# OVENS &

INCUBATORS

Labwit range of laboratory incubators and drying ovens are made to the highest standard for exceptional quality, trusted for their consistency in delivering optimum performance and reliability in the lab.

Labwit's collection of incubators provide precisely controlled environment with wide variety of sizes and types, which literally are suitable for all purposes in a broad range of applications. The general purpose incubators are designed for general lab use and feature direct heating and water jacket models for optimized temperature uniformity across the inner chambers. The direct heating CO_2 incubator has been carefully engineered and proven to provide contamination free, reliable and easy-to-use environment conditions to protect the samples and optimize cell growth. Besides these, Labwit also offers incubators with cooling as well as humidity controlling functions, to extend the functionality of our proud product lines.

Moreover, Labwit drying ovens are available in two types, bottom heating and back heating models. Both types are designed for daily lab or industrial work, from drying sterilization applications to complex controlled heating applications.
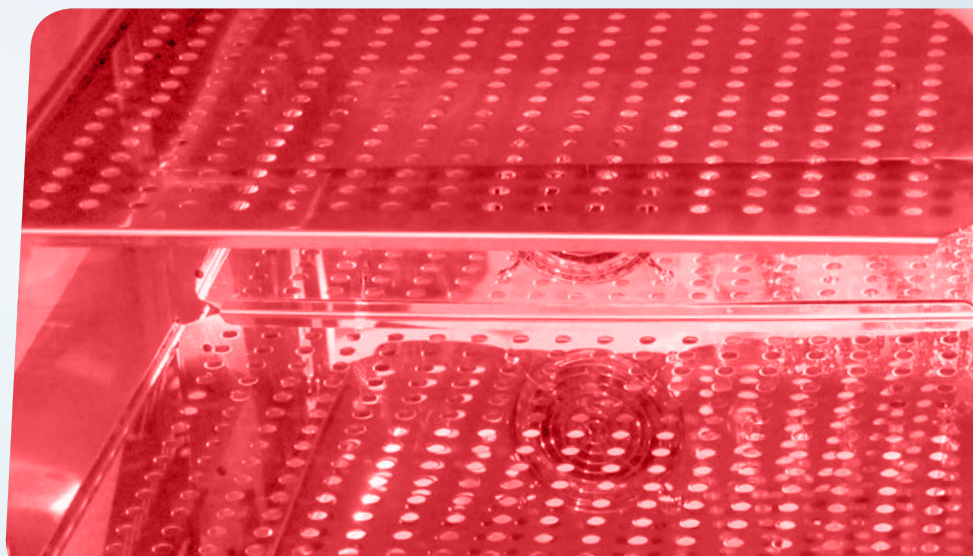
ZOCR-1150B
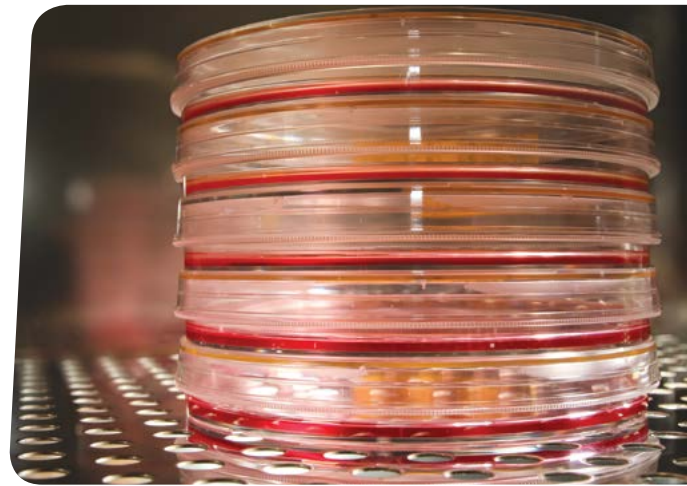
DIRECT HEATING
CO_2 Incubator

LABWIT ZOCR Series CO_2 Incubators have been carefully engineered and proven to provide clean, reliable and easy-to-use environment control to protect your samples and optimize cell growth.

