



## TS500 Parts list

All the components in this list are included in the kit  
Tous les composants de cette liste sont inclus dans le kit

Reference	Value	Qty	Description	Marking
R50, R51	1R	2	Resistor 1%, 1/4W	BRN-BLK-BLK-SLV-BRN
R41	33R	1	Resistor 1%, 1/4W	ORG-ORG-BLK-GLD-BRN
R42	39R	1	Resistor 1%, 1/4W	ORG-WHT-BLK-GLD-BRN
R14, R15, R16, R17, R18	620R	5	Resistor 1%, 1/4W	BLU-RED-BLK-BLK-BRN
R7, R37	1K	2	Resistor 1%, 1/4W	BRN-BLK-BLK-BRN-BRN
R43	1K	1	Resistor 1%, 1W	BRN-BLK-BLK-BRN-BRN
R28, R31	1K2	2	Resistor 1%, 1/4W	BRN-RED-BLK-BRN-BRN
R3, R4, R55, R57	2K2	4	Resistor 1%, 1/4W	RED-RED-BLK-BRN-BRN
R12, R19, R33, R34	3K3	4	Resistor 1%, 1/4W	ORG-ORG-BLK-BRN-BRN
R2	3K9	1	Resistor 1%, 1/4W	ORG-WHT-BLK-BRN-BRN
R44	4K7	1	Resistor 1%, 1/4W	YEL-VIO-BLK-BRN-BRN
R6, R8, R35, R36, R39, R40	5K6	6	Resistor 1%, 1/4W	GRN-BLU-BLK-BRN-BRN
R1	6K2	1	Resistor 1%, 1/4W	BLU-RED-BLK-BRN-BRN
R24	8K2	1	Resistor 1%, 1/4W	GRY-RED-BLK-BRN-BRN
R9, R10, R13, R23, R25, R26, R29, R32, R60	10K	9	Resistor 1%, 1/4W	BRN-BLK-BLK-RED-BRN
R22, R59	15K	2	Resistor 1%, 1/4W	BRN-GRN-BLK-RED-BRN
R21	22K	1	Resistor 1%, 1/4W	RED-RED-BLK-RED-BRN
R38, R52, R53, R56, R58	47K	5	Resistor 1%, 1/4W	YEL-VIO-BLK-RED-BRN
R45, R47	82K	2	Resistor 1%, 1/4W	GRY-RED-BLK-RED-BRN
R5, R11, R46, R48	100K	4	Resistor 1%, 1/4W	BRN-BLK-BLK-ORG-BRN
R20	180K	1	Resistor 1%, 1/4W	BRN-GRY-BLK-ORG-BRN
R54	220k	1	Resistor 1%, 1/4W	RED-RED-BLK-ORG-BRN
R49	330K	1	Resistor 1%, 1/4W	ORG-ORG-BLK-ORG-BRN
R27, R30	470K	2	Resistor 1%, 1/4W	YEL-VIO-BLK-ORG-BRN
RN1, RN2	9 x 10M	2	Resistor network 10 pins	
C54, C64, C65	47pF	3	Capacitor Ceramic (R 5mm)	470
C5, C40	220pF	2	Capacitor Ceramic	221
C1, C2	470pF	2	Capacitor Ceramic	471
C9, C10, C11, C12, C13, C14, C15, C16, C17, C18, C42, C43, C44, C45, C46, C47, C48, C49, C50, C51, C52, C53, C56, C57, C58, C59, C62, C63	100nF	28	Capacitor Ceramic	104
C55	1uF	1	Capacitor Ceramic	105
C35	1nF	1	Capacitor Film	1000
C22, C36, C37	2.2nF	3	Capacitor Film	2200
C21, C38	4.7nF	2	Capacitor Film	4700
C27	6.8nF	1	Capacitor Film	6800
C4, C20, C28, C39	10nF	4	Capacitor Film	0.01

