



FULLY AUTOMATIC END CUTTER

MODEL:FA-288C

INSTRUCTION BOOK AND PARTS BOOK

SU LEE MACHINE IND.CO.,LTD.

MAINTENANCE & REPLACING OF PARTS

A. ADJUSTING THE GRINDER

When the blade is worn out, adjust the grinder position by removing the screw for the grinder arm. Adjust to an appropriate distance between the grinder and the blade edge. After finishing the adjustment, replace the screw and tighten.

B. REPLACING THE GRINDING WHEEL

Remove the grinding wheel (2626) by unscrewing it off; then mount the new grinding wheel.

C. REPLACING THE KNIFE

1. Take off the grinding wheel unit (F).
2. Unscrew the lock nut (G) for the knife.
3. Take off the knife.
4. Mount the new knife. (note: when mounting the new knife, make sure that the side printed with "SU LEE SPARE PARTS" is facing the operator).
5. After the knife has been replaced, adjust the position of the grinder (B) to the proper position.

D. REPLACING THE LOWER BLADE

1. Take off the lower blade arm by unscrewing the screw (H) for the lower blade arm.
2. Mount the new lower blade – replace the screw and tighten. (note: make sure that the surface of the lower blade is adjacent to the blade edge).

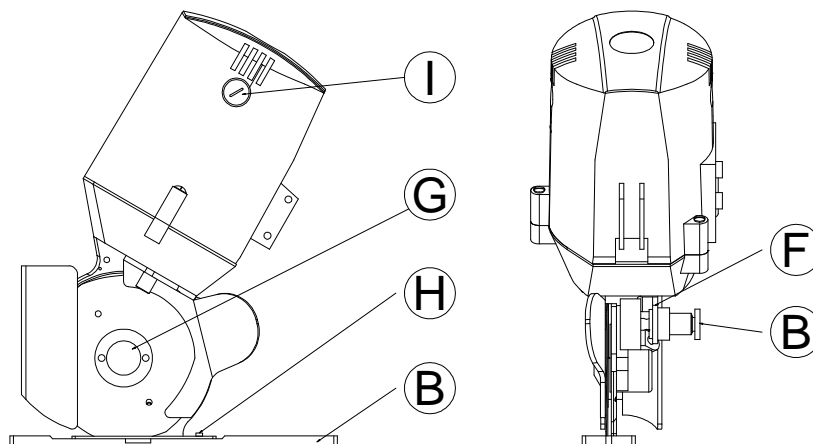
E. REPLACING THE CARBON BRUSH

When to change the Carbon brush: too much weaving of the carbon brush will cause motor troubles. The Carbon brush must be replaced when it wears down to 5-6 m. m.

1. The Carbon brush cap is replaced by turning it left with the attached wrench.
2. Always replace the right and left Carbon brushes simultaneously. (note: be sure to hold the metallic part of the brush. Keep fingers away from the Carbon).

F. CLEANING THE TRACK AND THE MASTER MACHINE

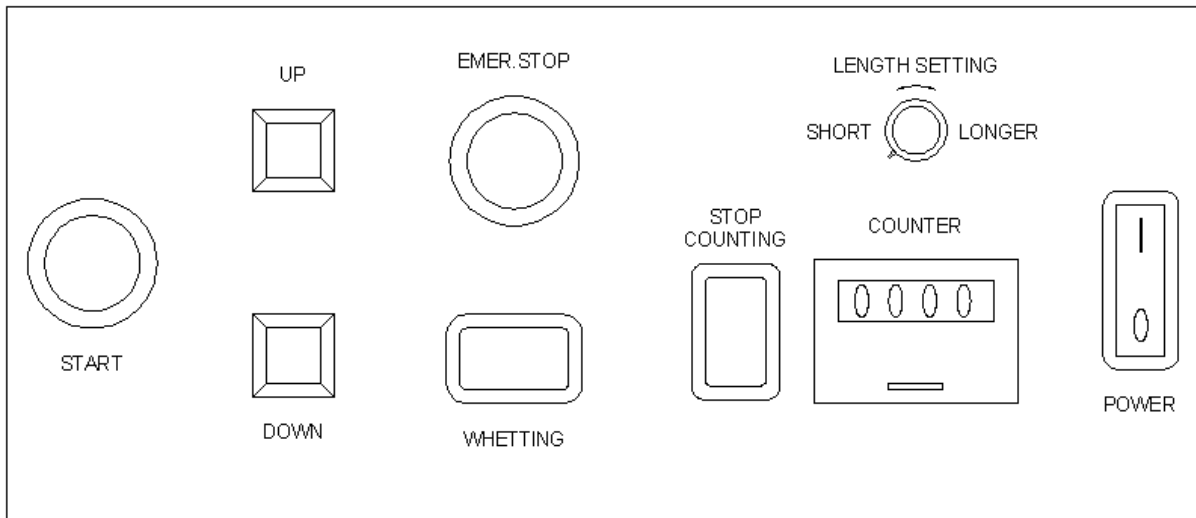
1. After the machine has been continuously running for 10-20 hours, clean out all of the leftover cotton and cloth in the track with a brush. Re-apply oil to the inside of the track.
2. After the machine has been continuously running for 30 days, it is recommended that the track is given a thorough cleaning. Remove the master machine from the track and clean out the L-shaped track with a brush. Re-apply oil to the inside of the track. Then mount the master machine back in the track groove after cleanliness is ensured.



