

# **AUTOMATION GUIDE**

Olympus microscopes

# Introduction

We designed this brochure to provide in-depth information about the range of equipment compatible with Olympus microscopes. It covers the majority of current Olympus microscopes, as well as some earlier generation products of the same type.

Please do not hesitate to contact Prior Scientific if your microscope does not appear on this list as some of the products shown here may still be compatible.

More information about our products can be found by contacting a Prior representative, emailing **inquiries@prior.com** or by visiting **prior.com**.

We also have an extensive collection of datasheets freely available on our website or contacting Prior Scientific.

While every effort has been made to ensure that the products listed are compatible with each microscope, specific add-ons or configurations may render some products incompatible. We recommend contacting a Prior Scientific sales manager before ordering.

Please note that the parts may vary in availability and part numbers and specifications may change without warning. Whilst we have attempted to verify that the information here is accurate, we cannot guarantee that it is completely up to date and error free; thus we suggest contacting Prior before ordering in order to ensure that all equipment will be compatible with your microscope and suitable for your application. The microscopes featured here are for illustrative purposes only. All intellectual property relating to these microscopes, including patents and trademarks, remain the property of their respective owners. Olympus is a registered trademark of Olympus Corporation. ProScan®, OptiScan® and ZDeck® and the Prior Scientific logo are registered trademarks of Prior Scientific Ltd.

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# ProScan III controller configuration guide

The ProScan III controller range can be used to control a wide range Prior Scientific's microscope automation equipment. Choosing the correct controller is critical to ensuring that all of your chosen components can be used effectively. After selecting the hardware for your microscope, use the following guide to identify the correct controller. Systems which already utilize a ProScan III controller but cannot control some pieces of hardware may be upgraded using an ancillary box, depending on revision status.

All ProScan III controllers can be used with the PS3J100 interactive control center. The PS3J100 can fulfill XYZ joystick requirements and can be configured to control a number of automated functions. such as filter wheels and shutters, through its programmable buttons. Contact Prior Scientific or refer to the PS3J100 user manual for further information.

For motorized microscope upgrades on a lower budget, please contact **Prior Scientific to learn more about** our OptiScan product range.

Stages: Determine if your stage is a linear or stepper motor stages as these controllers are not interchangeable. All ProScan III controllers which can control stages also support encoders.

Focus: All ProScan III controllers which can control stepper motor focus systems also support encoders. Nanopositioning products in this configuration guide are supplied with their own controller, which can be operated through the ProScan III if desired. If using a H101E1F. H101E2F or encoded Z-deck with an encoded focus system please contact Prior Scientific before placing your order.

Filter wheels: For systems without a motorized stage or focus use the V31F controller. Please note that is may not be possible to control more than 3 filter wheels with some third party software

Shutters: For systems without a motorized stage or focus use the V31F controller. Please note that it may not be possible to control more than 3 shutters with some third party software.

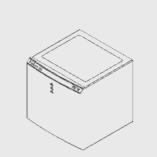
Metal Halide Illuminators: Third party software can control the L200S directly without the need for a controller. Alternatively, the built in shutter of the L200S and L220S can be controlled through any ProScan III controller which has a shutter port. The lamp on/off and shutter open/closed trigger ports can also be controlled though any controller with a trigger board. The L200 and L220 are completely standalone and does not require a ProScan III controller.

LED Illuminators: LDB103 LED illuminators can be controlled through any ProScan III controller with a shutter port. If not ordering any other Prior components, consider the LDB102, which is a standalone illuminator which does not require a ProScan III controller.

Slide loader: A ProScan III controller which can control stepper motor stages is required for operation of the PL101A/PLE01A stage supplied with the PL200 slide loader.

Autofocus: The PF850 autofocus is supplied with a standalone controller. No ProScan III controller is required.

### PS3J100



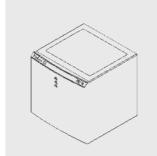
- XYZ joystick control
- Programmable buttons
- L200S • LDB103

• 3x shutters

• 3x filter wheels

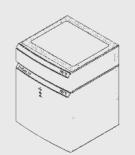
**V31F** 

### V31XYZE



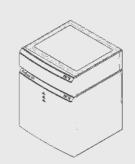
- XY stepper stage
- Z axis (excl.piezo)
- Encoders

# V31XYZET



- XY stepper stage
- Z axis (excl. piezo)
- Encoders
- Trigger board

# V31XYZEF



- XY stepper 3x filter stage
- Z axis • 3x shutters
- wheels
- (excl. piezo) L200S
- Encoders LDB103

# V31XYZEFT



- XY stepper 3x filter wheels
- stage • 3x shutters Z axis • L200S
- (excl.piezo) LDB103
- Encoders Trigger board

### V31XYZEF2

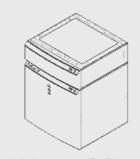


- XY stage
- Z axis (excl. piezo) • 6x shutters

• 6x filter

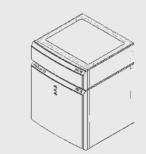
- Encoders L200S
  - LDB103

### VLD31XYZFG



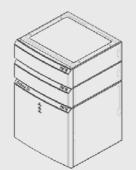
- XY linear • 3x filter stage wheels
- Z axis 3x shutters (excl. piezo) • L200S
- Encoders LDB103

### VLD31XYZTG



- XY linear stage
- Z axis (excl. piezo)
- Encoders
- Trigger board

# VLD31XYZFTG

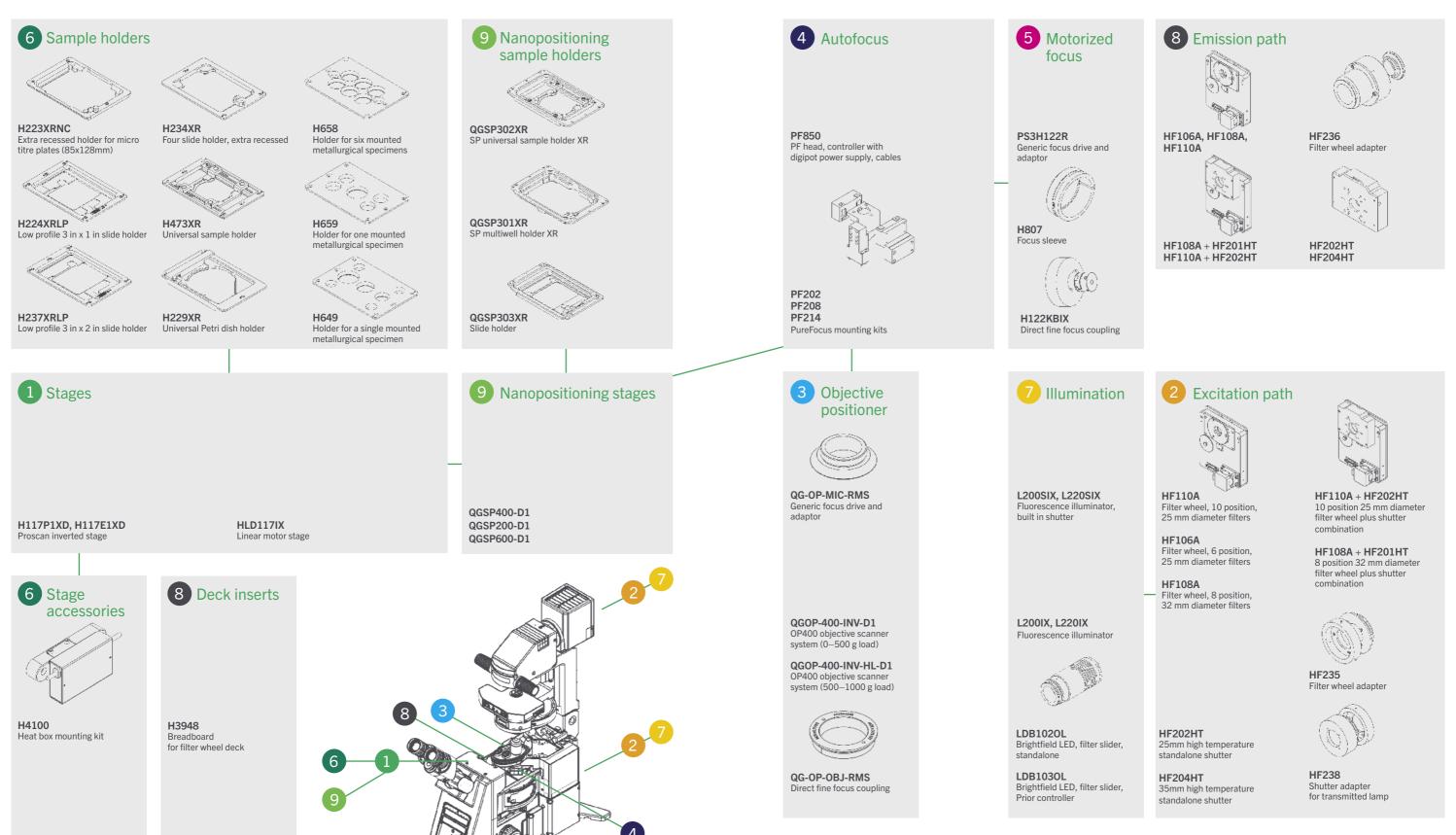


- XY linear stage 3x shutters
- Z axis
- L200S (excl. piezo) • LDB103
- Encoders Trigger • 3x filter wheels board
- XY stage Encoders Z axis (excl. piezo)

VLD31XYZG

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# Olympus IX73 configuration chart



See the following pages for more product information.

HF108IX3

Breadboard

H117ACCM

Pair of stage extension wings

# Olympus IX73 configuration guide

The Olympus IX73 microscope has two variants; the IX73P1F and IX73P2F, which have 1 and 2 decks respectively for filter turrets and other accessories. It is important to identify the variant in order to ensure compatibility.

# Motorized XY stages and sample holders

All the sample holders listed are compatible with the H117P1XD, H117E1XD and HLD117IX. At least one sample holder is required. For microscopes equipped with motorized DIC turrets, the H4100 is required to ensure the stage can be fitted correctly. The H117ACCM breadboard attachments can be added to all stages except the H139P1XD to provide mounting points for probe stations.

Part	Description
HLD117IX	Linear motor stage, LH cable (Olympus IX83)
H117P1XD	ProScan inverted stage, part encoded, 1 mm pitch, 400 step, Olympus IX73 and IX83 (DIC)
H117E1XD	ProScan inverted stage, encoded, 1 mm pitch, 400 step, Olympus IX73 and IX83 (DIC)
H473XR	Universal sample holder (slides, Petri dishes, small flasks), extra recessed
H223XRNC	Extra recessed holder for micro titre plates (85x128mm) with diagonal corner sections removed
H224XRLP	Low profile 3 in x 1 in slide holder, extra recessed
H229XR	Universal Petri dish holder, extra recessed
H234XR	Four 3 in x 1 in slide holder, extra recessed
H23X200	200 ml flask holder (Greiner)
H237XRLP	Low profile 3 in x 2 in slide holder, extra recessed
H229D35XR-6	Holder for 6 x 35 mm Petri dishes
H649	Holder for a single 1 in, 1.25 in and 1.5 in mounted metallurgical specimen
H657	Holder for one mounted metallurgical specimen, 2 in diameter
H658	Holder for six mounted metallurgical specimens, 1.25 in diameter
H659	Holder for one mounted metallurgical specimen, 1.5 in diameter with 1, 2, 4 or 8 chambers

### Stage accessories

Part	Description
H4100	Heat box mounting kit for IX73 required when mounting a stage on a micro-scope with a motorized DIC unit
H117ACCM	Pair of stage extension wings for H117 stages, breadboard format with 6 mm tapped holes for mounting micromanipulators or other accessories

### Nanopositioning stages and sample holders

Nanopositioning stages require a suitable motorized stage for mounting. All Prior motorized stages listed in this guide are compatible. Please contact Prior Scientific if the microscope has another brand of motorized stage. Note that a sample holder from the nanopositioning stage section is required for use, and replaces the sample holder fitted to the motorized stage.

Part	Description
QGSP400-D1	System SP400, 400 µm travel, and NPC-D-6110 controller
QGSP200-D1	System SP200, 200 μm travel, and NPC-D-6110 controller
QGSP600-D1	System SP600, 600 µm travel, and NPC-D-6110 controller
QGSP301XR	SP multiwell holder XR
QGSP302XR	SP universal sample holder XR
QGSP303XR	SP single slide holder suitable for 1 in x 3 in and 2 in x 3 in slides

### Objective positioners and adaptors

When ordering ensure the correct part number is used to specify inverted calibration. Objective positioners require a threaded adapter in order to be fitted to the microscope nosepiece and the microscope objective. Olympus microscopes typically use RMS threads; please contact Prior Scientific if the nosepiece uses an alternative thread size. Some IX73 nosepieces have a raised lip surrounding the objective positions, which may clash with the objective positioner; a 15 mm spacer can be added to clear the lip. Please note that the two objective positions adjacent to the objective positioner will not be useable due to space constraints. A high load calibration is available for specialist heavy objectives. Control of the nanopositioning stage via Olympus Software requires the use of the Olympus Realtime Controller.

Part	Description
QGOP-400-INV-D1	OP400 objective scanner system incl. NPC-D-6110 controller for inverted microscopes (0-500 g load)
QGOP-400-INV-HL-D1	OP400 objective scanner system incl. NPC-D-6110 controller for inverted microscopes (500-1000 g load)
QG-OP-MIC-RMS	OP microscope adapter RMS
QG-OP-OBJ-RMS	OP objective adapter M32 x 0.75 to RMS
QG-OP-SPACE-RMS	RMS static objective spacer to align with OP-400 objective

### Motorized focus

The PS3H122R plus H807 combination is required to drive the fine focus knob of the microscope. The coarse focus will not be motorized. The H122KBIX direct coupling can be added for more precise motorized control.

Part	Description
PS3H122R	Generic focus drive and adaptor with rotating cable system preventing cable twisting
H807	Olympus BX and IX focus sleeve
H122KBIX	Direct fine focus coupling for Olympus IX/BX microscopes

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### Autofocus

The PF850 is a standalone hardware autofocus. A kit is required for mounting. The PF202 is compatible with 2-deck IX73 systems where both decks are in use. The PF208 is compatible with 2-deck systems where only the lower deck is in use. The PF214 is compatible with 1-deck systems. The PF200, PF209 and PF300 are required for setup and maintenance. The PF404 is required for use with piezo nanopositioning systems.

Part	Description
PF850	PF head, controller with digipot power supply, cables
PF202	IX73 PureFocus mounting kit for 2-deck system
PF208	IX73 PureFocus mounting kit for 2-deck system
PF214	IX73 PureFocus mounting kit for 1-deck system
PF209	PureFocus setup sample slide
PF200	PureFocus setup camera alignment target type 1, RMS.DIA 0.8 x 36
PF300	PureFocus setup camera jig
PF404	Piezo cable for PF850 15D to BNC

### Illumination

The L200IX and L200SIX are recommended for fluorescence microscopy (see **datasheet** for details). The L200SIX has a built in shutter mechanism which can be controlled via a ProScan III controller, so a standalone shutter is not required. The LDB103OL requires a ProScan III controller for operation and is recommended if purchasing a V31XYZEF controller. 35 mm shutters and filter wheels are recommended for widefield applications.

Part	Description
L200SIX	L200 Standard box, lamp, light guide, shutter and Olympus IX Collimator
L200IX	L220 Standard box, lamp, light guide and Olympus IX Collimator
L220SIX	L220 Standard box, lamp, light guide, shutter and Olympus IX Collimator
L220IX	L220 Standard box, lamp, light guide and Olympus IX Collimator
LDB1020L	Brightfield LED, filter slider, standalone, Olympus
LDB1030L	Brightfield LED, filter slider, Prior controller, Olympus

## **Excitation path**

Filter wheels are not supplied with filters. Contact Prior Scientific if you wish to purchase a filter wheel stand that can be fixed to an optical table. For systems requiring a shutter and filter wheel it is recommended to buy one of the combinations listed below. The HF235 adaptor is required for filter wheels and shutters in the main episcopic illumination pathway. The H238 adaptor is required for filter wheels and shutters in the transmitted light path.

Part	Description
HF235	Filter wheel adapter for Olympus BX, IX and AX series microscopes
HF238	Shutter adapter for transmitted lamp
HF202HT	25 mm high temperature standalone shutter
HF204HT	35 mm high temperature standalone shutter
HF110A	Filter wheel, 10 position, 25 mm diameter filters without stand
HF106A	Filter wheel, 6 position, 25 mm diameter filters without stand
HF108A	Filter wheel, 8 position, 32 mm diameter filters without stand
HF110A + HF200HT	10 position 25 mm diameter filter wheel plus shutter combination
HF108A + HF201HT	8 position 32 mm diameter filter wheel plus shutter combination

### **Emission path**

The HF236 adaptor is required for fitting shutter and filter wheels to the emission port of the microscope. 32 mm shutters and filter wheels are recommended for widefield applications.

Part	Description
HF236	Filter wheel adapter for Olympus IX series microscopes
HF202HT	High speed shutter (high temperature), 32 mm aperture, for standalone use
HF204HT	High speed shutter (high temperature), 32 mm aperture, for standalone use

#### Deck inserts

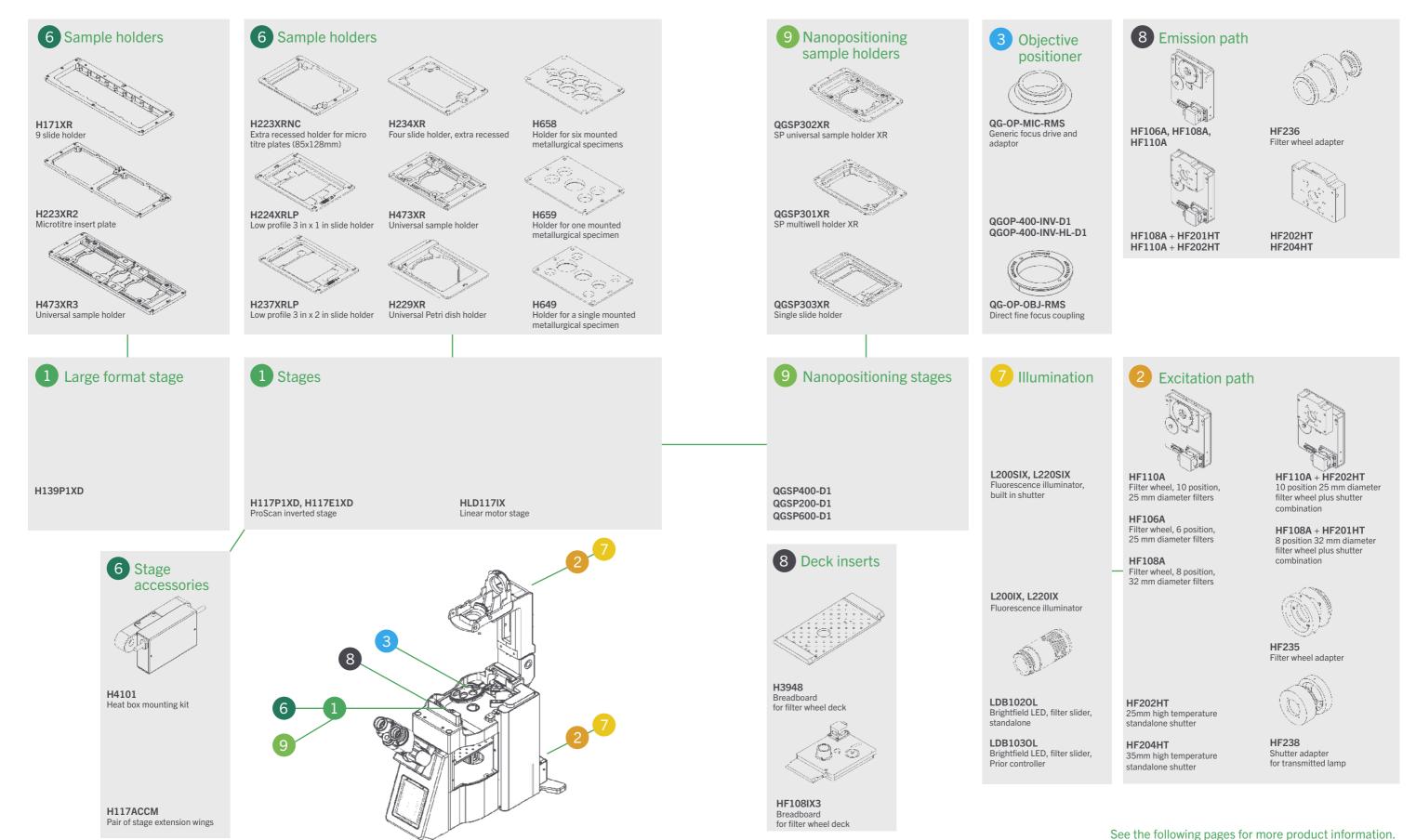
The HF108IX3 and H3948 slot into the IX73 decks. The HF108IX3 can be utilized as an excitation/emission filter wheel. The H3948 can be used as a mounting plate for third party accessories.

