

BLACK DIAMOND

INSTRUCTION MANUAL

BDPM-10

10 Qt. Planetary Mixer

This manual contains important information regarding your Black Diamond unit. Please read this manual thoroughly prior to equipment set-up, operation and maintenance. Failure to comply with regular maintenance guidelines outlined in this manual may void the warranty.

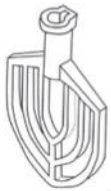
WARNINGS

- Do not immerse unit, cord or plug in liquid at any time
- Unplug cord from outlet when not in use and before cleaning
- Plug only into a 3-hole grounded electrical outlet of appropriate voltage
- Do not operate unattended
- Do not use this unit for anything other than intended use
- Do not use outdoors
- Always use on a firm, dry and level surface at least 12" from walls or any other obstruction
- Do not use if unit has a damaged cord or plug, in the event the appliance malfunctions, or has been damaged in any manner
- Keep children and animals away from unit
- Any incorrect installation, alterations, adjustments and/or improper maintenance can lead to property loss and injury. All repairs should be done by authorized professionals only
- Ensure that the designated power supply is adequate for continual usage
- Do not hose down mixer
- Do not operate with wet hands
- Unplug from the electrical supply prior to any maintenance or repairs

TO INSTALL:

1. Remove unit from box and make sure all plastic, tape and packing materials are removed.
2. Place the unit on a flat, secure surface with at least 12" of open space around all sides.
3. Check to make sure the outlet of the correct voltage for this item (120V) is near. Do not use an extension cord, this item must be plugged directly into an outlet.

STANDARD ACCESSORIES - This mixer comes with one of each of the following accessories:



Flat Beater



Dough Hook



Wire Whip



Mixing Bowl

When mixing always use the correct agitator for the job. To install agitator raise into the mixing axle and rotate clockwise on the shaft until it locks into place. To remove an agitator, raise it on the shaft until it clears the lock and rotate counterclockwise and lower. All of the accessories are fitted to the mixing bowl for precise use.

Flat Beater - Used for mixing dry ingredients and can work on all speeds. Do not run for more than 15 minutes.

Dough Hook - Used for mixing dough and can work in low and medium speeds only. Do not use on high speed. Do not run for more than 20 minutes.

Wire Whip - Used for mixing liquids and soft ingredients and can work in all speeds. Do not run for more than 15 minutes.

NOTE: Always stop the machine first before changing speeds in order to avoid damage to the unit's gears. Always ensure that the bowl is fully lifted and the wire guard is closed when in use.

- Slow speed is the middle setting (Dough hook setting with the knob facing forward)
- Medium speed is the bottom setting (Flat beater setting with the knob facing down)
- High speed is the top setting (Wire Whip setting with the knob facing up)

MIXER CAPACITY CHART

Product	Agitator	Speed	Max Bowl Capacity (10 qt)
Bread and roll dough - 60% AR	Dough hook	1st only	12 lbs
Heavy bread dough - 55% AR	Dough hook	1st only	* NR
Pasta Basic Egg Noodle (max, mix time 5 min)	Dough hook	1st only	* NR
Pizza dough, thin - 40% AR (max, mix time 5 min)	Dough hook	1st only	* NR
Pizza dough, medium - 50% AR	Dough hook	1st only	* NR
Pizza dough, thick - 60% AR	Dough hook	1st only	* NR
Raised donut dough - 65% AR	Dough hook	1st and 2nd	*NR
Whole wheat dough - 70% AR	Dough hook	1st only	*NR
Mashed potatoes			
Mashed potatoes	Flat beater	2nd	9 lbs
Mayonnaise (Quarts of Oil)	Flat beater	2nd	4 qts
Waffle or pancake batter	Flat beater	2nd	4 qts
Egg whites	Wire whip	3rd	1 pt
Meringue (Qty. of water)	Wire whip	3rd	3/4 pt
Whipped cream	Wire whip	3rd	2 qts
Cake, Angel Food (8-10 oz. cake)			
Cake, Angel Food (8-10 oz. cake)	Wire whip	2nd	6 lbs
Cake, Box or Slab	Flat beater	2nd	11 lbs
Cake, Cup	Flat beater	2nd	11 lbs
Cake, Layer	Flat beater	2nd	11 lbs
Cake, Pound	Flat beater	2nd	11 lbs
Cake Short (Sponge)	Wire whip	3rd	7 lbs
Cake Sponge	Wire whip	3rd	5.5 lbs
Cookies, Sugar			
Cookies, Sugar	Flat beater	2nd	9 lbs
Pie dough			
Pie dough	Flat beater	2nd	10 lbs
Eggs & Sugar for Sponge Cake			
Eggs & Sugar for Sponge Cake	Flat beater	2nd	4 lbs
Icing, Fondant			
Icing, Fondant	Flat beater	2nd	6 lbs
Icing, Marshmallow			
Icing, Marshmallow	Wire whip	2nd	1 lbs
Shorting & Sugar, Creamed			
Shorting & Sugar, Creamed	Flat beater	2nd	8.5 lbs

