TECHNICAL MANUAL

ORGANIZATIONAL MAINTENANCE MANUAL
RADAR INTERFACE EQUIPMENT MAINTENANCE

16K MEMORY
VIDEO SIMULATOR UNIT

EXPANDED TROUBLESHOOTING
LOGIC DIAGRAMS

GUIDED MISSILE AIR DEFENSE SYSTEM
AN/TSQ-73

HEADQUARTERS, DEPARTMENT OF THE ARMY
22 APRIL 1985

Change
No. 2

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Washington, D.C. *30 November 1992*

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TM 9-1430-655-20-3-6, 22 April 1985, is changed as follows:

1. Remove old pages and insert new pages as indicated below. New or changed material is indicated by the applicable change number, i.e., Change 2, at the bottom of the page adjacent to the page number. Revised text will have a vertical bar in the margin next to the changed area. Revised illustrations will have a suffix change letter added to the identification number.

A/(B blank)	A/(B blank)
5-799 and 5-800	5-799 and 5-800
FO-207 (Sheets 1 and 2)	FO-207 (Sheets 1 and 2)
FO-208 (Sheet 1)	FO-208 (Sheet 1)
FO-209 (Sheets 1 and 3)	FO-209 (Sheets 1 and 3)
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FO-231	FO-231
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FO-252	FO-252
FO-256 (Sheet 1)	FO-256 (Sheet 1)
FO-257	FO-257
FO-260 (Sheet 2)	FO-260 (Sheet 2)

2. File this change sheet in front of the publication for reference.

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A/(B blank)	A/(B blank)
i thru iii/(iv blank)	i thru iii/(iv blank)
5-385 thru 5-394	5-789 thru 5-800
FO-206 (Sheets 1 thru 5)	FO-206 (Sheets 1 thru 9)
Cover	Cover

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WARNING

DANGEROUS VOLTAGE

is used in the operation of this equipment

DEATH ON CONTACT

may result if personnel fail to observe safety precautions

Never work on electronic equipment unless there is another person nearby who is familiar with the operation and hazards of the equipment and who is competent in administering first aid. When the technician is aided by operators, he must warn them about dangerous areas.

Whenever possible, the power supply to the equipment must be shut off before beginning work on the equipment. Take particular care to ground every capacitor likely to hold a dangerous potential. When working inside the equipment, after the power has been turned off, always ground every part before touching it.

Be careful not to contact high-voltage connections when installing or operating this equipment.

Whenever the nature of the operation permits, keep one hand away from the equipment to reduce the hazard of current flowing through vital organs of the body.

WARNING

Do not be misled by the term "low voltage." Potentials as low as 50 volts may cause death under adverse conditions.

For Artificial Respiration refer to FM 21-11.

EXTREMELY DANGEROUS POTENTIALS

greater than 500 volts exist in the following units:

Display console high voltage power supply

Display console CRT

WARNING

For emergencies requiring immediate shutdown of system power, press SYSTEM POWER OFF switch located on power cabinet power transfer unit. Observe that SYSTEM POWER ON indicator light goes off.

CAUTION

CMOS memories contain electrostatic sensitive devices requiring special handling to avoid electrostatic discharge damage. When removing and replacing memory cards, observe the following precautions.

a. Immediately prior to handling within the shelter, make physical contact with a grounded surface to discharge any possible buildup of static electricity.

b. Package the memory storage cards in electrostatic bags prior to removing from the shelter.

LIST OF EFFECTIVE PAGES

Insert latest change pages, dispose of superseded pages in accordance with applicable regulations.

NOTE: The portion of the text affected by the changes is indicated by a vertical line in the outer margins of the page.

Dates of issue for original and change pages are:

Original ..... 22 APR 85
Change 1 ..... 30 OCT 92
Change 2 ..... 30 NOV 92

TOTAL NUMBER OF PAGES IN THIS PUBLICATION IS 112, CONSISTING OF THE FOLLOWING:

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FO-236	0
FO-237	0
FO-238	0
FO-239	0
FO-240	0
FO-241	2
FO-242	0
FO-243	0
FO-244	0
FO-245	0
FO-246	0
FO-247	O
FO-248	0
FO-249	0
FO-250	0
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FO-252	2
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*Zero in this column indicates an original page.

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No. 9-1430-655-20-3-6

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DEPARTMENT OF THE ARMY
Washington, D.C., *22 April 1985*

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GUIDED MISSILE AIR DEFENSE SYSTEM
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REPORTING OF ERRORS

You can help improve this publication. If you find any mistakes, or if you know of a way to improve the procedures, please let us know. Mail your letter or DA Form 2028-2, located in back of this manual direct to: Commander, U.S. Army Missile Command, ATTN: AMSMI-MMC-LE-A-P, Redstone Arsenal, AL 35898-5238. A reply will be furnished to you.

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Section XVI. 16K MEMORY AND VIDEO SIMULATOR UNIT

5-51. General. This manual is Volume 6 of TM 9-1430-655-20-3, Radar Interface Equipment Maintenance for Guided Missile Air Defense System AN/TSQ-73. It contains the logic diagrams covering the single port 16K Memory and Video Simulator Unit for the use and guidance of advanced personnel responsible for repair of the RIE. Foldout 206 covers the 16K memory and foldouts 207 through 260 cover the VSU. The single port 16K memory unit is located in the center section of rack 1, 1A1A1, door B. The VSU is a single bay of circuit cards mounted in the front door of the lower rear section of rack 1, 1A1A1. Figure 5-6 illustrates the location of the 16K memory units and figure 5-7 illustrates the location of the VSU.

5-52. Logic Diagram. Logic diagrams provide the maintenance technician pin to pin signal flow, traceable by signal mnemonics, and I/O tables, to help identify faulty cards and to troubleshoot faults in the backplane wiring and other areas that are beyond fault isolation capabilities of the MTS.

5-53. Using Logic Diagrams. The logic diagrams for the 16K memory provide circuit card pin to pin signal flow traceable within foldouts by signal mnemonics and between foldouts by signal mnemonics and alpha connectors. Table 5-40.1 contains the circuit card slot and the part number of the card. Signal flow for the VSU is traceable between circuit card pin numbers and is shown as inputs and outputs of integrated circuit logic devices on the circuit card. A specific signal can be followed between foldouts by using the signal mnemonic and the logic diagram input/output table. The circuit card slot is shown within the integrated circuit card device symbol. Table 5-41 contains the circuit slot and the part number of the card. Table 5-42 contains, by card part number, the test point for each of the 80 pins of MTS testable cards in the VSU.

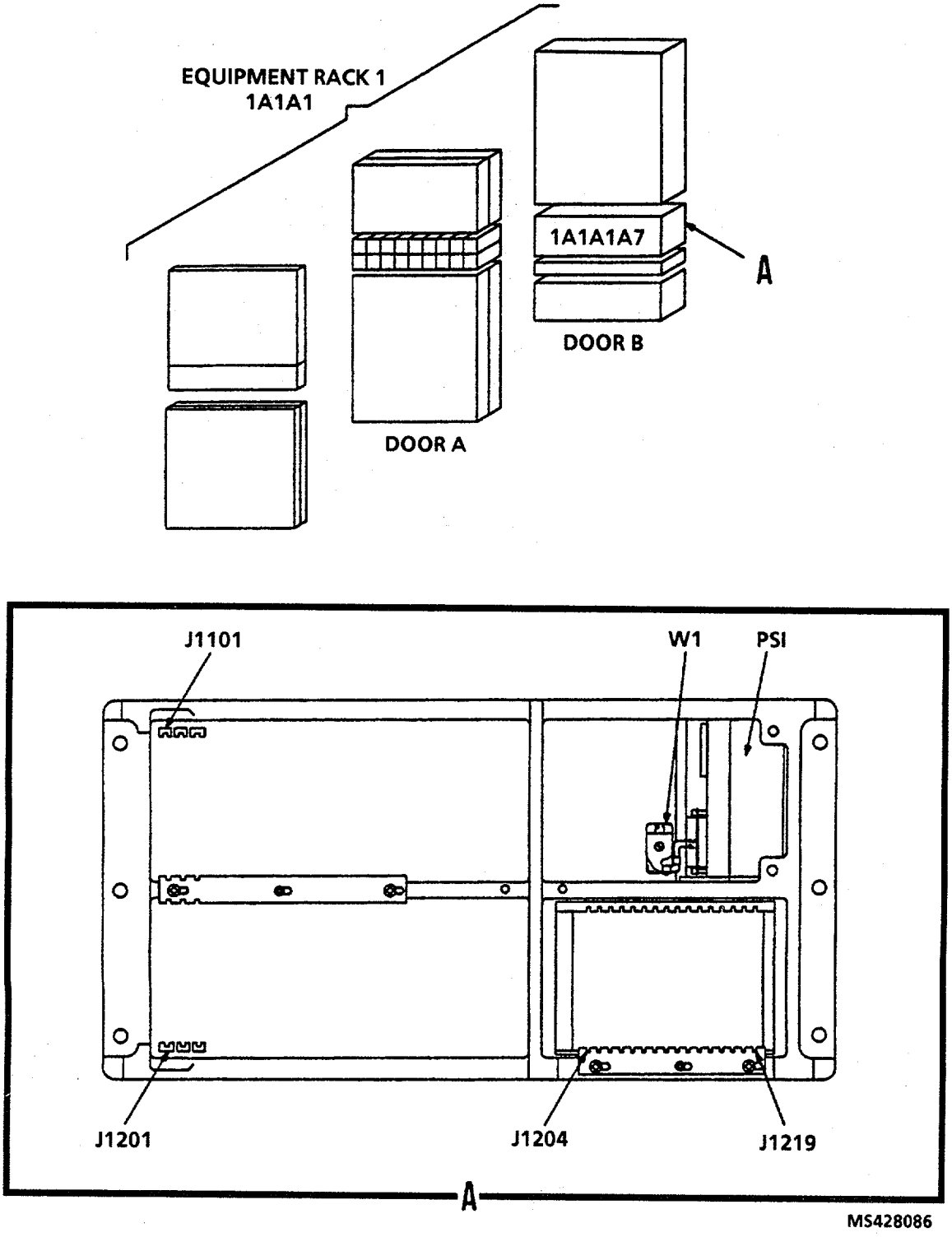

Figure 5-6. Single-Port 16K Memory Unit 1A1A1A7, Component Location

Table 5-40.1. Single-Port 16K Memory Unit 1A1A1A7, Circuit Card Location

Card slot	Part number	Card type	Color code 1	2	3	4
		SHELF 1				
A1101	W386	Connector	-	-	-	-
A1101	W387	Connector	-	-	-	-
A1103	W540	Connector	-	-	-	-
		SHELF 2				
A1201	W406	Connector	-	-	-	-
A1202	W407	Connector	-	-	-	-
A1203	W541	Connector	-	-	-	-
A1204	-	-	-	-	-	-
A1205	13143778	Timing and Control	-	-	-	-
A1206	13143777	CMOS Storage	-	-	Orange[1]	
A1207	13143777	CMOS Storage	-	-	Orange[1]	
A1208	13143777	CMOS Storage	-	-	Orange[1]	
A1209	13143777	CMOS Storage	-	-	Orange[1]	
A1210	13143777	CMOS Storage	-	-	Orange[1]	
A1211	13143777	CMOS Storage	-	-	Orange[1]	
A1212	13143777	CMOS Storage	-	-	Orange[1]	
A1213	13143777	CMOS Storage	-	-	Orange[1]	
A1214	13143777	CMOS Storage	-	-	Orange[1]	
A1215	13143777	CMOS Storage	-	-	Orange[1]	
A1216	13143777	CMOS Storage	-	-	Orange[1]	
A1217	10283626	Quad NAND gate	Orange	Blue	Red	Blue
A1218	-	-	-	-	-	-
A1219	-	-	-	-	-	-

[1]13143777 cards have orange edge to identify CMOS devices; these cards are not testable by MTS and require special handling. Refer to CMOS cautionary notice on page a of this technical manual.

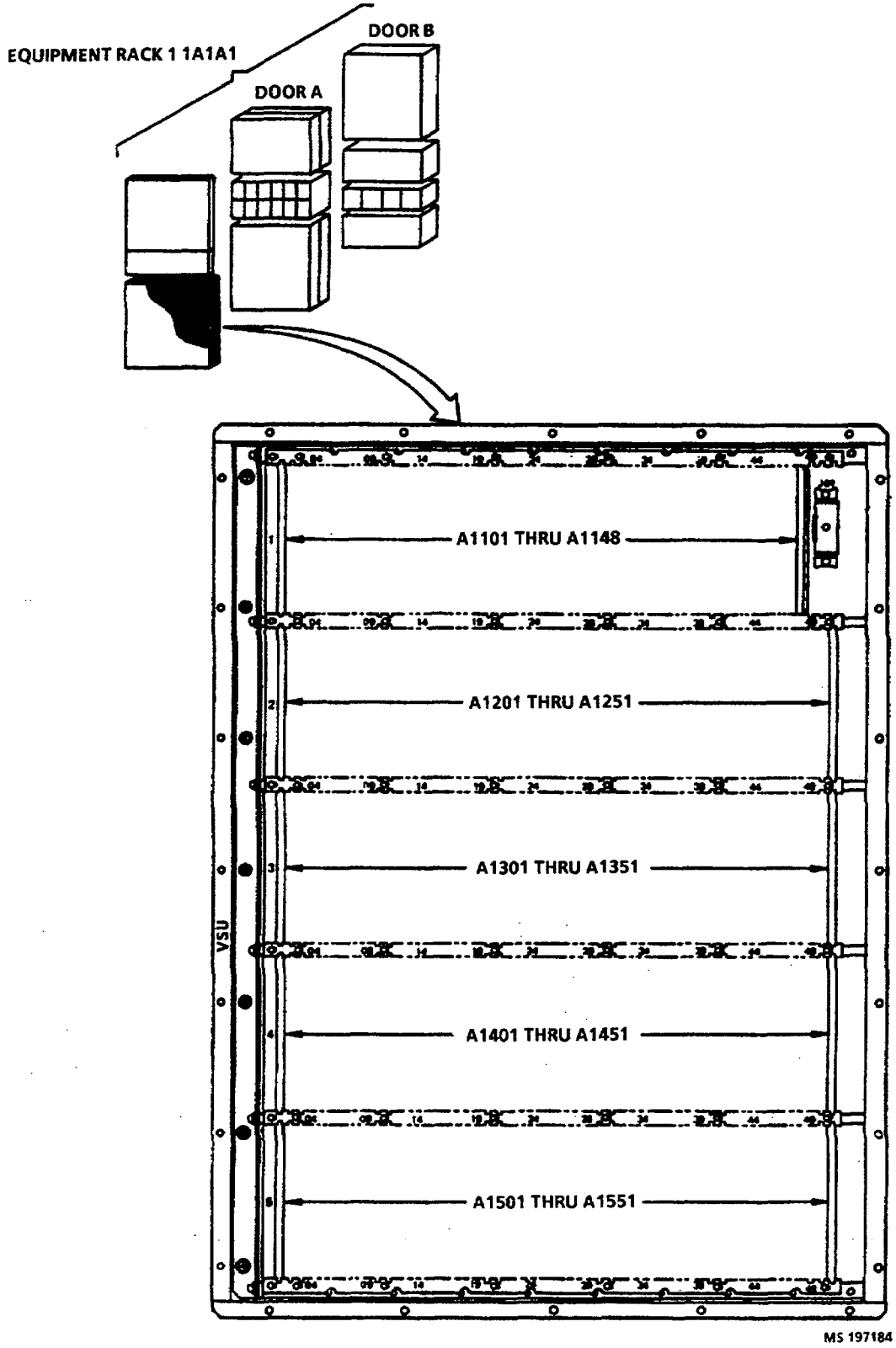

Figure 5-7. Video Simulator Unit 1A1A1A3, Component Location.

Table 5-41. Video Simulator Unit 1A1A1A3, Circuit Card Location

Card slot	Part number	Card type	Color code 1	2	3	4
		SHELF 1				
A1101	-	-	-	-	-	-
A1102	-	-	-	-	-	-
A1103	-	-	-	-	-	-
A11104	587103-102	Triple 3-input NAND gate	-	-	Orange	-
A1105	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1106	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1107	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1108	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1109	587104-102	Dual 4-input NAND gate	-	-	Yellow	
A1110	587105-102	Dual D flip-flop	-	-	Green	
A1111	587108-102	Single 8-input NAND gate	-	-	Gray	
A1112	587117-102	Hex inverter	-	Brown	-	Violet
A1113	587102-102	Quad 2-input NAND gate	-	-	Red	
A1114	10281610	Hex 4-bit comparator	Brown	Blue	Brown	Black
A1115	10281610	Hex 4-bit comparator	Brown	Blue	Brown	Black
A1116	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
A1117	587105-102	Dual D flip-flop	-	-	Green	-
A1118	587102-102	Quad 2-input NAND gate	-	-	Red	-
A1119	587117-102	Hex inverter	Brown	-	Violet	-
A1120	10281610	Hex 4-bit comparator	Brown	Blue	Brown	Black
A1121	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1122	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1123	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1124	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1125	10281610	Hex 4-bit comparator	Brown	Blue	Brown	Black
A1126	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1127	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1128	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1129	10281609	Quint 4-bit adder	Brown	Blue	Black	White
A1130	587119-100	240-ohm resistor	-	-	-	-
A1131	587102-102	Quad 2-input NAND gate	-	-	Red	-
A1132	587117-102	Hex inverter	Brown	-	Violet	-
A1133	587103-102	Triple 3-input NAND gate	-	-	Orange	-
A1134	587102-102	Quad 2-input NAND gate	-	-	Red	-

Table 5-41. Video Simulator Unit 1A1A1A3, Circuit Card Location -Continued-

Card slot	Part number	Card type	Color code 1	2	3	4
A1135	10281609	Quint 4-bit adder	Brown	Blue	Black	White
A1136	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1137	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1138	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1139	587117-102	Hex inverter	Brown	-	Violet	-
A1140	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
A1141	587102-102	Quad 2-input NAND gate	-	-	Red	-
A1142	587105-102	Dual D flip-flop	-	-	Green	-
Al143	587105-102	Dual D flip-flop	-	-	Green	-
A1144	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1145	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1146	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1147	587118-100	IK-ohm resistor	-	-	-	-
A1148	-	-	-	-	-	-
A1149	-		-	-	-	-
Al150	-	-	-	-	-	-
A1151	-	-	-	-	-	-
		SHELF 2				
A1201	-	-	-	-	-	-
A1202	-		-		-	-
A1203	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A1204	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A1205	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A1206	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A1207	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A1208	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A1209	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A1210	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A1211	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A1212	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A1213	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A1214	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A1215	10281603	4-bit multiplexer	Brown	Blue	Black	Orange
A1216	-	-	-	-	-	-
A1217	587102-102	Quad 2-input NAND gate	-	-	Red	-

Table 5-41. Video Simulator Unit 1A1A1A3, Circuit Card Location -Continued-

Card slot	Part number	Card type	Color code 1	2	3	4
A1218	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
A1219	587102-102	Quad 2-input NAND gate	-	-	Red	-
A1220	587117-102	Hex inverter	Brown	-	Violet	-
A1221	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1222	10281602	Dual 4-bit shift register	Brown	Blue	Black	Red
A1223	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1224	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1225	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1226	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1227	587105-102	Dual D flip-flop	-	-	Green	-
A1228	587102-102	Quad 2-input NAND gate	-	-	Red	-
A1229	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
A1230	587102-102	Quad 2-input NAND gate	-	-	Red	-
A1231	587103-102	Triple 3-input NAND gate	-	-	Orange	-
A1232	587117-102	Hex inverter	Brown	-	Violet	-
A1233	587105-102	Dual D flip-flop	-	-	Green	-
A1234	587105-102	Dual D flip-flop	-	-	Green	-
A1235	587117-102	Hex inverter	Brown	-	Violet	-
A1236	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
A1237	-	-	-	-	-	-
A1238	10281633	Range oscillator	Brown	Blue	Orange	Orange
A1239	10281609	Quint 4-bit adder	Brown	Blue	Black	White
A1240	10281606	Hex -4-bit shift register	Brown	Blue	Black	Blue
A1241	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1242	587108-102	Single 8-input NAND gate	-	-	Gray	-
A1243	587105-102	Dual D flip-flop	-	-	Green	-
A1244	587103-102	Triple 3-input NAND gate	-	-	Orange	-
A1245	587117-102	Hex inverter	Brown	-	Violet	-
A1246	587102-102	Quad 2-input NAND gate	-	-	Red	-
A1247	587106-102	Quad 2-input lamp driver	-	-	Blue	-
A1248	587106-102	Quad 2-input lamp driver	-	-	Blue	-
A1249	587119-100	240-ohm resistor	-	-	-	-
A1250	W413	Connector	-	-	-	-
A1251	W414	Connector	-	-	-	-

Table 5-41. Video Simulator Unit 1A1A1A3, Circuit Card Location -Continued-

Card slot	Part number	Card type	Color code 1	2	3	4
		SHELF 3				
A1301	-	-	-	-		
A1302	10281609	Quint 4-bit adder	Brown	Blue	Black	White
A1303	10281609	Quint 4-bit adder	Brown	Blue	Black	White
A1304	587102-102	Quad 2-input NAND gate	-	-	Red	-
A1305	587117-102	Hex inverter	Brown	-	Violet	-
A1306	587102-102	Quad 2-input NAND gate	-	-	Red	-
A1307	587117-102	Hex inverter	Brown	-	Violet	-
A1308	587102-102	Quad 2-input NAND gate	-	-	Red	-
A1309	587103-102	Triple 3-input NAND gate	-	-	Orange	-
A1310	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1311	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1312	587105-102	Dual D flip-flop	-	-	Green	-
A1313	587105-102	Dual D flip-flop	-	-	Green	-
A1314	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
A1315	-	-	-	-	-	-
A1316	587108-102	Single 8-input NAND gate	-	-	Gray	-
A1317	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1318	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1319	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1320	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1321	-	-	-	-	-	-
A1322	10281610	Hex 4-bit comparator	Brown	Blue	Brown	Black
A1323	10281610	Hex 4-bit comparator	Brown	Blue	Brown	Black
A1324	587103-102	Triple 3-input NAND gate	-	-	Orange	-
A1325	587117-102	Hex inverter	Brown	-	Violet	-
A1326	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
A1327	587105-102	Dual D flip-flop	-	-	Green	-
A1328	587105-102	Dual D flip-flop	-	-	Green	-
A1329	587102-102	Quad 2-input NAND gate	-	-	Red	-
A1330	587102-102	Quad 2-input NAND gate	-	-	Red	-
A1331	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1332	587102-102	Quad 2-input NAND gate	-	-	Red	-
A1333	587102-102	Quad 2-input NAND gate	-	-	Red	-
A1334	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue

Table 5-41. Video Simulator Unit 1A1A1A3, Circuit Card Location -Continued-

Card slot	Part number	Card type	Color code 1	2	3	4
A1335	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1336	587100-102	418 MHz oscillator	-	-	-	-
A1337	587117-102	Hex inverter	Brown	-	Violet	-
A1338	587102-102	Quad 2-input NAND gate	-	-	Red	-
A1339	587105-102	Dual D flip-flop	-	-	Green	-
A1340	587102-102	Quad 2-input NAND gate	-	-	Red	-
A1341	587103-102	Triple 3-input NAND gate	-	-	Orange	-
A1342	587107-102	AC-coupled I/O	-	-	Violet	-
A1343	587107-102	AC-coupled I/O	-	-	Violet	-
A1344	587107-102	AC-coupled I/O	-	-	Violet	-
A1345	587107-102	AC-coupled I/O	-	-	Violet	-
A1346	587107-102	AC-coupled I/O	-	-	Violet	-
A1347	587107-102	AC-coupled I/O	-	-	Violet	-
A1348	587107-102	AC-coupled I/O	-	-	Violet	-
A1349	W419	Connector	-	-	-	-
A1350	W420	Connector	-	-	-	-
A1351	W502	Connector	-	-	-	-
		SHELF 4				
A1401	-	-	-	-	-	-
A1402	-	-	-	-	-	-
A1403	-	-	-	-	-	-
A1404	10281610	Hex 4-bit comparator	Brown	Blue	Brown	Black
A1405	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1406	10281609	Quint 4-bit adder	Brown	Blue	Black	White
A1407	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1408	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1409	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1410	587117-102	Hex inverter	Brown	-	Violet	-
A1411	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
A1412	587117-102	Hex inverter	Brown	-	Violet	-
A1413	-	-	-	-	-	-
A1414	10281610	Hex 4-bit comparator	Brown	Blue	Brown	Black
A1415	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1416	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1417	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue

Table 5-41. Video Simulator Unit 1A1A1A3, Circuit Card Location -Continued-

Card slot	Part number	Card type	Color code 1	2	3	4
A1418	587105-102	Dual D flip-flop	-	-	Green	-
A1419	587102-102	Quad 2-input NAND gate	-	-	Red	-
A1420	587117-102	Hex inverter	Brown	-	Violet	-
A1421	587117-102	Hex inverter	Brown	-	Violet	-
A1422	587102-102	Quad 2-input NAND gate	-	-	Red	-
A1423	587105-102	Dual D flip-flop	-	-	Green	-
A1424	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1425	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1426	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1427	10281610	Hex 4-bit shift register	Brown	Blue	Brown	Black
A1428	10281609	Quint 4-bit adder	Brown	Blue	Black	White
A1429	587102-102	Quad 2-input NAND gate	-	-	Red	-
A1430	587104-102	Dual 4-input NAND gate	-	-	Yellow	-
A1431	10281609	Quint 4-bit adder	Brown	Blue	Black	White
A1432	10281609	Quint 4-bit adder	Brown	Blue	Black	White
A1433	10281610	Hex 4-bit comparator	Brown	Blue	Brown	Black
A1434	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1435	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1436	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1437	587105-102	Dual D flip-flop	-	-	Green	-
A1438	587102-102	Quad 2-input NAND gate	-	-	Red	-
A1439	587117-102	Hex inverter	Brown	-	Violet	-
A1440	587117-102	Hex inverter	Brown	-	Violet	-
A1441	587102-102	Quad 2-input NAND gate	-	-	Red	-
A1442	587105-102	Dual D flip-flop	-	-	Green	-
A1443	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1444	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1445	10281606	Hex 4-bit shift register	Brown	Blue	Black	Blue
A1446	10281610	Hex 4-bit comparator	Brown	Blue	Brown	Black
A1447	-	-	-	-	-	-
A1448	-	-	-	-	-	-
A1449	10283505	Test set interface	Orange	Green	Black	Green
A1450	587119-100	240-ohm resistor	-	-	-	-
A1451	-	-	-	-	-	
		SHELF 5 - (Not Used)				

Table 5-42. Card Pin to Test Point Correlation

	Card Type 587XXX[1]				Card type 10281XXX					
Pin	101 to 110	107	117	124	602 603 643[2]	606 610 652 780	601	609	629	645[2]
1	2B	2A	2B	5A	2B				3B	2B
2	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND
3	2A	3A	3A	6A	2B	3B	2B	2B	3A	
4	4A		2A		2A	2A	2A	2A	2B	4A
53B	4B		3B		3B	4B	3B	3B	4A	3B
6	5A		5A	14A	3A	3A	3A	3A	4B	5A
7	3A	5B	4B		4B	5B	4B	4B	6B	3A
8	6A	8B	4A	12A	4A	4A	4A	4A	6A	6A
9	4B	10B	5B	7A	5B	6B	5B	5B	2A	4B
10	7A	9B	6B	13A	5A	5A	5A	5A	7A	7A
11	5B	11B	7A		6B	7B	6B	6B	5A	5B
12	+5V	+5V	+5V	+5V	+5V	+5V	+5V	+5V	+5V	+5V
13	6B		6A		7A	7A	7A	7A		6B
14	9A		8B		6A	6A	6A	6A		9A
15	7B		7B		7B	8B	7B	7B	5B	
16	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND
17	8B		9B	25A	8B	9B	8B	8B	17A	
18	10A		9A	18A	9A	9A	9A	9A	8B	10A
19	9B		10B	24A	9B	10B	9B	9B	15B	9B
20	11A		10A	19A	10A	10A	10A	10A	15A	11A
21	10B		11B	26A	10B	11B	10B	10B		10B
22	12A		14A	2B	11A	11A	11A	11A	12B	12A
23	11B		12A		11B	12B	11B	11B		11B
24	13A		13A		12A	12A	12A	12A		13A
25	12B		11A		12B	14A	12B	12B		12B
26	14A		12B	3B	13A	13A	13A	13A	16A	14A
27	13B		13B			14A	13B	14A	14A	
28	+5V	+5V	+5V	+5V	+5V	+5V	+5V	+5V	+5V	+5V
29	14B		15B	10A	13B	14B	13B	13B		
30	15A		14B		15A	15A	15A	16A	13A	15A
31	15B		16B		14B	15B	14B	15A		15B
32	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND
33	16B		17B	9A	16A	16B	16A	14B	18B	16B
34	16A	12B	15A	15A	15B	16A	15B	15B	14B	16A
35	17B		13A		16B	17B	16B	16B	19B	17B
36	17A	13B	16A	16A	17A	17A	17A	17A	19A	17A
37	18B		17A	22A	17B	18B	17B	17B	22B	18B
38	18A	6B	20A		18A	18A	18A	18A	20A	18A
39	19B		19B	21A	15B	19B	18B	18B	24B	
40	19A	7B	19A		19A	19A	19A	19A	31A	19A
41	22B		23B		19B	22B	19B	19B	26B	
42	20A		23B		20A	20A	20A	20A	23B	20A
43	23B		24B		22B	23B	22B	22B	23B	23B
44	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND

See footnotes at end of table.

Table 5-42. Card Pin to Test Point Correlation - Continued

	Card Type 587XXX[1]				Card type 10281XXX					
Pin	101 to 110	107	117	124	602 603 643[2]	606 610 652 780	601	609	629	645[2]
45	24B		25B		23B	24B	23B	23B		24B
46	21A		23B		21A	21A	21A	21A	25B	21A
47	25B		24A		23A	25B	23A	23A		25B
48	22A		21A		22A	22A	22A	22A	31B	22A
49	26B		23A		24B	26B	24A	24B		26B
50	23A		22A		24A	23A		24A	28A	23A
51	27B		27B		25B	27B	25B	25A		
52	24A		26A	20A	25A	24A	26B	25B	29B	24A
53	28B		26B		26B	28B	26A	26A		
54	25A		25A		26A	25A	27B	26B		26A
55	29B		29B		27B	29B	28B	28B		29B
56	26A		28B		28B	26A	28A	27B		26A
57	30B		30B		29B	28A	29B	29B		30B
58	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND
59	31B		31B		30B	30B	30B	30B		31B
60	28A		28A		28A	29A	29A	28A		28A
61	32B		31A		31B	31B	31B	31B		32B
62	29A		29A		29A	30A	30A	29A	32A	29A
63	33B		30A		31A	32B		31A		
64	30A		33A		30A	31A	31A	30A		30A
65	34B		33B			33B		33B		
66	31A		32A		32B	32A	33A	32B		31A
67	GND	GND	GND	GND	GND	GND	GND	GND	GND	GND
68	32A		32B		33A	33A	34A	32A		32A
69	35A		35B		32A	34B	33B	33B	32B	35A
70	33A		34B		34A	34A	35A	33A	34B	33A
71	36A		36B		33B	35B	34B	34B	36B	36A
72	34A		34A		35A	35A	36A	34A	35B	34A
73	36B		37B		34B	36B	35B	35B	38B	36B
74	35B		35A		36A	36A	26A	25A	33A	35B
75	36B		39A		35B	36B	36B	36B	38A	37B
76	37A		37A		37A	37A	36A	36A	37B	37A
77	35B		38A		36B	38B	37B	37B		38B
78	33A		36A		39A	38A		37A	34A	38A
79	39B		39B		37B	39B	38B	38B	39B	39B
80	39A		38B	38B		39A		38A		

[1]10283XXX card types have identical IC/test point/card pin correlation as 587XXX card types as follows:
10283626 is same as 587102
10283627 is same as 587108
10283628 is same as 587103
10283629 is same as 587106
10283630 is same as 587107
[2]10283XXX

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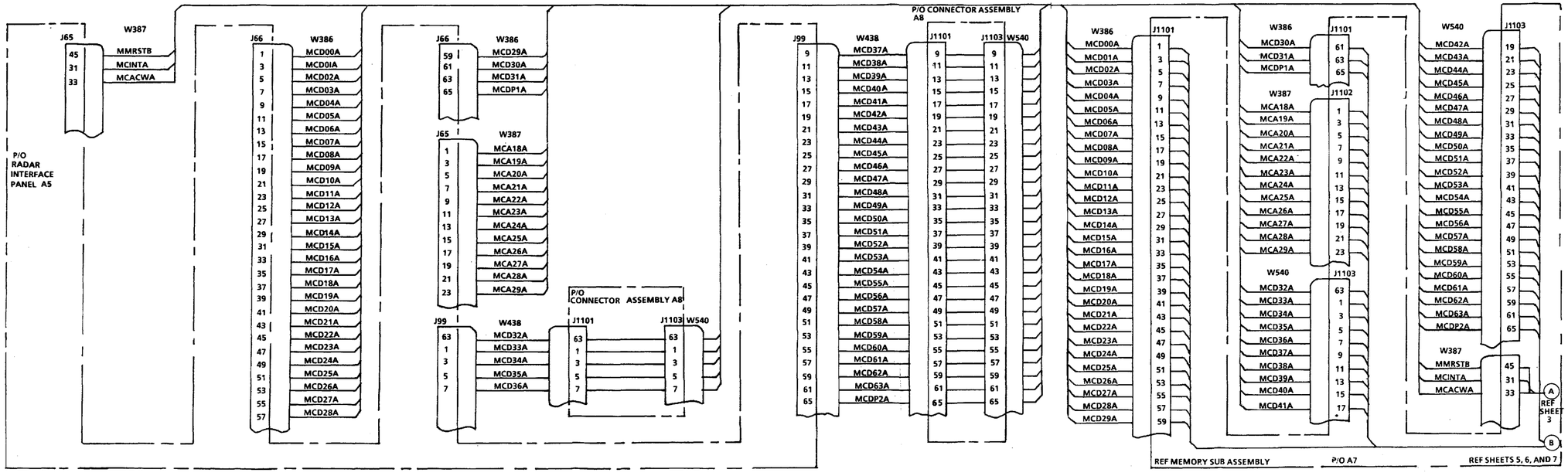

NOTES: UNLESS OTHERWISE SPECIFIED

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN CMOS 16K MEMORY UNIT 1A1A1A7, IN EQUIPMENT RACK 1.
3. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOKUP LISTING.
4. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
5. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
6. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
7. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
   - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
   - B. REFER TO TABLE 5-40 FOR CARD PART NUMBER
   - C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS
8. FOR SHEET 4 ONLY:
   a. NONSTANDARD ABBREVIATIONS:
   A = ADDRESS INPUT
   E = CHIP ENABLE
   W = WRITE ENABLED
   D = DATA INPUT
   Q = DATA OUTPUT
   b. ↓G = INDICATES CIRCUIT RETURN
   c. RESISTANCE VALUES IN OHMS.
9. FOR SHEET 3 ONLY, RESISTANCE VALUES IN OHMS ± 2% UNLESS OTHERWISE SPECIFIED.
10. CAPACITANCE VALUES ARE IN MICROFARADS ± 10% 50V UNLESS OTHERWISE SPECIFIED.
11. PARENTHETICAL ( ) REFERENCES ARE USED TO CLARIFY THE SIGNAL NAME AT THE MEMORY UNIT (1A1A1A7) OR CONNECTOR ASSEMBLY (1A1A1A8).

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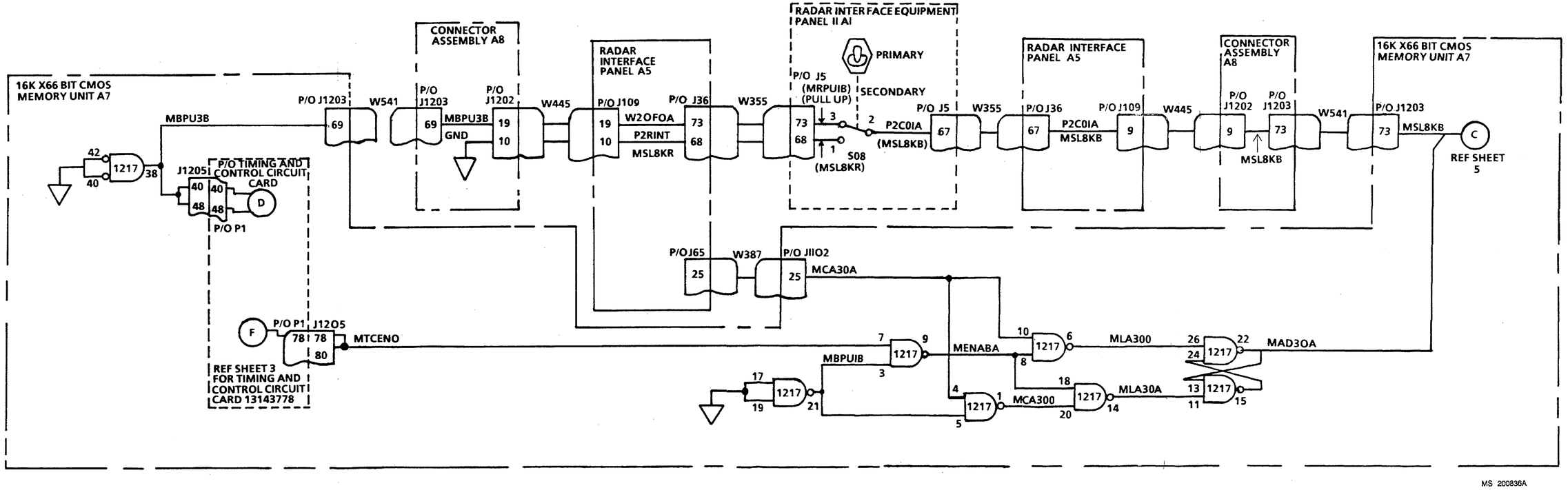
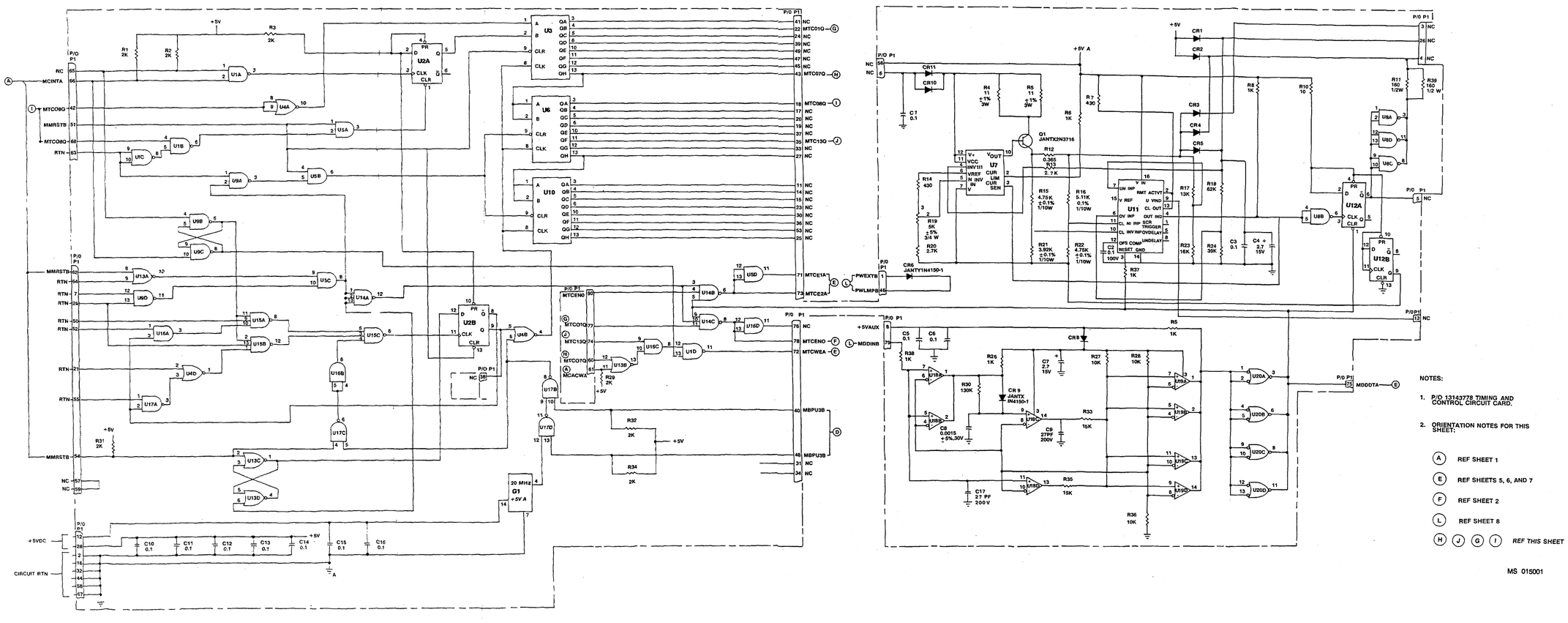
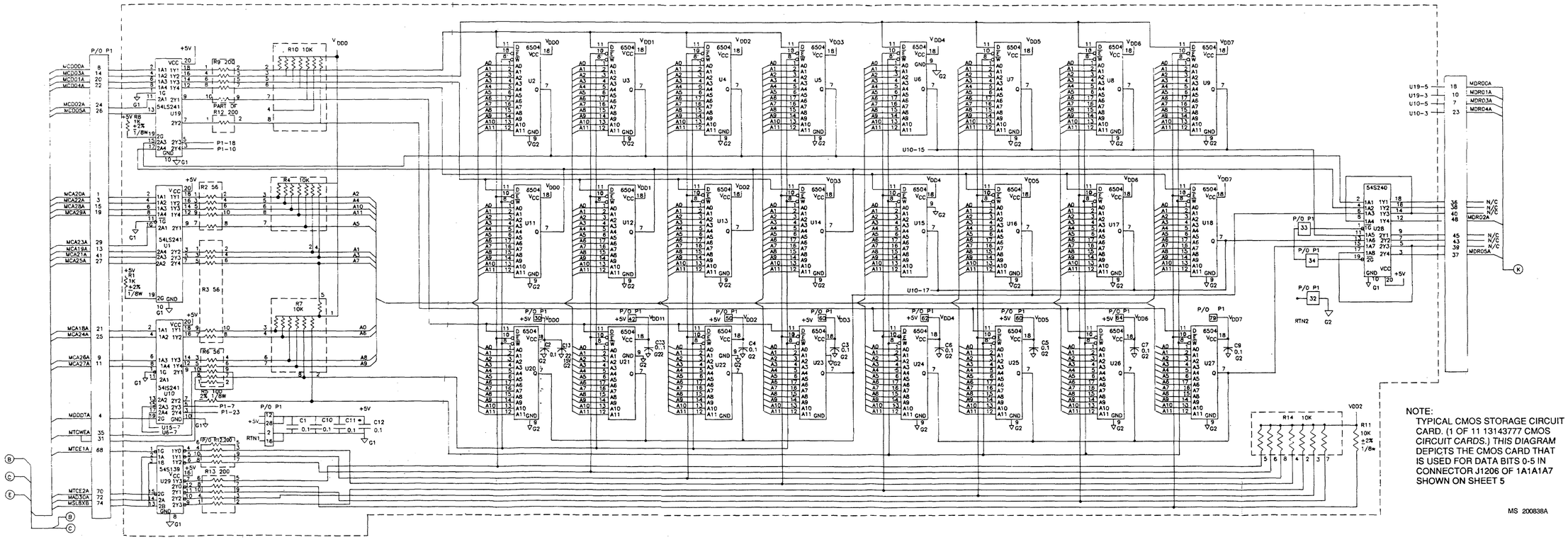
Change 1 FO-206. 16K Memory Logic Diagram (Sheet 1 of 9)



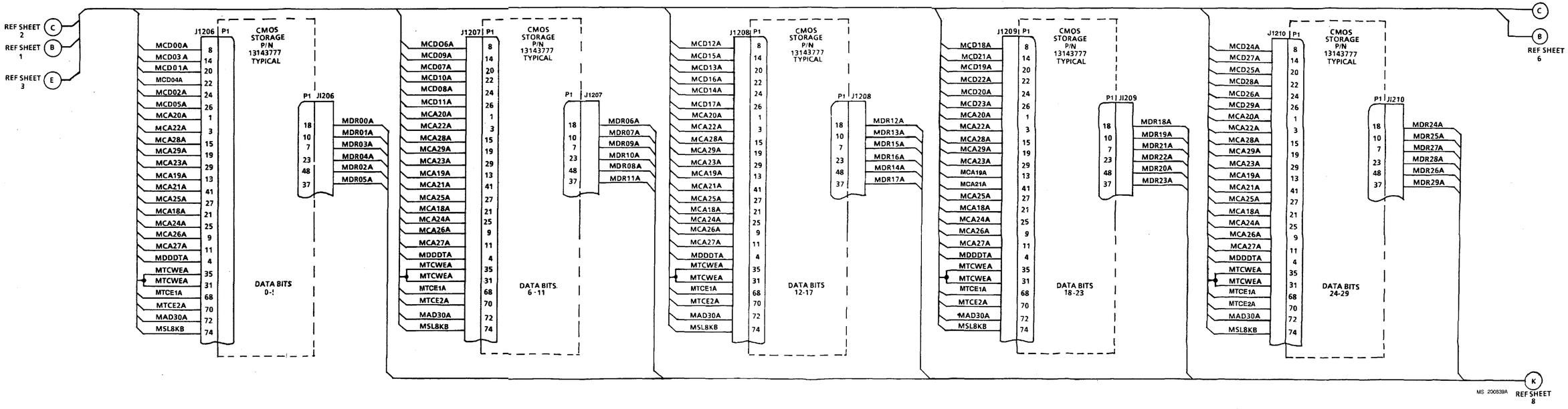
Change 1 FO-206. 16K Memory Logic Diagram (Sheet 2 of 9)



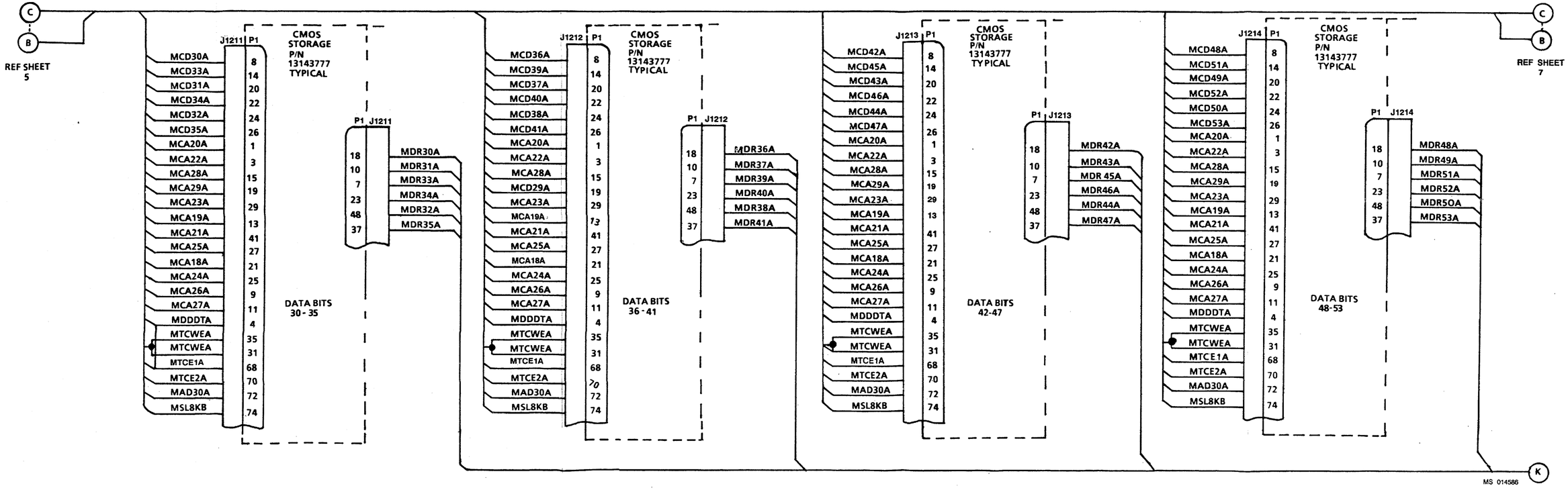
Change 1 FO-206. 16K Memory Logic Diagram (Sheet 3 of 9)



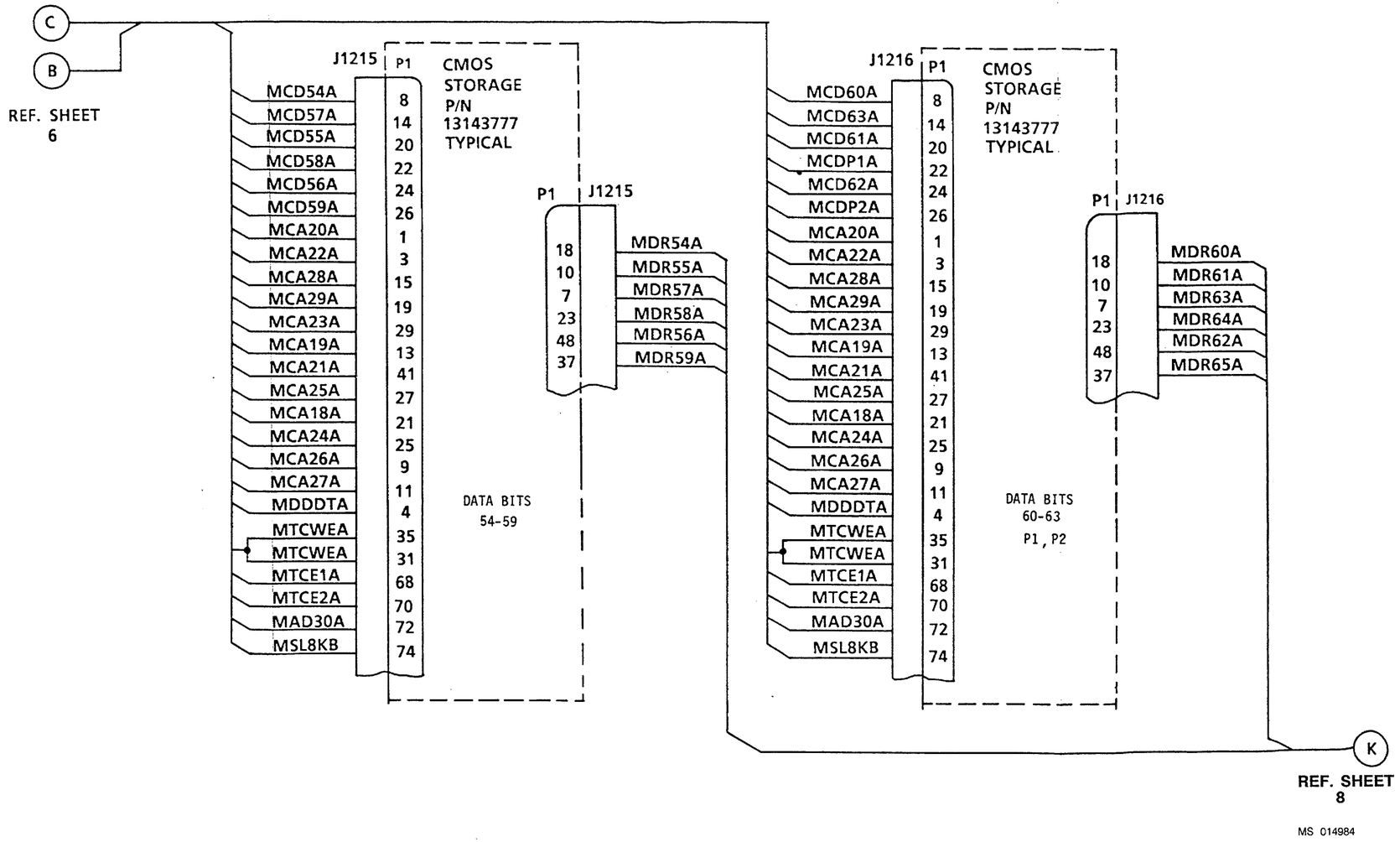
Change 1 FO-206. 16K Memory Logic Diagram (Sheet 4 of 9)