FA-288 INSTALLATION INSTRUCTIONS

1. Following the diagram on page 7, fix the lift motor set clamp (A) onto the right side of the cutting table
2. Fix the second motor set clamp (B) onto the left side of the table opposite to the lift motor set clamps.
3. Place the track lifter (D) through the wheels of motor set clamp (B). (see diagram on p.7)
4. Fasten one end of the lift belt into the belt press piece of the clamp assembly (A) first. Then, allow the other end of the lift belt to pass through the upper roller of the of the track lifter (D), then down and back up through the down roller, and finally tighten it in the belt press piece. (note: make sure that the lift belt is flat on the table)
5. Place rail (C) onto the lift rod. (note: The end with the power line should be place on the side of the lift motor set clamps)
6. Fasten both ends of the rail (C) onto the lift rod with set screws (E). Be sure to place the screws into the lower grooves of the rail, and to fasten with the nuts and washer.
7. Slide the Knife Machine Head (G) onto the rail (C). The Knife should be facing away from the power lines.
8. Fix the transmission motor assembly (H) on the end with the power-line, and fix it with the rail fixing screw (E). Connect the two plugs.
9. Fix the belt pulley (I) to the other end of the rail with the rail fixing screw (E).
10. Fasten one end of the timing belt (F) to the back of the Knife Machine Head (G). Stretch the timing belt (along the center groove of the rail) and pull it around the belt pulley on top of the transmission motor assembly (H). (See Diagram on p.7)
11. Put the timing belt (F) back through the left groove of the rail, until it comes out of the other side. Then pull the timing belt around the opposite belt pulley (I), and back through the center groove towards the Knife Machine Head (G). Fasten the timing belt to the front of the Knife Machine Head (G).
12. Adjust the timing belt (F) tension by means of the belt-adjusting screw (J) (about 5mm).
13. Install the control box frame (K), and place the control box (L) on top of it.
14. Installation of the wiring bracket:
 - a. Fix set clamp (M) onto the cutting table.
 - b. Lead the twin-hole electric wire (Q) through set clamp (M), then wiring pipe (N), then wiring pipe (R).
 - c. Secure both wiring pipes.
 - d. Connect one end of the twin-hole electric wire (Q) to the cutter, to a suitable length, then fix it with the binding belt.
15. Installation of the Fabric Supporting Rack:
 - a. Fix fabric supporting racks (S) to both sides of the cutting table.
 - b. Place the iron tube (T) onto the fabric supporting rack.
 - c. Install the levers (U) respectively onto each of the fabric supporting racks (S).
 - d. Put the fabric support rod (V) through the two levers (U) to finish the installation.
16. Connect the three wires underneath control box (L) respectively (two-pins, five-pins, and seven-pins).

FUNCTION OF KEYS



Power Switch: Turns on the power for the whole machine.

Length Setting Tuner: Sets the length of the cut into the cloth. Turn to the right for a longer distance, or turn to the left for a shorter distance.

Counter: Counts the number of sheets that have been cut.

Counter Stop Switch: This switch stops the counter.

Emergency Stop Switch: Stops all operations immediately.

Up Switch: Use this switch to lift the rail.

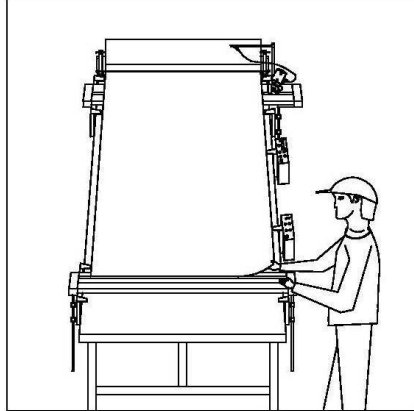
Down Switch: Use this switch to bring the rail down.

Whetting Switch: Use this switch to make the motor run in place; this allows the operator to press the whetting stone against the blade, thus sharpening the blade.

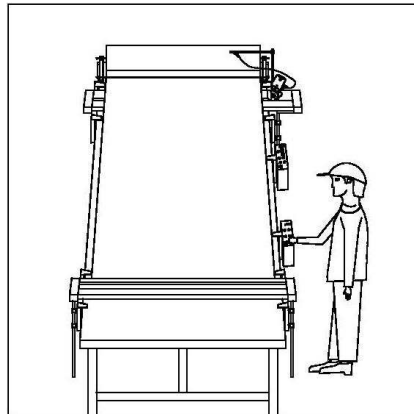
Starting Switch: Allows the blade to make one run across the cloth.

OPERATION INSTRUCTIONS

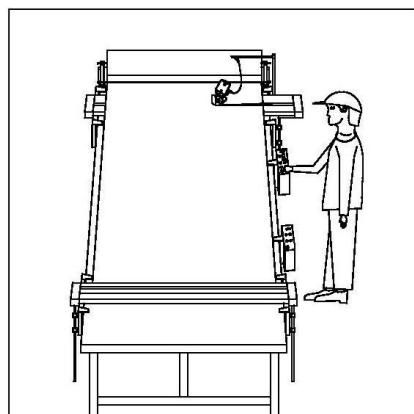
1. Before operating the machine, make sure the surface of the track is clear of all objects.
2. Turn on the power switch, which will light up.
3. Push the COUNTER reset to 0000, and release the STOP COUNTER SW. This will allow the machine to count the number of layers cut.
4. A. Pull the cloth to the angle track, lay it down then smooth it out.



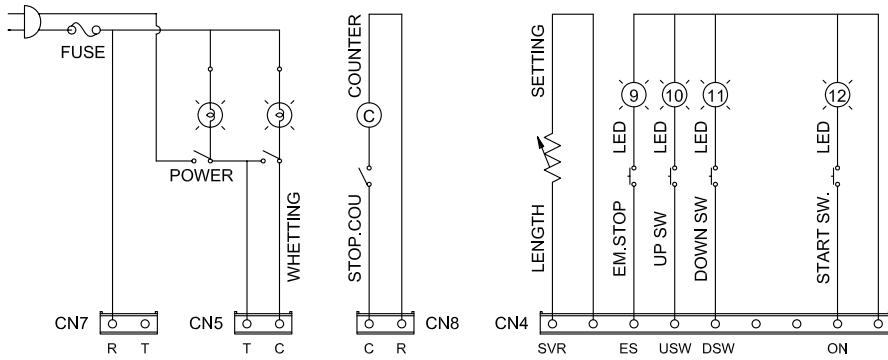
- B. Push the UP Switch, then the cloth press track will lift and press down onto the cloth.



- C. Push the START SW, and the cutter will automatically make one run up and down the track. The computer box will reset after 5 seconds.

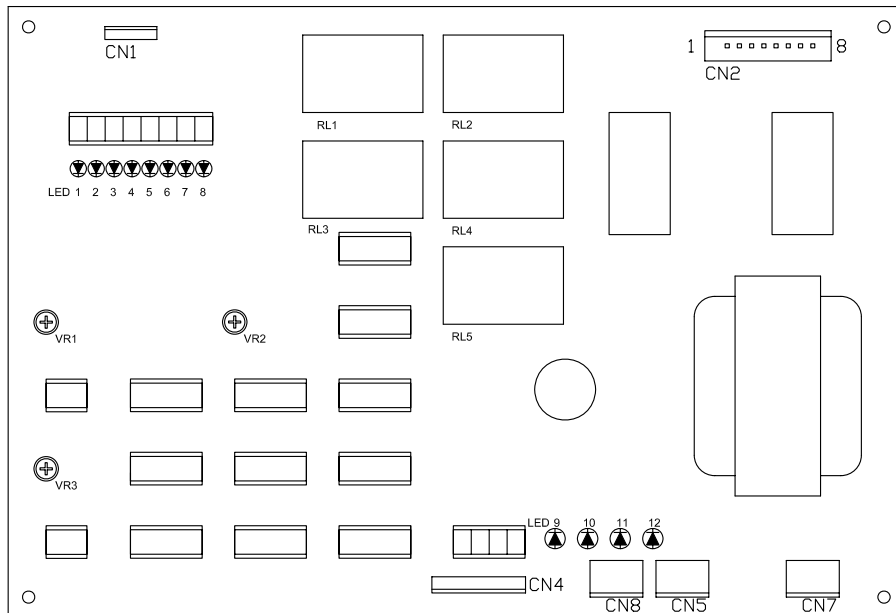


5. When the blade becomes dull, push the WHETING SW to run the motor in place. Once the blade starts rotating, then sharpen the knife by pushing the grind switch (part no. 2623) against the edge of the knife. Repeat several times, then turn off the machine.



