

# SPACE FURY™

SEGA®/Gremlin®

**Preliminary Manual**

Part No. 420-0631

SPACE FURY<sub>TM</sub>

OPERATING INSTRUCTIONS  
AND  
SERVICE MANUAL

MANUFACTURED BY

SEGA/GREMLIN  
TLX 910-335-1621

SPACE FURY OWNER'S MANUAL  
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## INTRODUCTION

Space Fury is an electronic game that makes extensive use of digital integrated circuitry and television monitor concepts. This manual is designed for the maintenance technician who possesses a general knowledge of solid state circuitry, microprocessor and digital integrated circuitry, and TV monitor concepts. Any individual not knowledgeable in these areas should not attempt repair of the electronic portion of the game.

Gremlin's new G-80 system will make troubleshooting easy. Each board has a separate function and most problems can immediately be isolated to a single board. The individual boards contain less circuitry than if they were combined on one or two boards. This results in faster and easier servicing. The new G-80 system gives Gremlin a lot more flexibility in designing new games. Increased ROM capability and the addition of speech means that new Gremlin games will be more exciting and even more profitable. If you have any questions not answered in this manual, call SEGA/Gremlin Customer Service, (800) 854-1098.

## GAME SET-UP AND INSPECTION

Your Space Fury game is ready to play immediately upon arrival. But, before you plug in the game, open the rear access panel and make a general inspection of the interior game. The following items should be checked to insure no shipping damage has occurred.

### 1. Inspection

#### a) Are the fuses intact?

There are five fuses (not counting the monitor fuses which are detailed in the monitor manual accompanying this game).

One fuse is located on the AC junction box. The other four are on the power supply PC board.

#### b) Are the connectors firmly inserted?

Proper connector fittings must be checked before game power is applied. Check all related connectors for good contact. Although disconnected connectors are easily spotted, poor contacts are difficult to locate. The connectors should therefore be pushed in firmly and then loosened to spot poor connections. When testing the PC board connectors, always turn off the power.

#### c) Cabinet Inspection

Inspect the cabinet interior and exterior to ensure that no damage has occurred during shipping. Check to ensure graphics are in place, monitor is not damaged and that the overall cabinet is in good condition.

### 2. Voltage Selection

Before plugging in your game, make sure that the game voltage is correct for

your location. Locate the two leads from the AC junction box to the power transformer. For 110 VAC, they should be connected to terminals 1 and 2 on the power transformer. For 100 VAC, connect 1 and 3, and for 220 VAC applications, they should be connected to 1 and 4.

You will also notice on the AC junction box that there is a safety interlock switch. When the rear panel is in place the switch is depressed and the game receives power. Removing the rear panel, the switch returns to its original position and the power is cut off from the game. For servicing, this switch can be pulled out and power will be restored.

### 3. Game Specifications

Power	100 VAC, 60 HZ (nominal), 175 watts
	110 VAC, 60 HZ (nominal), 175 watts
	220 VAC, 60 HZ (nominal), 175 watts
Dimensions	25½ inches wide X 28 inches depth (64.77 cm wide X 71.12 cm depth) 67 inches height (170.18 cm height)

### 4. Important Notes

a) The following note is included in compliance with FCC rules:

WARNING: This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. As temporarily permitted by regulations, it has not been tested for compliance with the limits for Class A computing devices pursuant to Subpart J of Part 15 FCC Rules, which are designed to provide reasonable protection against interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

b) Miscellaneous

Never remove circuit board connections while power is on.

Never replace any components with anything other than exact replacement parts.

DO NOT replace fuses with anything other than the proper value. A blown fuse indicates an overload condition within the game. Replacing the fuse with a higher value can cause severe damage to internal components, if an overload occurs.

Correspondence regarding this game should be addressed to:

SEGA/Gremlin

8401 Aero Drive

San Diego, Cal 92123

(800) 854-1098

## Game Concept

Space Fury is a one or two player game in which players try to destroy enemy fleets. There are four types of enemy ships consisting of scouts, cruisers, destroyers, and warships. After each round, players have the opportunity to dock with one of three mother ships. If a player is unsuccessful in docking no extra points are scored.

### Docking Maneuver

Purple Ship- Firing power of three shots forward.

Green Ship- Firing power consists of one shot forward and one shot to each side.

Blue Ship- Firing power consists of one shot forward and two shots to the rear.

The first round of play consists of scouts, second round consists of cruisers, third round consists of destroyers, fourth round consists of warships, and the fifth round consists of the entire fleet. The player's ship can be destroyed by either a collision with an alien ship or by contact with a fireball shot by an alien. Only a completed ship can shoot fireballs. As you battle your way through each round, the Commander becomes more and more annoyed, if you are destroying his fleet successfully.

## Game Action

Space Fury is equipped with a special thrust feature that thrusts your ship forward very quickly to avoid enemy fleets. When a player docks with one of three mother ships the player gets a three way shooter to make it easier to destroy enemy fleets. After the game is over the Commander rates your skills. Players are rated either easy, adequate, amusing, stimulating, or outstanding. In a two player game players alternate after the destruction of the first player's ship.

## Scoring

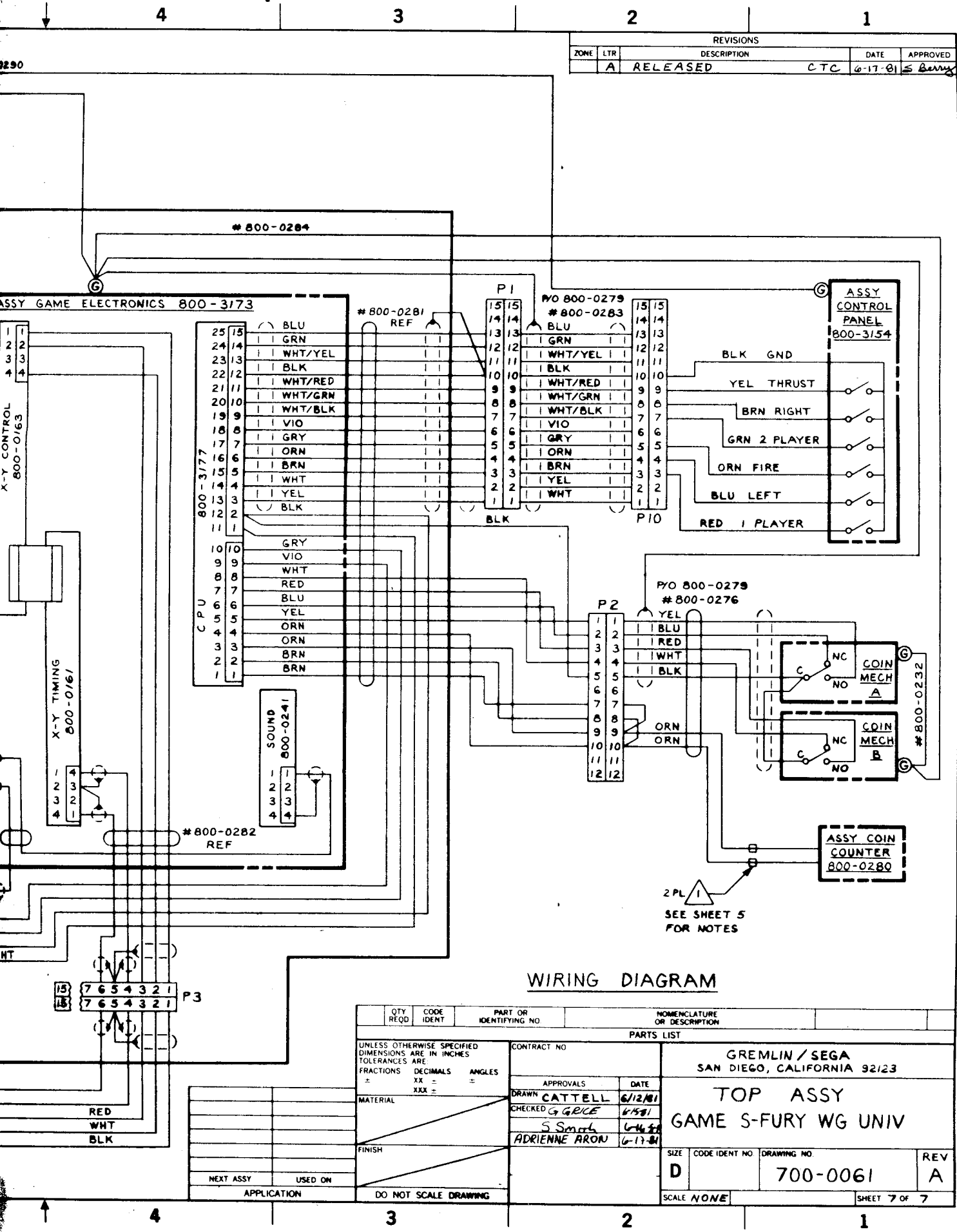
Scouts are worth 10 points. When it is a completed ship you obtain 20 points. A partial ship is worth 40 points (shooting forward before it comes together).

