



# INDUSTRIAL and TRANSMITTING TUBES for COMMUNICATIONS and INDUSTRY



- PRICES
- RATINGS
- WARRANTIES

GENERAL  ELECTRIC



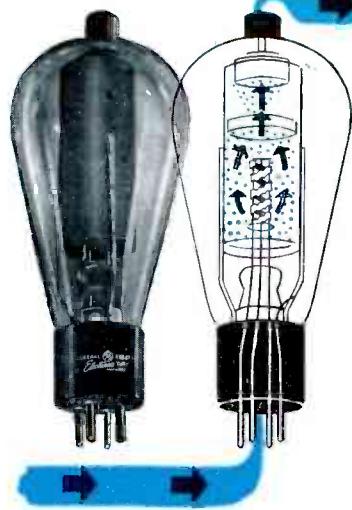
# I N D E X

Tube Type	See Group No.	Tube Type	See Group No.	Tube Type	See Group No.	Tube Type	See Group No.	Tube Type	See Group No.
GL-0A2	2	FA-6 (GL-5627)	15	GL-502-A	3	GL-957	6	GL-5742/PJ-7	6
GL-0A3/VR-75	2	PJ-7 (GL-5742)	6	GL-506 (GL-6228)	4	GL-1000T	6	GL-5743/PJ-21	6
GL-0B2	2	GL-7BP7-A	5	GL-507 (GL-5564)	4	GL-1612	6	GL-5749	6
GL-0B3/VR-90	2	GL-7C29	6	GL-575-A	10	GL-1613	6	GL-5750	6
GL-0C3/VR-105	2	GL-7D21	6	GL-592	6	GL-1614	6	GL-5751	6
GL-0D3/VR-150	2	GL-7UP7	5	GL-627	3	GL-1616	8	GL-5763	6
GL-C1J	3	PJ-8 (GL-5556)	6	GL-672-A	3	GL-1619	6	GL-5779	4
KC-1	8	GL-8D21	6	GL-673	10	GL-1620	6	GL-5797	6
GL-1B24-A	11	GL-9C24	6	GL-678	3	GL-1621	6	GL-5798	6
GL-1B35-A	11	GL-10KP7	5	GL-800	6	GL-1622	6	GL-5814-A	6
GL-1B37-A	11	GL-12AY7	6	GL-801-A	6	GL-1623	6	GL-5820	9
GL-1B38	11	GL-12SP7	5	GL-802	6	GL-1624	6	GL-5822	4
GL-1B44	11	GL-12SP7B	5	GL-803	6	GL-1625	6	GL-5824	6
GL-1B56	11	FA-13 (GL-5628)	16	GL-805	6	GL-1629	6	GL-5826	9
GL-1B63-A	11	FA-14 (GL-5629)	16	GL-806	6	GL-1633	6	GL-5830/FG-41	3
GL-1L21	14	FA-15 (GL-5626)	15	GL-807	6	GL-1850-A	9	GL-5840	6
GL-1L22	14	FG-17 (GL-5557)	3	GL-809	6	GL-2050	3	GL-5844	6
GL-1L23	14	GL-17ADP7	5	GL-810	6	GL-5513	6	GL-5855	3
GL-1L24	14	PJ-21 (GL-5743)	6	GL-811-A	6	GL-5516	6	GL-5879	5
GL-1L25	14	PJ-22	12	GL-812-A	6	GL-5518	6	GL-5894	6
GL-1L31	14	PJ-23 (GL-868)	11	GL-813	6	GL-5544	3	GL-5896	8
GL-1L32	14	B-25 (GL-5622)	1	GL-814	6	GL-5545	3	GL-5899	6
GL-1L33	14	FG-27-A	3	GL-815	6	GL-5549	6	GL-5902	6
GL-1L36	14	FG-32 (GL-5558)	10	GL-816	10	GL-5550/GL-415	4	GL-5948	3
GL-1L38	14	FG-33 (GL-5720)	3	GL-826	6	GL-5551/FG-271	4	GL-5963	6
GL-1P21	12	GL-35T	6	GL-828	6	GL-5552/FG-235-A	4	GL-5965	6
GL-1P29/FJ-401	12	FG-41 (GL-5830)	3	GL-829-B	6	GL-5553/FG-258-A	4	GL-5973	8
GL-1P37	12	B-46 (GL-5624)	1	GL-830-B	6	GL-5554/FG-259-B	4	GL-5978	18
GL-1P39	12	B-47 (GL-5623)	1	GL-832-A	6	GL-5555/FG-238-B	4	GL-6005	6
GL-1P40	12	FB-50 (GL-5620)	1	GL-833-A	6	GL-5556/PJ-8	6	GL-6011	3
GL-1Q26	11	FP-54 (GL-5740)	6	GL-835	6	GL-5557/FG-17	3	GL-6017	6
GL-1Q26-A	11	FG-57 (GL-5559)	3	GL-836	8	GL-5558/FG-32	10	GL-6019	6
GL-2AP1-A	5	FP-62 (GL-5739)	6	GL-837	6	GL-5559/FG-57	3	GL-6035	11
GL-2B22	8	FG-67 (GL-5728)	3	GL-838	6	GL-5560/FG-95	3	GL-6039	6
GL-2B23	8	VR-75 (GL-0A3)	2	GL-842	6	GL-5561/FG-104	10	GL-6044	3
