

Hybridization ovens are rapidly replacing hybridization bags and water baths for procedures involved in Southern, Northern and in situ hybridization. UVP's hybridization ovens provide accurate temperature and rotation speed controls plus variable bottle sizes and offset bottle positioning.

Precision heated and multifunctional hybridization ovens

The dynamic mixing capability is ideal for creating the optimum conditions needed for cDNA library screenings, primer synthesis and nucleic acid hybridization. The interior stainless steel construction is easy to clean. The range of models is designed to meet user or laboratory budgets.

HB-1000 Hybridizer

HB-1000 Hybridizer features fast heat-up capability. Units are stackable for maximizing laboratory workspace.



HB-1000 Hybridizer Hybridization Oven can be stacked to make the best use of laboratory space.

- Variable speed control (10 to 15 rpm) enables consistent saturation of samples for washing or hybridizing
- Large LED displays current temperature inside the chamber
- Rotary wheel can be removed and replaced with interchangeable rocker plate
- Protective tray is removable to allow easy cleanup of spilled media
- RPM knob is adjusts speed control of the rotary wheel for removal of samples
- Rotary wheel can hold twenty 35 x 150mm, ten 35 x 300mm bottles or combination
- Multiple bottle sizes, arrangements and off-set bottle positions

HL-2000 HybriLinker

HL-2000 HybriLinker Hybridization oven and UV crosslinker in one unit. The oven has the same features as the HB-1000.



HL-2000
Dimensions:
17.5W x 24H
x 15D in.
(445 x 610 x
381mm)

HL-1000 Dimensions:
17.5W x 16H x 15D in. (445 x 406 x 381mm)

The **HL-2000** HybriLinker™ Hybridization Oven combines a Hybridization oven *and* UV Crosslinker (254nm UV) in one unit. Hybridization Oven and Crosslinker operate independently.

Upper chamber features:

- Variable speed control
- Large LED display
- Stainless steel internal construction

Lower chamber (crosslinker) features:

- Shortwave 254nm, 8 watt, ultraviolet tubes

For accessories information, see p. 15

Ordering Information

| | |
|---|---|
| HB-1000 Hybridizer | 95-0030-01 (115V) 95-0030-02 (230V) |
| Temperature Range: | Ambient to 99.9°C |
| Heating Element: | 1250 Watts |
| Variable Speed: | 10 to 15 rpm |
| Bottle Capacity: | Twenty 35 x 150mm Ten 35 x 300mm Four 70 x 300mm* |
| HL-2000 HybriLinker | 95-0031-01 (115V) 95-0031-02 (230V) |
| Upper Chamber Oven: | |
| Temperature Range: | Ambient to 99.9°C |
| Heating Element: | 1250 Watts |
| Variable Speed: | 10 to 15 rpm |
| Bottle Capacity: | Twenty 35 x 150mm Ten 35 x 300mm Four 70 x 300mm* |
| Lower Chamber Crosslinker: | |
| UV Light Source: | 254nm UV |
| Rocker Tray (for HL-2000, HB-1000, HM-4000) | 98-0067-01 |

* Requires oversize bottle carousel kit. See p. 15 for part number.

- Preset and manual controls for ultraviolet or time exposures
- Microprocessor measures and controls UV output, ensuring maximum energy efficiency
- Large LED display continuously displays time or energy settings
- Window on the door allows viewing of the process yet blocks UV radiation

HM-4000 Multidizer

HM-4000 Multidizer Hybridization Oven is designed with two chambers offering a several motion functions: shaking, orbital rocking and rotating all in one unit.

- Two chambers operate independently and allow hybridization and blotting procedures requiring different containers, settings, motions or temperature controls
- Variable speed control in lower chamber (10 to 15 rpm) are the same as the HB-1000 and enable consistent saturation of samples
- Multiple bottle sizes, arrangements and off-set bottle positions

Upper chamber:

- Uses a roller action to operate the shaker tray (included) or optional orbital tray
- Shaker tray operates at 54 - 106 cycles/min.
- Carousel (acrylic) rotates at 10 - 20 rpm
- Orbital tray motion ranges from 1 - 30 rpm at 0°, 0.5°, or 1.0°



HM-4000 Multidizer Two compartments operate independently and offer a variety of motion functions - shake, rock, roll and rotate!

