

Stage Top[®] Incubator^{Pat,P}

Offering precision temperature, humidity and CO₂ control, the INU series make real-time Live Cell Imaging possible.





Focusing on Live Cell Imaging.

Stage Top[®] Incubator

Hela cell expression: Cell Cycle Indicator (Fucci)

Courtesy of Dr. Tetsushi Hoshida, Dr. Asako Sawano (Sakagami),
Dr. Atushi Miyawaki

Miyawaki Life Function Dynamics Project, ERATO

Japan Science and Technology Agency

(Laboratory for Cell Function Dynamics, Brain Science Institute, RIKEN)

3-4

Sample temperature feedback Type Cooling & Heating

Sample setting temperature: 20°C-40°C
For inverted microscopes

Temperature & Gas management software

Exclusive software Neco outputs temperature data and adjusts temperature and gas concentration by PC.

5-6

Sample temperature feedback Type Heating

Sample setting temperature: 30°C-40°C
For inverted microscopes

7-11

Standard Type Heating

Sample setting temperature: 37°C

For inverted microscopes

For upright microscopes

For stereo microscopes

12

Digital Gas Mixer

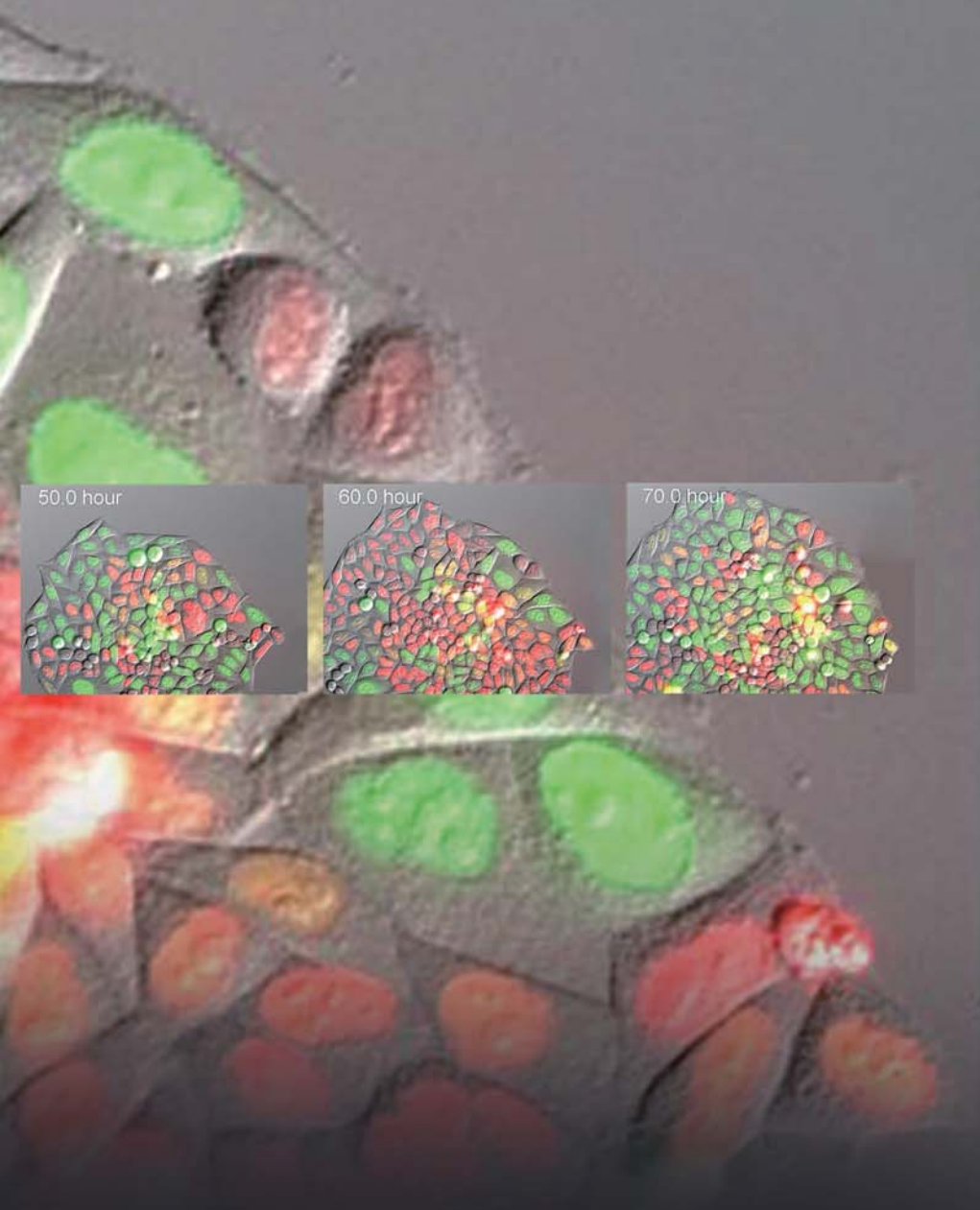
13-14

Option & Customization

Perfusion / injection

Thermometer

Other



TOKAI HIT Stage Top Incubator INU series Culture Results

attribute of cell	name	details	period
Cultured cell	STO	Embryo; fibroblast, mouse	5 days
Cultured cell	PC12	Pheochromocytoma; adrenal gland, rat (male)	5 days
Cultured cell	HeLa	Adenocarcinoma; cervix, human (female, 31 years)	5 days
Primary	Human Embryo	Human embryo in vitro: from fertilization to hatching blastocyst over 7 days	7 days
Primary	Neurons	Development of rat cerebral cortical neurons	4 days
Primary	Neural Stem Cells	Proliferation of neural stem cells of 14-day-old rat embryo	7 days
Primary	Neural Stem Cells	Differentiation of rat neural stem cells to neurons and glial cells	7 days
Primary	Hippocampal Neuron	E18 rat hippocampal neurons, cultured in CO ₂ incubator for the first day, followed by observation in INU up to five days	3 days
Primary	Cardiac Myocyte	Neonatal rat heart, fetal mouse (13 days embryo) heart, observation of heart beat synchronization	3 days

Sample temperature feedback Type

Cooling & Heating

Handles wide range of samples, cell culture, plants, fish etc.



