## APPENDIX C

Calculation of failure rate of the Home Security system

Failure rate (F) =

is given as failure rate of ith part, n is number of part category, is quantity of the part and is the quality factor of the ith part.

Using component Resistor,

= 0.000196 / hours

N = 2 (voltage divider and voltage limiting)

= 6

= 0.03

= 0.000196 x 2 x 6 x 0.03

= 0.00007056

= 7.056 x / hours

= 0.006 x / hours

= 1.883.4 x / hours

= 3600 x / hours

= 118.4 x / hours

= 1216 x / hours

= 1709.8 x / hours

= 8400 x / hours

= 1456 x / hours

= 360 x / hours

= 5272 x / hours

= 27.456 x / hours

=

= 24050.118 x / hours