Dimensions:
17.5W x 28.5H x 15D in. (445 x 725 x 381mm)

Ordering Information

| | |
|---------------------------|--|
| HM-4000 Hybridizer | 95-0340-01 (115V) 95-0340-02 (230V) |
|---------------------------|--|

Upper Chamber

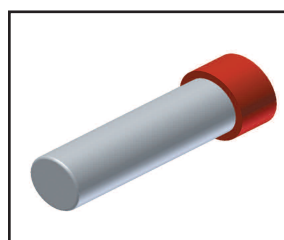
| | |
|-------------------------|----------------------|
| Temperature Range | Ambient to 80°C |
| Heating Element | 500 Watts |
| Shaker Tray Speed | 54 - 106 cycles/min. |
| Orbital Tray, motorized | 1 - 30 rpm |
| Carousel | 12 - 20 rpm |

Lower Chamber

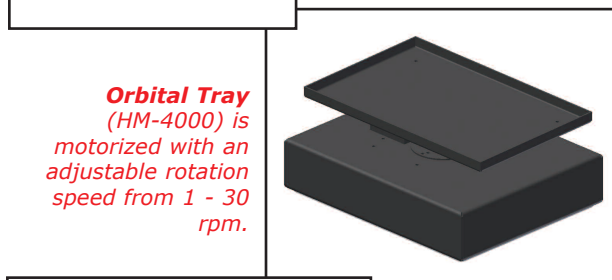
| | |
|-------------------|--|
| Temperature Range | Ambient to 99.9°C |
| Heating Element | 1250 Watts |
| Variable Speed | 10 - 15 rpm |
| Bottle Capacity | Twenty 35 x 150 mm Ten 35 x 300 mm Four 70 x 300 mm* |

Hybridization Oven Accessories

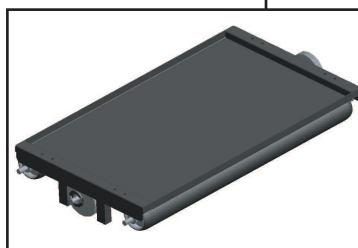
| | |
|--|------------|
| Bottle, small, 35 x 150mm | 07-0194-01 |
| Bottle, large, 35 x 300mm | 07-0194-02 |
| Rocker Tray (HM-4000 HL-2000 HB-1000) | 98-0067-03 |
| Rocker Tray (HM-4000 HL-2000 prior to October 2003) | 76-0053-01 |
| Dim.: 12.5W x 10D in. (318 x 254mm) | |
| Orbital Tray (HM-4000) | 98-0067-04 |
| Reciprocating Shaker Tray (HM-4000) | 98-0067-02 |
| 10W x 6D in. (254 x 152mm) | |
| Carousel, Acrylic (HM-4000 HC-3000) | 76-0089-01 |
| Carousel for 10 x 50ml conicals (HB-1000, HL-2000 HM-4000) | 76-0075-01 |
| Carousel Kit for 70 x 300mm bottles | 76-0066-01 |



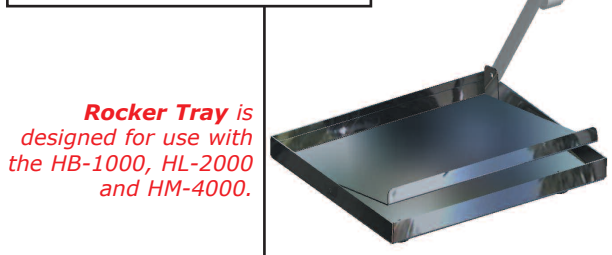
Hybridization bottles are made of lead-free borosilicate glass with polypropylene cap and teflon seal. Bottles have excellent long term reliability.



Orbital Tray (HM-4000) is motorized with an adjustable rotation speed from 1 - 30 rpm.



Reciprocating Shaker Tray operates at 54 to 106 cycles/minute.



