

Power [MonoWave[X] Main Component Kit]

Item	Description	Qty	Designator	Package
CAPACITOR				
1	100nF Ceramic	4	C8, C10, C12, C13	RAD-0.2N
2	10uF 35V Electrolytic	1	C6	RB-D5.0-P2.0
3	10uF 35V Tantalum	2	C9, C11	RB-D7.5-P5.0
4	100uF 25V Electrolytic	2	C2, C5	RB-D8-P3.5
CONNECTOR				
5	IDC40 Box Header	3	J101, J102, J103	2.54MM
6	2-way 0.1inch Crimp Housing	2	J1, S1	2.54MM
7	2-way 0.1inch Straight Header	2	J1, S1	2.54MM
8	1x1 Pin 9mm Header	2	TP1, TP2	2.54MM
DIODE				
9	1N4004 200V 1A	4	D1, D2, D3, D4	DIODE-0.4
HARDWARE				
10	HEATSINK - Mini Type 6073B	1	U4	-
11	M3 x 10mm Bolt PH	1	U4	-
12	M3 Nut	3	U2, U3, U4	-
13	M3 x 6mm Bolt PH	2	U2, U3	-
LINEAR				
14	7912 -12V 1A Fixed Voltage Regulator	1	U3	TO-220
15	7812 +12V 1A Fixed Voltage Regulator	1	U2	TO-220
16	7805 +5V 1A Fixed Voltage Regulator	1	U4	TO-220
INDUCTOR				
17	Ferrite Bead - 0.45uH 7A	3	L1, L2, L3	AXIAL-0.3
RESISTOR				
18	Wire Link	1	LK1	TO FIT
19	22R 5W Wirewound	1	R2	-
20	100R 1% 0.5W Metal Film	1	R1	AXIAL-0.4

Bill of Materials for MonoWave [X] 2U Full Kit V1.2
CPU [MonoWave[X] Main Component Kit]

Item	Description	Qty	Designator	Package
CAPACITOR				
1	18pF 5% Ceramic	2	C201, C202	RAD-0.2N
2	100nF Ceramic	1	C203	RAD-0.2N
CONNECTOR				
3	3-way 0.1inch Straight Header	1	J206	2.54MM
4	2-way 0.1inch Crimp Housing	1	J204	2.54MM
5	2-way 0.1inch Straight Header	1	J204	2.54MM
6	3-way 0.1inch Crimp Housing	1	J206	2.54MM
7	14-pin IC Socket 0.3inch	1	U204	DIP-14
8	40-pin IC Socket 0.6inch	1	U205	DIP-40
9	20-pin IC Socket 0.3inch	1	U203	DIP-20
10	8-pin IC Socket 0.3inch	1	U201	DIP-8
CRYSTAL				
11	16MHz Crystal	1	X201	HC49/4H
12	Insulator for HC-18/U	1	X201	-
DIODE				
13	1N4148	1	D201	DIODE-0.3
LINEAR				
14	ATMEGA16-16PU	1	U205	DIP-40
15	6N138 - Opto-coupler	1	U201	DIP-8
16	PTN78000A - Isolated -3 to -15V 9W DC/DC Converter	1	U1	-
LOGIC				
17	74HC00 - Quad NAND Gate	1	U204	DIP-14
18	74HC374 - Tri-State Octal D-Type Flip-Flop	1	U203	DIP-20
RESISTOR				
19	220R 1% 0.5W Metal Film	4	R201, R202, R206, R211	AXIAL-0.4
20	1K0 1% 0.5W Metal Film	2	R207, R209	AXIAL-0.4

Bill of Materials for MonoWave [X] 2U Full Kit V1.2
VCA EG [MonoWave[X] Main Component Kit]

