

Industrial Receiving-Type Tubes

Industrial
Military
Commercial

RCA

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RCA Industrial Receiving-Type Tubes

Introduction

With the increasing demands on modern communication technology, the need for a line of highly dependable receiving tubes is more pressing than ever. RCA has met this challenge by developing and maintaining a highly-reliable line of tubes designed to provide dependable, high-level performance.

RCA's premium line of industrial-receiving tubes is designed, manufactured, and tested to meet the stringent requirements of communication and other industrial applications. All RCA Premium Types undergo the following testing and sampling procedures.

Every tube manufactured must meet a 0.4% quality control level for the most important electrical parameters such as gm, plate, screen, and heater current along with control of: heater-to-cathode leakage; reverse grid current caused by gas evolution or grid emission; and high-resistance, brief-duration, inter-element shorts. In addition, other quality-control tests (typically having 2.5% to 6.5% AQL's) are designed to check mu, interelectrode capacity, cut-off plate current, insulation resistance, and screen-grid emission, on each production lot.

Glass-strain, base-strain, shock, and vibration tests are performed on each production lot to insure mechanical integrity of tube structure. After undergoing a shock test of 600 g's or more, the sample tested must meet electrical test limits reduced only slightly from initial limits.

Life testing is the most significant part of the RCA Premium-Tube testing program. Increased reliability of each production lot of a given type results from: (1) 1000 hour, elevated temperature, full dissipation life tests of larger sample sizes (20 to 32 tubes) and (2) electrical testing at 1000 hours for characteristics such as gm, plate current, reverse-grid current, and insulation resistance. Small acceptance

numbers assure a process average acceptable failure rate of 1.1% per 1000 hours.

Early hour stability of electrical parameters is further controlled for each lot by applying strict AQL's to large sample sizes that are related to production quantities. A heater-cycling stress test, which consists of cycling the heater on and off 2000 times at elevated (110%) heater voltage, is also performed.

Premium Types				Nuvistor Types	
OA2WA	12AT7WB	5726	6005	7586	8203
OB2WA	5651WA	5727	6080WA	7587	8393
6AU6WB	5654	5749	6186	7895	8627
6J6WA	5670	5751	6189	8056	8628
12AT7WA	5725	5814A	8532	8058	8808▲

In addition to the Premium Types, a complete line of mobile-oriented types are available with special tests and controls for 6-volt and 12-volt battery systems. The 6600 and 7000 series are tested and controlled for gm or plate current at low and high heater voltage that simulate the voltage extremes possible in mobile battery-generator systems.

The unique requirements of mobile transmitter service have been met with controls such as the 450 MHz tripler test in a mobile transceiver performed on a sample of each production lot of type 6939's. The high-quality performance of type 7551 as a Class C device is also assured by 100% factory testing in a Class C amplifier circuit.

The care, which is given to the design and manufacture of RCA's Premium Tubes and which extends to its entire line of industrial-receiving tubes and nuvistors,* makes the RCA line of industrial-receiving tubes the finest line available.

* Detailed data for RCA Industrial and Military Nuvistors are given in catalog NIT-140. This publication may be obtained by writing to RCA, Commercial Engineering, Harrison, N.J. 07029.

▲ Formerly RCA Developmental Type A15526.

RCA Industrial Receiving-Type Tubes

Application Guide

1. AF Amplifier	16. Frequency Multiplier	31. Pulse Modulator
2. Automatic Gain Control	17. Gated Amplifier	32. RF Power Amplifier
3. Balanced Modulator/Balanced Mixer	18. Grid-Controlled Rectifier	33. RF Voltage Amplifier
4. Cathode-Coupled, Direct-Drive (RF)	19. Indicator, Voltage	34. Rectifier
5. Cathode Drive (RF) (Grounded Grid)	20. IF Amplifier	35. Relay
6. Cathode Follower	21. Inverter	36. Sweep-Circuit Oscillator
7. Clipper	22. Limiter	37. Switching
8. Converter	23. Low-Plate-Voltage Nuvistor Type	38. Transducer
9. DC Amplifier	24. Mixer	39. Tubes Operating from Battery Supplies
10. Delay Circuit	25. Modulator	40. Video Amplifier
11. Demodulator	26. Multivibrator	41. Voltage Reference
12. Detector, Audio	27. Oscillator, RF	42. Voltage Regulator
13. Driver	28. "On-Off" Control	43. Voltage Regulator, Series
14. Frequency Converter	29. Phase Inverter	44. Volume-Expander-Compressor
15. Frequency Divider	30. Pulse Amplifier	

1. AF Amplifier

CLASS - A1

Twin Diode - Medium-Mu Triodes

12SW7

26C6

High-Mu Triode - 5719

955

5718

9002

Medium-Mu Twin Triodes

12SX7GT

5687

6072

5670

5692

6189

High-Mu Twin Triodes

6112

6681/12AX7A

Twin Power Triode - 3A5

Sharp-Cutoff Pentode

6AH6WA

1620

Power Pentodes

3A4

1621

7054

6AG6Y

5672

8077/7054

6AK6

6677/6CL6

Beam Power Tubes

12A6

6005

1622

6550

5686

6550/V1

5824

6669/6AQ5A

5881

7061

Twin Beam Power Tube - 26A7GT

Pentagrid Amplifier - 1612

Beam-Deflection Tube - 7360

CLASS - AB1

Medium-Mu Twin Triodes

5670

Beam Power Tubes

1614

1619

6005

6669/6AQ5A

7551

7558

Twin Beam Power Tube - 26A7GT

CLASS - B

Twin Power Triode - 1635

2. Automatic Gain Control

Remote-Cutoff Pentode

5749

3. Balanced Modulator/ Balanced Mixer

Beam-Deflection Tube

7360

4. Cathode-Coupled, Direct-Drive (RF)

Medium-Mu Twin Triodes

6DJ8/ECC88

6922/E88CC

5. Cathode Drive (RF) (Grounded Grid)

High-Mu Triodes

6J4

8058

6. Cathode Follower

Medium-Mu Triodes

6814

8056

Medium-Mu Twin Triodes

5670

6350

7044

5687

6922/E88CC

7308

5965

7. Clipper

Twin Diodes

5726

7055

8. Converter

Pentagrid Converters

12SY7

26D6

5750

9. DC Amplifier

Sharp-Cutoff Pentode - 5693

Medium-Mu Twin Triode - 5692

High-Mu Twin Triode - 5691

10. Delay Circuit

Sharp-Cutoff Pentodes

6AS6

5725

5636

11. Demodulator

Beam-Deflection Tube - 7360

RCA Industrial Receiving-Type Tubes

Application Guide (Cont'd)

12. Detector Audio			17. Gated Amplifier			23. Low-Plate-Voltage Nuvistor Type for Hybrid Equipment		
Twin Diode—Medium-Mu Triodes 12SW7		26C6	Sharp-Cutoff Pentodes 6AS6 5636	5725		Medium-Mu Triode -	8056	
	VHF		Pentagrid Amplifier -	5915				
Twin Diodes 5726 5896	6663/6AL5 6887	7055						
	UHF							
Diodes 9005		9006	18. Grid-Controlled Rectifier		884	24. Mixer		
			Triodes (Thyratron) 6D4			VHF		
			Tetrodes (Thyratron) 2D21 502A 2050	2050A 5696	5727 6012	Medium-Mu Twin Triodes 407A 5670	5814A 6386	6922/E88CC
						High-Mu Twin Triodes 12AT7WA	12AT7WB	7898
13. Driver			19. Indicator, Voltage			Medium-Mu Triode—Sharp-Cutoff Pentodes 6678/6U8A		
Beam Power Tubes 5763 6417	7551 7558	7905	Electron-Ray Tubes 1629		6977			7059
						Sharp-Cutoff Tetrode -	7587	
						Sharp-Cutoff Pentodes 6AS6		5725
						Pentagrid Converters 12SY7	26D6	5750
							UHF	
						Diode -	9005	
						Medium-Mu Twin Triode 6J6WA		
						Sharp-Cutoff Pentodes 5636		9001
						Remote-Cutoff Pentode -	9003	
14. Frequency Converter			20. IF Amplifier			25. Modulator		
High-Mu Triode -	6664/6AB4		VHF			Twin Tetrode -	6360A	
High-Mu Twin Triode -	6679/12AT7		Medium-Mu Triodes 7586		8056	Beam Power Tubes 7551		7558
Beam-Deflection Tube -	7360		Medium-Mu Twin Triodes 5687 6386		6922/E88CC 7308	Power Pentodes 7054		8077/7054
			Sharp-Cutoff Pentodes 6AU6WB 5654	6136 6676/6CB6A	7056			
15. Frequency Divider			21. Inverter			26. Multivibrator		
Medium-Mu Twin Triodes 5670 5687 5963	5964 6211	6350 7044	Remote-Cutoff Pentodes 5749		6660/6BA6	Medium-Mu Twin Triodes 12SX7GT		
						407A	6189	
Power Pentode -	6197		Sharp-Cutoff Tetrode -	7587		5670	6350	
			High-Mu Triode -	7895		5687	6680/12AU7A	
			UHF			5692	6922/E88CC	
			Sharp-Cutoff Pentodes 5840			5814A	7044	
			Semiremote-Cutoff Pentodes 5899					
			Remote-Cutoff Pentode -	9003				
16. Frequency Multiplier			22. Limiter			High-Mu Twin Triodes 12AT7WA		
FREQUENCY DOUBLER			High-Mu Twin Triode -					
High-Mu Triode 8808			Medium-Mu Triode -	6814				
Power Triode 8203		8627	Medium-Mu Twin Triodes 6350		7044			
Twin Tetrode -	6360A							
Power Pentodes 7054		8077/7054						
Beam Power Tubes 5763 6417	7551 7558	7905						
FREQUENCY TRIPLER			High-Mu Twin Triode -					
Beam Power Tubes 5763	6417	7905						
Twin Power Pentode -	6939							