*NR = Not Recommended

Helpful measurements for calculating the correct size mixer for your application

8.3 lbs = 1 gallon of water - 2.08 lbs = 1 Quart

When mixing dough (Pizza, bread or bagels), remember to check your "AR" absorption ratio. Absorption ratio is water weight divided by flour weight. The above capacities are based on 12% flour moisture at 70°F water temperature. If a high gluten flour is used, reduce above dough batch size by 10%.

Example: if a recipe calls for 5 lbs of water and 10 lbs of flour then $5 \text{ divided by } 10 = 0.50 \times 100 = 50\% \text{ AR}$.

NOTES:

- 2nd speed should never be used on mixtures with less than 50% AR
- Do not use attachments on the #12 hub while mixing

TO USE:

1. Plug the unit into an outlet of the appropriate voltage.
2. With unit turned off insert the mixing bowl into the holder in the down position and align on the pins. Once bowl is securely aligned on pins, lock into place with the side clips.
3. Insert the desired **agitator** onto the mixing axle and turn to lock into place as directed on page 2.
4. Once the bowl and **agitator** are locked into place, add ingredients to the bowl and raise the bowl by pulling the bowl lift handle towards you until it hits its full raised position.
5. Adjust your speed setting for the correct application by turning the knob to the correct position as described on page 2.
6. Set the timer for the desired mixing time. The timer has two settings; turn the dial to the left for manual run or you can turn the dial to the right to a desired set time for mixing. Once the timer goes off the machine will shut down. The timer must be set to one of these settings or the machine will not operate.
7. With bowl in the fully raised position, the **agitator** locked into place and the correct speed setting selected, close the wire guard over the bowl, set the timer and press the green power button to start mixing. The wire guard must be closed fully for machine to operate.
8. Once mixing is completed, press the red stop button to stop the **agitator**.
9. Open the wire guard and lower the bowl to its lowest setting. If more mixing is needed repeat step 7.

NOTE: Always stop the machine before changing speeds.

CLEANING - NOTE: To maintain cleanliness and increase service life, this item should be cleaned daily. Do not immerse the unit in water or any other liquid, if liquid enters the electrical compartment it may cause a short circuit or electrical shock.

1. Before cleaning or attempting to move this item always turn off and unplug.
2. Wipe the entire unit with a clean soft cloth until it is completely dry.
3. To avoid damage to the unit, do not use abrasive cleaners or scouring pads.
4. If soap or chemical cleaners are used, be sure they are completely rinsed away with clean water immediately after cleaning. Chemical residue could damage or corrode the surfaces of the unit.
5. After using of the machine, please remove the flat beater, dough hook, wire whip and meat grinder from the machine and wash these parts thoroughly in hot, soapy water to prevent the growth of bacteria.
6. When clean and maintain the inside of the protective cover and swivel mount, please loosen the screw around the protective cover and take off the protective cover. If there is no sign of oil leak, no need to take off the swivel mount. Clean the swivel mount with a wet cloth, the protective cover can be cleaned by detergent and washed under the water supply tap. After washing by clean water, use dry cloth to wipe out the water and make it dry.

To avoid serious injury or damage, never attempt to repair or replace a damaged power cord yourself. Contact a professional repair service.

