

KitchenAid®

MIXER INSTRUCTIONS



9705170B

Table of Contents

Important Safety Instructions	3
About Your Mixer	
Model 5K45SS, 5KSM90 Mixer Features	4, 5
Model 5KSM5 Mixer Features	6, 7
Using Your KitchenAid® Attachments	8
Beater To Bowl Clearance	8
Care and Cleaning	8
Planetary Mixing Action	9
Mixer Use.....	9
Speed Control Guide	9
Mixing Tips	10
Mixing and Kneading Yeast Dough.....	10, 11
Egg Whites.....	11
Whipped Cream	11
When You Need Service	12
Mixer Warranty	12

Important Safety Instructions

When reading the Instructions Manual...

Pay special attention to sections marked by the following words:

WARNING

These help you avoid accidents that could lead to injury for someone using the product incorrectly.

CAUTION

These help you avoid damage to the product and/or other property.

“NOTE:” or “IMPORTANT”

These sections give you helpful tips on using the product.

WARNING

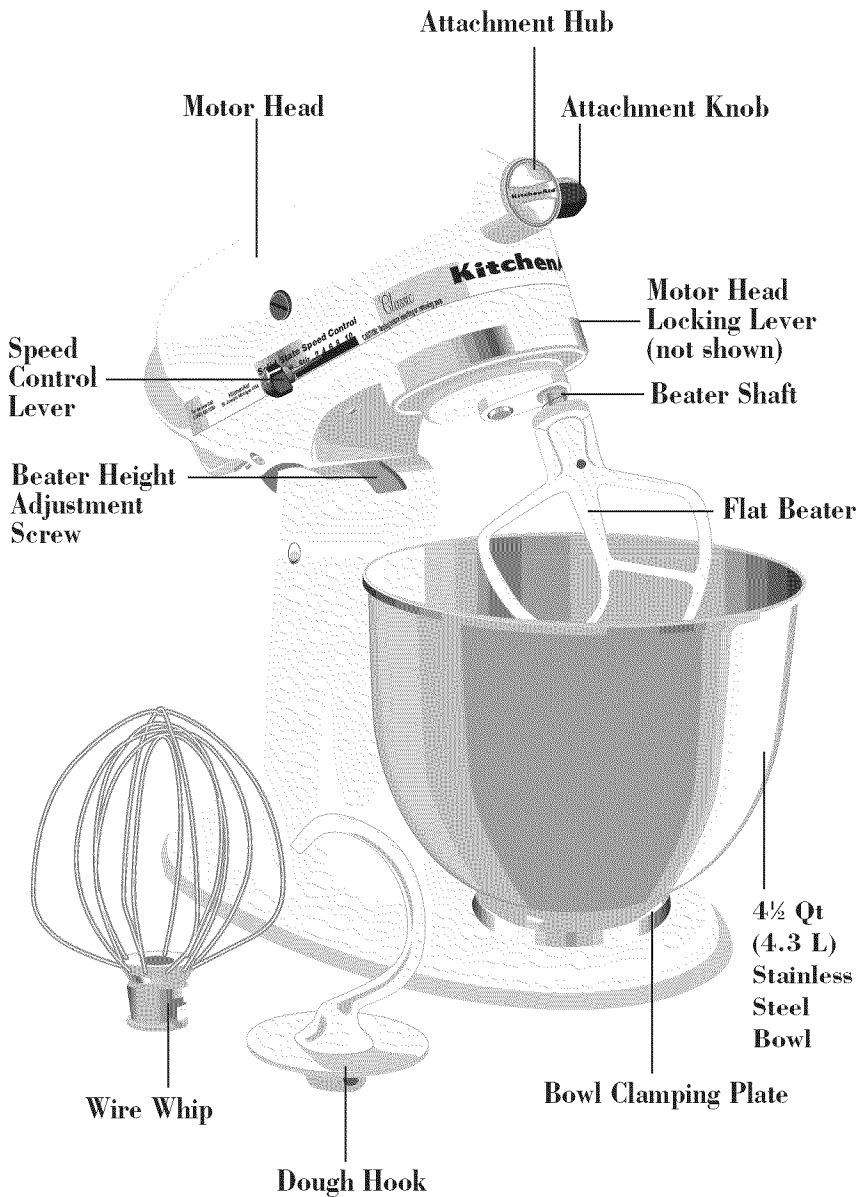
TO REDUCE THE RISK OF FIRE, ELECTRICAL SHOCK, INJURY TO PERSONS, OR DAMAGE WHEN USING THE MIXER, FOLLOW BASIC PRECAUTIONS, INCLUDING THE FOLLOWING:

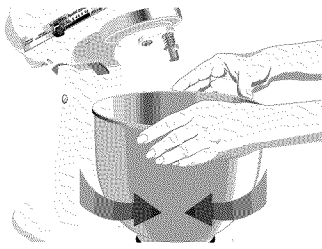
1. Read all instructions
2. To protect against risk of electrical shock, never immerse mixer in water or other liquid.
3. Be sure that the prongs on the plug of the unit mate with the electrical wall receptacle into which it will be plugged. Observation of proper grounding techniques and local electrical codes is required.
4. Do not let children operate or play with mixer.
5. Close supervision is necessary when any appliance is used by or near children. Do not leave mixer unattended while it is operating.
6. Unplug mixer from outlet when not in use, before inserting or removing parts, and before cleaning.
7. Avoid contacting moving parts. Keep hands, hair, clothing, as well as spatulas and other utensils away from beater during operation to prevent injury, and/or damage to the mixer.
8. Do not operate mixer unattended or near edge of work surface. When used for heavy loads or at high speeds, mixer may move on work surface.
9. Remove flat beater, wire whip or dough hook from mixer before washing.
10. Do not operate any appliance with a damaged cord set or after the appliance has been dropped or damaged in any manner. Return appliance to the nearest authorized service center for examination, repair or adjustment.
11. The use of attachments not recommended by KitchenAid may cause fire, electrical shock or injury.
12. Do not use outdoors.
13. Do not let cord hang over edge of table or counter, or touch hot surfaces.
14. When using a mixer model with a tilt head, the head must be completely down before locking. Before mixing, make sure lock is in position by attempting to raise head.
15. When making dough with the 5KSM90 mixer, never use recipes calling for more than 1.0 kg (8 cups) of all-purpose flour or 840 gr (6 cups) of whole wheat flour.
16. When making dough with the mixer, never use recipes calling for more than the following maximum measurements: Model 5K45SS – 1.0 kg (8 cups) of all-purpose flour or 840 gr (6 cups) of whole wheat flour. Model 5KSM5 – 1.2 kg (10 cups) of all-purpose flour or 1000 gr (8 cups) of whole wheat flour.
17. Do not use an extension cord.
18. Be careful when lifting mixer as it is heavy.
19. Use the mixer only for its intended function.
20. **ELECTRICAL REQUIREMENTS:** Your KitchenAid® Mixer operates on a regular 220-240 volt A.C., 50-60 hertz house current. The wattage rating for your KitchenAid® Mixer is printed on the trim band. This wattage is determined by using the attachment which draws the greatest power. Other recommended attachments may draw significantly less power.
21. Be certain the attachment hub is secure (tighten attachment knob) prior to using mixer to avoid any possibility of the attachment hub falling into the bowl during mixing.

SAVE THESE INSTRUCTIONS

5K45SS, 5KSM90 Mixer Features

English



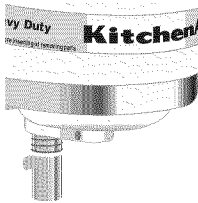


TO ATTACH BOWL

- Be sure speed control is OFF.
- Hold the locking lever in the UNLOCK position and tilt motor head back.
- Place bowl on bowl-clamping plate.
- Turn bowl gently in clockwise direction.

TO REMOVE BOWL

- Turn speed control OFF.
- Holding the locking lever in the UNLOCK position and tilt motor head back.
- Turn bowl in counterclockwise direction.

