

# Operator's Manual



## The Bullet Blender<sup>®</sup> 50-DX BB50-DX

### Thank you!

Thank you for your purchase of a Bullet Blender<sup>®</sup> 50-DX by Next Advance, Inc., for lysing, disrupting, and homogenizing your samples.

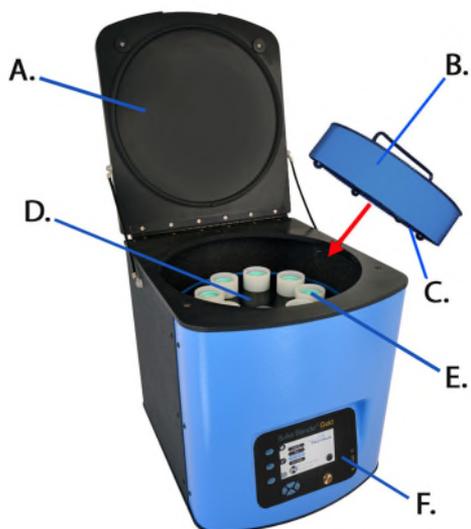
Please read this operator's manual which explains proper operation of the instrument. This manual can be found on our website, [www.nextadvance.com](http://www.nextadvance.com). Click the SUPPORT button on the menu bar at the top of the page. Then select Bullet Blender Support from the drop down.

We're confident that your Bullet Blender will become an essential tool in your laboratory and we wish you success with your work.

### Contents

Parts of the Bullet Blender.....	2
Setup.....	3
Operation.....	3
Protocols and Sample Settings.....	4
Cleaning.....	4
Troubleshooting.....	5
Support.....	5
Specifications.....	5
Warranty.....	5
Warnings and Cautions.....	6
Disclaimer.....	7
Contact Info.....	7

## Parts of the Bullet Blender<sup>®</sup> 50-DX



- A. Instrument Cover
- B. Sample Plate Cover
- C. Gasket
- D. Sample Plate
- E. Tubes & Shields
- F. Operator Panel

### SYMBOLS USED ON THE BULLET BLENDER 50-DX



Start Operation



Caution: Follow the Instructions in the Operator's Manual



This product complies with European Low Voltage and EMC Directives



Please dispose the test tubes and the Bullet Blender in accordance with local regulations

# Operator's Manual for the Bullet Blender®

## SETUP

Place the Bullet Blender 50-DX on a stable, level lab bench. Carry it by grasping the bottom sides. Plug the AC power supply cord connector into the AC Input Receptacle on the right side of the Bullet Blender and then insert the plug into a wall outlet. Flip the power switch located next to the AC input and wait for the screen to light up.

## OPERATION

To use your Bullet Blender 50-DX, lift open the instrument cover, twist the handle of the sample plate cover counter clock-wise until the white arrow is in the unlocked position (see figure below) and lift the sample plate cover out of the instrument.



The figure above shows labels that indicate if the sample plate cover is in the locked or unlocked position. Here, it is shown in the locked position. The Bullet Blender will not start until the

sample plate cover is properly locked.

Insert the 50 mL TPP sample tubes in the protective sleeves and place the sleeves into the sample tube plate. For best results, the sleeves should be evenly spaced. Replace the cover and rotate it to the locked position as shown by the figure. Fold down the handle on the cover, and then close the lid.

To start homogenization, select "Run" from the main menu and use the arrow pad and knob to select duration and speed. Push the ">" button to start the run. The screen will count down the time remaining throughout the run. If you press "X" before time is up, the run will end prematurely. Select "II" during a run if you wish to pause.

As a user of the Bullet Blender you can access any of the recent protocols that have been run on the instrument. To do this select the protocols option from the home menu. Here you will then find a recent protocols list. By selecting this it will provide you a chronological list of your most recent homogenization protocols. This allows you to conveniently select a run from the list and avoid re-entering the time and speed manually. Alternatively, you can save any protocol for easy access.