Fireballs in the first round are worth 30 points. In the second round cruisers are worth 20 points. Each segment is worth 40 points for a completed ship and 80 points for a partial. Fireballs in the second round are worth 60 points. Destroyers in the third round are worth 30 points for a segment and 80 points for a completed ship, and 150 points for a partial ship. Fireballs in the third round are worth 100 points. Warships in the fourth round are worth 40 points for a segment, 150 points for a completed, and 300 points for a partial ship. Fireballs in the fourth round are worth 200 points. Fifth round scoring is the same as the fourth round. Bonus points are scored during the docking maneuver. The amount of points obtained depends on how long it takes a player to get through the round. The game ends when all player's ships are destroyed.



SPACE FURY - OPTION SWITCH SETTINGS

<u>OPTION</u>	<u>SWITCH #1 SETTINGS</u>
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UPRIGHT	X X X X X X X O
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VOICE DURING ADVERTISING	X X X X X X C X
NO VOICE DURING ADVERTISING	X X X X X X O X
5 SHIP GAME	X X X X O O X X
4 SHIP GAME	X X X X O C X X
3 SHIP GAME	X X X X C O X X
2 SHIP GAME	X X X X C C X X
GAME DIFFICULTY: HARDEST	X X O O X X X X
HARD	X X O C X X X X
MEDIUM	X X C O X X X X
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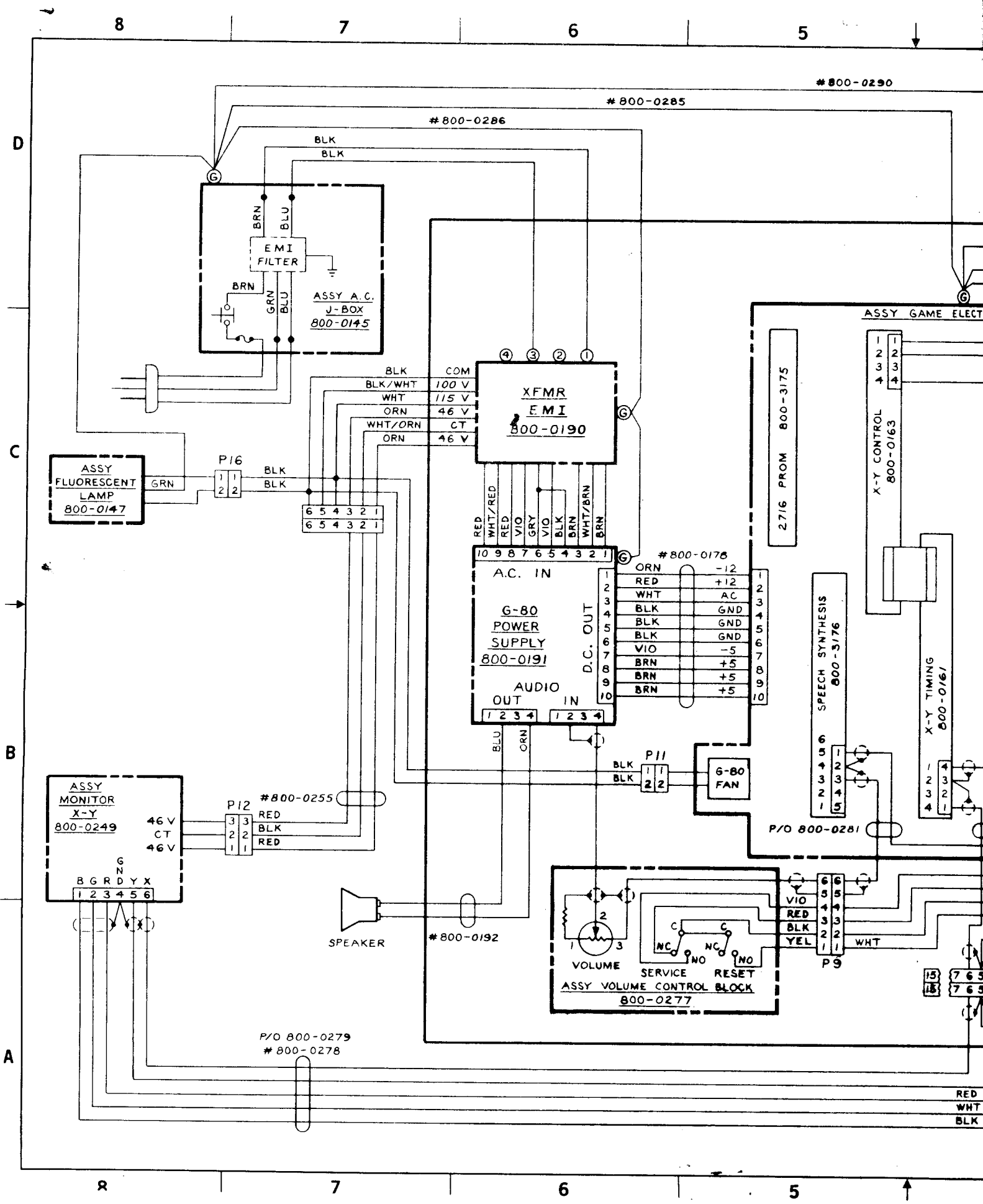


