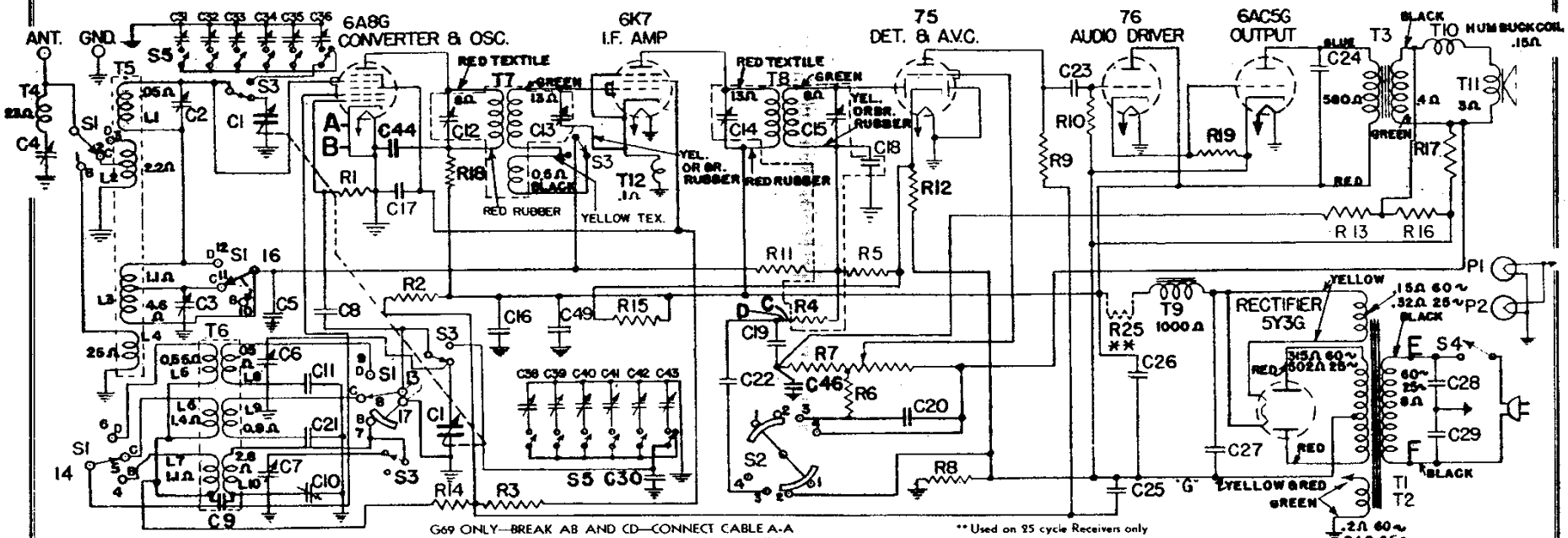
General Electric Co.

	Model: G61	Chassis:	Year: Pre August 1939
	Power:	Circuit:	IF:
	Tubes:		
	Bands:		

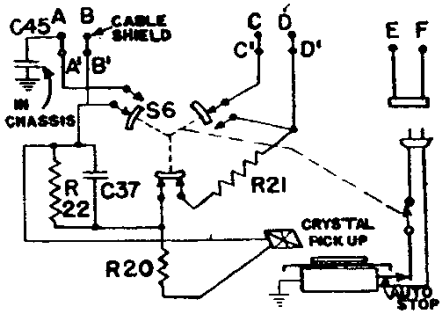
Resources
Riders Volume 10 - GE 10-5, 6
Riders Volume 10 - GE 10-7
Riders Volume 10 - GE 10-8
Riders Volume 10 - GE 10-10

GENERAL ELECTRIC CO.

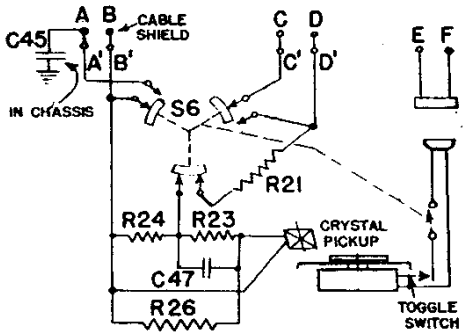
MODELS G61, G66, G68, G69
Schematic



G69 ONLY—BREAK AB AND CD—CONNECT CABLE A-A B-B' C-C' AND D-D' AS SHOWN. CONNECT *C48 FROM POINT G TO GROUND.



