

ZACCARIA®



Electrical Diagrams

Original document provided by:

URL: <http://www.tilt.it/>

E-mail: wiz@tilt.it
piero@tilt.it

Scans done by:

URL: <http://www.langaas.org/pinball/>

E-mail: thomas@langaas.org

LIST OF ILLUSTRATIONS

JUMP LIST FOR MEMORIES SELECTION

BLOCK DIAGRAM

ASSEMBLY DRAWING

POWER WIRING

LAYOUT }
 DIAGRAM } CPU

LAYOUT }
 DIAGRAM } INTERFACE

LAYOUT }
 DIAGRAM } POWER

LAYOUT }
 DIAGRAM } DRIVER DISPLAY

LAYOUT }
 DIAGRAM } SOUND & SPEECH

PLAYFIELD CONTACTS WIRING

COIL WIRING

PLAYFIELD & HEAD LAMPS WIRING

CABINET & FRONT DOOR WIRING

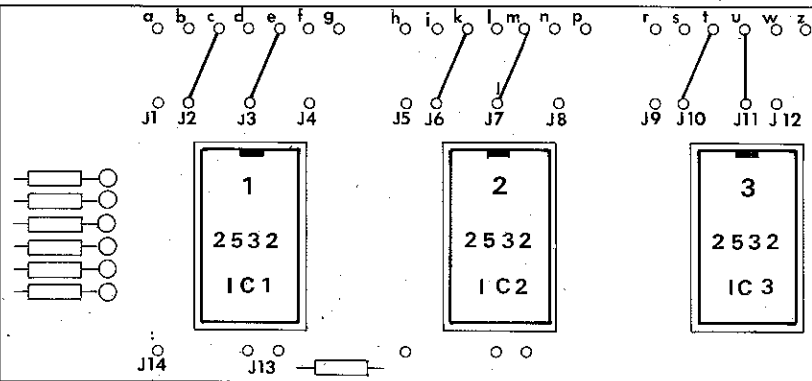
POWER SUPPLY

COLOR CODE

WIRES CUTAWAY
 VIEW LIST

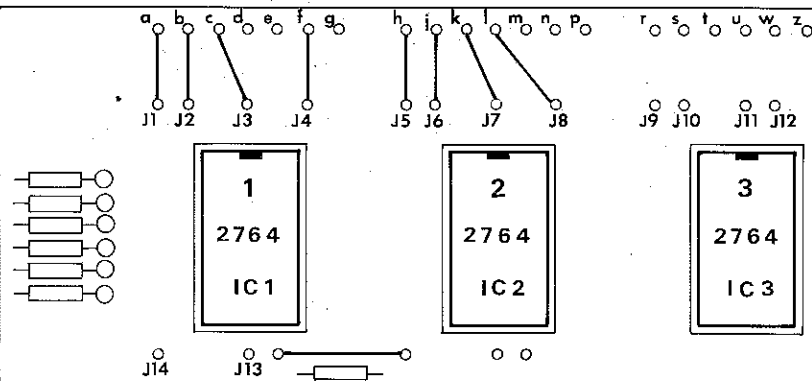
Black	0	mm ² 0,22	/1
Brown	1	mm ² 0,35	/2
Red	2	mm ² 0,5	/3
Orange	3	mm ² 0,9	/4
Yellow	4	mm ² 1,5	/5
Green	5		
Blue	6		
Violet	7		
Grey	8		
White	9		
Pink	11		
Light Blue	12		

JUMP LIST FOR MEMORIES SELECTION



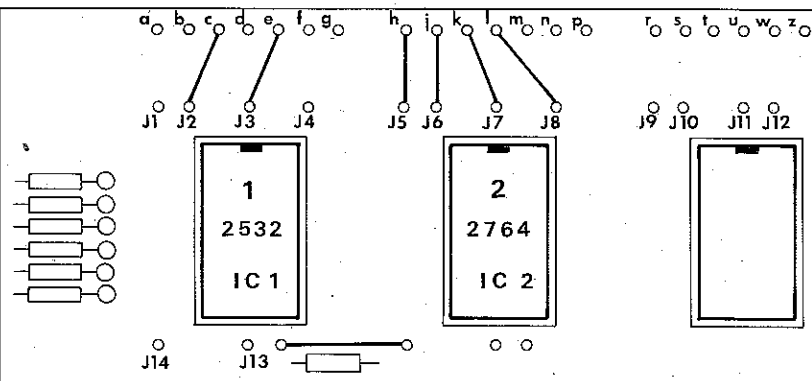
C.P.U. PC. 1B1165
1B1165 / 0
1B1165 / 1

-PINBALL CHAMP
-SOCCER KINGS
-TIME MACHINE



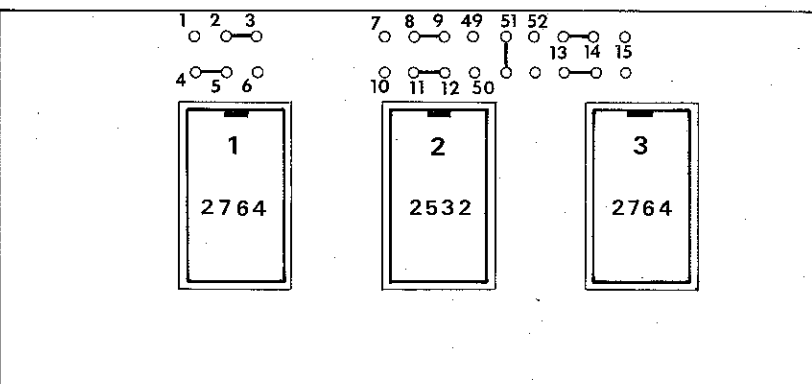
C.P.U. PC. 1B1165
1B1165 / 0
1B1165 / 1

-FARFALLA
-DEVIL RIDERS



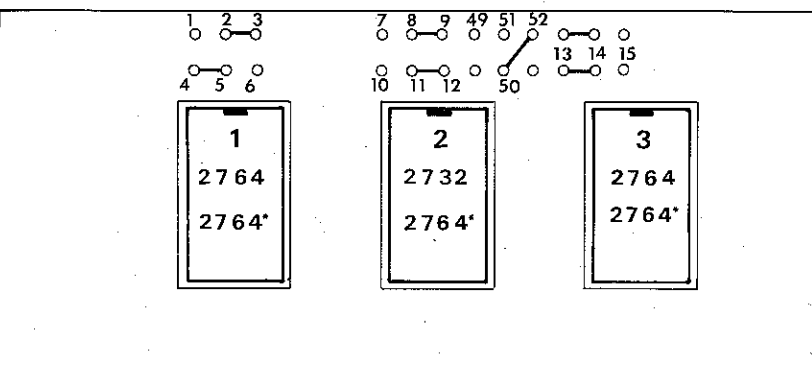
C.P.U. PC. 1B1165 / 2

-MAGIC CASTLE
-ROBOT



SOUND PC. 1B1136

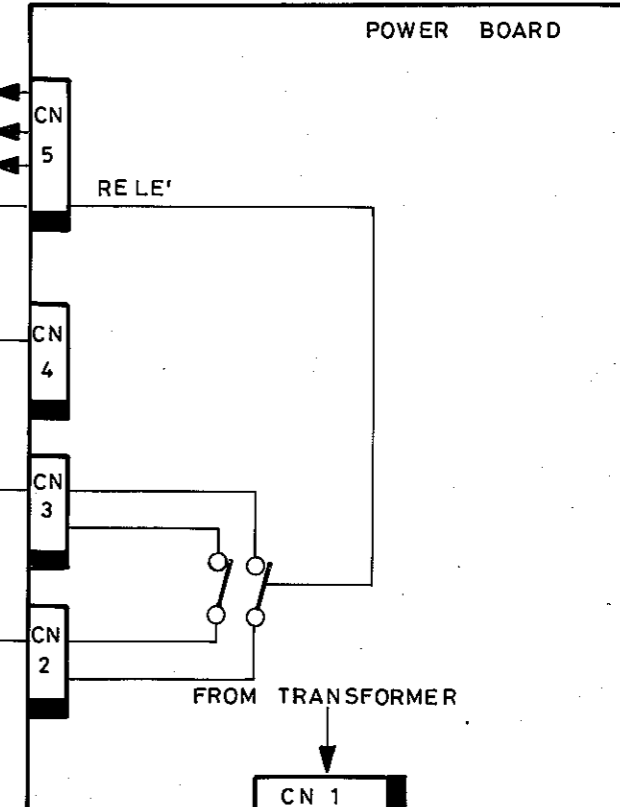
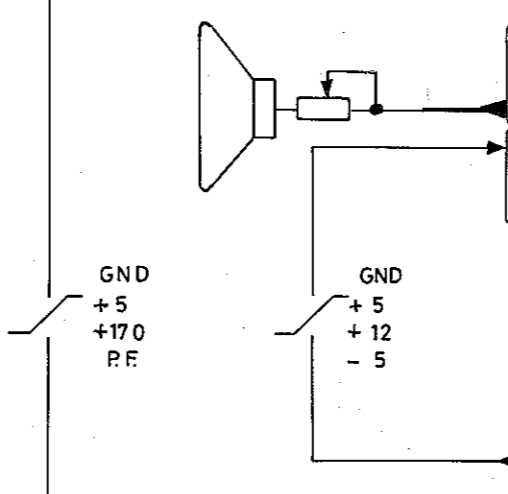
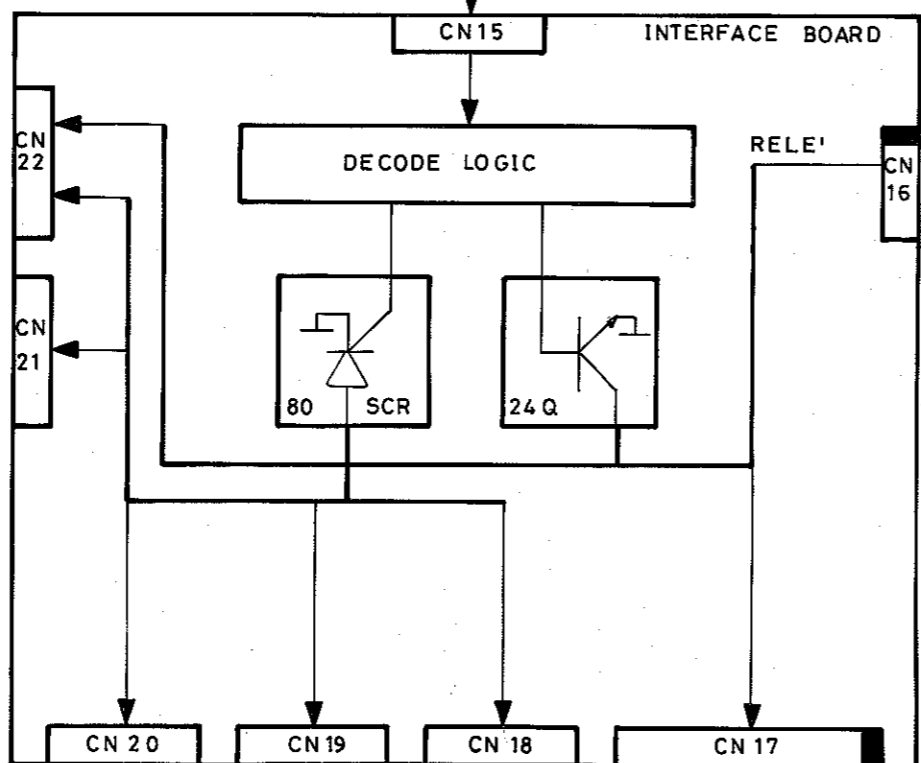
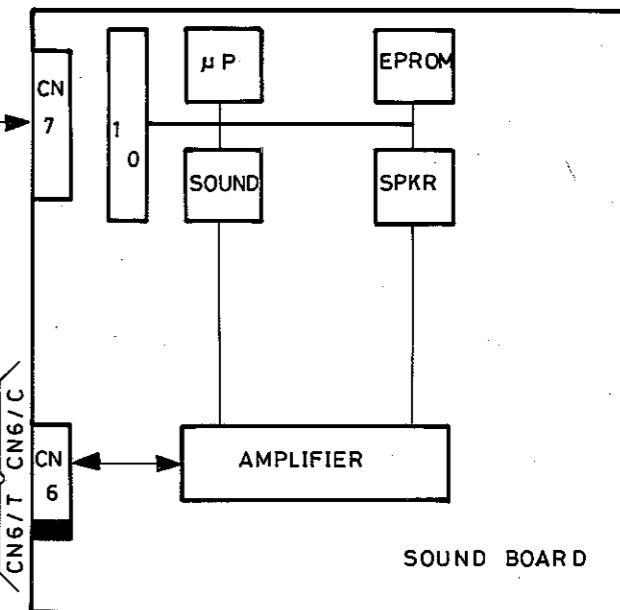
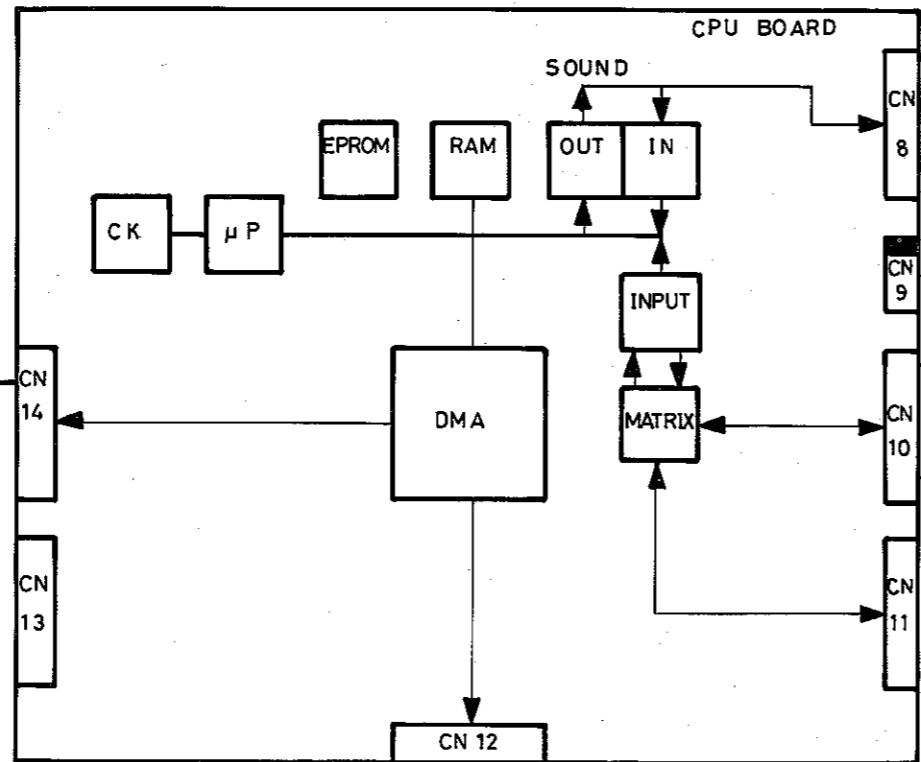
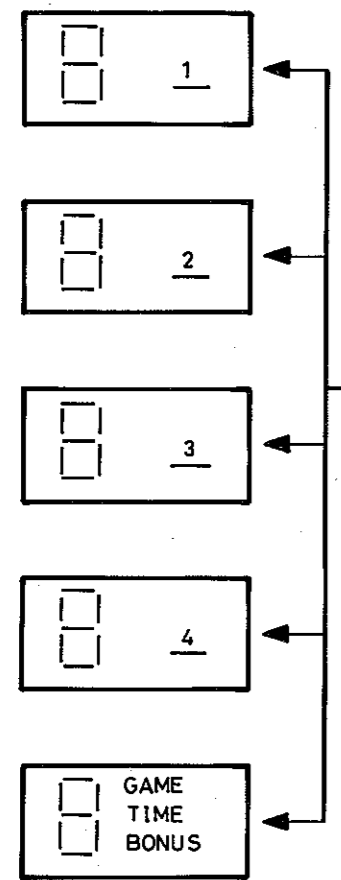
-TIME MACHINE



