



AR

Operating instructions



AR30 MK-IV
AR40 MK-IV
AR60 MK-IV



Varimixer

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CONTENTS:

GENERAL:	2
SAFETY:	2
INSTALLATION OF NEW MIXER:	2
CONSTRUCTION OF THE MIXER:	3
THE MAXIMUM CAPACITY OF THE MIXER	3
CONTROL PANEL:	4
RECOMMENDED MAXIMUM SPEEDS:	4
OPERATION OF THE MIXER:	5
SPECIAL STARTING PROCEDURE TO BE USED AFTER:	7
THE SPEED SYSTEM:	7
GENERAL DESCRIPTION OF MODES:	7
OVERLOADING:	7
HOW TO RUN THE MIXER MANUALLY - R.P.M AND SPEED MODE:	8
HOW TO INPUT A PROGRAM, HOW TO PROGRAM A RECIPE:	9
HOW TO RUN A PROGRAMMED RECIPE, "FIXED MODE":	10
HOW TO ENTER "FIXED MODE":	11
HOW TO RUN A PROGRAM IN "FIXED MODE", HOW TO EXIT "FIXED MODE":	11
CONTROL DATA FOR PROGRAM 26:	12
INSTRUCTIONS FOR RUNNING-IN OF MK-III PANEL (PROGRAM 30):	13
ERROR CODES:	14
CORRECT USE OF TOOLS, CLEANING, LUBRICATION AND MAINTENANCE, GREASE TYPES:	16
ADJUSTMENT OF BOWL HEIGHT:	17
ADJUSTING OF BOWL CLAMPING AND CENTERING:	17
ADJUSTMENTS OF SPEED (LOW AND HIGH SPEED CAM DISKS):	18
MANUAL SPEED OPERATION:	18
ELECTRICAL DIAGRAMMES:	20

GENERAL:

In case of complaints, please contact your supplier.

The guarantee does not cover faults resulting from faulty operation, overloading and lacking observance of directions of maintenance.

It should be checked that all loose parts are delivered with the mixer such as bowl, tools, grease gun and rubber feet.

If the mixer has an attachment drive only equipment produced by VariMixer A/S. must be connected.

SAFETY:

The constant noise level of the workplace of the operator is lower than 70 dB (A).



The mixer is designed for manufacture of products which do not during processing cause reactions or emit substances which may be detrimental to the user.



Putting your fingers in the bowl while the mixer is running may cause injuries.



Lift up the bowl arms to normal working position and start the mixer without bowl and tools. Check the direction of rotation of the planetary head: the planetary head must rotate in the direction as stated by the arrow above the planetary head. If the direction of rotation is wrong, 2 of the phase wires of the connecting cable must be inverted.

Checking of the direction of rotation of the planetary head:

Before the mixer is connected to power, it should be checked that the voltage and frequency printed on the machine label is correct in relation to the place of installation. The machine label is placed at the top right side of the mixer.

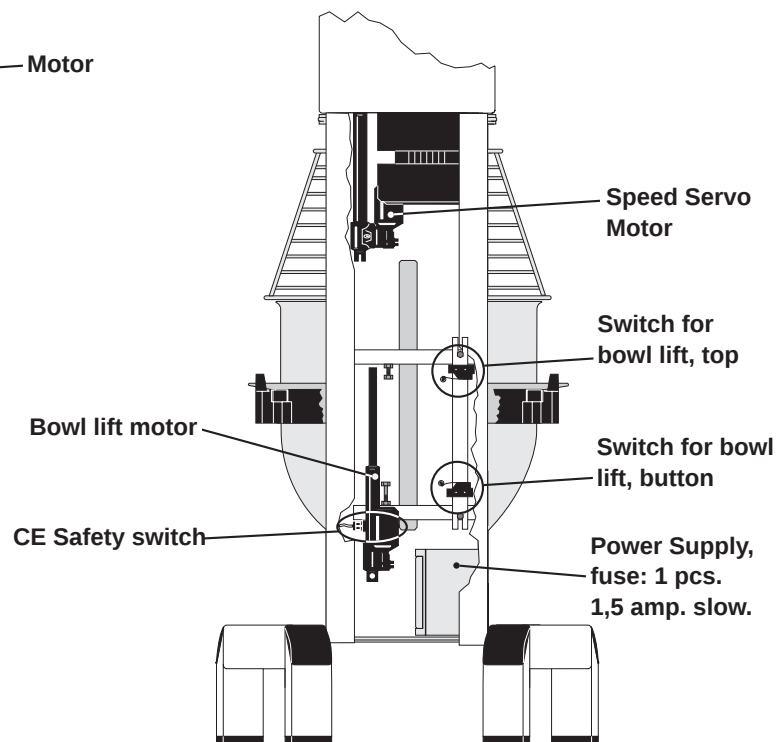
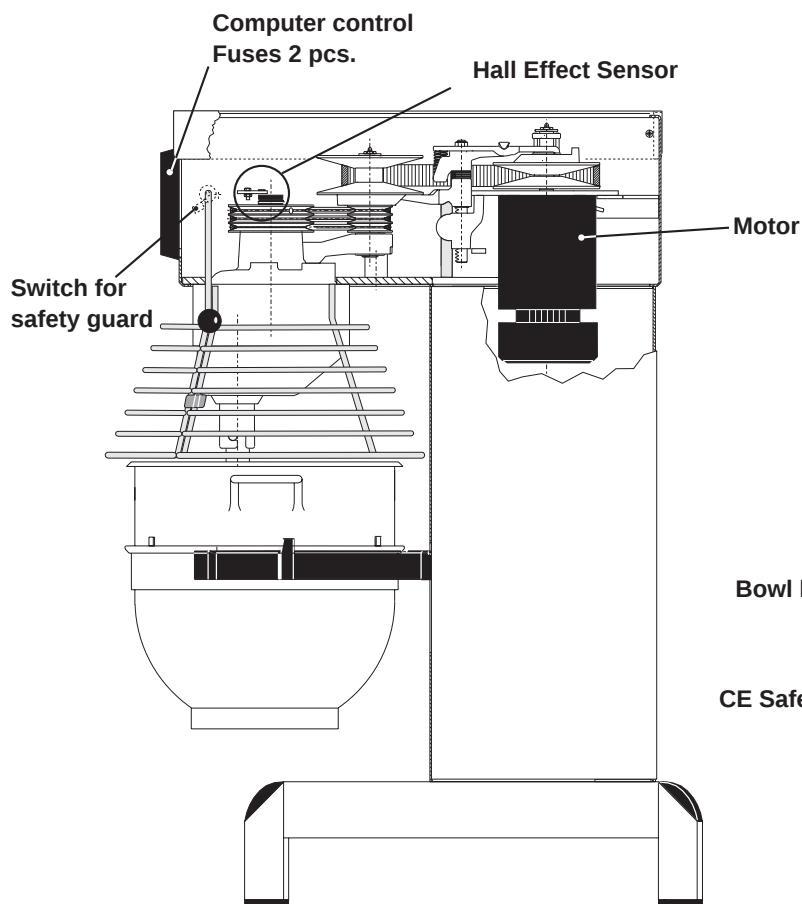
Connection to power:

The mixer must be mounted with rubber feet, which neutralize both shaking and rusting. Spacers can be inserted under the mixer's feet, if the floor is not completely even. The mixer is placed directly on the floor. Foundation bolts in the floor are only necessary under special conditions, e.g. on ships.

Installation and securing:

INSTALLATION OF NEW MIXER:

CONSTRUCTION OF THE MIXER:



THE MAXIMUM CAPACITY OF THE MIXER:

Capacities per mix	Tool	AR30	AR40	AR40P	AR60	AR60P
Egg white	Whip	3,5 L	6 L	6 L	9 L	9 L
Whipped cream	Whip	7,5 L	10 L	10 L	15 L	15 L
Mayonnaise *	Whip	24 L	32 L	32 L	48 L	48 L
Herb butter	Beater	17 kg	25 kg	25 kg	45 kg	45 kg
Mashed potatoes *	Beater / Whip	18 kg	23 kg	23 kg	36 kg	36 kg
Bread dough (50%AR) **	Hook	16 kg	22 kg	32 kg	34 kg	46 kg
Bread dough (60%AR)	Hook	22 kg	30 kg	34 kg	44 kg	56 kg
Ciabatta dough * (70%AR)	Hook	22 kg	30 kg	34 kg	40 kg	50 kg
Muffins *	Beater	18 kg	24 kg	24 kg	33 kg	33 kg
Layer cake base	Whip	7 kg	10 kg	10 kg	15 kg	15 kg
Meatball mix *	Beater	25 kg	30 kg	30 kg	45 kg	45 kg
Icing	Beater	20 kg	29 kg	29 kg	40 kg	40 kg
Doughnut (50%AR)	Hook	18 kg	25 kg	#36 kg	36 kg	#54 kg

* Scraper recommended

** Low speed operation is recommended

AR = Absorption Ratio (%AR)
(Liquid in % of solids)

Example: A basic recipe contains 1 kg of solids and 0,6 kg of liquid:

$$\text{This gives AR} = \frac{0,6 \text{ kgs} \times 100}{1 \text{ kg}} = 60\%$$

If for instance it is required to use the maximum capacity of the mixer, the calculated AR = 60% is used for determining the amount of solids and liquid in the dough:

If a 30 L mixer is used, and a dough with AR = 60% is to be kneaded, the maximum capacity is = 22 kg. Now the weight of solids in this dough is calculated:

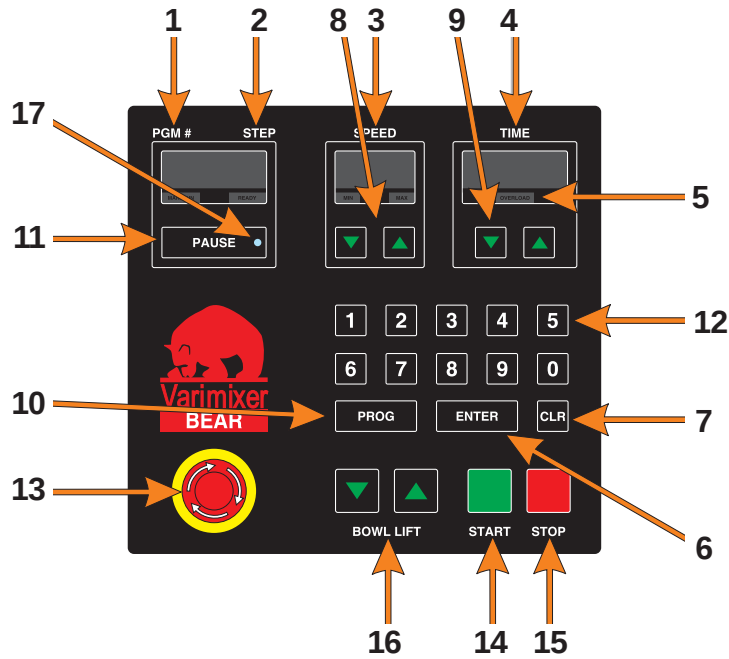
$$\text{Solids} = \frac{\text{Max. capacity} \times 100}{\text{AR} + 100} = \frac{22 \text{ kg} \times 100}{60 + 100} = 13,75 \text{ kg}$$

$$\text{Weight of liquid} = 22 \text{ kg} - 13,75 \text{ kg} = 8,25 \text{ kg}$$

Local variations in the characteristics of the ingredients can influence water absorption, volume and baking characteristics, etc.