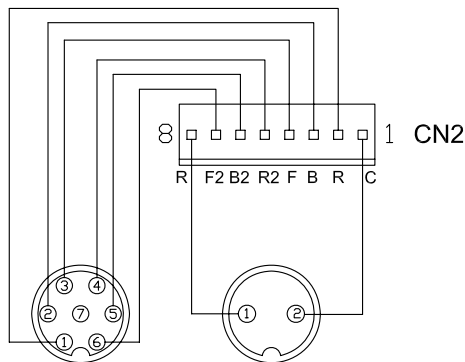
SIGNAL INPUT LIGHT: GREEN
 LED 1: S1-BACK STOP SENSOR
 LED 2: S6-DOWN STOP SWITCH
 LED 3: S7-UP TOP SENSOR
 LED 4: S2-RETURN SENSOR

LED 9: EMER.STOP SWITCH
 LED 10: UP SWITCH
 LED 11: DOWN SWITCH
 LED 12: START SWITCH

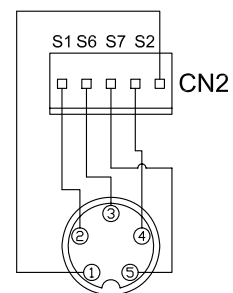


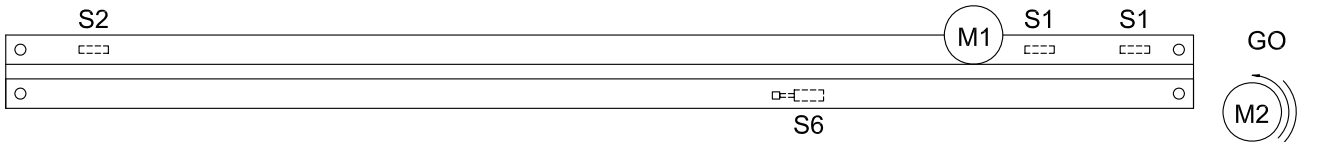
POWER OUTPUT LIGHT: RED
 LED 5: CUTTER MOTOR TURN AND GO
 LED 6: TRACK LIFT
 LED 7: TRACK DOWN
 LED 8: CUTTER RETURN

AC OUT PUT

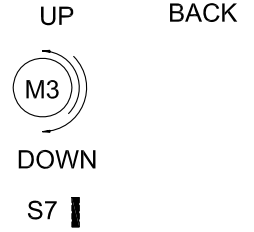


DC IN PUT

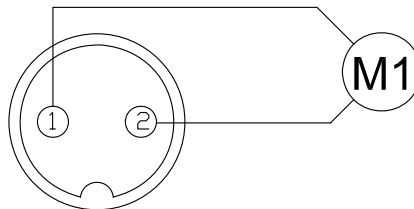




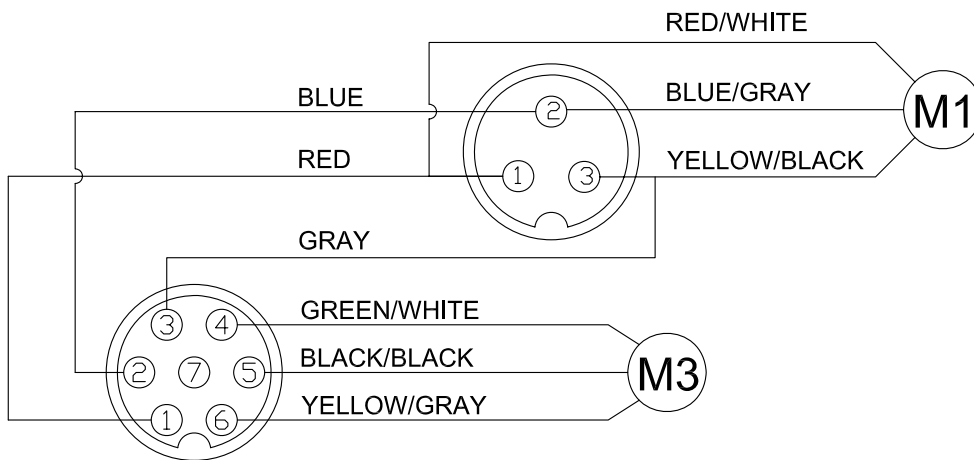
- M1: CUTTING MOTOR
- M2: GO-BACK MOTOR
- M3: UP-DOWN MOTOR
- S1: BACK STOP SENSOR
- S2: RETURN SENSOR
- S6: DOWN STOP MICRO SWITCH
- S7: UP TOP SENSOR



