

# **PINBALL 2000 SCHEMATIC MANUAL**

***INCLUDING CABINET AND BACKBOX PARTS***

**Williams Electronics Games, Inc.  
3401 North California Avenue  
Chicago, IL 60618**

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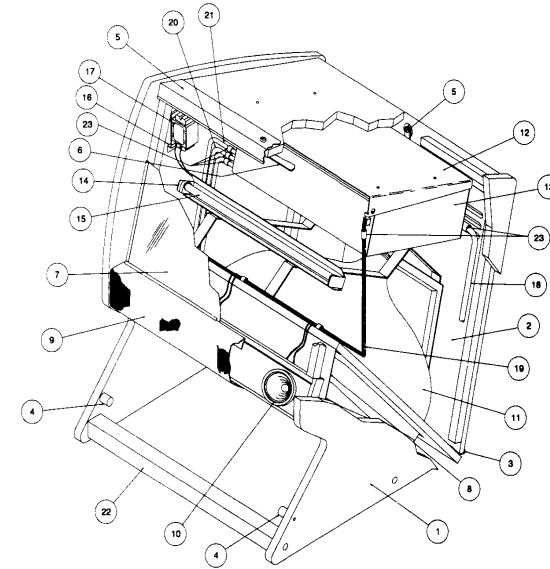
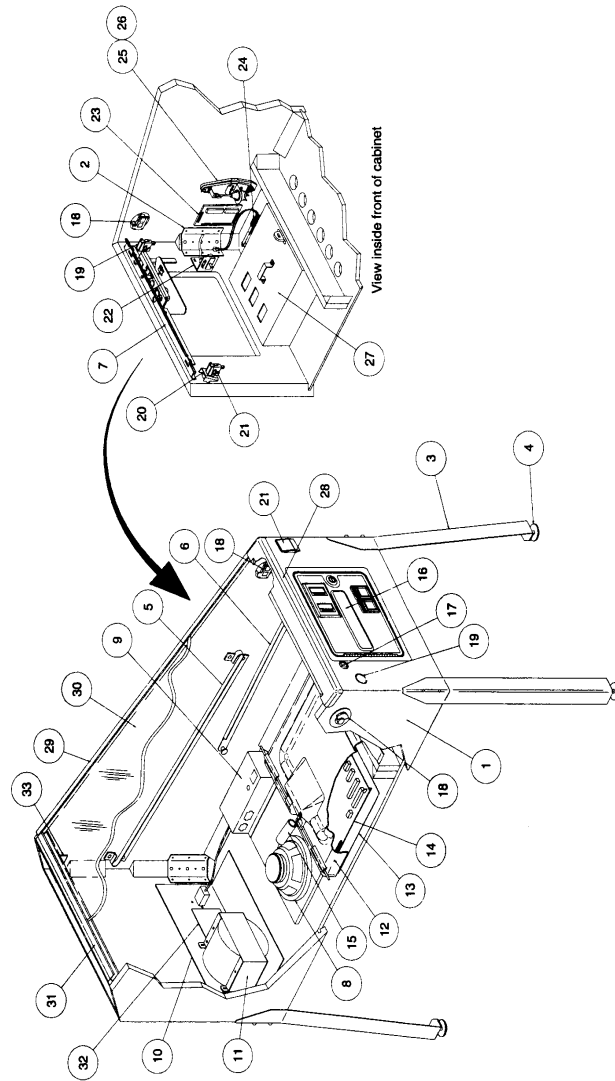
Item	Part Number	Description
1	04-12480.4	Cabinet
2	01-11400-1	Leg Mounting Bracket (x4)
3	A-19514-6	Leg Assembly – Black Ridge (x4)
4	08-7377	Leg Leveler/Adjuster (x4)
5	01-15132-1	Playfield Slide Track – Right
6	04-12610	Stay Arm
7	A-22996	Lockdown Bracket Assembly
8	5555-16059-00	Speaker, 6.5" Woofer, 4c
9	A-22966	Power Control Box Assembly
10	04-12596.1	Drip Plate
11	5610-15930-00	Transformer Assembly
12	A-22998	Driver Board Cover Assembly
13	01-15146	Driver Board Back Plate
14	04-12329	Power Driver Board PCB Assembly
15	03-10011	Cover Stop Tube
16	09-96012-33	Coin Door – USA
17	20-10690	Hand Molding Lock
18	A-22984	Flipper Button Assembly (x2)
19	See Game Manual	Push Button w/Switch
20	01-15184	Launch Button Bracket
21	See Game Manual	Push Button w/Switch
22	A-23024	Coin Door Interlock Switch Assembly
23	A-22964	Coin door Interface PCB Assembly & Spacer
24	A-17195-2	Tilt Switch Assembly w/Cable
25	04-10346.1	Tilt Mechanism Assembly
26	20-6502-A	Plumb Bob
27	A-23139	4-Ball Cash Box Assembly
28	A-22997	Hand Molding Assembly
29	A-22976-1	Side Molding Assembly (x2)
30	04-12739-1	Tinted Playfield Glass Assembly
31	03-8091	Rear Molding
32	01-15214	Hole Cover
33	01-15212	Cabinet Corner Bracket

**Miscellaneous Parts:** (Not Shown)

Part Number	Description
01-15132-2	Playfield Slide Track – Left
04-12628.2	Safety Pin Bracket
01-15136-1-2	Lock Plate
See Game Manual	Cordset
20-6500	Steel Ball, &1 1/16" (x4)
01-6389-1	Cash Box lock Bracket

**Cabinet Cables:**

Part Number	Description
H-22740-2.1	Cabinet Cable
H-22740-1.2	Cabinet Cable
H-22736	Secondary Power Cable
See Game Manual	Cabinet Power/Speaker Cable
See Game Manual	Cabinet Switch/Lamp Cable



Item	Part Number	Description
1	04-12489.4	Back Box
2	A-22982	Back Boor Assembly
3	01-15131	Door Channel
4	03-9992	Knob
5	A-22981	Lock & Plate Assembly
6	01-15134	Front Lock Cam
7	A-22975-50070	Marquee Assembly
8	04-12607.1	Speaker Grill Bracket
9	01-12606.1	Speaker Grill
10	5555-15580-00	Speaker - 4c, 25W
11	5675-16058-01	Monitor – 19"
12	01-15130.1	Computer Case Mounting Bracket
13	See Game Manual	Computer Case Assembly
14	A-22980	Fluorescent Lamp Assembly

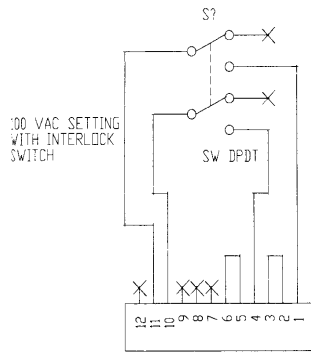
Item	Part Number	Description
15	24-8809	Fluorescent Lamp 15W, 18"
16	04-12752	Ballast Mounting Bracket
17	A-23155	Ballast Assembly
18	A-23160	CPU/AC Power Cable
19	H-22737-1	AC/Speaker Cable
20	20-10583	Extension Cable db09 – 10ft
21	20-10584	Extension Cable db25 – 10ft

**Miscellaneous Parts:**

Item	Part Number	Description
22	11-1464	Back Box Shipping Brace
23	5556-15272-00	Ferrite

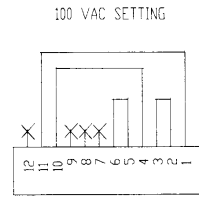
NOTE: These part numbers are for reference only. Check the game manual for specific numbers.