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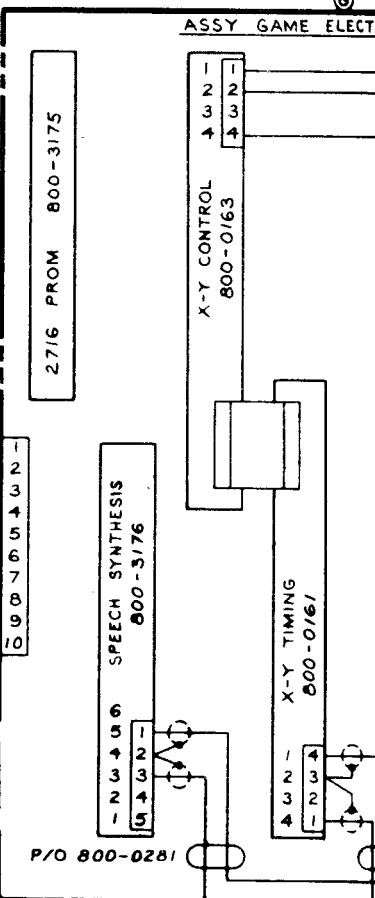
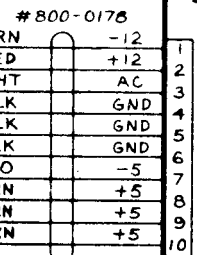
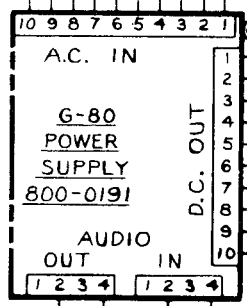
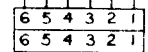
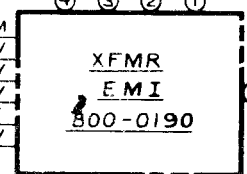
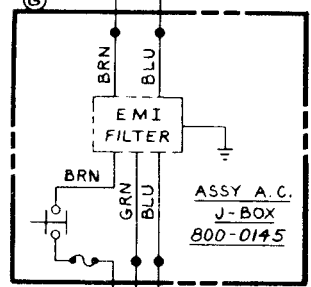
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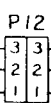
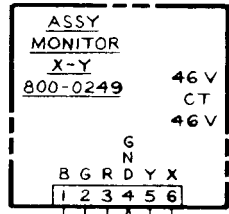
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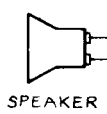
