A superior range of laryngoscopes to meet all your needs - Quality and Performance for life

- Diamond Fibrelight System
- Premier Fibrelight and Conventional Systems
- McCoy Range
- Adjustable Handle
- Single Use Products
- ‘Life-Care’ or optional ‘Life-Care Plus’ Warranty and Customer Care scheme
### Penlon Laryngoscopes

**Six decades of innovation and world-class products**

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1943</td>
<td>The Macintosh Laryngoscope was a revolutionary design invented by the late Sir Robert Macintosh, Professor of Anaesthetics at Oxford University, working with engineers at Penlon.</td>
</tr>
<tr>
<td>1952</td>
<td>Six different laryngoscope blades are listed in the Penlon sales catalogue and Penlon is the first manufacturer to use stainless steel for all parts of the blade.</td>
</tr>
<tr>
<td>1972</td>
<td>Penlon designed the world’s first Fibrelight Laryngoscope range.</td>
</tr>
<tr>
<td>1988</td>
<td>The innovative Patil-Syracuse Adjustable Handle was produced.</td>
</tr>
<tr>
<td>1993</td>
<td>The world’s first levering laryngoscope, the Penlon McCoy was introduced, providing a revolutionary solution for difficult intubations.</td>
</tr>
<tr>
<td>2002</td>
<td>Crystal® Single Use Laryngoscope, the first one-piece disposable laryngoscope blade is launched by Penlon.</td>
</tr>
</tbody>
</table>
Systems Guide and Contents

Fibrelight and Conventional Ranges
Including McCoy

Diamond Fibrelight Laryngoscopes and Sets
ISO ‘Green’ System
Bulb is located in the handle.
Handles and blades are interchangeable with other
ISO 7376/3 ‘Green’ System fibrelight components

Page 4

Premier Fibrelight Laryngoscopes and Sets
ISO ‘Red’ System
Bulb is located in the handle.
Handles and blades are interchangeable with other
ISO 7376/1 ‘Red’ System fibrelight components

Page 6

Premier Conventional Laryngoscopes and Sets
‘Hook-on’ System
Bulb is located in the blade.
Handles and blades are interchangeable only with
other ‘Hook-on’ standards compliant components

Page 7

McCoy Laryngoscopes
ISO ‘Green’, ISO ‘Red’ and ‘Hook-on’ Systems
The original levering laryngoscope for difficult intubation

Page 8

Single Use Range

Crystal® Disposable Blade
Penlon Crystal® Disposable Blades are compatible with handles that conform
to ISO ‘Green’ System requirements (ISO 7376/3)

Page 10

Crystal® Metal Disposable Blade
Penlon Crystal® Metal Disposable Blades are compatible with handles
that conform to ISO ‘Green’ System requirements (ISO 7376/3)

Page 11
Brighter light, premium quality and performance for life†

The Diamond Range is a fully interchangeable, internationally compatible laryngoscope system that sets the standards by which all others are judged

◆ Excellent fibreoptics and gold switch contacts - able to withstand repeated autoclave treatment
◆ Five year guarantee on light guide, and lifetime guarantee† on all blades and handles
◆ Removable light guide design - extends blade life, and allows easier cleaning and polishing
◆ Quality you can trust
◆ Superior polished finish - easy to clean and sterilise
◆ Xenon lamp mounted in handle - no problems with electrical contacts between blade and handle
◆ Cool, bright light - no chance of tissue burns from hot lamps during lengthy intubations
◆ Convenient single size standard Penlon lamp for all handle sizes

MRI Applications
◆ Standard handle only (plus any blade)
◆ Important - use a paper covered 3 volt lithium battery and non-magnetic spacer to hold the single battery in place

- Battery spacer 52083

NOTE - Penlon does not supply batteries for MRI applications
Diamond Fibrelight Sets

Penlon laryngoscope sets provide the clinician with a complete intubation solution in an attractive, protective case

- Miller sizes 2 and 3, Seward size 1 and Standard handle in a case 50374
- Macintosh sizes 3 and 4, Seward size 1 and Standard handle in a case 50375
- Macintosh sizes 1, 2, 3, 4 and Standard handle in a case 50376

Custom Sets
Any handle and two to four blades

Diamond Handles

- The Standard handle is suitable for MRI applications (use appropriate batteries, see page 4)
- The Penlight handle gives improved balance with smaller blades
- The Stubby handle is designed to facilitate difficult intubation on a short neck or a barrel-chested patient