In recent times, CO_2 incubators have become more commonplace in the laboratory for their ability to replicate the growth of mammalian cells and tissues for in vitro fertilization, animal research and the many clinical outcomes and fields of medical research. By controlling three essential variables of constant CO_2 level (%), temperature (°C), and relative humidity (RH%), CO_2 incubator can create a balanced and stable environment for cell to grow and thrive. As a result, a controlled pH level (7.1-7.4), controlled CO_2 level (5%), constant temperature (37°C), and high relative humidity (>95%) are well maintained from there.

Touch Screen Panel
Start your complete access and full control from your fingertips

Integrated
Comprehensive information available at your fingertips

User-friendly
Graphic user interface, easy to operate with icons and prompts

Intelligent
Self diagnostic alarm system monitors all functions and parameters and prompts the user in case of errors
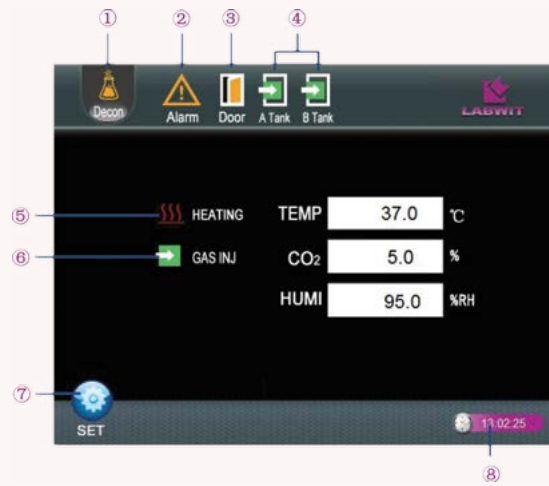
Touch Screen Panel

1. Decon
Start/ stop Decon Cycle

2. Alarm Indicator
Blinks when alarm occurs. Alarms (except for sensor failures) can be muted by pressing this icon, and may ring back in 5 minutes if alarm conditions still persist.

3. Door Ajar
Lights when door is opened.

4. CO_2 Tank Indicator
Lights when indicated CO_2 tank supply is in use
A Tank: Primary
B Tank: Secondary

5. Heating Indicator
Lights when heating elements are working

6. Gas Inject Indicator
Lights when CO_2 gas is injected.

7. Enter set menu

8. Clock display

Precise Parameter Controlling System
All-round cares about your cell growth

Direct Heating and Air Jacket System

The chamber design combines direct heating and air jacket elements resulting in efficient thermal isolation of the chamber, rapid temperature recovery and superior protection of samples from ambient temperature fluctuations. Multiple direct heating elements are mounted on each side of the chamber and are controlled independently by the microprocessor to provide outstanding temperature uniformity. One element in the external door and a second within the main unit and adjacent to the perimeter of the glass door, are controlled proportionally to eliminate any of condensation on the glass door.

The unique Air Jacket system creates isolations between insulation and ambient, thereby minimizing the impact of ambient temperature fluctuations on the working chamber, and maintaining more stable temperature control.
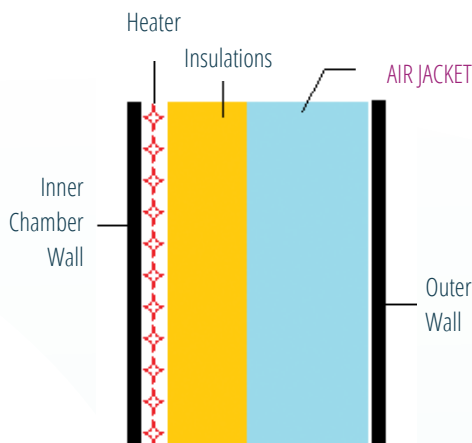
World Class Infrared (IR) CO2 Sensor

LABWIT incorporates a single beam, dual wavelength IR CO_2 sensor, providing the most accurate measurement of CO_2 concentrations available to the market. The superior performance and accuracy of the IR sensor are the most noticeable when applied to situations where temperature and humidity fluctuate rapidly, such as when the door is opened frequently.