Item	Description	Qty	Designator	Package
CAPACITOR				
1	Do Not Fit	2	C802, C803	-
2	100nF Ceramic	2	C804, C805	RAD-0.2N
3	4.7uF 35V Tantalum	1	C801	RB-D6.5-P5.0
			NB: Fit C801 & C1001 flat	
CONNECTOR				
4	1x1 Pin 9mm Header	1	TP801	2.54MM
5	14-pin IC Socket 0.3inch	3	U802, U803, U901	DIP-14
6	8-pin IC Socket 0.3inch	1	U801	DIP-8
DIODE				
7	1N4148	1	D801	DIODE-0.3
LINEAR				
8	TL082 Dual JFET Opamp	1	U801	DIP-8
LOGIC				
9	CD4011 - Quad 2-input NAND Gate	1	U802	DIP-14
RESISTOR				
10	0R Resistor	1	R807	AXIAL-0.4
11	1K0 1% 0.5W Metal Film	1	R806	AXIAL-0.4
12	10K 1% 0.5W Metal Film	1	R801	AXIAL-0.4
13	22K 1% 0.5W Metal Film	1	R805	AXIAL-0.4
14	1M0 1% 0.5W Metal Film	2	R803, R804	AXIAL-0.4
15	2M2 1% 0.5W Metal Film	1	R802	AXIAL-0.4
TRIMPOT				
16	Wire Link	1	P801	-
			NB: See modifications	

Bill of Materials for MonoWave [X] 2U Full Kit V1.2
VCF [MonoWave[X] Main Component Kit]

Item	Description	Qty	Designator	Package
	CAPACITOR			
1	68nF 63V Polyester	4	C901, C902, C903, C904	RAD-0.2
2	100nF Ceramic	2	C909, C910	RAD-0.2N
3	2.2uF Electrolytic	1	C905	RB-D5.0-P2.0
4	10uF 35V Electrolytic	2	C907, C908	RB-D5.0-P2.0
5	220uF 50V Electrolytic	1	C906	RB-D10.0-P5.0
	CONNECTOR			
6	16-pin IC Socket 0.3inch	1	U902	DIP-16
	LINEAR			
7	LM13700 - Dual OTA	1	U902	DIP-16
	RESISTOR			
8	0R Resistor	1	R911	AXIAL-0.4
9	330R 1% 0.5W Metal Film	5	R902, R903, R904, R905, R912	AXIAL-0.4
10	470R 1% 0.5W Metal Film	2	R910, R913	AXIAL-0.4
11	1K0 1% 0.5W Metal Film	3	R901, R914, R924	AXIAL-0.4
12	12K 1% 0.5W Metal Film	1	R915	AXIAL-0.4
13	47K 1% 0.5W Metal Film	2	R917, R919	AXIAL-0.4
14	51K1 1% 0.5W Metal Film	1	R921	AXIAL-0.4
15	68K 1% 0.5W Metal Film	1	R916	AXIAL-0.4
16	100K 1% 0.5W Metal Film	3	R920, R922, R923	AXIAL-0.4
17	390K 1% 0.5W Metal Film	4	R906, R907, R908, R909	AXIAL-0.4
18	470K 1% 0.5W Metal Film	1	R918	AXIAL-0.4
	TRANSISTOR			
19	2N3904 NPN Transistor	7	Q901, Q902, Q903, Q904, Q905, Q906, Q908	TO-92
20	2N3906 PNP Transistor	1	Q907	TO-92
21	CA3046 5 NPN Transistors	1	U901	DIP-14

Bill of Materials for MonoWave [X] 2U Full Kit V1.2
VCF EG [MonoWave[X] Main Component Kit]

