



British Approvals Service for Electrical
Equipment in Flammable Atmospheres

1. **CERTIFICATE OF CONFORMITY**

2. BAS No Ex 92C3405

3. This certificate is issued for the electrical apparatus:

MODEL 9050 HAND HELD SEARCHLIGHT

4. manufactured and submitted for certification by:

TOPLITE TECHNOLOGY LIMITED

of Dukinfield, Cheshire, SK16 5LN

5. This electrical apparatus and any acceptable variation thereto is specified in the Schedule to this Certificate and the documents therein referred to.

6. BASEEFA being an Approved Certification Body in accordance with Article 14 of the Council Directive of the European Communities of 18 December 1975 (76/117/EEC) certifies that the apparatus has been found to comply with harmonised European Standards

EN 50 014 (1977) + Amendments 1 to 5
EN 50 019 (1977) + Amendments 1 to 3
EN 50 020 (1977) + Amendments 1 and 2
EN 50 028 (1988)

and has successfully met the examination and test requirements as recorded in confidential Report No ERA Ref 3628/195, dated August 1992

7. The apparatus marking shall include the code

EEx e m ib IIC T4

File No: EECS 2243/03/001

Sheet 1/4

3869/50-B



PT
I M CLEARE
DIRECTOR EECS
17 September 1992



Electrical Equipment Certification Service
Health and Safety Executive
Harpur Hill, Buxton, Derbyshire, SK17 9JN, United Kingdom
Tel: 0298 262111 Fax: 0298 795114 Telex: 668113 RLSD G





British Approvals Service for Electrical
Equipment in Flammable Atmospheres

Certificate BAS No Ex 92C3405 dated 17 September 1992

8. The manufacturer of the electrical apparatus referred to in this certificate, has the responsibility to ensure that the apparatus conforms to the specification laid down in the Schedule to this certificate and has satisfied routine verifications and tests specified therein.
9. This apparatus may be marked with the Distinctive Community Mark specified in Annex II to the Commission Directive of 16 January 1984 (Doc 84/47/EEC). A facsimile of this mark is printed on sheet 1 of this certificate.

This certificate is granted subject to conditions applicable to the Approval Service, it does not necessarily indicate that the apparatus may lawfully be used in particular industries or circumstances.

Sheet 2/4



Electrical Equipment Certification Service
Health and Safety Executive
Harpur Hill, Buxton, Derbyshire, SK17 9JN, United Kingdom
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Schedule

Certificate of Conformity BAS No Ex 92C3405 dated 17 September 1992

APPARATUS

MODEL 9050 HAND HELD SEARCHLIGHT comprising a body and front cap manufactured in polyethylene and fitted with a toughened glass lens, switch and charging socket to form the searchlight enclosure.

The enclosure is fitted with a 50 W 12 Volt sealed beam tungsten halogen lamp, encapsulated control circuit boards and a 10 cell nickel cadmium battery pack. The lamp is fitted with a 100°C twin bead thermistor. A break glass metal strip is fitted to the toughened lens.

The switch, break glass strip and thermistor circuits are intrinsically safe in respect of category ib and Group IIC with safety components housed within the encapsulant.

The searchlight must not be charged in the hazardous area.

It is intended that the searchlight is not user serviceable and should be returned to the manufacturer for lamp changing etc.

DRAWINGS

Number	Issue	Date	Description
1/1028B	1	14.08.92	GA
1/1027B	1	14.08.92	Body Moulding
2/1029B	1	14.08.92	Battery Pack
3/1030B	1	14.08.92	Label
3/1031B	1	14.08.92	Switch
3/1032B	1	14.08.92	Lens
3/1033B	1	14.08.92	Internal Bracket