Blades

<table>
<thead>
<tr>
<th>Macintosh Fibrelight</th>
<th>Size</th>
<th>Length x Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size 1 Infant</td>
<td>50530</td>
<td>96 x 46 mm</td>
</tr>
<tr>
<td>Size 2 Child</td>
<td>50531</td>
<td>102 x 45.9 mm</td>
</tr>
<tr>
<td>Size 3 Adult</td>
<td>50532</td>
<td>135 x 47 mm</td>
</tr>
<tr>
<td>Size 4 Large</td>
<td>50533</td>
<td>152.5 x 48.5 mm</td>
</tr>
<tr>
<td>Size 5 Extra Large</td>
<td>50528</td>
<td>170 x 49 mm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Miller Fibrelight</th>
<th>Size</th>
<th>Length x Height</th>
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</thead>
<tbody>
<tr>
<td>Size 00 Premature</td>
<td>50529</td>
<td>67.5 x 39 mm</td>
</tr>
<tr>
<td>Size 0 Neonate</td>
<td>50534</td>
<td>79 x 39 mm</td>
</tr>
<tr>
<td>Size 1 Infant/Child</td>
<td>50535</td>
<td>102 x 38 mm</td>
</tr>
<tr>
<td>Size 2 Child/Adult</td>
<td>50536</td>
<td>154 x 41 mm</td>
</tr>
<tr>
<td>Size 3 Large</td>
<td>50537</td>
<td>195.5 x 41 mm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Seward Fibrelight</th>
<th>Size</th>
<th>Length x Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size 1 Infant</td>
<td>50538</td>
<td>107 x 38 mm</td>
</tr>
<tr>
<td>Size 2 Child</td>
<td>50539</td>
<td>130 x 44 mm</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Robertshaw Fibrelight</th>
<th>Size</th>
<th>Length x Height</th>
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</thead>
<tbody>
<tr>
<td>Size 0 Neonate</td>
<td>50540</td>
<td>94 x 41.5 mm</td>
</tr>
<tr>
<td>Size 1 Infant</td>
<td>50541</td>
<td>113 x 43 mm</td>
</tr>
</tbody>
</table>

Handles

- Penlight 50526
- Standard 50525
- Stubby 50527
Premier Laryngoscope Range

Fibrelight Laryngoscopes
ISO 7376/1 ‘Red’ System

Brighter light, premium quality and performance for life†

- Manufactured to ISO 9001 and EN 46001
- CE marked
- Lifetime guarantee†
- Fast delivery from stock
- Excellent fibreoptics and gold switch contacts designed to withstand repeated autoclaving

Premier Fibrelight Sets

Penlon laryngoscope sets provide the clinician with a complete intubation solution in an attractive, protective case

- Miller sizes 2 and 3, Seward size 1 and Standard handle in a case
- Macintosh sizes 3 and 4, Seward size 1 and Standard handle in a case
- Macintosh sizes 1, 2, 3, 4 and Standard handle in a case

Custom Sets

Any handle and two to four blades

Premier Fibrelight Handles

- The Penlight handle gives improved balance with smaller blades
- The Stubby handle is designed to facilitate difficult intubation on a short neck or a barrel-chested patient

| Blades                  | Size       | 50384 | 50381 | 50395 | 50396 | 50388 | 50389 | 50386 | 50387 | 50383 | 50414 | 50415 | 50416 | 50378 | 50380/2 | 50377 |
|-------------------------|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                         | Size 1 Infant |      |       |       |       |       |       |       |       |       |       |       |       |       |
|                         | 93 x 36 mm  |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Macintosh Fibrelight    | Size 2 Child | 50396 |       |       |       |       |       |       |       |       |       |       |       |       |
|                         | 103 x 36 mm |       |       |       |       |       |       |       |       |       |       |       |       |       |
|                         | Size 3 Adult | 50381 |       |       |       |       |       |       |       |       |       |       |       |       |
|                         | 132 x 36 mm |       |       |       |       |       |       |       |       |       |       |       |       |       |
|                         | Size 4 Large | 50384 |       |       |       |       |       |       |       |       |       |       |       |       |
|                         | 150 x 36 mm |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Miller Fibrelight       | Size 0 Neonate | 50388 |       |       |       |       |       |       |       |       |       |       |       |       |
|                         | 77 x 30 mm  |       |       |       |       |       |       |       |       |       |       |       |       |       |
|                         | Size 1 Infant/Child | 50389 |       |       |       |       |       |       |       |       |       |       |       |       |
|                         | 101 x 30 mm |       |       |       |       |       |       |       |       |       |       |       |       |       |
|                         | Size 2 Child/Adult | 50386 |       |       |       |       |       |       |       |       |       |       |       |       |
|                         | 152 x 25 mm |       |       |       |       |       |       |       |       |       |       |       |       |       |
|                         | Size 3 Large | 50387 |       |       |       |       |       |       |       |       |       |       |       |       |
|                         | 191 x 26 mm |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Seward Fibrelight       | Size 1 Infant | 50383 |       |       |       |       |       |       |       |       |       |       |       |       |
|                         | 109 x 30 mm |       |       |       |       |       |       |       |       |       |       |       |       |       |
|                         | Size 2 Child | 50414 |       |       |       |       |       |       |       |       |       |       |       |       |
|                         | 132 x 30 mm |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Robertshaw Fibrelight   | Size 0 Neonate | 50415 |       |       |       |       |       |       |       |       |       |       |       |       |
|                         | 94 x 26 mm  |       |       |       |       |       |       |       |       |       |       |       |       |       |
|                         | Size 1 Infant | 50416 |       |       |       |       |       |       |       |       |       |       |       |       |
|                         | 114 x 30 mm |       |       |       |       |       |       |       |       |       |       |       |       |       |