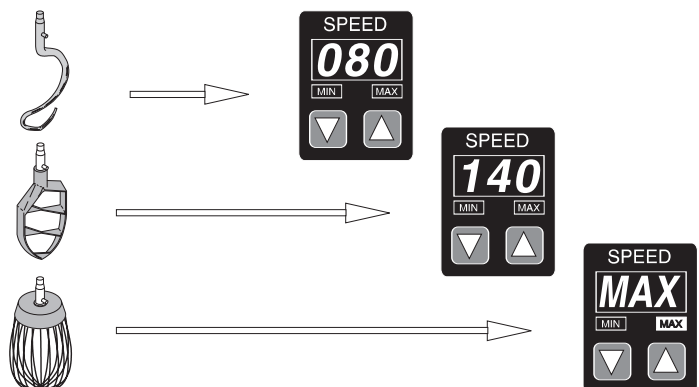
CONTROL PANEL:

The control panel is used for entering data to the system and for general operation of the mixer.

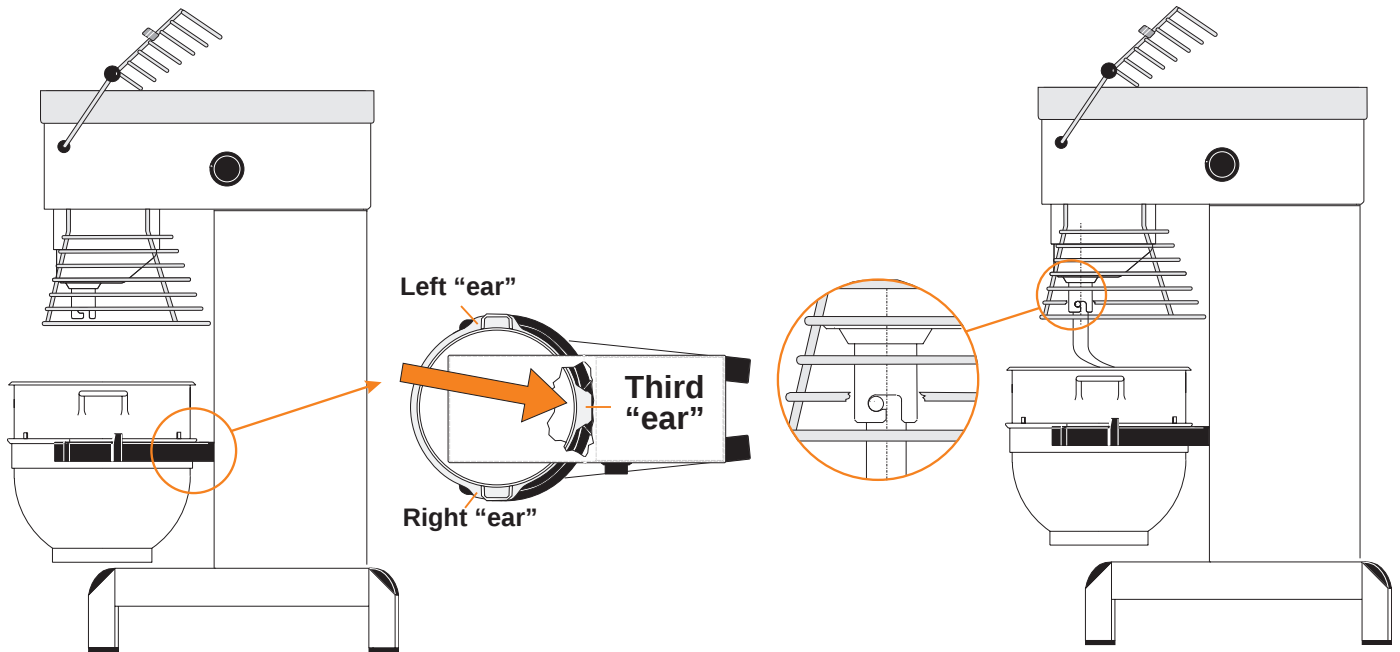


ITEM	FUNCTION	EXPLANATION
1.	Program no.	Displays the program number being executed
2.	STEP	Displays the step number being executed
3.	SPEED	Displays the set-speed
4.	TIME	Displays the elapsed time since start <i>or</i> displays the remaining time to shut down
5.	Text area	OVERLOAD: The mixer can not reach the chosen speed. The speed will be reduced in steps of 20% MIN SPEED: The mixer is running at absolute minimum speed. MAX SPEED: The mixer is running at absolute maximum speed. READY: The mixer is ready to start.
6.	ENTER	Used for stepping through a program.
7.	CLR	Clears a flashing display.
8.	Speed up/down arrows	Used for adjusting the speed while the mixer is running.
9.	Time up/down arrows	Used for adjusting the time.
10.	Program (PROG)	Used to enter/exit program-programming mode.
11.	PAUSE	Pauses the mixer without losing recipe.
12.	Numeric keys	Used for setting time and speed
13.	Emergency Stop	Stops the mixer instantly.
14.	START	Starts the mixer.
15.	STOP	Stop and reset key - reduces the speed to minimum and stops the mixer.
16.	BOWL LIFT	Used for raising and lowering the mixing bowl.
17.	Green L.E.D.	Lights up when the mixer is paused.

RECOMMENDED MAXIMUM SPEEDS.

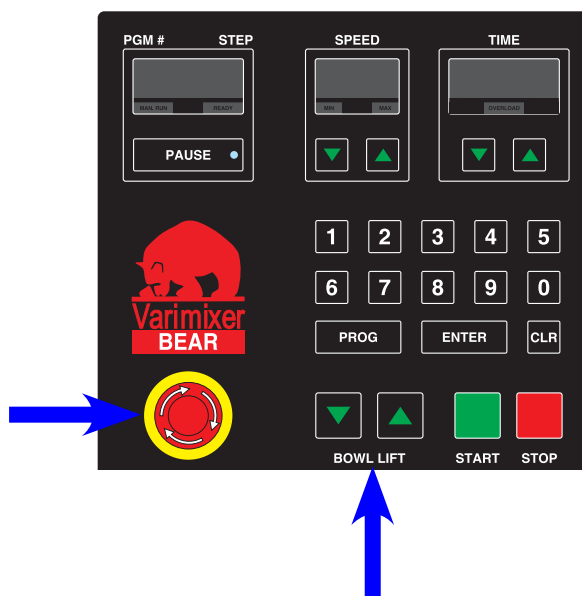


OPERATION OF THE MIXER:



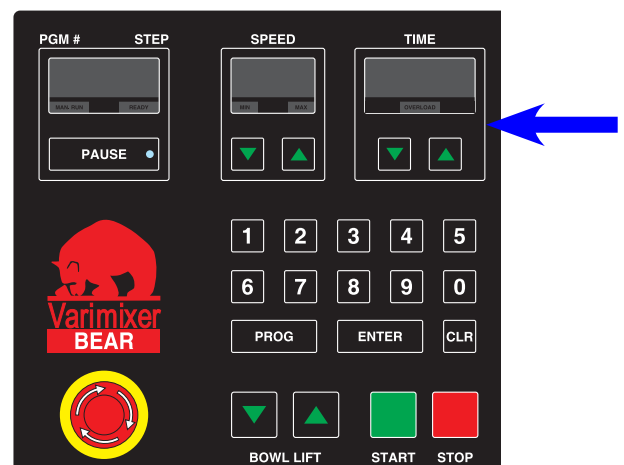
Open the safety guard and place the bowl in the bowl arms. Check that the bowl is placed correctly - the third "ear" of the bowl shall point towards the mixer and the bowl shall be pushed all the way into the bowl arms.

Place the mixing tool in the bayonet shaft. The pin on the mixing tool must be turned into the bayonet hole.



Check that the emergency stop switch is **not** pushed in, as none of the functions of the mixer can be used if the emergency stop button is activated. Release the emergency stop by turning the button a little to the right.

The bowl is raised and lowered by pushing slightly the **"BOWL LIFT"** up or down keys. The key must be kept pushed until the bowl is either entirely up or entirely down, and the mixer will make an acoustic signal. Check that the bowl is placed correctly when the bowl is raised.

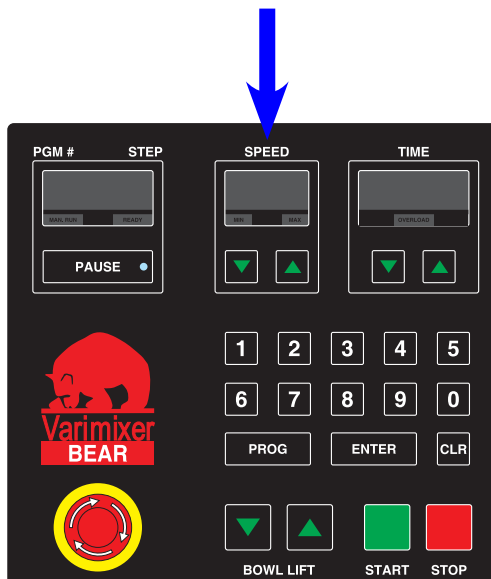


The mixing time is set in **min.** and **sec.** by pushing slightly the adjusting fields, up or down.

The time can be changed after the mixer has been started.

If the timer is not used, the mixing time will be shown.

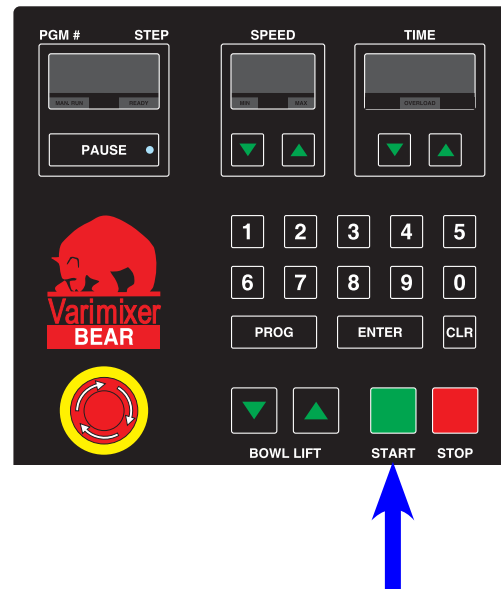
The timer is put to zero position by pushing **"STOP"**.



The mixing speed is set by pushing slightly the up or down keys.

The speed can be changed after the mixer has been started.

After pushing “STOP” the mixing speed must be set again.

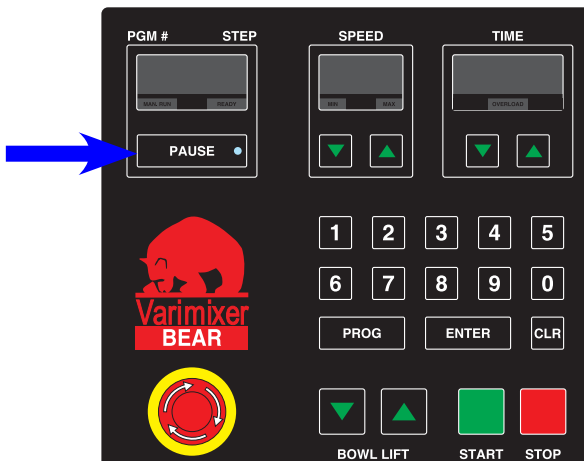


When the bowl is raised into its working position, the mixer can be started by pushing slightly the green start key “START”.

