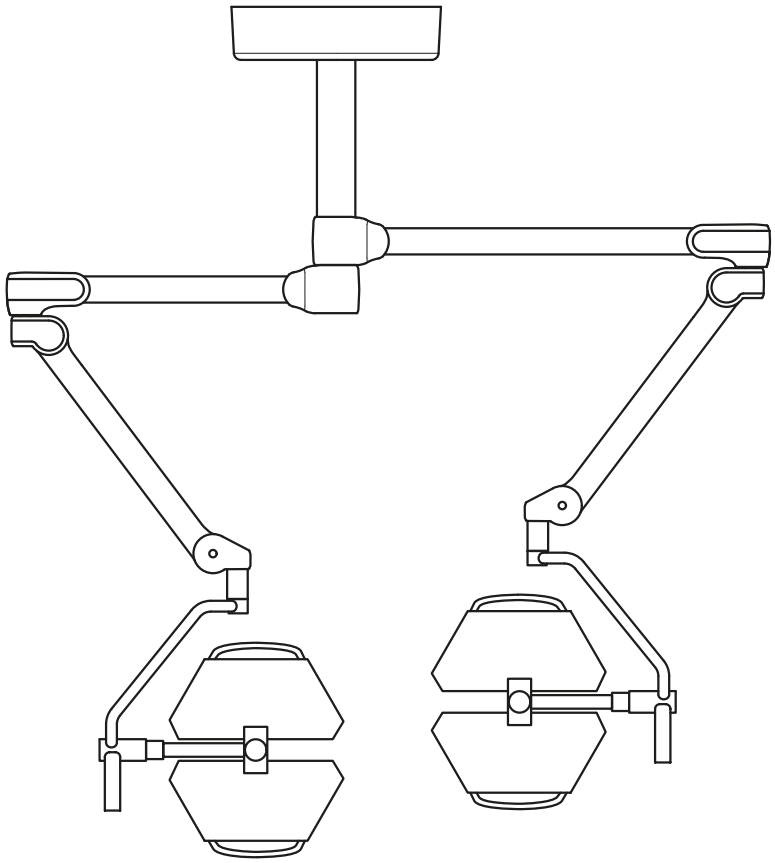
Instructions for use

TruLight 5000 / 3000

Surgical light



Read the instructions for use carefully before using the product and keep it safe for future reference.

AMERICAN ENGLISH
en-US

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Manufacturer

Baxter Medical Systems GmbH + Co. KG
Carl-Zeiss-Straße 7-9
07318 Saalfeld
Germany

Phone: +49 3671 586–0
Fax: +49 3671 586–41165

surgical@hillrom.com
hillrom.com

Baxter Medical Systems GmbH + Co. KG is a Baxter International Inc. company. The manufacturer is hereinafter referred to as Baxter.

Technical Customer Service

The contact details for the current Technical Customer Service hubs in the individual countries are listed on the Internet at www.hillrom.com.

Information about the document

Original instructions for use

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These instructions for use are included in paper form in the scope of the product supply.

This document applies to the following sales units:

Product designation	Part number
TruLight 5000 / 3000 Ceiling Single	4038110
TruLight 5000 / 3000 Mobile	4038120
TruLight 5000 / 3000 Wall	4038130
TruLight 5000 / 3000 Pendant	4038140
TruLight 5000 / 3000 Ceiling Duo	4038210
TruLight 5000 / 3000 Ceiling Trio	4038310
TruLight 5000 / 3000 Ceiling Quad	4038410

Supporting documents

The products listed are individually combined with various Baxter products. Section 2.2 lists the compatible products along with their associated instructions for use. The instructions for use of all the products used then apply.

The following additional documents are available online under ois.hillrom.com/ois:

Product designation	Document number
SVHC list (Substances of Very High Concern)	–

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Basic information

After purchase, the product is handed over to the operator in an appropriate and professional manner. Handover is performed by someone authorized by the manufacturer and is documented using a handover protocol.

Check the packaging on delivery for damage sustained during transport. If damage is noticed before unpacking, contact the Technical Customer Service.

Before using the product, familiarize yourself with the settings options and how to operate the product. Observe the information notices on the product.

About the instructions for use

- These instructions for use contain important information about the safe and effective use of this product.
- The instructions for use are part of the product and must be complied with.
- Read the instructions for use carefully and fully before using the product. The instructions for use must be thoroughly understood. In the event of uncertainty or questions about the product, please contact the manufacturer.
- The instructions for use must also be handed over in the event of a change of location or personnel.
- The instructions for use must be kept where the product is used.
- The instructions for use must be easily accessible in full to all users of the product at all times.
- The figures in the instructions for use are highly simplified and are intended to provide a basic understanding.
- Residual dangers that may occur while using the product are identified in the document with a signal word. The safety measures required and potential consequences of failing to take these are listed. A corresponding signal word provides information about the severity of the danger:

Signal word	Meaning
DANGER	This signal word indicates a dangerous situation that will immediately lead to death or serious injury if no precautionary measures are taken.
WARNING	This signal word indicates a dangerous situation that may lead to death or serious injury if no precautionary measures are taken.
CAUTION	This signal word indicates a dangerous situation that may lead to moderate to slight injury if no precautionary measures are taken.
NOTICE	This signal word indicates a dangerous situation that may lead to material damage or damage to the environment if no precautionary measures are taken.

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Contents

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1 Usage specifications

1.1 Normal use

The surgical light system can have up to four support arms with up to three lamp heads. In addition to the lamp heads, other products can also be attached using a spring arm (e.g. VidiaPort spring arm with monitor holder and monitor).

It is possible to attach a camera, depending on the lamp head.

The surgical light can be moved in a sterile manner by using a sterile handle and be controlled in line with the version of the handle and the lamp head.

The specifications and guidelines of the manufacturer must always be adhered to.

1.2 Intended purpose

The product is used for visual illumination of the operating field or the patient.

1.3 Contraindication

There are no known contraindications.

1.4 Patient definition

No limitations in terms of patient age, gender or other physiognomic features are imposed.

1.5 Improper use

- The light suspension unit must not be exposed to additional loads.
- The surgical light may not be exposed to strong vibrations.
- The surgical light system must not be used for investigatory and diagnostic purposes.

1.6 User definition

The users must be authorized for the use and service of the product. Users can be sterile and non-sterile employees in the operating room, such as surgeons, nurses, cleaning personnel, as well as service, maintenance and hospital technicians.

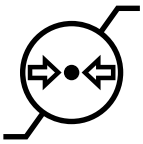
1.7 Usage environment

Temperature:	+10 °C to +40 °C/ +50 °F to +104 °F
Air humidity:	30% to 75%
Atmospheric pressure:	70 kPa to 106 kPa/ 10 psi to 15 psi
Operating altitude:	Up to 3,000 m/9,843 ft above sea level

1.8 Ambient conditions for storage and transport

Temperature: -15 °C to +60 °C/ +5 °F to +140 °F

Air humidity: 5% to 95%



Atmospheric pressure: 50 kPa to 106 kPa/ 7 psi to 15 psi

Fragile contents

Top

Keep dry

1.9 Service life

With normal use, the service life is 10 years.

2 Safety

2.1 Configuration

The configuration of a surgical light with the listed products was tested by Baxter and subjected to a compliance assessment.

- Various canopies
- Various central axes with booms

Spring arm

Product designation	Part number
L21, 3P Springarm	2077410
L21, 9P Springarm	2077411
LCH19, 3P Springarm	2077412
LCH19, 9P Springarm	2077413

Lamp head

Product designation	Part number
TL5500	4085500
TL5300	4085300
TL5500 NRH	4095500
TL5300 NRH	4095300
TL5510	4085510
TL5310	4085310
TL5510 NRH	4095510
TL5310 NRH	4095310
TL5520	4085520
TL5320	4085320
TL5520 NRH	4095520
TL5320 NRH	4095320
TL3500 NRH	4093500
TL3300 NRH	4093300
TL3510 NRH	4093510

Handle adapter

Product designation	Part number
Adaption Standard handle	2065945
Adaption disposable handle	2066135

Product designation	Part number
Handle sleeve flange type short	2079288
Handle sleeve flange type middle	2079289
Handle sleeve flange type long	2078603
Handle sleeve ring type short	2079287
Handle sleeve ring type long	2079336

Control module

Product designation	Part number
Wall Control Panel TruLight 5000 Pos. 1	1760893
Wall Control Panel TruLight 5000 Pos. 2	1761073
Wall Control Panel TruLight 5000 Pos. 3	1761074
Wall Control Panel TruLight 5000 Pos. 4	1815846
Wall Control Panel Single Surface TL3000	1784477
Wall Control Panel Single Flush TL3000	1784478
Wall Control Panel Bender Single TL3000	1784756
Control Panel Single TL3000	1784718

Component

Product designation	Part number
OPL Interface Converter	1793338

2.2 Combination with other products from Baxter

Baxter offers a wide variety of products for further equipping of the surgical light. Not all products are available in all countries. Detailed information can be obtained from the relevant representative offices of Baxter, which are represented worldwide. Contact details are available online at hillrom.com.

Use of the surgical light is permitted in combination with the following Baxter products. The products are described in separate instructions for use, which must be read carefully and in full. The document number of the instructions for use is listed in the column on the right.

Pre-assembly set

Product designation	Part number	Document number
Pre-Install Set TruLight 5000 / 3000	4038051	7990000

Ceiling-mounted supply unit

Product designation	Part number	Document number
FCS 300 Electro Cube	1971846	7990082
FCS 700 Ceiling Supply Unit Solo/ TanPrep	4037210	7990001
TruPort Ceiling Mounted Support System		55000-00001
FCS 700 Ceiling Supply Unit TanAdd	4037220	7990001
TruPort Ceiling Mounted Support System		55000-00001
FCS 500 Ceiling Carrier ML Solo/ TanPrep	4037251	7990002
FCS 500 Ceiling Carrier ML TanAdd	4037252	7990002

Product designation	Part number	Document number
FCS 500 Ceiling Carrier HL Solo/ TanPrep	4037261	7990002
FCS 500 Ceiling Carrier HL TanAdd	4037262	7990002

Camera

Product designation	Part number	Document number
TruVidia HD 2000	2072249	7990006
TruVidia HD 5000	2072250	7990006
TruVidia HD 7500	2072251	7990006

Support arm

Product designation	Part number	Document number
VidiaPort Springarm Bottom	4028150	7990089
VidiaPort Springarm Middle	4028152	7990089
VidiaPort Springarm Top	4028155	7990089

Sterilizable handle

Product designation	Part number	Document number
Sterilizable ALC Handle, 3 pcs	1660214	7990009
Sterilizable Central Handle, 3 pcs	4025708	7990009
Sterilizable Camera Handle, 3 pcs	4025709	7990009

2.3 Combination with products from other manufacturers

Use of the surgical light is permitted in combination with the following MAVIG products.

Product designation	Manufacturer part number	Part number
E-OT25B05 Portegra 2 radiation protection 76x60	E-OT25B05	2005395
FA102-TR spring arm	FA102-TR	1982310
E-OT54B01-TR Portegra 2 radiation protection 78x90	E-OT54B01-TR	2005442
FA402-TR spring arm	FA402-TR	1982311

The surgical light is not designed for combination with products from other manufacturers (third-party products) and where no compatibility tests have been carried out by Baxter. Exceptions are explicitly mentioned in these instructions for use. Baxter does not, however, exclude the combination of third-party products. If the operator intends to combine the surgical light with third-party products, the operator is responsible for this combination. Baxter accepts no responsibility for the combination of the surgical light with third-party products. The guarantee/warranty for products from Baxter may become void in the event of their combination with third-party products.

2.4 Operator's responsibility

The operator is the natural or legal person who operates the product himself for commercial or economic purposes or who leaves its operation to a third party. The operator bears the legal product responsibility for protecting personnel or third parties.

The medical device may only be operated and applied according to its intended purpose and the general rules of technology. Medical devices may only be used by persons who have the training or knowledge required to do this.

Instructions regarding the proper handling of the medical device must be provided. However, training is not required when the medical device is self-explanatory or instructions for a product with the same design have already been provided.

Interconnected medical products, as well as those combined with accessories, including software or other objects, may be operated and used only if they are suitable for use in this combination, taking into account their intended purpose and the safety of patients, users, employees or third parties.

Before the medical device is applied, the user must ensure that the product is operational and in an appropriate state and the user must further have read the instructions for use as well as other, attached, safety-relevant information and maintenance instructions.

The instructions for use and the instructions provided with the medical device must be stored in a way that ensures that the user can access the information required for using the medical device at any time.

The user and/or the patient must report any serious incidents related to the use of the medical device to the manufacturer and the relevant authorities of the member state of which the user and/or the patient is a resident.

2.5 Malfunction caused by other devices

There are no known functional failures of the surgical light due to other devices.

2.6 What to do in the event of a malfunction

In the event of a failure of the electrical functions of the surgical light, the surgical light is to be disconnected from the power supply and the Technical Customer Service notified.

2.6.1 Failure of the surgical light electrical functions

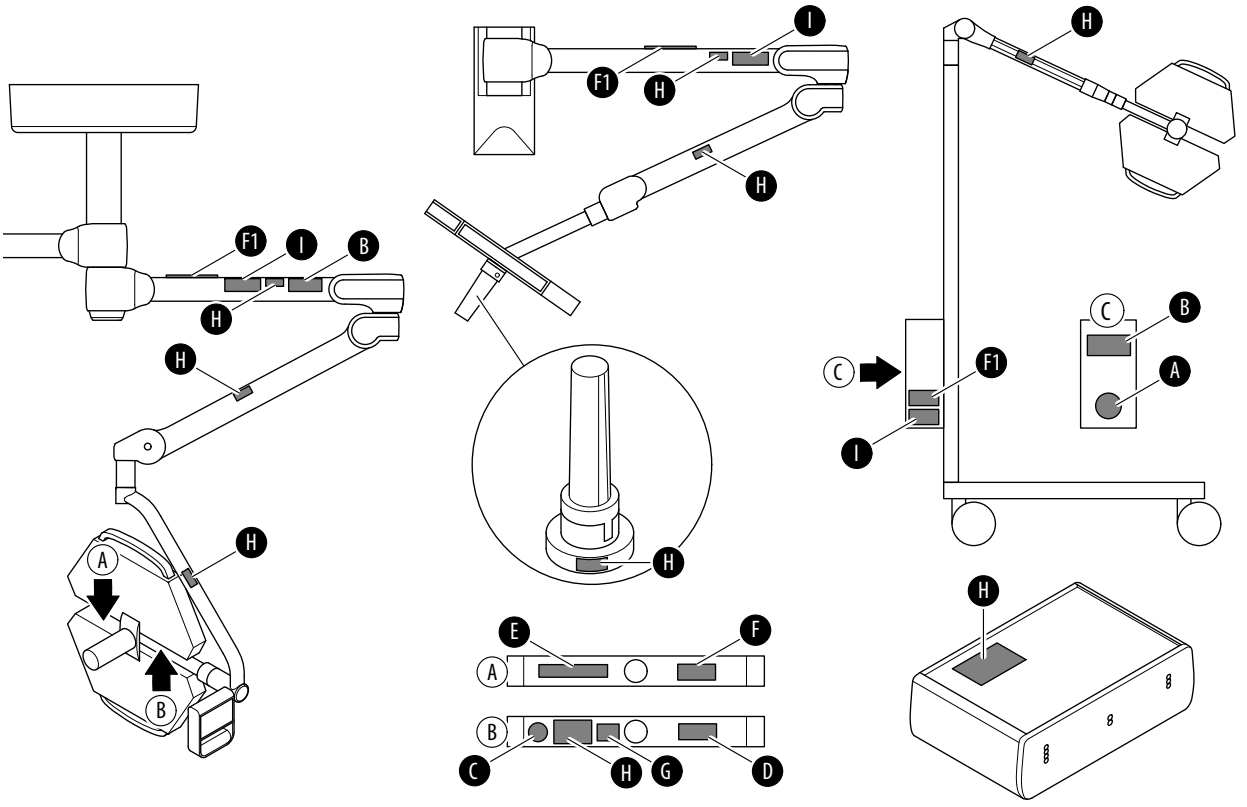
According to current state-of-the-art technology, failure of the surgical light cannot be completely ruled out, with the result that the electrical functions on the operating table are no longer available. In this rare case, stop using the surgical light and notify the Technical Customer Service.

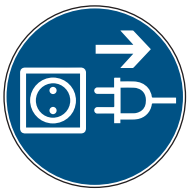
2.7 Information notices

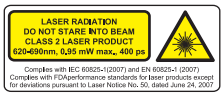
2.7.1 Safety instructions

- The information notices on the product provide information about residual dangers during use, or provide additional useful information.
- The device label and all information notices must be present and be undamaged in the prescribed locations on the product. A damaged, illegible or missing device label / information notice must be replaced immediately.
- Observe the information notices on the product.
- The information notices must not be altered or removed.

2.7.2 Position and meaning



No.	Information notice	Meaning
[A]		Pull the mains power plug out of the socket before opening the housing.
[B]	Baxter	Manufacturer's logo

No.	Information notice	Meaning
[C]		Follow the instructions for use
[D]		Laser identification Class of the installed laser product for distance measurement according to EN/IEC 60825-1:2007
[E]		UL mark: device tested by Underwriter Laboratories Inc. for use in the USA and Canada
[F]	–	PATENTS/PATENT hillrom.com/patents May be subject to one or more patents. See website address above. Hillrom companies are the holders of European, US and other patents, as well as pending patent applications.
[F1]	Not available	–
[G]	Additional device label (TruLight 5xxx)	
[H]	Device label for the individual component	
[I]	Device label of the surgical light system	
		Manufacturer
	UDI	Unique device identification (UDI), comprising: – Data Matrix Code – (01) Global Trade Item Number (GTIN) – (11) Date of manufacture (Year Month Day) – (21) Serial number – (240) Part number
	REF	Baxter part number
	SN	Serial number
	MD	Medical product
	CE	The device conforms to Regulation 2017/745/EU concerning medical devices.
		Caution! Follow the warnings in the instructions for use!
		The product must be disposed of at a suitable disposal facility for the recycling of electrical and electronic devices in accordance with the requirements of Directive WEEE II 2012/19/EU and country-specific regulations.
		Date of manufacture

3 Overview

The surgical light can be custom combined using various Baxter products. The approved products are listed in Chapter 2.2.

The surgical light system is a modular system.

It is available in different variations:

TruLight 5000/3000 Ceiling Single/Duo/Trio/Quad

- mounted on a ceiling mount
- in combination with a maximum of 3 VidiaPort Springarms, but a total of a maximum of 4 support arms per central axis
- with a minimum of 1 lamp head or a maximum of 3 lamp heads per central axis

TruLight 5000/3000 Pendant

- in combination with an FCS 500 monitor support or with a FCS 700/TruPort ceiling-mounted supply unit
- mounted on the Pendant Adapter of the FCS/TruPort

TruLight 5000/3000 Wall

- mounted on a wall mount

  The wall mount is used as a holder for the TruLight 5000/3000 Wall support arm system.

TruLight 5000/3000 Mobile

- mounted on a mobile frame

4 Description

TruLight 5000/3000 surgical lights are available in the Single, Duo, Trio, Quad, Wall, Mobile and Pendant variants, with different boom lengths and spring arms.

The Single, Duo, Trio, Quad and Pendant variants are ceiling-mounted versions with support arms.

For the TruLight 5000/3000 Ceiling Single/Duo/Trio/Quad variant, the light head is attached on the ceiling in combination with a pre-assembly set and a VidiaPort support arm system. Single, double, triple and quadruple axes are available with S or C booms.

For the TruLight 5000/3000 Pendant variant, the light head is attached to the ceiling in combination with a pre-assembly set and a FCS or TruPort support arm system.

In the case of the Wall variant, the light head is attached to the wall with a wall mount. Single axes are available with an S boom.

The Mobile variant is a mobile single light with a spring arm.

