

DATA ITEM DESCRIPTION			Form Approved OMB No. 0704-0188	
1. TITLE Support Equipment Installation Data (SEID)		2. IDENTIFICATION NUMBER DI-ILSS-80454		
3. DESCRIPTION/PURPOSE 3.1 The SEID provides the Government with information required for the installation of SE in existing or planned shipboard/shore-based facilities. 3.2 It includes services, as well as space, mounting, environmental, special facility, and safety requirements relating to SE installation.				
4. APPROVAL DATE 871006	5. OFFICE OF PRIMARY RESPONSIBILITY (OPR) AS	6a. DTIC APPLICABLE	6b. GIDEP APPLICABLE	
7. APPLICATION/INTERRELATIONSHIP 7.1 This data item describes data required by MIL-STD-2097(AS), paragraph 5.6.2.10. 7.2 This DID shall be applied to SE intended for installation in shipboard and/or shore-based facilities. 7.3 DID DI-ILSS-80118A, LSA-070, SERD is related and companion data. 7.4 This DID supersedes UDI-P-210060.				
8. APPROVAL LIMITATION		9a. APPLICABLE FORMS	9b. AMSC NUMBER N4231	
10. PREPARATION INSTRUCTIONS 10.1 <u>Reference Documents</u> . The applicable issue of the documents cited herein, including their approval dates and dates of any applicable amendments, notices, and revisions, shall be as specified in the contract. 10.2 <u>Content</u> - SEID shall be furnished as required in MIL-STD-2097(AS), paragraph 5.6.2.10. The SEID required shall be legible and sufficiently detailed to enable site layout, preparation, and complete installation of the equipment by the procuring activity. The data shall include items of information as listed in paragraph 10.3. 10.3 <u>Items of Information</u> - The items of information required shall be prepared under the following headings: a. Equipment Physical Requirements. b. Space Requirements. c. Mounting Requirements. d. Servicing Requirements. e. Safety Requirements. f. Security Requirements. 10.3.1 <u>Equipment Physical Requirements</u> . List as follows: a. Envelope dimensions - list length, width, and height of equipment, excluding packaging. If equipment folds for storage, list both storage and operating dimensions.				
(Continued on page 2)				
11. DISTRIBUTION STATEMENT DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.				

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10. PREPARATION INSTRUCTIONS (Continued);

- b. Weight - list weight of equipment, excluding packaging.
- c. Provide approximate center of gravity.

10.3.2 Space Requirements. List as follows:

- a. Operator space - list space required by personnel for operation of the equipment.
- b. Drawer removal space - list space required for removal of drawers, opening of doors, or removal of access panels, if applicable.
- c. Access space - list access space required at front, rear, above, below, and each side of the equipment.
- d. Additional space requirements required for units under test (UUTs) or ancillary test equipment.

(1) Identify UUT mounted test position, e.g., on rack pullout work shelf/adjacent test bench/test roll cart.

(2) Indicate space required to move around the mounted UUT.

e. Recommend position of test station in relation to other stations or associated equipment, as well as maximum and minimum separation permitted between related stations.

f. Storage for ancillary test equipment and publications.

(1) Show test roll cart(s) operating and storage positions with securing features.

(2) Indicate storage requirements for ancillary test equipment and related publications.

10.3.3 Mounting Requirements. List as follows:

a. Mounting:

(1) Rack mounting hole sizes and locating dimensions. (Refer to Figure 2, View 10-A.)

(2) Vibration isolator bottom mounting pad and hole pattern dimensions. (Refer to Figure 2, View 6-D.)

(3) Sequence of installation.

(4) Identify SE and GFAE/WRA (UUT) mounting dimensions or submit drawings. (Refer to Figure 1, Views 6-B, 6-C, 8-C, 9-B, 10-A.)

b. Grounding and connection(s).

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10. PREPARATION INSTRUCTIONS (Continued)

(1) Identify stud size, threads and wire size (AWG). (Refer to Figure 2 Side Elevation View).

c. Special tools for installations.

10.3.4 Servicing Requirements. List as follows:

a. Hydraulic (type of fluid, pressure, flow rate, temperature, and hoses.)

b. Liquid coolant identification.

c. Water (list pressure, flow, volume, temperature, and purity.)

d. Steam (list pressure, flow, volume, temperature, and quality.)

e. Air or vacuum (list pressure, flow, volume, temperature, purity, and vapor limitation.)

f. Gas (list pressure, flow, volume, temperature and type of gas.)

g. Air conditioning (list pressure, flow, volume, temperature, and inlet duct size.)

h. Service System Flow Diagram

(1) Identify hoses/tubing, fittings, valves and sizes.

(2) Identify supply/return fittings and sizes of connections.

i. Electric and Electronic input (Refer to Figure 2, Power Requirements Table I.) For each connection to the power service provided the following:

(1) Alternating Current (Refer to Para 10.4 Definitions)

Nominal Frequency	- Hertz
Frequency Tolerance	- Percent or Hertz
Quantity of Phases	- Number
Type Connection	-Wye or Delta & # of conductors
Nominal Voltage	- Volts (rms)
Voltage Tolerance	- Percentage
Voltage Transient Tolerance	- Percentage
Voltage Transient Recovery Time	- Seconds

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10. PREPARATION INSTRUCTIONS (Continued)

Total connected Load & Power  
Factor - KW or KVA/decimal

Leakage current between any  
power service connection and  
chassis or ground connection - Milliamps

For equipment connections over 3.5 KVA add:

Worst case in-rush current - Amperes (peak)

Duration of in-rush current - Milliseconds

Harmonic current spectrum - % of Fundamental

Largest steady state current  
change - Amperes (rms)

Average connected load & power  
factor - KW/decimal

## (2) Electric and electronic input - Direct Current.

Voltage.

Voltage limits.

Amperage.

Ripple.

Identify positive and negative wiring.

j. Heat dissipation of equipment (Use VA times 3.41 factor for BTU/HR.)

k. Special facility requirements (Example: Ship's Gyro Information if applicable.)

l. Installation Cabling Diagram (Refer to Figure 2, View 9-C or Figure 1, View 10-C.)