For Japan

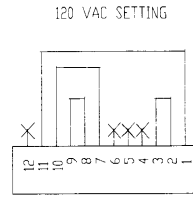


H-22990-3

For Domestic (low line)

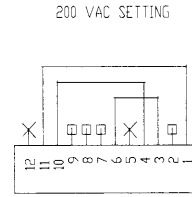


For Domestic

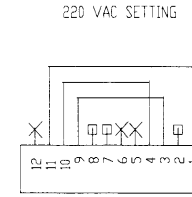


H-22990-1

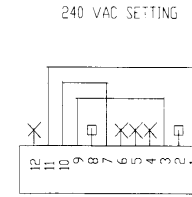
For Europe (low line)



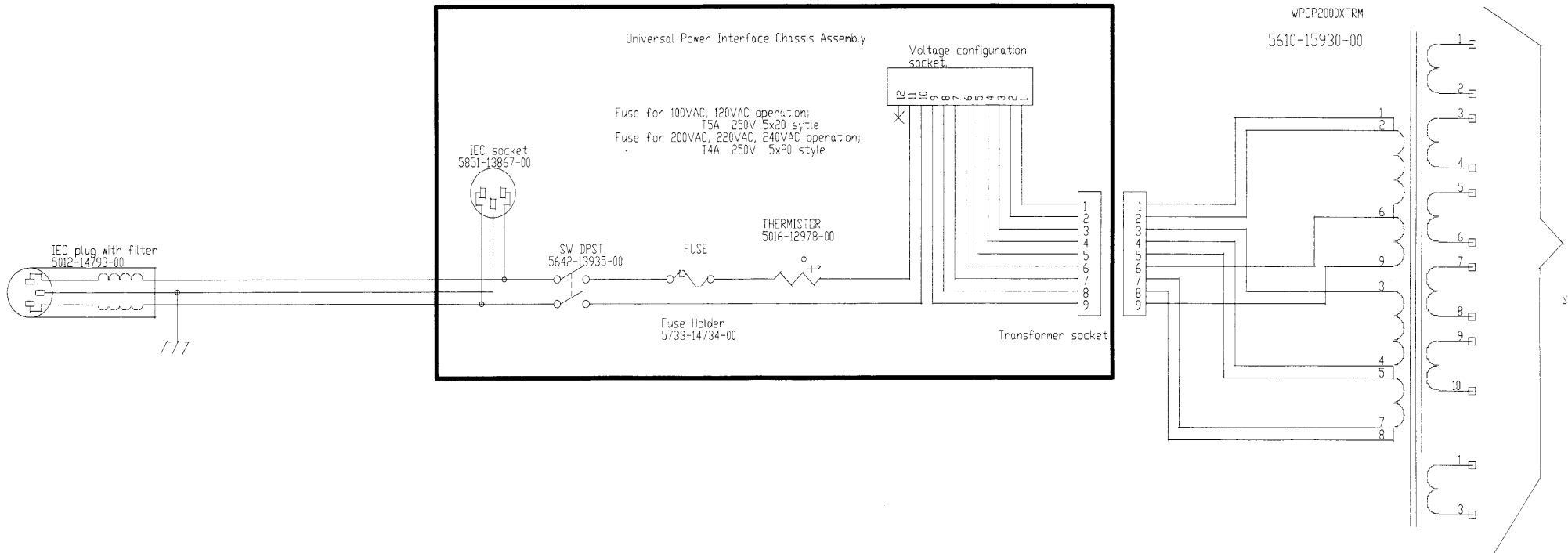
For Europe



For Europe (high line)