Handles

- Penlight: 50378
- Standard: 50380/2
- Stubby: 50377
Premier Laryngoscope Range

Conventional Laryngoscopes
‘Hook-on’ System

- Manufactured to ISO 9001 and EN 46001
- CE marked
- Lifetime guarantee†
- Fast delivery from stock
- Standard handle is waterproof for easy sterilisation

Special Applications

Adjustable Handle

- Stubby design for use with any Premier Conventional ‘Hook-on’ blade
- Four locked positions
- Ideally suited for obstetric and other difficult intubations

- Adjustable Handle 52093

Premier Conventional Handles

- The Penlight handle gives improved balance with smaller blades
- The Stubby handle is designed to facilitate difficult intubation on a short neck or a barrel-chested patient

Blades

**Macintosh Conventional**

- Size 1 Infant 52118
  - 95 x 37 mm
- Size 2 Child 52117
  - 101 x 37 mm
- Size 3 Adult 52116
  - 130 x 38 mm
- Size 4 Large 52115
  - 151 x 39 mm

**Miller Conventional**

- Size 0 Neonate 52430
  - 78 x 27 mm
- Size 1 Infant/Child 52429
  - 102 x 27 mm
- Size 2 Child/Adult 52428
  - 151 x 27 mm
- Size 3 Large 52427
  - 195 x 29 mm

**Seward Conventional**

- Size 1 Infant 52114
  - 107 x 25 mm
- Size 2 Child 52113
  - 130 x 31 mm

**Robertshaw Conventional**

- Size 0 Neonate 52132
  - 96 x 29 mm
- Size 1 Infant 52133
  - 113 x 29 mm

**Wisconsin Conventional**

- Size 0 Neonate 52424
  - 79 x 28 mm
- Size 1 Infant 52423
  - 102 x 29 mm
- Size 2 Child 52422
  - 132 x 34 mm
- Size 3 Adult 52421
  - 160 x 32 mm

**Polio Macintosh Conventional**

- Size 3 Adult 52146
  - 150 x 48 mm

**Left Handed Macintosh**

- Size 3 Adult 52119
  - 134 x 38 mm

Handles

- Penlight 52145
- Standard 52089
- Stubby 52087
McCoy Laryngoscope Range
The world leader for difficult intubation
Over ten years of refinement and experience guarantees performance you can trust

- Unique, high quality levering tip
- Elevation of the epiglottis with less overall movement

The McCoy provides the clinician with greater flexibility and improved control in a wide selection of difficult intubation cases such as:

- Forward displacement of the Larynx
- Forward or prominent upper teeth
- Backward displacement of the tongue
- Decreased neck movement
- Cervical spine injuries
- Decreased mouth opening
- Recessive mandible

Seward Size 1
Seward Size 2
**System Features and Benefits**

Diamond Range - see pages 4 and 5
Premier Range - see pages 6 and 7

### Diamond Fibrelight McCoy

**ISO ‘Green’ System**

<table>
<thead>
<tr>
<th>McCoy Fibrelight</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Size 3 Adult</td>
<td>50657</td>
</tr>
<tr>
<td>Size 4 Large</td>
<td>50659</td>
</tr>
<tr>
<td>Size 3 Adult and Standard handle</td>
<td>50658</td>
</tr>
<tr>
<td>Size 4 Large and Standard handle</td>
<td>50660</td>
</tr>
</tbody>
</table>

### Premier Fibrelight McCoy

**ISO ‘Red’ System**

- **Seward Fibrelight**
  - Size 1 Infant: 50464
  - Size 2 Child: 50466
  - Size 1 Infant and Penlight handle: 50465
  - Size 2 Child and Standard handle: 50467
- **Macintosh Fibrelight**
  - Size 3 Adult: 50468
  - Size 4 Large: 50470
  - Size 3 Adult and Standard handle: 50469
  - Size 4 Large and Standard handle: 50471

### Premier Conventional McCoy

**‘Hook-on’ System**

- **Seward Conventional**
  - Size 1 Infant: 50454
  - Size 2 Child: 50456
  - Size 1 Infant and Penlight handle: 50455
  - Size 2 Child and Standard handle: 50457
- **Macintosh Conventional**
  - Size 3 Adult: 50418
  - Size 4 Large: 50427
  - Size 3 Adult and Standard handle: 50419
  - Size 4 Large and Standard handle: 50428

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For Life
Single Use Intubation Products
Crystal® Crystal® Metal and Handle Sheath
Increasing evidence indicates that laryngoscope cleaning and disinfection procedures are not 100% effective against bacteria, viruses and prions originating in the mouth.*

Crystal® and Crystal® Metal disposable blades are low cost, superior solutions designed to prevent cross-infection without affecting the clinician’s intubation technique.

