© Brandon Medical Company Ltd

All rights are reserved. No part of the content may be reproduced, adapted, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without the prior permission of the Copyright owner.

Whilst every effort is made to ensure the accuracy and completeness of this guide, we do not warrant that the content is error free.

The brand names or product names mentioned or referred to throughout this guide are fully recognised as the trademark or registered trademark of their respective owners.
Quasar eLite HD-LED® Ceiling-Mounted Models Installation Guide .......... 1

Contents ................................................................................................. 3

1.1.1 Before starting the installation ......................................................... 5

1.2 Symbols used ................................................................................... 5

1.3 Models covered ................................................................................ 5

1.4 Classifications ............................................................................... 5

1.5 Environmental conditions ................................................................. 6

1.5.1 Transportation and storage ............................................................. 6

1.5.2 Operating .................................................................................... 6

2 Installation Requirements ..................................................................... 7

2.1 Supply requirements ........................................................................ 7

2.2 Environment ................................................................................. 7

3 Mechanical Installation ....................................................................... 8

3.1 Selecting the stem length .................................................................. 9

3.2 Cutting & Assembling the Adjustable Stem ...................................... 10

3.3 Fitting the Stem Plate / Anchor Ring ............................................... 11

3.3.1 Fitting the Anchor Ring (If Supplied) ........................................... 11

3.3.2 Fitting the Stem ......................................................................... 12

3.3.3 Fitting the Ceiling Cover ............................................................... 12

3.4 Fitting the Structure ...................................................................... 13

3.4.1 Mounting the Structure ................................................................. 13

3.4.2 Stop Adjustment (if Fitted) ............................................................. 13

3.5 Fitting the Spring Arm Assembly ..................................................... 14

3.5.1 Mounting the Spring Arm ............................................................... 14

3.5.2 Stopped Spring Arm adjustment (if fitted) ..................................... 14

3.6 Fitting the Lamp Head ............................................................... 15

3.6.1 Mounting the Lamp head .............................................................. 15

3.6.2 Mounting the Low Ceiling Lamp head ........................................ 16

3.7 Fitting the sterilisable handle system ............................................. 17

4 Mechanical Adjustment ...................................................................... 18

4.1 Adjusting the Structure ................................................................. 18

4.1.1 Main Structure Brake Screw ......................................................... 18

4.1.2 Bearing Housing Brake Screw (standard models) .................... 19

4.2 Adjusting the Spring Arm ............................................................. 19

4.2.1 Vertical height adjustment (standard models) .......................... 19

4.2.2 Vertical height adjustment (low ceiling models) ......................... 20

4.2.3 Balance adjustment (standard models) ...................................... 20

4.2.4 Balance adjustment (low ceiling models) ................................. 20

4.2.5 Rotational Adjustment (low ceiling models) ............................. 21

4.3 Adjusting the Secondary arm (standard models only) .................... 21

4.3.1 Secondary Arm Brake Screw ....................................................... 21

5 Qe60 Settings ............................................................................... 22
5.1 Entering the Setting Mode ................................................................. 22
  5.1.1 Selecting the Mode & Setting ......................................................... 23
  5.2 Changing Power-On behaviour ......................................................... 23
  5.3 Changing the default intensity at power-up ....................................... 23
  5.4 Changing the default colour temperature at power-up ......................... 24
  5.5 Setting the service hour counter ...................................................... 24
  5.6 Pairing the Remote Control (if supplied) ........................................... 25
  5.7 Un-pairing the remote control .......................................................... 26
  5.7.1 Un-pair the system ......................................................................... 26
  5.7.2 Un-pairing the lamp head only ......................................................... 26

6 Qe30 Settings .......................................................................................... 27
  6.1 Entering the Default Setting Mode ....................................................... 27
  6.1.1 Available parameters ....................................................................... 27
      6.2 Changing Power on Behaviour .......................................................... 28
      6.3 Changing the default intensity at power up ..................................... 28
      6.4 Changing the default colour temp at power up ................................. 29
      6.5 Setting the service hour counter ...................................................... 29
      6.6 Resetting the service hour counter .................................................. 30
      6.7 Pairing the remote control (if supplied) ........................................... 30
  6.7.1 Pairing ......................................................................................... Error! Bookmark not defined.
  6.7.2 Un-pairing ..................................................................................... Error! Bookmark not defined.

7 Fault Finding Qe60 .................................................................................... 32

8 Installation Checklist ................................................................................ 33

9 Intentionally left blank .............................................................................. 35
  9.1 Terms of the Guarantee ....................................................................... 36
  9.2 Conditions of the Guarantee ............................................................... 36

10 Declaration of Conformity ........................................................................ 37
1.1.1 **Before starting the installation**

For your full satisfaction with this equipment it is recommended that you read this section carefully before starting the installation.

