

56 Sparta Avenue • Newton, New Jersey 07860
(973) 300-3000 Sales • (973) 300-3600 Fax
www.thorlabs.com

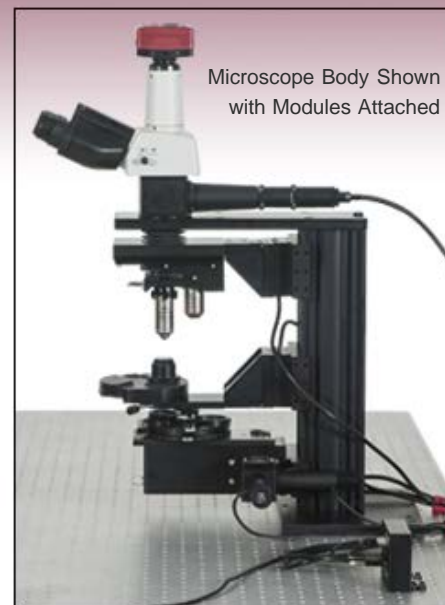
THORLABS

CSB1350 - June 22, 2016

Item # CSB1350 was discontinued on June 22, 2016. For informational purposes, this is a copy of the website content at that time and is valid only for the stated product.

CERNA COMPONENTS: MICROSCOPE BODIES

- **Rigid Backbones of Cerna Microscopes**
- **Holds Microscope Modules in Optical Path**
- **Two Height Options: 350 mm and 400 mm**



[Hide Overview](#)

OVERVIEW

Features

- 350 mm or 400 mm Body Height
- Optical Path is 7.74" (196.5 mm) Away from Edge of Vertical Support Rail
- Enables Large Setups Underneath and Around the Objective
- Linear Dovetail Surface Allows Flexible Positioning of Modules Along the Rail
- Mechanically Compatible with Thorlabs' 95 mm Construction Rail Accessories
- Includes Objective Focusing Module with 1" Travel

For Cerna microscopes, Thorlabs offers two body heights: 350 mm and 400 mm.

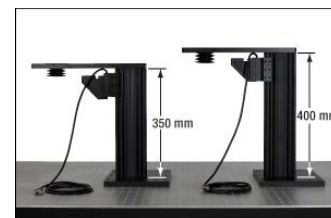
These bodies provide the backbone for constructing widefield imaging, transmitted light imaging, or electrophysiology setups. Based on Thorlabs' 95 mm optical construction rails, these rigid extrusions provide stable long-term support and excellent vibrational damping to the rest of the microscope.

The 400 mm tall version is our most popular model, as it provides extra space underneath the objective. This height provides the largest amount of flexibility for your setup to grow and change with time, and helps make room for our transmitted light imaging modules, which enable DIC imaging, Dodt contrast, and brightfield illumination. To make it easier to reach and operate the trinoculars and epi-illumination filter cubes located at the top of the microscope, we also offer a shorter, 350 mm tall version of the microscope body. However, this body does not provide enough room for DIC imaging setups and leaves only limited room for Dodt contrast and brightfield illumination.

Cerna Application Support

Thorlabs has engineers, application specialists, and a sales team available to discuss the various Cerna options and to work with you to create a system that is optimized for your unique experimental requirements. If you would like to be contacted by a member of our team, please let us know by emailing ImagingSales@thorlabs.com.

[Contact Us](#)



Click to Enlarge
The CSB1350 Microscope Body has a 350 mm tall vertical support rail, while the CSB1400 Microscope Body has a 400 mm tall vertical support rail.



Click to Enlarge
The MCM3000 3-Axis Controller, shown at the bottom right, is used to translate the objective focusing module along the Z-axis. (All items pictured here are sold separately.)

Regardless of the body height chosen, the optical path of Cerna microscopes is positioned 7.74" (196.5 mm) away from the edge of the vertical rail (as shown in the *Drawings* tab), creating a large working volume around the objective. These rails provide a linear dovetail surface that is used for attaching microscope modules such as our fixed sample arms and the previously mentioned trans-illumination modules, allowing you to reconfigure the microscope to your individual needs. Since Cerna modules attach to the body using dovetail clamps that can be freely positioned vertically, you are able to optimize the optical path for your specific experiment. Because the bodies are based upon our 95 mm rails, they are also compatible with our 95 mm rail mounting platforms, which system developers may use to build their own modules.