Model G-68



Model G-69

SYMBOL	DESCRIPTION
*C1	450 mmf. tuning condenser
C2, C3, C6, C7	Ant. and Osc. trimmer capacitor
C4	Wave trap trimmer
C5	.1 mfd. paper capacitor
C8	50 mmf. mica capacitor
C9	.005 mfd. paper capacitor
C10	300–650 mmf. padder capacitor
C11	4300 mmf. mica capacitor
C16	.1 mfd. paper capacitor
C17	.05 mfd. paper capacitor
C18	47 mmf. mica capacitor
C19, C20	.003 mfd. paper capacitor
C21	1500 mmf. mica capacitor
C22	.0015 mfd. paper capacitor
C23	.005 mfd. paper capacitor
C24	.02 mfd. paper capacitor
C25, C26, C27	8 mfd., 8 mfd., 12 mfd., dry electrolytic capacitor
C28, C29	.01 mfd. line capacitor
C30	20 mmf. compensating capacitor
C31–C36	Keyboard tuning trimmers
C37	470 mmf. mica capacitor
C38–C43	Keyboard tuning trimmers
C44, C45	.05 mfd. paper capacitor
C46	100 mmf. mica capacitor
C47	820 mmf. mica capacitor
*C48	10 mfd. dry electrolytic capacitor
C49	.1 mfd. paper capacitor
R1	47,000 ohm carbon resistor

SYMBOL	DESCRIPTION
R2	6,800 ohm carbon resistor
R3	22,000 ohm carbon resistor
R4	47,000 ohm carbon resistor
R5	220,000 ohm carbon resistor
R6	180,000 ohm carbon resistor
R7	2 megohm volume control
R8	270 ohm carbon resistor
R9	220,000 ohm carbon resistor
R10	1.0 megohm carbon resistor
R11	2.2 megohm carbon resistor
R12	150 ohm carbon resistor
R13	2.2 megohm carbon resistor
R14	3300 ohm carbon resistor
R15	33,000 ohm carbon resistor
R16	47 ohm carbon resistor
R17	22 ohm carbon resistor
R18	6400 ohm carbon resistor
R19	22,000 ohm carbon resistor
R20, R21	47,000 ohm carbon resistor
R22	100,000 ohm carbon resistor
R23, R24	220,000 ohm carbon resistor
**R25	470 ohm carbon resistor
R26	220,000 ohm carbon resistor
S1	Band change switch
S2	Tone control
S6	Phono-radio switch
T1, T2	Power transformer
T3	Output transformer
T4	Wave trap coil

Fig. 2. Schematic Diagram

Models G-61 and G-66
Rating A ..... 115–125 volts, 50–60 cycles, 70 watts
Rating C ..... 115–125 volts, 25–40 cycles, 75 watts

Models G-68 and G-69
Rating A-6 ..... 115–125 volts, 60 cycles, 85 watts
Rating A-5 ..... 115–125 volts, 50 cycles, 100 watts
Rating C-2 ..... 115–125 volts, 25 cycles, 100 watts

Tuning Frequency Range
Band "B" ..... 535– 1600 KC
Band "C" ..... 1500– 5700 KC
Band "D" ..... 5700–18000 KC

Intermediate Frequency ..... 455 KC

Loud-speaker—Electrodynamic

Model	G-61	G-66	G-68	G-69
Outside Cone Diameter	6½ in.	12 in.	12 in.	12 in.
Voice Coil Impedance	3.5 ohms at 400 cycles			
Field Coil Resistance	880 Ohms (cold)			

Phonograph

Model	G-68	G-69
Type Pick-up	Crystal	Crystal
Impedance (pick-up)	80,000 ohms at 1000 cycles	
Record Capacity	Manual	8–10 in., 7–12 in.
Turntable Speed	78 R.P.M.	78 R.P.M.

Electrical Power Output
Undistorted ..... 3.0 watts
Maximum ..... 5.0 watts

Tone Control 4-position

GENERAL ELECTRIC CO.

