MICROMASTER® PREMIER

Compound Microscopes

Fisher Scientific

Fisher Scientific Micromaster Premier Microscopes

Ideally suited for educational and research

Educational Models

12-561-326 / 12-561-327

- Binocular head
- Brightfield
- Fixed Koehler illumination *(12-561-326)*
- Full Koehler illumination with built-in iris diaphragm *(12-561-327)*
- Easily interchangeable collector lens filters
- 4x, 10x, 40x and 100x objectives (plan achromat)
- Dual diopter adjustment accommodates differences between each eye's focal length
- Interpupillary adjustment fits individual user's spacing between eyes
- 10x, 20 mm FOV, widefield eyepieces with eyecups
- Low-position, rectangular mechanical stage with travel limit and tension adjustment

12-563-530

- Binocular LCD viewing head
- Brightfield
- Fixed Koehler illumination
- Easily interchangeable collector lens filters
- 4x, 10x, 40x and 100x objectives (plan achromat)
- Dual diopter adjustment
- Interpupillary adjustment
- 10x, 20 mm FOV, widefield eyepieces with eyecups
- Low-position, rectangular mechanical stage with travel limit and tension adjustment
- 6.4-inch, 360° rotating LCD viewing screen
- Ideal for students who share a microscope
- RCA video output

Research Models

12-561-328 / 12-561-330

- Binocular head
- Brightfield *(12-561-328)*
- Brightfield and phase *(12-561-330)*
- Full Koehler illumination with built-in iris diaphragm
- Easily interchangeable collector lens filters
- Infinity-corrected optics for maximum optical field flatness and color correctness
- 4x, 10x, 40x and 100x infinity objectives
- Dual diopter adjustment
- Interpupillary adjustment
- 10x, 20 mm FOV, widefield eyepieces with eyecups
- Low-position, rectangular mechanical stage with travel limit and tension adjustment

12-561-329 / 12-561-331

- Trinocular head
- Brightfield *(12-561-329)*
- Brightfield and phase *(12-561-331)*
- Full Koehler illumination with built-in iris diaphragm
- Easily interchangeable collector lens filters
- Infinity-corrected optics
- 4x, 10x, 40x and 100x infinity objectives
- Dual diopter adjustment
- Interpupillary adjustment
- 10x, 20 mm FOV, widefield eyepieces with eyecups
- 23 mm photo port (attach your own camera)
- Switch easily between camera port and eyepieces
- Parfocality between camera and eyepieces
- Low-position, rectangular mechanical stage with travel limit and tension adjustment

12-563-531 / 12-563-532

- Binocular digital head
- Brightfield *(12-563-531)*
- Brightfield and phase *(12-563-532)*
- Full Koehler illumination with built-in iris diaphragm
- Easily interchangeable collector lens filters
- Infinity-corrected optics
- 10x, 20x, 40x and 100x infinity objectives
- Dual diopter adjustment
- Interpupillary adjustment
- 10x, 20 mm FOV, widefield eyepieces with eyecups
- Low-position, rectangular mechanical stage with travel limit and tension adjustment
- 3 megapixel camera
- Micron USB2 software

Note: *Micron is compatible with Windows® XP, Vista and both 32- and 64-bit Windows® 7.*

Specifications and Ordering Information

Model	Head Type	Objectives	Contrast	Condenser	Trinocular Port	Stage Specs
12-561-326	Binocular	4x, 10x, 40x & 100x (plan achromat)	Brightfield	N.A. 1.25 abbe achromatic, fixed Koehler	N/A	
12-561-327	Binocular	4x, 10x, 40x & 100x (plan achromat)	Brightfield	N.A. 1.25 abbe achromatic, full Koehler	N/A	
12-561-328	Binocular	4x, 10x, 40x & 100x infinity	Brightfield	N.A. 1.25 abbe achromatic, full Koehler	N/A	
12-561-329	Trinocular	4x, 10x, 40x & 100x infinity	Brightfield	N.A. 1.25 abbe achromatic, full Koehler	23 mm ID; 80/20% light split rate	**AREA** 150 x 140 mm
12-561-330	Binocular	10x Ph, 20x Ph, 40x Ph & 100x Ph infinity	Brightfield/Phase	N.A. 1.25 abbe achromatic, full Koehler	N/A	
12-561-331	Trinocular	10x Ph, 20x Ph, 40x Ph & 100x Ph infinity	Brightfield/Phase	N.A. 1.25 abbe achromatic, full Koehler	23 mm ID; 80/20% light split rate	**TRAVEL RANGE** 76 x 50 mm
12-563-530	Video Binocular	4x, 10x, 40x & 100x (plan achromat)	Brightfield	N.A. 1.25 abbe achromatic, fixed Koehler	N/A	
12-563-531	Digital Binocular	4x, 10x, 40x & 100x infinity	Brightfield	N.A. 1.25 abbe achromatic, full Koehler	50/50% light split rate	
12-563-532	Digital Binocular	10x Ph, 20x Ph, 40x Ph & 100x Ph infinity	Brightfield/Phase	N.A. 1.25 abbe achromatic, full Koehler	50/50% light split rate	