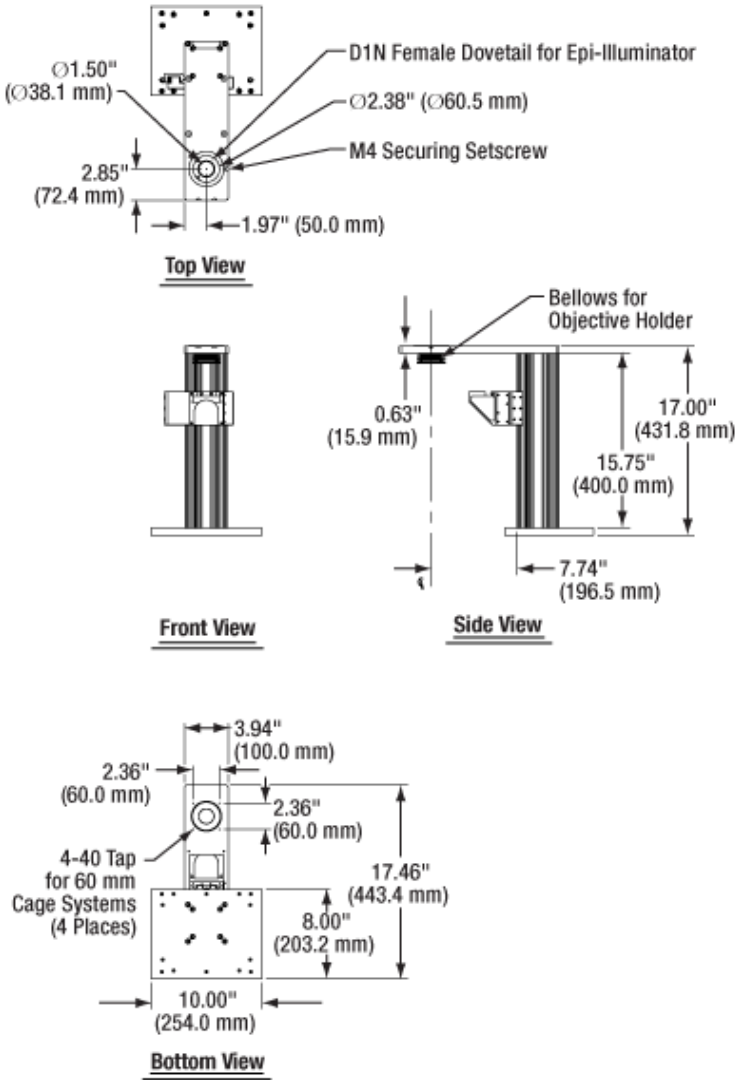
Each microscope body includes an objective focusing module that provides 1" of fine motorized Z-axis travel. This module is shown in the photos above, attached to the side of the vertical support rail. In order to translate the objective along the Z-axis, our standard 3-axis controller is required (Item # MCM3000, sold separately). Each body also ships with a bellows to enclose the optical path between the top of the body and the objective holder. This bellows connects to the body and the objective holder using magnets.

Cerna Components	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7
Overview	Microscope Body	Widefield Viewing	Epi-Illumination	Objectives and Objective Holders	Sample Holders	Motion Control	Trans-Illumination

[Hide Drawings](#)

DRAWINGS

This tab gives the dimensions and key mechanical features of the 400 mm tall Cerna microscope body (Item # CSB1400). Except for the height of the rail, the 350 mm tall body is identical. For full details on the Cerna microscope bodies' mechanical features, click on the red Docs icon (📄) below.



