

VALVE & TELEVISION TUBE EQUIVALENTS

BRITISH
U.S.A.
EUROPEAN
AND
SERVICE TYPES

by
B.B. BABANI



R
E
C
E
I
V
I
N
G

T
R
A
N
S
M
I
T
T
I
N
G

I
N
D
U
S
T
R
I
A
L

THE NEW "AT A GLANCE"

RECEIVING, TRANSMITTING AND INDUSTRIAL
Radio Valve & Television Tube
EQUIVALENTS MANUAL

by

B. B. BABANI

BERNARDS (Publishers) LTD.

THE GRAMPIANS
WESTERN GATE
LONDON - W.8

General Editor
WALTER J. MAY

Editor
L. G. FURLEY, A.M.Brit.I.R.E,

* * *
Radio Valve & Television Tube
EQUIVALENTS MANUAL
FIRST PUBLISHED—FEBRUARY 1957

Printed by V. Cooper & Partners Ltd., Flitcroft Street, W.C.2
for Bernards (Publishers) Ltd., The Grampians, Western Gate,
London, W.6

CONTENTS

Introduction	5
Index of Valve Types (Receiving and Transmitting)	7
Commercial Valve Equivalents (Receiving and Transmitting)	17
C.V. Types	40
Supplementary C.V. Types with Commercial Equivalents	48
Commercial Types with C.V. and Service Equivalents	50
British Army Valves with Commercial Equivalents	57
Royal Navy Valves and Commercial Equivalents	58
Royal Air Force Valves with Commercial Equivalents	58
War-time Civilian Valves and Commercial Equivalents	58
U.S.A. Service Types with Commercial Equivalents	59
Television Picture Tubes with Suggested Replacements	60

ACKNOWLEDGMENT

I must express my grateful thanks to the Members of the B.V.A. and other Manufacturers, for their very kind co-operation in supplying me with information—often at considerable trouble—and without whose help this book would not have been possible.

B. B. BABANI.

London, 1957.

INTRODUCTION

Due to the introduction of many hundreds of new types of receiving valves during the last 2 years, it has been decided to adopt in this latest edition an entirely new method of presentation, otherwise the book would become unwieldy in use. At the same time, because of many requests we have included in addition all transmitting valves with their equivalents; therefore there are some 3000 more valves included in this book than in any other previous book either published by ourselves or by any other publisher.

To use the table of commercial equivalents, find the valve to be replaced in the index. Against the valve type there is shown a number denoting the line in the equivalents section in which this valve appears; every other valve in this line is a directly interchangeable equivalent.

In the column headed EUPN will be found valve types originating in Europe from manufacturers such as Philips, Lorenz, Tekade, Valvo, Telefunken, Fivre etc. American valves will be found in the column headed U.S.A. The remaining columns list valves produced by the well known British manufacturers. When replacing a valve in the high frequency stages of a receiver, it should be remembered that re-alignment is desirable to ensure peak performance.

Attention is drawn to the industrial types quoted in the Equivalent Tables. These have been developed to meet the stringent demands of modern industry

where reliability is of the utmost importance, electrically they have standard equivalents. An example is type 6058, for normal working this may be replaced with a 6AL5 or an EB91, but if the equipment is intended for continuous working conditions an industrial type should be selected.

Certain valves are suitable for use with either parallel or series heater circuits, that is AC or AC/DC equipment. Equivalents of a given valve are not necessarily suitable for both applications and where this point arises a footnote has been added identifying types suitable for both series and parallel circuits or those intended for series circuits. An example is the OM10. Types 6K8, X147, 6C31, ECH35, X61M, 6E8 and 6TH8 are equivalents when used with parallel heater circuits because they all have 6.3 volt heaters. Equivalent types ECH3G and ECH33 have the same heater voltage and current rating as the OM10 (6.3v. 0.2A) and are equally suitable for series or parallel circuits. The CCH35 has a heater rating of 7.0v 0.2A and is intended for series circuits only.

In view of the fact that many of the early Octal based valves are now becoming obsolete, and in many cases rather rare equivalents have been shewn which are not necessarily identical electrical equivalents, it has been felt that this was necessary so as to enable effective substitution to take place, and it is suggested that with these early types reference should be made to the three radio valve

characteristic manuals published by this Company, so that a check can be effected on the actual operating characteristics and this will enable any minor changes of biasing etc. to be corrected. The three books in question are:—

Comprehensive Radio Valve Guide Book 1. (Bernards Radio Manual No. 100.) Price 5/0d.

Comprehensive Radio Valve Guide Book 2. (Bernards Radio Manual No. 121.) Price 5/0d.

Comprehensive Radio Valve Guide Book 3. (Bernards Radio Manual No. 143.) Price 5/0d.

The C.V. and Armed Forces sections will be found particularly useful when attempting to identify valves obtained from ex-Government sources. A further supplementary list follows this section giving some hundreds of extra C.V. valve registrations which have been noted during the past two years.

A complete section is devoted to Television Picture Tubes, this feature is unique in its conception.

Not only have equivalents been shown, but also near equivalents. The necessary electrical changes are outlined in the remarks column. It should be noted that the changes relate only to the electrical characteristics of the various tubes and that differences in physical measurements have not been considered. This may necessitate slight structural alterations in certain cases.

When substituting ordinary tubes by ion trap models, care should be taken to see that there is sufficient room on the tube neck after the scanning and focus components have been mounted, to position the ion trap magnet.

It is sometimes difficult to centre the picture with these tubes without modifying the focus mounting brackets, in cases of doubt or difficulty, the ion trap tube manufacturer should be consulted regarding its suitability.

Tubes with an external coating (aquadag) can be used to replace plain glass tubes, but arrangements should be made to connect the coating to chassis potential.

To use the table of commercial equivalents, find the valve to be replaced in the index. Against the valve type there is shown a number denoting the line in the equivalents section in which this valve appears; every other valve in this line is directly interchangeable equivalent.

In the column headed EURN will be found valve types originating in Europe from manufacturers such as Philips, Loenz, Telefunken, Valvo, Telefunken, Five etc. American valves will be found in the column headed U.S.A. The remaining columns list valves produced by the well known British manufacturers. When replacing a valve in the high frequency stage of a receiver, it should be remembered that re-tuning is desirable to ensure peak performance.

Attention is drawn to the industrial types quoted in the Equivalent Tables. These have been developed to meet the stringent demands of modern industry.

INDEX OF VALVE TYPES (Receiving and Transmitting)

1A3-3B/850A

Valve Type	Line No.	Valve Type	Line No.	Valve Type	Line No.	Valve Type	Line No.
1A3	3	1N48	807	1N191	810	1U4	40
1A4	4	1N49	830	1N192	810	1V	2
1A5	5	1N50	831	1N198	832	1V5	9
1A6	6	1N51	807	1N200	810	1X2	41
1A7	7	1N52	832	1N201	810	1X2A	42
1AB6	8	1N54	831	1N208	816	2A3	139
1ACS	9	1N54A	524	1N209	816	2A6	140
1AC6	10	1N55	525	1N211	817	2B25	743
1AD4	1	1N56/A	824	1N212	817	2B26	533
1AF4	11	1N57	828	1N214	818	2B35	47
1AF5	12	1N57A	526	1N215	818	2C4	518
1AH5	12	1N58	828	1N216	820	2C21	141
1AJ4	11	1N58A	527	1N217	821	2C22	534
1AJ5	12	1N60	528	1N265	825	2C23	535
1AN5	515	1N62	828	1N267	831	2C25	536
1B3	13	1N63	825	1N273	822	2C31	537
1B4	4	1N64	529	1N277	814	2C34	538
1B5	14	1N65	832	1N278	808	2C39	539
1B7	7	1N66	530	1N279	827	2C39A	540
1B24	519		807	1N283	822	2C40	541
1B35	520		524	1N294	522	2C43	542
1B35A	778	1N67/A	825		831	2C44	543
1B48	521	1N68-A	523	1N295	811	2C51	517
1C1	15		828		830	2D2	142
1C2	10	1N69	807	1N296	830	2D4	143
1C3	8	1N70	828	1N297	532	2D4A	144
1C5	16	1N72	826		832	2D4B	145
1C6	6	1N73	806	1N298	824	2D13A	146
1C7	17	1N74	806	1N299	826	2D13C	147
1D5	18	1N75	825	1N301	817	2D21	148
1D5G	19	1N81	831	1N302	821	2J31	544
1D7	17	1N82A	826	1N303	818	2J32	544
1D8	20	1N86	530	1N305	822	2J33	544
1D13	3	1N87	531	1N307	815	2J34	544
1E3	21	1N88	532	1N309	827	2J36	545
1E4	22	1N89	832	1N310	814	2J42	546
1E5G	19	1N90	807	1N312	808	2J42A	547
1F1	11	1N95	824	1N314	806	2K25	548
1F2	23	1N96	824	1N316	823	2N43	550
1F3	24	1N107	827	1N317	819	2N44	549
1F5	25	1N108	808	1N318	819	2N45	786
1FD1	12	1N109	809	1N336	819	2N63	549
1FD9	26	1N110	826	1N337	819	2N64	550
1G4	22	1N111	832	1N338	819	2N65	550
1G5G	27	1N112	832	1N339	819	2N112	779
1H5	28	1N113	832	1N340	819	2N113	780
1J5G	27	1N114	832	1N345	819	2N114	781
1L4	23	1N115	807	1N346	819	2P	149
1LA4	20	1N116	832	1N347	819	2S/140G	56
1LA6	29	1N117	832	1N348	819	2T/270K	733
1LB4	20	1N119	810	1N349	819	2T/450E	551
1LC6	29	1N120	810	1N353	821	2V/400A	552
1LE3	30	1N124/A	826	1N361	821	2V/531E	678
1LF3	30	1N125	811	1N411	823	2X2	150
1LH4	14	1N126	807	1N412	819	2X/105G	784
1M1	31	1N127	832	1N413	819	2X/106G	773
1M3	31	1N128	831	1P1	43	2XP	149
1N5	32	1N133	826	1P10	33	2Y2	150
1N34	807	1N135	807	1P11	34	3A4	151
1N34/A	522	1N137A	813	1P21	775	3A5	152
1N35	806	1N138A	813	1Q5	35	3A/141A	553
1N38	828	1N139	827	1Q6	36	3A/142A	554
1N38A	523	1N140	808	1R4	37	3A/144A	555
1N40	806	1N141	814	1R5	15	3B7	153
1N41	806	1N142	814	1S4	38	3B24	556
1N42	829	1N143	815	1S5	26	3B28	552
1N43	807	1N147	826	1S6	36		560
1N44	828	1N148	809	1T2	39	3B/151A	536
1N45	807	1N151	819	1T4	24	3B/200B	557
1N46	807	1N152	819	1T5	5	3B/501A	558
1N47	828	1N174	827	1T6	36	3B/850A	559

Valve Type	Line No.	Valve Type	Line No.	Valve Type	Line No.	Valve Type	Line No.
3C4	43	5C22	602	6BF7	201	6J7	135
3C6	154	5C27	603	6BG7	201	6J8	213
3C21	561	5C37	583	6BH5	202	6K4	79
3C22	562	5C/100A	604	6BH6	45	6K4A	487
3C23	563	5C/101A	696	6BJ5	518A	6K6	192
3C24	564	5C/450A	605	6BJ6	46	6K7	223
3C31	565	5C/500A	606	6BK6	186	6K8	213
3C34	566	5CP1A	607	6BK7	73	6L5	208
3C45	567	5D21	574	6BL8	518G	6L6	224
3C/150A	568	5D22	575	6BM5	203	6L7	225
3D6	155	5D23	608	6BN5	204	6L34	184
3D22	569	5FP4A	609	6BQ5	88	6LD3	71
3D23	570	5FP7A	610	6BQ6	205	6M1	133
3E5	43	5T4	164	6BQ7/A	85	6M2	211
3E21	571	5U4	164	6BR5	101	6M5	227
3E29	572	5V4	165	6BR7	206	6M6	179
3H/150J	539	5W4	166	6BS7	207	6N5	172
3J/160E	573	5Y3	166	6BT4	103	6N6	173
3LF4	155	5Y3GT	44	6BT6	189	6N7	228
3Q4	156	5Z3	167	6BU6	200	6N8	78
3Q5	157	5Z4	165	6BW6	131	6P5	178
3Q/310E	788	6A4	168	6BW7	130	6P8	213
3S4	33	6A5	193	6BX6	130	6P9	203
3V4	34	6A6	169	6BY7	91	6P25	179
3V/340B	782	6A8	170	6BZ7	73	6PX6	179
3V/490A	787	6AB4	171	6C4	59	6Q4	229
3V/531E	792	6AB5	172	6C5	208	6Q5	794
4-65A	805	6AB6	173	6C6	209	6Q6	230
4/100BU	158	6AB7	174	6C9	83	6Q7	194
4-125A	574	6AB8	175	6C10	83	6R3	518H
4-250A	575			6C21	611	6R4	231
4B25	576	6AC7	181	6C31	213	6R7	374
4B26	578	6AD8	176	6CA7	210	6S2	518J
4B27	579	6AE8	177	6CB6	97	6S7	232
4B30	580	6AF4	86	6CD7	211	6SA7	514
4B32	568	6AF5	178	6CF6	97	6SC7	375
4B35	583	6AG5	196	6CF8	92	6SD7	233
4B'700A	642	6AG6	179	6CH6	90	6SE7	234
4C21	584	6AG7	180	6CJ5	220	6SG7	233
4C22	585	6AH6	511	6CJ6	214	6SH7	234
4C25	558	6AJ4	77	6CK5	95	6SJ7	235
4C27	737	6AJ7	181	6CK6	96	6SK7	236
4C30	580	6AJ8	84	6CM5	224	6SL7	237
4C34	586	6AK5	182	6CN6	212	6SN7	238
4C35	587	6AK7	180	6CQ6	215	6SQ7	239
4D1	159	6AK8	68	6CS6	87	6SR7	240
4D21	574	6AL5	70	6CT7	69	6SS7	236
4E27	588	6AM5	93	6CU6	205	6ST7	240
4G/280K	148	6AM6	136	6CU7	83	6SU7	237
4G/401A	569	6AN7	183	6CV7	71	6SZ7	239
4J26	589	6AQ4	184	6D1	47	6T5	218
4J27	590	6AQ5	185	6D2	70	6T7	230
4J28	591	6AQ6	186	6D6	216	6T8	68
4J29	592	6AQ8	73	6D8	217	6TH8	213
4J30	593	6AS6	187	6DA6	89	6U3	241
4J50	594	6AS7	188	6E5	218	6U4	242
4J52	595	6AT6	189	6E8	213	6U5	221
4J53	596	6AU6	190	6F5	219	6USG	133
4PR60A	597	6AV4	191	6F6	179	6U6	243
4THA	160	6AV6	186		192	6U7	223
4X150A	598	6AY5	179	6F12	136	6U8	75
4XP	161	6B4	193	6F13	132	6V4	244
5A/102A	599	6B6	194	6F15	220	6V6	179
5AR4	165	6B8	74	6F16	220		192
5AZ4	166	6BA5	195	6G5	221	6W4	242
5B1	162	6BA6	94	6G5G	133	6W5	245
5B/100A	695	6BC5	196	6GG6	244	6W6	243
5B/250A	163	6BD7	197	6H5	221	6W7	246
5B/600A	693	6BE6	198	6H6	222	6X2	247
5B/700A	600	6BE7	199	6I5	208	6X4	248
5C21	601	6BF6	200	6J6	82	6X5	245

INDEX OF VALVE TYPES (Receiving and Transmitting)

6Y6-210DET

Valve Type	Line No.	Valve Type	Line No.	Valve Type	Line No.	Valve Type	Line No.
6Y6	243	12A6	281	19SU	313	45	139
6Z3	2	12AC5	122	19T8	314	45A5	123
6Z4	249	12AH8	518C	19U3	312	45B5	518L
6ZY5	245	12AJ8	105	19U5G	518N	45Z5	331
7A2	250	12AL5	282	19X3	312	47	337
7A3	251	12AT6	283	19Y3	313	48A8	518P
7A6	252	12AT7	284	20A1	160	50C5	338
7A7	253	12AU6	285	20A3	148	50L6	339
7AG7	255	12AU7	80	20D3	518C	50Y6	340
7AH7	255	12AV6	286	21A6	315	50Z7	340
7AJ7	256	12AX7	81	22V/310A	614	51	316
7AN7	110	12AY7	287	24A	316	52	168
7B5	257	12B7	288	24G	564	52KU	165
7B6	258	12BA6	289	25A6	317	53KU	165
7B7	259	12BE6	290	25B6	318	54KU	165
7C5	257	12BE7	333	25E5	113	56	324
7C6	254	12BF6	291	25L6	319	57	341
7C7	256	12BK6	286	25RE	322	58	341
7C24	612	12BU6	291	25SN7	303	62DDT	71
7C26	573	12BY7	98	25X6	320	62TH	83
7D3	260	12C8	292	25Y4	321	62VP	220
7D5	481	12CD7	518B	25Y5	322	63ME	133
7D6	261	12DA6	496	25Z4	321	63SPT	342
7D8	488	12K7	293	25Z5	322	63T1	175
7D9	93	12K8	294	25Z6	320	64ME	211
7D10	90	12L8	295	26AQ8	492	64SPT	130
7G7	262	12Q7	296	26B6	323	65ME	101
7H7	253	12S7	118	26D6	323	66KU	103
7J7	83	12SA7	297	27	324	67PT	95
7L7	262	12SC7	298	27M1	775	71A	280
7S7	509	12SK7	382	28AK8	126	76	329
7T7	262	12N7	299	30A5	106	77	209
7V7	263	12SR7	300	30C1	111	78	216
7X7	264	12SW7	300	30L1	110	83	167
7Y4	265	12SY7	297	30P4	113		614
7Z4	265	12X825	613	30Z	615	84	249
8A1	266	12Z3	301	31A3	124	85A1	343
8A8	111	13D1	303	32	325	85A2	116
8D2	267	13D3	302	33A/138A	538	85A5	495
8D3	136	13DHA	279	34	325	90C1	494
8D4	246	13PGA	304	35	316	100TL	617
8D5	206	13SPA	267	35T	772	101D	553
8D6	130	13VPA	270	35W4	326	102D	554
8D7	207	14A7	288	35Z4	327	104D	555
9A1	268	14AF7	305	36	328	104V	335
9A3	268	14C7	306	37	329	105	618
9A8	111	14J7	307	39	328	108C1	112
9AB4	504	14K7	121	40	330	117L7	348A
9AK8	109	14L7	119	40PPA	260	117M7	348A
9AQ8	108	14N7	305	40SUA	18	117N7	345
9BMS	269	14S7	307	40Z5	331	117P7	345
9C22	804	14Z3	301	41	332	121VP	122
9D2	270	15A2	309	41MH	137	141DDT	119
9D6	215	15A6	309	41MHF	137	141TH	121
9P9	269	15D1	304	41MHL	137	150B2	50
9U8	271	15R	580	41MLF	137	150B3	51
10C1	272	16A5	115	41MP	335	150C2	52
10D1	147	16A8	518D	41MPG	308	150C3	53
10F1	273	17N8	120	41MPT	334	154V	346
10F3	274	17Z3	310	41MRC	137	163Pen	115
10F9	122	19AJ8	49	41MSG	266	171DDP	120
10LD3	119	19AQ5	311	41MXP	335	202DDT	279
10LD11	275	19BD	312	41PGD	308	202STH	347
10M2	518B	19BR5	493	41STH	160	203A	619
10P13	276	19BX6	510	41SPT	497	203H	620
10P14	123	19BW7	510	42	332	204A	621
11A1	277	19BY7	127	42MP/PEN	251	205E	536
11A2	277	19D8	49	42'OT	251	207	622
11D3	279	19G5G	518N	42OTD	331	210	535
11D5	278	19G6	48	44	328	210DDT	348
12A	280	19H5	518E	44A/160M	616	210DET	349

Valve Type	Line No.	Valve Type	Line No.	Valve Type	Line No.	Valve Type	Line No.
210HF	349	332PEN	362	889	680	3546	688
210HL	349	350A	655	889R	681	3801A	792
210LF	349	354V	137	892	682	3802A	792
210PG	350	357A	656	892R	683	4004B	689
210PGA	350	398A	58	904V	137	4006A	690
210RC	349	401A	57	928	684	4033L	789
210SPG	350	402/OT	363	931A	775	4045A	641
210SPT	134	402/Pen	363	951	4	4047A	538
210VPA	351	406A	695	954	367	4049C	691
210VPT	351	408BU	364	955	368	4049D	692
211	584	427A	731	956	369	4052A	693
211C	623	431U	138	957	370	4056A	694
211D	624		365	958A	371	4063A	662
211H	625	441U	138	959	372	4064B	568
212D	626	442BU	365	994V	346	4069A	696
212E	627	446A/B	366	1231	263		790
213PEN	315	451PT	123	1232	262	4078A	677
215P	352	460BU	457	1247	685	4079A	674
217C	628	484V	137	1275	167	4080A	793
220B	353	500BU	376	1280	306	4094A	697
220D	142	506BU	457	1291	153	4211D	584
220HPT	354	522	562	1294	37	4211E	584
220/OT	354	575A	657	1299	155	4212E	627
220P	355	578	658	1561	457	4222E	629
220PA	355	653B	632	1600	135	4222Z	631
220PT	356	705A	551	1602	536	4228A	630
220TH	357	722A	659	1603	209	4242A	625
220VS	358	723A	756	1610	337		633
220VSG	358	723B	756	1611	192	4260A	635
222B	629	725A	660	1612	225	4264A	636
227A	603	732A	556	1613	192	4270A	637
228A	630	800	661	1614	224	4274A	638
230PT	356	801A	647	1621	192	4275A	639
230XP	359	802	662	1622	224	4278A	640
233A	631	803	651	1634	298	4292B	642
238B	632	805	653	1637	373	4300A	645
240B	353	807	163	1638	222	4304CA	646
240QP	360	809	615	1639	374	4307A	648
242	633	810	663	1642	141	4310A	649
242B	584	813	604	1644	295	4313C	650
242C	559	814	776	1645	686	4316A	651
244V	137	815	664	1649	181	4328A	653
240TH	634	827R	645	1650	368	4357A	656
253	628	828	600	1655	375	5517	378
260A	635	829	571	1656	366	5544	698
264A	636	829B	666	1659	140	5551	699
266A	791	830B	667	1662	151	5552	700
270A	637	831	668	1664	292	5553	701
274A	638	832A	669	1674	576	5555	632
275A	639	833A	670	1821	376	5557	702
278A	640	834	646		457	5559	703
291A	641	835	584	1852	181	5590	57
282B	642	837	671	1853	174	5591	182
294D	643	838	672		138	5603	58
289A	578	841SW	625	1861	365	5608	379
295A	619	845	573		376	5620	689
296A	644	846	643	1867	138	5624	54
300A	645	849	644		365	5634	704
303THA	361	857	791	1868	138	5636	192
304B	646	857A	674		365	5637	125
305D	647	757B	675	1877	376	5638	195
307A	648	860	635	1881	138	5640	226
310A	649	866A	552		365	5641	380
311SU	124	P66JR	533	2000	687	5642	381
313C	650	868	676	3033A	789	5644	516
316	651	869A	677	3069A	790	5647	56
322	652	869B	678	3078A	673	5648	540
327A	583	872A	568	3079A	792	5651	116
328A	653	873	679	3080A	793	5654	379
329A	599	879	150	3533	684	5659	281
331A	654	884	794	3534	676	5660	292

INDEX OF VALVE TYPES (Receiving and Transmitting)

5661-A/SVGM

Valve Type	Line No.	Valve Type	Line No.	Valve Type	Line No.	Valve Type	Line No.
5661	382	5902	226	6134	181	8008	800
5664	798	5903	393	6135	59	8011	736
5665	730	5907	394	6136	190	8016	13
5670	517	5910	40	6137	236	8020	658
5672	66	5913	396	6141	731	8021	551
5676	513	5915	104	6146	729	8022	580
5677	383	5920	395	6150	344	8023	580
5678	63	5923	720	6152	410	8026	737
5679	252	5924	721	6155	574	18042	401
5683	796	5930	139	6156	93	18043	411
5684	795	5931	164		575	18049	687
5685	797	5932	224	6157	403	55030	594
5691	237	5933	163	6158	302	55032	591
5692	238	5961	514	6166	773	55035	546
5693	235	5963	512	6174	404	55040	660
5694	228	5975	410	6180	238	55246	589
5695	533	5977	497	6195	67	55247	590
5696	518	5992	192	6201	284	55248	591
5697	384	5993	248	6202	248	55249	592
5702	385	6004	166	6203	248	55250	593
5703	386	6005	185	6211	512	56030	520
5713	705	6006	233	6218	405	56031	519
5718	79	6007	396	6227	406	68506	687
5719	125	6008	397	6247	129	68510	613
5721	81	6021	201	6252	732	A11B	138
5725	187	6024	136	6265	45	A11C	138
5726	70	6028	722	6267	92	A11D	138
5727	148	6029	398	6268	587	A20B	144
5731	367	6030	82	6279	602	A23A	277
5732	223	6038	778	6305	733	A27D	412
5736	389	6042	303	6351	518F	A30B	137
5744	387	6046	319	6352	518E	A30D	137
5747	577	6050	513	6354	50	A36A	160
5749	94	6052	392	6360	734	A36B	160
5750	198	6053	393	6370	72	A36C	160
5751	81	6056	394	6373	407	A39A	413
5757	148	6057	81	6374	102	A50A	266
5762	612	6058	70	6375	408	A50B	414
	712	6059	206	6385	517	A50M	268
5763	706	6060	234	6391	409	A50N	268
5783	495	6061	131	6443	102	A50P	415
5784	344	6062	389	6485	511	A70B	250
5800	707	6063	248	6487	100	A70C	251
5902	703	6064	136	6488	99	A70D	251
5814	80	6065	215	6489	56	A70E	416
5820	709	6066	189	6508	678	A80A	308
5822	713	6067	80	6533	129	A80M	308
5823	799	6072	287	6535	82	AA61	417
5824	318	6073	52	6538	769	ABC91	186
5838	245	6074	112	6539	770	AC/2HL	137
5840	389	6075	723	6574	750	AC/2PEN	251
5842	506	6076	724	6617	803	AC/2PENDD	336
5852	245	6077	725	6618	802	AC/4PEN	416
5861	490	6078	726	6660	94	AC/5PEN	418
	710	6079	727	6661	45	AC104	419
5866	711	6080	188	6662	46	AC/DD	144
5867	714	6083	728	6663	70	AC/HL	137
5868	715	6034	399	6679	284	AC/HLDD	277
5869	716	6085	400	6680	80	AC/ME	420
5870	717	6086	401	6681	81	ACO42	149
5871	719	6037	44	6693	801	ACO44	161
	192	6098	402	6778	79	ACO54	161
5881	224	6094	185	6779	771	ACO64	161
5886	391	6100	59	6786	764	ACO84	161
5894	718	6101	82	7000	135	AC/P	137
5894A	718	6105	166	7193	534		335
5895	719	6106	82	7700	209	AC/PI	335
5896	392	6113	237	8000	568	AC/PEN	250
5899	55	6125	59	8001	588	AC/52PEN	266
5900	55	6130	567	8003	625	AC/5G	266
5901	389	6132	90	8005	735	AC/SVGM	268