MODELS G61,G66,G68,G69
Socket,Trimmers,Chassis
Phono,Connections,Dial

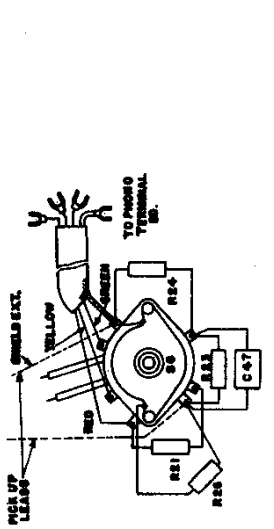


Fig. 1. Phonograph Connections

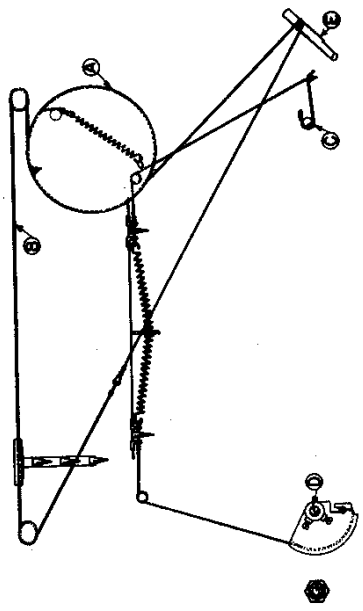


Fig. 5. Dial Mechanism

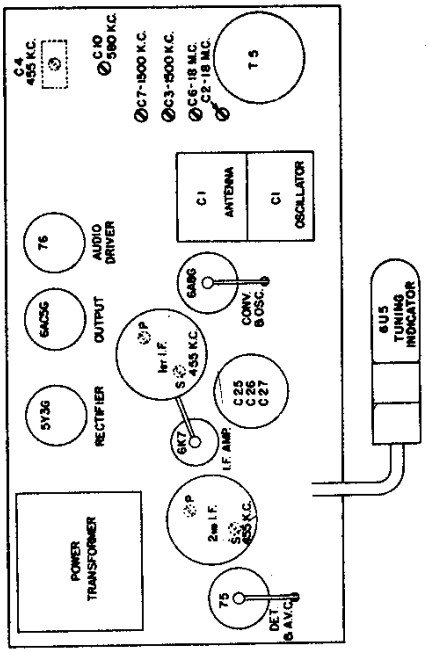
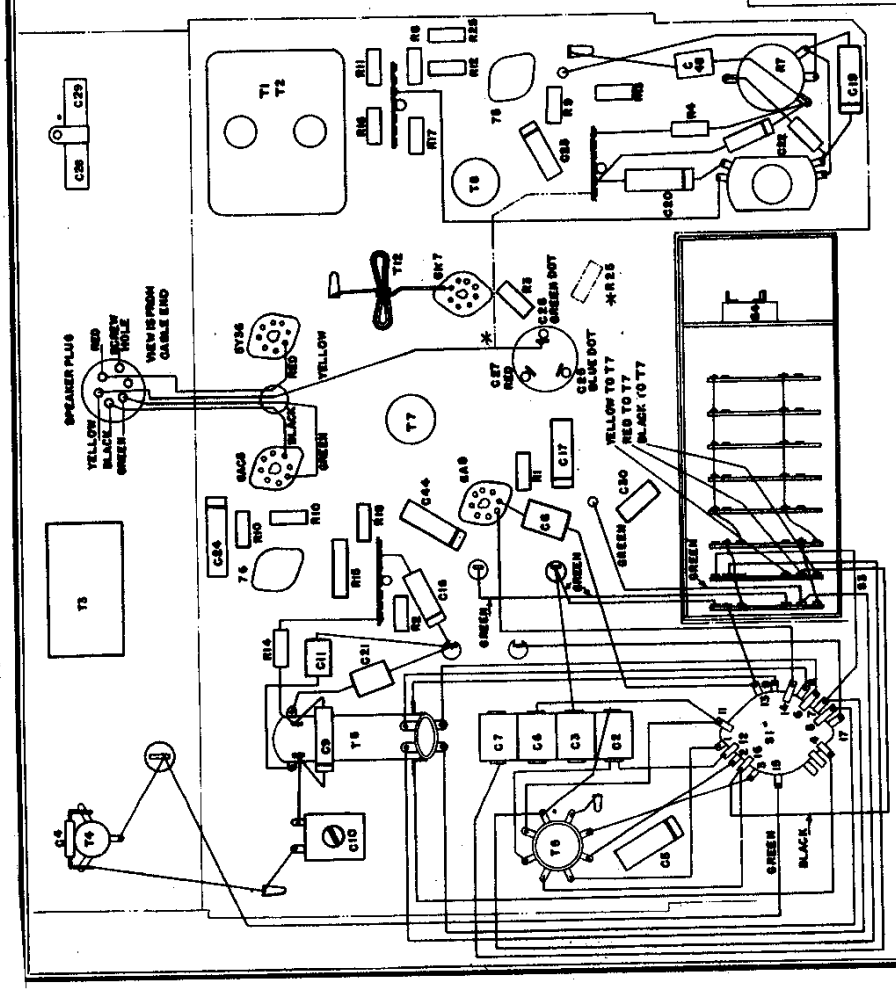
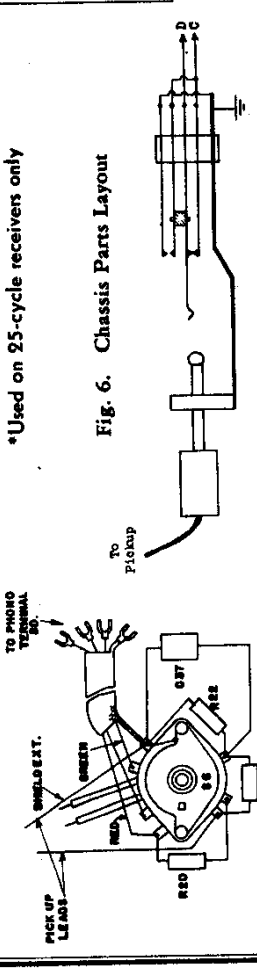


Fig. 4. Trimmer Location



*Used on 25-cycle receivers only

Fig. 6. Chassis Parts Layout



MODELS G61, G66, G68, G69
Voltage, Alignment, Coils
Parts List

GENERAL ELECTRIC CO.

ALIGNMENT PROCEDURE

I. F. ALIGNMENT WITH OSCILLOSCOPE

Band Switch Setting	Input Freq.	Point of Input	Dummy Antenna	Trimmer	Comments
1. Band "B"	455 K.C. Sweep	I.F. Grid	.05 Mfd. or Larger	2nd I.F. Sec. (C-15) 2nd I.F. Pri. (C-14)	Gang condenser plates closed—"manual" key depressed—connect audio input of oscilloscope to ground and to the junction of C-19 and R-4 of the 2nd I.F. transformer. Adjust trimmers in order mentioned for a single symmetrical curve of maximum amplitude. The resultant curve is shown in Fig. 3.
2. Band "B"	455 K.C. Sweep	Converter Grid	.05 Mfd. or Larger	1st I.F. Sec. (C-13) 1st I.F. Pri. (C-12)	
3. Band "B"	455 K.C. Sweep	Antenna Post	250 Mmf. 200 ohms	Wave Trap Trimmer (C-4)	Adjust trimmer for minimum amplitude.