Parts and Accessories

Accessories

PMCP-POL-3:	Cross-polarization set
PMCP-DFS2:	Darkfield slider, 20/40x
MP-MVA-EP035:	Video relay lens for trinocular models
PMCP-VCA-1:	Photo tube

Eyepieces

MP-EP10XD:	10x wide FOV eyepieces
MP-EP15XD:	15x wide FOV eyepieces
MP-EP20XD:	20x wide FOV eyepieces
MP-EC24:	Rubber eyecups

Reticles

12561RG1:	Reticle, Grid, 5 x 5 mm
12561RG2:	Reticle, Grid, 10 x 10 mm, 0.5 mm sq.
12561RG3:	Reticle, Grid, 10 x 10 mm, 1 mm sq.
12561RX:	Reticle, Crosshair
12561RL1:	Reticle, Linear, 5 mm, 0.05 mm division
12561RL2:	Reticle, Linear, 10 mm, 0.1 mm division
12561RL3:	Reticle, Linear, 0.4" 0.01" division
MP-ERP1:	Pointer

MICROMASTER®

Inverted Microscopes

Fisher Scientific

Fisher Scientific Micromaster Inverted Microscopes

Ideally suited for education and research

Fixed Stage Models

12-575-250 (Binocular)

- Binocular head
- 4x, 10x Ph, and 20x Ph infinity LWD objectives (plan achromat)
- Plan 10x, 22 mm FN, high-eyepoint eyepieces
- Dual diopter adjustment
- Interpupillary adjustment (50-80 mm)
- Easily interchangeable filters (green and blue)
- Dual, side-mounted coaxial focus knobs, clearly marked

12-575-251 (Trinocular)

- Trinocular head
- 4x, 10x Ph, and 20x Ph infinity LWD objectives (plan achromat)
- Plan 10x, 22 mm FN, high-eyepoint eyepieces
- Dual diopter adjustment
- Interpupillary adjustment (50-80 mm)
- Easily interchangeable filters (green and blue)
- Dual, side-mounted coaxial focus knobs, clearly marked
- 23 mm photo port (attach your own camera)
- Switch easily between camera port and eyepieces
- Camera/ocular parfocality adjustment

12-575-252 (Digital)

- Binocular digital head
- 4x, 10x Ph, and 20x Ph infinity LWD objectives (plan achromat)
- Plan 10x, 22 mm FN, high-eyepoint eyepieces
- Dual diopter adjustment
- Interpupillary adjustment (50-80 mm)
- Easily interchangeable filters (green and blue)
- Dual, side-mounted coaxial focus knobs, clearly marked
- 3 megapixel built-in camera, parfocal with oculars
- USB 2.0 connects directly to your PC for live viewing and image capture.
- Micron USB2 software

Note: *Micron is compatible with Windows® XP, Vista, and both 32- and 64-bit Windows® 7.*

Mechanical Stage Models

12-563-518 (Binocular)

- Binocular head
- 4x, 10x Ph, 20x Ph, and 40x Ph infinity LWD objectives (plan achromat)
- Plan 10x, 22 mm FN, high-eyepoint eyepieces
- Dual diopter adjustment
- Interpupillary adjustment (50-80 mm)
- Easily interchangeable filters (green and blue)
- Dual, side-mounted coaxial focus knobs, clearly marked
- Low-position mechanical stage with travel limit and tension adjustment
- 3 vessel holders included:
  12-563-521 (2 Slides)
  12-563-522 (4 Petri dishes)
  12-563-527 (Hemocytometer)

