univex

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SRM12

SRM12

Swing Ring Series

SRM12 PLANETARY MIXER

Operations Manual

Persons under the age of 18 are not permitted to operate or have accessibility to operate this equipment per U.S. Dept. of Labor Employment Standards Administration Fact Sheet No. ESA91-3.

UNIVEX CORPORATION - 3 Old Rockingham Road - Salem, NH 03079-2140 – Tel (800) 258-6358 – Fax (800) 356-5614
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ED5 SRM12/0503 Printed in USA

Welcome to Univex

Thank you for purchasing this Univex product.

Your new SRM12 Mixer has been designed with advanced performance and safety features that make it an excellent addition to your food preparation equipment. Like all Univex mixers, slicers, meat grinders and accessories, this mixer is engineered to provide years of reliable service.

If you have any questions concerning the operation of this unit, or if we can be of further assistance, please call our Customer Service Department.

Univex Customer Service:
USA & Canada 800-258-6358 • International 603-893-6191

Safety Is Our Top Priority

It is a violation of United States Department of Labor regulations to permit operation of the SRM12 by any person under the age of 18 years.

READ AND MAKE SURE THAT YOU UNDERSTAND THE INSTRUCTIONS AND SAFETY WARNINGS IN THIS BOOKLET BEFORE ATTEMPTING TO OPERATE THE MIXER OR ATTACHMENTS.

NEVER PUT FINGERS OR HANDS IN THE BOWL WHILE THE MIXER IS OPERATING, OR SERIOUS INJURY COULD RESULT.

NEVER ATTEMPT TO CLEAN OR SERVICE YOUR MIXER WITHOUT FIRST SHUTTING OFF THE POWER. DISCONNECT THE ELECTRICAL PLUG FROM THE OUTLET OR SHUT OFF THE CIRCUIT BREAKER AT THE ELECTRICAL PANEL.

ALWAYS REPLACE THE POWER TAKE-OFF (PTO) CAP WHEN ATTACHMENTS ARE NOT IN USE.

DO NOT OPERATE THIS MIXER WITHOUT THE BOWL IN PLACE.

Contents

WARRANTY

The Univex SRM12 Mixer is warranted by Univex Corporation against defects in materials and workmanship for a period of one year from date of delivery if delivered to a destination in the United States or Canada. Contact Univex Customer Service to report any warranty claim. Univex shall not be liable for any consequential, compensatory, incidental, or special damages. Damages incurred in transit or from installation error, accident, alteration, or misuse are not covered. Transit damages should be reported to the carrier immediately.

If the SRM12 Mixer is delivered to a country other than the United States or Canada, it is warranted by Univex's authorized distributor. Contact your distributor directly to report any warranty claims outside of the United States or Canada.

Choosing the Right Location for Your New Mixer

When selecting the best location for the mixer, it is helpful to consider the following:

- Which location will save steps for the operator and provide easy access?
- Product flow – Is it easy to add ingredients to the bowl? Is the next destination of the mixed product nearby?
- Is there existing electrical service?
- Is there easy access for cleaning and service?
- Will the mixer with its attachments extend into heavy traffic areas?
- Will stands or portable equipment used with the mixer be easy to move to and from this location?

IMPORTANT INFORMATION CONCERNING ELECTRICAL SERVICE

Electrical wiring instructions are found on the Electrical Connections page and wiring diagram in the *Mechanic's Maintenance* booklet enclosed with the mixer. If your unit is not provided with a plug, then the unit is to be fitted with a primary disconnect device that has a contact separation of at least 3mm in all poles.

CAUTION

Before making electrical connections, check that the specifications on the data plate located on the mixer agree with those of your electrical service.

User-Friendly *Swing Ring*™ Safety Guard

Your SRM12 Mixer features a newly updated, 2-part safety guard. The *Swing Ring*™ Safety Guard is easily removed and installed, as well as dishwasher safe. It conveniently swings out of the way without having to be removed to place or sample ingredients in the bowl. Only one side of the guard needs to be open when adding ingredients. You'll find this two-piece design is easy to handle and fits conveniently in your sink or dishwasher. It also provides a clear view of the product throughout the mixing cycle.