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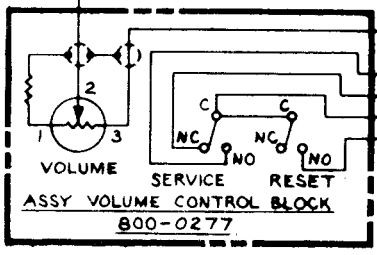
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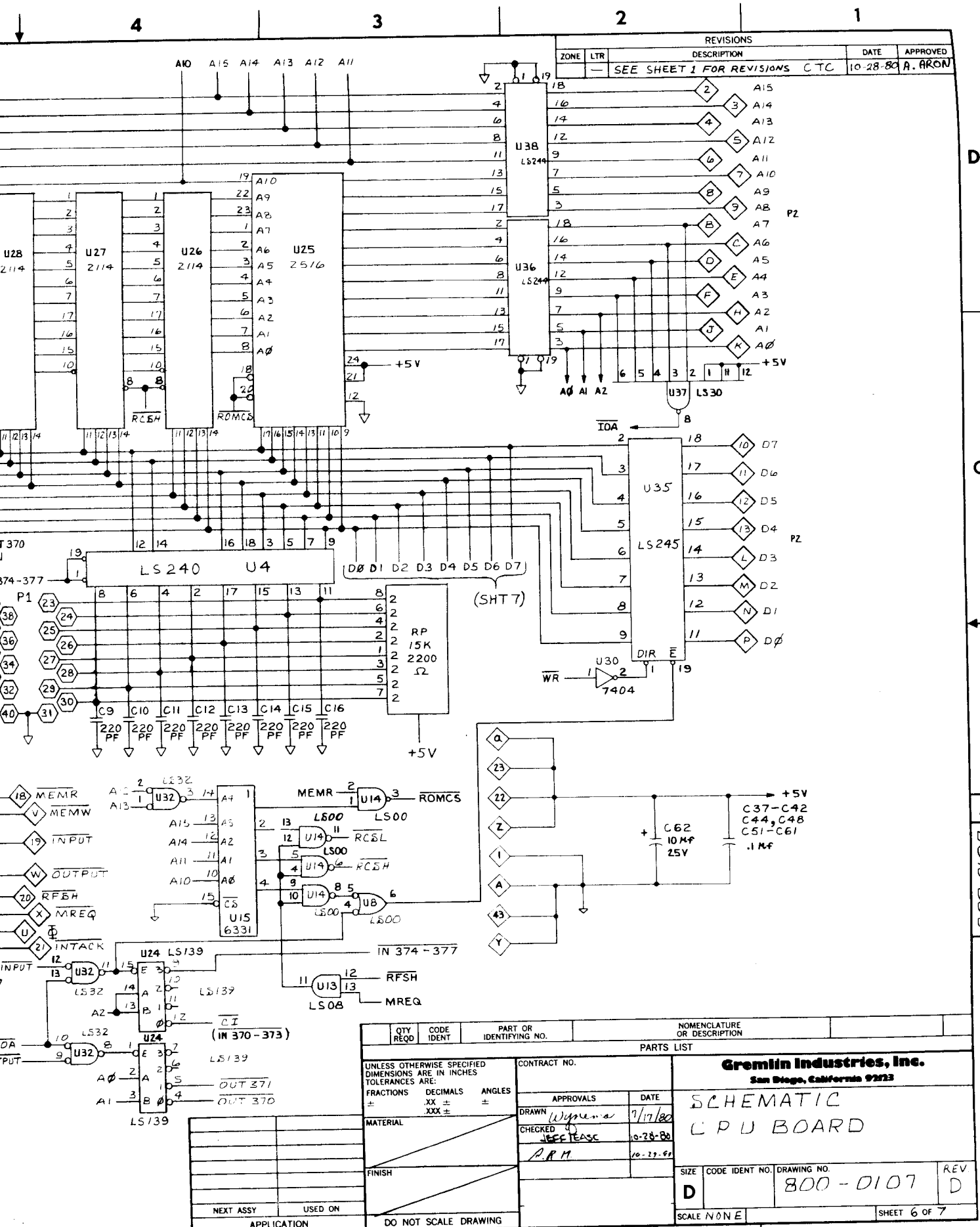
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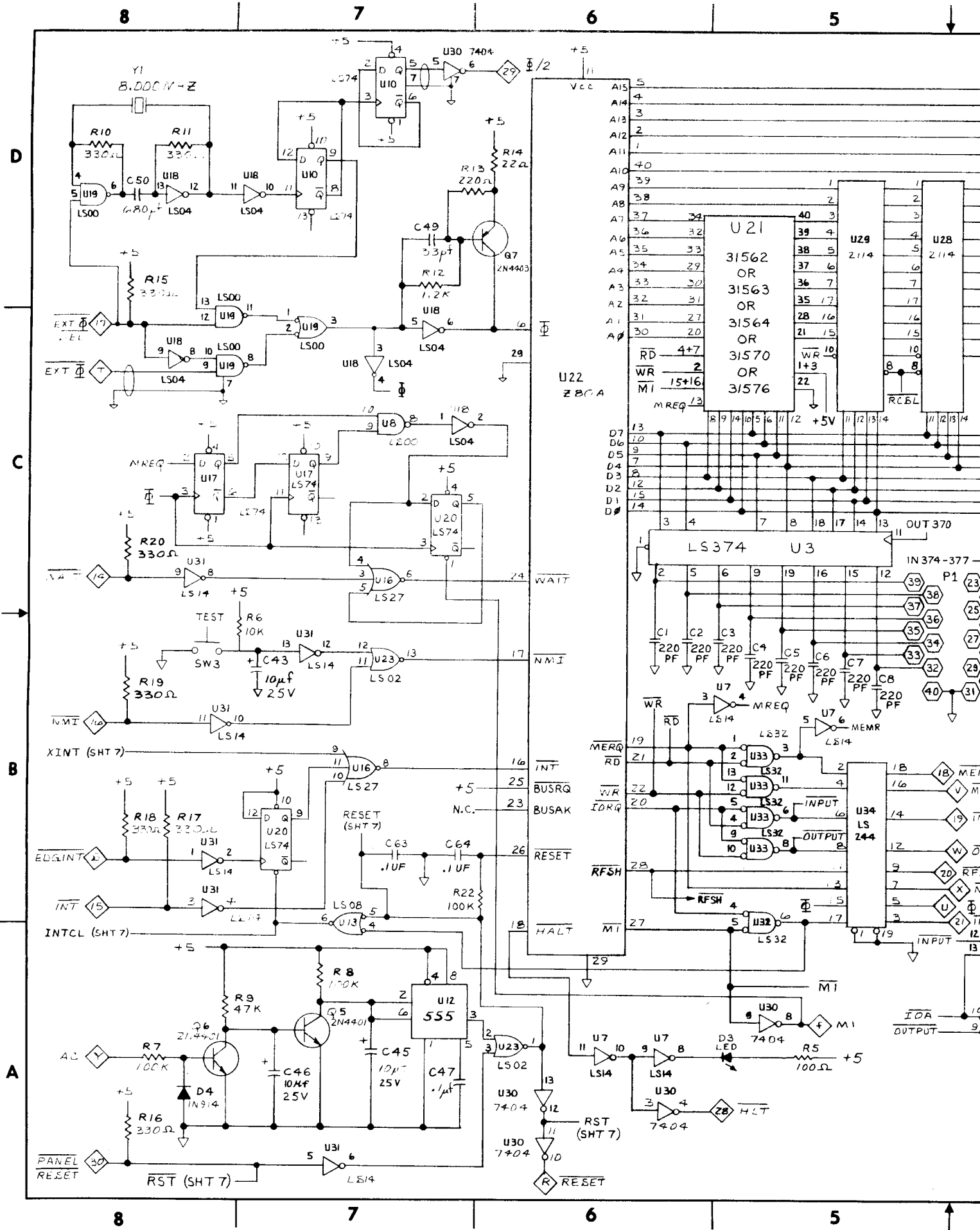
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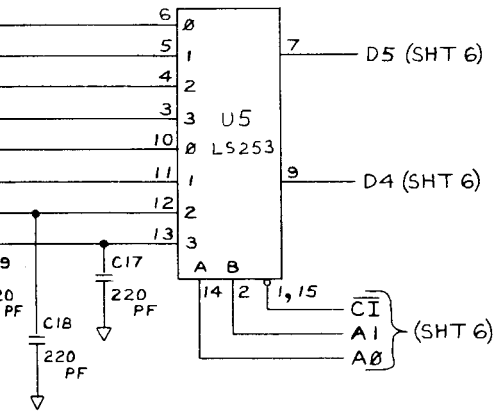
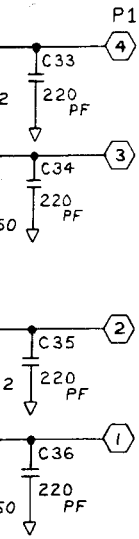
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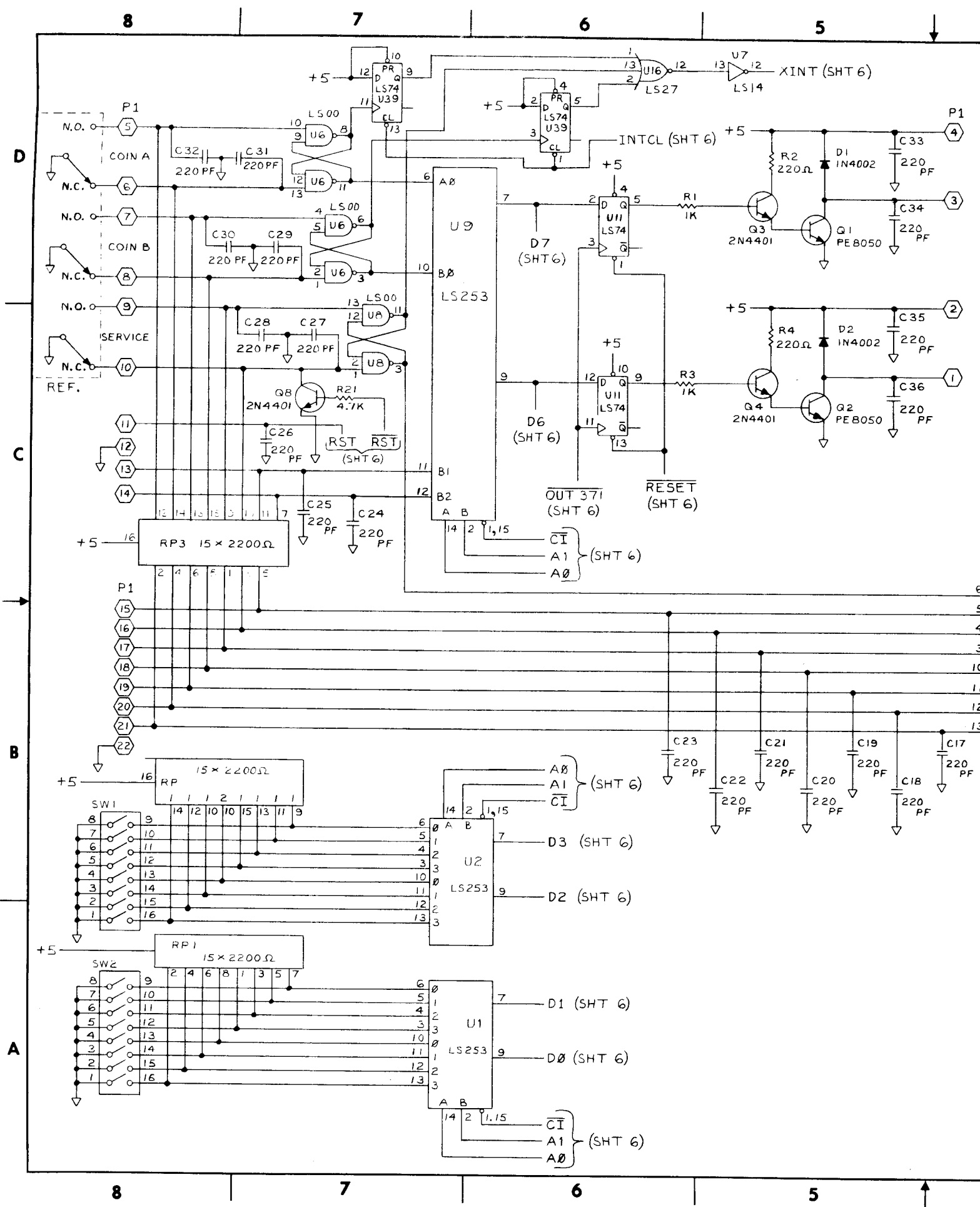
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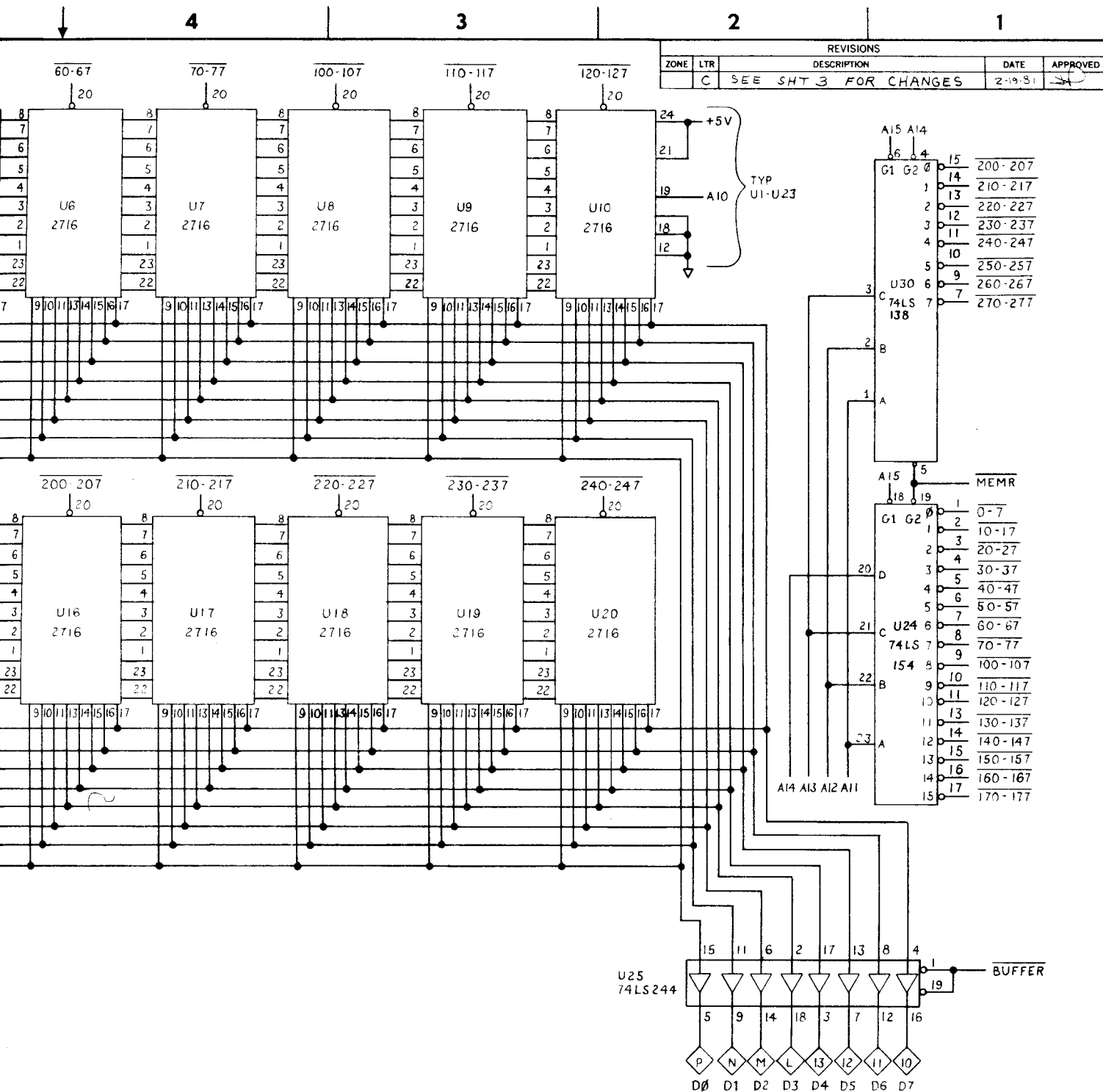
