

hp MANUAL CHANGES

MODEL 3300A

FUNCTION GENERATOR

Serial Prefixed: 630-

-hp- Part No. 03300-90002

► New or Revised Item

Instrument Serial Number	Make Manual Changes	Instrument Serial Number	Make Manual Changes
ALL	ERRATA	742- and above	#1 thru #4
630-01751 and above	#1	809-	#1 thru #5
702-	#1 and #2	809-03351 and above	#1 thru #6
724- and above	#1 thru #3		

NOTE

The attached Performance Check Test Card can be used for recording the performance of the 3300A during the performance checks.

ERRATA

Page 3-1:

Add the following warning to Section III.

WARNING

TO PROTECT OPERATING PERSONNEL DURING A FLOATING OPERATION, PWR LINE GND-TO-SHIELD GND OR SHIELD GND-TO-OUTPUT GND SHORTING STRAP REMOVED, VERIFY THAT THE SET SCREW HOLE(S) ON FRONT PANEL CONTROL KNOBS ARE FILLED WITH AN INSULATING MATERIAL. GENERAL ELECTRIC TRANSLUCENT SILICON RUBBER RTV-108 (-hp- PART NO. 0470-0304) IS RECOMMENDED.

► Page 5-3:

Insert the following note after Paragraph 5-22.

NOTE

Allow a 30-minute warm-up period before making any adjustments.

Page 5-3, Table 5-2:

Change Voltage Limits of -20 V supply to -20.00 ±0.01 V.

Page 6-3, Schematic and Replaceable Parts:

On component location diagram for A11, change R1, between R22 and R3, to R2.

ERRATA
(Cont'd)

Page 6-3, Schematic and Replaceable Parts (Cont'd):

Change value of A13R18* and A13R19* in the upper left hand corner to 49.9 ohms (-hp- Part No. 0698-4110).

Change value of A13R20* in the upper left hand corner to 5.76 k Ω .

Change value of A11R13 and A11R14 to 5.11 k Ω .

Change value of A13C7 to 0.01 μ F.

Page 6-4 and 6-9, Range Switch Wiring:

Change Range Switch reference: S3A to S3B and S3B to S3A.

Page 6-5/6-6, Component Location:

On component location diagram for A15 or A16, change C14 to C12.

Page 6-7/6-8, Schematic and Replaceable Parts:

Change value of A11R27 to 2.74 k Ω (-hp- Part No. 0757-0827) and add an asterisk.

Change the 1 AMP designation on F1 to 0.6 AMP.

Change value of A12C5 to 0.05 μ F (-hp- Part No. 0150-0096).

Table 7-1, Replaceable Parts:

Change A11Q3 and A11Q4 to -hp- Part No. 1853-0010.

Change A11Q6 to -hp- Part No. 1853-0066, 2N4250.

Change A11Q9 to -hp- Part No. 1854-0071, 2N3391.

Change A12Q3, A12Q4, and A12Q6 to -hp- Part No. 1854-0071.

Change A12Q7, A12Q8, and A12Q10 to -hp- Part No. 1853-0010.

Add A13CR1 -hp- Part No. 1901-0025.

Transpose the Part No. and description of A13R17 with A13R21.

Change A14Q3, A14Q4, A14Q7, and A14Q8 to -hp- Part No. 1853-0010.

Change description of A14R18 to 1.21 k Ω .

Change A15Q1 and A15Q2 to -hp- Part No. 1853-0010.

Change J1 to -hp- Part No. 1251-0148.

► (Miscellaneous) Change 1410-0289 to 0400-0111.

CHANGE #1 Page 6-3, Schematic:

Change Value of A14R16 and A14R28 to 909 Ω and 806 Ω respectively.

Table 7-1, Replaceable Parts:

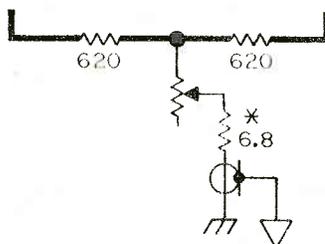
Change A11Q1 and A11Q2 to -hp- Part No. 1854-0071, 2N3391.

Change A14R16 to -hp- Part No. 0757-0422 909 ohms.

Change A14R28 to -hp- Part No. 0698-3557 806 ohms.

