



KitchenAid® New Generation Stand Mixer Service Manual

Intended for Professional Service Technician Only

Domestic Models - Including Commercial - KF26M22, KF26M2C, KF26M2X, KG25H0W, KG25H0X, KG25H3X, KL26M8X, KM25G0X, KP26KPRA, KP26M1FQ, KP26M1P, KP26M1XA, KP26M1X, KP26M1XEP, KP26M1XFQ, KP26M1XQ, KP26M8X, KP26N9X, KT2651X, KV25G0X, KV25H0X, KV25MCX, KV25MEX,

International Model – 4KB25G1, 4KG25H3X, 4KP26M1X, 4KV25H0X, 8KP2670T,



KitchenAid®

New Gen Stand Mixer Service/Repair Manual Intended for Professional Service Technician Only

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- Covers Domestic Model –KB26G1X, KF26M22, KF26M2C, KF26M2X, KG25H0W, KG25H0X, KG25H3X, KL26M8X, KM25G0X, KP26KPRA, KP26M1FQ, KP26M1P, KP26M1XA, KP26M1X, KP26M1XEP, KP26M1XFQ, KP26M1XQ, KP26M8X, KP26N9X, KT2651X, KV25G0X, KV25H0X, KV25MCX, KV25MEX,
- International Model – 4KB25G1, 4KG25H3X, 4KP26M1X, 4KV25H0X, 8KP2670T,

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Appendix**A.****Subject**

Tools Required for Stand Mixer Service

Page(s)**Introduction**

All KitchenAid Stand Mixers are well designed and carefully built. Normally they will give continual use year after year without service attention.

Records have been maintained to determine and correct, through improved design, any troubles that might possibly develop. An effort has been made in preparation of this manual to cover them all.

These units have had many improvements over time, please pay close attention to the following illustrations. There are multiple gear and motor combinations as well as housings.

Models – KT, KD, all used the 53 tooth 1st stage gear and a 8 tooth motor. If you change the 1st stage gear to the new 60 tooth 1st stage gear then you must change to the 10 tooth motor. Same as if you change the motor you will have to change the 1st stage gear because they will not work unless they are paired up right. You may also need to change the lower housing because the new motor (9706548) will not fit into the original housing (Pictures on pages 17 and 18).

KitchenAid recommends that the plastic Transmission Housings be replaced with the new Magnesium Housing and Gasket. (8212396)

The new control board(9706509) can be used on older units as long as you change the cord to the new cord(W10325656).



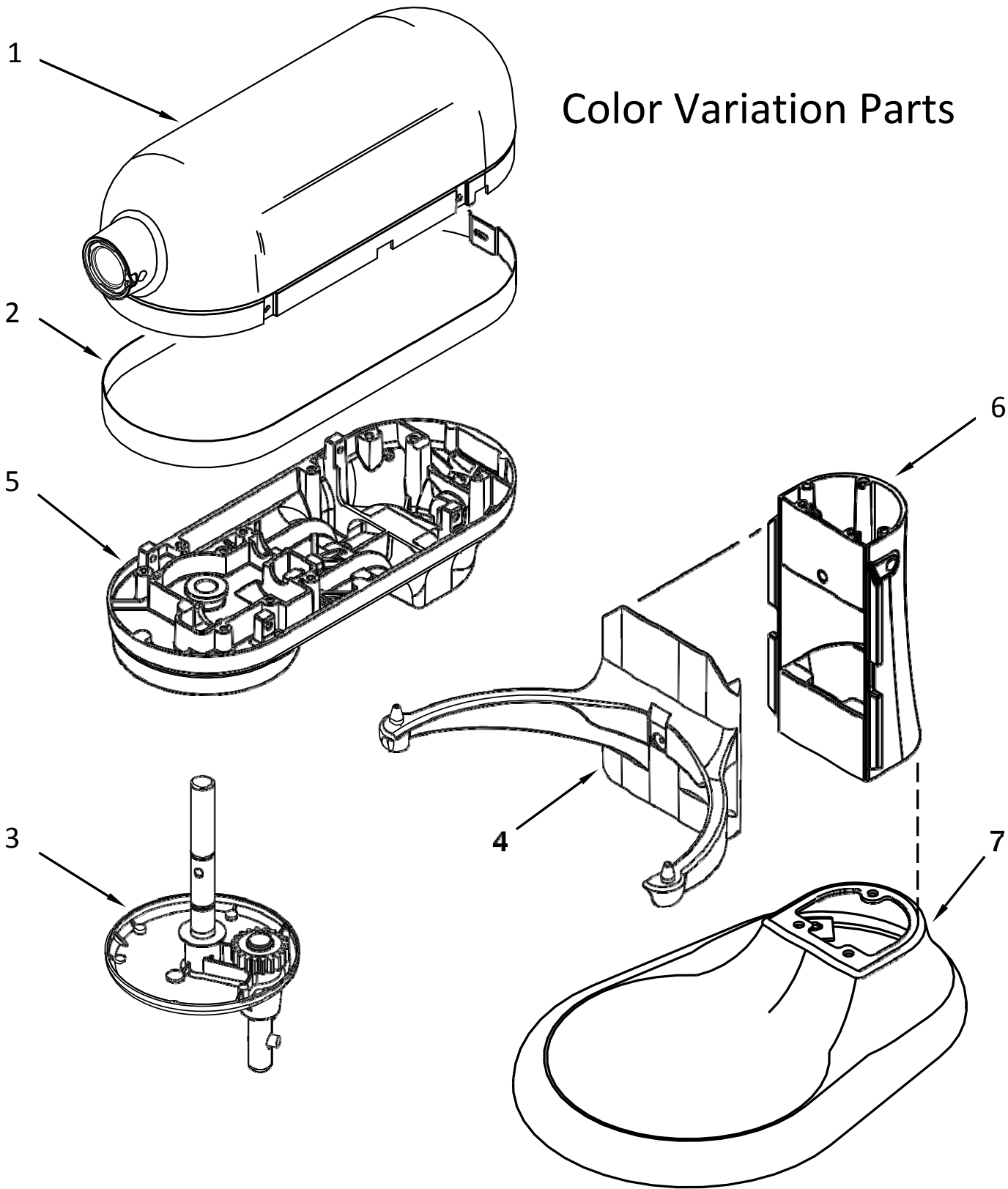
5 QT. STAND MIXER

MODELS:

KG25H0XWH5 (White)
KG25H0XBK5 (Imperial Black)
KG25H0XOB5 (Onyx Black)
KG25H0XER5 (Empire Red)
KG25H0XMC5 (Metallic Chrome)
KG25H0XCL5 (Crystal Blue)
KG25H0XCE5 (Copper Pearl)
KG25H0XBU5 (Cobalt Blue)
KG25H0XQG5 (Liquid Graphite)
KG25H0XGA5 (Green Apple)
KG25H0XIC5 (Ice)
KG25H0XAQ5 (AquaSky)
KG25H0XBY5 (Boysenberry)
KG25H0XES5 (Espresso)

KG25H0XGC5 (Gloss Cinnamon)
KG25H0XMY5 (Majestic Yellow)
KG25H7XWH5 (White)
KG25H7XOB5 (Onyx Black)
KG25H7XER5 (Empire Red)
KG25H7XSL5 (Silver)
KG25H3XWH5 (White)
KG25H3XOB5 (Onyx Black)
KG25H3XER5 (Empire Red)
KG25H3XSL5 (Silver)
4KG25H3XER5 (Empire Red)
4KG25H3XOB5 (Onyx Black)
4KG25H3XSL5 (Silver)
4KG25H3XWH5 (White)

Color Variation Parts



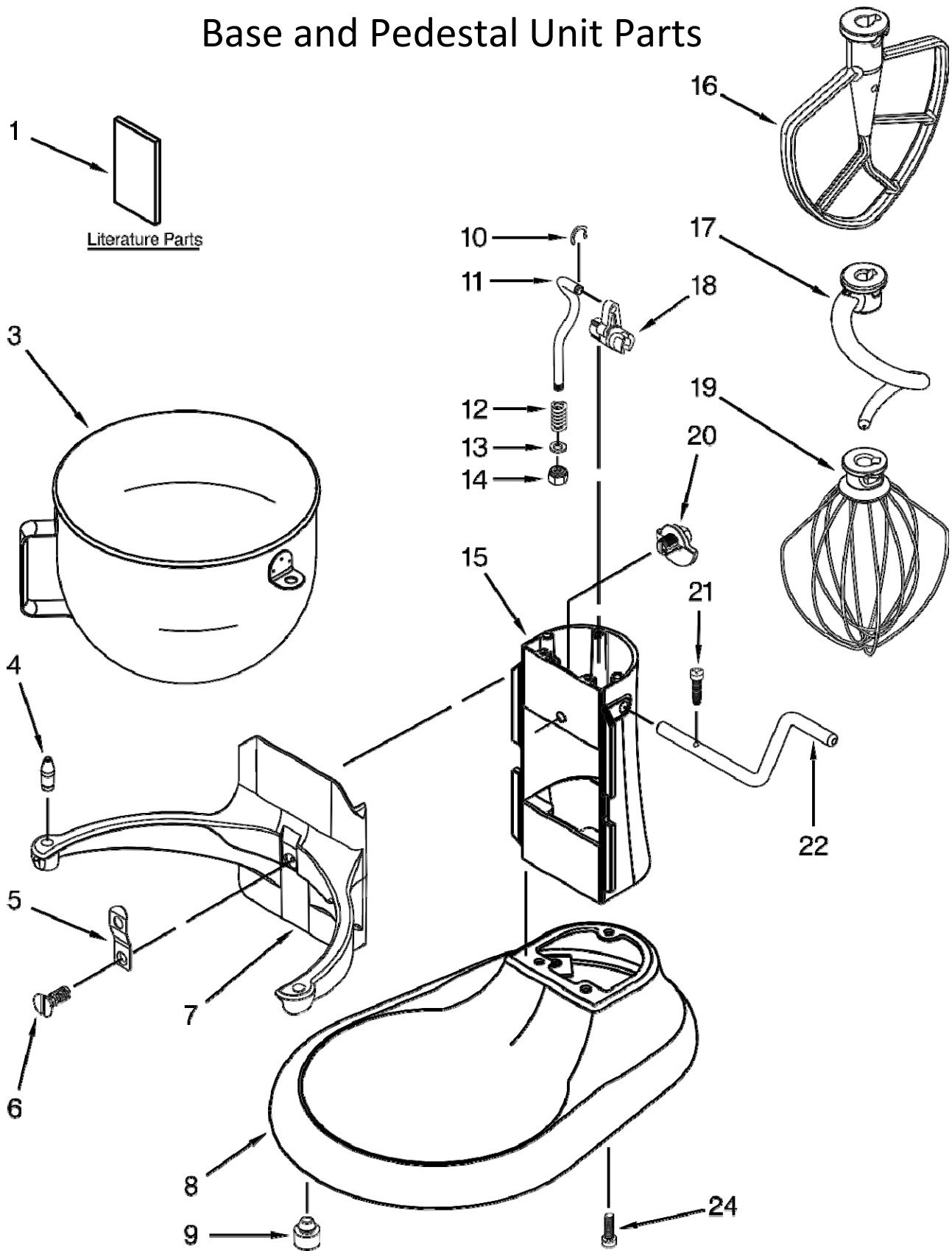
Color Variation Parts

<u>Illus. No.</u>	<u>Part No. Descr</u>	<u>Illus. No.</u>	<u>Part No. Descr.</u>
1	Motor Housing	4	Bowl Support and Pins
	9703311 White		9707633 White
	9703532 Imperial Black		9708853 Imperial Black
	9705296 Onyx Black		9707876 Onyx Black
	9705300 Empire Red		9707883 Empire Red
	9709571 Silver		9709582 Silver
	9703433 Metallic Chrome		9709123 Metallic Chrome
	W10562403 Crystal Blue		W10532418 Crystal Blue
	9709152 Copper Pearl		W10625482 Copper Pearl
	9705380 Cobalt Blue		W10672071 Cobalt Blue
	W10513715 Liquid Graphite		W10707409 Liquid Graphite
	W10342782 Green Apple		W10726831 Green Apple
	W10726426 Ice		W10726436 Ice
	W10577728 Aqua Sky		W10808334 Aqua Sky
	W10342784 Boysenberry		W10819157 Boysenberry
	W10453625 Espresso		W10808331 Espresso
	W10114555 Gloss Cinnamon		W10808330 Gloss Cinnamon
	9705301 Majestic Yellow		W10819160 Majestic Yellow
2	W10749681 Trim Band	5	Lower Gearcase
3	Planetary		9706047 White
	9708172 White		9706301 Imperial Black
	9708174 Imperial Black		9706311 Onyx Black
	9708176 Onyx Black		W10343980 Boysenberry
	9708180 Empire Red		9706331 Empire Red
	9709575 Silver		9709578 Silver
	9708175 Metallic Chrome		9706306 Metallic Chrome
	W10562408 Crystal Blue		W10562412 Crystal Blue
	9709156 Copper Pearl		9709159 Copper Pearl
	9708182 Cobalt Blue		9706341 Cobalt Blue
	W10513719 Liquid Graphite		W10513724 Liquid Graphite
	W10343681 Green Apple		W10343978 Green Apple
	W10726430 Ice		W10726433 Ice
	W10577733 Aqua Sky		W10577750 Aqua Sky
	W10343683 Boysenberry		W10453632 Espresso
	W10114559 Gloss Cinnamon		W10114562 Gloss Cinnamon
	9708181 Majestic Yellow		9706336 Majestic Yellow