GL-2BP1	5	FG-81-A	3	GL-843	6	GL-5564/GL-507	4	GL-6046	6
GL-2C39-A	6	FP-85-A (GL-5741)	8	GL-845	6	GL-5581	12	GL-6072	6
GL-2C40	6	VR-90 (GL-0B3)	2	GL-849	6	GL-5588	6	GL-6087	8
GL-2C42	6	FG-95 (GL-5560)	3	GL-851	6	GL-5593	13	GL-6111	6
GL-2C43	6	FG-97	3	GL-857-B	10	GL-5610	6	GL-6112	6
GL-2C46	6	FG-98-A	3	GL-862-A	6	GL-5620/FG-50	1	GL-6130	3
GL-2D21	3	GL-100TH	6	GL-866-A	10	GL-5621/B-6	1	GL-6134	6
GL-2E24	6	FG-104 (GL-5561)	10	GL-868/PJ-23	12	GL-5622/B-25	1	GL-6135	6
GL-2E26	6	FG-105	3	GL-869-B	10	GL-5623/B-47	1	GL-6136	6
GL-2E30	6	VR-105 (GL-0C3)	2	GL-870-A	10	GL-5624/B-46	1	GL-6137	6
GL-2H21	13	GL-146	6	GL-872-A/872	10	GL-5625/KC-4	8	GL-6146	6
2X2-A	8	VR-150 (GL-0D3)	2	GL-874	2	GL-5626/FA-15	15	GL-6159	6
KC-3	8	GL-152	6	GL-880	6	GL-5627/FA-6	15	GL-6166	6
GL-3AP1-A	5	FG-154	3	GL-884	3	GL-5628/FA-13	16	GL-6182	6
GL-3B24-W	8	GL-159	6	GL-885	3	GL-5629/FA-14	16	GL-6183	6
GL-3BP1-A	5	FG-166	10	GL-889-A	6	GL-5630	4	GL-6201	6
GL-3C23	3	GL-169	6	GL-889R-A	6	GL-5632	3	GL-6202	8
GL-3C45	3	FG-172	3	GL-891	6	GL-5651	2	GL-6203	8
GL-3KP1	5	GL-203-A	6	GL-891-R	6	GL-5654	6	GL-6215	8
GL-3MP1	5	GL-207	6	GL-892	6	GL-5662	3	GL-6228/506	4
GL-3UP1	5	GL-211	6	GL-892-R	6	GL-5663	3	GL-6237	7
3X2500-A3	6	GL-217-C	8	GL-893-A	6	GL-5670	6	GL-6238	7
KC-4 (GL-5625)	8	GL-218	8	GL-893A-R	6	GL-5674	6	GL-6239	7
4-125-A (GL-4D21)	6	FG-235-A (GL-5552)	4	GL-895	6	GL-5680	6	GL-6240	7
GL-4-250A/5D22	6	FG-238-B (GL-5555)	4	GL-895-R	6	GL-5681	6	GL-6241	7
GL-4B32	10	GL-242-C	6	GL-898-A	6	GL-5686	6	GL-6242	7
GL-4C21	6	FG-258-A (GL-5553)	4	GL-914-A	5	GL-5687	6	GL-6243	7
GL-4D21/4-125A	6	FG-259-B (GL-5554)	4	GL-917	12	GL-5691	6	GL-6244	7
GL-4X150A	6	FP-265	6	GL-918	12	GL-5692	6	GL-6283	6
4-1000A	6	GL-266-B	10	GL-919	12	GL-5693	6	GL-8000	6
GL-5BP1-A	5	FG-271 (GL-5551)	4	GL-920	12	GL-5710	6	GL-8002	6
GL-5CP1-A	5	FG-280	10	GL-921	12	GL-5718	6	GL-8002-R	6
GL-5CP7-A	5	FP-285	6	GL-922	12	GL-5719	6	GL-8005	6
GL-5C24	6	GL-393-A	3	GL-923	12	GL-5720/FG-33	3	GL-8008	10
5D22 (GL 4-250-A)	6	FP-400	8	GL-927	12	GL-5725	6	GL-8013-A	8
GL-5FP7-A	5	FJ-401 (GL-1P29)	11	GL-929	12	GL-5726	8	GL-8020	8
GL-5FP14	5	FJ-405 (GL-935)	12	GL-930	12	GL-5727	3	GL-8025-A	6
GL-5R4-GY	8	GL-411	8	GL-931-A	12	GL-5728/FG-67	3	GL-9001	6
GL-5QP4	5	GL-414	3	GL-935/FJ-405	12	GL-5739/FP-62	6	GL-9002	6
GL-5UP1	5	GL-415 (GL-5550)	4	GL-954	6	GL-5740/FP-54	6	GL-9003	6
B-6 (GL-5621)	1	GL-441	12	GL-955	6	GL-5741/FP-85-A	8		
		GL-473	6	GL-956	6				