If the **stop** field has been pushed immediately before “START” is pushed, **1-2 seconds** will pass before the mixer can start.

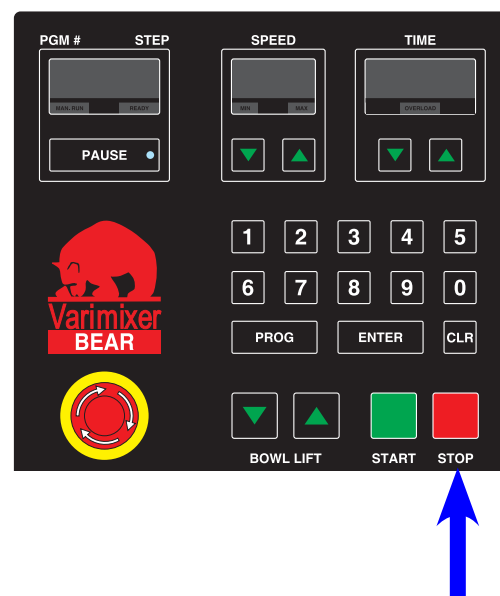


The mixer can only be started when the bowl is in working position and the safety guard is closed.



The mixer can be stopped temporarily by pushing slightly the pause key “PAUSE”. The timer will stop the count-down.

By pushing “START” the timer will continue, and the mixing speed will return to the preset speed.



Stop the mixer by pushing slightly the red stop key “STOP”.

The mixer will automatically return to low speed and stop.

If the mixer is stopped when loaded in high speed, e.g. by pushing the emergency stop switch or by opening a possible safety guard, the bowl must be removed from the mixer, and the speed reduced to low speed before restarting the mixer. **If this is omitted, the mixer can be destroyed.**



Emergency stop must only be used in case of emergency.

SPECIAL STARTING PROCEDURE TO BE USED AFTER:

1. **STOP WHEN USING THE EMERGENCY STOP SWITCH.**
2. **STOP DUE TO OVERLOADING.**
3. **STOP DUE TO OPENING OF SAFETY GUARD WHEN THE MIXER IS RUNNING..**

The bowl must be removed from the mixer before starting the mixer again. The mixing speed must be reduced to low speed before the bowl is placed in the mixer.

If the mixer is started without removing the bowl, it must be possible for the mixer to obtain approx. 75% of the minimum speed. If this is possible, the mixer will automatically return to lowest speed and stop. After pressing "**START**" the operation can be continued in the normal way. If the mixer cannot achieve approx. 75% of the minimum speed due to continued overloading, the error code **E501** will appear. The bowl is now to be removed from the mixer. After a pause of **2 minutes**, "**START**" can be pushed again, and the process can be continued.

THE SPEED SYSTEM:

THE SPEED REGULATION OF THE CONTROL PANEL IS A FEEDBACK-SERVO-SYSTEM. This means that a pick-up (magnetic sensor) is constantly supervising the speed of the main shaft, and reports back to the control panel.

The actual speed of the tool is constantly compared with the required speed, and the computer of the control panel will send a signal to the servo motor in order to adjust the speed if the comparison is showing a greater difference than **+/- 10 RPM**.

GENERAL DESCRIPTION OF MODES:

The system contains six different modes:

1. **MANUEL MODE:** The mode when the mixer is operated like a manual controlled mixer. Instead of executing a programmed recipe, the mixer is started and operated until it is manually shut off.
2. **PROGRAMMING MODE:** The mode where all programming and editing takes place.
3. **PROGRAM MODE:** The mode where all programmed recipes are executed.
4. **FIXED MODE:** A pure executional mode, mixer will only run the programmed recipes. Neither editing or speed/time overwriting can take place. Manual mode is void.
5. **RPM MODE:** Computer displays the speed in actual R.P.M.
6. **SPEED MODE:** Computer displays the speed. (Speed 1,2,3 and 4).

OVERLOADING:

Sticky and heavy doughs may reduce the performance of the mixer. The performance is further reduced if the speed of the mixing tool is increased beyond the recommended values or if a wrong mixing tool is used. Large lumps of fat or cooled ingredients must be cut into small parts before they are placed in the bowl.

THE SPEED SYSTEM CONTAINS AN AUTOMATIC PROTECTION SYSTEM AGAINST OVERLOADING OF THE MIXER. The computer of the control panel will always try to keep the mixing speed at the same level as the keyed in speed. If the mixer cannot run with the required speed due to overloading, the computer will reduce the mixing speed to a value corresponding the loading capacity of the mixer.

IN CASE OF OVERLOADING THE FOLLOWING WILL HAPPEN: The speed keyed in by the operator on the control panel will, depending on the loading, be reduced by up to **20%**. This speed reduction can occur several times after each other until the speed corresponds the loading capacity of the mixer. If this happens, the operator must reduce the speed on the control panel or reduce the amount of dough.

Prolonged overload will make the mixer's motor protection disconnect the mixer. Leave the mixer for approx. **3 minutes** whereafter the mixer can be restarted.

HOW TO RUN THE MIXER MANUALLY:

R.P.M. mode

Enter the speed desired



Push



Enter the time desired



Push



Push



START



SPEED mode

Enter the speed desired



Push



Enter the time desired



Push



Push



START



HOW TO INPUT A PROGRAM:

A flashing display indicates that it is expecting the operator to key in a value.

A step is always a combination of speed and time.

An example is 100 R.P.M for 5:00 minutes or 0 R.P.M for 15 seconds (which is a 15 second pause). Please note that the mixer will not start automatically after a pause, the start button must be pushed to proceed to the next step.

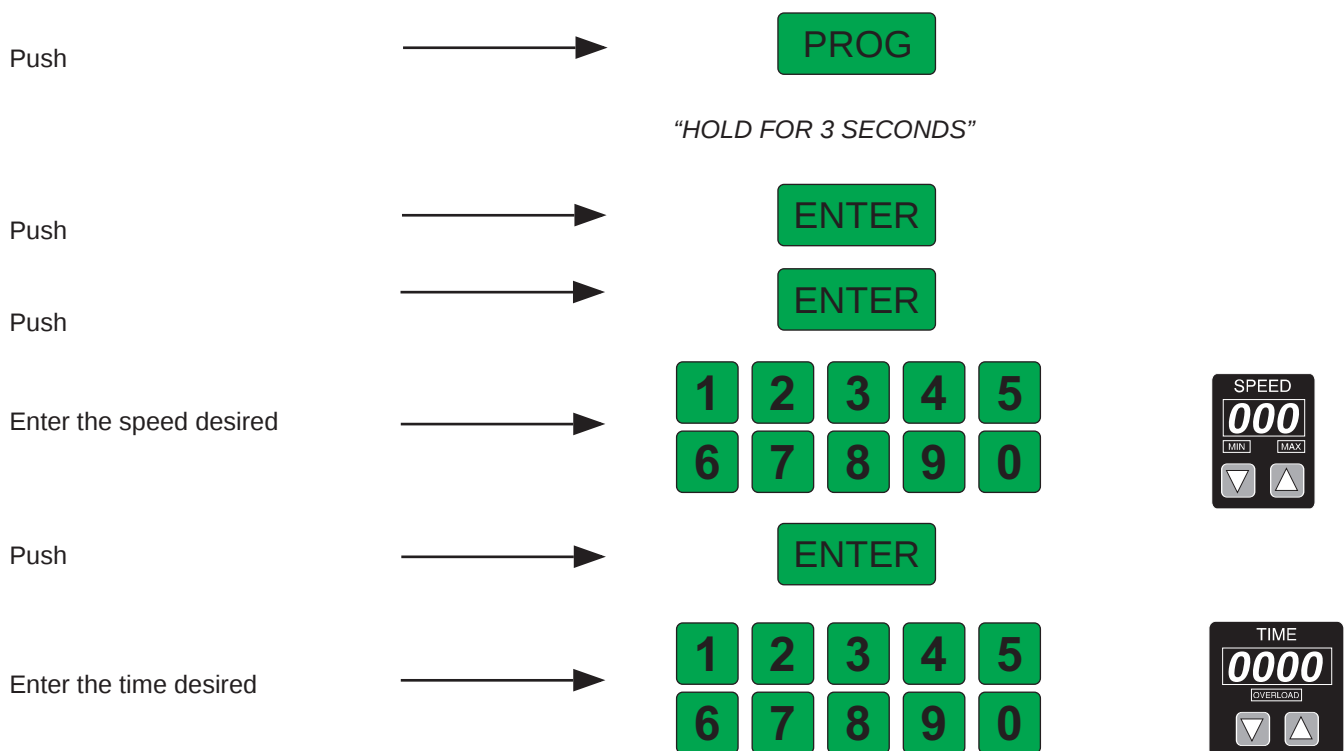
Up to 25 programs, each consisting of 9 steps, can be stored in memory.

A sample program:

Program number	Step	Speed	Time
1	1	60	1:00
	2	200	5:00
	3	0	0:20
	4	110	4:00
	5	180	2:00
	6	0	0:00

“0” Speed and “0:00” Time in the last step is mandatory. The control system will read it as a “end of program” mark.

HOW TO PROGRAM A RECIPE:



Repeat this process for as many as 9 steps per program, after the 9th step, the next program number will display, ready to enter a new recipe. This will continue up to 25 programs.

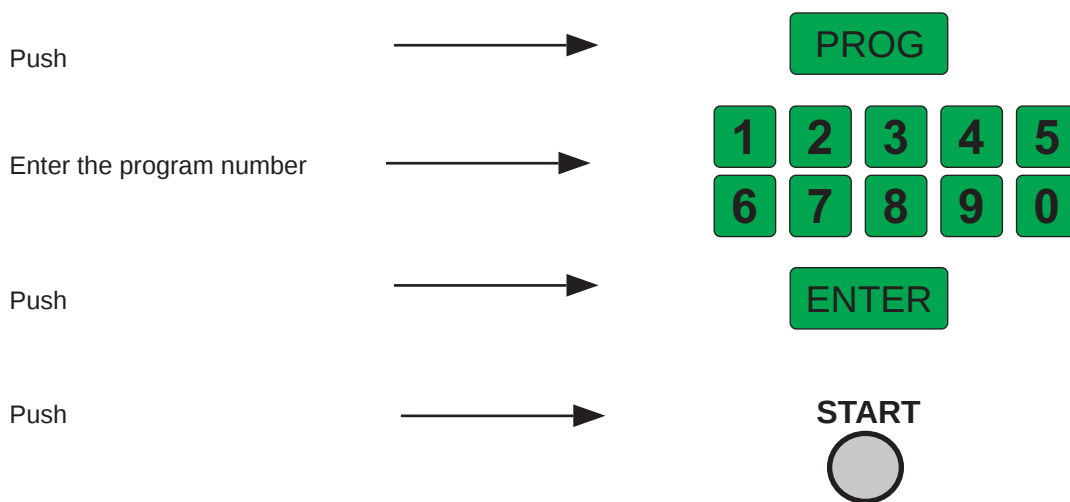
Example:



To edit a recipe or to correct mistakes, press “**PROG**” and hold it for 3 seconds to enter the programming mode, then push “**ENTER**” to reach the program/step that you wish to edit.