Valve Type	Line No.	Valve Type	Line No.	Valve Type	Line No.	Valve Type	Line No.
AC/SP3	421	C23B	279	CK762	781	DDL4	144
AC/TH1	160	C27D	490	CK775	823	DDPP4B	336
AC/TP	422	C30B	159	CK776	819	DDPP4M	412
AC/VP1	268	C36A	347	CK801	810	DDPP6B5	451
AC/VP2	415	C36B	361	CK852	812	DDPP39	452
AF2	268	C36C	361	CK856	813	DDPP39M	490
AFX203	738	C39A	429		816	DDPP39S	431
AG8	423	C50B	267	CK861	820	DDT	277
AH201	552	C50N	270	CK1003	443	DDT2B	348
AH205	675	C70D	261	CK1011A	521	DDT4	277
AH213	678	C70E	261	CK1013	378	DDT6S	453
AH221	692	C80B	304	CK1027	404	DDT13	279
AHC	138	C143	604	CK1091	743	DDT13S	430
AK1	308	C144	666	CL4	444	DET6	697
AL3	424	C178	718	CL33	362	DET12	646
AL4	424	C180	669	CR139	665	DET17	663
AN1	739	CAM262T	741	CR192	774	DET18	772
APP4A	250	CAT1	690	CT1-500	782	DET19	538
APP4B	251	CAT257T	742	CT1-2500	783	DET22	710
	418	CB215	353	CY1	445	DET23	581
APP4B5	424	CBCL1	430	CY1C	18	DET25	694
APP4E	416	CBL1	431	CY3	446	DF33	32
APP4G	425	CC2	159	CY31	447	DF61	62
APV4	138	CCH35	213	D1	448	DF62	1
	364	CE25	688	D1C	370	DF63	61
APV4100	457	CE201	579	D2C	371	DF66	439
AS4120	266	CE221	576	D2M9	70	DF67	397
AS4125	268	CE224	576	D3F	372	DF70	437
AX224	560	CE226	578	D4	137	DF72	62
AX230	568	CE230	556	D41	144	DF73	61
AZ31	426	CE302	659	D61	449	DF91	24
AZ41	427	CE303	565	D63	222	DF92	23
B21	353	CE306	601	D77	70	DF96	11
B36	299	CE311	563	D152	70	DF97	515
B63	169	CF1	267	D177	600	DF650	442
B65	238	CF2	432	DA	159	DF651	64
B142	670	CF7	267	DA6/1500	744	DF652	1
B152	284	CF61	433	DA30	450	DF654	63
B228	349	CF141	434	DA41	745	DF904	40
B262	162	CG1-C	773	DA60	746	DG13-2	607
B309	284	CG4-C	784	DA90	3	DH30	278
B319	110	CK1	435	DA100	747	DH42	277
B329	80	CK502AX	436	DAC32	28	DH63	194
B339	81	CK505AX	437	DAF91	26	DH73	230
B719	73	CK506AX	438	DAF96	12	DH76	296
B1109	564	CK512AX	439	DC70	408	DH77	186
BF61	95	CK522AX	402	DC80	21		189
BF62	428	CK523AX	440	DC93	60	DH81	258
BPM04	185	CK542DX	441	DCC90	152	DH142	119
BR129	681	CK546	76	DCG4/1000G	552	DH147	374
BR132	612	CK549	64	DCG5/5000GB	568	DH149	254
BR137B	804	CK549DX	442	DCG5/5000GS	800	DH150	71
BR154	705	CK556AX	513	DCG6/18	801	DH719	68
BR173	683	CK568AX	383	DCG6/6000	716	DK32	7
BR179	712	CK569AX	63	DCG7/100	764	DK91	15
BT17	787	CK570AX	384	DCG7/100B	764	DK92	10
BT19	740	CK571AX	391	DCG9/20	678	DK96	8
	782	CK573AX	398	DCG12/30	717	DL33	157
BT79	567	CK605CX	385	DCX4/1000	560	DL35	16
BTL2-1	712	CK608CX	386	DCX4/5000	568	DL36	35
BW129	680	CK619CX	387	DD4	144	DL63	374
BW147	682	CK709	806	DD4D	145	DL66	440
BW175	622	CK711	829	DD6	70	DL67	396
C1A	738	CK715	809	DD6 (Tungsram)	128	DL69	66
C1B/A	798	CK721	550	DD6G	70	DL70	407
C1J/A	796	CK722	786	DD13	147	DL71	436
C3J/A	795	CK723	549	DD13S	146	DL72	438
C61/A	797	CK725	550	DD465	143	DL74M	296
C10B	18	CK727	582	DD620	128	DL75	66
C161	730	CK760	779	DD960	60	DL82	258
C20C	147	CK761	780	DDA41	144	DL91	38

INDEX OF VALVE TYPES (Receiving and Transmitting)

DL92-HL20

Valve Type	Line No.	Valve Type	Line No.	Valve Type	Line No.	Valve Type	Line No.
DL92	33	EBF81	176	EF190	97	EZ81	518K
DL93	151	EBL1	451	EH90	87	EZ90	248
DL94	34	EBL21	454	EH900	104	EZ91	191
DL95	156	EC52	458	EHA5000	681	FC2	350
DL96	43	EC53	459	EHW5000	680	FC2A	350
DL145	275	EC54	460	EK2	468	FC4	308
DL650	441	EC55	390	EK32	423	FC13	304
DL651	76	EC70	79	EK90	198		435
DL652	66	EC80	229	EL2	469	FW4/500	158
DL700	67	EC81	231	EL3	470	FW4/800	158
DM70	31	EC84	77	EL22	257	FX219	602
DM71	31	EC90	59	EL32	373	FX225	587
DN41	336	EC91	184	EL33	197	FX227	567
DN143	454	EC92	171	EL34	210	G5B	568
DO24	455	EC94	86	EL35	224	G40	678
DO26	455	ECC32	238	EL36	224	G100A	675
DO30	450	ECC33	238	EL37	224	GEX33	518M
DO60	746	ECC35	237	EL38	212	GEX34	65
DO75	748	ECC40	417	EL39	224	GT1C	739
DP61	182	ECC81	284	EL41	95	GU20/21	691
DQ2	552	ECC82	80	EL42	428	GU50	752
DQ4	568	ECC83	81	EL70	471	GZ30	165
DQ6	678	ECC85	73	EL80	227	GZ31	164
DQ7	675	ECC91	82	EL81	214	GZ32	165
DS	456	ECC180	85	EL83	96	GZ33	165
	364	ECF80	518G	EL84	88	GZ34	165
DW2	376	ECF82	75	EL95	204	GZ40	472
	457	ECH2	461	EL90	185	H2D	348
DW3	457	ECH3	461	EL91	93	H4D	277
DW4	457	ECH3G	213	EL180	98	H20	473
DW4/350	365	ECH21	462	EL803	96	H30	456
	457	ECH33	213	EL820	214	H42	474
DW4/500	457	ECH35	213	EL821	90	H63	219
DX2	560	ECH41	433	EL822	90	HA2	368
DY30	13	ECH42	83	ELC3J	698	HAA91	282
DY70	381	ECH71	462	EM1	429	HABC80	314
DY80	41	ECH80	183	EM34	211	HAD	279
DY86	518S	ECH81	84	EM35	133	HBC90	283
DY87	518S	ECL80	175	EM80	101	HBC91	286
EIC	368	ECR60	749	EN32	750	HCH81	105
E1F	367	EF2	463	EN70	704	HD14	28
E1T	72	EF5	463	EN91	148	HD22	475
E2F	369	EF8	463	EQ80	199	HD23	475
E80CC	400	EF9	463	ES85	633	HD24	348
E80F	399	EF22	262	ES204A	621	HF60	735
E80L	406	EF36	464	ES207	766	HF61	220
E80T	405	EF37	465	ES253	751	HF62	132
E82M	54	EF37A	465	ES357	656	HF93	289
E83F	411	EF38	466	ES833	670	HF94	285
E90CC	395	EF39	466	ESA892	683	HF100	585
E91H	104	EF41	220	ESA5000	681	HF121	122
E406N	161	EF42	132	ESP450	605	HF125	620
E4504-B16	749	EF50	342	ESU200	691	MF130	623
EA50	47	EF54	467	ESU400	657	HF140	624
EA71	56	EF70	100	ESU866	552	HF150	625
EA76	56	EF71	55	ESU872	568	HF175	625
AAA91	70	EF72	389	ESU1500AX	744	HF200	568
EABC80	68	EF73	99	ESW207	622	HF300	586
EAC91	518R	EF74	409	ESW892	682	HK24	566
EAF41	449	EF80	130	ESW892C	622	HK54	558
EAF42	69	EF81	202	ESW5000	680	HK90	290
EB34	222	EF82	90	EY51	247	HK254	753
EB91	70	EF85	91	EY70	380	HK257	588
EBC3	453	EF86	92	EY80	241	HK454H	634
EBC33	374	EF89	89	EY81	518H	HL2	349
EBC41	71	EF91	136	EY84	102	HL4G	474
EBC80	197	EF92	215	EY86	518J	HY4+	137
EBC90	185	EF93	94	EY87	518J		346
EBC91	186	EF94	190	EZ35	245	HL13	159
EBF32	74	EE95	182	EZ40	103	HL13C	159
EBF80	78	EF96	196	EZ80	244	HL20	473

Valve Type	Line No.	Valve Type	Line No.	Valve Type	Line No.	Valve Type	Line No.
HL21	349	KT2	354	MH4105	308	OA55	523
HL21DD	348	KT24	479	MHD4	277	OA56	530
HL90	311	KT31	482	MKT4	250	OA60	531
HL92	338	KT32	319	ML4	335	OA61	532
HL94	106	KT33	317	MP/PEN	250	OA71	65
HL210	349	KT41	251	MP/PENA	250	OA73	\$18M
HL1320	159	KT42	250	MPT4	250	OA150	522
HLA1	349	KT61	179	M54	266	OA159	528
HLA2	137	KT63	179	M54B	266	OA160	529
HLB1	349		192	M54V	266	OA161	525
HLDD1320	279	KT66	224	M5P4	266	OB2	112
HMO4	198	KT71	339	M5/PEN	266	OB3	484
HP2	353	KT81	257	M5/PENB	414	OC3	485
HP6	136	KTW61	232	MT16	702	OC601	786
HP13	270	KTW63	223	MT17	702	OC602	549
HP135	432	KTW74M	293	MT31	758	OC603	582
HP211C	351	KTZ63	136	MT57	703	OC604	550
HP4101	334	L2	349	MT69	759	OD3	486
HP4101C	266	L4	335	MT105	618	OE3	343
HP4105	268	L21	349	MT5544	698	OG3	116
HP4106C	268	L63	208	MU12	138	OM1	447
HP4115C	268	L77	59		365	OM3	222
HR1	476	LD210	349	MU12/14	138	OM4	374
HR2	476	LL2	349	MU14	138	OM5	464
HR210	349	LL4	335		365	OM5A	465
H5D	279	LN152	175	MV5/PEN	268	OM5B	465
HVR1	477	LN309	114	MV5/PENB	415	OM6	466
HVR2	377	LP2	355	MW13-45	609	OM7	466
HVR2A	478	LP4	161	MX40	308	OM8	423
HY60	754	LP220	355	MZ1-1000	747	OM9	373
HY61	163	LZ319	111	N14	16	OM10	213
HY69	755	M502	594	N15	157	OZ4A	443
HY90	326	M503	546	N16	157	P2	359
HZ90	301	M510	544	N17	33	P12/250	161
IW2	138	M512	545	N18	156	P27/500	455
	365	M518	596	N19	34	P120-1	761
IW3	138	M8079	70	N30	481	P215	352
IW4	138	M8081	82	N31	482	P220	355
IW4/350	138	M8082	93	N40	250	P220A	359
	365	M8083	136	N41	251	P300-1	606
IW4/500	138	M8097	518R	N43	425	P535/1E	760
	365	M3099	184	N63	179	P552/1E	574
JP9-7	546	M8100	182		192	P807	709
JP9-15	547	M8101	94	N77	93	PA1	335
JP9-80	595	M8121	389	N78	518A	PA20	149
K12/24	785	M8122	99	N142	123	PA40	450
K23A	348	M8123	56	N144	93	PABC80	109
K23B	348	M8125	100	N145	276	PB1	355
K30A	349	M8135	90	N147	179	PB1/150	600
K30B	349	M8136	80	N148	257	PC2/500	652
K30C	349	M8137	81	N150	95	PCC84	110
K30D	349	M8138	248	N151	428	PCC85	108
K30E	349	M8156	215	N152	315	PCF80	111
K30G	355	M8206	494	N153	309	PCF82	271
K30K	349	MCJ-50	746	N154	115	PCL82	518D
K33A	353	MC2-200	626	N309	309	PC183	114
K40B	162	ME65	429	N329	115	PD220	353
K40N	358	ME1001	710	N339	315	PE1/100	728
K50M	351	ME1005	581	N359	315	PEN4DD	412
K70B	354	ME1100	756	N709	88	PEN4VA	250
K70D	479	ME1101	546	N727	185	PEN4VB	251
K77A	480	ME1101A	547	O1A	330	PEN13C	488
K77B	360	ME1401	709	O54V	335	PEN20	489
K80A	350	ME1402	707	OA2	52	PEN26	444
K80B	350	ME1500	704	OA3	483	PEN31	479
KD21	483	ME1501	750	*OA4G	107	PEN36C	261
KD24	485	ME1502	739		685	PEN40DD	490
KD25	486	MF13-1	610	OA50	522	PEN220	354
KL35	25	MF31-55	757	OA51	524	PEN220A	356
K59-20	756	MH4	137	OA52	526		491
K59-20A	548	MH41	137	OA53	527	PEN231	479

INDEX OF VALVE TYPES (Receiving and Transmitting)

PEN425-TAW10/10

Valve Type	Line No.	Valve Type	Line No.	Valve Type	Line No.	Valve Type	Line No.
PEN425	497	PSN1	760	QQV06-40	718	RL37	460
PEN1340	488	PT2	354	QQV06-40A	718	RR3-250	560
PEN3520	261	PT4	251	QQV07-40	666	RR3-1250	568
PENA1	497		497	QQZ04-15	719	RS31	758
PENA4	251	PT4D	336	QS83-3	116	RS69	759
PENB1	354	PT6	763	QS150/15	51	RS207	766
PENB4	416	PT10	418	QS150/40	53	RS247	767
PENDD4020	452	PT15	777	QU78	248	RS253	751
PEO4/10E	671	PT25	497	QV1-150A	599	RS257	742
PL17	516	PT41	497	QV20-P18	597	RS262	741
	702	PT41B	497	QV03-12	706	RS566	788
PL21	148	PT240	356	QV05-25	163		365
PL36	113	PTA	481	QV06-20	729	RV120/350	376
PL57	703	PTS	482	QW77	215		457
PL81	315	PTZ	261	QY2-100	604	RV120/500	457
PL82	115		363	QY3-65	805	RV200/600	158
PL83	309	PV4	457	QY3-125	574	RV246	748
PL105	618	PV25	498	QY4-250	575	RV240	747
PL225	762	PV30	499	QYS-3000A	724	RZ	18
PL345	567	PV305	446	QZ77	136	RZ1-250	768
PL435	587	PV495	457			S2	162
PL522	602	PV4200	457	R1	138	S21	162
PL820	315	PX4	161		364	S22	162
PL1267	107	PX25	455	R2	376	S23	162
	685	PX25A	450		138	S24	162
PL5544	698	PY31	321	R3	365	S30C	161
PL5551	699	PY80	312		138	S30D	149
PL5552	700	PY81	310	R4A	365	S215	162
PL5553	701	PY82	313	R10	457	S215VM	358
PL5555	632	PZ1-75	763		476	SD	144
PL5822	713	PZ30	500	R12	733	SD61	47
PM1HF	349	Q160-1	574	R14	247	SE211C	358
PM1HL	349	Q400-1	575	R16	500	SG215	162
PM2	355	QA2400	215	R17	39	SG215A	162
PM2A	355	QA2401	59	R18	403	SN947D	471
PM2B	353	QA2402	93	R19	102	SN954	380
PM2D	349	QA2403	136	R52	42	SP2	134
PM2DX	349	QA2404	70	R2018	165	SP4	266
PM2HL	349	QA2406	284	RG1-240A	473	SP4B	414
PM12	162	QA2407	248	RG3-250A	752	SP6	136
PM12A	162	QA2408	238	RG4-1250	552	SP13	267
PM12M	358	QB2/250	604	RG5-12CG	691	SP13A	267
PM12V	358	QB3/300	574	RG44	764	SP13B	267
PM22	356	QB3.5/750	575	RK18	744	SP13C	267
PM22A	354	QB5/1750	727	RK20	765	SP13S	267
PM22C	356	QB65	238	RK25	693	SP210	134
PM22D	479	QB309	284	RK28	695	SP220	359
PM24	497	QBL5/3500	724	RK28A	696	SPT2	134
PM24A	497	QBVS/3500	723	RK30	652	SPT4A	266
PM24B	497	QD77	70	RK31	661	SS210	162
PM24E	497	QEL1/150	598	RK33	667	SU25	501
PM24M	497	QE05/40	729	RK34	537	SU45	48
PM202	359	QE06-50	163	RK36	538	Su61	247
PMO4	94	QL77	59	RK38	617	Su2130	477
PMO5	182	QN77	93	RK39	753	SU2150	502
PMO7	136	QP21	360	RK44	163	SU2150A	478
PP3/250	161	QP22A	480	RK47	671	SV2C39A	540
	419	QP22B	340	RK48	776	SV40H	722
PP4	497	QP230	360	RK49	761	SV57	783
PP4/500	455	QP240	480	RK51	655	SV408	722
PP6AS	469	QPT2	360	RK56	585	SW40H	745
PP6BG	179	QQC04/15	719	RK57	754	SW40PEN	777
PP6BS	470	QQE03/12	734	RK58	654	SW75	763
PP13A	481	QQE03/20	669	RK60	672	T4D	448
PP24S	444	QQE04/15	669	RK63	686	T20G	557
PP34	363	QQE06/40	666	RK65	634	T50-1	765
PP35	261		718	RK66	608	T100-1	625
PP60	224	QQV5/P10	572	RK75	755	T110-1	673
PP225	356	QQV03-10	734	RL7	648	T350-1	714
	491	QQV03-20A	732	RL16	467	TAL10/10	683
PP2018	489	QQV04-20	664	RL18	458	TAW10/10	682

Valve Type	Line No.	Valve Type	Line No.	Valve Type	Line No.	Valve Type	Line No.
TB1-60G	646	U78	248	VFT6	133	X22	350
TB2.5/300	711	U82	265	VHT2A	350	X24	357
TB3/750	714	U142	124	VHT4	308	X30	508
TB4/1250	715	U143	426	VHTA	304	X32	508
TB35	570	U145	124	VHTS	508	X41	160
TBL6/6000	721	U147	245	VME4	420	X42	308
TBL12/25	802	U149	265	VMP4	268	X61M	213
TBL12/100	726	U150	103	VMP4G	268	X62	213
TBW6/600	720	U150/500	457	VO4	308	X63	170
TBW12/25	803	U151	247	VO65	468	X64	225
TBW12/100	725	U152	312	VO13	304	X65	213
TC2/250	636	U153	310	VP2	351	X66	213
TD6	47	U154	313	VP4	268	X71M	294
TDD2A	{ 348	U201	447	VP4A	268	X73M	217
	{ 475	U251	117	VP4B	415	X76M	294
TDD4	277	U309	312	VP6	215	X77	198
TDD13	430	U319	313	VP12D	292	X79	177
TDD13C	279	U329	117	VP13	507	X81/M	509
TD03-5	581	U404	124	VP13A	432	X142	121
TD03-10	710	U709	518K	VP13B	270	X143	462
TH2	357	U4020	18	VP13C	270	X145	272
TH4	160	UAA91	282	VP13K	270	X147	213
TH4B	160	UABC80	126	VP21	351	X148	509
TH21C	347	UAF42	118	VP210	351	X150	83
TH29	347	UB91	282	VP1320	507	X719	84
TH30	347	UBC41	119	VP1322	270	X727	198
TH30C	361	UBF80	120	VPT2	351	XG1-2500	703
TH2321	{ 347	UC92	504	VPT4	268	XG2-12	762
	{ 361	UCC85	492	VPTA	507	XG2-500	740
TP4	422	UCH41	434	VPT5	507	XG5-500	702
TQ1/2	563	UCH42	121	VR75	483	XG15-12	764
TQ2	702	UCH81	49	VR90	484	XGQ2-6400	618
TQ4	679	UCL82	518P	VR105	485	XH3-045	567
TSP4	421	UF41	172	VR150	486	XH8-100	587
TT4	335	UF42	274	V52	358	XH16-200	602
TT10	604	UF80	510	V524	358	XR1-3200	698
TT15	616	UF85	127	V5L61	503	XXB	154
TT16	574	UF89	496	W17	24	XXD	305
TV4	413	UH350	646	W21	351	XXFM	264
TV4A	413	UL41	123	W30	507	Y61	133
TV6	429	UL46	123	W31	{ 507	Y62	133
TX2/3	698	UL84	518L		{ 758	Y63	133
TY1-50	646	UM34	518B	W42	415	Y64	133
TY2-125	711	UM35	518N	W61	223	Z14	32
TY3-250	714	UM80	493	W63	223	Z21	134
TY4-500	715	UQ80	333	W69	759	Z22	134
TY6-500/A	721	UR1	445	W76	293	Z63	135
TY6-5000W	720	UR1C	18	W77	215	Z77	136
TZ1-75	767	UR3	446	W81	253	Z90	342
TZ40	745	UR3C	499	W142	122	Z142	274
TZ05-20	557	UU3	{ 376	W143	253	Z145	273
U9	457		{ 457	W145	122	Z150	132
U10	{ 376	UU4	{ 138	W147	466	Z152	130
	{ 457		{ 364	W148	253	Z225	552
U12	457	UU5	{ 138	W149	259	Z300T	685
U12/14	457		{ 364	W150	220	Z319	518F
U14	457	UU7	505	W719	91	Z719	130
U15	768	UU8	505	W727	94	Z729	92
U16	477	UU9	103	WD142	118	Z800U	769
U18/20	158	UY41	124	WD150	69	Z801U	770
U21	502	V2M70	248	WD709	78	Z803U	771
U24	501	V20	18	WE394	577	Z900T	799
U30	498	V205	445	WE417A	506	ZA2	367
U31	321	V21/7000	377	WL463	568	ZB120	561
U33	503	V30	18	WL538	736	ZD	128
U37	39	V41	427	WL670A	576	ZD17	26
U41	13	V51	472	WL674	668	ZD152	78
U43	247	V1	103	WT262	552	ZP527	611
U50	166	V503	450	X14	7	ZP570	543
U52	164	V914	144	X17	15	ZP572	539
U70	245	VC12/20	785	X18	10	ZP613	542
U74	327	VCRX267	757	X21	350	ZP620	541
U76	327						

COMMERCIAL EQUIVALENTS (Receiving and Transmitting)

Line No.	BRIMAR	COSSOR	EUPN.	E. READY	FERRANTI	MARCONI or EMITRON	MAZDA	MULLARD	OSRAM	TUNGS.	U.S.A.	Line No.
1			DF652					DF62			1AD4	1
2											{ 1V	2
3			DA90				ID13	DA90			{ 6Z3	3
4											{ 1A3	4
5											{ 1B4	5
6											{ 951	6
7			DK32			X14		DK32	X14		{ 1A5	7
8			DK96				IC3	DK96			{ 1T5	8
9											{ 1A6	9
10	1AC6	1AC6	DK92	DK92		X18	IC2	DK92	X18		{ 1C6	10
11			DF96				1F1	DF96			{ 1B7	11
12			DAF96				1FD1	DAF96			{ 1A7	12
13			DY30					DY30	U41		{ 1AB6	13
14											{ 1AC5	14
15	1R5	1R5	DK91	DK91	1R5	X17	IC1	DK91	X17		{ 1V5	15
16			DL35			N14	IC5	DL35	N14		{ 1AC6	16
17											{ 1AF4	17
18	1D5	40SUA	CY1C	C10B	RZ		U4020	UR1C			{ 1AJ4	18
19											{ 1AF5	19
20	1D8										{ 1AH5	20
21			DC80					DC80			{ 1AJ5	21
22											{ 1B3	22
23	1L4		DF92				1F2	DF92			{ 8016	23
24	1T4	1T4	DF91	DF91	1T4	W17	1F3	DF91	W17	1T4	{ 1B5	24
25								KL35			{ 1LH4	25
26	1S5	1S5	DAF91	DAF91	1S5	ZD17	1FD9	DAF91	ZD17		{ 1R5	26
27											{ 1C7	27
28	1H5	1H5	DAC32	DAC32		HD14		DAC32	HD14		{ 1D7	28
29											{ V20	29
30											{ V30	30
31			DM70				1M1	DM70			{ 1D5G	31
32	1N5	1N5	DF33	1N5	1N5	Z14		DF33	Z14		{ 1E5G	32
33	3S4	3S4	DL92	DL92	3S4	N17	1P10	DL92	N17	3S4	{ 1LA4	33
34	3V4		DL94	DL94		N19	1P11	DL94	N19		{ 1LB4	34
35								DL36			{ 1E3	35
36											{ 1E4	36
37											{ 1G4	37
38	1S4	1S4	DL91	1S4	1S4			DL91			{ 1L4	38
39	1T2					U37			U37		{ 1T4	39
40	R16		DF904								{ 1294	40
41	1U4		DY80					DY80			{ 1F3	41
42											{ 1LF3	42
43	R19		DL96				1P1	DL96			{ 1M3	43
44											{ 1N5	44
											{ 3S4	
											{ 3V4	
											{ 1Q5	
											{ 1Q6	
											{ 1S6	
											{ 1T6	
											{ 1R4	
											{ 1294	
											{ 1S4	
											{ 1T2	
											{ S910	
											{ 1U4	
											{ 1X2	
											{ 1X2A	
											{ 3C4	
											{ 3E5	
											{ SY3GT	
											{ 6087	

COMMERCIAL EQUIVALENTS (Receiving and Transmitting)

Line No.	BRIMAR	COSSOR	EUPN.	E. READY	FERRANTI	MARCONI or EMITRON	MAZDA	MULLARD	OSRAM	TUNGS.	U.S.A.	Line No.
45											{ 6BH6 6265 6661 6BJ6 6662	45
46												46
47		SD61	EA50				SD1	TD6 EA50			2335	47
48		SU45				SU45	9G6					48
49		19D8	UCH81					UCH81			19AJ8	49
50			150B2					150B2			6354	50
51			150B3			QS150/15		150B3				51
52			150C2					150C2			{ 6073 OA2	52
53			150C3			QS150/40		150C3	QS150/40			53
54			E82M								5624	54
55			EF71								{ 5899 5900 5647 6489	55
56	2S/140G		EA71 EA76					EA71 EA76 M8123				56
57											{ 5590 401A 5604 398A 6C4 6100 6135 6125	57
58												58
59			EC90			L77 QL77		EC90	L77 QA2401			59
60			DD960 DC93					DC93				60
61								DF63 DF73 DF61 DF72				61
62												62
63			DF654								{ 5678 CK569AX CK549	63
64			DF651									64
65			OA71					OA71	GEX54			65
66			DL652					DL69 DL75			5672	66
67			DL700								6195	67
68	6T8		EABC80					EABC80	DH719		{ 6AK8 6T8 6CT7 6AL5 5726 6058 6663 6CV7 6370 6AQ8 6BK7 6BZ7 6B8 6UB CK546 6AJ4 6N8 6K4 5718 6778 12AU7 5814 6067 6680 12AX7 5721 5751 6057 6681	68
69			EAF42			WD150		EAF42		6CT7		69
70	6AL5 6058	DD6	D2M9 EAA91 EB91	DD6		D77 D152 QD77	6D2	EB91 M8079	D77 QA2404	DD6G		70
71		62DDT	EBC41			DH150	6LD3	EBC41		6CV7		71
72			EIT					EIT				72
73	ECC85	ECC85	ECC85			B719		ECC85	B719			73
74			FRF32					EBF32				74
75	6U8		ECF82					EBF82				75
76											CK546	76
77			EC84					EC84			6AJ4	77
78	6N8		EBF80			ZD152		EBF80	WD709		6N8	78
79			EC70					EC70			{ 6K4 5718 6778 12AU7 5814 6067 6680 12AX7 5721 5751 6057 6681	79
80	12AU7 6067		ECC82			B329		ECC82 M8136	B329			80
81	12AX7 6057		ECC83					ECC83 M8137	B339			81

COMMERCIAL EQUIVALENTS (Receiving and Transmitting)

82-124

Line No.	BRIMAR	COSSOR	EUPN.	E. READY	FERRANTI	MARCONI or EMITRON	MAZDA	MULLARD	OSRAM	TUNGS.	U.S.A.	Line No.
82	6J6	6J6	ECC91					ECC91 M8081			{ 6J6 6106 6030 6535 6101 6CU7 7J7	82
83		62TH	ECH42			X150	6C9 6C10	ECH42		6CU7	{ 6A18 6BQ7A 6AF4 6CS6 6BQ5 6DA6 6CH6 6132	83
84			ECH81					ECH81	X719			84
85			ECC180									85
86			EC94					EC94				86
87			EH90					EH90				87
88			EL84					EL84	N709			88
89			EF89					EF89				89
90	6CH6 6132 7D10		EF82 EL822					EL822 EL821 M8135			{ 6CH6 6132	90
91			EF85					EF85	W719		6BY7	91
92			EF86					EF86	Z729		{ 6CF8 6267 6AM5 6156	92
93	7D9 6156	6AM5	EL91			N77 N144 QN77		M8082 EL91	N77 QN77 QA2402	6BA6	{ 6BA6 5749 6660 6CK5 6CK6	93
94	6BA6 5749		EF93 PM04					EF93 M8101	W727	6BA6	{ 6BA6 5749 6660 6CK5 6CK6	94
95		67PT	BF61 EL41			N150		EL41	N150	6CK5	6CK5	95
96			EL83 EL803 EF190					EL83			6CK6	96
97			EL180								{ 6CF6 6CB6 12BY7	97
98			EF73					EF73			6488	98
99			EF70					M8122 EF70 M8125			6487	99
100		65ME	EM80 EY84					EM80 EY84			6487	100
101			EZ40 V61			U150	UU9	EZ40			{ 6BR5 6374 6443 6BT4 6BT4	101
102	R18		E91H					E91H			5915	102
103		66KU	HCH81								12A18	103
104			HL94					HL94		30A5	30A5	104
105			PL1267					PL1267			0A4G	105
106			PCC85					PCC85			9AQ8	106
107	9AQ8	9AQ8	PABC80					PABC80			9AK8	107
108	9AK8	9AK8	PCC84					PCC84	B319		7AN7	108
109	7AN7		PCF80			9A8	30L1 30C1	PCF80	LZ319		{ 8A8 9A8 6074 OR2 25E5	109
110	8A8		108C1					108C1			16A5	110
111			PL36 PCI.83 PL82		25E5		30P4	PL36 PCI.83 PL82	LN309 N329		16A5	111
112		16A5 163PEN	85A2			N154		85A2			16A5	112
113			85A2			QS83/3		85A2	QS83/3		{ OG3 5651	113
114			UAF42			WD142	U251	UAF42	U329		1257	114
115			UBC41			DH142		UBC41		1257	14L7	115
116			UBF80				10LD3	UBF80		14L7	14L7	116
117			UCH42			X142		UCH42			17N8	117
118			UF41			W142		UF41			14K7	118
119			HF121			W145	10F9	UF41		14K7	12AC5	119
120	17N8					N142		UL41	N142	45A5	45A5	120
121						U145	10P14	UL46		45A5	45A5	121
122						U142		UY41		31A3	31A3	122
123		451PT										123
124		311SU	UY41				U404	UY41		31A3	31A3	124