I. F. ALIGNMENT WITH OUTPUT METER

Band Switch Setting	Input Freq.	Point of Input	Dummy Antenna	Trimmer	Comments
1. Band "B"	455 K.C. with Modulation	I.F. Grid	.05 Mfd. or Larger	2nd I.F. Sec. (C-15) 2nd I.F. Pri. (C-14)	Gang Condenser plates closed—connect output meter across voice coil—keep input signal low and volume control on as far as possible. Adjust all trimmers for maximum output.
2. Band "B"	455 K.C. with Modulation	Converter Grid	.05 Mfd. or Larger	1st I.F. Sec. (C-13) 1st I.F. Pri. (C-12)	
3. Band "B"	455 K.C. with Modulation	Antenna Post	250 Mmf. 200 ohms	Wave Trap Trimmer (C-4)	Adjust trimmer for minimum output.

R. F. ALIGNMENT

Band Switch Setting	Input Freq.	Point of Input	Dummy Antenna	Trimmer	Comments
1. Band "B"					Close gang plates—adjust pointer to first line at left end of tuning scale.
2. Band "D"	18 M.C. with Modulation	Antenna Post	250 Mmf. 200 ohms	Osc. (C-6) Ant. (C-2)	Connect output meter across voice coil—tone control on "Bass" position. The image of any "D" band signal should be heard 930 K.C. below signal input when (C-6) is on proper peak. Example: 15 M.C. image—14.09 M.C. Peak (C-2) while rocking the gang condenser.
3. Band "C"	No adjustments necessary.				
4. Band "B"	1500 K.C. with Modulation	Antenna Post	250 Mmf. 200 ohms	Osc. (C-7) Ant. (C-3)	Peak trimmers for maximum output with a low input signal.
5. Band "B"	580 K.C. with Modulation	Antenna Post	250 Mmf. 200 ohms	Osc. Padder (C-10)	Adjust padder for maximum output in vicinity of 580 K.C. while rocking the gang condenser.
6. Band "B"	1500 K.C. with Modulation	Antenna Post	250 Mmf. 200 ohms	Osc. (C-7) Ant. (C-3)	Retrim for maximum output with a low input signal.

SOCKET VOLTAGES

Tube No.	6A8G	6K7	75	76	6AC5G	5Y3G
Plate to Gnd. Volts	Conv.-230 Osc.-180	250	*110	250	230	310/310 RMS
Screen to Gnd. Volts	87	87	...	...	...	
Cathode to Gnd. Volts	0	0	3.0	8.0	4.5	315
Cathode Current MA	11.0	7.3	1.3	6.1	33.5	70
Filament Volts	6.3	6.3	6.3	6.3	6.3	5.2

*A-c line voltage 125—no signal input. Dial pointer set at 550 KC on "B" band.

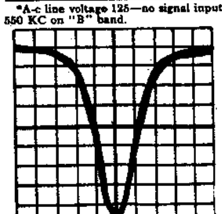


Fig. 3. Over-all I.F. curve taken on G-E Oscilloscope OFM-1

Models G-61, G-66, G-68, and G-69 are three-band AC operated receivers employing six General Electric Pre-tested tubes as described above, in a superheterodyne circuit. They incorporate a simplified trimmer tuned "Touch Tuning" system allowing a set-up of six stations for automatic tuning. Other features of design include IF wave trap, degenerative feedback and an improved dustproof electro-dynamic speaker.

In addition to the above features Models G-68 and G-69 have facilities for the reproduction of phonograph recordings. Model G-68 has a manually operated phonograph mechanism, while the Model G-69 is designed to play either 10-inch or 12-inch records on one side, automatically.

Coil System

T-5 and T-6 are the antenna and oscillator transformers respectively for the "B," "C," and "D" bands. All Band Switch terminals are numbered in Fig. 2 and Fig. 6 to facilitate in service by showing common points on the schematic diagram, Fig. 2 and the pictorial wiring diagram, Fig. 6.

The following table shows the coils in use for various positions of the band change switch.

Band Switch Position	Antenna Primary	Antenna Secondary	Oscillator Grid Coil	Oscillator Plate Coil	Remarks
Band "B"	L-4	L-1+L-3	L-10	L-7	
Band "C"	Part of L-2	L-1+Part of L-3	L-9	L-6	Part of L-3 shorted. L-10 shorted
Band "D"	L-2	L-1	L-8	L-5	L-9, L-10 shorted. L-3 shorted
Automatic Tuning	L-4	L-1+L-3	L-10	L-7	C-1 removed. Tuned by fixed trimmers

Loud-speaker

12-inch speaker—To center the voice coil, remove dust cover by softening with acetone. Loosen the two clamping screws and place three 1 in. by ¼ in. by 0.010 in. paper or celluloid strips equally spaced around pole piece for clearance—then tighten clamping screws. Remove strips and cement the dust cap back in place with Glyptal cement.

