



RM Costruzioni Elettroniche

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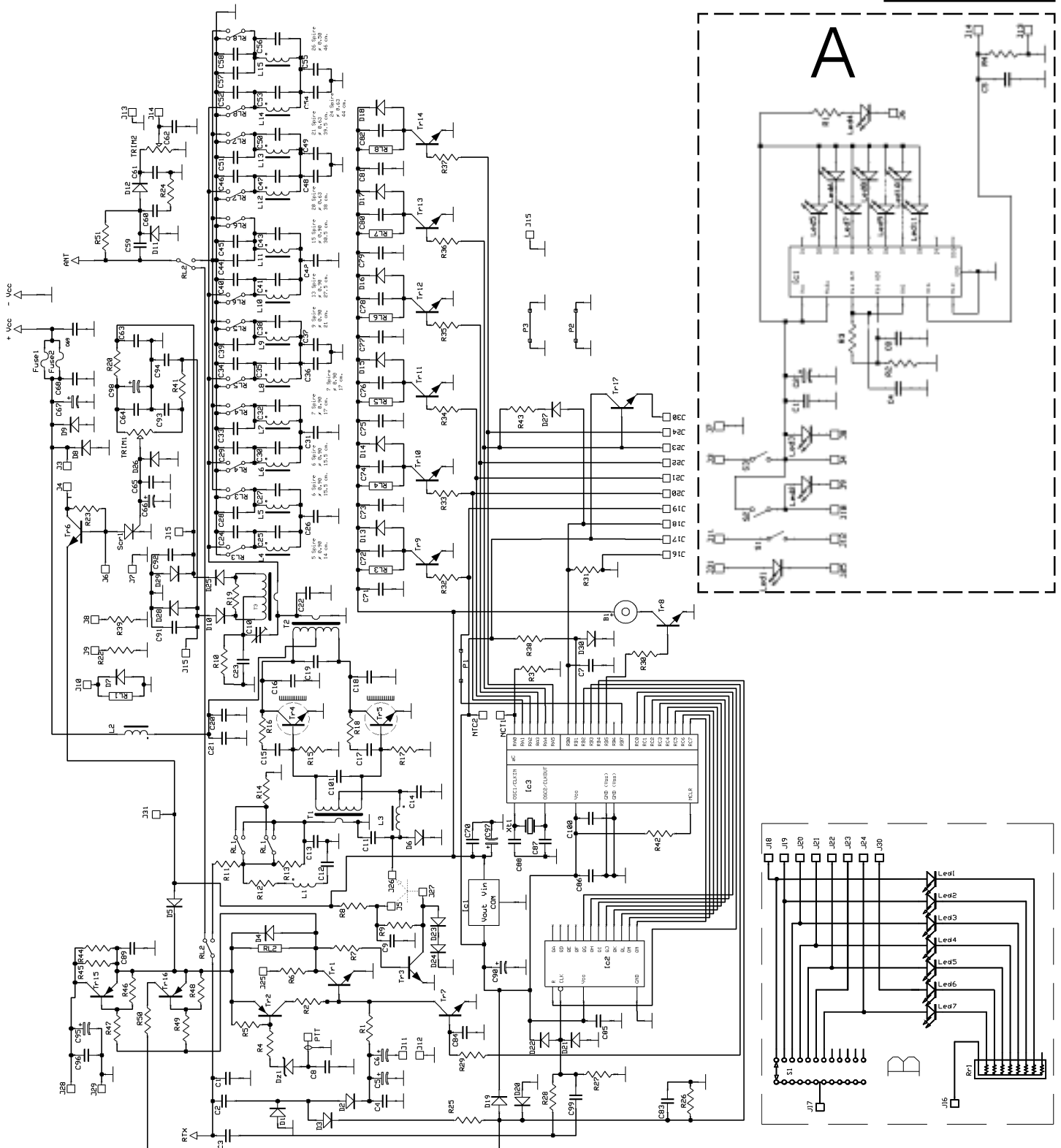
E-MAIL ufftec@rmitaly.com