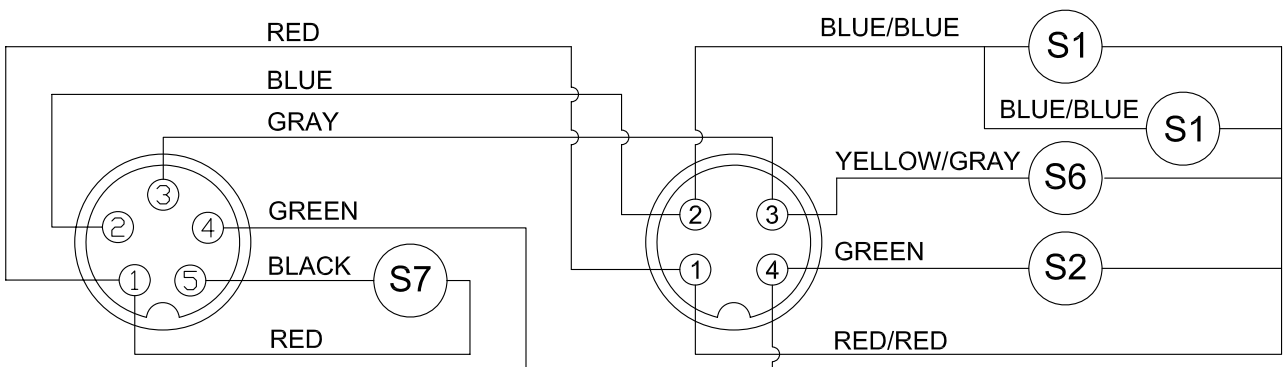
AC OUT PUT

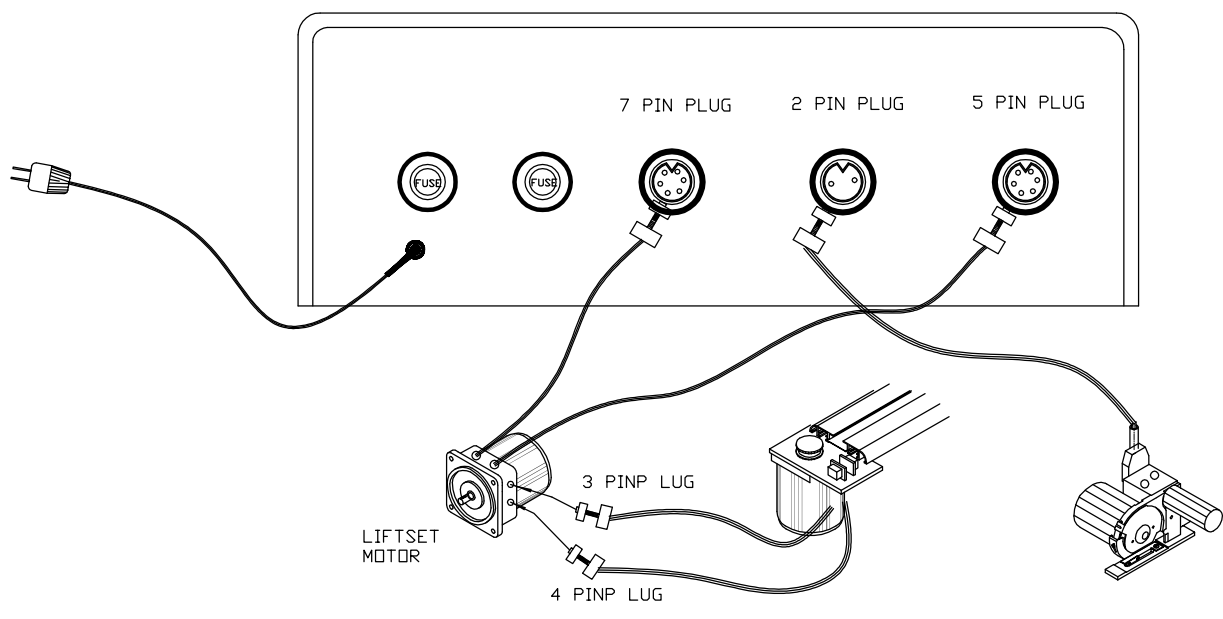
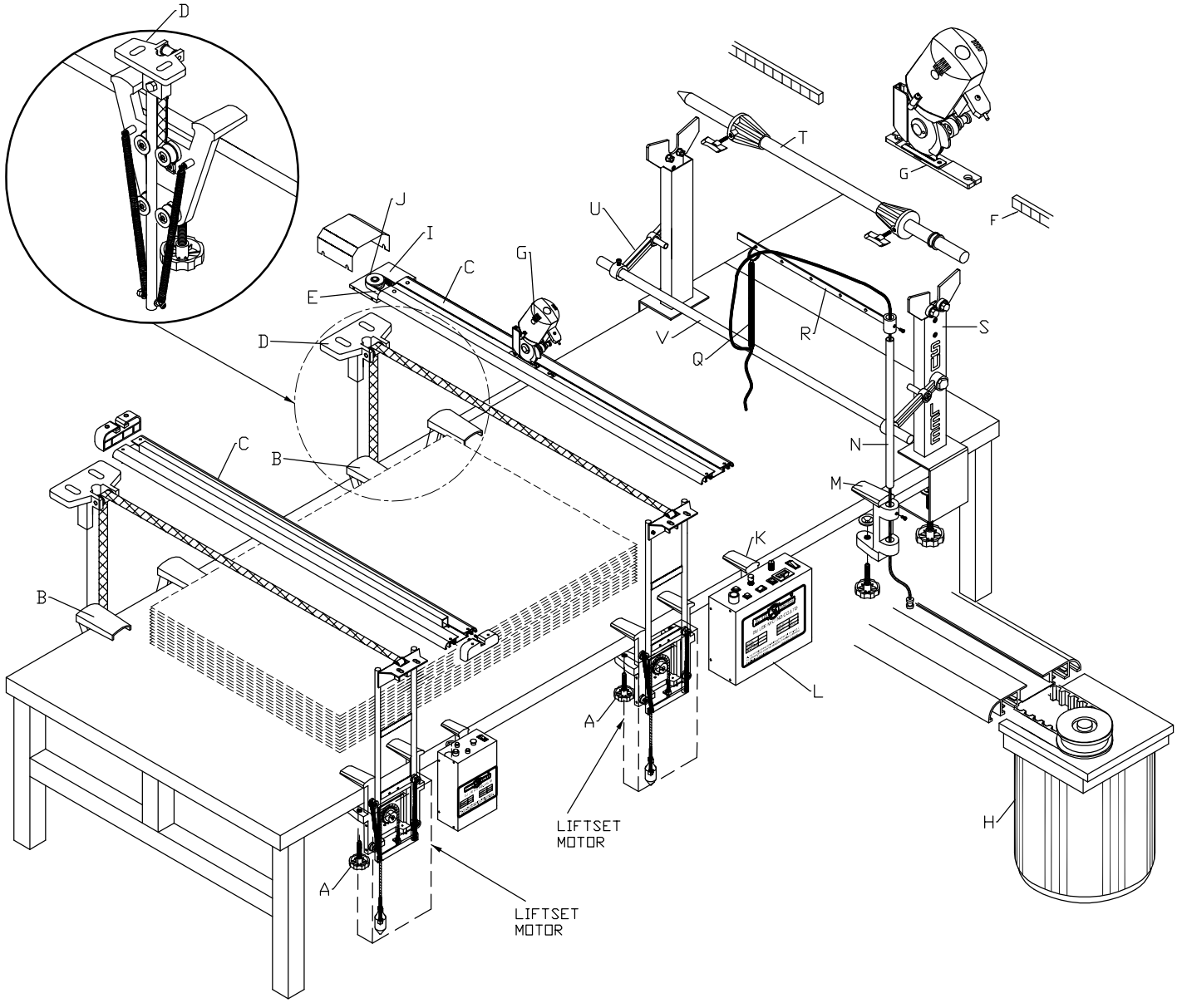


AC OUT PUT



DC IN PUT





INDICATION OF LED LIGHTS

Open the control box cover, and press the START SW.