Item	Description	Qty	Designator	Package
CAPACITOR				
1	100nF Ceramic	2	C1002, C1003	RAD-0.2N
2	4.7uF 35V Tantalum	1	C1001	RB-D6.5-P5.0
			NB: Fit C801 & C1001 flat	
CONNECTOR				
3	1x1 Pin 9mm Header	1	TP1001	2.54MM
4	14-pin IC Socket 0.3inch	2	U1002, U1003	DIP-14
5	8-pin IC Socket 0.3inch	1	U1001	DIP-8
DIODE				
6	1N4148	1	D1001	DIODE-0.3
LINEAR				
7	TL082 Dual JFET Opamp	1	U1001	DIP-8
LOGIC				
8	CD4011 - Quad 2-input NAND Gate	1	U1002	DIP-14
RESISTOR				
9	1K0 1% 0.5W Metal Film	1	R1006	AXIAL-0.4
10	10K 1% 0.5W Metal Film	1	R1001	AXIAL-0.4
11	22K 1% 0.5W Metal Film	1	R1005	AXIAL-0.4
12	1M0 1% 0.5W Metal Film	2	R1003, R1004	AXIAL-0.4
13	2M2 1% 0.5W Metal Film	1	R1002	AXIAL-0.4
TRIMPOT				
14	Wire Link	1	P1001	-
			NB: See modifications	

Bill of Materials for MonoWave [X] 2U Full Kit V1.2
VCA1 [MonoWave[X] Main Component Kit]

Item	Description	Qty	Designator	Package
CAPACITOR				
1	27pF 10% Ceramic	1	C1101	RAD-0.2N
2	100nF 63V Polyester	1	C1102	RAD-0.2
3	100nF Ceramic	2	C1103, C1104	RAD-0.2N
CONNECTOR				
4	14-pin IC Socket 0.3inch	2	U1101, U1102	DIP-14
DIODE				
5	1N4148	1	D1101	DIODE-0.3
LINEAR				
6	TL084 Quad JFET Opamp	1	U1102	DIP-14
RESISTOR				
7	15K 1% 0.5W Metal Film	1	R1101	AXIAL-0.4
8	22K 1% 0.5W Metal Film	1	R1107	AXIAL-0.4
9	39K 1% 0.5W Metal Film	1	R1112	AXIAL-0.4
10	47K 1% 0.5W Metal Film	4	R1104, R1105, R1106, R1108	AXIAL-0.4
11	68K 1% 0.5W Metal Film	1	R1113	AXIAL-0.4
12	100K 1% 0.5W Metal Film	5	R1102, R1103, R1109, R1110, R1111	AXIAL-0.4
TRANSISTOR				
13	CA3046 5 NPN Transistors	1	U1101	DIP-14
TRIMPOT				
14	20K 25TV Cermet	1	P1111	T93YA

Bill of Materials for MonoWave [X] 2U Full Kit V1.2
VCA2 [MonoWave[X] Main Component Kit]

Item	Description	Qty	Designator	Package
CAPACITOR				
1	27pF 10% Ceramic	1	C1201	RAD-0.2N
2	100pF 5% Ceramic	1	C1203	RAD-0.2N
3	100nF 63V Polyester	2	C1202, C1204	RAD-0.2
4	100nF Ceramic	2	C1205, C1206	RAD-0.2N
CONNECTOR				
5	14-pin IC Socket 0.3inch	2	U1201, U1202	DIP-14
DIODE				
6	1N4148	1	D1201	DIODE-0.3
LINEAR				
7	TL084 Quad JFET Opamp	1	U1202	DIP-14
RESISTOR				
8	22K 1% 0.5W Metal Film	1	R1207	AXIAL-0.4
9	39K 1% 0.5W Metal Film	1	R1212	AXIAL-0.4
10	47K 1% 0.5W Metal Film	4	R1204, R1205, R1206, R1208	AXIAL-0.4
11	68K 1% 0.5W Metal Film	1	R1213	AXIAL-0.4
12	100K 1% 0.5W Metal Film	6	R1201, R1202, R1203, R1209, R1210, R1211	AXIAL-0.4
TRANSISTOR				
13	CA3046 5 NPN Transistors	1	U1201	DIP-14
TRIMPOT				
14	20K 25TV Cermet	1	P1201	T93YA

