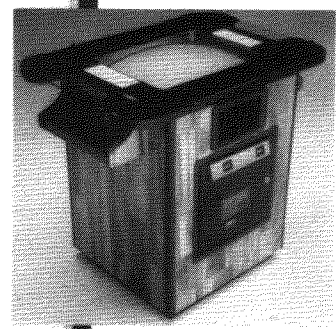


SCRAMBLE



SCRAMBLE

- * Object of game is to invade five SCRAMBLE defense systems to destroy THE BASE.
- * Use joystick to move up, down, accelerate, and decelerate.
- * Use Laser and bombs to destroy rockets, fuel tanks, mystery targets and UFO's.
- * Hit fuel tanks for extra fuel for AIRCRAFT.
- * Bonus AIRCRAFT at 10,000 points.

SCRAMBLE

SECTION 1
INSTALLATION

1.1 INTRODUCTION

This game has been STERN final tested and is ready to play, but on all games there are some items that must be checked after shipment. Making these visual inspections may avoid time consuming service work later. Minor troubles caused by abusive handling in shipment are unavoidable, such as cable connectors that may have become loosened. Check ALL CONNECTORS on the game to make sure they are firmly seated. Check to make sure that the game control boards are firmly seated. Examine the exterior of the game cabinet for dents, chips or broken parts. Check all major sub-assemblies, control panels, and T.V. monitor to make sure that they have not loosened up during shipment.

1.2 VISUAL INSPECTION BEFORE PLUGGING IN LINE CORD

1. Check the transformer for any foreign material shorting across wiring lugs.
2. Check that fuses are firmly seated and making good contact. Line fuse (3 AMP SLO-BLO) located on the transformer board, fluorescent lite fuse (1 AMP SLO-BLO) located on the fluorescent board, and 3 circuit board fuses - located on the power supply board (See drawing B).
3. Check the T.V. for any foreign material that could cause shorts (VISUAL INSPECTION ONLY).
4. Check game boards for any foreign material that could cause shorts. Make sure ribbon cables are pushed into circuit boards.

1.3 ON/OFF POWER INTERLOCK SWITCHES

1. The on/off power switch is located on the top right side, 12 inches from the front.
2. There are two interlock main power switches by the front door and one by the back access panel.

3. Interlock switch interrupts all power from game except service outlet. Interlock switch can be locked in "on" position by pulling stem out when servicing game.

1.4 GENERAL INFORMATION

1. On front door there is a service switch. Depressing this switch will coin machine without advancing coin counter (if installed).
2. Wiring for a counter is inside the front door on the left hand side of cabinet. (6 VDC COUNTER)
3. There are two coin chutes on the front door that are connected in parallel. (Note: They cannot be adjusted to work separately, see Dip Switches 4 and 5 below)
4. Game adjustment switches are located on CPU board. (See below for adjustments)
5. The electronics package used in SCRAMBLE is the same for stand-up model and cocktail table model. (They can be interchanged if Dip Switch #3 is changed on CPU board)
6. Volume control for electronic sound is located on CPU board.
7. Power supply board has an adjustment (See DWG B) for the +5 VDC regulator, this MUST BE SET BETWEEN +5.0 VDC and 5.25 VDC.