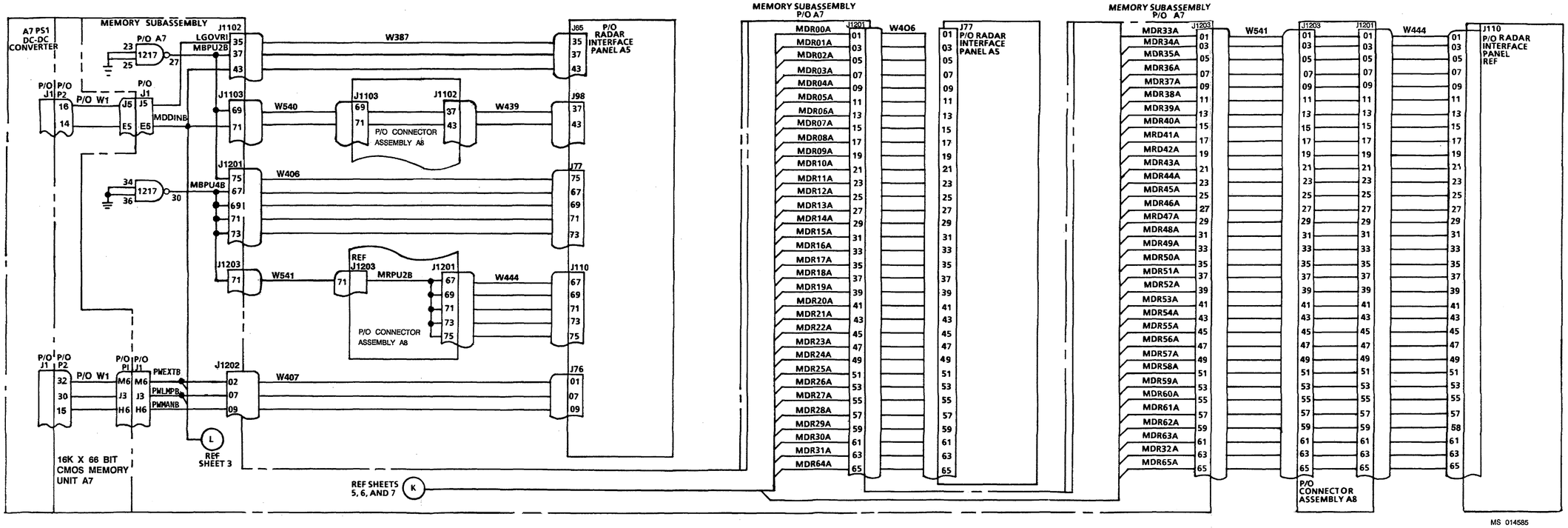
Change 1 FO-206. 16K Memory Logic Diagram (Sheet 5 of 9)



Change 1 FO-206. 16K Memory Logic Diagram (Sheet 6 of 9)



Change 1 FO-206. 16K Memory Logic Diagram (Sheet 7 of 9)



Change 1 FO-206. 16K Memory Logic Diagram (Sheet 8 of 9)

INPUT SIGNAL	SOURCE FO-SH	INPUT SIGNAL	SOURCE FO-SH	INPUT SIGNAL	SOURCE FO-SH	INPUT SIGNAL	SOURCE FO-SH
MCACWA	26804	MCD31A	26804	MDR00A	26804	MDR45A	26804
MCA18A	26804	MCD32A	26804	MDR01A	26804	MDR46A	26804
MCA19A	26804	MCD33A	26804	MDR02A	26804	MDR47A	26804
MCA20A	26804	MCD34A	26804	MDR03A	26804	MDR48A	26804
MCA21A	26804	MCD35A	26804	MDR04A	26804	MDR49A	26804
MCA22A	26804	MCD36A	26804	MDR04A	26804	MDR50A	26804
MCA23A	26804	MCD37A	26804	MDR06A	26804	MDR51A	26804
MCA24A	26804	MCD38A	26804	MDR07A	26804	MDR52A	26804
MCA25A	26804	MCD39A	26804	MDR08A	26804	MDR53A	26804
MCA25A	26804	MCD40A	26804	MDR08A	26804	MDR54A	26804
MCA27A	26804	MCD41A	26804	MDR09A	26804	MDR55A	26804
MCA28A	26804	MCD42A	26804	MDR11A	26804	MDR56A	26804
MCA29A	26804	MCD43A	26804	MDR12A	26804	MDR57A	26804
MCD00A	26804	MCD44A	26804	MDR13A	26804	MDR58A	26804
MCD01A	26804	MCD45A	26804	MDR14A	26804	MDR59A	26804
MCD02A	26804	MCD46A	26804	MDR14A	26804	MDR59A	26804
MCD03A	26804	MCD47A	26804	MDR16A	26804	MDR61A	26804
MCD04A	26804	MCD48A	26804	MDR17A	26804	MDR62A	26804
MCD05A	26804	MCD49A	26804	MDR18A	26804	MDR63A	26804
MCD05A	26804	MCD50A	26804	MDR18A	26804	MDR64A	26804
MCD07A	26804	MCD51A	26804	MDR20A	26804	MDR65A	26804
MCD08A	26804	MCD52A	26804	MDR21A	26804		
MCD08A	26804	MCD53A	26804	MDR22A	26804		
MCD10A	26804	MCD54A	26804	MDR23A	26804		
MCD10A	26804	MCD55A	26804	MDR24A	26804		
MCD12A	26804	MCD56A	26804	MDR25A	26804		
MCD13A	26804	MCD57A	26804	MDR26A	26804		
MCD14A	26804	MCD58A	26804	MDR27A	26804		
MCD15A	26804	MCD59A	26804	MDR28A	26804		
MCD16A	26804	MCD59A	26804	MDR29A	26804		
MCD17A	26804	MCD61A	26804	MDR30A	26804		
MCD18A	26804	MCD62A	26804	MDR30A	26804		
MCD19A	26804	MCD63A	26804	MDR32A	26804		
MCD20A	26804	MCDP2A	26804	MDR33A	26804		
MCD21A	26804	MCINTA	26804	MDR34A	26804		
MCD22A	26804	MMRSTB	26804	MDR35A	26804		
MCD23A	26804	MSL8KB	26804	MDR36A	26804		
MCD24A	26804			MDR37A	26804		
MCD25A	26804			MDR38A	26804		
MCD26A	26804			MDR39A	26804		
MCD26A	26804			MDR40A	26804		
MCD28A	26804			MDR41A	26804		
MCD29A	26804			MDR42A	26804		
MCD29A	26804			MDR43A	26804		
MDR44A	26804						

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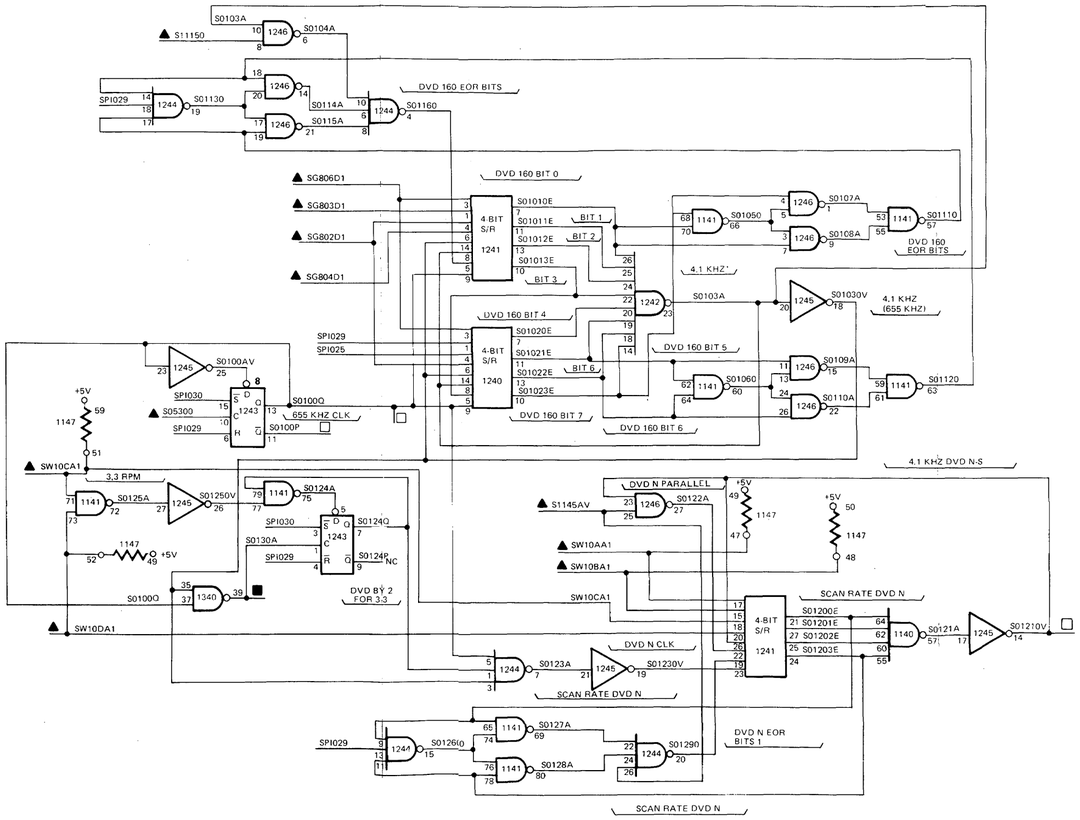
Change 1 FO-206. 16K Memory Logic Diagram (Sheet 9 of 9)

INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
SG802D1	22702	S0130A	22200
SG803D1	22702		
SG804D1	22702		
SG806D1	22702		
SW10AA1	22500		
SW10BA1	22500		
SW10CA1	22500		
SW10DA1	22500		
S05300	20801		
S1150	25200		
S1145AV	25200		



NOTES: UNLESS OTHERWISE SPECIFIED

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.
3. REFERENCES ARE AS FOLLOWS:

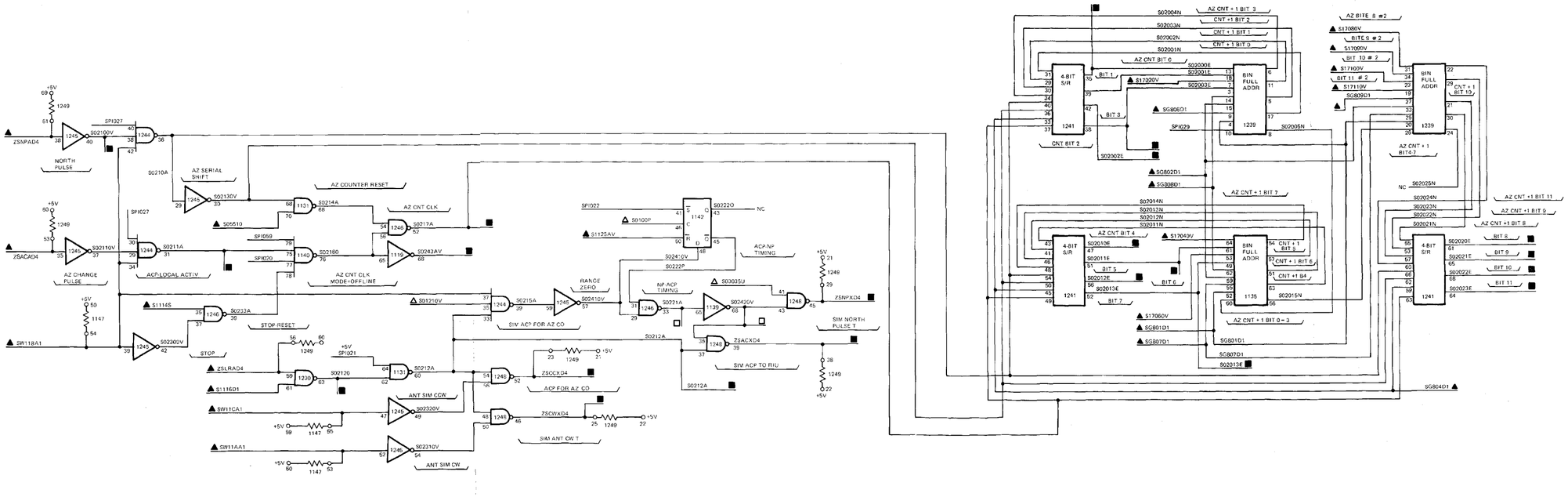
▲	INDICATES INPUT FROM ANOTHER FIGURE
△	INDICATES INPUT FROM THE SAME FIGURE
■	INDICATES OUTPUT TO ANOTHER FIGURE
□	INDICATES OUTPUT TO THE SAME FIGURE
◪	INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
    - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
    - B. REFER TO TABLE 5-41 FOR CARD PART NUMBER
    - C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS
11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

MS200840A

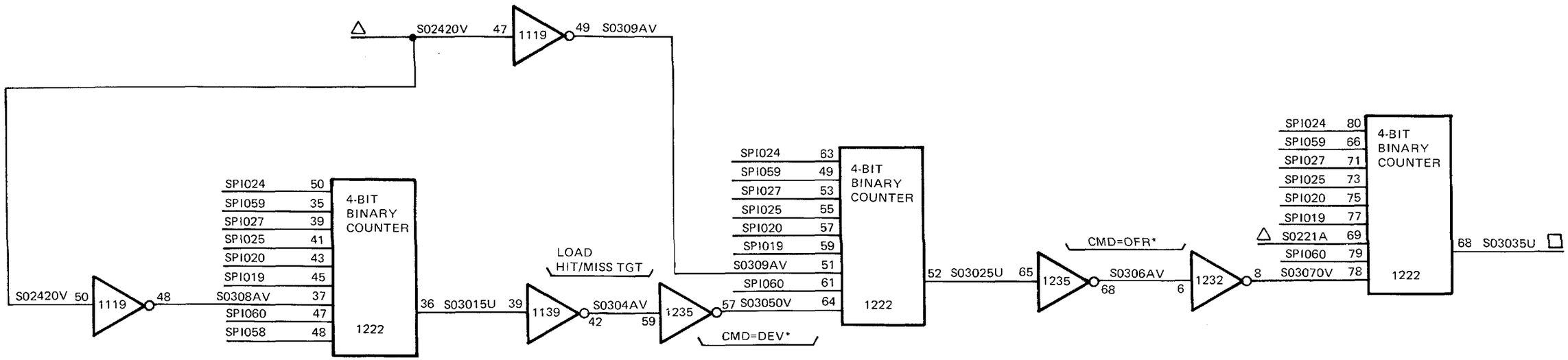
Change 2 FO-207. VSU Azimuth Digitizer Logic Diagram (Sheet 1 of 3)

INPUT		OUTPUT	
	SOURCE		DESTINATION
SIGNAL	FO-SH	SIGNAL	FO-SH
SG801D1	22702	S02000E	21900
SG802D1	22702	S02002E	21100, 21800, 25800, 25904
SG804D1	22702	S02003E	21100, 21800, 23001, 25904
SG806D1	22702	S02010E	21100, 21800, 25800, 25903
SG807D1	22702	S02011E	21100, 21800, 23001, 25903
SG808D1	22702	S02012E	21100, 21800, 25800, 25902
SG809D1	22702	S02013E	21100, 21800, 23002, 25902
SW11AA1	26700	S02020E	21100, 21800, 25800, 25901
SW11BA1	26700	S02021E	21100, 21800, 25800, 25901
SW11CA1	26700	S02022E	21100, 21800, 25800, 25904
SD5510	20801	S02023E	21100, 21800, 25800, 25904
S1114S	25200	S02100V	26002
S1125AV	25200	S0211A	26002
S17020V	25800	S0212A	20802
S17040V	25800	S02120	25903
S17060V	25800	S0217A	22701
S17080V	25800	S0243AV	20901
S17090V	25800	ZSACXD4	16900, 26802, 31801
S17100V	25800	ZSCCXD4	16900, 18000, 26802, 31801
S17110V	25800	ZSNPXD4	16900, 26802, 31801
ZSACAD4	26802		
ZSLRAD4	26802		
ZSLRAD4	27002		
ZSNPAD4	26802		



FO-207. VSU Azimuth Digitizer Logic Diagram (sheet 2 of 3)

Change 2



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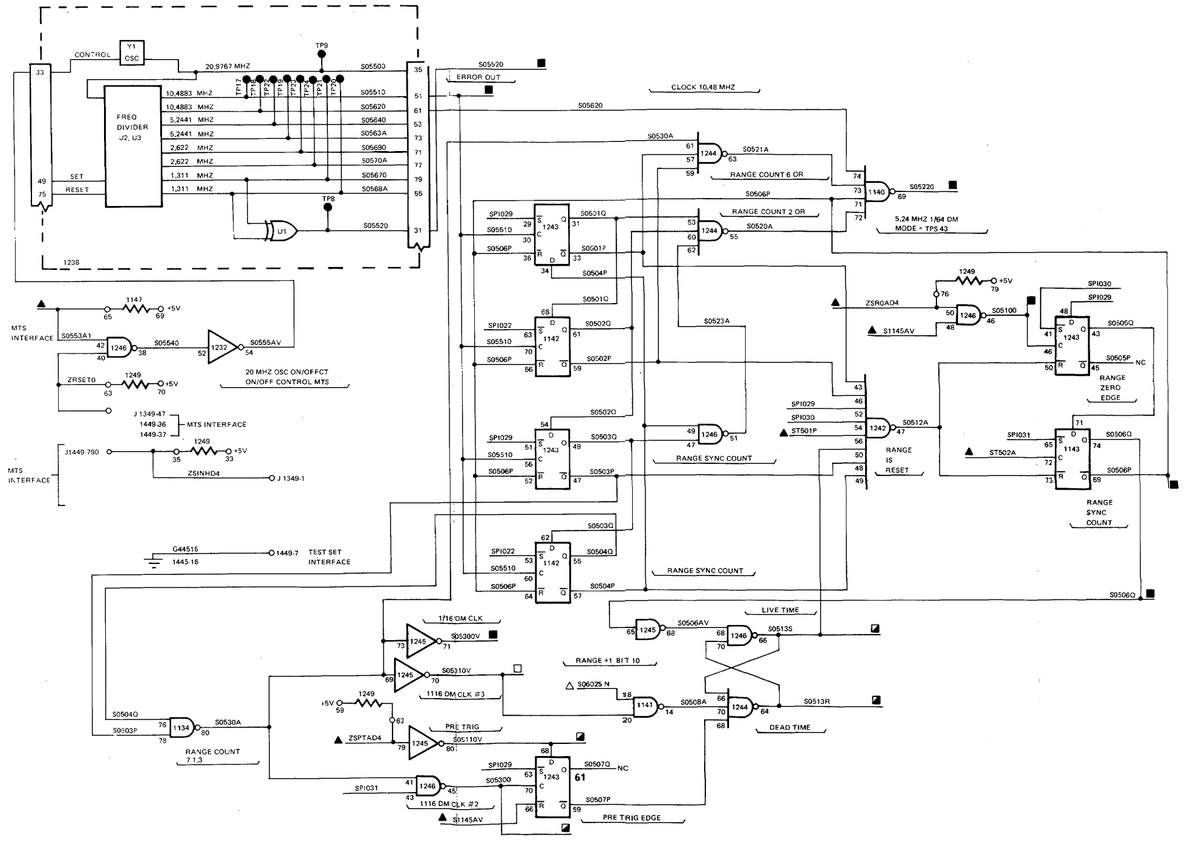
FO-207. VSU Azimuth Digitizer Logic Diagram (Sheet 3 of 3)

INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
ST501P	22701	S0506P	22701
ST502A	22701	S0506Q	21000
S1145AV	25200	S05100	22900
ZSPTAD4	26802	S05110V	21000
ZSROAD4	26802	S0513R	21406, 25902
		S0513S	21202, 22002, 25902
		S05220	22701
		S05300	20701
		S05300V	21408, 22400, 22600
		S05510	20702
		S05520	25100



NOTES: UNLESS OTHERWISE SPECIFIED

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
2. CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.
3. REFERENCES ARE AS FOLLOWS:

   ▲ INDICATES INPUT FROM ANOTHER FIGURE
   △ INDICATES INPUT FROM THE SAME FIGURE
   ■ INDICATES OUTPUT TO ANOTHER FIGURE
   □ INDICATES OUTPUT TO THE SAME FIGURE
   ◪ INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
    A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
    B. REFER TO TABLE 5-41 FOR CARD PART NUMBER
    C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS
11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

MS200843A

FO-208. VSU Range Digitizer Logic Diagram (Sheet 1 of 2)

Change 2

INPUT SIGNAL	SOURCE FO-SH
SG801D1	22702
SW300A1	26700
S0243AV	20702
S1000Q	25100
S1001Q	25100
S1002Q	25100
S1003Q	25100
S1004Q	25100
S1005Q	25100
S1006Q	25100
S1007G	25100
S1124P	25200
S1185A	25200
S1340R	25400
S1708AV	25800
S1709OV	25800
S17100V	25800
S17110V	25800

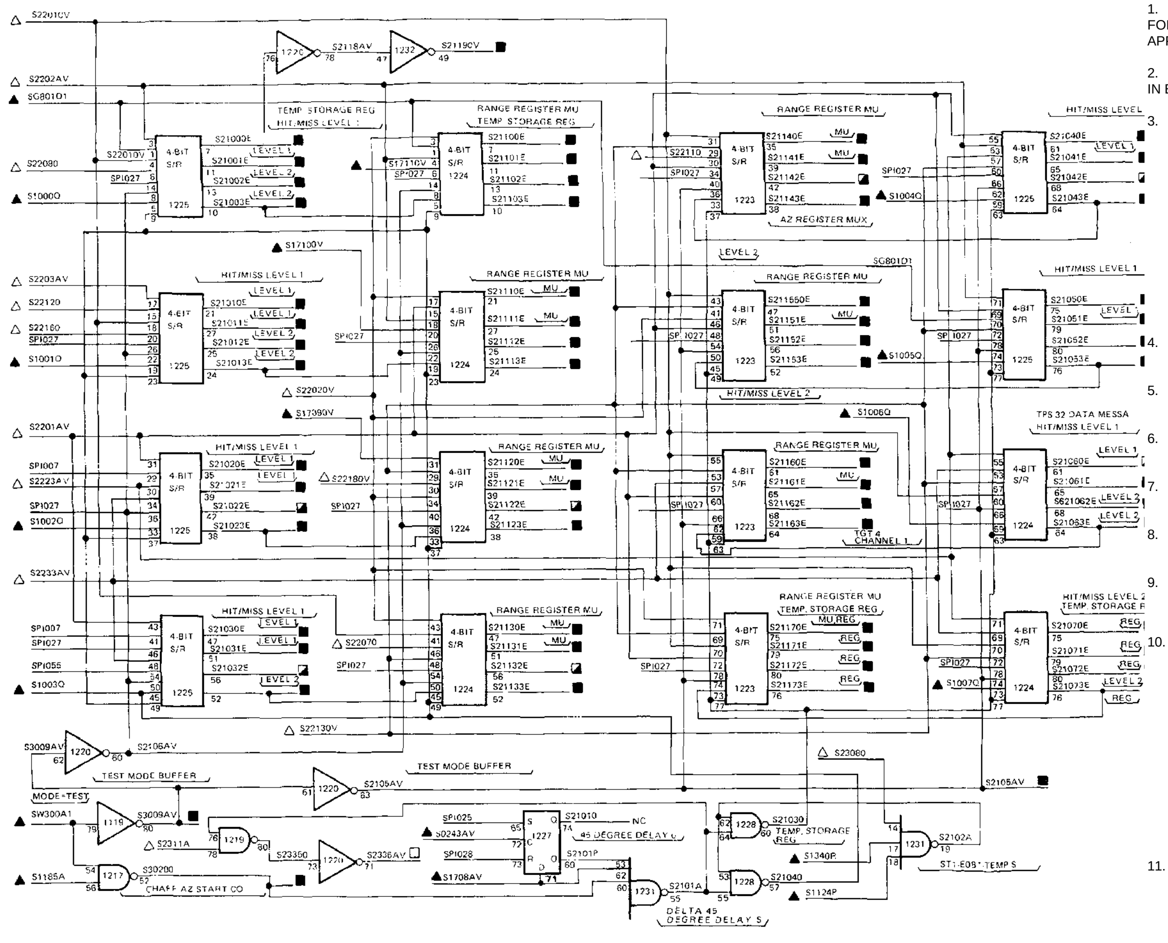
OUTPUT SIGNAL	DESTINATION FO-SH
S21000E	21301, 21404, 23500, 24000, 24500, 25000
S21001E	21301, 21404, 21408, 22001, 23500, 24000, 24500, 25000
S21002E	21301, 21404, 21700, 23500, 24000, 24500, 25000
S21003E	21301, 21403, 21404, 21700, 23200
S21010E	21301, 21404, 22002, 23500, 24000, 24500, 25000, 25901
S21011E	21301, 21404, 21408, 22001, 23500, 24000, 24500, 25000
S21012E	21301, 21404, 21700, 23500, 24000, 24500, 25000
S21013E	21301, 21403, 21404, 21700, 23200
S21020E	21301, 21404, 22002, 23500, 24000, 24500, 25000, 25902
S21021E	21301, 21404, 21408, 22001, 23500, 24000, 24500, 25000
S21022E	21301, 21404, 23500
S21023E	21301, 21403, 21404, 21700, 23500
S21030E	21301, 21404, 22002, 23500, 24000, 24500, 25000, 25902
S21031E	21301, 21404, 21408, 22001, 23500, 24000, 24500, 25000
S21032E	21301, 21404, 23500, 24000, 24500, 25000
S21033E	21301, 21403, 21404, 21700, 23500
S21040E	21301, 21404, 22002, 23500, 24000, 24500, 25000, 25903
S21041E	21301, 21404, 21408, 22001, 23500, 24000, 24500, 25000
S21042E	21301, 21404, 23500
S21043E	21301, 21404, 21700, 23500, 24000, 24500, 25000
S2105AV	25700
S21050E	21301, 21404, 23500, 24000, 24500, 25000, 25903
S21051E	21301, 21404, 21408, 22001, 23500, 24000, 24500, 25000
S21052E	21301, 21404, 22200, 23500
S21053E	21301, 21404, 21700, 23500, 24000, 24500, 25000

OUTPUT SIGNAL	DESTINATION FO-SH
S21060E	21301, 21404, 23500, 24000, 24500, 25000, 25904
S21061E	21301, 21404, 21408, 22001, 23500, 24000, 24500, 25000
S21062E	21301, 21404, 22200, 23500, 24000, 24500, 25000
S21063E	21301, 21404, 21700, 23500, 24000, 24500, 25000
S21070E	21301, 21404, 23500, 24000, 24500, 25000, 25904
S21071E	21301, 21404, 21408, 22001, 23500, 24000, 24500, 25000
S21072E	21100, 21301, 21404, 22200
S21073E	21301, 21404, 21700, 23500, 24000, 24500, 25000
S21100E	21201, 21301, 22001, 23100, 23600, 24100, 24600
S21101E	21301, 21401, 22001, 23100, 23600, 24100, 24600
S21102E	21100, 21301, 21700, 23001
S21103E	21100, 21301, 21700, 23002, 25901
S21110E	21201, 21301, 22002, 23100, 23600, 24100, 24600
S21111E	21201, 21301, 22001, 23100, 23600, 24100, 24600
S21112E	21100, 21301, 21700, 23001
S21113E	21100, 21301, 21700, 23002, 25901
S21120E	21201, 21301, 22002, 23100, 23600, 24100, 24600
S21121E	21201, 21301, 22001, 23100, 23600, 24100, 24600
S21122E	21301, 25400
S21123E	21100, 21301, 21700, 23002, 25902
S21130E	21201, 21301, 22002, 23100, 23600, 24100, 24600
S21131E	21201, 21301, 22001, 23100
S21132E	21301
S21133E	21100, 21301, 21700, 23002, 25902
S21140E	21201, 22002, 23100, 23600, 24100, 24600
S21141E	21201, 21301, 22001, 23100, 23600, 24100, 24600

OUTPUT SIGNAL	DESTINATION FO-SH
S21142E	21301
S21143E	21100, 21301, 21700, 23002, 25903
S21150E	21301, 23100, 23600, 24100, 24600
S21151E	21201, 21301, 22001, 23100, 23600, 24100, 24600
S21152E	21301, 21503, 21600, 22200
S21153E	21100, 21301, 21700, 23002, 25903
S21160E	21301, 23100, 23600, 24100, 24600
S21161E	21201, 21301, 22001, 23100, 23600, 24100, 24600
S21162E	21301, 21503, 21600, 22200
S21163E	21100, 21301, 21700, 23001, 25904
S21170E	21301, 23100, 23600, 24100, 24600
S21171E	21201, 21301, 22001, 23100, 23600, 24100, 24600
S21172E	21301
S21173E	21100, 21301, 21700, 23001, 25904
S21190V	22001, 25901
S3009AV	22900, 23100
S30200	25700

TABLE 1

182	525400, 520902, 521301		
243	521301, 521404, 523500, 523400, 524500, 525500	282	521201, 522002, 523100, 523600, 524100, 524600
244	521301, 521404, 521408, 522001, 523500, 523400, 524500, 525500	283	521201, 521301, 522001, 523100, 523600, 524100, 524600
245	521301, 521404, 521700, 523500, 523400, 524500, 525500	284	520902, 521301
246	521301, 521403, 521404, 521700, 523200	285	521100, 521301, 521700, 525903, 523002
247	521301, 521404, 522002, 525901, 523500, 523400, 524500, 525500	286	521301, 523100, 523600, 524100, 524600
248	521301, 521404, 521408, 522001, 523500, 523400, 524500, 525500	287	521201, 521301, 522001, 523100, 523600, 524100, 524600
249	521301, 521404, 521700, 523500, 523400, 524500, 525500	288	521301, 521503, 521600, 522200
250	521301, 521403, 521404, 521700, 523200	289	521100, 521301, 521700, 525903, 523002
252	521301, 521404, 522002, 525902, 523500, 523400, 524500, 525500	290	521301, 523100, 523600, 524100, 524600
253	521301, 521404, 521408, 522001, 523500, 523400, 524500, 525500	291	521201, 521301, 522001, 523100, 523600, 524100, 524600
254	520902, 521301, 521404, 523500	292	521301, 521503, 521600, 522200
255	521301, 521403, 521404, 521700, 523500	293	521100, 521301, 521700, 525904
256	521301, 521404, 522002, 525902, 523500, 523400, 524500, 525500	294	521301, 523100, 523600, 524100, 524600
257	521301, 521404, 521408, 522001, 523500, 523400, 524500, 525500	295	521201, 521301, 522001, 523100, 523600, 524100, 524600
258	520902, 521301, 521404, 523500, 523400, 524500, 525500	296	521301
259	521301, 521403, 521404, 521700, 523500	297	521100, 521301, 521700, 525904
265	521201, 521202, 522001, 523100, 523800, 524100, 524600	299	521301, 521404, 522002, 525903, 523500, 523400 524500, 525500
266	521301, 521401, 522001, 523100, 523600, 524100, 524600	300	521301, 521408, 522001, 523500, 523400, 524500, 525500
267	521100, 521301, 521700	301	520902, 521301, 521404, 523500
268	521100, 521301, 521700, 525901, 523002	302	521301, 521404, 521700, 523500, 523400, 524500, 525500
269	521201, 521301, 522002, 523100, 523600, 524100, 524600	303	521301, 521404, 525903, 523500, 523400, 524500, 525500
270	521201, 521301, 522001, 523100, 523600, 524100, 524600	304	521301, 521404, 521408, 522001, 523500, 523400, 524500, 525500
271	521100, 521301, 521700, 523001	305	521301, 521404, 522200, 523500
272	521100, 521301, 521700, 525901, 523002	306	521301, 521404, 521700, 523500, 523400, 524500 525500
273	521201, 521301, 522002, 523100, 523600, 524100, 524600	307	520902, 521301, 521404, 525904, 523500, 523400, 524500, 525500
274	521201, 521301, 522001, 523100, 523600, 524100, 524600	308	521301, 521404, 521408, 522001, 523500, 523400, 524500, 525500
275	521100, 521301, 521700, 525902, 523002	309	521301, 521404, 522200, 523500, 523400, 524500, 525500
277	521201, 521301, 522001, 523100, 523600, 524600	310	521301, 521404, 521700, 523500, 523400, 524500, 525500
278	521201, 521301, 522001, 523100	311	520902, 521404, 521700, 525904, 523500, 523400, 524500, 525500
279	520902, 521301	312	521301, 521404, 521408, 522001, 523500, 523400, 524500, 525500
280	521100, 521301, 521700, 525902, 523002		



NOTES: UNLESS OTHERWISE SPECIFIED

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.

2. CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.

3. REFERENCES ARE AS FOLLOWS:

▲ INDICATES INPUT FROM ANOTHE
△ INDICATES INPUT FROM THE SA
■ INDICATES OUTPUT TO ANOTHE
□ INDICATES OUTPUT TO THE SAM
◪ INDICATES OUTPUT TO THE SAM

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.

5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.

6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.

7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.

8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.

9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS

10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:

A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.

B. REFER TO TABLE 5-41 FOR CARD PART NUMBER

C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS

11. SPIT INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

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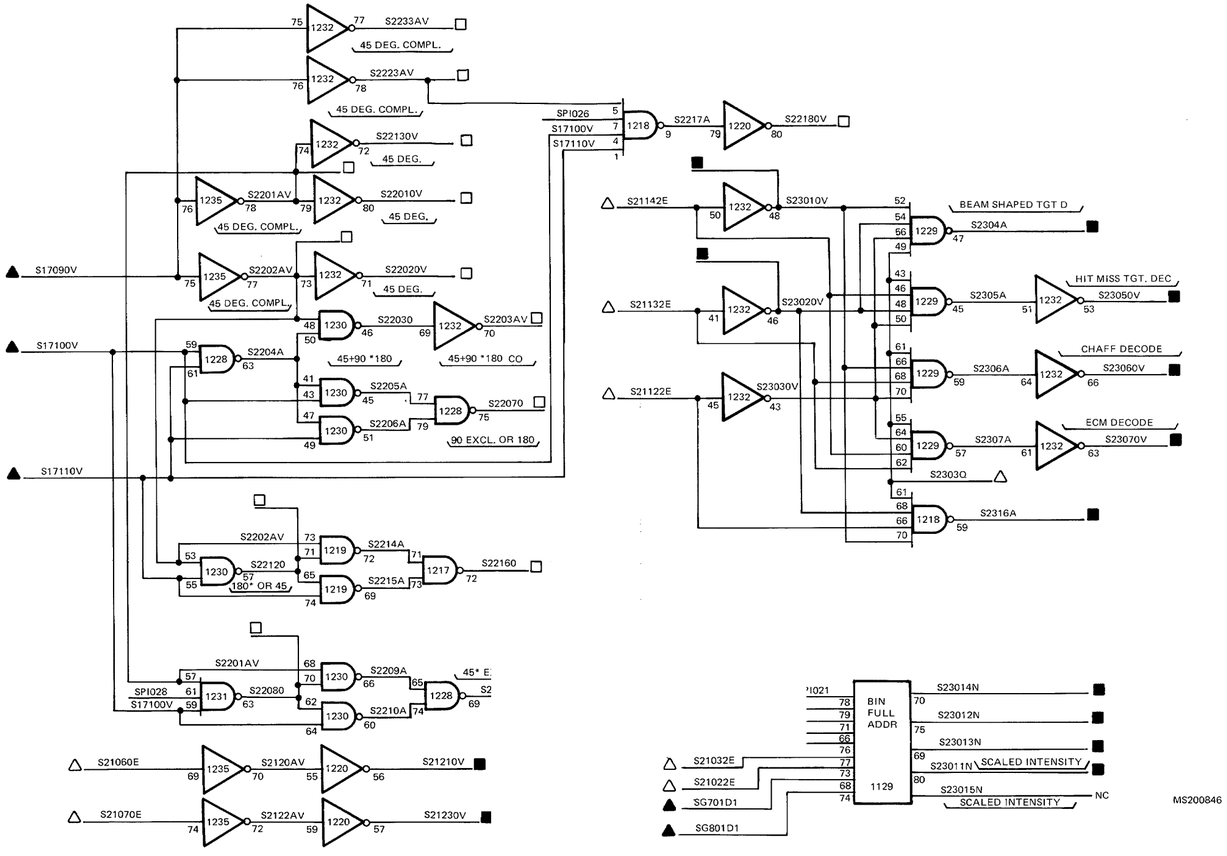
FO-209. VSU Temporary Storage Register Logic Diagram (Sheet 1 of 3)

INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
SG701D1	22702	S21210V	21600
SG801D1	22702	S21230V	21600
SG802D1	22702	S23010V	25400
SG803D1	22702	S23011N	21401, 21600, 22200
SG804D1	22702	S23012N	21401, 21600, 22200
S1116D1	25200	S23013N	21401, 21600, 22200
S17090V	25800	S23014N	21600, 22200
S17100V	25800	S23020V	25400
S17110V	25800	S2304A	21000
		S23050V	21000
		S23060V	21600
		S23070V	21600
		S2316A	23100



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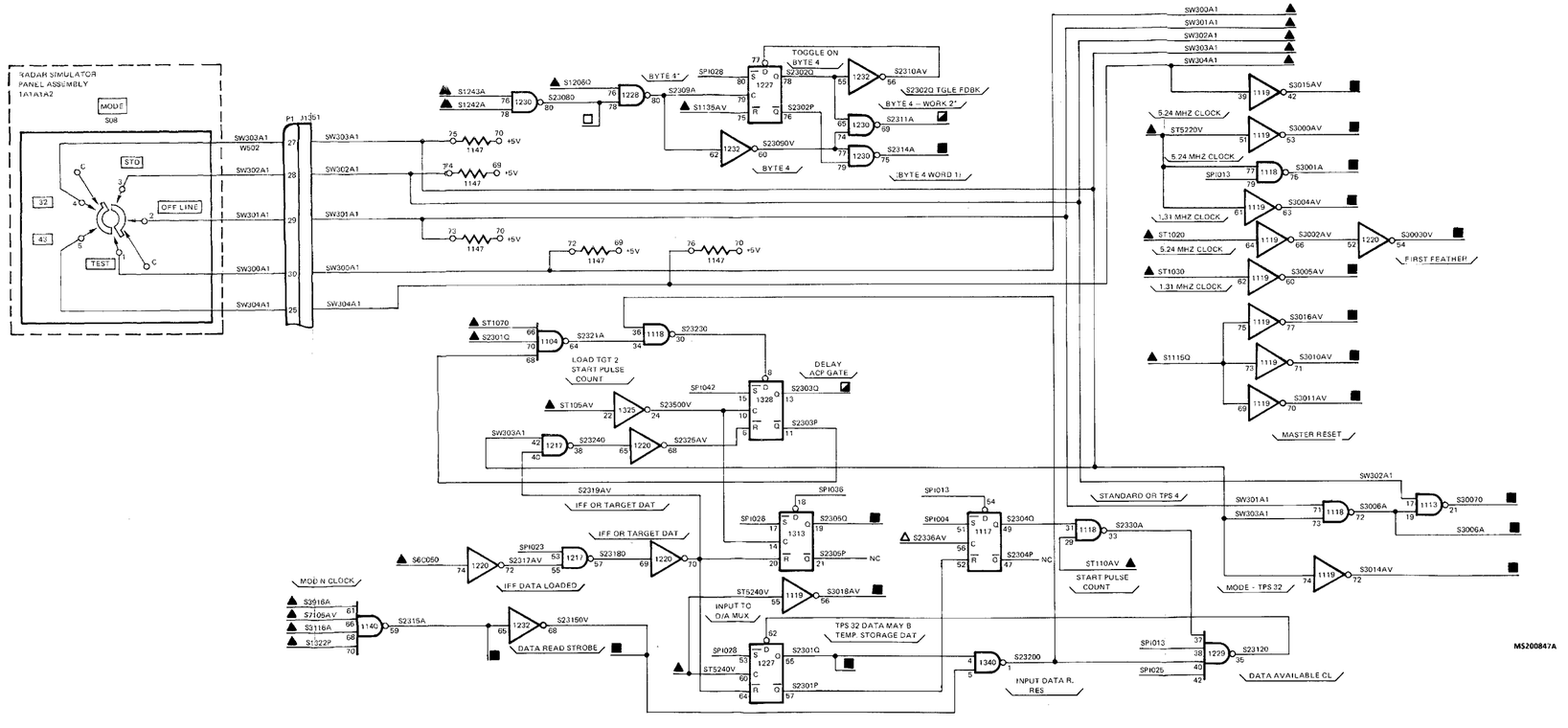
FO-209. VSU Temporary Storage Register Logic Diagram (Sheet 2 of 3)

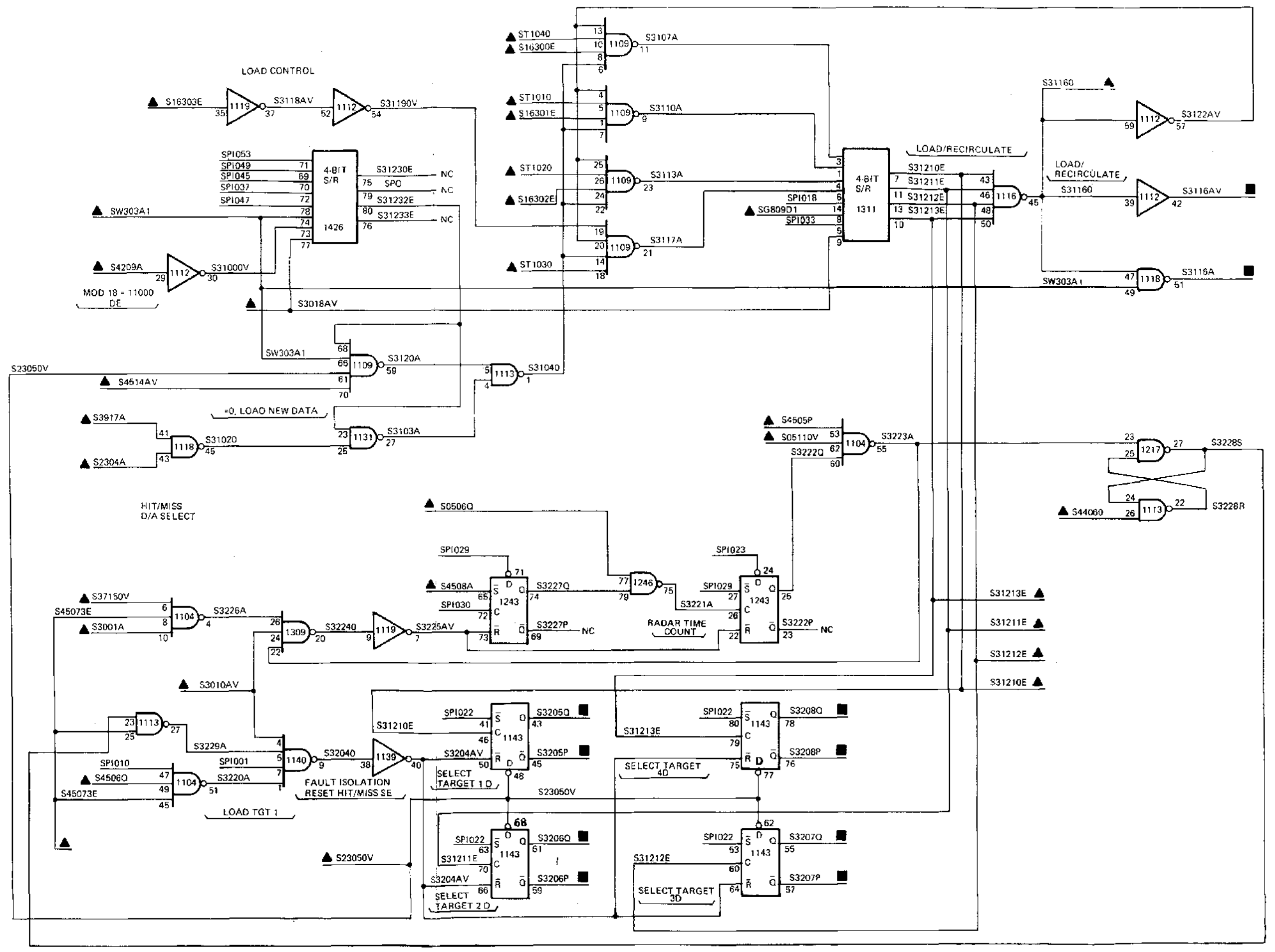
INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
ST1020	22701	S2301Q	20903, 21302
ST1030	22701	S2303Q	25400
ST105AV	22701	S2305Q	25400, 26002
ST1070	22701	S2311A	26002
ST110AV	22701	S2314A	25400, 26002
ST5220V	22701	S2315A	26002
ST5240V	22701	S23150V	25400
SW300A1	26700	S3000AV	21100, 21202, 21403, 21405
SW301A1	26700	S3001A	21000, 21401, 21402, 21403
SW302A1	26700	S30030V	21407
SW303A1	26700	S3004AV	21408
SW304A1	26700	S3005AV	21501, 21502
S1115Q	25200	S3006A	21406
S1135AV	25200	S30070	21409
S1206Q	25300	S3010AV	21000, 21405, 21407
S1242A	25300	S3011AV	21402, 21405, 21407, 21408
S1243A	25300	S3014AV	21301, 21302, 25905, 26002
S1322P	25400	S3015AV	21408
S2301Q	20903	S3016AV	21501, 21502, 22900, 24600
S3116A	21000	S3018AV	21000, 21100, 21405, 21406,
S3916A	21302		22002
S6C050	23001		
S7105AV	21600		



Change 2 FO-209. Temporary Storage Register Logic Diagram (Sheet 3 of 3).

INPUT	
SIGNAL	SOURCE FO-SH
SG809D1	22702
ST1010	22701
ST1020	22701
ST1030	22701
ST1040	22701
SW303A1	26700
S0506Q	20801
S05110V	20801
S16300E	25700
S16301E	25700
S16302E	25700
S16303E	25700
S2304A	20902
S23050V	20902
S3001A	20903
S3010AV	20903
S3018AV	20903
S37150V	21202
S3917A	21302
S4209A	21402
S44060	21404
S4505P	21405
S4506Q	21405
S45073E	21405
S4508A	21405
S4514AV	21405

OUTPUT	
SIGNAL	DESTINATION FO-SH
S3116A	20903, 21402, 21403, 21408
S3116AV	21100, 21201, 21401, 21403, 21408, 21503
S31160	21402, 21503
S31210E	21503
S31211E	21503
S31212E	21503
S31213E	21503
S3205P	21404, 21406, 21409
S3205Q	21409
S3206P	21404, 21406, 21409
S3206Q	21409
S3207P	21404, 21406, 21409
S3207Q	21409
S3208P	21404, 21406, 21409
S3208Q	21409



NOTES: UNLESS OTHERWISE SPECIFIED

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.

2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.

3. REFERENCES ARE AS FOLLOWS:

▲	INDICATES INPUT FROM ANOTHER FIGURE
△	INDICATES INPUT FROM THE SAME FIGURE
■	INDICATES OUTPUT TO ANOTHER FIGURE
□	INDICATES OUTPUT TO THE SAME FIGURE
◩	INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.

5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.

6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.

7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.

8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.

9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.

10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:

    A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.