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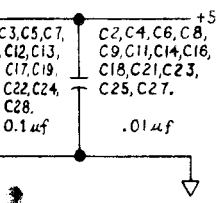
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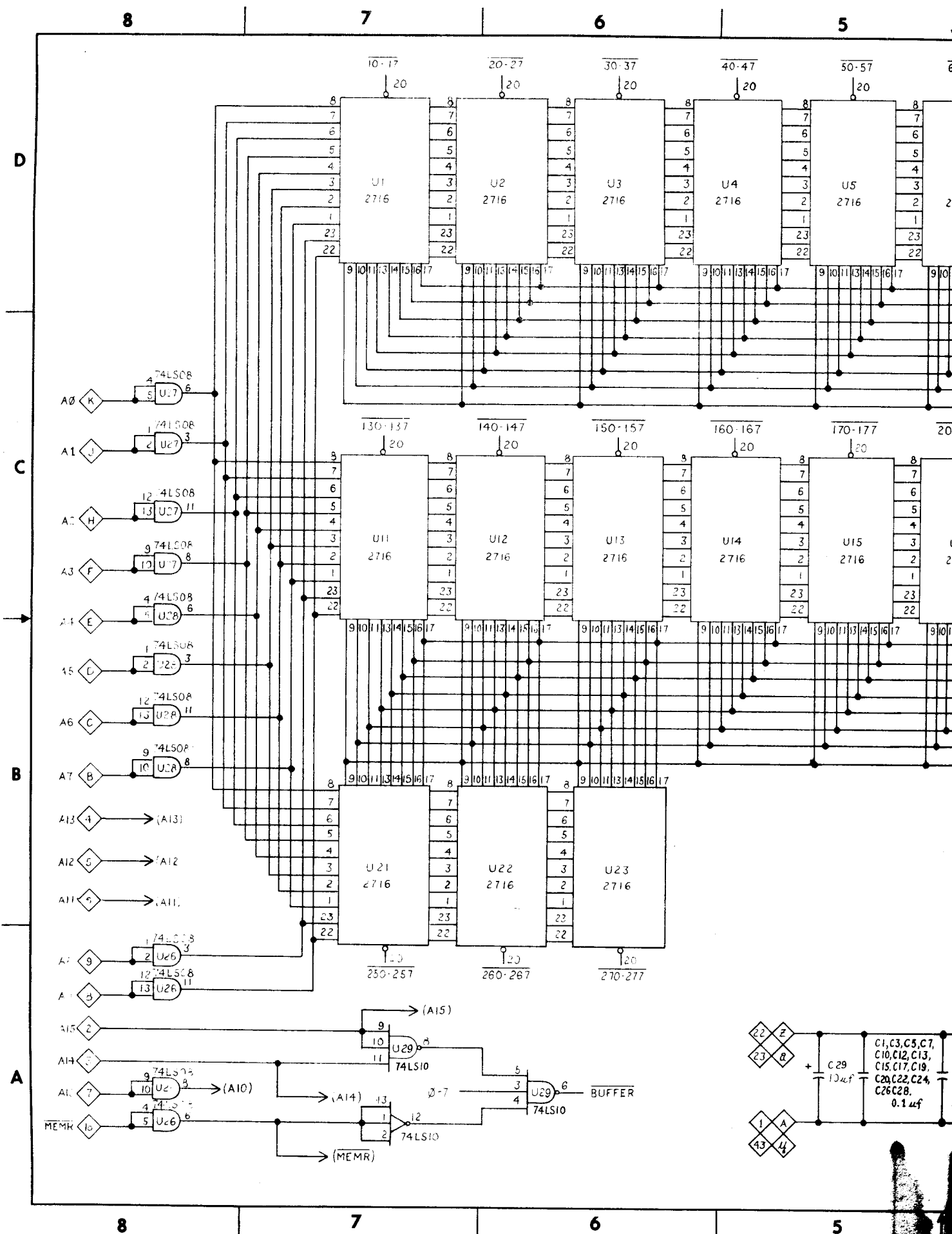
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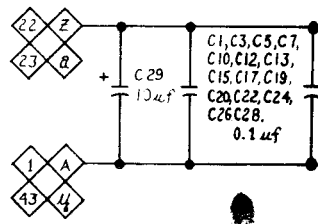
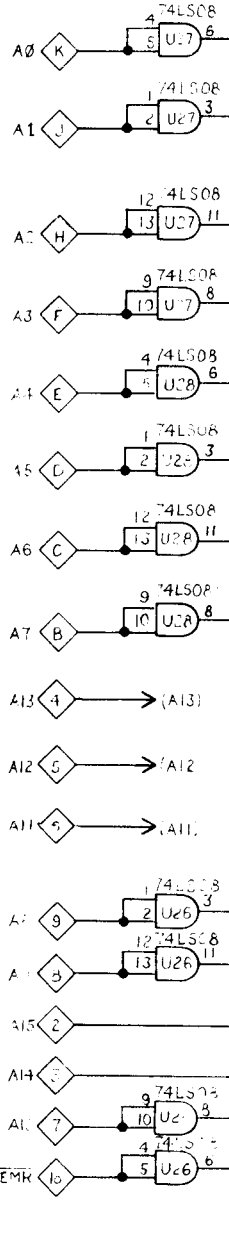
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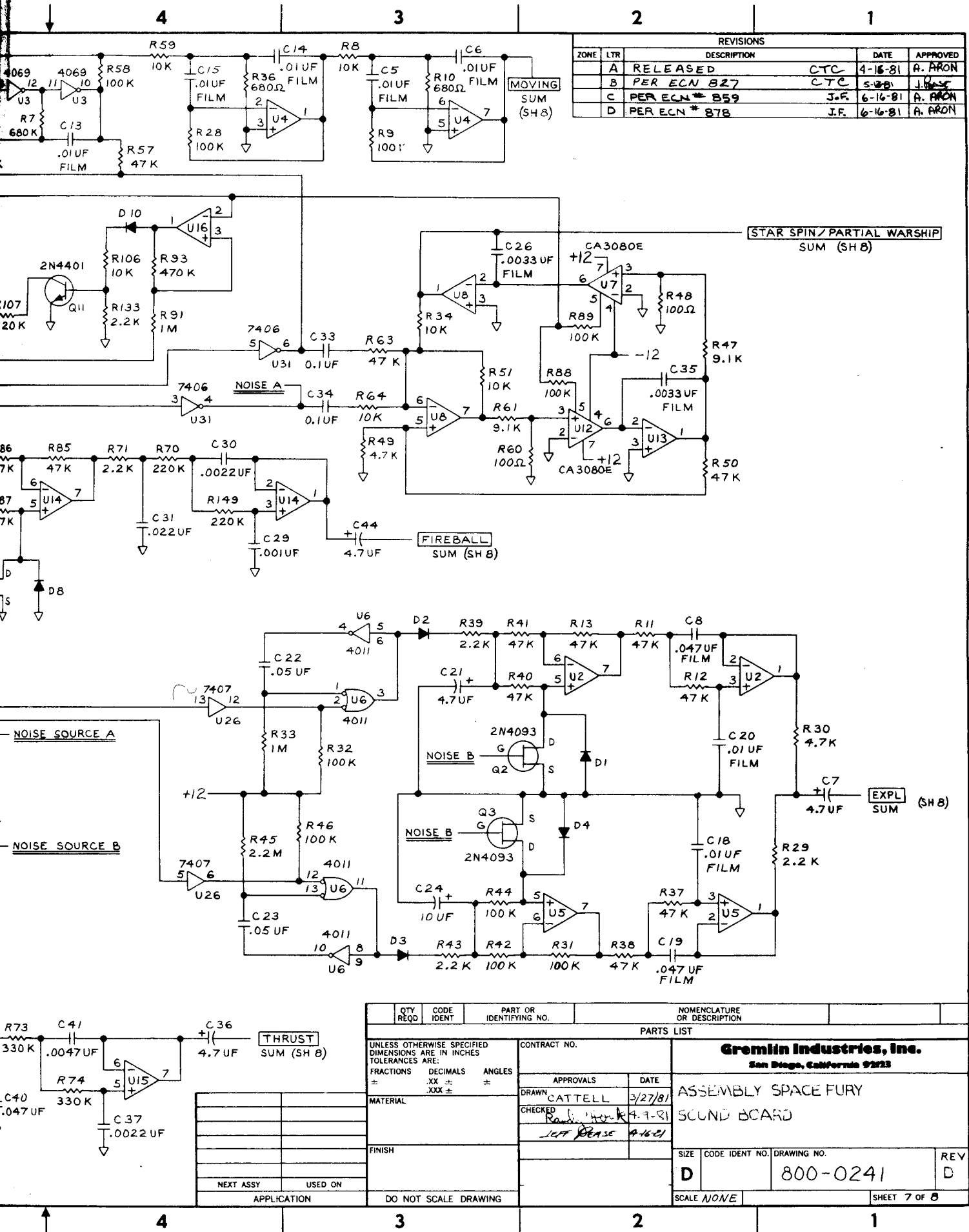
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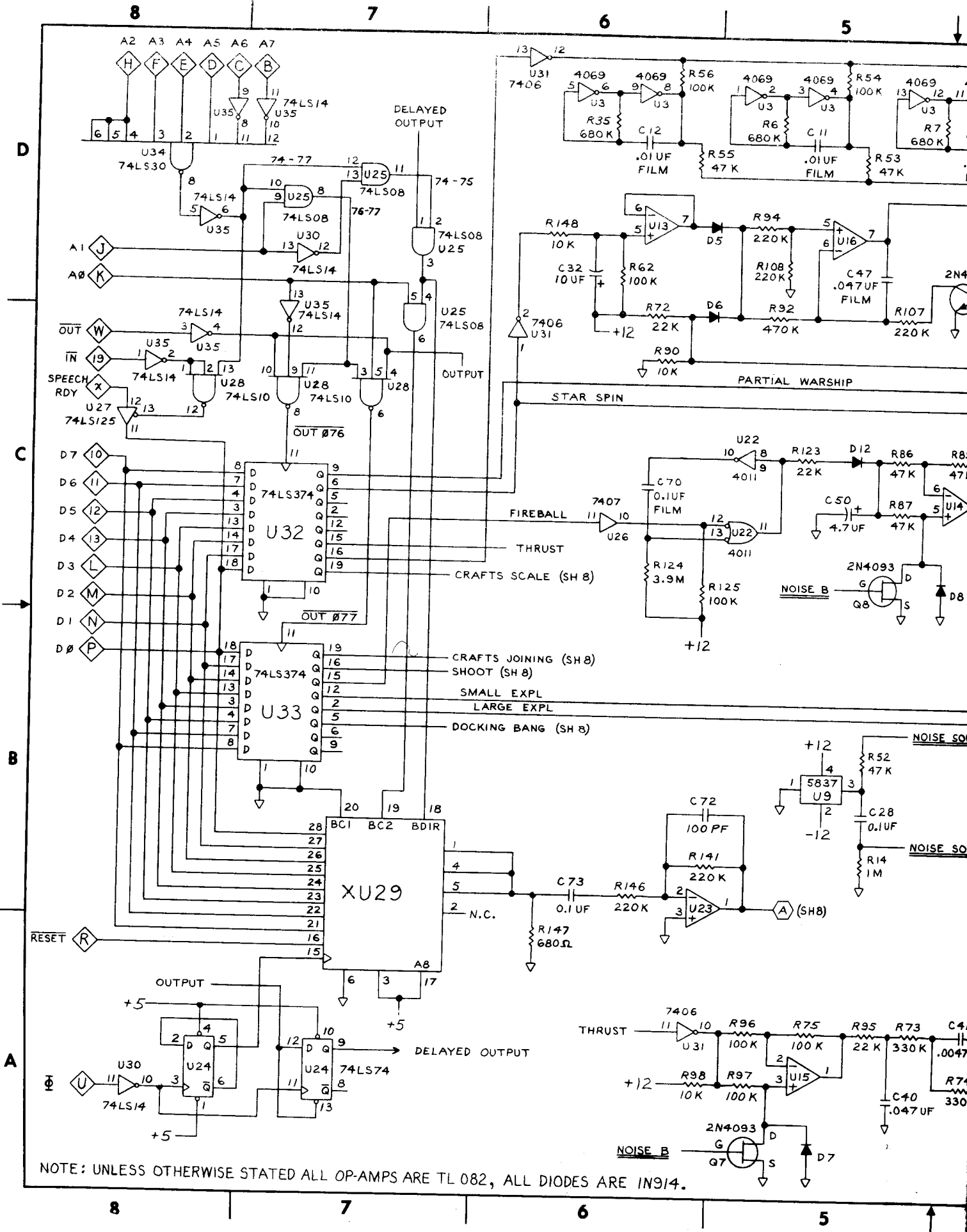