This mixer will not operate unless the *Swing Ring*™ Safety Guard is properly engaged. Metal tabs at the rear of the guard activate twin switches that enable the mixer to run only when the guard is securely closed. These switches protect against accidental operation of the mixer when the safety guard is open or removed from the mixer. The mixer will automatically stop if the guard is opened. Additional switches in the bowl slide mechanism automatically stop the mixer if the bowl is lowered from the "up" (mixing) position.

User-Friendly *Swing Ring*™ Safety Guard, cont'd

To install the *Swing Ring*™ Safety Guard, insert the pointed end of the rod at the rear of the guard into the lower mounting bracket on the mixer housing. Then insert the top end of the rod into the upper bracket by aligning the groove in the rod with the slot in the bracket. Press the rod in and allow it to drop down into position. Repeat this for each of the two sections of the guard. Swing the two halves of the guard forward. When the guard is properly closed, the top of the guard will engage magnets embedded in the transmission housing just above. The switches are now activated and the mixer can be operated.

To remove the guard, simply reverse the installation procedure. Grip the two halves of the guard and pull it open. Use an upward motion to release each half of the guard from the bracket on the machine body.

To open the guard for access to the bowl, ***first turn the mixer off*** by pushing the *red stop button* (Fig.1 [13]). Pull open the two halves of the guard and swing one or both outward. It is not necessary to remove them. Close the guard to resume mixing operations.

Operating the SRM12 Mixer

Your Univex Mixer is designed to meet the Cook's and Baker's demand for an efficient, dependable appliance. It should give unfailing performance over a period of years when operated and maintained according to the instructions contained herein and in the accompanying *Mechanic's Maintenance* booklet.

The mixer drives various agitator attachments through a beater head shaft to beat, mix, or whip liquid, viscous, or dry ingredients. The shaft is driven by a sturdy motor whose power is transmitted by a rugged, cogged belt and a Continuously Variable Transmission (CVT) through a gear train and a planetary gear set. The speed of the beater shaft can be varied from approximately 125 to 300 revolutions per minute (rpm). (See page 13 for part numbers of various agitators, attachments and accessories.)

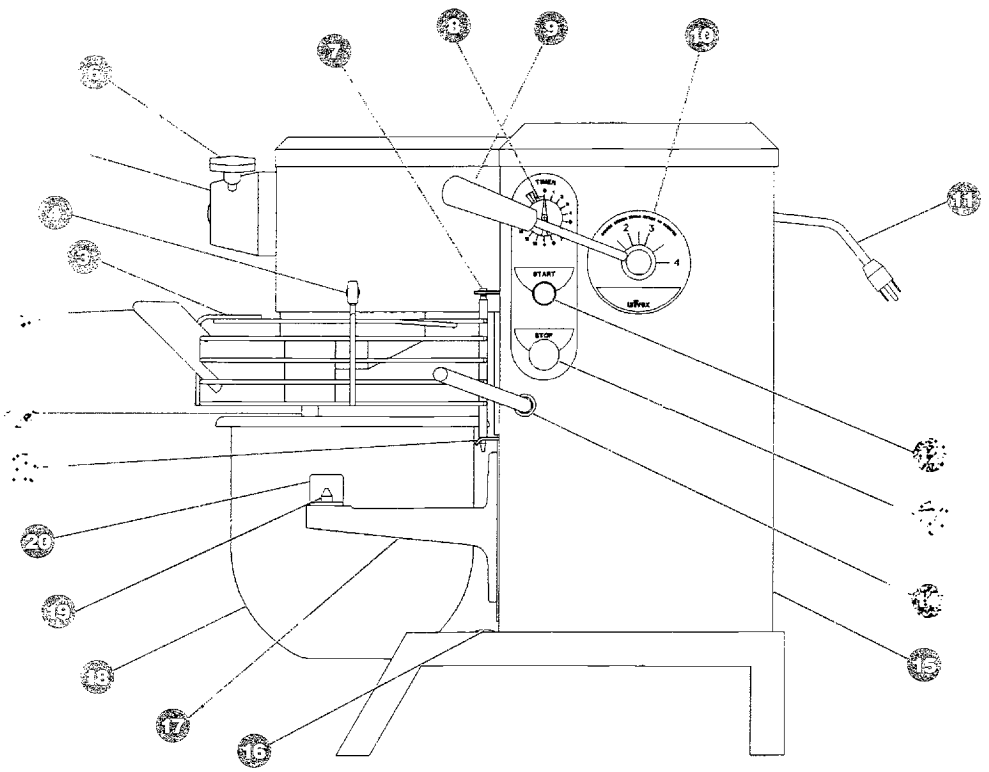
The SRM12 Mixer is frequently equipped with a power take-off (PTO) that operates other attachments, such as slicers, graters and grinders. The PTO speed can be varied from 145 to 345 rpm. **Be sure to read and follow any safety instructions provided by the manufacturers of attachments that you operate on the PTO.** The PTO hub should be covered with the PTO cap provided with your mixer when not in use.