(1) Wiring color coding or line identification.

(2) Identify power plugs for compatibility with work bench receptacles.

(3) If required, identify interface device, e.g., transformer with mounting dimensions and connections from ships power and to test equipment. (Refer to Figure 2, View 7-D).

m. Provide interconnecting wiring diagram, for multi-unit/rack

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**10. PREPARATION INSTRUCTIONS (Continued)**

systems, e.g., racks that are shipped separately. (Refer to Figure 2, View 10-B.)

(1) Identify cable (W1) and plugs (P1) connected to Jack (J1), etc.

**10.3.5 Safety Requirements.** The provisions and equipment necessary to protect personnel and equipment including sound attenuation and laser requirements shall be stated.

**10.3.6 Security Requirements.** State the security classification of the equipment being installed or the classification of any equipment used with the installed equipment.

**10.4 Definitions****a. Voltage**

(1) User Voltage. The nominal user input voltage (AC) is defined as the root-mean-square (rms) voltage applied. The nominal user input voltage (DC) is defined as the actual positive or negative voltage applied.

(2) User Voltage Tolerance is the maximum permitted departure from nominal user voltage during normal operations, excluding transient and cyclic voltage variations.

(3) Transient Voltage Tolerance. A voltage transient (excluding spikes) is a sudden change in voltage which goes outside the user voltage tolerance limits and returns to and remains within these limits within a specified recovery time after the initiation of the disturbance. The transient voltage tolerance is in addition to the user voltage tolerance limits.

(4) Transient Voltage Recovery Time is the time elapsed from initiation of the disturbance until the voltage recovers and remains within the user voltage tolerance limits.

(5) Phases. Shipboard generators generally have their alternating-current circuits arranged to produce three-phase a.c. power with an angular relationship of 120 degrees. Single-phase a.c. power is also available aboard ship.

**b. Frequency**

(1) Nominal Frequency is the steady state, nominal user input frequency in Hertz (Hz).

(2) Frequency Tolerance is the maximum permitted departure from nominal frequency during normal operation, excluding transient and cyclic frequency variations.

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10. PREPARATION INSTRUCTIONS (Continued)

c. Current

(1) Steady State Current is full load current in rms amps drawn by the user equipment.

(2) Start-Up or In-Rush Current is the turn on, peak current drawn by the user equipment.

(3) Duration of In-Rush Current is the time (in milliseconds) from sudden change in current (turn on) until the current recovers to steady state value.

(4) Harmonic Current Spectrum is the user equipment line currents from the 2nd up to 32nd harmonic (expressed in percent of the fundamental current). A harmonic frequency is a multiple of the fundamental frequency.

d. Power

(1) Connected Load is the nameplate rating of all equipment in the systems.

(2) Steady State Operating Load is the continuous steady-state power in kW and kVA consumed by the user equipment.

(3) Transient Operating Load is the sudden change in power (kW and kVA) consumed by the user equipment.

(4) Power Factor is the ratio of total watts per phase to the total rms volt-amperes per phase.

e. Leakage Current is the total rms current that passes from phase to ground with nominal voltage impressed at the nominal frequency.

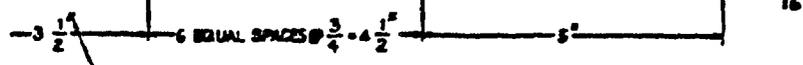


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10. PREPARATION INSTRUCTIONS (Continued)

TEST BENCH INSTALLATION							REMARKS
MIL STOCK NO.	ENV DIM IN			VOL CU FT	L IN	WT LBS	
	W	H	D				
2-01-213-452	12	18	10 1/2			50	GFE
						96	P/D ITEM 1
						72	
							P/D ITEM 1
10-01-567-1723	7 1/2	12 3/4	13 1/2			55	
10-01-567-1841	13 1/2	15	18 3/4			14	
10-01-567-1856	18	9	10 1/2			42	
						96	P/D ITEM 2
						88	
						72	
						72	GFE, P/D ITEM 2

- NOTES:**
1. IN LIST OF MATERIAL DIMENSIONS COLUMN FRONT ELEVATION, BOTTOM, AND "D" 1
  2. THIS DRAWING IS FOR PROCUREMENT PURPOSES
  3. ELECTRICAL DISTRIBUTION RIGHT OF BENCH, REFERENCE 2.
  4. ITEM IS NOT SUPPLIED AND MUST BE REMOVED
  5. SEPARATE COVER, POI HINGE PINS AND ST MOUNTING FIXTURE, MINIMUM BENDING
  7. POWER CABLE ASSEMBLY REFERENCE 2 RECEIPT



INDICATES INFORMATION FOR DRAFTSMAN AND IS NOT TO APPEAR ON DRAWING.

- REFERENCES:**
1. ELECTRONIC WORK BENCH
  2. ELECTRICAL DISTRIBUTION TERMINAL BOARD ASSEMBLY
  3. MODEL, OPEN END SOURCE IN COMPUTER SET, ANJAM
  4. MODEL, OPEN END SOURCE IN FOR NAVY COMPUTER ANJAM-123(V)
  5. EIGHT INSTL INSTR BOX

VOLT AMP	DC			HEAT DISSIPATION BTU/HR
	VOLTS	AMPS	WATTS	
545	NA	NA	NA	1176
425	NA	NA	NA	5882
115	28	5	140	369

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FIGURE 1. Test bench harness sample data drawing - Continued.  
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10. PREPARATION INSTRUCTIONS (Continued)

