

Cleaner Image 60 Knickerbocker Dr., Belle Mead, NJ 08502  
 Phone/Fax 908-359-5060  
**Service Report**

Company Name & Address  <i>BOEING</i> <i>IRVING RD</i> <i>HEATH OHIO</i>	<input type="checkbox"/> Installation	Model <i>SH1A</i>	Serial#
	<input type="checkbox"/> Warranty	Job Number	
	<input type="checkbox"/> Contract <input type="checkbox"/> Billable <input type="checkbox"/> Miscellaneous	P.O. Number	
Reported Problems	Operator <i>JIM NERI</i>	Phone <i>740-781 4109</i>	

*PM*

Action Taken

- CLEAN COLUMN LINER REPLACE FINAL APERTURE*
- CHECK LEAKBACK TIME OK.*
- ZERO VAC METER*
- CLEAN GUN ORING - ADJ STAGE CLAMP*
- SOLDER GROUND WIRE ON STAGE*
- TIGHTEN FILAMENT SOCKETS REPLACE FILAMENT*

Contract Expiration Date:

Parts Used				Job Status		
Qty	Part No.	Description	Origin	<input type="checkbox"/> Complete		
				<input type="checkbox"/> Incomplete		
				<input type="checkbox"/> Awaiting Parts		
				<input type="checkbox"/> Other (explain)		
				<b>Hours</b>	Actual	Billable
				Travel		
				Labor		
				<b>Estimated Billable Expenses</b> (Subject to correction)		
				Travel		
				(Air Fare or Mileage)		
				Lodging		
				Meals		
				Misc. (explain)		
				Total		

**CLEANER IMAGE**  
 60 Knickerbocker Dr., Belle Mead, New Jersey 08502

Follow Up / Explanations

Date Started <i>11/30/05</i>	Field Service Signature <i>[Signature]</i>	Customer Signature <i>[Signature]</i>
Date Completed <i>11/30/05</i>		

**Record of Training and Acceptance of Safety Responsibility**

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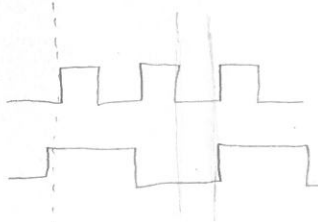
*By signing I acknowledge that I have received operational instruction for the instrument referenced on this document.*

<u>Employee</u>	<u>Trainer</u>	<u>Date</u>	<u>Employee</u>	<u>Trainer</u>	<u>Date</u>