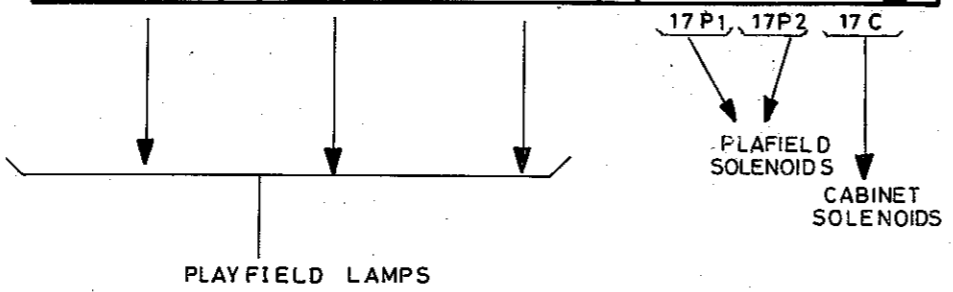
SOUND PC. 1B1136/0

-FARFALLA
-DEVIL RIDERS
-MAGIC CASTLE
-ROBOT

DRIVER DISPLAY BOARDS

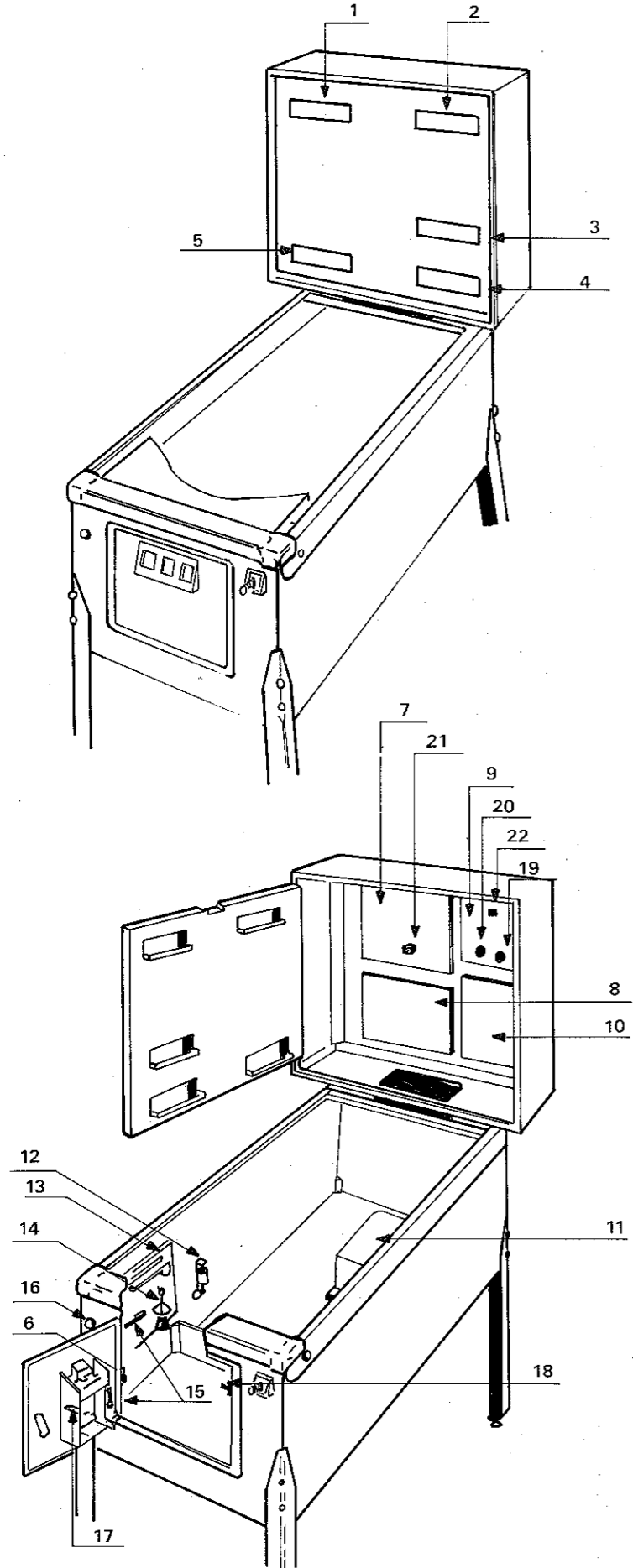


(HEAD SOLENOIDS)
HEAD LAMPS

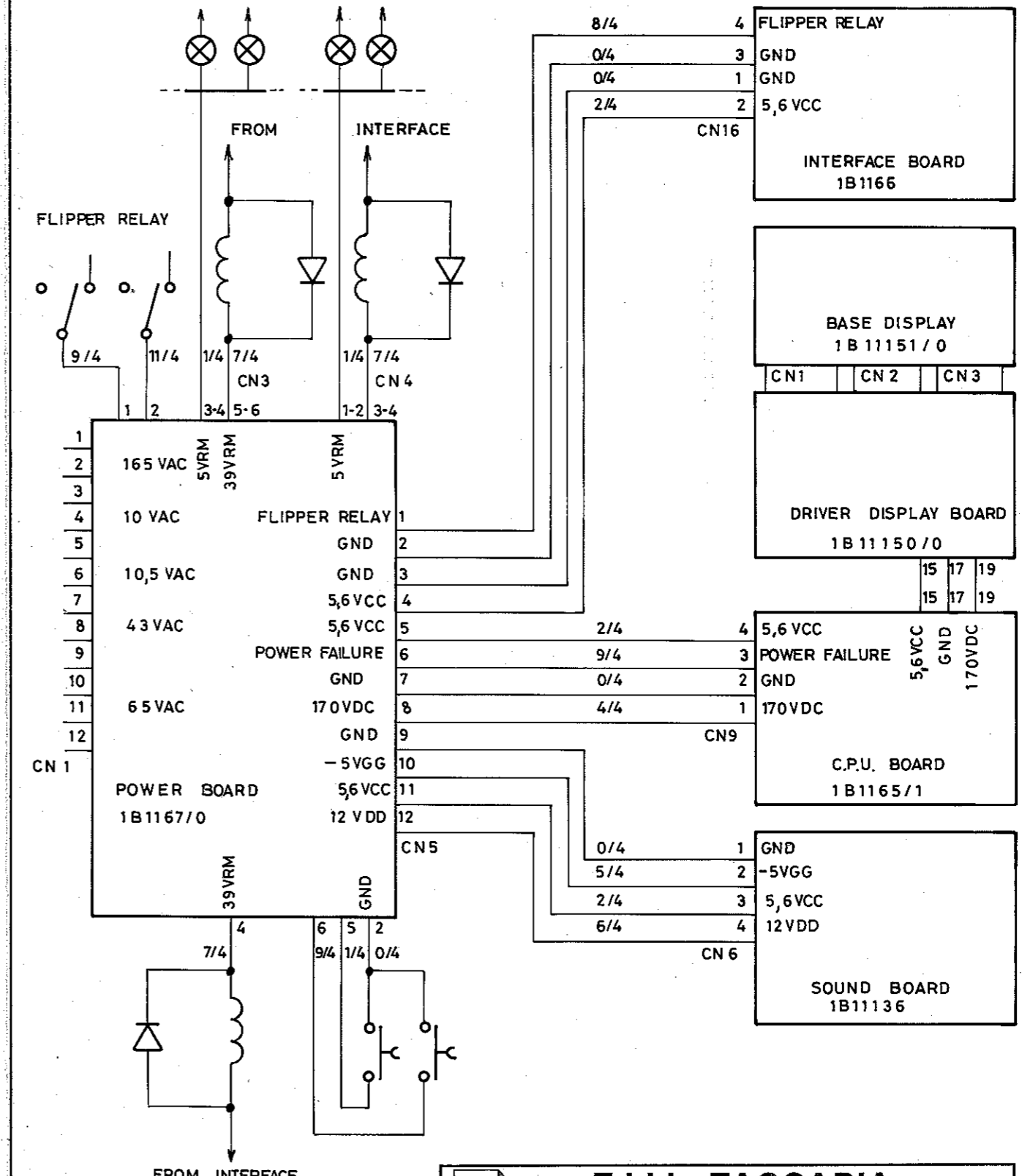


		F.LLI ZACCARIA s.n.c. Via Armaroli, 15 - 40012 CALDERARA DI RENO (Bo) ITALY		
Codice	Descrizione BLOCK DIAGRAM "ROBOT"			
Codice Gruppo	Dis.	Data	Rev.	Data Rev.
	<i>lorena</i>	13. 6. 1983	<i>lorena</i>	06.03.84
Materiale	Trattamento		Scala	
note				Foglio