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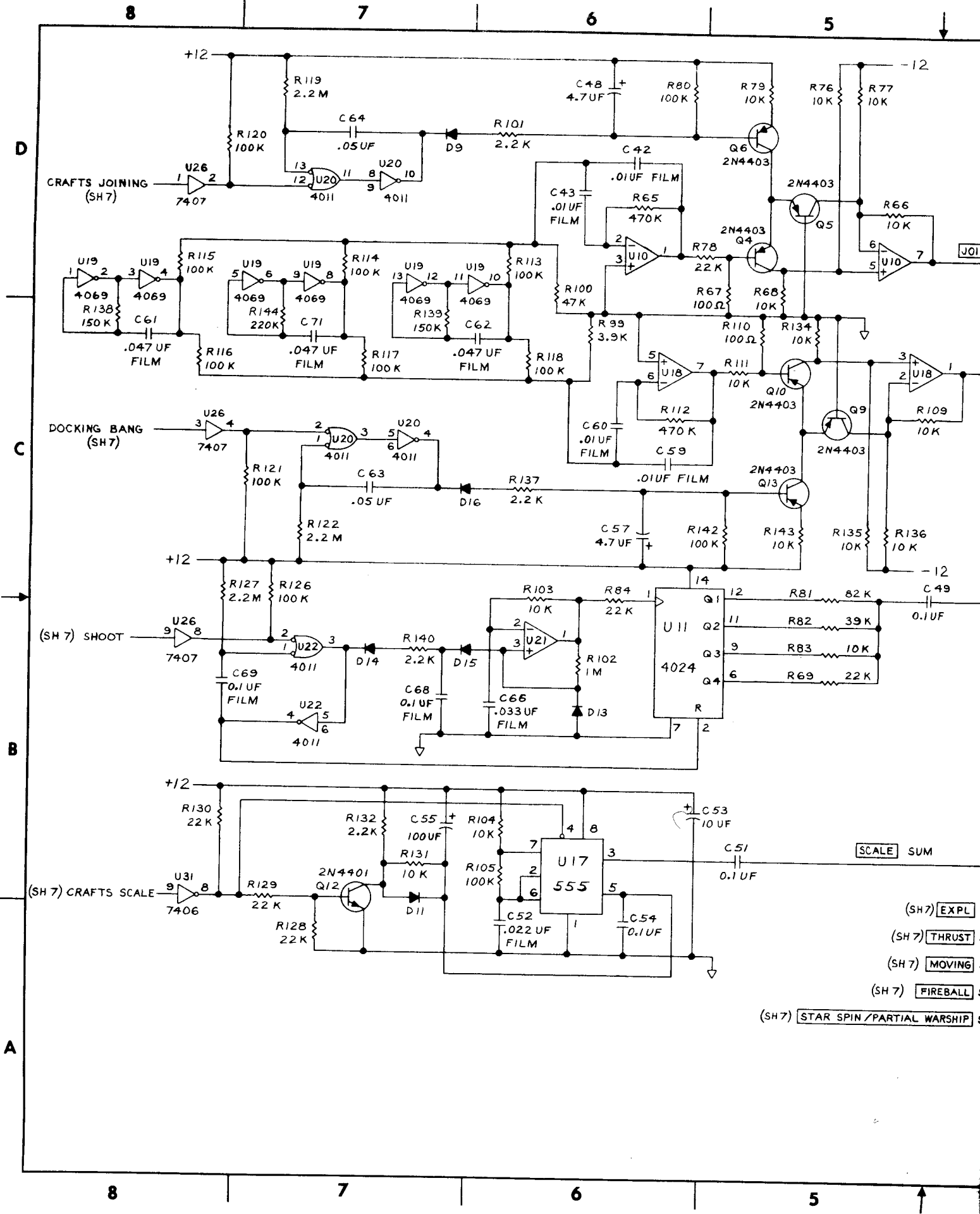
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NOTE: UNLESS OTHERWISE STATED ALL OP-AMPS ARE TL 082, ALL DIODES ARE 1N914.