MIL-M-38510/77A

AB 1Y 2Y

100  
50



Device type 02

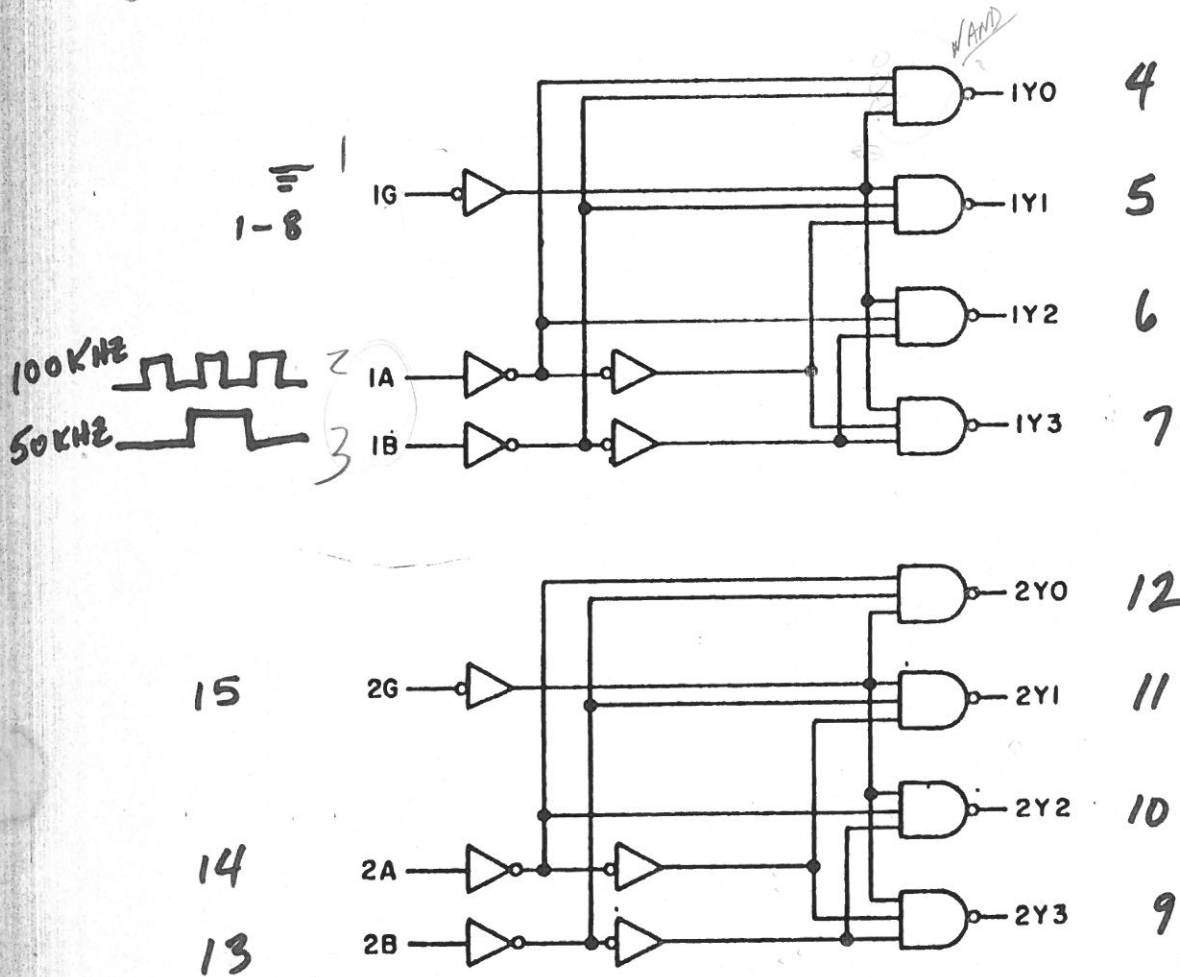


FIGURE 2. Logic diagrams - Continued.

**Record of Training and Acceptance of Safety Responsibility**

**Equipment or Procedure**

**Lead Operators or Trainers**

Instrument Name: Scanning Electron Microscope

Location: 41D4      Lead

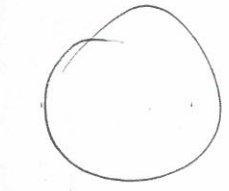
Operator Name: Jim Neri

<b>Personal Safe Practices</b>	<b>Equipment Safe Practices</b>
<p>Procedures, protective equipment, etc.</p>	<p>Operating, Guarding, Interlocks, Safeties, Incl.</p>
<ol style="list-style-type: none"> <li>1. Keep area clean and free of sample empty holders.</li> <li>2. Wear a film badge (radiation monitoring) when operating or working in the area or on the SEM.</li> <li>3. Disconnect electrical power when performing maintenance and troubleshooting.</li> <li>4. Beware of high voltage and radiation in the SEM housing. This instrument produces x-rays when energized. It should be operated only by personnel who have received proper instructions in radiation safety and in the correct use of the equipment. The SEM is secured within a cipher locked room. Read the Safety Summary before attempting to operate the equipment..</li> <li>5. Keep floors free of water and oil.</li> </ol>	<p>Key Contol Switch is located beneath main instrument control and must be turned on.</p> <ol style="list-style-type: none"> <li>1. Turn on OPERATION switch Located above Diffusion pump switch.</li> <li>2. Depress <b>WFM</b> button. Located on left side of white pushbutton row.</li> <li>3. Turn both the BRIGHTNESS and CONTRAST knobs to the 12 o'clock positions.</li> <li>4. Turns scan mode knob to NORMAL. Located below row of white pushbuttons.</li> <li>5. SLOWLY adjust emission knob until needle begins to climb.</li> <li>6. If line scan rolls off the top of screen adjust BRIGHTNESS and CONTRAST knobs to re-center .</li> <li>7. Continue to adjust EMISSION switch until peak is achieved.</li> <li>8. Adjust X and Y ALIGNMENT knobs to peak out line scan.</li> <li>9. Press SE button on white row of pushbuttons.</li> <li>10. Turn SCAN MODE knob to either RAPID or TV to obtain image.</li> <li>11. Set MAGNIFICATION knob to 5 OX.</li> <li>13. Perform coarse focus and alignment with the X, Y, and Z knobs on the chamber.</li> <li>14. Further adjust focus with the COARSE focus knob on the control panel.</li> <li>15. If tilted, set DYNAMIC focus knob to same angle that is registered on chamber indicator. 2'3. Increase MAGNIFICATION and focus image with COARSE knob. Begin investigation.</li> </ol>
<hr/> <p><b>RADIATION SAFETY INFORMATION</b>                      Only authorized personnel may operate this equipment. Authorized persons are listed on page 2 of this sheet, and acknowledge training by their signature.                      Ohio Radiation Protection Rules are located in the SHEA office, contact the RSO ext. 4018.                      Personnel monitoring is required for this unit, monitoring information is kept in the SHEA office, contact the RSO at ext. 4018</p>	