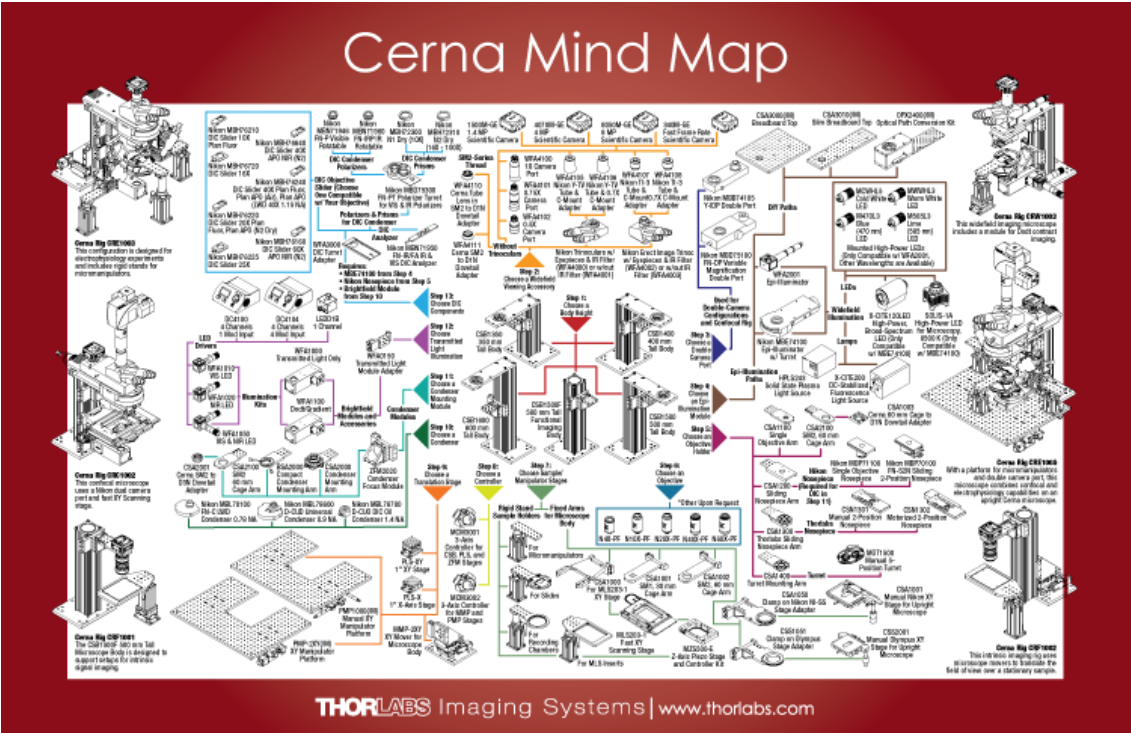
Click to Enlarge
Drawing of 400 mm Tall Microscope Body

[Hide Cerna Mind Map](#)

CERNA MIND MAP

The Cerna Series Mind Map is a visual tool for selecting the modules that make up a complete Cerna microscope. Created as a supplement to the information provided directly on our website, it lays out both the required and optional components in a single 11" x 17" printed sheet. We have designed it to be used as a flowchart, starting from the red arrow at the center of the document and following the steps in order.

Click [here](#) or on the image below to download a printable PDF (6 MB). The microscope bodies sold on this page correspond to Step 1 in the mind map.

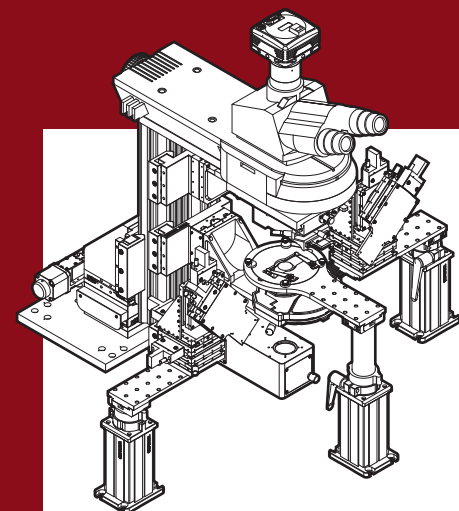


[Hide Part Numbers](#)