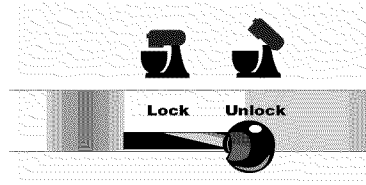


TO ATTACH FLAT BEATER, WIRE WHIP, OR DOUGH HOOK

- Turn speed control to OFF and unplug.
- Hold the locking lever in the UNLOCK position and raise motor head.
- Slip beater onto beater shaft and press upward as far as possible.
- Turn beater to right, hooking beater over pin on shaft.

TO REMOVE FLAT BEATER, WIRE WHIP, OR DOUGH HOOK

- Turn speed control to OFF and unplug.
- Hold the locking lever in the UNLOCK position and raise motor head.
- Press beater upward as far as possible and turn left.
- Pull beater from beater shaft.



TO LOCK MOTOR HEAD IN RAISED POSITION

- Push locking lever up into UNLOCK position and hold.
- Tilt motor head back.
- Move locking lever into LOCK position.

TO LOCK MOTOR HEAD IN OPERATING POSITION

- Push locking lever up into UNLOCK position and hold.
- Lower motor head until it is completely down into operating position.
- Move locking lever into LOCK position.
- Before mixing, test motor lock by attempting to raise head.

NOTE: Motor head should always be kept in LOCK position when using mixer.

