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CENTRAL SECURITY SERVICE
FORT GEORGE G. MEADE, MARYLAND**



TM 11-5895-821-14-2
TO 31S5-2FYC12-4
NAVELEX 0967-54-7020
TEMO-888-020A

**AN/FYC-12
DIGITAL DATA SET
ILLUSTRATED PARTS BREAKDOWN
AND
APPENDIX**

VOLUME 2 OF 2

OCTOBER 1975

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TO 3195-2FYC12-4
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C h a n g e

**HEADQUARTERS
DEPARTMENTS OF THE ARMY,
THE AIR FORCE, THE NAVY, AND
NATIONAL SECURITY AGENCY//
CENTRAL SECURITY SERVICE
WASHINGTON, DC, 1 December 1977**

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AN/FYC-12
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ILLUSTRATED PARTS BREAKDOWN
AND
APPENDIX

TM11-5895-821-14-2/TO 31S5-2FYC12-4/NAVELEX 0987-LP-544-7020 TEMO-888-020A

Volume 2 of 2, dated October 1975, is changed as follows:

- 1. New and changed material indicated by a vertical bar.**
- 2. Remove old pages and insert new pages as indicated below:**

<i>Remove pages</i>	<i>Insert pages</i>
i-----i	i
None-----	8-1 through 8-12

- 3. File change sheet in front of publication for reference purposes.**

NAVELEX 0967-LP-544-7021

INTRODUCTION

This manual provides installation, operation and maintenance instructions for the Digital Data Set AN/FYC-12. In addition, it contains principles of operation and illustrated parts breakdown chapters as supplementary technical information for maintenance purposes. This manual is divided into two volumes.

Volume I contains the following:

- Chapter 1. Description of Equipment
- 2. Installation
- 3. Operating Instructions
- 4. Principles of Operation
- 5. Preventative Maintenance
- 6. Corrective Maintenance

Volume II contains the following:

- Chapter 7. Illustrated Parts Breakdown
- 8. Supplemental Index for Army Use
- Appendix (Maintenance Illustrations)

The Digital Data Set AN/FYC-12 Technical Manual has been written for cryptologic technicians whose technical education competence shall equal that of a graduate of a military service school course in electronics of not less than 40 weeks duration.

CHAPTER 7

ILLUSTRATED PARTS BREAKDOWN

1 - INTRODUCTION

7-1. GENERAL This illustrated Parts Breakdown lists and describes the items necessary for the support of the Digital Data Set AN/FYC-12. This manual is used for requisitioning, storing, issuing and identifying parts and for illustrating assembly and disassembly relationships.

- a. Abbreviations. - Abbreviations used in this manual are in accordance with MIL STD 12.

The part numbers in this manual have been converted by selecting all dashes and spaces between alphabetic and numerical characters. Further, all diagonals (\diagdown) denoting fractions in part numbers have been deleted.

7-2. MAJOR SECTIONS. This Illustrated Parts Breakdown is divided into four sections as follows:

- a. Section I - Introduction.

b. Section II - Group assembly parts list. This section contains the complete group assembly parts list separated into figures by main groups, or assemblies, and keyed to associated illustrations by figure and index numbers.

(1) Figure and index number column. The first item in the figure and index number column is the figure number of the illustration of the assembly listed. The figure number is not repeated thereafter except with the first item of listings continued on succeeding pages. The second number is the index number to key the part to the illustration callout. Identical parts occurring in the same general location on the equipment are illustrated and indexed only once. The relationship of each part to its next higher assembly (NHA) or main group is shown either by indention (7-2. b. 3. a) or by figure cross-reference note (7-2. b. 3. b).

(2) Reference designation column. This column contains all reference designations used in this illustrated parts breakdown and assigned in the unit.

(3) Description column. The names used are the same assigned to the manufacturing drawings. Attaching parts are listed immediately below the

items to which they attach. The relationship of each part to its next higher assembly is shown either by indention or cross-reference.

(a) Indention. - Parts listed in this column are indented to indicate item relationship or NHA. The nomenclature of each assembly is followed in the list (except for attaching parts) by the nomenclature of its components indented one column to the right. This indention indicates the relationship of the component to the assembly. To determine the next higher assembly of a part or assembly, note the column in which the first word of the nomenclature appears. The first item directly above, which appears one column to the left, is the NHA (except for attaching parts).

(b) Cross-reference. - The notation ("See Fig. for det break-down") following the description of a part indicates that further breakdown of the part will be shown on the figure noted. The notation ("See Fig. for NHA") following the description of a part indicates that the correct assembly relationship of the part will be shown on the figure and index number noted.

(4) Part number column. - Part numbers used in this column are selected according to the following order of preference; military standards, design activity numbers and vendor numbers. When a vendor's number is used and an alternate source is known, the alternate vendor and part number is listed.

(5) Code ident column. - Part numbers, other than those of the prime contractors, are designated by a listing in this column. These codes are in accordance with the Federal Supply Code for Manufacturers Cataloging Handbook H4-1 and H4-2 and amendments thereto.

(6) Units per assembly column. - The quantity shown in this column represents the units required for one next higher assembly, or subassembly. The notation "REF" (Reference) indicates this item has been previously listed under its next higher assembly. The "See Fig" notation in the description of the item will indicate the figure and index number at which the units per assembly can be determined.

(7) Usable on code column. - The absence of a code symbol in this column indicates that this part is used in all models or assemblies covered by this manual.

c. Section III - Numerical Index. - This section contains an alpha-numerical listing of all parts that comprise the article.

(1) Part number column. The order of precedence in beginning the part number arrangement on the first (left hand) position of the part number is as follows:

Letters A through Z
Numerals 0 through 9.

The second and succeeding positions of the part number from left to right are as follows:

1. Space (blank column)
2. Diagonal (slant)
3. Point (period)
4. Dash (-)
5. Letters A through Z
6. Numerals 0 through 9.

Alphabetic "O's" are considered as numerical "zeros". "No Number" and "Commercial Parts" are listed in alphabetical sequence by the identifying noun in the part number column.

(2) Figure and index number column. - This column lists the figure and index number of each appearance of the part in the Group Assembly Parts List (Section II). For Military Standard part numbers, only the first appearance in the Group Assembly Parts List is shown.

(3) Quantity per article. - The quantity shown in this column is the total quantity required for each article. The abbreviation "REF" (Reference) indicates that this item has been listed twice in the GAPL, once under its next higher assembly with the total quantity used and once as referenced item where a detail breakdown is listed.

d. Section IV - Reference Designation Index. - The Reference Designation column of the Reference Designation Index includes all reference symbols used in the Group Assembly Parts List, arranged first in alphabetical and secondly in numerical order. Opposite each symbol number is listed the figure and index number of the part in the Group Assembly Parts List and the part number.

S E C T I O N I I

G R O U P A S S E M B L Y P A R T S L I S T

GROUP ASSEMBLY PARTS LIST

Figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code
7 - 1 -	1	DIGITAL DATA SET.	0N199443	98230	REF	
- 1	A1	. CABINET ASSEMBLY, . . . ELECTRONIC EQUIP- MENT (SEE FIG. 7-2 FOR DET BREAKDOWN)	0N199479	98230	1	
- 2	A2	. CHASSIS ASSEMBLY, . . . ELECTRONIC EQUIP- MENT (SEE FIG. 7-3 FOR DET BREAKDOWN)	0N199445	98230	1	
		(ATTACHING PARTS)				
		. SCREW, PAN HEAD	MS51957-45	96906	4	
		. WASHER, LOCK	MS35338-137	96906	4	
		. WASHER, FLAT	MS15795-807	96906	4	
		. SCREW, PAN HEAD.	MS51957-30	96906	17	
		. WASHER, LOCK	MS35538-136	96906	17	
		. WASHER, FLAT	MS15795-806	96906	17	
		---*---				
- 3	A3	. REAR COVER ASSY (SEE FIG. 7-21 FOR DET BREAKDOWN)	ON199497	98230	1	
		(ATTACHING PARTS)				
		. SCREW, PAN HEAD	MS51957-45	96906	12	
		. WASHER, LOCK	MS35338-137	96906	12	
		. WASHER, FLAT	MS15795-807	96906	12	

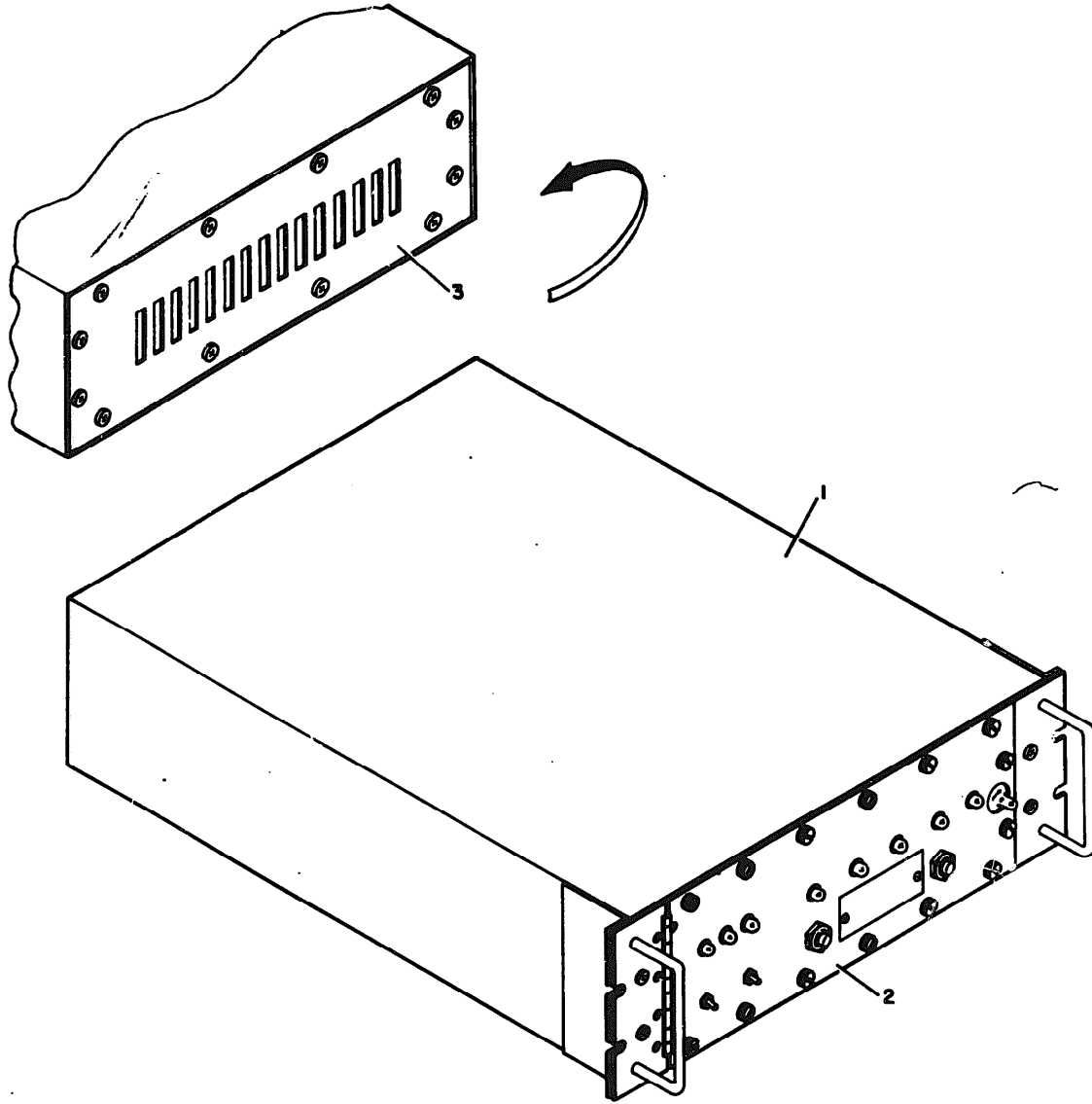


Figure 7-1. Digital Data Set AN/FYC-12

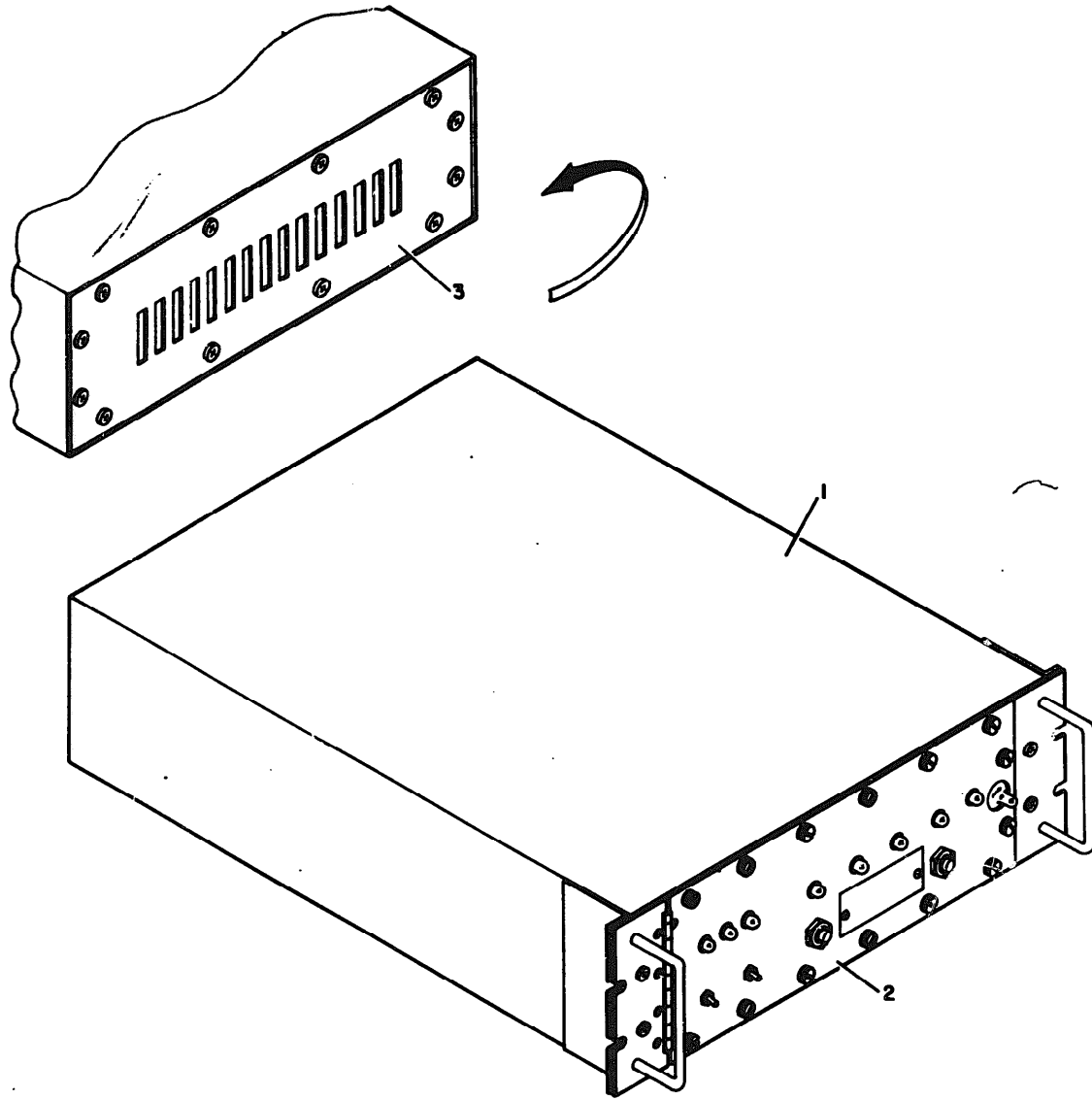


Figure 7-1. Digital Data Set AN/FYC-12

GROUP ASSEMBLY PARTS LIST

Figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code
7 - 2 -	PREFIX WITH A1	CABINET ASSEMBLY, . . .	ON199479	98230	REF	
- 1	MP3	. . GUIDE, LH.	ON199482	98230	1	
		(ATTACHING PARTS)				
		. . WASHER, LOCK	MS35338-136	96906	6	
		. . WASHER, FLAT	MS15795-806	96906	6	
		. . NUT, HEX	MS35649-264	96906	6	
		---*---				
- 2	MP2	. . GUIDE, RH.	ON199481	98230	1	
		(ATTACHING PARTS)				
		. . WASHER, LOCK	MS35338-136	96906	6	
		. . WASHER, FLAT	MS15795-806	96906	6	
		. . NUT, HEX	MS35649-264	96906	6	
		---*---				
- 3	MP4	. . SHIELDING PANEL . .	ON199483	98230	1	
		(ATTACHING PARTS)				
		. . WASHER, LOCK	MS35338-136	96906	16	
		. . WASHER, FLAT	MS15795-806	96906	16	
		. . NUT, HEX	MS35649-264	96906	16	
		---*---				
- 4	MP5	. . SHIELDING SCREEN . .	ON199484	98230	1	
- 5	TB1	. . TERMINAL BOARD. . .	39TB6	81349	1	
		(ATTACHING PARTS)				
		. . SCREW, MACHINE	MS51957-48	96906	4	
		. . WASHER, LOCK	MS35338-137	96906	4	
		. . WASHER, FLAT	MS15795-807	96906	4	
		---*---				

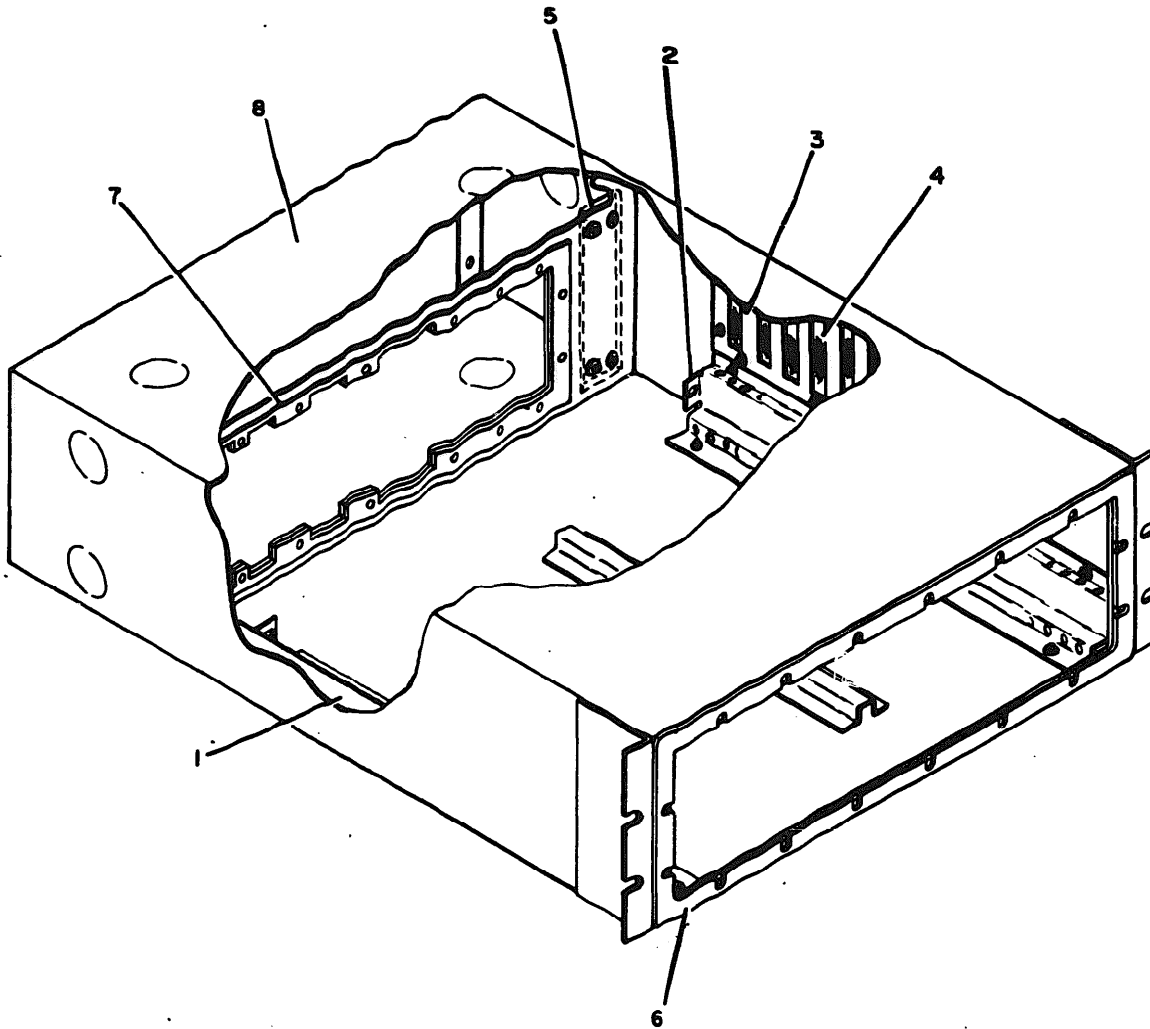


Figure 7-2. Electronic Equipment Cabinet Assembly A1

GROUP ASSEMBLY PART LIST

Figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code
- 5	MP6	. . SHIELDING GASKET. .	ON199485	98230	1	
- 7	MP7	. . SHIELDING GASKET. .	ON199486	98230	1	
- 8	MP1	. . CABINET, ELEC. . . . EQUIPMENT	ON199480	98230	1	

GROUP ASSEMBLY PARTS LIST

Figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code
7 - 3 -	PREFIX WITH A2	CHASSIS ASSEMBLY, ELECTRONIC EQUIP- MENT (SEE FIG. 7-1 FOR NHA)	ON199445	98230	REF	
- 1	MP1	. . . EXTRACTOR, CARD . . .	ON199478	98230	1	
- 2	A1	. . . CIRCUIT CARD ASSY. . . (SEE FIG. 7-4 FOR DET BREAKDOWN)	ON199503	98230	1	
- 3	A2	. . . CIRCUIT CARD ASSY. . . (SEE FIG. 7-5 FOR DET BREAKDOWN)	ON199508	98230	1	
- 4	A3	. . . CIRCUIT CARD ASSY. . . (SEE FIG. 7-6 FOR DET BREAKDOWN)	ON199524	98230	1	
- 5	A4	. . . CIRCUIT CARD ASSY. . . (SEE FIG. 7-7 FOR DET BREAKDOWN)	ON199516	98230	1	
- 6	A5	. . . CIRCUIT CARD ASSY. . . (SEE FIG. 7-8 FOR DET BREAKDOWN)	ON199520	98230	1	
- 7	A6	. . . CIRCUIT CARD ASSY. . . (SEE FIG. 7-9 FOR DET BREAKDOWN)	ON199512	98230	1	
- 8	A7	. . . CIRCUIT CARD ASSY. . . (SEE FIG. 7-10 FOR DET BREAKDOWN)	ON199529	98230	1	
- 9	A8	. . . CIRCUIT CARD ASSY. . . (SEE FIG. 7-11 FOR DET BREAKDOWN)	ON199546	98230	1	
- 10	A9	. . . CIRCUIT CARD ASSY. . . (SEE FIG. 7-12 FOR DET BREAKDOWN)	ON199533	98230	1	
- 11	A10	. . . CIRCUIT CARD ASSY. . . (SEE FIG. 7-13 FOR DET BREAKDOWN)	ON199538	98230	1	
- 1 2	A11	. . . CIRCUIT CARD ASSY. . . (SEE FIG. 7-14 FOR DET BREAKDOWN)	ON199542	98230	1	
- 13	P1	. . . CONNECTOR, ELECTRICAL	MS3106R14S-5S	96906	1	

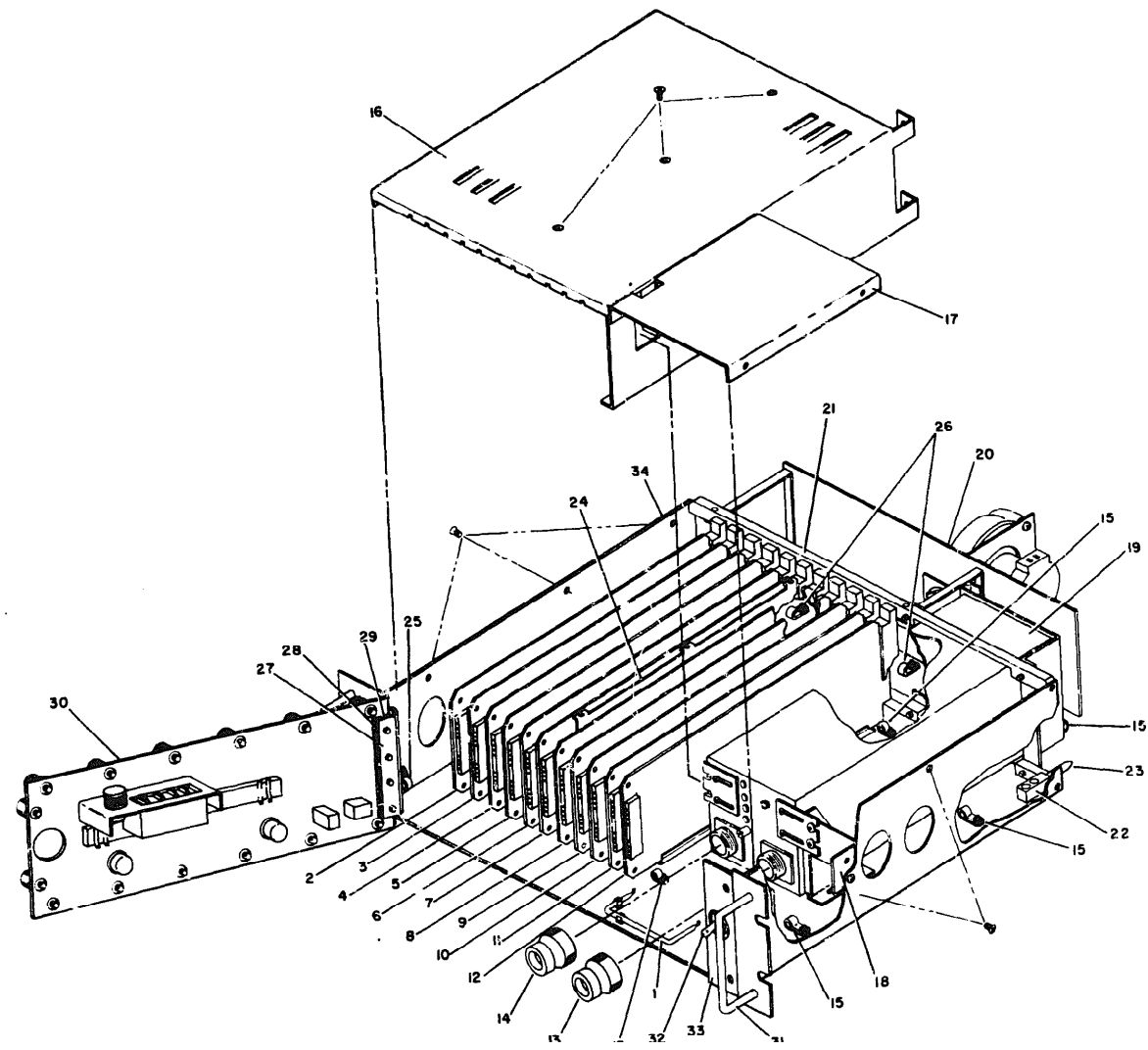


Figure 7-3. Electronic Equipment Chassis Assembly

GROUP ASSEMBLY PARTS LIST

Figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code
-14	P2	. . CONNECTOR, ELECTRICAL	MS306R16S-1P	96906	1	
-15	MP16, MP17, MP18, MP19, MP20	. . CLAMP, LOOP NSA PART NO. ON199489 (ATTACHING PARTS) . . NUT, HEX WASHER, FLAT WASHER, LOCK ---*---	1/4-4NA M S MS15795-806 MS35338-136	95987 96906 96906 96906	5 5 5 5	
-16	A15	. TOP FRAME ASSY (SEE FIG.7-18 FOR DET BREAKDOWN) (ATTACHING PARTS) . SCREW, FLAT HEAD WASHER, LOCK WASHER, LOCK WASHER, FLAT WASHER, FLAT NUT, HEX NUT, HEX ---*---	ON199452 MS24693C3 MS35338-135 MS35338-137 MS15795-803 MS15795-807 MS35649-244 MS35649-284	98230 96906 96906 96906 96906 96906 96906	1 3 2 6 2 6 6	
- 1 7	MP3	. . TOP PLATE ASSY (ATTACHING PARTS) . . SCREW, FLAT HEAD ---*---	ON199449 MS24693C3	98230 96906	1 2	
- 1 8	MP2	. . BRACKET ASSEMBLY. (ATTACHING PARTS) . . NUT, HEX WASHER, FLAT	ON199448 MS35649-284 MS15795-807	98230 96906 96906	1 2 4	

GROUP ASSEMBLY PARTS LIST

Figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code
		. . WASHER, LOCK	MS35338-137	96906	2	
		. . SCREW, PAN HEAD . .	MS51957-46	96906	2	
		. . SCREW, FLAT HEAD . .	MS24693C3	96906	2	
		---*---				
- 1 9	A17	. DC-DC CONVERTER . . ASSEMBLY (SEE FIG. 7-20 FOR DET BREAKDOWN) (ATTACHING PARTS)	ON199499	98230	1	
		. SCREW, PAN HEAD	MS51957-46	96906	4	
		. WASHER, FLAT	MS15795-807	96906	4	
		---*---				
-20	A14	. INTERFACE PANEL ASSY (SEE FIG. 7-16 FOR DET BREAKDOWN) (ATTACHING PARTS)	ON199459	98230	1	
		. SCREW, SOCKET HD . . .	MS21295-28	96906	4	
		. WASHER, LOCK	MS35338-137	96906	4	
		. WASHER, FLAT	MS15795-807	96906	4	
		---*---				
-21	A13	. BACK PLANE ASSY (SEE FIG. 7-17 FOR DET BREAKDOWN) (ATTACHING PARTS)	ON199472	98230	1	
		. SCREW, FLAT HEAD . . .	MS24693C3	96906	11	
		---*---				
- 2 2	MP10, MP11	. . BLOCK, PIN (ATTACHING PARTS)	ON199457	98230	2	
		. . SCREW, PAN HEAD . . .	MS51957-28	96906	4	
		---*---				

GROUP ASSEMBLY PARTS LIST

Figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code
-23	MP8, MP9	. . GUIDE PIN	ON199456	98230	2	
-24	MP15	. . SUPPORT, CHASSIS . .	ON199488	98230	1	
		(ATTACHING PARTS)				
		. . SCREW, FLAT HD. . .	MS51959-11	96906	6	
		. . NUT, HEX	NAS671C4	80205	6	
		---*---				
-25	MP21, MP22, MP23	. . CLAMP, LOOP NSA PART NO. ON199490	3/8-4NA	95987	3	
		(ATTACHING PARTS)				
		. . NUT, HEX	MS35649-264	96906	3	
		. . WASHER, FLAT	MS15795-806	96906	3	
		. . WASHER, LOCK	MS35338-136	96906	3	
		---*---				
-2	MP24, MP25	. . CLAMP, LOOP NSA PART NO. ON199491	1/4-2NA	95987	2	
		(ATTACHING PARTS)				
		. . NUT, HEX	MS35649-244	96906	2	
		. . WASHER, FLAT	MS15795-803	96906	2	
		. . WASHER, LOCK	MS35338-135	96906	2	
		---*---				
-27	MP4, MP5	. . SUPPORT	ON199447	98230	2	
		(ATTACHING PARTS)				
		. . SCREW, FLAT HD. . .	MS51959-43	96906	4	
		---*---				
-28	MP6	. . SHIELDING, GASKET .	ON199458	98230	1	
-29	MP7	. . HINGE	ON199502	98230	1	

GROUP ASSEMBLY PARTS LIST

figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code
-30	A12	. FRONT PANEL ASSY. . . . (SEE FIG. 7-15 FOR DET BREAKDOWN) (ATTACHING PARTS) . SCREW, FLAT HEAD. . . . ---*---	ON199470	98230	1	
	 MS51959-43	MS51959-43	96906	4	
-31	MP12, MP13	. . HANDLE, BOW NSA PART NO. ON199603 (ATTACHING PARTS) . . SCREW, FLAT HEAD. . . . ---*---	10377-SS-0832	06540	2	
	 MS51959-44	MS51959-44	96906	4	
-32	CB1	. CIRCUIT BREAKER.	M39091-393	81349	1	
-33	MP14	. . SHIELDING, GASKET. . . .	ON199612	98230	1	
-34	A16	. CHASSIS ASSEMBLY, ELECTRONIC EQUIP- MENT (SEE FIG. 7-19 FOR DET BREAKDOWN)	ON199466	98230	1	

GROUP ASSEMBLY PARTS LIST

Figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code
7-4-	PREFIX WITH A2A1	CIRCUIT CARD ASSY	ON199503	98230	REF	
-1	U1, U16	(SEE FIG. 7-3 FOR NHA) MICROCIRCUIT NSA PART NO. ON199576	SN74L00J	01295	2	
-2	U2	MICROCIRCUIT NSA PART NO. ON199578	SN74L04J	01295	1	
-3	U3	MICROCIRCUIT NSA PART NO. ON199585	SN74161L	01295	1	
-4	U4, U5, U6, U18, U19, U20	MICROCIRCUIT NSA PART NO. ON199586	SN74163J	01295	6	
-5	U7, U8	MICROCIRCUIT NSA PART NO. ON199584	SN74L74J	01295	2	
-6	U9	MICROCIRCUIT NSA PART NO. ON199561	SN7400J	01295	1	
-7	U10	MICROCIRCUIT NSA PART NO. ON199565	SN7410J	01295	1	
-8	U11, U12, U13	MICROCIRCUIT NSA PART NO. ON199591	SN74L85J	01295	3	
-9	U14	MICROCIRCUIT NSA PART NO. ON199560	SN74107J	01295	1	
-10	U15	MICROCIRCUIT NSA PART NO. ON199580	SN74L20J	01295	1	
-11	U17	MICROCIRCUIT NSA PART NO. ON199563	SN7404J	01295	1	
-12	XU1, XU2, XU7, XU8, XU9, XU10, XU14, XU15, XU16, XU17	SOCKET, MICROCIRCUIT NSA PART NO. ON199600	C93140	73803	10	

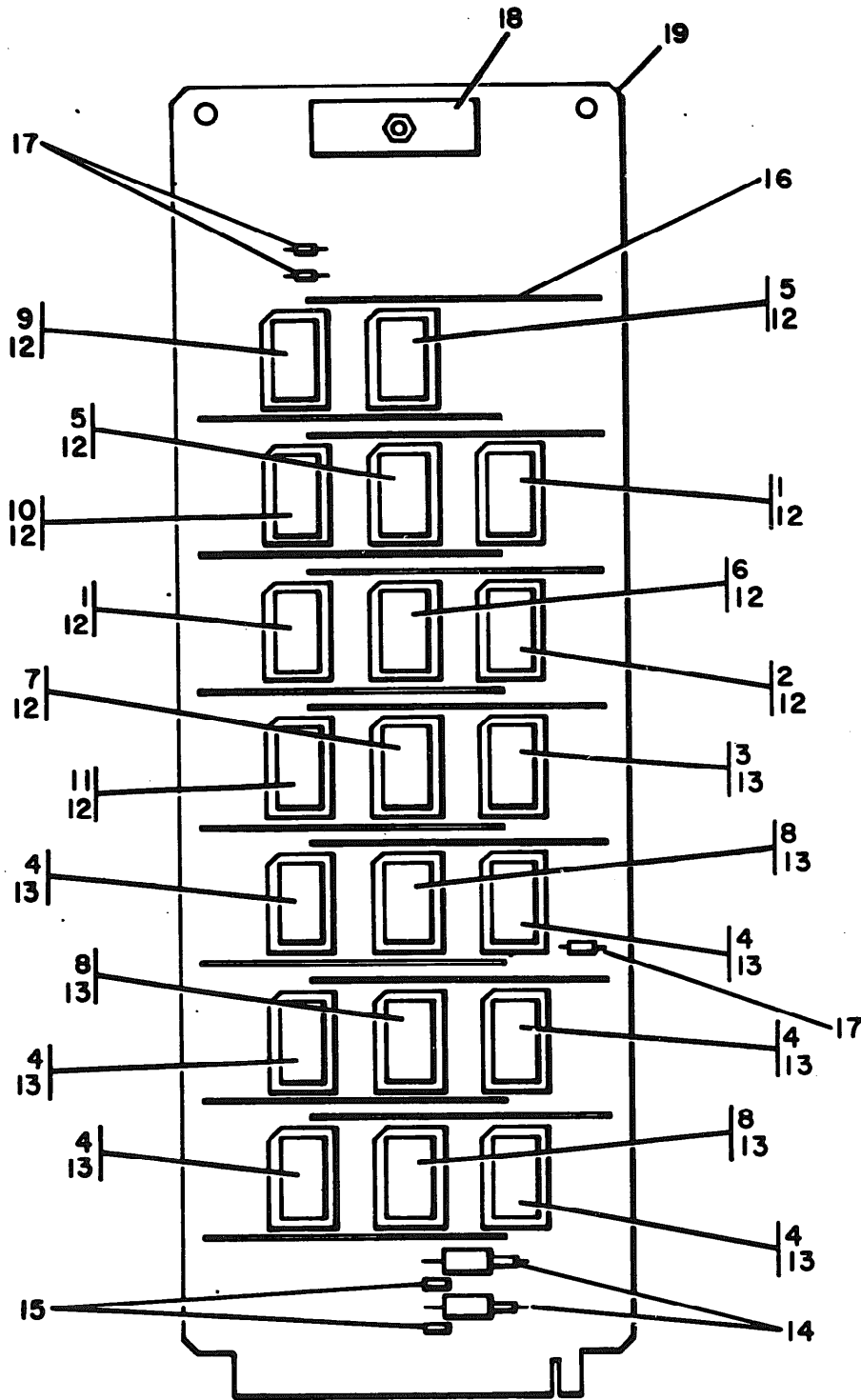


Figure 7-4. Circuit Assembly A2A1

GROUP ASSEMBLY PARTS LIST

Figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code
-13	XU3, XU4, XU5, XU6, XU11, XU12, XU13, XU18, XU19, XU20	. SOCKET, MICROCIRCUIT NSA PART NO. QN199601	C931602	73803	10	
-14	C1, C2	. CAPACITOR, FIXED.	M39006-9-4004	81349	2	
-15	C3, C4	. CAPACITOR, FIXED.	CK05BX103K	81249	2	
-16	E2, E3, E4, E5, E6, E7, E8, E9, E10, E11, E12, E13, E14, E15	. JUMPER	ON199506	98230	14	
-17	R1, R2, R3	. RESISTOR, FIXED	RCR07G102JM	81349	3	
-18	TP1	. CONNECTOR, ELEC	M39024-6-02	81349	1	
		(ATTACHING PARTS)				
		. NUT, HEX	MS35649-224	96906	1	
		. SCREW, PAN HEAD	MS51957-6	96906	1	
		. WASHER, FLAT	MS15795-802	96906	1	
		. WASHER, LOCK	MS35338-134	96906	1	
		---*---				
-19	E1	. PRINTED WIRING BD	ON199505	98230	1	

GROUP ASSEMBLY PARTS LIST

Figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code
7 - 5 -	PREFIX WITH	CIRCUIT CARD ASSY. . . .	ON199508	98230	REF	
- 1	A2A2	(SEE FIG. 7-3 FOR NHA)				
	U1	. MICROCIRCUIT.	SN7437J	01295	1	
		NSA PART NO.				
		0N199570				
- 2	U2, U5	. MICROCIRCUIT.	SN7474J	01295	2	
		NSA PART NO.				
		0N199572				
- 3	U3	. MICROCIRCUIT.	SN74161J	01295	1	
		NSA PART NO.				
		0N199585				
- 4	U4, U7	. MICROCIRCUIT.	SN7400J	01295	2	
		NSA PART NO.				
		0N199561				
- 5	U6	. MICROCIRCUIT.	SN74164J	01295	1	
		NSA PART NO.				
		0N199589				
- 6	U8	. MICROCIRCUIT.	SN7404J	01295	1	
		NSA PART NO.				
		0N199563				
- 7	XU1, XU2, XU3,	. SOCKET, MICROCIRCUIT	C931402	73803	7	
	XU4, XU5, XU7,	NSA PART NO.				
	XU8	0N199600				
- 8	XU6	. SOCKET, MICROCIRCUIT	C931602	73803	1	
		NSA PART NO.				
		0N199601				
- 9	Y1	. CRYSTAL UNIT.	B667-1	71034	1	
		NSA PART NO.				
		0N199597				
- 10	A1XY1	. . SOCKET CRYSTAL. . .	8000-DG1	91506	1	
		NSA PART NO.				
		0N199599				
		(ATTACHING PARTS)				
		. . RIVET, TUBULAR. . .	MS16535-77	96906	2	
		---*---				
- 11	C1	. CAPACITOR, FIXED. . .	M39006-9-4004	81349	1	
- 12	C2, C3	. CAPACITOR, FIXED. . .	CK05BX103K	81349	2	

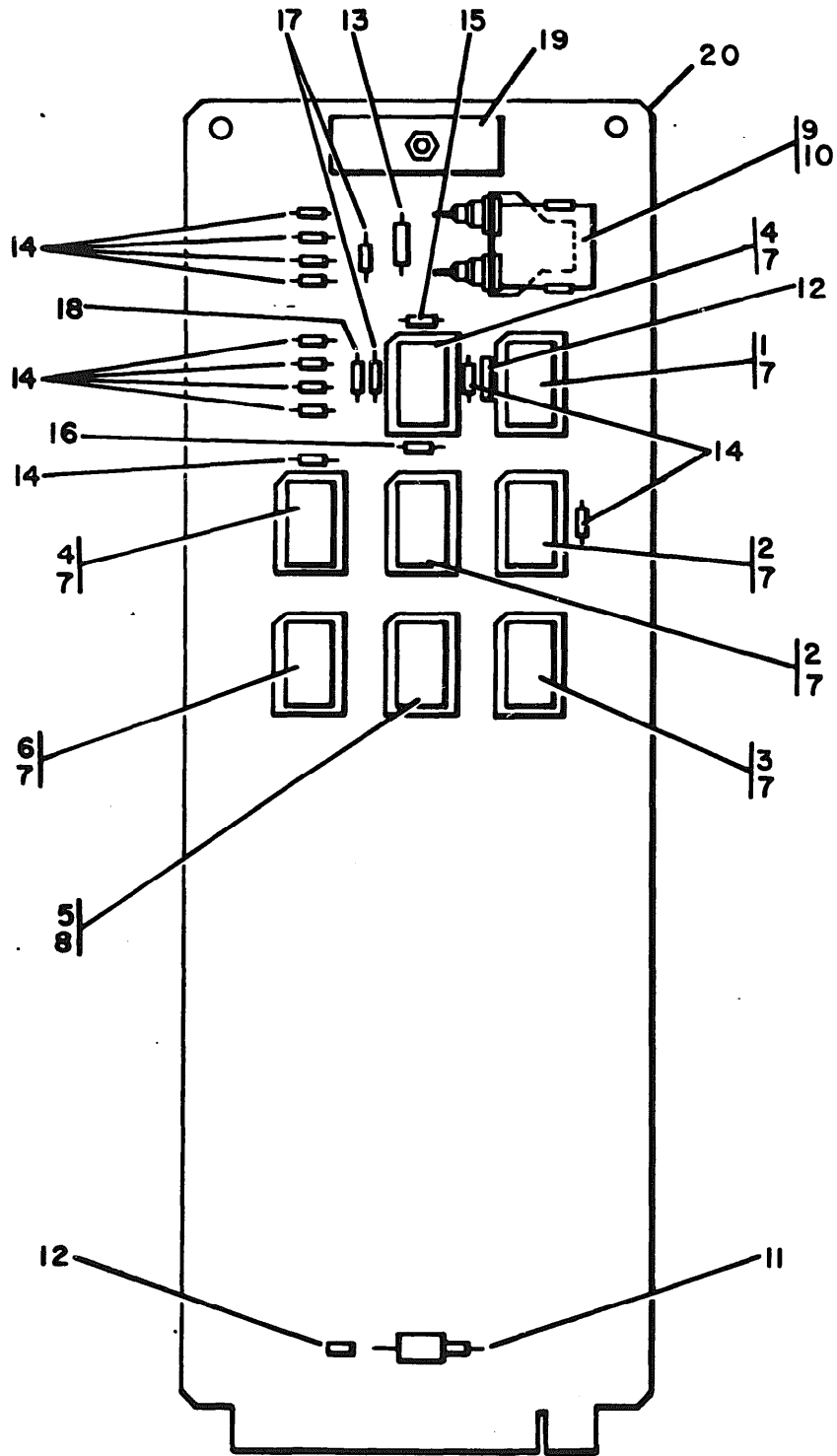


Figure 7-5. Circuit Card Assembly A2A2

GROUP ASSEMBLY PARTS LIST

Figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code
- 13	C4	. CAPACITOR, FIXED . . .	CMR06F152J007	81349	1	
- 14	R1, R2, R8, R9, R10, R11, R12, R13, R14, R15, R16	. RESISTOR, FIXED . . .	RCR07G102JM	81349	11	
- 15	R3	. RESISTOR, FIXED . . .	RCR07G561JM	81349	1	
- 16	R4	. RESISTOR, FIXED . . .	RCR07G331JM	81349	1	
- 17	R5, R6	. RESISTOR, FIXED . . .	RCR07G221JM	81349	2	
- 17	R7	. RESISTOR, FIXED . . .	RCR07G182JM	81349	1	
- 19	TP1	. CONNECTOR, ELEC . . .	M39024-6-02	81349	1	
		(ATTACHING PARTS)				
		. NUT, HEX	MS35649-224	96906	1	
		. SCREW, PAN HEAD . . .	MS51957-6	96906	1	
		. WASHER, FLAT	MS15795-802	96906	1	
		. WASHER, LOCK	MS35338-134	96906	1	
		---*---				
- 20	E1	. PRINTED WIRING BD . .	ON199511	98230	1	

GROUP ASSEMBLY PARTS LIST

Figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code
7 - 6 -	PREFIX WITH A2A3	CIRCUIT CARD ASSY.	ON199524	98230	RE]	
- 1	U1, U7, U8, U14, U21	. MICROCIRCUIT NSA PART NO. ON199584	SN74L74J	01295	5	
- 2	U2	. MICROCIRCUIT NSA PART NO. ON199564	SN7406J	01295	1	
- 3	U3	. MICROCIRCUIT NSA PART NO. ON199560	SN74107J	01295	1	
- 4	U4, U9, U20	. MICROCIRCUIT NSA PART NO. ON199576	SN74L00J	01295	3	
- 5	U5, U11	. MICROCIRCUIT NSA PART NO. ON199565	SN7410J	01295	2	
- 6	U6, U12	. MICROCIRCUIT NSA PART NO. ON199570	SN7437J	01295	2	
- 7	U10	. MICROCIRCUIT NSA PART NO. ON199578	SN74L04J	01295	1	
- 8	U13	. MICROCIRCUIT NSA PART NO. ON199563	SN7404J	01295	1	
- 9	U16, U19	. MICROCIRCUIT NSA PART NO. ON199561	SN7400J	01295	2	
- 10	U17	. MICROCIRCUIT NSA PART NO. ON199577	SN74LO2J	01295	1	
- 11	U18	. MICROCIRCUIT NSA PART NO. ON199573	SN74111J	01295	1	
- 12	P1	. PLUG ASSEMBLY	ON199526	98230	1	
- 13	XP1, XU1, XU2, XU3, XU4, XU5, XU6, XU7, XU8, XU9, XU10, XU11, XU12,	. SOCKET, MICROCIRCUIT	C931402	73803	20	

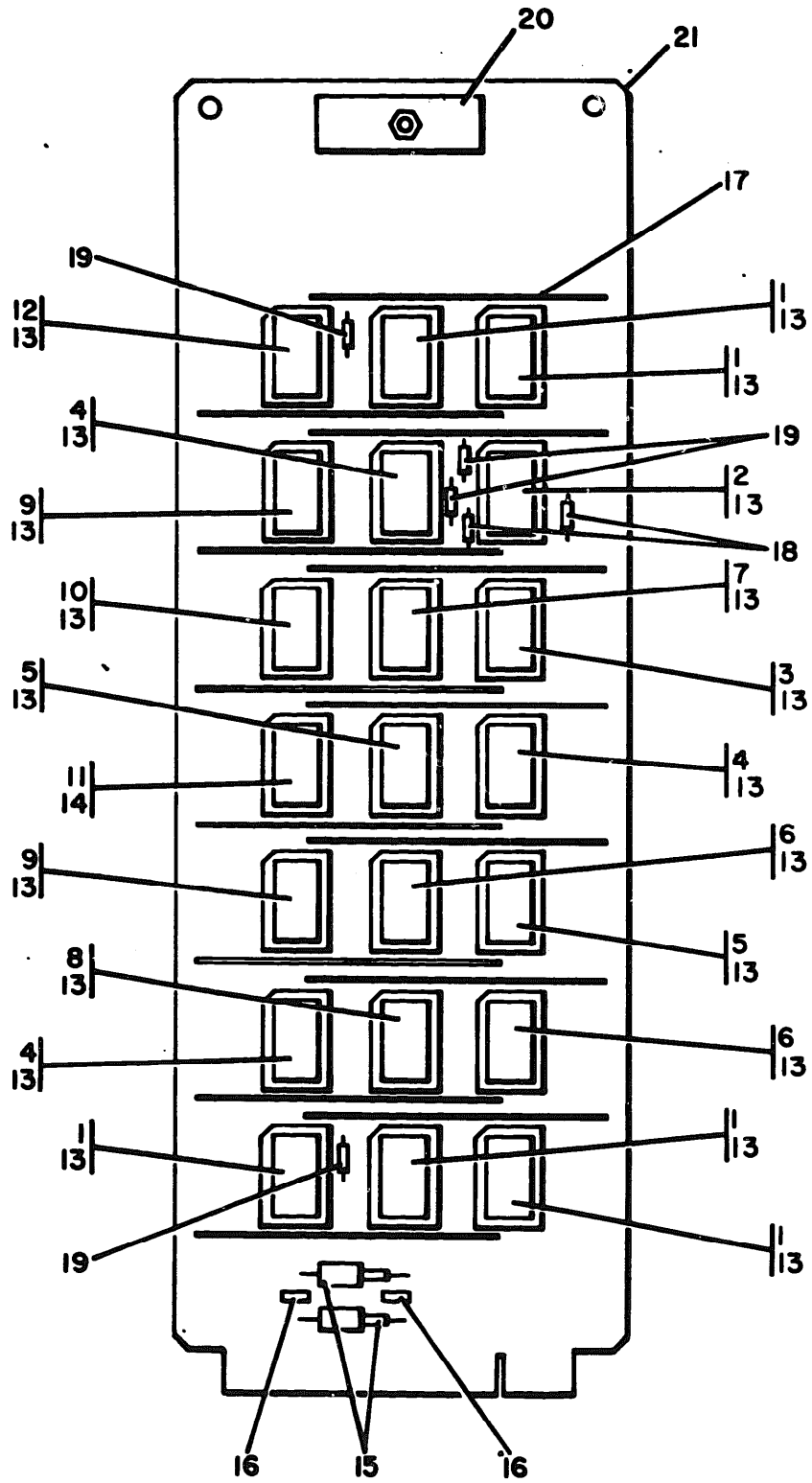


Figure 7-6. Circuit Card Assembly A2A3

GROUP ASSEMBLY PARTS LIST

Figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code
- 13	XU13, XU14, XU16, XU17 XU19, XU20 XU21					
-14	XU18	. SOCKET, MICROCIRCUIT NSA PART NO. ON199601	C931602	73803	1	
- 15	C1, C4	. CAPACITOR, FIXED. . .	M39006-9-4004	81349	2	
- 16	C2, C3	. CAPACITOR, FIXED. . .	CK05BX103K	81349	2	
- 17	E2, E3, E4, E5, E6, E7, E8, E9, E10, E11, E12, E13, E14, E15	. JUMPER	ON199506	98230	14	
- 18	R1, R2	. RESISTOR, FIXED. . . .	RCR07G331JM	81349	2	
- 19	R3, R4, R5, R6	. RESISTOR, FIXED. . . .	RCR07G102JM	81349	4	
- 20	TP1	. CONNECTOR, ELEC. . . .	M39024-6-02	81349	1	
		(ATTACHING PARTS)				
		. NUT, HEX	MS35649-224	96906	1	
		. SCREW, PAN HEAD	MS51957-6	96906	1	
		. WASHER, FLAT	MS15795-802	96906	1	
		. WASHER, LOCK	MS35338-134	96906	1	
		---*---				
-21	E1	. PRINTED WIRING BD . .	ON199527	98230	1	

GROUP ASSEMBLY PARTS LIST

Figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code
7-7-	PREFIX WITH A2A4	CIRCUIT CARD ASSY.	ON199516	98230	REF	
-1	U1, U15	. MICROCIRCUIT. NSA PART NO. ON199561	SN7400J	01295	2	
-2	U2, U12, U13	. MICROCIRCUIT. NSA PART NO. ON199576	SN74L00J	01295	3	
-3	U3	. MICROCIRCUIT. NSA PART NO. ON199564	SN7406J	01295	1	
-4	U4, U5, U11	. MICROCIRCUIT. NSA PART NO. ON199572	SN747J	01295	3	
-5	U6	. MICROCIRCUIT. NSA PART NO. ON199562	SN7402J	01295	1	
-6	U7	. MICROCIRCUIT. NSA PART NO. ON199579	SN74L10J	01295	1	
-7	U8, U10, U14	. MICROCIRCUIT. NSA PART NO. ON199560	SN74107J	01295	3	
-8	U9	. MICROCIRCUIT. NSA PART NO. ON199567	SN7425J	01295	1	
-9	U16, U17	. MICROCIRCUIT. NSA PART NO. ON199563	SN7404J	01295	2	
-10	U18	. MICROCIRCUIT. NSA PART NO. ON199584	SN74L74J	01295	1	
-11	XU1, XU2, XU3, XU4, XU5, XU6, XU7, XU8, XU9, XU10, XU11, XU12, XU13, XU14, XU15, XU16, XU17 XU18	. SOCKET, MICROCIRCUIT	C931402	73803	18	

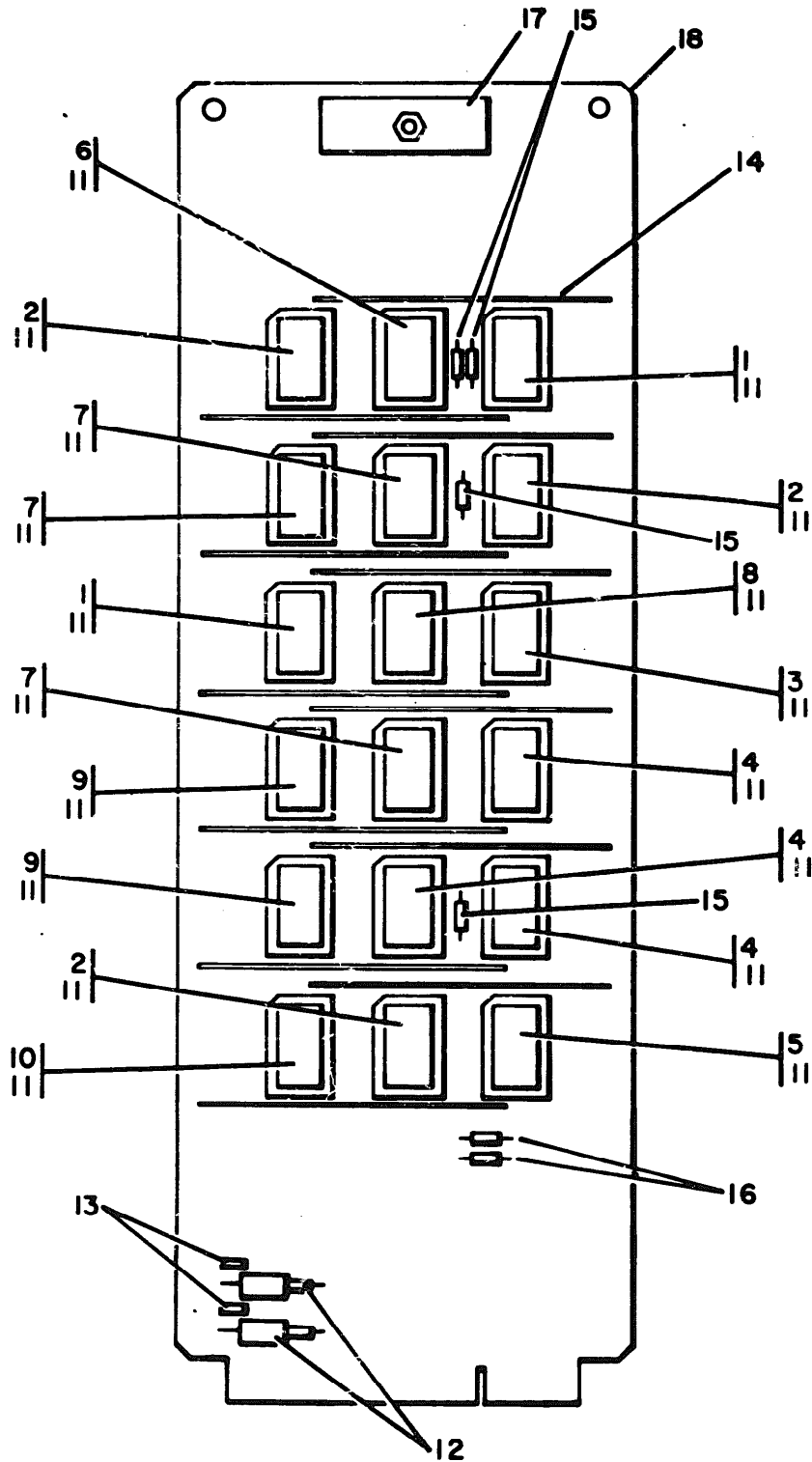


Figure 7-7. Circuit Card Assembly A2A4

GROUP ASSEMBLY PARTS LIST

Figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code
-12	C1, C2	. CAPACITOR, FIXED . . .	M39006-9-4004	81349	2	
-13	C3, C4	. CAPACITOR, FIXED . . .	CK05BX103K	81349	2	
-14	E2, E3, E4, E5, E6, E7, E8, E9, E10, E11, E12, E13	. JUMPER	ON199506	98230	12	
-15	R1, R2, R3, R4,	. RESISTOR, FIXED	RCR07G102JM	81349	4	
-16	R5, R6	. RESISTOR, FIXED	RCR07G331JM	81349	2	
-17	TP1	. CONNECTOR, ELEC . . .	M3924-6-02	81349	1	
		(ATTACHING PARTS)				
		. NUT, HEX	MS35649-224	96906	1	
		. SCREW, PAN HEAD . . .	MS51957-6	96906	1	
		. WASHER, FLAT	MS15795-802	96906	1	
		. WASHER, LOCK	MS35338-134	96906	1	

-18	E1	. PRINTED WIRING BD. . .	ON199518	98230	1	

GROUP ASSEMBLY PARTS LIST

Figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code
7-8-	PREFIX WITH A2A5	CIRCUIT CARD ASSY.	ON199520	98230	REF	
-1	U1, U8, U10, U11 U12, U13, U14	. MICROCIRCUIT. NSA PART NO. ON199576	SN74L00J	01295	7	
-2	U2, U3, U4	. MICROCIRCUIT. NSA PART NO. ON199574	U7B93L0059DC	34335	3	
-3	U5	. MICROCIRCUIT. NSA PART NO. ON199579	SN74L10J	01295	1	
-4	U6, U15, U20	. MICROCIRCUIT. NSA PART NO. ON199561	SN7400J	01295	3	
-5	U7	. MICROCIRCUIT. NSA PART NO. ON199584	SN74L74J	01295	1	
-6	U9	. MICROCIRCUIT. NSA PART NO. ON199580	SN74L20J	01295	1	
-7	U16	. MICROCIRCUIT. NSA PART NO. ON199578	SN74L04J	01295	1	
-8	U17	. MICROCIRCUIT. NSA PART NO. ON199635	C3301A-0707	34649	1	
-9	U18	. MICROCIRCUIT. NSA PART NO. ON199636	C3301A-0708	34649	1	
-10	U19	. MICROCIRCUIT. NSA PART NO. ON199634	C3301A-0706	34649	1	
-11	U21	. MICROCIRCUIT. NSA PART NO. ON199565	SN7410J	01295	1	
-12	U22	. MICROCIRCUIT. NSA PART NO. ON199563	SN7404J	01295	1	

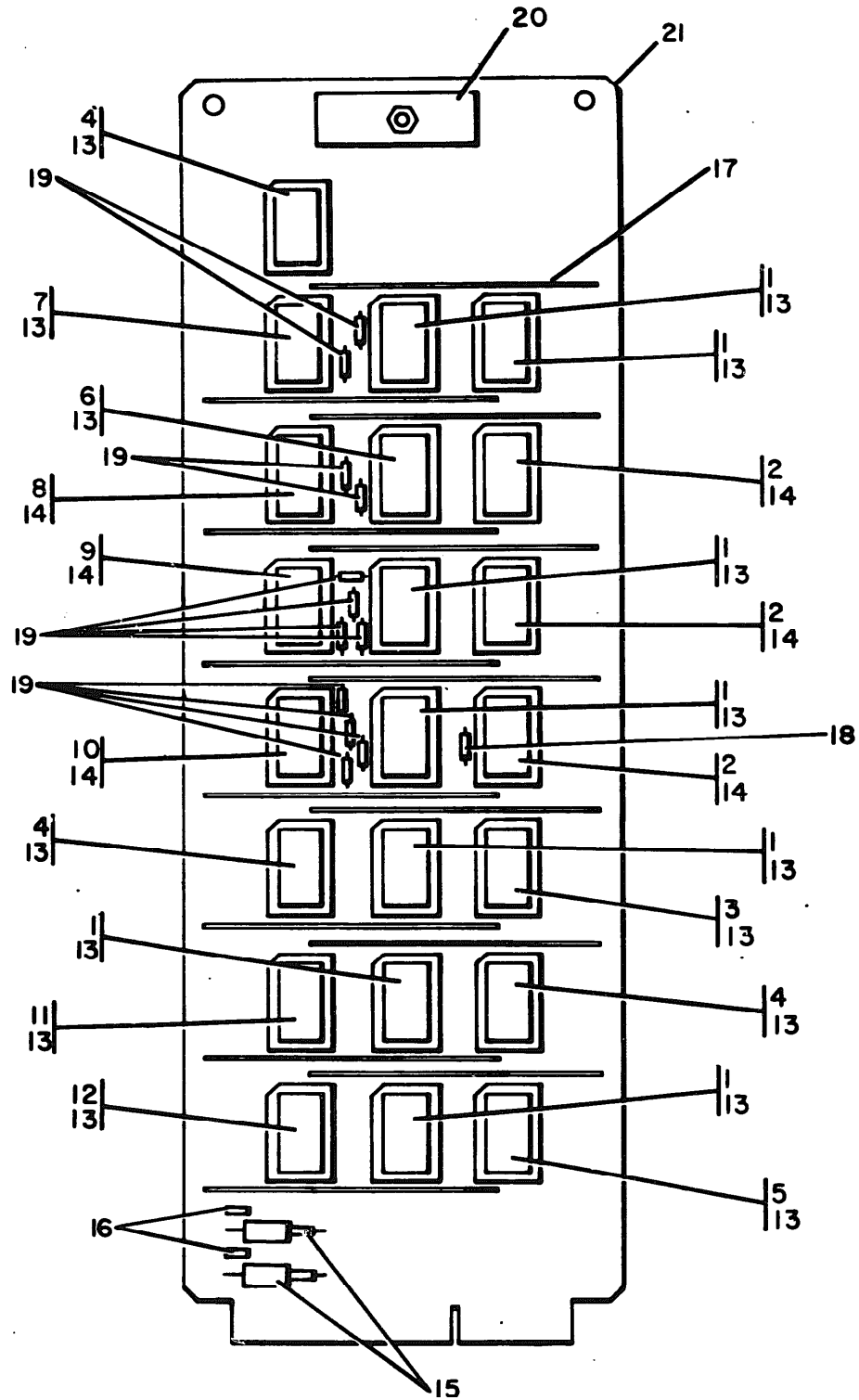


Figure 7-8. Circuit Card Assembly A2A5

GROUP ASSEMBLY PARTS LIST

Figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code
-13	XU1, XU5, XU6, XU7, XU8, XU9, XU10, XU11, XU12, XU13, XU14, XU15, XU16, XU20, XU21, XU22	. SOCKET, MICROCIRCUIT NSA PART NO. ON199600	C931402	73803	16	
-14	XU2, XU3, XU4, XU17, XU18, XU19	. SOCKET, MICROCIRCUIT NSA PART NO. ON199601	C931602	73803	6	
-15	C1, C2	. CAPACITOR, FIXED . . .	M39006-9-4004	81349	2	
-16	C3, C4	. CAPACITOR, FIXED . . .	CK05BX103K	81349	2	
-17	E2, E3, E4, E5, E6, E7, E8, E9, E10, E11, E12, E13, E14, E15	. JUMPER	ON199506	98230	14	
-18	R1	. RESISTOR, FIXED	RCR07G102JM	81349	1	
-19	R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13	. RESISTOR, FIXED	RCR07G182JM	81349	12	
-20	TP1	. CONNECTOR, ELEC . . .	M39024-6-02	81349	1	
		(ATTACHING PARTS)				
		. NUT, HEX	MS35649-224	96906	1	
		. SCREW, PAN HEAD . . .	MS51957-6	96906	1	
		. WASHER, FLAT	MS15795-802	96906	1	
		. WASHER, LOCK	MS35338-134	96906	1	
		---*---				
-21	E1	. PRINTED WIRING BD. . .	ON199522	98230	1	

GROUP ASSEMBLY PARTS LIST

Figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code
7-9-	PREFIX WITH A2A6	CIRCUIT CARD ASSY	ON199512	98230	REF	
-1	U1, U4, U5, U10, U15	(SEE FIG. 7-3 FOR NHA) . MICROCIRCUIT NSA PART NO. ON199576	SN74L00J	01295	5	
-2	U2, U18	. MICROCIRCUIT NSA PART NO. ON199569	SN7430J	01295	2	
-3	U3, U20	. MICROCIRCUIT NSA PART NO. ON199563	SN 7404J	01295	2	
-4	U6	. MICROCIRCUIT NSA PART NO. ON199560	SN74107J	01295	1	
-5	U7	. MICROCIRCUIT NSA PART NO. ON199570	SN7427J	01295	1	
-6	U8	. MICROCIRCUIT NSA PART NO. ON199590	SN74L164J	01295	1	
-7	U9, U16	. MICROCIRCUIT NSA PART NO. ON199566	SN7420J	01295	2	
-8	U11, U13	. MICROCIRCUIT NSA PART NO. ON199579	SN74L10J	01295	2	
-9	U12	. MICROCIRCUIT NSA PART NO. ON199572	SN7474J	01295	1	
-10	U14	. MICROCIRCUIT NSA PART NO. ON199587	SN74191J	01295	1	
-11	U17, U21	. MICROCIRCUIT NSA PART NO. ON199561	SN7400J	01295	2	
-12	U19	. MICROCIRCUIT NSA PART NO. ON199578	SN74L04J	01295	1	

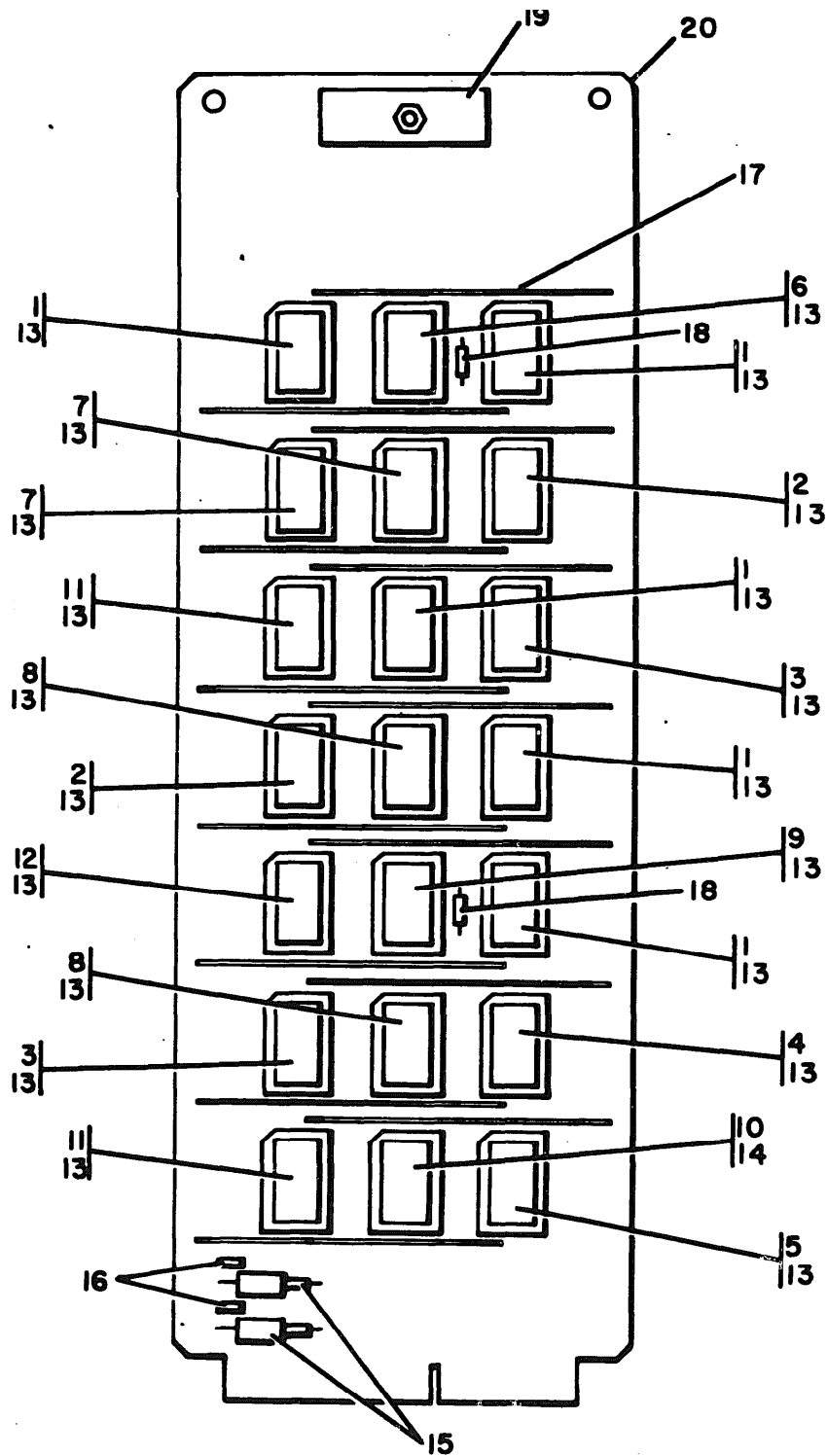


Figure 7-9. Circuit Card Assembly A2A6

GROUP ASSEMBLY PARTS LIST

Figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code
-13	XU1, XU2, XU3, XU4, XU5, XU6, XU7, XU8, XU9, XU10, XU11, XU12, XU13, XU15, XU16, XU17, XU18, XU19, XU20, XU21	. SOCKET, MICROCIRCUIT NSA PART NO. ON199600	C931402	73803	20	
-14	XU14	. SOCKET, MICROCIRCUIT NSA PART NO. ON199601	C931602	73803	1	
-15	C1, C2	. CAPACITOR, FIXED. . .	M39006-9-4004	81349	2	
-16	C3, C4	. CAPACITOR, FIXED. . .	CK05BX103K	81349	2	
-17	E2, E3, E4, E5, E6, E7, E8, E9, E10, E11, E12, E13, E14, E15	. JUMPER	ON199506	98230	14	
-18	R1, R2	. RESISTOR, FIXED. . . .	RCR07G102JM	81349	2	
-19	TP1	. CONNECTOR, ELEC. . .	M39024-6-02	81349	1	
		(ATTACHING PARTS)				
		. NUT, HEX	MS35649-224	96906	1	
		. SCREW, PAN HEAD . . .	MS51957-6	96906	1	
		. WASHER, FLAT	MS15795-802	96906	1	
		. WASHER, LOCK	MS35338-134	96906	1	
		---*---				
-20	E1	. PRINTED WIRING BD . .	ON199514	98230	1	

GROUP ASSEMBLY PARTS LISTS

Figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code
7-10-	PREFIX WITH A2A7	CIRCUIT CARD ASSY.	ON199529	98230	REF	
-1	U1	(SEE FIG. 7-3 FOR NHA) . MICROCIRCUIT. NSA PART NO. ON199561	SN7400J	01295	1	
-2	U2, U3, U4, U5, U8, U9, U10, U11, U15, U16, U17, U18	. MICROCIRCUIT. NSA PART NO. ON199593	AM31L01E	34335	12	
-3	U6	. MICROCIRCUIT. NSA PART NO. ON199563	SN7404J	01295	1	
-4	U7, U12, U14, U19	. MICROCIRCUIT. NSA PART NO. ON199592	SN74180J	01295	4	
-5	U13	. MICROCIRCUIT. NSA PART NO. ON199578	SN74L04J	01295	1	
-6	U20	. MICROCIRCUIT. NSA PART NO. ON199576	SN74L00J	01295	1	
-7	U21	. MICROCIRCUIT. NSA PART NO. ON199638	AM270159DC	01295	1	
-8	XU1, XU6, XU7, XU12, XU13, XU14, XU19, XU20	. SOCKET MICROCIRCUIT NSA PART NO. ON199600	C931402	73803	8	
-9	XU2, XU3, XU4, XU5, XU8, XU9, XU10, XU11, XU15, XU16, XU17, XU18, XU21	. SOCKET MICROCIRCUIT NSA PART NO. ON199601	C931602	73803	13	
-10	C1, C2	. CAPACITOR, FIXED	M39006-9-4004	81349	2	
-11	C3, C4	. CAPACITOR, FIXED	CK05BX103K	81349	2	
-12	E2, E3, E4, E5, E6, E7, E8, E9, E10, E11, E12, E13	. JUMPER.	ON199506	98230	12	

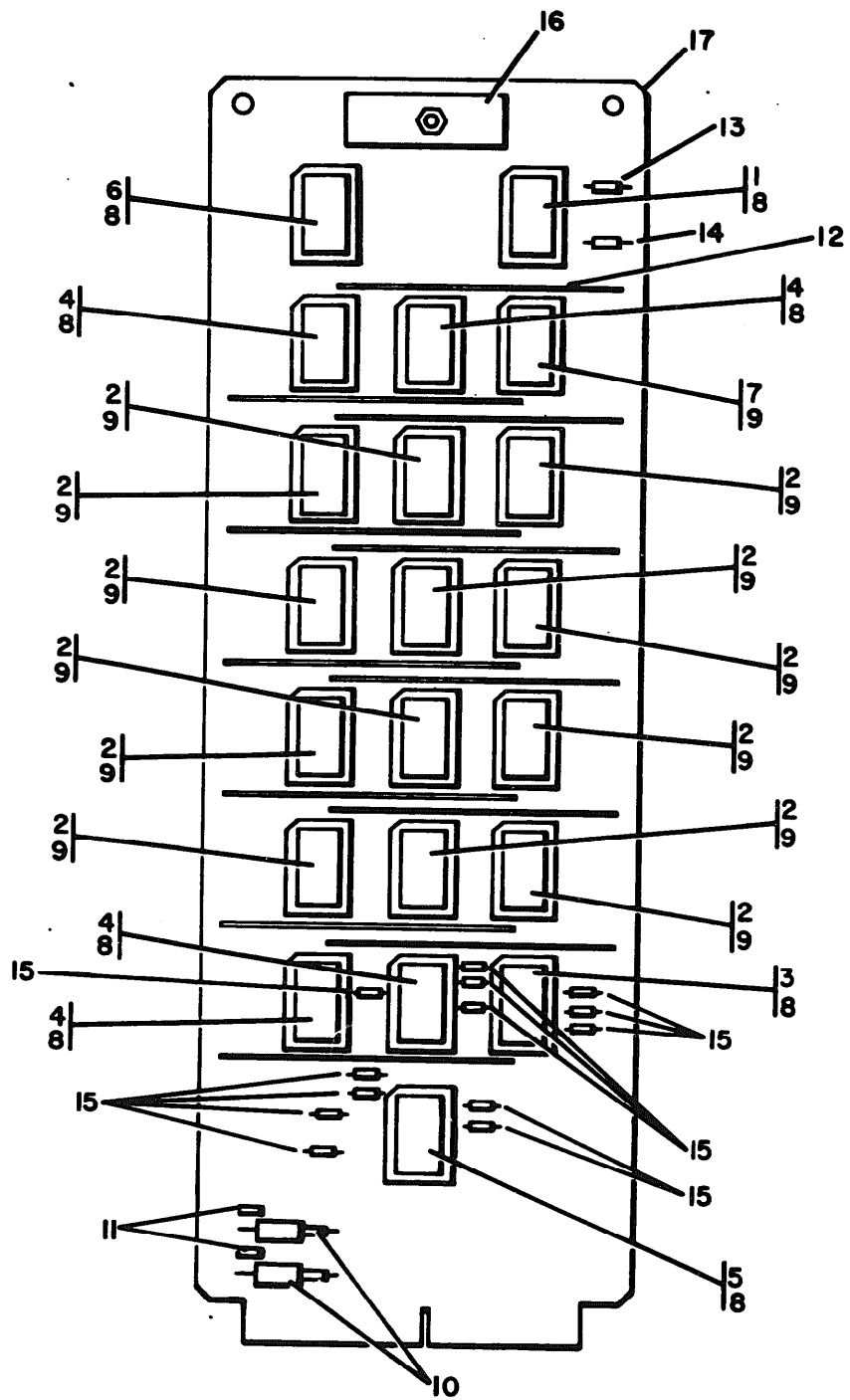


Figure 7-10. Circuit Card Assembly A2A7

GROUP ASSEMBLY PARTS LIST

Figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code
-13	R1	. RESISTOR, FIXED	RCR07G102JM	81349	2	
-14	R2	. RESISTOR, FXED	RCR07G331JM	81349	1	
-15	R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14, R15	. RESISTOR, FIXED	RCR07G103JM	81349	12	
-16	TP1	. CONNECTOR, ELEC. . .	M39024-6-02	81349	1	
		(ATTACHING PARTS)				
		. NUT HEX	MS35649-224	96906	1	
		. SCREW, PAN HEAD . . .	MS51951-6	96906	1	
		. WASHER, FLAT	MS15795-802	96906	1	
		. WASHER, LOCK	MS35338-134	96906	1	
		----*----				
-17	E1	. PRINTED WIRING BD . .	ON199531	98230	1	

GROUP ASSEMBLY PARTS LIST

Figure & Index No.	Reference Designation	Description	Parts Number	Code Ident	Units Per Assy	Usable on Code
7-11-	PREFIX WITH A2A8	CIRCUIT CARD ASSY.	ON199546	98230	REF	
-1	U1, U2, U3	. MICROCIRCUIT. NSA PART NO. ON199596	CM1161	50077	3	
-2	U4	. MICROCIRCUIT. NSA PART NO. ON199563	SN7404J	01295	1	
-3	U5, U6, U7, U8	. MICROCIRCUIT. NSA PART NO. ON199595	CM1151	50077	4	
-4	XU1, XU2, XU3, XU4, XU5, XU6, XU7, XU8	. SOCKET, MICROCIRCUIT NSA PART NO. ON199600	C931402	73803	8	
-5	C1, C3, C5, C7	. CAPACITOR, FIXED . . .	CK05BX103K	81349	4	
-6	C2	. CAPACITOR, FIXED . . .	M39006-9-4004	81349	1	
-7	C4, C6, C8	. CAPACITOR, FIXED . . .	M39006-9-4061	81349	3	
-8	C9, C16	. CAPACITOR, FIXED . . .	CK05BX332K	81349	2	
-9	C10, C11, C12, C13, C14, C15,	. CAPACITOR, FIXED . . .	CKO5BX562K	81349	6	
-10	R1, R2	. RESISTOR, FIXED	RCR07G102JM	81349	2	
-11	E2, E3, E4, E5, E6, E7, E8, E9, E10, E11, E12, E13, E14, E15, E16, E17	. . TERMINAL, STUD . . .	SE12XC04	81349	16	
-12	TP1	. CONNECTOR, ELEC (ATTACHING PARTS) . NUT, HEX SCREW, PAN HEAD WASHER, FLAT WASHER, LOCK	M39024-6-02 MS35649-224 MS51957-6 MS15795-802 MS35338-134	81349 96906 96906 96906 96906	1 1 1 1	
		---*---				
-13	E1	. . PRINTED WIRING BD. .	ON199549	98230	1	

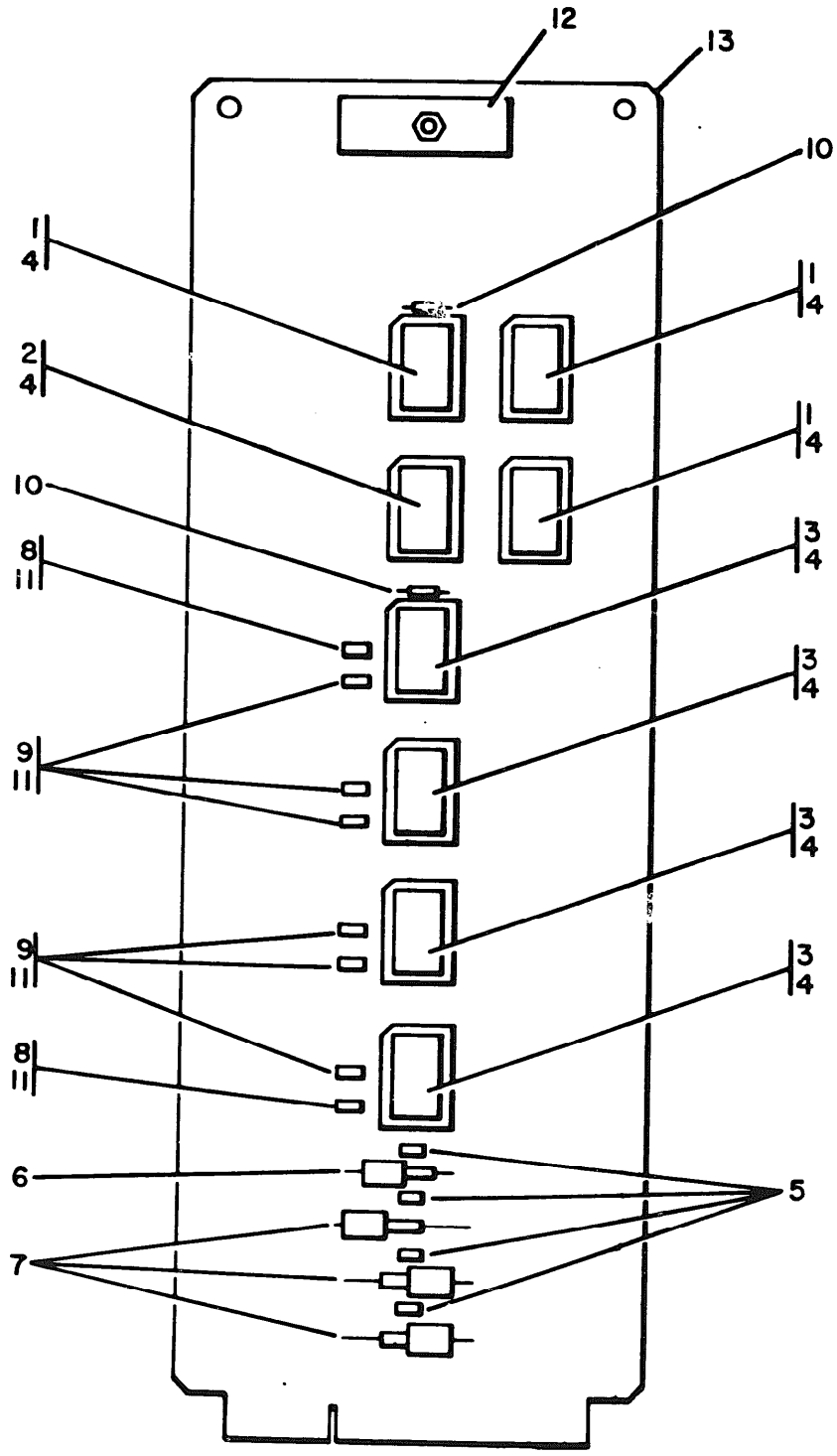


Figure 7-11. Circuit Card Assembly A2A8

GROUP ASSEMBLY PARTS LIST

Figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code
7-12-	PREFIX WITH A2A9	CIRCUIT CARD ASSY.	ON199533	98230	REF	
-1	U1, U2, U7, U8	. MICROCIRCUIT. NSA PART NO. ON199580	SN74L20J	01295	4	
-2	U3, U5	. MICROCIRCUIT. NSA PART NO. ON199574	U7B93L0059DC	34335	2	
-3	U4	. MICROCIRCUIT. NSA PART NO. ON199584	SN74L74J	01295	1	
-4	U6, U14, U20, U24	. MICROCIRCUIT. NSA PART NO. ON199576	SN74L00J	01295	4	
-5	U9	. MICROCIRCUIT. NSA PART NO. ON199589	SN74164J	01295	1	
-6	U10	. MICROCIRCUIT. NSA PART NO. ON199559	C3301A-0704	34649	1	
-7	U11	. MICROCIRCUIT. NSA PART NO. ON199588	SN74195J	01295	1	
-8	U12	. MICROCIRCUIT. NSA PART NO. ON199639	C3301A-0705	34649	1	
-9	U13, U15, U18	. MICROCIRCUIT. NSA PART NO. ON199578	SN7404J	01295	3	
-10	U16	. MICROCIRCUIT. NSA PART NO. ON199586	SN74163J	01295	1	
-11	U17	. MICROCIRCUIT. NSA PART NO. ON199581	SN74L30J	01295	1	
-12	U19, U21	. MICROCIRCUIT. NSA PART NO. ON199579	SN74L10J	01295	2	

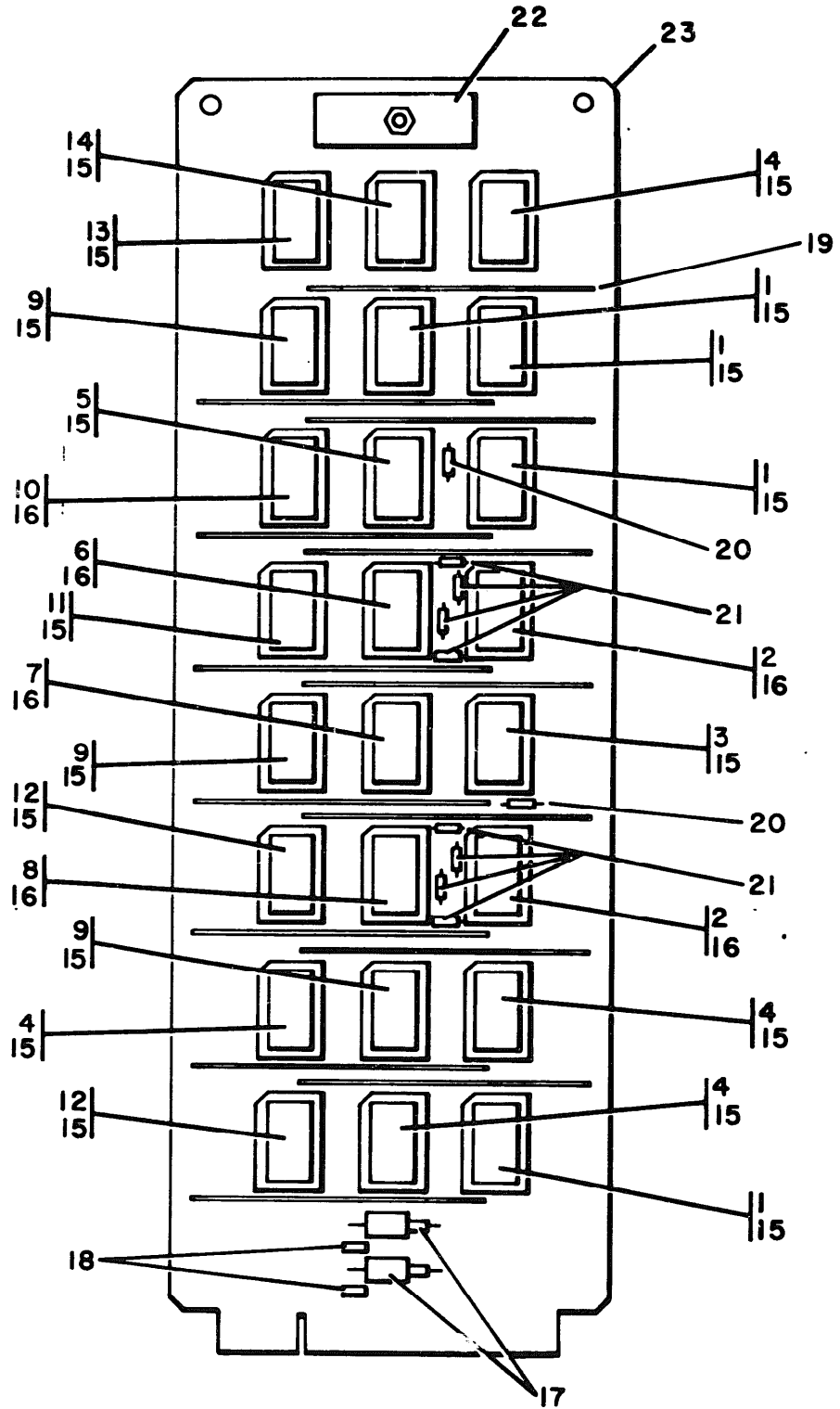


Figure 7-12. Circuit Card Assembly

GROUP ASSEMBLY PARTS LIST

Figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code
-13	U22	. MICROCIRCUIT. NSA PART NO. ON199561	SN7400J	01295	1	
-14	U23	. MICROCIRCUIT. NSA PART NO. ON199560	SN74107J	01295	1	
-15	XU1, XU2, XU4, XU6, XU7, XU8, XU9, XU13, XU14, XU15 XU17, XU18, XU19, XU20, XU21, XU22, XU23, XU24,	. SOCKET, MICROCIRCUIT	C931402	73803	18	
-16	XU3, XU5, XU10 XU11, XU12, XU16,	. SOCKET, MICROCIRCUIT	C931602	73803	6	
-17	C1C2	. CAPACITOR, FIXED. . .	M39006-9-4004	81349	2	
-18	C3, C4	. CAPACITOR, FIXED. . .	CK05BX103K	81349	2	
-19	E2, E3, E4, E5, E6, E7, E8, E9, E10, E11, E12, E13, E14, E15	. JUMPER	ON199506	98230	14	
-20	R1, R2	. RESISTOR, FIXED. . . .	RCR07G102JM	81349	2	
-21	R3, R4, R5, R6, R7, R8, R9, R10	. RESISTOR, FIXED. . . .	RCR04G182JM	81349	8	
-22	TP1	. CONNECTOR, ELEC. . .	M39024-6-02	81349	1	
		(ATTACHING PARTS)				
		. NUT, HEX	MS35649-224	96906	1	
		. SCREW, PAN HEAD . . .	MS51957-6	96906	1	
		. WASHER, FLAT	MS15795-802	96906	1	
		. WASHER, LOCK	MS35338-134	96906	1	
		---*---				
-23	E1	. PRINTED WIRING BD . .	ON199535	98230	1	

