliamperes.

(RA). Primary winding resistance ±5 per cent.

(RB). Secondary winding resistance ±5 per cent.

(RC). All windings resistance ±5 per cent.

(RD). Tertiary winding resistance ±15 per cent.

(RE). Tertiary winding resistance ±5 per cent.

(RF). Secondary winding resistance ±2 per cent.

(RG). Primary winding resistance ±15 per cent.

(RH). Resistance of primary and tertiary windings in parallel ±5 per cent.

(RJ). Primary winding resistance +5 per cent -10 per cent.

(RK). Tertiary winding resistance ±1 per cent.

(RL). Resistance of primary and secondary windings in parallel ±8.5 per cent.

(RM). Resistance of secondary and tertiary windings in parallel ±7.5 per cent.

(RN). Secondary winding resistance ±3 per cent.

(RO). Resistance of primary and secondary windings in parallel ±8 per cent.

(RP). Secondary winding resistance ±1 per cent.

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(RR). Resistance of primary and secondary windings in parallel ±7.5 per cent.

(RS). Primary winding resistance ±2 per cent.

(RT). Primary winding resistance ±1 per cent.

(RU). Primary winding resistance -5 per cent +10 per cent.

→ (RV). Secondary winding resistance ±15 per cent.

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