Color Variation Parts

<u>Illus. No.</u>	<u>Part No. Descr</u>	<u>Illus. No.</u>	<u>Part No. Descr.</u>
6	Column and Pin	7	Base and Foot Assembly
	9703673 White		9703690 White
	9703526 Imperial Black		9703511 Imperial Black
	9705320 Onyx Black		9705344 Onyx Black
	9705324 Empire Red		9705348 Empire Red
	9709585 Silver		9709588 Silver
	9703349 Metallic Chrome		9703346 Metallic Chrome
	W10562421 Chrystal Blue		W10562424 Crystal Blue
	9709166 Copper Pearl		9709169 Copper Pearl
	9706341 Cobalt Blue		9705388 Cobalt Blue
	W10513737 Liquid Graphite		W10513740 Liquid Graphite
	W10344072 Green Apple		W10344173 Green Apple
	W10726438 Ice		W10726441 Ice
	W10577769 Aqua Sky		W10577773 Aqua Sky
	W10344074 Boysenberry		W10344175 Boysenberry
	W10453639 Espresso		W10453644 Espresso
	W10114569 Gloss Cinnamon		W10114572 Gloss Cinnamon
	9705325 Majestic Yellow		9705349 Majestic Yellow

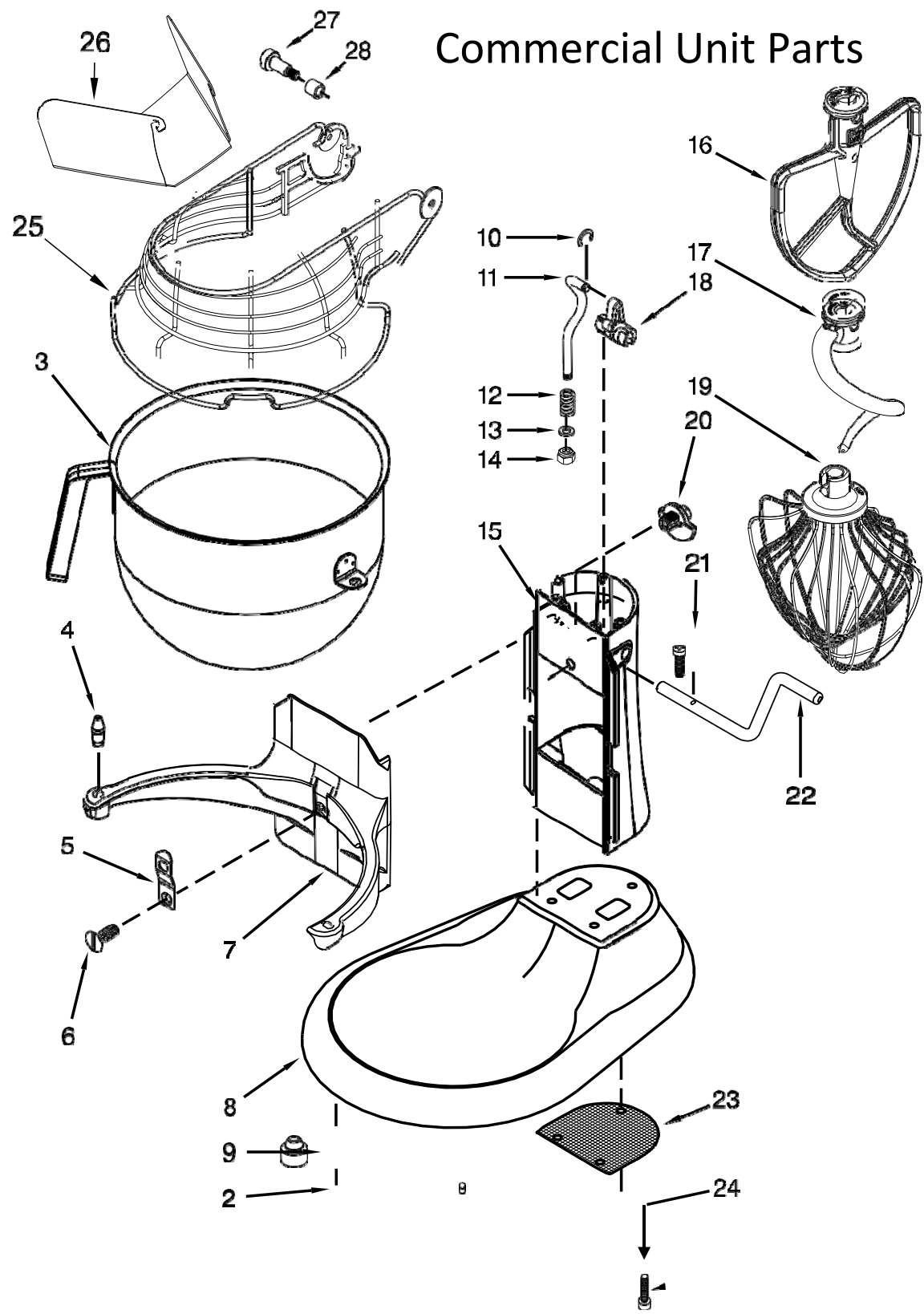
Base and Pedestal Unit Parts



Base and Pedestal Unit Parts

<u>Illus. No.</u>	<u>Part No.</u>	<u>Description</u>
1	W10581080	Use and Care Guide
2	W10439369	Foot
3	W10354780	Bowl
4	240185	Pin, Retaining Bowl
5	W10504114	Bowl Retainer
6	3400018	Screw
7	Bowl Support and Pins (Refer to Color Variation Parts Page for Model Number)	
8	Base and Foot Assembly (Refer to Color Variation Parts Page for Model Number)	
9	9708649	Foot
10	9703307	Retaining Ring
11	9706787	Bowl Lift Rod
12	9237	Lift Rod Spring
13	9703439	Washer
14	8533907	Nut
15	Column and Pins (Refer to Color Variation Parts Page for Model Number)	
16	W10376294	Flat Beater (Stainless)
17	W10462785	Dough Hook (Stainless)
18	9706885	Bowl Lift Arm
19	W10600940	Wire Whip
20	9703426	Adjusting Cam
21	3400863	Screw
22	9706788	Bowl Lift Handle
23	9706814	Vent Screen
24	3400200	Screw

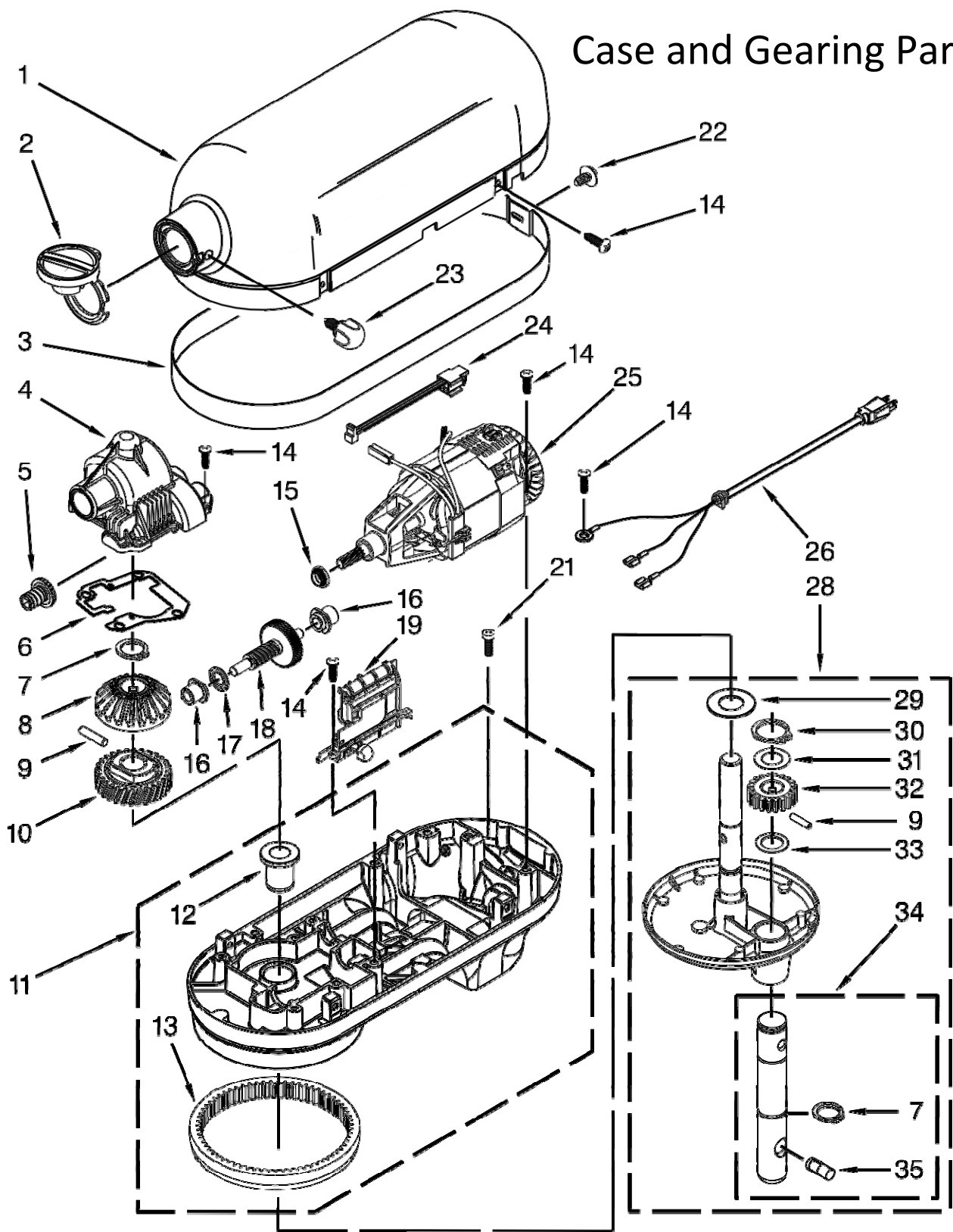
Commercial Unit Parts



Commercial Unit Parts

<u>Illus. No.</u>	<u>Part No.</u>	<u>Description</u>
1	W10581080	Use and Care Guide
2	W10439369	Foot
3	W10354780	Bowl
4	240185	Pin, Retaining Bowl
5	W10504114	Bowl Retainer
6	3400018	Screw
7	Bowl Support and Pins (Refer to Color Variation Parts Page for Model Number)	
8	Base and Foot Assembly (Refer to Color Variation Parts Page for Model Number)	
9	9708649	Foot
10	9703307	Retaining Ring
11	9706787	Bowl Lift Rod
12	9237	Lift Rod Spring
13	9703439	Washer
14	8533907	Nut
15	Column and Pins (Refer to Color Variation Parts Page for Model Number)	
16	W10376294	Flat Beater (Stainless)
17	W10462785	Dough Hook (Stainless)
18	9706885	Bowl Lift Arm
19	W10600940	Wire Whip
20	9703426	Adjusting Cam
21	3400863	Screw
22	9706788	Bowl Lift Handle
23	9706814	Vent Screen
24	3400200	Screw