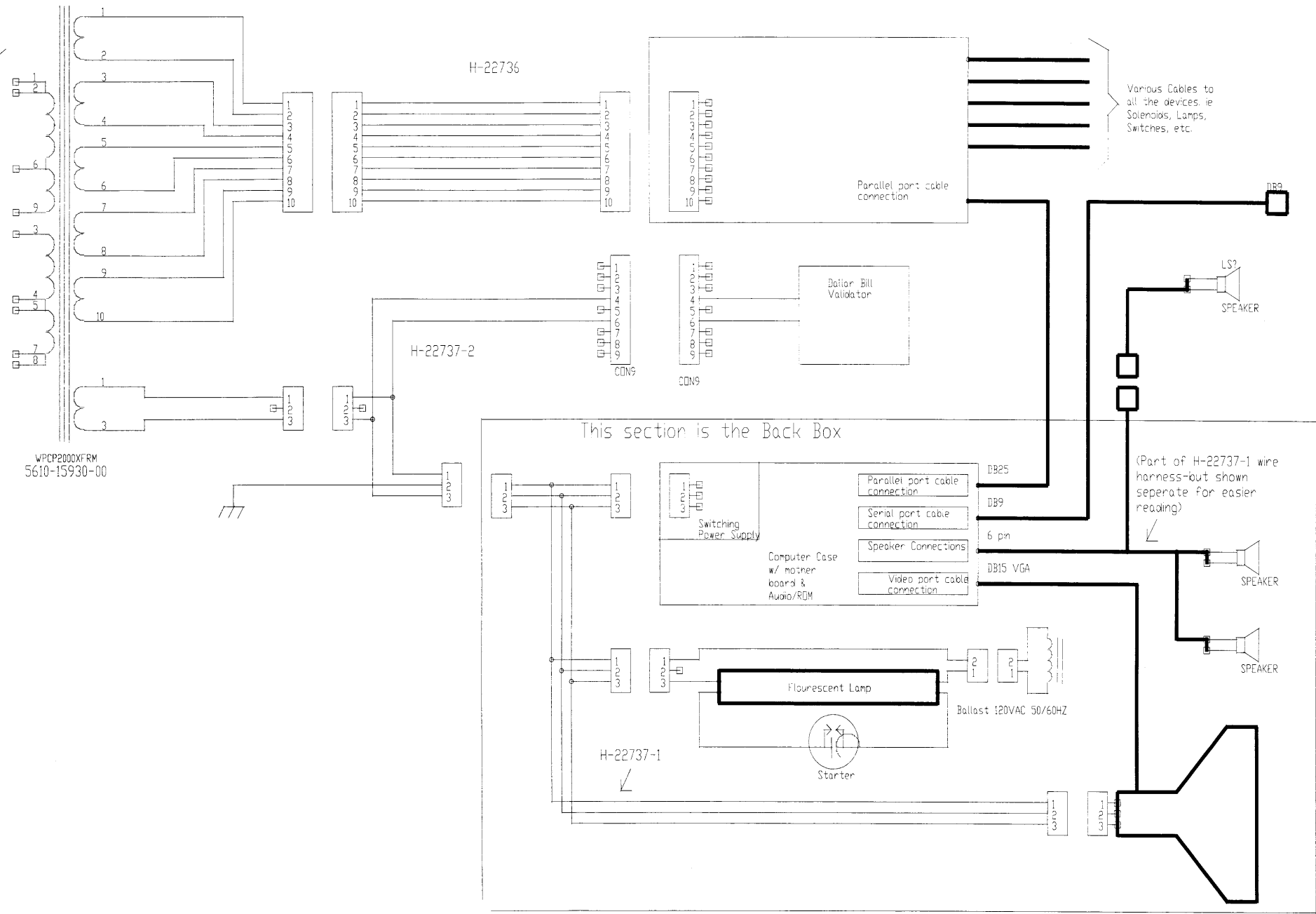


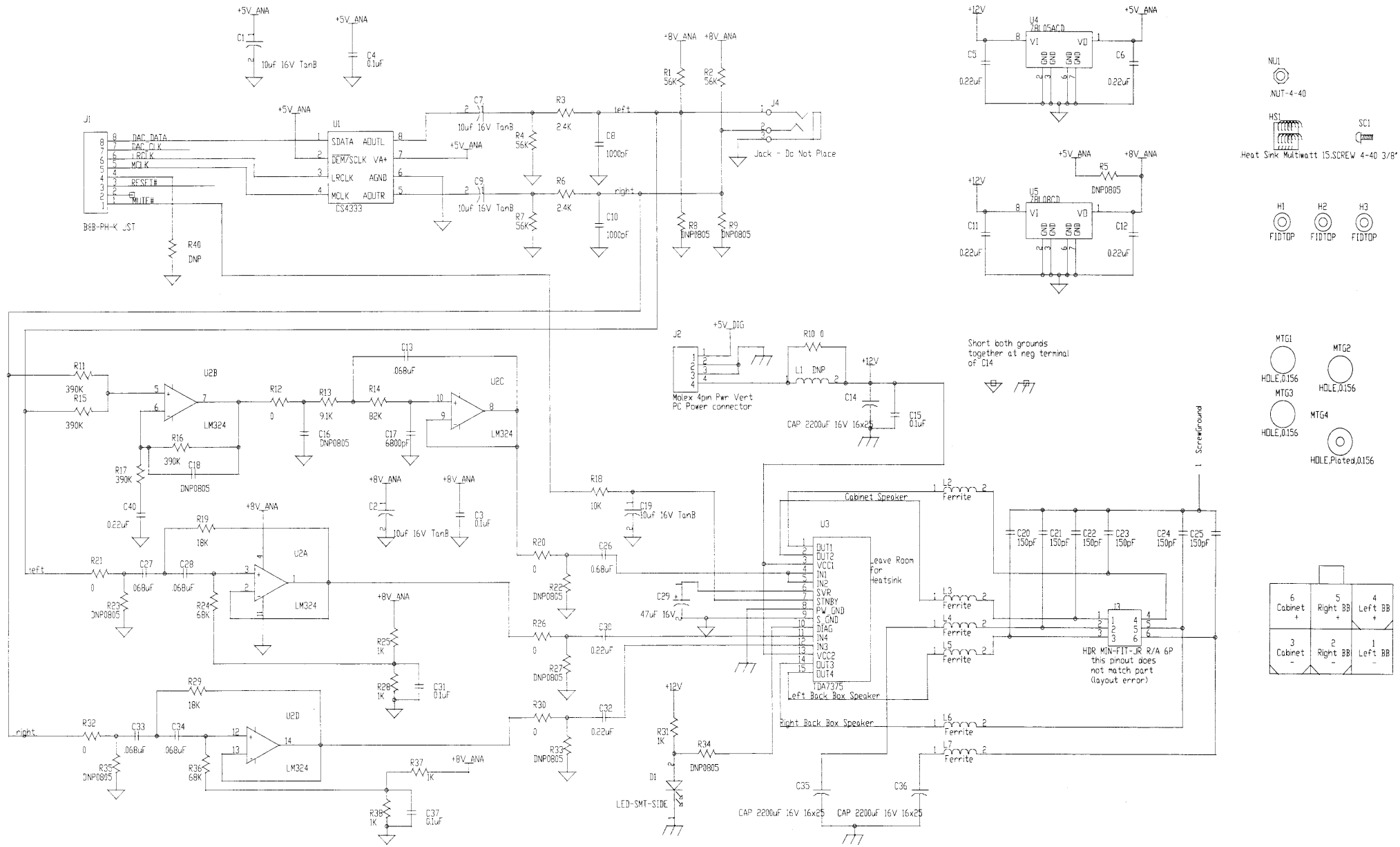
H-22990-2



See page 2

See page 1





NU1  
NUT-4-40

HS1  
Heat Sink Mult watt 15.SCREW 4-40 3/8"