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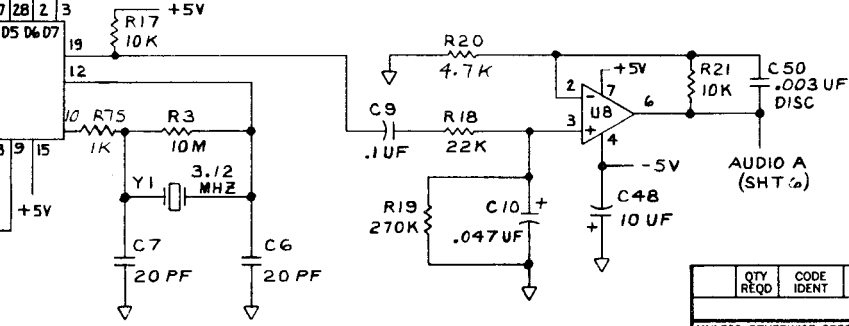
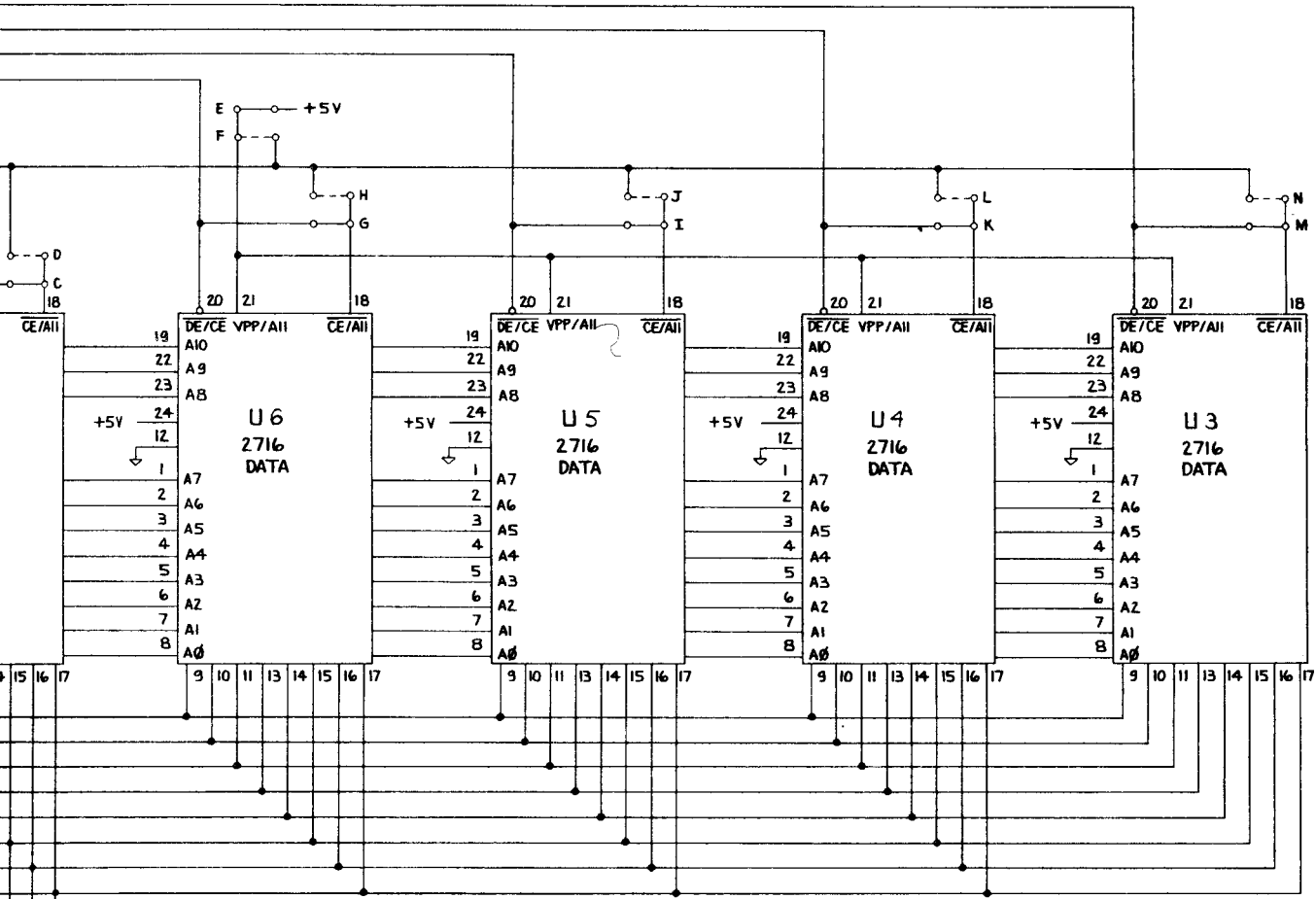
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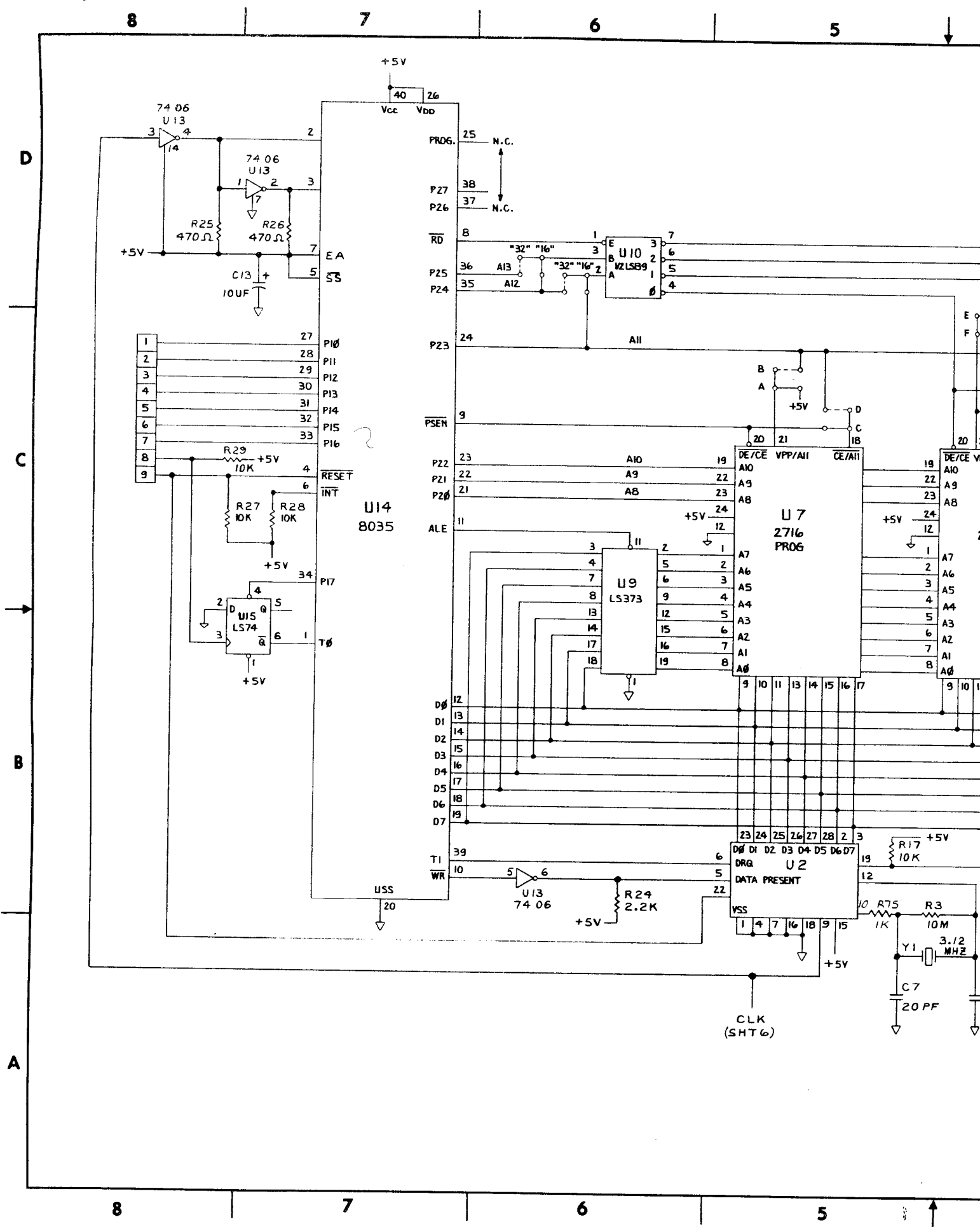
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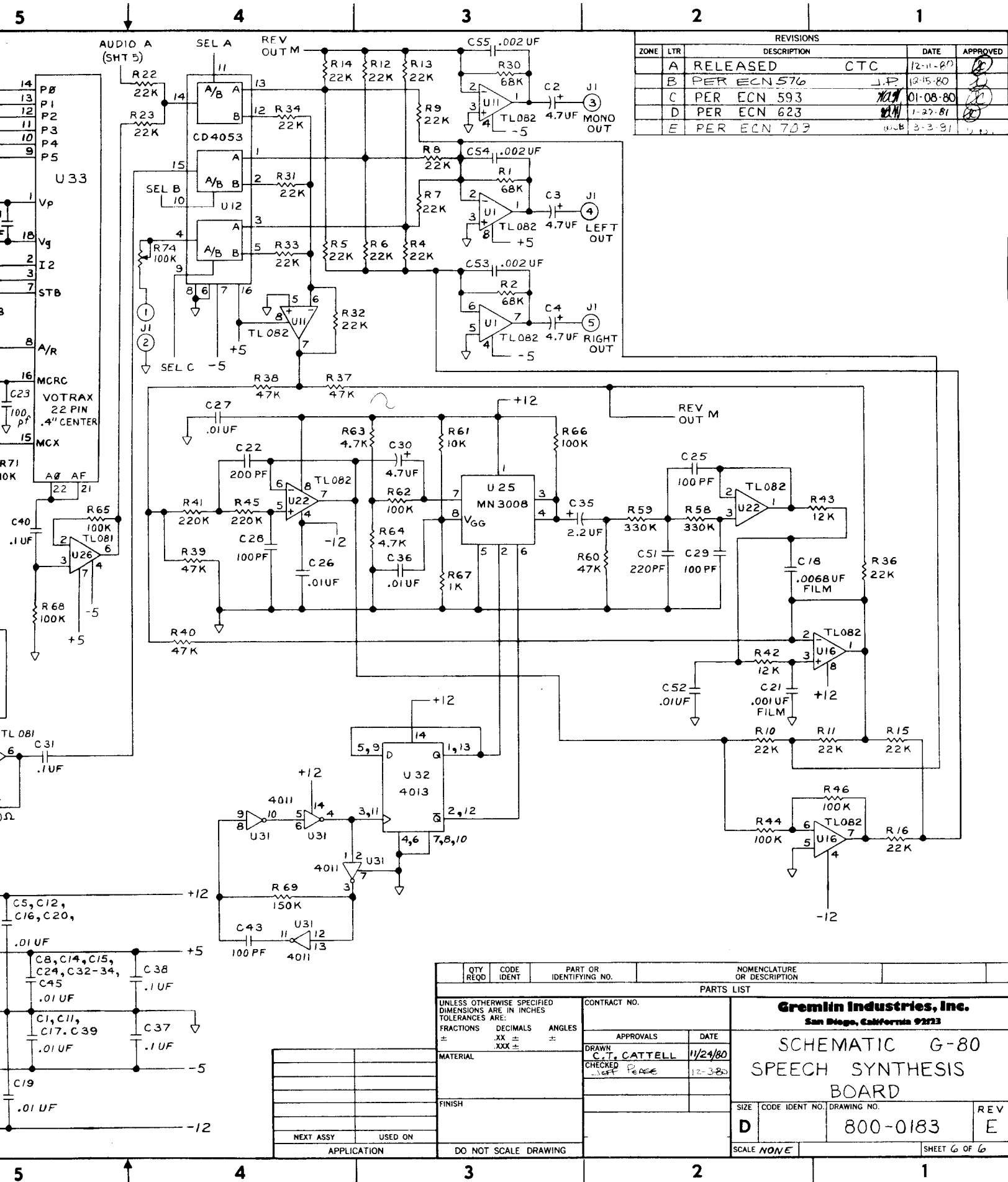