1.2 **Symbols used**

The symbols used in this guide and on the product are explained in the following table.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>⚠️</td>
<td>WARNING/DANGER – Pay special attention.</td>
</tr>
<tr>
<td>📝</td>
<td>Note this point.</td>
</tr>
<tr>
<td>❦</td>
<td>Refer to another section/guide.</td>
</tr>
</tbody>
</table>

1.3 **Models covered**

<table>
<thead>
<tr>
<th>Model</th>
<th>Approx. weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quasar eLite (Qe60) Standard model</td>
<td>16.0 kg</td>
</tr>
<tr>
<td>Quasar elite (Qe60) LC &amp; SC model</td>
<td>13.3 kg</td>
</tr>
<tr>
<td>Quasar eLite (Qe6H)</td>
<td>16.0 kg</td>
</tr>
<tr>
<td>Quasar elite (Qe30) Ceiling model</td>
<td>7.0 kg</td>
</tr>
</tbody>
</table>

1.4 **Classifications**

The classifications are explained in the following table.

<table>
<thead>
<tr>
<th>Classification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical classification</td>
<td>Class 1</td>
</tr>
<tr>
<td>Classification according to EU Medical Device Directive 93/42/EEC</td>
<td>Class 1</td>
</tr>
<tr>
<td>Lamp head degree of protection from ingress of dust and water</td>
<td>IP54</td>
</tr>
<tr>
<td>Degree of protection against the presence of flammable anaesthetic mixtures</td>
<td>Not for use in a flammable atmosphere</td>
</tr>
</tbody>
</table>
1.5 Environmental conditions

The environmental conditions relate to transportation/storage and operating.

1.5.1 Transportation and storage

The environmental conditions relating to transportation and storage are explained in the following table.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature</td>
<td>-40°C to 70°C</td>
</tr>
<tr>
<td>Relative humidity</td>
<td>10% to 95% non-condensing</td>
</tr>
<tr>
<td>Pressure</td>
<td>500hPa to 1060hPa</td>
</tr>
</tbody>
</table>

1.5.2 Operating

The environmental conditions relating to operating are explained in the following table.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature</td>
<td>15°C to 30°C ambient temperature</td>
</tr>
<tr>
<td>Relative humidity</td>
<td>10% to 80% non-condensing</td>
</tr>
</tbody>
</table>

1.6 Related Guides

The other guides that relate to the Quasar eLite LED lamps are:

- Quasar elite HD LED Quick Start Guide
- Quasar elite HD LED Routine Maintenance Guide
- Quasar elite HD LED Instructions for Use
2 Installation Requirements

2.1 Supply requirements

⚠️ All standard models are 24V and should be supplied by a Brandon Medical switched-mode power supply which is separately purchased. The positioning of the power supplies and the associated wiring should be carried out before fitting the lamp. Check that the electrical requirements as detailed on the serial number label of the lamp correspond with your supply voltage before connecting.

A single-phased fused using a 10A Type C MCB is preffered or a 10A type T fused supply is required for each of the lamp power supplies. The power supplies to the main lamp and the satellites shall kept separate (one power supply per lamp head) so that failure of any one component will only affect one lamp head. A mains supply isolator shall be used to isolate the live and neutral supply for maintenance work. The isolator shall be rated at a minimum of 13A and be 2 or 4-pole if an emergency DC supply is present.

The cable used to supply the mains to the equipment should be rated for the maximum current for the equipment and the cable used must meet the requirements of IEC 60227 or IEC 60245 and shall be ≥ 1mm².

 فقال: Each installation requires two people, one of whom should be a suitably qualified general electrician

2.2 Environment

Note thus equipment is not suitable for use in an oxygen rich environment.
3 Mechanical Installation

Unpack the boxes and check that all the parts listed in the following table are present.

Note: The number of lamp head boxes and spring arm boxes is dependant upon the model. For example: a double unit may have 2 lamp heads and 2 spring arms.

<table>
<thead>
<tr>
<th>Box</th>
<th>Quantity</th>
<th>Contents/ Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structure box</td>
<td>1</td>
<td>Structure Assembly (single, double or triple)</td>
</tr>
<tr>
<td>Spring Arm box</td>
<td>See note above</td>
<td>Spring arm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bearing Housing (attached)</td>
</tr>
<tr>
<td>Lamp Head box</td>
<td>See note above</td>
<td>Lamp head including arms</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Handle Carrier</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sterile handle cover</td>
</tr>
</tbody>
</table>

Table 1

Examine all the parts carefully for any damage in transit. Report any damaged or missing items to the supplier within 5 working days.
3.1 Selecting the stem length

Note: Stems can be supplied pre cut to the customer requirements.

The fixing height of 2100 mm shown in the illustration is only a recommendation and relates to general clinical use. In some specialties, e.g. maternity, lights may need to be mounted lower to cater for certain clinical procedures.

