

FIGURE 1

FINAL ASSEMBLY MODEL 1C1000-1B
(S282T004-7 and S282T004-8) STATIC INVERTER

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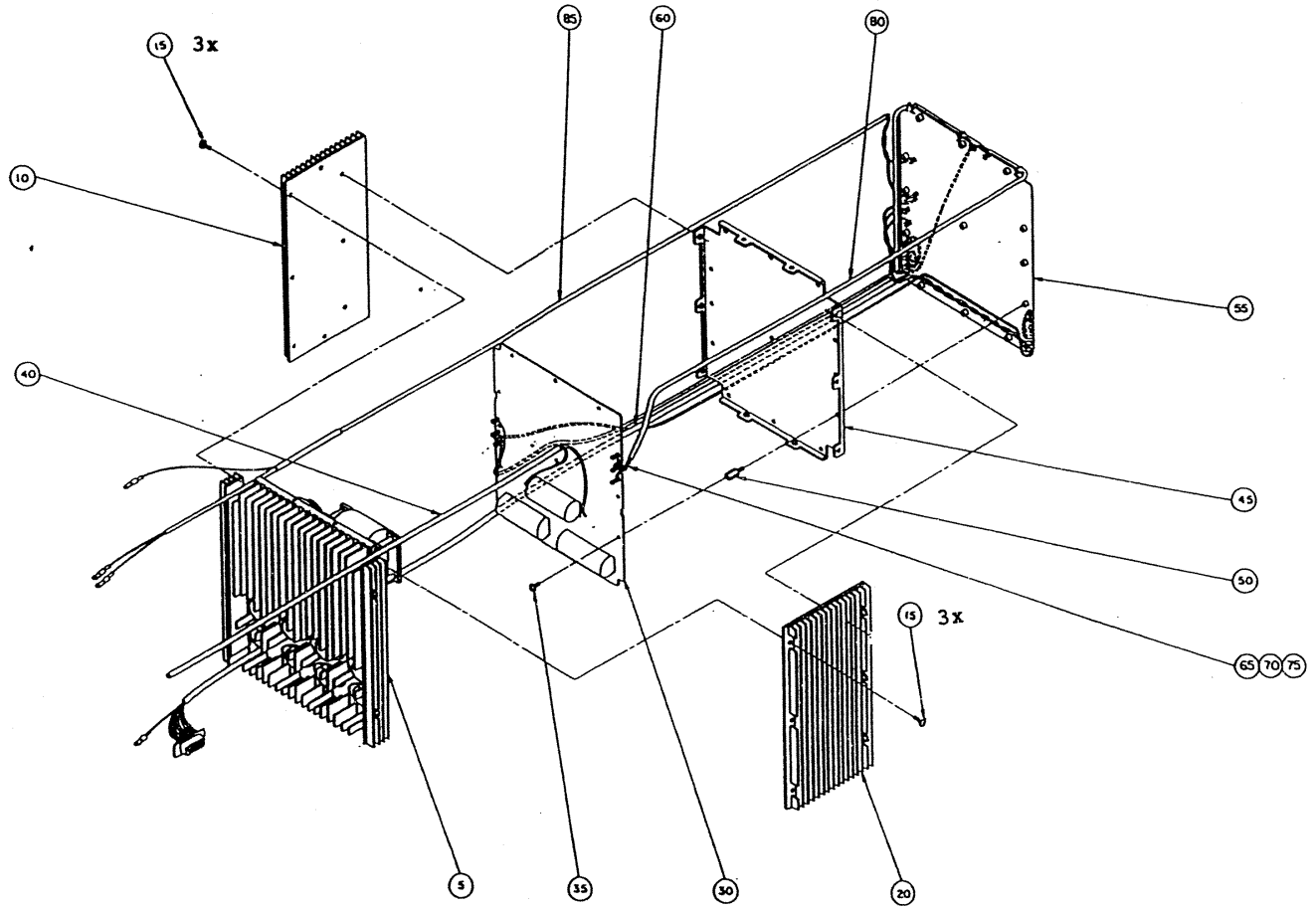


