

ELECTRICAL DIAGRAMS

TIME MACHINE



ZACCARIA®

LIST OF ILLUSTRATIONS

Block diagram	
Assembly drawing	
Power wiring	
Layout	} C.P.U.
Diagram	
Layout	} Interface
Diagram	
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Diagram	
Layout	} Display driver
Diagram	
Layout	} Sound & Speech
Diagram	
Playfield contacts wiring	
Coils wiring	
Playfield & head lamps wiring	
Cabinet & front door wiring	
Power supply	

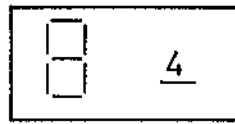
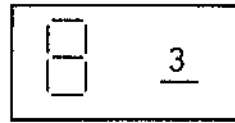
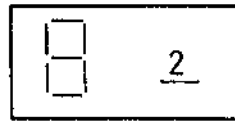
COLOR CODE

Black	0
Brown	1
Red	2
Orange	3
Yellow	4
Green	5
Blue	6
Violet	7
Grey	8
White	9
Pink	11
Light blue	12

WIRES CUTAWAY VIEW LIST

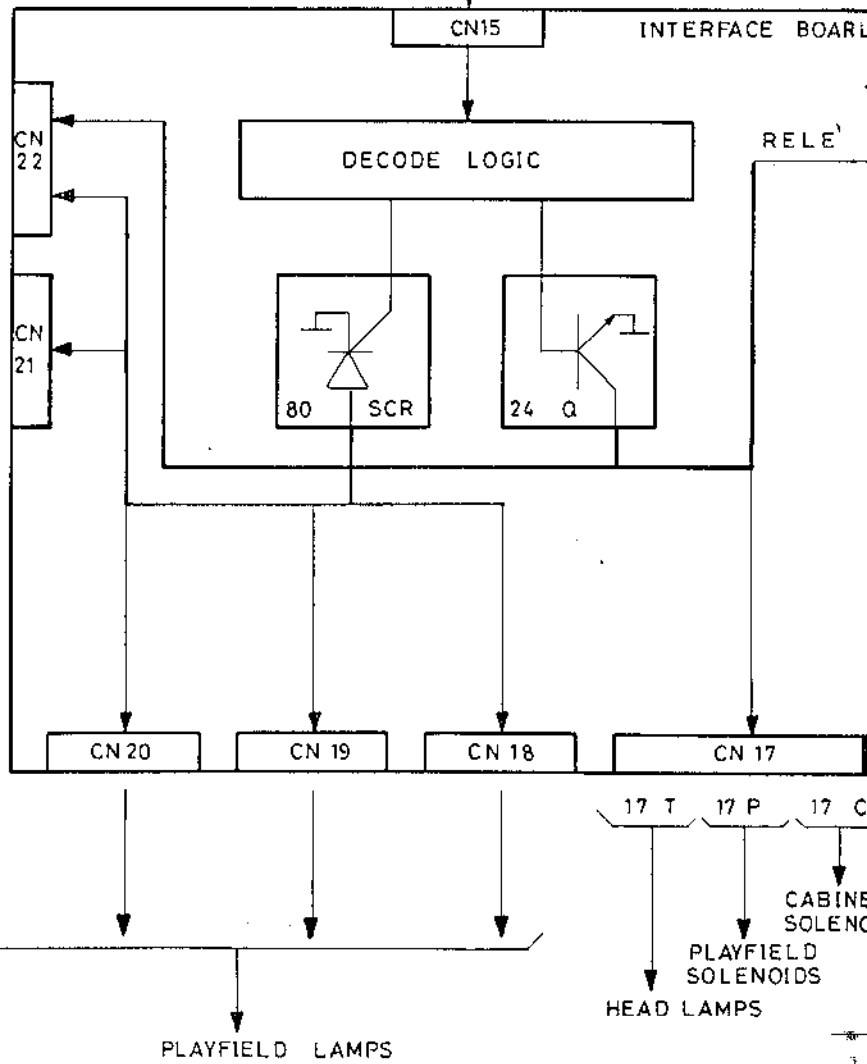
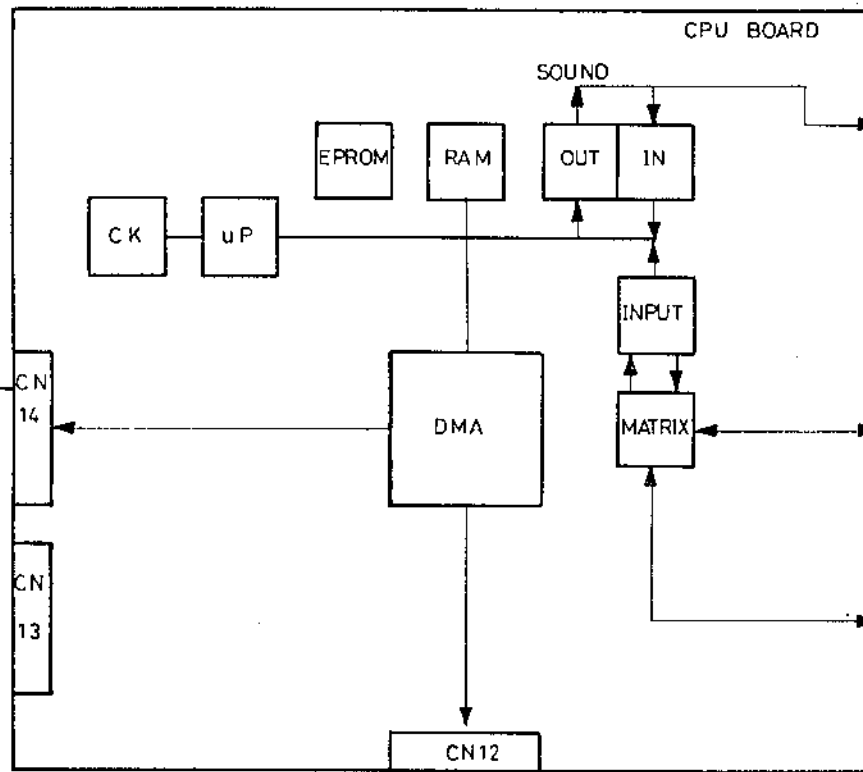
mm ² 0,22	/1
mm ² 0,35	/2
mm ² 0,5	/3
mm ² 0,9	/4
mm ² 1,5	/5

DRIVER DISPLAY BOARDS

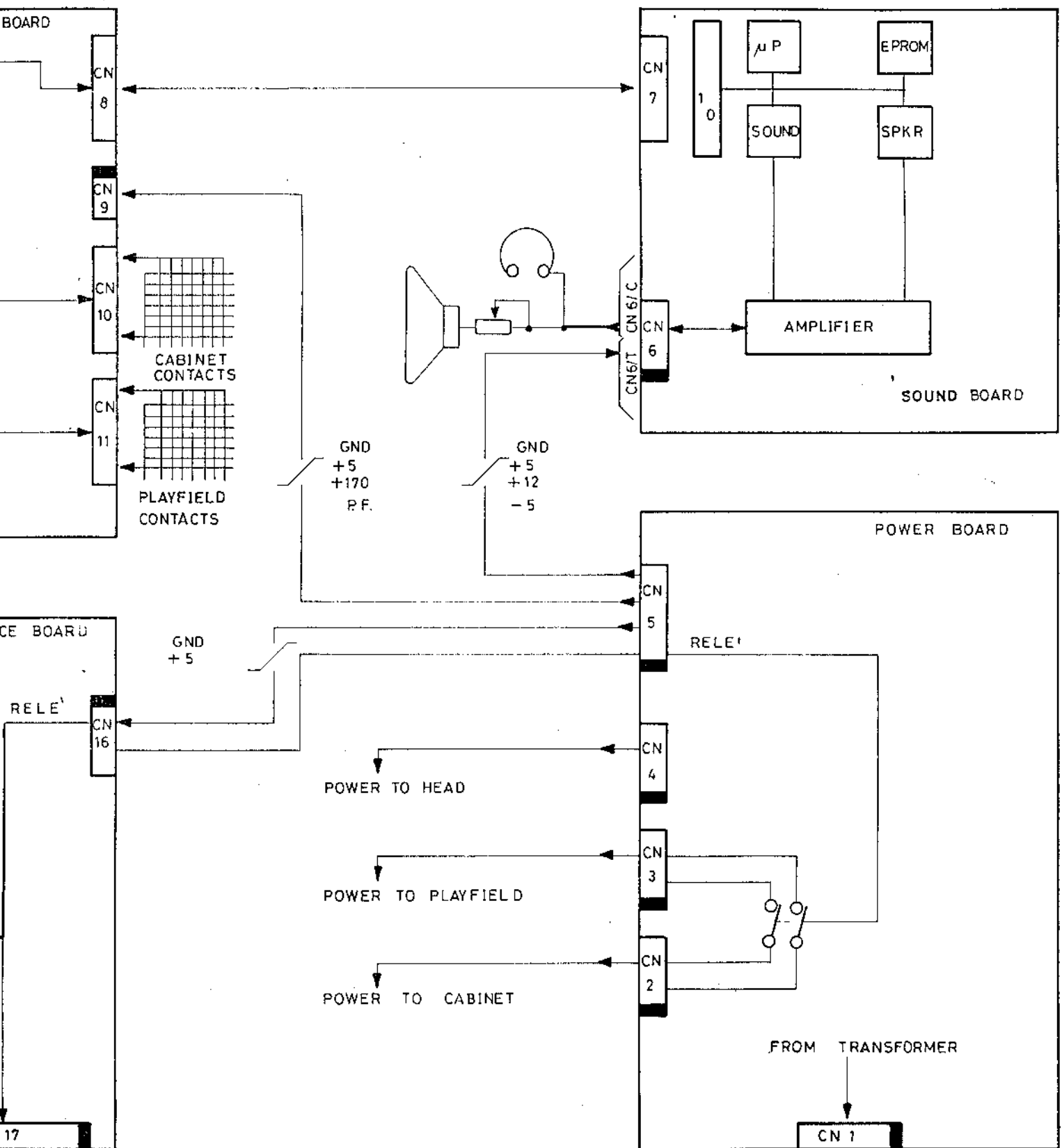


(HEAD SOLENOIDS)

HEAD LAMPS

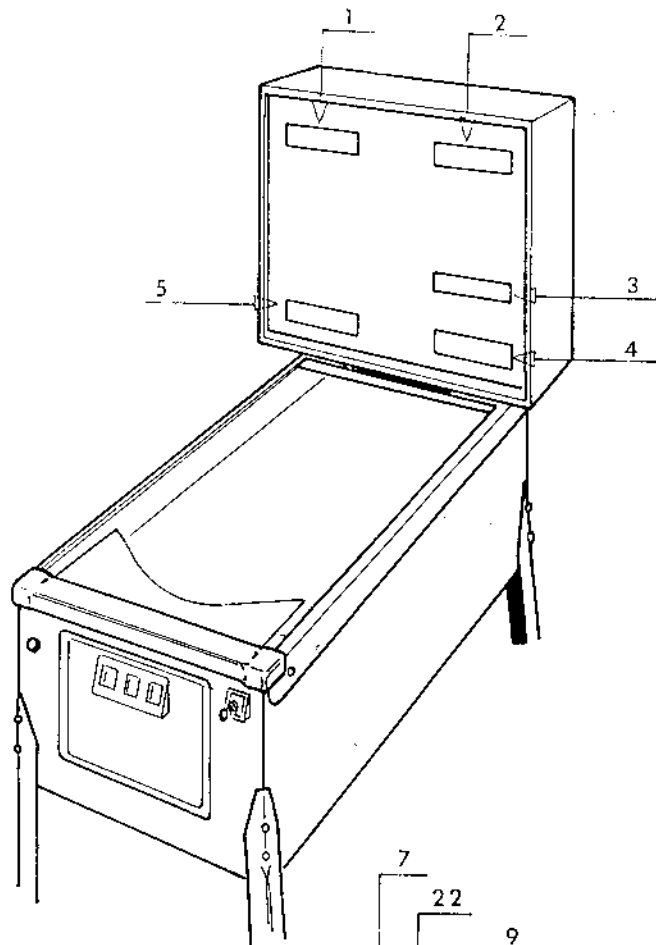


PLAYFIELD LAMPS

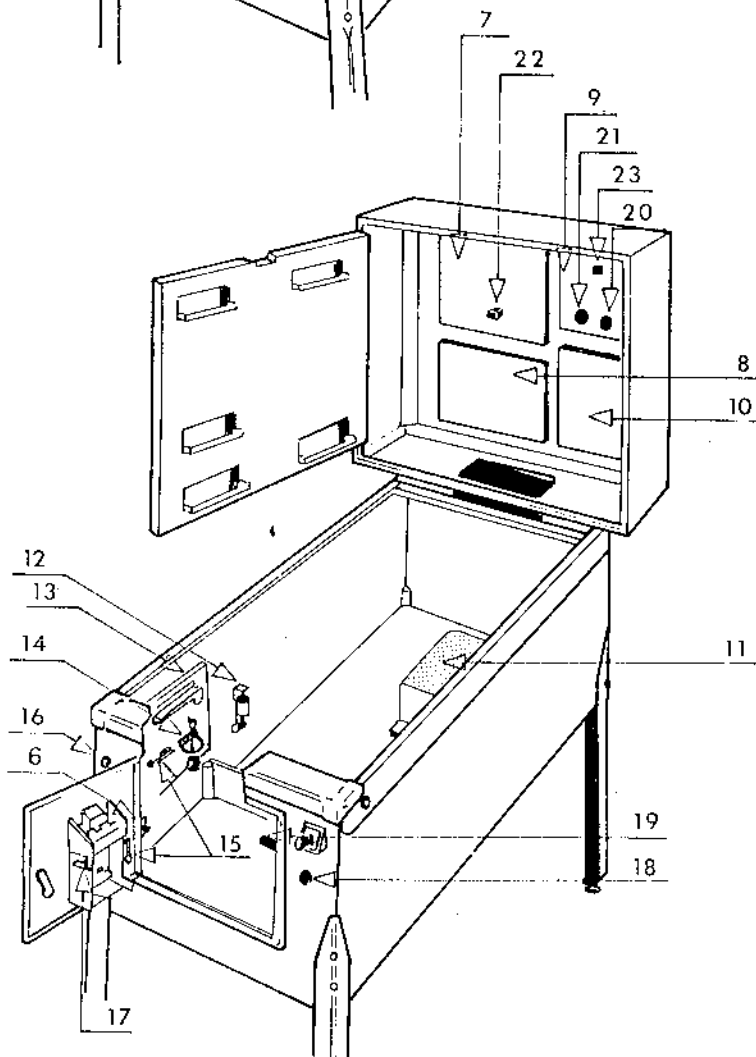


 F.LLI ZACCARIA s.n.c. Via Armadori, 15 - 40012 CALDERARA DI RENO (Bo) Italy				
PART NAME			PART NO.	
BLOCK DIAGRAM "TIME MACHINE"				
DWN.	DATE	REV.	DATE REV.	SHEET
lorone	5.1.83		25.11.83	
NOTES: UNLESS OTHERWISE SPECIFIED 1) ALL RESISTORS VALUES IN Ω 2) ALL CAPACITORS VALUES IN μF				

ASSEMBLY DRAWING

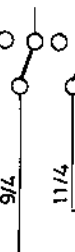


- 1 - 1st player display
Highest score display
- 2 - 2nd player display
- 3 - Credit display
Display ball to play
Match
Game time bonus
- 4 - 4th player display
- 5 - 3rd player display