SC1

H1  
F1D TOP

H2  
F1D TOP

H3  
F1D TOP

MTG1  
HOLE,0.156

MTG2  
HOLE,0.156

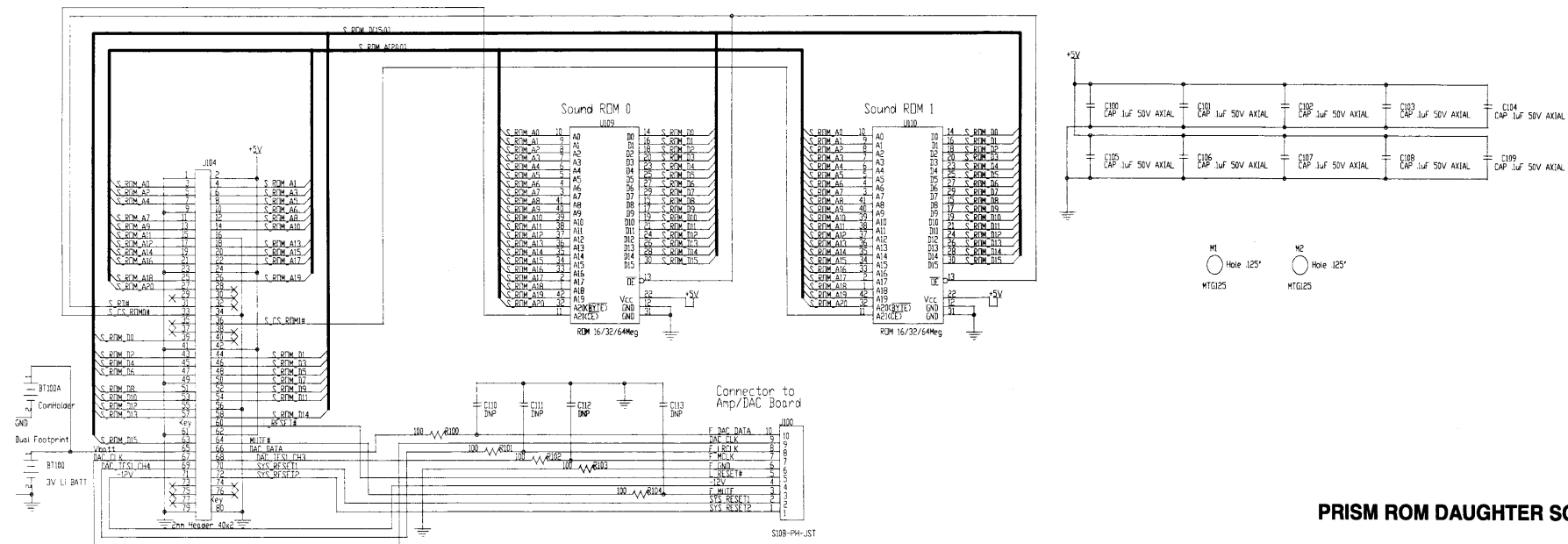
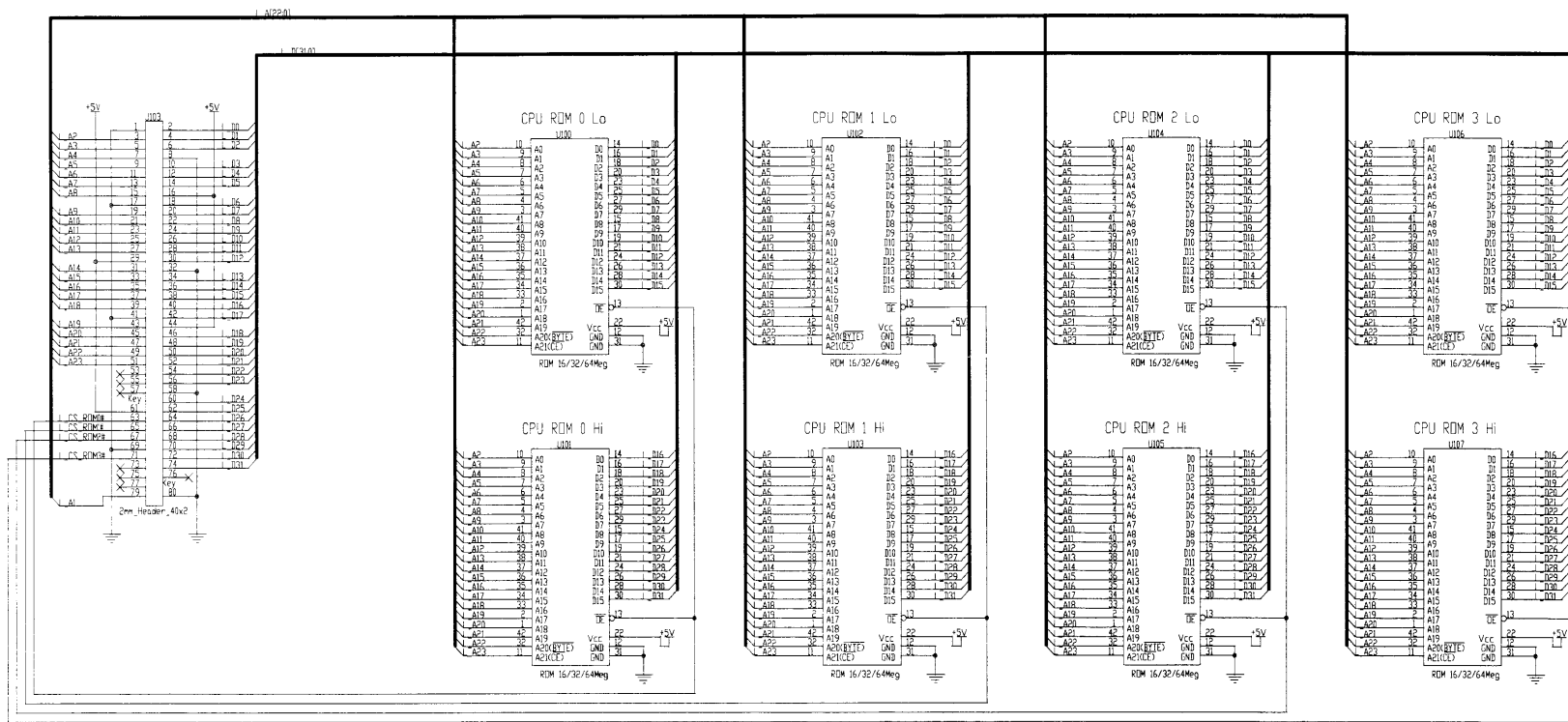
MTG3  
HOLE,0.156