RCA Industrial Receiving-Type Tubes

Application Guide (Cont'd)

27. Oscillator, RF			29. Phase Inverter			Medium-Mu Twin Triodes		
VHF			Medium-Mu Triode - 6814			6DJ8/ECC88	6386	
Power Triode	- 8203		Medium-Mu Twin Triodes	407A	6922/E88CC	407A	6922/E88CC	
High-Mu Triode	- 6664/6AB4		5670	6189	6922/E88CC	6111	7057	
Medium-Mu Twin Triodes			5687	6350	7044			
407A	5814A	6680/12AU7A	5814A	6680/12AU7A				
5670	6111							
High-Mu Twin Triodes			5691		7058	High-Mu Twin Triode - 6679/12AT7		
12AT7WA		7898	5751			7587	7717/6CY5	
12AT7WB								
Medium-Mu Triode - Sharp-Cutoff Pentodes			30. Pulse Amplifier			Sharp-Cutoff Pentodes		
6678/6U8A		7059	Medium-Mu Triode - 6814	1L4		7587	7717/6CY5	
Twin Tetrode	- 6360A		Medium-Mu Twin Triodes	6AC7W		Sharp-Cutoff Pentodes	5693	
Beam Power Tubes			5670	6350	7044	6AH6WA	5847/404A	
3B4WA	5763	7558	5687			6AU6WB	6136	
1614	6417	7905				6SJ7Y	6186	
1619	7551		31. Pulse Modulator	408A		6661/6BH6		
Power Pentodes			Twin Diodes	5654		6676/6CB6A		
1613	7054	8077/7054	5726	5678		6688A		
Medium-Mu Triode - Power Pentode	- 7060					7056		
Pentagrid Converters			32. RF Power Amplifier			Remote-Cutoff Pentodes		
12SY7	26D6	5750	VHF	26A6		26A6	6660/6BA6	
UHF			Power Triode - 8203	5749		5749	6662/6BJ6	
Medium-Mu Triodes			Twin Power Triode - 3A5					
6F4	8056	8393	Beam Power Tubes					
7586			3B4WA	5686	7551	High-Mu Triodes		
High-Mu Triodes			1614	5763	7558	6J4	8532	
7895	8058	8808	1619	6417	7905	8058		
Power Triodes			Medium-Mu Triode - Power Pentode			Sharp-Cutoff Pentodes		
955	8627	9002	7060			959	5840	9001
5718			Power Pentodes			5899		6206
Medium-Mu Twin Triodes			3A4	1613	8077/7054	Remote-Cutoff Pentode - 9003		
6J6WA		6021	6AG7Y	7054	8156			
6AN5								
Sharp-Cutoff Tetrode	- 7587		UHF			34. Rectifier		
Twin Power Pentode	- 6939		High-Mu Triode			POWER		
			8808			Full-Wave Gas Type - 83		
28. "On-Off" Control (Involving Long Periods of Operation Under Cutoff Conditions)			Power Triodes			Full-Wave Vacuum Types		
Twin Diode	- 6887		955	8627	9002	5R4GYB	2076/5R4GYB	6202
Medium-Mu Triode	- 6814		5718			6X4W		
Medium-Mu Twin Triodes			Twin Power Tetrode	- 6360A				
5844	5965	6922/E88CC	Twin Power Pentode	- 6939		LOW CURRENT		
5963	6211	7044				Twin Diodes		
5964	6350		33. RF Voltage Amplifier			5726	6663/6AL5	
Sharp-Cutoff Pentode	- 6AS6		VHF			5896	7055	
Power Pentode	- 6197		Medium-Mu Triodes			Single Diodes		
Pentagrid Amplifier	- 5915		5842/417A	8056	8393	9005		
			7586					
			High-Mu Triodes					
			6664/6AB4	7895	8628			
						PULSE		
						Half-Wave Vacuum Type - 5642		

Application Guide (Cont'd)

RCA Industrial Receiving-Type Tubes

RCA Types for Mobile and Fixed-Station Communications

Mobile

- Types Operating from Batteries and Battery Charger Systems -

RCA Type	E_f/I_f V/mA	Max Rating P_b W	g_m μmho	Base	Terminal Diagram
TYPES OPERATING FROM NOMINAL-12-V STORAGE-BATTERY SYSTEMS					
7054	13.5/275	5	11500	9-Pin Min.	9GK
7055	13.5/155	-	-	7-Pin Min.	6BT
7056	13.5/150	2	6200	7-Pin Min.	7CM Diagram 1
7057	13.5/180	2.2	6800	9-Pin Min.	9AJ
7058	13.5/155	1	1650	9-Pin Min.	9EP
7059	13.5/195	2.5 T 2.8 P	8500T 5200P	9-Pin Min.	9AE
7060	13.5/280	2.5 T 3P	4900T 7000P	9-Pin Min.	9DA
7061	13.5/210	9	4200	9-Pin Min.	9EU
7167	13.5/90	2	8000	7-Pin Min.	7EW
7258	13.5/210	2.8 T 2.3 P	4500T 7800P	9-Pin Min.	9DA
7551	13.5/360	10	5300	9-Pin Min.	9LK
7724/ 14GT8	13.5/150	1.1	1000	9-Pin Min.	9KR
7898	13.5/150	2.75	5500	9-Pin Min.	9EP
8077/ 7054	13.5/275	0.575	11500	9-Pin Min.	9GK
TYPES OPERATING FROM NOMINAL-6-V STORAGE-BATTERY SYSTEMS					
6360A	6.3/820 12.6/410	14.0	3300	9-Pin Min.	6360A
6660/ 6BA6	6.3/300	3.3	4400	7-Pin Min.	7BK Diagram 2
6661/ 6BH6	6.3/150	3.3	4600	7-Pin Min.	7CM Diagram 1
6662/ 6BJ6	6.3/150	3.3	3600	7-Pin Min.	7CM Diagram 1
6663/ 6AL5	6.3/300	For added data, see p.10		7-Pin Min.	6BT
6664/ 6AB4	6.3/150	2.9	10900	7-Pin Min.	5CE
6669/ 6AQ5A	6.3/450	12	4100	7-Pin Min.	7BZ

- Other Types Suitable for Mobile-Station Applications -

QUICK-HEATING-FILAMENT TYPES (For Equipment Requiring Essentially Instant "Off-to-On" Action)					
3B4WA	For data, refer to Military Specification			7CY	
1619	2.5/2000	15	4500	Octal	7AW

RCA Type	E_f/I_f V/mA	Max Rating P_b W	g_m μmho	Base	Terminal Diagram
6676/ 6CB6A	6.3/300	2.3	8000	7-Pin Min.	7CM Diagram 1
6677/ 6CL6	6.3/650	8.5	11000	9-Pin Min.	9BV
6678/ 6U8A	6.3/450	3 T 3 P	8500T 5200P	9-Pin Min.	9AE
6679/ 12AT7	12.6/150 6.3/300	2.8	5500	9-Pin Min.	9A
6680/ 12AU7A	12.6/150 6.3/300	3	2200	9-Pin Min.	9A
6681/ 12AX7A	12.6/150 6.3/300	1.1	1600	9-Pin Min.	9A
7717/ 6CY5	6.3/200	-	8000	9-Pin Min.	7EW
7905	6.3/650	10	6700	9-Pin Min.	9PB
TYPES OPERATING FROM NOMINAL-24-V STORAGE-BATTERY SYSTEMS					
26A6	26.5/70	3.3	4000	7-Pin Min.	7BK Diagram 2
26A7GT	26.5/600	2.2	5700	Octal	8BU
26C6	26.5/70	2.75	1900	7-Pin Min.	7BT
26D6	26.5/70	1.1	-	7-Pin Min.	7CH
6082	26.5/600	13	7000	Octal	8BD
FILAMENTARY-CATHODE TYPES OPERATING FROM DRY-CELL BATTERY SUPPLIES					
1L4	1.4/50	-	1025	7-Pin Min.	6AR
3A4	2.8/100 1.4/200	2	1900	7-Pin Min.	7BB
3A5	2.8/110 1.4/220	1	1800	7-Pin Min.	7BC
3B4WA	For data, refer to Military Specification				7CY
1619	2.5/2000	15	4500	Octal	7AW
5642	1.25/200	For added data, see p.10		Submin.	5642
5672	1.25/50	0.065	650	Submin.	5672
5678	1.25/50	-	1150	Submin.	5678

7905	6.3/650	10	6700	9-Pin Min.	9PB
BEAM-DEFLECTION TYPE HAVING 2 PLATES					
7360	6.3/350	1.5	5400	9-Pin Min.	9KS

RCA Industrial Receiving-Type Tubes

RCA Types for Mobile and Fixed-Station Communications [Cont'd]

Fixed-Station

Premium tube types are shown on gray background.
These types are subjected to more rigorous tests and controls than other types.