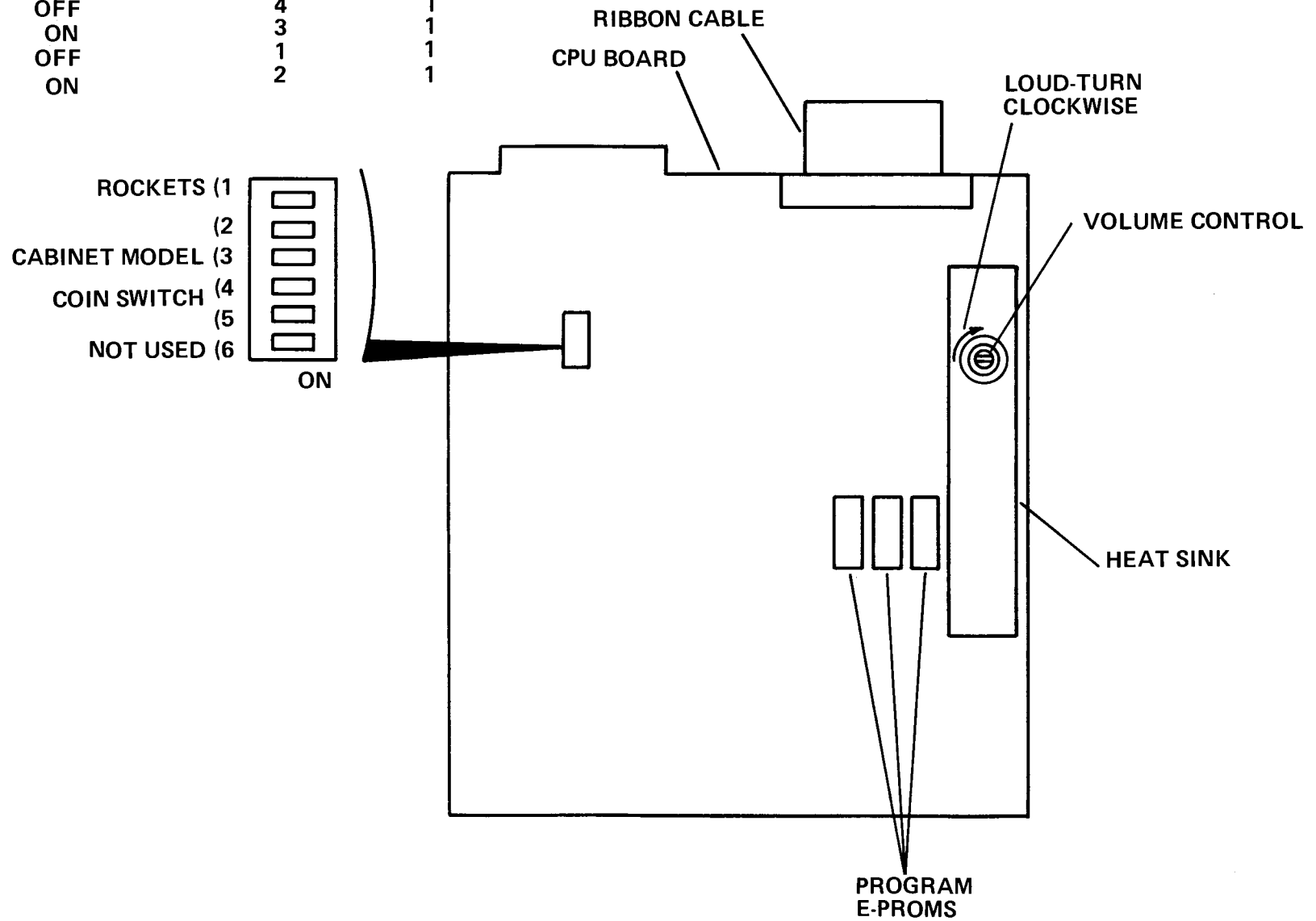
GAME ADJUSTMENTS

<u>SWITCH</u>		<u>ROCKET</u>
<u>1</u>	<u>2</u>	
OFF	OFF	Freeplay
OFF	ON	5
ON	OFF	4
ON	ON	3

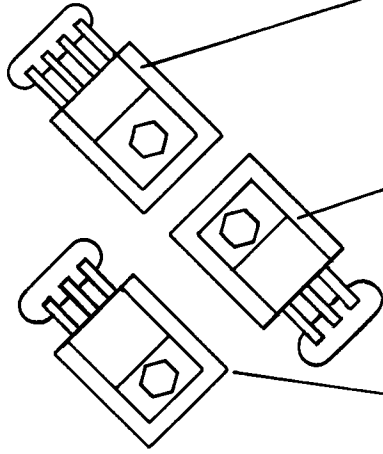
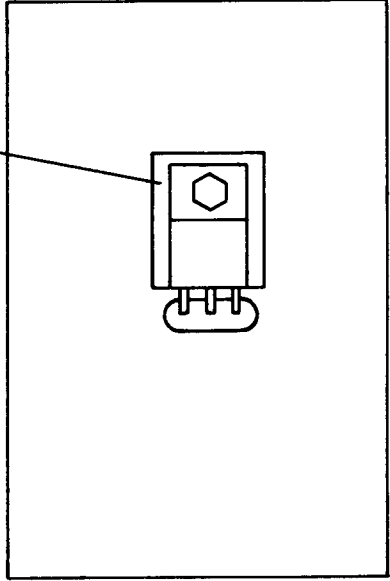
<u>SWITCH</u>		
<u>3</u>		
OFF		Table
ON		Up Right

GAME ADJUSTMENTS CONTINUED

SWITCH		COINS	PLAY
4	5		
OFF	OFF	4	1
OFF	ON	3	1
ON	OFF	1	1
ON	ON	2	1



Q1
+5VDC
2N6121

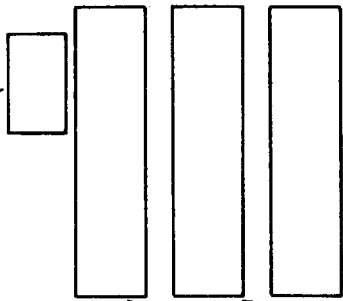


VR1
+5VDC
UA78GUIC

VR3
-5VDC
7905

BR2
+12VDC
7812

5 VDC ADJ POT
(ADJUST BETWEEN
4.8 VDC TO 5.2 VDC)



FUSE F3 1AMP

FUSE F2 2AMP

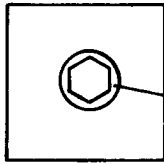
FUSE F1 4AMP

TP4 +5VDC

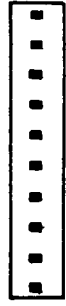
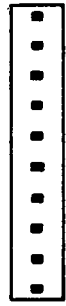
TP3 GND