ASSEMBLY DRAWING



1. 1st player display
2. 2nd player display
3. Credit display
Display ball to play
Match
Game time bonus
Highest score display
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. General vol.
19. Maximum speech vol.
20. Maximum sound vol.
21. Dip SWS
22. Sound self-test button

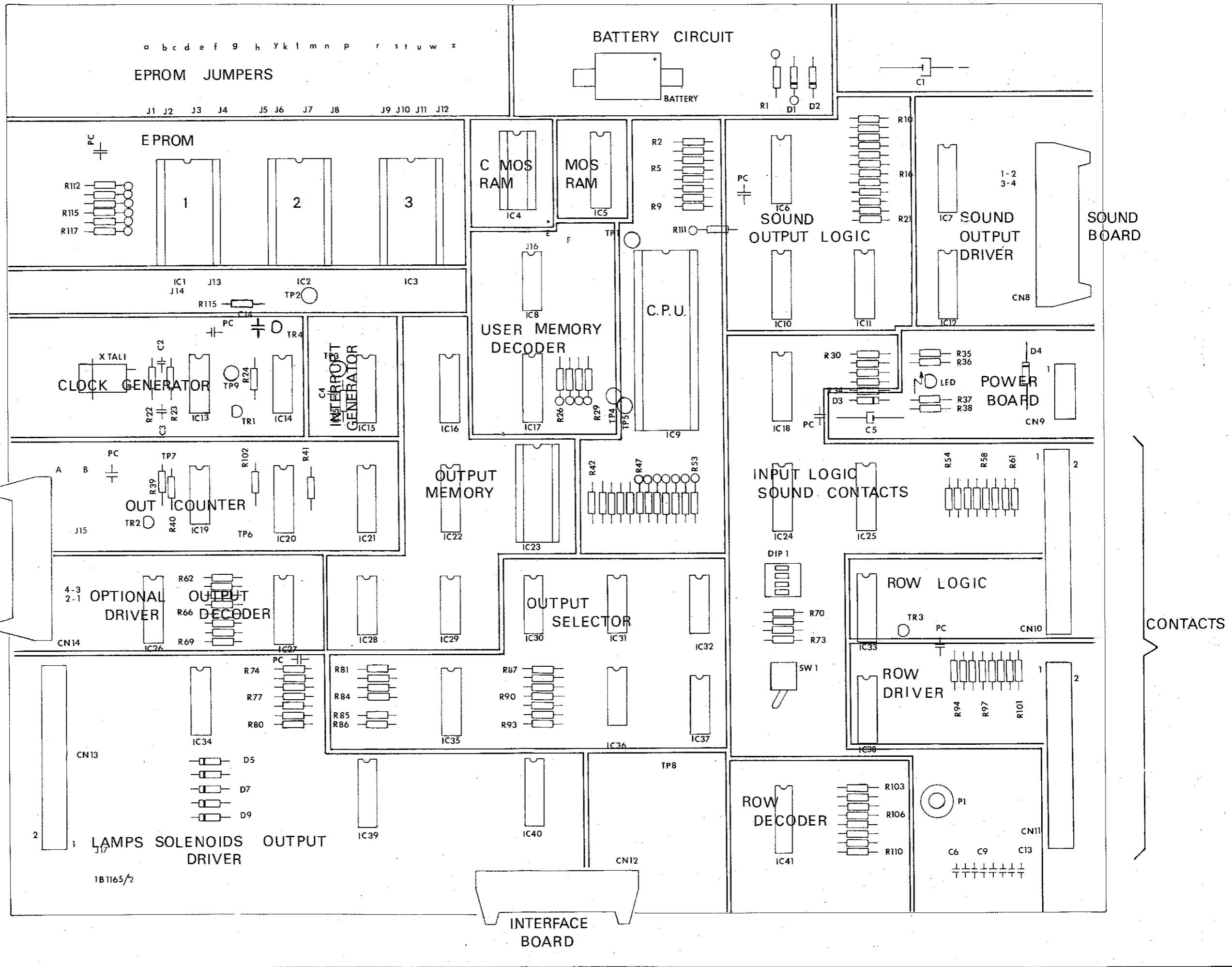


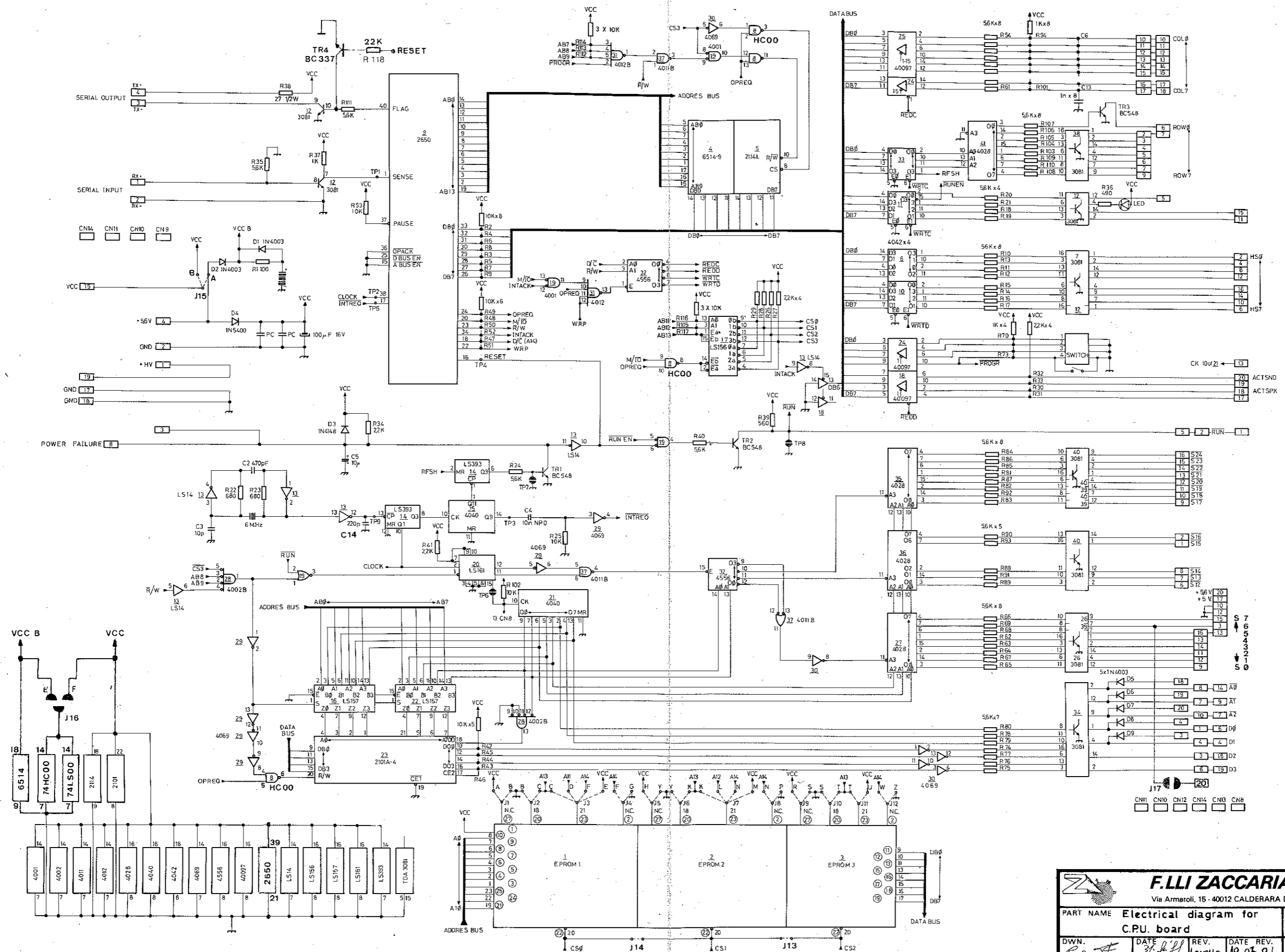
F.LLI ZACCARIA s.n.c.
Via Armaroli, 15 - 40012 CALDERARA DI RENO (Bo) ITALY

Codice	Descrizione ROBOT			
ELECTRICAL DIAGRAM POWER WIRING				
Codice Gruppo	Dis. <i>lorena</i>	Data 06.03.84	Rev.	Data Rev.
Materiale	Trattamento			Scala
- note :				Foglio

