

Freezer-to-fridge thermostat part list

Description	Symbol	Ref	Qty	Value	STOCK	supplier	price
Battery	BAT+		1	8.4V	sb2467	jaycar	\$12.95
Polarized Capacitor (Axial)	C1	Cap Pol2	1	100uF	re6130	jaycar	\$0.32
Capacitor tantalum	C2	Cap	1	10uF	rz6648	jaycar	\$0.95
Capacitor tantalum	C4	Cap	1	1uF	rz6627	jaycar	\$0.60
Diode	D1,4,5		3		zr1020	jaycar	\$1.35
Full Wave Diode Bridge	D3	Bridge1	1		zr1304	jaycar	\$0.30
Single-Pole Single-Throw Relay	K1	G6RN-1A DC12	1		9949976	farnell	\$10.68
NPN General Purpose transistor	Q1	2N3904	1		zt2283	jaycar	\$0.25
Thermistor	R1		1	10k	rn3440	jaycar	\$0.95
Resistor	R2		1	30K	rr0607	jaycar	\$0.38
Resistor	R3		1	120K	rr0622	jaycar	\$0.38
Resistor	R4,9,12		3	100K	rr0620	jaycar	\$0.38
Resistor	R5,8		2	1M	rr0644		\$0.38
Resistor	R6,7		2	62k	rr0615	jaycar	\$0.38
Resistor	R13		1	300K	rr0631	jaycar	\$0.38
Resistor	R15		1	33K	rr0608	jaycar	\$0.38
Resistor	R16		1	1.2k	rr0574	jaycar	\$0.38
Resistor	R17		1	1 Ohm	rr1502	jaycar	\$0.30
Resistor	R18		1	8.2K	rr0594	jaycar	\$0.38
Potentiometer	R19		1	50K	rp8516	jaycar	\$2.50
Resistor	R20		1	18K	rr0602	jaycar	\$0.38
Resistor	R21		1	link			
Resistor	R22		2	1M	rr0644	jaycar	\$0.38
Quadruple Operational Amplifier	U1	LM324AN	1		zl3324	jaycar	\$1.50
Positive-Voltage Regulator	U2	LM2936	1		412405	farnell	\$6.49
3-Terminal Adjustable Regulator	U3	LM317KC	1		zv1615	jaycar	\$2.00
enclosure					hb6126	jaycar	\$10.75
transformer					mm2006	jaycar	\$6.95
toggle switch					st0361	jaycar	\$3.65
boot for toggle					st0594	jaycar	\$1.25
Battery clip					ph9233	jaycar	\$0.75
batt holder					ph9237	jaycar	\$0.50
ext cord					ps4122	jaycar	\$3.99
grommets					hp0702	jaycar	\$3.40
dual thermometer					qm6326	jaycar	\$19.95
IC socket 14 pin					pi6501	jaycar	\$0.28
Shrink wrap black					wh5532	jaycar	\$1.30
Shrink wrap red					wh5542	jaycar	\$1.30
Shrink wrap Earth					wh5610	jaycar	\$2.30
						Total	\$101.69

Note 1: Both Jaycar and Farnell will charge postage if applicable

Note 2: The above part list does not include the printed circuit board (PCB)

Note 3. The dual thermometer is optional

Note 4. Farnell prices above do not include GST

Short form kit from Tom Chalko, tom@mtbest.net:

PCB (2 sided, solder masked, silk screened), relay K1 and regulator U2 - \$35

All other components are commonly available in electronic shops like Jaycar.

Assembled and tested thermostat for those who cannot help themselves: \$150 + shipping