IR sensor is located out of the chamber; meaning removal is not required when performing the high temperature decontamination cycle.

IR sensor is drift-free, auto-zero automatically adjusts baseline for optimum accuracy, no need to calibrate by the users.
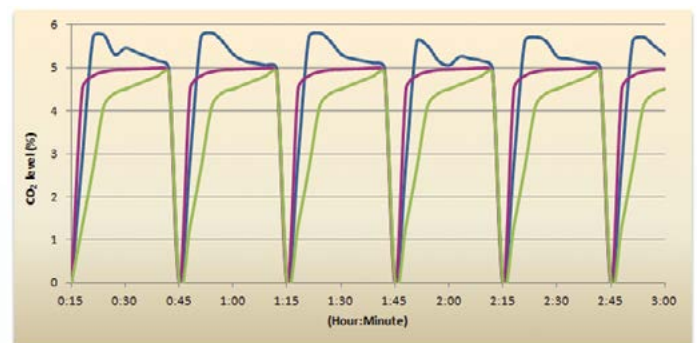
- Company A's Model: Slow recovery (Typical TC Sensor)
- Company B's Model: Overshoot
- LABWIT ZOCR Model: Fast Recovery, non-overshoot (IR Sensor)

Superior Contamination Controlling Features
Maximizing the safety for where your cells will be thriving

In-Line HEPA Filter
Protects cultures by removing potential contamination sources before CO_2 gas is injected into the chamber. In-line filter should be checked and replaced regularly.

Inner Chamber HEPA Filter
If door openings expose your culture samples to airborne particulates from your room, the inner chamber HEPA filter will dramatically improve air quality (up to 99.97% efficiency in capturing 0.3 micron particles), while maintaining the atmosphere of the still air culture environment avoiding high-speed airflow.

Seamless Chamber & Coved Corners
The entire inner chamber is made of high grade electro polished easy-to-clean stainless steel. All coved corners minimizes the unnecessary chamber surfaces where contaminants can hide.

140°C Decontamination Cycle
The ZOCR Series uses a time-te decontamination. The high temperature decontamination cycle uses 140°C dry heating cycles, effective and maintenance free method to ensure the contaminating agents are eradicated. Your incubator can be fully sterilized and ready for a new application after an 10-hour overnight, maintenance free Decon Cycle.
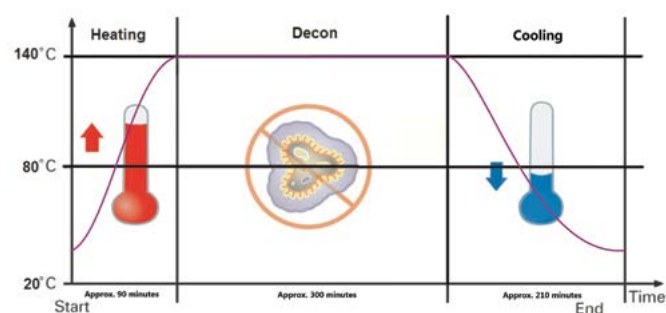
Safety Features

► Non-volatile memory guarantees data integrity in the event of power interruption.

► Over-temperature protections unit: alarms when temperature deviation is detected, and heaters are cut off when the temperature is overshot by 3°C.

► CO_2 deviation alarm protects the pH value of the culture media.

► CO_2 supply is interrupted upon door opening to avoid unnecessary gas waste.

► Audio and visual alarm reminds of low supply of CO2 gas.

► Alarms provide optimum protections over all sensor failures.

► Over-current and leakage protection.

► Password protection ensures the integrity of all programmable system settings.

► Lockable outdoor protects biohazard samples from unauthorized access.

► CO_2 tank backup system(Optional): integrated gas tank switcher allows the connection of two CO_2 gas supplies. When low gas supply in the primary tank is detected, the controller switches automatically to the secondary supply.