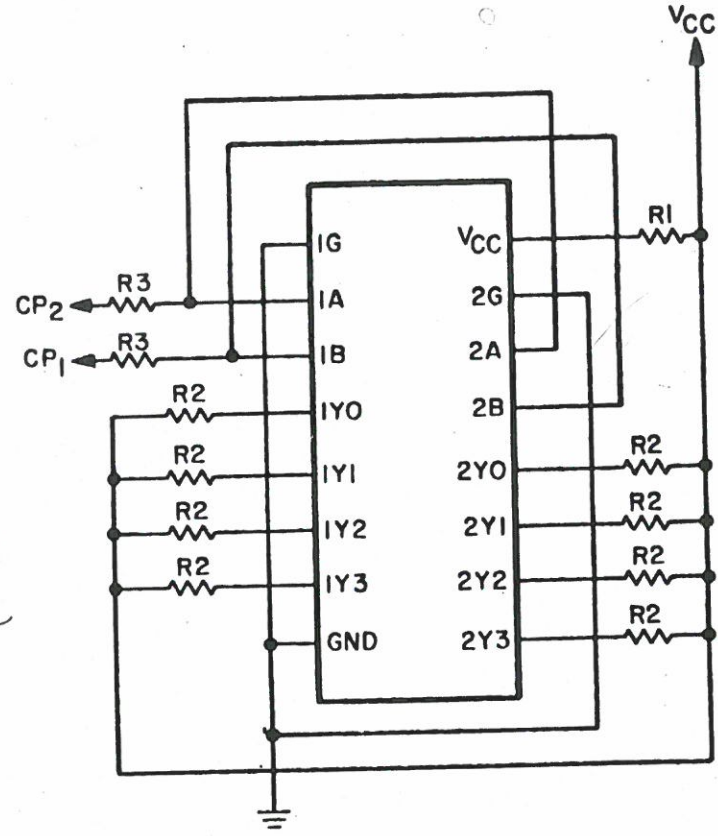
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Device type 02

	1	2	3	4
AB	V	Y		
00	L	H	H	H
01	H	L	H	H
10	H	H	L	H
11	H	H	H	L



Sample



NOTES:

1. R1 = 10Ω maximum.  
R2 = 270Ω ±5%.  
R3 = 27Ω maximum.
2. V<sub>CC</sub> shall be high enough to insure that 5.0 V minimum is present at V<sub>CC</sub> device terminal.
3. Timing waveform as follows:  
CP<sub>1</sub> duty cycle = 50% ±15%;  
V<sub>IL</sub> = -0.5 V minimum to 0.8 V maximum; V<sub>IH</sub> = 2.0 V minimum to 5.5 V maximum.

Power  
Speed

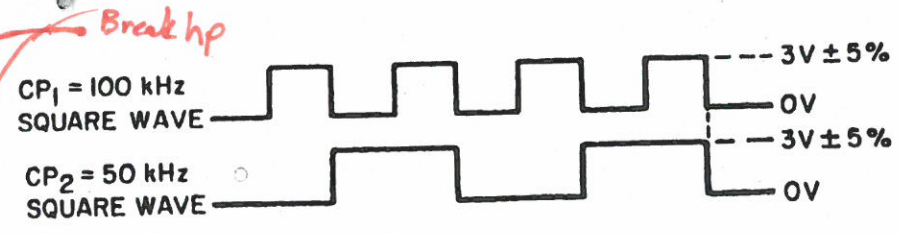


FIGURE 4. Burn-in and life test circuits - Continued.