Part	Description
H3948	Breadboard for filter wheel deck of IX3 Microscope, no wheel or attachments
HF108IX3	Breadboard filter wheel, 8 position, 32 mm diameter filters for Olympus IX3

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# Olympus IX83 configuration chart

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See the following pages for more product information

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# Olympus IX83 configuration guide

The Olympus IX83 is a fully motorized microscope. Upgrades to this microscope are focused on higher end improvements.

# Motorized XY stages and sample holders

All the sample holders listed are compatible with the H117P1XD, H117E1XD and HLD117IX. The H139P1XD is available for customers wanted to expand their analysis to a pair of well plates or Petri dishes or up to nine slides. There is no encoded option for the H139P1XD. At least one sample holder is required for each stage. For microscopes equipped with motorized DIC turrets, the H4101 is required to ensure the stage can be fitted correctly. The H117ACCM breadboard attachments can be added to all stages except the H139P1XD to provide mounting points for probe stations.

Part	Description
HLD117IX	Linear motor stage, LH cable (Olympus IX83)
H117P1XD	Proscan inverted stage, part encoded, 1 mm pitch, 400 step, Olympus IX73 and IX83 (DIC)
H117E1XD	Proscan inverted stage, encoded, 1 mm pitch, 400 step, Olympus IX73 and IX83 (DIC)
H473XR	Universal sample holder (slides, Petri dishes, small flasks), extra recessed
H223XRNC	Extra recessed holder for micro titre plates (85x128mm) with diagonal corner sections removed
H224XRLP	Low profile 3 in x 1 in slide holder, extra recessed
H229XR	Universal Petri dish holder, extra recessed
H234XR	Four 3 in x 1 in slide holder, extra recessed
H23X200	200 ml flask holder (Greiner)
H237XRLP	Low profile 3 in x 2 in slide holder, extra recessed
H229D35XR-6	Holder for 6 x 35 mm Petri dishes
H649	Holder for a single 1 in, 1.25 in and 1.5 in mounted metallurgical specimen
H657	Holder for one mounted metallurgical specimen, 2 in diameter
H658	Holder for six mounted metallurgical specimens, 1.25 in diameter
H659	Holder for one mounted metallurgical specimen, 1.5 in diameter with 1, 2, 4 or 8 chambers

# Large format XY stages and sample holders

Part	Description
H139P1XD	ProScan inverted stage, part encoded, 1 mm pitch (Olympus)
H171XR	9 slide holder (H139)
H223XR2	Microtitre insert plate (H139) 2 posn
H473XR3	Universal sample holder x 3 (H139)

# Stage accessories

Part	Description
H4100	Heat box mounting kit for IX73 required when mounting a stage on a micro-scope with a motorized DIC unit
H117ACCM	Pair of stage extension wings for H117 stages, breadboard format with 6 mm tapped holes for mounting micromanipulators or other accessories

### Nanopositioning stages and sample holders

Nanopositioning stages require a suitable motorized stage for mounting. All Prior motorized stages listed in this guide are compatible except the H139P1XD. Please contact Prior Scientific if the microscope has another brand of motorized stage. Note that a sample holder from the nanopositioning stage section is required for use, and replaces the sample holder fitted to the motorized stage. Control of the nanopositioning stage via Olympus Software requires the use of the Olympus Realtime Controller.

Part	Description
QGSP400-D1	System SP400, 400 µm travel, and NPC-D-6110 controller
QGSP200-D1	System SP200, 200 μm travel, and NPC-D-6110 controller
QGSP600-D1	System SP600, 600 µm travel, and NPC-D-6110 controller
QGSP301XR	SP multiwell holder XR
QGSP302XR	SP universal sample holder XR
QGSP303XR	SP single slide holder suitable for 1 in x 3 in and 2 in x3 in slides

### Objective positioners and adaptors

When ordering ensure the correct part number is used to specify inverted calibration. Objective positioners require a threaded adapter in order to be fitted to the microscope nosepiece and the microscope objective. Olympus microscopes typically use RMS threads; please contact Prior Scientific if the nosepiece uses an alternative thread size. Some IX73 nosepieces have a raised lip surrounding the objective positions, which may clash with the objective positioner; a 15mm spacer can be added to clear the lip. Please note that the two objective positions adjacent to the objective positioner will not be useable due to space constraints. A high load calibration is available for specialist heavy objectives. Control of the nanopositioning stage via Olympus Software requires the use of the Olympus Realtime Controller.

Part	Description
QGOP-400-INV-D1	OP400 objective scanner system incl. NPC-D-6110 controller for inverted microscopes (0-500 g load)
QGOP-400-INV-HL-D1	OP400 objective scanner system incl. NPC-D-6110 controller for inverted microscopes (500-1000 g load)
QG-OP-MIC-RMS	OP microscope adapter RMS
QG-OP-OBJ-RMS	OP objective adapter M32 x 0.75 to RMS
QG-OP-SPACE-RMS	RMS static objective spacer to align with OP-400 objective

#### Motorized focus and autofocus

The IX83 contains a motorized focus so no Prior motorized focus option is available for this microscope. The Olympus TruFocus is available for the IX83 so no Prior autofocus option is available for this microscope.

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### Illumination

The L200IX and L200SIX are recommended for fluorescence microscopy (see **datasheet** for details). The L200SIX has a built in shutter mechanism which can be controlled via a ProScan III controller, so a standalone shutter is not required. The L220IX and L220SIX are available for customers doing fluorescence imaging in the far-red. The LDB103OL requires a ProScan III controller for operation and is recommended if purchasing a V31XYZEF controller. 35 mm shutters and filter wheels are recommended for widefield applications.

Part	Description
L200SIX	L200 Standard box, lamp, light guide, shutter and Olympus IX Collimator
L200IX	L220 Standard box, lamp, light guide and Olympus IX Collimator
L220SIX	L220 Standard box, lamp, light guide, shutter and Olympus IX Collimator
L220IX	L220 Standard box, lamp, light guide and Olympus IX Collimator
LDB1020L	Brightfield LED, filter slider, standalone, Olympus
LDB1030L	Brightfield LED, filter slider, Prior controller, Olympus

## **Excitation path**

Filter wheels are not supplied with filters. Contact Prior Scientific if you wish to purchase a filter wheel stand that can be fixed to an optical table. For systems requiring a shutter and filter wheel it is recommended to buy one of the combinations listed above. The HF235 adaptor is required for filter wheels and shutters in the main episcopic illumination pathway. The H238 adaptor is required for filter wheels and shutters in the transmitted light path.

Part	Description
HF235	Filter wheel adapter for Olympus BX, IX and AX series microscopes
HF238	Shutter adapter for Transmitted lamp
HF202HT	25 mm high temperature standalone shutter
HF204HT	35 mm High Temperature Standalone Shutter
HF110A	Filter wheel, 10 position, 25 mm diameter filters without stand
HF106A	Filter wheel, 6 position, 25 mm diameter filters without stand
HF108A	Filter wheel, 8 position, 32 mm diameter filters without stand
HF110A + HF200HT	10 position 25 mm diameter filter wheel plus shutter combination
HF108A + HF201HT	8 position 32 mm diameter filter wheel plus shutter combination

## **Emission path**

The HF236 adaptor is required for fitting shutter and filter wheels to the emission port of the microscope. 32 mm shutters and filter wheels are recommended for widefield applications.

Part	Description
HF236	Filter wheel adapter for Olympus IX series microscopes
HF202HT	High speed shutter (high temperature), 32 mm aperture, for standalone use
HF204HT	High speed shutter (high temperature), 32 mm aperture, for standalone use

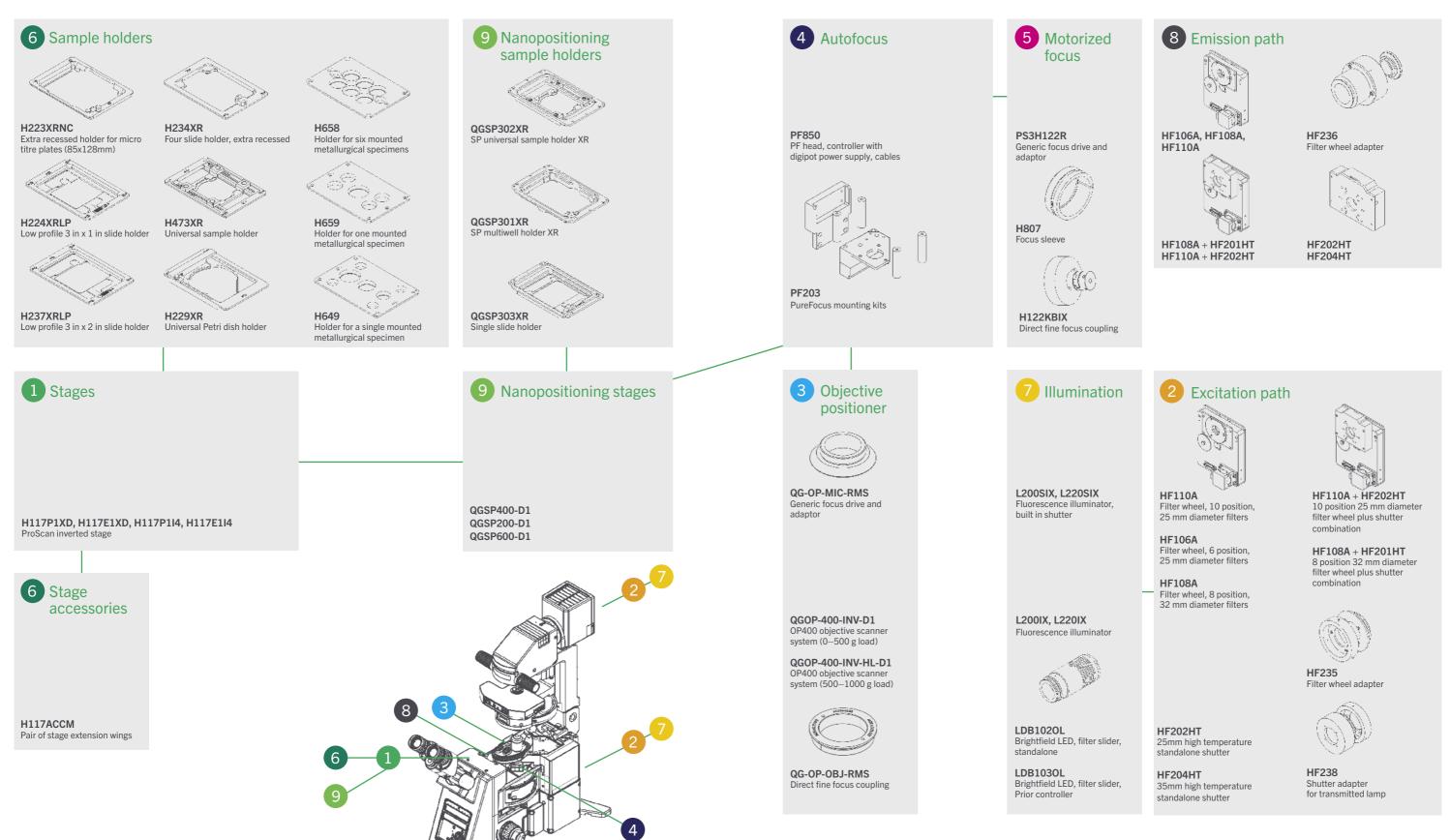
### Deck inserts

The HF108IX3 and H3948 slot into the IX83 decks. The HF108IX3 can be utilized as an excitation/emission filter wheel. The H3948 can be used as a mounting plate for third party accessories.

Part	Description
H3948	Breadboard for filter wheel deck of IX3 Microscope, no wheel or attachments
HF108IX3	Breadboard filter wheel, 8 position, 32 mm diameter filters for Olympus IX3

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# Olympus IX71 configuration chart



See the following pages for more product information.

# Olympus IX71 configuration guide

The Olympus IX71 is a largely manual microscope with a single frame type. Prior offers an extensive range of upgrades for this microscope.

# Motorised XY stages and sample holders

All the sample holders listed are compatible with the H117P1XD, H117E1XD, H117P1I4 and H117E1I4. The specifications of the –XD and –I4 variants are identical. The frame size means the HLD117IX and H139P1XD are not compatible with this microscope. At least one sample holder is required for each stage. The H117ACCM breadboard attachments can be added to all to provide mounting points for probe stations.

Part	Description
H117P1I4	ProScan inverted stage, part encoded, 1 mm pitch, 400 step, Olympus IX
H117E1I4	ProScan inverted stage, encoded, 1 mm pitch, 400 step, Olympus IX
H117P1XD	ProScan inverted stage, part encoded, 1 mm pitch, 400 Step, Olympus IX73 and IX83 (DIC)
H117E1XD	ProScan inverted stage, encoded, 1 mm pitch, 400 step, Olympus IX73 and IX83 (DIC)
H473XR	Universal sample holder (slides, Petri dishes, small flasks), extra recessed
H223XRNC	Extra recessed holder for micro titre plates (85x128mm) with diagonal corner sections removed
H224XRLP	Low profile 3 in x 1 in slide holder, extra recessed
H229XR	Universal Petri dish holder, extra recessed
H234XR	Four 3 in x 1 in slide holder, extra recessed
H23X200	200ml flask holder (Greiner)
H237XRLP	Low profile 3 in x 2 in slide holder, extra recessed
H229D35XR-6	Holder for 6 x 35mm Petri dishes
H649	Holder for a single 1 in, 1.25 in and 1.5 in mounted metallurgical specimen
H657	Holder for one mounted metallurgical specimen, 2 in diameter
H658	Holder for six mounted metallurgical specimens, 1.25 in diameter
H659	Holder for one mounted metallurgical specimen, 1.5 in diameter with 1, 2, 4 or 8 chambers

# Stage accessories

Part	Description
H117ACCM	Pair of stage extension wings for H117 stages, breadboard format with 6 mm tapped holes for mounting micromanipulators or other accessories

### Nanopositioning stages and sample holders

Nanopositioning stages require a suitable motorised stage for mounting. All Prior motorised stages listed in this guide are compatible. Please contact Prior Scientific if the microscope has another brand of motorised stage. Note that a sample holder from the nanopositioning stage section is required for use, and replaces the sample holder fitted to the motorised stage. Control of the nanopositioning stage via Olympus Software requires the use of the Olympus Realtime Controller.

Part	Description
QGSP400-D1	System SP400, 400 µm travel, and NPC-D-6110 controller
QGSP200-D1	System SP200, 200 µm travel, and NPC-D-6110 controller
QGSP600-D1	System SP600, 600 µm travel, and NPC-D-6110 controller
QGSP301XR	SP multiwell holder XR
QGSP302XR	SP universal sample holder XR
QGSP303XR	SP single slide holder suitable for 1 in x 3 in and 2 in x 3 in slides

### Objective positioners and adaptors

When ordering ensure the correct part number is used to specify inverted calibration. Objective positioners require a threaded adapter in order to be fitted to the microscope nosepiece and the microscope objective. Olympus microscopes typically use RMS threads; please contact Prior Scientific if the nosepiece uses an alternative thread size. Some IX71 nosepieces have a raised lip surrounding the objective positions, which may clash with the objective positioner; a 15mm spacer can be added to clear the lip. Please note that the two objective positions adjacent to the objective positioner will not be useable due to space constraints; additional positions may be unusable on smaller nosepieces. A high load calibration is available for specialist heavy objectives. Control of the nanopositioning stage via Olympus Software requires the use of the Olympus Realtime Controller.

Part	Description
QGOP-400-INV-D1	OP400 objective scanner system incl. NPC-D-6110 controller for inverted microscopes (0-500 g load)
QGOP-400-INV-HL-D1	OP400 objective scanner system incl. NPC-D-6110 controller for inverted microscopes (500-1000 g load)
QG-OP-MIC-RMS	OP microscope adapter RMS
QG-OP-OBJ-RMS	OP objective adapter M32 x 0.75 to RMS
QG-OP-SPACE-RMS	RMS static objective spacer to align with OP-400 objective

### Motorized focus

The PS3H122R plus H807 combination is required to drive the fine focus knob of the microscope. The coarse focus will not be motorised. The H122KBIX direct coupling can be added for more precise motorised control.

Part	Description
PS3H122R	Generic focus drive and adaptor with rotating cable system preventing cable twisting
H807	Olympus BX and IX focus sleeve
H122KBIX	Direct fine focus coupling for Olympus IX/BX microscopes

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### Autofocus

The PF850 is a standalone hardware autofocus. The PF203 kit is required for mounting. The PF200, PF209 and PF300 are required for setup and maintenance. The PF404 is required for use with piezo nanopositioning systems.

Part	Description
PF850	PF head, controller with digipot power supply, cables
PF203	IX71 PureFocus mounting kit
PF209	PureFocus setup sample slide
PF200	PureFocus setup camera alignment target type 1, RMS.DIA 0.8 x 36
PF300	PureFocus setup camera jig
PF404	Piezo cable for PF850 15D to BNC

### Illumination

The L200IX and L200SIX are recommended for fluorescence microscopy (see **datasheet** for details). The L200SIX has a built in shutter mechanism which can be controlled via a ProScan III controller, so a standalone shutter is not required. The L220IX and L220SIX are available for customers doing fluorescence imaging in the far-red. The LDB103OL requires a ProScan III controller for operation and is recommended if purchasing a V31XYZEF controller. 35 mm shutters and filter wheels are recommended for widefield applications.

Part	Description
L200SIX	L200 Standard box, lamp, light guide, shutter and Olympus IX Collimator
L200IX	L220 Standard box, lamp, light guide and Olympus IX Collimator
L220SIX	L220 Standard box, lamp, light guide, shutter and Olympus IX Collimator
L220IX	L220 Standard box, lamp, light guide and Olympus IX Collimator
LDB1020L	Brightfield LED, filter slider, standalone, Olympus
LDB1030L	Brightfield LED, filter slider, Prior controller, Olympus

## **Excitation path**

Filter wheels are not supplied with filters. Contact Prior Scientific if you wish to purchase a filter wheel stand that can be fixed to an optical table. For systems requiring a shutter and filter wheel it is recommended to buy one of the combinations listed above. The HF235 adaptor is required for filter wheels and shutters in the main episcopic illumination pathway. The H238 adaptor is required for filter wheels and shutters in the transmitted light path.