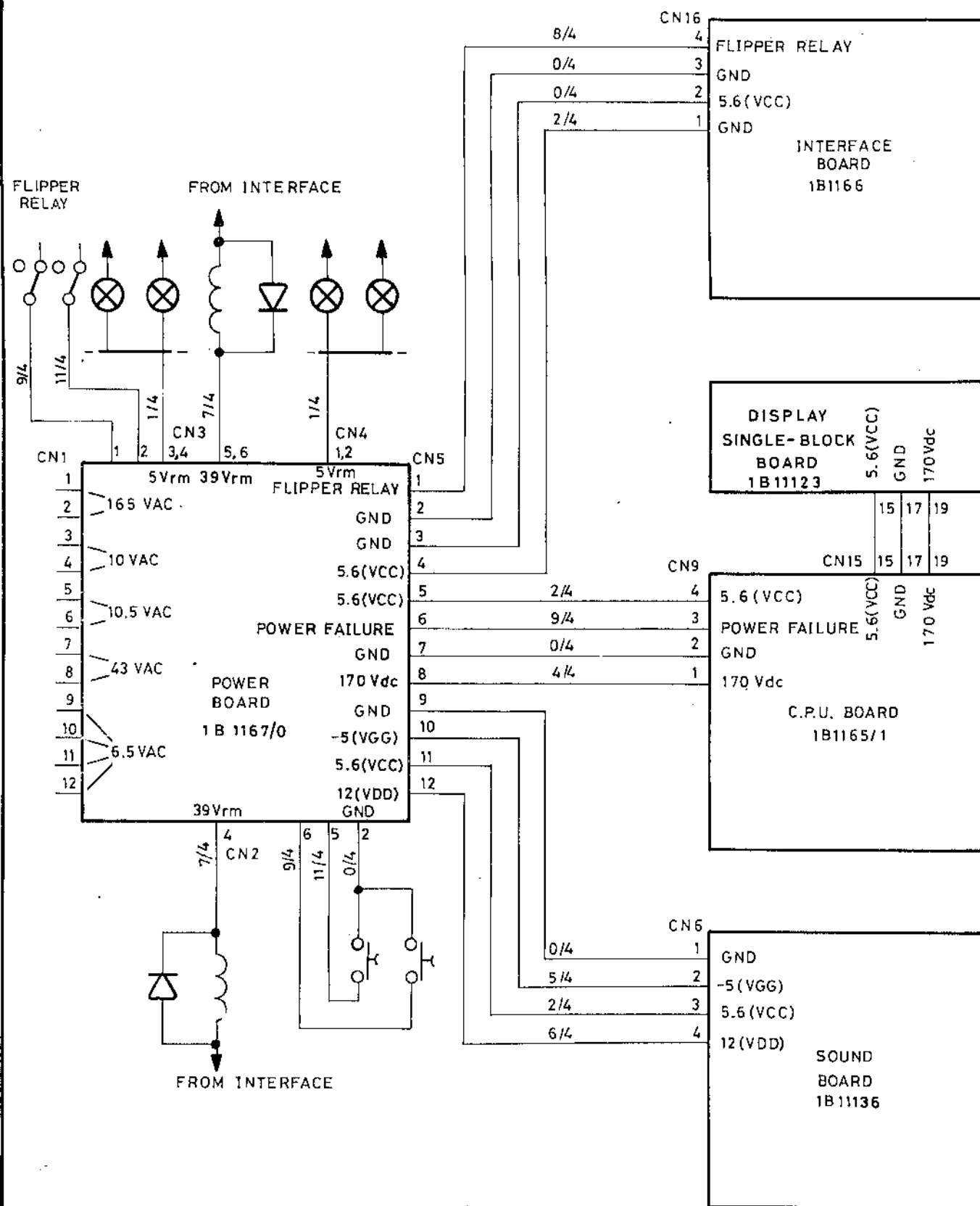
- 6 - Service button
- 7 - C.P.U. board
- 8 - Interface board
- 9 - Sound board
- 10 - Power board
- 11 - Transformer
- 12 - Knocker
- 13 - Roll ball tilt
- 14 - Bob tilt
- 15 - Antichoc tilt
- 16 - Credit button
- 17 - Advance & Return test
- 18 - Head phone jack
- 19 - General vol.
- 20 - Maximum speech vol.
- 21 - Maximum sound vol.
- 22 - Dip SWS
- 23 - Sound self-test button

FLIPPER
RELAY

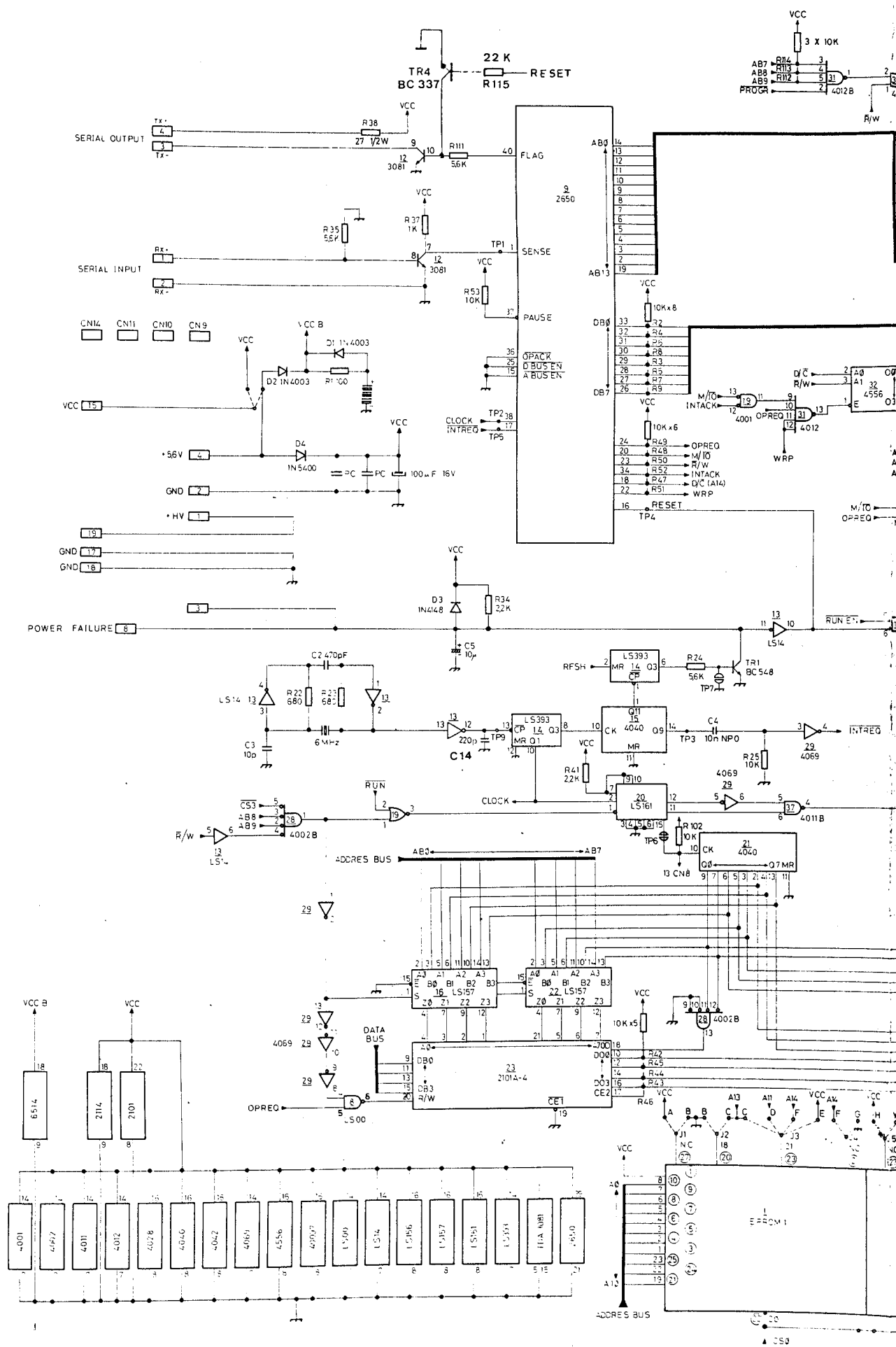


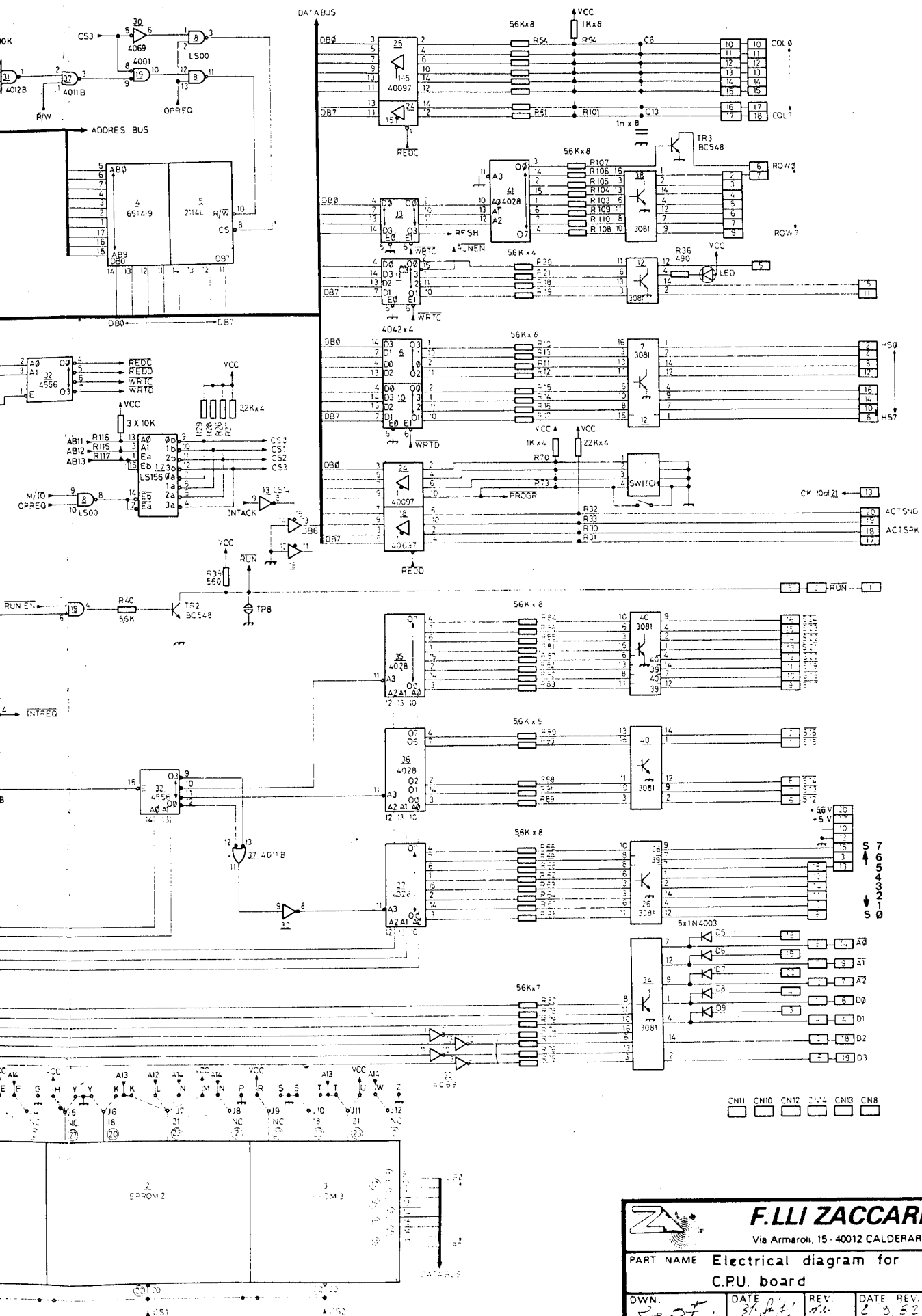
CN1

1
2
3
4
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6
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10
11
12



 F.LLI ZACCARIA s.n.c. Via Armeroli, 15 - 40012 CALDERARA DI RENO (Bo) Italy			
PART NAME		PART NO.	
Electrical digram power wiring			
DWN.	DATE	REV.	DATE REV.
	3/9/82	1	12/1/82
SHEET			
NOTES: UNLESS OTHERWISE SPECIFIED			
1) ALL RESISTORS VALUES IN			
2) ALL CAPACITORS VALUES IN			





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Via Armaroli, 15 - 40012 CALDERARA DI RENO (Bo) Italy

PART NAME Electrical diagram for			PART NO.	
C.P.U. board			1B 13 65/1	
OWN.	DATE	REV.	DATE REV.	SHEET
2007	20/02/01	01	03/05/02	1

NOTES UNLESS OTHERWISE SPECIFIED
 1) ALL RESISTORS VALUES IN
 2) ALL CAPACITORS VALUES IN

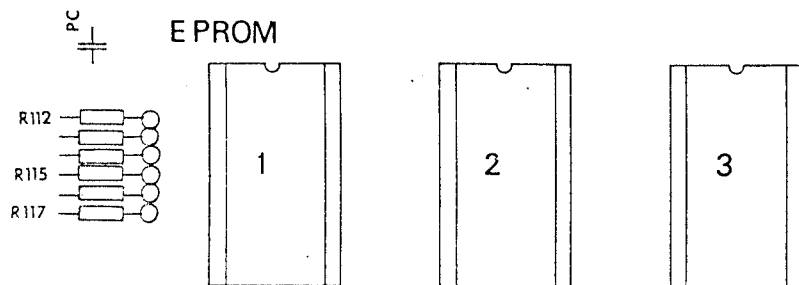
C.P.U. board

P.C.1 B 1165/1

a b c d e f g h y k l m n p r s t u v w z

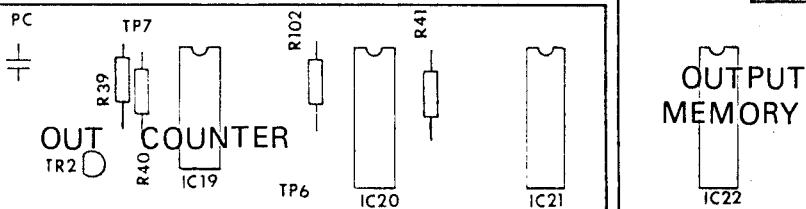
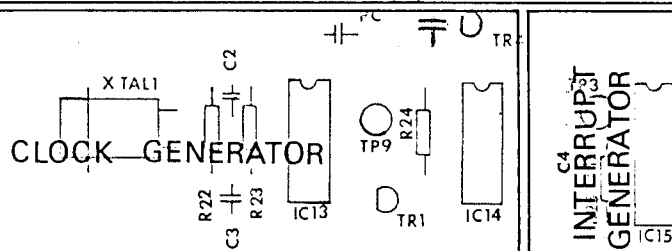
EPROM JUMPERS

J1 J2 J3 J4 J5 J6 J7 J8 J9 J10 J11 J12

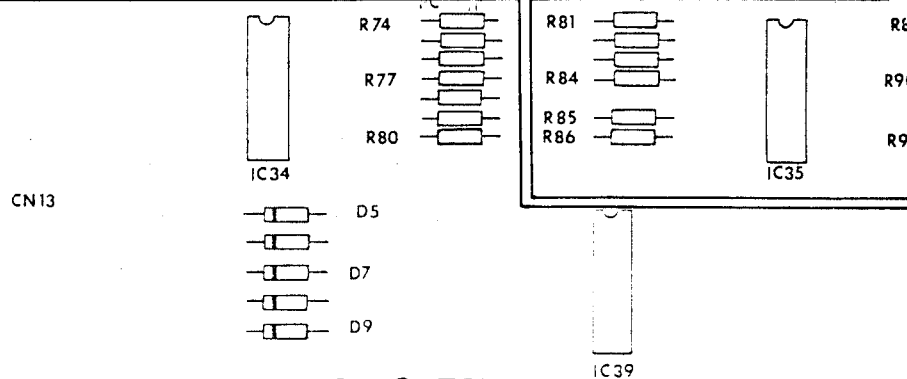
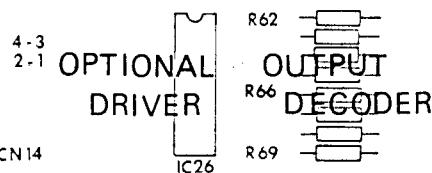