To delete a recipe, use the same step above to enter the programming mode, then push “**ENTER**” to reach the program/step that you wish to erase. Enter “0” in speed and “0” in time in all steps.

HOW TO RUN A PROGRAMMED RECIPE:



After the **"ENTER"** key has been pushed, the data in step 1 will be displayed along with the program number.

After the last program step has been executed, the mixer will slow to minimum speed and shut off.

The mixer can be stopped at any time during a recipe by using the **"PAUSE"** button, the mixer will slow to stop and the recipe will not be lost. To continue on with the same recipe, push **"START"**.

FIXED MODE:

Fixed mode is basically designed for users who operate the same recipes over and over again without frequent updating.

The maximum numbers of programs available in fixed mode is reduced from 25 to 10.

Fixed mode is a purely executional mode, its not possible to adjust the speed or time while in this mode.

The mixer will only run recipes that are programmed.

The advantage to this mode is that no one can "cheat" the programmed recipe.

The only applicable keys are **"START"**, **"STOP"**, **"PAUSE"**, **"BOWL LIFT"**, Emergency stop and numeric keys.

HOW TO ENTER “FIXED MODE”:

Push



PROG

“HOLD FOR 3 SECONDS”

Push “9 9”



Push



ENTER

Push “1 2 3 4”



Push



ENTER

HOW TO RUN A PROGRAM IN “FIXED MODE”:

Push the program number



Push



START

**HOW TO EXIT “FIXED MODE”:**

Push



PROG

“ HOLD FOR 3 SECONDS”

Push “1 2 3 4”

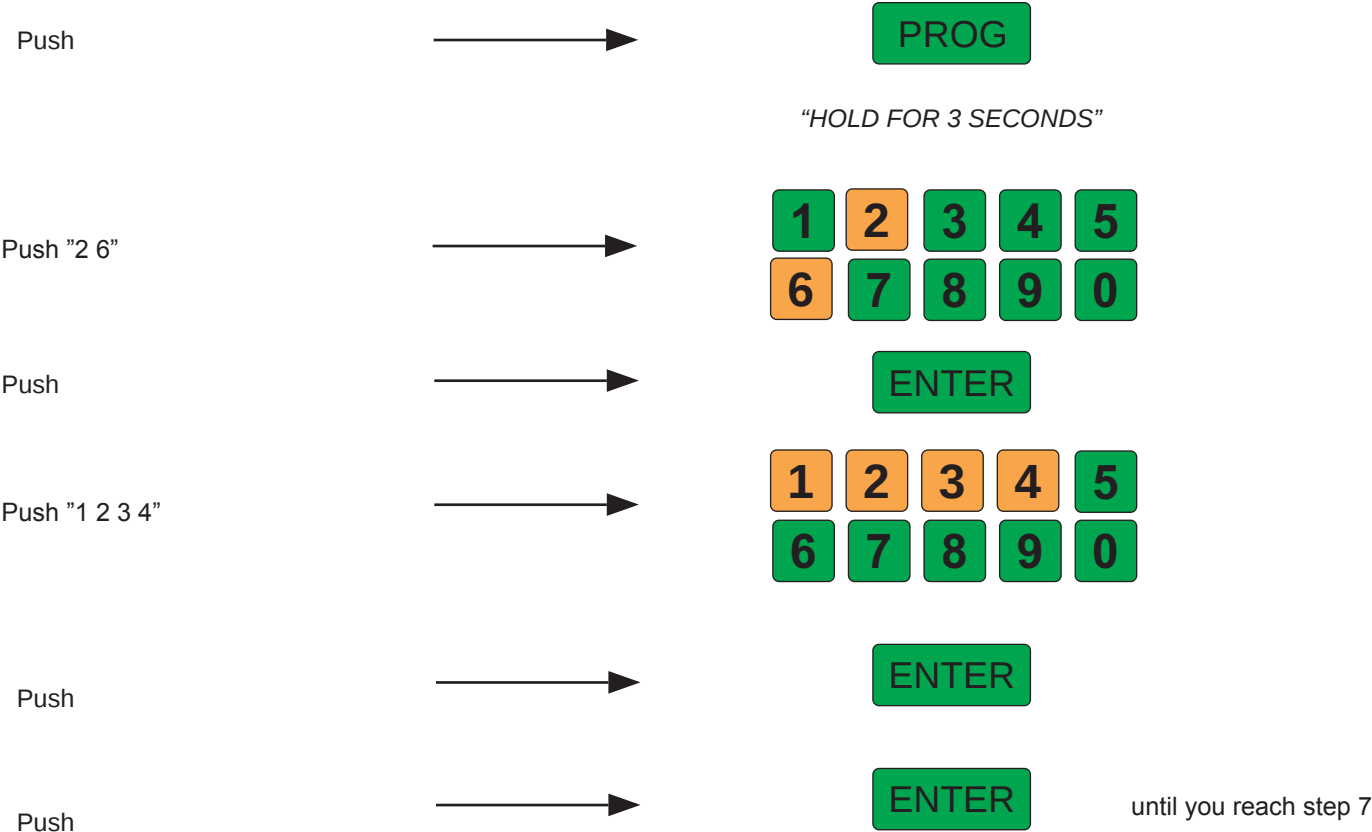


Push



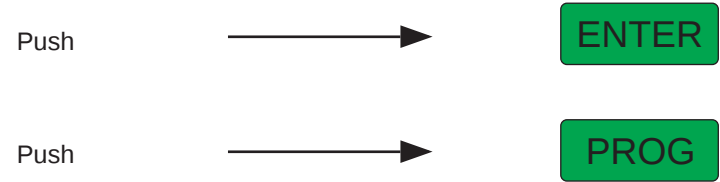
ENTER

CONTROL DATA FOR PROGRAM 26:



In the following chart you find the value that matches the mixer model and enter it in step 7. Repeat for step 8 and 9:

Step 7		Step 8		Step 9		
Mixer model	Values	Mode	Value	Mixer model	Value 50 Hz	Value 60 Hz
AR30	30	“RPM” MODE (Speeds RPM) OR “SPEED MODE” (Speeds 1-4)	:00	AR30	323	369
AR40	40			AR40	390	375
AR60	60		:02	AR60	350	390
AR80	80			AR80	400	422
AR100	100			AR100	400	422
AR140	140			AR140	400	422
AR200	200			AR200	400	422

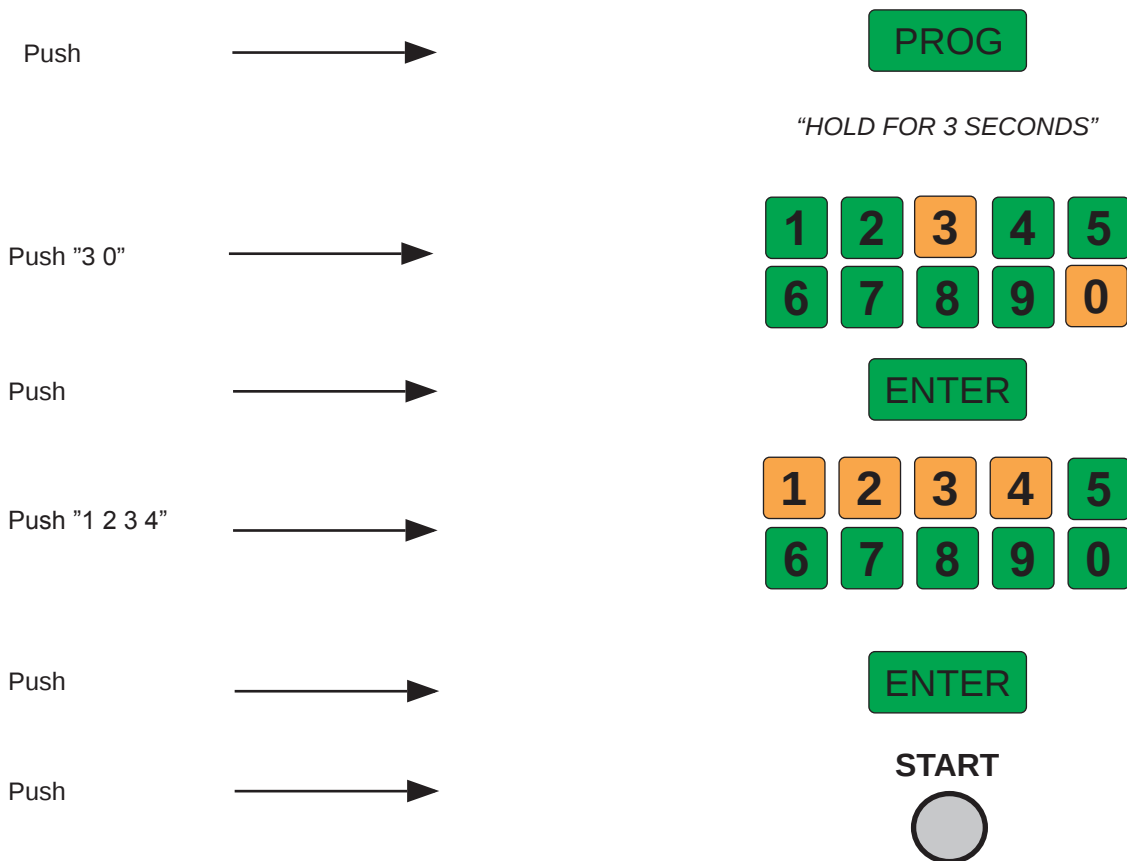


Now run program 30, see page 13

- OVERLOAD** light: When activated, mixer will lower speed 20% until it can maintain a steady speed.
1. Too much dough in the bowl (overloading) or speed set too high. Lower dough amount and speed.
 2. V-belt is slipping: tighten belt or replace as needed.
 3. Drive pin in motor pulley sheared, replace.
 4. Hall effect sensor out of adjustment or magnet disc loose. (See E:301)

INSTRUCTIONS FOR RUNNING-IN OF MK-III PANEL (PROGRAM 30):

Start with running program 26, see page 12.



The actual RPM of the mixer is shown in the **"SPEED"** display.

The required minimum RPM of the mixer is shown in the **"TIME"** display.

Push  or  below the **"SPEED"** display until the RPM in the **"SPEED"** display is equal to the RPM in the **"TIME"** display.

Turn the cam disk (see page 20 and 21) for activation of micro switch for minimum speed (closest to V-belt) so that the **"MIN"** display only just lights up.

The cam disk has been adjusted to minimum speed when the **"MIN"** display only just lights up at minimum RPM.

Push **"CLR"**.

The required maximum speed of the mixer is shown in the **"TIME"** display.

Push  or  below the **"SPEED"** display until the RPM in the **"SPEED"** display is equal to the RPM in the **"TIME"** display.