To save a homogenization protocol. There are two ways to achieve this. You can run a protocol

## Operator's Manual for the Bullet Blender®

you wish to save until completion. At this time a list of options will appear. Select the "save protocol" option. The instrument will then prompt you to name protocol you wish to save. Use the arrow keys and scroll knob to navigate through the character list. When you are finished naming the protocol select the check mark to continue. The instrument will automatically assign the nearest empty slot in your saved protocols list. Alternatively, you can enter the saved protocols list and choose an empty slot for edit. You will then just need to change the name and select the correct settings.

### PROTOCOLS AND SAMPLE SETTINGS

Custom homogenization protocols can be uploaded to your Bullet Blender 50-DX using a USB flash drive. Contact customer support to obtain the necessary protocol files. Once the files have been obtained load them onto your USB flash drive. Plug the flash drive into the USB outlet and power cycle (turn off and on again) your instrument. The Bullet Blender will recognize the protocol file on the flash drive and prompt you to save. If you choose to save the protocol file, you must then choose an empty slot for the in the saved protocols list. You have now successfully saved your new protocol.

The following sample, bead to

buffer ratio should be used as a general guideline for achieving optimal homogenization quality - 1X volume/mass of tissue: 1X volume of beads: 2X volumes of buffer. For more specific information regarding specific protocol information, please contact customer support at [customersupport@nextadvance.com](mailto:customersupport@nextadvance.com).

For 50 mL tubes, do not operate with more than 3.5g of sample, or a total of 20mL of buffer, tissue, and beads (per tube). Do not operate the Bullet Blender 50-DX using the same tubes for more than 30 minutes.

Cutting the tissue into smaller pieces will generally yield better results. Tissue with a high aspect ratio (long, thin strips) will homogenize better than tissue that is round or cubic.

**Note:** Use TPP® brand polypropylene, skirted (self-standing) 50 mL tubes. Some discoloration of the sleeves and tubes after homogenization is normal and a byproduct of the workings of the Bullet Blender 50-DX.

### CLEANING

If you wish to clean your Bullet Blender, clean the outside of the unit only with mild detergent, water alcohol and a soft cloth. Under normal conditions, the Bullet Blender 50-DX should never need to be disassembled for cleaning. If needed unplug the instrument, remove the

## Operator's Manual for the Bullet Blender®

sample tube plate with an 1/8" hex wrench, wipe out the spill using standard laboratory safety precautions, and replace the sample tube plate. Do not touch or tamper with the electronics.

### TROUBLESHOOTING

Provided below is a list of troubleshooting tips. Additional tips can be found in the User Guide.

**If the Bullet Blender doesn't start,** make sure the power switch is in the ON (I) position. Make sure that the sample plate lid is in the "locked" position. The plug of the power supply cord might not be in a live wall outlet or the power supply connector might not be fully inserted in the AC Input Receptacle of the Bullet Blender50-DX.

**If the unit stops working,** turn the system off for 15 minutes to allow the electronics to reset. If the Bullet Blender 50-DX does not turn on after this period, contact customer service.

**If the caps on the 50 mL tubes loosen,** make sure that the screw threads between the lids and the caps are dry when you close the caps or screw them on, so that there is enough friction for the caps to remain tight. Using recommended types of tubes will minimize cap failure.

For best results, the tubes and sleeves should be evenly spaced when placed in the Bullet Blender.

### SUPPORT

FAQs, protocols, and other helpful information are available on our website, [www.nextadvance.com](http://www.nextadvance.com). For additional assistance, please contact customer service by email at [techsupport@nextadvance.com](mailto:techsupport@nextadvance.com) or by telephone at (518)674-3510 or (800)738-1681.

