

# Lake Shore Probe Station CCR Upgrade Program

## For researchers who:

Need cryogen-free probing

Own a Lake Shore flow station and  
want to preserve their investment

Need a convenient solution

## The way to deal with rising helium costs

- Trade in existing Lake Shore flow station for equivalent closed-cycle refrigeration (CCR) station
- Upgrade with minimal downtime and interruption to research
- Changeover can be handled in one on-site visit
- Brand-new CCR base station carries a full 3-year warranty

### Upgrade path for Lake Shore probe stations:

Existing probe station	with CCR upgrade, becomes
TTPX	CRX-6.5K
CPX	CRX-4K
CPX-VF	CRX-VF
EMPX-HF	CRX-EM-HF



For more information, contact your Lake Shore representative today.

## An affordable path to cryogen-free operation

The increasingly volatile price of helium has caused many researchers to look for alternatives to cryogenic probe stations. Lake Shore offers cryogen-free probe stations, and for existing cryogenic probe station owners, we offer a convenient solution that enables these users to preserve their original investment.

Lake Shore's CCR upgrade allows customers to easily upgrade from a cryogenic probe station to a cryogen-free probe station. Specifically, the program involves an on-site exchange of the base flow probe station for a brand-new base CCR station. The upgraded station will use the original vision system, instrumentation, and probing options (such as probes, cables, and sample holders) as the original cryogenic probe station.

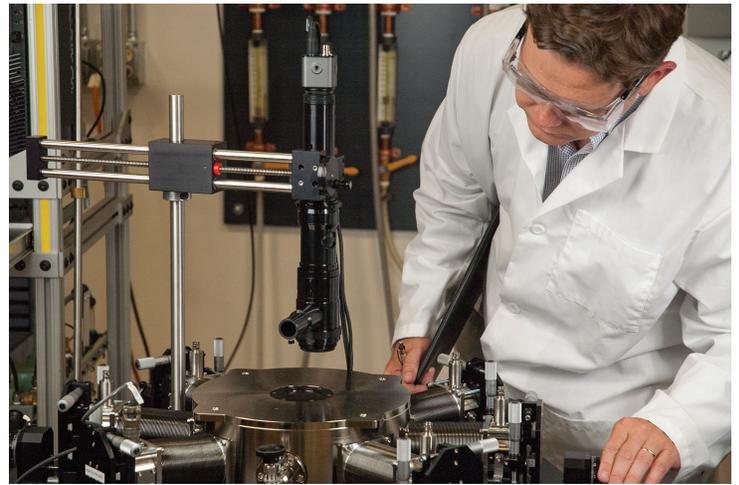
This CCR upgrade program lowers the cost of ongoing probe station operation by eliminating the need for customers to purchase additional LHe in the future.

## An convenient upgrade performed on-site

To preserve the customer's prior investment, the upgrade program involves the reuse of equipment common to the original flow station and the CCR station.

How it works is:

- Lake Shore ships the new station to the customer's site minus the common equipment.
- A field service engineer or other representative visits the customer's site to make the exchange of the flow station for the CCR station, removing the probe arms and microscope from the existing flow station and installing them on the new CCR station. The upgrade includes all cabling to connect instrumentation to the new CCR station.
- The field service engineer or other representative crates the flow station for return to Lake Shore.
- The customer ends up with essentially a brand-new CCR probe station—without any lengthy interruption.

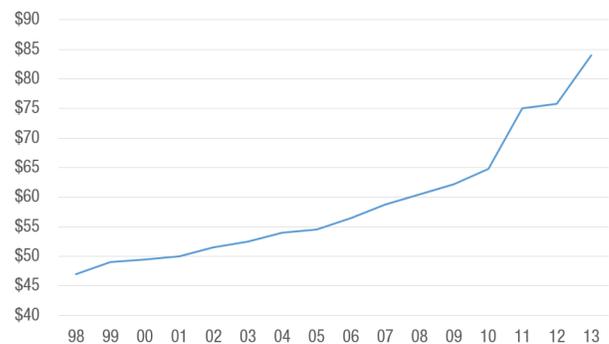


## Why you should consider this upgrade.

The impending global helium shortage has the potential to adversely affect fields from research to manufacturing, to medical technologies such as MRI.

In the U.S., the price of helium for Fiscal Year 2013 is \$84 per thousand cubic feet, up from \$75.75 per thousand cubic feet in FY 2012, and it's expected to increase another 15 to 30% depending on U.S. region. Similar price increases are expected for much of the rest of the world.

For researchers already facing tight budgets, this can be a major problem. Lake Shore's CCR upgrade program eliminates the need for customers to purchase additional LHe. It enables researchers to extend the utility of their existing Lake Shore probe station without any major interruption to their research schedule.



U.S. helium prices since 1998 (source: BLM)

Questions? Please contact your Lake Shore representative.