Crystal® Blade
Disposable Laryngoscope Blade
◆ Strong polycarbonate alternative to metal blades
◆ High specific and general illumination
◆ Smooth, clear, light-transmitting blade
◆ Superb visualisation through revolutionary ‘Crystal’ technology
◆ Fits all European ISO ‘Green’ System handles
◆ Available in Macintosh sizes 2, 3, 4 and Miller sizes 0, 1, 2, 3

MRi Applications
◆ Standard handle only (plus any blade)
◆ Important - use a paper covered 3 volt lithium battery and non-magnetic spacer to hold the single battery in place

- Battery spacer 52083

NOTE - Penlon does not supply batteries for MRi applications

Crystal® Macintosh (Box of 20)
Size 2 Child 50552
Size 3 Adult 50553
Size 4 Large 50554

Crystal® Miller (Box of 20)
Size 0 Neonate 50550
Size 1 Infant/Child 50551
Size 2 Child/Adult 50555
Size 3 Large 50556

*REFERENCES
JR Hall. ‘Blood contamination of equipment...’ Anaesthesia and Analgesia. 1994; 78:1136-9
Crystal® Metal Blade
Disposable Laryngoscope Blade

- Low cost, easy to use
- Unique heel design prevents contact between the handle and the blade tip
- Strong stainless steel blade is ideal for difficult intubations
- True Macintosh and Miller profiles
- Manufactured from recyclable materials
- Fits all European ISO ‘Green’ System handles
- Available in Macintosh sizes 1, 2, 3, 4, 5 and Miller sizes 00, 0, 1, 2, 3

New Sizes Now Available

Crystal® Metal Miller
(Box of 20)
Size 00 Premature 50647
Size 0 Neonate 50676
Size 1 Infant/Child 50677
Size 2 Child/Adult 50678
Size 3 Large 50679

Crystal® Metal Macintosh
(Box of 20)
Size 1 Infant 50646
Size 2 Child 50673
Size 3 Adult 50674
Size 4 Large 50675
Size 5 Extra Large 50645

Handle Sheath
Disposable Laryngoscope Handle Sheath

- Low cost, easy to use
- Infection control requiring no change in technique
- Fits all handles (fibrelight or conventional)

Handle Sheath
(Box of 100)
One Size 50549
Laryngoscope Maintenance

Sterilisation
Blades and handles can be sterilised by autoclave at 134°C, or soaking. Always refer to the relevant user instruction leaflet supplied with the laryngoscope.

Spares and Repairs
Blades and handles - Please contact the service department for details

Replacement Conventional Bulbs
55091 Pack of five
55092 Pack of five (Miller/Wisconsin blades sizes 0 and 1)

Replacement Fibrelight Bulbs
55094 Pack of five (Fibrelight ‘Red’ handles only)
50542 Pack of five (Diamond ‘Green’ handles only)

Batteries
To ensure optimum performance use alkaline manganese batteries. Penlon does not supply replacement batteries.

• Penlight handle - 2 x LR6
• Standard handle - 2 x LR14
• Stubby handle - 2 x LR6

‘Lifetime Guarantee
Penlon Laryngoscopes are guaranteed throughout their normal useful life against mechanical failure due to defects in design, materials or workmanship. The guarantee does not apply to lamps, batteries or plastic laryngoscopes.

Fibrelight guides are guaranteed against total light failure within a period of five years. However note that after many sterilisations the light output of the fibre bundle may decrease.

Life-Care
Life-Care is designed to give our customers after-sales peace of mind. ‘Life-Care’ consists of our comprehensive standard warranty and after-sales support package. ‘Life-Care Plus’ allows customers to purchase additional services and warranties to meet their particular needs.

For further details, please contact your Penlon Sales or Service Representative.

Partnership for Life
Penlon’s philosophy embraces commitment to a successful, long term relationship with all our customers

Information contained in this leaflet is correct at the date of publication. The policy of Penlon Limited is one of continued improvement to its products. Because of this policy Penlon Limited reserves the right to make any changes, which may affect the information in this leaflet without giving prior notice.

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