Schedule

Certificate of Conformity BAS No Ex 92C3405 dated 17 September 1992

Number	Issue	Date	Description
2/1034B	1	14.08.92	Lamp
3/1035B	1	14.08.92	'O' ring
3/1036B	1	14.08.92	Sealing ring
3/1037B	1	14.08.92	Socket
3/1038B	1	14.08.92	Potted pcb
2/1039B	1	14.08.92	Shoulder strap
2/1040B	1	14.08.92	Gaskets
2/1041B	1	14.08.92	Wiring layout
2/1042B	1	14.08.92	Circuit diagram
3/1043B	1	14.08.92	Component layout
3/1044B	1	14.08.92	Track layout
3/1045B	1	14.08.92	pcb assembly
3/1046B	1	14.08.92	Component list



British Approvals Service for Electrical
Equipment in Flammable Atmospheres

Certificate of Conformity Variation

THIS IS TO CERTIFY THAT CERTIFICATE BAS NO Ex 92C3405

Held by **TOPLITE TECHNOLOGY LIMITED**
of Dukinfield, Cheshire, SK16 5LN

for the **MODEL 9050 HAND HELD SEARCHLIGHT**

is hereby extended to apply to apparatus designed and constructed in accordance with the specification set out in the Schedule of the said Certificate but having the variations specified in the following Schedule.

VARIATION ONE Relocation of glass strip connection to eliminate relay chatter and incorporation of new company logo.

DRAWINGS

Number	Issue	Date	Description
3/1030B	2	14.12.92	Certification Label
2/1042B	2	14.12.92	Circuit Schematic
3/1043B	2	14.12.92	Component Layout
3/1044B	2	14.12.92	Track Layout
3/1045B	2	14.12.92	Wiring Connections

File No: EECS 2243/03/001



CERTIFICATE BAS NO Ex 92C3405/1

PF

I M CLEARE
DIRECTOR EECS
8 February 1993



Electrical Equipment Certification Service
Health and Safety Executive
Harpur Hill, Buxton, Derbyshire, SK17 9JN, United Kingdom
Tel: 0298 262111 Fax: 0298 79514 Telex: 668113 RLSD G





British Approvals Service for Electrical
Equipment in Flammable Atmospheres

Certificate of Conformity Variation

THIS IS TO CERTIFY THAT CERTIFICATE BAS NO Ex 92C3405

Held by **TOPLITE TECHNOLOGY LIMITED**
of Dukinfield, Cheshire, SK16 5LN

for the **MODEL 9050 HAND HELD SEARCHLIGHT**

is hereby extended to apply to apparatus designed and constructed in accordance with the specification set out in the Schedule of the said Certificate but having the variations specified in the following Schedule.

VARIATION TWO Change to drawing title, amendment to lens fixing screws and material change associated with the joint sealing arrangement to Black Nitrile joint rings.

DRAWINGS

Number	Issue	Date	Description
2/1029B	2	25/03/93	Battery Pack
1/1028B	2	5/04/93	General Arrangement

File No: EECS 2243/03/001



CERTIFICATE BAS NO Ex 92C3405/2

CC

I M CLEARE
DIRECTOR EECS
30 April 1993

Certificate re-issued 5 August 1993 to correct drawing no



Electrical Equipment Certification Service
Health and Safety Executive
Harpur Hill, Buxton, Derbyshire, SK17 9JN, United Kingdom
Tel: 0298 262111 Fax: 0298 79514 Telex: 668113 RLSD G





British Approvals Service for Electrical
Equipment in Flammable Atmospheres

Certificate of Conformity Variation

THIS IS TO CERTIFY THAT CERTIFICATE BAS NO Ex 92C3405

Held by **TOPLITE TECHNOLOGY LIMITED**
of Dukinfield, Cheshire, SK16 5LN

for the **MODEL 9050 HAND HELD SEARCHLIGHT**

is hereby extended to apply to apparatus designed and constructed in accordance with the specification set out in the Schedule of the said Certificate but having the variations specified in the following Schedule.

VARIATION THREE Allows for the use of a 12V 35W sealed beam lamp replacing the 50W unit originally specified.