Line No.	BRIMAR	COSSOR	EUPN.	E. READY	FERRANTI	MARCONI of EMITRON	MAZDA	MULLARD	OSRAM	TUNGS.	U.S.A.	Line No.
125											{ 5637 5719 28AK8 19BY7	125
126			UABC80							UABC80		126
127			UF85							UF85		127
128					ZD		DD620			DD6		128
129											{ 6247 6533 68X6 68W7	129
130	6BX6 6BW7 8D6 6BW6	6BX6 645PT	EF80			Z152			EF80	Z719		130
131											{ 68W6 6061	131
132			EF42 HF62 EM35			Z150	6F13	EF42	Z150			132
133	6G5G 6U5G	63ME			VFT6		6M1	EM35	Y61 Y62 Y63 Y64 Z21 Z22 Z63 KTZ63	6G5G 6U5G	{ 6G5G 6USG	133
134		210SPT			SPT2		SP210	SP2				134
135	6J7	6J7			6J7	KTZ63					{ 6J7 1600 7000 6AM6 6064 6024	135
136	6AM6 8D3 6064 HLA2	SP6	EF91 PM07		6AM6	Z77 QZ77	6F12	EF91 M8083	Z77 QA2403	HP6		136
137		41MH 41MHF 41MHL 41MLF 41MRC		A30B A30D	D4	MH4 MH41	AC/P AC/2HL AC/HL	244V 354V 484V 904V	MH4 MH41	HL4+		137
138	R3 R1 R2	431U 441U	1861 AHC 1867 1868 1881	A11B A11D A11C		MU14 MU12 MU12/14	UU5 UU4	1W4/350 1W4/500 1W2 1W3 1W4	MU14	APV4		138
139											{ 2A3 5930 45 2A6 1659 2C21 1642	139
140												140
141												141
142		220DD						2D2 2D4				142
143								2D4B 2D13A 2D13C		DD465 DD4		143
144	DDA41	DDL4		A20B	SD	D41	V914 AC/DD	2D4A	D41			144
145										DD4D DD13S DD13		145
146												146
147	10D1			C20C								147
148	4G/280K		PL21				20A3	EN91 PL21			{ 5727 2D21 5757	148
149		2P 2XP		S30D			PA20	AC042				149
150											{ 2X2 2Y2 879 3A4 1662 3A5 3B7 1291 3C6 XXB 3D6 3LFA 1299 3Q4 3Q5	150
151			DL93					DL93				151
152			DCC90					DCC90				152
153												153
154												154
155												155
156			DL95			N18 N15 N16		DL95	N18 N15 N16			156
157								DL33				157

COMMERCIAL EQUIVALENTS (Receiving and Transmitting)

158-186

Line No.	BRIMAR	COSSOR	EUPN.	E. READY	FERRANTI	MARCONI or EMITRON	MAZDA	MULLARD	OSRAM	TUNGS.	U.S.A.	Line No.
158		4/100BU				U18/20		FW4/500 FW4/800	U18/20	RV200/600		158
159	4D1		CC2	C30B	DA		HL1320	HL13C		HL13		159
160	20A1	41TH		A36C A36A A36B S30C		X41	AC/TH1	TH4B TH4	X41	4THA		160
161		4XP	E406N		LP4	PX4	PP3/250	ACO44 ACO84 ACO54 ACO64	PX4	P12/250		161
162	5B1	215SG 2205G	B262	K40B	S2	S21 S22 S23 S24	S215 SG215 SG215A	PM12 PM12A	S21 S22 S23 S24	SS210		162
163	807 5B/250A	807	QE06-50		807			QV05-25			HY61 807 RK39 S933	163
164	5U4 5T4					U52		GZ31	U52		ST4 5U4 5931	164
165	5V4	52KU 53KU 54KU	GZ33 GZ34		R52			GZ30 GZ32 GZ33			5V4 5Z4 SAR4	165
166	5W4					U50			U50		5W4 5Y3 5AZ4 6105 6004	166
167											5Z3 83 1275	167
168											6A4 52	168
169						X63			B63 X63		6A6 6AB	169
170			EC92					EC92			6AB4	170
171											6AB5	171
172											6N5 6AB6 6N6 6AB7	172
173											1853	173
174											6AB8 6AD8 6AE8	174
175		63T1	ECL80 EBF81			LN152		ECL80 EBF81			6AF5 6P5	175
176						X79					6AG6 6AY5 5871 6M6	176
177							6P25	EL33	KT61	PP6BG 6F6 6V6	6AG7 6AK7 6AC7 6AJ7 1649 1852 6134	177
178											6AK5 5591	178
179	6AG6		6PX6 EL33			N147 KT61 N63 KT63					6AN7 6AQ4	179
180											6AQ5 6094 6005	180
181											6AQ6 6AV6 6BK6	181
182			EF95 PM05 ECH80 EC91		DP61		6L34	EF95 M8100 ECH80 EC91 M8099 EL90	N727			182
183												183
184												184
185			EL90 BPM04									185
186			ABC91 EBC91			DH77		EBC91	DH77			186

Line No.	BRIMAR	COSSOR	EUPN.	E. READY	FERRANTI	MARCONI or EMITRON	MAZDA	MULLARD	OSRAM	TUNGS.	U.S.A.	Line No.
187											{ 6AS6 5725	187
188											{ 6AS7 6080	188
189	6AT6 6066		EBC90			DH77		EBC90		DH77	{ 6AT6 6BT6 6066	189
190			EF94					EF94			{ 6136 6AU6	190
191			EZ91								6AV4	191
192	6V6 6F6	6V6				KT63 N63		KT63		6V6 6F6	{ 6V6 6F6 6K6 1611 1613 1621 5636 5992 5871	192
193											{ 6A5 6B4	193
194						DH63		DH63			{ 6B6 6Q7	194
195											{ 6BAS 5638	195
196			EF96					EF96			{ 6AG5 6BC5	196
197			EBC80					EBC80			6BD7	197
198	6BE6 5750		EK90 HM04 EQ80			X77		EK90		X727	{ 6BE6 5750	198
199								EQ80			6BE7	199
200											{ 6BF6 6BU6	200
201											{ 6BF7 6021 6BG7	201
202			EF81					EF81			6BH5	202
203			6P9								6BM5	203
204			EL85					EL85			6BN5	204
205											{ 6BQ6 6CU6	205
206	8D5 6059										{ 6BR7 6059	206
207	8D7										6BS7	207
203	6J5					L63		L63			{ 6C5 6J5 6L5	208
209											{ 6C6 77 1603 7700	209
210			EL34					FL34			6CA7	210
211		64ME	EM34		6M2			EM34			{ 6CD7 6M2	211
212			EL38			X61M	6C31	EL38			6CN6	212
213	6K8	OM10	ECH3G ECH35			X62 X65 X66 X147		ECH33 ECH35 CCH35	X61M X62 X65 X66	6E8 6TH8	{ 6E8 6K8 6J8 6P8	213
214			EL81					EL81			6CJ6	214
215	9D6 6065	VP6	EL820 EF92			W77 QW77		EL820 EF92 M8161	W77 QA2400		{ 6CQ6 6065 73	215
216											{ 6D6 6D8	216
217						X73M		X73M			6E5	217
218											{ 6T5 6F5	218
219						H63		H63				219

COMMERCIAL EQUIVALENTS (Receiving and Transmitting)

220-248

Line No.	BRIMAR	COSSOR	EUPN.	E. READY	FERRANTI	MARCONI or EMITRON	MAZDA	MULLARD	OSRAM	TUNGS.	U.S.A.	Line No.
220		62VP	EF41 HF61			W150	6F15 6F16	EF41		6CJ5	6CJ5	220
221	6U5										6G5 6H5 6U5	221
222		OM3				D63		EB34	D63		6H6 1638	222
223						KTW63 W61 W63 KT66			KTW63 W61 W63		6K7 6U7 5732	223
224			EL37					EL35 EL37 EL39 EL36	KT66	PP60	6CNS5 6L6 1614 1622 5881 5932	224
225						X64			X64		6L7 1612	225
226											5640 5902	226
227			EL80					EL80			6M5 6N7	227
228											5694 6O4	228
229			EC80					EC80			6O6	229
230						DH73			DH73		6T7	230
231			EC81					EC81			6R4 6S7	231
232						KTW61			KTW61		6S7	232
233											6SD7 6SG7 6006 6SE7 6SH7	233
234											6S7	234
235											6S7 5693 6SK7 6SS7	235
236											6137 6SL7 6SU7	236
237								ECC35			6113 5691	237
238						R45 QB65		ECC32 ECC33	B65 QA2408		6SN7 5692 618	238
239											6SQ7 6SZ7 6SR7 6ST7	239
240											6U3 6U4 6W4	240
241	6U3		EY80					EY80			6U6 6W6 6Y6 6V4	241
242											6V4	242
243											6W5 6X5 6ZY5 5838 5852 6W7 6X2 6X4 5993 6063 6202 6203	243
244	6V4		6GG6 EZ80 EZ35					EZ80				244
245	6X5				6X5	U70 U147		EZ35	U70			245
246	8D4 R12 6X4 6063	SU61	EY51 EZ90 V2M70			U151 U78 QU78		EY51 EZ90 M8138	U43 U78 QA2407			246
247												247
248												248

Line No.	BRIMAR	COSSOR	EUPN.	E. READY	FERRANTI	MARCONI or EMITRON	MAZDA	MULLARD	OSRAM	TUNGS.	U.S.A.	Line No.
249											{ 6Z4 84	249
250	7A2	MP/PEN MP/PENA		A70B		MKT4 MPT4 N40	AC/PEN	PEN4VA	MKT4 MPT4 KT42	APP4A		250
251	7A3	42MP/PEN 42/OT		A70C A70D	PT4	KT41 N41	AC/2PEN	PENA4 PEN4VB	KT41 N41	APP4B		251
252	7A6										{ 7A6 5679 7A7 7H7	252
253						W143 W148 DH149			W81		{ 7C6 7AG7 7AH7	253
254	7C6								DH149		{ 7A7 7C7	254
255											{ 7A7 7C7	255
256											{ 7A7 7C7	256
257			EL22			KT81 NI48 DH81 DL82 W149		EL22	KT81 NI48 DH81 DL82 W149		{ 7B5 7C5 7B6	257
258	7B6										7B7	258
259	7B7											259
260	7D3	40PPA										260
261	7D6			C70D C70E	PTZ		PEN3520	PEN36C		PP35		261
262			EF22						EF22		{ 7G7 7L7 7T7 1232	262
263											{ 7V7 1231	263
264											{ 7X7 XXFM	264
265						U149			U82		{ 7Y4 7Z4	265
266	8A1	MS/PEN 41MSG		A50A	SPT4A	MSP4 MS4B MS4V MS4	AC/S2PEN AC/SG	SP4	MSP4 MS4	HP4101C AS4120		266
267	8D2	13SPA	CF1 CF7	C50B				SP13A SP13C		SP13 SP13B SP13S		267
268	9A1 9A3	MVS/PEN	AF2	A50M A50N	VPT4	VMP4G VMP4	AC/VPI AC/SGVM	VP4 VP4A	VMP4G	HP4105 HP4106C HP4115C AS4125		268
269			9P9								9BMS	269
270	9D2	13VPA		C50N			VP1322	VP13C		VP13B VP13K HP13		270
271	9U8		PCF82					PCF82			9U8	271
272						X145	10C1					272
273						Z145	10F1					273
274			UF42			Z142	10F3	UF42	Z142			274
275						DL145	10LD11					275
276						N145	10P13					276
277	11A2 1A1	DDT		A23A	H4D	MHD4 DH42 DH30	AC/HLDD	TDD4	MHD4	DDT DDT4		277
278	11D5				HSD				DH30			278
279	11D3	13DHA 202DDT		C23B	HAD		HLDD1320 TDD13C			DDT13		279
280											{ 12A 71A	280
281											{ 12A6 5659	281
282			HAA91 UAA91 HBC90 ECC81					UB91			12AL5	282
283								HBC90 ECC81			12AT7	283
284	12AT7 6060					B152 B309 QB309			B309 QA2406		{ 12AT7 6060 6201 6679	284

COMMERCIAL EQUIVALENTS (Receiving and Transmitting)

285-320

Line No.	BRIMAR	COSSOR	EUPN.	E. READY	FERRANTI	MARCONI or EMITRON	MAZDA	MULLARD	OSRAM	TUNGS.	U.S.A.	Line No.
285			HF94					HF94			12AU6	285
286			HBC91								{ 12AV6	286
287											{ 12BK6	287
											{ 12AY7	
											{ 6072	
288											{ 12B7	288
289			HF93					HF93			{ 14A7	289
290			HK90					HK90			{ 12BA6	290
291											{ 12BE6	291
292					VPI2D						{ 12BF6	292
											{ 12BU6	
											{ 12C8	
											{ 1664	
											{ 5660	
293						W76		W76			{ 12K7	293
294						KTW74M		X76M			{ 12K8	294
						X76M						
						X71M						
295											{ 12L8	295
296						DH76		DH76			{ 1644	296
						DL74M		DL74M			{ 12Q7	
297											{ 12SA7	297
298											{ 12SY7	298
299						B36		B36			{ 12SC7	299
300											{ 1634	300
301			H290								{ 12SN7	301
302	13D3										{ 12SR7	302
	6158										{ 12SW7	
	13D1										{ 12Z3	
	25SN7										{ 14Z3	
	6042										{ 6158	
303	15D1										{ 6042	303
											{ 25SN7	
304	13PGA		C80B	VHTA			FC13		VO13		{ 14AF7	304
305											{ 14N7	305
306											{ XXD	306
307											{ 14C7	307
											{ 1280	
											{ 14J7	
											{ 1457	
308	15A2	41MPG	AK1	A80A	VHT4	MX40	FC4	MX40	MH4105			308
		41PGD		A80M		X42		X42	V04			
309		15A6	PL83			N153	PL83	N309			15A6	309
						N309						
310		17Z3	PY81			U153	PY81				17Z3	310
311			HL90				HL90				19AQ5	311
312		19BD	PY80			U152	PY80	U152			{ 19U3	312
		19X3				U309		U309			{ 19X3	
313		19SU	PY82			U154	PY82	U319			{ 19Y3	313
		19Y3										
314			HABC80								19T8	314
315		21A6	PL81			N152	PL81	N339			21A6	315
		213PEN	PL820			N359	PL820					
316											{ 24A	316
											{ 35	
											{ 51	
317						KT33		KT33			25A6	317
318											{ 25B6	318
											{ 5824	
319						KT32		KT32			{ 6746	319
											{ 25L6	
320											{ 25X6	320
											{ 25Z6	

Line No.	BRIMAR	COSSOR	EUPN.	E. READY	FERRANTI	MARCONI or EMITRON	MAZDA	MULLARD	OSRAM	TUNGS.	U.S.A.	Line No.
321						U31		PY31			{ 25Y4	321
322	25Y5	25RE									{ 25Z4	322
323											{ 25Y5	323
324											{ 25Z5	324
325											{ 26B6	325
326			HY90					HY90			{ 26D6	326
327						U74					{ 27	327
328						U76					{ 56	328
329											{ 32	329
330											{ 34	330
331											{ 35W4	331
332											{ 35Z4	332
333			UQ80					UQ80			{ 36	333
334		41MPT								HP4101	{ 39	334
335	PAI	41MXP		L4	ML4	AC/P1	104V	ML4		LL4	{ 44	335
336		41MP				AC/P	054V				{ 47	336
337		42/OTDD		PT4D	DN41	AC/2PENDD	TT4	DN41	DDPP4B		{ 37	337
338			HL92								{ 76	338
339											{ 40	339
340						KT71		HL92			{ 00A	340
341											{ 01A	341
342		63SPT	EF50					EF50	Z90		{ 40Z5	342
343			85A1					85A1			{ 45Z5	343
344											{ 41	344
345											{ 42	345
346											{ 12BE7	346
347		2025TH		C36A			TH2321	TH21C	HL4+		{ 57	347
348		210DDT		K23A	H2D	HD24	HL21/DD	TH29	HD24	DDT2B	{ 58	348
348A				K23B			TDD2A	TH30			{ 58	348A
349	HLB1	210DET	B228	K30A	HL2	HL2	HL2	PM2HL	HL2	HR210	{ 1610	349
350	HLA1	210HF		K30B	L2	HL21	HL210	PM2DX	HL21	HL2	{ 50C5	350
351		210HL		K30C		L21	L2	PM2D	L21	LL2	{ 50L6	351
352		210LF		K30D				PM1HF		LD210	{ 50Y6	352
353		210RC		K30E				PM1HL			{ 50Z7	353
354		210PG		K30K	VHT2A	X21		FC2	X21		{ 57	354
355		210PGA		K80A		X22		FC2A	X22		{ 58	355
		210SPG		K80B							{ 58	
		210YPA			VPT2	W21	VP210	VP2	W21	HP211C	{ EF50	
		210VPT				VP21			VP21		{ OE3	
		215P				P215	P215	PM2B	P215	P215	{ 5784	
		220B		K33A	HP2	B21	PD220		B21	CB215	{ 6150	
		240B									{ 117N7	
	PENB1	220HPT		K70B	PT2	KT2	PEN220	PM22A	KT2		{ 117P7	
		220/OT										
	PBI	220P		K30G		LP2	P220	PM2A	LP2	LP220		
		220PA						PM2				

COMMERCIAL EQUIVALENTS (Receiving and Transmitting)

356-396

Line No.	BRIMAR	COSSOR	EUPN.	E. READY	FERRANTI	MARCONI or EMITRON	MAZDA	MULLARD	OSRAM	TUNGS.	U.S.A.	Line No.
356		220PT				PT240	PEN220A	PM22	PT240	PP225		356
357		230PT				X24		PM22C				357
358		220TH		K40N	VS2	VS24	S215VM	TH2	X24	SE211C		358
		220VS						PM12M	VS24			
		220VSG						PM12V				
359		230XP			LP2	P2	P220A	PM202	P2	SP220		359
360		240QP		K77B	QPT2	QP21	QP230	QP22B	QP21			360
361		302THA		C36B			TH2321	TH30C				361
				C36C								
362		332PEN						CL33		CL33		362
363		402/OT			PTZ					PP34		363
		402PEN										
364	R1	408BU					UU4	DW2		APV4		364
							UU5	1W2				
365	R2	442BU	1867			MU12		DW4/350	MU12	RV120/350		365
	R3	431U	1868			MU14		1W4/350				
			1881					1W4/500				
			1861									
366											{ 446A/B	366
											{ 1656	
367		E1F				ZA2			ZA2		{ 5731	367
											{ 954	
368		E1C				HA2			HA2		{ 955	368
											{ 1650	
369		E2F									{ 956	369
370		D1C									{ 957	370
371		D2C									{ 958A	371
372		D3F									{ 959	372
373		EL32						EL32			{ 1637	373
374	OM9					DL63		EBC33	DL63		{ 1639	374
	OM4					DH147					{ 6R7	
375											{ 6SC7	375
											{ 1655	
376	R1	500BU	1821			U10	UU3	DW2	U10	RV120/350		376
			1861									
377			1877					HVR2		V21/7000		377
378											{ CK1013	378
											{ 5517	
379											{ 5608	379
											{ 5654	
380		EY70						EY70			{ 5641	380
											{ SN954	
381		DY70						DY70			{ 5642	381
382											{ 5661	382
											{ 12SK7	
383											{ 5677	383
											{ CK568AX	
384											{ 5697	384
											{ CK570AX	
385											{ 5702	385
											{ CK605CX	
386											{ 5703	386
											{ CK608CX	
387											{ 5744	387
											{ CK619CX	
388	6062										{ 5736	388
											{ 6062	
389		EF72						EF72			{ 5840	389
								M8121			{ 5901	
390								EC55			{ 5861	390
391											{ 5886	391
											{ CK571AX	
392											{ 5896	392
											{ 6052	
393											{ 5903	393
											{ 6053	
394											{ 5907	394
											{ 6056	
395		E90CC						E90CC			{ 5920	395
396		DL67						DL67			{ 5913	396
											{ 6007	

Line No.	BRIMAR	COSSOR	EUPN.	E. READY	FERRANTI	MARCONI or EMITRON	MAZDA	MULLARD	OSRAM	TUNGS.	U.S.A.	Line No.
397			DF67								6008	397
398											{ 6029	398
											CK573AX	
399			E80F								6084	399
400			E80CC								6085	400
401			18042								6086	401
402											{ 6088	402
											CK522AX	
403	R17										6157	403
404											{ 6174	404
											CK1027	
405			E80T								6218	405
406			E80L								6227	406
407			DL70					DL70			6373	407
408			DC70					DC70			6375	408
409			EF74					EF74			6391	409
410											{ 5975	410
											6152	
411			18043									411
			E83F									
412				A27D				PEN4DD			DDPP4M	412
413				A39A				TV4				413
								TV4A				
414		MS/PENB		A50B				SP4B			SP4B	414
415		MVS/PENB		A50P		W42	AC/VP2	VP4B		W42	VP4B	415
416				A70E			AC/4PEN	PENB4			APP4E	416
417			AA61					ECC40				417
			ECC40									
418							AC/5PEN				APP4B	418
419		PT10					PP3/250	AC104				419
420							AC/ME				VME4	420
421							AC/SP3	TSP4				421
422							AC/TP	TP4			TP4	422
423		OM8	EK32					EK32				423
		AG8										
424			AL3								APP4BS	424
			AL4									
425							N43			N43	APP4G	425
426			AZ31			U143		AZ31				426
427			AZ41					AZ41				427
			V41									
428			EL42			N151		EL42				428
			BF62									
429				C39A				EM1			ME6S	429
								TV6			EM1	
430			CBC1					TDD13			DDT13S	430
431			CBL1								DDPP39S	431
432			CF2					VP13A			HP13S	432
433			CF61									433
			ECH41					ECH41				
434			CF141					JCH41				434
			UCH41									
435			CK1					FC13				435
436			DL71					DL71			CK502AX	436
437			DF70					DF70			CK505AX	437
438			DL72					DL72			CK506AX	438
439			DF66					DF66			CK512AX	439
440			DL66					DL66			CK523AX	440
441			DL650								CK542DX	441
442			DF650								CK549DX	442
443											{ CK1003	443
											OZ4A	
444			CL4					PEN26			PP24S	444
445			CY1					UR1			V20S	445
446			CY3					UR3			PV30S	446
447			CY31			U201						447
448		OM1					D1	T4D				448
449			D61					EAF41				449
			EAF41									
450						DA30	PA40	DO30	PX25A			450
							V503					

COMMERCIAL EQUIVALENTS (Receiving and Transmitting)

451-494

Line No.	BRIMAR	COSSOR	EUPN.	E. READY	FERRANTI	MARCONI or EMITRON	MAZDA	MULLARD	OSRAM	TUNGS.	U.S.A.	Line No.
451								EBL1		DDPP6BS		451
452							PENDD4020			DDPP39		452
453			EBC3					EBC3		DDT6S		453
454						DN143		EBL21				454
455						PX2S	PP4/500	DO24	PX2S	P27/250		455
								DO26				
								H30				
456					DS			DW2	U9	RV120/350		456
457		506BU	1821		R4A	U9	UU3	DW3	U10	RV120/500		457
		460BU	1561			U10	U150/500	DW4	U14	APV4100		
						U12/14		DW4/350		PV4		
						U12		DW4/500		PV49S		
								EC52		PV4200		458
458								RL16				
459								EC53				459
								RL18				
460								EC54				460
								RL37				
461			ECH2									461
			ECH3									
462			ECH21			X143		ECH21				462
			ECH71									
463			EF2					EF5		EF5		463
			EF5					EF9		EF9		
			EF9					EF8				
464								EF36				464
465		OM5						EF37				465
		OM5A						EF37A				
		OM5B						EF39				
466		OM6	EF39			W147		EF38				466
		OM7						EF54				
467								RL7				467
								EK2		VO6S		468
468			EK2					EL2		PP6AS		469
469			EL2					EL3		PP6BS		470
470			EL3					EL70			SN947D	471
471			EL70					GZ40				472
472			V51									
			GZ40									
473						H20		HL20		R2108		473
474						H42				HL4G		474
475						HD22		TDD2A				475
						HD23						
476	R10					HR1						476
						HR2						
477								HVR1	U16			477
478		SU2190						HVR2A				478
479		SU2150A						PM22D				479
					K70D		PEN31					
							PEN231	QP22A				
480					K77A		QP240					480
481						PTA			N30	PP13A		481
482	7D5					PTS			N31			482
									KT31			
483						KD21						483
484												484
485						KD24						485
486						KD25						486
487												487
488	7D8						PEN1340	PEN13C				488
489								PEN20		PP2018		489
490					C27D		PEN40DD			DDPP39M		490
491							PEN220A			PP22S		491
492								UCC85			26AQ8	492
493			UCC85					UM80			19BR5	493
494			UM80					90C1				494
								M8206				

Line No.	BRIMAR	COSSOR	EUPN.	E. READY	FERRANTI	MARCONI or EMITRON	MAZDA	MULLARD	OSRAM	TUNGS.	U.S.A.	Line No.
495			UF89					85A3			5783	495
496								UF89			12DA6	496
497	PENA1	PT41 PT41B 41SPT				PT4	PEN425	PM24 PM24A PM24B PM24E PM24M	PT4 PT25	PP4		497
498									U30	PV25		498
499									UR3C	PV30		499
500	R14								PZ30			500
501		SU25								U24		501
502		SU2150								U21		502
503	VSL61									U33		503
504			UC92					UC92			9A84	504
505							UU7 UU8					505
506											{ WE417A 5842	506
507					VPTS	W30	VP1320	VP13				507
508					VPTA	W31						508
509	757	757			VHTS	X30						509
510			UF80			X32					757	510
511						X81/M		UF80			{ 19BX6 19BW7 6AH6 6485 5963 6211 5676 6050 CK556AX 6SA7 5961 1AN5 5644 2C51 6385 5760 2C4 5696 6BJ5 12CD7	511
512						X148						512
513												513
514												514
515			DF97					DF97				515
516			PL17					PL17				516
517												517
518												518
518A						N78			N78			518A
518B							10M2	UM34				518B
518C	12AH8					20D3						518C
518D			PCL82		16A8			PCL82			16A8	518D
518E							19H5				6352	518E
518F						Z319					6351	518F
518G			ECF80					ECF80			6BL8	518G
518H			FY81					EY81			6R3	518H
518I			EY86					EY86			6S2	518I
518J			EY87									518J
518K			EZ81			U709		EZ81				518K
518L			UL84					UL84			45B5	518L
518M								OA73	GEX33			518M
518N			UM35					UM35			{ 19G5G 19U5G 48A8	518N
518P			UCL82									518P
518R			EAC91					EAC91				518R
518S			DY86					M8097				518S
			DY87					DY86				

Line No.	BROWN BOYARI	EDISWAN	ENGLISH ELECTRIC	EUPN.	MULLARD	MWT	PHILIPS	STC	U.S.A.	Line No.
556									3B24 732A CE230	556
557					TZ05-20			3B/200B	T20G	557
558								3B/501A	4C25	558
559								3B/850A 242C	HK54 242C	559
560	DX2		AX224		RR3-250			DCX4/1000	3B28	560
561									3C21 ZB120	561
562							PL522		3C22	562
563	TQ1/2								522	563
564			B1109						3C23 CE311	564
565									3C24 24G	565
566									3C24 CE303	566
567			FX227		XH3-045	BT79	PL345		3C34 HK24	567
568	DQ4	ESU872	AX230	G5B	RR3-1250			DCX4/5000 3C/150A DCG5/5000GB 4064B	6130 3C45 872A 8000 4B32 HF200	568
569								4G/401A	WL463	569
570									3D22 3D23	570
571									TB35 3E21	571
572					QQV5-P10				829 3E29	572
573	Q160-1				QY3-125	TT16	QB3/300	3J/160E P552/1E	7C26	573
574									4-125A	574
575	Q400-1				QY4-250		QB3.5/750		4D21 5D21 6155	575
576									4-250A 5D22 6156 4B25 1674	576
577				OC603					CE221 CE224 WL670A	577
578									5747 WE394	578
579									4B26 289A CE226	579
580									4B27 CE201	580
581					TD03-5 ME1005	DET23			4B30 4C30 15R 8023 8022	581
582									CK727	582
583									4B35 5C37 327A	583
584							4211D 4211E		4C21 211 242B 835	584
585									4G22 HF100 RK51	585

COMMERCIAL EQUIVALENTS (Receiving and Transmitting)