- Optimal for time-lapse fluorescence observation on the level of 1 molecule.
- System keeps focus drift to a minimum from TIRF time-lapse imaging.
- Corresponds to TIRF objective 60x –100x.

■ Features

• For use with inverted microscopes

• Preset specimen temperature range 20°C-40°C

Long Working Distance / Dry lens: 15°C-40°C

Short Working Distance, oil/water immersion lens: 20°C-40°C

• Sample Temperature Feedback Control (Pat.P)

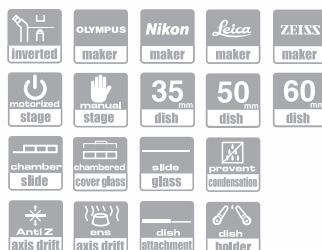
1. Allows precise specimen temperature adjustment. Possible to adjust sample temperature close to ambient. This system has both cooling and heating function and by automatically shifting the function, it allows stable and smooth ambient temperature control. NOTE: Under room temperature of 25.0 degree C \pm 2.0 degree C.
2. Determines optimal Stage Heater temperature Setting Value for room temperature during preliminary operation and incubates sample without inserting Sensor into a dish during operation.
3. Neco's exclusive software outputs sample temperature to PC.



• Wide range of applicable dishes

KRi SERIES

Versatile Incubator for motorized stages
160X110 mm insert type



Model

INUCP-KRi-F1 : With a gas flowmeter for premixed gas.

INUCP-KRi : Temperature regulation only (no gas function)

NOTE: Select optional Digital Gas Mixing System if application requires.

Component

Exclusive Chiller Unit : CBU



W:160XD:260XH:180 (mm)
(100-240V)

Temperature Control Unit



With a gas flowmeter for Premixed gas
(for premixed gas cylinder use)
W:175XD:260XH:280 (mm)
(100-240V)



With no gas supply function
(for use with external gas supplier or when no gas supply is required)
W:175XD:260XH:280 (mm)
(100-240V)

NOTE: Select optional Digital Gas Mixing System if application requires.

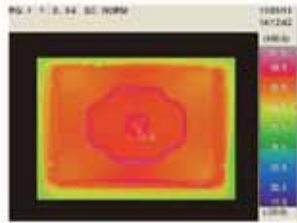
Courtesy of Dr. Kenji Nagai
Hokkaido University Imaging Center, Japan
Research Institute for Electronic Science

Hela fluorescent image:
Mitochondria visually characterized
with EGFP and cellular membrane by mCherry.

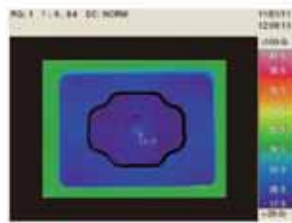
Temperature Distribution

Provides uniform temperature distribution during Heating & Cooling

NOTE: 35mm dish with 2ml water



Heating: 37°C



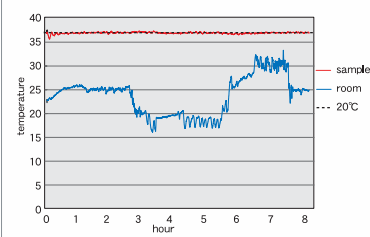
Cooling: 20°C

Evaluation of environmental disturbances

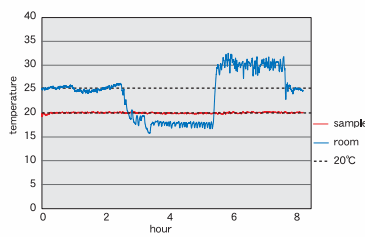
With Sample Feedback Control, it is stable against with temperature changes and keeps optimal temperature at all times

NOTE: 35mm dish with 3ml water

Sample temperature set at 37.0 degree C

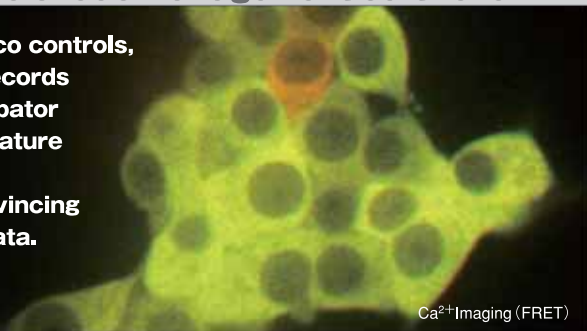


Sample temperature set at 20.0 degree C



Temperature & Gas management software

Using a PC, Neco controls, monitors and records Stage Top Incubator gas and temperature conditions. It provides convincing experimental data.



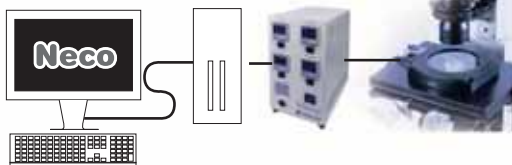
Ca²⁺ Imaging (FRET)

Neco

Enables to output and log the sample & Chamber Unit environmental temperature during time-lapse.

PC operating system requirement

- Windows 7 / Vista (32/64bit)
- Windows XP SP2 / SP3
- Interface: RS-232C



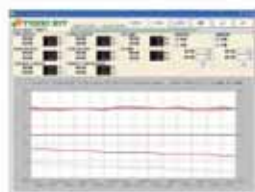
Temperature & Gas management

Neco allows to adjust temperature and gas concentration by PC.



Real time monitoring and logging

Display and record real time temperature and CO₂. Sampling data is saved in CSV file



Display channels

6 channels for temperature 2 channels for gas (CO₂ & O₂).

NOTE: To change, monitor and log gas concentration rate via PC, GM-4000A/E or GM-8000 are required with Neco System.