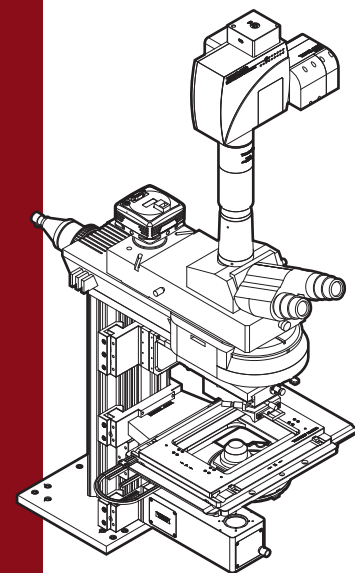
Part Number	Description	Price	Availability
CSB1350	Cerna Microscope Body with Objective Focusing Module, 350 mm Tall	\$3,542.63	Lead Time
CSB1400	Cerna Microscope Body with Objective Focusing Module, 400 mm Tall	\$3,874.70	Lead Time
MCM3000	3-Axis Controller	\$4,500.00	Lead Time

Visit the *Cerna Components: Microscope Bodies* page for pricing and availability information:
https://www.thorlabs.com/newgrouppage9.cfm?objectgroup_id=8563

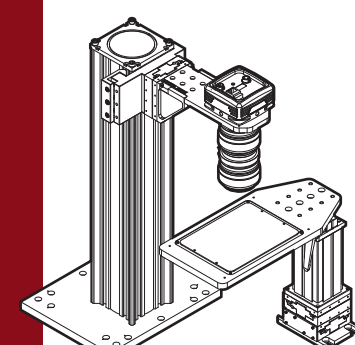
Cerna Series Microscopy Platform



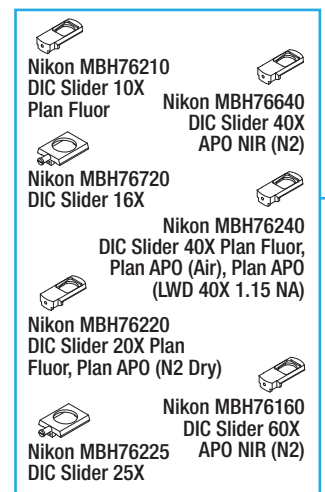
Cerna Rig CRE1003
This configuration is designed for electrophysiology experiments and includes rigid stands for micromanipulators.



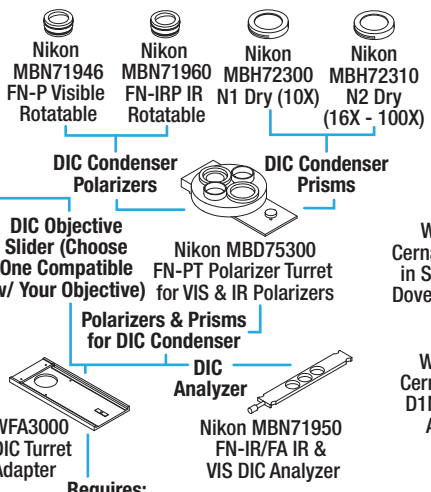
Cerna Rig CRC1002
This confocal microscope uses a Nikon dual camera port and fast XY Scanning stage.



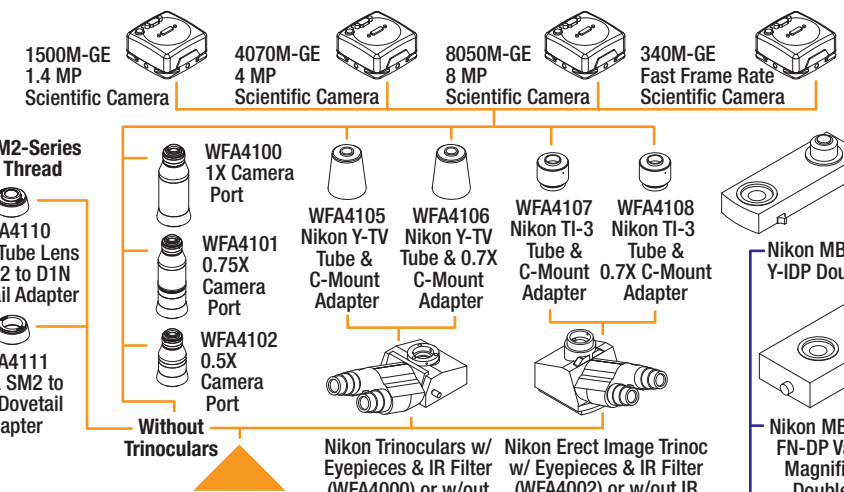
Cerna Rig CRF1001
The CSB1500F 500 mm Tall Microscope Body is designed to support setups for intrinsic signal imaging.