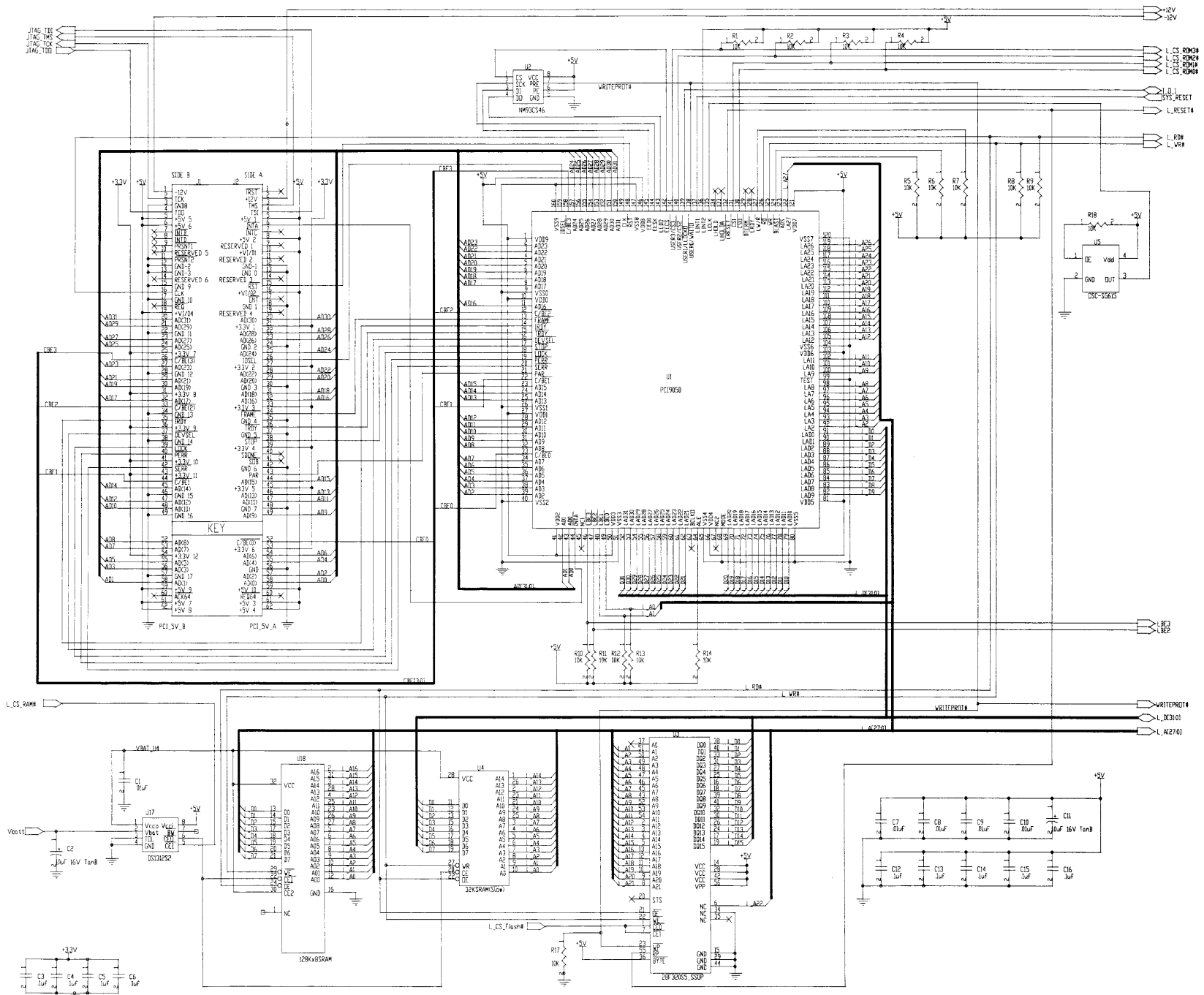
MTG4  
HOLE,Plated,0.156

6 Cabinet +	5 Right BB +	4 Left BB +
3 Cabinet -	2 Right BB -	1 Left BB -

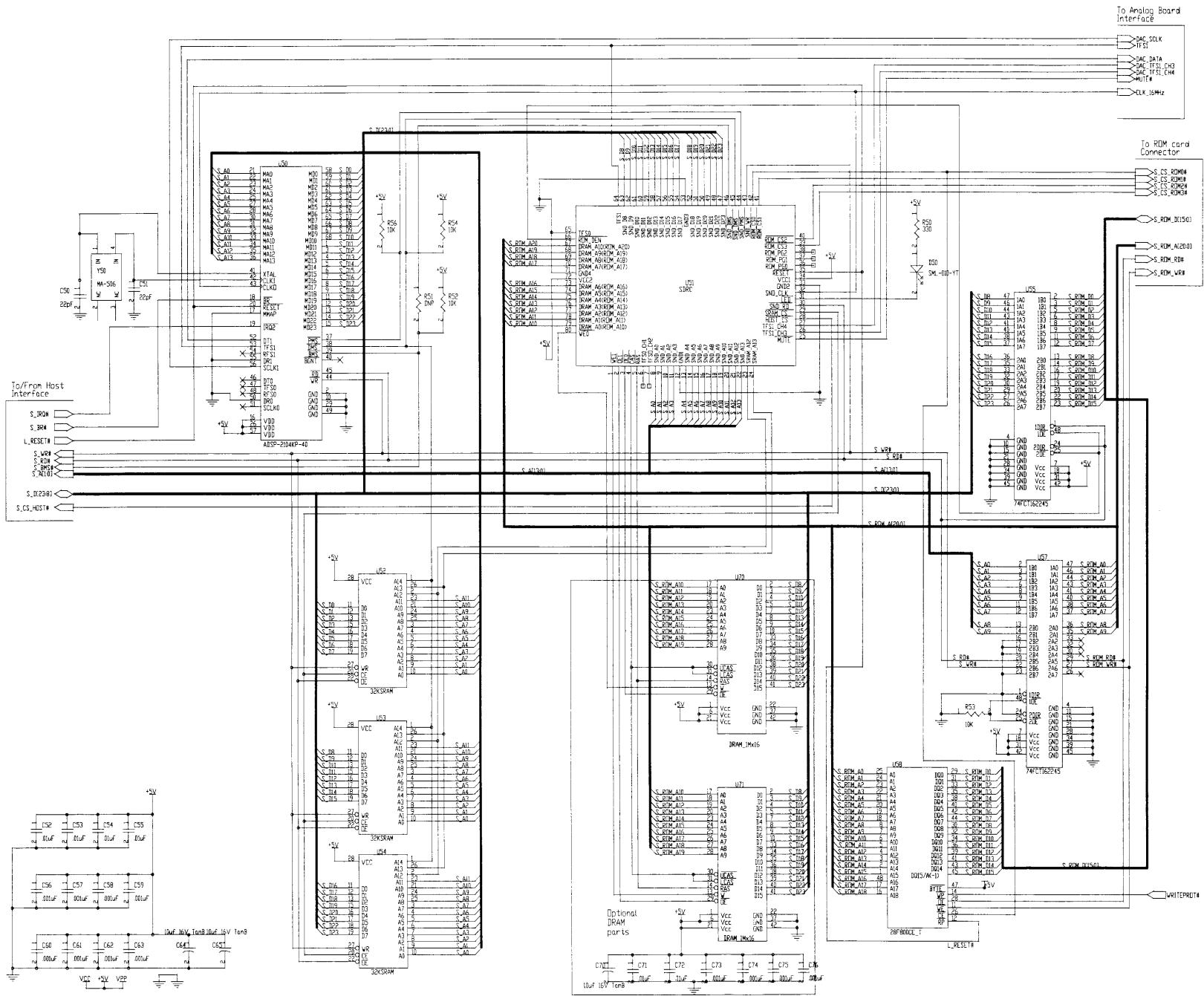
this pinout does not match part (layout error)