Order Information	
ZOCR-1150B	ZOCR-1150B, 150L, Premium DH CO_2 Incubator, IR Sensor, A+5-60, 0-20%
P4001	WiseKonect™ Data Connection Kit
P4002	Right Hinged Door
P4003	Built-in Printer
P4004	Gas Tank Backup Kit
P9033	Perforated Shelf Plate for ZOCR-1150B

Other Features

▶ Outer Door
Right or Left Hinge Reversible.
Heated for preventing condensations.

Lockable outer door protects your samples against unauthorized access, especially when biologically hazardous material is involved.

▶ Humidity Sensor
Ensures continuous monitoring over the humidity level, resolution of display: 1% Passive humidity read-out. Easy to dismantle for high temperature Decon Cycle.

▶ Stacking Locator
Corners are pressed for easy locating during stacking.

▶ Shelving
SUS304 electro-polished stainless steel. Anti-tip, easy to dismantle without tools. Perforated, for improving uniformity.

▶ Water Pan
Autoclavable stainless steel water pan heated by controlled base heater to manage humidity and assist humidity recovery.

▶ Access Port
Makes validation easy and provide the user convenience for connecting instrumentation. A rubber stopper is included as standard.

▶ Glass Inner Door
Tempered glass door allows observations without interference to the inner chamber environment.

WiseKonect™
A wireless data logging, alarming, monitoring system

LABWIT WiseKonect™ uses 2.4GHz ISM band, the most globally accepted unlicensed portion of the RF spectrum, to connect individual LABWIT equipments to PC for remote alarms control and monitoring over the its performance data.

Compared with RS-232 and RS-485 connections, 2.4GHz is a totally cable free connection, provides high speed, stable and interference free data transmission. Up to over hundreds of equipments may be interfaced to a single PC unit.
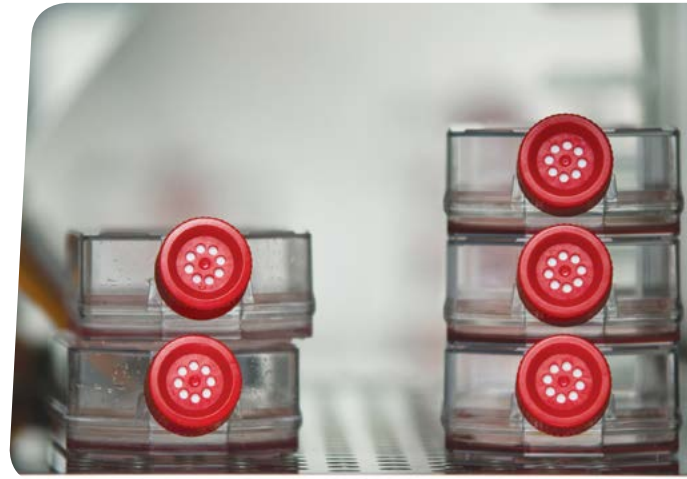
Model	ZOCR-1150B
	Temperature
Heating Mode	Direct Heat & Air Jacket
Control Method	P.I.D Microprocessor
Temperature Range (°C)	Ambient+5 to 60
Temperature Uniformity (°C)	≤±0.2 @37°C
Temperature Accuracy (°C)	≤±0.2
Ambient Temperature Range (°C)	10-35
	CO_2
CO_2 Control Method	P.I.D Microprocessor
CO_2 Range (% CO2)	0-20
CO_2 Accuracy (% CO2)	≤±0.2
CO_2 Sensor	IR, Single-Beam, Dual Wavelength, Auto-zeroing
	Humidity
Humidification Method	Water Pan
Humidity Range (RH)	Up to 95% @37°C
Humidity Display Resolution (RH)	1%
	Contamination Control
Contamination Control Methods	High Temperature 140°C Decon Cycle
	0.3 Micron In-line HEPA Filter for CO_2 Injection;Inner Chamber HEPA Filter
	Controlling system
Control Panel	5.6" TFT Touch Screen
Alarms	Low & Over temperature, Low & Over CO_2 Deviation, Door Ajar, Low Gas Supply, All Sensor Failures, Printer Failure
CO2 Tank Backup System	Option, with Low Gas Supply Alarm, Auto Switch
Printer	Option, Built-in
WiseKonectTM	Option
	Capacity
Internal Volume (L)	150
Internal Dimensions (WxDxH)(mm)	603x488x650
Exterior Dimensions (WxDxH)(mm)	720x710x930
Packing Dimensions (WxDxH)(mm)	840x830x1100
Net/Gross Weight (Kg)	120/140
Door Type	Left/Right Reversible
Number of Shelves (Std/Max)	3/6
Max. Load per Shelf (Kg)	10
Shelves Size (WxD) (mm)	530x400
Power (W)	220/240 Volt 50/60 Hz
Electricity	1200W
Approval	CE, ISO
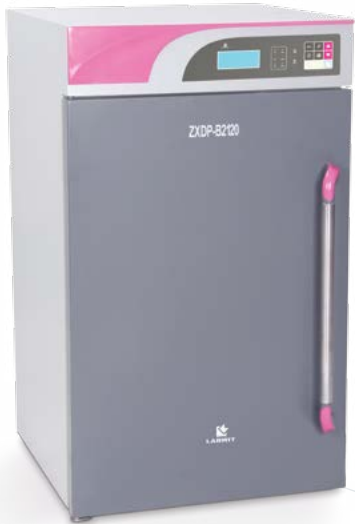
ZXDP-B2120

