

PRODUCTION CHANGES
FOR
PORTABLE RECEIVER MODELS
4ER27A1-3,11-13 REV. H
4ER27B1-3,11-13 REV. P

Changes listed below are identified by the letter appearing in the REV. Pad on the receiver chassis.

REV. A - resistors changed to improve performance. Transistors changed to agree with changes in vendor designations.

<u>Part Changed</u>	<u>Was</u>	<u>Changed To</u>
Q302	Transistor, G-E Type 4JD3B4	Transistor, G-E Type 4JD3B4 or 4JX3B504.
Q303 thru Q305	Transistor, G-E Type 2N450	Transistor, G-E Type 2N450 or 4JX1A810.
G301-R1,R5 and G302-R1,R5	Resistor; composition 6200 ohms $\pm 5\%$, 1/4 watt. G-E Part No. C-3R152-P662J.	Resistor; composition 3900 ohms $\pm 10\%$, 1/4 watt. G-E Part No. C-3R152-P392K.
G301-R3,R7 and G302-R3,R7	Resistor; composition 4700 ohms $\pm 10\%$, 1/4 watt. G-E Part No. C-3R152-P472K.	Resistor; composition 2200 ohms $\pm 10\%$, 1/4 watt. G-E Part No. C-3R152-P220K.
G301-R4,R8 and G302-R4,R8	Resistor; composition 3900 ohms $\pm 10\%$, 1/4 watt. G-E Part No. C-3R152-P392K.	Resistor; composition 2200 ohms $\pm 10\%$, 1/4 watt. G-E Part No. C-3R152-P222K.
Z301-Q1	Transistor; G-E Type 4JD3B5.	Transistor; G-E Type 4JD3B5 or 4JX3B505.

REV. B - To prevent oscillator stoppage at low end of band.

<u>Part Changed</u>	<u>Was</u>	<u>Changed To</u>
G301-C2 and G302-C6	Capacitor; ceramic disk, insulated, temp. compensating; 7.0 mmfd ± 0.25 mmfd, 500 VDCW. G-E Dwg. C-5494210-P38.	Capacitor; ceramic disk, compensating 15 mmfd ± 0.25 mmfd, 500 VDCW. G-E Dwg. No. C-5494210-P244.

REV. C - To improve receiver sensitivity

<u>Part Changed</u>	<u>Was</u>	<u>Changed To</u>
Z303-R11, and Z303-R16.	Resistor: composition 3300 ohms $\pm 10\%$, 1/4 watt. G-E Part. No. C-3R152-332K.	Resistor: composition 2200 ohms $\pm 10\%$, 1/4 watt. G-E Part No. C-3R152-222K.

REV. D - To decrease collector current.

<u>Part Changed</u>	<u>Was</u>	<u>Changed To</u>
G301-R1 and G302-R5	Resistor: composition 3900 ohms $\pm 10\%$, 1/10 w. G-E Part No. C-3R151-P392K.	Resistor: composition 2200 ohms $\pm 10\%$, 1/4 w. G-E Part No. C-3R152-P222K.
G301-R3 G302-R3 G302-R7	Resistor: composition 2200 ohms $\pm 10\%$, 1/4 w. G-E Part No. C-3R152-P222K.	Resistor: composition 3900 ohms $\pm 10\%$, 1/10 w. G-E Part No. C-3R151-P392K.

REV. E - To increase audio high-frequency response. To reduce stand-by current drain.

<u>Part Changed</u>	<u>Was</u>	<u>Changed To</u>
RT301	Thermistor: 10 ohms. $\pm 10\%$ max input watts 1.0 at 400 C, temp coefficient 1400 $\pm 10\%$. Similar to Globar Type 781F. G-E Dwg. No. B-5490828-P1	Thermistor: 30 ohms No. B-5490828-P2
R330	Resistor: composition 750 ohms $\pm 5\%$, 1/2 w. G-E Part No. C-3R77-P751J.	Resistor: composition 2700 ohms $\pm 10\%$, 1/2 w. G-E Part No. C-3R77-P272K
C326	Capacitor: Mylar dielectric, 0.22 mfd $\pm 20\%$, 100 VDCW. Similar to Goodall Electric Co. Type 663-UW. G-E Dwg. No. B-7491930-P110.	Deleted.

REV. F - Improves limiter action and reduces audio distortion at high modulation levels.