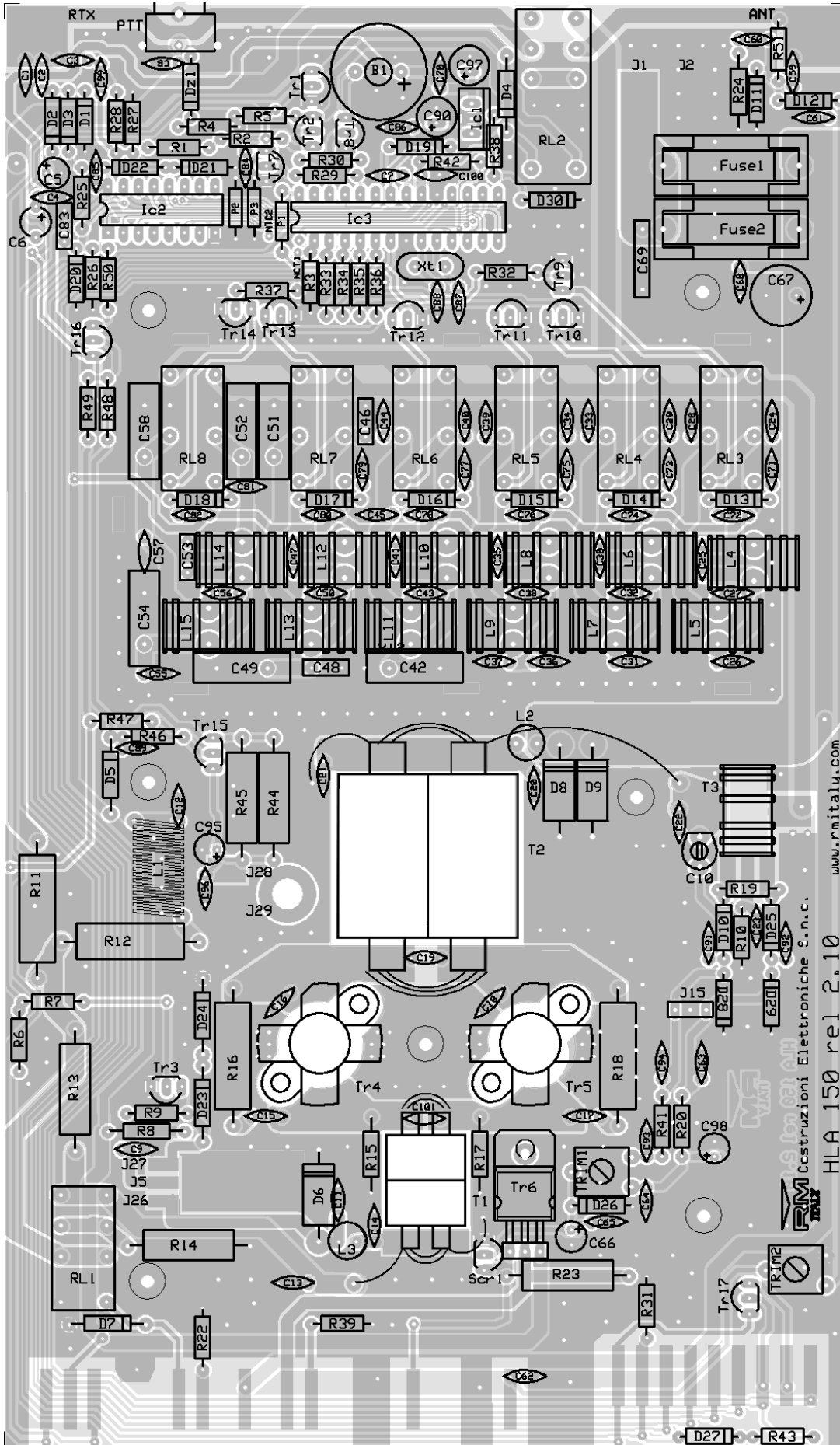
<http://www.rmitaly.com>

Mod. HLA 150 linear amplifier

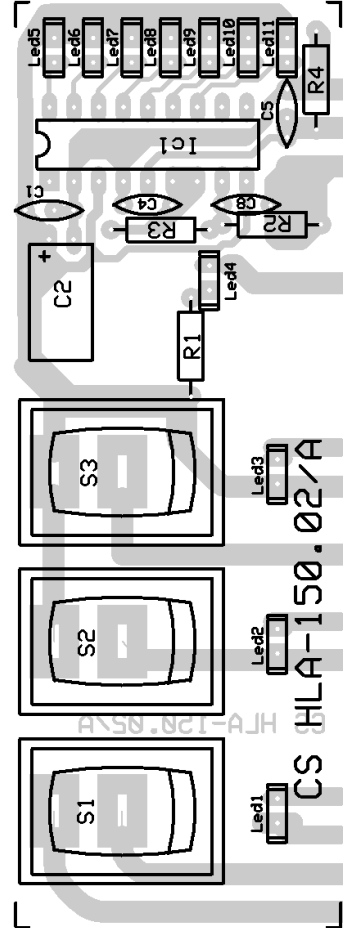
Schematic diagram

Version 2.10

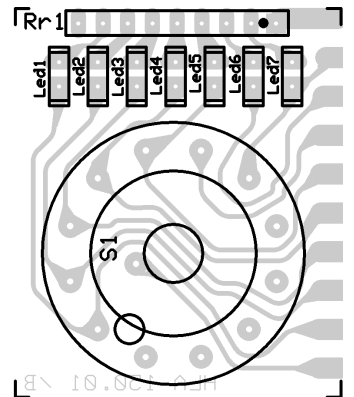




Board A



Board B



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HLA 150 rel 2.10

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List of components

C ₁ =				C ₅₈ = 620 pF	500 V	Silvered mica
C ₂ = 8,2 pF	50 V	NP0		C ₅₉ = 2,2 pF	50 V	NP0
C ₃ = 15 pF	50 V	NP0		C ₆₀ = 33 pF	50 V	NP0
C ₄ = 100 nF	50 V			C ₆₁ = 100 nF	50 V	
C ₅ = 2,2 μF	16 V			C ₆₂ = 10 nF	50 V	
C ₆ = 33 μF	16 V			C ₆₃ = 100 nF	50 V	
C ₈ = 10 nF	50 V			C ₆₄ = 100 nF	50 V	
C ₉ = 100 nF	50 V			C ₆₅ = 100 nF	50 V	
C ₁₀ = 3 - 10 pF	Trimmer	50 V	NP0	C ₆₆ = 10 μF	25 V	
C ₁₁ = 100 nF	50 V			C ₆₇ = 470 μF	25 V	
C ₁₂ = 10 nF	50 V			C ₆₈ = 100 nF	50 V	
C ₁₃ = 150 pF	50 V	NP0		C ₆₉ = 470 nF	63 V	Polyester
C ₁₄ = 100 nF	50 V			C _{70 to C₈₂} = 100 nF	50 V	