DIRECT HEATING
Incubators

ZXDP-series direct heating incubators offer an economical incubation method to a variety of micro-organism cultures. As a standard feature, all incubators have a high-tech microprocessor controller that maintains accurate temperature control (PID) of the chamber in the range of ambient +5°C to 65°C. With an accuracy of ±0.1°C, a user-friendly sealed control panel allows easy digital setting and fast readout of time and temperature as well as an alarm signal if there is a deviation from set point parameters. The processor of our incubators can store up to 9 programs-18 steps-into a non-volatile memory. Programs can be used for running multiple "ramp and soak" cycles up to 99 times. Of course the incubators can also be used as a constant (one) temperature incubator.

▶ P.I.D. microprocessor ensures the precision of temperature control under both fixed value mode and program mode.

▶ Fully programmable through the keyboard (9 programs/18 steps).

▶ Forced-air circulation provides uniformity of ±0.5°C@37°C.

▶ Audible and visible alarm on over temperature.

▶ Password protection against unauthorized access to all settings.

▶ Non-volatile memory retains preset parameters after an accidental power interruption.

▶ Large LCD display for easy parameters setting and fast readout.

▶ Inner glass door provides complete visibility to the chamber.

▶ Standard 2 grids included

Model	ZXDP-B2050	ZXDP-B2080	ZXDP- B2120	ZXDP-B2160	ZXDP-B2270
Heat Mode	Direct Heat (With Gentle Circulation)				
Volume (L)	50	80	120	160	270
Temperature	Ambient+ 5 to 65°C				
Temperature Accuracy	± 0.1°C.	± 0.1°C.	± 0.1°C.	± 0.1°C.	± 0.1°C.
Temperature Uniformity	±0.5°C@37°C	±0.5°C@37°C	±0.5°C@37°C	±0.5°C@37°C	±0.5°C@37°C
Alarm	Enabled	Enabled	Enabled	Enabled	Enabled
Timer	0-999 minutes	0-999 minutes	0-999 minutes	0-999 minutes	0-999 minutes
Setting	Digital	Digital	Digital	Digital	Digital
Display	LCD	LCD	LCD	LCD	LCD
Grid Included	2 (max 4)	2 (max 4)	2 (max 5)	2 (max 4)	2 (max 4)
Grid Size(mm) (WxD)	330x345	380x395	430x445	480x495	530x595
Distance Between Grids (mm)	80	100	110	130	160
Inner Dimensions (mm) (WxDxH)	350x350x410	400x400x500	450x450x600	500x500x650	600x550x820
Exterior Dimensions (mm) (WxDxH)	470x520x785	520x570x880	570x620x980	620x670x1030	740x740x1280
Packing Dimensions (mm) (WxDxH)	540x590x945	590x640x1040	640x690x1140	690x740x1190	810x810x1440
Net Weight (kg)	33/57	40/73	51/85	63/94	90/130
Power (W)	200	250	300	380	550
Electricity	220-240V 50/60 Hz				
Approval	CE, ISO				