TP2 +12VDC

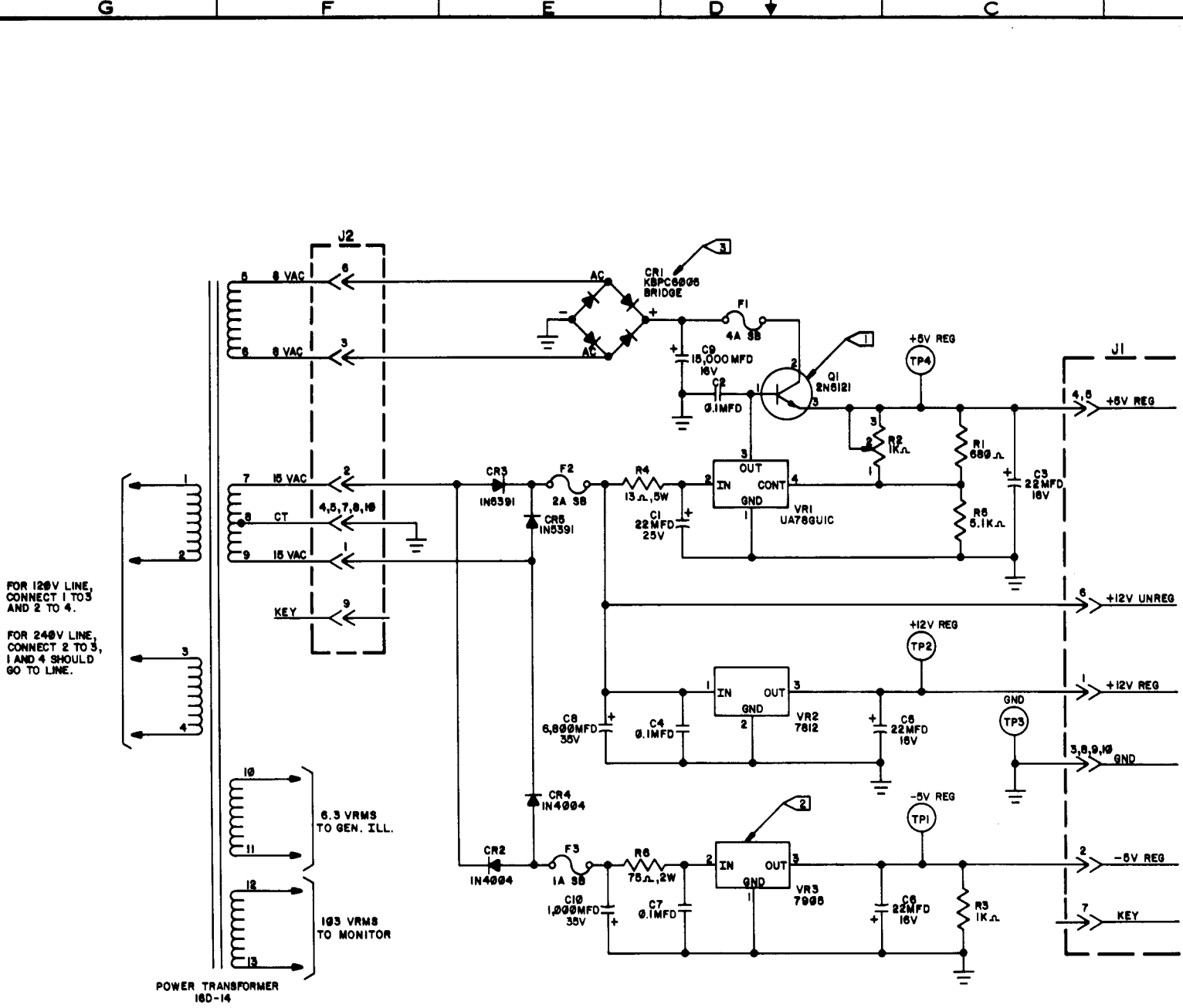
TP1 -5VDC



+5 VDC
BRIDGE RECTIFIER



REVISIONS				
SYM	DESCRIPTION	DFT DATE	CHK DATE	APPD DATE
A	ISSUED E.I. 00032			



FOR 120V LINE, CONNECT 1 TO 3 AND 2 TO 4.