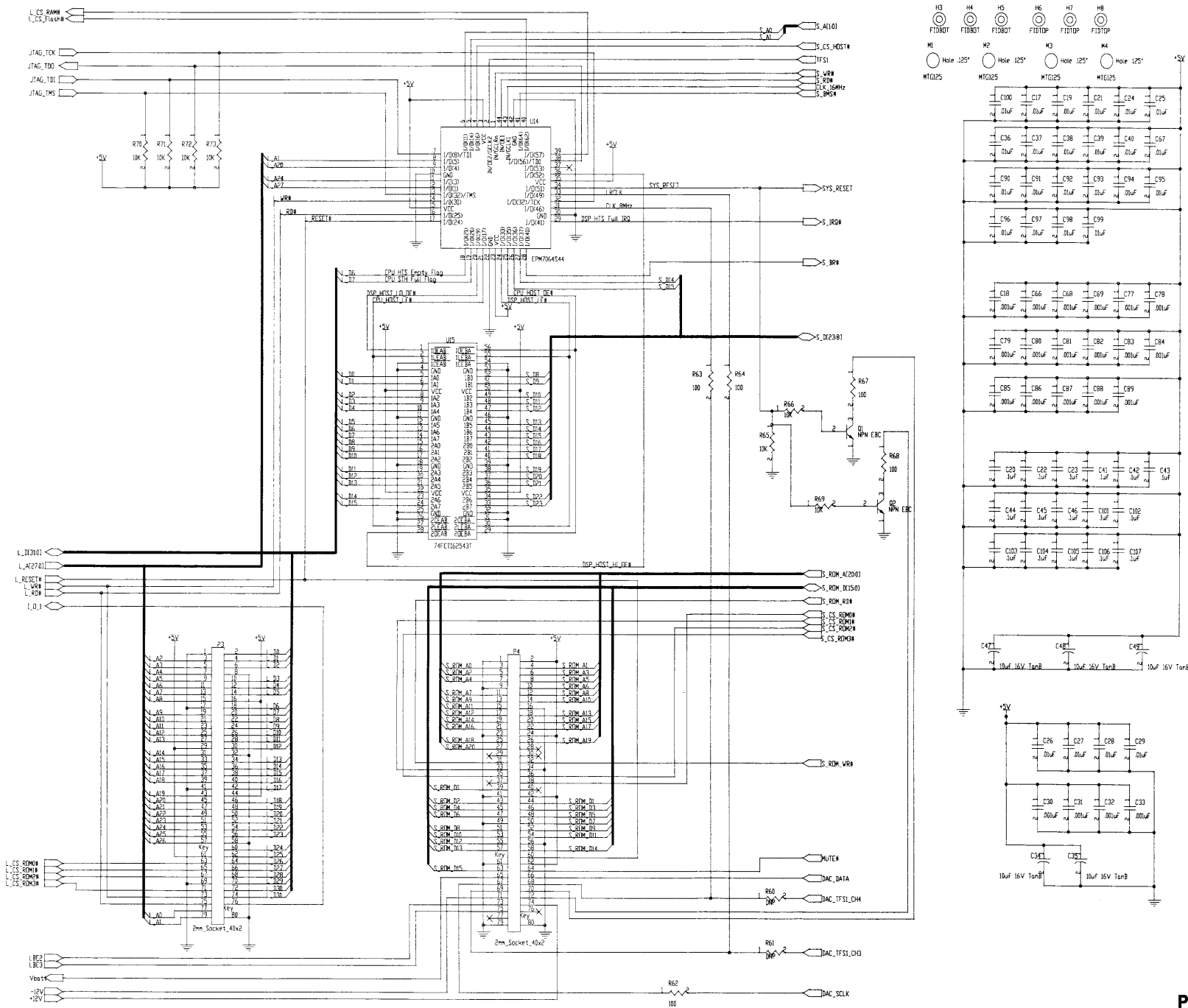
Short both grounds together at neg terminal of C14