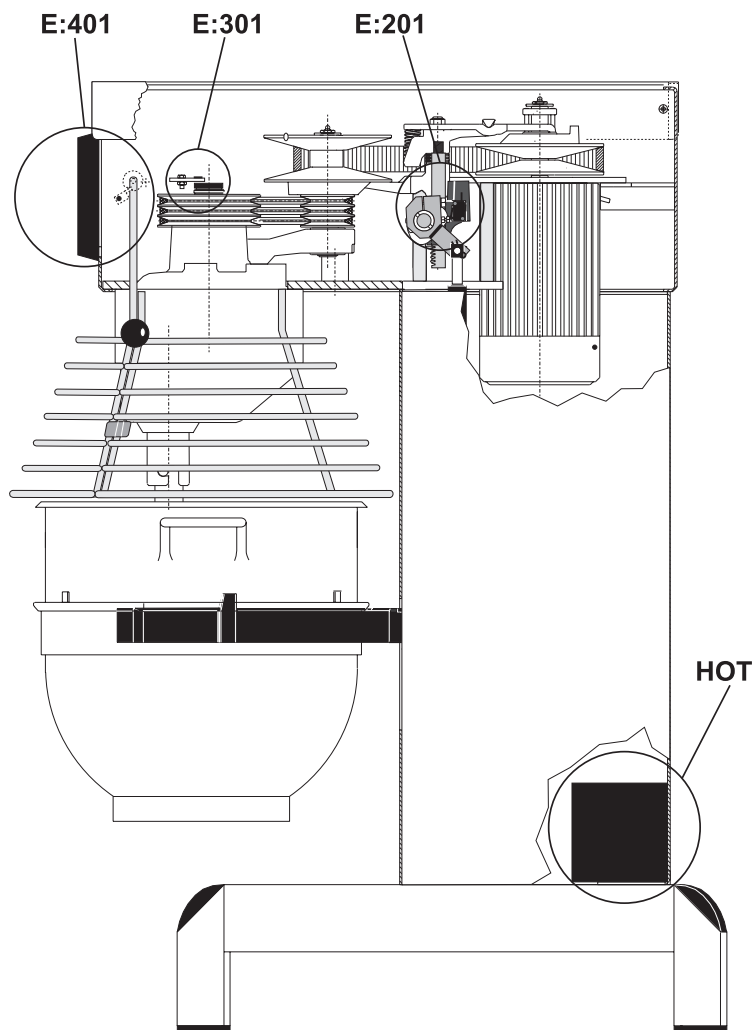
Turn the cam disk for activation of micro switch for maximum speed (remotest from V-belt) so that the **"MAX"** display only just lights up.

The cam disk has been adjusted to maximum speed when the **"MAX"** display only just lights up at maximum RPM.

Push **"STOP"**

The mixer is ready for use.

ERROR CODES:



An error in the mixer will trigger an **ERROR** code in the time display. See the below mentioned explanation of error codes and the procedure for correcting them.

E:201 The servo motor block actuator (**B**) did not contact the minimum speed micro switch (**A**) after the stop button was pushed or the programmed recipe completed.

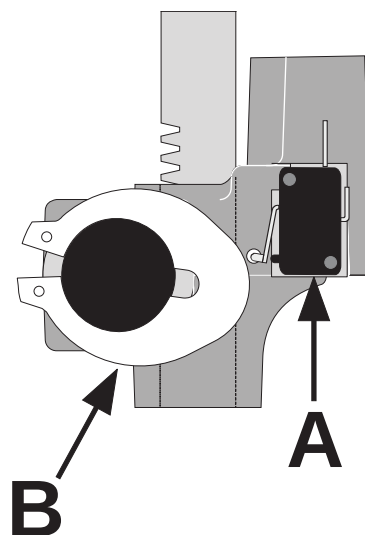
The computer is programmed to slow the mixer down to low speed before shutting off. It will not do this unless the micro switch is contacted by the block mounted on the speed adjustment shaft.

To correct this error:

1) Check the micro switch (**A**) to see if it is working by manually pushing it, when pushed, the “**MIN**” light should light up on the control panel. If it does not, the micro switch is faulty.

2) The cam disk (**B**) is not contacting the switch, adjust the switch up.

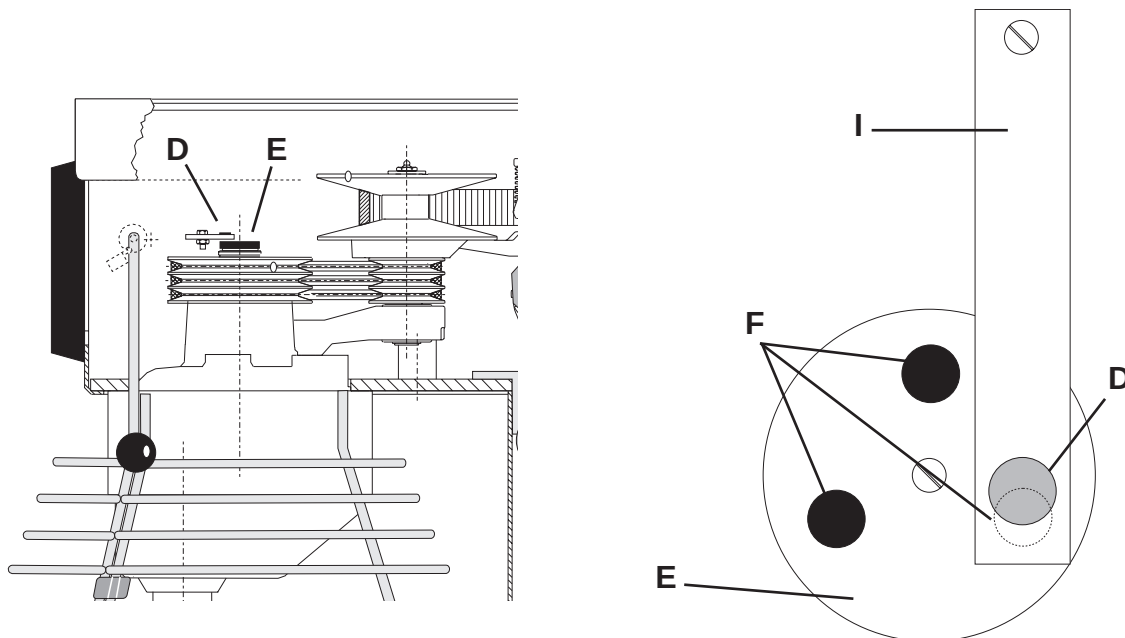
3) The servo motor is not moving at all. Check the fuses in the rear of the control, if blown, replace, if not blown, check the voltage (31 VDC) at the servo motor while the mixer is running. If voltage is present, the servo is faulty.



E:301 There is no signal from the speed pickup (hall effect sensor).

To correct this error:

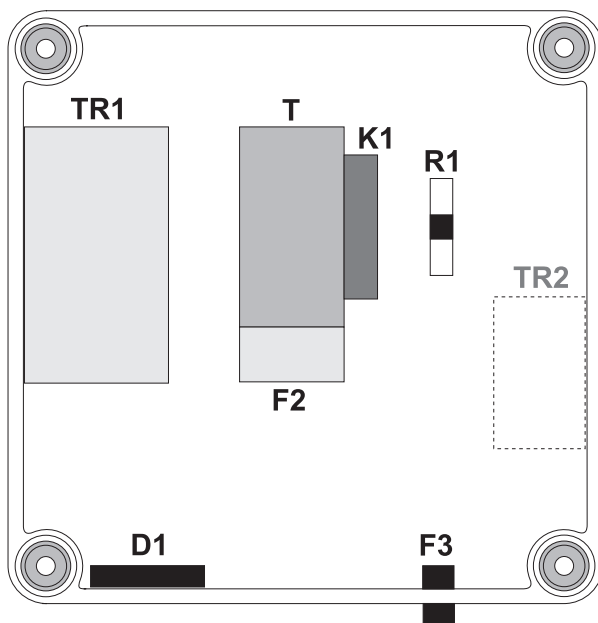
- 1) Check that the sensor (**D**) is centered directly above the track of the 3 magnets (**F**) on the pulley and the gap between the sensor and magnets is 1/16". If not, bend and / or move the bracket (**I**) holding the sensor.
- 2) Inspect the three wires between the sensor and the plug. Replace the sensor if wires are broken.
- 3) Insure the aluminium disc (**E**) is tight on the pulley.



HOT The thermal overload **F2** has tripped because of excessive amp draw or heat. The overload will automatically reset after it has cooled. This function is to protect the mixer.

To correct this error:

- 1) Have a service technician inspect all wiring, contactor and overload for faults.
- 2) Monitor the amp draw while the unit is operating. If excessive, the drive motor may be failing.



TR1.....Transformer
 TR2....."Step down" Transformer
 TRelay for motor
 F2Thermal cut-out
 K1.....Locking contact
 R1.....Coil for starting relay
 D1.....Rectifier
 F3Fuse 1,5 A, slow

E:401 The values in program 26 steps 7,8 and 9 are missing or incorrect.

To correct this error, run program 26, see page 12

CORRECT USE OF TOOLS:

Recommended applications for tools:

Whip	Beater	Hook
Cream	Cake dough	Bread dough
Egg whites	Butter cream	Dark bread
Mayonnaise	Waffle dough	and the like
and the like	Minced meat	
	and the like	



For production of mashed potatoes the special wing whip or the whip with thicker wires should be used, alternatively use the beater and the whip.

Whips should not be struck against hard objects as e.g. the edge of the bowl. This will make the life of the tool shorter due to increasing deformity.

CLEANING:

The mixer should be cleaned daily or after use. The mixer should be cleaned with a soft cloth and clean water. Sulphonated soaps should be used with caution as they destroy the mixer's lubricants.



Never use high pressure cleaning for the mixer.

Parts made of aluminum should not be used to strongly acidic, highly alkaline or highly salty foodstuffs, which may attack aluminum without coating.

Tools of aluminium must not be washed with strong alkaline detergents (pH between 5 and 8).

The soap suppliers can recommend the correct type of soap.



Please note that the plastic safety guard can be damaged if exposed to high temperatures for a considerable period. (Max. temperature 65°C)

Cleaning of attachment drive: after use of the attachment drive this should be wiped inside with a soft cloth.

MAINTENANCE AND LUBRICATION:

The infinitely variable gear must be lubricated regularly, i.e. a lubrication interval of approx. 60 hours of operation.

Lubrication of infinitely variable gear:

OBS. Special grease !! (Use the grease gun delivered together with the mixer). Start the mixer and increase the speed to approx. 50%. Stop the mixer (use the emergency stop) and open the lid on the top of the mixer. On the top of each of the two pulley set shafts is a grease nipple (fig. 1 point 1). Press grease through the grease nipples until the grease gun feels hard to press or until grease comes out between the shaft and the pulleys.



The mixer must not be started until the screws which hold the lid are inserted.

Start the mixer, and set the speed back to low speed. Stop the mixer and fill the grease gun with new grease so that it is ready for next time.

Lubrication of other movable parts:

The movable parts of the bowl arms, the shaft and the lifting rod must also be lubricated with oil. Remove the rear covering and lubricate the marked points with an oil can. (fig.1 pkt.2)

GREASE TYPES:

Grease for the pulley set shafts: **Castrol LMX**.

On repair of the planetary head: Grease the toothed wheel and the toothed rim with **Molub Alloy 936SF Heavy** or **Castrol Grippa 355**, the needle bearings in the planetary head must not be lubricated with this type of grease. Do not use any another type of grease than the one stated here.

On repair of the attachment drive: Fill the attachment drive with 0.35 L **ESSO Fibrax EP 370**.