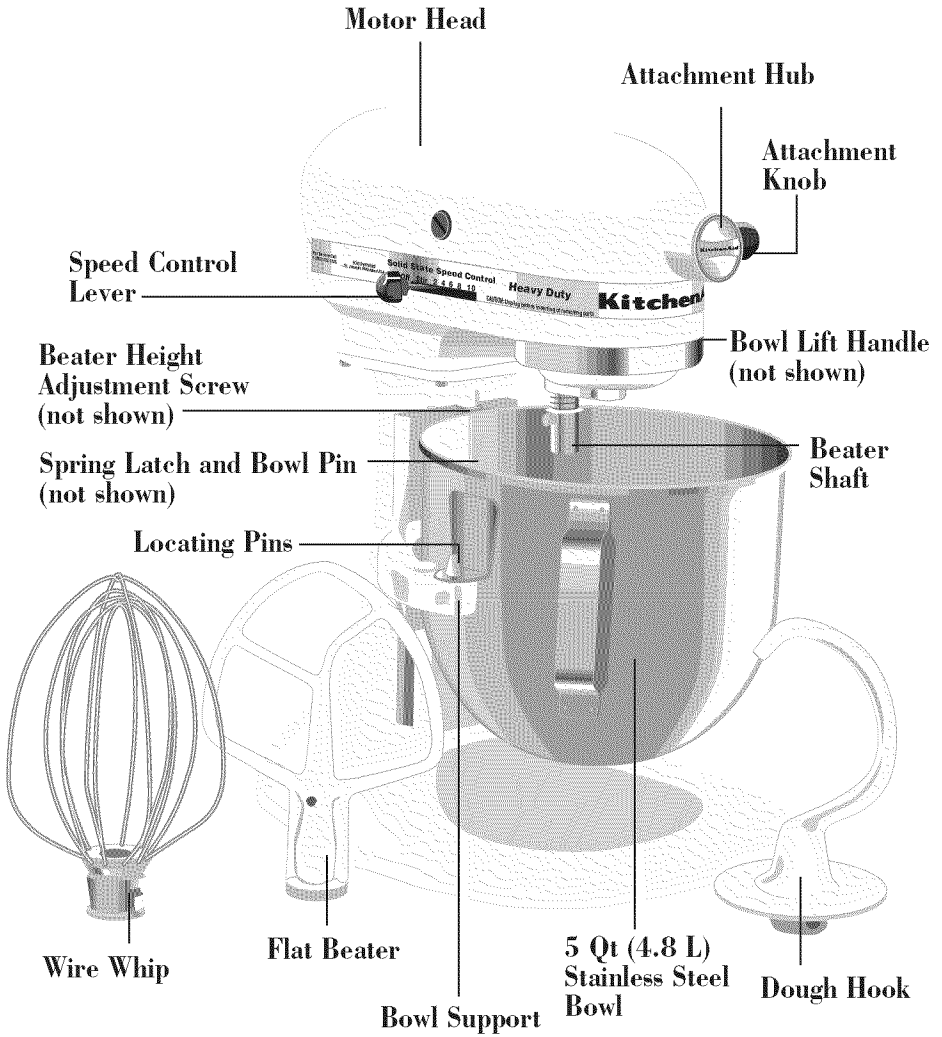


TO OPERATE CONTROL SPEED

- Speed control lever should always be set on lowest speed for starting, then gradually moved to desired higher speed to avoid splashing ingredients out of bowl.
- See "Speed Control Guide."

5KSM5 Mixer Features

English



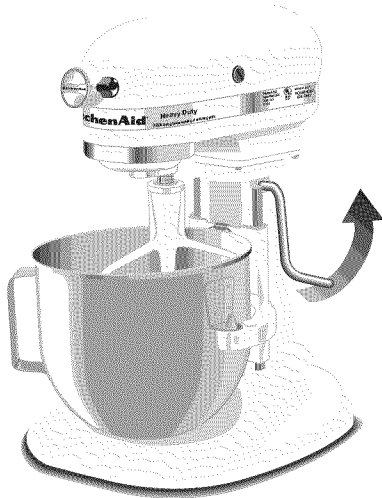
TO ATTACH BOWL

- Be sure speed control is OFF.
- Place bowl lift handle in down position.
- Fit bowl supports over locating pins.
- Press down on back of bowl until bowl pin snaps into spring latch.
- Sit pouring shield on bowl.
- Raise bowl before mixing.

NOTE: Check that bowl and pouring shield are properly in place (5KSM5 models).

TO REMOVE BOWL

- Place bowl lift handle in down position.
- Grasp bowl handle and lift straight up and off locating pins.

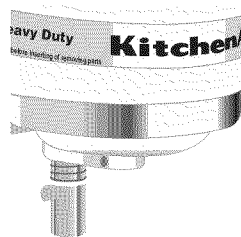


TO RAISE BOWL

- Rotate handle back and up until it snaps into the locked vertical position.
- Bowl must always be in raised, locked position when mixing.

TO LOWER BOWL

- Rotate handle back and down.

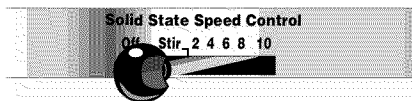


TO ATTACH FLAT BEATER, WIRE WHIP, OR DOUGH HOOK

- Turn speed control to OFF and unplug.
- Lower bowl by rotating bowl lift handle downward.
- Slip flat beater on beater shaft and press upward as far as possible.
- Turn beater to right, hooking beater over the pin on shaft.

TO REMOVE FLAT BEATER, WIRE WHIP, OR DOUGH HOOK

- Turn speed control to OFF and unplug.
- Lower bowl by rotating bowl lift handle downward.
- Press beater upward as far as possible and turn left.
- Pull beater from beater shaft.



TO OPERATE CONTROL SPEED

- Speed control lever should always be set on lowest speed for starting, then gradually moved to desired higher speed to avoid splashing ingredients out of bowl. See "Speed Control Guide."

Using Your KitchenAid® Attachments

See the Stand Mixer Attachments Use and Care Guide for speed settings and operating times.