Part	Description
HF235	Filter wheel adapter for Olympus BX, IX and AX series microscopes
HF238	Shutter adapter for transmitted lamp
HF202HT	25 mm high temperature standalone shutter
HF204HT	35 mm high temperature standalone shutter
HF110A	Filter wheel, 10 position, 25 mm diameter filters without stand
HF106A	Filter wheel, 6 position, 25 mm diameter filters without stand
HF108A	Filter wheel, 8 position, 32 mm diameter filters without stand
HF110A + HF200HT	10 position 25 mm diameter filter wheel plus shutter combination
HF108A + HF201HT	8 position 32 mm diameter filter wheel plus shutter combination

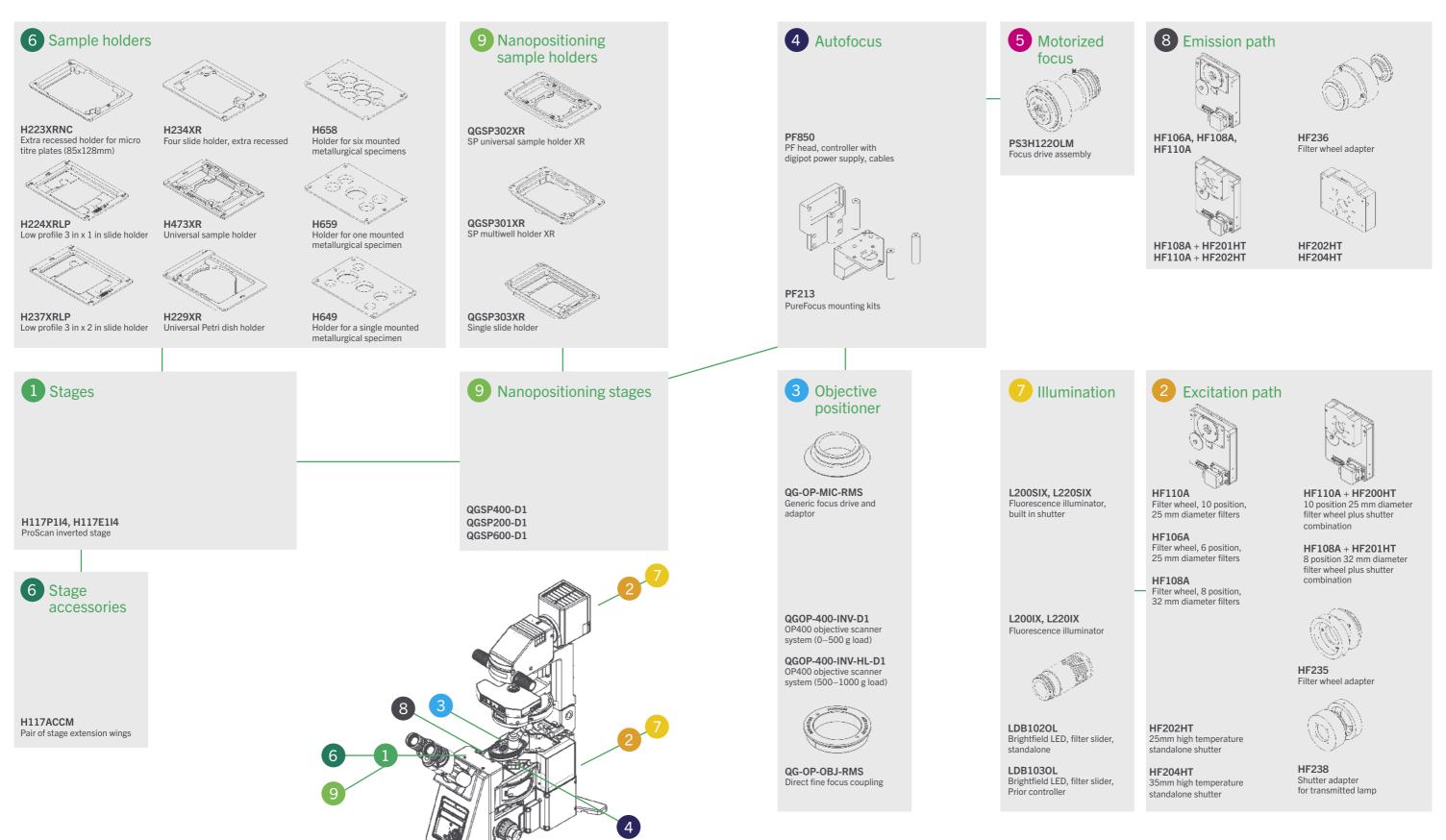
### **Emission path**

The HF236 adaptor is required for fitting shutter and filter wheels to the emission port of the microscope. 32mm shutters and filter wheels are recommended for widefield applications.

Part	Description
HF236	Filter wheel adapter for Olympus IX series microscopes
HF202HT	High speed shutter (high temperature), 32 mm aperture, for standalone use
HF204HT	High speed shutter (high temperature), 32 mm aperture, for standalone use

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# Olympus IX81 configuration chart



See the following pages for more product information.

# Olympus IX81 configuration guide

The Olympus IX81 is a motorised microscope with a single frame type. Prior offers an extensive range of upgrades for this microscope despite this.

# Motorised XY stages and sample holders

All the sample holders listed are compatible with the H117P1I4 and H117E1I4. The frame size means the HLD117IX and H139P1XD are not compatible with this microscope. The H117P1XD and —E1XD are not compatible due to the position of the x-axis drive box. At least one sample holder is required for each stage. The H117ACCM breadboard attachments can be added to all to provide mounting points for probe stations.

Part	Description
H117P1I4	ProScan inverted stage, part encoded, 1 mm pitch, 400 step, Olympus IX
H117E1I4	ProScan inverted stage, encoded, 1 mm pitch, 400 step, Olympus IX
H473XR	Universal sample holder (slides, Petri dishes, small flasks), extra recessed
H223XRNC	Extra recessed holder for micro titre plates (85x128mm) with diagonal corner sections removed
H224XRLP	Low profile 3 in x 1 in slide holder, extra recessed
H229XR	Universal Petri dish holder, extra recessed
H234XR	Four 3 in x 1 in slide holder, extra recessed
H23X200	200ml flask holder (Greiner)
H237XRLP	Low profile 3 in x 2 in slide holder, extra recessed
H229D35XR-6	Holder for 6 x 35mm Petri dishes
H649	Holder for a single 1 in, 1.25 in and 1.5 in mounted metallurgical specimen
H657	Holder for one mounted metallurgical specimen, 2 in diameter
H658	Holder for six mounted metallurgical specimens, 1.25 in diameter
H659	Holder for one mounted metallurgical specimen, 1.5 in diameter with 1, 2, 4 or 8 chambers

### Stage accessories

Part	Description
H117ACCM	Pair of stage extension wings for H117 stages, breadboard format with 6 mm tapped holes for mounting micromanipulators or other accessories

### Nanopositioning stages and sample holders

Nanopositioning stages require a suitable motorised stage for mounting. All Prior motorised stages listed in this guide are compatible. Please contact Prior Scientific if the microscope has another brand of motorised stage. Note that a sample holder from the nanopositioning stage section is required for use, and replaces the sample holder fitted to the motorised stage. Control of the nanopositioning stage via Olympus Software requires the use of the Olympus Realtime Controller.

Part	Description
QGSP400-D1	System SP400, 400 µm travel, and NPC-D-6110 controller
QGSP200-D1	System SP200, 200 µm travel, and NPC-D-6110 controller
QGSP600-D1	System SP600, 600 µm travel, and NPC-D-6110 controller
QGSP301XR	SP multiwell holder XR
QGSP302XR	SP universal sample holder XR
QGSP303XR	SP single slide holder suitable for 1 in x 3 in and 2 in x 3 in slides

### Objective positioners and adaptors

hen ordering ensure the correct part number is used to specify inverted calibration. Objective positioners require a threaded adapter in order to be fitted to the microscope nosepiece and the microscope objective. Olympus microscopes typically use RMS threads; please contact Prior Scientific if the nosepiece uses an alternative thread size. Some IX81 nosepieces have a raised lip surrounding the objective positions, which may clash with the objective positioner; a 15mm spacer can be added to clear the lip. Please note that the two objective positions adjacent to the objective positioner will not be useable due to space constraints; additional positions may be unusable on smaller nosepieces. A high load calibration is available for specialist heavy objectives. Control of the nanopositioning stage via Olympus Software requires the use of the Olympus Realtime Controller.

Part	Description
QGOP-400-INV-D1	OP400 objective scanner system incl. NPC-D-6110 controller for inverted microscopes (0-500 g load)
QGOP-400-INV-HL-D1	OP400 objective scanner system incl. NPC-D-6110 controller for inverted microscopes (500-1000 g load)
QG-OP-MIC-RMS	OP microscope adapter RMS
QG-OP-OBJ-RMS	OP objective adapter M32 x 0.75 to RMS
QG-OP-SPACE-RMS	RMS static objective spacer to align with OP-400 objective

### Motorized focus

The PS3H122OLM is directly coupled to the fine focus knob. It does not compete with the inherent motorised focus system.

Part	Description
PS3H122OLM	Focus Drive Assembly, PS3, Olympus BX61/IX81 PS3

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### Autofocus

The PF850 is a standalone hardware autofocus. The PF213 kit is required for mounting. Installation requires partial disassembly and rewiring of the motorised nosepiece. The PF200, PF209 and PF300 are required for setup and maintenance. The PF404 is required for use with piezo nanopositioning systems.

Part	Description
PF850	PF head, controller with digipot power supply, cables
PF213	PureFocus mounting kit
PF209	PureFocus setup sample slide
PF200	PureFocus setup camera alignment target type 1, RMS.DIA 0.8 x 36
PF300	PureFocus setup camera jig
PF404	Piezo cable for PF850 15D to BNC

### Illumination

The L200IX and L200SIX are recommended for fluorescence microscopy (see **datasheet** for details). The L200SIX has a built in shutter mechanism which can be controlled via a ProScan III controller, so a standalone shutter is not required. The L220IX and L220SIX are available for customers doing fluorescence imaging in the far-red. The LDB103OL requires a ProScan III controller for operation and is recommended if purchasing a V31XYZEF controller. 35mm shutters and filter wheels are recommended for widefield applications.

Part	Description
L200SIX	L200 Standard box, lamp, light guide, shutter and Olympus IX Collimator
L200IX	L220 Standard box, lamp, light guide and Olympus IX Collimator
L220SIX	L220 Standard box, lamp, light guide, shutter and Olympus IX Collimator
L220IX	L220 Standard box, lamp, light guide and Olympus IX Collimator
LDB1020L	Brightfield LED, filter slider, standalone, Olympus
LDB1030L	Brightfield LED, filter slider, Prior controller, Olympus

## **Excitation path**

Filter wheels are not supplied with filters. Contact Prior Scientific if you wish to purchase a filter wheel stand that can be fixed to an optical table. For systems requiring a shutter and filter wheel it is recommended to buy one of the combinations listed above. The HF235 adaptor is required for filter wheels and shutters in the main episcopic illumination pathway. The H238 adaptor is required for filter wheels and shutters in the transmitted light path.

Part	Description
HF235	Filter wheel adapter for Olympus BX, IX and AX series microscopes
HF238	Shutter adapter for transmitted lamp
HF202HT	25 mm high temperature standalone shutter
HF204HT	35 mm high temperature standalone shutter
HF110A	Filter wheel, 10 position, 25 mm diameter filters without stand
HF106A	Filter wheel, 6 position, 25 mm diameter filters without stand
HF108A	Filter wheel, 8 position, 32 mm diameter filters without stand
HF110A + HF200HT	10 position 25 mm diameter filter wheel plus shutter combination
HF108A + HF201HT	8 position 32 mm diameter filter wheel plus shutter combination

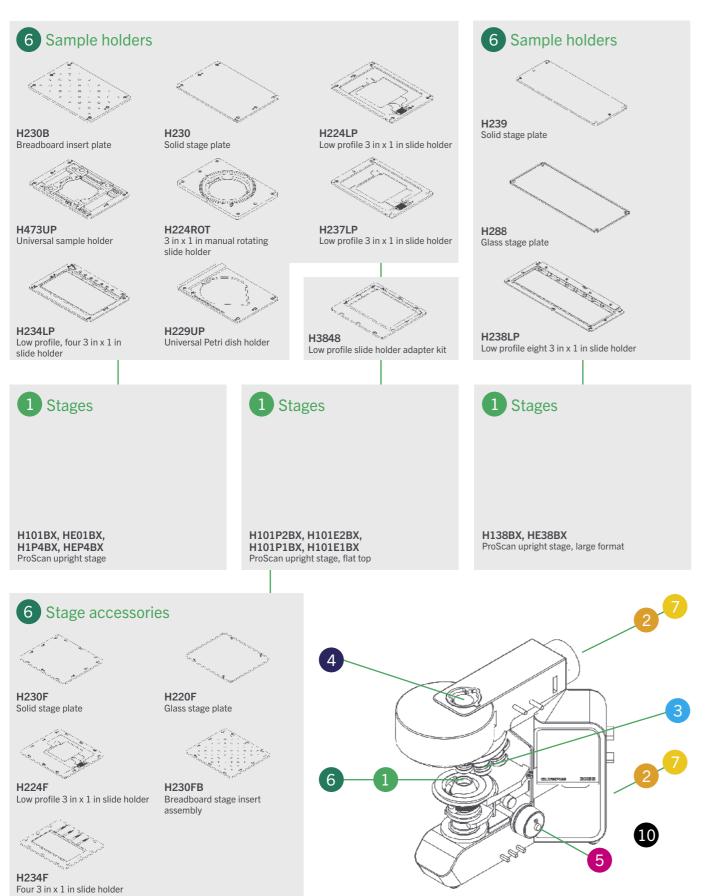
### **Emission path**

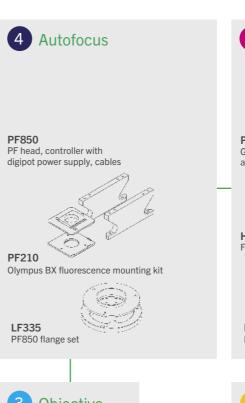
The HF236 adaptor is required for fitting shutter and filter wheels to the emission port of the microscope. 32 mm shutters and filter wheels are recommended for widefield applications.

Part	Description
HF236	Filter wheel adapter for Olympus IX series microscopes
HF202HT	High speed shutter (high temperature), 32 mm aperture, for standalone use
HF204HT	High speed shutter (high temperature), 32 mm aperture, for standalone use

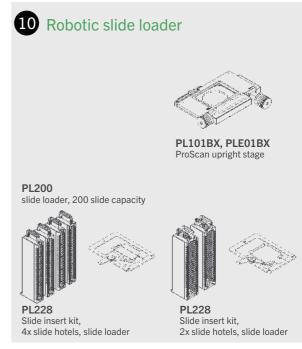
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# Olympus BX51/53 configuration chart



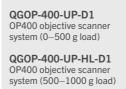














QG-OP-OBJ-RMS Direct fine focus coupling



L2000L, L2200L

LDB1020L

standalone

LDB1030L

Prior controller

Fluorescence illuminator

Brightfield LED, filter slider,

Brightfield LED, filter slider,

L200SOL, L220SOL HF110A Filter wheel, 10 position, Fluorescence illuminator. 25 mm diameter filters

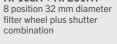
#### HF106A Filter wheel, 6 position. 25 mm diameter filters

**Excitation path** 

HF108A Filter wheel, 8 position, 32 mm diameter filters



filter wheel plus shutter combination HF108A + HF201HT





HF235 Filter wheel adapter

# HF202HT

25mm high temperature standalone shutter

35mm high temperature standalone shutter

See the following pages for more product information.

# Olympus BX51/53 configuration guide

The Olympus BX51/BX53 is a manual microscope. Prior offers an extensive range of upgrades for this microscope.

### Stages and sample holders

All the sample holders listed in the first section of the above table are compatible with the H101BX, HE01BX, H1P4BX, and HEP4BX. All the sample holders listed in the second section are compatible with the flat top H101P2BX, H101E2BX, H101P1BX and H101E1BX. In addition, sample holders from the first section are compatible with the flat top stage range when combined with the H3848. The large format H138BX and HE38BX can support up to 8 slides. It is advised to purchase the H238LP rather than the H238PLP unless the microscope is fitted with an immersion condenser.

## Motorised XY stages and sample holders

Part	Description
H101BX	ProScan upright stage, part encoded, 2 mm pitch, 200 step, Olympus BX
HE01BX	ProScan upright stage, encoded, 2 mm pitch, 200 step, Olympus BX
H1P4BX	ProScan upright stage, part encoded, 1 mm pitch, 400 step, Olympus BX
HEP4BX	ProScan upright stage, encoded, 1 mm pitch, 400 step, Olympus BX
H473UP	Universal sample holder (slides, Petri dishes, small flasks), upright
H224LP	Low profile 3 in x 1 in slide holder
H234LP	Low profile, four 3 in x 1 in slide holder
H237LP	Low profile 3 in x 2 in slide holder
H229UP	Universal Petri dish holder, upright stages, up to 90 mm diameter
H230	Solid stage plate, H101A stages
H224ROT	3 in x 1 in manual rotating slide holder
H230B	Breadboard insert plate M4 & M6 (H101)
H220	H101 glass stage plate assembly

# Flat top XY motorised stages and sample holders

Part	Description
H101P2BX	ProScan upright stage, flat top, part encoded, 2 mm pitch, 200 step, Olympus BX
H101E2BX	ProScan upright stage, flat top, encoded, 2 mm pitch, 200 step, Olympus BX
H101P1BX	ProScan upright stage, flat top, 1 mm pitch, 200 step, Olympus BX
H101E1BX	ProScan upright stage, flat top, encoded, 1 mm pitch, 200 step, Olympus BX
H3848	Low profile slide holder adapter kit for H101F
H230F	Solid stage plate, H101F Stages
H224F	Low profile 3 in x 1 in slide holder, extended, H101F stages
H234F	Four 3 in x 1 in slide holder, H101F stages
H220F	Glass stage plate, H101F stages
H230FB	Breadboard stage insert assembly (H101F)

### Large format XY motorised stages and sample holders

Part	Description
H138BX	ProScan upright stage, part encoded, 2 mm pitch, 200 step, Olympus BX, for up to 8 slides
HE38BX	ProScan upright stage, encoded, 2 mm pitch, 200 step, Olympus BX, for up to 8 slides
H238LP	Low profile eight 3 in x 1 in slide holder
H238PLP	Low profile eight 3 in x 1 in slide holder, part recessed
H239	Solid stage plate, H138 stages
H288	Glass stage plate, H138 stages

### Objective positioners and adaptors

When ordering ensure the correct part number is used to specify upright calibration. Objective positioners require a threaded adapter in order to be fitted to the microscope nosepiece and the microscope objective. Olympus microscopes typically use RMS threads; please contact Prior Scientific if the nosepiece uses an alternative thread size. Some BX51/BX53 nosepieces have a raised lip surrounding the objective positions, which may clash with the objective positioner; a 15mm spacer can be added to clear the lip. Please note that the two objective positions adjacent to the objective positioner will not be useable due to space constraints; additional positions may be unusable on smaller nosepieces. A high load calibration is available for specialist heavy objectives. Control of the via Olympus Software requires the use of the Olympus Realtime Controller.

Part	Description
QGOP-400-UP-D1	OP400 objective scanner system incl. NPC-D-6110 controller for inverted microscopes (0-500 g load)
QGOP-400-UP-HL-D1	OP400 objective scanner system incl. NPC-D-6110 controller for inverted microscopes (500-1000 g load)
QG-OP-MIC-RMS	OP microscope adapter RMS
QG-OP-OBJ-RMS	OP objective adapter M32 x 0.75 to RMS
QG-OP-SPACE-RMS	RMS static objective spacer to align with OP-400 objective

### Motorized focus

The PS3H122R plus H807 combination is required to drive the fine focus knob of the microscope. The coarse focus will not be motorised. The H122KBIX direct coupling can be added for more precise motorised control.

Part	Description
PS3H122R	Generic focus drive and adaptor with rotating cable system preventing cable twisting
H807	Olympus BX and IX focus sleeve
H122KBIX	Direct fine focus coupling for Olympus IX/BX microscopes

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### Autofocus

The PF850 is a standalone hardware autofocus. The LF335 flange set is recommended for systems using only transmitted light or non-fluorescence reflected light. The PF210 kit is required for systems using fluorescence where the filter cubes will block 850nm wavelength light. The PF200, PF209 and PF300 are required for setup and maintenance. The PF404 is required for use with piezo nanopositioning systems.

Part	Description
PF850	PF head, controller with digipot power supply, cables
PF210	Olympus BX fluorescence mounting kit
LF335	PF850 flange set (Olympus BX)
PF209	PureFocus setup sample slide
PF200	PureFocus setup camera alignment target type 1, RMS.DIA 0.8 x 36
PF300	PureFocus setup camera jig
PF404	Piezo cable for PF850 15D to BNC

### Illumination

The L200OL and L200SOL are recommended for fluorescence microscopy (see **datasheet** for details).. The L200SOL has a built in shutter mechanism which can be controlled via a ProScan III controller, so a standalone shutter is not required. The L220OL and L220SOL are available for customers doing fluorescence imaging in the far-red. The LDB103OL requires a ProScan III controller for operation and is recommended if purchasing a V31XYZEF controller. 35mm shutters and 32mm filter wheels are recommended for widefield applications. Note that no Prior option is available for diascopic illumination.

Part	Description
L200SOL	L200 Standard box, lamp, light guide, shutter and Olympus collimator
L2000L	L220 Standard box, lamp, light guide and Olympus collimator
L220SOL	L220 Standard box, lamp, light guide, shutter and Olympus collimator
L2200L	L220 Standard box, lamp, light guide and Olympus collimator
LDB1020L	Brightfield LED, filter slider, standalone, Olympus
LDB1030L	Brightfield LED, filter slider, Prior controller, Olympus

## **Excitation path**

Filter wheels are not supplied with filters. Contact Prior Scientific if you wish to purchase a filter wheel stand that can be fixed to an optical table. For systems requiring a shutter and filter wheel it is recommended to buy one of the combinations listed above. The HF235 adaptor is required for filter wheels and shutters in the episcopic and diascopic illumination pathways.