586-632

Line No.	BROWN BOVARI	EDISWAN	ENGLISH ELECTRIC	EUPN.	MULLARD	MWT	PHILIPS	STC	U.S.A.	Line No.
586									4C34	586
587			FX225		XH8-100		PL435		HF300	587
588									4C35	588
589									6268	
590									4E27	
591									8001	
592							55246		HK257	
593							55247		4J26	589
594			M502				55032		4J27	590
595							55248		4J28	591
596			M518		JP9-80		55249		4J29	592
597					QV20-P18		55250		4J30	593
598			QEL1/150		QV1-150A		55030		4J50	594
599									4J52	595
600									4J53	596
601			D177			D177			4PR60A	597
602			FX219	PL522	XH16-200				4X150A	598
603									329A	599
604			C143		QY2-100	TT10	QB2/250	5A/120A	828	600
605	P300-1	ESP450						5B/700A	5C21	601
606									CE306	
607					DG13-2		DG13-2		5C22	602
608									6279	
609					MW13-45				5C27	603
610					MF13-1				227A	
611									813	604
612						BR132			5CP1A	605
613									5D23	606
614							68510		RK65	607
615							22V/310A		5FP4A	609
616									5FP7-A	610
617									6C21	611
618									ZP527	
619									7C24	612
620									5762	
621									12X825	613
622									83	614
623									30Z	615
624									809	
625	T100-1							44A/160M	100TL	616
626									RK36	617
627									105	
628									203A	618
629									295A	619
630									203H	620
631									HF125	
632									204A	621
633									207	622
634									211C	623
635									HF130	
636									211D	624
637									HF140	
638									211H	625
639									841SW	
640									8003	
641									HF150	
642									HF175	
643									212D	626
644									212E	627
645									217C	628
646									253	
647									4222B	629
648									228A	630
649									233A	631
650									4222Z	632
651									238B	
652									653B	
653									5555	
654										
655										
656										
657										
658										
659										
660										
661										
662										
663										
664										
665										
666										
667										
668										
669										
670										
671										
672										
673										
674										
675										
676										
677										
678										
679										
680										
681										
682										
683										
684										
685										
686										
687										
688										
689										
690										
691										
692										
693										
694										
695										
696										
697										
698										
699										
700										

Line No.	BROWN BOVARI	EDISWAN	ENGLISH ELECTRIC	EUPN.	MULLARD	MWT	PHILIPS	STC	U.S.A.	Line No.
633		ES85						4242A	242	633
634									{ 250TH HK454H RK63	634
635								4260A	{ 260A 860	635
636							TC2/250	4264A	264A	636
637								4270A	270A	637
638								4274A	274A	638
639								4275A	275A	639
640								4278A	278A	640
641								4045A	281A	641
642								4B/700A	282B	642
								4282B		
643									{ 284D 846	643
644									{ 296A 849	644
645					TY1-50	DET12	TB1/60G	4300A	300A	645
646								4304CA	{ 304B 834 UH350	646
647									{ 305D 801A	647
648								4307A	{ 307A RK75	648
649								4310A	310A	649
650								4313C	313C	650
651								4316A	316	651
652							PC2/500		{ 803 22 RK28A	652
653								4328A	328A	653
654									{ 331A 805 RK57	654
655									{ 350A RK49	655
656		ES357						4357A	357A	656
657		ESU400							575A	657
658									{ 578 8020	658
659									{ 722A CE302	659
660							55040		725A	660
661									{ 800 RK30	661
662								4063A	802	662
663						DET17			810	663
664					QQV04-20				815	664
665						CR139			827R	665
666					QQV07-40	C144	QQE06/40		829B	666
667									{ 830B RK31	667
668									{ 831 WL674	668
669						C180	QQE04/15		832A	669
							QQE03/20			
670		ES833				B142	PE04/10E		833A	670
671									{ 837 RK44	671
672									{ 838 HF130 RK58	672
673	T110-1							4079A	845	673
674									857A	674
675	DQ7			G100A		AH205			857B	675
676							3534		868	676
677								4078A	869A	677
678	DQ6			G40 3078A		AH213	DCG9/20	2V/531E	{ 869B 650E	678

COMMERCIAL EQUIVALENTS (Receiving and Transmitting)

679-733

Line No.	BROWN BOVARI	EDISWAN	ENGLISH ELECTRIC	EUPN.	MULLARD	MWT	PHILIPS	STC	U.S.A.	Line No.
679	TQ4								873	679
680		ESW5000	BW129		BW129				889	680
		EHW5000								
681		ESA5000			BR129				889R	681
		EHA5000								
682		ESW892	BW147		BW147		TAW10/10		892	682
683		ESA892			BR175		TAL10/10		892R	683
684							3533		928	684
685					Z300T		PL1267		1267	685
									OA4G	
686									1645	686
									RK60	
687							18049		2000	687
							68506			
688							3546		CE25	688
689								4004B	5620	689
690					CAT1			4006A		690
691		ESU200			RG4-1250	GU20/21		4049C		691
692						AH221		4049D		692
693								5B/600A	RK20	693
								4052A		
694						DET25		4056A		694
695								5B/100A	RK25	695
								406A		
696								5C/101A	RK28	696
								4069A		
697						DET6		4094A		697
698	TX2/3		MT5544		XR1-3200		PL5544		5544	698
									ELC3J	
699							PL5551		5551	699
700							PL5552		5552	700
701							PL5553		5553	701
702	TQ2		MT17		XG5-500		PL17		5557	702
									MT16	
703			MT57		XG1-2500		PL57		5559	703
									MT57	
704				EN70	EN70				5634	704
					ME1500					
705						BR154			5713	705
706					QV03-12				5763	706
707					ME1402				5800	707
708					ME1401				5802	708
709				P807					5820	709
710					ME1001	DET22			5861	710
					TD03-10					
711					TY2-125		TB2.5/300		5866	711
712	BTL2-1					BR191			5762	712
713							PL5822		5822	713
714	T350-1				TY3-250		TB3/750		5867	714
715					TY4-500		TB4/1250		5868	715
716							DCG6/6000		5869	716
717							DCG12/30		5870	717
718					QQV06-40	C178	QQE06/40		5894	718
					QQV06-40A				5894A	
719					QQZ04-15		QQC04/15		5895	719
720					TY6-5000W		TBW6/6000		5923	720
721					TY6-5000A		TBL6/6000		5924	721
722								SV40H	6028	722
723							QBW5/3500		6075	723
724					QY5-3000A		QBL5/3500		6076	724
725							TBW12/100		6077	725
726							TBL12/100		6078	726
727							QB5/1750		6079	727
728							PE1/100		6083	728
729					QV06-20		QE05/40		6146	729
730									5665	730
									C16J	
731									6141	731
									427A	
732					QQV03-20A				6252	732
733	R10						2T/270K		6305	733

COMMERCIAL EQUIVALENTS (Receiving and Transmitting)

787-815

Line No.	BROWN BOVARI	EDISWAN	ENGLISH ELECTRIC	EUPN.	MULLARD	MWT	PHILIPS	STC	U.S.A.	Line No.
787		BT17						3V/490A		787
788			RS566					3Q/310E		788
789			3033A					4033L		789
790			3069A					4069A		790
791									{ 2664 857	791
792			3079A					3V/531E		792
793			3801A							
794			3802A					4080A		793
795			3080A						884	794
796									6Q5	
797									5684	795
798									C3J/A	
799									5683	796
800									C1J/A	
801									5685	797
802									C6J/A	
803									5664	798
804					Z900T		Z900T		C18/A	
805							DCG5/5000GS		5823	799
806							DCG6/18		8008	800
							TBL12/25		6693	801
							TBW12/25		6618	802
									6617	803
									9C22	804
									4-65A	805
									1N35	806
									CK709	
									1N40	
									1N73	
									1N41	
									1N74	
									1N314	
									1N34	807
									1N43	
									1N45	
									1N46	
									1N48	
									1N51	
									1N66	
									1N69	
									1N90	
									1N115	
									1N126	
									1N135	
									1N108	808
									1N140	
									1N278	
									1N312	
									1N109	809
									1N148	
									CK715	
									1N119	810
									1N120	
									1N191	
									1N192	
									CK801	
									1N125	811
									1N295	
									1N200	812
									1N201	
									CK852	
									1N137A	813
									1N138A	
									CK856	
									1N141	814
									1N142	
									1N277	
									1N310	
									1N307	815
									1N143	

Line No.	BROWN BOVARI	EDISWAN	ENGLISH ELECTRIC	EUPN.	MULLARD	MWT	PHILIPS	STC	U.S.A.	Line No.
816									CK856	816
									1N208	
									1N209	
817									1N211	817
									1N212	
									1N301	
818									1N214	818
									1N215	
									1N303	
819									CK776	819
									1N151	
									1N152	
									1N317	
									1N318	
									1N336	
									1N338	
									1N337	
									1N339	
									1N340	
									1N345	
									1N346	
									1N347	
									1N348	
									1N349	
									1N412	
									1N413	
820									CK861	820
									1N216	
821									1N217	821
									1N302	
									1N353	
									1N361	
822									1N273	822
									1N305	
									1N283	
823									1N316	823
									1N411	
									CK775	
824									1N56/A	824
									1N95	
									1N96	
									1N298	
825									1N63	825
									1N67/A	
									1N75	
									1N265	
826									1N72	826
									1N82A	
									1N110	
									1N124/A	
									1N133	
									1N147	
									1N299	
827									1N107	827
									1N139	
									1N174	
									1N279	
									1N309	
828									1N38	828
									1N44	
									1N47	
									1N57	
									1N58	
									1N62	
									1N68/A	
									1N70	
829									1N42	829
									CK711	
830									1N49	830
									1N295	
									1N296	

COMMERCIAL EQUIVALENTS (Receiving and Transmitting)

831-832

Line No.	BROWN BOVARI	EDISWAN	ENGLISH ELECTRIC	EUPN.	MULLARD	MWT	PHILIPS	STC	U.S.A.	Line No.
831									1N50 1N54 1N81 1N128 1N267 1N294	831
832									1N52 1N65 1N89 1N111 1N112 1N113 1N114 1N116 1N117 1N127 1N198 1N297	832

C.V. TYPES WITH COMMERCIAL EQUIVALENTS

C.V. No.	Commercial Equivalent	C.V. No.	Commercial Equivalent	C.V. No.	Commercial Equivalent	C.V. No.	Commercial Equivalent
1	DC51	88	DV32	182	E1488	276	11E2
2	DAG1	89	E1380	185	PM202	277	19G3
3	E1228	90	E1368	186	E1342	278	B65
4	E1229	92	E1232	187	U19	279	NC16
5	RG4-1250	93	V625	188	7475	281	X61M
6	Det20	94	DS103	189	B54	283	6AL5
7	E1209	95	R3/10	190	DL510	284	STV30/20
8	E1248	96	R3/16	191	E1494	285	VA35
9	AL60	97	R2/10	192	E1481	286	QS95/10
12	AFH202	98	R2/38	199	NT99	287	STV70/20
13	BT9B	99	E1373	200	MZ2-200		ACT23
14	XN	100	V2D33B	201	V630	290	E1527
15	E1266	105	E1371	202	YF	292	E1481
16	S25A	108	BM313	207	ACP4	296	DDR2
18	DET19	109	9PK5	208	1487	298	FA15
19	EHT1	110	VS68	209	MX57	302	ECH22
20	V1906	114	E1265	211	V2030B	303	EF22
21	VP41	115	E1415	212	LS594	304	EL22
22	BT45	116	KR6/1	214	E1531	305	EF51
23	E1287	117	E1417	215	E1497	306	MX52
24	HL41	118	SP61	216	VR150	307	VCR53C
25	4242A	119	XJ	217	KRN3	309	QV04-7
26	813	120	MF	218	KRN3	310	NHM
27	4357A	121	19H1	219	E1046	311	5L/444
28	ACT9	122	E1336	220	631/P1	312	ESU74
29	E1235	123	E1330	221	E1516	315	TY1-50
30	4270A	124	807	222	E1489	319	E1453
31	U20	125	2403	223	KRN2A	324	GUB
32	866	126	E1362	224	KRN2A	326	15B
33	4077A	127	S30A	225	ACT17	327	EF52
34	MR10	128	SU750	228	DV40B	328	L9
38	E1198	129	KRN2A	229	E1336	329	6F33
39	S22AF	130	KRN3	230	DV55	335	VCR522B
40	E1255	131	EF92	232	MF	336	VCR522C
41	E1267	132	V885	233	B55	337	27M1
42	E1256	133	6C4	234	DV56	339	24B2
44	E1155	135	EY91	235	U23	343	V894
45	S130P	136	EL91	236	E1465	344	E1323
46	8011	137	EAC91	237	KR6/2	345	12E1
49	3B/501A	138	EF91	238	KR6/3	346	EZ22
51	Y65	139	6L34	240	ACT24	347	EBC21
52	E1231	140	6AL5	242	GS18	349	V2030E
53	S26A	141	U4B	243	4045A	353	M500
54	VU133A	142	U2	244	4046A	354	ME1005
55	E1190	143	U3	245	4328D	358	EF37A
56	E1325	144	U4	248	GS16	359	NE17
57	E1271	145	U5	249	4019A	360	NE18
58	E1273	147	U7	250	CMG25RS	367	N21B
63	E1323	148	U8	251	MX57	368	9-3
64	E1342	149	U7	252	ACR22	369	1B35
65	PEN25	150	PK150	254	9LO1A	370	2J42
66	EC54	152	RG3-1250	255	VCR516	371	19G6
69	E1326	153	E1411	256	NS2	372	3C45
71	Osglim	154	E1419	257	ACT22	374	S3A
72	V1120	155	E1190	258	E1273	375	EA50
73	11E3	158	KR3	259	E1495	377	V1135C
74	ESU74	159	AL1	260	S061	378	GZ32
75	4313C	160	E1342	261	R10	379	ACT19
76	E1359	161	VS26	262	9MD6	380	EF54
77	K Tube	171	W21	264	AP1188	382	T24/40JA
78	E1474	172	E1468	265	19E2	383	T24/40JB
79	E1379	173	EF55	266	E1336	384	DET5
80	VF01	174	E1459	267	E1336	385	DL71
81	VF08	175	XSG1-5	268	E1330	386	DF70
82	S27A	176	XP1-5	269	VCR97	387	DL72
84	3B/102/B	177	813	271	V986	389	VCRX210
85	V2023	178	E1458	272	KR6/4	391	LS650
86	V1507	180	KR4	273	5861	394	EM34
87	KRN2	181	ECC32	275	V1042	395	QS150/45

C.V. TYPES WITH COMMERCIAL EQUIVALENTS

C.V. No.	Commercial Equivalent	C.V. No.	Commercial Equivalent	C.V. No.	Commercial Equivalent	C.V. No.	Commercial Equivalent
397	DET24	494	B12	566	RG-2	638	838
398	715B	495	5802	567	35Z5	639	843
400	3DE7	496	CG14	568	35Z5GT	640	860
403	V2053	498	NE17	569	ECC35	641	861
404	FVD7	500	6T7G	570	EQ/191E	642	872
405	55CG	501	EBF32	571	50L6GT	643	874
407	VCRX221	502	LD210	572	6X5G	644	875
408	A1714	503	5W4DT	573	6X5	645	876
409	A1820	504	6U5/6G5	574	EZ35	647	884
410	K3A	505	MT16	575	5U4G	648	885
411	GM5	506	GL8023	576	1B26	649	956
412	A800	508	1B49	577	1B36	650	958
413	G150/2D	509	6V6G	578	6A8G	651	991
415	TT15	510	6V6	579	6A8	652	1603
416	6F17	511	6V6GT	580	6A7GT	653	1611
417	EC91	512	6W7G	581	6C5G	654	1612
418	MX2	513	4J53	582	6C5	655	1613
419	DET18	514	2J36	583	6C5GT	656	1616
420	VCRX277	515	6Y6G	584	GS46	657	1620
421	CAT20c	516	3GP1	585	6C6	658	1622
422	QS105/45	517	OZ4A	586	EL37	659	1625
423	25SN7	518	AC/VP1	587	6Q7G	660	6AC7
424	QQV06/40	519	PEN4DD	588	6Q7	661	6AB7
425	CG1-C	520	VP2B	589	6Q7GT	662	8012
426	EY51	521	R4410	590	6SJ7G	663	8025
428	5B/251M	522	7B7	591	6SJ7	664	9002
429	MF31-55	523	12Y4	592	6SJ7GT	665	9003
430	29C1	524	TT12	593	GZ32	666	9004
431	85A1	525	12A6	594	6SH7	667	9005
432	ME1400	526	12A6GT	595	6SH7GT	668	35T
433	B1C1E	527	DA60	596	45	669	279A
434	QS75/60	528	VA16	597	879	670	645
435	GT11	529	12AH7GT	598	715C	676	7206A
436	ACT25	530	GT1E	599	1B51	677	701A
437	KT67	531	12C8	600	5CP1	678	702A
438	G120/1B	532	GU11	601	5BP1	679	700A
439	22/11BXA	533	CAT17c	602	3AP1	683	316A
440	1601ABC	534	12J5	603	10	684	274B
441	V1052	535	12J5GT	604	30	686	VR105
443	CK505AX	536	4120/AA	606	37	687	GL446B
444	MZ1-75	537	12SA7	608	41	688	2C43
445	5J/180E	538	12SA7GT	609	42	690	RK48A
446	3Q/260E	539	1B23	610	45	691	E5357
447	4078GA	540	12SC7	611	56	692	OZ4
449	85A2	541	8016	612	57	693	HF300
450	EL38	542	5J23	613	58	694	12SG7
452	6AT6	543	12SK7	614	75	695	700B
453	6BE6	544	12SK7GT	615	76	696	700C
454	6BA6	545	AC/SP3	616	77	697	12SJ7
455	12AT7	546	12SQ7	617	80	698	12SJ7GT
460	BS48	547	12SQ7GT	618	83	699	700D
461	BS92	548	LP2	619	6Z4	700	12SR7
462	BS84	549	25A6	620	211	701	ESA892
463	BS82	550	25A6GT	621	801	702	830B
465	EF72	551	25L6G	622	802	703	12K8
466	EF73	552	25L6	623	803	704	RK20A
467	EF70	553	25L6GT	624	804	705	1D5GP
468	EC70	554	D63	625	805	706	6U7G
469	EA76	555	25Z5	626	808	707	HK54
471	EL70	556	QP25	627	810	708	161
473	EY70	557	D42	628	811	709	RX235
474	5643	558	25Z6	629	814	710	368A
475	EF71	559	25Z6GT	630	826	711	32
487	CRT/51	560	TSP4	631	828	712	38
489	BT75	561	35L6	632	829	713	1B27
490	19H5	562	35L6GT	634	832	714	C6A
491	12AU7	563	DA30	635	833	716	8013A
492	12AX7	564	35Z3	636	836	717	5R4GY
493	6X4	565	35Z3GT	637	837	718	5FP7

C.V. TYPES WITH COMMERCIAL EQUIVALENTS

C.V. No.	Commercial Equivalent	C.V. No.	Commercial Equivalent	C.V. No.	Commercial Equivalent	C.V. No.	Commercial Equivalent
719	2J21A	792	2C22	872	6Z7G	948	32L7
720	723A	793	2C33	873	6ZY5G	949	33
722	725A	794	2D2	874	7	961	NC13
723	1619	795	2D4A	875	2C21	964	E4205-B7
724	816	796	2D13C	876	7A6	966	E4504-M16
725	1B24	797	2D21	877	7A7	977	TwinCV55
726	35Z3	798	2E22	878	7A8	979	DL510
727	1N21	800	2J22	879	7B4	987	NC13A
728	1P5GT	801	2J54	880	7B5	995	6AJ5
729	5V4G	802	2C26	881	7B5LT	996	1637
730	6A3	803	2V3	882	DH81	998	2000T
731	6F6GT	804	2V3G	883	7B8LM	999	3C22
732	6W4	805	50Y6GT	884	7BP7	1000	4D1
733	REL8D	807	3A4	885	7C5	1018	215SG
734	228A	808	3A5	886	7C5LT	1019	PM2
735	845	809	3A/105B	887	7C6	1020	220P
736	905	811	1291	888	7D7	1021	210LF
737	906	812	3B22	889	7D8	1022	220PA
738	953	814	3BP1	890	7E5	1023	230XP
739	3AP1/1A	815	1299	891	7E6	1025	DET25
740	5MP1	816	3DP1	892	7E7	1027	210LF
741	5LP1	817	3EP1	893	7F7	1028	220VSG
742	FG67	818	3Q4	894	1232	1029	ESU150
743	REL8D	819	3Q5	895	7H7	1030	4060A
744	GET4½	820	3S4	896	7K7	1031	ESG250
745	HK24	821	4A1	897	7J7	1032	220B
746	648P1	822	EL3C	898	7N7	1034	DET3
747	7AC7	823	4C29	899	7Q7	1035	QP21
749	IN23A	824	HK257	900	7R7	1037	MH4
750	O1A	825	4SHA	901	7Y4	1038	MHL4
751	HY75	826	4THA	902	7W7	1039	MU14
752	OA4G	828	4TPB	904	892R	1040	PX25
753	1A3	829	4TPB	905	9HP7	1041	PM12M
754	1A4P	830	4TSP	906	1602	1042	210LF
755	1A5G	832	5AP1	908	12A5	1043	210PG
756	1A5GT	833	89	909	12A7	1044	210DDT
757	1A6	834	5B/300B	910	12A8GT	1045	X56
758	1B4P	836	5BP4	911	12B8GT	1046	PT25H
759	1B5	837	12C8SPEC	913	12DP7	1047	TZ05-20
760	1B7GT	838	5CP7	914	12DP7	1049	210SPT
761	1B22	839	5GP1	915	12FP7	1050	HL2K
762	1C21	840	5H4	916	12H6	1051	Pen220A
764	1D5	841	5U4GT	917	12J7	1052	EL32
765	1D7G	842	5W4G	918	12K7	1053	EF39
766	1E5GT	843	6ABS	919	12SF5	1054	EB34
767	1F4	844	6AC5G	920	12SF5GT	1055	EBC33
768	1F5G	845	6AC5GT	921	12SF7	1056	EF36
769	1F6	846	6AC7	922	12SH7	1057	EK32
770	1F7GV	847	6AF6G	924	12SL7	1058	EP60
771	1G5G	848	6AG5	925	12SN7	1059	955
772	1G6G	849	6AJ7	927	12Z3	1060	807
773	1G6GT	850	6AK5	929	135PA	1061	RK34
774	1H4G	851	6B4G	930	14F7	1062	TY1-50
775	1LA6	852	6C4	931	15	1064	U12-14
776	1LB4	854	6C7	932	2C40	1065	SP61
777	1LC5	855	6C21	933	4C30	1066	P61
778	1LC6	856	6G8G	934	4B30	1067	6J5
779	1LD5	857	6H7	936	24A	1068	STV280/40
780	1LH4	858	6J6	937	25A7	1069	STV280/80
781	1LN5	859	6K8G	938	25AC5	1070	7475
782	1R5	860	6K5G	939	25B6	1071	5U4
783	1S4	861	6K5GT	940	25B8	1072	GU5
784	1S5	862	6L5G	941	HK24	1073	H63
785	1T4	864	6P7G	942	25Y5	1074	6J7
786	1T5	865	6SD7GT	943	26	1075	KT66
787	2A7	866	6SJ7Y	944	27	1076	DA41
788	832A	867	6SR7	945	28D7	1077	EM31
789	3C24	870	6V7G	946	28D7GT	1078	D1
790	2AP1	871	6Z5	947	31	1079	KT8

C.V. TYPES WITH COMMERCIAL EQUIVALENTS

C.V. No.	Commercial Equivalent	C.V. No.	Commercial Equivalent	C.V. No.	Commercial Equivalent	C.V. No.	Commercial Equivalent
1080	4307A	1170	D41	1296	MU14	1409	SP2
1081	4052A	1171	AT4	1300	10D1	1410	TH2
1082	220TH	1174	KT42	1301	6H6	1411	TH41
1083	210VPT	1175	AP4	1302	D42	1412	VT4
1087	14L	1176	ZA1	1303	HL210	1413	UU6
1088	832	1178	DO30	1304	LP2	1414	VP41
1090	E1046	1175	ML4	1306	HL23DD	1415	4011A
1091	EF50	1180	244V	1307	L21	1418	10D1
1092	EA50	1181	KT41	1308	TDD2A	1419	11D3
1095	954	1182	H42	1309	4019B	1420	4078A
1096	5B/502A	1183	W42	1310	4020A	1422	3D/100A
1097	ECR60	1184	A373	1311	4022AR	1423	9D2
1098	E960T	1186	6F6	1312	220RC	1424	20A1
1099	X66	1187	D41	1313	220LF	1425	7D5
1100	KTW62	1188	N43	1314	DLS10	1426	EK2
1101	MHLD6	1189	AC6/Pen	1316	4012B	1427	EF9
1102	BL63	1190	AC/P4	1317	S625	1428	EBC3
1103	EM35	1191	KTZ41	1318	VS24	1429	EL2
1104	PT15	1192	Z62	1319	PM12V	1430	A/CSP3
1105	ML6	1193	X65	1320	SP2	1431	ACT16
1106	9D2	1194	X41	1321	9D2	1432	CMG25
1107	15D2	1195	KTW63	1322	SP210	1433	EC31
1108	8D2	1196	ACS/PenDD	1323	VP2	1434	EM4
1109	4D1	1197	EC53	1324	SP4	1435	GU2
1110	S130	1198	AC/P4	1325	42MPT	1436	HL2/K
1111	U27	1200	202	1326	AC4/Pen	1437	KT44
1112	V1026	1201	4317	1327	Pen1340	1438	KT61
1113	U17	1202	304	1328	7D8	1439	MT9F
1114	E1024	1205	E1007	1329	PenA4	1440	MT9L
1116	6F32	1206	DO60	1330	TSP4	1441	MT12A
1117	41MTL	1207	ES450	1331	VP23	1442	MT14
1118	KT2	1208	PM256	1332	VP21	1443	U10
1119	DDL4	1219	MZ1-100	1333	220PT	1444	42SPT
1120	SU2150A	1220	4033A	1334	KT24	1445	4012A
1121	T41	1221	PZ1-75	1335	SP41	1446	4017B
1122	41MXP	1222	ACT6	1336	SP42	1447	4030C
1123	EF8	1223	DET5	1337	116/Pen	1448	4043C
1124	HP4101	1233	DET5	1338	220VPT	1449	4064B
1125	MS/PenB	1235	DET12	1340	KT44	1450	4227A
1126	4SH	1237	PM24D	1341	MSP4	1451	4274A
1127	Pen46	1238	PM24D	1342	QP25	1452	4300A
1128	GT1C	1240	PZ1-35	1343	KTZ73	1453	4378
1129	MS/Pen	1246	PM202	1344	TP22	1454	225DU
1130	HL23	1250	4279A	1345	TP25	1455	41IU
1133	V960	1252	4212E	1347	ECH35	1456	Pen383
1134	HVR2	1253	E1161	1355	ESU300	1457	VP133
1135	DET20	1255	E1189	1356	U22	1458	41MP
1136	EF54	1256	E1232	1359	ME41	1459	MU2
1137	EC52	1259	ESU450	1361	MZO5-20	1460	X41
1141	DPO	1260	ESU208	1363	DET16	1461	U22
1143	GT1A	1261	RX3-120	1364	807	1462	A915
1144	BT19	1262	GU1	1365	4282B	1463	CBL31
1151	PM3	1263	RG1-125	1366	V248A	1464	EF39
1152	PM4DX	1264	U18	1367	V245	1466	P57
1153	PM254	1265	U15	1368	V226	1467	PY3-600
1154	PM4DX	1266	U15	1369	4061A	1468	SP4
1155	DEQ	1267	U4020	1370	PV1-35	1469	Z22
1156	DEQ	1268	5Y3	1371	PZ1-75	1470	3P/270B
1158	PM14	1279	MU2	1372	4069A	1471	4049A
1159	PM14	1280	X64	1374	807	1472	CMG25
1160	ML4	1281	KTW61	1382	ACR10	1473	CMG25
1161	ML4	1282	MSP4	1400	C1C	1474	CE20
1163	PD220A	1283	SP4	1401	CL33	1501	TT11
1164	AC/SG	1285	ECC31	1402	CY31	1502	KT32
1165	VMS4	1286	EL35	1403	DD41	1503	KT33C
1166	LP2	1287	KT32	1404	EF36	1504	V1901
1167	PM24A	1288	DET12	1405	E1199	1505	MH41
1168	ACO44	1290	U16	1407	PEN45	1506	ESP450
1169	VMP4G	1291	HVR2	1408	P41	1508	V1913