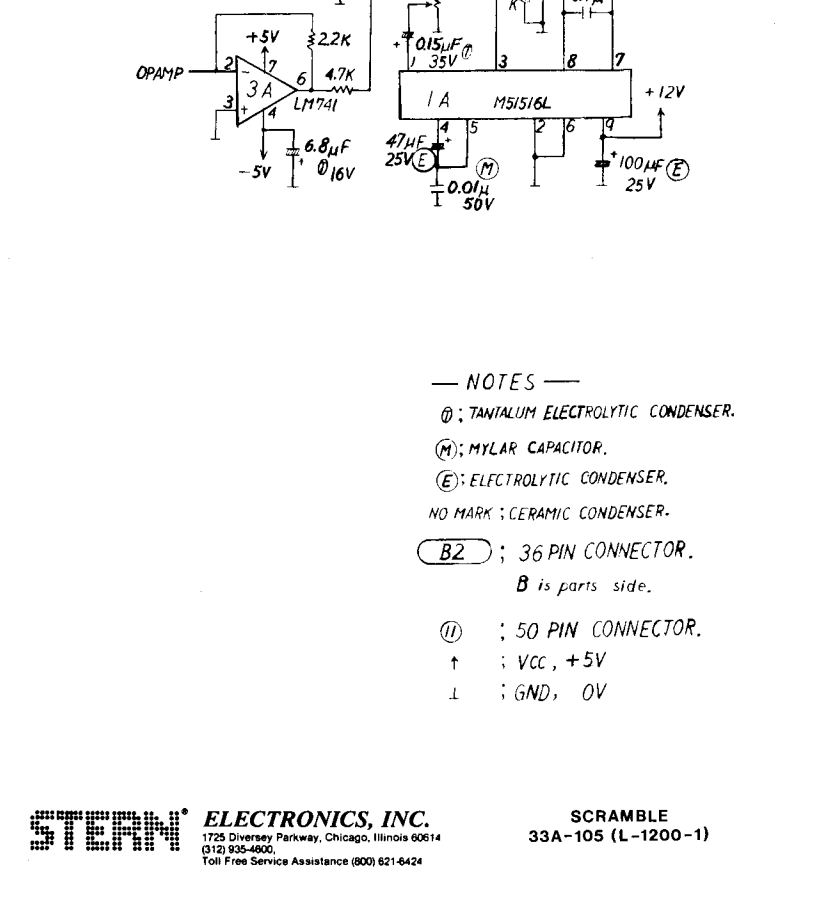
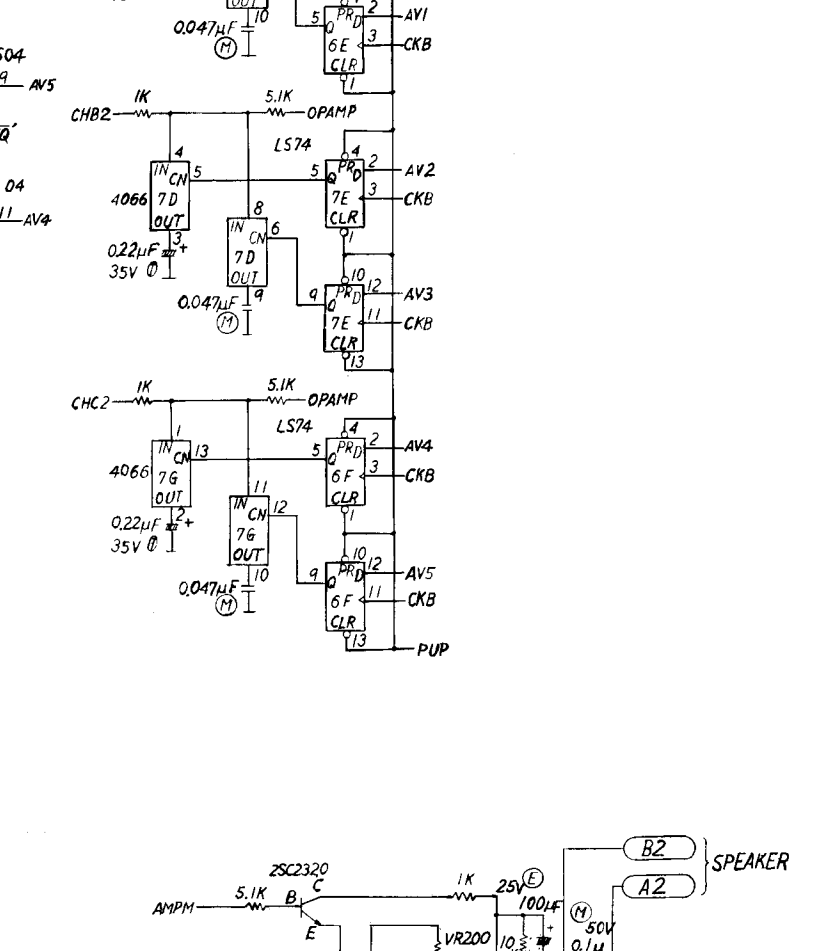
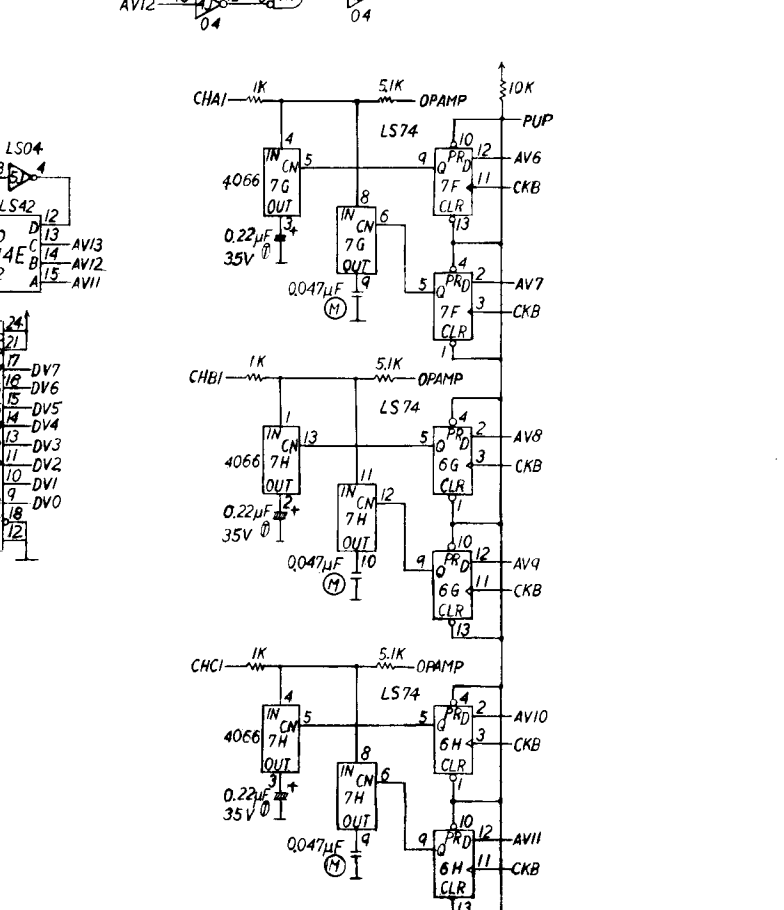