IC1 J13 IC2 TP2 IC3

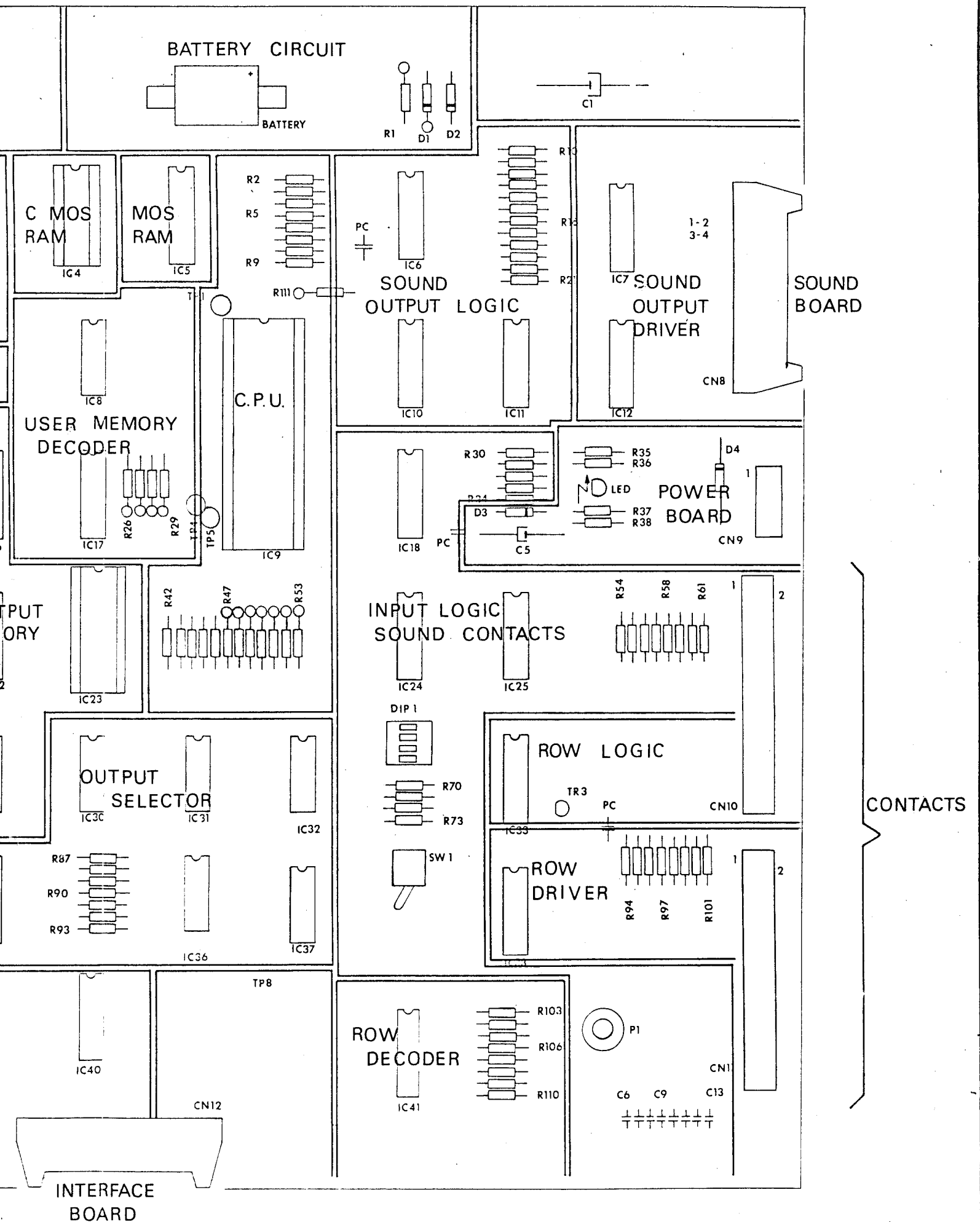
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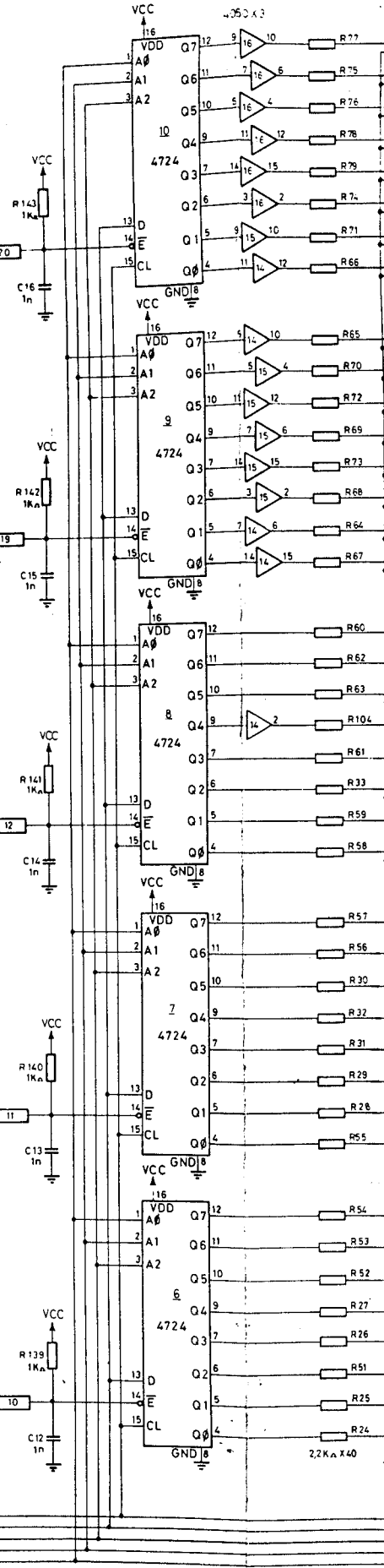
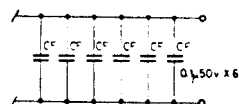


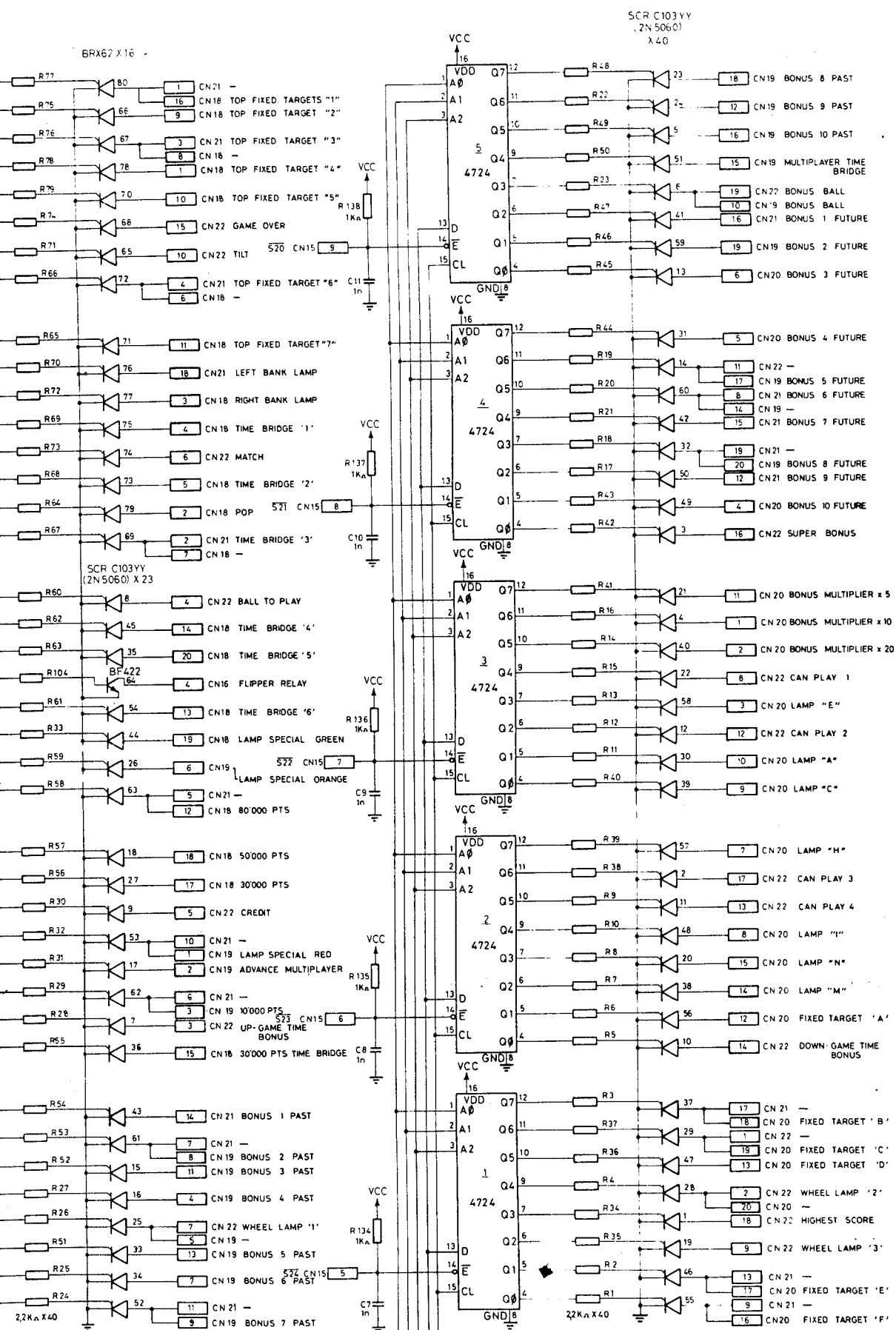
DISPLAY BOARD



1B1165/1







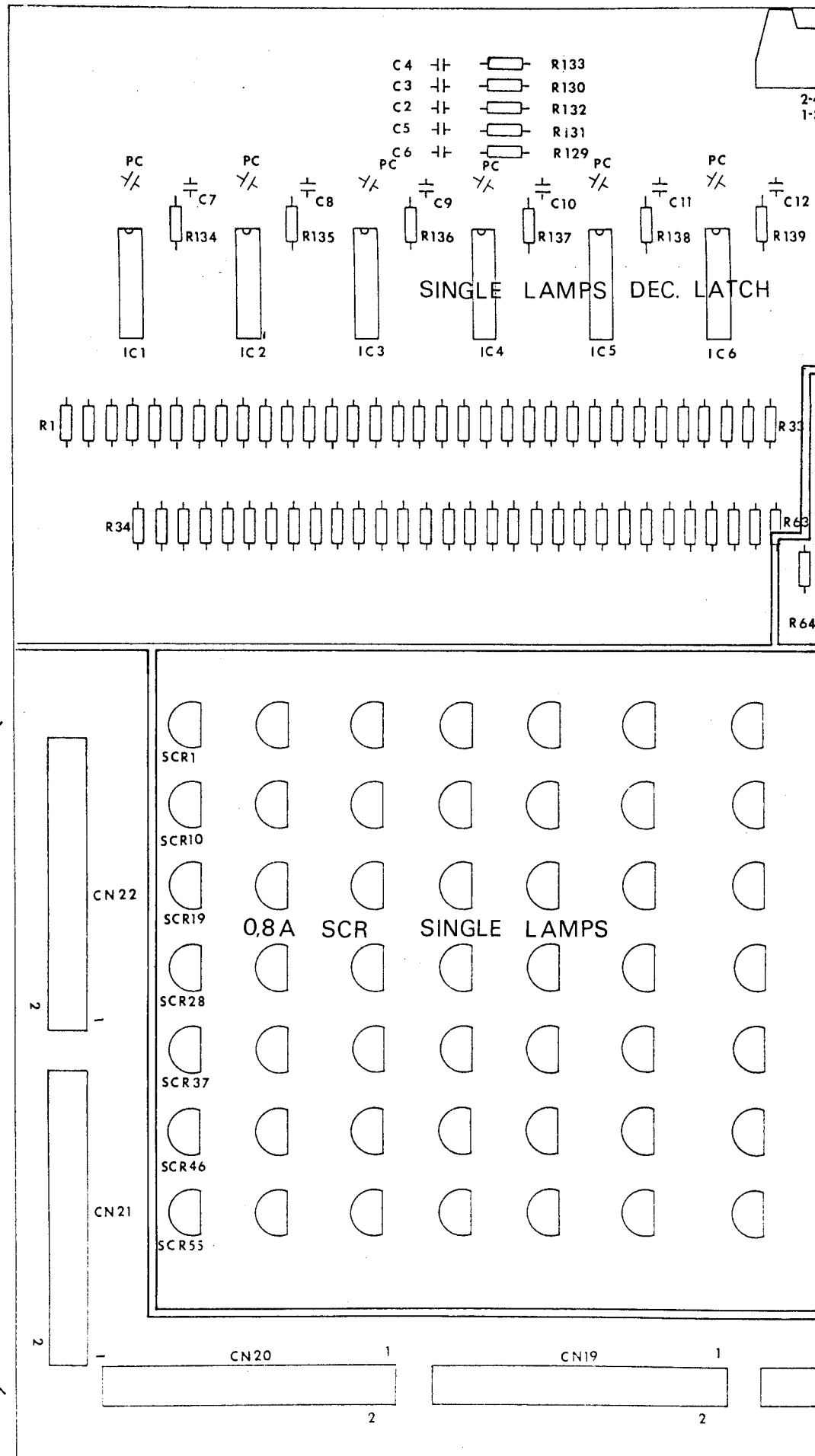
F.LLI ZACCARIA s.n.c.
Via Armaroli, 15 - 40012 CALDERARA DI RENO (Bo) Italy

PART NAME		PART NO.	
Interface "TIME MACHINE"		1B 1366	
DWN.	DATE	REV.	SHEET
Ricci	25-11-81	1	1

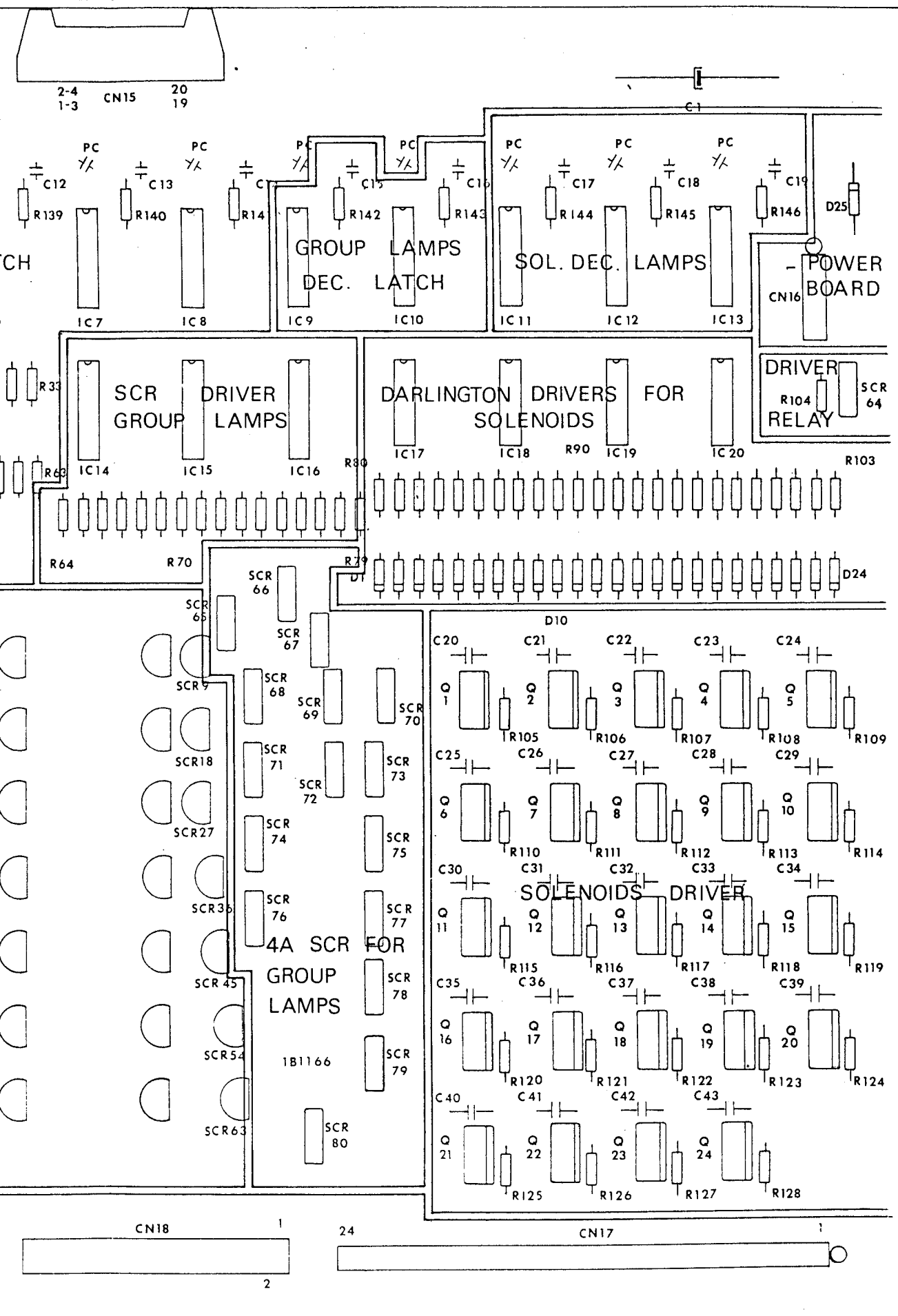
NOTES: UNLESS OTHERWISE SPECIFIED
1) ALL RESISTORS VALUES IN
2) ALL CAPACITORS VALUES IN