INSTALL JUMPERS

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2732	B,C	F;G/I/K/M; "32"
TMS2532	A,D	E;H/J/L/N; "32"

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PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:		CONTRACT NO.	
FRACTIONS	DECIMALS	ANGLES	<b>Gremlin Industries, Inc.</b> San Diego, California 92123
±	.XX ±	±	
	.XXX ±		
MATERIAL		APPROVALS	DATE
FINISH		DRAWN SON DUONG	10-25-80
NEXT ASSY USED ON		CHECKED <i>[Signature]</i>	10-28-80
APPLICATION		SIZE	CODE IDENT NO. DRAWING NO. REV
DO NOT SCALE DRAWING		D	800-0183 E
		SCALE NONE	SHEET 5 OF 6



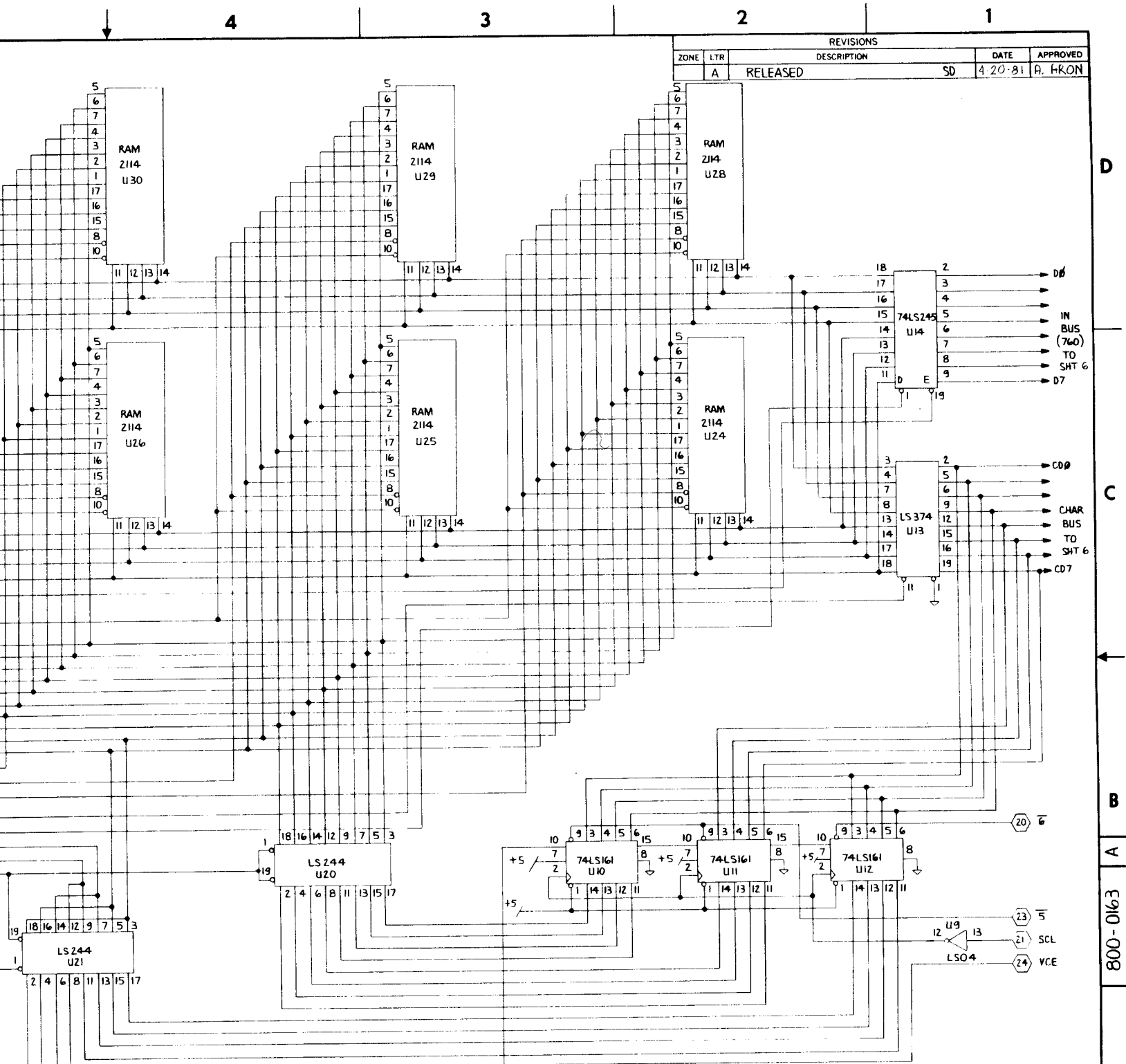


REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
A		RELEASED	CTC	12-11-80
B		PER ECN 576	J.P.	12-15-80
C		PER ECN 593	J.P.	01-08-80
D		PER ECN 623	J.P.	1-27-81
E		PER ECN 703	J.P.	3-3-81

QTY REQD	CODE IDENT	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION
PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:		CONTRACT NO.	
FRACTIONS	DECIMALS	ANGLES	APPROVALS
±	.XX ±	±	DATE
±	.XXX ±	±	
MATERIAL		DRAWN C.T. CATTELL 11/24/80	
FINISH		CHECKED JEFF PEREE 12-3-80	
NEXT ASSY USED ON		<b>Gremlin Industries, Inc.</b> San Diego, California 92123 <b>SCHEMATIC G-80</b> <b>SPEECH SYNTHESIS BOARD</b>	
APPLICATION		SIZE	CODE IDENT NO. DRAWING NO. REV
DO NOT SCALE DRAWING		D	800-0183 E
		SCALE	SHEET 6 OF 6
		None	







REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
A		RELEASED	SD 4-20-81	A. H. KRON

QTY REQD	CODE IDENT	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION
PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:		CONTRACT NO.	
FRACTIONS	DECIMALS	ANGLES	<b>Gremlin Industries, Inc.</b> San Diego, California 92123
±	XX ±	±	
MATERIAL		APPROVALS	DATE
FINISH		DRAWN SON DUONG	10-6-80
NEXT ASSY USED ON		CHECKED JEFF PEASE	11-2-80
APPLICATION		SCALE NONE	11/26
DO NOT SCALE DRAWING		SIZE	CODE IDENT NO. DRAWING NO.
		D	800-0163
		REV	A
		SHEET	5 OF 6

800-0163