GROUP ASSEMBLY PARTS LIST

Figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code
7-13-	PREFIX WITH	CIRCUIT CARD ASSY.	ON199538	98230	REF	
-1	A2A10 U1	(SEE FIG. 7-3 FOR NHA) . MICROCIRCUIT. NSA PART NO. ON199582	SN7451J	01295	1	
-2	U2	. MICROCIRCUIT. NSA PART NO. ON199570	SN7437J	01295	1	
-3	U3, U12	. MICROCIRCUIT. NSA PART NO. ON199578	SN74104J	01295	2	
-4	U4, U13, U14, U18, U19, U21	. MICROCIRCUIT. NSA PART NO. ON199584	SN74L74J	01295	6	
-5	U5	. MICROCIRCUIT. NSA PART NO. ON199583	SN74L73J	01295	1	
-6	U6, U10	. MICROCIRCUIT. NSA PART NO. ON199579	SN74L10J	01295	2	
-7	U7	. MICROCIRCUIT. NSA PART NO. ON199571	SN7473J	01295	1	
-8	U8	. MICROCIRCUIT. NSA PART NO. ON199566	SN7420J	01295	1	
-9	U9	. MICROCIRCUIT. NSA PART NO. ON199580	SN74L20J	01295	1	
-10	U11	. MICROCIRCUIT. NSA PART NO. ON199576	SN74L00J	01295	1	
-11	U15	. MICROCIRCUIT. NSA PART NO. ON199568	SN7427J	01295	1	
-12	U16	. MICROCIRCUIT. NSA PART NO. ON199585	SN74161J	01295	1	

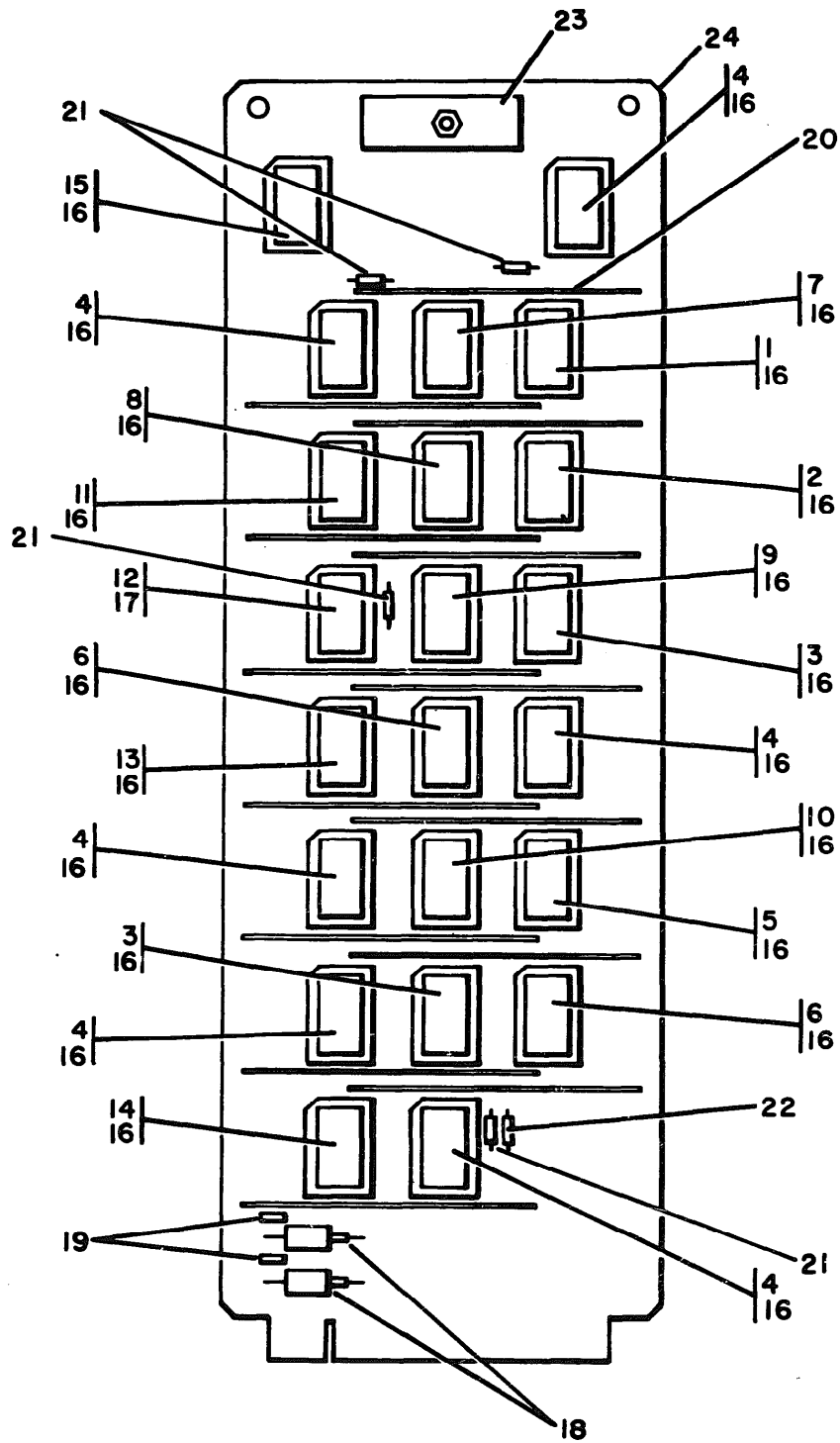


Figure 7-13. Circuit Card Assembly A2A10

GROUP ASSEMBLY PARTS LIST

Figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code
-13	U17	. MICROCIRCUIT. NSA PART NO. ON199565	SN7410J	01295	1	
-14	U20	. MICROCIRCUIT. NSA PART NO. ON199581	SN74L30J	01295	1	
-15	U22	. MICROCIRCUIT. NSA PART NO. ON199562	SN7402J	01295	1	
-16	XU1, XU2, XU3, XU4, XU5, XU6, XU7, XU8, XU9, XU10, XU11, XU12, XU13, XU14, XU15, XU17, XU18, XU19, XU20, XU21, XU22	. SOCKET, MICROCIRCUIT NSA PART NO. ON199600	C931402	73803	21	
-17	XU16	. SOCKET, MICROCIRCUIT NSA PART NO. ON199601	C931602	73803	1	
-18	C1, C2	. CAPACITOR, FIXED. . .	M39006-9-4004	81349	2	
-19	C3, C4	. CAPACITOR, FIXED. . .	CK05BX103K	81349	2	
-20	E2, E3, E4, E5, E6, E7, E8, E9, E10, E11, E12, E13	. JUMPER	ON199506	98230	12	
-21	R1, R3, R4, R5	. RESISTOR, FIXED. . . .	RCR07G102JM	81349	4	
-22	R2	. RESISTOR, FIXED. . . .	RCR07G331JM	81349	1	
-23	TP1	. CONNECTOR, ELEC. . . .	M39024-6-02	81349	1	
		(ATTACHING PARTS)				
		. NUT, HEX	MS35649-224	96906	1	
		. SCREW, PAN HEAD	MS51957-6	96906	1	
		. WASHER, FLAT	MS15795-802	96906	1	
		. WASHER, LOCK	MS35338-134	96906	1	
		---*---				
-24	E1	. PRINTED WIRING BD . .	ON199540	98230	1	

GROUP ASSEMBLY PARTS LIST

Figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code
7-14-	PREFIX WITH	CIRCUIT CARD ASSY.	ON199542	98230	REF	
-1	A2A11 U1, U2, U3	(SEE FIG. 7-3 FOR NHA) . MICROCIRCUIT.	SN74191J	01295	3	
-2	U4, U9, U24	NSA PART NO. ON199587 . MICROCIRCUIT.	SN7400J	01295	3	
-3	U5, U14, U17	NSA PART NO. ON199561 . MICROCIRCUIT.	SN74L00J	01295	3	
-4	U6, U10	NSA PART NO. ON199576 . MICROCIRCUIT.	SN74L04J	01295	2	
-5	U7, U25	NSA PART NO. ON199578 . MICROCIRCUIT.	SN74L02J	01295	2	
-6	U8	NSA PART NO. ON199577 . MICROCIRCUIT.	SN74163J	01295	1	
-7	U11	NSA PART NO. ON199586 . MICROCIRCUIT.	SN74L10J	01295	1	
-8	U12, U20	NSA PART NO. ON199579 . MICROCIRCUIT.	SN7473J	01295	2	
-9	U13, U18, U21	NSA PART NO. ON199571 . MICROCIRCUIT.	SN74L72J	01295	3	
-10	U15	NSA PART NO. ON199583 . MICROCIRCUIT.	SN7410J	01295	1	
-11	U16	NSA PART NO. ON199565 . MICROCIRCUIT.	SN74H04H	01295	1	
-12	U19	NSA PART NO. ON199575 . MICROCIRCUIT.	SN7404J	01295	1	
		NSA PART NO. ON199563				

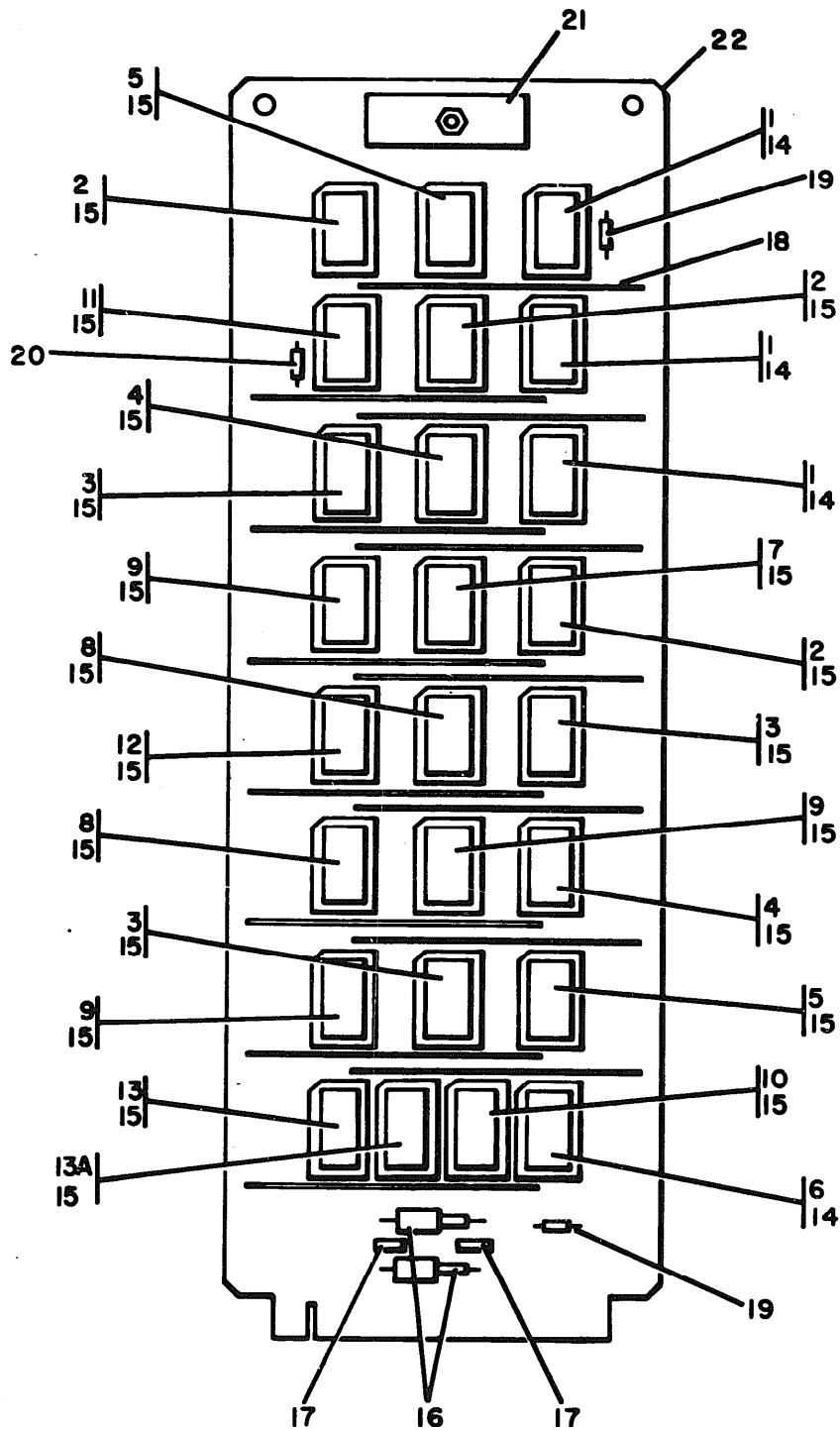


Figure 7-14. Circuit Card Assembly A2A11

GROUP ASSEMBLY PARTS LIST

Figure & Index No.	Reference Designation	Description	Park Number	Code Ident	Units Per Assy	Usable on Code
-13	U22	. MICROCIRCUIT. NSA PART NO. ON199580	SN74L20J	01295	1	
-13A	U23	. MICROCIRCUIT. NSA PART NO. ON199584	SN74L74J	01295	1	
-14	XU1, XU2, XU3, XU8	. SOCKET, MICROCIRCUIT NSA PART NO. ON199601	C931402	73802	4	
-15	XU4, XU5, XU6, XU7, XU9, XU10, XU11, XU12, XU13, XU14, XU15, XU16, XU17, XU18, XU19, XU20, XU21, XU22, XU23, XU24, XU25	. SOCKET, MICROCIRCUIT NSA PART NO. ON199600	C 9 3 1 0 2	73802	21	
-16	C1, C3	. CAPACITOR, FIXED.	M39006-9-4004	81349	2	
-17	C2, C4	. CAPACITOR, FIXED.	CK05BX103K	81349	2	
-18	E2, E3, E4, E5, E6, E7, E8, E9, E10, E11, E12, E13, E14, E15	. JUMPER	ON199506	98230	14	
-19	R1, R2	. RESISTOR, FIXED.	RCR07G102JM	81349	2	
-20	R3	. RESISTOR, FIXED.	RCR07G331JM	81349	1	
-21	TP1	. CONNECTOR, ELEC.	M39024-6-02	81349	1	
		(ATTACHING PARTS)				
		. NUT HEX.	MS35649-224	96906	1	
		. SCREW, PAN HEAD	MS 5 1 5 7 - 6	96906	1	
		. WASHER, FLAT	MS15795-802	96906	1	
		. WASHER, LOCK	MS35338-134	96906	1	
		---*---				
-22	E1	. PRINTED WIRING BD.	ON199544	98230	1	

GROUP ASSEMBLY PARTS LIST

Figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code
7-15-	PREFIX WITH A2A12	FRONT PANEL ASSY. . . .	ON199470	98230	REF	
-1	S1	(SEE FIG. 7-3 FOR NHA) . SWITCH, THUMBWHEEL NSA PART NO. ON199605	8872-4	07126	1	
-2	S2	. SWITCH, ROTARY	M3786-20-038	81349	1	
-3	MP1	. KNOB	MS91528-0C1B	96906	1	
-4	MP2	. . BRACKET, SWITCH	ON199471	98230	1	
		(ATTACHING PARTS)				
		. . NUT, HEX.	MS35649-284	96906	2	
		. . WASHER, FLAT	MS15795-807	96906	2	
		. . WASHER, LOCK	MS5338-137	96906	2	
		---*---				
-5	TB1	. . TERMINAL BLOCK NSA PART NO. ON199609-1	410-JJ-ST-8	75382	1	
		(ATTACHING PARTS)				
		. . STRADDLE PLATE	410SP	75382	2	
		NSA PART NO. ON199610				
		. . NUT, HEX.	NAS67162	80205	4	
		. . WASHER, LOCK	NAS1676C2	80205	4	
		---*---				
-6	TB2	. . TERMINAL BLOCK NSA PART NO. ON199609-2	410-JJ-ST-12	75382	1	
		(ATTACHING PARTS)				
		. . STRADDLE PLATE	410SP	75382	2	
		NSA PART NO. ON199610				
		. . NUT, HEX.	NAS671C2	80205	4	
		. . WASHER, LOCK	NAS1676C2	80205	4	
		---*---				
-7	S6	. SWITCH, TOGGLE	MS27717-23	96906	1	
-8	S5	. SWITCH, TOGGLE	MS27716-23	96906	1	

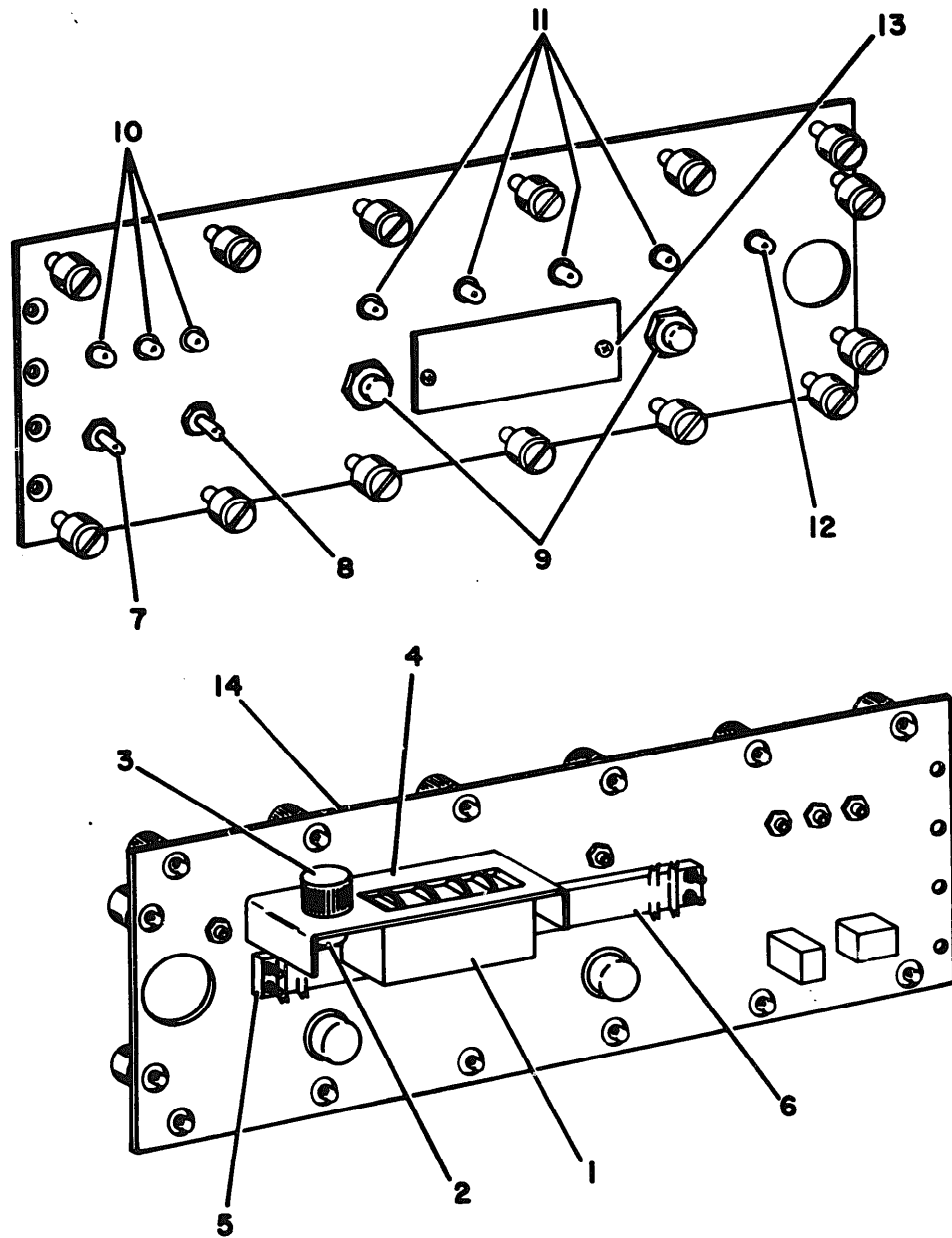


Figure 7-15. Front Panel Assembly A2A12

GROUP ASSEMBLY PARTS LIST

Figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code
-9	S3, S4	. SWITCH, PUSH.	MS 16712-1	96906	2	
-10	DS6, DS7, DS8	. BUTTON . LIGHT, INDICATOR NSA PART NO. ON199598-3	JM9151001810AC	03797	3	
-11	DS2, DS3, DS4, DS5	. LIGHT, INDICATOR NSA PART NO. ON199598-2	JM9151001810RC	03797	4	
-12	DS1	. LIGHT, INDICATOR NSA PART NO. ON199598-1	JM9151002810WC	03797	1	
-13	1MP1	. . PLATE, IDENT. (ATTACHING PARTS) . . SCREW, ROUND, HD. . . . NSA PART NO. ON199558 . . WASHER, LOCK WASHER, FLAT	ON199473 2-56X1/4 NAS1676C2 MS15795-802	98230 74545 80205 96906	1 2 2 2	
		---*---				
-14	H14	. SCREW, CAPTIVE NSA PART NO. ON199553	DRB7500-8-A-4	08524	14	
-15		PANEL, FRONT	ON199476		1	

GROUP ASSEMBLY PARTS LIST

Figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code		
7-16- -1	PREFIX WITH A2A14 MP3, MP4	INTERFACE ASSEMBLY. .	ON199495	98230	REF			
		(SEE FIG. 7-3 FOR NHA)						
		. . SUPPORT, PLATE . .	ON199462	98230	2			
		(ATTACHING PARTS)						
		. . NUT, HEX	MS35649-284	96906	4			
		. . WASHER, FLAT	MS15795-807	96906	4			
		. . WASHER, LOCK	MS35338-137	96906	4			
		----*----						
		-2	MP5	. . BAFFLE, AIR	ON199463	98230	1	
		-3	MP2	. . BRACKET, BLOWER . .	ON199461	98230	1	
-4	B1	(ATTACHING PARTS)						
		. . NUT, HEX	MS35649-284	96906	4			
		. . WASHER, FLAT	MS15795-807	96906	4			
		. . WASHER, LOCK	MS35338-137	96906	4			
		----*----						
		. . BLOWER	SE2006-1A	82742	1			
		NSA PART NO. ON199493						
		(ATTACHING PARTS)						
		. . SCREW, PAN HEAD	MS51957-127	96906	4			
		. . WASHER, FLAT	MS15795-807	96906	4			
. . WASHER, LOCK	MS35338-137	96906	4					
-5	TB3	----*----						
		. . TERMINAL BOARD	0 T B 8	81349				
		(ATTACHING PARTS)						
		. . NUT, HEX	MS35649-264	96906	2			
		. . SCREW, PAN HEAD	MS51957-33	96906	1			
		. . SCREW, PAN HEAD	MS51957-31	96906	3			
		. . WASHER, FLAT	MS15795-806	96906	1			
		. . WASHER, LOCK	MS35338-136	96906	5			
		----*----						

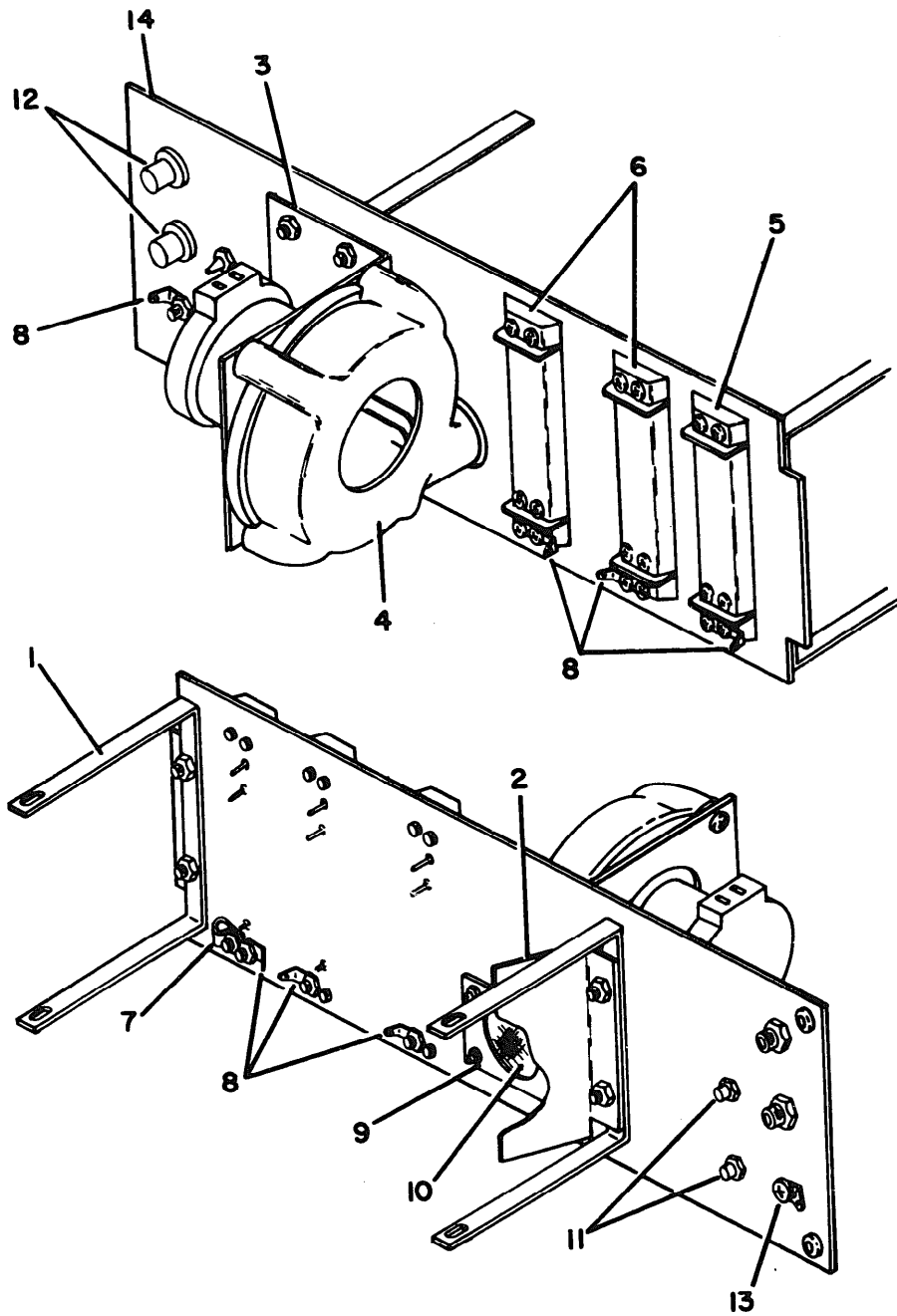


Figure 7-16. Interface Assembly A2A14

GROUP ASSEMBLY PARTS LIST

Figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code
-6	TB4, TB5	. . TERMINAL BOARD . . .	40TB8	81349	3	
		(ATTACHING PARTS)				
		. . NUT, HEX	MS35694-264	96906	2	
		. . SCREW, PAN HEAD . . .	MS51957-31	96906	8	
		. . WASHER, FLAT	MS15795-806	96906	2	
		. . WASHER, LOCK	MS35338-136	96906	8	
		---*---				
-7	MP8	. . CLAMP, LOOP	1/4-4NA	95987	1	
		NSA PART NO. ON199489				
-8	E2, E3, E4, E5, E6, E7	. . TERMINAL, LUG	MS77071-2	96906	6	
-9	MP6	. . PLATE, RETAINING . .	ON199464	98230	1	
		(ATTACHING PARTS)				
		. . NUT, HEX	MS35649-264	96906	4	
		. . WASHER, FLAT	MS15795-806	96906	4	
		. . WASHER, LOCK	MS35338-136	96906	4	
		---*---				
-10	MP7	. . SHIELDING, GASKET. .	ON199465	98230	1	
-11	FL3, FL4	. . FILTER	1221-001	72982	2	
		NSA PART NO. ON199552				
-12	FL1, FL2	. . FILTER	FL1746-61T	00656	2	
		NSA PART NO. ON199551				
-13	E1	. . TERMINAL, LUG	MS77071-2	96906	2	
		(ATTACHING PARTS)				
		. . NUT, HEX	MS35649-264	96906	2	
		. . SCREW, PAN HEAD . . .	MS51957-31	96906	1	
		. . WASHER, FLAT	MS15795-806	96906	4	
		---*---				
-14	MP1	. . PLATE ASSEMBLY . .	ON199460	98230	1	

GROUP ASSEMBLY PARTS LIST

Figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code
7-17-	PREFIX WITH A2A13	BACK PLANE ASSY.	ON199472	98230	REF	
-1	E1, E2	. . BUS BAR NSA NO. ON199650	112-0.750-11-T	98438	2	
-2	XA1, XA2, XA3, XA4, XA5, XA6, XA7, XA8, XA9, XA10, XA11	. . CONNECTOR, PC. NSA PART NO. ON199606	67233	00779	11	
		(ATTACHING PARTS)				
		. . SCREW, PAN HEAD . .	MS51957-19	96906	22	
		. . WASHER, FLAT	MS15795-803	96906	22	
		. . WASHER, LOCK	MS35338-135	96906	22	
		---*---				
	MP5, MP6, MP7, MP8, MP9, MP10, MP11, MP12, MP13, MP14, MP15	. . POLARIZING KEY NSA PART NO. ON199607	67342	00779	11	
-3	MP3	. . BAR, TOP.	ON199454	98230	1	
-4	MP2	. . BAR, BOTTOM	ON199453	98230	1	
-5	MP4	. . BAR, SHORT	ON199455	98230	1	
-6	MP1	. . BRACKET ASSEMBLY .	ON199450	98230	1	
		(ATTACHING PARTS)				
		. . SCREW, PAN HEAD . .	MS1957-45	96906	2	
		. . SCREW, PAN HEAD . .	MS511957-49	96906	2	
		. . WASHER, FLAT	MS15795-807	96906	4	
		. . WASHER, LOCK	MS35338-137	96906	4	
		---*---				

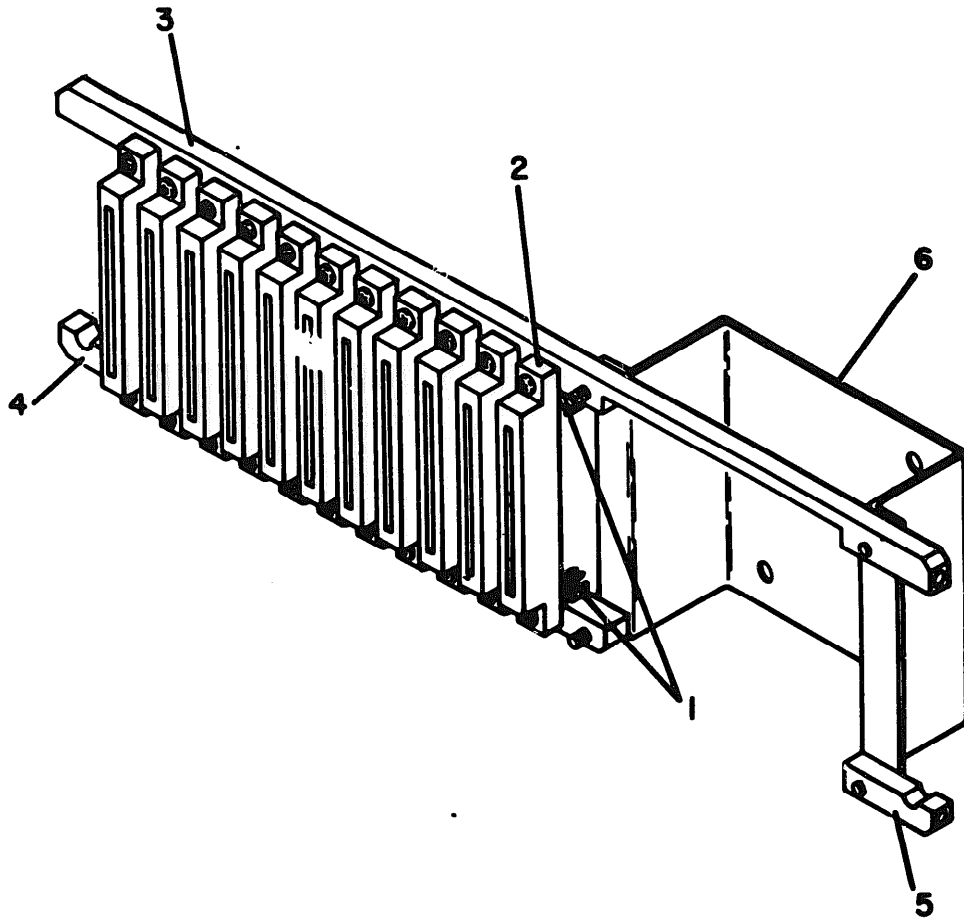


Figure 7-17. Back Plane Assembly A2A13

GROUP ASSEMBLY PARTS LIST

Figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code
7-18-	PREFIX WITH A2A15 MP2, MP3, MP4, MP5, MP6, MP7, MP8, MP9, MP10, MP11, MP12	TOP FRAME ASSEMBLY	0N199452	98230	REF	
-1		(SEE FIG. 7-3 FOR NHA) RETAINER, PWB NSA PART NO. 0N199608	17B-1015-20B	18915	11	
		(ATTACHING PARTS) RIVET, TUBULAR	MS16535-51	96906	33	
-2	MP1	TOP FRAME	0N199451	98230	1	

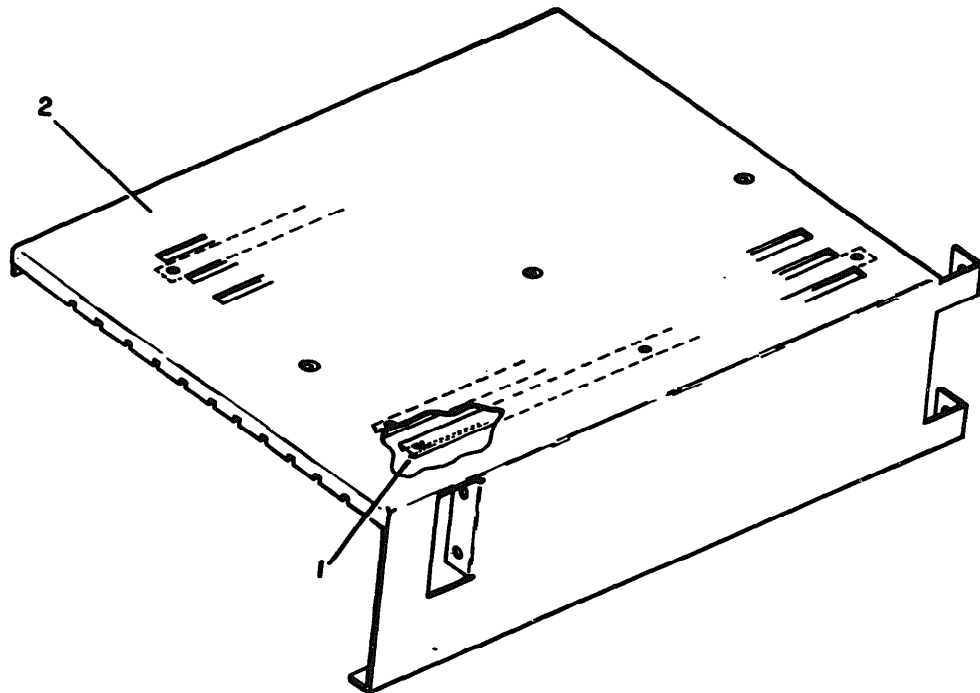


Figure 7-18. Top Frame Assembly A2A15

GROUP ASSEMBLY PARTS LIST

Figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code
7-19-	PREFX WITH A2A16	CHASSIS ASSEMBLY	0N199466	98230	REF	
-1	MP1, MP2	ELECTRONIC EQUIPMENT CLIP, SPRING	M24066-2-102	81349	2	
		(ATTACHING PARTS) RIVET, TUBULAR	MS16535-1	96906	2	
-2	MP3, MP4, MP5, MP6, MP7, MP8, MP9, MP10, MP11, MP12, MP13,	RETAINER. PWB NSA PART NO. 0N199608	17B-1015-20B	18915	11	
		(ATTACHING PARTS) RIVET, TUBULAR	MS16535-51	96906	33	
-3	MP14	FRAME ASSEMBLY	0N199467	98230	1	

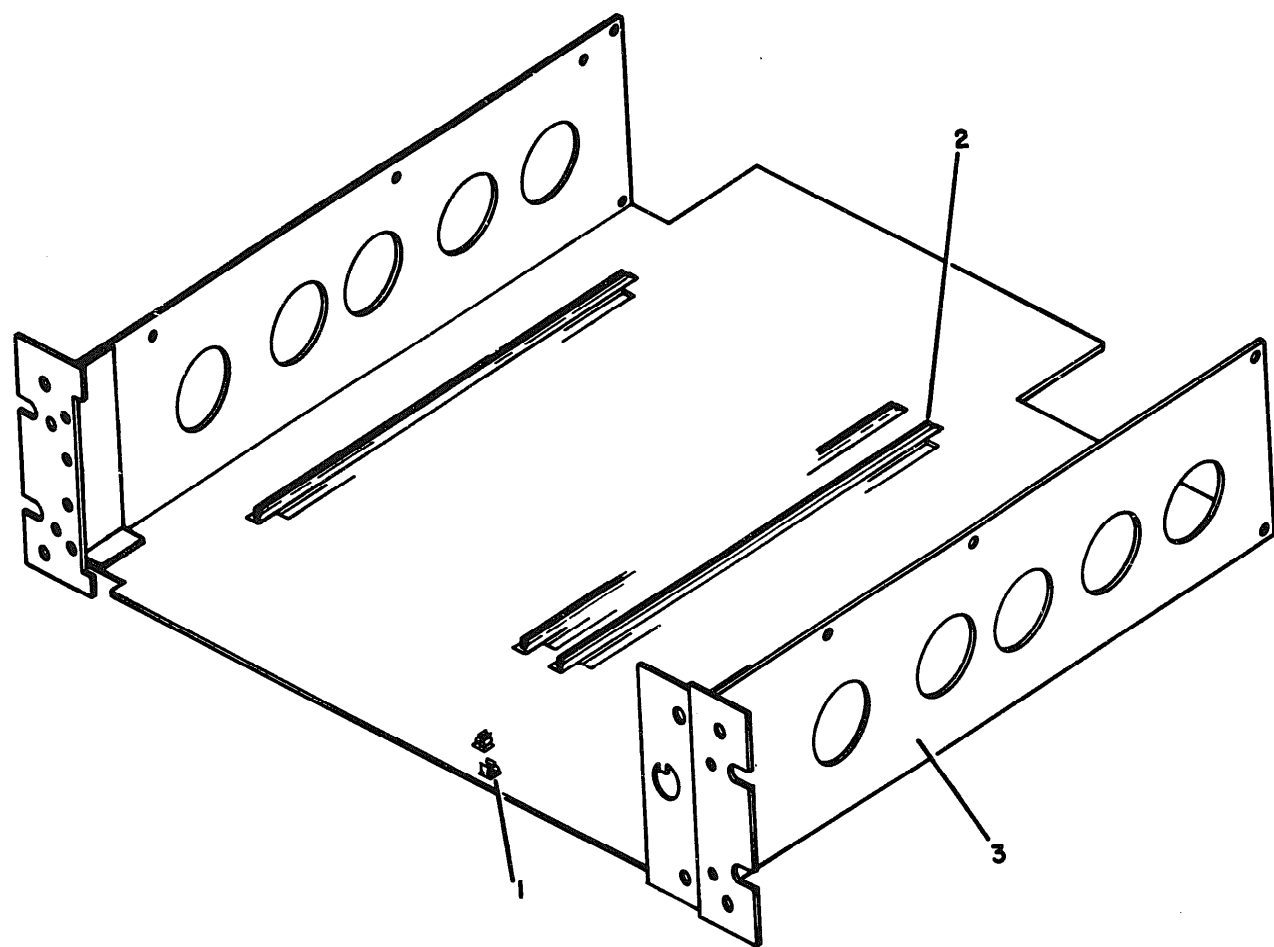


Figure 7-19. Electronic Chassis Assembly A2A16

GROUP ASSEMBLY PARTS LIST

Figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code
7-20-	PREFIX WITH A2A17	DC-DC CONVERTER ASSEMBLY (SEE FIG. 7-3 FOR NHA)	ON199499	98230	REF	
-1	MP1, MP2	. . PLATE, CONVERTER. (ATTACHING PARTS) . . SCREW, PAN HEAD WASHER, FLAT WASHER, LOCK ---*---	ON199500 MS51957-44 MS15795-807 MS35338-137	98230 96906 96906 96906	2 4 4 4	
-2	MP3, MP4	. . GUIDE PIN.	ON199456	98230	2	
-3	P.S. 1	. . DC - DC CONVERTER.	ON199	98230	1	

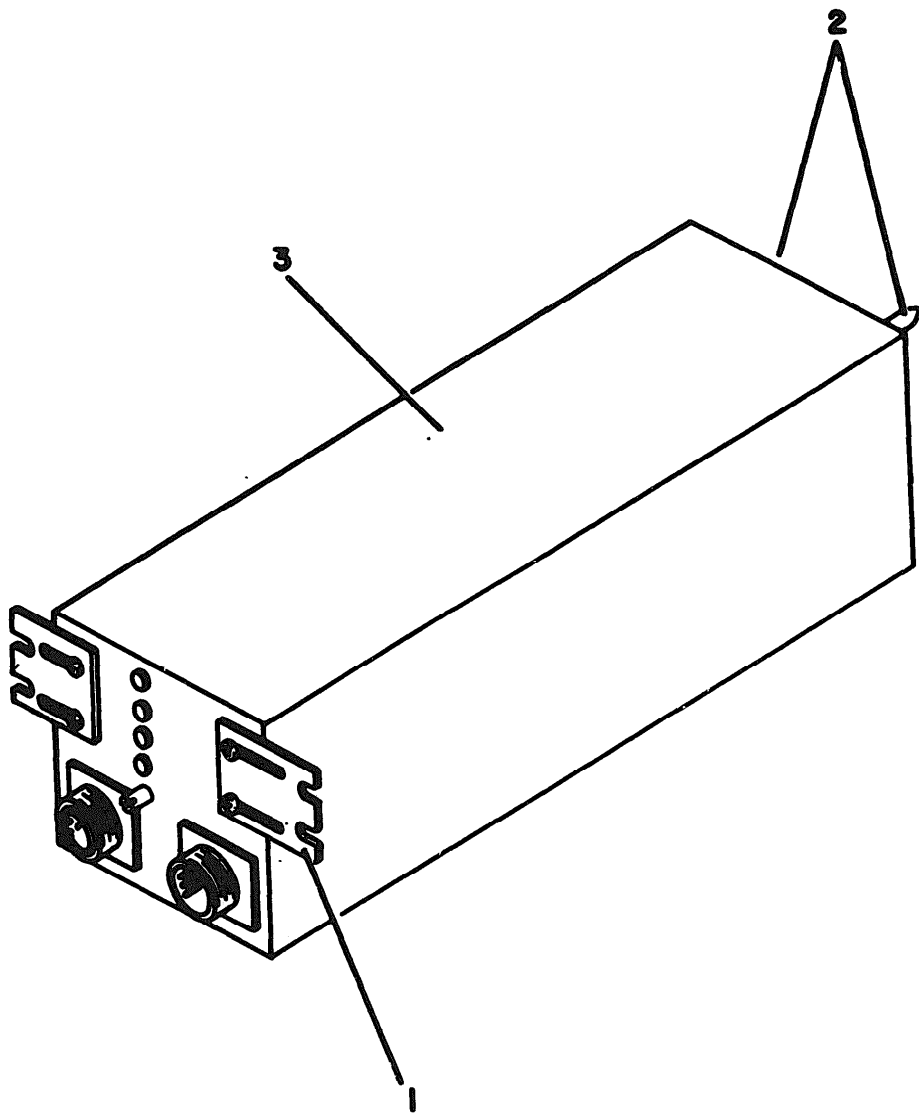


Figure 7-20. DC-DC converter Assembly A2A17

GROUP ASSEMBLY PARTS LIST

Figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code
7-21- -1	PREFIX WITH A3 MP3	REAR COVER ASSY. (SEE FIG. 7-1 FOR NHA) . . SHIELDING PANEL (ATTACHING PARTS) . . WASHER, LOCK WASHER, FLAT NUT, HEX. ---*---	ON199497 ON199483 MS35338-136 MS15795-806 MS35649-264	98230 98230 96906 96906 96906	REF 1 16 16 16	
-2	MP2	. . SHIELDING SCREEN . .	ON199484	98230	1	
-3	MP1	. . REAR COVER SUBASSEMBLY	ON199498	98230	1	

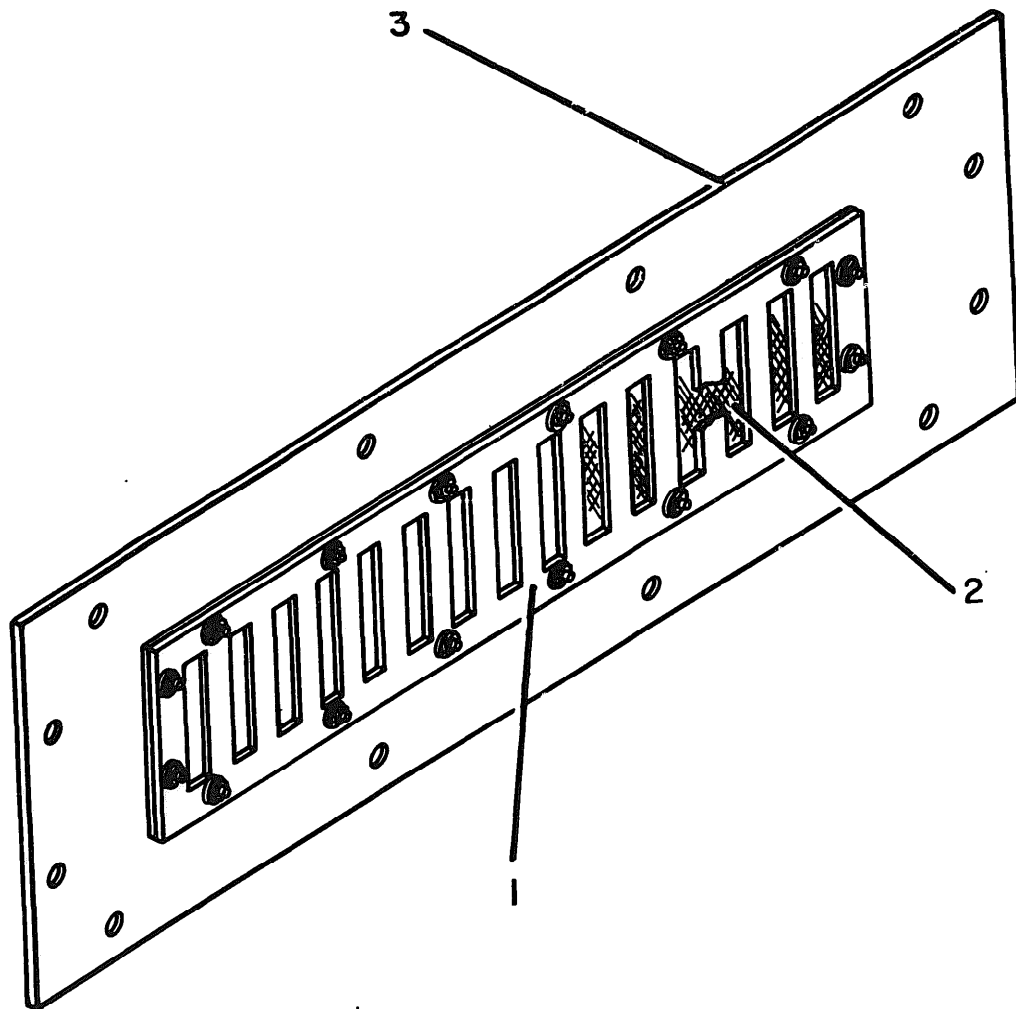
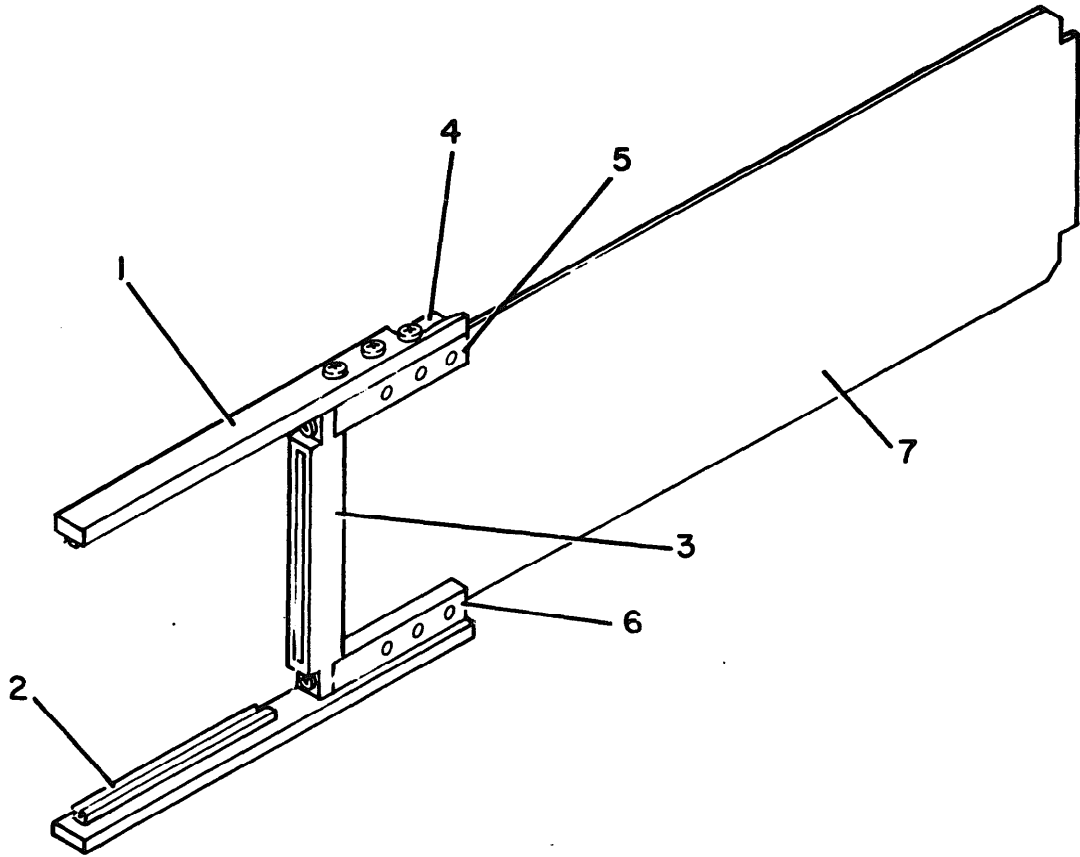


Figure 7-21. Rear Cover Assembly A3

GROUP ASSEMBLY PARTS LIST

Figure & Index No.	Reference Designation	Description	Part Number	Code Ident	Units Per Assy	Usable on Code	
7-22-	PREFIX WITH TP1 MP5, MP6	EXTENDER CARD ASSY. . .	ON199640	98230	REF		
-1		. . BRACKET, GUIDE . . .	ON199645	98230	2		
		(ATTACHING PARTS)					
		. . SCREW, PAN HD. . . .	MS51957-18	96906	6		
		. . WASHER, FLAT	MS15795-803	96906	6		
		. . WASHER, LOCK	MS35338-135	96906	6		
		---*---					
-2		MP7, MP8	. . RETAINER	35-7B-2-6-3	18915	2	
			NSA PART NO. ON199648				
		(ATTACHING PARTS)					
	. . RIVET, SOLID	MS20470A2-6	96906	4			
	---*---						
-3	P1	. . CONNECTOR, ELEC. . .	ON199647	98230	1		
	(ATTACHING PARTS)						
	. . SCREW, PAN HD. . . .	MS51957-18	96906	2			
	. . WASHER, FLAT	MS15795-803	96906	2			
	. . WASHER, LOCK	MS35338-135	96906	2			
	---*---						
-4	MP3, MP4	. . PLATE, SUPPORT. . .	ON199646	98230	2		
	(ATTACHING PARTS)						
	. . SCREW, FLAT HD. . . .	MS51959-15	96906	6			
	---*---						
-5	MP2	. . BRACKET, TOP	ON199644	98230	1		
-6	MP1	. . BRACKET, BOTTOM . . .	ON199643	98230	1		
-7	E1	. . PRINTED WIRING BD . .	ON199641	98230	1		



UNCLASSIFIED Figure 7-22. Extender Card Assembly TPI

SECTION III

NUMERICAL INDEX

NUMERICAL INDEX

Part Number	Figure and Index Number	Qty Per Art	Source Code	Repair Code
TextAM270159DC	7-10-6	1		
AM31L01E	7-10-2	12		
B667-1	7-5-9	1		
CK05BX103K	7-4-15, 7-5-12, 7-6-16, 7-7-13, 7-8-16, 7-9-16, 7-10-11, 7-11-5, 7-12-18, 7-13-18, 7-14-17	24		
CK05BX332K	7-11-8	2		
CK05BX562K	7-11-9	6		
CMR06F152J00L	7-5-13	1		
CM1151	7-11-3	4		
CM1161	7-11-1	3		
C3301A-0704	7-12-6	1		
C3301A-0705	7-12-8	1		
C3301A-0706	7-8-10	1		
C3301A-0707	7-8-8	1		
C3301A-0708	7-8-9	1		
C931402	7-4-12, 7-5-7, 7-6-13, 7-7-11, 7-8-13, 7-9-13, 7-10-8, 7-11-4, 7-12-15, 7-13-15, 7-14-15,	167		
C931602	7-4-13, 7-5-8, 7-8-14, 7-9-14, 7-10-9, 7-12-16, 7-13-16, 7-14-14	43		
DRB7500-8-A-4	7-15-14	14		
FL1746-61T	7-16-12	2		
JM9151001810AC	7-15-10	3		
JM9151001810RC	7-15-11	4		
JM9151002810WC	7-15-12	1		
MS15795-802	7-5-19, 7-7-17, 7-8-20, 7-9-19, 7-10-16, 7-11-12, 7-12-22, 7-13-22,			

NUMERICAL INDEX

Part Number	Figure and Index Number	Qty Per Art	Source Code	Repair Code
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A2A4E6	7 - 7 - 1 4	0N199506
A2A4E7	7 - 7 - 1 4	0N199506
A2A4E8	7 - 7 - 1 4	0N199506
A2A4E9	7 - 7 - 1 4	0N199506
A2A4E10	7 - 7 - 1 4	0N199506
A2A4E11	7 - 7 - 1 4	0N199506
A2A4E12	7 - 7 - 1 4	0N199406
A2A4E13	7 - 7 - 1 4	0N199406

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A2A4R1	7-7-15	RCR07G102JM
A2A4R2	7-7-15	RCR07G102JM
A2A4R3	7-7-15	RCR07G102JM
A2A4R4	7-7-15	RCR07G102JM
A2A4R5	7-7-16	RCR07G331JM
A2A4R6	7-7-16	RCR07G331JM
A2A4TP1	7-7-17	M39024-6-02
A2A4U1	7-7-1	SN7400J
A2A4U2	7-7-2	SN74L00J
A2A4U3	7-7-3	SN7406J
A2A4U4	7-7-4	SN7474J
A2A4U5	7-7-4	SN7474J
A2A4U6	7-7-5	SN7402J
A2A4U7	7-7-6	SN74L10J
A2A4U8	7-7-7	SN74107J
A2A4U9	7-7-8	SN7425J
A2A4U10	7-7-7	SN74107J
A2A4U11	7-7-4	SN7474J
A2A4U12	7-7-2	SN74L00J
A2A4U13	7-7-2	SN74L00J
A2A4U14	7-7-7	SN7410J
A2A4U15	7-7-1	SN7400J
A2A4U16	7-7-9	SN7404J
A2A4U17	7-7-9	SN7404J
A2A4U18	7-7-10	SN74L74J
A2A4XU1	7-7-11	C931402
A2A4XU2	7-7-11	C931402
A2A4XU3	7-7-11	C931402
A2A4XU4	7-7-11	C931402
A2A4XU5	7-7-11	C931402
A2A4XU6	7-7-11	C931402
A2A4XU7	7-7-11	C931402
A2A4XU8	7-7-11	C931402
A2A4XU9	7-7-11	C931402
A2A4XU10	7-7-11	C931402
A2A4XU11	7-7-12	C931402

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A2A4XU13	7-7-X1t	C931402
A2A4XU14	7-7-X1t	C931402
A2A4XU15	7-7-X1t	C931402
A2A4XU16	7-7-X1t	C931402
A2A4XU17	7-7-X1t	C931402
A2A4XU18	7-7-X1t	C931402
A2A5	7-8-6t	0N199520
A2A5C1	7-8-X5t	M39006-9-4004
A2A5C2	7-8-X5t	M39006-9-4004
A2A5C3	7-8-X6t	CK05BX103K
A2A5C4	7-8-X6t	CK05BX103K
A2A5E1	7-8-21t	0N199522
A2A5E2	7-8-X7t	0N199506
A2A5E3	7-8-X7t	0N199506
A2A5E4	7-8-X7t	0N199506
A2A5E5	7-8-X7t	0N199506
A2A5E6	7-8-X7t	0N199506
A2A5E7	7-8-X7t	0N199506
A2A5E8	7-8-X7t	0N199506
A2A5E9	7-8-X7t	0N199506
A2A5E10	7-8-X7t	0N199506
A2A5E11	7-8-X7t	0N199506
A2A5E12	7-8-X7t	0N199506
A2A5E13	7-8-X7t	0N199506
A2A5E14	7-8-X7t	0N199506
A2A5E15	7-8-X7t	0N199506
A2A5R1	7-8-X8	RCR07G102JM
A2A5R2	7-8-X9	RCR07G182JM
A2A5R3	7-8-19t	RCR07G182JM
A2A5R4	7-8-X9	RCR07G182JM
A2A5R5	7-8-19t	RCR07G182JM
A2A5R6	7-8-19t	RCR07G182JM
A2A5R7	7-8-X9t	RCR07G182JM
A2A5R8	7-8-X9t	RCR07G182JM
A2A5R9	7-8-X9t	RCR07G182JM

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A2A5R10	7-8-19	RCR07G182JM
A2A5R11	7-8-19	RCR07G182JM
A2A5R12	7-8-19	RCR07G182JM
A2A5R13	7-8-19	RCR07G182JM
A2A5U1	7-8-1	SN74L00J
A2A5U2	7-8-2	U7B93L0059DC
A2A5U3	7-8-3	U7B93L0059DC
A2A5U4	7-8-2	U7B93L0059DC
A2A5U5	7-8-3	SN74L10J
A2A5U6	7-8-4	SN7400J
A2A5U7	7-8-5	SN74L74J
A2A5U8	7-8-1	SN74L00J
A2A5U9	7-8-6	SN74L20J
A2A5U10	7-8-1	SN74L00J
A2A5U11	7-8-1	SN74L00J
A2A5U11	7-8-1	SN74L00J
A2A5U12	7-8-1	SN74L00J
A2A5U13	7-8-1	SN74L00J
A2A5U14	7-8-1	SN74L00J
A2A5U15	7-8-4	SN7400J
A2A5U16	7-8-7	SN74L04J
A2A5U17	7-8-8	C3301A-0707
A2A5U18	7-8-9	C3301A-0708
A2A5U19	7-8-10	C3301A-0706
A2A5U20	7-8-4	SN7400J
A2A5U21	7-8-11	SN7410J
A2A5U22	7-8-12	SN7404J
A2A5XU1	7-8-13	C931402
A2A5XU2	7-8-14	C931602
A2A5XU3	7-8-14	C931602
A2A5XU4	7-8-14	C931602
A2A5XU5	7-8-13	C931402
A2A5XU6	7-8-13	C931402
A2A5XU7	7-8-13	C931402
A2A5XU8	7-8-13	C931402
A2A5XU9	7-8-13	C931402
A2A5XU10	7-8-13	C931402

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A2A5XU12	7-8-13	C931402
A2A5XU13	7-8-13	C931402
A2A5XU14	7-8-13	C931402
A2A5XU15	7-8-13	C931402
A2A5XU16	7-8-13	C931402
A2A5XU17	7-8-14	C931602
A2A5XU18	7-8-14	C931602
A2A5XU19	7-8-14	C931602
A2A5XU20	7-8-13	C931402
A2A5XU21	7-8-13	C931402
A2A5XU22	7-8-13	C931402
A2A5TP1	7-8-20	M390246-02
A2A6	7-3-7	0N199512
A2A6C1	7-9-15	M39006-9-4004
A2A6C2	7-9-15	M39006-9-4004
A2A6C3	7-9-16	CK05BX103K
A2A6C4	7-9-16	CK05BX103K
A2A6E1	7-9-20	0N199514
A2A6E2	7-9-17	0N199506
A2A6E3	7-9-17	0N199506
A2A6E4	7-9-17	0N199506
A2A6E5	7-9-17	0N199506
A2A6E6	7-9-17	0N199506
A2A6E7	7-9-17	0N199506
A2A6E8	7-9-17	0N199506
A2A6E9	7-9-17	0N199506
A2A6E10	7-9-17	0N199506
A2A6E11	7-9-17	0N199506
A2A6E12	7-9-17	0N199506
A2A6E13	7-9-17	0N199506
A2A6E14	7-9-17	0N199506
A2A6E15	7-9-17	0N199506
A2A6R1	7-9-18	RCR07G102JM
A2A6R2	7-9-18	RCR07G102JM
A2A6TP1	7-9-19	M39024-6-02
A2A6U1	7-9-1	SN74L00J

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A2A6U2	7-9-2	SN7430J
A2A6U3	7-9-3	SN7404J
A2A6U4	7-9-1	SN74L00J
A2A6U5	7-9-1	SN74L00J
A2A6U6	7-9-4	SN74107J
A2A6U7	7-9-5	SN7437J
A2A6U8	7-9-6	SN74L164J
A2A6U9	7-9-7	SN7420J
A2A6U10	7-9-1	SN74L00J
A2A6U11	7-9-8	SN74L10J
A2A6U12	7-9-9	SN7474J
A2A6U13	7-9-8	SN74L10J
A2A6U14	7-9-10	SN74191J
A2A6U15	7-9-1	SN74L00J
A2A6U16	7-9-7	SN7420J
A2A6U17	7-9-11	SN7400J
A2A5U18	7-9-2	SN7430J
A2A6U19	7-9-12	SN74L04J
A2A6U20	7-9-3	SN7404J
A2A6U21	7-9-11	SN7400J
A2A6XU1	7-9-13	C931402
A2A6XU2	7-9-13	C931402
A2A6XU3	7-9-13	C931402
A2A6XU4	7-9-13	C931402
A2A6XU5	7-9-13	C931402
A2A6XU6	7-9-13	C931402
A2A6XU7	7-9-13	C931402
A2A6XU8	7-9-13	C931402
A2A6XU9	7-9-13	C931402
A2A6XU10	7-9-13	C931402
A2A6XU11	7-9-13	C931402
A2A6XU12	7-9-13	C931402
A2A6XU13	7-9-13	C931402
A2A6XU14	7-9-14	C931602
A2A6XU15	7-9-13	C931402
A2A6XU16	7-9-13	C931402

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A2A6XU18	7-9-13	C931402
A2A6XU19	7-9-13	C931402
A2A6XU20	7-9-13	C931402
A2A6XU21	7-9-13	C931402
A2A7	7-3-8	ON199529
A2A7C1	7-10-10	M39006-9-4004
A2A7C2	7-10-10	M39006-9-4004
A2A7C3	7-10-11	CKO5BX103K
A2A7C4	7-10-11	CKO5BX103K
A2A7E1	7-10-17	ON199531
A2A7E2	7-10-12	ON199506
A2A7E3	7-10-12	ON199506
A2A7E4	7-10-12	ON199506
A2A7E5	7-10-12	UN199506
A2A7E6	7-10-12	ON199506
A2A7E7	7-10-12	ON199506
A2A7E8	7-10-12	ON199506
A2A7E9	7-10-12	ON199506
A2A7E10	7-10-12	ON199506
A 2 A 7 E 1 1	7-10-12	ON199506
A 2 A 7 E 1 2	7-10-12	ON199506
A2A7E13	7-10-13	ON199506
A2A7R1	7-10-13	RCRO7G102JM
A2A7R2	7-10-14	RCRO7G331JM
A2A7R3	7-10-15	RCR07G103JM
A2A7R4	7-10-15	RCR07IG103JM
A2A7R5	7-10-15	RCR07G103JM
A2A7R6	7-10-15	RCR07G103JM
A2A7R7	7-10-15	RCR07G103JM
A2A7R8	7-10-15	RCR07G103JM
A2A7R9	7-10-15	RCRO7G103JM
A2A7R10	7-10-15	RCR07G103JM
A2A7R11	7-10-15	RCRO7G103JM
A2A7R12	7-10-15	RCRO7G103JM
A2A7R13	7-10-15	RCR07G103JM

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A2A7R14	7-10-15	RCR07G103JM
A2A7R15	7-10-15	RCR07IG103JM
ABA7TP1	7-10-16	M39024-6-02
A2A7U1	7-10-1	SN7400J
A2A7U2	7-10-2	AMS1L01E
A2A7U3	7-10-2	AM31L01E
A2A7U4	7-10-2	AM31L01E
A2A7U5	7-10-2	AM31L01E
A2A7U6	7-10-3	SN7404J
A2A7U7	7-10-4	SN74180J
A2A7U8	7-10-2	AM31L01E
A2A7U9	7-10-2	AM31L01E
A2A7U10	7-10-2	AM31L01E
A2A7U11	7-10-2	AM31L01E
A2A7U12	7-10-4	AMS1L01E
A2A7U13	7-10-5	SN74180J
A2A7U14	7-10-4	SN74L04J
A2A7U15	7-10-2	SN74180J
A2A7U16	7-10-2	AM31L01E
A2A7U17	7-10-2	AM31L01E
A2A7U18	7-10-2	AM31L01E
A 2 A 7 U 1 9	7-10-4	SN74180J
A2A7U20	7-10-6	SN74LOOJ
A2A7U21	7-10-6	AM270159DC
A2A7XU1	7-10-8	C931402
A2A7XU2	7-10-9	C931602
A2A7XU3	7-10-9	C931602
A2A7XU4	7-10-9	C931602
A2A7XU5	7-10-9	C931602
A2A7XU6	7-10-8	C931602
A 2 A 7 U 7	7-10-8	C931402
A2A7XU8	7-10-9	C931402
A2A7XU9	7-10-9	C931602
A2A7XU10	7-10-9	C931602
A2A7XU11	7-10-9	C931602
A2A7XU12	7-10-8	C931402
A2A7XU13	7-10-8	C931402

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A2A7XU14	7-10-8	C931402
A2A7XU15	7-10-9	C931602
A2A7XU16	7-10-9	C931602
A2A7XU17	7-10-9	C931602
A2A7XU18	7-10-9	C931602
A2A7XU19	7-10-8	C931402
A2A7XU20	7-10-8	C931402
A2A7XU21	7-10-9	C931602
A2A8	7-3-9	OH199546
A2A8A1E1	7-11-13	ON199549
A2A8A1E2	7-11-11	SE12XC04
A2A8A1E3	7-11-11	SE12XC04
A2A8A1E4	7-11-11	SE12XC04
A2A8A1E4	7-11-11	SE12XC04
A2A8A1E5	7-11-11	SE12XC04
A2A8A1E6	7-11-11	SE12XC04
A2A8A1E7	7-11-11	SE12XC04
A2A8A1E8	7-11-11	SE12XC04
A2A8A1E9	7-11-11	SE12XC04
A2A8A1E10	7-11-11	SE12XC04
A2A8A1E11	7-11-11	SE12XC04
A2A8A1E12	7-11-11	SE12XC04
A2A8A1E13	7-11-11	SE12XC04
A2A8A1E14	7-11-11	SE12XC04
A2A8A1E15	7-11-11	SE12XC04
A2A8A1E16	7-11-11	SE12XC04
A2A8A1E17	7-11-11	SE12XC04
A2A8C1	7-11-5	CK05BX103K
A2A8C2	7-11-6	M39006-9-4004
A2A8C3	7-11-5	CK05BX103K
A2A8C4	7-11-7	M39006-9-4061
A2A8C5	7-11-5	CK05BX103K
A2A8C6	7-11-7	M39006-9-4061
A2A8C7	7-11-5	CK05EBX103K
A2A8C8	7-11-7	M39006-9-4061
A2A8C9	7-11-8	CK05BX332K

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A2A8C10	7-11-9	CK05BX562K
A2A8C11	7-11-9	CK05BX562K
A2A8C12	7-11-9	CK05BX562K
A2A8C13	7-11-9	CK05BX562K
A2A8C14	7-11-9	CK05BX562K
A2A8C15	7-11-9	CK05BX562K
A2A8C16	7-11-8	CKO5BX332K
A2A8R1	7-11-10	RCR07G102JM
A2A8R2	7-11-10	RCR07G102JM
A2A8TP1	7-11-12	M39024-602
A2A8U1	7-11-1	CM1161
A2A8U2	7-11-1	CM1161
A2A8U3	7-11-1	CM1161
A2A8U4	7-11-2	SN7404J
A2A8U5	7-11-3	CM1151
A2A8U6	7-11-3	CM1151
A2A8U7	7-11-3	CM1151
A2A8U8	7-11-3	CM1151
A2A8XU1	7-11-4	C931402
A2A8XU2	7-11-4	C931402
A2A8XU3	7-11-4	C931402
A 2 A 8 X U 4	7-11-4	C931402
A2A8XU5	7-11-4	C931402
A2A8XU6	7-11-4	C931402
A2A8XU7	7-11-4	C931402
A2A8XU8	7-11-4	C931402
A2A9	7-3-10	ON199533
A2A9C1	7-12-17	M39006-9-4004
A2A9C2	7-12-17	M39006-9-4004
A2A9C3	7-12-18	CK05BX103K
A2A9C4	7-12-18	CKO5BX103K
A2A9E1	7-12-23	ON19535
A2A9E2	7-12-19	ON199506
A2A9E3	7-12-19	ON199506
A2A9E4	7-12-19	ON199506
A2A9E5	7-12-19	ON199506
A2A9E6	7-12-19	ON199506

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A2A9E7	7-12-19	ON199506
A2A9E8	7-12-19	ON199506
A2A9E9	7-12-19	ON199506
A2A9E10	7-12-19	ON199506
A2A9E11	7-12-19	ON199506
A2A9E12	7-12-19	ON199506
A2A9E13	7-12-19	ON199506
A2A9E14	7-12-19	ON199506
A2A9E15	7-12-19	ON199506
A2A9R1	7-12-20	RCR07G10WJM
A2A9R2	7-12-20	RCRO7G102JM
A2A9R3	7-12-21	RCRO7IG182JM
A2A9R4	7-12-21	RCRO7G182JM
A2A9R5	7-12-21	RCRO7G182JM
A2A9R6	7-12-21	RCRO7G182JM
A2A9R7	7-12-21	RCR07G182JM
A2A9R8	7-12-21	RCRO7G182JM
A2A9R9	7-12-21	RCRO7G182JM
A9A9R10	7 - 1 2 - 2 1	RCRO7G182JM
A2A9TP1	7-12-22	M39024-6-02
A2A9U1	7-12-1	SN74L20J
A 2 A 9 U 2	7-12-1	SN74L20J
A2A9U3	7-12-2	U7B93LOO59DC
A2A9U4	7-12-3	SN74L74J
A2A9U5	7-12-2	U7B93LOO59DC
A2A9U6	7-12-4	SN74LOOJ
A2A9U7	7-12-1	SN74L20J
A2A9U8	7-12-1	SN74L20J
A2A9U9	7-12-5	SN74164J
A2A9U10	7-12-6	C3301A-0704
A2A9U11	7-12-7	SN74195J
A2A9U12	7-12-8	C3301A-0705
A2A9U13	7-12-9	SN74LO4J
A2A9U14	7-12-4	SN74LOOJ
A2A9U15	7-12-9	SN74LO4J
A2A9U16	7-12-10	SN74163J
A2A9U17	7-12-11	SN74L30J

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A2A9U19	7-12-11	SN74110
A2A9U20	7-12-4	SN74L00J
A2A9U21	7-12-12	SN74L10J
A2A9U22	7-12-13	SN7400J
A2A9U23	7-12-14	SN74107J
A2A9U24	7-12-4	SN74LO0J
A2A9XU1	7-12-15	C931402
A2A9XU2	7-12-15	C931402
A2A9XU3	7-12-16	C931602
A2A9XU4	7-12-15	C931402
A2A9XU5	7-12-16	C931602
A2A9XU6	7-12-15	C931402
A2A9XU7	7-12-15	C931402
A2A9XU8	7-12-15	C931402
A2A9XU9	7-12-15	C931402
A2A9XU10	7-12-16	C931602
A2A9XU11	7-12-16	C931602
A2A9XU12	7-12-16	C931602
A2A9XU13	7-12-15	C931402
A2A9XU14	7-12-15	C931402
A2A9XU15	7-12-15	C931402
A2A9XU16	7 - 1 2 - 1 6	C931602
A2A9XU17	7-12-15	C931402
A2A9XU18	7-12-15	C931402
A2A9XU19	7-12-15	C931402
A2A9XU20	7-12-15	C931402
A2A9XU21	7-12-15	C931402
A2A9XU22	7-12-15	C931402
A2A9XU23	7-12-15	C931402
A2A9XU24	7-12-15	C931402
A2A10	7-3-11	ON199538
ABA10C1	7-13-17	M39006-9-4004
A2A10C2	7-13-17	M39006-9-4004
A2A10C3	7-13-18	CKO5BX103K
A2A10C4	7-13-18	CKO5BX103K
A2A10E1	7-13-23	ON199540

REFERENCE DESIGNATION INDEX

Reference Designation	Figure and Index Number	Part Number
A2A10E2	7-13-19	ON199506
A2A10E3	7-13-19	ON199506
A2A10E4	7-13-19	ON199506
A2A10E5	7-13-19	ON199506
A2A10E6	7-13-19	ON199506
A2A10E7	7-13-19	ON199506
A2A10E8	7-13-19	ON199506
A2A10E9	7-13-19	ON199506
ABA10E10	7-13-19	ON199506
A2A10E11	7-13-19	ON199506
A2A10E12	7-13-19	ON199606
A2A10E13	7-13-19	ON199506
ABA10R1	7-13-20	RCR07107JM
A2A10R2	7-13-21	RCR07G331JM
A2A10R3	7-13-20	RCR07G107JM
A2A10R4	7-13-20	RCR07G107JM
A2A10R5	7-13-20	RCR07G107JM
A2A10TP1	7-13-22	M39024-6-02
A2A10U1	7-13-1	SN7451J
A2A10U2	7-13-2	SN7437J
A2A10U3	7-13-3	SN74L04J
A2A10U4	7-13-4	SN74L74J
A2A10U5	7-13-5	SN74L73J
A2A10U6	7-13-6	SN74L10J
A2A10U7	7-13-7	SN7473J
A2A10U8	7-13-8	SN7420J
A2A10U9	7-13-9	SN74L20J
A2A10U10	7-13-6	SN74LPOJ
A2A10U11	7-13-10	SN74LOOJ
A2A10U12	7-13-3	SN74LC4J
A2A10U13	7-13-4	SN74L74J
A2A10U14	7-13-4	SN74L74J
A2A10U15	7-13-11	SN7427J
A2A10U16	7-13-12	SN74161J
A2A10U17	7-13-13	SN7410J
A2A10U18	7-13-4	SN74L74J
A2A10U19	7-13-4	SN74L74J
A2A10U20	7-13-14	SN74L30J

REFERENCE DESIGNATION INDEX

Reference Designation	Figure and Index Number	Part Number
A2A11E13	7-14-18	ON199506
A2A11E14	7-14-18	ON199506
A2A11E15	7-14-18	ON199506
A2A1R1	7-14-19	RCR07G102JM
A2A1R2	7-14-19	RCR07G102JM
A2A1R3	7-14-20	RCR07G331JM
A2A11S5	7-15-8	MS27716023
A2A11TP1	7-14-21	M39024-6-02
A2A11U1	7-14-1	SN74191J
A2A11U2	7-14-1	SN74191J
A2A11U3	7-14-1	SN74191J
A2A11U4	7-14-2	SN7400J
A2A11U5	7-14-3	SN74LOOJ
A2A11U6	7-14-4	SN74L04J
A2A11U7	7-14-5	SN74L02J
A2A11U8	7-14-6	SN74163J
A2A11U9	7-14-2	SN7400J
A2A11U10	7-14-4	SN74L04J
A2A11U11	7-14-7	SN74L10J
A2A11U12	7-14-8	SN7473J
A 2 A 1 1 U 1 3	7-14-9	SN74L73J
A 2 A 1 1 U 1 4	7-14-3	SN74LOOJ
A2A11U15	7-14-10	SN7410J
A2A11U16	7-14-11	SN74H04J
ABA11U17	7-14-3	SN74LOOJ
A.2A11U18	7-14-9	SN74L73J.
A2A11U19	7-14-12	SN7404J
A2A11U20	7-14-8	SN7473J
A2A11U21	7-14-9	SN74L73J
A2A11U22	7-14-13	SN74L20J
A2A11U23	7-14-13A	SN74L74J
A2A11XU1	7-14-14	C931602
A2A11XU2	7-14-14	C931602
A2A11XU3	7-14-14	C931602
A2A11XU4	7-14-15	C931402
ABA11XU5	7-14-15	C931402
A2A11XU6	7-14-15	C931402

REFERENCE DESIGNATION INDEX

Reference Designation	Figure and Index Number	Part Number
A2A11XU7	7-14-15	C931402
A2A11XU8	7-14-14	C931602
A2A11XU9	7-14-15	C931402
A2A11XU10	7-14-15	C931402
A2A11XU11	7-14-15	C931402
A2A11XU12	7-14-15	C931402
A2A11XU13	7-14-15	C931402
A2A11XU14	7-14-15	C931402
A2A11XU15	7-14-15	C931402
A2A11XU16	7-14-15	C931402
A2A11XU17	7-14-15	C931402
A2A11XU18	7-14-15	C931402
A2A11XU19	7-14-15	C931402
A2A11XU20	7-14-15	C931402
A2A11XU21	7-14-15	C931402
A2A11XU22	7-14-15	C931402
A2A11XU23	7-14-15	C931402
A2A11XU24	7-14-15	C931402
A2A11XU25	7-14-15.	C931402
A2A12	7-3-30	ON199470
A 2 A 1 2 D S 1	7-15-12	JM9151002810WC
A 2 A 1 2 D S 2	7-15-11	JM915100P810RC
A2A12DS3	7-15-11	JM9151001810RC
A2A12DS4	7-15-11	JM9151001810RC
A2A12DS5	7-15-11	JM9151001810RC
A2A12DS6	7-15-10	JM9151001810AC
A2A12DS7	7-15-10	JM9151001810AC
A2A12DS8	7-15-10	JM9151001810AC
A2A12H14	7-15-14	DRB7500-8-A-4
A2A12S1	7-15-1	8872-4
A2A12S2	7-15-2	M3786-20-038
A2A12S3	7-15-9	MS1671201
A2A12S4	7-15-9	MS16712-1
A2A1S5	7-15-8	MS27716-23
A2A1S6	7-15-7	MS27717-23
A 2 A 1 2 T B 1	7-15-5	410-JJ-ST-8

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A2A12TB2	7-15-6	410-JJ-ST-12
A2A13	7-3-21	ON199472
A2A13E1	7-17-1	1122-0.750-11-T
A2A13E2	7-17-1	1122-0.750-11-T
A2A13XA1	7-17-2	67233
A2A13XA2	7-17-2	67233
A2A13XA3	7-17-2	67233
A2A13XA4	7-17-2	67233
A2A13XA5	7-17-2	67233
A2A13XA6	7-17-2	67233
A2A13XA7	7-17-2	67233
A2A13XA8	7-17-2	67233
A2A13XA9	7-17-2	67233
A2A13XA10	7-17-2	67233
A2A13XA11	7-17-2	67233
A2A14	7-3-20	ON199459
A2A14B1	7-16-4	SE2006-1A
A2A14E1	7-16-13	MS77071-2
A2A14E2	7-16-13	MS77071-2
A2A14E3	7-16-13	MS77071-2
A2A14E4	7-16-13	MS77071-2
A2A14E5	7-16-13	MS77071-2
A2A14E6	7-16-13	MS77071-2
A2A14E7	7-16-13	MS77071-2
A2A14FL1	7-16-13	FL1746061T
A2A14FL2	7-16-13	FL1746-61T
A2A14FL3	7-16-11	1221-001
A2A14FL4	7-16-11	1221-001
A2A14TB3	7-16-5	40TB8
A2A14TB4	7-16-6	40TB6
A2A14TB5	7-16-6	40TB6
A2A15	7-3-16	ON199452
A2A16	7-3-34	ON199466
A2A17	7-3-19	ON199499
A2CB1	7-3-32	MS39019-393
A2P2	7-3-14	MS3106R16S-1P

REFERENCE DESIGNATION INDEX

IA3	7-1-3	ON199497
TP1	7-22	ON199640
TP1E1	7-22-7	ON199641
TP1P1	7-22-3	ON199647

CHAPTER 8

SUPPLEMENTAL INDEX FOR ARMY USE

Section 1 INTRODUCTION

8-1. GENERAL

a. This Supplemental Index for Army Use gives National Stock Number (NSN), and Source, Maintenance and Recoverability (SMR) Code support to the Illustrated Parts Breakdown for the Digital Data Set AN/FYC-12.

b. This chapter consists of an index with part numbers arranged alphanumerically, cross-referenced to manufacturer's codes (FSCM), figure and index numbers, National stock numbers (NSN), and SMR codes.

8-2. index of Index of Subassemblies

Data DigitalSet AN-FYC-12.....	7 - 1	7 - 6
Electronic equipment Cabinet Assembly A1.....	7-2	7-8
Chassis AssemblyElectronic Equipment A 2.....	7-3	7-11
Circuit Card Assembly A2A1	7-4	7-16
Circuit Card Assembly A2A2	7-5	7-20
Circuit Card Assembly A2A3	7-6	7-23
Circuit Card Assembly A2A4	7-7	7-25
Circuit Card Assembly A2A5	7-8	7-28
Circuit Card Assembly A2A6	7-9	7-32
Circuit Card Assembly A2A7	7-10	7-35
Circuit Card Assembly A2A8	7-11	7-38
Circuit Card Assembly A2A9	7-12	7-40
Circuit Card Assembly A2A10	7-13	7-43
Circuit Card Assembly A2A11	7-14	7-45
Circuit Card Assembly A2A12.....	7-15	7-49
Circuit Card Assembly A2A13	7-16	7-52
Circuit Card Assembly A2A14	7-17	7-55
Circuit Card Assembly A2A15	7-18	7-57
Circuit Card Assembly A2A16	7-19	7-59
Circuit Card Assembly A2A17	7-20	7-61
Circuit Card Assembly A2A18	7-21	7-63
Circuit Card Assembly TP1	7-22	7-65

8 - 3Explanation of Columns

a. Part Number. Indicates the primary number used by the manufacturer (individual, company, firm, corporation, of government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications, standards, and inspection requirements to identify an item or range of items.

When a stock-numbered item is requisitioned, the item received may have a different part number than the part being replaced.

b. Federal Supply Code for Manufacturer (FSCM). This is a 5-digit numeric code listed in SB 708-42, which is used to identify the manufacturer, distributor, or government agency, etc.

c. Figure Number. Indicates the figure number of the illustration on which the item is shown.

d. Index Number. The number used to identify item called out in the illustration.

e. National Stock Number (NSN). Indicates the National stock number assigned to the item and which will be used for requisitioning.

f. Source, Maintenance, and Recoverability (SMR) Codes.

(1) *Source code.* Source codes indicate the manner of acquiring support items for maintenance, repair, or overhaul of end items. Source codes are entered in the first and second positions of the Uniform SMR Code format as follows:

<i>Code</i>	<i>Definition</i>
AD	Item to be assembled at depot maintenance level.
PA	Item procured and stocked for anticipated or known usage.
XA	Item is not procured or stocked because the requirements for the item will result in the replacement of the next higher assembly.
XB	Item is not procured or stocked; if not available through salvage, requisition.
XD	A support item that is not stocked. When required, item will be procured through normal supply channels.

NOTE

Cannibalization or salvage may be used as a source of supply for any items coded above, except aircraft support items as restricted by AR 700-42.

(2) *Maintenance code.* Maintenance codes are assigned to indicate the level of maintenance authorized to REMOVE and REPAIR support items. The maintenance codes are entered in the third and fourth positions of the Uniform SMR Code format as follows:

(a) The maintenance code entered in the third position will indicate the lowest maintenance level authorized to remove, replace, and use the support item. The maintenance code entered in the third position will indicate one of the following levels of maintenance:

<i>Code</i>	<i>Application/Explanation</i>
D	Support items that are removed, replaced, used at depot only: USAF —Depot, Mobile Depot and Specialized Repair Activity USA —Depot, Mobile Depot, Specialized Repair Activity USN —Aviation Rework, Avionics and Ordnance Facilities, and Shipyards USMC —Depot

F—Support item is removed, replaced, used at the direct support level.
O—Support item is removed, replaced, used at the organizational level.

(b) The maintenance code entered in the fourth position indicates whether the item is to be repaired and identifies the lowest maintenance level with the capability to perform complete repair (i.e., all authorized maintenance functions). This position will contain one of the following maintenance codes:

<i>Code</i>	<i>Application/Explanation</i>
Z	Nonreparable. No repair authorized.
D	The lowest maintenance level capable of complete repair of the support item is the depot level.

(3) *Recoverability Code.* Recoverability codes are assigned to support items to indicate the disposition action on unserviceable items. The recoverability code is entered in the fifth position of the Uniform SMR Code format as follows:

<i>Recoverability codes</i>	<i>Definition</i>
D	Reparable item. When beyond lower level repair capability, return to depot. Condemnation and disposal not authorized below depot level.
Z	Nonreparable item. When unserviceable, condemn and dispose at the level indicated in position 3.

8 - 4 Special Information

National stock numbers (NSN's) that are missing from P source-coded items have been applied for and will be added to this TM by future change/revision when they are entered in the Army Master Data File (AMDF). Until the NSN's are established and published, submit exception requisitions to: Com-

mander, US Army Electronics Command, ATTN: DBSEL-MM, Fort Monmouth, NJ 07703 for the part required to support your equipment.

8-5. How to Locate Spare Parts

a. When National stock number or part number is unknown:

(1) Determine the subassembly within which the item belongs, find the illustration and item in the Illustrated Parts Breakdown (chap 7). Identify the item and note the figure, item number, and description.

(2) Next, using the Supplemental Index For Army Use, find the item by figure and index number and note the part number, NSN, and SMR code. The SMR code indicates the maintenance level authorized to perform the replacement or repair. The part may be requisitioned utilizing NSN, part number, and description.

b. When the National stock number or part number is known:

(1) Using the Supplemental Index For Army Use, find the pertinent NSN or part number to get the part description, note the figure and index number, then find the illustrated item in the Illustrated Parts Breakdown (chap 7).