Flat Beater for normal to heavy mixtures, such as:

cakes	biscuits
creamed frostings	crumpets
candies	meat loaf
cookies	mashed potatoes
pie pastry	

Dough Hook for mixing and kneading yeast doughs, such as:

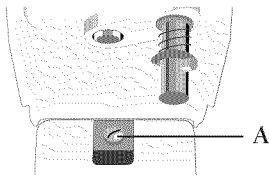
bread	coffee cakes
rolls	buns

Wire Whip for mixtures which need to incorporate air, such as:

eggs	sponge cakes
egg whites	mayonnaise
heavy cream	some candies
boiled frostings	

Beater To Bowl Clearance

Your mixer is adjusted at the factory so that the flat beater just clears the bottom of the bowl. If, for any reason, the flat beater hits the bottom of the bowl or is too far away from the bowl, clearance can be corrected as follows:

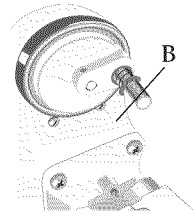


Model 5K45SS, 5KSM90:

- Lift motor head.
- Turn screw (A) slightly to the left to raise flat beater and to the right to lower flat beater.
- Make adjustment with flat beater, so it just clears surface of bowl.

Model 5KSM5:

- Place bowl lift handle in down position.
- Turn screw (B) slightly to the left to raise flat beater and to the right to lower flat beater.
- Make adjustment with flat beater, so it just clears surface of bowl.



NOTE: Flat beater must not strike on bottom or side of bowl when properly adjusted. If beater or wire whip is adjusted too close so that it strikes bottom of bowl, coating may wear off of beater or wires may wear through on wire whip.

Scraping sides of bowl may be necessary under certain conditions regardless of beater adjustment. Mixer must be stopped to scrape bowl or damage to mixer may occur.

Care and Cleaning of Your Mixer

⚠ WARNING

**ELECTRICAL SHOCK HAZARD
ALWAYS BE SURE TO UNPLUG
MIXER BEFORE CLEANING TO AVOID
POSSIBLE ELECTRICAL SHOCK.**

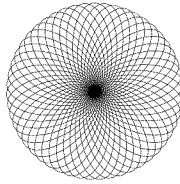
Wipe mixer with a damp cloth. **DO NOT IMMERSE IN WATER.** Wipe off beater shaft frequently, removing any residue that may accumulate.

Bowl, flat beater, wire whip and dough hook may be wash in an automatic dishwasher. Or, clean them thoroughly in hot sudsy water and rinse completely before drying.

Lubrication: Motor bearings are self-lubricating and should require no further attention under normal use.

Planetary Mixing Action

During operation, the flat beater moves around the stationary bowl, at the same time turning in the opposite direction on its own axis. The diagram shows the complete coverage of the bowl made by the path of the beater.



Your KitchenAid® Mixer will mix faster and more thoroughly than most other electric mixers. Therefore, the mixing time in most recipes must be adjusted to avoid overbeating.

Mixer Use

The bowl and beater are designed to provide thorough mixing without frequent scraping. Scraping the bowl once or twice during mixing is usually sufficient.

The mixer may warm up during use. Under heavy loads with extended mixing time, you may not be able to comfortably touch the top of the unit. This is normal.

WARNING

PERSONAL INJURY HAZARD
To avoid personal injury and damage to the beater, do not attempt to scrape bowl while mixer is operating; turn mixer off. Should scraper or other object drop into bowl, turn motor OFF before removing.

Speed Control Guide

NUMBER OF SPEED

- | | | |
|----|-------------------------------|---|
| 1 | STIR | For slow stirring, combining, mashing, starting all mixing procedures. Use to add flour and dry ingredients to batter, add liquids to dry ingredients, and combine heavy mixtures. |
| 2 | SLOW MIXING | For slow mixing, mashing, faster stirring. Use to mix heavy batters and candies, start mashing potatoes or other vegetables, cut shortening into flour, mix thin or splashy batters, and mix and knead yeast dough. Use with Can Opener attachment. |
| 4 | MIXING, BEATING | For mixing semi-heavy batters, such as cookies. Use to combine sugar and shortening and to add sugar to egg whites for meringues. Medium speed for cake mixes. Use with: Food Grinder, Rotor Slicer/Shredder, and Fruit/Vegetable Strainer. |
| 6 | BEATING, CREAMING | For medium fast beating (creaming) or whipping. Use to finish mixing cake, doughnut, and other batters. High speed for cake mixes. Use with Citrus Juicer attachment. |
| 8 | FAST BEATING, WHIPPING | For whipping cream, egg whites, and boiled frostings. |
| 10 | FAST WHIPPING | For whipping small amounts of cream or egg whites. Use with Pasta Maker and Grain Mill attachments. |

NOTE: Will not maintain fast speeds under heavy loads, such as when using Pasta Maker or Grain Mill attachments.

