



**Main PCB [ES02 - Preamp Detector Component Kit]**

Item	Description	Qty	Designator	Package
	<b>CAPACITOR</b>			
1	18pF 5% Ceramic	1	C202	RAD-0.2N
2	33pF 5% Ceramic	1	C205	RAD-0.2N
3	82pF 5% Ceramic	1	C104	RAD-0.2N
4	10nF 63V Polyester	2	C101, C204	RAD-0.2
5	100nF Ceramic	6	C303, C304, C305, C306, C307, C308	RAD-0.2N
6	220nF 63V Polyester	1	C201	RAD-0.2
7	0u47F 35V Tantalum	1	C203	RB-D5.0-P5.0
8	10uF 35V Electrolytic	5	C102, C103, C105, C301, C302 NB: 5mm x 11mm	RB-D5.0-P2.0
	<b>CONNECTOR</b>			
9	IDC10 Box Header	1	J301	2.54MM
10	1x4 Pin Receptacle	1	X101	2212S
11	8-pin IC Socket 0.3inch	5	Q201, U101, U102, U201, U202	DIP-8
12	1x4 Pin 16mm Header	3	J102, J202, S201	-
	<b>DIODE</b>			
13	1N4148	3	D201, D202, D203	DIODE-0.3
	<b>HARDWARE</b>			
14	M2.5 x 6mm Pan Head Bolt	2	X101^2	-
15	M2.5 x 12mm Spacer Threaded	1	X101	-
	<b>LINEAR</b>			
16	LM741 - GP Opamp	1	U202	DIP-8
17	RC4559 - Hi-Performance Dual Opamp	1	U101	DIP-8
18	LF353 - Dual JFET Opamp	2	U102, U201	DIP-8
	<b>INDUCTOR</b>			
19	Ferrite Bead - 5A	2	L301, L302	AXIAL-0.3

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	<b>MODULE</b>			
20	Dual Matched PNP Sub-Assembly	1	Q201	-
	<b>OPTO-ELECTRONIC</b>			
21	3mm HE-Green LED	1	D204	-
	<b>POTENTIOMETER</b>			
22	100KB LIN - 18T Spline	1	P101	ALPHA 16MM
	<b>RESISTOR</b>			
23	47R 1% 0.5W Metal Film	1	R108	AXIAL-0.4
24	100R 1% 0.5W Metal Film	1	R112	AXIAL-0.4
25	150R 1% 0.5W Metal Film	1	R203	AXIAL-0.4
26	330R 1% 0.5W Metal Film	2	R116, R209	AXIAL-0.4
27	470R 1% 0.5W Metal Film	1	R210	AXIAL-0.4
28	475R 1% 0.5W Metal Film	2	R101, R104	AXIAL-0.4
29	1K0 1% 0.5W Metal Film	3	R103, R106, R115	AXIAL-0.4
30	2K2 1% 0.5W Metal Film	1	R207	AXIAL-0.4
31	3K32 1% 0.5W Metal Film	1	R110	AXIAL-0.4
32	6K8 1% 0.5W Metal Film	1	R111	AXIAL-0.4
33	7K5 1% 0.5W Metal Film	2	R102, R105	AXIAL-0.4
34	10K 1% 0.5W Metal Film	2	R107, R113	AXIAL-0.4
35	12K 1% 0.5W Metal Film	1	R114	AXIAL-0.4
36	33K 1% 0.5W Metal Film	2	R202, R204	AXIAL-0.4
37	47K 1% 0.5W Metal Film	1	R213	AXIAL-0.4
38	68K 1% 0.5W Metal Film	1	R208	AXIAL-0.4
39	1M0 1% 0.5W Metal Film	1	R201	AXIAL-0.4
40	4M7 1% 0.5W Metal Film	1	R109	AXIAL-0.4
41	15M 5% 0.5W Carbon Film	1	R206	AXIAL-0.4
42	22M 5% 0.25W Metal Glazed	2	R211, R212	AXIAL-0.4



**Peak Detector [ES02 - Preamp Detector Component Kit]**

Item	Description	Qty	Designator	Package
	<b>CAPACITOR</b>			
1	1uF 50V Electrolytic	1	C3	RB-D5.0-P2.0
2	47uF Electrolytic	2	C1, C2	RB-D5-P2.5
	<b>CONNECTOR</b>			
3	8-pin IC Socket 0.3inch	1	U1	DIP-8
4	1x4 Pin 9mm Header	1	J1	2.54MM
	<b>DIODE</b>			
5	1N4148	2	D1, D2	DIODE-0.3
	<b>HARDWARE</b>			
6	SLEEVING - 2.4mm Heatshrink [@ 1cm]	2	D3^2	-
7	Equipment Wire 7/0.2 Black [@ 1cm]	4	D3^4 NB: OD = 1.2mm AWG = 24	-
8	Equipment Wire 7/0.2 Red [@ 1cm]	4	D3^4 NB: OD = 1.2mm AWG = 24	-
	<b>LINEAR</b>			
9	LM1458 - Dual Opamp	1	U1	DIP-8
	<b>OPTO-ELECTRONIC</b>			
10	3mm HE-Red LED	1	D3	-
	<b>RESISTOR</b>			
11	1R5 1% 0.5W Metal Film	3	R1, R2, R3	AXIAL[0.4]
12	2K2 1% 0.5W Metal Film	2	R8, R9	AXIAL-0.4
13	10K 1% 0.5W Metal Film	1	R4	AXIAL-0.4
14	22K 1% 0.5W Metal Film	3	R5, R6, R7	AXIAL-0.4
	<b>TRANSISTOR</b>			
15	BC547B NPN Transistor	1	Q1	TO-92