Options



Dish Attachment	Heating only	Cooling/Heating
For 35mm dish	: KRiH-D35	KRi-D35
For 35mm dish x 2pc	: KRiH-D35-2	KRi-D35-2
For 50/60mm dish	: KRiH-D56	KRi-D56
For chamber slide and slide glass	: KRiH-SC	KRi-SC
For chambered coverglass	: KRiH-CGC	KRi-CGC

NOTE:

1. One of Dish Attachment is included as standard feature. Select one from Cooling/Heating Dish Attachment line.
2. Cooling/Heating Dish Attachment has 22mm diameter opening for cooling effect and it has a heat insulating material at bottom.
3. Heating only Dish Attachment has 28mm diameter opening.

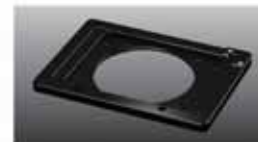


Exclusive Sensor Lid (with a sterilizable Feedback Sensor)

Sensor Lid for 35mm dish	: D35-200F
Sensor Lid for 50/60mm dish	: D56-200F
Sensor Lid for chamber slide	: CS-200F
Sensor Lid for chambered coverglass	: CGC-200F



Temperature Feedback Sensor (300mm)	: TSU-200F
Lead line (1500mm)	: HD1500



Stage Adapter for manual stage with round opening

For cross stage, rectangular stage	: MK-RA
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Digital Gas Mixer

GM-2000 A (110-120V)

GM-2000 E (220-240V)

For stable 5%CO₂ + 95% air mixed gas supply.

(for 100%CO₂ gas cylinder use)

W:160×D:300×H:200 (mm)



GM-4000 A (110-120V)

GM-4000 E (220-240V)

Adjustable CO₂ concentration and flow rate depending on application.

(for 100%CO₂ gas cylinder use)

W:160×D:300×H:200 (mm)



GM-8000

For low oxygen control

Adjustable CO₂ and O₂ concentration and flow rate depending on application.

(for 100%CO₂ and 100%N₂ gas cylinder use)

W:175×D:260×H:280 (mm)



Sample temperature feedback Type

Heating

■ Features

•Preset specimen temperature range: 30°C - 40°C

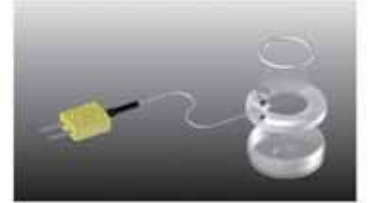
NOTE: Under room temperature 25.0°C± 2.0°C



Pic. WSKM Chamber Unit

•Sample Feedback Control (Pat.P)

- Feedbacks sample temperature during incubation via sterilized sensor.
- Regulates sample temperature between 30°C and 40°C.
- Determines optimal Top Heater temperature Setting Value for room temperature during preliminary operation and incubates sample without inserting Sensor into a dish during operation.
- Neco's exclusive software outputs sample temperature to PC.



•Temperature & Gas management software (Neco) included in the system

Neco

- Neco allows to adjust temperature and gas concentration by PC.
- Enables to display and log the sample & Chamber Unit environment temperature during time-lapse.

Refer Page 4 for Neco description.

•Wide range of applicable dishes

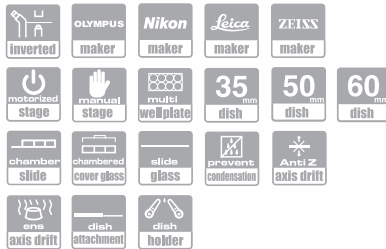
WSKM series can accommodate multi-well plates without Dish Attachment

WSKM

SERIES

Versatile Incubator for motorized stages
160X110 mm insert type

Applicable dishes: multi-well plate and small dishes
wide range of multi-well plate (6/12/24/48/96 wells) Other applicable small dishes can be accommodated by Dish Attachment. Full edge-to-edge objective travel across any well even with high magnification or short Working Distance objectives.



NOTE: For manual stages with round opening (φ110 / 108), use stage adapter: MK-RA. Ref. p4.

Model:

INUBG2ATFP-WSKM (110-120V)	: With built-in digital gas mixer
INUBG2ETFP-WSKM (220-240V)	
INUBTFP-WSKM-F1	: With a gas flowmeter for premixed gas
INUBTFP-WSKM	: Temperature regulation only (no gas function)



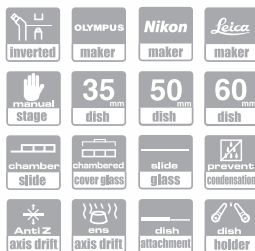
Dish Attachment

For 35mm dish	: UNIV2-D35
For 35mm dish x 2pc	: UNIV2-D35-2
For 50/60mm dish	: UNIV2-D56
For chamber slide, slide glass and chambered coverglass	: UNIV2-CSG

ONICS

SERIES

Olympus (IX series with cross stage)
Nikon (Ti/TE/TMD series with rectangular stage)
Leica (DMIRB/E with 3-plate mechanical stage)



Model:

INUBG2ASFP-ONICS (110-120V)	: With built-in digital gas mixer
INUBG2ESFP-ONICS (220-240V)	
INUBSFP-ONICS-F1	: With a gas flowmeter for premixed gas
INUBSFP-ONICS	: Temperature regulation only (no gas function)



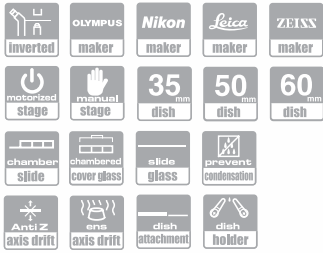
Dish Attachment

For 35mm dish	: UNIV-D35
For 35mm dish x 2pc	: UNIV-D35-2
For 50/60mm dish	: UNIV-D56
For chamber slide and slide glass	: UNIV-SC
For chambered coverglass	: UNIV-CGC

Human Embryo Development in vitro
Pictures courtesy of Dr.Nikica Zaninovic,
Dr.Richard Bodine and Dr.Lucinda Veeck Gosden,
Center for Reproductive Medicine and Infertility,
Weill Medical College of Cornell University,
New York, USA

ZILCS SERIES

Leica (DMI6000B, 4000B with 3-plate stage series)
Carl Zeiss (AxioObserver, Axiovert with K type frame)
Motorized stage (Prior, Ludl, Märzhäuser, ASI)



Model:

INUBG2ASFP-ZILCS (110-120V) : With built-in digital gas mixer
INUBG2ESFP-ZILCS (220-240V)

INUBSFP-ZILCS-F1 : With a gas flowmeter for premixed gas

INUBSFP-ZILCS : Temperature regulation only (no gas function)

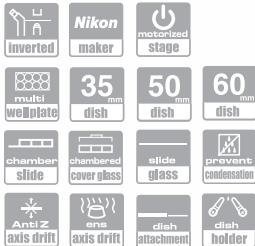
Dish Attachment

For 35mm dish	: UNIV-D35
For 35mm dish x 2pc	: UNIV-D35-2
For 50/60mm dish	: UNIV-D56
For chamber slide and slide glass	: UNIV-SC
For chambered coverglass	: UNIV-CGC

TIZW SERIES

Nikon (Ti with XY or Piezo stage)

Applicable dishes: multi-well plate and small dishes wide range of multi-well plate (6/12/24/48/96 wells) Other applicable small dishes can be accommodated by Dish Attachment. Full edge-to-edge objective travel across any well even with high magnification or short Working Distance objectives.



Model:

INUBG2ATW-TIZW (110-120V) : With built-in digital gas mixer
INUBG2ETW-TIZW (220-240V)

INUBTW-TIZW-F1 : With a gas flowmeter for premixed gas

INUBTW-TIZW : Temperature regulation only (no gas function)

Dish Attachment

For 35mm dish	: UNIV2-D35
For 35mm dish x 2pc	: UNIV2-D35-2
For 50/60mm dish	: UNIV2-D56
For chamber slide, slide glass and chambered coverglass	: UNIV2-CSG

PPZ13 SERIES

For Prior NZ250/500

Prior Nano Scan Z (NZ250/500)



Model:

INUBG2ATW-PPZ13 (110-120V) : With built-in digital gas mixer
INUBG2ETW-PPZ13 (220-240V)

INUBTW-PPZ13-F1 : With a gas flowmeter for premixed gas

INUBTW-PPZ13 : Temperature regulation only (no gas function)

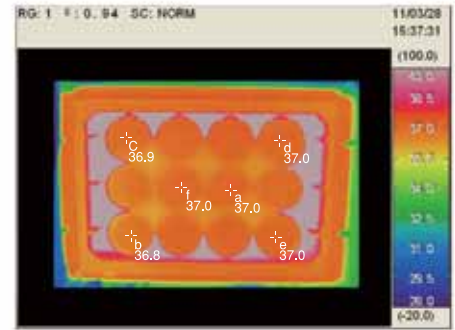
Dish Attachment

For 35mm dish	: UNIV2-D35
For 35mm dish x 2pc	: UNIV2-D35-2
For 50/60mm dish	: UNIV2-D56
For chamber slide, slide glass and chambered coverglass	: UNIV2-CSG

NOTE: 35mm Dish Attachment standard; others are available as optional purchase items

Temperature Distribution

Despite the number of wells, it maintains uniform temperature for each well



Control Unit

With built-in Digital gas Mixer (for 100%CO₂ cylinder use)

W:175XD:260XH:280 (mm)



With a flowmeter for premixed gas (for premixed gas cylinder use)

W:160XD:260XH:180 (mm)



With no gas supply function (temperature regulation only)

W:160XD:260XH:180 (mm)



Options



Exclusive Sensor Lid (with a sterilizable Feedback Sensor)

Sensor Lid for 35mm dish	: D35-200F
Sensor Lid for 50/60mm dish	: D56-200F
Sensor Lid for chamber slide	: CS-200F
Sensor Lid for chambered coverglass	: CGC-200F
Sensor Lid for multi-well plate	: W-200F



Temperature Feedback Sensor (300mm)	: TSU-200F
Lead line (1500mm)	: HD1500

Focusing on Live Cell Imaging ..

Standard Type Heating

Long-term stable Environment

INU series allow short/long duration tissue / cell incubation under the microscope.

Compact Design

The same condition as in a CO₂ incubator can be created in a compact body.

Focus Stability

Design to minimize Z-axis focus drift. Exceptional stable focus allows steady confocal imaging and time-lapse.

Clear Vision, Clear Image

Clear Glass Heater installed in Top Heater prevents condensation, allowing clear and continuous transmission of illumination and imaging.

Top Heater Protector

This device prevents Top Heater glass breakage.

Clear Vision Top Heater Clear Glass Heater



Clear Glass Heater in Top Heater prevents condensation buildup in top of Chamber Unit, allowing clear, continuous illumination transmission. Constant long and short-term/time-lapse image quality is the result.



Wide Range of Applicable Dishes

Adaptors are available for 35mm dish, 50/60mm dish, chamber slide, chambered cover glass and slide glass.

Water Bath

Water Bath holds sterile water to humidify the Chamber. The Bath Heater is embedded underneath the Water Bath, which maintains Chamber humidity optimally at all times.

Optimal Close-Up Objective Temperature Control Lens Heater

Ease of set-up and operation
Lens Heater optimizes objective temperature within 20 minutes and is especially effective for close-up heat control when using high-magnification lenses and oil/water immersion lenses. Lens Heater can be applied up to ϕ 40mm objectives.



Stage Heater

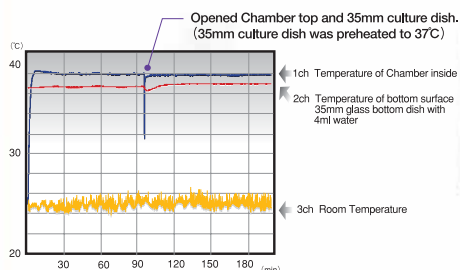
Anti-Z-Axis Drift Design and Accurate Temperature Control

The configuration of the Stage Heater is specifically designed to match the microscope stage to be installed. Tokai Hit's unique technology minimizes focus drift to provide optimal conditions for confocal applications and time-lapse/long-time imaging procedures. Features of INU provide the perfect solution to stable Live Cell imaging.

The above demonstrates INU-ONICS components. Other models for inverted/upright/stereo microscopes differ in configuration.