REV. F (Cont')

<u>Part Changed</u>	<u>Was</u>	<u>Changed To</u>
Z302-C8	Capacitor: ceramic Hi-K disk, insulated, 0.025 mfd +80% -20%, 50 VDCW. Sprague Cat. #29C187. G-E Dwg. No. B-7491827-P3.	Capacitor: mylar dielectric; 0.01 mfd $\pm 20\%$, 50 VDCW. Similar to Goodall Type 601PE. G-E Dwg. No. B-5491189-P105.
Z302-C9	Capacitor: ceramic, Hi-K disk, insulated; 0.1 mfd, +80%, -30% 50 VDCW. Sprague Cat. #36C172. G-E Dwg. No. B-7491827-P5.	Capacitor: mylar dielectric; 0.022 mfd $\pm 20\%$ 100 VDCW. Similar to Goodall Type 663-UW. G-E Dwg. B-7491930-P6.
Z303-C4		
Z303-C7		
Z303-C10		
Z303-C13		
Z303-C14		

Elementary Diagram Changes

Changed delineation of parts as follows:

Z302-C8, .025 MFD	to	Z302-C8, .01 MFD
Z302-C9, .1 MFD	to	Z302-C9, .022 MFD
Z303-C4, .1 MFD	to	Z303-C4, .022 MFD
Z303-C7, .1 MFD	to	Z303-C7, .022 MFD
Z303-C10, .1 MFD	to	Z303-C10, .022 MFD
Z303-C13, .1 MFD	to	Z303-C13, .022 MFD
Z303-C14, .1 MFD	to	Z303-C14, .022 MFD

REV. A (Models 4ER27A1,2,3,11,12,13 only)

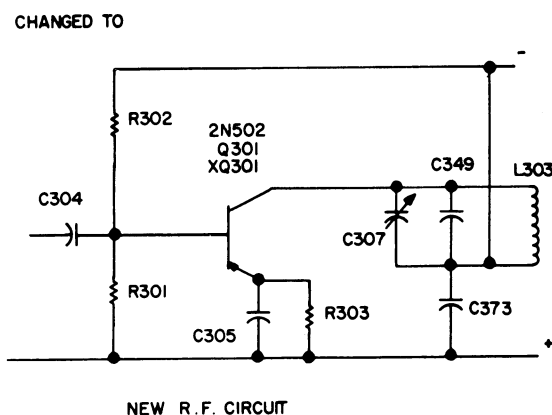
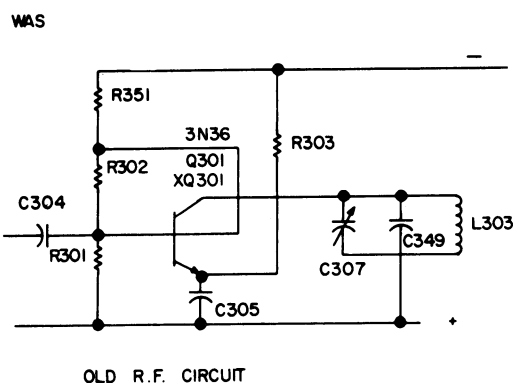
REV. G (Models 4ER27B1,2,3,11,12,13 only)

Purpose of Change - To improve RF sensitivity of the receiver.

<u>Part Changed</u>	<u>Was</u>	<u>Changed To</u>
Q301	3N36	2N502
XQ301	A-7162500-P1	B-5490277-P1
R301	Resistor, composition 6200 ohms $\pm 5\%$, 1/10 w. G-E Dwg. No. C-3R151-P622J.	Resistor, composition 1800 ohms $\pm 10\%$, 1/10 w. G-E Dwg. No. C-3R151-P912J.
T302	Resistor, composition 4700 ohms $\pm 10\%$, 1/10 w. G-E Dwg. No. C-3R151-P472K.	Resistor, composition 9100 ohms $\pm 10\%$, 1/10 w. G-E Dwg. No. C-3R151-P912J.
R303	Resistor, composition 8200 ohms $\pm 10\%$, 1/2 w. G-E Dwg. No. C-3R77-P822K.	Resistor, composition, 820 ohms, $\pm 10\%$, 1/2 w. G-E Dwg. No. C-3R77-P821K.

REV. A and REV. G (Cont'd)

<u>Part Changed</u>	<u>Was</u>	<u>Changed To</u>
C373	Added.	Capacitor, ceramic disc; insulated, 2000 uuf, $\pm 10\%$. G-E Dwg. No. C-5494481-P114.
R351	Resistor, composition, 2700 ohms, $\pm 5\%$, 1/10 w. G-E Dwg. No. C-3R151-P272J.	Deleted.

