

EMLOG

KEWTECH

Emergency Lighting Log Book

Site Information

Luminaire / Test Switch locations

Daily / Monthly Test and Inspection Records

Service Records

Fault Action Records

Staff Training Records

Fire Officer Visit Records

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Emergency Lighting
Log Book



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REQUIREMENT FOR EMERGENCY LIGHTING

Emergency Lighting and Fire Safety Legislation

BS 5266-1: 2016, the Code of practice for the emergency lighting of premises, states that every emergency lighting installation is required to have some form of log book.

Clearly, the information contained within a log book will vary from installation to installation, as the content required for an installation that has just one or a few self-contained emergency lighting luminaires will be considerably less than for an installation installed in a shopping centre, museum or an airport. Accordingly, in the case of the former, a few pages of installation-specific details together with the manufacturer's data sheet(s) might suffice whereas, for the latter, many volumes may very well have to be provided.

Some log books will be simple and stand-alone such as this log book, or they could form part of a larger document which could also incorporate all, or part, of this log book. Either way, please use this revised log book to comply with the 2016 edition of BS 5266-1 as it now contains more data entry boxes (or pointers for your other system, if applicable). For instance, the first two sections cover why the system was needed and what risks were identified during the design stage. Others include calculations, drawings and commissioning data, and the last section now calls for detail on how to dispose of and/or de-commission the emergency lighting installation.

Background to current legislation and your responsibilities

If you're not aware, a piece of legislation came into effect on 1 October 2016, known as the *Regulatory Reform (Fire Safety) Order 2005*, now places the responsibility for fire safety of premises with the 'responsible person'. At work, this is the employer or any other person who may have been given control of any part of the premises (e.g. the occupier or owner). Contractors may also be held accountable for the areas identified in the terms of their contract. And, if you are not aware, Fire Authorities stopped issuing 'Fire Certificates' some time ago, so the responsibility has already moved to the 'responsible person'.

It is also worth mentioning that the *Management of Health and Safety at Work Regulations 1999* requires every employer to carry out a fire safety risk assessment to identify the risks to people that enter the employer's premises. The employer is therefore required to take measures on the basis of the risk assessment and, where necessary, take action to remove hazards and/or reduce identified risks to safeguard building occupants. These measures need to include the provision of safe means of escape, including, where necessary, emergency lighting, taking into account the needs of people with disabilities, in particular people with visual impairment.

So, in order to comply with the *Regulatory Reform (Fire Safety) Order 2005* and any other legislation that affects the business do carry out an annual fire risk assessment which involves taking a look at your emergency lighting requirements.

Emergency escape lighting should:

- indicate escape routes clearly,
- provide illumination along escape routes to allow safe movement towards the final exits, and
- ensure that the fire alarm call points and fire-fighting equipment can be quickly and easily located.

Emergency escape lighting should be provided in escape routes, open areas, high risk task areas, and points of emphasis including:

- near¹ each exit door intended to be used in an emergency;
- near¹ stairs so that each flight of stairs receives direct light;
- near¹ any other change in level;
- externally illuminated escape route signs, escape route direction signs and other safety signs needing to be illuminated under emergency lighting conditions
- at² each change of direction;
- at² each intersection of corridors;
- near¹ to each final exit and outside the building to a place of safety;
- near¹ each first aid post;
- near¹ each piece of fire-fighting equipment and call point; and
- near¹ escape equipment provided for disabled persons;
- near¹ refuges and call points, including two-way communication systems and disabled toilet alarm call points;
- external areas in the immediate vicinity of exits (any use of street lighting should be reassessed to confirm it will be illuminated at times when your building is without normal lighting);

Emergency lighting also required to be provided:

- within evacuation lift cars;
- above moving stairways and walkways;
- in toilet facilities and changing rooms (for use by disabled people, and/or any multiple toilet facilities without borrowed light, and does not include lighting in toilets designed to accommodate single-abled bodied persons, or in en-suite toilets or bathrooms in hotel rooms);
- in motor generator, control, plant and switch rooms;
- in covered car parks.

