



Guide to configuring a Merlin System

These notes are a guide to configuring a Merlin system and refer to the pricing information contained in the associated price list. In addition are some notes comparing the Merlin system with equivalent BIOM systems from Oculus?

If in doubt, please let me know and I can advise on which Merlin configuration best suits the customers needs.

Merlin System Configuration

A Merlin system consists some or all of the following major components:

1. An image re-inverter

Merlin systems use an in-direct lens therefore the microscope requires an image re-inverter. If the microscope is already fitted with such an inverter eg Volk ROLS, Oculus SDI or has a built-in system eg Zeiss Lumera Invertube such a system is not required.

2. Mounting kit

This item is used to attach the Merlin system to the microscope. Kits are available for most common operating microscopes from Zeiss, Leica, Moeller Wedel, Topcon and Takagi.

3. Merlin platform

a. The Condensing Lens Assembly (CLA) platform includes a condensing lens that can be shifted into and out of the optical pathway when the lens positioning unit (LPU, see below) is correspondingly moved. This means that the microscope need not be moved when changing from a corneal to retinal view. The CLA platform is functionally equivalent to the BIOM system.

b. The CLA platform is available in both manual and automated versions.

4. Lens Positioning Unit (LPU)

The LPU is a fine focus assembly that positions the lens above the eye. Two versions are available depending on whether the focal length of the microscope objective is 175mm or 200mm. The focal length of the microscope objective must be specified when ordering a system.



5. Indirect non-contact surgical lenses

Three lenses are available for the system of which two are selected when ordering a Merlin system. Additional lenses may be purchased at extra cost.

The following optional accessories are available for the Merlin system:

1. Carrying case
2. Surgical lens case
3. Sterilisable handle
4. Sterilisation tray

The following Merlin systems are available (you can configure and order any other)

The exact part numbers given in brackets will depend on the microscope type and objective focal length that need to be specified at time of order.

System 1: Merlin manual CLA only for Doctors with existing Inverter

Consisting of:

1. Microscope mount (11408, 11552, 11409, 11410, 11411, 11412, 11413, 11425)
2. Manual CLA assembly (11377, 11378)
3. LPU for CLA (11173, 11174)
4. Two lenses per system
Select from:
 - a. Mid-field non-contact lens (11182)
 - b. Wide field non-contact lens (11183)
 - c. Small diameter wide field non-contact lens (11184)
5. Surgical lens case (10595)
6. Installation manual



System 2: Merlin manual CLA with manual VROLS

Consisting of:

1. Vrols Inverter (Vrols Z for Zeiss or Vrols L for Leica)
2. Microscope mounts (11408, 11552, 11409, 11410, 11411, 11412, 11413, and 11425)
2. Manual CLA assembly (11377, 11378)
3. LPU for CLA (11173, 11174)
4. Two lenses per system

Select from:

- a. Mid-field non-contact lens (11182)
 - b. Wide field non-contact lens (11183)
 - c. Small diameter wide field non-contact lens (11184)
5. Surgical lens case (10595)
 6. Installation manual

System 3: Merlin automated CLA with automated ROLS Infinity

Consisting of:

1. Microscope mounts (11408, 11552, 11409, 11410, 11411, 11412, 11413, and 11425)
2. Automated CLA assembly (11375, 11376)
3. LPU for CLA (11173, 11174)



4. Two lenses per system

Select from:

- a. Mid-field non-contact lens (11182)
- b. Wide field non-contact lens (11183)
- c. Small diameter wide field non-contact lens (11184)

5. Automated ROLS Infinity, foot switch, power supply and cables

- a. For Zeiss fittings (11363)
- b. For Leica fittings (11364)

6. Surgical lens case (10595)

7. Installation manual

Competitive comparison

The following notes may be of use when competing with the BIOM system from Oculus.

BIOM 4M the BIOM 4M is the mechanically focused version of the BIOM and is equivalent to the Merlin manual CLA system

BIOM 4c The BIOM 4c has a motorized focus and is equivalent to the Merlin automated CLA system

The Oculus SDI 4 (Stereoscopic Diagonal Inverter) is the Oculus equivalent of the ROLS Infinity.

The SDI 4c is equivalent to the automated ROLS Infinity and automated Merlin CLA where the inverter is activated depending on the position of the LPU.



Lens Comparison

Lens	Volk Optical	Volk Optical	Volk Optical		Oculus	Oculus	Oculus	Oculus	Oculus
	Wide Angle	Small Diameter	Mid Field		Mini Wide Field Lens	Hi Res Macula Lens	90D Lens	Wide Field Enhanced Lens	Wide Field High Definition Lens
Maximum Field of view	120	112	95		70	60	90	120	60-125
Image mag.	0.43X	0.42X	0.74x						
Lens Diameter	19mm	13mm	19mm		12mm	19mm	19mm	19mm	21mm



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