Temperature Stability of Dish Contents

After 90 minutes of preparatory operation, 35mm culture dish preheated to 37°C was set inside the INU series Chamber. Some impact from opening the Chamber and cooling of the dish can be observed, but stable conditions recovered within 20 minutes.



Regulating ideal incubation/ observation environment

Multiple temperature regulators control desired chamber temperature

PID control method regulates Top, Bath, Stage and Lens Heaters with precision. There are 3 different Control Unit available, with built-in Digital gas mixer, a flowmeter or temperature regulation only Control Unit.



With built-in Digital gas Mixer

(for 100%CO₂ cylinder use)



With a flowmeter for premixed gas

(for premixed gas cylinder use)



With no gas supply function (temperature regulation only)



For Inverted Microscopes (Standard Type)

ONICS SERIES

Olympus, Nikon, Leica Microscopes with standard manual stage Round insert type

Olympus (IX series with cross stage)
Nikon (Ti/TE/TMD series with rectangular stage)
Leica (DMIRB/E with 3-plate mechanical stage)



Dish Attachment

For 35mm dish	: UNIV-D35
For 35mm dish x 2pc	: UNIV-D35-2
For 50/60mm dish	: UNIV-D56
For chamber slide and slide glass	: UNIV-SC
For chambered coverglass	: UNIV-CGC

NOTE: 35mm Dish Attachment standard; others are available as optional purchase items
NOTE: ONIOR-BU adaptor is necessary for use with Leica DMIRB/E
Adaptor for DMIRB/E: ONIOR-BU

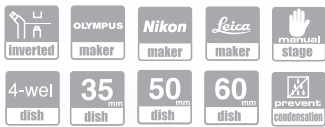
Model:

INUBG2A-ONICS (110-120V)	: With built-in digital gas mixer
INUBG2E-ONICS (220-240V)	
INUB-ONICS-F1	: With a gas flowmeter for premixed gas
INUB-ONICS	: Temperature regulation only (no gas function)

ONIVF SERIES

Stage Top Incubator for IVF For use with long working distance objectives

Olympus (IX series with cross stage)
Nikon (Ti/TE/TMD series with rectangular stage)
Leica (DMIRB/E with 3-plate mechanical stage)

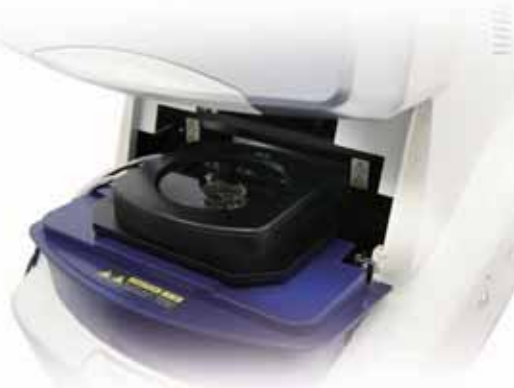
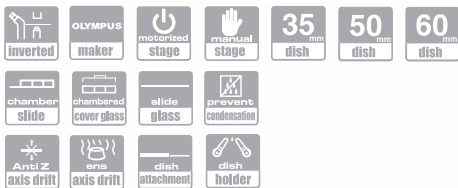


Model:

INULG2A-ONIVF (110-120V)	
INULG2E-ONIVF (220-240V)	: With built-in digital gas mixer
INUL-ONIVF-F1	: With a gas flowmeter for premixed gas
INUL-ONIVF	: Temperature regulation only (no gas function)

FSX SERIES

For Olympus FSX 100 and IX series with cross stage



Dish Attachment

For 35mm dish	: UNIV-D35
For 35mm dish x 2pc	: UNIV-D35-2
For 50/60mm dish	: UNIV-D56
For chamber slide and slide glass	: UNIV-SC
For chambered coverglass	: UNIV-CGC

NOTE: 35mm Dish Attachment standard; others are available as optional purchase items

Model:

INUBG2A-FSX (110-120V)	
INUBG2E-FSX (220-240V)	: With built-in digital gas mixer
INUB-FSX-F1	: With a gas flowmeter for premixed gas
INUB-FSX	: Temperature regulation only (no gas function)

FV10i SERIES

Exclusively designed for Olympus FV10i-DOC



Model:

INUBG2A-FV10i (110-120V)	
INUBG2E-FV10i (220-240V)	: With built-in digital gas mixer
INUB-FV10i-F1	: With a gas flowmeter for premixed gas
INUB-FV10i	: Temperature regulation only (no gas function)

For Inverted Microscopes

(Standard Type)

TIZ SERIES

Light-weight Chamber Unit supports precision movement of Piezo Z stage and motorized stage

Nikon Ti series with Piezo Z stage and XY motorized stage



Model:

INUG2A-TIZ (110-120V) : With built-in digital gas mixer
 INUG2E-TIZ (220-240V)

INU-TIZ-F1 : With a gas flowmeter for premixed gas

INU-TIZ : Temperature regulation only (no gas function)



TIZ Options



NOTE: 35mm dish attachment standard; others are available as optional purchase items



Dish Attachment

For 35mm dish	: UNIV2-D35
For 35mm dish x 2pc	: UNIV2-D35-2
For 50/60mm dish	: UNIV2-D56
For chamber slide, slide glass, and chambered coverglass	: UNIV2-CSG

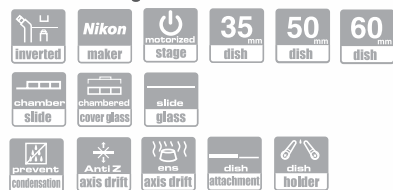
Ti Stage Adapter

TID-NA
 NOTE: Use stage adapter TID-NA when Piezo Z stage is not installed

TIZB SERIES

Large water capacity with light weight Chamber Unit for small dish applications for Nikon Ti

Nikon Ti series with Piezo Z stage and XY motorized stage



Model:

INUBG2A-TIZB (110-120V) : With built-in digital gas mixer
 INUBG2E-TIZB (220-240V)

INUB-TIZB-F1 : With a gas flowmeter for premixed gas

INUB-TIZB : Temperature regulation only (no gas function)