Stock No.	Description	List Price
	CHASSIS ASSEMBLY	
*RB-036	BOARD—Antenna—ground terminal board	$0.10
*RB-046	BOARD—Terminal board (near 75 tube)	.15
*RB-063	BOARD—Terminal board (near power trans.)	.10
*RB-079	BOARD—Phono-terminal board	.10
RC-006	CAPACITOR—.0015 mfd., 600 V. paper (C-22)	.25
*RC-022	CAPACITOR—.005 mfd., 600 V. paper (C-9, C-33)	.25
*RC-046	CAPACITOR—.05 mfd., 600 V. paper (C-34)	.30
*RC-065	CAPACITOR—.003 mfd., 600 V. paper (C-19, C-20)	.25
*RC-092	CAPACITOR—.05 mfd., 600 V. paper (C-17, C-44, C-45)	.30
*RC-104	CAPACITOR—.1 mfd., 600 V. paper (C-5, C-16, C-49)	.30
*RC-205	CAPACITOR—50 mmf., mica (C-8)	.35
RC-216	CAPACITOR—47 mmf., mica (C-18)	.25
RC-230	CAPACITOR—30 mmf. mica compensator (C-30)	.35
*RC-234	CAPACITOR—100 mmf. mica (C-48)	.25
RC-294	CAPACITOR—470 mmf., mica (C-37)	.30
*RC-310	CAPACITOR—680 mmf., mica (C-47)	.25
RC-346	CAPACITOR—1500 mmf., mica (C-21)	.30
RC-391	CAPACITOR—4300 mmf., mica (C-11)	.35
RC-594	CAPACITOR—8 mfd., 400 V.; 8 mfd., 400 V.; 12 mfd., 450 V.; dry electrolytic (C-25, C-26, C-27)	1.60
RC-663	CAPACITOR—Wave trap trimmer (45–100 mmf.) (C-4)	.15
RC-676	CAPACITOR—300–650 mmf. padder (C-10)	.35
RC-677	CAPACITOR—Antenna and oscillator trimmer (C-2, C-3, C-6, C-7)	.55
RC-728	CONDENSER—2 gang tuning condenser (C-1)	2.95
*RC-755	CAPACITOR—.01-.01 mfd., 250 V. A. C. line capacitor (C-28, C-29)	.40
*RC-863	CORD—Power cord	.65
RC-5105	CAPACITOR—10 mfd., 50 volt dry electrolytic (C-46)	.60
RC-8035	CABLE—Speaker cable	.50
RG-015	GRID CLIP—Control grid clip (large) (Pkg. 5)	.05
RG-016	GRID CLIP—Control grid clip (small) (Pkg. 5)	.10
RK-027	KNOB—Control knob (winged) (Pkg. 5)	.50
RK-033	KNOB—Control knob (plain) (Pkg. 5)	.30
RL-062	COIL—Antenna coil band B, C, and D (T-5)	1.50
RL-286	COIL—Oscillator coil band B, C, and D (T-6)	1.30
RL-603	COIL—Wave trap coil (T-4)	.60
RL-802	COIL—Neutralizing coil (T-12)	.10
RQ-711	RESISTOR—470 ohm, 3 W. carbon (R-25)	.25
RQ-730	RESISTOR—33,000 ohm, 3 W. carbon (R-15)	.15
*RQ-1218	RESISTOR—22 ohm, ½ W. carbon (R-17) (Pkg. 5)	.70
*RQ-1227	RESISTOR—47 ohm, ½ W. carbon (R-16) (Pkg. 5)	.70
*RQ-1239	RESISTOR—150 ohm, ½ W. carbon (R-12) (Pkg. 5)	.70
*RQ-1245	RESISTOR—270 ohm, ½ W. carbon (R-6) (Pkg. 5)	.70
*RQ-1271	RESISTOR—3,300 ohm, ½ W. carbon (R-14) (Pkg. 5)	.70
*RQ-1279	RESISTOR—6,800 ohm, ½ W. carbon (R-2, R-18) (Pkg. 5)	.70
RP-107	PLUG—Male speaker plug	$0.20
RS-074	SPEAKER—6½-inch speaker	3.70
*RX-030	ASSEMBLY—Speaker mounting assembly	.10
	SPEAKER ASSEMBLY (G-66, G-68, G-69)	
RC-932	CONE—12-inch cone and voice coil assembly	1.10
*RC-991	CLAMP—Cone spider clamp	.06
RD-301	DUST CAP—Speaker cone dust cap (Pkg. 5)	.10
RP-109	PLUG—Male speaker plug	.20
RS-073	SPEAKER—12-inch speaker	5.40
*RX-030	ASSEMBLY—Speaker mounting assembly	.10
	DIAL SCALE MECHANISM	
*RB-165	BRACKET—Band change bracket (C)	.05
RC-8037	CORD—Drive cord assembly (set) (B)	.25
RC-8038	CORD—Tone control cord (Pkg. 5)	.35
RC-8039	CORD—Volume control cord (Pkg. 5)	.35
RD-071	DRUM—Condenser drive drum (A)	.35
RD-072	DIAL—Dial scale	1.10
RD-305	DRIVE—Vernier drive bracket assembly (E)	.35