Order Information

ZXDP-B2050	ZXDP-B2050,50L, Direct Heat Incubator, A+5-65°C	P9001	Grid Plate for ZXDP-B2050, S/S ※
ZXDP-B2080	ZXDP-B2080,80L, Direct Heat Incubator, A+5-65°C	P9002	Grid Plate for ZXDP-B2080, S/S
ZXDP-B2120	ZXDP-B2120,120L, Direct Heat Incubator, A+5-65°C	P9003	Grid Plate for ZXDP-B2120, S/S
ZXDP-B2160	ZXDP-B2160,160L, Direct Heat Incubator, A+5-65°C	P9004	Grid Plate for ZXDP-B2160, S/S
ZXDP-B2270	ZXDP-B2270,270L, Direct Heat Incubator, A+5-65°C	P9005	Grid Plate for ZXDP-B2270, S/S

※ S/S: Stainless Steel

WATER JACKET Incubators

ZXGP-B2160

ZXGP incubators offer an economical incubation method to a variety of micro-organism cultures with high uniformed temperature control. The processor of our incubators can store up to 9 programs-18 steps-into a "non-volatile" memory. Programs can be used for running multiple "ramp and soak" cycles up to 99 times. Of course the incubators can also be used as a constant (one) temperature incubator. With a triple wall construction and large volume of water, ZXGP-series water jacketed incubators provide unsurpassed temperature stability and protection against heat loss. The water jacket technology holds the temperature for extended periods of time, which is critical during power failures. Under test conditions, the temperature initially drops at only 1°C per hour, and just 8.5°C in 10 hours, by contrast, on most direct heating models, which comes with 3.4°C and more than 15°C dropping instead.

Model	ZXGP-B2050	ZXGP-B2080	ZXGP-B2160	ZXGP-B2270
Heat Mode	Water Jacket (With Gentle Circulation)			
Volume (L)	50	80	160	270
Temperature	Ambient+ 5 to 65°C			
Temperature Accuracy	± 0.1°C.	± 0.1°C.	± 0.1°C.	± 0.1°C.
Temperature Uniformity	±0.5°C@37°C	±0.5°C@37°C	±0.5°C@37°C	±0.5°C@37°C
Alarm	Enabled	Enabled	Enabled	Enabled
Timer	0-999 minutes	0-999 minutes	0-999 minutes	0-999 minutes
Setting	Digital	Digital	Digital	Digital
Display	LCD	LCD	LCD	LCD
Grid Included	2 (max 2)	2 (max 3)	2 (max 4)	2 (max 4)
Grid Size(mm) (WxD)	330x345	380x395	480x495	580×595
Distance Between Grids (mm)	125	110	126	150
Inner Dimensions (mm) (WxDxH)	350x350x410	400x400x500	500x500x650	600x600x750
Exterior Dimensions (mm) (WxDxH)	510x475x780	560x525x870	660x625x1020	760x725x1120
Packing Dimensions (mm) (WxDxH)	630x595x950	680x645x1040	780x745x1190	880x845x1290
Net/Gross Weight (kg)	35/57	45/69	78/105	115/145
Power (W)	520	640	1140	1740
Electricity	220-240V 50/60 Hz			
Approval	CE, ISO			

Order Information

ZXGP-B2050	ZXGP-B2050,50L, Water Jacket Incubator, A+5-65°C	P9006	Grid Plate for ZXGP-B2050, S/S
ZXGP-B2080	ZXGP-B2080,80L, Water Jacket Incubator, A+5-65°C	P9007	Grid Plate for ZXGP-B2080, S/S
ZXGP-B2160	ZXGP-B2160,160L, Water Jacket Incubator, A+5-65°C	P9008	Grid Plate for ZXGP-B2160, S/S
ZXGP-B2270	ZXGP-B2270,270L, Water Jacket Incubator, A+5-65°C	P9009	Grid Plate for ZXGP-B2270, S/S