TIZB Options



NOTE: 35mm dish attachment standard; others are available as optional purchase items



Dish Attachment

For 35mm dish	: UNIV-D35
For 35mm dish x 2pc	: UNIV-D35-2
For 50/60mm dish	: UNIV-D56
For chamber slide and slide glass	: UNIV-SC
For chambered coverglass	: UNIV-CGC

Ti Stage Adapter

TID-NA
 NOTE: Use stage adapter TID-NA when Piezo Z stage is not installed

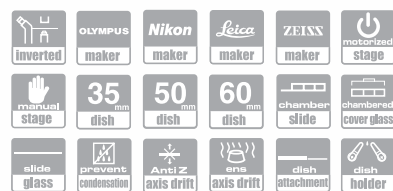
ZILCS SERIES

Leica, Zeiss and motorized stages 160mm x 110mm insert type

Motorized stage (Prior, Ludl, Märzhäuser, ASI)

Leica (DMI6000B, 4000B with 3-plate stage)

Carl Zeiss (AxioObserver, Axiovert with K type frame)



Model:

INUBG2A-ZILCS (110-120V) : With built-in digital gas mixer
 INUBG2E-ZILCS (220-240V)

INUB-ZILCS-F1 : With a gas flowmeter for premixed gas

INUB-ZILCS : Temperature regulation only (no gas function)



Dish Attachment

For 35mm dish	: UNIV-D35
For 35mm dish x 2pc	: UNIV-D35-2
For 50/60mm dish	: UNIV-D56
For chamber slide and slide glass	: UNIV-SC
For chambered coverglass	: UNIV-CGC

NOTE: 35mm Dish Attachment standard; others are available as optional purchase items

WELS SERIES

Compact as Multi-well Plate For microscopes with attachable XY stage of all makes To be installed in place of specimen holder



Model:

INUBG2A-WELS (110-120V) : With built-in digital gas mixer
 INUBG2E-WELS (220-240V)

INUB-WELS-F1 : With a gas flowmeter for premixed gas

INUB-WELS : Temperature regulation only (no gas function)



Dish Attachment

For 35mm dish	: UNIV-D35
For 35mm dish x 2pc	: UNIV-D35-2
For 50/60mm dish	: UNIV-D56
For chamber slide and slide glass	: UNIV-SC
For chambered coverglass	: UNIV-CGC

NOTE: 35mm Dish Attachment standard; others are available as optional purchase items



For Inverted Microscopes

(For Galvo / Piezo Driven Stage Confocal Application)

GSI SERIES

For Leica SP5 Super Z-Galvo Stage Weight less than 180g Compact, but wide range of applicable dishes



Model:

INUBG2A-GSI (110-120V)	: With built-in digital gas mixer
INUBG2E-GSI (220-240V)	
INUB-GSI-F1	: With a gas flowmeter for premixed gas
INUB-GSI	: Temperature regulation only (no gas function)



Dish Attachment

For 35mm dish	: GSI-D35
For 50mmdish	: GSI-D50
For chamber slide	: GSI-CS
For chambered cover glass	: GSI-CGC
For slide glass	: GSI-SG

NOTE: 35mm Dish Attachment standard; others are available as optional purchase items

PI SERIES

For Ludl and PI Piezo Stages Compact with wide range of applicable dishes

Ludl Piezo (99A600)
PI Piezo (P-737)



Model:

INUBG2A-PI (110-120V)	: With built-in digital gas mixer
INUBG2E-PI (220-240V)	
INUB-PI-F1	: With a gas flowmeter for premixed gas
INUB-PI	: Temperature regulation only (no gas function)



Dish Attachment

For 35mm dish	: PI-D35
For 50mmdish	: PI-D50
For chamber slide	: PI-CS
For chambered cover glass	: PI-CGC
For slide glass	: PI-SG

NOTE: 35mm Dish Attachment standard; others are available as optional purchase items

PPZI SERIES

For Prior, Andor and PI Piezo Stages Light and Compact, for use with 35mm, chamber slide, chambered coverglass and slide glass.

Prior Nano Scan Z (NZ100/200)
PI Piezo stage (P-545)
Andor Piezo stage



Model:

INUBG2A-PPZI (110-120V)	: With built-in digital gas mixer
INUBG2E-PPZI (220-240V)	
INUB-PPZI-F1	: With a gas flowmeter for premixed gas
INUB-PPZI	: Temperature regulation only (no gas function)



Stage Plate

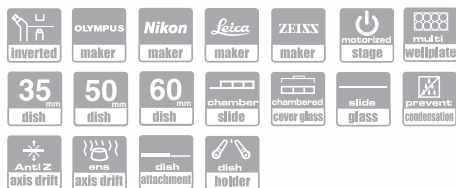
For 35mm dish	: PPZI-D35
For chamber slide and slide glass	: PPZI-SC
For chambered coverglass	: PPZI-CGC

NOTE: 35mm Dish Attachment standard; others are available as optional purchase items

PPZI2 SERIES

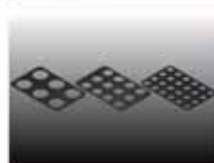
For Prior NZ250/500 Changing Stage Plate enable 6, 12 or 24 multi-well plates to be used. Other applicable small dishes can be accommodated by Dish Attachment

Prior Nano Scan Z (NZ250/500)



Model:

INUBG2A-PPZI2 (110-120V)	: With built-in digital gas mixer
INUBG2E-PPZI2 (220-240V)	
INUB-PPZI2-F1	: With a gas flowmeter for premixed gas
INUB-PPZI2	: Temperature regulation only (no gas function)



Stage Plate

For 6 well plate	: PPZI2-W6
For 12 well plate	: PPZI2-W12
For 24 well plate	: PPZI2-W24

NOTE: Stage Plates are options



Dish Attachment

For 35mm dish	: UNIV2-D35
For 35mm dish x 2pc	: UNIV2-D35-2
For 50/60mm dish	: UNIV2-D56
For chamber slide, slide glass and chambered coverglass	: UNIV2-CSG

NOTE: 35mm Dish Attachment standard; others are available as optional purchase items



For Stereo Microscopes

MS1/MS2

SERIES

Universal model for various microscopes of all makes

Combines with exclusive Stage Adapter. MS1/MS2 are applicable to high magnification observation as they have a slim design for use with short working-distance objectives and MS1/MS2 are also applicable to fluorescence observation



Model:

INULG2A-MS1 (110-120V)	: With built-in digital gas mixer
INULG2E-MS1 (220-240V)	
INUL-MS1-F1	: With a gas flowmeter for premixed gas
INUL-MS1	: Temperature regulation only (no gas function)



MS1

With Dish Holder, dish is fixed in one position.