With the support arm system and with the mobile variant with the spring arm, the light head can be positioned as desired and precisely pointed at the wound area.
The surgical light is operated via the controls on the lamp head or via the separate wall control panel (optional). The light system can be individually adjusted with the following functions:

Product designation	**TruLight**								
	5300	**5310**	**5320**	**5500**	**5510**	**5520**	**3300**	**3500**	**3510**
Light field size	x	x	x	x	x	x	–	–	–
Lighting intensity	x	x	x	x	x	x	x	x	x
Adaptive Light Control (ALC)	x	x	x	x	x	x	x	x	x
Adaptive Light Control Plus (ALC Plus)	–	x	x	–	x	x	–	–	–
Synchronization	x	x	x	x	x	x	–	–	–
Color temperature, adjustable on the controls	Optional						–	–	–

4.1 Overview of surgical light

4.1.1 TruLight 5000/3000 Ceiling Trio surgical light system

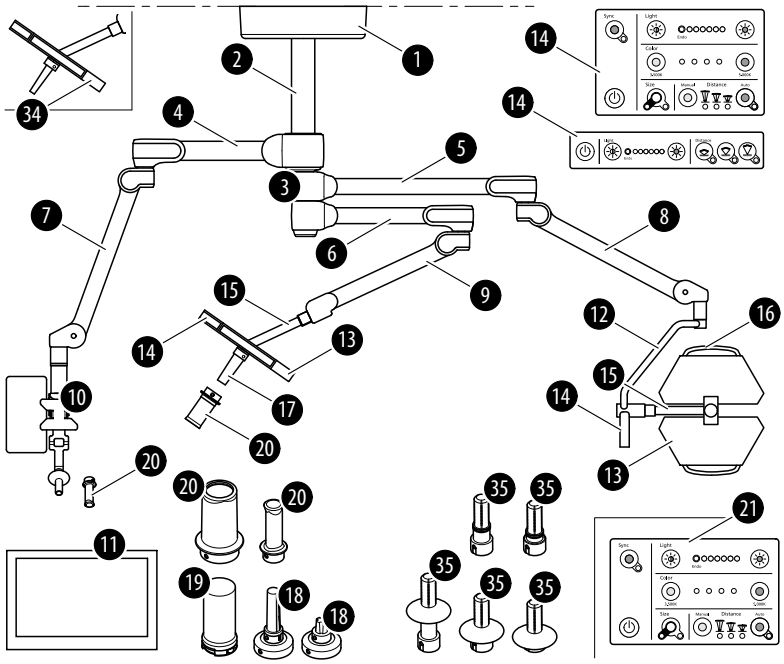
The TruLight 5000/3000 Ceiling Trio surgical light system (example shown below) consists of the following components:

- the canopy [1]
- the ceiling mount [2] (a part of Pre-Install Set TruLight 5000 / 3000) and the central axis [3]
- a horizontally rotating upper C boom [4] on the central axis with a horizontally and vertically adjustable MD26+ [7] spring arm (VidiaPort Springarm Top)
- a horizontally rotating upper S boom [5] on the central axis with a horizontally and vertically adjustable L21 spring arm [8]
- a horizontally rotating lower S boom [6] on the central axis with a horizontally and vertically adjustable LCH19 spring arm [9]
- a (VidiaPort monitor Holder Single) monitor mount [10] on the upper boom for mounting a flat screen
- two horizontally rotating and vertically adjustable light heads [13]

In the example, the TruLight 5000/3000 Ceiling Trio surgical light system is equipped with the following additional accessories of Baxter and the following third-party products:

- a TruVidia HD camera [19] or a handle adapter [18]
- a sterilizable handle [20] for the monitor mount [10]
- a Handle sleeve handle adapter [35] and a sterile disposable handle/cover for the monitor mount [10] (after prior upgrade by a qualified service technician)
- a sterilizable handle [20] for the HD camera system [19] or the handle adapter [18]

- a Handle sleeve handle adapter [35] and a sterile disposable handle/cover for the Adaption disposable handle handle adapter [18] on the lamp head mount
- a sterilizable handle [20] for the ALC Plus handle adapter [17]
- a sterilizable handle [20] for the handle on the TruLight xx00 [34] lamp head
- a Handle sleeve handle adapter [35] and a sterile disposable handle/cover for the handle on the TruLight xx00 [34] lamp head (after prior upgrade by a qualified service technician)
- a medical flat screen [11] (from third-party manufacturer)
- a wall-mounted control panel [21]



[1] Canopy
[2] Ceiling conduit
[3] Central axis
[4] Upper C boom
[5] Upper S boom
[6] Lower S boom
[7] Spring arm (MD26+)
[8] Spring arm (L21)
[9] Low room height spring arm (LCH19)
[10] Monitor mount (VidiaPort monitor Holder Single and VidiaPort Monitor Holder Box)
[11] Flat screen
[12] Comfort strap
[13] Lamp head

[14] Control element
Depending on the version at the comfort strap or the lamp head.
The functions available on the control element depend on the functional scope of the surgical light.
[15] Cardan joint
[16] Non-sterile side handle
[17] ALC plus handle adapter
[18] Handle adapter
(Adaption Standard handle/Adaption disposable handle)
[19] TruVidia HD camera
[20] Sterilizable handle
(Sterilizable ALC Handle, 3 pcs/Sterilizable Central Handle, 3 pcs/Sterilizable Camera Handle, 3 pcs)
[21] Control panel at the wall control panel
(Example TruLight 5x20)
[34] TruLight xx00 lamp head
[35] Handle adapter disposable handles
(Handle sleeve flange type short/Handle sleeve flange type middle/Handle sleeve flange type long/Handle sleeve ring type short/Handle sleeve ring type long)

4.1.2 TruLight 5000/3000 Ceiling Quad surgical light system

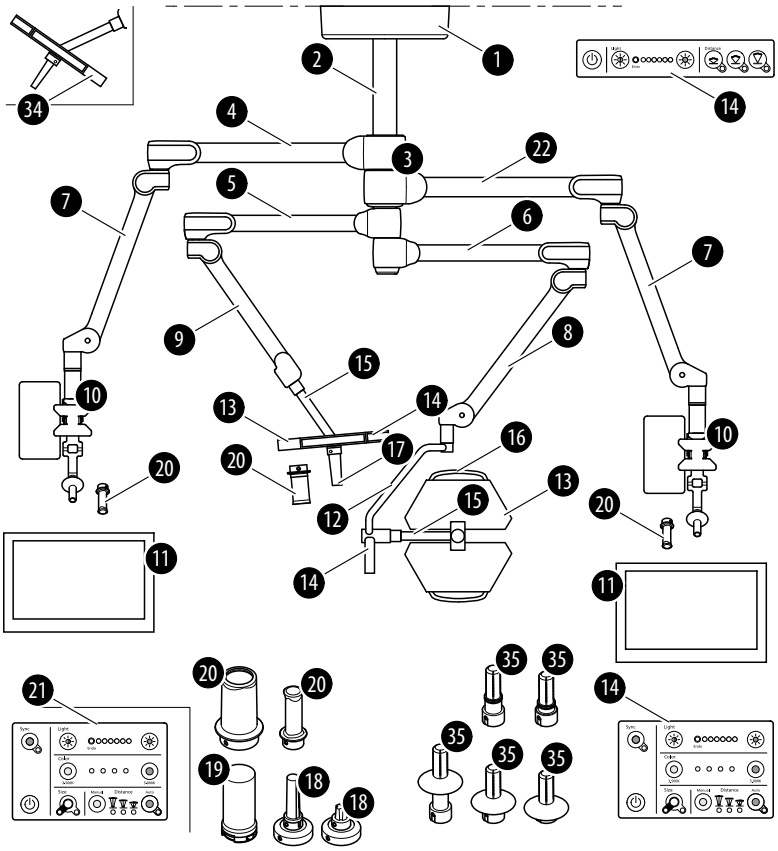
The TruLight 5000/3000 Ceiling Quad surgical light system (example shown below) consists of the following components:

- the canopy [1]
- the ceiling mount [2] (a part of Pre-Install Set TruLight 5000 / 3000) and the central axis [3]
- a horizontally rotating upper C boom [4] on the central axis with a horizontally and vertically adjustable MD26+ [7] spring arm (VidiaPort Springarm Top)
- a horizontally rotating lower C boom [22] on the central axis with a horizontally and vertically adjustable MD26+ [7] (VidiaPort Springarm Middle)
- a horizontally rotating upper S boom [5] on the central axis with a horizontally and vertically adjustable LCH19 spring arm [9]
- a horizontally rotating lower S boom [6] on the central axis with a horizontally and vertically adjustable L21 spring arm [8]
- two (VidiaPort monitor Holder Single) monitor mounts [10] on the C-booms for mounting a flat screen each
- two horizontally rotating and vertically adjustable light heads [13]

In the example, the TruLight 5000/3000 Ceiling Quad surgical light system is equipped with the following additional accessories of Baxter and the following third-party products:

- a TruVidia HD camera [19] or a handle adapter [18]
- two sterilizable handles [20] for the monitor mounts [10]
- two Handle sleeve handle adapters [35] and two sterile disposable handles/covers for the monitor mounts [10] (after prior upgrade by a qualified service technician)
- a sterilizable handle [20] for the HD camera system [19] or the handle adapter [18]

- a Handle sleeve handle adapter [35] and a sterile disposable handle/cover for the Adaption disposable handle handle adapter [18] on the lamp head mount
- a sterilizable handle [20] for the ALC Plus handle adapter [17]
- a sterilizable handle [20] for the handle on the TruLight xx00 [34] lamp head
- a Handle sleeve handle adapter [35] and a sterile disposable handle/cover for the handle on the TruLight xx00 [34] lamp head (after prior upgrade by a qualified service technician)
- two medical flat screen monitors [11] (products from third-party manufacturers)
- a wall-mounted control panel [21]



[1] Canopy
[2] Ceiling conduit
[3] Central axis
[4] Upper C boom
[5] Upper S boom
[6] Lower S boom
[7] Spring arm (MD26+)
[8] Spring arm (L21)
[9] Low room height spring arm (LCH19)
[10] Monitor mount (VidiaPort monitor Holder Single and VidiaPort Monitor Holder Box)

[11] Flat screen
[12] Comfort strap
[13] Lamp head
[14] Control element
Depending on the version at the comfort strap or the lamp head.
The functions available on the control element depend on the functional scope of the surgical light.
[15] Cardan joint
[16] Non-sterile side handle
[17] ALC plus handle adapter
[18] Handle adapter
(Adaption Standard handle/Adaption disposable handle)
[19] TruVidia HD camera
[20] Sterilizable handle
(Sterilizable ALC Handle, 3 pcs/Sterilizable Central Handle, 3 pcs/Sterilizable Camera Handle, 3 pcs)
[21] Control panel at the wall control panel
(Example TruLight 5x20)
[22] lower C-boom
[34] TruLight xx00 lamp head
[35] Handle adapter disposable handles
(Handle sleeve flange type short/Handle sleeve flange type middle/Handle sleeve flange type long/Handle sleeve ring type short/Handle sleeve ring type long)

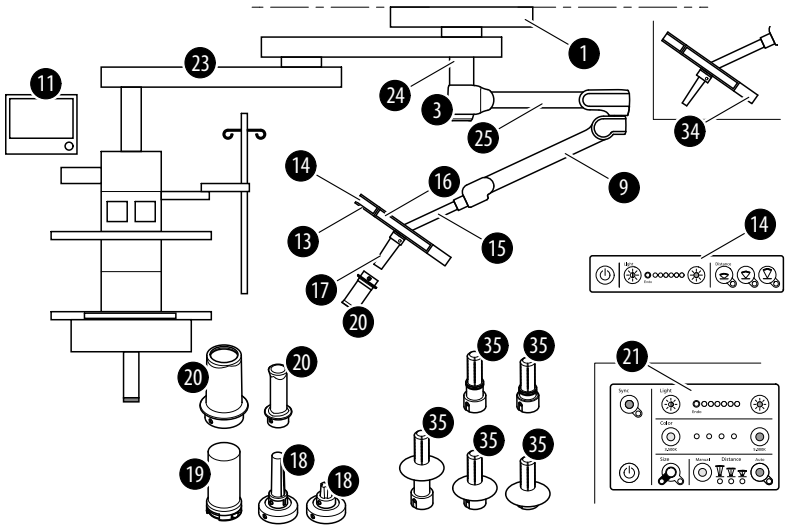
4.1.3 TruLight 5000/3000 Pendant surgical light system

The TruLight 5000/3000 Pendant surgical light system (example shown below) consists of the following components:

- the canopy [1]
- the FCS/TruPort ceiling-mounted supply unit [23] with a Pendant Adapter [24]
- a horizontally rotating S boom [25] on the Pendant Adapter [24] with a horizontally and vertically adjustable LCH19 spring arm [9]
- a rotating and vertically adjustable light head [13]

In the example, the TruLight 5000/3000 Pendant surgical light system is equipped with the following additional accessories of Baxter and the following third-party products:

- a TruVidia HD camera [19] or a handle adapter [18]
- a sterilizable handle [20] for the HD camera system [19] or the handle adapter [18] or the ALC Plus handle adapter [17] or the handle on the TruLight xx00 [34] lamp head
- a Handle sleeve handle adapter [35] and a sterile disposable handle/cover for the Adaption disposable handle handle adapter [18] on the lamp head mount
- a Handle sleeve handle adapter [35] and a sterile disposable handle/cover for the handle on the TruLight xx00 [34] lamp head (after prior upgrade by a qualified service technician)
- a wall-mounted control panel [21]



[1] Canopy
[3] Central axis
[9] Low room height spring arm (LCH19)
[11] Flat screen
[12] Comfort strap
[13] Lamp head
[14] Control element
The functions available on the control element depend on the functional scope of the surgical light.
The functional scope of the control element on the light head may be somewhat limited compared to the control element on the wall control panel.
[15] Cardan joint
[16] Non-sterile side handle
[17] ALC plus handle adapter
[18] Handle adapter (Adaption Standard handle/Adaption disposable handle)
[19] TruVidia HD camera
[20] Sterilizable handle (Sterilizable ALC Handle, 3 pcs/Sterilizable Central Handle, 3 pcs/Sterilizable Camera Handle, 3 pcs)
[21] Control panel at the wall control panel (Example TruLight 5x20)
[23] FCS 700 Ceiling Supply Unit ceiling-mounted supply unit - CSU/TruPort Ceiling Mounted Support System
[24] Pendant Adapter (light adaptation on the ceiling-mounted supply unit)
[25] S boom
[34] TruLight xx00 lamp head
[35] Handle adapter disposable handles (Handle sleeve flange type short/Handle sleeve flange type middle/Handle sleeve flange type long/Handle sleeve ring type short/Handle sleeve ring type long)

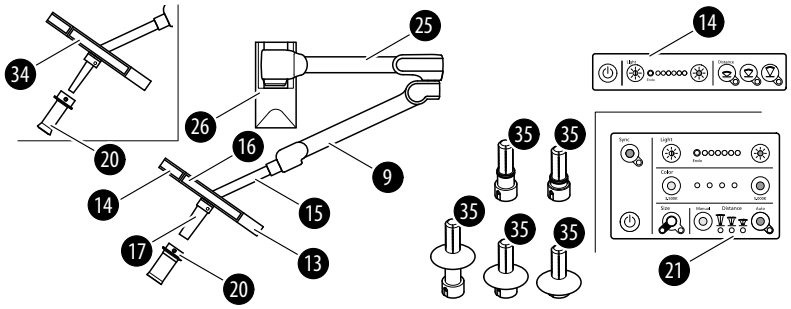
4.1.4 TruLight 5000/3000 Wall surgical light system

The TruLight 5000/3000 Wall surgical light system (example shown below) consists of the following components:

- the wall mount [26]
- a horizontally rotating S-boom [25] on the wall mount with a horizontally and vertically adjustable LCH19 spring arm [9]
- a rotating and vertically adjustable light head [13]

In the example, the TruLight 5000/3000 Wall surgical light system is equipped with the following additional accessories of Baxter and the following third-party products:

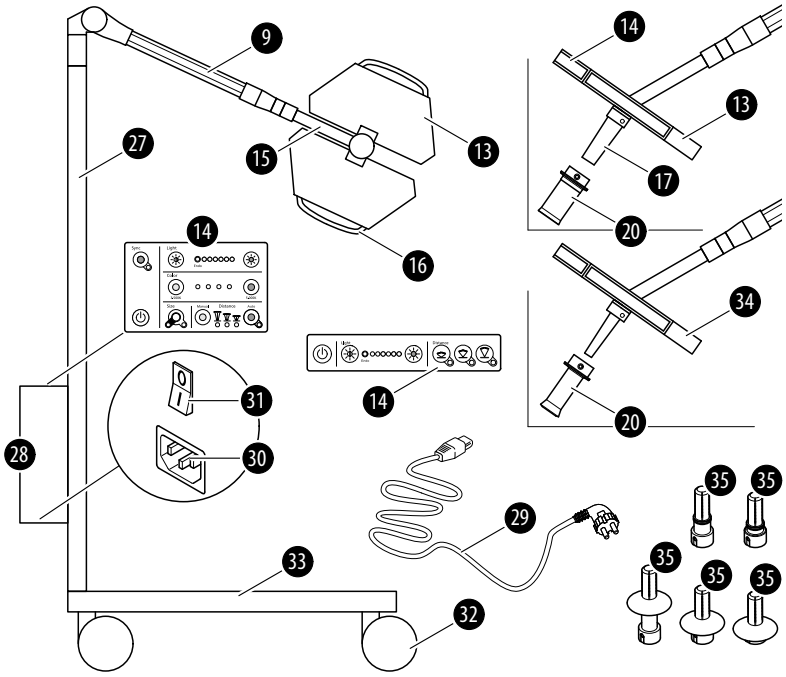
- a sterilizable handle [20] for the ALC Plus handle adapter [17] or the handle adapter on the TruLight xx00 [34] lamp body
- a Handle sleeve handle adapter [35] and a sterile disposable handle/cover for the handle on the TruLight xx00 [34] lamp head (after prior upgrade by a qualified service technician)
- a wall-mounted control panel [21]



[9] Low room height spring arm (LCH19)
[13] Lamp head
[14] Control element
Depending on the version at the comfort strap or the lamp head.
The functions available on the control element depend on the functional scope of the surgical light.
[15] Cardan joint
[16] Non-sterile side handle
[17] ALC plus handle adapter
[20] Sterilizable handle
(Sterilizable ALC Handle, 3 pcs/Sterilizable Central Handle, 3 pcs)
[21] Control panel at the wall control panel
(Example TruLight 5x20)
[25] S boom
[26] Wall bearing
[34] TruLight xx00 lamp head
[35] Handle adapter disposable handles
(Handle sleeve flange type short/Handle sleeve flange type middle/Handle sleeve flange type long/Handle sleeve ring type short/Handle sleeve ring type long)

4.1.5 TruLight 5000 / 3000 Mobile

The mobile surgical light can be moved freely in any direction, as all 4 wheels are able to turn on their own axes. Two wheels arranged diagonally on the stand foot can be braked. The parking brake allows the surgical light to be safely parked.



[9] Low room height spring arm (AC 2000 NRH mobil)
[13] Lamp head
[14] Control element
The functions available on the control element depend on the functional scope of the surgical light.
The functional scope of the controls on the lamp head can be more limited than the functional scope of the controls on the power supply unit.
[15] Cardan joint
[16] Non-sterile side handle
[17] ALC plus handle adapter
[20] Sterilizable handle (Sterilizable ALC Handle, 3 pcs/Sterilizable Central Handle, 3 pcs)
[27] Pedestal rod
[28] Power supply unit
[29] Mains power cable
[30] Connector socket for power cable
[31] On/Off switch (underside of the power supply unit)
[32] Wheel
[33] Stand foot
[34] TruLight xx00 lamp head
[35] Handle adapter disposable handles (Handle sleeve flange type short/Handle sleeve flange type middle/Handle sleeve flange type long/Handle sleeve ring type short/Handle sleeve ring type long)

4.2 Overview of control modules

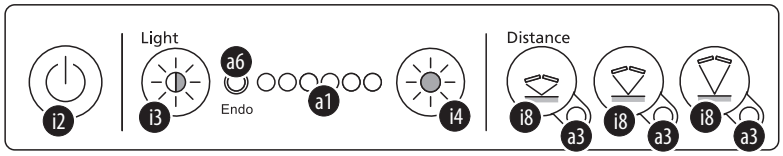
The control modules are used to set various functions of the surgical light. The control units available depend on the configuration of the surgical light.

Control units for the surgical light:

- Control element
- ALC Plus handle adapter
- Wall control panel

  The wall control panel is used for external control of the surgical light.
- Control interface of an external control unit (surgical integration systems with RS232/RS485 interface)

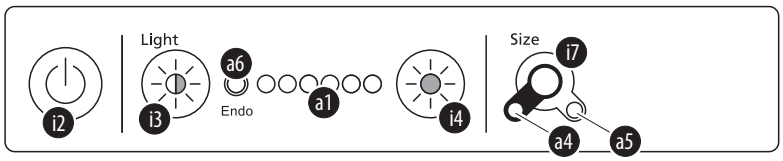
4.2.1 Controls at the TruLight 3000 lamp head



[i2] Switching the surgical light function on and off
[i3] Reducing the lighting intensity function
[i4] Increasing the lighting intensity function
[i8] ALC (Adaptive Light Control) function - setting the working distance
(80 cm / 31.50 inch, 100 cm / 39.37 inch, 120 cm / 47.24 inch)
Status indicator on the button: The indicator lights up when the distance is switched on.