C ₁₅ = 47 nF	50 V			C ₈₃ = 10 nF	50 V	
C ₁₆ = 220 pF	500 V	NP0		C ₈₄ = 10 nF	63 V	Polyester
C ₁₇ = 47 nF	50 V			C ₈₅ = 100 nF	50 V	
C ₁₈ = 220 pF	500 V	NP0		C ₈₆ = 100 nF	50 V	
C ₁₉ = 620 + 390 pF	500 V	silvered mica		C ₈₇ = 27 pF	50 V	NP0
C ₂₀ = 100 nF	50 V			C ₈₈ = 27 pF	50 V	NP0
C ₂₁ = 100 nF	50 V			C ₈₉ = 100 nF	50 V	
C ₂₂ = 47 pF	1 KV	NP0		C ₉₀ = 22 μF	25 V	
C ₂₃ = 470 pF	50 V	N750		C ₉₁ = 100 nF	50 V	
C ₂₄ = 22 pF	500 V	NP0		C ₉₂ = 100 nF	50 V	
C ₂₅ = 33 pF	500 V	NP0		C ₉₃ = 100 nF	50 V	
C ₂₆ = 150 pF	500 V	NP0		C ₉₄ = 100 nF	50 V	
C ₂₇ = 12 pF	500 V	NP0		C ₉₅ = 22 μF	25 V	
C ₂₈ = 100 pF	500 V	NP0		C ₉₆ = 100 nF	50 V	
C ₂₉ = 47 pF	500 V	NP0		C ₉₇ = 10 μF	25 V	
C ₃₀ = 33 pF	500 V	NP0		C ₉₈ = 33 μF	16 V	
C ₃₁ = 220 pF	500 V	NP0		C ₉₉ = 4,7 pF	50 V	NP0
C ₃₂ = 15 pF	500 V	NP0		C ₁₀₀ = 220 nF	50 V	Multilayer
C ₃₃ = 100 pF	500 V	NP0		C ₁₀₁ = 2 x 470 pF	50 V	N750
C ₃₄ = 82 pF	500 V	NP0		R ₁ = 2,2 KΩ	¼W	
C ₃₅ = 82 pF	500 V	NP0		R ₂ = 4,7 KΩ	¼W	
C ₃₆ = 100 pF	500 V	NP0		R ₃ = 4,7 KΩ	¼W	