### SPECIFICATIONS

**Size:** 35 cm (14 in.) deep x 38 cm (15 in.) wide x 38 cm (15 in.) high.

**Weight:** 33lbs (15 kg)

**Power Requirement:** 100-240 V, 50-60Hz, 2.5-4.5 A

**Capacity:** 8 of 50 mL skirted (self-standing) TPP® polypropylene tubes.

**Relative Humidity:** 5 - 90% non- condensing

**Operating Temperature:** 4 - 40°C  
Altitude: <2000m

**Storage Temperature:** -40 to 50°C  
-CE models meet **CE** requirements.

### WARRANTY

Next Advance warrants its products against defects in materials and workmanship for time periods which vary according to the product. Within these time periods, Next Advance will replace or repair, without charge to the original purchaser, any part which is defective. The Bullet Blender warranty is two

## Operator's Manual for the Bullet Blender®

years for all models.

The warranty is void if the product is defective due to product accident, product modification, exposure to radiation other than for sterilization, connection to an improper electrical supply, lack of proper maintenance, contamination, improper installation or misuse. If the product is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired. The warranty shall also not apply to defects arising from fire, flood, lightning or other conditions unrelated to correct operation of the product.

Next Advance's liability is limited, at the company's election, to (1) refund of the original purchaser's purchase price for the product (2) repair of the product, or (3) replacement of the product or defective parts. Evidence of purchase by the original purchaser is required. Next Advance may also request documentation of proper maintenance, if applicable.

Next Advance makes no other warranty, express or implied, with respect to its Products. Next Advance makes no warranty respecting the merchantability of the products or their suitability or fitness for any particular purpose or use.

Next Advance shall not be liable for, indirect, special, incidental or consequential damages of any nature. Any recovery for any claim shall be limited to the original purchase price

for the product. The operator is responsible for providing proof of purchase and providing normal care and maintenance.

### **WARNINGS AND CAUTIONS**

Please read the following warnings and precautions before operating:

- Do not operate Bullet Blender 50-DX instruments with fewer than 2 sleeves in place.
- Do not open lid or cover when the Bullet Blender is in use.
- Do not insert fingers or objects other than recommended tubes into sample tube holes.
- Use caution when closing Bullet Blender lid- do not close on fingers.
- Use recommended tubes only.
- No user serviceable parts are inside. For indoor use only.
- Pollution Degree 2 per EN 61010-1.
- Overvoltage Category II per EN 61010-1.
- Enclosure Protection: Not protected against the ingress of moisture.
- Do not immerse in liquid.

# Operator's Manual for the Bullet Blender®

## **DISCLAIMER**

Next Advance, Inc. makes no representations or warranties expressed, statutory or implied, regarding the fitness or merchantability of this product for any particular purpose. In no event shall Next Advance be liable for incidental or consequential damages. Next Advance, Inc. is not liable for any damages, including but not limited to, lost profits, lost savings, or other incidental or consequential damages arising from ownership or use of this product, or for any delay in the performance of its obligations under the warranty due to causes beyond its control. Next Advance, Inc. also reserves the right to make any improvements or modifications to the product described in this manual at any time, without notice of these changes. Next Advance, Inc. products are not designed, intended, or authorized for use in applications or as system components intended to support or sustain human life, as a clinical medical device for humans, or for any application in which the failure of the product could create a situation where personal injury or death may occur.

All brand and product names used in this manual are the trademarks of their respective owners.

NEXT ADVANCE INC. DOES NOT GUARANTEE THE INTEGRITY OF THE TUBES USED IN THE BULLET BLENDER. TUBES THAT ARE NOT RECOMMENDED BY THIS MANUAL MAY CRACK OR OPEN WHEN USED IN THE BULLET BLENDER. Next Advance optimizes the Bullet Blender to specific tube types and brands and cannot guarantee the quality of other tubes being sold on the market.

## **CONTACT INFO**

Next Advance, Inc.  
Troy, NY, USA  
Telephone 518-674 -3510  
[www.nextadvance.com](http://www.nextadvance.com)  
[customersupport@nextadvance.com](mailto:customersupport@nextadvance.com)

# Operator's Manual for the Bullet Blender®

