

# RETROFIX

## AMIGA A500+ B.O.M.

QTY	DESCRIPTION	VALUE	BOARD IDs	PACK	EACH	TOTAL
	Main PCB	Black			£49.95	
		Purple			£49.95	
		Blue			£49.95	
		Red			£49.95	
		Green				
		White			£49.95	
2	Resistor 1/4W 5%	10R	R301,R302	A	£0.06	£0.12
2		27R	R101,R102	A	£0.06	£0.12
6		47R	R103-R107,R113	A	£0.06	£0.36
7		68R	R109,R111,R112,R114,E104,E105,FB101	A	£0.06	£0.42
1		100R	R507	A	£0.06	£0.06
2		150R	R409,FB102	A	£0.06	£0.12
2		360R	R321,R331	A	£0.06	£0.12
2		390R	R325,R335	A	£0.06	£0.12
1		470R	R911	A	£0.06	£0.06
10		1K	R191,R192,R303-R305,R324,R334,R713,R915,R916	A	£0.06	£0.60
2		2K7	R307,R502	A	£0.06	£0.12
7		4K7	R201,R202,R402-R404,R503,R504	A	£0.06	£0.42
11		10K	R306,R308,R322,R323,R332,R333,R339,R501,R505,R506,R914	A	£0.06	£0.66
1		47K	R712	A	£0.06	£0.06
2		470K	R326,R336	A	£0.06	£0.12
1		1M	R711	A	£0.06	£0.06
1	Resistor 1/2W 5%	R47	R405	A	£0.20	£0.20
1		1R	R309	A	£0.12	£0.12
3		4R7	R401,R406,R408	A	£0.12	£0.36
3		47R	E501-E503	A	£0.12	£0.36
1	Resistor Network 10pin SIP - Isolated	39R	RP103	A	£0.55	£0.55
2		47R	RP402,RP403	A	£0.55	£1.10
3		68R	RP201-RP203	A	£0.55	£1.65
1	Resistor Network 10pin SIP - Bussed	470R	RP104	A	£0.55	£0.55
5		4K7	RP101,RP102,RP106,RP107,RP401	A	£0.55	£2.75
1		10K	RP501	A	£0.55	£0.55

1	Ceramic Capacitor - Axial	22pF	E666	A	£0.45	£0.45	
10		47pF	E102,E103,E106-E109,E791-E794	A	£0.45	£4.50	
6		1000pF	C411-C413,C421-C423	A	£0.21	£1.26	
2		3900pF	C323,C333	A	£0.35	£0.70	
2		6800pF	C322,C332	A	£0.42	£0.84	
19		10nF	C7,C8,C10,C12,C15,C32-C37,C39,C308,C701,C713,C800-C803	A	£0.25	£4.75	
4		47nF	C311-C314	A	£0.35	£1.40	
3		100nF	C321,C331,C711	A	£0.30	£0.90	
26		330nF	C1-C6,C9,C11,C13,C14,C16-C20,C40-C42,C301,C302,C305,C325,C335,C501,C502,C804	A	£0.45	£11.70	
1	Tantalum Capacitor	4.7uF	C913	A	£0.75	£0.75	
2	Electrolytic Capacitor	10uF	C306,C712	A	£0.40	£0.80	
4		22uF	C303,C304,C324,C334	A	£0.40	£1.60	
2		47uF	C821,C822	A	£0.35	£0.70	
6		100uF	C811-C816	A	£0.40	£2.40	
3		1000uF	C307,C401,C402	A	£0.85	£2.55	
31	EMI Feedthrough Capacitor	100pF	E511-E519,E521-E524,E611-E626,E631,E632	A	£0.50	£15.50	
4		150pF	E402,E434,E532,E534	A	£0.50	£2.00	
2		270pF	E305,E306	A	£0.50	£1.00	
17		470pF	E415-E417,E425-E427,E441-E444.E520,E531,E533,E535-E538	A	£0.50	£8.50	
10		6800pF	E302,E303,E411-E414,E421-E424	A	£0.50	£5.00	
14		10000pF	E101,E110,E401,E403-E408,E601,E602,E702-E704	A	£0.50	£7.00	
1	Ferrite Bead	Axial	FB802	A	£0.20	£0.20	
4		Radial	E431,E432,E433,E435	A	£1.65	£6.60	£92.83
2	Transistor	J113	Q321,Q331	C	£0.50	£1.00	
2		2N3904	Q501,Q711	C	£0.35	£0.70	
3		2N3906	Q301,Q502,Q503	C	£0.35	£1.05	
4	Diode	1N4148	D501,D911,D912,R913	C	£0.20	£0.80	
1	Integrated Circuit	74F139	U32	C	£5.00	£5.00	
1		74F244	U35	C	£1.20	£1.20	
1		74F258	U33	C	£1.20	£1.20	
1		74F373	U34	C	£1.20	£1.20	
2		74HCT245	U40,U41	C	£0.85	£1.70	
1		74LS05	U36	C	£1.10	£1.10	
1		74LS32	U37	C	£0.85	£0.85	
1		74LS157	U15	C	£0.90	£0.90	
2		74LS244	U10,U12	C	£1.35	£2.70	
2		74LS373	U11,U13	C	£1.00	£2.00	
1		MC1488	U38	C	£1.00	£1.00	
1		MC1489	U39	C	£1.10	£1.10	
1		NE555	U42	C	£0.45	£0.45	