LED 5 lights up: Cutter is rotating and advancing.

LED 5 goes out: Cutter is rotating and has stopped advancing.

LED 8 & LED 6 light up: Cutter is reversing and the track is lifting (LED2 goes out).

LED 8 goes out: Cutter has stopped reversing.

LED 6 goes out: Track has stopped lifting.

LED 2 lights up: Track has reached the surface of the table.

LED 7 goes out: Track has stopped moving.

SIMPLE TROUBLESHOOTING OF FA-280

Q1: When the track can only move upwards, but cannot move downwards. This problem is most probably caused by...

Ans: A stuck microswitch underneath the track or a broken wire which controls the up-and-down movements of the track.

Q2: When the track cannot stop when returning to the starting point, or its chain continuously falls off. This problem is most probably caused by...

Ans: A malfunction of the microswitch under the track. Check if the LED Light (2) is lit. If it is not lit, then this indicates that no signal for stopping the mobile cutter has been keyed in. In such a case, simply straighten the microswitch and check the circuit.

Q3: When the cutter does not rotate, this problem is most probably caused by...

Ans: A broken wire between the control box and the cutter. As the cutter advances, an output of power is needed. Check the outer circuit and the control box to see if there is any break on the connecting wire.

Q4: When the cutter advances to the end, severe bumping occurs. This problem is most probably caused by...

Ans: Open the control box and check the LED Light (4); if it is not lit, then this indicates that no signal for reversing the cutter has been keyed in. If so, go over the outer circuit with an electric meter to check for any broken circuits.

Q5: When the cutter returns, severe bumping occurs. This problem is most probably caused by...

Ans: Check the LED Light (1) and other by using the same way mentioned above.

Q6: When the cutter is advancing and reversing, slight bump may occur or every time the cutter cannot be back to the bottom, it is probably caused by:

Ans: Improper positioning of the "Sensor Magnetic Spring Switch", which controls the advancing, reversing, and stopping of the cutter, or an improper tension of the drive belt. Either (a) move the "Sensor Switch" to the proper position or (b) adjust the tension of the TIMING belt until it has ~5mm of elasticity.

Q7: When the cutter has been checked, but still does not work smoothly, this is probably caused by:

- (a).** The TIMING belt is not well set.
- (b).** There is some broken cloth or other foreign material which is stuck on the inner section of the track.
- (c).** The surface of the track is dented or damaged.

Ans:

- (a).** Straighten out the TIMING belt. Then adjust the tension of the TIMING belt until it has ~5mm. of elasticity.
- (b).** Clean out the inner section of the track by drawing out the copper plate, as broken cloth is likely to drop down under the copper plate. Remove any material that is in the track. After replacing the copper plate, apply a little sewing machine oil onto the copper plate before replacing the cutter.
- (c).** Replace the track.

Q8: When the START SW is pressed, the cutter rotates but cannot advance. This problem is probably caused by...

- (a).** A bad connection of the wire between the motor and the cutter.
- (b).** A damaged motor.

Ans:

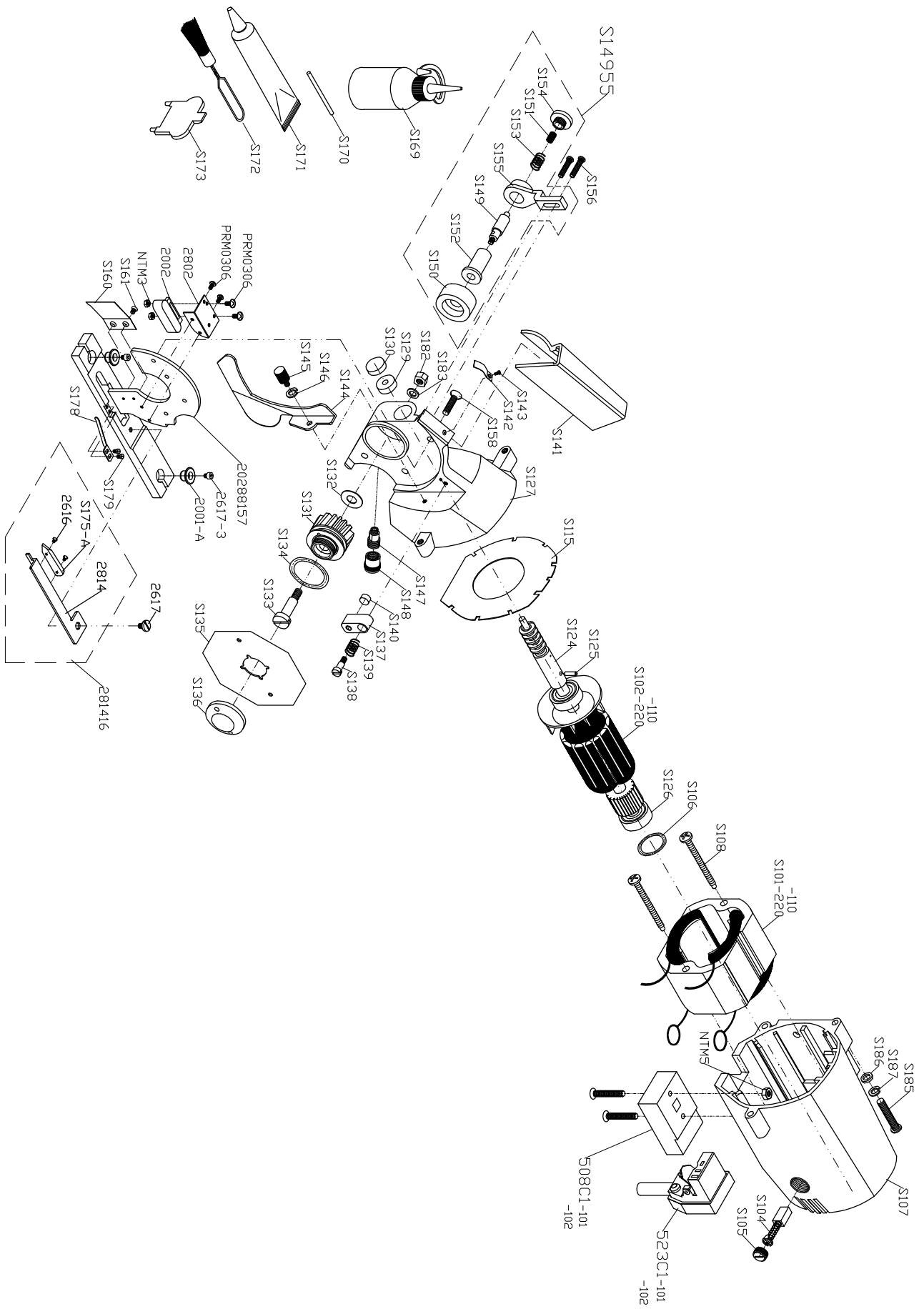
- (a).** Check the connection of the black and yellow wire of the M2 motor.
- (b).** Replace the motor.