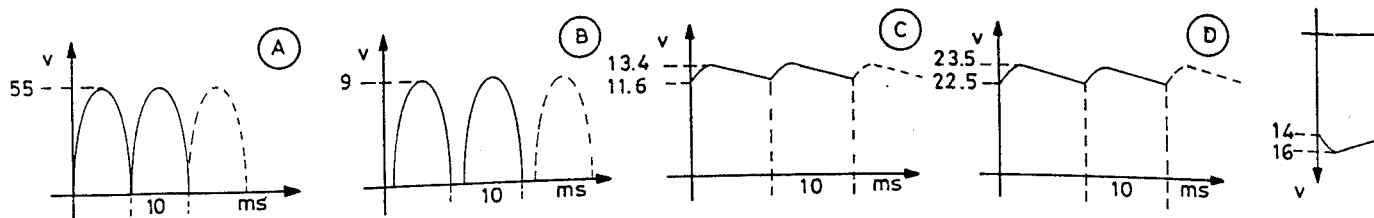
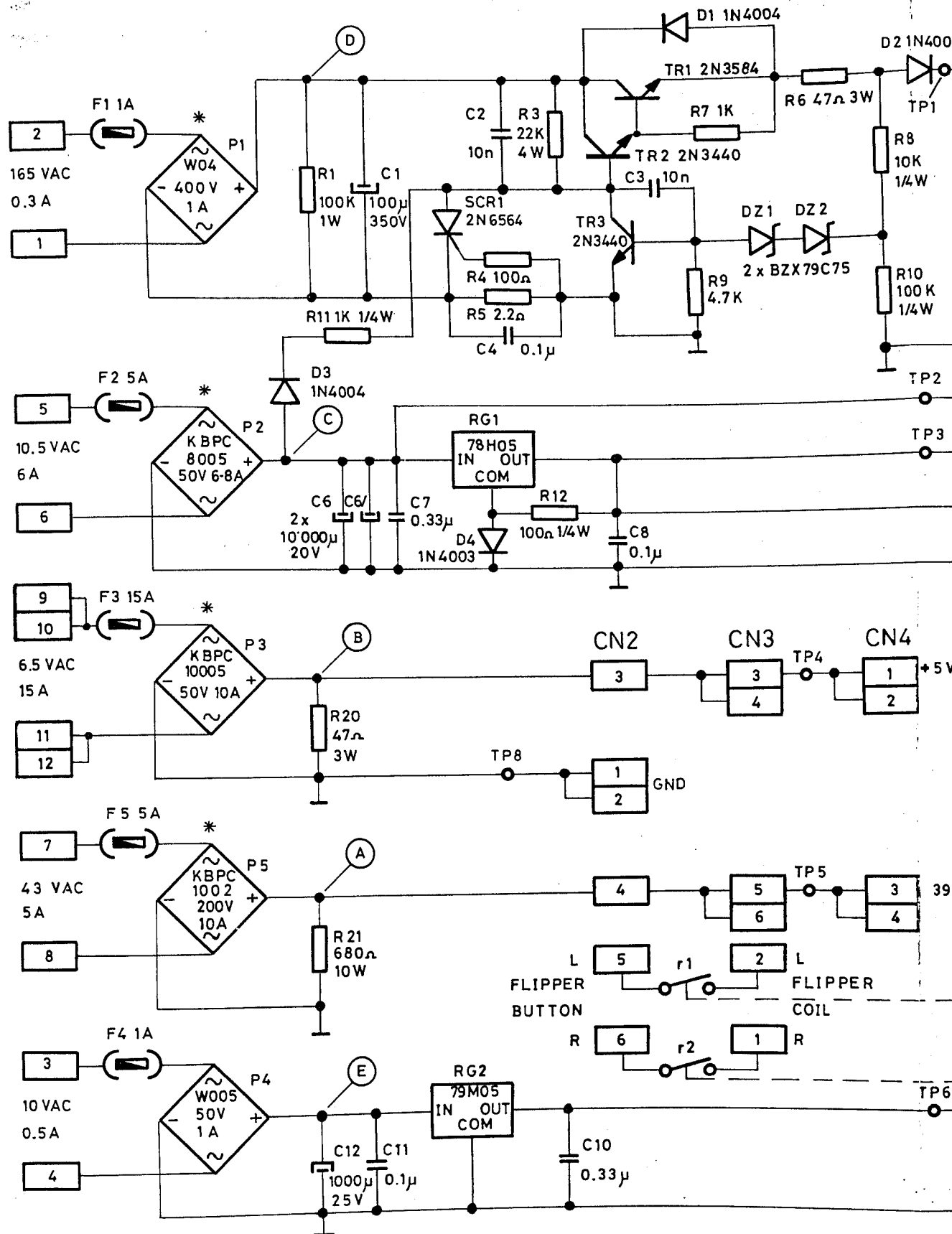
INTERFACE board

P.C. 1B1166



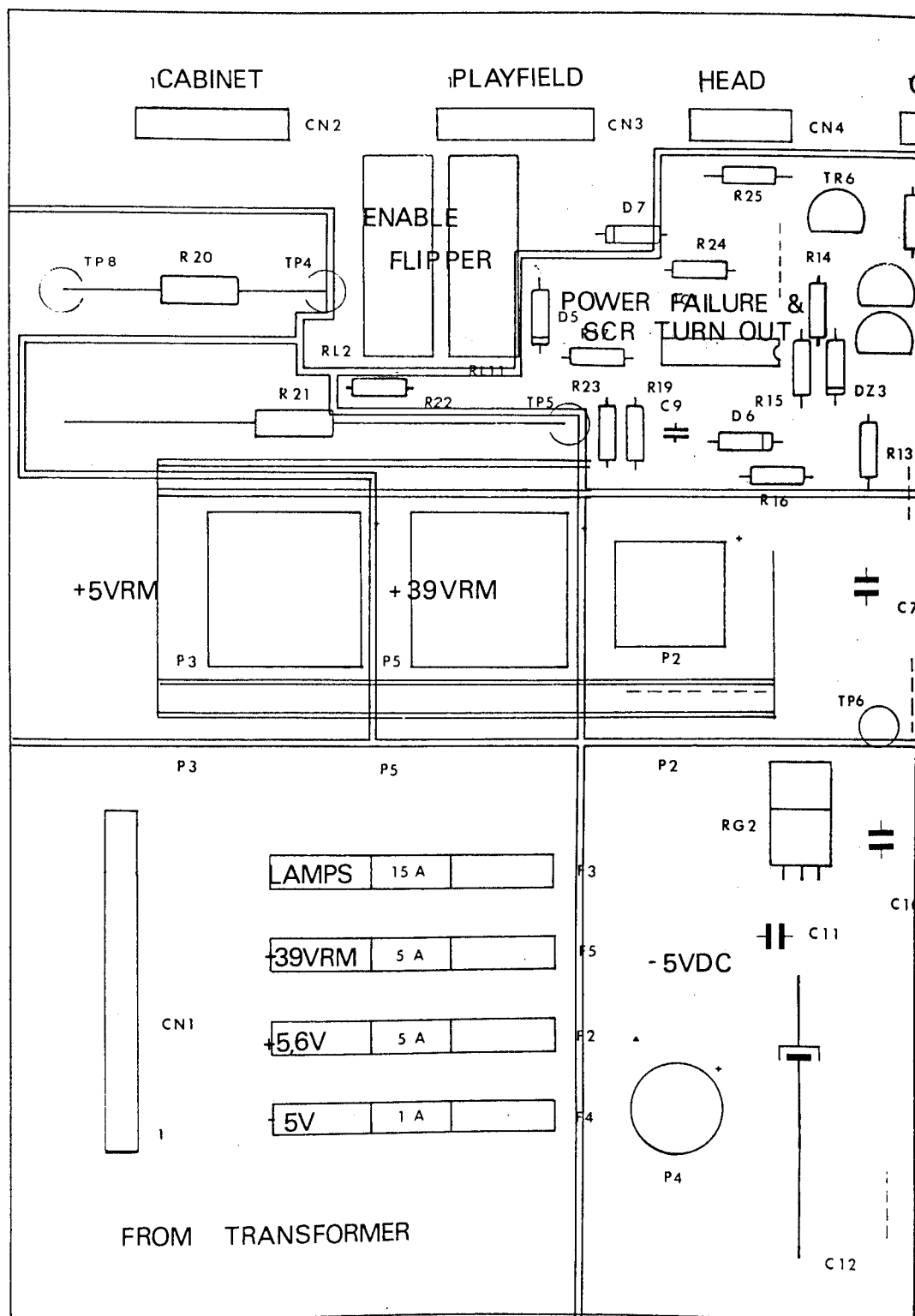
C.P.U. BOARD

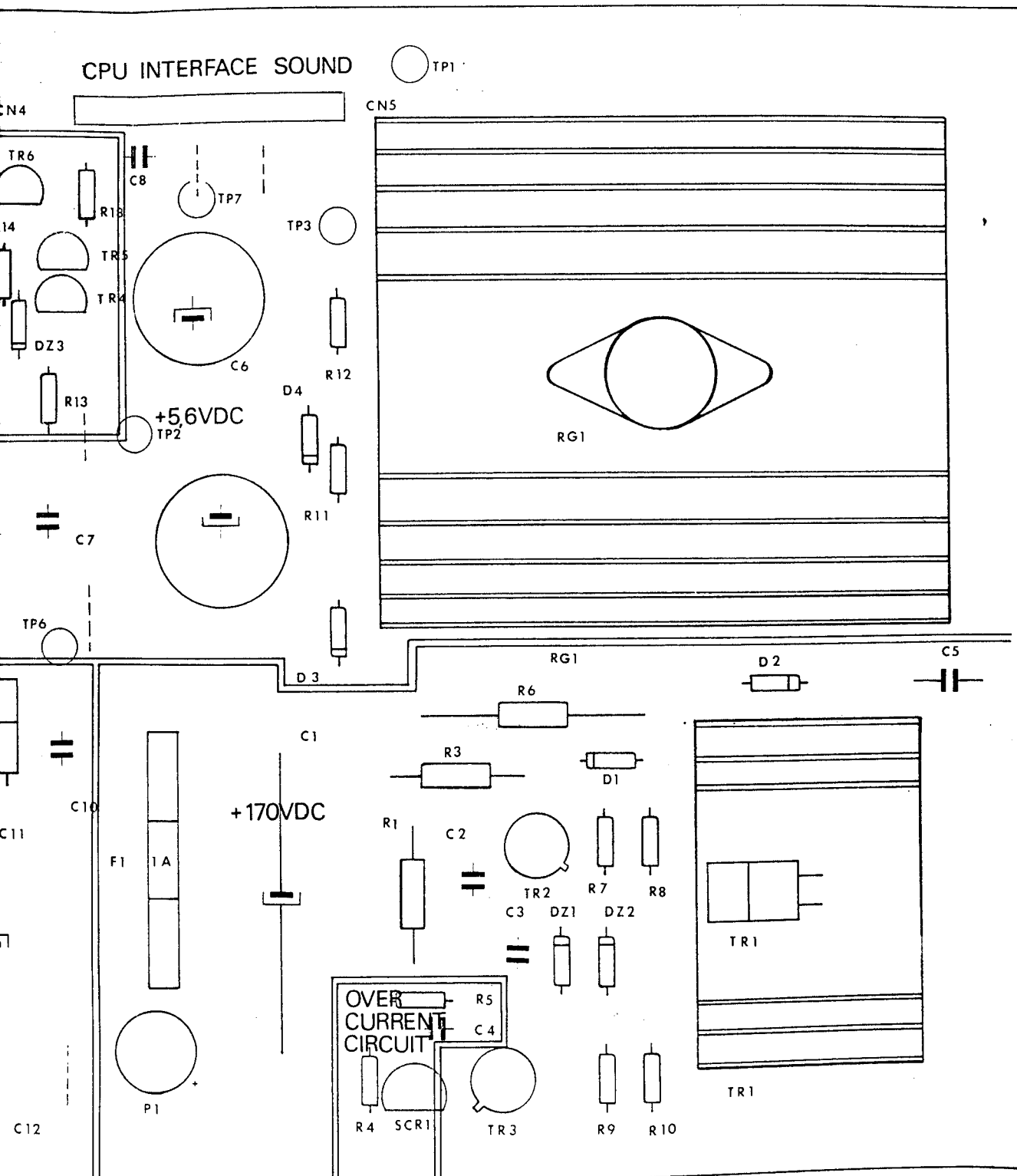


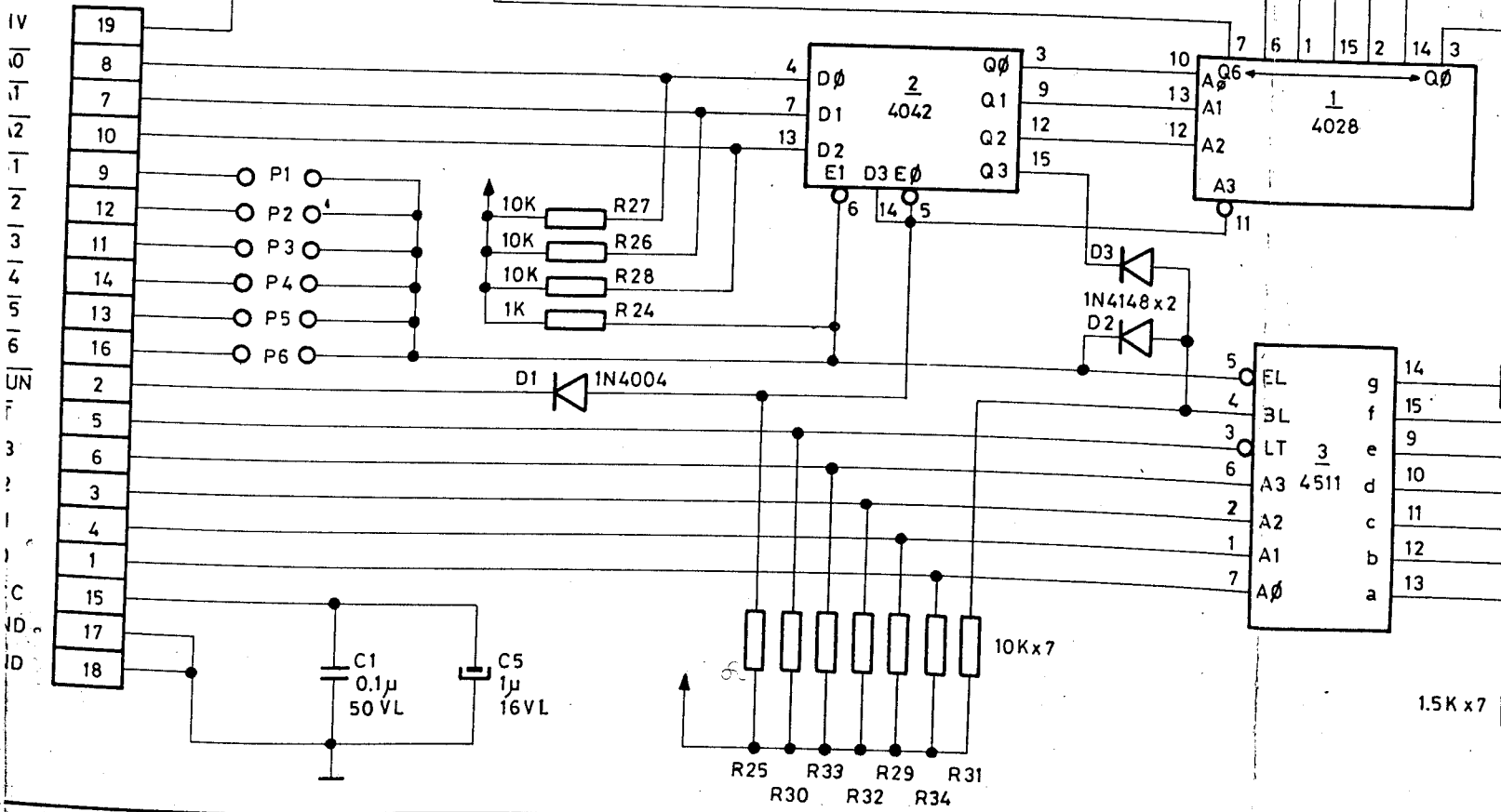
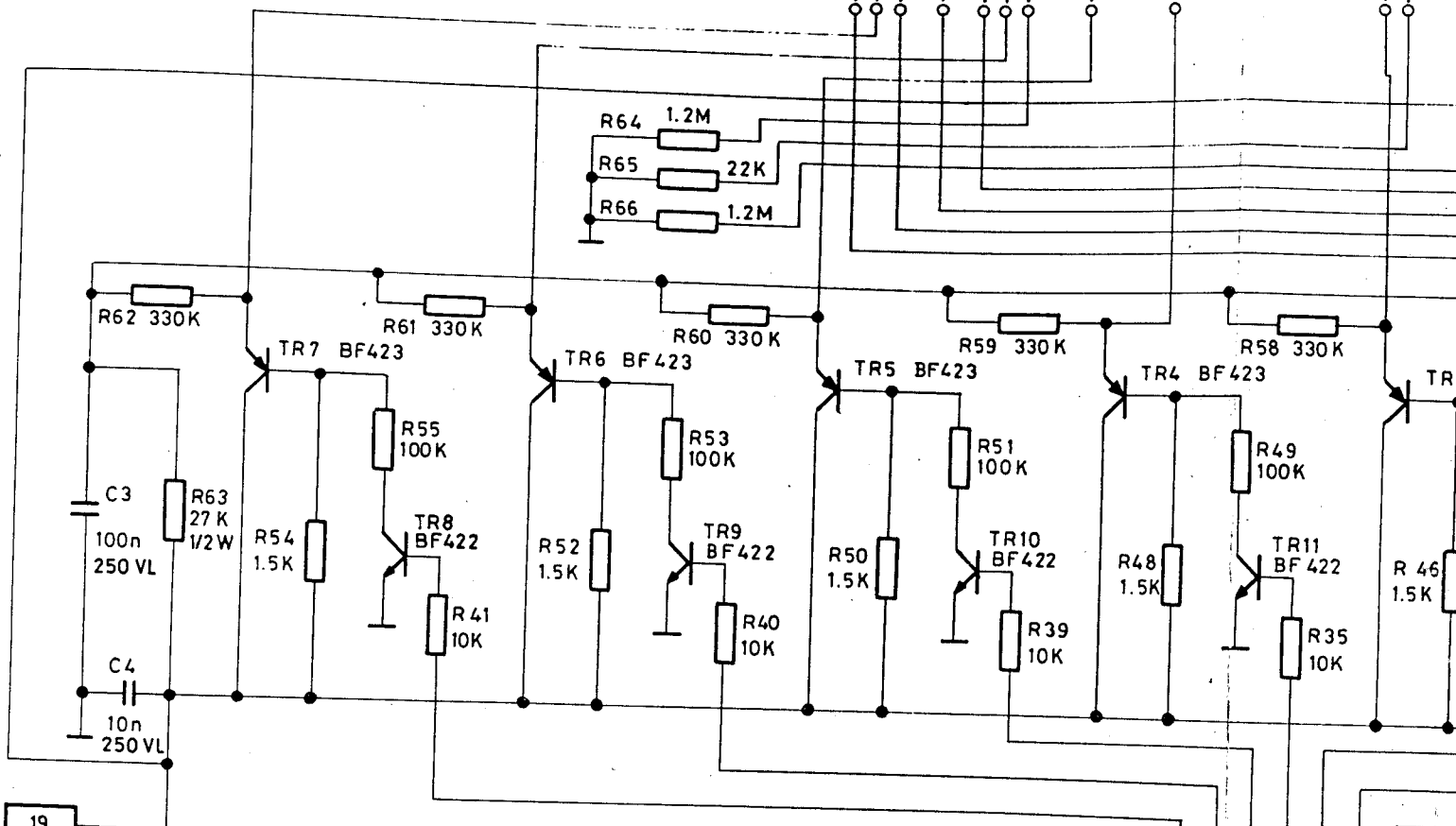
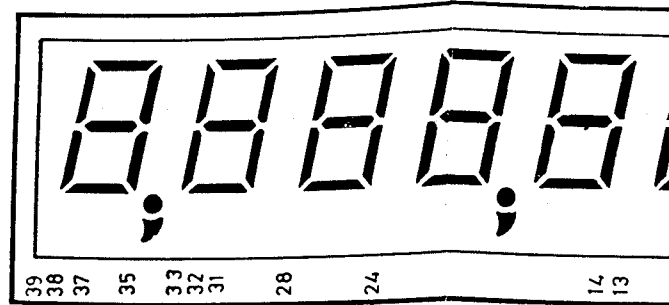


