

System 1 Trainer Kit BOM

RefDes	Value	Description	Notes	Supplier Part No.	Quantity
C1,2,5,6,7,9,12,13,106,109,110	100nF	Ceramic capacitor (0.2")	C12,13 only required if IC13 fitted		9
C8,11	33uF/25V	Electrolytic capacitor (axial)	C11 only required if IC13 fitted		1
C14	6.8pF	Ceramic capacitor (0.1")	value to suit crystal		1
C101	100pF	Ceramic capacitor (0.1")	not fitted		0
C102,104	1nF	Ceramic capacitor (0.2")			2
C103	10nF	Ceramic capacitor (0.2")			1
C105	10uF/10V	Tantalum bead capacitor (0.2")			1
C107		Ceramic capacitor (0.2")	not fitted		0
C108	22nF	Ceramic capacitor (0.2")			1
D1,2	FYQ-3641AUHR	4-digit 7-segment display			2
IC1	6502	8-bit processor			1
IC2	INS8154	PIA			1
IC3	6116	2K x 8-bit SRAM			1
IC7	2732	4K x 8-bit EPROM			1
IC9	74LS20	Dual 4-input NAND			1
IC10	74LS139	Dual 2 of 4 decoder			1
IC11	74LS04	Hex inverters			1
IC12	74LS00	Quad 2-input NAND gate			1
IC13	7805	5V regulator			1
IC101,102,106	4024B	Binary counter			3
IC103	4011B	Quad 2-input NAND gate			1
IC104	4013B	Dual D type flip-flop			1
IC105	4001B	Quad 2-input NOR gate			1
IC107	LM358	Dual opamp			1
IC108	7445	BDC to decimal decoder/driver			1
PL3	2.1 x 5.5mm	Power jack socket	power	RS 448-382	1
PL4b	5-pin 180°	PCB DIN socket	cassette interface	RS 491-087	1
R1,3,4,103,106,107,109,110,113,115,116	4K7	Resistor 250mW			11
R2	100K	Resistor 250mW			1
R5	220K	Resistor 250mW			1
R101	3K9	Resistor 250mW			1
R102,108,112	47K	Resistor 250mW			3
R104	1K0	Resistor 250mW			1
R105,111	10K	Resistor 250mW			2
R114	470K	Resistor 250mW			1
S1-8,17-24	White	Tactile switch cap (0-9, A-F)		Omron B32-1360	16
S9-16	Yellow	Tactile switch cap (Commands)		Omron B32-1330	8
S25	Red	Tactile switch cap (Reset)		Omron B32-1380	1
S1-25	Switch	Tactile switch		Omron B3F-5050	25
XTAL	1MHz HC49u	Crystal (series mode)		Digi-Key ECS-10-13-1XH	1
IC	8-pin	Turned pin DIL socket	IC107		1
IC	14-pin	Turned pin DIL socket	IC9,11,12,101-106		9
IC	16-pin	Turned pin DIL socket	IC10,108		2
IC	24-pin	Turned pin DIL socket	IC3,7		2
IC	40-pin	Turned pin DIL socket	IC1,2		2
PCB					1
Off Board Parts					
	7.5mm clear	Stick-on-feet			6
	2.1 x 5.5mm	Power jack to USB cable			1

The following optional parts are not included in the kit:

PL1	20-way	20-way 3M header	keyboard connector		0
PL2	DIN41612 AB 64-way	Right angle plug	backplane connector		0
PL4a	3- or 5-pin 180°	PCB DIN socket	cassette interface		0
IC13	M3 x 6mm	Nylon pan head screw	for fixing IC13 if required		0
IC13	M3	Nylon nut	for fixing IC13 if required		0
	7 to 9V DC	Power supply			0