(Next printed page is 8-4)

SECTION SUPPLEMENTAL INDEX FOR ARMY USE

PART NUMBER	F S C M	FIG. NO.	INDEX NO.	NATIONAL STOCK NUMBER	S M R CODE
AM270159DC	01295	7-10	6	5962-00-579-0223	PAFZZ
AM31101E	34335	7-10	2	5962-00-584-0069	PAFZZ
B667-1	71034	7-5	9	5595-00-540-6202	PAFZZ
CK05BX103K	81349	7-4	15	5910-00-111-4811	PAFZZ
CK05BX103K	81349	7-5	12	5910-00-111-4811	PAFZZ
CK05BX103K	81349	7-6	16	5910-00-111-4811	PAFZZ
CK05BX103K	81349	7-7	13	5910-00-111-4811	PAFZZ
CK05BX103K	81349	7-8	16	5910-00-111-4811	PAFZZ
CK05BX103K	81349	7-9	16	5910-00-111-4811	PAFZZ
CK05BX103K	81349	7-10	11	5910-00-111-4811	PAFZZ
CK05BX103K	81349	7-11	5	5910-00-111-4811	PAFZZ
CK05BX103K	81349	7-12	18	5910-00-111-4811	PAFZZ
CK05BX103K	81349	7-13	18	5910-00-111-4811	PAFZZ
CK05BX103K	81349	7-14	17	5910-00-111-4811	PAFZZ
CK05BX332K	81349	7-11	8	5910-00-470-0121	PAFZZ
CK05BX562K	81349	7-11	9	5190-00-455-4475	PAFZZ
CMR06F152J00L	81349	7-5	13		PAFZZ
CM1151	50071	7-11	3	5962-00-332-0670	PAFZZ
CM1161	50071	7-11	1	5962-00-332-0670	PAFZZ
C3301A-0704	34647	7-12	6	5962-00-594-1413	PAFZZ
C3301A-0705	34649	7-12	8	5962-00-603-9862	PAFZZ
C3301A-0706	34649	7-8	10	5962-00-592-1404	PAFZZ
C3301A-0707	34649	7-8	8	5962-00-593-8539	PAFZZ
C3301A-0708	34649	7-8	9	5962-22-593-8560	PAFZZ
C931402	73803	7-4	12	5935-100-481-4140	PAFZZ
C931402	73803	7-5	7	5935-100-481-4140	PAFZZ
C931402	73803	7-6	13	5935-100-481-4140	PAFZZ
C931402	73803	7-7	11	5935-100-481-4140	PAFZZ
C931402	73803	7-8	13	5935-100-481-4140	PAFZZ
C931402	73803	7-9	13	5935-100-481-4140	PAFZZ
C931402	73803	7-10	8	5935-100-481-4140	PAFZZ
C931402	73803	7-11	4	5935-100-481-4140	PAFZZ
C931402	73803	7-12	15	5935-100-481-4140	PAFZZ
C931402	73803	7-13	15	5935-100-481-4140	PAFZZ
C931402	73803	7-14	15	5935-100-481-4140	PAFZZ
C931602	73803	7-4	13	5935-100-481-4140	PAFZZ
C931602	73803	7-5	8	5935-100-481-4140	PAFZZ
C931602	73803	7-8	14	5935-100-481-4140	PAFZZ
C931602	73803	7-9	14	5935-100-481-4140	PAFZZ
C931602	73803	7-10	9	5935-100-481-4140	PAFZZ
C931602	73803	7-12	16	5935-100-481-4140	PAFZZ
C931602	73803	7-13	16	5935-100-481-4140	PAFZZ
C931602	73803	7-14	14	5935-100-481-4140	PAFZZ
DRB7500-8-A-4	08524	7-15	14	5305-00-630-2475	XDFZZ
FL1746-61T	00656	7-16	12		PAFZZ
JM9151001810AC	03797	7-15	10		PAFZZ
JM9151001810RC	03797	7-15	11		PAFZZ
JM9151002810WC	03797	7-15	12	6210-00-615-7121	PAFZZ
MS15795-802	96906	7-5	19	6210-00-615-7121	PAFZZ
MS15795-802	96906	7-7	17	6210-00-615-7121	PAFZZ
MS15795-802	96906	7-8	20	6210-00-615-7121	PAFZZ
MS15795-802	96906	7-9	19	6210-00-615-7121	PAFZZ
MS15795-802	96906	7-10	16	6210-00-615-7121	PAFZZ
MS15795-802	96906	7-11	12	6210-00-615-7121	PAFZZ
MS15795-802	96906	7-12	22	6210-00-615-7121	PAFZZ
MS15795-802	96906	7-13	22	6210-00-615-7121	PAFZZ
MS15795-802	96906	7-14	21	6210-00-615-7121	PAFZZ
MS15795-802	96906	7-15	13	6210-00-615-7121	PAFZZ

SECTION II. SUPPLEMENTAL INDEX FOR ARMY USE--CONTINUED

PART NUMBER	FSCM	FIG. NO.	INDEX NO.	NATIONAL STOCK NUMBER	SMR CODE
MS15795-803	96906	7-3	16	5310-00-595-6211	PAFZZ
MS15795-803	96906	7-3	26	5310-00-595-6211	PAFZZ
MS15795-803	96906	7-17	2	5310-00-595-6211	PAFZZ
MS15795-803	96906	7-22	1	5310-00-595-6211	PAFZZ
MS15795-803	96906	7-22	3	5310-00-595-6211	PAFZZ
MS15795-806	96906	7-1	2	5310-00-880-5976	PAFZZ
MS15795-806	96906	7-2	1	5310-00-880-5976	PAFZZ
MS15795-806	96906	7-2	2	5310-00-880-5976	PAFZZ
MS15795-806	96906	7-2	3	5310-00-880-5976	PAFZZ
MS15795-806	96906	7-3	15	5310-00-880-5976	PAFZZ
MS15795-806	96906	7-3	25	5310-00-880-5976	PAFZZ
MS15795-806	96906	7-16	5	5310-00-880-5976	PAFZZ
MS15795-806	96906	7-16	6	5310-00-880-5976	PAFZZ
MS15795-806	96906	7-16	9	5310-00-880-5976	PAFZZ
MS15795-806	96906	7-16	13	5310-00-880-5976	PAFZZ
MS15795-806	96906	7-21	1	310-00-880-5976	PAFZZ
MS15795-807	96906	7-1	2	5310-00-880-5976	PAFZZ
MS15795-807	96906	7-1	3	5310-00-880-5976	PAFZZ
MS15795-807	96906	7-2	5	5310-00-880-5976	PAFZZ
MS15795-807	96906	7-3	16	5310-00-880-5976	PAFZZ
MS15795-807	96906	7-3	18	5310-00-880-5976	PAFZZ
MS15795-807	96906	7-3	19	5310-00-880-5978	PAFZZ
MS15795-807	96906	7-3	20	5310-00-880-59	PAFZZ
MS15795-807	96906	7-15	4	5310-00-880-59	PAFZZ
MS15795-807	96906	7-16	1	5310-00-880-59	PAFZZ
MS15795-807	96906	7-16	3	5310-00-880-59	PAFZZ
MS15795-807	96906	7-16	4	5310-00-880-59	PAFZZ
MS15795-807	96906	7-17	6	5310-00-880-59	PAFZZ
MS15795-807	96906	7-20	1	5310-00-880-59	PAFZZ
MS16535-1	96906	7-19	1	5320-00-882-9200	XBFZZ
MS16535-51	96906	7-18	1	5320-00-822-9200	XBFZZ
MS16535-51	96906	7-19	2	5320-00-882-9200	XBFZZ
MS16535-77	96906	7-5	10	5320-00-721-5244	PAFZZ
MS16712-1	96906	7-15	9	5930-00-953-9031	PAFZZ
MS20470A2-6	96906	7-22	2	5320-00-242-0369	XAFZZ
MS21295-28	96906	7-3	20		PAFZZ
MS24693-3	96906	7-3	16	5935-00-225-6400	PAFZZ
MS24693-3	96906	7-3	17	5905-00-224-6400	PAFZZ
MS24693-3	96906	7-3	18	5305-00-225-6400	PAFZZ
MS24693-3	96906	7-3	21	5305-00-225-6400	PAFZZ
MS27716-23	96906	7-15	8	5330-00-402-1007	PAFZZ
MS27717-23	96906	7-15	7	5330-00-192-5586	PAFZZ
MS3106R14S-5S	96906	7-3	13	5935-00-820-0555	PAFZZ
MS3106R16S-1P	96906	7-3	14	5935-00-815-1136	PAFZZ
MS35338-134	96906	7-5	19	5310-00-928-2690	PAFZZ
MS35338-134	96906	7-7	17	5310-00-928-2690	PAFZZ
MS35338-134	96906	7-8	20	5310-00-928-2690	PAFZZ
MS35338-134	96906	7-9	19	5310-00-928-2690	PAFZZ
MS35338-134	96906	7-10	16	5310-00-928-2690	PAFZZ
MS35338-134	96906	7-11	12	5310-00-928-2690	PAFZZ
MS35338-134	96906	7-13	22	5310-00-928-2690	PAFZZ
MS35338-134	96906	7-14	21	5310-00-928-2690	PAFZZ
MS35338-135	96906	7-3	16	5310-00-933-8118	PAFZZ
MS35338-135	96906	7-3	26	5310-00-933-8118	PAFZZ
MS35338-135	96906	7-17	2	5310-00-933-8118	PAFZZ
MS35338-135	96906	7-22	1	5310-00-933-8118	PAFZZ
MS35338-135	96906	7-22	3	5310-00-933-8118	PAFZZ
MS35338-136	96906	7-1	2	5310-00-933-8118	PAFZZ
MS35338-136	96906	7-2	1	5310-00-929-6395	PAFZZ

SECTION II. SUPPLEMENTAL INDEX FOR ARMY USE. CONTINUED

PART NUMBER	FSCM	FIG. NO.	INDEX NO.	NATIONAL STOCK NUMBER	S MR CODE
MS35338-136	96906	7-2	2	5310-00-929-6395	PAFZZ
MS35338-136	96906	7-2	3	5310-00-929-6395	PAFZZ
MS35338-136	96906	7-3	15	5310-00-929-6395	PAFZZ
MS35338-136	96906	7-3	25	5310-00-929-6395	PAFZZ
MS35338-136	96906	7-16	5	5310-00-929-6395	PAFZZ
MS35338-136	96906	7-16	6	5310-00-929-6395	PAFZZ
MS35338-136	96906	7-16	9	5310-00-929-6395	PAFZZ
MS35338-136	96906	7-21	1	5310-00-929-6395	PAFZZ
MS35338-137	96906	7-1	2	5310-00-933-8119	PAFZZ
MS35338-137	96906	7-1	3	5310-00-933-8119	PAFZZ
MS35338-137	96906	7-2	5	5310-00-933-8119	PAFZZ
MS35338-137	96906	7-3	16	5310-00-933-8119	PAFZZ
MS35338-137	96906	7-3	18	5310-00-933-8119	PAFZZ
MS35338-137	96906	7-3	20	5310-00-933-8119	PAFZZ
MS35338-137	96906	7-15	4	5310-00-933-8119	PAFZZ
MS35338-137	96906	7-16	1	5310-00-933-8119	PAFZZ
MS35338-137	96906	7-16	3	5310-00-933-8119	PAFZZ
MS35338-137	96906	7-16	4	5310-00-933-8119	PAFZZ
MS35338-137	96906	7-17	6	5310-00-933-8119	PAFZZ
MS35338-138	96906	7-20	1		XDFZZ
MS35649-224	96906	7-5	19	5310-00-938-2013	PAFZZ
MS35649-224	96906	7-6	20	5310-00-938-2013	PAFZZ
MS35649-224	96906	7-7	17	5310-00-938-2013	PAFZZ
MS35649-224	96906	7-8	20	5310-00-938-2013	PAFZZ
MS35649-224	96906	7-10	16	5310-00-938-2013	PAFZZ
MS35649-224	96906	7-12	22	5310-00-938-2013	PAFZZ
MS35649-224	96906	7-13	23	5310-00-938-2013	PAFZZ
MS35649-224	96906	7-14	21	5310-00-938-2013	PAFZZ
MS35649-244	96906	7-3	16	5310-00-934-9748	PAFZZ
MS35649-244	96906	7-3	26	5310-00-934-9748	PAFZZ
MS35649-244	96906	7-5	19	5310-00-934-9748	PAFZZ
MS35649-244	96906	7-7	17	5310-00-934-9748	PAFZZ
MS35649-244	96906	7-8	20	5310-00-934-9748	PAFZZ
MS35649-244	96906	7-9	19	5310-00-934-9748	PAFZZ
MS35649-244	96906	7-10	16	5310-00-934-9748	PAFZZ
MS35649-244	96906	7-11	12	5310-00-934-9748	PAFZZ
MS35649-244	96906	7-12	22	5310-00-934-9748	PAFZZ
MS35649-244	96906	7-13	22	5310-00-934-9748	PAFZZ
MS35649-244	96906	7-14	21	5310-00-934-9748	PAFZZ
MS35649-264	96906	7-2	1	5310-00-934-9761	PAFZZ
MS35649-264	96906	7-2	2	5310-00-934-9761	PAFZZ
MS35649-264	96906	7-2	3	5310-00-934-9761	PAFZZ
MS35649-264	96906	7-3	15	5310-00-934-9761	PAFZZ
MS35649-264	96906	7-3	25	5310-00-934-9761	PAFZZ
MS35649-264	96906	7-16	5	5310-00-934-9761	PAFZZ
MS35649-264	96906	7-16	6	5310-00-934-9761	PAFZZ
MS35649-264	96906	7-16	9	5310-00-934-9761	PAFZZ
MS35649-264	96906	7-16	13	5310-00-934-9761	PAFZZ
MS35649-264	96906	7-21	1	5310-00-934-9761	PAFZZ
MS35649-284	96906	7-3	16	5310-00-934-9759	PAFZZ
MS35649-284	96906	7-3	18	5310-00-934-9759	PAFZZ
MS35649-284	96906	7-15	4	5310-00-934-9759	PAFZZ
MS35649-284	96906	7-16	1	5310-00-934-9759	PAFZZ
MS35649-284	96906	7-16	3	5310-00-934-9759	PAFZZ
MS51951-6	96906	7-10	16		XDFZZ
MS51957-6	96906	9-5	19	5305-00-054-5640	PAFZZ
MS51957-6	96906	9-7	17	5305-00-054-5640	PAFZZ
MS51957-6	96906	9-8	20	5305-00-054-5640	PAFZZ
MS51957-6	96906	7-9	19	5305-00-054-5640	PAFZZ

SECTION II. SUPPLEMENTAL INDEX FOR ARMY USE -CONTINUED

PART NUMBER	FSCM	FIG. NO.	INDEX NO.	NATIONAL STOCK NUMBER	S M R CODE
MS51957-6	96906	7-11	12	5305-00-054-5640	PAFZZ
MS51957-6	96906	7-12	22	5305-00-054-5640	PAFZZ
MS51957-6	96906	7-13	22	5305-00-054-5640	PAFZZ
MS51957-6	96906	7-14	21	5305-00-054-5640	PAFZZ
MS51957-18	96906	7-12	1	5305-00-054-5652	XDFZZ
MS51957-18	96906	7-22	3	5305-00-054-5652	XDFZZ
MS51957-19	96906	7-17	2	5305-00-054-5653	PAFZZ
MS51957-28	96906	7-3	22	5305-00-760-6904	PAFZZ
MS51957-30	96906	7-1	2	5305-00-054-6654	PAFZZ
MS51957-31	96906	7-16	5	5305-00-054-6655	PAFZZ
MS51957-31	96906	7-16	6	5305-00-054-6655	PAFZZ
MS51957-31	96906	7-16	13	5305-00-054-6655	PAFZZ
MS51957-33	96906	7-16	5	5305-00-054-6657	PAFZZ
MS51957-44	96906	7-20	1	5305-00-054-6669	PAFZZ
MS51957-45	96906	7-1	2	5305-00-054-6670	PAFZZ
MS51957-45	96906	7-1	3	5305-00-054-6670	PAFZZ
MS51957-45	96906	7-17	6	5305-00-054-6670	PAFZZ
MS51957-46	96906	7-3	18	5305-00-054-6671	PAFZZ
MS51957-46	96906	7-3	19	5305-00-054-6671	PAFZZ
MS51957-48	96906	7-2	5	5305-00-054-6673	PAFZZ
MS51957-49	96906	7-17	6	5305-00-054-6674	PAFZZ
MS51957-127	96906	7-16	4	5905-00-402-5788	PAFZZ
MS51959-11	96906	7-3	24	5305-00-770-2529	PAFZZ
MS51959-15	96906	7-22	4	5305-00-770-2579	XDFZZ
MS51959-43	96906	7-3	27	5305-00-765-4257	PAFZZ
MS51959-43	96906	7-3	30	5305-00-765-4297	PAFZZ
MS51959-44	96906	7-3	31	5305-00-764-0066	PAFZZ
MS77071-2	96906	7-16	8	5960-00-816-9616	PAFZZ
MS77071-2	96906	7-16	13	5960-00-816-9616	PAFZZ
MS91528-0C1B	96906	7-15	3	5355-00-057-7794	PAFZZ
M24066-2-102	81349	7-19	1	5340-00-144-6721	PAFZZ
M3786-20-038	81349	7-15	2	5930-00-018-4592	PAFZZ
M39019-3-93	81349			5925-00-548-1364	PAFZZ
M39024-6-02	81349	7-4	18	3935-00-214-1598	PAFZZ
M39024-6-02	81349	7-5	19	3935-00-214-1598	PAFZZ
M39024-6-02	81349	7-6	20	3935-00-214-1598	PAFZZ
M39024-6-02	81349	7-7	17	3935-00-214-1598	PAFZZ
M39024-6-02	81349	7-8	20	3935-00-214-1598	PAFZZ
M39024-6-02	81349	7-9	19	3935-00-214-1598	PAFZZ
M39024-6-02	81349	7-10	16	3935-00-214-1598	PAFZZ
M39024-6-02	81349	7-11	12	3935-00-214-1598	PAFZZ
M39024-6-02	81349	7-12	22	3935-00-214-1598	PAFZZ
M39024-6-02	81349	7-14	21	3935-00-214-1598	PAFZZ
M39024-6-02	81349	7-13	22	3935-00-214-1598	PAFZZ
M39006-9-4004	81349	7-4	14		PAFZZ
M39006-9-4004	81349	7-5	11		PAFZZ
M39006-9-4004	81349	7-6	15		PAFZZ
M39006-9-4004	81349	7-7	12		PAFZZ
M39006-9-4004	81349	7-8	15		PAFZZ
M39006-9-4004	81349	7-9	15		PAFZZ
M39006-9-4004	81349	7-10	10		PAFZZ
M39006-9-4004	81349	7-11	6		PAFZZ
M39006-9-4004	81349	7-12	17		PAFZZ
M39006-9-4004	81349	7-13	17		PAFZZ
M39006-9-4004	81349	7-14	16		PAFZZ
M39006-9-4061	81349	7-11	7		PAFZZ
NAS1676C2	80205	7-15	5	5310-00-914-6545	PAFZZ
NAS1676C2	80205	7-15	6	5310-00-914-65445	PAFZZ

SECTION II. SUPPLEMENTAL INDEX FOR ARMY USE-CONTINUED

PART NUMBER	FSCM	FIG. NO.	INDEX NO.	NATIONAL STOCK NUMBER	S M R CODE
NAS1676C2	80205	7-15	13	5310-00-914-6545	PAFZZ
NAS671C2	80205	7-15	6	5310-00-812-4294	PAFZZ
NAS671C4	80205	7-3	24	5 3 1 0 - 0 0 -	XDFZZ
NAS67162	80205	7-15	5		XDFZZ
RCRO7G102JM	81349	7-4	17	5905-00-110-7260	PAFZZ
RCRO7G102JM	81349	7-5	14	5905-00-110-7260	PAFZZ
RCRO7G102JM	81349	7-6	19	5905-00-110-7260	PAFZZ
RCRO7G102JM	81349	7-7	15	5905-00-110-7260	PAFZZ
RCRO7G102JM	81349	7-8	18	5905-00-110-7260	PAFZZ
RCRO7G102JM	81349	7-9	18	5905-00-110-7260	PAFZZ
RCRO7G102JM	81349	7-10	13	5905-00-110-7260	PAFZZ
RCRO7G102JM	81349	7-11	10	5905-00-110-7260	PAFZZ
RCRO7G102JM	81349	7-12	20	5905-00-110-7260	PAFZZ
RCRO7G102JM	81349	7-13	20	5905-00-110-7260	PAFZZ
RCRO7G102JM	81349	7-14	19	5905-00-110-7260	PAFZZ
RCRO7G103JM	81349	7-10	15	5905-00-734-1003	PAFZZ
RCRO7G182JM	81349	7-5	18	5905-00-114-5343	PAFZZ
RCRO7G182JM	81349	7-8	19	5905-00-114-5343	PAFZZ
RCRO7G182JM	81349	7-12	21	5905-00-114-5343	PAFZZ
RCRO7G221JM	81349	7-5	17	5905-00-135-3973	PAFZZ
RCRO7G331JM	81349	7-5	16	5905-00-728-6151	PAFZZ
RCRO7G331JM	81349	7-6	18	5905-00-728-6151	PAFZZ
RCRO7G331JM	81349	7-7	16	5905-00-728-6151	PAFZZ
RCRO7G331JM	81349	7-10	14	5905-00-728-6151	PAFZZ
RCRO7G331JM	81349	7-13	21	5905-00-728-6151	PAFZZ
RCRO7G331JM	81349	7-14	20	5905-00-728-6151	PAFZZ
RCRO7G561JM	81349	7-5	15	5905-00-105-7768	PAFZZ
SE12XC04	81349	7-11	11	5940-00-082-4861	PAFZZ
SE2006-1A	82742	7-16	4	4140-00-480-1561	PAFZZ
SN74H04J	01295	7-14	11	5972-00-603-9663	PAFZZ
SN74L00J	01295	7-4	1		PAFZZ
SN74L00J	01295	7-6	4		PAFZZ
SN74L00J	01295	7-7	2		PAFZZ
SN74L00J	01295	7-8	1		PAFZZ
SN74L00J	01295	7-9	1		PAFZZ
SN74L00J	01295	7-10	6		PAFZZ
SN74L00J	01295	7-12	4		PAFZZ
SN74L00J	01295	7-13	10		PAFZZ
SN74L00J	01295	7-14	3		PAFZZ
SN74L02J	01295	7-6	10	5962-00-603-9720	PAFZZ
SN74L02J	01295	7-14	5	5962-00-603-9720	PAFZZ
SN74L04J	01295	7-4	2	5967-00-603-9664	PAFZZ
SN74L04J	01295	7-6	7	5967-00-603-9664	PAFZZ
SN74L04J	01295	7-8	7	5967-00-603-9664	PAFZZ
SN74L04J	01295	7-9	12	5967-00-603-9664	PAFZZ
SN74L04J	01295	7-10	5	5967-00-603-9664	PAFZZ
SN74L04J	01295	7-12	9	5967-00-603-9664	PAFZZ
SN74L04J	01295	7-13	3	5967-00-603-9664	PAFZZ
SN74L04J	01295	7-14	4	5967-00-603-9664	PAFZZ
SN74L10J	01295	7-7	6	5962-00-477-9456	PAFZZ
SN74L10J	01295	7-8	3	T e x t	PAFZZ
SN74L10J	01295	7-9	8	T e x t	PAFZZ
SN74L10J	01295	7-12	11	T e x t	PAFZZ
SN74L10J	01295	7-12	12	T e x t	PAFZZ
SN74L10J	01295	7-13	6	T e x t	PAFZZ
SN74L10J	01295	7-14	7	T e x t	PAFZZ
SN74L20J	01295	7-4	10	5962-00-603-9667	PAFZZ
SN74L20J	01295	7-8	6	5962-00-603-9667	PAFZZ

SECTION II. SUPPLEMENTAL INDEX FOR ARMY USE -CONTINUED

PART NUMBER	FSCM	FIG NO.	INDEX NO.	NATIONAL STOCK NUMBER	SMR CODE
SN74L20J	01295	7-12	1	5960-00-603-9667	PAFZZ
SN74L20J	01295	7-13	9	5960-00-603-9667	PAFZZ
SN74L20J	01295	7-14	3	5960-00-603-9667	PAFZZ
SN74L20J	01295	7-12	11	5960-00-603-9667	PAFZZ
SN74L30J	01295	7-13	14	5960-00-603-9667	PAFZZ
SN74L73J	01295	7-13	5	5962-00-603-9781	PAFZZ
SN74L73J	01295	7-14	9	5962*-00-603-9781	PAFZZ
SN74L74J	01295	7-6	1	5962-00-603-9669	PAFZZ
SN74L74J	01295	7-7	10	5962-00-603-9669	PAFZZ
SN74L74J	01295	7-8	5	5962-00-603-9669	PAFZZ
SN74L74J	01295	7-12	3	5962-00-603-9669	PAFZZ
SN74L74J	01295	7-13	4	5962-00-603-9669	PAFZZ
SN74L74J	01295	7-14	13A	5962-00-603-9669	PAFZZ
SN74L85J	01295	7-4	8	5962-00-481-9361	PAFZZ
SN74005	01295	7-4	6	5962-00-477-9455	PAFZZ
SN74005	01295	7-5	4	5962-00-477-9455	PAFZZ
SN74005	01295	7-6	9	5962-00-477-9455	PAFZZ
SN74005	01295	7-7	1	5962-00-477-9455	PAFZZ
SN74005	01295	7-8	4	5962-00-477-9455	PAFZZ
SN74005	01295	7-9	11	5962-00-477-9455	PAFZZ
SN74005	01295	7-10	1	5962-00-477-9455	PAFZZ
SN74005	01295	7-12	13	5962-00-477-9455	PAFZZ
SN74005	01295	7-14	2	5962-00-477-9455	PAFZZ
SN7402J	01295	7-7	5	5962-00-471-9522	PAFZZ
SN7404J	01295	7-4	11	5962-00-252-4917	PAFZZ
SN7404J	01295	7-5	6	5962-00-252-4917	PAFZZ
SN7404J	01295	7-6	8	5962-00-252-4917	PAFZZ
SN7404J	01295	7-7	9	5962-00-252-4917	PAFZZ
SN7404J	01295	7-8	12	5962-00-252-4917	PAFZZ
SN7404J	01295	7-9	3	5962-00-252-4917	PAFZZ
SN7404J	01295	7-10	3	5962-00-252-4917	PAFZZ
SN7404J	01295	7-11	2	5962-00-252-4917	PAFZZ
SN7404J	01295	7-14	12	5962-00-252-4917	PAFZZ
SN7406J	01295	7-6	2	5962-00-432-1015	PAFZZ
SN7410J	01295	7-7	3	5962-00-477-9456	PAFZZ
SN7410J	01295	7-4	7	5962-00-477-9456	PAFZZ
SN7410J	01295	7-6	5	5962-00-477-9456	PAFZZ
SN7410J	01295	7-7	7	5962-00-477-9456	PAFZZ
SN7410J	01295	7-8	11	5962-00-477-9456	PAFZZ
SN7410J	01295	7-13	13	5962-00-477-9456	PAFZZ
SN7410J	01295	7-14	10	5962-00-477-9456	PAFZZ
SN7420J	01295	7-9	7	5962-00-348-2715	PAFZZ
SN7420J	01295	7-13	8	5962-00-348-2715	PAFZZ
SN7425J	01295	7-7	8	5962-00-603-9733	PAFZZ
SN7427J	01295	7-13	11	5962-00-603-5783	PAFZZ
SN7430J	01295	7-9	2	5962-00-9758	PAFZZ
SN7437J	01295	7-5	1	5962-00-236-8143	PAFZZ
SN7437J	01295	7-6	6	5962-00-236-8143	PAFZZ
SN7437J	01295	7-9	5	5962-00-8143	PAFZZ
SN7437J	01295	7-13	2	5962-00-236-8143	PAFZZ
SN7451J	01295	7-13	1	5962-00-477-9460	PAFZZ
SN7473J	01295	7-13	7	5962-00-417-9459	PAFZZ
SN7474J	01295	7-14	8	5962-00-470-1637	PAFZZ
SN7474J	01295	7-4	5	5962-00-470-1637	PAFZZ
SN7474J	01295	7-5	2	5962-00-470-1637	PAFZZ
SN7474J	01295	7-7	4	5962-00-470-1637	PAFZZ
SN7474J	01295	7-9	9	5962-00-470-1637	PAFZZ
SN74107J	01295	7-4	9	5962-00-139-2851	PAFZZ
SN74107J	01295	7-6	3	5962-00-139-2851	PAFZZ

SECTION II. SUPPLEMENTAL INDEX FOR ARMY USE-CONTINUED

PART NUMBER	FSC M	FIG. NO.	INDEX NO.	NATIONAL STOCK NUMBER	SMR CODE
SN74107J	01295	7-7	7	5962-00-139-2851	PAFZZ
SN74107J	01295	7-9	4	5962-00-139-25-2851	PAFZZ
SN74107J	01295	7-12	14	5962-00-139-2851	PAFZZ
SN74111J	01295	7-6	11	5962-00-603-9792	PAFZZ
SN74161	01295	7-4	3	5962-00-007-4095	PAFZZ
SN74161	01295	7-5	3	5962-00-0074095	PAFZZ
SN74161	01295	7-13	12	5962-00-077-4095	PAFZZ
SN74163J	01295	7-4	4	5962-00-603-9666	PAFZZ
SN74163J	01295	7-12	10	5962-00-603-9666	PAFZZ
SN74163J	01295	7-14	6	5962-00-603-9666	PAFZZ
SN74164J	01295	7-5	5	5962-00-282-3058	PAFZZ
SN74164J	01295	7-9	5	5962-00-282-3058	PAFZZ
SN74164J	01295	7-12	5	5962-00-282-3058	PAFZZ
SN74180J	01295	7-10	4	5962-00-132-8415	PAFZZ
SN74191J	01295	7-9	10	5962-00-607-9800-	PAFZZ
SN74191J	01295	7-14	1	5962-00-607-9800	PAFZZ
SN74195J	01295	7-12	7		PAFZZ
U7B93L0059BC	34335	7-8	2	5962-00-603-9789	PAOZZ
U7B93L0059DC	34335	7-12	2	5962-00-603-9789	PAOZZ
ON199445	98230	7-3	2	7035-00-003-2610	ADDDD
ON199447	98230	7-3	27		XBFZZ
ON199448	98230	7-3	18		XBFZZ
ON199449	98230	7-3	17		XBFZZ
ON199450	98230	7-17	6		XBFZZ
ON199451	98230	7-18	2		XAFZZ
ON199452	98230	7-18			XBFZZ
ON199453	98230	7-17	4		XDFZZ
ON199454	98230	7-17	3		XDFZZ
ON199455	98230	7-17	5		XDFZZ
ON199456	98230	7-3	23		XBFZZ
ON199456	98230	7-2	2		XBFZZ
ON199457	98230	7-3	22		XBFZZ
ON199458	98230	7-3	28		XBOZZ
ON199459	98230	7-17			XBFZZ
ON199460	98230	7-16	14		XDFZZ
ON199461	98230	7-16	3		XDFZZ
ON199462	98230	7-16	1		XDFZZ
ON199463	98230	7-16	2		XDFZZ
ON199464	98230	7-16	9		XDFZZ
ON199465	98230	7-16	10	5990-00-132-5449	XDFZZ
ON199466	98230	7-3	34		XBFZZ
ON199467	98230	7-19	3		XDFZZ
ON199470	98230	7-15			XBFZZ
ON199471	98230	7-15	4		XBFZZ
ON199472	98230	7-16			XBFZZ
ON199473	98230	7-15	13		XBFZZ
ON199478	98230	7-3	1	5999-00-548-9486	PAFZZ
ON199479	98230	7-1	1		XBFZZ
ON199480	98230	7-2	8		XBFZZ
ON199481	98230	7-2	2		XBFZZ
ON199482	98230	7-2	1		XBFZZ
ON199483	98230	7-2	3		XBFZZ
ON199483	98230	7-21	1		XBFZZ
ON199484	98230	7-2	4		XDFZZ
ON199484	98230	7-21	2		XDFZZ
ON199485	98230	7-2	6	5999-00-534-3247	PAFZZ
ON199486	98230	7-2	7	5999-00-234-3271	PAFZZ
ON199488	98230	7-3	24		XBFZZ
ON199497	98230	7-1	3		XBFZZ

SECTION II. SUPPLEMENTAL INDEX FOR ARMY USE- CONTINUED

PART NUMBER	FSCM	FIG. NO.	INDEX NO.	NATIONAL STOCK NUMBER	S M R CODE
ONL99498	98230	7-21	3		XBFZZ
ONL99499	98230	7-20		5895-00-279-1514	PAFZZ
ONL99500	98230	7-20	1		XBFZZ
ONL99502	98230	7-3	29		XBFZZ
ONL99503	98230	7-4		5895-00-279-1549	PAFZZ
ONL99505	98230	7-4	19		XAFZZ
ONL99506	98230	7-4	16		XBFZZ
ONL99506	98230	7-6	17		XBFZZ
ONL99506	98230	7-7	14		XBFZZ
ONL99506	98230	7-8	17		XBFZZ
ONL99506	98230	7-9	17		XBFZZ
ONL99506	98230	7-10	12		XBFZZ
ONL99506	98230	7-12	19		XBFZZ
ONL99506	98230	7-13	19		XBFZZ
ONL99506	98230	7-14	18		XBFZZ
ONL99508	98230	7-5		5895-00-279-1519	PAFZZ
ONL99511	98230	7-5	20		XAFZZ
ONL99512	98230	7-9		5895-00-279-1517	PAFFA
ONL99514	98230	7-9	20		XAFZZ
ONL99516	98230	7-7		5995-00-279-1518	PAFFF
ONL99518	98230	7-7	18		XAFZZ
ONL99520	98230	7-8		5895-00-283-5590	PAFFA
ONL99522	98230	7-8	21		XAFZZ
ONL99524	98230	7-6		5985-00-279-1547	PAFFA
ONL99526	98230	7-6	12		XBOZZ
ONL99527	98230	7-6	21		XAFZZ
ONL99529	98230	7-10		5855-00-279-1550	PAFFA
ONL99531	98230	7-10	17		XAFZZ
ONL99533	98230	7-12			PAFFA
ONL99535	98230	7-12	23		XAFZZ
ONL99538	98230	7-13		5895-00-279-1531	PAFFA
ONL99540	98230	7-13	23		XAFZZ
ONL99542	98230	7-14			PAFFA
ONL99544	98230	7-14	22		XAFZZ
ONL99546	98230	7-11		5895-00-279-1548	PAFFA
ONL99549	98230	7-11	13		XAFZZ
ONL99612	98230	7-3	33		XBFZZ
ONL99640	98230	7-22		5995-00-548-9450	PAFZZ
ONL99641	98230	7-22	7		XAFZZ
ONL99643	98230	7-22	6		XAFZZ
ONL99644	98230	7-22	5		XAFZZ
ONL99645	98230	7-22	1		XAFZZ
ONL99646	98230	7-22	4		XAFZZ
ONL99647	98230	7-22	3		XAFZZ
1/4-2NA	95987	7-3	26	5340-00-082-1057	PAFZZ
1/4-4NA	95987	7-3	15	5340-00*-932-5201	PAFZZ
1/4-4NA	95987	7-16	7	5340-00-932-5201	PAFZZ
10377-SS-0832	06540	7-3	31		XBFZZ
1122-0.750-11-T	98438	7-17	1		XBFZZ
1221-.001	72982	7-16	11	5915-00-914-4831	PAFZZ
17B-1015-20B	18915	7-19	2		XBFZZ
2-56X1/4	74545	7-15	13		XDFZZ
35-7B-2-6-3	18915	7-22	2	5965-00-450-8395	XDFZZ
3/8-4NA	95987	7-3	25	5340-00-959-6185	PAFZZ
39TB6	81349	7-2	5	5340-00-983-6106	XBFZZ
40TB6	81349	7-16	6	5940-00-983-6089	PAFZZ
40TB8	81349	7-16	5	5940-00-983-6069	PAFZZ
40TB8	81349	7-16	6	5940-00-983-6069	PAFZZ

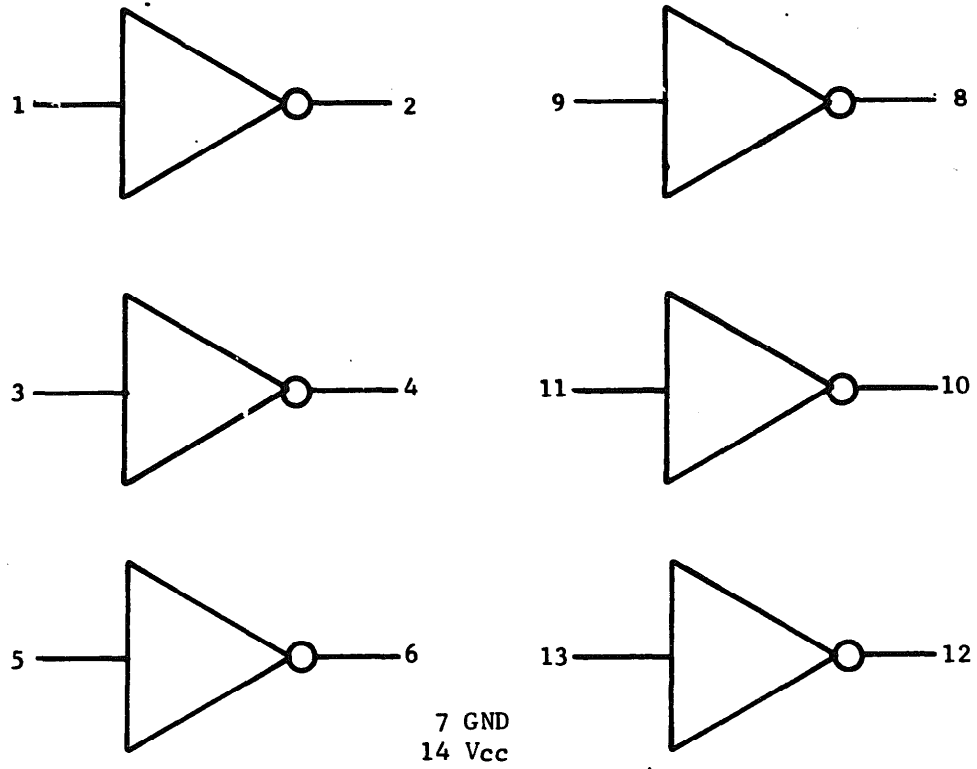
SECTION II. SUPPLEMENTAL INDEX FOR ARMY USE - CONTINUED

PART NUMBER	FSCM	FIG NO.	INDEX NO.	NATIONAL STOCK NUMBER	S M R C O D E
4108P	75382	7-15	5	5340-00-619-6510	PAFZZ
4108P	75382	7-15	6	5340-00-619-6510	PAFZZ
410-JJ-8T-8	75382	7-15	5	5940-00-603-9879	PAFZZ
410-JJ-8T-12	75382	7-15	6	5940-00-629-6760	PAFZZ
67233	00779	7-17	2	5935-00-007-7426	PAFZZ
67342	00779	7-17	2	1560-00-072-4896	PAFZZ
8000-D61	91505	7-5	10	5935-00-813-5031	PAFZZ
8872-4	07126	7-15	1		PAFZZ

DIGITAL DATA SET

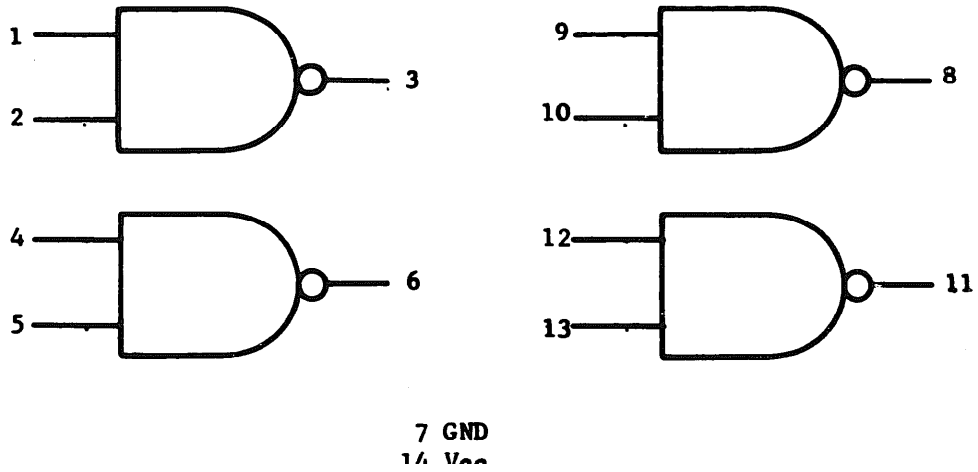
AN/FYC-12

APPENDIX



14 Pin D.I.P. (See Figure A-25A)

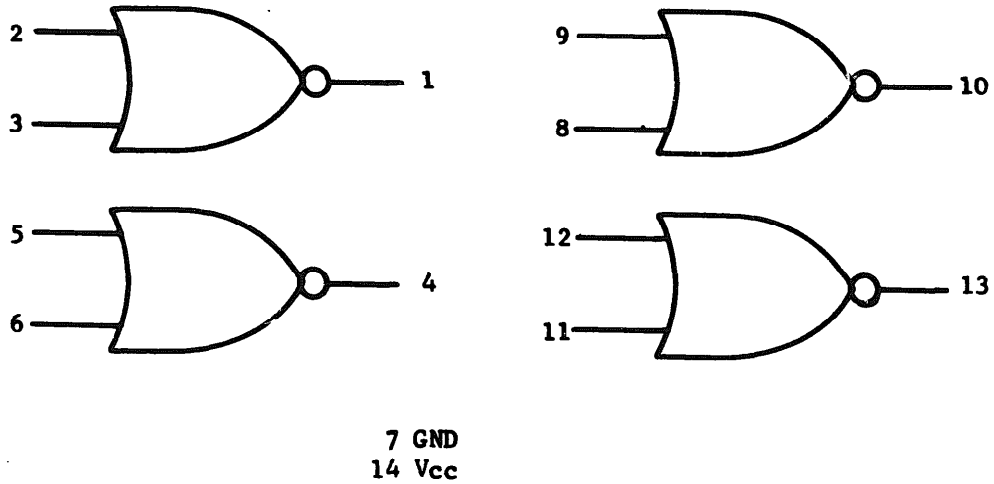
Figure A-1. Hex Inverters, ON199563 (7404)
ON199575 (74H04)
ON199578 (74L04)
ON199564 (7406)



14 Pin D.I.P. (See Figure A-25A)

INPUT		OUTPUT
0	0	1
0	1	1
1	0	1
1	1	0

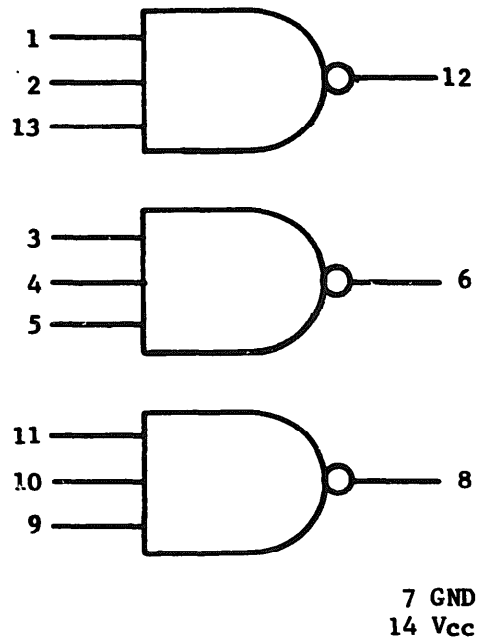
Figure A-2. Quad 2-Input NAND Gate, ON199561 (7400)
ON199576 (74L00)
ON199570 (7437)



14 Pin D.I.P. (See Figure-A-25A)

INPUT		OUTPUT
0	0	1
0	1	0
1	0	0
1	1	0

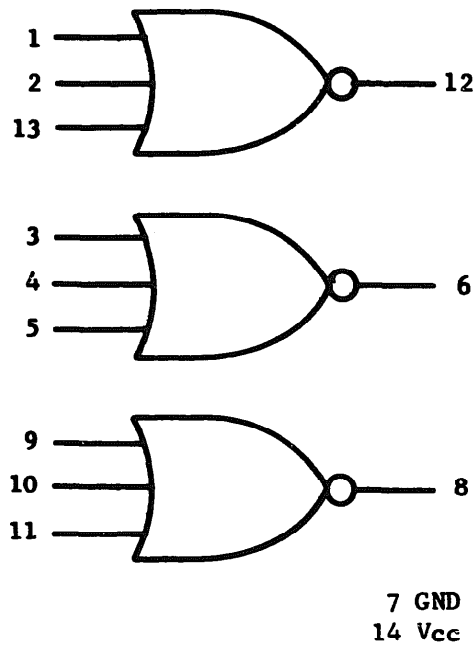
Figure A-3. Quad 2-Input NOR Gate, ON199562 (7402)
ON199577 (74LA02)



14 Pin D.I.P. (See Figure A-25A)

INPUT			OUTPUT
0	0	0	1
0	0	1	1
0	1	0	1
0	1	1	1
1	0	0	1
1	0	1	1
1	1	0	1
1	1	1	0

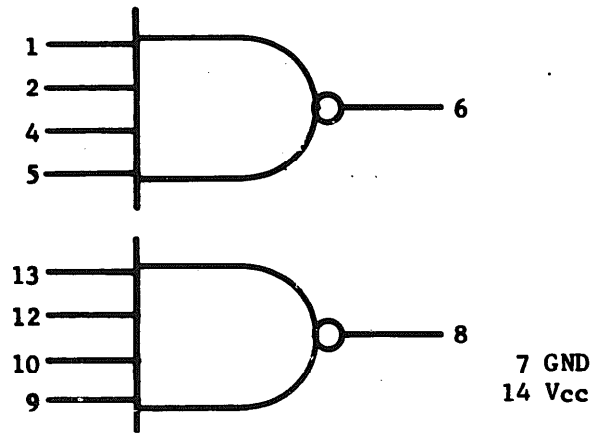
Figure A-4. Triple 3-Input NAND Gate, ON199565 (7410)
ON199579 (74L10)



14 Pin D.I.P. (See Figure.A-25A)

INPUT			OUTPUT
0	0	0	1
0	0	1	0
0	1	0	0
0	1	1	0
1	0	0	0
1	0	1	0
1	1	0	0
1	1	1	0

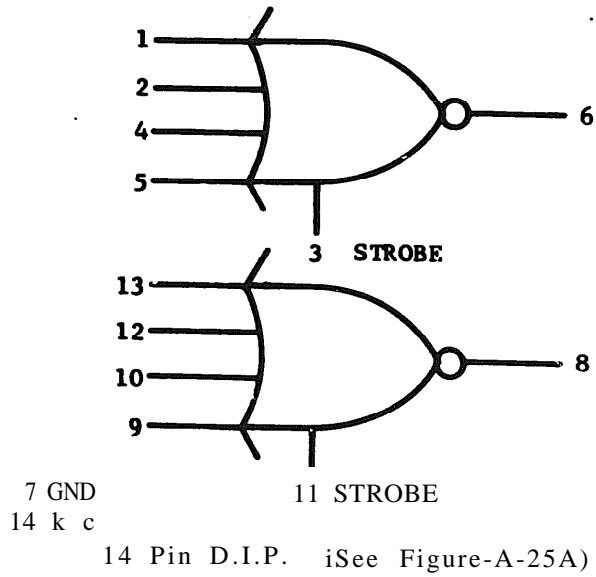
Figure A-5. Triple 3-Input NOR Gate, ON199568 (7427)



14 Pin D.I.P. (See Figure-A-25A)

INPUT				OUTPUT
0	0	0	0	1
0	0	0	1	1
0	0	1	0	1
0	0	1	1	1
0	1	0	0	1
0	1	0	1	1
0	1	1	0	1
0	1	1	1	1
1	0	0	0	1
1	0	0	1	1
1	0	1	0	1
1	0	1	1	1
1	1	0	0	1
1	1	0	1	1
1	1	1	0	1
1	1	1	1	0

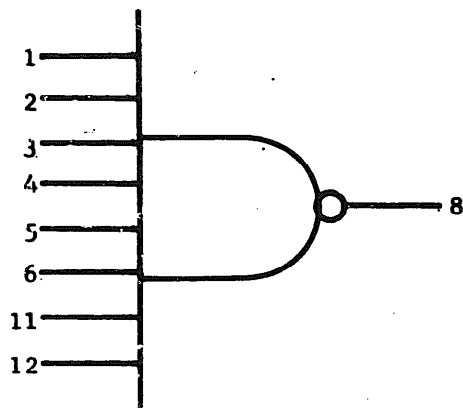
Figure A-6. Dual 4-Input NAND Gate, ON199569 (7420)
ON199580 (74L20)



INPUT*				OUTPUT
0	0	0	0	1
0	0	0	1	0
0	0	1	0	0
0	0	1	1	0
0	1	0	0	0
0	1	0	1	0
0	1	1	0	0
0	1	1	1	0
1	0	0	0	0
1	0	0	1	0
1	0	1	0	0
1	0	1	1	0
1	1	0	0	0
1	1	0	1	0
1	1	1	0	0
1	1	1	1	0

*Strobe must be high to obtain output as shown.

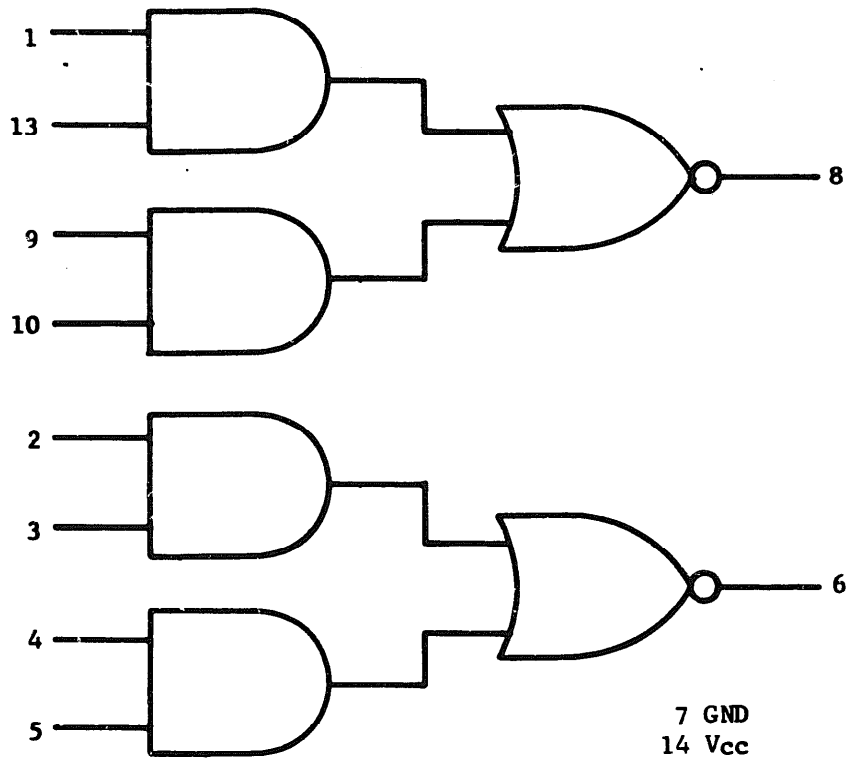
Figure A-7. Dual 4-Input: NOR Gate (with Strobe) 0N194567 (7425)



14 Pin D.I.P. (See Figure-A-25A)

INPUT								OUTPUT
0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	1	1
0	0	0	0	0	0	1	0	1
0	0	0	0	0	0	1	1	1
1	1	1	1	1	1	0	1	1
1	1	1	1	1	1	1	0	1
1	1	1	1	1	1	1	1	0

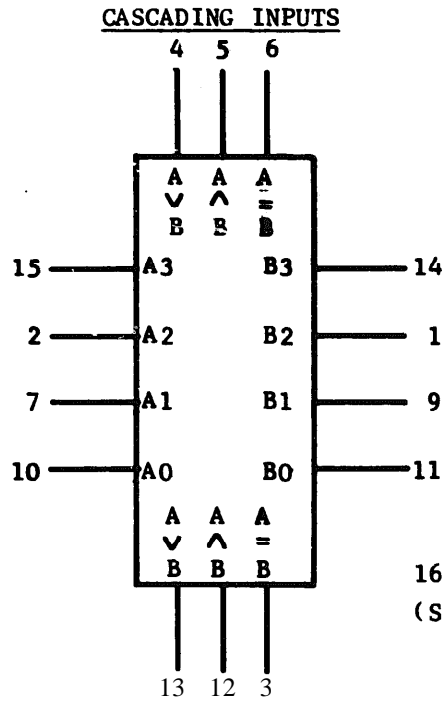
Figure A-8. 8-Input NAND Gate, ON199569 (7430)
ON199581 (74L30)



14 Pin D.I.P. (See Figure A-25A)

INPUT		INPUT		OUTPUT
0	0	0	0	1
0	0	0	1	1
0	0	1	0	1
0	0	1	1	0
0	1	0	0	1
0	1	0	1	1
0	1	1	0	1
0	1	1	1	0
1	0	0	0	1
1	0	0	1	1
1	0	1	0	1
1	0	1	1	0
1	1	0	0	0
1	1	0	1	0
1	1	1	0	0
1	1	1	1	0

Figure A-9. Dual 2-Wide 2-Input AND OR Inverter Gates, ON199582 (7451)



16 Pin D.I.P.
(See Figure A-25B)

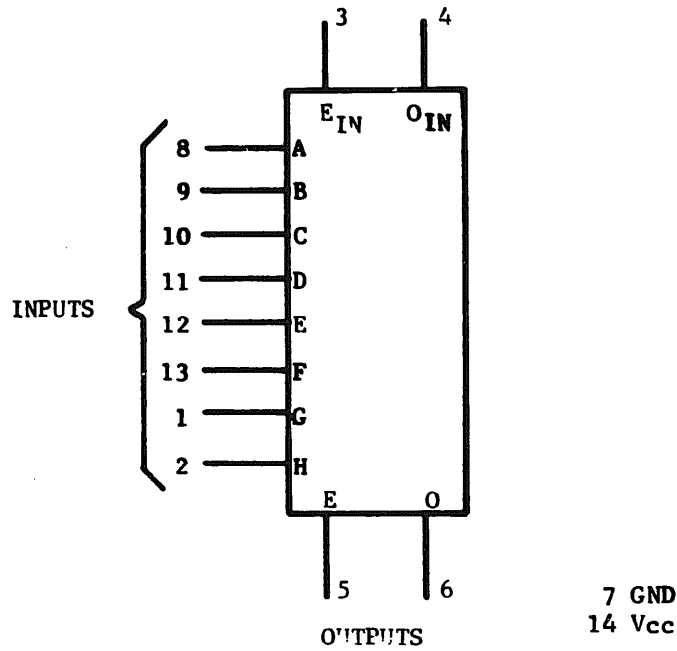
8 GND
16 Vcc

FUNCTION TABLES

COMPARING INPUTS				CASCADING INPUTS			OUTPUTS		
A3, B3	A2, B2	A1, B1	A0, B0	A>B	A<B	A=B	A>B	A<B	A=B
A3>B3	X	X	X	X	X	X	1	0	0
A3<B3	X	X	X	X	X	X	0	1	0
A3=B3	A2>B2	X	X	X	X	X	1	0	0
A3=B3	A2<B2	X	X	X	X	X	0	1	0
A3=B2	A2=B2	A1>B1	X	X	X	X	1	0	0
A3=B3	A2=B2	A<B1	X	X	X	X	0	1	0
A3=B3	A2=B2	A1=B1	A0>B0	X	X	X	1	0	0
A3=B3	A2=B2	A1=B1	A0<B0	X	X	X	0	1	0
A3=B3	A2=B2	A1=B1	A0=B0	1	0	0	1	0	0
A3=B3	A2=B2	A1=B1	A0=B0	0	1	0	0	1	0
A3=B3	A2=B2	A1=B1	A0=B0	0	0	1	0	0	1
A3=B3	A2=B2	A1=B1	A0=B0	0	1	1	0	1	1
A3=B3	A2=B2	A1=B1	A0=B0	1	0	1	1	0	1
A3=B3	A2=B2	A1=B1	A0=B0	1	1	1	1	1	1
A3=B3	A2=B2	A1=B1	A0=B0	1	1	0	1	1	0
A3=B3	A2=B2	A1=B1	A0=B0	0	0	0	0	0	0

x c Irrelevant state

Figure A-10. 4-Bit Magnitude Comparator, ON199591 (74L85)

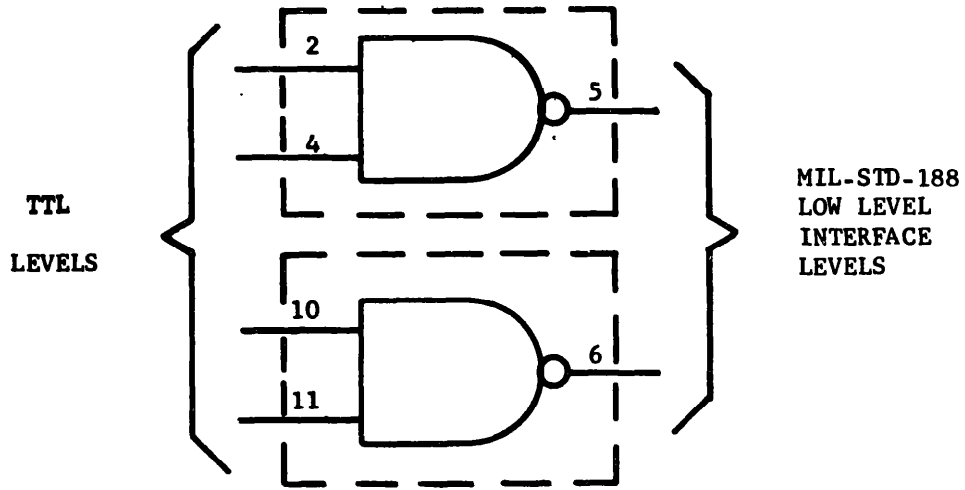


14 Pin D.I.P. (See Figure A-25A)

OF H's AT A THRU H	INPUTS		OUTPUTS	
	E _{IN}	O _{IN}	E	O
EVEN	1	0	1	0
ODD	1	0	0	1
EVEN	0	1	0	1
ODD	0	1	1	0
X	1	1	0	0
X	0	0	1	1

X T irrelevant

Figure A-11. 9-Bit Odd/Even Parity Generators/Checkers,
ON199592 (74180)

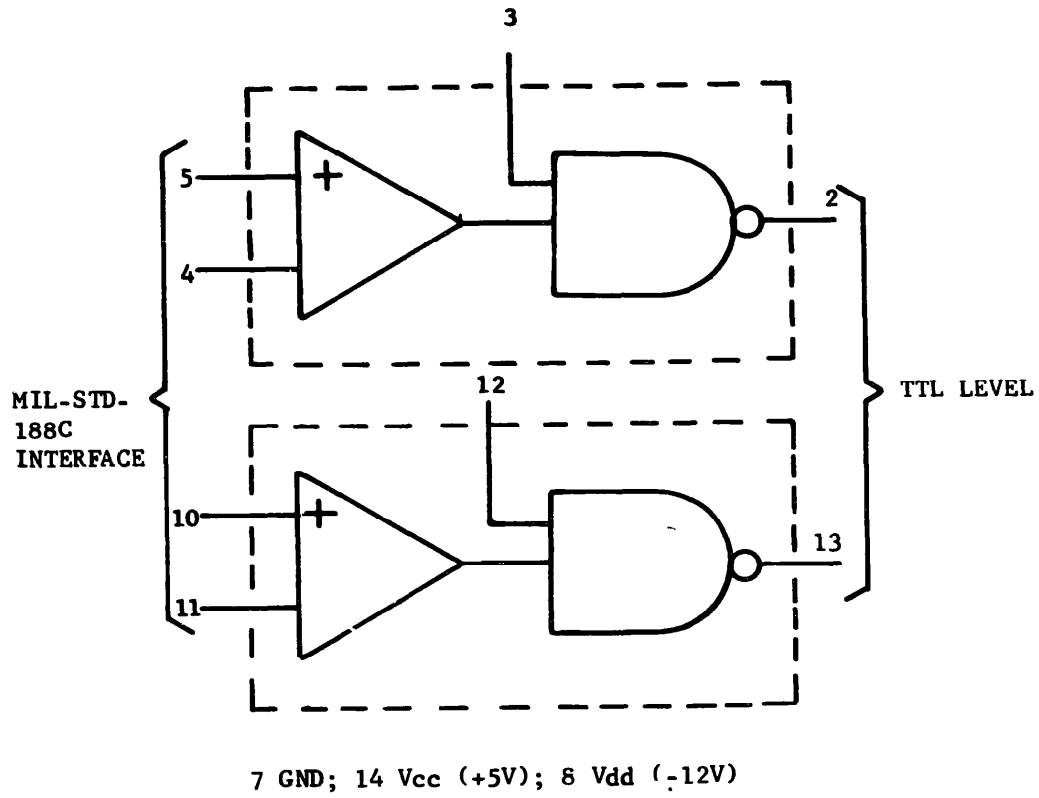


7 GND 14 VEE (+12V) 8 VDD (-12V)

14 Pin D.I.P. (See Figure A-25A)

INPUT (TTL LEVELS)		OUTPUT
0	0	POS 6V.
0	1	POS 6V.
1	0	POS 6V.
1	1	NEG 6V.

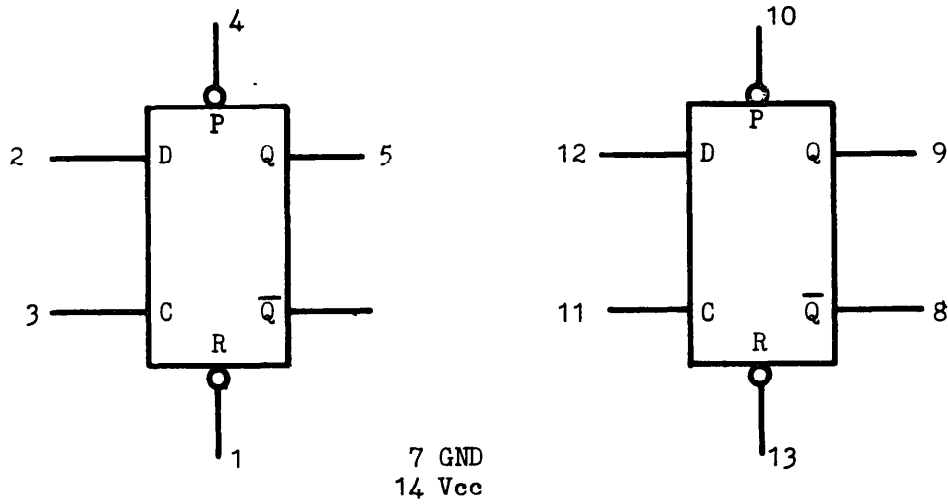
Figure A-12. Dual Interface Transmitter, ON199595 (1151)



14 Pin D.I.P. (See Figure A-25A)

INPUT		OUTPUT
LINE	STROBE	
NEG 6V	0	1
NEG 6V	1	1
POS 6V	0	1
POS 6V	1	0

Figure A-13. Dual Interface Receiver, ON199536 (1161)



14 Pin D.I.P. (See Figure-A-25A)

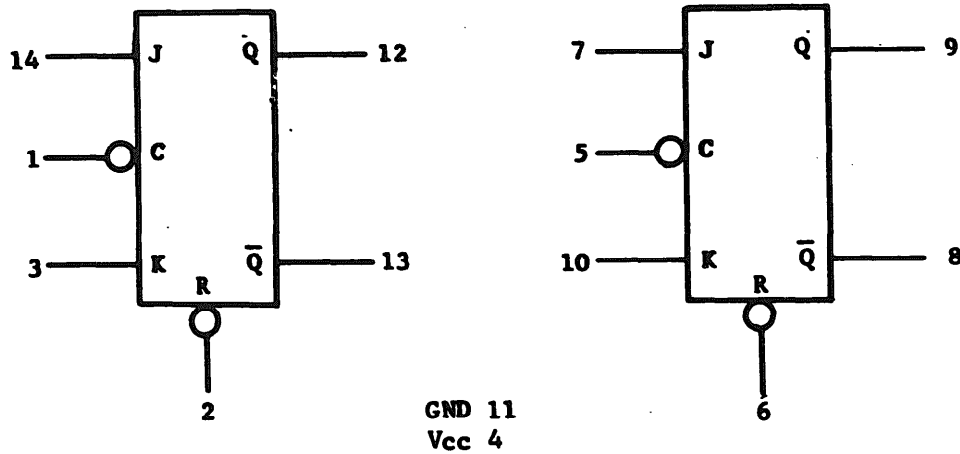
INPUT				OUTPUT	
P	R	C	D	Q	\bar{Q}
0	1	X	X	1	0
1	0	X	X	0	1
0	0	X	X	1*	1*
1	1	↓	1	1	0
1	1	↓	0	0	1
1	1	0	X	Q_0	\bar{Q}_0

***NONSTABLE CONDITION**





X = irrelevant state


0 subscript indicates previous state

Figure A-14. Dual D-Type Flip Flop With Preset and Clear, ON199572 (7474)
ON199584 (74L74)



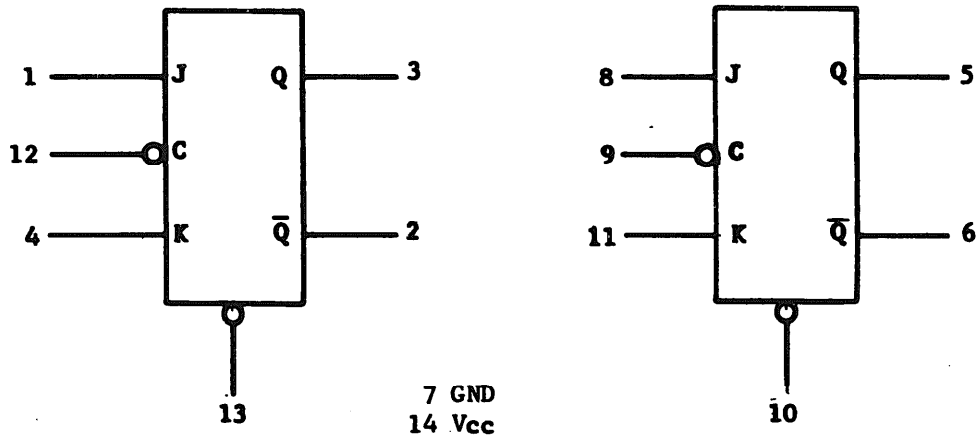
14 Pin D.I.P. (See Figure A-25A)

INPUT				OUTPUT	
R	C	J	K	Q	\bar{Q}
0	X	X	X	0	1
1		0	0	Q_0	\bar{Q}_0
1		1	0	1	0
1		0	1	0	1
1		1	1	TOGGLE	

 = High level pulse; data inputs should be held constant while clock is high; data transferred to output on falling edge of pulse

X = Irrelevant state

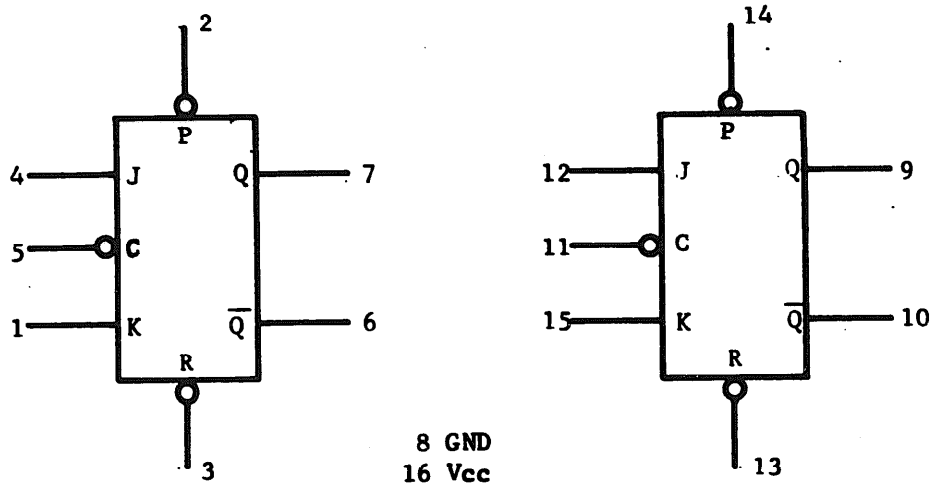
Figure A-15. Dual J-K Flip Flops with Clear, ON199571 (7473)
ON199583 (74L73)



14 Pin D.I.P. (See Figure - A-25A)

INPUTS				OUTPUT	
R	C	J	K	Q	\bar{Q}
0	X	X	X	0	1
1	↓	0	0	Q_0	\bar{Q}_0
1	↓	1	0	1	0
1	↓	0	1	0	1
1		1	1	TOGGLE	

Figure A-16. Dual J-K Flip Flops with Clear, ON199560 (74107)

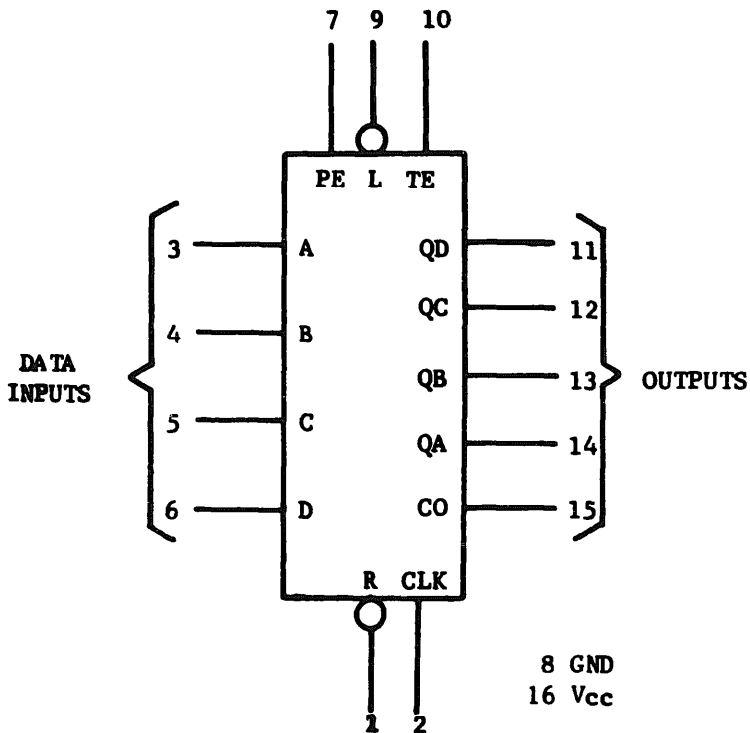


16 Pin D.I.P. (See Figure - A-25B)

FUNCTION TABLE					OUTPUTS	
INPUTS					Q	\bar{Q}
PRESET	CLEAR	CLOCK	J	K		
0	1	X	X	X	1	0
1	0	X	X	X	0	1
0	0	X	X	X	1*	1*
1	1	↓	0	0	Q _o	\bar{Q}_o
1	1	↓	1	0	1	0
1	1	↓	0	1	0	1
1	1	↓	1	1	TOGGLE	

*This configuration is nonstable; that is it will not persist when preset and clear inputs return to their inactive (1 state) level

Figure A-17. Dual J-K Flip Flop Clear, Preset, and Data Lockout, ON199573 (74111)



16 Pin D.I.P. (See Figure A-25B)

TYPICAL RESET, PRESET, COUNT, AND INHIBIT SEQUENCES

Illustrated below is the following sequence:

1. Reset outputs to zero.
2. Preset to binary twelve.
3. Count to thirteen, fourteen, fifteen, zero, one, and two.
4. Inhibit.

Figure A-18. Synchronous 4-Bit Counters, ON199585 (74161)
ON199586 (74163) Sheet 1 of 2

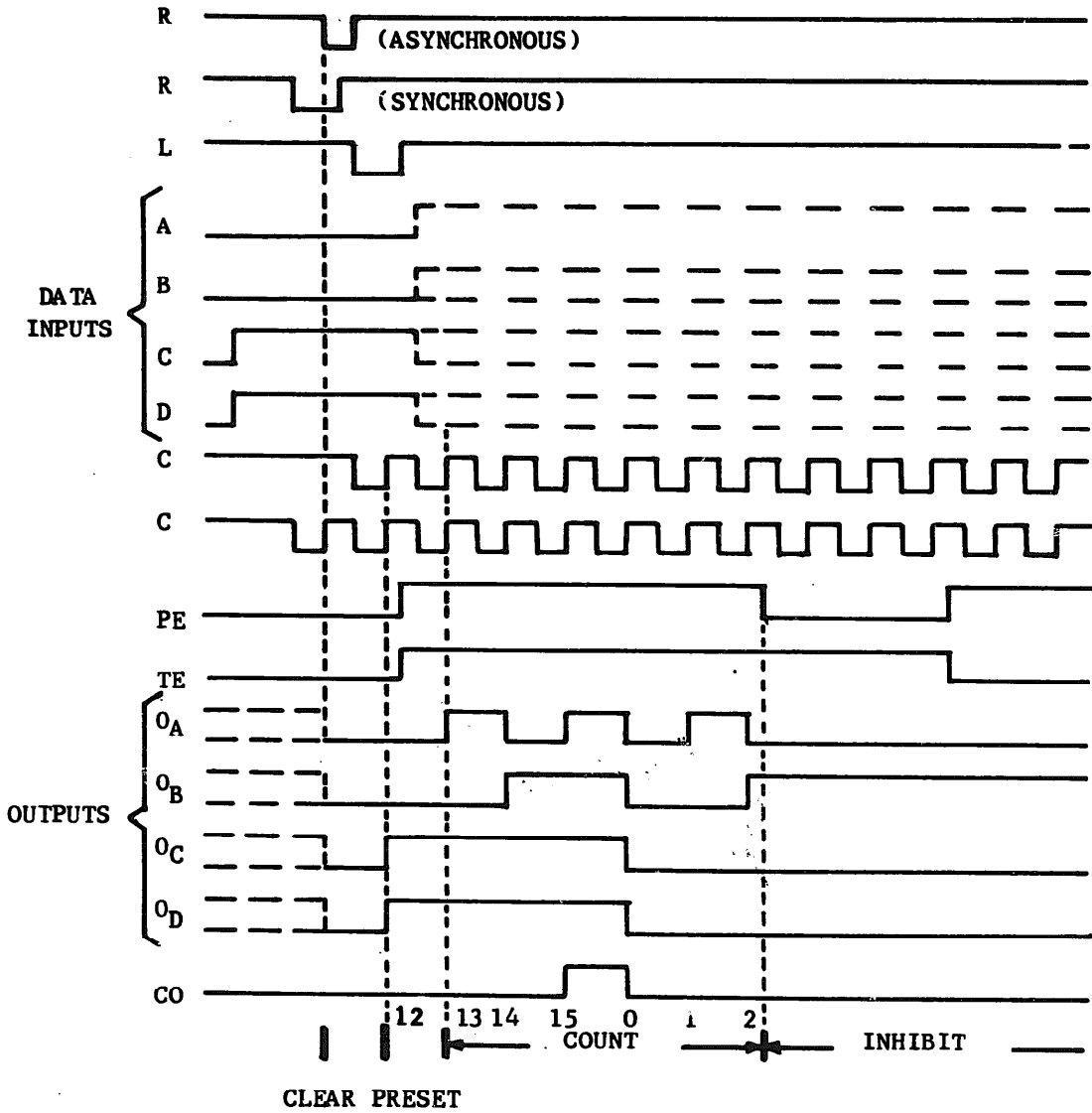
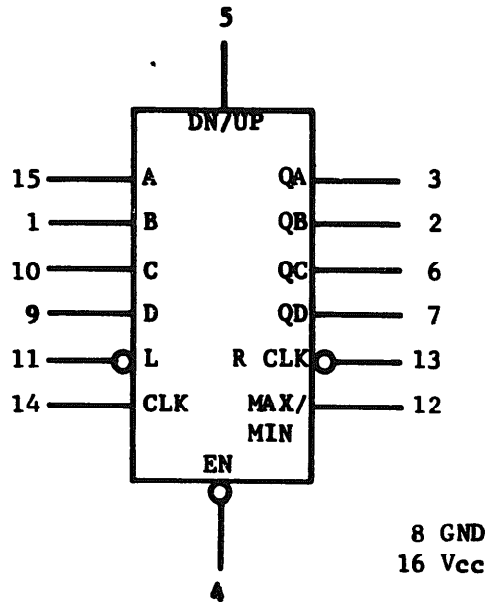


Figure A-18. Synchronous 4-Bit Counters, ON199585 (74161)

ON199586 (74163) Sheet 1 of 2



16 Pin D.I.P. (See Figure A-25B)

Illustrated on next page is the following sequence

1. Load (preset) to binary 13
2. Count up to fourteen, fifteen (maximum), zero, one and two
3. Inhibit
4. Count down to one, zero (maximum) fifteen, fourteen, and thirteen

Figure A-19. Synchronous Up/Down Counter
0N199587 (74191)

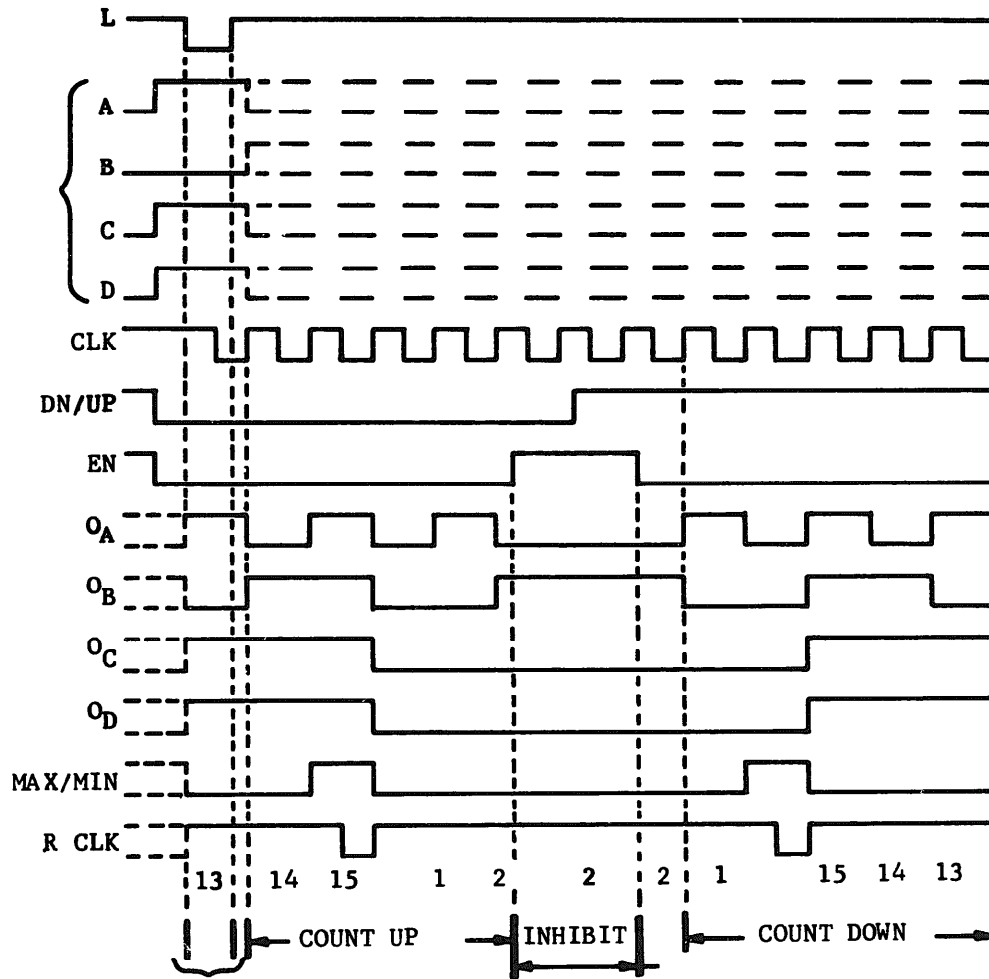
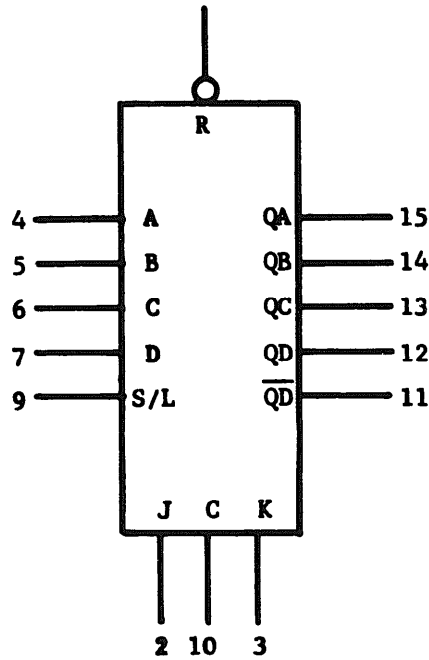


Figure A-19. Synchronous Up/Down Counter, ON199587 (74191) Sheet 2 of 2



16 Pin D.I.P. (See Figure - A-25B)

TYPICAL RESET, SHIFT, AND LOAD SEQUENCES

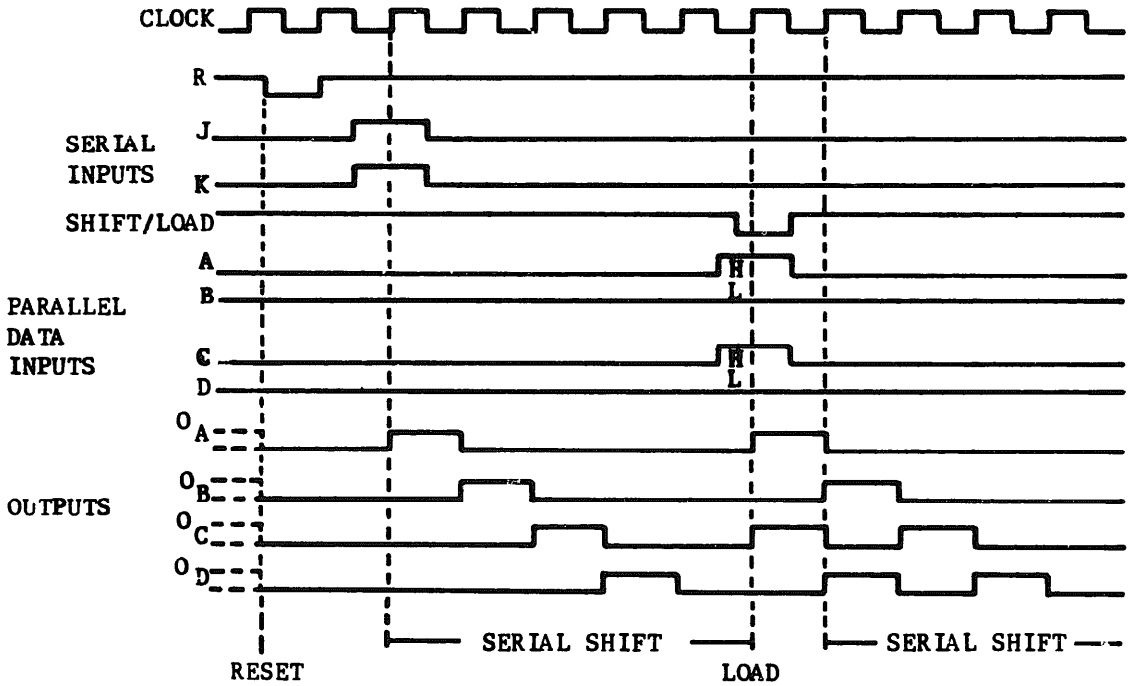
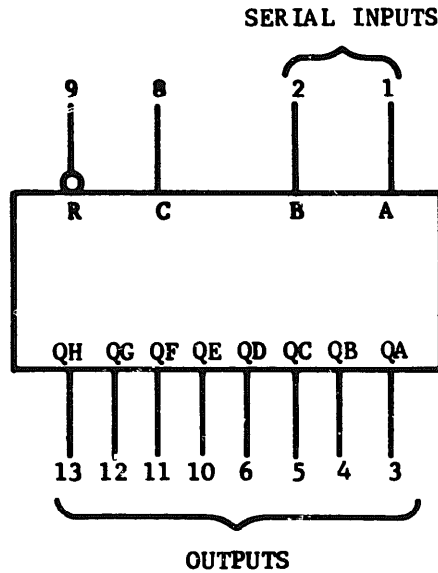


Figure A-20. 4-Bit Parallel-Access Shift Register, ON199588 (74195)
ON199574 (93L00)



16 Pin D.I.P. (See Figure - A-25B)

TYPICAL RESET, SHIFT, AND LOAD SEQUENCES

INPUTS				OUTPUTS		
RESET	CLOCK	A	B	Q _A	Q _B	Q _C
0	X	X	X	0	0	0
1	0	X	X	O _{A0}	O _{B0}	O _{H0}
1	↑	1	1	1	O _{An}	O _{Gn}
1	↑	0	X	0	O _{An}	O _{Gn}
1	↑	X	0	0	O _{An}	O _{Gn}

X = irrelevant (any input, including transitions)

↑ = transition from low to high level.

O_{A0}, O_{B0}, O_{H0} = the level of O_A, O_B, or O_H, respectively, before the indicated steady-state input conditions were established.

O_{An}, O_{Gn} = the level of O_A or O_G before the most-recent transition of the clock, indicates a one-bit shift.

Figure A-21. 8-Bit Parallel-Out Serial Shift Registers, QN199589 (74164) QN199590 (74L164)

TYPICAL RESET, SHIFT, AND CLEAR SEQUENCES

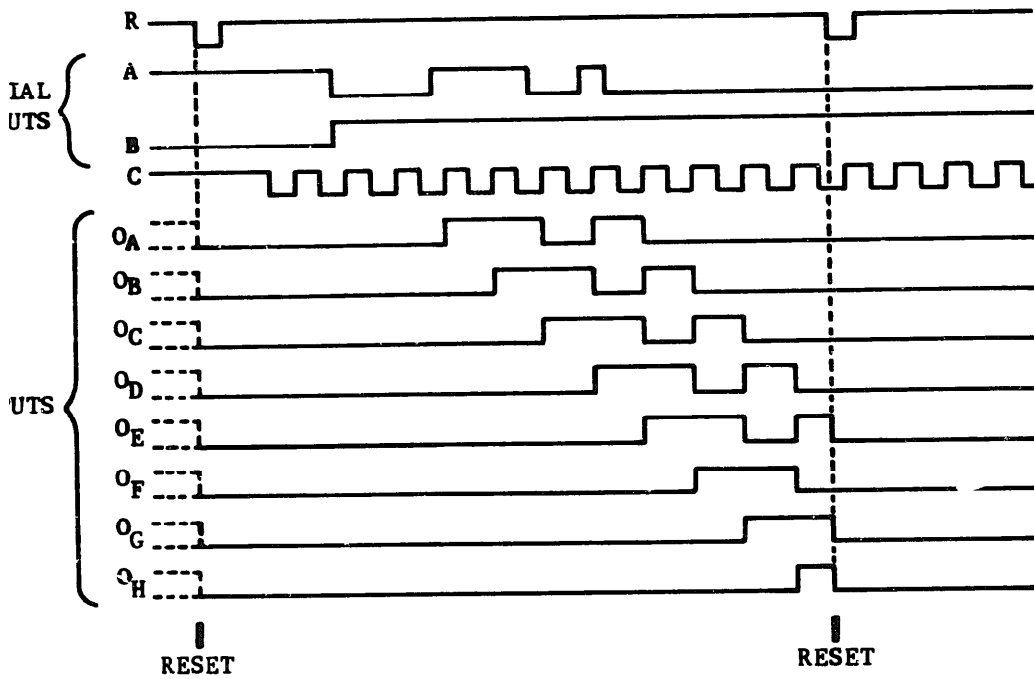
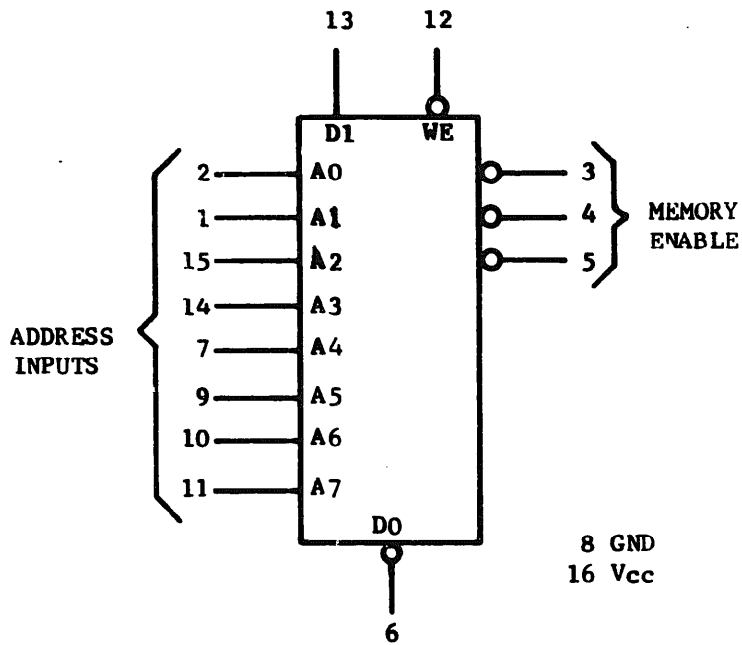


Figure A-21. 8-Bit Parallel-Out Serial Shift Registers, ON199589 (74164) ON199590 (74L164)



16 Pin D.I.P. (See Figure- A- 25B)

FUNCTION TABLE

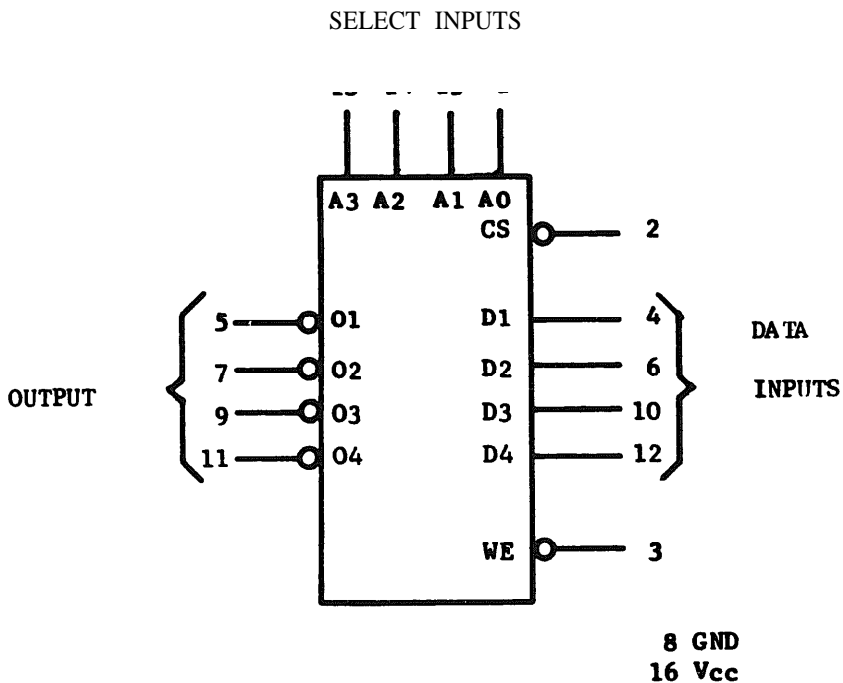
INPUTS			OUTPUT	MODE
* \overline{CS}	\overline{WE}	D1	$\overline{D0}$ ($t_n + 1$)	
1	X	X	F	NO SELECTION
0	0	0	F	WRITE "0"
0	0	1	F	WRITE "1"
0	1	X	$\overline{D0}$ (t_n)	READ

*For Memory Enable (P-C) 0 = All ME Inputs Low, 1 = One or More ME Inputs High

Y Equivalent State

F = Floating, Output Level Is Determined By External Circuitry Connected to the Output.

Figure A-22. 256-Bit Read/Write Memory, ON399638 (3107)

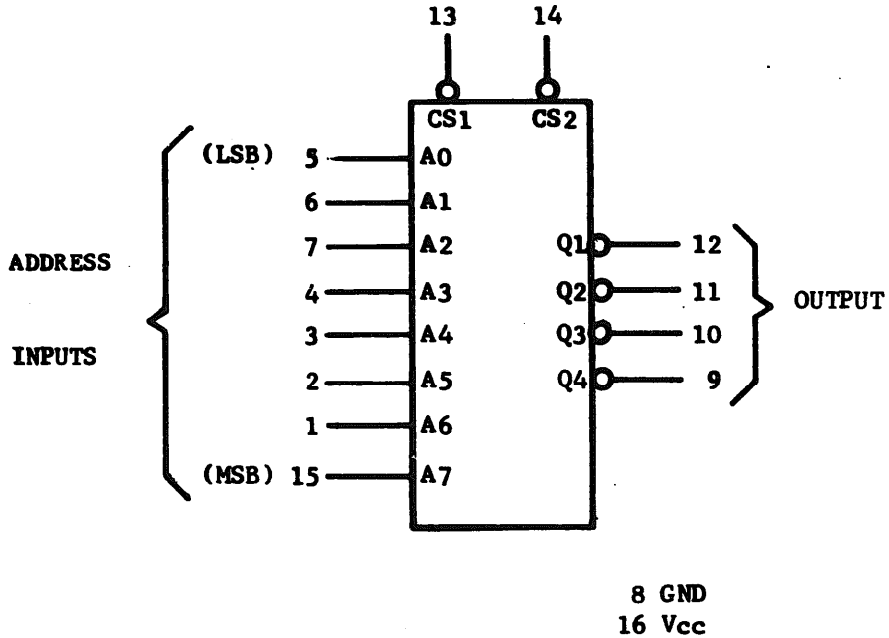


16 Pin D.I.P. (See Figure - A-25B)

FUNCTION TABLE

\overline{CS}	\overline{WE}	OPERATION	CONDITION OF OUTPUTS
0	0	WRITE	Complement of Data Inputs
0	1	READ	Complement of Selected Word
1	0	INHIBIT STORAGE	Complement of Data Inputs
1	1	DO NOTHING	

Figure A-23. 64-Bit Read/Write Memory, ON199593 (31L01)



16 Pin D.I.P. (See Figure A-25B)

ROM PROGRAM NOTES

*Input **Address** Column is Decimal Equivalent of Binary Coded Address Location

*Output Data Column indicates the four (4) outputs of the device starting with the most significant bit.

