## 1.0 APPLICABLE DOCUMENTS

| | |
|---|---|
| ELEMENTARY | 44C308019 |
| ASSEMBLY | 44C331876 |
| UNIVERSAL P.S. ELEMENTARY | 44C931365 |

## 2.0 TEST EQUIPMENT REQUIRED

TEST SET-UP
ADAPTOR
CABLE POWER SUPPLY GENERREX

## 3.0 VISUAL CHECK

| | | | |
|---|---|---|---|
| 3R | 6.8K | 29R | 10K |
| 7R | 5.1K | 30R | 10K |
| 16R | 4.7K | 31R | 10K |
| 24R | 5.1K | 32R | 10K |
| 28R | 5.1K | 33R | 10K |

## 4.0 WIRE CHECK

| PIN | TO | TEST POINT | RESISTANCE (OHMS) |
|---|---|---|---|
| 15 | | 6TP | 110K ± 4K |
| 16 | | 3TP | 110K ± 4K |
| 26 | | 2TP | 110K ± 4K |
| 17 | | 4TP | 110K ± 4K |
| 27 | | 2TP | 10K ± 2K |
| 11 | | 7TP | 10K ± 2K |

| PIN | TO | PIN | |
|---|---|---|---|
| 25 | | 23 | .9K TO 1.1K |
| 27 | | 28 | 0 |
| 13 | | 14 | 0 |

## 5.0 PROCEDURE

**A.** APPLY +15VDC TO PINS 2(+) TO 4(-).
**B.** APPLY -15VDC TO PINS 6(-) TO 4(+).
**C.** CONNECT PIN 3 TO PIN 24. APPLY +5VDC ± .05 VDC AT PIN 23(+); NEG. TO PIN 3(-).

**D.** ADJUST 1P ON THE PC BOARD 2TP(+) TO 1TP(-)

| | |
|---|---|
| CCW | -3.34 ± 0.2 VDC |
| CW | -10.0 ± 0.2 VDC |
| SET | - 5.0 ± .005 VDC |

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**DISTRIBUTION LIST: PWA TEST**

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**5.0**

**E.** A. CONNECT A 10K RESISTOR FROM PIN 30 TO PIN 3, AND PIN 29 TO 3.
B. CONNECT DVM FROM PIN 30 TO PIN 3.
C. ADJUST 3P

| | |
|---|---|
| CW | -2.86 ±.2 VDC |
| CCW | -4.00 ±.2 VDC |

**F.** A. MOVE DVM FROM PIN 30, AND CONNECT TO PIN 29 TO PIN 3.
B. ADJUST 4P READ PIN 29

| | |
|---|---|
| CW | -2.86 ± .2 VDC |
| CCW | -4.00 ± .1 VDC |

**G.** A. REMOVE 5 VOLTS FROM PIN 23. REMOVE PIN 24 FROM COMMON (3).
B. ADJUST 6P CW.

**H.**

| ADJUST 5P | 6TP(+) TO 1TP(-) | PIN 14 | PIN 12 |
|---|---|---|---|
| CCW | - 4.0 ± .15 VDC | - 4.0 ± .15 VDC | + 4.0 ± .3 VDC |
| CW | -12.0 ± .25 VDC | -12.0 ± .25 VDC | +12.0 ± .5 VDC |
| SET | -10.0 ± .01 VDC | -10.0 ± .01 VDC | +10.0 ± .5 VDC |

**I.** A. CONNECT PIN 24 TO PIN 3.
B. APPLY -1.0 ± .005 VDC TO PIN 23.
C. 2TP(+) TO 1TP(-) SHOULD READ +1.0 ± .005 VDC. IF NOT ADJUST 1P SLIGHTLY TO OBTAIN SAME.
D. 6TP TP 1TP SHOULD READ 0 ± 0.15 VDC.

**J.** A. ADJUST 6P CCW AND READ 3TP(+) TO 4TP(-) TO BE -10.7 ± 1 VDC.
B. ADJUST 6P CW AND READ 3TP(+) TO 4TP(-) TO BE 0 VDC. LEAVE IN THIS POSITION.

**K.** A. REMOVE CONNECTION FROM PIN 24 TO PIN 3.
B. REMOVE VOLTAGE SOURCE FROM PIN 23.
C. APPLY -5.0 ± .005 VDC TO PIN 25.

D. ADJUST 2P READ 2TP(+) TO 1TP(-)

| | |
|---|---|
| 1. CCW | +2.25 ± .10 VDC |
| 2. CW | -7.75 ± .90 VDC |
| 3. SET | 0 ± .01 VDC |

**L.** A. REMOVE -5.0 VOLTS FROM PIN 25. CONNECT PIN 24 TO 3.
B. APPLY -1.00 ± .005 VDC TO PIN 23.
C. 3TP TO 1TP SHOULD READ -5.0 ± .05 VDC.

**M.** (DUE TO FREQUENCY USE DC COUPLING ON SCOPE FOR CHECKING INPUT AND OUTPUT FROM STEP M THRU STEP O).

A. CONNECT WAVETEK MODEL #171 TO PIN 20(+) TO PIN 3(-).
B. CONNECT SCOPE PIN 14(+) TO PIN 3(-).
C. ADJUST WAVETEK FOR .5 VPP AT 1HZ. SINEWAVE.
D. PIN 14 SHALL BE 6.0 ± 0.1 VPP.

**N.** A. INCREASE WAVETEK TO 5.5 ± .6 HZ.
B. PIN 14 SHOULD BE 3.6 ± .1 VPP.
C. PIN 12 SHOULD BE 3.6 ± .2 VPP.

**O.** A. REMOVE -1V FROM PIN 23.
B. CONNECT SCOPE TO 3TP. WAVEFORM WILL BE CLIPPING.
C. DECREASE WAVETEK UNTIL 3TP JUST STOPS CLIPPING.
D. THIS SHOULD OCCUR AT 0.195 ±.03 VPP.

**P.** A. REMOVE WAVETEK.
B. APPLY +1.0 ±.01 VDC TO PIN 18 TO 3.
C. 3TP SHOULD READ -5.0 ± .05 VDC.

**TURN ALL POWER SUPPLIES TO ZERO!**

| REV | INIT | DESCRIPTION OF CHANGE | DATE |
|---|---|---|---|
| 000 | | Released to Floor | |
| 001 | JJW | Retyped to ISO Format | 06/22/95 |
| 002 | JJW | CONVERTED FROM WORDPERFECT FILE TO A DOC FILE IN WINWORD | 08/17/95 |
| 003 | JJW | Corrected Polarity in Step H Pin 14 with 5P CCW | 04/23/97 |
| 004 | AWE | Reworded step L.A. to reduce confusion; Corrected page 1 filename | 08/18/97 |
| A | RKD | Gave document a Louisville procedure number. Changed REV style | 10/10/03 |