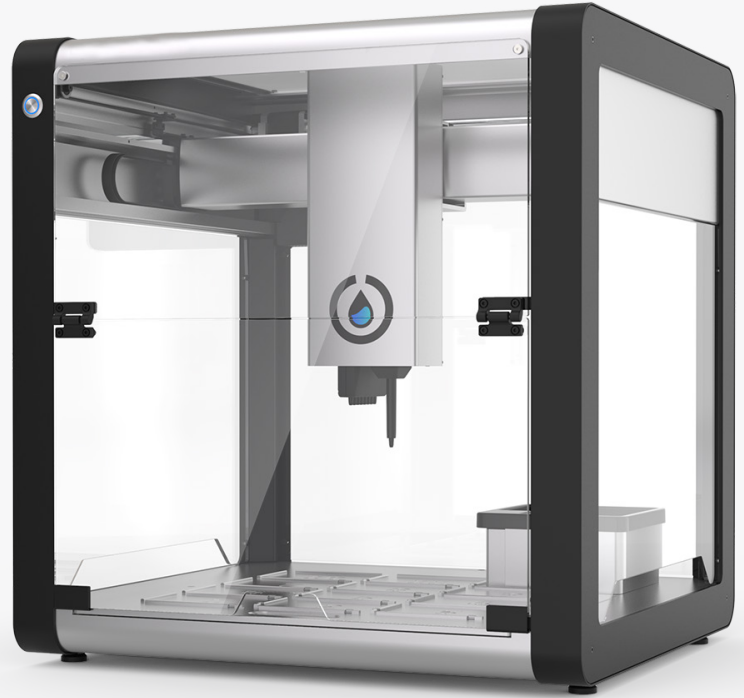




# PrepStation

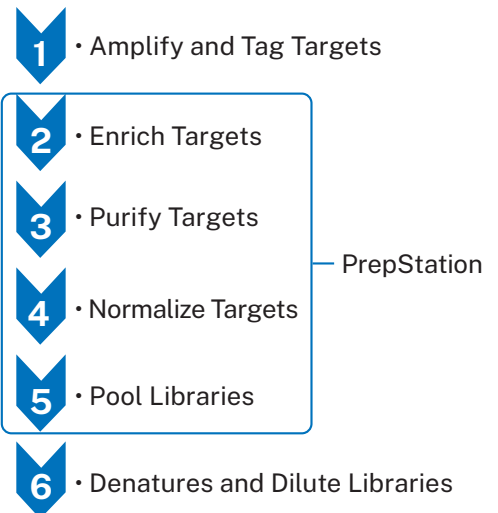
For automating generation of ForenSeq sequencing libraries from forensic DNA samples



Part number: 991-00210

Generate high-quality ForenSeq libraries while minimizing errors and hands-on time.

- **Reduced hands on time**  
Eliminate manual pipetting and bead-based cleanup
- **Growing suite of pre-programmed protocols**  
Qualified and supported ForenSeq workflows
- **Cost Effective**  
High-quality results across batch sizes



Steps in the ForenSeq workflow that are automated by the PrepStation.

## Introduction

Next generation sequencing (NGS) enables greater detection power and forensic insights, especially with samples that are degraded, limited or mixtures. The NGS workflow includes the preparation and sequencing of libraries that include small, targeted regions of the genome, such as STRs, SNPs, and mtDNA. Successful sequencing requires careful preparation of high-quality DNA, mtDNA or RNA libraries. Depending on the biomolecule and targets being sequenced, this can be a time-consuming and resource-intensive process. Automating the preparation of NGS libraries can help laboratories reproducibly generate high-quality data that maximizes the benefits of NGS. Automation can also increase the efficiency of the laboratory and help maintain turnaround times, despite expanding sample workloads.

The PrepStation is a high-precision liquid handler that includes preprogrammed protocols for a growing suite of ForenSeq® library preparation kits. Optimized for use with the MiSeq FGx® Sequencing System and the Universal Analysis Software, this integrated workflow provides cost-effective access for laboratories of all sizes considering automating NGS for forensic applications.

# Enable immediate assay implementation with plug and play setup and protocol access

The PrepStation has a user-friendly, graphical interface with access to an expanding selection of protocols across the library preparation portfolio.

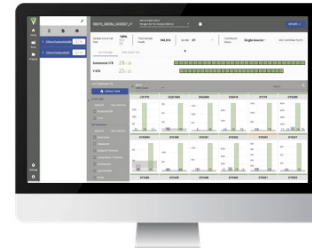
## Prepare



## Sequence



## Analyze



An Integrated end to end system, including the PrepStation, ForenSeq library prep kits, MiSeq FGx Sequencing System and Universal Analysis Software.

Configurable protocols allow users to modify key variables associated with the ForenSeq workflow using a simple web-form format as well as server-based script availability for labs that are not networked. Automating the ability to enrich targets, purify, normalize and pool libraries, in a single streamlined workflow enables laboratories to go from sample to ready-to-sequence libraries in one automated run.