[a1] Lighting intensity indicator (Endo < 10%, 6 steps: 50% - 100%)
[a6] Endo indicator
The indicator lights up when the Endo lighting intensity is switched on.
[a3] Working distance indicator
(3 steps from left to right: 80 cm / 31.50 inch, 100 cm / 39.37 inch, 120 cm / 47.24 inch)

4.2.2 Controls at the TruLight 5000 lamp head

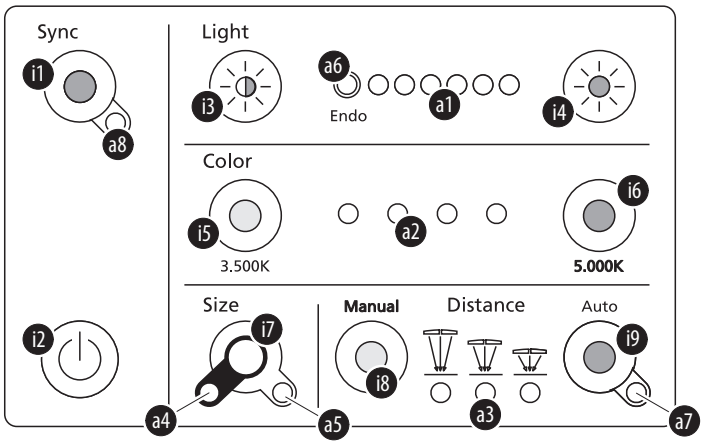


[i2] Switching the surgical light function on and off
[i3] Reducing the lighting intensity function
[i4] Increasing the lighting intensity function
[i7] Synchronize color temperature (optional)
[a1] Lighting intensity indicator (Endo < 10%, 6 steps: 50% - 100%)

[a4] Narrow light field indicator
The indicator lights up when the narrow light field is switched on.
[a5] Wide light field indicator
The indicator lights up when the wide light field is switched on.
[a6] Endo indicator
The indicator lights up when the Endo lighting intensity is switched on.

4.2.3 Controls at the TruLight 5000 comfort strap

The functions on the controls available for adjusting the lighting depend on the functional scope of the surgical light. The following overview is based on the maximum equipment level.



[i1] Color temperature synchronization function (optional)
[i2] Switching the surgical light function on and off
[i3] Reducing the lighting intensity function
[i4] Increasing the lighting intensity function
[i5] Reduce color temperature function (optional)
[i6] Synchronize color temperature (optional)
[i7] Setting the light field size function
[i8] ALC (Adaptive Light Control) function - setting the working distance
[i9] ALC Plus (Adaptive Light Control Plus) - automatically setting the working distance (optional)

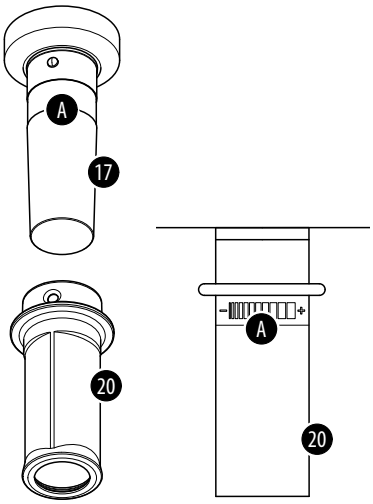
[a1] Lighting intensity indicator (Endo < 10%, 6 steps: 50% - 100%)
[a2] Color temperature indicator (4 levels: 3500 K/4000 K/ 4500 K/5000 K)
[a3] Working distance indicator
(3 steps from left to right: 120 cm / 47.24 inch, 100 cm / 39.37 inch, 80 cm / 31.50 inch)
[a4] Narrow light field indicator
The indicator lights up when the narrow light field is switched on.
[a5] Wide light field indicator
The indicator lights up when the wide light field is switched on.

[a6] Endo indicator
The indicator lights up when the Endo lighting intensity is switched on.
[a7] ALC Plus (Adaptive Light Control Plus) indicator
The indicator lights up when the ALC Plus function is switched on.
[a8] Color temperature synchronization indicator (optional)
The indicator lights up when the synchronization is switched on.

4.2.4 Wall control panel

The functional scope of the wall control panel corresponds to that of the controls on the surgical light. An exception to this is the Low Room Height version of the TruLight 5000 surgical light. Due to the design of the Low Room Height version, the controls on the lamp head have a more limited functional scope. The full functional scope for the Low Room Height version of the surgical light is only available on the wall control panel.

4.2.5 ALC Plus handle adapter (Adaptive Light Control Plus)



The ALC Plus handle adapter [17] is only available for the TruLight 5x20 surgical light.

With the ALC Plus handle adapter, one of the following functions of the surgical light can be set:

- Light field size
- Lighting intensity
- Color temperature

The function is set via the touch sensor [A] of the ALC Plus handle adapter.

The ALC Plus handle adapter must have the sterilizable ALC Handle (#1660214) [20] sterilizable handle fitted to it in order to operate it. This function is then set in a sterile manner.

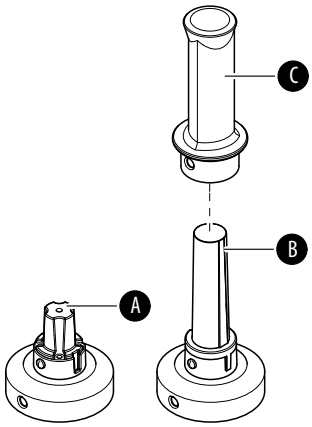
The function of the handle adapter required by the user was adjusted during assembly of the surgical light. The preset function can be set by the Technical Customer Service.

Take the instructions for use of the sterilizable handle into account (see Chapter 2.2).

4.2.6 Operating Integration System

The optional RS232/RS485 interface (Interface Converter) makes it possible to integrate the surgical light into the system of a third-party manufacturer and to set the functions of the surgical light via the control interface of an external control unit. Adhere to the reference manual with document number 55000-00020.

4.3 Handle adapter



The Adaption disposable handle [A] handle adapter is used to hold adapters (products from third-party manufacturers) to which sterile disposable handles are attached.

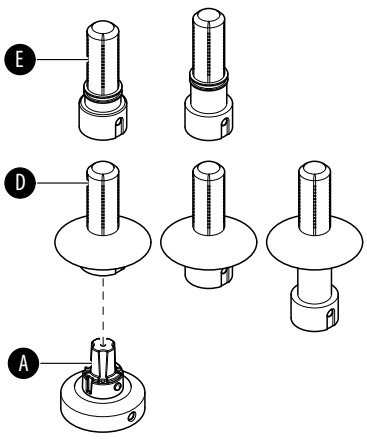
The Adaption Standard Handle [B] handle adapter is used to attach the Sterilizable Central Handle [C].

The Adaption disposable handle [A] and Adaption Standard handle [B] handle adapters can also be used to compensate for the weight on the mount of the light head, as well as a cover for the electrical connections and to act as a guide for a sterilizable handle [C].

If the TruVidia HD camera is uncoupled from a light head with a camera, the Adaption disposable handle [A] or Adaption Standard handle [B] handle adapter must be attached to the mount of the light head.

A Handle sleeve flange or Handle sleeve ring handle adapter must be attached to use sterile disposable handles and disposable covers.

The Handle sleeve flange or Handle sleeve ring handle adapters are not compatible with the Adaption Standard handle [B] handle adapter. The Adaption Standard handle [B] handle adapter must be replaced with the Adaption disposable handle [A] handle adapter. For other handles, an upgrade must be carried out by a qualified service technician.



The Handle sleeve flange [D] or Handle sleeve ring [E] handle adapter is positioned on the Adaption disposable handle [A] handle adapter or the handle upgraded by the service technician and is used to attach a sterile handle (disposable handle or disposable cover). The disposable handle or disposable cover are products from third-party manufacturers and may only be used once.

The handle adapter may only be used with a sterilizable or sterile handle.

4.4 Illuminant

The surgical light is equipped with LED light sources. The use of a multitude of LEDs provides high failure safety for the surgical light. Failures of up to 10 LEDs do not affect the basic functions of the surgical light and the surgical light remains operational. The surgical light may no longer be used when more than 10 LEDs of the surgical light fail.

4.5 Power supply

Ceiling and wall-mounted version:

The ceiling and wall version of the surgical light is firmly attached to the external power sources of the room and are only disconnected from mains power during emergencies, for cleaning purposes and for service work. The surgical light does not have its own devices for disconnecting from the power supply. Thus the power supply facility can only be disconnected by the customer.

Mobile pedestal version:

The mobile stand version of the surgical light is connected with the mains cable to the room's mains power network.

4.6 Setting options

4.6.1 Light field size

The light field size function is only available for the TruLight 5000 surgical light.

The light field size concerns the diameter of the light field. At constant working distance, the user may decide between a narrow and a wide light field, depending on the size of the wound field.

4.6.2 Lighting intensity

Lighting intensity concerns brightness and is measured in lux. Lighting intensity can be adjusted within a range of 50% to 100%. In addition, Endo lighting intensity can be selected. Endo lighting intensity is a permanently set lighting intensity (<10%) for endoscopic operations. Some of the LEDs are deactivated with these settings.

Reducing or increasing the lighting intensity does not change the color temperature.

4.6.3 ALC (Adaptive Light Control)

The ALC function optimizes the light setting, depending on the working distance between the surgical light and the wound field of the patient. For a fast, optimized light setting of the surgical light, it is possible to manually select between the 3 typical working distances of 80 cm/31.50 inch, 100 cm/39.37 inch and 120 cm/ 47.24 inch. The LEDs of the surgical light are selectively controlled to guarantee optimal illumination of the wound field.

4.6.4 ALC Plus (Adaptive Light Control Plus) - automatic

The ALC Plus function is optional and only available with the TruLight 5000 surgical light.

The ALC Plus function automatically optimizes the light setting once the working distance to the patient's wound area has been set by moving the surgical light. The function automatically ensures consistent lighting intensity and higher lighting power.

When the lamp head is moved while the ALC Plus function is activated, a movement sensor triggers a new measurement of the working distance to the wound field of the patient. The laser measuring unit in the handle determines the working distance to

the wound field of the patient. The distance measurement is made at one point in the center of the light field. The light setting of the surgical light is optimized automatically based on these measuring data. The LEDs of the surgical light are selectively controlled to guarantee optimal illumination of the wound field.

Notice: The function is only triggered when the working distance to the wound field of the patient is changed by moving the surgical light. Changing the position of the patient does not trigger automatic measurement of the working distance.

For the automatic function, the working distance between the surgical light and wound area of the patient must be between 80 cm and 120 cm (31.50 inch to 47.24 inch).

4.6.5 Color temperature

The color temperature function is only available for the TruLight 5000 surgical light.

The color temperature function is used to increase color contrast in the wound area. The visual contrast behavior of the color temperature has the following effect:

- When the wound area is mainly of a bluish color, a low color temperature (range 3500 K to 4000 K) increases color contrast and leads to improved perception of the differences by the user.
- When the wound area is mainly of a reddish color, a high color temperature (range 4000 K to 4500 K) increases color contrast and leads to improved perception of the differences by the user.

Under normal surgical conditions, color temperature should be set to a range of 4000 K to 4500 K at the start of an operation.

Color temperature can be set within the range of 3500 K to 5000 K in steps of 500 K.

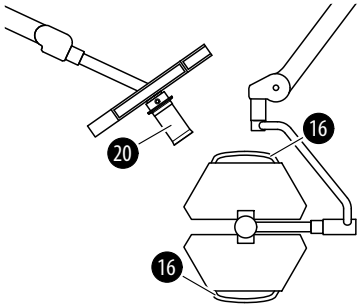
4.6.6 Synchronization

The function is only available for the TruLight 5000 surgical light.

During synchronization, the color temperature for the surgical light on which the function was selected is transferred to the other surgical lights.

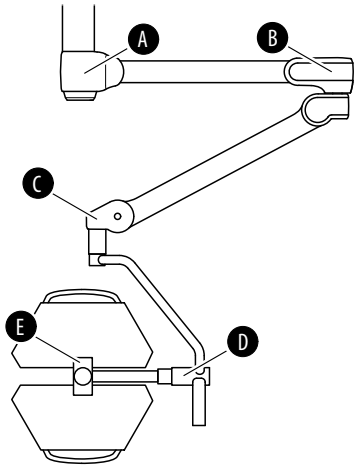
4.6.7 Operating range

The operating range for the ceiling and wall versions of surgical lights is determined by the support arm system. The operating range of the mobile surgical light is determined by the spring arm and can be placed at any position in the room due to its mobile stand foot. Within the operating range, the surgical light can be placed in any position and accurately pointed onto the wound field.



The surgical light is positioned with the sterilizable handle [20], the comfort bracket [12] or the non-sterile side handles [16].

The hinge joints of the support arm system have been equipped with a friction brake. The friction brake transmits the friction from the brake screw to the pin of the support arm component, thus locking it in position. If the boom, the spring arm, the comfort bracket, the cardan joint, or the light head do not remain stable in the set swivel position, or can only be moved with difficulty, the braking force must be adjusted by staff trained in this work by Baxter.



If the braking force needs to be adjusted on multiple support arm components, use the following sequence:

1. Brake screw [A] for the brake of the extension arm
2. Brake screw [B] for the brake of the spring arm
3. Brake screw [C] for the optional braking of the comfort bracket
4. Brake screw [D] for the brake of the cardan joint
5. Brake screw [E] for the braking of the light head

The weight of the support arm component is compensated by a spring installed in the spring arm. If the spring arm does not remain steadily in the selected height position, the spring force must be adjusted by staff trained in this work by Baxter. If the spring arm creeps upwards, the spring force is too high. If the spring arm creeps downwards, the spring force is too low.

The swivel range of the spring arm upwards and downwards can be individually adjusted by staff trained in this work by Baxter. The swivel range can be limited up to a fully horizontal position.

4.7 Illuminated side handles

The illuminated side handles on the lamp head are only available for the TruLight 5000 surgical light.

The light system is available with the following options:

- The side handle is permanently lit up (delivery state ex factory).
- The side handle is not lit up.
- The side handle lights up when the surgical light is switched on.
- The side handle is permanently lit up when the external power supply is connected (stand-by operation).
- The side handle is lit up when Endo lighting intensity is switched on.

The user's preferred option was set during installation of the surgical light.

5 Use

The surgical light has a multitude of functions that can be ergonomically controlled using the control unit. The ALC Plus handle adapter is operated in a sterile manner using the sterilizable handle. All other control units are used in a non-sterile manner.

5.1 Safety instructions

When operating devices involved in the operation, always keep visual contact with the operation situation.

Electrical hazards:

Danger of electric shock

- No patient applied parts of type BF or CF in accordance with IEC 60601-1 may be directly connected to the surgical light system.
- Do not insert objects into device openings.
- Disconnect the surgical light system from the mains power supply before cleaning and service work.

Risk of explosion posed by anesthetics

The surgical light is not suitable for operation in explosive areas. With a higher concentration of flammable mixtures, there is a risk of ignition under certain conditions.

- The surgical light may not be used in rooms or areas in which flammable mixtures of anesthetics with air or oxygen or N_2O (laughing gas) are used.

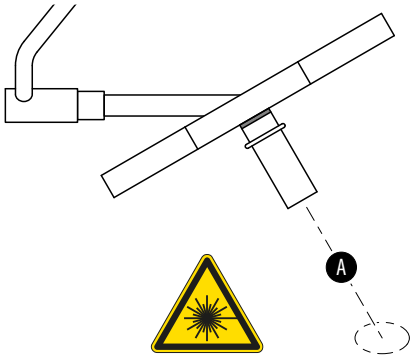
Risk to the patient if the power supply fails

- The power supply of the surgical light system may not be interrupted.

Risk of charge balancing

- To avoid electrostatic discharge between the metallic parts of the device and the body of the patient, the user may not touch the surgical light system and the patient at the same time.

Optical radiation:



Risk due to laser beams

Prolonged visual contact with the laser beam might damage eyesight.

- Do not look directly into the laser beam [A].
- Close or protect the patient's eyes during surgery. For example with protective glasses with an optical density of at least 2, or that are designed according to protection level 6 EN 169.

Risk due to blue light

The blue light (400 nm to 780 nm) of the LEDs can fatigue the eyes or damage the retinas. The maximum radiation duration in the workplace from 80 cm to 130 cm (31.50 inch to 51.18 inch) is 73 seconds.

- Do not look for a prolonged time into the switched-on light field of the surgical light.

Risk due to high lighting intensity

A high light intensity can cause burns in the wound area of the patient, dry out tissue (especially during long exposure times and reduced perfusion), and damage the eyes. The light intensity is high if light fields overlap or if there is direct contact with the emitted light.

- Position the light head so that the light fields do not overlap.
- Reduce the lighting intensity of the individual light heads and/ or increase the working distance.
- Do not look directly into the light field or surgical light.
- Close or protect the patient's eyes during surgery. For example with protective glasses with an optical density of at least 2, or that are designed according to protection level 6 EN 169.
- For patients with a thin or sensitive skin, for example with children, use additional skin protection.

Risk due to reduced light intensity

- If more than 10 LEDs fail on one light head, take the surgical light out of service and notify the Technical Customer Service.

Support arm system:

Danger due to overloading

Overloading the support arm system can result in severe malfunctions and the support arms, individual components or accessories may come loose from their mountings and crash.

- The maximum load capacities, specified in the technical data of the support arms, may not be exceeded. Observe the instructions for use with the document number 7990089.
- Only components and accessories authorized by Baxter may be used on the support arm system.

Danger due to uncontrolled movement on the support arm system

- Before MRI use, swivel the support arms, components and accessories away from the danger area of the strong magnetic field.
- If the spring arm moves upwards or downwards of its own accord, the spring force must be readjusted by trained personnel.
- If the surgical light or camera does not remain securely in the set position after a turning movement, the braking force must be readjusted by trained staff.

Risk of spring arm shooting up

Abrupt removal of loads may cause the spring arm to suddenly shoot up, resulting in serious injury.

- Flat screen monitors or other components must only be removed from the spring arm by the Technical Customer Service.

Contamination and infection:

Risk of infection for the patient

- Before using the products for the first time, they must first be cleaned and disinfected according to the hygiene specifications of the medical facility. Cleaning and disinfecting may be performed only by trained staff and using cleaning and disinfecting agents approved by Baxter.
- The sterilizable handle, handle adapter or the camera must not be removed during operation.
- After each surgical use, the support arm system must be cleaned and disinfected.
- Cleaning or servicing work may not be carried out during operation.

5.2 Inspections during operation

⚠ WARNING

Risk of contamination and infection

Loose or damaged parts may fall into the wound of the patient.

- Check the support arm system for loose parts on the comfort bracket or the light head.
- Check the support arm system for visible damage, especially on the lenses of the light head, on plastic parts, the control element, and the sterilizable handles.
- Check that the sterilizable handles are firmly attached.

Before and after each use, the user must perform a functional test and visual inspection of the surgical light.

Immediately take a faulty surgical light or control module out of service, label it clearly as being defective and ensure it is not used again. If there is damage or a fault, notify the technical customer service.

Following any damage reported by a user, a functional check and a visual inspection must be carried out by personnel trained to perform these tasks by Baxter.

Weekly inspection

At least once a week, a functional check and a visual inspection must be carried out by personnel trained to perform these tasks by Baxter.

If there is damage or a fault, notify Technical Customer Service.

Annual inspection

The annual inspection must be performed by staff trained in this work by Baxter.

The annual inspection includes a visual inspection and functional inspection of the surgical light considering the following inspection points.