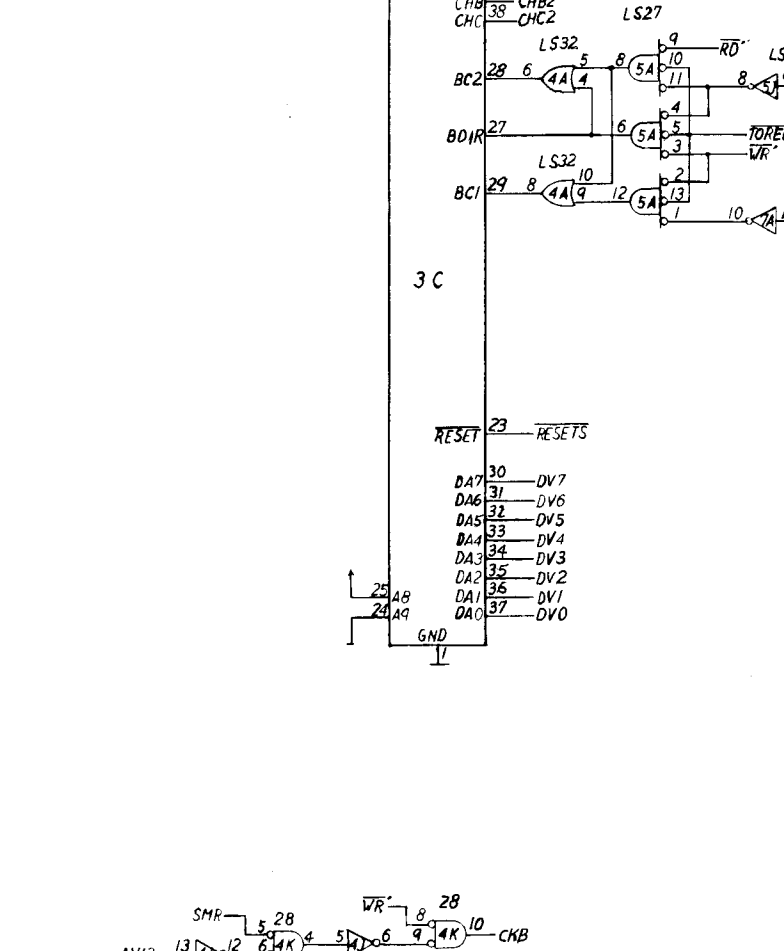
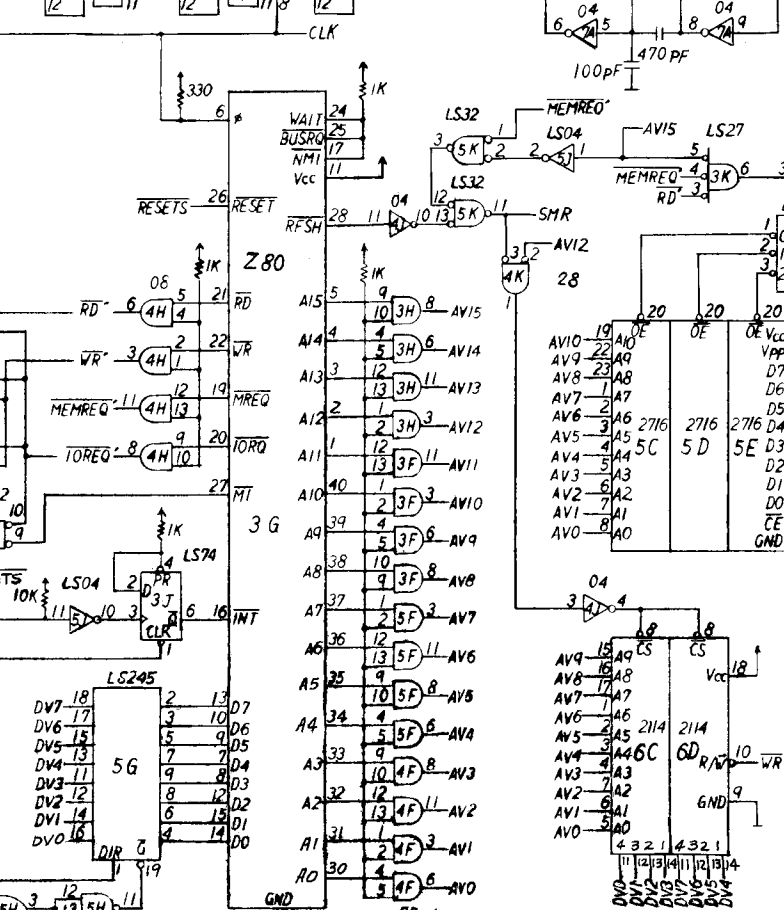
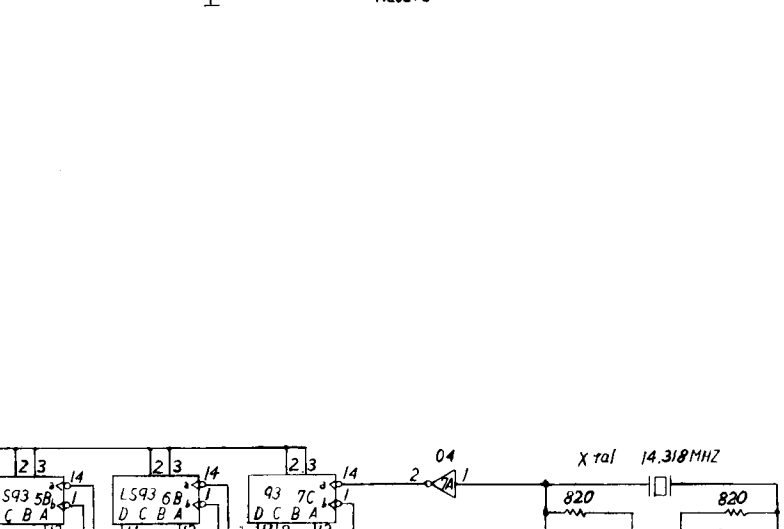
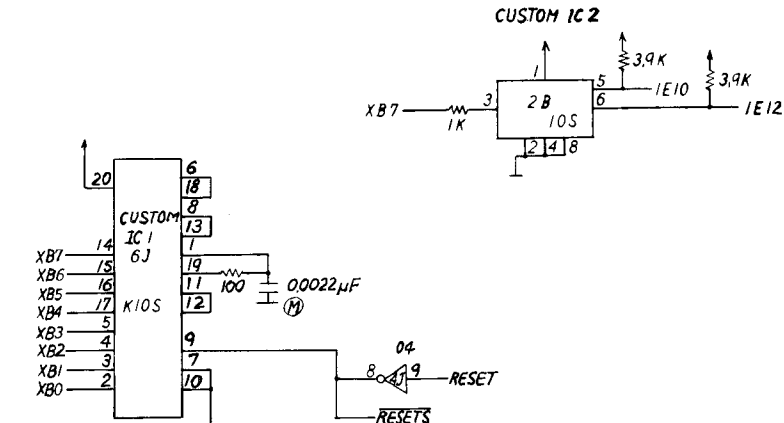