To find the stem cut length; make a note of the ceiling height. Take the value for where the lowest point should be (A) then add the lamp head value and the structure value depending on the model (A+B+C). Only use one value from each table and if 2 or more lamp heads are fitted select the one with the greatest value. Take the (A+B+C) figure away from the ceiling height (D) this will be the finished floor to stem height (E). If an anchor ring is fitted allow 50mm.

Example: For A Qe6060 with Anchor Ring & Ceiling height of 3000mm we find:

\[
3400 - (2100 + 189 + 338) - 50mm = 723mm \text{ (stem cut length)}
\]

\[
D - (A + B + C) - 50mm = F
\]
3.2 Cutting & Assembling the Adjustable Stem

- As shown in the following illustration, from the lamp-fixing end of the stem measure the calculated distance and cut as required – ensuring you do not cut the lamp-fixing end – and deburr the end of the stem.

- Place the adjustable stem collar on the floor and slide the stem in so the end that has been cut is resting on the floor.

- Using the holes in the adjustable stem collar as a guide, mark the centres of the holes that will be drilled on the stem.

- Drill 4 x 13mm holes on the marked centres on the stem as shown in the following illustration and then deburr the drilled holes.

- Slide the stem into the adjustable collar and fit 4x Bushes into the holes as shown in the illustration, noting that two of these slide through the adjustable stem collar and the other two slide in the counter-bore hole.

- Fit the 2 x M12 bolts with washers.

- Tighten the nuts to suit as shown in the illustration.
3.3 **Fitting the Stem Plate / Anchor Ring**

⚠️ **The ceiling fixing should be advised by a qualified Structural Engineer.**

It is recommended that an adjustable anchor ring is used to allow adjustment of the stem. Shown below is the stem plate and ceiling cover detailing the hole sizes and positions.

If fitting directly to the concrete ceiling slab; fix through the 6 19mm dia holes on a 270 PCD, using 6 suitable M16 anchor bolts.

3.3.1 **Fitting the Anchor Ring (If Supplied)**

Ensure 6 Qty drop bolts (supplied) are fitted into the counter sunk holes in the anchor ring plate. Secure the bolts in place using a spring washer and half nut for each bolt. The anchor ring should then be fixed to the concrete ceiling slab using 6 suitable M16 anchor bolts.
3.3.2 Fitting the Stem

The stem should be secured following the sequence shown below, ensuring that the Meigan washers are correctly seated to insulate the stem plate from the fixings.

Adjust the stem to ensure it is perpendicular by means of the 6 Qty M16 full nuts. When complete ensure all the nuts and both tight and fully engaged with at least 1 full thread being visible protruding from the nut.

![Diagram of stem fitting]

3.3.3 Fitting the Ceiling Cover

The ceiling cover comes in two halves, allowing it to be added later in the assembly. The support ring, however, must be slid onto the stem before anything is hung off of the stem.

Fit the two halves together around the stem and fasten with 4 Qty M5x16 button head socket screws (supplied). Slide the support ring up to the cover and secure in place by tightening 3 Qty grub screws (supplied) onto the stem.

![Diagram of ceiling cover fitting]
3.4 **Fitting the Structure**

3.4.1 **Mounting the Structure**

Wires are not shown for clarity.

- Feed Cables (not shown) through the Stem and Present the structure spindle up to the Stem (Fig 2). **With the screw holes fully aligned,** push the spindle in.

- fully align holes (Fig 3) then Fit 8 Qty M8 x 16 screws (Supplied) through the Stem into the Structure Spindle and then secure.

![Fig 2](image)

![Fig 3](image)

| **Note** | The 8 screws must be thread-locked using a proprietary thread-locking adhesive, such as Loctite 243 or PermaBond A1042. |

3.4.2 **Stop Adjustment (if Fitted)**

- Remove three cap head screws and carefully lower the blue cover clear of the bearing housing. Then Remove two counter sunk screws holding the stop segment in place. The segment will drop out.

- Note the position of the stopped spacer relative to the segment. Now reposition the segment into the appropriate cavity as required. Refit the segment in its new position and then tighten the screws. Replace the blue cover.

![Fig 5](image)
3.5 Fitting the Spring Arm Assembly

3.5.1 Mounting the Spring Arm

- Loosen the M4 grub screw and line up the male plug in the Structure arm with the socket in the spring arm bearing housing. Carefully screw the bearing housing into the arm ensuring that the housing is aligned until fully home.
- Re-secure the grub screw until tight.

![Diagram of Structure Arm, M4 Grub Screw, Spring Arm Bearing Housing, and Spring Arm.](image)

Fig 6

3.5.2 Stopped Spring Arm adjustment (if fitted)

- Using a thin flat blade screwdriver prize open the spring arm covers, remove and retain both parts, see Fig 7 below.
- Remove and retain six counter sunk screws from the lower end of the Spring Arm Bearing Housing to free the Stop Ring, see Fig 8 below.
- Rotate the Stop Ring as required until the holes are lined up in the desired position.
- Replace all six screws and tighten.
- Replace spring arm covers.