- Check the components of the lamp head and the support arm system for deformation
- Surface damage
- Check the support arm system and lamp head for paint damage
- Check plastic parts for cracks, brittle spots and clouding
- Check welds for cracks
- The surgical light must be checked for completeness of all plastic parts (such as covers and plugs)
- Check to ensure that device and information labels are legible.
- Check the LEDs for functionality
- Check the joints for functionality
- Check the position of the end stops
- Check the effect of the spring and brake forces

5.3 Selection of functions

The functions of the surgical light are set with the following control units:

- Control element
- ALC Plus handle adapter (Adaptive Light Control Plus)
- Wall control panel
- User interface of an external control unit (operating integration systems)

The commands of the individual control modules are executed in the following sequence:

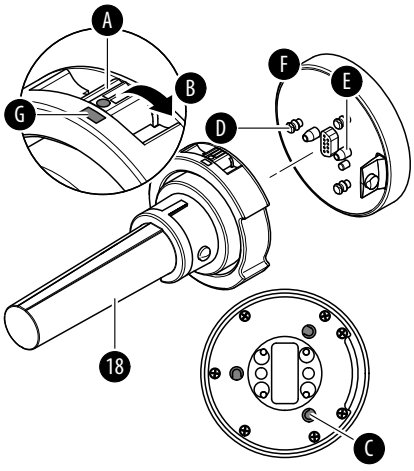
1. Control element
2. ALC Plus handle adapter (Adaptive Light Control Plus)
3. Wall control panel

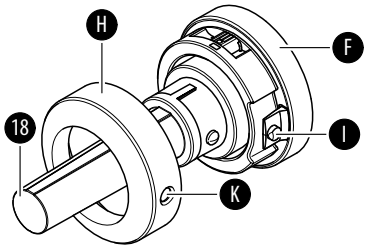
Simultaneous activation of keys on various control units leads to execution of functions in order of priority.

Each setting on the surgical light, regardless of whether it is a wall-mounted control panel, the ALC Plus handle adapter or directly on the operating element, is simultaneously displayed on the other control modules. The user always sees the current settings for the surgical light on all operating units.

5.4 Attaching the handle adapter

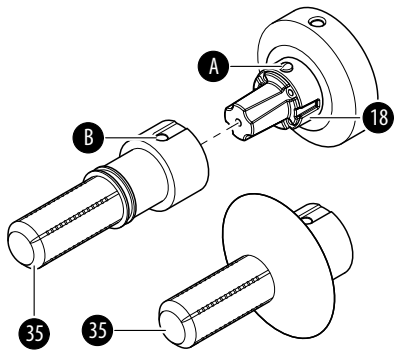
5.4.1 Adaption disposable handle/Adaption Standard handle





1. Slide the locking device of the bayonet lock [A] downwards into position [B] so that the three shut-off openings [C] of the base plate are released.
2. Align the handle adapter [18] so that the arrangement of the three bayonet pins [D] and the two centering pins [E] of the mount [F] on the camera bracket are aligned with the shut-off openings [C] in the base plate (the camera plug connector will then also be aligned).
3. Insert the handle adapter [18] on the mount [F] of the lamp head.
4. To secure it in place, slide the locking device of the bayonet lock [A] upwards so that the two red marking dots [G] are aligned.
5. **NOTICE!** Check the secure position of the handle adapter on the mount. After locking the bayonet lock, always make sure to check that the handle adapter is securely seated on the mount.
6. Slide the cover (metal ring) [H] onto the handle adapter [18] and the mount of the lamp head. Ensure that the plastic catch [I] of the mount [F] is correctly engaged in the securing hole [K] on the cover [H].

5.4.2 Handle sleeve flange/Handle sleeve ring



1. Attach the Adaption disposable handle handle adapter to the mount (see chapter 5.4.1).
2. Push the Handle sleeve flange or Handle sleeve ring [35] handle adapters onto the Adaption disposable handle [18] handle adapter. Make sure that the plastic catch [A] on the Adaption disposable handle [18] handle adapter is correctly engaged in the securing hole [B] on the Handle sleeve [35] handle adapter.

5.5 Removing the handle adapter

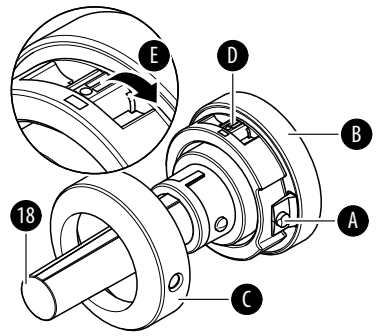
5.5.1 Adaption disposable handle/Adaption Standard handle

⚠ CAUTION

Danger of short circuit

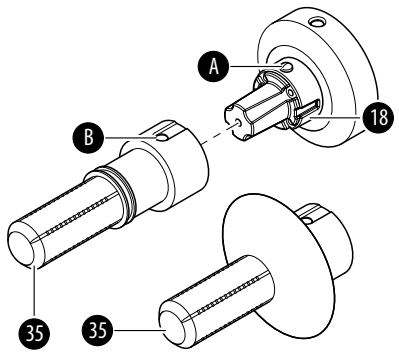
Liquid spilled onto the mount of the light head can cause a short circuit and interrupt the power supply for the surgical light system.

- The mount of the light head must always be covered by a camera or a handle adapter.



1. Remove the sterilizable handle from the handle adapter [18].
2. Press in the plastic catch [A] of the mount [B] and remove the cover [C] from the handle adapter [18].
3. Support the lamp head.
4. Slide the locking device of the bayonet lock [D] downwards into position [E] so that the three shut-off openings of the base plate are released.
5. Pull the handle adapter [18] off the mount [B] of the lamp head.

5.5.2 Handle sleeve flange / Handle sleeve ring



1. Remove the disposable handle/cover from the Handle sleeve [35] handle adapter.
2. Press in the plastic catch [A] on the Adaption disposable handle [18] handle adapter and pull the Handle sleeve [35] handle adapter off the Adaption disposable handle handle adapter.

5.6 Connecting the power supply

5.6.1 Ceiling and wall-mounted versions:

The power supply must be connected by specialized personnel with the necessary access authorization, knowledge and documentation to set up internal power supplies. When power is supplied, the surgical light is in standby-mode.

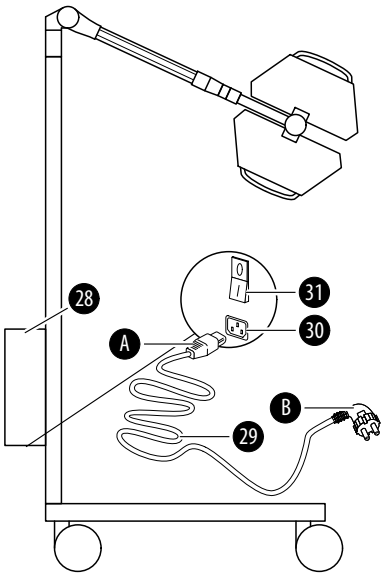
5.6.2 Mobile version

⚠ WARNING

Electric shock due to damaged electrical equipment

Touching live device parts can result in electrocution.

- The mobile surgical light system (Protection Class I) may only be connected to a properly earthed power socket.
- Check the plugs and mains power cable for damage before connecting to the mains power network.
- Do not connect the mobile surgical light to the mains power if plugs or mains power cable are damaged.
- If the above damage or further damage occurs, the surgical light is no longer safe to operate.
  - Label the surgical light system as defective.
  - Notify the Technical Customer Service.



1. Check the power supply cable [29] including plug [A] and [B] for integrity.
2. Insert the plug [A] of the mains power cable into the connection socket [30] on the power supply unit [28].
3. Route the cable to the socket so that no one can trip or fall over it. Do not put the cable under strain.
4. **NOTICE!** The mains voltage at the shock-proof socket must correspond with the information on the device label. If in doubt, ask the responsible power supply company or a qualified electrician.
   Plug the connector [B] of the power supply cable into a protective contact socket in the room.
5. Switch on the mains power supply [28] at the switch [31] (Position I).
   The surgical light is now in standby mode.

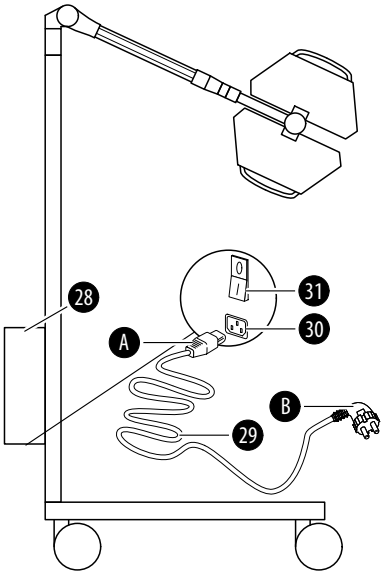
5.7 Disconnecting the power supply

5.7.1 Ceiling and wall-mounted versions:

The surgical light must be disconnected from the power supply by specialist staff, with the necessary access rights, knowledge and documentation in regards to the institution's power supply.

1. Switch off the surgical light on a control unit.
2. Switch off all products connected to the surgical light, such as the TruVidia HD camera.
3. Disconnect all poles of the surgical light from the power supply and secure it against being switched back on. The protective earth (PE) may not be disconnected.

5.7.2 Mobile version



1. Switch off the surgical light at the controls.
2. Switch off the mains power supply [28] at the switch [31] (Position 0).
3. Pull the power cable plug [B] [29] from the socket.
4. Pull the plug [A] out of the connection socket [30] on the power supply unit.
5. Wrap the power cable around the power supply unit.

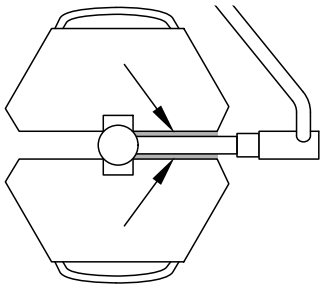
5.8 Switching on the surgical light

Press the [i2] button on the controls.
The surgical light starts with the preset parameters or the last set of parameters used. The desired option can be set by a service technician.

5.9 Switching off the surgical light

Press the [i2] button on the controls.

5.10 Positioning the surgical light



⚠ CAUTION

Pinching hazard

When swiveling the lamp head, do not place fingers between the cardan joint and the lamp head.

- Only position the light head using the sterilizable handle or the non-sterile side handles.

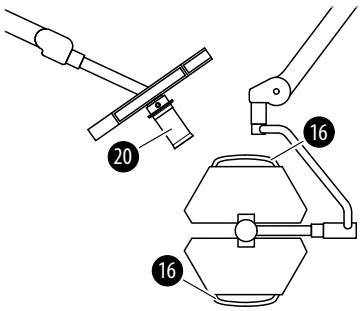
To prevent damage to the product, observe the following when positioning the surgical light:

- When adjusting the product, take care not to hit the stops hard. Perform the setting slowly.
- Avoid collisions with other components.
- Depending on the variant, the swivel range and the vertical travel is limited by the internal end stops of the boom, the spring arm and the adaption.
- Remove any possible collision hazards before swiveling or height adjustment.

However, if there is still a collision with other devices, wall or ceiling, the product may be damaged and fail. After a collision, check the product immediately for possible damage and contact the operator if necessary.

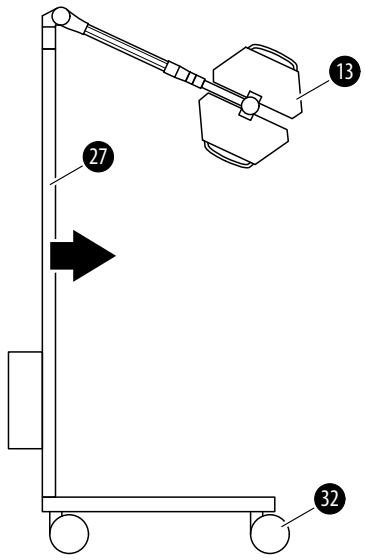
A collision between the surgical light and adjoining object may lead to material damage. Observe the operating range of the surgical light.

If the ALC Plus function is active, the distance to the wound field will be newly determined when the lamp head is moved. Distance is measured in the centerline of the light field. Strongly structured wound fields or other objects in the measuring range may affect the distance measurement. When moving the surgical light, care must be taken to ensure that the light field is aligned with the wound area and that there are no interfering objects in the measuring range.



Grip the surgical light by the sterile handle [20] or side handles [16] and move it to the desired position.

5.11 Moving the mobile surgical light

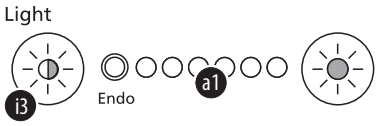


Do not exert excessive force onto the spring arm or the lamp head in the braked state, as this may cause the surgical light to tilt. Do not attach any additional loads to the spring arm.

1. Switch off the surgical light at a control module and disconnect it from the mains power (see Chapter 5.7). The power supply only needs to be disconnected when the surgical light is to be moved outside of its operating range. The operating range is determined by the length of the mains power cable.
2. Release the parking brake at the front wheels [32]. Push the latching mechanism upwards for this purpose.
3. Hold the surgical light at the stand pole [27] and push in the direction of travel together with the lamp head [13]. Tightly hold the surgical light at steps or on uneven ground and carefully move it past the obstacle.
4. Park the surgical light at the place of operation or the parking place in its braked state. To do this, press down the lock on both wheels [32].

5.12 Adjusting the lighting

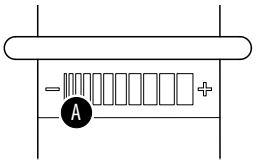
5.12.1 Adjusting the light intensity



Reduce the lighting intensity:

Controls on the surgical light or a wall control panel:

– Press the [i3] key.
  The corresponding LED for the currently set lighting intensity [a1] lights up.



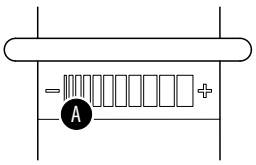
ALC Plus handle adapter:

– Move a finger across the sterilizable handle from right to left, until the desired lighting intensity has been set via the touch sensor [A].

Increase the lighting intensity:

Controls on the surgical light or a wall control panel:

– Press the [i4] key.
  The corresponding LED for the currently set lighting intensity [a1] lights up.



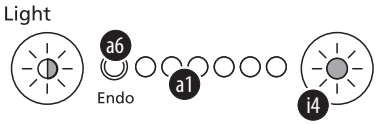
ALC Plus handle adapter:

– Move a finger across the sterilizable handle from left to right until the desired lighting intensity has been set via the touch sensor [A].

Switching on the Endo lighting intensity:

Controls on the surgical light or a wall control panel:

– Press the [i3] button until the Endo [a6] status indicator lights up.

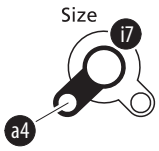


Switching off the Endo lighting intensity:

Controls on the surgical light or a wall control panel:

– Press the [i4] button until the Endo [a6] status indicator goes off. The LED for the actually set lighting intensity [a1] lights up.

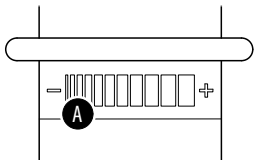
5.12.2 Setting the size of the light field



Narrow light field:

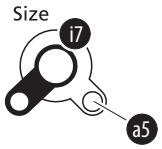
Controls on the surgical light or a wall control panel:

– Press the [i7] button until the indicator [a4] lights up.



ALC Plus handle adapter:

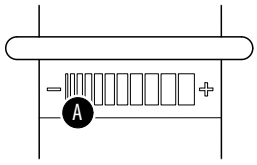
– Move a finger across the sterilizable handle from right to left, until the desired light field size has been set via the touch sensor [A].



Wide light field:

Controls on the surgical light or a wall control panel:

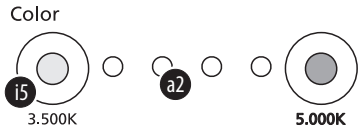
– Press the [i7] button until the indicator [a5] lights up.



ALC Plus handle adapter:

– Move a finger across the sterilizable handle from left to right until the desired light field size has been set via the touch sensor [A].

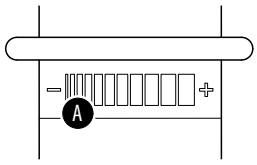
5.12.3 Setting the color temperature



Reduce color temperature:

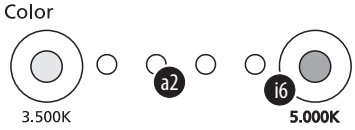
Controls on the surgical light or a wall control panel:

– Press the [i5] button until the appropriate color temperature [a2] indicator lights up.



ALC Plus handle adapter:

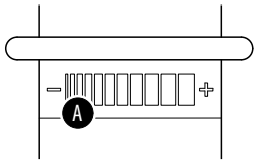
– Move a finger across the sterilizable handle from right to left until the desired color temperature has been set via the touch sensor [A].



Increase color temperature:

Controls on the surgical light or a wall control panel:

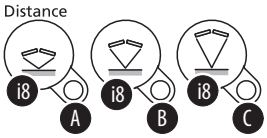
– Press the [i6] button until the appropriate color temperature [a2] indicator lights up.



ALC Plus handle adapter:

– Move a finger across the sterilizable handle from left to right until the desired color temperature has been set via the touch sensor [A].

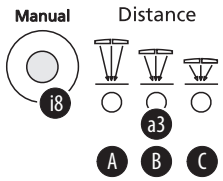
5.12.4 Adjusting the ALC (Adaptive Light Control)



The function is set on the controls or the wall control panel.

Controls on the lamp head:

Press the corresponding key [i8]. The status indicator next to the [i8] key lights up (near 80 cm / 31.50 inch [A], middle 100 cm / 39.37 inch [B], far 120 cm / 47.24 inch [C]).

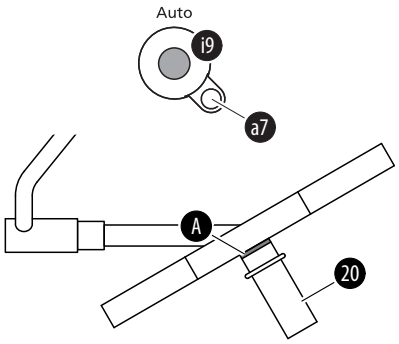


Controls on the comfort strap:

Press the [i8] key until the respective working distance indicator [a3] lights up (near 80 cm / 31.50 inch [A], middle 100 cm / 39.37 inch [B], far 120 cm / 47.24 inch [C]).

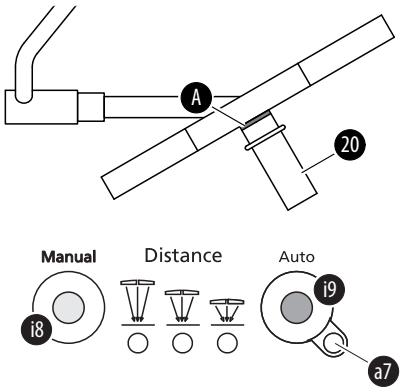
5.12.5 Adjusting the ALC Plus (Adaptive Light Control Plus)

The function is set on the controls or the wall control panel.



Switching on the ALC Plus function:

1. Press the [i9] key.
   The [a7] status indicator next to the [i9] button lights up and a blue ring [A] lights up above the handle [20].
2. Using the handle [20], point the ALC Plus handle adapter of the light head directly onto the wound area of the patient. Interfering objects in the measuring range for the working distance must be avoided to prevent incorrect adjustments.

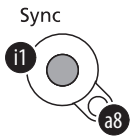


Switching off the ALC Plus function:

1. Set the working distance between the surgical light system and the patient's wound area to 100 cm / 39.37 inch.
2. Press the [i8] button or the [i9] button.
   The [a7] status indicator next to the [i9] button goes off and the blue ring [A] above the handle [20] goes off.
   The working distance of the surgical light to the wound area of the patient or the light intensity must be manually adjusted.

5.12.6 Synchronizing the color temperature

The function is set on the controls or the wall control panel.



Synchronizing the color temperature:

Press the [i1] key. The status indicator [a8] next to the [i1] key lights up.

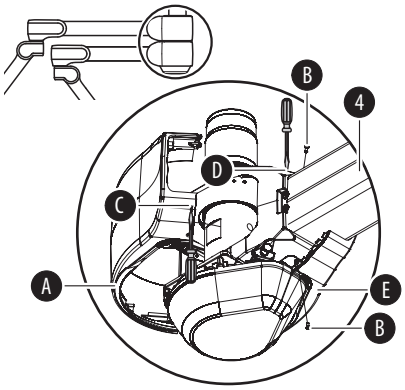
Stopping the synchronization:

Press the [i1] key. The indicator [a8] next to the [i1] button goes out.

5.13 Adjusting the braking force at the boom and spring arm

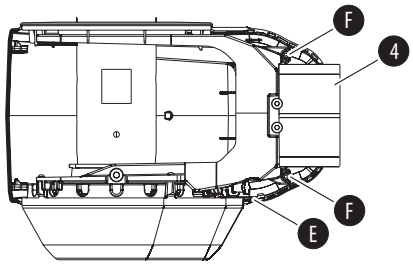
The braking force should only be set by personnel who have been trained by Baxter in this work.