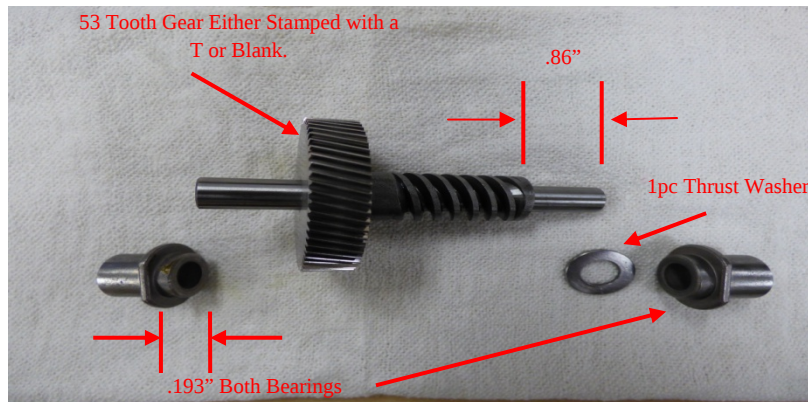
Case and Gearing Parts



Case and Gearing Parts

<u>Illus. No.</u>	<u>Part No.</u>	<u>Descr</u>	<u>Illus. No.</u>	<u>Part No.</u>	<u>Descr.</u>
1		Gearcase Motor Housing (see color variation parts page)	18	9709231	Worm Gear
2	9703315	Cap Attachment Hub(Chrome)	19	9706648	Control Assm.W/black knob
3	W10749681	Black Trim Band	21	3400200	Screw
4	9709125	Transmission Housing	22	3400617	Screw
5	9703338	Attachment Hub Gear	23	9709194	Black Thumb Screw
6	9709511	Transmission Gasket	24	9703312	Hall Effect Sensor
7	9703680	Retaining Clip	25	W10247536	120V Motor
8	9703337	Bevel Gear	26		Power cord
				W10164887	White
				W10325656	Black
9	9707223	Retaining Pin	28		Planetary Assembly(See Color Variation)
10	9706529	Worm Follower Gear	29	W10323379	Fiber Washer
11		Lower Gearcase(See Color Variation Page)	30	9703438	Retaining Ring
12	16897	Lower Center Bearing	31	9706090	Washer
13	9703339	Internal Gear	32	9707627	Pinion Gear
14	3400814	Screw	33	8533910	Washer
15	9706247	Motor Seal Shaft	34	9708191	Agitator Shaft
16		Bearing	35	9704677	Groove Pin
	W10170081	Rear			
	W10170080	Front			

Original 1st Stage Gear



From: Start of Production

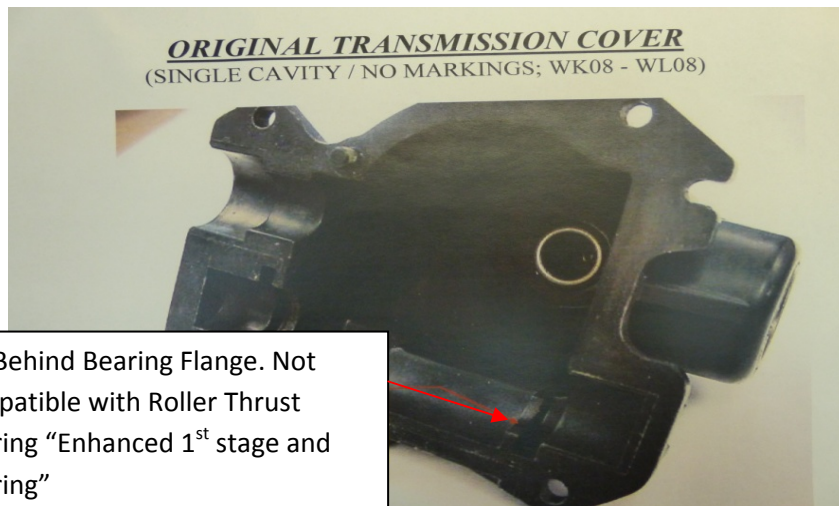
Through: Date Code WL03

Rear Bearing-9703351(.193" Beyond Flange) 1st Stage Worm Assembly-9703699

Front Bearing-9703351(.193" Beyond Flange) Thrust Washer-9703677

Original Transmission Cover

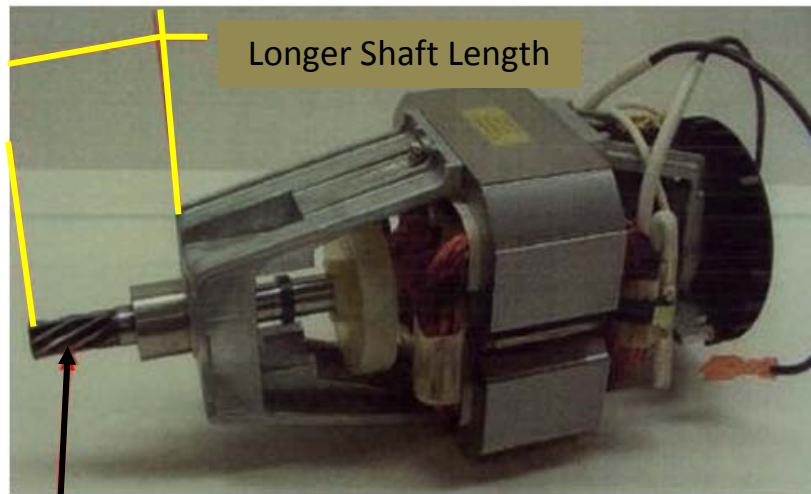
Single Cavity/No Markings WK08-WL08 (Always inspect for cracks)



Original Motor (Johnson) KP & 4KP: Serial Numbers WK08 – WK50

KD, KT, 4KD, and 4KT: Serial Numbers WK08 – WL36

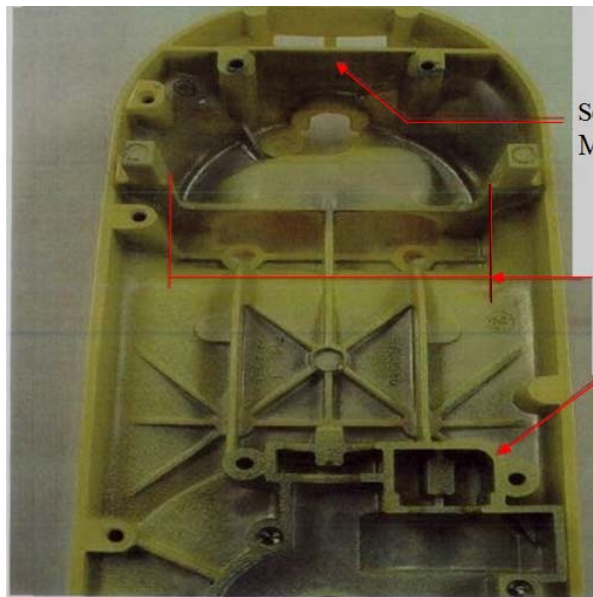
8 Tooth Pinion- Smaller U88 Laminations PN9703571



8 Tooth Pinion

1st Lower Housing Change

Serial Numbers WK51-WL16



Solid Wall Between
Motor Mounts

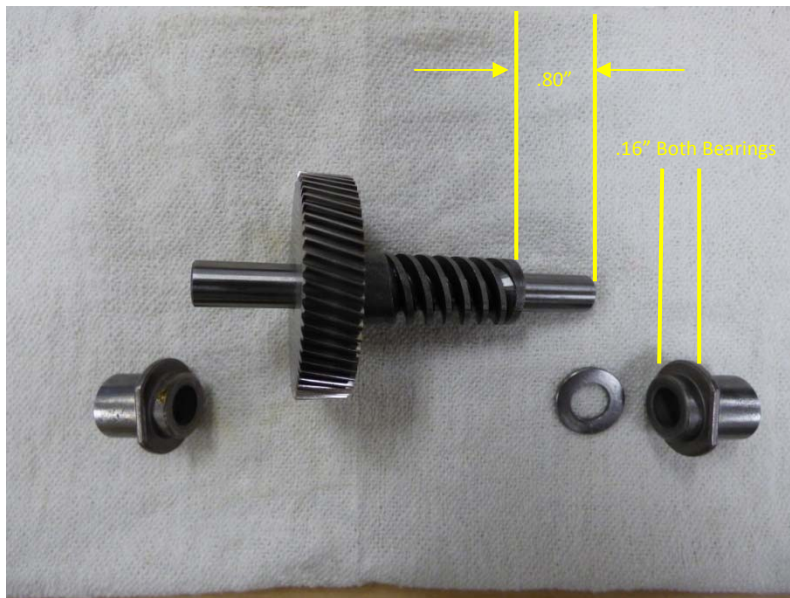
Wider Opening Below Motor

Taller Trans. Surface

*New Motor (9706548)
will not fit in this
housing.

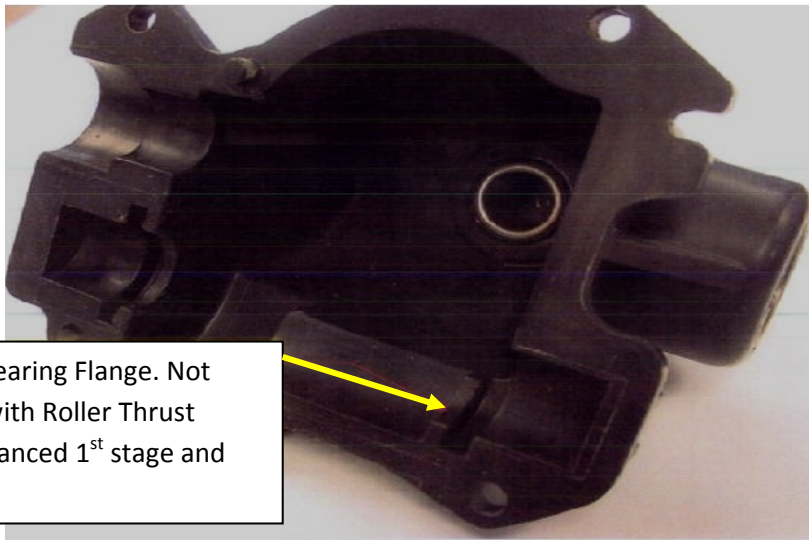
Partial Enhanced 1st Stage Gear & Bearings

Serial WL04-WL08 Works With Old and New Transmission Cover

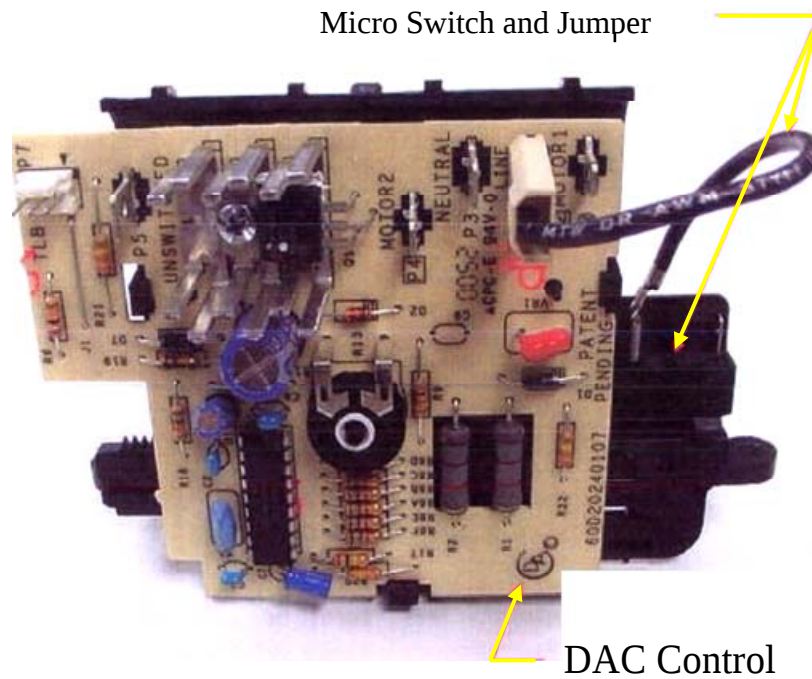


Original Transmission Cover

Single Cavity/No Markings WK08-WL08 (Always inspect for cracks)



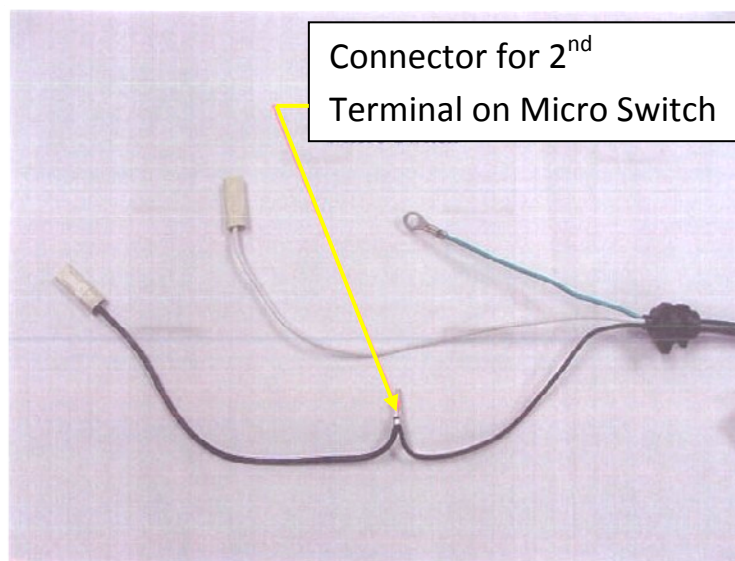
Original Control Board WK08-WL45



*The new Control Board(9706509) will work on the older units, as long as the Cord is changed as well(W10325656).