12-563-519 (Trinocular)

- Trinocular head
- 4x, 10x Ph, 20x Ph, and 40x Ph infinity LWD objectives (plan achromat)
- Plan 10x, 22 mm FN, high-eyepoint eyepieces
- Dual diopter adjustment
- Interpupillary adjustment (50-80 mm)
- Easily interchangeable filters (green and blue)
- Dual, side-mounted coaxial focus knobs, clearly marked
- 23 mm photo port (attach your own camera)
- Switch easily between camera port and eyepieces
- Camera/ocular parfocality adjustment
- Low-position mechanical stage with travel limit and tension adjustment
- 3 vessel holders included:
  12-563-521 (2 Slides)
  12-563-522 (4 Petri dishes)
  12-563-527 (Hemocytometer)

12-563-520 (Digital)

- Binocular digital head
- 4x, 10x Ph, 20x Ph, and 40x Ph infinity LWD objectives (plan achromat)
- Plan 10x, 22 mm FN, high-eyepoint eyepieces
- Dual diopter adjustment
- Interpupillary adjustment (50-80 mm)
- Easily interchangeable filters (green and blue)
- Dual, side-mounted coaxial focus knobs, clearly marked
- 3 megapixel built-in camera, parfocal with oculars
- USB 2.0 connects directly to your PC for live viewing and image capture.
- Micron USB2 software

Note: *Micron is compatible with Windows® XP, Vista, and both 32- and 64-bit Windows® 7.*

- Low-position mechanical stage with travel limit and tension adjustment
- 3 vessel holders included:
  12-563-521 (2 Slides)
  12-563-522 (4 Petri dishes)
  12-563-527 (Hemocytometer)

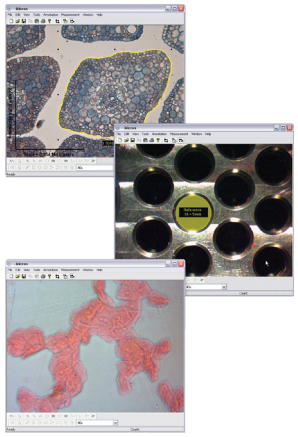
Micron USB 2.0 Requirements: PC with Pentium® III 1.0 GHz processor or higher; Windows® 2000 Service Pack 4 or better, Windows XP Service Pack 1 or better, Windows Vista, or Windows 7; One available USB 2.0 port; 256 MB RAM.

Specifications and Ordering Information

Model	Head Type	Objectives *(Infinity Color-corrected, Plan Achromat)*	Camera	Condenser	Work Space *(over stage)*	Light Split / Trinocular Port	Focus	Stage Type	Stage Specs (mm)
12-575-250	Binocular	4x, 10x Ph, 20x Ph	N/A	N.A. 0.3; removable; with adjustable aperture and 3-position phase annuli slider (one open position)	**With Condenser:** 72 mm **Without Condenser:** 150 mm	N/A	**Coarse Focus:** 38 mm/rev **Fine Focus:** 0.2 mm/rev **Precision:** 0.002 mm	Fixed	**Working Area:** 250(X) x 160(Y)
12-575-251	Trinocular	4x, 10x Ph, 20x Ph	N/A			80/20% light split rate; 23 mm ID		Fixed	
12-575-252	Digital Binocular	4x, 10x Ph, 20x Ph	3MP CMOS, USB 2.0, 2048 x 1536 pixels			50/50% light split rate		Fixed	
12-563-518	Binocular	4x, 10x Ph, 20x Ph, 40x Ph	N/A			N/A		Mechanical	**Travel Range:** 80(X) x 160(Y)
12-563-519	Trinocular	4x, 10x Ph, 20x Ph, 40x Ph	N/A			80/20% light split rate; 23 mm ID		Mechanical	
12-563-520	Digital Binocular	4x, 10x Ph, 20x Ph, 40x Ph	3MP CMOS, USB 2.0, 2048 x 1536 pixels			50/50% light split rate		Mechanical	

