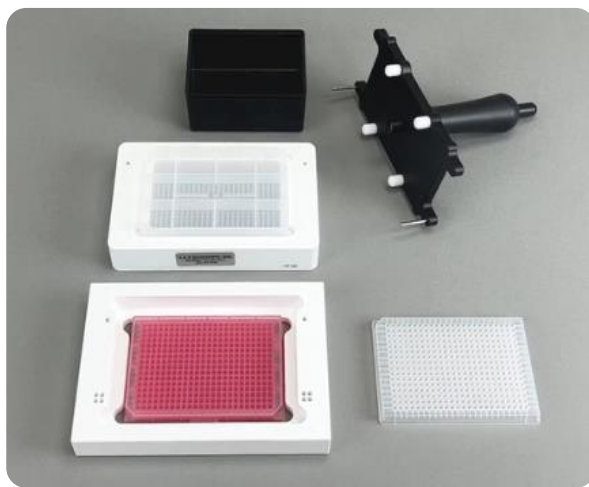
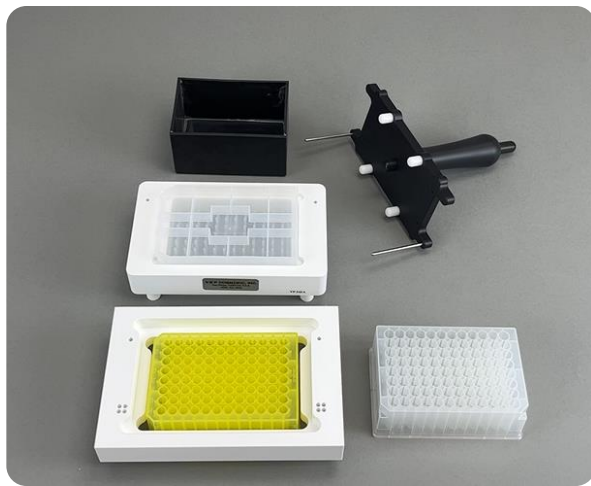
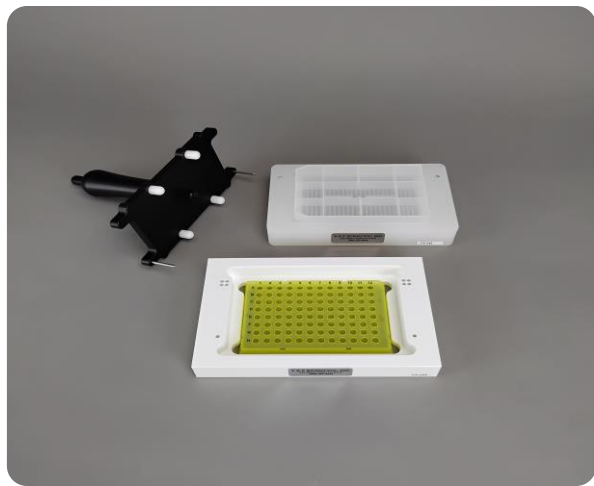


Disposable Pin Tool Operation



• Applicable Models	3
• Components	4
• Setup	5
• Operation	6-7
• Warranty	8

*****NOTE*****

PLEASE INSPECT ALL SHIPPING BOXES/ITEMS FOR DAMAGE BEFORE SETUP.
IF ANY ITEMS APPEAR TO HAVE SUSTAINED DAMAGE DURING SHIPMENT,
PLEASE STOP SETUP AND CONTACT US.

Applicable Models

SKU No.	Description
VP 240	MANUAL PIN TOOL ADAPTOR, pick up disposable standard height pin tools, short guide pins
VP 240A	MANUAL PIN TOOL ADAPTOR, pick up disposable deep well 96 pin tools, long guide pins
VP 242	LOADING JIG, for disposable standard well pin tools, manual version, made of heat-stable polypropylene
VP 242A	LOADING JIG, for disposable deep well pin tools, manual version, made of heat-stable polypropylene
VP 244	LIBRARY COPIER, for disposable standard well pin tools
VP 244A	LIBRARY COPIER, for disposable deep well pin tools

SKU No.	Description
VP 246	DISPOSABLE PIN TOOL, sterile, 96 well format, 12 mm long
VP 246-NS	DISPOSABLE PIN TOOL, non-sterile, 96 well format, 12 mm long
VP 246A	DISPOSABLE PIN TOOL, sterile, 96 deep well format, 24.7 mm long
VP 246A-NS	DISPOSABLE PIN TOOL, non-sterile, 96 deep well format, 24.7 mm long
VP 248	DISPOSABLE PIN TOOL, sterile, 384 well format, 12 mm long
VP 248-NS	DISPOSABLE PIN TOOL, non-sterile, 384 well format, 12 mm long

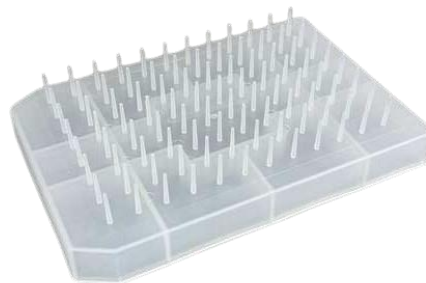
Footnote:

Our product offerings also include a system that allows for robotic use of Disposable Pin Tools. Please inquire about the Disposable Pin Tool Robotic Adapter **VP 240R**, Disposable Pin Tool Docking Station **VP 550D**, Disposable Pin Tool Ejector **VP 242R-1A**, and Robotic Mounting Plate.