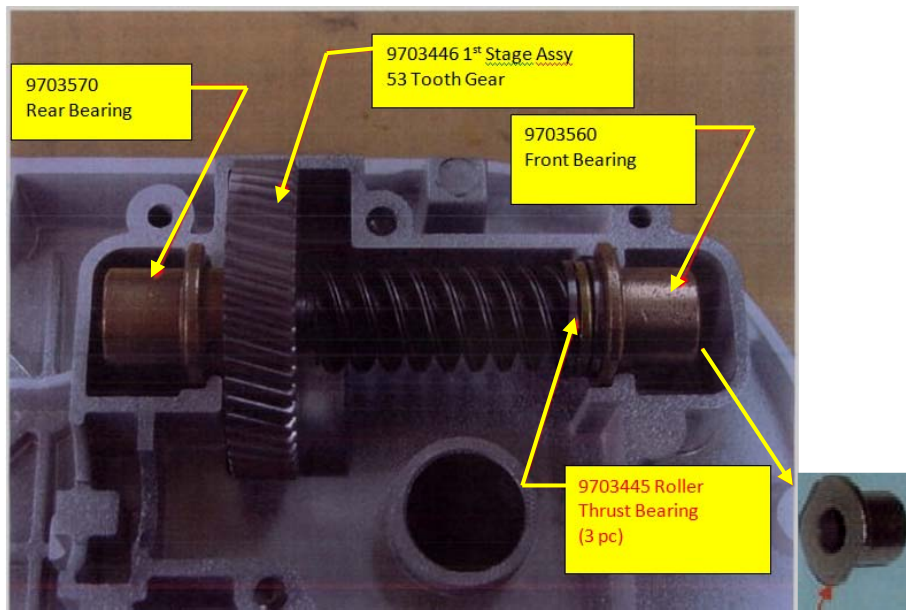
Original Cord Terminals

Serial Numbers WK08-WK45



Full Enhanced 1st Stage Gear & Bearings

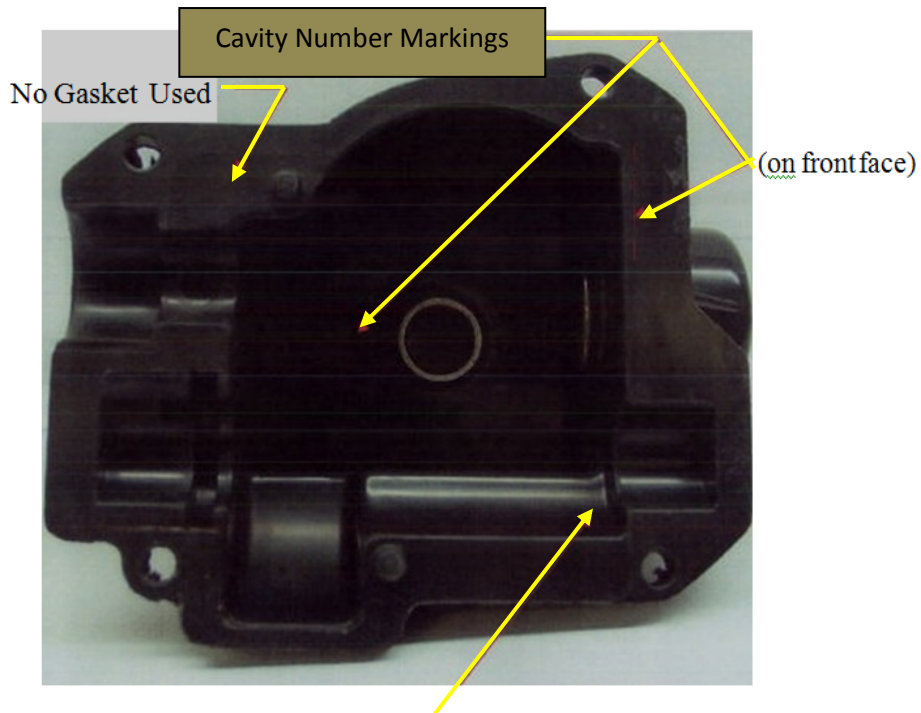
Serial Numbers WL09-WL45 (Requires New 4 Cavity Transmission Cover)



No Body Beyond Flange

4 Cavity Transmission Cover

Serial Numbers WL09-WL16 (Always inspect for cracks)



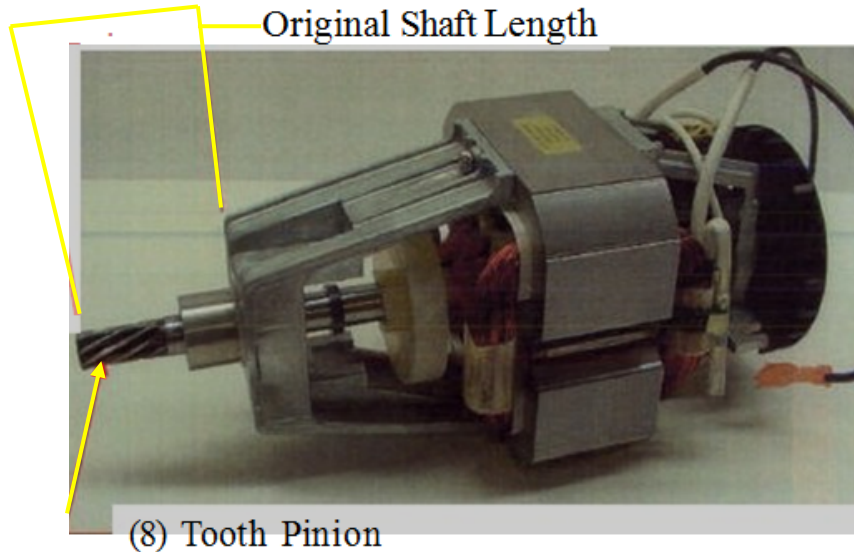
Rib Removed

9703672 Johnson Motor

KP&4KP: Serial numbers WK51-WL33

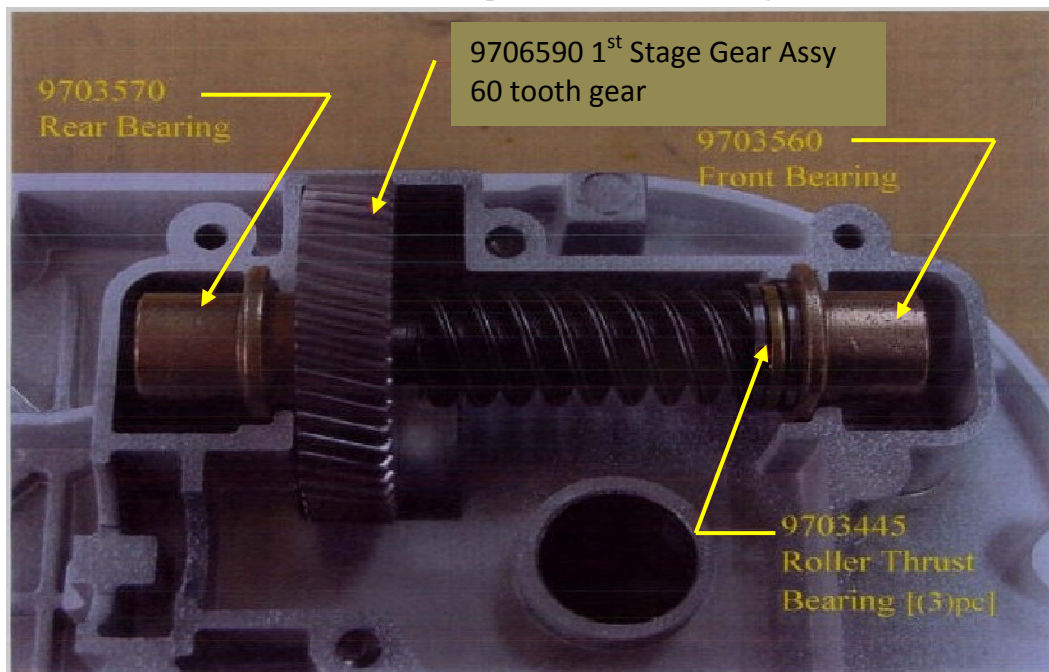
KD,KT,4KD and 4KT: Serial Numbers WK51-WL36

Fits all Lower Housings Except the Original Version - Serial Number up to WL45



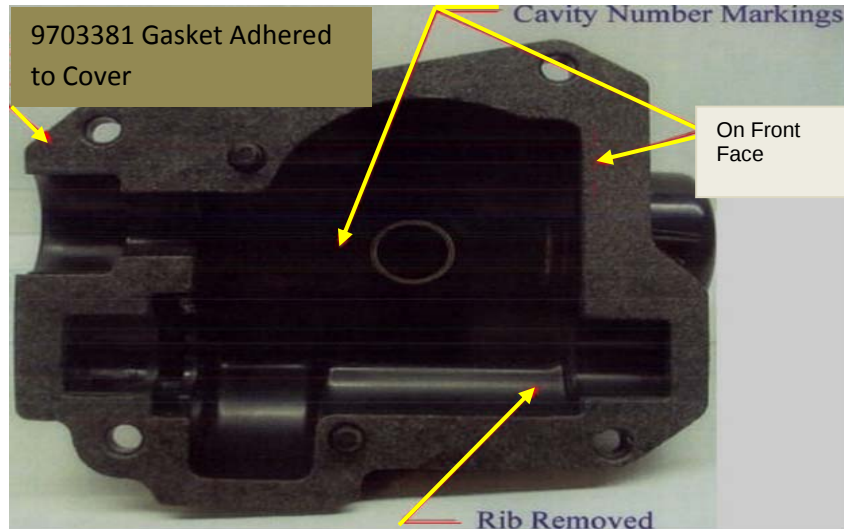
Full Enhanced 1st Stage Gear & Bearings

Serial Numbers WL46-Present (Requires New 4 Cavity Transmission Cover)



4 Cavity Transmission Cover with Gasket

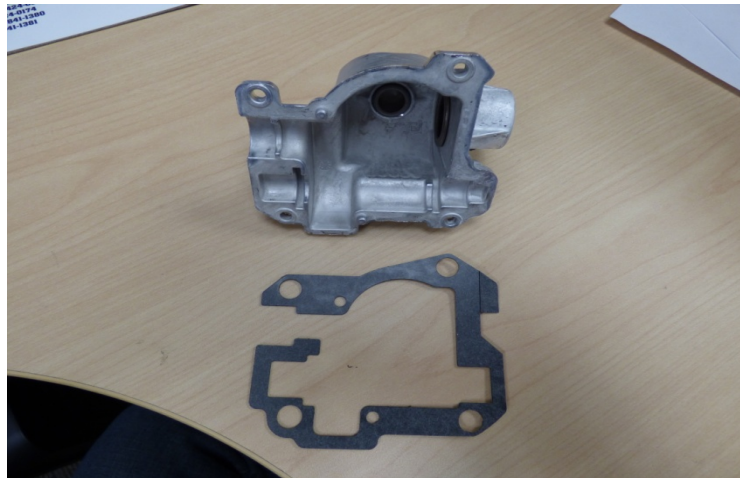
Serial Numbers WL17-Present – (Always inspect for cracks)



New Magnesium Transmission Cover - Gasket - 8212396

Serial Number WT17 – Present 4KN15E1X, KP26M1X, 5KP26M1X, 4KP26M1X, KP26M8X, KM25G0XWH