Fisher Scientific Micromaster Inverted Microscopes

Redefining the standard for affordable quality



Micron USB2 Software *(included with models 12-575-252 and 12-563-520)*

Key Features

- Install quickly on your PC
- Easy and intuitive user interface
- Quickly switch display options
- Perform various calibrated, on-screen measurements
- Freeze, save, recall, print, and annotate images
- Live Overlay feature allows you to create your own graphic image template within the Micron application, and then overlay it onto a live image to use as an image comparitor or reference
- Auto-create feature automatically creates and measure areas that match a specified color range

Tools and Capabilities

Measurement Types	Annotation Functions	Other Tools	Display Options
» point-to-point » 3-point or 4-point angle » circle/ellipse » radius of circle » rectangle » polygon area **Units of Measurement:** » microns » millimeters » inches	» Freehand line » Arrow » Poly-line » Hollow or solid polygon » Text *all allow for customizing color and size*	» Cropping » Vertical/horizontal scale bars » Live overlay » Multi-window viewing » Auto-create areas by color	» 2048 x 1536 high-resolution » 1280 x 960 windowed mode » 3, 7, 15, or 30 frames per second

Micron USB 2.0 Requirements: PC with Pentium® III 1.0 GHz processor or higher; Windows® 2000 Service Pack 4 or better, Windows XP Service Pack 1 or better, Windows Vista, or Windows 7; One available USB 2.0 port; 256 MB RAM.

Parts and Accessories

Ordering Information

Eyepieces		Phase Contrast Accessories		Filters	
12-563-428*	Eyepiece, PL 10X/22mm FN, 30 mm dia. w/eyecup	**12-563-431***	Centering telescope, 30 mm diameter	**12-563-440***	Green, 45 mm diameter
12-563-430	Eyepiece, PL 15X/16mm FN, 30 mm dia. w/eyecup	**12-563-432***	Phase contrast annuli slider (for use with phase objectives)	**12-563-441***	Blue, 45 mm diameter
12-564-073*	Eyecup				
Stage Accessories		**Trinocular Accessories**		**Other Accessories**	
12-563-434**	Attachable mechanical stage, 120 mm(X) x 78 mm (Y)	**12-564-068**	Video adaptor, 0.5x, C-Mount	**12-564-071***	Lamp, halogen, 6V30W, G4, bi-pin base
12-563-435	Stage side extensions, 70(X) x 80(Y)	**AMPF-HTT3**	Vertical photo tube, 23 mm ID	**12-564-072***	Fuse, 3.15A, 250V
12-563-438	Glass stage plate (for fixed stage)			**12-564-145***	Dust cover
12-563-439	Metal stage plate (for fixed stage)				

See vessel holder details on next page.

Objective Specifications and Ordering Information

Objective Type	Catalog Number	Magnification	Numerical Aperture N.A.	Working Distance (mm)	Conjugate Distance (mm)	Parfocal Distance (mm)	Coverslip Thickness (mm)	Magnification Marker Color Ring
Infinity plan achromatic LWD	**12-563-420***	4x	0.10	22.0	∞	45	1.5	Red
	12-563-421	10x	0.25	7.94	∞	45	1.5	Yellow
	12-563-422	20x	0.40	7.66	∞	45	1.5	Light green
	12-563-423	40x	0.60	3.71	∞	45	1.5	Light blue
	12-563-424	60x	0.70	2.50	∞	45	1.5	Dark blue
Infinity plan achromatic phase contrast LWD	**12-563-425***	10x	0.25	7.94	∞	45	1.5	Yellow
	12-563-426*	20x	0.40	7.66	∞	45	1.5	Light green
	12-563-427**	40x	0.60	3.71	∞	45	1.5	Light blue

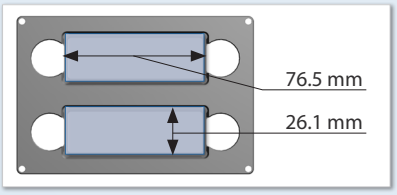
** Standard on all models* *** Standard on mechanical stage models only*

Fisher Scientific Micromaster Inverted Microscopes

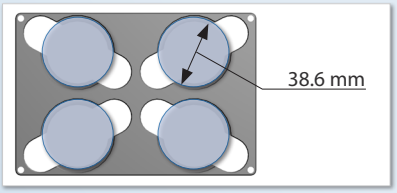
Ideally suited for education and research

Vessel Holders for Mechanical Stage

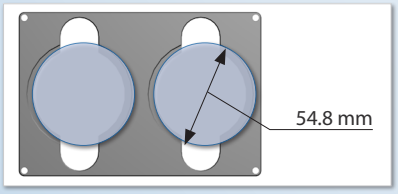
12-563-521
Holds two 25 mm x 75 mm standard microscope slides, chamber slides, etc.