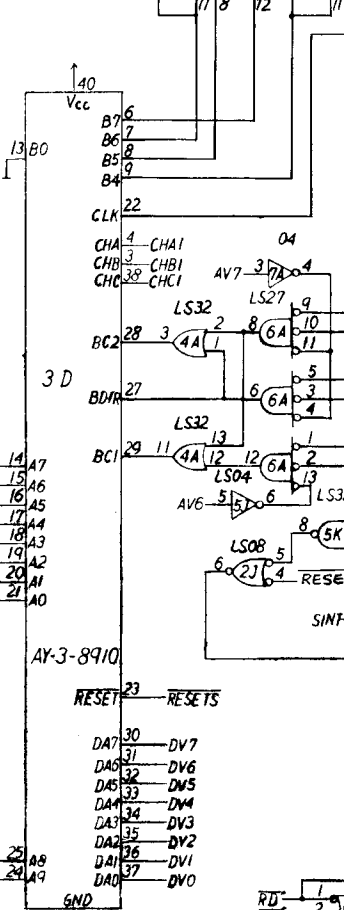
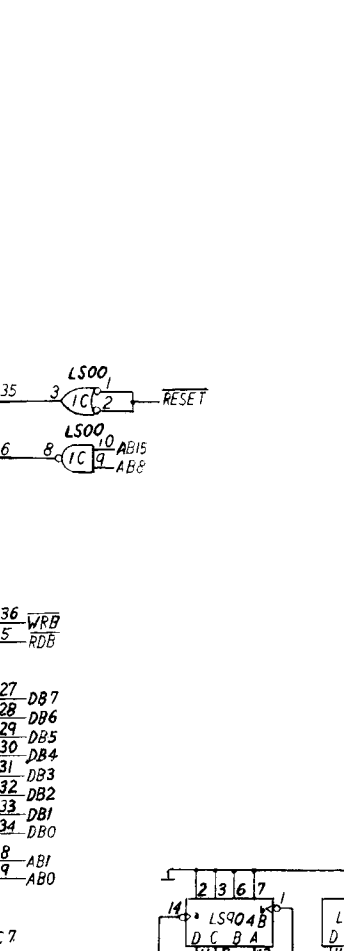
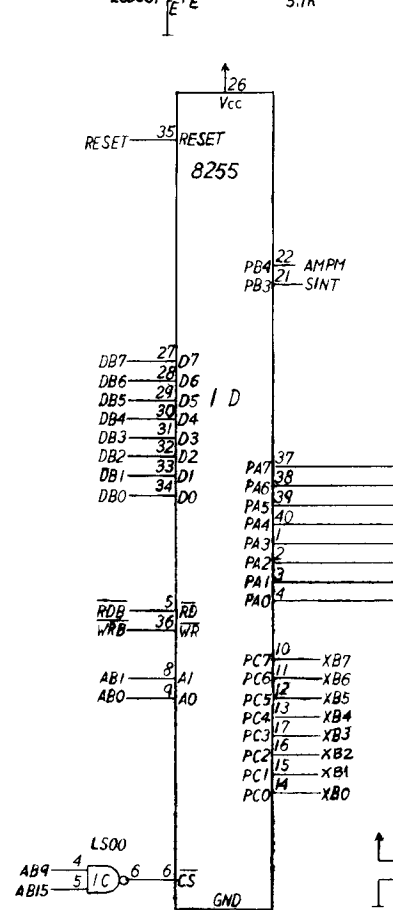