MSB = Most Significant Bit

LSB = Least Significant Bit

ON199559 (3301A-0704)	shown on Figure A-24-A
ON199639 (3301A-0705)	shown on Figure A-24-B
ON199634 (3301A-0706)	shown on Figure A-24-C
ON199635 (3301A-0707)	shown on Figure A-24-D
ON199636 (3301A-0708)	shown on Figure A-24-E

Figure A-24. 256 x 7Bit Read Only Memory
(See ROM PROGRAM NOTES ABOVE)

ROM PROGRAM FOR (ON199559)

IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
0	0000	1	0000	2	0001	3	1011	4	0000
5	0000	6	1100	7	0101	8	0001	9	0000
10	1010	11	1001	12	1001	13	0000	14	1000
15	0000	16	0000	17	0000	18	1000	19	0111
20	0111	21	0000	22	0110	23	0001	24	1001
25	0000	26	0100	27	0010	28	0101	29	0011
30	0100	31	0000	32	0001	33	0000	34	0110
35	0011	36	0101	37	0000	38	0010	39	0101
40	1000	41	0000	42	0000	43	0110	44	0001
45	0111	46	1000	47	0000	48	1100	49	0000
50	1110	51	1001	52	1111	53	1010	54	1011
55	0000	56	1111	57	1100	58	1101	59	0000
60	1110	61	0000	62	0000	63	0000	64	0000
65	0000	66	0100	67	1101	68	0011	69	0000
70	1100	71	1111	72	0111	73	0000	74	1010
75	0000	76	1011	77	1111	78	0010	79	0000
80	1011	81	0000	82	1000	83	0011	84	1001
85	0100	86	0101	87	0000	88	1110	89	0110
90	0111	91	0000	92	1000	93	0000	94	0000
95	0000	96	0011	97	0000	98	0110	99	1001
100	0111	101	1010	102	1011	103	0000	104	1101
105	1100	106	1101	107	0000	108	1110	109	0000
110	0000	111	0000	112	0000	113	0000	114	0001
115	0000	116	0010	117	0000	118	0000	119	0000
120	0011	121	0000	122	0000	123	0000	124	0000
125	0000	126	0000	127	0000	128	0000	129	0000
130	0010	131	0101	132	0001	133	0000	134	0100

Figure A-24A. Sheet 1 of 2

ROM PROGRAM FOR ON199559 (Continued)

IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
135	0100	136	0110	137	0000	138	0010	139	0101
140	0011	141	0110	142	0111	143	0000	144	1010
145	0000	146	0000	147	1000	148	0001	149	1001
150	1010	151	0000	152	1100	153	1011	154	1100
155	0000	156	1101	157	0000	158	0000	159	0000
160	0010	161	0000	162	0000	163	1110	164	1111
165	1111	166	0000	167	0000	168	1011	169	0000
170	0001	171	0000	172	0010	173	0000	174	0000
175	0000	176	1110	177	0011	178	0100	179	0000
180	0101	181	0000	182	0000	183	0000	184	0110
185	0000	186	0000	187	0000	188	0000	189	0000
190	0000	191	0000	192	1111	193	0000	194	1110
195	0111	196	1101	197	1000	198	1001	199	0000
200	1010	201	1010	202	1011	203	0000	204	1100
205	0000	206	0000	207	0000	208	1101	209	1101
210	1110	211	0000	212	1111	213	0000	214	0000
215	0000	216	0000	217	0000	218	0000	219	0000
220	0000	221	0000	222	0000	223	0000	224	0100
225	0001	226	0000	227	0000	228	0000	229	0000
230	0000	231	0000	232	0000	233	0000	234	0000
235	0000	236	0000	237	0000	238	0000	239	0000
240	0000	241	0000	242	0000	243	0000	244	0000
245	0000	246	0000	247	0000	248	0000	249	0000
250	0000	251	0000	252	0000	253	0000	254	0000
255	0000								

Figure A-24A. Sheet 2 of 2

ROM PROGRAM FOR ON199639

IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
0	0000	1	0000	2	0000	3	0000	4	0000
5	0000	6	0000	7	0000	8	0000	9	0001
10	0001	11	0001	12	0001	13	0001	14	0010
15	0010	16	0010	17	0010	18	0010	19	0010
20	0010	21	0011	22	0011	23	0011	24	0011
25	0011	26	0011	27	0000	28	0001	29	0000
30	0000	31	0000	32	1111	33	1101	34	1101
35	1101	36	1101	37	1101	38	1010	39	1111
40	1010	41	1010	42	1010	43	1111	44	1010
45	1111	46	0000	47	0000	48	1010	49	1010
50	1010	51	1111	52	0111	53	1111	54	1101
55	0000	56	0111	57	1111	58	1101	59	0000
60	1111	61	0000	62	0000	63	0000	64	1110
65	1100	66	1100	67	1100	68	1100	69	1100
70	1001	71	1110	72	1001	73	1001	74	1001
75	1110	76	1001	77	1110	78	0000	79	0000
80	1001	81	1001	82	1001	83	1110	84	0110
85	1110	86	1100	87	0000	88	0110	89	1110
90	1100	91	0000	92	1110	93	0000	94	0000
95	0000	96	0111	97	0111	98	0111	99	1111
100	0111	101	1111	102	1101	103	0000	104	0111
105	1111	106	1101	107	0000	108	1111	109	0000
110	0000	111	0000	112	0111	113	1111	114	1101
115	0000	116	1111	117	0000	118	0000	119	0000
120	1101	121	0000	122	0000	123	0000	124	0000
125	0000	126	0000	127	0000	128	0100	129	0100
130	1011	131	1011	132	1011	133	1011	134	1000

Figure A-24B. Sheet 1 of 2

ROM PROGRAM FOR ON199639 (Continued)

IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
135	0100	136	1000	137	1000	138	1000	139	0100
140	1000	141	0100	142	0000	143	0000	144	1000
145	1000	146	1000	147	0100	148	0101	149	0100
150	1011	151	0000	152	0101	153	0100	154	1011
155	0000	156	0100	157	0000	158	0000	159	0000
160	0110	161	0110	162	0110	163	1110	164	0110
165	1110	166	1100	167	0000	168	0110	169	1110
170	1100	171	0000	172	1110	173	0000	174	0000
175	0000	176	0110	177	1110	178	1100	179	0000
180	1110	181	0000	182	0000	183	0000	184	1100
185	0000	186	0000	187	0000	188	0000	189	0000
190	0000	191	0000	192	0101	193	0101	194	0101
195	0100	196	0101	197	0100	198	1011	199	0000
200	0101	201	0100	202	1011	203	0000	204	0100
205	0000	206	0000	207	0000	208	0101	209	0100
210	1011	211	0000	212	0100	213	0000	214	0000
215	0000	216	1011	217	0000	218	0000	219	0000
220	0000	221	0000	222	0000	223	0000	224	0100
225	1111	226	1110	227	0000	228	1110	229	0000
230	0000	231	0000	232	1111	233	0000	234	0000
235	0000	236	0000	237	0000	238	0000	239	0000
240	0000	241	0000	242	0000	243	0000	244	0000
245	0000	246	0000	247	0000	248	0000	249	0000
250	0000	251	0000	252	0000	253	0000	254	0000
255	0000								

Figure A-24B. Sheet 2 of 2

ROM PROGRAM FOR ON199634

IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
0	1111	1	1111	2	1111	3	1111	4	1111
5	1111	6	1111	7	1111	8	1111	9	1111
10	1111	11	1111	12	1111	13	1111	14	1111
15	1111	16	1111	17	1111	18	1111	19	1111
20	1111	21	1111	22	1111	23	1111	24	1111
25	1111	26	1111	27	1111	28	1111	29	1111
30	1111	31	1111	32	1111	33	1111	34	1111
35	1111	36	1111	37	1111	38	1111	39	1111
40	1111	41	1111	42	1111	43	1111	44	1111
45	1111	46	1111	47	1111	48	1111	49	1111
50	1111	51	1111	52	1111	53	1111	54	1111
55	1111	56	1111	57	1111	58	1111	59	1111
60	1111	61	1111	62	1111	63	1111	64	1000
65	1000	66	1001	67	1001	68	1011	69	1011
70	1001	71	1001	72	1001	73	1001	74	1011
75	1011	76	1011	77	1011	78	1011	79	1011
80	1011	81	1001	82	1001	83	1001	84	1001
85	1001	86	1001	87	1001	88	1001	89	1001
90	1001	91	1001	92	1001	93	1011	94	1011
95	1011	96	1101	97	1010	98	1010	99	1010
100	1010	101	1010	102	1010	103	1010	104	1010
105	1010	106	1010	107	1010	108	1010	109	1101
110	1101	111	1101	112	1110	113	1100	114	1100
115	1100	116	1100	117	1100	118	1100	119	1100
120	1100	121	1100	122	1100	123	1100	124	1100
125	1110	126	1110	127	1110	128	1011	129	1011
130	1011	131	1011	132	1011	133	1011	134	1011

Figure A-24C. Sheet 1 of 2

ROM PROGRAM FOR ON199634 (Continued)

IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
135	1011	136	1011	137	1011	138	1011	139	1011
140	1011	141	1011	142	1011	143	1011	144	1101
145	1101	146	1101	147	1101	148	1101	149	1101
150	1101	151	1101	152	1101	153	1101	154	1101
155	1101	156	1101	157	1101	158	1101	159	1101
160	1110	161	1110	162	1110	163	1110	164	1110
165	1110	166	1110	167	1110	168	1110	169	1110
170	1110	171	1110	172	1110	173	1110	174	1110
175	1110	176	1011	177	1011	178	1011	179	1011
180	1011	181	1011	182	1011	183	1011	184	1011
185	1011	186	1001	187	1001	188	1001	189	1011
190	1011	191	1001	192	1101	193	1101	194	1101
195	1101	196	1101	197	1101	198	1101	199	1101
200	1101	201	1101	202	1010	203	1010	204	1010
205	1101	206	1101	207	1010	208	1110	209	1110
210	1110	211	1110	212	1110	213	1110	214	1110
215	1110	216	1110	217	1110	218	1100	219	1100
220	1100	221	1110	222	1110	223	1100	224	1000
225	1000	226	1010	227	1010	228	1101	229	1101
230	1010	231	1010	232	1010	233	1010	234	1101
235	1101	236	1101	237	1101	238	1101	239	1101
240	1000	241	1000	242	1100	243	1100	244	1110
245	1110	246	1100	247	1100	248	1100	249	1100
250	1110	251	1110	252	1110	253	1110	254	1110
255	1110								

Figure A-24C. Sheet 2 of 2

ROM PROGRAM FOR ON199635

OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
0010	1	1110	2	1110	3	1110	4	1110
1101	6	1101	7	1101	8	1101	9	1100
1100	11	1100	12	1100	13	1100	14	1100
1011	16	1011	17	0001	18	1011	19	1010
1010	21	1010	22	1010	23	1010	24	1010
1001	26	1001	27	1001	28	1001	29	1001
1001	31	1011	32	1000	33	1000	34	1000
1000	36	0111	37	0111	38	0111	39	0111
0110	41	0110	42	0110	43	0110	44	0110
0110	46	0101	47	0101	48	0101	49	0101
0101	51	0100	52	0100	53	0100	54	0100
0011	56	0011	57	0011	58	0011	59	0011
0011	61	0010	62	0010	63	0010	64	1111
1111	66	0101	67	1001	68	0001	69	1111
0111	71	1011	72	1101	73	1110	74	0011
0101	76	0110	77	1001	78	1010	79	1100
0101	81	0111	82	0111	83	1011	84	1011
1101	86	1101	87	1110	88	1110	89	1111
1111	91	1111	92	1111	93	0011	94	0011
0101	96	0101	97	0111	98	0111	99	1011
1011	101	1101	102	1101	103	1110	104	1110
1111	106	1111	107	1111	108	1111	109	0011
0011	111	0101	112	0101	113	0111	114	0111
1011	116	1011	117	1101	118	1101	119	1110
1110	121	1111	122	1111	123	1111	124	1111
0011	126	0011	127	0101	128	0110	129	0110
0111	131	0111	132	0111	133	0111	134	1001

Figure A-24D. Sheet 1. of 2

ROM PROGRAM FOR ON199635

IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
135	1001	136	1010	137	1010	138	1011	139	1011
140	1011	141	1011	142	1100	143	1100	144	0110
145	0110	146	0111	147	0111	148	0111	149	0111
150	1001	151	1001	152	1010	153	1010	154	1011
155	1011	156	1011	157	1011	158	1100	159	1100
160	0110	161	0110	162	0111	163	0111	164	0111
165	0111	166	1001	167	1001	168	1010	169	1010
170	1011	171	1011	172	1011	173	1011	174	1100
175	1100	176	1101	177	1101	178	1101	179	1101
180	1110	181	1110	182	1110	183	1110	184	1111
185	1111	186	0110	187	1010	188	1100	189	0010
190	0100	191	0011	192	1101	193	1101	194	1101
195	1101	196	1110	197	1110	198	1110	199	1110
200	1111	201	1111	202	0110	203	1010	204	1100
205	0010	206	0100	207	0011	208	1101	209	1101
210	1101	211	1101	212	1110	213	1110	214	1110
215	1110	216	1111	217	1111	218	0110	219	1010
220	1100	221	0010	222	0100	223	0011	224	1110
225	1101	226	0101	227	1001	228	0001	229	1111
230	0111	231	1011	232	1101	233	1110	234	0011
235	0101	236	0110	237	1001	238	1010	239	1100
240	1011	241	1111	242	0101	243	1001	244	0001
245	1111	246	0111	247	1011	248	1101	249	1110
250	0011	251	0101	252	0110	253	1001	254	1010
255	1100								

Figure A-24D. Sheet 2 of 2

ROM PROGRAM FOR ON199635

IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
0	0111	1	1000	2	0100	3	0010	4	0001
5	1000	6	0100	7	0010	8	0001	9	1100
10	1010	11	1001	12	0110	13	0101	14	0011
15	1000	16	0100	17	1110	18	0001	19	1100
20	1010	21	1001	22	0110	23	0101	24	0011
25	1100	26	1010	27	1001	28	0110	29	0101
30	0011	31	0010	32	1110	33	1101	34	1011
35	0111	36	1000	37	0100	38	0010	39	0001
40	1100	41	1010	42	1001	43	0110	44	0101
45	0011	46	1100	47	1010	48	0110	49	0101
50	0011	51	1110	52	1101	53	1011	54	0111
55	1100	56	1010	57	1001	58	0110	59	0101
60	0011	61	1110	62	1101	63	1011	64	1011
65	1101	66	1111	67	1111	68	1111	69	1000
70	0111	71	0111	72	0111	73	0111	74	0111
75	0111	76	0111	77	0111	78	0111	79	0111
80	1101	81	1011	82	1101	83	1011	84	1101
85	1011	86	1101	87	1011	88	1101	89	0011
90	0101	91	1100	92	1001	93	1011	94	1101
95	1011	96	1101	97	1011	98	1101	99	1011
100	1101	101	1011	102	1101	103	1011	104	1101
105	0011	106	0101	107	1100	108	1001	109	1011
110	1101	111	1011	112	1101	113	1011	114	1101
115	1011	116	1101	117	1011	118	1101	119	1011
120	1101	121	0011	122	0101	123	1100	124	1001
125	1011	126	1101	127	1011	128	1101	129	1011
130	0101	131	0011	132	1001	133	1100	134	1101

Figure A-24E. Sheet 1 of 2

ROM PROGRAM FOR ON 199636 (Continued)

IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
135	1011	136	1101	137	1011	138	0101	139	0011
140	1001	141	1100	142	1101	143	1011	144	1101
145	1011	146	0101	147	0011	148	1001	149	1100
150	1101	151	1011	152	1101	153	1011	154	0101
155	0011	156	1001	157	1100	158	1101	159	1011
160	1101	161	1011	162	0101	163	0011	164	1001
165	1100	166	1101	167	1011	168	1101	169	1011
170	0101	171	0011	172	1001	173	1100	174	1101
175	1011	176	0101	177	0011	178	1001	179	1100
180	0101	181	0011	182	1001	183	1100	184	0001
185	0100	186	1111	187	1111	188	1111	189	1111
190	1111	191	1111	192	0101	193	0011	194	1001
195	1100	196	0101	197	0011	198	1001	199	1100
200	0001	201	0100	202	1111	203	1111	204	1111
205	1111	206	1111	207	1111	208	0101	209	0011
210	1001	211	1100	212	0101	213	0011	214	1001
215	1100	216	0001	217	0100	218	1111	219	1111
220	1111	221	1111	222	1111	223	1111	224	1111
225	1111	226	1111	227	1111	228	1111	229	1000
230	0111	231	0111	232	0111	233	0111	234	0111
235	0111	236	0111	237	0111	238	0111	239	0111
240	1111	241	0111	242	1111	243	1111	244	1111
245	1000	246	0111	247	0111	248	0111	249	0111
250	0111	251	0111	252	0111	253	0111	254	0111
255	0111								

Figure A-24E. Sheet 2 of 2

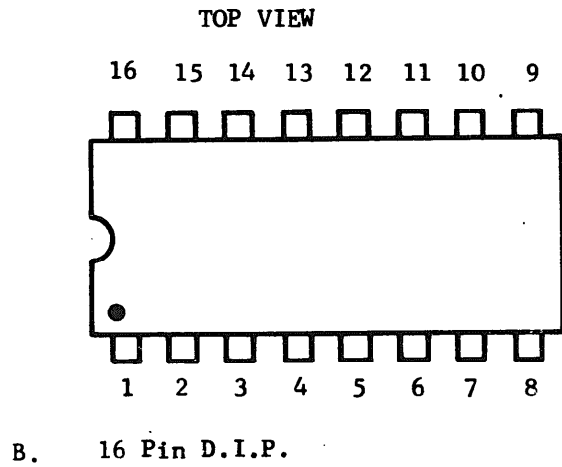
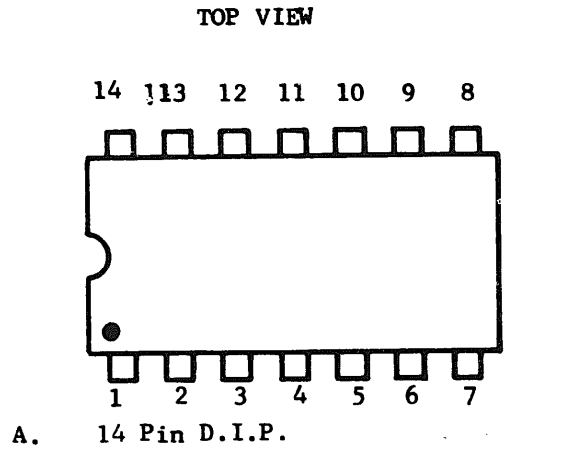
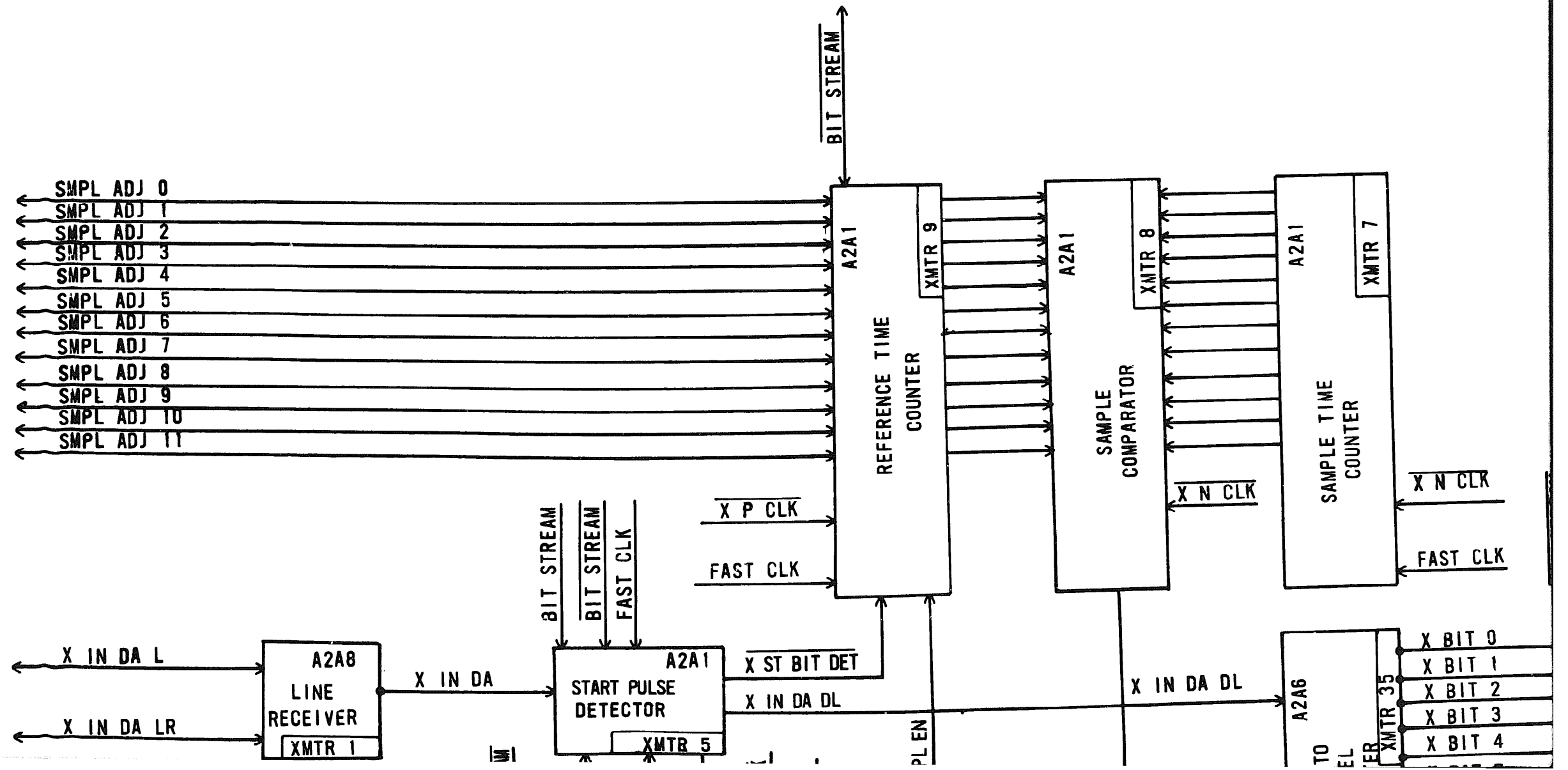
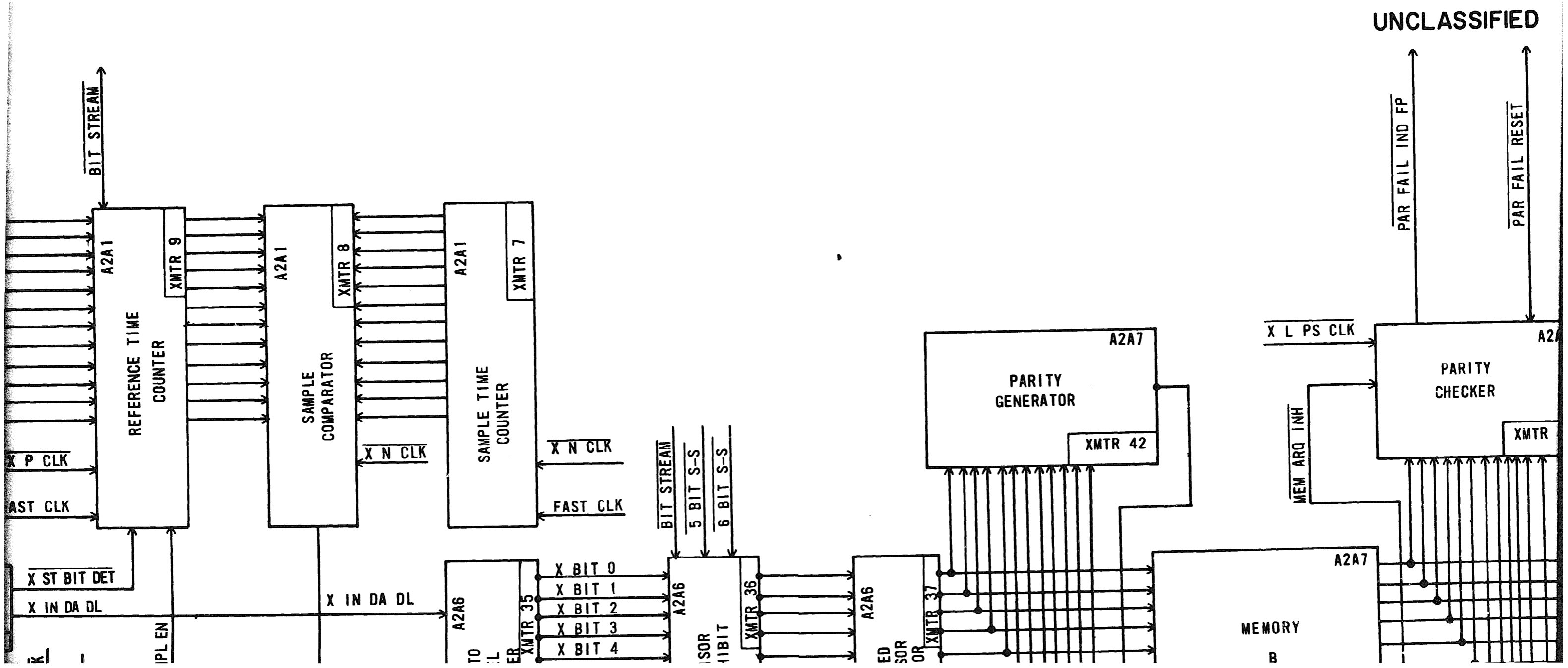


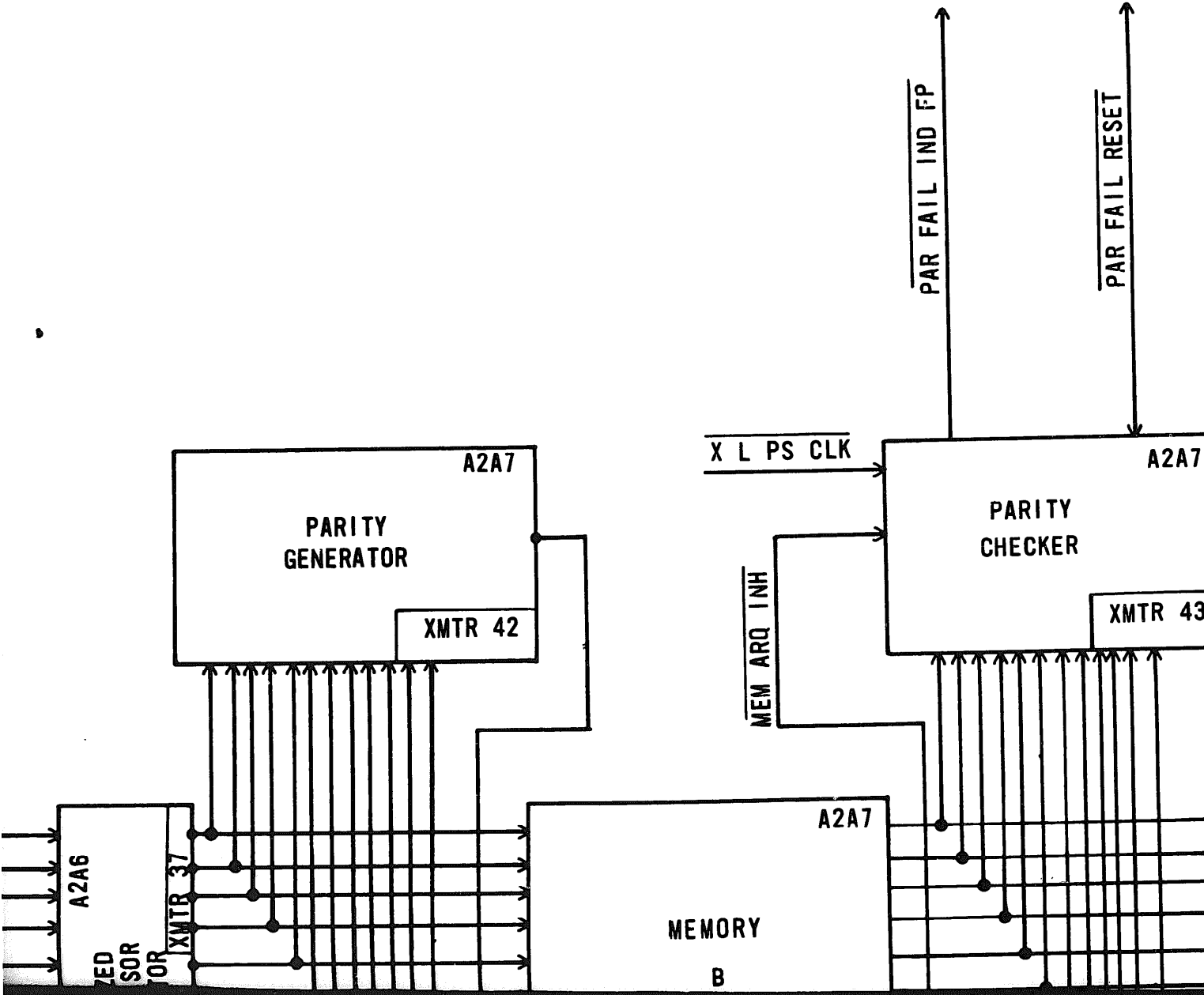
Figure A-25. Circuit Case Diagrams



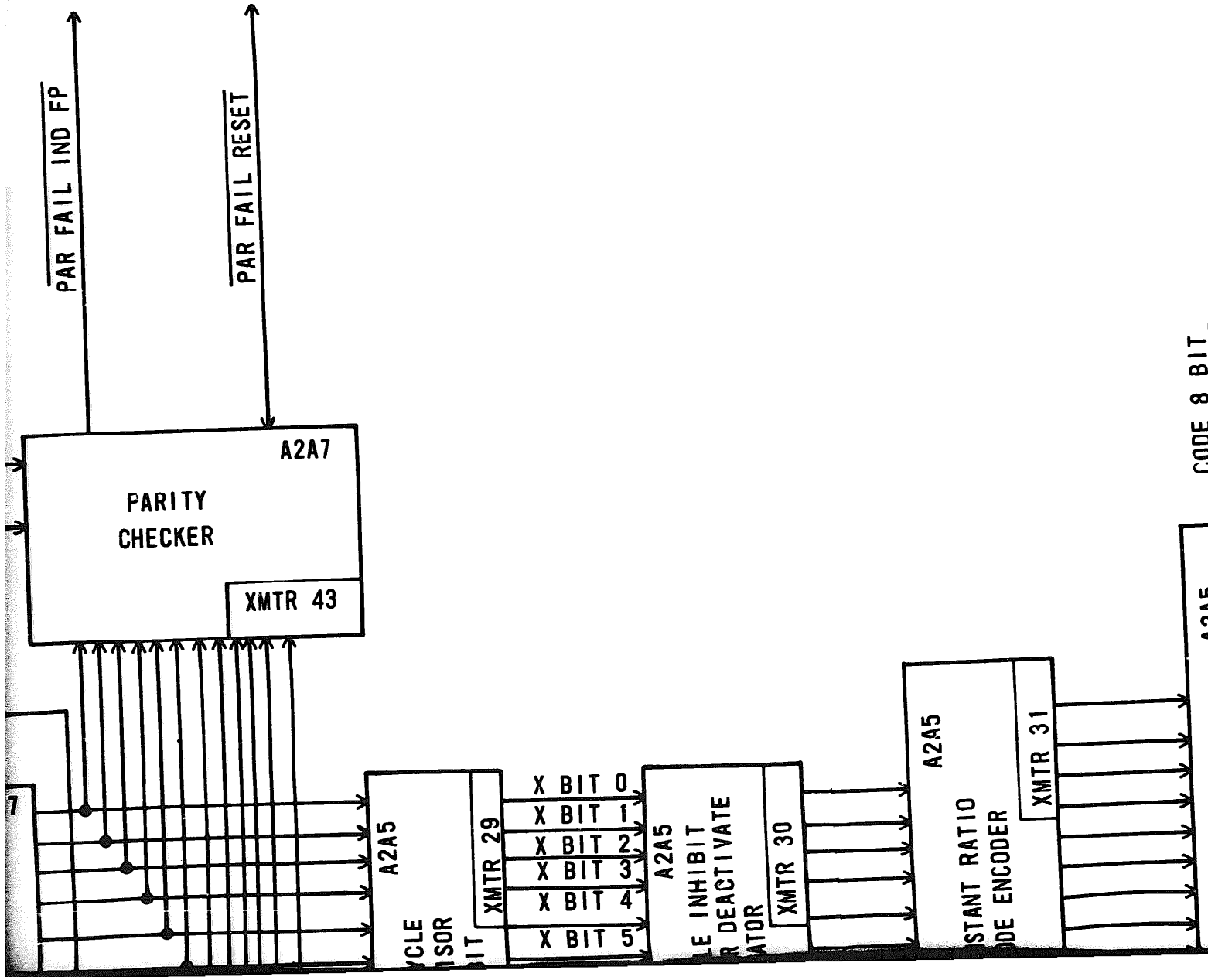
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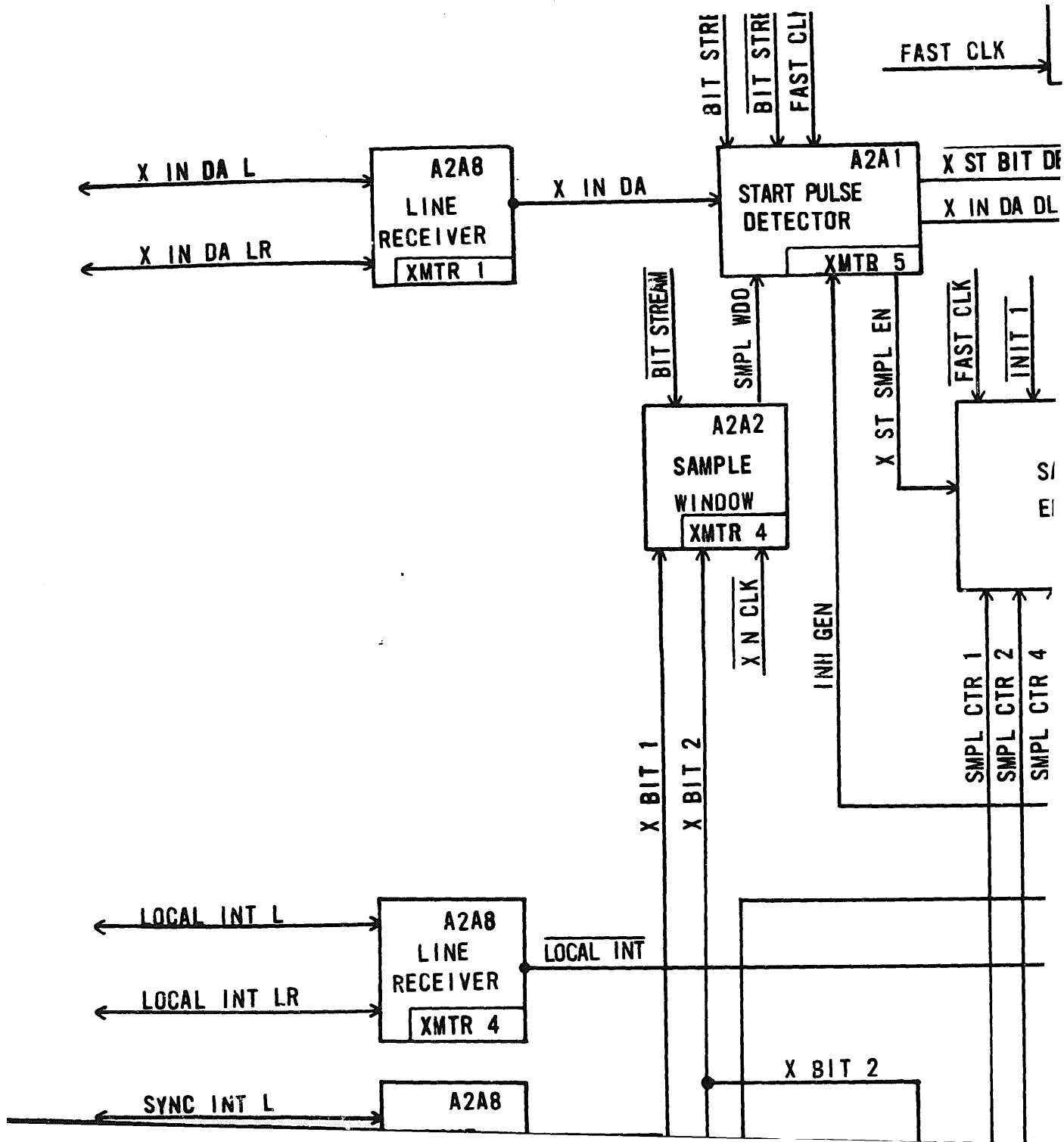


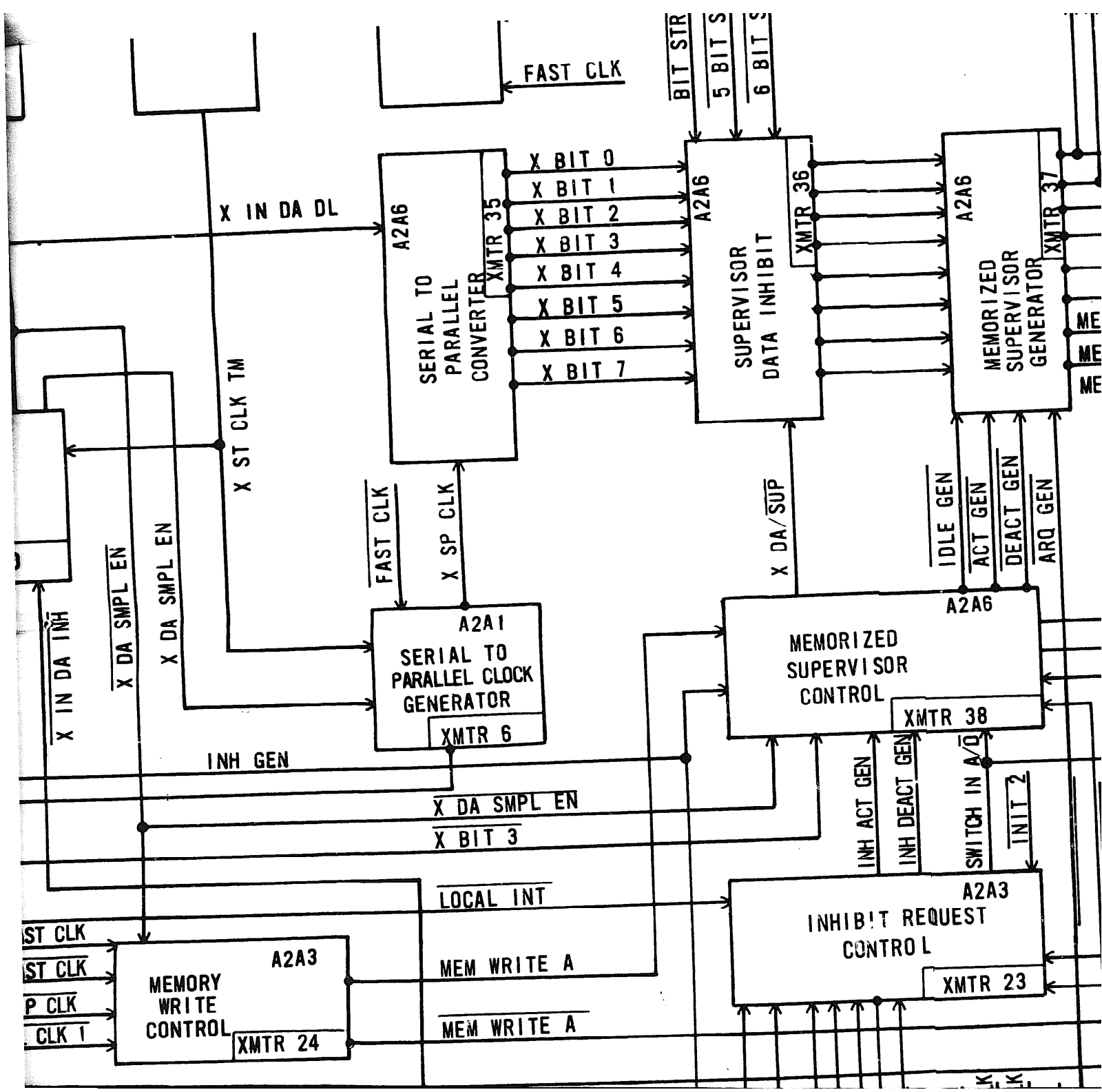
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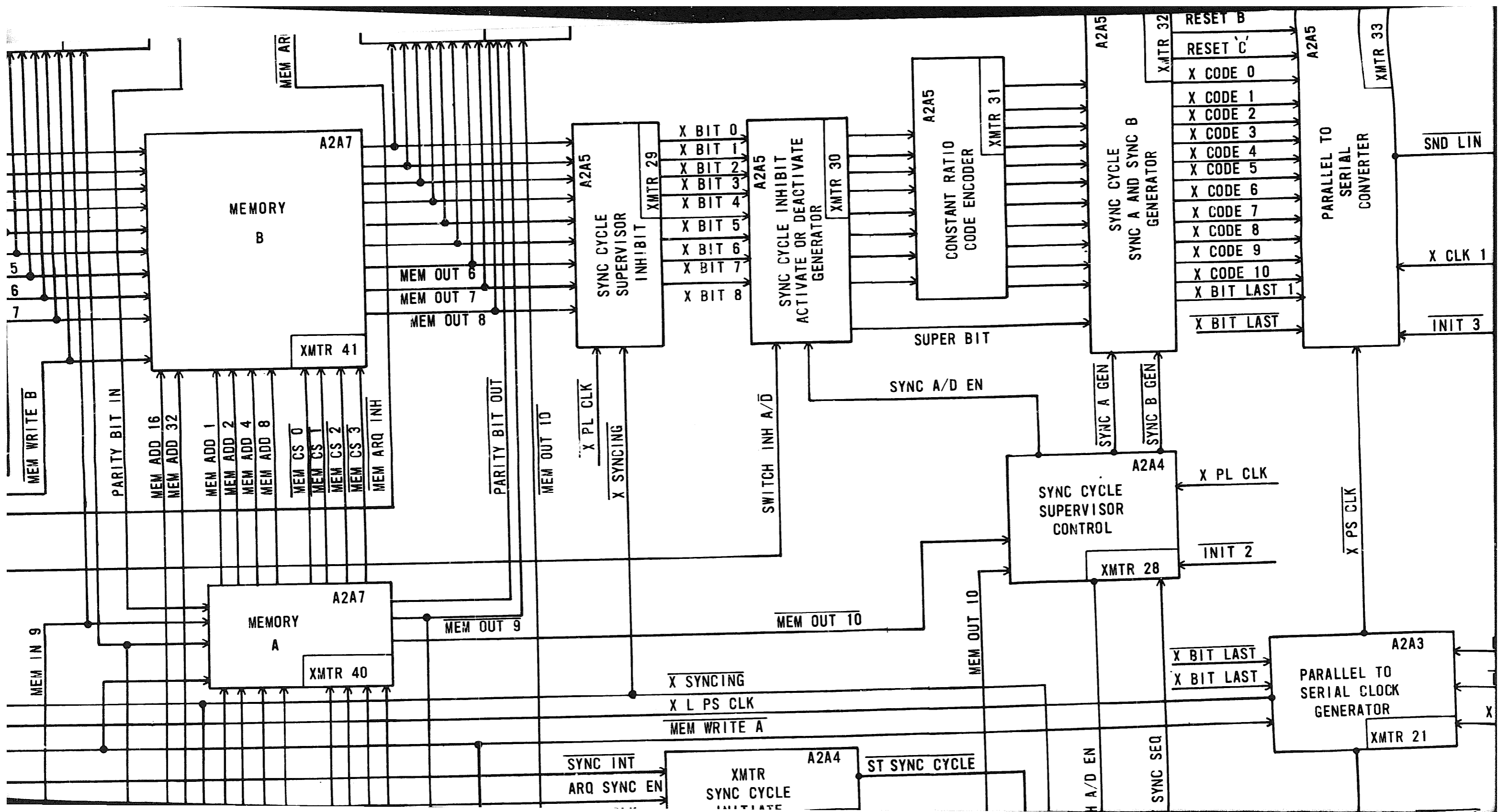


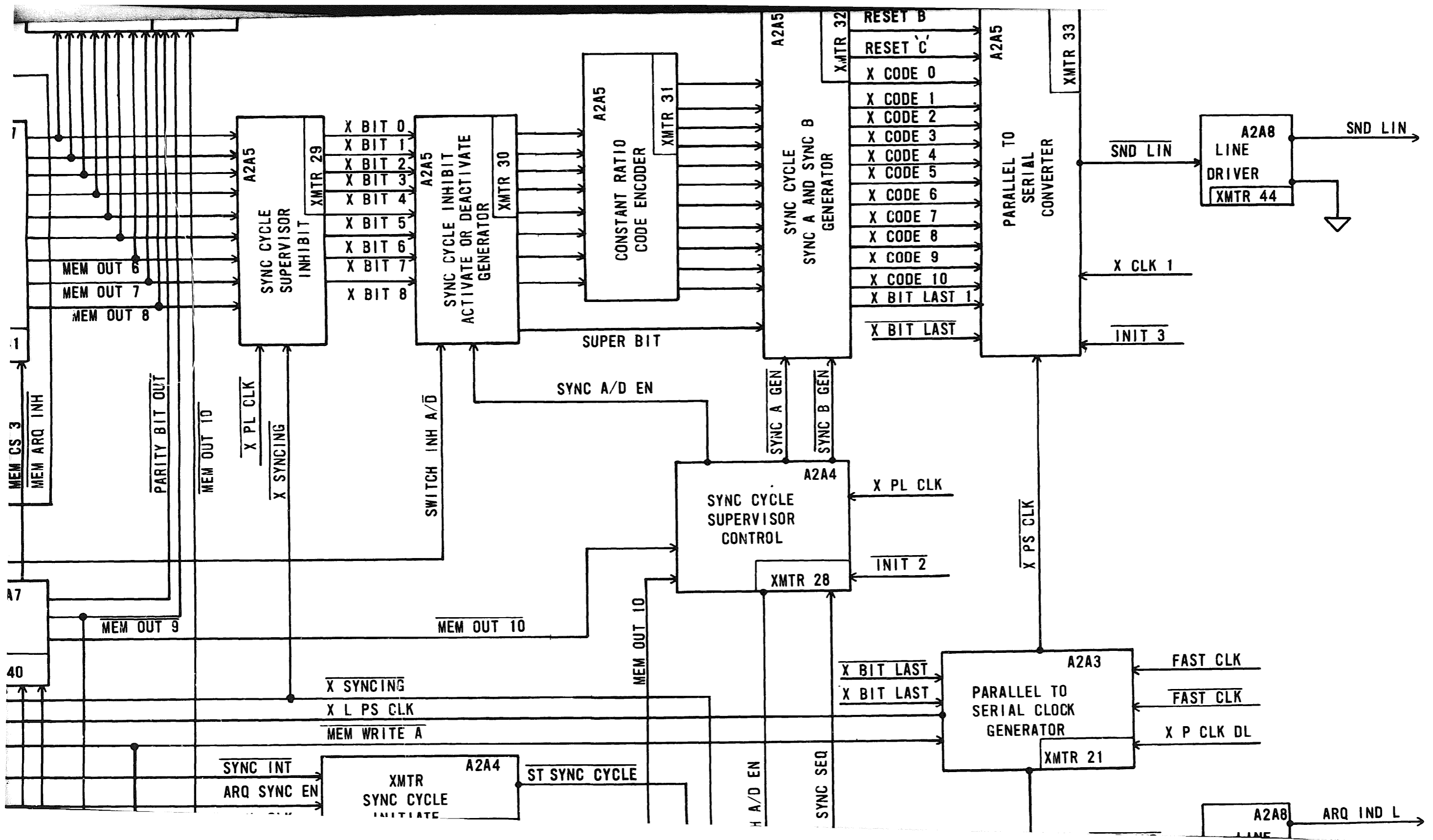
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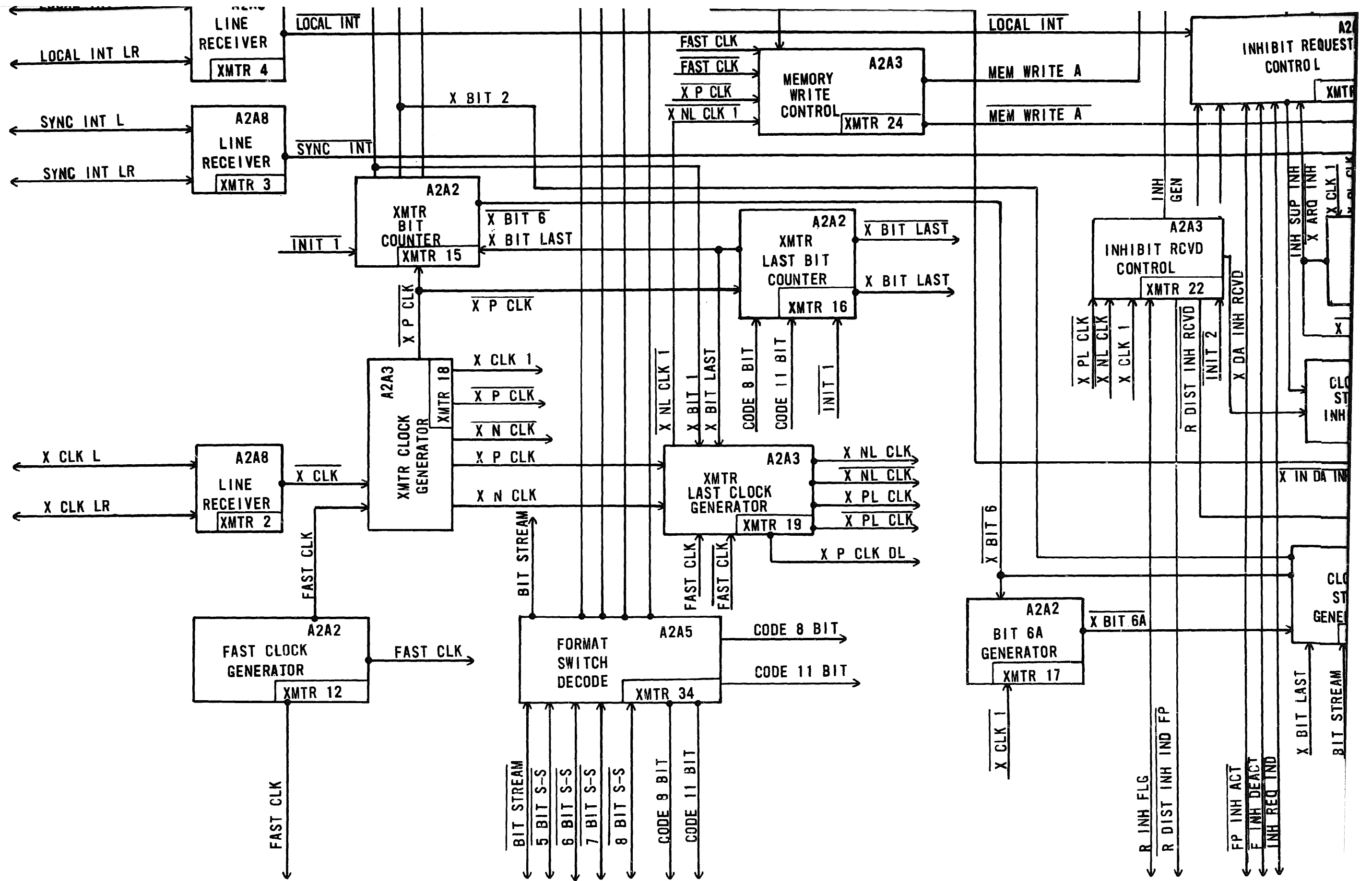


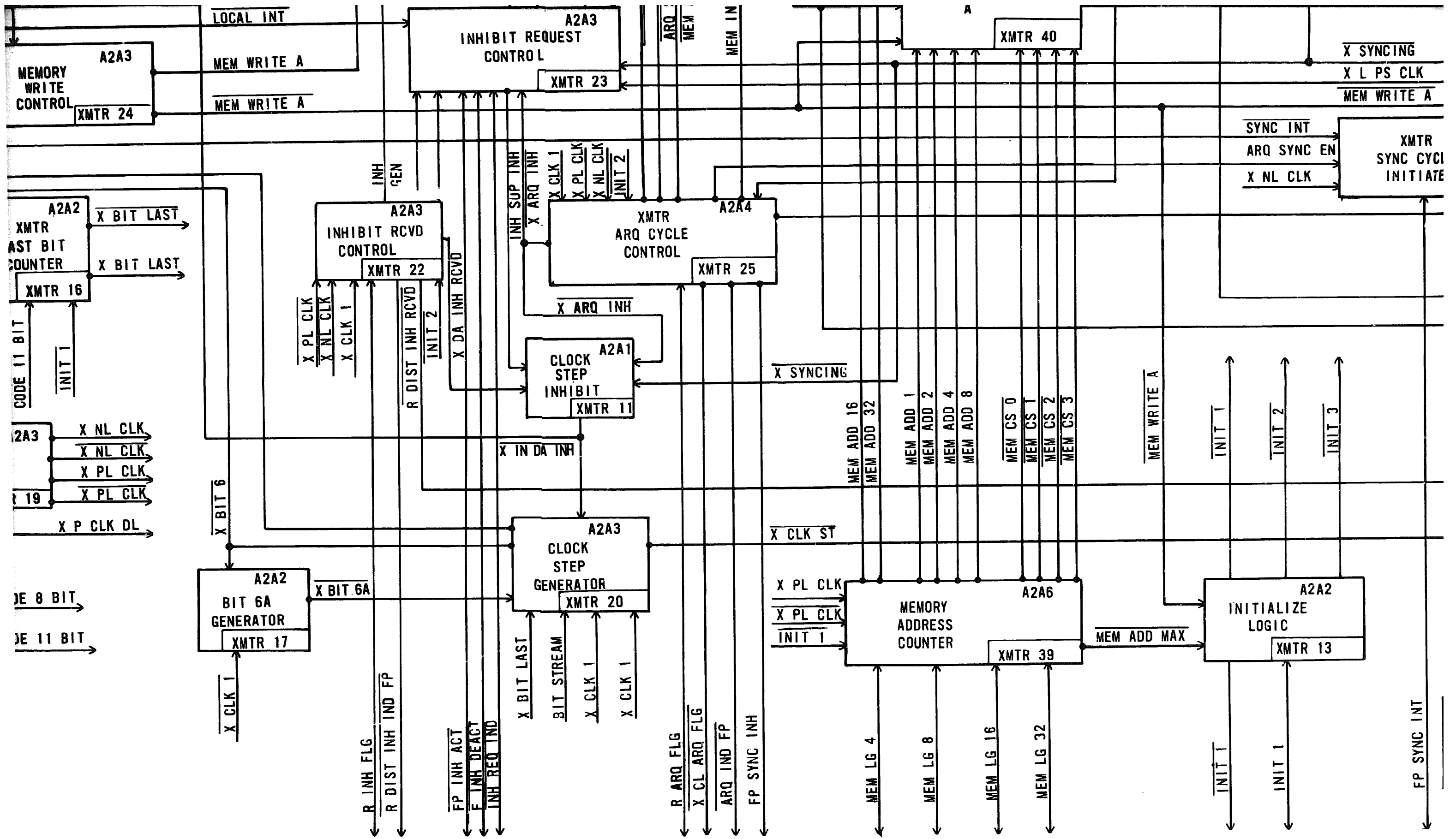












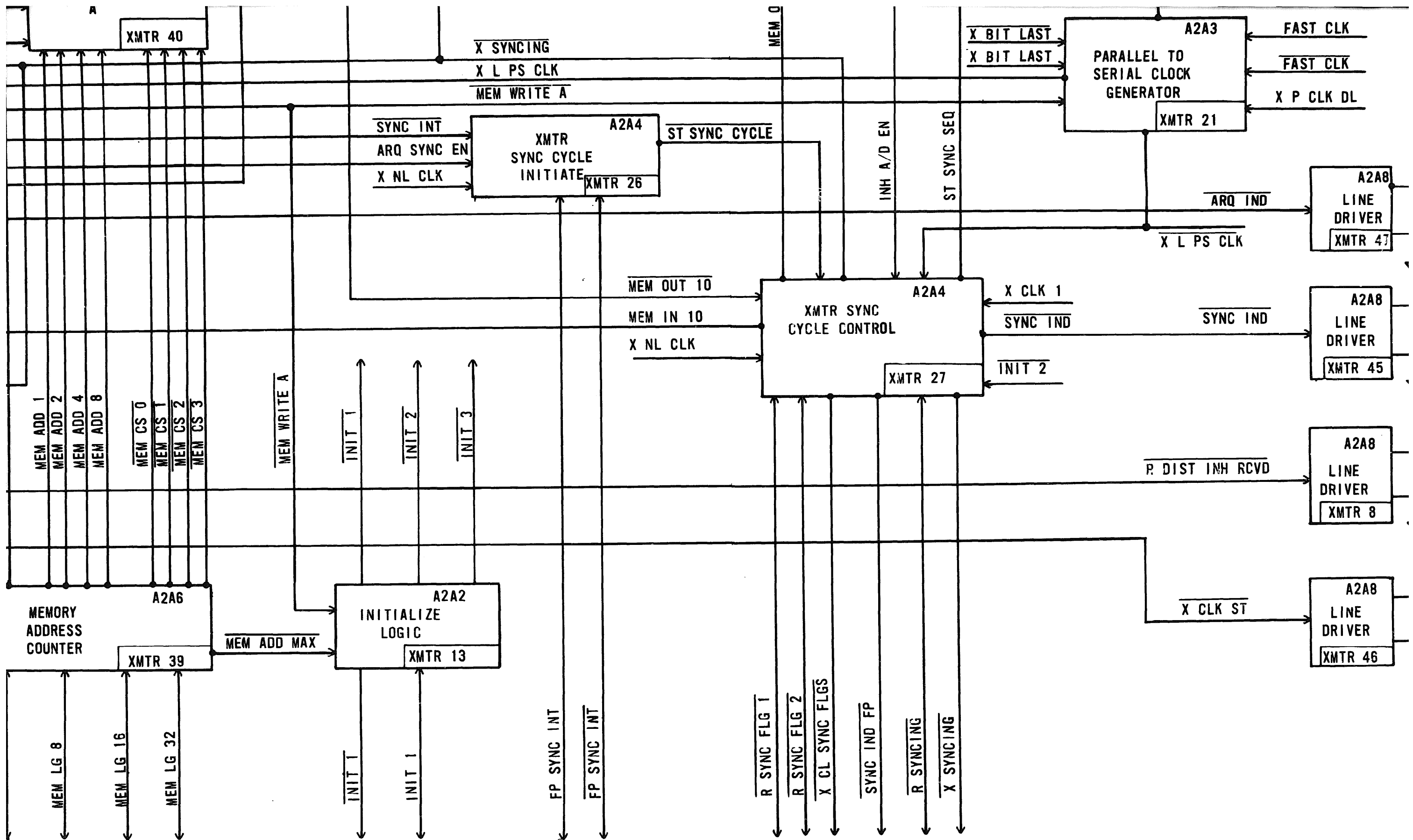


FIGURE A 2 6 TRANSMITTER BLOCK DIAGRAM

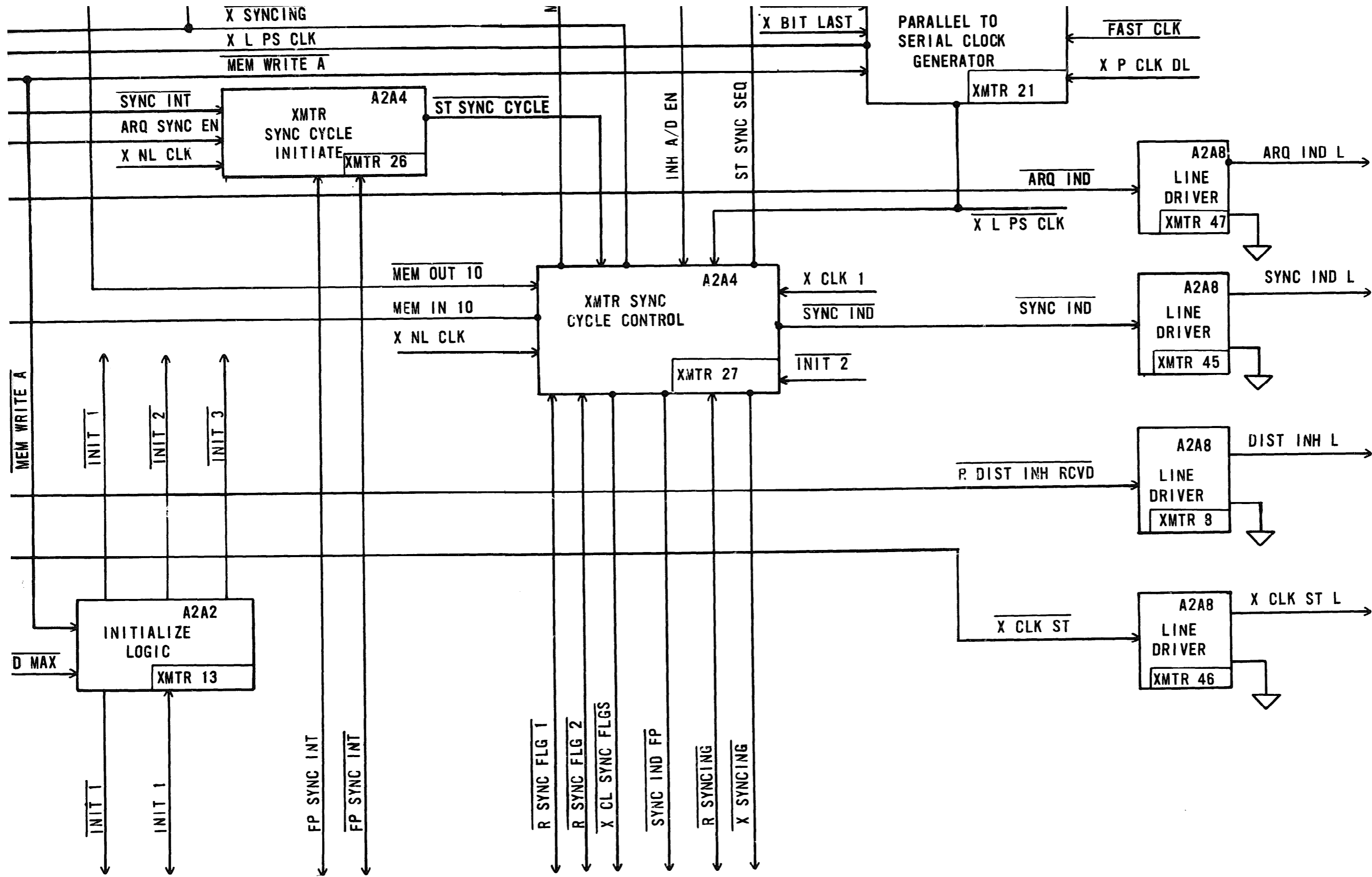
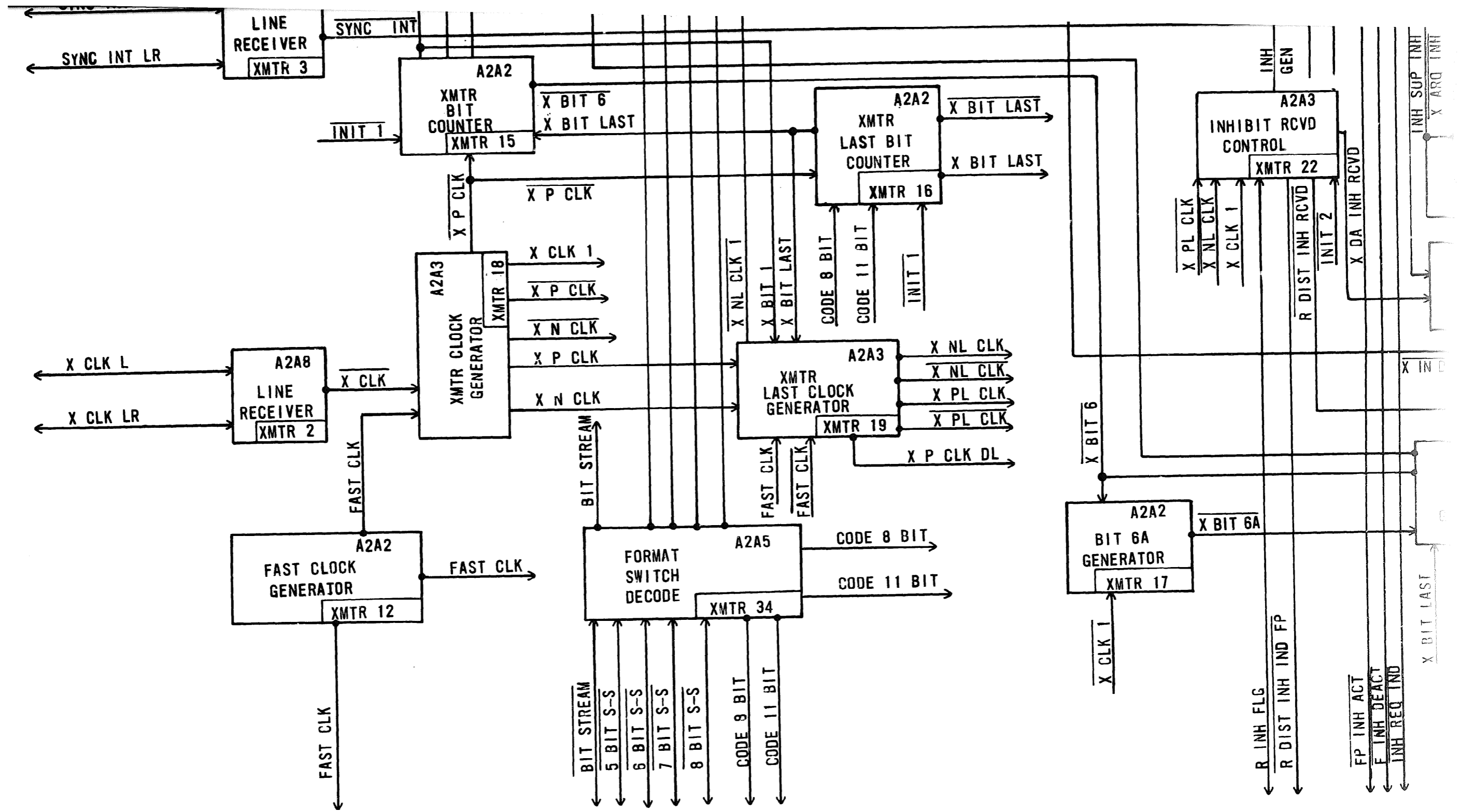
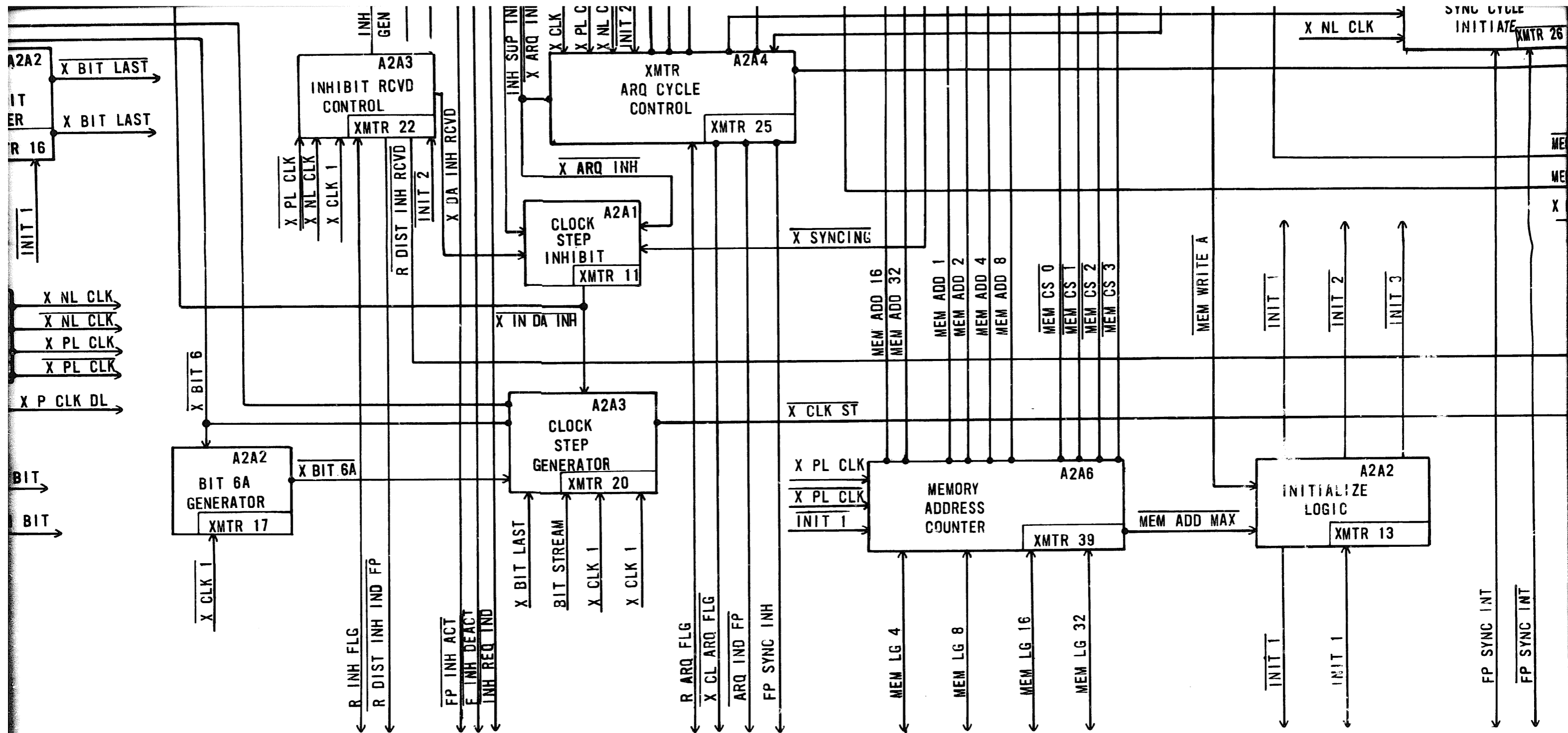


FIGURE A 2 6 TRANSMITTER BLOCK DIAGRAM





UNCLASSIFIED

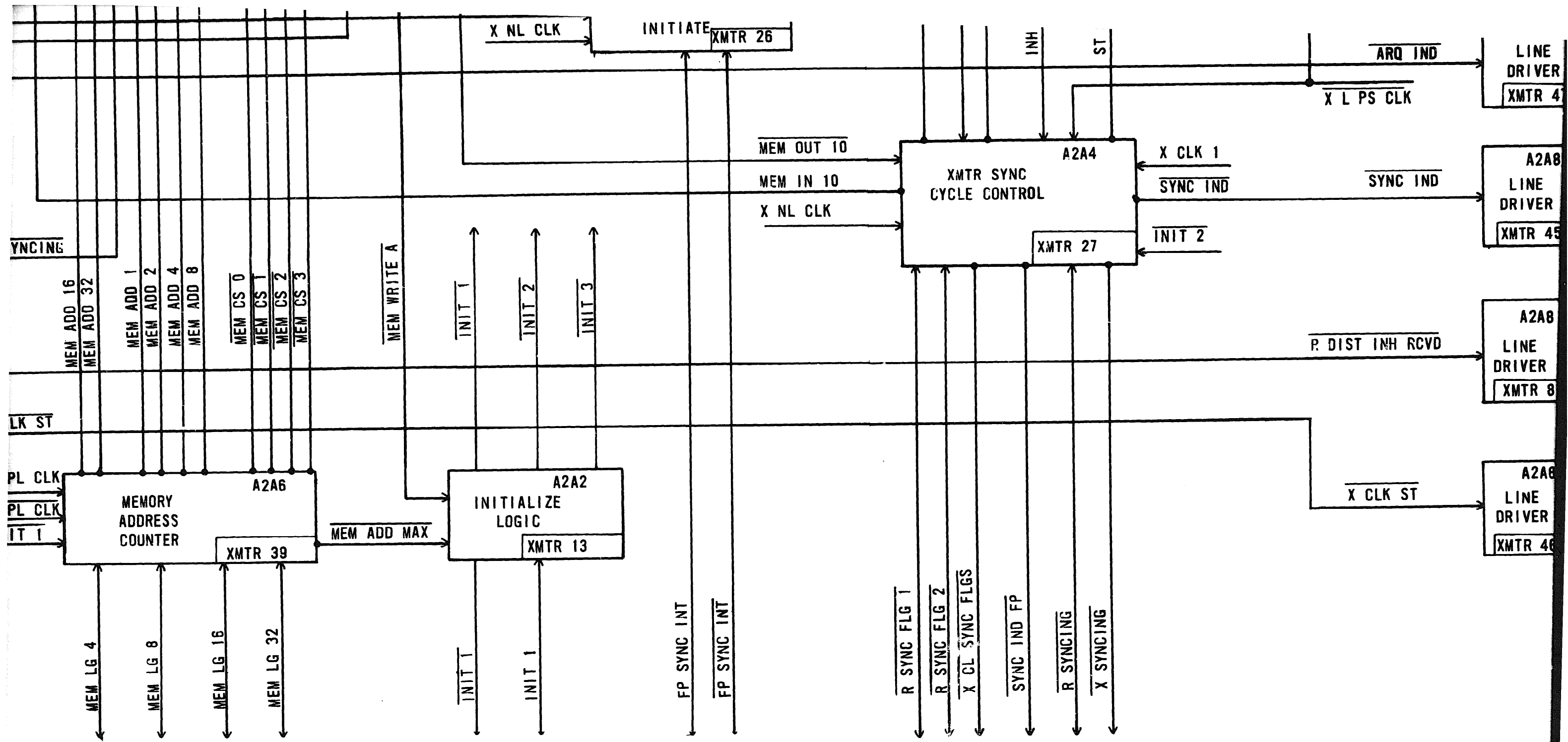


FIGURE A26 TRANSMITTER BLOCK DIAGRAM

UNCLASSIFIED

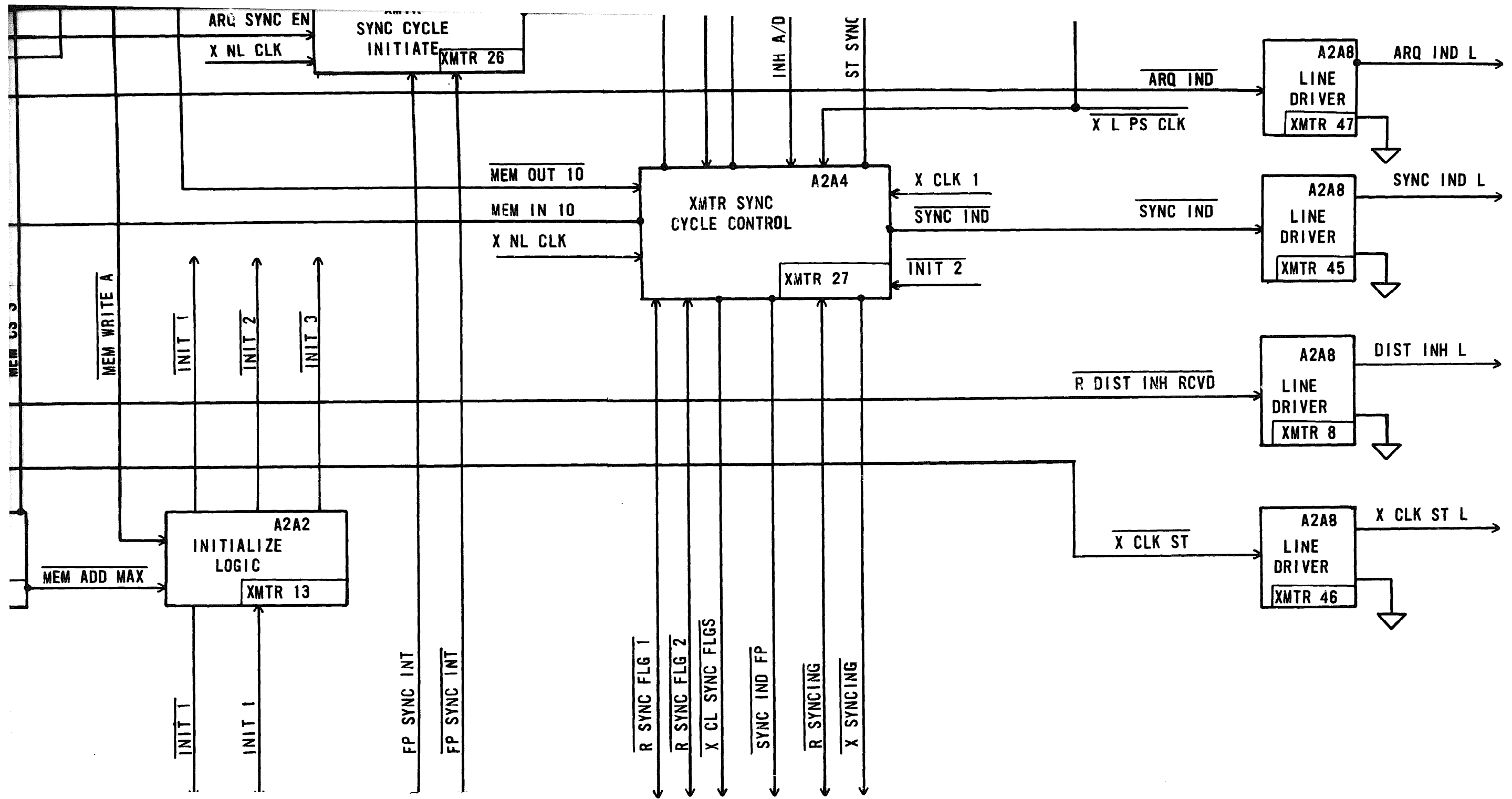


FIGURE A26 TRANSMITTER BLOCK DIAGRAM

UNCLASSIFIED

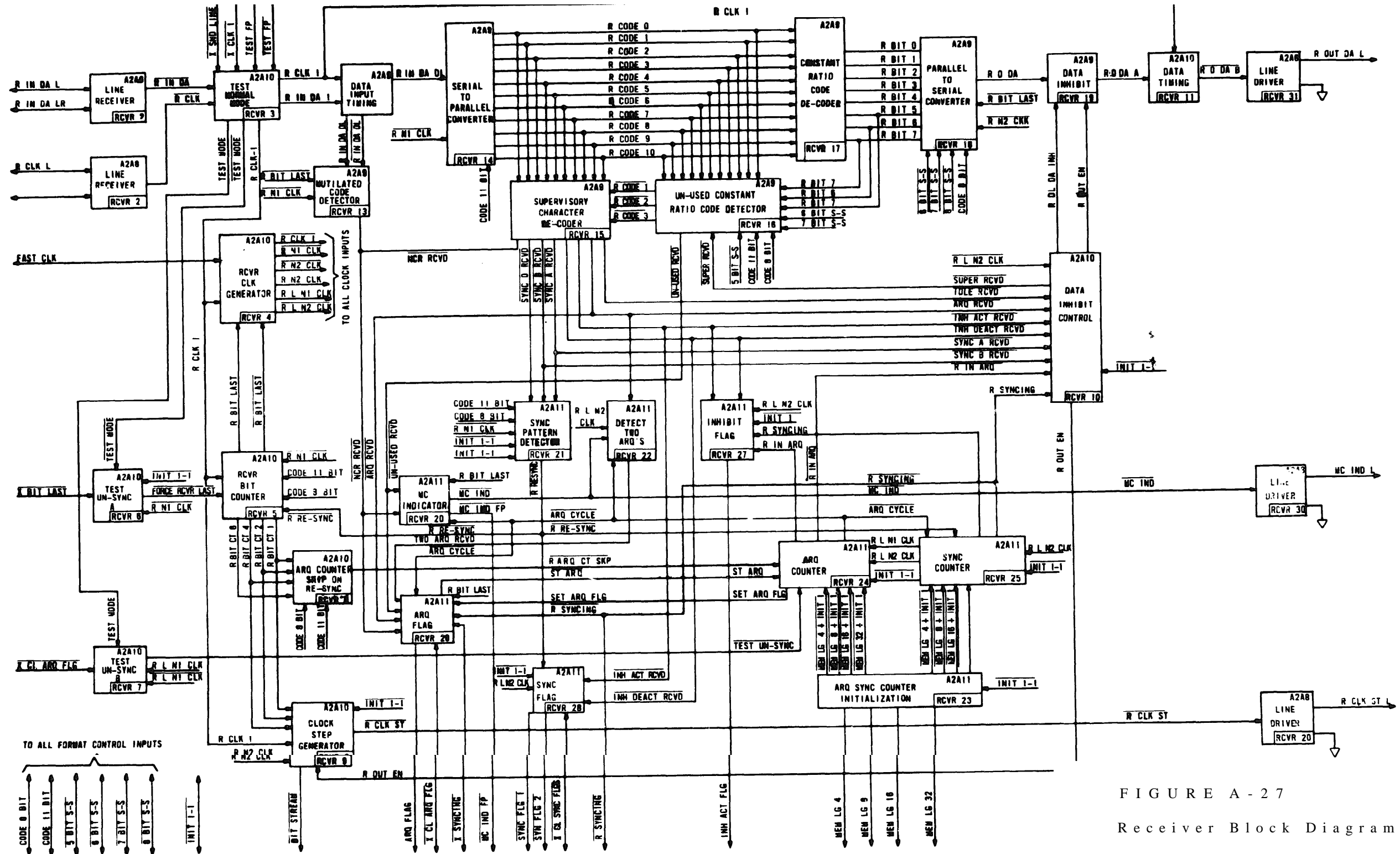
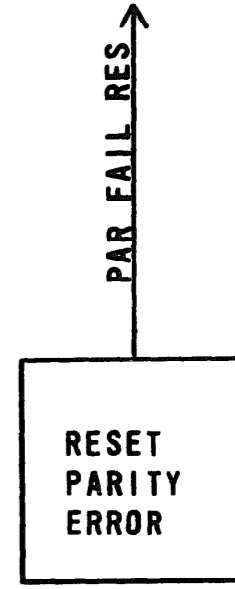
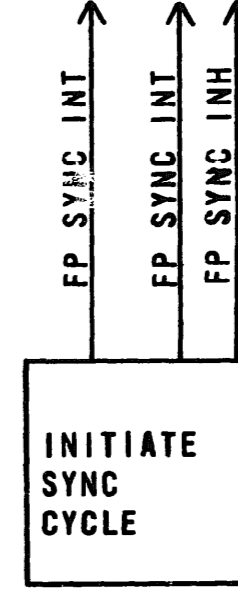
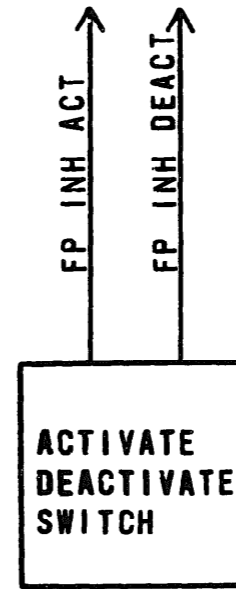
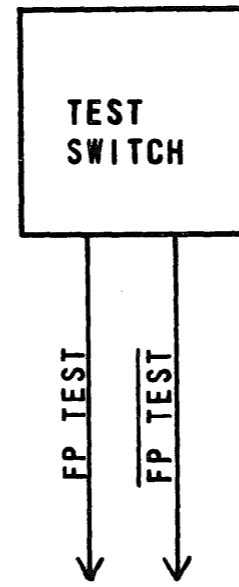
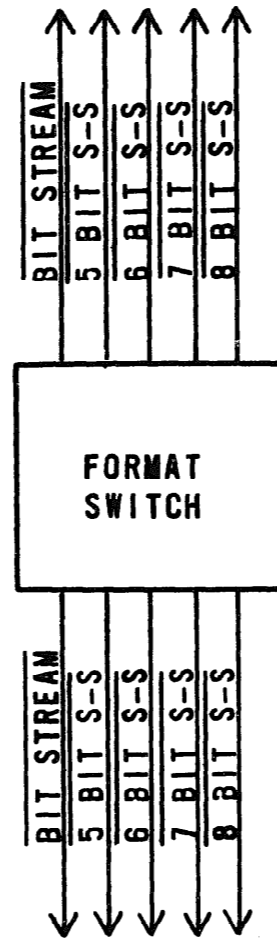
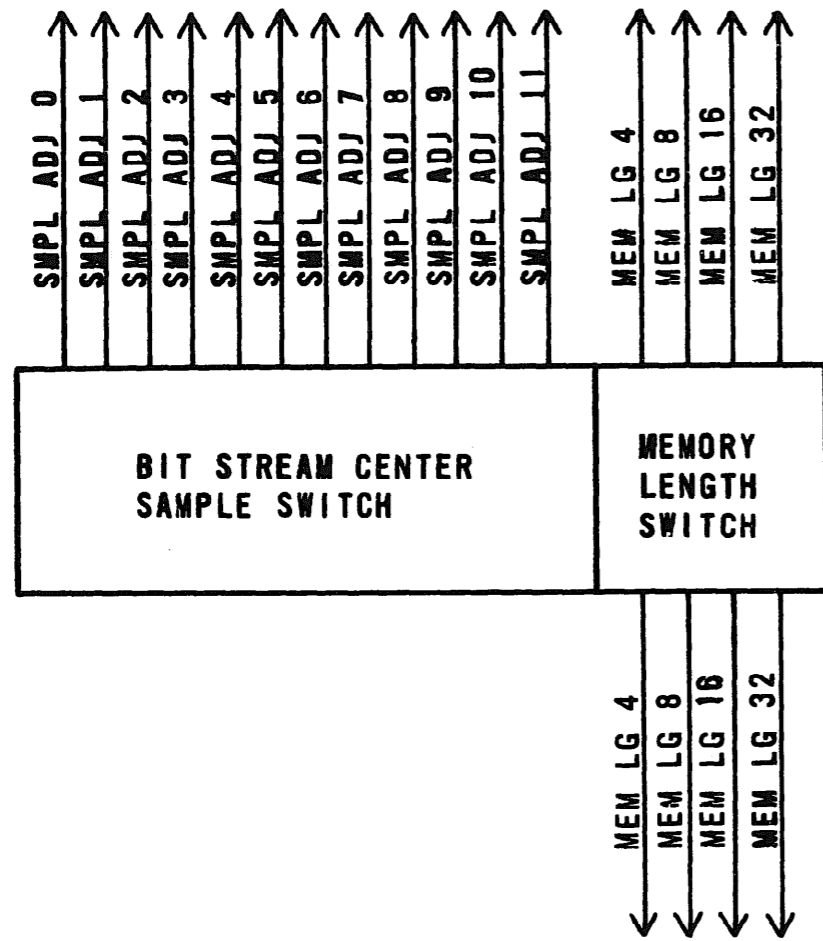


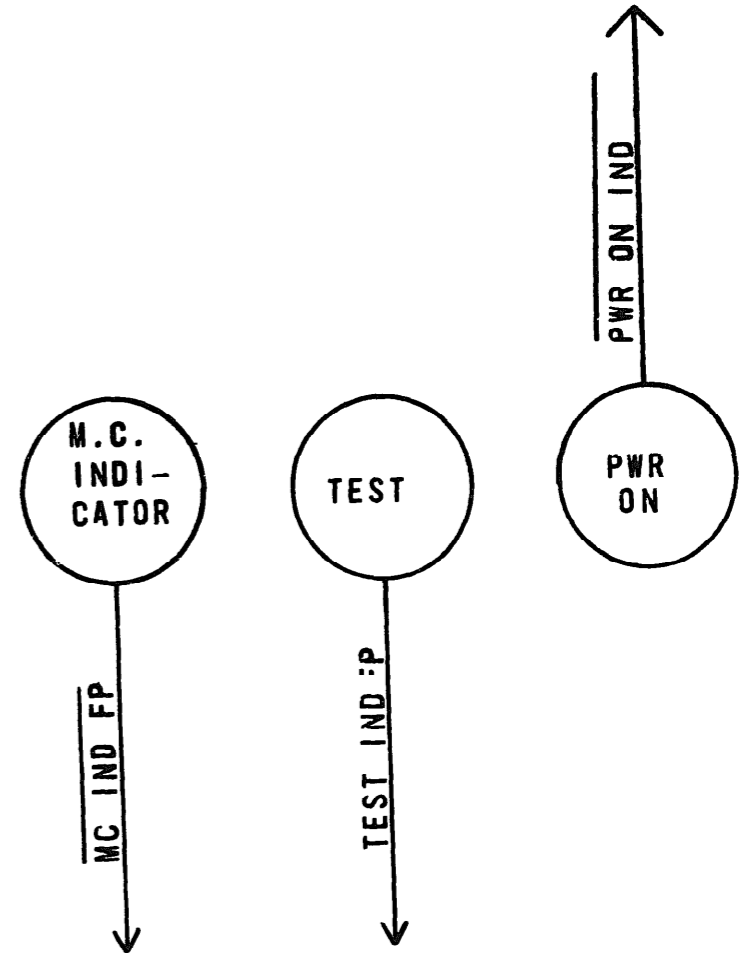
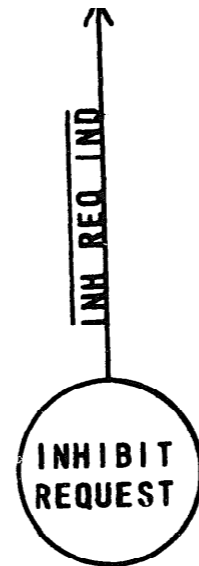
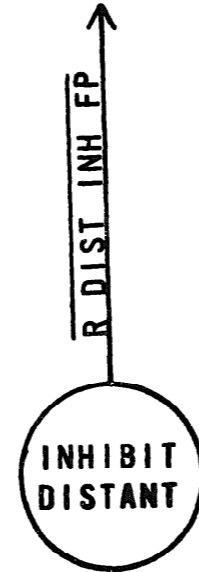
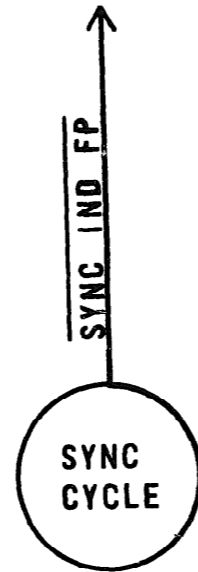
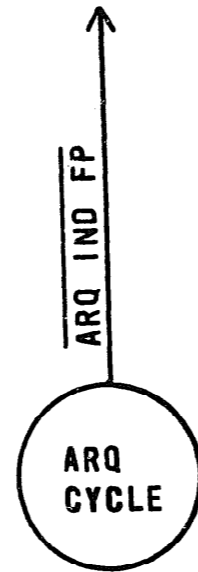
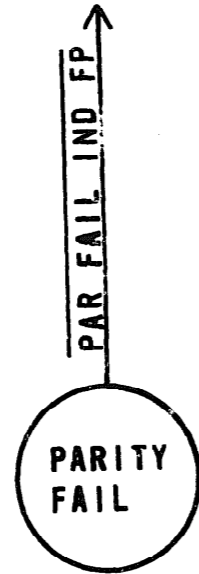
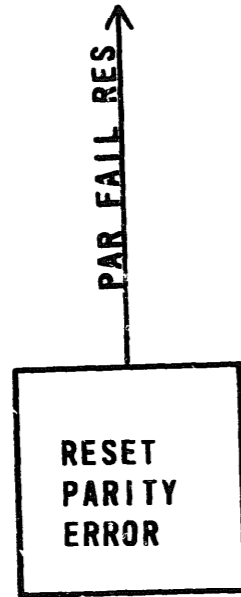
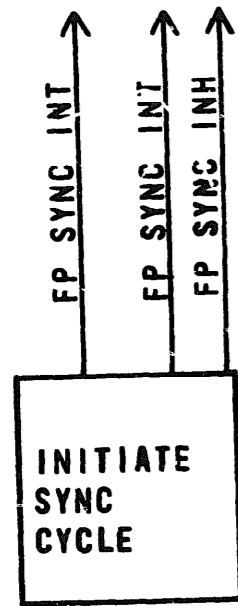
FIGURE A - 2 7 Receiver Block Diagram