KON-NEC-TOR Mercury Switches—See Group 17

**There's a G-E electronic tube for every purpose**





## THYRATRONS

GRID-CONTROLLED GAS-  
EIOUS-DISCHARGE RECTI-  
FIER TUBES

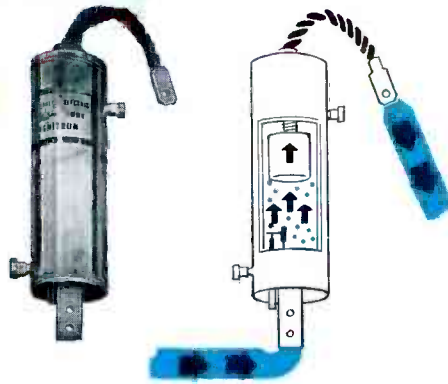
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Type No.	No. of Electrodes	CATHODE		ANODE			Control Characteristics		Temp Range Condensed Mercury C	Warranty	Tube Socket Cat. No.
		Volts	Amp	Peak Volts Inverse	Peak Amp	Avg Amp	100 V	1000 V			
GL-C1J	3	2.5	6.3	700	8.0	1.0	—	—	-55 +70*	H-12 (3000)	103J516-103J165-104J50-102J305
GL-2D21	4	6.3	0.6	1300	0.5	0.1	-1.8	-4.2 @ 450 V.	-55 +90*	G-1	103J516-103J165-104J50-102J305
GL-3C23	3	2.5	7.0	1250	6.0	1.5	-2.5	-5.5	-40 +80	H-12	
GL-3C45	3	6.3	2.3	3000	35	0.045	—	—	-50 +90*	H-12	103J516-103J165-104J50-102J305
FG-27-A	3	5.0	4.5	1000	10.0	2.5	-2.0	-8.0	40-80		
FG-81-A	3	2.5	5.0	500	2.0	0.5	-3.0	-5.25 @ 500 V.	-20 +50*	H-12 (3000)	103J516-103J165-104J50-102J305
FG-97	4	2.5	5.0	1000	2.0	0.5	+0.5	-13.0	40-80	H-12	103J516-103J165-104J50-102J305
FG-98-A	4	2.5	5.0	500	2.0	0.5	-5.0	-11.0 @ 500 V.	-20 +50*	H-12 (3000)	103J516-103J165-104J50-102J305
FG-105	4	5.0 15.5	10.0 11.0	2500 750	40.0 77.0	6.4 2.5	+1.0 +1.0	-9.0 -9.0	40-80 30-95	H-12	104J52-103J173
FG-154	4	15.5 5.0	10.0 7.0	10000 500	16.0 10.0	4.0 2.5	+1.0 -4.0	-9.0 -9.0 @ 500 V.	25-50 -20 +50*		
FG-172	4	5.0 15.5	10.0 11.0	2000 750	40.0 77.0	6.4 2.5	+1.0 +1.0	-9.0 -9.0	40-80 30-95	H-12	102J304
GL-393-A	3	2.5	7.0	1250	6.0	1.5	-2.5	-5.5	-40 +80		
GL-414	4	5.0	20.0	2000	100.0	12.5	0	-10.0	40-80	H-12	102J304
GL-502-A	4	6.3	0.6	1300	1.0	0.100	-1.0	-3.5 @ 650 V.	-55 +90*	H-12	103J164-103J58
GL-627	3	2.5	6.0	2500	2.5	0.64	-1.0	-6.0	+25 +70		
GL-672-A	4	5.0	5.0	2500	40	3.2	0	-10.0	+40 +80	H-12	104J52-103J173
GL-678	3	5.0	7.5	15000	6.0	1.6	0	-15.0	+25 +50	H-12	104J51-103J162
GL-884	3	6.3	0.6	350	0.300	0.075	-10.0	-25.0 @ 250 V.	-75 +90*	G-1	103J164
GL-885	3	2.5	1.4	350	0.300	0.075	-10.0	-25.0 @ 250 V.	-75 +90*		
GL-2050	4	6.3	0.6	1300	1.0	0.100	-1.5	-3.0 @ 650 V.	-75 +90*	G-1	103J166
GL-5544	3	2.5	12	1500	40.0	3.2	0	-7.0	-75 +90*		
GL-5545	3	2.5	21	1500	80.0	6.4	0	-7.0	-55 +70*	H-12 (3000)	104J52-103J174
GL-5557/FG-17	3	2.5	5.0	5000	2.0	0.5	-2.0	-7.0	-55 +70*		
GL-5559/FG-57	3	5.0	4.5	1000	15.0	2.5	-1.75	-6.5	40-80	H-12	103J516-103J165-104J50-102J305
GL-5560/FG-95	4	5.0 15.5	4.5 4.5	1000 1000	15.0 30.0	2.5 0.5	+1.0 +1.0	-9.0 -9.0	40-80 40-80	H-12	103J516-103J165-104J50-102J305
GL-5632	3	2.5	9	1250	30.0	2.5	-1.0	-4.5 @ 750 V.	-55 +70*		
GL-5662	3	6.3	0.15	200	Fuse Tube	—	-3.5	-5.0 @ 160 V.	-55 +90*	G-1	103J172
GL-5663	4	6.3	0.150	500	0.06	0.020	-1.5	-2.5 @ 500 V.	-55 +90	G-1	103J172
GL-5720/FG-33	3	5.0	4.5	1000	15.0	2.5	+9.5	+9.5	35-80		
GL-5727	4	6.3	0.60	1300	0.5	0.1	-1.0	-3.5 @ 450 V.	-75 +90*	G-1	103J516-103J165-104J50-102J305
GL-5728/FG-67	3	5.0	4.5	1000	15.0	2.5	+4.0	0	40-80		
GL-5830/FG-41	3	5.0	20.0	10000	75.0	12.5	+8.0	+2.0	40-65	C-1000	103J522
GL-5855	3	2.5	34.0	1500	150	12.5	+8.0	-9.0	-55 +70*		
GL-5948	3	6.3	30	25000	1000	1.0	—	—	-50 +75*	H-12 (3000)	103J516-103J165-104J50-102J305
GL-6011	3	2.5	9.0	1250	30	2.5	0	-6.0	-40 +80		
GL-6044	3	2.5	17.0	500	77	6.4	-0.5	-2.5 @ 500 V.	-55 +85*	H-12 (3000)	103J516-103J165-104J50-102J305
GL-6130	3	6.3	2.3	3000	35	0.045	—	—	-50 +90*		

\*Temperature ratings are expressed in terms of the ambient temperature range over which the tubes will operate.

†These ratings apply only when the tube is used for ignitor firing.

‡These ratings apply only when the tube is used in thyratron welding-control service.



## IGNITRONS

HIGH-PEAK CURRENT,  
POOL-CATHODE TUBES

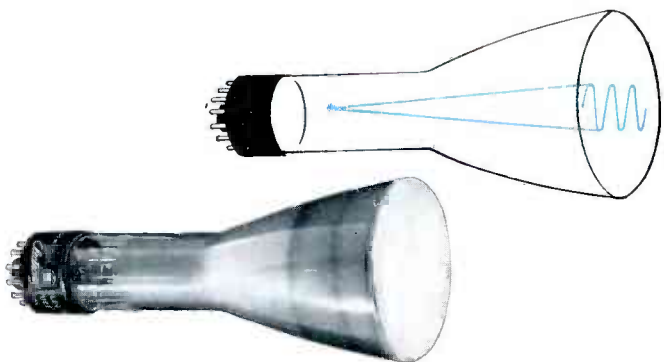
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Welding-Control Types*	Size	Supply Volts	MAXIMUM RATINGS				Type of Cooling	Warranty
			Kva Demand	Corresponding Average Anode Current, Amp	Maximum Average Anode Current, Amp	Corresponding Kva Demand		
GL-5550/GL-415	(A)	250-600 rms	300	12.1	22.4	100	Water	H-12
GL-5551/FG-271	(B)	250-600 rms	600	30.2	56.0	200	Water	H-12
GL-5552/FG-235-A	(C)	250-600 rms	1200	75.6	140	400	Water	H-12
GL-5553/FG-258-A	(D)	250-600 rms	2400	192.0	355	800	Water	H-12
GL-5822	(C)	220-600 rms	424	20	70	188	Water	H-12

\*Ratings are for voltages of 600 volts rms and below.  
 ● For frequency-changer welding control. Peak current = 1500 amperes, peak inverse and forward voltage = 1200 volts.

Power-Rectifier Types†	Typical D-c Output Voltage	MAXIMUM RATINGS				Warranty
		Peak Inv. and Forward Volt.	Peak Amp	Continuous Average Amp	Average Amp 1 Minute	
GL-5564/GL-507	300△ 600△	2100	3600	400	800	H-24
GL-5779	125△	2100	2400	300	600	
GL-5554/FG-259-B	300△ 600△	2100	900	100	200	H-24
GL-5555/FG-238-B	300△ 600△	2100	600	75	150	
GL-5630	17500●	20000	200	50	50	H-36
GL-6228/GL-506	17500●	20000	900	150	300	H-36

†Typical ignitor requirements for power-rectifier ignitrons are 75-125 volts, 15-20 amperes. Maximum requirements are 150 volts, 40 amperes. ● Six-phase double-way circuits △ Six-phase double-ye single-way circuits



