

OPERATOR'S MANUAL

the belly button

PLATFORM SIZE: 7" X 7"



IBI Catalog Number: **BBUAAUV1S**



IBI SCIENTIFIC

9861 Kapp Court ♦ P.O. Box 219 ♦ Peosta, IA 52068

Tele: (563) 690-0484 ♦ Toll Free: (800) 253-4942

Fax: (563) 690-0490 ♦ E-Mail: info@ibisci.com

WWW.IBISCI.COM

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A. SAFETY INFORMATION

Important Safety Information!

- ◆ Please read this manual carefully before operating your new IBI Belly Button unit.
- ◆ This manual contains important operating and safety information.
- ◆ To best use the product, please read the entire manual carefully prior to use.
- ◆ To avoid possible injury, this product should only be used for its intended purpose.

B. PACKAGE CONTENTS & UNPACKING

Upon receiving this product, please verify all of the noted parts and accessories are contained in this package. Awareness of the stated cautions and warnings contained within this manual, compliance with recommended operating parameters, and maintenance requirements are important for safe and satisfactory operation.

- ◆ The Belly Button Shaker
- ◆ Platform Mat - White
- ◆ Power Cords - 115V (US) and 230V (European)
- ◆ Operation Manual

Save all packing material, and these instructions, if the shaker is received damaged. This shaker was carefully packaged and thoroughly inspected before leaving the factory. Responsibility for its safe delivery was assumed by the carrier upon acceptance of the shipment; therefore, claims for loss or damage sustained in transit must be made with the carrier.

NOTE: Carefully inspect all items in the package to insure no items are broken or missing. If there are items broken, please inspect the package carefully for signs of shipping damage. If there is ANY sign of shipping damage, please contact the carrier and file a claim with them immediately. Contact the distributor from which you purchased the item or IBI Scientific for assistance at (800) 253-4942 or (563) 690-0484.

C. PRODUCT SPECIFICATIONS

	<u>Height</u>	<u>Width</u>	<u>Length</u>	
Unit Dimensions:	5.25"	8"	8"	
Platform Dimensions:		7"	7"	
Unit Weight:	5lbs			
Maximum Load:	5lbs			
Operation Temp.:	0° - 60°C			
Operation Speed:	0 - 100RPM			
Electrical:	Voltage: <u>100-240V</u>	Power: <u>11W</u>	Fuse: <u>Auto</u>	

D. INSTALLATION

LOCATION

The Belly Button is designed to operate in a reasonable, but limited, range of temperatures and conditions. It can be used in incubated and refrigerated environments, as well as ambient laboratory conditions. The operating temperature range of this unit is 0° - 60°C, and it will successfully operate in non-condensing humidity environments of up to 95% humidity with CO₂.

WARNING: Operate this unit in temperature conditions between 0° and 60°C, and in less than 95% non-condensing humidity environments.

ELECTRICAL CONNECTIONS

For your personal safety, this unit must be properly grounded. The supplied power cord is equipped with a three-prong, grounded plug, that mates to a standard three-prong grounded wall receptacle. This is done to minimize the possibility of electric shock hazard from this unit. The user should also have the wall receptacle and circuit checked by a qualified electrician to ensure the receptacle is properly grounded prior to use. Where a two-prong wall receptacle is encountered, it is the responsibility of the user to have it replaced with a properly grounded three-prong wall receptacle.

WARNING: Do not, under any circumstance, cut or remove the third ground prong from the supplied power cord. Also, do not use a three-to-two prong adaptor plug.

Determine the total amount of current presently being used by other apparatus connected to the circuit that will be used by this shaker. The typical current demand for a Belly Button at 115V is approximately 0.1Amps, and for a Belly Button at 230V it is approximately 0.05Amps. It is critical that this added current demand, and other equipment connected to the circuit not exceed the rating of the line fuse or circuit breaker.

SPECIAL INSTRUCTIONS FOR 220/240V CUSTOMERS

220V and 240V power is typically used in Europe and many pacific countries. 220/240V customers are directed to the following information since the power cord enclosed may not have the proper wall plug supplied and user may need to supply own approved plug.

The enclosed cord bears the VDE and HAR marks and contains marked conductors as evidence that it meets the Harmonized requirements of the Cenelic countries. The individual conductors have a cross sectional area of 2.25mm. The detachable cord must be connected to a plug with the mark of approval used by an official agency for the location of use. Please refer to the following chart to assist in securing the correct wall plug for this unit's application.