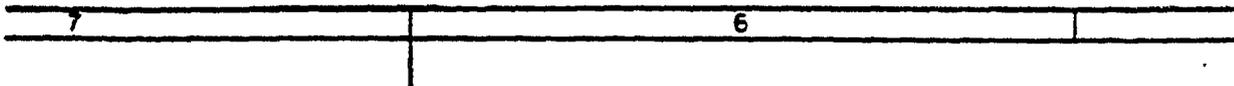
LIST OF MATERIAL AND COMPONENTS FOR TEST BE				
ITEM NO.	DESCRIPTION	QTY	MATERIAL	NATIONAL STOCK
1	COMPUTER TEST SET (ANASM-123(V))	1		
2	CABLE ASSY, POWER, W1 (60 Hz)	1	(P/N M52548-2)	1126500
3	CABLE ASSY, COMPUTER, W2	1		1126511
4	DUMMY CONNECTOR PLUG, D1	1		1126200-01
5	DUMMY CONNECTOR PLUG, D2	1		1126201-01
6	MOUNTING FIXTURE, COMPUTER	1		1367400
7	COOLING FAN, AUXILIARY	1		1367500
8	CONTROL-INDICATOR SIGNAL TESTER	1		1367600
9	CABLE ASSY, POWER, W1 (28 VDC)	1	(P/N M52548-3)	1882562
10	CABLE ASSY, POWER, W2 (400 Hz)	1	(P/N M52548-4)	1882455
11	CABLE ASSY, W3	1		
12	CABLE ASSY, W4	1		

EQUIPMENT	AC							VOLT AMP	VO
	VOLTAGE	FREQUENCY Hz	PHASE	NO. OF WIRES	AMPS	POWER FACTOR			
ANASM-123(V)	115	60	1	3	3	UNK	345	N	
1367400	115/200	400	3Y	5	5	UNK	1725	N	
1367600	115	400	1	3	1	UNK	115	Z	

FIGURE 1. Test bench harness sample data drawing - Continued.

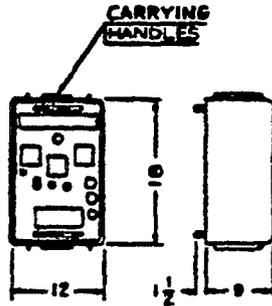
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10. PREPARATION INSTRUCTIONS (Continued)

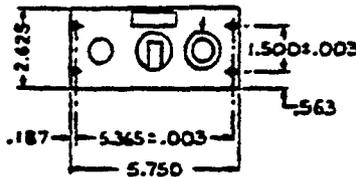
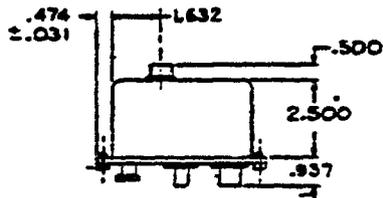


EEL ANGLE  
X1 1/2 X 1 X9 1/2  
TH SIDES

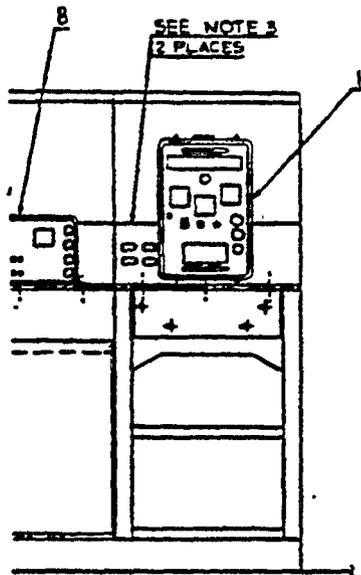
HA  
VES  
DATA NOTE A



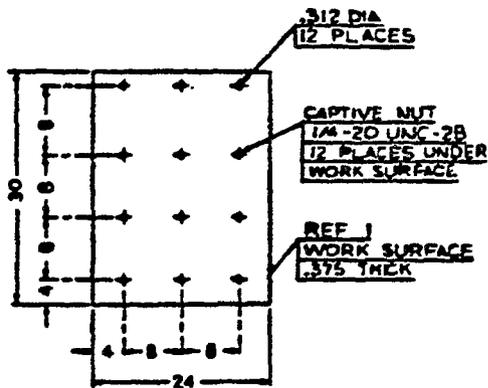
VIEW 6-C  
ITEM 1 COMPUTER TEST SET  
SEE NOTE 5



VIEW 6-B  
SCALE 1/2  
SAMPLE UVT DATA



ELEVATION



VIEW 6-A  
SHOWING BOLT HOLE PATTERN  
(SEE DATA NOTE A)

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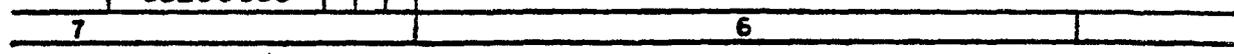
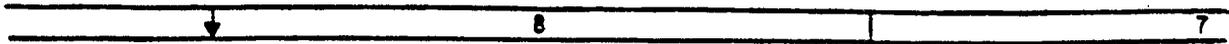


FIGURE 1. Test bench harness sample data drawing - Continued.  
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10. PREPARATION INSTRUCTIONS (Continued)

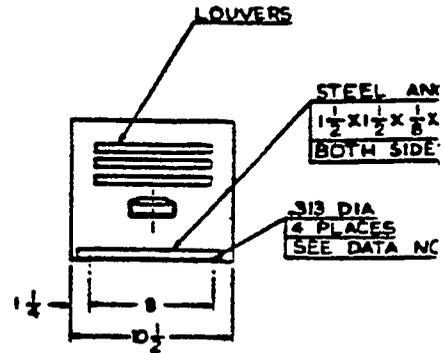
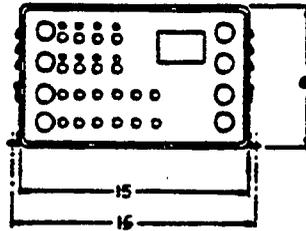