NOTES

1. 'Near' is normally considered to be within 2 m measured horizontally.
2. 'At' means that the emergency luminaire would illuminate in both directions at the change of direction or intersection.

TESTING OF THE EMERGENCY LIGHTING SYSTEM

All emergency lighting systems should be regularly inspected and/or tested. Therefore, whoever is appointed as the 'responsible person' for the system should be given sufficient authority to ensure that any work necessary to maintain the system in correct operation is carried out without delay.

As there may be a possibility of a failure of the normal lighting supply occurring shortly after a period of testing of the emergency lighting system, or during the subsequent recharge period, all 'full' duration tests should be undertaken, wherever possible, at times of low risk to allow for batteries to recharge fully. Friday or Saturday evenings are quite a good time for this where no one works at the weekend.

Subject to a regulating authority requiring specific tests, the following minimum inspections and tests shall be carried out at the following intervals:

Daily Inspection

The appointed 'responsible person' is required to check visually everyday that each emergency lighting luminaire is:

- (i) clean,
- (ii) securely fixed to the fabric of the building and is clear of obstruction, and
- (iii) its charge indicator light is indicating a healthy condition.

A charge indicator is normally a small LED light, coloured red or green; either is acceptable.

Any luminaire that fails this inspection should be recorded in the log-book and appropriate action taken.

Monthly Test

Every month, the emergency lighting system must be tested for a short duration to load the luminaires to check that they are functioning correctly. The test may be done by the appointed 'responsible person' or a competent person¹.

Where automatic testing devices are used, the results of the short duration test(s) must still be recorded.

The following tests are required to be carried out:

- (i) Switch off the electrical supply to the normal lighting for a period sufficient to ensure that each lamp illuminates (by means of a battery) within each emergency luminaire and each internally illuminated exit sign. (A local 'test switch' is usually provided for this purpose.)

NOTE: The period of simulated failure should be enough to view each luminaire start up and run for a few seconds.

During this period, all luminaires and signs should be checked to ensure that they are present, clean and functioning correctly. (Pay particular attention to the ends of the lamps to ensure that they are not turning or have turned 'black', as this affects the performance of the lamp.)

- (ii) In addition to (i), for central battery systems, the correct operation of system monitors shall be checked.
- (iii) In addition to (i), where generating sets are used to power the emergency lighting system, refer to the requirement of ISO 8528-12.

At the end of each test period, the supply to the normal lighting should be restored and all indicator lamps checked to ensure that they are showing that the normal supply has been restored.

Quarterly/Six Monthly Test

There is no requirement in BS 5266-1, as amended, to do any special test(s) every three and/or six months, other than those specified in the monthly test. Such practice to leave the luminaires on for an hour or so is considered wasteful and only leads to shorten the life of the lamps etc.

Annual Test

Once a year, the emergency lighting system should be inspected and tested to confirm its proper operation and correct functionality. This is usually done by a competent person¹.

Where automatic testing devices are used, the results of the full rated duration test must be recorded. For all other systems, the monthly inspection is required to be carried out, plus:

- (i) Test each emergency lighting luminaire and internally illuminated sign for its full rated duration (e.g. 1 or 3 hours) in accordance with the manufacturer's information,
- (ii) Following the test period, the supply to the normal lighting should be restored and any indicator lamp checked to ensure that its normal supply has been restored. (The charging arrangements should be checked for proper functioning.),
- (iii) recording the date of the test and its results in this logbook
- (iv) in addition, for generating sets, refer to the requirements of ISO 8528-12.

For some buildings (such as residential homes that are likely to stay open at all times), the emergency lighting system may have been divided into manageable sizes to help facilitate the monthly and annual test. This is because, following a 'load' test, the batteries may have little or no charge left, possibly leaving the premises vulnerable until the batteries have recharged, which can take up to 24 hours or more in some cases.

Recording Of The Results

When inspecting and/or testing emergency lighting equipment, insert either a 'tick', a 'cross' or the appropriate wording in the table columns within this log book to indicate the outcome (or action) of an inspection and/or test.