Certification Markings					
Country	Agency	Certification Mark	Country	Agency	Certification Mark
Australia	SA		Italy	IMQ	
Austria	OVE		Netherlands	KEMA	
Belgium	CEBEC		Norway	NEMKO	
Denmark	DEMKO		Spain	AEE	
Finland	FIMKO		Sweden	SEMKO	
France	UTE		Switzerland	SEV	
Germany	VDE		UK	ASTA	
Ireland	NSAI				

FUSE

The Belly Button does not use a conventional glass or ceramic fuse. It has an internal, resettable fuse which, when a failure (such as a power surge or short circuit) occurs, the PC Board reverts to high impedance to block the flow of electricity. There is no mechanical way to reset this internal fuse. To reset the internal fuse, unplug the unit and wait approximately 3 minutes for the issue to clear. There is nothing more required.

TRANSPORT

Always unplug the power cord from the wall receptacle prior to moving the shaker. When moving the Belly Button unit from one location to another, lift and carry the shaker by grasping underneath the base of the unit. Do NOT lift or carry the unit by means of the acrylic top! Carrying the shaker by the acrylic top may cause serious damage to the shaker and void the warranty.

WARNING: Do not lift your Belly Button shaker by the acrylic platform!

E. OPERATION

Your new Belly Button shaker is shipped fully assembled and ready for use. Prior to plugging the Belly Dancer power cord into a power source, please see the following two steps:

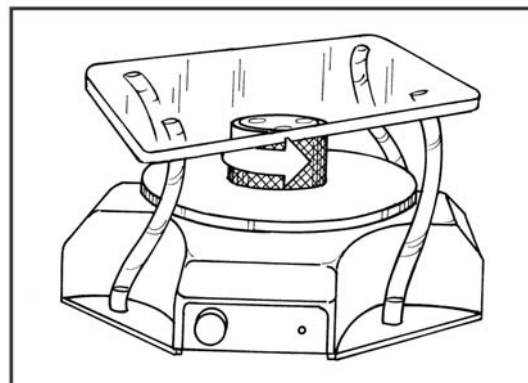
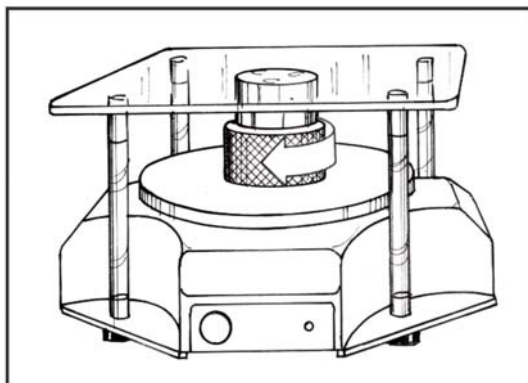
- 1.) Turn the brass collar of the tilt control assembly counter-clockwise, all the way in for maximum tilt platform position. Then rotate the tilt control assembly back to the desired position for running. The shaker is shipped with the tilt control in the level position.
- 2.) Make sure the power is OFF by turning the speed control clockwise, then counter-clockwise until you hear the on/off click of the switch.

To properly break-in the shaker, plug the power cord into the wall receptacle and run the shaker for 1 to 2 hours at half speed, with the speed control dial at roughly the 12 o'clock position.

PLATFORM TILT ADJUSTMENT

The Belly Button shaker is shipped with the tilt control fully extended, which causes the platform to orbit in a level position while running. To adjust the tilt of the platform for the unique, undulating motion of the Belly Button, adjust the tilt assembly brass collar, located beneath the platform, by turning the brass collar in a counter-clockwise manner. To achieve maximum tilt of the platform, adjust the collar all the way down. Experiment with the degree of tilt and speed that best suits your experiments and laboratory requirements.

WARNING: Do not exceed the maximum load of 5lbs!



PLATFORM

The standard platform that is supplied with the Belly Button shaker is 7" x 7", and is made from 3/8" cast acrylic. It is extremely durable and is easily cleaned using a mild detergent and water. The platform is also supplied with a non-slip white mat, to help keep the items placed on the shaker platform from moving around during operation. Optional finger mat (used for smaller tubes and vials), is available for purchase. Please see the Accessories and Replacement Parts section for additional details.

