GENERAL ⊕ ELECTRIC

68A944197
CONT ON SHEET 2   SH NO. 1

68A944197
CONT ON SHEET 2   SH NO. 1

TITLE
TEST SPECIFICATIONS
INVERTER SEC. CONTR.

FIRST MADE FOR IC3600EPSV1

REVISIONS
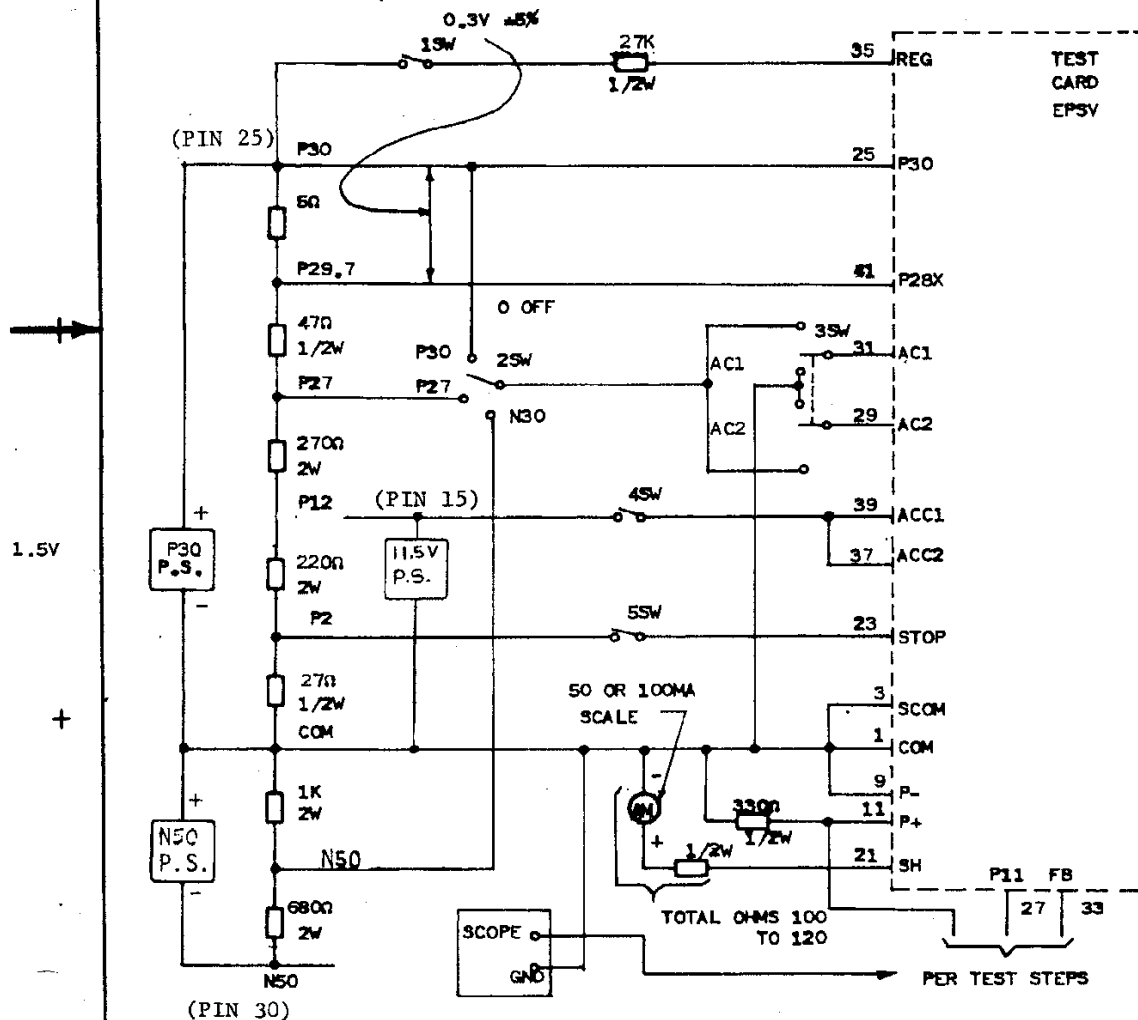
1 BAB 9/7/72
2. JMT 11/25/76
3. JMT 18/APR/86