![Diagram of Spring Arm Bearing Housing, Cover, Retaining Screw, Stop Ring, and Stopped Spring Arm Bearing Housing.](image)

Fig 7

Fig 8
3.6 Fitting the Lamp Head

3.6.1 Mounting the Lamp head

⚠️ The spring arm will be supplied locked in the horizontal position. It should always be locked in the horizontal position when fixing or removing the lamp head.

- On the front hinge of the spring arm there is a plastic collar secured by a cross-head screw. Remove this Locking screw and retain. Slide the cover upwards to reveal a retaining segment. The collar can be held in place temporarily by means of a piece of sticky tape. Remove and retain the segment. Remove and discard the plastic protection plug (not shown).

![Diagram of lamp head assembly](Image)

**Fig 9**

- Offer the lamp head spindle up to the spring arm and align the plug and socket. Gently push the spindle into the spring arm. Replace the retaining segment to secure the arm in place. Slide the collar back down over the segment and re-secure with the locking screw.
3.6.2 Mounting the Low Ceiling Lamp head

- **The spring arm will be supplied locked in the horizontal position. It should always be locked in the horizontal position when fixing or removing the lamp head.**

- Remove both covers by unscrewing the fixing screws then putting a flat screwdriver in the join prise open the 2 halves and separate.

- Unscrew the locking screw; then slide back the locking ring to expose the locking segment.

- Using a pair of pliers; lift the segment clear.

- With the spring arm held securely; align the plug in the Lamphead spigot with the socket in the spring arm. Insert the lamp head spigot fully into the end of the spring arm.

- Insert the locking segment to secure the Lamphead, then slide the securing ring forward and replace the locking screw. Replace the both covers.

**Fig 10**

**Fig 11**

**Fig 12**

**Fig 13**
3.7 **Fitting the sterilisable handle system**

**Before starting ensure that the grub screw is not protruding into the threads.** Screw the handle carrier on to the threaded handle mount until tight. Now screw the grub screw in until it is tight. The handle carrier will now be secure.

To fit a sterilisable handle cover you only need to push the handle cover over the Carrier until an audible click is heard and the handle has locked in position. As shown below. To release the sterilisable handle cover, simply push the blue release button and the cover can be removed.

---

The sterilisable handle as supplied is not sterile. You must sterilise it by autoclave - typically steam sterilisation at 134°C for three minutes.

---

*Fig 15  Fig 16*
4 Mechanical Adjustment

Before first use the lamp must be balanced. This is achieved by using the Spring arm tensioning mechanism, details of which are shown in this section. Adjustments may be made to the various brake screws used to dampen the freedom of travel in the Structure, Spring arm and Secondary arm, also shown in this section.

⚠️ Do not attempt to remove the lamp head as this could cause serious injury.

4.1 Adjusting the Structure

There are two types of Structure adjustment:

- Main Structure Brake Screw
- Bearing Housing Brake screw

4.1.1 Main Structure Brake Screw

Adjust the brake screws to prevent the Arms from drifting or being hard to move. Remove the Blue brake screw cover and insert a 7mm Hex key. Increase the brake force by adjusting the screw clockwise and decrease the brake force by adjust the screw anti-clockwise. When adjusted; replace the cover.
4.1.2 Bearing Housing Brake Screw (standard models)

Adjust the two brake screws which are located opposite each other on the spring arm bearing housing using a 2.5 mm Hex key. Increase the brake force by adjusting the screw clockwise and decrease the brake force by adjusting the screw anti-clockwise. Ensure each screw is equally adjusted.

![Bearing Housing Brake Screw](image)

Fig 17

4.2 Adjusting the Spring Arm

4.2.1 Vertical height adjustment (standard models)

The adjustment can be found at the front of the spring arm where you can insert a 5 mm Hex key into the access point. To reduce the vertical height, rotate the key clockwise and to increase the height rotate the key anti-clockwise.

![Vertical height adjustment](image)

Fig 19
4.2.2 Vertical height adjustment (low ceiling models)

To set the vertical height, locate the adjusting screw which can be found at the rear of the spring arm. Insert a 5mm Hex key into the hole. Rotate clockwise to increase and anti-clockwise to reduce the vertical height limit of the spring arm.

Fig 20

4.2.3 Balance adjustment (standard models)

The adjusting screw can be found at the rear of the spring arm. Insert a 5mm Hex key into the access point and raise the spring arm until the screw can be easily turned. To increase the tension on the spring arm the screw must be turned clockwise, to decrease the tension the screw must be turned anti-clockwise.

Fig 21

4.2.4 Balance adjustment (low ceiling models)

Remove 2 retaining screws then using a thin screwdriver gently push and disengage the two outer cover halves then remove. A 4mm dia x 110mm long rod, supplied with the spring arm, should be inserted into the adjustment hole. Turn the adjustment nut inside the arm by moving the rod up and down as required. Move up to increase the tension and down to decrease the tension. When adjusted, replace covers and retaining screws.