12-563-522
Holds four 35 mm Petri dishes

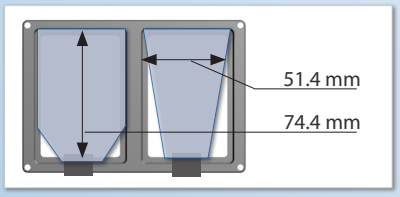


12-563-523
Holds two 60 mm Petri dishes

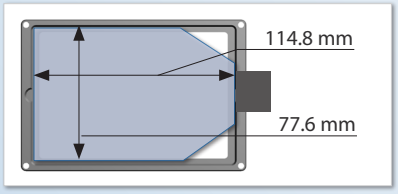


12-563-524
Holds one 100 mm Petri dish

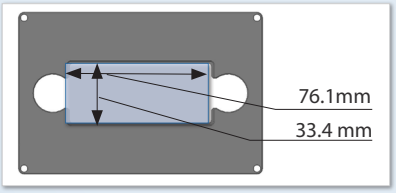
12-563-525
Holds two 25 cm^2 flasks; rectangular or triangular



12-563-526
Holds one Nunc T-75 flask; 75 cm^2



12-563-527
Holds one Hemocytometer



Vessel Holders Ordering Information			
Item Number	**Description**	**Item Number**	**Description**
12-563-521**	Holds two 25 mm x 75 mm slides	**12-563-525**	Holds two 25 cm^2 T-flasks (rectangular or triangular)
12-563-522**	Holds four 35 mm Petri dishes	**12-563-526**	Holds one 75 cm^2 Nunc T-75 flask
12-563-523	Holds two 60 mm Petri dishes	**12-563-527****	Holds one Hemocytometer
12-563-524	Holds one 100 mm Petri dish	*** Standard on mechanical stage models only*	

STEREOMASTER®

Fisher Scientific

Stereo Zoom Microscopes with All-Purpose Stands

Fisher Scientific Stereomaster Microscopes with All-Purpose Stands

Ideally suited for education and research

Optical Zoom Heads

Standard Zoom

Broad Range Zoom

Standard Zoom

Broad Range Zoom

BINOCULAR

Standard Zoom:

- Basic binocular 7x to 45x continuous zoom stereo head
- 6.4:1 zoom ratio
- Fluorescent/halogen illumination

Broad Range Zoom:

- Basic binocular 6.5x to 60x continuous zoom stereo head
- 9.2:1 zoom ratio
- Dual-halogen illumination

Standard and Broad Range Zoom:

- Dual, side-mounted magnification controls with clearly-marked values
- Dual diopter adjustment accommodates differences between each eye's focal length
- Interpupillary adjustment for individual user's eye spacing
- 10x, widefield eyepieces with eyecups

TRINOCULAR

Includes all binocular features plus:

- 23 mm photo port (attach your own camera)
- Switch easily between camera port and eyepieces
- Parfocality adjustment between camera and eyepieces

Digital Zoom Heads

DIGITAL/VIDEO with USB 1.1

Includes all binocular features plus:

- Integrated 640 x 480 camera
- USB 1.1, RCA, and optional LCD outputs for video signal
- USB 1.1 connects directly to PC for image capture
- Optional LCD screen

Micron USB 1.1 Software

- Take measurements: point-to-point, circle, radius, ellipse, rectangle, three or four point angle and polygon angle
- Annotate and mark up captured images with basic drawing functions

Note: *For digital head upgrade only (no stand), order part number 12-563-410.*

LCD VIDEO VIEW with USB 1.1

- 9.2:1 zoom ratio
- Supplemental turret allows for a magnification range between 2.5x to 100x
- Dual, side-mounted magnification controls with clearly-marked values
- Built-in neutral density filter
- 6.4" TFT LCD color display
- Integrated 640 x 480 camera
- USB 1.1 and BNC outputs for video signal
- BNC-to-BNC cable included
- USB 1.1 connects directly to PC for image capture
- Quick capture button