## CATHODE-RAY TUBES

FOR MEASUREMENT USE

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Type No.	Screen Diam, Min. Inches	Heater		Screen Fluorescence	Focusing and Deflection	High-Voltage Electrode, Max Volts	Warranty
		Volts	Amp				
GL-2AP1-A	1 3/4	6.3	0.6	Green	Electrostatic	1000	C-1000
GL-2BP1	1 3/4	6.3	0.6	Green	Electrostatic	2500	C-1000
GL-3AP1-A	2 3/4	2.5	2.1	Green	Electrostatic	1500	C-1000
GL-3BP1-A	2 3/4	6.3	0.6	Green	Electrostatic	2200	C-1000
GL-3KP1	2 3/4	6.3	0.6	Green	Electrostatic	2500	C-1000
GL-3MP1	2 3/4	6.3	0.6	Green	Electrostatic	2500	C-1000
GL-3UP1	3	6.3	0.6	Green	Electrostatic	2500	C-1000
GL-5BP1-A	4 1/2	6.3	0.6	Green	Electrostatic	2200	C-1000
GL-5CP1-A	4 1/2	6.3	0.6	Green	Electrostatic	4000	C-1000
GL-5CP7-A	4 1/4	6.3	0.6	Blue*	Electrostatic	4000	C-1000
GL-5FP7-A	4 1/4	6.3	0.6	Blue	Magnetic	7700	C-1000
GL-5FP14	4 1/4	6.3	0.6	Blue†	Magnetic	8000	C-1000
GL-5UP1	4 1/2	6.3	0.6	Green	Electrostatic	2500	C-1000
GL-5QP4	4 1/4	6.3	0.6	White	Magnetic	12000	C-1000
GL-7BP7-A	6	6.3	0.6	Blue*	Magnetic	8000	C-1000
GL-7UP7	6	6.3	0.6	Blue	Magnetic	10000	C-1000
GL-10KP7	9	6.3	0.6	Blue	Magnetic	10000	C-1000
GL-12SP7	11	6.3	0.6	Blue	Magnetic	10000	C-1000
GL-12SP7-B	11	6.3	0.6	Blue	Magnetic	10000	C-1000
GL-17ADP7	△	6.3	0.6	Blue	Magnetic	16000	C-1000
GL-914-A	8 1/4	2.5	2.1	Green	Electrostatic	7000	C-1000

\*Phosphorescence—greenish-yellow. †Phosphorescence—orange. △Rectangular, 14 1/4" by 11 1/8" §Rectangular, 1 3/4" by 1 1/8"

## PLIOTRONS (Cont'd)

Type No.	No. of Electrodes	CATHODE		PLATE				MAX. FREQ. MC.		Mu	Gm	Warranty	Tube Socket Cat. No.
		Volts	Amp.	Max. Volts	Max. Amp	Max. Input, Watts	Max. Dissipation, Watts	@ Max. Plate Input	@ 50% Max. Plate Input				
●GL-6166	4	5.0	175	6600	2.75	18000	10000	30	220 @ 90%	10	.....	C-1000	104J51-103J162
◆GL-6182	4	6.3*	15	9000	1.6	13000	7000	930	.....	20	.....	C-1000	
●GL-6183	4	6.3*	24	4000	0.7	2500	1500	900	.....	10	.....	C-1000	
GL-6201	6	12.6*	0.15	300	0.010	.....	2.5	.....	.....	60	5500	G-1	
●GL-6283	4	6.3*	3.6	1600	0.300	350	200	900	.....	10	.....	C-1000	
GL-8000	3	10	4.5	2500	0.300	750	175	30	100	16.5	.....	C-1000	
◆GL-8002	3	16	38	3500	1.00	3000	1200	150	300	21.5	.....	C-1000	
●GL-8002-R	3	16	38	3500	1.00	3000	1200	120	200	21.5	.....	C-1000	
GL-8005	3	10	3.25	1250	0.200	240	75	60	100 @ 60%	20	.....	G-1	
GL-8025-A	3	6.3	1.92	1500	0.200	300	85	500	600 @ 70%	18	.....	C-1000	
GL-9001	5	6.3	0.15	1000	0.080	50	30	.....	.....	1400	.....	G-1	
GL-9002	4	6.3	0.15	250	0.002	.....	0.5	.....	.....	2200	.....	G-1	
GL-9003	5	6.3	0.15	250	0.006	.....	1.6	.....	.....	1800	.....	G-1	

Figures in bold type are ICAS ratings.

\* Heater-type cathode.

† Lower prices apply when new tube is purchased and radiator in good condition is returned, prepaid, to Schenectady.

\*\* Credit for return, prepaid, to Schenectady—carton \$5.00, tube \$10.00.

‡ Single- or two-phase filament. Voltage is per unit.

§ Single-, three-, or six-phase filament. Voltage is per strand, current is per terminal.

† Per section.

‡ Single- or three-phase filament. Voltage is per strand, current is per strand.

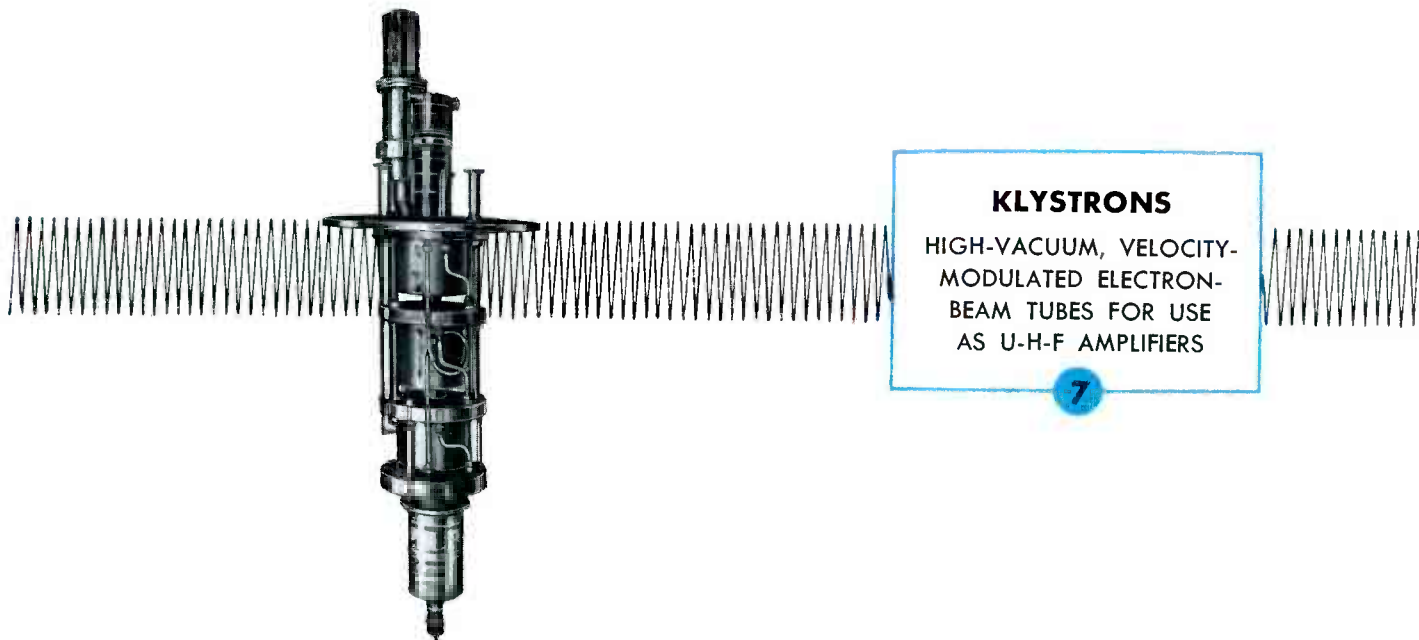
# Voltage to neutral.