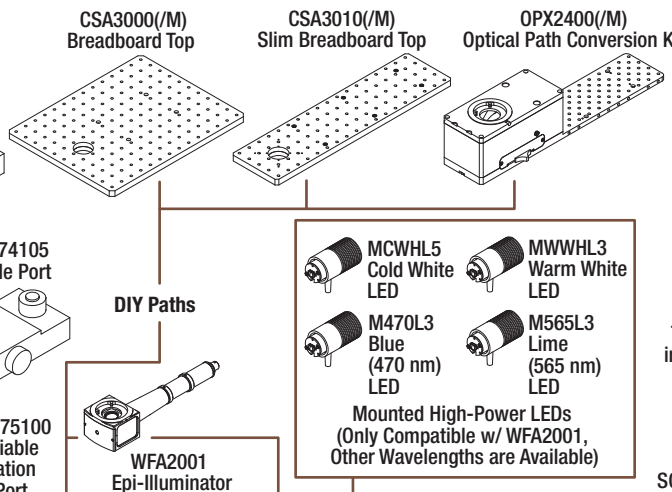
Nikon MBH76210 DIC Slider 10X Plan Fluor
Nikon MBH76640 DIC Slider 40X APO NIR (N2)
Nikon MBH76220 DIC Slider 16X
Nikon MBH76240 DIC Slider 40X Plan Fluor, Plan APO (Air), Plan APO (LWD 40X 1.15 NA)
Nikon MBH76220 DIC Slider 20X Plan Fluor, Plan APO (N2 Dry)
Nikon MBH76160 DIC Slider 60X APO NIR (N2)
Nikon MBH76225 DIC Slider 25X



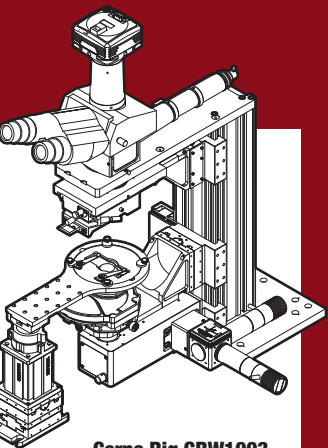
Nikon MBN71946 FN-P Visible Rotatable
Nikon MBN71960 FN-IRP IR Rotatable
Nikon MBH72300 N1 Dry (10X)
Nikon MBH72310 N2 Dry (16X - 100X)
DIC Condenser Polarizers
DIC Condenser Prisms
DIC Objective Slider (Choose One Compatible w/ Your Objective)
Nikon MBD75300 FN-PT Polarizer Turret for VIS & IR Polarizers
Polarizers & Prisms for DIC Condenser
DIC Analyzer
WFA3000 DIC Turret Adapter
Nikon MBN71950 FN-IR/FA IR & VIS DIC Analyzer



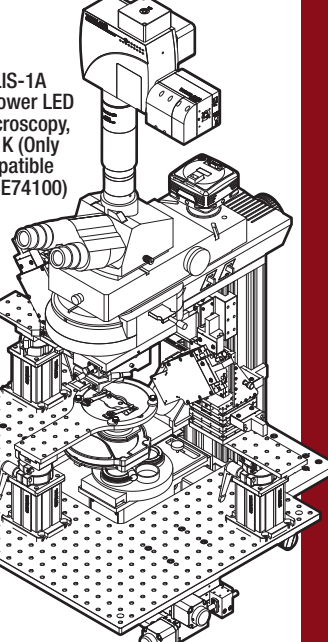
1500M-GE 1.4 MP Scientific Camera
4070M-GE 4 MP Scientific Camera
8050M-GE 8 MP Scientific Camera
340M-GE Fast Frame Rate Scientific Camera
WFA4100 1X Camera Port
WFA4101 0.75X Camera Port
WFA4102 0.5X Camera Port
WFA4105 Nikon Y-TV Tube & C-Mount Adapter
WFA4106 Nikon Y-TV Tube & 0.7X C-Mount Adapter
WFA4107 Nikon TI-3 Tube & C-Mount Adapter
WFA4108 Nikon TI-3 Tube & 0.7X C-Mount Adapter
Without Trinoculars
Step 2: Widefield Viewing Accessory
Nikon Trinoculars w/ Eyepieces & IR Filter (WFA4000) or w/out IR Filter (WFA4001)
Nikon Erect Image Trinoc w/ Eyepieces & IR Filter (WFA4002) or w/out IR Filter (WFA4003)