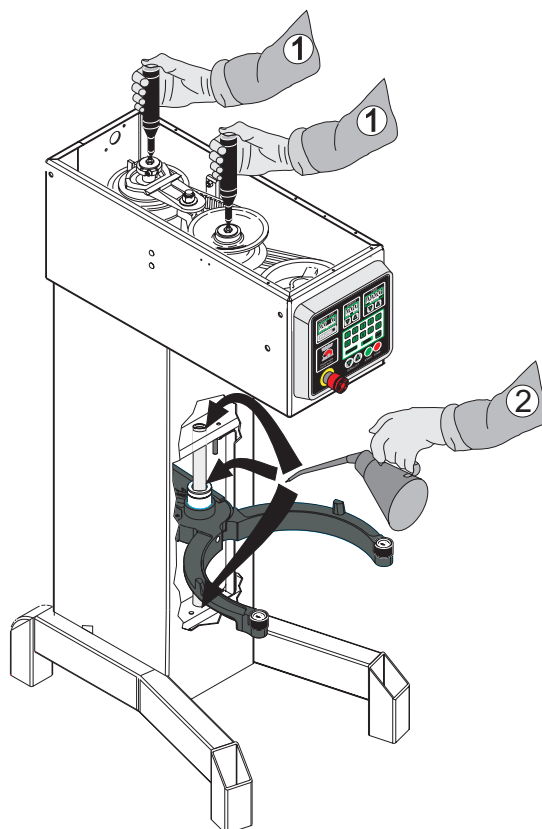


fig.1 Greasing of infinitely variable gear and other movable parts

ADJUSTMENT OF BOWL HEIGHT:

The distance **(X)** is measured from the bottom side of the bayonet hole to the surface on the bowl arms on which the bowl rests (**fig. 2a**). The bowl arms must be lifted to normal working position.

The upper and lower position of the bowl is determined by micro switch **(1)** and **(2)** (**Fig. 2**).

The two mechanical stops consisting of the bolts **(3)** and **(4)** are adjusted so that they will be hit approx. 1 mm after the micro switch, in case the micro switch should fail. The upper position of the bowl arms is adjusted by bending the spring arm of the micro switch **(1)** either upwards or downwards; it is of utmost importance that the stop screw **(3)** is re-adjusted afterwards. In the same way the lower position is adjusted by bending the spring arm of the micro switch **(2)**. **NB:** The spring arm must not be bent so far downwards that the bowl arms do not hit it. Thereafter the mechanical stop **(4)** is adjusted.

The micro switch **(5)** is in a special security circuit, witch disables the mixers start function when the bowl is lowered.

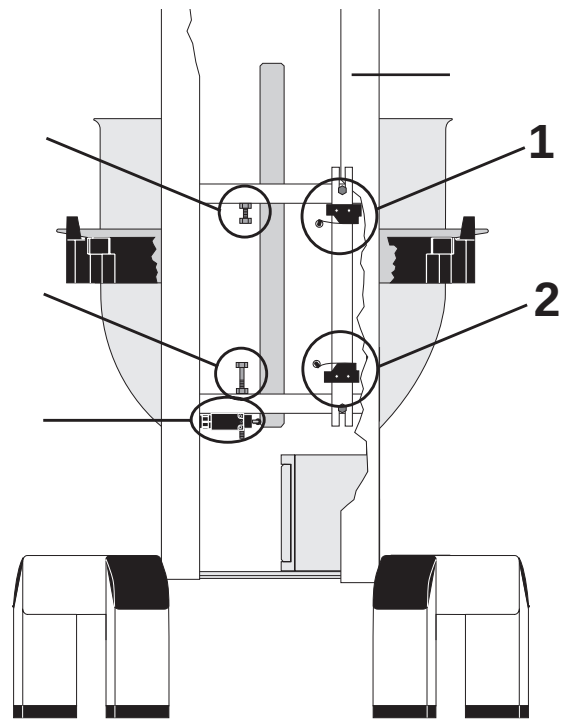


Fig. 2

(X):	AR30	=	162 mm.
	AR40	=	162 mm.
	AR60	=	178 mm.

The distance **(X)** (**fig. 2a**) is measured from the bottom side of the bayonet hole to the surface on the bowl arms on which the bowl rests. The bowl arms must be lifted to normal working position. A steel guide can be used on top of the bowl arms.

Please notice that the measurement is made from the bottom side of the **bayonet hole**, not from the bottom side of the bayonet shaft.

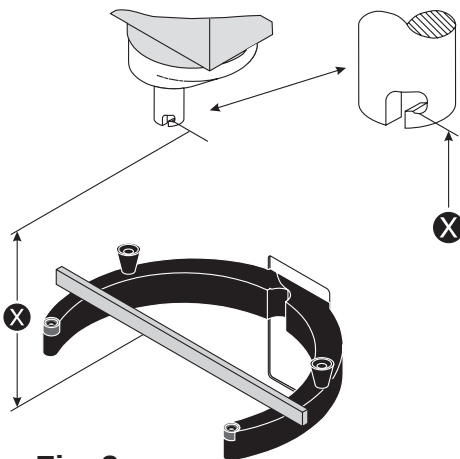


Fig. 2a

ADJUSTING OF BOWL CLAMPING:

The bowl arms must be raised to normal working position. Loosen the counter nuts **(1)**, (**Fig.3**) and remove the cotter pins **(2)**. Turn the bolts **(3)** until correct fixing of the bowl is achieved. By turning the bolts **out** of the extension tube the fixing is increased. Start by turning one of the bolts half a revolution.

The adjusting diameter shall be measured inside between the bowl arms:

Adjusting diameter:	AR30	=	361,8mm
	AR40	=	391,3mm
	AR60	=	450,4mm

ADJUSTING OF BOWL CENTERING:

Loosen the counter nuts **(1, Fig.4)** and remove the cotter pins **(2)**. Turn the bolts **(3)** until the bowl is in the centre of the mixer. In order not to alter the fixing of the bowl, one of the bolts must be turned **out** of the extension tube and the other **into** the extension tube. Use the flat beater to check that the bowl is correctly centered and turn the planetary head with your hand before the voltage is connected.

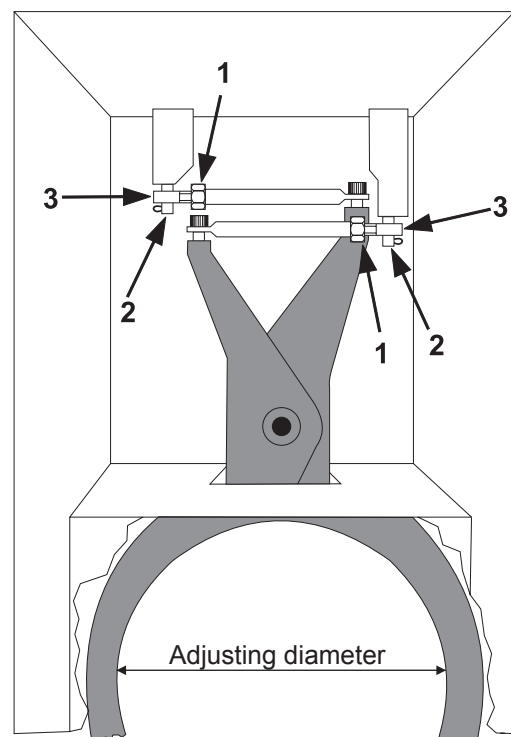


Fig. 3

ADJUSTMENTS OF SPEED (LOW AND HIGH SPEED CAM DISKS):

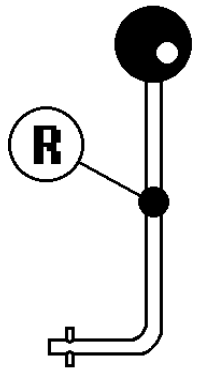
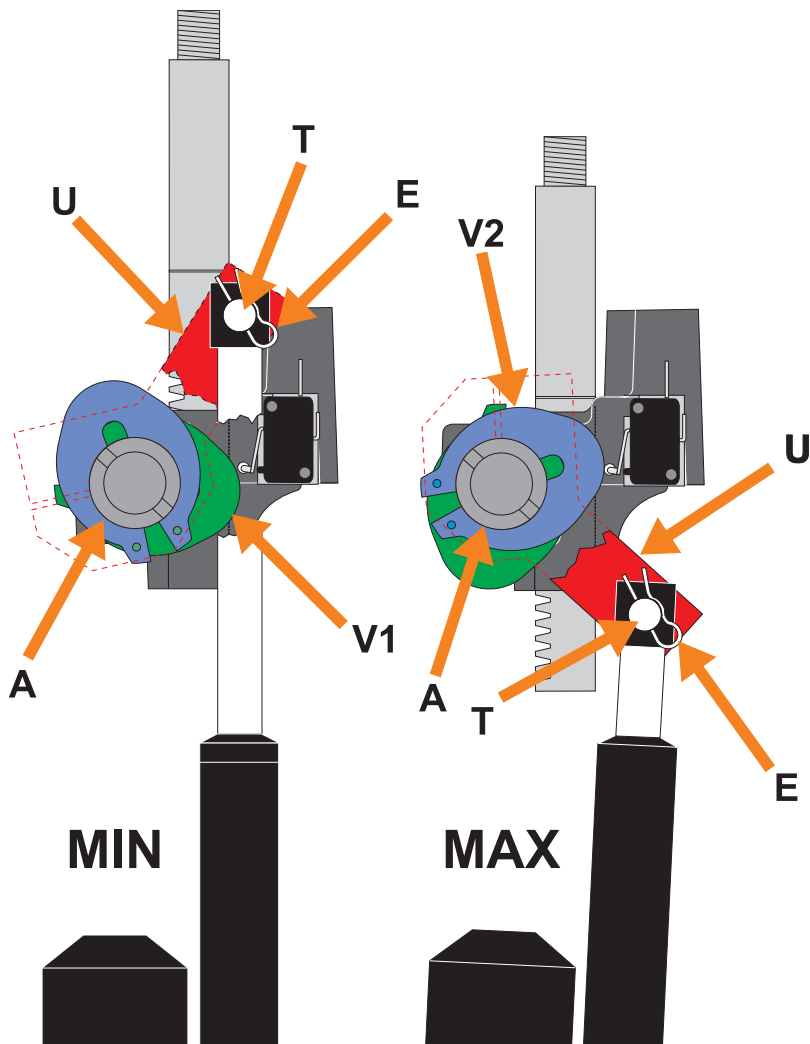
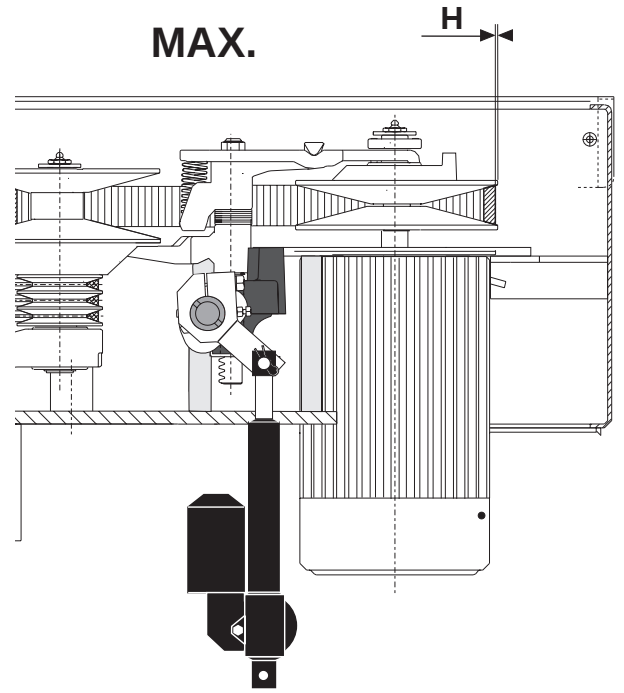
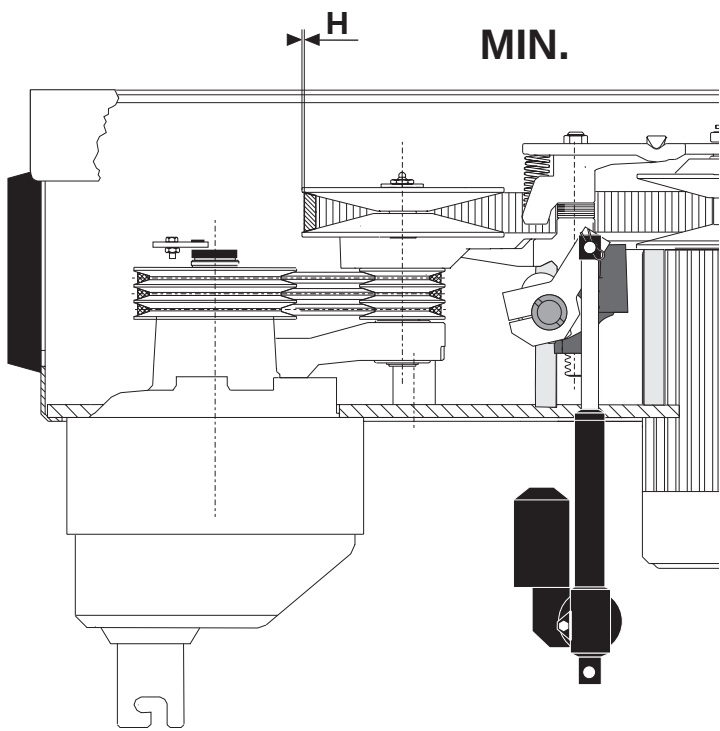
1. Prior to any adjustment the mixer must be at minimum speed, the bowl must be in “UP” position and the safety guard, if equipped, must be closed.
 2. Press the emergency stop switch.
 3. The cable to the servo motor must be disconnected at the rear of the control box. The socket is marked “**SPEED REG**”.
 4. The slide switch on the rear of the control box must be in the “**MAN**” position.
 5. The arm (**U**) is released from the servo motor shaft by removing the cotter pin (**E**) and the pin (**T**). The arm (**U**) must not be loosened from the shaft (**V**).
 6. The manual speed selector lever (**R**) included with the mixer is placed in the shaft (**A**) so that it points upwards and forwards. (Remove the cover from the side of the mixer).
 7. Release the emergency stop switch and start the mixer, increase the speed with the selector lever until the distance (**H**) on the rear pulley is 0-3 mm: “**HIGH SPEED**”.
 8. Stop the mixer by pressing the emergency stop switch on the control box.
 9. Adjust the high speed cam disk (**V2**) so that it is activating the micro switch. “**MAX light should be on**”.
 10. Release the emergency stop switch and restart the mixer, with the manual speed selector lever, lower the speed until the distance (**H**) is 0-3 mm on the front pulley set: “**LOW SPEED**”.
 11. Stop the mixer by pressing the emergency stop switch on the control box.
 12. Adjust the low speed cam disk (**V1**) so that it is activating the micro switch: “**MIN light should be on**”.
 13. Reconnect the cable from the servo motor to the control box. The socket is marked “**SPEED REG**”.
 14. Move the switch on the rear of the control box to “**AUTO**”.
 15. Remove the speed selector (**R**) and replace the cover on the side of the mixer.
 16. Mount the pin (**T**) and the cotter pin (**E**) which connects the arm (**U**) to the servo motor shaft.
- BE AWARE THAT THE SERVO MOTOR SHAFT MUST NOT TOUCH THE SHAFT (A) IN MAXIMUM SPEED.**
17. Release the emergency stop switch.
 18. Install the top lid.