RE-030	ESCUTCHEON—Dial scale escutcheon	1.40
*RP-073	POINTER—Volume and tone control pointer (Pkg. 5)	.10
*RP-076	PULLEY—Small idler pulley (Pkg. 5)	.20
*RP-077	POINTER—Dial scale pointer (Pkg. 5)	.90
*RP-084	PULLEY—Tone control pulley (D)	.10
RR-019	REFLECTOR—Lamp reflector	.10
RS-190	SHIELD—Light shield (cardboard) (Pkg. 10)	.05
*RS-218	SOCKET—Lamp socket assembly	.10
*RS-425	SPRING—Drive drum spring (Pkg. 5)	.10
RS-445	SPRING—Tone and volume cord tension spring (Pkg. 5)	.25
RX-048	ASSEMBLY—Tuning condenser mounting assembly	.25
	PHONOGRAPH ASSEMBLY MODEL G-68	
*RA-406	ARM—Pick-up tone arm	2.30
*RC-8000	CRYSTAL—Crystal pick-up	6.00
*RC-8021	CABLE—Radio-phono shielded cable	.35
*RK-018	KNOB—Radio-phono switch knob (Pkg. 5)	.40
*RM-106	MOTOR—Motor complete, 115–125 V. 60 cy.	13.75
*RM-107	MOTOR—Motor complete, 115–125 V. 50 cy.	13.75
*RM-108	MOTOR—Motor complete, 115–125 V. 25 cy.	15.25
*RP-034	PLUG—To contact round female plug	.60
*RP-035	PLUG—Male connector plug	.30
*RS-366	SWITCH—Phono radio switch	1.10
*RS-374	SWITCH—Automatic stop and switch (complete)	1.50
*RS-559	SCREW—Needle screw	.10
*RT-903	TURNTABLE—10-inch turntable (brown velveteen)	1.75
*RX-037	ASSEMBLY—Motor mounting assembly	.30
	PHONOGRAPH ASSEMBLY MODEL G-69	
RB-186	BRACKET—Pick-up locating lever mounting bracket (3)	.30
RC-1962	CAM—Cam and gear assembly (4)	2.80
*RQ-1291	RESISTOR—22,000 ohm, ½ W. carbon (R-19) (Pkg. 5)	$0.70
*RQ-1299	RESISTOR—47,000 ohm, ½ W. carbon (R-1, R-4, R-20, R-21) (Pkg. 5)	.70
*RQ-1307	RESISTOR—100,000 ohm, ½ W. carbon (R-22) (Pkg. 5)	.70
*RQ-1313	RESISTOR—180,000 ohm, ½ W. carbon (R-6) (Pkg. 5)	.70
*RQ-1315	RESISTOR—220,000 ohm, ½ W. carbon (R-5, R-9, R-23, R-24, R-26) (Pkg. 5)	.70
*RQ-1331	RESISTOR—1.0 megohm, ½ W. carbon (R-10) (Pkg. 5)	.70
*RQ-1339	RESISTOR—2.2 megohm, ½ W. carbon (R-11, R-13) (Pkg. 5)	.70
*RQ-1491	RESISTOR—20,000 ohm, 1 W. carbon (R-3)	.20
*RS-200	SOCKET—Tube socket (6AC5G) (Pkg. 5)	.75
*RS-204	SOCKET—Five prong octal base socket (Pkg. 5)	.75
*RS-215	SOCKET—Tube socket (75) (Pkg. 5)	.60
RS-227	SOCKET—Octal base tube socket	.15
RS-224	SOCKET—Tube socket (76) (Pkg. 5)	.50
RS-394	SWITCH—Band change switch (S-1)	.95
RS-395	SWITCH—Tone control switch (S-2)	.55
RS-3013	SWITCH—Phono radio switch (G-68, G-69)	1.00
*RT-0711	TRANSFORMER—Power transformer 120 V, 25–60 cycles	7.60
RT-0616	TRANSFORMER—Power transformer 120 V, 50–60 cycles	4.60
RT-261	TRANSFORMER—1st I.F. transformer and shield	1.60
RT-262	TRANSFORMER—2nd I.F. transformer and shield	1.60
RT-438	TRANSFORMER—Output transformer (T-3)	1.70
RV-041	VOLUME CONTROL—2 meg. volume control (R-7)	.70
*RW-101	WASHER—Felt washer (Pkg. of 10)	.45
*RX-021	ASSEMBLY—Chassis mounting assembly	.10
	TOUCH TUNING ASSEMBLY	
RB-613	BUTTON—Molded push button (Pkg. 5)	.35
RC-8036	CARDS—Station letter cards (set)	.25
RC-8053	CARD—"Off" tab card (strip of 10)	.05
RC-8066	CARD—"Manual" tab card (Strip of 10)	.05
RE-029	ESCUTCHEON—Push button escutcheon	.60
RS-393	SWITCH—Push button switch (S-5)	3.60
RS-444	SPRING—Spring for push-button (Pkg. 10)	.10