TO TRANSMITTER

TO RECEIVER

TO TRANSMITTER



INDICATOR LIGHTS

TO RECEIVER

Figure A-28. Control Panel Slack' Diagram

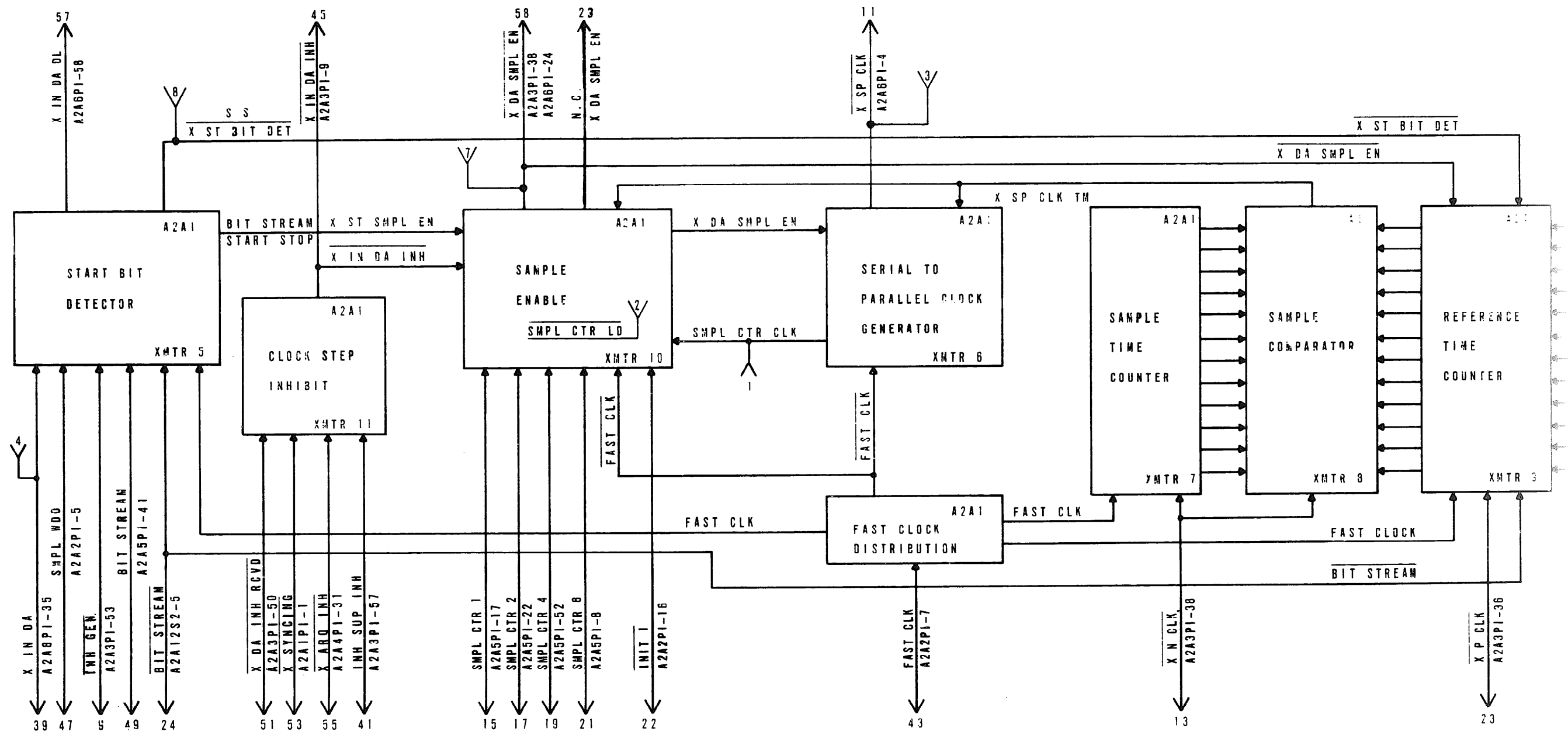


Figure A41

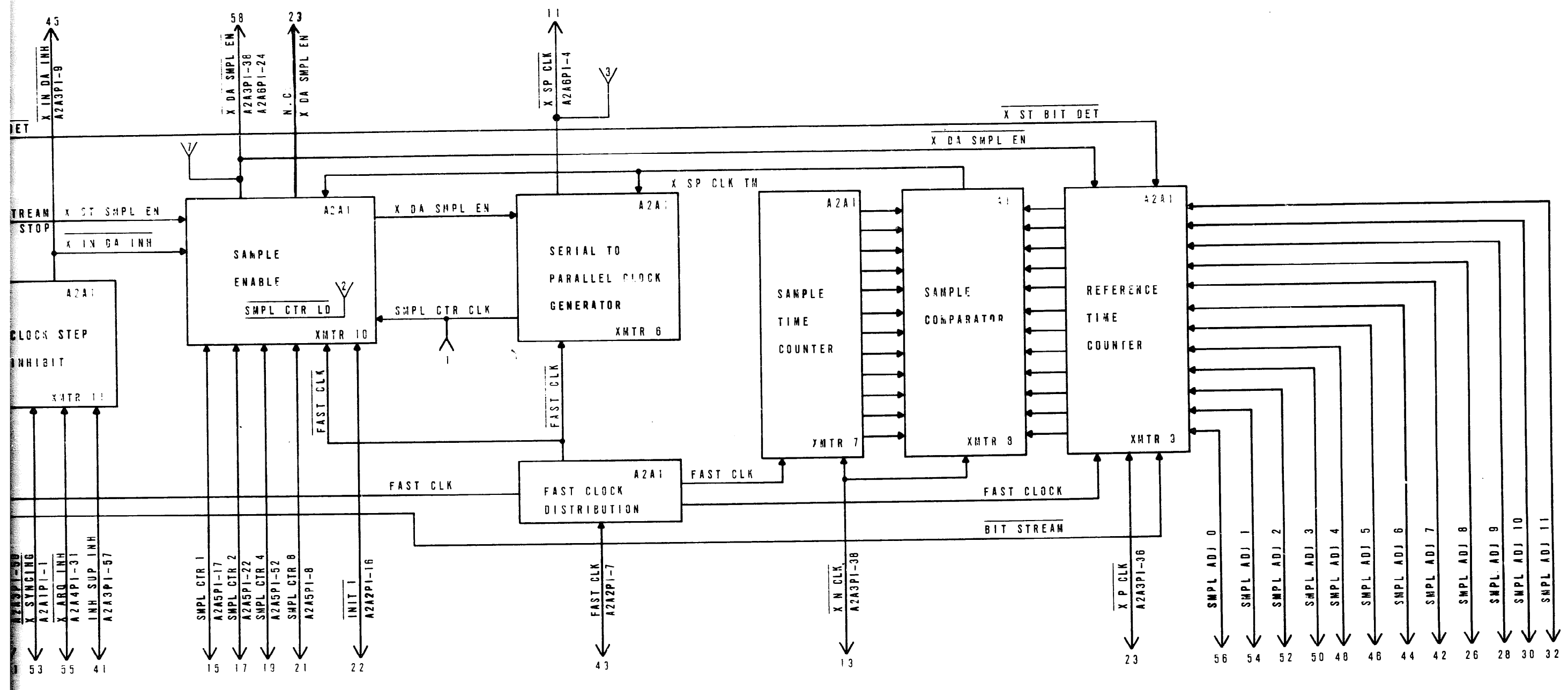


Figure A-29. A2A1 Data Sample Assembly

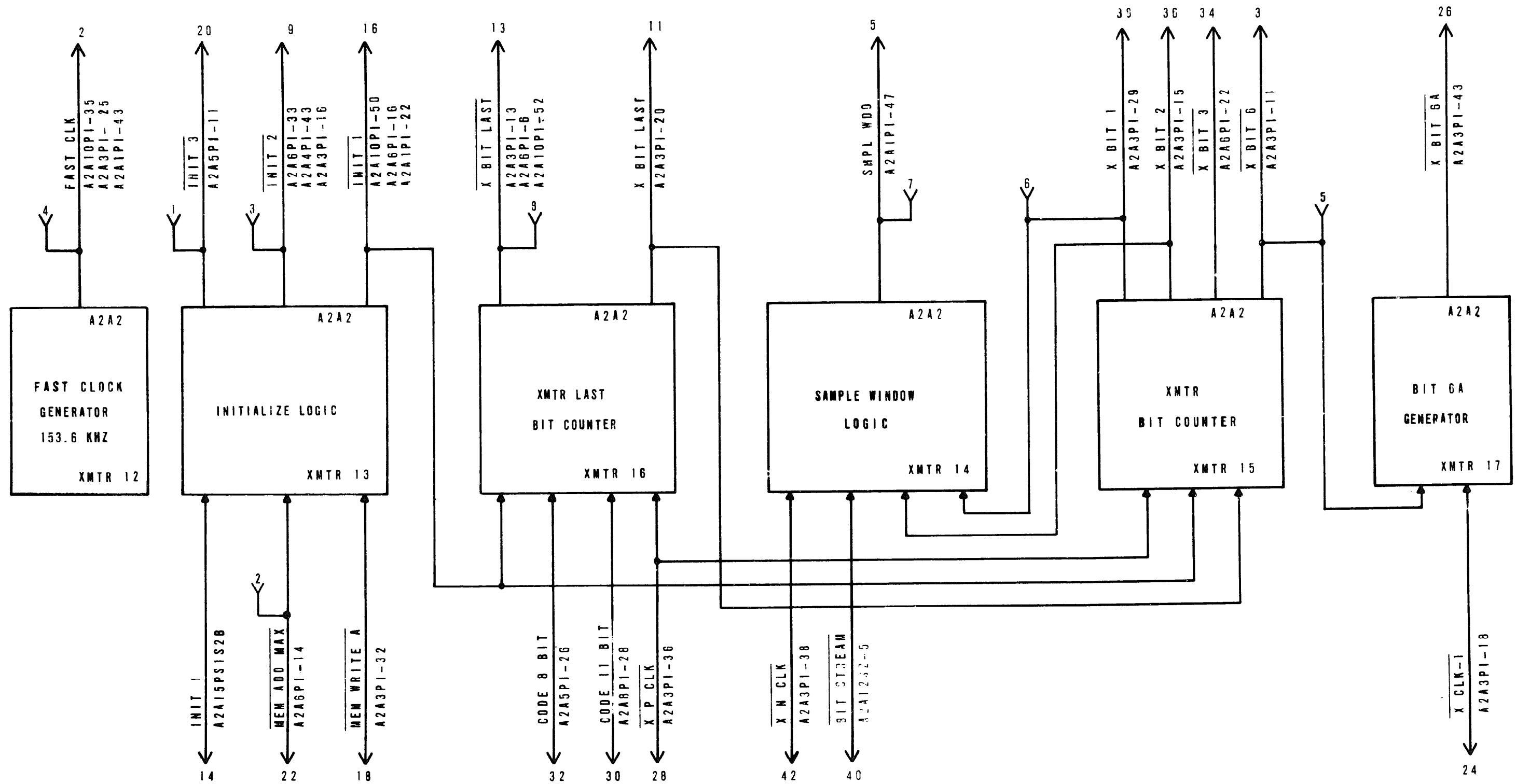


Figure A-30. A2A2 Fast Clk Step Gel

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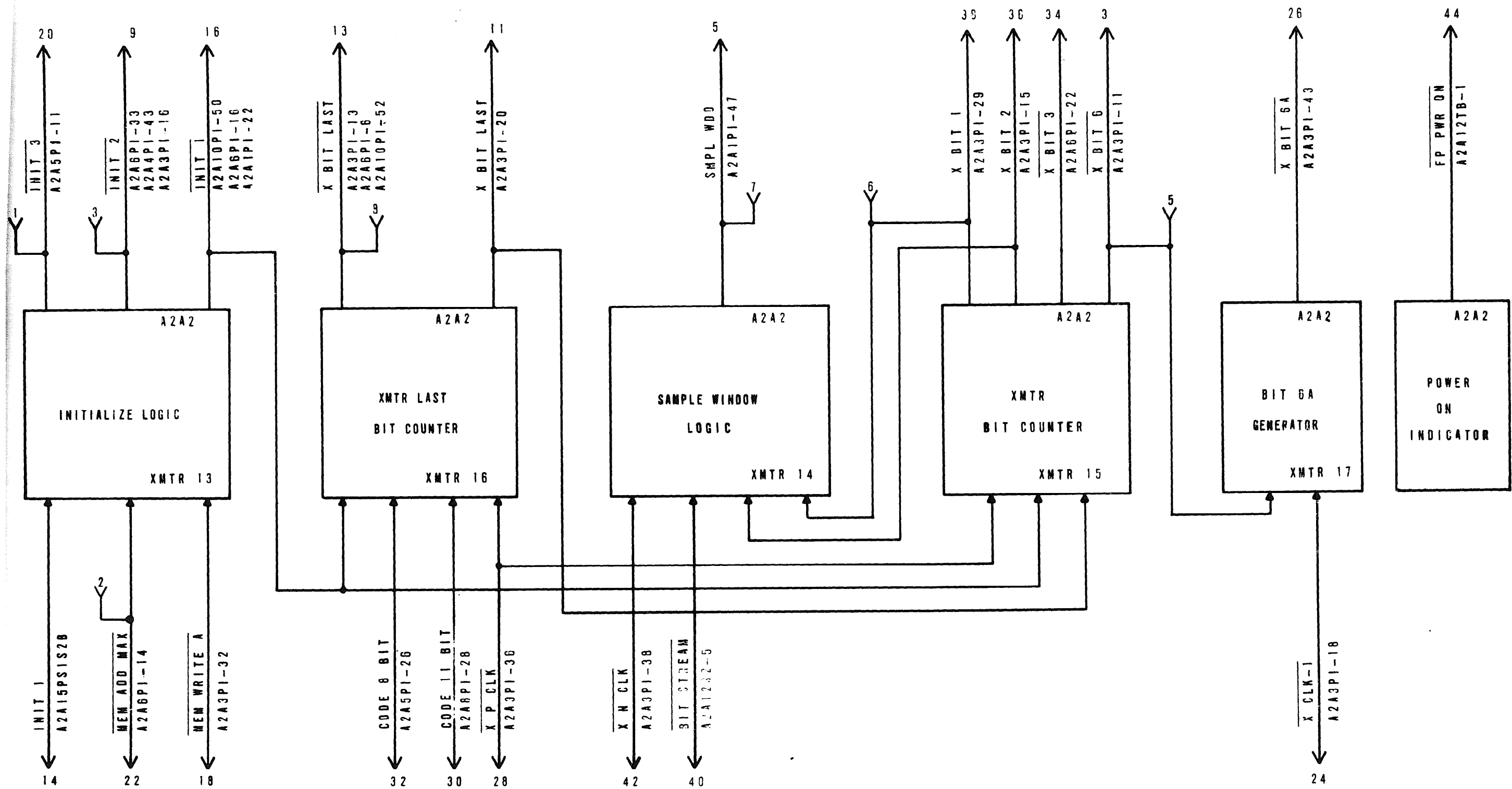
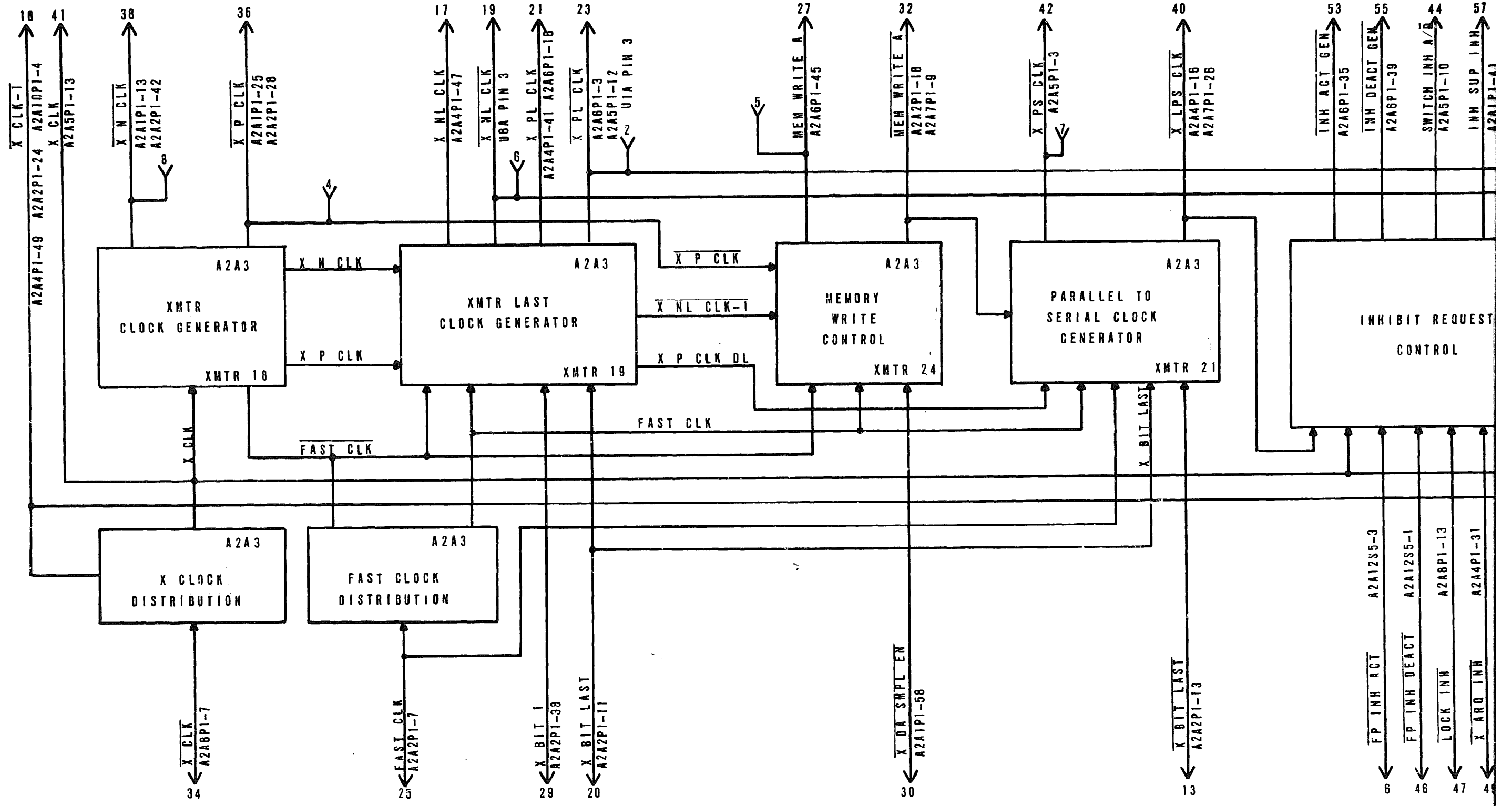


Figure A-30. A2A2 Fast Clk Step Gen Assembly

UNCLASSIFIED



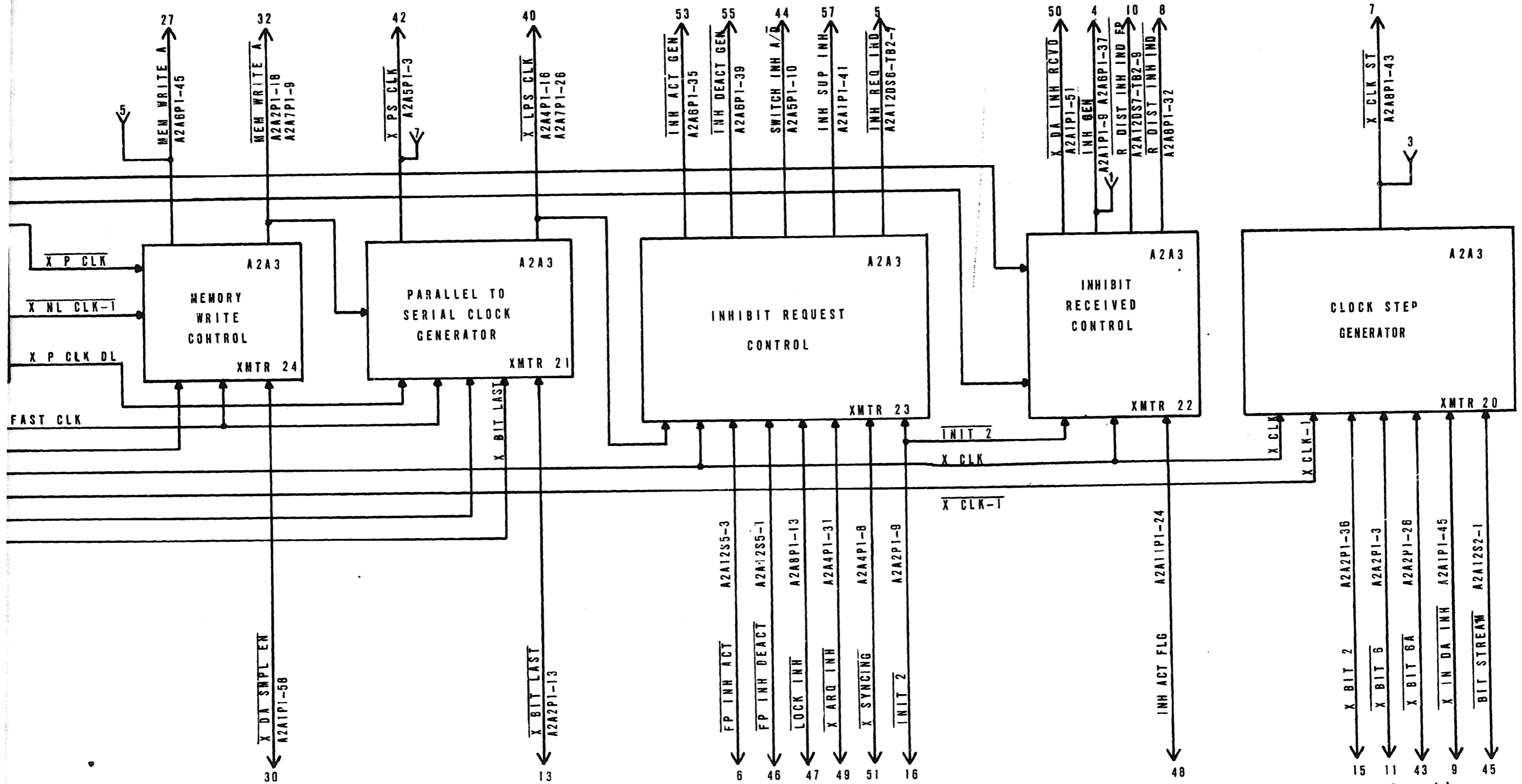


Figure A-31. A2A3 In Cont XFR CTR Gen Assembly

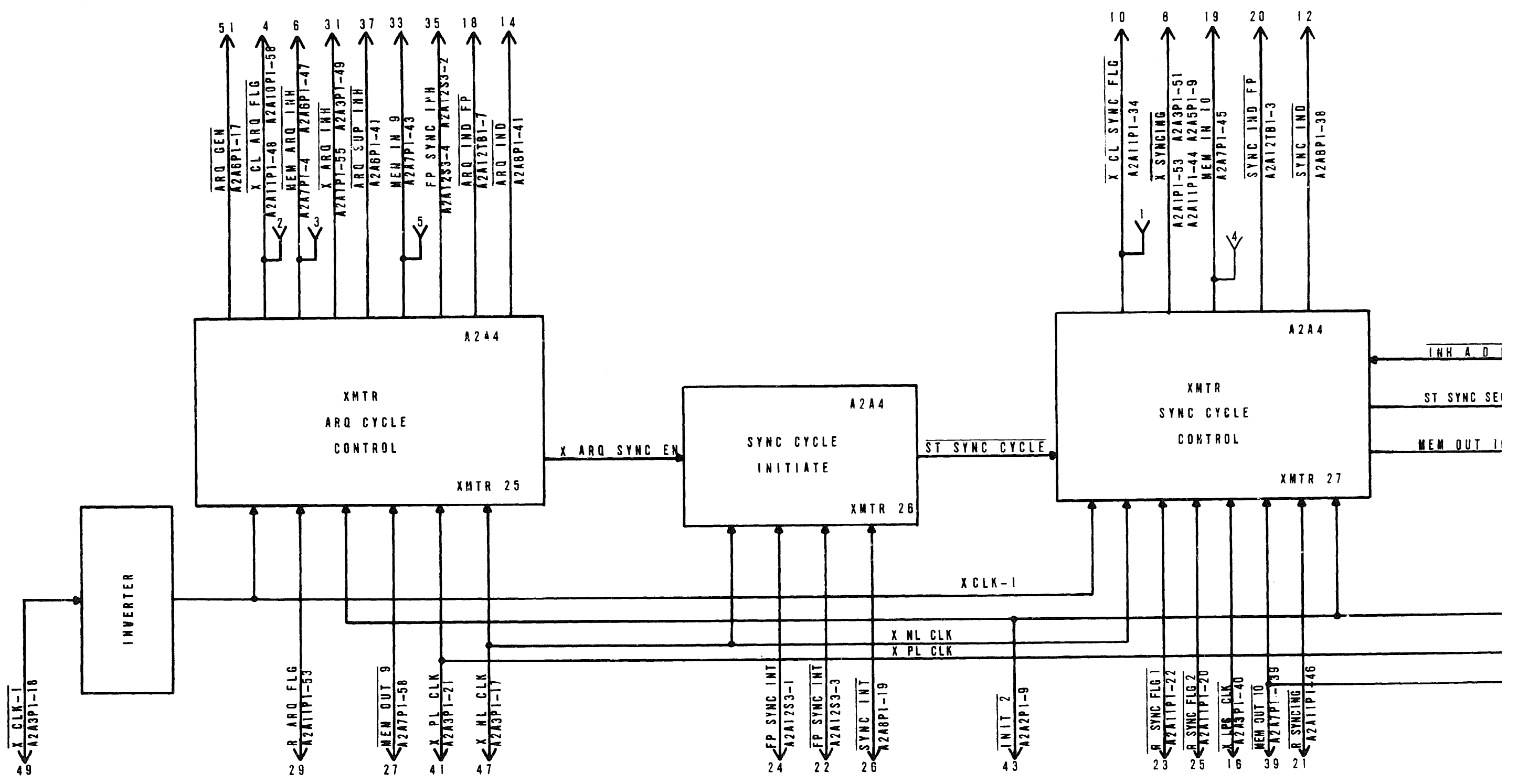


Figure A-32. A2A4 XM

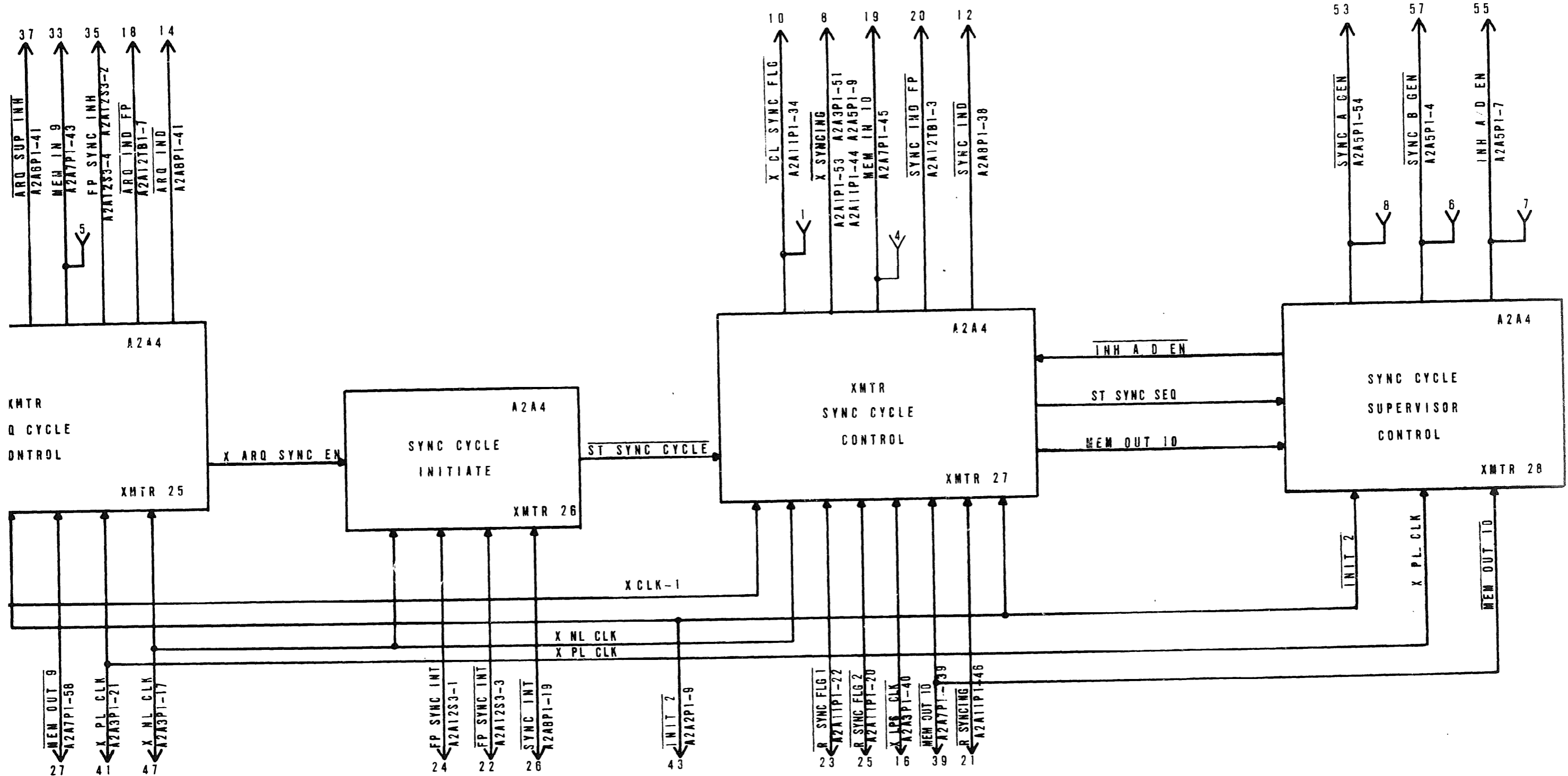
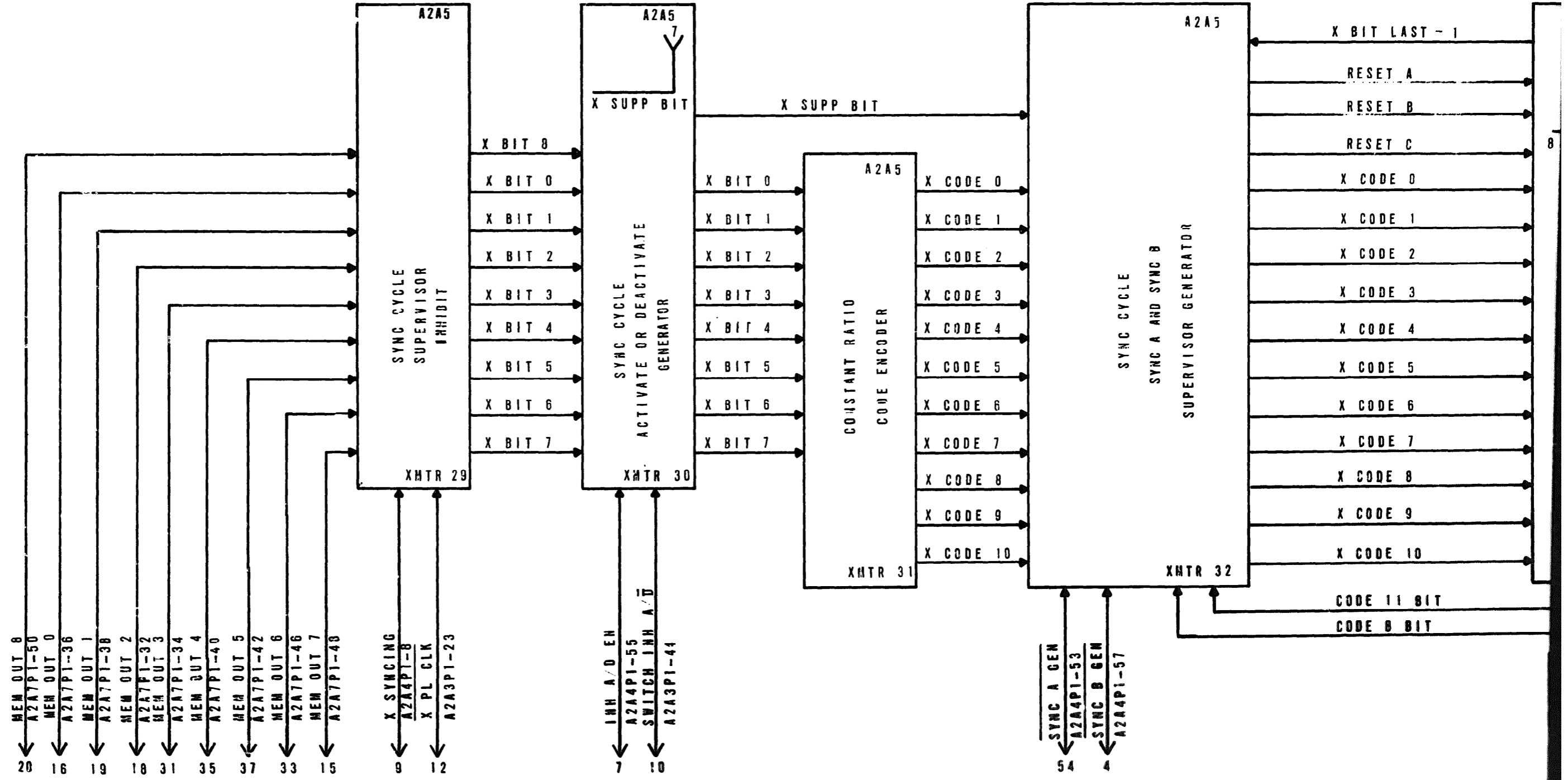


Figure A-32. A2A4 XMTR Sync and ARQ Cont Assembly



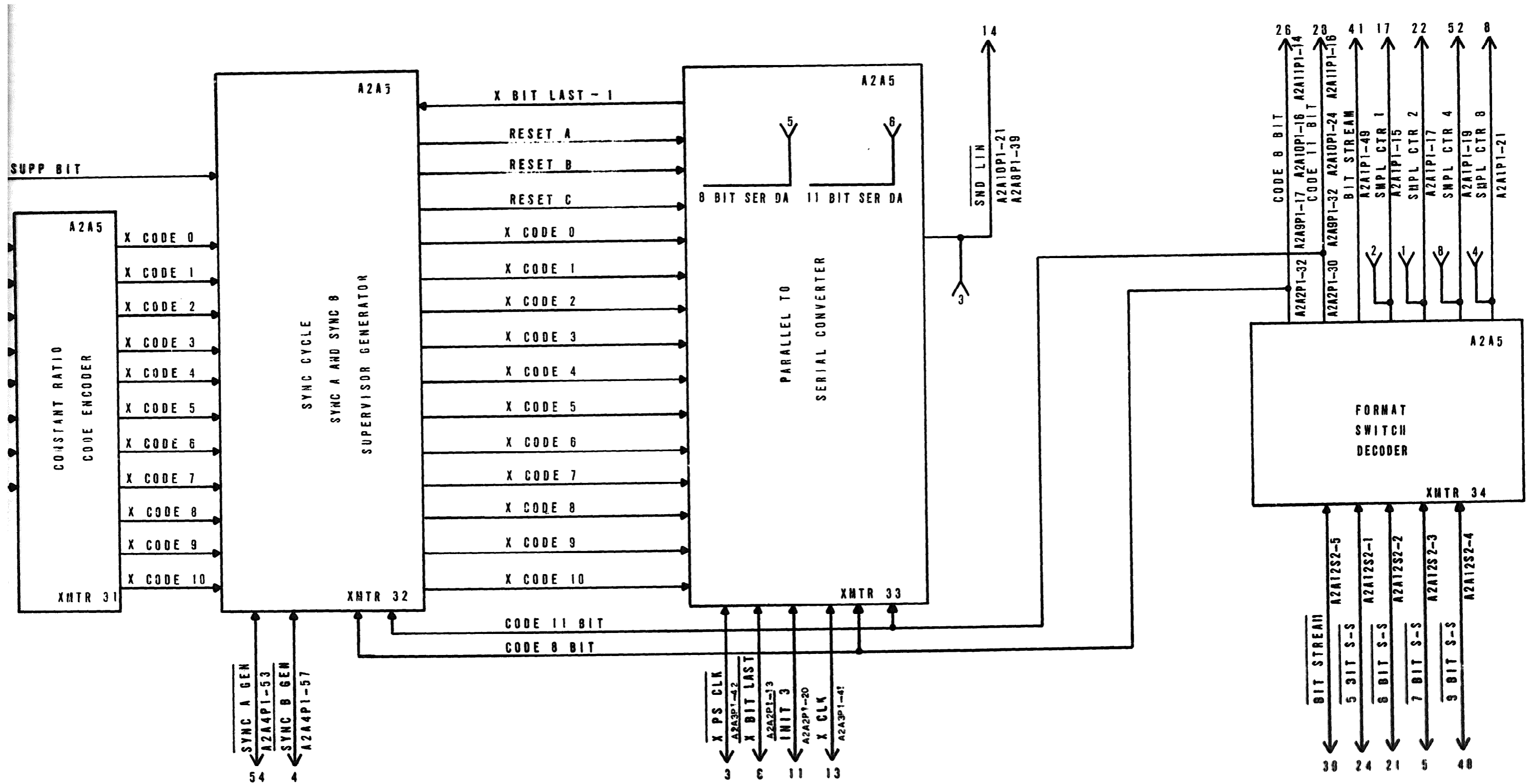


Figure A - 33. A 2 A 5 Const R CODE GEN Assembly

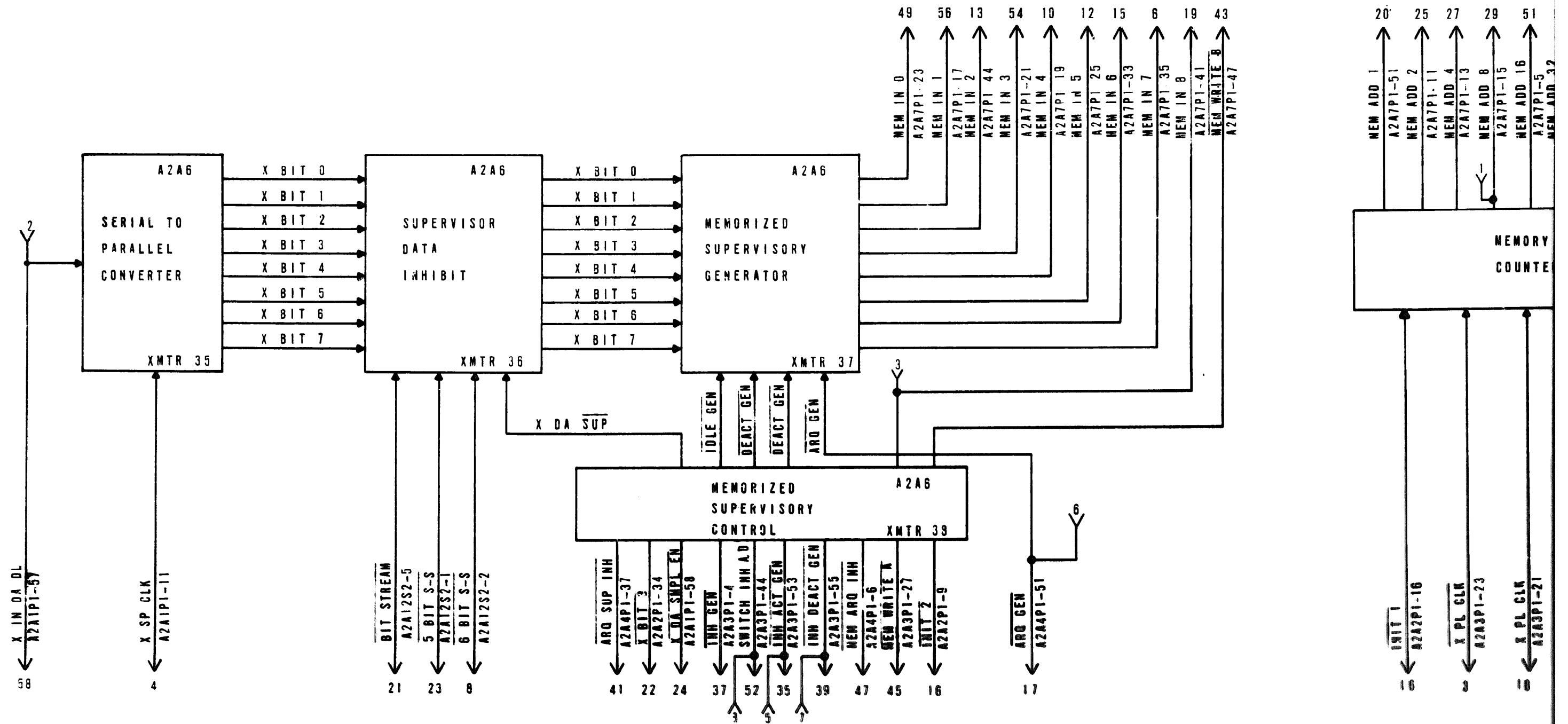


Figure A 3 4 . A 2 A 6

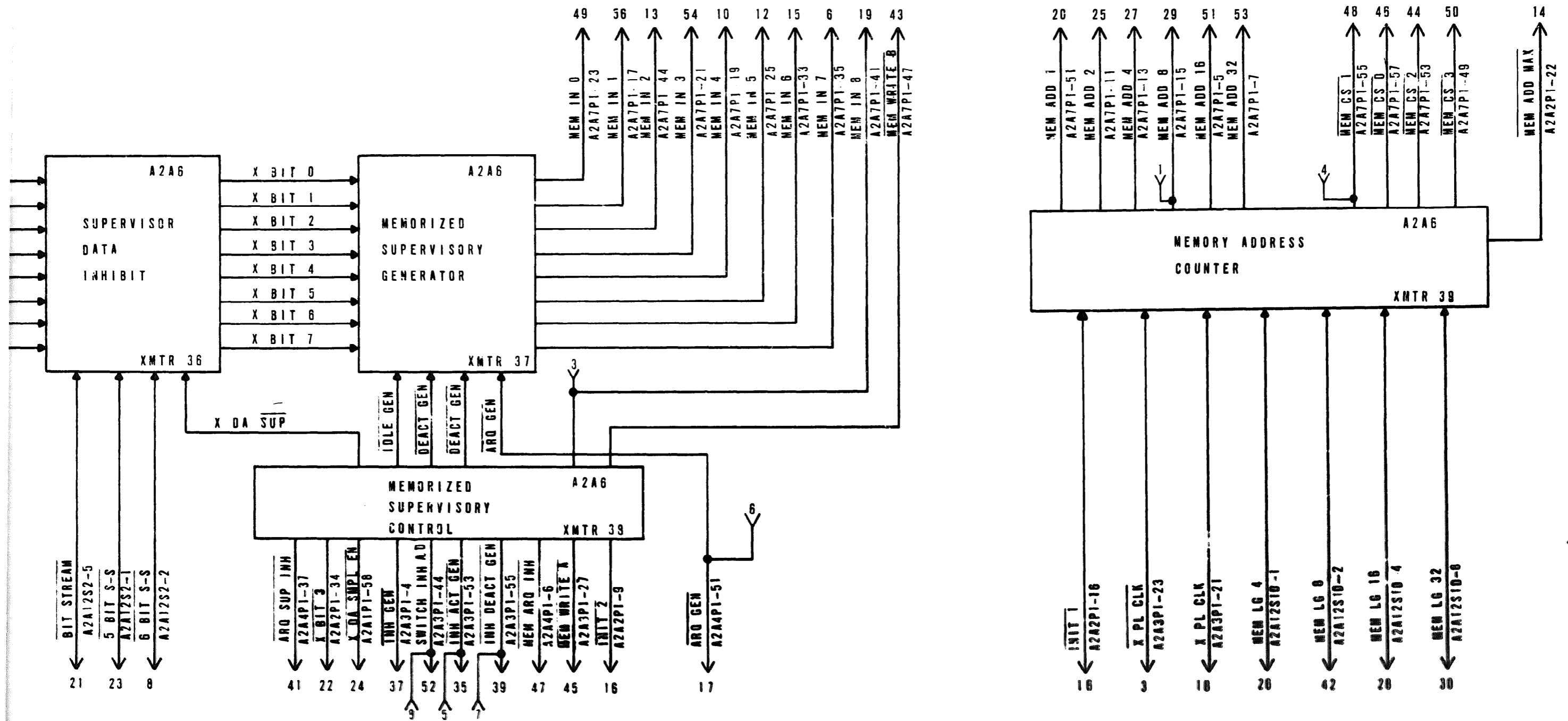
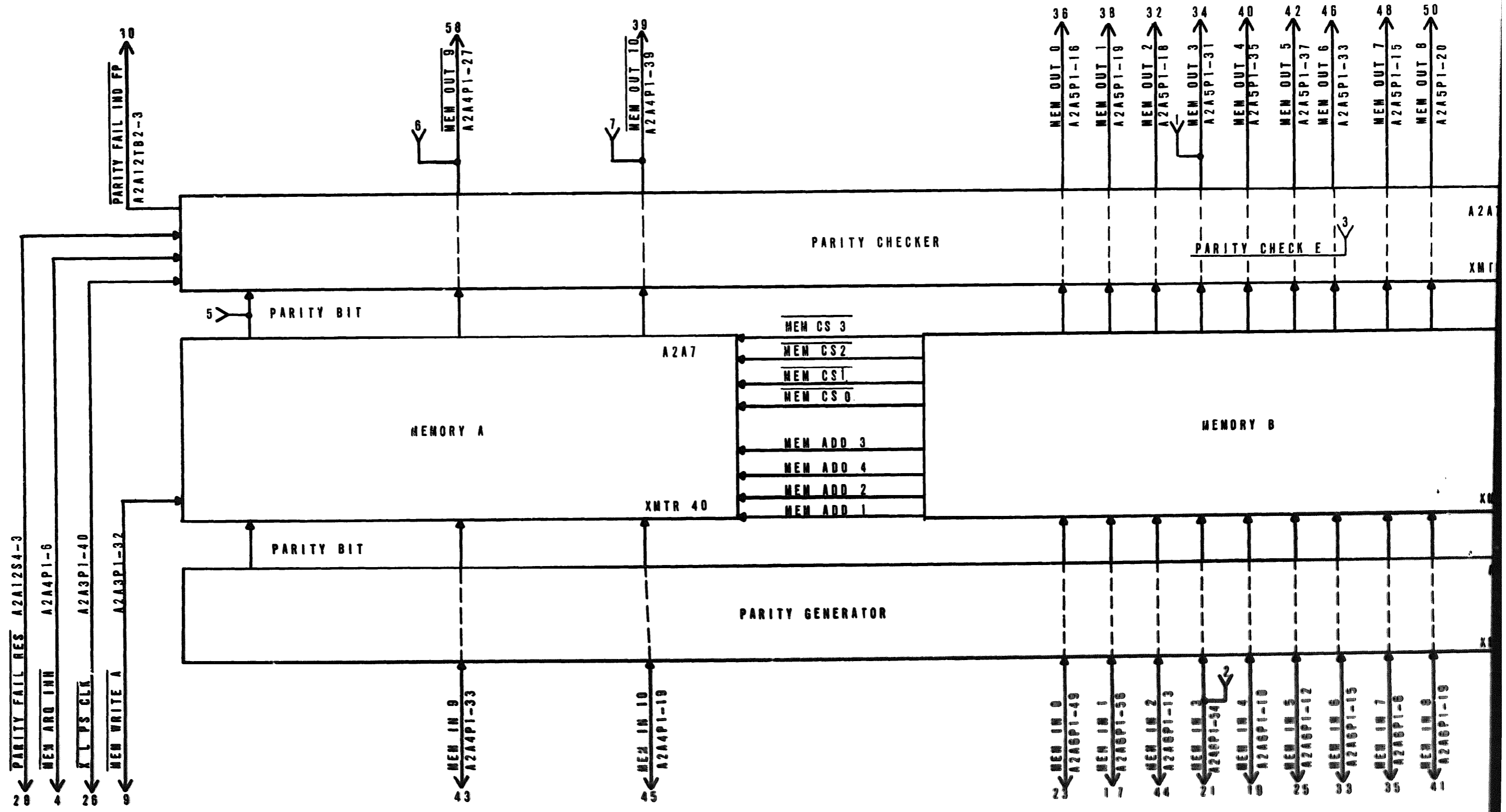


Figure A-34. A2A6 Data Inp Con RAM Cntr Assembly



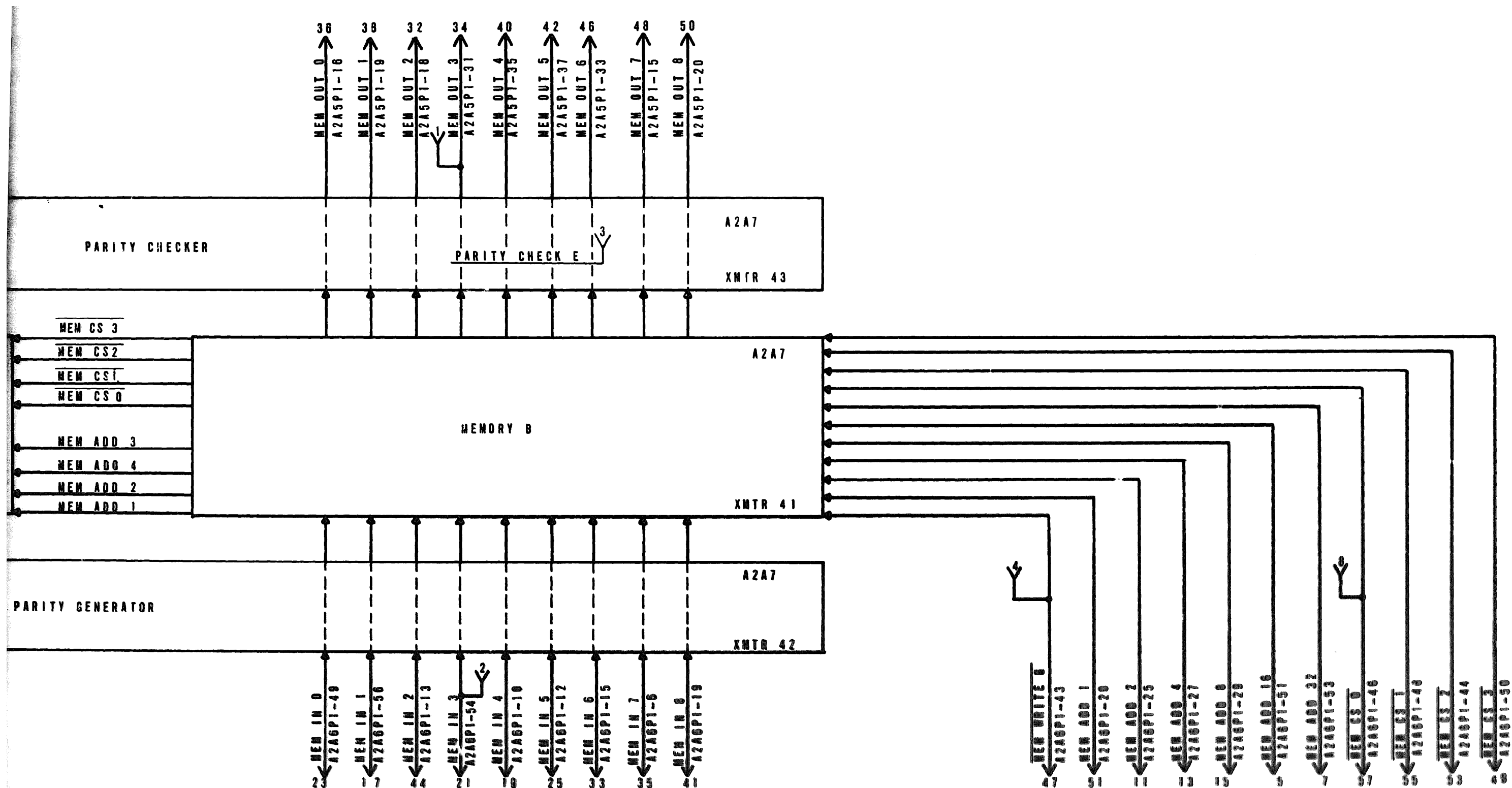


Figure A-35. A2A7 Recirculating Memory Assembly

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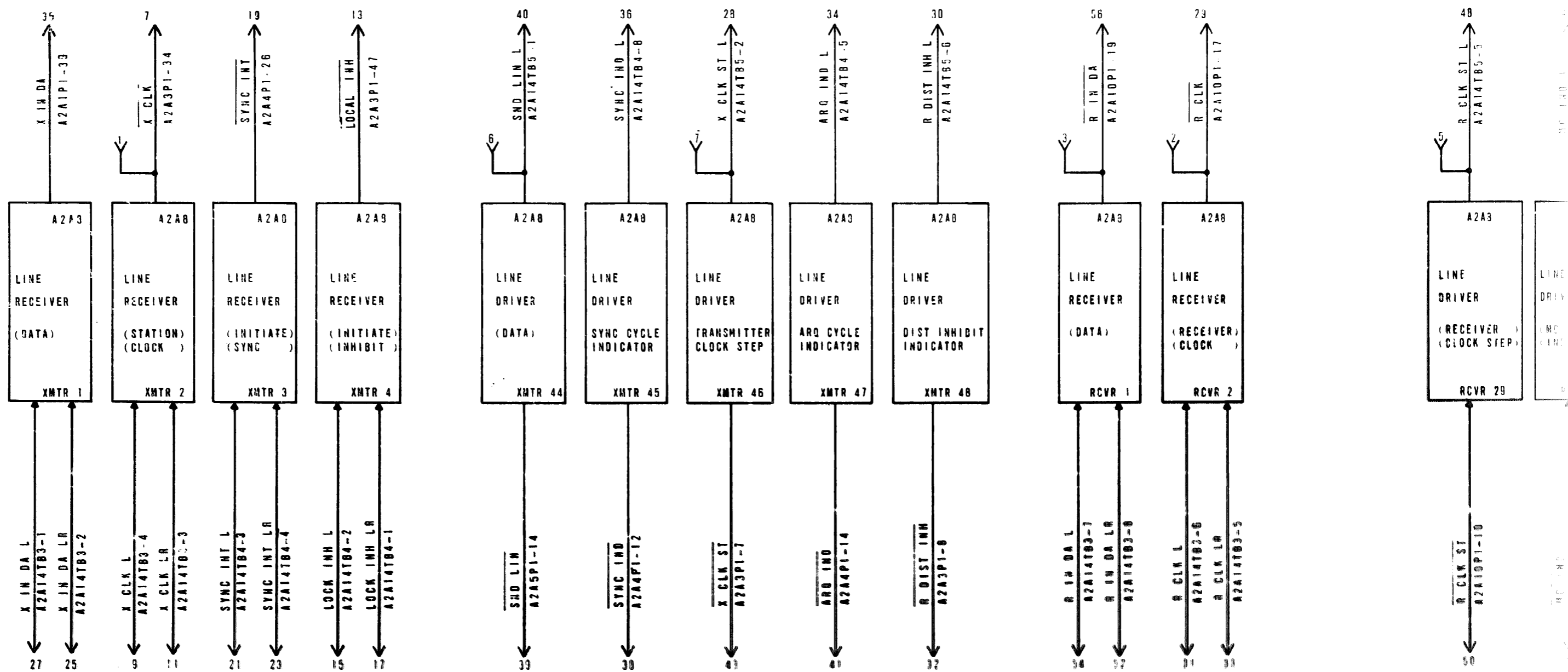


Figure A-36. A2AA3 Level Converter

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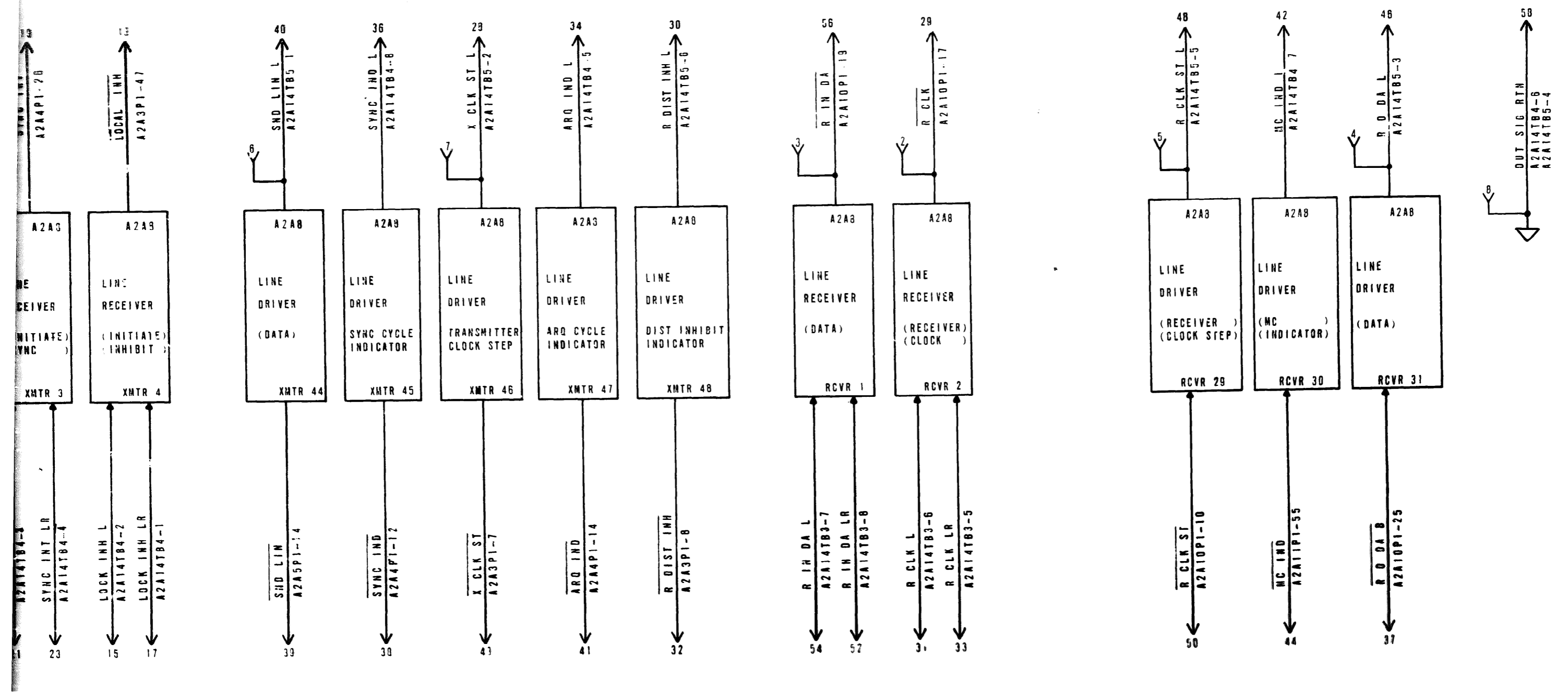
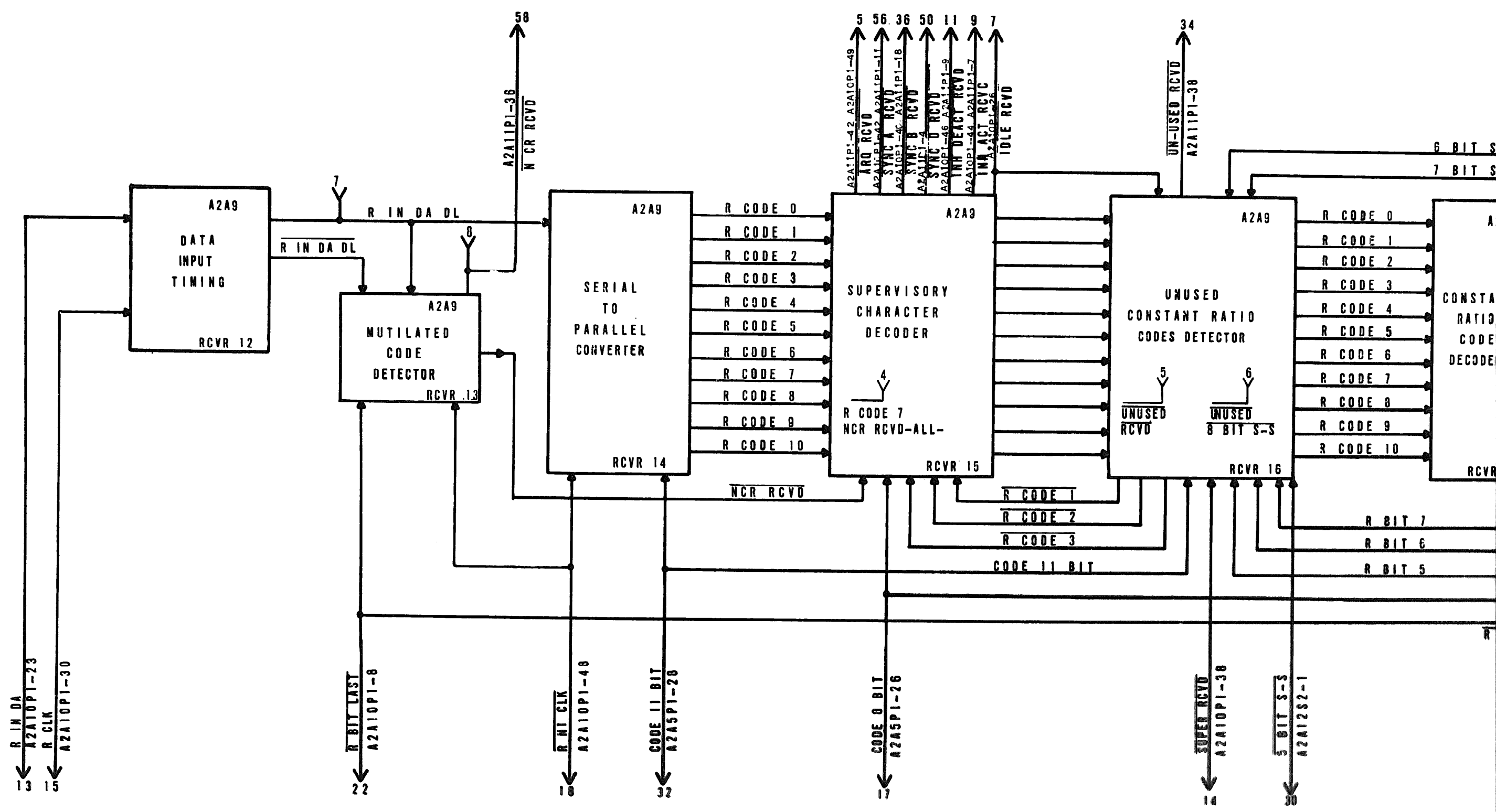


Figure A-36. A2AA8 Level Converter Assembly
UNCLASSIFIED A 4 9



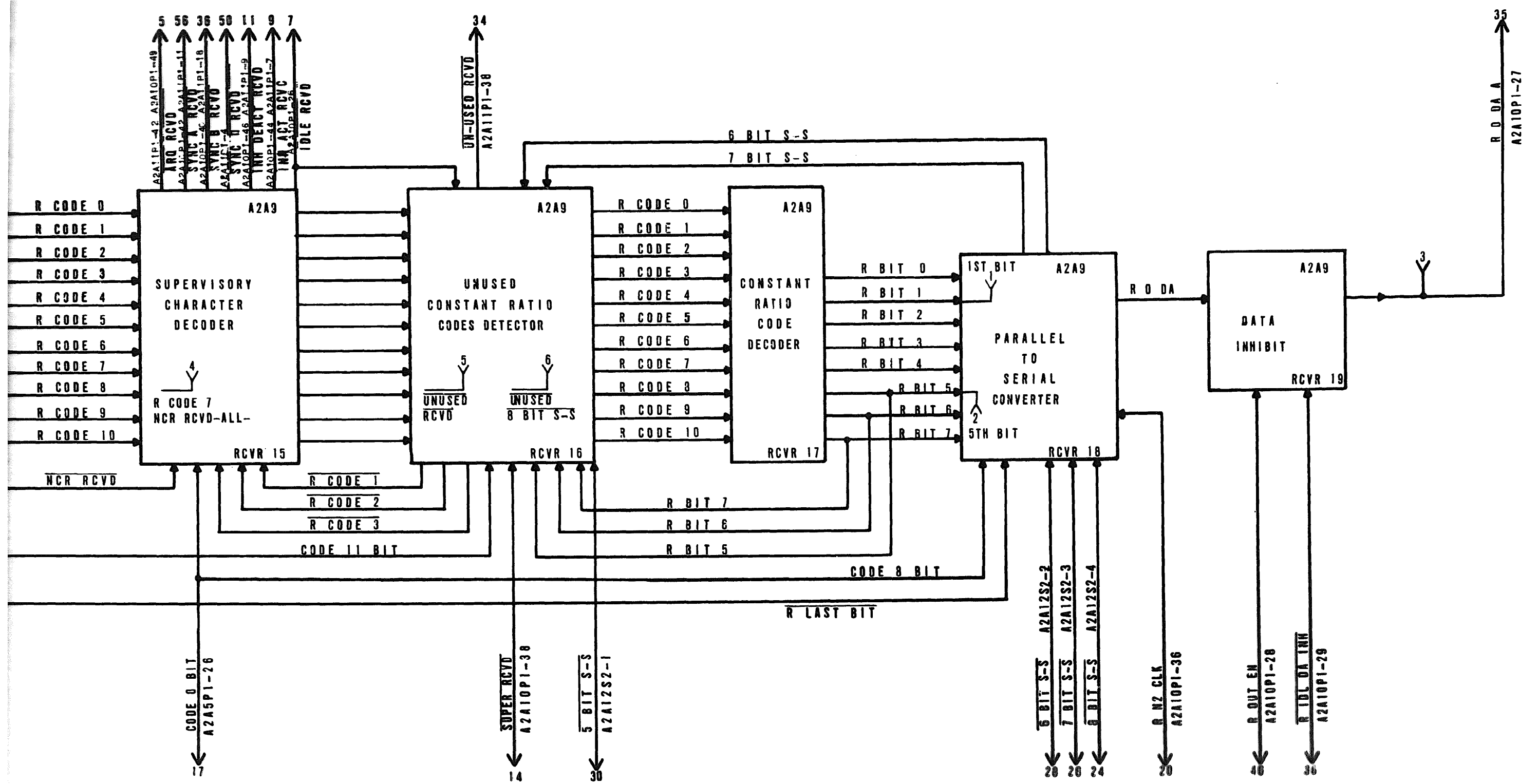


Figure A-37. A2A9 Rcvr Data Processor Assembly

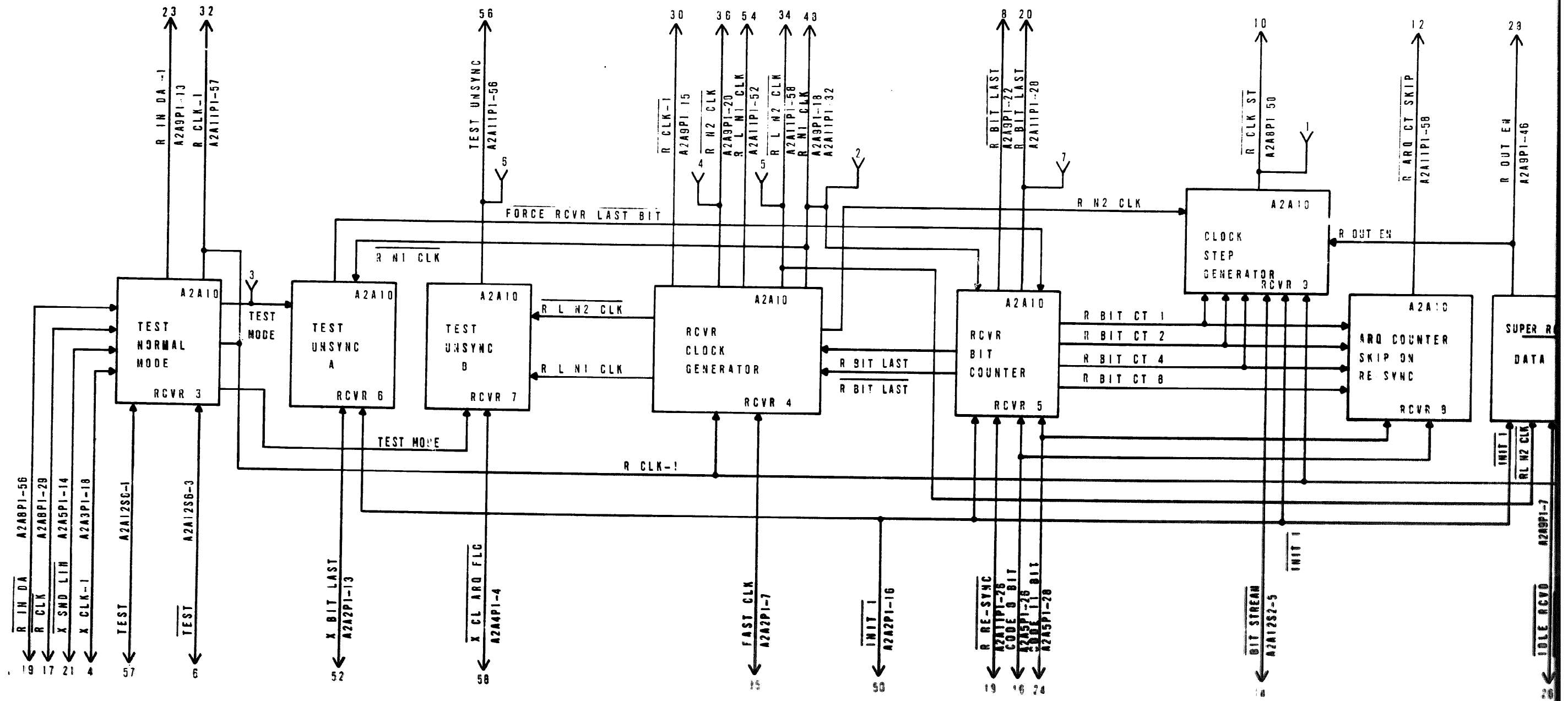


Figure A-38. A2A

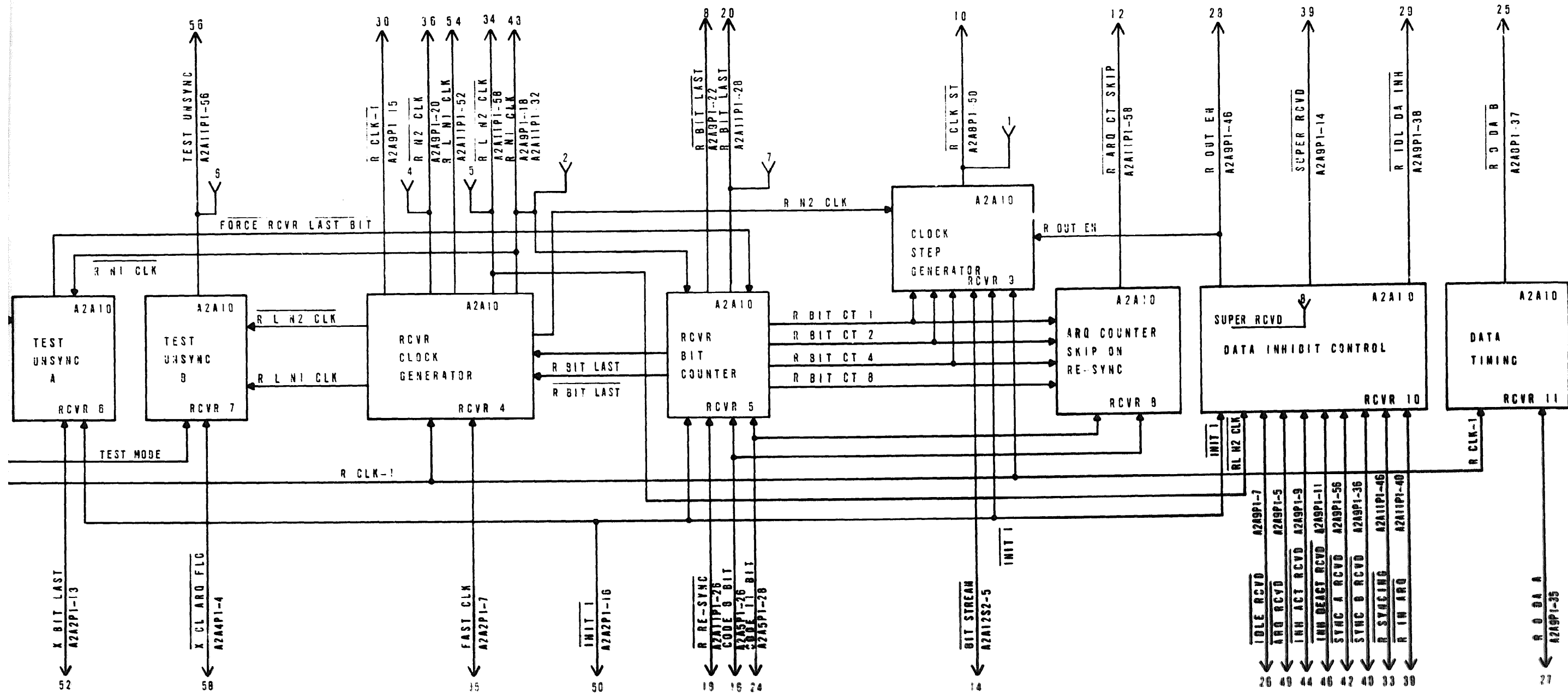
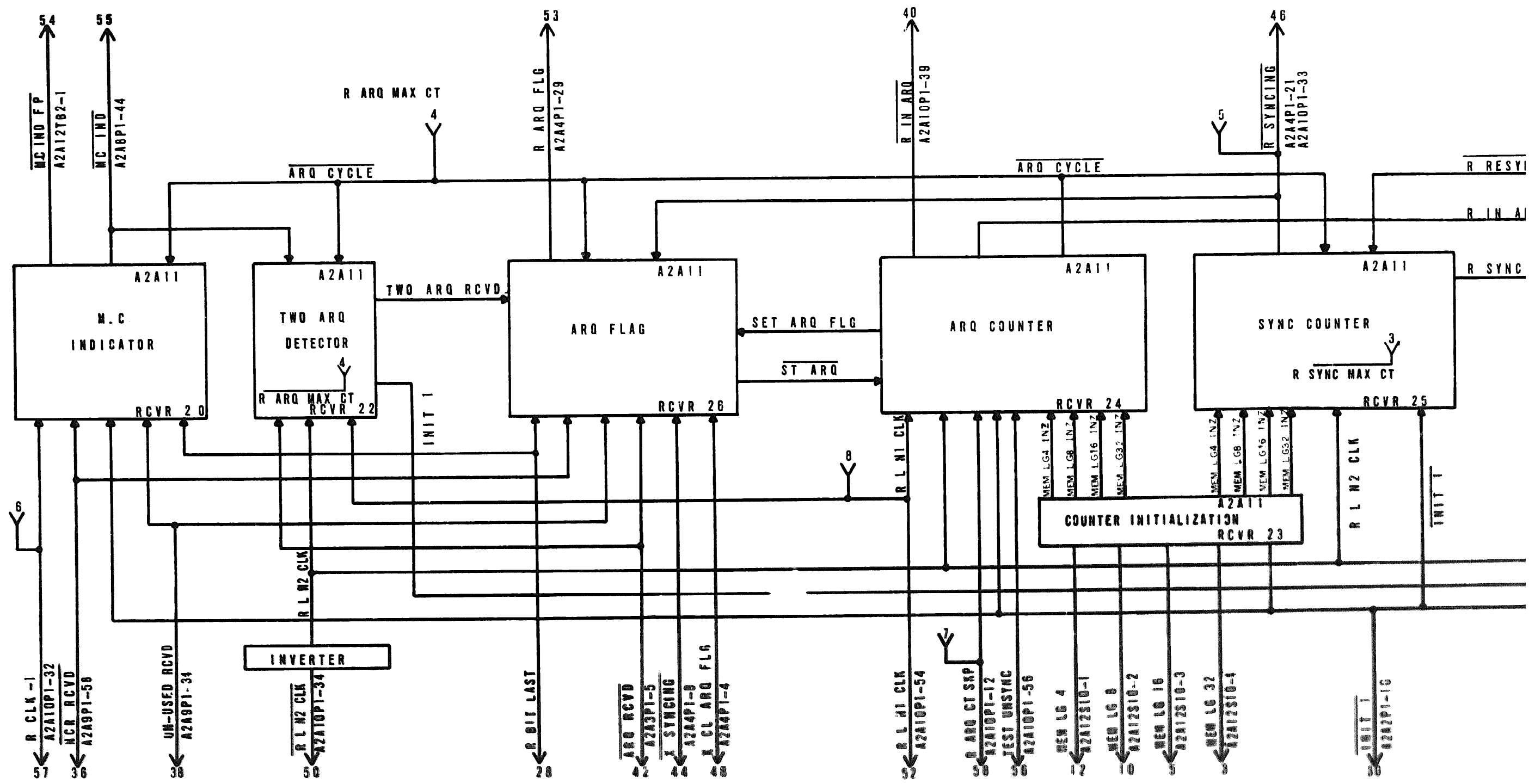


Figure A-38. A2A10 Rcvr Cont Logic Assembly



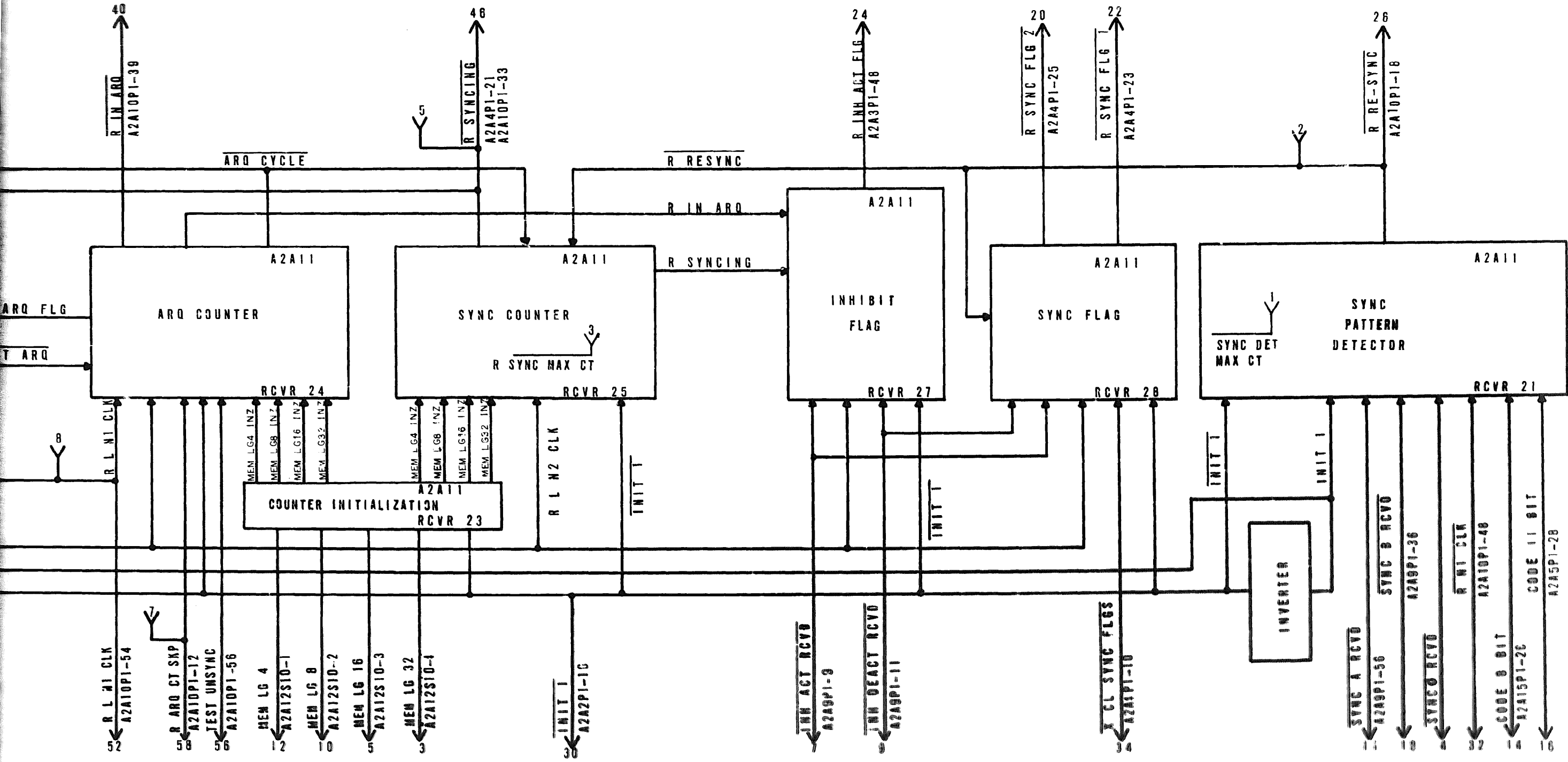


Figure A-39. A2A11 Rcvr ARQ and Sync Cont Assembly

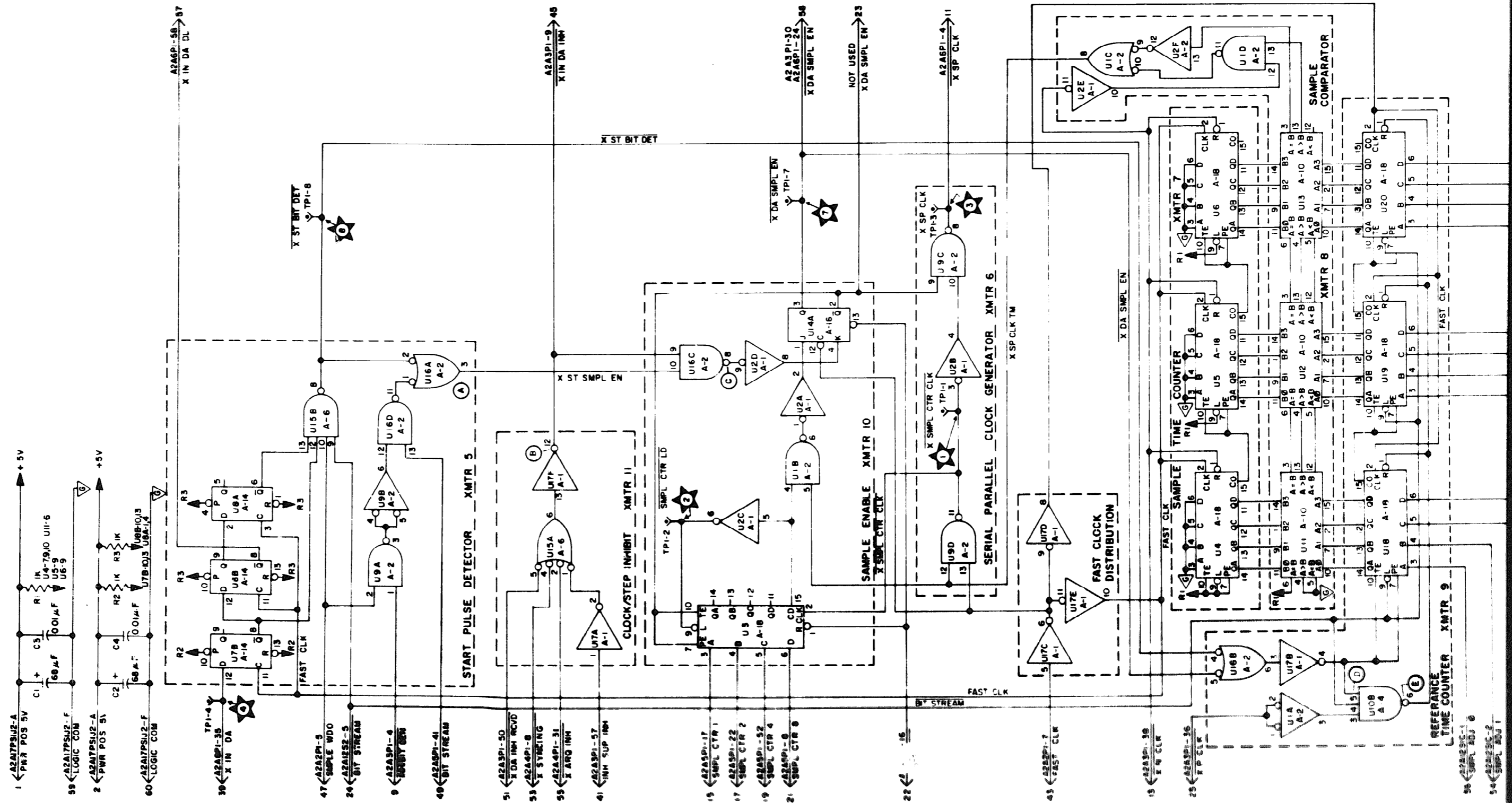


Figure A-A0 Logic Diagram Data Sample Cons

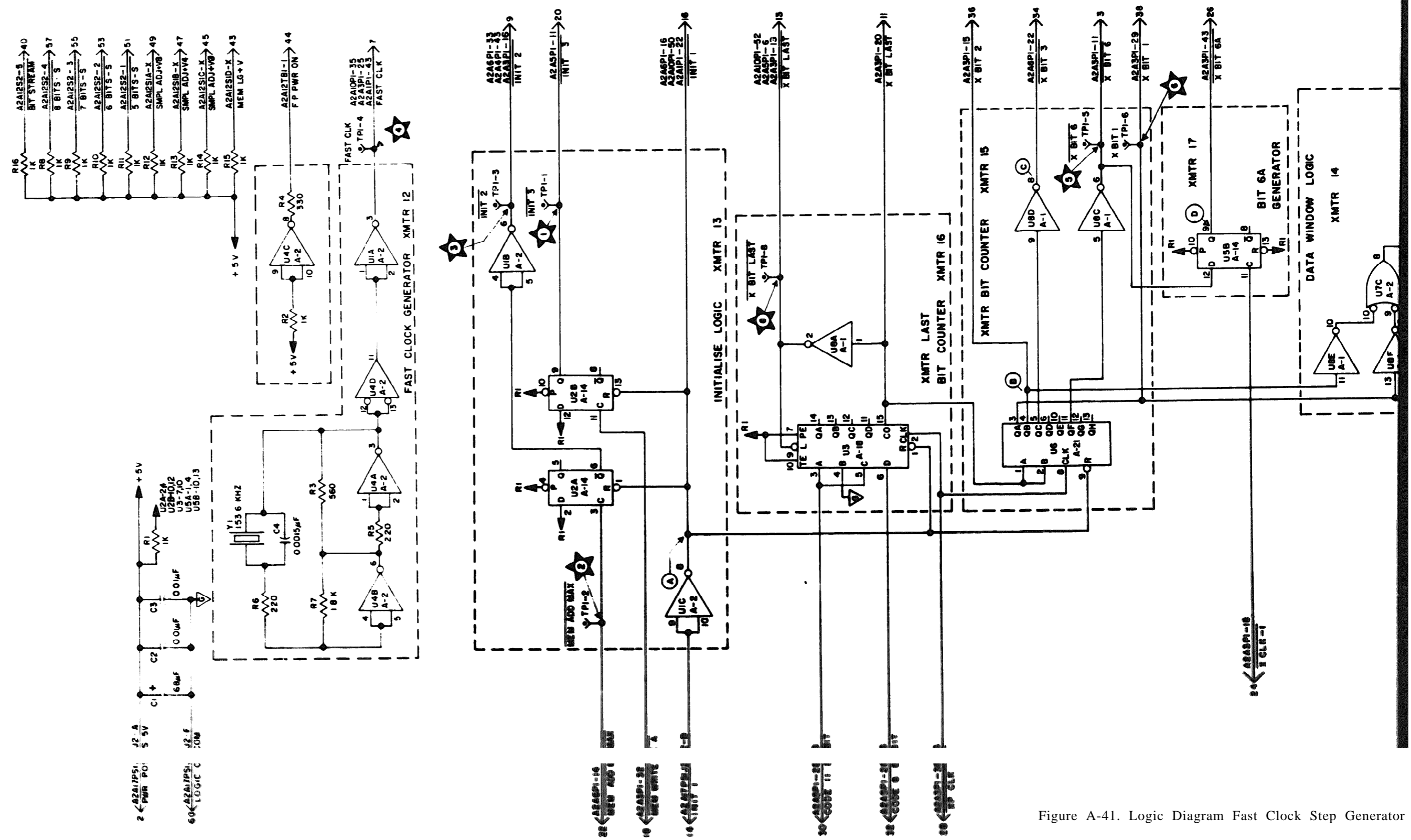


Figure A-41. Logic Diagram Fast Clock Step Generator

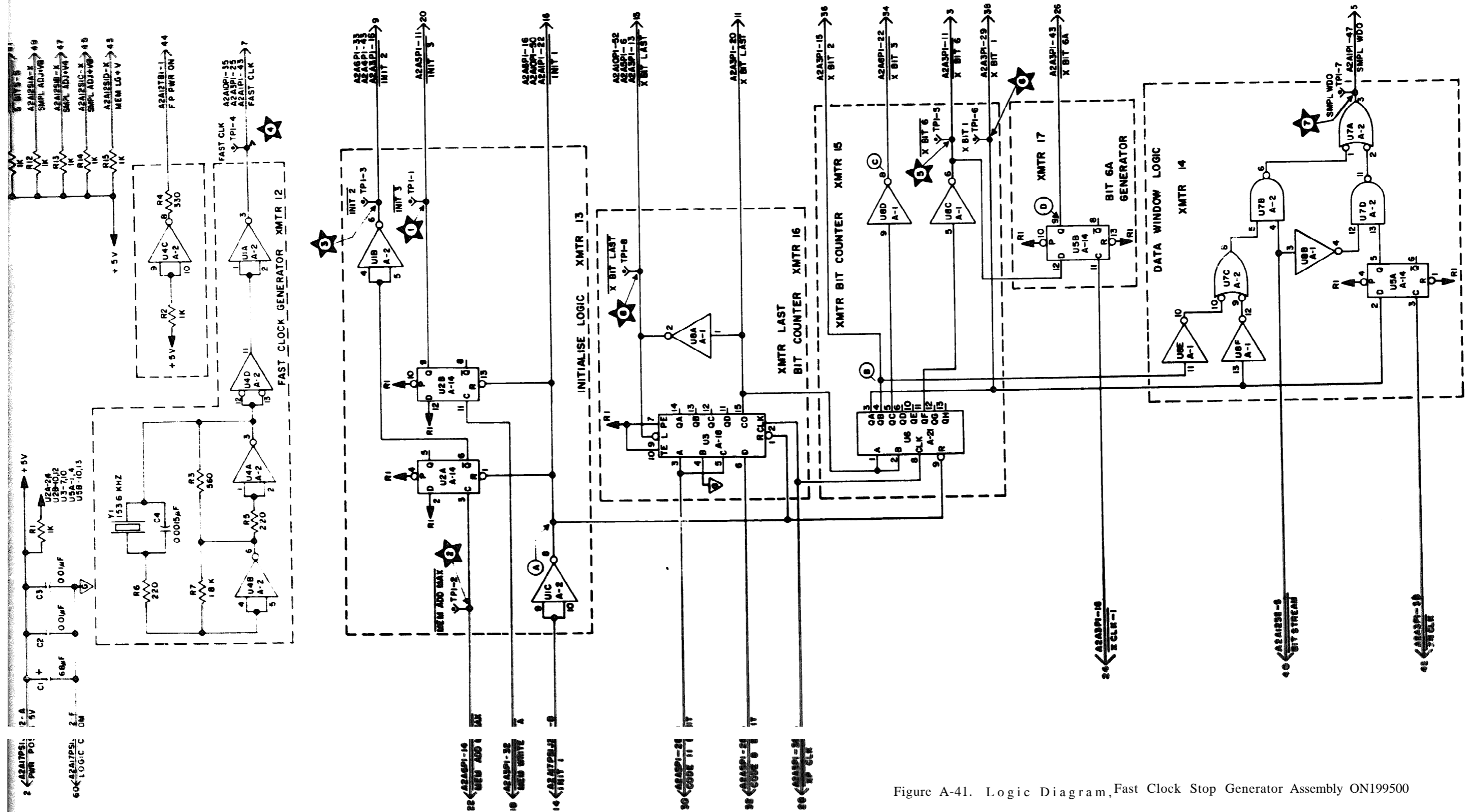


Figure A-41. Logic Diagram, Fast Clock Stop Generator Assembly ON199500

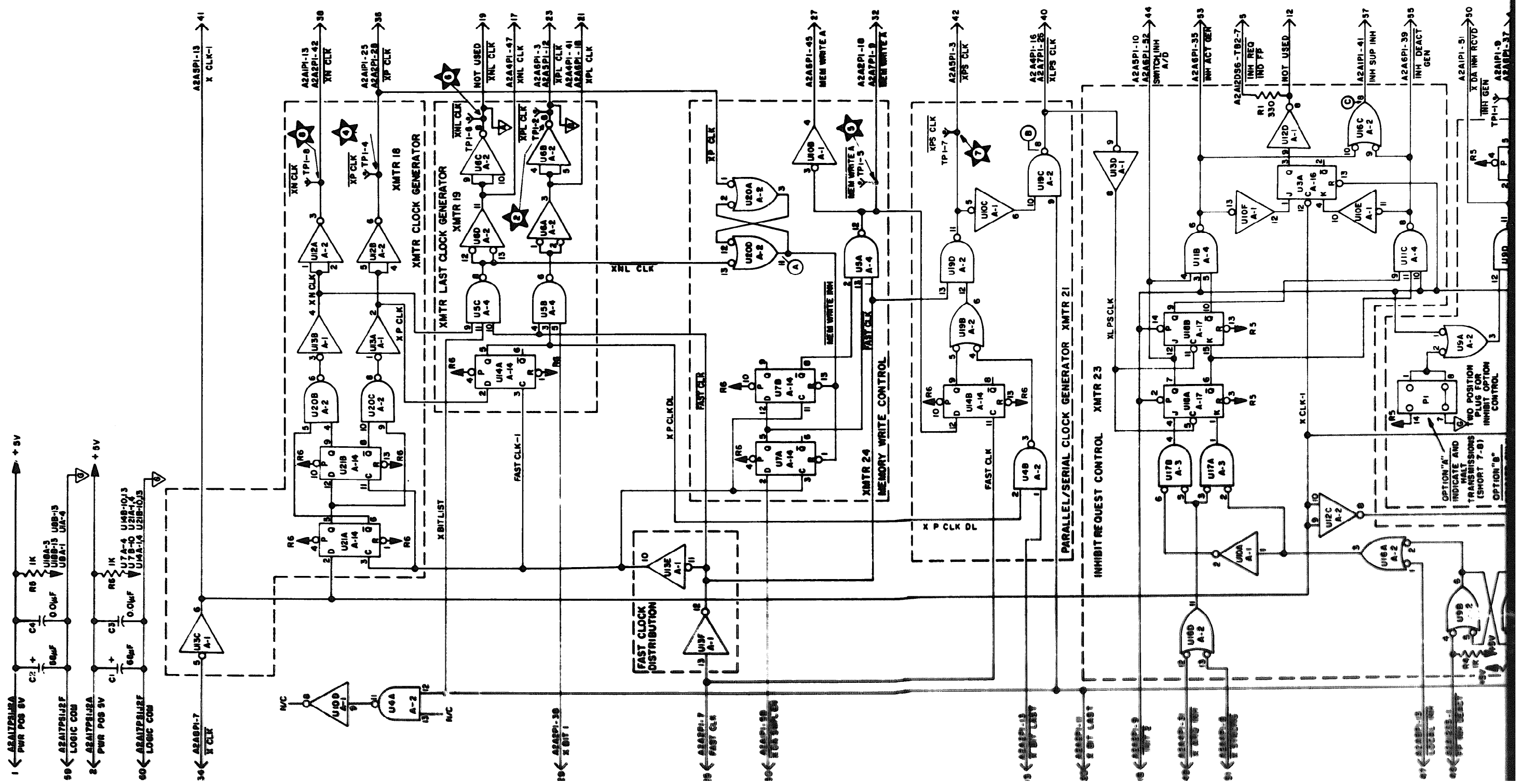


Figure A42. Logic Diagram

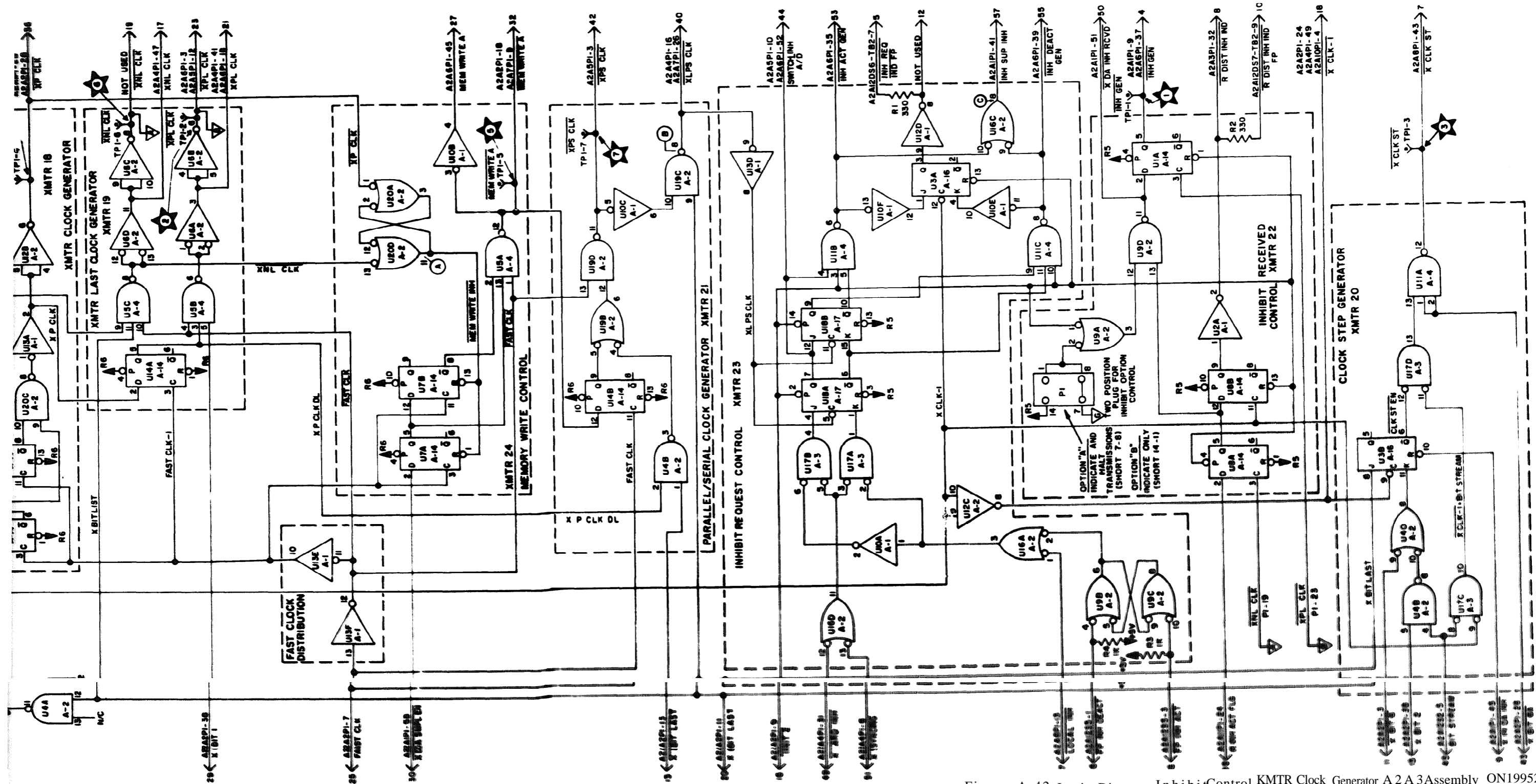


Figure A-42 Logic Diagram, Inhibit Control KMTR Clock Generator A2A3 Assembly ON199524