RCA Type	E_f/I_f V/mA	Max Rating P_b W	g_m μmho	Base	Terminal Diagram
RF POWER AMPLIFIERS, OSCILLATORS, OR FREQUENCY MULTIPLIERS - Class C					
3A4	1.4/200	2	1900	7-Pin Min.	7BB
3B4WA	For data, refer to Military Specification			7CY	
1613	6.3/700	10	2500	Octal	7S
1614	6.3/900	21	6050	Octal	7S
1619	2.5/2000	15	4500	Octal	7AW
5763	6/750	12	7000	9-Pin Min.	9K
6360A	6.3/820	5	3300	9-Pin Min.	6360A
6417	12.6/375	12	7000	9-Pin Min.	9K
7558	6.3/800	10	5300	9-Pin Min.	9LK
8627 Nuvistor	6.3/150	2.5	13000	5-Pin Nuvistor	12CT
8203 Nuvistor	6.3/160	1.5	6000	5-Pin Nuvistor	12AQ
8808 Nuvistor	6.3/340	6 ^a	18000	6-Pin Nuvistor	8808
AF POWER AMPLIFIERS OR MODULATORS - Classes A₁, AB₁, AB₂, or B					
3A4	2.8/100 1.4/200	2	1900	7-Pin Min.	7BB
6AK6	6.3/150	2.75	2300	7-Pin Min.	7BK Diagram 1
6AN5	6.3/450	4.2	8000	7-Pin Min.	7BD Diagram 1
12A6	12.6/150	7.5	3000	Octal	7S
1614	6.3/900	21	6050	Octal	7S
1619	2.5/2000	15	4500	Octal	7AW
1621	6.3/700	8.3	2500	Octal	7S
1622	6.3/900	13.8	6000	Octal	7S
1635	6.3/600	3	-	Octal	8B
5824	25/300	12.5	5000	Octal	7S
5881	6.3/900	23	5200	Octal	7S
6360A	12.6/410 6.3/820	7	3300	9-Pin Min.	6360A
6550	6.3/1600	35	9000	Octal	7S
6550/V1	Matched pair of 6550's				
7558	6.3/800	10	5300	9-Pin Min.	9LK
"SPECIAL RED" TYPES					
5691	6.3/600	1	1600	Octal	8BD
5692	6.3/600	1.75	2200	Octal	8BD

^a At plate cap seal temperature up to 150°C.

RCA Type	E_f/I_f V/mA	Max Rating P_b W	g_m μmho	Base	Terminal Diagram
5693	6.3/300	2	1650	Octal	8N
TYPES FOR UHF APPLICATIONS					
6DJ8/ECC88	6.3/365	1.8	12500	9-Pin Min.	9AJ
6F4	6.3/225	2	5800	7-Pin Acorn	7BR
6J4	6.3/400	2.25	12000	7-Pin Min.	7BQ
955	6.3/150	1.6	2200	5-Pin Acorn	5BC
959	1.25/50	-	600	5-Pin Acorn with 2 Leads	5BE
5636	6.3/150	1.1	3200	Submin.	8DC Diagram 1
5718	6.3/150	3.3	6500	Submin.	8DK
5840	6.3/150	1.1	5000	Submin.	8DE
5896	6.3/300	For added data, see p.10		Submin.	8DJ
5899	6.3/150	1.1	4500	Submin.	8DE
6206	6.3/150	1.1	4500	Submin.	8DC Diagram 2
6939	12.6/300 6.3/600	6	10500	9-Pin Min.	9HL
7308	6.3/335	1.65	12500	9-Pin Min.	9AJ
7586 Nuvistor	6.3/135	1	11500	5-Pin Nuvistor	12AQ
7587 Nuvistor	6.3/150	2.2	10600	5-Pin Nuvistor	12AS
7895 Nuvistor	6.3/135	1	9400	5-Pin Nuvistor	12AQ
8056 Nuvistor	6.3/135	0.45	7500	5-Pin Nuvistor	12AQ
8058 Nuvistor	6.3/135	1.5	12400	5-Pin Nuvistor	12CT
8393 Nuvistor	13.5/60	1	11500	5-Pin Nuvistor	12AQ
8532	6.3/400	2.5	11000	7-Pin Min.	7BQ
8627 Nuvistor	6.3/150	2.5	13000	5-Pin Nuvistor	12CT
8808 Nuvistor	6.3/150	6 ^a	18000	6-Pin Nuvistor	8808
9001	6.3/150	0.5	1400	7-Pin Min.	7BD Diagram 2
9002	6.3/150	1.6	2200	7-Pin Min.	7BS
9003	6.3/150	1.7	1800	7-Pin Min.	7BD Diagram 2
9005	6.3/165	For added data, see p.10		5-Pin Acorn	5BG
9006	6.3/150	For added data, see p.10		7-Pin Min.	6BH

RCA Industrial Receiving-Type Tubes

RCA Types for Mobile and Fixed-Station Communications (Cont'd)

Fixed-Station

- Rectifiers and Diodes -

RCA Type	E_f/I_f V/A	Max Rating		Base	Terminal Diagram
		$-e_{bm}$ V	$I_o(av)$ mA		
POWER RECTIFIERS					
5R4GYB	5/2	2650	147	Octal	5T
6X4W	6.3/0.6	1375	75	7-Pin Min.	5BS
83	5/3	1550	225	Small 4-Pin	4C
2076/ 5R4GYB	5/2	2650	147	Octal	5T
6202	6.3/0.6	1250	50	7-Pin Min.	5BS
PULSED RECTIFIER (High-Voltage, Low-Current Type)					
5642	1.25/0.2	10000	0.25	Submin.	5642

Premium tube types are shown on gray background.
These types are subjected to more rigorous tests and controls than other types.

RCA Type	E_f/I_f V/A	Max Rating		Base	Terminal Diagram
		$-e_{bm}$ V	$I_o(av)$ mA		
DIODES FOR DETECTOR OR LOW-CURRENT-RECTIFIER APPLICATIONS					
5726	6.3/0.3	360	10	7-Pin Min.	6BT
5896	6.3/0.3	460	10	Submin.	8DJ
6663/ 6AL5	6.3/0.3	275	10	7-Pin Min.	6BT
7055	13.5/0.155	350	10	7-Pin Min.	6BT
9005	3.6/0.165	165	1	5-Pin Acorn	5BG
9006	6.3/0.15	750	5	7-Pin Min.	6BH

- Types for Stabilization of DC Voltage Supplies^b -

RCA Type	E_b V	I_k mA	ΔE_b max V	Base	Terminal Diagram
VOLTAGE-REGULATOR (VR) TYPES					
OA2	150	5 to 30	6	7-Pin Min.	5BO
OA2WA	For data, refer to Military Specification			5BO	
OA3	75	5 to 40	6.5	Octal	4AJ
OA3A ^c	75	5 to 40	6.5	Octal	4AJ
OB2	105	5 to 30	4	7-Pin Min.	5BO
OB2WA	For data, refer to Military Specification			5BO	
OC2	75	5 to 30	4.5	7-Pin Min.	5BO
OC3	105	5 to 40	4	Octal	4AJ
OC3A ^c	105	5 to 40	4	Octal	4AJ
OD3	150	5 to 40	5.5	Octal	4AJ
OD3A ^c	150	5 to 40	5.5	Octal	4AJ
991	59	0.4 to 2	8	Candelabra 2-Contact	991
6073 ^d	150	5 to 30	6	7-Pin Min.	5BO
6073/ OA2 ^d	150	5 to 30	6	7-Pin Min.	5BO
6074 ^d	105	5 to 30	4	7-Pin Min.	5BO

^b For voltage-regulation applications requiring a relatively constant dc output voltage across a load independent of load and line-voltage variations.

^c Types OA3A, OC3A, and OD3A are similar electrically to their respective prototypes, OA3, OC3, and OD3, but are 1-1/16" shorter and utilize a straight tubular bulb, and are, therefore, more compact.