MS2

With Dish Guide, dish is movable from outside for course position adjustment

For Olympus



MS-SZX2A

Microscope

- MVX10
- SZX16
- SZX10

Lighting installation

- SZX2-ILLB
- SZX2-ILLK
- SZX2-ILLD

MS-SZX2B

Microscope

- SZX16
- SZX10

Lighting installation

- SZX2-ILLT

MS-SZX

Microscope

- MVX10
- SZX12
- SZX9
- SZX7

Lighting installation

- SZX-ILLK
- SZX-ILLB2
- SZX-ILLD2

Model:

INULG2A-MS2 (110-120V)	: With built-in digital gas mixer
INULG2E-MS2 (220-240V)	
INUL-MS2-F1	: With a gas flowmeter for premixed gas
INUL-MS2	: Temperature regulation only (no gas function)

For Leica



MS-TL

Microscope

- MZ series
- M205C

Lighting installation

- TL-ST

For Nikon



MS-SMZ

Microscope

- SMZ series

Lighting installation

- C-DSS · C-DSDF
- C-DSD · C-DS
- C-BD

For ZEISS



MS-V12

Microscope

- V12 series



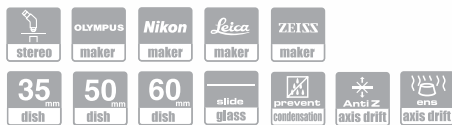
For Upright Microscopes

UK

SERIES

Universal design for upright microscopes

Applicable for 35mm/50mm/60mm dishes and slide glass



Model:

INUG2A-UK (110-120V)	: With built-in digital gas mixer
INUG2E-UK (220-240V)	
INU-UK-F1	: With a gas flowmeter for premixed gas
INU-UK	: Temperature regulation only (no gas function)



Dish Attachment

For 35mm dish	: UK-D35
For 50/60mm dish	: UK-D56
For slide glass	: UK-SG

NOTE: 35mm dish attachment standard; others are available as optional purchase items

Options



Lens Heater Adapter

This Adapter prevents gas, humidity and temperature leakage. Recommend to use suitable size for different objective

NOTE: One Lens Adapter standard; others are available as optional purchase items.



Bracket

For manual stage : UK-STD

For BX63 motorized stage Narishige stage : UK-FNS

NOTE: One Bracket standard

GSU

SERIES

For use with 35mm/50mm/60mm dishes and slide glass

Leica Galvo stage

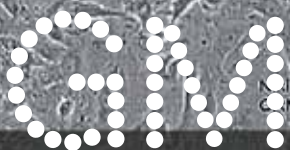


Model:

INUBG2A-GSU (110-120V)	: With built-in digital gas mixer
INUBG2E-GSU (220-240V)	
INUB-GSU-F1	: With a gas flowmeter for premixed gas
INUB-GSU	: Temperature regulation only (no gas function)



Digital Gas Mixer for Stage Top[®] Incubator
Select optional Digital Gas Mixing System if application require.



Nikica Zaninovic
 CRMI, CUWMC

Digital Gas Mixer

Nikica Zaninovic
 CRMI, CUWMC

Nikica Zaninovic
 CRMI, CUWMC

Nikica Zaninovic
 CRMI, CUWMC

Nikica Zaninovic
 CRMI, CUWMC

GM-8000

For Low Oxygen Control

Hypoxia

Hypoxic Pre-Conditioning

O₂ concentration: 1.0%-Atmospheric concentration
 CO₂ concentration: 2.5%-20.0%

Creates hypoxia and normal conditions with easy settings.
 Requires only CO₂ and N₂ cylinders, allowing safe, low oxygen environment



Basic performance specifications:

O ₂ concentration	: 1.0% - Atmospheric concentration
CO ₂ concentration	: 2.5% - 20.0%
Control method	: PID method
Air gas flow	: 0 -200ml/min
Power source	: AC100V - 240V
Maximum power consumption	: 100VA
Input gas type	: 100%CO ₂ : 100%N ₂
Input gas pressure	: 0.1MPa
Outside dimensions	: W175 x D260 x H280 (mm)
Weight	: 6.5kg

GM-4000A
GM-4000E

Adjustable CO₂ concentration and flow rate depending on application

CO₂ concentration: 2.5%-20.0%
 CO₂ flow rate : 50ml / min- 200ml / min



Basic performance specifications:

CO ₂ concentration	: 2.5% - 20.0%
Control method	: PID method
Gas flow	: 50 -200ml / min
Power source	: AC110V - 120V (GM-4000A) : AC220V - 240V (GM-4000E)
Maximum power consumption	: 100VA
Input gas type	: 100%CO ₂
Input gas pressure	: 0.1MPa
Outside dimensions	: W160 x D300 x H200 (mm)
Weight	: 5.7kg