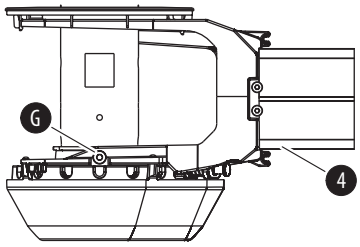
5.13.1 C boom



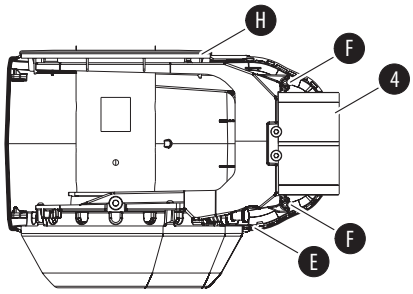
There are 2 opposing brake screws on each boom.

1. Switch off the surgical light at a control module and disconnect it from the mains power (see Chapter 5.7).
2. Remove the left back cover [A] from the boom [4].
   a) Turn the boom so that the upper PT screw [B] is accessible.
      For better access to the PT screw, remove the rear cover of the boom above it.
   b) Using a Torx T10 screwdriver, remove the upper and lower PT screw [B] on the left rear cover.
   c) Insert a suitable flathead screwdriver into the mounting opening [C] of the left rear cover.
   d) Press the flathead screwdriver slightly upwards and release the cover.
   e) Insert the flathead screwdriver into the mounting opening [D] of the right rear cover [E].
   f) Press the flathead screwdriver slightly downwards and release the cover.
   g) Carefully open the left rear cover at the joint between the two cover panels as far as possible and remove it from the boom.
3. Remove the right rear cover [A] from the boom [4].
   a) Using a Torx T10 screwdriver, remove the upper and lower PT screw [F] on the right rear cover.
   b) Remove the right rear cover from the boom.

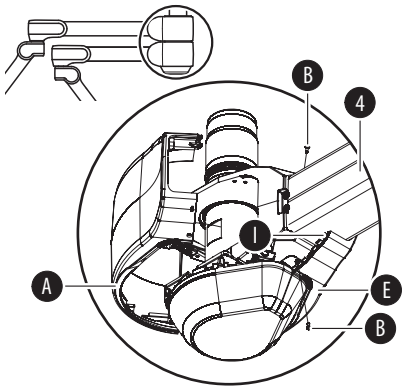




4. To adjust the brake force, alternately turn both opposite brake screws [G] by the same number of rotations with a Size 5 Allen key.
   – Increase the braking force:
     Turn the Allen key clockwise.
   – Reduce the brake force:
     Turn the Allen key in an anticlockwise direction.
5. Test the braking strength. The support arm component must be easily adjustable and remain steadily in the set swivel position.

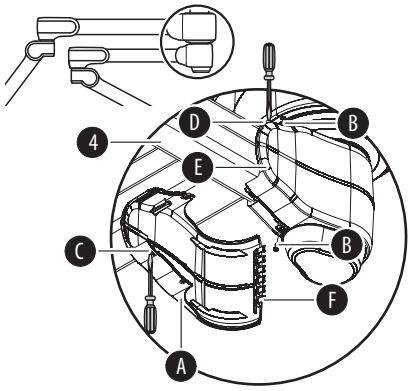


6. Install the right rear cover [E] on the boom [4].
   a) Position the right rear cover on the boom so that the upper cover [H] is inside the rear cover.
   b) Attach the right rear cover at the top and bottom to the boom with a PT screw [F] (Torx T10 screwdriver).



7. Install the left rear cover [A] on the boom [4].
   a) Turn the boom so that the hole for the upper PT screw [B] is accessible.
   b) At the joint between the two rear cover panels [A] and [E], insert the left cover into the catches [I] of the right cover and close it as if it was fitted on a hinge.
   c) Attach the left rear cover at the top and bottom to the boom with a PT screw [F] (Torx T10 screwdriver).
8. If necessary, install the rear cover of the boom above it.
9. Check the secure fit of the rear cover on the boom.
   – The covers on the boom must be connected to one another with the least possible gap.
   – The PT screws must be completely screwed in and may not protrude from the cover.

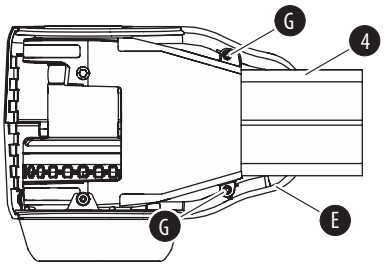
5.13.2 S boom



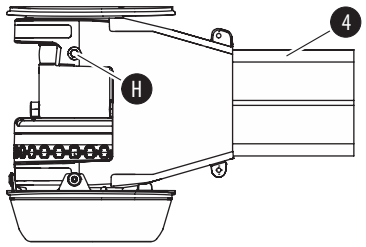
There are 2 opposing brake screws on each boom.

1. Switch off the surgical light at a control module and disconnect it from the mains power (see Chapter 5.7).
2. Remove the left back cover [A] from the boom [4].
   a) Turn the boom so that the upper PT screw [B] is accessible.

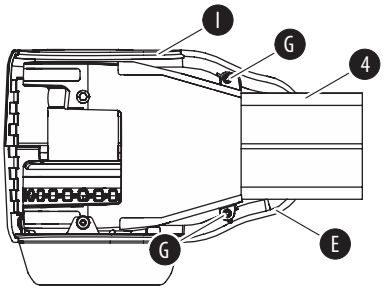
      For better access to the PT screw, remove the rear cover of the boom above it.
   b) Using a Torx T10 screwdriver, remove the upper and lower PT screw [B] on the left rear cover.
   c) Insert a suitable flathead screwdriver into the mounting opening [C] of the left rear cover.
   d) Press the flathead screwdriver slightly upwards and release the cover.
   e) Insert the flathead screwdriver into the mounting opening [D] of the right rear cover [E].
   f) Press the flathead screwdriver slightly downwards and release the cover.
   g) Carefully release the catches [F] of the left rear panel at the joint between the two cover panels.
   h) Remove the left rear cover from the boom.



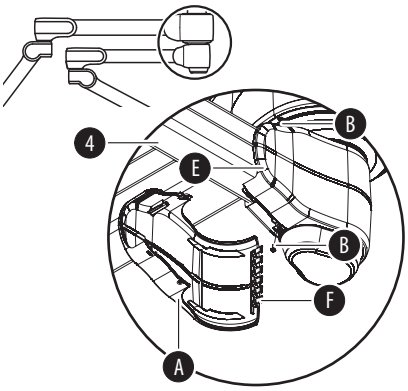
3. Remove the right rear cover [A] from the boom [4].
   a) Using a Torx T10 screwdriver, remove the upper and lower PT screw [G] on the right rear cover.
   b) Remove the right rear cover from the boom.



4. To adjust the brake force, alternately turn both opposite brake screws [H] by the same number of rotations with a Size 5 Allen key.
   – Increase the braking force:
     Turn the Allen key clockwise.
   – Reduce the brake force:
     Turn the Allen key in an anticlockwise direction.
5. Test the braking strength. The support arm component must be easily adjustable and remain steadily in the set swivel position.

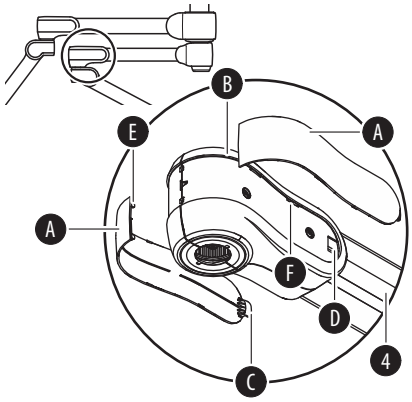


6. Install the right rear cover [E] on the boom [4].
   a) Position the right rear cover on the boom so that the upper cover [I] is inside the rear cover.
   b) Attach the right rear cover at the top and bottom to the boom with a PT screw [G] (Torx T10 screwdriver).



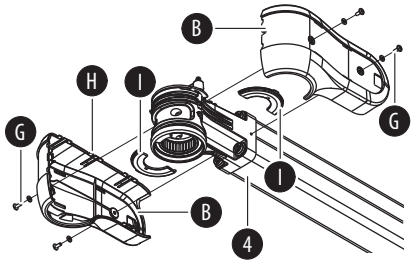
7. Install the left rear cover [A] on the boom [4].
   a) Turn the boom so that the hole for the upper PT screw [B] is accessible.
   b) At the joint between the two rear cover panels [A] and [E], insert the catches [F] of the left cover at an angle of 90 degrees into the catches of the right cover.
   c) Close the left rear cover as if it was fitted on a hinge.
   d) Attach the left rear cover at the top and bottom to the boom with a PT screw [F] (Torx T10 screwdriver).
8. If necessary, install the rear cover of the boom above it.
9. Check the secure fit of the rear cover on the boom.
   – The covers on the boom must be connected to one another with the least possible gap.
   – The PT screws must be completely screwed in and may not protrude from the cover.

5.13.3 Spring arm

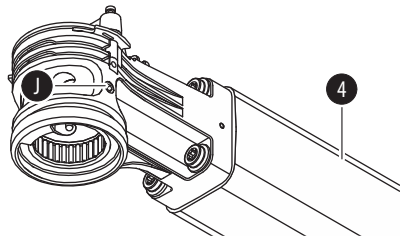


There are 2 opposing brake screws on each boom.

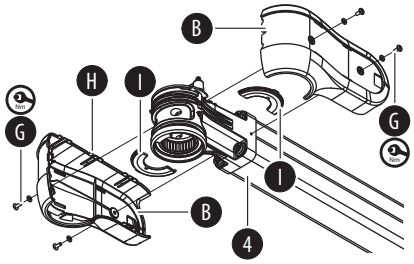
1. Switch off the surgical light at a control module and disconnect it from the mains power (see Chapter 5.7).
2. Remove the decor caps [A] of the socket cover [B].
   a) Lightly press in the right and left decor caps near the lugs [C] and pull the decor caps out of the openings [D].
   b) Carefully open the locking mechanisms [E] of the decor caps.
   c) Feed the right and left decor cap out of the mounts [F] and remove.



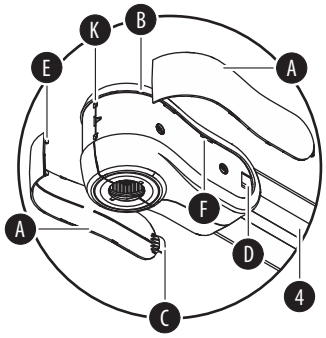
3. Remove the socket cover [B] from the boom [4].
   a) Using a Torx T10 screwdriver, remove 2 MLF screws and their washers [G] from each of the right and left socket covers.
   b) Carefully open the locking mechanisms [H] of the socket cover.
   c) Remove the right and left socket cover together with the optional faceplates [I] from the boom.



4. To adjust the brake force, alternately turn both opposite brake screws [J] by the same number of rotations with a Size 5 Allen key.
   – Increase the braking force:
     Turn the Allen key clockwise.
   – Reduce the brake force:
     Turn the Allen key in an anticlockwise direction.
5. Test the braking strength. The support arm component must be easily adjustable and remain steadily in the set swivel position.



6. Mount the socket cover [B] on the boom [4].
   a) Fasten the right socket cover together with the optional faceplate [I] with 2 MLF screws and washers [G] (Torx T10 torque screwdriver with a torque of 0.5 Nm/ 0.37 ft lb) on the boom.
   b) Position the left socket cover together with the optional faceplate [I] on the right socket cover so that all locking mechanisms [H] are pushed together and engage.
   c) Fasten the left socket cover with 2 MLF screws and washers [G] (Torx T10 torque screwdriver with a torque of 0.5 Nm/ 0.37 ft lb) on the boom.
7. Check the secure fit of the socket cover with the optional faceplates on the boom.
   – The covers on the boom must be connected to one another with the least possible gap.
   – Each socket cover must be attached with 2 MLF screws and washers.



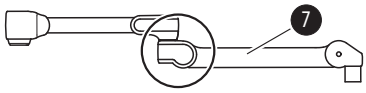
8. Install the decor caps [A] of the socket cover [B].
   a) Insert the right and left decor cap flush with the socket cover into the mounts [F], using light pressure.
   b) Push the lugs [C] of the decor caps into the recesses [D] of the socket cover and the locking mechanisms [E] into the mounts [K] until they engage.
9. Check the secure fit of the decor caps in the socket cover on the boom.
   – The decor caps must be connected to the socket cover with the least possible gap.

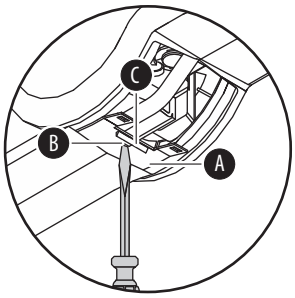
5.14 Setting the spring force of the spring arm

The spring force should only be set by personnel who have been trained by Baxter in this work.

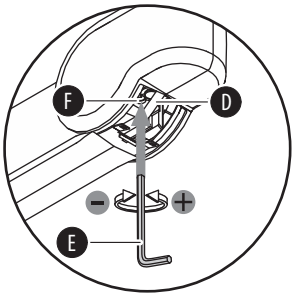
During adjustment work, make sure that any electrical cables in the spring arm are routed in the center of the spring arm and do not slip underneath other components.

5.14.1 L21, LCH19 spring arm

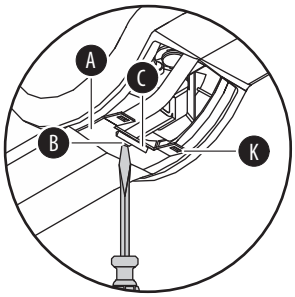




1. Switch off the surgical light at a control module and disconnect it from the mains power (see Chapter 5.7).
2. Open the lower faceplate [A].
   a) Insert a suitable flathead screwdriver into the opening [B].
   b) Slightly press the flathead screwdriver upwards and guide the locking hook [C] out of the rear spring arm cover.
   c) Push the faceplate towards the rear back into the side cover with the slot screwdriver.
3. Swivel the spring arm [7] 5 to 10 degrees upwards.
   The adjustment screw of the spring arm is relieved.

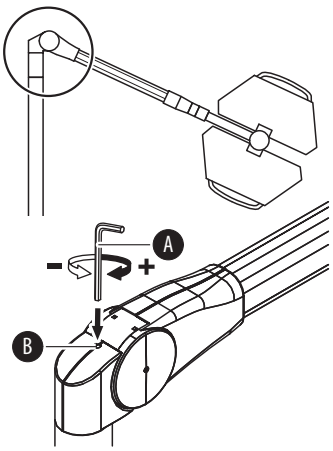


4. Carefully move any electrical cables [D] to the side and insert a Size 5 Allen key [E] into the adjustment opening [F].
5. Adjust the spring force.
   – If the spring arm drops, increase the spring force: Turn the Allen key in an anticlockwise direction.
   – If the spring arm rises, decrease the spring force: Turn the Allen key clockwise.
6. Test the spring strength. The support arm must remain stable in the set height position.



7. Close the lower faceplate [A].
   a) Manually pull the faceplate out of the side cover and insert the 2 catches [K] into the rear spring arm cover.
   b) Insert the flathead screwdriver into the opening [B], slightly press the faceplate upwards and guide the locking hook [C] into the rear spring arm cover.
8. Move the spring arm upwards and downwards. Check the secure fit of the upper and lower faceplate while doing so.
   – The locking hooks must engage with the rear spring arm cover.
   – The plates must slide easily in the lateral guides.

5.14.2 AC 2000 NRH mobile spring arm



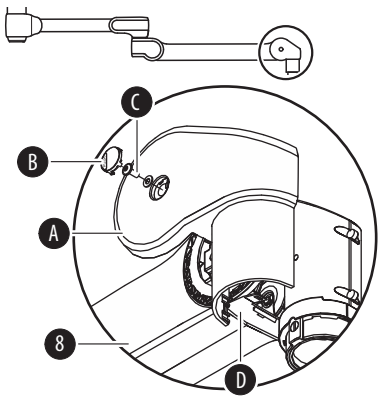
1. Switch off the surgical light at a control module and disconnect it from the mains power (see Chapter 5.7).
2. Swivel the spring arm approx. 10 degrees upwards.
   The adjustment screw of the spring arm is relieved.
3. Insert a Size 5 Allen key [A] into the adjustment opening [B].
4. Adjust the spring force.
   – If the spring arm drops, increase the spring force:
     Turn the Allen key clockwise.
   – If the spring arm rises, decrease the spring force:
     Turn the Allen key in an anticlockwise direction.
5. Test the spring strength. The support arm must remain stable in the set height position.

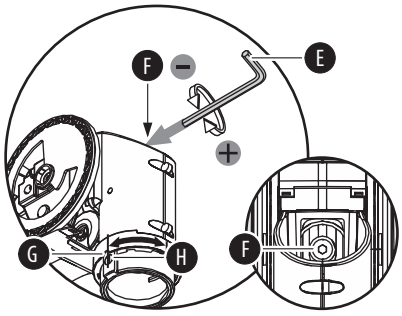
5.15 Adjusting the swivel range of the control arm upwards and downwards

The swivel range should only be set by personnel who have been trained by Baxter for this work.

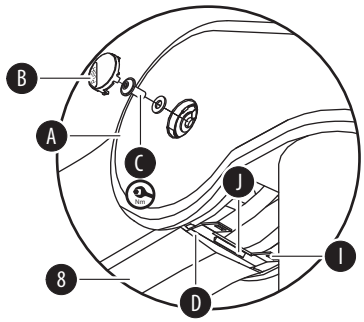
Adjust the swivel range in such a manner that collisions with the ceiling or other objects are ruled out. When making the adjustments, ensure that any electrical cables in the spring arm remain in the middle and do not slide under other components.

5.15.1 Spring arm L21



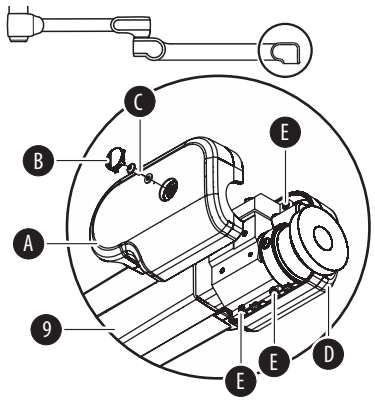


1. Switch off the surgical light at a control module and disconnect it from the mains power (see Chapter 5.7).
2. Pull the spring arm [8] down to relieve the setting screw.
3. Remove the front cover [A] from the spring arm [8].
   a) Press and remove the PUSH button [B] from the right and left front spring arm cover respectively.
   b) Using a Torx T10 screwdriver, remove 1 MLF screw and its washer [C] from each of the right and left front spring arm covers.
   c) Carefully unlock all catches at the joint between the two cover panels.
   d) Remove the front spring arm covers from the spring arm.
4. Manually push the upper and lower faceplates [D] into the side cover of the spring arm.
5. Insert a Size 5 Allen key [E] into the adjustment opening [F].
6. Adjust the swivel range.
   – Reducing the swivel range:
     Turn the Allen key in an anticlockwise direction.
   – Increasing the swivel range:
     Turn the Allen key clockwise.
7. Test the swivel range.

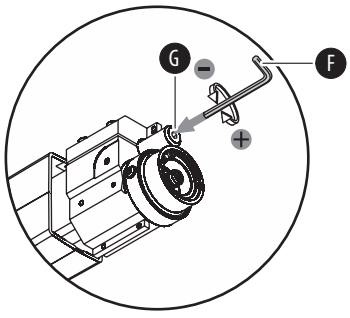


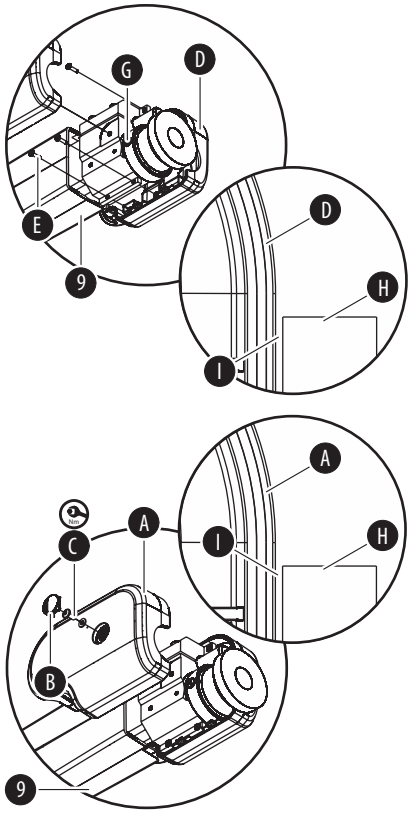
8. Mount the front cover [A] on the spring arm [8].
   a) Rotate the recess of the segment lock [G] over the optional brake screw or the brake screw opening [H].
   b) Position the right and left front spring arm covers on the spring arm so that, at the joint between the two front cover panels, all catches slide into one another and engage.
   c) Fasten the right and left spring arm cover with 1 MLF screw and one washer [C] (Torx T10 torque screwdriver with a torque of 1 Nm/ 0.73 ft lb) each on the boom.
   d) Insert 1 PUSH-button [B] flush into each of the right and left front spring arm cover. The PUSH-button may not protrude from the cover.
9. Close the upper and lower faceplate [D].
   a) Manually pull the upper and lower faceplate out of the side cover in a forward direction and insert the 2 catches [I] into the front spring arm cover.
   b) Push the face plates further into the cover with a suitable flathead screwdriver, slightly press them upwards and guide the locking hooks [J] into the front spring arm cover.
10. Move the spring arm upwards and downwards. Check the secure fit of the upper and lower faceplate while doing so.
   – The locking hooks must engage with the front spring arm cover.
   – The plates must slide easily in the lateral guides.