C.V. TYPES WITH COMMERCIAL EQUIVALENTS

C.V. No.	Commercial Equivalent	C.V. No.	Commercial Equivalent	C.V. No.	Commercial Equivalent	C.V. No.	Commercial Equivalent
1510	QV04-7	1691	DDL4	1796	DW4/350	1867	6A6
1518	O9D	1692	AC/P	1797	4081A	1868	5T01A
1522	E4103-B4	1695	DH30	1798	2051	1869	12T01A
1526	3EGI	1696	D21	1799	350B	1870	6A7
1530	6LYI	1697	X41	1800	1A7G	1873	6AB7
1543	12MD6	1698	A819	1801	GS118	1876	1852
1553	ES450X	1699	SP41	1802	1A7GT	1878	6AD7G
1567	2C25	1700	SP41	1803	1C5G	1879	HP4101
1568	4062A	1701	XLO	1804	EAC91	1880	7MB1A
1569	R3	1702	XP	1805	1C5GT	1882	6AG7
1570	EK32	1711	6B7	1806	1D5GT	1883	4H/180E
1572	807	1715	EBC3	1807	2J31	1884	33A/158M
1573	4074B	1716	E1541	1808	2J32	1885	6B5
1574	SP41	1718	AC/TP	1809	2J33	1886	EC80
1575	U52	1719	U22	1810	2J34	1887	6B6G
1576	KT44	1720	XL1-5	1811	1D8GT	1889	TYS4-500
1577	KT44	1721	XP1-5	1812	1E7G	1891	6B7
1578	EF50	1722	A901	1813	2DP1	1892	2K28
1579	954	1727	Z22	1814	5LP1	1893	6B8G
1581	ECH35	1731	S130	1815	6Q5G	1894	6B8
1585	T41	1732	ML4	1816	6Y3G	1895	STV/70/60
1586	HL23	1733	4018AG	1817	1G4	1896	6C8G
1587	ECR35	1734	3Q/213E	1818	1H5G	1897	4J34
1588	ECR30	1749	205D	1819	6P5GT	1898	4J35
1596	O9J	1750	33A/100A	1820	1H5GT	1899	6L18
1600	CAT1	1751	34	1821	1N5G	1900	6D6
1601	CAR1	1752	35/51	1822	2J48	1901	6F11
1602	CAR4	1753	35A5	1823	IN5GT	1902	6D8G
1606	CAT2	1754	35TG	1824	1Q5G	1903	GL592
1610	MT4	1755	1626	1825	KT45	1904	CAA322
1611	MR4	1756	1629	1826	1Q5GT	1905	4-65A
1614	ES1500A	1757	9001	1827	M510	1906	6E5
1615	ESU1500	1758	1L4	1828	M512	1907	CS2-C
1618	ES250M	1759	2C26A	1829	1T5GT	1908	6F5G
1619	4212D	1760	2J26	1830	1B3	1909	6F5
1620	DET6	1761	3FP7	1831	2A3	1910	6F5GT
1621	ESW501	1762	6AK6	1832	OA2	1911	6F6
1623	RGL-250	1763	6J4	1833	OB2	1912	6F6
1625	RG3-250	1764	CE2	1834	2A5	1913	CS44X
1626	RG1-240A	1765	3C31	1835	3B28	1914	4J31
1628	GU8	1766	CX25	1836	4B26	1915	6F7
1629	RG3-1250	1768	707B	1837	2B7	1916	4J33
1630	ESP450	1769	2A6	1838	QQZ04-15	1917	6F8G
1637	LS5	1770	7A4	1839	6F13	1918	6F8
1642	DER	1771	39/44	1841	BS52	1919	6F14
1643	E132	1772	47	1842	2G	1920	6LD20
1645	E133	1773	82	1843	2Y2	1921	U24
1649	6C5	1774	112A	1844	GS3-B	1924	TY2-125
1650	LS5A	1775	76	1846	5T4	1926	6G6G
1651	G445B	1776	6U7	1847	19H4	1927	B142
1652	P220A	1777	7C7	1848	20A2	1928	12BA6
1656	LS8	1778	101D	1849	5W4	1929	6H6G
1658	LS9B	1779	102D	1850	6L19	1930	6H6
1660	LS7	1780	Twin30	1851	5X4G	1931	6G6GT
1661	DL	1781	310B	1852	5X4	1932	6J5G
1663	3A/109B	1782	340A	1853	6P25	1933	6J3
1665	DH	1783	9JP1	1854	5Y3G	1934	6J5GT
1667	LS8A	1784	6AK7	1855	UU9	1935	6J7G
1669	P625	1785	IN26	1856	5Y3GT	1936	6J7
1672	PEN36C	1786	2K33	1857	5Y4G	1937	6J7GT
1673	HL2	1787	4C35	1858	BS62	1938	6K6G
1675	N43	1788	3J31	1859	BS4A	1939	37X50
1676	LS8A	1789	5FP7	1860	3OD5	1940	6K6GT
1677	ACS2	1790	7Z4	1861	5Z3	1941	6K7G
1678	HLA2	1791	5JP1	1862	6AQ5	1942	6K7
1683	MKT4	1792	1960	1863	5Z4G	1943	6K6GT
1684	APP4c	1793	724B	1864	5Z4	1944	6K8G
1686	D418	1794	759	1865	EC81	1945	6K8
1687	D418	1795	723A/B	1866	M503	1946	6K8GT

C.V. TYPES WITH COMMERCIAL EQUIVALENTS

C.V. No.	Commercial Equivalent	C.V. No.	Commercial Equivalent	C.V. No.	Commercial Equivalent	C.V. No.	Commercial Equivalent
1947	6L6G	2124	BK24	2237	1AD4	2549	85
1948	6L6	2125	BD78	2238	5672	2550	100T
1949	6D4	2126	3V/420B	2239	5676	2551	100TH
1950	6L7G	2127	EF82	2240	3B4	2552	100TH
1951	6L7	2128	ECH81	2241	DY70	2553	101F
1953	6N6G	2129	5763	2245	3J/160E	2554	111A
1954	6N6	2130	QY3-125	2253	ME1501	2556	117L7
1955	EF91	2131	4-250A	2254	5678	2557	117N7
1956	6N7G	2132	90AV	2255	Z801U	2558	117Z6
1957	6N7	2133	90CG	2256	X662	2560	121A
1958	6N7GT	2134	90CV	2257	UD166C	2561	122A
1959	50C5	2135	6BR7	2258	CS4B	2562	164V
1960	6R6G	2136	6BW6	2259	DL68	2563	204A
1961	12AU6	2138	GM4	2260	DF64	2565	2050
1962	6R7G	2139	EHM2	2266	CC3L	2566	205E
1963	6R7	2140	B6	2270	90AG	2567	205F
1964	6R7GT	2141	B6E	2271	GC10B	2569	210DET
1966	6SA7	2142	B12E	2275	DC70	2570	210HF
1967	6SA7GT	2143	B24	2284	4J50	2571	210HL
1968	CWS24A	2144	B24E	2287	G10H	2572	450TH
1969	6SC7	2145	M6	2288	DL66	2573	5651
1970	6SC7GT	2146	DM6	2289	U37	2574	210VPA
1971	1T4	2147	G24H	2291	1909A	2575	5670
1972	6SF5	2148	GM5B	2293	XB-1	2576	4C21
1973	6SF5GT	2149	GM1B	2296	NSP2	2577	212E
1974	6S7G	2150	MX103	2500	35Z4GT	2578	5687
1975	6S7	2151	MX105	2501	40	2579	218
1976	MV6-5	2152	MX107	2502	41FP	2580	220C
1977	UL41	2153	MX108	2503	41MH	2581	220/OT
1978	6SG7	2159	BR153	2504	41MHL	2582	220VS
1979	61BT	2160	ESU77	2505	41MPG	2584	231D
1980	185BT	2162	12LO1A	2506	41MPT	2586	240B
1981	6SK7	2164	K302	2507	1U4	2587	242C
1982	6SK7GT	2173	G10H	2508	41STH	2588	244A
1984	6SL7	2174	G240/2D	2510	1Z2	2589	250TH
1985	6SL7GT	2175	DG7-5	2511	42/OT	2591	100TH
1986	6SN7	2179	E2134	2512	42OTDD	2592	256B
1988	6SN7GT	2180	19H4	2514	43	2593	257A
1989	SD6	2183	X661	2516	2C39A	2594	258B
1990	6SQ7	2185	88D	2517	2E30	2595	259A
1991	6SQ7GT	2187	Z239/1G	2518	4B32	2597	262B
1993	6SS7	2188	W7/2D	2519	4X150A	2598	264A
1995	6ST7G	2189	V240C/2K	2520	5C22	2599	264C
1996	6ST7	2190	V233A/1K	2521	6AH6	2600	267B
1999	1V	2191	DG13-2	2522	6A56	2601	271A
2000	EF91	2192	9MW5AX	2523	6A57	2602	272A
2001	EF91	2193	89D	2524	6AU6	2603	274A
2002	7D9	2194	G400/1K	2526	6AV6	2604	275A
2003	7D9	2195	EF91	2527	6BA7	2605	282A
2004	6AL5	2199	GC10A	2528	45DS	2608	300A
2005	6AL5	2202	XE2	2529	45IU	2609	300B
2006	DDR2	2203	FX215	2530	45Z5	2610	303
2007	12AU7	2208	G50/1G	2531	46	2611	304TH
2008	8054	2209	6F33	2532	49	2612	307A
2009	V738	2210	5544	2533	50	2613	310A
2010	6J6	2213	NT2	2534	50L6	2614	311A
2011	12AU7	2214	3B/240M	2535	53	2615	313C
2014	5763	2215	5545	2536	53A	2616	314A
2015	DDR2	2216	30E8/P1	2537	55	2617	323A
2101	DF72	2217	6K25	2538	59	2618	327A
2102	DL75	2223	G10/371K	2539	61P	2619	328A
2103	DF73	2224	G1/371K	2540	63D	2620	329A
2104	DAF70	2225	150B2	2541	71A	2621	330B
2105	DL70	2231	E2266	2543	73	2622	331A
2106	DL66	2232	DDX52	2544	78	2623	332A
2107	DF66	2233	G5H	2545	79	2624	337A
2108	9MO6A	2234	X662	2546	81	2625	338A
2110	E2004	2235	EY84	2547	83V	2626	346A
2115	U41	2236	Z800U	2548	84	2627	349A

C.V. TYPES WITH COMMERCIAL EQUIVALENTS

C.V. No.	Commercial Equivalent	C.V. No.	Commercial Equivalent	C.V. No.	Commercial Equivalent	C.V. No.	Commercial Equivalent
2628	349B	2709	1294	2798	QQVO3-10	2875	CL4
2629	350A	2710	3D6/1299	2799	QQVO3-20	2876	2D21
2630	351A	2711	1500T	2800	A40	2877	6AK5
2631	352A	2712	1609	2801	A40/N3	2878	CRT1
2632	354A	2713	1610	2803	2915	2879	CRT1
2633	362A	2714	1614	2804	A915A	2882	6AL5
2634	367	2715	1630	2805	A92A	2883	6AQ5
2636	375A	2716	6SC7SPEC	2806	AC/2HL	2884	6AS6
2637	388A	2717	1729	2807	AC/2HL	2885	54NCP11
2638	393A	2718	1876	2808	AC/5Pen	2886	M2H
2639	394A	2719	1924	2809	AC/5Pen	2887	DAC1
2640	405BU	2721	EL81	2811	AC/JHL	2888	EL31
2642	417A	2722	3025	2812	AC/JHL	2889	DD620
2643	2C40	2723	869B	2813	AC/HLDD	2890	DDT
2644	460BU	2725	09	2814	5D21	2891	DES
2645	506BU	2726	EL83	2815	AC/P	2892	DE5B
2647	532	2727	26D	2816	3JP12	2895	DET15W
2648	632A	2728	29D	2817	6L6	2896	52CG
2651	707B	2729	E80F	2818	AC/PT8	2897	7MB1A
2652	709A	2730	5800	2819	AC/S	2899	DET9
2653	714AY	2731	63DS	2820	AC/SP1	2900	DET10
2654	715A	2733	3951	2821	ECC33	2901	EF86
2655	715B	2734	4003A	2822	AC/SG	2907	DF1
2656	724B	2735	4015A	2823	AC/SP3	2909	DH73M
2657	800	2738	RG1-240	2824	AC/SPen	2910	DK1
2658	806	2742	1L4	2825	ACT6	2911	DL2
2659	3D21A	2743	3033AF	2826	1B63A	2912	DL63
2660	809	2745	4050AG	2827	ACT10	2913	DLS1
2661	812	2746	4064A	2829	1N34	2920	E1148
2662	5639	2747	6U5	2830	AC/TH1	2925	EBF2
2663	815	2748	5Z4	2831	2C51	2926	EBL31
2664	822	2749	4081	2832	AC/VP2	2927	EC50
2665	825	2750	89J	2833	AF3	2929	ECH3
2666	829B	2751	4096AB	2834	AGT1	2930	ECH33
2668	846	2752	4PR60A	2835	5R4	2936	4B22
2669	849	2753	5684	2836	APP4G	2938	EL33
2670	849H	2754	5685	2837	APP4G	2940	EL36
2671	851	2755	4251AX	2839	AR300	2941	EL50
2672	852	2756	4260A	2840	5UP7	2942	EM1
2673	857B	2759	4304	2841	ARP12T	2943	ESU76
2674	863	2760	430B	2842	6C4	2944	ESU1500
2675	864	2761	4304BB	2843	616	2945	ESU75
2676	865	2762	4316A	2844	6X4	2946	ESU150
2679	5799	2764	4606	2847	5704	2947	ESU300
						2948	ESU450
2680	868	2765	4673	2848	CK707	2949	F123A
2683	878	2766	4687	2849	K1051	2950	129B
2685	880	2767	4960	2850	AT200A	2952	FA13
2686	889	2768	8003	2851	3D22	2953	FA14
2687	889R	2769	9006	2852	2J56	2954	FC2A
2688	891R	2770	13077	2854	6AN5	2955	FC4
2689	893R	2772	23043	2855	6K4	2956	FC13C
2690	904V	2773	68503	2856	1N23B	2957	FG17
2691	913	2774	68504	2857	1N23BM	2958	FG27A
2692	918	2775	68506	2858	3B24	2959	3B21
2693	929	2776	68510	2859	5846	2960	FP54
2694	930	2777	4B28	2860	AZ1	2967	8020
2695	931	2778	2J21A	2861	AZ2	2969	GT1
2696	931A	2779	859483	2862	AZ31	2973	GU7
2697	935	2786	26J	2864	B21	2976	NE2
2698	5896	2790	01K	2865	B30	2977	H2
2699	6088	2791	K332	2866	2C51	2978	H12
2700	957	2792	2K25	2867	BU100/6	2979	H30
2701	958A	2793	2J50	2869	3JP7	2981	H410
2704	7E5/1201	2794	C10SS/2G	2870	CC3D	2982	H610
2705	1203	2795	1L4	2871	CAT6	2985	H21
2706	7C4/1203A	2796	6L6	2872	CAT9	2986	HD203A
2707	1231	2797	QQVO6-40A	2874	CK1005	2987	HF100

C.V. TYPES WITH COMMERCIAL EQUIVALENTS

C.V. No.	Commercial Equivalent	C.V. No.	Commercial Equivalent	C.V. No.	Commercial Equivalent	C.V. No.	Commercial Equivalent
2988	HF200	3604	GL464	3740	TX5-400	3830	XH1-5
2989	HK354E	3605	GL464B	3741	TZ2-300	3831	XL2
2991	HL2	3620	P220	3742	TZ20	3832	XP2
2994	HL23	3621	P410	3743	U5	3833	XSG2-0
2995	HL23DD	3622	P610	3744	U6	3834	XW2
2996	HL41DD	3623	PA40	3746	U14	3836	Z21
2997	HL63	3624	PE7B	3747	U15	3837	Z22
2998	HL133	3625	PE8	3750	U22	3838	Z62
2999	HL133DD	3626	Pen4B	3751	U21	3839	Z66
3500	HL210	3630	Pen44	3752	U30	3845	RS366
3501	HL610	3631	Pen45DD	3753	U31	3846	RS261
3502	HL1320	3633	Pen231	3754	U50	3847	RS250
3503	HLDD1320	3634	Pen428	3756	U600	3848	RS260
3505	HY114B	3635	Pen1340	3758	UR3C	3849	RS217
3506	HY615	3636	Pen1346	3759	UU4	3850	RS207
3515	KB2	3638	PenA4	3760	UU5	3851	RS253
3516	KK2	3640	PJ8	3761	UU7	3852	RS285
3519	KT30	3641	PM1HL	3763	V123B	3853	RS15
3520	KT31	3642	PM1LF	3765	V226	3854	RS47
3527	KTW73M	3643	PM2A	3766	V312	3855	RS329
3529	KTZ41	3645	PM2DX	3767	V339	3856	RV330
3530	KTZ73	3647	PM22A	3768	V503	3857	RS283A
3531	L2	3648	PM24E	3770	V955	3858	RS18
3532	L21	3649	PM22	3772	V970	3859	RV271A
3533	L22DD	3652	PT5	3773	V1010	3860	RS282
3534	L30	3653	PT6	3774	V1020	3861	RS281
3537	L600	3654	PT11	3775	V1021	3862	RS55
3538	L610	3655	PT425	3776	V1023	3863	RS289
3541	LS6A	3656	PT425	3777	V1029	3864	RS389
3546	MHD4	3657	PV05-15	3778	V1105	3865	RS288
3547	MHL4	3658	PV1-35	3784	5A/102A	3866	RS203
3552	MPT4K	3667	RG1-250	3785	VMP4G	3867	ESU1500AX
3553	MS4B	3671	RK25	3786	VMP4G	3868	RSQ15/40
3554	MPT42	3672	RK28	3787	VP2	3869	RSQ15/5
3557	MR300	3673	RK28A	3788	VP4	3870	RGQ10/4D
3558	MR300/E	3674	RK31	3790	VP13C	3871	RS254
3561	MS/Pen	3677	RK47	3791	VP21	3872	RS255
3562	MSP41	3679	RK49	3792	VP23	3873	RS566
3563	MT11SW	3680	RK60	3793	VP24	3881	EB41
3564	MT12	3681	RK62	3794	VP210	3882	EB41
3565	ME41	3683	RKR47	3795	VP215	3883	EAF42
3567	MU1	3688	2C33	3796	VP1322	3884	ECC40
3570	MU4250	3690	RZ1-150	3797	V944A	3885	EF40
3571	MVSPen	3691	S23	3798	VR75	3886	EF41
3572	MVSPenB	3692	S23	3799	VR90	3887	EF42
3573	MZ205/20	3694	S130A	3800	VS2	3888	ECH42
3574	MZ1/76	3695	S215	3802	VS42	3889	EL41
3576	MX40	3696	S215A	3803	VS2K4	3890	EL42
3578	PM22D	3698	S610	3804	W21	3891	EZ40
3579	PT5E	3702	SG215	3805	W30K	3892	AZ41
3581	V1501	3703	SP4B	3806	W31	4007	6ALS
3582	VP4B	3704	SP13C	3810	WD30	4008	5719
3583	5HP1	3709	STV150/200	3812	1P31	4009	6BA6
3584	21/2	3712	STV280/80A	3813	8A	4010	6AK5
3586	471/A	3715	SW5	3816	X21	4011	6AS6
3587	705A	3719	SW7	3817	X21	4012	6BE6
3588	706A	3721	T4D	3818	X22	4013	5670
3589	707A	3722	T20	3819	X24	4016	5814
3590	708A	3723	T41	3820	X24	4017	5751
3593	713	3724	T200	3821	X31	4018	5727
3594	717A	3726	TDD2A	3822	X31	4019	6AQ5
3595	721A	3727	TDD4	3823	X41	4020	6073
3596	CE302	3730	TMC15B	3824	X61	4021	3B24
3597	726B	3731	TMC16B	3825	X63	4022	6135
3599	829A	3732	TMC20B	3826	X65	4023	6AU6
3600	902	3735	TP36	3828	X66	4024	12AT7
3601	7193	3739	TX3-200	3829	293A	6008	24B1

SUPPLEMENTARY C.V. TYPES WITH COMMERCIAL EQUIVALENTS

C.V. No.	Commercial Equivalent	C.V. No.	Commercial Equivalent	C.V. No.	Commercial Equivalent	C.V. No.	Commercial Equivalent	C.V. No.	Commercial Equivalent	C.V. No.	Commercial Equivalent
253	CS3A	951	32A	1580	E960T	1741	CL34	2263	K305	2359	VX9173
263	VX3026	952	4081	1582	S130	1742	BK44	2264	VX6110	2360	5A6
270	VX3027	953	32G	1583	E1024	1743	BS64	2265	VX9077	2370	DL92
282	E4504/M/16	954	20K	1597	E4103/B/4	1744	15LOIA	2267	F/6063	2371	DF61
288	ACT23	955	4409	1598	13VPA	1745	62BT	2268	F/6064	2372	MF31-22
299	V230/1K	956	4602	1599	SC13C (low current)	1746	30C12P1	2269	5802	2374	GD60
300	VCRX156	957	32E			1747	M505	2272	VCRX212	2375	GD100
301	VX301	958	26J	1603	4014A	1748	TTR31MC	2273	K312	2380	VX3917
313	VX313	959	20K	1604	SS1971	1871	707B	2274	VX4134	2383	BR191
320	E4103/B/4	960	E4504/B/16	1605	4013C	1881	VX4144	2276	Z319	2384	ZS10C
321	KT66	962	E4504/E/16	1607	OC2.5	1888	EC81	2277	VX3188	2678	5799
323	KRN2	963	09J	1608	U4	1923	TTR31MR	2278	VCRX353	2744	4J34
324	G.U.8	967	E4103/B/4	1609	SW7	1924	TY2-125	2280	3EG1	2788	NT13
338	E1524	984	S2A	1612	VT9B	1952	VCRX267	2281	VX9041	2789	9LP7
348	VX4012	986	15A	1622	4052A	1965	MF31-55	2282	K308	2810	VCRX263
350	E1368	997	VT158	1624	PZ1-Z5	1992	1267	2283	VX7069	2845	L55
351	EBC33	1036	220PA	1627	5D/100A	1994	ACT9	2285	VX3146	2846	L55B
352	DET23	1048	2155G	1636	L55	1997	VCRX307	2286	VCRX393	2853	RZ1-250
357	D165747	1089	TV03-10A	1638	4101D	2012	85A2	2290	VX3163	2868	AFX203
363	VX363	1131	VCR131	1639	3A/141A	2013	EF82	2292	VCRX173	2880	CRT4/1
366	6AG7	1138	VCR138	1640	3A/142A	2016	12AT7	2294	VXR046	2902	GX402
373	VX380	1140	12MD6	1641	4102E	2017	6F33	2295	QQV5-P10	2903	6073
381	VX2042	1142	MR75	1644	E1532	2018	QS95/10	2296	NSP2	2904	CRT1
388	VX4055	1145	BT9-A	1646	E1453	2019	STV70/20	2297	VX3154	2905	3J/170E
390	VCRX244	1146	BT9-B	1647	L55B	2020	6A.K5	2298	VX1583	2908	3J/260E
392	VCRX241	1147	BT35	1648	3B/151A	2021	6X4	2299	VX8092	2914	1B40
393	VX7026	1148	E1289	1653	3A/108A	2022	6BV6	2300	3A4	2916	1N25
396	VCRX245	1149	BT41	1654	210LF	2023	EP92	2301	3441Z/C/9	2918	1N28
399	MH4	1172	VP4A	1655	3A/107B	2024	6BE6	2302	ICP1	2919	1N43
401	VCRX246	1173	HL4	1657	3A/108B	2026	6BA6	2303	VX3153	2923	1N69
402	VX4071	1257	E1155	1659	3A/110B	2109	VX4099	2304	K324	2924	1N70
406	E1423	1289	UU5	1662	P215	2116	VX5029	2305	VCRX351	2928	1N81
414	VX2040	1293	PZ1-75	1664	3A/110A	2131	QY4-250	2306	BS122	2931	2B22
427	5D21	1305	HL1320	1666	P610	2137	VCRX263	2307	BS120	2932	2C42
442	GEX33	1339	KT41	1668	E420	2154	VX3053	2308	BS116	2933	2C46
448	GEX54	1349	RG5-500	1670	HL13C	2155	VX2135	2309	BS118	2934	3BP1A
451	VX3094	1350	TY3-250	1671	3A/109A	2158	VX3166	2310	GEX64	2935	3JP1
456	E1633	1351	TY4-500	1674	AC/SZPEN	2161	VX345	2311	VX9076	2937	6AQ6
458	BTR32	1352	EM80	1679	DA30	2163	VX3071	2312	VX9075	2939	6F4
459	BTR34	1357	ESC6-250	1680	PM202	2166	4J50	2313	VX4122	2961	1N54A
464	9LO1A	1362	DET25	1681	TSP4	2167	VX4080	2314	MF31/55	2962	1N38A
470	VX8036	1373	PY3-600	1685	APP4C	2171	A2087	2315	C12B	2963	4D21
472	VX8066	1379	20K	1688	3B/252B	2172	DC80	2316	6260B	2964	5D22
486	V2046A	1380	20K	1689	PA1	2181	VX4104	2317	6260c	2965	RL7076-2A
499	5B/253M	1384	41DS	1690	9A1	2184	VCRX298	2318	VX3193	2966	EY86
507	REL64	1385	E4504/B/16	1693	PX4	2186	VX4073	2319	VX4061	2968	7F8
633	829A	1386	ACR3	1694	3A/144A	2196	VX3078	2320	VX4061	2970	5656
646	879	1387	ACR4	1703	XW	2200	VX3098	2321	GD86W	2971	5675
671	8021	1388	ACR5	1704	57	2201	E2043	2322	BR161	2972	5876
672	706A	1389	ACR6	1705	58	2204	TD03-10F	2323	BR179	2974	1N72
673	717A	1390	ECR35	1706	2B7	2205	E4103/E/4	2324	CR176	2975	EL84
674	721B	1391	E4504/E/16	1707	2A5	2206	EY70	2325	GS10C	2980	DM70
675	722A	1393	ACR17	1708	80	2207	VX3147	2326	VX3143	2983	DL94
680	707A	1394	ACR18	1709	66	2211	408CAHA	2327	MX103	2984	6080
681	708A	1406	HL41	1710	636	2212	6158	2328	12T01A	2990	6136
682	713A	1416	3B/151A	1712	42	2218	6157	2329	4004B	2992	6106
685	VR150-30	1417	21L	1713	EF8	2219	E1024	2330	VX9106	2993	KU25
689	700A	1421	XP1.5	1714	EF9	2220	VX7097	2331	DL64	3508	6201
715	6F5GT	1465	T250	1717	4307A	2221	V235A/1K	2332	VCRX359	3509	1N31
748	725A	1471	EL34	1723	V257	2222	VCRX312	2338	F2	3510	4B31
763	1CA4	1507	V1507	1724	5A-102D	2229	VX9035	2340	KD60	3511	371B
788	QQVO4-15	1515	MX1	1725	4328D	2230	VCRX361	2341	VX3138	3512	5696
791	2B7	1516	PMD6	1726	5A-105A	2242	VX7052	2342	VCRX364	3513	2J32
810	1P31	1517	09J	1728	WE262B	2243	6F14	2343	K335	3514	K8140825
813	959	1519	V1042	1729	KTW62	2244	VCRX258	2346	VX5028	3517	5933
831	5AP1	1521	E4412/N/9	1730	KT66	2246	DDX52	2347	5B/258M	3518	5948
835	5BP1	1525	E/4205/C/7	1735	DC2P	2247	G5H	2348	VX8117	3521	5949
869	6V5GT	1529	E/4412/E/9	1736	ACT22	2248	VX9115	2349	EN30	3522	6079
907	12A	1546	12MD6	1737	MW6-2	2249	VX9112	2352	DG16-22	3523	6146
923	12S17GT	1548	41DS	1738	R5161	2250	VX9054	2353	R6010	3524	G1/235G
926	4B35	1565	230XP	1739	GC10/4B	2251	VX9113	2354	R6105	3525	1N21C
928	13-4	1571	VT58A	1740	GS12/C	2252	VX9114	2358	W7/1D	3526	EL85

SUPPLEMENTARY C.V. TYPES WITH COMMERCIAL EQUIVALENTS

C.V. No.	Commercial Equivalent	C.V. No.	Commercial Equivalent	C.V. No.	Commercial Equivalent	C.V. No.	Commercial Equivalent	C.V. No.	Commercial Equivalent	C.V. No.	Commercial Equivalent
3528	M513	3736	K1105P2	3935	14A7						
3535	C14HM	3737	QK353	3936	14S7						
3536	LS408A	3738	VXR130	3937	14R7						
3539	6024	3745	1B58	3938	12C57GT						
3540	HT415	3748	2X2	3939	6BM6A						
3542	LS532	3749	576	3940	2C39						
3543	4D32	3755	5755	3941	3RP1						
3544	1N25	3762	V120	3942	5692						
3545	5939	3769	V877	3943	5852						
3548	1B24A	3779	4J26	3944	2J30						
3549	1B38	3780	4J27	3945	2K45						
3550	1B41	3781	4J28	3946	3VVP1						
3551	1N38	3782	4J29	3947	4J54						
3555	1Q22	3783	4J30	3948	4J55						
3559	2C53	3789	5842	3949	4J56						
3560	2J51	3808	6T4	3950	4J57						
3569	4J52	3809	807W	3951	4J58						
3575	3B26	3815	3B22	3952	4J59						
3577	26A7GT	3827	12C8GT	3953	4J78						
3580	304TL	3835	Z21	3954	5CP7A						
3592	UX6653	3840	TTR31MR	3955	5CP12						
3599	QQV5-P10	3841	6F1	3956	7J9A						
3602	5J26	3842	5J29	3957	1258						
3606	5J29	3843	5J30	3958	5657						
3607	NP90	3844	5J31	3959	MF13-1						
3608	5J30	3869	RSQ15/5	3960	85A3						
3609	5517	3870	RGQ10/4d	3961	6111						
3610	5663	3871	RS254	3963	559						
3611	5586	3873	RS566	3964	354						
3612	5686	3874	ATR388	3965	2C36						
3613	6AR6	3875	KU54	3997	JP9-15						
3614	6BL6	3876	SAL39	3998	E180F						
3615	6BM6	3877	1B56	3999	MW22-22						
3616	6BN6	3878	2-150D	4001	F/6063						
3618	5932	3879	4-400A	4002	F/6064						
3619	6S17WGT	3880	4-1000A	4003	6189						
3627	6SN7WGT	3893	4X150G	4004	12AX7						
3628	1B35A	3894	6BF7	4005	6X4						
3629	6130	3895	5702	4006	6BR7						
3630	PEN44	3896	5784	4014	6064						
3632	6131	3897	5787	4015	9D6						
3637	7BP7A	3898	5829	4025	6AL5						
3639	7UP7	3899	5932	4026	5R4WGA						
3644	726C	3900	5963	4027	5Y3WGTA						
3646	845W	3901	6161	4028	OB2WA						
3650	12AY7	3902	6002	4029	5902						
3651	12SH7GT	3903	6410	4030	F/Q575-60						
3655	12SP7	3904	2K41	4031	6101						
3666	12SW7	3905	5847	4032	5814A						
3668	12SY7	3906	6117	4033	F/6060						
3669	2K48	3907	720C	4034	F/6067						
3670	RG4-1000	3908	6BH6	4035	F/6057						
3675	9004	3909	6BJ6	4036	F/6443						
3676	2J42	3912	1U5	4037	F/5750						
3678	2BP1	3915	8025A	4038	E2359						
3685	QK283	3916	5647	4040	6F17						
3686	QK284	3917	4703	4044	6443						
3687	2J49	3918	5JP2A	4046	TT15						
3689	3B29	3919	U82	4047	G400/2G						
3693	10KP7	3920	A2196	4051	VX7115						
3697	12SX7GT	3921	A2244	4052	VX9132						
3699	5693	3923	1N21B	4053	VX9133						
3705	5691	3924	6AC7W	4055	6CH6						
3706	5796	3926	7C23	4058	6110						
3707	6AL7G	3927	12K8GT	4060	VX6114						
3710	AR63	3928	5636								
3711	N78	3929	5840								
3714	832A	3930	5718								
3725	GL446	3931	5906								
3729	1N47	3932	5977								
3733	3KP1	3933	5783								
3734	6X5WGT	3934	1N34A								