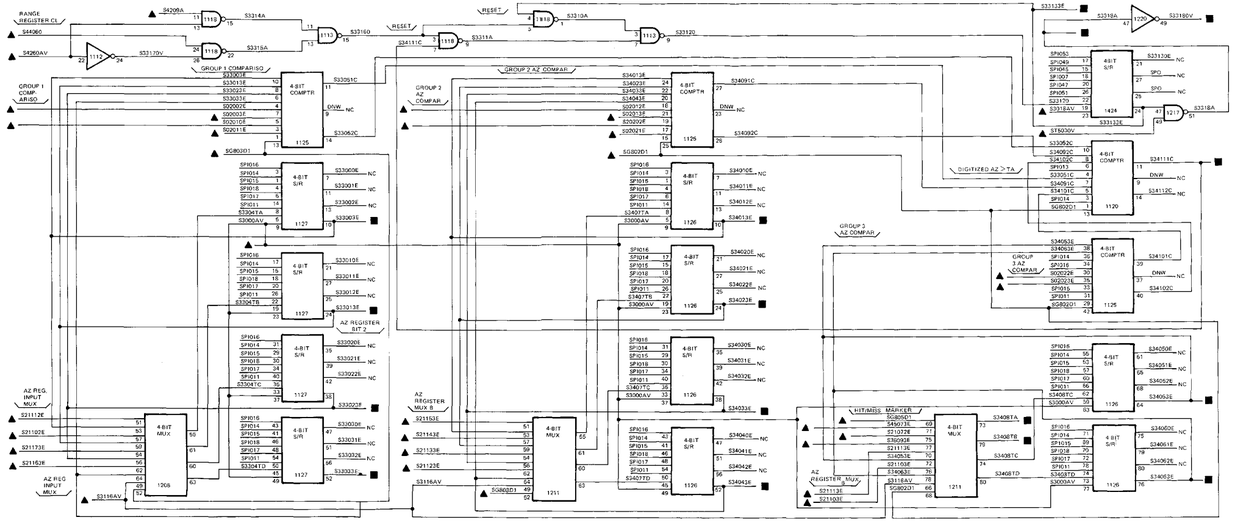
    B. REFER TO TABLE 5-41 FOR CARD PART NUMBER

    C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS

11. SPIT INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

Change 2 FO-210. VSU Target Generator Load Recirculate Control Logic Diagram

INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
SG802D1	22702	S33003E	25904
SG803D1	22702	S33013E	25904
SG805D1	22702	S33023E	25903
SG808D1	22702	S33033E	25903
ST5030V	22701	S33133E	21202, 21403, 21405
S02002E	20702	S3318A	26002
S02003E	20702	S3318BV	26002
S02010E	20702	S34013E	25902
S02011E	20702	S34023E	25902
S02012E	20702	S34033E	25901
S02013E	20702	S34043E	25901
S02020E	20702	S34053E	25904
S02021E	20702	S34063E	25904
S02022E	20702	S3408TA	21405
S02023E	20702	S3408TB	21202
S21072E	20901	S34111C	21302
S21102E	20901		
S21103E	20901		
S21112E	20901		
S21113E	20901		
S21123E	20901		
S21133E	20901		
S21143E	20901		
S21153E	20901		
S21163E	20901		
S21173E	20901		
S3000AV	20903		
S3018AV	20903		
S3116AV	21000		
S36093E	21202		
S4209A	21402		
S4260AV	21402		
S44060	21404		
S45073E	21405		



1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.
3. REFERENCES ARE AS FOLLOWS:

▲	INDICATES INPUT FROM ANOTHER FIGURE
△	INDICATES INPUT FROM THE SAME FIGURE
▼	INDICATES OUTPUT TO ANOTHER FIGURE
□	INDICATES OUTPUT TO THE SAME FIGURE
◪	INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
    - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
    - B. REFER TO TABLE 5-41 FOR CARD PART NUMBER
    - C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS
11. SPIT INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

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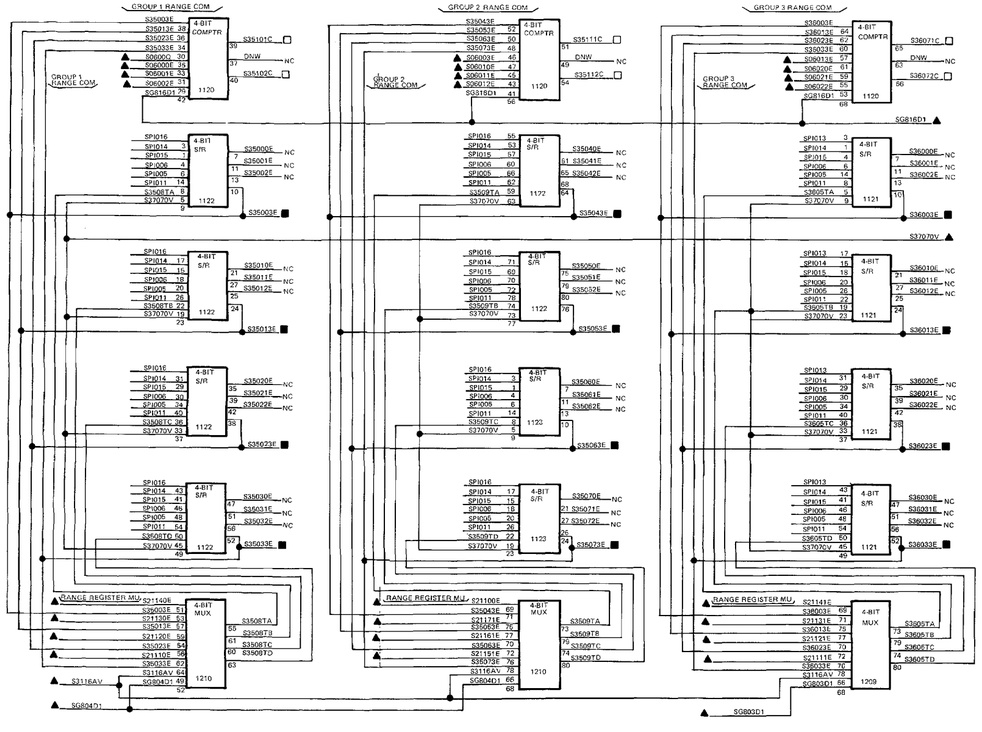
FO-211. VSU Target Generator Azimuth Compare Logic Diagram

INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
SG803D1	22702	S35003E	25903
SG804D1	22702	S35013E	25902
SG816D1	22702	S35023E	25902
S06000	20802	S35033E	25901
S06000E	20802	S35043E	25901
S06001E	20802	S35053E	25904
S06002E	20802	S35063E	25904
S06003E	20802	S35073E	25903
S06010E	20802	S36003E	25903
S06011E	20802	S36013E	25902
S06012E	20802	S36023E	25902
S06013E	20802	S36033E	25901
S06020E	20802		
S06021E	20802		
S06022E	20802		
S21100E	20901		
S21110E	20901		
S21111E	20901		
S21120E	20901		
S21121E	20901		
S21130E	20901		
S21131E	20901		
S21140E	20901		
S21141E	20901		
S21151E	20901		
S21161E	20901		
S21171E	20901		
S3116AV	21000		



NOTES: UNLESS OTHERWISE SPECIFIED

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.
3. REFERENCES ARE AS FOLLOWS:

▲	INDICATES INPUT FROM ANOTHER FIGURE
△	INDICATES INPUT FROM THE SAME FIGURE
■	INDICATES OUTPUT TO ANOTHER FIGURE
□	INDICATES OUTPUT TO THE SAME FIGURE
◪	INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
    - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
    - B. REFER TO TABLE 5-41 FOR CARD PART NUMBER
    - C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS
11. SPIT INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

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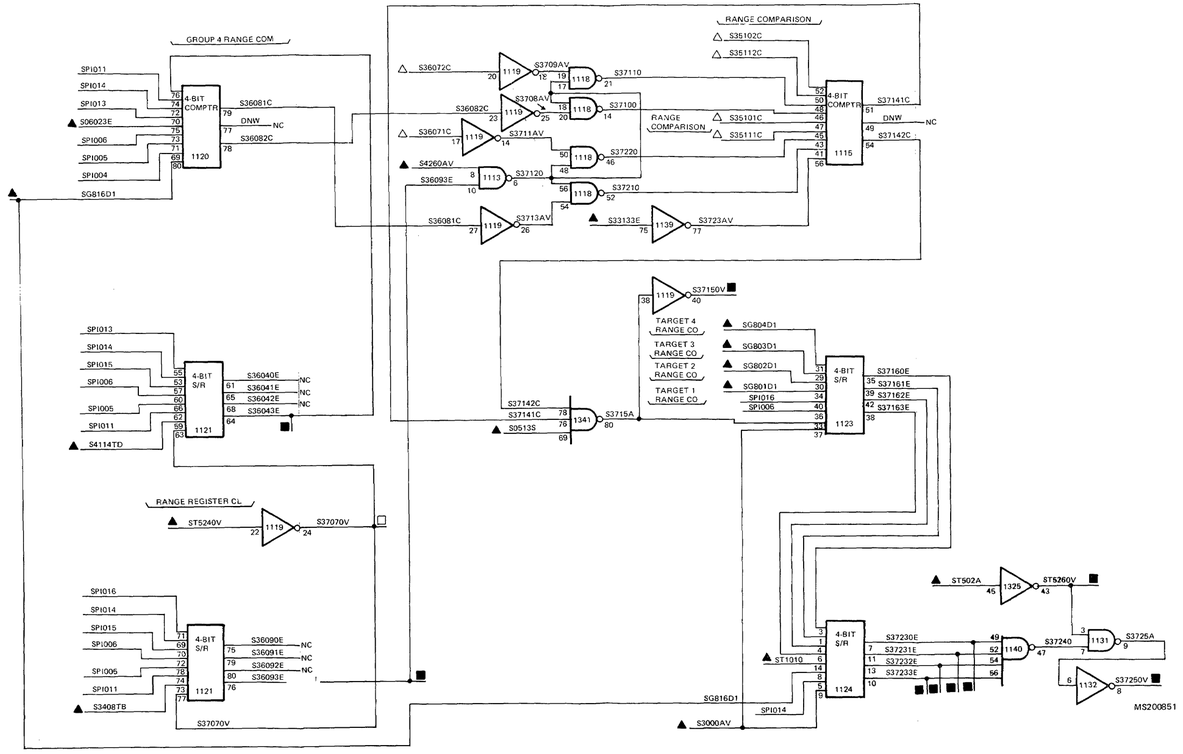
FO-212. VSU Target Generator Range Compare Logic Diagram (Sheet 1 of 2)

INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
SG801D1	22702	ST5260V	23100, 23600, 24100, 24600
SG802D1	22702	S36043E	21401, 25901
SG803D1	22702	S36093E	21100
SG804D1	22702	S37150V	21000, 21408
SG816D1	22702	S37230E	21407, 21502
ST1010	22701	S37231E	21407, 21502
ST502A	22701	S37232E	21407, 21501
ST5240V	22701	S37233E	21407, 21501
S0513S	20801	S37250V	26002
S06023E	20802		
S3000AV	20903		
S33133E	21100		
S3408TB	21100		
S4114TD	21401		
S4260AV	21402		

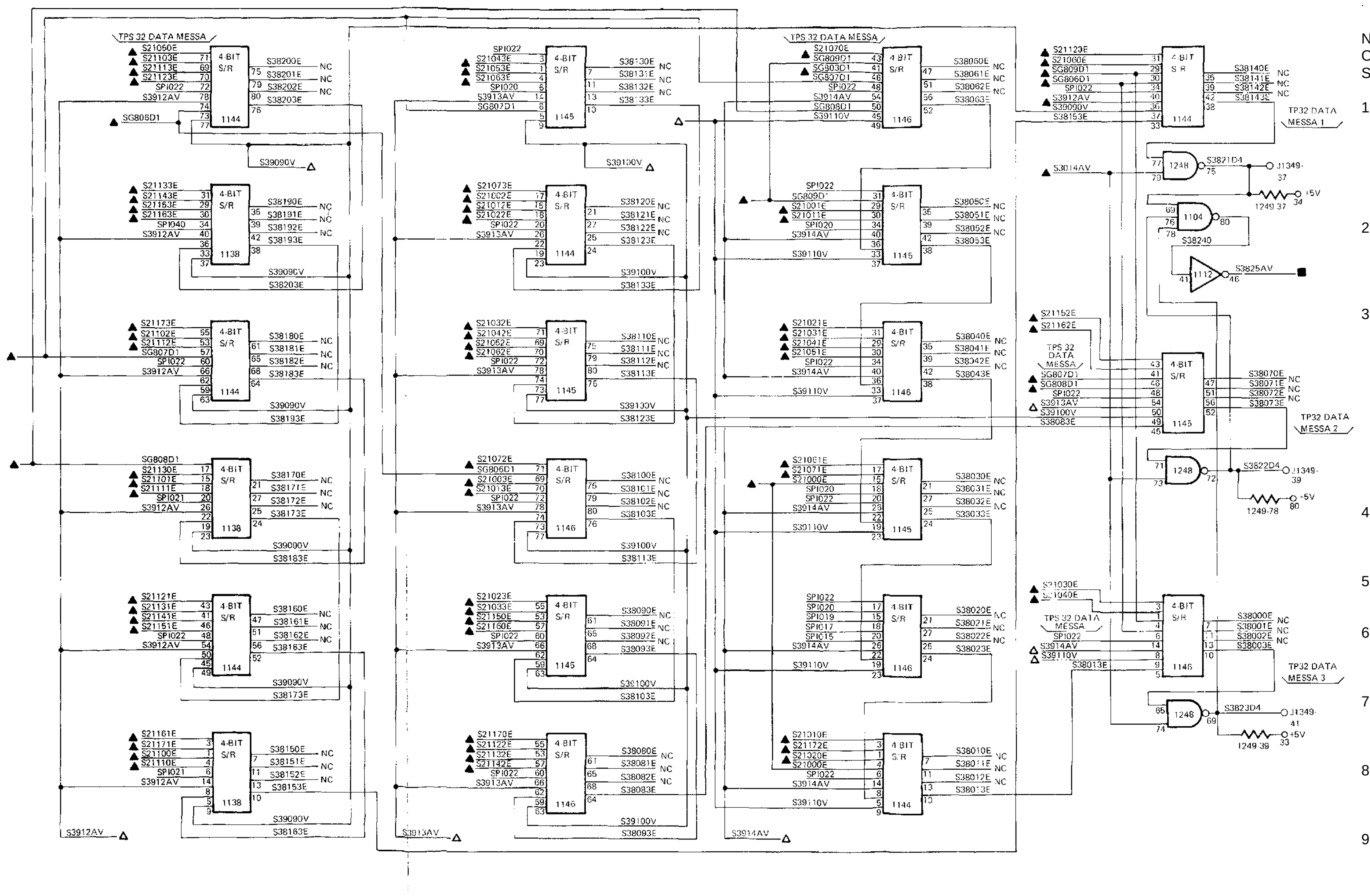


FO-212. VSU Target Generator Range Compare Logic Diagram (Sheet 2 of 2)

INPUT	
SIGNAL	SOURCE FO-SH
SG803D1	22702
SG806D1	22702
SG807D1	22702
SG808D1	22702
SG809D1	22702
S21000E	20901
S21001E	20901
S21002E	20901
S21003E	20901
S21010E	20901
S21011E	20901
S21012E	20901
S21013E	20901
S21020E	20901
S21021E	20901
S21022E	20901
S21023E	20901
S21030E	20901
S21031E	20901
S21032E	20901
S21033E	20901
S21040E	20901
S21041E	20901
S21042E	20901
S21043E	20901
S21050E	20901
S21051E	20901
S21052E	20901
S21053E	20901
S21060E	20901
S21061E	20901
S21062E	20901
S21063E	20901
S21070E	20901
S21071E	20901
S21072E	20901
S21073E	20901
S21100E	20901
S21101E	20901
S21102E	20901
S21103E	20901
S21110E	20901
S21111E	20901
S21112E	20901
S21113E	20901
S21120E	20901

INPUT	
SIGNAL	SOURCE FO-SH
S21121E	20901
S21122E	20901
S21123E	20901
S21130E	20901
S21131E	20901
S21132E	20901
S21133E	20901
S21141E	20901
S21142E	20901
S21143E	20901
S21150E	20901
S21151E	20901
S21152E	20901
S21153E	20901
S21160E	20901
S21161E	20901
S21162E	20901
S21163E	20901
S21170E	20901
S21171E	20901
S21172E	20901
S21173E	20901
S3014AV	20903

OUTPUT	
SIGNAL	DESTINATION FO-SH
S3825AV	25905



FO-213. VSU Temporary Storage Register Logic Diagram (Sheet 1 of 2)

NOTES: UNLESS OTHERWISE SPECIFIED

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.

2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.

3. REFERENCES ARE AS FOLLOWS:

   ▲ INDICATES INPUT FROM ANOTHER FIGURE
   △ INDICATES INPUT FROM THE SAME FIGURE
   ■ INDICATES OUTPUT TO ANOTHER FIGURE
   □ INDICATES OUTPUT TO THE SAME FIGURE
   ◪ INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.

5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.

6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.

7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.

8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.

9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.

10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:

    A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.

    B. REFER TO TABLE 5-41 FOR CARD PART NUMBER

    C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS

11. SPIT INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

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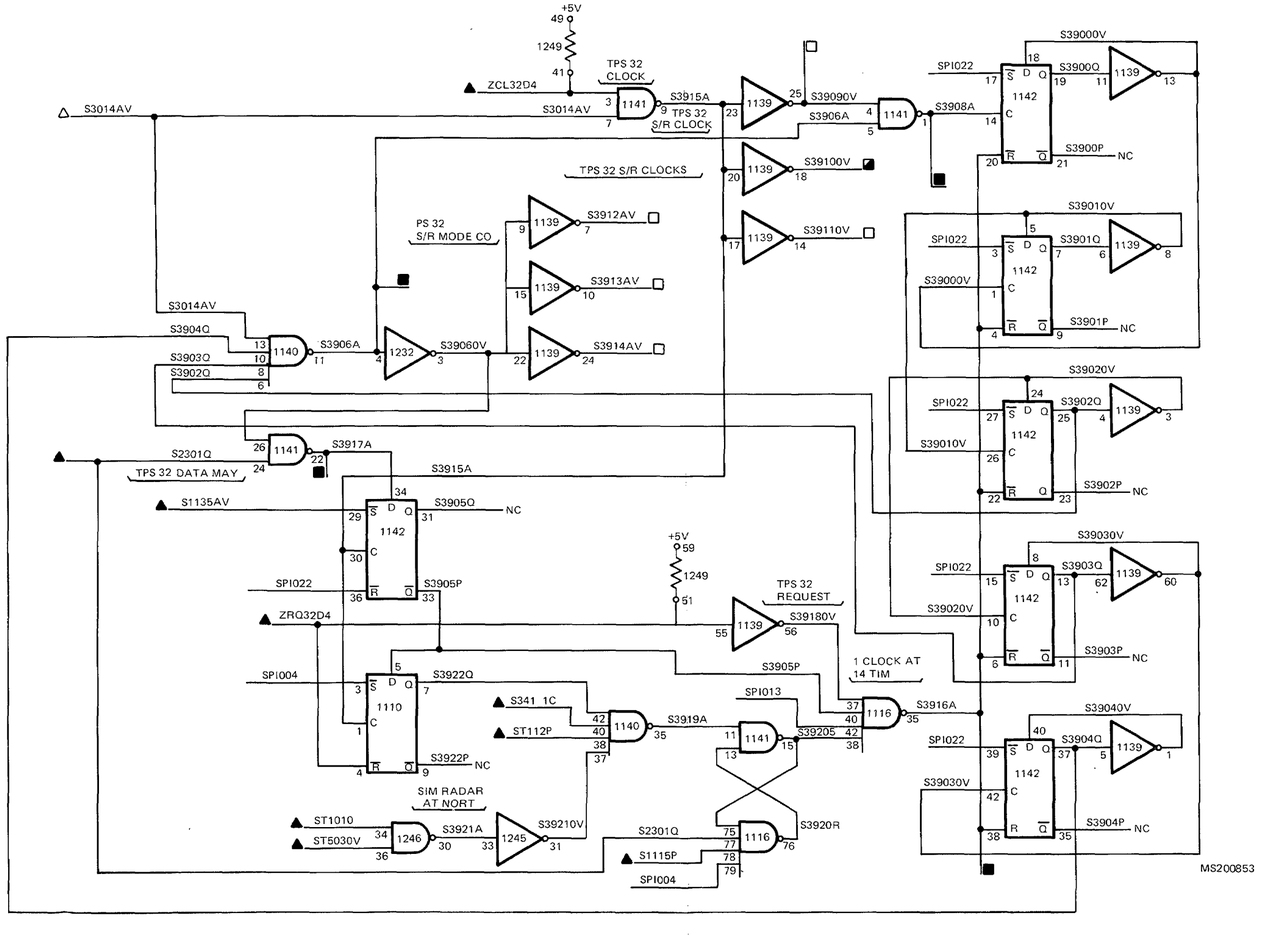
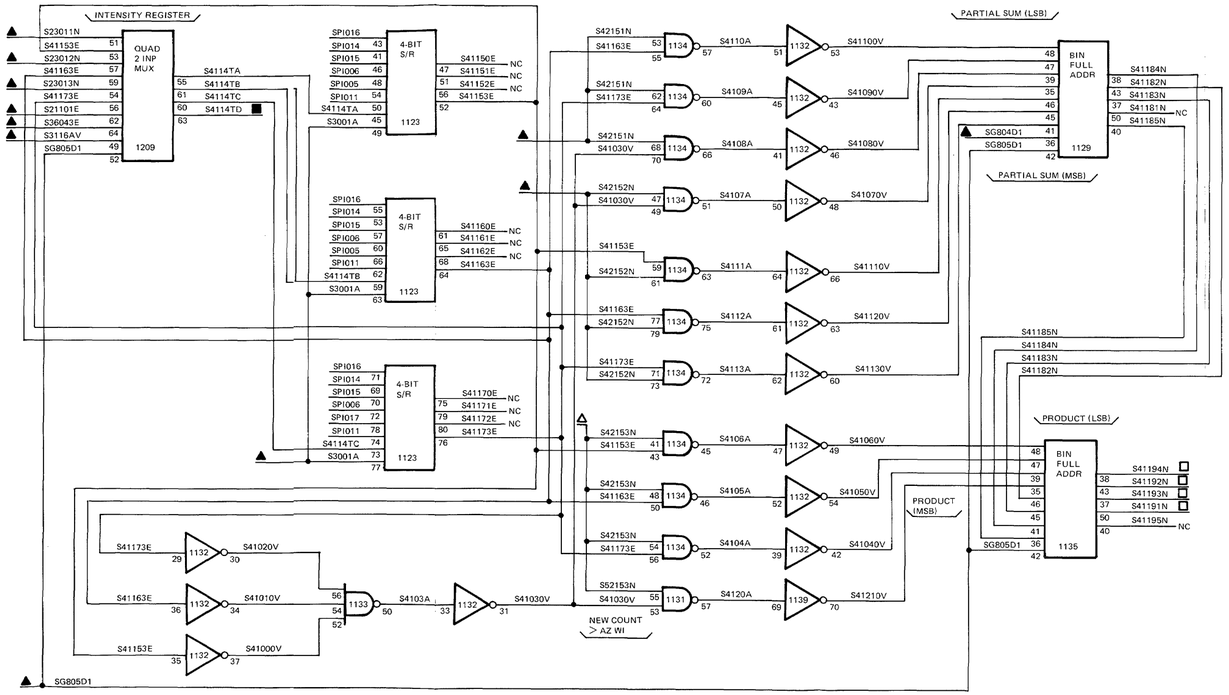
INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
ST1010	22701	S3906A	26002
ST112P	22701	S3908A	25905
ST5030V	22701	S39100V	26002
S1115P	25200	S3916A	20903
S1135AV	25200	S3917A	21000
S2301Q	20903		
S3014AV	20903		
S34111C	21100		
ZCL32D4	26802		
ZRQ32D4	26802		



FO-213. VSU Target Generator TSP-32 Data Logic Diagram (Sheet 2 of 2)

INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
SG804D1	22702	S4114TD	21202
SG805D1	22702		
S21101E	20901		
S23011N	20902		
S23012N	20902		
S23013N	20902		
S3001A	20903		
S3116AV	21000		
S36043E	21202		



NOTES: UNLESS OTHERWISE SPECIFIED

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.
3. REFERENCES ARE AS FOLLOWS:

▲	INDICATES INPUT FROM ANOTHER FIGURE
△	INDICATES INPUT FROM THE SAME FIGURE
■	INDICATES OUTPUT TO ANOTHER FIGURE
□	INDICATES OUTPUT TO THE SAME FIGURE
◪	INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
    - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
    - B. REFER TO TABLE 5-41 FOR CARD PART NUMBER
    - C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS
11. SPIT INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

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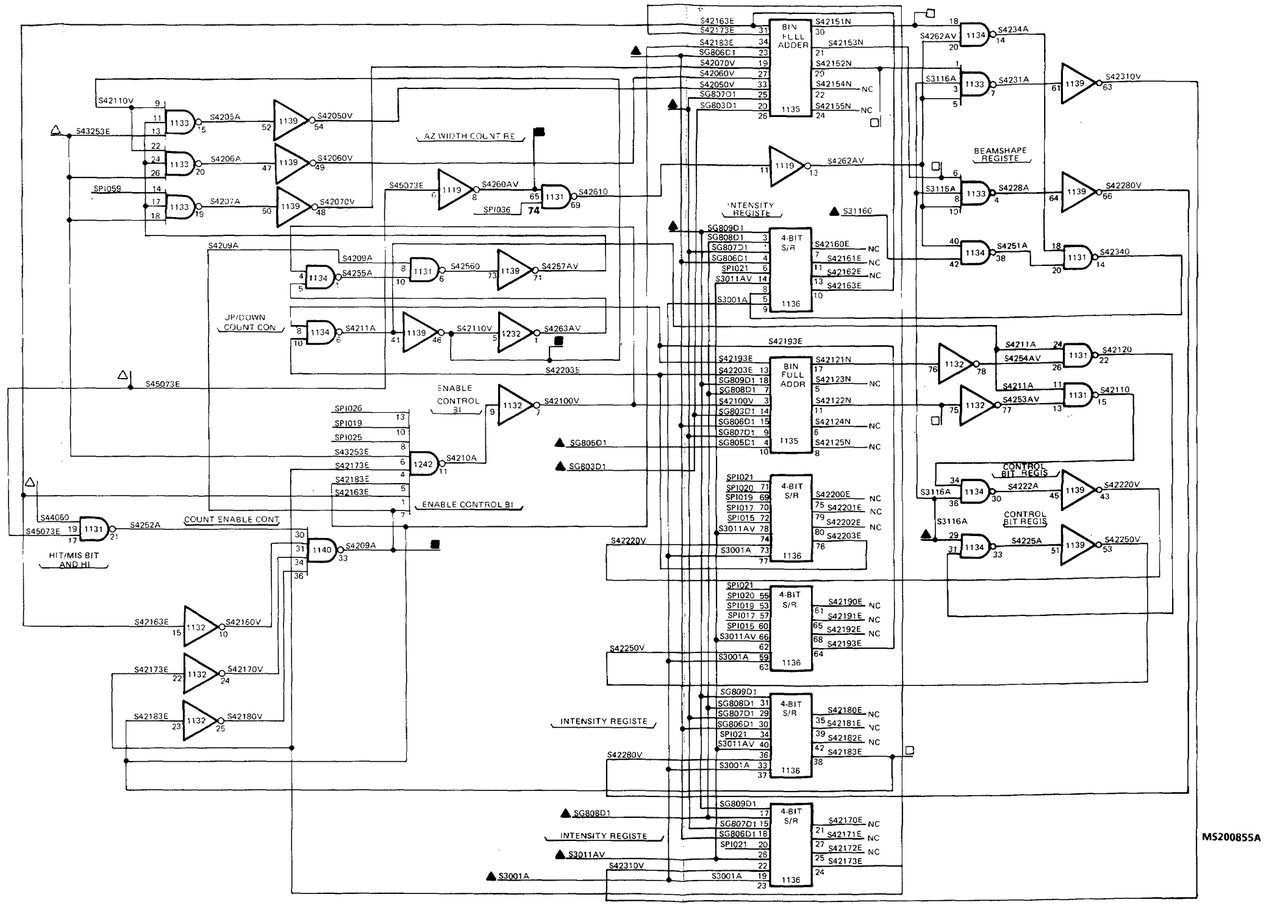
FO-214. VSU Target Generator Beam Shaping and Hit/Miss Control Logic Diagram (Sheet 1 of 9)

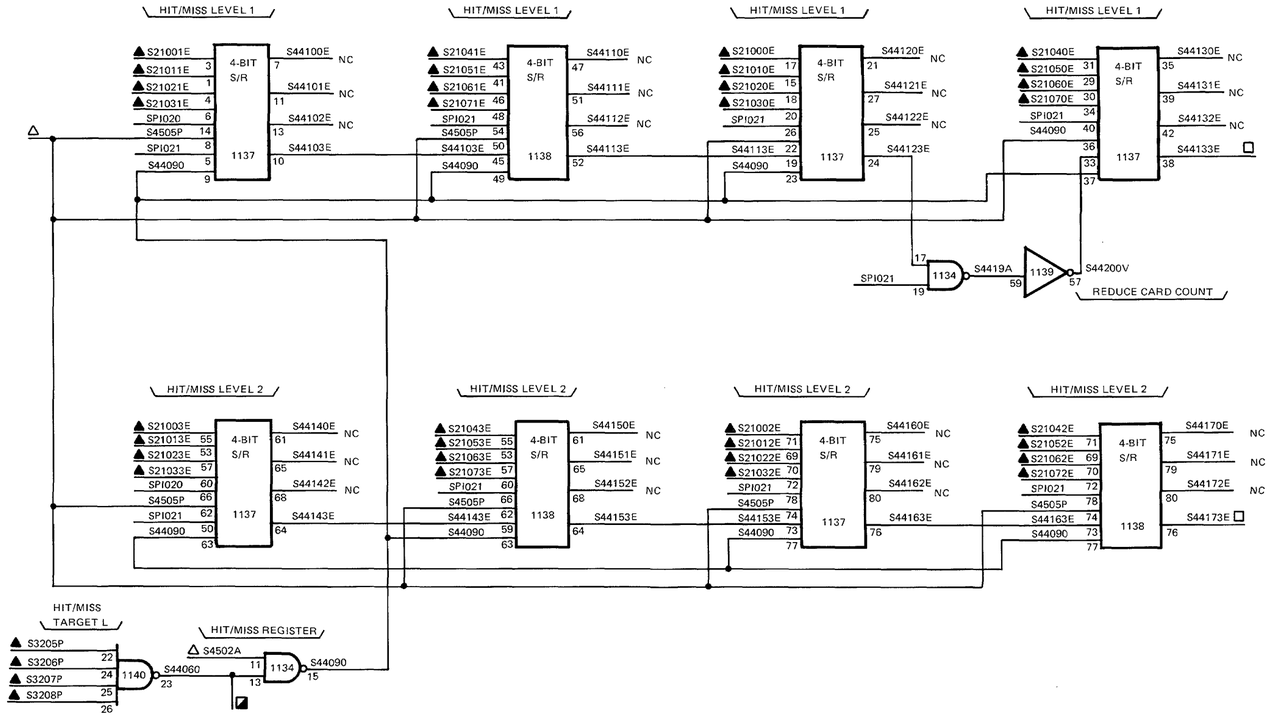
INPUT	
SIGNAL	SOURCE FO-SH
SG803D1	22702
SG805D1	22702
SG806D1	22702
SG807D1	22702
SG808D1	22702
SG809D1	22702
S3001A	20903
S3011AV	20903
S3116A	21000
S31160	21000

OUTPUT	
SIGNAL	DESTINATION FO-SH
S4209A	21000, 21100
S42110V	26002
S4260AV	21100, 21202



FO-214. VSU Target Generator Beam Shaping and Hit/Miss Control Logic Diagram (Sheet 2 of 9)

INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
S21000E	20901	S44060	21000, 21100
S21001E	20901		
S21002E	20901		
S21003E	20901		
S21010E	20901		
S21011E	20901		
S21012E	20901		
S21013E	20901		
S21020E	20901		
S21021E	20901		
S21022E	20901		
S21023E	20901		
S21030E	20901		
S21031E	20901		
S21032E	20901		
S21033E	20901		
S21040E	20901		
S21041E	20901		
S21042E	20901		
S21043E	20901		
S21050E	20901		
S21051E	20901		
S21052E	20901		
S21053E	20901		
S21060E	20901		
S21061E	20901		
S21062E	20901		
S21063E	20901		
S21070E	20901		
S21071E	20901		
S21072E	20901		
S21073E	20901		
S3205P	21000		
S3206P	21000		
S3207P	21000		
S3208P	21000		



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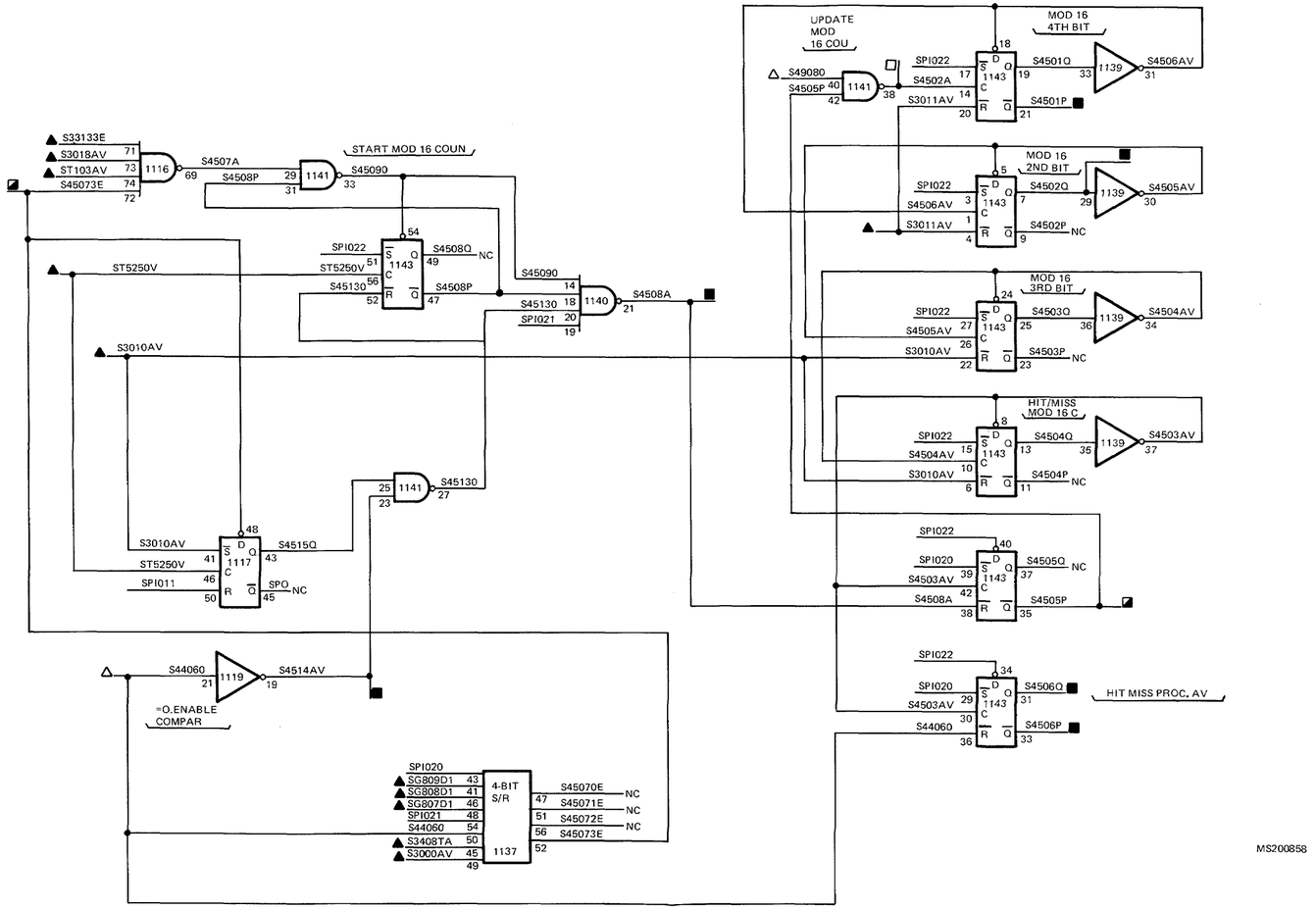
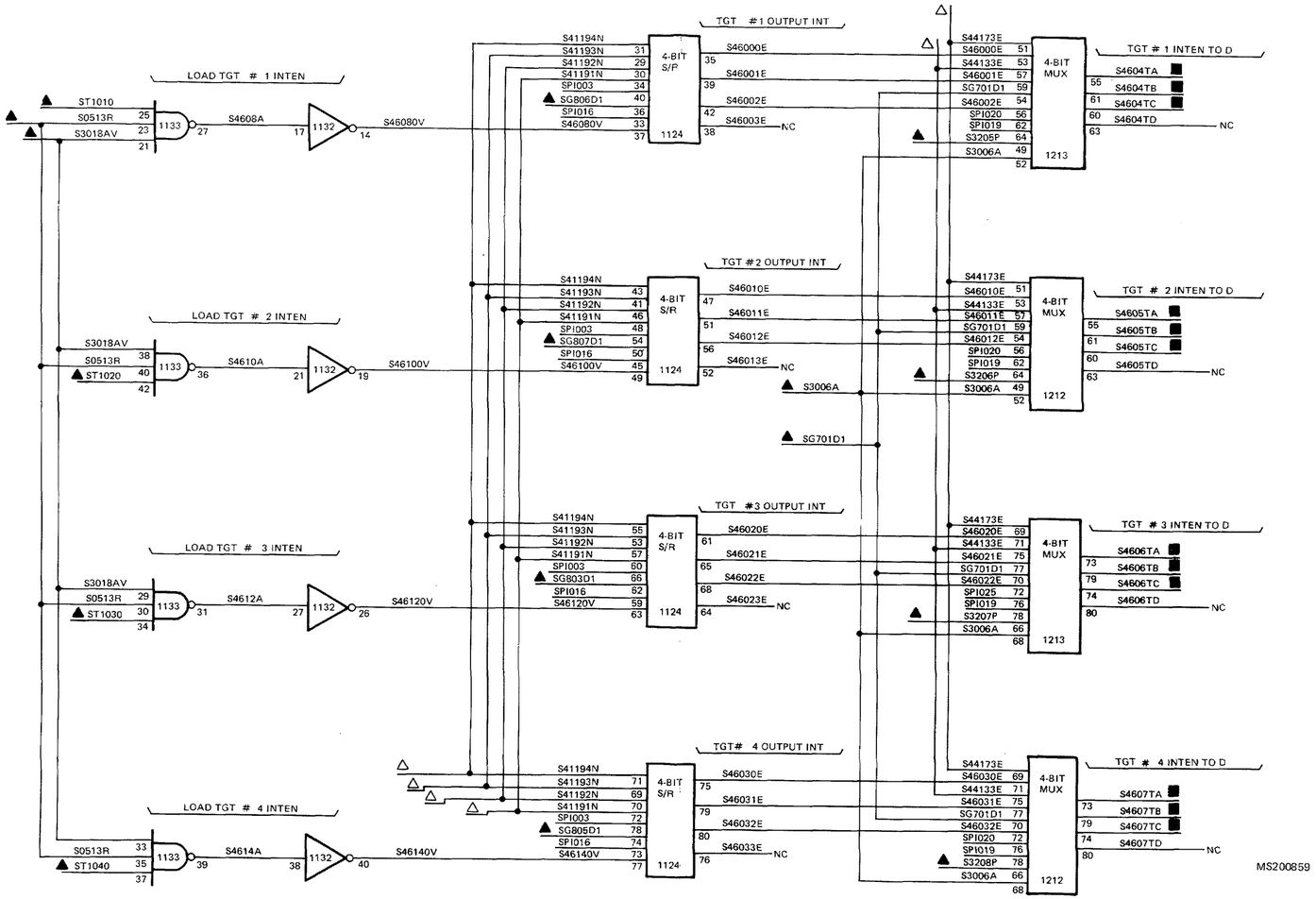
FO-214. VSU Target Generator Beam Shaping and Hit/Miss Control Diagram (Sheet 4 of 9)

INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
SG807D1	22702	S4501P	26001
SG808D1	22702	S4502Q	26001
SG809D1	22702	S4505P	21000
ST103AV	22701	S4506P	26002
ST5250V	22701	S4506Q	21000
S3000AV	20903	S45073E	21000, 21100
S3010AV	20903	S4508A	21000
S3011AV	20903	S4514AV	21000
S3018AV	20903		
S33133E	21100		
S3408TA	21100		



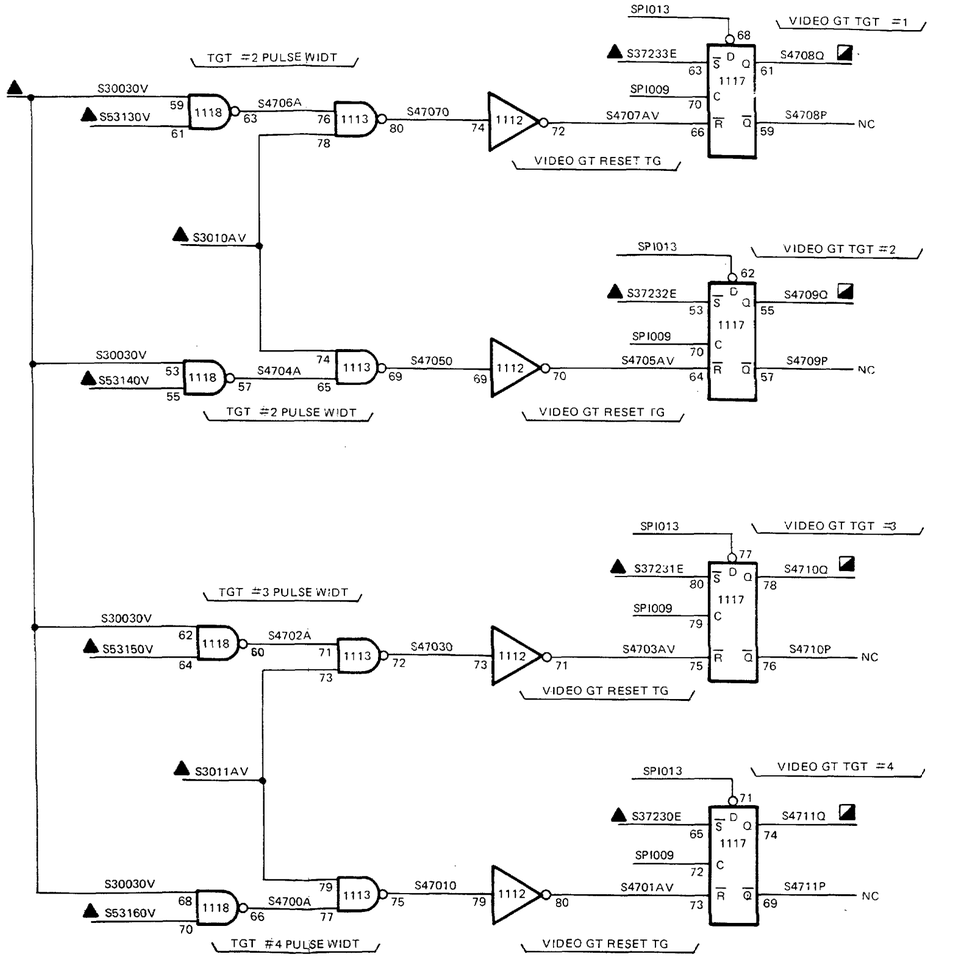
FO-214. VSU Target Generator Beam Shaping and Hit/Miss Control Logic Diagram (Sheet 5 of 9)

INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
SG701D1	22702	S4604TA	22801, 25903
SG803D1	22702	S4604TB	22801, 25903
SG805D1	22702	S4604TC	22801, 25904
SG806D1	22702	S4605TA	22801
SG807D1	22702	S4605TB	22801, 25901
ST1010	22701	S4605TC	22801, 25901
ST1020	22701	S4606TA	22802, 25902
ST1030	22701	S4606TB	22802, 25902
ST1040	22701	S4606TC	22802, 25903
S0513R	20801	S4607TA	22802, 25903
S3006A	20903	S4607TB	22802, 25904
S3018AV	20903	S4607TC	22802, 25904
S3205P	21000		
S3206P	21000		
S3207P	21000		
S3208P	21000		



FO-214. VSU Target Generator Beam Shaping and Hit/Miss Control Logic Diagram (Sheet 6 of 9)

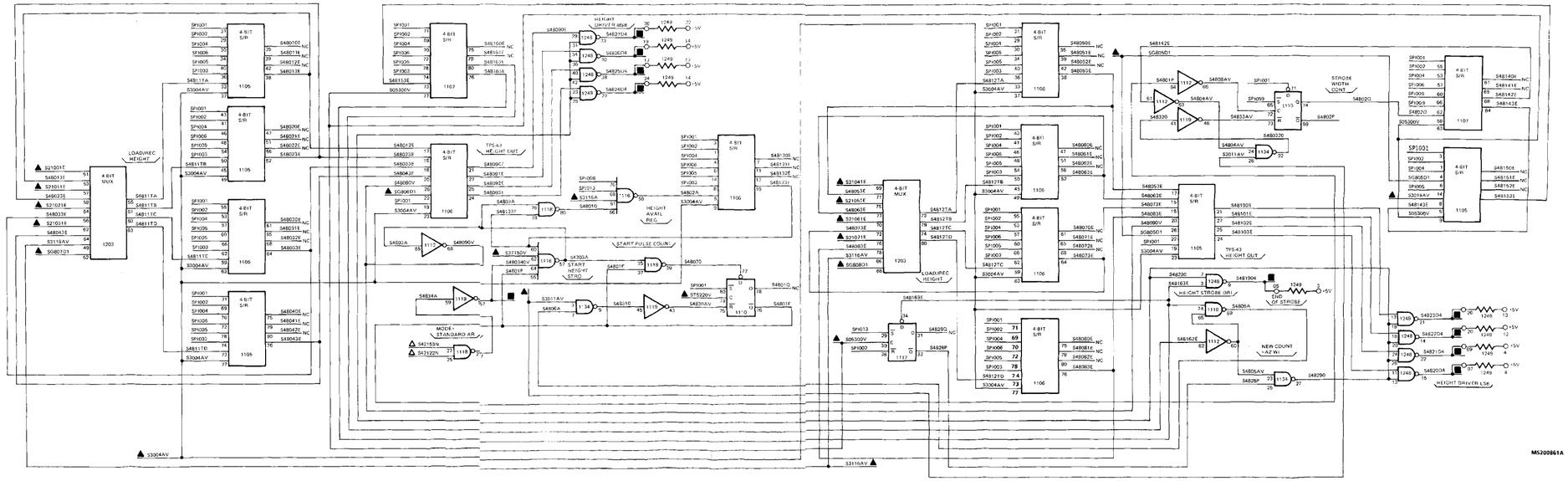
INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
S30030V	20903	S4708Q	22803
S3010AV	20903	S4709Q	22803
S3011AV	20903	S4710Q	22803
S37230E	21202	S4711Q	22803
S37231E	21202		
S37232E	21202		
S37233E	21202		
S53130V	21504		
S53140V	21504		
S53150V	21504		
S53160V	21504		



FO-214. VSU Target Generator Beam Shaping and Hit/Miss Control Logic Diagram (Sheet 7 of 9)

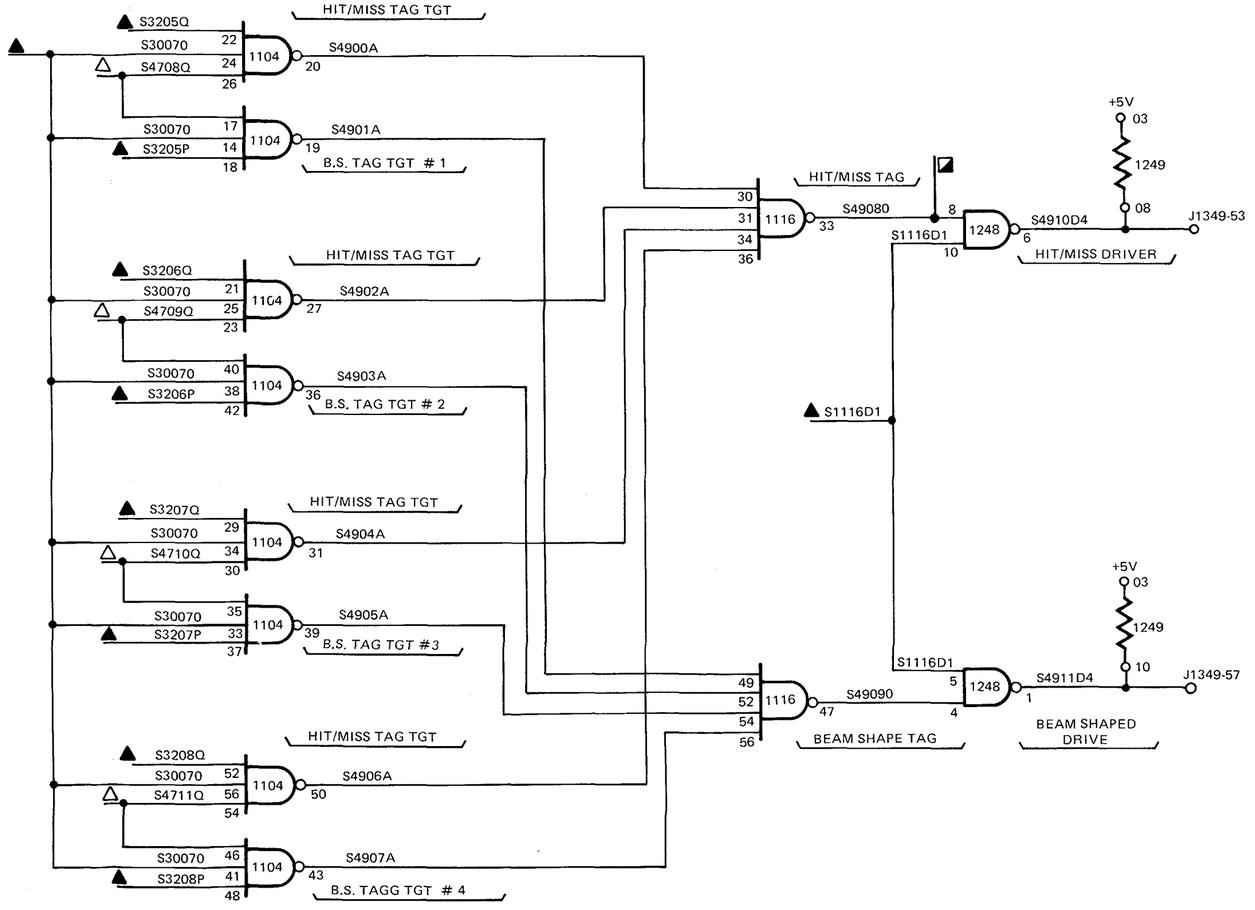
INPUT	
SIGNAL	SOURCE FO-SH
S680501	22702
S680601	22702
S680701	22702
S680801	22702
ST5220V	22701
S05300V	20801
S21001E	20901
S21011E	20901
S21021E	20901
S21031E	20901
S21041E	20901
S21051E	20901
S21061E	20901
S21071E	20901
S3004AV	20903
S3011AV	20903
S3015AV	20903
S3116A	21000
S3116AV	21000
S3715DV	21202

OUTPUT	
SIGNAL	DESTINATION FO-SH
S4819D4	18100, 18300, 26002, 26802, 26803, 31801
S4820D4	18100, 25904, 26802, 31801
S4821D4	18100, 25903, 26802, 31801
S4822D4	18100, 25902, 26802, 31801
S4823D4	18100, 25901, 26802, 31801
S4824D4	18100, 25904, 26802, 31801
S4825D4	18100, 25904, 26802, 31801
S4826D4	18100, 25901, 26802, 31801
S4827D4	25901, 26802, 31801
S48340V	26002



FO-214. VSU Target Generator Beam Shaping and Hit/Miss Control Logic Diagram (Sheet 8 of 9)

INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
S1116D1	25200	S49080	26001
S30070	20903		
S3205P	21000		
S3205Q	21000		
S3206P	21000		
S3206Q	21000		
S3207P	21000		
S3207Q	21000		
S3208P	21000		
S3208Q	21000		



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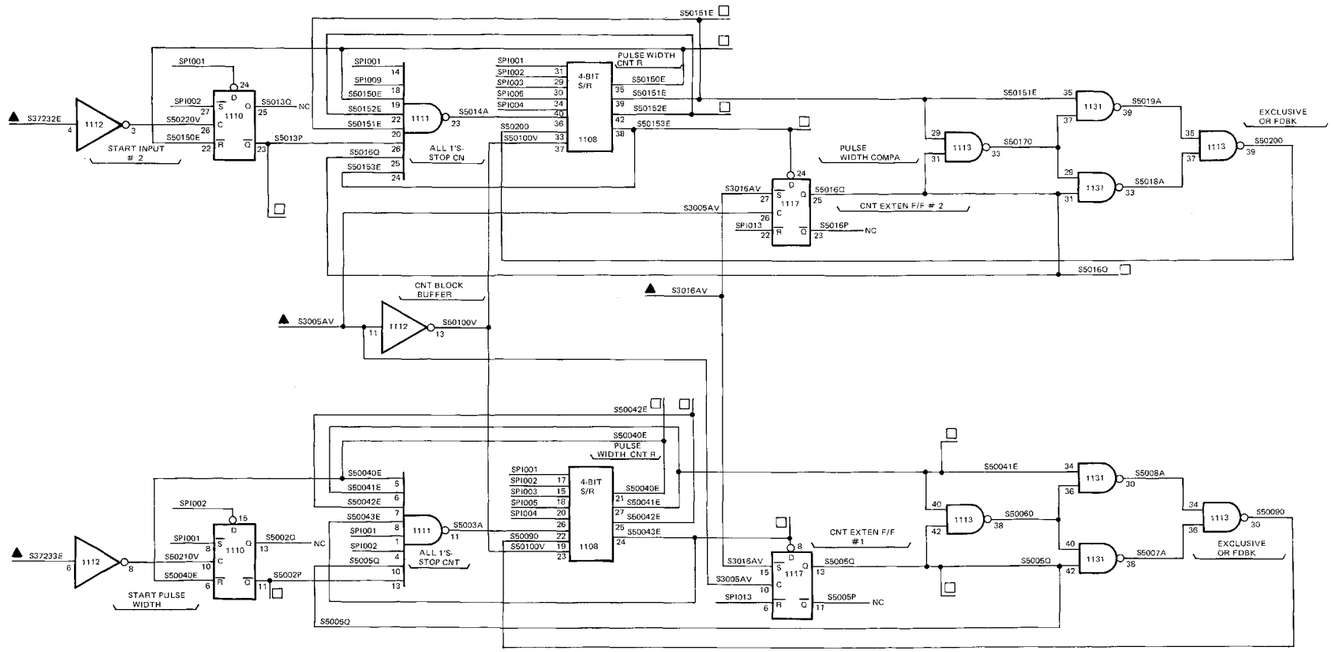
FO-214. VSU Target Generator Beam Shaping and Hit/Miss Control Logic Diagram (Sheet 9 of 9)

INPUT SIGNAL	SOURCE FO-SH
S3005AV	20903
S3016AV	20903
S37232E	21202
S37233E	21202



FO-215. VSU Target Generator Pulse Width Output Control Logic Diagram (Sheet 1 of 4)

NOTES: UNLESS OTHERWISE SPECIFIED

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.

2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMEN RACK 1, VSU CARD CAGE 1A1A1A3.

3. REFERENCES ARE AS FOLLOWS:

▲	INDICATES INPUT FROM ANOTHER FIGURE
△	INDICATES INPUT FROM THE SAME FIGURE
■	INDICATES OUTPUT TO ANOTHER FIGURE
□	INDICATES OUTPUT TO THE SAME FIGURE
◪	INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.

5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.

6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNA CABLING.

7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AN GROUND CIRCUITS.

8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTIO DESIGNATIONS.

9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PI NUMBERS.

10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM TH FOLLOWING:

    A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AN CIRCUIT CARD PIN NUMBER.

    B. REFER TO TABLE 5-41 FOR CARD PART NUMBER

    C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MT TESTABLE CARDS

11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A 1147, A-1249, AND A-1450.