● Forced-air-cooled type.

◆ Water-cooled type.

## GASKETS FOR WATER-COOLED TYPES

Cat. No.	Used on Tube Type	Cat. No.	Used on Tube Type
5182028P1	GL-862-A, GL-880, GL-898-A	5182028P8	GL-889-A
5182028P2	GL-858, GL-893-A	5182028P10	GL-8002
5182028P3	GL-214, GL-207, GL-891, GL-892	5182028P11	GL-8009

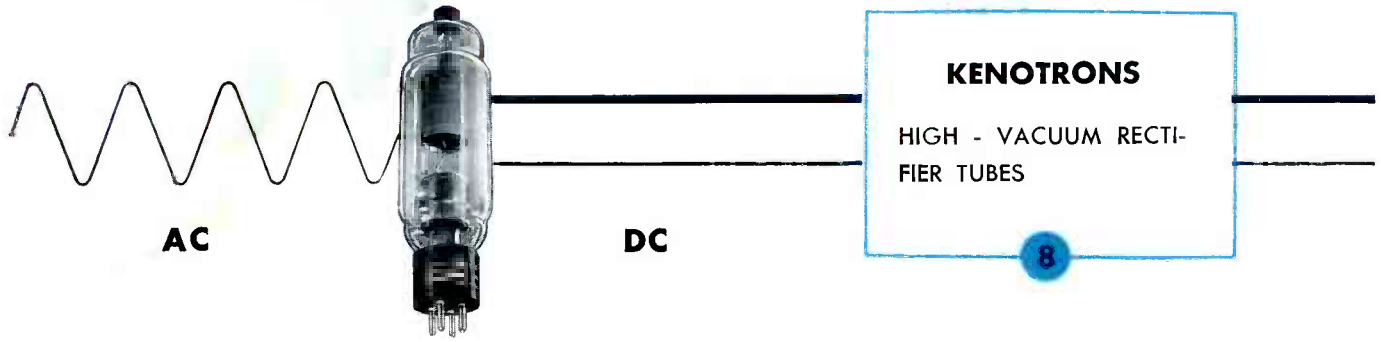


## KLYSTRONS

HIGH-VACUUM, VELOCITY-MODULATED ELECTRON-BEAM TUBES FOR USE AS U-H-F AMPLIFIERS

7

Type No.	Cathode		Frequency Range Megacycles	Max. Beam Voltage Kilovolts	Max. Beam Current Amperes	Driving Power		Power Output	
	Volts	Amp				Sync. Level Watts	Pedestal Level Watts	Sync. Level Kilowatts	Pedestal Level Kilowatts
GL-6237	6.3	38	470-530	18	3.25	60	28.5	12	6.75
GL-6238	6.3	38	530-590	18	3.25	60	28.5	12	6.75
GL-6239	6.3	38	590-656	18	3.25	60	28.5	12	6.75
GL-6240	6.3	38	656-728	18	3.25	60	28.5	12	6.75
GL-6241	6.3	38	728-806	18	3.25	60	28.5	12	6.75
GL-6242	6.3	38	806-890	18	3.25	60	23.5	12	6.75



Type No.	No. of Electrodes	CATHODE		PLATE			Voltage Drop Volts	Average Dissipation Watts	Warranty	Tube Socket Cat. No.
		Volts	Amp	Max. Inv. Volts	Max. Amp	Average Amp				
KC-1	2	9.0	32.0	100000	1.0	.....	.....	.....	C-1000	103J523
GL-2B22	2	6.3	0.75	100	0.7	.....	0.020	.....	C-1000	103J164-103J58
GL-2B23	2	6.3	0.3	150	0.030	.....	.....	.....	C-1000	103J164-103J58
2X2-A	2	2.5	1.75	12500	0.100	.....	.....	.....	G-1	103J172
KC-3	2	12.5	32.0	150000	1.0	.....	.....	.....	C-1000	103J523
GL-3B24-W	2	2.5	3	20000	0.150	0.03	.....	.....	C-1000	103J516-103J165
		5.0	3	20000	0.300	0.06	.....	.....		104J50-102J305
5R4-GY	3	5.0	2.0	2800	0.650	.....	.....	.....	G-1	103J175-103J164 103J58
GL-217-C	2	10	3.25	7500	0.600	.....	210	.....	C-1000	104J51-103J162
GL-218	2	11	14.75	50000	0.750	.....	.....	.....	C-1000	
FP-400	2	4	2.25	125	0.025	.....	.....	.....	C-1000	103J516-103J165 104J50-102J305
GL-411	2	10	14.5	100000	0.300	.....	.....	500	C-1000	103J523
GL-836	2	2.5*	5.0	5000	1.0	0.25	45	.....	G-1	103J516-103J165- 104J50-102J305
GL-1616	2	2.5	5.0	5500	0.800	0.13	75	.....	G-1	103J516-103J165- 104J50-102J305
GL-5625/KC-4	2	20	24.5	150000	1.0	.....	4000	750	C-1000	103J523
GL-5726	2†	6.3	0.30	330	0.054	.....	.....	.....	G-1	
GL-5741/FP-85-A	2	10	5.0	20000	0.100	0.020	.....	.....	C-1000	103J516-103J165- 104J50-102J305
GL-5896	4	6.3*	0.3	460	0.350	0.060	4.5	.....	G-1	
GL-5973	2	16.0	19.1	75000	5.0	.....	.....	850	C-1000	103J523
GL-6087	3	5.0*	2.0	1400	1.7	0.375	50	.....	G-1	103J58-103J164
GL-6202	3	6.3*	0.6	1250	1.45	0.200	22	.....	G-1	103J172
GL-6203	3	6.3*	0.9	1250	1.8	0.270	22	.....	G-1	
GL-6215	2	1.25	0.2	18000	0.030	0.008	56	.....	G-1	103J58-103J164
GL-8013-A	2	2.5	5.0	40000	0.150	0.020	.....	12	C-1000	103J305-103J165- 103J516-104J50
GL-8020	2	{ 5.0 5.8Δ	6.0	{ 40000 12500Δ	{ 0.750 2Δ	0.100	200	.....	C-1000	{ 103J516-103J165 104J50-102J305
GL-9004	2	6.3	0.15	117	.....	.....	.....	.....	G-1	
GL-9005	2	3.6	0.165	117	.....	.....	.....	.....	G-1	

\*Heater-type cathode.