C ₃₇ = 220 pF	500 V	NP0		R ₄ = 10 KΩ	¼W	
C ₃₈ = 56 pF	500 V	NP0		R ₅ = 2,2 KΩ	¼W	
C ₃₉ = 150 pF	500 V	NP0		R ₆ = 1,0 KΩ	¼W	
C ₄₀ = 220 pF	500 V	NP0		R ₇ = 2,2 KΩ	¼W	
C ₄₁ = 100 pF	500 V	NP0		R ₈ = 1,0 Ω	½W	
C ₄₂ = 620 pF	500 V	Silvered mica		R ₉ = 1,2 KΩ	¼W	
C ₄₃ = 33 pF	500 V	NP0		R ₁₀ = 1,0 KΩ	¼W	
C ₄₄ = 220 pF	500 V	NP0		R ₁₁ = 33 Ω	5W	
C ₄₅ = 100 pF	500 V	NP0		R ₁₂ = 33 Ω	5W	
C ₄₆ = 390 pF	500 V	Silvered mica		R ₁₃ = 39Ω	2W	
C ₄₇ = 150 pF	500 V	NP0		R ₁₄ = 150 Ω	2W	
C ₄₈ = 390 pF	500 V	Silvered mica		R ₁₅ = 10 Ω	½W	
C ₄₉ = 620 pF	500 V	Silvered mica		R ₁₆ = 68 Ω	5W	
C ₅₀ = 82 pF	500 V	NP0		R ₁₇ = 10 Ω	½W	
C ₅₁ = 620 pF	500 V	Silvered mica		R ₁₈ = 68 Ω	5W	
C ₅₂ = 620 pF	500 V	Silvered mica		R ₁₉ = 47 Ω	¼W	
C ₅₃ = 390 pF	500 V	Silvered mica		R ₂₀ = 1,0 KΩ	¼W	
C ₅₄ = 1600 pF	500 V	Silvered mica		R ₂₂ = 1,0 KΩ	¼W	
C ₅₅ = 270 pF	500 V	NP0		R ₂₃ = 390 Ω	2W	
C ₅₆ = 150 pF	500 V	NP0		R ₂₄ = 27 Ω	½W	
C ₅₇ = 150 pF	500 V	NP0		R ₂₅ = 10 KΩ	¼W	