^d Types 6073 and 6073/OA2, 6074 and 6074/OB2 are similar to their prototypes OA2 and OB2, respectively, but are intended for applica-

RCA Type	E_b V	I_k mA	ΔE_b max V	Base	Terminal Diagram
6074/ OB2 ^d	105	5 to 30	4	7-Pin Min.	5BO
6626/ OA2WA ^e	150	5 to 30	5	7-Pin Min.	5BO
VOLTAGE-REFERENCE TYPES (For Exceptional Voltage Stability)					
5651Af	85.5	1.5 to 3.5	3	7-Pin Min.	5BO
5651WA	For data, refer to Military Specification			5BO	
5783 ^f	86	1.5 to 3.5	3	Submin.	5783

RCA Type	E_f/I_f V/A	Max ^g Rating I_b mA	r_p^g Ω	Base	Terminal Diagram
SERIES-VOLTAGE-REGULATOR TYPES (For High-Current Applications)					
6AS7G	6.3/2.5	125	280	Octal	8BD
6080	6.3/2.5	125	280	Octal	8BD
6080WA	6.3/2.5	125	280	Octal	8BD
6082	26.5/0.6	125	280	Octal	8BD
6336A	6.3/5	400	200	Octal	8BD

tions critical as to mechanical shock (up to 500g) and vibration (up to 2.5 g).

^e Where voltage repeatability is critical.

^f During the first 300 hours of operation at $I_k = 2.5$ mA, the variation of dc anode voltage drop from the initial value is less than 0.1% between 300 and 1300 hours, less than 0.1% from the 300-hour value and less than 0.05% during any 100-hour period.

^g Each section.

RCA Industrial Receiving-Type Tubes

RCA Types for Mobile and Fixed-Station Communications (Cont'd)

Fixed-Station

- Other Types Suitable for Fixed-Station Applications -

RCA Type	E_f/I_f V/mA	Max Rating P_b W	g_m μmho	Base	Terminal Diagram
6AU6WB	For data, refer to Military Specification				7BK Diagram 2
6J6WA	For data, refer to Military Specification				7BF
12AT7WA	For data, refer to Military Specification				9A
12AT7WB	For data, refer to Military Specification				9A
407A	40/50 20/100	1.35	5500	9-Pin Min.	407A
408A	20/50	1.7	5000	7-Pin Min.	7BD Diagram 2
5636	6.3/150	1.1	3200	Submin.	8DC Diagram 1
5639	6.3/450	4	9000	Submin.	8DE
5654	6.3/175	1.85	5100	7-Pin Min.	7BD Diagram 2
5670	6.3/350	1.35	5500	9-Pin Min.	8CJ
5686	6.3/350	8.25	3100	9-Pin Min.	9G
5718	6.3/150	3.3	6500	Submin.	8DK
5719	6.3/150	0.55	2300	Submin.	8DK
5725	6.3/175	1.65	3200	7-Pin Min.	7CM Diagram 2
5749	6.3/300	3	4400	7-Pin Min.	7BK Diagram 2

Premium tube types are shown on gray background.
These types are subjected to more rigorous tests and controls than other types.

RCA Type	E_f/I_f V/mA	Max Rating P_b W	g_m μmho	Base	Terminal Diagram
5750	6.3/300	1.1	-	7-Pin Min.	7CH
5751	12.6/175 6.3/350	0.8	1200	9-Pin Min.	9A
5814A	12.6/175 6.3/350	3	2200	9-Pin Min.	9A
5842/ 417A	6.3/300	4.5	25000	9-Pin Min.	9V
5847/ 404A	6.3/300	3.3	12500	9-Pin Min.	9X
5902	6.3/450	4	4200	Submin.	8DE
6005	6.3/450	11	4100	7-Pin Min.	7BZ
6021	6.3/300	1.1	5400	Submin.	8DG
6072	12.6/175 6.3/350	1.65	1750	9-Pin Min.	9A
6111	6.3/300	1.1	5000	Submin.	8DG
6112	6.3/300	0.55	2500	Submin.	8DG
6186	6.3/300	2.5	5000	7-Pin Min.	7BD Diagram 2
6189	12.6/150 6.3/300	2.75/T	2200/T	9-Pin Min.	9A
6386	6.3/350	1.5	4000	9-Pin Min.	8CJ
BEAM-DEFLECTION TYPE HAVING 2 PLATES					
7360	6.3/350	1.5	5400	9-Pin Min.	9KS

RCA Types for Other Industrial Applications

- Trigger Types (Gas-Filled) -

RCA Type	E_f/I_f V/A	Max Ratings		Base	Terminal Diagram			
		e_{bm} V	$I_k(\text{av})$ mA					
THYRATRONS (For Relay-Control & Grid-Controlled-Rectifier Applications)								
Triodes								
6D4	6.3/0.25	+450	25	7-Pin Min.	5AY			
884	6.3/0.6	± 350	75	Octal	6Q2			
Tetrodes								
2D21	6.3/0.6	+650 -1300	100	7-Pin Min.	7BN			
2050	6.3/0.6	+650 -1300	100	Octal	6BS Diagram 2			
2050A	6.3/0.6	+650 -1300	100	Octal	6BS Diagram 3			

RCA Type	E_f/I_f V/A	Max Ratings		Base	Terminal Diagram
		e_{bm} V	$I_k(\text{av})$ mA		
5663	6.3/0.15	± 500	20	7-Pin Min.	6CE
5696	6.3/0.15	± 500	25	7-Pin Min.	7BN
5727	6.3/0.6	+650 -1300	100	7-Pin Min.	7BN
6012	6.3/2.6	+650 -1300	500	Octal	6CO
COLD-CATHODE TYPES (For Relay-Control Applications)					
OA4G	-	± 225	25	Octal	4V
1C21	-	-	25	Octal	4V
5823	-	± 200	25	7-Pin Min.	4CK

RCA Industrial Receiving-Type Tubes

RCA Types for Other Industrial Applications (Cont'd)

- Types for On-Off Control Applications -

(Involving Long Periods of Operation under Cutoff Conditions)

RCA Type	E_f/I_f V/mA	Max Ratings		g_m μmho	Base	Terminal Diagram
		$I_k(av)$ mA	P_b W			
6AS6	6.3/175	18	1.7	3200	7-Pin Min.	7CM Diagram 2
5844	6.3/300	9	0.5	3400	7-Pin Min.	7BF
5915	6.3/300	20	1	2000	7-Pin Min.	7CH
5963	12.6/150 6.3/300	20	2.5	3200	9-Pin Min.	9A
5964	6.3/450	15	1.5	6000	7-Pin Min.	7BF
5965	12.6/225 6.3/450	16.5	2.4	6500	9-Pin Min.	9A
6197	6.3/650	50	7.5	11000	9-Pin Min.	9BV

RCA Type	E_f/I_f V/mA	Max Ratings		g_m μmho	Base	Terminal Diagram
		$I_k(av)$ mA	P_b W			
6211	12.6/150 6.3/300	16	1	3600	9-Pin Min.	9A
6350	12.6/300 6.3/600	45	4	4600	9-Pin Min.	9CZ
6814	6.3/150	22	2.2	6000	Submin.	8DK
6887	6.3/200	$-e_{bm} = 360 \text{ V}$ $I_o(av) = 10 \text{ mA}$		7-Pin Min.	6BT	
6922/ E88CC	6.3/300	20	1.5	12500	9-Pin Min.	9AJ
7044	12.6/450 6.3/900	50	4.5	12000	9-Pin Min.	9H

- Other Special Applications -

RCA Type	E_f/I_f V/mA	Max Rating P_b W	g_m μmho	Base	Terminal Diagram
INDICATOR-TYPE ELECTRON-RAY TUBE					
1629	12.6/150	-	-	Octal	7AL
6977	1.0/30	-	-	Submin.	6977
LOW-MICROPHONIC-AMPLIFIER TYPES					
1612	6.3/300	1.5	1100	Octal	7T
1620	6.3/300	0.75	1225	Octal	7R
MECHANO-ELECTRONIC TRANSDUCER					
5734	6.3/150	0.4	275	4-Lead	5734
PENTAGRID CONVERTER					
12SY7	12.6/150	1	-	Octal	8R
INTERMEDIATE-LOSS, MICANOL-BASE TYPES (Loss Factor < 0.1 per ASTM D-150-59T)					
5R4GYB	5/2000	For added data, see p.10		Octal	5T

RCA Type	E_f/I_f V/mA	Max Rating P_b W	g_m μmho	Base	Terminal Diagram
6AG7Y	6.3/650	9	11000	Octal	8Y
6SJ7Y	6.3/300	2.5	1650	Octal	8N
VOLTAGE AMPLIFIERS					
6AC7W	6.3/450	3.3	9000	Octal	8N
6AH6WA	6.3/450	3.3	9000	7-Pin Min.	7BK Diagram 1
6AS6	6.3/175	1.7	3200	7-Pin Min.	7CM Diagram 2
12SW7	12.6/150	2.5	1900	Octal	8Q
12SX7GT	12.6/300	2.5	2600	Octal	8BD
5687	12.6/450 6.3/900	4.2	5400	9-Pin Min.	9H
6688A	6.3/300	3	16500	9-Pin Min.	9EQ
8628 Nuvistor	6.3/150	0.3	3100	5-Pin Nuvistor	12AQ