Rocker Tray is designed for use with the HB-1000, HL-2000 and HM-4000.

* Requires oversize bottle carousel kit.

HB-500 Minidizer



HB-500 Minidizer
Compact and portable, this unit is designed for low throughput use.

Dimensions:
9H x 13W x 8D in.
(229 x 330 x 203mm)

The **HB-500** Minidizer™ is designed as a personal desktop unit ideal for use in laboratories with low use and space requirements.

- Rotation speed set at 12 rpm
- Temperature control from ambient to 80°C
- Chamber interior is stainless steel fabrication with a 3/8" thick β-blocking acrylic cover
- Cover swings open for easy access to the bottle carousel; the carousel pops out of chamber for easy insertion of bottles

Ordering Information

| | |
|-------------------------|--|
| HB-500 Minidizer | 95-0330-01 (115V) 95-0330-02 (230V) |
| Temperature Range: | Ambient to 80°C |
| Heating Element: | 500 Watts |
| Variable Speed: | 12 rpm |
| Bottle Capacity: | Four 35 x 150 mm or Eight 50 ml or Eight 15 ml |

UV Sterilizing Incubator

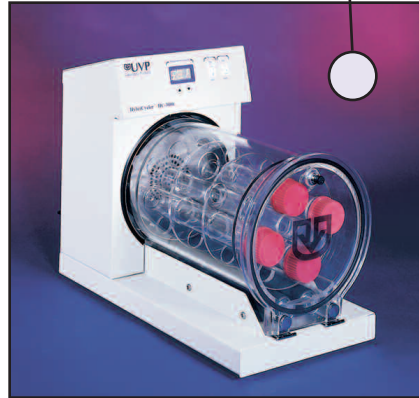


UV Incubator
Decontaminate the chamber between experiments with built-in short-wave ultraviolet.

Dimensions:
Volume: 0.95 cubic ft. (26.9 litres)
17.5W x 14.75D x 18H in. (445 x 375 x 457mm)

UV Sterilizing Incubator provides precise temperature control and uniformity throughout the chamber for incubation of biological assays, fungal, bacterial cultures, eggs and other biological samples.

HC-3000 HybriCycler



HC-3000 HybriCycler
Circular design creates optimal conditions for temperature uniformity and stability.

Dimensions:
16.2H x 10.5W x 20D in.
(411 x 267 x 508mm)

UVP's **HC-3000** HybriCycler™ Hybridization Oven is designed with a unique circular design creating optimal conditions for temperature uniformity and stability. The wrap-around 3/8" thick β-blocking acrylic chamber allows complete visibility of bottles without opening the door.

- Acrylic carousel rotates at 11 rpm
- Unique design allows spills to drip into a pull-out tray for easy cleaning
- The base and control panel housing are manufactured with scratch-resistant, powder-painted epoxy finish for easy cleaning

Ordering Information

| | |
|----------------------------|--|
| HC-3000 HybriCycler | 95-0329-01 (115V) 95-0329-02 (230V) |
| Temperature Range: | Ambient to 80°C |
| Heating Element: | 500 Watts |
| Variable Speed: | 11 rpm |
| Bottle Capacity: | Four 35 x 300 mm or Eight 35 x 150 mm or Eight 50 ml conical |

- Incubation applications are achieved using minimal benchtop space
- Microprocessor controlled temperature
- Heating element and fan generate uniform temperature throughout the chamber
- Overhead shortwave 254nm ultraviolet for sterilization of the chamber between experiments
- View samples without opening the door
- Two ventilated shelves included
- Temperature: 68°C maximum
Accuracy: +0.1°C
Uniformity: +0.5°C at 37°C

Ordering Information

| | |
|-------------------------------------|--|
| SI-950 UV Benchtop Incubator | 95-0358-01 (115V) 95-0358-02 (230V) |
| Replace. Tube, 8W, 254nm | 34-0007-01 |

UV Crosslinkers and Translinker

UV Crosslinkers

UVP Crosslinkers assure consistent UV output for many applications including DNA bonding and UV curing. UV crosslinking for attaching nucleic acids to a membrane for example, takes seconds as compared to oven baking. The crosslinkers utilize a microprocessor to control and measure the dose of UV radiation.