NOTE: The emergency light equipment/ID number, detail of the fault and/or failure, and the subsequent repair action should be entered onto the 'Emergency Lighting Fault Action Record' sheet (located towards the back of this log book). The appointed 'Responsible Person' must ensure this process is completed.

¹ A 'Competent Person' might be someone who works for a fire alarm maintenance or servicing company, an electrical contractor, or who specialises in this type of work. Irrespective of whoever does the work, though, the results of the inspection and/or testing must be recorded in a log book such as this one. In addition, a periodic inspection certificate/report should also be issued for the inspection and testing of the emergency lighting system.

SUMMARY OF STANDARDS COVERING EMERGENCY LIGHTING

Emergency lighting is now covered by a series of interdependent standards which can be seen as forming a hierarchy as shown below.

BASE GUIDANCE DOCUMENT

BS 5266: 2016 Emergency lighting - Part 1:
Code of practice for the emergency lighting of premises

Gives general recommendations and guidance on the provision and operation of emergency lighting in most premises other than dwellings

SYSTEM STANDARDS

BS EN 1838: 2013
*Lighting applications –
Emergency Lighting*

Specifies the illumination to be provided by emergency lighting (including illuminance, duration and colour)

BS EN 50172: 2004
(BS 5266-8: 2004)
Emergency escape lighting systems

Specifies the minimum provision and testing of emergency lighting for different premises

PRODUCT STANDARDS

**BS EN 60598-2-22:
2014**
*Luminaires for
Emergency Lighting*

Specifies self-contained and centrally powered luminaires for use in emergency lighting systems

BS EN 62034: 2012
*Automatic test
systems for battery
powered emergency
escape lighting*

**** Specifies a test system for battery powered emergency lighting

BS EN 50171: 2001
*Central power
supply systems*

Specifies central power supply systems for luminaires for emergency lighting

CLASSIFICATION OF EMERGENCY LIGHTING LUMINAIRES

Emergency lighting luminaires are classified according to the following parameters, set out in Annex B of BS EN 60598-2-22 (as amended):

Type		Mode of Operation		Facilities		Duration of emergency mode (in minutes) for a self-contained system	
(i)		(ii)		(iii)		(iv)	
X	Self-contained (batteries within each luminaire)	0	Non-maintained ¹	A	Includes test device	10	10 min duration
Z	Central power supply system (bank of batteries located somewhere in the building)	1	Maintained ²	B	Includes remote test mode	60	1 hr duration
		2	Combined Non-maintained	C	Includes inhibit mode	120	2 hr duration
		3	Combined maintained	D	High risk task area luminaire	180	3 hr duration
		4	Compound Non-maintained	E	Includes non-replaceable lamp(s) and/or battery		
		5	Combined maintained	F	Automatic test gear conforming to BS EN 61347-2-7 denoted EL-1		
		6	Satellite	G	Internally illuminated safety sign		

1. A 'non-maintained' luminaire is one in which the emergency lighting lamps are in operation when the supply to the normal lighting fails.
2. A 'maintained' luminaire is one in which the emergency lighting lamps are energized at all times when the normal or emergency lighting is required. This type of arrangement should be considered for illuminating emergency escape route signs in locations where occupants may be unfamiliar with the building, which is often the case for licensed premises, such as pubs, clubs, and places of public entertainment.

Prior to the 2011 edition of BS 5266-1, emergency lighting systems were categorized by the prefix 'M' for maintained and 'NM' for non-maintained systems, followed by a 'Y' and the number of hours duration claimed for the installation, e.g. for self-contained systems:

- M/1 was used to indicate a maintained 1 hour system; this is now:

X	1	****	60
---	---	------	----

- NM/3 was used to indicate a non-maintained 3 hour duration system; this is now:

X	0	****	180
---	---	------	-----

NOTE: The **** in the third box represent the facilities (see column (iii) of table above); these details are to be added, as applicable, at the time of installation.

Responsible Person 1* (appointed for this site/area)

Name _____

Department _____

Tel: _____ Mobile: _____

Responsible Person 2* (appointed for this site/area)

Name _____

Department _____

Tel: _____ Mobile: _____

* Responsible Person or Competent Person (England and Wales),
Employer or Other Persons (Scotland) or the Employer or Nominated Employee (Northern Ireland).