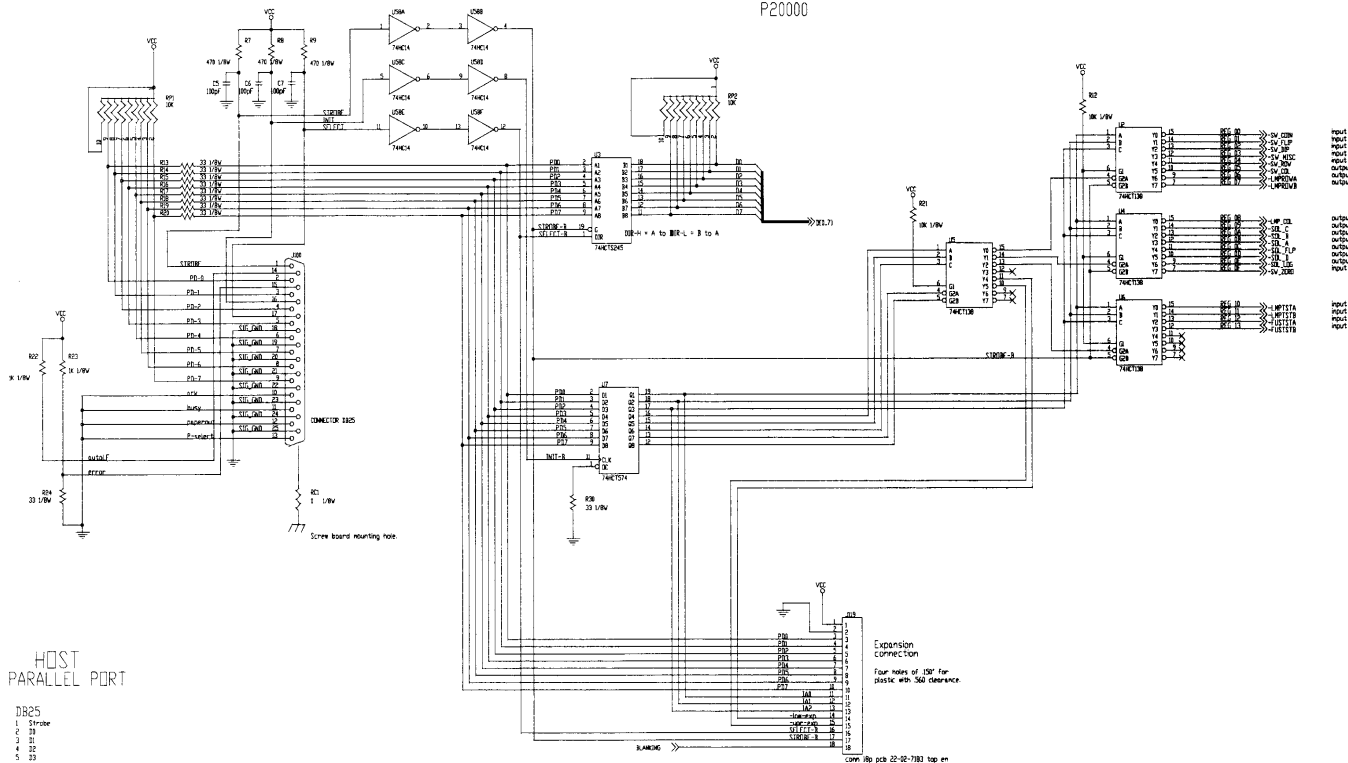






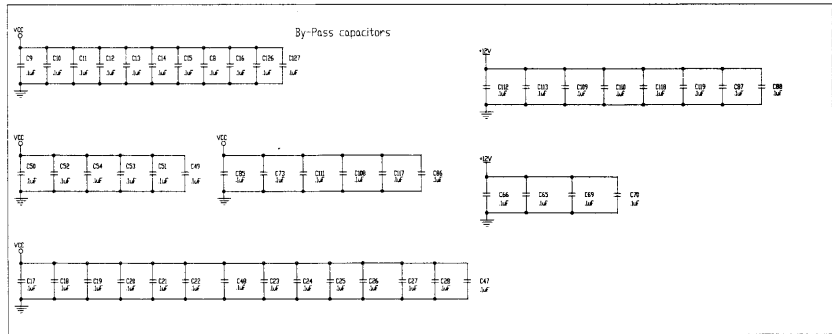
PARALLEL PORT CONTROL FOR

P20000

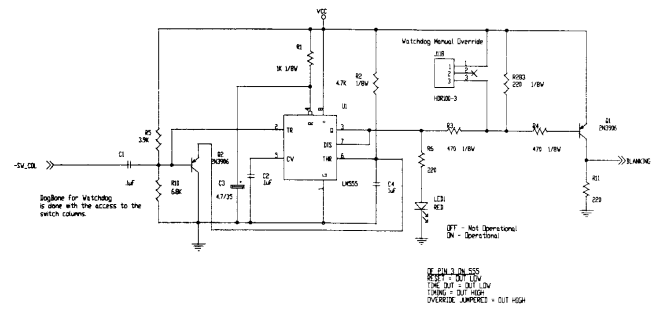


HOST PARALLEL PORT

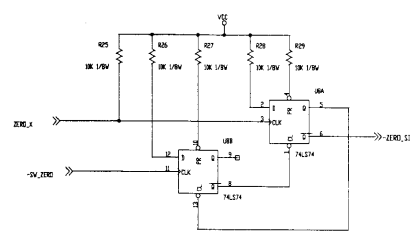
- DB25
- 1 Strobe
  - 2 FB
  - 3 FB
  - 4 FB
  - 5 FB
  - 6 FB
  - 7 FB
  - 8 FB
  - 9 FB
  - 10 FB
  - 11 FB
  - 12 PAPER OUT
  - 13 SELECT
  - 14 AUTO LINE FEED
  - 15 END
  - 16 INITIALIZE
  - 17 SELECT IN
  - 18 SIG GND
  - 19 SIG GND
  - 20 SIG GND
  - 21 SIG GND
  - 22 SIG GND
  - 23 SIG GND
  - 24 SIG GND
  - 25 SIG GND
- LF11/REGG  
LF11/REGG
- |                 |            |             |
|-----------------|------------|-------------|
| 1/0 REG         | STATUS REG | CONTROL REG |
| LD + 8          | LD + 1     | LD + 8      |
| READ/WRITE READ | WRITE      |             |
- 26 RESERVED /STROBE
  - 27 RESERVED /AUTO LINE FEED
  - 28 RESERVED INITIALIZE
  - 29 PRINTER ERROR /SELECT
  - 30 PRINTER SELECT DS
  - 31 OUT OF PAPER RESERVED
  - 32 PRINTER ACK RESERVED
  - 33 PRINTER BUSY RESERVED