MonoWave [X] 2U Enclosure Kit

Item	Description	Qty	Designator	Package
	CONNECTOR			
1	2.5mm DC Panel Socket + Flat Washer	1	POWER	-
2	6.35mm Mono Socket - Plastic, Panel	1	AUDIOOUT	-
3	5-PIN DIN Round Panel Socket	2	MIDIIN, MIDIOUT	-
4	IDC40 Socket	6		2.54MM
	ENCLOSURE			
5	Metal Rack - PF-19 2U	1		-
	HARDWARE			
6	M3 x 10mm Bolt PH	6		-
			NB: Rear Panel	
7	Equipment 7/0.2 Black [@ 1cm]	16		-
			NB: 14 Power	
8	Equipment 7/0.2 Red [@ 1cm]	46		-
			NB: 22 MIDI-THRU, 14 Power	
9	Equipment 7/0.2 Yellow [@ 1cm]	58		-
			NB: 22 MIDI-THRU, 24 MIDI-IN	
10	Equipment 7/0.2 Green [@ 1cm]	58		-
			NB: 22 MIDI-THRU, 24 MIDI-IN	
11	IDC Ribbon Cable 40-Way [@ 1cm]	85		-
			NB: J101=30, J102=31, J103=20	
12	M3 x 4mm Bolt SEM	6		-
			NB: PCB Fixing	
13	M3 Nut	6		-
			NB: Rear Panel	
14	M3 x 6mm Bolt PH	4		-
			NB: PCB Fixing	
15	M3 x 8mm Nylon Spacer Threaded	6		-
			NB: PCB Fixing	
16	WIRE - Audio Single-core Screened [@ 1cm]	56		-
			NB: AUDIO OUT	
17	Equipment 7/0.2 White [@ 1cm]	32		-

MonoWave [X] 2U Hardware Kit

Item	Description	Qty	Designator	Package
	CAPACITOR			
1	100nF Ceramic	5	C1, C2, C3, C4, C7	RAD-0.2N
2	1uF 50V Electrolytic	3	C5, C6, C8	RB-D5.0-P2.0
	CONNECTOR			
3	1x16 Pin 20mm Header	1	LCD	2.54MM
4	2-way 0.1inch Crimp Housing	1	J104	2.54MM
5	Crimp - KK254	2		-
6	2-way 0.1inch Straight Header	1	J104	2.54MM
			NB: Top 2 pins	
7	IDC40 Box Header	3	J101, J102, J1304	2.54MM
	HARDWARE			
8	M3 x 8mm Nylon Spacer Threaded	4		-
			NB: LCD	
9	M2.5 x 16mm PH Bolt	4		-
10	KNOB - K9 6mm D-Shaft	2	S1311, S1312	-
11	KNOB - K9 18T	21	P101, P102, P103, P104, P105, P106, P107, P108, P109, P110, P111, P112, P113, P114, P115, P116, P117, P118, P119, P120, P121	-
12	KNOB - EDP Wasp White Cap	23	P101, P102, P103, P104, P105, P106, P107, P108, P109, P110, P111, P112, P113, P114, P115, P116, P117, P118, P119, P120, P121, S1311, S1312	-
13	M2.5 SS Nut	4		-
	OPTO-ELECTRONIC			
14	5mm Red LED	1	D1303	-
15	2x16 Backlit Yellow/Green LCD	1	LCD	-
16	5mm Green LED	2	D1301, D1302	-
17	5mm Low-profile White Lens Mount	3	D1301, D1302, D1303	-
	POTENTIOMETER			
18	10KA LIN with SPDT [LA16ECO - 18T Spline]	2	P103, P105	LA16ECO-6.0MM 18-T
19	10KA LIN DUAL [LA16ECO - 18T Spline]	1	P120	LA16ECO-6.0MM 18T-DUAL
20	10KA LIN [LA16ECO - 18T Spline]	11	P101, P102, P104, P106, P107, P108, P109, P110, P114, P118, P121	LA16ECO-6.0MM 18T