3 VDC  
POWER  
TO REF 2

C  
12.0  
EF 2

HOT NEUTRAL GROUND  
115 VAC  
60 HZ, 1Ø  
POWER  
TO REF 2

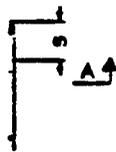
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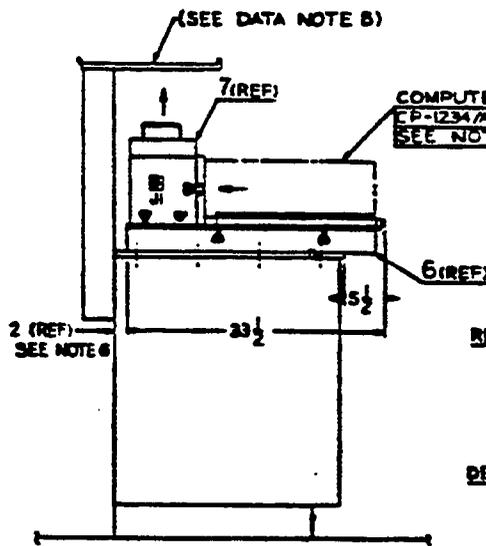
VIEW B-C  
ITEM 8 CONTROL-INDICATOR SIGNAL TESTER  
SCALE: 1/8"

POWER CABLE ASSEMBLIES SHOWN ARE IN ACCORDANCE WITH MIL-STD-1653A (AS) DATED 12 MARCH 1980. SEE NOTE 7.

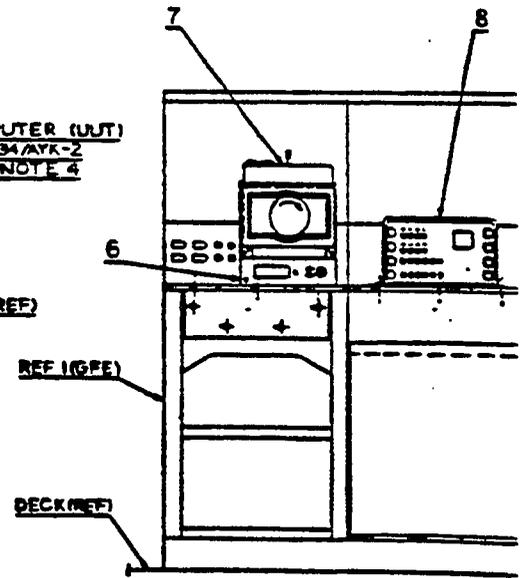
COMPUTER (ULT)  
MOUNTING RAILS



COVER HINGE



SIDE VIEW



FRONT ELEVATION



FIGURE 1. Test bench harness sample data drawing - Continued.

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10. PREPARATION INSTRUCTIONS (Continued)

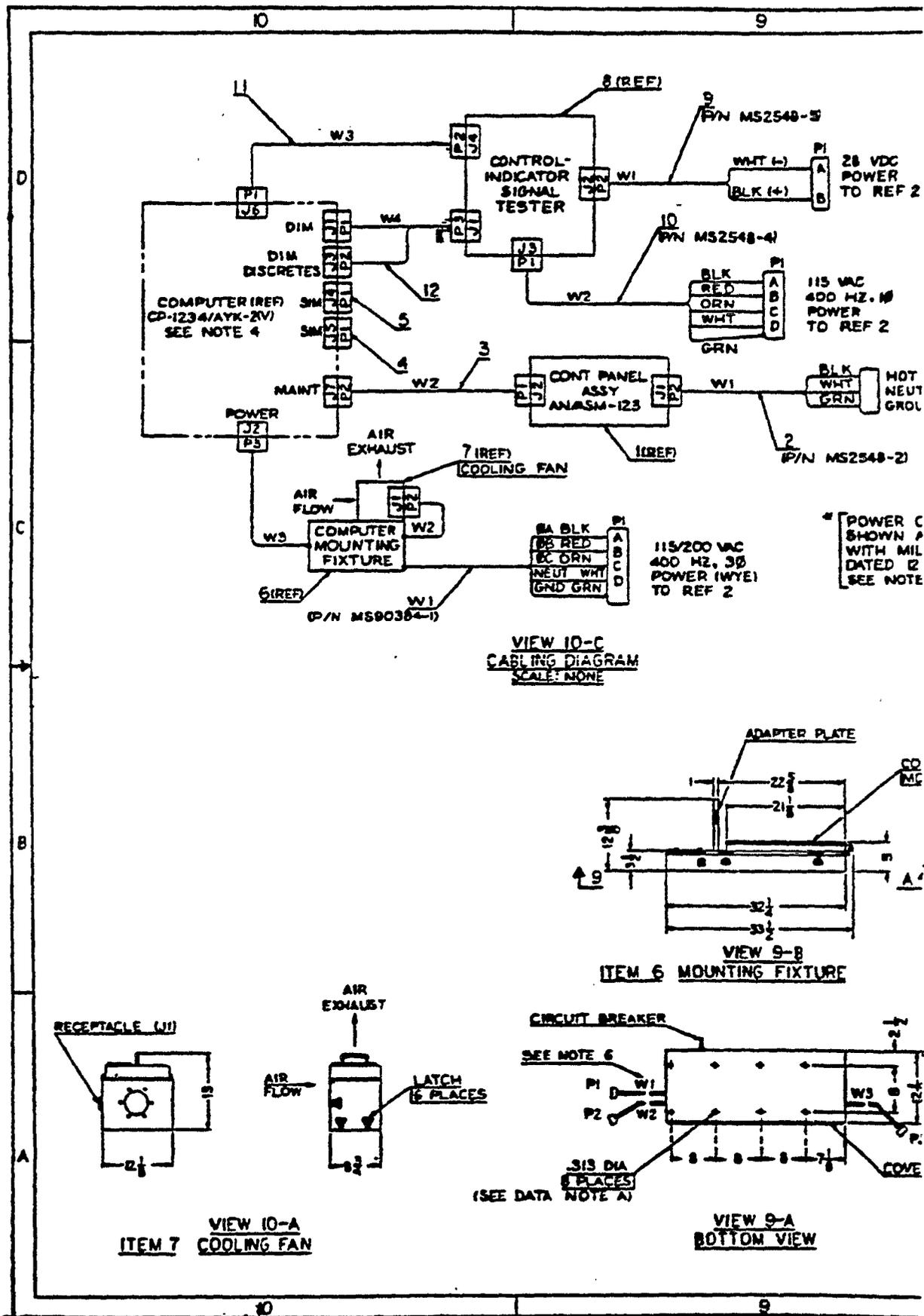


FIGURE 1. Test bench harness sample data drawing - Continued.  
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10. PREPARATION INSTRUCTIONS (Continued)

