

# Nexera UHPLC series

The First AI-enabled and IoT-driven Analytical Instrument



ANALYTICAL  
INTELLIGENCE

## **ANALYTICAL INTELLIGENCE**

*[an·a·lyt·i·cal in-tel-i-juhns]*

A smart analytical platform that incorporates artificial intelligence (AI), IoT and machine learning algorithms with advanced monitoring, self-diagnostics and auto-recovery capabilities.

---

The Nexera series uses new and exciting technologies to help you increase throughput, improve accuracy and protect valuable columns. Shimadzu is delivering what you need for continued success. Not just artificial intelligence — Analytical Intelligence.

The Nexera series provides the data you need to ensure fast, reliable results. What makes the system so powerful is its ability to extract insights from all instrumentation within your lab, rather than monitoring just one instrument. The Analytical Intelligence engine is able to detect and resolve critical issues automatically, providing a new level of UHPLC performance.

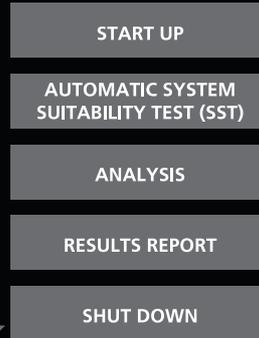
# Completely Automated Analytical Workflow

The Nexera series is designed to perform Auto-Diagnostic and Auto-Recovery without operator intervention. It can complete auto-purge, equilibrium and baseline checks before analysis.

This intelligent system startup eliminates manual steps, reducing the potential for error, improving consistency and decreasing turnaround times.



ONE CLICK AUTOMATIC PROCESS



## SST: Auto-purge

- Standard injection
- Result evaluation

**SST Passed:** New Batch Begins  
**SST Failed:** Standby Mode

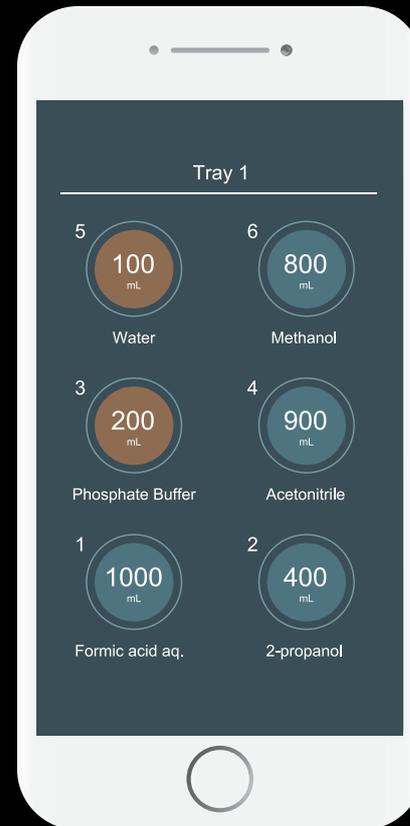
Screenshot of SST

# Advanced Real-Time Mobile Phase Monitoring

Making sure you have sufficient mobile phase in the system before batch analysis is critical to keeping your lab running smoothly.

Shimadzu's Nexera series enables real-time monitoring of mobile phase levels to ensure maximum uptime. The instrument monitors solvents gravimetrically and notifies lab personnel if there isn't enough mobile phase to complete the batch run. Levels for mobile phase or autosampler rinse solution may be monitored in up to twelve containers.

The containers can also be checked remotely from a smart device (PC/iOS/Android). If the mobile phase is running low, the system will notify you before starting the batch. This can make a big difference in how you conduct the analysis. You can respond quickly in order to minimize the risk of downtime and wasted samples.





# Auto-Diagnostic/ Auto-Recovery

To ensure maximum accuracy and repeatability, the Nexera series enables rapid and reliable detection of many flow anomalies. It then takes automated steps to attempt to correct the problem and recover to a workable condition.

When the Analytical Intelligence engine in the Nexera series detects an unusual fluctuation, it pauses the batch, applies a corrective purge and restarts the run — all automatically. Without this feature, you waste valuable time and resources on evaluating results and manually purging and repriming the system.



# Intelligently Monitor Consumables Usage

The Nexera series automatically monitors shared consumables across instruments in your lab through a single intuitive system, keeping track of consumables usage by part number.

E-mail notifications are sent one month before the replacement date, and when exceeding the recommended usage frequency.

Early warnings for part replacements enables you to stay ahead of the biggest threats to equipment downtime. You can also check the operating status, errors and information about consumables — wherever you are. That means you spend more time doing analysis and less time worrying about maintenance and changing parts.



# AI Design Maximises Efficiency

## AI Autosamplers

The ultra-fast and ultra-low carryover autosampler enhances overall analytical workflow efficiency. The flexible design allows easy system expansion with plate changer to handle high sample volume. The efficiency can even be improved multi-fold by fully utilising the automated sample preparation and dual injection mode features.

## AI Detectors

Advanced TC-Optics ensures excellent temperature control of the PDA Detector, therefore minimising baseline drift. The special UV-cut off function further ensures data reliability, especially when analysing photo-sensitive molecule, e.g. Ibuprofen.



# EXPERIENCE NEW BENCHMARKS

INTELLIGENCE • EFFICIENCY • DESIGN



[www.shimadzu.com.sg](http://www.shimadzu.com.sg) | [nexeraseries.com](http://nexeraseries.com)