C26, C33	15nF	2	Capacitor Film	<b>0.015</b>
C19, C34	22nF	2	Capacitor Film	<b>0.022</b>
C24, C32	33nF	2	Capacitor Film	<b>0.033</b>
C25	47nF	1	Capacitor Film	<b>0.047</b>
C23, C30	68nF	2	Capacitor Film	<b>0.068</b>
C31	100nF	1	Capacitor Film	<b>0.1</b>
C29	150nF	1	Capacitor Film	<b>u15</b>
C6	470nF	1	Capacitor Film	<b>u47</b>
C3, C7, C41	BP10uF	3	Capacitor Electro, Bipolar	
C8	BP100uF	1	Capacitor Electro, Bipolar	
C60, C61	330uF-25V	2	Capacitor Electro Low ESR, 105°	
HD1		1	Simulation coil	
T1	Ratio 1:1	1	Line input transformer	
T2	Ratio 1:2	1	Line output transformer	
D3, D4, D5, D8, D9	1N914	5	Signal diode	<b>914 or 4148</b>
D6, D7	1N4004	2	Rectifier diode	<b>1N4004</b>
D1, D2	Z2V4	2	Diode zener 2.4V	
Q1	2N6488	1	NPN Power transistor	
U1, U2, U3, U4, U5, U9, U10, U11, U12, U14	OPA2134	10	Dual Op-Amp	<b>OPA134</b>
U6, U7, U8	DG412	3	Quad analog switch	
U13	LM1086	1	Positive voltage regulator	
SW1, SW2, SW3, SW4	DPDT	4	Min toggle switch on/off/on	
CN1	4 pins	1	SIL 2.54 socket 1x4 pins	
	8 pins	10	IC socket	
	16 pins	3	IC socket	
TP1...TP10		10	Test pin	
P1	10KA	1	Potentiometer	<b>10K LINA</b>
P2	10KB	1	Potentiometer	<b>10K LOGB</b>
		1	TO220 Heatsink	
Main PCB		1	PCB	
knob		2	Knob	
		1	TS500 front panel	
		1	Side plate	
Front pannel assembly	M3x6	2	Black screw countersunk	
Cover assembly	M3x6	4	Screw countersunk	
Heatsink, meter PCB assembly	M3x6	3	Screw pan head	
Meter PCB assembly	M3x10	2	Screw pan head	
Meter PCB assembly	M3	4	Metal washer	
PCB assembly	M3	4	Lock washer	
Heatsink assembly	M3	1	Self locking nut	
Meter PCB assembly	M3x20	2	Spacer fem/fem	
Main PCB assembly	M3x25	4	Spacer male/fem	

<b>Meter</b>				
R1, R2	22R	2	Resistor 1%, 1/4W	RED-RED-BLK-GLD-BRN
R3	47R	1	Resistor 1%, 1/4W	YEL-VIO-BLK-GLD-BRN
R5	82R	1	Resistor 1%, 1/4W	GRY-RED-BLK-GLD-BRN
R4, R7	100R	2	Resistor 1%, 1/4W	BRN-BLK-BLK-BLK-BRN
R6, R8	120R	2	Resistor 1%, 1/4W	BRN-RED-BLK-BLK-BRN
R9	180R	1	Resistor 1%, 1/4W	BRN-GRY-BLK-BLK-BRN
R10	220R	1	Resistor 1%, 1/4W	RED-RED-BLK-BLK-BRN
R11	270R	1	Resistor 1%, 1/4W	RED-VIO-BLK-BLK-BRN
R12, R18, R19	330R	3	Resistor 1%, 1/4W	ORG-ORG-BLK-BLK-BRN
R13	680R	1	Resistor 1%, 1/4W	BLU-GRY-BLK-BLK-BRN
R14	1K	1	Resistor 1%, 1/4W	BRN-BLK-BLK-BRN-BRN
R15	1K2	1	Resistor 1%, 1/4W	BRN-RED-BLK-BRN-BRN
R16	2k7	1	Resistor 1%, 1/4W	RED-VIO-BLK-BRN-BRN
R17	18k	1	Resistor 1%, 1/4W	BRN-GRY-BLK-RED-BRN
R20	NC	3	Not connected	
P1	22k	1	Trimmer pot	
C3	100n-100V	1	Capacitor Ceramic	104
C1, C2	33u-35V	2	Capacitor Electro Low ESR, 105°	
C4	NC	1	Not connected	
D1...D8	Green	8	High efficiency green LED	
D9...D12	Yellow	4	High efficiency yellow LED	
D13, D16	Red	4	High efficiency red LED	
D17, D18	NC	2	Not connected	
U1, U2, U3, U4	LM339N	4	Quad comparator	
U5, U6	LM317LZ	2	Positive voltage regulator	
	4 pins	1	SIL 2.54 header 18mm	
PCB		1	PCB	
(1) Data can be changed without notice				
(1) Les donnée peuvent être modifiées sans préavis				
Schematic Rev 1.5 - PCB Rev 1.5				
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