†Per section.

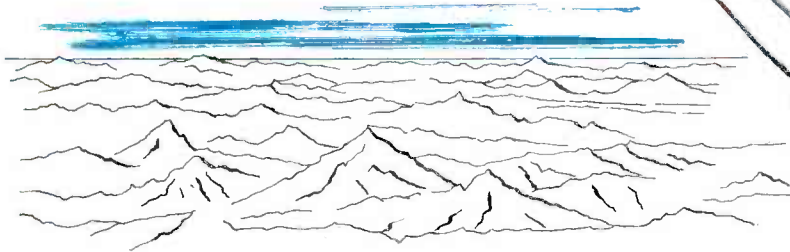
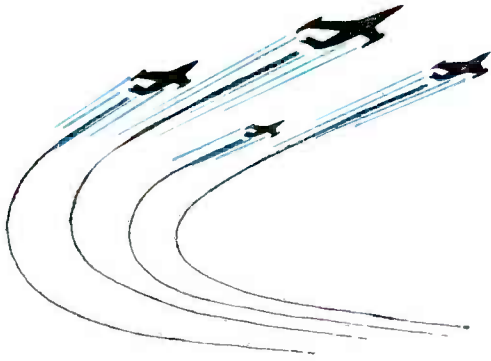
ΔSurge-limiting diode operation.



## TELEVISION CAMERA TUBES

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IMAGE ORTHICONS Type	CATHODE		Anode Voltage	Photocathode Voltage	Image Size Inches	Warranty
	Voltage	Current Amp				
GL-5820	6.3	0.6	1650	-550 -550	1.6 Diagonal 1.6 Diagonal	
GL-5826	6.3	0.6	1500			
Iconoscope GL-1850-A	6.3	0.6	Signal-Electrode Voltage 1200	Electrostatic Focusing, Magnetic Deflection		



## HIGH-ALTITUDE DEVICES

VACUUM CAPACITORS  
VACUUM SWITCHES

14

15



### VACUUM CAPACITORS

Type No.	Peak Voltage, Volts A-c, D-c or R-f	Capacitance Micromicrofarads		Ambient Temperature		Warranty
		±5%	Code★	Min.	Max.	
GL-1L21	7500	12	B	-40	+65	G-1
GL-1L22	16000	25	C	-40	+65	G-1
GL-1L23	16000	50	D	-40	+65	G-1
GL-1L24	16000	100	E	-40	+65	G-1
GL-1L25	16000	12	B	-40	+65	G-1
GL-1L31	16000	6	A	-40	+65	G-1
GL-1L32	7500	6	A	-40	+65	G-1
GL-1L33	7500	100	E	-40	+65	G-1
GL-1L36	7500	25	C	-40	+65	G-1
GL-1L38	7500	50	D	-40	+65	G-1

★The code letter is permanently stamped on each capacitor for ease of identification. The coded end of the capacitor is connected to the inner cylinder. It is advisable to connect the unmarked end to ground potential to afford shielding from stray capacitances.

### VACUUM SWITCHES

Type No.	Max. Hold-off Voltage, Peak	Max. Interrupting Rating, Amperes	Warranty
GL-5626/FA-15	3000	10	G-1
GL-5627/FA-6	700	10	G-1



## VACUUM GAGES

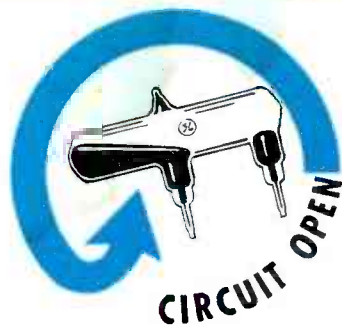
TO MEASURE GAS PRES-  
SURE

16

Type No.	Volts	Range in Microns	Warranty
GL-5628/FA-13	6	0-600	H-12
GL-5629/FA-14	6	§	H-12

§Used with FA-13 to compensate for temperature and voltage changes.





## KON-NEC-TOR

### MERCURY SWITCHES

17

TYPE	Switching Action	Voltage Rating	Current Rating *		Max. Height	Max. Length	Max. Diameter	Mounting Clip	Total Movement Required in Degrees
			A-C	D-C					
1-1KR1 1-2KR1	SPST N. Open SPST N. Closed	† { 125 250 }	{ 0.3 0.15 }	{ 0.15 0.08 }	—	2¼	0.562	4839	Magnetically Actuated
1-15KR0	SPST	† { 8 125 }	{ 5 0.100 }	{ 5 0.100 }	—	1½	0.300	—	14
2-25KR1 2-36KR1	SPST SPDT	† { 125 250 550 }	{ 5 3 1 }	{ 3 1.5 ** }	— —	2½ 2¾	0.656 0.625	4839 6602	14
2-33KR1	SPST	† { 125 250 }	{ 3 2 }	{ 2 1 }	—	1⅞	0.531	6601	15
2-52KR1	SPST	† { 8 125 250 }	{ 5 2 1 }	{ 5 1 0.5 }	—	1½	0.406	6601	15
4-19KR1 4-21KR1 4-24KR1 4-40KR1	SPDT SPST SPDT SPST	† { 125 250 250 }	{ 15 10 8 }	{ 10 5 ** }	1 4/8 1 4/8 1 4/8 1 5/8	1½ 1½ 2 1/2 2 3/4	0.480 0.480 0.480 0.625	4838 4838 4838 4839	30 20 20 15
7-19KR1 7-21KR1 7-24KR1	SPDT SPST SPDT	† { 125 250 550 }	{ 25 20 15 }	{ 20 10 ** }	1 5/7 1 5/7 1 5/7	2 1/2 2 1/2 3 1/8	0.550 0.550 0.550	4839 4839 4839	20 15 20

\*Non-inductive circuit (maximum).

\*\*Not recommended for this service.

†Ratings following this bracket apply to all types listed in this individual group.

### MOUNTING CLIPS

Because proper mounting is essential to the satisfactory performance of mercury switches, special tempered, cadmium-plated steel mounting clips have been designed. Although these clips are sufficiently flexible to hold securely the somewhat variable diameters

characteristic of glass tubes, the use of a drop of adhesive at each clip contact is recommended to insure the switch remaining in the correct mounting plane. These clips should be ordered separately in the quantity required by the individual switch-type.