RCA Industrial Receiving-Type Tubes

Key to Abbreviations, Quantity Symbols, & Unit Symbols

Abbreviation	Term	Abbreviation	Term	Abbreviation	Term
AC	Alternating Current	max	Maximum	uhf	Ultra-High Frequency
af	Audio Frequency	P	Pentode Unit	(300 to 3000 MHz)	
DC	Direct Current	rf	Radio Frequency	vhf	Very High Frequency
if	Intermediate Frequency	T	Triode Unit	(30 to 300 MHz)	

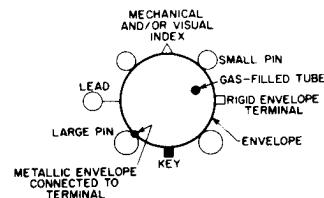
Quantity Symbol	Physical Quantity	Quantity Symbol	Physical Quantity
E_b	DC Plate Voltage (Vacuum tubes) DC Anode Voltage (Gas-filled tubes)	I_b	DC Plate Current
	DC Anode Voltage Drop (Voltage-regulator tubes and trigger tubes)	I_f	DC or RMS AC Heater Current (Bogey value) DC or RMS AC Filament Current (Bogey value)
ΔE_b	Regulation (Over specified range of I_k)	I_k	DC Cathode Current
e_{bm}	Peak Plate Voltage (Vacuum tubes) Peak Anode Voltage (Gas-filled tubes)	$I_{k(av)}$	Average Cathode Current
E_f	DC or RMS AC Heater Voltage (Bogey value) DC or RMS AC Filament Voltage (Bogey value)	$I_{o(av)}$	Average Output (Rectified) Current
g_m	Transconductance (Mutual conductance)	P_b	Plate Dissipation
		r_p	Plate Resistance

Unit Symbol	Unit	Unit Symbol	Unit	Unit Symbol	Unit	Unit Symbol	Unit
A	Ampere(s)	mA	Milliampere(s)	V	Volt(s)	Ω	Ohm(s)
g	Gravitational-Acceleration Unit(s) (32 ft/s^2)	MHz	Megahertz	W	Watt(s)	$^{\circ}\text{C}$	Degree(s)
kHz	Kilohertz	M Ω	Megohm(s)	μho	Micromho(s)	%	Celsius Per Cent

Key to Terminal Diagrams

Terminal Diagrams, unless otherwise specified, are BOTTOM VIEWS which show base pins or leads viewed from base end of tube. Rigid envelope terminals are shown in their approximate position on tube envelope.

GRAPHIC SYMBOLS



LETTER COMBINATIONS

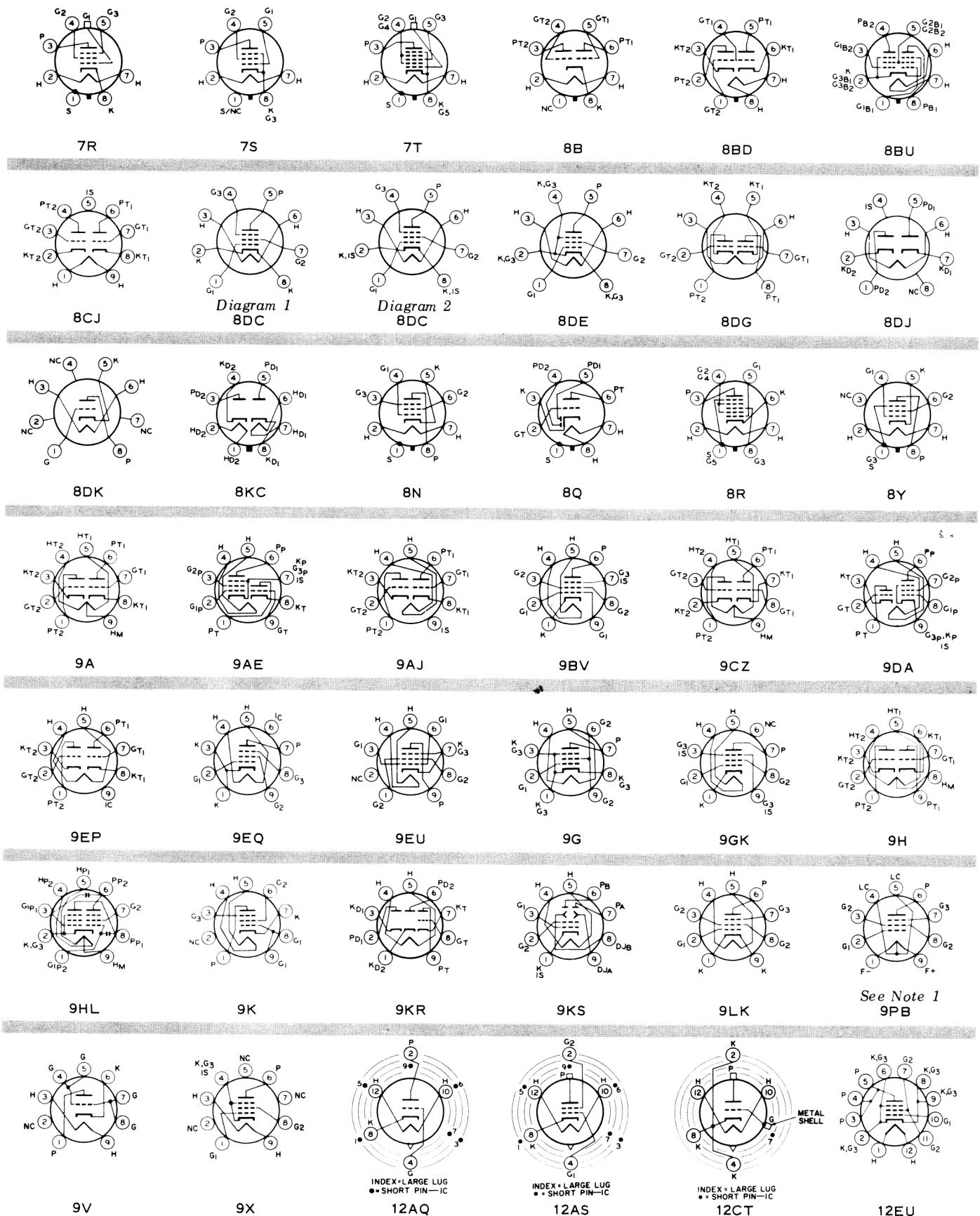
DJA	= Deflecting Electrode A	HA	= Heater-End A	NC	= No Internal Connection
DJB	= Deflecting Electrode B	HB	= Heater End B	P	= Plate (Vacuum tubes)
F	= Filament End (Unpolarized)	HM	= Heater Tap	PA	= Anode (Gas-filled tubes)
F ⁺	= Filament End (Positive only)	IC	= Do Not Use	PB	= Plate B
F ⁻	= Filament End (Negative only)	IS	= Internal Shield (Electrostatic)	RCJ	= Ray-Control Electrode
F _M	= Filament Tap	JPR	= Jumper End	S	= Metal Shell
G	= Grid	K	= Cathode	STR	= Starter
G _{1, G₂, etc.}	= Grid No.1, Grid No.2, etc.	LC	= May be used only under Limited Conditions specified in accompanying Note	TA	= Fluorescent Target
H	= Heater End (Unpolarized)				

SUBSCRIPTS FOR MULTIUNIT TYPES

B = Beam Power Unit	HP = Heptode Unit	P = Pentode Unit	TR = Tetrode Unit
D = Diode Unit	HX = Hexode Unit	T = Triode Unit	1,2,3,etc. = No.1, No.2, No.3, etc.

RCA Industrial Receiving-Type Tubes

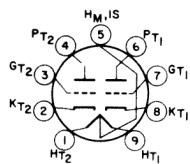
Terminal Diagrams (Cont'd)



Note 1: Pins 4 and 5 may be connected to ground through a capacitor to minimize absorption of rf power in filament circuit.

RCA Industrial Receiving-Type Tubes

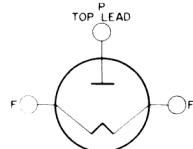
Terminal Diagrams (Cont'd)



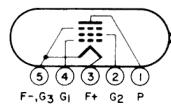
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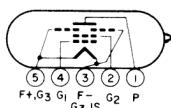
TYPE 991



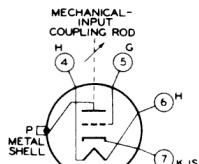
TYPE 5642



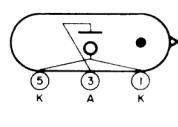
TYPE 5672



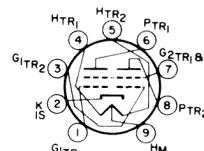
TYPE 5678



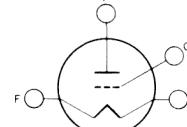
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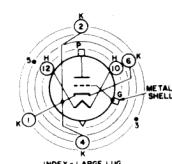
TYPE 5783



TYPE 6360



TYPE 6977



TYPE 8808

Socket & Connector Information

The sockets and connectors listed below by manufacturer's or distributor's part number are designed to mate, respectively, with the bases and caps utilized on the RCA Industrial Receiving-Type Tubes described in this catalog. Sockets and connectors having mechanical and electrical characteristics comparable to those listed below may be available from other component manufacturers.