Mixing Tips

Converting your recipe to the mixer

The mixing instructions found in this book can be used to convert your favourite recipes for use with your KitchenAid® Mixer. To help determine a mixing procedure, your own observations and experience will be needed. Watch the batter or dough and mix only until it has the desired appearance described in your recipe such as “smooth and creamy.” Use the “Speed Control Guide” to help determine proper mixing speeds.

Adding Ingredients

The standard procedure to follow when mixing most batters, especially cake and cookie batters, is to add:

- 1/3 dry ingredients
- 1/2 liquid ingredients
- 1/3 dry ingredients
- 1/2 liquid ingredients
- 1/3 dry ingredients

Use Stir speed until ingredients have been blended. Then *gradually* increase to desired speed.

Always add ingredients as close to side of bowl as possible, not directly into moving beater. The Pouring Shield can be used to simplify adding ingredients.

NOTE: If ingredients in very bottom of bowl are not thoroughly mixed, the beater is not far enough into the bowl. “See Beater to Bowl Clearance.”

Cake Mixes

When preparing packaged cake mixes, use Speed 4 for medium speed and Speed 6 for high speed. For best results, mix for the time stated on the package directions.

Adding Nuts, Raisins or Candied Fruits

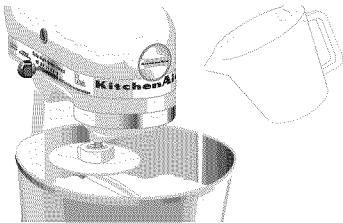
Solid materials should be folded in the last few seconds of mixing on Stir Speed. The batter should be thick enough to keep the fruit or nuts from sinking to the bottom of the pan during baking. Sticky fruits should be dusted with flour for better distribution in the batter.

Liquid Mixture

Mixtures containing large amounts of liquid ingredients should be mixed at lower speeds to avoid splashing. Increase speed only after mixture has thickened.

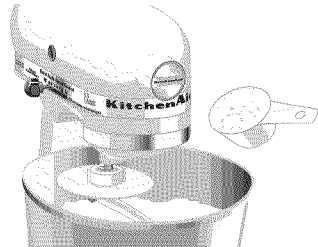
Mixing and Kneading Yeast Dough

- Place all dry ingredients including yeast into bowl, except last 1 to 2 cups flour.
- Attach bowl and dough hook. Lock 5K45SS, 5KSM90 head or raise 5KSM5 bowl. Turn to Speed 2 and mix about 15 seconds or until ingredients are combined.

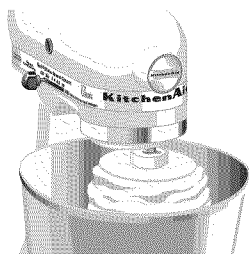


- Continuing on Speed 2, gradually add liquid ingredients to flour mixture, about 30 seconds to 1 minute. Mix 1 minute longer.

NOTE: If liquid ingredients are added too quickly, they will form a pool around the dough hook and slow down mixing process.



- Continuing on Speed 2, gently tap remaining flour around sides of bowl, 1/2 cup at a time, as needed. Mix until dough clings to hook and cleans sides of bowl, about 2 minutes.



5. When dough clings to hook, knead on Speed 2 for 2 minutes or until dough is smooth and elastic.

6. Unlock and raise head on 5KSM90 and remove dough from hook. Unlock and raise head on 5K45SS or lower bowl on 5KSM5 and remove dough from hook.