GM-2000A
GM-2000E

For stable 5% CO₂ + 95%Air mixed gas supply



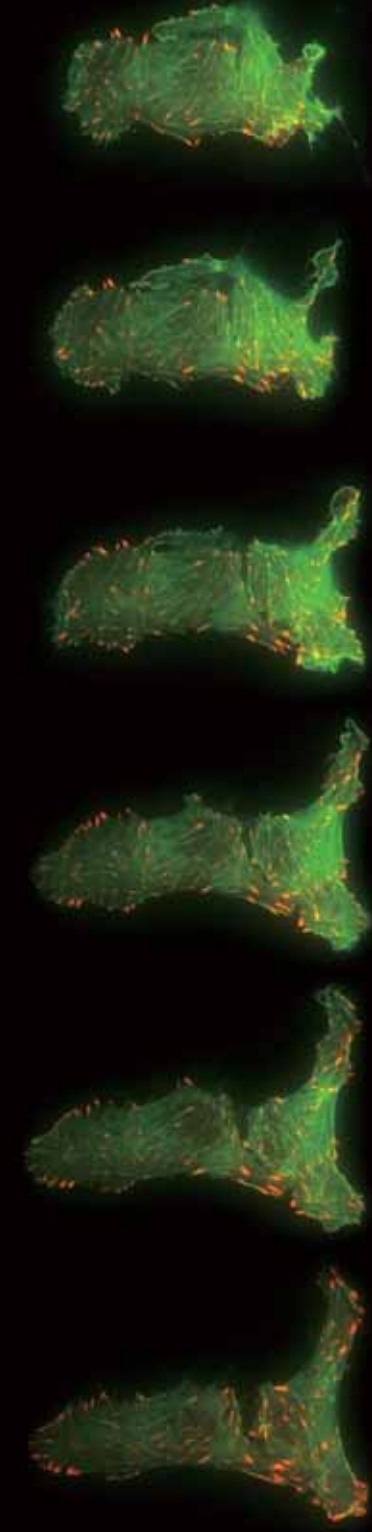
Basic performance specifications:

CO ₂ concentration	: 5.0% (fixed)
Control method	: PID method
Gas flow	: 160ml/min (fixed)
Power source	: AC110V - 120V (GM-2000A) : AC220V - 240V (GM-2000E)
Maximum power consumption	: 100VA
Input gas type	: 100%CO ₂
Input gas pressure	: 0.1MPa
Outside dimensions	: W160 x D300 x H200(mm)
Weight	: 4.8kg

Human ESC on mouse fibroblasts

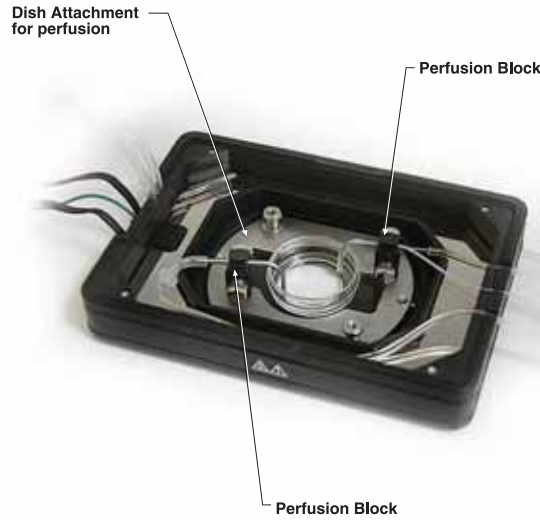
Nikica Zaninovic, MS PhD
 Assistant Professor
 Weill Cornell Medical College of Cornell University

+ Option & Customization



Perfusion application

Controlling media perfusion provides a more stable, optimal culture environment. When the Chamber Unit is customized with IN / OUT perfusion pipes, media perfusion is possible while maintaining the desired culture environment.



Dish Attachment for perfusion
Customized Dish Attachment with metal plate on top.
Exclusive Attachment
Model: KS- (chamber type) -D35

Perfusion Block
This block is fixed on the metal plate by magnet. (locate block anywhere on the plate)

Model:PSBD1H
Pipe fixing block with pipe (OD ϕ 1.1mm)



Model:PSBD2H
Pipe fixing block with pipe (OD ϕ 2.1mm)



TSU Digital Thermometer | Thermometer with Super Fine Sensor Probe-0.25mm diameter

Super-Fine Sensor Probe minimizes heat loss from subject (e.g.,specimen)
Probe also minimizes influence from ambient for accurate temperature measurement.

Digital Thermometer



TSU-0125
For K type thermocouple
Display with switchable resolution of 1°C or 0.1°C
With built-in flip-up stand.

Thermo Probes



TSU-7225:
Telescopic holder type
Telescopic holder - type probe mounted on microscope stage with micro-manipulator bracket enables stable,easy measurement of specimen, etc.



TSU-25:
Stand alone sensor type
Sensor wire is bendable so that sensor can be positioned in various shapes.

Stage Adapter



Model: TID-NA

For installing following Chamber Unit to Nikon XY motorized stage.

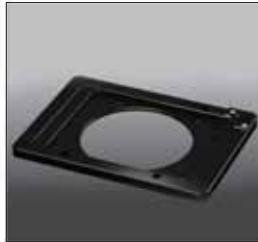
- TIZ series
- TIZB series
- TIZW series



Model: TID-ZILCS

For installing following Chamber Unit to Nikon XY motorized stage.

- WSKM series
- ZILCS series



Model: MK-RA

For installing following Chamber Unit to manual stage with round opening.

- KRi series
- WSKM series
- ZILCS series

Injection (access port on Top Heater)



Modified solution access port on the Top Heater allows drug administration without opening the Top Heater.

Clear Glass Lids

Clear Glass Lids for DIC
(can be used repeatedly under autoclave treatment)



For 35mm dish

Model:D35GF



For chamber slide

Model:CSGF



For chambered cover glass

Model:CGCGF

Exclusive Spacer for Greiner & Iwaki 35mm dish

Place this exclusive Spacer on the bottom of Greiner 35mm dish to prevent condensation on objective lenses.



Spacer for Iwaki

Model:35DI-BS



Spacer for Greiner

Model:35DG-BS

Clear Glass Heater type Stage Heater

(for use with low magnification, long working distance objectives)

Perforated metal heaters can be exchanged for Clear Glass Heater in the INU series. Clear Glass Heater allows the specimen to be heated from directly beneath. Together, these advantages create the optimal cell-culture environment for time-lapse / long - term imaging procedures.

Custom Orders

We provide INU customization (stage, dish type, etc) to match all kinds of viewing conditions.

Your Satisfaction is Our Mission.
We pay attention to your each and every word.
Whenever you require our assistance,
please feel free to contact us anytime.

www.tokaihit.com



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▲Please pay special attention to items marked with Caution and Warning symbols as seen on the left.
It is essential to read the Instruction Manual when using this device.