DRAWINGS

Number	Issue	Date	Description
1/1028B	3	23.9.93	General arrangement
2/1034B	2	23.9.93	Lamp detail

File No: EECS 2243/03/001



CERTIFICATE BAS NO Ex 92C3405/3

MC

I M CLEARE
DIRECTOR EECS
12 October 1993



Electrical Equipment Certification Service
Health and Safety Executive
Harpur Hill, Buxton, Derbyshire, SK17 9JN, United Kingdom
Tel: 0298 762111 Fax: 0298 79514 Telex: 668113 RLSD G





British Approvals Service for Electrical
Equipment in Flammable Atmospheres

Change of Certificate Holder

THIS IS TO CERTIFY THAT CERTIFICATE Ex 92C3405

Formerly held by

TOPLITE TECHNOLOGY LTD
Tower Building
Park Road
Dukinfield
Cheshire
SK16 5LN

Is now deemed to be held by

THE WOLF SAFETY LAMP CO LTD
Saxon Road Works
Sheffield
S8 0YA

LABEL DRAWING No.	ISSUE	DATE
M-TL-806	1	7.12.93

File No: EECS 1112/35/001



I M CLEARE
DIRECTOR EECS
21 January 1994



Electrical Equipment Certification Service
Health and Safety Executive
Harpur Hill, Buxton, Derbyshire, SK17 9JN, United Kingdom
Tel: 0298 262111 Fax: 0298 79514 Telex: 668113 RLSD G





British Approvals Service for Electrical
Equipment in Flammable Atmospheres

Certificate of Conformity Variation

THIS IS TO CERTIFY THAT CERTIFICATE BAS NO Ex 92C3405

Held by **THE WOLF SAFETY LAMP COMPANY LTD**
of Saxon Road Works, Sheffield, S8 0YA

for the **MODEL 9050 HAND HELD SEARCHLIGHT**

is hereby extended to apply to apparatus designed and constructed in accordance with the specification set out in the Schedule of the said Certificate but having the variations specified in the attached Schedule.

File No: EECS 1112/03/009

Sheet 1/2

CERTIFICATE BAS NO Ex 92C3405/4

PF



I M CLEARE
DIRECTOR EECS
25 April 1994



Electrical Equipment Certification Service
Health and Safety Executive
Harpur Hill, Buxton, Derbyshire, SK17 9JN, United Kingdom
Tel: 0298 26211 Fax: 0298 79514 Telex: 668113 RLSD G





Schedule

Certificate of Conformity BAS No Ex 92C3405/4

VARIATION FOUR Alternative connector arrangements for the internal electrical assemblies, along with alternative modified control circuit and ON/OFF switch action.

Deletion of the shoulder strap, clarification of the battery pack capacity, optional use of the break-glass feature and modification to break-glass profile and retainer holes.

With this arrangement relamping by the user is appropriate.

DRAWINGS

Number	Issue	Date	Description
M-TL-808	1	15.2.94	General Arrangement
M-TL-815	1	15.2.94	Alternative Control Circuit Diagram
M-TL-806	2	17.2.94	Certification Label
2/1029B	3	15.2.94	Battery Pack
3/1031B	2	14.2.94	Toggle Switches
3/1032B	2	15.2.94	Lamp Glass & Foil Detail
3/1033B	2	15.2.94	Retaining Bracket
3/1038B	2	14.2.94	Potting Detail
2/1039B	1	14.8.92	Shoulder Strap



British Approvals Service for Electrical
Equipment in Flammable Atmospheres

Certificate of Conformity Variation

THIS IS TO CERTIFY THAT CERTIFICATE BAS No Ex 92C3405

Held by **THE WOLF SAFETY LAMP COMPANY LIMITED**

of **Saxon Road Works, Sheffield S8 0YA**

for the **MODEL 9050 HAND HELD SEARCHLIGHT**

is hereby extended to apply to apparatus designed and constructed in accordance with the specification set out in the Schedule of the said Certificate but having the variation specified in the attached Schedule.

A copy of this Supplementary Certificate shall be attached to the original certificate.