RT-854	TRIMMER STRIP—Oscillator trimmer strip (C-38, C-39, C-40, C-41, C-42, C-43)	1.15
RT-855	TRIMMER STRIP—Antenna trimmer strip (C-31, C-32, C-33, C-34, C-35, C-36)	1.15
RW-021	WINDOWS—Celluloid station windows (Pkg. 25)	.10
	SPEAKER ASSEMBLY (G-61)	
RC-931	CONE—6½-inch cone and voice coil assembly	.60
RD-300	DUST CAP—Speaker cone dust cap (Pkg. 5)	.10
RC-1963	CLUTCH—Trip lever friction clutch assembly (5)	$0.35
RC-1964	COUPLING—Motor coupling complete with turntable drive gear, rubber strips, motor coupling and drive arm (6)	1.80
RC-6001	CRYSTAL—Pick-up crystal cartridge and needle screw	4.25
RF-402	FINGER—Trip lever friction finger assembly (7)	.45
RG-107	GUIDE—Main lever spring guide (11)	.40
RG-600	GOVERNOR—Motor speed governor	3.05
RG-701	GEAR—Long arm and rack gear for front left-hand record post (8)	.60
RG-702	GEAR—Short arm and rack gear for front right-hand record post (9)	.55
RG-703	GEAR—Record post gear (10)	.90
RL-927	LEVER—Index lever assembly (12)	.75
RL-928	LEVER—Index lever tension spring lever (13)	.30
RL-929	LEVER—Locating lever and pawl assembly (14)	.70
RL-930	LEVER—Main lever assembly (15)	1.35
RL-931	LEVER—Pick-up lift cable lever and spring assembly (16)	.55
RL-932	LEVER—Pick-up locating lever assembly (17)	.35
RL-933	LEVER—Record separator elevating lever complete with adjustment screws (18)	.80
RL-934	LEVER—Trip detaining lever (19)	.30
RL-935	LEVER—Trip lever assembly (20)	1.85
RL-936	LEVER—Trip regulator lever (21)	.35
RM-116	MOTOR—Phono-motor 105–125 V., 25 cy.	[illegible]
RM-117	MOTOR—Phono-motor, 105–125 V., 50 cy.	[illegible]
RM-118	MOTOR—Phono-motor, 105–125 V., 60 cy.	17.75
RP-400	PAWL—Trip pawl assembly (22)	.80
RP-401	PIN—Record post drive pin (23) (Pkg. 5)	.30
RP-501	PICK-UP—Pick-up and arm complete	7.45
RR-922	ROLLER—Pick-up lift cable roller and bracket assembly (24)	.55
RS-452	SPRING—Cam pawl tension spring on main gear (Pkg. 5)	.30
RS-453	SPRING—Pick-up locating lever short spring (28) (Pkg. 5)	.40
RS-454	SPRING—Main lever tension spring (29)	.05
RS-455	SPRING—Pick-up locating lever long spring or index lever tension spring (30)	.05
RS-456	SPRING—Pick-up lift cable tension spring (31) (Pkg. 5)	.20
RS-457	SPRING—Record separator pressure spring (32) (Pkg. 5)	.10
RS-458	SPRING—Trip detaining lever or locating lever tension spring (33) (Pkg. 5)	.30
RS-609	SEPARATOR—Record separator knife (25)	.75
RS-610	SHELF—Record post shelf assembly (27)	1.35
RS-611	SPINDLE—Turntable spindle shaft and spring	1.40
RS-701	STRIP—Rubber strips for flexible coupling (set)	.40
RS-867	SCREW—Cone pointed set screw for trip lever hub or record post shelf (Pkg. 5)	.20
RS-868	SCREW—Pick-up lift cable screw and nut (Pkg. 5)	.30
RS-869	SCREW—Special screw to adjust friction-clutch tension (Pkg. 5)	.15
RS-870	SCREW—Pick-up needle screw (Pkg. 5)	.60
RS-917	SHAFT—Record separator post shaft (36)	.40
RS-918	SHAFT—Pick-up pivot arm and shaft assembly	.45
RS-3012	SWITCH—Motor toggle switch	.90
RT-907	TURNTABLE—Turntable assembly, less spindle	3.35
RW-111	WASHER—Turntable thrust washers (1 steel, 1 bronze, 1 felt)	.15