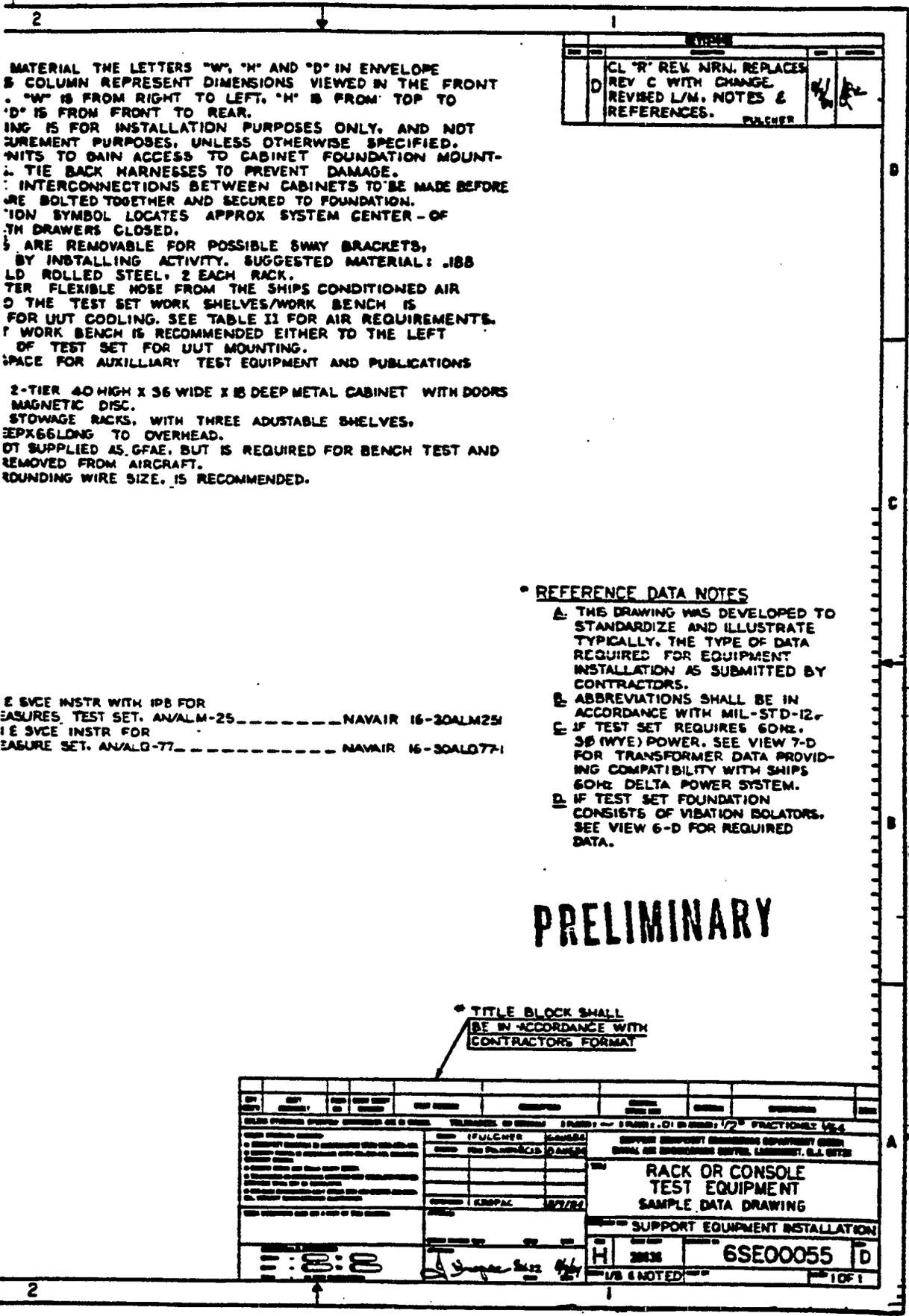


FIGURE 2. Rack or console test equipment sample data drawing. Page 13 of 18 Pages



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10. PREPARATION INSTRUCTIONS (Continued)

USE OF MATERIAL AND COMPONENTS FOR RACK OR TEST				
ITEM NO.	DESCRIPTION	QTY	MATERIAL	NATIONAL STOCK
1	TEST SET, COUNTERMEASURES	1	(AN/ALM-25)	3056640G1
2	RACK ASSY NO. 1	1	(R00-123/ALM-25)	3056641G1
3	RACK ASSY NO. 2	1	(R00-124/ALM-25)	3056642G1
4	CABLE ASSY. POWER. W1 (400 HZ)	1		3021215G1
5	CABLE ASSY. POWER. W2 (60 HZ)	1		3021216G1
6	CABLE ASSY. POWER. W3 (28 VDC)	1		3021215G1
7	CABLE ASSY. W4 (RECEIVER)	1		3021212G1
8	CABLE ASSY. W5 (COMPUTER)	1		3021211G1
9	WASHER, FLAT 3/8 DIA	2		MS15785-M
10	WASHER, LOCK 3/8 DIA	2		MS33330-46
11	NUT, PLAIN, HEX 3/8-16UNC-2B	2		MS35649-2382
12	STRAP, GROUNDING 12 LGTH	1		3021105G1
13	WASHER, FLAT #10 DIA	16		MS15785-42
14	WASHER, LOCK #10 DIA	16		MS33338-43
15	NUT, PLAIN, HEX #10-32UNF-2B	16		MS35650-302
16	BOLT, MACH #10-32UNF-2A125/32	16		ANS-6A