All models after serial number WU14

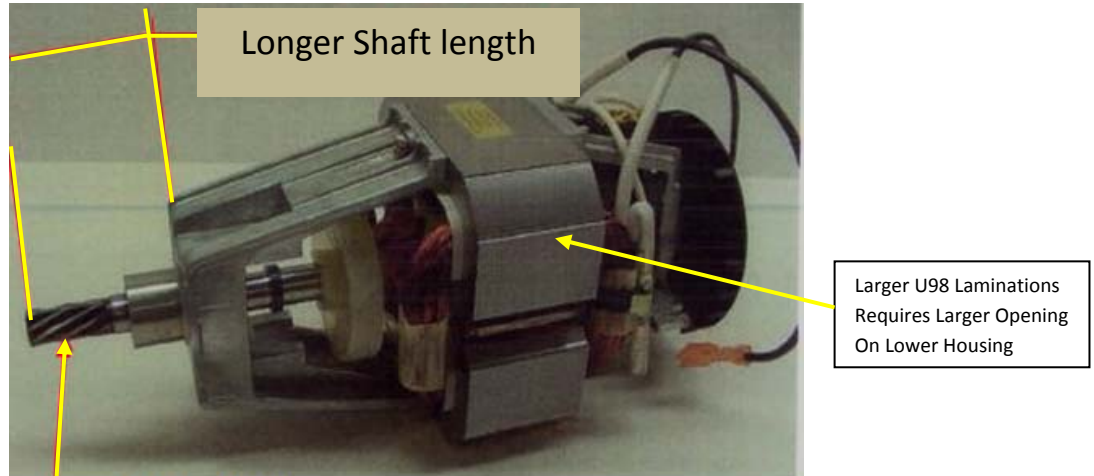


9706251 Johnson Motor

KP, 4KP: Serial Numbers WL34-WL45

KD, KT, 4KD, and 4KT: WL37-WL45

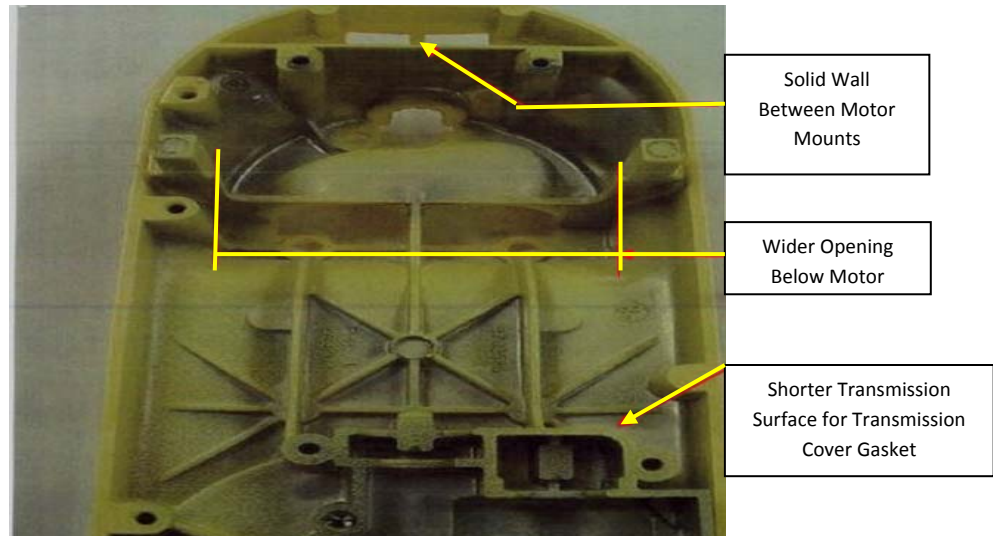
Fits all Lower Housings Except the Original Version - Serial Number up to WL45



2nd Lower Housing Change

Serial Number WL17 – WL45

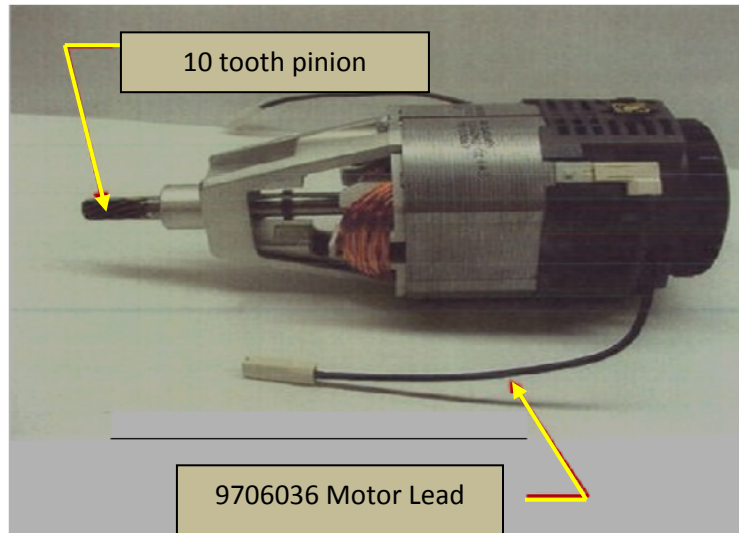
*New Motor
(9706548) will not
fit in this housing.



9703585 Motor FHP

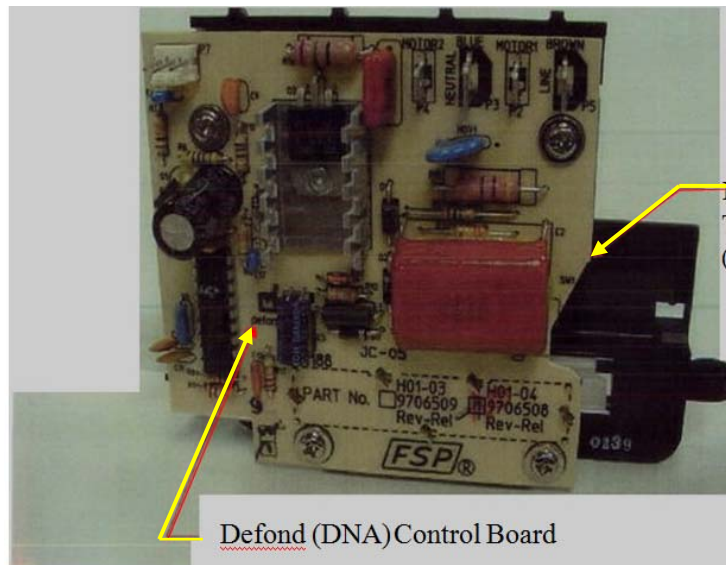
KP, 4KP Models only: WL46-Present

Requires 3rd Lower Housing change for Clearance



New Control Board(9706509)

WL46 - Present



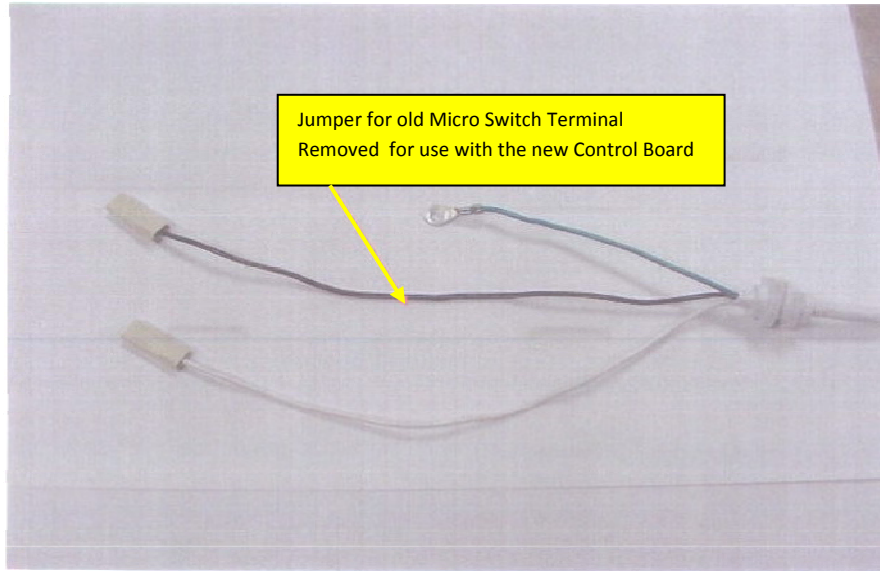
Micro Switch Is Soldered
To Rear Of Control Board.
(No Jumper Wire Needed)

Defond (DNA) Control Board

New Power Cord Connections

Part Number W10325656

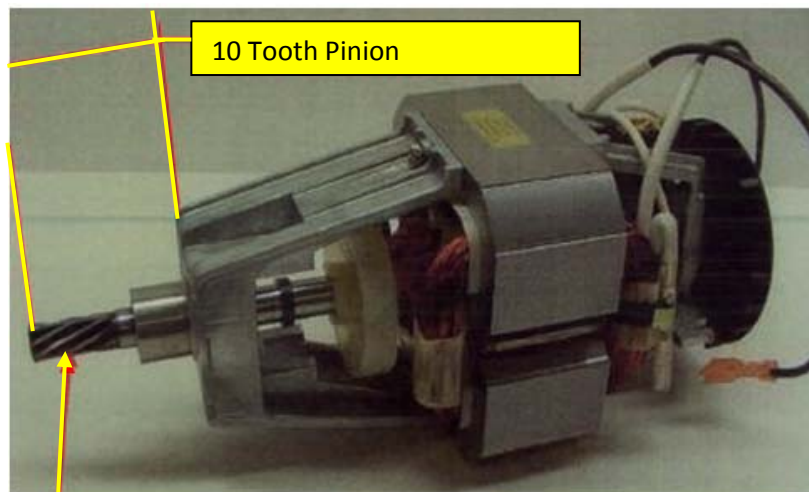
Serial Numbers (WL4 – Present)



9706548 Johnson Motor

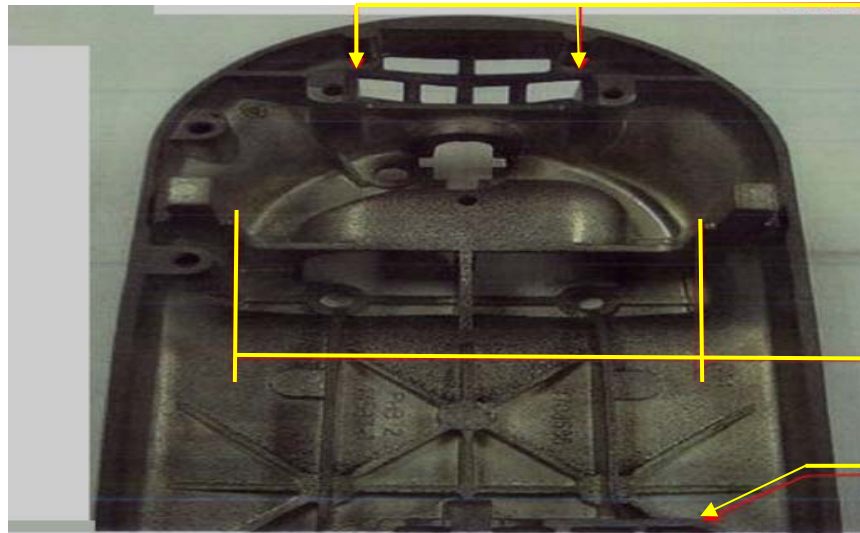
KD,KT,4KD,and 4KT: Serial Numbers WL46-Present

Fits All Lower Housings Except the Original Version - Serial Number up to WL45



3rd Lower Housing Change

Serial Numbers WL46-Present



Wall Removed Between
Motor Mounts (Compatible
With all Motors)

Larger U98 Laminations
Requires Larger Opening
On Lower Housing.

Shorter Transmission
Surface For Use With
the Gasket

Your safety and the safety of others are very important.

We have provided many important safety messages in this manual and on your appliance. Always read and obey all safety messages.



This is the safety alert symbol.

This symbol alerts you to potential hazards that can kill or hurt you and others.

All safety messages will follow the safety alert symbol and either the word "DANGER" or "WARNING."

These words mean:

⚠ DANGER

You can be killed or seriously injured if you don't immediately follow instructions.

⚠ WARNING

You can be killed or seriously injured if you don't follow instructions.

All safety messages will tell you what the potential hazard is, tell you how to reduce the chance of injury, and tell you what can happen if the instructions are not followed.

IMPORTANT SERVICE WORKPLACE SAFETY RECOMMENDATIONS

⚠ WARNING



Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

The purpose of this manual is to familiarize the professional house wares technician with the techniques required to repair the following:

- New Generation Stand Mixer

SERVICE ENVIRONMENT

The following Safety Guidelines should be adhered to when servicing this product.

- The workplace should be dry and sanitary at all times and all units should

be inspected for cleanliness before any work is started.

- Visually inspect the unit requiring service in a well illuminated area.
- A mild, non-abrasive dishwashing soap solution and clean towel can be used to wash any unit requiring attention.
- The hands of the service technician should be clean at all times during the service procedure.

PERSONAL PROTECTION

- The Service Technician should wear Protective Eyewear at all times when conducting a repair on the unit.
- Loose fitting sweaters, shirt sleeves or bracelets should not be worn while servicing any product with rotating parts.

ELECTRICAL CONSIDERATIONS

- The workplace for the appliance should have properly grounded AC outlets that adhere to all Local Electrical Codes that are applicable at the time of repair.
- The appliance Power Cord should always be inspected first before plugging the unit into an energized power outlet.
- Do Not run the appliance if the Power Cord is damaged - replace it.
- ESD (Electro Static Discharge) protection should be provided when servicing the electronic components.
- All disassembly and assembly procedures discussed in this manual should be conducted with the unit disconnected from the AC power source.
- Do Not leave the appliance unattended while running it for inspection or for any other checks.
- Do Not remove any attachments from the appliance while it is operating.
- Always unplug the appliance immediately after concluding all electrical tests.