CL-1000 Crosslinker is an exposure instrument which uses shortwave UV energy to bond the DNA to a medium.

- Preset and manual controls for ultraviolet or time exposures
- Factory presettings deliver 120,000 microjoules or 5 minutes of exposure; maximum UV energy setting of 999,900 microjoules per cm²
- Microprocessor optimizes the use of energy while ensuring consistent, maximum energy efficiency and output
- Large LED display
- Window on the door allows viewing of the process yet blocks the UV radiation
- Five 8-watt ultraviolet tubes for uniform overhead ultraviolet illumination



Translinker An ultraviolet blocking cover is included with the transilluminator.



CX-2000 Features a pull-out drawer and shortwave UV. CX-2000 operates with the same functions as the CL-1000 with microprocessor controls.

CX-2000 Dimensions:
 Exterior: 15D x 17.5W x 9H in. (445 x 229 x 381mm)
 Interior: 11.25D x 11.5W in. (292 x 286mm)

CL-1000 Dimensions:
 Exterior: 13.7D x 15.6W x 8.75H in. (248 x 396 x 222mm)
 Interior: 12D x 10W x 5H in. (305 x 254 x 127mm)

| Ordering Information | |
|---|--|
| CL-1000 Crosslinker 254nm UV Replacement Tube | 95-0174-01 (115V) 95-0174-02 (230V) 34-0007-01 |
| CL-1000L Crosslinker 365nm UV Replacement Tube | 95-0228-01 (115V) 95-0228-02 (230V) 34-0006-01 |
| CL-1000M Crosslinker 302nm UV Replacement Tube | 95-0230-01 (115V) 95-0230-02 (230V) 34-0042-01 |
| CX-2000 Crosslinker 254nm UV Replacement Tube | 95-0339-01 (115V) 95-0339-02 (230V) 34-0007-01 |
| TL-2000 Translinker 254nm Crosslinker/ 302nm Transilluminator Filter Size 20x20cm Replacement Tube, 254nm Replacement Tube, 302nm | 95-0300-01 (115V) 95-0300-02 (230V) 34-0007-01 34-0042-01 |

TL-2000 Translinker

The TL-2000 Translinker components include the shortwave ultraviolet CL-1000 crosslinker and an M-20 transilluminator built onto the crosslinker cabinet.

- On/Off controls for the transilluminator are located on the Crosslinker panel
- The Transilluminator uses midrange 302nm UV

TL-2000 Dimensions:
 13.7D x 19W x 8.75H in. (348 x 483 x 222mm)
 Weight: 36 lb (16.4 kg)

UV Sterilizing PCR Workstations



HEPA/UV PCR Workstation features 3 stage filters, antimicrobial coated stainless steel and shortwave UV.

| Ordering Information | |
|--|---|
| HEPA/UV PCR Workstation | 95-0388-01 (115V) 95-0388-02 (230V) UK 95-0388-04 (230V) Euro |
| UV PCR Workstation | 95-0367-01 (115V) 95-0367-02 (230V) UK 95-0367-04 (230V) Euro |
| UV/Air Circulator Module | 97-0157-01 (115V) 97-0157-02 (230V) |
| Replacement Tube, 254nm, 25-Watt | 34-0073-01 |
| Replacement Tube, Fluorescent White, 15-Watt | 34-0087-01 |

Certifications: All UVP 115V models US/C Entela certified and 230V CE certified except where noted.

UV Intensity Measurements As UV tubes age, the intensity and germicidal destruction rate decreases. The lower the tube intensity, the longer the tubes must be illuminated to accomplish the same objective. Several UV intensity meters are available. See pages 35 and 36.

UV/Air Circulator Module

The optional UV/Air Circulator Module installs in the PCR Workstation to eliminate airborne microbes within the PCR hood during experiment processing without exposing samples.