C.P.U. board

P.C.1 B 1165/2





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

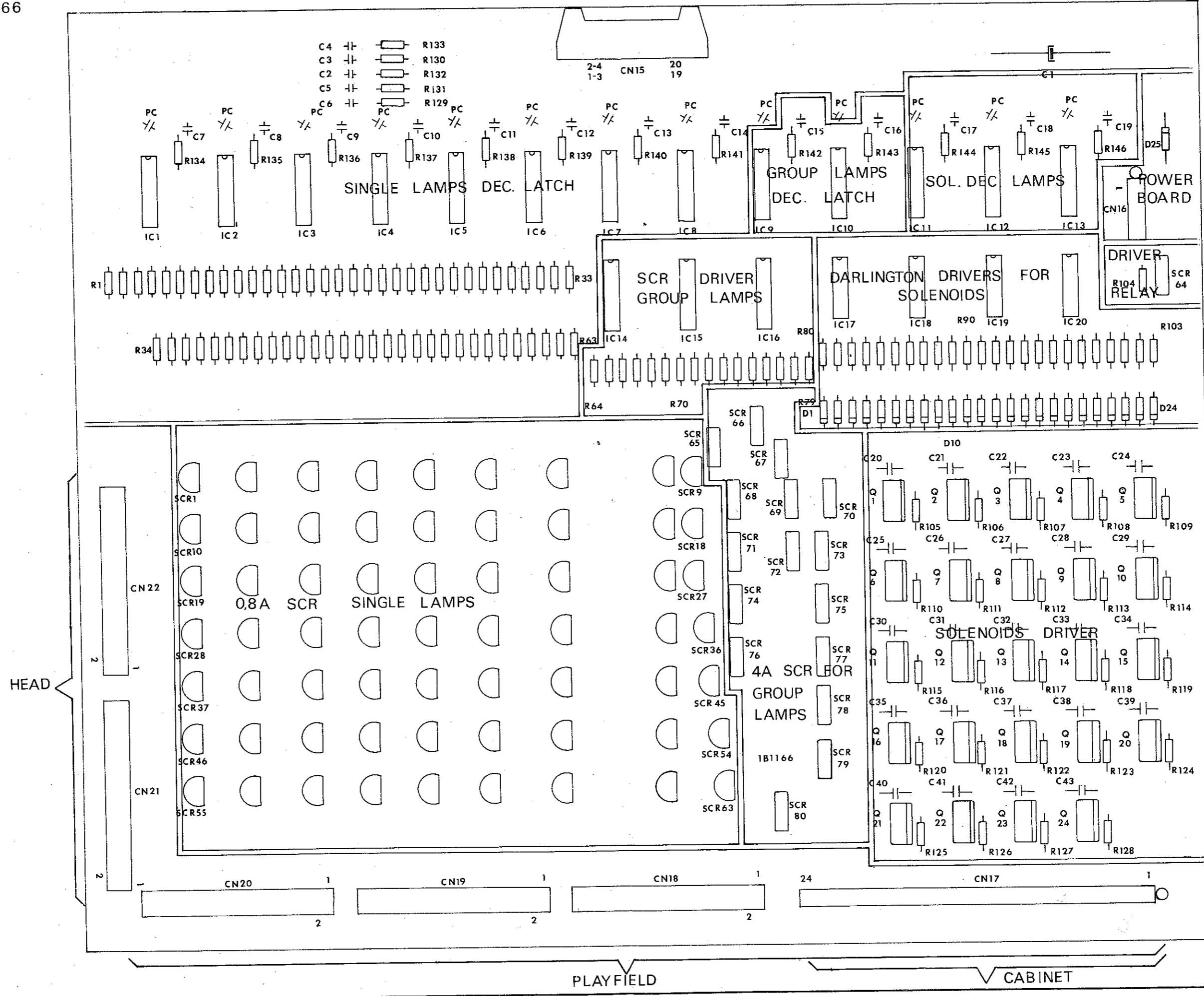
PART NAME Electrical diagram for		PART NO.	
C.R.U. board		1B 13 65/2	
DWN. <i>Rest</i>	DATE <i>27.8.81</i>	REV. <i>10/02</i>	DATE REV. <i>19.03.81</i>
SHEET		SHEET	

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

INTERFACE board

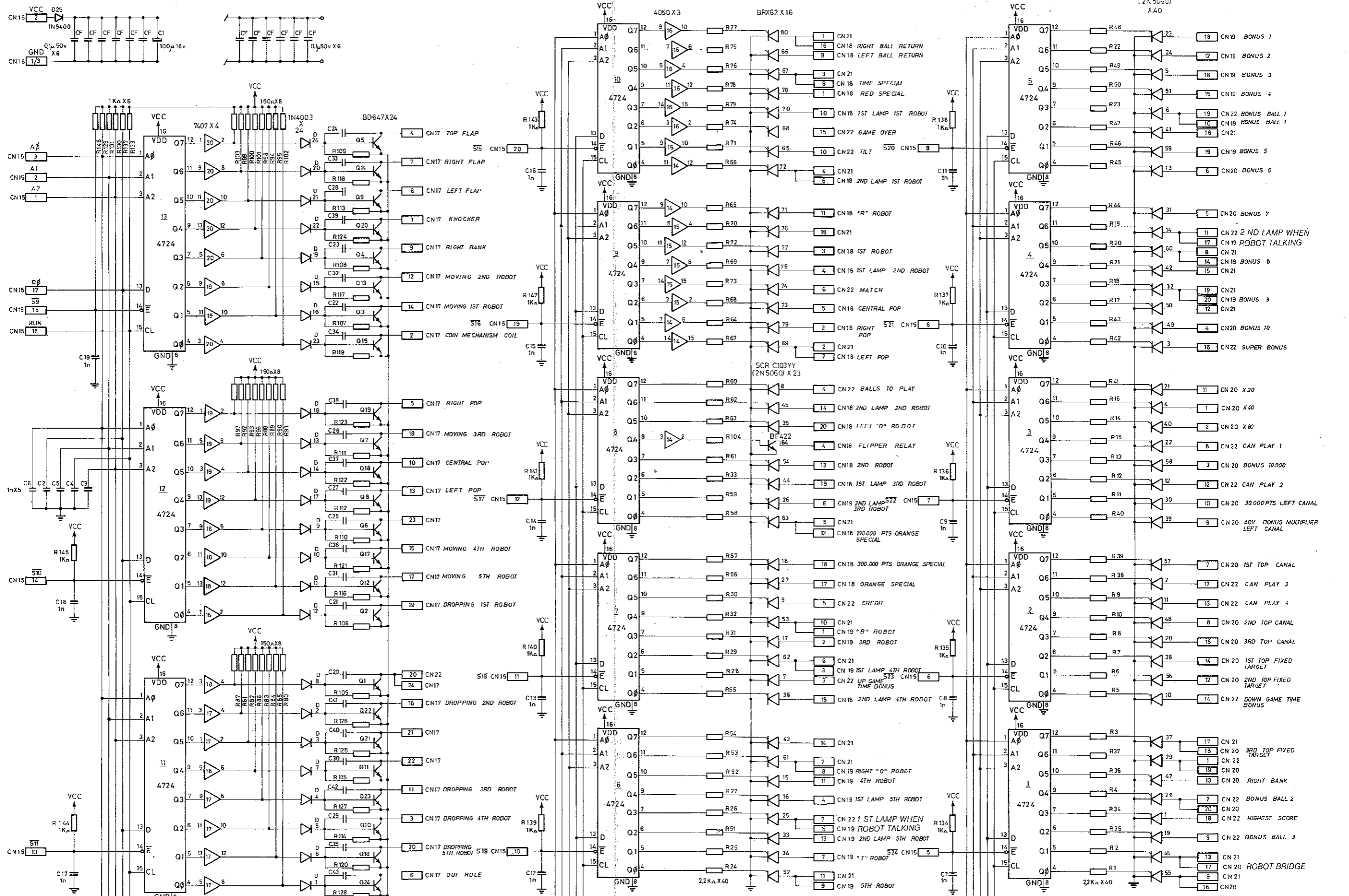
P.C. 1B1166

C.P.U. BOARD



PLAYFIELD

CABINET



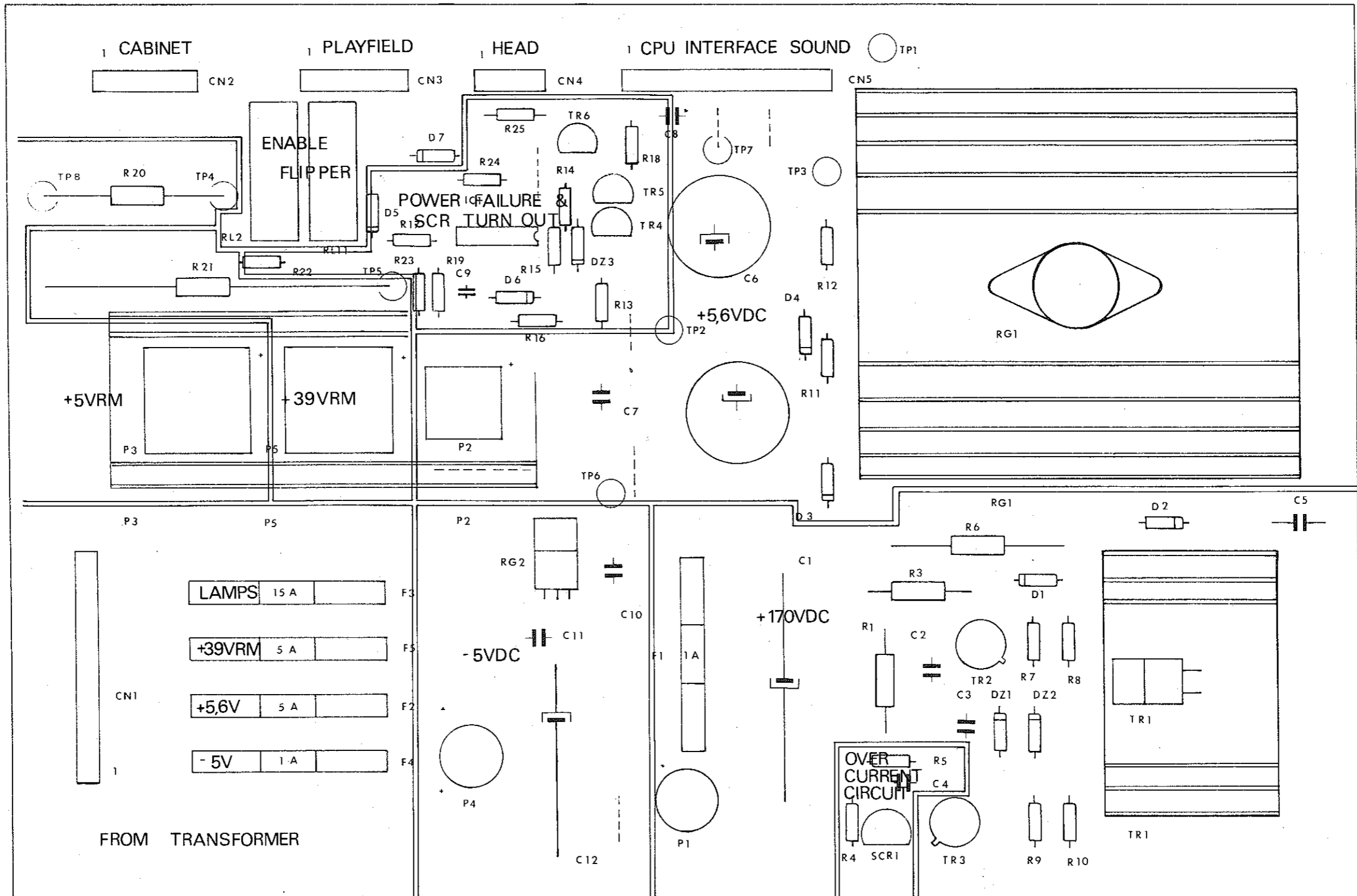
F.LI ZACCARIA s.n.c.
Via Armaroli, 15 - 40012 CALDERARA DI RENO (Bo) Italy