Q9: When the START SW is pressed, the cutter can advance and reverse and the blade can rotate smoothly, but the track cannot lift up or press down, this is probably caused by...

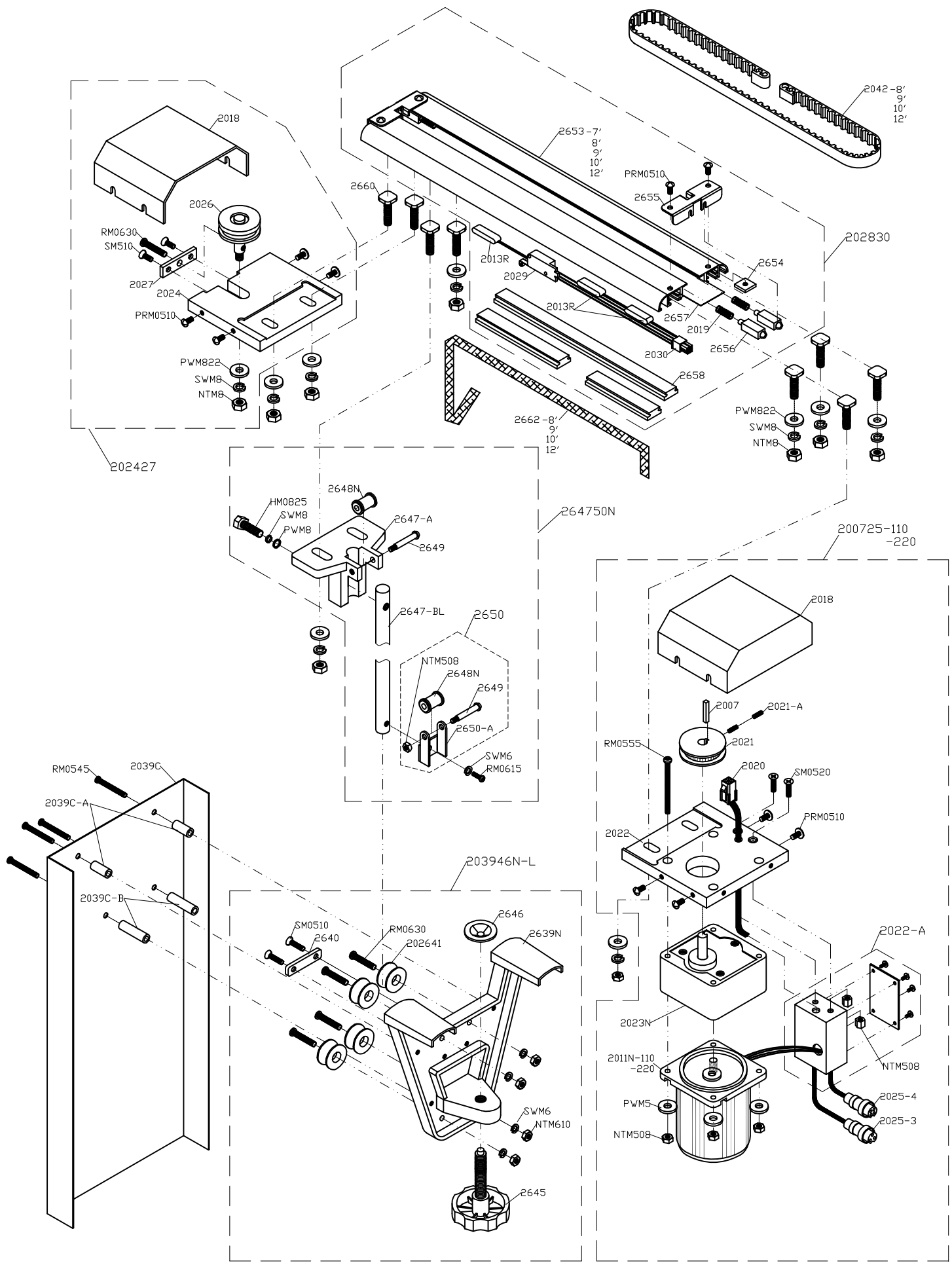
- (a).** Bad insertion of the 5-pin plug
- (b).** Loose wiring of the motor controlling the ascending and descending movements.
- (c).** A damaged motor.

Ans:

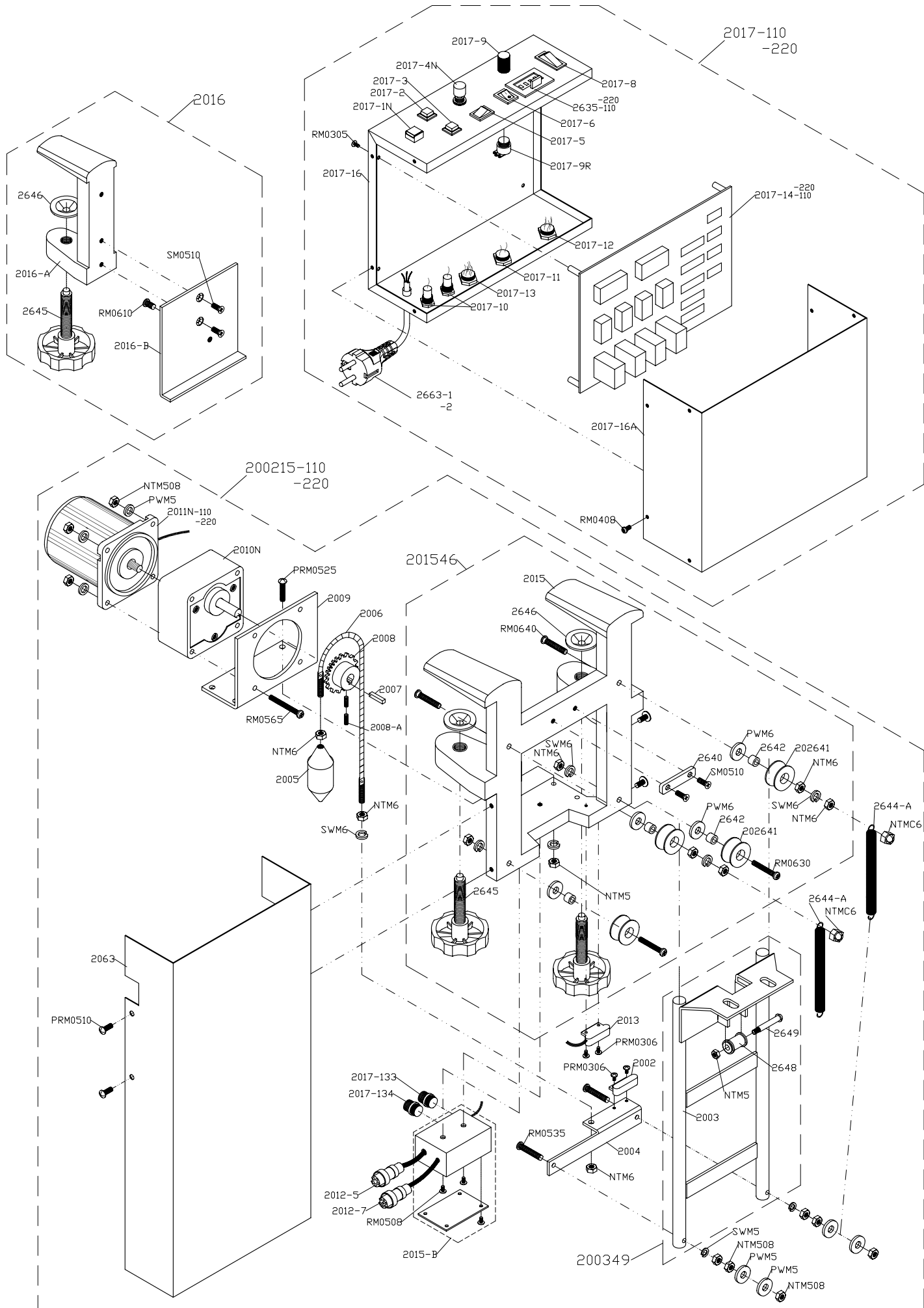
- (a).** Check the 5-pin plug and make sure that it is inserted properly.
- (b).** Check the wiring of the motor controlling the ascending and descending movements.
- (c).** Replace the motor.