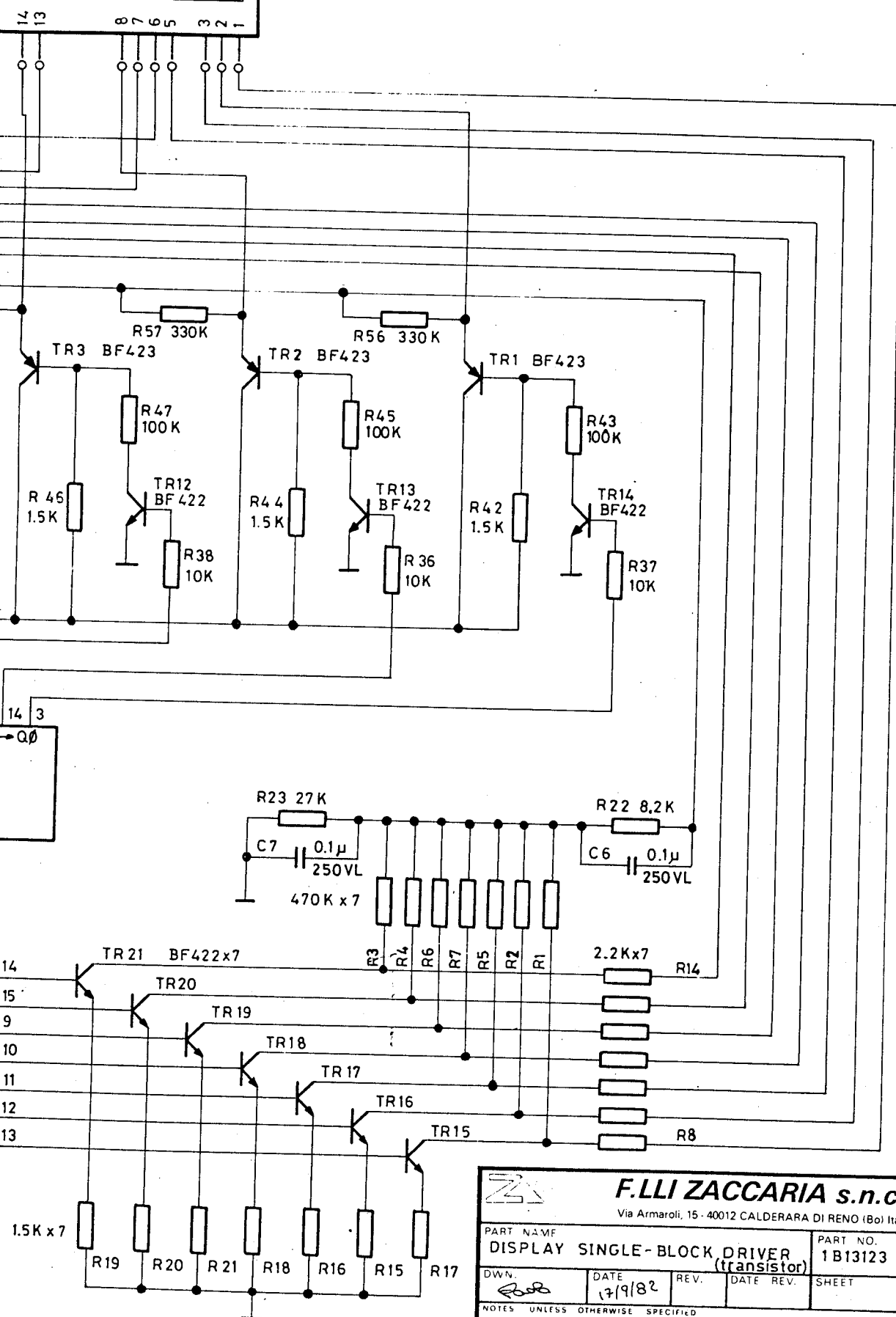
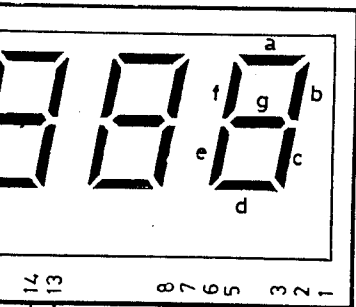
POWER board

P.C. 1B1167/0



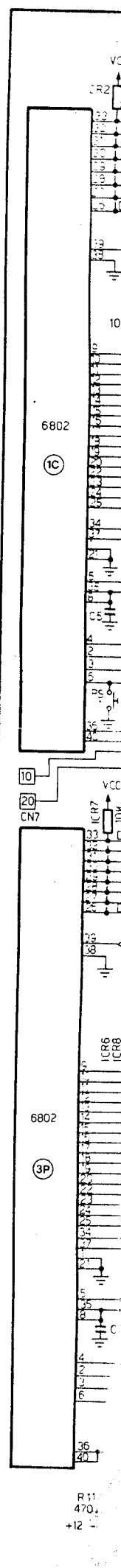






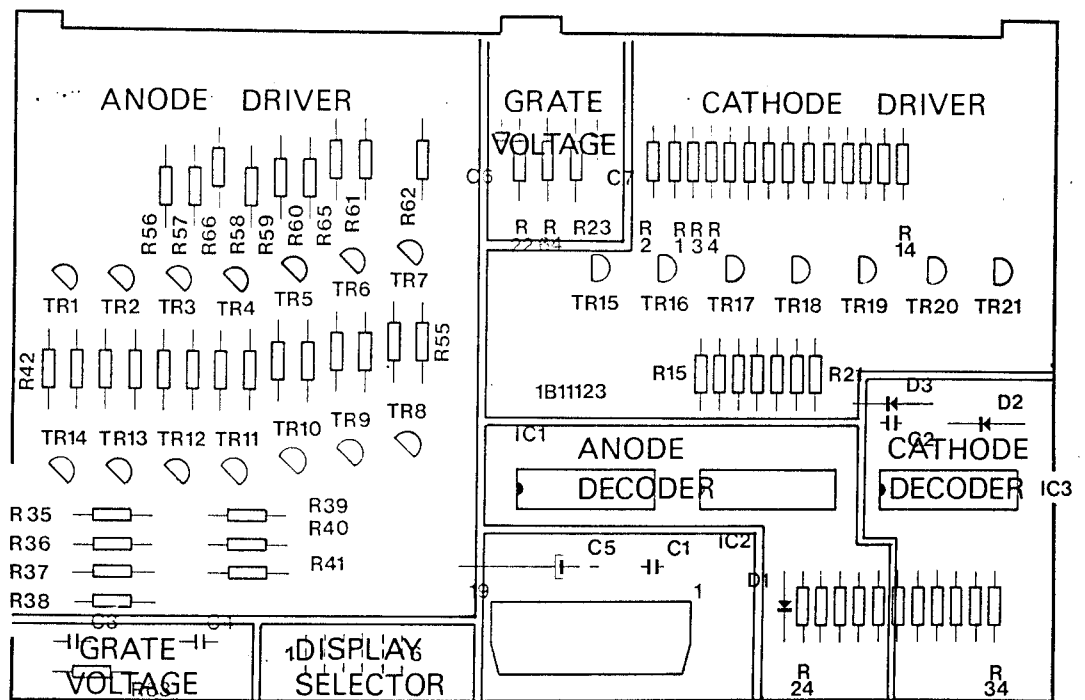
F.LI ZACCARIA s.n.c.
Via Armaroli, 15 - 40012 CALDERARA DI RENO (Bo) Italy

PART NAME		PART NO.	
DISPLAY SINGLE-BLOCK DRIVER (transistor)		1B13123	
DWN.	DATE	REV.	DATE REV.
Rev.	17/9/82		
NOTES: UNLESS OTHERWISE SPECIFIED		SHEET	
1) ALL RESISTORS VALUES IN			
2) ALL CAPACITORS VALUES IN			



DRIVER DISPLAY board

P.C. 1B11123



C.P.U. BOARD

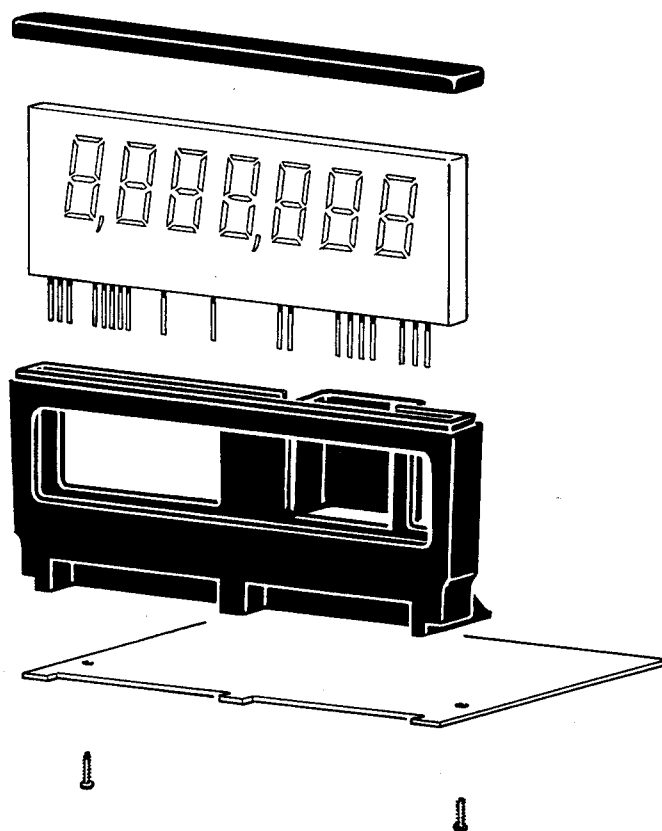
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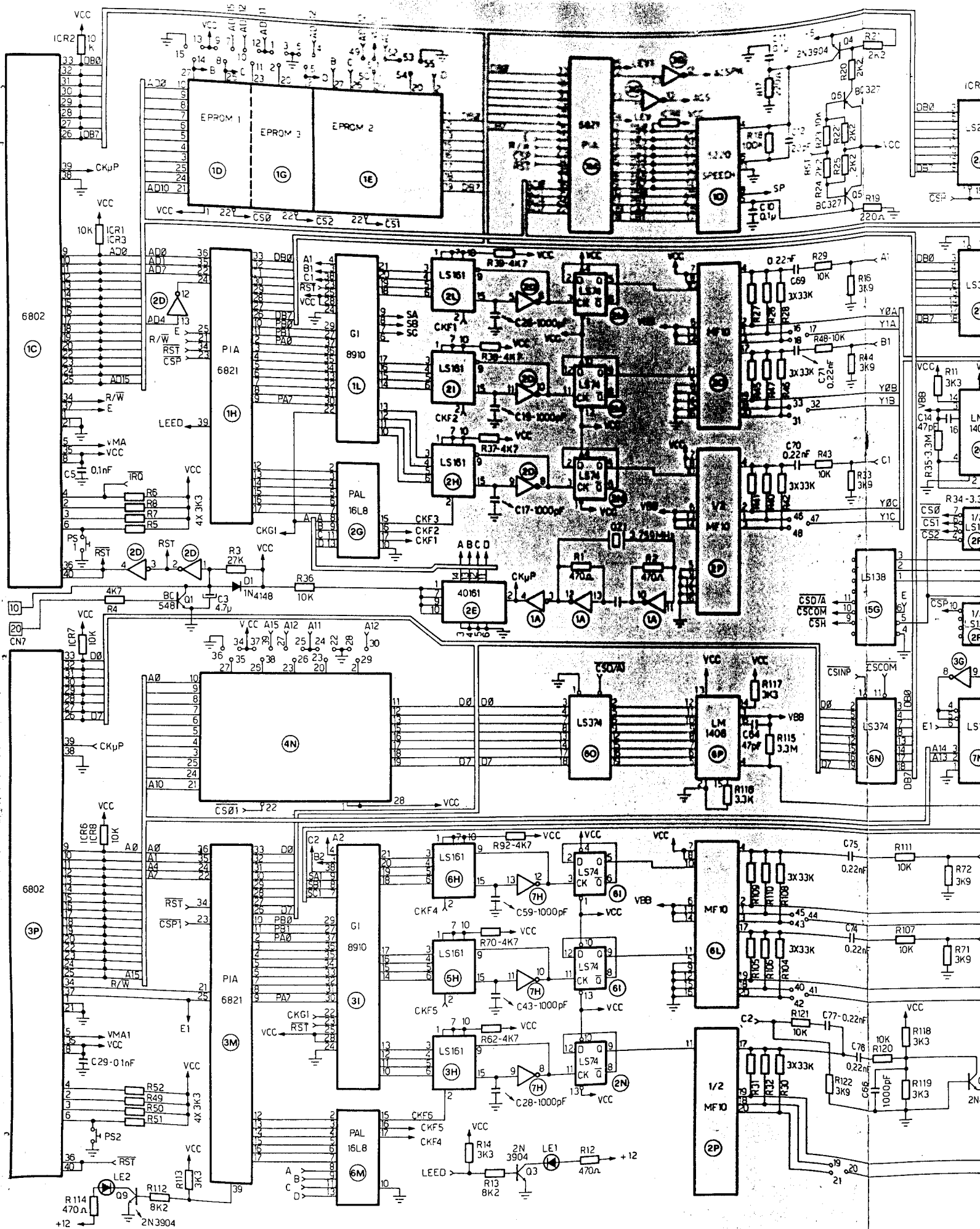
RENO (Boi Italy)