* Used on previous receivers.

(Prices subject to change without notice)

MODELS G61,G66,G68,G69
Phono.Connections,Motor
Data,Assembly of Changer

GENERAL ELECTRIC CO.

PHONOGRAPH MECHANISM (G-68)

Motor Adjustments

The speed of the turntable is controlled by a governor which allows correct adjustment of the turntable rotation to 78 revolutions per minute. The speed may be checked by placing a piece of paper under a record and counting the number of revolutions in a minute while the record is being played. If adjustment is necessary lift up the turntable and the speed regulator setscrew will be found adjacent to the turntable hub of the motor. Clockwise rotation of this setscrew reduces speed.

The motor bearings and gears are properly lubricated for long operation under normal weather conditions. If the motor chatters or runs unevenly, place a few drops of light machine oil on the governor felt.

Trip Mechanism

The trip mechanism is of simple design and consists of a latch bar connected to the motor switch and a trip lever. The latch is held closed by means of a spring between the latch bar and the trip lever. The motor switch is mechanically connected to the latch bar so that when the trip mechanism is released the motor switch is in the "off" position. Be sure this latch bar mechanism works freely without binding.

The trip is actuated by an adjustable arm on the trip lever. When the eccentric groove in the record swings the tone arm back and forth, it pushes the latch out of engagement.

Phonograph Connections (G-61 and G-66)

Fig. 1 shows a simple sketch for connecting a crystal or high impedance magnetic pick-up into the G-61 or G-66 circuit for the reproduction of phonograph recordings. This method uses a two circuit jack and is connected into the receiver by opening the circuit at C-D at the output of the 2nd IF transformer; and connecting the jack terminals as shown. A telephone plug is attached to the pick-up leads; and for phonograph operation, it is merely necessary to insert this plug into the jack. The jack may be mounted on the rear chassis deck and all connecting leads should be well shielded.

When the pick-up is connected as suggested, the regular radio volume and tone controls work for both radio and phonograph reproduction.

NOTE.—A suitable load consisting of a 300,000 ohm resistor should be connected across the pick-up leads when using a crystal type unit.

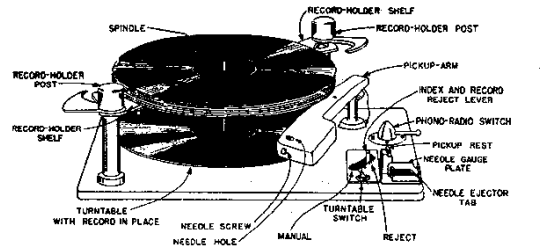
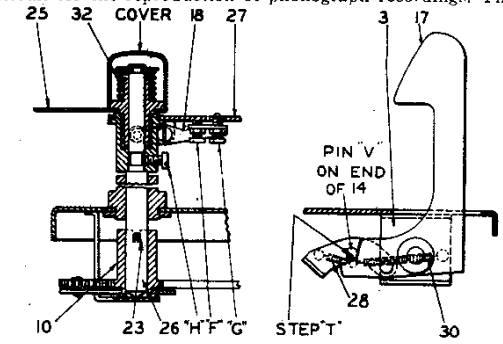
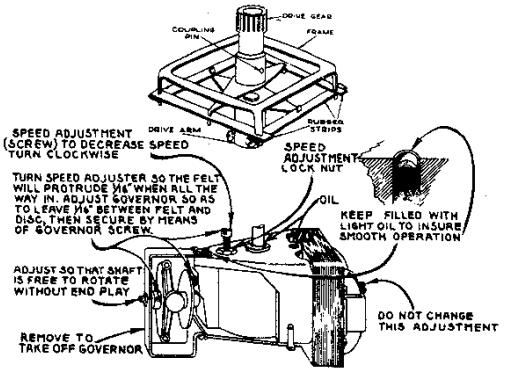


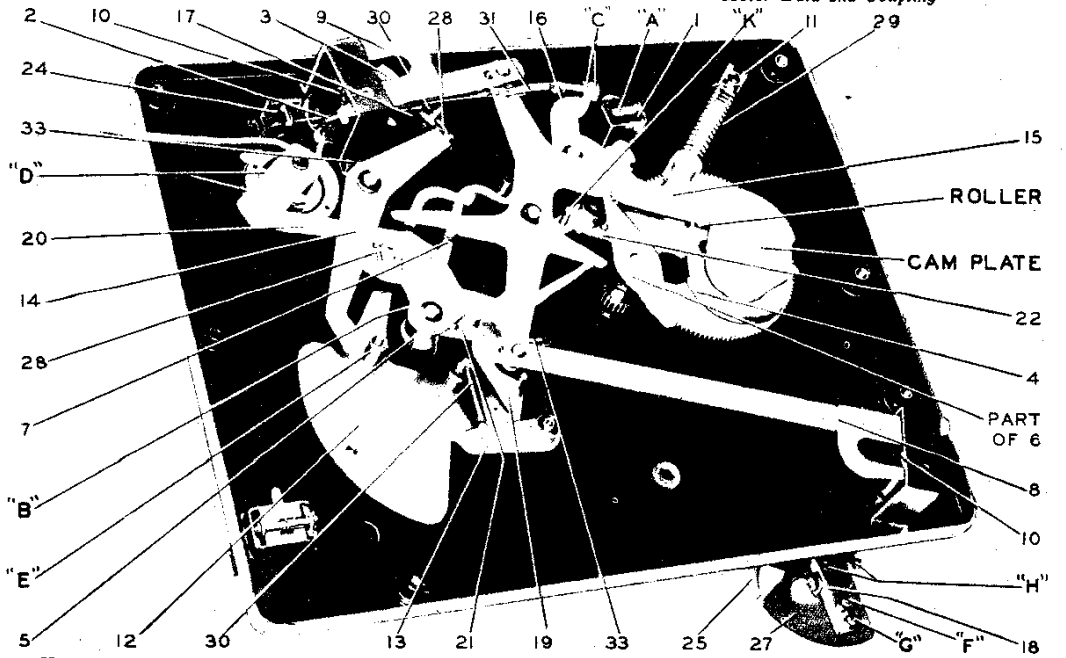
Fig. 7. Top View of Automatic Record Changer



Details of Record Shelf Posts, and Locating Lever Assemblies



Motor Data and Coupling



Bottom View of Automatic Record Changer

NOTE: Numbers refer to parts—letters refer to adjustments.