ELEMENTARY IC3600EPSV1 SH. 3.0, 3.1, 3.2

TEST EQUIPMENT

A. ±50V POWER SUPPLIES 100MA
B. VOLT OHM METER
C. OSCILLOSCOPE
D. MISC. SWITCHES, RESISTORS, ETC PER FIG. 1

FIGURE 1

(OTHER VOLTAGES ±10%)

0.3V ±5%

1SW   27K   35 REG   TEST CARD EPSV
           1/2W

(PIN 25) P30   25 P30

          5Ω

          P29.7   41 P28X

          47Ω   0 OFF
          1/2W   P30   25W   35W   31 AC1
          P27   P27   AC1
                      N30   AC2   29 AC2
          270Ω
          2W
          P12   (PIN 15)   4SW   39 ACC1
                                         37 ACC2
          220Ω   11.5V
          2W   P.S.
          P2   5SW   23 STOP

          27Ω   3 SCOM
          1/2W
          COM   50 OR 100MA   1 COM
                       SCALE
          1K   9 P-
          2W   330Ω   11 P+
          N50   1/2W   1/2W   21 SH
          680Ω   P11 FB
          2W   SCOPE   27   33
                      GND
          N50   TOTAL OHMS 100
                      TO 120   PER TEST STEPS
(PIN 30)

P30 P.S.   N50 P.S.

1.5V

1336
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PRINTS TO

MADE BY M A CONNER
APPROVALS D.J. Madox
INDUSTRY CONTROL   SALEM, VIRGINIA
DIV OR DEPT.
68A944197
CONT ON SHEET 2   SH NO. 1

ISSUED April 16, 1971

GENERAL ⊛ ELECTRIC

REV NO.		TITLE	68A944197
68A944197		TEST SPECIFICATIONS INVERTER SEC. CONTR.	CONT ON SHEET 3 SH NO. 2
CONT ON SHEET 3 SH NO. 2		FIRST MADE FOR IC3600EPSV1	

REVISIONS

TEST STEPS

1. OHMMETER CHECK OF DIODES NOT OPERATIONALLY CHECKED.
    OHMMETER ON X1 AND READS BETWEEN 7 AND 15 OHMS (aprox. 600 ohms on Fluke).

	POS LEAD		NEG LEAD
	49	TO	43 (CR56)
	49	TO	45 (CR55)
	49	TO	47 (CR54)
	1	TO	39 (CR3)
	1	TO	37 (CR9)
	ACC1 (39)	TO	27 (CR1)
	ACC2 (37)	TO	27 (CR2)

2. C20 CAPACITOR CHECK
    A. VISUALLY CHECK THAT C20 IS 1MFD.
    B. OHMMETER ON 10K RESISTANCE SCALE. APPLY TO TERMINALS 1 AND 5
        EITHER POLARITY. NOW TOUCH THESE TERMS WITH OPPOSITE POLARITY
        AND WATCH FOR KICK ON METER SHOWING THERE IS A CAPACITOR IN THE
   CIRCUIT.

3. P11 BUSS AND C1 (apply power)
    A. 1SW, 2SW, 5SW, OPEN; 3SW TO AC1; 4SW CLOSED;
    B. DVM & scope on term 27(P11); 20 ms/cm; normal.
    C. SCOPE TO READ 11 TO 11.5V (OR .5 TO 1 VOLT LESS THAN THE VOLTAGE
        APPLIED AS P12).
    D. OPEN 4SW WHILE WATCHING SCOPE. BUSS TO DECAY TO HALF VOLTAGE IN
        ROUGHLY ONE SWEEP OF SCOPE (.02 SEC ± 50%)
    E. CLOSE 4SW.

4. OUTPUT PULSE LOGIC
    (NOTE: 1SW, 2SW, 5SW, ARE OPEN; 4SW IS CLOSED; 3SW ON AC1)
    A. SCOPE ON TERM 11 (P+).. 1V/CM. 50 MICRO-SEC/CM.
    B. CLOSE 5SW AND PULSES SHOULD APPEAR. SYNCH SCOPE ON INTERNAL POSITIVE.
        SCOPE PICTURE LIKE FIG. 2 (TIME DETERMINED BY SUM OF THE TWO SINGLE
        SHOTS).