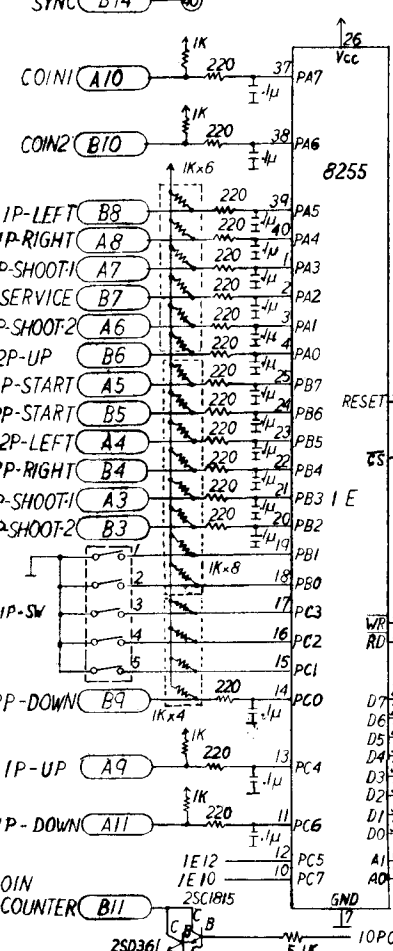
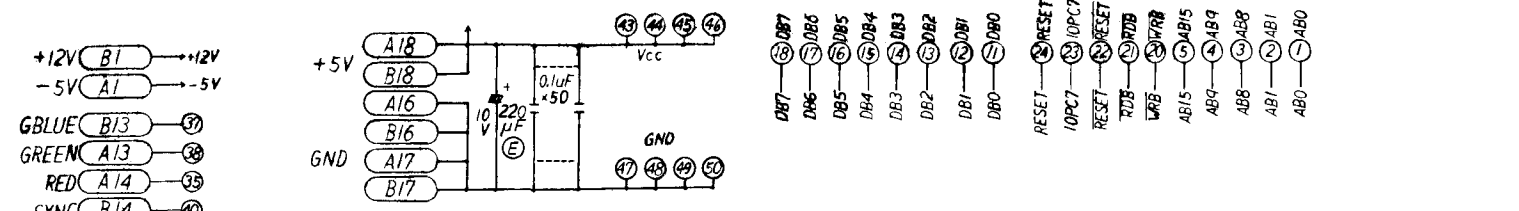
FOR 240V LINE, CONNECT 2 TO 3, 1 AND 4 SHOULD GO TO LINE.