F. APPLICATIONS

- ♦ **Cell Culture Growth and Mixing:** The Belly Button has been shown to be superior when used in cell culture and tissue culture applications; especially when used with endothelial cells, human liver cells, neurons, and other sensitive cell growth applications. The undulating motion and slow speeds of the Belly Dancer provide excellent growth conditions without the danger of shearing cells.
- ♦ **Immunoprecipitation:** The smooth agitation of the Belly Button, as well as its ability to operate perfectly in a cold room makes it ideal for IP procedures.
- ♦ **Northern and Southern Hybridizations:** The Belly Button is ideal for rinsing membranes to eliminate background. It is also well suited for ensuring probe binding to RNA (Northern Blotting) or specific DNA (Southern Blotting).
- ♦ **Phage Elution and Amplification of cDNA Libraries:**
- ♦ **Western Blotting and Membrane Rinsing:** The unique motion of the Belly Button provides excellent reagent exchange and decreases back ground in downstream applications.
- ♦ **Staining and De-Staining Gels:** The gentle wave created by the Belly Button motion provides optimum staining conditions for protein gels.
- ♦ **Misc. Mixing:** With the addition of the platform finger mat, the Belly Button will mix multiple tubes of various sizes for numerous procedures.

G. TROUBLE SHOOTING

In the unlikely event a problem develops with your Belly Button, do NOT attempt to perform any service on the unit without first contacting IBI SCIENTIFIC. Unauthorized servicing may void the warranty. IBI will readily supply information regarding trouble shooting minor issues upon request.

In any correspondence with IBI SCIENTIFIC concerning your Belly Button shaker please refer to the appropriate MODEL NUMBER and SERIAL NUMBER, located on the specplate on the rear plate of the unit.

H. MAINTENANCE OF UNIT

Care must be observed in the handling of this unit.

DO NOT expose the unit to temperatures above 60°C

DO NOT expose the unit to organic solvents

DO NOT clean the unit with abrasive cleaners or cleaning aids.

Use mild cleaning solution (dish soap recommended) for routine cleaning. For heavier dirt, hand wash with soft cloth. In most cases, a rinse in deionized water is sufficient to clean the unit.

NOTE: The degradation of acrylic by solvents may result in substantial discoloration, cracking, warpage or etching of the platform. **DO NOT** apply any of the following solvents to the unit: benzene, xylene, toluene, chloroform, carbon tetrachloride, alcohol, phenol, ketones, or esters.

I. ACCESSORIES & REPLACEMENT PARTS

BELLY BUTTON ACCESSORIES

<u>Catalog #</u>	<u>Description</u>
ACCBB0001	Belly Button Urethane Tube Mat (<i>for multiple size tubes</i>)

BELLY BUTTON STARTUP KITS

<u>Catalog #</u>	<u>Description</u>
BBULS0001	Belly Button - Unit w/Urethane Tube Mat

BELLY BUTTON REPLACEMENT PARTS

<u>Catalog #</u>	<u>Description</u>
ACCLG0002	Replacement Leg Kit
BBUBD0005	Replacement P.C. Board
BBUMD0001	Replacement Motor - (<i>12VDC Brushless</i>)
COMCD0002	Replacement Flat Power Cord - 115V
COMCD0004	Replacement Power Cord - 220V (European)
COMCD0005	Replacement Power Cord - 220V (UK)



The Belly Button with Tube Mat accessory kit installed. See [ACCBB0001](#) for kit, or [BBULS0001](#) for unit with accessory kit.

J. LIMITED WARRANTY

Our limited warranty for all life science equipment is one (1) year to the original buyer only (non-transferable) from the original date of purchase.

Our limited warranty as noted above extends to the direct end user of IBI Scientific products only. This warranty is in lieu of all other warranties whether expressed or implied, including warranties of merchantability or fitness for a particular purpose. In no situation shall IBI Scientific be liable for any incidental or consequential damages of any kind, even though IBI Scientific has been advised of the possibility of such damages arising out of, or resulting from, the products or the use or modification thereof or due to the breach of this warranty or any other obligation of IBI Scientific to the customer, whether based on contract, tort, or any other legal theory. In no such event shall IBI Scientific be liable for damages which exceed the purchase price of any products.

For further assistance please contact IBI Scientific Technical Service at (800) 253-4942, (563) 690-0484 or visit us on the web at www.ibisci.com.