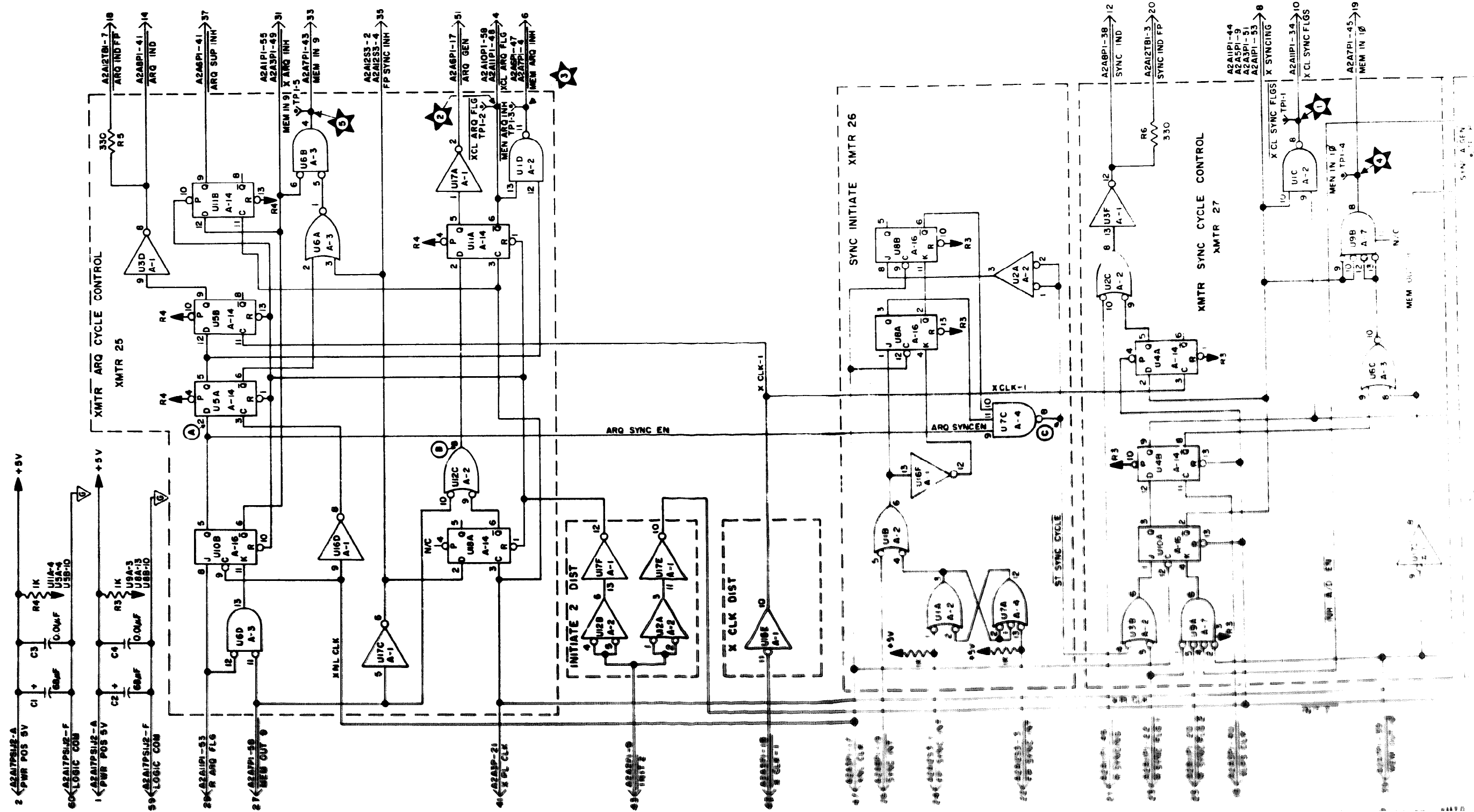


Figure A-42 Logic Diagram KTMR ARC

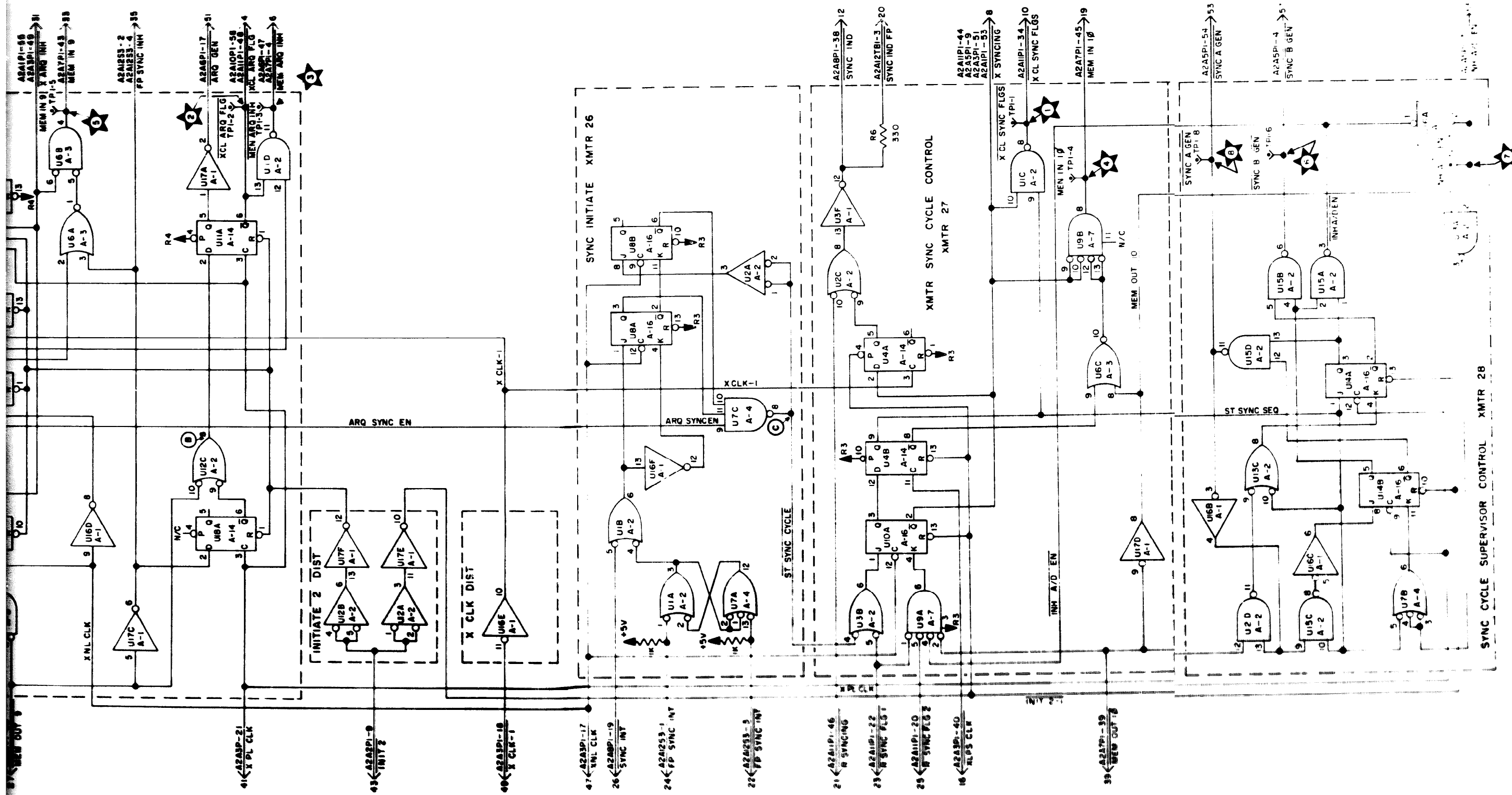
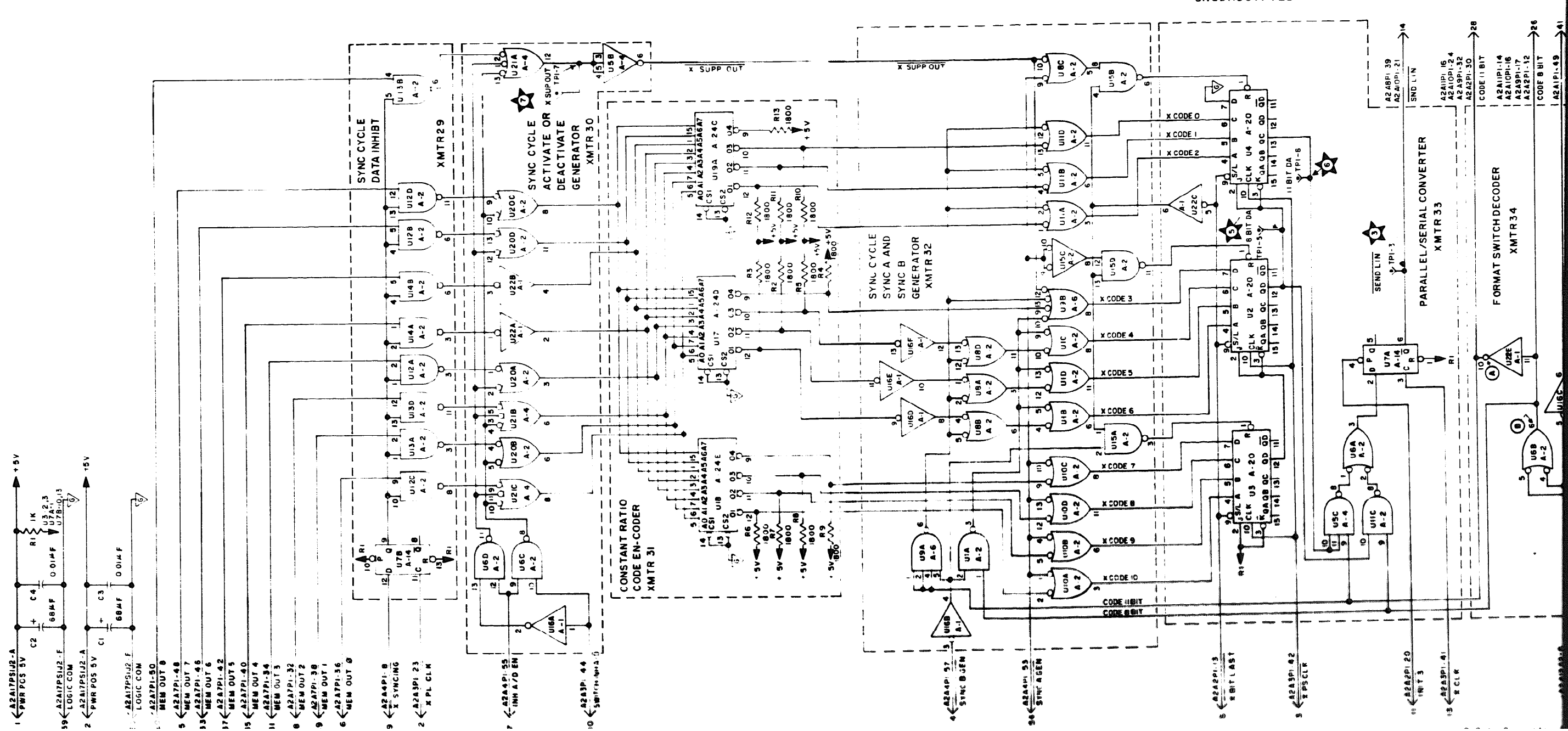


Figure A-43. Logic Diagram KTMR ARO and Sync Control A2A Assembly ON199515



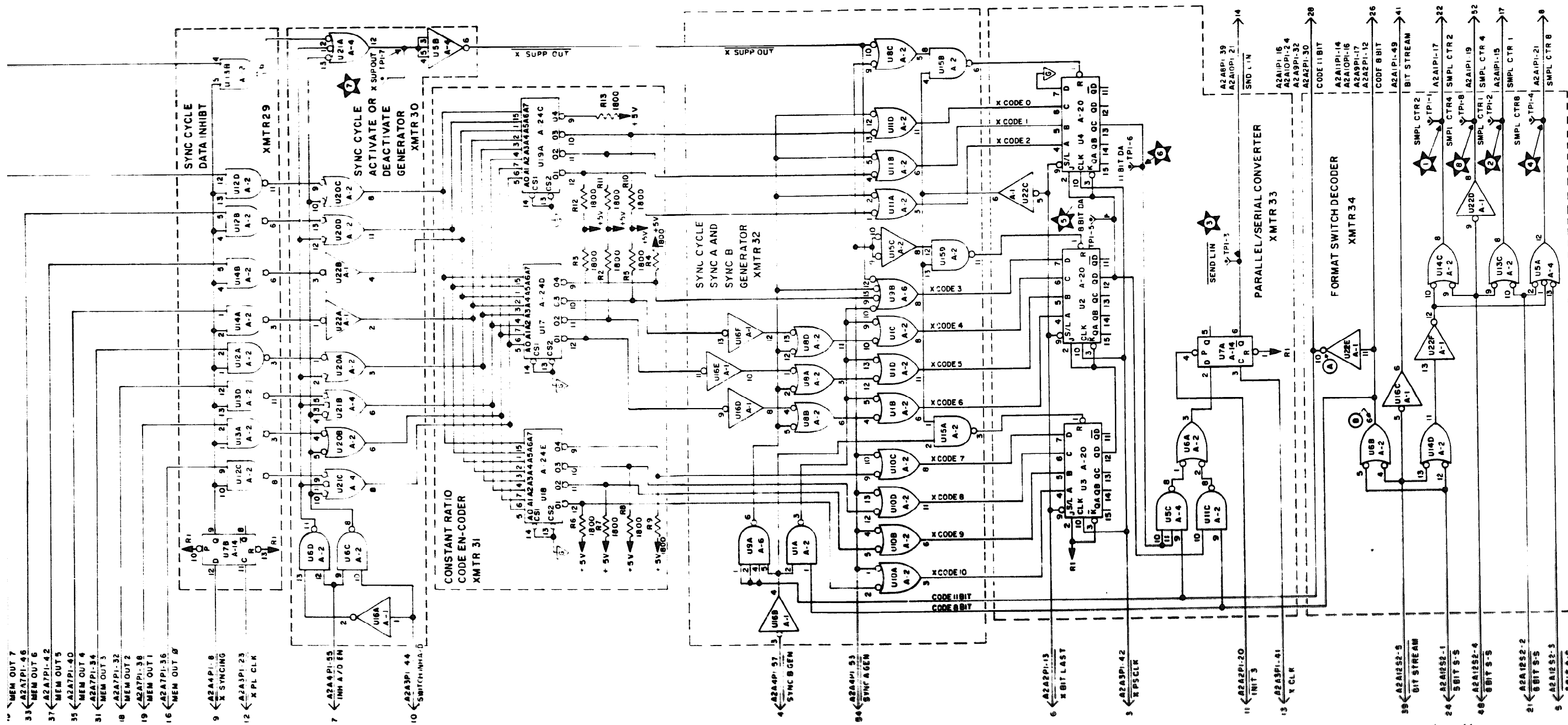


Figure A-44 Logic Diagram Constant R Code Generator A2A5 Assembly ON 199520

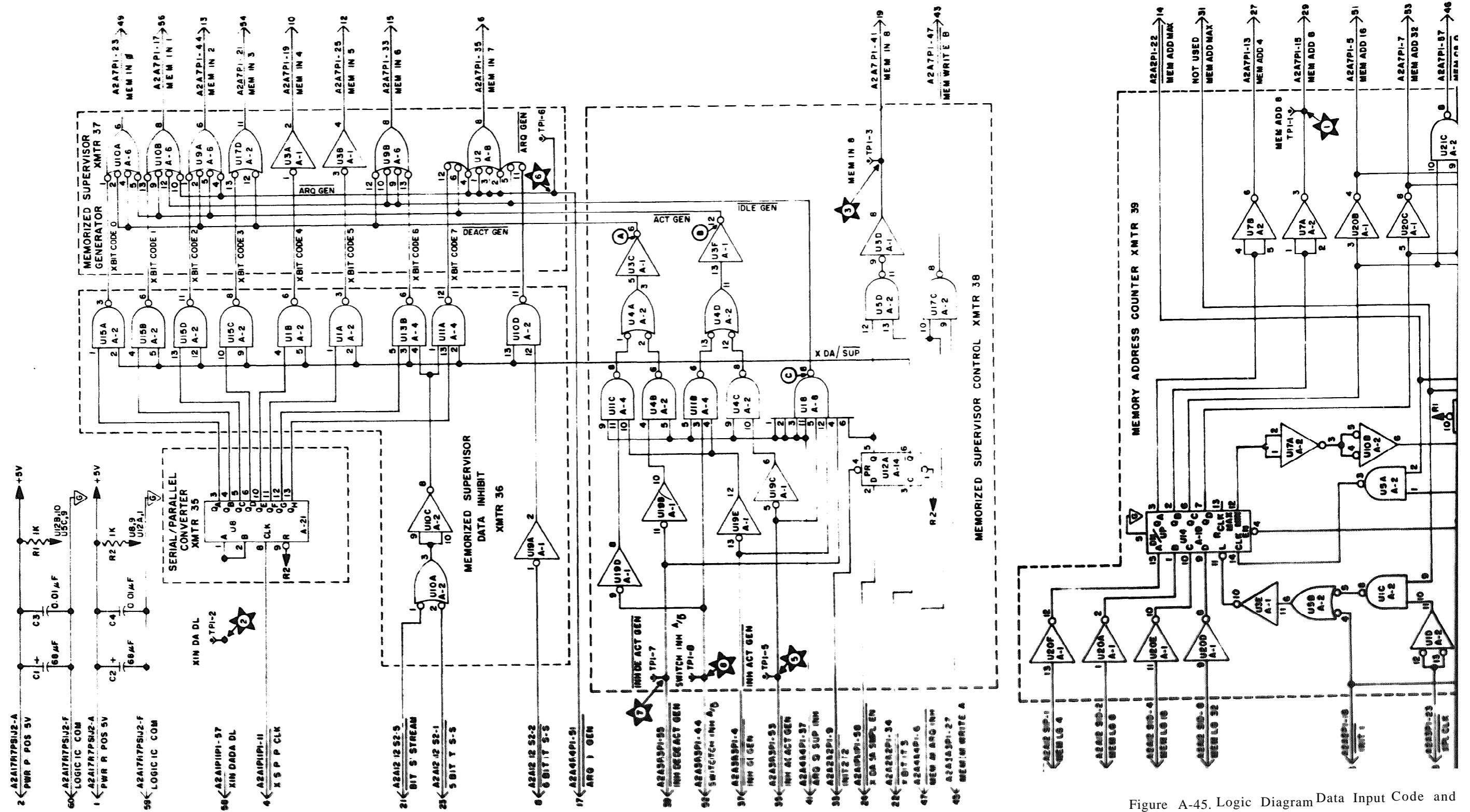


Figure A-45. Logic Diagram Data Input Code and

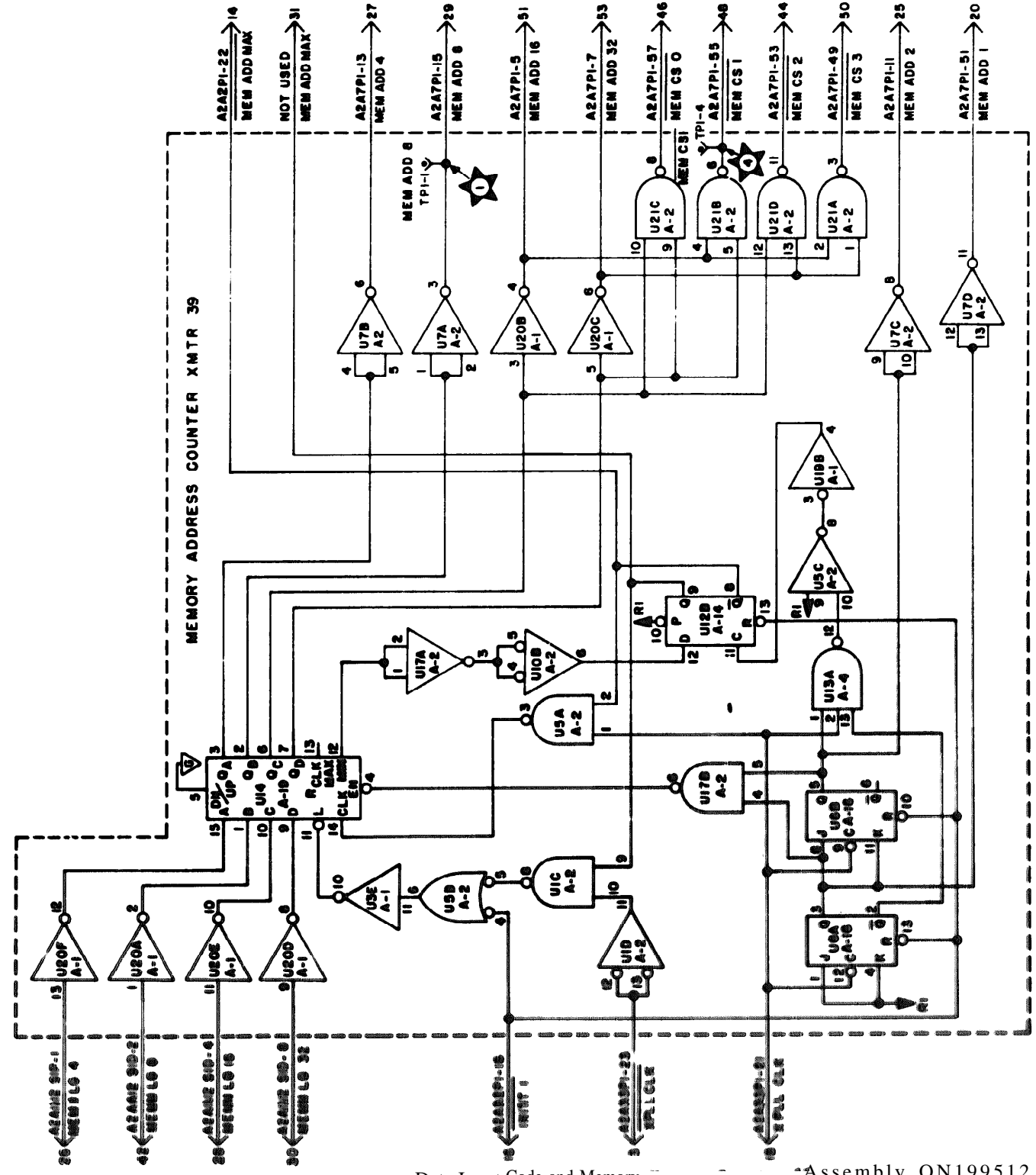
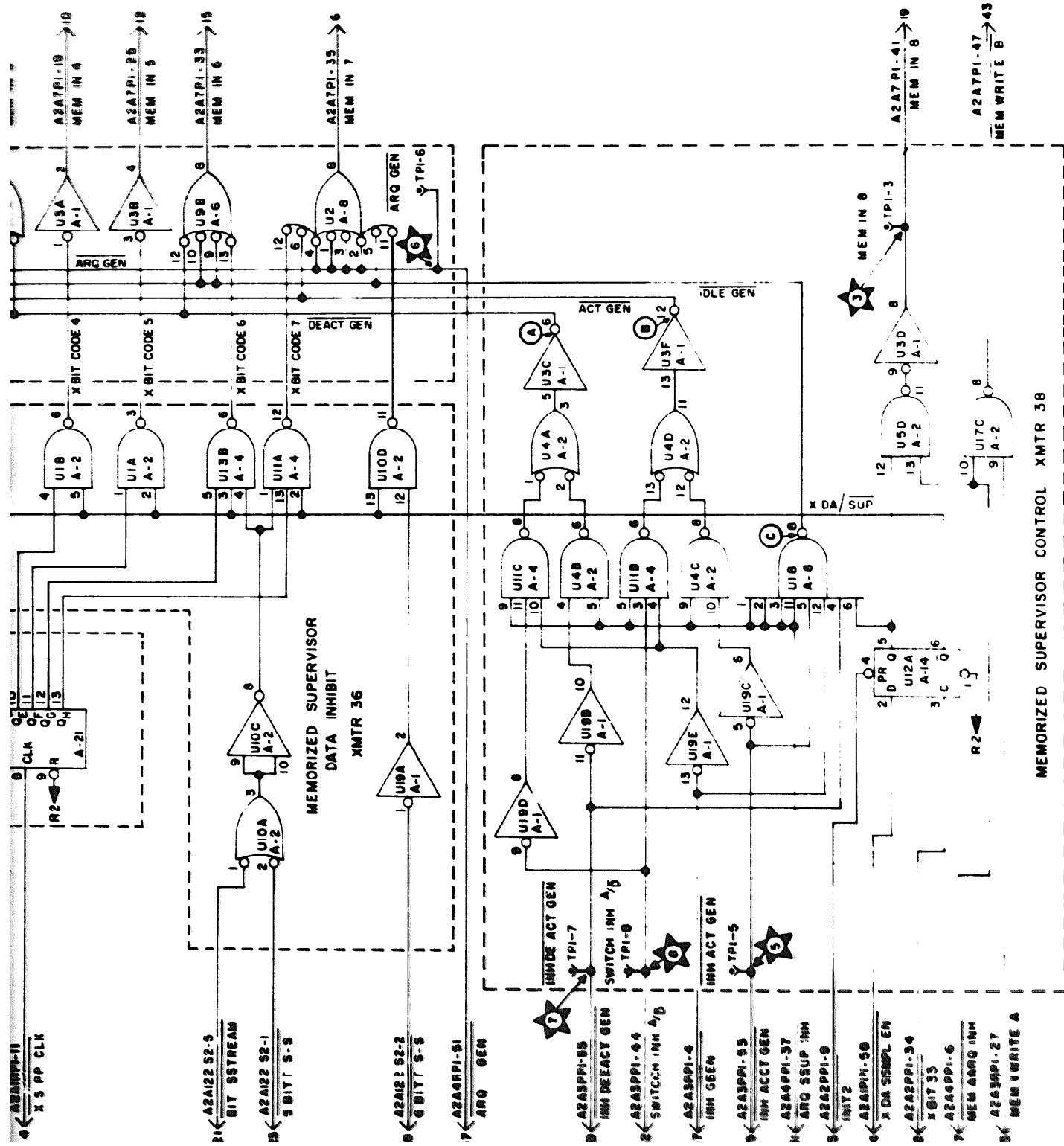
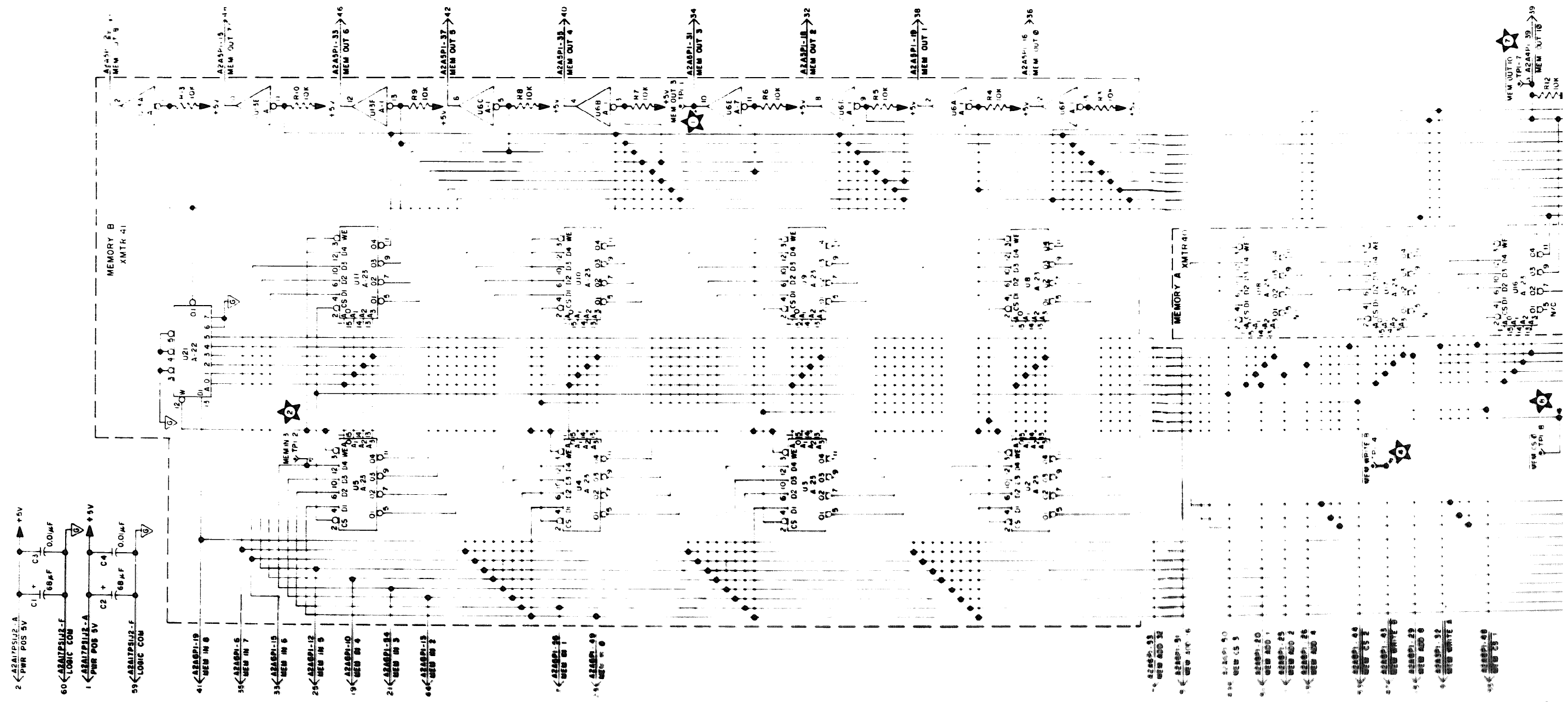
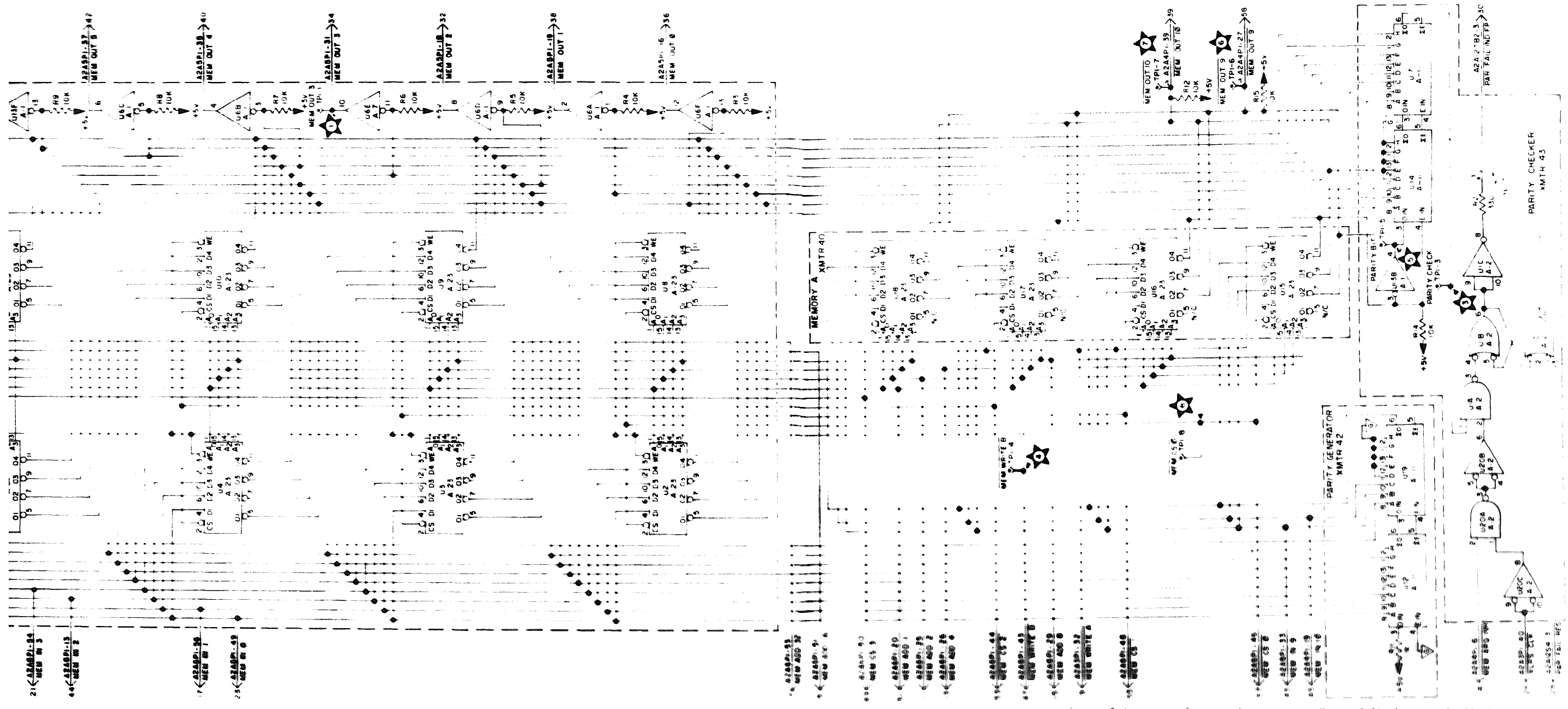


Figure A-45. Logic diagram Data Input Code and Memory Counter A2A6 Assembly ON199512





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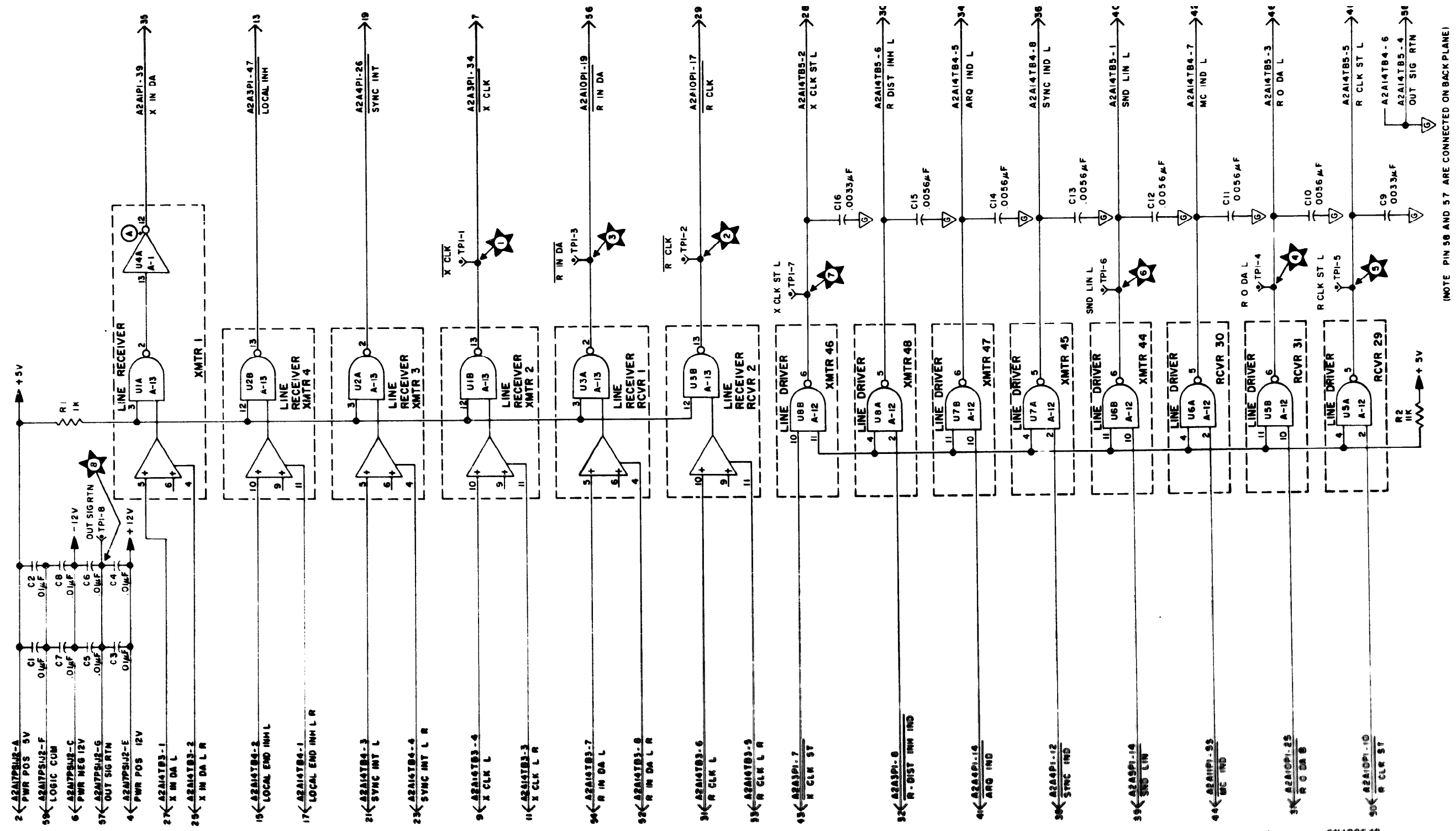
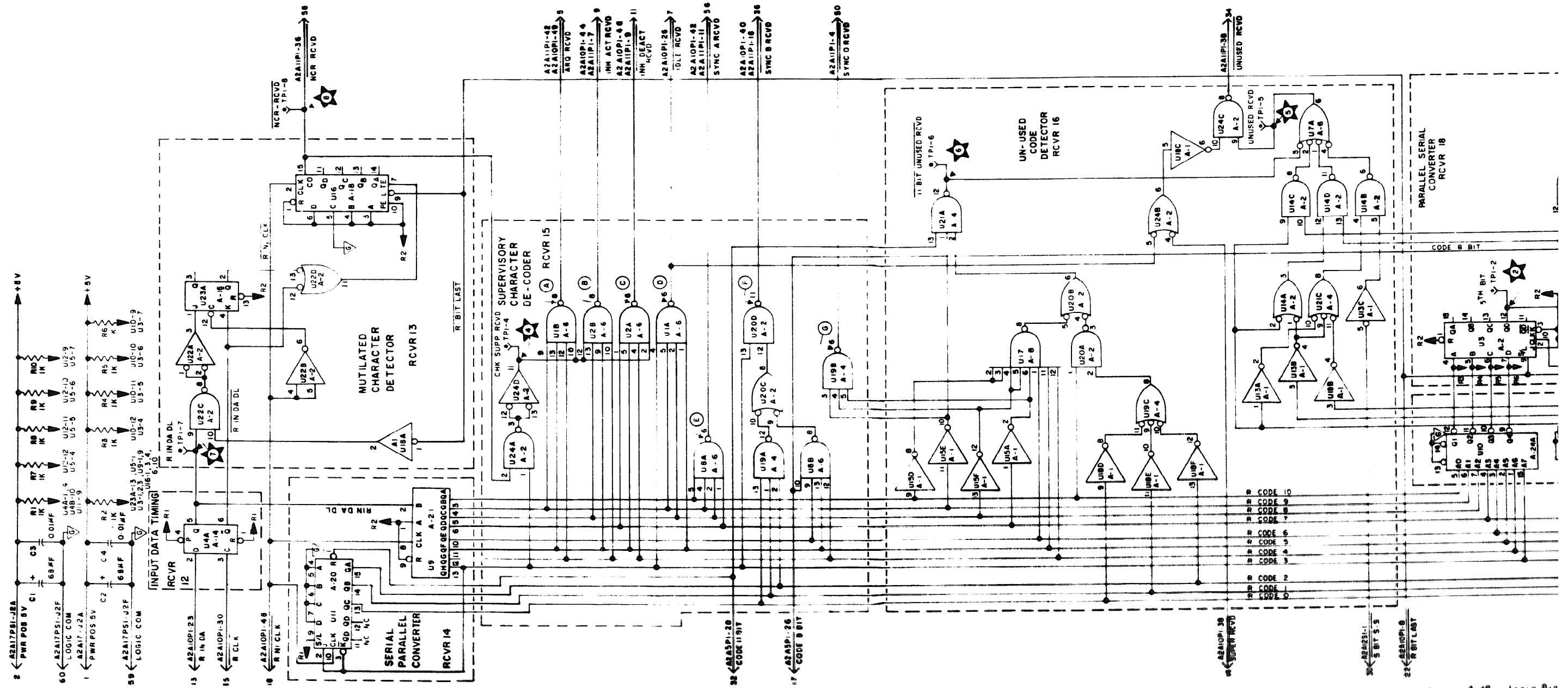


Figure A-47. Logic Diagram Lever Converter A2A6 Assembly OM199548



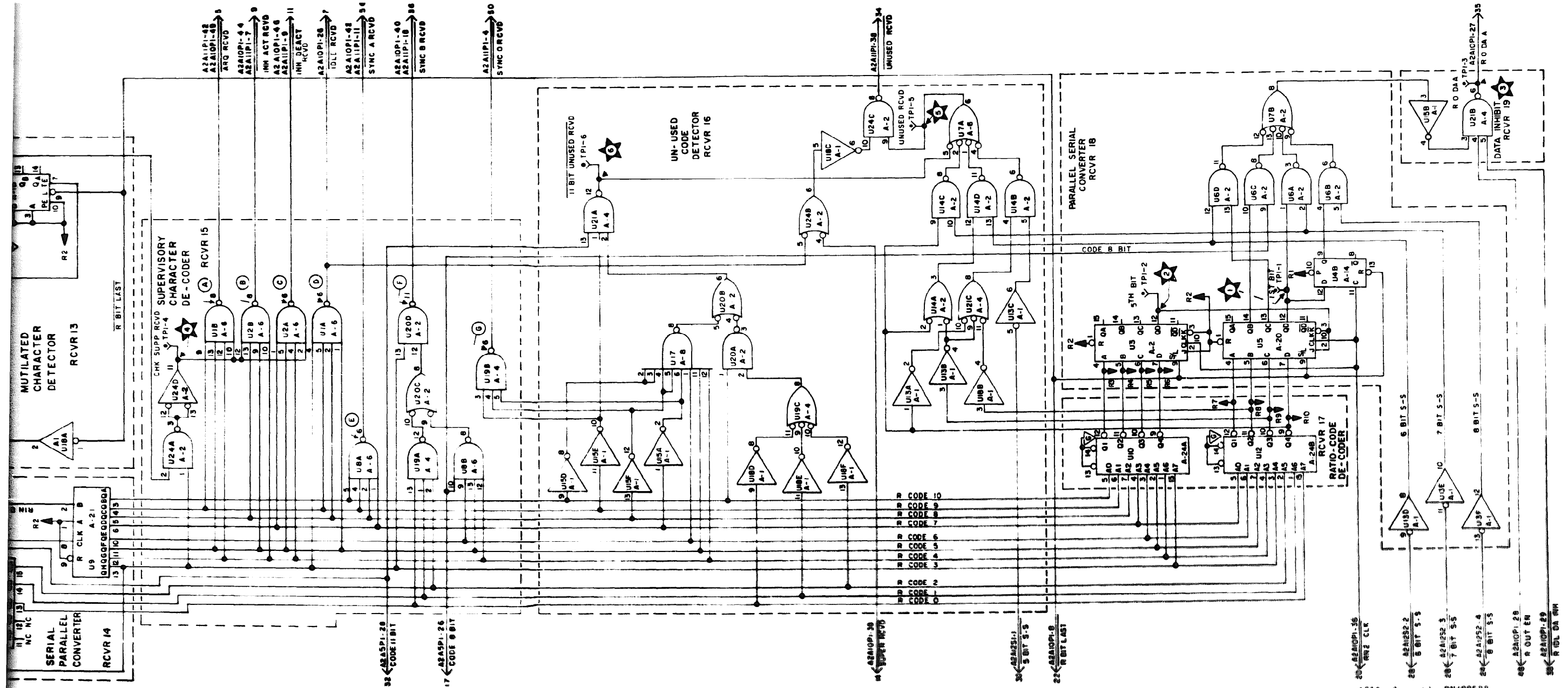
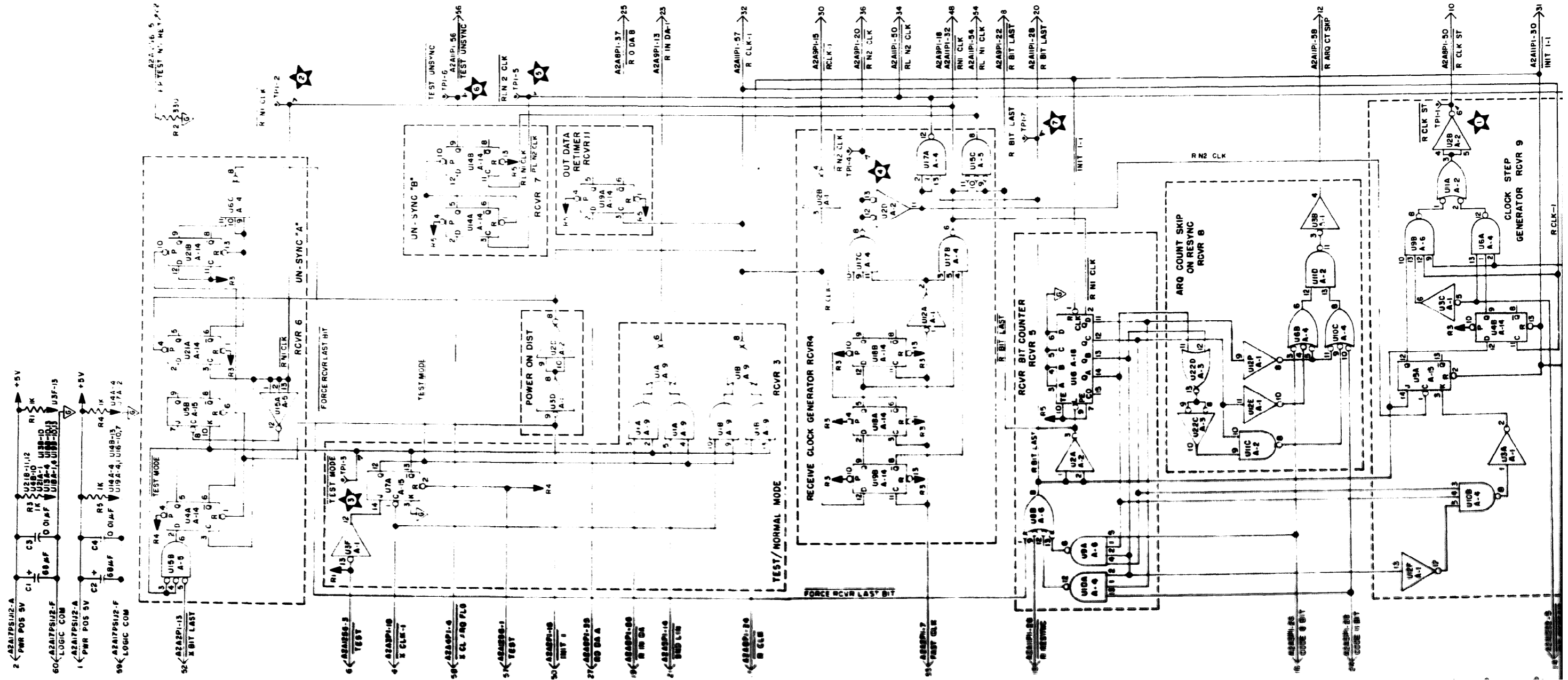


Figure A-48. Logic Diagram Rcvr Data Processor A2A9, Assembly ON199533



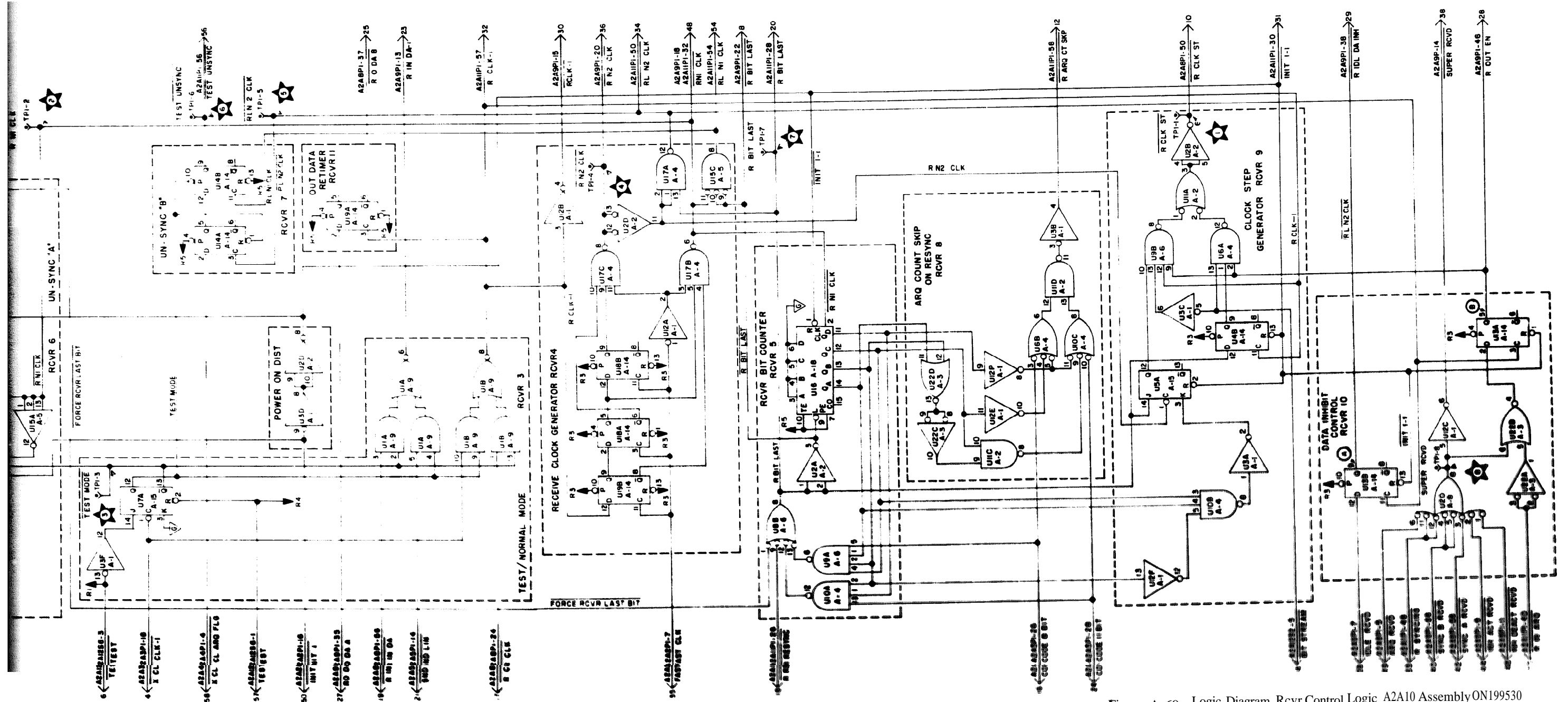
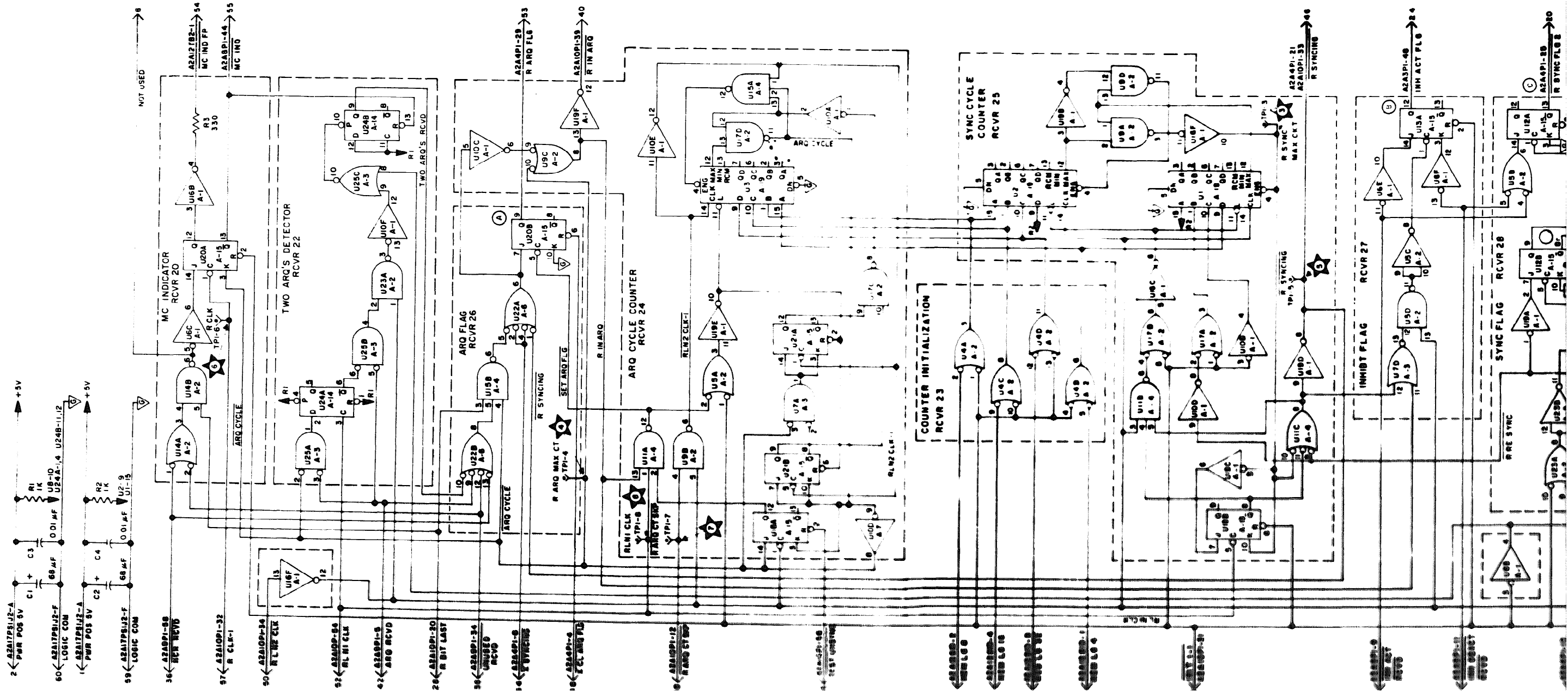


Figure A 69. Logic Diagram Rcvr Control Logic A2A10 Assembly ON19530



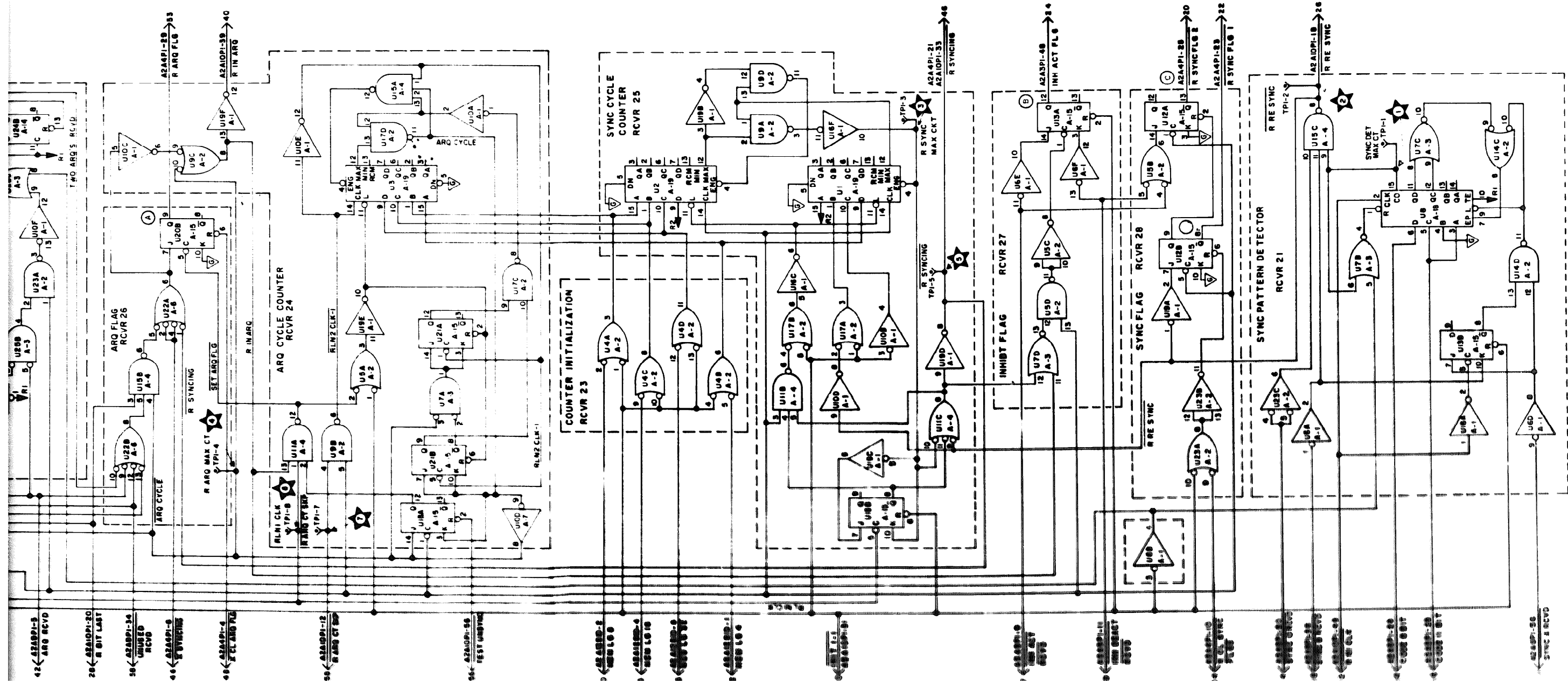
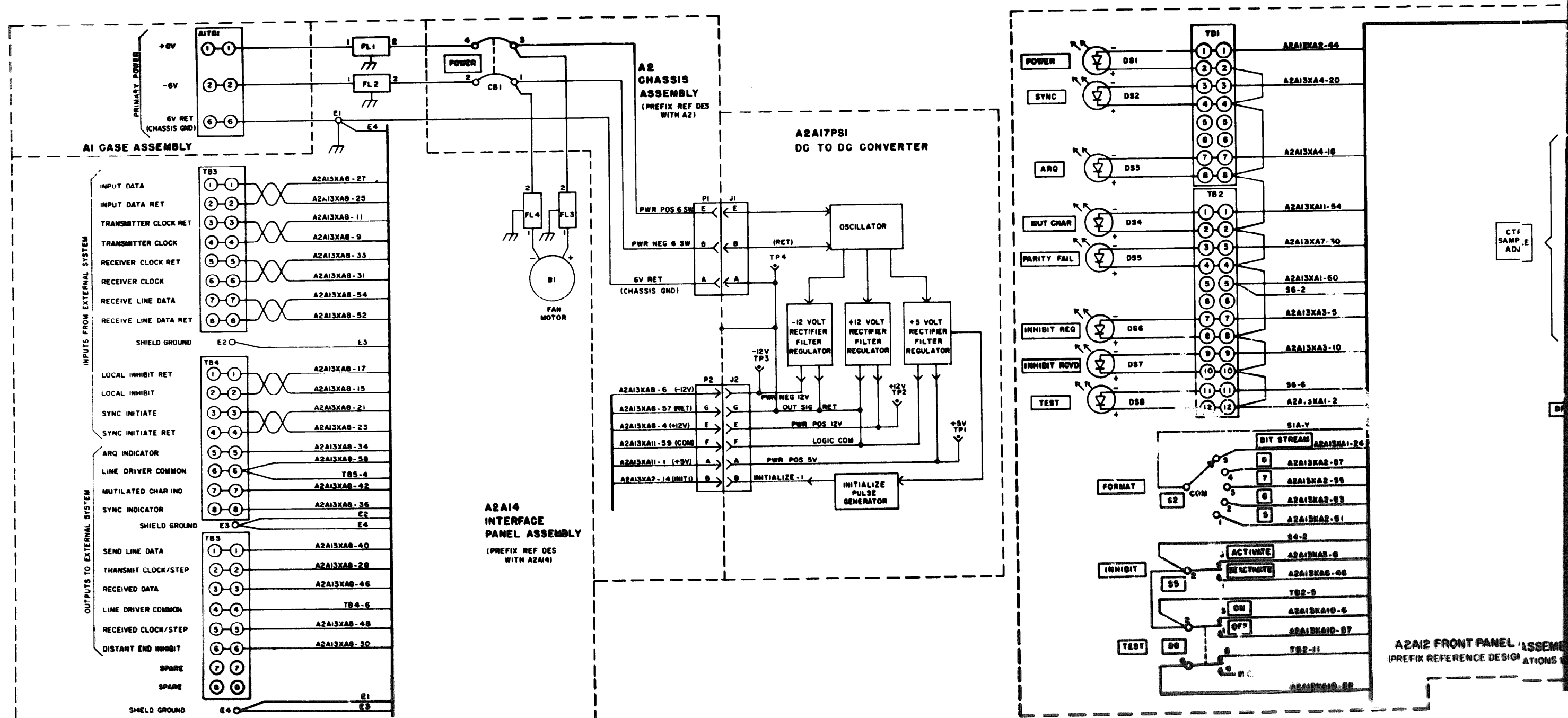


Figure A 70 Logic Diagram Revr ARO and Sync Control IA3A11 Assembly ON199561



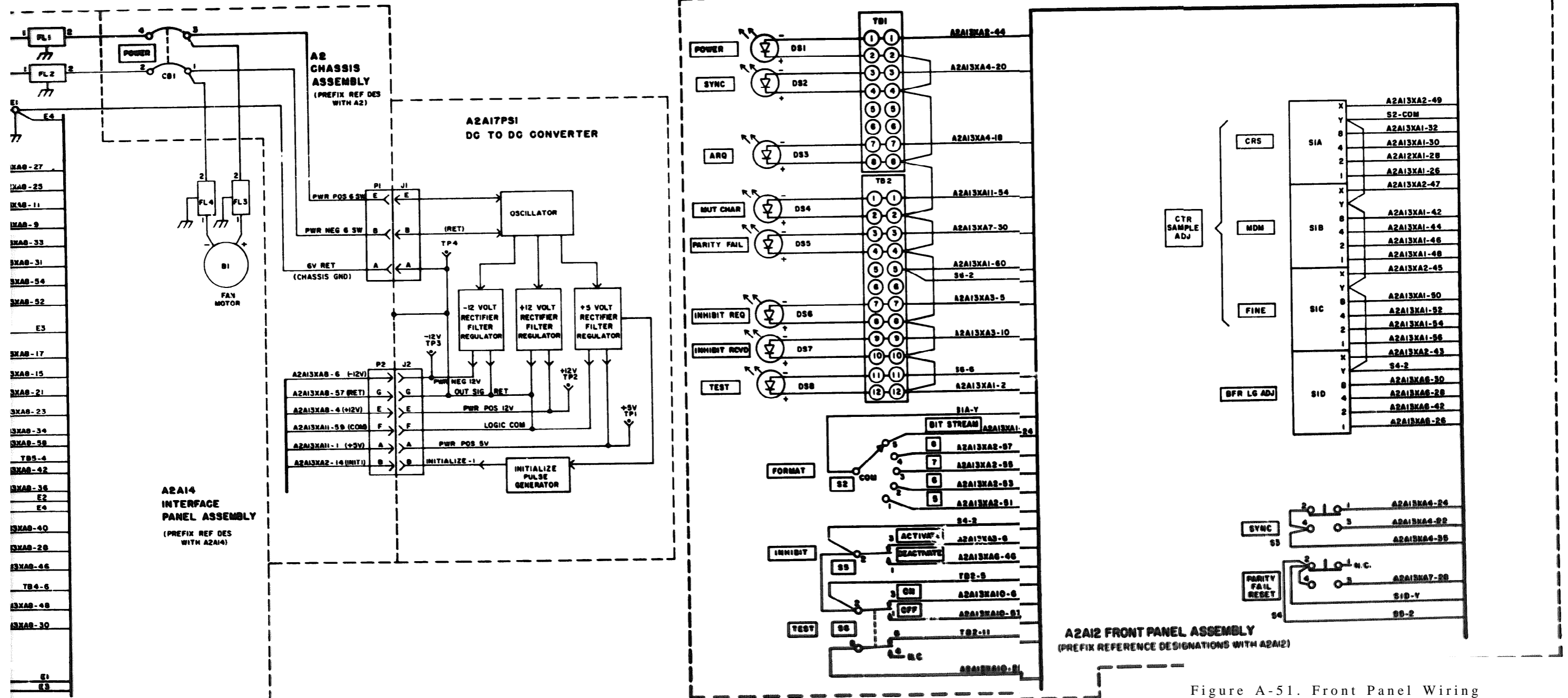


Figure A-51. Front Panel Wiring

XA1		XA2		XA3		XA4		XA5		XA6		XA7	
A2A12TB2-2	2 1	XA1-1	2 1	XA2-1	2 1	XA3-1	2 1	XA4-1	2 1	XA5-1	2 1	XA6-1	2 1
XA1-1	4 3	XA2-2	4 3	XA3-2	4 3	XA4-2	4 3	XA5-2	4 3	XA6-2	4 3	XA7-2	4 3
	6 5		6 5	XA3-11	6 5	XA3-11	6 5	XA3-42	6 5	XA3-42	6 5	XA5-12	6 5
	8 7		8 7	XA1-47	8 7	XA1-47	8 7	XA2-55	8 7	XA2-55	8 7	XA7-35	8 7
	10 9	XA3-4	10 9	XA1-43	10 9	XA1-43	10 9	XA3-26	10 9	XA3-26	10 9	XA9-26	10 9
	12 11	XA6-4	12 11	XA3-25	12 11	XA3-25	12 11	XA4-8	12 11	XA4-8	12 11	XA8-21	12 11
	14 13	XA2-42	14 13	XA3-16	14 13	XA3-16	14 13	XA11-44	14 13	XA11-44	14 13	XA7-19	14 13
	16 15	XA5-17	16 15	XA3-20	16 15	XA3-20	16 15	XA2-20	16 15	XA2-20	16 15	XA7-25	16 15
	18 17	XA5-22	18 17	XA3-13	18 17	XA3-13	18 17	XA3-41	18 17	XA3-41	18 17	XA2-22	18 17
	20 19	XA5-52	20 19	A2P2-8	20 19	A2P2-8	20 19	XA7-49	20 19	XA7-49	20 19	XA3-14	20 19
	22 21	XA5-8	22 21	XA1-22	22 21	XA1-22	22 21	XA1-15	22 21	XA1-15	22 21	XA10-50	22 21
XA2-16	24 23		24 23	XA3-14	24 23	XA3-14	24 23	XA7-32	24 23	XA7-32	24 23	XA4-41	24 23
XA2-40	26 25	XA2-28	26 25	XA3-32	26 25	XA3-32	26 25	XA7-50	26 25	XA7-50	26 25	XA7-51	26 25
A2A12S2-5	28 27		28 27	XA5-11	28 27	XA5-11	28 27	XA1-17	28 27	XA1-17	28 27	XA2-54	28 27
A2A12S1A-1	30 29		30 29	XA6-14	30 29	XA6-14	30 29	XA2-51	30 29	XA2-51	30 29	XA3-30	30 29
A2A12S1A-2	32 31		32 31	XA3-18	32 31	XA3-18	32 31	XA6-23	32 31	XA6-23	32 31	XA1-12	32 31
A2A12S1A-4	34 33		34 33	XA3-43	34 33	XA3-43	34 33	XA2-32	34 33	XA2-32	34 33	A2A12S2-1	34 33
A2A12S1A-8	36 35		36 35	XA1-25	36 35	XA1-25	36 35	XA8-9	36 35	XA8-9	36 35	XA1-9	36 35
	38 37		38 37	XA3-36	38 37	XA3-36	38 37	XA9-17	38 37	XA9-17	38 37	A2A12S2-4	38 37
	40 39	XA8-38	40 39	XA5-28	40 39	XA5-28	40 39	XA2-30	40 39	XA2-30	40 39	XA11-3	40 39
	42 41	XA3-57	42 41	XA6-22	42 41	XA6-22	42 41	XA9-32	42 41	XA9-32	42 41	A2A12S2-8	42 41
	44 43	XA2-7	44 43	XA3-15	44 43	XA3-15	44 43		44 43		44 43	XA7-34	44 43
	46 45	XA3-9	46 45	XA3-29	46 45	XA3-29	46 45		46 45		46 45	XAT-46	46 45
	48 47	XA2-5	48 47	XA1-24	48 47	XA1-24	48 47		48 47		48 47	XAT-48	48 47
	50 49	XA8-41	50 49	XA3-48	50 49	XA3-48	50 49		50 49		50 49	XA8-45	50 49
	52 51	XA8-50	52 51	XA1-38	52 51	XA1-38	52 51		52 51		52 51	XA7-18	52 51
	54 53	XA3-81	54 53	XA1-15	54 53	XA1-15	54 53		54 53		54 53	XA7-15	54 53
	56 55	XA2-49	56 55	A2A12T81-1	56 55	A2A12T81-1	56 55		56 55		56 55	XA7-18	56 55
	58 57	XA8-58	58 57		58 57		58 57		58 57		58 57	XA7-15	58 57
	60 59	XA1-60	60 59		60 59		60 59		60 59		60 59	XA7-15	60 59
	62 61	XA2-50	62 61		62 61		62 61		62 61		62 61	XA7-15	62 61
	64 63	XA2-50	64 63		64 63		64 63		64 63		64 63	XA7-15	64 63
	66 65	XA2-49	66 65		66 65		66 65		66 65		66 65	XA7-15	66 65
	68 67	XA1-60	68 67		68 67		68 67		68 67		68 67	XA7-15	68 67
	70 69	XA2-50	70 69		70 69		70 69		70 69		70 69	XA7-15	70 69
	72 71	XA2-50	72 71		72 71		72 71		72 71		72 71	XA7-15	72 71
	74 73	XA2-50	74 73		74 73		74 73		74 73		74 73	XA7-15	74 73
	76 75	XA2-50	76 75		76 75		76 75		76 75		76 75	XA7-15	76 75
	78 77	XA2-50	78 77		78 77		78 77		78 77		78 77	XA7-15	78 77
	80 79	XA2-50	80 79		80 79		80 79		80 79		80 79	XA7-15	80 79
	82 81	XA2-50	82 81		82 81		82 81		82 81		82 81	XA7-15	82 81
	84 83	XA2-50	84 83		84 83		84 83		84 83		84 83	XA7-15	84 83
	86 85	XA2-50	86 85		86 85		86 85		86 85		86 85	XA7-15	86 85
	88 87	XA2-50	88 87		88 87		88 87		88 87		88 87	XA7-15	88 87
	90 89	XA2-50	90 89		90 89		90 89		90 89		90 89	XA7-15	90 89
	92 91	XA2-50	92 91		92 91		92 91		92 91		92 91	XA7-15	92 91
	94 93	XA2-50	94 93		94 93		94 93		94 93		94 93	XA7-15	94 93
	96 95	XA2-50	96 95		96 95		96 95		96 95		96 95	XA7-15	96 95
	98 97	XA2-50	98 97		98 97		98 97		98 97		98 97	XA7-15	98 97
	100 99	XA2-50	100 99		100 99		100 99		100 99		100 99	XA7-15	100 99

(PREFIX ALL XA DESIGNATIONS WITH A2A13, EG
XA3-4 IS ABBREVIATION OF A2A13S4-4)

A2A13 BACK PLANE ASSY

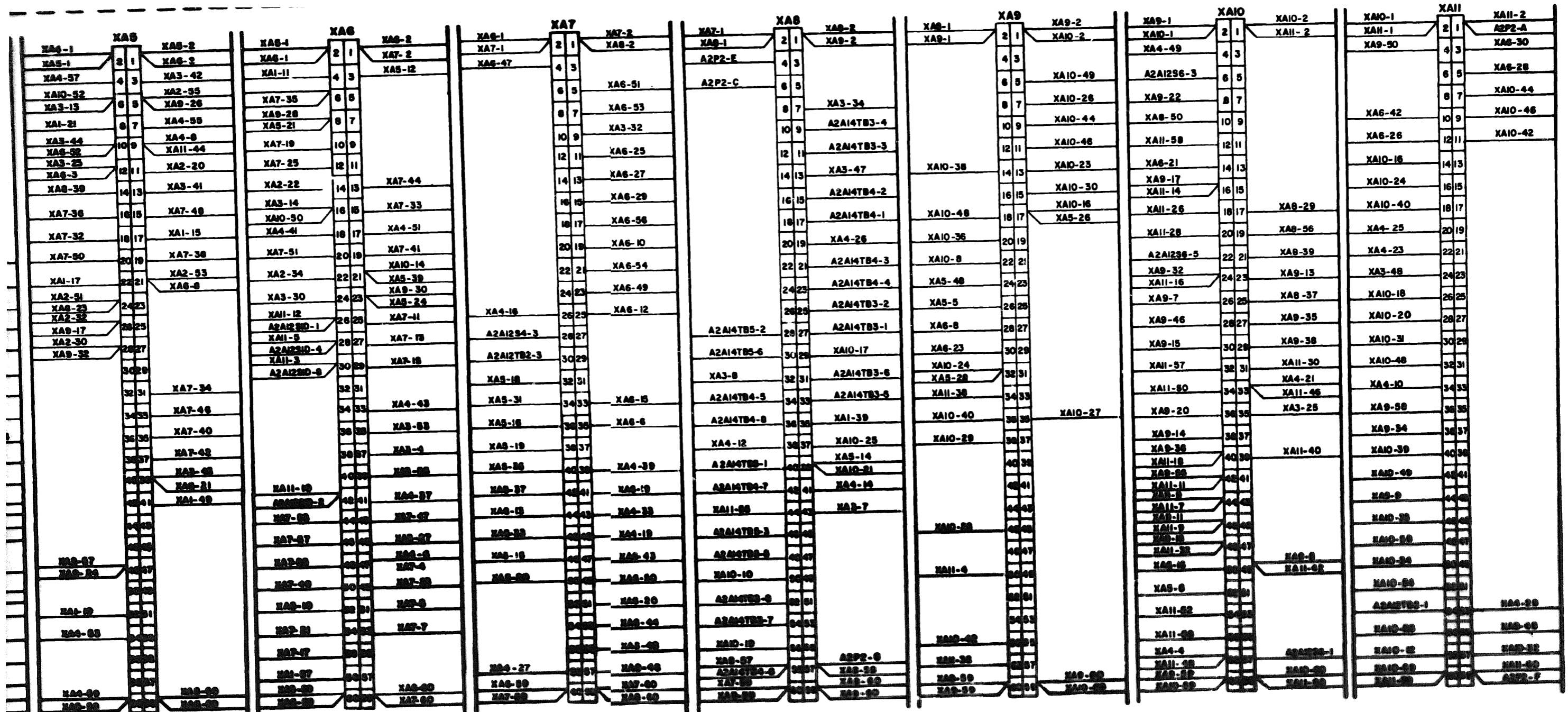
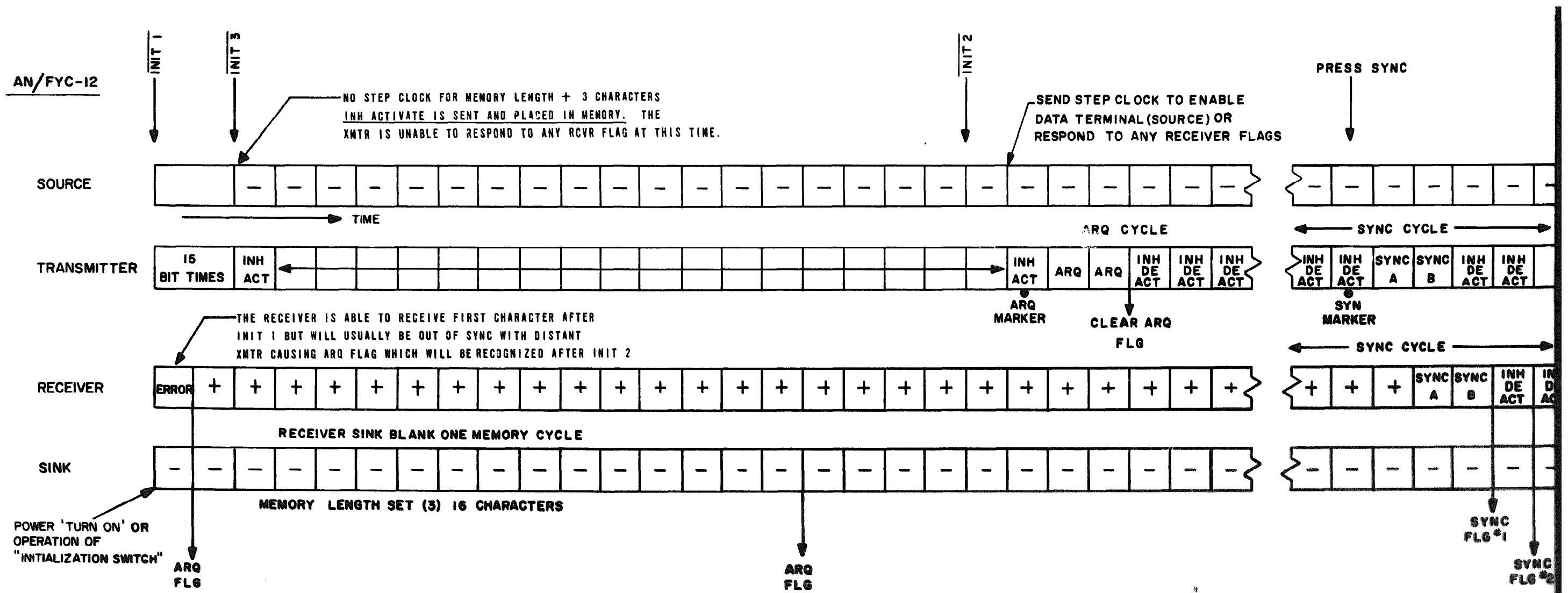


Figure A-52. Back Plane Wiring Diagram

UNCLASSIFIED



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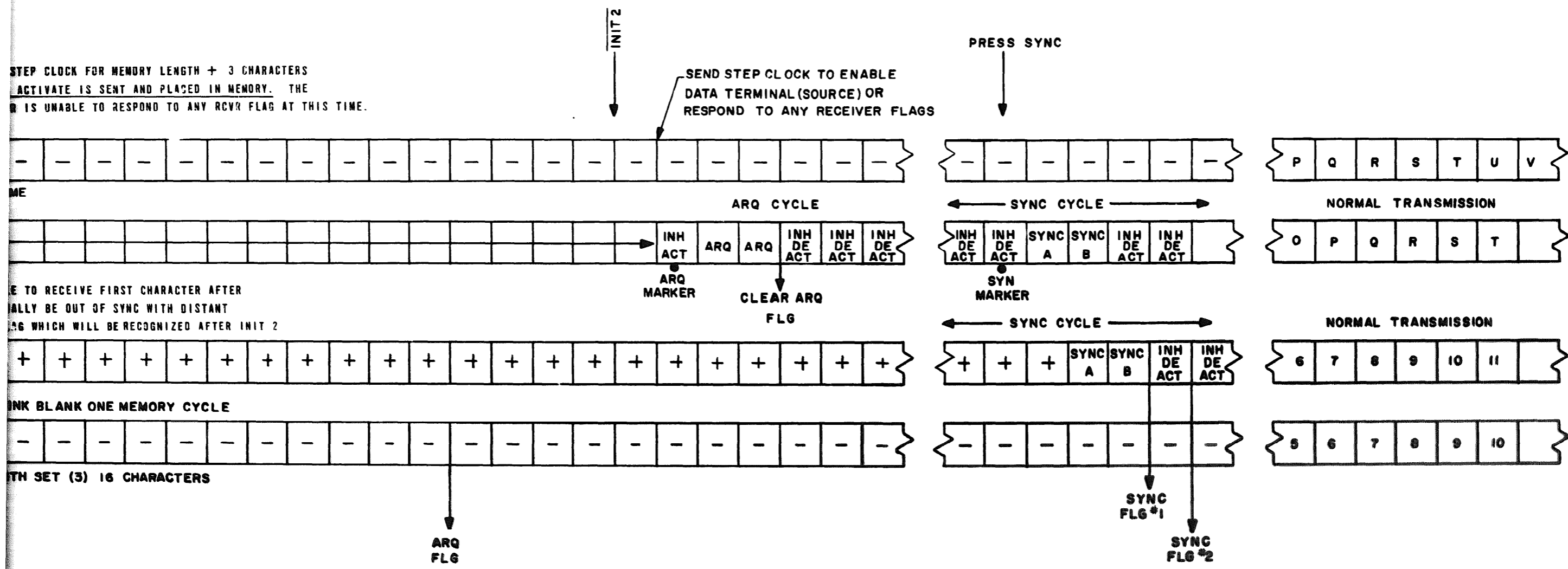
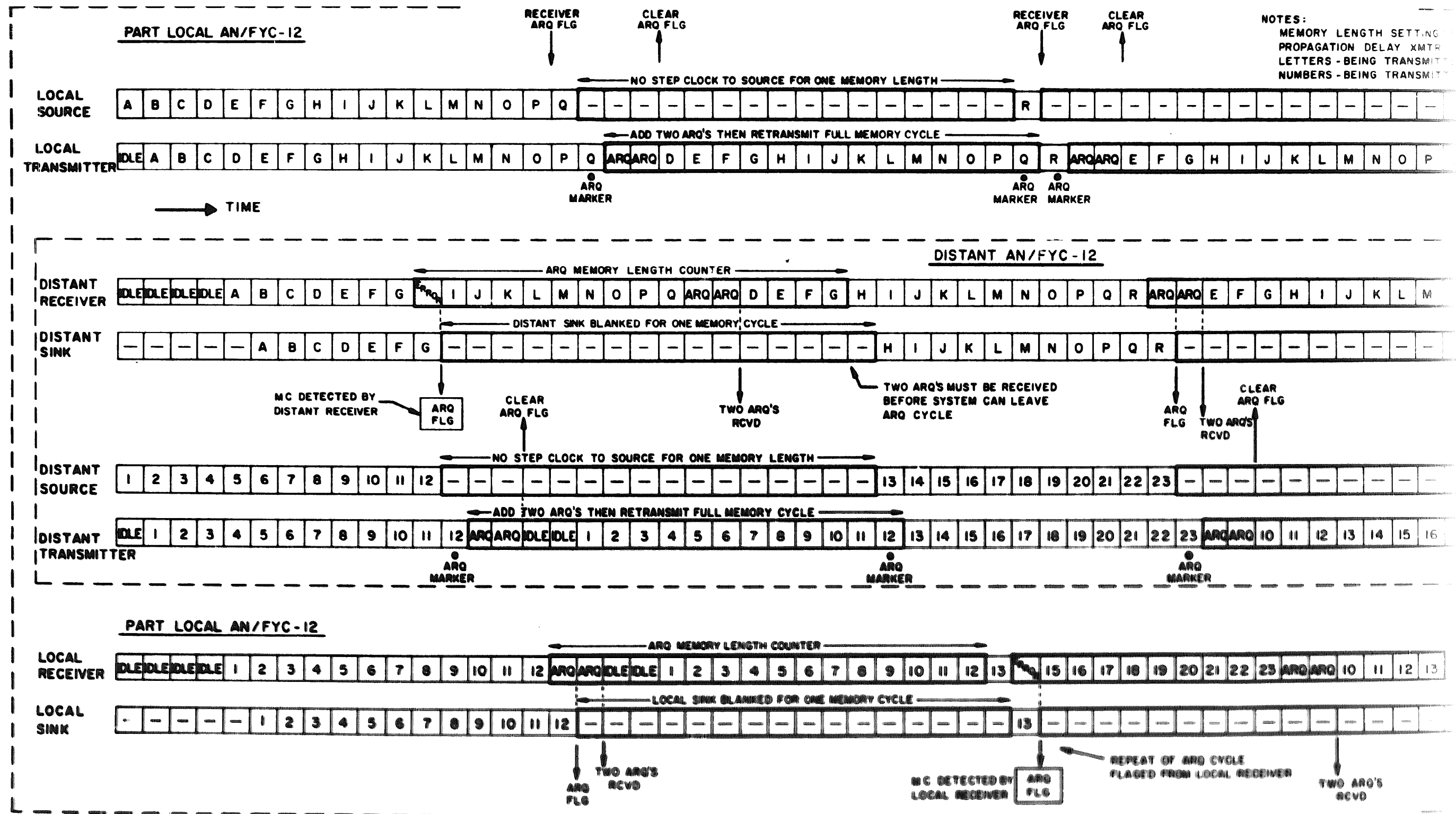


Figure A-53. Initialization Sequence



Figure

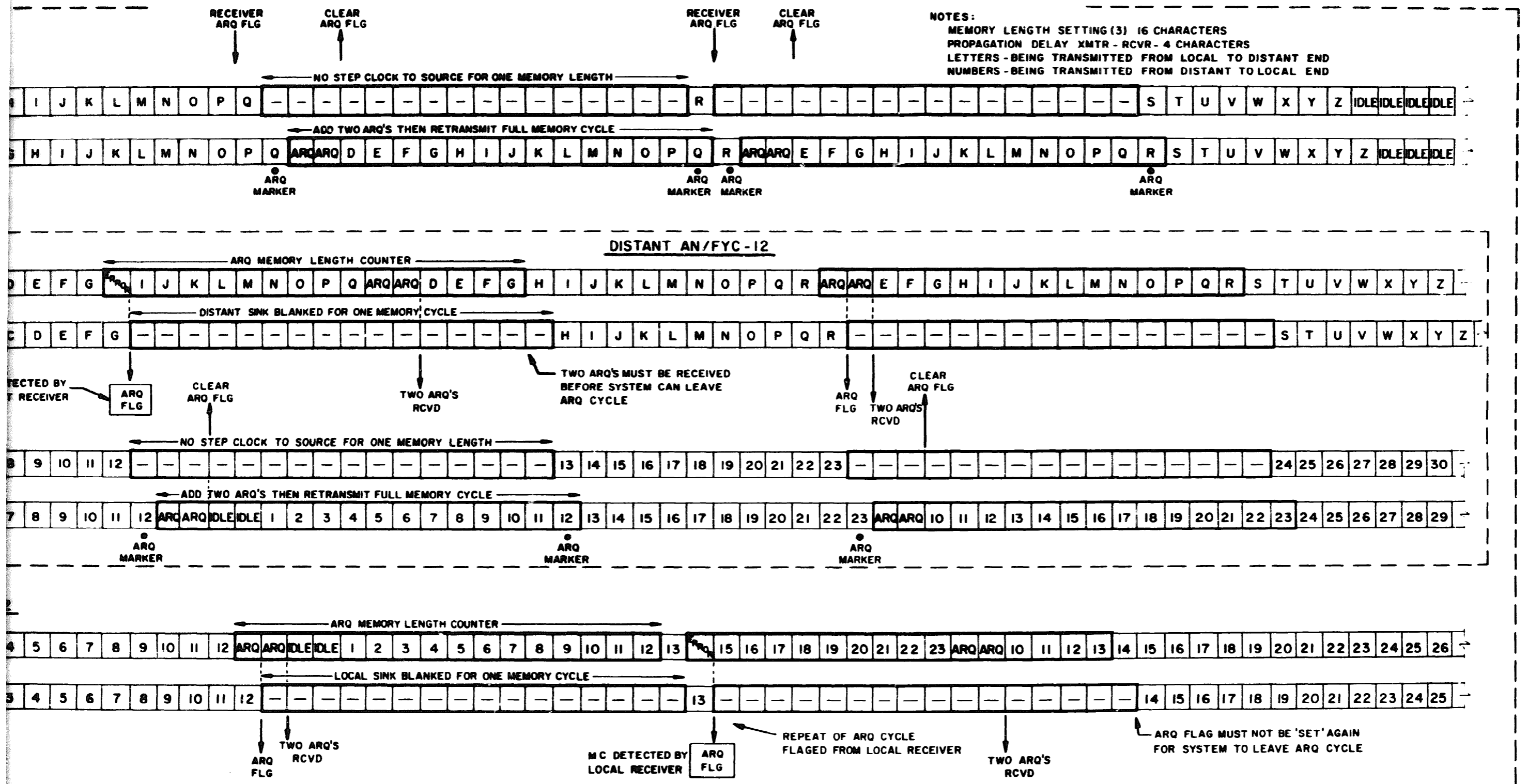
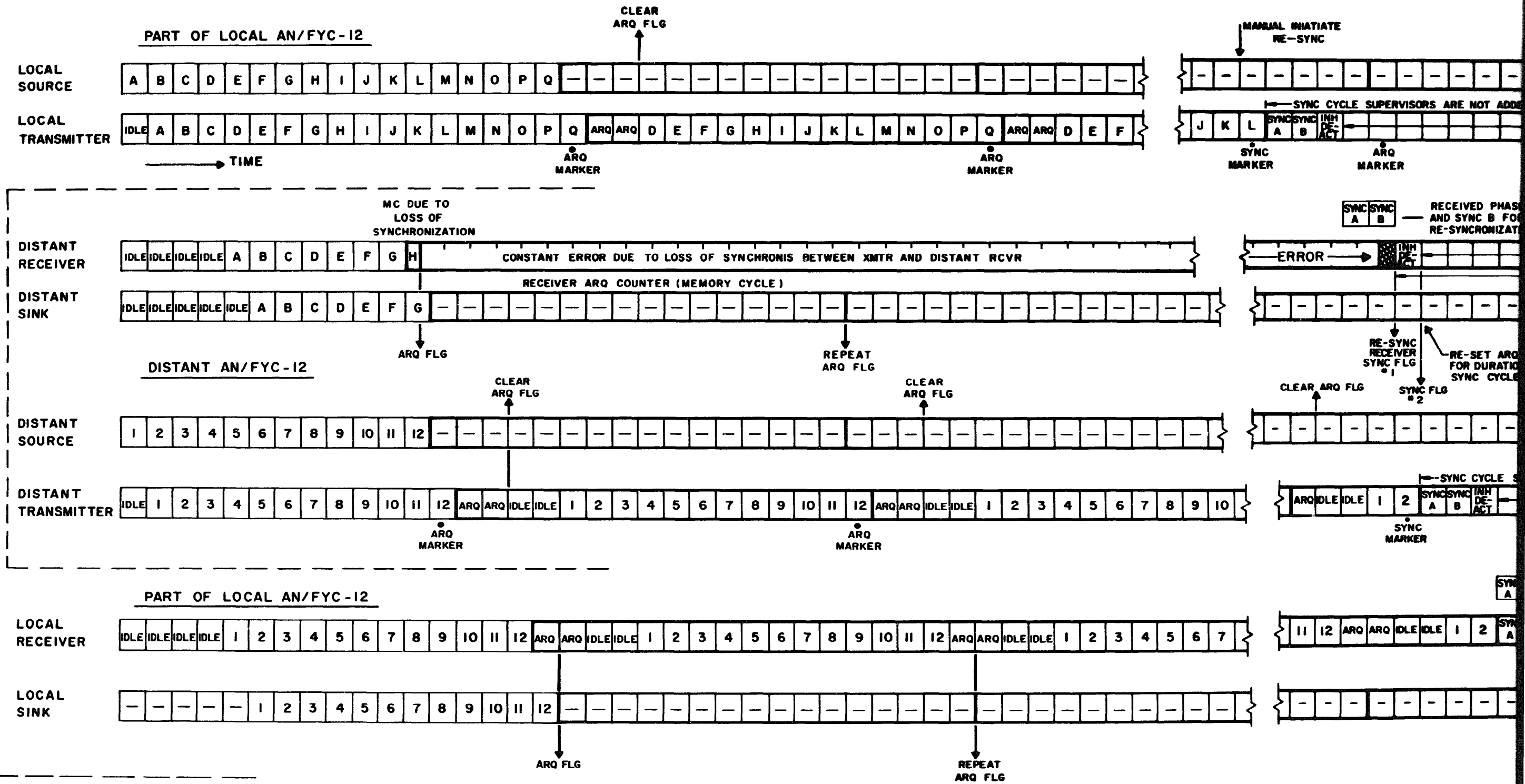


Figure A-54. ARO Cycle Sequence



NOTES:
 MEMORY LENGTH SETTING (3) 16 CHARACTERS
 PROPAGATION DELAY XMTR - RCVR - 4 CHARACTERS
 LETTERS - BEING TRANSMITTED FROM LOCAL TO DISTANT END
 NUMBERS - BEING TRANSMITTED FROM DISTANT TO LOCAL END

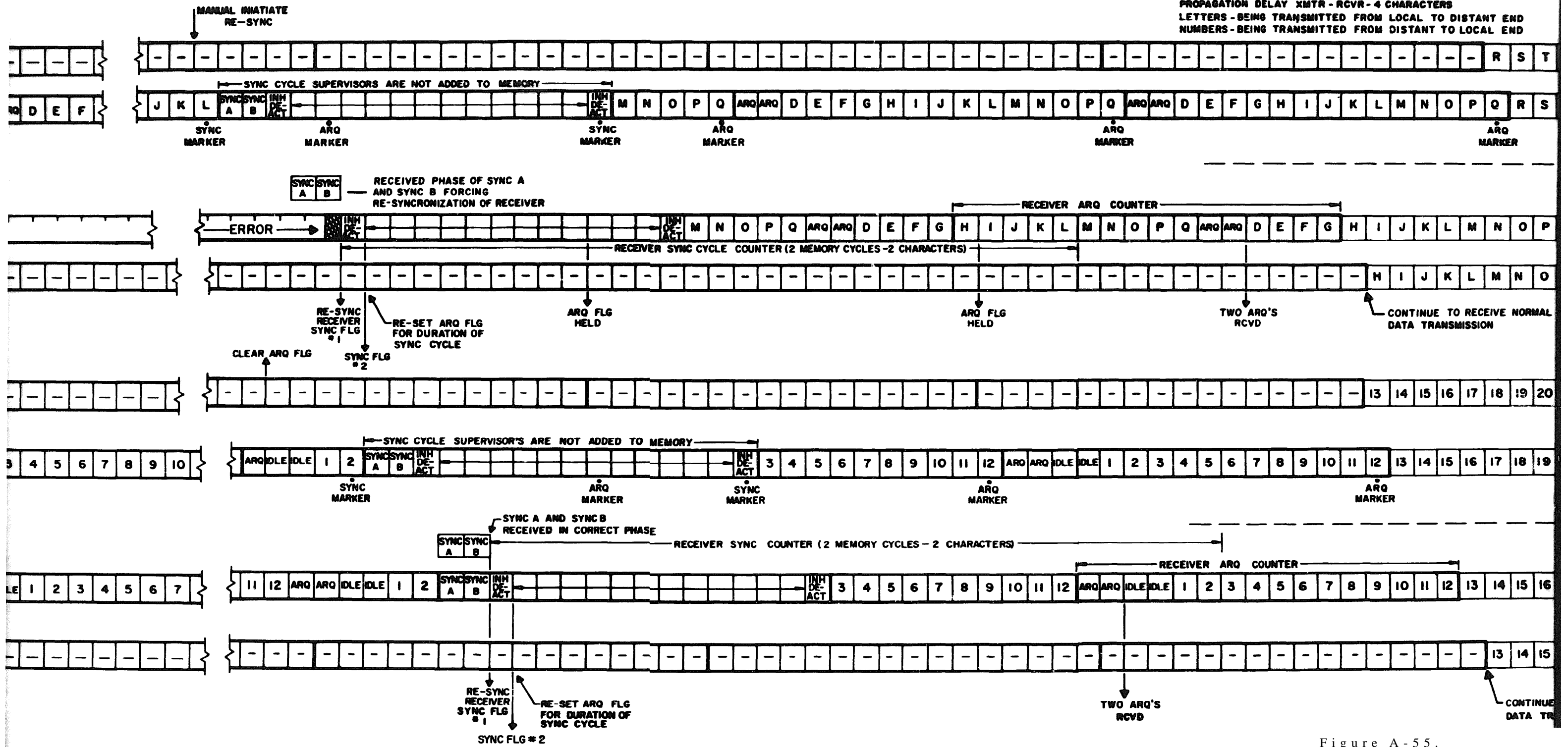


Figure A-55.