Fig 22
4.2.5 Rotational Adjustment (low ceiling models)

Remove 2 retaining screws then using a thin screwdriver gently push and disengage the two outer cover halves then remove.

To increase the braking force simply insert a flat blade screwdriver into the brake screw and turn the screws alternately in the + direction with the same number of revolutions.

4.3 Adjusting the Secondary arm (standard models only)

There are two screws on the secondary arm: a brake screw and a stop screw. To adjust the friction of the arm joint the brake screw must be adjusted.

4.3.1 Secondary Arm Brake Screw

Using a flat head screw driver, adjust the brake screw by applying a small turn in the clockwise direction to increase friction or anti-clockwise to reduce friction.

cke You should note the following points:

- The adjustment range of movement is very small and only a few degrees of turn to the brake screw should be necessary.
- After adjusting the brakes, check the lamp still moves freely without drifting.
5 Qe60 Settings

5.1 Entering the Setting Mode

To enter the ‘default setting’ mode first press and hold the centre button then simultaneously press the ‘lower Intensity’ button and the lower ‘Red Balance’ button marked X below. The key pad display will then illuminate the lower red balance, RB-LED 1, both centre LED’s and the lower Intensity LED INT-LED 1.

Fig 27

<table>
<thead>
<tr>
<th>Mode</th>
<th>Red Balance (RB)-Led position</th>
<th>Intensity-Led position</th>
</tr>
</thead>
<tbody>
<tr>
<td>On/Off-Behaviour</td>
<td>RB-led 1 On</td>
<td>Int-Led 3</td>
</tr>
<tr>
<td>Intensity after Power-On</td>
<td>RB-led 2 On</td>
<td>Refer to Table 2</td>
</tr>
<tr>
<td>RB after Power-On</td>
<td>RB-led 3 On</td>
<td>Refer to Table X</td>
</tr>
<tr>
<td>Pairing Mode</td>
<td>RB-LED 1 &amp; 2 on</td>
<td>Int-Led 1</td>
</tr>
<tr>
<td>Un-pairing</td>
<td>RB-led 1 and 3 On</td>
<td></td>
</tr>
</tbody>
</table>

Table 2
5.1.1 Selecting the Mode & Setting

To select different modes use up and down Red Balance buttons to move the RB-LED's to the appropriate position. See table 2 for available modes. To change the value within a particular mode select the + and - Intensity buttons to select the setting required. Then press either focus buttons to confirm.

Note: the present setting will be indicated by a steady illuminated LED whilst all other settings available will be flashing LED's.

5.2 Changing Power-On behaviour

This sets the lamp to illuminate or go to standby when the mains power is first applied to the lamp head.

Enter the default setting mode. The mode appropriate mode is entered automatically because power on behaviour is the first mode.

If INT 1 LED is flashing then power on standby is set. To change to power on illuminated, press either focus button. The INT 1 LED will go solid and the change is confirmed.

If INT 1 LED is solid then power on illuminated is set. To change to power on standby, press the (+) INT button. INT 2 LED will flash. Press either focus button to confirm and the LED will go solid.

To leave the default setting mode press the centre button.

Note: The factory default setting is Power on standby.

5.3 Changing the default intensity at power-up

This sets the lamp intensity when the lamp is powered.

Enter the default setting mode. Select the mode by pressing the up RB button until RB-LED 2 is on. Using the INT + and - buttons move up or down to select a value. See table 3 below. Then press either focus buttons to confirm.

To leave the default setting mode press the centre button.

Note: The factory default level for light intensity is 3, i.e. three of the six LED's are illuminated.

<table>
<thead>
<tr>
<th>Intensity-Led</th>
<th>Intensity after Power-On</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8 %</td>
</tr>
<tr>
<td>2</td>
<td>13 %</td>
</tr>
<tr>
<td>3</td>
<td>20 %</td>
</tr>
<tr>
<td>4</td>
<td>40 %</td>
</tr>
<tr>
<td>5</td>
<td>65 %</td>
</tr>
<tr>
<td>6</td>
<td>100 %</td>
</tr>
</tbody>
</table>

Table 3
5.4 Changing the default colour temperature at power-up

This sets the colour temperature of the lamp when first powered up using the on/off button.

Enter the default setting mode. Select the mode by pressing the up RB button until RB-LED 3 in on. Using the INT + and - buttons move up or down to select a value. See table 4. Then press either focus buttons to confirm.

Note: the factory default level for Red Balance (colour temperature) is 3, i.e. three of the five LED's will be illuminated.

To leave the default setting mode press the centre button

<table>
<thead>
<tr>
<th>RB-LED</th>
<th>Red Balance / Colour Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Full Red</td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Factory Default</td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>No Red</td>
</tr>
</tbody>
</table>

Table 4

5.5 Setting the service hour counter

Not available on this model.
5.6 Pairing the Remote Control (if supplied)

Please read this whole section before starting the pairing operation.