RT NO.
B1367/0

EET

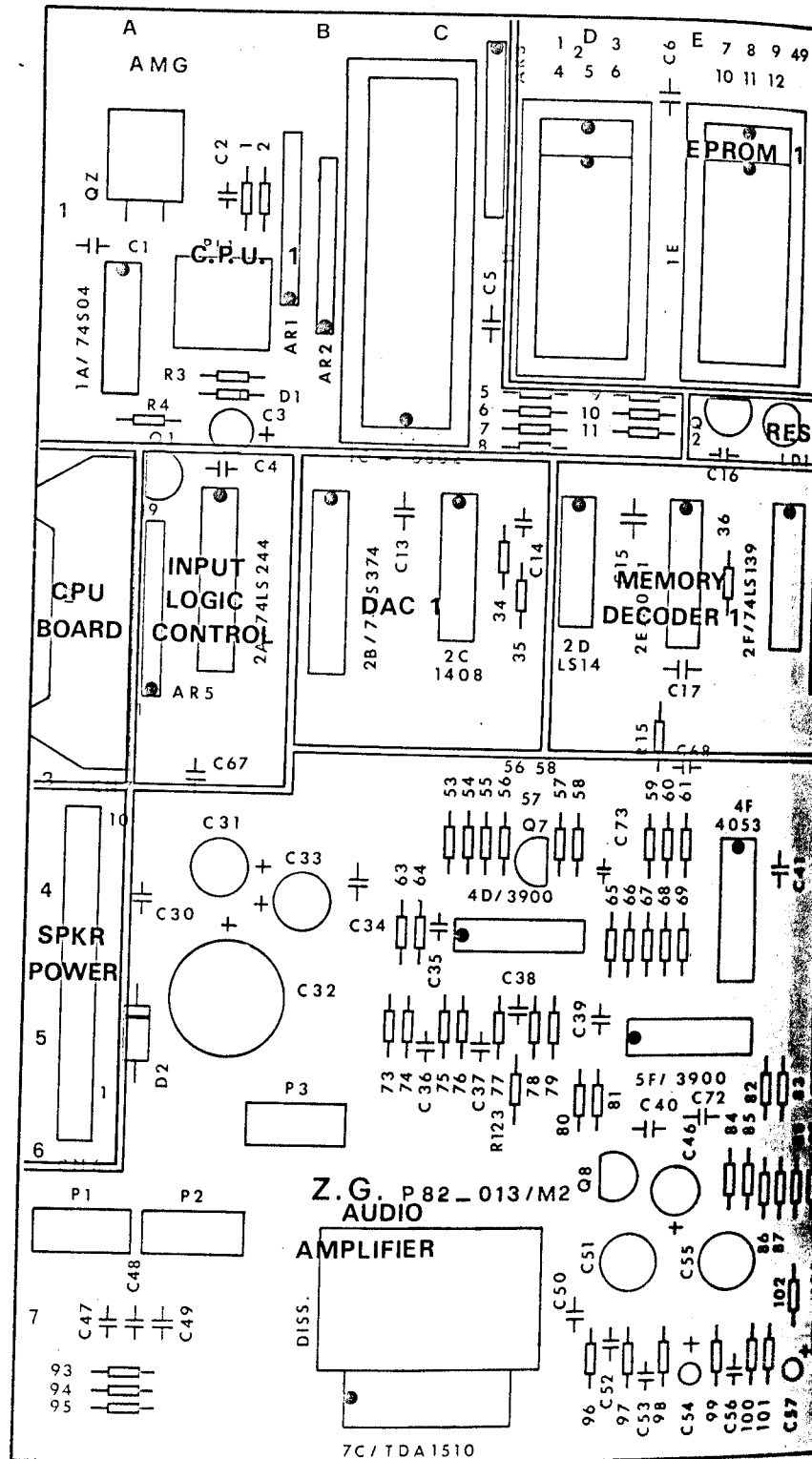
IC3

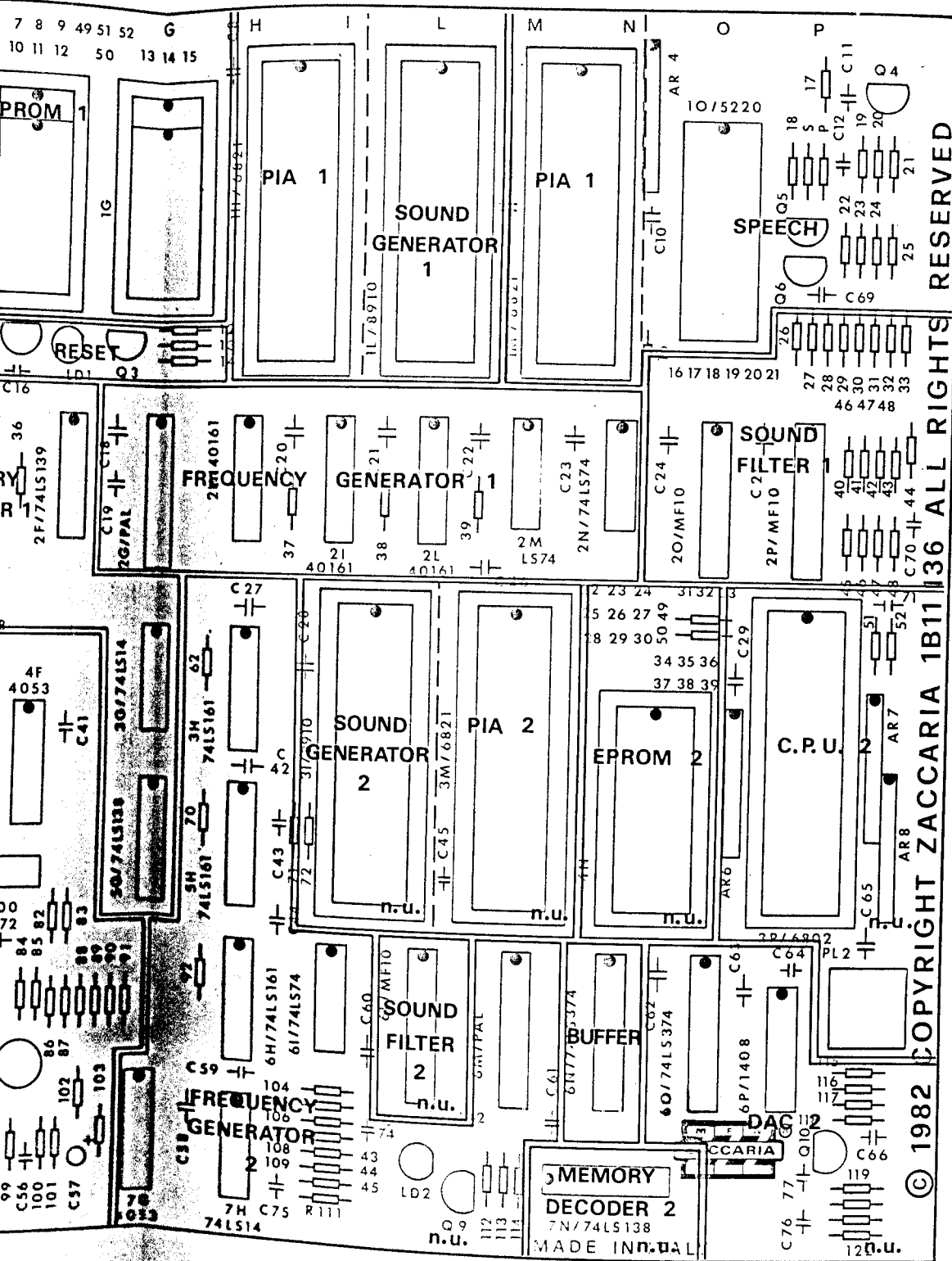




SOUND & SPEECH board

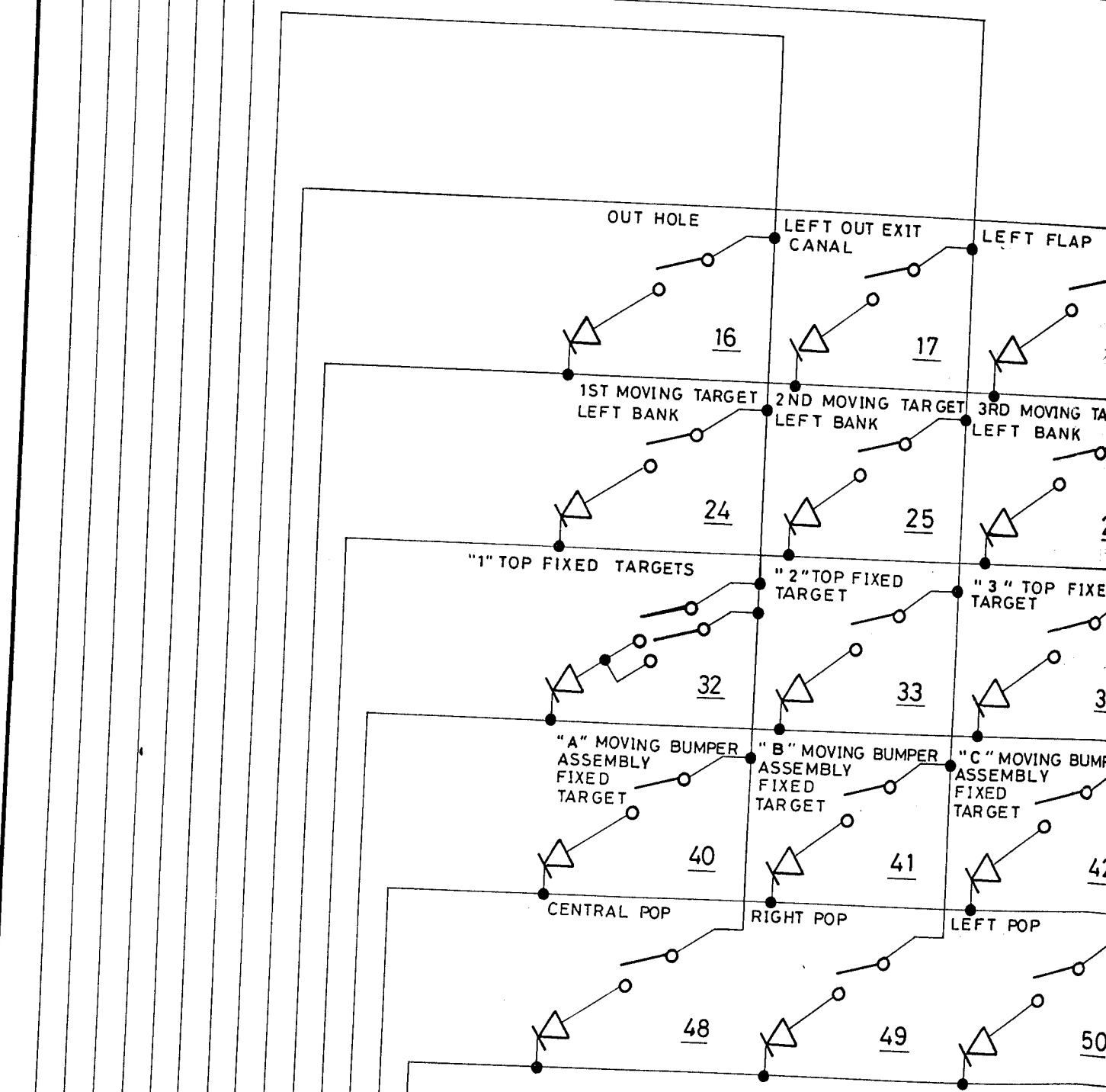
P.C. 1B11136





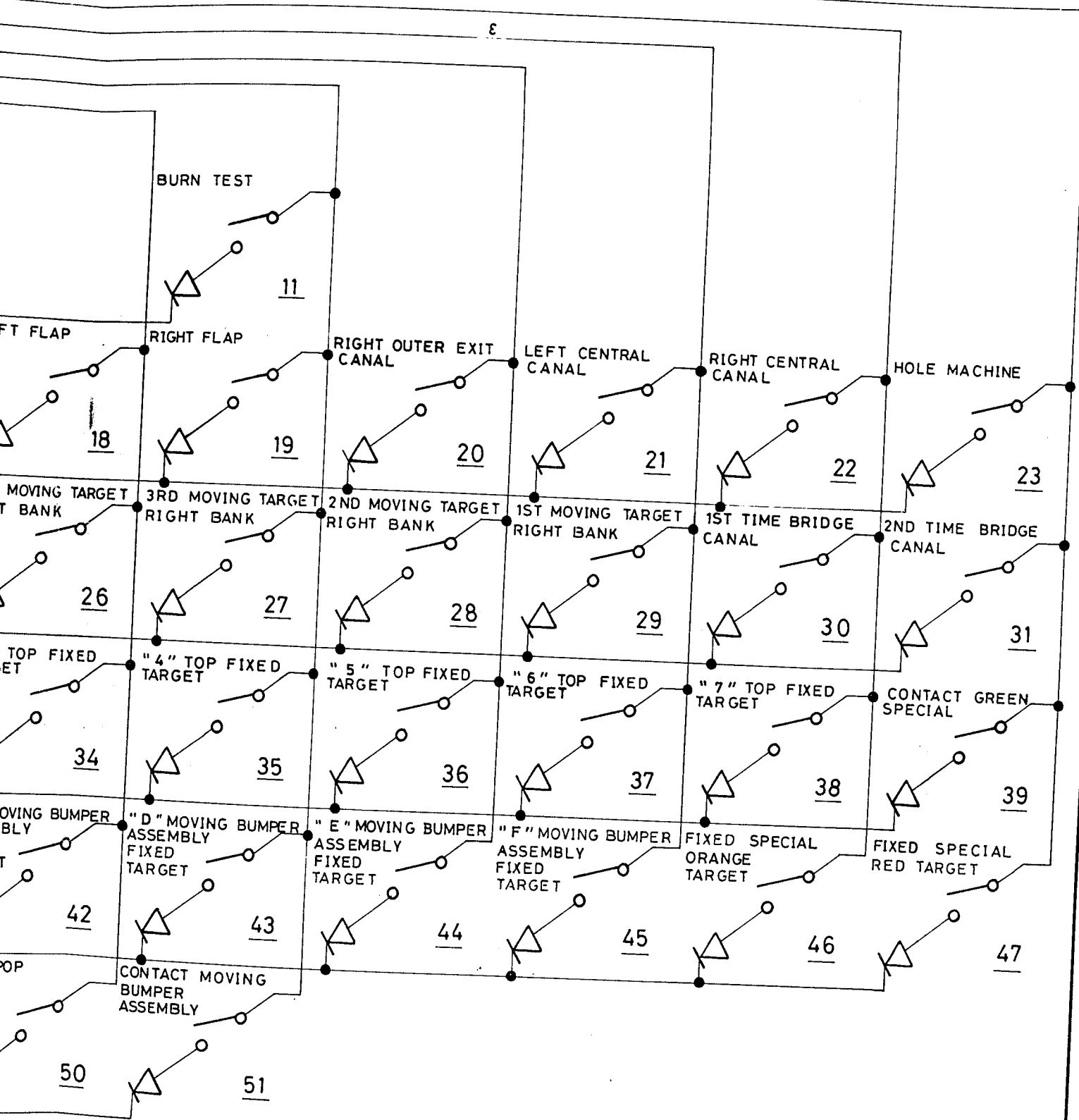
RESERVED

© 1982 ZACCARIA 1B11

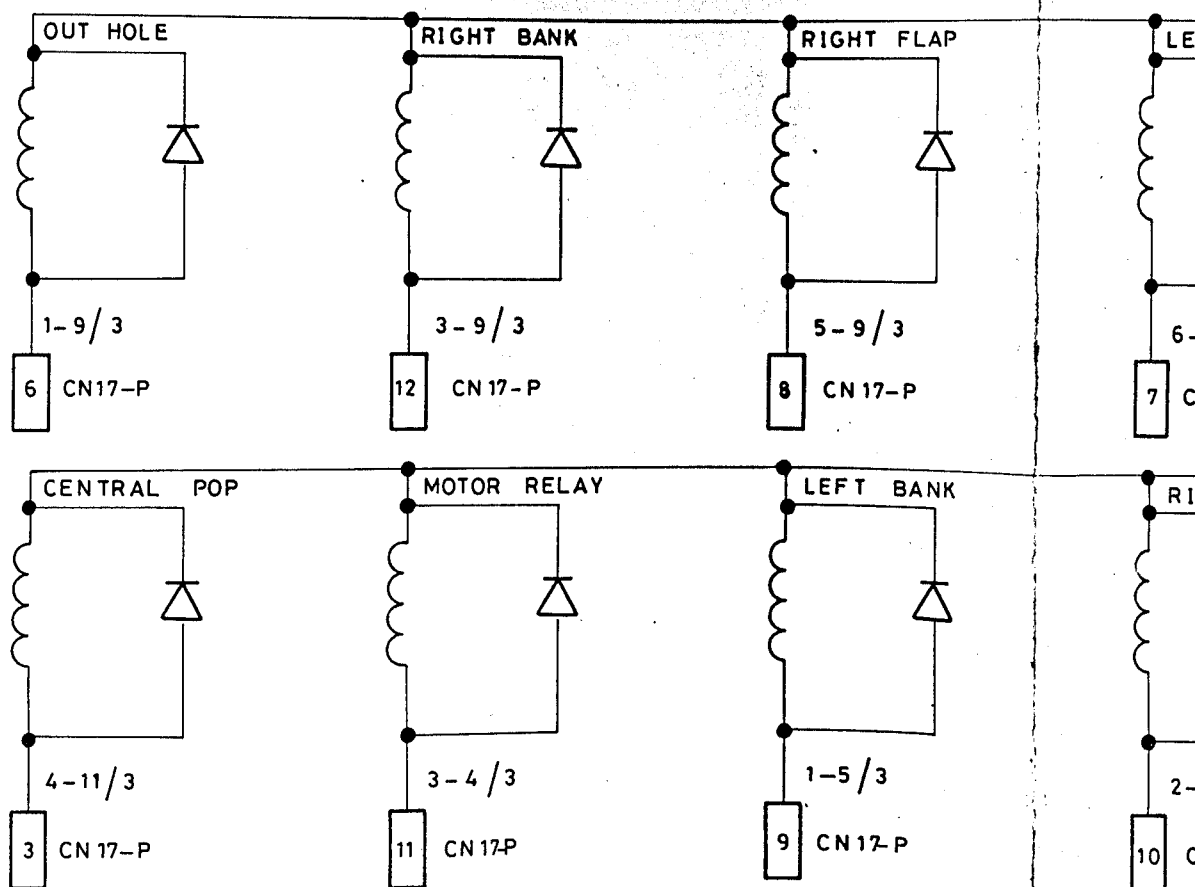
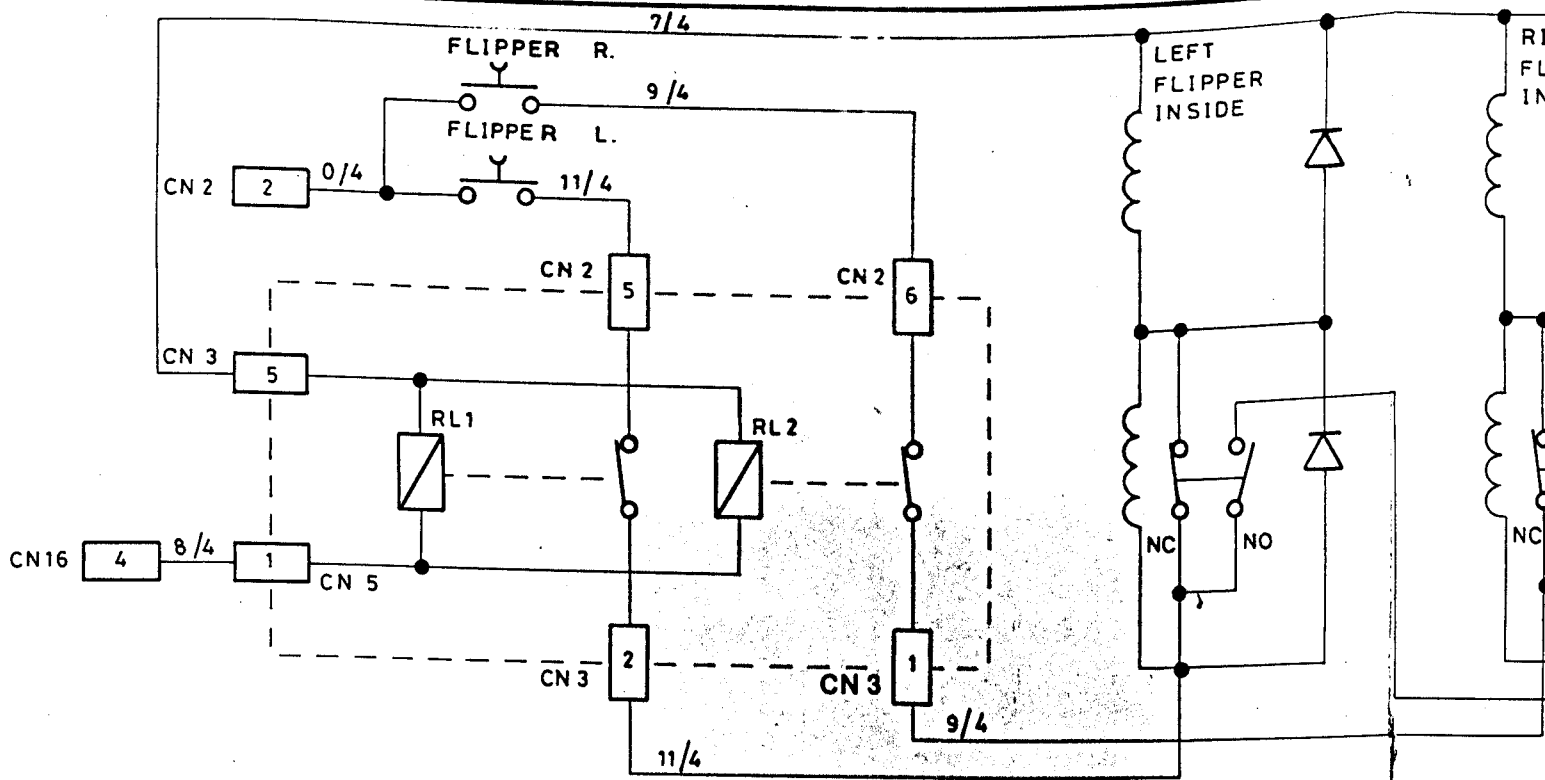


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17	16	15	14	13	12	11	10	2	3	4	5	6	7	CN 11