BASE	SOCKET				
	Description		Manufacturer or Distributor and Part No.		
Application	Mounting	Cinch Mfg. Co. ^a	Cinch-Jones Sales Division ^b Distributors	Industrial Electronic Hardware Corp. ^c	
5-Pin Nuvistor	General-Purpose Type	Crimp Mounting	133 65 10 001	5NS	MSN 0905-1 MSN 0905-2 MSN 0905-3
		Flange Mounting	133 65 10 003	5NS-1	—
		Printed Board ("Stand-off")	133 65 10 009	5NS-2	—
	UHF Heat-Dissipating Type	Crimp Mounting	133 65 10 041	5NS-3	—
6-Pin Nuvistor Type 8808	UHF Heat-Dissipating Type	Crimp Mounting	133 67 90 040	5NS-4	—
7-Pin Miniature	Miniature 7-Contact				
9-Pin Miniature	Miniature 9-Contact				Generally available from your local RCA Distributor
Octal	Octal 8-Contact				
5-Pin Acorn	James Millen Mfg. Co., Inc. ^d	33105 (Polystyrene) or 3305 (Steatite)			
Small 4-Pin	E.F. Johnson Company ^e	122-224-1 (Standard), 122-224-100 (Industrial), or 122-224-200 (Military)			
Small 5-Pin	E.F. Johnson Company ^e	122-225-1 (Standard) or 122-225-200 (Military)			
Candelabra 2-Contact	James Millen Mfg. Co., Inc. ^d	33991 (Phenolic) or 33992 (Low-loss mica-filled phenolic)			

Cap	Connector	
Miniature	Cinch Mfg. Co. ^a 6005 or 422 03 22 017, 6014 or 422 03 22 024, or equivalent "1/4-inch" connector	
Nuvistor Type 8808	For Distributed-Constant Circuit	International Electronic Research Corp. ^f Therma-Link Retainer Part No. TXBE-032-031G
	For Lumped-Constant Circuit	Wakefield Engineering, Inc. ^g Semiconductor Cooler Type NF207

^a 1026 South Homan Avenue, Chicago, Illinois 60624.

^b Cinch-Jones Sales Division of Cinch Mfg. Co.

^c 109 Prince Street, New York, N.Y. 10012.

^d 150 Exchange Street, Malden, Massachusetts 02100.

^e 1921 Tenth Avenue, Waseca, Minnesota 56093.

^f 135 West Magnolia Blvd., Burbank, Calif. 91502.

^g 139 Foundry St., Wakefield, Mass. 01880.

**RCA Industrial Receiving Types
vs
Prototypes**

**Prototypes
vs
RCA Industrial Receiving Types**

RCA INDUSTRIAL RECEIVING TYPE*	PROTO TYPE	RCA INDUSTRIAL RECEIVING TYPE*	PROTO TYPE
OA2WA	OA2	5915	6BE6
OA3A	OA3	5963	12AU7
OB2WA	OB2	5964	6J6
OC3A	OC3	6005	6AQ5
OD3A	OD3	6005/6AQ5W	6AQ5
2D21W	2D21	6005/6AQ5W/6095	6AQ5
3B4WA	3B4	6072	12AY7
5R4GYB	5R4GY	6073	OA2
6AC7W	6AC7	6073/OA2	OA2
6AG5WA	6AG5	6074	OB2
6AG7Y	6AG7	6074/OB2	OB2
6AH6WA	6AH6	6080	6AS7G
6AU6WB	6AU6	6080WA	6AS7G
6BA6W	6BA6	6082	6AS7G
6DJ8/ECC88	6DJ8	6101	6J6
6J4WA	6J4	6101/6J6WA	6J6
6J6WA	6J6	6136	6AU6
6SJ7Y	6SJ7	6186	6AG5
6X4W	6X4	6186/6AG5WA	6AG5
12AT7WA	12AT7	6189	12AU7
12AT7WB	12AT7	6189/12AU7WA	12AU7
407A	2C51	6197	6CL6
408A	6AK5	6201	12AT7
1612	5L7	6202	6X4
1613	6F6	6206	5899
1620	6J7	6211	6J6
1621	6F6	6386	2C51
1622	6L6	6417	5763
1629	6E5	6626/OA2WA	OA2
1635	6N7GT	6660/6BA6	6BA6
2050A	2050	6661/6BH6	6BH6
2076/5R4GYB	5R4GY	6662/6BJ6	6BJ6
5651A	5651	6663/6AL5	6AL5
5651WA	5651	6664/6AB4	6AB4
5654	6AK5	6669/6AQ5A	6AQ5
5654/6AK5W	6AK5	6676/6CB6A	6CB6A
5654/6AK5W/6096	6AK5	6677/6CL6	6CL6
5670	2C51	6678/6U8A	6U8A
5670WA	2C51	6679/12AT7	12AT7
5691	6SL7GT	6680/12AU7A	12AU7
5692	6SN7GT	6681/12AX7	12AX7
5693	6SJ7	6887	6AL5
5725	6AS6	6922/E88CC	6DT8
5726	6AL5	7054	12BY7A
5626/6AL5W	6AL5	7055	6AL5
5726/6AL5W/6097	6AL5	7056	6CB6A
5727	2D21	7057	6BZ7
5727/2D21W	2D21	7058	12AX7
5749	6BA6	7059	6U8A
5749/6BA6W	6BA6	7060	6AU8
5750	6BE6	7061	12AB5
5751	12AX7	7167	6CY5
5751WA	12AX7	7308	6922
5814A	12AU7	7717/6CY5	6CY5
5814WA	12AU7	7724/14GT8	14GT8
5824	25B6G	8077/7054	12AT7
5842/417A	417A	8532	12BY7A
5847/404A	404A	8532/6J4WA	6J4

PROTO TYPE	RCA INDUSTRIAL RECEIVING TYPE*	PROTO TYPE	RCA INDUSTRIAL RECEIVING TYPE*
OA2	OA2WA,6073	6CY5	7167
	6073/OA2		7717/6CY5
	6626/OA2WA	6DJ8	6DJ8/ECC88
OA3	OA3A	6DT8	6922/E88CC
OB2	OB2WA,6074	6E5	1629
	6074/OB2		
OC3	OC3A	6F6	1613,1621
OD3	OD3A	6J4	6J4WA,8532, 8532/6J4WA
2D21	2D21W,5727	6J6	6J6WA,5964 6101/6J6WA 6211
	5727/2D21W		
3B4	3B4WA	6J7	1620
5R4GY	5R4GYB	6L6	1622
	2076/5R4GYB	6L7	1612
6AC7	6AC7W	6N7GT	1635
6AG5	6AG5WA	6SJ7	5693
		6SL7GT	5691
12AT7	12AT7WB	6SN7GT	5692
		6U8A	6678/6U8A 7059
6AG5	6AG5WA	6AB4	6X4,6X4W,6202
	6186/6AG5WA	6AC7	
6AH6	6AH6WA	6AG7	6AG7Y
6AS7G	6AS7G	6AH6	6AH6WA
6AS7G	6AS7G	6AK5	408A,5654 5654/6AK5W 5654/6AK5W/6096
6AS7G	6AS7G	6AK5	12AB5
6AS7G	6AS7G	6AL5	5726/6AL5W 5726/6AL5W/6097
6AS7G	6AS7G	6AL5	6663/6AL5 6887,7055
6AS7G	6AS7G	6AQ5	12AU7
6AS7G	6AS7G	6AU6	5814A,5814WA 5963
6AS7G	6AS7G	6AU6	6189/12AU7WA 6680/12AU7WA
6AS7G	6AS7G	6AU6	12AX7
6AS7G	6AS7G	6AU6	5751,5751WA 6681/12AX7 7058
6AS7G	6AS7G	6AS6	12AY7
6AS7G	6AS7G	6AS6	6082
6AS7G	6AS7G	6AS6	12BY7A
6AS7G	6AS7G	6AU6	8077/7054
6AS7G	6AS7G	6AU6	
6AS7G	6AS7G	6AU6	14GT8
6AS7G	6AS7G	6BA6	7724/14GT8
6AS7G	6AS7G	6BA6	25B6G
6AS7G	6AS7G	6BA6	5824
6AS7G	6AS7G	6BE6	404A
6AS7G	6AS7G	6BE6	5847/404A
6AS7G	6AS7G	6BE6	417A
6AS7G	6AS7G	6BE6	5842/417A
6AS7G	6AS7G	6BH6	2050A
6AS7G	6AS7G	6BH6	5651A,5651WA
6AS7G	6AS7G	6BJ6	5651
6AS7G	6AS7G	6BJ6	5651
6AS7G	6AS7G	6BZ7	6417
6AS7G	6AS7G	6BZ7	6206
6AS7G	6AS7G	6BZ7	5899
6AS7G	6AS7G	6BZ7	6922
6AS7G	6AS7G	6BZ7	6922/E88CC
6AS7G	6AS7G	6C6A	7308

* These types may differ from their prototypes in electrical and/or mechanical characteristics, physical structure, or types of tests to which they are subjected. The data should, therefore, be checked before replacing a type in the prototype column with its corresponding type.