Code : EEx em ib IIC T3
(see Schedule)

File No. EECS 1112/03/009
Report Ref 95(C)1112 (ERA Report 3628/267)
Dated May 1996

CERTIFICATE BAS No Ex 92C3405/5
Sheet 1/2
ATA3/C2610



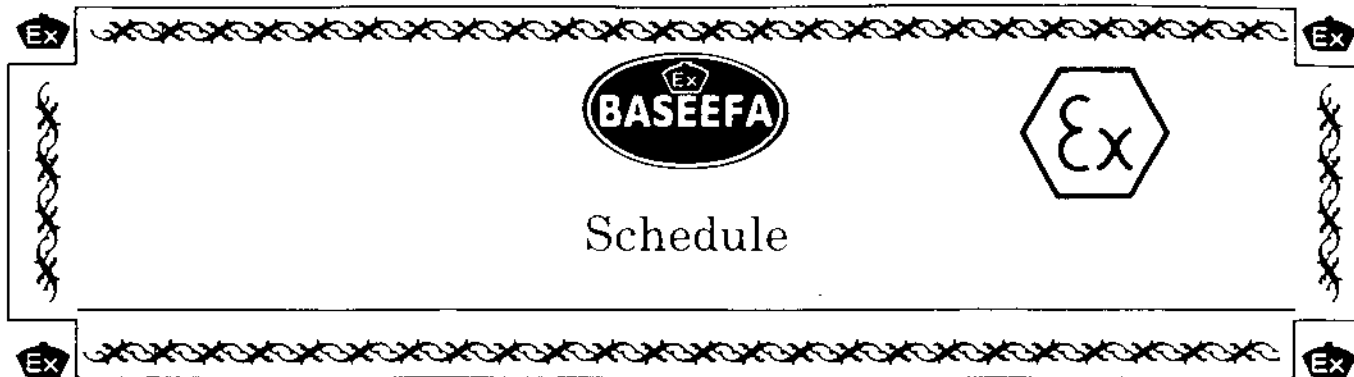
IM CLEARE
DIRECTOR EECS
19 June 1996

This certificate is issued under NACCB accreditation No. 020



Electrical Equipment Certification Service
Health and Safety Executive
Harpur Hill, Buxton, Derbyshire, SK17 9JN, United Kingdom
Tel: 0298 26211 Fax: 0298 79514 Telex: 668113 RLSD G





Certificate of Conformity BAS No. Ex 92C3405/5

VARIATION FIVE

To allow the removal of the lamp thermistors and the battery pack thermal fuse. The Temperature Classification for this variation changes from T4 to T3.

The model numbers for the T4 Hand Held Searchlights will now have a supplementary character added.

The model number for the T3 Hand Held Searchlights will remain as 9050 and 9055 for the 50 W and 35 W versions respectively.

DRAWINGS

Number	Issue	Date	Description
M-TL-808	2	21.11.95	GA
M-TL-806	4	01.05.96	Label
M-TL-815	2	21.11.95	Circuit diagram
2/1029B	4	21.11.95	Battery pack

British Approvals Service for Electrical
Equipment in Flammable Atmospheres



Certificate of Conformity - Variation

SUPPLEMENTARY CERTIFICATE BAS No. Ex 92C3405/6

This is to certify that Apparatus Certificate number:

Ex 92C3405

held by:

THE WOLF SAFETY LAMP CO LTD

of:

Saxon Road Works, Sheffield, S8 0YA

for the:

MODEL 9050 HAND HELD SEARCHLIGHT

is hereby extended to apply to the apparatus designed and constructed in accordance with the specification set out in the Schedule of the said Certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This Supplementary Certificate shall be held with the original Certificate.

File No: EECS 1112/03/009

BASEEFA Certification Report No. 96(C)1201 dated 23 January 1998

Sheet 1 of 2

This certificate is granted subject to the general conditions of the Electrical Equipment Certification Service. It does not necessarily indicate that the apparatus may be used in particular industries or circumstances. Representation of equipment as "Certified" is valid only when the number of the prime certificate to which this certificate is a supplement is given on the relevant EECS Manufacturing Licence or Verification Certificate.