NOTE: These instructions illustrate bread making with the Rapid Mix method. When using the conventional method, dissolve yeast in warm water in warmed bowl. Add remaining liquids and dry ingredients - except last 1 to 2 cups flour. Turn to Speed 2 for about 1 minute, or until ingredients are thoroughly mixed. Proceed with steps 4 through 6.

Egg Whites

Place room temperature egg whites in clean, dry bowl. Attach bowl and wire whip. To avoid splashing, *gradually* turn to designated speed and whip to desired stage. See chart below.

<u>Amount</u>	<u>Speed</u>
1 egg white	Gradually to 10
2-4 egg whites	Gradually to 8
6 or more egg whites	Gradually to 6

WHIPPING STAGES

Frothy:

Large, uneven air bubbles.

Begin to hold shape:

Air bubbles are fine and compact; product is white.

Whipped Cream

Pour cream into chilled bowl. Attach bowl and wire whip. To avoid splashing, *gradually* turn to designated speed and whip to desired stage. See chart below.

<u>Amount</u>	<u>Speed</u>
59 mL (1/4 cup)	Gradually to 10
118 mL (1/2 cup)	Gradually to 10
236 mL (1 cup)	Gradually to 8
472 mL (1 cup)	Gradually to 8

WHIPPING STAGES

Begins to thicken:

Cream is thick and custard-like.

Soft peak:

Tips of peaks fall over when wire whip is removed.

Almost stiff:

Sharp peaks form when wire whip is removed, but whites are actually soft.

Stiff but not dry:

Sharp, stiff peaks form when wire whip is removed. Whites are uniform in color and glisen.

Stiff and dry:

Sharp, stiff peaks form when wire whip is removed. Whites are speckled and dull in appearance.

Holds its shape:

Cream forms soft peaks when wire whip is removed. Can be folded into other ingredients when making deserts and sauces.

Stiff:

Cream stands in stiff, sharp peaks when wire whip is remove. Use for topping on cakes or desserts, or filling for cream puffs.

NOTE: Watch cream closely during whipping; there are just a few seconds between whipping stages. DO NOT OVERWHIP.

When You Need Service

Please read the following before calling your service center.

1. The mixer may warm up during use. Under heavy loads with extended mixing time periods, you may not be able to comfortably touch the top of the unit. This is normal.
2. The mixer may emit a pungent odor, especially when new. This is common with electric motors.
3. If the flat beater hits the bowl, stop the mixer. See "Beater to Bowl Clearance."

If your mixer should malfunction or fail to operate, please check the following:

1. Is the mixer plugged in?

2. Is the fuse in the circuit to the mixer in working order? If you have a circuit breaker box, be sure the circuit is closed.
3. If the problem is not due to one of the above items, see "How to Obtain Service."

HOW TO OBTAIN SERVICE

All service should be handled locally by an authorized KitchenAid Service Center. Contact the dealer from whom the unit was purchased to obtain the name of the nearest authorized KitchenAid service facility.

In the U. K.:

CAD LTD, Unit 21A Monkspath Bus. Park
Highlands Rd., Shirley Solihull, GB-B90
4NZ, West Midlands, Tel: 0121 7440845

Household Mixer Warranty

LENGTH OF WARRANTY:	KITCHENAID WILL PAY FOR:	KITCHENAID WILL NOT PAY FOR:
FIVE YEARS FULL WARRANTY from date of purchase.	Replacement parts and repair labor costs to correct defects in materials or workmanship. Service must be provided by an Authorized KitchenAid Service Center.	A. Repairs when mixer is used for operations other than normal food preparation. B. Damage resulting from accident, alterations, misuse, abuse, or installation/operation not in accordance with local electrical codes.

KITCHENAID DOES NOT ASSUME ANY RESPONSIBILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Specifications subject to change without notice.

KitchenAid Europa, Inc.
Nijverheidslaan 3 Box 5
1853 Strombeek-Bever (Brussels)
BELGIUM

9705170B

©2009. All rights reserved

®Registered trademark/™Trademark/the shape of stand mixer is a registered trademark of KitchenAid, U.S.A.

1/09

Printed in U.S.A.