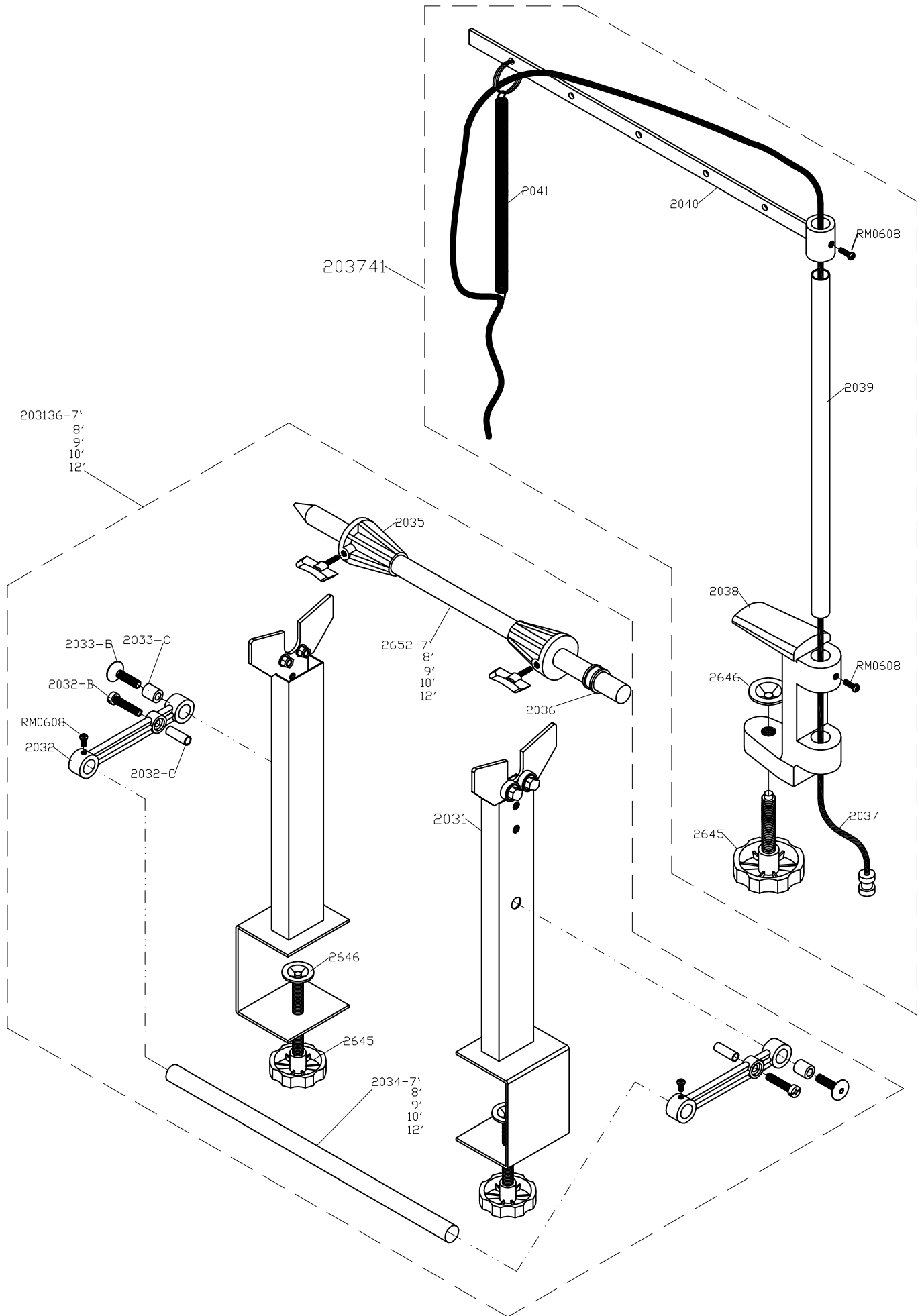
PART NO.	零件名稱	PART NAME
S101-110	110V定子組	110V Stator
-220	220V定子組	220V Stator
S102-110	110V轉子組	110V Rotor
-220	220V轉子組	220V Rotor
S104	碳刷	Carbon Brush
S105	碳刷蓋	Cap for Carbon Brush
S106	波形彈簧華司	Wave Washer
S107	馬達殼	Motor Cover
S108	定子固定螺絲	Screw for Stator
S115	空氣導流片	Air Guide
S117	手把螺絲	Screw for Handle
S118	手把螺母	Nut for Handle
S124	蝸桿	Drive Gear
S125	彈簧銷	Roll Pin
S126	軸承	Bearing
S127	齒輪箱	Grar Box
S129	蝸桿金屬圈	Drive Gear Metal
S130	金屬圈蓋	Cover for Metal
S131	刀片齒輪	Knife Gear
S132	齒輪墊圈	Washer for Gear
S133	齒輪螺絲	Screw for Gear
S134	齒輪油封	Ring for Gear
S135	八角刀片	Knife(8-sided)
S136	刀片螺母	Lock Nut for Knife
S137	刀片加油器	Knife Oiler
S138	加油器螺絲	Screw for Oiler
S139	刀片加彈簧	Spring for Oiler
S140	油氈	Oil Felt
S141	前護片	Knife Guard
S142	彈簧片	Spring for Guard
S143	彈簧片螺絲	Screw for Spring
S144	側護片	Safety Plate
S145	側護片螺絲	Screw for Plate
S146	側護片華司	Spring Washer for Plate
S147	黃油杯	Grease Cup
S148	黃油杯蓋	Cap for Grease Cup
S14955	磨刀石組	Grinder Set
S149	磨刀石軸	Grinder Shaft
S150	砂輪	Emery Wheel
S151	磨石彈簧	Grinder Spring
S152	磨石套管	Grinder Collar
S153	套管彈簧	Spring for Collar
S154	研磨按鈕	Sharpening Switch
S155	磨刀石架	Grinder Arm
S156	磨刀石組螺絲	Screw for Grinder Arm
20288157	基座	Standard
S160	導引片	Guide Plate
S161	導引片螺絲	Screw for Guide Plate
S169	油壺	Oiler
S170	鎖心	Lock Shaft
S171	黃油	Grease
S172	清潔刷	Cleaning Brush
S173	扳手	Wrench
S174	電源線	Code Complete with earth
S175-A	下刀	Lower Blade
S178	下刀彈簧	Pressure Spring for Lower Blade
S179	下刀彈簧螺絲	Screw for Pressure Spring
S182	S133之螺母	Nut for Knife Gear Screw
S183	S133之華司	Washer for Knife Gear Screw
S185	馬達螺絲	Screw for Motor
S186	馬達彈華司	Spring Washer for Motor
S187	馬達平華司	Washer for Motor
508C1-102	110V公插座	110V TERMINAL BLOCK WITH PINS
508C1-101	220V公插座	220V TERMINAL BLOCK WITH PINS
523C1-102	110V母插座	110V CURRENT CONNECTOR
523C1-101	220V母插座	220V CURRENT CONNECTOR