**I M CLEARE
DIRECTOR**

13 November 1997



Registration Number
020
The use of the Accreditation
Mark indicates compliance in
respect of those activities
covered by the accreditation
certificate number 020



Electrical Equipment Certification Service
Health and Safety Executive
Harpur Hill, Buxton, Derbyshire. SK17 9JN. United Kingdom
Tel: 01298 28000 Fax: 01298 28244

Re-issued 23 January 1998 to replace original

British Approvals Service for Electrical
Equipment in Flammable Atmospheres



Schedule

Supplementary Certificate BAS No. Ex 92C3405/6

VARIATION SIX

To allow the control gear to be replaced by an encapsulated, programmed electronic unit. The battery pack is changed to incorporate a thermistor and to have a single power circuit. It also includes alternative means of maintaining the creepage and clearance dimensions between the poles of each cell. The main switch has three positions OFF, High power, Low power. These power settings are controlled by pulse width modulation.

The thermistor, switch and charge indicator are intrinsically safe.

DRAWINGS

<u>Number</u>	<u>Issue</u>	<u>Date</u>	<u>Description</u>
TL-701 sht.1	2	05.01.98	General arrangement
TL-701 sht.2	1	01.09.97	Detail of connections and label
TL-701 sht.3	1	01.09.97	Detail of wiring and connectors
TL-801 sht.1	2	01.07.97	Alternative control circuit & pl.
TL-801 sht.2	1	01.04.97	Detail of above with pcb layout
TL-901	2	17.09.97	Alternative battery pack

British Approvals Service for Electrical
Equipment in Flammable Atmospheres



Certificate of Conformity - Variation

SUPPLEMENTARY CERTIFICATE BAS No. Ex 92C3405/7

This is to certify that Apparatus Certificate number:

Ex 92C3405

held by:

THE WOLF SAFETY LAMP CO LTD

of:

Saxon Road Works, Sheffield, S8 0YA

for the:

MODEL 9050 HAND HELD SEARCHLIGHT

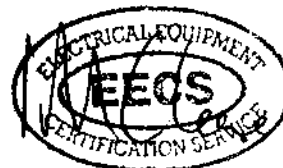
is hereby extended to apply to the apparatus designed and constructed in accordance with the specification set out in the Schedule of the said Certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This Supplementary Certificate shall be held with the original Certificate.

File No: EECS 1112/03/009

Sheet 1 of 2

This certificate is granted subject to the general conditions of the Electrical Equipment Certification Service. It does not necessarily indicate that the apparatus may be used in particular industries or circumstances. Representation of equipment as "Certified" is valid only when the number of the prime certificate to which this certificate is a supplement is given on the relevant EECS Manufacturing Licence or Verification Certificate.



**I M CLEARE
DIRECTOR**

24 March 2000



Registration Number
020
The use of the Accreditation
Mark indicates accreditation in
respect of those activities
covered by the accreditation
certificate number 020.



Electrical Equipment Certification Service
Health and Safety Executive
Harpur Hill, Buxton, Derbyshire. SK17 9JN. United Kingdom
Tel: 01298 28000 Fax: 01298 28244

British Approvals Service for Electrical
Equipment in Flammable Atmospheres



Schedule

Supplementary Certificate BAS No. Ex 92C3405/7

VARIATION SEVEN

To modify the fixing arrangement for the gear tray to simplify the construction.