5.15.2 Spring arm LCH19



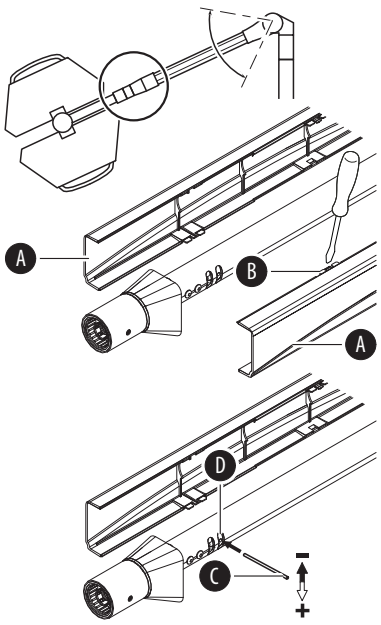
1. Switch off the surgical light at a control module and disconnect it from the mains power (see Chapter 5.7).
2. Pull the spring arm [9] down to relieve the setting screw.
3. Remove the left front cover [A] from the spring arm [9].
   a) Press and remove the PUSH-button [B] from the left front spring arm cover.
   b) Using a Torx T10 screwdriver, remove the MLF screw and its washer [C] from the left front cover.
   c) Carefully unlock the catches of the left front panel at the connecting edge between the two cover panels.
   d) Remove the left front cover from the spring arm.
4. Remove the right front cover [D] from the spring arm [9].
   a) Using a Torx T10 screwdriver, remove 3 PT screws [E] from the right front cover.
   b) Remove the right front cover from the spring arm.
5. Insert a Size 5 Allen key [F] into the adjustment opening [G].
6. Adjust the swivel range.
   – Reducing the swivel range:
   Turn the Allen key in an anticlockwise direction.
   – Increasing the swivel range:
   Turn the Allen key clockwise.
7. Test the swivel range.





8. Mount the front cover on the spring arm [9].
   a) Position the right front cover [D] on the spring arm so that there is a gap [I] between the connecting pin of the adaptation [H] and the cover.
   b) Attach the right front cover to the spring arm with 3 PT screws [E] (Torx T10 screwdriver).
   c) Position the left front cover [A] on the spring arm so that there is a gap [I] between the connecting pin of the adaptation [H] and the cover and so that, at the joint between the two front cover panels, all catches slide into one another and engage.
   d) Fasten the left front cover with 1 MLF screw and its washer [C] (Torx T10 torque screwdriver with a torque of 1 Nm/ 0.73 ft lb) on the spring arm.
   e) Insert 1 PUSH-button [B] flush into the left front cover. The PUSH-button may not protrude from the cover.

5.15.3 AC 2000 NRH mobile spring arm

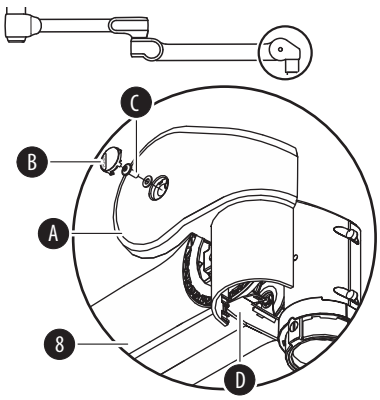


1. Switch off the surgical light at a control module and disconnect it from the mains power (see Chapter 5.7).
2. Separate the two cover halves [A] from each other and remove them. To do this, press the six tabs [B] on the cladding, using a slotted screwdriver.
3. Insert the pin [C] into setting opening [D] and set the swivel range.
   – Reduce the swivel range:
     Push the pin upwards.
   – Increasing the swivel range:
     Push the pin downwards.
4. Position the two cladding halves on the spring arm and press them together, so that the six tabs engage.
5. Check that the covers are securely attached.
6. Test the swivel range. Collisions must be avoided.

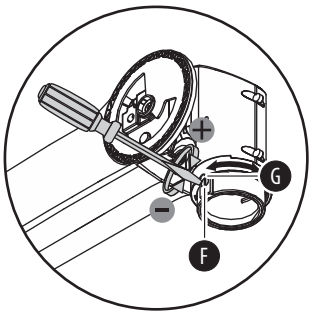
5.16 Adjusting the optional brakes on the spring arm

The braking force should only be set by personnel who have been trained by Baxter in this work.

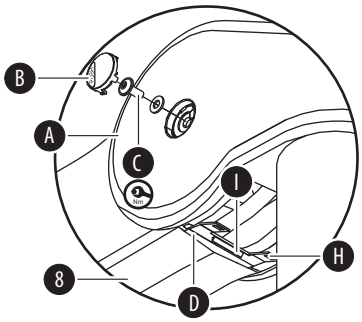
5.16.1 Spring arm L21



1. Switch off the surgical light at a control module and disconnect it from the mains power (see Chapter 5.7).
2. Remove the front cover [A] from the spring arm [8].
   a) Press and remove the PUSH button [B] from the right and left front spring arm cover respectively.
   b) Using a Torx T10 screwdriver, remove 1 MLF screw and its washer [C] from each of the right and left front spring arm covers.
   c) Carefully unlock all catches at the joint between the two cover panels.
   d) Remove the front spring arm covers from the spring arm.
3. Manually push the upper and lower faceplates [D] into the side cover of the spring arm.



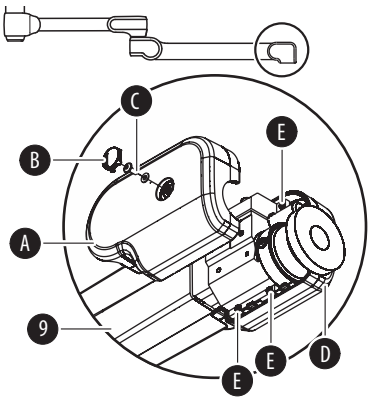
4. Adjust the brake [F] with a suitable flathead screwdriver.
   – Increase the braking force:
   Turn the flathead screwdriver clockwise.
   – Reduce the brake force:
   Turn the flathead screwdriver in an anticlockwise direction.
5. Test the braking strength. The support arm component must be easily adjustable and remain steadily in the set swivel position.



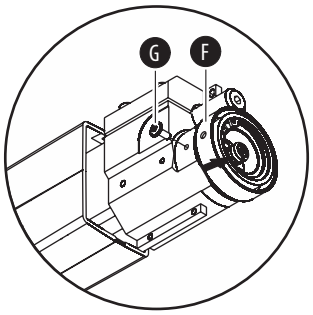
6. Mount the front cover [A] on the spring arm [8].
   a) Rotate the recess of the segment safety catch [G] over the optional brake screw.
   b) Position the right and left front spring arm covers on the spring arm so that, at the joint between the two front cover panels, all catches slide into one another and engage.
   c) Fasten the right and left spring arm cover with 1 MLF screw and one washer [C] (Torx T10 torque screwdriver with a torque of 1 Nm/ 0.73 ft lb) each on the boom.
   d) Insert 1 PUSH-button [B] flush into each of the right and left front spring arm cover. The PUSH-button may not protrude from the cover.
7. Close the upper and lower faceplate [D].
   a) Manually pull the upper and lower faceplate out of the side cover in a forward direction and insert the 2 catches [H] into the front spring arm cover.
   b) Push the face plates further into the cover with a suitable flathead screwdriver, slightly press them upwards and guide the locking hooks [I] into the front spring arm cover.

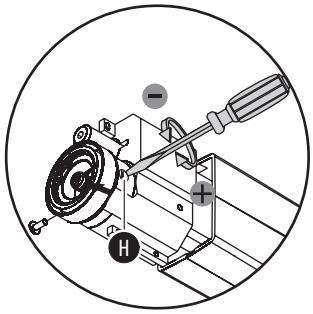
8. Move the spring arm upwards and downwards. Check the secure fit of the upper and lower faceplate while doing so.
   – The locking hooks must engage with the front spring arm cover.
   – The plates must slide easily in the lateral guides.

5.16.2 Spring arm LCH19

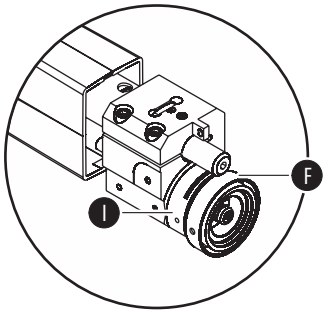


1. Switch off the surgical light at a control module and disconnect it from the mains power (see Chapter 5.7).
2. Remove the left front cover [A] from the spring arm [9].
   a) Press and remove the PUSH-button [B] from the left front spring arm cover.
   b) Using a Torx T10 screwdriver, remove the MLF screw and its washer [C] from the left front cover.
   c) Carefully unlock the catches of the left front panel at the connecting edge between the two cover panels.
   d) Remove the left front cover from the spring arm.
3. Remove the right front cover [D] from the spring arm [9].
   a) Using a Torx T10 screwdriver, remove 3 PT screws [E] from the right front cover.
   b) Remove the right front cover from the spring arm.
4. Move the segment safety catch [F].
   a) Using a Torx T10 screwdriver, remove 1 MLF screw [G] from the segment safety catch.
   b) Push the segment safety catch forwards until the brake screw [H] is accessible.

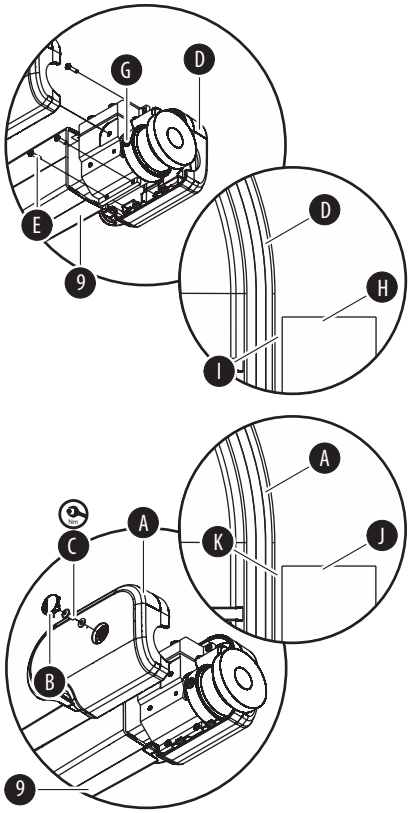




5. Adjust the brake [H] with a suitable flathead screwdriver.
   – Increase the braking force:
   Turn the flathead screwdriver clockwise.
   – Reduce the brake force:
   Turn the flathead screwdriver in an anticlockwise direction.
6. Test the braking strength. The support arm component must be easily adjustable and remain steadily in the set swivel position.

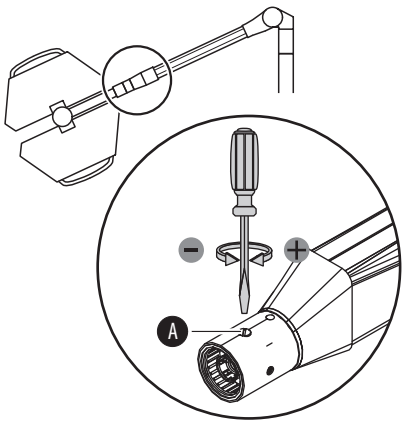


7. Move the segment safety catch [F].
   a) Push the segment safety catch backwards until it no longer protrudes over the mounting opening [I].
   b) Attach the segment safety catch to the spring arm using 1 MLF screw [G] (Torx T10 screwdriver).



8. Mount the front cover on the spring arm [9].
   a) Position the right front cover [D] on the spring arm so that there is a gap [K] between the connecting pin of the adaptation [J] and the cover.
   b) Attach the right front cover to the spring arm with 3 PT screws [E] (Torx T10 screwdriver).
   c) Position the left front cover [A] on the spring arm so that there is a gap between the connecting pin of the adaptation and the cover and so that, at the joint between the two front cover panels, all catches slide into one another and engage.
   d) Fasten the left front cover with 1 MLF screw and its washer [C] (Torx T10 torque screwdriver with a torque of 1 Nm/ 0.73 ft lb) on the spring arm.
   e) Insert 1 PUSH-button [B] flush into the left front cover. The PUSH-button may not protrude from the cover.

5.16.3 AC 2000 NRH mobile spring arm

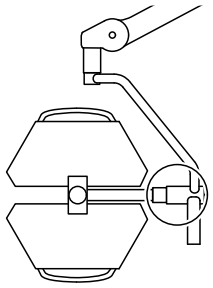


1. Switch off the surgical light at a control module and disconnect it from the mains power (see Chapter 5.7).
2. Use a suitable Phillips screwdriver to remove the locking screw on the retaining sleeve.
3. Turn the retaining sleeve until the brake screw becomes visible on the bottom.
4. Adjust the brake [A] with a suitable flathead screwdriver.
   – Increase the braking force:
     Turn the flathead screwdriver clockwise.
   – Reduce the brake force:
     Turn the flathead screwdriver in an anticlockwise direction.
5. Test the braking strength. The surgical light must be easy to adjust and remain steadily in the set swivel position.
6. Rotate the retaining sleeve back into the original mounting position and secure it with the locking screw.

5.17 Adjusting the brake force on the surgical light

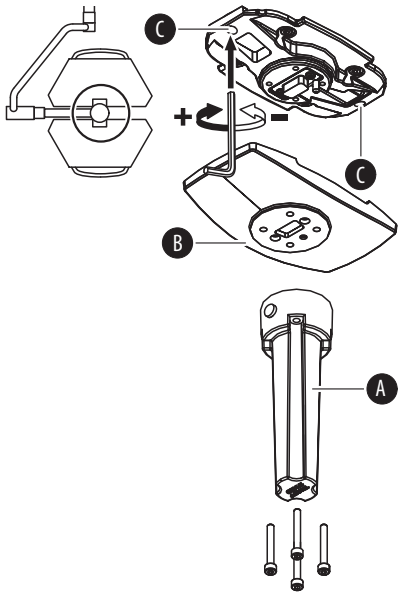
The braking force should only be set by personnel who have been trained by Baxter in this work.

5.17.1 Cardan joint



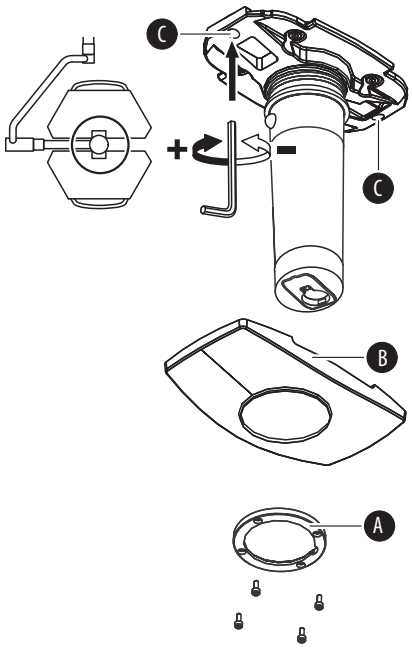
1. Switch off the surgical light at a control module and disconnect it from the mains power (see Chapter 5.7).
2. To adjust the brake force, alternately turn both opposite brake screws by the same number of rotations with a suitable flathead screwdriver.
   – Increase the braking force:
   Turn the flathead screwdriver clockwise.
   – Reduce the brake force:
   Turn the flathead screwdriver in an anticlockwise direction.
3. Test the braking strength. The light head must be easy to adjust and remain steadily in the set rotation position.

5.17.2 Light head with standard handle



1. Switch off the surgical light at a control module and disconnect it from the mains power (see Chapter 5.7).
2. Remove the sterilizable handle from the handle adapter.
3. Remove the grip attachment [A] (4 Allen screws M4x30 mm/ M4x1.18 inch).
4. Remove the cover of the handle attachment [B].
5. To adjust the brake force, alternately turn both opposite grub screws [C] by the same number of rotations with a Size 6 Allen key.
   – Increase the braking force:
   Turn the Allen key clockwise.
   – Reduce the brake force:
   Turn the Allen key in an anticlockwise direction.
   If the force can no longer be adjusted, the internal brake strip must be replaced by a qualified service technician.
6. Attach the cover of the handle attachment [B].
7. Attach the grip attachment [A] (4 Allen screws M4x30 mm/ M4x1.18 inch).
8. Slide on the sterilizable handle.
9. Check all mounted parts for firm and correct attachment.
10. Test the braking strength. The light head must be easy to adjust and remain steadily in the set rotation position.

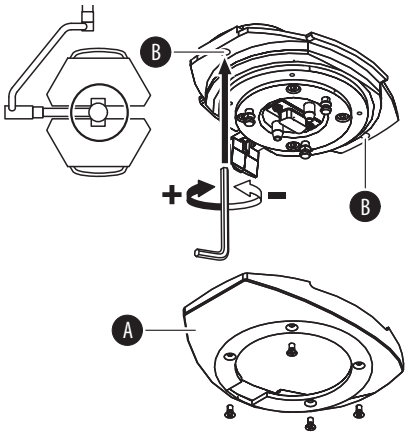
5.17.3 Light head with ALC Plus function



1. Switch off the surgical light at a control module and disconnect it from the mains power (see Chapter 5.7).
2. Remove the sterilizable handle from the handle adapter.
3. Remove the retaining ring [A] (4 Allen screws M4x15 mm/ M4x0.59 inch).
4. Remove the cover of the handle attachment [B].
5. To adjust the brake force, alternately turn both opposite grub screws [C] by the same number of rotations with a Size 6 Allen key.
   - Increase the braking force:
     Turn the Allen key clockwise.
   - Reduce the brake force:
     Turn the Allen key in an anticlockwise direction.

   If the force can no longer be adjusted, the internal brake strip must be replaced by a qualified service technician.
6. Attach the cover of the handle attachment [B].
7. Attach the retaining ring [A] (4 Allen screws M4x15 mm/ M4x0.59 inch).
8. Slide on the sterilizable handle.
9. Check all mounted parts for firm and correct attachment.
10. Test the braking strength. The light head must be easy to adjust and remain steadily in the set rotation position.

5.17.4 Light head with TruVidia HD camera



1. Switch off the surgical light at a control module and disconnect it from the mains power (see Chapter 5.7).
2. Pull the sterilizable handle off the camera.
3. Remove the camera from the camera holder.
4. Remove the cover of the handle attachment [A] (4 countersunk cross-headed screws).
5. To adjust the brake force, alternately turn both opposite grub screws [B] by the same number of rotations with a Size 6 Allen key.
   - Increase the braking force:
     Turn the Allen key clockwise.
   - Reduce the brake force:
     Turn the Allen key in an anticlockwise direction.

   If the force can no longer be adjusted, the internal brake strip must be replaced by a qualified service technician.
6. Remove the handle attachment cover [A] (4 flat-head screws with cross-slits).
7. Attach the camera to the camera mount.
8. Slide on the sterilizable handle.
9. Test the braking strength. The light head must be easy to adjust and remain steadily in the set rotation position.

5.18 Decommissioning

⚠ WARNING

Risk of infection

The product may be contaminated with infectious substances.

- The product must always be disinfected before temporarily or permanently taking it out of service.

Disconnect the surgical light from all mains power supply terminals (see Chapter 5.7), and secure it against being switched on again when temporarily or permanently taking the surgical light out of service. Disassembly of the surgical light in case of permanent decommissioning may only be carried out by qualified service technicians.

6 Cleaning and disinfection

⚠ WARNING

Risk of infection for the patient

- No cleaning work may be carried out during operation.

⚠ WARNING

Danger of electric shock

Contact with live parts may result in electric shock.