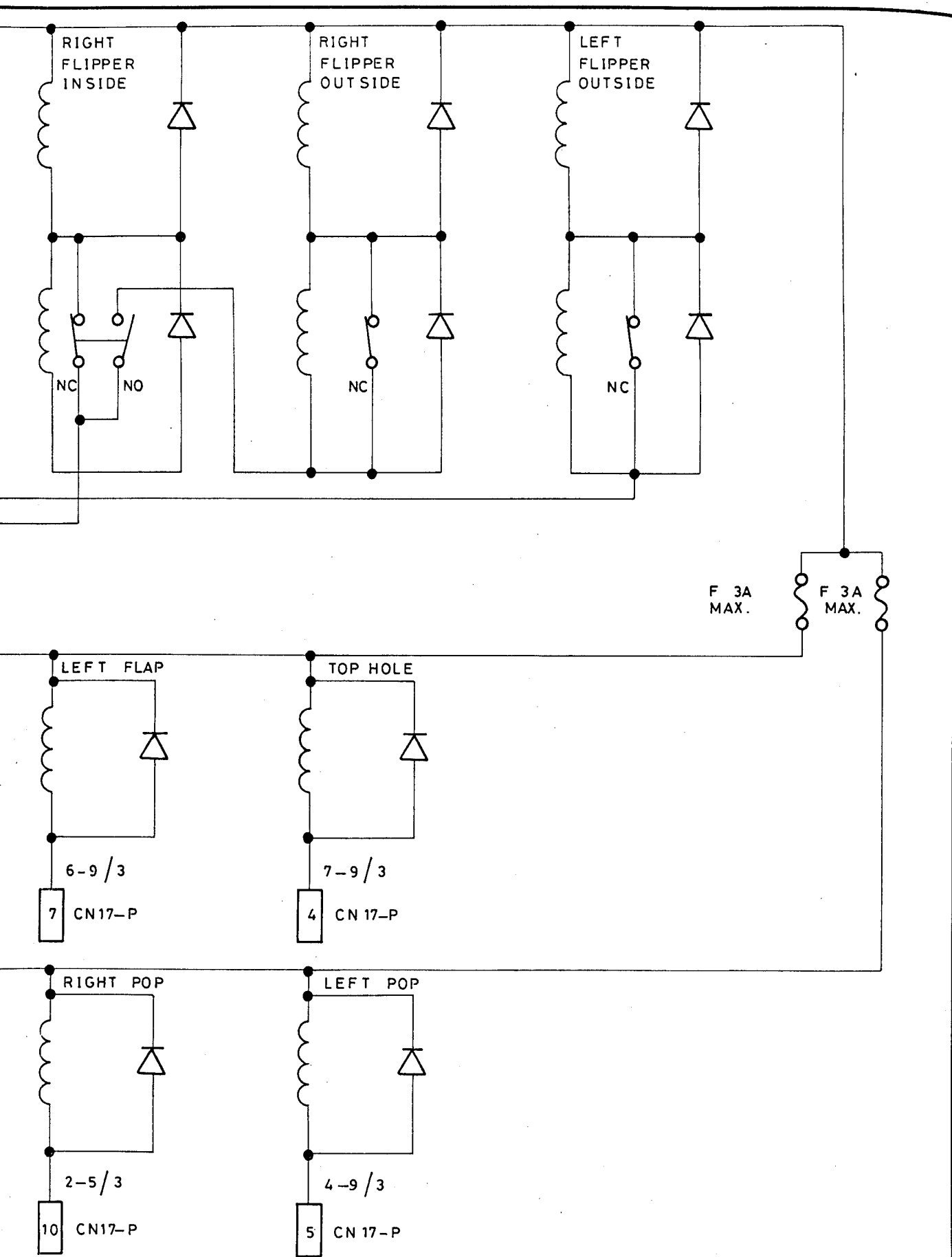
ALL DIODES AR



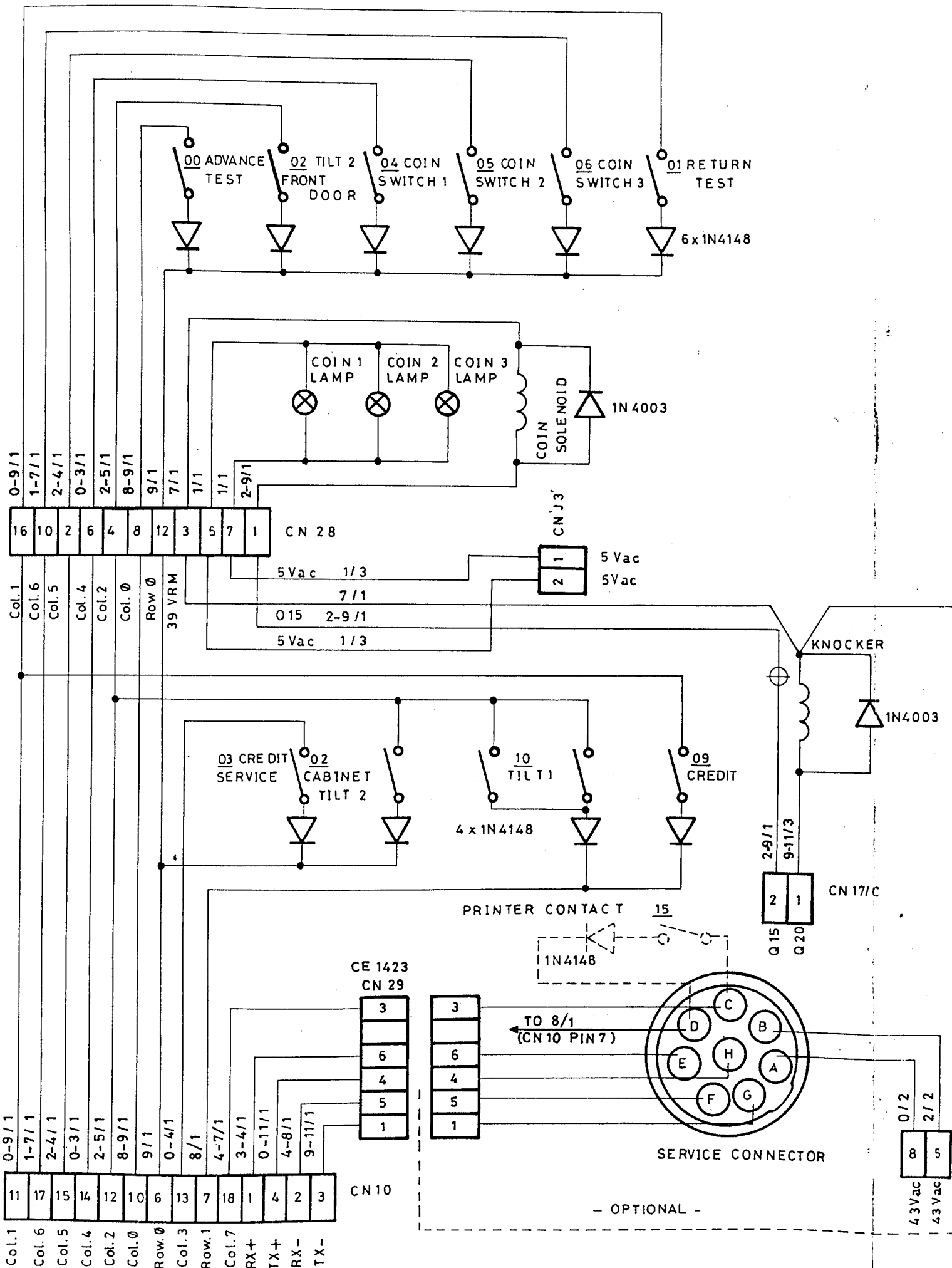
 F.LLI ZACCARIA s.n.c. Via Armaroli, 15 - 40012 CALDERARA DI RENO (Bo) Italy				
PART NAME DIAGRAM FOR PLAYFIELD CONTACTS WIRING "TIME MACHINE"				PART NO.
DWN. London	DATE	REV.	DATE REV.	SIGNED

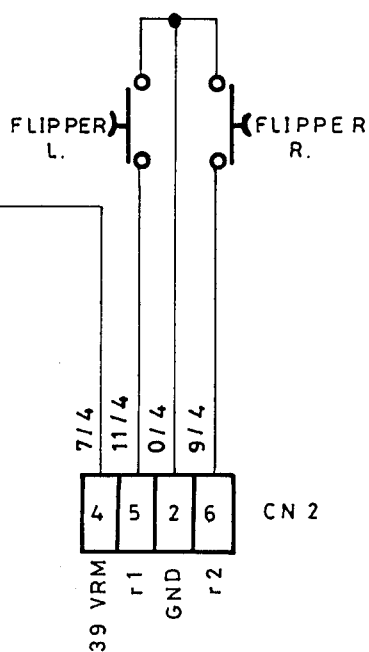
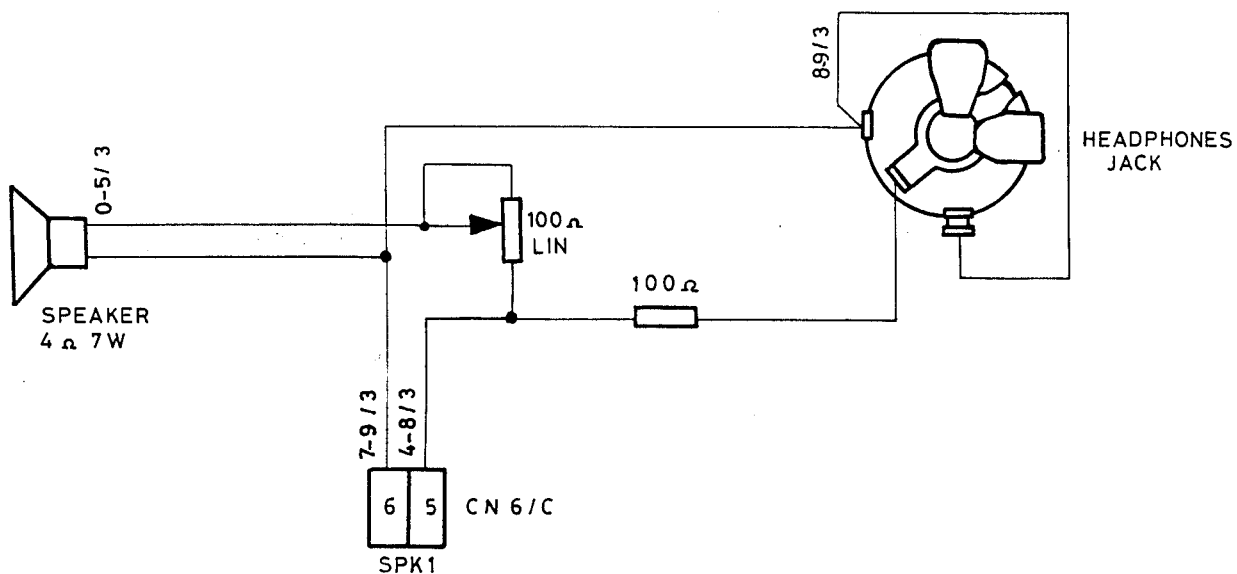