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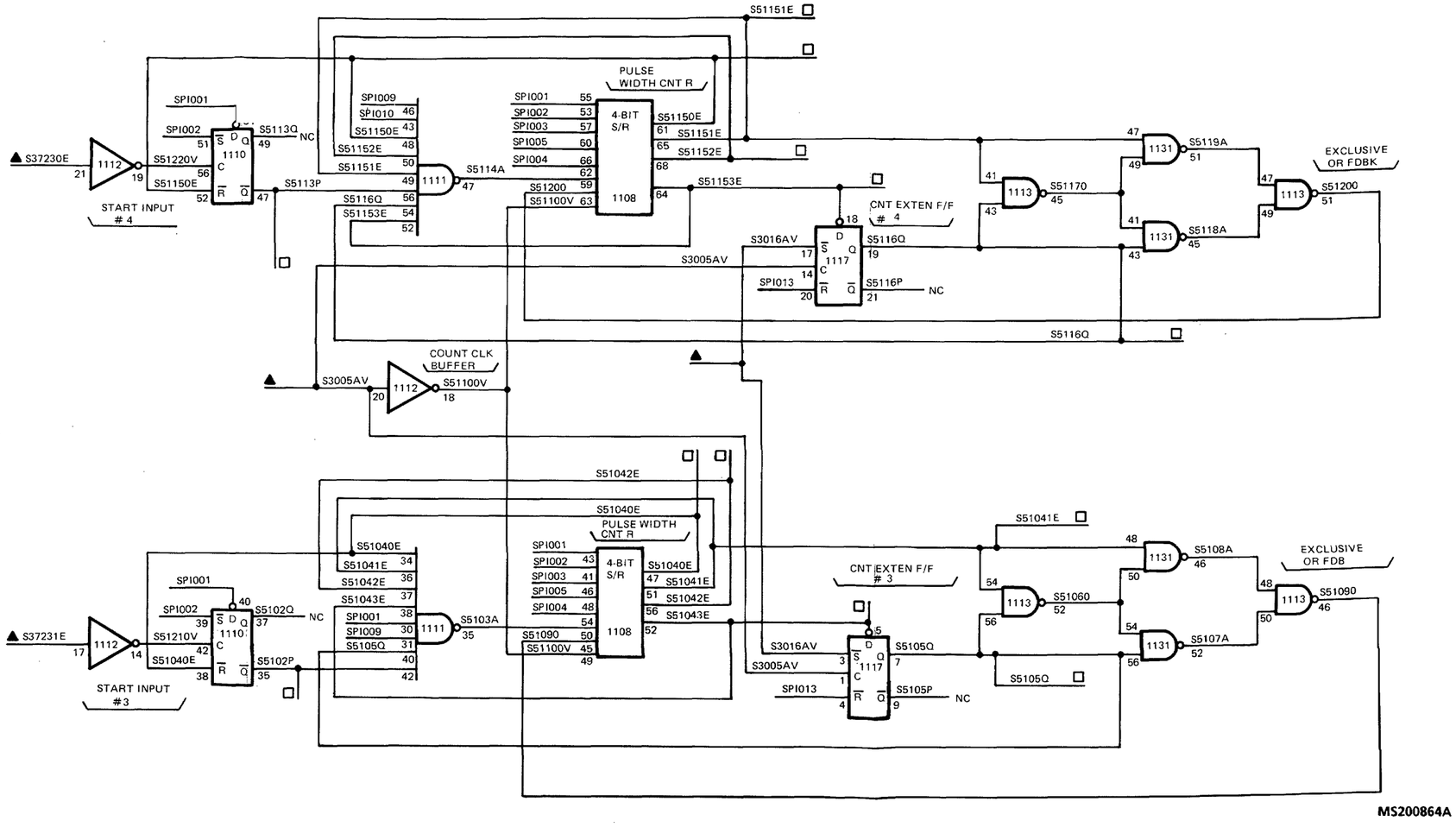
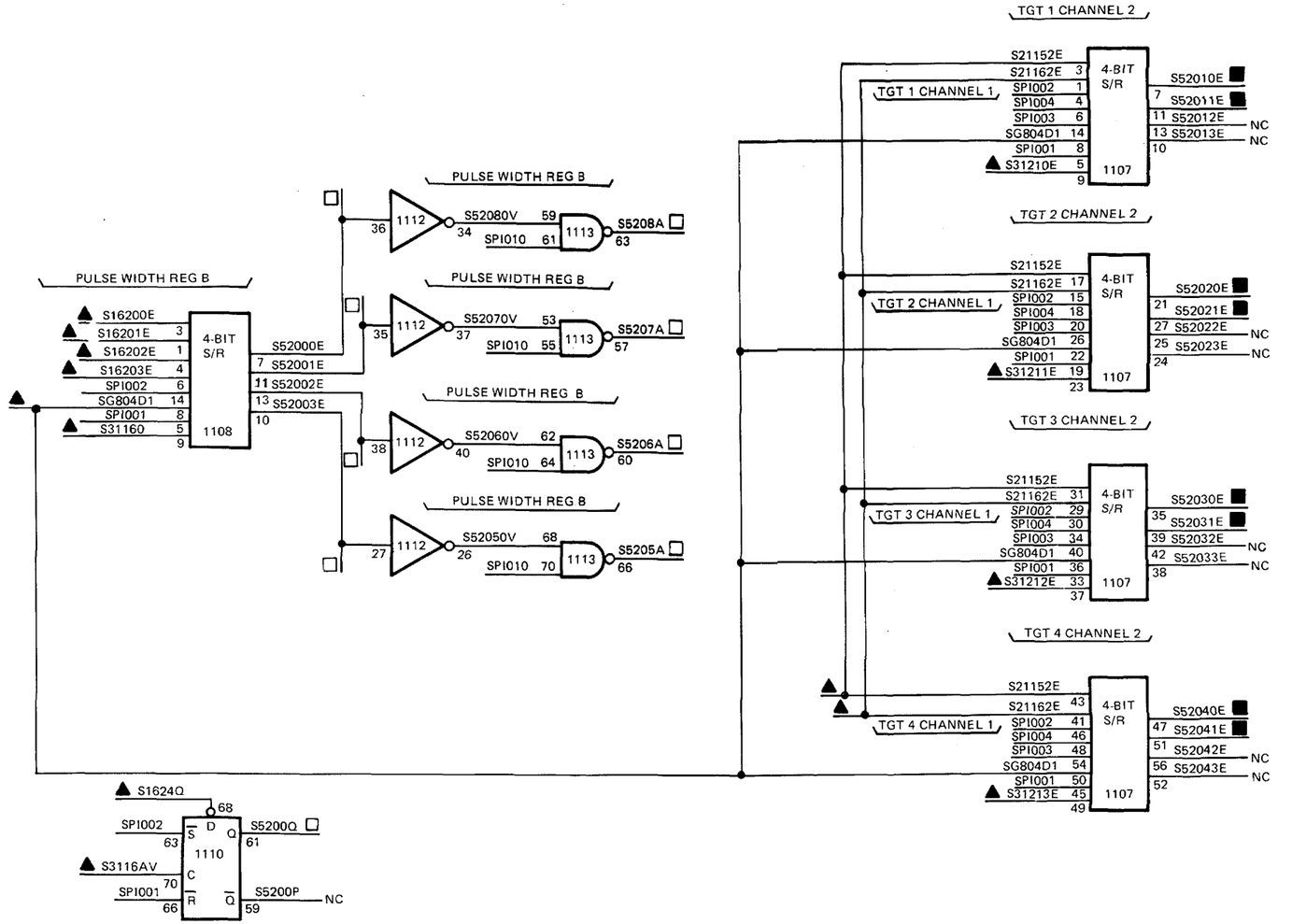
INPUT SIGNAL	SOURCE FO-SH
S3005AV	20903
S3016AV	20903
S37230E	21202
S37231E	21202



FO-215. VSU Target Generator Pulse Width Output Control Logic Diagram (Sheet 2 of 4)

INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
SG804D1	22702	S52010E	22803
S16200E	25700	S52011E	22803
S16201E	25700	S52020E	22803
S16202E	25700	S52021E	22803
S16203E	25700	S52030E	22803
S1624Q	25700	S52031E	22803
S21152E	20901	S52040E	22803
S21162E	20901	S52041E	22803
S3116AV	21000		
S31160	21000		
S31210E	21000		
S31211E	21000		
S31212E	21000		
S31213E	21000		



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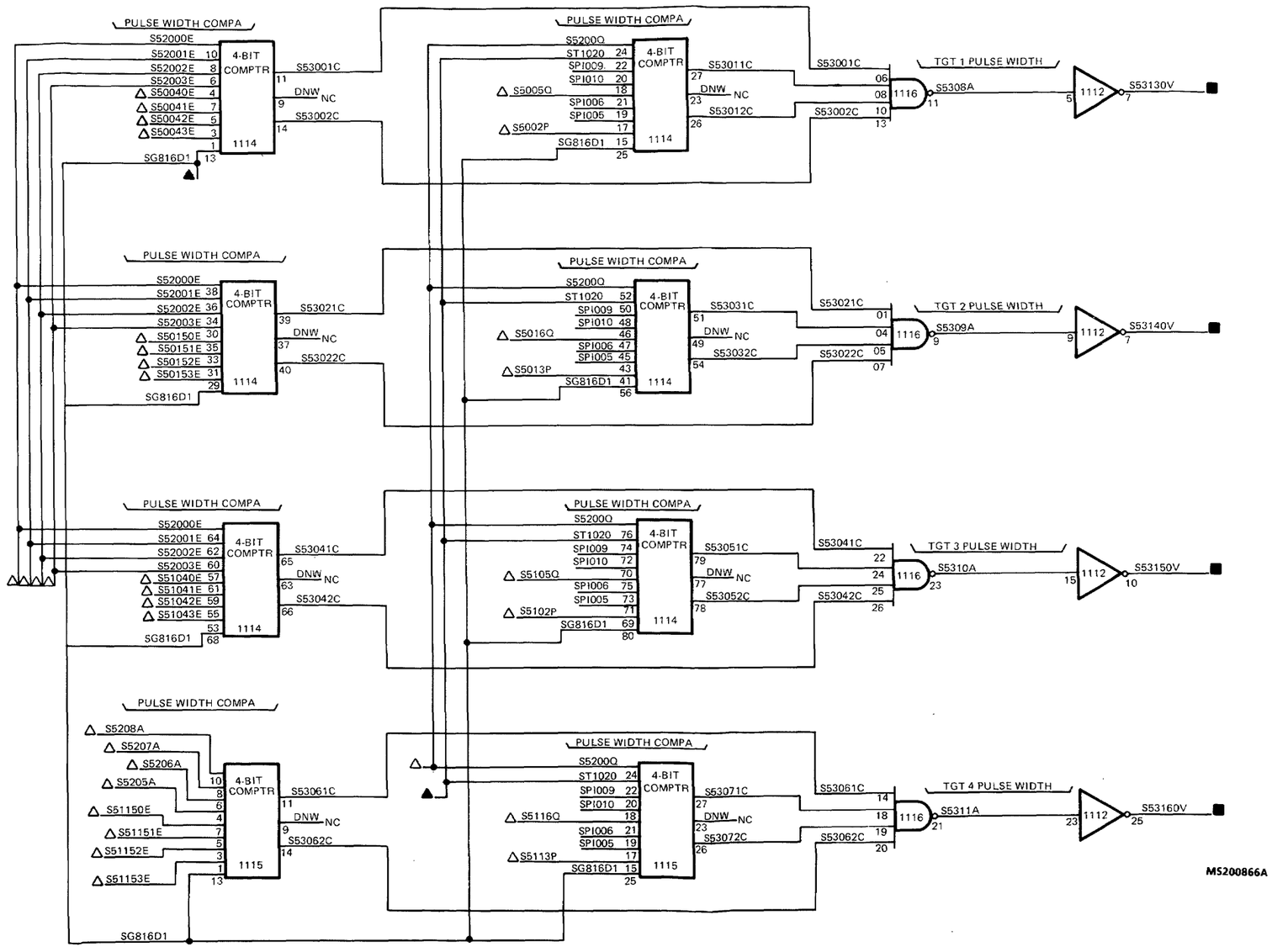
FO-215. VSU Target Generator Pulse Width Output Control Logic Diagram (Sheet 3 of 4)

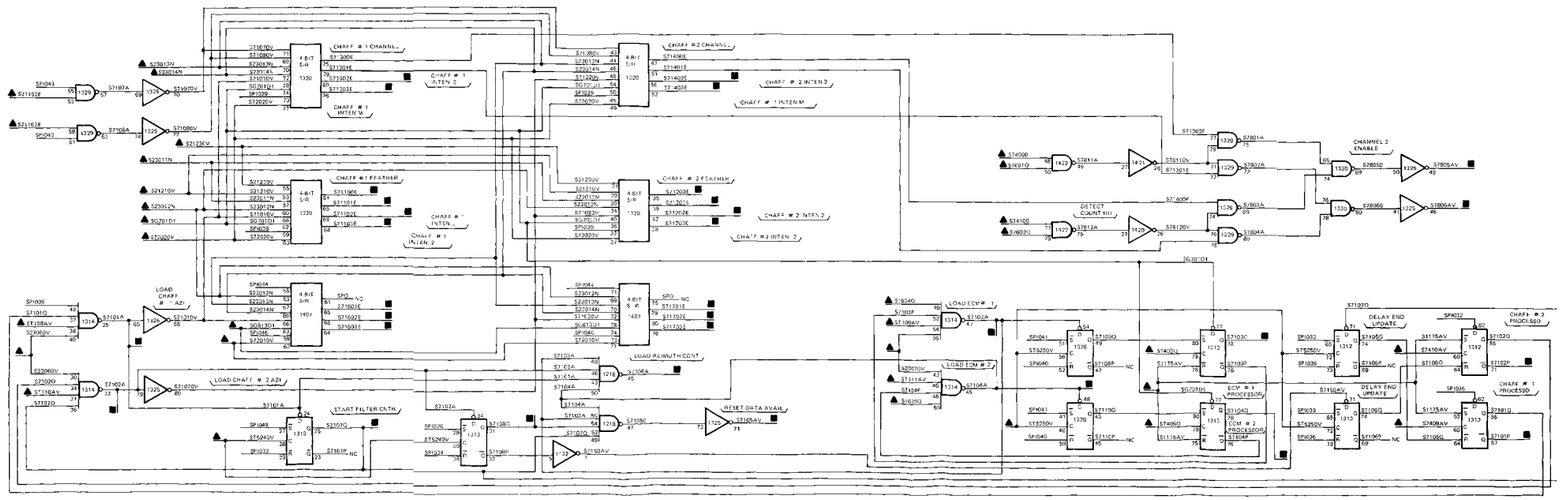
INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
SG816D1	22702	S53130V	21407
ST1020	22701	S53140V	21407
		S53150V	21407
		S53160V	**21407**



FO-215. VSU Target Generator Pulse Width Output Control Logic Diagram (Sheet 4 of 4)

Change 2

INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
S6701D1	22702	S7101A	22001
S6813D1	22702	S7101P	21800, 21900, 26002
S7108AV	22701	S7102A	22001
S7109AV	22701	S7102P	21800, 21900, 26002
S7110AV	22701	S7103A	22200
S7111AV	22701	S7103G	21800, 26002
S7524DV	22701	S7104A	22200
S7525DV	22701	S7104G	21800, 26002
S7175AV	25200	S7105AV	20903
S16349	25700	S7106A	21700, 21800
S16359	25700	S7107G	22001
S21152E	20901	S7108G	22001
S21162E	20901	S71100E	21900
S21210V	20902	S71101E	21900
S21230V	20902	S71102E	21900
S23011N	20902	S71103E	21900
S23012N	20902	S71200E	21900
S23013N	20902	S71201E	21900
S23014N	20902	S71202E	21900
S23060V	20902	S71203E	21900
S23070V	20902	S71302E	21900
S72010V	21700	S71303E	21900
S72020V	21700	S71402E	21900
S7403G	21800	S71403E	21900
S7405G	21800	S71601E	21900
S7409AV	21800	S71602E	21900
S7409G	21800	S71603E	21900
S7410AV	21800	S71701E	21900
S7410G	21800	S71702E	21900
S7601G	22002	S71703E	21900
S7602G	22002	S7805AV	22804, 29002
		S7806AV	22804, 29002



Change 2 FO-216. VSU ECM and Chaff Generator Load Control and Analog Output Gating Logic Diagram

NOTES: UNLESS OTHERWISE SPECIFIED

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETI DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBL' DESIGNATION.

2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMEN' RACK 1, VSU CARD CAGE 1A1A1A3.

3. REFERENCES ARE AS FOLLOWS:

   - INDICATES INPUT FROM ANOTHER FIGURE
   - INDICATES INPUT FROM THE SAME FIGURE
   - INDICATES OUTPUT TO ANOTHER FIGURE
   - INDICATES OUTPUT TO THE SAME FIGURE
   - INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.

5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.

6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNA CABLING.

7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER ANI GROUND CIRCUITS.

8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTIOI DESIGNATIONS.

9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PI NUMBERS.

10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THI FOLLOWING:

    A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION ANI CIRCUIT CARD PIN NUMBER.

    B. REFER TO TABLE 5-41 FOR CARD PART NUMBER

    C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MT TESTABLE CARDS

11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A 1147, A-1249, AND A-1450.

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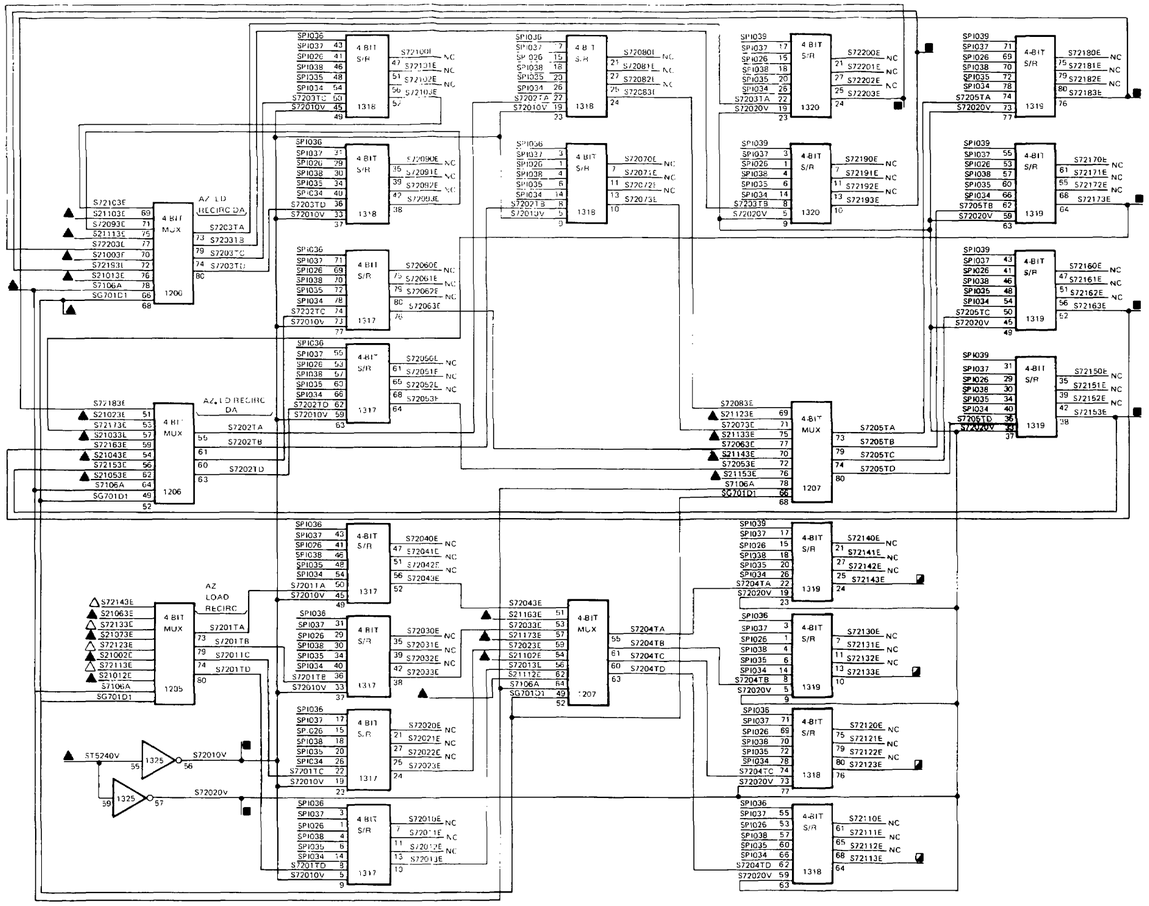
INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
SG701D1	22702	S72010V	21600
ST5240V	22701	S72020V	21600
S21002E	20901	S72113E	21800, 25904
S21003E	20901	S72123E	21800, 25904
S21012E	20901	S72133E	21800, 25903
S21013E	20901	S72143E	21900, 25903
S21023E	20901	S72153E	21800, 25902
S21033E	20901	S72163E	21800, 25902
S21043E	20901	S72173E	21800, 25901
S21053E	20901	S72183E	21800, 25901
S21063E	20901	S72193E	21800, 25904
S21073E	20901	S72203E	21800, 25904
S21102E	20901		
S21103E	20901		
S21112E	20901		
S21113E	20901		
S21123E	20901		
S21133E	20901		
S21143E	20901		
S21153E	20901		
S21163E	20901		
S21173E	20901		
S7106A	21600		



FO-217. VSU ECM and Chaff Generator Azimuth Storage Logic Diagram

NOTES: UNLESS OTHERWISE SPECIFIED

1.. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.

2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.

3. REFERENCES ARE AS FOLLOWS:

▲ INDICATES INPUT FROM ANOTHER FIGURE
△ INDICATES INPUT FROM THE SAME FIGURE
■ INDICATES OUTPUT TO ANOTHER FIGURE
□ INDICATES OUTPUT TO THE SAME FIGURE
◪ INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.

5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.

6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.

7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.

8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.

9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.

10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:

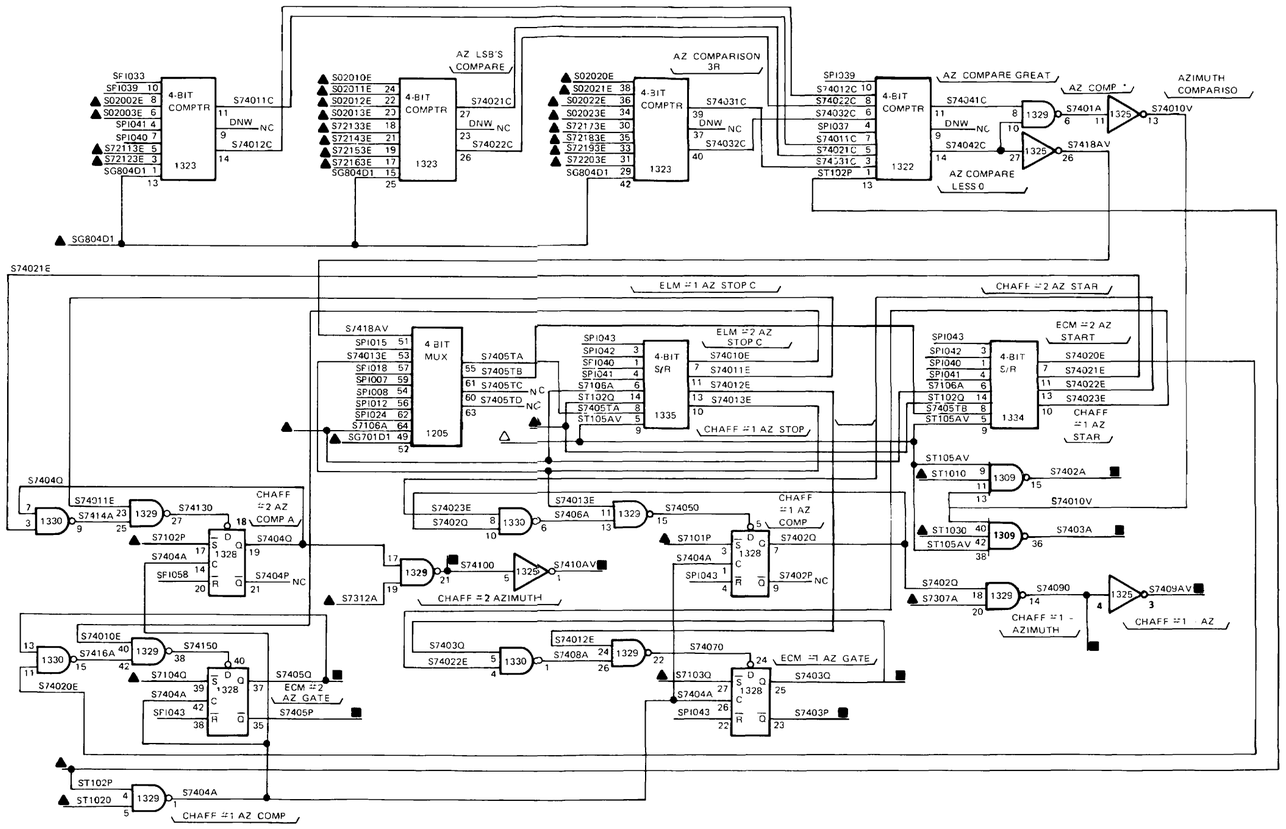
A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.

B. REFER TO TABLE 5-41 FOR CARD PART NUMBER

C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS

11. SPIT INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
SG701D1	22702	S7402A	21900
SG804D1	22702	S7403A	21900
ST1010	22701	S7403P	22200
ST102P	22701	S7403Q	21600, 26002
ST102Q	22701	S7405P	22200
ST1020	22701	S7405Q	21600, 26002
ST1030	22701	S7409AV	21600, 26002
ST105AV	22701	S74090	21600, 21900, 22002
S02002E	20702	S7410AV	21600, 26002
S02003E	20702	S74100	21600, 21900, 22002
S02010E	20702		
S02011E	20702		
S02012E	20702		
S02013E	20702		
S02020E	20702		
S02021E	20702		
S02022E	20702		
S02023E	20702		
S7101P	21600		
S7102P	21600		
S7103Q	21600		
S7104Q	21600		
S7106A	21600		
S72113E	21700		
S72123E	21700		
S72133E	21700		
S72153E	21700		
S72163E	21700		
S72173E	21700		
S72183E	21700		
S72193E	21700		
S72203E	21700		
S7307A	21900		
S7312A	21900		



FO-218. VSU ECM and Chaff Generator Azimuth Compare Logic Diagram.

Change 2

NOTES: UNLESS OTHERWISE SPECIFIED

1.. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.

2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.

3. REFERENCES ARE AS FOLLOWS:

- ▲ INDICATES INPUT FROM ANOTHER FIGURE
- △ INDICATES INPUT FROM THE SAME FIGURE
- ■ INDICATES OUTPUT TO ANOTHER FIGURE
- □ INDICATES OUTPUT TO THE SAME FIGURE
- ◪ INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.

5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.

6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.

7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.

8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.

9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.

10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:

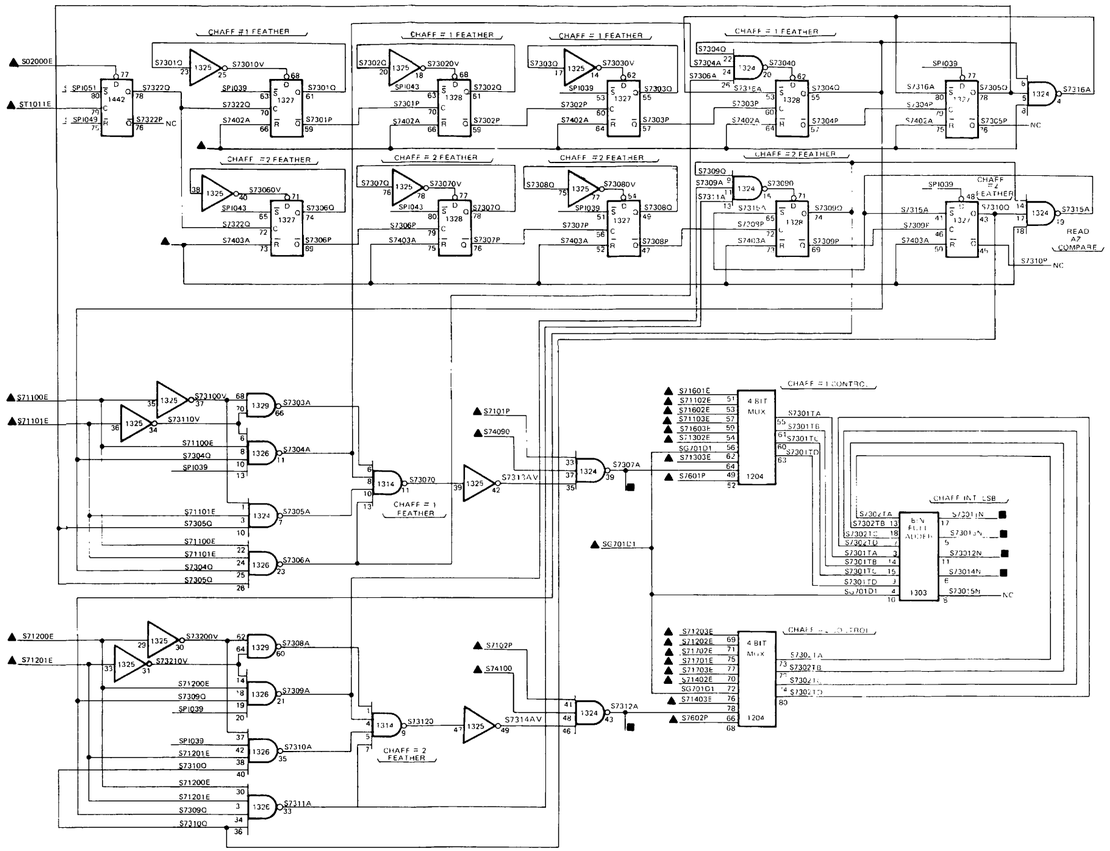
   A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.

   B. REFER TO TABLE 5-41 FOR CARD PART NUMBER

   C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS

11. SPIT INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
SG701D1	22702	S73011N	22100, 25904
ST1011E	22701	S73012N	22100, 25904
S02000E	20702	S73013N	22100, 25903
S7101P	21600	S73014N	22100, 25903
S7102P	21600	S7307A	21800
S71100E	21600	S7312A	21800
S71101E	21600		
S71102E	21600		
S71103E	21600		
S71200E	21600		
S71201E	21600		
S71202E	21600		
S71203E	21600		
S71302E	21600		
S71303E	21600		
S71402E	21600		
S71403E	21600		
S71601E	21600		
S71602E	21600		
S71603E	21600		
S71701E	21600		
S71702E	21600		
S71703E	21600		
S72143E	21700		
S7402A	21800		
S7403A	21800		
S74090	21800		
S74100	21800		
S7601P	22002		
S7602P	22002		



FO-219. VSU Chaff Generator Feather Control Logic Diagram.

NOTES: UNLESS OTHERWISE SPECIFIED

1.. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.

2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.

3. REFERENCES ARE AS FOLLOWS:

▲ INDICATES INPUT FROM ANOTHER FIGURE
△ INDICATES INPUT FROM THE SAME FIGURE
■ INDICATES OUTPUT TO ANOTHER FIGURE
□ INDICATES OUTPUT TO THE SAME FIGURE
◪ INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.

5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.

6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.

7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.

8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.

9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.

10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:

A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.

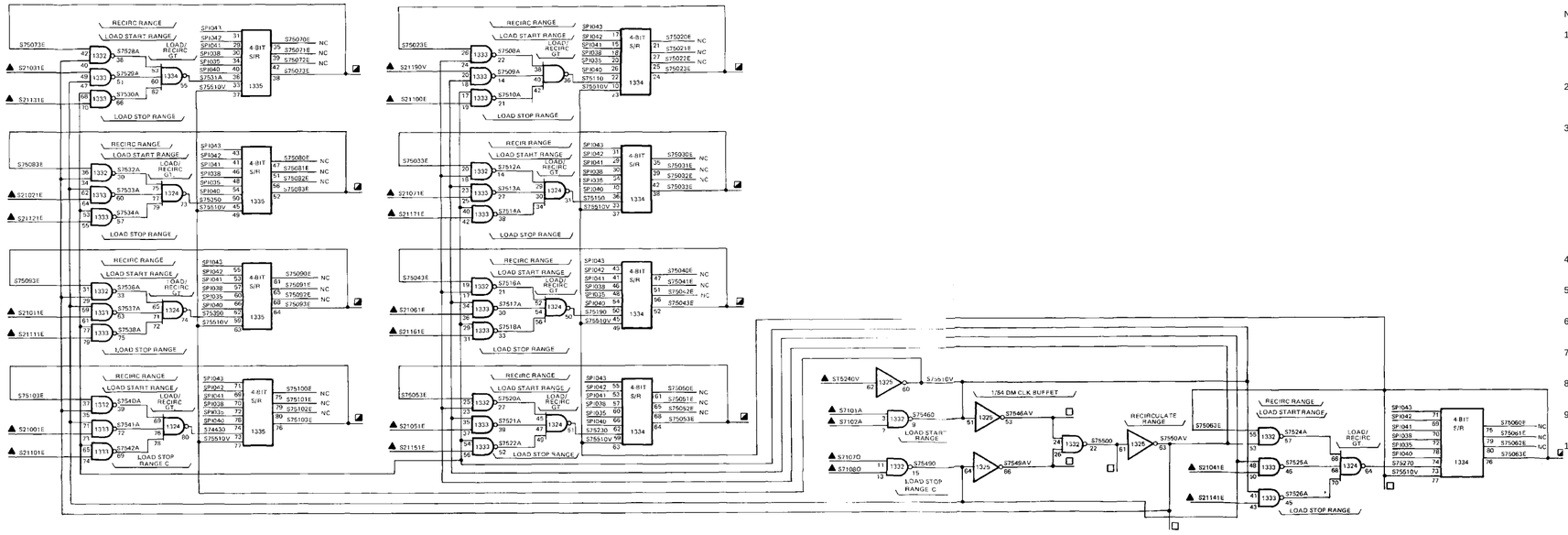
B. REFER TO TABLE 5-41 FOR CARD PART NUMBER

C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS

11. SPIT INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

INPUT SIGNAL	SOURCE FO-SH
S75240V	22701
S21001E	20901
S21011E	20901
S21021E	20901
S21031E	20901
S21041E	20901
S21051E	20901
S21061E	20901
S21071E	20901
S21100E	20901
S21101E	20901
S21111E	20901
S21121E	20901
S21131E	20901
S21141E	20901
S21151E	20901
S21161E	20901
S21171E	20901
S21190V	20901
S7101A	21600
S7102A	21600
S7107Q	21600
S7108Q	21600

OUTPUT SIGNAL	DESTINATION FO-SH
S75023E	25901
S75033E	25904
S75043E	25904
S75053E	25903
S75063E	25903
S75073E	25902
S75083E	25902
S75093E	25901
S75103E	25901



NOTES: UNLESS OTHERWISE SPECIFIED

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.
3. REFERENCES ARE AS FOLLOWS:

   ▲ INDICATES INPUT FROM ANOTHER FIGURE
   △ INDICATES INPUT FROM THE SAME FIGURE
   ◢ INDICATES OUTPUT TO ANOTHER FIGURE
   □ INDICATES OUTPUT TO THE SAME FIGURE
   ◪ INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:

    A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.

    B. REFER TO TABLE 5-41 FOR CARD PART NUMBER

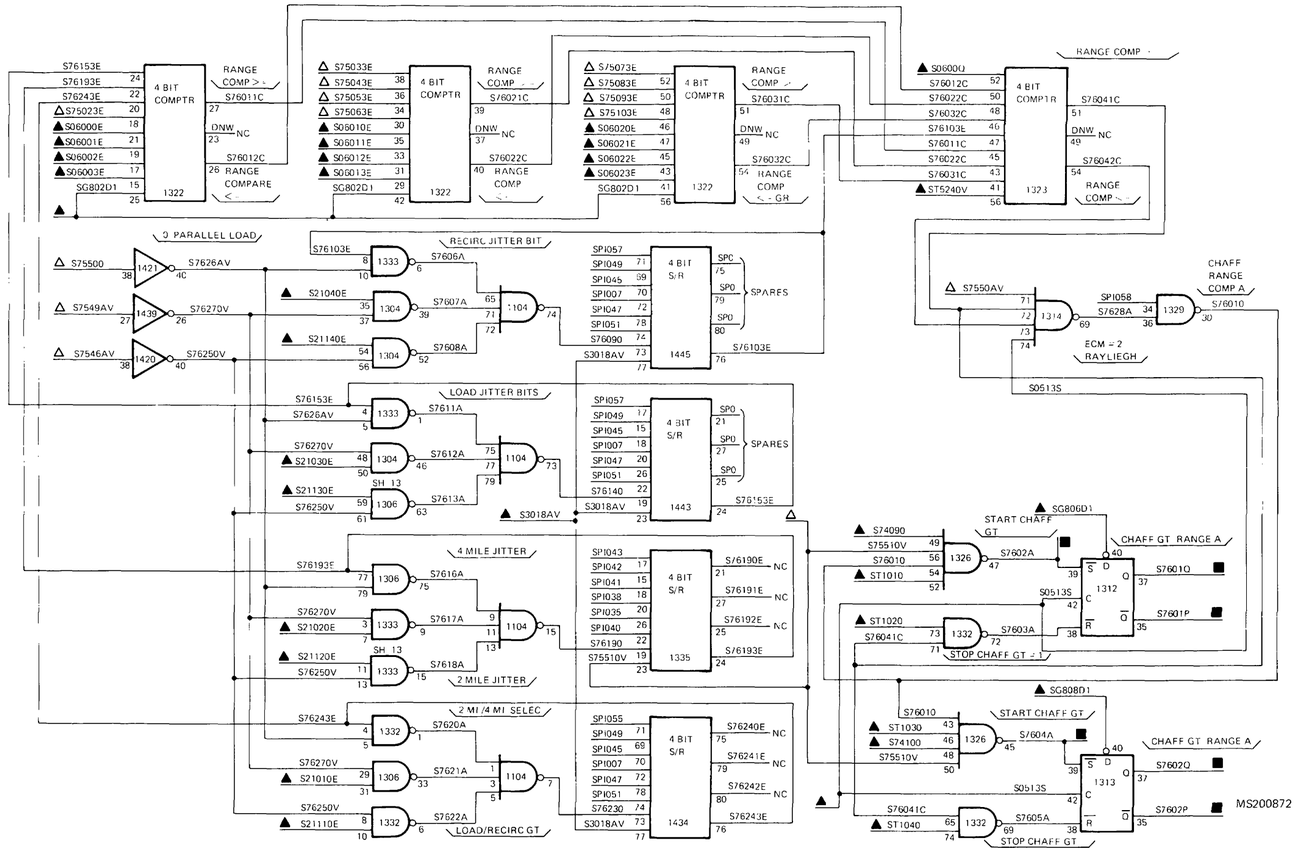
    C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS

11. SPIT INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

FO-220. VSU Chaff Generator Range Storage and Control Logic Diagram (Sheet 1 of 2).

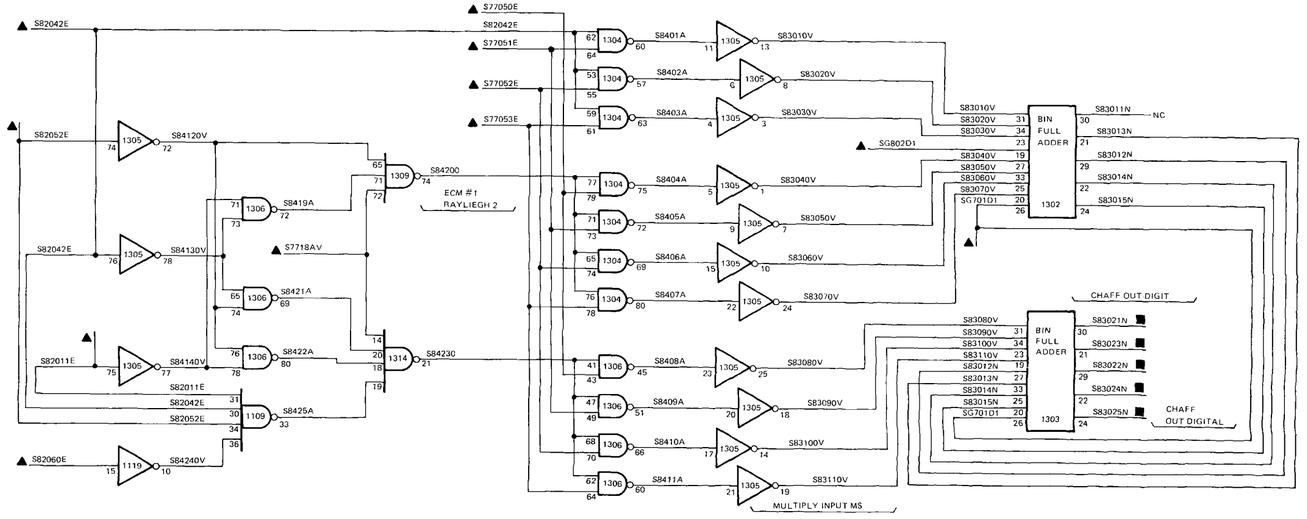
INPUT	
SIGNAL	SOURCE FO-SH
SG802D1	22702
SG806D1	22702
SG808D1	22702
ST1010	22701
ST1020	22701
ST1030	22701
ST1040	22701
ST5240V	22701
S0513S	20801
S0600Q	20802
S06000E	20802
S06001E	20802
S06002E	20802
S06003E	20802
S06010E	20802
S06011E	20802
S06012E	20802
S06013E	20802
S06020E	20802
S06021E	20802
S06022E	20802
S06023E	20802
S21010E	20901
S21020E	20901
S21030E	20901
S21040E	20901
S21110E	20901
S21120E	20901
S21130E	20901
S21140E	20901
S3018AV	20903
S74090	21800
S74100	21800

OUTPUT	
SIGNAL	DESTINATION FO-SH
S7601P	21900, 26002
S7601Q	21600
S7602A	26002
S7602P	21900, 26002
S7602Q	21600
S7604A	26002



FO-220. VSU Chaff Generator Range Storage and Control Logic Diagram (Sheet 2 of 2).

INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
SG802D1	22702	S84021N	22802
SG804D1	22702	S84022N	22802
S77050E	22200	S84023N	22802
S77051E	22200	S84024N	22802
S77052E	22200		
S77053E	22200		
S7718AV	22200		
S82011E	22400		
S82042E	22400		
S82052E	22400		
S82060E	22400		



FO-221. VSU Chaff Generation Output Amplitude Control Logic Diagram

Change 2

NOTES: UNLESS OTHERWISE SPECIFIED

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.

2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.

3. REFERENCES ARE AS FOLLOWS:

   ▲ INDICATES INPUT FROM ANOTHER FIGURE
   △ INDICATES INPUT FROM THE SAME FIGURE
   ■ INDICATES OUTPUT TO ANOTHER FIGURE
   □ INDICATES OUTPUT TO THE SAME FIGURE
   ◪ INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.

5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.

6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.

7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.

8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.

9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.

10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:

    A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.

    B. REFER TO TABLE 5-41 FOR CARD PART NUMBER

    C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS

11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

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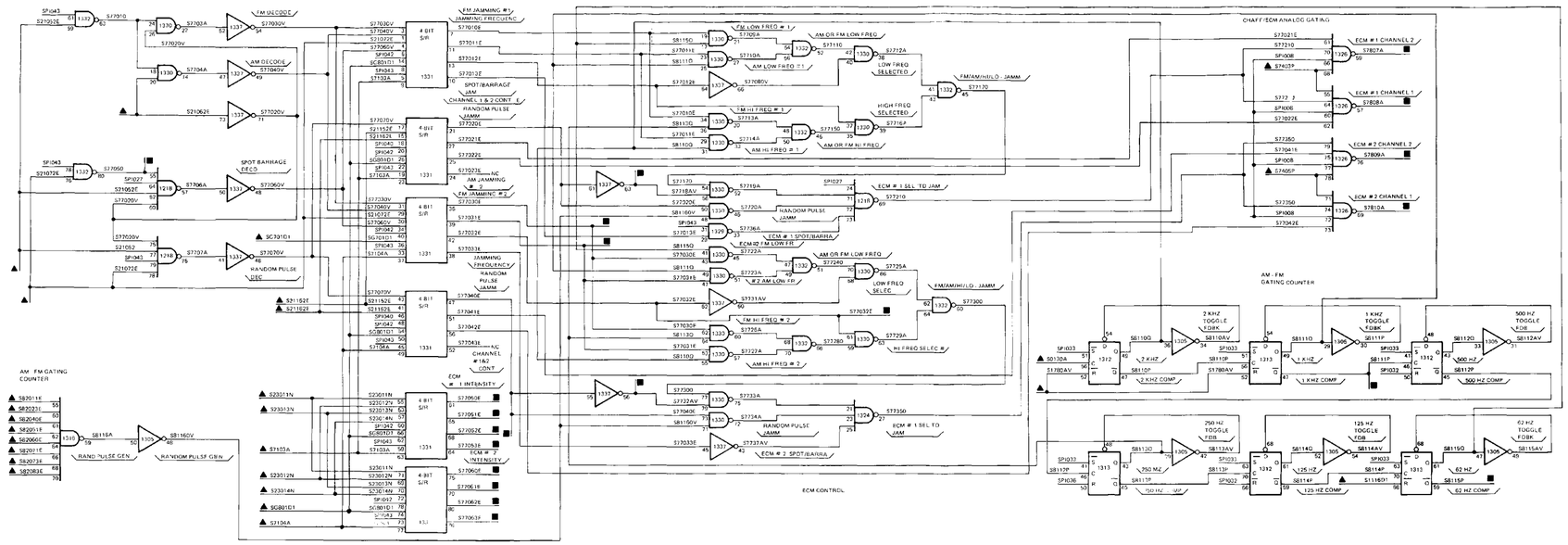
INPUT SIGNAL	SOURCE FO-SH
SG70101	22702
SG80101	22702
S0130A	20701
S111601	25200
S1780AV	25800
S21052E	20901
S21062E	20901
S21072E	20901
S21152E	20901
S21162E	20901
S23011N	20902
S23012N	20902
S23013N	20902
S23014N	20902
S7103A	21600
S7104A	21600
S7403P	21800
S7405P	21800
S82011E	22400
S82023E	22400
S82040E	22400
S82051E	22400
S82060E	22400
S82071E	22400
S82073E	22400
S82083E	22400

OUTPUT SIGNAL	DESTINATION FO-SH
S77030E	25902
S77031E	25902
S77032E	25901
S77040E	25901
S77050	23500
S77050E	22301, 25904
S77051E	22301, 25904
S77052E	22301, 25903
S77053E	22301, 25903
S77060E	22302
S77061E	22302
S77062E	22302
S77063E	22302
S7718AV	22301
S7732AV	22302
S7807A	22804, 29100
S7808A	22804, 29100
S7809A	22804
S7810A	22804, 29100
S8111P	25800
S8115P	25200



FO-222. VSU ECM Generation Output Gating Control Logic Diagram

NOTES: UNLESS OTHERWISE SPECIFIED

1.. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.

2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.

3. REFERENCES ARE AS FOLLOWS:

▲ INDICATES INPUT FROM ANOTHER FIGURE
△ INDICATES INPUT FROM THE SAME FIGURE
◢ INDICATES OUTPUT TO ANOTHER FIGURE
■ INDICATES OUTPUT TO THE SAME FIGURE
□ INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE
◪

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.

5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.

6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.

7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.

8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.

9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.

10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:

A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.

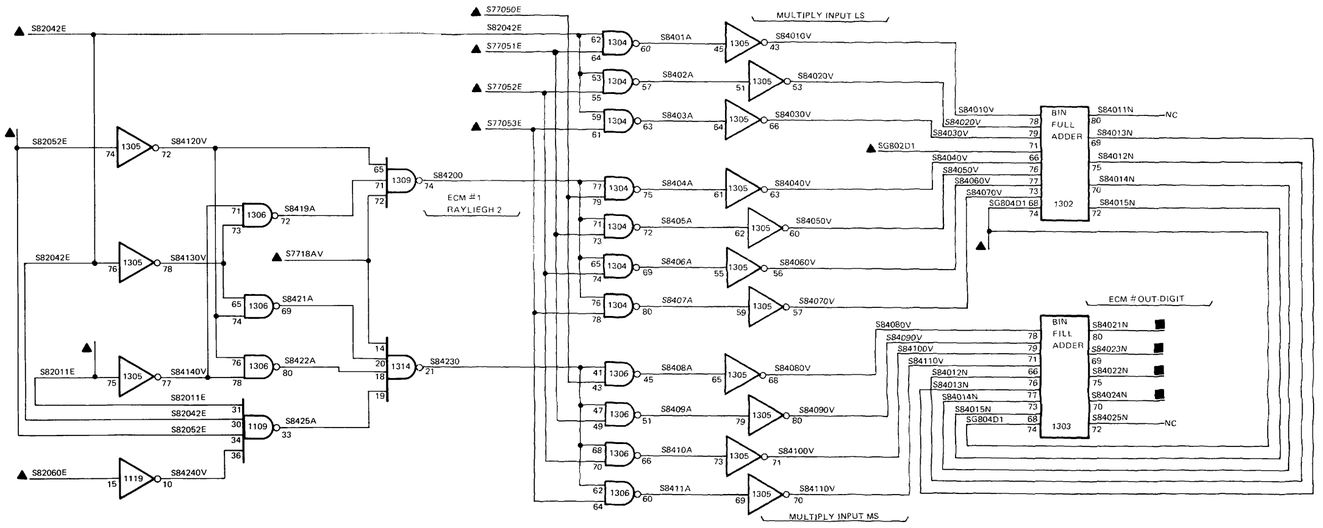
B. REFER TO TABLE 5-41 FOR CARD PART NUMBER

C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS

11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

MS200874

INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
SG802D1	22702	S84021N	22802
SG804D1	22702	S84022N	22802
S77050E	22200	S84023N	22802
S77051E	22200	S84024N	22802
S77052E	22200		
S77053E	22200		
S7718AV	22200		
S82011E	22400		
S82042E	22400		
S82052E	22400		
S82060E	22400		



FO-223. VSU ECM Generation Output Amplitude Control Logic Diagram (Sheet 1 of 2)

NOTES: UNLESS OTHERWISE SPECIFIED

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.

2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.

3. REFERENCES ARE AS FOLLOWS:

   ▲ INDICATES INPUT FROM ANOTHER FIGURE
   △ INDICATES INPUT FROM THE SAME FIGURE
   ■ INDICATES OUTPUT TO ANOTHER FIGURE
   □ INDICATES OUTPUT TO THE SAME FIGURE
   ◪ INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.

5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.

6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.

7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.

8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.

9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.

10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:

    A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.