***Warning*—Never put hands, spoons, utensils or other objects into the bowl while the mixer is operating!**

Note: Noise emission level < 70 dB (A)

Overall View of SRM12 Mixer

Fig.1



1. Beater Shaft
2. Chute
3. *Swing Ring*™ Safety Guard
4. Magnet
5. #12 Hub (if provided)
6 Thumb Screw
7. Upper Mounting Bracket
8. Timer (if provided)
9. Speed Control Lever
10. Speed Indicator Label
11. Cord
12. Start Button
13. Stop Button
14. Bowl Lift Handle
15. Rear Access Panel
16. Cap (covers shipping bolt-hole if base is not anchored))
17. Bowl Support
18. Bowl
19. Bowl Support Pin
20. Bowl Mounting Bracket
21. Lower Mounting Bracket

Securing the Bowl & Installing the Mixing Agitator

Place the bowl on the *bowl support* (Fig.1 [17]). The pin at the rear of the bowl must align with the corresponding slot on the bowl support. Align the holes in the bowl mounting brackets over the pins on the bowl support and lower the bowl into position.

With the bowl in the "down" position, install the desired agitator by sliding it upward onto the beater shaft (Fig.1 [1]). Rotate the agitator counter-clockwise until it is engaged.

Safety Note Serious injury may result if the bowl is not positioned properly on the bowl support using the bowl support pins.

With the bowl secured, add ingredients. Liquids should be added first. The bowl is now ready to be raised to the "up" (mixing) position by turning the *bowl lift handle* (Fig.1 [14]) clockwise.

Secure and close the *Swing Ring*™ Safety Guard before proceeding.

Using the Bowl Lift

The mixer will not operate unless the bowl is in the "up" position. Raise the bowl by turning the *bowl lift handle* (Fig.1 [14]) clockwise. To lower the bowl, turn the handle counter-clockwise. It is necessary to lower the bowl to change the agitator. This also makes the bowl accessible for filling.

Start/Stop Controls

The mixer will only start when the *Swing Ring*™ Safety Guard is engaged and the bowl is in the raised position. To start mixing, push the *green start button*. For safety and operational ease, this mixer is equipped with a *stop button* (Fig.1 [13]) that has an oversized, red mushroom-style cap.

Safety Note Although the motor shuts off instantly when the *Swing Ring*™ Safety Guard is opened, or the bowl is lowered, or the *stop button* is pushed, the agitator may not come to complete rest for several revolutions. **Do not put hands or utensils into the bowl or near the beater shaft until it is fully stopped.**

Both the *start button* and *stop button* are momentary contact type. They provide low voltage protection and prevent accidental start-up in the event of a power interruption.

Operating the SRM12 Mixer, *cont'd*

Setting the Timer (if provided)

When equipped with a timer, the SRM12 Mixer will not operate unless the timer has been set to a specified number of minutes or set in the "HOLD" position. To start the mixer, first turn the *timer* dial (Fig.1 [8]) to the desired mixing time. Then push the *start button* (Fig.1 [12]). The mixer will automatically stop when the timer reaches "0". To stop mixing before the timer reaches "0", push the *red stop button*.

The *timer* may be set for up to 15 minutes of mixing, or may be set on the "HOLD" position for continuous operation. When setting a time of less than 5 minutes, turn the dial *beyond* 5 minutes and then return it to the desired time.

Safety Note The mixer will start only when the *Swing Ring*™ Safety Guard is engaged **and** the bowl is in the raised position. Do not operate the mixer without the bowl in place.