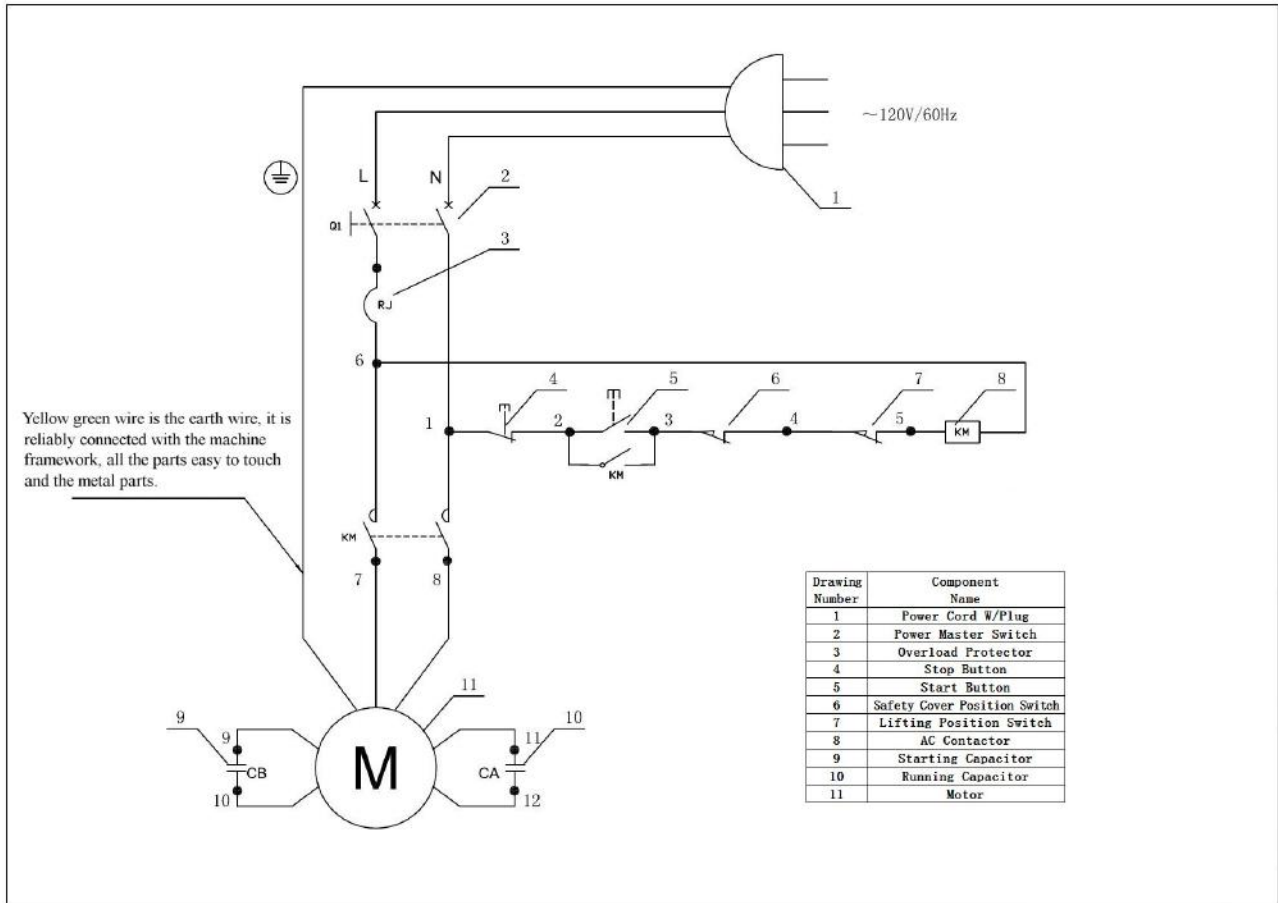
Net weight: 126 lbs (57 KGS)

Dimensions: 18" x 17" x 24" (452 X 432 X 606 mm)