NOTES:
 MEMORY LENGTH SETTING (S) 16 CHARACTERS
 PROPAGATION DELAY XMTR - RCVR - 4 CHARACTERS
 LETTERS - BEING TRANSMITTED FROM LOCAL TO DISTANT END
 NUMBERS - BEING TRANSMITTED FROM DISTANT TO LOCAL END

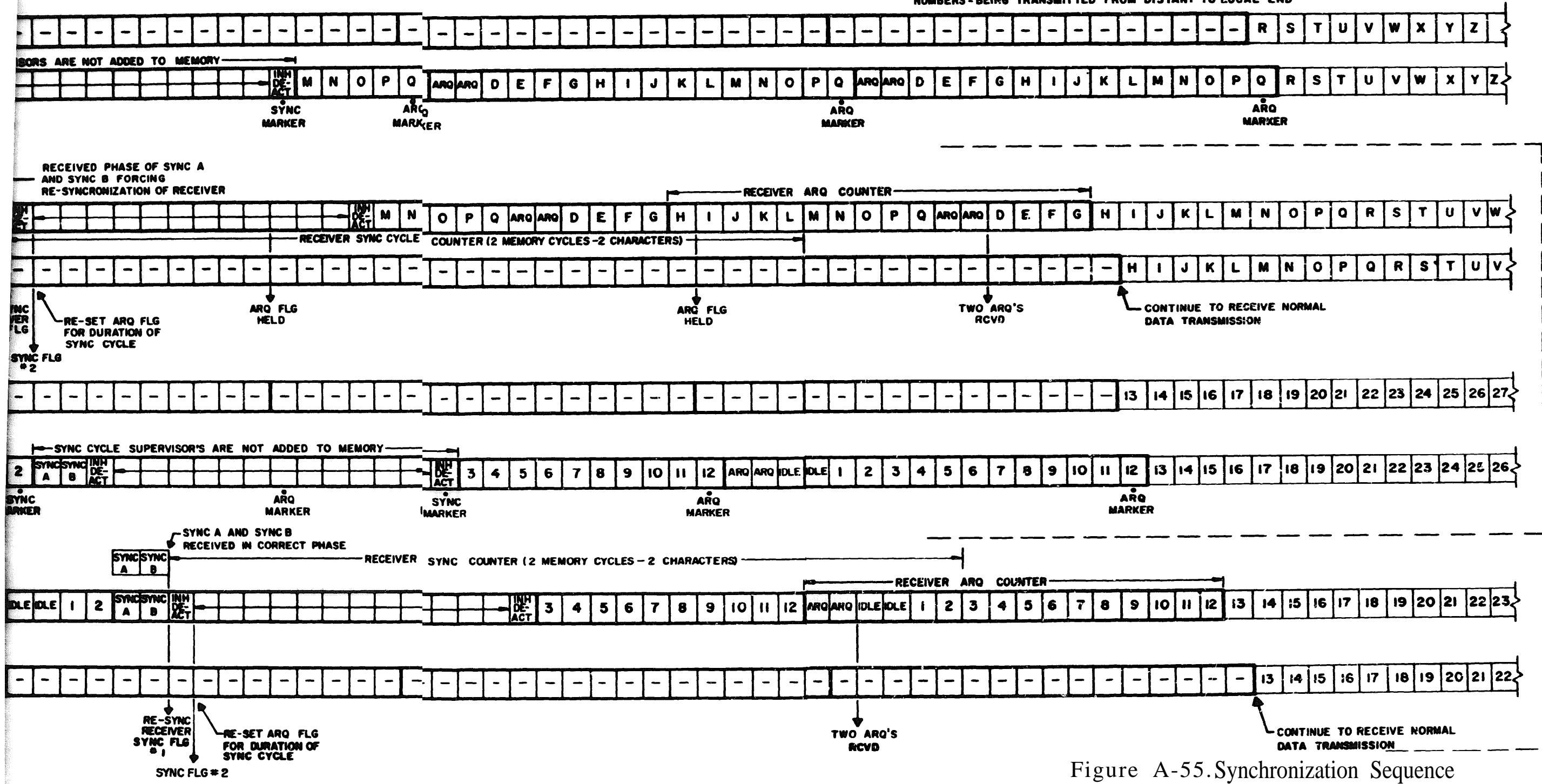
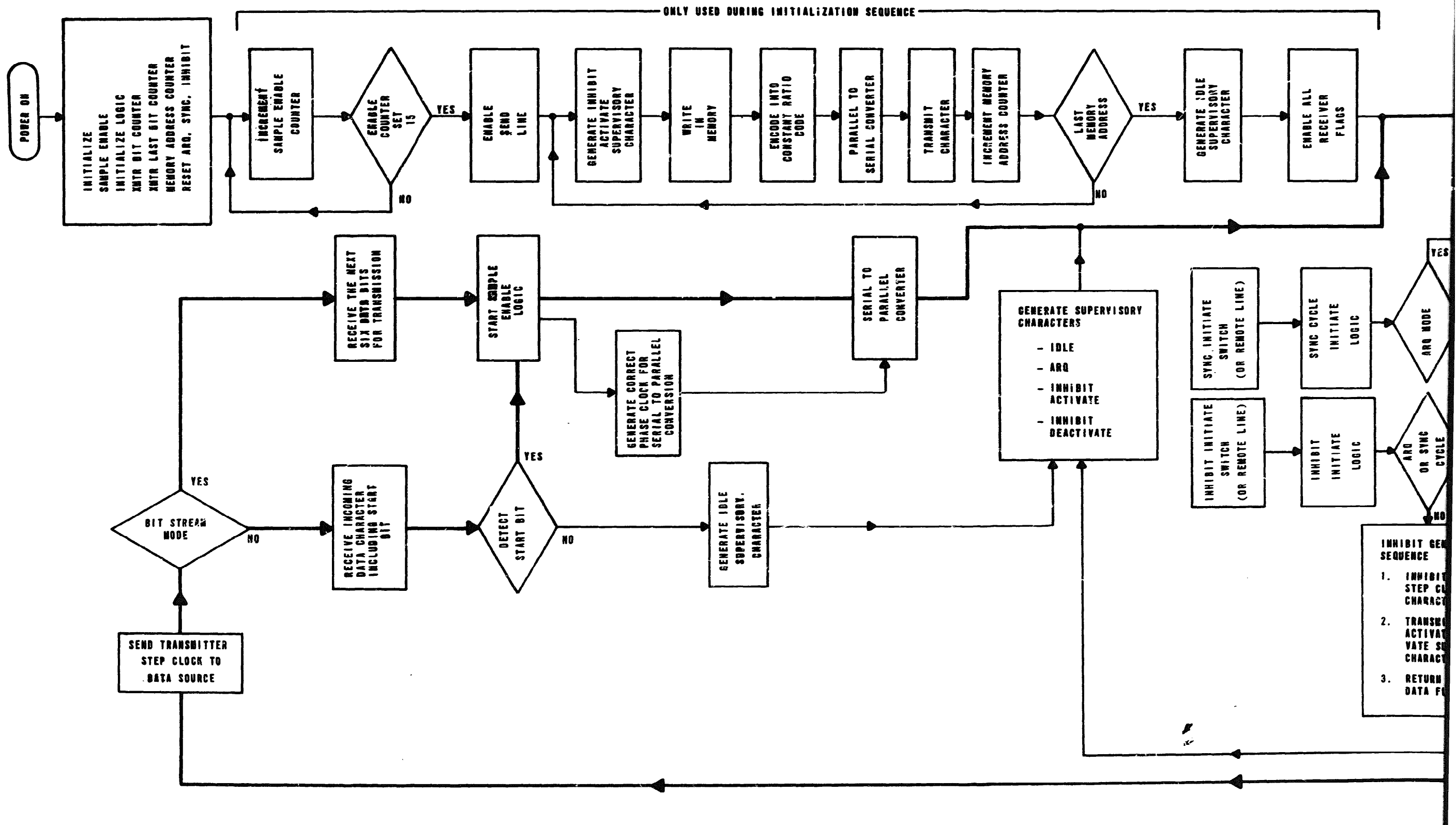
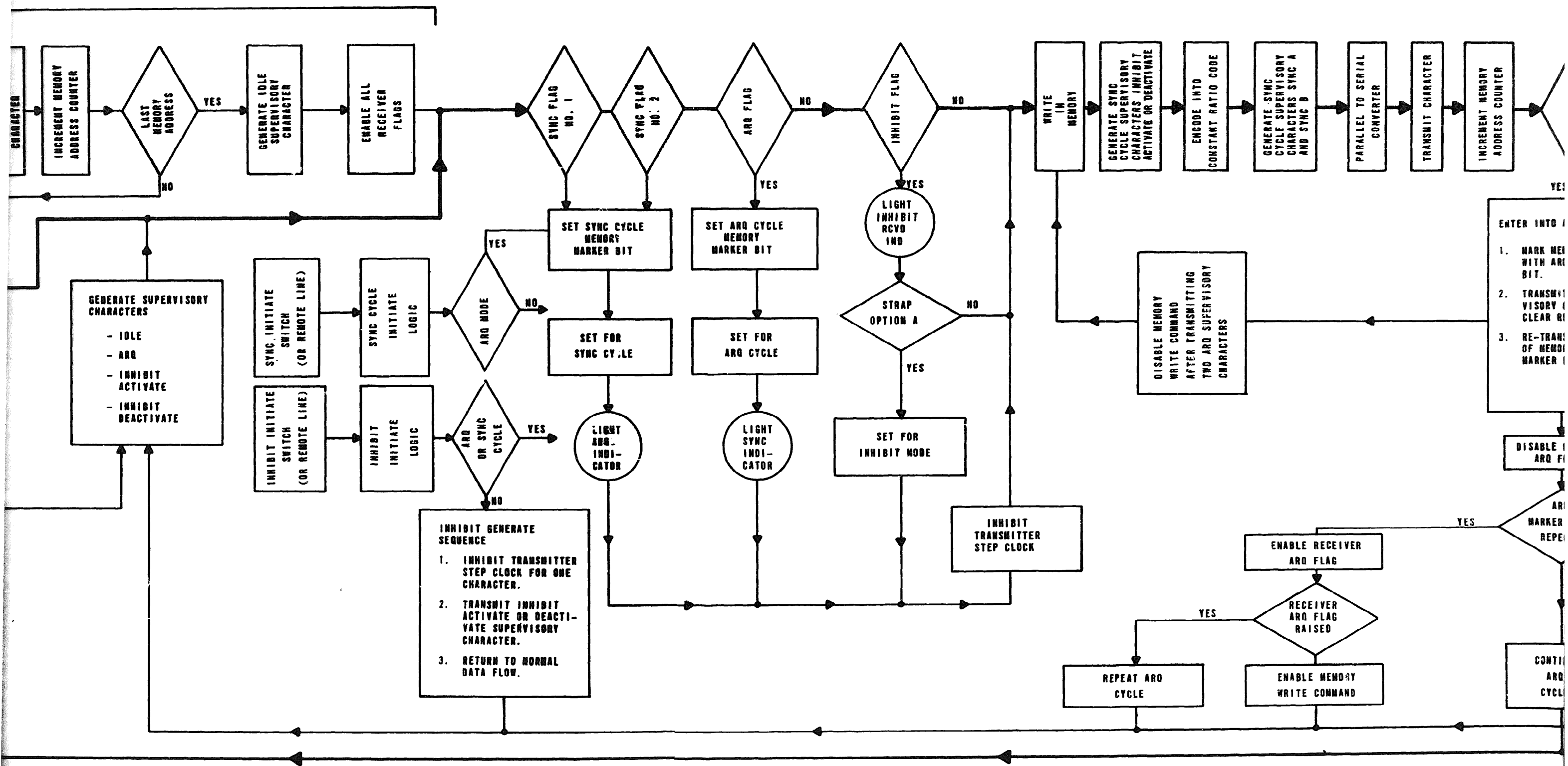


Figure A-55. Synchronization Sequence





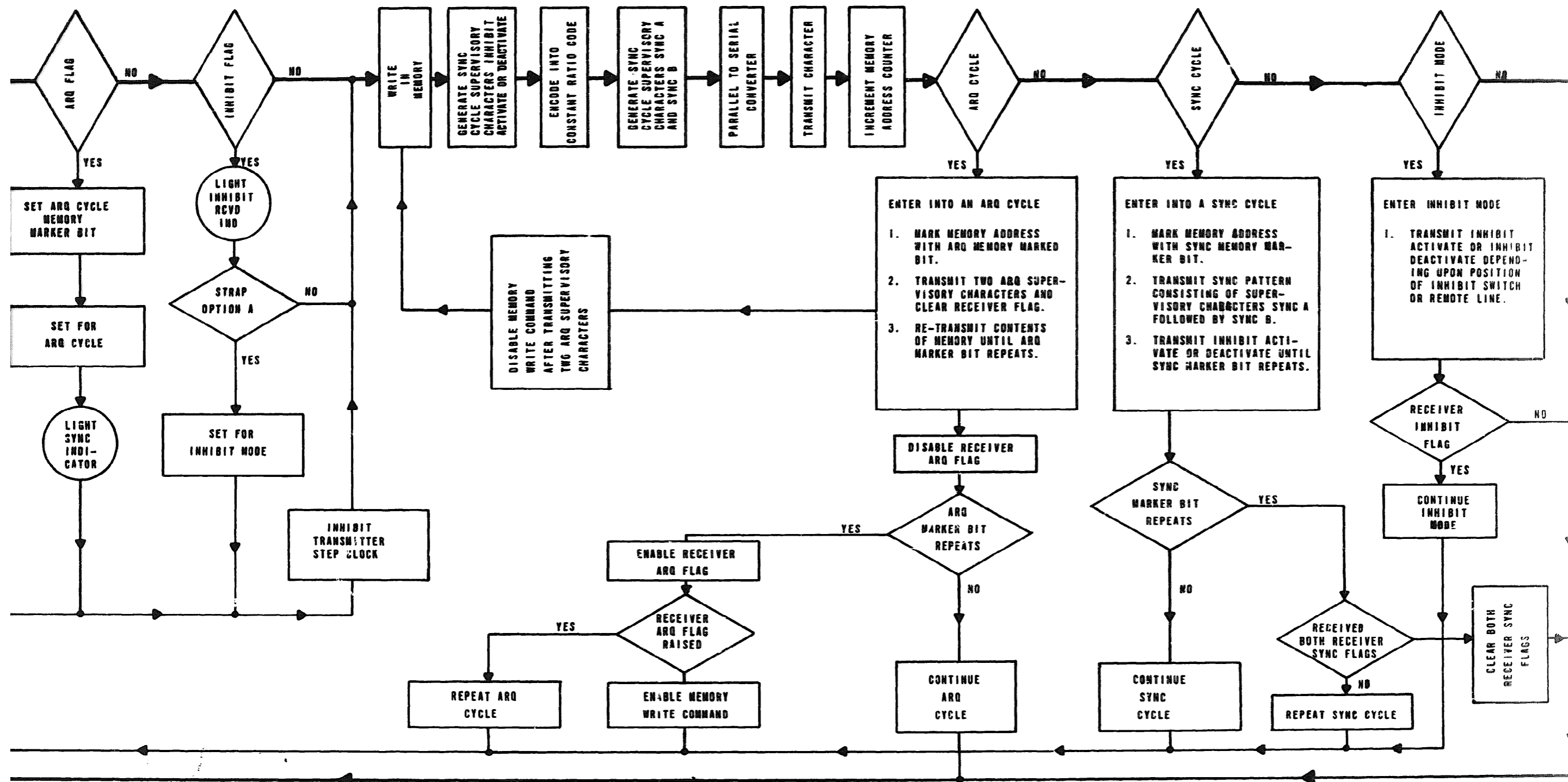
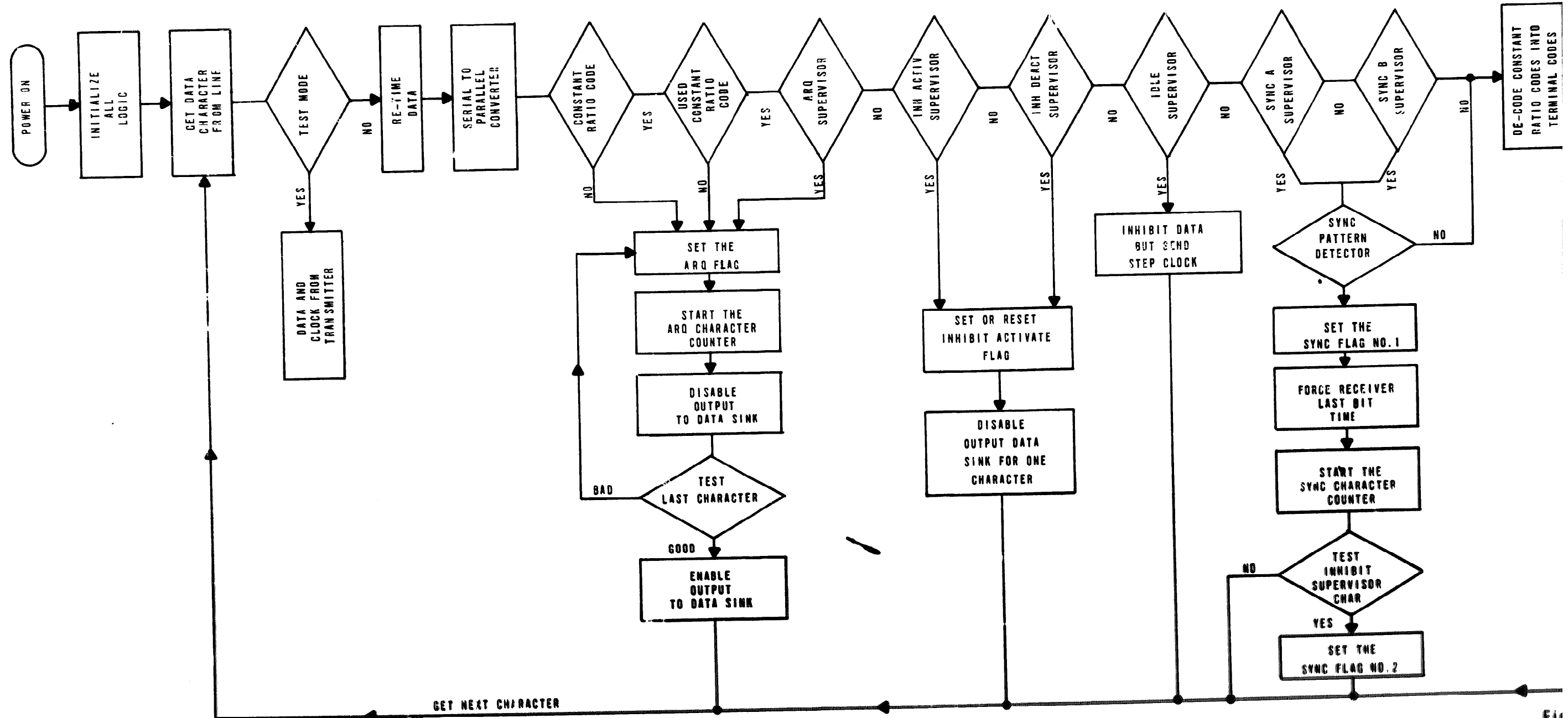


Figure A-56. Transmitter Flow Diagram

UNCLASSIFIED



DE-CODE CONSTANT RATIO CODES INTO TERMINAL CODES

GET NEXT CHARACTER

E11

UNCLASSIFIED

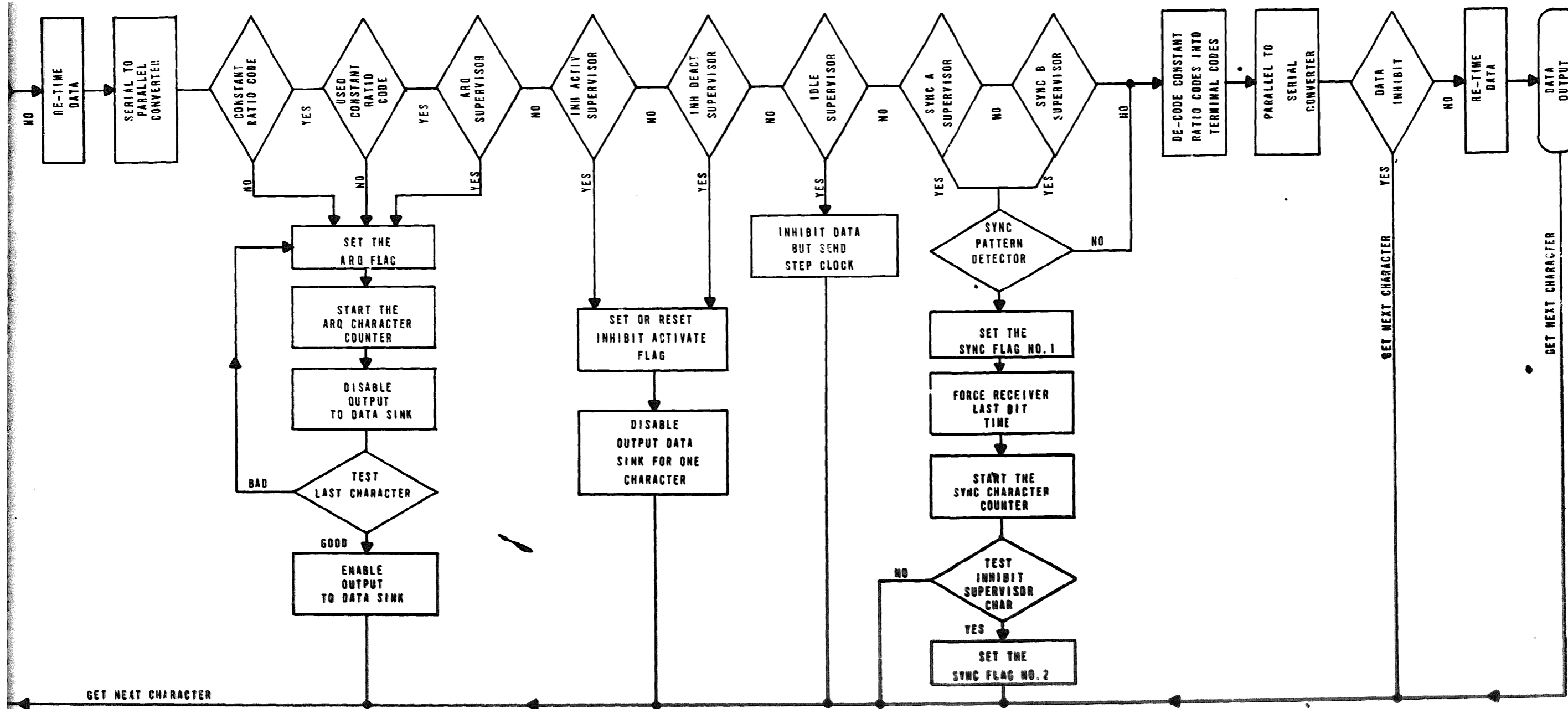
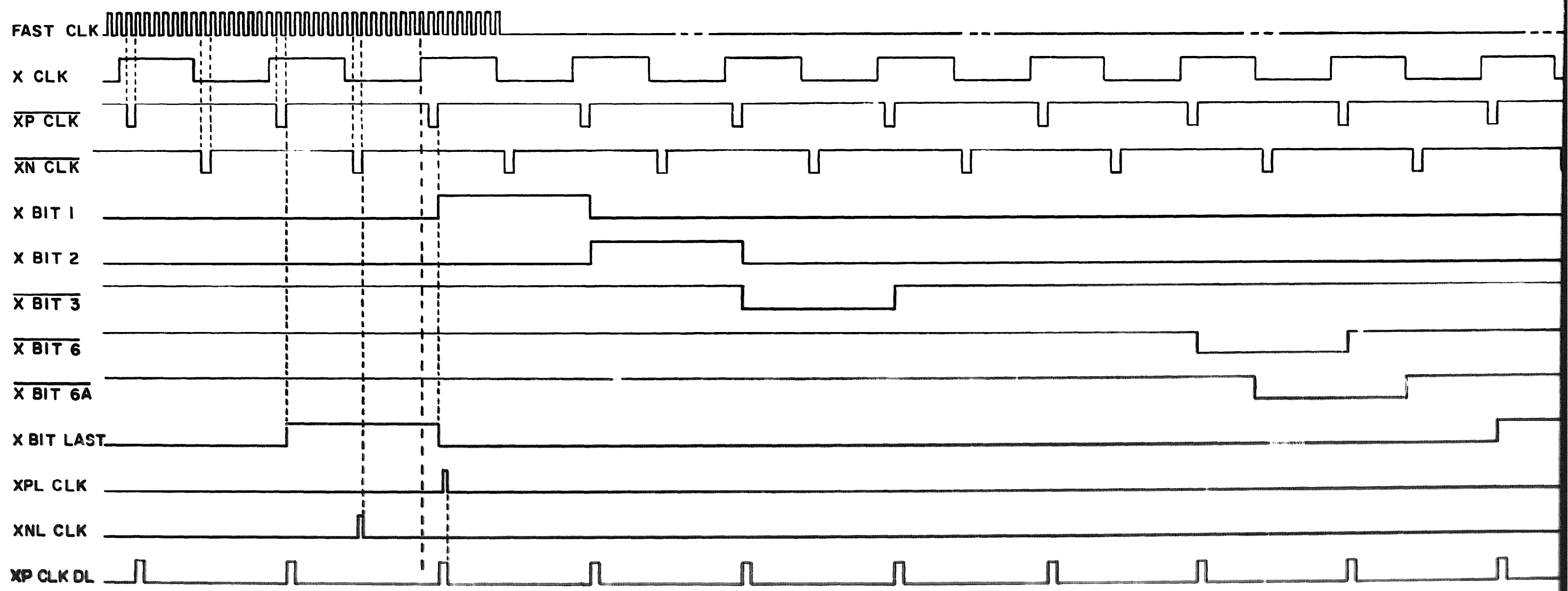


Figure A-57.Revr Flow Diagram

A2A1 DATA SAMPLE GENERATOR	A2A2 DATA BIT GENERATOR AND FAST CLOCK	A2A3 XMTR TIMING AND INHIBIT LOGIC	A2A4 XMTR SYNC AND ARQ CONTROL	A2A5 CONSTANT RATIO CODE GENERATOR	A2A6 MEMORY ADDRESS COUNTER SYNC CYCLE SUPERVISOR GENERATOR	A2A7 MEMORY PARITY LOGIC	A2A8 LINE RECEIVERS LINE DRIVERS	A2A9 RCVR DATA PROCESSOR	A2A10 RCVR CONTROL LOGIC	A2A11 RCVR ARQ AND SYNC CONTROLS	A2A15 DC - DC CONVERTER
① SMPL CTR CLK	① INIT 3	① INH A/D GEN	① X CL SYNC FLGS	① SMPL CTR 2	① MEM ADD 8	① MEM OUT 3	① X CLK	① P/S BIT 1	① R CLK ST	① SYNC DET	① +5 Vdc
② SMPL CTR CLK	② MEM ADD MAX	② X PL CLK	② X CL ARQ FLG	② SMPL CTR 1	② X IN DA DL	② MEM IN 3	② R CLK	② P'S BIT 5	② R NI CLK	② RE-SYNC	② +12Vdc
③ X SP CLK	③ INIT 2	③ X CLK ST	③ MEM ARQ INH	③ SNO LIN	③ MEM IN 8	③ PAR CHK E	③ R IN DA	③ R 0 DA A	③ TEST MODE	③ R SYNC MAX CT	③ -12Vdc
④ X IN DA	④ FAST CLK	④ X P CLK	④ MEM IN 10	④ SMPL CTR 8	④ MEM CS 1	④ MEM WRITE B	④ R 0 DA L	④ R CODE 7 NCR RCVD -ALL-	④ R N2 CLK	④ R ARQ MAX CT	④ GND
⑤ —	⑤ X BIT 6	⑤ —	⑤ MEM IN 9	⑤ 8 BIT SER DA	⑤ INH ACT GEN	⑤ PARITY BIT OUT	⑤ R CLK ST L	⑤ UN-USED CODES	⑤ R L N2 CLK	⑤ R SYNCING	⑤ 5V ADJUST
⑥ —	⑥ X BIT 1	⑥ X NL CLK	⑥ SYNC B GEN	⑥ 11 BIT SER DA	⑥ ARQ GEN	⑥ MEM OUT 9	⑥ SNO LIN	⑥ 8 BIT S-S UN-USED CODES	⑥ TEST UN-SYNC	⑥ R CLK	
⑦ X DA SMPL EN	⑦ SMPL WDD	⑦ X PS CLK	⑦ INH A/D GEN	⑦ GTO MEM OUT 8	⑦ INH DEACT GEN	⑦ MEM OUT 10	⑦ X CLK ST L	⑦ R IN DA DL	⑦ R BIT LAST	⑦ R ARQ CT SKP	
⑧ X ST BIT DET	⑧ X BIT LAST	⑧ X H CLK	⑧ SYNC A GEN	⑧ SMPL CTR 4	⑧ SYNC INH A/D	⑧ MEM CS 0	⑧ PWR GND	⑧ NC RCVD	⑧ SUPER RCVD	⑧ R L NI CLK	

Figure A-58. Test Point Location.



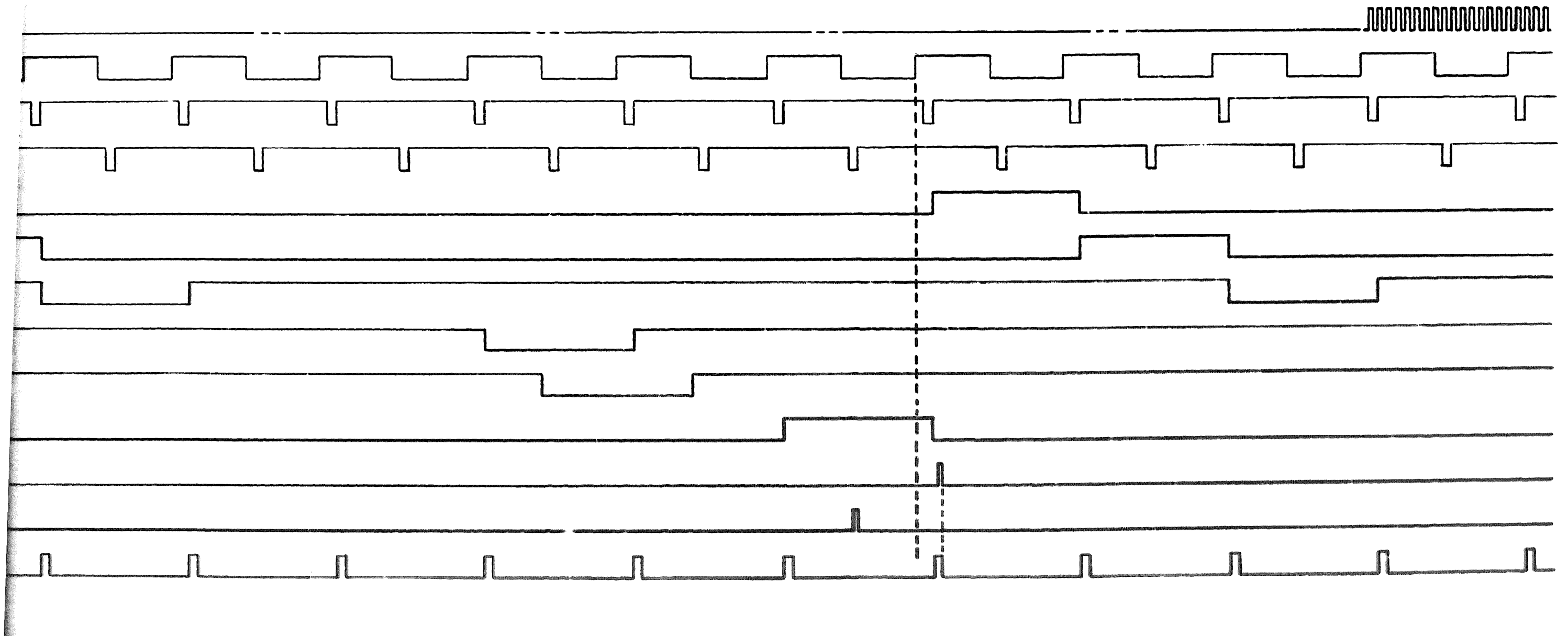
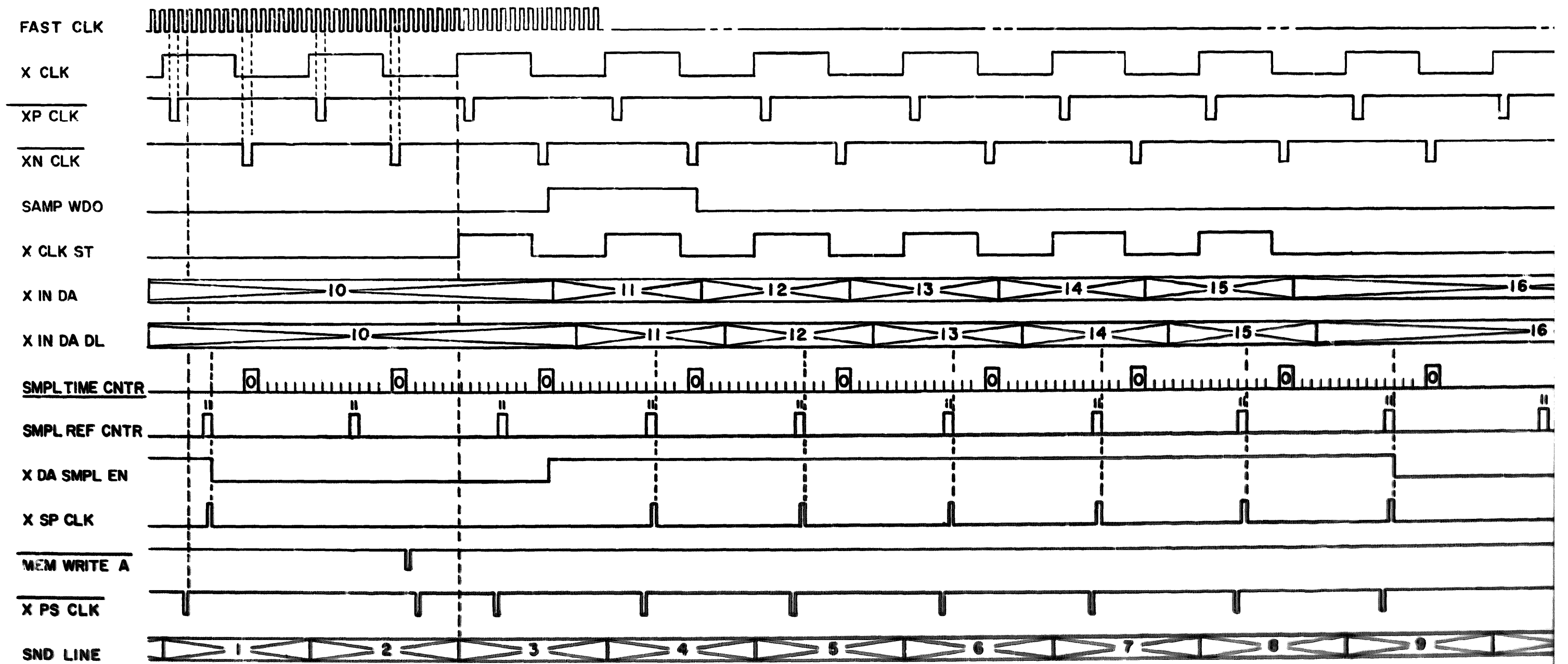


Figure A-58. Transmitter 8 Bit Code Format Sit Timing



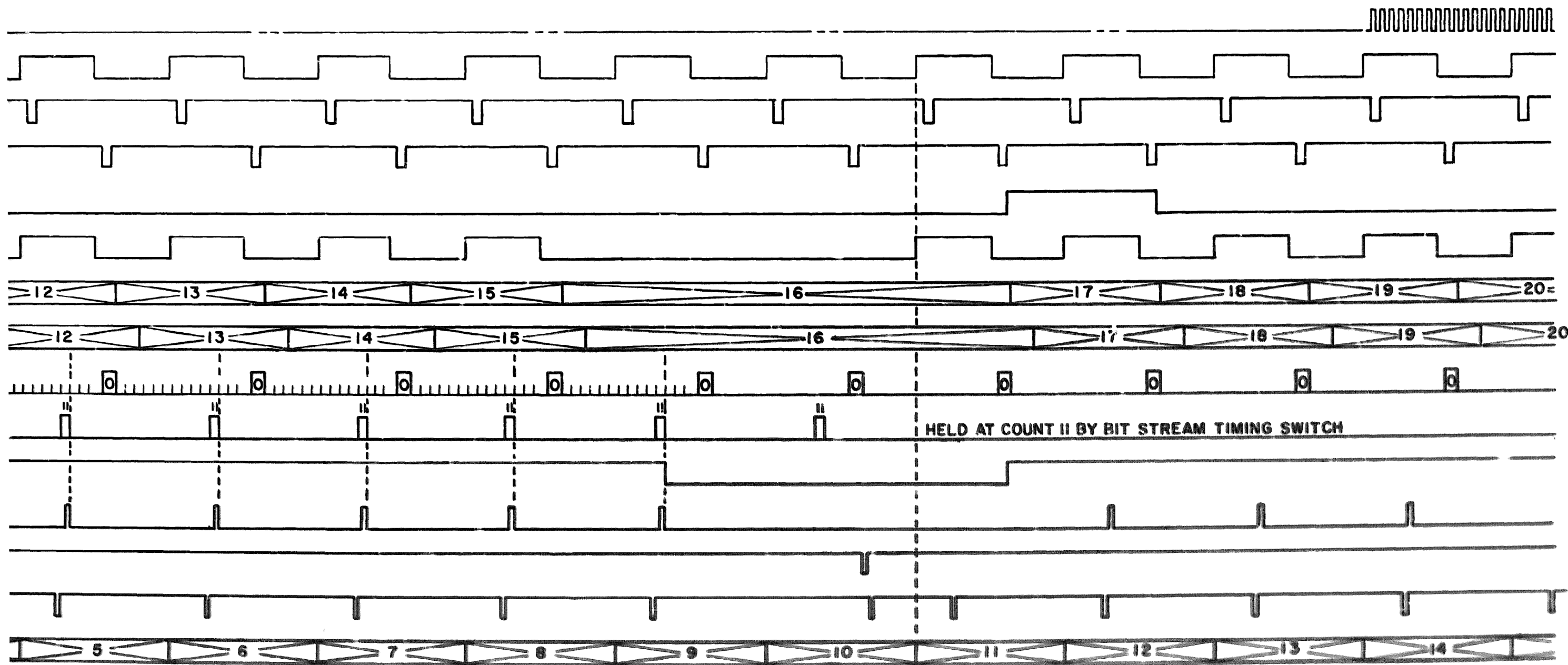
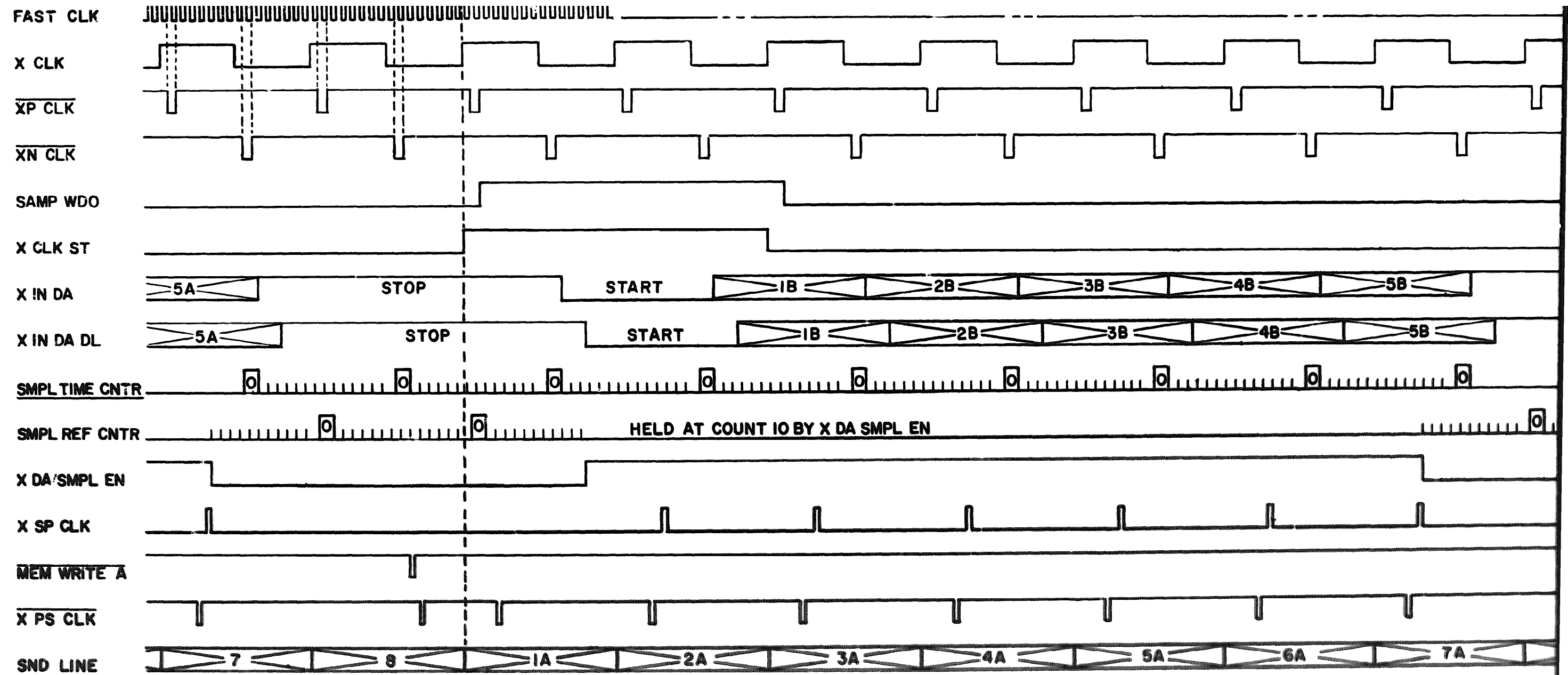


Figure A-80. Transmitter 8 Bit Code Format
Bit Stream Data Flow



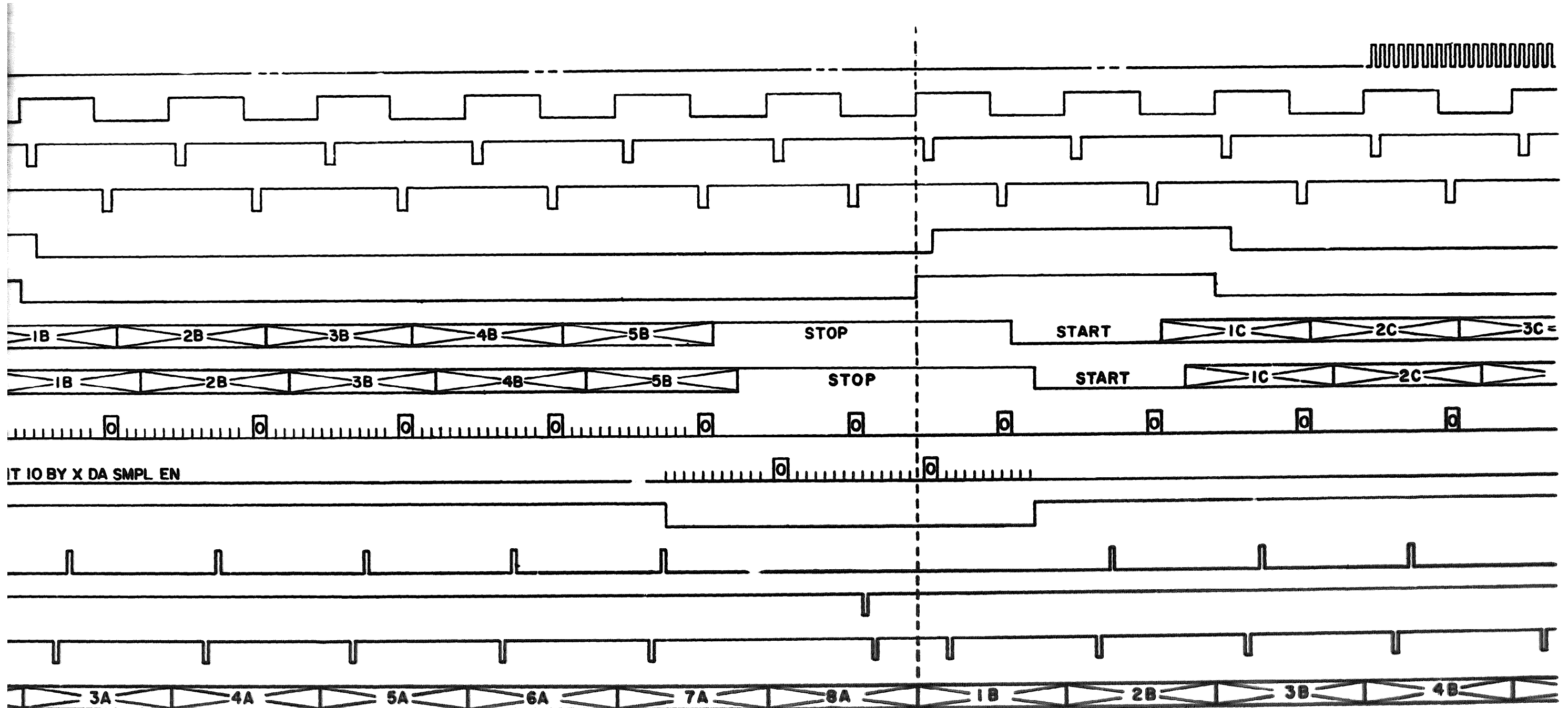
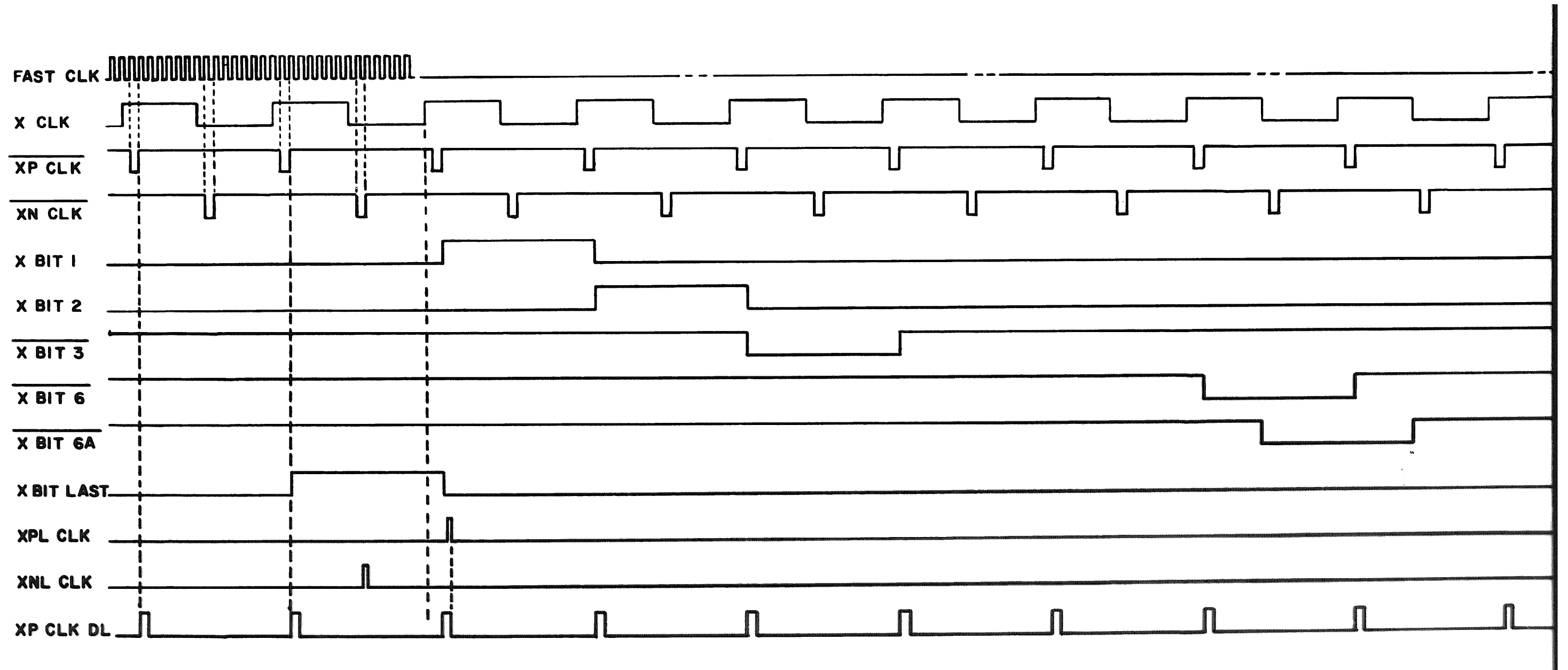


Figure A-61. Transmitter 8 Bit Code Format
5 Bit Start/Stop Data Flow

TRANSMITTER II BIT CODE FORMAT

BIT TIMING



TRANSMITTER II CODE FORMAT
BIT TIMING

UNCLASSIFIED

AN/FYC-12

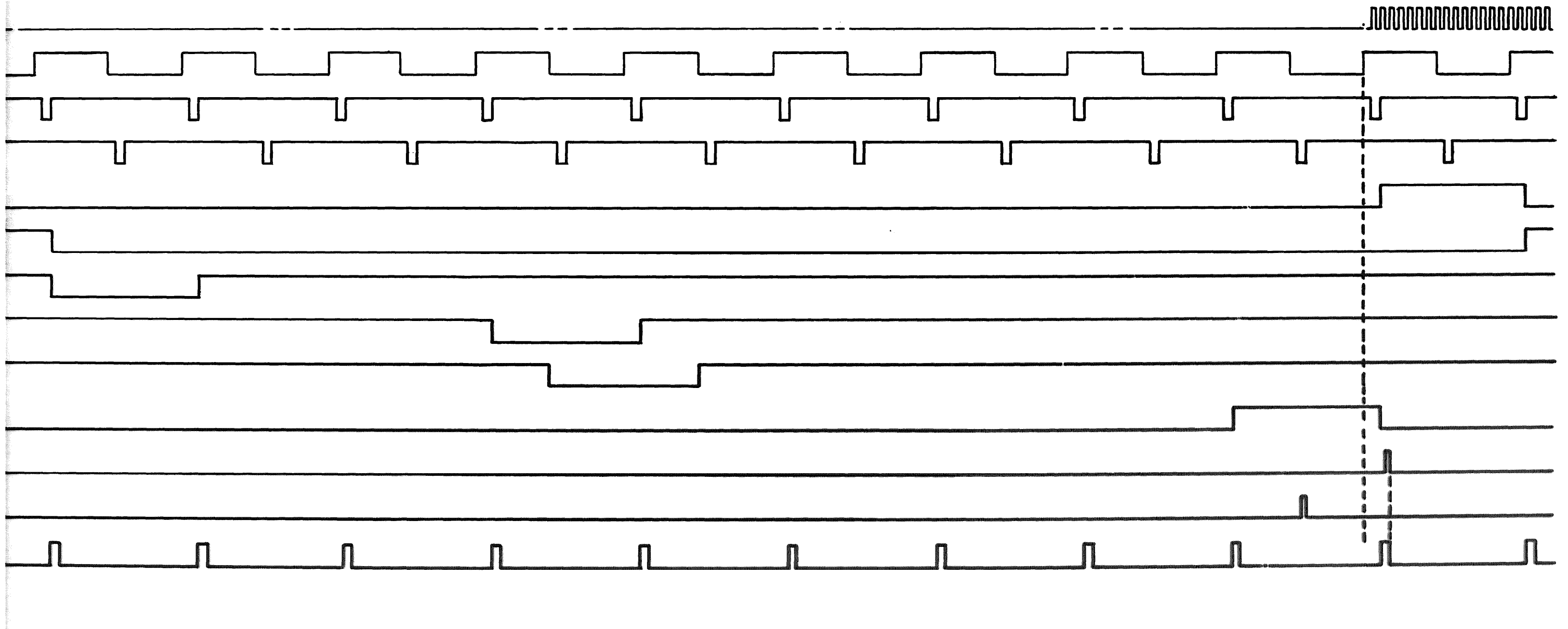


Figure A-62. Transmitter II BitCode Format Bit timing

UNCLASSIFIED

A 7 5

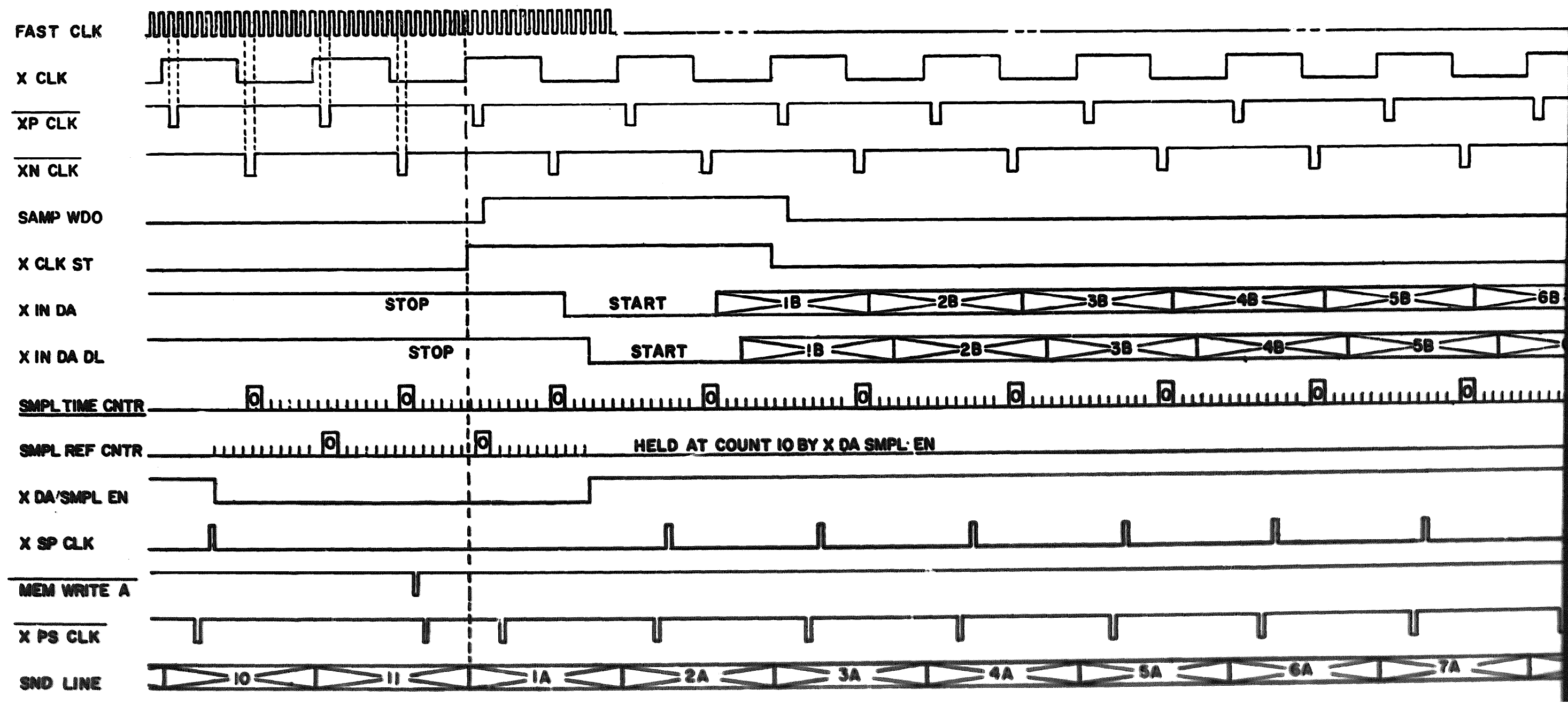
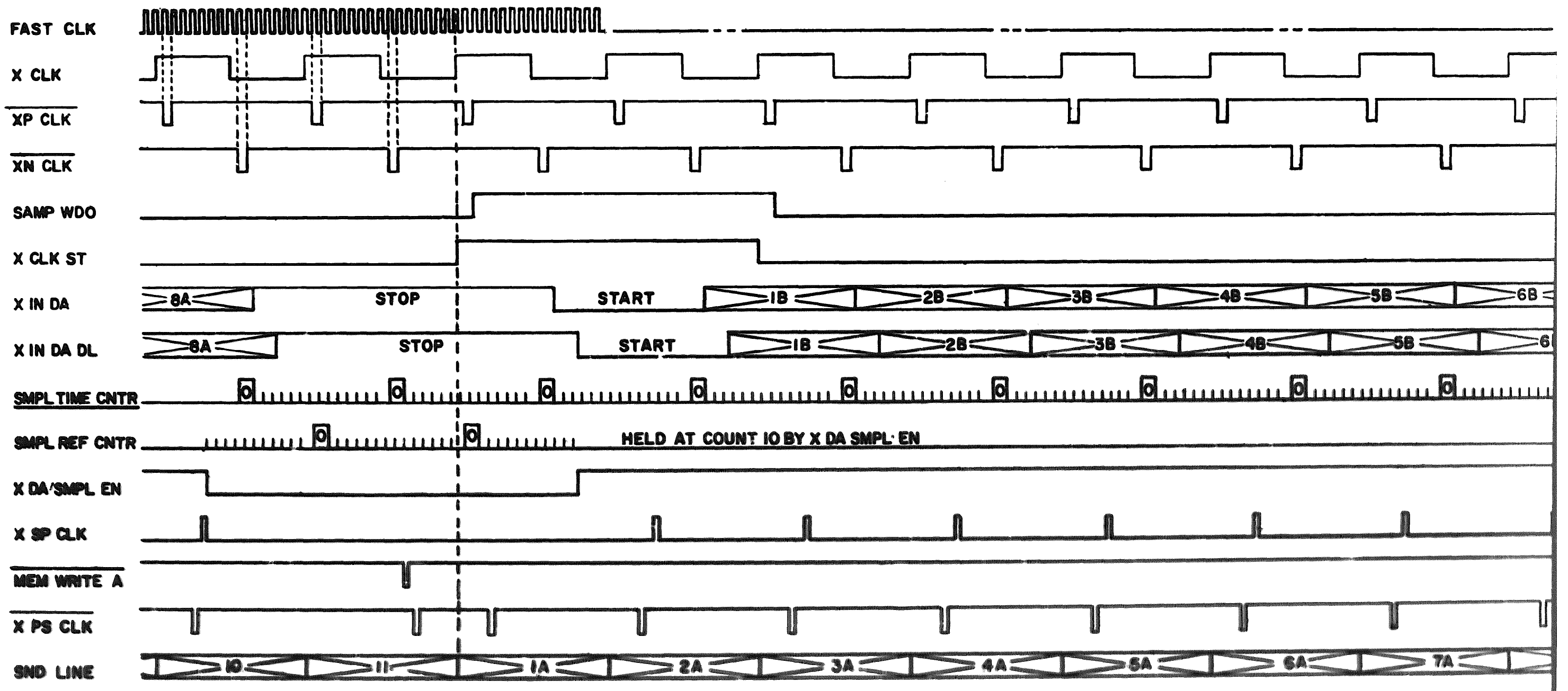




Figure A-83. Transmitter 11Bit Code Format
6 Bit Start/Stop Data Flow



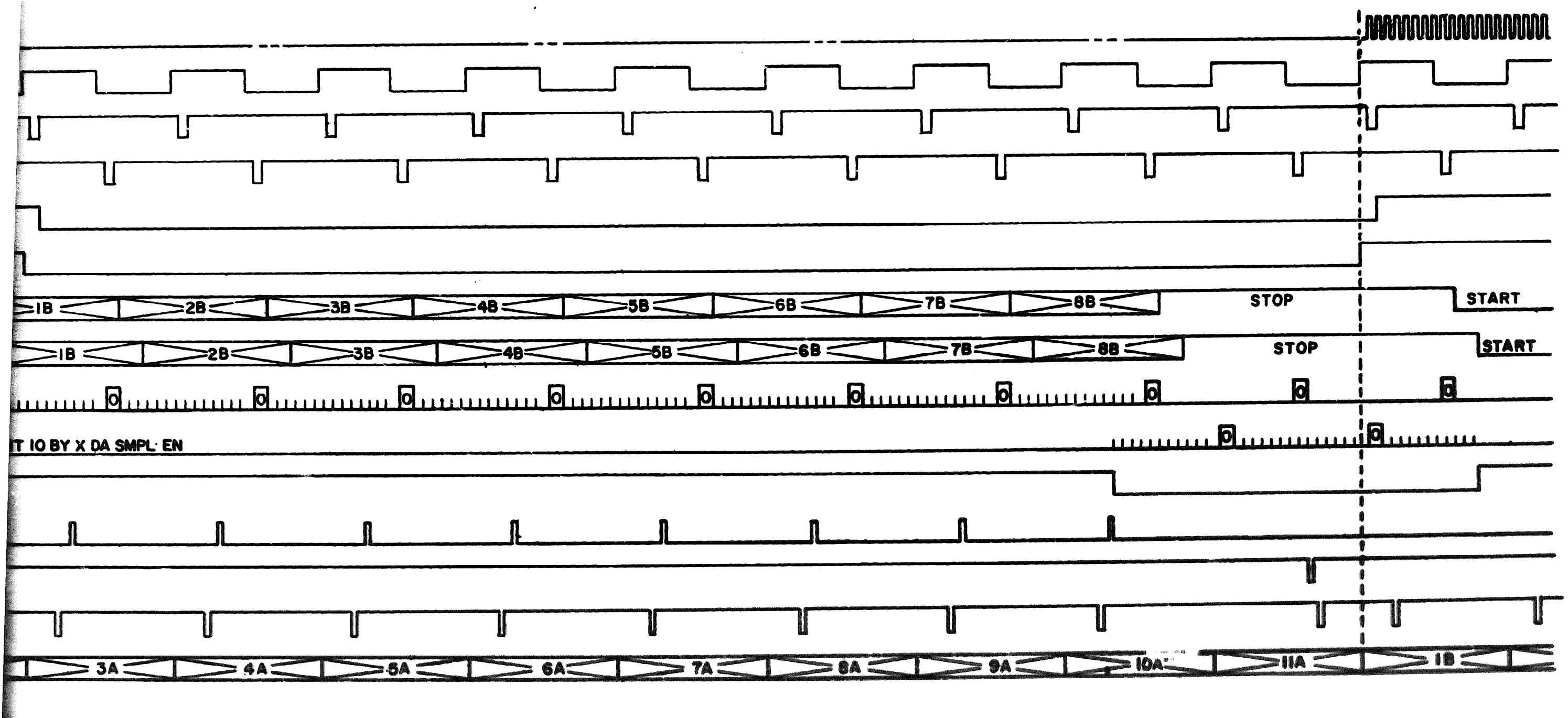
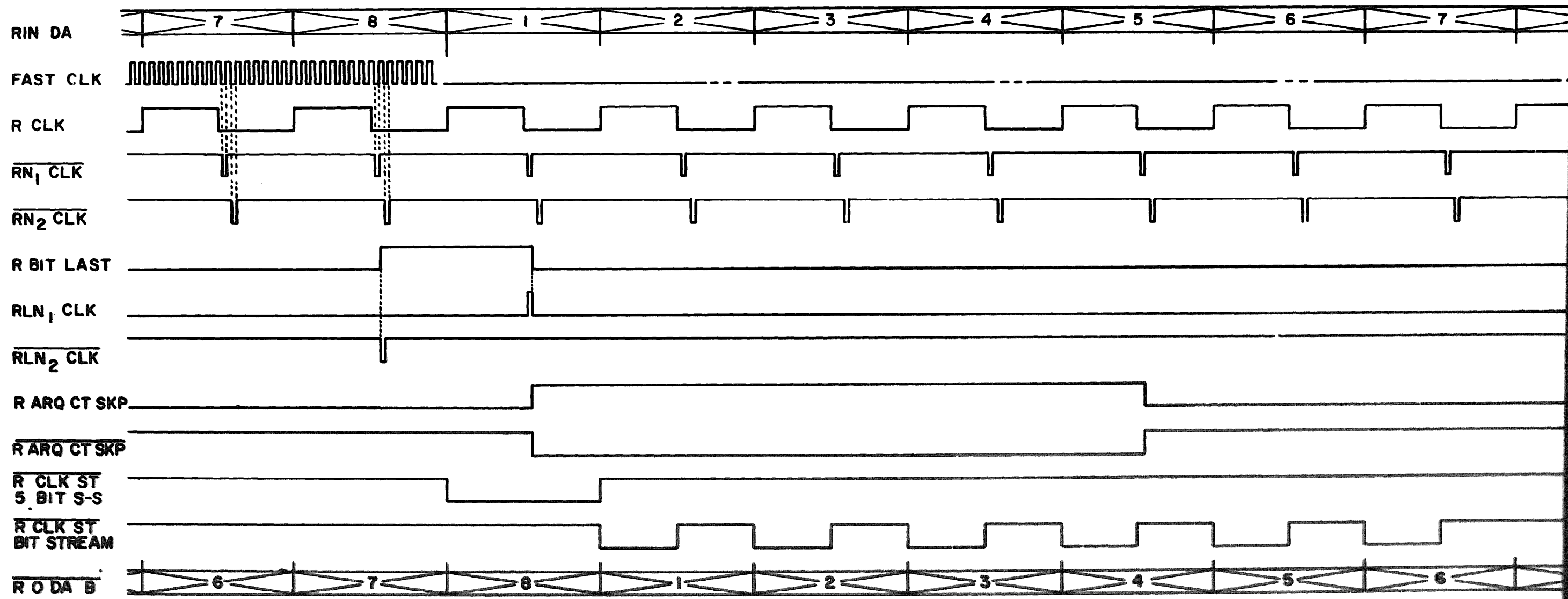


Figure A-64. Transmitter 11 Bit Code Format
8 Bit Start/Stop Data Flow

RECEIVER 8 BIT FORMAT
BIT TIMING



RECEIVER 8 BIT CODE FORMAT
BIT TIMING

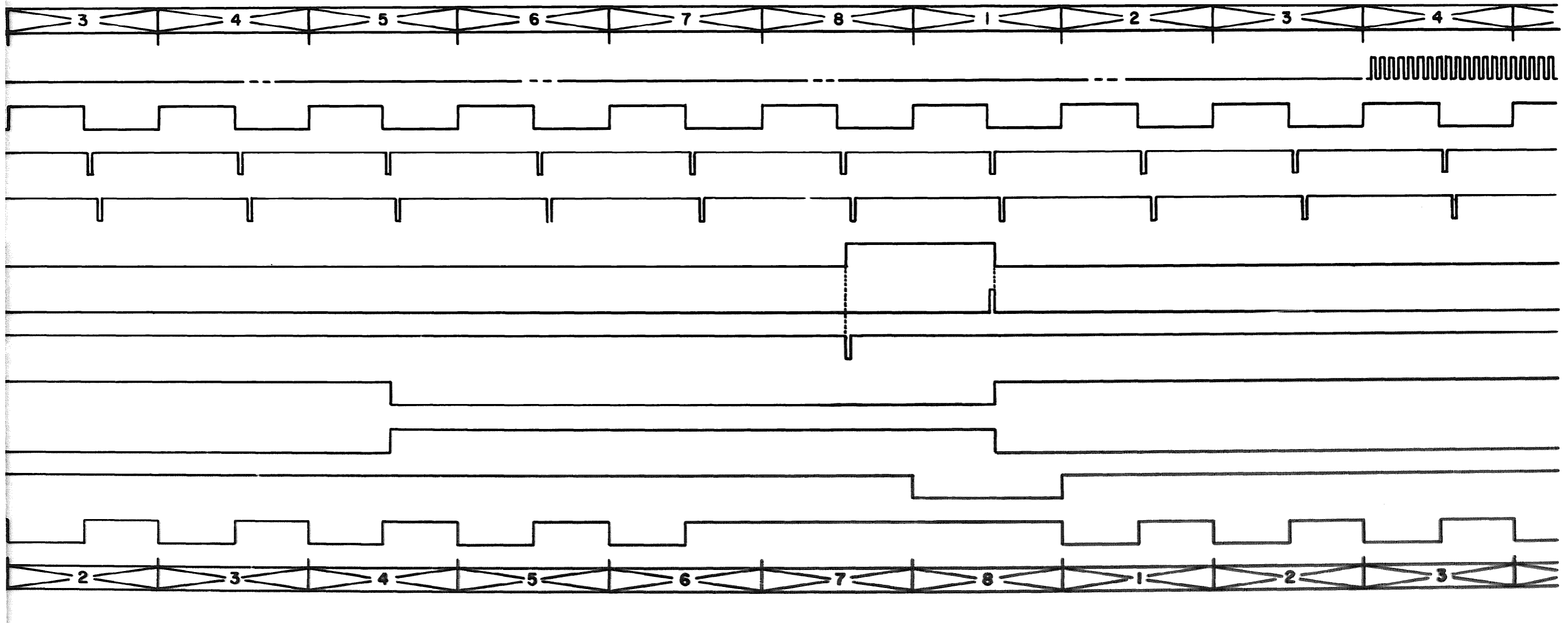
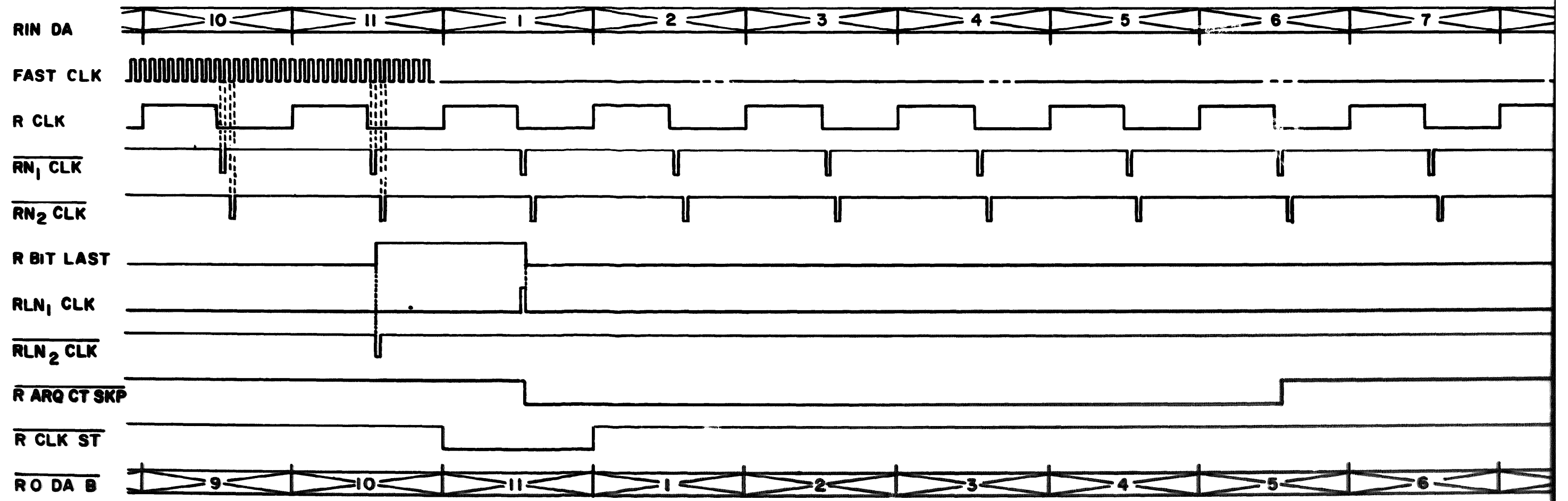


Figure A-65. Receiver 8 Bit Code Format Timing
UNCLASSIFIED A 7 8



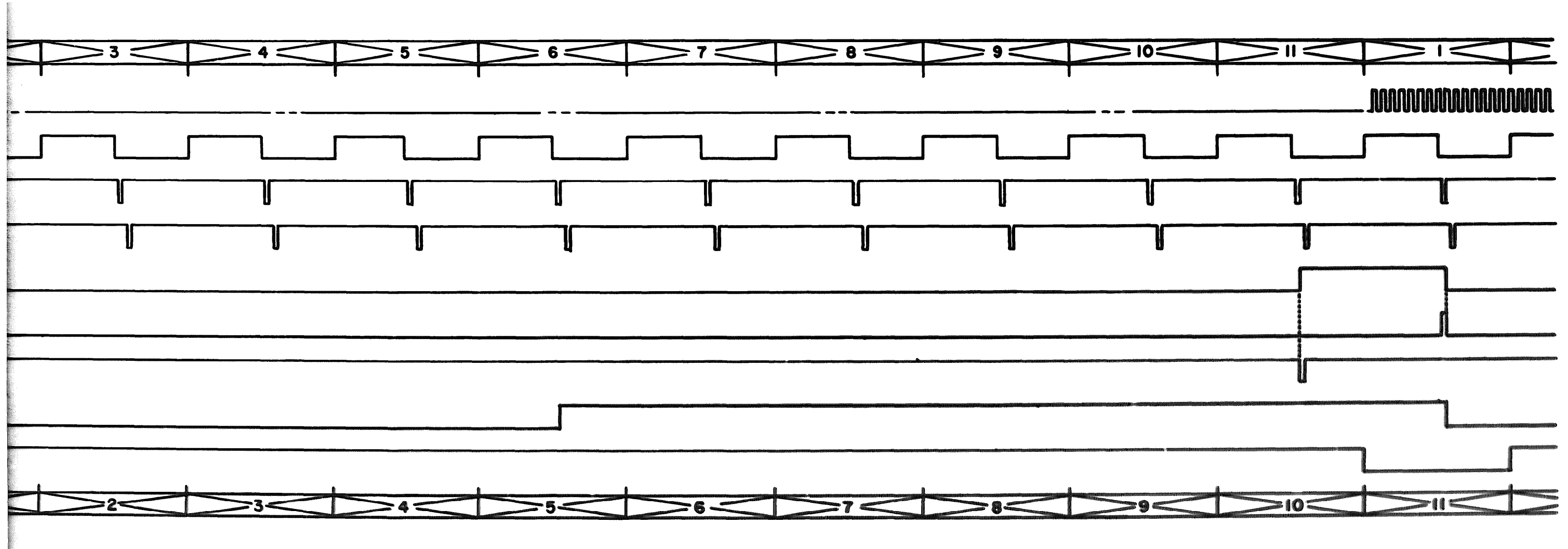


Figure A-68. Receiver 11 Bit Code Format Code Format Bit Timing

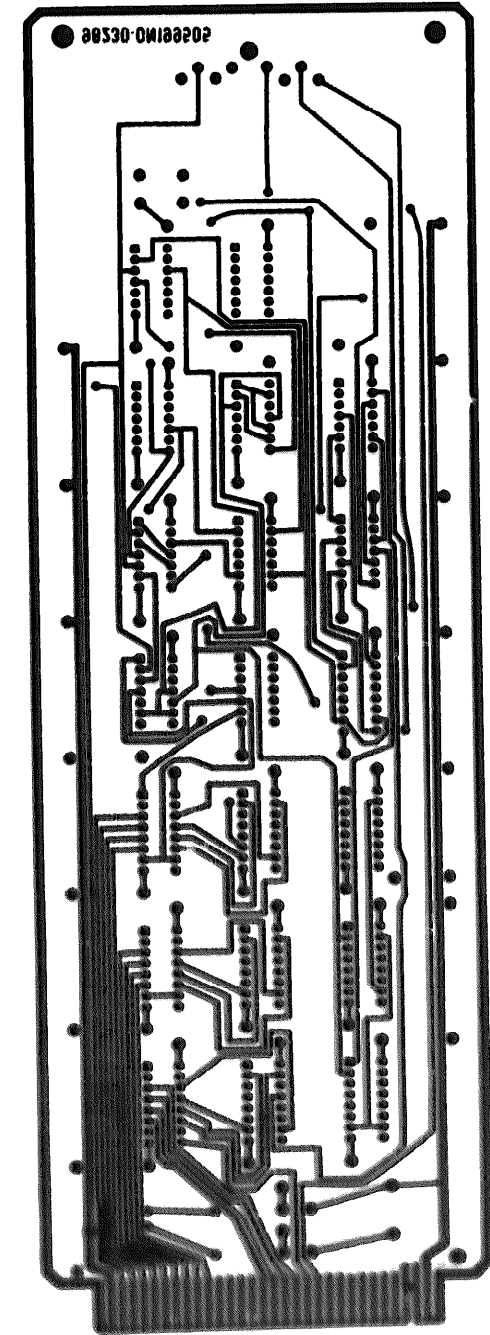
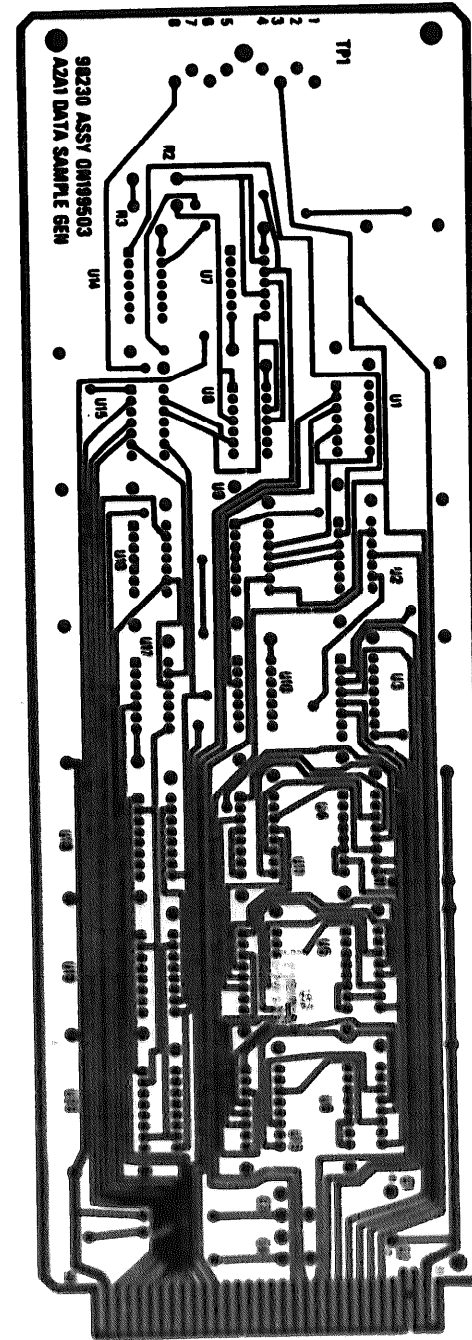
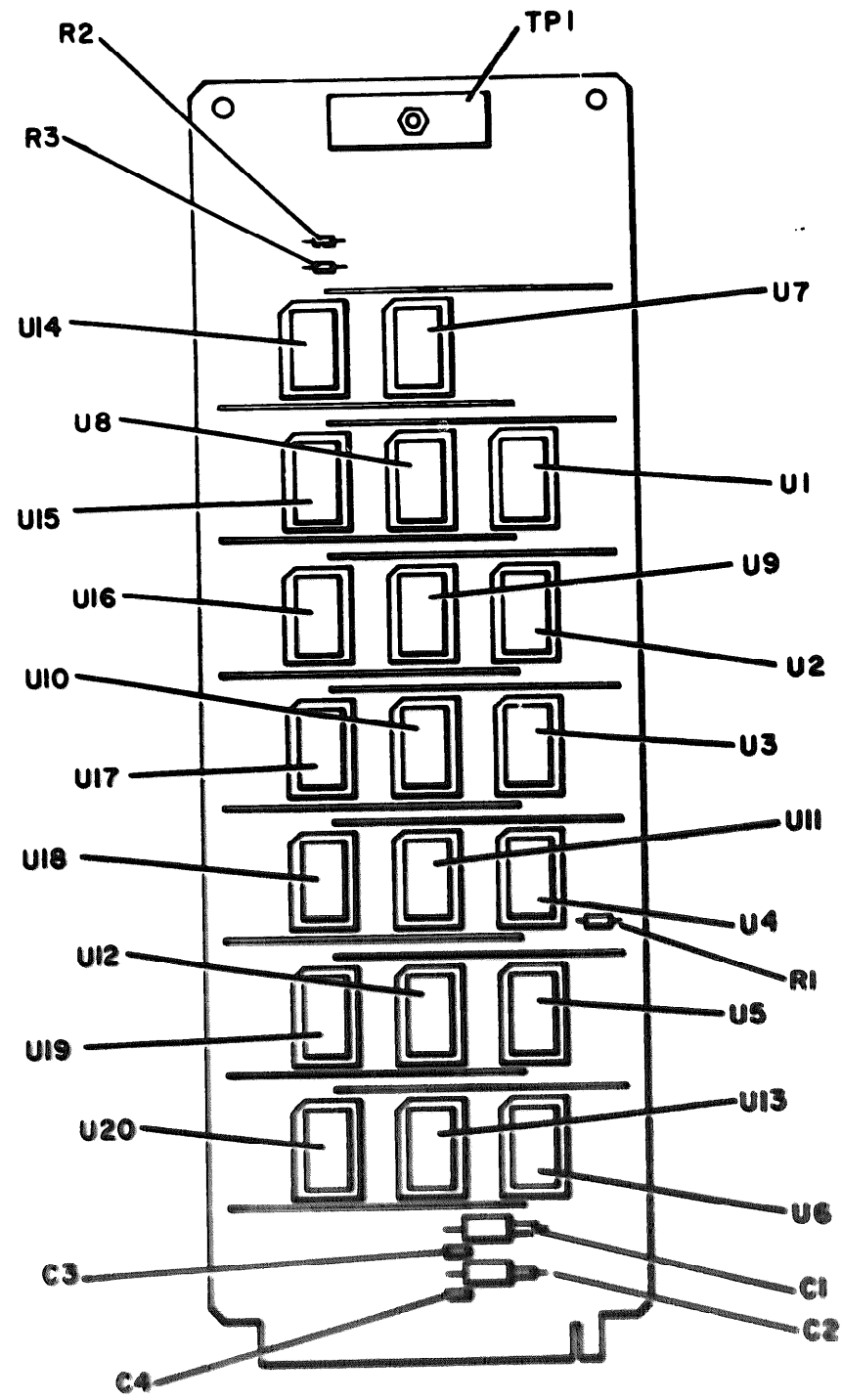


