

Suunto Cobra / Vyper DIY Serial Interface - US Parts List

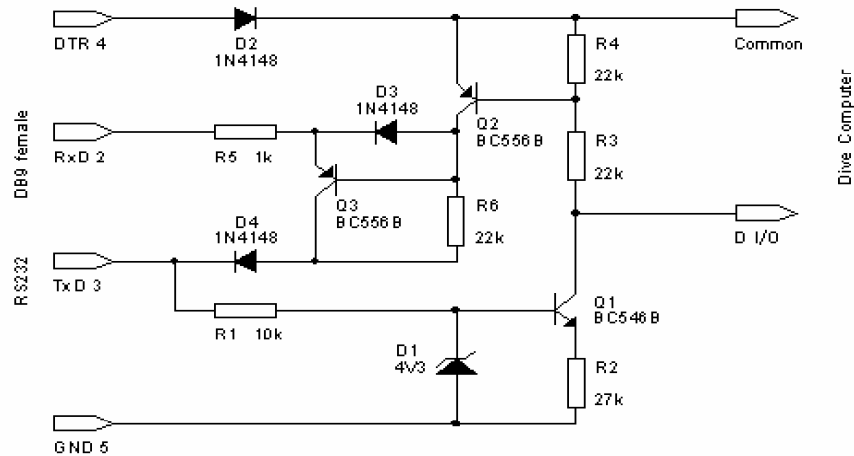
Wide-Voltage Version Parts List (recommended)		Digikey.com P/N	Quantity	Price ea	Subtotal
Q1	BC546 (NPN, 100mA, TO92 package, 35V, H _{FE} ≥ 200)	2N3904-ND	1	\$ 0.230	\$ 0.23
Q2, Q3	BC556 (PNP, 100mA, TO92 package, 35V, H _{FE} ≥ 200)	2N3906-ND	2	\$ 0.260	\$ 0.52
D1	BAT48 Schottky (40V, 100 mA)	SD103ACT-ND	1	\$ 0.480	\$ 0.48
D2, D3, D4	BAT48 Schottky (40V, 100 mA)	SD103ACT-ND	3	\$ 0.480	\$ 1.44
R1	10k ohm (carbon film, 1/4W or higher)	P10KBBCT-ND	1	\$ 0.095	\$ 0.10
R2	6.2k ohm (carbon film, 1/4W or higher)	P6.2KBBCT-ND	1	\$ 0.095	\$ 0.10
R3, R4	22k ohm (carbon film, 1/4W or higher)	P22KBBCT-ND	2	\$ 0.095	\$ 0.19
R5	1k ohm (carbon film, 1/4W or higher)	P1.0KBBCT-ND	1	\$ 0.095	\$ 0.10
R6	10k ohm	P10KBBCT-ND	1	\$ 0.095	\$ 0.10
IC	LM385-1.2 bandgap voltage reference IC	LM385BYZ-1.2-ND	1	\$ 2.510	\$ 2.51
Total				\$ 5.75	

Note: The wide voltage version is more compatible with Palm, PocketPC, and Laptop computing devices.

Connectors, cables, and connectors		Digikey.com P/N	Quantity	Price ea	Subtotal
	Plug for Suunto Cobra - CONN RECEPT 2POS MTA-156 24AWG	A26061-ND	1	\$ 0.15	\$ 0.15
	Plug for Suunto Cobra - CONN RECPT 2POS W/O RAMP SL-156	A19970-ND	1	\$ 0.32	\$ 0.32
	Contacts for Plug - CONTACT CRIMP TIN LOW SL-156	A19992-ND	2	\$ 0.32	\$ 0.64
Option 1	Female DB9 connector - CONN D-SUB RECPT R/A 9POS PCB AU	A23338-ND	1	\$ 5.46	\$ 5.46
	CABLE DB9M-DB9F 2M	AE1020-ND	1	\$ 5.35	\$ 5.35
Option 2	Male DB9 connector - CONN D-SUB RECPT R/A 9POS PCB AU	A23375-ND	1	\$ 5.46	\$ 5.46
	CABLE DB9F-DB9F 2M	AE1016-ND	1	\$ 5.35	\$ 5.35
	Enclosure - BOX ABS FR BLACK 2.2X2.2X1.1"	HM226-ND	1	\$ 6.48	\$ 6.48
	PCB UNCLAD 1/16"THICK FR4 3X4.5"	PC5-UNCLAD-ND	1	\$ 3.00	\$ 3.00
Total				\$ 21.40	

Note: Choose only the Option 1 or Option 2 component group; both are not necessary

Standard Voltage Parts List (alt verion - differences in bold)		Digikey.com P/N	Quantity	Price ea	Subtotal
Q1	BC546 (NPN, 100mA, TO92 package, 35V, H _{FE} ≥ 200)	2N3904-ND	1	\$ 0.230	\$ 0.23
Q2, Q3	BC556 (PNP, 100mA, TO92 package, 35V, H _{FE} ≥ 200)	2N3906-ND	2	\$ 0.260	\$ 0.52
D1	BZX55C4V3 (zener 4.3V 0.5W) 1N4686, or 1N5991	not available	1	\$ 1.200	\$ 1.20
D2, D3, D4	1N4148 (100mA Silicon diode), (Note: can also use 1N914)	1N4148MSCT-ND	3	\$ 0.053	\$ 0.16
R1	10k ohm (carbon film, 1/4W or higher)	P10KBBCT-ND	1	\$ 0.056	\$ 0.06
R2	27k ohm (carbon film, 1/4W or higher)	P27KBBCT-ND	1	\$ 0.056	\$ 0.06
R3, R4	22k ohm (carbon film, 1/4W or higher)	P22KBBCT-ND	2	\$ 0.056	\$ 0.11
R5	1k ohm (carbon film, 1/4W or higher)	P1.0KBBCT-ND	1	\$ 0.056	\$ 0.06
R6	22k ohm (carbon film, 1/4W or higher)	P22KBBCT-ND	1	\$ 0.056	\$ 0.06
IC	not used in standard voltage design	-	0	\$ -	\$ -
Total				\$ 2.45	



List compiled by Carlton Bale and Rolli Wasmer
<http://www.carltonbale.com/>
http://www.geocities.com/scubadiver_rolli/