CHANGE #2 Page 6-5/6-6, Schematic:

Add resistors R16* and R17* on CHANNEL A and B AMPLITUDE controls as shown below:



- CHANGE #2 Table 7-1, Replaceable Parts:
(Cont'd) Add resistors R16* and R17*, -hp- Part No. 0699-0002, 6.8 Ω .
- CHANGE #3 Page 6-7/6-8, Schematic and Replaceable Parts:
Add resistor A12R27* 619 ohms (-hp- Part No. 0757-0728) in series with variable resistor A12R25. Change value of A12R25 to 500 ohms (-hp- Part No. 2100-1757).
Add resistor A12R28* 100 ohms (-hp- Part No. 0757-0178) in series with variable resistor A12R26. Change value of A12R26 to 2 k Ω (-hp- Part No. 2100-1759).
- CHANGE #4 Table 7-1, Replaceable Parts:
Change -hp- Part No's. as follows:
A11R12 to 0698-6683, 169 k Ω 0.25% 1/4 W.
A11Q8 to 1855-0082.
A13C7 to 0160-3123.
A13C10 to 0160-3131.
A13C13 to 0160-3122.
- CHANGE #5 Page 6-3, Figure 6-2:
Add A13R25, 150 Ω , in series with the base of A13Q3.
Table 7-1, Replaceable Parts:
Add A13R25, 0683-1515, R: fxd 150 Ω \pm 5% 1/4 W.
- CHANGE #6 Page 6-5/6-6, Figure 6-4:
Add A15R28, 200 Ω , from the collector of A15Q4 to pin 9 of XA15.
Add A16R28, 200 Ω , from the collector of A16Q4 to pin 9 of XA16.
Table 7-1, Replaceable Parts:
Change -hp- Part No's. as follows:
A11F1 to 2110-0287, . . . melts at 225^oF . . .
A11Q5 and A11Q7 to 1854-0307.
A15R11, A15R12, A15R24, and A15R25 to 0698-5483, R: fxd prec met flm 1 k Ω \pm 0.5% 1/2 W.
A16R11, A16R12, A16R24, and A16R25 to 0698-5483, R: fxd prec met flm 1 k Ω \pm 0.5% 1/2 W
Add:
A15R28, 0683-2015, R: fxd 200 Ω \pm 5% 1/4 W.
A16R28, 0683-2015, R: fxd 200 Ω \pm 5% 1/4 W.

PERFORMANCE CHECK TEST CARD

Hewlett-Packard Model 3300A
 Function Generator
 Serial No. _____

Test performed by _____
 Date _____

DESCRIPTION	CHECK	
<u>DIAL ACCURACY:</u> X.01 Range X.1 Range X 1 Range X10 Range X100 Range X1K Range X10K Range	<u>SPECIFICATION</u> $\pm 1\%$ $\pm 1\%$ $\pm 1\%$ $\pm 1\%$ $\pm 1\%$ $\pm 1\%$ $\pm 2\%$	<u>INDICATION</u> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<u>DISTORTION:</u> X1K Range X10K Range	<u>SPECIFICATION</u> $< 1\%$ $< 3\%$	<u>INDICATION</u> <input type="checkbox"/> <input type="checkbox"/>
<u>FREQUENCY RESPONSE:</u> .01 Hz to 10 kHz 10 kHz to 100 kHz (10K Range)	<u>SPECIFICATION</u> $\pm 1\%$ $\pm 3\%$	<u>INDICATION</u> <input type="checkbox"/> <input type="checkbox"/>
<u>MAXIMUM OUTPUT LEVEL, NO LOAD:</u> Channel A Channel B	<u>SPECIFICATION</u> $> 35\text{ V}$ $> 35\text{ V}$	<u>INDICATION</u> <input type="checkbox"/> <input type="checkbox"/>
<u>MAXIMUM OUTPUT LEVEL, LOADED:</u> 600 ohm Channel A Channel B 50 ohm Channel A Channel B	<u>SPECIFICATION</u> $> 15\text{ V}$ $> 15\text{ V}$ $> 2\text{ V}$ $> 2\text{ V}$	<u>INDICATION</u> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<u>SQUARE WAVE RESPONSE:</u> CHANNEL A Rise and fall time Sag Overshoot (max. output) Symmetry error	<u>SPECIFICATION</u> $< 250\text{ nsec}$ $< 1\%$ $< 5\%$ $< 1\%$	<u>INDICATION</u> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

PERFORMANCE CHECK TEST CARD (Cont'd)

DESCRIPTION	CHECK	
<u>SQUARE WAVE RESPONSE (Cont'd):</u> CHANNEL B Rise and fall time Sag Overshoot Symmetry error	<u>SPECIFICATION</u> < 250 nsec < 1% < 5% < 1%	<u>INDICATION</u> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<u>SYNC OUTPUT:</u> Pulse Amplitude Pulse Duration	<u>SPECIFICATION</u> > 10 V p to p < 5 μ sec	<u>INDICATION</u> <input type="checkbox"/> <input type="checkbox"/>
<u>REMOTE FREQUENCY CONTROL:</u> 0 to -10 volts	<u>SPECIFICATION</u> 10 Hz to 100 Hz	<u>INDICATION</u> <input type="checkbox"/>
<u>CHANNEL B - A:</u> Output	<u>SPECIFICATION</u> 180 ^o phase shift	<u>INDICATION</u> <input type="checkbox"/>