Interchangeability List

DOMESTIC OR FOREIGN TYPES vs. RCA REPLACEMENT TYPES
In numerical-alphabetical-numerical sequence of TYPES TO BE REPLACED

TYPE TO BE REPLACED	RCA TYPE FOR USE AS REPLACEMENT		TYPE TO BE REPLACED	RCA TYPE FOR USE AS REPLACEMENT		TYPE TO BE REPLACED	RCA TYPE FOR USE AS REPLACEMENT	
	Direct ^a	Similar ^b		Direct ^a	Similar ^b		Direct ^a	Similar ^b
OA2	OA2	OA2WA OD3 OD3A 6073 6073/OA2 6626/OA2WA	6AK5W 6AL5W 6AQ5W 6AS6 6AS7G	5726 6005 6080 6080WA 6AS7G, 6080 6080WA	5654 6663/6AL5 6669/6AQ5A 5725 6080 6080WA	5727/2D21W 5749/6BA6W 5751WA 5812 5814 5814WA 5840A 5842 5844 5897 5898 5899A 5900 5901 5915A 5920	2D21 5749 5751 5763 5814A 5814A 5840 5964	
OA2WA	OA2WA	OA2 OD3 OD3A 6073 6073/OA2 6626/OA2WA	6AS7GYB	6AU6WA 6BA6W 6CY5 6J4 6J4WA 6J4WB	6AU6WB 7717/6CY5 6J4 6J6WA	5749 8532 8532 5964	5842/417A	5964
OA3 OA3/VR75 OA3A	OA3, OA3A OA3, OA3A OA3A	OC2 OC2 OA3 OC2 OB2WA OC3 OC3A 6074 6074/OB2	6J6WA 6L4 6Q5G 6SJ7WGT 6SJ7Y 6SL7WGT 6SN7GTY 6X4 12AU7WA 14GT8 25B6G	884 6F4 884 6SJ7Y 5693 5691 5692 6005/	6SJ7Y, 5693 6X4W 5814A, 6189	5963 5964 6101 5963 5964	5915 5964 6J6WA 6J6WA 6J6WA 6005	
OB2	OB2	OB2 OC3 OC3A 6074 6074/OB2	6J6WA 6L4 6Q5G 6SJ7WGT 6SJ7Y 6SL7WGT 6SN7GTY 6X4 12AU7WA 14GT8 25B6G	6F4 884 6SJ7Y 5693 5691 5692 6005/	6SJ7Y, 5693 6X4W 5814A, 6189	5963 5964 6101 5963 5964	5915 5964 6J6WA 6J6WA 6J6WA 6005	
OB2WA	OB2WA	OB2 OC3 OC3A 6074 6074/OB2	6X4 12AU7WA 14GT8 25B6G	6202 7724/14GT8 5824	6005/ 6AQ5W/ 6095	6005	6005	
OC2	OC2	OA3 OA3A OB2 OB2WA 6074 6074/OB2	26FZ6 108C1 150C1 150C2 150C3	OB2 150C1 150C2 150C3	26A6	6012	2D21 5727	
OC3	OC3, OC3A	OB2 OB2WA 6074 6074/OB2	274A 274B 301A 310B 313C 348A 359A 395A 403A 403B 404A 417A 421A	5R4GYB	5R4GYB 83 1620 1620 1C21 1C21 1C21 5823 5654 5654 5847/404A	6028 6028/408A 6057 6058 6062 6067 6073	408A 408A	
OC3/VR105	OC3, OC3A	OB2 OB2WA 6074 6074/OB2	274A 274B 301A 310B 313C 348A 359A 395A 403A 403B 404A 417A 421A	5R4GYB	5R4GYB 83 1620 1620 1C21 1C21 1C21 5823 5654 5654 5847/404A	6073 6073/0A2	6073 6073/0A2	
OC3A	OC3A	OB2 OB2WA OC3 6074 6074/OB2	313C 348A 359A 395A 403A 403B 404A 417A 421A	5842/417A	6AS7G, 6080 6080WA 5651A 5651WA	6074	6074	
OC3W		OB2 OB2WA OC3 OC3A 6074 6074/OB2	423A		6074	6074	OB2 OB2WA OC3 OC3A 6074/OB2	
OD3	OD3, OD3A	OA2 OA2WA 6073 6073/OA2	546 1266 1603 2050 2050A		5696 5823 1620 2050A 2050A	6074/OB2	6074/OB2	
OD3/VR150	OD3, OD3A	OA2 OA2WA 6073 6073/OA2	2050 2050A		2050A 2050A	6080	6080	
OD3A	OD3A	OA2 OA2WA OD3 6073 6073/OA2	5590/401B 5591/403B 5636A 5651 5651A 5651WA 5651WA 5651WA	5654 5654 5636 5651A 5651A 5651WA 5651WA 5651WA	6080WA 6080WA	6080WA	6080WA 6AS7G 6080 6AS7G	
OD3W		OA2 OA2WA OD3 OD3A 6073 6073/OA2	5654/ 6AK5W/ 6096 5659 5663 5670WA 5693	5654 12A6 5696 5670 5693	6082A 6085 6094 6095 6097 6099	6082A 6085 6094 6095 6097 6099	6082A 6085 6094 6095 6097 6099	
1F2 2C51 2D21 2D21W	1L4 5670 2D21 2D21W	5718A 5719A 5725 5726/6AL5W 5726/ 6AL5W/ 6097 5727	5718 5719 5725 5726 5726/ 6AL5W/ 6097 5727	5718 5719 5725 5726 5726/ 6AL5W/ 6097 5727	6AS6 5726 5726	6101 6101/6J6WA 6136 6140/423A 6180 6186/ 6AG5WA 6189/ 12AU7WA	5964 5964 6AU6WB 5651WA 5692 6186 5814A 5963	
5R4GY 5R4GYA 6AC7Y 6AG5WA	5R4GYB 5R4GYB 6AC7W	6186		5727	2D21			

RCA Industrial Receiving-Type Tubes

Interchangeability List (Cont'd)

DOMESTIC OR FOREIGN TYPES vs. RCA REPLACEMENT TYPES
In numerical-alphabetical-numerical sequence of TYPES TO BE REPLACED