This connects the lamp head with a remote control handset which is available separately.

1. Before starting the lamp head must be off with the standby light illuminated.
2. Enter the default setting mode on the lamp head keypad. (See section 5.1)
3. Select the mode by pressing the up RB button until RB-LED 1 & 2 are both illuminated.
4. INT LED 1 should be illuminated and solid. **Note: If INT LED 1 is flashing then the lamp head is already paired and must be unpaired before continuing. See notes below.**
5. Using the INT + button move the value up 1 increment until Int-LED 2 is flashing.
6. Now press the pairing button on the remote until the single green led comes on. within 3 seconds, push either focus buttons on the lamp head keypad. There will be a delay of a further 3 seconds and then 2 Red LED's will light on the remote.
7. If successful the Quasar elite keypad will return to standby, (single red LED illuminated).
8. Press the Lamp head power button 2 times to complete the pairing. The lamp will now be illuminated and the handset will be paired with the Lamp head.

![Pairing Button](image)

**Fig 28**

**Notes:**

1. The first lamp to be paired will be allocated to channel one on the remote.
2. If you are having problems pairing the lamp and the remote control then un-pair and start again. See section 5.7.

To leave the default setting mode press the centre button.
5.7 **Un-pairing the remote control**

5.7.1 **Un-pair the system**

To un-pair both the remote keypad and the lamp head simultaneously:
- Ensure that lamp head or multiple lamp heads and the remote keypad are switched off but with the power on standby.
- Press and hold the remote keypad pairing button until the display goes from a single green to a pair of red LED’s, approx 10 seconds.
- Press the remote keypad power button to complete the un-pairing.

5.7.2 **Un-pair the lamp head only**

To un-pair the lamp head or multiple lamp heads without access to the remote keypad:
- Using the lamp head keypad enter the default setting mode (see section 5.1).
- Select the mode by pressing the up RB button 6 times until RB-LED 1 (Red) & RB-LED 3 (green) are both illuminated.
- INT LED 1 should be illuminated and flashing. **Note: If INT LED 1 is solid then the lamp head is already unpaired.**
  - Using the INT + button move the value up 1 increment until Int-LED 2 is solid.
  - Press either focus buttons to confirm.
  - Press the lamp head power button 2 times to complete the un-pairing.

ckeck

Notes:

1. If multiple lamp heads are fitted then each lamp head will need to be un-paired separately using this method.
6 **Qe30 Settings**

![Diagram of Qe30 settings](image)

Fig 29

6.1 **Entering the Default Setting Mode**

To enter the ‘default setting mode’ press the ‘Decrease intensity (INT -) button’, ‘Increase intensity (INT +) button’ and the ‘Increase Red Balance (Red Bal) button’ simultaneously. The orange LED will illuminate on the key pad display when the ‘default setting mode’ has been entered. See image below.

![Image showing default setting mode](image)

Fig 30

To leave the default setting mode ensure only the orange Red Bal led is on then press the ‘on/off button’. Only INT LED 1 will be flashing indicating stand-by mode.

6.1.1 **Available parameters**

Table 6 below lists the seven default setting states, the first state allows entry and exit of the default setting mode. The next six are the parameter states.

<table>
<thead>
<tr>
<th>Parameter list</th>
<th>Red Balance Led’s position</th>
<th>Intensity Led’s (Green)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enter/Leave default mode</td>
<td>Orange Led On</td>
<td>No led’s are illuminated</td>
</tr>
<tr>
<td>On/Off-Behaviour</td>
<td>White Led On</td>
<td>Intensity Led 1 or 2</td>
</tr>
<tr>
<td>Intensity after Power-On</td>
<td>Blue Led On</td>
<td>Refer to Table 2</td>
</tr>
<tr>
<td>Red Balance after Power-On</td>
<td>Blue &amp; White led On</td>
<td>Refer to Table 3</td>
</tr>
<tr>
<td>Working Hours for service Led</td>
<td>Blue &amp; Orange led’s On</td>
<td>Refer to Table 4</td>
</tr>
<tr>
<td>Reset service hours</td>
<td>White &amp; orange led’s on</td>
<td>Intensity Led 1</td>
</tr>
<tr>
<td>Pairing</td>
<td>Blue, Orange &amp; White led’s On</td>
<td>Refer to Table 5</td>
</tr>
</tbody>
</table>

Table 6
6.2 Changing Power on Behaviour

This sets the lamp to illuminate or go to standby when the mains power is first applied to the lamp head.

Enter the default setting mode, see 6.1. Press the Red Bal (-) button until the white led is on. Refer to image below.

![Image](image_url)

**Fig 31**

INT LED1 (Green) is on; then power on stand-by is set.
INT LED2 (Green) is on; then power on illuminated is set.
Using the INT (+) or (-) buttons select either LED 1 or LED 2 as appropriate. The LED1 will flash when a different setting is selected. To confirm and save the change press the on/off button. The LED will stop flashing but remain on.