Vari-Speed Control

A major advantage of Univex mixers is their Continuously Variable Transmission (CVT). Unlike other mixers, CVT lets you **change speed while the mixer is running.** Change speed by moving the *speed control lever* (Fig.1 [9]) to the desired level. The *speed indicator* (Fig.1 [10]) shows four speeds. Numerous intermediate speeds give the Cook or Baker tremendous flexibility.

For most mixing tasks, start on *speed 1* and progress to higher speeds as needed. *Speed 1* should also be used with the Meat and Food Chopper attachment on the power take-off. Use high speeds for whipping cream, beating eggs, and thin batters. **To avoid damaging your mixer, follow the speed, volume limits and attachment recommendations shown in the *Table of Mixing Capacities* on page 14.**

If you notice any slippage during mixing, the mixer may be overloaded. Reduce the load, or reduce speed until mixing action is smooth. Refer to the *Trouble-Shooting Guide* on page 12.

If the mixer jams and the motor stalls, immediately press the *stop button*. Take necessary steps to reduce the load. **Never put hands in the bowl to clear a jam.**

NOTE **Always return to *speed 1* before shutting off the mixer.** Do not move the *speed control lever* when the mixer is not running, because this will cause belts to become loose and the mixer will not operate properly.

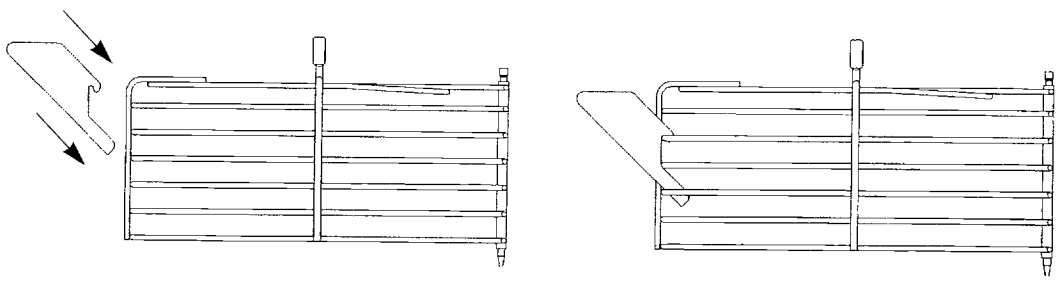
If the mixer has been shut off by the timer, or stop button in speed 2, 3 or 4, follow these steps to avoid belt slippage or jerky start: Empty the bowl. Set the timer to "HOLD". Press the *start button*. As the mixer begins to operate, move the *speed control lever* back to *speed 1*. Press the *stop button*. Return the timer to "0". Your mixer is now ready for its next task.

Using the Ingredients Chute

The *ingredients chute* provided with your mixer enables you to add ingredients to the bowl while the mixer is running, and without opening or removing the *Swing Ring*™ Safety Guard. The chute may be installed on the front or side of either half of the guard. Refer to Fig. 2. Once the chute is properly installed, it can remain in place permanently, if desired.

Fig. 2 **Ingredients Chute Installation**

Slide the bottom of the chute between horizontal safety guard rings and engage the chute onto the safety guard.



Using the Power Take-Off (PTO) (if provided)

The *power take-off* hub (Fig.1 [5]) accommodates #12 tapered attachments, such as a Vegetable Slicer and Shredder, or a Meat and Food Chopper. The mixer's *speed control lever* also controls the PTO drive speed.

Before installing attachments, turn the mixer off. Remove the PTO cap and loosen the thumb screw (Fig.1 [6]) on the PTO hub. Insert the attachment with a slight twist until firmly in place. Tighten the thumb screw. **Be sure to read and follow any safety instructions provided for attachments that you operate on the PTO.**

Safety Notes

When grinding meat, chopper attachments must never run faster than *speed 1*. For vegetables, attachments may run at higher speeds.

Always turn the mixer off to install or remove attachments.

Always return to *speed 1* before shutting off mixer.

Cover the PTO hub with the PTO cap when not in use.

Cleaning Your Mixer

Consistent use of the following procedures will help ensure that your mixer is in optimum condition.