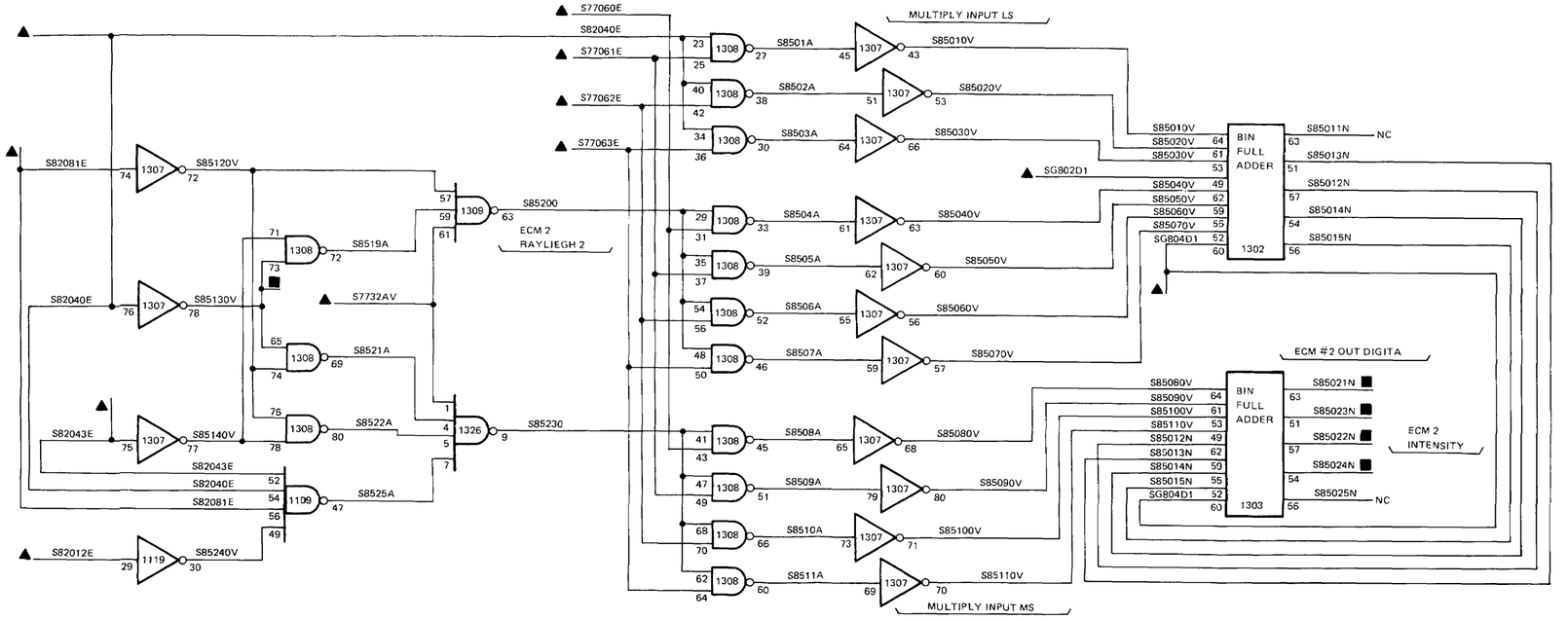
    B. REFER TO TABLE 5-41 FOR CARD PART NUMBER

    C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS

11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

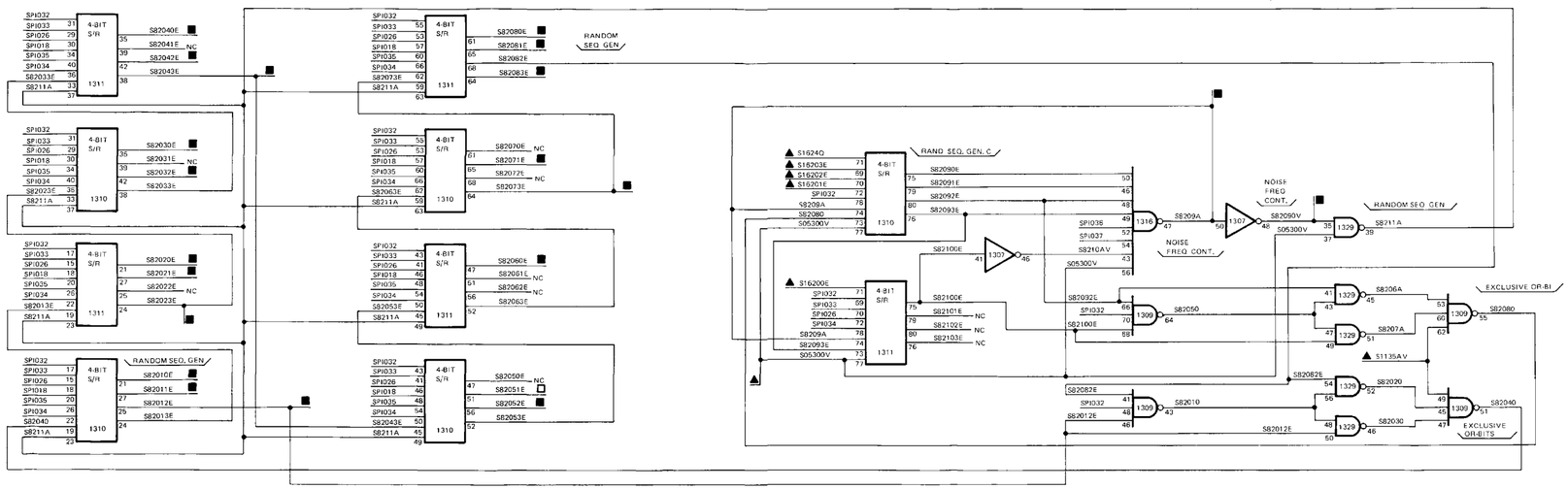
MS200875

INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
SG802D1	22702	S85021N	22802
SG804D1	22702	S85022N	22802
S77060E	22200	S85023N	22802
S77061E	22200	S85024N	22802
S77062E	22200	S85130V	25902
S77063E	22200		
S7732AV	22200		
S82012E	22400		
S82040E	22400		
S82043E	22400		
S82081E	22400		



FO-223. VSU ECM Generation Output Amplitude Control Logic Diagram (Sheet 2 of 2)

INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
S05300V	20801	S82010E	22100, 25903
S1135AV	25200	S82011E	22200, 22301
S16200E	25700	S82012E	22302
S16201E	25700	S82020E	25903
S16202E	25700	S82021E	22100
S16203E	25700	S82023E	22200
S16240	25700	S82030E	22500, 25902
		S82032E	22100
		S82040E	22200, 22302
		S82042E	22301, 22500
		S82043E	22100, 22302
		S82051E	22200, 22500
		S82052E	22301
		S82060E	22200, 22301
		S82071E	22200
		S82073E	22200
		S82080E	22500
		S82081E	22302
		S82083E	22200
		S8209A	22600
		S82090V	22600



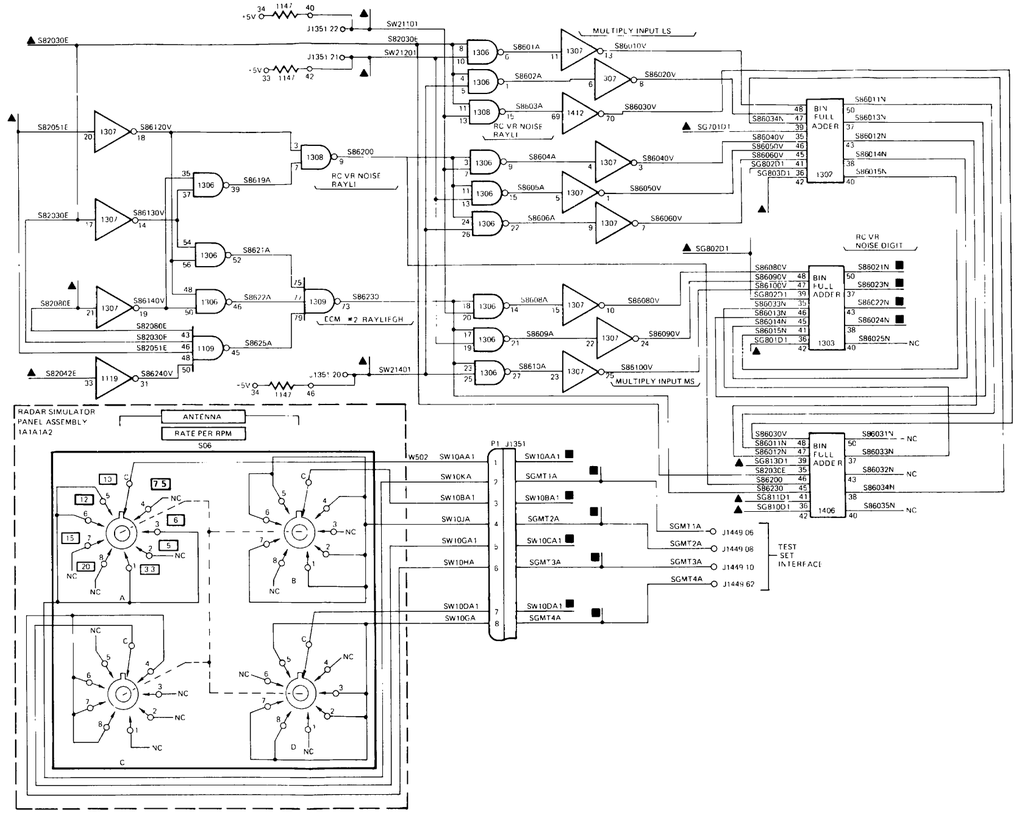
FO-224. VSU Pseudo Random Sequence Generator Logic Diagram

NOTES: UNLESS OTHERWISE SPECIFIED

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.
3. REFERENCES ARE AS FOLLOWS:
   - ▲ INDICATES INPUT FROM ANOTHER FIGURE
   - △ INDICATES INPUT FROM THE SAME FIGURE
   - ■ INDICATES OUTPUT TO ANOTHER FIGURE
   - ▪ INDICATES OUTPUT TO THE SAME FIGURE
   - □ INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE
   - ◪
4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
    - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
    - B. REFER TO TABLE 5-41 FOR CARD PART NUMBER
    - C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS
11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

MA20877

INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
SG701D1	22702	SW10AA1	20701, 25902, 26802
SG801D1	22702	SW10BA1	20701, 25903, 26802
SG802D1	22702	SW10CA1	20701, 25903, 26802
SG803D1	22702	SW10DA1	20701, 25904, 26802
SG810D1	22702	S86021N	22801
SG811D1	22702	S86022N	22801
SG813D1	22702	S86023N	22801
SW21101	26700	S86024N	22801
SW21201	26700		
SW21401	26700		
S82030E	22400		
S82042E	22400		
S82051E	22400		
S82080E	22400		



Change 2 FO-225. VSU Receiver Noise Generator Logic Diagram

NOTES: UNLESS OTHERWISE SPECIFIED

PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.

ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.

3. REFERENCES ARE AS FOLLOWS:

▲	INDICATES INPUT FROM ANOTHER FIGURE
△	INDICATES INPUT FROM THE SAME FIGURE
■	INDICATES OUTPUT TO ANOTHER FIGURE
□	INDICATES OUTPUT TO THE SAME FIGURE
◪	INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.

5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.

6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.

7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.

8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.

9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.

10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:

    A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NI

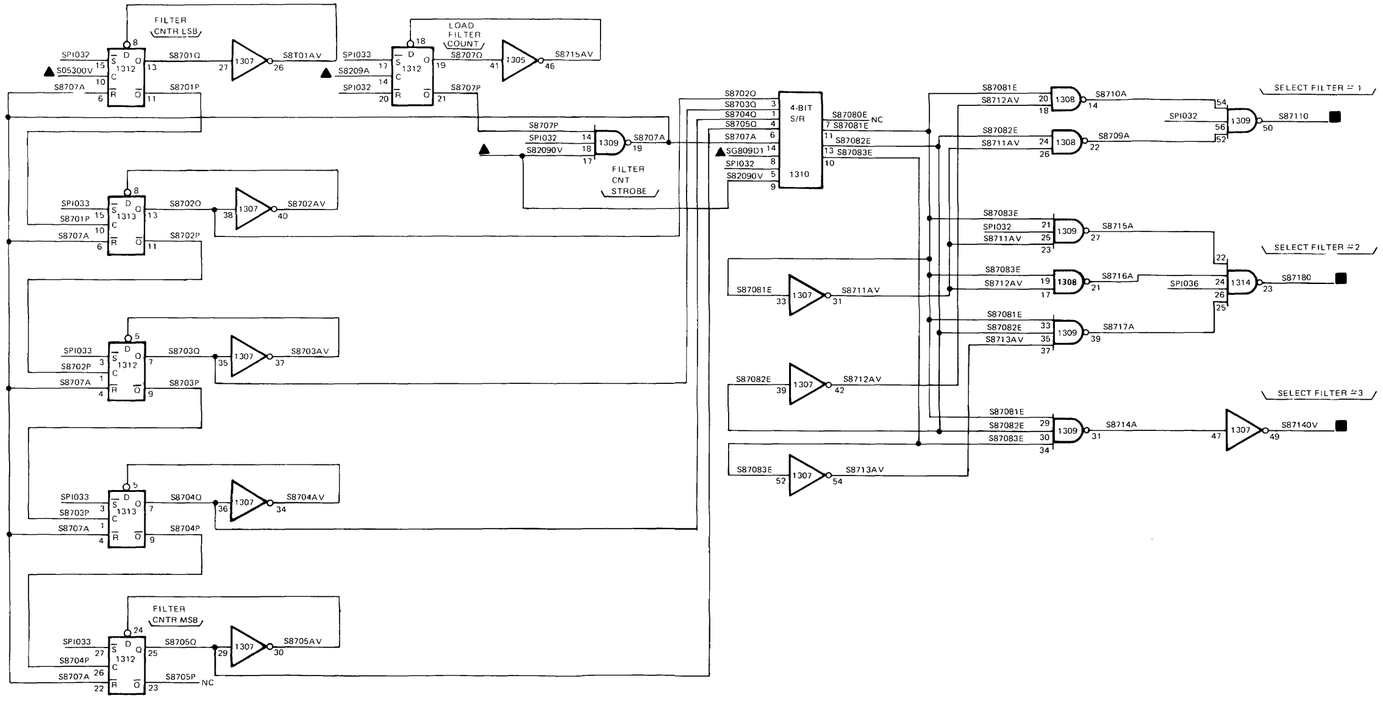
    B. REFER TO TABLE 5-41 FOR CARD PART NUMBER

    C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS

11. SPI XX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

MS200878A

INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
SG809D1	22702	S87110	22801, 29100
S05300V	20801	S87140V	22801
S8209A	22400	S87180	22801
S82090V	22400		



Change 2 FO-226. VSU Filter Control Logic Diagram

NOTES: UNLESS OTHERWISE SPECIFIED

PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.

ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.

3. REFERENCES ARE AS FOLLOWS:

INDICATES INPUT FROM ANOTHER FIGURE
INDICATES INPUT FROM THE SAME FIGURE
INDICATES OUTPUT TO ANOTHER FIGURE
INDICATES OUTPUT TO THE SAME FIGURE
INDICATES OUTPUT TO THE SAME AND ANO

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.

REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.

6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.

7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.

8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.

9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.

10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:

A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AN

B. REFER TO TABLE 5-41 FOR CARD PART NUMBER

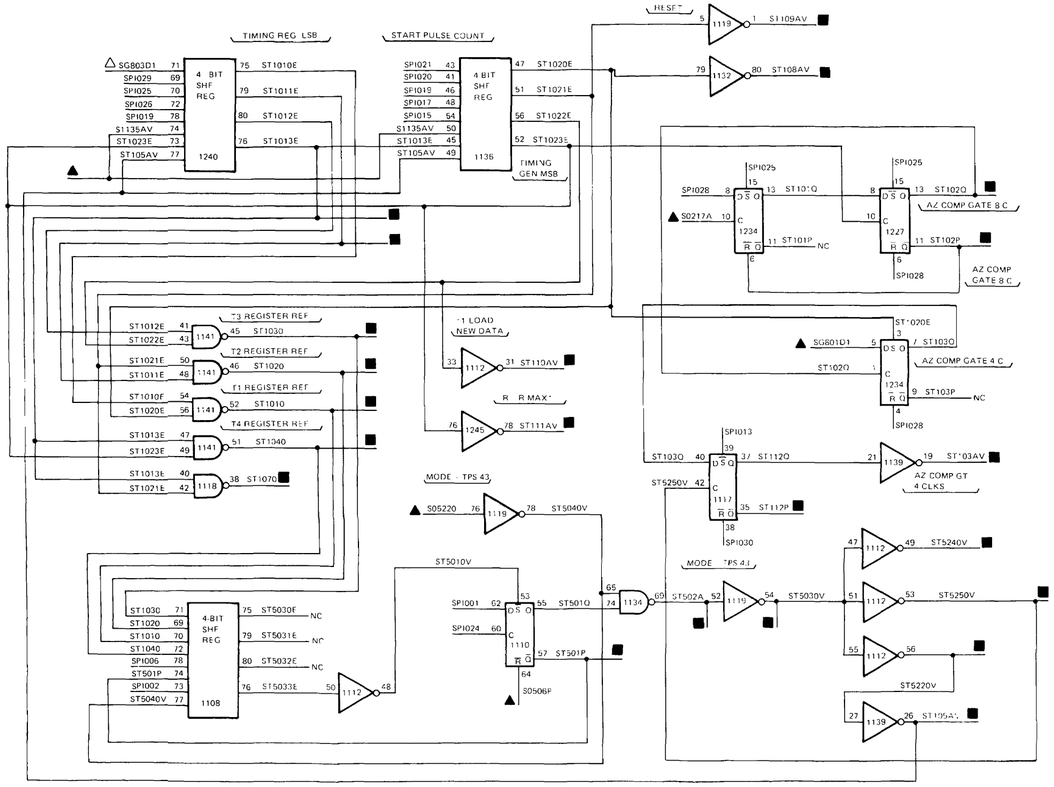
C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT M

11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

MS200879A

INPUT	
SIGNAL	SOURCE FO-SH
SG801D1	22702
S0217A	20702
S0506P	20801
S05220	20801
S1135AV	25200

OUTPUT	
SIGNAL	DESTINATION FO-SH
ST1010	21000, 21202, 21302, 21406, 21800, 22002, 23100, 26002
ST1011E	21900, 26002
ST1013E	26002
ST102P	21800
ST102Q	21800
ST1020	20903, 21000, 21406, 21504, 21800, 22002, 23100, 23600
ST103AV	21405
ST1030	20903, 21000, 21406, 21800, 22002, 24100, 26002
ST1040	21000, 21406, 22002, 24100, 24600
ST105AV	20903, 21800, 26002
ST1070	20903
ST108AV	21600
ST109AV	21600, 26002
ST110AV	20903, 21600
ST111AV	21600, 26002
ST112P	21302, 21403
ST501P	20801
ST502A	20801, 21202
ST5030V	21100, 21302, 26002
ST5220V	20903, 21408, 23001, 25700
ST5240V	20903, 21202, 21600, 21700, 22001, 22002, 25200
ST5250V	21405, 21600



FO-227. VSU Timing and Logic Grounds Diagram (Sheet 1 of 2)

NOTES: UNLESS OTHERWISE SPECIFIED

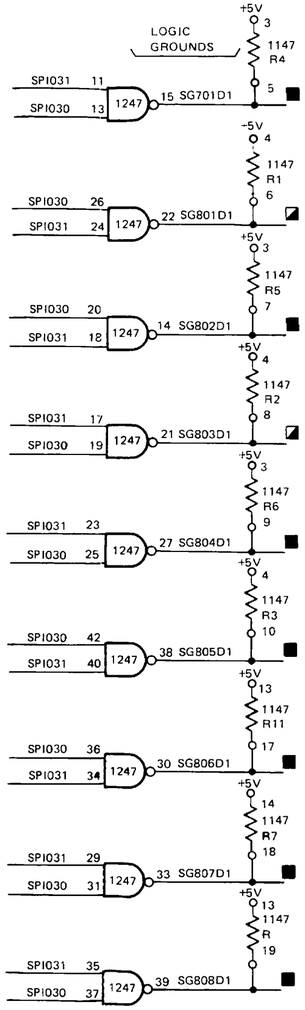
1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLET
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIP
3. REFERENCES ARE AS FOLLOWS:

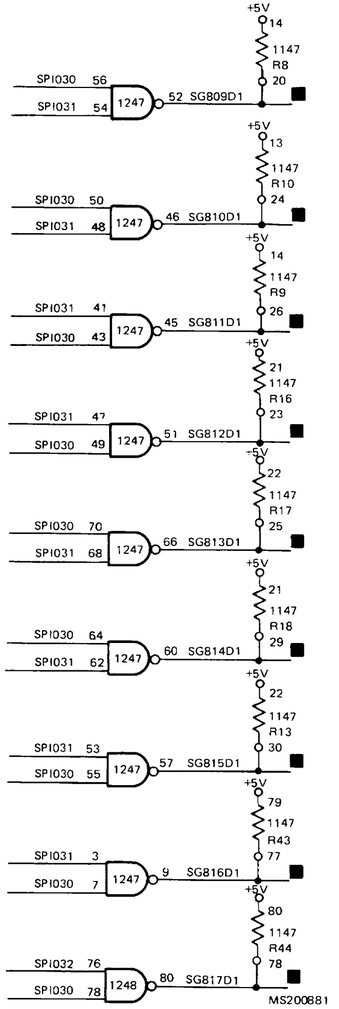
   ▲ INDICATES INPUT FROM ANOTHER FIGURE
   △ INDICATES INPUT FROM THE SAME FIGURE
   ■ INDICATES OUTPUT TO ANOTHER FIGURE
   □ INDICATES OUTPUT TO THE SAME FIGURE
   ◪ INDICATES OUTPUT TO THE SAME AND A FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS IN
5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIG
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGN
9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD
10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FO
    A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCU
    B. REFER TO TABLE 5-41 FOR CARD PART NUMBER
    C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TES
11. SPIT INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130,

MS200880

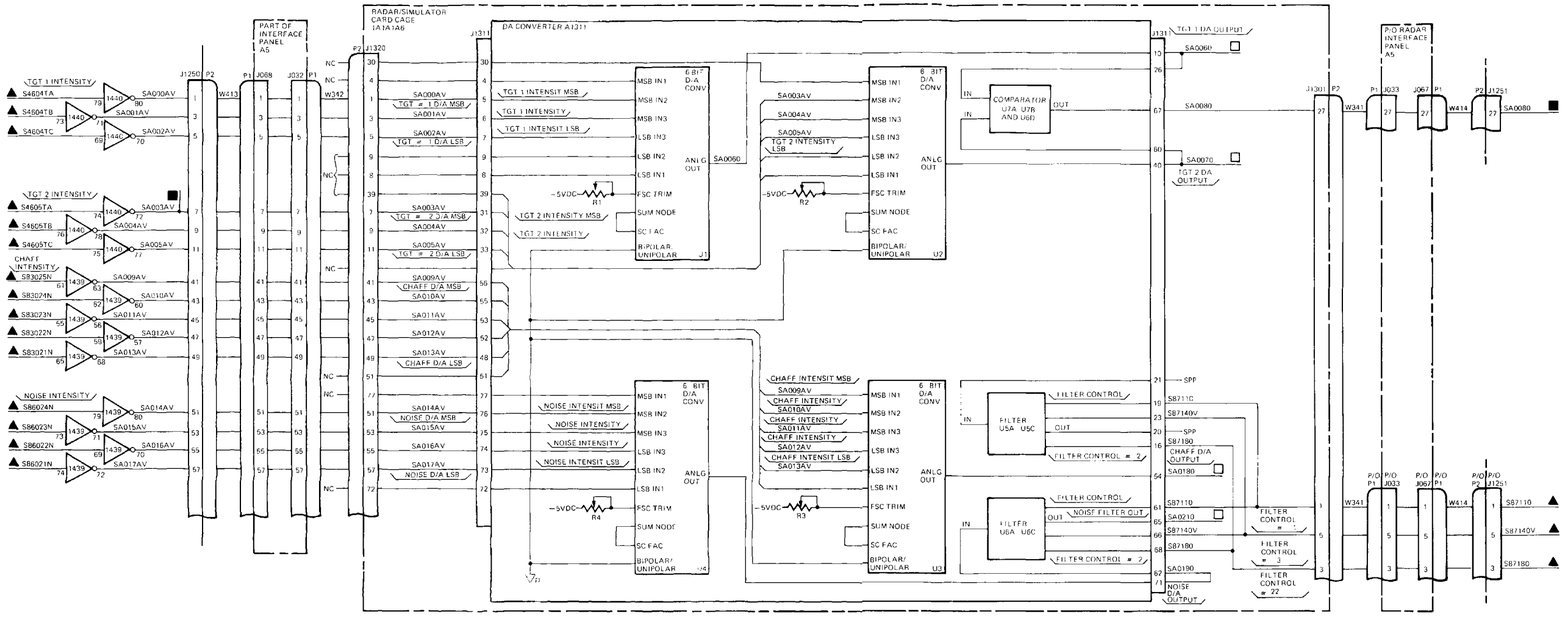
OUTPUT SIGNAL	DESTINATION FO-SH
SG701D1	20802, 20902, 21406, 21600, 21700, 21800, 21900, 22100, 22200, 22500
SG801D1	20702, 20802, 20901, 20902, 21202, 22200, 22500, 22701
SG802D1	20701, 20702, 20802, 20902, 21100, 21202, 22002, 22100, 22301, 22302, 22500
SG803D1	20701, 20802, 20902, 21100, 21201, 21202, 21301, 21402, 21403, 21406, 22500, 25400, 25700
SG804D1	20701, 20702, 20802, 20902, 21201, 21202, 21401, 21503, 21800, 22301, 22302, 25200
SG805D1	21100, 21401, 21402, 21403, 21406, 21408, 25901, 25902, 25903, 25904
SG806D1	20701, 20702, 21301, 21402, 21403, 21406, 21408, 22002, 23100, 25600, 25901, 25902, 25903, 25904
SG807D1	20702, 21301, 21402, 21403, 21405, 21406, 21408, 25901, 25902, 25903, 25904
SG808D1	20702, 21100, 21301, 21402, 21405, 21408, 22002, 25901, 25902, 25903, 25904, 26002
SG809D1	20702, 20802, 21000, 21301, 21402, 21403, 21405, 22600, 26002
SG810D1	22500, 22900, 23001, 23002, 23100, 23200, 23700, 23800, 24200, 24300, 24600, 24700, 24800
SG811D1	22500, 22900, 23100, 23200, 23300, 23600, 23700, 23800, 24200, 24300, 24800
SG812D1	22900, 23001, 23002, 23100, 23200, 23300, 23700, 23800, 24200, 24500, 24600, 24700, 24800, 25000
SG813D1	21600, 22500, 22900, 23200, 23300, 24200, 24300, 24500, 24700, 24800
SG814D1	23200, 23300, 23500, 23600,





FO-227. VSU Timing and Logic Grounds (Sheet 2 of 2)

INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
S46047A	21406	SA003AV	25904, 29001
S46047B	21406	SA0080	25901, 29100
S46047C	21406		
S46057A	21406		
S46057B	21406		
S46057C	21406		
S83021N	22100		
S83022N	22100		
S83023N	22100		
S83024N	22100		
S83025N	22100		
S86021N	22500		
S86022N	22500		
S86023N	22500		
S86024N	22500		
S87110	22600		
S87110	29100		
S87140V	22600		
S87180	22600		



FO-228. VSU Digital-to-Analog Converter and Mixing Logic Diagram (Sheet 1 of 4)

NOTES: UNLESS OTHERWISE SPECIFIED

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.
3. REFERENCES ARE AS FOLLOWS:

   ▲ INDICATES INPUT FROM ANOTHEF
   △ INDICATES INPUT FROM THE SAMI
   ■ INDICATES OUTPUT TO ANOTHER
   □ INDICATES OUTPUT TO THE SAME
   ◪ INDICATES OUTPUT TO THE SAME

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
    A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION /
    B. REFER TO TABLE 5-41 FOR CARD PART NUMBER
    C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POIN
11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

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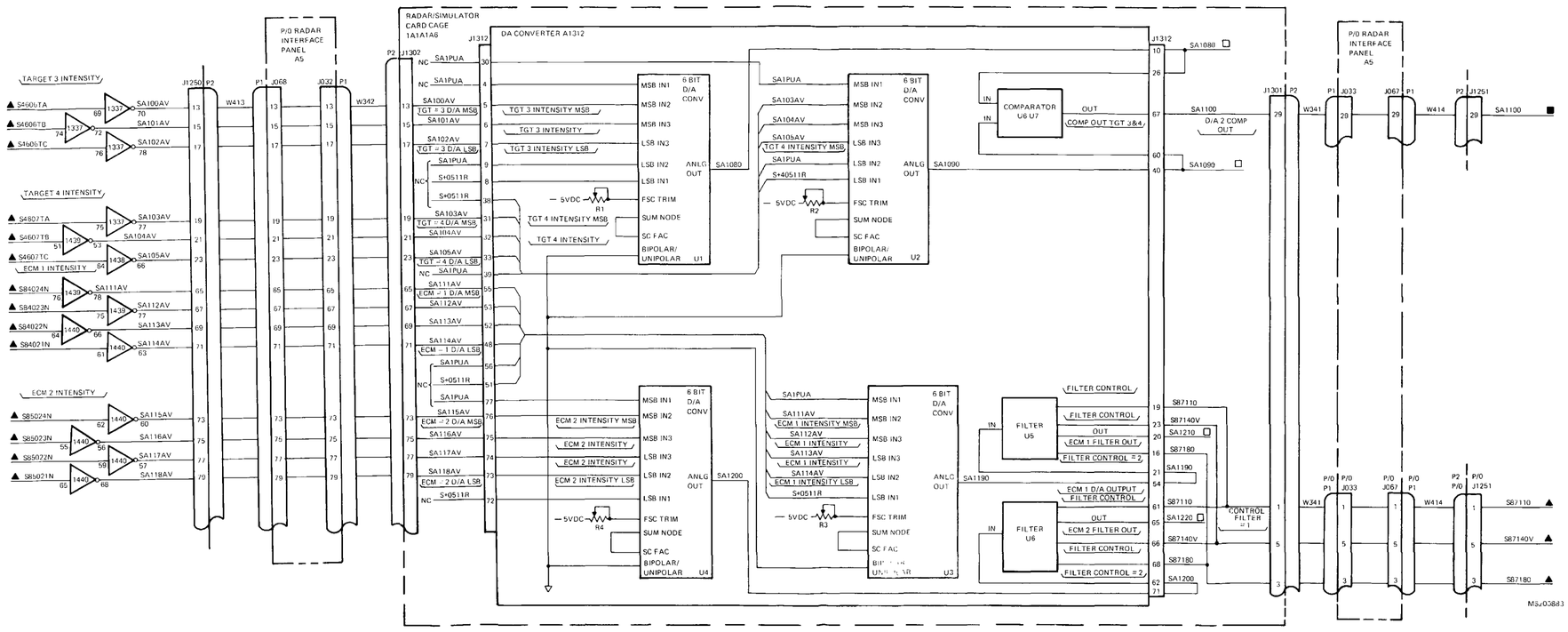
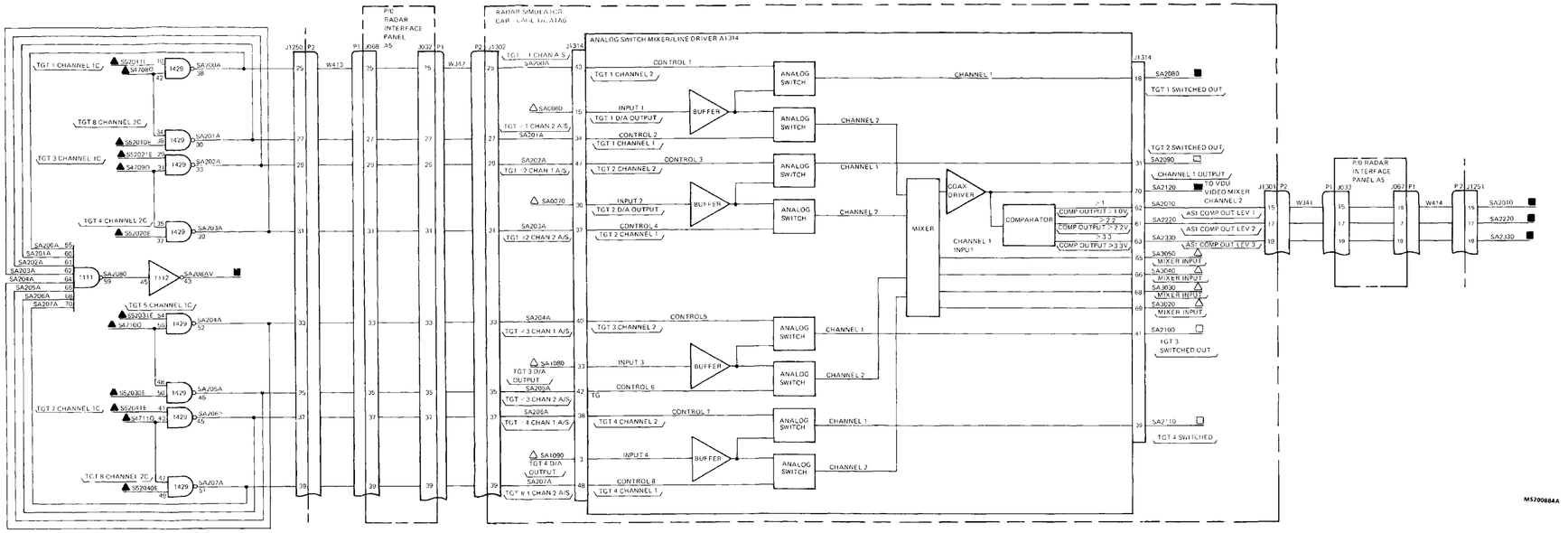
INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
S4606TA	21406	SA1100	25901, 29100
S4606TB	21406		
S4606TC	21406		
S4607TA	21406		
S4607TB	21406		
S4607TC	21406		
S84021N	22301		
S84022N	22301		
S84023N	22301		
S84024N	22301		
S85021N	22302		
S85022N	22302		
S85023N	22302		
S85024N	22302		



FO-228. VSU. Digital-to-Analog Converter and Mixing Logic Diagram (Sheet 2 of 4)

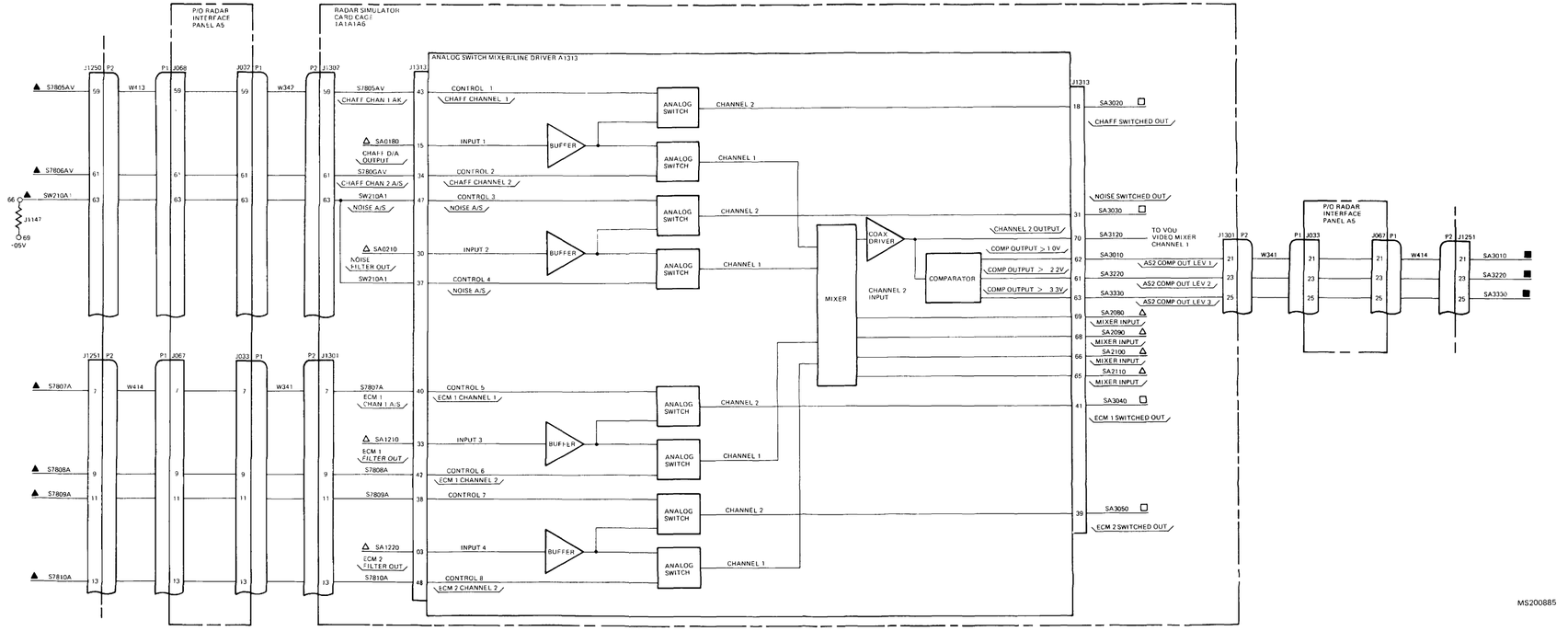
INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
S47080	21407	SA2010	26001, 29100
S47090	21407	SA208AV	26002
S47100	21407	SA2080	26002
S47110	21407	SA2120	14201
S52010E	21503	SA2220	26001, 29100
S52011E	21503	SA2330	26001, 29100
S52020E	21503		
S52021E	21503		
S52030E	21503		
S52031E	21503		
S52040E	21503		
S52041E	21503		



FO-228. VSU Digital-to-Analog Converter and Mixing Logic Diagram (Sheet 3 of 4)

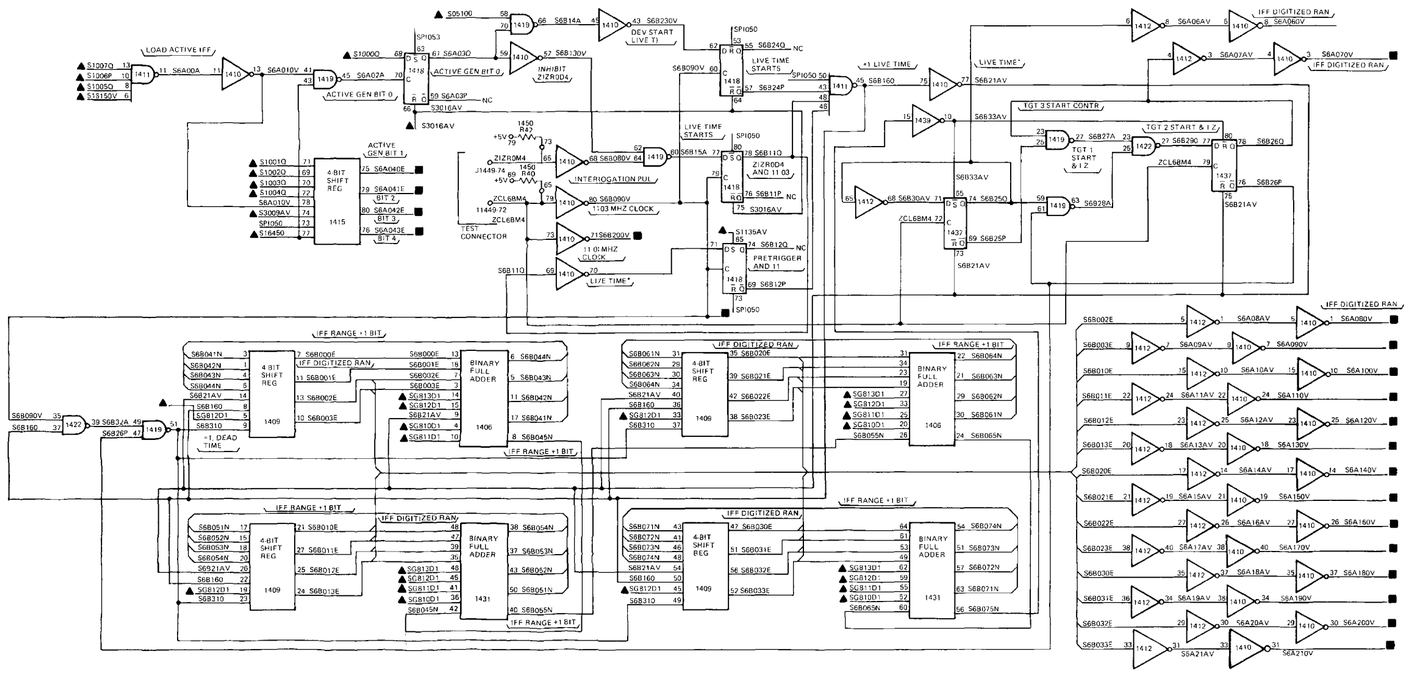
Change 2

INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
SW210A1	29002	SA3010	26001, 29100
S7805AV	21600	SA3120	14201
S7805AV	29002	SA3220	26001, 29100
S7806AV	21600	SA3330	26001, 29100
S7806AV	29002		
S7807A	22200		
S7807A	29100		
S7808A	22200		
S7808A	29100		
S7809A	22200		
S7810A	22200		
S7810A	29100		



FO-228. VSU Digital-to-Analog Converter and Mixing Logic Diagram (Sheet 4 of 4)

INPUT SIGNAL	SOURCE FO-SH	OUTPUT SIGNAL	DESTINATION FO-Sh
SG810D1	22702	S6A040E	23100
SG811D1	22702	S6A041E	23600
SG812D1	22702	S6A042E	24100
S681301	22702	S6A043E	24600
S05100	20801	S6A060V	23100, 25904
S1000Q	25100	S6A070V	23100, 23600, 24100, 24600, 25904
S1001Q	25100		
S1002Q	25100	S6A080V	23100, 23600, 24100, 24600, 25903
S1003Q	25100		
S1004Q	25100	S6A090V	23100, 23600, 24100, 24600, 25903
S1005Q	25100		
S1006P	25100	S6A100V	23100, 23600, 24100, 24600, 25902
S1007Q	25100		
S1135AV	25200	S6A110V	23100, 23600, 24100, 24600, 25902
S16150V	25700		
S16450	25700	S6A120V	23100, 23600, 24100, 24600, 25901
S3009AV	20901		
S3016AV	20903	S6A130V	23100, 23600, 24100, 24600, 25901
		S6A140V	23100, 23600, 24100, 24600, 25904
		S6A150V	23100, 23600, 24100, 24600, 25904
		S6A160V	23100, 23600, 24100, 24600, 25903
		S6A170V	23100, 23600, 24100, 24600, 25903
		S6A180V	23100, 23600, 24100, 24600, 25902
		S6A190V	23100, 23600, 24100, 24600, 25904
		S6A200V	23100, 23600, 24100, 24600, 25901
		S6A210V	23100, 23600, 24100, 24600, 25901
		S6B090V	23100
		S6B200V	23300, 23800, 24300, 24800



FO-229. VSU IFF Simulation Range Digitizer and Common Timing Logic Diagram

NOTES: UNLESS OTHERWISE SPECIFIED

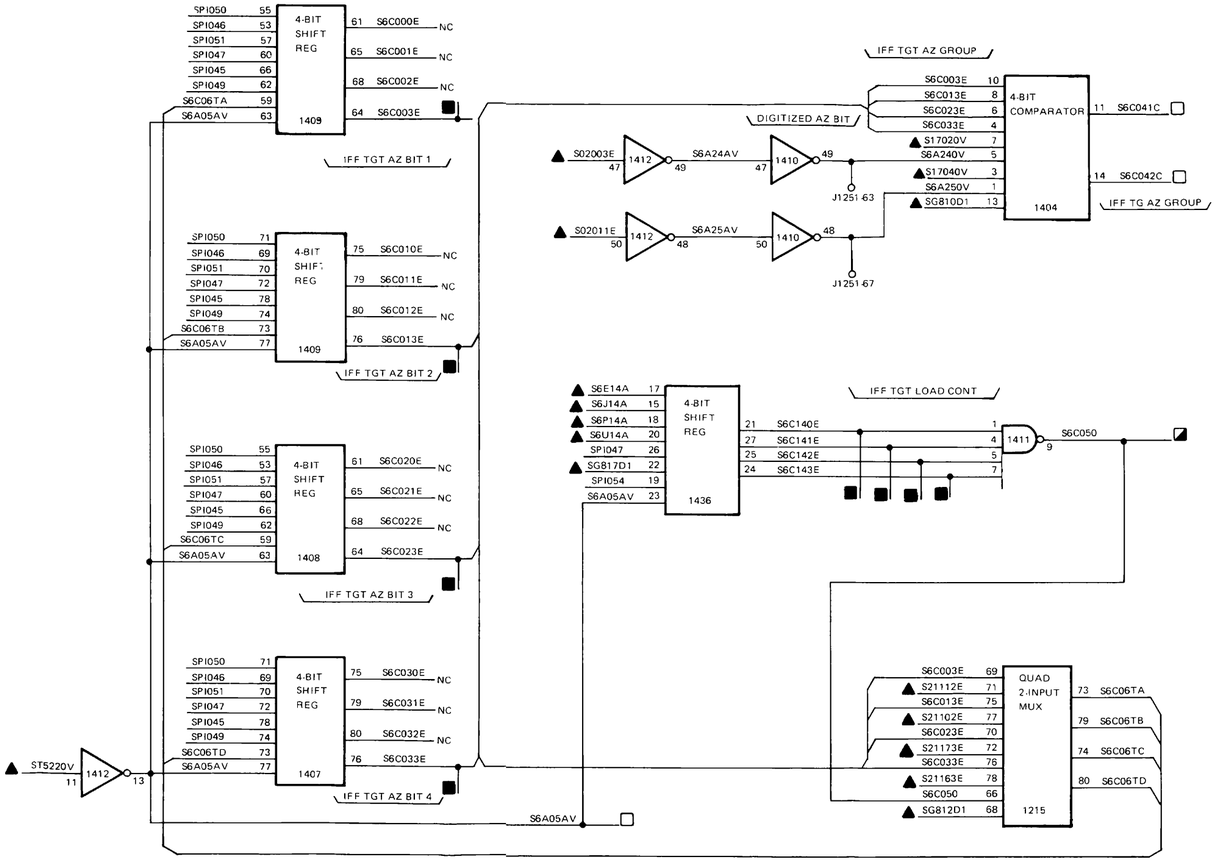
1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.
3. REFERENCES ARE AS FOLLOWS:
   - ▲ INDICATES INPUT FROM ANOTHER FIGURE
   - △ INDICATES INPUT FROM THE SAME FIGURE
   - ■ INDICATES OUTPUT TO ANOTHER FIGURE
   - □ INDICATES OUTPUT TO THE SAME FIGURE
   - ◪ INDICATES OUTPUT TO THE SAME AND ANOT
4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMSFOR DC POWER AND GROUND CIRCUITS.
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
    - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND
    - B. REFER TO TABLE 5-41 FOR CARD PART NUMBER
    - C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT M
11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

M

MS200886

INPUT SIGNAL	SOURCE FO-SH
SG810D1	22702
SG812D1	22702
SG817D1	22702
ST5220V	22701
S02003E	20702
S02011E	20702
S17020V	25800
S17040V	25800
S21102E	20901
S21112E	20901
S21163E	20901
S21173E	20901
S6E14A	23100
S6J14A	23600
S6P14A	24100
S6U14A	24600

OUTPUT SIGNAL	DESTINATION FO-SH
S6C003E	25904
S6C013E	25904
S6C023E	25903
S6C033E	25903
S6C050	20903
S6C140E	23100, 23200, 23500
S6C141E	23600, 23700, 24000
S6C142E	24100, 24200, 24500
S6C143E	24600, 24700, 25000



FO-230. VSU IFF Simulation Azimuth Compare Logic Diagram (Sheet 1 of 2)

NOTES: UNLESS OTHERWISE SPECIFIED

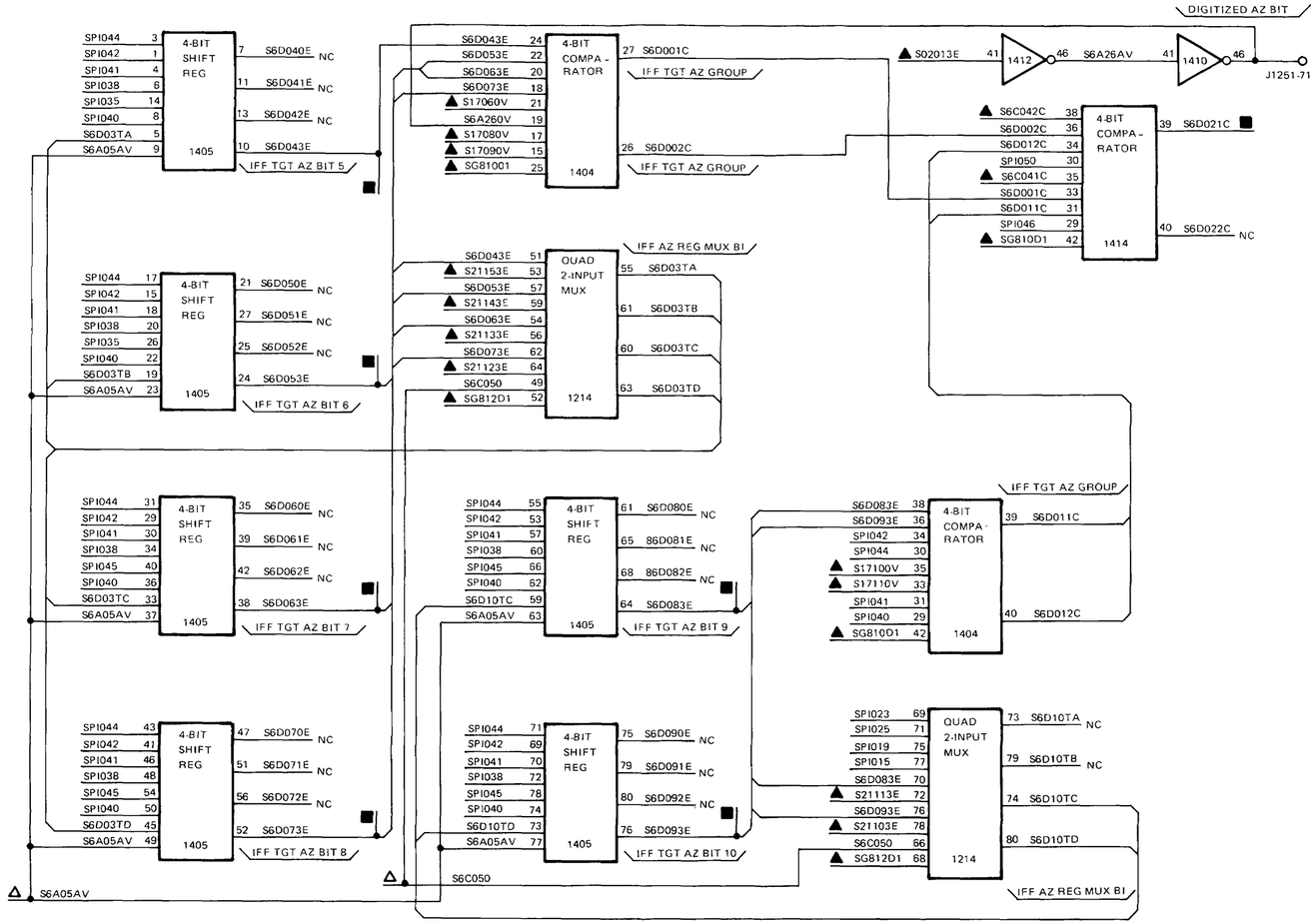
1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.
3. REFERENCES ARE AS FOLLOWS:

   ▲ INDICATES INPUT FROM ANOTHER FIGURE
   △ INDICATES INPUT FROM THE SAME FIGURE
   ■ INDICATES OUTPUT TO ANOTHER FIGURE
   □ INDICATES OUTPUT TO THE SAME FIGURE
   ◪ INDICATES OUTPUT TO THE SAME AND ANOTHER FIG

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
    - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
    - B. REFER TO TABLE 5-41 FOR CARD PART NUMBER
    - C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS
11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

MS200887

INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
SG810D1	22702	S6D021C	23100, 23600, 24100, 24600
SG812D1	22702	S6D043E	25902
S02013E	20702	S6D053E	25902
S17060V	25800	S6D063E	25901
S17080V	25800	S6D073E	25901
S17090V	25800	S6D083E	25904
S17100V	25800	S6D093E	25904
S17110V	25800		
S21103E	20901		
S21113E	20901		
S21123E	20901		
S21133E	20901		
S21143E	20901		
S21153E	20901		

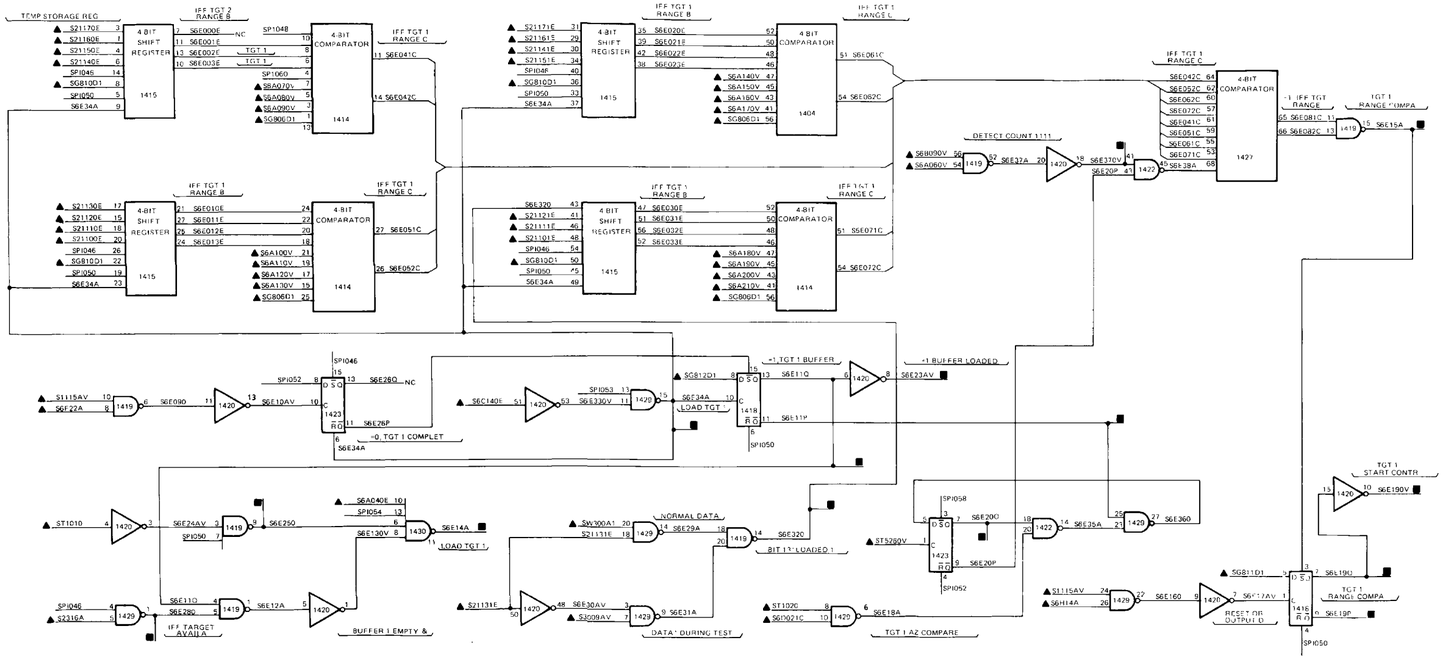


FO-230. VSU IFF Simulation Azimuth Compare Logic Diagram (Sheet 2 of 2)

INPUT	
SIGNAL	SOURCE FO-SH
SGB06D1	22702
SG81D01	22702
SG81101	22702
SG812D1	22702
ST1010	22701
ST1020	22701
ST5260V	21202
SW300A1	26700
S1115AV	25200
S21100E	20901
S21101E	20901
S21110E	20901
S21111E	20901
S21120E	20901
S21121E	20901
S21130E	20901
S21131E	20901
S21140E	20901
S21141E	20901
S21150E	20901
S21151E	20901
S21160E	20901
S21161E	20901
S21170E	20901
S21171E	20901
S2316A	20902
S3009AV	20901
S6A040E	22900
S6A060V	22900
S6A070V	22900
S6A080V	22900
S6A090V	22900
S6A100V	22900
S6A110V	22900
S6A120V	22900
S6A130V	22900
S6A140V	22900
S6A150V	22900
S6A160V	22900
S6A170V	22900
S6A180V	22900
S6A190V	22900
S6A200V	22900
S6A210V	22900
S6B090V	22900
S6C140E	23001

INPUT	
SIGNAL	SOURCE FO-SH
S6D021C	23002
S6F22A	23200
S6H14A	23400

OUTPUT	
SIGNAL	DESTINATION FO-SH
S6E11P	23200
S6E11Q	23500
S6E14A	23001
S6E15A	24600, 26002
S6E19P	23200
S6E19Q	23300, 23400
S6E190V	23200
S6E20Q	26002
S6E23AV	23500
S6E25Q	24600
S6E28Q	23600, 24100, 24600
S6E32Q	23600, 24100, 24600
S6E34A	23200
S6E370V	23600, 24100, 24600



NOTES: UNLESS OTHERWISE SPECIFIED

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLET DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMB DESIGNATION.
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMEI RACK 1, VSU CARD CAGE 1A1A1A3.
3. REFERENCES ARE AS FOLLOWS:
   - ▲ INDICATES INPUT FROM ANOTHER FIGURE
   - △ INDICATES INPUT FROM THE SAME FIGURE
   - ■ INDICATES OUTPUT TO ANOTHER FIGURE
   - □ INDICATES OUTPUT TO THE SAME FIGURE
   - ◪ INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE
4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX
5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGN/ CABLING.
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AN GROUND CIRCUITS.
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTIC DESIGNATIONS.
9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD P NUMBERS.
10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM TH FOLLOWING:
    - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AN CIRCUIT CARD PIN NUMBER.
    - B. REFER TO TABLE 5-41 FOR CARD PART NUMBER
    - C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MT TESTABLE CARDS
11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, 1147, A-1249, AND A-1450.