No. 4839

For 4-40, 7-19, 7-21, & 7-24—2 required per switch. For 2-25—1 required per switch.



No. 6602

For 2-36—2 required per switch.



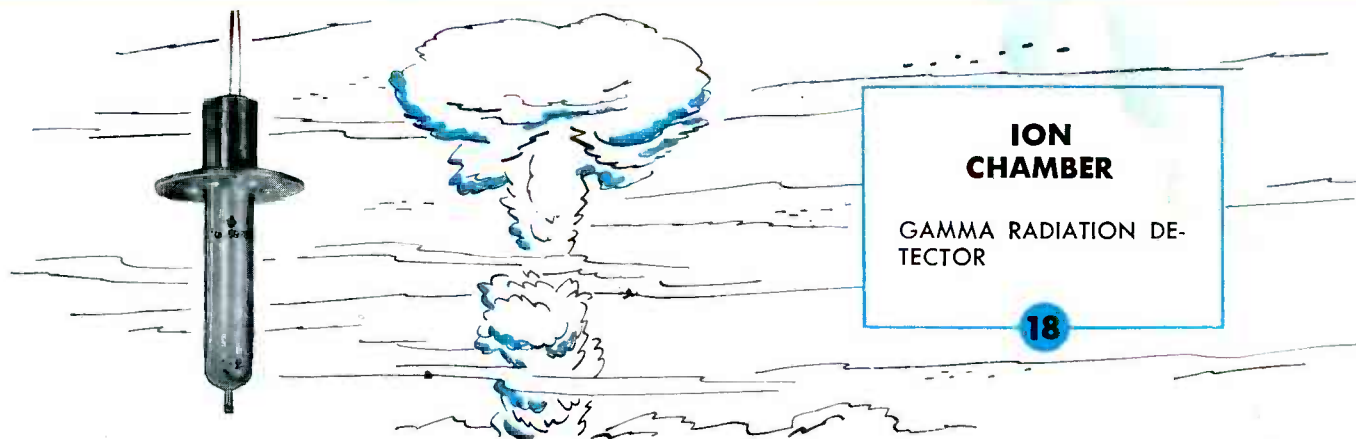
No. 6601

For 2-33—1 required per switch.



No. 4838

For 4-19, 4-21, & 4-24—2 required per switch.



Type No.	Sensitivity to Gamma Radiation*	Maximum Operating Voltage.	Maximum Altitude	Ambient Temperature
GL-5978	$1.3 \times 10^{-10}$ Amperes per Roentgen per hour	300	50,000 ft.	-55 to +100 C

\* From source containing radium in equilibrium with its decay products at intensity of 2 roentgens per hour.

## WARRANTIES AND ADJUSTMENTS

### GENERAL

The numerous types of General Electric industrial and transmitting tubes and vacuum devices included in the various General Electric classifications cover a wide range of applications. In addition, our tubes and vacuum devices are items having fairly definite life expectancy which varies to some degree depending upon the application made. These factors, coupled with an earnest desire that our customers receive satisfactory service from General Electric products, make it extremely difficult to fashion a blanket adjustment policy to cover all situations. Consequently we have devised the following warranties, each incorporating a definite adjustment policy, designed to fit specific classes of tubes and applications. As a result, each type of General Electric industrial and transmitting tube and vacuum device is sold under a specific warranty.

The liability of the General Electric Company under these warranties is limited to replacing or issuing credit for defective tubes as set forth below. In no case will General Electric Company be liable for consequential damage.

The word "Tube," as used hereinafter, shall also denote vacuum device.

The following warranties do not extend to any General Electric industrial or transmitting tubes which, in the opinion of General Electric Company representatives, have been subjected to misuse, abuse, neglect, accident, improper installation or application; or alteration or negligence in use, storage, transportation, or handling.

We reserve the right, however, to replace on a type-for-type basis all tubes found to be subject to in-warranty adjustment. In such cases, a charge will be made to the customer, based on the selling price of the tube at the time of adjustment, for the expended life of the defective tube in accordance with the adjustment made.

Final determination as to whether a tube is subject to adjustment rests with the General Electric Company.

### WARRANTIES

#### C-1000 Warranty

1. The tube is warranted against defects in workmanship and materials when used within published ratings. The foregoing is in lieu of any other warranty express, implied or statutory. If such defects appear before 1000 hours of service and "Adjustment Procedure" has been followed, proportional credit, based on the selling price of the tube at the time adjustment is made, will be given for the difference between elapsed life in hours at failure and 1000 hours as follows:

- a. Full credit at or before 50 hours of service.
- b. Subsequent to 50 hours of service, partial credit will be based on the difference between elapsed life in hours at failure and 1000 hours.
2. No adjustment will be made after 1000 hours of service.
3. This warranty expires one year from the date of the original sale to the ultimate user.

#### G-1 Warranty

1. The tube is warranted against defects in workmanship and materials when used within published ratings. The foregoing is in lieu of any other warranty express, implied or statutory. If such defects appear within one month after the tube is placed in service and "Adjustment Procedure" has been followed, full credit, based on the selling price of the tube at the time adjustment is made, will be given.

2. No adjustment will be made after one month of service.

3. This warranty expires one year from the date of the original sale to the ultimate user.

#### H-12 Warranty

1. The tube is warranted against defects in workmanship and materials when used within published ratings. The foregoing is in lieu of any other warranty express, implied or statutory. If such defects appear within one year after the tube is placed in service and "Adjustment Procedure" has been followed, proportional credit, based on the selling price of the tube at the time adjustment is made, will be given for the difference between the elapsed life in months at failure and one year as follows:

a. Full credit at or before 15 days of elapsed service.

b. Subsequent to 15 days of service, partial credit will be based on the difference between the elapsed life in months at failure and one year. Any period of 16 days or more will be considered a full month of life. Any period of 15 days or less will be deducted from the tube life.

2. Tube life under this warranty is the elapsed time in months from the time when the tube is first placed in service until failure. A tube may be held continuously as a spare for a maximum of six months, after which the tube life will automatically begin. Once a tube has been installed in regular service, the life will be considered as continuous even though the tube may be removed and used as a spare.

3. No adjustment will be made after one year of service.

4. This warranty expires 18 months from the date of the original sale to the ultimate user.

#### H-12 (3000) Warranty

1. The tube is warranted against defects in workmanship and materials when used within published ratings. The foregoing is in lieu of any other warranty express, implied or statutory. If such defects appear within one year after the tube is placed in service (or 3000 hours of service, whichever occurs first) and "Adjustment Procedure" has been followed, proportional credit, based on the selling price of the tube at the time adjustment is made, will be given for the difference between the elapsed life in months at failure and one year as follows:

a. Full credit at or before 15 days of elapsed service.

b. Subsequent to 15 days of elapsed service, partial credit will be based on the difference between the elapsed life in months at failure and one year or 3000 hours of service (whichever occurs first).