Part	Description
HF235	Filter wheel adapter for Olympus BX, IX and AX series microscopes
HF238	Shutter adapter for transmitted lamp
HF202HT	25 mm high temperature standalone shutter
HF204HT	35 mm high temperature standalone shutter
HF110A	Filter wheel, 10 position, 25 mm diameter filters without stand
HF106A	Filter wheel, 6 position, 25 mm diameter filters without stand
HF108A	Filter wheel, 8 position, 32 mm diameter filters without stand
HF110A + HF200HT	10 position 25 mm diameter filter wheel plus shutter combination
HF108A + HF201HT	8 position 32 mm diameter filter wheel plus shutter combination

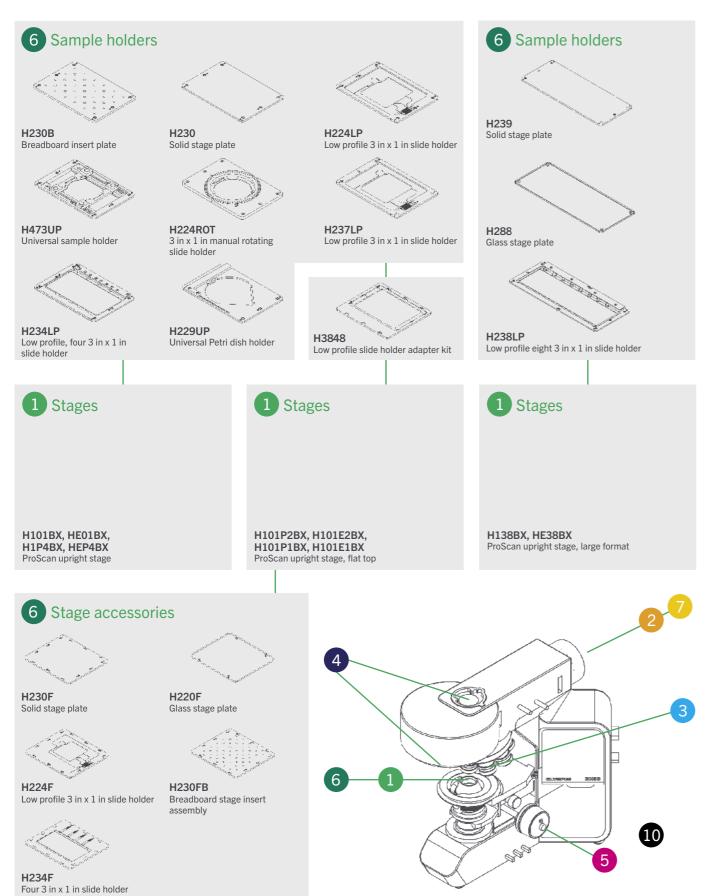
### Robotic slide loader

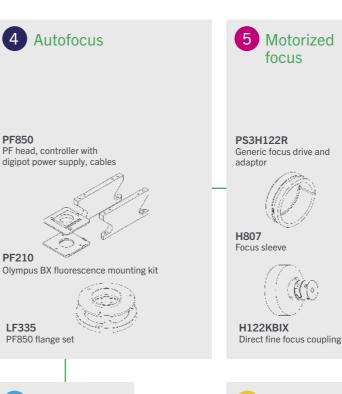
The slide loader contains all parts necessary for set up. Slide hotels and sample holders must be specified at time of order. Please note that the slide loader is not integrated with Olympus software and is primarily for OEM applications. The PL101BX or PLE01BX stage is required. The PLE01BX is not compatible with the PL238 3 in x 2 in slide sample holder and hotels.

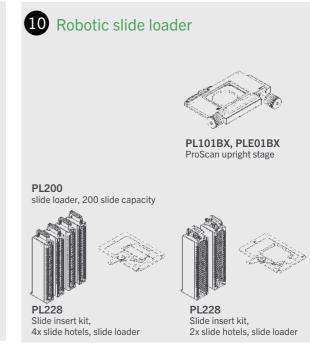
Part	Description
PL200	Slide loader, 200 slide capacity, for upright microscopes
PL101BX	ProScan upright stage, part encoded, PL200, Olympus BX
PLE01BX	ProScan upright stage, encoded, PL200, Olympus BX
PL228	Slide insert kit, 3 in x 1 in, bevelled, 4 x slide hotels, slide loader
PL238	Slide insert kit, 3 in x 2 in bevelled, 2 x slide hotels, slide loader
PL304	Barcode reader MiniHawk assembly

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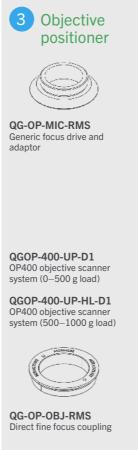
# Olympus BX41/43 configuration chart



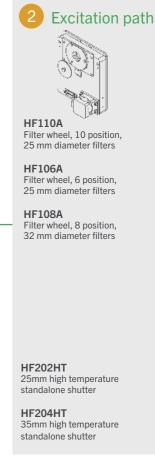














See the following pages for more product information.

# Olympus BX41/BX43 configuration guide

The Olympus BX41/BX43 is a manual microscope with very limited motorisation as standard. Prior offers an extensive range of upgrades for this microscope.

### Stages and sample holders

All the sample holders listed in the first section of the above table are compatible with the H101BX, HE01BX, H1P4BX, and HEP4BX. All the sample holders listed in the second section are compatible with the flat top H101P2BX, H101P2BX, H101P1BX and H101E1BX. In addition, sample holders from the first section are compatible with the flat top stage range when combined with the H3848. The large format H138BX and HE38BX can support up to 8 slides.

## Motorised XY stages and sample holders

Part	Description
H101BX	ProScan upright stage, part encoded, 2 mm pitch, 200 step, Olympus BX
HE01BX	ProScan upright stage, encoded, 2 mm pitch, 200 step, Olympus BX
H1P4BX	ProScan upright stage, part encoded, 1 mm pitch, 400 step, Olympus BX
HEP4BX	ProScan upright stage, encoded, 1 mm pitch, 400 step, Olympus BX
H473UP	Universal sample holder (slides, Petri dishes, small flasks), upright
H224LP	Low profile 3 in x 1 in slide holder
H234LP	Low profile, four 3 in x 1 in slide holder
H237LP	Low profile 3 in x 2 in slide holder
H229UP	Universal Petri dish holder, upright stages, up to 90 mm diameter
H230	Solid stage plate, H101A stages
H224ROT	3 in x 1 in manual rotating slide holder
H230B	Breadboard insert plate M4 & M6 (H101)
H220	H101 glass stage plate assembly

# Flat top XY motorised stages and sample holders

Part	Description
H101P2BX	ProScan upright stage, flat top, part encoded, 2 mm pitch, 200 step, Olympus BX
H101E2BX	ProScan upright stage, flat top, encoded, 2 mm pitch, 200 step, Olympus BX
H101P1BX	ProScan upright stage, flat top, 1 mm pitch, 200 step, Olympus BX
H101E1BX	ProScan upright stage, flat top, encoded, 1 mm pitch, 200 step, Olympus BX
H3848	Low profile slide holder adapter kit for H101F
H230F	Solid stage plate, H101F Stages
H224F	Low profile 3 in x 1 in slide holder, extended, H101F stages
H234F	Four 3 in x 1 in slide holder, H101F stages
H220F	Glass stage plate, H101F stages
H230FB	Breadboard stage insert assembly (H101F)

### Large format XY motorised stages and sample holders

Part	Description
H138BX	ProScan upright stage, part encoded, 2 mm pitch, 200 step, Olympus BX, for up to 8 slides
HE38BX	ProScan upright stage, encoded, 2 mm pitch, 200 step, Olympus BX, for up to 8 slides
H238LP	Low profile eight 3 in x 1 in slide holder
H238PLP	Low profile eight 3 in x 1 in slide holder, part recessed
H239	Solid stage plate, H138 stages
H288	Glass stage plate, H138 stages

### Objective positioners and adaptors

When ordering ensure the correct part number is used to specify upright calibration. Objective positioners require a threaded adapter in order to be fitted to the microscope nosepiece and the microscope objective. Olympus microscopes typically use RMS threads; please contact Prior Scientific if the nosepiece uses an alternative thread size. Some BX41/43 nosepieces have a raised lip surrounding the objective positions, which may clash with the objective positioner; a 15 mm spacer can be added to clear the lip. Please note that the two objective positions adjacent to the objective positioner will not be useable due to space constraints; additional positions may be unusable on smaller nosepieces. A high load calibration is available for specialist heavy objectives. Control of the via Olympus Software requires the use of the Olympus Realtime Controller.

Part	Description
QGOP-400-UP-D1	OP400 objective scanner system incl. NPC-D-6110 controller for inverted microscopes (0-500 g load)
QGOP-400-UP-HL-D1	OP400 objective scanner system incl. NPC-D-6110 controller for inverted microscopes (500-1000 g load)
QG-OP-MIC-RMS	OP microscope adapter RMS
QG-OP-OBJ-RMS	OP objective adapter M32 x 0.75 to RMS
QG-OP-SPACE-RMS	RMS static objective spacer to align with OP-400 objective

### Motorized focus

The PS3H122R plus H807 combination is required to drive the fine focus knob of the microscope. The coarse focus will not be motorised. The H122KBIX direct coupling can be added for more precise motorised control.

Part	Description
PS3H122R	Generic focus drive and adaptor with rotating cable system preventing cable twisting
H807	Olympus BX and IX focus sleeve
H122KBIX	Direct fine focus coupling for Olympus IX/BX microscopes

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### Autofocus

The PF850 is a standalone hardware autofocus. The LF335 flange set is recommended for systems using only transmitted light or non-fluorescence reflected light. The PF210 kit is required for systems using fluorescence where the filter cubes will block 850 nm wavelength light. The PF200, PF209 and PF300 are required for setup and maintenance. The PF404 is required for use with piezo nanopositioning systems.

Part	Description
PF850	PF head, controller with digipot power supply, cables
PF210	Olympus BX fluorescence mounting kit
LF335	PF850 flange set (Olympus BX)
PF209	PureFocus setup sample slide
PF200	PureFocus setup camera alignment target type 1, RMS.DIA 0.8 x 36
PF300	PureFocus setup camera jig
PF404	Piezo cable for PF850 15D to BNC

### Illumination

The L200OL and L200SOL are recommended for fluorescence microscopy (see **datasheet** for details). The L200SOL has a built in shutter mechanism which can be controlled via a ProScan III controller, so a standalone shutter is not required. The L220OL and L220SOL are available for customers doing fluorescence imaging in the far-red. The LDB103OL requires a ProScan III controller for operation and is recommended if purchasing a V31XYZEF controller. 35 mm shutters and 32 mm filter wheels are recommended for widefield applications. Please note that these illuminators are only compatible with 100 W illumination ports. There is no availability for the transmitted light path.

Part	Description
L200SOL	L200 Standard box, lamp, light guide, shutter and Olympus collimator
L2000L	L220 Standard box, lamp, light guide and Olympus collimator
L220SOL	L220 Standard box, lamp, light guide, shutter and Olympus collimator
L2200L	L220 Standard box, lamp, light guide and Olympus collimator
LDB1020L	Brightfield LED, filter slider, standalone, Olympus
LDB1030L	Brightfield LED, filter slider, Prior controller, Olympus

## **Excitation path**

Filter wheels are not supplied with filters. Contact Prior Scientific if you wish to purchase a filter wheel stand that can be fixed to an optical table. For systems requiring a shutter and filter wheel it is recommended to buy one of the combinations listed above. The HF235 adaptor is required for filter wheels and shutters in the episcopic and diascopic illumination pathways.

Part	Description
HF235	Filter wheel adapter for Olympus BX, IX and AX series microscopes
HF238	Shutter adapter for transmitted lamp
HF202HT	25 mm high temperature standalone shutter
HF204HT	35 mm high temperature standalone shutter
HF110A	Filter wheel, 10 position, 25 mm diameter filters without stand
HF106A	Filter wheel, 6 position, 25 mm diameter filters without stand
HF108A	Filter wheel, 8 position, 32 mm diameter filters without stand
HF110A + HF200HT	10 position 25 mm diameter filter wheel plus shutter combination
HF108A + HF201HT	8 position 32 mm diameter filter wheel plus shutter combination

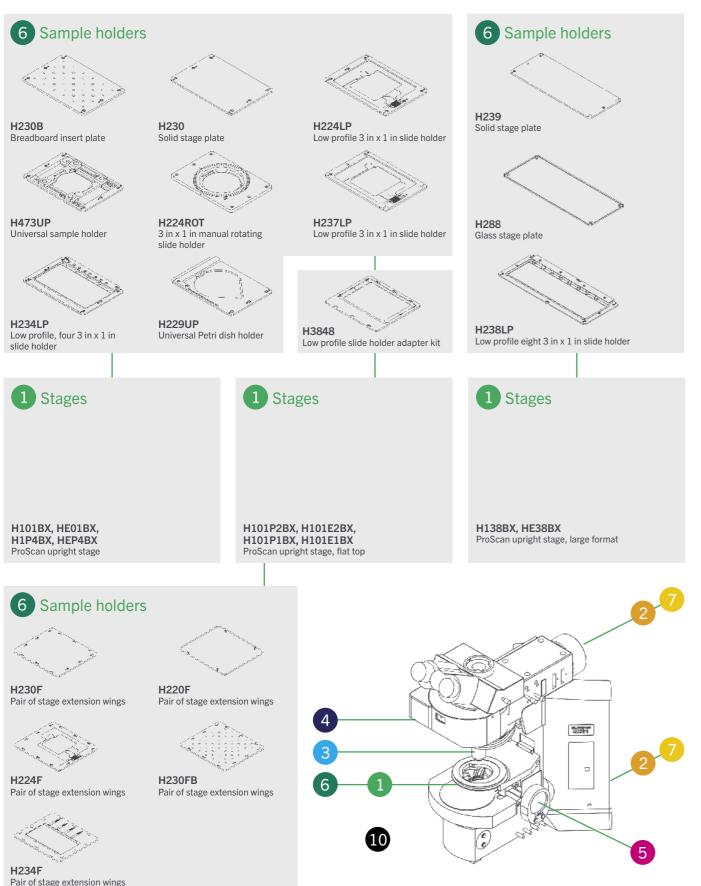
### Robotic slide loader

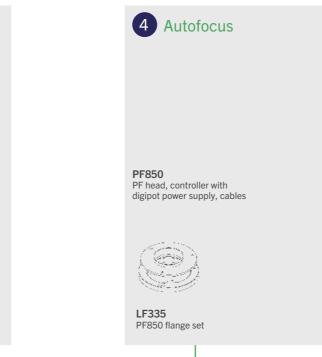
The slide loader contains all parts necessary for set up. Slide hotels and sample holders must be specified at time of order. Please note that the slide loader is not integrated with Olympus software and is primarily for OEM applications. The PL101BX or PLE01BX stage is required. The PLE01BX is not compatible with the PL238 3 in x 2 in slide sample holder and hotels.

Part	Description
PL200	Slide loader, 200 slide capacity, for upright microscopes
PL101BX	ProScan upright stage, part encoded, PL200, Olympus BX
PLE01BX	ProScan upright stage, encoded, PL200, Olympus BX
PL228	Slide insert kit, 3 in x 1 in, bevelled, 4 x slide hotels, slide loader
PL238	Slide insert kit, 3 in x 2 in bevelled, 2 x slide hotels, slide loader
PL304	Barcode reader MiniHawk assembly

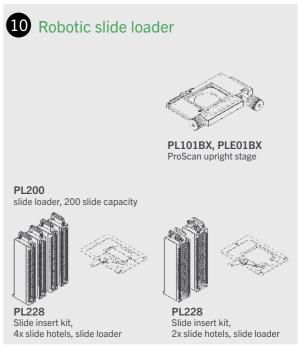
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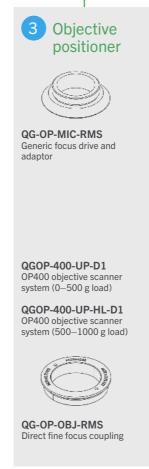
# Olympus BX61 configuration chart

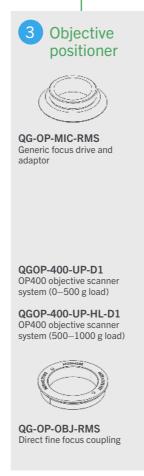




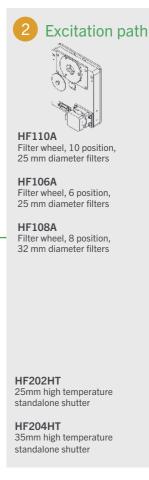














See the following pages for more product information.

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# Olympus BX61 configuration guide

The Olympus BX61 is a motorised microscope. Prior offers an extensive range of upgrades for this microscope.

## Stages and sample holders

All the sample holders listed in the first section of the above table are compatible with the H101BX, HE01BX, H1P4BX, and HEP4BX. All the sample holders listed in the second section are compatible with the flat top H101P2BX, H101P1BX and H101E1BX. In addition, sample holders from the first section are compatible with the flat top stage range when combined with the H3848. The large format H138BX and HE38BX can support up to 8 slides.

### Motorised XY stages and sample holders

Part	Description
H101BX	ProScan upright stage, part encoded, 2 mm pitch, 200 step, Olympus BX
HE01BX	ProScan upright stage, encoded, 2 mm pitch, 200 step, Olympus BX
H1P4BX	ProScan upright stage, part encoded, 1 mm pitch, 400 step, Olympus BX
HEP4BX	ProScan upright stage, encoded, 1 mm pitch, 400 step, Olympus BX
H473UP	Universal Sample holder (slides, Petri dishes, small flasks), upright
H224LP	Low profile 3 in x 1 in slide holder
H234LP	Low profile, four 3 in x 1 in slide holder
H237LP	Low profile 3 in x 2 in slide holder
H229UP	Universal Petri dish holder, upright stages, up to 90 mm diameter
H230	Solid stage plate, H101A stages
H224ROT	3 in x 1 in manual rotating slide holder
H230B	Breadboard insert plate M4 & M6 (H101)
H220	H101 Glass stage plate assembly

# Flat top XY motorised stages and sample holders

Part	Description
H101P2BX	ProScan upright stage, flat top, part encoded, 2 mm pitch, 200 step, Olympus BX
H101E2BX	ProScan upright stage, flat top, encoded, 2 mm pitch, 200 step, Olympus BX
H101P1BX	ProScan upright stage, flat top, 1 mm pitch, 200 step, Olympus BX
H101E1BX	ProScan upright stage, flat top, encoded, 1 mm pitch, 200 step, Olympus BX
H3848	Low profile slide holder adapter kit for H101F
H230F	Solid stage plate, H101F Stages
H224F	Low profile 3 in x 1 in slide holder, extended, H101F stages
H234F	Four 3 in x 1 in slide holder, H101F stages
H220F	Glass stage plate, H101F stages
H230FB	Breadboard stage insert assembly (H101F)

# Large format XY motorised stages and sample holders

Part	Description
H138BX	ProScan upright stage, part encoded, 2 mm pitch, 200 step, Olympus BX, for up to 8 slides
HE38BX	ProScan upright stage, encoded, 2 mm pitch, 200 step, Olympus BX, for up to 8 slides
H238LP	Low profile eight 3 in x 1 in slide holder
H238PLP	Low profile eight 3 in x 1 in slide holder, part recessed
H239	Solid stage plate, H138 stages
H288	Glass stage plate, H138 stages

# Objective positioners and adaptors

When ordering ensure the correct part number is used to specify upright calibration. Objective positioners require a threaded adapter in order to be fitted to the microscope nosepiece and the microscope objective. Olympus microscopes typically use RMS threads; please contact Prior Scientific if the nosepiece uses an alternative thread size. Some BX61 nosepieces have a raised lip surrounding the objective positions, which may clash with the objective positioner; a 15mm spacer can be added to clear the lip. Please note that the two objective positions adjacent to the objective positioner will not be useable due to space constraints; additional positions may be unusable on smaller nosepieces. A high load calibration is available for specialist heavy objectives. Control of the via Olympus Software requires the use of the Olympus Realtime Controller.

Part	Description
QGOP-400-UP-D1	OP400 objective scanner system incl. NPC-D-6110 controller for inverted microscopes (0-500 g load)
QGOP-400-UP-HL-D1	OP400 objective scanner system incl. NPC-D-6110 controller for inverted microscopes (500-1000 g load)
QG-OP-MIC-RMS	OP microscope adapter RMS
QG-OP-OBJ-RMS	OP objective adapter M32 x 0.75 to RMS
QG-OP-SPACE-RMS	RMS static objective spacer to align with OP-400 objective

### Motorized focus

The PS3H122OLM is directly coupled to the fine focus knob. It does not compete with the inherent motorised focus system.

Part	Description
PS3H1220LM	Focus drive assembly, PS3, Olympus BX61/IX81 PS3

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### Autofocus

The PF850 is a standalone hardware autofocus. The LF335 flange set is recommended for systems using only transmitted light or non-fluorescence reflected light. Please contact Prior Scientific if using fluorescence as the PF210 available for other BX microscopes is not compatible with the BX61, so we will require information about your filter cubes. The PF200, PF209 and PF300 are required for setup and maintenance. The PF404 is required for use with piezo nanopositioning systems.