1		RTC72421	U9	C	£12.50	£12.50	
1		LF347 / TL084	U14	C	£2.50	£2.50	
8		44256	U16-U23	C	£7.50	£60.00	
1	Crystal Oscillator	28.37516MHz	X1	C	£4.95	£4.95	£103.90
1	DIP Socket	8 way		B	£0.50	£0.50	
5		14 way		B	£0.65	£3.25	
3		16 way		B	£0.65	£1.95	
1		18 way		B	£0.75	£0.75	
16		20 way		B	£0.75	£12.00	
2		40 way		B	£1.20	£2.40	
1		42 way		B	£2.25	£2.25	
3		48 way		B	£1.40	£4.20	
1		64 way		B	£7.50	£7.50	
1	PLCC Socket	84 way		B	£3.25	£3.25	
2	Connector	D-Sub 9 Male	CN1,CN2	B	£2.50	£5.00	
1		D-Sub 25 Male	CN6	B	£3.50	£3.50	
1		D-Sub 25 Female	CN7	B	£3.50	£3.50	
1		Red RCA	CN3	B	£1.15	£1.15	
1		White RCA	CN4	B	£1.15	£1.15	
1		Yellow RCA	CN10	B	£1.15	£1.15	
1		Floppy Power	CN12	B	£1.50	£1.50	
1		Floppy Data	CN11	B	£3.95	£3.95	
1		Keyboard	CN13	B	£0.95	£0.95	
1		Expansion	P9	B	£3.25	£3.25	
1	Battery Holder - CR2032		BT9	B	£1.65	£1.65	£64.80
1	Line Filter		LF1 - Used	H	£10.00	£10.00	
1	Power Socket		CN10 - Used	H	£10.00	£10.00	
1	Video Hybrid		HY200 - Used	H	£20.00	£20.00	
1	Connector	D-Sub 23 Male	CN202 - Used	H	£20.00	£20.00	
1	Connector	D-Sub 23 Female	CN302 - Used	H	£20.00	£20.00	£80.00
1	Line Filter		LF1 - Modern Equivalent	J	£20.00	£20.00	
1	Power Socket		CN10 - New	J	£40.00	£40.00	
1	Video Hybrid		HY200 - Modern Equivalent	J	£30.00	£30.00	
1	Connector	D-Sub 23 Male	CN202 - New	J	£45.00	£45.00	
1	Connector	D-Sub 23 Female	CN302 - New	J	£45.00	£45.00	£180.00
2	Custom Chip	8520A CIA	U7,U8	K	£30.00	£60.00	
1		MC68000 CPU	U1	K	£10.00	£10.00	
1		ROM	U6	K	£15.00	£15.00	
1		5719 GARY	U5	K	£25.00	£25.00	

1		8373R4 DENISE	U4	K	£45.00	£45.00	
1		8364R7 PAULA	U3	K	£25.00	£25.00	
1		8375 FAT AGNUS	U2	K	£85.00	£85.00	£265.00
	Crystal Oscillator Socket		Optional X1			£2.50	
BUILD NOTES							
This version of the board has the Commodore layout error around D912 corrected - there is no need to fit the diode across the resistor.							
The BOM assumes you are going to use a CR2032 non-rechargeable battery - R913 has ben replaced by 1N4148 diode (fited with the stripe away from the battery)							
If using a rechargeable battery (such as LIR2032), R913 should be a 470R resistor.							
If using RTC72741, the following components are not required - C911, Y9, TC9.							
If using MSM6242B RTC, C911 is 22pF, Y9 is 32768Hz,and TC9 is 6.8 to 45pF, otherwise do not fit.							
C99, RP105, RP108, RP109, RP110 and RP111 are not required and should not be fitted.							
For NTSC use 28.63636MHz crystal oscillator and 390544-02 FAT AGNUS							
NTSC Oscillators available for £6.95, -02 FAT AGNUS not currently available from me.							
Amiga Test Kit - Bootable floppy disk version of the Amiga test disk £2.95 (price is for media and postage / packing - software is free)							
Amiga Test Kit - ADF file for Gotek etc. FOC (sent by email)							
Amiga DiagROM - Diagnostic ROM for A500 / A2000 etc. £7.95							
Please Note - I am not the author of this software and am unable to offer any support.							
Component Pack Prices: A = £69.95, B = £54.95, C=£82.75, A+B+C = £195.00, A+B+C+Board = £235.00							
Supplementary Component Pack Prices: H = £80 (Used Parts) or J = £180 (New Parts), K = £265.00							
Build Cost - If you prefer to have the build done for you - £120.00							
USEFUL TOOLS							
IC Leg Straightener - £9.95							
Component Lead Bending Tool - £4.95							
Budget Side Cutters 127mm - £4.95							
Knipex Side Cutters 125mm - £29.95							
48W Temperature Controlled Soldering Station - £29.95							
60/40 Solder 0.7mm 50g - £4.95							
Digital Multimeter with leads - £6.95							
Illuminated Headband Magnifier - £29.95							
Logic Probe - £27.95							
<b>All kits and individual components are now available to purchase on <a href="https://retrofix.co.uk">https://retrofix.co.uk</a></b>							
Prices and specifications subject to change without notice E&OE							
<a href="mailto:graham@retrofix.co.uk">graham@retrofix.co.uk</a>							
9th July 2023							