- ***Warning*—Disconnect electric power supply before cleaning.**
- Wash the body of the mixer, the bowl support, and beater shaft with warm water and mild soap.
- Avoid excess water in the area of the safety switches that protrude from the housing where the *Swing Ring*™ Safety Guard is mounted.
- Do not rinse with a hose.
- Do not use abrasive pads.
- Dry the mixer thoroughly using a soft cloth.
- Wash the bowl and beater immediately after use. If egg mixtures or flour batters have been used, rinse the bowl and beater with cold water before washing with hot water. Wash the *Swing Ring*™ Safety Guard in the same manner, or in your dishwasher.
- Dry bowls, agitators and safety guard thoroughly.

Operator's Preventive Maintenance

For best long-term performance, operators should follow these simple practices:

- Lightly lubricate the beater shaft (Fig.1 [1]) after washing. Petro-Gel or equivalent food grade lubricant should be used.
- Do not cover the unit with a plastic bag, as this traps humidity in your mixer.
- If the electrical supply cord is damaged, it must be replaced by a special cord or assembly available from Univex directly or from a Univex service agent.
- Do not overload the mixer. **Overloading is the #1 cause of mixer failure.** Follow the *Table of Mixing Capacities* on page 14. It may be helpful to post a copy of this table adjacent to the mixer.
- Keep the mixer properly lubricated. **Lack of lubrication is the #2 cause of mixer failure.** Key mixer components require lubrication after each 500 hours of operation. (Instructions on frequency and method of lubricating appear in the enclosed *Mechanic's Maintenance* booklet.)
- Only change speed with the mixer running. **Changing speed with the mixer off will cause belts to loosen,** and the mixer will not turn (see *Trouble-Shooting Guide* on page 12). Return to *speed 1* before shutting the mixer off. Use the procedure described on page 8 to return the mixer to *speed 1* if mixer is shut off in a higher speed.

Trouble-Shooting Guide

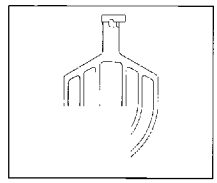
*Note: Remedies designated with a * require the services of an authorized Univex service agent.*

Trouble	Possible Causes	Remedy
1 **Mixer will not operate**	Timer not turned on (if provided)	Turn timer on
	Burned switch contacts	Clean or replace contacts*
	Electrical service down	Check electrical service. Replace fuse or reset circuit breaker if necessary
	Motor capacitor defective (1PH only)	Replace*
	Burned out motor	Remove, test, repair or replace*
	Safety guard not mounted and closed	Install safety guard
	Bowl not raised	Raise bowl completely
2 **Mixer runs but agitator will not turn**	Slipping or broken belt	Tighten or replace belt*
	Key or pin sheared on input shaft, input gear, bevel pinion, vertical shaft or beater shaft	Locate by step inspection and replace defective parts*
	Shifting speed with mixer not running	With mixer running, slowly move speed control lever fully forward then backward to re-engage belt
3 **Agitator stalls during mixing**	Mixer bowl is overloaded	Adjust contents of bowl per *Mixing Capacities Table*
	Speed is set too high for the mix	Shift speed lower till action rotates smoothly
	Loose belt	Readjust pulley center distance to tighten belt*
	Contamination of belt with grease	Clean pulleys and replace belt*
4 **Speeds do not change properly**	Loose belt	Tighten or replace*
	Vari-Speed pulley inoperative	Remove, clean & lubricate, or replace*
5 **Mixer runs, but repeatedly stops**	Bowl overloaded	Adjust contents of bowl per *Mixing Capacities Table*
	Speed is set too high for the mix	Reduce speed
	Service voltage too low or fluctuating electrical supply	Check electrical voltage*. Reset circuit breaker
6 **Attachments contact bottom of bowl**	Dented bowl	Remove dents or replace bowl
	Bowl height is set too high	Reset bowl height*
7 **Attachments contact side of bowl**	Dented bowl	Remove dents or replace bowl
	Insufficient clearance between bottom of bowl and beater	Adjust bowl height*
8 **Excessive noise**	Gears need to be repacked with grease	Locate source of noise by inspection and repack with grease*
	Badly worn or frayed drive belt	Replace belt*
	Attachments hitting bowl	Inspect for cause in items 6 & 7 above.
	Overloading of mixing bowl	Adjust contents of bowl per *Mixing Capacities Table*
9 **Difficulty in raising or lowering bowl**	Lack of lubrication on bowl lift slide assembly and housing	Lubricate per *Mechanic's Maintenance* guidelines*