COMMERCIAL TYPES WITH C.V. AND SERVICE EQUIVALENTS

Commercial Type	C.V. Type	Commercial Type	C.V. Type	Commercial Type	C.V. Type	Commercial Type	C.V. Type
O1A	750	1R5	782	3B/240M	2214	5C22	2520
O9	2725	1S4	783	3B/501A	49	5CP1	600
OA2	1832	1S5	784	3BP1	814	5CP7	838
OA4G	752	1T4	785	3C22	999	5D21	2814
OB2	1833		1971	3C24	789	5FP7	718
OZ4	692	1T5	786	3C31	1765		1789
OZ4-A	517	1T5GT	1829	3C45	372	5GP1	839
1A3	753	1U4	2507	3D6	2710	5H4	840
1A4P	754	1V	1999	3D21A	2659	5HP1	3583
1A5G	755	1Z2	2510	3D22	2851	5J23	542
1A5GT	756	2A3	1831	3D/100A	1422	5J/180E	445
1A6	757	2A5	1834	3DP1	816	5JP1	1791
1A7G	1800	2A6	1769	3EP1	817	5LP1	741
1A7GT	1802	2A7	787	3EG1	1526		1814
1AD4	2237	2AP1	790	3FP7	1761	5MP1	740
1B3	1830	2B7	1837	3GP1	516	5R4GY	717
1B4P	758	2C21	875	3J31	1788	5R4WGY	2835
1B5	759	2C22	792	3J/160E	2245	5T4	1846
1B7GT	760	2C25	1567	3JP7	2869	5U4	1071
1B22	761	2C26	802	3JP12	2816		VU71
1B23	539	2C26A	1759	3P/270B	1470	5U4G	575
1B24	725	2C33	793	3Q4	818	5U4GT	841
1B26	576		3688	3Q5	819	5UP7	2840
		2C39A	2516	3Q/191E	570	5V4G	729
1B27	713	2C40	932	3Q/213E	1734	5V4	1849
1B35	369		2643	3Q/260E	446	5W4DT	503
1B36	577	2C43	688	3S4	820	5W4G	842
1B49	508	2C51	2831	3V/420B	2126	5X4	1852
1B63A	2826	2C51W	2866	4-65A	1905	5X4G	1851
1C5G	1803	2D2	794	4-250A	2131	5Y3	1268
1C5GT	1805	2D4A	795	4A1	821		NU20
1C21	762	2D13C	796	4B22	2936	5Y3G	1854
1D5	764	2D21	797	4B26	1836	5Y3GT	1856
1D5GP	705	2D21W	2876	4B28	2777	5Y4G	1857
1D5GT	1806	2DP1	1813	4B30	933	5Z3	1861
1D7G	765	2E2	798	4B32	2518	5Z4	1864
1D8GT	1811	2E30	2517	4C21	2576	5Z4G	1863
1E5GT	766	2J21A	719	4C29	823	5Z4GT	2748
1E7G	1812		2778	4C30	934	6A3	730
1F4	767	2J22	800	4C35	1787	6A6	1867
1F5G	768	2J26	1760		1000	6A7	1870
1F6	769	2J31	1807		1109	6A8	579
1F7GV	770	2J32	1808	4D1	AR7	6A8G	578
1G4	1817	2J33	1809		NR55	6A8GT	580
1G5G	771	2J34	1810	4D21	VR109	6A85	843
1G6G	772	2J36	514		2130	6AB7	661
1G6GT	773	2J42	370				1873
1H4G	774			4H/180E	1883	6AC5G	844
		2J48	1822	4J31	1914	6AC5GT	845
1H5G	1818	2J50	2793	4J33	1916		660
1H5GT	1820	2J54	801	4J34	1897	6AC7	747
	1758	2J56	2852	4J35	1898		846
1L4	2742	2K25	2792	4J50	2284	6AD7G	1878
	2795	2K28	1892	4J53	513	6AF6G	847
1LA6	775	2K33	1786	4SH	1126	6AG5	848
1LB4	776	2V3	803		VR126	6AG7	1882
1LC5	777	2V3G	804	4SHA	825	6AGH	2521
1LC6	778	2Y2	1843	4THA	826	6AJ5	995
1LD5	779	3A4	807	4TPB	828	6AJ7	849
1LH4	780	3A5	808		829	6AK5	850
1LN5	781	3A/105B	809	4TSP	830	6AK5W	2877
1N5	1821	3A/109B	1663	4X150A	2519		4010
1N5GT	1823	3AP1/1A	739	5A/102A	3784	6AK6	1762
1N21	727		602	5AP1	832	6AK7	1784
1N23A	749	3B4	2240	5B/251M	428	6AL5	140
1N23B	2856	3B21	2959	5B/300B	834		283
1N23BM	2857	3B22	812	5B/502A	1096		2004
1N26	1785	3B24W	2858		VT96		2005
1N34	2829	3B24WA	4021	5BP1	601	6AL5W	2882
1P5GT	728	3B28	1835	5BP4	836		4007
1Q5G	1824	3B/102B	84				
1Q5GT	1826						

COMMERCIAL TYPES WITH C.V. AND SERVICE EQUIVALENTS

Commercial Type	C.V. Type	Commercial Type	C.V. Type	Commercial Type	C.V. Type	Commercial Type	C.V. Type
6AN5	2854	6H6GT	1931	6SD7GT	865	7H7	895
6AQ5	1862	6H7	857	6SF5	1972	7K7	896
6AQ5W	2883	6J4	1763	6SG7	1978	7J7	897
	4019		1067	6SH7	594	7N7	898
6AS6	2522	6J5	1933	6SH7GT	595	7Q7	899
6AS6W	2884		VR67	6SJ7	591	7R7	900
	4011	6J5G	1932	6SJ7G	590	7W7	902
6AS7G	2523	6J5GT	1934	6SJ7GT	592	7Y4	901
6AT6	452	6J6	858	6SJ7Y	866	7Z4	1790
6AU6	2524		2010	6SK7	1981	8D2	1108
6AU6W	4023	6J6W	2843	6SK7GT	1982		VR108
6AV6	2526		1074	6SL7	1984		1106
6B4G	851		1936	6SL7GT	1985	9D2	1321
6B5	1885	6J7	ARP16	6SN7	1986		1423
6B6G	1887		NR83	6SN7GT	1988		ARP3
6B7	1711		VT74	6SQ7	1990		VR106
	1891	6J7G	1935	6SQ7GT	1991	9HP7	905
6B8	1894	6J7GT	1937	6SR7	867	9JP1	1783
6B8G	1893	6J8G	859	6SS7	1993	9LO1A'	254
6BA6	454	6K4	2855	6ST7	1996	9MD6	262
6BA6W	4009	6K5G	860	6ST7G	1995	10	603
6BA7	2527	6K5GT	861	6T7G	500		1300
6BE6	453	6K6G	1938	6U5	504	10D1	1418
6BE6W	4012	6K6GT	1940	6U5G	2747		ARDD1
6BR7	2135	6K7	1942	6U7G	706	11D3	1419
6BW6	2136		NR81	6V6	510	11E3	73
6C4	133	6K7G	1941	6V6G	509		276
	852	6K7GT	1943	6V6GT	511	12A5	908
6C4W	2842	6K8	1945	6V7G	870	12A6	525
	582	6K8G	1944	6W4	732	12A6GT	526
6C5	1649	6K8GT	1946	6W7G	512	12A7	909
	NR78	6K25	2215	6X4	493	12A8GT	910
6C5G	581		2217	6X4W	2844	12AH7GT	529
6C5GT	583	6L5G	862	6X5	573	12AT7	455
6C6	585	6L6	1948	6X5G	572	12AT7WA	4024
6C7	859	6L6G	1947	6X5GT	574	12AU6	1961
6C8G	1896	6L6GA	2817	6Y3G	1816		491
6C21	855	6L6WGB	2796	6Y6G	515	12AU7	2007
6D4	1949	6L7	1951	6Z4	619		2011
6D6	1900	6L7G	1950	6Z5	871	12AX7	492
6D7	1776	6L18	1899	6Z7G	872	12B8GT	911
6D8G	1902	6L19	1850	6ZY5G	873	12BA6	1928
6E5	1906	6L34	139	7A4	1770	12C8	531
6F5	1909	6LD20	1920	7A6	876		837
6F5G	1908	6LY1	1530	7A7	877	12DP7	913
6F5GT	1910	6N6	1954	7A8	878		914
	1186	6N6G	1953	7B4	879	12E1	345
	1911	6N7	1957	7B5	880	12FP7	915
6F6	1912	6N7G	1956	7B5LT	881	12H6	916
	ARP17	6N7GT	1958	7B7	522	12J5	534
	NR85	6P5GT	1819	7B8LM	883	12J5GT	535
6F6GT	731	6P7G	864	7BP7	884	12J7	917
6F7	1915	6P25	1853	7C4	2706	12K7	918
6F8	1918	6Q5G	1815	7C5	885	12K8	703
6F8G	1917	6Q7	588	7C5LT	886	12MD6	1546
6F11	1901		NR68	7C6	887	12SA7	537
6F13	1839	6Q7G	587	7C7	1777	12SA7GT	538
6F14	1919	6Q7GT	589	7D5	1425	12SC7	540
6F17	416	6R6G	1960	7D7	888	12SF5	919
6F32	1116	6R7	1963		889	12SF5GT	920
6F33	329	6R7G	1962	7D8	1328	12SF7	921
	2209	6R7GT	1964		APR9A	12SG7	694
6G5	504	6S5GT	1973		136	12SH7	922
6G5G	2747	6S7	1975	7D9	2002	12SJ7	697
6G6G	1926	6S7G	1974		2003	12SJ7	697
6G8G	856	6SA7	1966	7E5	890	12SJ7GT	698
	1301	6SA7GT	1967		2704	12SK7	543
6H6	1930	6SC7	1969	7E6	891	12SK7GT	544
	ARDD3		2716	7E7	892	12SL7	924
6H6	G1929	6SC7GT	1970	7F7	893	12SN7	925

COMMERCIAL TYPES WITH C.V. AND SERVICE EQUIVALENTS

Commercial Type	C.V. Type	Commercial Type	C.V. Type	Commercial Type	C.V. Type	Commercial Type	C.V. Type
12SQ7	546	39/44	1771	101D	1778	228A	734
12SQ7GT	547	40	2501	101F	2553	230XP	1023
12SR7	700	41	608	102D	1779	}	VT23
12Y4	523	41FP	2502	111A	2554		231D
12Z3	927	41MH	2503	112A	1774	240B	2586
13SPA	929	41MHL	2504	116/Pen	1337	242C	2587
14F7	930	41MP	1458	}	ARP22	244A	2588
14L	1087	41MPG	2505		117L7	2556	244V
15	931	41MPT	2506	117N7	2557	}	NR58
15D2	1107	41MTL	1117	117Z6	2558		250TH
}	VR107	}	VR117	121A	2560	256B	2592
	265		41MXP	1122	122A	2561	257A
19E2	277	}	VR122	129B	2950	258B	2594
19G3	371		41STH	2508	150B2	2225	259A
19G6	371	42	609	161	708	262B	2597
19H1	121	}	1325	164V	2562	264A	2598
19H4	1847		42MPT	ARP7	185BT	1980	264C
}	2180	}	42OT	202	1200	267B	2600
	490		42OTDD	2511	}	NS3	271A
19H5	1424	42SPT	1444	204A		2563	272A
20A1	1848	43	2514	205D	1749	274A	2603
20A2	1538	}	596	}	2565	274B	684
23D	936		45		610	205E	2566
24A	6008						
24B1							
24B2	339	45IU	2529	205F	2567	279A	669
24C3	125	45Z5	2530	210DDT	1044	282A	2605
25A6	549	46	2531	}	VR44	293A	3829
25A6GT	550	47	1772		210DET	2569	300A
25A7	937	49	2532	210HF	2570	300B	2609
25AC5	938	50	2533	210HL	2571	303	2610
25B6	939	50C5	1959	}	1027	}	1202
25B8	948	50L6	2534		210LF		1042
25L6	552	50L6GT	571	}	1021	304TH	2611
25L6G	551	50Y6GT	805		210PG	VR21	307A
25L6GT	553	52CG	2896	}	VR27	310A	2603
25SN7	423	53	2535		210SPT	1043	310B
25Y5	942	53A	2536	}	VR43	311A	2614
25Z5	555	55	2537		210VPA	1049	313C
25Z6	558	55CG	405	}	VR49	314A	2616
25Z6GT	559	56	611		210VPT	2574	316A
26	943	57	612	}	1083	323A	2617
27	944	58	613		210VPT	NR41	327A
27M1	337	59	2538	}	NR83	328A	2619
28D7	945	61BT	1979		211	620	329A
28D7GT	946	61P	2539	212E	2577	330B	2621
29C1	430	71A	2541	215SG	1018	331A	2622
30	604	73	2543	}	VR18	332A	2623
30D5	1860	75	614	218	2579	337A	2624
30E7	400	76	615	}	1032	338A	2625
31	947	77	616		220B	AR16	340A
32	711	78	2544	}	VR32	346A	2626
32L7	948	79	2545		220C	2580	349A
33	949	80	617	220LF	1313	349B	2628
33A/100A	1750	81	2546	}	AR15	359A	2629
33A/158M	1884	82	1773		220/OT	2581	3502
34	1751	83	618	220P	1020	351A	2630
35/51	1752	83V	2547	}	VT20	352A	2631
35A5	1753	84	619		220PA	1022	354A
35L6	561	}	2548	}	VR22	357A	691
35L6GT	562		85		2549	220PT	1333
35T	668	85A1	431	}	ARP14	367	2634
35TG	1754	85A2	449		220RC	1312	368A
35Z3	564	89	833	}	AR14	375A	2636
}	726	89J	2750		220TH	1082	388A
	565	90AG	2270	}	VR82	393A	2638
35Z3GT	565	90AV	2132		220VPT	1338	394A
35Z4GT	2500	90CG	2133	}	ARP24	405BU	2640
35Z5	567	90CV	2134		220VS	2582	417A
35Z5GT	568	100T	2550	220VSG	1028	450TH	2572
36	1775	}	2551	}	VR28	506BU	2645
37	606		100TH		2552	225DU	1454
38	712		2591		1455		

COMMERCIAL TYPES WITH C.V. AND SERVICE EQUIVALENTS

Commercial Type	C.V. Type	Commercial Type	C.V. Type	Commercial Type	C.V. Type	Commercial Type	C.V. Type
7193	3601	ACT24	240		557	DL81	2913
7206A	676	ACT25	436	D42	{ 1302	DO30	{ 1178
	188	AC/TH1	2830		ARD4		NR56
	1070	AC/TP	1718	D63	554	DO60	{ 1206
7475	{ VS70	AC/VP1	518	DA30	563		NT18
	AW2	AC/VP2	2832	DA41	{ 1076	DPQ	{ 1141
8003	2768	AF3	2833		VT76		NGT1
8011	46	AFH202	12	DA60	527	DW4/350	1796
8012	662	AL1	159	DA100	{ 1219	DY70	2241
8013A	716	AL60	9		NT36	E80F	2729
8016	541	AP4	{ 1175	DAC1	2887	E4103-B4	1522
8020	2967		NR54	DAF70	2104	E4205-B7	964
8025	663	APP4C	1684	DAG1	2	E4504-M16	966
8054	2008	APP4G	2836/7	DC51	1	EA50	{ 1092
9001	1757	AR300	2839	DC70	2275		VR92
9002	664	AT4	{ 1171	DD41	1403	EA76	469
9003	665		NR50	DD620	2889	EAC91	{ 137
9004	666	AZ1	2860		1119		1804
9005	667	AZ2	2861	DDL4	{ 1691	EA42	{ 3883
9006	2769	AZ31	2862		VR119		1054
13077	2770	AZ41	3892	DDT	2890	EB34	{ ARDD5
23043	2772	B21	{ 1696	DE5	2891		VR54
68503	2773		2864	DE5B	2892	EB41	3881
68504	2774	B30	2865	DEQ	{ 1156/7	EBC3	{ 1428
68506	2775	BL63	{ 1102		NR18		1715
68510	2776		VR102	DER	1642	EBC21	{ 347
A40	2800	B65	278	DET1SW	2895		1055
A40/N3	2801	BR153	2159	DET3	1034	EBC33	{ AR21
A1714	408	BS4A	1859		384		NR48
AC/2HL	2806/7	B55	233	DET5	{ 1223		VR55
AC4/Pen	{ 1326	BS52	1841		1233	EBC41	3882
	ARP8	BS62	1858		NT40	EBF2	2925
AC5/Pen	2809	BS82	463	DET6	1620	EBF32	501
AC5/PenDD	{ 1196	BS84	462	DET9	2899	EBL31	2926
	NR87	BS92	461	DET10	2900	EC31	1433
AC6/Pen	{ 1189	BT5	1147		1235	EC50	2927
	NR74	BT9B	13	DET12	{ 1288	EC52	{ 1137
AC/HL	2811/2	BT19	1144		NT58		VR137
AC/HLDD	2813	BT45	22	DET16	1363	EC53	1197
AC044	{ 1168	CIC	1400	DET18	419	EC54	66
	NR44	CAR1	1601	DET19	18	EC70	468
AC/P	{ 1692	CAR4	1602	DET20	{ 6	EC80	1886
	2815	CAT1	1600		1135	EC81	1865
ACP4	{ 1190	CAT2	1606	DET24	{ 397	EC91	417
	1198	CAT6	2871		1025		181
	207	CAT9	2872	DET25	{ AT35	ECC31	{ 1285
	NR94	CAT17C	533		VT25		NR73
AC/Pen	2808	CAT20C	421	DF1	2907	ECC32	181
ACR10	1382	CBL31	1463	DF64	2260	ECC33	2821
AC/S	2819	CE2	1764	DF66	2107	ECC35	569
AC/S2	1677	CE20	1474	DF70	386	ECC40	3884
	1164	CE302	3596	DF72	2101	ECH3	2929
AC/S5G	{ 2822	CK502	385	DF73	2103	ECH22	302
	NR37	CK505	386	DG7-5	2175	ECH33	2930
AC/SP1	2820	CK505AX	443	DG13-2	2191		1347
	545	CK506	387	DH	1665	ECH35	{ 1581
AC/SP3	{ 1430	CK707	2848	DH30	1695		ARTH2
	2823	CK1005	2874	DH73M	2909	ECH42	3888
AC/SPen	2824	CL4	2875	DH81	882	ECH81	2128
	1222	CL33	1401	DK1	2910	ECR30	1588
ACT6	{ 2825	CMG25	1432	DL	1661	ECR35	1587
	AT37	CMG25RS	250	DL2	2911	ECR60	1097
	NT39	CY31	1402	DL63	2912	EF8	{ 1123
	28		1072	DL66	{ 2106		VR123
ACT9	2827	D1	{ ARD8		2288	EF9	1427
ACT10	1431		VR78	DL68	2259	EF22	303
ACT16	225		1070	DL70	2105		1056
ACT17	379	D41	{ 1187	DL71	385	EF36	{ 1404
ACT19	257		NR46	DL72	387		NR49
ACT22	288		NR66	DL75	2102		VR55

COMMERCIAL TYPES WITH C.V. AND SERVICE EQUIVALENTS

Commercial Type	C.V. Type	Commercial Type	C.V. Type	Commercial Type	C.V. Type	Commercial Type	C.V. Type
EF37	{ 358	ESA892	701	H42	{ 1182	KT41	{ 1181
	{ 586	ESG250	1031		{ NR60		{ ARP25
EF37A	{ 358	ESP450	{ 1506	H63	{ 1073		{ NR59
	{ 1053		{ 1630		{ VT73	KT42	{ 1174
EF39	{ 1464	ESU74	{ 74	H410	{ 2981		{ NR53
	{ ARP34		{ 312	H610	{ 2982		{ 1340
	{ VR53	ESU75	{ 2945	HD24	{ 2985	KT44	{ 1437
EF40	3885	ESU76	2943	HD203A	2986		{ 1576/7
EF41	3886	ESU77	2160	HF100	2987		{ ARP26
EF42	3887		{ 1029	HF200	2988	KT45	{ 1825
	{ 1091	ESU150	{ 2946	HF300	693	KT61	{ 1438
	{ 1578		{ VU29	HK24	745	KT66	{ 1075
EF50	{ ARP35	ESU208	1260	HK54	707		{ VT75
	{ VR91/A	ESU300	{ 1355	HK257	824	KT67	{ 437
EF51	305		{ 2947	HK354E	2989	KTW61	{ 1281
EF52	327	ESU450	{ 1259	HL2	{ 1673		{ 1100
	{ 380		{ 2948		{ 2991	KTW62	{ ARP15
EF54	{ 1136						{ VR10C
	{ VR136	ESU1500	{ 1615				
			{ 2944	HL2K	{ 1050		
EF55	173	ESU1500AX	3867		{ 1436	KTW63	{ 1195
EF70	467	ESW501	1621		{ VT50		{ ARP15
EF71	475	EY51	426	HL23	{ 1130		{ NR86
EF72	465	EY70	473		{ 1586	KTW73M	{ 3527
EF73	466	EY84	2235		{ 2994		{ 1191
EF82	2127	EY91	135		{ VR130	KTZ41	{ 3529
EF86	2901	EZ22	346	HL23DD	{ 1306		{ NR76
	{ 138	EZ35	574		{ 2995		{ 1343
	{ 1955	EZ40	3891	HL41DD	{ AR8	KTZ73	{ 3530
	{ 2000	F123A	2949	HL63	2996		{ ARP38
EF91	{ 2001	FC2A	2954	HL133	2997	L2	{ 3531
	{ 2195	FC4	2955	HL133DD	2999		{ 1307
EF92	131	FC13C	2956		{ 1303	L21	{ 3532
EHM2	2139	FG67	742	HL210	{ 3500		{ AR9
EHT1	19	FP54	2960		{ AR4	L22DD	{ 3533
EK2	1426	G120/1B	438	HL610	3501	L30	{ 3534
	{ 1057	GC10A	2199	HL1320	3502	L600	{ 3537
EK32	{ 1570	GC10B	2271	HLDD1320	3503	L610	{ 3538
	{ VR57	GL446B	687	HLA2	1678	LD210	{ 502
EL2	1429	GL464	3604		{ 1124		{ 548
EL3C	822	GL464B	3605	HP4101	{ 1879	LP2	{ 1166
EL22	304	GL592	1903		{ ARP23		{ 1304
EL31	2888	GL8023	506		{ NR70		{ AR5
EL32	{ 1052	GM1B	2149		{ VR124		{ AR6
	{ VT52						{ NR42
		GM5B	2148				
EL33	2938	GS46	584	HVR2	{ 1134	LS5	{ 1637
EL35	{ 1286	GT1A	{ 1143		{ NU34	LS5A	{ 1650
	{ NR77		{ NGT4		{ VU134	LS6A	{ 3541
EL36	2940		{ 1128	HY75	{ 1291	LS8	{ 1656
EL38	450	GT1C	{ NGT2		{ 751	LS8A	{ 1667
EL41	3889		{ VGT128	HY114B	3505	LS9B	{ 1658
EL42	3890	GT1E	530	HY615	3506	LS650	{ 391
EL50	2941	GU1	1262	K3A	410	M500	{ 353
EL70	471		{ 1072	KB2	3515		{ 1359
EL81	2721	GU5	{ AU6	KK2	3516	ME41	{ 3565
EL83	2726		{ NU16		{ 1118		{ AVVE
EL91	136		{ VU72	KT2	{ ARP1		{ 354
EM1	2942	GU7	2973		{ NR39	ME1005	{ 432
EM4	1434	GU8	{ 324		{ VR118	ME1400	{ 2253
	{ 1077		{ 1628	KT8	{ 1079	ME1501	{ 429
EM31	{ AVV6	GU11	532		{ VT79	MF31-55	
	{ V177	GU20	1435	KT24	{ 1334		{ 1037
EM34	394	GU21	{ 5		{ ARP18	MH4	{ NR31
	{ 1103		{ 152	KT30	3519		{ AR17
EM35	{ NR69	GZ32	{ 378	KT31	{ 3520		{ VR37
	{ V1103		{ 593		{ 1287	MH41	{ 1505
ES250M	1618			KT32	{ 1502		{ VR505
ES357	691	H2	2977		{ NR95	MHD4	{ 3546
ES450	1207	H12	2978		{ VR502		{ 1038
ES450X	1553	H30	2979	KT33C	{ 1503	MHL4	{ 3547
ES1500/A	1614	H41	24		{ VR503		{ NR26
							{ VR38

COMMERCIAL TYPES WITH C.V. AND SERVICE EQUIVALENTS

Commercial Type	C.V. Type	Commercial Type	C.V. Type	Commercial Type	C.V. Type	Commercial Type	C.V. Type
MHLD6	{ 1101 VR101	PE7B	3624			RS283A	3857
MKT4	1683	PE8	3625	PX25	{ 1040 NR47 VR40	RS285	3852
ML4	{ 1160/1 1732 NR27/A	Pen4B	3626	PZ1-35	{ 1240 NT65A	RS288	3865
ML6	{ NR57 1105 VR105	Pen4DD	519			RS289	3863
MPT4K	3552	Pen25	65	PZ1-75	{ 1371 1221 NT38A	RS329	3855
MPT42	3554	Pen36C	1672	QP21	{ 1035 VR35	RS366	3845
MR4	1611	Pen44	3630			RS389	3864
MR10	34	Pen45	1407	QP25	{ 556 1342 ARP37	RS556	3873
MS4B	3553	Pen45DD	3631			RSQ15/5	3859
MSP4	{ 1282 1341 ARP33	Pen46	{ 1127 VT127	QS75/60	434	RSQ15/40	3868
MSP41	3562	Pen220A	{ 1051 VT51	QS95/10	286	RV330	3856
MS/Pen	{ 1129 3561 NR71 VR129	Pen231	3633	QS105/45	422	RX3-120	{ 1261 NU5
		Pen383	1456	QS150/45	395		709
		Pen428	3634	QSE03-10	2798	RZ1-150	3690
		Pen1340	{ 1327 3635 ARP9	QSE06-40	424	S22AF	39
		Pen1346	3636	QQV03-20	2799	S23	3691/2
		PenA4	{ 1329 3638 ARP10	QQV06-40	424	S25A	16
				QQV06-40A	2797	S26A	53
						S27A	82
						S30A	127
MS/PenB	{ 1125 VR125	PM1HL	3641	QQZ04-15	1838	S130	{ 1110 1731
MT4	1610	PM1LF	3642	QV04-7	309		AW3
MT9F	1439			QY3-125	2130	S130A	3694
MT9L	1440	PM2	{ 1019 NR28 VR19	R3	{ 1569 VU39A	S130P	45
MT11SV	3563	PM2A	3643	R10	261	S215	3695
MT12	3564	PM2DX	3645	RG1-240	2738	S215A	3696
MT12A	1441	PM3	{ 1151 NR15	RG1-240A	1626	S610	3698
MT14	1442					S625	{ 1317 ARS6
MT16	505	PM4DX	{ 1152 1154 NR15A NR16A	RG1-250	{ 1263 3667 1623	SD6	1986
MU1	{ 3567 1279 1459 NU31			RG3-250	1625	SG215	3702
MU2	1296	PM12M	1041	RG3-1250	{ 152 1629 3670	SP2	{ 1320 1409 ARP2
MU14	{ AU3A NU17 VU39	PM12V	{ VR41 1319 ARS8	RG4-100	3670		1283
MV6-5	1976	PM12V	1319	RG4-1250	5	SP4	{ 1324 1468 ARP6
MVSPen	3571	PM14	{ 1158/9 NR22/3	RGQ10/4d	3870		3703
				RH20A	704	SP4B	3703
				RK25	3671	SP13C	3704
				RK28	3672		
MVSPenB	3572	PM22	3649	RK28A	3673		1335
MX2	418	PM22A	3647	RK31	3674		1574
MX40	3576	PM22D	3578	RK34	{ 1061 VT61	SP41	{ 1699 1700 ARP19
MZ1-75	444	PM22E	3648				VR6A5
MZ1-76	3574	PM24A	{ 1167 NR43	RK47	3677	SP42	{ 1336 ARP20
MZ1-100	1219			RK48A	690		118
MZ2-200	200	PM24D	{ 1237/8 NT62	RK49	3679	SP61	{ 260 1605 ARP36
	1361			RK60	3680		VR65
MZ05-20	{ 3573 AT20	PM202	1246	RK62	3681	SP210	{ 1322 ARP4
	1188	PM254	{ 1153 NR16	RL18	{ 1197 NR88		284
N43	{ 1675 NR72	PM256	{ 1208 NT20	RL37	66	STV70/20	{ 287 1895
O9D	1518	PT5	3652	RS15	3853		3709
O9J	1596	PT5E	3579	RS18	3858	STV70/60	1895
OA2	1832			RS47	3854	STV150/200	3709
OB2	1833	PT6	{ 1371 3653 ATP75	RS55	3862		1068
P41	1408			RS203	3866	STV280/40	{ AW4 VS68
P61	{ 1066 VR66	PT11	3654	RS207	3850		VS69
P220	3620	PT15	{ 1104 VT104	RS217	3849	STV280/80	{ NS1
P220A	1652			RS250	3847		3712
P410	3621	PT25H	{ 1046 VR46	RS253	3851	STV280/80A	3712
P610	3622			RS254	3871	SU750	128
P625	1669	PT425	3655/6	RS255	3872		
PA40	3623			RS260	3848		
PD220A	{ 1163 NR35	PV1-35	{ 1370 3658 ATP35	RS261	3846		
		PVO5-15	3657	RS271A	3859		
				RS281	3861		
				RS282	38.0		