MANUAL SPEED OPERATION:

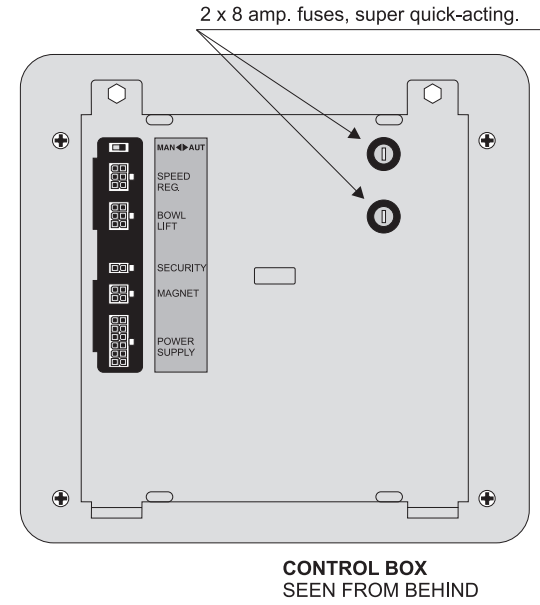
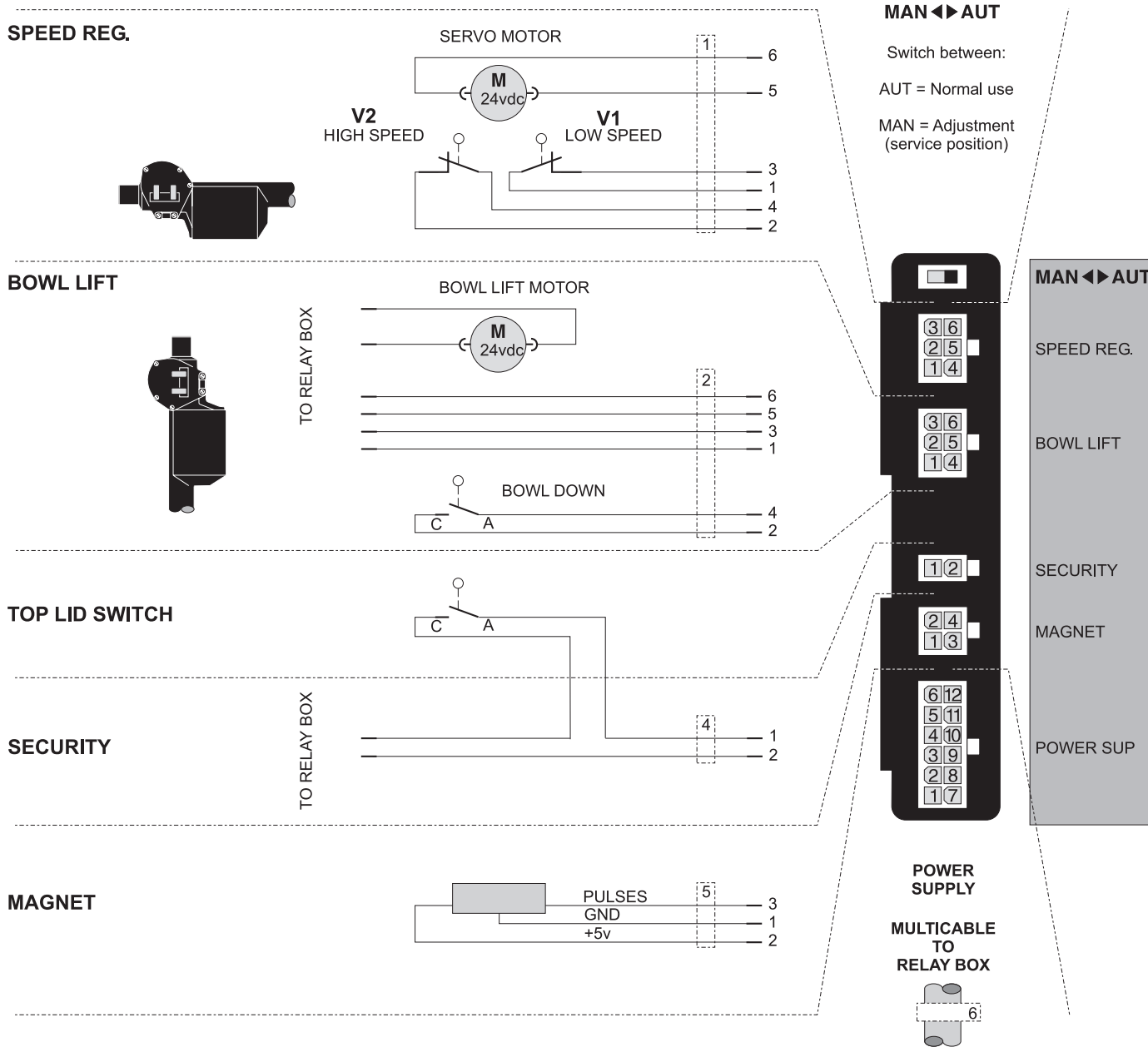
**IF THE ELECTRONICS IN THE CONTROL BOX FAILS,
THE MIXER CAN BE OPERATED MANUALLY.**

1. Turn off the main switch at the point of connection.
2. Open the mixer's lid and toggle the switch which is placed on the rear of the control box to “**MAN**” position.
3. Dismount the servo motor from the arm by removing the pin (**T**). Tie the servo motor shaft firmly so that it cannot touch the special V-belt when the mixer is started.
4. Remove the cover on the right side of the mixer and place the speed selector lever (**R**) in the slotted shaft. The speed selector lever was included with the mixer either separately or in the mixer.
5. Close the mixer's lid and turn on the main switch.
6. Start the mixer by pressing **START**
7. The speed can be changed on the speed selector lever (**R**).
8. Stop the mixer by using the **EMERGENCY STOP SWITCH** instead of the normal stop key.

WARNING: In this working position the security systems of the mixer are out of function. This means that the mixer can be running with the bowl lowered and the safety guard and the cover open.