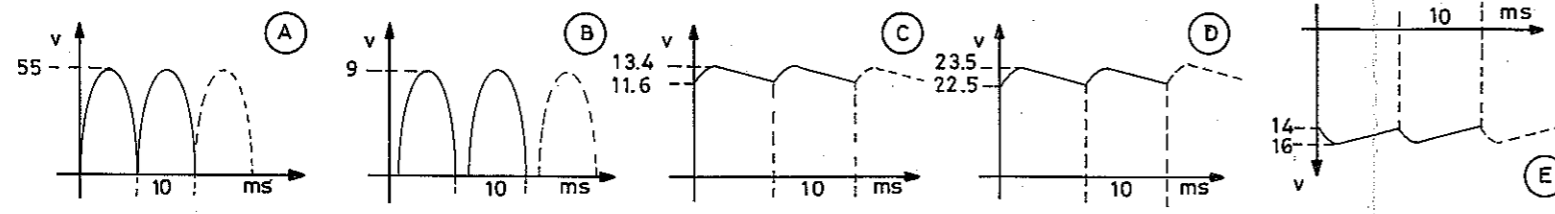
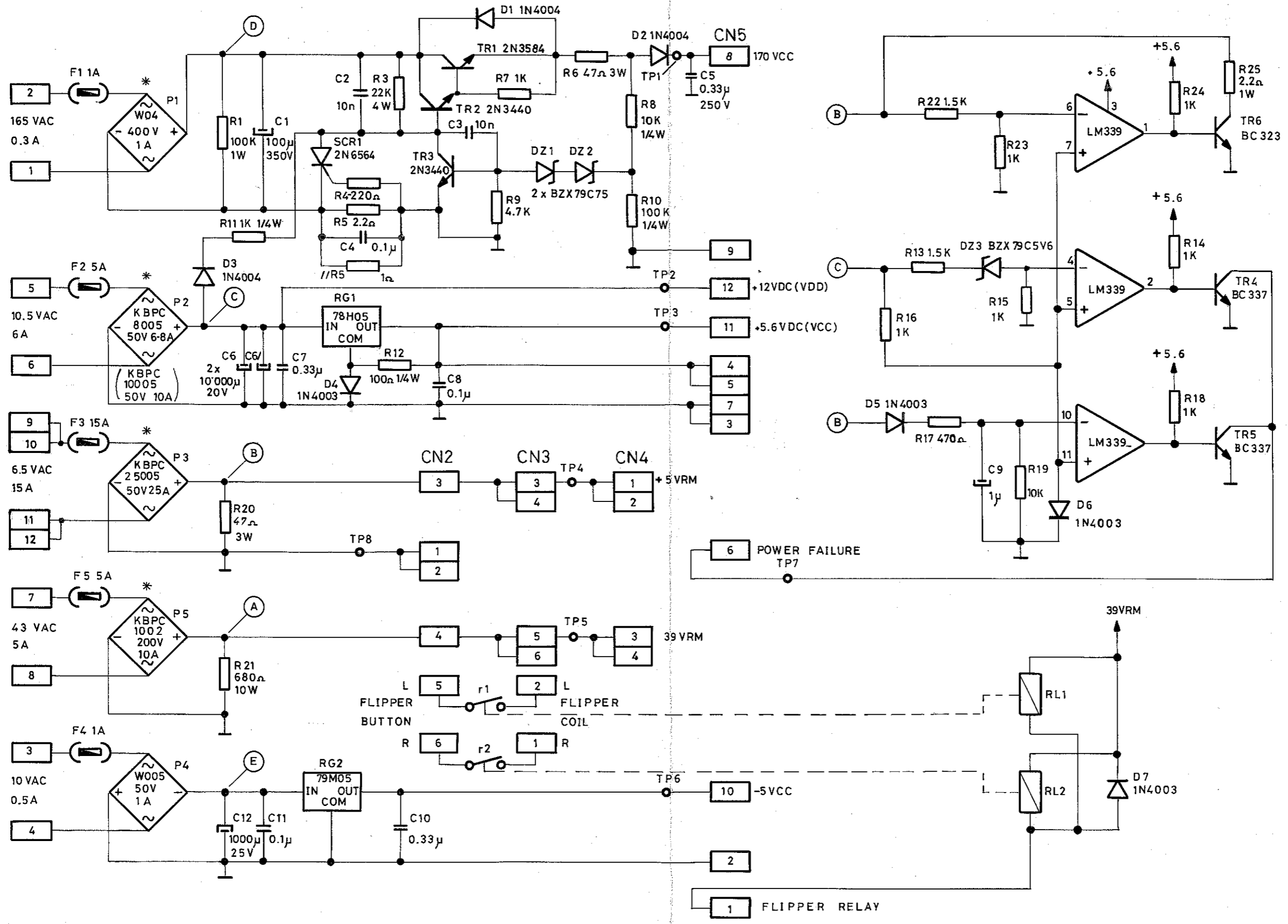
PART NAME		PART NO.	
INTERFACCIA ROB 07		1B1366	
DWN.	DATE	REV.	DATE REV.
lovesa	17.09.84		
SHEET			

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

POWER board

P.C. 1B1167/0





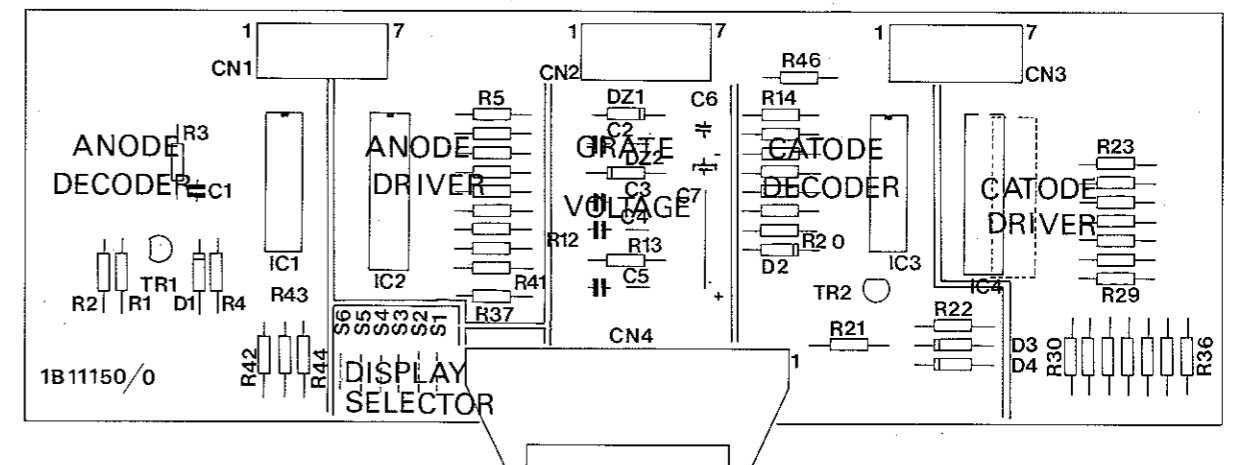
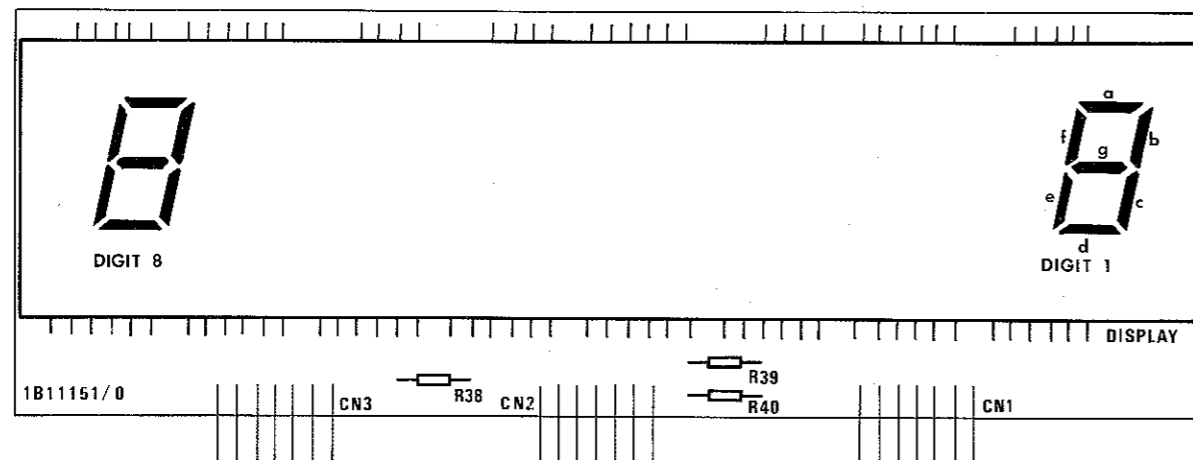
* WITH HEAT SINK

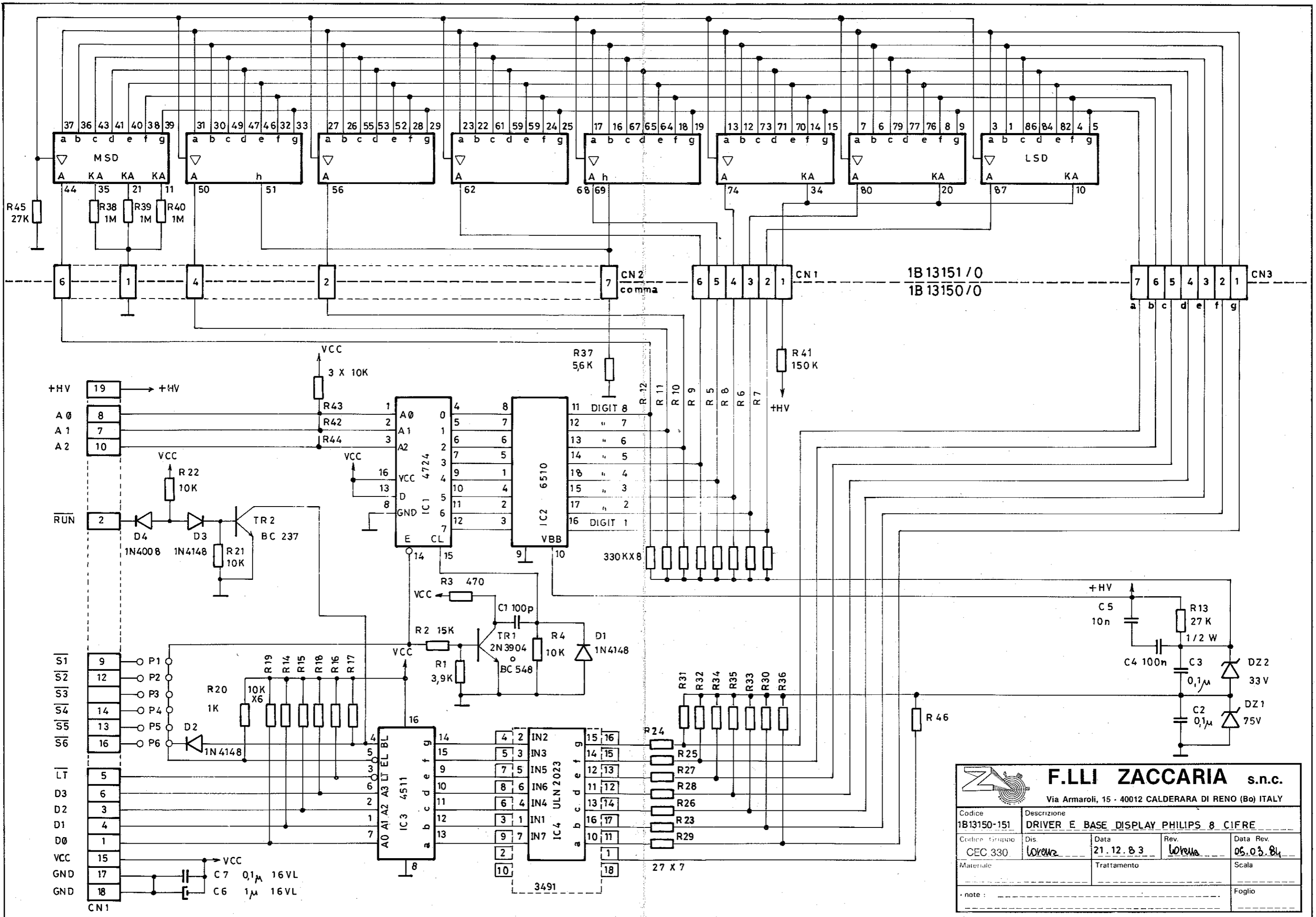
F.LI ZACCARIA s.n.c.
Via Annaroli, 15 - 40012 CALDERARA DI RENO (Bo) Italy


PART NAME		PART NO.	
Electrical diagram for		1B1367/0	
POWER BOARD			
DWN	DATE	REV.	DATE REV.
	26/7/82	10/04/84	5.04.84
SHEET			
NOTES: UNLESS OTHERWISE SPECIFIED			
1) ALL RESISTORS VALUES IN			
2) ALL CAPACITORS VALUES IN			