ALL DIODES ARE 1N4004

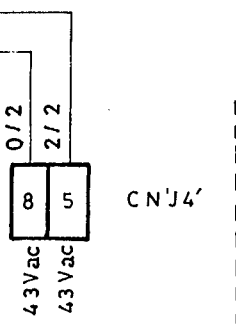


 F.LLI ZACCARIA s.n.c. Via Armeroli, 15 - 40012 CALDERARA DI RENO (Bo) Italy				
PART NAME COIL WIRING "TIME MACHINE"				PART NO.
DWN. <i>W. Zaccaria</i>	DATE 5.1.83	REV. <i>P</i>	DATE REV. 73.11.83	SHEET
NOTES: UNLESS OTHERWISE SPECIFIED 1) ALL RESISTORS VALUES IN _____ 2) ALL CAPACITORS VALUES IN _____				

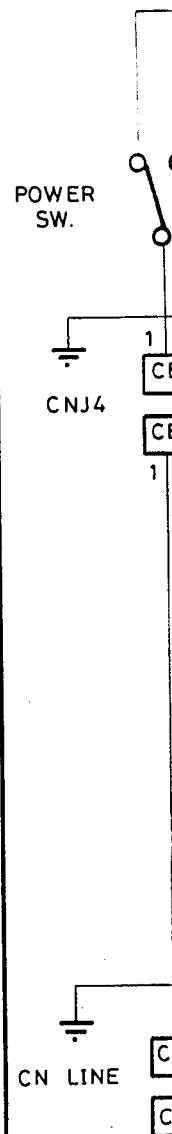




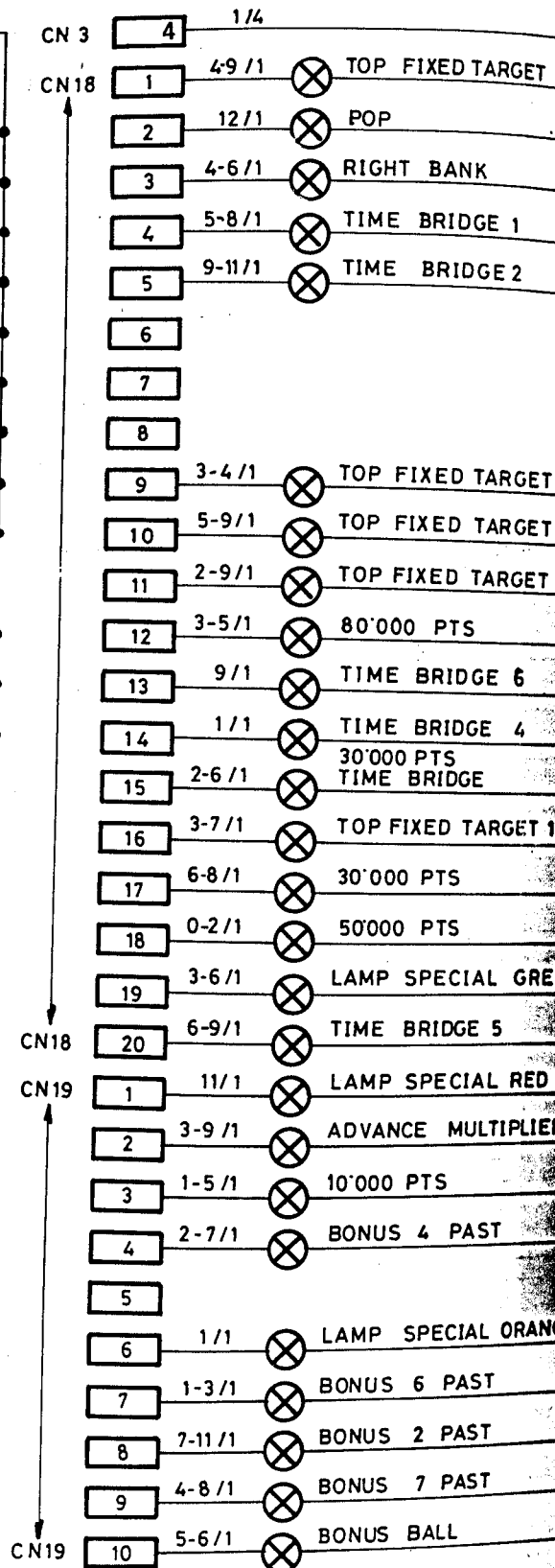
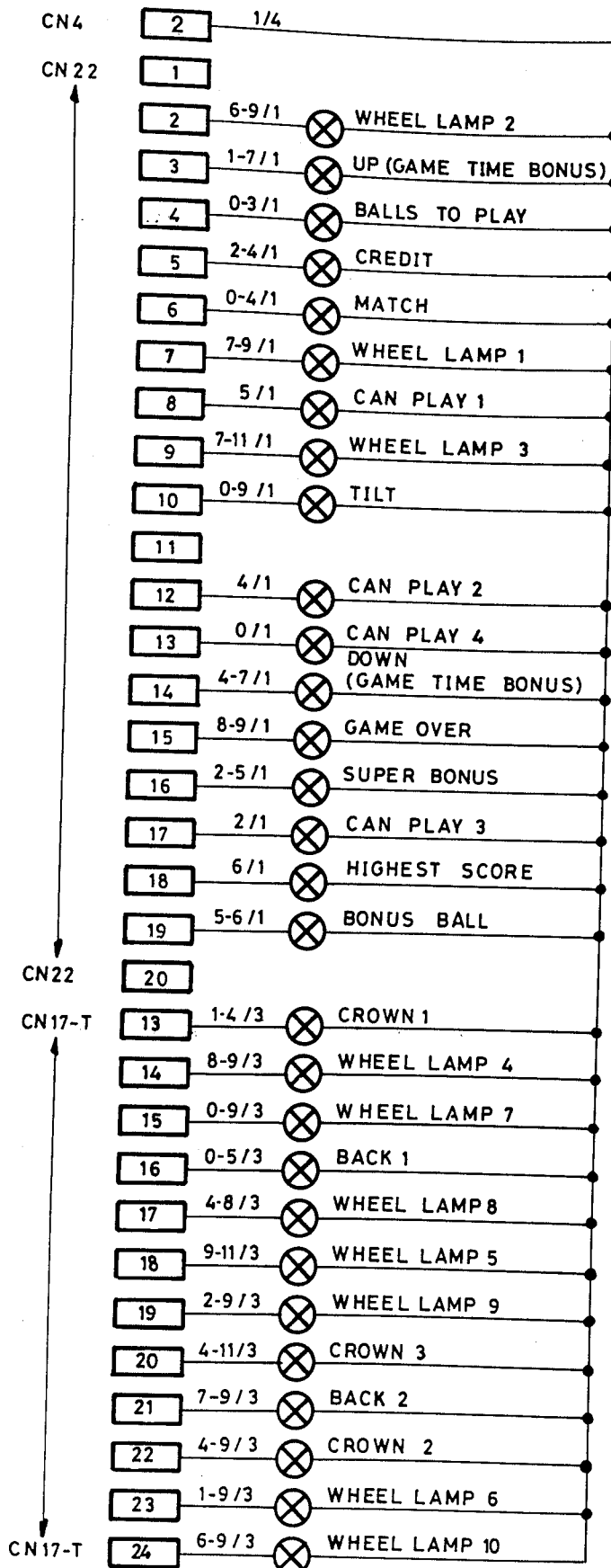
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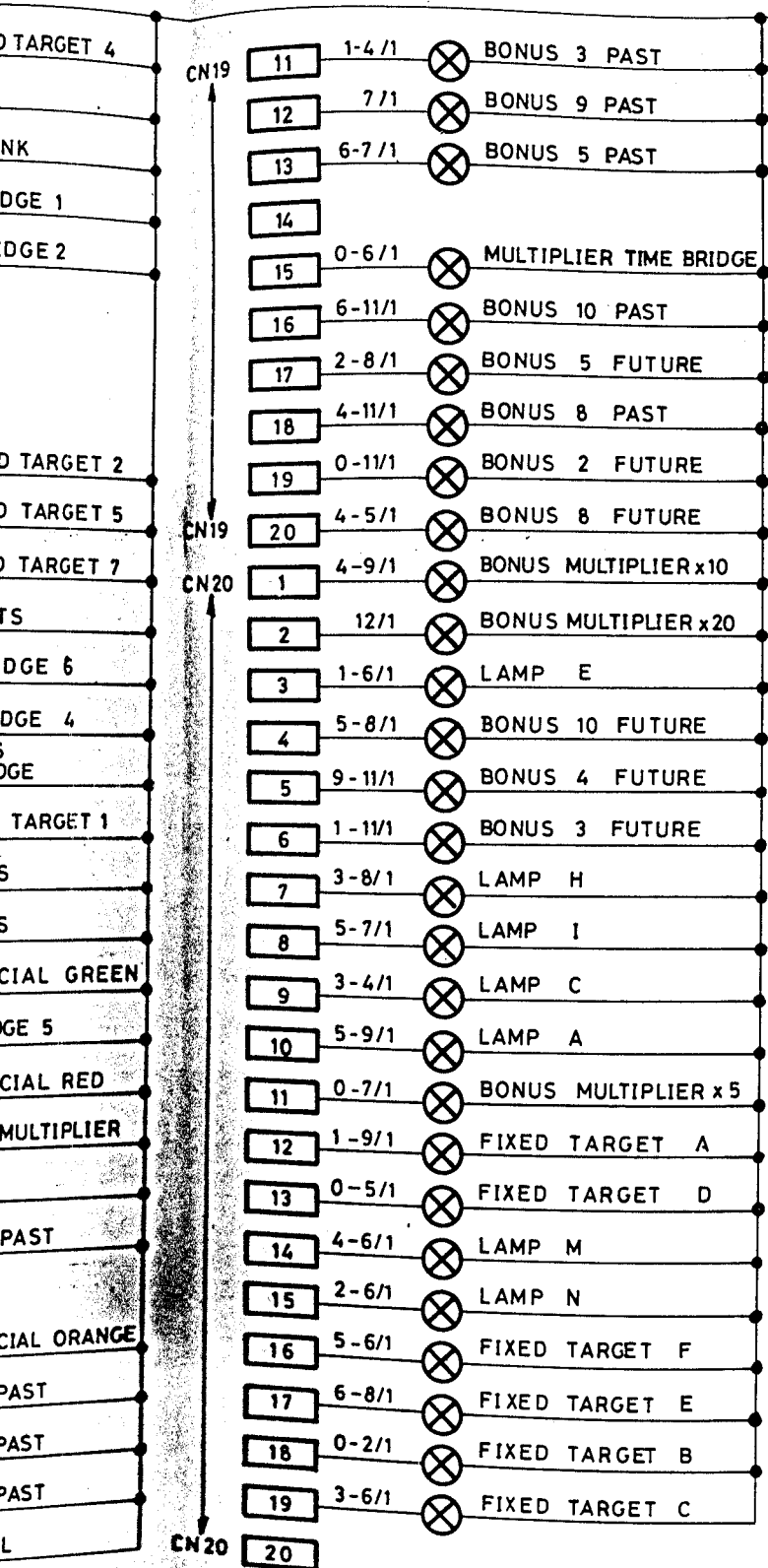
 F.LLI ZACCARIA s.n.c. Via Armadori, 15 - 40012 CALDERARA DI RENO (Bo) Italy				
PART NAME Elettrical diagram for cabinet & front door wiring				PART NO.
DWN.	DATE	REV.	DATE REV.	SHEET
lorena	2.3.1982	01	3-9-82	
NOTES: UNLESS OTHERWISE SPECIFIED				
1) ALL RESISTORS VALUES IN _____				
2) ALL CAPACITORS VALUES IN _____				



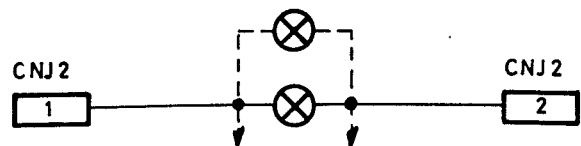
HEAD LAMPS



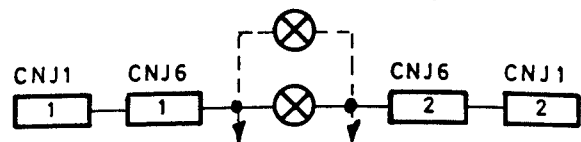
PLAYFIELD LAMPS



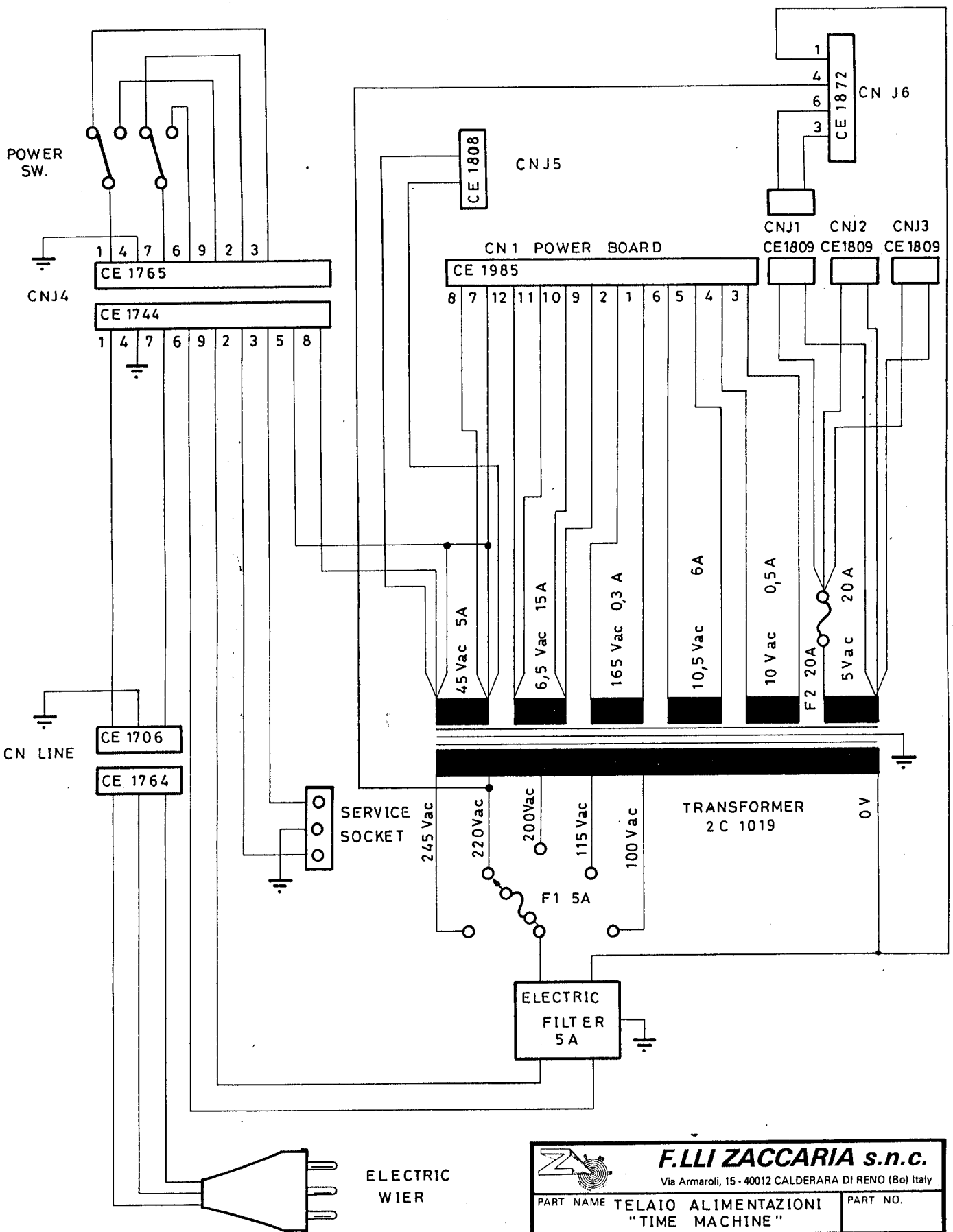
PLAYFIELD FIXED LAMPS



HEAD FIXED LAMPS



		F.LI ZACCARIA s.n.c. Via Armadori, 15 - 40012 CALDERARA DI RENO (Bo) Italy	
PART NAME Electrical diagram for PLAYFIELD & HEAD LAMPS			PART NO.
DWN. <i>Rob</i>	DATE 23/2/83	REV.	DATE REV.
SHEET			
NOTES: UNLESS OTHERWISE SPECIFIED 1) ALL RESISTORS VALUES IN _____ 2) ALL CAPACITORS VALUES IN _____			



 F.LLI ZACCARIA s.n.c. Via Armaroli, 15 - 40012 CALDERARA DI RENO (Bo) Italy			
PART NAME		TELAIO ALIMENTAZIONI "TIME MACHINE"	
PART NO.			
DWN.	DATE	REV.	DATE REV
Lorena	4.1.83		23.5.83
NOTES: UNLESS OTHERWISE SPECIFIED 1) ALL RESISTORS VALUES IN _____ 2) ALL CAPACITORS VALUES IN _____			