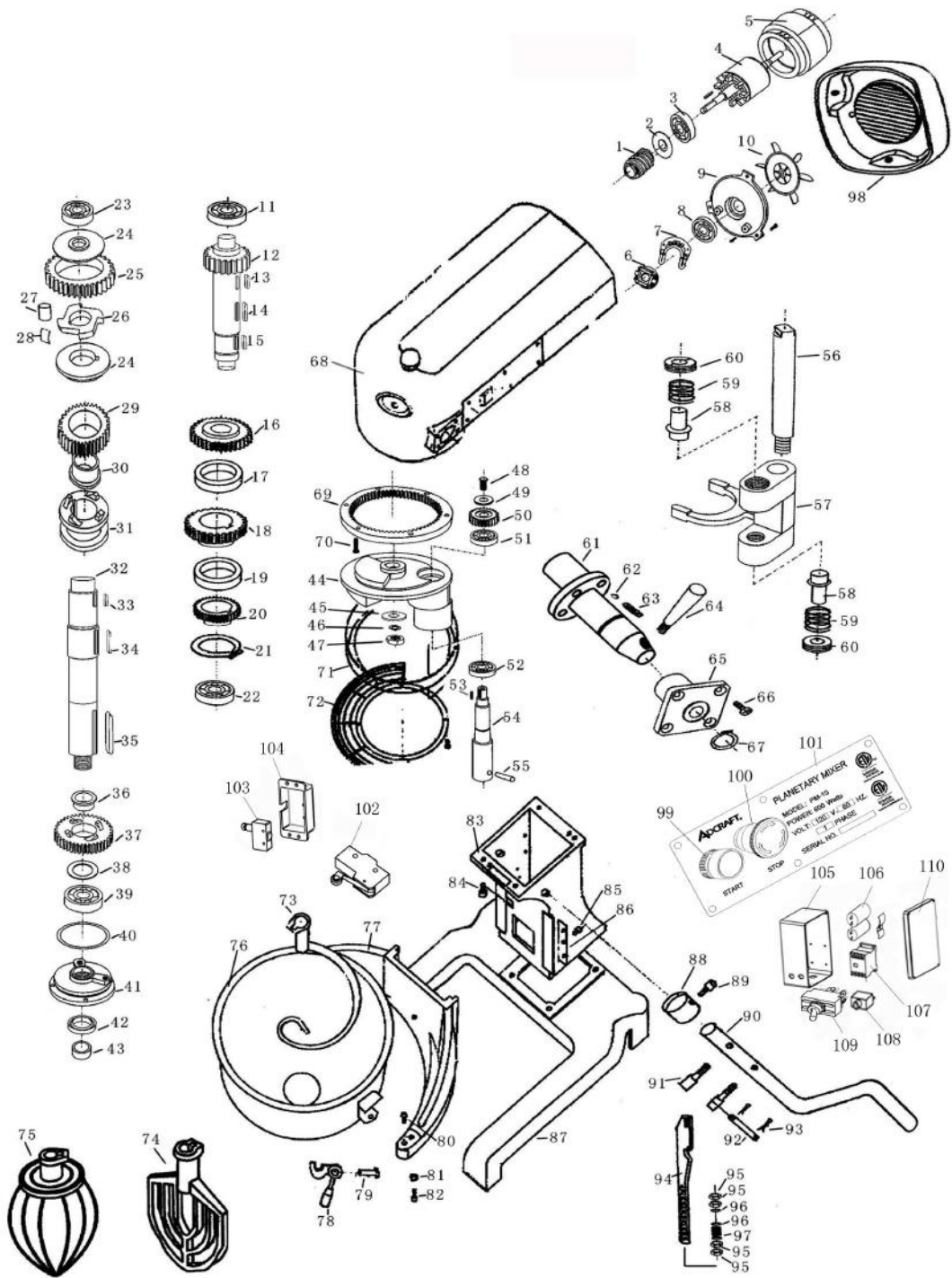
TROUBLESHOOTING

Problem	Possible Causes	Solution
The axles don't work when operating the machine	Electrical connection is not good	Check the plug in the outlet
Leaking oil	oil gaskets are worn out or damaged	Replace the oil gasket(s)
Difficult to raise or lower the bowl	Either the slideway is corroded, or the lead screw, bevel gear or hand wheel shaft is dried out	Clean and oil the dried out parts
Motor is overheating and speed has decreased	The voltage is not enough, incorrect speed is set or there is too much food in the bowl	Check the voltage or adjust the speed to a better setting. If the bowl is overloaded, remove some of the food to lighten the load
Item is making too much noise and overheating	Poor lubrication	Add or replace oil
Agitator touches bowl	Either the bowl or agitator is deformed	Repair or replace deformed part
Mixing bowl is out of position	Moving direction is not correct	Adjust position

Wiring Diagram for the Planetary Mixer



Parts Diagram and Replacement Parts for the Planetary Mixer



Replacement Parts for the Planetary Mixer

Drawing Number	Part Description
1	Motor Threaded Rod
2	Oil Seal
3	Bearing
4	Motor Rotor
5	Motor Stator
6	Centrifugal Switch Rotor Plate
7	Centrifugal Switch Static Plate
8	Bearing
9	Motor End Shield
10	Fan
11	Bearing
12	Input Axis
13	Flat Key
14	Flat Key
15	Flat Key
16	Upper Gear
17	Input Axis Upper Sleeve
18	Worm Wheel
19	Input Axis Lower Sleeve
20	Lower Gear
21	Shaft Circlip
22	Bearing
23	Bearing
24	Ratchet Cover
25	Outer Ring
26	Internal Star Wheel
27	Roller
28	Roller Spring
29	Clutch Upper Gear
30	Output Shaft Gear Sleeve
31	Output Shaft Clutch
32	Output Shaft
33	Flat Key
34	Flat Key
35	Flat Key
36	Output Shaft Gear Sleeve
37	Clutch Lower Gear
38	Upper Sleeve For Bearging
39	Bearing
40	O Shape Ring
41	Bearing Mount
42	Oil Seal
43	Bearing Lower Sleeve
44	Swivel Mount
45	Flat Washer
46	Spring Washer
47	Nut
48	Outer Hexagon Screw
49	Enlarged Flat Washer
50	Planetary Gear

