The Symphony® X Peptide Synthesizer

- Maximum Throughput & Production
- Fast, Efficient Couplings
- High Quality Crude Peptides
- Extremely Flexible
- Automated Cleavage

12 Independent Reaction Vessel Pairs
- 0.005 - 22.4 mmol scales
- Up to 12 RV’s with pre-activation
- Up to 24 RV’s with in situ activation
- Adjustable nitrogen mixing
- Independent operation
- Top-down washing
- Optional IR heating &/or UV-monitoring capability in RV position 1

28 Amino Acid Positions
- 10, 120 & 400 mL sizes available
- Single-Shot™ deliveries
- Pre-packed amino acid bottles available
- Sensor deliveries
- Automated

8 Solvent Positions
- Maximize flexibility
- 20 L solvent container
- Sensor deliveries
- Automated cleaning routines

Automated Cleavage
- 50 mL collection tube capacity
- 12 positions may alternatively be used as Single-Shot™ AA bottles
- Dedicated TFA bottle position
- Customizable cleavage programs
- Adjustable start times

VGA 17” Touchscreen
- Full color
- Resistant to all synthesis chemicals
- Flexible, easy-to-use software
- No external computer!

Integrated Solvent Cabinet
- Enclosed, ventilated & easily accessible
- Floor-standing model with wheels easily fits in your lab
- Chemical spill trays for spill containment
- Pull out drawer for convenient storage

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High Quality Performance

Choose Between In Situ & Pre-activation

- In situ activation can be accomplished by delivering amino acid to the reaction vessel first, followed by activator.
- Top row reaction vessels may be used as pre-activation chambers for bottom row reaction vessels.

Unbeatable Throughput!

24 reaction vessels gives you 24 times the throughput of any serial peptide synthesizer! When it comes to custom peptide production, nothing can match the Symphony® X!

Twenty-four 42-mers in 14 hours!

Twenty-four 68-mers in 25 hours!
Innovative Features

12 Synthesizers in One!

Run different sequences, scales and protocols on multiple reactors all at the same time! Start, Stop or Pause reactors whenever you wish! It’s like having 12 synthesizers in one! Each reaction vessel pair can:

- Run Any Program
- Run Any Scale
- Run Any Reagent
- Run Any Reaction Time
- Start/Stop/Pause

regardless of what the other reaction vessels are doing!

Robust, Reliable Construction

Other systems use off-the-shelf valves that leak, cross-contaminate, and quickly fail when exposed to harsh peptide synthesis chemicals. Our patented valve block system was specifically designed for peptide synthesis, so you get zero dead volumes, no cross-contamination, and worry-free performance that lasts for years!

Preactivation

Now you can preactivate on multiple reactors in parallel. Perfect for sterically hindered amino acid additions! Optimize your DIC/HOBt chemistry on the Symphony® X and go straight to scale-up!

Special Reagent Additions

At last! Add expensive special reagents to any reactor without priming or wasting a drop using Single-Shot™ deliveries! Save money with no manual intervention required! The Symphony® X comes with up to 40 amino acid positions to accommodate any chemistry!
Automated Cleavage*

The Symphony® X features automated cleavage. Unlike some peptide synthesizers, all PTI synthesizers are built with robust TFA-resistant materials, so you can cleave for years on our instruments without worry.

Not interested in cleavage? You can also use the Symphony® X collect positions as additional amino acid positions!

*Note: Fmoc chemistry only
Flexible, Easy-To-Use Software

Create, view or edit programs

Select a sequence(s) and assign a program to each cycle

Load synthesis and monitor progress of all reactions

Other Software Features

- Automated cleaning routines
- Waste level detection
- Manual operations
- Customizable amino acid and solvent tables
- Calculations screens
- Synthesis record
- Good Laboratory Practice data recording
- Diagnostics and error reporting
- Flexible restart options for interrupted syntheses

All With Easy Touchscreen Programming
Use PTI Reagents

After choosing the right synthesizer, nothing is more important to your synthesis success than the quality of the reagents used with your instrument. Use PTI brand amino acids to maximize the performance of your automated peptide synthesizer. Our amino acids are quality screened and optimized for use on PTI instruments to help ensure the production of high quality peptides and the reliable operation of your instrument, and come in affordable pre-weighed bottles for your convenience as well as in bulk.

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PTI Service and Support

In addition to supplying superior instrumentation, PTI offers the finest in technical support and field service. Our service team specializes in one thing - supporting PTI synthesis instruments. From installation to preventative maintenance, our responsive field service group will make sure that you get the most out of your investment.

■ PTI offers varying levels of service agreements
■ Please contact PTI for terms and pricing

Accessories, Reagents & Service

Accessories

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### Symphony X Specifications

- **Number of reaction vessels**: 24 (12 with pre-activation)
- **Synthesis scale range**: 0.005 mmol to 22.4 mmol (up to ~2 g of resin per RV)
- **Reaction vessel volume**: Plastic, disposable - 10 mL and 45 mL; Glass - 10 mL and 40 mL
- **Number of solvent positions/sizes**: 1 primary solvent position, 20 L capacity; 7 user-defined solvent positions, 0.5 L - 4 L capacities
- **Number of amino acid positions**: Up to 40 amino acid positions; 10, 120 or 400 mL bottles
- **Chemistries supported**: Fmoc, t-Boc, organic, peptoid, combinatorial, others
- **Activation**: DIC/HOBt, HBTU, HATU, HCTU, TBTU, PyBOP, others
- **Throughput**: User defined
- **Fluid measurement technique**: Fixed loop measurement with optical sensors
- **Fluid transfer method**: Positive pressure with nitrogen
- **Agitation method**: Nitrogen bubbling &/or vortex mixing - adjustable and programmable
- **Cleavage**: Automatic, programmable (for Fmoc chemistry only)
- **Waste container**: 20 L container with overflow sensor
- **Control interface**: Proprietary Symphony® X control software
- **Reporting**: Real-time log of each instrument function, print to file, screen or printer.
- **Power**: 115 V/60 Hz or 230 V/50 Hz
- **Dimensions**: 45”W, 29”D, 66”H (114 cm W, 74 cm D, 168 cm H)
- **Weight**: 550 lbs. (250 kg)
- **Warranty**: One year, parts and labor
- **Optional**: Infrared (IR) Heating (SYMX-IR-OPT); UV-Monitoring (SYMX-UV-OPT); E-mail/Text Message Status Reporting (SYMX-TXT-EML-RPT)

### Ordering Information:

<table>
<thead>
<tr>
<th>Catalog #</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>SYMX-110</td>
<td>Symphony® X Peptide Synthesizer, 115 V</td>
</tr>
<tr>
<td>SYMX-230</td>
<td>Symphony® X Peptide Synthesizer, 230 V</td>
</tr>
</tbody>
</table>

For more information:
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