FIGURE 2

EXPLODED VIEW OF BRIDGE ASSEMBLY OF S282T004-7 and S282T004-8

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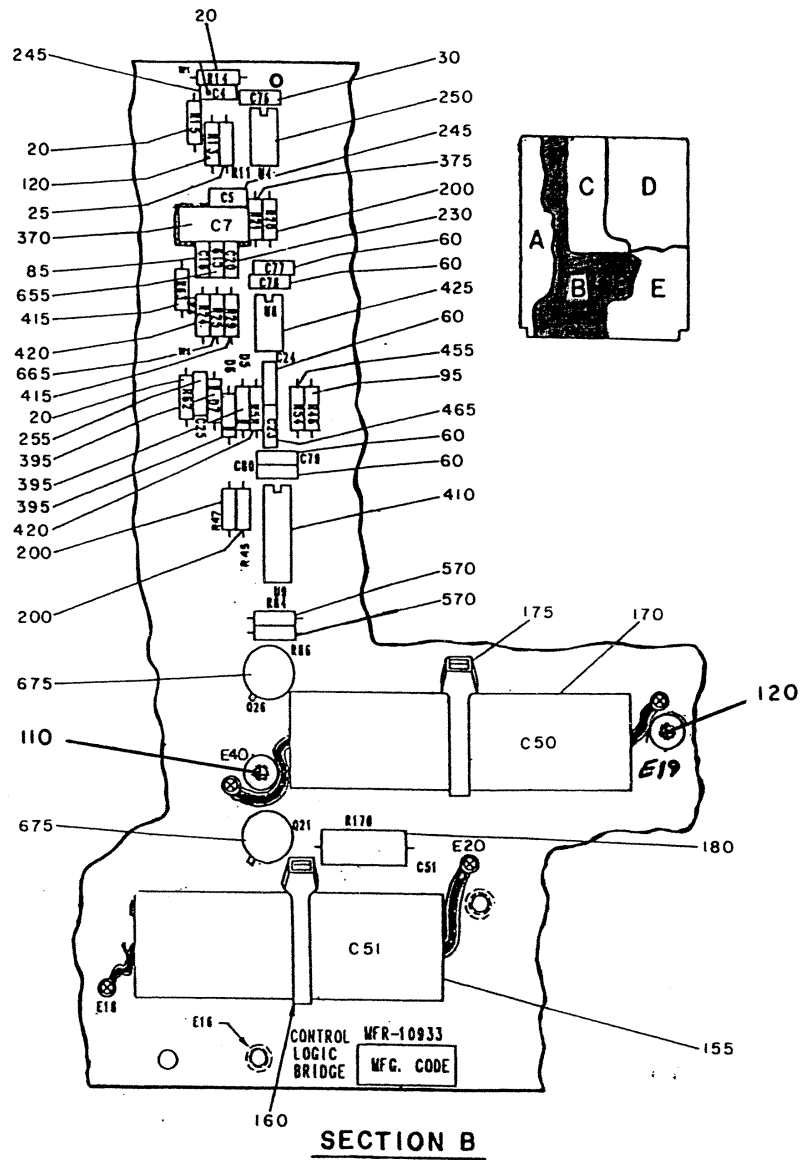


FIGURE 3

BRIDGE CONTROL LOGIC PCB ASSEMBLY
 (S282T004-7, S282T004-8, and S282T004-10) STATIC INVERTER

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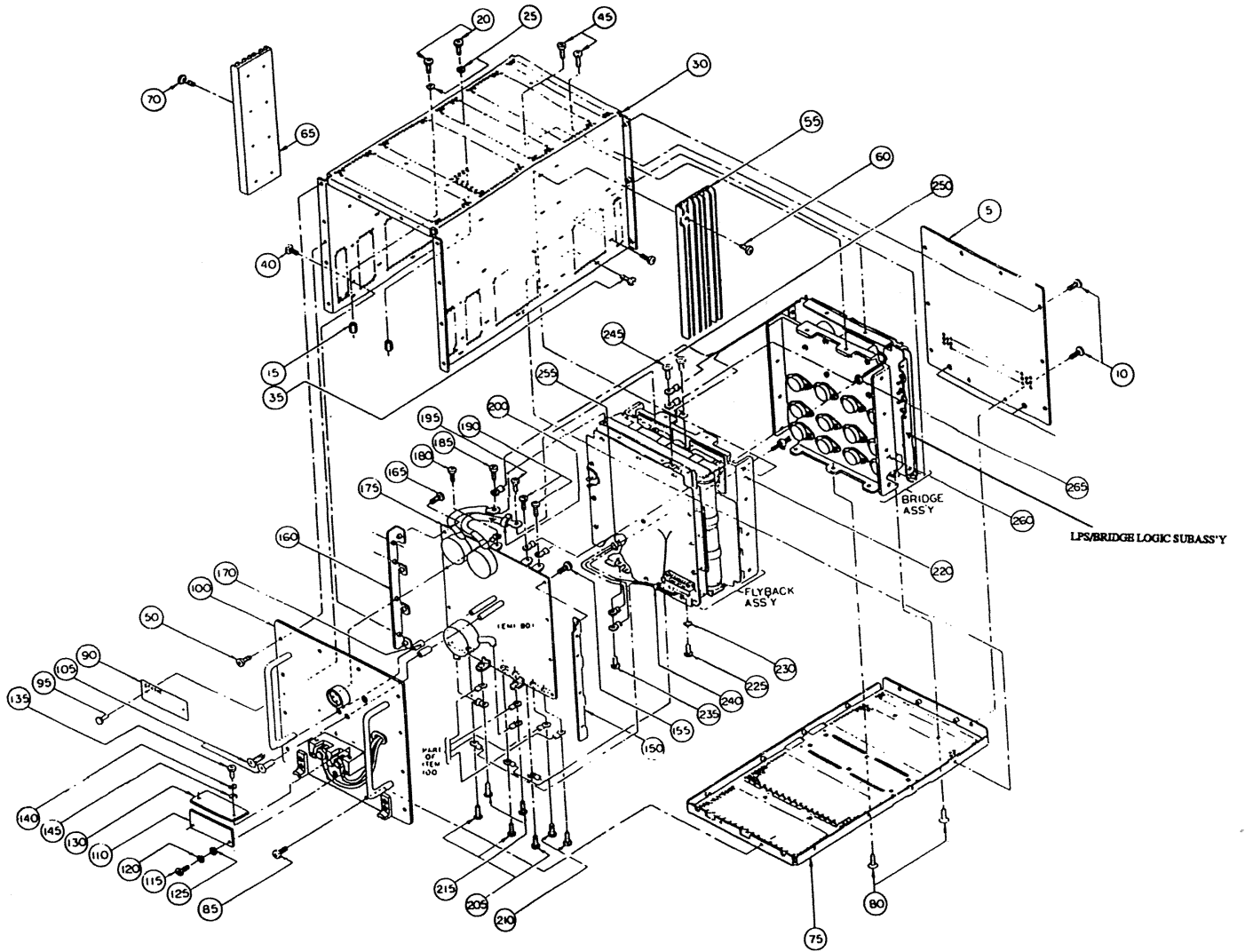