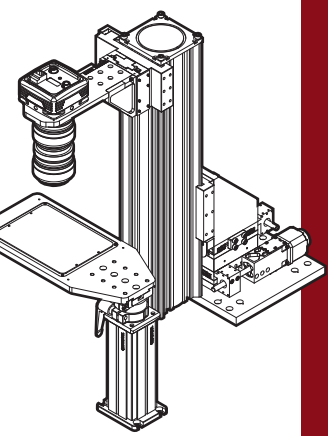
CSA3000(M) Breadboard Top
CSA3010(M) Slim Breadboard Top
OPX2400(M) Optical Path Conversion Kit
Nikon MBB74105 Y-IDP Double Port
Nikon MBD75100 FN-DP Variable Magnification Double Port
DIY Paths
MCWHL5 Cold White LED
MWWHL3 Warm White LED
M470L3 Blue (470 nm) LED
M565L3 Lime (565 nm) LED
Mounted High-Power LEDs (Only Compatible w/ WFA2001, Other Wavelengths are Available)



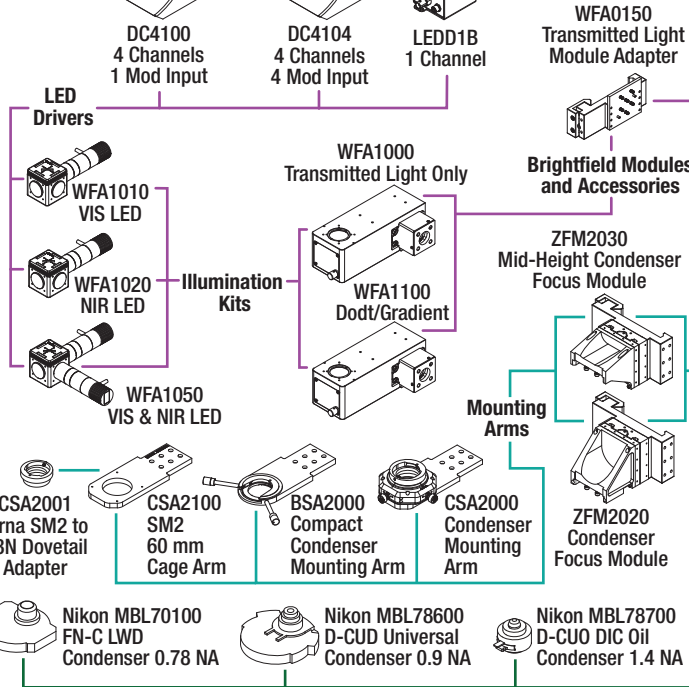
Cerna Rig CRW1003
This widefield imaging microscope includes a module for Dof contrast imaging.