TABLE I TEST RACK POWER REQUIREMENTS									
ITEM NO.	EQUIPMENT	VOLTAGE	FREQUENCY Hz	AC			AMPS	POWER FACTOR	VOLTS AMPS
				PHASE	NO. OF WIRES				
1	AN/ALM-25	115/200	400	3- $\phi$	5	5/8	.80	115BC	
		115	60	1	5	10	.80	82C	

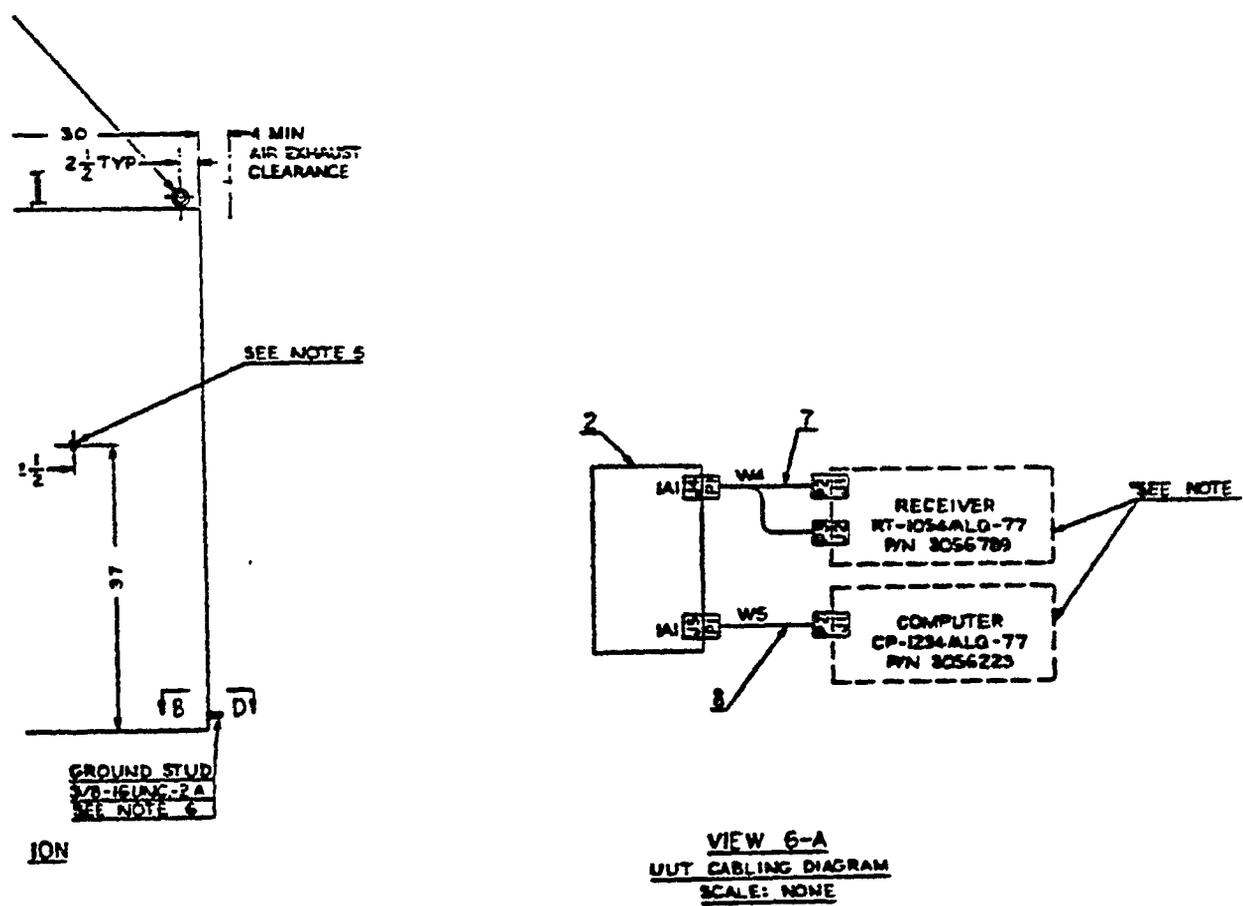
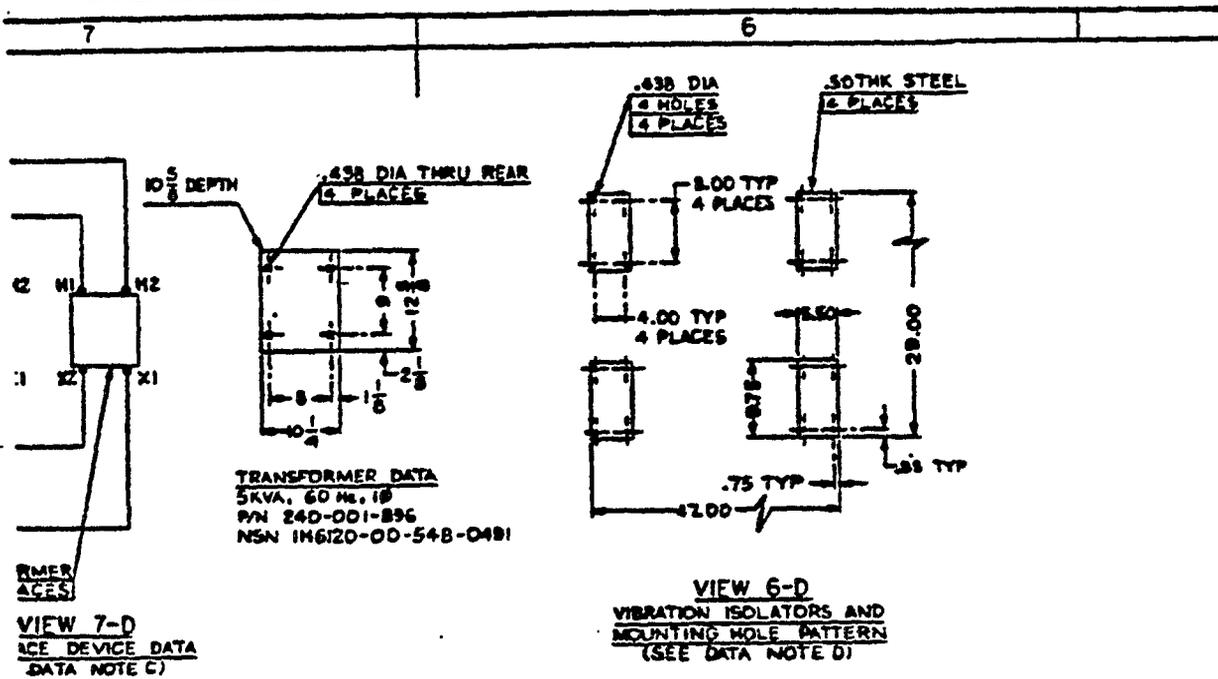
SEE NOTE 10