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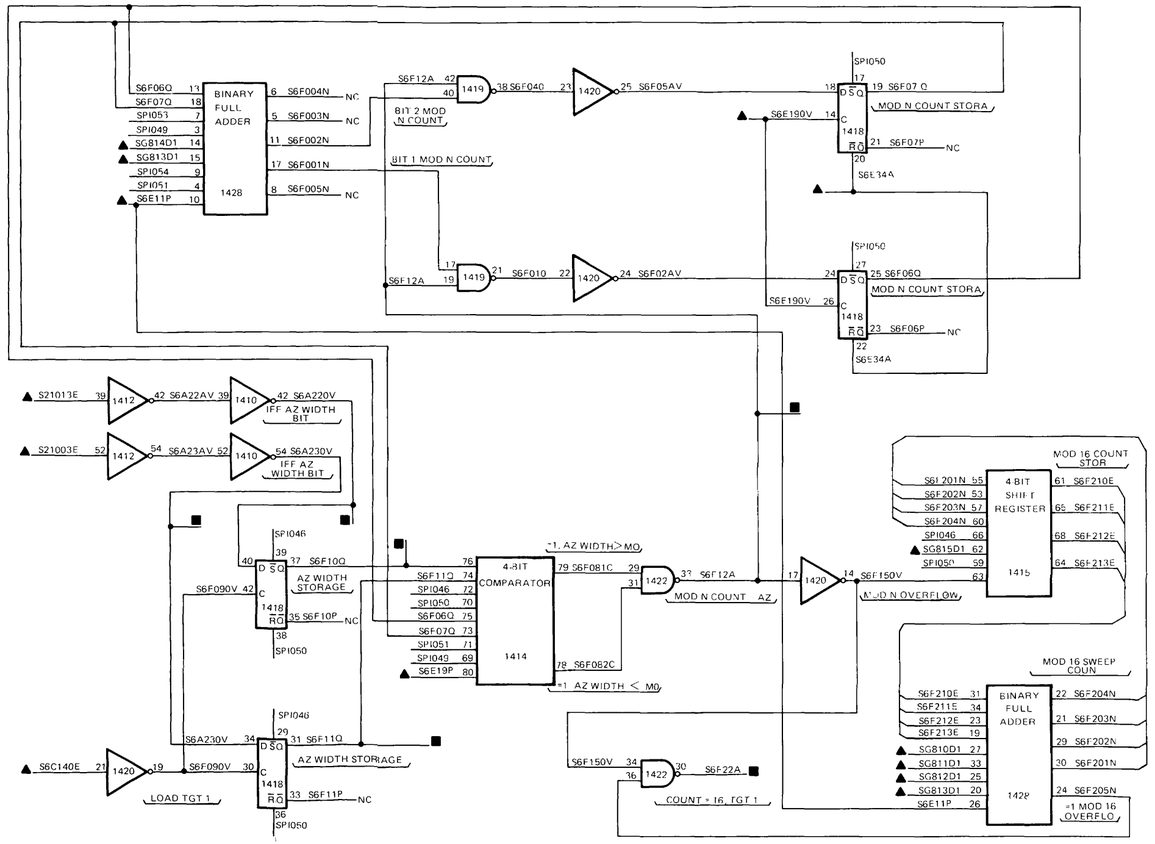
FO-231. VSU IFF Simulation Range Compare Target 1 Logic Diagram

INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
SG810D1	22702	S6A220V	23700, 24200, 24700
SG811D1	22702	S6A230V	23700, 24200, 24700
SG812D1	22702	S6F10Q	25903
SG813D1	22702	S6F11Q	25903
SG814D1	22702	S6F12A	23500
SG815D1	22702	S6F22A	23100, 24700
S21003E	20901		
S21013E	20901		
S6C140E	23001		
S6E11P	23100		
S6E19P	23100		
S6E190V	23100		
S6E34A	23100		



FO-232. VSU IFF Simulation MOD N and MOD N and Mod 16 Sweep Counter Target 1 Logic Diagram

NOTES: UNLESS OTHERWISE SPECIFIED

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.
3. REFERENCES ARE AS FOLLOWS:
   - ▲ INDICATES INPUT FROM ANOTHER FIGURE
   - △ INDICATES INPUT FROM THE SAME FIGURE
   - ■ INDICATES OUTPUT TO ANOTHER FIGURE
   - □ INDICATES OUTPUT TO THE SAME FIGURE
   - ◪ INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE
4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
    - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
    - B. REFER TO TABLE 5-41 FOR CARD PART NUMBER
    - C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS
11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

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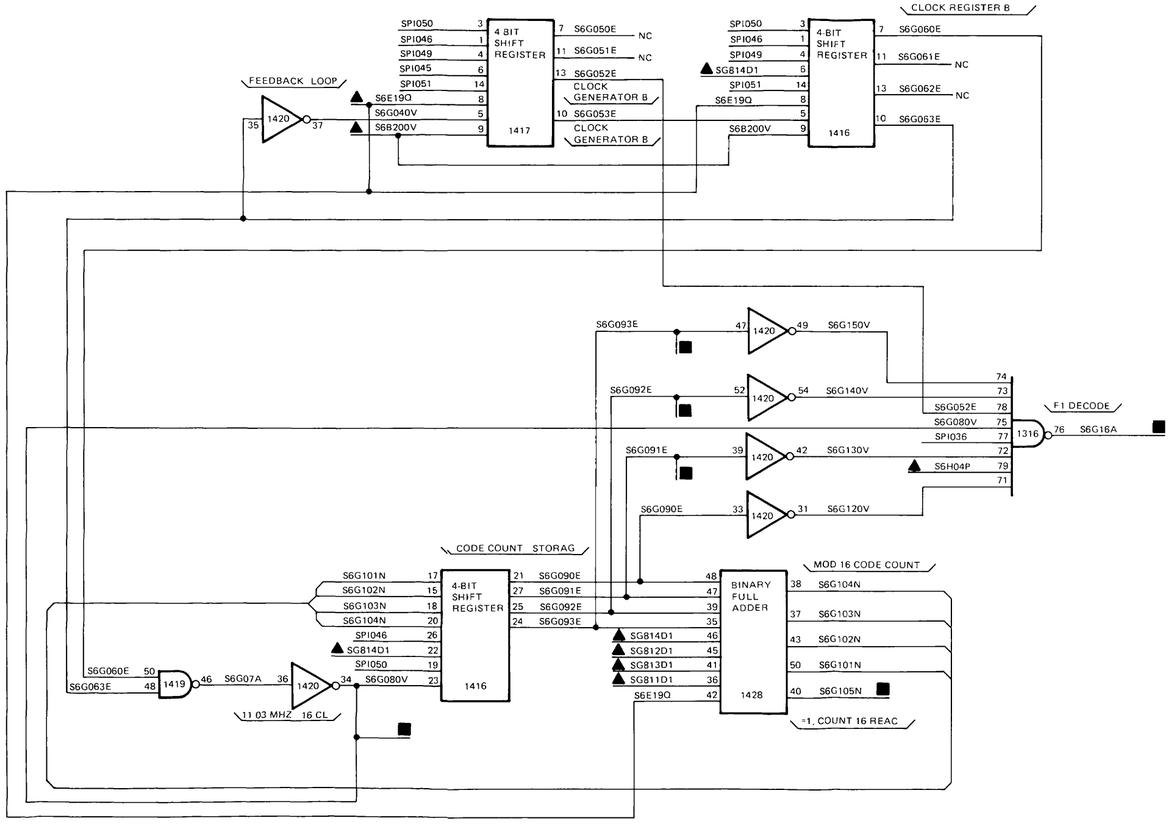
INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
SG811D1	22702	S6G080V	23400
SG812D1	22702	S6G091E	23400
SG813D1	22702	S6G092E	23400
SG814D1	22702	S6G093E	23400
S6B200V	22900	S6G105N	23400
S6E19Q	23100	S6G16A	25905
S6H04P	23400		



FO-233. VSU IFF Simulation Mod 16 Code Bit Counter Target 1 Logic Diagram

NOTES: UNLESS OTHERWISE SPECIFIED

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.
3. REFERENCES ARE AS FOLLOWS:
   - ▲ INDICATES INPUT FROM ANOTHER FIGURE
   - △ INDICATES INPUT FROM THE SAME FIGURE
   - ■ INDICATES OUTPUT TO ANOTHER FIGURE
   - □ INDICATES OUTPUT TO THE SAME FIGURE
   - ◪ INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE
4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
    - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
    - B. REFER TO TABLE 5-41 FOR CARD PART NUMBER
    - C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS
11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

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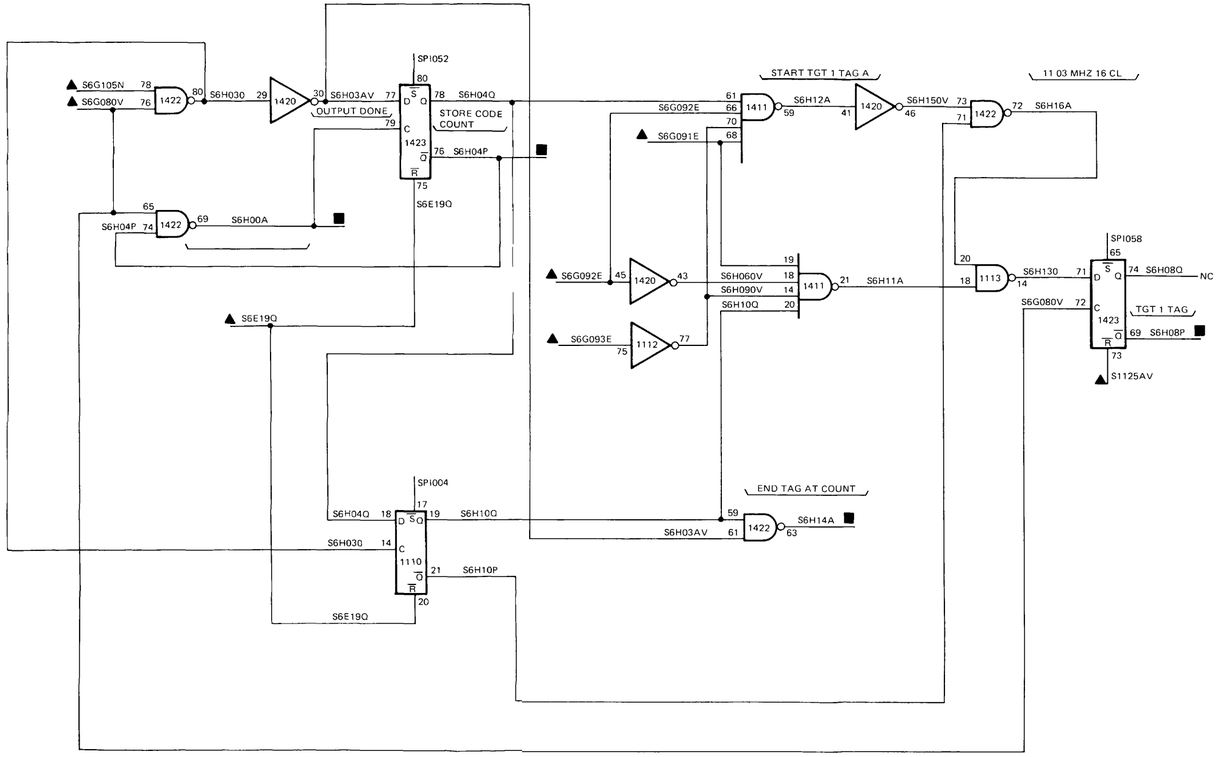
INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
S1125AV	25200	S6H00A	23500, 25905
S6E19Q	23100	S6H04P	23300
S6G080V	23300	S6H08P	24900
S6G091E	23300	S6H14A	23100
S6G092E	23300		
S6G093E	23300		
S6G105N	23300		



FO-234. VSU IFF Simulation IFF Tag Generation Target 1 Logic Diagram

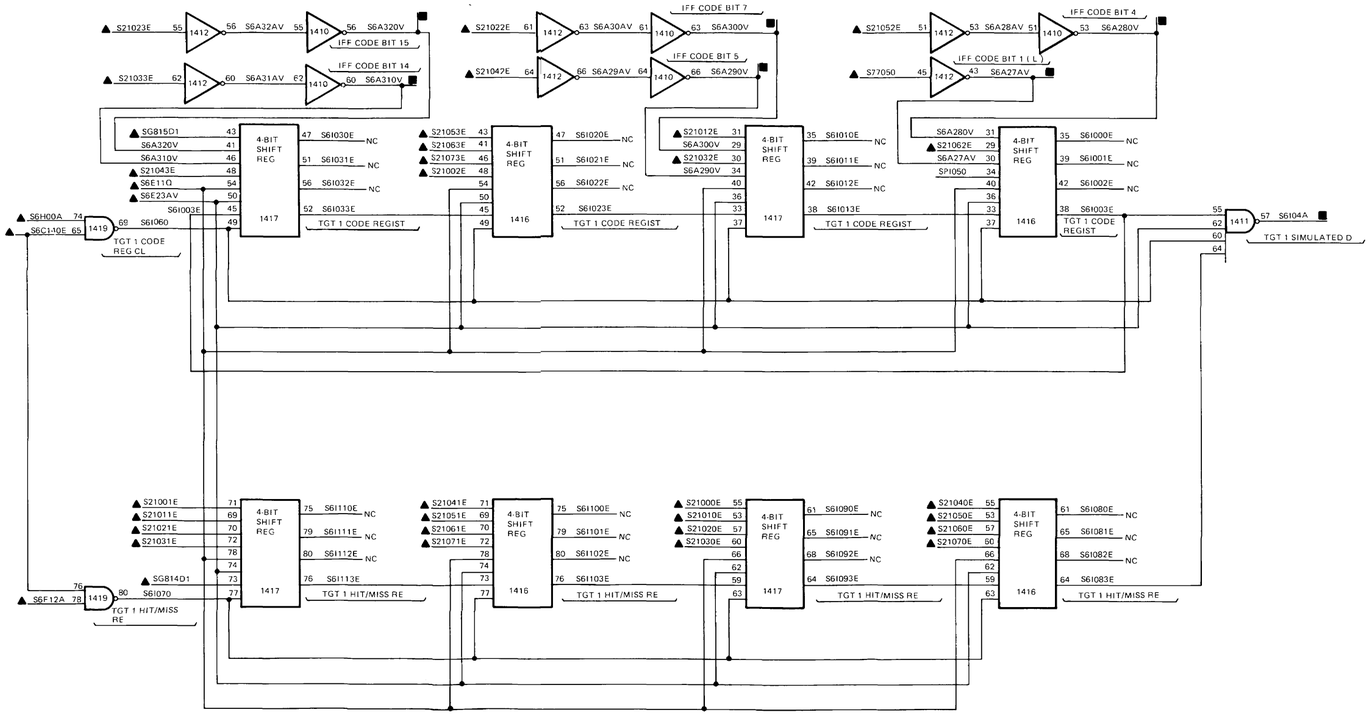
NOTES: UNLESS OTHERWISE SPECIFIED

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.
3. REFERENCES ARE AS FOLLOWS:
   - ▲ INDICATES INPUT FROM ANOTHER FIGURE
   - △ INDICATES INPUT FROM THE SAME FIGURE
   - ■ INDICATES OUTPUT TO ANOTHER FIGURE
   - □ INDICATES OUTPUT TO THE SAME FIGURE
   - ◪ INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE
4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
    - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
    - B. REFER TO TABLE 5-41 FOR CARD PART NUMBER
    - C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS
11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

MS200892

INPUT	
SIGNAL	SOURCE FO-SH
SG814D1	22702
SG815D1	22702
S21000E	20901
S21001E	20901
S21002E	20901
S21010E	20901
S21011E	20901
S21012E	20901
S21020E	20901
S21021E	20901
S21022E	20901
S21023E	20901
S21030E	20901
S21031E	20901
S21032E	20901
S21033E	20901
S21040E	20901
S21041E	20901
S21042E	20901
S21043E	20901
S21050E	20901
S21051E	20901
S21052E	20901
S21053E	20901
S21060E	20901
S21061E	20901
S21062E	20901
S21063E	20901
S21070E	20901
S21071E	20901
S21073E	20901
S6C140E	23001
S6E11Q	23100
S6E23AV	23100
S6F12A	23200
S6H00A	23400
S77050	22200

OUTPUT	
SIGNAL	DESTINATION FO-SH
S6A27AV	24000, 24500, 25000
S6A280V	24000, 24500, 25000
S6A290V	24000, 24500, 25000
S6A300V	24000, 24500, 25000
S6A310V	24000, 24500, 25000
S6A320V	24000, 24500, 25000
S6104A	25905



FO-235. VSU IFF Simulation IFF Code Data and Hit/Miss Pattern Bits Target 1 Logic Diagram

NOTES: UNLESS OTHERWISE SPECIFIED

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.
3. REFERENCES ARE AS FOLLOWS:

   ▲ INDICATES INPUT FROM ANOTHER FIGURE
   △ INDICATES INPUT FROM THE SAME FIGURE
   ■ INDICATES OUTPUT TO ANOTHER FIGURE
   □ INDICATES OUTPUT TO THE SAME FIGURE
   ◪ INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
    A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
    B. REFER TO TABLE 5-41 FOR CARD PART NUMBER
    C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS
11. SPIT INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

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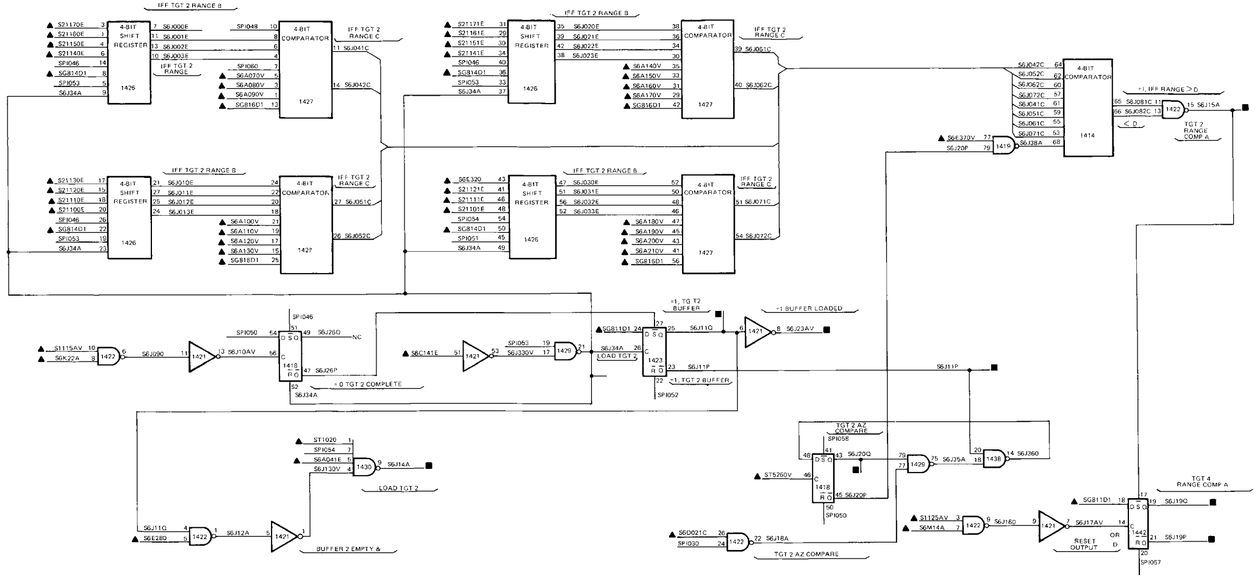
INPUT		OUTPUT	
	SOURCE		DESTINATION
SIGNAL	FO-SH	SIGNAL	FO-SH
SG81101	22702	S6J11P	23700
SG81401	22702	S6J11Q	24000
SG81601	22702	S6J14A	23001
ST1020	22701	S6J15A	24600, 26002
ST5260V	21202	S6J19P	23700
S1115AV	25200	S6J19Q	23800, 23900
S1125AV	25200	S6J20Q	26002
S21100E	20901	S6J23AV	24000
S21101E	20901	S6J34A	23700
S21110E	20901		
S21111E	20901		
S21120E	20901		
S21121E	20901		
S21130E	20901		
S21140E	20901		
S21141E	20901		
S21150E	20901		
S21151E	20901		
S21160E	20901		
S21161E	20901		
S21170E	20901		
S21171E	20901		
S6A041E	22900		
S6A070V	22900		
S6A080V	22900		
S6A090V	22900		
S6A100V	22900		
S6A110V	22900		
S6A120V	22900		
S6A130V	22900		
S6A140V	22900		
S6A150V	22900		
S6A160V	22900		
S6A170V	22900		
S6A180V	22900		
S6A190V	22900		
S6A200V	22900		
S6A210V	22900		
S6C141E	23001		
S6D021C	23002		
S6E280	23100		
S6E320	23100		
S6E370V	23100		
S6K22A	23700		
S6M14A	23900		



FO-236. VSU IFF Simulation Range Compare Target 2 Logic Diagram

NOTES: UNLESS OTHERWISE SPECIFIED

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.
3. REFERENCES ARE AS FOLLOWS:

   ▲ INDICATES INPUT FROM ANOTHER FIGURE
   △ INDICATES INPUT FROM THE SAME FIGURE
   ■ INDICATES OUTPUT TO ANOTHER FIGURE
   □ INDICATES OUTPUT TO THE SAME FIGURE
   ◪ INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
    A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
    B. REFER TO TABLE 5-41 FOR CARD PART NUMBER
    C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS
11. SPIT INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

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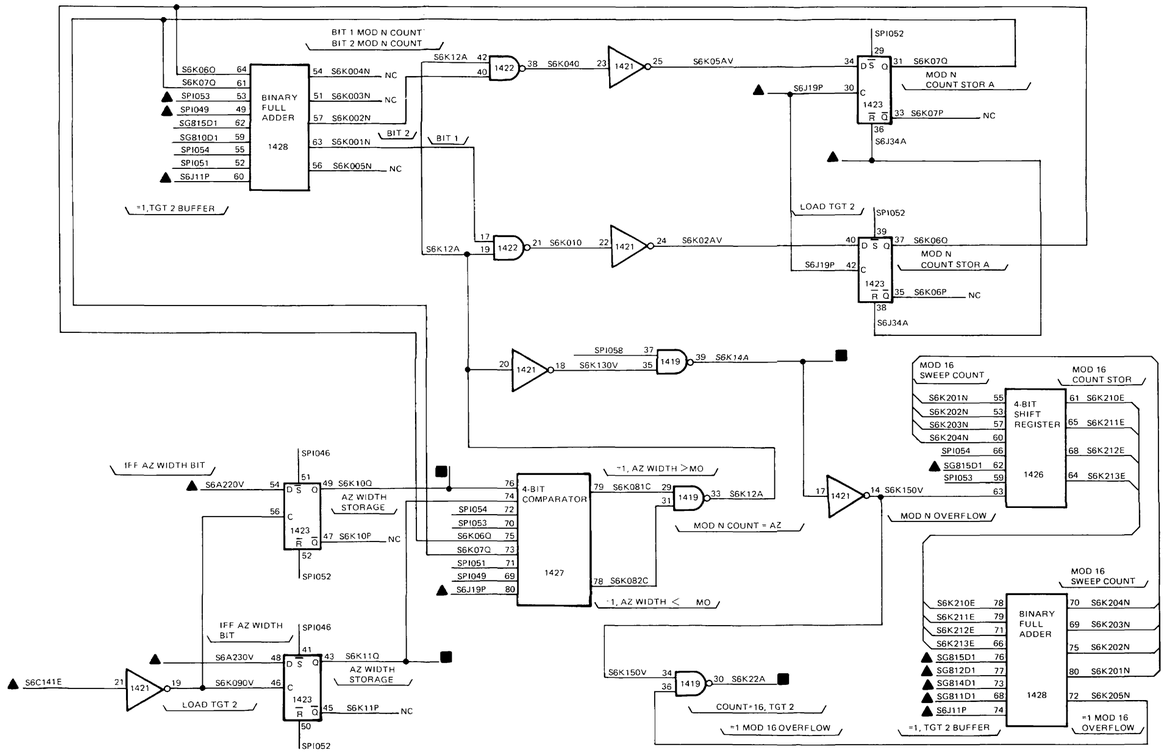
INPUT	
SIGNAL	SOURCE FO-SH
SG810D1	22702
SG811D1	22702
SG812D1	22702
SG814D1	22702
SG815D1	22702
S6A220V	23200
S6A230V	23200
S6C141E	23001
S6J11P	23600
S6J19P	23600
S6J34A	23600

OUTPUT	
SIGNAL	DESTINATION FO-SH
S6K10Q	25902
S6K11Q	25902
S6K14A	24000
S6K22A	23600, 24700



FO-237. VSU IFF Simulation MOD N and MOD 16 Sweep Counter Target 2 Logic Diagram

NOTES: UNLESS OTHERWISE SPECIFIED

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.
3. REFERENCES ARE AS FOLLOWS:

   ▲ INDICATES INPUT FROM ANOTHER FIGURE
   △ INDICATES INPUT FROM THE SAME FIGURE
   ■ INDICATES OUTPUT TO ANOTHER FIGURE
   □ INDICATES OUTPUT TO THE SAME FIGURE
   ◪ INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
    - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
    - B. REFER TO TABLE 5-41 FOR CARD PART NUMBER
    - C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS
11. SPIT INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

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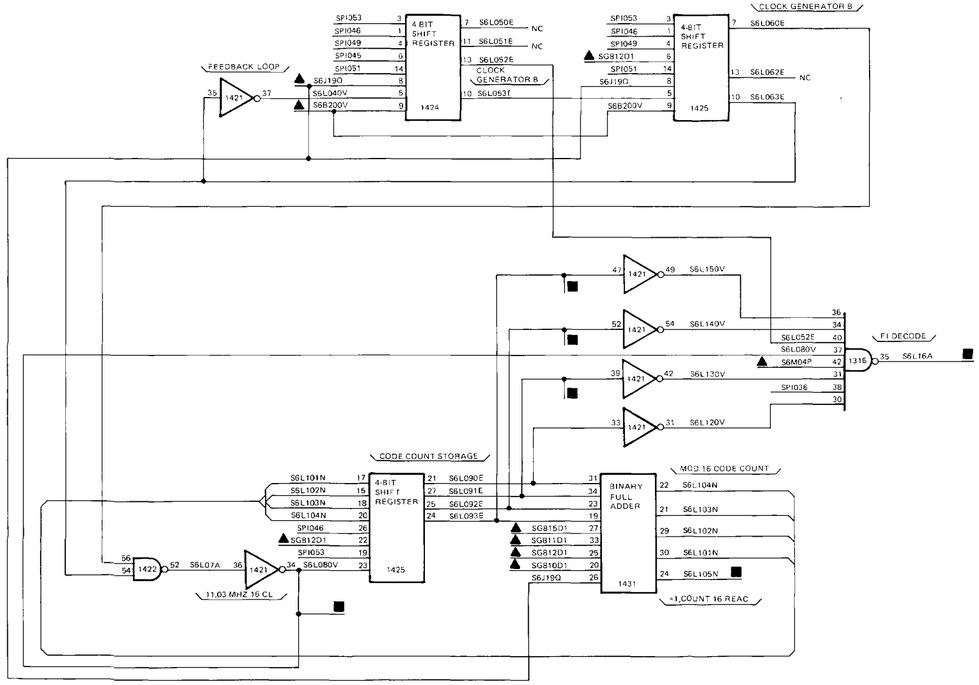
INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
SG810D1	22702	S6L080V	23900
SG811D1	22702	S6L091E	23900
SG812D1	22702	S6L092E	23900
SG815D1	22702	S6L093E	23900
S6B200V	22900	S6L105N	23900
S6J19Q	23600	S6L16A	25905
S6M04P	23900		



FO-238. VSU IFF Simulation Mod 16 Code Bit Counter Target 2 Logic Diagram

NOTES: UNLESS OTHERWISE SPECIFIED

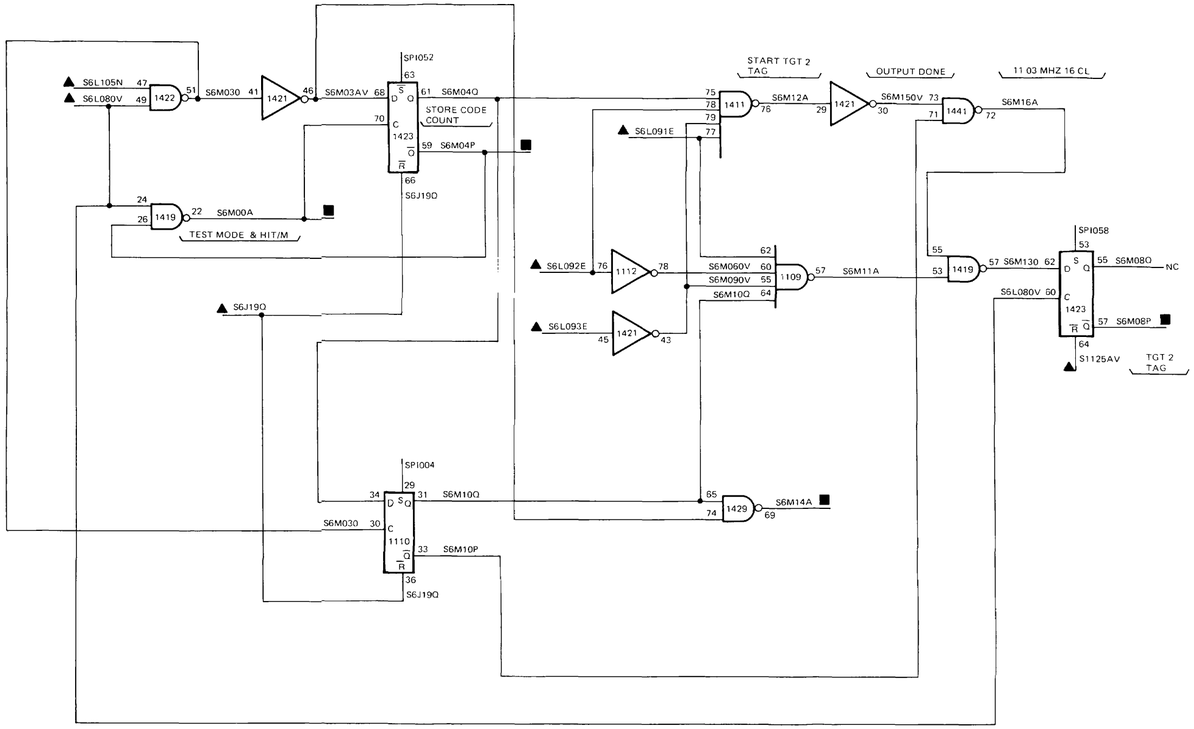
1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.
3. REFERENCES ARE AS FOLLOWS:

▲	INDICATES INPUT FROM ANOTHER FIGURE
△	INDICATES INPUT FROM THE SAME FIGURE
■	INDICATES OUTPUT TO ANOTHER FIGURE
■	INDICATES OUTPUT TO THE SAME FIGURE
□	INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
    - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
    - B. REFER TO TABLE 5-41 FOR CARD PART NUMBER
    - C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS
11. SPIT INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

MS200896

INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
S1125AV	25200	S6M00A	24000, 25905
S6J19Q	23600	S6M04P	23800
S6L080V	23800	S6M08P	24900
S6L091E	23800	S6M14A	23600
S6L092E	23800		
S6L093E	23800		
S6L105N	23800		



FO-239. VSU IFF Simulation IFF Tag Generation Target 2 Logic Diagram

NOTES: UNLESS OTHERWISE SPECIFIED

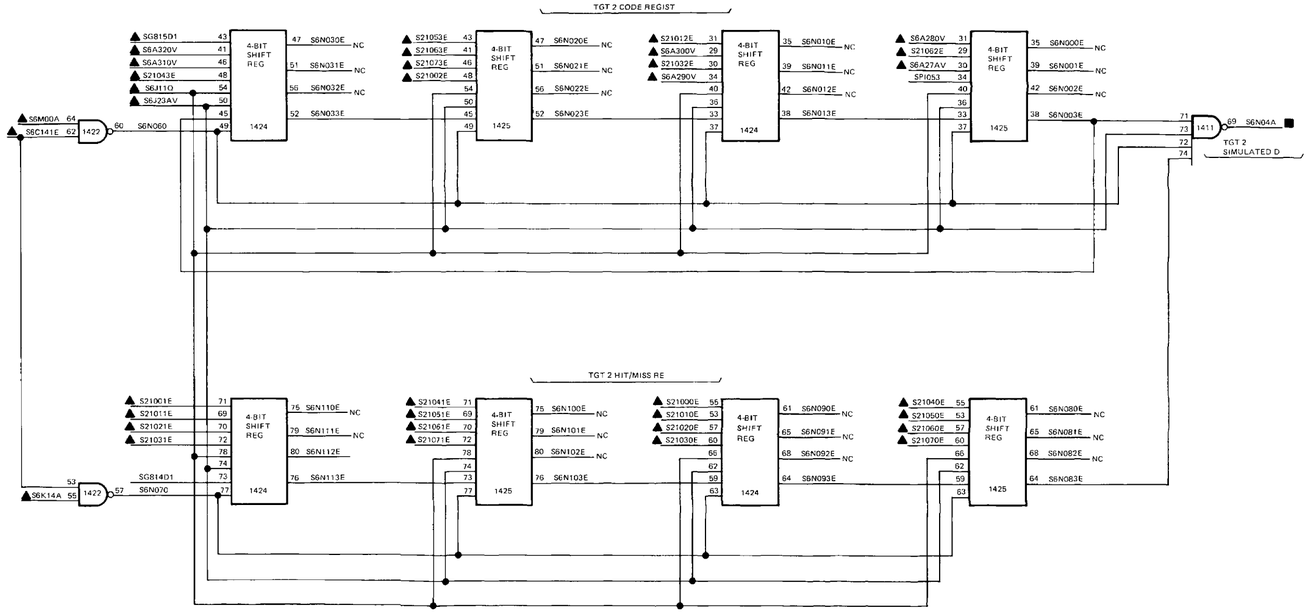
1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.
3. REFERENCES ARE AS FOLLOWS:

   ▲ INDICATES INPUT FROM ANOTHER FIGURE
   △ INDICATES INPUT FROM THE SAME FIGURE
   ■ INDICATES OUTPUT TO ANOTHER FIGURE
   □ INDICATES OUTPUT TO THE SAME FIGURE
   ◪ INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
    A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
    B. REFER TO TABLE 5-41 FOR CARD PART NUMBER
    C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS
11. SPIT INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

MS200897

INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
SG8150I	22702	S6N04A	25905
S21000E	20901		
S21001E	20901		
S21002E	20901		
S21010E	20901		
S21011E	20901		
S21012E	20901		
S21020E	20901		
S21021E	20901		
S21030E	20901		
S21031E	20901		
S21032E	20901		
S21040E	20901		
S21041E	20901		
S21043E	20901		
S21050E	20901		
S21051E	20901		
S21053E	20901		
S21060E	20901		
S21061E	20901		
S21062E	20901		
S21063E	20901		
S21070E	20901		
S21071E	20901		
S21073E	20901		
S6A27AV	23500		
S6A280V	23500		
S6A290V	23500		
S6A300V	23500		
S6A310V	23500		
S6A320V	23500		
S6C141E	23001		
S6J11Q	23600		
S6J23AV	23600		
S6K14A	23700		
S6M00A	23900		



FO-240. VSU IFF Simulation IFF Code Data and Hit/Miss Pattern Bits Target 2 Logic Diagram

NOTES: UNLESS OTHERWISE SPECIFIED

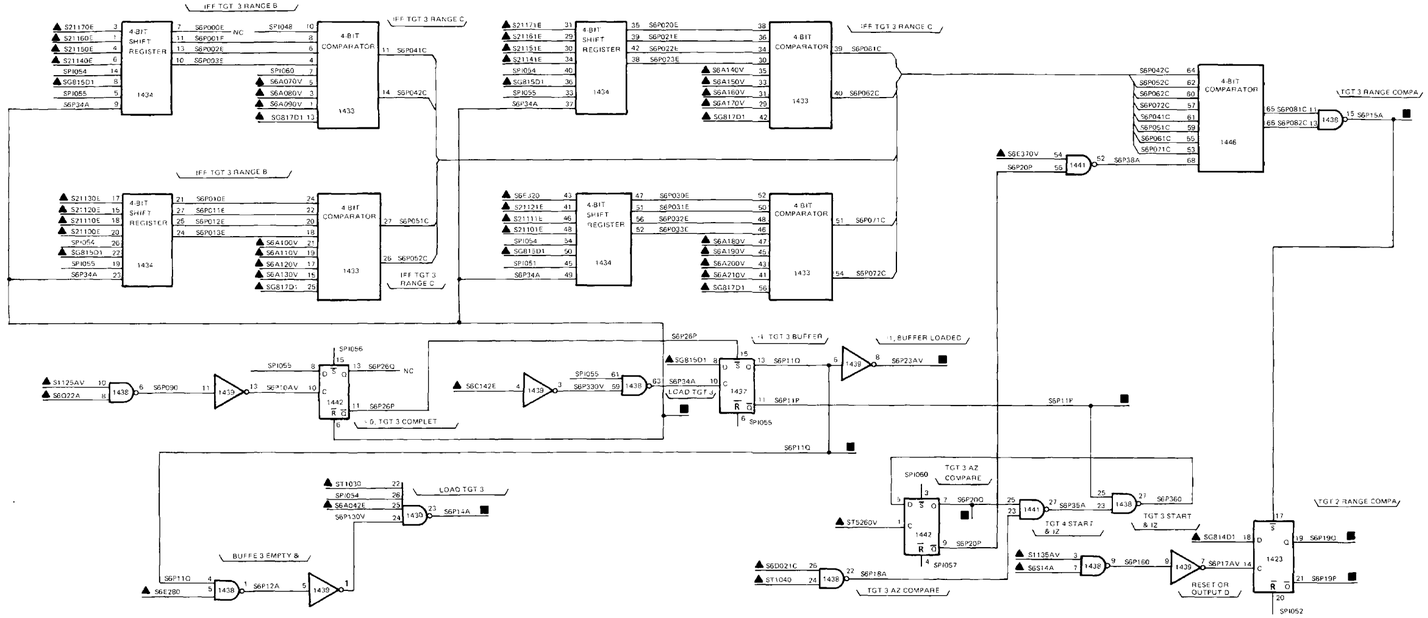
1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.
3. REFERENCES ARE AS FOLLOWS:

▲	INDICATES INPUT FROM ANOTHER FIGURE
△	INDICATES INPUT FROM THE SAME FIGURE
■	INDICATES OUTPUT TO ANOTHER FIGURE
□	INDICATES OUTPUT TO THE SAME FIGURE
◪	INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
    - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
    - B. REFER TO TABLE 5-41 FOR CARD PART NUMBER
    - C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS
11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

MS200898

INPUT		INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
SGB14D1	22702	S6A190V	22900	S6P11P	24200
SGB15D1	22702	S6A200V	22900	S6P11Q	24500
SGB17D1	22702	S6A210V	22900	S6P14A	23001
ST1030	22701	S6C142E	23001	S6P15A	24400, 26002
ST1040	22701	S6D021C	23002	S6P19P	24200
ST5260V	21202	S6E280	23100	S6P19Q	24300, 24400
S1125AV	25200	S6E320	23100	S6P20Q	26002
S1135AV	25200	S6E370V	23100	S6P23AV	24500
S21100E	20901	S6G22A	24200	S6P34A	24200
S21101E	20901	S6S14A	24400		
S21110E	20901				
S21111E	20901				
S21120E	20901				
S21121E	20901				
S21130E	20901				
S21140E	20901				
S21141E	20901				
S21150E	20901				
S21151E	20901				
S21160E	20901				
S21161E	20901				
S21170E	20901				
S21171E	20901				
S6A042E	22900				
S6A070V	22900				
S6A080V	22900				
S6A090V	22900				
S6A100V	22900				
S6A110V	22900				
S6A120V	22900				
S6A130V	22900				
S6A140V	22900				
S6A150V	22900				
S6A160V	22900				
S6A170V	22900				
S6A180V	22900				



NOTES: UNLESS OTHERWISE SPECIFIED

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.

2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.

3. REFERENCES ARE AS FOLLOWS:

▲ INDICATES INPUT FROM ANOTHER FIGURE
△ INDICATES INPUT FROM THE SAME FIGURE
■ INDICATES OUTPUT TO ANOTHER FIGURE
□ INDICATES OUTPUT TO THE SAME FIGURE
◪ INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.

5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.

6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.

7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.

8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.

9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.

10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:

A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.

B. REFER TO TABLE 5-41 FOR CARD PART NUMBER

C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS

11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

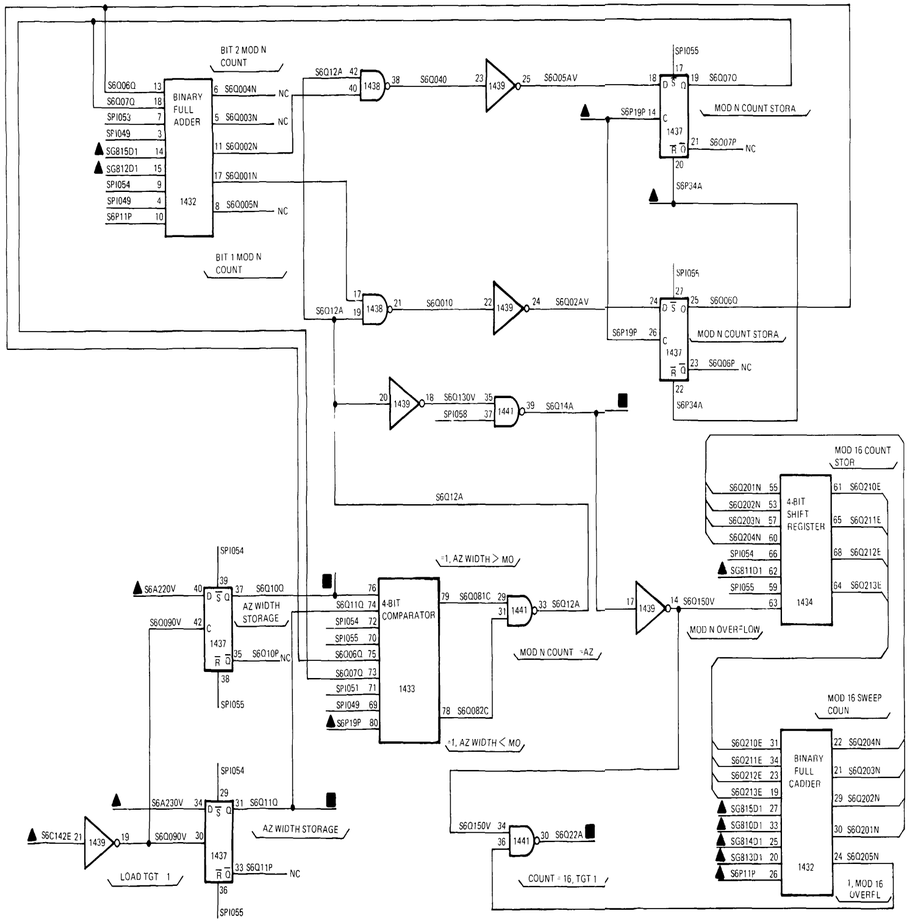
MS200899A

FO-241. VSU IFF Simulation Range Compare Target 3 Logic Diagram.

Change 2

INPUT	
SIGNAL	SOURCE FO-SH
S6B10D1	22702
S6B11D1	22702
S6B12D1	22702
S6B13D1	22702
S6B14D1	22702
S6B15D1	22702
S6A220V	23200
S6A230V	23200
S6C142E	23001
S6P11P	24100
S6P19P	24100
S6P34A	24100

OUTPUT	
SIGNAL	DESTINATION FO-SH
S6Q10Q	25901
S6Q11Q	25901
S6Q14A	24500
S6Q22A	24100, 24700



FO-242. VSU IFF Simulation Mod N and Mod 16 Sweep Counter Target 3 Logic Diagram.