Components



1. Disposable Pin Tool Adapter
(VP 240 or VP 240A)



2. Disposable Pin Tool
(VP 246, VP 246-NS, VP 246A,
VP 246A-NS, VP 248, VP 248-NS)



3. Loading Jig
(VP 242 or VP 242A)



4. Library Copier
(VP 244 or VP 244A)

Set Up

Disposable Pin Tool Assembly

Item Requirements: Adaptor (VP 240 | VP 240A), Loading Jig (VP 242 | VP 242A) and Disposable Pins, sterile/non-sterile (VP 246 | VP 246A | VP 248)

1. With the Pin Tool Loading Jig on a level surface place the Disposable Pin Tool in the nest of the Pin Tool Loading Jig. Hold the Manual Pin Tool Adaptor over the Loading Jig at a 45° angle and insert guide pins into the alignment holes one at a time.
2. Lower the Adaptor into the Disposable Pin Tool and press firmly down for attachment to the Disposable Pin Tool.
3. The Disposable Pin Tool is now ready for use.

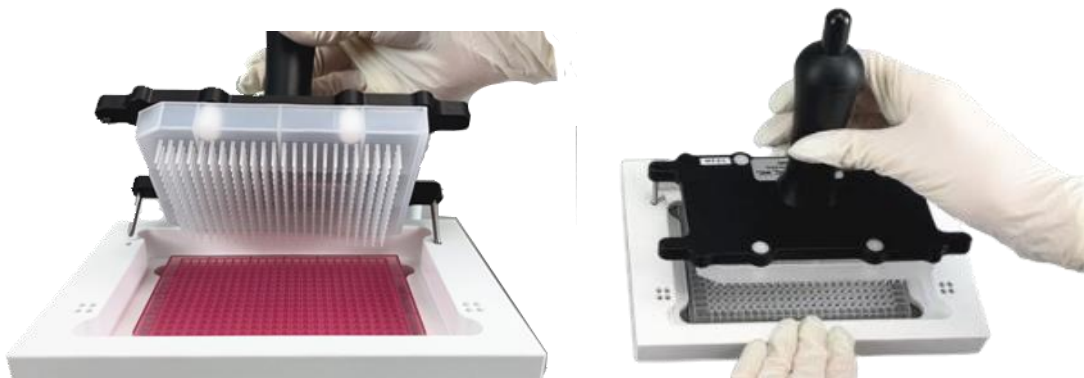


Transferring sample from one microplate to another

1. Place the Library Copier (VP 244 | VP 244A) over the source microplate. Align the **first** row of the microplate with the single alignment hole side of the device. Make sure the microplate is seated within the Library Copier so that it is properly registered.
 - Performing this operation with the Library Copier keeps the pins in the middle of the well and prevents hanging drops from being accidentally touched off.
 - Note: The **4-alignment hole side** of the Library Copier can be used to reformat four 96-well plates into one 384-well plate (see below right).



2. Hold the Disposable Pin Tool at a 45° angle to the registered source microplate. Tilt the Pin Tool at a 20° angle side to side. Then place the guide pins into the alignment holes, first one and then the other. Position the Pin Tool where the guide pins line up vertically to slide down the alignment holes and have the pins go into the wells.



3. Load the pins with liquid from the source microplate by moving them through the meniscus three times. To produce a uniform transfer, remove the pins on the final withdrawal at a slow, even speed.
 - **The speed of pins being removed from the wells on final withdrawal WILL affect the size of the hanging drops and the amount of liquid on the sides of the pin** (Faster = larger hanging drop | Slower = smaller hanging drop).
 - **Be consistent with the withdrawal speed for consistent volume transfer.** For more information on pin tools, please refer to our blog [How To Choose the Right Robot Pin Tool – Considerations](#)

Operation

- Transfer liquid on the pins to the recipient microplate also positioned in a Library Copier. Dip and raise the pins through the recipient liquid's meniscus 3 times. This rinses the sample from the pins and mixes it in the recipient liquid. If pins are being put back into the source microplate, blot the pins on lint-free paper (VP 522) to reduce carryover. Repeat steps 2-4 for each replicate microplate as needed.
- Press the **ejector button** on the Adapter to eject the Disposable Pin Tool once finished. Dispose of Pin Tool in a manner appropriate to the sample being transferred.



- Disinfect the Adapter and Library Copier by wiping with alcohol or bleach. Do not autoclave.

Warranty

V&P Scientific, Inc. warrants this product to be free from defects in material and workmanship when used under normal laboratory conditions for one year. This warranty begins from the date of delivery by V&P Scientific.

In the event this product fails under normal laboratory conditions within the specified period of time because of a defect in material or workmanship, V&P Scientific will, at its option, repair or replace the product. Damage to the product caused by user negligence is not covered.

This warranty is made in lieu of other warranties expressed or implied, including the warranties of merchantability and fitness for a particular purpose. V&P Scientific shall not be liable for loss or damages arising from the use of these products nor for consequential damages of any kind.

Please keep the special shipping carton in case the unit needs to be shipped back to V&P Scientific. Contact V&P Scientific for return authorization and shipping instructions or for any other assistance at 858-455-0643 or sales@vp-sci.com.