GENERAL 🏽 ELECTRIC TITLE Test Specifications CONT ON SHEET 44 C331859 GOI 2 7 7 A 3 7 5 7 WASHOUT AND OUTPUT CONT ON SHEET зи но. 📑 FIRST MADE FOR 44B331739G01, 44C331859 REVISIONS STANDING INSTRUCTIONS FOŖ WASHOUT AND OUTPUT PRINTED CIRCUIT BOARD Typ. error 841002 S. Sink Distribution Copies: 1 QC Eng 1 QC Test 1 Engineering 1 BEL 1 40434 1RA2 4EKI

MADE BY RK Gerlitz 781011 ISSUED /0-/7-78

10-12-78

DRIVE SYSTEMS
Salem, VA. U

S DIV OR DEFT.

2 7 7 A 3 7 5 7

LOCATION CONT ON SHEET 2 SH

CODE IDENT NO.

PRINTS TO

FF-803 WF (11-77) PRINTED IN U.S.A.

+

GENERAL (%) ELECTRIC

2 7 7 A 3 7 5 7

CONT ON SHEET -3 TITLE SH NO. Test Specifications 277A3757 WASHOUT AND OUTPUT 3 sh no. 2 FIRST MADE FOR 44B331739G01, 44C331859 CONT ON SHEET REVISIONS WASHOUT AND OUTPUT (POWER SYSTEM STABILIZER) 44B331739-G01 I. Equipment A. Printed Circuit Board Test Stand 440931365 B. Adaptor - Amp Mod. II 30 Pin C. Cable - Power Supply D. Fatchboard PB3 Drawings: 44B331739 Assembly 440306565 Elementary 440931365 Test Fixture II. Connections A. Connect the amp Mod II adaptor cable to PL-1 on the UT. B. Connect the power supply cable to PL3 on the UT and to power supply per lead markings. C. Connect a digital DC voltmeter to BJ-1. III. Resistance check Point. to Pin Λ DGJ 821214 IN 1 19 0 IN 2 17 0 OUT 1 11 * Remove pins 21-30 from test receptical. Unused pins contact runs and C14D. **BU941MR** A. Turn all switches off or Normal on the UT B. Turn all power supplies to zero + C. On PC Board conkact jumpers as follows: $\widehat{\Box}$ **G** 15 2-3 (out) BEL I C 2S 1-2 C 38 1-2 (1-50) 1-2 (1-50) 2-3 (Grd.) c 48 1RA2 C 58 4EKJ 5. + PRINTS TO RK Geflitz 781011 DRIVE SYSTEMS DIV OF 277A3757 Salem, VA. U.S.A. 10-17-78 LOCATION CONT ON SHEET

FF-803 WF (II-77) PRINTED IN U.S.A. CODE IDENT NO.

CONT ON SHEET 4 SH NO. TITLE Test Specifications WASHOUT AND OUTPUT 277A3757 CONT ON SHEET 4 **s**H NO. 3 FIRST MADE FOR 44B331739GO1, 44C331859 REVISIONS Set Pots as follows: 1P (TCTI) 3 2P (Gain) 3P OFFET (BOARD) CCW 4P (Pos. Limit) 10 5P (Neg. Limit) 10 V. Electrical Test Close Switch 1 and Switch 2 and depress LPB-10. Increase PS 1 to 24V \pm .5VDC at BJ-1. Depress LPB-2 and set PS-2 to 15V \pm .02 VDC at BJ-1. C: Dipress LPB-3 and set PS-3 to 15V \pm .02 VDC at BJ-1. Adjust 3P CCW 2TP should read $-.15 \pm .1$. 2TP should read +.15 + .1. OFFSCT FOT CW SEE Nores Set 2TP should read 0 + .005. Remove and reconnect 5S jmper to 1-2 (Not Gnd.). Close (CONNECT -9S 4 TO PIN19) Switch 7 and place Switch 24 down (CONNECT PIN 17 TO PIN 3 GROUND) F. Place RS-2 to Position 6 and RS-1 to Position 1. (See Se tow) Verify the following gains by setting negative DC voltage at BJ-3 of value indicated with PS-4. METER PIN 20 TO GNO MERAPIN 12 TO GNP METERPIN 14 TO GNO *RS2-Pos. 6 RS1-Pos. 1 RS1-Pos. 5 2P (Gain) Setting BJ-3 Voltage BJ-5 Voltage BJ-5 Voltage 3 ~ **.1** ± **.**001. 1.6 ± 0.2 1.65 + 0.2BU941MR DGJ 830201 Typ. error SES 841002 $-.1 \pm .001$ 4.1 - 0.5 4.2 ± 0.5 * It may be necessary to use an external 1000; Pot to set the voltage. G. Change jumper 3S to terminal 2-3 (50-100) PIN 20 TOGOD PIN 12 TOGOD PIN 14 TO GALD 2P BJ-3 BJ-5 BJ-5 Setting RS2-Pos. 6 RS1-Pos. 1 RS1-Pos. 5 $-.05 \pm .001$ 3 3.25 ± 0.2 3.25 ± 0.2 $-.05 \pm .001$ 4.5 ± .0.2 4.5 ± 0.2 Place RS-1 to Pos. 5. Adjust PS-4 until BJ-5 = 9.5 ± 0.28 for .2 + _005 at BJ-3((***) ≥ 0) POS. LIMIT BJ-5 .005 Turn 4P 10 $9.5 \pm .05$ 42.3 4P 1 ± •5 0 $9.5 \pm .05$ 4P 10 3EL1 Place Switch 7 down BJ-3 shall read $+.2 \pm .005$ and BJ-5 shall 4EK1 read (-) 9.5 ± 0.28 NEG LIMIT PJ-5 1RA2 dial Turn 5P (-) 9.5 \pm .05 10 (-) 1 ± •5 5P 0 9.5 + .05 10 (~) PRINTS TO RK Gerlitz 781011 DRIVE SYSTEMS DIV OR 2 7 7 A 3 7 5 7 10-12-78 Salem, VA. U.S.A. 10-17-78 LOCATION CONT ON SHEET 4