ELECTRICAL DIAGRAMMES:



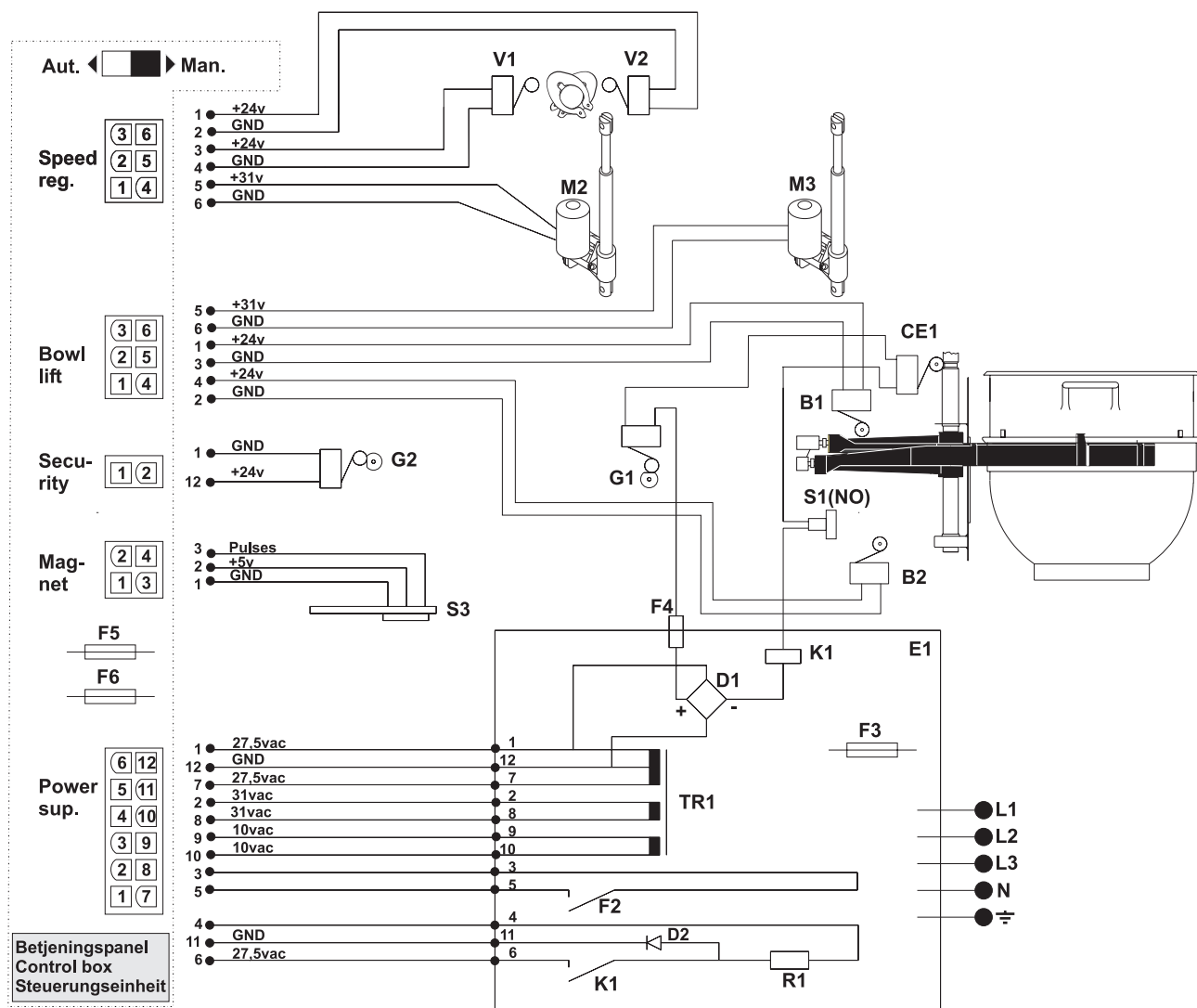
OBS:

The mixer is to be connected to power via a plug. The plug must be dimensioned for min. 16 A, 230/400V~, IP44

When connecting:

- 1 phase with 0 + earth, use 3 pole plug
- 2 phases + earth, use 3 pole plug
- 3 phases + earth, use 4 pole plug
- 3 phases with 0 + earth, use 5 pole plug

ELECTRICAL DIAGRAMMES:



- V1Micro switch - low speed
 V2Micro switch - high speed
 M2Servo motor
 M3Motor for bowl lift
 B1Micro switch for bowl lift, top
 B2Micro switch for bowl lift, bottom
 G1Micro switch for safety guard. Control panel
 G2Micro switch for safety guard. Safety circuit
 S3Hall Effect Sensor
 CE1CE-safety switch
 S1Start switch (NO)
 K1Locking contact
 F3Fuse 1,5 A
 F4Fuse 1.5 A
 F5Fuse 8 A
 F6Fuse 8 A
 E1Power supply
 D1Rectifier
 TR1Trafo
 F2Thermal cut-out
 D2Diode
 R1Coil for starting relay

Indhold af Overensstemmelseserklæring, (Maskindirektivet, 2006/42/EC, Bilag II, del A)	DK
Contents of the Declaration of conformity for machinery, (Machinery Directive 2006/42/EC, Annex II., sub. A)	EN
Inhalt der Konformitätserklärung für Maschinen, (Richtlinie 2006/42/EG, Anhang II, sub A)	DE
Contenu de la Déclaration de conformité d'une machine, (Directive Machine 2006/42/CE, Annexe II.A)	FR
Inhoud van de verklaring van overeenstemming voor machines, (Richtlijn 2006/42/EC, Bijlage II, onder A)	NL
Contenido de la declaración de conformidad sobre máquinas, (Directiva 2006/42/EC, Anexo II, sub A)	ES

Fabrikant; Manufacturer; Hersteller; Fabricant; Fabrikant; Fabricante: Varimixer A/S
 Adresse; Address; Adresse; Adresse; Adres; Dirección: Kirkebjerg Søpark 6, DK-2605 Brøndby, Denmark

Navn og adresse på den person, som er bemyndiget til at udarbejde teknisk dossier
 Name and address of the person authorised to compile the technical file
 Name und Anschrift der Person, die bevollmächtigt ist, die technischen Unterlagen zusammenzustellen
 Nom et adresse de la personne autorisée à constituer le dossier technique
 naam en adres van degene die gemachtigd is het technisch dossier samen te stellen
 nombre y dirección de la persona facultada para elaborar el expediente técnico

Navn; Name; Name; Nom; Naam; Nombre: Kim Jensen
 Adresse; Address; Adresse; Adresse; Adres; Dirección: Kirkebjerg Søpark 6, DK-2605 Brøndby, Denmark
 Sted, dato; Place, date; Ort, Datum; Lieu, date ; Plaats, datum ; Place, Fecha: Brøndby, 14-03-2018

Erklærer hermed at denne røremaskine
 Herewith we declare that this planetary mixer
 Erklärt hiermit, dass diese Rührmaschine
 Déclare que le batteur-mélangeur ci-dessous
 Verklaart hiermede dat Menger
 Declaramos que el producto batidora

- er i overensstemmelse med relevante bestemmelser i Maskindirektivet (Direktiv 2006/42/EC)
 is in conformity with the relevant provisions of the Machinery Directive (2006/42/EC)
 konform ist mit den Bestimmungen der EG-Maschinenrichtlinie (Direktiv 2006/42/EG)
 Satisfait à l'ensemble des dispositions pertinentes de la Directive Machines (2006/42/CE)
 voldoet aan de bepalingen van de Machinerichtlijn (Richtlijn 2006/42/EC)
 corresponde a las exigencias básicas de la Directiva sobre Máquinas (Directiva 2006/42/EC)
- er i overensstemmelse med følgende andre CE-direktiver
 is in conformity with the provisions of the following other EC-Directives
 konform ist mit den Bestimmungen folgender weiterer EG-Richtlinien
 Est conforme aux dispositions des Directives Européennes suivantes
 voldoet aan de bepalingen van de volgende andere EG-richtlijnen
 está en conformidad con las exigencias de las siguientes directivas de la CE

2014/30/EU ; 1935/2004 ; 10/2011 ; 2023/2006 ; RoHS 2011/65/EU , 822/2013 (DK only)

Endvidere erklæres det
 And furthermore, we declare that
 Und dass
 Et déclare par ailleurs que
 En dat
 Además declaramos que

- at de følgende (dele af) harmoniserede standarder, er blevet anvendt
 the following (parts/clauses of) European harmonised standards have been used
 folgende harmonisierte Normen (oder Teile/Klauseln hieraus) zur Anwendung gelangten
 Les (parties/articles des) normes européennes harmonisées suivantes ont été utilisées
 de volgende (onderdelen/bepalingen van) geharmoniseerde normen/nationale normen zijn toegepast
 las siguientes normas armonizadas y normas nacionales (o partes de ellas) fueron aplicadas

EN454:2014 ; EN60204-1:2006; EN12100-2011

EN61000-6-1:2007; EN61000-6-3:2007

DS/EN 1672-2 + A1:2009

Innehåll i örsäkran om maskinens överensstämmelse, (Maskindirektivet 2006/42/EG, bilaga 2, A)
Contenuto della dichiarazione di conformità per macchine, (Direttiva 2006/42/CE, Allegato II, parte A)
Sisukord masina vastavusdeklaratsioon, (Masinadirektiiv 2006/42/EÜ, lisa II, punkt A)
Treść Deklaracji zgodności dla maszyn (Dyrektywa maszynowa 2006/42/WE, Załącznik II, pkt A)
Sisältö vaatimustenmukaisuusvakuutus koneesta (Konedirektiivi 2006/42/EY, Liite II A)

SV
IT
ET
PL
FI

Tillverkare; Fabbrikante; Tootja; Producent; Valmistaja:

Varimixer A/S

Address; Indirizzo; Aadress; Adres; Osoite:

Kirkebjerg Søpark 6, DK-2605 Brøndby, Denmark

Namn och adress till den person som är behörig att ställa samman den tekniska dokumentationen:

Nome e indirizzo della persona autorizzata a costituire il fascicolo tecnico

Tehnilise kausta volitatud koostaja nimi ja aadress

Imię i nazwisko oraz adres osoby upoważnionej do przygotowania dokumentacji technicznej

Henkilön nimi ja osoite, joka on valtuutettu kokoamaan teknisen tiedoston

Namn; Nome e cognome; Nimi; Imię i nazwisko; Nimi:

Kim Jensen

Address; Indirizzo; Aadress; Adres; Osoite:

Kirkebjerg Søpark 6, DK-2605 Brøndby, Denmark

Ort och datum; Luogo e data; Koht, kuupäev; Miejscowość, data; Paikka, aika:

Brøndby, 14-03-2018

Försäkrar härmed att denna blandningsmaskin

Con la presente si dichiara che questo mixer planetaria

Deklareerime käesolevaga, et Planetaarmikseri

Niniejszym oświadczamy, że mikser planetarny

vakuuttaa, että tämä mikseri tyyppi

- överensstämmer med tillämpliga bestämmelser i maskindirektivet (2006/42/EG)
 is è conforme alle disposizioni della Direttiva Macchine (Direttiva 2006/42/CE)
 vastab kehtivatele masinadirektiivi (2006/42/EÜ) nõuetele
 spełnia wymagania odpowiednich przepisów dyrektywy maszynowej (2006/42/WE)
 on konedirektiivin (2006/42/EY) asiaankuuluvien säännösten mukainen
- överensstämmer med bestämmelser i följande andra EG-direktiv
 è conforme alle disposizioni delle seguenti altre direttive CE
 vastab järgmise EÜ direktiivide nõuetele
 spełnia wymagania przepisów innych dyrektyw WE
 on seuraavien muiden EY-direktiivien säännösten mukainen

2014/30/EU; 1935/2004 ; 10/2011 ; 2023/2006 ; RoHS 2011/65/EU ; 822/2013 (DK only)

Vi försäkrar dessutom att

e che

Lisaks ülaltoodule deklareerime, et

Ponadto oświadczamy, że

ja lisäksi vakuuttaa, että

- följande (delar/paragrafer av) europeiska harmoniserade standarder har använts
 sono state applicate le seguenti (parti/clausole di) norme armonizzate
 kasutatud on järgmisi Euroopa harmoniseeritud standardeid (või nende osi/nõudeid)
 zastosowano następujące części/klauzule zharmonizowanych norm europejskich
 seuraavia eurooppalaisia yhdenmukaistettuja standardeja (tai niiden osia/kohtia) on sovellettu

EN454:2014 ; EN60204-1:2006; EN12100-2011

EN61000-6-1:2007; EN61000-6-3:2007

DS/EN 1672-2 + A1:2009