Elementary Diagram Changes

REV. B (Models 4ER27A1,2,3,11,12,13 only)

REV. H (Models 4ER27B1,2,3,11,12,13 only)

Purpose of Change - To eliminate chance of instability in front end of the receiver.

<u>Part Changed</u>	<u>Was</u>	<u>Changed To</u>
L302	Coil G-E Part No. PL-4031073-G2.	Deleted
L304	Coil, G-E Part No. PL-4031073-G3.	Coil, G-E Part No. PL-4031073-G2.
L315	Added	Coil, G-E Part No. PL-4031073-G5.

REV. C (Models 4ER27A1,2,3,11,12,13 only)

REV. J (Models 4ER27B1,2,3,11,12,13 only)

Purpose of Change - To improve audio response.

REV. C and REV. J (Cont'd)

<u>Part Changed</u>	<u>Was</u>	<u>Changed To</u>
R323	Resistor, composition, 5600 ohms $\pm 10\%$, 1/4 w. G-E Dwg. No. C-3R152-P562K.	Resistor, composition, 4700 ohms $\pm 10\%$, 1/4 w. G-E Dwg. No. C-3R152-P472K.
C305	Capacitor; ceramic disc, insulated, 2000 mmfd $\pm 10\%$ 500 VDCW. RMC Type JF Discap. G-E Dwg. No. C-5494481-P114.	Capacitor; ceramic disc, 2000 mmfd $\pm 10\%$, 500 VDCW. RMC Type JF Discap. G-E Dwg. No. C-5494481-P14.

REV. D (Models 4ER27A1-3, 11-13 only)

REV. K (Models 4ER27B1-3, 11-13 only)

Purpose of Change - To optimize design in consideration of component variations.

<u>Part Changed</u>	<u>Was</u>	<u>Changed To</u>
R323	Resistor, composition, 4700 ohms, $\pm 10\%$, 1/4 w. G-E Dwg. No. C-3R152-P472K.	Resistor, composition, 5100 ohms, $\pm 5\%$, 1/4 w. G-E Dwg. No. C-3R152-P512J.

REV. E (Models 4ER27A1-3, 11-13 only)

REV. L (Models 4ER27B1-3, 11-13 only)

To stabilize discriminator idling for varying input signal level.

<u>Part Changed</u>	<u>Was</u>	<u>Changed To</u>
Z303-Q4 and Z303-Q5	Transistor, Type 2N450/4JX1A552	Transistor, Type 2N188A.

Elementary Diagram Changes

Changed reference to Z303-Q4 and Z303-Q5 from 2N450/4JX1A552 to 2N188A.

REV. F (Models 4ER27A1-3, 11-13 only)

REV. M (Models 4ER27B1-3, 11-13 only)

To protect front end Transistor against overload due to excessive voltage on antenna which might be induced from an external course.

REV. F and REV. M (Cont'd)

<u>Part Changed</u>	<u>Was</u>	<u>Changed To</u>
CR305	Added	Diode, hermetically sealed glass body, max. inverse working volts 50V. Forward voltage drop at 10 ma - Min. 0.34 v max 0.37 v Similar to Radio Receptor Type No. DR385. G-E Dwg. & Part No. A-4034827-G1.

Elementary Diagram Changes

Added Part No. CR305 between top 2 on L315 and ground. Added L315 top 2 which is same as top 1 except it is located 2 1/2 turns from bottom of coil. Added Note 1: The polarity of CR305 is unimportant.

REV. G (Models 4ER27A1-3,11-13 only)
 REV. N (Models 4ER27B1-3,11-13 only)

To improve mixer operation, and to make use of a more available transistor.

<u>Part Changed</u>	<u>Was</u>	<u>Changed To</u>
Z301-Q1	Transistor, Germanium tetrode NPN. G-E Dwg. & Part No. A-4036546-P2.	Transistor, Germanium, NPN. G-E Dwg. & Part No. A-4036929-P2.

Elementary Diagram Changes

Removed Base-2 of Z301-Q1.

REV. H (Models 4ER27A1-3,11-13 only)
 REV. P (Models 4ER27B1-3,11-13 only)

To improve operation of receivers at high humidity by improving the moisture resisting treatment of the filter coils.

Elementary Diagram Changes

None.

COMMUNICATION PRODUCTS DEPARTMENT
 GENERAL ELECTRIC COMPANY
 LYNCHBURG, VIRGINIA