Part	Description
PF850	PF head, controller with digipot power supply, cables
PF210	Olympus BX fluorescence mounting kit
LF335	PF850 flange set (Olympus BX)
PF209	PureFocus setup sample slide
PF200	PureFocus setup camera alignment target type 1, RMS.DIA 0.8 x 36
PF300	PureFocus setup camera jig
PF404	Piezo cable for PF850 15D to BNC

### Illumination

The L200OL and L200SOL are recommended for fluorescence microscopy (see **datasheet** for details). The L200SOL has a built in shutter mechanism which can be controlled via a ProScan III controller, so a standalone shutter is not required. The L220OL and L220SOL are available for customers doing fluorescence imaging in the far-red. The LDB103OL requires a ProScan III controller for operation and is recommended if purchasing a V31XYZEF controller. 35 mm shutters and 32 mm filter wheels are recommended for widefield applications.

Part	Description
L200SOL	L200 Standard box, lamp, light guide, shutter and Olympus collimator
L2000L	L220 Standard box, lamp, light guide and Olympus collimator
L220SOL	L220 Standard box, lamp, light guide, shutter and Olympus collimator
L2200L	L220 Standard box, lamp, light guide and Olympus collimator
LDB1020L	Brightfield LED, filter slider, standalone, Olympus
LDB1030L	Brightfield LED, filter slider, Prior controller, Olympus

## **Excitation path**

Filter wheels are not supplied with filters. Contact Prior Scientific if you wish to purchase a filter wheel stand that can be fixed to an optical table. For systems requiring a shutter and filter wheel it is recommended to buy one of the combinations listed above. The HF235 adaptor is required for filter wheels and shutters in the episcopic and diascopic illumination pathways.

Part	Description
HF235	Filter wheel adapter for Olympus BX, IX and AX series microscopes
HF238	Shutter adapter for transmitted lamp
HF202HT	25 mm high temperature standalone shutter
HF204HT	35 mm high temperature standalone shutter
HF110A	Filter wheel, 10 position, 25 mm diameter filters without stand
HF106A	Filter wheel, 6 position, 25 mm diameter filters without stand
HF108A	Filter wheel, 8 position, 32 mm diameter filters without stand
HF110A + HF200HT	10 position 25 mm diameter filter wheel plus shutter combination
HF108A + HF201HT	8 position 32 mm diameter filter wheel plus shutter combination

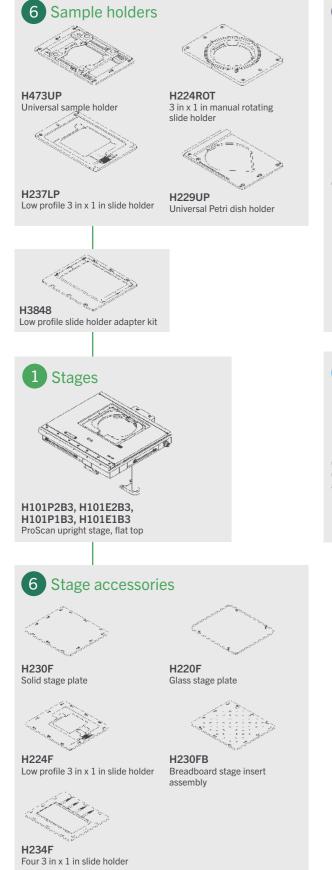
### Robotic slide loader

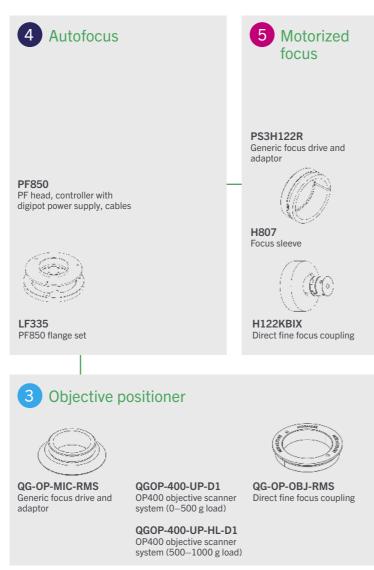
The slide loader contains all parts necessary for set up. Slide hotels and sample holders must be specified at time of order. Please note that the slide loader is not integrated with Olympus software and is primarily for OEM applications. The PL101BX or PLE01BX stage is required. The PLE01BX is not compatible with the PL238 3 in x 2 in slide sample holder and hotels.

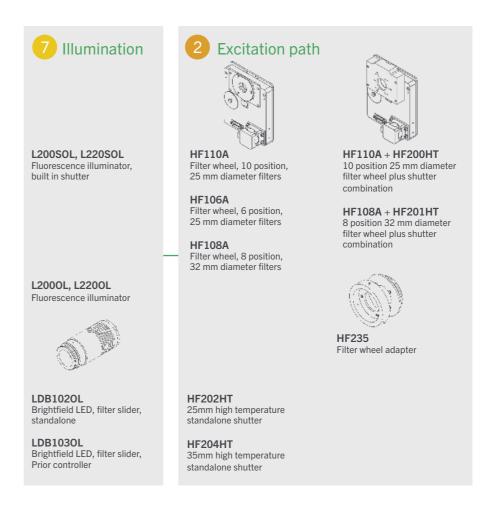
Part	Description
PL200	Slide loader, 200 slide capacity, for upright microscopes
PL101BX	ProScan upright stage, part encoded, PL200, Olympus BX
PLE01BX	ProScan upright stage, encoded, PL200, Olympus BX
PL228	Slide insert kit, 3 in x 1 in, bevelled, 4 x slide hotels, slide loader
PL238	Slide insert kit, 3 in x 2 in bevelled, 2 x slide hotels, slide loader
PL304	Barcode reader MiniHawk assembly

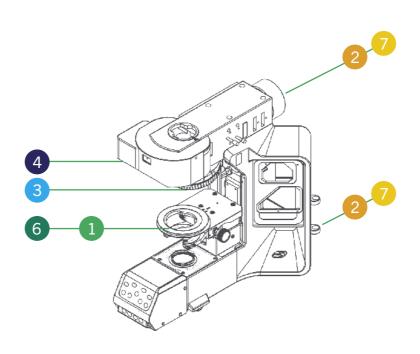
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# Olympus BX63 configuration chart









See the following pages for more product information.

# Olympus BX63 configuration guide

The Olympus BX63 is a fully motorised microscope. Whilst this microscope is well equipped, Prior Scientific can offer cost effective, high performance upgrades.

### Flat top XY motorised stages and sample holders

The BX63 lacks the typical dovetail stage attachment of other BX upright microscopes. The H101P2B3, H101E2B3, H101P1B3 and H101E1B3 are fitted with pillars that can be fitted to the microscope frame. Asterisked sample holders require the the H3848 adaptor for use. The stages listed have superior travel range (114x75 mm) to the standard BX63 stage.

Part	Description
H101P2B3	ProScan upright stage, flat top, part encoded, 2 mm pitch, 200 step, Olympus BX
H101E2B3	ProScan upright stage, flat top, encoded, 2mm pitch, 200 step, Olympus BX
H101P1B3	ProScan upright stage, flat top, 1mm pitch, 200 step, Olympus BX
H101E1B3	ProScan upright stage, flat top, encoded, 1mm pitch, 200 step, Olympus BX
H3848	Low profile slide holder adapter kit for H101F
H473UP*	Universal sample holder (slides, Petri dishes, small flasks), upright
H237LP*	Low profile 3 in x 2 in slide holder
H229UP*	Universal Petri dish holder, upright stages, up to 90 mm diameter
H224ROT*	3 in x 1 in manual rotating slide holder
H230F	Solid stage plate, H101F stages
H224F	Low profile 3 in x 1 in slide holder, extended, H101F stages
H234F	Four 3 in x 1 in slide holder, H101F stages
H220F	Glass stage plate, H101F stages
H230FB	Breadboard stage insert assembly (H101F)

### Objective positioners and adaptors

When ordering ensure the correct part number is used to specify upright calibration. Objective positioners require a threaded adapter in order to be fitted to the microscope nosepiece and the microscope objective. Olympus microscopes typically use RMS threads; please contact Prior Scientific if the nosepiece uses an alternative thread size. Some BX63 nosepieces have a raised lip surrounding the objective positions, which may clash with the objective positioner; a 15 mm spacer can be added to clear the lip. Please specify the nosepiece attachment fitted to the microscope when ordering. Please note that the two objective positions adjacent to the objective positioner will not be useable due to space constraints; additional positions may be unusable on smaller nosepieces. A high load calibration is available for specialist heavy objectives. Control of the via Olympus Software requires the use of the Olympus Realtime Controller.

Part	Description
QGOP-400-UP-D1	OP400 objective scanner system incl. NPC-D-6110 controller for inverted microscopes (0-500 g load)
QGOP-400-UP-HL-D1	OP400 objective scanner system incl. NPC-D-6110 controller for inverted microscopes (500-1000 g load)
QG-OP-MIC-RMS	OP microscope adapter RMS
QG-OP-OBJ-RMS	OP objective adapter M32 x 0.75 to RMS
QG-OP-SPACE-RMS	RMS static objective spacer to align with OP-400 objective

#### Motorized focus

The PS3H122R plus H807 combination is required to drive the fine focus knob of the microscope. The coarse focus will not be motorised. The H122KBIX direct coupling can be added for more precise motorised control.

Part	Description
PS3H122R	Generic focus drive and adaptor with rotating cable system preventing cable twisting
H807	Olympus BX and IX focus sleeve.
H122KBIX	Direct fine focus coupling for Olympus IX/BX microscopes.

#### **Autofocus**

The PF850 is a standalone hardware autofocus. The LF335 flange set is recommended for systems using only transmitted light or non-fluorescence reflected light. The PF210 kit is required for systems using fluorescence where the filter cubes will block 850 nm wavelength light. The PF200, PF209 and PF300 are required for setup and maintenance. The PF404 is required for use with piezo nanopositioning systems.

Part	Description
PF850	PF head, controller with digipot power supply, cables
PF210	Olympus BX fluorescence mounting kit
LF335	PF850 flange set (Olympus BX)
PF209	PureFocus setup sample slide
PF200	PureFocus setup camera alignment target type 1, RMS.DIA 0.8 x 36
PF300	PureFocus setup camera jig
PF404	Piezo cable for PF850 15D to BNC

### Illumination

The L200OL and L200SOL are recommended for fluorescence microscopy (see **datasheet** for details). The L200SOL has a built in shutter mechanism which can be controlled via a ProScan III controller, so a standalone shutter is not required. The L220OL and L220SOL are available for customers doing fluorescence imaging in the far-red. The LDB103OL requires a ProScan III controller for operation and is recommended if purchasing a V31XYZEF controller. 35 mm shutters and 32 mm filter wheels are recommended for widefield applications.

Part	Description
L200SOL	L200 Standard box, lamp, light guide, shutter and Olympus collimator
L2000L	L220 Standard box, lamp, light guide and Olympus collimator
L220SOL	L220 Standard box, lamp, light guide, shutter and Olympus collimator
L2200L	L220 Standard box, lamp, light guide and Olympus collimator
LDB1020L	Brightfield LED, filter slider, standalone, Olympus
LDB1030L	Brightfield LED, filter slider, Prior controller, Olympus

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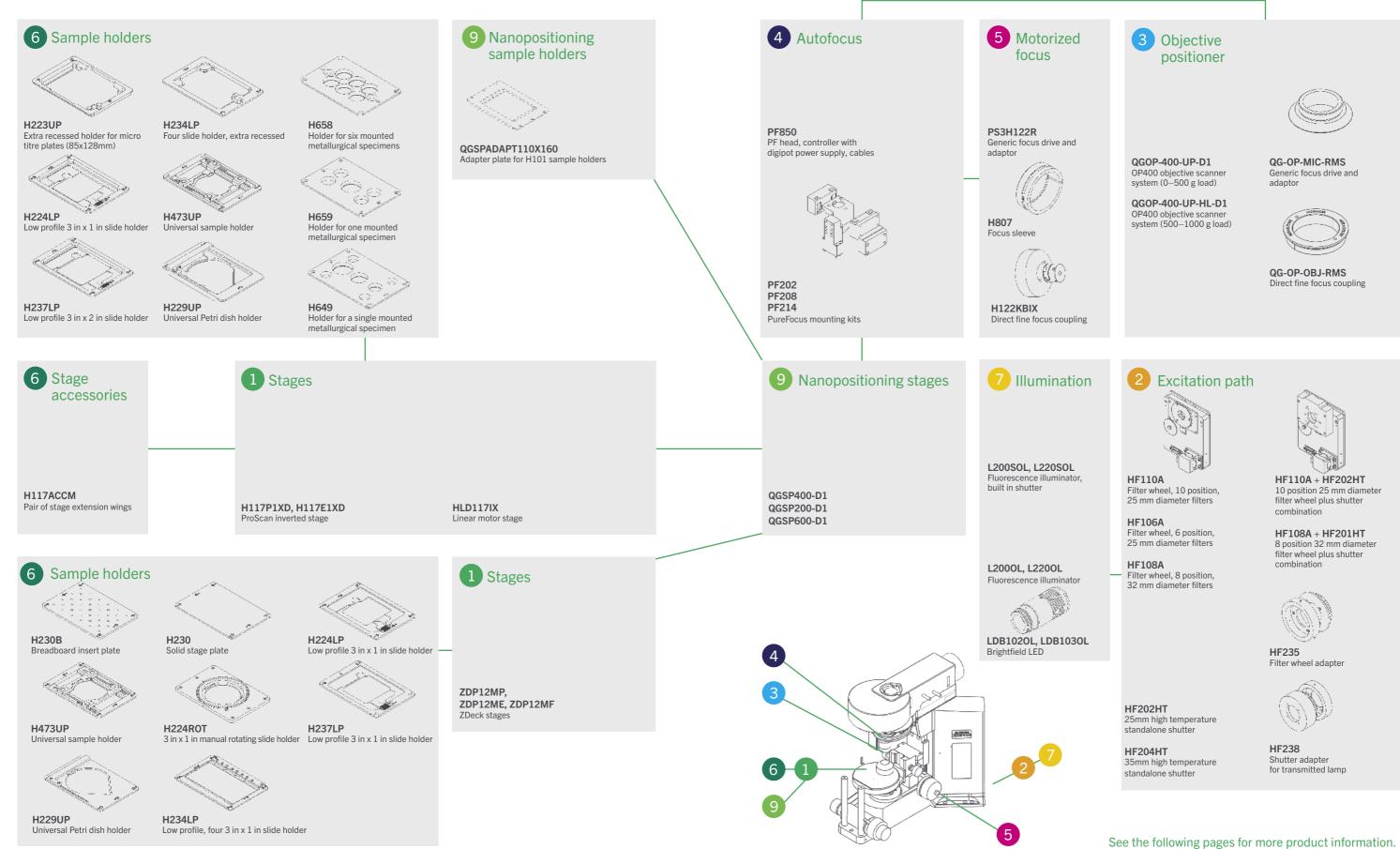
# **Excitation path**

Filter wheels are not supplied with filters. Contact Prior Scientific if you wish to purchase a filter wheel stand that can be fixed to an optical table. For systems requiring a shutter and filter wheel it is recommended to buy one of the combinations listed above. The HF235 adaptor is required for filter wheels and shutters in the episcopic and diascopic illumination pathways.

Part	Description
HF235	Filter wheel adapter for Olympus BX, IX and AX series microscopes
HF238	Shutter adapter for transmitted lamp
HF202HT	25 mm high temperature standalone shutter
HF204HT	35 mm high temperature standalone shutter
HF110A	Filter wheel, 10 position, 25 mm diameter filters without stand
HF106A	Filter wheel, 6 position, 25 mm diameter filters without stand
HF108A	Filter wheel, 8 position, 32 mm diameter filters without stand
HF110A + HF200HT	10 position 25 mm diameter filter wheel plus shutter combination
HF108A + HF201HT	8 position 32 mm diameter filter wheel plus shutter combination

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# Olympus BX51WI configuration chart



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# Olympus BX51WI configuration guide

The Olympus BX51WI is a manual microscope designed for electrophysiology. Prior can motorise many aspects of this microscope.

# Stages and sample holders

All the sample holders listed in the first section are compatible with the H117P1XD, H117E1XD and HLD117IX. These stages require the WI-FSH kit from Olympus for mounting; additional spacers may also be required. At least one sample holder is required. The H117ACCM can be fitted to the H117P1XD and H117E1XD. All the sample holders listed in the second section are compatible with the ZDP12MP, ZDP12ME and ZDP12MF. The ZDeck systems are supplied with a V31XYZE controller and PS3J100 joystick (-MF variant is not motorised so no controller is supplied), an adaptor for the sample holders, a H473 universal sample holder, and an Olympus 110 mm ring insert. Purchase the H238LP rather than the H238PLP unless the microscope is fitted with an immersion condenser.

### Motorised XY stages and sample holders

Part	Description
HLD117IX	Linear motor stage, LH cable (Olympus IX83)
H117P1XD	ProScan inverted stage, part encoded, 1 mm pitch, 400 step, Olympus IX73 and IX83 (DIC)
H117E1XD	ProScan inverted Stage, Encoded, 1mm Pitch, 400 Step, Olympus IX73 and IX83 (DIC)
H473UP	Universal Sample holder (slides, Petri dishes, small flasks), upright
H224LP	Low profile 3 in x 1 in slide holder
H234LP	Low profile, four 3 in x 1 in slide holder
H237LP	Low profile 3 in x 2 in slide holder
H229UP	Universal Petri dish holder, upright stages, up to 90 mm diameter
H230	Solid stage plate, H101A stages
H224ROT	3 in x 1 in manual rotating slide holder
H230B	Breadboard insert plate M4 & M6 (H101)
H220	H101 Glass stage plate assembly
H649	Holder for a single 1 in, 1.25 in and 1.5 in mounted metallurgical specimen
H657	Holder for one mounted metallurgical specimen, 2 in diameter
H658	Holder for six mounted metallurgical specimens, 1.25 in diameter
H659	Holder for one mounted metallurgical specimen, $1.5$ in diameter with $1,2,4$ or $8$ chambers

### ZDeck stages and sample holders

Part	Description
ZDP12MP	ZDeck, Olympus, 2 mm pitch, 200 step, motorized
ZDP12ME	ZDeck, Olympus, 2 mm pitch, 200 step, motorized, encoded
ZDP12MF	ZDeck, Olympus, fixed
H224LP	Low profile 3 in x 1 in slide holder
H234LP	Low profile, four 3 in x 1 in slide holder
H237LP	Low profile 3 in x 2 in slide holder
H229UP	Universal Petri dish holder, upright stages, up to 90 mm diameter
H230	Solid stage plate, H101A stages
H224ROT	3 in x 1 in manual rotating slide holder
H230B	Breadboard insert plate M4 & M6 (H101)
H220	H101 glass stage plate assembly

### Stage accessories

Part	Description
H117ACCM	Pair of stage extension wings for H117 stages, breadboard format with 6mm tapped holes for mounting micromanipulators or other accessories

# Nanopositioning stages and sample holders

Nanopositioning stages require a suitable motorised stage for mounting. All Prior motorised stages listed in this guide are compatible. Please contact Prior Scientific if the microscope has another brand of motorised stage. Note that a sample holder from the nanopositioning stage section is required for use, and replaces the sample holder fitted to the motorised stage. Please discuss the use of a nanopositioning stage with Prior Scientific when placing your order if using a rotary nosepiece.

Part	Description
QGSP400-D1	System SP400, 400 µm travel, and NPC-D-6110 controller
QGSP200-D1	System SP200, 200 μm travel, and NPC-D-6110 controller
QGSP600-D1	System SP600, 600 µm travel, and NPC-D-6110 controller
QGSPADAPT110X160	Adapter plate for H101 sample holders

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### Objective positioners and adaptors

When ordering ensure the correct part number is used to specify upright calibration. Objective positioners require a threaded adapter in order to be fitted to the microscope nosepiece and the microscope objective. Olympus microscopes typically use RMS threads; please contact Prior Scientific if the nosepiece uses an alternative thread size. Some BX51WI nosepieces have a raised lip surrounding the objective positions, which may clash with the objective positioner; a 15 mm spacer can be added to clear the lip. Please specify the nosepiece attachment fitted to the microscope when ordering. Please note that the two objective positions adjacent to the objective positioner will not be useable due to space constraints; additional positions may be unusable on smaller nosepieces. A high load calibration is available for specialist heavy objectives. Control of the via Olympus Software requires the use of the Olympus Realtime Controller.