Micron USB 1.1 Software

- Take measurements: point-to-point, circle, radius, ellipse, rectangle, three or four point angle and polygon angle
- Annotate and mark up captured images with basic drawing functions

HIGH-RESOLUTION DIGITAL

- Supplemental turret (optional) allows for a magnification range between 5.5x to 175x
- High-resolution, 3-megapixel camera suitable for printed images
- Dual, side-mounted magnification controls with clearly marked values
- 8:1 broad-range zoom ratio; supplemental turret available to increase magnification
- USB 2.0 connects directly to PC for live image viewing and capturing

Micron USB 2.0 Software

- On-screen grid option and live image overlay

Note: *Micron USB 2.0 is compatible w/ Windows® XP, Vista and both 32- & 64-bit Windows® 7.*

Note: *Software is not cross-compatible between models.*

Specifications and Ordering Information

Model	Head Type	Zoom Range‡	Resolution	Field of view (FOV)	Working Distance	Zoom Ratio	Software	Stand Type
12-564-153	Binocular (Broad Range Zoom)	6.5x to 60x	25 µm – 4 µm	32.1 mm – 3.83 mm	100 mm	9.2:1	N/A	Dual-halogen
12-562-1	Binocular (Standard Zoom)	7x to 45x	25 µm – 3.80 µm	32.8 mm – 5.10 mm	93 mm	6.4:1	N/A	Fluorescent/Halogen
12-564-154	Trinocular (Broad Range Zoom)	6.5x to 60x	25 µm – 4 µm	32.1 mm – 3.83 mm	100 mm	9.2:1	N/A	Dual-halogen
12-562-2	Trinocular (Standard Zoom)	7x to 45x	25 µm – 3.80 µm	32.8 mm – 5.10 mm	93 mm	6.4:1	N/A	Fluorescent/Halogen
12-563-411	Binocular Digital/Video (640 x 480)	7x to 45x	25 µm – 3.80 µm	32.8 mm – 5.10 mm	93 mm	6.4:1	Micron USB 1.1	Fluorescent/Halogen
12-564-162	6.4" LCD Video View (640 x 480)	5x to 50x	100 µm – 12.5 µm	23 mm – 2.9 mm	95 mm	9.2:1	Micron USB 1.1	Dual-halogen
12-564-159	High-resolution Digital (3 MP)	11x to 88x	100 µm – 7.70 µm	27 mm – 3.35 mm	85 mm**	8:1	Micron USB 2.0	Dual-halogen

*‡Magnification Range calculated with 10x eyepieces. *Supplemental Turret not included. **With Supplemental Turret installed, working distance is 57 mm.*

Parts and Accessories

Supplemental Lenses

For use with optical zoom heads:

12-562-L1: 0.5x supplemental lens
12-562-L2: 1.5x supplemental lens
12-562-L3: 2x supplemental lens

For use with 12-564-159:

AMPS-ST3: 0.5x, 1x, & 2x supp. lens turret

Eyepieces / Reticles (for all models)

12-562-10EP: 10x wide FOV pair eyepieces
12-562-ER1: 10x, 5x5 mm grid, 1mm div
12-562-ER2: 10x, 10x10 mm grid, 1mm div
12-562-ER3: 10x, 20x20 mm grid, 2mm div
12-562-ER4: 10x, linear, 5 mm, 100 divisions
12-562-ER5: 10x, linear, 10 mm, 100 divisions

Accessories and Replacement Parts

12-561-SM1: Stage micrometer, 1 mm with 0.01 mm div‡
12-561-SM2: Stage micrometer, 0.04" with 0.001" div‡
12-561-SM3: Stage micrometer, 2 mm with 0.01 mm div‡
VCS-6T: Video calibration slide for Micron software
12-564-152: Polarizer/Analyzer filter set*
MA-DF100: Darkfield filter set*
12-564-142: 250V/500mA fuse*
MP-FS-AMPS1: 250V/1A fuse**
12-563-325: Halogen 6V/15W bulb*
MP-LG4-6V12W: Halogen 6V/12W bulb**
12-564-129: Fluorescent 35V/5W bulb, 4-pin*
12-564-140: Attachable LCD screen, 5.0"
12-564-141: Attachable LCD screen, 6.4"

**Use with Standard Zoom models only. **Use with Broad Range Zoom models only. ‡For NIST traceable stage micrometers, contact your Fisher Representative.*