IMPORTANT SAFEGUARDS

Ensure the KitchenAid service technician is aware of the operating safeguards recommended to the customer:

1. Read all instructions in the Product's Service Manual.
2. Close supervision is necessary when any food processing appliance is used by or near children.
3. To protect against electrical shock, do not immerse cord, plugs, or the appliance housing in water or other liquid.
4. Do not operate any appliance with a damaged cord or plug or after the appliance has malfunctioned or has been damaged in any manner.
5. Unplug the appliance from the AC outlet before cleaning.
6. Do not let the cord hang over the edge of a table or counter or touch hot surfaces.
7. Do not use an extension cord.
8. The use of accessories not recommended by the manufacturer may result in fire, shock, or injury to the operator.
9. Do not use the appliance outdoors as it is designed for indoor use only.
10. Do not place the appliance on or near a hot gas or electric burner or on a heated oven.
11. Do not use the appliance for other than its intended use.
12. Do not clean the appliance with harsh cleaners, steel wool pads or other abrasive material.

LIST OF REQUIRED TOOLS

The following tools are necessary to service the KitchenAid® Stand Mixer.

- Snap Ring Pliers
- Standard Slip-joint pliers
- #R2 Square Bit Screw Driver
- Soft clean cloth
- 5/32 Punch
- 7/16 Nut Driver
- Hammer
- Side (or Diagonal) Cutters (to remove wire ties)
- Needle Nose Pliers (to manipulate wires)
- Phillips Screwdriver Set
- Volt/Ohm Meter



NOTE: Power drivers are not recommended for servicing KitchenAid® countertop appliances.

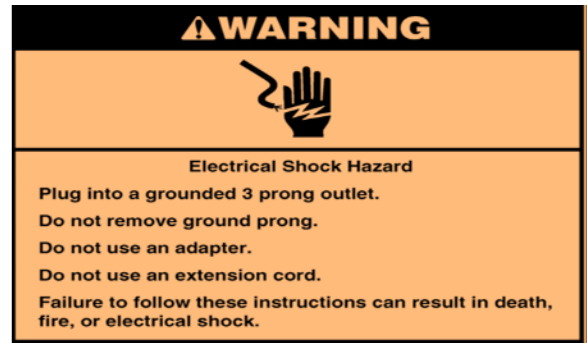
The following equipment will greatly assist the technician in servicing the KitchenAid® Stand Mixer.

- Clean rags or shop towels
- Cushion the service area to keep from scratching the appliance or damaging the controls. A clean shop towel or a folded paper towel will

usually work well for this purpose.

- Low pressure compressed air to remove debris from components.

Electrical Requirement



The Stand Mixer is designed for use with 120 VAC, 60 Hz (240 VAC, 50 Hz International) only. It has a grounded plug and should not be modified in any way. Do not use an extension cord or an adapter with this Stand Mixer.

A short power supply cord is provided (with the exception of the Commercial unit) to reduce the risks resulting from becoming entangled in or tripping over a longer cord. If the power supply cord is too short, have a qualified electrician or service technician install an outlet near the area where the Stand Mixer will be used.

Testing the Stand Mixer

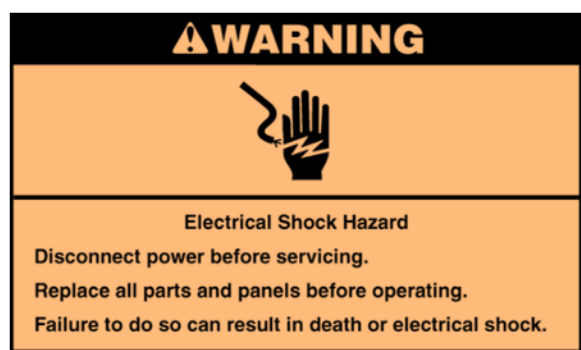
The service technician will have to test the performance of the Stand Mixer to identify and diagnose the problem. Normal electrical testing techniques, using a volt/ohm meter, are sufficient to test the Stand Mixer electrical components.

NOTE: Refer to the PROBLEM GUIDE in this manual while performing any test.

- Review any documentation accompanying the faulty Stand Mixer.
- Perform a ground continuity test and a dielectric withstand (HiPot) test prior to plugging the appliance into an electrical outlet.

- Prior to disassembling the mixer, plug it into an electrical outlet and perform a function test. Test the speed selections, bowl lift mechanism, and beater to bowl height. For proper operation and to troubleshoot for the problem. If the unit's speed ramps up to full speed and then it shuts off, you need to check for a tight crimp or replace the Hall Effect.
- After troubleshooting, use the SERVICE PROCEDURES section to replace any faulty components.

Service Procedures



This manual is written as a step-by-step guide to disassemble and reassemble the KitchenAid® Stand Mixer to gain access to the systems within the unit that are in need of repair. For models covered in this manual, refer to the index page.

Most of the KitchenAid® Stand Mixer components are contained within the motor housing. Perform the Component Access Procedure (below) to gain access to the Stand Mixer components.

Always remove the power cord plug from the electrical outlet before servicing any part of the mixer.

NOTE: When removing self-tapping screws from any plastic or metal housing, the filings created will be scattered onto adjoining components. Prior to performing any reassembly procedure, make sure to remove all the filings

using clean rags and/or low-pressure compressed air.

Use of the Troubleshooting Quick Reference Guide (Appendix B) will aid in determining what steps are necessary for repairing the unit. Not all steps will be needed for some of the repairs so it is important to consult the Troubleshooting Quick Reference Guide first. Appendix D lists all of the KitchenAid® Stand Mixer fastener/screw torques required for proper reassembly of the unit.

Note: Unplug power source, remove the bowl and any attachments before disassembly of any unit.

Disassembly Process of New Generation Stand Mixer

1. Remove Trim Band screw that is located on the back of the upper housing.(Fig. 1)



Fig. 1 Remove Trim Band

2. Turn the mixer to the side and remove 2 screws in the upper housing.(Fig. 2)



Fig. 2 Remove Upper Housing

3. Turn the mixer around to the other side and remove the 2 screws. Then lift the upper housing off and sit to the side on a soft surface be careful not to scratch the housing.
4. Disconnect 4 terminals from the control board. Paying close attention to where they belong for reassembly. You can easily mark them with a marker. From right to left mark with a dot. Also disconnect the Hall effect(the gray ribbon cable) (Fig. 3)

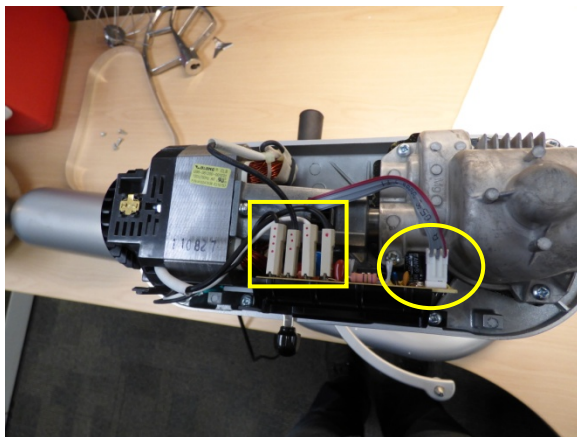


Fig. 3 Mark Control Board Connections

5. Remove 2 screws that hold the Control Board in place and set to the side. The control board is not serviceable so if it fails it needs to be replaced.(Fig. 4)

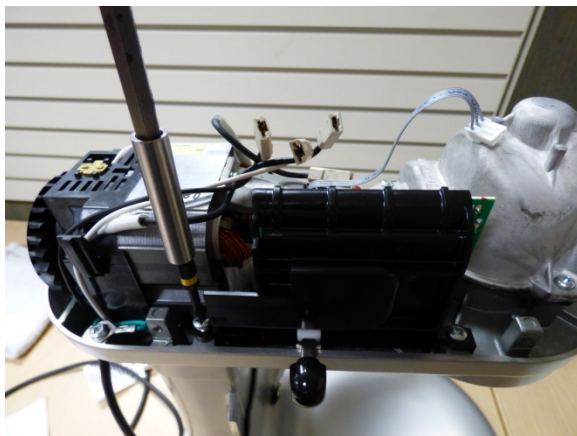


Fig. 4 Remove control board

6. Remove 4 Transmission screws, Lift up and off of the gears. Tilt forward a bit so you do not drop the Hub Gear out. The Transmission housing can be plastic as well, If plastic check that the 2 locator pins are not broke off in the lower housing and check for cracks.(Fig. 5)

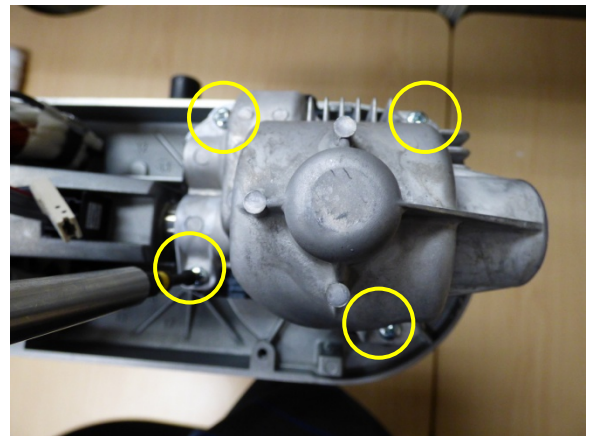


Fig. 5 Remove Transmission Housing

7. If the Transmission Housing is metal there should be a gasket under the Housing. If the unit has a plastic Transmission Housing it should be changed out for the new Housing and Gasket.(8212396)
8. Remove 1st stage gear and inspect for wear, damage or metal shavings.(Fig. 6)

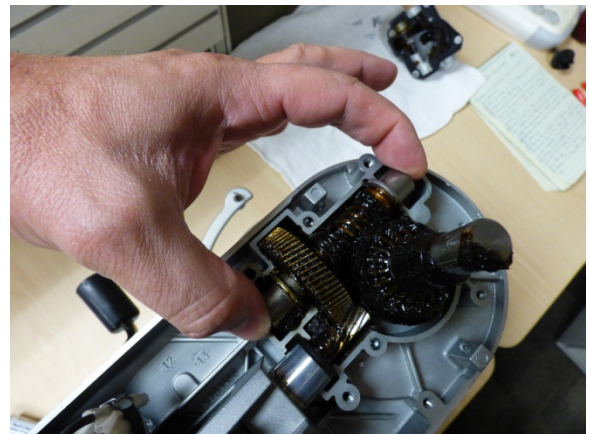


Fig. 6 Remove 1st Stage Gear

Note: The Technician should be aware of different worm gear variations that have evolved with the products, as different replacement parts may be repaired, depending on the date code of the unit. Units prior to WL46 will have a 53 tooth worm gear and a 8 tooth motor. Units after WL46 will have a 60 tooth worm gear and a 10 tooth motor. These variations are not interchangeable. The assembly with the 53 tooth worm gear are no longer available and if it needs to be replaced with the new style, the motor will also have to be replaced with the new style.

9. Remove the 2 screws that hold the motor in place,(Fig. 7) lift motor out and inspect the fan,(Fig. 8) the spline on the end of the motor(Fig. 9) and the motor seal.(Fig. 10)



Fig. 7 Remove Motor



Fig. 8 Inspect Fan



Fig. 9 Inspect Motor Shaft



Fig. 10 Motor Shaft Seal

10. Use snap ring pliers and remove the snap ring from the center shaft.(Fig. 11)

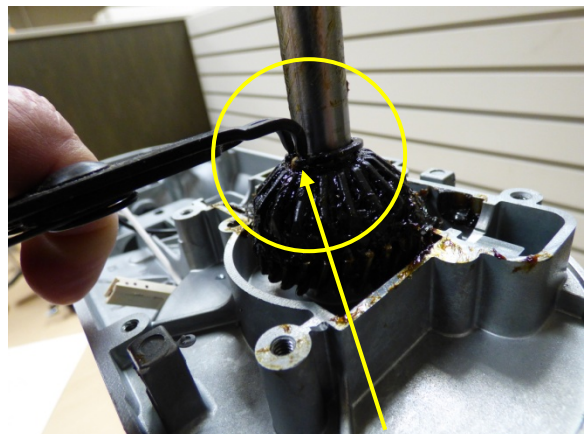


Fig. 11 Remove Snap Ring

11. Remove Bevel gear and inspect for damage, chips, or cracks.
12. Remove Planetary Shaft Pin(Fig. 12) and remove the Planetary out the bottom, be careful not to drop it on the base and damage the base.(Fig. 13)