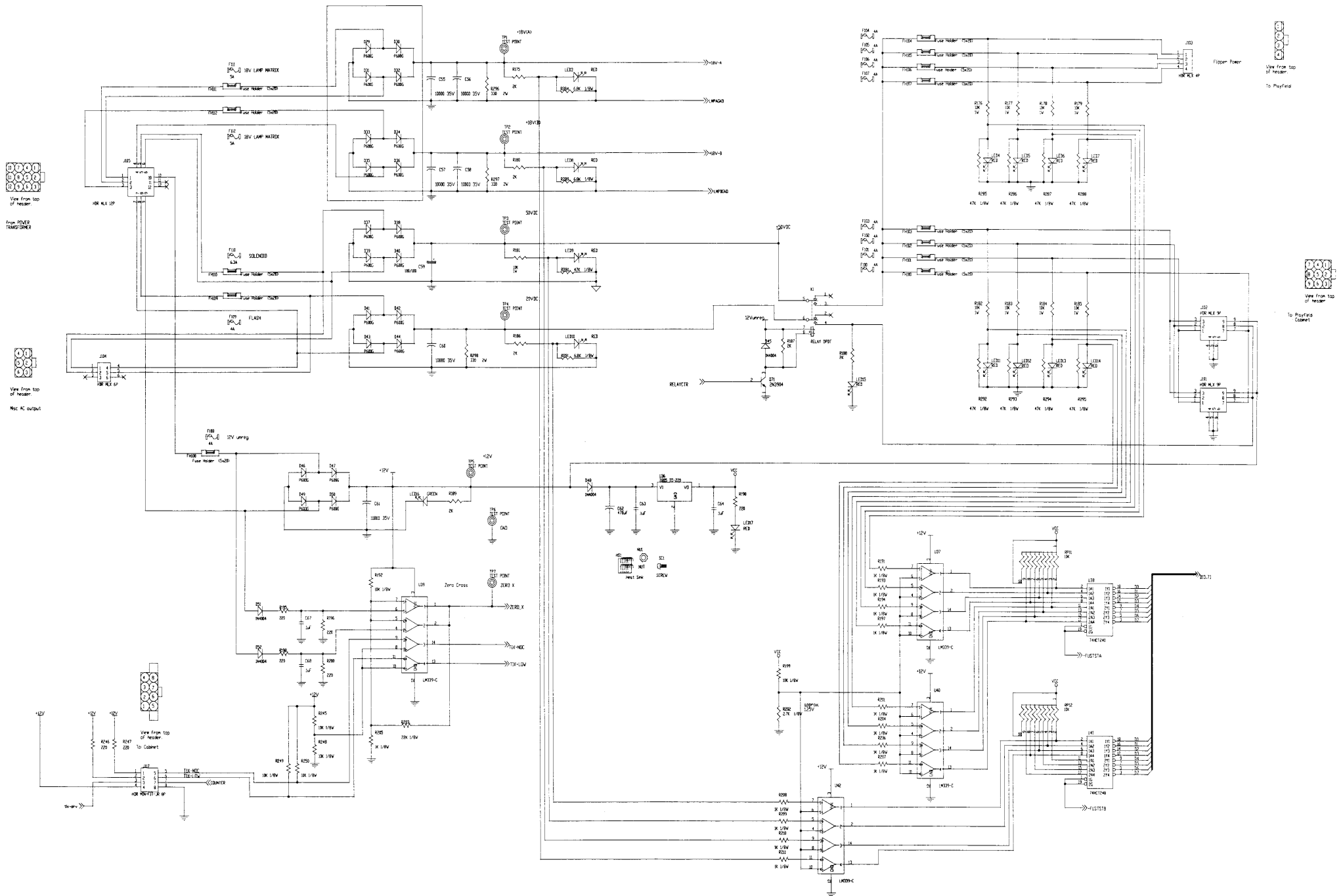
Watchdog circuitry



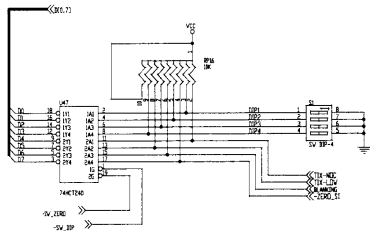
Zero Cross Synchronization Circuitry



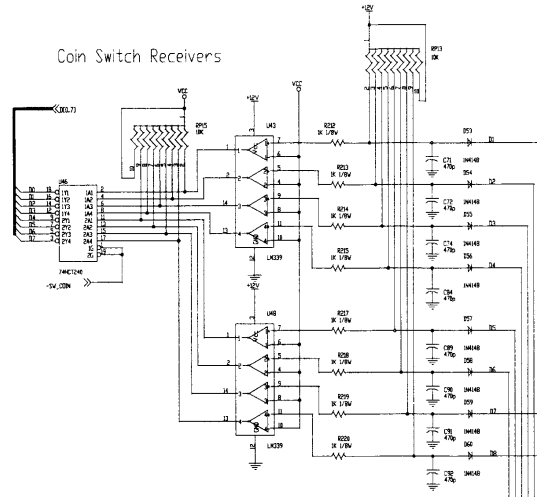
Page 1 - Parallel interface, decode, watchdog, zero cross conditioner.  
 Page 2 - Power Supply Circuitry  
 Page 3 - Switch Circuitry  
 Page 4 - Dual Line Memory Circuitry  
 Page 5 - Schematic



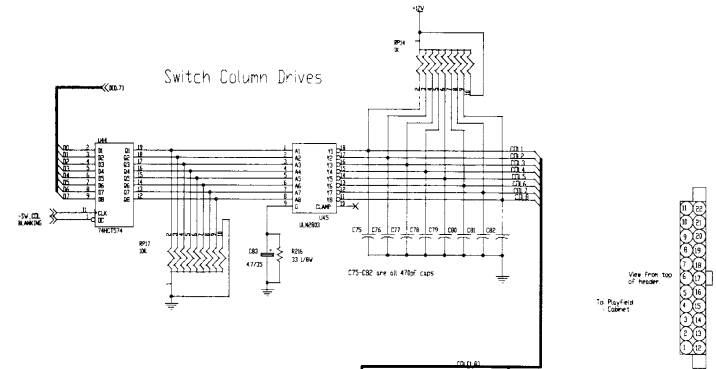
Option Dip Switches & System info



Coin Switch Receivers

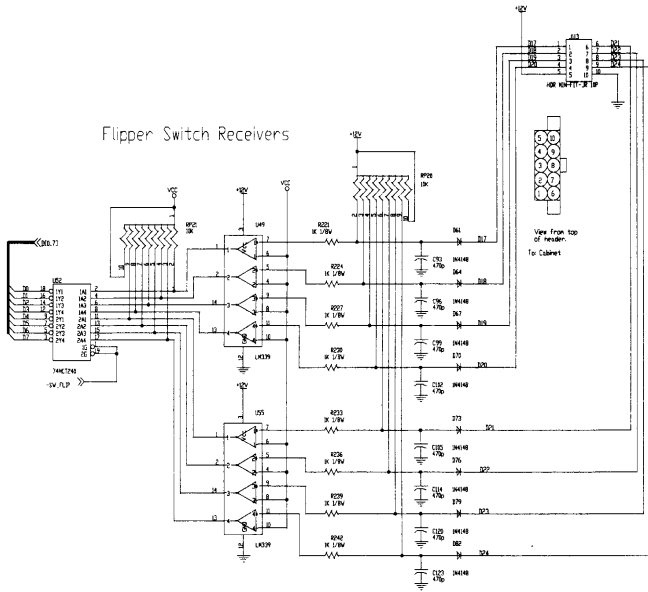


Switch Column Drives

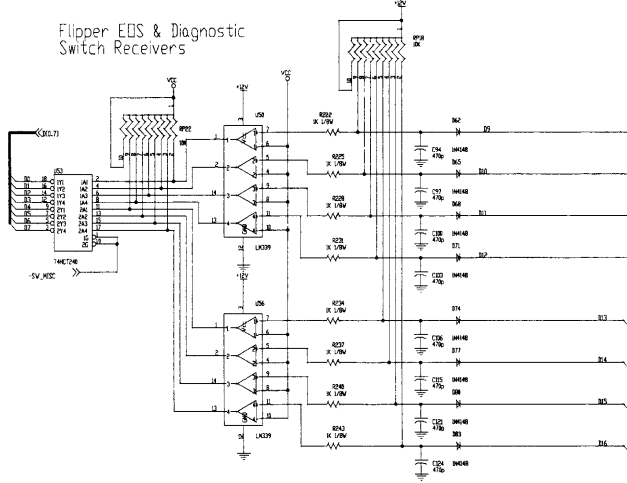


View From Top of Header  
To Payfield Cabinet

Flipper Switch Receivers



Flipper EDS & Diagnostic Switch Receivers



Switch Row Receivers