- Easy to install, lightweight design
- Sterilized recirculated airflow
- UV sensor access port for measuring the ultraviolet intensity
- Easy access for UV tube replacement

HEPA/UV PCR Workstation

Filtered and sterilized air circulates from the HEPA/UV system into the PCR chamber via positive pressure laminar air flow with high/low settings. The workstation's acrylic panels are specially formulated to block UV wavelengths below 400nm.

- The HEPA/UV units features three filters
 - Pre-filter
 - Carbon-filter (for ozone elimination)
 - HEPA-filter
- HEPA duct features antimicrobial coated stainless steel that resists bacterial growth
- Side access with a slide out design make changing filters and UV tube easy
- Duct includes a shortwave (254nm) ultraviolet tube for eliminating airborne microbes
- A safety interlock switch is located on the filter access door and the acrylic door

UV PCR Workstations

Both the HEPA/UV and standard UV Sterilizing PCR Workstations feature:

- A 30-minute timer to decontaminate apparatus and chamber with the shortwave UV
- Control potential PCR contamination with the built-in high intensity shortwave (254nm) UV tubes for inactivation of DNA between experiments
- Easy-clean antimicrobial coating on the stainless steel resists bacteria growth
- A safety shut-off switch automatically turns the ultraviolet light off when the door is opened
- The hinged door flips up for easy access to the work area
- The workstation features 4 built-in power outlets



UV PCR Workstation Dimensions (assembly required):
32.5H x 29W x 24D in. (826 x 737 x 610mm)
Workspace: 27.8W x 21.5D in. (706 x 546mm)

HEPA/UV Workstation: 28W x 23.5H x 21.6D in. (711 x 597 x 549mm) Assembly required

UV/Air Circulator Module connects directly to the PCR workstation.



Dimensions:
26H x 7W x 4D in. (660 x 178 x 102mm)

Chromato-Vue® Viewing Cabinets provide a darkroom environment for viewing materials. A variety of cabinets are available for viewing minerals and for educational uses. Larger cabinets are designed for chromatography, NDT, and other applications.

High Performance UV Viewing Cabinets



C-75 Large UV Cabinet features shortwave and longwave plus interior white light.

Dimensions C-75:
 Interior: 17W x 14D x 6H in. (533 x 330 x 400mm)
 Exterior: 19.75W x 16.5D x 15.75H in. (602 x 419 x 400mm)
 Weight: 18 lb (8 kg)

C-70 and C-71 Cabinets

The C-70 and C-71 viewing cabinets feature a removeable bottom panel so the cabinet may be placed over large samples or a transilluminator. These cabinets are constructed of durable, light-weight plastic.

- The **C-70G** Chromato-Vue Cabinet includes two each of 15-watt shortwave (254nm) and longwave UV mounted on one side of the cabinet
- The **C-71** is similar to the C-70G, but has four 15-watt, longwave (365nm) UV tubes on one side of the unit
- Control switches are conveniently located for selecting either of the UV wavelengths or the interior overhead white light
- Easy access to the cabinet interior is via the curtain which also blocks ambient light
- The longwave provides brilliant fluorescence for applications such as non-destructive testing and document verification
- A soft rubber viewport includes a contrast control filter

Dimensions C-70G/C-71:
 Interior: 21W x 13D x 8H in. (432 x 356 x 127mm)
 Exterior: 23.4W x 15.8D x 13H in. (594 x 400 x 30mm)
 Weight: 22 lb (10.3 kg)

C-75 Cabinet

High intensity 15-watt shortwave (254nm) and longwave (365nm) UV tubes are positioned on two sides of the C-75 Chromato-Vue Cabinet providing overhead ultraviolet illumination for many applications including fluorescence studies and non-destructive testing.

- Power switches are conveniently placed for operating the UV and interior white light
- A lightweight curtain blocks exterior light from the cabinet interior
- Soft rubber viewport provides a comfortable viewing area with adequate space for glasses

Certifications: All 115V models US/C Entela certified and 230V CE certified except where noted.