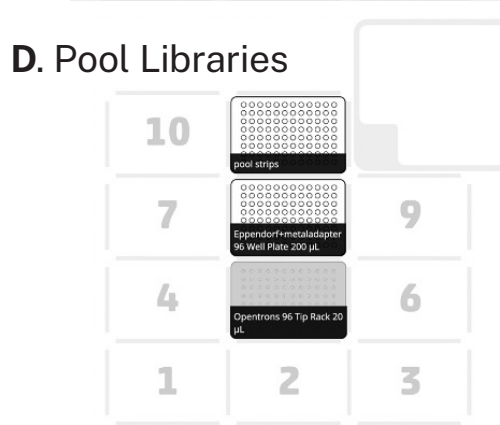
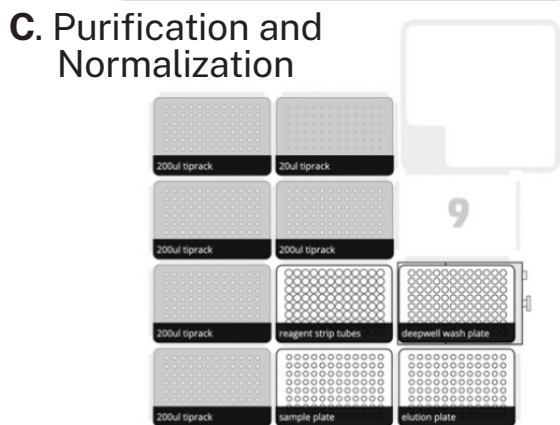
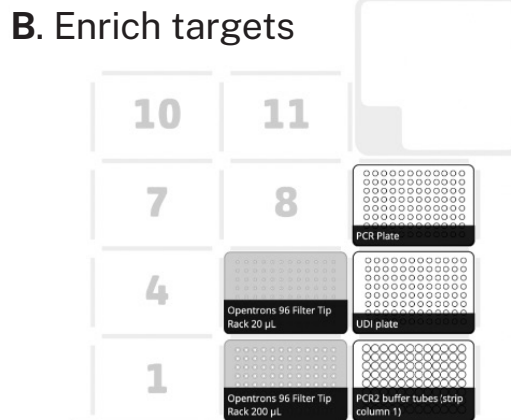
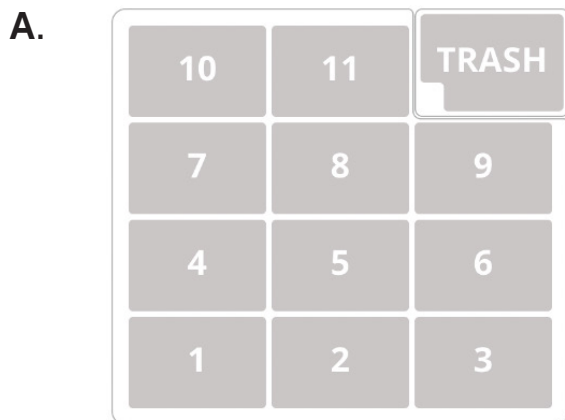
An 11-slot deck layout with that includes one designated deck for the Magnetic module and allocated location for labware waste maximizes the space on the automation platform. Validated labware set up and automation script compatibility across the target enrichment, magnetic purification, bead-based normalization and library pooling steps enables out-of-the-box operation of the PrepStation with ForenSeq sequencing workflows. LED indicators on the automation platform provide users with timely feedback, system diagnosis and troubleshooting aid on instrument power state, system processing, ethernet and network connectivity.

## Qualified methods for flexible batch sizes

Configurable protocols allow users to modify key variables associated with the ForenSeq workflow using a simple web-form format as well as server-based script availability for labs that are not networked. Automating the ability to enrich targets, purify, normalize and pool libraries, in a single streamlined workflow enables laboratories to go from sample to ready-to-sequence libraries in one automated run.

### Specifications

Dimensions	63 cm x 57 cm x 66 cm / 25 in x 22.5 in x 26 in (W,D,H)
Weight	40 kg or 88 lb
Compliance	Tested to UL 61010-1-safety standards CB certificate Complies with EU directives for low voltage, machinery, ROHS, EMC
Connectivity	WiFi 2.4 GHz IEEE 802.11b/g/n, USB 2.0
A/V	Integrated A/V
Remote Troubleshooting	Yes
Power Requirements	100-240 VAC / 50-60 Hz, 220 W MAX
USB Ports	4
Frame Composition	Rigid steel and CNC aluminum design
OS	Windows 10, macOS 10.10 or later, Ubuntu 12.04 or later
Pipette Configuration	(1) 8-Channel Pipette P20 GEN2 999-00005 (1) 8-Channel Pipette P300 GEN2 999-00006
Number of Deck Slots	11
Magnetic Module	Included



Validated deck layout: (A) Default deck (B) Layout for target enrichment step of the workflow (C) Layout for SPRI purification and bead-based normalization steps of the workflow (D) Layout for ForenSeq library pooling steps of the workflow

## Conclusion

The PrepStation increases operational efficiency by eliminating manual pipetting and reducing variability across runs. When used in conjunction with the MiSeq FGx Sequencing System and the Universal Analysis Software, it facilitates confident adoption of NGS.

## Compatible Workflows

Assay	Script validated/available
ForenSeq MainstAY Kit	Validated and available
ForenSeq MainstAY SE Kit	Validated and available
ForenSeq Imagen Kit	Validated and available
ForenSeq Kintelligence Kit	Validated and available
ForenSeq Kintelligence HT Kit	In development
ForenSeq mtDNA Whole Genome Kit	In development
ForenSeq mtDNA Control Region Kit	In development
ForenSeq DNA Signature Prep Kit	In development