

Lightning Detector v4.0 Parts List

ID	Description	DigiKey Part#	Mouser Part#
X3	2-pin Screw Term Block 5mm	ED1601-ND	
X2	RJ-45 Jack 2 Port	A9013-ND	
U1	DS2423	Available from Dallas	
U2	Opto Isolator	PS2561L2-1-V-A-ND	
T1,T2	2N3904 NPN Transistor	MMBT3904TPMSCT-ND	625-MMBT3904
LAMP1	NE-2 Neon Bulb		36NE002
D1	BAT54S	BAT54SWT1OSCT-ND	625-BAT54S
D2	BAS16		625-BAS16
C1	0.1 uF Ceramic	311-1141-1-ND	80-C0805C104K3R
R1	16K 1/4W		71-CRCW1206-16K
R2	100K 1/4W	311-100kFCT-ND	71-CRCW1206-100K
R3,R5	1Meg 1/4W	311-1.00MFCT-ND	71-CRCW1206-1.0M
R4	430 1/4W	311-430FCT-ND	71-CRCW1206-430
BAT1	9v Battery Holder		534-1294

Construction Tips

- Place all surface mount components first.
- D1 are marked L44
- D2 is marked A6
- T1, T2 are marked IAM
- R1 is marked 1602
- R2 is marked 1003
- R3, R5 are marked 1004
- R4 is marked 4300

To test that the lightning detector has been assembled correctly jumper the antenna connection to the positive side of the 9v battery. The count should increment each time the connection is made. It will probably increase by more than 1 count each time due to bounce.