Part	Description
QGOP-400-UP-D1	OP400 objective scanner system incl. NPC-D-6110 controller for inverted microscopes (0-500 g load)
QGOP-400-UP-HL-D1	OP400 objective scanner system incl. NPC-D-6110 controller for inverted microscopes (500-1000 g load)
QG-OP-MIC-RMS	OP microscope adapter RMS
QG-OP-OBJ-RMS	OP objective adapter M32 x 0.75 to RMS
QG-OP-SPACE-RMS	RMS static objective spacer to align with OP-400 objective

### Motorized focus

The PS3H122R plus H807 combination is required to drive the fine focus knob of the microscope. The coarse focus will not be motorised. The H122KBIX direct coupling can be added for more precise motorised control.

Part	Description
PS3H122R	Generic focus drive and adaptor with rotating cable system preventing cable twisting
H807	Olympus BX and IX focus sleeve
H122KBIX	Direct fine focus coupling for Olympus IX/BX microscopes

#### Autofocus

The PF850 is a standalone hardware autofocus. The LF335 flange set is recommended for systems using only transmitted light or non-fluorescence reflected light. The PF210 kit is required for systems using fluorescence where the filter cubes will block 850 nm wavelength light. The PF200, PF209 and PF300 are required for setup and maintenance. The PF404 is required for use with piezo nanopositioning systems.

Part	Description
PF850	PF head, controller with digipot power supply, cables
PF210	Olympus BX fluorescence mounting kit
LF335	PF850 flange set (Olympus BX)
PF209	PureFocus setup sample slide
PF200	PureFocus setup camera alignment target type 1, RMS.DIA 0.8 x 36
PF300	PureFocus setup camera jig
PF404	Piezo cable for PF850 15D to BNC

### Illumination

The L200OL and L200SOL are recommended for fluorescence microscopy (see **datasheet** for details). The L200SOL has a built in shutter mechanism which can be controlled via a ProScan III controller, so a standalone shutter is not required. The L220OL and L220SOL are available for customers doing fluorescence imaging in the far-red. The LDB103OL requires a ProScan III controller for operation and is recommended if purchasing a V31XYZEF controller. 35 mm shutters and 32 mm filter wheels are recommended for widefield applications.

Part	Description
L200SOL	L200 Standard box, lamp, light guide, shutter and Olympus collimator
L2000L	L220 Standard box, lamp, light guide and Olympus collimator
L220SOL	L220 Standard box, lamp, light guide, shutter and Olympus collimator
L2200L	L220 Standard box, lamp, light guide and Olympus collimator
LDB1020L	Brightfield LED, filter slider, standalone, Olympus
LDB1030L	Brightfield LED, filter slider, Prior controller, Olympus

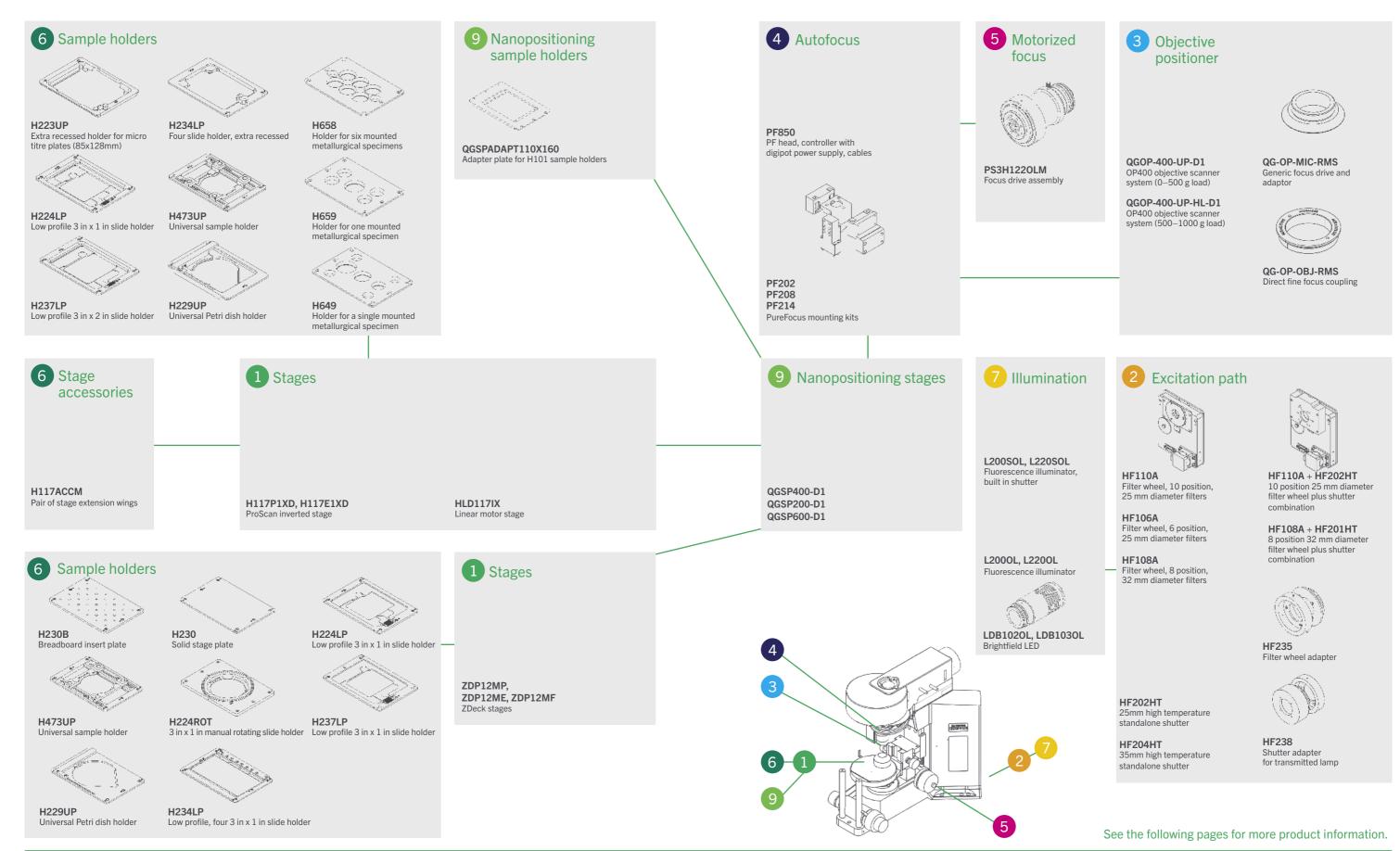
### **Excitation path**

Filter wheels are not supplied with filters. Contact Prior Scientific if you wish to purchase a filter wheel stand that can be fixed to an optical table. For systems requiring a shutter and filter wheel it is recommended to buy one of the combinations listed above. The HF235 adaptor is required for filter wheels and shutters in the episcopic and diascopic illumination pathways.

Part	Description
HF235	Filter wheel adapter for Olympus BX, IX and AX series microscopes
HF238	Shutter adapter for transmitted lamp
HF202HT	25 mm high temperature standalone shutter
HF204HT	35 mm high temperature standalone shutter
HF110A	Filter wheel, 10 position, 25 mm diameter filters without stand
HF106A	Filter wheel, 6 position, 25 mm diameter filters without stand
HF108A	Filter wheel, 8 position, 32 mm diameter filters without stand
HF110A + HF200HT	10 position 25 mm diameter filter wheel plus shutter combination
HF108A + HF201HT	8 position 32 mm diameter filter wheel plus shutter combination

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# Olympus BX61WI configuration chart



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# Olympus BX61WI configuration guide

The Olympus BX61WI is a motorised microscope designed for electrophysiology. Prior can motorise many aspects of this microscope.

### Stages and sample holders

All the sample holders listed in the first section are compatible with the H117P1XD, H117E1XD and HLD117IX. These stages require the WI-FSH kit from Olympus for mounting; additional spacers may also be required. At least one sample holder is required. The H117ACCM can be fitted to the H117P1XD and H117E1XD. All the sample holders listed in the second section are compatible with the ZDP12MP, ZDP12ME and ZDP12MF. The ZDeck systems are supplied with a V31XYZE controller and PS3J100 joystick (-MF variant is not motorised so no controller is supplied), an adaptor for the sample holders, a H473 universal sample holder, and an Olympus 110 mm ring insert.

### Motorised XY stages and sample holders

Part	Description
HLD117IX	Linear motor stage, LH cable (Olympus IX83)
H117P1XD	ProScan inverted stage, part encoded, 1 mm pitch, 400 step, Olympus IX73 and IX83 (DIC)
H117E1XD	ProScan inverted Stage, Encoded, 1mm Pitch, 400 Step, Olympus IX73 and IX83 (DIC)
H473UP	Universal Sample holder (slides, Petri dishes, small flasks), upright
H224LP	Low profile 3 in x 1 in slide holder
H234LP	Low profile, four 3 in x 1 in slide holder
H237LP	Low profile 3 in x 2 in slide holder
H229UP	Universal Petri dish holder, upright stages, up to 90 mm diameter
H230	Solid stage plate, H101A stages
H224ROT	3 in x 1 in manual rotating slide holder
H230B	Breadboard insert plate M4 & M6 (H101)
H220	H101 Glass stage plate assembly
H649	Holder for a single 1 in, 1.25 in and 1.5 in mounted metallurgical specimen
H657	Holder for one mounted metallurgical specimen, 2 in diameter
H658	Holder for six mounted metallurgical specimens, 1.25 in diameter
H659	Holder for one mounted metallurgical specimen, 1.5 in diameter with 1, 2, 4 or 8 chambers

### ZDeck stages and sample holders

Part	Description
ZDP12MP	ZDeck, Olympus, 2 mm pitch, 200 step, motorized
ZDP12ME	ZDeck, Olympus, 2 mm pitch, 200 step, motorized, encoded
ZDP12MF	ZDeck, Olympus, fixed
H224LP	Low profile 3 in x 1 in slide holder
H234LP	Low profile, four 3 in x 1 in slide holder
H237LP	Low profile 3in x 2in slide holder
H229UP	Universal Petri dish holder, upright stages, up to 90 mm diameter
H230	Solid stage plate, H101A stages
H224ROT	3 in x 1 in manual rotating slide holder
H230B	Breadboard insert plate M4 & M6 (H101)
H220	H101 glass stage plate assembly

### Stage accessories

Part	Description
H117ACCM	Pair of stage extension wings for H117 stages, breadboard format with 6mm tapped holes for mounting micromanipulators or other accessories

# Nanopositioning stages and sample holders

Nanopositioning stages require a suitable motorised stage for mounting. All Prior motorised stages listed in this guide are compatible. Please contact Prior Scientific if the microscope has another brand of motorised stage. Note that a sample holder from the nanopositioning stage section is required for use, and replaces the sample holder fitted to the motorised stage. Please discuss the use of a nanopositioning stage with Prior Scientific when placing your order if using a rotary nosepiece. Control of the stage via Olympus Software requires the use of the Olympus Realtime Controller.

Part	Description
QGSP400-D1	System SP400, 400 µm travel, and NPC-D-6110 controller
QGSP200-D1	System SP200, 200 μm travel, and NPC-D-6110 controller
QGSP600-D1	System SP600, 600 µm travel, and NPC-D-6110 controller
QGSPADAPT110X160	Adapter plate for H101 sample holders

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## Objective positioners and adaptors

When ordering ensure the correct part number is used to specify upright calibration. Objective positioners require a threaded adapter in order to be fitted to the microscope nosepiece and the microscope objective. Olympus microscopes typically use RMS threads; please contact Prior Scientific if the nosepiece uses an alternative thread size. Some BX61WI nosepieces have a raised lip surrounding the objective positions, which may clash with the objective positioner; a 15 mm spacer can be added to clear the lip. Please specify the nosepiece attachment fitted to the microscope when ordering. Please note that the two objective positions adjacent to the objective positioner will not be useable due to space constraints; additional positions may be unusable on smaller nosepieces. A high load calibration is available for specialist heavy objectives. Control of the objective positioner via Olympus Software requires the use of the Olympus Realtime Controller.

Part	Description
QGOP-400-UP-D1	OP400 objective scanner system incl. NPC-D-6110 controller for inverted microscopes (0-500 g load)
QGOP-400-UP-HL-D1	OP400 objective scanner system incl. NPC-D-6110 controller for inverted microscopes (500-1000 g load)
QG-OP-MIC-RMS	OP microscope adapter RMS
QG-OP-OBJ-RMS	OP objective adapter M32 x 0.75 to RMS
QG-OP-SPACE-RMS	RMS static objective spacer to align with OP-400 objective

### Motorized focus

The PS3H122OLM is directly coupled to the fine focus knob. It does not compete with the inherent motorised focus system.

Part	Description
PS3H122R	Generic focus drive and adaptor with rotating cable system preventing cable twisting
H807	Olympus BX and IX focus sleeve
H122KBIX	Direct fine focus coupling for Olympus IX/BX microscopes

#### Autofocus

The PF850 is a standalone hardware autofocus. The LF335 flange set is recommended for systems using only transmitted light or non-fluorescence reflected light. Please contact Prior Scientific if using fluorescence as the PF210 available for other BX microscopes is not compatible with the BX61, so we will require information about your filter cubes. The PF200, PF209 and PF300 are required for setup and maintenance. The PF404 is required for use with piezo nanopositioning systems.

Part	Description
PF850	PF head, controller with digipot power supply, cables
PF210	Olympus BX fluorescence mounting kit
LF335	PF850 flange set (Olympus BX)
PF209	PureFocus setup sample slide
PF200	PureFocus setup camera alignment target type 1, RMS.DIA 0.8 x 36
PF300	PureFocus setup camera jig
PF404	Piezo cable for PF850 15D to BNC

### Illumination

The L200OL and L200SOL are recommended for fluorescence microscopy (see **datasheet** for details). The L200SOL has a built in shutter mechanism which can be controlled via a ProScan III controller, so a standalone shutter is not required. The L220OL and L220SOL are available for customers doing fluorescence imaging in the far-red. The LDB103OL requires a ProScan III controller for operation and is recommended if purchasing a V31XYZEF controller. 35 mm shutters and 32 mm filter wheels are recommended for widefield applications.

Part	Description
L200SOL	L200 Standard box, lamp, light guide, shutter and Olympus collimator
L2000L	L220 Standard box, lamp, light guide and Olympus collimator
L220SOL	L220 Standard box, lamp, light guide, shutter and Olympus collimator
L2200L	L220 Standard box, lamp, light guide and Olympus collimator
LDB1020L	Brightfield LED, filter slider, standalone, Olympus
LDB1030L	Brightfield LED, filter slider, Prior controller, Olympus

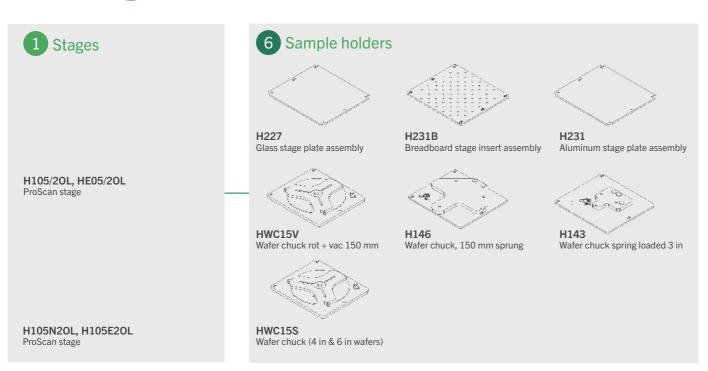
### **Excitation path**

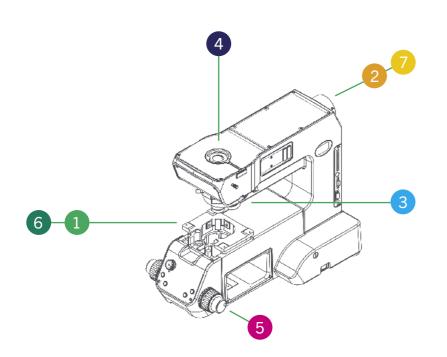
Filter wheels are not supplied with filters. Contact Prior Scientific if you wish to purchase a filter wheel stand that can be fixed to an optical table. For systems requiring a shutter and filter wheel it is recommended to buy one of the combinations listed above. The HF235 adaptor is required for filter wheels and shutters in the episcopic and diascopic illumination pathways.

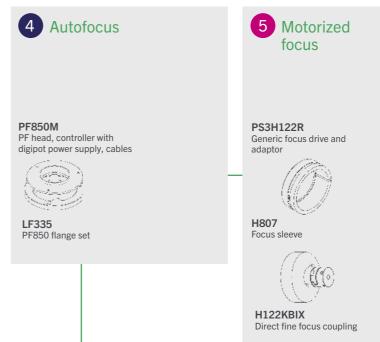
Part	Description
HF235	Filter wheel adapter for Olympus BX, IX and AX series microscopes
HF238	Shutter adapter for transmitted lamp
HF202HT	25 mm high temperature standalone shutter
HF204HT	35 mm high temperature standalone shutter
HF110A	Filter wheel, 10 position, 25 mm diameter filters without stand
HF106A	Filter wheel, 6 position, 25 mm diameter filters without stand
HF108A	Filter wheel, 8 position, 32 mm diameter filters without stand
HF110A + HF200HT	10 position 25 mm diameter filter wheel plus shutter combination
HF108A + HF201HT	8 position 32 mm diameter filter wheel plus shutter combination

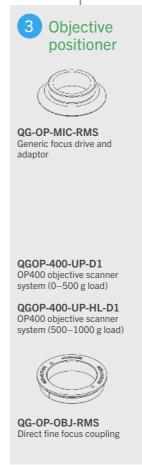
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# Olympus MX50/MX51 configuration chart

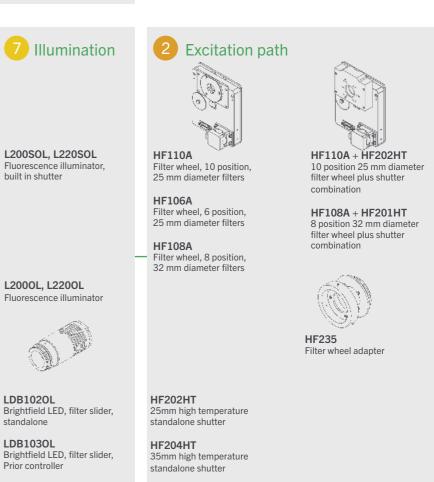












See the following pages for more product information.

# Olympus MX50/MX51 configuration guide

The Olympus MX50 and MX51 are microscopes designed for semiconductor analysis.

## Stages and sample holders

The H105/2OL, HE05/2OL, H105N2OL and H105E2OL are the largest stages available for this microscope due to its throat distance. The H105N2OL and H105E2OL feature a flat top design for easy loading. All sample holders listed are compatible with all types of stage. The HWC15V is fitted with a vacuum nozzle but no vacuum pump system is supplied.

### Motorised XY stages and sample holders for up to 6 inch diameter wafers

Part	Description
H105/20L	ProScan Stage, 154x154 mm travel, part encoded, 2 mm Pitch, 200 step, Olympus
HE05/20L	ProScan Stage, 154x154 mm travel, encoded, 2 mm Pitch, 200 step, Olympus
H105N2OL	ProScan Stage, 154x154 mm travel, non-encoded, 2 mm Pitch, 200 step, Olympus
H105E20L	ProScan Stage, 154x154 mm travel, encoded, 2 mm Pitch, 200 step, Olympus
H227	H105 glass stage plate assembly
H231	H105 aluminum stage plate assembly
H231B	Breadboard stage insert assembly (H105)
H143	Wafer chuck spring loaded 3 in
H146	Wafer chuck, 150 mm sprung, H105 stages
HWC15S	H105 wafer chuck (4"& 6" wafers)
HWC15V	Wafer chuck rot+vac 150 mm/H105

# Objective positioners and adaptors

When ordering ensure the correct part number is used to specify upright calibration. Objective positioners require a threaded adapter in order to be fitted to the microscope nosepiece and the microscope objective. Olympus microscopes typically use RMS threads; please contact Prior Scientific if the nosepiece uses an alternative thread size. Some MX50 nosepieces have a raised lip surrounding the objective positions, which may clash with the objective positioner; a 15 mm spacer can be added to clear the lip. Please specify the nosepiece attachment fitted to the microscope when ordering. Please note that the two objective positions adjacent to the objective positioner will not be useable due to space constraints; additional positions may be unusable on smaller nosepieces. A high load calibration is available for specialist heavy objectives. Control of the objective positioner via Olympus Software requires the use of the Olympus Realtime Controller.