TYPE TO BE REPLACED	RCA TYPE FOR USE AS REPLACEMENT		TYPE TO BE REPLACED	RCA TYPE FOR USE AS REPLACEMENT		TYPE TO BE REPLACED	RCA TYPE FOR USE AS REPLACEMENT	
	Direct ^a	Similar ^b		Direct ^a	Similar ^b		Direct ^a	Similar ^b
6201	12AT7WA		CV2241	5642		M8212	5726	
6211A	6336A	6211	CV2390	3A4		M8223	OA2WA	
6336		6336A	CV2466	6939		M8224	OB2WA	
6337	6360A		CV2492	6922/E88CC		M8245	6005	
6360		5965	CV2522	6AS6		QA2408	5692	
6414	6417	7551	CV2573	5651A		QE03/10	5763	
6417		5725	CV2642	5842/417A		QQE02/5	6939	
6486		5725	CV2662	5639		QQV02-6	6939	
6486A		6AS7G	CV2742	1L4		QS150/40	OD3,OD3A	
6520		6080	CV2795	1L4		QS1205	OA3,OA3A	
6528			CV2876	5727		QS1206	OC3,OC3A	
6626	6626/OA2WA	OA2WA	CV2984	6080		QS1207	OA2	
		OA2	CV3512	5696		QS1208	OB2	
		OD3	CV3789	5842/417A		QS1210	OA2WA	
		OD3A	CV3798	OA3,OA3A		QS1211	OB2WA	
		OB2	CV3928	5636		QS2404	5726	
6626/ OA2WA	6626/ OA2WA		CV3929	5840		QV03-12	5763	
		OC3	CV3930	5718		RL21	2D21	
		OC3A	CV3986	6021		RL1267	OA4G	
6660	6660/6BA6		CV4008	5719		S856	OA2	
6661	6661/6BH6		CV4009	5749		S860	OB2	
6662	6662/6BJ6		CV4011	5725		VT138	1629	
6663	6663/6AL5		CV4016	5814A		VT139	OD3,OD3A	
6664	6664/6AB4		CV4017	5751		VT202	9002	
6669	6669/6AQ5A		CV4018	5727		VT203	9003	
6676	6676/6CB6A		CV4020	OA2WA		WT210-0001	2D21	5727
6677	6677/6CL6		CV4024	12AT7WA		WT210-0003	884	
6678	6678/6U8A		CV4025	5726		WT210-0011	OC3,OC3A	
6679	6679/12AT7		CV4028	OB2WA		WT210-0018	OD3,OD3A	
6680	6680/12AU7A		CV4029	5902		WT210-0019	83	
6681	6681/12AX7A		CV4039	5763		WT294	OD3,OD3A	
6687		5915	CV4048	5651WA		WT301	83	
6829		5965	CV4100	OA2WA		WTT-132	OA4G	
7036		5915	CV4101	OB2WA		Z300T	OA4G	
7054	8077/7054		CV5122	5823		Z900T	5823	
7062		5965	CV5186	5651A				
7079		6111	DCC90	3A5				
7105		6080	DF92	1L4				
		6080WA	DL93	3A4				
		6AS7G	DL98	3B4WA				
7244		6J6WA	DY70	5642				
7244A		6J6WA	E88CC	6922/E88CC				
7245		614,8532	E91AA	5726				
7370		5687	E91N	5727				
7701		7551	E95F	5654				
7717	7717/6CY5		E182F	5847/404A				
7724	7724/14GT8		E1485	3A4				
7729			E1955	2D21				
7731			EAA901	5726				
7733		5814A	EAA9015	5726				
		5963	EC70	5718				
8077	8077/7054		EC71	5718				
8077/7054	8077/7054	7054	ECC70	6021				
A1834	6AS7G		ECC88	6DJ8/ECC88				
AA91E	5726		ECC230	6080				
AG5210	OB2		EF71	5899				
AG5211	OA2		EF72	5840				
AGS5121	2D21		EF730	5636				
CC81E	12AT7WA		EF731	5899				
CCa	6922/E88CC		EF732	5840				
CV216	OD3,OD3A		EF905	5654				
CV449	5651A		EL71	5902				
CV475	5899		EN91	2D21				
CV477	5899		EN92	5696				
CV618		83	HD51	OA2				
CV686	OC3,OC3A		HD52	OB2				
CV752	OA4G		KD21	OA3,OA3A				
CV807	3A4		KD24	OC3,OC3A				
CV1758	1L4		KD25	OD3,OD3A				
CV1832	OA2		M8079	5726				
CV1833	OB2		M8096	5763				
CV1992	OA4G		M8162	12AT7WA				
CV2129	5763		M8196	5725				
CV2240		3B4WA	M8204	5727				

^a The RCA types in this column can be used, in most applications, as a replacement for the corresponding TYPE TO BE REPLACED without a component, circuit, and/or equipment modification.

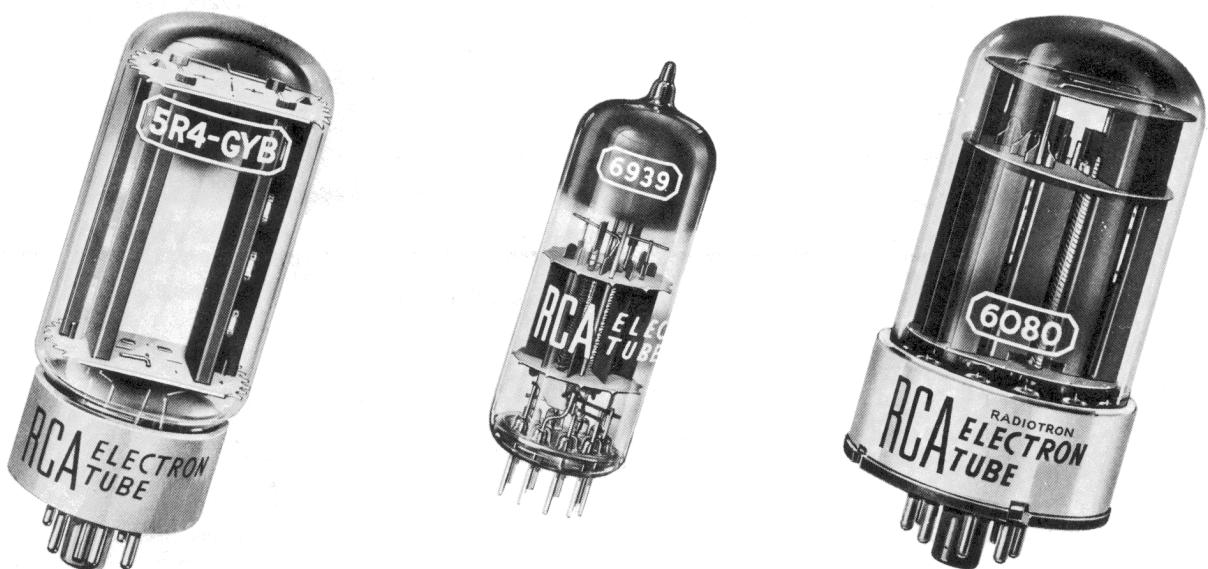
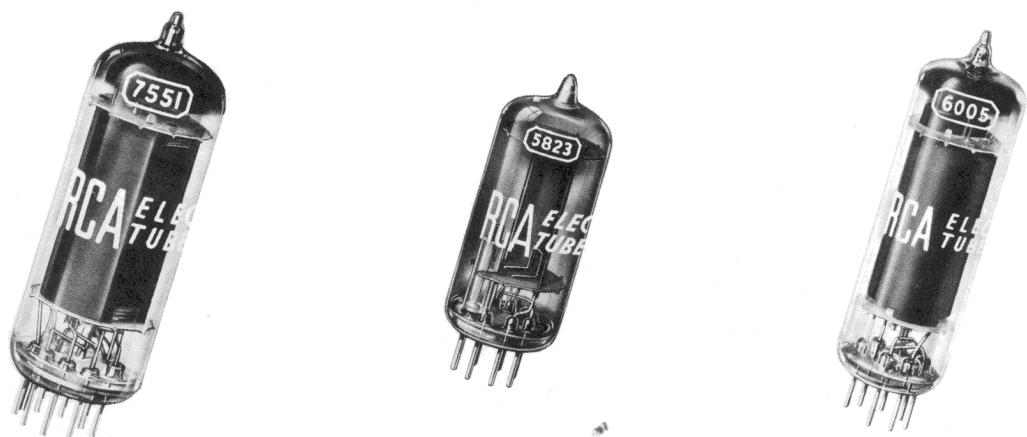
^b The RCA types in this column may be used as a replacement for the corresponding TYPE TO BE REPLACED but, because of mechanical and/or electrical differences may, in some circuits and/or equipment, require a component, circuit, and/or equipment modification. Technical data for both types should be compared to determine the degree of interchangeability.

When more than one RCA replacement type is shown for a particular type, the nearest type for general replacement purposes is indicated in *italics*. NOTE: In many cases the application (because of its specific requirements) will determine the replacement type to be used.

RCA Industrial Receiving-Type Tubes



RCA Industrial Receiving-Type Tubes



RCA Industrial Receiving-Type Tubes

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▲ Can also be supplied to Military Specifications. A copy of the applicable Military Specification may be obtained from: Specification Division

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* Premium type.

□ For critical applications, see OA2WA.

■ Sales limited to extent of inventory.

□□ For critical applications, see OB2WA.

RCA Industrial Receiving-Type Tubes

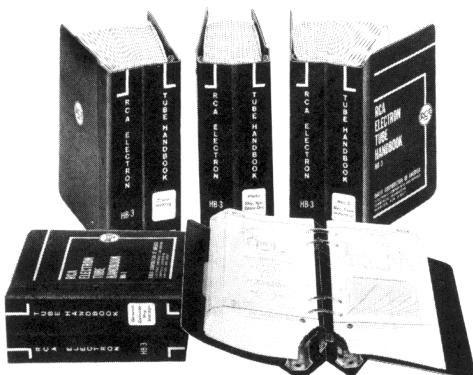
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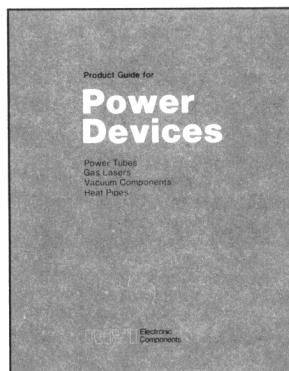
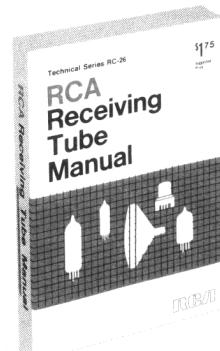
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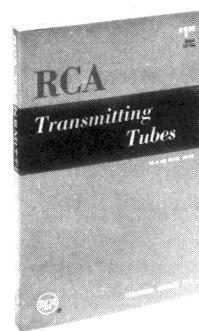


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