C-70 UV Cabinet includes two each of 15-watt short-wave and longwave UV tubes mounted on one side of the cabinet; the **C-71** has four 15-watt longwave tubes

| Ordering Information | |
|---|-------------------|
| C-75 Large UV Viewing Cabinet 254/365nm UV | 95-0253-01 (115V) |
| | 95-0253-02 (230V) |
| C-70G Large Viewing Cabinet, 254/365nm UV | 95-0020-04 (115V) |
| | 95-0020-05 (230V) |
| C-71 Large Viewing Cabinet, 365nm UV | 95-0022-01 (115V) |
| | 95-0022-02 (230V) |
| Replacement Parts | |
| 15-watt tube, 365nm | 34-0009-02 |
| 15-watt tube, 254nm | 34-0008-01 |

Mini UV Viewing Cabinets

The mini Chromato-Vue® UV viewing cabinets are constructed with a metal base and plastic top. The C-15G cabinet includes a UV lamp. Lamps for other mini cabinets are ordered separately.

- The bottom panel of the cabinet is removeable
- The lamp fits snugly on top of the cabinet
- A contrast control filter absorbs UV energy and protect the eyes
- Soft rubber viewport provides a comfortable viewing area with space for eyeglasses
- Lightweight access curtain blocks out external light from the cabinet interior

C-10P Mini UV Cabinet accommodates the 6-watt Rechargeable Lamps which are excellent for field use applications (see page 24 for Rechargeable Lamps)



C-10E Mini UV Cabinet
Designed for use with the 4-watt EL Series Lamps (see pages 21 - 22).

C-15G Mini UV Cabinet
Combines the C-10 Cabinet with UVGL-58 multi-band shortwave/longwave lamp.



Cabinet Dimensions:
Interior: 9L x 10W x 7H in. (229 x 254 x 178mm)
Exterior: 9L x 10.5W x 12H in. (229 x 267 x 305mm)

Ordering Information

| | |
|--------------------------------|--|
| C-10 Mini Cabinet | 95-0072-01 |
| C-10P Portable Cabinet | 95-0072-02 |
| C-10E Mini Cabinet | 95-0072-08 |
| C-15G Cabinet with Lamp | 95-0072-06 (115V) 95-0072-07 (230V) |

Multifunctional UV Viewing Cabinets



C-65 UV Cabinet is designed to accommodate one or two of the EL Series 8-watt Lamps

C-65 Chromato-Vue Cabinet accommodate one or two EL Series 8-watt lamps (order separately, for additional lamps, see pp. 21, 22). Use of two lamps illuminates the cabinet's interior more uniformly from two sides of the cabinet.

- The bottom panel of the cabinet is removeable
- Includes an interior overhead white light

Dimensions C-65:
Int: 17L x 14W x 6H in. (533 x 330 x 400mm)
Ext: 19.75L x 16.5W x 15.75H in. (602 x 419 x 400mm)

EL Series eight-watt lamps are designed to be used with the C-65 cabinet or removed for handheld use.

- Lamps are manufactured with a durable, scratch-resistant metal housing
- Lamps include a universal plug, which connects directly to the C-65 Cabinet, plus a supplementary power cord to plug into a line current

Ordering Information

| | |
|---|--|
| C-65 Mid-Size UV Viewing Cabinet | 95-0257-01 (115V) 95-0257-02 (230V) |
|---|--|

Ordering Information - EL Lamps

| | |
|--|--|
| UVL-28 365nm/365nm | 95-0248-01 (115V) 95-0248-02 (230V) |
| UVM-28 302nm/302nm | 95-0250-01 (115V) 95-0250-02 (230V) |
| UVS-28 254nm/254nm | 95-0249-01 (115V) 95-0249-02 (230V) |
| UVLM-28 (2UV) 365nm/302nm | 95-0251-01 (115V) 95-0251-02 (230V) |
| UVLS-28 (2UV) 365nm/254nm | 95-0201-01 (115V) 95-0201-02 (230V) |
| UVLMS-38 (3UV) 365nm/302nm/254nm | 95-0252-01 (115V) 95-0252-02 (230V) |

Certifications: All UVP 115V models US/C Entela certified and 230V CE certified except where noted.