FF-803 WF (11+77)

CODE IDENT NO.

CONT ON SHEET 5 TITLE Test Specifications 2 7 7 A 3 7 5 7 WASHOUT AND OUTPUT 5 CONT ON SHEET SH NO. FIRST MADE FOR 44B331739G01, 44C331859 + REVISIONS (METER TO PIN 12) PIN 12 Place RS-1 to Position 1. Adjust PS-4 for -8 ± .05 at BJ-5. This shall occur at .1 \pm .02 at BJ-3. Connect 4TP to Pin 3. BJ-5 voltage shall go immediately to $0 \pm .05$ VDC. $0 \pm .05$ VDC. Remove jumper (4TP-Pin 3) and the voltage at BJ-5 shall return to $-8 \pm .05$ VDC. Return PS-4 to zero. Open Switch 7 and Switch 24. Move 5S jumper from 1-2 to 2-3. + Blas PINIT Place RS2 - Pos. 7. Place RS1 to position 4. @ PINIO IS BU-Return 3S to 1-2 and 2P - Zero."BJ-5" + 0.001 VDC. Test the frequency response of the washout stage using a Bafco Model 911A frequency analyzer as follows: 841002 1) Connect the OUTPUT of the freq. analyzer to the input of the card. "+" terminal to Pins 17,18 (or TP1), "-" to card ground. 2) Connect output of washout stage (Pins 9,10 or TP1) to "+" RETURN SIGNAL terminal. Connect "-" RETURN SIGNAL terminal error to card ground. 3) On the Bafco; Set RETURN SIGNAL offset switch to "0". Set RETURN SIGNAL volts full scale to "1". Set OUTPUT waveshape to sinusoidal ("/ Set OUTPUT scale to "10" volt scale. Adjust amplitude knob to "1.0". 62-81-01 83020 Set demodulate switch to "DC". Set offset switch away from offset position. Reset switch to "RUN" position. a. Baskla BU941MR Phase scale switch to "-180" position. Gain mode to "dB" position. \sim 4) Set potentiometer lP (T.C .T.,) to 3.0. 2 5) Use the chart below to check the gain and phase of the washout 3EL1 stage at the frequencies indicated. Be sure to move the RESET switch to "RESET" and back to "RUN" after each change of frequency. 1RA2 4EK1 PRINTS TO KK Cerlitz 781011 OIV OR DRIVE SYSTEMS 277A3757

10-12-78

Salem, VA.

U.S.A.

LOCATION CONT ON SHEET

FF-803 WF (11-77) PRINTED IN U.S.A.

10-17-78

SH NO. CODE IDENT NO

GENERAL (SE ELECTRIC

2 7 7 A 3 7 5 7

CONT ON SHEET F1. SH NO. 5

277A3757

REV NO.

+

+

TITLE Test Specifications

WASHOUT AND OUTPUT

CONT ON SHEET F1. SH NO. 5

FIRST MADE FOR 44B331739G01, 44C331859

REVISIONS

Note that the column which gives the phase (in degrees) which will be read on the pafco Frequency Analyzer with the phase scale switch to the "-180" position includes the two degrees which must be added when operating at frequencies of lHz and below.

BEFORE PROCEDING, READ 5 NOTES AT BOTTOM OF PAGE.