Figure A-67. Wiring Diagram Data Sample Con
Board A2A1 Assembly ON199583

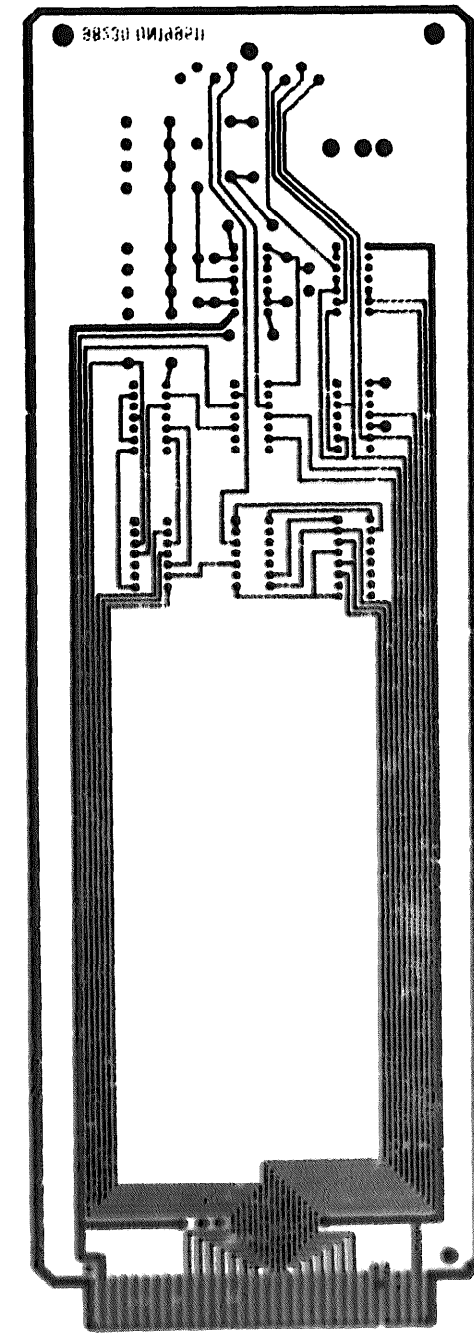
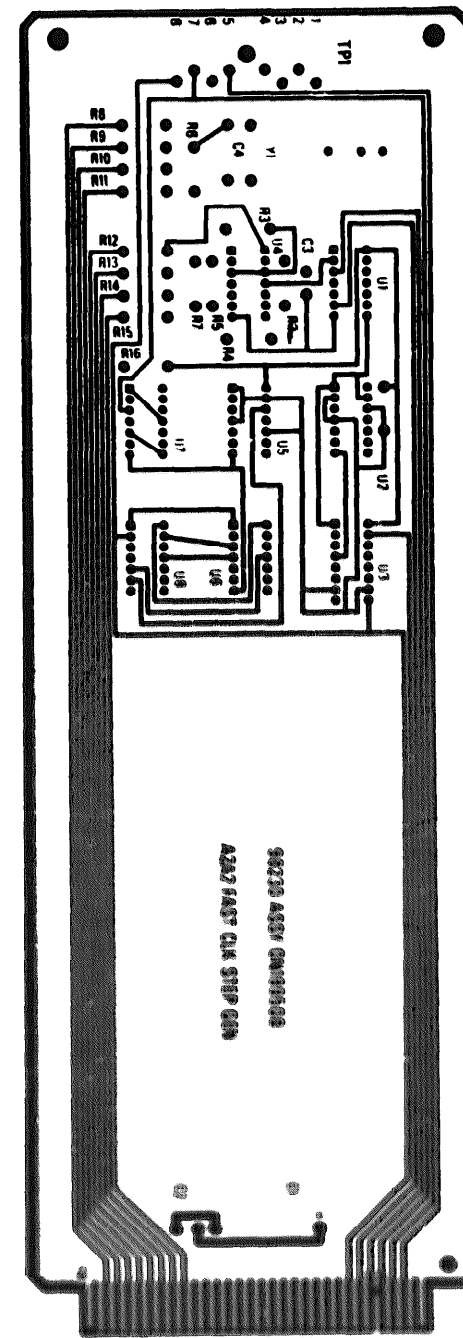
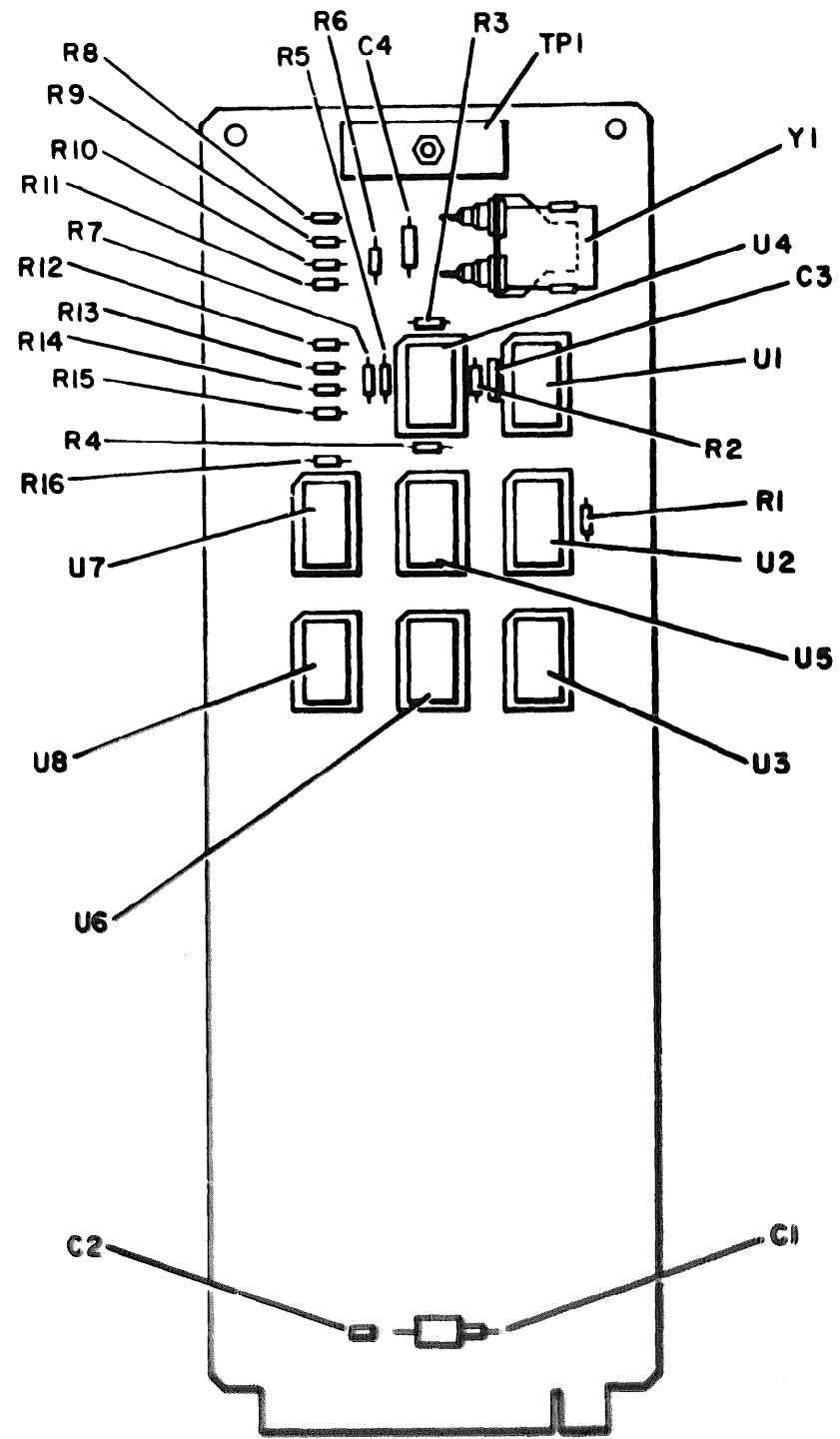


Figure A-68. Wiring Diagram Fast Cir Step Com
Board A2A2 Assembly ON198988

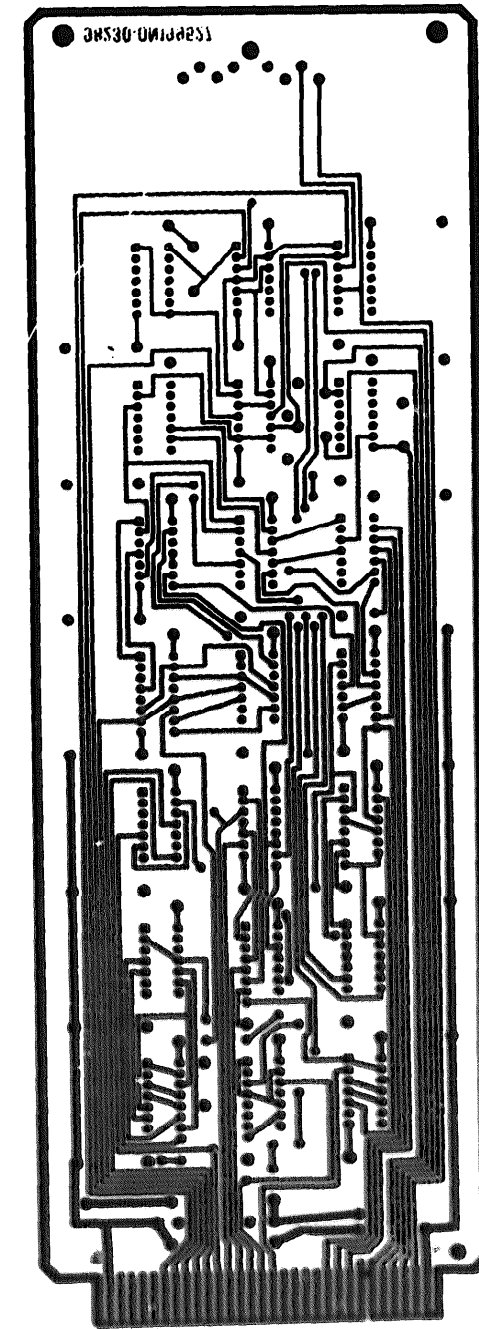
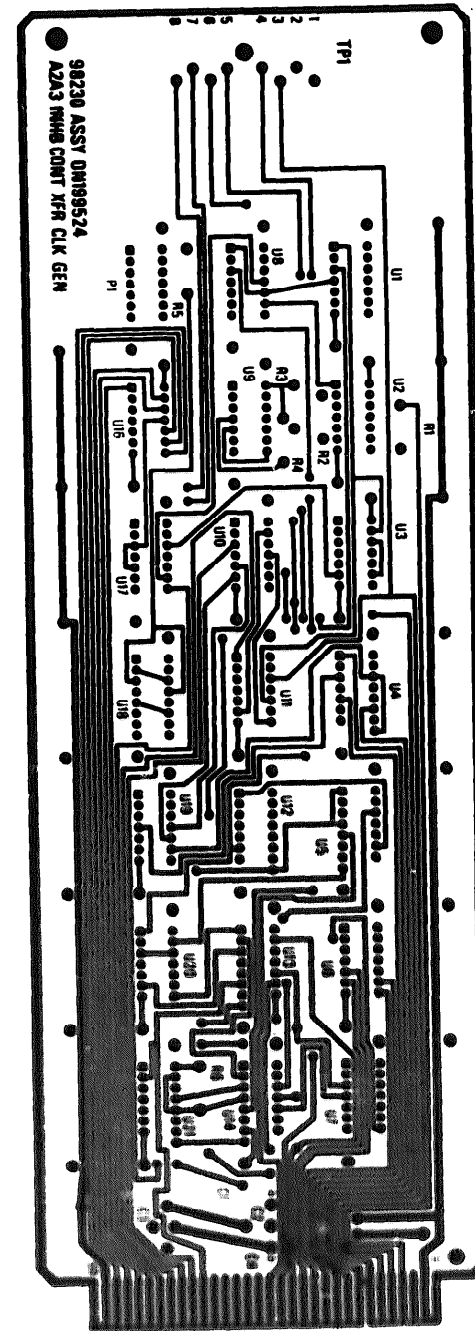
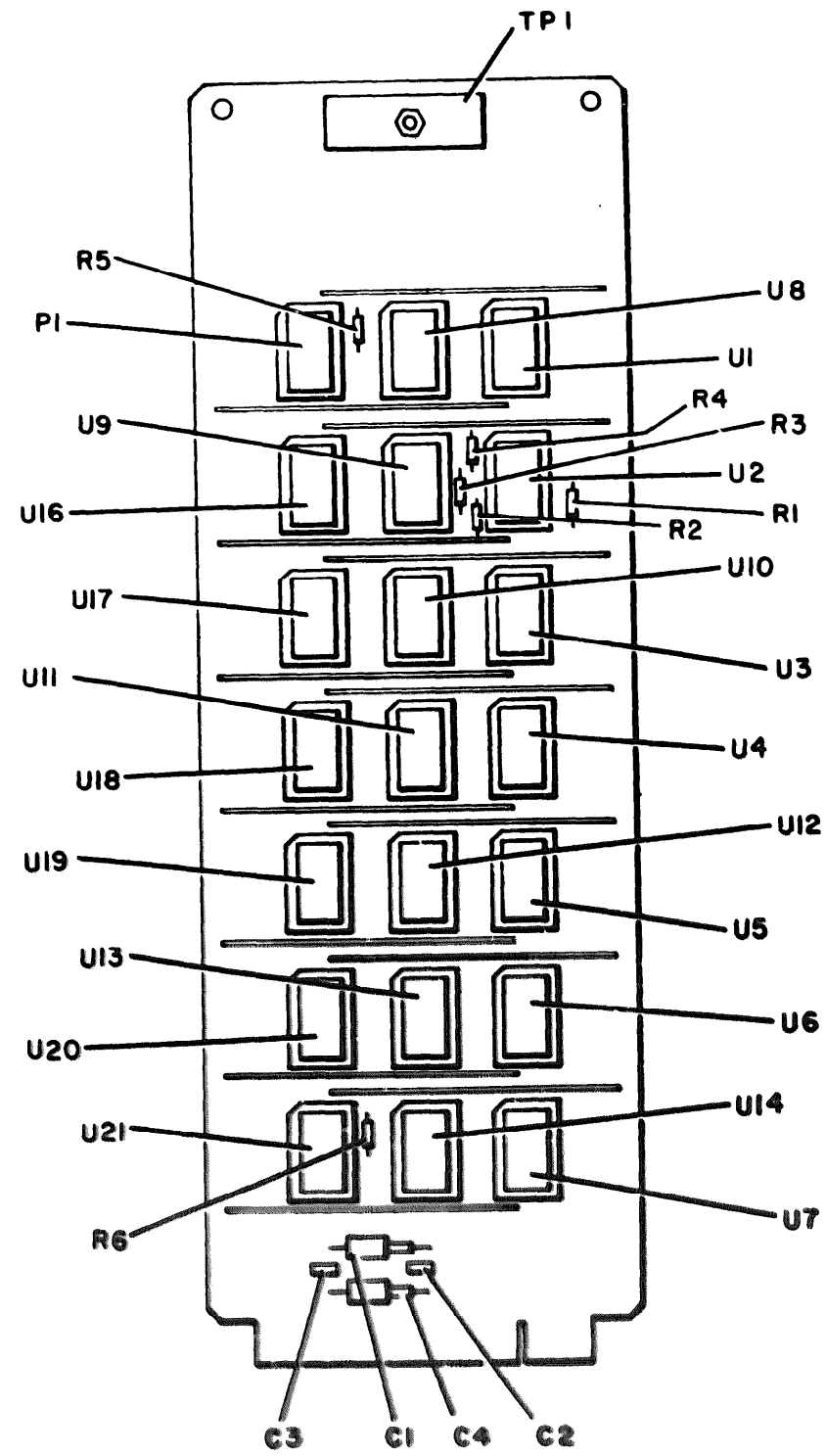


Figure A-69. Wiring Diagram, in Cont XFR Clk Gen

Board A2A3 Assembly ON199524

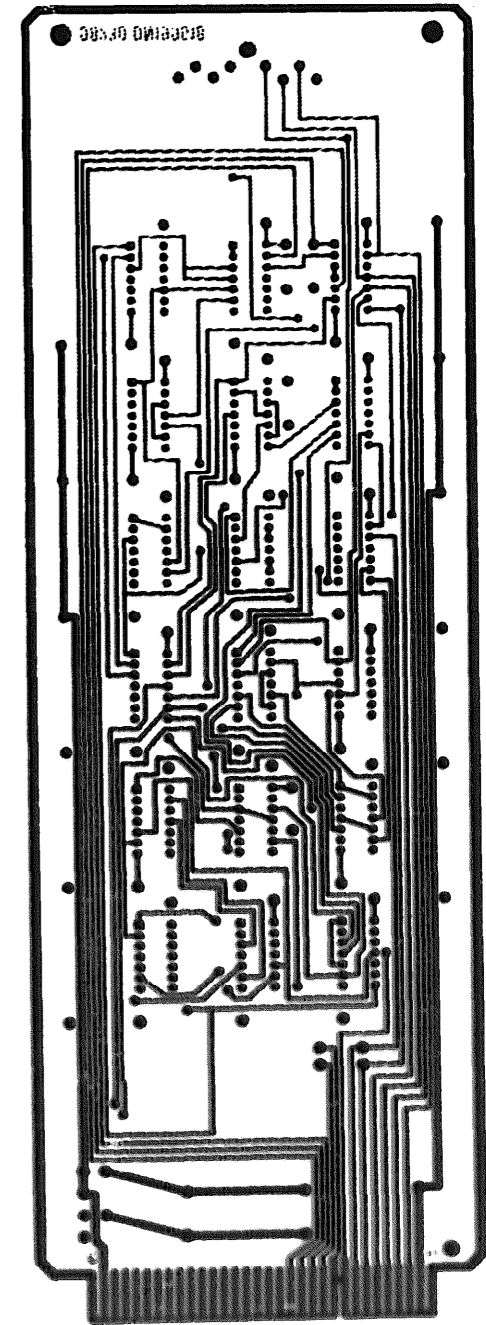
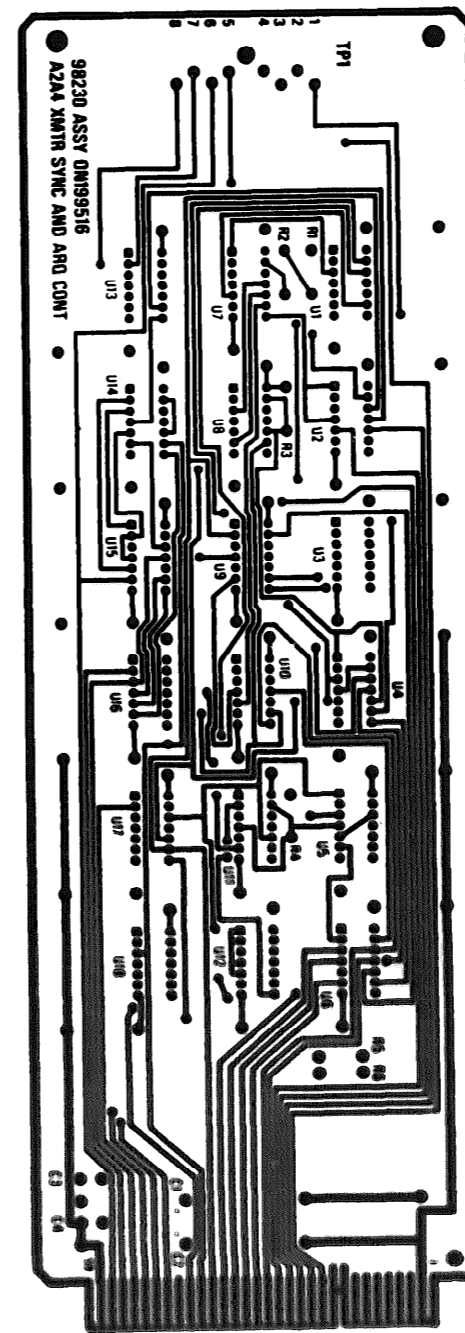
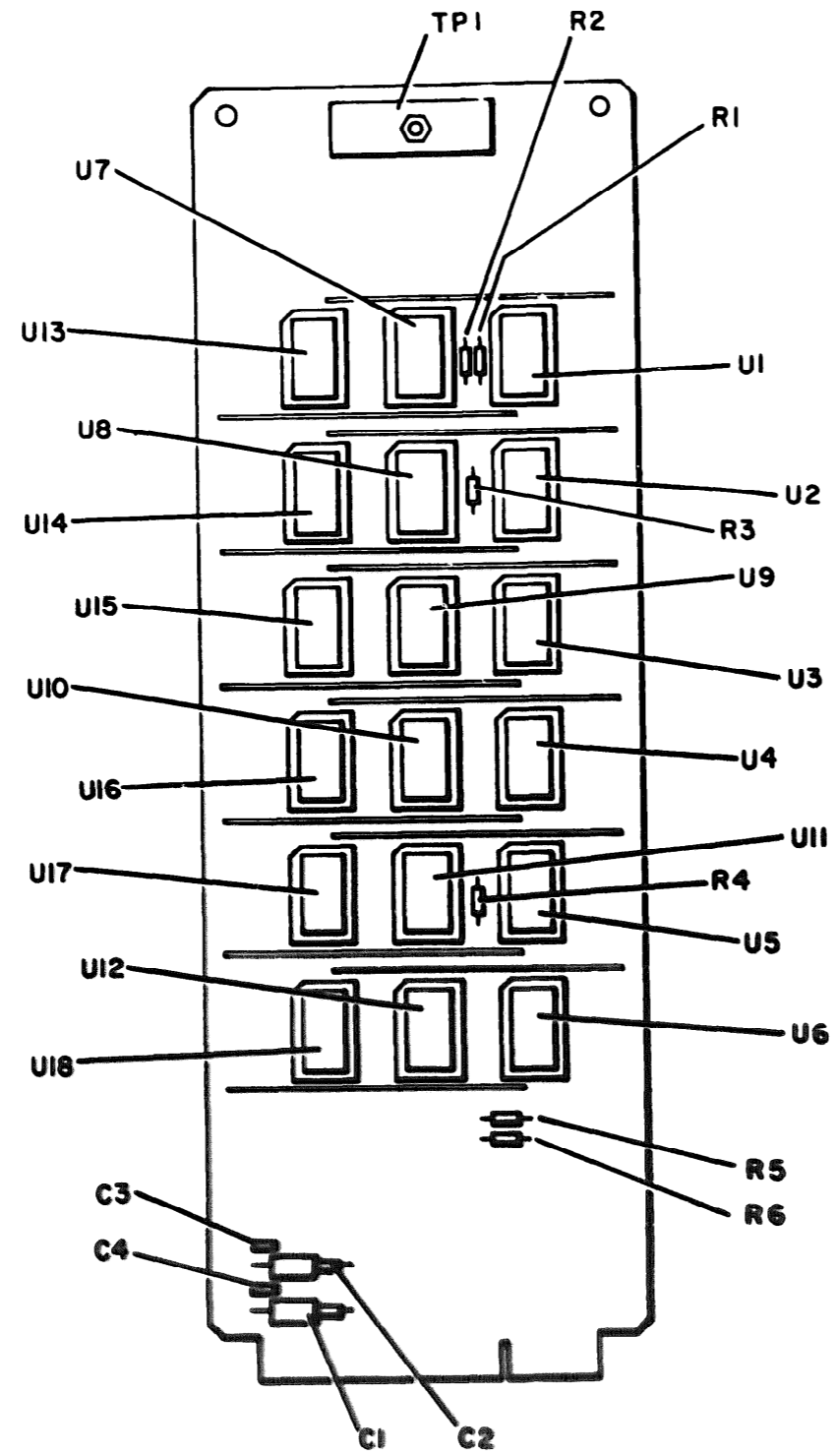


Figure A-70. Wiring Diagram XMTR Sync Clk Gen
Board A2A4 Assembly ON199516

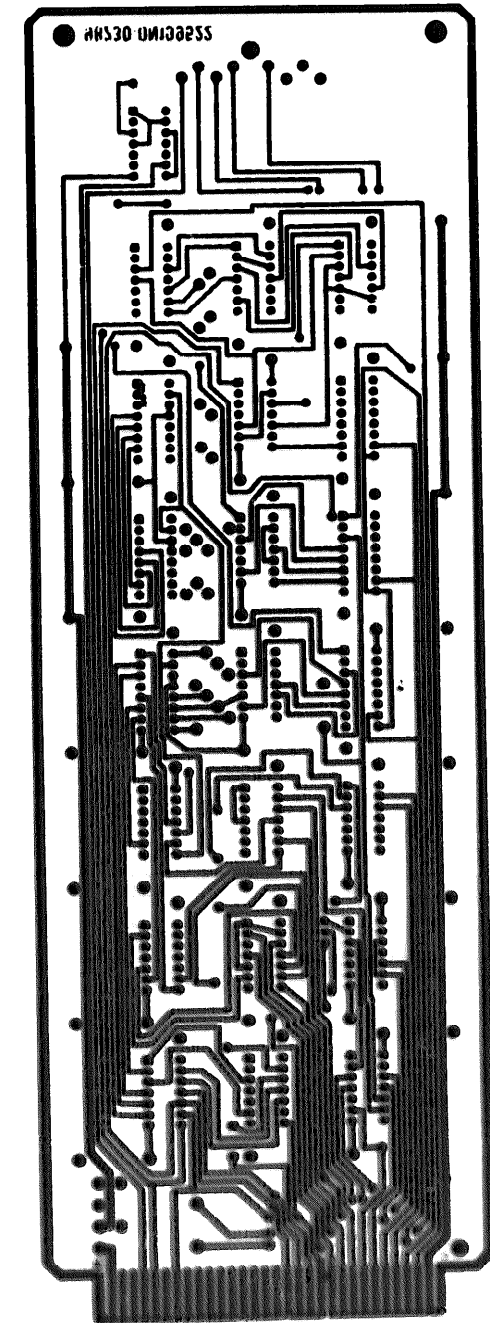
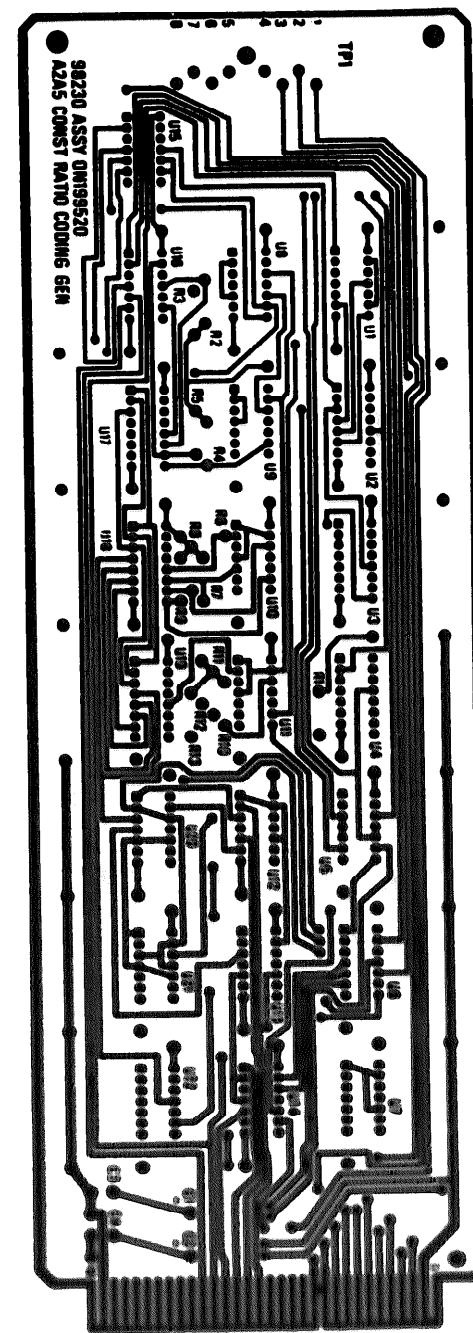
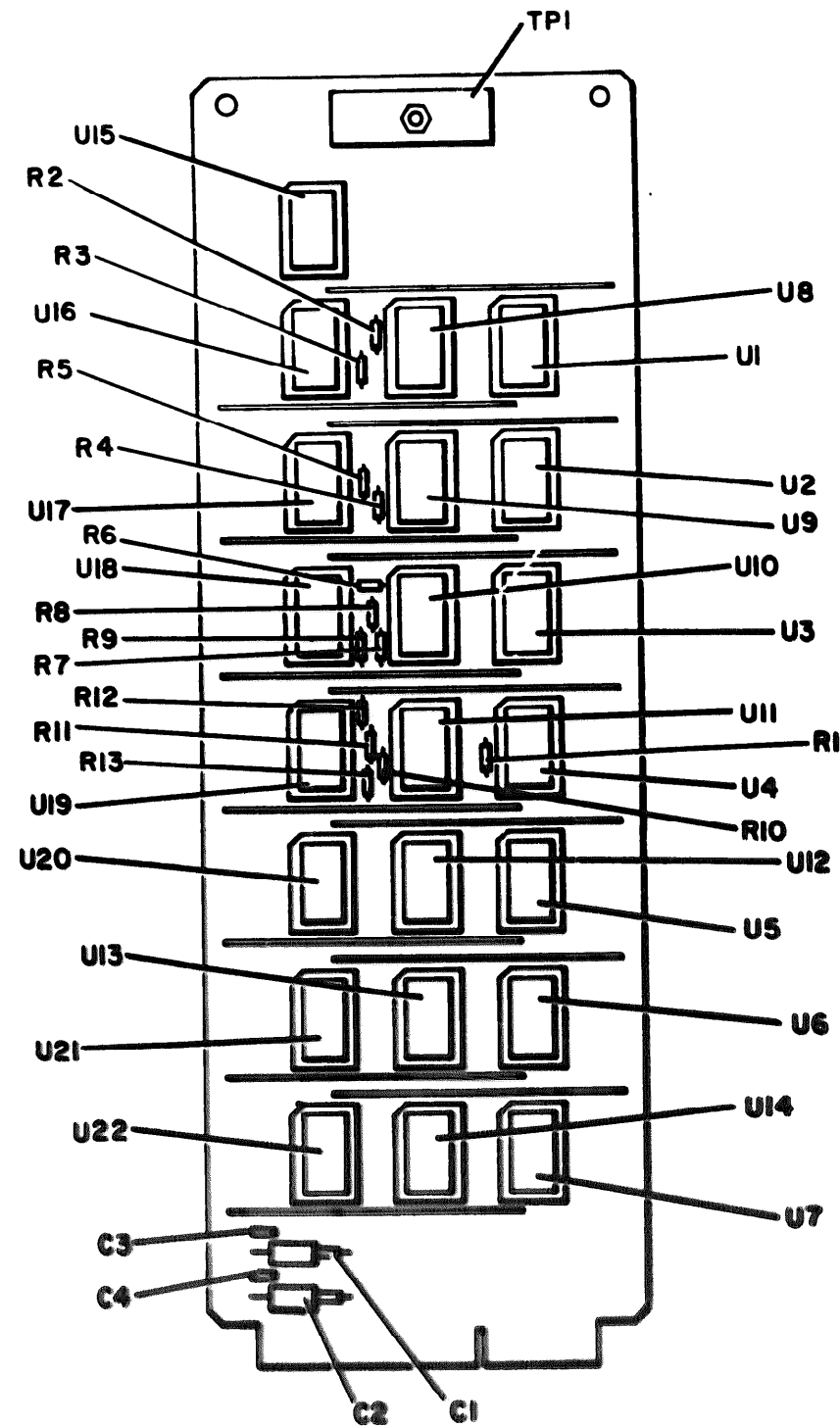


Figure A-71. Wiring Diagram, Const R Code Gen
Board A2A5 Assembly ON199578

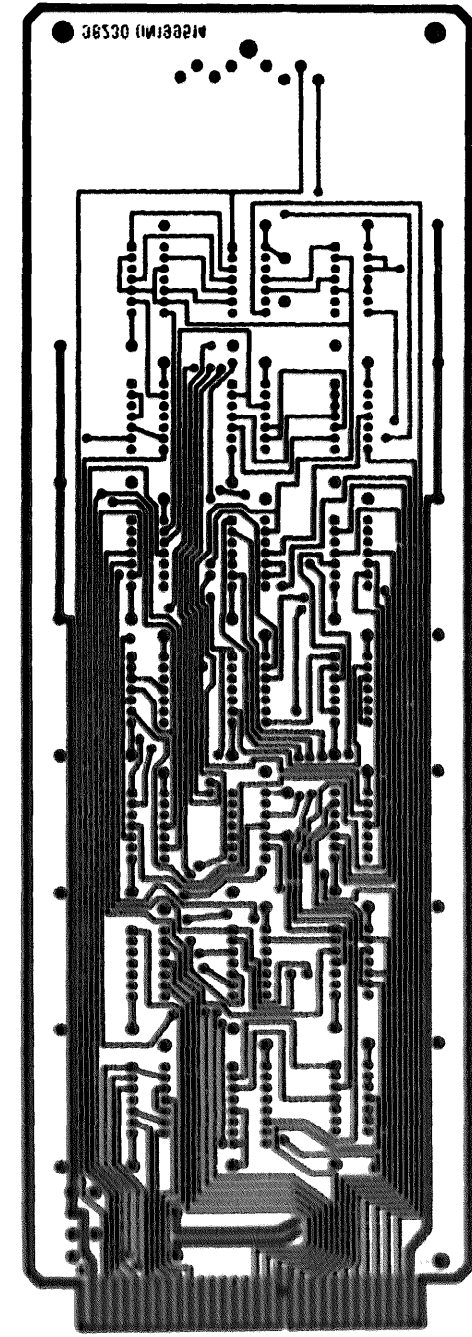
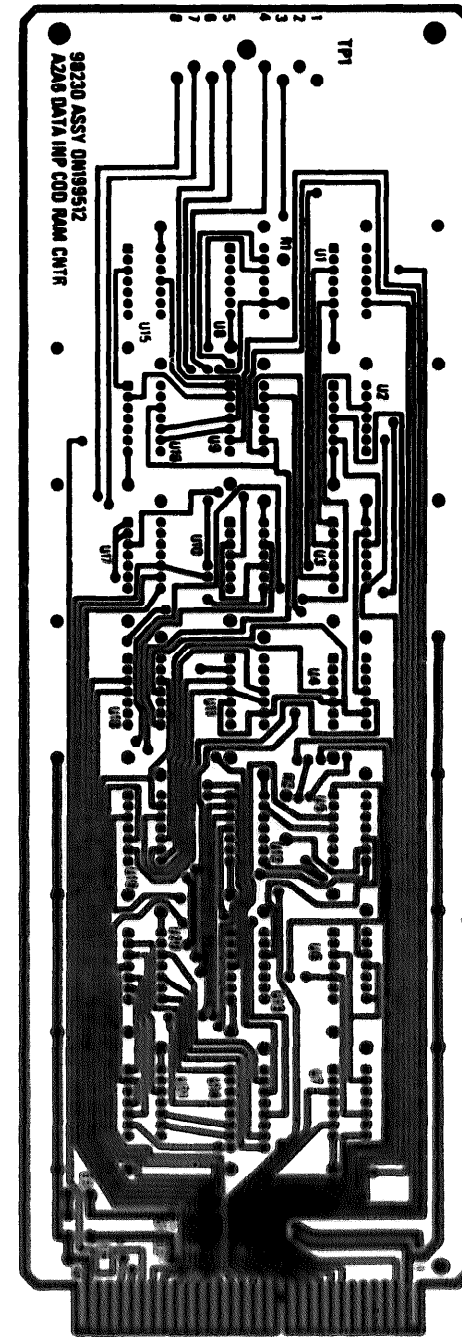
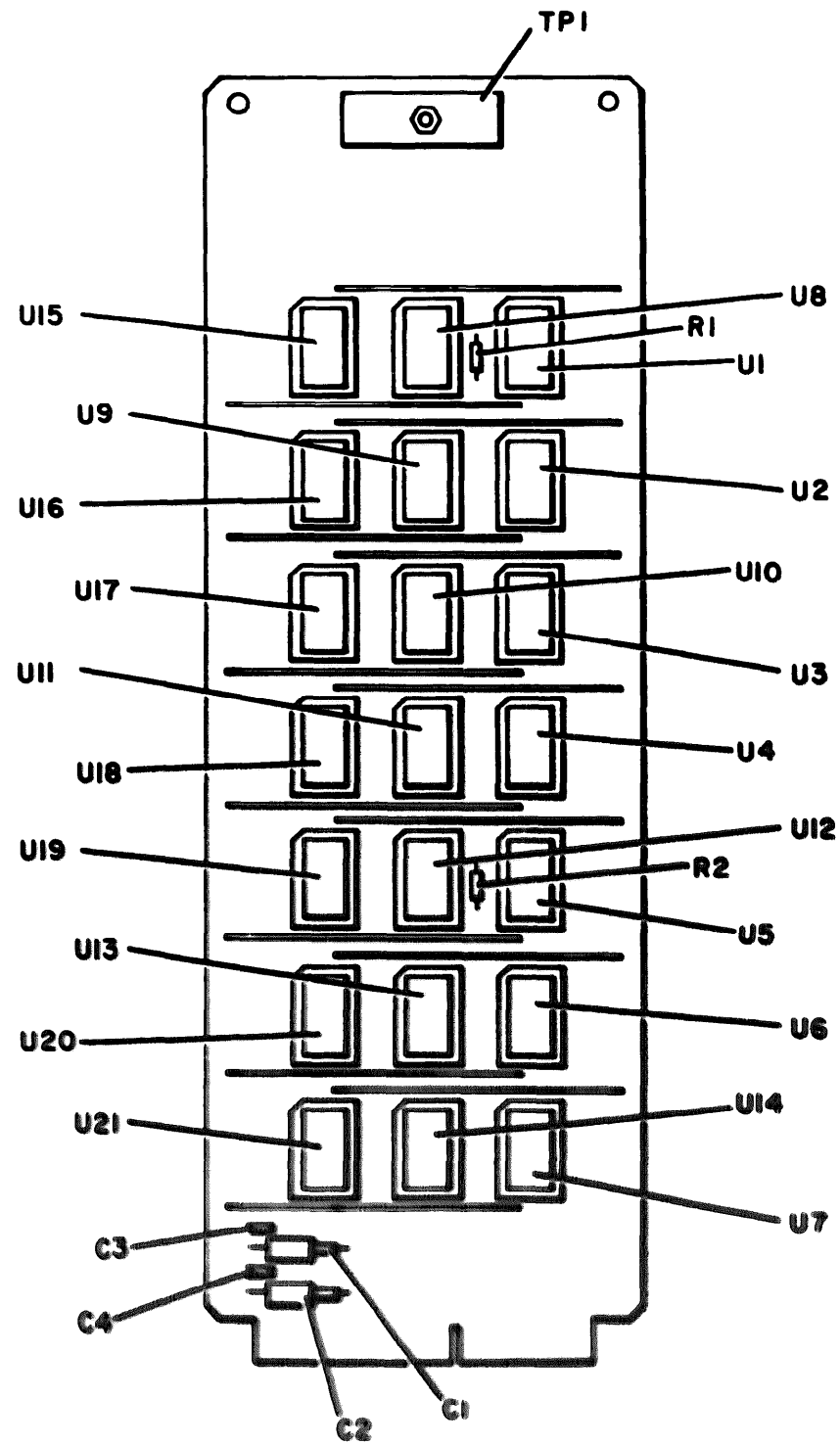


Figure A-72. Wiring Data Imp Cod Ram
Cntr A2A6 Assembly ON199512

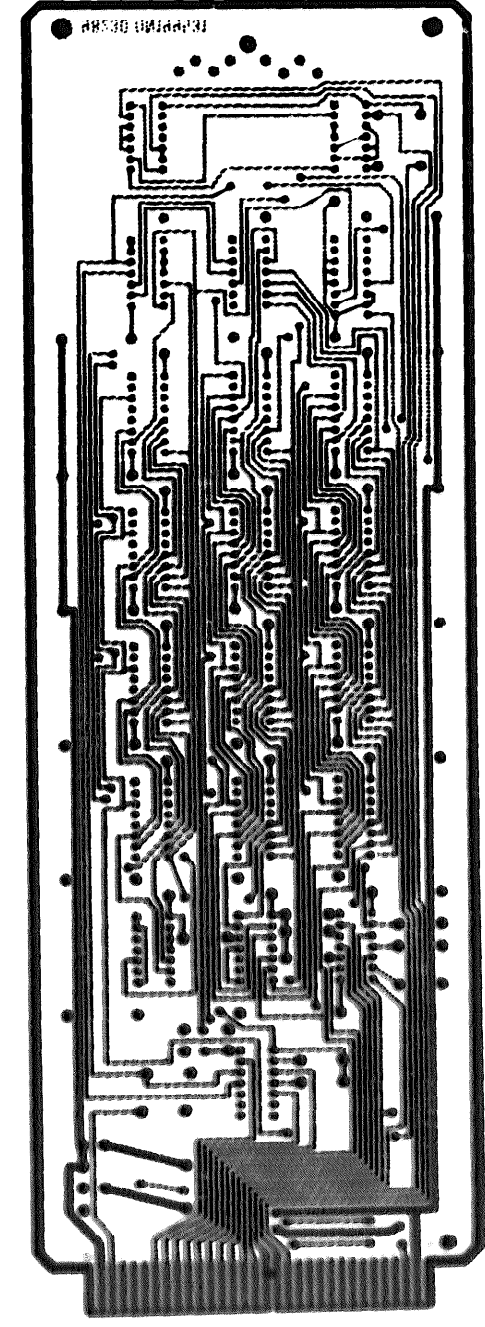
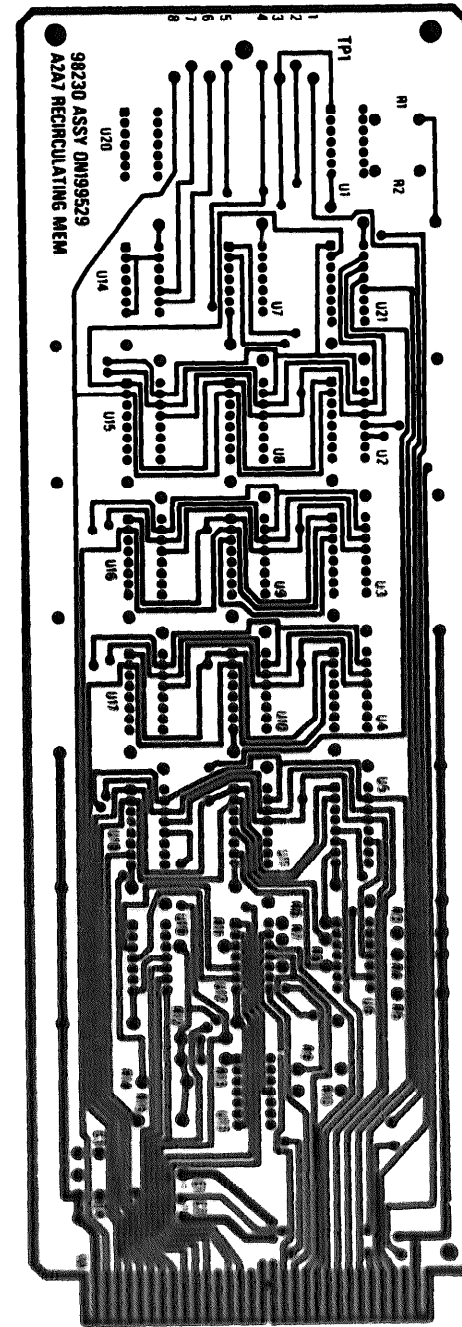
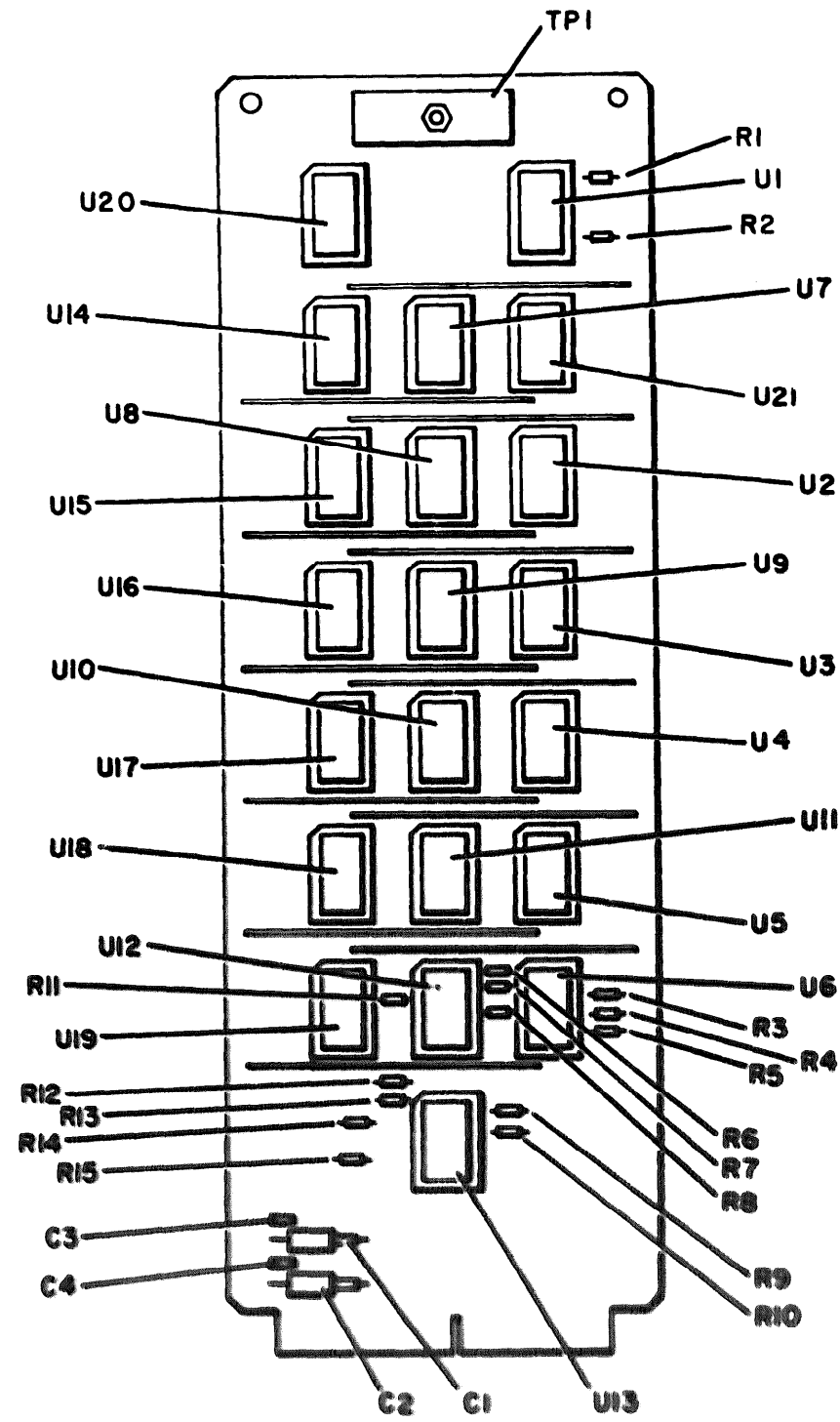


Figure A-73. Wiring Diagram, Recre Memory Board A2A7 Assembly ON199520

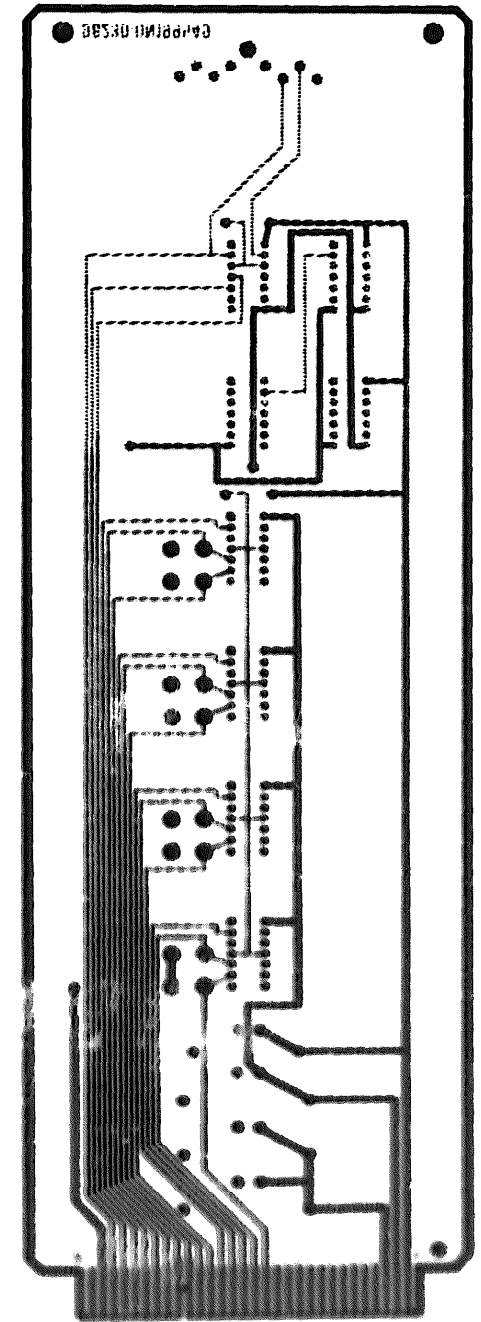
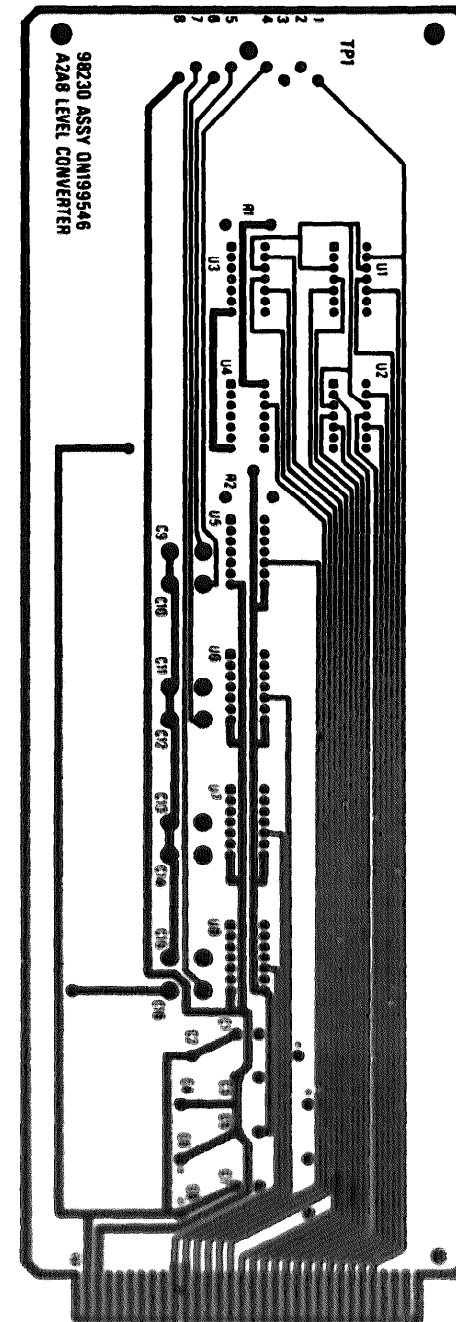
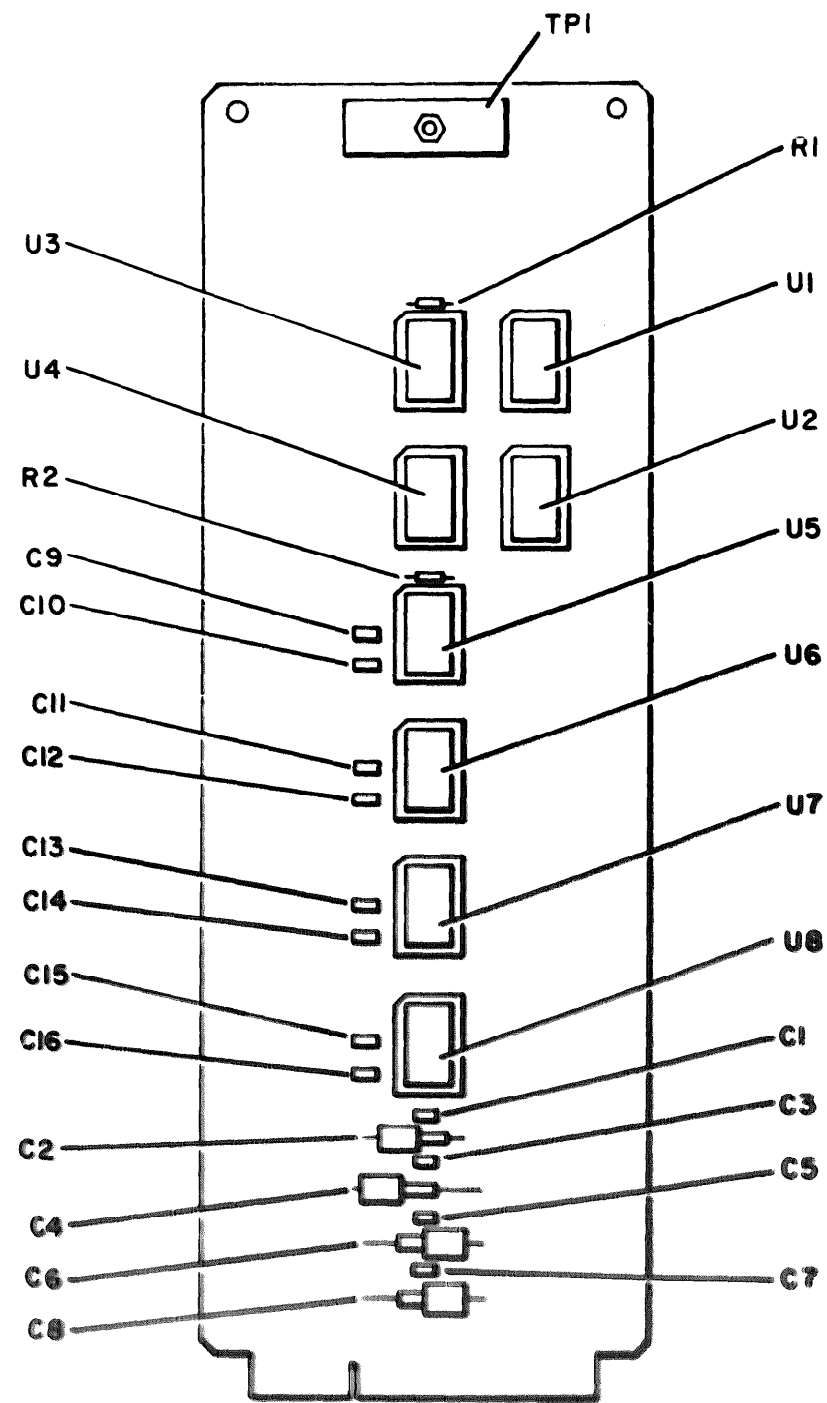


Figure A-74. Wiring Diagram Level Converter
Board Assembly ON199548

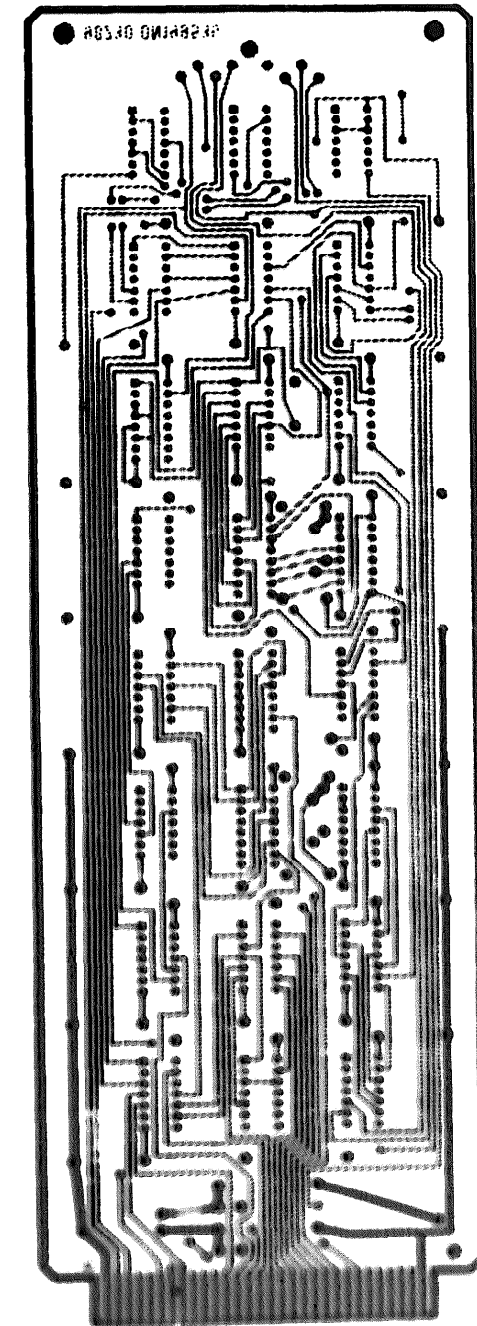
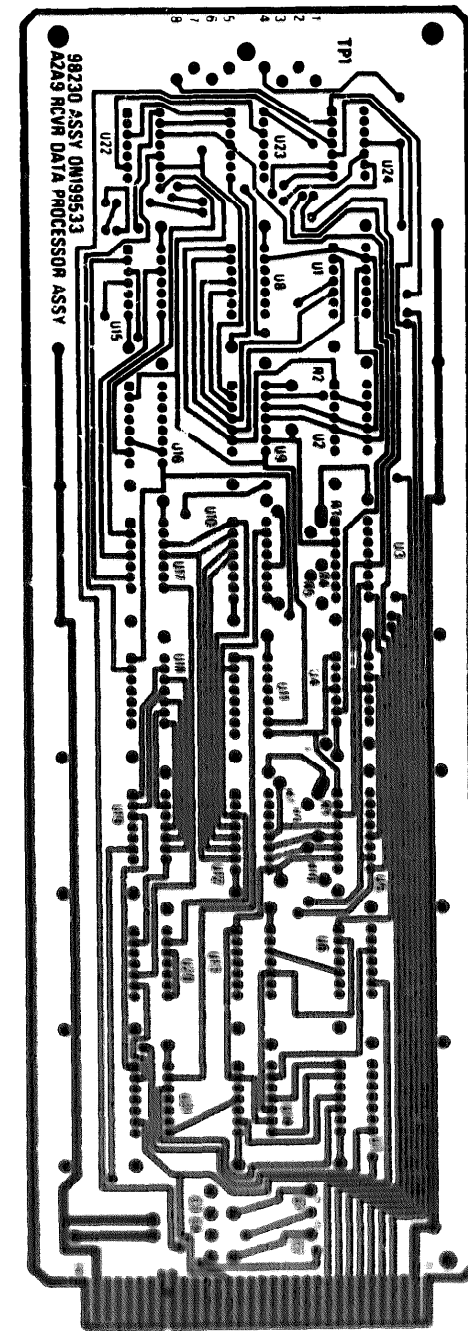
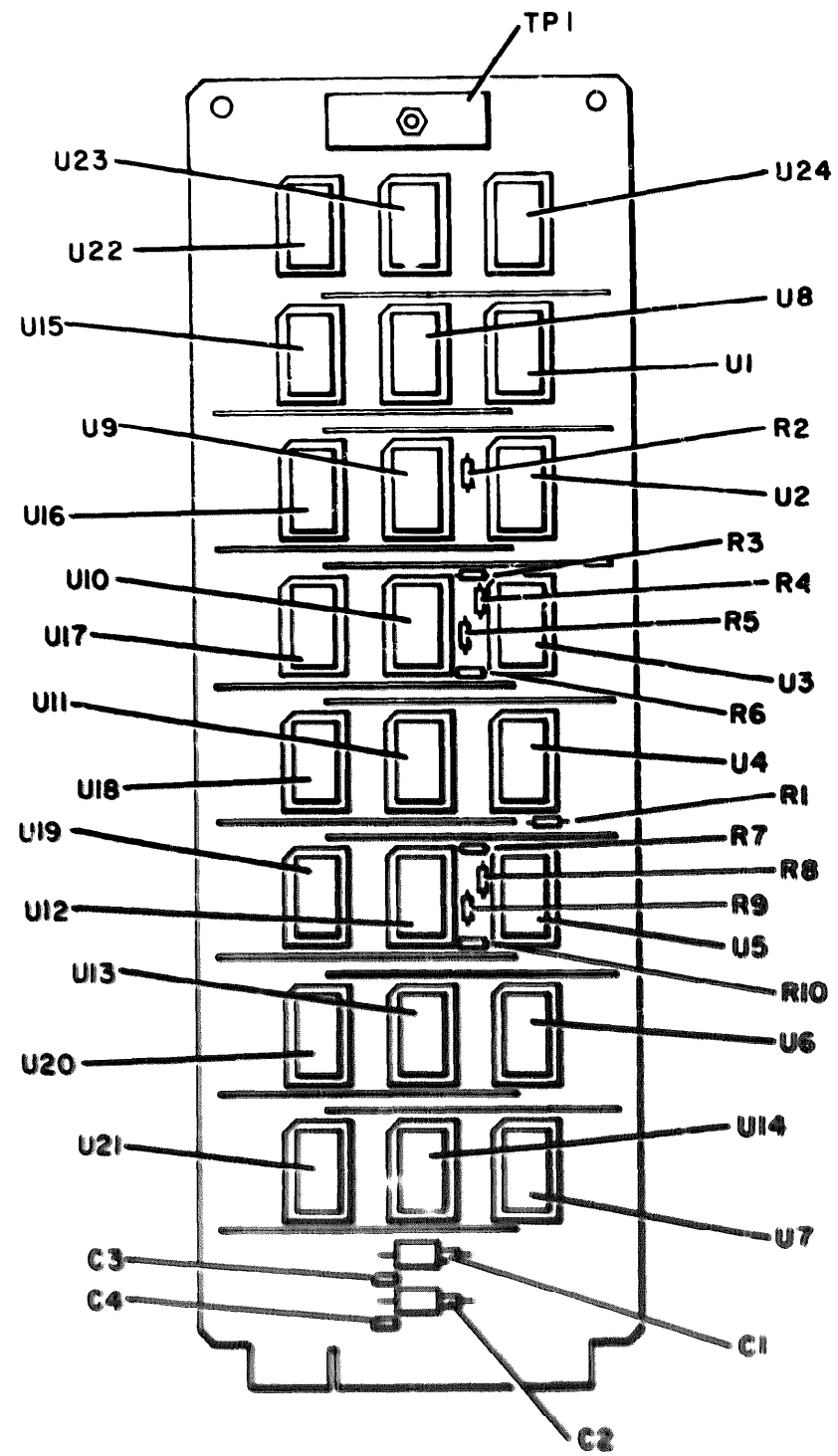


Figure A-75. Wiring Diagram Rcvr, DataP r o c e s s o r
Board A2A9Assembly ON199592

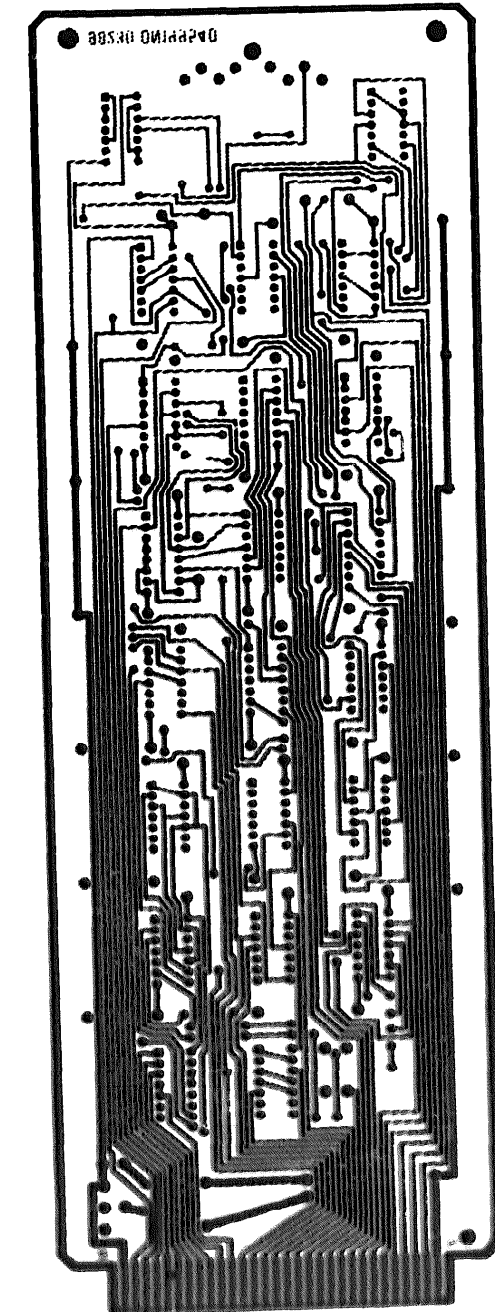
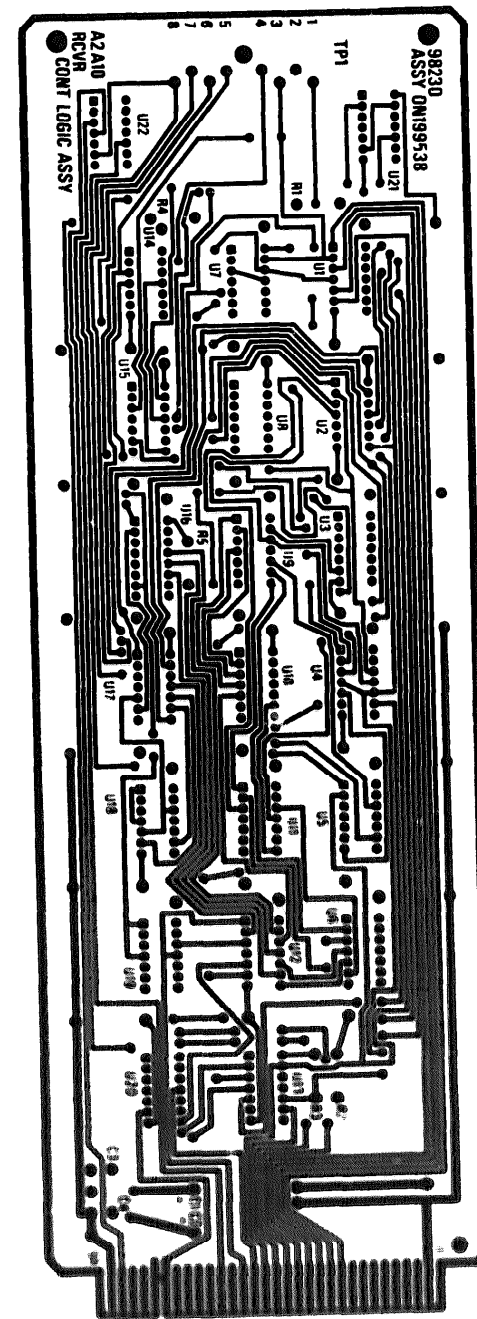
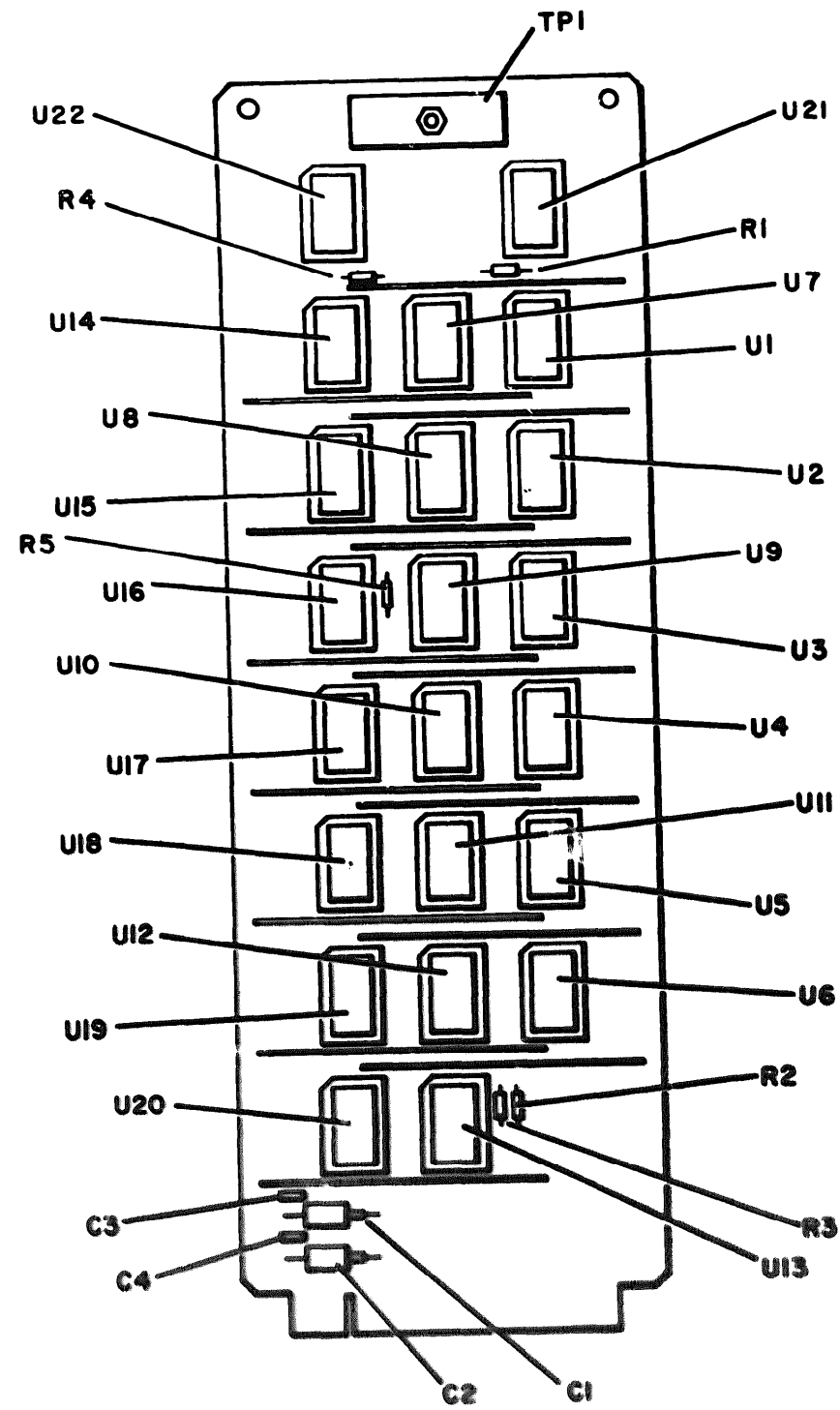


Figure a-76. Wiring Diagram Rcvr Cont Logic Board A2A10 Assembly ON 199630

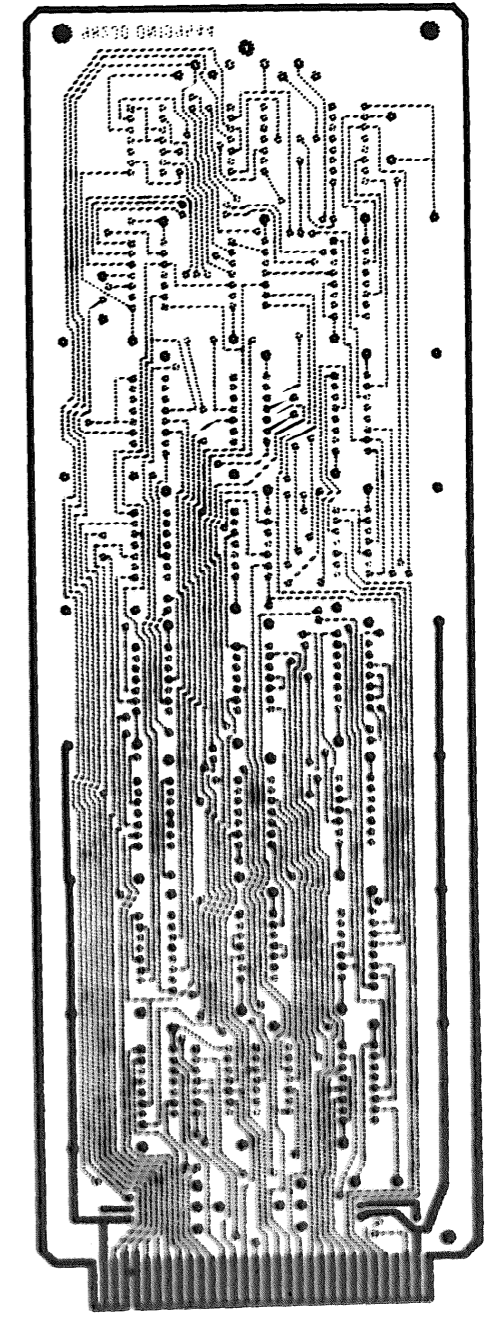
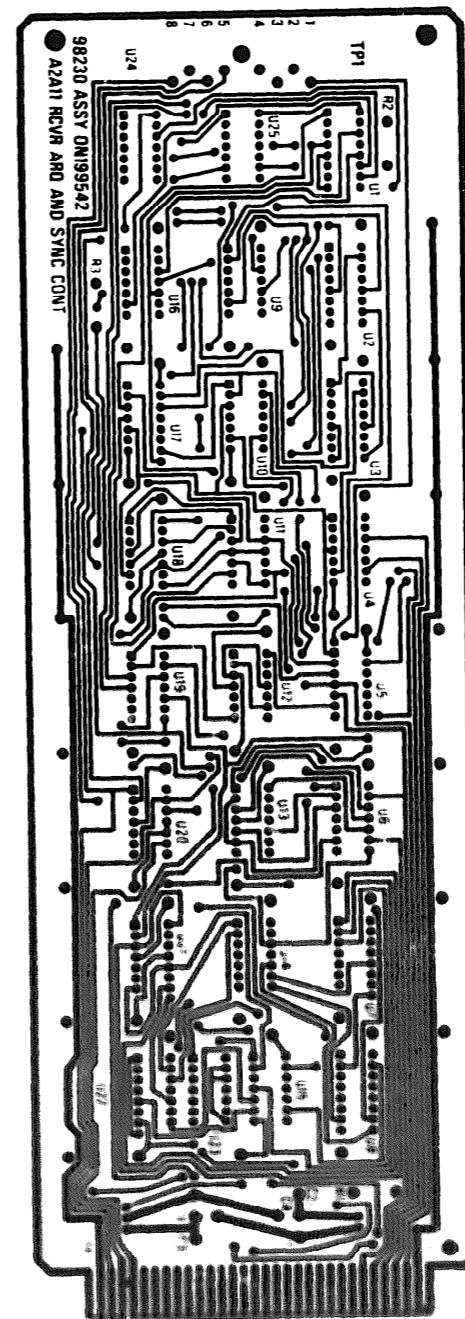
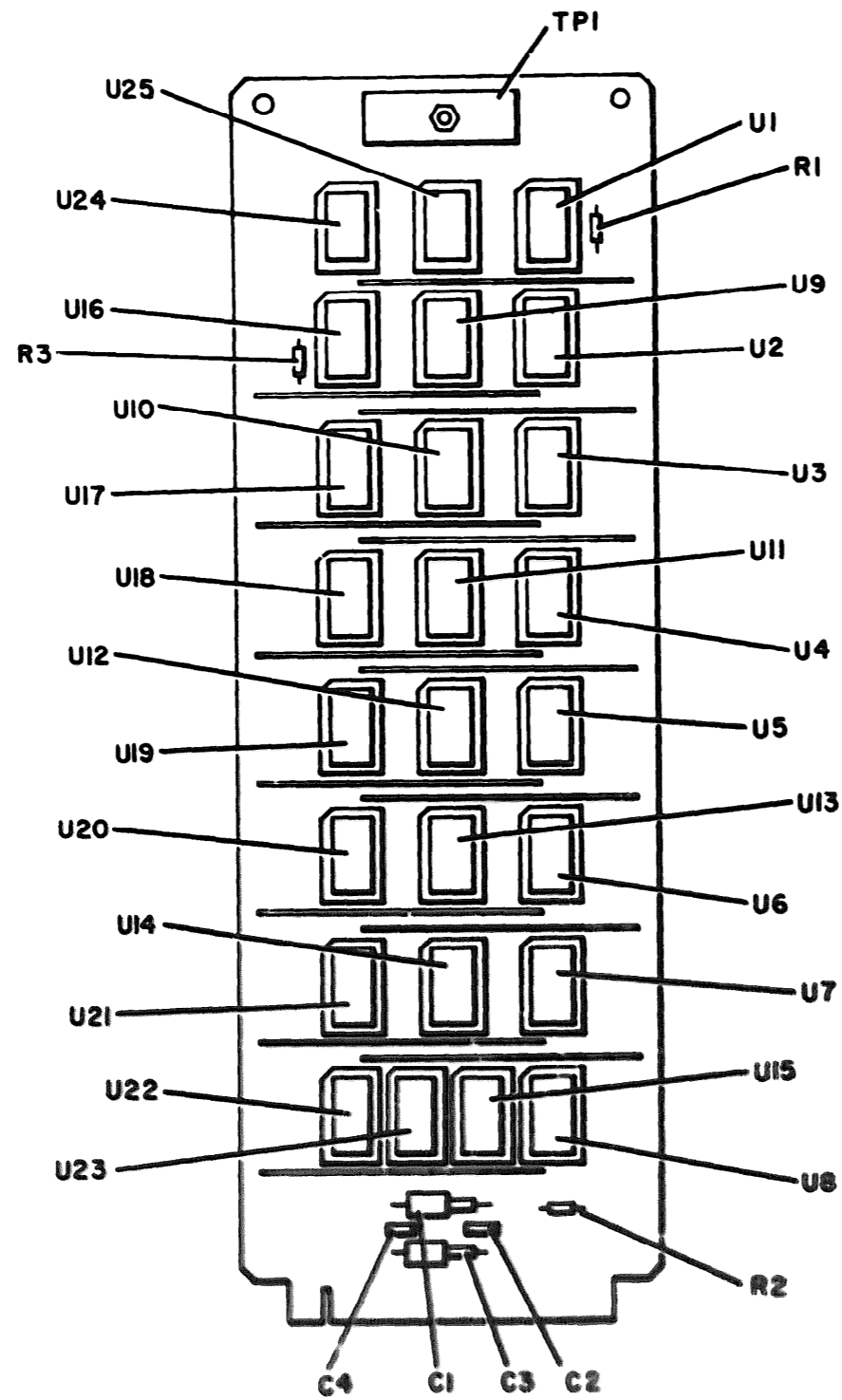


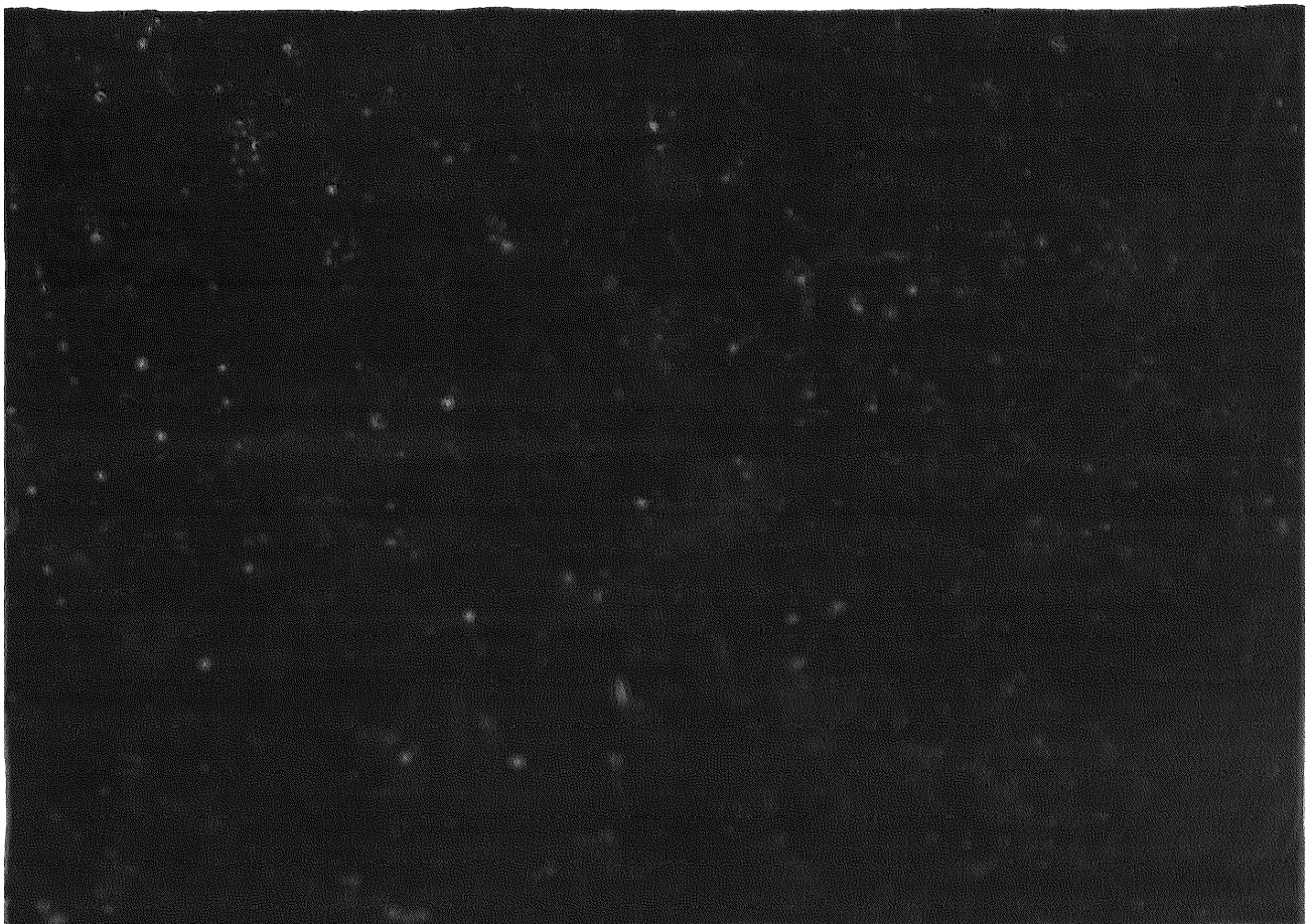
Figure A-77 Wiring Diagram, Rcvr ABO and Sync Cont
Board A2A11 Assembly ON199542

END

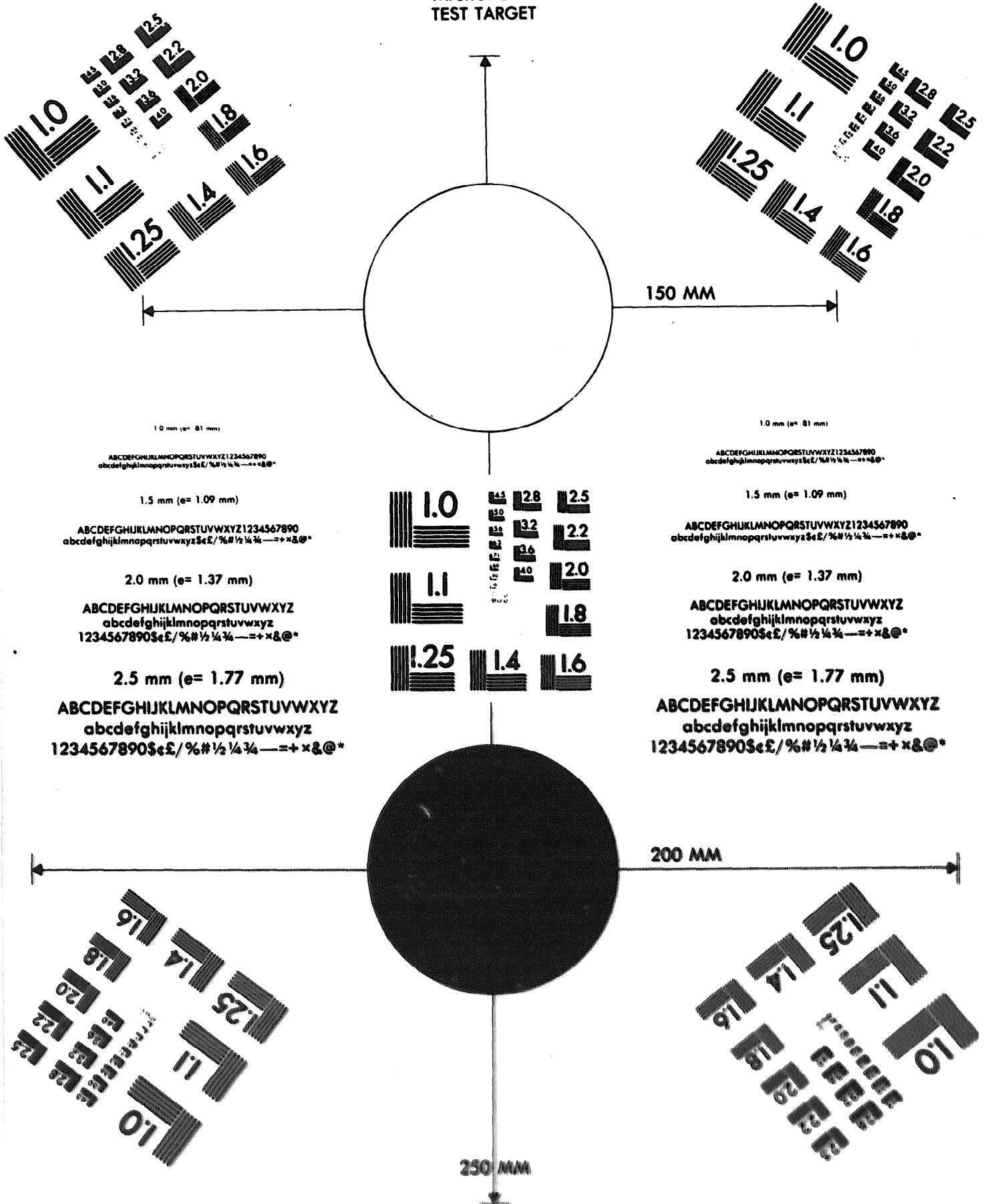
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1.5 mm (e= 1.09 mm)

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abcdefghijklmnopqrstuvwxyz\$%&'/%# 1/2 1/4 3/4 ---+ x&@*

2.0 mm (e= 1.37 mm)

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2.5 mm (e= 1.77 mm)

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For explanation of abbreviations used, see AR 310-50.

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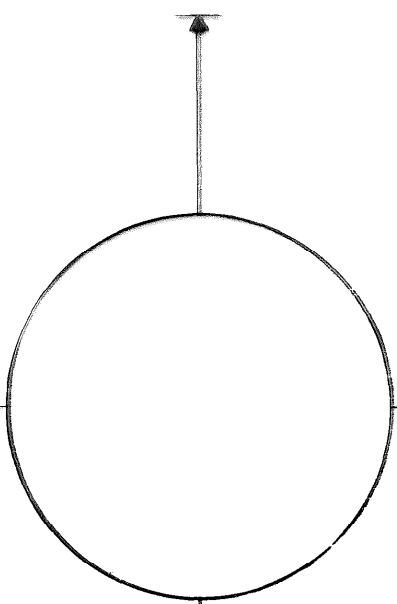
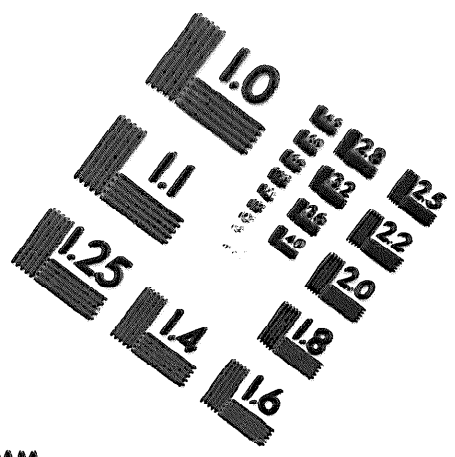
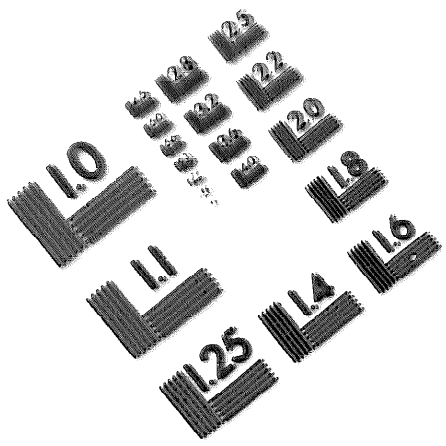
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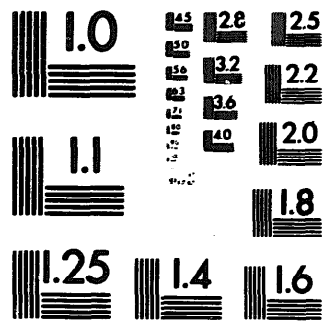
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1.0 mm (e= .81 mm)

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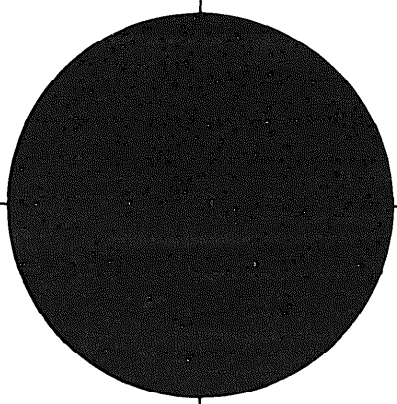
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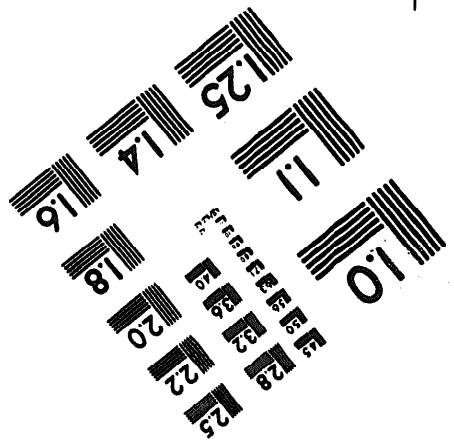
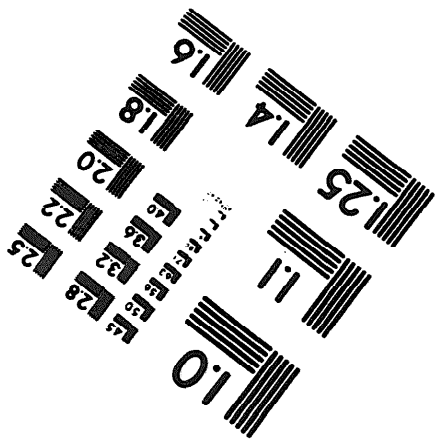
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2.5 mm (e= 1.77 mm)

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200 MM



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