COMMERCIAL TYPES WITH C.V. AND SERVICE EQUIVALENTS

Commercial Type	C.V. Type	Commercial Type	C.V. Type	Commercial Type	C.V. Type	Commercial Type	C.V. Type
SU2150A	1069	U7	146	VCRX221	407	X24	3819
	1120	U8	149	VCRX277	420	X31	3820
	1290/1		147	VMP4G	1169		3821
	NU33	1443	3785		3786	3822	
T4D	VU120	U10	1064	VMS4	NR45	X41	1194
T20	3721	U12-14	AU3		1165		1697
T41	3722		NU3	VU64	NR38	1460	
	1585	U14	3746	1323	NR84		
T200	1121	U15	1265	VP2	3787	X56	1045
	3723		1266	ARP5	VR45		
TDD2A	VGT121	U16	3747	VP2B	520	X61	3824
	3724		NU13	VP4	3788		X61M
TDD4	1308	U17	1290	VP4B	3582	X63	3825
	3726		AU4	3790	VP13C		1280
TH2	AR10	U18	1113	VP21	1332	X64	ARH1
TH41	3727		NU18		3791		NR67
TP22	1410	U19	VU113	VP23	1331	X65	3826
TP25	1411		AU1		3792		ARP12
	TP26	ARTP1	NU12	3793	VP24	3793	X66
1345		187	VP41	21		VR99	
TSP4	ARTP2	U20		31	VP133	1414	XH1-5
	3735	U21	3751	1457		XJ	
TT11	560	U22	1356	VP210	3794	XLI-5	1720
	1330		1461	VP215	3795		XL2
TT12	ARP11	U23	1719	VP1322	3796	XLO	1701
TT15	1501		AU8	3798	VR75		74
TV4	524	U24	235	VR90	3799	XP1-5	1702
TX3-200	415	U27	1921	VR105	686		176
TX5-400	1412	U30	3752	VR150	216	1721	
TY1-50	3739	U31	3753	VS2	3800	XP2	3832
	3740	U37	2289	VS24	3802		XSG1-5
TY2-125	315	U41	2115	VS24K	ARS7	XSG2	3833
	1062	U50	3754		3803		XW2
TY54-500	VT62	U52	1575	VT4B	1553	Y65	1103
TZ2-300	1924	U600	3756	W21	171		51
TZ20	1889	U4020	1267	W30K	3804	Z21	3836
TZ20	3741	UL41	1977		3805		1469
TZO5-20	3742	UR3C	3758	W31	3806	Z22	1727
U2	1047	UU4	3759	W42	1183		3837
	VR47	UU5	3760	WD30	NR61	Z62	1192
U3	142	UU6	1413		3810		3838
U4	143	UU7	3761	X21	3816	ARP21	3879
U4B	144	UU9	1855	X22	3817		3839
U4B	141	VCRX210	389			3818	Z66
U5	145					ZA1	
U5	3743						
	3744						

BRITISH ARMY VALVES WITH COMMERCIAL EQUIVALENTS

Services No.	Commercial Equivalent	Services No.	Commercial Equivalent	Services No.	Commercial Equivalent	Services No.	Commercial Equivalent
AD1	DLS10	AR14	220RC	ARH1	X64	ARP10	PenA4
AR4	HL210	AR15	220LF	ARP1	KT2	ARP11	TSP4
AR5	LP2	AR16	220B	ARP2	SP2	ARP12	VP23
AR6	LP2	AR17	MH4	ARP3	9D2	ARP13	VP21
AR7	4D1	AR20	4021B	ARP4	SP210	ARP14	220PT
AR8	HL23DD	AR21	EBC33	ARP5	VP2	ARP15	KTW63
AR9	L21	ARD2	D1	ARP6	SP4	ARP16	6J7
AR10	TDD2A	ARD4	D42	ARP7	42MPT	ARP17	6F6
AR11	4019B	ARDD1	10D1	ARP8	AC4/Pen	ARP18	KT24
AR12	4020A	ARDD3	6H6	ARP9	Pen1340	ARP19	SP41
AR13	4022AR	ARDD5	EB34	ARP9a	7D8	ARP20	SP42

BRITISH ARMY VALVES WITH COMMERCIAL EQUIVALENTS—continued

Services No.	Commercial Equivalent	Services No.	Commercial Equivalent	Services No.	Commercial Equivalent	Services No.	Commercial Equivalent
ARP21	Z62	ARP37	QP25	AT37	ACT6	AU3A	MU14
ARP22	116/Pen	ARP38	KTZ73	ATP10	4061A	AU4	U17
ARP23	HP4101	ARS6	S625	ATP35	PV1-35	AU6	GU5
ARP24	220VPT	ARS7	VS24	ATP75	PT6	AU8	U22
ARP25	KT41	ARS8	PM12V	ATP100	4069A	AW2	7475
ARP26	KT44	ARTH2	ECH35	ATS25	807	AW3	S130
ARP33	MSP4	ARTP1	TP22	ATS25A	807	AW4	STV280/40
ARP34	EF39	ARTP2	TP25	ATS70	4282B	AW5	ME41
ARP35	EF50	AT20	MZ05-20	AU1	U18	AW6	EM31
ARP36	SP61	AT35	DET25	AU3	U12-14		

ROYAL NAVY VALVES WITH COMMERCIAL EQUIVALENTS

NGT1	DPQ	NR44	AC044	NR72	N43	NT18	DO60
NGT2	GT1C	NR45	VMP4G	NR73	ECC31	NT20	PM256
NGT4	GT1A	NR46	D41	NR74	AC6/Pen	NT36	DA100
NR15	PM3	NR47	PX25	NR75	2 x AC/P4	NT37	4033A
NR15A	PM4DX	NR48	EBC33	NR76	KTZ41	NT38A	PZ1-75
NR16	PM254	NR49	EF36	NR77	EL35	NT39	ACT6
NR16A	PM4DX	NR50	AT4	NR78	6C5	NT40	DET5
NR18	DEQ	NR53	KT42	NR79	Z62	NT58	DET12
NR22	PM14	NR54	AP4	NR81	6K7	NT62	PM24D
NR23	PM14	NR55	4D1	NR82	X65	NT65A	PZ1-35
NR26	MHL4	NR56	DO30	NR83	6J7	NT82	PM202
NR27	ML4	NR57	ML4	NR84	X41	NU3	U12/14
NR27A	ML4	NR58	244V	NR85	6F6	NU5	RX3-120
NR28	PM2	NR59	KT41	NR86	KTW63	NU12	U18
NR31	MH4	NR60	H42	NR87	AC5/PenDD	NU13	U15
NR35	PD220A	NR61	W42	NR88	RL18	NU16	GU5
NR37	AC/SG	NR66	D41	NR94	AC/P4	NU17	MU14
NR38	VMS4	NR67	X64	NR95	KT32	NU18	U17
NR39	KT2	NR68	6Q7	NS1	STV280/80	NU20	5Y3
NR41	210VPT	NR69	EM35	NS3	202	NU31	MU2
NR42	LP2	NR70	HP4101	NS4	4713	NU33	SU2150A
NR43	PM24A	NR71	MS/Pen	NS5	304	NU34	HVR2

ROYAL AIR FORCE VALVES WITH COMMERCIAL EQUIVALENTS

VGT121	T41	VR56	EF36	VR118	KT2	VT60A	807
VGT128	GT1C	VR57	EK32	VR119	DDL4	VT61	RK34
V177	EM31	VR59	955	VR122	41MXP	VT61A	4074B
V1103	EM35	VR65	SP61	VR123	EF8	VT62	TY1-50
VR18	215SG	VR65A	SP41	VR124	HP4101	VT73	H63
VR19	PM2	VR66	P61	VR125	MS/PenB	VT74	6J7
VR21	210LF	VR67	6J5	VR126	4SH	VT75	KT66
VR22	220PA	VR78	D1	VR129	MS/Pen	VT76	DA41
VR27	210LF	VR82	220TH	VR130	HL23	VT79	KT8
VR28	220VSG	VR83	210VPT	VR136	EF54	VT80	4307A
VR32	220B	VR91	EF50	VR137	EC52	VT81	4052A
VR35	QP21	VR91A	EF50	VR502	KT32	VT88	832
VR37	MH4	VR92	EA50	VR503	KT33C	VT96	5B/502A
VR38	MHL4	VR95	954	VR505	MH41	VT104	PT15
VR40	PX25	VR95A	954	VS68	STV280/40	VT127	Pen46
VR41	PM12M	VR99	X66	VS69	STV280/80	VU29	ESU150
VR43	210PG	VR100	KTW62	VS70	7475	VU39	MU14
VR44	210DDT	VR101	MHLD6	VT20	220P	VU39A	R3
VR45	X56	VR102	BL63	VT23	230XP	VU64	U12/14
VR46	PT25H	VR105	ML6	VT25	DET25	VU71	5U4
VR47	TZ05-20	VR106	9D2	VT45	X56	VU72	GU5
VR49	210SPT	VR107	15D2	VT50	HL2K	VU113	U17
VR53	EF39	VR108	8D2	VT51	Pen220A	VU120	SU2150A
VR54	EB34	VR109	4D1	VT52	EL32	VU134	HVR2
VR55	EBC33	VR117	41MTL	VT60	807		

WAR-TIME CIVILIAN VALVES WITH COMMERCIAL EQUIVALENTS

BVA211 } BVA214 } BVA215 } BVA216 }	IW4-350 and Equivalents	BVA243 } BVA246 } BVA247 }	EF39 and Equivalents	BVA264 } BVA265 } BVA266 } BVA267 }	EL33 and Equivalents	BVA274 } BVA275 } BVA276 }	ECH35 and Equivalents
--	-------------------------------	----------------------------------	----------------------------	--	----------------------------	----------------------------------	-----------------------------

U.S.A. SERVICE TYPES WITH COMMERCIAL EQUIVALENTS

V.T. No.	Commercial Equivalent	V.T. No.	Commercial Equivalent	V.T. No.	Commercial Equivalent	V.T. No.	Commercial Equivalent
1	WE203A	78	78	134	12A6	203	9003
2	WE205B	80	80	135	12J5GT	204	3C24
4B	211	83	83	135A	12J5	205	6ST7
4C	211SPEC	84	84/6Z4	136	1625	206A	5V4G
5	WE215A	86	6K7	137	1626	207	12AH7GT
6	212A	86A	6K7G	138	1629	208	7B8
7	WX12	86B	6K7GT	139	OD3/VR150	209	12SG7
8	UV204	87	6L7	141	WL531	210	1S4
17	860	87A	6L7G	143	805	211	6SG7
19	861	88	6R7	144	813	212	958
22	204A	88A	6R7G	145	5Z3	213A	6L5G
24	864	88B	6R7GT	146	1N5GT	214	12H6
25	10	89	89	147	1A7GT	215	6E5
25A	10Y-10SPEC	90	6H6	148	1D8GT	216	816
26	22	90A	6H6GT/G	149	3A8GT	217	811
27	30	91	6J7	150	6SA7	218	100TH
28	24A	91A	6J7GT	150A	6SA7GT	220	250TH
29	27	92	6Q7	151	6A8G	221	3Q5GT
30	01A	92A	6Q7G	151B	6A8GT	222	884
31	31	93	6B8	152	6K6GT	223	1H5GT
33	33	93A	6B8G	152A	6K6G	224	2C34-RK34
34	207	94	6J5	153	12C8Y	225	307A
35	35/51	94A	6J5G	154	814	226	3EP1/1806P1
36	36	94D	6J5GT/G	161	12SA7	227	7184
37	37	95	2A3	162	12SJ7	228	8012
38	38	96	6N7	163	6C8G	229	6SL7GT
39	869	97	5V4	164	1619	230	350A
39A	869A	98	6U5/6G5	165	1624	231	6SN7GT
40	40	99	6F8G	166	371A	232	E1148
41	851	100	807	167	6K8	233	6SR7
42	872	100A	807SPEC	167A	6K8G	234	1148
42A	872A	101	837	168A	6Y6G	235	615
43	845	103	6SQ7	169	12C8	236	836
44	32	104	12SQ7	170	1E5GP	237	957
45	45	105	6SC7	171	1R5	238	956
46	866	106	803	172	1S5	239	1LE3
46A	866A	107	6V6	173	1T4	240	710A
47	47	107A	6V6GT	174	3S4	241	7E5/1201
48	41	107B	6V6G	175	1613	243	7C4/1203A
49	39/44	108	450TH	176	6AB7/1853	244	5U4G
50	50	109	2051	177	1LH4	245	2050
51	841	111	5BP4/1802P4	178	1LC6	246	918
52	45SPEC	112	6AC7/1852	179	1LN5	247	6AG7
54	34	114	5T4	180	3LF4	248	3CP1/1808P1
55	865	115	6L6	181	7Z4	249	1006
56	56	115A	6L6G	182	3B7/1291	250	EF50
57	57	116	6SJ7	183	1R4/1294	251	WL441 Series
58	58	116A	6SJ7GT	184	OB3/VR90	252	923
60	850	116B	6SJ7Y	185	3D6/1299	254	304TH
62	801/801A	117	6SK7	187	575A	255	705A
63	46	117A	6SK7GT	188	7E6	256	GL486
64	800	118	832	189	7F7	257	K-7
65	6C5	119	2X2/879	190	7H7	259	829
65A	6C5G	120	954	191	316A	260	OA3/VR-75
66	6F6	121	955	192	7A4	264	3Q4
66A	6F6G	124	1A5GT	193	7C7	266	1616
67	30SPEC	125	1C5GT	194	7J7	267	WL578
68	6B7	126	6X5	195	1005	268	12SC7
69	6D6	126A	6X5G	196	6W5G	269	717A
70	6F7	126B	6X5GT	197A	5Y3GT/G	277	417
72	842	128	1630	198A	6G6G	279	GY2
73	843	129	304TL	199	6SS7	282	ZG489
74	5Z4	130	250TL	200	OC3/VR105	286	832A
75	75	131	12SK7	201	25L6	287	815
76	76	132	12K8	201C	25L6GT/G	288	12SH7
77	77	133	12SR7	202	9002	289	12SL7GT

TYPE	REPLACEMENT	MAKER	REMARKS	
3/6A	65K	Cossor	Change base.	
12XP4-A	65K/2	Cossor	Change base, ion-trap tube.	
	TA15	Emitron	Tetrode tube, A ¹ 250 v, aluminised, Max. EHT 7 kV, increased focus current.	
	6705A	G.E.C.	Change base, aluminised, no ion trap, increased heater rating 6.3 v, 0.5 A, no grey filter.	
	7102A	G.E.C.	Change base, aluminised, no ion trap, no grey filter.	
	C12F	Brimar	Not aquadag coated, no grey filter.	
	C12FM	Brimar	No grey filter.	
	MW31-15	Mullard	Not aquadag coated, no grey filter.	
	MW31-16	Mullard	No grey filter.	
	MW31-17	Mullard	Not aquadag coated, no ion trap, no grey filter.	
	MW31-18	Mullard	No ion trap, no grey filter.	
	MW31-20	Mullard	Aluminised, no ion trap, not aquadag coated, change base, no grey filter.	
14KP4-A	MW31-21	Mullard	Change base, no ion trap, no grey filter.	
	MW31-22	Mullard	Aluminised, no ion trap, not aquadag coated, no grey filter.	
	MW31-23	Mullard	No ion trap, no grey filter.	
	MW31-74	Mullard	Direct replacement.	
	14KP4A	Emitron	Direct replacement.	
	141K	Cossor	Direct replacement.	
	MW36-22	Mullard	Direct replacement.	
	MW36-24	European	Direct replacement.	
		Mullard		
	15EP4	85K	European	Change base, no aquadag coating, max. EHT 9 kV, increased heater current rating 6.3 v, 0.55 A.
			Cossor	
17ASP4	171K	Cossor	Direct replacement.	
	172K	Cossor	Pentode tube, connect pin 7 to cathode (pin 11).	
	MW43-22	European	EHT 12 kV max.	
	MW43-24	European	EHT 12 kV max., grey filter.	
	MW43-29	European	EHT 12 kV max., aluminised.	
	MW43-43	European	Glass or metal cone, pentode tube, connect pin 7 to cathode (pin 11), grey filter.	
	MW43-61	European	Direct replacement.	
	MW43-64	Mullard	Grey filter, pentode tube. Connect pin 7 to cathode (pin 11).	
	T908	European	Direct replacement.	
	TR17/7	Eng. Electric		
	65K	TR17/8	Ferranti	Aluminised, no ion trap, no aquadag coating.
65K/2		Ferranti	Aluminised, no ion trap.	
3/6A		Cossor	Ion-trap tube.	
TA15		Emitron	Change base, intended for cathode-modulated designs, max. EHT 4 kv.	
TA15		Emitron	Change base, tetrode tube, A ¹ requires 250 v. Increased focus current, aluminised, intended for cathode-modulated designs, max. EHT 7 kV.	
65K/2	65K	Cossor	No ion trap.	
	3/6A	Emitron	Change base, intended for cathode-modulated designs, max. EHT 4 kV, no ion trap.	
	TA15	Emitron	Change base, tetrode tube, A ¹ requires 250 v. Increased focus current, aluminised, intended for cathode-modulated designs, no ion trap.	
85K	15EP4	Emitron	Change base, tetrode tube, A ¹ = 250 v.	
141K	14KP4	Emitron	Direct replacement.	
	14KP4A	Emitron	Direct replacement.	
	MW36-22	Mullard	Direct replacement.	
171K	MW36-24	European	Direct replacement.	
		European	Direct replacement.	
	17ASP4	Emitron	Pentode tube, connect pin 7 to cathode (pin 11), grey filter.	
	172K	Cossor	EHT 12 kV max.	
	MW43-22	European	EHT 12 kV max., grey filter.	
	MW43-24	European	EHT 12 kV max., aluminised.	
	MW43-29	European	Glass or metal cone, pentode tube, connect pin 7 to cathode (pin 11), grey filter.	
	MW43-43	European	Direct replacement.	
	MW43-61	European	Pentode tube, connect pin 7 to cathode (pin 11), grey filter.	
	MW43-64	Mullard	Direct replacement.	
	European			
172K	T908	Eng. Electric	Aluminised, no ion trap, no aquadag coating.	
	TR17/7	Ferranti	Aluminised, no ion trap.	
	TR17/8	Ferranti	No grey filter.	
	17ASP4	Emitron	No grey filter.	
	171K	Cossor	No grey filter, EHT 12 kV max.	
	MW43-22	European	EHT 12 kV max.	
	MW43-24	European	Aluminised, no grey filter, EHT 12 kV max.	
	MW43-29	European	Glass or metal cone.	
	MW43-43	European	No grey filter.	
	MW43-61	European	Direct replacement.	
	MW43-64	Mullard	Direct replacement.	
European				

TYPE	REPLACEMENT	MAKER	REMARKS
6501	T908	Eng. Electric	No grey filter.
	TR17/7	Ferranti	Aluminised, no ion trap, no aquadag coating, no grey filter.
	TR17/8	Ferranti	Aluminised, no ion trap, no grey filter.
	6502	G.E.C.	Aquadag coated.
	6504	G.E.C.	Direct replacement.
	6504A	G.E.C.	Aluminised, aquadag coated.
	MW22-14	Mullard	Change base, tetrode tube, $A^1 = 200$ v, aquadag coating.
	MW22-14c	Mullard	Change base, tetrode tube, $A^1 = 200$ v.
	MW22-15	Mullard	Change base, tetrode tube, $A^1 = 350$ v, increase EHT 9 kV max., ion-trap tube.
	MW22-16	Mullard	As for MW22-15 but with aquadag coating.
6502	MW22-17	Mullard	Change base, tetrode tube, $A^1 = 350$ v, increase EHT to 9 kV max.
	MW22-18	Mullard	As for MW22-17 but with aquadag coating.
	6504	G.E.C.	Not aquadag coated.
	6504A	G.E.C.	Aluminised.
	MW22-14	Mullard	Change base, tetrode tube, $A^1 = 200$ v.
	MW22-14c	Mullard	Change base, tetrode tube, $A^1 = 200$ v, not aquadag coated.
	MW22-15	Mullard	Change base, ion-trap tube, tetrode tube, $A^1 = 350$ v. Increase EHT 9 kV max., not aquadag coated.
	MW22-16	Mullard	Change base, ion-trap tube, tetrode tube, $A^1 = 350$ v. Increase EHT 9 kV max.
	MW22-17	Mullard	Change base, tetrode tube, $A^1 = 350$ v. Increase EHT to 9 kV max., not aquadag coated.
	MW22-18	Mullard	Change base, tetrode tube, $A^1 = 350$ v. Increase EHT to 9 kV max.
6503	6505A	G.E.C.	Aluminised, aquadag coated.
	6504	G.E.C.	Aquadag coated.
6504A	6502	G.E.C.	Aluminised, aquadag coated.
	6504A	G.E.C.	Aquadag coated, change base, tetrode tube, $A^1 = 200$ v.
	MW22-14	Mullard	Change base, tetrode tube, $A^1 = 200$ v.
	MW22-14c	Mullard	Change base, tetrode tube, $A^1 = 350$ v. Increase EHT to 9 kV, ion-trap tube.
	MW22-15	Mullard	As for MW22-15 but with aquadag coating.
	MW22-16	Mullard	Change base, tetrode tube, $A^1 = 350$ v. Increase EHT to 9 kV.
	MW22-17	Mullard	As for MW22-17 but with aquadag coating.
	6502	G.E.C.	Not aluminised.
	6504	G.E.C.	Not aluminised, not aquadag coated.
	MW22-14	Mullard	Not aluminised, change base, tetrode tube, $A^1 = 200$ v.
6505A	MW22-14c	Mullard	Not aluminised, change base, tetrode tube, $A^1 = 200$ v, not aquadag coated.
	MW22-15	Mullard	Not aluminised, change base, tetrode tube, $A^1 = 350$ v. Increase EHT 9 kV, ion-trap tube.
6703A	MW22-16	Mullard	Not aluminised, change base, tetrode tube, $A^1 = 350$ v. Increase EHT 9 kV, ion-trap tube.
	MW22-17	Mullard	Not aluminised, change base, tetrode tube, $A^1 = 350$ v. Increase EHT 9 kV, not aquadag coated.
6704A	MW22-18	Mullard	Not aluminised, change base, tetrode tube, $A^1 = 350$ v. Increase EHT 9 kV.
	6503	G.E.C.	Not aluminised, not aquadag coated.
6705A	6705A	G.E.C.	Direct replacement.
	7102A	G.E.C.	6.3 v, 0.3 A heater.
6706A	6706A	G.E.C.	Direct replacement.
	6703A	G.E.C.	EHT 8 kV max.
6901A	7102A	G.E.C.	6.3 v, 0.3 A heater.
	6704A	G.E.C.	Max. EHT 8 kV.
7102A	T901	Eng. Electric	Increased heater rating 6.3 v, 0.6 A, metal cone, tetrode gun, $A^1 = 400$ v max.
	T901B	Eng. Electric	Metal cone, tetrode gun, $A^1 = 400$ v max.
	MW41-1	Mullard	Metal cone, tetrode gun, $A^1 = 350$ v max.
C9A	6705A	G.E.C.	Increased heater rating, 6.3 v, 0.5 A.
	MW31-74	Mullard	Ion trap tube, grey filter.
	CRM91	Mazda	Direct replacement.
C9B	CRM92-A	Mazda	Direct replacement.
	MW22-3	Mullard	Change base.
	C9B	Brimar	Change base, increased heater rating 2.0 v, 2.5 A.
C12A	CRM91	Mazda	Change base, reduced heater rating 2.0 v, 1.4 A.
	CRM92-A	Mazda	Change base, reduced heater rating 2.0 v, 1.4 A.
	MW22-3	Mullard	Change base, reduced heater rating 2.0 v, 1.2 A.
C12B	C9A	Brimar	Change base, reduced heater rating 2.0 v, 1.4 A.
	CRM121-A	Mazda	Direct replacement.
	CRM121-B	Mazda	Grey filter screen.
	CRM123	Mazda	Aluminised, increase EHT to 10 kV.
	C12B	Brimar	Aluminised, change base, increase EHT to 12 kV, increased heater rating 2.0 v, 2.5 A.
C12B	C12BM	Brimar	As for C12B but with aquadag coating.
	C12D	Brimar	Change base, increased heater rating 2.0 v, 2.5 A.
	C12DM	Brimar	As for C12D but with aquadag coating.
	T12/91	Ferranti	Change base.
	T12/92	Ferranti	Change base, aquadag coated.
	CRM123	Mazda	Change base, max. EHT 10 kV.
	C12BM	Brimar	Aquadag coated.

TYPE	REPLACEMENT	MAKER	REMARKS
C12BM	CRM121B	Mazda	Change base, not aluminised, max. EHT 9 kV, grey filter.
	T12/91	Ferranti	Not aluminised, max. EHT 9 kV.
	T12/92	Ferranti	Not aluminised, aquadag coated, max. EHT 9 kV.
	C12B	Brimar	No aquadag coating.
	CRM123	Mazda	Change base, EHT max. 10 kV, no aquadag coating.
C12D	CRM121B	Mazda	Change base, EHT max. 9 kV, not aluminised, no aquadag coating, grey filter.
	T12/91	Ferranti	Not aluminised, EHT max. 9 kV, no aquadag coating.
	T12/92	Ferranti	Not aluminised, EHT max. 9 kV.
	C12A	Brimar	Change base.
	C12B	Brimar	Aluminised, increase EHT 12 kV.
C12DM	C12BM	Brimar	As for C12B but with aquadag coating.
	C12DM	Brimar	Aquadag coated.
	CRM121-A	Mazda	Change base, max. EHT 7.5 kV.
	CRM121B	Mazda	Change base, grey filter.
	CRM123	Mazda	Change base, aluminised, increase EHT 10 kV.
	T12/91	Ferranti	Max. EHT 9 kV.
	T12/92	Ferranti	Max. EHT, 9 kV, aquadag coated.
	C12A	Brimar	Change base, no aquadag coating.
	C12B	Brimar	Increase EHT 12 kV, no aquadag coating.
	C12BM	Brimar	Increase EHT 12 kV.
C15B C17FM CRM71 CRM91	C12D	Brimar	No aquadag coating.
	CRM121-A	Mazda	Change base, no aquadag coating, max. EHT 7.5 kV.
	CRM121-B	Mazda	Grey filter, no aquadag coating, change base.
	CRM123	Mazda	Aluminised, increase EHT to 10 kV, change base.
	T12/91	Ferranti	Max. EHT 9 kV, no aquadag coating.
	T12/92	Ferranti	Max. EHT 9 kV.
	CRM151	Mazda	Change base, max. EHT 13 kV.
	CRM171	Mazda	Not aquadag coated.
	MW18-2	Mullard	Change base.
	CRM92-A	Mazda	Direct replacement.
CRM92-A	C9A	Brimar	Direct replacement.
	MW22-3	Mullard	Change base.
	C9B	Brimar	Change base, increased heater rating 2.0 v, 2.5 A.
	CRM91	Mazda	Direct replacement.
	C9A	Brimar	Direct replacement.
CRM121-A	MW22-3	Mullard	Change base.
	C9B	Brimar	Change base, increased heater rating 2.0 v, 2.5 A.
	CRM121B	Mazda	Direct replacement, grey-filter screen.
	CRM123	Mazda	Aluminised, increase EHT to 10 kV.
	C12A	Brimar	Direct replacement.
CRM121B	C12B	Brimar	Aluminised, change base, increase EHT to 12 kV, increased heater current 2.0 v, 2.5 A.
	C12BM	Brimar	As for C12B but with aquadag coating.
	C12DM	Brimar	Change base, increased heater current 2.0 v, 2.5 A.
	T12/91	Ferranti	As for C12D but with aquadag coating.
	T12/92	Ferranti	Change base.
	CRM123	Mazda	Change base, aquadag coated.
	C12B	Brimar	Aluminised.
	C12BM	Brimar	Change base, aluminised, increased heater rating 2.0 v, 2.5 A, EHT 12 kV max.
	T12/91	Ferranti	As C12B but with aquadag coating.
	T12/92	Ferranti	Change base.
CRM123	CRM121B	Mazda	Change base, aquadag coated.
	C12B	Brimar	(None of these tubes have grey filter screens.)
	C12BM	Brimar	Not aluminised, max. EHT 9 kV, grey filter screen.
	T12/91	Ferranti	Change base, increased heater rating 2.0 v, 2.5 A.
	T12/92	Ferranti	As for C12B but with aquadag coating.
CRM151 CRM171 MW18-2 MW22-1	T12/91	Ferranti	Change base, not aluminised.
	T12/92	Ferranti	Change base, aquadag coated, not aluminised.
	C15B	Brimar	Change base, max. EHT 10 kV.
	C17FM	Brimar	Aquadag coated.
	CRM71	Mazda	Change base.
MW22-3	T9/2	Ferranti	Change base, max. permissible EHT 6 kV.
	T9/3	Ferranti	Change base, max. permissible EHT 6 kV.
	T9/5	Ferranti	Change base, aquadag coated, max. permissible EHT 6 kV.
	CRM91	Mazda	Change base.
	CRM92-A	Mazda	Change base.
MW22-5	C9A	Brimar	Change base.
	C9B	Brimar	Change base, increased heater rating 2.0 v, 2.5 A.
	MW22-16	Mullard	As for MW22-17 but with ion trap and aquadag coating.
MW22-7	MW22-17	Mullard	Change base, increase EHT 9 kV max. Increase A ¹ to 350 v max.
	MW22-18	Mullard	As for MW22-17 but with aquadag coating.
	MW22-16	Mullard	As for MW22-17 but with ion trap and aquadag coating.
MW22-7	MW22-17	Mullard	Change base, increase A ¹ to 350 v max.
	MW22-18	Mullard	As for MW22-17 but with aquadag coating.