$1-2$ 0.01 -8 73 ± 5 -109 ± 5 $30-50$ $1-2$ 1.0 -0.3 4 ± 4 2.5 -178 ± 4 $30-49$ $1-2$ 10.0 -0.2 -6 ± 4 2.5 -186 ± 4 $31-50$ $2-3$ 0.01 -25.2 92 ± 4 1.0 -90 ± 4 $44-69$ $2-3$ 1.0 -0.4 11 ± 4 2.5 -171 ± 4 $30-48$ $2-3$ 10.0 -0.2 -5 ± 4 2.5 -185 ± 4 $30-48$ $2-3$ 10.0 -0.2 -5 ± 4 2.5 -185 ± 4 $30-48$ $4-5$ 0.1 -20.5 86 ± 4 2.5 -96 ± 4 $30-47$ $4-5$ 1.0 -3.4 48 ± 6 1.34 ± 6 1.34 ± 6 $30-47$ $4-5$ 10.0 -0.3 0.5 ± 4 2.5 -180 ± 4 $30-49$ $4-5$ 10.0 -0.3 0.5 ± 4 2.5	Jumper 25 Position	Set Freq. (Hz)	Gain +2dB (dB)	* PHASE (DEGREES)	RANGE SETTING	АСТИА L	amplitude % of FS reading
1-2 10.0	1-2	0.01	-8	73 <u>+</u> 5	ı	-109 <u>+</u> 5	30-50
2-3 0.01 -25.2 92 ± 4 .1 -90 ± 4 44-69 2-3 1.0 -0.4 11 ± 4 2.5 -171 ± 4 30-48 2-3 10.0 -0.2 -5 ± 4 2.5 -185 ± 4 3(-50 4-5 0.1 -20.5 86 ± 4 .25 -96 ± 4 30-47 4-5 1.0 -3.4 48 ± 6 1 -134 ± 6 54-85	1-2	1.0	-0.3	4 + 4	2.5	-178 <u>+</u> 4	30-44
2-3 1.0 -0.4 11 \pm 4 2.5 -171 \pm 4 30-48 2-3 10.0 -0.2 -5 \pm 4 2.5 -185 \pm 4 3(-50 4-5 0.1 -20.5 $86 \pm$ 4 .25 $-96 \pm$ 4 30-47 4-5 1.0 -3.4 $48 \pm$ 6 1 -134 \pm 6 54-85	1-2	10.0	-0.2	-6 + 4	2.5	-186 <u>+</u> 4	3(-50
2-3 10.0 -0.2 -5 ± 4 2.5 -185 ± 4 3(-50 4-5 0.1 -20.5 86 ± 4 .25 -96 ± 4 30-47 4-5 1.0 -3.4 48 ± 6 1 -134 ± 6 54-85	2-3	0.01	 25.2	92 <u>+</u> 4	.1	-90 ± 4	44-69
4-5 0.1 -20.5 86 ± 4 .25 -96 ± 4 30-47 4-5 1.0 -3.4 48 ± 6 1 -134 ± 6 54-85	2-3	1.0	-().4	11 <u>+</u> 4	2.5	-171 <u>+</u> 4	30-48
4-5 1.0 -3.4 48 ± 6	2-3	10.0	-0.2	-5 <u>+</u> 4	5.2	-185 <u>+</u> 4	3(-50
	4-5	0. 1	-20.5	86 <u>+</u> 4	.25	-96 <u>+</u> 4	30-47
4-5 10.0 -0.3 0.5 ± 4 2.5 -180 ± 4 80-49	4-5	1.0	-3.4	48 <u>+</u> 6	1	-134 ± 6	54- 8 5
	4-5	10.0	-0.3	0.5 ± 4	2.5	-180 ± 4	30-49

* BAFFCO WITH PHASE SCALE TO "-180".

Q. Open "SW-1". OPEN or return to normal all remaining switches on the U.T. Turn all signal sources and all power supplies to Zero.

NOTES:

PRIOR TO VERIFYING THE ABOVE TABLE, DO THE FOLLOWING:

- I, CONNECT BAFCO OUTPUT TO INPUT.
- 2. SET VOLTS FS SWITCH IN "IO" POSITION.
- 3. SET VOLTS FS RANGE SWITCH TO "1".
- 4. ADJUST VOLTS FS DIAL FOR 100 % FS READING ON METER.
- 5. KEEP OUTPUT SETTING CONSTANT FOR ALL CONDITIONS IN TABLE .

3)Changes BU941MR DGJ 821214 4) Typ. error SES 841 3EL1 1RA2 4EK1

841002

PRINTS TO

Tim Kolb 2/1/83 Rb-

DIV OR DRIVE SYSTEMS DEFT SALEM, VIRGINIA

2 7 7 A 3 7 5 7

F1. LOCATION CONT ON SHEET SH NO. CODE IDENT NO.