R₂₆ = 1,0 MΩ ¼W
 R₂₇ = 47 KΩ ¼W
 R₂₈ = 4,7 KΩ ¼W
 R₂₉ = 1,0 KΩ ¼W
 R₃₀ = 4,7 KΩ ¼W
 R₃₁ = 10 KΩ ¼W
 R₃₂ = 4,7 KΩ ¼W
 R₃₃ = 4,7 KΩ ¼W
 R₃₄ = 4,7 KΩ ¼W
 R₃₅ = 4,7 KΩ ¼W
 R₃₆ = 4,7 KΩ ¼W
 R₃₇ = 4,7 KΩ ¼W
 R₃₈ = 4,7 KΩ ¼W
 R₃₉ = 1,0 KΩ ¼W
 R₄₁ = 10 KΩ ¼W
 R₄₂ = 1,0 KΩ ¼W
 R₄₃ = 220 Ω ¼W
 R₄₄ = 68 Ω 2W
 R₄₅ = 68 Ω 2W
 R₄₆ = 470 Ω ¼W
 R₄₇ = 2,2 KΩ ¼W
 R₄₈ =
 R₄₉ =
 R₅₀ =

R₅₁ = 10 KΩ ¼W

P₁ = P₂ = P₃ = Ponte 0 Ω ¼W

B₁ = Buzzer 12V ARIMB12A12

Trim₁ = Timmer PT10 10 KΩ

Trim₂ = Timmer PT10 10 KΩ

D₁ = 1N4148

D₂ = 1N4148

D₃ = 1N4148

D₄ = 1N4007

D₅ = 1N4007

D₆ = 1N5400

D₇ = 1N4007

D₈ = 1N5400

D₉ = 1N5400

D₁₀ - D₂₂ = 1N4148

D₂₃ = 1N4007

D₂₄ = 1N4007

D₂₅ - D₃₀ = 1N4148

Dz₁ = Zener 7,5 V ½W

Fuse₁ = 12 A Fast

Fuse₂ = 12 A Fast

Ic₁ = LM 7805

Ic₂ = 74HC4020

Ic₃ = Micro RM3

Tr₁ = BC 547 B

Tr₂ = BC 557 B

Tr₃ = BC 547 B

Tr₄ - Tr₅ = SD 1446

Tr₆ = BD 241

Tr₇ - Tr₁₄ = BC 547 B

Tr₁₅ = BC 327

Tr₁₆ =

Tr₁₇ = BC 547 B

Tr₁₈ = BD 241 BFP

Xt₁ = Xtal 11.059 MHz

Scr₁ = P0102

Rl₁ = 3022

Rl₂ = 4152

Rl₃ - Rl₈ = 3022

T₁ = Input Transformer

T₂ = Output Transformer

T₃ = ANRA 700/12

L₁ = ANRA 455

L₂ = FH002110

L₃ = FH002100

L₄ = ANRA 700

L₅ = ANRA 700/1

L₆ = ANRA 700/1

L₇ = ANRA 700/2

L₈ = ANRA 700/2

L₉ = ANRA 700/3

L₁₀ = ANRA 700/5

L₁₁ = ANRA 700/6

L₁₂ = ANRA 700/7

L₁₃ = ANRA 700/8

L₁₄ = ANRA 700/9

L₁₅ = ANRA 700/10

Conn₁ = CQQ/A2/6,3

Board A

C₁ = 10 nF 50 V

C₂ = 10 µF 16 V

C₄ = 10 nF 50 V

C₅ = 10 nF 50 V

C₈ = 10 nF 50 V

R₁ = 1,0 KΩ ¼W

R₂ = 8,2 KΩ ¼W

R₃ = 1,0 KΩ ¼W

R₄ = 4,7 KΩ ¼W

Ic₁ = LM 3915

Led₁ - Led₁₁ = LED

Boar B

S₁ = Switch 1 way 7 positions

Rr₁ = Resistor networks 7 x 220 Ω

Led₁ - Led₇ = LED