Part	Description
QGOP-400-UP-D1	OP400 objective scanner system incl. NPC-D-6110 controller for inverted microscopes (0-500 g load)
QGOP-400-UP-HL-D1	OP400 objective scanner system incl. NPC-D-6110 controller for inverted microscopes (500-1000 g load)
QG-OP-MIC-RMS	OP microscope adapter RMS
QG-OP-OBJ-RMS	OP objective adapter M32 x 0.75 to RMS
QG-OP-SPACE-RMS	RMS static objective spacer to align with OP-400 objective

#### Motorized focus

The PS3H122R plus H807 combination is required to drive the fine focus knob of the microscope. The coarse focus will not be motorised. The H122KBIX direct coupling can be added for more precise motorised control.

Part	Description
PS3H122R	Generic focus drive and adaptor with rotating cable system preventing cable twisting
H807	Olympus BX and IX focus sleeve.
H122KBIX	Direct fine focus coupling for Olympus IX/BX microscopes.

### **Autofocus**

The PF850 is a standalone hardware autofocus. The LF335 flange set is recommended for systems using only transmitted light or non-fluorescence reflected light. The PF200, PF209 and PF300 are required for setup and maintenance. The PF404 is required for use with piezo nanopositioning systems.

Part	Description
PF850M	PF head, controller with digipot power supply, cables
LF335	PF850 flange set (Olympus BX)
PF209	PureFocus setup sample slide
PF200	PureFocus setup camera alignment target type 1, RMS.DIA 0.8 x 36
PF300	PureFocus setup camera jig
PF404	Piezo cable for PF850 15D to BNC

#### Illumination

The L200OL and L200SOL are recommended for fluorescence microscopy (see **datasheet** for details). The L200SOL has a built in shutter mechanism which can be controlled via a ProScan III controller, so a standalone shutter is not required. The L220OL and L220SOL are available for customers doing fluorescence imaging in the far-red. The LDB103OL requires a ProScan III controller for operation and is recommended if purchasing a V31XYZEF controller. 35 mm shutters and 32 mm filter wheels are recommended for widefield applications.

Part	Description
L200SOL	L200 Standard box, lamp, light guide, shutter and Olympus collimator
L2000L	L220 Standard box, lamp, light guide and Olympus collimator
L220SOL	L220 Standard box, lamp, light guide, shutter and Olympus collimator
L2200L	L220 Standard box, lamp, light guide and Olympus collimator
LDB1020L	Brightfield LED, filter slider, standalone, Olympus
LDB1030L	Brightfield LED, filter slider, Prior controller, Olympus

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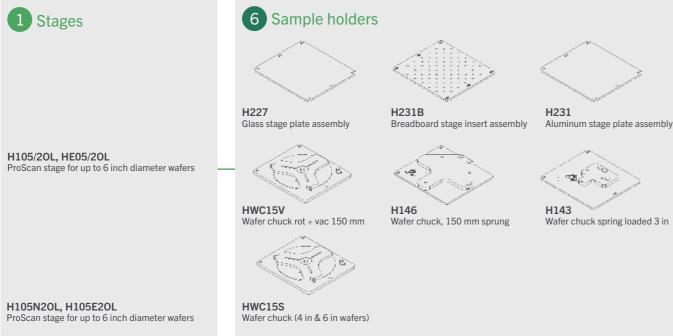
## **Excitation path**

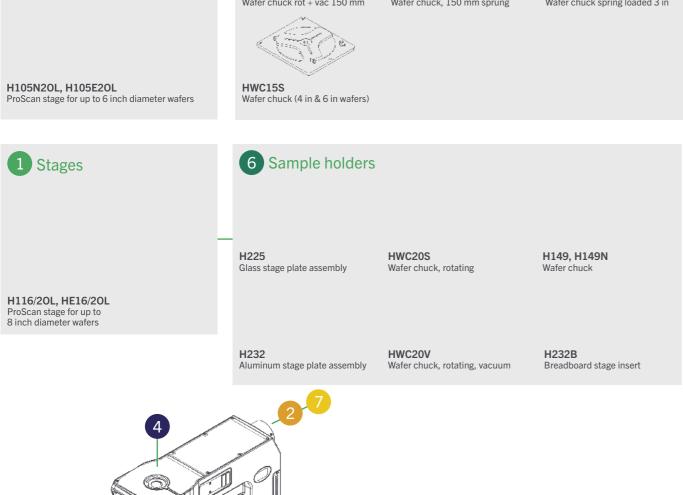
Filter wheels are not supplied with filters. Contact Prior Scientific if you wish to purchase a filter wheel stand that can be fixed to an optical table. For systems requiring a shutter and filter wheel it is recommended to buy one of the combinations listed above. The HF235 adaptor is required for filter wheels and shutters in the episcopic and diascopic illumination pathways.

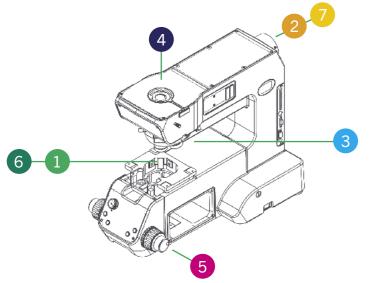
Part	Description
HF235	Filter wheel adapter for Olympus BX, IX and AX series microscopes
HF238	Shutter adapter for transmitted lamp
HF202HT	25 mm high temperature standalone shutter
HF204HT	35 mm high temperature standalone shutter
HF110A	Filter wheel, 10 position, 25 mm diameter filters without stand
HF106A	Filter wheel, 6 position, 25 mm diameter filters without stand
HF108A	Filter wheel, 8 position, 32 mm diameter filters without stand
HF110A + HF200HT	10 position 25 mm diameter filter wheel plus shutter combination
HF108A + HF201HT	8 position 32 mm diameter filter wheel plus shutter combination

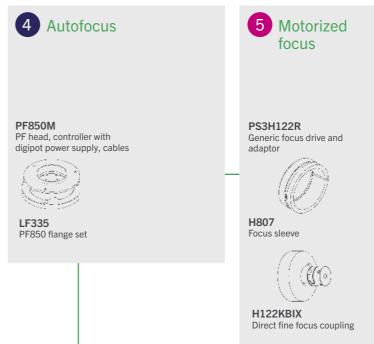
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# Olympus MX61/MX63 configuration chart



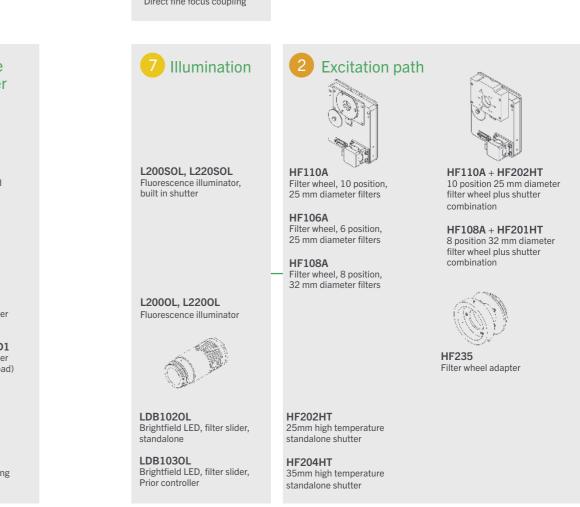












See the following pages for more product information.

# Olympus MX61/MX63 configuration guide

The Olympus MX61 and MX63 are motorised microscopes designed for semiconductor analysis.

#### Stages and sample holders

The H112/2ST and HE12/2ST are the largest stages available for this microscope due to its throat size and can take up to 12 inch wafers. The H116/2OL and HE16/2OL are available for up to 8 inch wafers. The H105/2OL, HE05/2OL, H105N2OL and H105E2OL are also available for smaller wafers. The H105N2OL and H105E2OL feature a flat top design for easy loading. All sample holders listed are compatible with all types of stage. The HWC3OV, HWC2OV and HWC15V are fitted with a vacuum nozzle but no vacuum pump system is supplied. Please note that Prior Scientific stages are not compatible with the MX61-A.

#### Motorised XY stages and sample holders for up to 6 inch diameter wafers

Part	Description
H105/20L	ProScan Stage, 154x154 mm travel, part encoded, 2 mm Pitch, 200 step, Olympus
HE05/20L	ProScan Stage, 154x154 mm travel, encoded, 2 mm Pitch, 200 step, Olympus
H105N2OL	ProScan Stage, 154x154 mm travel, non-encoded, 2 mm Pitch, 200 step, Olympus
H105E20L	ProScan Stage, 154x154 mm travel, encoded, 2 mm Pitch, 200 step, Olympus
H227	H105 glass stage plate assembly
H231	H105 aluminum stage plate assembly
H231B	Breadboard stage insert assembly (H105)
H143	Wafer chuck spring loaded 3 in
H146	Wafer chuck, 150 mm sprung, H105 stages
HWC15S	H105 wafer chuck (4"& 6" wafers)
HWC15V	Wafer chuck rot+vac 150 mm/H105

#### Motorised XY stages and sample holders for up to 8 inch diameter wafers

Part	Description
H116/20L	ProScan Stage, 255x215 mm travel, part encoded, 2 mm pitch, 200 step, Olympus
HE16/20L	ProScan Stage, 255x215 mm travel, encoded, 2 mm Pitch, 200 step, Olympus
H225	Glass stage plate 8 in x 8 in assembly
H232	H116 aluminum stage plate assembly
H232B	Breadboard stage insert assembly (H116)
H149	Wafer chuck, 200 mm sprung, H116 stages
H149N	Wafer chuck, 200 mm notched sprung, H116 stages
HWC20S	Wafer chuck, rotating, 150 mm/200 mm, H116 stages
HWC20V	Wafer chuck, rotating, vacuum, 200 mm, H116 stages

#### Objective positioners and adaptors

When ordering ensure the correct part number is used to specify upright calibration. Objective positioners require a threaded adapter in order to be fitted to the microscope nosepiece and the microscope objective. Olympus microscopes typically use RMS threads; please contact Prior Scientific if the nosepiece uses an alternative thread size. Some nosepieces have a raised lip surrounding the objective positions, which may clash with the objective positioner; a 15 mm spacer can be added to clear the lip. Please specify the nosepiece attachment fitted to the microscope when ordering. Please note that the two objective positions adjacent to the objective positioner will not be useable due to space constraints; additional positions may be unusable on smaller nosepieces. A high load calibration is available for specialist heavy objectives. Control of the objective positioner via Olympus Software requires the use of the Olympus Realtime Controller.

Part	Description
QGOP-400-UP-D1	OP400 objective scanner system incl. NPC-D-6110 controller for inverted microscopes (0-500 g load)
QGOP-400-UP-HL-D1	OP400 objective scanner system incl. NPC-D-6110 controller for inverted microscopes (500-1000 g load)
QG-OP-MIC-RMS	OP microscope adapter RMS
QG-OP-OBJ-RMS	OP objective adapter M32 x 0.75 to RMS
QG-OP-SPACE-RMS	RMS static objective spacer to align with OP-400 objective

#### Motorized focus

The PS3H122R plus H807 combination is required to drive the fine focus knob of the microscope. The coarse focus will not be motorised. The H122KBIX direct coupling can be added for more precise motorised control.

Part	Description
PS3H122R	Generic focus drive and adaptor with rotating cable system preventing cable twisting
H807	Olympus BX and IX focus sleeve
H122KBIX	Direct fine focus coupling for Olympus IX/BX microscopes

#### **Autofocus**

The PF850 is a standalone hardware autofocus. The LF335 flange set is recommended for systems using only transmitted light or non-fluorescence reflected light. The PF200, PF209 and PF300 are required for setup and maintenance. The PF404 is required for use with piezo nanopositioning systems.

Part	Description
PF850M	PF head, controller with digipot power supply, cables
LF335	PF850 flange set (Olympus BX)
PF209	PureFocus setup sample slide
PF200	PureFocus setup camera alignment target type 1, RMS.DIA 0.8 x 36
PF300	PureFocus setup camera jig
PF404	Piezo cable for PF850 15D to BNC

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#### Illumination

The L200OL and L200SOL are recommended for fluorescence microscopy (see **datasheet** for details). The L200SOL has a built in shutter mechanism which can be controlled via a ProScan III controller, so a standalone shutter is not required. The L220OL and L220SOL are available for customers doing fluorescence imaging in the far-red. The LDB103OL requires a ProScan III controller for operation and is recommended if purchasing a V31XYZEF controller. 35 mm shutters and 32 mm filter wheels are recommended for widefield applications.

Part	Description
L200SOL	L200 Standard box, lamp, light guide, shutter and Olympus collimator
L2000L	L220 Standard box, lamp, light guide and Olympus collimator
L220S0L	L220 Standard box, lamp, light guide, shutter and Olympus collimator
L2200L	L220 Standard box, lamp, light guide and Olympus collimator
LDB1020L	Brightfield LED, filter slider, standalone, Olympus
LDB1030L	Brightfield LED, filter slider, Prior controller, Olympus

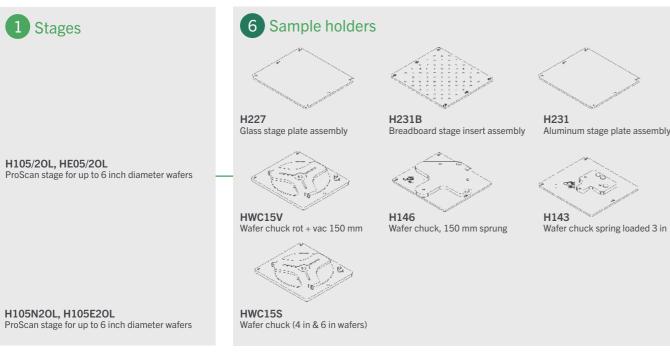
### **Excitation path**

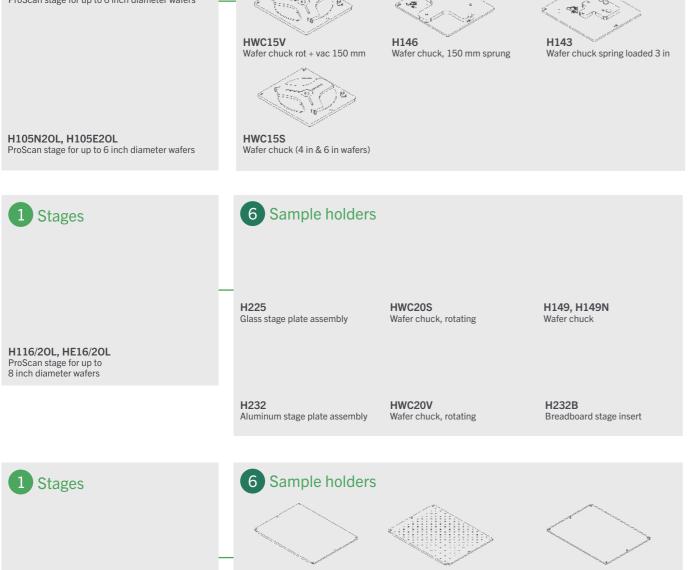
Filter wheels are not supplied with filters. Contact Prior Scientific if you wish to purchase a filter wheel stand that can be fixed to an optical table. For systems requiring a shutter and filter wheel it is recommended to buy one of the combinations listed above. The HF235 adaptor is required for filter wheels and shutters in the episcopic illumination pathway.

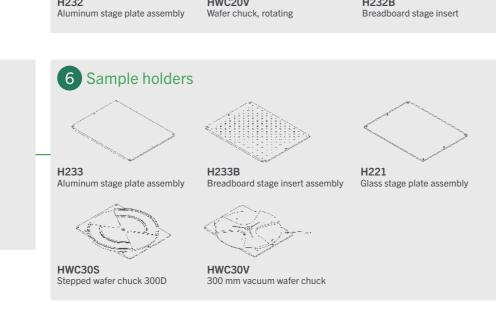
Part	Description
HF235	Filter wheel adapter for Olympus BX, IX and AX series microscopes
HF238	Shutter adapter for transmitted lamp
HF202HT	25 mm high temperature standalone shutter
HF204HT	35 mm high temperature standalone shutter
HF110A	Filter wheel, 10 position, 25 mm diameter filters without stand
HF106A	Filter wheel, 6 position, 25 mm diameter filters without stand
HF108A	Filter wheel, 8 position, 32 mm diameter filters without stand
HF110A + HF200HT	10 position 25 mm diameter filter wheel plus shutter combination
HF108A + HF201HT	8 position 32 mm diameter filter wheel plus shutter combination

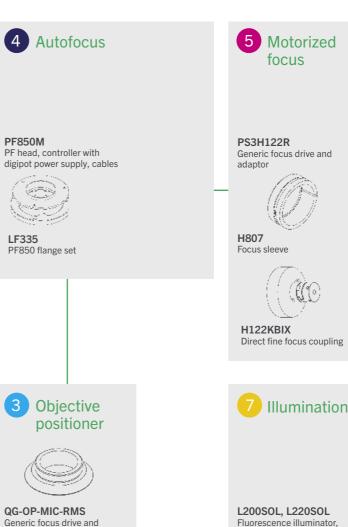
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# Olympus MX61L/MX63L configuration chart









QGOP-400-UP-D1 OP400 objective scanner

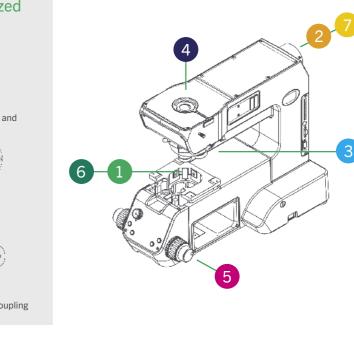
system (0-500 g load)

QGOP-400-UP-HL-D1

OP400 objective scanner system (500-1000 g load)

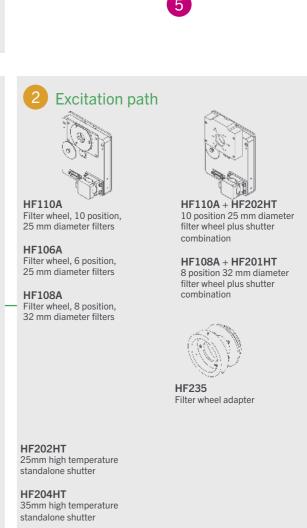
QG-OP-OBJ-RMS

Direct fine focus coupling









See the following pages for more product information.

H112/2ST, HE12/2ST

ProScan Stage, 154 x 154 mm travel,

part encoded, 2 mm Pitch, 200 step

# Olympus MX61L/MX63L configuration guide

The Olympus MX61L and MX63L are a motorised microscope designed for semiconductor analysis.

#### Stages and sample holders

The H112/2ST and HE12/2ST are the largest stages available for this microscope due to its throat size and can take up to 12 inch wafers. The H116/2OL and HE16/2OL are available for up to 8 inch wafers. The H105/2OL, HE05/2OL, H105N2OL and H105E2OL are also available for smaller wafers. The H105N2OL and H105E2OL feature a flat top design for easy loading. All sample holders listed are compatible with all types of stage. The HWC3OV, HWC2OV and HWC15V are fitted with a vacuum nozzle but no vacuum pump system is supplied. Please note that Prior Scientific stages are not compatible with the MX61L-A

### Motorised XY stages and sample holders for up to 6 inch diameter wafers

Part	Description
H105/20L	ProScan Stage, 154x154 mm travel, part encoded, 2 mm Pitch, 200 step, Olympus
HE05/20L	ProScan Stage, 154x154 mm travel, encoded, 2 mm Pitch, 200 step, Olympus
H105N2OL	ProScan Stage, 154x154 mm travel, non-encoded, 2 mm Pitch, 200 step, Olympus
H105E20L	ProScan Stage, 154x154 mm travel, encoded, 2 mm Pitch, 200 step, Olympus
H227	H105 glass stage plate assembly
H231	H105 aluminum stage plate assembly
H231B	Breadboard stage insert assembly (H105)
H143	Wafer chuck spring loaded 3 in
H146	Wafer chuck, 150 mm sprung, H105 stages
HWC15S	H105 wafer chuck (4"& 6" wafers)
HWC15V	Wafer chuck rot+vac 150 mm/H105

#### Motorised XY stages and sample holders for up to 8 inch diameter wafers

Part	Description
H116/20L	ProScan Stage, 255x215 mm travel, part encoded, 2 mm pitch, 200 step, Olympus
HE16/20L	ProScan Stage, 255x215 mm travel, encoded, 2 mm Pitch, 200 step, Olympus
H225	Glass stage plate 8 in x 8 in assembly
H232	H116 aluminum stage plate assembly
H232B	Breadboard stage insert assembly (H116)
H149	Wafer chuck, 200 mm sprung, H116 stages
H149N	Wafer chuck, 200 mm notched sprung, H116 stages
HWC20S	Wafer chuck, rotating, 150 mm/200 mm, H116 stages
HWC20V	Wafer chuck, rotating, vacuum, 200 mm, H116 stages

#### Motorised XY stages and sample holders for up to 12 inch diameter wafers

Part	Description
H112/2ST	ProScan stage, 154 x 154 mm travel, part encoded, 2 mm pitch, 200 step
HE12/2ST	ProScan stage, 154 x 154 mm travel, part encoded, 2 mm pitch, 200 step
H233	Aluminum stage plate assembly
H233B	Breadboard stage insert assembly
H221	Glass stage plate assembly
HWC30S	Stepped wafer chuck 300D
HWC30V	300 mm vacuum wafer chuck

#### Objective positioners and adaptors

When ordering ensure the correct part number is used to specify upright calibration. Objective positioners require a threaded adapter in order to be fitted to the microscope nosepiece and the microscope objective. Olympus microscopes typically use RMS threads; please contact Prior Scientific if the nosepiece uses an alternative thread size. Some nosepieces have a raised lip surrounding the objective positions, which may clash with the objective positioner; a 15mm spacer can be added to clear the lip. Please specify the nosepiece attachment fitted to the microscope when ordering. Please note that the two objective positions adjacent to the objective positioner will not be useable due to space constraints; additional positions may be unusable on smaller nosepieces. A high load calibration is available for specialist heavy objectives. Control of the objective positioner via Olympus Software requires the use of the Olympus Realtime Controller.