TYPE	REPLACEMENT	MAKER	REMARKS
MW22-14	6502	G.E.C.	Change base, triode tube, increased heater current 6.3 v, 0.5 A.
	6504	G.E.C.	Change base, triode tube, not aquadag coated, increased heater current 6.3 v, 0.5 A.
	6504A	G.E.C.	Aluminised, change base, triode tube, increased heater current 6.3 v, 0.5 A.
	MW22-14c	Mullard	Not aquadag coated.
MW22-15	MW22-15	Mullard	Ion-trap tube, not aquadag coated, permissible EHT 9 kV, change base.
	MW22-16	Mullard	Ion-trap tube, permissible EHT 9 kV, change base.
	MW22-17	Mullard	Not aquadag coated, permissible EHT 9 kV, change base.
	MW22-18	Mullard	Permissible EHT 9 kV, change base.
MW22-14c	6502	G.E.C.	Change base, triode tube, aquadag coated, increased heater current 6.3 v, 0.5 A.
	6504	G.E.C.	Change base, triode tube, increased heater current 6.3 v, 0.5 A.
	6504A	G.E.C.	Change base, triode tube, aluminised. Aquadag coated, increased heater current 6.3 v, 0.5 A.
	MW22-14	Mullard	Aquadag coated.
MW22-15	MW22-15	Mullard	Ion-trap tube, change base, max. EHT 9 kV.
	MW22-16	Mullard	Aquadag coated, ion-trap tube, change base, permissible EHT 9 kV.
	MW22-17	Mullard	Change base, max. EHT 9 kV.
	MW22-18	Mullard	Change base, max. EHT 9 kV, aquadag coated.
MW22-16	MW22-16	Mullard	Aquadag coated.
	MW22-17	Mullard	No ion trap.
	MW22-18	Mullard	No ion trap, aquadag coated.
	MW22-15	Mullard	Not aquadag coated.
MW22-17	MW22-17	Mullard	No ion trap, not aquadag coated.
	MW22-18	Mullard	No ion trap.
	MW22-15	Mullard	Ion-trap tube.
	MW22-16	Mullard	Ion-trap tube, aquadag coated.
MW22-18	MW22-18	Mullard	Aquadag coated.
	MW22-15	Mullard	Ion-trap tube, not aquadag coated.
	MW22-16	Mullard	Ion-trap tube.
	MW22-17	Mullard	Not aquadag coated.
MW31-3 } MW31-6 }	6703A	G.E.C.	Change base, triode tube, aluminised, aquadag coated, max. EHT 8 kV. As for 6703A but max. EHT 9 kV.
	6705A	G.E.C.	
MW31-14	7102A	Mullard	Change base, aquadag coated, A ¹ 350 v max., A ² 9 kV max.
	C12E		
	C12F		
	C12FM		
	MW31-7		
	MW31-14		
	MW31-14c		
	MW31-15		
	MW31-16		
	MW31-17		
	MW31-18		
	MW31-21		
	MW31-23		
	MW31-20		
MW31-22			
MW31-74			
MW31-14	T12/56	Ferranti	Change base, aluminised, max. A ¹ = 350 v, A ² 9 kV. As for MW31-20, Change base, grey filter, ion-trap tube, aquadag coated, max. A ¹ = 350 v, A ² 9 kV. Change base, triode tube, aquadag coated, max. EHT = 8 kV. Change base, triode tube, aluminised, increased heater rating 6.3 v, 0.5 A.
	6703A	G.E.C.	
	6705A		
	7102A		
	C12E		
	C12F		
	C12FM		
	MW31-14c		
	MW31-15		
	MW31-16		
	MW31-17		
	MW31-18		
	MW31-20		
	MW31-21		
MW31-22			
MW31-23			
MW31-74			
MW31-14c	T12/56	Ferranti	Change base, ion-trap tube, max. A ¹ = 350 v, A ² 9 kV, grey filter. Change base, triode tube, increased heater rating 6.3 v, 0.6 A. Change base, triode tube, aluminised, aquadag coated, increased heater rating 6.3 v, 0.5 A. Change base, triode tube, aluminised, aquadag coated. Change base, triode tube, increased heater rating 6.3 v, 0.5 A. Change base, ion-trap tube. As for C12F but aquadag coated. Aquadag coated. Change base, ion-trap tube, max. A ¹ = 350 v, A ² 9 kV. As for MW31-15 but aquadag coated.
	6703A	G.E.C.	
	6705A		
	7102A		
	C12E		
	C12F		
	C12FM		
	MW31-14		
	MW31-15		
	MW31-16		

TYPE	REPLACEMENT	MAKER	REMARKS
MW31-15	MW31-17	Mullard	Change base, max. A ¹ = 350 v, A ² 9 kV.
	MW31-18	Mullard	Change base, aquadag coated, max. A ¹ = 350 v, A ² = 9 kV.
	MW31-20	Mullard	Aluminised, max. A ¹ = 350 v, A ² 9 kV.
	MW31-21	Mullard	Aquadag coated, max. A ¹ = 350 v, A ² 9 kV.
	MW31-22	Mullard	Change base, aluminised, max. A ¹ = 350 v, A ² 9 kV.
	MW31-23	Mullard	Change base, aquadag coated, max. A ¹ = 350 v, A ² = 9 kV.
	MW31-74	Mullard	Change base, ion-trap tube, aquadag coated, max. A ¹ = 350 v, A ² 9 kV, grey filter.
	T12/56	Ferranti	Change base, triode tube, aquadag coated, increased heater rating 6.3 v, 0.6 A.
	6705A	G.E.C.	Change base, triode tube, increased heater rating 6.3 v, 0.5 A, aluminised, aquadag coated, no ion trap.
	MW31-16	7102A	G.E.C.
C12F		Brimar	Direct replacement.
C12FM		Brimar	Aquadag coated.
MW31-16		Mullard	Aquadag coated.
MW31-17		Mullard	No ion trap.
MW31-18		Mullard	Aquadag coated, no ion trap.
MW31-20		Mullard	Change base, aluminised, no ion trap.
MW31-21		Mullard	Change base, aquadag coated, no ion trap.
MW31-22		Mullard	Aluminised, no ion trap.
MW31-23		Mullard	Aquadag coated, no ion trap.
MW31-17	MW31-74	Mullard	Aquadag coated, grey filter.
	6705A	G.E.C.	Change base, triode tube, increased heater rating 6.3 v, 0.5 A, aluminised, no ion trap.
	7102A	G.E.C.	Change base, aluminised, no ion trap.
	C12F	Brimar	Not aquadag coated.
	C12FM	Brimar	Direct replacement.
	MW31-15	Mullard	Not aquadag coated.
	MW31-17	Mullard	No ion trap, not aquadag coated.
	MW31-18	Mullard	No ion trap.
	MW31-20	Mullard	Change base, aluminised, no ion trap, not aquadag coated.
	MW31-21	Mullard	Change base, no ion trap.
MW31-18	MW31-22	Mullard	Aluminised, no ion trap, not aquadag coated.
	MW31-23	Mullard	No ion trap.
	MW31-74	Mullard	Grey filter.
	6705A	G.E.C.	Change base, triode tube, increased heater rating 6.3 v, 0.5 A, aluminised, aquadag coated.
	7102A	G.E.C.	Change base, aluminised, aquadag coated.
	C12F	Brimar	ion-trap tube.
	C12FM	Brimar	ion-trap tube, aquadag coated.
	MW31-15	Mullard	ion-trap tube.
	MW31-16	Mullard	ion-trap tube, aquadag coated.
	MW31-18	Mullard	Aquadag coated.
MW31-20	MW31-20	Mullard	Change base, aluminised.
	MW31-21	Mullard	Change base, aquadag coated.
	MW31-22	Mullard	Aluminised.
	MW31-23	Mullard	Aquadag coated.
	MW31-74	Mullard	ion-trap tube, aquadag coated, grey filter.
	6705A	G.E.C.	Change base, triode tube, increased heater rating 6.3 v, 0.5 A, aluminised.
	7102A	G.E.C.	Change base, triode tube, aluminised.
	MW31-15	Mullard	Not aquadag coated, ion-trap tube.
	MW31-16	Mullard	ion-trap tube.
	MW31-17	Mullard	Not aquadag coated.
MW31-21	MW31-20	Mullard	Change base, aluminised, not aquadag coated.
	MW31-21	Mullard	Change base.
	MW31-22	Mullard	Aluminised, not aquadag coated.
	MW31-23	Mullard	Direct replacement.
	MW31-74	Mullard	ion-trap tube, grey filter.
	C12F	Brimar	ion-trap tube, not aquadag coated.
	C12FM	Brimar	ion-trap tube.
	6705A	G.E.C.	Change base, aquadag coated, increased heater rating 6.3 v, 0.5 A.
	7102A	G.E.C.	Change base, aquadag coated.
	C12F	Brimar	Change base, not aluminised, ion-trap tube.
MW31-22	C12FM	Brimar	Change base, not aluminised, ion-trap tube, aquadag coated.
	MW31-15	Mullard	Change base, not aluminised, ion-trap tube.
	MW31-16	Mullard	Change base, not aluminised, aquadag coated.
	MW31-17	Mullard	Change base, not aluminised.
	MW31-18	Mullard	Change base, not aluminised, aquadag coated.
	MW31-21	Mullard	Not aluminised, aquadag coated.
	MW31-22	Mullard	Change base.
	MW31-23	Mullard	Change base, not aluminised, aquadag coated.
	MW31-74	Mullard	Change base, ion-trap tube, aquadag coated, not aluminised.
	6705A	G.E.C.	Change base, aluminised, increased heater rating 6.3 v, 0.5 A.
MW31-21	7102A	G.E.C.	Change base, aluminised.
	C12F	Brimar	Change base, not aquadag coated, ion-trap tube.

TYPE	REPLACEMENT	MAKER	REMARKS	
MW31-22	C12FM	Brimar	Change base, ion-trap tube.	
	MW31-15	Mullard	Ion-trap tube, not aquadag coated.	
	MW31-16	Mullard	Change base, ion-trap tube.	
	MW31-17	Mullard	Change base, not aquadag coated.	
	MW31-18	Mullard	Change base.	
	MW31-20	Mullard	Aluminised, not aquadag coated.	
	MW31-22	Mullard	Change base, aluminised, not aquadag coated.	
	MW31-23	Mullard	Change base.	
	MW31-74	Mullard	Change base, aquadag coated, ion-trap tube, grey filter.	
	6705A	G.E.C.	Change base, aquadag coated, increased heater rating 6.3 v, 0.5 A.	
	7102A	G.E.C.	Change base, aquadag coated.	
	C12F	Brimar	Not aluminised, ion-trap tube.	
	C12FM	Brimar	Not aluminised, ion-trap tube, aquadag coated.	
	MW31-15	Mullard	Ion-trap tube, not aluminised.	
MW31-23	MW31-16	Mullard	Ion-trap tube, not aluminised, aquadag coated.	
	MW31-17	Mullard	Not aluminised.	
	MW31-18	Mullard	Not aluminised, aquadag coated.	
	MW31-20	Mullard	Change base.	
	MW31-21	Mullard	Change base, not aluminised, aquadag coated.	
	MW21-23	Mullard	Not aluminised, aquadag coated.	
	MW21-74	Mullard	Not aluminised, ion-trap tube, aquadag coated.	
	6705A	G.E.C.	Change base, aluminised, increased heater rating 6.3 v, 0.5 A.	
	7102A	G.E.C.	Change base, aluminised.	
	C12F	Brimar	Ion-trap tube, not aquadag coated.	
	C12FM	Brimar	Ion-trap tube.	
	MW31-15	Mullard	Ion-trap tube, not aquadag coated.	
	MW31-16	Mullard	Ion-trap tube.	
	MW31-74	MW31-17	Mullard	Not aquadag coated.
MW31-18		Mullard	Direct replacement.	
MW31-20		Mullard	Change base, aluminised, not aquadag coated.	
MW31-21		Mullard	Change base.	
MW31-22		Mullard	Aluminised, not aquadag coated.	
MW31-74		Mullard	Ion-trap tube, grey filter.	
6705A		G.E.C.	Change base, aluminised, no ion trap, increased heater rating 6.3 v, 0.5 A, no grey filter.	
7102A		G.E.C.	Change base, aluminised, no ion trap, no grey filter.	
12XP4-A		Emitron	Direct replacement.	
C12F		Brimar	Not aquadag coated, no grey filter.	
C12FM		Brimar	No grey filter.	
MW31-15		Mullard	Not aquadag coated, no grey filter.	
MW31-16		Mullard	No grey filter.	
MW31-17		Mullard	Not aquadag coated, no ion trap, no grey filter.	
MW31-18	Mullard	No ion trap, no grey filter.		
MW36-22	MW31-20	Mullard	Aluminised, no ion trap, not aquadag coated, change base, no grey filter.	
	MW31-21	Mullard	Change base, no ion trap, no grey filter.	
	MW31-22	Mullard	Aluminised, no ion trap, not aquadag coated, no grey filter.	
	MW31-23	Mullard	No ion trap, no grey filter.	
	14KP4	Emitron	Direct replacement.	
	14KP4A	Emitron	Direct replacement.	
	141K	Cossor	Direct replacement.	
	MW36-24	Mullard	Direct replacement.	
	MW36-24	14KP4	Emitron	Direct replacement.
		14KP4A	Emitron	Direct replacement.
		141K	Cossor	Direct replacement.
		MW36-22	Mullard	Direct replacement.
	MW41-1	T901	European	Increased heater rating 6.3 v, 0.6 A.
		T901B	Eng. Electric	Direct replacement.
6901A		Eng. Electric	Triode tube, aluminised, no ion trap, all glass construction.	
MW43-22	MW43-24	G.E.C.	Grey filter.	
	MW43-29	European	Aluminised.	
	MW43-43	European	Glass or metal cone, pentode tube, connect pin 7 to cathode (pin 11), grey filter.	
	MW43-61	European	Direct replacement.	
	MW43-64	European	Grey filter, pentode tube, connect pin 7 to cathode (pin 11).	
MW43-24	MW43-22	Mullard	Grey filter, pentode tube, connect pin 7 to cathode (pin 11).	
	MW43-29	European	No grey filter.	
	MW43-43	European	Aluminised, no grey filter.	
	MW43-61	European	Glass or metal cone, pentode tube, connect pin 7 to cathode (pin 11).	
	MW43-64	European	No grey filter.	
MW43-29	MW43-22	Mullard	Pentode tube, connect pin 7 to cathode (pin 11).	
	MW43-29	European	No grey filter.	
	MW43-43	European	Aluminised, no grey filter.	
	MW43-61	European	Glass or metal cone, pentode tube, connect pin 7 to cathode (pin 11).	
	MW43-64	European	No grey filter.	
MW43-29	MW43-22	Mullard	Pentode tube, connect pin 7 to cathode (pin 11).	
	MW43-24	European	Not aluminised.	
		European	Not aluminised, grey filter.	

TYPE	REPLACEMENT	MAKER	REMARKS
MW43-43 (Glass)	MW43-43	European	Pentode tube, connect pin 7 to cathode (pin 11), grey filter, not aluminised.
	MW43-61	European	Not aluminised.
	MW43-64	European	Grey filter, not aluminised, pentode tube, connect pin 7 to cathode (pin 11).
	MW43-22	European	Direct replacement.
	MW43-24	European	Grey filter.
	MW43-29	European	Aluminised.
	MW43-61	European	Direct replacement.
MW43-61	MW43-64	Mullard	Grey filter.
	MW43-22	European	Direct replacement.
	MW43-24	European	EHT 12 kV max., grey filter.
	MW43-29	European	Aluminised.
	MW43-43	European	Glass or metal cone, pentode tube, connect pin 7 to cathode (pin 11).
MW43-64	MW43-64	Mullard	Pentode tube, connect pin 7 to pin 11, grey filter.
	17ASP4	European	
	171K	Emitron	No grey filter.
	172K	Cossor	No grey filter.
	MW43-22	Cossor	Direct replacement.
	MW43-24	European	No grey filter, EHT 12 kV max.
	MW43-29	European	EHT 12 kV max.
	MW43-43	European	Aluminised, no grey filter, EHT 12 kV max.
	MW43-61	European	Glass or metal cone.
	T908	Eng. Electric	No grey filter.
	TR17/7	Ferranti	No grey filter.
	TR17/8	Ferranti	Aluminised, no ion trap, no aquadag coating, no grey filter.
	T9/2	Ferranti	Aluminised, no ion trap, no grey filter.
	T9/3	Ferranti	Direct replacement.
	T9/5	Ferranti	Aquadag coated.
T9/3	Ferranti	Direct replacement.	
T9/5	Ferranti	Aquadag coated.	
T9/5	Ferranti	No aquadag coating.	
T12/2	T9/3	Ferranti	No aquadag coating.
T12/2	T12/3	Ferranti	Direct replacement.
	T12/44	Ferranti	Direct replacement.
	T12/54	Ferranti	Aquadag coated.
	T12/404	Ferranti	Aluminised, increase EHT to 9 kV.
	T12/449	Ferranti	Increase EHT to 9 kV.
	T12/504	Ferranti	Aluminised, aquadag coated, increase EHT 9 kV.
	T12/549	Ferranti	Aquadag coated, increase EHT 9 kV.
	T12/3	Ferranti	Direct replacement.
	T12/54	Ferranti	Aquadag coated.
	T12/404	Ferranti	Aluminised, increase EHT to 9 kV.
	T12/449	Ferranti	Increase EHT to 9 kV.
	T12/44	T12/504	Ferranti
T12/549		Ferranti	Aquadag coated, increase EHT to 9 kV.
T12/3		Ferranti	Direct replacement.
T12/54		Ferranti	Aquadag coated.
T12/404		Ferranti	Aluminised, increase EHT to 9 kV.
T12/449		Ferranti	Increase EHT to 9 kV.
T12/54	T12/504	Ferranti	Aluminised, aquadag coated, increase EHT to 9 kV.
	T12/549	Ferranti	Aquadag coated, increase EHT to 9 kV.
	T12/3	Ferranti	Direct replacement.
	T12/54	Ferranti	Aquadag coated.
	T12/404	Ferranti	Aluminised, increase EHT to 9 kV.
	T12/449	Ferranti	Increase EHT to 9 kV.
T12/91	T12/504	Ferranti	Aluminised, aquadag coated, increase EHT to 9 kV.
	T12/549	Ferranti	Aquadag coated, increase EHT to 9 kV.
	T12/3	Ferranti	No aquadag coating.
	T12/44	Ferranti	No aquadag coating.
	T12/404	Ferranti	Aluminised, increase EHT to 9 kV, no aquadag coating.
	T12/449	Ferranti	Increase EHT to 9 kV, no aquadag coating.
T12/92	T12/504	Ferranti	Aluminised, increase EHT to 9 kV.
	T12/549	Ferranti	Increase EHT to 9 kV.
	CRM121B	Mazda	Change base.
	CRM123	Mazda	Change base, aluminised.
	C12B	Brimar	Aluminised, increase EHT 12 kV.
	C12BM	Brimar	As for C12B but with aquadag coating.
T12/404	T12/92	Ferranti	Aquadag coated.
	CRM121B	Mazda	Change base, no aquadag coating.
	CRM123	Mazda	Aluminised, change base, no aquadag coating.
	C12B	Brimar	Aluminised, increase EHT 12 kV, no aquadag coating.
	C12BM	Brimar	Aluminised, increase EHT 12 kV.
	T12/91	Ferranti	No aquadag coating.
T12/449	T12/449	Ferranti	Not aluminised.
	T12/504	Ferranti	Aquadag coated.
	T12/549	Ferranti	Not aluminised, aquadag coated.
	T12/404	Ferranti	Aluminised.
	T12/504	Ferranti	Aluminised, aquadag coated.
	T12/549	Ferranti	Aquadag coated.

TYPE	REPLACEMENT	MAKER	REMARKS	
T12/504	T12/404	Ferranti	No aquadag coating.	
	T12/449	Ferranti	Not aluminised, no aquadag coating.	
	T12/549	Ferranti	Not aluminised.	
T12/549	T12/404	Ferranti	Aluminised, no aquadag coating.	
	T12/449	Ferranti	No aquadag coating.	
	T12/504	Ferranti	Aluminised.	
T901	T901B	Eng. Electric	Decreased heater rating 6.3 v, 0.3 A.	
	MW41-1	Mullard	Decreased heater rating 6.3 v, 0.3 A.	
	6901A	G.E.C.	Decreased heater rating 6.3 v, 0.3 A, triode tube, aluminised, no ion trap, all glass construction.	
T901B	T901	Eng. Electric	Increased heater rating 6.3 v, 0.6 A.	
	MW41-1	Mullard	Direct replacement.	
	6901A	G.E.C.	Triode tube, aluminised, no ion trap, all glass construction.	
T908	17ASP4	Emitron	Direct replacement.	
	171K	Cossor	Direct replacement.	
	172K	Cossor	Grey filter, pentode tube, connect pin 7 to cathode (pin 11).	
	MW43-22	European	EHT 12 kV max.	
	MW43-24	European	EHT 12 kV max., grey filter.	
	MW43-29	European	Aluminised, EHT 12 kV max.	
	MW43-43	European	Glass or metal cone, grey filter, pentode tube, connect pin 7 to cathode (pin 11).	
	MW43-61	European	Direct replacement.	
	MW43-64	Mullard	Grey filter, pentode tube, connect pin 7 to cathode (pin 11).	
	TR17/7	European	No aquadag coating, aluminised, no ion trap.	
	TR17/8	Ferranti	Aluminised, no ion trap.	
	TA15	65K/2	Cossor	Not aluminised, ion trap tube, max. EHT 6 kV.
	TR14/4	TR14/12		Change base, no aquadag coating.
TR14/13			Change base.	
TR14/12	TR14/4		EHT 12 kV max., aquadag coated, change base.	
	TR14/13		Aquadag coated.	
TR14/13	TR14/4		EHT 12 kV max., change base.	
	TR14/12		No aquadag coating.	
TR17/7	MW43-29	European	EHT 12 kV max., ion trap tube, aquadag coated.	
TR17/8	TR17/8	Ferranti	Aquadag coated.	
	MW43-29	European	Max. EHT 12 kV, ion trap tube.	
	TR17/7	Ferranti	Not aquadag coated.	

TO ALL HOME CONSTRUCTORS

TSL

Announce the Görler type AMF375T super high gain A.M. Transformer is still available. These transformers are of a sub-miniature construction, being only 2" in height by $\frac{3}{4}$ " square, and is suitable for IF frequencies of 455 to 472 kc/s. With a coupling co-efficient of unity; this enables a high selectivity characteristic to be emphasized. Low loss formers of special sectionalised design are used with the turns precision wound on this former, and having ferrite cores to both primary and secondary windings, thus raising the overall efficiency to the very high figure of 140 Q factor. The windings are entirely enclosed in a carbonyl iron potting.

Stocked by all good Radio Dealers, or in case of difficulty write for information to :—

TECHNICAL SUPPLIERS LIMITED

HUDSON HOUSE

63 GOLDHAWK ROAD, LONDON, W.12

Price**11/- each**

T S L

Components for

BERNARDS' F. M. TUNER

FULL CONSTRUCTIONAL DETAILS GIVEN IN
BERNARDS MANUAL No. 134 Price 2/6d.

			PRICE
V H F unit Görler type UT 342			45/- +17/4d. P.T.
Inter-stage I F transformer Görler type UF376 (11748)			7/-
Ratio Discriminator transformer Görler type URF 377/10			10/6d.
T S L High Stability resistors type R	½w	10%	6d.
	1w	10%	9d.
Paper, Mica, and Ceramic Capacitors		each	1/0d.
Drilled Chassis			10/6d.
T S L F.M. Dial			
specially designed for use with the UT 342 V.H.F. unit			37/6d.
Control Knobs By Pekalit		each	1/6d.

Available from all good Supply Houses.
In case of difficulty, write for details to :

TECHNICAL SUPPLIERS LTD.

HUDSON HOUSE
63 GOLDHAWK ROAD
LONDON, W.12

BERNARDS RADIO BOOKS

No.		
35.	Dictionary of Mathematical Data	2/-
61.	Amateur Transmitter's Construction Manual	2/6
64.	Sound Equipment Manual	2/6
65.	Radio Designs Manual	2/6
66.	Communications Receivers' Manual	2/6
68.	Frequency Modulation Receivers' Manual	2/6
69.	Radio Inductance Manual	2/6
70.	Loudspeaker Manual	2/6
73.	Radio Test Equipment Manual	2/6
78.	Radio and Television Laboratory Manual	2/6
81.	Using Ex-Service Apparatus	2/6
83.	Radio Instruments and their Construction	2/6
86.	Midget Radio Construction	3/6
96.	Crystal Set Construction	1/-
97.	Practical Radio for Beginners, Book 1	3/-
99.	One Valve Receivers	1/6
100.	A Comprehensive Radio Valve Guide, Book 1	5/-
101.	Two Valve Receivers	1/6
102.	40 Circuits Using Germanium Diodes	3/-
103.	"Radiofolder" A. The Master Colour Code Index for Radio and Television	1/6
104.	Three Valve Receivers	1/6
106.	Radio Circuits Handbook No. 4	2/6
107.	Four Valve Circuits	1/6
108.	Five Valve Circuits	2/6
110.	The Emperor: A Radio-gram for Home Constructor	3/6
112.	"Radiochart" Electronic Multimeter Construction	2/6
115.	Constructors' Handbook of Germanium Circuits	2/6
120.	Radio and Television Pocket Book	2/6
121.	A Comprehensive Radio Valve Guide, Book 2	5/-
122.	Wide Angle Conversion: For Home Constructed Televisors; Constructional Envelope	3/6
123.	"Radiofolder" F. The Beginners' Push-Pull Amplifier	1/6
124.	"At a Glance" Valve and Valve Equivalents for Radio and Television	5/-
125.	Listeners' Guide to Radio and Television Stations of the World	2/6
126.	The Boys' Book of Crystal Sets	2/6
127.	Wireless Amplifier Manual No. 3	3/6
128.	Practical Transistors and Transistor Circuits	3/6
129.	Universal Gram-Motor Speed Indicator	1/-
130.	Practical F.M. Circuits for the Home Constructor	5/-
131.	"Radiochart" Guide to Modern Valve Bases	2/6
132.	Reactance—Frequency Chart for Designers and Constructors	1/6
133.	Radio Controlled Models for Amateurs	5/-
134.	F.M. Tuner Construction	2/6
135.	All Dry Battery Portable Construction	2/6
137.	An A.M.-F.M. De-Luxe Receiver	3/6
138.	How to make T.V. and F.M. Aerials Bands 1, 2 and 3	2/6
139.	Practical Radio for Beginners, Book 2	3/6
140.	Television Servicing for Beginners, Book 1	4/6
141.	Radio Servicing for Amateurs	3/6
142.	Modern Television Circuits and Fault Finding Guide	4/6
143.	A Comprehensive Valve Guide, Book 3	5/-
144.	The New "At a Glance" Valve and Television Tube Equivalents	5/-
	Servicing the Modern Radio Receiver	1/6
	A Magnetic Tape Recorder	3/6
	The Electronic Photographic Speedlamp: How to Make it and how to Use it	3/6