FIGURE 4

FINAL ASSEMBLY MODEL 1C1000-1C
(S282T004-10) STATIC INVERTER

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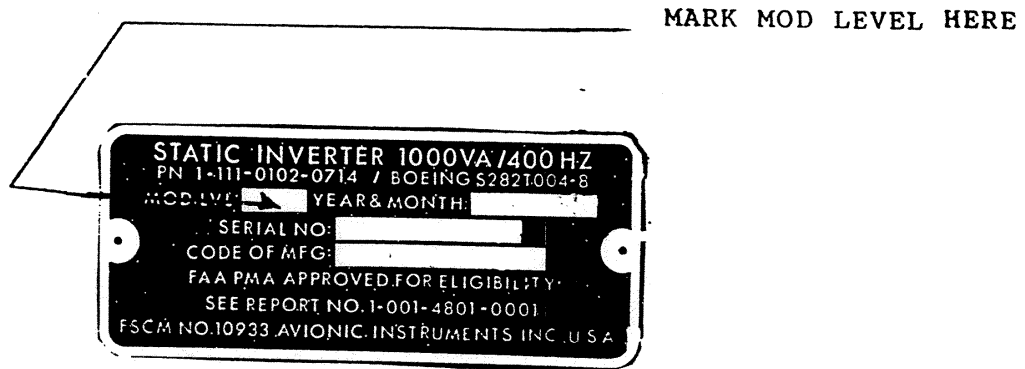


FIGURE 5

NAMEPLATE MARKING INFORMATION FOR
(S282T004-7, S282T004-8, and S282T004-10) STATIC INVERTERS

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ADDENDUM 1
FUNCTIONAL TEST REQUIREMENTS

1. General

This section contains instructions for testing the Model 1C1000-1C and 1C1000-1B Static Inverters. Testing is performed according to the procedure outlined in this section. The purpose of this test is to demonstrate that the static inverter meets all critical parameters and operates within the specified limits.

2. Test Equipment

A. Required Test Equipment

Figure 101 specifies the test equipment that is required for this test procedure. Alternate test equipment may be substituted provided its accuracy and performance are suitable for obtaining data consistent with the requirements of this procedure.

B. Test Setup

Figure 102 specifies the connections for the test setup.

3. Testing

This procedure establishes the operating conditions for the unit.

WARNING: DISCONNECT ALL POWER FROM THE STATIC INVERTER BEFORE MAKING CONNECTIONS OR PERFORMING ASSEMBLY OR DISASSEMBLY OPERATIONS.

A. Test Setup (See Figure 102)

- (1) Connect dc power supply, dc ammeter (with shunt, if required), and dc voltmeter to input of unit-under-test (UUT) -- TB1 on front panel. (Large diameter stud is positive; small diameter stud is negative.)

Equipment	Manufacturer	Model	Rating
DC Power Supply	Sorenson	DCR40-125A	0 to 40V, 0 to 125A
AC True RMS Voltmeter	Weston	433	0-150 V \pm 2%
AC Ammeter	Weston	904	0 to 50A \pm 2%
DC Voltmeter	Weston	931	0-50 V \pm 2%
DC Ammeter	Weston	931	0-100 A \pm 2%
Shunt for dc Ammeter (if required)	-	-	-
Linear Load	-	-	1000W
SPST Switch	Augat (Alco Switch)	TT13A-2T	3A, 28Vdc

NOTE: Equivalent substitutes may be used.