Any period of 16 days or more will be considered a full month of life. Any period of 15 days or less will be deducted from the tube life.

2. Tube life under this warranty is the elapsed time in months from the time when the tube is first placed in service until failure. A tube may be held continuously as a spare for a maximum of six months, after which the life will automatically begin. Once a tube has been installed in regular service, the life will be considered continuous even though the tube may be removed and used as a spare.

3. No adjustment will be made after one year or 3000 hours of service, whichever occurs first.

4. This warranty expires 18 months from the date of the original sale to the ultimate user.

### H-24 Warranty

1. The tube is warranted against defects in workmanship and materials when used within published ratings. The foregoing is in lieu of any other warranty express, implied or statutory. If such defects appear within two years after the tube is placed in service and "Adjustment Procedure" has been followed, proportional credit, based on the selling price of the tube at the time adjustment is made, will be given for the difference between the elapsed time in months at failure and two years as follows:

a. Full credit at or before 15 days of elapsed service.

b. Subsequent to 15 days of elapsed service, partial credit will be based on the difference between the elapsed life in months at failure and two years.

Any period of 16 days or more will be considered a full month of life. Any period of 15 days or less will be deducted from the tube life.

2. Tube life under this warranty is the elapsed time in months from the time a tube is first placed in service until failure. A tube may be held continuously as a spare for a maximum of one year. Once a tube has been installed in regular service the life will be considered as continuous, even though the tube may be removed and used as a spare.

3. No adjustment will be made after two years of service.

4. This warranty expires 36 months from the date of the original sale to the ultimate user.

### H-36 Warranty

1. The tube is warranted against defects in workmanship and materials when used within published ratings. The foregoing is in lieu of any other warranty express, implied, or statutory. If such defects appear within three years after the tube is placed in service and "Adjustment Procedure" has been followed, proportional credit, based on the selling price of the tube at the time adjustment is made, will be given for the difference between the elapsed time in months at failure and three years as follows:

a. Full credit at or before 15 days of elapsed service.

b. Subsequent to 15 days of elapsed service, partial credit will be based on the difference between the elapsed life in months at failure and three years.

Any period of 16 days or more will be considered a full month of life. Any period of 15 days or less will be deducted from the tube life.

2. Tube life under this warranty is the elapsed time in months from the time a tube is first placed in service until failure. A tube may be held continuously as a spare for a maximum of one year. Once a tube has been installed in regular service, the life will be considered as continuous, even though the tube may be removed and used as a spare.

3. No adjustment will be made after three years of service.

4. This warranty expires 48 months from the date of the original sale to the ultimate user.

### ADJUSTMENTS FOR LOSS OR DAMAGE IN TRANSIT

To assure satisfactory operation, each tube should be tested immediately upon receipt by the customer, preferably in equipment of the same type and rating as that in which it is to be used. If a tube fails to operate successfully, filing of a claim against the carrier should be given immediate attention. Such a procedure

will assure that tubes damaged in transportation are not carried in stock.

Since all industrial and transmitting tubes are shipped F.O.B. Point of Shipment, any loss or damage in transit must be adjusted between the carrier and the buyer. In cases of concealed loss or damage, carriers generally require (1) notification within fifteen days after delivery and (2) a joint inspection of packages and contents.

### ADJUSTMENT PROCEDURE

#### A. GENERAL

1. Before any action can be taken on an adjustment, a service report must be filled out in complete detail for each tube involved and forwarded to the proper location as follows:

a. Service reports for Industrial and Transmitting tubes should be mailed to:

General Electric Company  
Commercial Service Section  
Tube Department, Building 267  
Schenectady 5, New York

b. Service reports for Cathode-ray tubes should be mailed to:

General Electric Company  
Building 6  
Electronics Park  
Syracuse, New York

2. When tubes are returned for adjustment they should be identified by some permanent marking such as a securely tied tag, which will enable them to be identified with their respective service reports.

3. We will accept transportation charges on all tubes returned as follows:

a. Tubes having a list price of less than \$50.00 each should be returned via Parcel Post (if within Parcel Post weight and size limitations).

b. Tubes having a list price in excess of \$50.00 each should be returned via Railway Express. Declare full value.

c. Transportation charges in excess of those allowed above will be at the shipper's expense. In addition, we will require the customer to reimburse us for inbound transportation on tubes found not subject to in-warranty adjustment. Serviceable tubes, not eligible for in-warranty adjustment, will be returned immediately, transportation collect to the customer.

4. Returned tubes which are defective and not eligible for in-warranty adjustment will be destroyed unless instructions to the contrary are received with the tubes.

5. Repairs required by reason of causes beyond the responsibility of the General Electric Company will be made and billing rendered to cover the cost of such repairs.

6. All tubes returned for examination and adjustments should be packed as carefully as when originally received since damage sustained in return shipment will make a proper examination and adjustment impossible.

7. We can accept no billing for packing, inspection or labor charges in connection with tubes returned for adjustment.

#### B. USERS

1. Users may return defective tubes to any franchised General Electric distributor of industrial and transmitting tubes for handling as described above.

2. Service report form, obtainable from any franchised General Electric distributor of industrial and transmitting tubes, must be completely filled out by the user and returned with the tube in order to obtain adjustment consideration.

### PERMISSION FOR DISMANTLING

In returning a tube for test and examination, the customer gives permission to the General Electric Company to open the tube and to dissect its structure in case such procedure is considered necessary for complete examination.

THESE ADJUSTMENT POLICIES ARE SUBJECT TO CHANGE WITHOUT NOTICE

TUBE DEPARTMENT  
GENERAL ELECTRIC COMPANY  
SCHENECTADY 5, N. Y.

### INTERCHANGEABILITY OF INDUSTRIAL AND TRANSMITTING TUBES

For information on interchangeability of Industrial and Transmitting tubes, consult your G-E Electronic Tube Distributor or write to the Tube Department, General Electric Company, Schenectady 5, N. Y.

**INDUSTRY  
and  
COMMUNICATIONS  
for**

**TUBES**

*Electronic*



**G-E ELECTRONIC TUBES  
ARE AT WORK TODAY IN**

**All types of Industrial Electronic Applications**

**All types of Government Applications**

**FM Communication Equipment**

**AM and FM Broadcast**

**Television**

**Police Radio**

**Carrier Current**

**Amateur Radio**

**TUBE DEPARTMENT**

**GENERAL  ELECTRIC**

**Schenectady 5, N. Y.**