- Take the surgical light out of service before cleaning and disinfecting it. See information in Chapter 5.7.
- Before cleaning and disinfection, take all products connected to the surgical light (for example the wall control panel, TruVidia HD camera) out of service.
- Dose cleaning agents and disinfectants so that no fluid can enter into the joints or openings of the surgical light or parts of the support arm system.
- Do not insert objects into device openings.

⚠ WARNING

Improperly used cleaning agents or disinfectants can endanger patients or damage products

Failure to comply with the specifications and directions in this section can lead to the risk of contamination or infection for patients or damage products.

- Use wipe-down disinfection only as the disinfection method.
- The cloth used to clean / disinfect the device should only be damp, not wet.
- Dispense cleaning agents and disinfectants in such a way that no liquid can enter through the joints or openings of the support arm system of the surgical light.
- Only use surface disinfectants in the concentration specified by the manufacturer.
- Only use disinfectants approved by the manufacturer for use on the following materials: Polycarbonate (PC), polyamide (PA), acrylonitrile-butadiene-styrene copolymer (ABS), polystyrene (PS), polyurethane (PUR), polyphenylsulfone (PPSU), polyvinyl chloride (PVC), polybutylene terephthalate (PBT), and silicones.
- In the event of increased build-up of surface disinfectant, conduct a thorough basic cleaning.
- The operator's hygiene guidelines must be complied with.

To avoid damage to surfaces, note the following:

- Do not use sharp, pointed or abrasive objects.
- Do not use abrasives or stripping agents.
- Do not use solvents, gasoline, or paint thinners, or alkaline, acidic, or aldehyde-containing cleaning agents.
- Do not use cleaning agents with glycol derivatives, phenols, phenol derivatives or quaternary compounds.
- To avoid damage to paint and corrosion, only use agents that are free of chlorides or halogenides.
- The operator's hygiene guidelines must be complied with.

NOTICE

The surgical light may be damaged when inappropriate cleaning or disinfecting agents are used.

Non-compliance with cleaning or disinfection specifications voids all warranty claims. No liability is assumed for damage caused by inappropriate cleaning/disinfection agents. The warranty is valid only for undamaged surfaces.

Regular cleaning and disinfection with suitable cleaning or disinfection agents after every surgical intervention is necessary for the safe use of the surgical light system.

The operator must meet the requirements of the national Commission for Hygiene and Disinfection.

The cleaning and disinfection of the surgical light system may only be performed by a hygiene specialist or a person instructed by the hygiene specialist.

Only agents or chemicals compatibility-tested and approved by Baxter may be used for cleaning and disinfecting. When using alternative cleaning agents and disinfectants, Baxter cannot confirm any material compatibility. Do not use agents that are not listed, otherwise functional components may be altered or damaged.

Before actual disinfection, thorough cleaning of any visible impurities, such as bodily fluids, must be performed.

To clean heavy or stubborn dirt, use only a soft brush and mild cleaner or cleaning disinfectant. Disinfection can take place once all the visible contaminants have been removed.

After a risk of contamination of the product through potentially infectious material (e.g. blood, secretions or excrements) disinfect the surfaces immediately, especially where such material has built up.

Use only wipe-down disinfection as the disinfection method. Disinfection using UV light or steam is prohibited.

The handles are sterilizable. Take note of the operating instructions for the handle.

6.1 Wipe-down disinfection

⚠ WARNING

Risk of fire or explosion due to disinfectants

Flammable or explosive atmospheres may be created when handling disinfectants due to the formation of gases, vapors, or mists.

- Do not use any highly flammable disinfecting agents.
- Do not perform any large-scale disinfections.
- Allow hot surfaces to cool prior to disinfection.
- Completely disconnect the electrical installations in the room, where possible, and ensure that no switching can take place while disinfecting, especially automatically.
- After wiping with disinfectant, wait until the disinfecting agent is completely dry.
- Ensure that the room is adequately ventilated.

Use wipe-down disinfection to disinfect the lamp head and the support arm system. The lamp head must be cool for cleaning and disinfection.

For cleaning and disinfection of the surgical light system, only wipe it with a damp but not wet cloth. Apply only a thin liquid film, wipe, and leave behind only a thin, cohesive film of moisture. This moist film has sufficient microbiological effect. The fluid does not need to remain on the surface.

Applying too much fluid to the surface during disinfection leaves residue behind. To prevent build-up of disinfectant residue, a mild all-purpose cleaner should be used for regular cleaning. The regularity of cleaning depends on the frequency of disinfection, but should be carried out at least once a month.

Cleaning procedure

1. Disconnect the surgical light system from all power supply terminals and secure it against being switched back on. See Chapter 5.7.
2. Allow the device components to cool. Only clean or disinfect the surgical light system when it is cold.
3. If necessary, remove the TruVidia HD camera. The handle adapter #2065945 (Adaption Standard handle) or #2066135 (Adaption disposable handle) must be attached to the camera mount of the light head as a cover for the mount and as a compensation weight.
4. Moisten a cloth with cleaning agent or disinfectant.
5. Clean the surgical light system with the damp but not wet cloth.

6.2 Recommended disinfecting agents

Baxter recommends the following disinfecting agents for manual use:

Manufacturer	Product designation
B. Braun Melsungen AG	Meliseptol
Diverse	70% 2-propanol alcohol
Schülke & Mayr GmbH	Perform 0.5%
Bode Chemie GmbH & Co. KG	Dismozon pur 0.75%
Clorox Healthcare	Hydrogen peroxide cleaner disinfectant wipes
Kesla Pharma	Wofasteril 0.5%

Observe the product hygiene guidelines and notices provided by the disinfectant manufacturer.

Comply with the disinfectant information on application concentration and exposure time.

For surface disinfection of the support arm system (ceiling mount, central axis, extension arm and spring arm), the following disinfectants are permitted:

Preparation	**Active ingredient**
Meliseptol	Alcohols/Aldehyde
Ethanol 60%	Alcohols
Chlorhexidine 0.5% in 70% Ethanol	Chlorbasis
Chlorine 250 ppm in 1 liter distilled water	Chlorbasis
Haemosol 1% in 1 liter water	Guanidine derivative
Dismozon pur	Peroxide compounds
Incidin Extra N	Quaternary compound, alkylamine derivative
Terralin protect	Quaternary compound, glycol derivative

7 Troubleshooting

If an error recurs or cannot be resolved, take the device out of service and inform the Technical Customer Service of Baxter.

Error	Possible cause	Correction
Support arms		
The lamp head moves down or rises.	The spring force in the spring arm is too low or too high.	Adjust the spring force.
The lamp head movement is too hard or too easy.	The brake force is set too high or too low.	Adjust the brake force.
Optical Device / light technology		
Lighting intensity is too low.	Lighting intensity is set too low.	Increase the brightness.
		More than 10 LEDs are defective. Notify the Technical Customer Service.
Uneven light field	Lamp head is outside the working area.	Position the lamp head in the appropriate working area.
The surgical light does not come on.	External power supply is switched off.	Switch on the external power supply.
	The lamp head has been switched off at the controls.	Press the On/Off button on the controls.
	The power plug of the mobile pedestal version is not plugged in.	Plug the power plug into the socket.
	The power supply unit of the mobile pedestal version is not switched on.	Press the On/Off switch on the power supply unit.
	Electronics are faulty.	Notify the Technical Customer Service.
	The local power supply is interrupted.	Check the local fuses and power supply.
The automated distance measurement does not work (ALC Plus indicator flashes).	Software failure	Deactivate ALC Plus and select the distance manually or disconnect the voltage supply and switch it back on again.
Different color temperatures in the light field	The color temperature is only set on one lamp head.	Switch on the synchronization function.

8 Maintenance

⚠ WARNING

Do not carry out any maintenance work during surgery or while the device is in use.

The surgical light system must be serviced at least every 2 years after handover to the user. After ten years of operation, maintenance of the surgical light must be carried out annually.

Product maintenance or the exchange of components may only be carried out by qualified service technicians.

The contact details of service technicians can be obtained from the Technical Customer Service at Baxter.

Baxter recommends concluding a maintenance agreement, so that maintenance can be carried out promptly and reliably.

9 Repair

⚠ WARNING

Do not carry out any maintenance work during surgery or while the device is in use.

The products must be repaired only by qualified service technicians. The contact details of service technicians can be obtained from the Technical Customer Service at Baxter.

After each repair, an electrical safety inspection according to the criteria specified by Baxter must be carried out.

10 Spare parts

The service parts may only be exchanged by staff trained in this work by Baxter.

Replacement of the braking strip on the light head must be performed by qualified service technicians. The contact details of service technicians can be obtained from the Technical Customer Service at Baxter.

Product designation	**Part number**
Service parts on the boom	
SP-ValiaS, braking screws M10	1946894
Service parts on the spring arm	
SP-VALiA, basic spring arms, M10 brake screws	1946909
Brake screw M12x1-21 mm	1378866
Service parts on the surgical light and on the comfort strap	
Brake screw M10x1-11 mm	4025239
Braking strip	2002781

11 Disposal

Within the European Union, the product is subject to Directive 2012/19/EU on Waste Electrical and Electronic Equipment and complies with the requirements in Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment, amended by the Commission delegated directive 2015/863 of 31 March 2015 as regards the list of restricted substances (RoHS). The surgical light may not be disposed of via municipal collection points for old electrical devices.

In countries outside the European Union (EU), the legal regulations applicable in the respective country must be observed.

If you have any questions about proper disposal, please contact the Technical Customer Service at Baxter, your local dealer, or the appropriate national authority.

In addition to regional disposal, faulty or obsolete products can be returned to Baxter. Baxter will ensure environmentally sound disposal. Detailed information about returns is provided by the Technical Customer Service at Baxter.

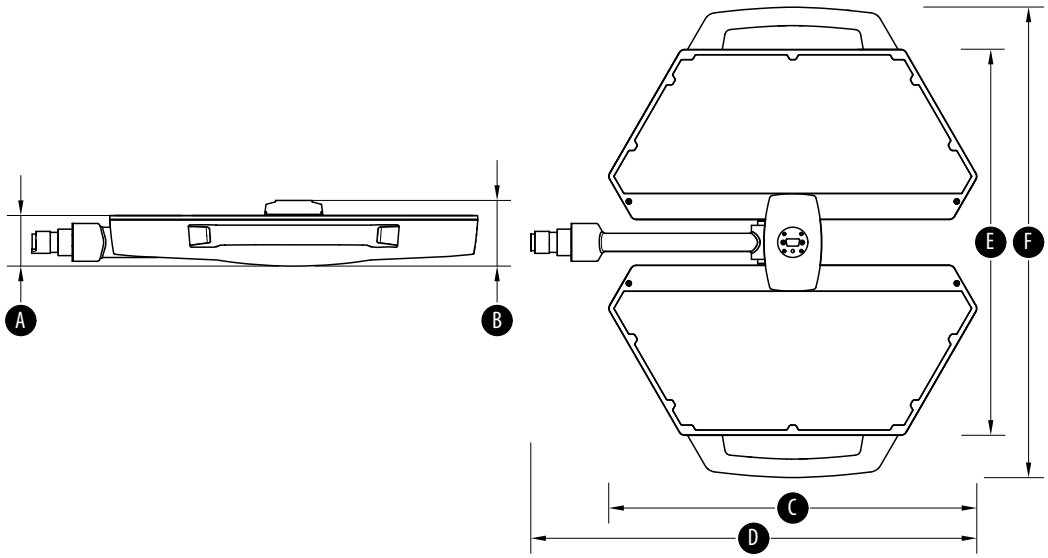
12 Technical data

12.1 Device data

IP classification according to IEC 60529	
Lamp head	IP20
Support arm system	IP30

Operating mode	
Surgical light	Continuous operation

Dimensions



TruLight x3x0		
	Height [A]	67 mm / 2.64 inch
	Height [B]	87 mm / 3.42 inch
	Width [C]	487 mm / 19.17 inch
	Width [D]	590 mm / 23.23 inch
	Width [E]	510 mm / 20.08 inch
	Width [F]	622 mm / 24.49 inch
TruLight x5x0		
	Height [A]	70 mm / 2.76 inch
	Height [B]	97 mm / 3.81 inch
	Width [C]	572 mm / 22.52 inch
	Width [D]	636 mm / 25.04 inch
	Width [E]	591 mm / 23.27 inch
	Width [F]	704 mm / 27.72 inch

12.1.1 TruLight 3000

Product designation	TruLight		
	3300	3500	3510
Equipment			
Adaptive Light Control (ALC)	x	x	x
Sterile Light Control (SLC)	–	–	–
Adaptive Light Control Plus (ALC Plus)	–	–	–
TruVidia HD camera	–	–	x
Side handles, illuminated	–	–	–
Wall control panel	Optional	Optional	Optional
Color temperature, adjustable on the controls	–	–	–
Electrical data			
Supply voltage at the power supply unit	100–240 V AC 50/60 Hz	100–240 V AC 50/60 Hz	100–240 V AC 50/60 Hz
Supply voltage to the 24 V converter	22–32 V DC 22–26 V AC	22–32 V DC 22–26 V AC	22–32 V DC 22–26 V AC
Maximum power consumption	130 VA	130 VA	150 VA
Internal fuse (only mobile pedestal version)	2 x T10 A	2 x T10 A	2 x T10 A
Voltage at the fixed point on the ceiling	48 V	48 V	48 V
Average service life of the bulb (LED)	> 60,000 hrs.	> 60,000 hrs.	> 60,000 hrs.
Classification according to the Act on Medical Devices (MPG)	1	1	1

Lighting data All light technology values maximum +/- 10% tolerance	TruLight	
	33x0	35x0
Light intensity with 1.0 m / 39.37 inch	140,000 lux	160,000 lux
Dimmable from/to	< 10% Endo; 50% - 100%	< 10% Endo; 50% - 100%
Light field size can be varied by changing the distance	17 - 25 cm / 6.69 - 9.84 inch	17 - 25 cm / 6.69 - 9.84 inch
Light field diameter (d10) at 1.0 m / 39.37 inch	18 mm / 7.09 inch	18 mm / 7.09 inch
Light field diameter (d50) at 1.0 m / 39.37 inch	11 mm / 4.33 inch	11 mm / 4.33 inch
d50/d10 ratio	0.61	0.61
Radiation intensity (W/m) at a distance of 0.9 m / 35.43 inch	587	616
Residual lighting intensity with one shade	86,100 lux 59%	104,600 lux 68%
Residual lighting intensity with two shades	64,025 lux 44%	71,725 lux 47%
Residual lighting intensity with lens barrel	145,500 lux 100%	147,500 lux 96%

Lighting data All light technology values maximum +/- 10% tolerance	**TruLight**	
	33x0	**35x0**
Residual lighting intensity with lens barrel and one shade	85,500 lux 59%	97,800 lux 64%
Residual lighting intensity with lens barrel and two shades	63,825 lux 44%	68,575 lux 45%
Illumination depth (L1 + L2) at 20% Ec / EN ISO 60601-2-41 2nd Edition	83 mm / 32.68 inch	84 mm / 33.07 inch
Illumination depth (L1 + L2) at 60% Ec / EN ISO 60601-2-41 3rd Edition	51 mm / 20.08 inch	47 mm / 18.50 inch
Color rendition index Ra	96	96
Color temperature	4,500 K	
Mechanical Data		
Lamp head diameter	640 mm / 25.20 inch	730 mm / 28.74 inch
Flow surface of the lamp head	2100 cm² / 325.50 inch²	3100 cm² / 480.50 inch²
Light-emitting surface	1332 cm² / 206.46 inch²	1892 cm² / 293.26 inch²
Weight of the lamp head (including comfort and central strap)	13.6 kg / 29.98 lbs	16.4 kg / 36.16 lbs

12.1.2 TruLight 5000

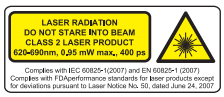
Product designation	**TruLight**					
	5300	**5310**	**5320**	**5500**	**5510**	**5520**
Adaptive Light Control (ALC)	x	x	x	x	x	x
Sterile Light Control (SLC)	–	–	x	–	–	x
Adaptive Light Control Plus (ALC Plus)	–	x	x	–	x	x
TruVidia HD camera	–	x	–	–	x	–
Side handles, illuminated	x	x	x	x	x	x
Wall control panel	Optional	Optional	Optional	Optional	Optional	Optional
Color temperature, adjustable on the controls	Optional	Optional	Optional	Optional	Optional	Optional

Electrical data	**TruLight**			
	5300	**53x0**	**5500**	**55x0**
Supply voltage at the power supply unit	100–240 V AC 50/60 Hz	100–240 V AC 50/60 Hz	100–240 V AC 50/60 Hz	100–240 V AC 50/60 Hz
Supply voltage to the 24 V converter	22–32 V DC 22–26 V AC	22–32 V DC 22–26 V AC	22–32 V DC 22–26 V AC	22–32 V DC 22–26 V AC
Maximum power consumption	110 VA	140 VA	120 VA	160 VA
Internal fuse (only mobile pedestal version)	2 x T10 A	2 x T10 A	2 x T10 A	2 x T10 A
Voltage at the fixed point on the ceiling	48 V	48 V	48 V	48 V

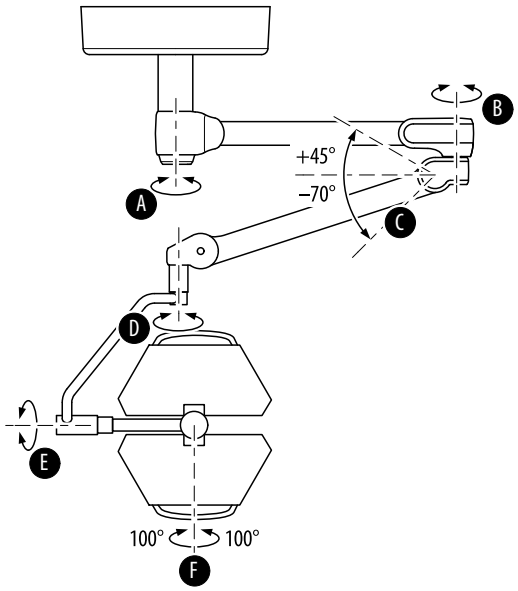
Electrical data	TruLight			
	5300	53x0	5500	55x0
Average service life of the bulb (LED)	> 60,000 hrs.	> 60,000 hrs.	> 60,000 hrs.	> 60,000 hrs.
Classification according to the Act on Medical Devices (MPG)	1	1	1	1

Lighting data All light technology values maximum +/- 10% tolerance	TruLight			
	53x0		55x0	
Light intensity with 1.0 m / 39.37 inch	140,000 lux		160,000 lux	
Dimmable from/to	< 10% Endo; 50% - 100 %		< 10% Endo; 50% - 100%	
Light field size can be varied by changing the distance	16 cm - 30 cm / 6.30–11.81 inch		16 cm - 30 cm / 6.30–11.81 inch	
Radiation intensity (W/m) at a distance of 0.9 m / 35.43 inch	620		676	
	Light field			
	Narrow	Wide (optional)	Narrow	Wide (optional)
Light field diameter (d10) at 1.0 m / 39.37 inch	17 cm / 6.69 inch	24 cm / 9.45 inch	17 cm / 6.69 inch	24 cm / 9.45 inch
Light field diameter (d50) at 1.0 m / 39.37 inch	10 cm / 3.94 inch	13 cm / 5.12 inch	10 cm / 3.94 inch	13 cm / 5.12 inch
d50/d10 ratio	0.59	0.54	0.59	0.54
Residual lighting intensity with one shade	39,400 lux 28%	90,200 lux 65%	96,300 lux 62%	122,200 lux 79%
Residual lighting intensity with two shades	54,600 lux 39%	60,150 lux 44%	68,250 lux 44%	74,400 lux 48%
Residual lighting intensity with lens barrel	141,100 lux 100%	138,000 lux 100%	154,200 lux 99%	145,000 lux 94%
Residual lighting intensity with lens barrel and one shade	39,400 lux 28%	90,000 lux 65%	94,700 lux 61%	113,000 lux 71%
Residual lighting intensity with lens barrel and two shades	54,700 lux 39%	60,150 lux 44%	67,500 lux 43%	69,600 lux 45%
Illumination depth (L1 + L2) at 20% Ec / EN ISO 60601-2-41 2nd Edition	94 cm / 37.01 inch	96 cm / 37.80 inch	95 cm / 37.40 inch	94 cm / 37.01 inch
Illumination depth (L1 + L2) at 60% Ec / EN ISO 60601-2-41 3rd Edition	61 cm / 24.02 inch	57 cm / 22.44 inch	49 cm / 19.29 inch	62 cm / 24.41 inch
Color rendition index (Ra)	Max. 96		Max. 96	
Color temperature (adjustable during initial installation)	3,500 K 4,000 K 4,500 K 5,000 K		3,500 K 4,000 K 4,500 K 5,000 K	
Color temperature (adjustable at the controls)	Optional		Optional	