Fig. 12 Remove Planetary Shaft Pin



Fig. 13 Remove the Planetary

13. Remove follower gear and inspect for damage. Chips, missing teeth, or cracks.(Fig. 14)



Fig. 14 Follower Gear

14. Remove the screw from the green cord ground wire.(Fig. 15)

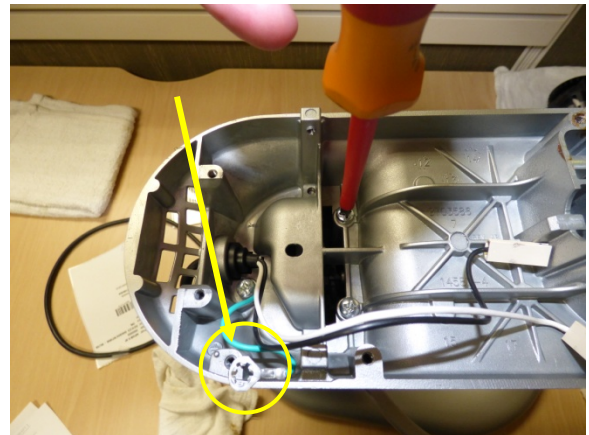


Fig. 15 Ground Screw

15. To remove the Lower Housing, remove the 3 screws in the Lower Housing and set it off to the side on a soft towel so it does not get scratch. (Fig. 16)



Fig. 16 Remove Lower Housing

16. Turn the column and base over and remove the 3 screws in the base. Be cautious not to drop the base it will fall as you take the 3rd and final screw out. (Fig. 17)



Fig. 17 Remove Base

17. Commercial units have a screen that can be removed and cleaned.(Fig. 18)



Fig. 18 Remove Commercial Screen

18. Remove the 7/16 lock nut that holds the bowl lift handle and remove the washer and spring.(Fig. 19)

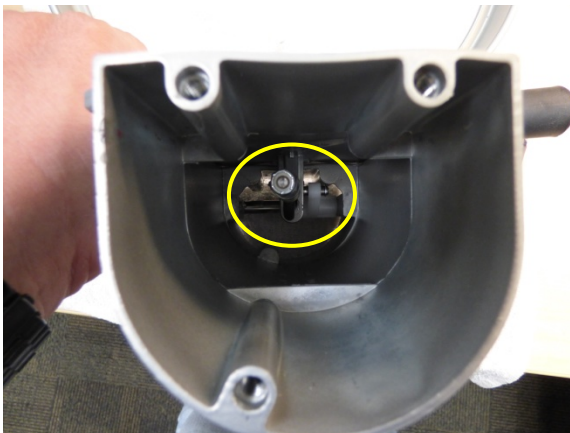


Fig. 19 Remove Nut, Spring and Washer

19. Turn the Column over and remove the small Phillips screw that runs through the Bowl Lift Arm.(Fig. 20)

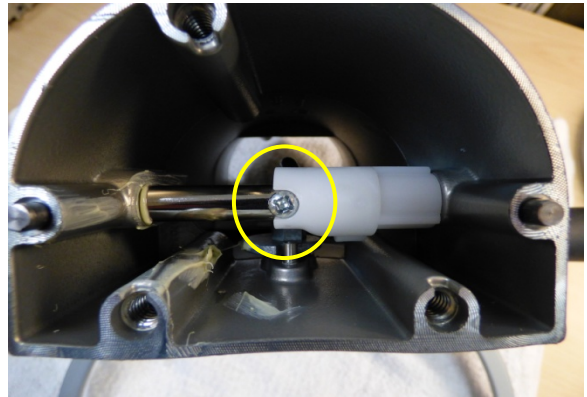


Fig. 20 Remove Screw

20. Hold the Lift Arm (white plastic sleeve) with one hand and pull the Bowl Lift Handle out with the other hand. Then lift the Lift Arm up and out of the Column.

21. Bowl lift mechanism parts(Fig. 21)



Fig. 21 Lift Arm Assembly

Rebuilding the New Gen Stand Mixer.

1. Hold the Lift Arm Inside the Column with the guide pins up and the flat edge facing you. Push the Handle in from the right side until the screw hole is visible.(Fig. 22)Drive the small Phillips head screw into place. Make sure there is a little Grease on the handle where the handle touches the column.(Fig. 23)

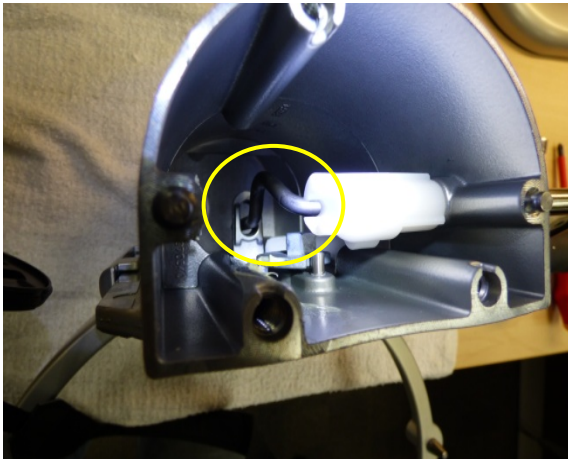


Fig. 22 Bowl Lift Arm

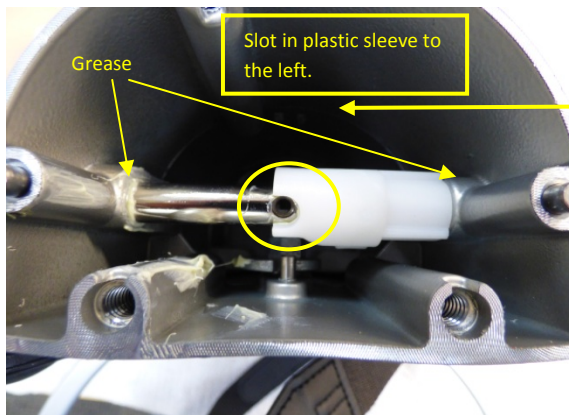


Fig. 23 Screw, and Grease

2. Turn the Column over and locate the spring, washer and lock nut. Set the spring on the treaded rod first then the washer and follow up with the lock nut

and tighten until you can barely see the threads of the threaded rod sticking through the nut.(Fig. 24)



Fig. 24 Spring, Washer and Lock Nut

3. Mount base to column with three large Phillips screws then sit in the upright position.
4. Attach the cord to the lower housing, by sliding cord into the cord slot.
5. Mount the lower housing to the upper column, using 3 large Phillips head screws.(Fig. 25)

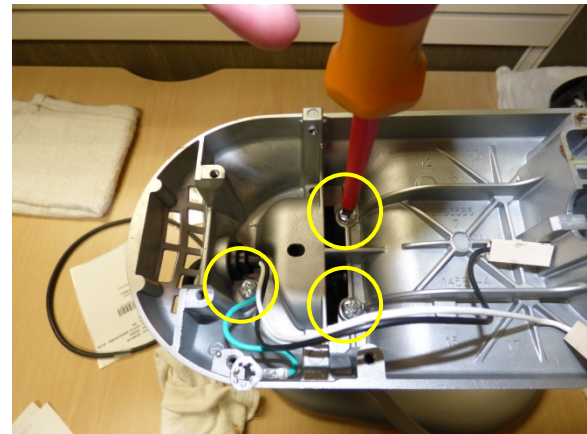


Fig. 25 Mount Lower Housing

6. Make sure the planetary gear has grease on it and locate it back into place and rotate until gear meshes with the internal gear.(Fig. 26)



Fig. 26 Locate Planetary

7. Hold the Planetary in place with one hand and slide the worm follower gear into place, then the pin for the gear and then the bevel gear.(Fig.27) You will then have to replace the snap ring into place to hold it all in place.(Fig. 28)

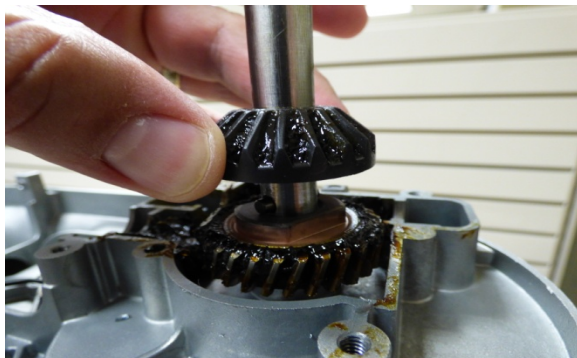


Fig. 27 Assemble gears



Fig. 28 Attach Snap Ring

8. Set motor onto Lower Housing and start the 2 motor screws. Do not tighten them! Make sure the cord wires are on the right side of the motor.(Fig. 29)

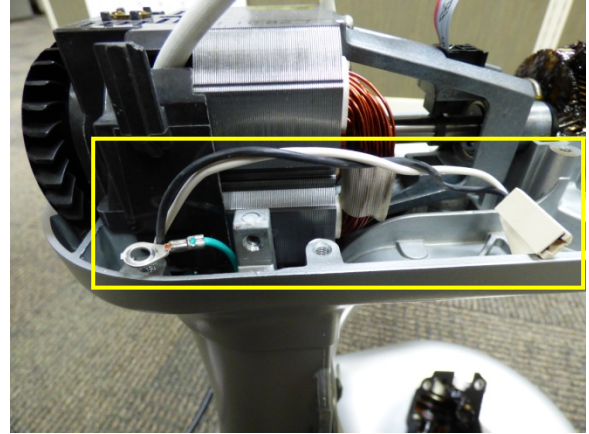


Fig. 29 Route Cord Wires

9. Place 1st stage gear into the location, Thrust Bearings are farthest away from the large gear. Notice how the Bearing flat side face inward. Rotate the gears back and forth to mesh the gears. (Fig. 30)



Fig. 30 1st Stage Gear

10. Always clean all old grease out before putting new grease in. *If gears were damaged make sure you get all grease cleaned out and there are no debris to damage new gears.

11. Replace Grease(6 ounces of 930-2 Benalene) on the gears. Build up in a cone shape.(Fig. 31)



Fig. 31 Grease

12. Check the gasket and make sure it is not ripped or missing(Fig. 32)*(Serial number WL09 – WL16 does not use a gasket) and Set Transmission Housing into place.(Fig. 33) It is highly suggested to change the plastic transmission cover out with a new Magnesium housing and gasket.(8212396) If the housing does not sit all the way down use your finger to turn the attachment hub gear.(Fig. 34)

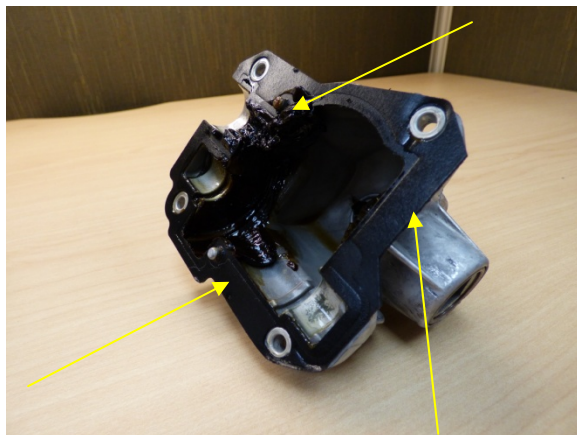


Fig. 32 Inspect Gasket



Fig. 33 Transmission Cover



Fig. 34 Turn hub gear

13. Use your thumb to push the motor forward and tighten the 2 motor screws. 1 on each side of the motor.(Fig. 35)

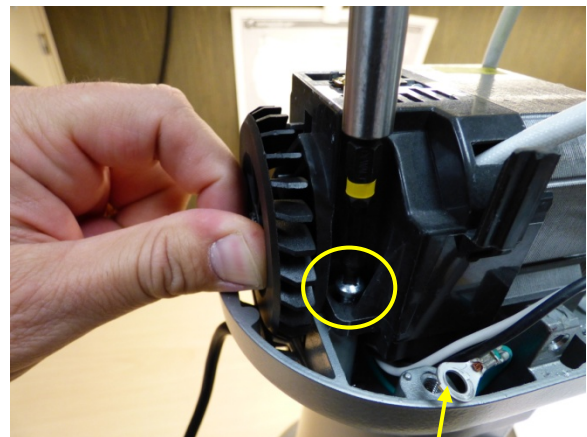


Fig. 35 Tighten Motor

14. Attach green ground wire with 1 screw.

15. Replace the 4 Transmissions Housing Screws and tighten them.(Fig. 36)

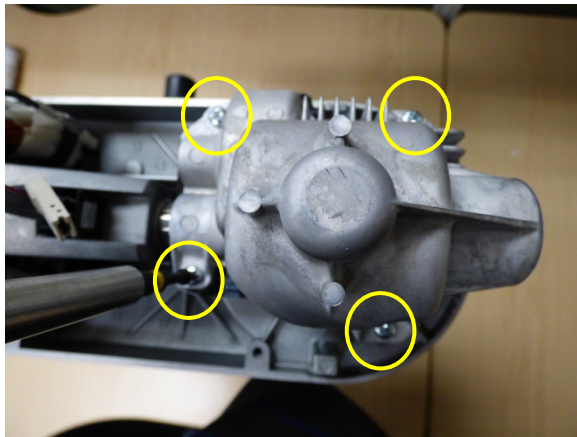


Fig. 36 Transmission Housing

16. Mount the Control Board with the 2 screws and hook up the wires. The New Control boards from 2016 will have the Hall Effect soldered. (Fig. 37)

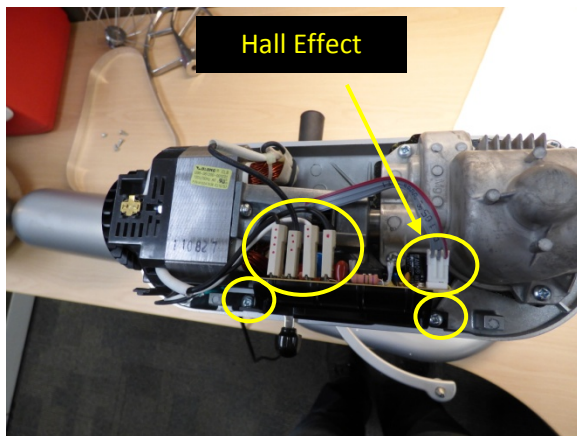


Fig. 37 Control Board

17. Locate and mount the Upper Housing with the 4 Screws, 2 on each side. (Fig. 38)



Fig. 38 Mount Upper Housing

18. Locate Trim Band and attach with 1 Screw. (Fig 39) Be sure to check Trim Band fits correctly. The speeds need to align and there should be no gaps between the Housing and the Trim Band.