NOTES: UNLESS OTHERWISE SPECIFIED

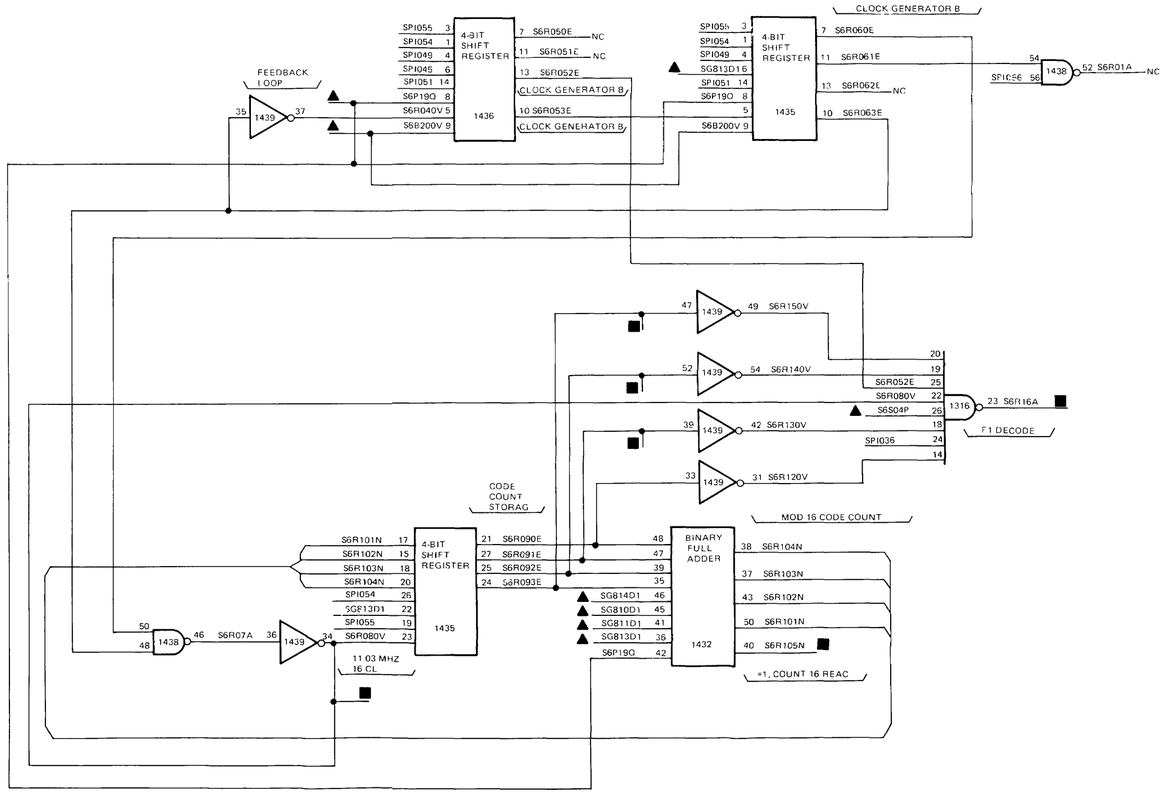
1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.
3. REFERENCES ARE AS FOLLOWS:

▲	INDICATES INPUT FROM ANOTHER FIGURE
△	INDICATES INPUT FROM THE SAME FIGURE
■	INDICATES OUTPUT TO ANOTHER FIGURE
□	INDICATES OUTPUT TO THE SAME FIGURE
◪	INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
    - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
    - B. REFER TO TABLE 5-41 FOR CARD PART NUMBER
    - C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS
11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

MS200900

INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
SG810D1	22702	S6R080V	24400
SG811D1	22702	S6R091E	24400
SG813D1	22702	S6R092E	24400
SG814D1	22702	S6R093E	24400
S6B200V	22900	S6R105N	24400
S6P19Q	24100	S6R16A	25905
S6S04P	24400		



FO-243. VSU IFF Simulation MOD 16 Code Bit Counter Target 3 Logic Diagram

NOTES: UNLESS OTHERWISE SPECIFIED

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.
3. REFERENCES ARE AS FOLLOWS:

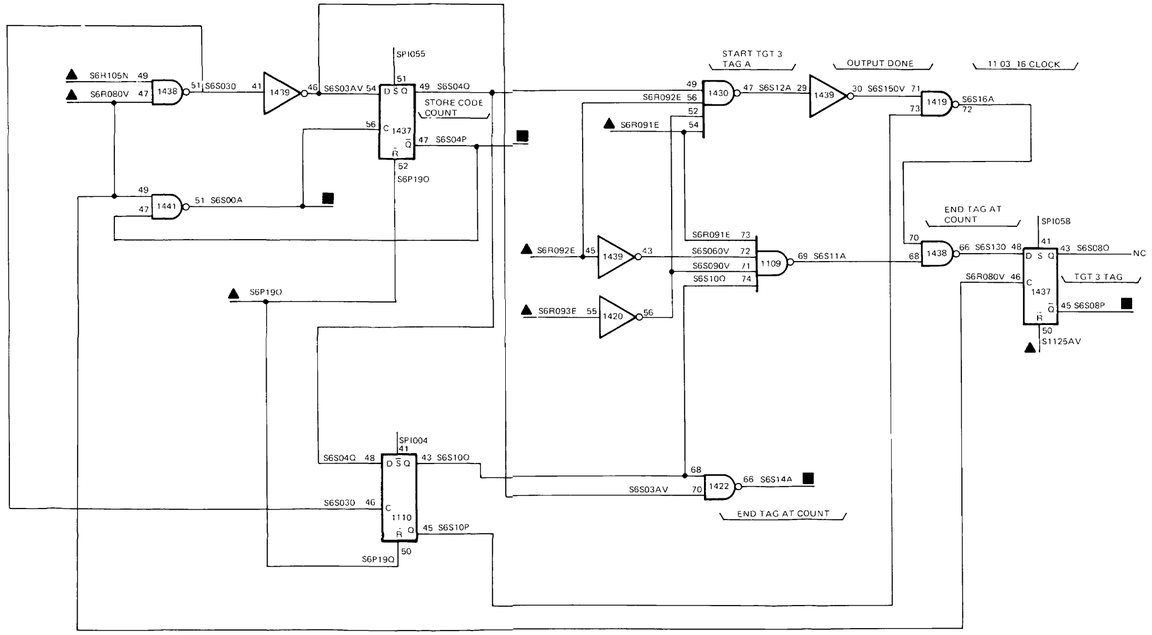
▲	INDICATES INPUT FROM ANOTHER FIGURE
△	INDICATES INPUT FROM THE SAME FIGURE
■	INDICATES OUTPUT TO ANOTHER FIGURE
□	INDICATES OUTPUT TO THE SAME FIGURE
◪	INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
    - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
    - B. REFER TO TABLE 5-41 FOR CARD PART NUMBER
    - C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS
11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

MS200901

INPUT	
SIGNAL	SOURCE FO-SH
S1125AV	25200
S6P190	24100
S6R080V	24300
S6R091E	24300
S6R092E	24300
S6R093E	24300
S6R105N	24300

OUTPUT	
SIGNAL	DESTINATION FO-SH
S6S00A	24500, 25905
S6S04P	24300
S6S08P	24900
S6S14A	24100



FO-244. VSU IFF Simulation IFF Tag Generation Target 3 Logic Diagram

NOTES: UNLESS OTHERWISE SPECIFIED

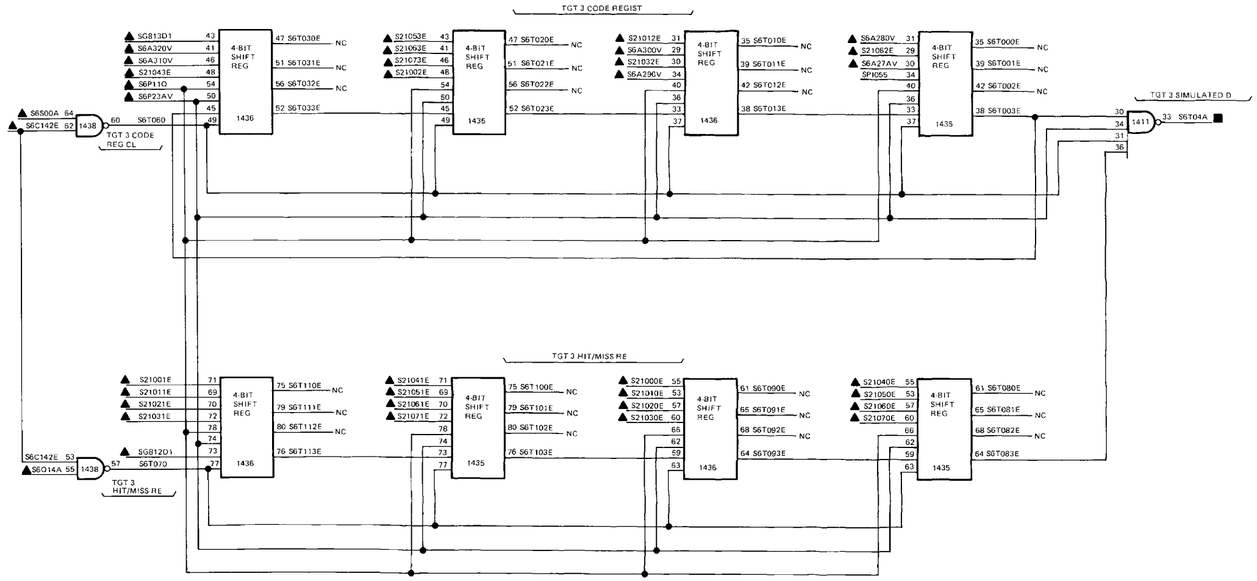
1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.
3. REFERENCES ARE AS FOLLOWS:

   ▲ INDICATES INPUT FROM ANOTHER FIGURE
   △ INDICATES INPUT FROM THE SAME FIGURE
   □ INDICATES OUTPUT TO ANOTHER FIGURE
   ◪ INDICATES OUTPUT TO THE SAME FIGURE
   INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
    - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
    - B. REFER TO TABLE 5-41 FOR CARD PART NUMBER
    - C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS
11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

MS200902

INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
SG812D1	22702	S6T04A	25905
SG813D1	22702		
S21000E	20901		
S21001E	20901		
S21002E	20901		
S21010E	20901		
S21011E	20901		
S21012E	20901		
S21020E	20901		
S21021E	20901		
S21030E	20901		
S21031E	20901		
S21032E	20901		
S21040E	20901		
S21041E	20901		
S21043E	20901		
S21050E	20901		
S21051E	20901		
S21053E	20901		
S21060E	20901		
S21061E	20901		
S21062E	20901		
S21063E	20901		
S21070E	20901		
S21071E	20901		
S21073E	20901		
S6A27AV	23500		
S6A280V	23500		
S6A290V	23500		
S6A300V	23500		
S6A310V	23500		
S6A320V	23500		
S6C142E	23001		
S6P11Q	24100		
S6P23AV	24100		
S6Q14A	24200		
S6S00A	24400		



FO-245. VSU IFF Simulation IFF Code Data and Hit/Miss Pattern Bits Target 3 Logic Diagram

NOTES: UNLESS OTHERWISE SPECIFIED

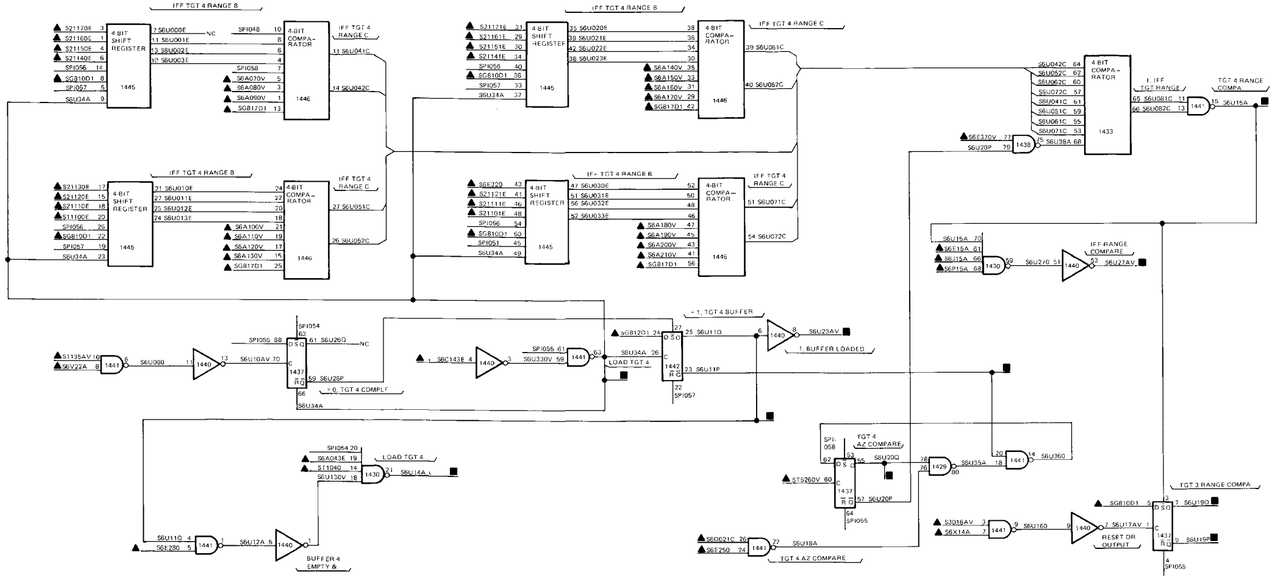
1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.
3. REFERENCES ARE AS FOLLOWS:

▲	INDICATES INPUT FROM ANOTHER FIGURE
△	INDICATES INPUT FROM THE SAME FIGURE
■	INDICATES OUTPUT TO ANOTHER FIGURE
□	INDICATES OUTPUT TO THE SAME FIGURE
◪	INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
    - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
    - B. REFER TO TABLE 5-41 FOR CARD PART NUMBER
    - C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS
11. SPIT INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

MS200903

INPUT SIGNAL	INPUT SOURCE FO-Sh	INPUT SIGNAL	INPUT SOURCE FO-Sh	OUTPUT SIGNAL	OUTPUT DESTINATION FO-Sh
SGB10D1	22702	S6P15A	24100	S6U11P	24700
SGB12D1	22702	S6V22A	24700	S6U11Q	25000
SGB17D1	22702	S6X14A	24900	S6U13A	23001
ST1040	22701			S6U15A	26002
ST5260V	21202			S6U19P	24700
S1135AV	25200			S6U19Q	24800, 24900
S21100E	20901			S6U20Q	26002
S21101E	20901			S6U23AV	25000
S21110E	20901			S6U27AV	26002
S21111E	20901			S6U34A	24700
S2112DE	20901				
S21121E	20901				
S2113DE	20901				
S2114DE	20901				
S21141E	20901				
S2115DE	20901				
S21151E	20901				
S21160E	20901				
S21161E	20901				
S21170E	20901				
S21171E	20901				
S3016AV	20903				
S6A043E	22900				
S6A070V	22900				
S6A080V	22900				
S6A090V	22900				
S6A100V	22900				
S6A110V	22900				
S6A120V	22900				
S6A130V	22900				
S6A140V	22900				
S6A150V	22900				
S6A160V	22900				
S6A170V	22900				
S6A180V	22900				
S6A190V	22900				
S6A200V	22900				
S6A210V	22900				
S6C143E	23001				
S6D021C	23002				
S6E15A	23100				
S6E25D	23100				
S6E28D	23100				
S6E32D	23100				
S6E37DV	23100				
S6J15A	23600				



FO-246. VSU IFF Simulation Range Compare Target 4 Logic Diagram

NOTES: UNLESS OTHERWISE SPECIFIED

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.

2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.

3. REFERENCES ARE AS FOLLOWS:

▲	INDICATES INPUT FROM ANOTHER FIGURE
△	INDICATES INPUT FROM THE SAME FIGURE
■	INDICATES OUTPUT TO ANOTHER FIGURE
□	INDICATES OUTPUT TO THE SAME FIGURE
◪	INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.

5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.

6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.

7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.

8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.

9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.

10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:

    A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.

    B. REFER TO TABLE 5-41 FOR CARD PART NUMBER

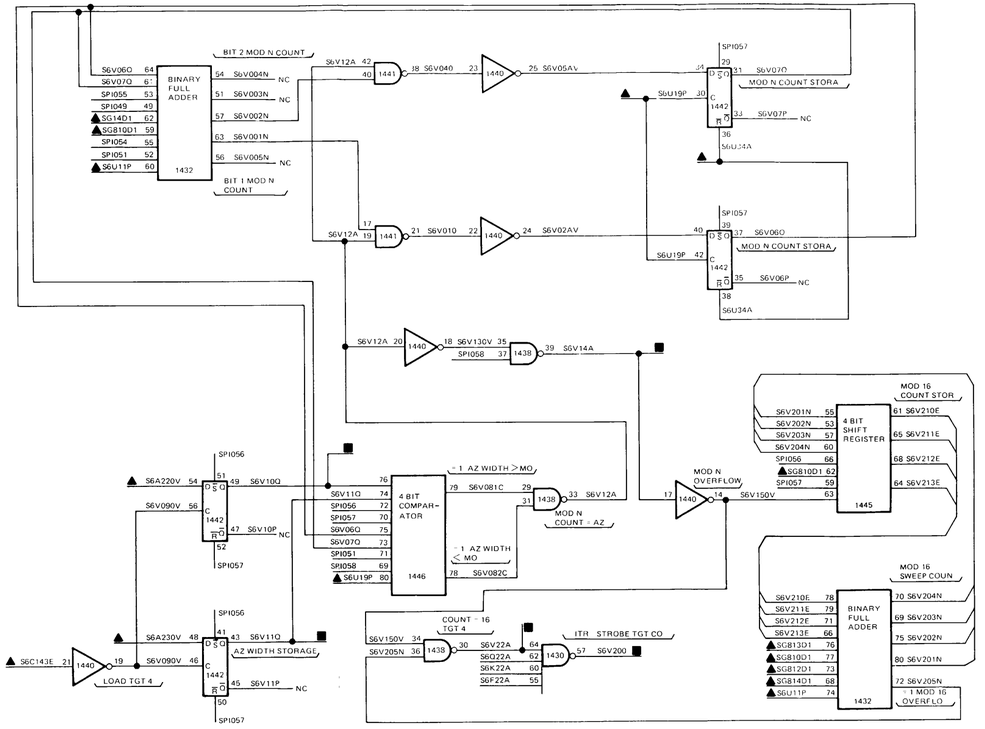
    C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS

11. SPIIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

MS200904

INPUT	
SIGNAL	SOURCE FO-SH
SG810D1	22702
SG812D1	22702
SG813D1	22702
SG814D1	22702
S6A220V	23200
S6A230V	23200
S6C143E	23001
S6F22A	23200
S6K22A	23700
S6Q22A	24200
S6U11P	24600
S6U19P	24600
S6U34A	24600

OUTPUT	
SIGNAL	DESTINATION FO-SH
S6V10Q	25904
S6V11Q	25904
S6V14A	25000
S6V200	26002
S6V22A	24600



NOTES: UNLESS OTHERWISE SPECIFIED

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.
3. REFERENCES ARE AS FOLLOWS:

   ▲ INDICATES INPUT FROM ANOTHER FIGURE
   △ INDICATES INPUT FROM THE SAME FIGURE
   ■ INDICATES OUTPUT TO ANOTHER FIGURE
   □ INDICATES OUTPUT TO THE SAME FIGURE
   ◪ INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
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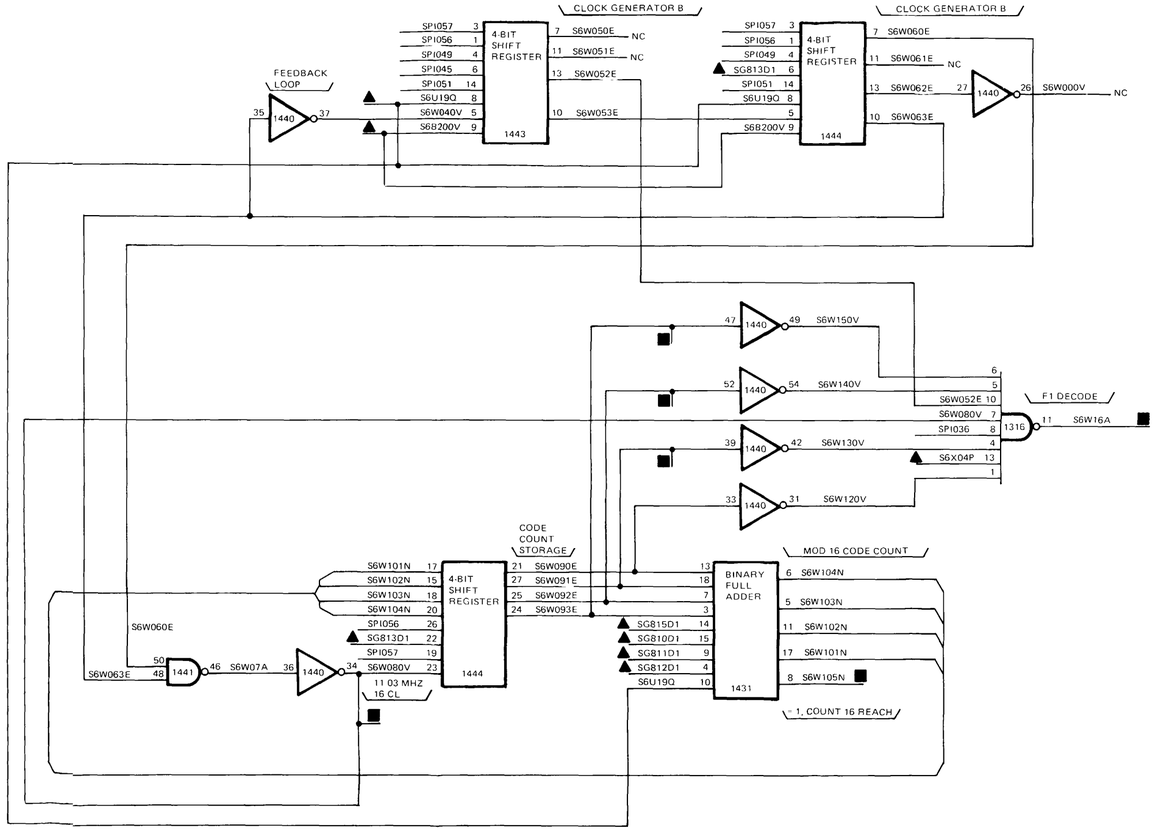
    - B. REFER TO TABLE 5-41 FOR CARD PART NUMBER
    - C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS
11. SPIT INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

MS200904

FO-247. VSU IFF Simulation Mod N and Mod 16 Sweep Counter Target 4 Logic Diagram

INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
SG810D1	22702	S6W080V	24900
SG811D1	22702	S6W091E	24900
SG812D1	22702	S6W092E	24900
SG813D1	22702	S6W093E	24900
SG815D1	22702	S6W105N	24900
S6B200V	22900	S6W16A	25905
S6U19Q	24600		
S6X04P	24900		



NOTES: UNLESS OTHERWISE SPECIFIED

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.
3. REFERENCES ARE AS FOLLOWS:

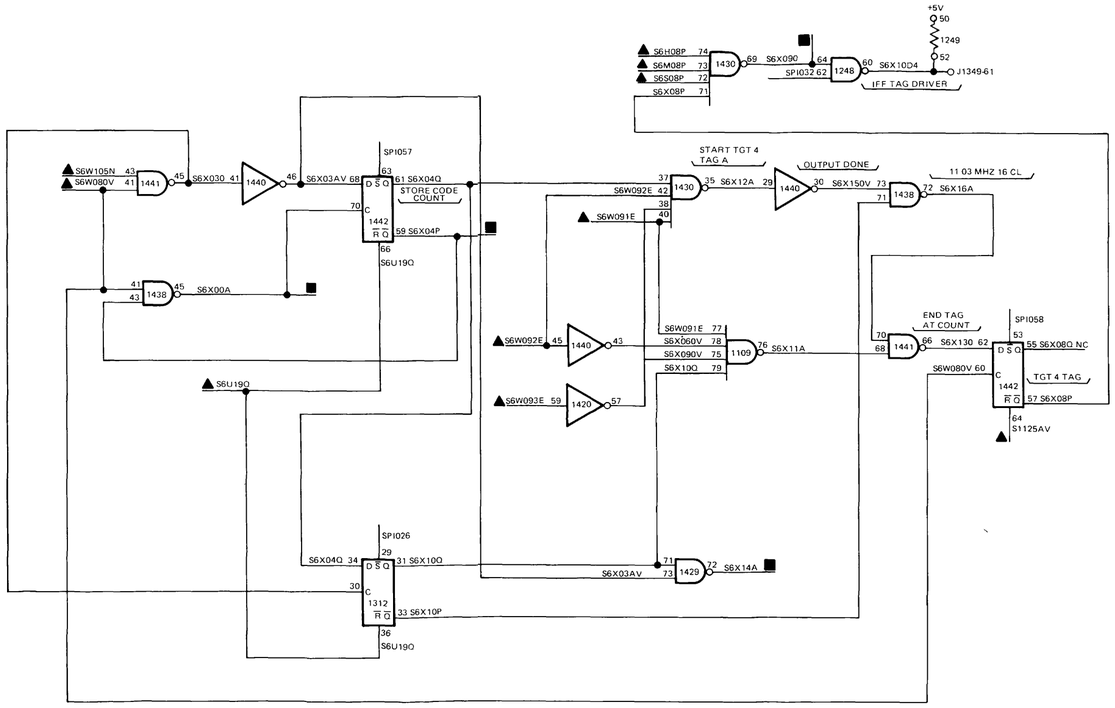
▲	INDICATES INPUT FROM ANOTHER FIGURE
△	INDICATES INPUT FROM THE SAME FIGURE
■	INDICATES OUTPUT TO ANOTHER FIGURE
□	INDICATES OUTPUT TO THE SAME FIGURE
◪	INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
    - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
    - B. REFER TO TABLE 5-41 FOR CARD PART NUMBER
    - C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS
11. SPIT INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

MS200906

FO-248. VSU IFF Simulation MOD 16 Code Bit Counter Target 4 Logic Diagram

INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
S1125AV	25200	S6X00A	25000, 25905
S6H08P	23400	S6X04P	24800
S6M08P	23900	S6X090	26002
S6S08P	24400	S6X14A	24600
S6U19Q	24600		
S6W080V	24800		
S6W091E	24800		
S6W092E	24800		
S6W093E	24800		
S6W105N	24800		



FO-249. VSU IFF Simulation IFF Tag Generation Target 4 Logic Diagram

NOTES: UNLESS OTHERWISE SPECIFIED

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.
3. REFERENCES ARE AS FOLLOWS:

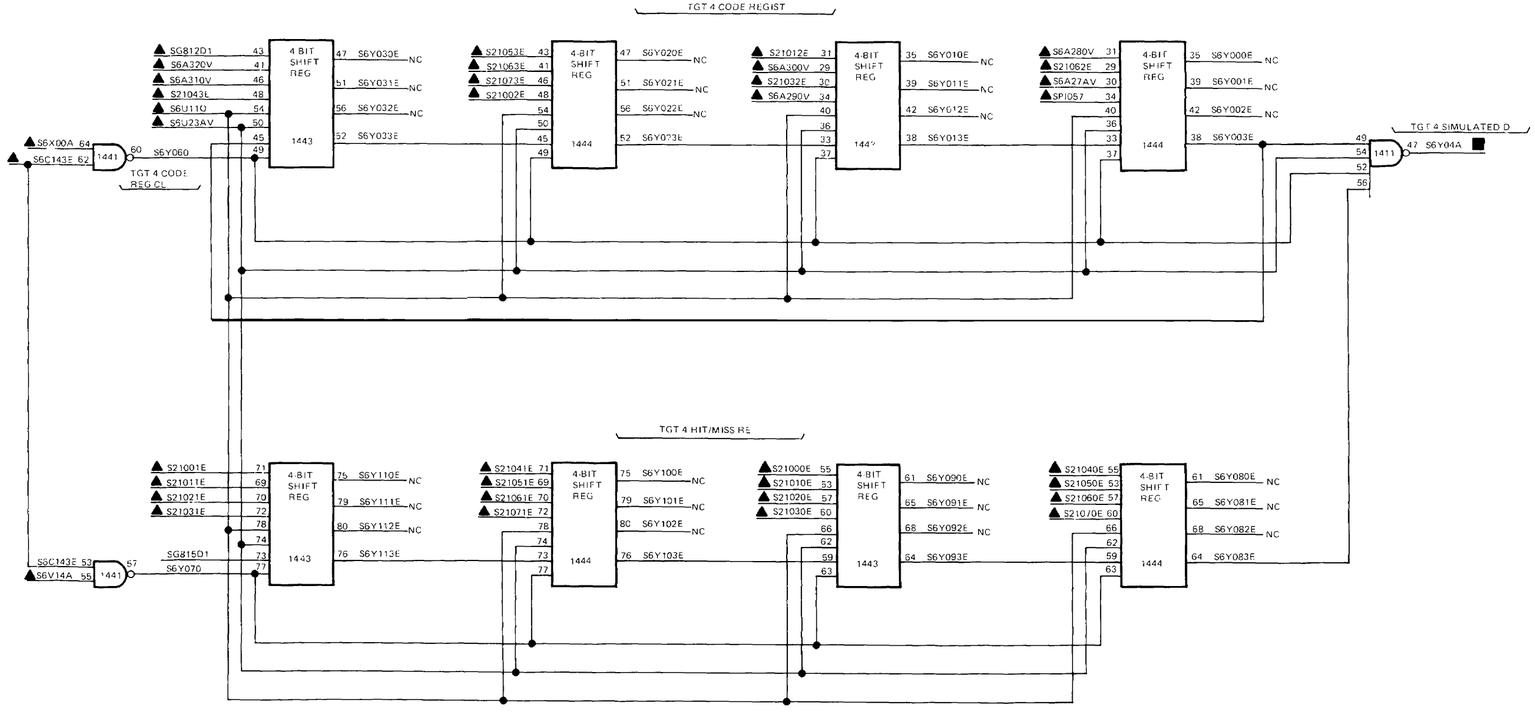
▲	INDICATES INPUT FROM ANOTHER FIGURE
△	INDICATES INPUT FROM THE SAME FIGURE
■	INDICATES OUTPUT TO ANOTHER FIGURE
□	INDICATES OUTPUT TO THE SAME FIGURE
◪	INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
    - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
    - B. REFER TO TABLE 5-41 FOR CARD PART NUMBER
    - C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS
11. SPIT INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

MS200907

INPUT SIGNAL	SOURCE FO-SH
SG812D1	22702
S21000E	20901
S21001E	20901
S21002E	20901
S21010E	20901
S21011E	20901
S21012E	20901
S21020E	20901
S21021E	20901
S21030E	20901
S21031E	20901
S21032E	20901
S21040E	20901
S21041E	20901
S21043E	20901
S21050E	20901
S21051E	20901
S21053E	20901
S21060E	20901
S21061E	20901
S21062E	20901
S21063E	20901
S21070E	20901
S21071E	20901
S21073E	20901
S6A27AV	23500
S6A280V	23500
S6A290V	23500
S6A300V	23500
S6A310V	23500
S6A320V	23500
S6C143E	23001
S6U11Q	24600
S6U23AV	24600
S6V14A	24700
S6X00A	24900

OUTPUT SIGNAL	DESTINATION FO-SH
S6Y04A	25905



FO-250. VSU IFF Simulation IFF Code Data and HIT/MISS Pattern Bits Target 4 Logic Diagram.

NOTES: UNLESS OTHERWISE SPECIFIED

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.
3. REFERENCES ARE AS FOLLOWS:

   ▲ INDICATES INPUT FROM ANOTHER FIGURE
   △ INDICATES INPUT FROM THE SAME FIGURE
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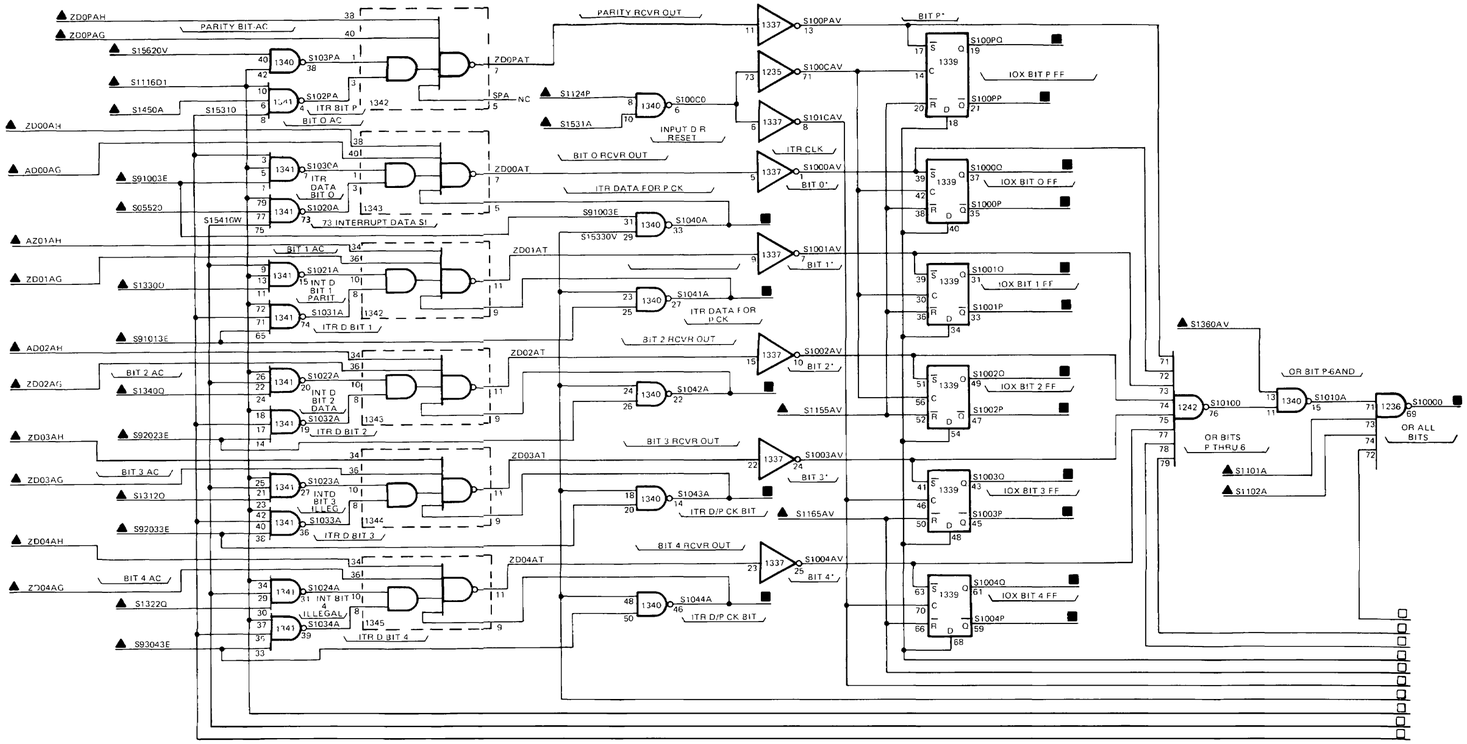
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
    A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
    B. REFER TO TABLE 5-41 FOR CARD PART NUMBER
    C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS
11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

MS200908

INPUT SIGNAL	INPUT SOURCE FO-SH
S05520	20801
S1101A	25200
S1102A	25200
S1116D1	25200
S1124P	25200
S1155AV	25600
S1165AV	25600
S1312Q	25400
S1322Q	25400
S1330Q	25400
S1340Q	25400
S1360AV	25400
S1450A	25500
S1531A	25600
S15310	25600
S15330V	25600
S15410V	25600
S15620V	25600
S91003E	25901
S91013E	25901
S92023E	25902
S92033E	25902
S93043E	25902
S93053E	25903
S94063E	25904
S94073E	25904
ZD0PAG	26802
ZD0PAH	26802
ZD00AG	26802
ZD00AH	26802
ZD01AG	26802
ZD01AH	26802
ZD02AG	26802
ZD02AH	26802
ZD03AG	26802
ZD03AH	26802
ZD04AG	26802
ZD04AH	26802
ZD05AG	26802
ZD05AH	26802
ZD06AG	26802
ZD06AH	26802
ZD07AG	26802
ZD07AH	26802

OUTPUT SIGNAL	OUTPUT DESTINATION FO-SH
S100PP	25500
S100PQ	25500, 25904
S1000P	25500
S1000Q	20901, 22900, 25400, 25500, 25700, 25901, 26002
S10000	25200, 25700
S1001P	25500, 26002
S1001Q	20901, 22900, 25500, 25700, 25800, 25901
S1002P	25500
S1002Q	20901, 22900, 25500, 25700, 25800, 25902
S1003P	25500
S1003Q	20901, 22900, 25300, 25500, 25700, 25902
S1004P	25500, 26002
S1004Q	20901, 22900, 25500, 25700, 25903
S1005P	25500, 25700, 25800
S1005Q	20901, 22900, 25400, 25500, 25700, 25800
S1006P	22900, 25300, 25500, 25700, 25904
S1006Q	20901, 25400, 25500, 25700, 25904
S1007P	25300, 25400, 25500, 25700
S1007Q	20901, 22900, 25500, 25700, 25800, 25904
S1040A	25901
S1041A	25901
S1042A	25901
S1043A	25901
S1044A	25902
S1045A	25902
S1046A	25902
S1047A	25902



FO-251. VSU IOX Interface Data Receive Logic Diagram (Sheet 1 of 2).

NOTES: UNLESS OTHERWISE SPECIFIED

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.
3. REFERENCES ARE AS FOLLOWS:

   ▲ INDICATES INPUT FROM ANOTHER FIGURE
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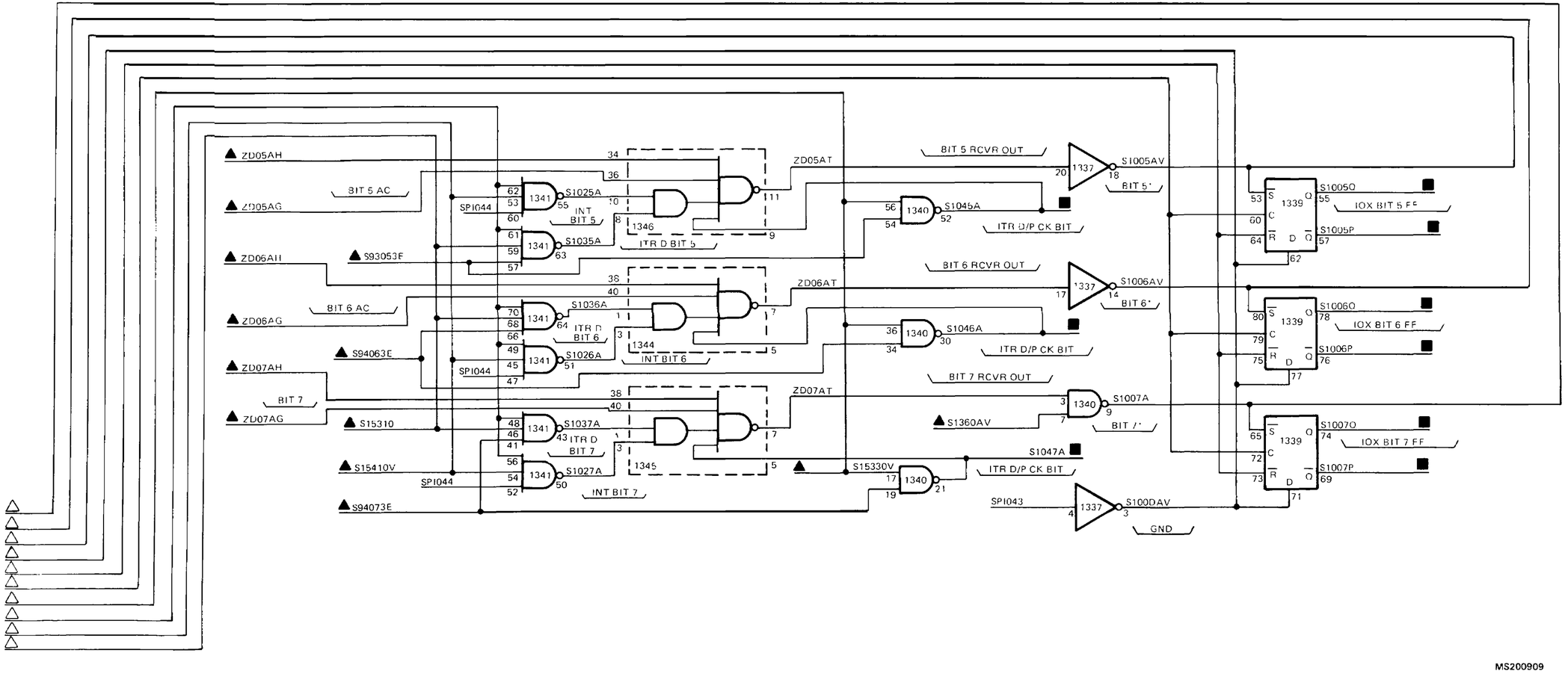
4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
    A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
    B. REFER TO TABLE 5-41 FOR CARD PART NUMBER
    C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS
11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

MS200909A



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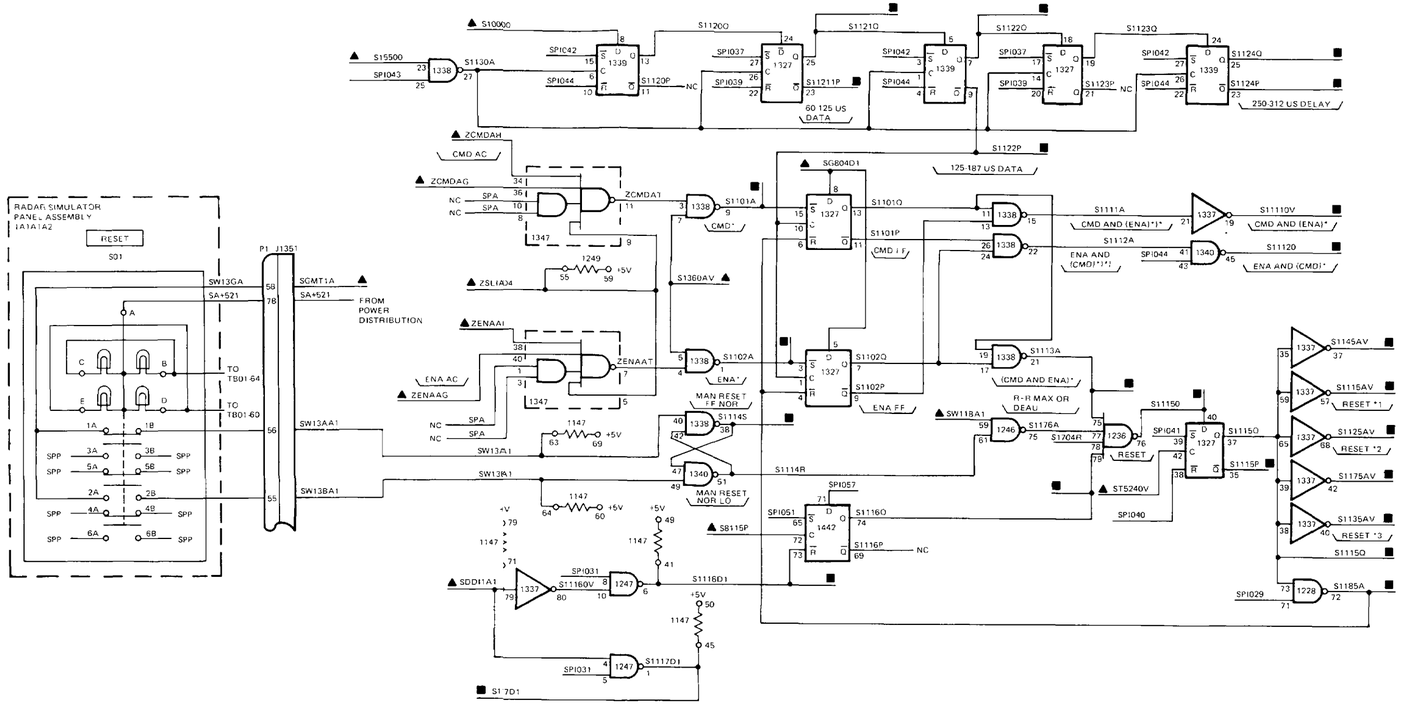
FO-251. VSU IOX Interface Data Receive Logic Diagram (Sheet 2 of 2).

INPUT SIGNAL	SOURCE FO-SH
SA+521	26802
SG804D1	22702
ST5240V	22701
SW11BA1	26700
S10000	25100
S1360AV	25400
S15500	25600
S1704R	25800
S8115P	22200
ZCMDAG	26802
ZCMDAH	26802
ZENAAG	26802
ZENAAH	26802
ZSLIA04	26802

OUTPUT SIGNAL	DESTINATION FO-SH
S1101A	25100, 25500
S1102A	25100, 25500
S1111QV	25300
S11120	25300
S1113A	25800
S1114S	20702, 25800
S1115AV	23100, 23600, 25300, 25400
S1115P	21302
S1115Q	20903, 25800
S1115O	20701
S1116D1	20902, 21409, 22200, 25100, 25400, 25600, 25800, 25905
S11160	25700
S1117D1	26802
S11210	25300
S1122P	25300, 25600, 25700
S1122Q	25300, 25400, 25700
S1124P	20901, 25100
S1124Q	25300
S1125AV	20702, 23400, 23600, 23900, 24100, 24400, 24900, 25600
S1135AV	20903, 21302, 22400, 22701, 22900, 24100, 24600
S1145AV	20701, 20801, 20802, 25400, 26001
S1175AV	21600, 25400
S1185A	20901



FO-252. VSU IOX Interface Data Receive Control Logic Diagram).

NOTES: UNLESS OTHERWISE SPECIFIED

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.
3. REFERENCES ARE AS FOLLOWS:

   ▲ INDICATES INPUT FROM ANOTHER FIGURE
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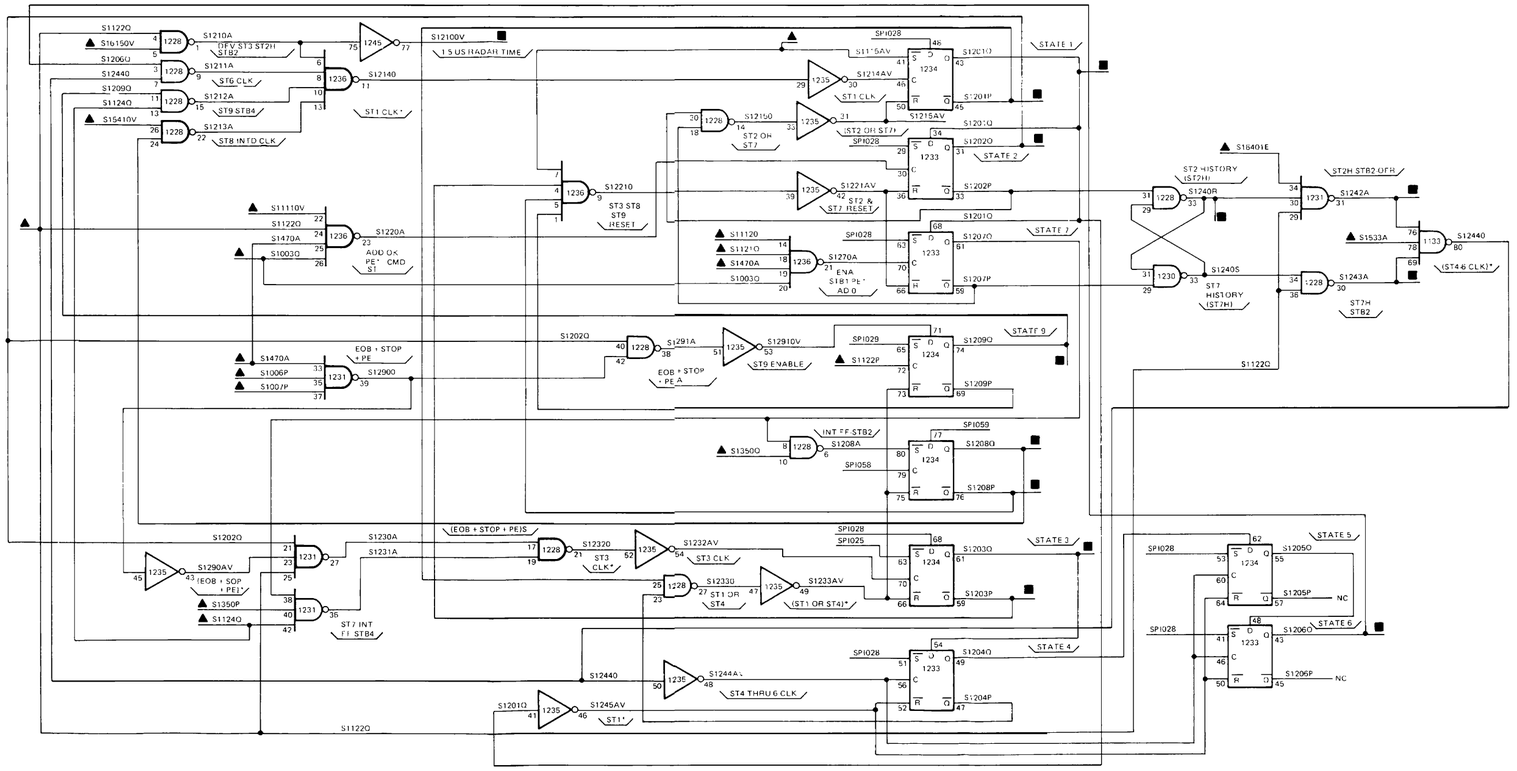
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
    A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
    B. REFER TO TABLE 5-41 FOR CARD PART NUMBER
    C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS
11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

MS200910A

INPUT SIGNAL	INPUT SOURCE FO-SH
S1003Q	25100
S1006P	25100
S1007P	25100
S11110V	25200
S11120	25200
S1115AV	25200
S1121Q	25200
S1122P	25200
S1122Q	25200
S1124Q	25200
S1350P	25400
S1350Q	25400
S1470A	25500
S1533A	25600
S15410V	25600
S16150V	25700
S16401E	25700

OUTPUT SIGNAL	OUTPUT DESTINATION FO-SH
S1201P	25400, 25600
S1201Q	25500, 25600
S1202Q	25700
S1203P	25400
S1203Q	25600, 25700
S1206Q	20903, 25600
S1208P	25600
S1208Q	25600
S1209Q	25400, 25800
S12100V	25400, 25800
S1240R	25600, 25700
S1242A	20903, 26002
S1243A	20903, 26002



FO-253. VSU IOX Interface State Counter Logic Diagram.

NOTES: UNLESS OTHERWISE SPECIFIED

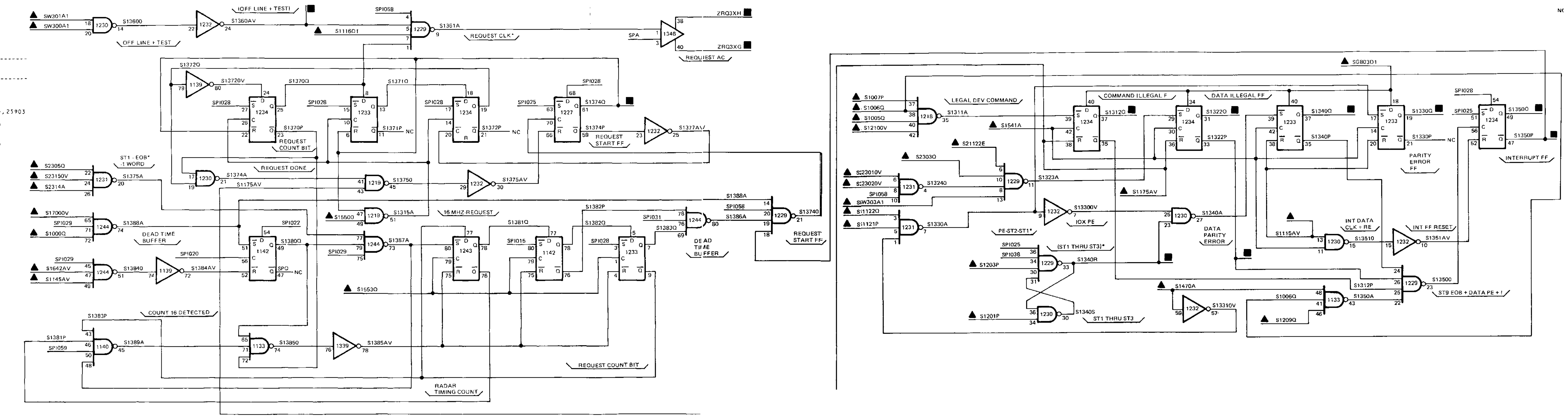
1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.
3. REFERENCES ARE AS FOLLOWS:

   ▲ INDICATES INPUT FROM ANOTHER FIGURE
   △ INDICATES INPUT FROM THE SAME FIGURE
   ■ INDICATES OUTPUT TO ANOTHER FIGURE
   □ INDICATES OUTPUT TO THE SAME FIGURE
   ◪ INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
    A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
    B. REFER TO TABLE 5-41 FOR CARD PART NUMBER
    C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS
11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

MS200911

INPUT SIGNAL	SOURCE FO-SH	OUTPUT SIGNAL	DESTINATION FO-SH
SG803D1	22702	S1312Q	25100
SW300A1	26700	S1322P	20903
SW301A1	26700	S1322Q	25100
SW303A1	26700	S1330Q	25100,25800,25903
S1000Q	25100	S1340Q	25100
S1005Q	25100	S1340R	20901,25600
S1006Q	25100	S1350P	25300
S1007P	25100	S1350Q	25300,25903
S1115AV	25200	S1360AV	25100,25200
S1116D1	25200	S1374Q	25903
S1121P	25200	ZRQ3XG	26802
S1122Q	25200	ZRQ3XH	26802
S1145AV	25200		
S1175AV	25200		
S1201P	25300		
S1203P	25300		
S1209Q	25300		
S12100V	25300		
S1470A	25500		
S1541A	25600		
S1550Q	25600		
S1553Q	25600		
S1642AV	25700		
S17000V	25800		
S21122E	20901		
S23010V	20902		
S23020V	20902		
S2303Q	20903		
S2305Q	20903		
S2314A	20903		
S23150V	20903		



NOTES: UNLESS OTHERWISE SPECIFIED

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOI COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNI NUMBER AND ASSEMBLY DESIGNATION.

ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED II EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.

3. REFERENCES ARE AS FOLLOWS:

- INDICATES INPUT FROM ANOTHER FIGURE
- INDICATES INPUT FROM THE SAME FIGURE
- INDICATES OUTPUT TO ANOTHER FIGURE
- INDICATES OUTPUT TO THE SAME FIGURE
- INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAM INDEX.

5 REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.

6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNI SIGNAL CABLING.

7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER

8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTIOI DESIGNATIONS.

9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARI PIN NUMBERS.

10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THI FOLLOWING:

A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCU

B. REFER TO TABLE 5-41 FOR CARD PART NUMBER

C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TES

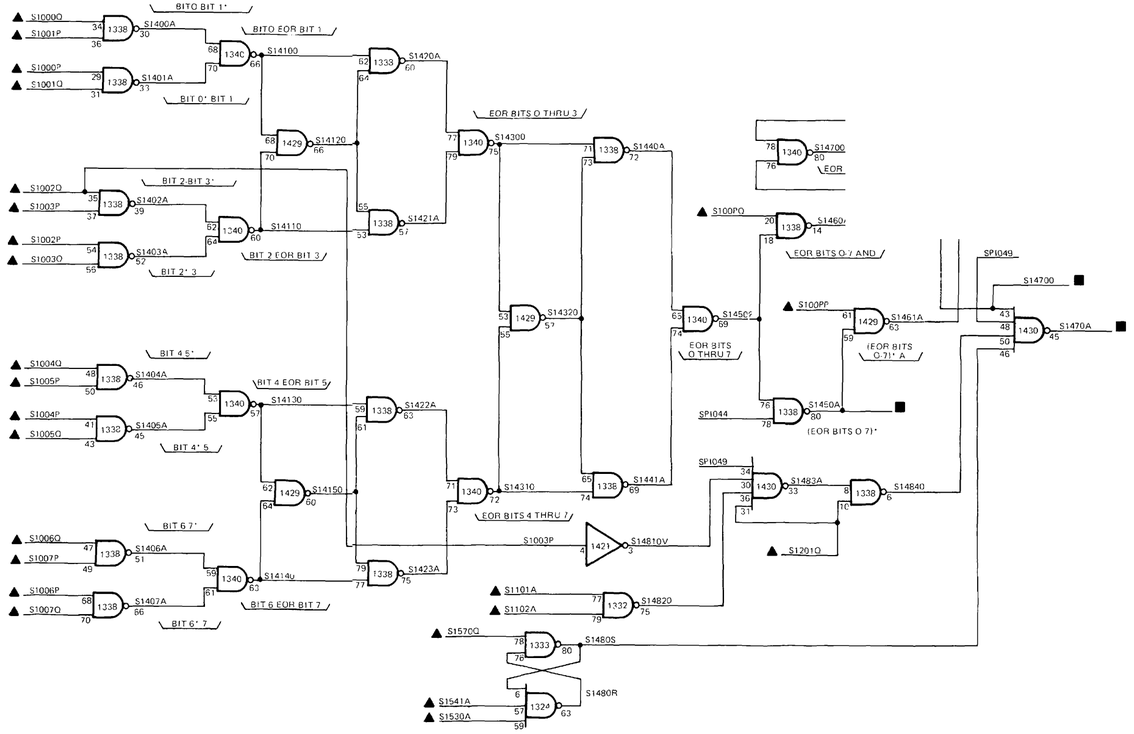
11. SPIT INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-113C A-1147, A-1249, AND A-1450.

MS20091

FO-254. VSU IOX Interface Data Request Control Logic Diagram

INPUT	
SIGNAL	SOURCE FO-SH
S1000P	25100
S1000Q	25100
S1000P	25100
S1000Q	25100
S1001P	25100
S1001Q	25100
S1002P	25100
S1002Q	25100
S1003P	25100
S1003Q	25100
S1004P	25100
S1004Q	25100
S1005P	25100
S1005Q	25100
S1006P	25100
S1006Q	25100
S1007P	25100
S1007Q	25100
S1101A	25200
S1102A	25200
S1201Q	25300
S1530A	25600
S1541A	25600
S1570Q	25600

OUTPUT	
SIGNAL	DESTINATION FO-SH
S1450A	25100
S1470A	25300, 25400
S14700	25904



FO-255. VSU IOX Interface Parity Generator Logic Diagram

NOTES: UNLESS OTHERWISE SPECIFIED

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.