To exit the default setting mode, select the orange red bal LED only, then press the ‘On/Off button’. Only INT LED 1 will be flashing (stand-by mode).

6.3 Changing the default intensity at power up

This mode sets the lamp intensity when the lamp is powered. The factory default level for light intensity is 3, i.e. 3 of the 5 LED's are illuminated.

Enter the default setting mode, see 6.1. Press the Red Bal (-) button until the blue LED is on.

To increase the light intensity, press the INT (+) button until the required setting is achieved. See table below.

To decrease the light intensity, press the INT (-) button until the required intensity is achieved.

Intensity LED1 will flash when a different setting is selected. To confirm and save the change; press the on/off button. The LED will stop flashing but remain on.

To exit the default setting mode, select the orange red bal LED only, then press the ‘On/Off button’. Only INT LED 1 will be flashing (stand-by mode).

<table>
<thead>
<tr>
<th>Intensity-Led</th>
<th>Intensity after Power-On</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>20 %</td>
</tr>
<tr>
<td>2</td>
<td>40 %</td>
</tr>
<tr>
<td>3</td>
<td>60 %</td>
</tr>
<tr>
<td>4</td>
<td>80 %</td>
</tr>
<tr>
<td>5</td>
<td>100 %</td>
</tr>
</tbody>
</table>

*Table 7*
6.4 **Changing the default colour temp at power up**

This mode sets the colour temperature when the lamp is powered. The factory default level for colour temperature is orange.

Enter the default setting mode, see 6.1. Press the Decrease Red Bal button until the blue and white LED's are on.

Using the INT (+) button select the appropriate INT LED. See table below. The LED1 will flash when a different setting is selected. To confirm and save the change press the on/off button. The LED will stop flashing but remain on.

To exit the default setting mode, select the orange red bal LED only, then press the 'On/Off button'. Only INT LED 1 will be flashing (stand-by mode).

<table>
<thead>
<tr>
<th>INT LED</th>
<th>Colour temp Led</th>
<th>Colour Temperature after Power-On</th>
</tr>
</thead>
<tbody>
<tr>
<td>INT LED 1</td>
<td>Orange</td>
<td>3500 K</td>
</tr>
<tr>
<td>INT LED 2</td>
<td>White</td>
<td>4000 K</td>
</tr>
<tr>
<td>INT LED 3</td>
<td>Blue</td>
<td>5000 K</td>
</tr>
</tbody>
</table>

Table 8

6.5 **Setting the service hour counter**

Sets the service interval time, when the working hours are exceeded by the internal timer the Red Bal led's will flash. The factory default level for working hours is 1000Hours.

Enter the default setting mode, see 6.1. Press the Red Bal (-) button until the blue and orange LED's are on.

To select the service interval required, press the INT (+) or (-) buttons until the required setting is achieved.

The intensity LED1 will flash when a different setting is selected, to confirm and save the change, press the ON/OFF button.

To exit the default setting mode, select the orange red bal LED only, then press the 'On/Off button'. Only INT LED 1 will be flashing (stand-by mode).

<table>
<thead>
<tr>
<th>INT LED</th>
<th>Working Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>INT LED 1</td>
<td>32500</td>
</tr>
<tr>
<td>INT LED 2</td>
<td>1000</td>
</tr>
<tr>
<td>INT LED 3</td>
<td>2000</td>
</tr>
<tr>
<td>INT LED 4</td>
<td>3000</td>
</tr>
<tr>
<td>INT LED 5</td>
<td>5000</td>
</tr>
</tbody>
</table>

Table 9
6.6 **Resetting the service hour counter**

Resets the service counter and turns the flashing Red Bal LED off.

Press the Red Bal (−) button until the orange and white LED’s are on.

Press the intensity (+) button and step to LED 2 position, the green LED will flash.

Press the standby button and the green led will revert back to LED1 position.

Once this is done the service light and service timer will be reset.

To leave the default setting mode ensure only the orange LED is on then press the ‘ON/Off button’. Only a green LED should then be flashing.

6.7 **Pairing the remote control (if supplied)**

Read this whole section prior to commencing the pairing operation.

If the Lamp head has been paired previously; then it must be unpaired before starting the pairing operation. See section 1.7.2 below.

A time window of approximately 8 seconds exists between steps 5 & 6.