PART 1 - CONTRACTUAL AND LEGAL DETAILS**Details of Premises Ownership** (*landlord, developer, tenant etc.*)

Extent of responsibility of the Emergency Lighting installation

Details of leases, wayleaves, covenants etc. affecting the premises

Details of adjacent premises, common area, surrounding public or private spaces etc. which influenced the design

Details of local authority consents applicable to the premises (*planning requirements or restrictions, building control sign-off etc.*)

PART 5 - DESIGN AND / OR MODIFICATION(S)

Guidance note: This section sets out details of the installation design or modification thereof.

Reason(s) for selecting particular items of equipment

Reasons for choice of luminaires

Reason for chosen wiring methods

Provide other relevant information to help others better understand the system design and its future modification

PART 6 - CALCULATIONS

Guidance note: This section sets out details of the calculations, if applicable, and the results obtained.

Guidance note: O&M Manual, Drawings or Refer to your list/sheet.

Please refer to _____

PART 7 - DRAWINGS

Guidance note: This section is to be used to indicate where all drawings and/or schematics of the emergency lighting systems are located.

Guidance note: O&M Manual, Drawings or Refer to your list/sheet.

Please refer to _____

PART 11 - SPARE PARTS & SPECIAL TOOLS

Record all replaceable assemblies, sub-assemblies and components

Record all components (e.g. cooling fans and filters) that have a low mean time between failures (MTBF), together with the time period for each component listed

Record all recommended parts to be held on site', where components are not readily available

Relevant information to the diagnosis of faults and their correction, and add the words 'where this is not obvious'

Special tools not carried by service personnel (indicate where to obtain these tools)

PART 12 - DISPOSAL/BREAKDOWN OF EMERGENCY LIGHTING SYSTEM

Guidance note: This section provides detail on how the installation is to be de-commissioned, de-constructed and/or disposed of safely.

DAILY INSPECTION OF EMERGENCY LIGHTING SYSTEM

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
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21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												

Tick each box to indicate a daily inspection of all emergency lights within the installation has been carried out

MONTHLY / ANNUAL INSPECTION AND TEST RECORD

YEAR _____

Test types: M= Monthly Test (see BS EN 50172: 2004/BS 5266-8: 2004; 7.2.3)
A= Annual Test (see BSEN50172: 2004/BS 5266-8: 2004; 7.2.4)

Date of Test	Type	Result - Test Passed	Result - Test Failed	
		No action needed *Sign Below	Need for repair of system notified *Sign Below	Need for safeguarding of premises notified *Sign Below
Notes				
Notes				
Notes				
Notes				
Notes				
Notes				
Notes				
Notes				
Notes				
Notes				

*Sign as applicable

STAFF TRAINING

	Purpose of Training	Duration of Training	Person(s)/ Dept. Receiving Instruction	Company Providing Training	Year	Date
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						

FIRE OFFICER / LOCAL AUTHORITY OFFICIAL VISITS

Date	Fault(s) found / Issue(s) Identified	Action Required or Recommendations	Signature

SAMPLE

Other Titles Available In This Series:

Electrical Documentation

TC1 - Electrical Installation Certificate

TC2 - Minor Works Certificate

TC3 - Electrical Installation Condition Report

TC4 - Condition Report Inspection Schedule

TC5 - Schedule of Test Results up to 12 Ways

TC6 - Schedule of Test Results up to 36 Ways

TC7 - Observation Record Sheet

TC8 - Condition Report Inspection Schedule

PATLOG1 - Portable Appliance Register

CHECKBOX LOG - Register for 17th Edition Check Box Results

Emergency Lighting Documentation

EMLOG - Emergency Lighting Log Book

EMCERT - Emergency Lighting Certificate Book

Fire Alarm Documentation

FIRLOG - Fire Alarm Log Book

FIRCERT - Fire Alarm Certificate Book

Technical Sales Helpline: **01302 761 044**