Part	Description
QGOP-400-UP-D1	OP400 objective scanner system incl. NPC-D-6110 controller for inverted microscopes (0-500 g load)
QGOP-400-UP-HL-D1	OP400 objective scanner system incl. NPC-D-6110 controller for inverted microscopes (500-1000 g load)
QG-OP-MIC-RMS	OP microscope adapter RMS
QG-OP-OBJ-RMS	OP objective adapter M32 x 0.75 to RMS
QG-OP-SPACE-RMS	RMS static objective spacer to align with OP-400 objective

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#### Motorized focus

The PS3H122R plus H807 combination is required to drive the fine focus knob of the microscope. The coarse focus will not be motorised. The H122KBIX direct coupling can be added for more precise motorised control.

Part	Description
PS3H122R	Generic focus drive and adaptor with rotating cable system preventing cable twisting
H807	Olympus BX and IX focus sleeve
H122KBIX	Direct fine focus coupling for Olympus IX/BX microscopes

#### Autofocus

The PF850 is a standalone hardware autofocus. The LF335 flange set is recommended for systems using only transmitted light or non-fluorescence reflected light. The PF200, PF209 and PF300 are required for setup and maintenance. The PF404 is required for use with piezo nanopositioning systems.

Part	Description
PF850M	PF head, controller with digipot power supply, cables
LF335	PF850 flange set (Olympus BX)
PF209	PureFocus setup sample slide
PF200	PureFocus setup camera alignment target type 1, RMS.DIA 0.8 x 36
PF300	PureFocus setup camera jig
PF404	Piezo cable for PF850 15D to BNC

#### Illumination

The L200OL and L200SOL are recommended for fluorescence microscopy (see **datasheet** for details). The L200SOL has a built in shutter mechanism which can be controlled via a ProScan III controller, so a standalone shutter is not required. The L220OL and L220SOL are available for customers doing fluorescence imaging in the far-red. The LDB103OL requires a ProScan III controller for operation and is recommended if purchasing a V31XYZEF controller. 35mm shutters and 32mm filter wheels are recommended for widefield applications.

Part	Description
L200SOL	L200 Standard box, lamp, light guide, shutter and Olympus collimator
L2000L	L220 Standard box, lamp, light guide and Olympus collimator
L220SOL	L220 Standard box, lamp, light guide, shutter and Olympus collimator
L2200L	L220 Standard box, lamp, light guide and Olympus collimator
LDB1020L	Brightfield LED, filter slider, standalone, Olympus
LDB1030L	Brightfield LED, filter slider, Prior controller, Olympus

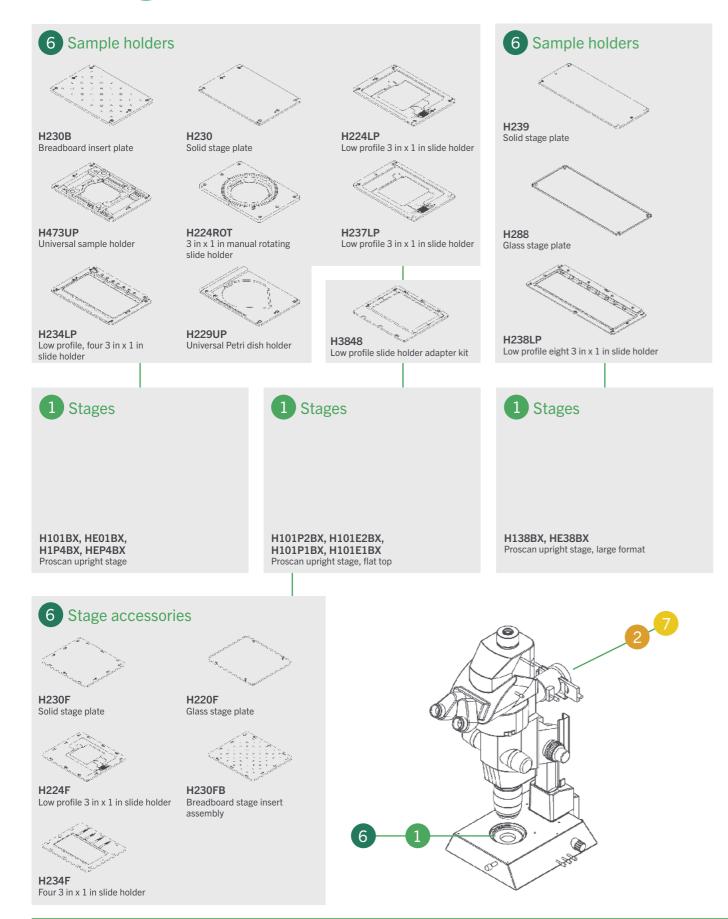
#### **Excitation path**

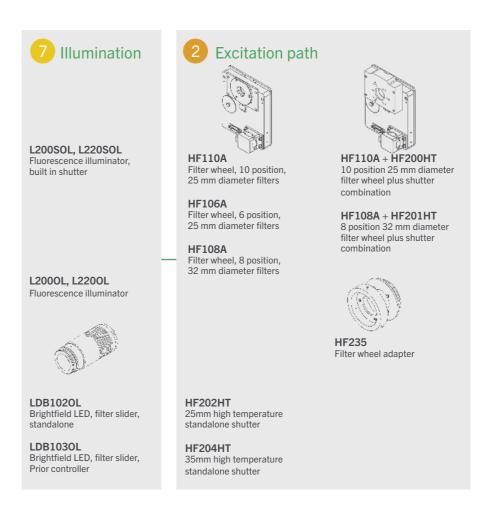
Filter wheels are not supplied with filters. Contact Prior Scientific if you wish to purchase a filter wheel stand that can be fixed to an optical table. For systems requiring a shutter and filter wheel it is recommended to buy one of the combinations listed above. The HF235 adaptor is required for filter wheels and shutters in the episcopic illumination pathway.

Part	Description
HF235	Filter wheel adapter for Olympus BX, IX and AX series microscopes
HF238	Shutter adapter for transmitted lamp
HF202HT	25 mm high temperature standalone shutter
HF204HT	35 mm high temperature standalone shutter
HF110A	Filter wheel, 10 position, 25 mm diameter filters without stand
HF106A	Filter wheel, 6 position, 25 mm diameter filters without stand
HF108A	Filter wheel, 8 position, 32 mm diameter filters without stand
HF110A + HF200HT	10 position 25 mm diameter filter wheel plus shutter combination
HF108A + HF201HT	8 position 32 mm diameter filter wheel plus shutter combination

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# Olympus MVX10 configuration chart





See the following pages for more product information.

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# Olympus MVX10 configuration guide

The Olympus MVX10 is an advanced stereo microscope. Prior are able to supply stages and illumination upgrades for this microscope.

### Stages and sample holders

All the sample holders listed in the first section of the above table are compatible with the H101BX, HE01BX, H1P4BX, and HEP4BX. All the sample holders listed in the second section are compatible with the flat top H101P2BX, H101P1BX and H101E1BX. In addition, sample holders from the first section are compatible with the flat top stage range when combined with the H3848. The large format H138BX and HE38BX can support up to 8 slides. All stages require the SZX-STAD2 or M-SA-SZX adaptor from Olympus to be fitted.

#### Motorised XY stages and sample holders

Part	Description
H101BX	Proscan upright stage, part encoded, 2 mm pitch, 200 step, Olympus BX
HE01BX	Proscan upright stage, encoded, 2 mm pitch, 200 step, Olympus BX
H1P4BX	Proscan upright stage, part encoded, 1 mm pitch, 400 step, Olympus BX
HEP4BX	Proscan upright stage, encoded, 1 mm pitch, 400 step, Olympus BX
H473UP	Universal Sample holder (slides, Petri dishes, small flasks), upright
H224LP	Low profile 3 in x 1 in slide holder
H234LP	Low profile, four 3 in x 1 in slide holder
H237LP	Low profile 3 in x 2 in slide holder
H229UP	Universal Petri dish holder, upright stages, up to 90 mm diameter
H230	Solid stage plate, H101A stages
H224ROT	3 in x 1 in manual rotating slide holder
H230B	Breadboard insert plate M4 & M6 (H101)
H220	H101 Glass stage plate assembly

## Flat top XY motorised stages and sample holders

Part	Description
H101P2BX	Proscan upright stage, flat top, part encoded, 2 mm pitch, 200 step, Olympus BX
H101E2BX	Proscan upright stage, flat top, encoded, 2 mm pitch, 200 step, Olympus BX
H101P1BX	Proscan upright stage, flat top, 1 mm pitch, 200 step, Olympus BX
H101E1BX	Proscan upright stage, flat top, encoded, 1 mm pitch, 200 step, Olympus BX
H3848	Low profile slide holder adapter kit for H101F
H230F	Solid stage plate, H101F Stages
H224F	Low profile 3 in x 1 in slide holder, extended, H101F stages
H234F	Four 3 in x 1 in slide holder, H101F stages
H220F	Glass stage plate, H101F stages
H230FB	Breadboard stage insert assembly (H101F)

#### Large format XY motorised stages and sample holders

Part	Description
H138BX	Proscan upright stage, part encoded, 2 mm pitch, 200 step, Olympus BX, for up to 8 slides
HE38BX	Proscan upright stage, encoded, 2 mm pitch, 200 step, Olympus BX, for up to 8 slides
H238LP	Low profile eight 3 in x 1 in slide holder
H238PLP	Low profile eight 3in x 1in slide holder, part recessed
H239	Solid stage plate, H138 stages
H288	Glass stage plate, H138 stages

#### Illumination

The L200OL and L200SOL are recommended for fluorescence microscopy (see **datasheet** for details). The L200SOL has a built in shutter mechanism which can be controlled via a ProScan III controller, so a standalone shutter is not required. The L220OL and L220SOL are available for customers doing fluorescence imaging in the far-red. The LDB103OL requires a ProScan III controller for operation and is recommended if purchasing a V31XYZEF controller. 35 mm shutters and 32 mm filter wheels are recommended for widefield applications.

Part	Description
L200SOL	L200 Standard box, lamp, light guide, shutter and Olympus collimator
L2000L	L220 Standard box, lamp, light guide and Olympus collimator
L220SOL	L220 Standard box, lamp, light guide, shutter and Olympus collimator
L2200L	L220 Standard box, lamp, light guide and Olympus collimator
LDB1020L	Brightfield LED, filter slider, standalone, Olympus
LDB1030L	Brightfield LED, filter slider, Prior controller, Olympus

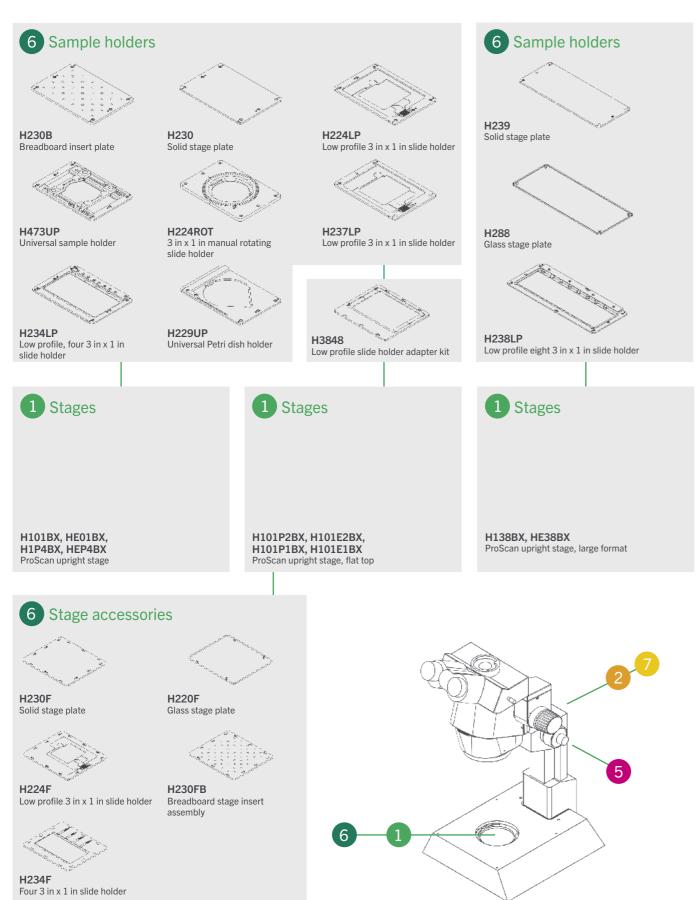
#### **Excitation path**

Filter wheels are not supplied with filters. Contact Prior Scientific if you wish to purchase a filter wheel stand that can be fixed to an optical table. For systems requiring a shutter and filter wheel it is recommended to buy one of the combinations listed above. The HF235 adaptor is required for filter wheels and shutters in the episcopic and diascopic illumination pathways.

Part	Description
HF235	Filter wheel adapter for Olympus BX, IX and AX series microscopes
HF238	Shutter adapter for transmitted lamp
HF202HT	25 mm high temperature standalone shutter
HF204HT	35 mm high temperature standalone shutter
HF110A	Filter wheel, 10 position, 25 mm diameter filters without stand
HF106A	Filter wheel, 6 position, 25 mm diameter filters without stand
HF108A	Filter wheel, 8 position, 32 mm diameter filters without stand
HF110A + HF200HT	10 position 25 mm diameter filter wheel plus shutter combination
HF108A + HF201HT	8 position 32 mm diameter filter wheel plus shutter combination

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# Olympus SZX series configuration chart





PS3H122SZX PS3H122SZX2 ZX focus drive and adaptor



L200SOL, L220SOL Fluorescence illuminator. built in shutter

L2000L, L2200L Fluorescence illuminator



LDB1020L Brightfield LED, filter slider, standalone

Brightfield LED, filter slider, Prior controller



HF110A Filter wheel, 10 position, 25 mm diameter filters

Filter wheel, 6 position, 25 mm diameter filters

32 mm diameter filters



HF110A + HF200HT 10 position 25 mm diameter filter wheel plus shutter combination

HF108A + HF201HT 8 position 32 mm diameter filter wheel plus shutter



HF235

HF202HT

25mm high temperature standalone shutter

HF204HT

35mm high temperature standalone shutter

See the following pages for more product information.

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# Olympus SZX configuration guide

The Olympus MVX10 is an advanced stereo microscope. Prior are able to supply stages and illumination upgrades for this microscope.

#### Stages and sample holders

All the sample holders listed in the first section of the above table are compatible with the H101BX, HE01BX, H1P4BX, and HEP4BX. All the sample holders listed in the second section are compatible with the flat top H101P2BX, H101P1BX and H101E1BX. In addition, sample holders from the first section are compatible with the flat top stage range when combined with the H3848. The large format H138BX and HE38BX can support up to 8 slides. All stages require the SZX-STAD2 adaptor from Olympus to be fitted.

#### Motorised XY stages and sample holders

Part	Description
H101BX	ProScan upright stage, part encoded, 2 mm pitch, 200 step, Olympus BX
HE01BX	ProScan upright stage, encoded, 2 mm pitch, 200 step, Olympus BX
H1P4BX	ProScan upright stage, part encoded, 1 mm pitch, 400 step, Olympus BX
HEP4BX	ProScan upright stage, encoded, 1 mm pitch, 400 step, Olympus BX
H473UP	Universal sample holder (slides, Petri dishes, small flasks), upright
H224LP	Low profile 3 in x 1 in slide holder
H234LP	Low profile, four 3 in x 1 in slide holder
H237LP	Low profile 3 in x 2 in slide holder
H229UP	Universal Petri dish holder, upright stages, up to 90 mm diameter
H230	Solid stage plate, H101A stages
H224ROT	3 in x 1 in manual rotating slide holder
H230B	Breadboard insert plate M4 & M6 (H101)
H220	H101 glass stage plate assembly

## Flat top XY motorised stages and sample holders

Part	Description
H101P2BX	ProScan upright stage, flat top, part encoded, 2 mm pitch, 200 step, Olympus BX
H101E2BX	ProScan upright stage, flat top, encoded, 2 mm pitch, 200 step, Olympus BX
H101P1BX	ProScan upright stage, flat top, 1 mm pitch, 200 step, Olympus BX
H101E1BX	ProScan upright stage, flat top, encoded, 1 mm pitch, 200 step, Olympus BX
H3848	Low profile slide holder adapter kit for H101F
H230F	Solid stage plate, H101F Stages
H224F	Low profile 3 in x 1 in slide holder, extended, H101F stages
H234F	Four 3 in x 1 in slide holder, H101F stages
H220F	Glass stage plate, H101F stages
H230FB	Breadboard stage insert assembly (H101F)

### Large format XY motorised stages and sample holders

Part	Description
H138BX	ProScan upright stage, part encoded, 2 mm pitch, 200 step, Olympus BX, for up to 8 slides
HE38BX	ProScan upright stage, encoded, 2 mm pitch, 200 step, Olympus BX, for up to 8 slides
H238LP	Low profile eight 3 in x 1 in slide holder
H238PLP	Low profile eight 3 in x 1 in slide holder, part recessed
H239	Solid stage plate, H138 stages
H288	Glass stage plate, H138 stages

#### Motorized focus

Both the PS3H122SZX and PS3H122SZX2 focus systems couple indirectly to the fine focus knob of the microscope via a friction pad. The –SZX is compatible with the SZX7, SZX9 and SZX12. The –SZX2 is compatible with the SZX10 and SZX16. SZX microscopes must be fitted with a fine focus actuator for a Prior motorized focus to be added.

Part		Description
PS3H122	SZX	Focus drive assembly, PS3, Olympus SZX 7/9/12
PS3H122	SZX2	Focus drive assembly, PS3, Olympus SZX 10/16

#### Illumination

The L200OL and L200SOL are recommended for fluorescence microscopy (see datasheet for details). The L200SOL has a built in shutter mechanism which can be controlled via a ProScan III controller, so a standalone shutter is not required. The L220OL and L220SOL are available for customers doing fluorescence imaging in the far-red. The LDB103OL requires a ProScan III controller for operation and is recommended if purchasing a V31XYZEF controller. 35 mm shutters and 32mm filter wheels are recommended for widefield applications. Addition of these illuminators requires the SZX-RFA, SZX-RFA2-16 or SZX-RFA2-16A fluorescence illuminator.

Part	Description
L200SOL	L200 Standard box, lamp, light guide, shutter and Olympus collimator
L2000L	L220 Standard box, lamp, light guide and Olympus collimator
L220SOL	L220 Standard box, lamp, light guide, shutter and Olympus collimator
L2200L	L220 Standard box, lamp, light guide and Olympus collimator
LDB1020L	Brightfield LED, filter slider, standalone, Olympus
LDB1030L	Brightfield LED, filter slider, Prior controller, Olympus

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## Notes

## **Excitation path**

Filter wheels are not supplied with filters. Contact Prior Scientific if you wish to purchase a filter wheel stand that can be fixed to an optical table. For systems requiring a shutter and filter wheel it is recommended to buy one of the combinations listed above. The HF235 adaptor is required for filter wheels and shutters in the episcopic and diascopic illumination pathways.

Part	Description
HF235	Filter wheel adapter for Olympus BX, IX and AX series microscopes
HF238	Shutter adapter for transmitted lamp
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HF110A	Filter wheel, 10 position, 25 mm diameter filters without stand
HF106A	Filter wheel, 6 position, 25 mm diameter filters without stand
HF108A	Filter wheel, 8 position, 32 mm diameter filters without stand
HF110A + HF200HT	10 position 25 mm diameter filter wheel plus shutter combination
HF108A + HF201HT	8 position 32 mm diameter filter wheel plus shutter combination

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