- NOTES:
- 1 HEAT SINK IS NOT AT GROUND POTENTIAL.
 - 2 SHOULDER WASHER REQUIRED ON MOUNTING STUD.
 - 3 GENERAL INSTRUMENTS.

STEM ELECTRONICS, INC.
 1725 Diversey Parkway, Chicago, Illinois 60614
 (312) 935-4600, Telex 25-4657
 Toll Free Service Assistance (800) 621-6424

**SCHEMATIC, POWER
 SUPPLY P.C. BOARD
 34C-849-3**

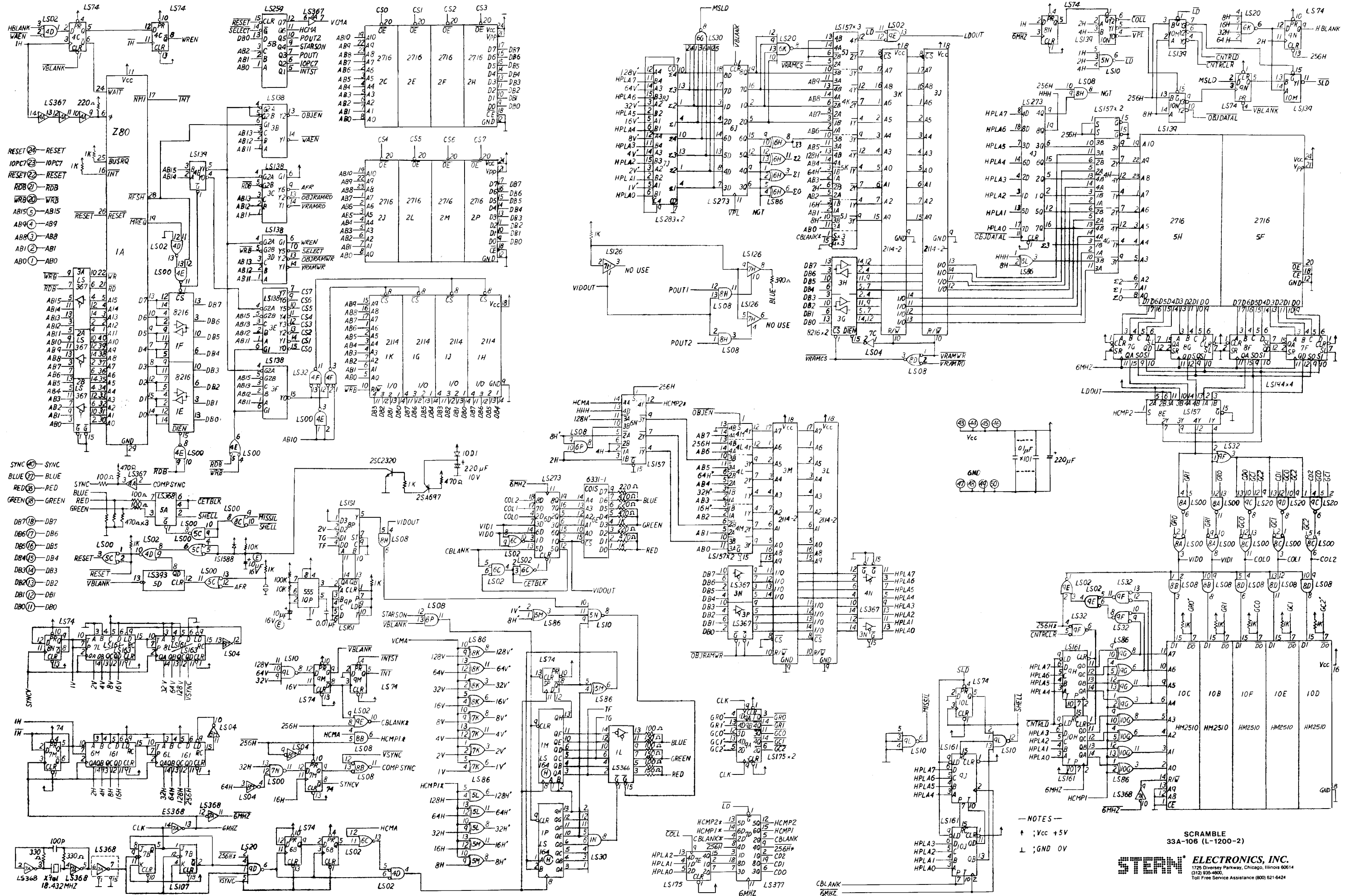
REV
 A



STERN ELECTRONICS, INC.
 1725 Diversy Parkway, Chicago, Illinois 60614
 (312) 935-4600
 Toll Free Service Assistance (800) 821-6424

SCRAMBLE
 33A-105 (L-1200-1)

- NOTES —
- ⊖: TANTALUM ELECTROLYTIC CONDENSER.
 - Ⓜ: MYLAR CAPACITOR.
 - ⓔ: ELECTROLYTIC CONDENSER.
 - NO MARK: CERAMIC CONDENSER.
 - B2: 36 PIN CONNECTOR.
 - B is parts side.
 - Ⓜ: 50 PIN CONNECTOR.
 - ↑: VCC, +5V
 - Ⓛ: GND, 0V



- RESET (24) - RESET
- IOPC7 (23) - IOPC7
- RESET (22) - RESET
- RDB (21) - RDB
- WRB (20) - WRB
- AB15 (5) - AB15
- AB9 (4) - AB9
- AB8 (3) - AB8
- AB1 (2) - AB1
- AB0 (1) - AB0
- WRB (7) - WRB
- LS (367) - LS
- RD (21) - RD
- AB15 (5) - AB15
- AB14 (4) - AB14
- AB13 (3) - AB13
- AB12 (2) - AB12
- AB11 (1) - AB11
- AB10 (9) - AB10
- AB9 (11) - AB9
- AB8 (13) - AB8
- AB7 (7) - AB7
- AB6 (15) - AB6
- AB5 (5) - AB5
- AB4 (15) - AB4
- AB3 (11) - AB3
- AB2 (7) - AB2
- AB1 (3) - AB1
- AB0 (1) - AB0
- WRB (7) - WRB
- LS (367) - LS
- RD (21) - RD
- AB15 (5) - AB15
- AB14 (4) - AB14
- AB13 (3) - AB13
- AB12 (2) - AB12
- AB11 (1) - AB11
- AB10 (9) - AB10
- AB9 (11) - AB9
- AB8 (13) - AB8
- AB7 (7) - AB7
- AB6 (15) - AB6
- AB5 (5) - AB5
- AB4 (15) - AB4
- AB3 (11) - AB3
- AB2 (7) - AB2
- AB1 (3) - AB1
- AB0 (1) - AB0
- DB7 (18) - DB7
- DB6 (7) - DB6
- DB5 (16) - DB5
- DB4 (15) - DB4
- DB3 (14) - DB3
- DB2 (13) - DB2
- DB1 (12) - DB1
- DB0 (11) - DB0
- SYNC (10) - SYNC
- BLUE (27) - BLUE
- RED (3) - RED
- GREEN (28) - GREEN
- DB7 (18) - DB7
- DB6 (7) - DB6
- DB5 (16) - DB5
- DB4 (15) - DB4
- DB3 (14) - DB3
- DB2 (13) - DB2
- DB1 (12) - DB1
- DB0 (11) - DB0
- SYNC (10) - SYNC
- BLUE (27) - BLUE
- RED (3) - RED
- GREEN (28) - GREEN

NOTES:
+ ; Vcc +5V
L ; GND 0V

SCRAMBLER
33A-106 (L-1200-2)

STARTRON ELECTRONICS, INC.
1725 Diversy Parkway, Chicago, Illinois 60614
(312) 935-6900
Toll Free Service Assistance (800) 621-6424