Mechanical Data	TruLight					
	5300	5310	5320	5500	5510	5520
Lamp head diameter	640 mm / 25.20 inch			730 mm / 28.74 inch		
Flow surface of the lamp head	2100 cm² / 325.50 inch²			3100 cm² / 480.50 inch²		
Light-emitting surface	1332 cm² / 206.46 inch²			1892 cm² / 293.26 inch²		
Weight of the lamp head (including comfort and central strap)	13.6 kg / 29.98 lbs	13.6 kg / 29.98 lbs	14.0 kg / 30.86 lbs	16.4 kg / 36.16 lbs	16.4 kg / 36.16 lbs	16.8 kg / 37.04 lbs

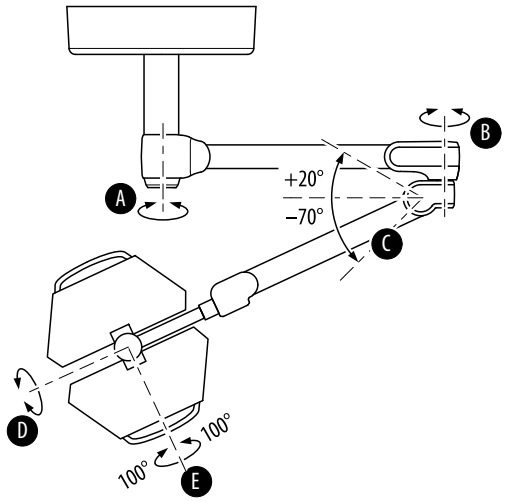
Performance specifications for laser	TruLight	
	5520	5320
 The single-beam laser is also classified as a laser in Laser Class 2 according to IEC 60825-1:2007. The laser complies with the performance standards of the US FDA with the exception of deviations that are listed in the Laser Note No. 50 dated January 24, 2007.		
Maximum output power The output power was measured with an ambient light of 200 lux on a white screen, which fills the camera's field of view at a distance of 20 cm / 7.87 inch.	0.95 mW	0.95 mW
Wavelength	620–690 nm	620–690 nm
Beam divergence	0.16 x 0.6 mRad	0.16 x 0.6 mRad
Pulse duration	0.4 x 10 ^ -9 sec.	0.4 x 10 ^ -9 sec.
Pulse repeat rate	320 MHz	320 MHz

12.1.3 Support arm system swivel ranges

Joint		Swivel range
Ceiling-mounted version with L21 spring arm		
		
[A]	Ceiling conduit - Boom	Horizontal: > 360° (without stop)
[B]	Boom - L21 spring arm	Horizontal: > 360° (without stop)
[C]		Vertical: +45° to -70°

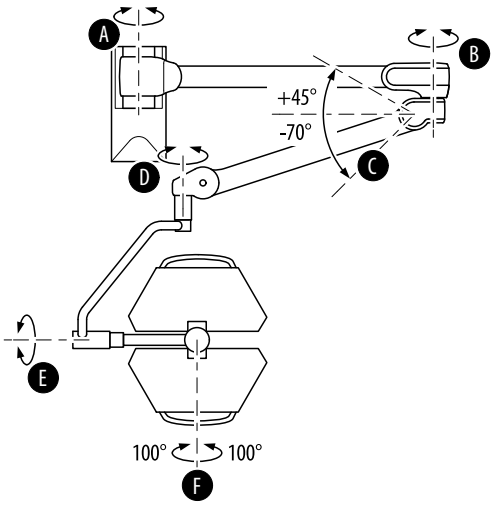
[D]	L21 spring arm - Comfort strap	Horizontal: > 360° (without stop)
[E]	Type Comfort strap – Lamp head of TruLight 3000	Vertical: > 360° (without stop)
	Type Comfort strap – Lamp head of TruLight 5000	Vertical: < 420° (with end stop)
[F]	Lamp head – Cardan joint	200° (-100°/+100°)

Ceiling-mounted version with LCH19 spring arm (Version: Low room height)

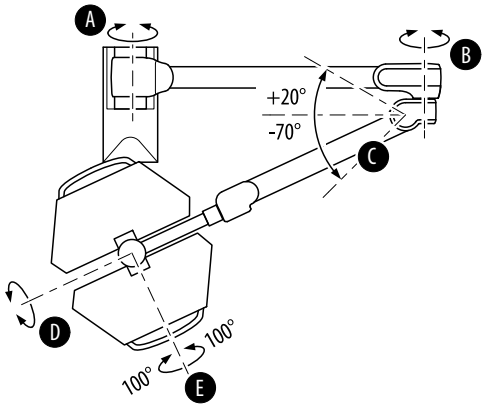
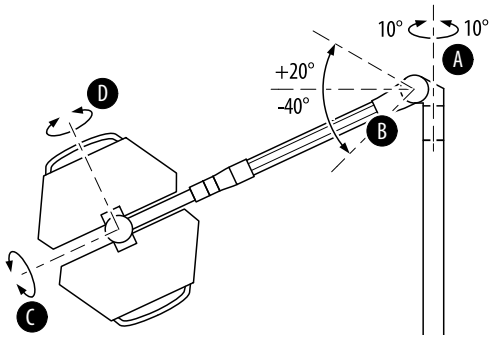


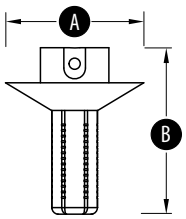
[A]	Ceiling conduit - Boom	Horizontal: > 360° (without stop)
[B]	Boom - LCH19 spring arm	Horizontal: > 360° (without stop)
[C]		Vertical: +20° to -70°
[D]	LCH19 spring arm - Lamp head	Horizontal: > 360° (without stop)
[E]	Lamp head – Cardan joint	200° (-100°/+100°)

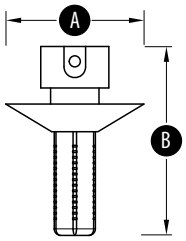
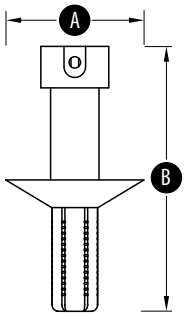
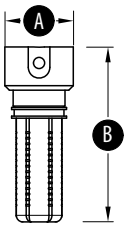
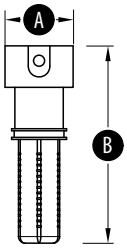
Wall-mounted version with L21 spring arm



[A]	Wall bearing - Boom	Horizontal: 180%
[B]	Boom - L21 spring arm	Horizontal: > 360° (without stop)
[C]		Vertical: +45° to -70°
[D]	L21 spring arm - Comfort strap	Horizontal: > 360° (without stop)

[E]	Type Comfort strap – Lamp head of TruLight 3000	Vertical: > 360° (without stop)
	Type Comfort strap – Lamp head of TruLight 5000	Vertical: < 420° (with end stop)
[F]	Lamp head – Cardan joint	200° (-100°/+100°)
Wall-mounted version with LCH19 spring arm (Version: Low room height)		
		
[A]	Wall bearing - Boom	Horizontal: 180%
[B]	Boom - LCH19 spring arm	Horizontal: > 360° (without stop)
[C]		Vertical: +20° to -70°
[D]	LCH19 spring arm - Lamp head	Horizontal: > 360° (without stop)
[E]	Lamp head – Cardan joint	200° (-100°/+100°)
Mobile pedestal version		
		
[A]	Pedestal rod – AC 2000 NRH mobile spring arm	Horizontal: +10° to -10°
[B]		Vertical: +20° to -40°
[C]	AC 2000 NRH type spring arm – Lamp head	Vertical: > 360° (without stop)
[D]	Lamp head – Cardan joint	200° (-100°/+100°)

Handle sleeve flange type short handle adapter		
	Diameter [A]	101.6 mm / 4.00 inch
	Length [B]	122.3 mm / 4.81 inches

Handle sleeve flange type middle handle adapter		
	Diameter [A]	101.6 mm / 4.00 inch
	Length [B]	138.8 mm / 5.46 inches
Handle sleeve flange type long handle adapter		
	Diameter [A]	101.6 mm / 4.00 inch
	Length [B]	194.6 mm / 7.66 inches
Handle sleeve ring type short handle adapter		
	Diameter [A]	50.3 mm / 1.98 inch
	Length [B]	128.5 mm / 5.06 inches
Handle sleeve ring type long handle adapter		
	Diameter [A]	50 mm / 1.97 inch
	Length [B]	145 mm / 5.71 inches

12.2 Electromagnetic compatibility

⚠ WARNING

Only operate the device with the specified accessories

- The device must be operated only with the accessories specified in the accompanying documentation. Operation with accessories, converters or cables other than those specified in the accompanying paperwork can lead to increased EMC transmissions or reduced resistance of the device to interference and therefore to incorrect operation. There are no specified precautions for maintaining basic safety in relation to EMC over the expected operational service life.
- The properties of this device, determined according to its emissions, allow it to be used in the industrial sector and in hospitals (CISPR 11, Class A). When used in domestic situations (for which CISPR 11 normally Class B is required), this device may not provide adequate protection from radio services. The user must, if necessary, take remedial measures such as the relocation or realignment of the device.
- The use of the surgical light immediately next to other devices or with other devices in a stacked arrangement should be avoided, as this may lead to faulty operation. If, nevertheless, it becomes necessary to use it with other devices, the surgical light and other devices should be monitored to ensure that they work appropriately.

NOTICE

Install and operate the device in accordance with the EMC instructions

- Medical electrical equipment is subject to particular safety measures in relation to EMC and must be installed and operated in accordance with the EMC guidance set out in the accompanying documentation.

Key performance features

The key performance characteristics of the surgical light are:

– the provision of lighting
– the limitation of energy radiated onto the operating field

Guidelines and manufacturer's declaration – electromagnetic immunity

Avoid environments with electromagnetic fields and interference stronger than those listed below.

Guidelines and manufacturer's declaration – electromagnetic emissions		
The surgical light has been designed for operation in electromagnetic environments as described below. The customer or user of the surgical light must ensure that it is used in such an environment.		
Emissions measurements	Compliance	Electromagnetic environment – guidelines
HF emissions in accordance with CISPR 11	Group 1	The device uses HF energy only for its internal functioning. Therefore, its HF emissions levels are very low and it is improbable that neighboring devices would be affected by interference.
HF emissions in accordance with CISPR 11	Class A	The TruLight 5000 and the TruLight 3000 system are intended for operation in facilities other than private homes, provided that these facilities are directly connected to a public power supply network that also supplies buildings used for residential purposes.
Harmonic emissions as per EN/IEC 61000-3-2	Class A	
Voltage fluctuations / flickers in accordance with EN/IEC 61000-3-3	In compliance	

Guidelines and manufacturer's declaration – electromagnetic immunity

Guidelines and manufacturer's declaration – electromagnetic immunity			
The device has been designed for operation in one of the electromagnetic environments described below. The customer or user of the device should ensure that it is used in such an environment. The support arm system may not move unintentionally or cause interference.			
Immunity testing	IEC 60601-1 test level	Compliance level	Electromagnetic environment – guidelines
Electrostatic discharge (ESD) according to IEC 61000-4-2	±8 kV contact discharge ±15 kV air discharge	±8 kV contact discharge ±15 kV air discharge	The floor should be made of wood or concrete, or should be covered with ceramic tiles. If a floor is covered with synthetic material, the relative humidity must be at least 30%.
Fast transient electrical disturbance variables/burst in accordance with IEC 61000-4-4	±2 kV for mains power cables ±1 kV for input and output lines 100 kHz repeat frequency	±2 kV for mains power cables ±1 kV for input and output lines 100 kHz repeat frequency	Mains power quality should correspond to a typical commercial or hospital environment.
Impulse voltages/ Surges as per IEC 61000-4-5	± 1 kV voltage outer conductor – outer conductor ± 2 kV outer conductor – ground voltage	± 1 kV voltage outer conductor – outer conductor ± 2 kV outer conductor – ground voltage	Mains power quality should correspond to a typical commercial or hospital environment.
Voltage dips, short interruptions, and voltage variations on power supply input lines pursuant to IEC 61000-4-11	0% U_T; 0.5 cycle[a)] 0% U_T; 1 cycle 70% U_T; 25/30 cycles[b)] 0% U_T; 250/300 cycles	0% U_T; 0.5 cycle[a)] 0% U_T; 1 cycle 70% U_T; 25/30 cycles [b)] 0% U_T; 250/300 cycles	Mains power quality should be that of a typical commercial or hospital environment. If the device user requires uninterrupted functionality even in case of power interruptions, we recommend supplying the device via an uninterruptible power supply or a battery.
Magnetic field with a supply frequency (50/60Hz) as per IEC 61000-4-8	30 A/m	30 A/m	Magnetic fields for the network frequency should comply with values commonly found in commercial and hospital environments.
a) at 0°, 45°, 90°, 135°, 180°, 225°, 270°, and 315° b) at 0° and 180° Comment: U_T is the AC mains voltage prior to applying the test level.			

Guidelines and manufacturer's declaration - electromagnetic immunity/portable and mobile radio units

Portable and mobile radio units must not be used at a distance from the device, including cables, that is less than the recommended separation distance calculated according to the transmission frequency equation.

Immunity testing	IEC 60601-1 test level	Compliance level	Environment - guidelines
Conducted HF in accordance with IEC 61000-4-6	3 V 0.15 MHz – 80 MHz 6 V in the ISM band between 0.15 MHz and 80 MHz [a)]	3 V 0.15 MHz – 80 MHz 6 V in the ISM band between 0.15 MHz and 80 MHz [a)]	D=1.2√P
Radiated HF disturbance variables as per IEC 61000-4-3	3 V/m 80 MHz – 2.7 GHz (see Special Frequencies table)	3 V/m 80 MHz – 2.7 GHz (see Special Frequencies table)	d=1.2√P at: 80 MHz – 800 MHz [b)] d=2.3√P at: 800 MHz – 2.7 GHz [b)]

a) = The ISM bands (ISM = industrial, scientific and medical) between 0.15 MHz and 80 MHz are 6.765 MHz to 6.795 MHz; 13.553 MHz to 13.567 MHz; 26.957 MHz to 27.283 MHz and 40.66 MHz to 40.70 MHz. The amateur radio bands between 0.15 MHz and 80 MHz are 1.8 MHz to 2.0 MHz; 3.5 MHz to 4.0 MHz; 5.3 MHz to 5.4 MHz, 7 MHz to 7.3 MHz, 10.1 MHz to 10.15 MHz, 14 MHz to 14.2 MHz, 18.07 MHz to 18.17 MHz, 21.0 MHz to 21.4 MHz, 24.89 MHz to 24.99 MHz, 28.0 MHz to 29.7 MHz and 50.0 MHz to 54.0 MHz.

b) P is the nominal rating of the transmitter in watts (W) as per transmitter manufacturer data and d is the recommended safe distance in meters (m). According to an on-site inspection [c)], the field strength of stationary radio transmitters at all frequencies must be less than the compliance level.

d) Interference may occur in the vicinity of equipment marked with the following symbol:

Explanation to c) and d)

c) The field strength of stationary transmitters including the base stations of cellphones and mobile land mobile radios, amateur radio stations, AM and FM radio and TV broadcasting transmitters cannot be precisely predetermined theoretically. In order to determine the electromagnetic environment with regard to the fixed transmitter, a study of the location should be considered. If the field strength measured at a site where the above-mentioned equipment is used exceeds the above conformity levels, the device should be monitored. Additional measures may be required, e.g. changing the unit's alignment or location.

d) The field strength in the 150 kHz to 80 MHz frequency range should be less than 3 V/m.

Notes: At 80 MHz and 800 MHz, the higher value applies. These guidelines may not be applicable in all cases. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

Immunity levels for RF fields of wireless communications equipment

Table: Special frequencies

Test frequency (MHz)	Band (MHz)	Service	Modulation	Max. power (W)	Distance (m)	Immunity level (V/m)
385	380 – 390	TETRA 400	Pulse modulation 18 Hz	1.8	0.3	26
450	430 – 470	GMRS 460 FRS 460	Pulse modulation FM ± 5 kHz variation 1kHz sine	2	0.3	28
720	704 – 787	LTE band 13, 17	Pulse modulation 217 Hz	0.2	0.3	9
745						
780						

Test frequency (MHz)	Band (MHz)	Service	Modulation	Max. power (W)	Distance (m)	Immunity level (V/m)
810 870 930	800 – 960	GSM 800/900 TETRA 800 iDEN 820 CDMA 850 LTE band 5	Pulse modulation 18 Hz	2	0.3	28
1720 1845 1970	1700 – 1990	GSM 1.800 CDMA 1900 GSM 1900 DECT LTE band 1, 3, 4, 25 UMTS	Pulse modulation 217 Hz	2	0.3	28
2450	2400 – 2570	Bluetooth WLAN 802.11 b/g/n RFID 2.450 LTE band 7	Pulse modulation 217 Hz	2	0.3	28
5240 5500 5785	5100 – 5800	WLAN 802.11 a/n	Pulse modulation 217 Hz	0.2	0.3	9

Controlled HF disturbance variables

Recommended separation distances between portable and mobile HF communication devices and the surgical light

The device has been designed for operation in an electromagnetic environment in which radiated HF interference variables are controlled. The customer or user of the device mentioned above can help to prevent electromagnetic interference by complying with the minimum distances between portable and mobile HF telecommunications equipment (transmitters) and the device mentioned above, as recommended below in accordance with the communications equipment's maximum output power.

Nominal transmitter power (W)	Separation distance according to transmission frequency (m)		
	150 kHz – 80 MHz $d = 1.2\sqrt{P}$	80 MHz – 800 MHz $d = 1.2\sqrt{P}$	800 MHz – 2.7 GHz $d = 2.3\sqrt{P}$
0.01 0.1 1 10 100	0.12 0.38 1.2 3.8 12	0.12 0.38 1.2 3.8 12	0.23 0.73 2.3 7.3 23

For transmitters whose rated power is not indicated in the table above, the recommended separation distance d in meters (m) can be determined by means of the equation assigned to the corresponding column; P represents the maximum rated power of the transmitter in watts (W) in accordance with the transmitter manufacturer's specifications.

Note 1: These guidelines might not be applicable in all situations. The propagation of electromagnetic waves is influenced by the absorptions and reflections of buildings, objects and human beings.

Note 2: At 80 MHz and 800 MHz, the higher frequency range applies.

⚠ WARNING

Distance for portable RF communications equipment and its peripherals

- Do not use portable RF communication equipment (including peripherals such as antenna cables and external antennae) at a distance of less than 30 cm (11.81 inch) to the device, including its cables as specified by the manufacturer. Otherwise, the functionality of the system may be impaired.

The surgical light is intended for use near high-frequency surgical equipment. The major performance characteristics of the surgical light are not affected.

12.3 SVHC (Substance of very high concern)

According to Article 33 of the REACH regulation (EC) no. 1907/2006, the following products may contain components with reportable substances in concentrations exceeding 0.1 mass percent. A list of affected components will be provided by Baxter on request. The list can also be seen on the Internet at ois.hillrom.com/ois.

13 Product certification

13.1 European Union

The surgical light is a Class I medical device according to Regulation 2017/745/EU concerning medical devices, and is compliant with the version of this regulation in force at the time of product sale. Baxter declares the conformity of the surgical light with the essential safety and performance requirements according to Regulation 2017/745/EU concerning medical devices, Annex I. A conformity assessment procedure required for Class I devices shall be carried out in accordance with Article 52 (7), taking into account a quality management system in accordance with Annex IX, Chapter 1. Baxter certifies conformity by means of the CE marking.

13.2 USA/Canada

The surgical light was tested for the USA and Canada by Underwriter Laboratories Inc. UL/cUL classification with respect to risk of electric shock, fire and mechanical endangerment as per ANSI/AAMI ES60601-1 (2005, 3rd ed.) and
CAN/CSA C22.2 No. 601.1 - M 90.

13.3 Ukraine

УкрСЕПРО: Це маркування підтверджує, що вироби, промарковані знаком відповідності, пройшли всі необхідні процедури підтвердження відповідності та підкоряються визначеним технічним керівництвам України.

Відповідність: Технічний регламент щодо медичних виробів, затверджений Постановою Кабінету міністрів України від 02 жовтня 2013 р. № 753

13.4 Serbia

Certificate / registration number: 515-02-03704-16-001

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