BASE & DRIVER DISPLAY board

PC. 1B11150/0 - 1B11151/0

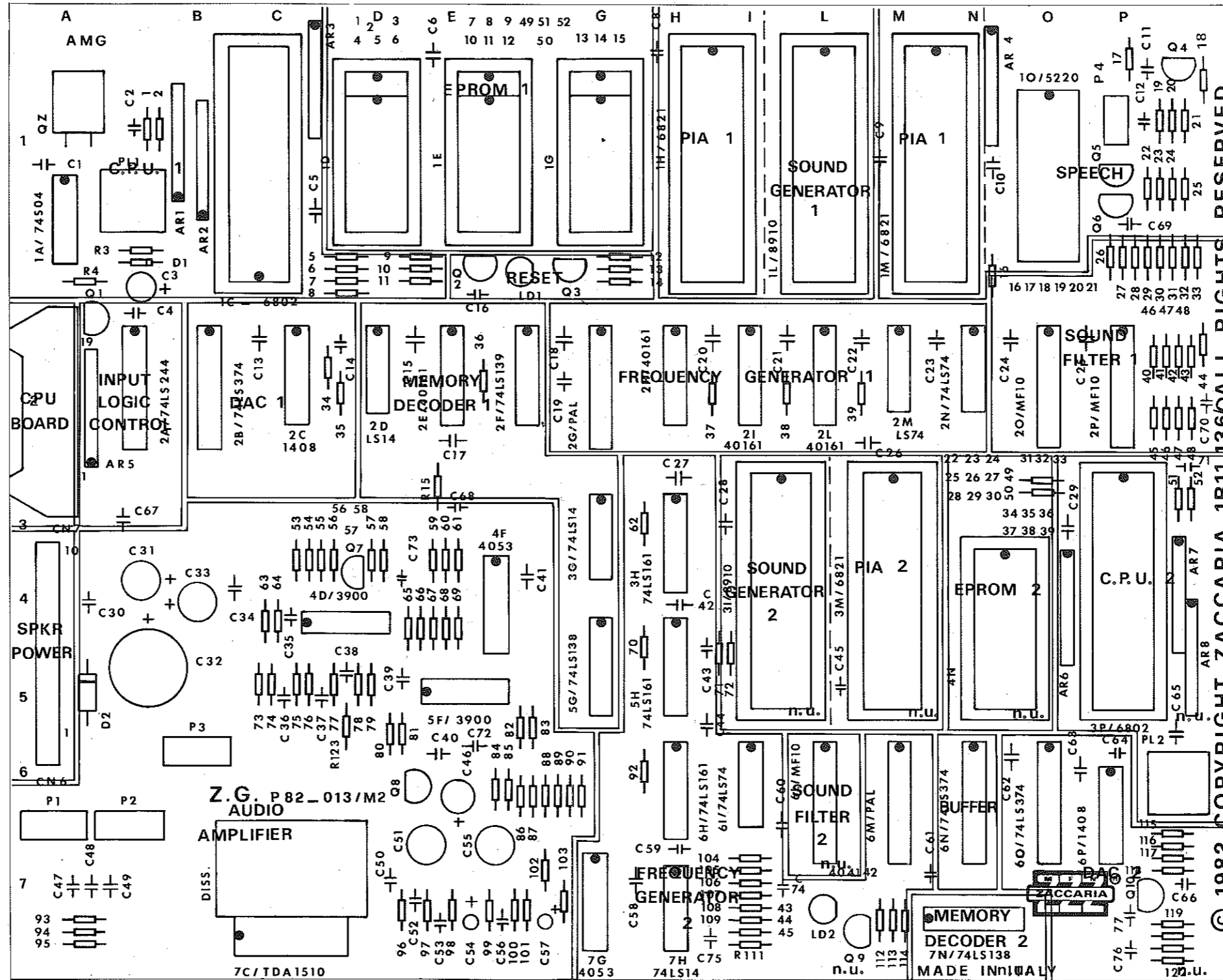




		F.LLI ZACCARIA s.n.c.		
Via Armaroli, 15 - 40012 CALDERARA DI RENO (Bo) ITALY				
Codice	Descrizione			
1B13150-151	DRIVER E BASE DISPLAY PHILIPS 8 CIFRE			
Codice Gruppo	Dis.	Data	Rev.	Data Rev.
CEC 330	LORENZA	21.12.83	LORENZA	05.03.84
Materiali	Trattamento		Scala	
note:				Foglio

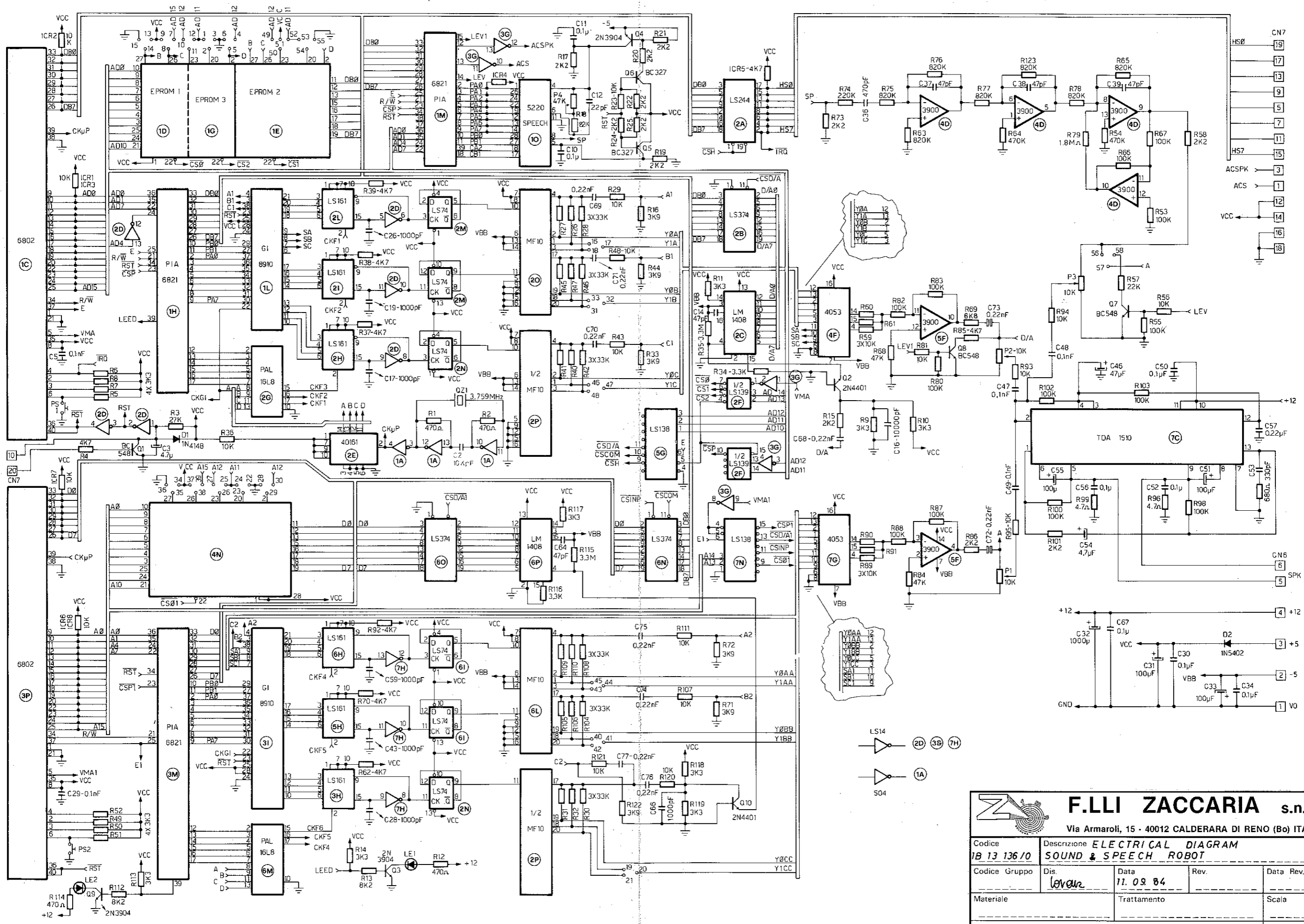
SOUND & SPEECH board

P.C. 1B1136\0



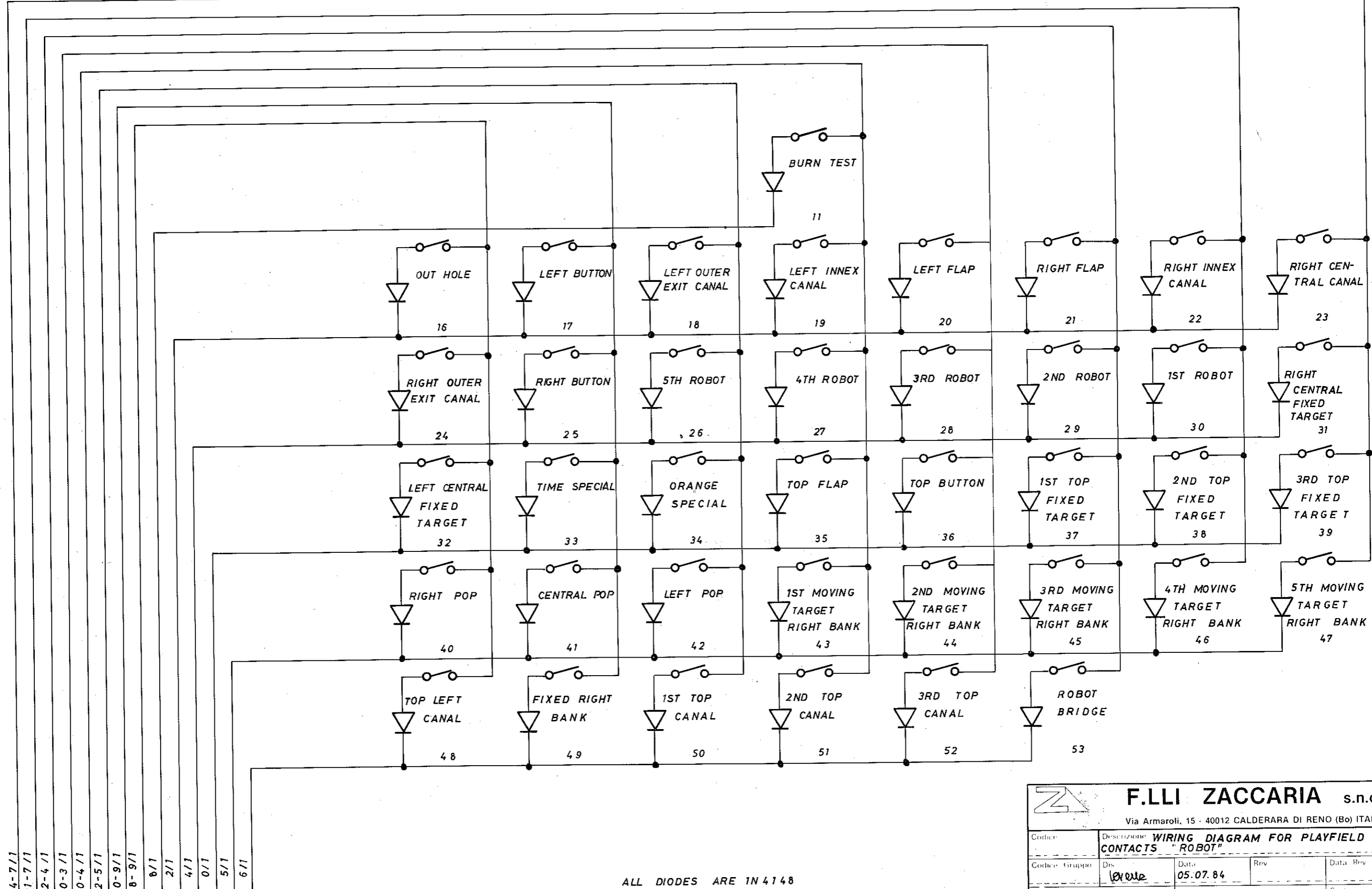
© 1982 COPYRIGHT ZACCARIA 1B1136\0 ALL RIGHTS RESERVED