FIGURE 101

REQUIRED EQUIPMENT LIST FOR TEST PROCEDURE

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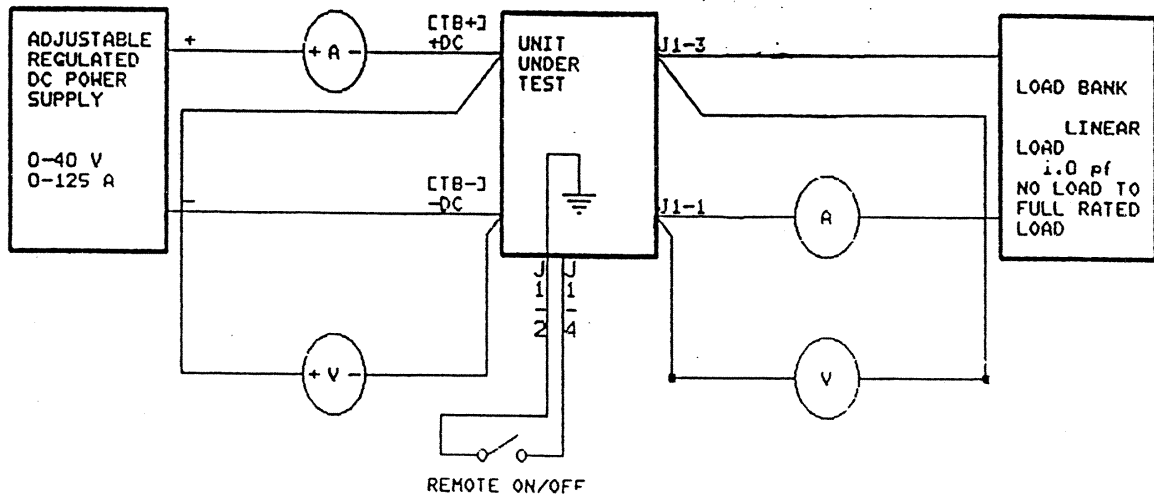


FIGURE 102

CONNECTIONS FOR TEST SETUP

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A. Test Setup (See Figure 102) (Continued)

- (2) Connect ac ammeter, ac voltmeter, and 1000 W nominal linear load to pins 1 and 3 of J1 on the front panel of the UUT.

NOTE: For regulation, power and efficiency measurements to be valid, the AC voltage measurement must be made at P1/J1 and the DC voltage measurement must be made directly at TB1.

B. Test Procedure

Perform steps of test procedure in listed order. Figure 103 specifies limits for each measured value. Testing must be stopped if any reading is out of tolerance and should be continued only after all faults have been corrected.

(1) No-Load Test

- (a) Disconnect 1000 W nominal linear load from J1 on UUT.
- (b) Adjust dc power supply to 24 $-2/+4$ Vdc.
- (c) Measure and record input current, output voltage. Record measured values and compare to limits in Figure 103.

(2) Full-Load Test

- (a) Connect 1000 W nominal linear load to J1 on UUT. Calculate the efficiency at full-rated load and at input voltages of 22 V or greater using the following equation:

$$\text{efficiency} = \frac{V_{\text{out}} * I_{\text{out}}}{V_{\text{in}} * I_{\text{in}}} * 100\%$$

The calculated efficiency at full-rated load should be at least:

82% at input voltages of 22 V or greater.

- (b) Adjust dc power supply to 24 -2/+4 Vdc.
- (c) Measure and record input current and voltage ,and output current and voltage. Record measured values and compare to limits in Figure 103.

(3) Remote On/Off Test

- (a) Adjust dc power supply to 24 -2/+4Vdc.
- (b) Close remote on/off switch for 5 seconds. This grounds Pin J1-4.
- (c) UUT output should be zero.
- (d) Open remote on/off switch. Verify that output returns.
- (e) Turn off dc power supply and disconnect load.

C. Limits, Measured Values

Check all readings against values specified in Figure 103. Repairs are required if input current, output voltage, or efficiency are not within tolerance.

<u>Input</u>		<u>Output</u>		
Voltage (Vdc)	Current (Adc)	Voltage (Vrms)	Current (A)	Nominal Load (W)
22-28	3.5 (1)	110-120	0	0
22-28	70 (1)	110-120	8.7 (2)	1000

- (1) Worst case input current limit for 22 V input, 1000 W load.
- (2) Nominal output current, load dependent. 1000 W current equal to output voltage divided by load resistance (typically 13.2 ohms at 1000 W).

FIGURE 103

LIMITS FOR MEASURED VALUES