Fig. 3 **Available for the SRM12 Mixer**
part numbers *(size in quarts)*

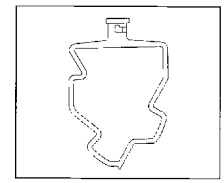
Beaters, Agitators, Bowl & Accessories

a.
Batter Beater
1012231 (12)

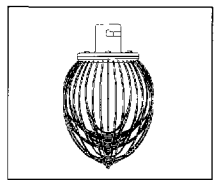


f.
Sweet Dough Beater

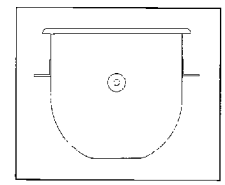
Optional
1012238 (12)



b.
Wire Whip
1012149 (12)

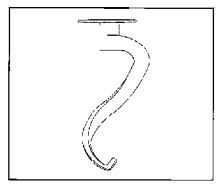


g.
Bowl
1012494 (12)



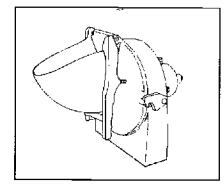
c.
Dough Hook

Optional
1012232 (12)



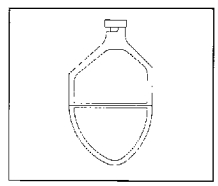
h.
Vegetable Slicer/Grater

Optional
VS9 Slicer 1000950
VS9H Grater 1001050



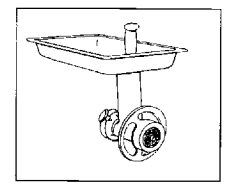
d.
Pastry Knife

Optional
1012233 (12)



i.
Meat & Food Chopper

Optional
ALMFC12 1000550



e.
Four Wing Beater

Optional
1012297 (12)

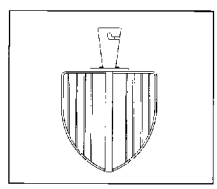


Table of Mixing Capacities & Recommended Agitators

MODEL		SRM12	
Bowl Capacity		15 qt	14.2 L
Attachment Hub Size		#12	
Motor		1/3 hp	
Kitchen Capacities (single batches)	**Agitator(s)**		
Mashed potatoes	batter beater, 4-wing beater	10 lb	4.5 kg
Whipping cream	wire whip, 4-wing beater	2 1/2 qt	2.4 L
Mayonnaise	batter beater, wire whip, 4-wing beater	4 1/2 qt (oil)	4.3 L (oil)
Egg whites	wire whip	1 1/4 pt	0.6 L
Meringue	wire whip	3/4 pt (water)	0.4 L (water)
Waffle or pancake batter	batter beater	5 qt	4.7 L
Bakery Capacities (single batches)	**Agitator(s)**		
Pie dough	pastry knife	11 lb	5.0 kg
Cake	batter beater, 4-wing beater	12 lb	5.5 kg
Sponge cake batter	wire whip, 4-wing beater	6 1/2 lb	3.0 kg
Angel food batter (8-10 oz. cakes)	wire whip, 4-wing beater	7 cakes	7 cakes
Marshmallow icing	4-wing beater	1 1/4 lb	0.6 kg
Fondant icing	batter beater	7 lb	3.2 kg
Shortening & sugar creamed	batter beater	9 1/2 lb	4.3 kg
Egg & sugar for sponge cake	batter beater, 4-wing beater	5 lb	2.3 kg
Use Speeds 1 & 2 for:			
Bread/roll dough, light to med., 60% AR	dough hook	13 lb	5.9 kg

NOTES: Recommended speeds are for the capacities listed. For larger capacities, reduce speed. Dough capacity for breads and rolls is based on 12% flour moisture and 70°F (21°C) water temperature. Reduce capacity if cold water is used. If higher gluten flour is used, reduce total capacity by 10%.
AR% (Absorption Ratio) = the weight of the water divided by the weight of the flour.
The lower the AR%, the stiffer and more difficult the dough is to mix.
AR% below 40% will reduce total capacity.
1 gallon of water = 8.3 lb. (1 liter of water =2.2lb.)
Do not use the SRM12 for mixing pizza, doughnut or heavy bread doughs.