



# Forensic Fingerprint Climate Chamber

for the development of fingerprints on porous surfaces, using Ninhydrin, DFO and Indandione

# Advantages at a glance

## **Pre-Programmed Treatment Cycles**

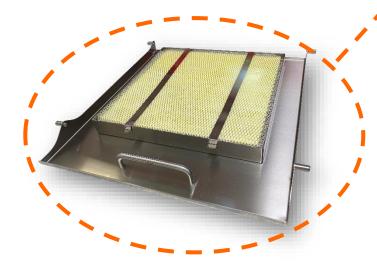
Ready-to-run cycles for Ninhydrin, DFO and Indandione ensure simple operation and consistently high quality evidence development. Parameters and timers can also be adjusted by a user to suit their needs, or cycles can be controlled entirely manually if desired.

## **Modular Shelving Concept**

The brackets on the inner walls of the chamber are designed for the use with both the easy-clean stainless steel metal grills and the hanging rods.

#### Air Filter and External Ventilation

In order to limit cross-contamination and simplify cleaning, a special air filter system has been integrated into the chamber to filter out residual chemical developer materials or small evidence particulates that may remain in the chamber after use. The chamber can also be upgraded to connect to an external ventilation system with processcontrolled air inflow and exhaust valves. Every chamber can be ordered with filters specifically for Ninhydrin, DFO, and Indandione, as well as a specialized air baffle to help prevent evidence movement if the chamber door is opened during a development process.



#### **UV-Decontamination Unit**

For easy elimination of DNA inside the chamber, a short wave UV decontamination unit can be installed in the chamber.

## **Water Supply and Drainage**

The chamber has an integrated reservoir for distilled water, as well as an automated condensation control system to remove excess moisture from the chamber. The condensed water tank and the reservoir are both monitored by the system and the touch screen display panel informs the users when the tanks need attention for drainage or refilling.



## Innovative Features

## Airflow and Anti-Condensation Screen

Heated air is guided via an interior glass screen on the door of the **NINcha**. This eliminates any condensation and ensures the user has a clear

view into the chamber.

Unlike many industrial climate chambers, the chamber does not use air outlets on the interior walls, and instead creates a homogenous gentle airstream throughout the entire chamber.

## Integrated Illumination

The development process must be easily observable with a forensic climate chamber. **NINcha** features both an innovative condensation screen and a large viewing panel in the door. In addition, the chamber has interior illumination on each shelving level that can be turned on as needed.

# **Touch Panel Display and Data Logger**

**NINcha** is microprocessor-controlled by the user via the integrated touch screen display. For ease of use, pre-programmed development cycles for Indandione, Ninhydrin, and DFO can be selected. If required, users can also easily alter the parameters and timer settings via a manual mode for customized cycle options. The USB data logger records all relevant process data onto a USB pen drive for improved quality control, documentation, and analysis with our included Excel-compatible data analysis software



## **Practical Shelving**

The brackets on the inner chamber walls of **NINcha** are built to support both the stainless steel metal grills and hanging rods for evidence. The grills are made with only two rungs, in order to keep cleaning simple. To support heavier evidence, hanging rods can be used in combination with the grills. An additional bracket at the top of the chamber allows access to the chamber's full height.

#### **Water Supply**

**NINcha** features an internal tank for the distilled water required for the humidification process. Condensed water produced by the process is collected in a removable container at the bottom of the chamber.



The *NINcha* series is a family of forensic climate chambers, focusing particularly on the development of **fingerprints on porous surfaces** after treatment with **Ninhydrin, DFO** or **Indandione**.

Evidence like this is usually treated with Ninhydrin, DFO or Indandione by bathing or spraying. Following this chemical treatment process, the samples need to be developed under highly specific temperature and humidity conditions for a set period of time for optimal fingerprint development results.

**NINcha** makes all of this possible, with a user-friendly climate chamber system, complete with a multilingual touch screen control panel, a USB data logger for quick recording and monitoring of processes, and a novel innovative air stream concept that circulates chemical developer evenly throughout the chamber while avoiding any evidence displacement. Additional features allow users to customize filter settings or use external ventilation systems, customize process settings, and minimize potential damage to evidence. These features both increase user safety and help preserve evidence and prevent evidence contamination.

Other climate chambers on the market operate in a similar fashion to *NINcha*, but unfortunately often neglect safety aspects and the ability to continuously monitor samples, both of which are extremely important for forensic equipment. *NINcha* is specially designed for forensic use, and built to meet the rigorous requirements of standardized forensic laboratories.

#### **Technical Data**

	NINcha S31	NINcha M31	NINcha L31
External Dimensions (HxWxD)	105 x 70 x60 cm (with adjustable legs)	185 x 70 x 60 cm (on castors)	205 x 70 x60 cm (on castors)
Internal Dimensions (HxWxD)	50 x 48 x48 cm	100 x 48 x48 cm	150 x 48 x48 cm
Levels	2 + additional top hanging level	4 + additional top hanging level	6 + additional top hanging level
Temperature Range		25°C¹ - 110° C	
Humidity Range	40 – 80% RH <sup>2</sup> (and humidifier OFF)		
Internal Illumination	2 lamps (one lamp per level)	4 lamps (one lamp per level)	6 lamps (one lamp per level)
Basic Configuration	/ Optional Feature	es	
Filter System LFD31/LFN31/LFI31	•/√/•	•/√/•	•/√/•
USB Datenlogger USB31	✓	✓	✓
UV-Dekontamination UVC-X1	•	•	•
Electrical Data			
Voltage:	230V/50Hz (or special <i>110-120V</i> <i>AC 50/60Hz model</i> )	230V/50 Hz (also works on 208-240V 50/60 Hz)	230V/50 Hz (also works on 208-240V 50/60 Hz)
Power Requirements:		max. 2.200 W	
Current:	ca. 10 A (on 230V AC)		
1 min tomporatur is ambient	temperature +approx.5°	√ included by de	fault

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(27.6") (23.6")

NINcha S31 is a desktop system with adjustable legs (above). An optional storage box BOX31 for any accessories not being used (below, left) is also available.

For each cabinet we offer a UV decontamination unit adapted in power output to the cabinet size (below, right, e.g. *UVC-X1* for *NINcha M31*).



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60 cm (23.6")

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