TABLE II LUT AIR CONDITIONING REQ			
PRESSURE	VOLUME	FLOW	ITEM
BOSES OF H <sub>2</sub> O	CUBIC FEET/MIN	POUNDS/MIN	DE
LS MIN	21.8 MIN	1.64 MIN	72

FIGURE 2. Rack or console test equipment sample data drawing - Continued.  
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10. PREPARATION INSTRUCTIONS (Continued)



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FIGURE 2. Rack or console test equipment sample data drawing - Continued. Page 16 of 18 Pages

10. PREPARATION INSTRUCTIONS (Continued)

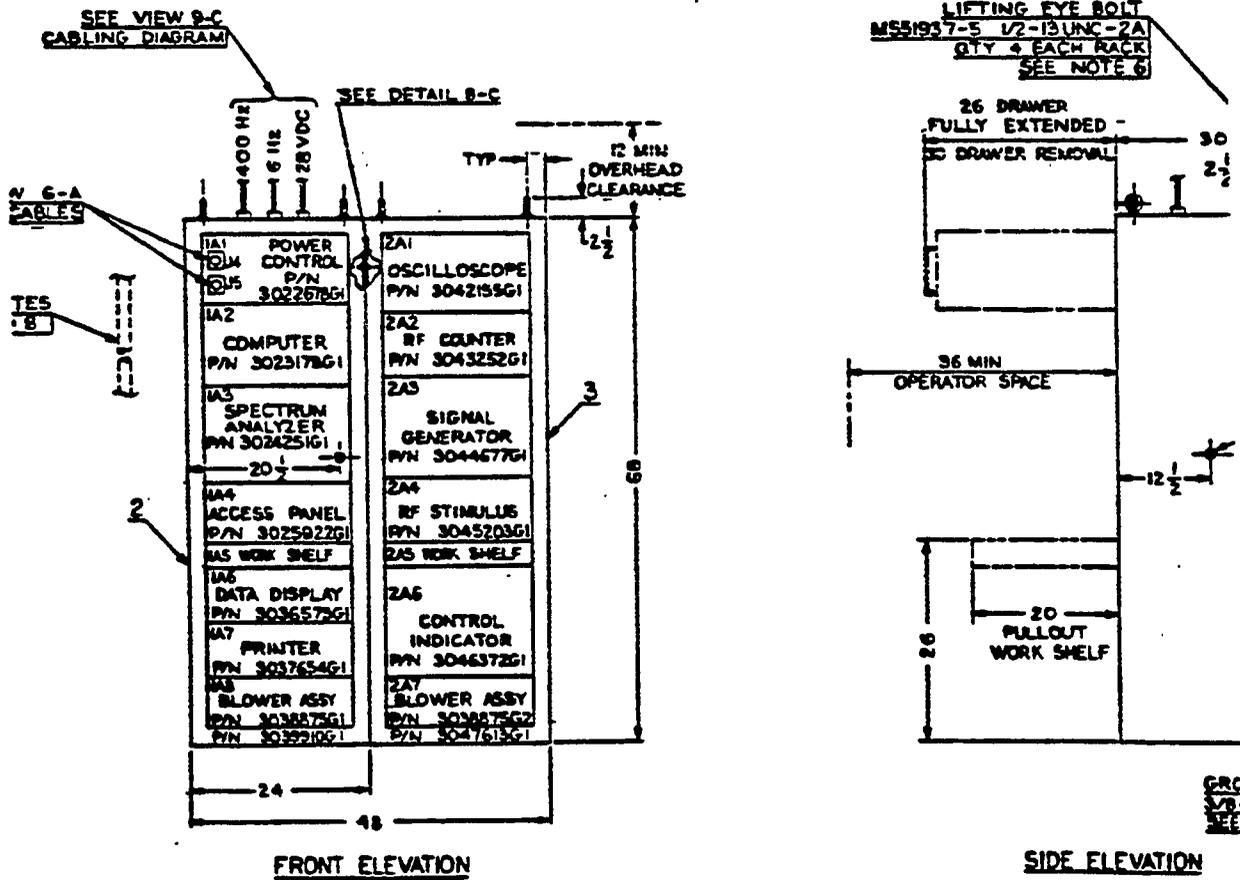
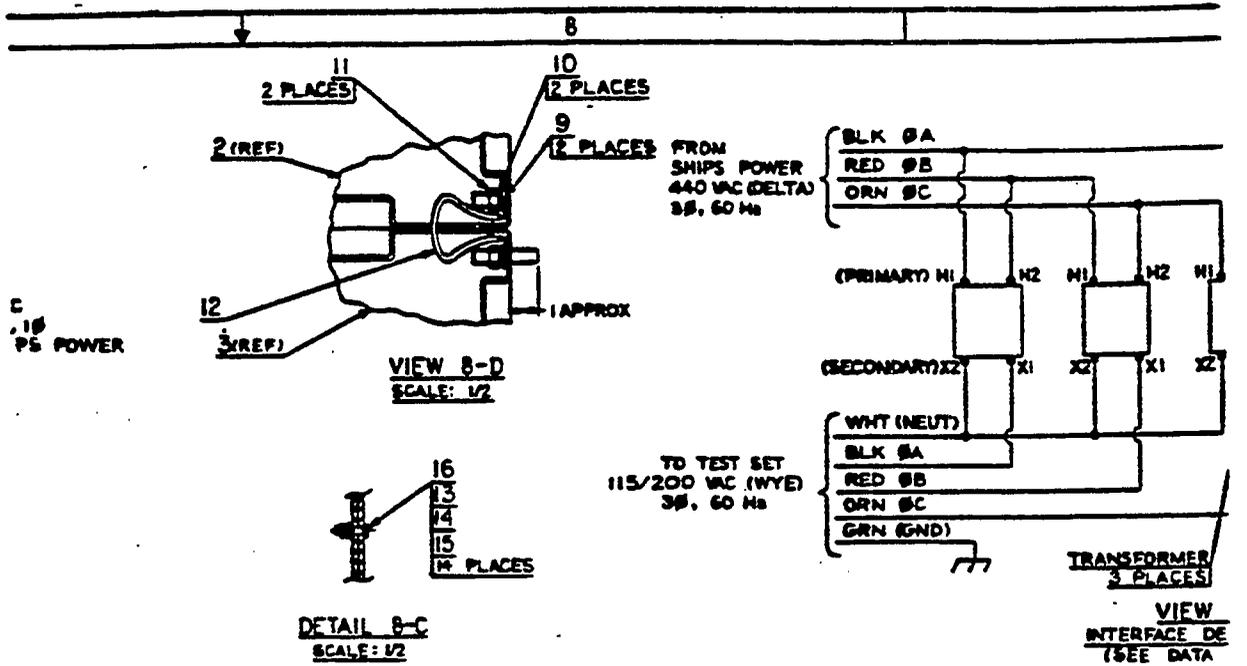