Drawing Number	Part Description
51	Bearing
52	Bearing
53	Flat Key
54	Planetary Shaft
55	Taper Pin
56	Shifting Fork Guide Rod
57	Shifting Fork
58	Shifting Fork Top Latch
59	Shifting Fork Spring
60	Shifting Fork Nut
61	Variable Speed Handle
62	Position Limit Steel Ball
63	Position Limit Spring
64	Variable Speed Handle
65	Variable Speed Base
66	Button-headed Screw
67	Shaft Circlip
68	Box
69	Annular Gear
70	Inner Hexagon Socket Head Cap Screw
71	Protective Cover Mount
72	Moveable Protective Cover
73	Hook
74	Beater
75	Whip
76	Bowl
77	Bowl Mount
78	Bowl Tight Pressing Handle
79	Handle Pin
80	Bowl Alignment Pin
81	Spring Washer
82	Nut
83	Support Pillar
84	Inner Hexagon Socket Head Cap Screw
85	Outer Hexagon Screw
86	Pressplate
87	Base
88	Locking Sleeve
89	Inner Hexagon Socket Head Cap Screw
90	Handle
91	Support Bar
92	Pin With Hole Ends
93	Splitpin
94	Lifting Up and Down Rod
95	Nut
96	Enlarged Flat Washer
97	Compression Spring
98	Rear Cover
99	Start Button
100	Stop Button

Drawing Number	Part Description
101	Switch Panel
102	Micro Switch
103	Position Switch
104	Position Switch Box
105	Electric Box
106	Capacitor
107	Contactora
108	Overload Protector
109	Power Switch
110	Electric Box Cover

ACE Equipment One Year Limited Warranty

ACE warrants its equipment against defects in materials and workmanship, subject to the following conditions:

ACE Equipment is warranted for one year, effective from the date of purchase by the original owner. A copy of the original receipt or other proof of purchase is required to obtain warranty coverage. This warranty applies to the original owner only, and is not assignable.

Should any product fail to function in its intended manner under normal use within the limits defined in this warranty, at ACE's discretion, such product will be repaired, replaced with a refurbished unit, or replaced with a new unit by ACE, after defective unit has been inspected and defect has been confirmed. ACE does not assume any liability for extended delays in replacing any item beyond its control. This warranty does not apply to rubber and non-metallic synthetic parts that may need to be replaced due to normal usage, wear or lack of preventative maintenance.

This warranty covers products shipped into the 48 contiguous United States. Warranty coverage on products used outside the 48 contiguous United States, Hawaii, Alaska, Puerto Rico, and Canada, cover parts only.

The following conditions are not covered by warranty:

- Equipment failure relating to improper installation, improper utility connection or supply and problems due to improper ventilation.
- Equipment that has not properly been maintained, damage from improper cleaning, and water damage to controls.
- Equipment that has not been used in an appropriate manner, or has been subject to misuse, neglect, abuse, accident, alteration, negligence, damage during transit, delivery or installation, fire, flood, riot, or act of God.
- Equipment that has the model number or serial number removed or altered.
- Equipment on which the security seal has been broken.

If the equipment has been changed, altered, modified, or repaired without express written permission from ACE, then the manufacturer shall not be liable for any damages to any person or to any property, which may result from the use of this equipment thereafter.

This equipment is intended for commercial use only and this warranty is void if equipment is used in other than a commercial application.

For warranty and non-warranty related issues, technical support, please contact NSA at 1-877-672-7740. To purchase replacement parts and warranty registration visit www.admiralcraft.com. Please have your model number, serial number and proof of purchase ready. It is not necessary to contact the place where you originally purchased your product from.

“THE FOREGOING WARRANTY IS IN LIEU OF ANY AND ALL WARRANTIES EXPRESSED OR IMPLIED INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSES AND CONSTITUTES THE ENTIRE LIABILITY OF ACE. IN NO EVENT DOES THE LIMITED WARRANTY EXTEND BEYOND THE TERMS STATED HEREIN.”

WARRANTY REGISTRATION CARD

MAIL CARD
IMMEDIATELY



This card must be mailed immediately after installation date for warranty to be in effect.

National Service America • 230 Park Ave, 3rd Floor WEST • New York, NY • 10169

_____		_____	
(Name of Business)		(Dealer Purchased From)	

(Address)	(City)	(State)	(Zip Code)
_____		_____	
(Model Number)		(Serial Number)	

This is to inform that I, _____
(Please print name of individual who owns business)

have had the above installed in my place of business _____
(Date of Purchase)

_____	_____	_____
(Contact Phone Number)	(Contact E-mail)	(Signature of Individual Who Owns Business)