

PLEASE KEEP IN PROTECTIVE CONTAINER

DO NOT REMOVE



Type CY50900™ Arctic Express Cryogenic Dry Shipper

OPERATION MANUAL
AND PARTS LIST

Ref: 9921849

Serial Number: B2006L 2248

Models
CY50915 and CY50905

Table of Contents

Safety Information	3
Warnings	3
General Specifications	4
General Information	5
Warranty Registration	5
Filling Instructions	5
Transportation Guidelines	6
Replacement Parts	6
Ordering Procedures	7
One Year Limited Warranty	8

Safety Information

Alert Signals



Caution

Cautions alert you to a possibility of damage to the equipment.



Note

Notes alert you to pertinent facts and conditions.

Important Information

This manual contains important operating and safety information. You must carefully read and understand the contents of this manual prior to using this equipment.

Warnings

Liquid nitrogen is extremely cold; it boils at -196°C .

1. To avoid injury due to frostbite or ruptured vials, use extreme care whenever handling liquid nitrogen, liquid nitrogen storage or transfer vessels or any objects which have come in contact with liquid nitrogen.
 - Leave no areas of skin exposed.
 - Always wear proper safety attire over clothing: face shield, cryogenic gloves, cryogenic apron.
 - Never overfill liquid nitrogen vessels.
 - Always keep liquid nitrogen vessel in an upright position.
 - Do not tightly seal liquid nitrogen containers or prevent nitrogen gas from escaping.
 - Always handle vials with tongs.
 - Use extreme care to prevent spilling and splashing liquid nitrogen during transfer and removal of storage contents and holders.
 - Immediately remove any clothing or safety attire on which liquid nitrogen has been spilled or splashed.
 - Get immediate medical attention for any frostbite injuries due to liquid nitrogen.

General Specifications



	ARCTIC-EXPRESS 5	ARCTIC-EXPRESS 10
Vessel volume (liters)	5	10
Liquid nitrogen capacity (liters)	1.6	4.3
Static holding time (days)*	13	43
Ampule capacity (2 ml ampules)	9	48
Dimensions		
Vessel		
Height: Inches (cm)	13.5 (34.3)	19.4 (49.2)
Diameter: Inches (cm)	7.25 (18.4)	8.7 (22.2)
Neck opening: Inches (cm)	1.4 (3.5)	2 (5)
Shipping case		
Height: Inches (cm)	22 (56)	27 (69)
Length: Inches (cm)	12 (31)	12 (31)
Width: Inches (cm)	12 (31)	12 (31)
Weight		
Empty: Pounds (kg)	6 (2.7)	13 (5.9)
Full: Pounds (kg)	9.5 (4.3)	20 (9.1)
Shipping: Pounds (kg)	18.5 (8.5)	26 (11.8)
Canisters		
Number per vessel	1	1
Height: Inches (cm)	5 (12.7)	11 (27.8)
Inside Diameter: Inches (cm)	1.22 (3.1)	1.81 (4.6)
Part Number	CY50915	CY50905

* Actual rate may be affected by atmospheric and/or climatic conditions and work environment.

General Information

Warranty Registration

The warranty registration card enclosed with the vessel must be completed and returned to Barnstead/Thermolyne within 30 days to make warranty effective. This information must include the serial number which is located on the bottom of the vessel.



Caution

Never overfill your Arctic Express dry shipper. Never add more than 1.6 liters of liquid nitrogen at a time to the Arctic Express 5 or 4.3 liters of liquid nitrogen at a time to the Arctic Express 10.



Note

If you prepare the Arctic Express for shipment ahead of time, leave a small excess of liquid nitrogen in the vessel until just before shipment. At that time, pour off the excess liquid nitrogen, place your samples in the Arctic Express, seal and ship.

Filling Instructions

To avoid damage to your Arctic Express dry shipper, fill only with liquid nitrogen and never overfill; never add more than 1.6 liters of liquid nitrogen at a time to the Arctic Express 5 or 4.3 liters of liquid nitrogen at a time to the Arctic Express 10.

1. Record the empty weight of the vessel alone.
2. Add liquid nitrogen to vessel by removing the lid and pouring liquid nitrogen in through the neck. Allow the liquid nitrogen to be fully absorbed before adding more.
3. Repeat the addition of liquid nitrogen up to two more times until no more can be absorbed. (The Arctic Express 5 will hold approximately 1.6 liters. The Arctic Express 10 will hold approximately 4.3 liters.)
4. Pour off excess liquid nitrogen and reweigh vessel. Seven (7) pounds of liquid nitrogen should have been absorbed by the Arctic Express 10 and three and a half (3.5) pounds by the Arctic Express 5. If less than the above stated has been absorbed, repeat steps 2 and 3.
5. Place your samples in the Arctic Express, seal and ship.