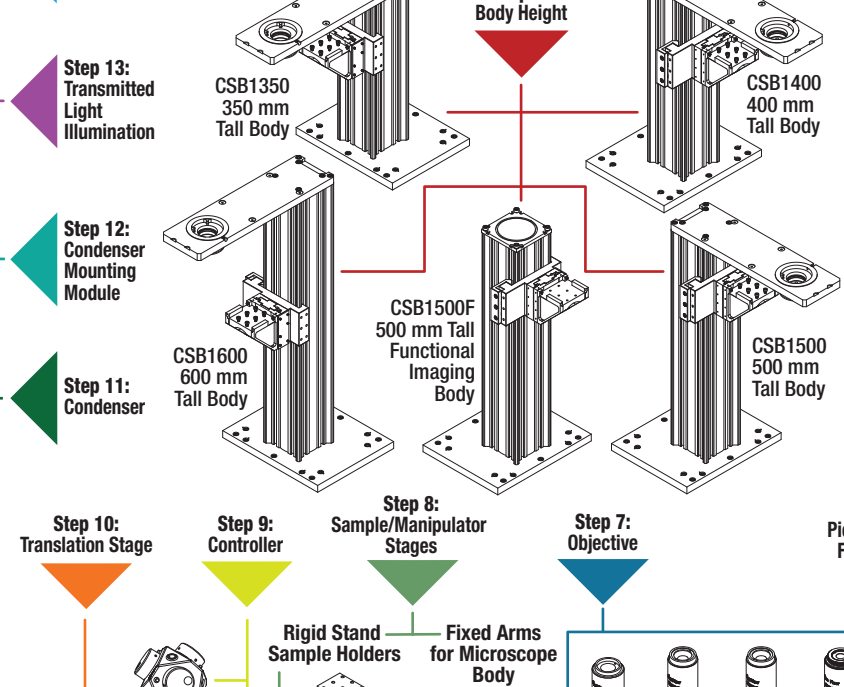
Cerna Rig CRE1005
With a platform for micromanipulators and double camera port, this microscope combines confocal and electrophysiology capabilities on an upright Cerna microscope.



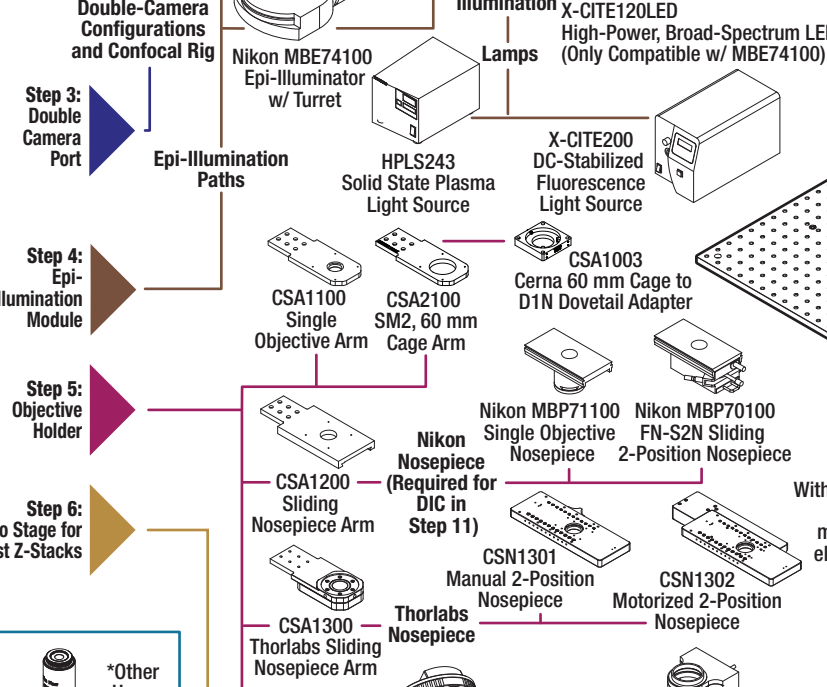
Cerna Rig CRF1002
This intrinsic imaging rig uses microscope movers to translate the field of view over a stationary sample.