SERIGRAFIA COMPONENTI SCALA 1:1

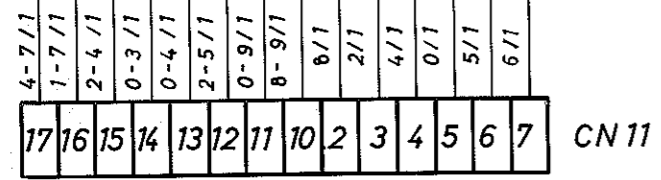


F.LI ZACCARIA s.n.c.
Via Armaroli, 15 - 40012 CALDERARA DI RENO (Bo) ITALY

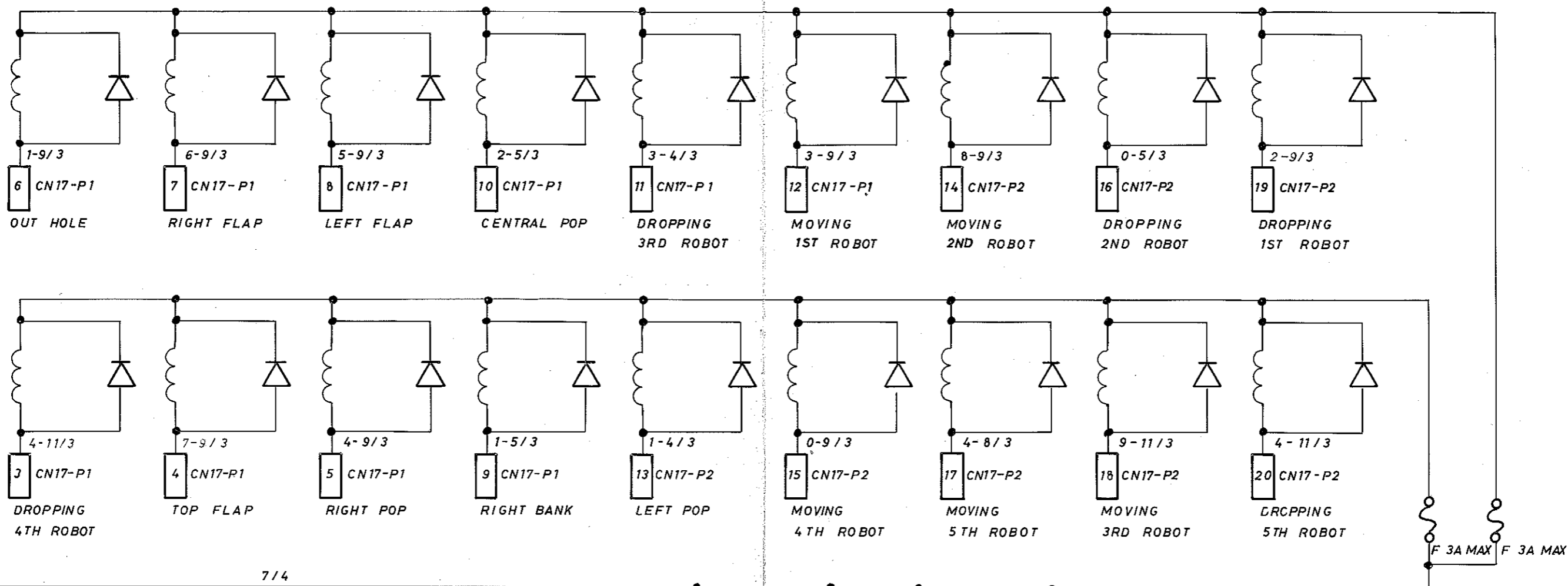
Codice	Descrizione ELECTRICAL DIAGRAM			
IB 13 136/10	SOUND & SPEECH ROBOT			
Codice Gruppo	Dis.	Data	Rev.	Data Rev.
	levare	11.09.84		
Materiale	Trattamento		Scala	
note:				Foglio



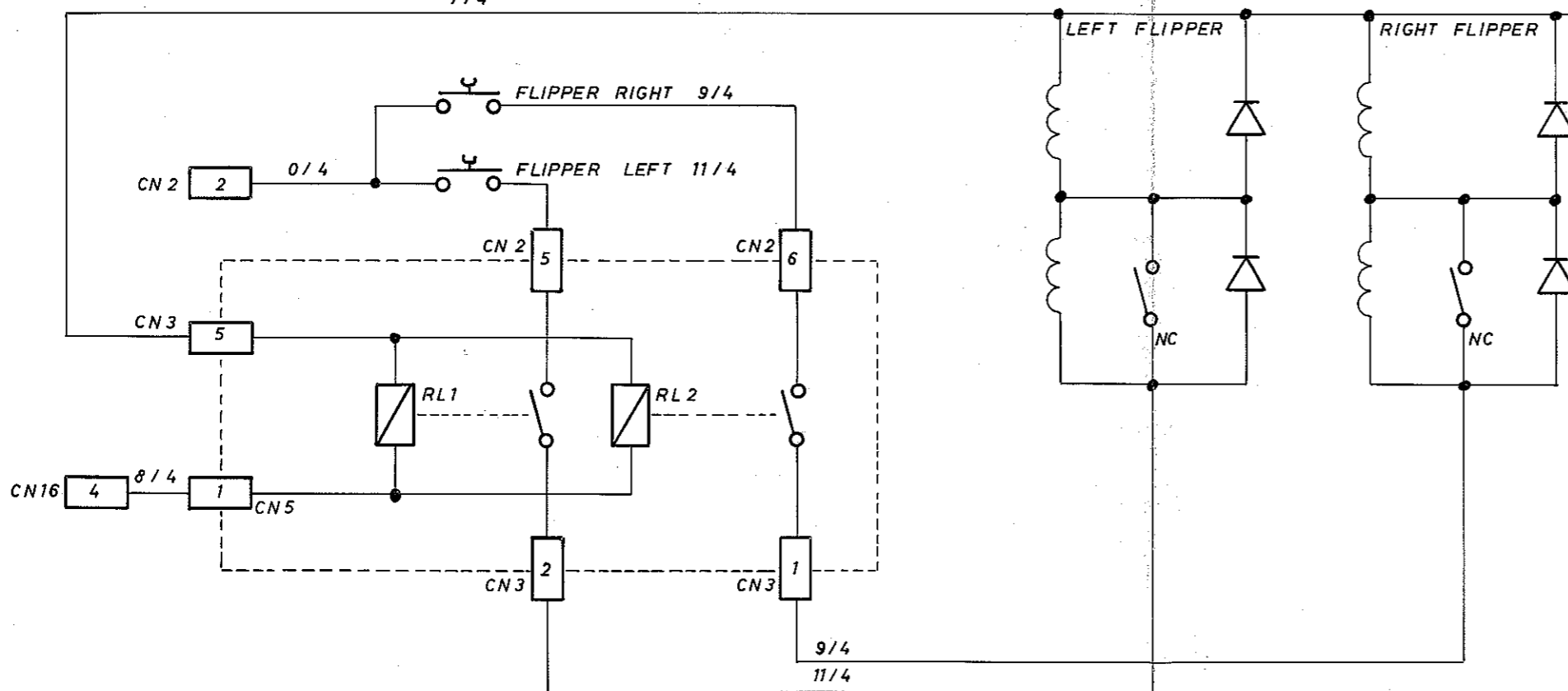
ALL DIODES ARE 1N4148




F.LLI ZACCARIA s.n.c. Via Armaroli, 15 - 40012 CALDERARA DI RENO (Bo) ITALY		Codice		Descrizione WIRING DIAGRAM FOR PLAYFIELD CONTACTS "ROBOT"	
		Codice Gruppo	Dis	Data	Rev
Materiale		Trattamento		Scala	
Note		Foglio			



7/4



 F.LLI ZACCARIA s.n.c. Via Armaroli, 15 - 40012 CALDERARA DI RENO (Bo) ITALY		Codice Descrizione COIL WIRING "ROBOT"		
		Codice Gruppo Dis. LEKUR2	Data 10.07.1984	Rev.
Materiale		Trattamento		Scala
note :				Foglio