DRAWING

<u>Number</u>	<u>Issue</u>	<u>Date</u>	<u>Description</u>
TL-701 Sheet 1	3	17.01.00	Section drawing, Toplite

British Approvals Service for Electrical
Equipment in Flammable Atmospheres



Certificate of Conformity - Variation

SUPPLEMENTARY CERTIFICATE BAS No. Ex 92C3405/8

This is to certify that Apparatus Certificate number:

Ex 92C3405

held by:

THE WOLF SAFETY LAMP CO LTD

of:

Saxon Road Works, Sheffield, S8 0YA

for the:

THE MODEL 9050 HAND HELD SEARCHLIGHT

is hereby extended to apply to the apparatus designed and constructed in accordance with the specification set out in the Schedule of the said Certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This Supplementary Certificate shall be held with the original Certificate.

File No: EECS 1112/03/009

Sheet 1 of 2

This certificate is granted subject to the general conditions of the Electrical Equipment Certification Service. It does not necessarily indicate that the apparatus may be used in particular industries or circumstances. Representation of equipment as "Certified" is valid only when the number of the prime certificate to which this certificate is a supplement is given on the relevant EECS Manufacturing Licence or Verification Certificate.



**I M CLEARE
DIRECTOR**

15 June 2000



Registration Number
020
The use of the Accreditation
Mark indicates accreditation in
respect of those activities
covered by the accreditation
certificate number 020



Electrical Equipment Certification Service
Health and Safety Executive
Harpur Hill, Buxton, Derbyshire. SK17 9JN, United Kingdom
Tel: 01298 28000 Fax: 01298 28244

British Approvals Service for Electrical
Equipment in Flammable Atmospheres



Schedule

Supplementary Certificate BAS No. Ex 92C3405/8

VARIATION EIGHT

To correct the reference number of the certified terminal block from 81309U to 813094U and to allow the use of the ATEX coded version of this terminal covered by BAS98ATEX3094U.

DRAWING

<u>Number</u>	<u>Rev</u>	<u>Date</u>	<u>Description</u>
TL-801 sheet 2	2	26/04/00	Component layout and assembly

British Approvals Service for Electrical
Equipment in Flammable Atmospheres



Certificate of Conformity - Variation

SUPPLEMENTARY CERTIFICATE BAS No. Ex 92C3405/9

This is to certify that Apparatus Certificate number:

Ex 92C3405

held by:

THE WOLF SAFETY LAMP CO LTD

of

Saxon Road Works, Sheffield, S8 0YA

for the:

THE MODEL 9050 HAND HELD SEARCHLIGHT

is hereby extended to apply to the apparatus designed and constructed in accordance with the specification set out in the Schedule of the said Certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This Supplementary Certificate shall be held with the original Certificate.

File No: EECS 1112/03/009 Pt B

Sheet 1 of 2

This certificate is granted subject to the general conditions of the Electrical Equipment Certification Service. It does not necessarily indicate that the apparatus may be used in particular industries or circumstances. Representation of equipment as "Certified" is valid only when the number of the prime certificate to which this certificate is a supplement is given on the relevant EECS Manufacturing Licence or Verification Certificate.



I M CLEARE
DIRECTOR
22 August 2002



Electrical Equipment Certification Service
Health and Safety Executive
Harpur Hill, Buxton, Derbyshire, SK17 9JN, United Kingdom
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British Approvals Service for Electrical
Equipment in Flammable Atmospheres



Schedule

Supplementary Certificate BAS No. Ex 92C3405/9

VARIATION NINE

Alternative method of defining the blocking diodes in the charging circuit.

DRAWINGS

<u>Number</u>	<u>Rev</u>	<u>Date</u>	<u>Description</u>
TL-801 Sheets 1 and 2	3	15/8/02	Toplite (T3) - Alt. Control Circuit



Schedule

Description of the variation

Variation 10.1

To allow the use of a square formed packing piece, manufactured in EPDM, between the end cap and body

Report No.

None

Drawings

Number	Issue	Sheet	Date	Description
TL-701	4	1 of 3	23-11-05	Toplite Handheld Searchlight
TL-701	4	2 of 3	23-11-05	Toplite Handheld Searchlight
TL-701	4	3 of 3	23-11-05	Toplite Handheld Searchlight

Special Conditions for Safe Use

None