2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.

3. REFERENCES ARE AS FOLLOWS:

▲	INDICATES INPUT FROM ANOTHER FIGURE
△	INDICATES INPUT FROM THE SAME FIGURE
■	INDICATES OUTPUT TO ANOTHER FIGURE
□	INDICATES OUTPUT TO THE SAME FIGURE
◪	INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.

5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.

6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.

7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.

8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.

9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.

10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:

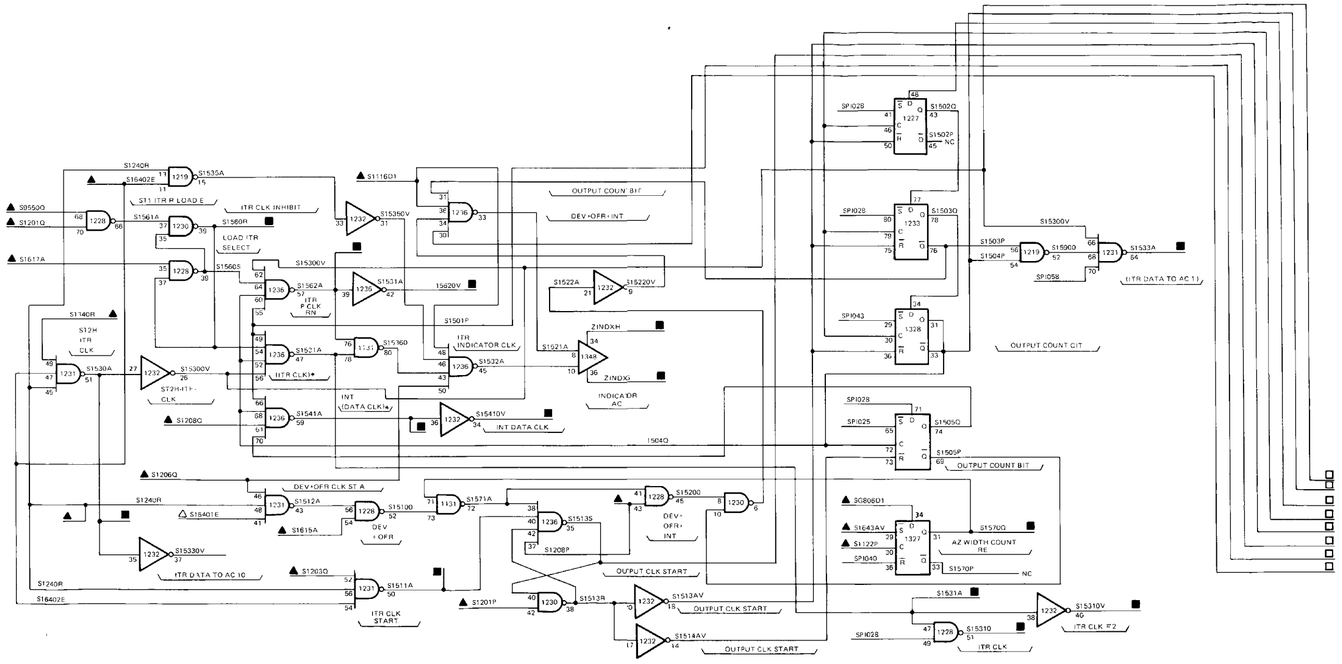
    A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.

    B. REFER TO TABLE 5-41 FOR CARD PART NUMBER

    C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS

11. SPIT INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

INPUT		OUTPUT	
SIGNAL	SOURCE FO-Sh	SIGNAL	DESTINATION FO-SH
S6806D1	22702	S1155AV	25100
S1116D1	25200	S1165AV	25100
S1122P	25200	S1511A	26001
S1125AV	25200	S1530A	25500
S1201P	25300	S1531A	25100, 25700
S1201Q	25300	S1531Q	25100
S1203Q	25300	S1531QV	26001
S1206Q	25300	S1533A	25300
S1208P	25300	S1533QV	25100
S1208Q	25300	S1541A	25400, 25500
S1240R	25300	S1541QV	25100, 25300
S1340R	25400	S1550Q	25200, 25400
S1615A	25700	S1553Q	25400
S1617A	25700	S1560R	25700
S16402E	25700	S1562A	26002
S1643AV	25700	S1562QV	25100
S9550Q	26001	S1570Q	25500
		ZINDXG	26802
		ZINDXH	26802



NOTES: UNLESS OTHERWISE SPECIFIED

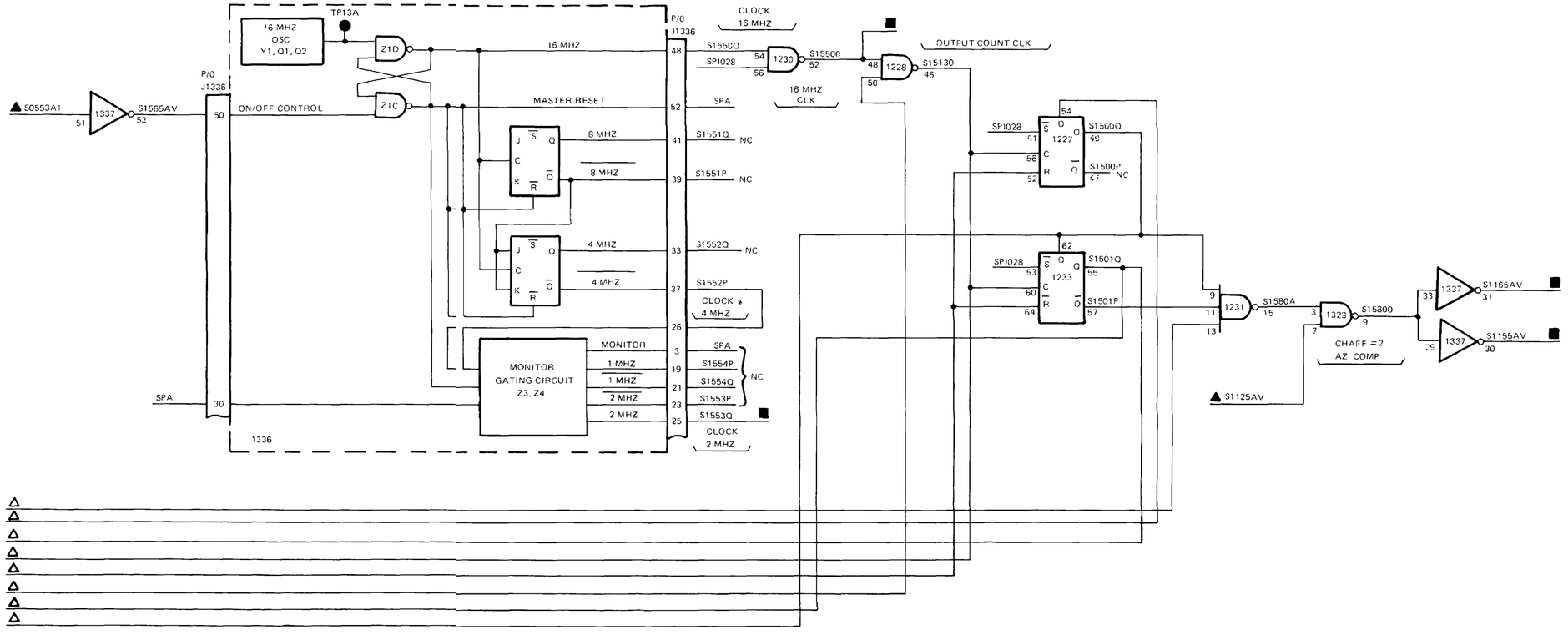
1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.
3. REFERENCES ARE AS FOLLOWS:

   ▲ INDICATES INPUT FROM ANOTHER FIGURE
   △ INDICATES INPUT FROM THE SAME FIGURE
   ■ INDICATES OUTPUT TO ANOTHER FIGURE
   □ INDICATES OUTPUT TO THE SAME FIGURE
   ◪ INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
    A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
    B. REFER TO TABLE 5-41 FOR CARD PART NUMBER
    C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS
11. SPIT INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

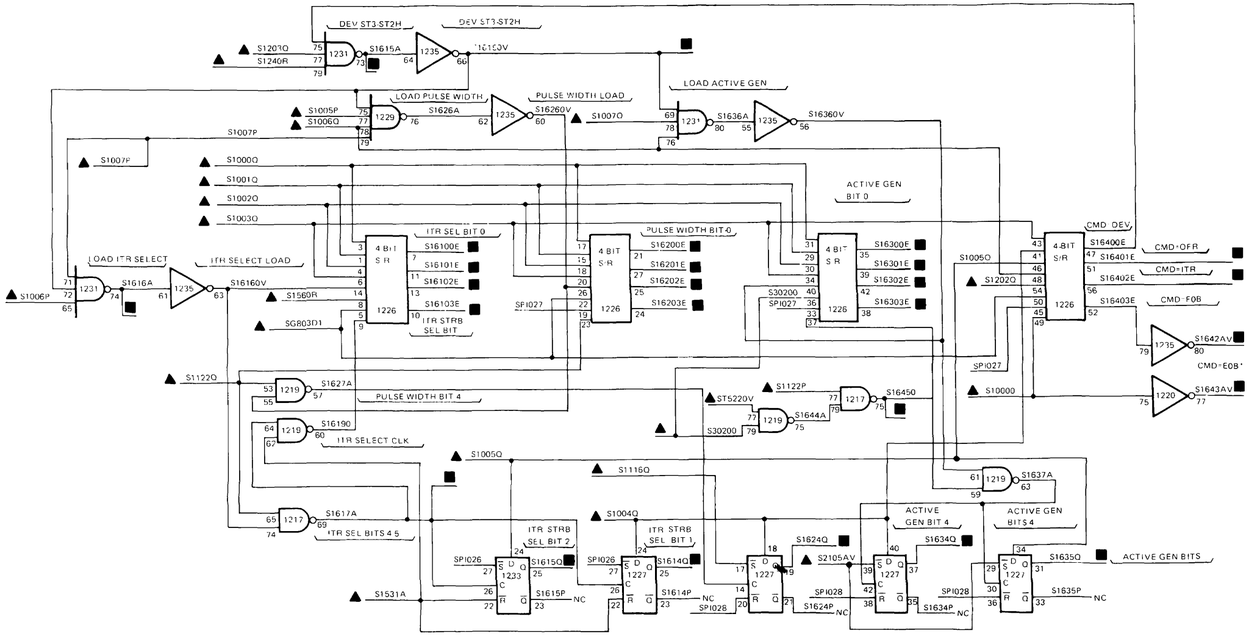
MS200914A

FO-256. VSU OIX Interface Clock Generation Logic Diagram (Sheet 1 of 2)



FO-256. VSU IOX Interface Clock Generation Logic Diagram (Sheet 2 of 2)

INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
SG803D1	22702	S16100E	25901
ST5220V	22701	S16101E	25901
S1000Q	25100	S16102E	25901
S1000O	25100	S16103E	26002
S1001Q	25100	S16140	26002
S1002Q	25100	S1615A	25600
S1003Q	25100	S1615Q	26002
S1004Q	25100	S16150V	22900, 25300
S1005P	25100	S1616A	26001
S1005Q	25100	S1617A	25600
S1006P	25100	S16200E	21503, 22400, 25901
S1006Q	25100	S16201E	21503, 22400, 25902
S1007P	25100	S16202E	21503, 22400, 25902
S1007Q	25100	S16203E	21503, 22400, 25903
S1116Q	25200	S16240	21503, 22400, 25903
S1122P	25200	S16300E	21000, 25902
S1122Q	25200	S16301E	21000, 25903
S1202Q	25300	S16302E	21000, 25903
S1203Q	25300	S16303E	21000, 25904
S1240R	25300	S16340	21600, 25904
S1531A	25600	S1635Q	21600, 25901
S1560R	25600	S16401E	25300
S2105AV	20901	S16402E	25600
S30200	20901	S1642AV	25400
		S1643AV	25600
		S1644A	23000



FO-257. VSU IOX Interface Command Storage Logic Diagram

Change 2

NOTES: UNLESS OTHERWISE SPECIFIED

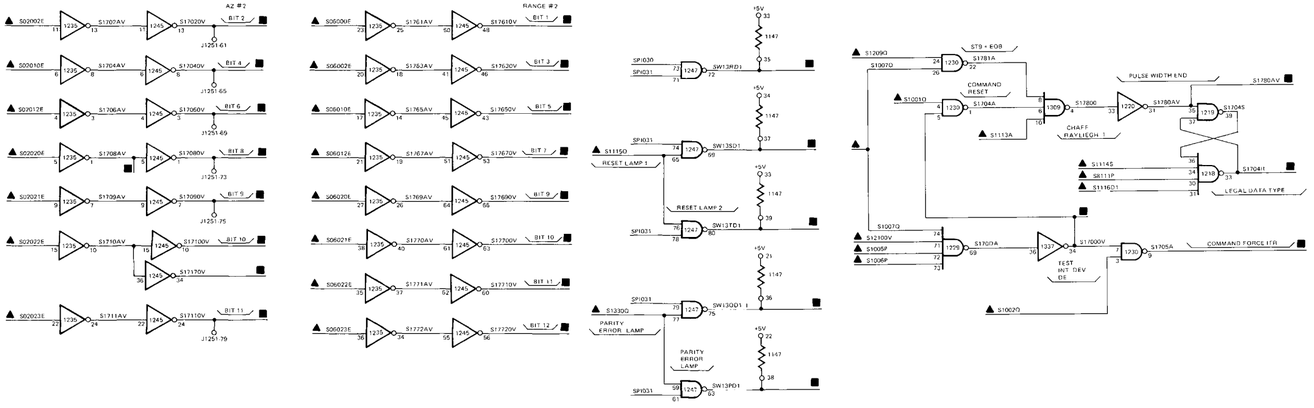
1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.
3. REFERENCES ARE AS FOLLOWS:

   ▲ INDICATES INPUT FROM ANOTHER FIGURE
   △ INDICATES INPUT FROM THE SAME FIGURE
   ■ INDICATES OUTPUT TO ANOTHER FIGURE
   □ INDICATES OUTPUT TO THE SAME FIGURE
   ◪ INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
    A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
    B. REFER TO TABLE 5-41 FOR CARD PART NUMBER
    C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS
11. SPIT INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

MS200915A

INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
S02002E	20702	SW13P01	26802
S02010E	20702	SW13D01	26802
S02012E	20702	SW13R01	26802
S02020E	20702	SW13SD1	26802
S02021E	20702	SW13T01	26802
S02022E	20702	S17020V	25400
S02023E	20702	S17020V	20702, 23001, 26802
S06000E	20802	S17040R	25200
S06002E	20802	S17040V	20702, 23001, 26802
S06010E	20802	S17050A	26001
S06012E	20802	S17060V	20702, 23002, 26802
S06020E	20802	S17080AV	20901
S06021E	20802	S17080V	20702, 23002, 26802
S06022E	20802	S17090V	20702, 20901, 20902, 23002, 26802
S06023E	20802		
S10010	25100	S17100V	20702, 20901, 20902, 23002
S1002Q	25100	S17110V	20702, 20901, 20902, 23002, 26802
S1005P	25100		
S1006P	25100	S17170V	26802
S1007Q	25100	S17610V	20802
S1113A	25200	S17630V	20802
S1114S	25200	S17650V	20802
S1115Q	25200	S17670V	20802
S1116D1	25200	S17690V	20802
S1209Q	25300	S17700V	20802
S1210DV	25300	S17710V	20802
S1330Q	25400	S17720V	20802
S8111P	22200	S17780AV	22200



FO-258. VSU IOX Interface Reset, Indicator and Range Azimuth Buffers Logic Diagram

NOTES: UNLESS OTHERWISE SPECIFIED

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMEN RACK 1, VSU CARD CAGE 1A1A1A3.
3. REFERENCES ARE AS FOLLOWS:

   ▲ INDICATES INPUT FROM ANOTHER FIGURE
   △ INDICATES INPUT FROM THE SAME FIGURE
   ■ INDICATES OUTPUT TO ANOTHER FIGURE
   ▪ INDICATES OUTPUT TO THE SAME FIGURE
   □ INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

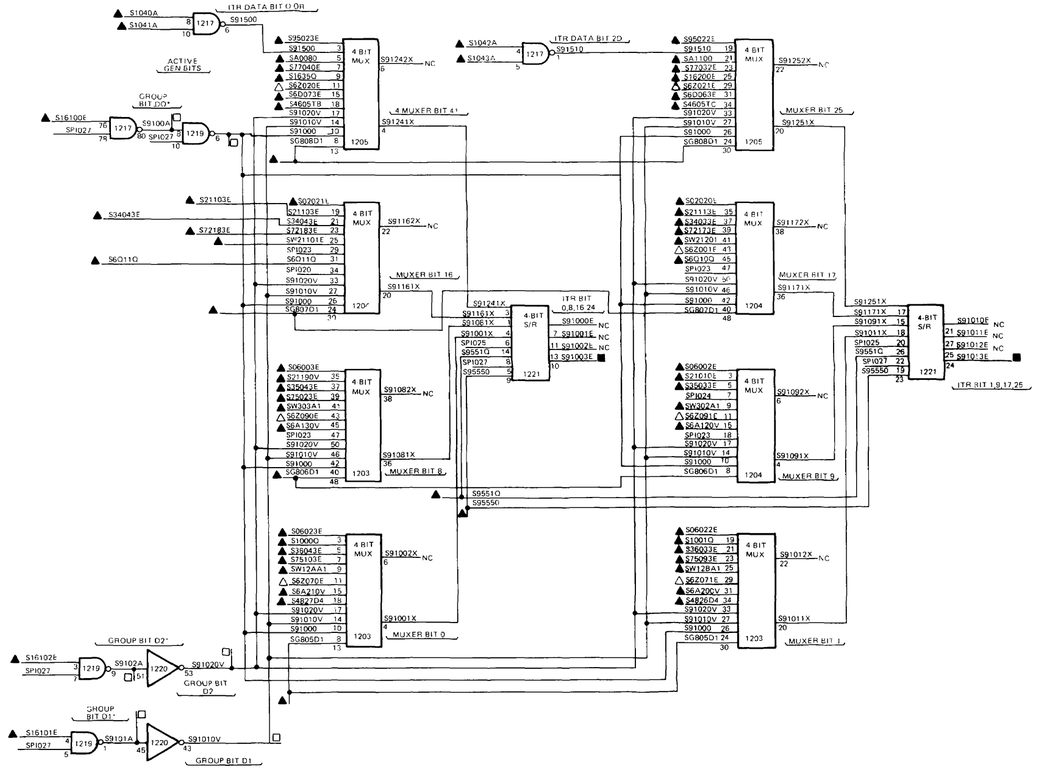
4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNA CABLING.
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AN GROUND CIRCUITS.
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTIO DESIGNATIONS.
9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PI NUMBERS.
10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
    A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUI CARD PIN NUMBER.
    B. REFER TO TABLE 5-41 FOR CARD PART NUMBER
    C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABL CARDS
11. SPIT INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-114 A-1249, AND A-1450.

MS200916

INPUT SIGNAL	SOURCE FO-SH
SA0080	22801
SA0080	29100
SA1100	22802
SA1100	29100
SG805D1	22702
SG806D1	22702
SG807D1	22702
SG808D1	22702
SW12AA1	26700
SW12BA1	26700
SW21101	26700
SW21201	26700
SW302A1	26700
SW303A1	26700
S02020E	20702
S02021E	20702
S06002E	20802
S06003E	20802
S06022E	20802
S06023E	20802
S1000Q	25100
S1001Q	25100
S1040A	25100
S1041A	25100
S1042A	25100
S1043A	25100
S16100E	25700
S16101E	25700
S16102E	25700
S16200E	25700
S1635Q	25700
S21010E	20901
S21103E	20901
S21113E	20901
S21190V	20901
S34033E	21100
S34043E	21100
S35033E	21201
S35043E	21201
S36033E	21201
S36043E	21202
S4605TB	21406
S4605TC	21406
S4826D4	21408
S4826D4	26803
S4826D4	27902

INPUT SIGNAL	SOURCE FO-SH
S4827D4	21408
S4827D4	27902
S6A120V	22900
S6A130V	22900
S6A200V	22900
S6A210V	22900
S6D063E	23002
S6D073E	23002
S6Q10Q	24200
S6Q11Q	24200
S72173E	21700
S72183E	21700
S75023E	22001
S75093E	22001
S75103E	22001
S77032E	22200
S77040E	22200
S95022E	26001
S95023E	26001
S9551Q	26001
S95550	26001

OUTPUT SIGNAL	DESTINATION FO-SH
S91003E	25100
S91013E	25100



FO-259. VSU BITE Multiplexing and Storage Logic Diagram (Sheet 1 of 5)

NOTES: UNLESS OTHERWISE SPECIFIED

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.
3. REFERENCES ARE AS FOLLOWS:

   ▲ INDICATES INPUT FROM ANOTHER FIGURE
   △ INDICATES INPUT FROM THE SAME FIGURE
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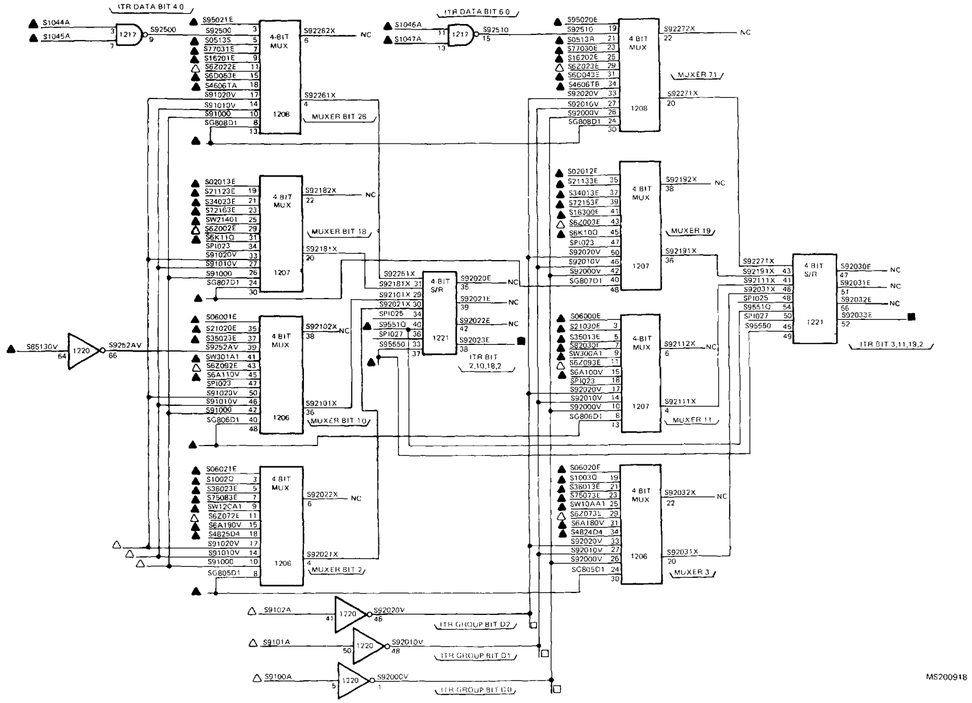
4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
    A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
    B. REFER TO TABLE 5-41 FOR CARD PART NUMBER
    C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS
11. SPIT INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

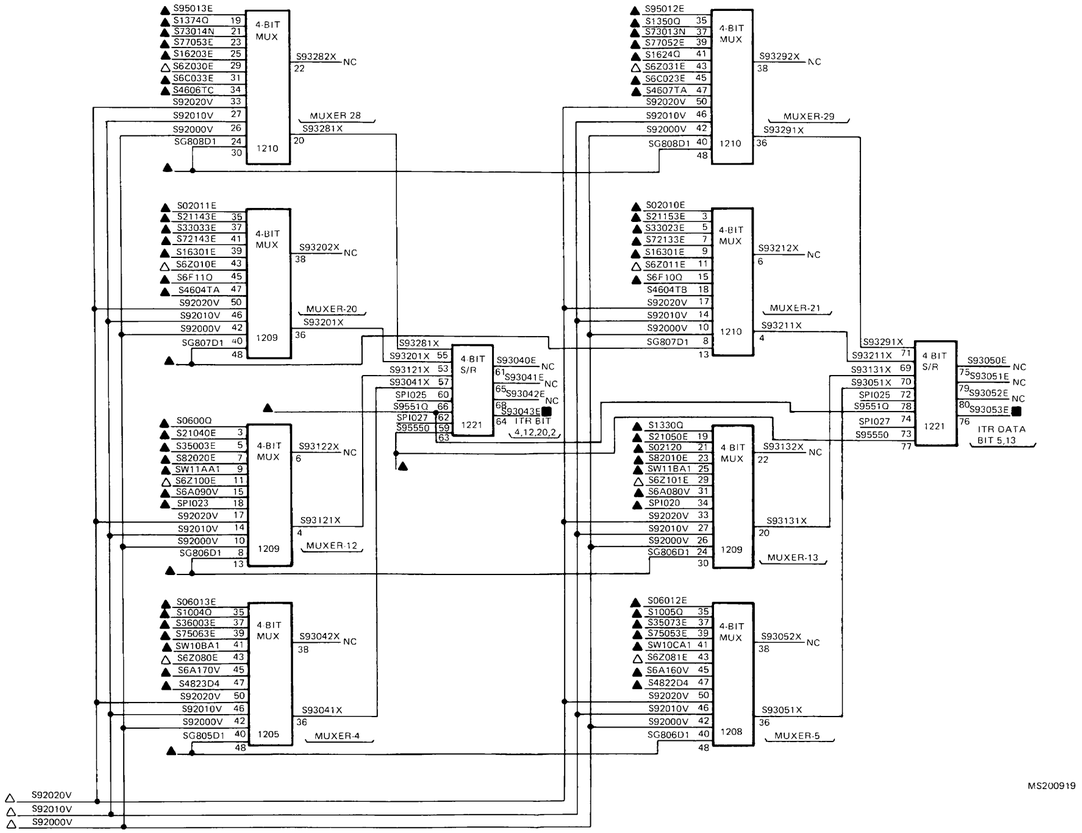
MS200917

INPUT		INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
SG805D1	22702	S6K10Q	23700	S92023E	25100
SG806D1	22702	S6K11Q	23700	S92033E	25100
SG807D1	22702	S72153E	21700		
SG808D1	22702	S72163E	21700		
SW10AA1	22500	S75073E	22001		
SW12CA1	26700	S75083E	22001		
SW21401	26700	S77030E	22200		
SW300A1	26700	S77031E	22200		
SW301A1	26700	S82030E	22400		
S02012E	20702	S85130V	22302		
S02013E	20702	S95020E	26001		
S0513R	20801	S95021E	26001		
S0513S	20801	S9551Q	26001		
S06000E	20802	S9555O	26001		
S06001E	20802				
S06020E	20802				
S06021E	20802				
S1002Q	25100				
S1003Q	25100				
S1044A	25100				
S1045A	25100				
S1046A	25100				
S1047A	25100				
S16201E	25700				
S16202E	25700				
S16300E	25700				
S21020E	20901				
S21030E	20901				
S21123E	20901				
S21133E	20901				
S34013E	21100				
S34023E	21100				
S35013E	21201				
S35023E	21201				
S36013E	21201				
S36023E	21201				
S46067A	21406				
S46067B	21406				
S4824D4	21408				
S4824D4	26803				
S4824D4	27902				
S6A100V	22900				
S6A110V	22900				
S6A180V	22900				
S6D043E	23002				
S6D053E	23002				



FO-259. VSU BITE Multiplexing and Storage Logic Diagram (Sheet 2 of 5)

INPUT		INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
SG805D1	22702	S6C023E	23001	S93043E	25100
SG806D1	22702	S6C033E	23001	S93053E	25100
SG807D1	22702	S6F10Q	23200		
SG808D1	22702	S6F11Q	23200		
SW10BA1	22500	S72133E	21700		
SW10CA1	22500	S72143E	21700		
SW11AA1	26700	S73013N	21900		
SW11BA1	26700	S73014N	21900		
S02010E	20702	S75053E	22001		
S02011E	20702	S75063E	22001		
S02120	20702	S77052E	22200		
S0600Q	20802	S77053E	22200		
S06012E	20802	S82010E	22400		
S06013E	20802	S82020E	22400		
S1004Q	25100	S95012E	26001		
S1005Q	25100	S95013E	26001		
S1330Q	25400	S9551Q	26001		
S1350Q	25400	S95550	26001		
S1374Q	25400				
S16203E	25700				
S16240	25700				
S16301E	25700				
S16302E	25700				
S21040E	20901				
S21050E	20901				
S21143E	20901				
S21153E	20901				
S33023E	21100				
S33033E	21100				
S35003E	21201				
S35073E	21201				
S36003E	21201				
S4604TA	21406				
S4604TB	21406				
S4606TC	21406				
S4607TA	21406				
S4822D4	21408				
S4822D4	26803				
S4822D4	27902				
S4823D4	21408				
S4823D4	26803				
S4823D4	27902				
S6A080V	22900				
S6A090V	22900				
S6A160V	22900				
S6A170V	22900				

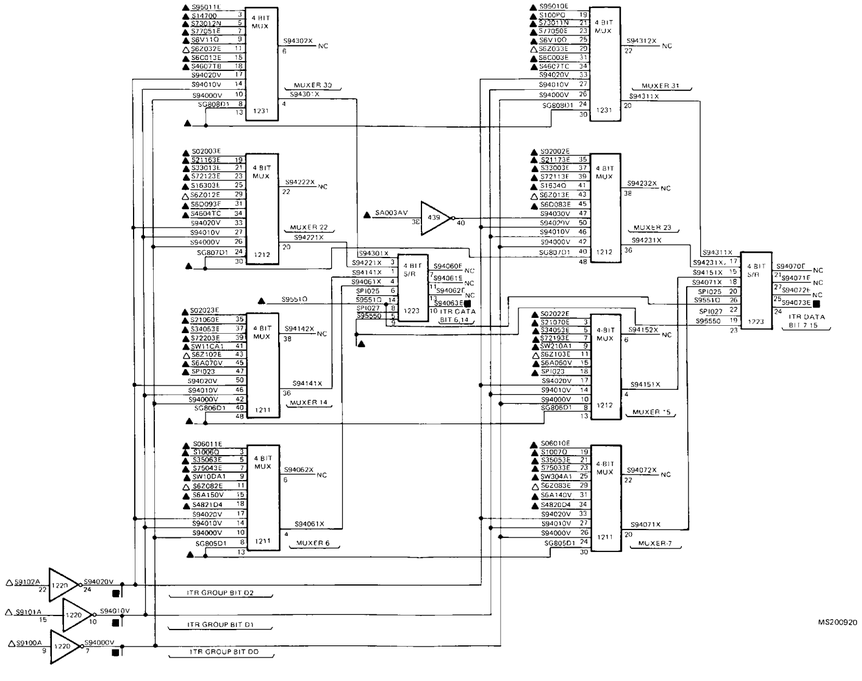


FO-259. VSU BITE Multiplexing and Storage Logic Diagram (Sheet 3 of 5)

INPUT	
SIGNAL	SOURCE FO-SH
SA003AV	22801
SA003AV	29001
SG805D1	22702
SG806D1	22702
SG807D1	22702
SG808D1	22702
SW10DA1	22500
SW11CA1	26700
SW210A1	29002
SW304A1	26700
SO2002E	20702
SO2003E	20702
SO2022E	20702
SO2023E	20702
SO6010E	20802
SO6011E	20802
S100PQ	25100
S1006Q	25100
S1007Q	25100
S14700	25500
S16303E	25700
S1634Q	25700
S21060E	20901
S21070E	20901
S21163E	20901
S21173E	20901
S33003E	21100
S33013E	21100
S34053E	21100
S34063E	21100
S35053E	21201
S35063E	21201
S4604TC	21406
S4607TB	21406
S4607TC	21406
S4820D4	21408
S4820D4	26803
S4820D4	27902
S4821D4	21408
S4821D4	26803
S4821D4	27902
S4825D4	21408
S4825D4	26803
S4825D4	27902
S6A060V	22900
S6A070V	22900

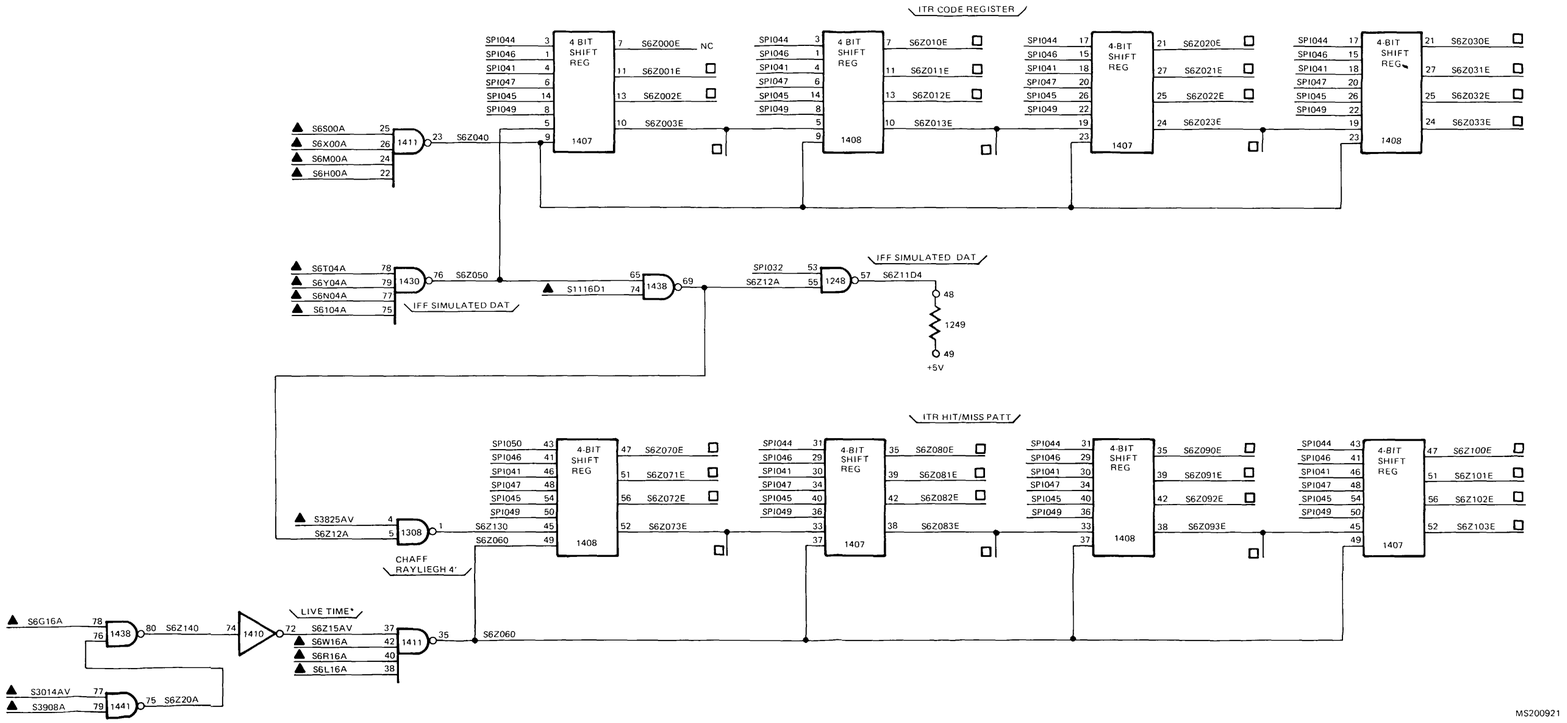
INPUT	
SIGNAL	SOURCE FO-SH
S6A140V	22900
S6A150V	22900
S6A190V	22900
S6C003E	23001
S6C013E	23001
S6D083E	23002
S6D093E	23002
S6V10Q	24700
S6V11Q	24700
S72113E	21700
S72123E	21700
S72193E	21700
S72203E	21700
S73011N	21900
S73012N	21900
S75033E	22001
S75043E	22001
S77050E	22200
S77051E	22200
S94000V	25904
S95010E	26001
S95011E	26001
S9551Q	26001
S95550	26001

OUTPUT	
SIGNAL	DESTINATION FO-SH
S94000V	25904, 26002
S94010V	26002
S94020V	26002
S94063E	25100
S94073E	25100



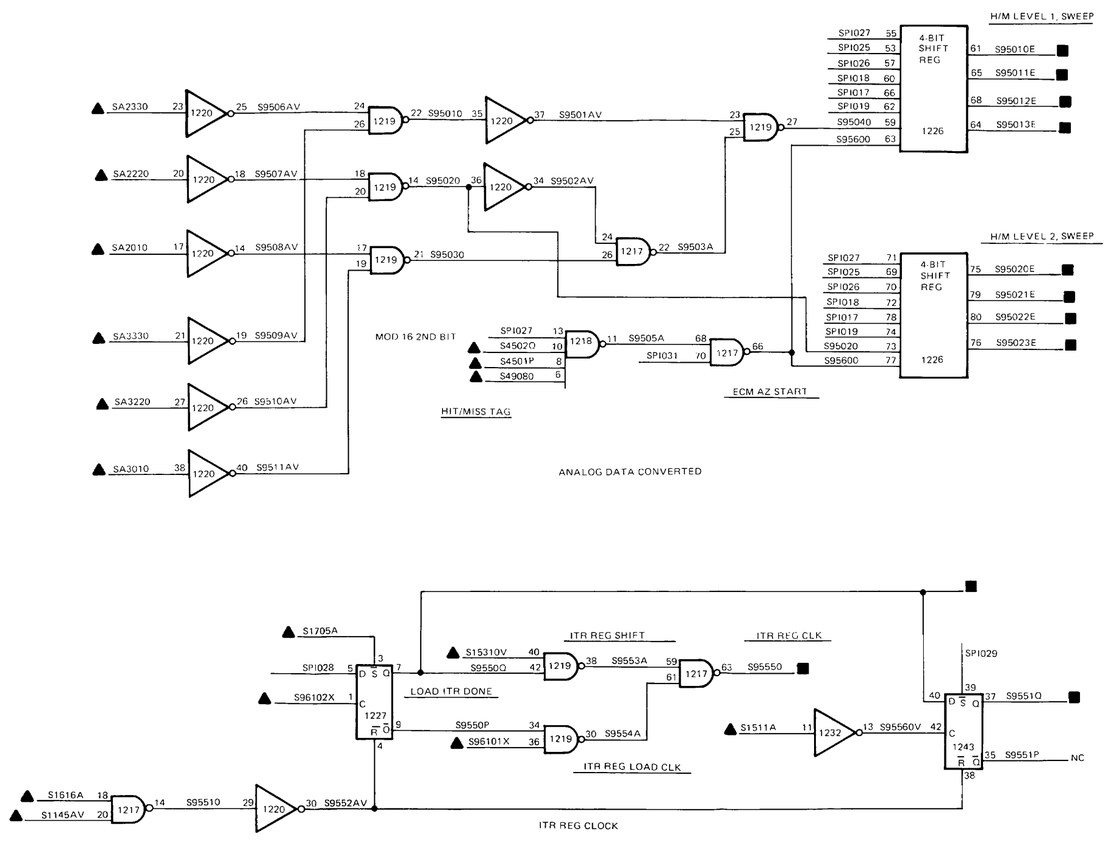
FO-259. VSU BITE Multiplexing and Storage Logic Diagram (Sheet 4 of 5)

INPUT SIGNAL	SOURCE FO-SH
S1116D1	25200
S3014AV	20903
S3825AV	21301
S3908A	21302
S6G16A	23300
S6H00A	23400
S6I04A	23500
S6L16A	23800
S6M00A	23900
S6N04A	24000
S6R16A	24300
S6S00A	24400
S6T04A	24500
S6W16A	24800
S6X00A	24900
S6Y04A	25000



FO-259. VSU BITE Multiplexing and Storage Logic Diagram (Sheet 5 of 5)

INPUT		OUTPUT	
SIGNAL	SOURCE FO-SH	SIGNAL	DESTINATION FO-SH
SA2010	22803	S95010E	25904
SA2010	29100	S95011E	25904
SA2220	22803	S95012E	25903
SA2220	29100	S95013E	25903
SA2330	22803	S95020E	25902
SA2330	29100	S95021E	25902
SA3010	22804	S95022E	25901
SA3010	29100	S95023E	25901
SA3220	22804	S9550Q	25600
SA3220	29100	S9551Q	25901, 25902, 25903, 25904
SA3330	22804	S95550	25901, 25902, 25903, 25904
SA3330	29100		
S1145AV	25200		
S1511A	25600		
S15310V	25600		
S1616A	25700		
S1705A	25800		
S4501P	21405		
S4502Q	21405		
S49080	21409		



FO-260. VSU BITE Strobe Generators Logic Diagram (Sheet 1 of 2)

NOTES: UNLESS OTHERWISE SPECIFIED

1. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN; FOR COMPLETE DESIGNATIONS, PREFIX WITH APPLICABLE UNIT NUMBER AND ASSEMBLY DESIGNATION.
2. ALL CIRCUITS SHOWN ON THIS FIGURE ARE CONTAINED IN EQUIPMENT RACK 1, VSU CARD CAGE 1A1A1A3.
3. REFERENCES ARE AS FOLLOWS:

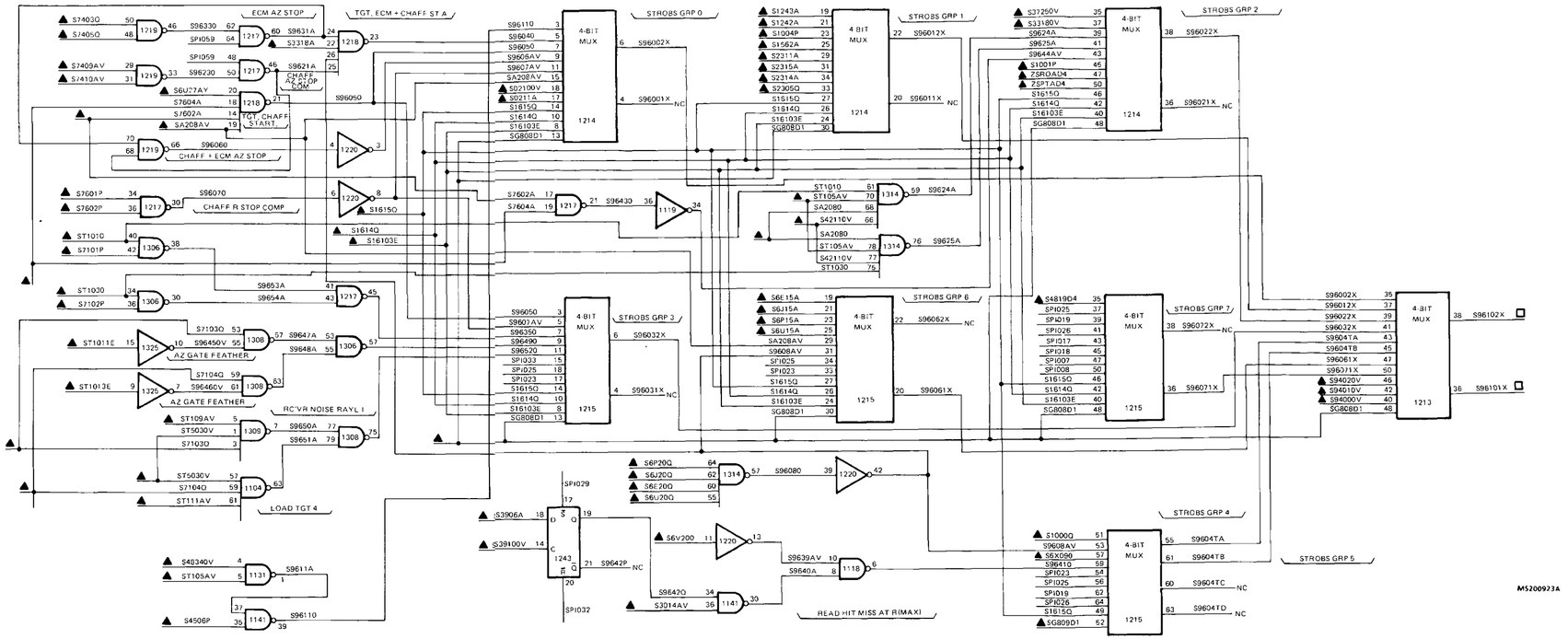
▲	INDICATES INPUT FROM ANOTHER FIGURE
△	INDICATES INPUT FROM THE SAME FIGURE
■	INDICATES OUTPUT TO ANOTHER FIGURE
□	INDICATES OUTPUT TO THE SAME FIGURE
◪	INDICATES OUTPUT TO THE SAME AND ANOTHER FIGURE

4. REFER TO TABLE 5-1 FOR CARD LOCATION IN LOGIC DIAGRAMS INDEX.
5. REFER TO TABLE 5-2 FOR KEY SIGNAL LOOK UP LISTING.
6. REFER TO CABLING DIAGRAM SECTION XII FOR UNIT-TO-UNIT SIGNAL CABLING.
7. REFER TO RIE POWER DISTRIBUTION DIAGRAMS FOR DC POWER AND GROUND CIRCUITS.
8. REFER TO SECTION II FOR CIRCUIT CARD CHIP FUNCTION DESIGNATIONS.
9. CIRCUIT SYMBOLS INCLUDE CARD LOCATION AND CIRCUIT CARD PIN NUMBERS.
10. TO DETERMINE CIRCUIT CARD PIN/TEST POINT PERFORM THE FOLLOWING:
    - A. FROM CIRCUIT SYMBOL NOTE CARD LOCATION AND CIRCUIT CARD PIN NUMBER.
    - B. REFER TO TABLE 5-41 FOR CARD PART NUMBER
    - C. REFER TO TABLE 5-42 FOR CARD PIN/TEST POINT MTS TESTABLE CARDS
11. SPIXXX INDICATES +5V PULLUP THROUGH RESISTOR CARDS A-1130, A-1147, A-1249, AND A-1450.

MS200922

INPUT SIGNAL	INPUT SOURCE FO-SH
SA208AV	22803
SA2080	22803
SG808D1	22702
SG809D1	22702
ST1010	22701
ST1011E	22701
ST1013E	22701
ST1030	22701
ST105AV	22701
ST109AV	22701
ST111AV	22701
ST5030V	22701
S02100V	20702
S0211A	20702
S1000Q	25100
S1001P	25100
S1004P	25100
S1242A	25300
S1243A	25300
S1562A	25600
S16103E	25700
S1614Q	25700
S1615Q	25700
S2305Q	20903
S2311A	20903
S2314A	20903
S2315A	20903
S3014AV	20903
S3318A	21100
S33180V	21100
S37250V	21202
S3906A	21302
S39100V	21302
S42110V	21402
S4506P	21405
S4819D4	21408
S4819D4	27902
S48340V	21408
S6E15A	23100
S6E20Q	23100
S6J15A	23600
S6J20Q	23600
S6P15A	24100
S6P20Q	24100
S6U15A	24600
S6U20Q	24600

INPUT SIGNAL	INPUT SOURCE FO-SH
S6U27AV	24500
S6V200	24700
S6X090	24900
S7101P	21600
S7102P	21600
S7103Q	21600
S7104Q	21600
S7403Q	21800
S7405Q	21800
S7409AV	21800
S7410AV	21800
S7601P	22002
S7602A	22002
S7602P	22002
S7604A	22002
S94000V	25904
S94010V	25904
S94020V	25904
ZSPTAD4	26802
ZSROAD4	26802



Change 2 FO-260. VSU BITE Strobe Generators Logic Diagram (Sheet 2 of 2)

By Order of the Secretary of the Army:

JOHN A. WICKHAM, JR.
General, United States Army
Chief of Staff

Official:

DONALD J. DELANDRO
Brigadier General, United States Army
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THE METRIC SYSTEM AND EQUIVALENTS

'NEAR MEASURE

. Centimeter = 10 Millimeters = 0.01 Meters = 0.3937 Inches
1 Meter = 100 Centimeters = 1000 Millimeters = 39.37 Inches
1 Kilometer = 1000 Meters = 0.621 Miles

'VEIGHTS

Gram = 0.001 Kilograms = 1000 Milligrams = 0.035 Ounces
1 Kilogram = 1000 Grams = 2.2 lb.
1 Metric Ton = 1000 Kilograms = 1 Megagram = 1.1 Short Tons

LIQUID MEASURE

1 Milliliter = 0.001 Liters = 0.0338 Fluid Ounces
1 Liter = 1000 Milliliters = 33.82 Fluid Ounces

SQUARE MEASURE

1 Sq. Centimeter = 100 Sq. Millimeters = 0.155 Sq. Inches
1 Sq. Meter = 10,000 Sq. Centimeters = 10.76 Sq. Feet
1 Sq. Kilometer = 1,000,000 Sq. Meters = 0.386 Sq. Miles

CUBIC MEASURE

1 Cu. Centimeter = 1000 Cu. Millimeters = 0.06 Cu. Inches
1 Cu. Meter = 1,000,000 Cu. Centimeters = 35.31 Cu. Feet

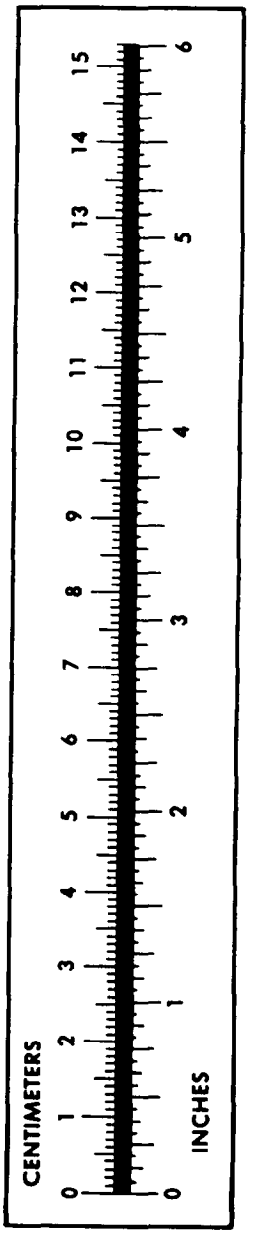
TEMPERATURE

5/9(°F - 32) = °C
212° Fahrenheit is evuivalent to 100° Celsius
90° Fahrenheit is equivalent to 32.2° Celsius
32° Fahrenheit is equivalent to 0° Celsius
9/5C° + 32 =°F

APPROXIMATE CONVERSION FACTORS

TO CHANGE	TO	MULTIPLY BY
Inches	Centimeters	2.540
Feet	Meters	0.305
Yards	Meters	0.914
Miles	Kilometers	1.609
Square Inches	Square Centimeters	6.451
Square Feet	Square Meters	0.093
Square Yards	Square Meters	0.836
Square Miles	Square Kilometers	2.590
Acres	Square Hectometers	0.405
Cubic Feet	Cubic Meters	0.028
Cubic Yards	Cubic Meters	0.765
Fluid Ounces	Milliliters	29.573
ıts	Liters	0.473
arts	Liters	0.946
allons	Liters	3.785
Ounces	Grams	28.349
Pounds	Kilograms	0.454
Short Tons	Metric Tons	0.907
Pound-Feet	Newton-Meters	1.356
Pounds per Square Inch	Kilopascals	6.895
Miles per Gallon	Kilometers per Liter	0.425
Miles per Hour	Kilometers per Hour	1.609

TO CHANGE	TO	MULTIPLY BY
Centimeters	Inches	0.394
Meters	Feet	3.280
Meters	Yards	1.094
Kilometers	Miles	0.621
Square Centimeters	Square Inches	0.155
Square Meters	Square Feet	10.764
Square Meters	Square Yards	1.196
Square Kilometers	Square Miles	0.386
Square Hectometers	Acres	2.471
Cubic Meters	Cubic Feet	35.315
Cubic Meters	Cubic Yards	1.308
Milliliters	Fluid Ounces	0.034
Liters	Pints	2.113
Liters	Quarts	1.057
ers	Gallons	0.264
ms	Ounces	0.035
ograms	Pounds	2.205
Metric Tons	Short Tons	1.102
Newton-Meters	Pounds-Feet	0.738
Kilopascals	Pounds per Square Inch	0.145
lometers per Liter	Miles per Gallon	2.354
meters per Hour	Miles per Hour	0.621



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