FIGURE 2. Rack or console test equipment sample data drawing -Continued.

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10. PREPARATION INSTRUCTIONS (Continued)

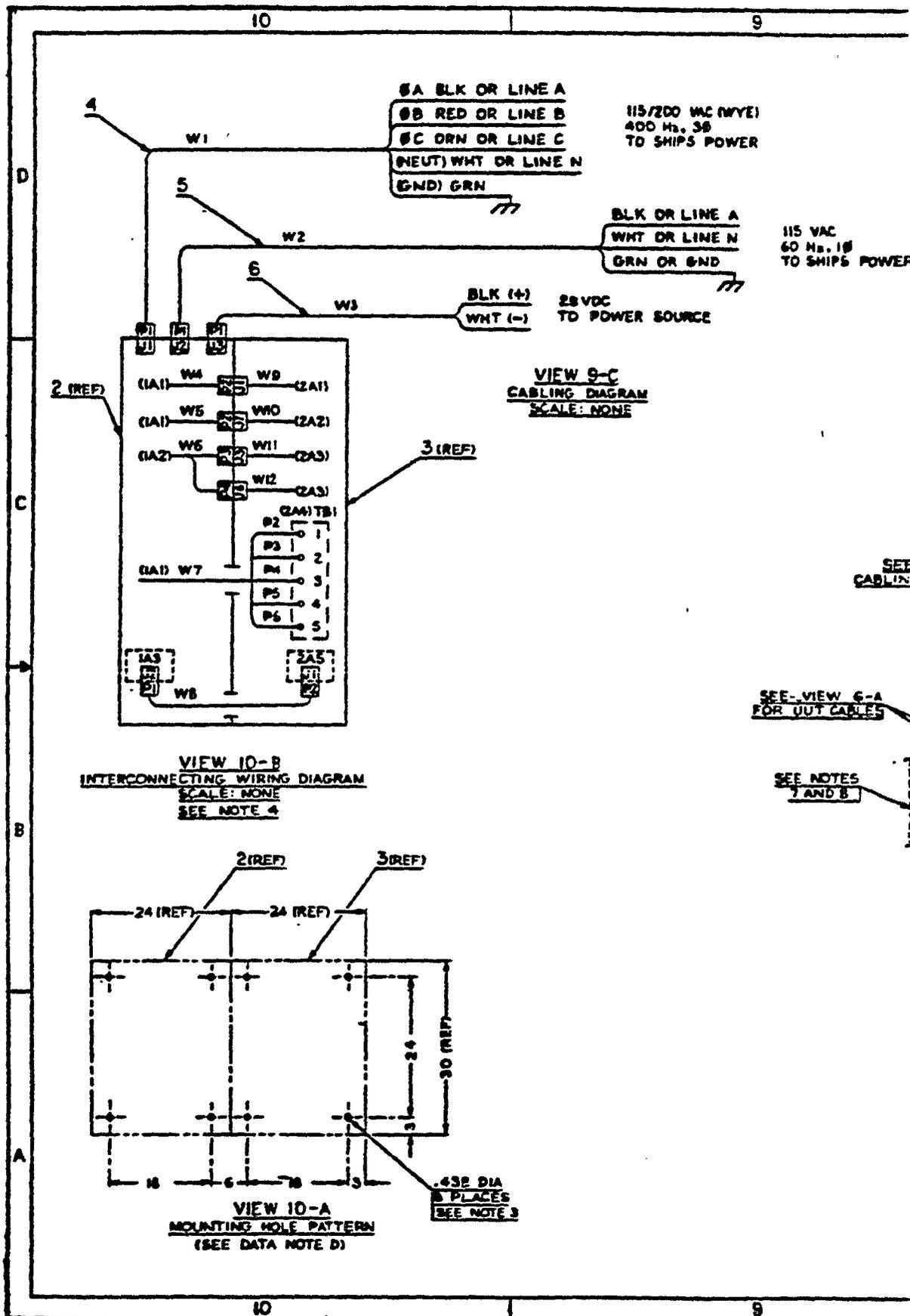


FIGURE 2. Rack or console test equipment sample data drawing - Continued.  
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