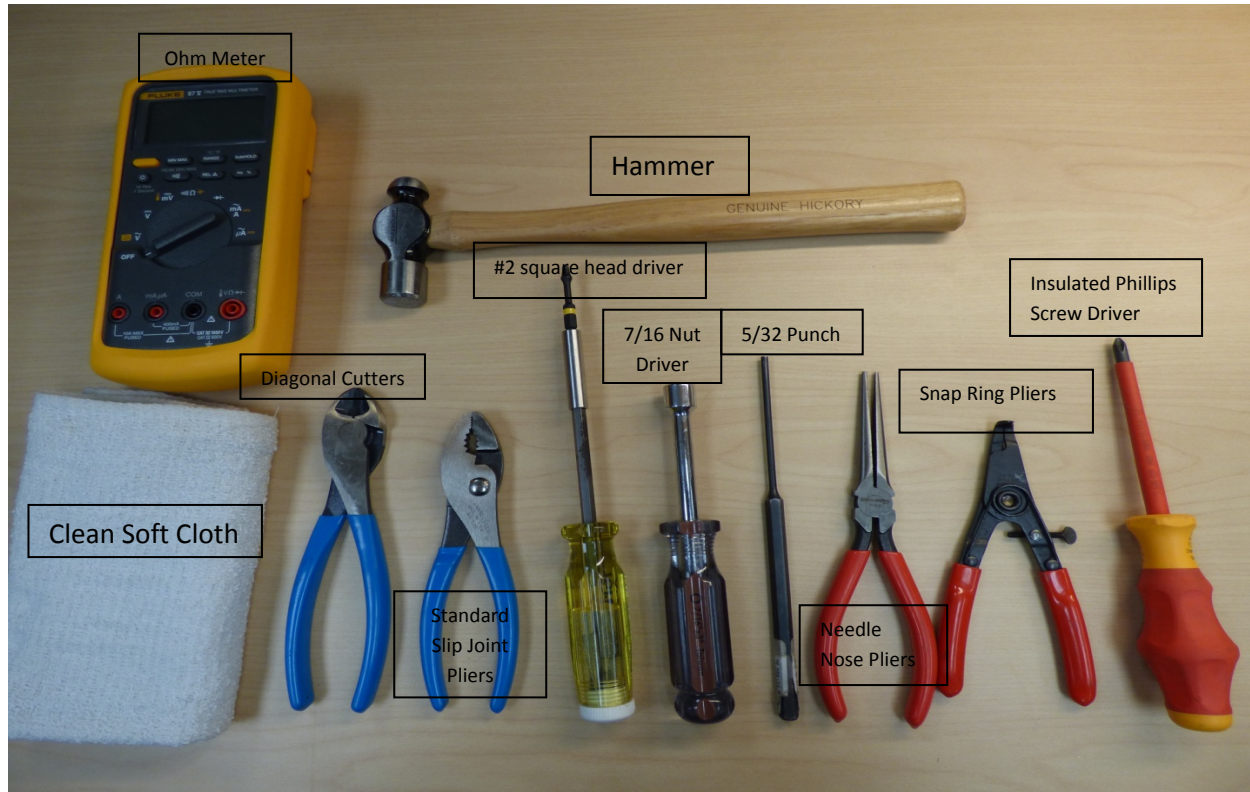


Fig. 39 Trim Band

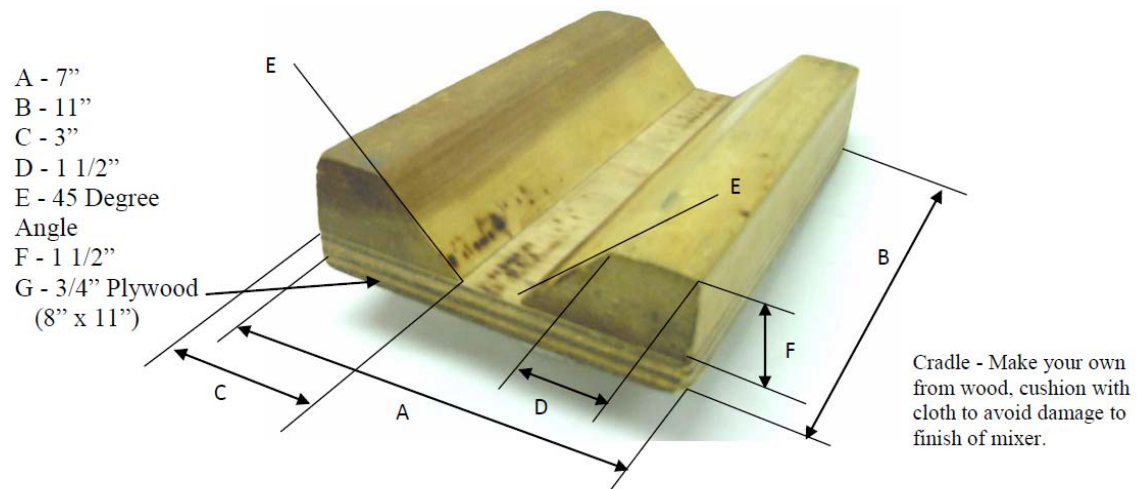
19. HiPot the unit and make sure it is safe, no pinched wires or wires unhooked.
20. Plug in and cycle the unit through all the gears and make sure it runs correctly.
21. Cycle the bowl up and down to make sure the lift mechanism works correctly.

Appendix A

Tools required for New Generation Stand Mixer Service



Wood cradle to hold the mixer upside down while repairing



Appendix B

Troubleshooting Quick Reference Guide

Cosmetic repairs:

Related Mixer Part(s)	Problem	Repair Action
Base	Bad Paint, Burr, Bent/Warped, Dented, Parts Missing	Replace Defective/Missing Part(s)
Planetary		
Upper Housing Cover		
Lower Motor Housing		
Bowl Support Column/bowl lift handle		
Trim Band	Bent/Warped, Scratched, Dented, Discolored	Replace Trim band
Control Board Knob	Foreign Material on Knob, Bent/Twisted, Broken	Replace Control Board

Electrical repairs:

Related Mixer Part(s)	Problem	Probable Cause(s)	Repair Action
Cord	Mixer doesn't run	Cord not plugged in	Plug unit in to power source
		Cord defective	Replace Cord
Control Board	Mixer will not turn on.	Control not started from 'OFF' position (control reset)	Turn Unit off and wait 10 seconds, turn unit back on.
		Control Board Defective	Replace control board
Motor	Motor is overheated or Over loaded and shuts off	Too Heavy Batter	Shut Mixer off for 15 seconds and it will reset.
	Motor shuts off when changing speeds	Motor defective?	Change Motor
Wiring Harness		Loose connections -check all connections	Remove Upper Housing and check connections
Filter(230V)		open/shorted circuit	Always HiPot the Unit before repair begins.
Hall Effect Sensor	Motor runs up to top speed and shuts off.	Hall Sensor not plugged in or defective	Plug Hall Effect in or replace if needed
		Magnet on Motor shaft has fell off or has grease on it.	Remove upper housing and inspect

Mechanical repairs:

Related Mixer Part(s)	Problem	Probable Cause(s)	Repair Action
Base	Mixer wobbles or walks while in use	Base Bent or damaged	Replace Base
		Base Feet Missing	Replace Foot
Bowl Beater	Beater Hits the sides of the bowl	Bowl Defective	Replace Bowl
		Beater Defective	Replace Beater
		Bowl Support Bent	Replace or use a dead blow hammer and tap the bowl support to straighten
		Improper Bowl Height Adjustment	Adjust bowl height(pg.32)
Column	Bowl-Lift Mechanism binding or won't move up or down	Galling of Bowl-Lift slide or Handle Rod	Use Lubriplate to lube slides
Bowl-Lift Mechanism			
Bowl Support		Damaged bowl-lift slide mechanism	Replace Column
Bowl Clip	Bowl does not stay on mixer while in use	Bowl Clip loose or missing	Replace Bowl Clip
Bowl Support		Bowl Support Bent or damaged	Replace or use Dead Blow Hammer to straighten
Control Board	Mixer speed control stuck or binding	Slide Switch defective	Replace control board.
Planetary	Planetary spins but beater does not revolve (no planetary action)	Pinion gear or drive pin stripped or broken	Change Planetary/ Change grease
Internal (Ring) Gear		Gear tooth damage	Change Lower Housing and all grease
Planetary pinion gear/pin	Unit makes a 'Loud Clicking' noise under a load. Slight 'Clicking' is normal.	Little or no grease on the ring gear or pinion gear drive pin. Damaged gears	Check grease/change grease and gears
Motor or Planetary	Unit makes a 'humming' sound but there is no rotation of the planetary or hub gear	Motor seized or binding	Replace Motor
	Motor overload/shuts off	Mixing on to high of speed	Turn to the off position and wait 15 minutes for unit to reset.
		Planetary may be cracked or broken.	Replace Planetary
Motor/Transmission Gear case	Mixer motor runs but the planetary and attachment hub gear do not rotate	transmission gears stripped or broken	Inspect all gears for damage and clean all grease out and put fresh grease in
Transmission Housing	Housing will not seat down all the way	Check that the plastic locator pins are not broke off in the locator holes	If broke off replace transmission Housing and drill old pins out of lower housing

Appendix C

Beater to Bowl Clearance Adjustment

The KitchenAid Stand Mixer is adjusted at the factory so 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, you can correct the clearance easily.

1. Unplug the Stand Mixer.
2. Place the bowl lift handle in the down position.
3. Attach the flat beater.
4. Adjust so the flat beater just clears the bottom surface of the bowl when in the lifted position by turning the bowl adjustment screw (A – see Fig. 30) counterclockwise to raise the bowl and clockwise to lower the bowl. Just a slight turn is all that is required: the screw will not rotate more than $\frac{1}{4}$ turn (90 degrees) in either direction. (The full range of adjustment is $\frac{1}{2}$ turn, or 180 degrees.
5. Place the bowl lift handle in the up position to check clearance.
6. Repeat steps 4 and 5 if necessary.

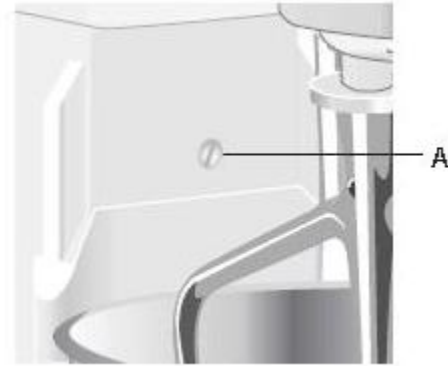


Fig. 30) Bowl Adjustment screw location

NOTE: When properly adjusted, the flat beater will not strike the bottom or side of the bowl. If the flat beater or the wire whip is so close that it strikes the bottom of the bowl, the flat beater or whip may wear.

Appendix D

New Generation Stand Mixer Screw Torques

The assembly torque values for the screws in the mixer are as follows:

Column to Base screws	80 in. lbs.
Column to Lower Housing screws	80 in. lbs.
Motor to Lower Housing screws	25 in. lbs.
Ring Gear to Ring Gear Mounting Bracket	40 in. lbs.
Transmission Housing to Ring Gear Plate mounting screws	25 in. lbs.
Control Board mounting screws	25 in. lbs.
Control Board Guide	25 in. lbs.
Grounding screw	25 in. lbs.
RFI Filter mounting screw (Euro)	25 in. lbs.
Upper Housing to Lower Housing screw	25 in. lbs.
Trim Band retaining screw	10 in. lbs.
Bowl retaining clip screw	25 in. lbs.

Note: All values +/- 10%DJP