Transportation Guidelines

Liquid nitrogen is classified under the name "Nitrogen, refrigerated liquid" and has a UN 1977 code number. The name classification and UN Code Number must be indicated on the shipping carton in addition to a "Gas non-flammable" label. Packing and labeling requirements can be obtained from the organizations listed below.

Liquid nitrogen is classified as "Dangerous Goods" by the Department of Transportation (DOT). At least three regulatory agencies publish dangerous goods regulations: DOT - Department of Transportation, IATA - International Air Transport Association, ICAO - International Civil Aviation Organization. Please contact any of the aforementioned agencies regarding your specific shipping requirements or contact your common carrier or airlines for specific handling instructions. In addition, you should also contact either the foreign embassy or customs officials of your shipment's final destination.

Keep in mind that regulations do change or undergo revisions. For the most current shipping information, please contact your carrier.

Replacement Parts

ABS Plastic Shipping Case for Arctic Express 5 and 10
(one size fits all)

ZP509X11A: Has locking latches. Lid is round so unit cannot be shipped upside down.

Lid and Cork Assembly Replacement Numbers:

If Serial Number begins with "DW":
Arctic Express 5 and 10 CV509X24A

If Serial Number begins with anything other than "DW":
Arctic Express 5 CV509X27A
Arctic Express 10 CV509X28A

Ordering Procedures

Please refer to the Specification Plate for the complete model number, serial number, and series number when requesting service, replacement parts or in any correspondence concerning this unit.

All parts listed herein may be ordered from the **Barnstead International** dealer from whom you purchased this unit or can be obtained promptly from the factory. When service or replacement parts are needed we ask that you check first with your dealer. If the dealer cannot handle your request, then contact our Customer Service Department at 563-556-2241 or 800-553-0039.

Prior to returning any materials to **Barnstead International**, please contact our Customer Service Department for a "Return Materials Authorization" number (RMA). Material returned without an RMA number will be refused. Minimum invoice: \$25.

One Year Limited Warranty

Barnstead International ("BARNSTEAD") warrants that a product manufactured by Barnstead shall be free of defects in materials and workmanship for one (1) year from the first to occur of (i) the date the product is sold by BARNSTEAD or (ii) the date the product is purchased by the original retail customer (the "Commencement Date"). Except as expressly stated above, BARNSTEAD MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED, WITH RESPECT TO THE PRODUCTS AND EXPRESSLY DISCLAIMS ANY AND ALL WARRANTIES, INCLUDING BUT NOT LIMITED TO, WARRANTIES OF DESIGN, MERCHANT ABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

An authorized representative of BARNSTEAD must perform all warranty inspections. In the event of a defect covered by BARNSTEAD's warranty, BARNSTEAD shall, as its sole obligation and exclusive remedy, provide free replacement parts to remedy the defective product. In addition, for products sold by BARNSTEAD within the continental United States or Canada, BARNSTEAD shall provide free labor to repair the products with the replacement parts, but only for a period of ninety (90) days from the Commencement Date.

BARNSTEAD's warranty provided hereunder shall be null and void and without further force or effect if there is any (i) repair made to the product by a party other than BARNSTEAD or its duly authorized service representative, (ii) misuse (including use inconsistent with written operating instructions for the product), mishandling, contamination, overheating, modification or alteration of the product by any customer or third party or (iii) use of replacement parts that are obtained from a party who is not an authorized dealer of BARNSTEAD.

Heating elements, because of their susceptibility to overheating and contamination, must be returned to the BARNSTEAD factory and if, upon inspection, it is concluded that failure is due to factors other than excessive high temperature or contamination, BARNSTEAD will provide warranty replacement. As a condition to the return of any product, or any constituent part thereof, to BARNSTEAD's factory, it shall be sent prepaid and a prior written authorization from BARNSTEAD assigning a Return Materials Number to the product or part shall be obtained.

IN NO EVENT SHALL BARNSTEAD BE LIABLE TO ANY PARTY FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, OR FOR ANY DAMAGES RESULTING FROM LOSS OF USE OR PROFITS, ANTICIPATED OR OTHERWISE, ARISING OUT OF OR IN CONNECTION WITH THE SALE, USE OR PERFORMANCE OF ANY PRODUCTS, WHETHER SUCH CLAIM IS BASED ON CONTRACT, TORT (INCLUDING NEGLIGENCE), ANY THEORY OF STRICT LIABILITY OR REGULATORY ACTION.

The name of the authorized Barnstead International dealer nearest you may be obtained by calling 1-800-446-6060 (563-556-2241) or writing to:



Your Lab Starts Here

2555 Kerper Boulevard
P.O. Box 797
Dubuque, Iowa 52001-0797
Phone: 563-556-2241 or 800-553-0039
Fax: 563-589-0516
E-mail: mkt@barnstead.com
www.barnstead.com