FIGURE 2

PULSE MUST→ 3.5 TO 4.5V (p-p)
GO POSITIVE

←—— 260 TO 340 ——→
MICROSEC
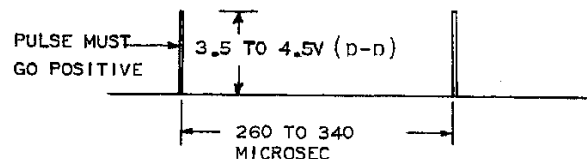
    C. CHANGE SCOPE TO 5 MICROSEC/CM. PICTURE LIKE FIG.3.

JMT   JM
18APR86 07Jul86
1)   2)
P6A
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M A CONNER					
ISSUED April 16, 1971			SALEM, VIRGINIA	LOCATION	CONT ON SHEET 3 SH NO. 2

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CODE IDENT NC

GENERAL ⊛ ELECTRIC

6 8 A 9 4 4 1 9 7	
CONT ON SHEET FL SH NO. 3	

REV NO.	TITLE
6 8 A 9 4 4 1 9 7	TEST SPECIFICATIONS
	INVERTER SEC CONTR.
CONT ON SHEET FL SH NO. 3	FIRST MADE FOR IC3600EPSV1

REVISIONS


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                          _____
                        /            _____ 2V
                      /                     \
                     /                       \___
    _____/                            _____
                |                      |
                | 40-55                |
                |<-- MICRO- -->|
                      SEC
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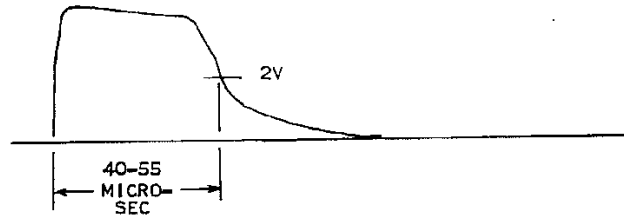
FIGURE   3

LOGIC

E. SYNCH IS 1   D. CHANGE SCOPE TO 2 MILLISEC/CM. SHOULD BE 50 TO 100 PULSES ON SCREEN.

E. TURN 2SW TO P30. THERE SHOULD BE TWO TO FOUR PULSES AND THEY ARE SPACED
   6 TO 18 MS. (THIS FREQUENCY IS SET BY UNIJUNCTION Q18)

F. STOP IS 1   F. OPEN 5SW. PULSES SHOULD DISAPPEAR.

G. STOP IS 0   G. CLOSE 5SW. TWO TO FOUR PULSES.

H. SYNCH IS 0   H. TURN 2SW TO P27. NOW HAVE 100 PULSES AGAIN.

J. SYNCH IS 0   J. TURN 3SW TO AC2. STILL HAVE 100 PULSES.

K. STOP IS 1   K. OPEN, THEN CLOSE 5SW. PULSES DISAPPEAR WHEN OPEN.

L. SYNCH IS 1   L. TURN 2SW TO P30. HAVE 2 TO 4 PULSES.

M. (SYNCH IS 0) M. TURN 2SW TO N30. HAVE 2 TO 4 PULSES.
   (COARSE IS 1)

N. COARSE IS 0   N. CLOSE 1SW. HAVE 100 PULSES.

5. FB AND C3
   A. MOVE SCOPE TO TERM 33 (FB). 1V/CM, 2 ms/cm, free running.
   B. NOTE: 1SW, 4SW, 5SW ARE CLOSED; 2SW ON N30; 3SW ON AC2.
   C. SCOPE PICTURE STRAIGHT LINE AT 2.0 TO 4.0 VOLTS.
   D. OPEN 1SW SCOPE PICTURE STRAIGHT LINE AT 5.5 TO 7.0 VOLTS.
   E. CHANGE 3SW TO AC1. NO CHANGE IN SCOPE.
   F. TURN 2SW OFF N30 WHILE WATCHING SCOPE. DECAYS TO HALF VOLTAGE IN ROUGHLY ONE
      SWEEP OF SCREEN (.002 SEC ± 50%).

6. SHUNT REGULATOR
   A. TURN POT R80 ALL CW. CONNECT VOLTOHMMETER AS 100MA METER PER FIG. 1.
   B. AMMETER TO READ 14 TO 18 MA.   15.54   14.58   15.28
   C. TURN R80 CCW UNTIL AMMETER STARTS TO DECREASE.
   D. TURN R80 (CCW) until ammeter reads 8 to 10 ma.

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M A CONNER				
ISSUED April 16, 1971		SALEM, VIRGINIA	LOCATION	CONT ON SHEET FL SH NO. 3

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