6.7.1 **Pairing**

1. Set the lamp to standby ‘flashing green intensity LED’
2. Enter ‘default setting mode’. See section 6.1.
3. Press Red Bal (−) key until all three Red Bal LED’s; blue, white and orange are lit.
4. Locate the pairing button on the remote control. Now press the pairing button, until the single green led comes on. Note when two red LED’s illuminate this indicates that the pairing window has timed out.
5. Promptly Press the Lamp head INT(+) button 2 times until the middle two LED’s are illuminated. INT LED 1 will be flashing.
6. Press the Red Bal (+) button 6 times until only the orange LED is on then press the ‘ON/Off button’. Only a green LED should then be flashing.
7. press the on/off button on the remote key pad.
8. Press standby again and the lamp will come on at its default settings. The process is now complete.
6.7.2 Un-pairing

To un-pair the lamp head or multiple lamp heads; Follow steps 1 to 3 above then steps 6 to 9. If multiple lamp heads are fitted then each lamp head will need to be un-paired separately.
7 Fault Finding Qe60

Where an Emergency Power Supply is fitted refer to the product wiring diagram

Is the lamp standby light illuminated but the lamp will not operate?

**YES**
- No user serviceable parts. Contact the distributor

**NO**
- 1. Check mains supply is switched on
  - ON
  - No
  - YES
  - 2. Replace the mains supply fuse
  - Switch On
  - Lamp operates normally?
    - NO
    - Yes
      - 3. Remove the Key Pad cover and test DC power
      - 0V
      - 24V
      - No user serviceable parts. Contact the distributor
    - 4. Test the DC output from the Power Supply Unit (PSU)
      - 0V
      - 24V
      - No user serviceable parts. Contact the distributor
  - 5. Remove the lamp head and test DC power at the Spring Arm.
    - 0V
    - 24V
    - Column is faulty. Contact the distributor
  - 6. Replace the lamp head and check the Lamp head to Spring Arm connection.
    - The lamp operates?
      - YES
      - Fault Finding Complete
      - NO
      - Contact distributor
## 8 Installation Checklist

<table>
<thead>
<tr>
<th>Site Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital</td>
</tr>
<tr>
<td>Room Location</td>
</tr>
<tr>
<td>Model installed</td>
</tr>
<tr>
<td>Serial No.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Light Intensity</th>
<th>Lux at 1 metre</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inspection</th>
<th>Initial</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check building mountings are secure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check lamp to stem mountings are secure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check stem tube is perpendicular and stiff</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check all fixing screws and retainers are secure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check operation of all switches and indicators</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check correct operation of focus control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check correct operation of focus mechanism</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check all articulations move freely</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check all spring arms are balanced correctly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check external surfaces are free from scratches</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check ceiling cover is fitted correctly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inspect incoming wiring (where accessible)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clean main Front screen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secure handle bodies to lamp heads</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fit or pass sterilisable handle covers to customer</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Inspection

<table>
<thead>
<tr>
<th>Initial</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Pass user and routine maintenance guides to customer

Additional notes:

---

### Customer Acceptance

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature</td>
<td></td>
</tr>
<tr>
<td>Print name</td>
<td></td>
</tr>
<tr>
<td>Position</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td></td>
</tr>
</tbody>
</table>
Intentionally left blank
9 Guarantee

9.1 Terms of the Guarantee

Subject to the conditions listed below Brandon Medical Company Ltd guarantee to provide for the repair of, or at its option replacement of Brandon Medical equipment, or any component thereof (other than consumables), found to be faulty or below standard, as a result of inferior workmanship or materials. This Guarantee will be passed to the purchaser through the Approved Brandon Medical Distributor where equipment is purchased outside of the United Kingdom.

9.2 Conditions of the Guarantee

- This Guarantee shall only apply to defects or faults that are notified to Brandon Medical Company Ltd. or its Approved Distributor within 12 months of the delivery date.
- This Guarantee covers equipment intended for use in hospitals and healthcare establishments only.
- It is a condition of the Guarantee that the equipment is maintained as recommended in the instruction manuals provided.
- This Guarantee does not cover – and is invalidated by – faults or defects caused by accident, misuse, fair wear and tear, neglect, tampering with the equipment, or any attempt at adjustment or repair other than by Brandon Medical approved Service Technicians.
- In the unlikely event of the equipment requiring repair, please contact the Dealer or Supplier from whom it was purchased. Where this is not possible or where the equipment was purchased direct from Brandon Medical Company Ltd., please contact us directly:
  - Tel: +44 (0)113 277 7393
  - Fax: +44(0)113 272 8844
  - E-mail: enquiries@brandon-medical.com
- The cost of any carriage to and from the Dealer, Supplier, Brandon Medical Company Ltd or approved Service Agent shall be borne by the Purchaser.
- This Guarantee cannot be varied except by written notification by Brandon Medical Company Ltd authorised by a Company Director.
- Under no circumstances whatsoever shall Brandon Medical Company Ltd. be liable in respect of consequential loss.
- The Guarantee is subject to the equipment in question having been paid for in full.
- This Guarantee is offered as an additional benefit to the Purchaser’s statutory rights and does not affect these rights in any way.
Declaration of Conformity

Brandon Medical Co Ltd hereby declares that this product – Quasar elite- is in compliance with the EC Directive 93/42/EEC.


Despite any compliance with EMC standards, the device may emit radiation that interferes with adjacent equipment. If this becomes apparent then increase the distance between the two pieces of equipment.