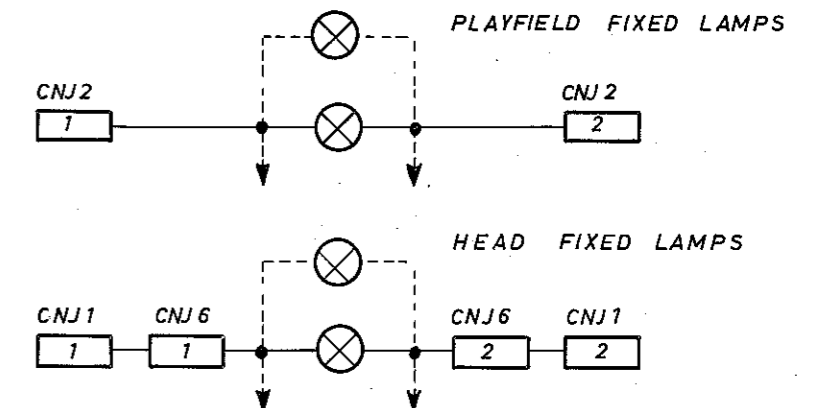
PLAYFIELD LAMPS

HEAD LAMPS

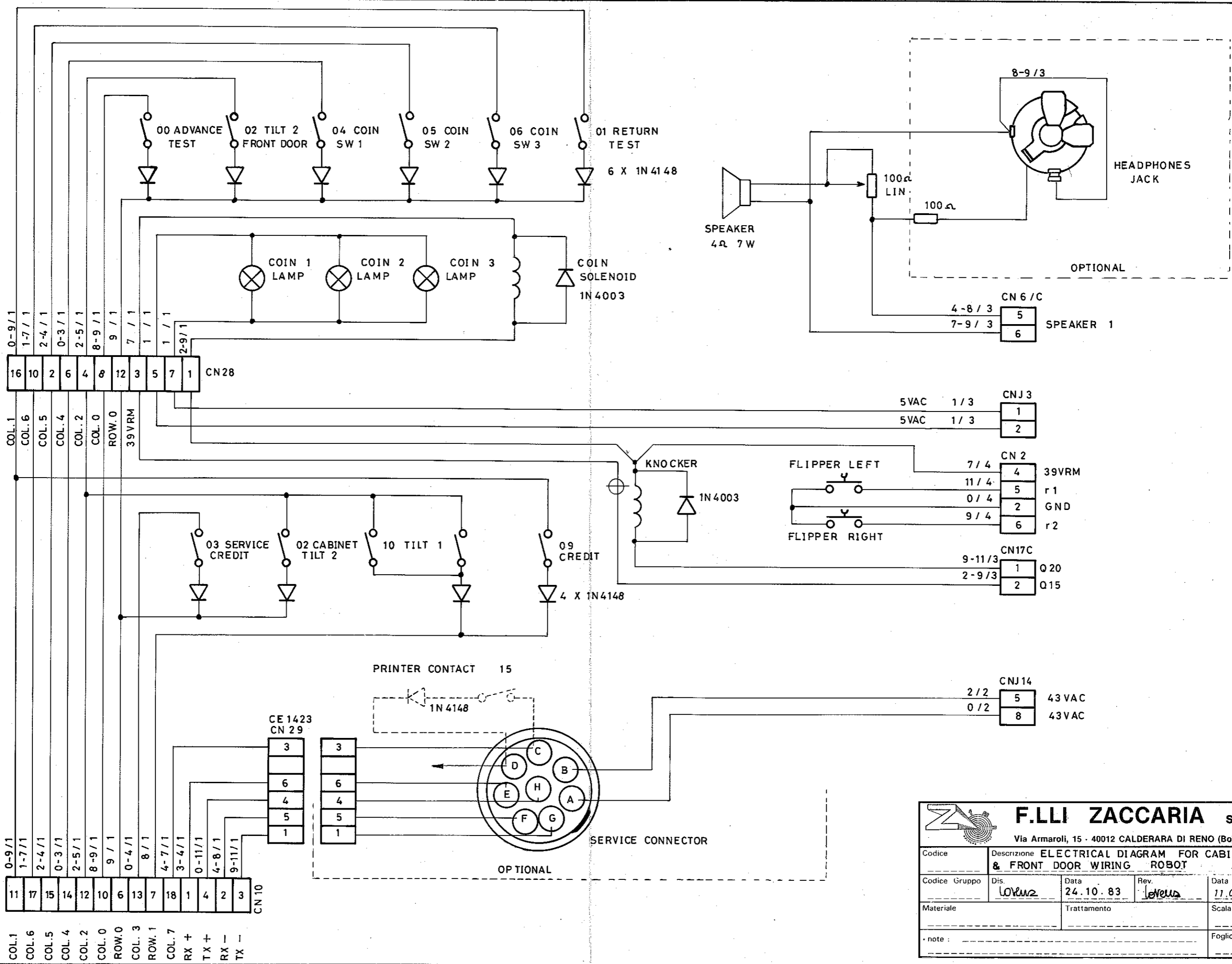
CN3	4	1/4	
CN18	1	4-9/1	⊗ RED SPECIAL
	2	12/1	⊗ RIGHT POP
	3	4-6/1	⊗ 1ST ROBOT
	4	5-8/1	⊗ 1ST LAMP 2ND ROBOT
	5	9-11/1	⊗ CENTRAL POP
	6	1-11/1	⊗ 2ND LAMP 1ST ROBOT
	7	3-8/1	⊗ LEFT POP
	8	5-7/1	⊗ TIME SPECIAL
	9	3-4/1	⊗ LEFT BALL RETURN
	10	5-9/1	⊗ 1ST LAMP 1ST ROBOT
	11	2-9/1	⊗ "R" ROBOT
	12	3-5/1	⊗ 100.000 PTS ORANGE SPECIAL
	13	9/1	⊗ 2ND ROBOT
	14	1/1	⊗ 2ND LAMP 2ND ROBOT
	15	2-6/1	⊗ 2ND LAMP 4TH ROBOT
	16	3-7/1	⊗ RIGHT BALL RETURN
	17	6-8/1	⊗ ORANGE SPECIAL
	18	0-2/1	⊗ 300.000 PTS ORANGE SPECIAL
	19	3-6/1	⊗ 1ST LAMP 3RD ROBOT
CN18	20	6-9/1	⊗ LEFT "O" ROBOT
CN19	1	11/1	⊗ "B" ROBOT
	2	3-9/1	⊗ 3RD ROBOT
	3	1-5/1	⊗ 1ST LAMP 4TH ROBOT
	4	2-7/1	⊗ 1ST LAMP 5TH ROBOT
	5		
	6	1/1	⊗ 2ND LAMP 3RD ROBOT
	7	1-3/1	⊗ "T" ROBOT
	8	7-11/1	⊗ RIGHT "O" ROBOT
	9	4-8/1	⊗ 5TH ROBOT
CN19	10	5-6/1	⊗ BONUS BALL 1

CN19	11	1-4/1	⊗ 4TH ROBOT
	12	7/1	⊗ BONUS 2
	13	6-7/1	⊗ 2ND LAMP 5TH ROBOT
	14	3-9/1	⊗ BONUS 8
	15	0-6/1	⊗ BONUS 4
	16	6-11/1	⊗ BONUS 3
	17		
	18	4-11/1	⊗ BONUS 1
	19	0-11/1	⊗ BONUS 5
CN19	20	4-5/1	⊗ BONUS 9
CN20	1	4-9/1	⊗ X 40
	2	12/1	⊗ X 80
	3	1-6/1	⊗ 10.000 BONUS
	4	5-8/1	⊗ BONUS 10
	5	9-11/1	⊗ BONUS 7
	6	1-11/1	⊗ BONUS 6
	7	3-8/1	⊗ 1ST TOP CANAL
	8	5-7/1	⊗ 2ND TOP CANAL
	9	3-4/1	⊗ ADV. BONUS MULTIPLIER LEFT CANAL
	10	5-9/1	⊗ 30.000 PTS LEFT CANAL
	11	0-7/1	⊗ X 20
	12	1-9/1	⊗ 2ND TOP FIXED TARGET
	13	0-5/1	⊗ RIGHT BANK
	14	4-6/1	⊗ 1ST TOP FIXED TARGET
	15	2-6/1	⊗ 3RD TCP CANAL
	16		
	17	6-8/1	⊗ ROBOT BRIDGE
	18	0-2/1	⊗ 3RD TOP FIXED TARGET
	19		
CN20	20		

CN4	2	1/4	
CN22	1		
	2	6-9/1	⊗ BONUS BALL 2
	3	1-7/1	⊗ UP GAME TIME BONUS
	4	0-3/1	⊗ BALLS TO PLAY
	5	2-4/1	⊗ CREDIT
	6	0-4/1	⊗ MATCH
	7	7-9/1	⊗ 1ST LAMP WHEN ROBOT TALKING
	8	5/1	⊗ CAN PLAY 1
	9	7-11/1	⊗ BONUS BALL 3
	10	0-9/1	⊗ TILT
	11	2-8/1	⊗ 2ND LAMP WHEN ROBOT TALKING
	12	4/1	⊗ CAN PLAY 2
	13	0/1	⊗ CAN PLAY 4
	14	4-7/1	⊗ DOWN GAME TIME BONUS
	15	8-9/1	⊗ GAME OVER
	16	2-5/1	⊗ SUPER BONUS
	17	2/1	⊗ CAN PLAY 3
	18	6/1	⊗ HIGHEST SCORE
	19	5-6/1	⊗ BONUS BALL 1
CN22	20		



F.LLI ZACCARIA s.n.c.				
Via Armadori, 15 - 40012 CALDERARA DI RENO (Bo) ITALY				
Codice	Descrizione: ELECTRICAL DIAGRAM FOR PLAYFIELD & HEAD LAMPS "ROBOT"			
Codice Gruppo	Dis	Data	Rev	Data Rev
	LOVENE	05.07.84		
Materiale	Trattamento			Scala
				Foglio

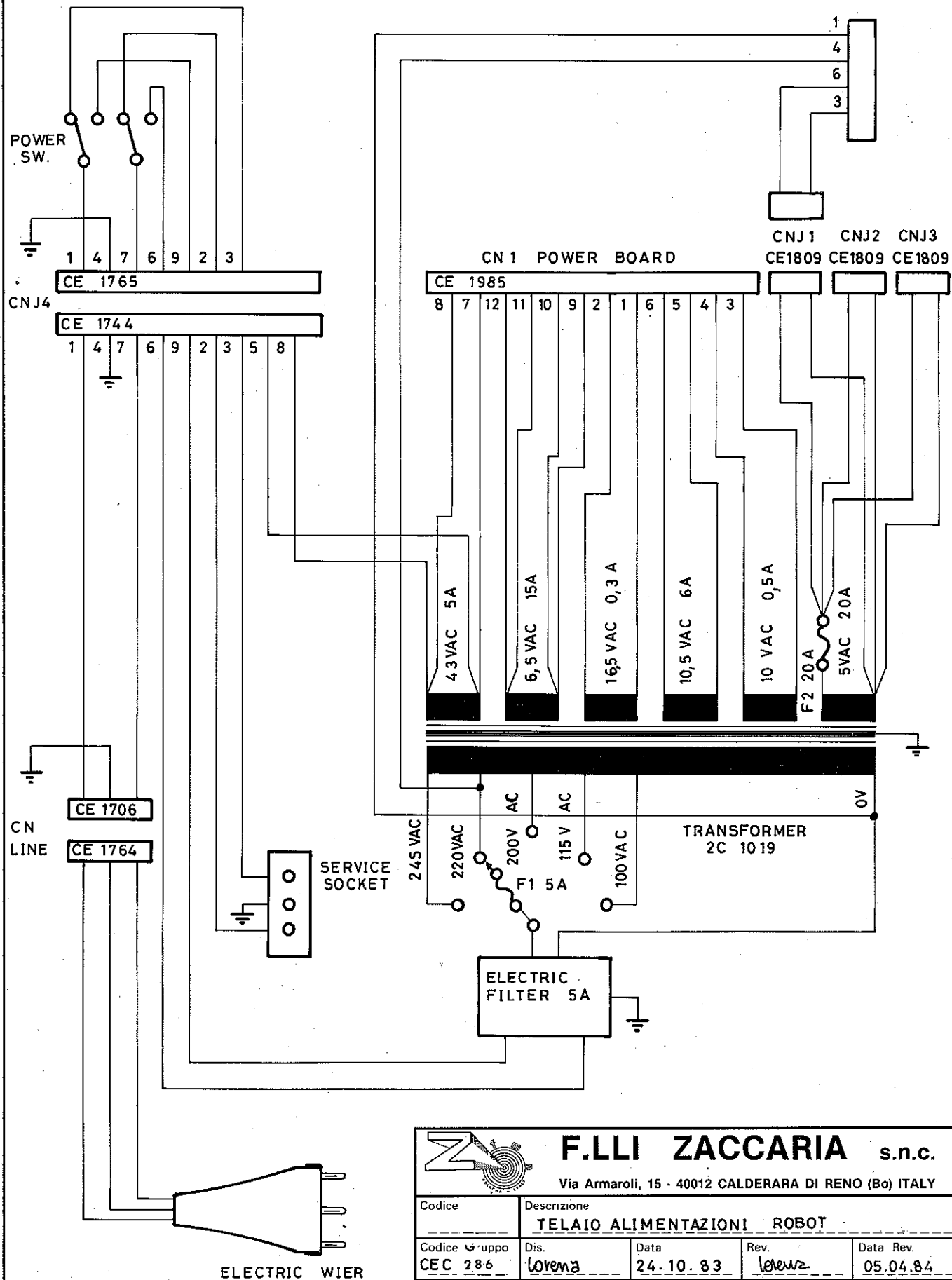



Pinout for CN10 (SERVICE CONNECTOR):

0-9/1	11	COL.1
1-7/1	17	COL.6
2-4/1	15	COL.5
0-3/1	14	COL.4
2-5/1	12	COL.2
8-9/1	10	COL.0
9/1	6	ROW.0
0-4/1	13	COL.3
8/1	7	ROW.1
4-7/1	18	COL.7
3-4/1	1	RX +
0-11/1	4	TX +
4-8/1	2	RX -
9-11/1	3	TX -

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

Codice	Descrizione ELECTRICAL DIAGRAM FOR CABINET & FRONT DOOR WIRING ROBOT			
Codice Gruppo	Dis. <i>LORENZ</i>	Data 24.10.83	Rev. <i>levelis</i>	Data Rev. 11.09.84
Materiale	Trattamento		Scala	
note:				Foglio



 F.LLI ZACCARIA s.n.c. Via Armadori, 15 - 40012 CALDERARA DI RENO (Bo) ITALY				
Codice	Descrizione			
	TELAIO ALIMENTAZIONI ROBOT			
Codice Gruppo	Dis.	Data	Rev.	Data Rev.
CEC 286	lorenz	24.10.83	lorenz	05.04.84
Materiale		Trattamento		Scala
note				Foglio