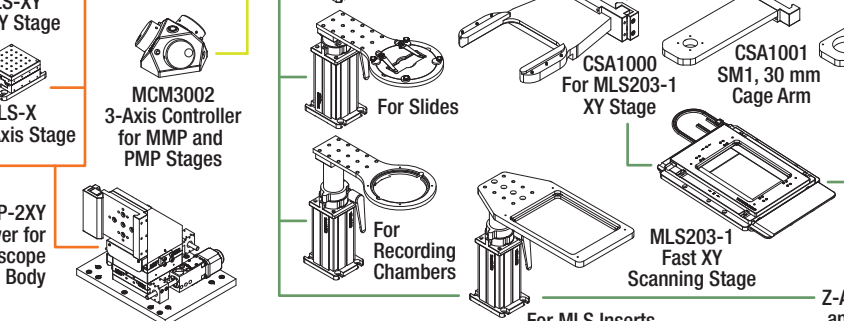
LED Drivers
WFA1010 VIS LED
WFA1020 NIR LED
WFA1050 VIS & NIR LED
DC4100 4 Channels 1 Mod Input
DC4104 4 Channels 4 Mod Input
LEDD1B 1 Channel
WFA0150 Transmitted Light Module Adapter
Brightfield Modules and Accessories
WFA1000 Transmitted Light Only
WFA1100 Dodt/Gradient
ZFM2030 Mid-Height Condenser Focus Module
ZFM2020 Condenser Focus Module
Mounting Arms
CSA2001 Cerna SM2 to D3N Dovetail Adapter
CSA2100 SM2 60 mm Cage Arm
BSA2000 Compact Condenser Mounting Arm
CSA2000 Condenser Mounting Arm
Nikon MBL70100 FN-C LWD Condenser 0.78 NA
Nikon MBL78600 D-CUD Universal Condenser 0.9 NA
Nikon MBL78700 D-CUD DIC Oil Condenser 1.4 NA



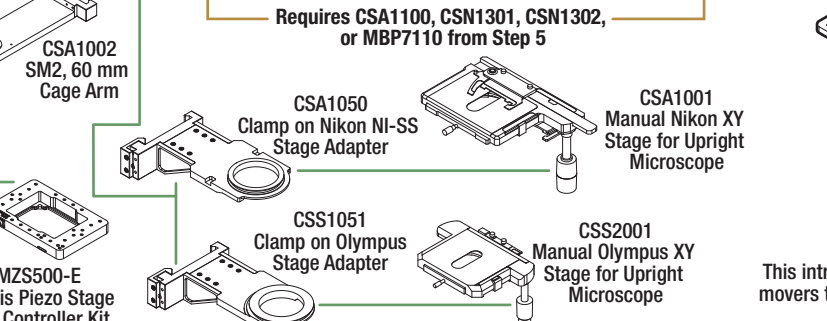
Step 1: Body Height
CSB1350 350 mm Tall Body
CSB1400 400 mm Tall Body
CSB1500F 500 mm Tall Functional Imaging Body
CSB1600 600 mm Tall Body
Step 10: Translation Stage
Step 9: Controller
Step 8: Sample/Manipulator Stages
Step 7: Objective
Rigid Stand Sample Holders
Fixed Arms for Microscope Body
N4X-PF N10X-PF N20X-PF N40X-PF N60X-PF
*Other Upon Request



Nikon MBE74100 Epi-Illuminator w/ Turret
HPLS243 Solid State Plasma Light Source
X-CITE200 DC-Stabilized Fluorescence Light Source
CSA1100 Single Objective Arm
CSA2100 SM2, 60 mm Cage Arm
CSA1003 Cerna 60 mm Cage to D1N Dovetail Adapter
Nikon MBP71100 Single Objective Nosepiece
Nikon MBP70100 FN-S2N Sliding 2-Position Nosepiece
CSN1301 Manual 2-Position Nosepiece
CSN1302 Motorized 2-Position Nosepiece
Thorlabs Nosepiece
MOT1500 Manual 5-Position Turret
PFM450E 450 µm Travel Piezo Stage
Requires CSA1100, CSN1301, CSN1302, or MBP7110 from Step 5



MCM3001 3-Axis Controller for CSB, PLS, and ZFM Stages
MCM3002 3-Axis Controller for MMP and PMP Stages
PLS-XY 1" XY Stage
PLS-X 1" X-Axis Stage
MMP-2XY XY Mover for Microscope Body
PMP-2XY(M) XY Manipulator Platform



CSA1001 Manual Nikon XY Stage for Upright Microscope
CSA1002 SM2, 60 mm Cage Arm
CSA1001 SM1, 30 mm Cage Arm
CSA1000 For MLS203-1 XY Stage
MLS203-1 Fast XY Scanning Stage
MZS500-E Z-Axis Piezo Stage and Controller Kit
CSA1050 Clamp on Nikon NI-SS Stage Adapter
CSS1051 Clamp on Olympus Stage Adapter
CSS2001 Manual Olympus XY Stage for Upright Microscope