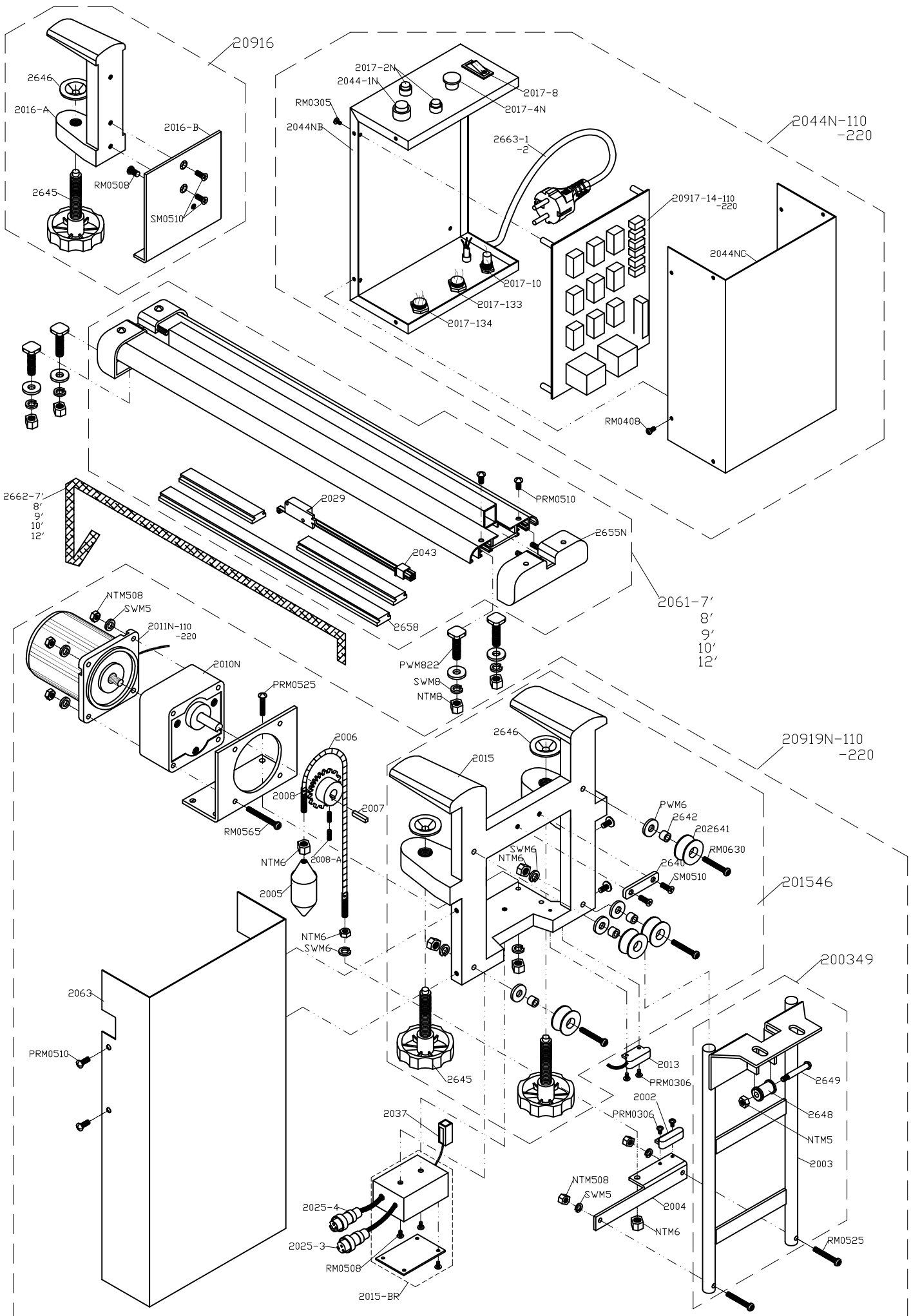
PART NO.	PART NAME
203946N-L	LEFT CLAMP SET
2639N	A CLAMP
2640	LIFT BELT CATCH
2645	BIG SCREW
2646	WASHER FOR BIG SCREW
264750N	LEFT BAR LIFTER .
2647-A	BAR LIFTER PLATE
2647-BL	LEFT BAR
2648N	ROLLER FOR LIFT BELT
2649	ROLLER SHAFE
2650	ROLLER SET
2650-A	ROLLER STAND
2653	RAIL
2654	SQUARE NUT
2655	RAIL GUARD
2656	IMPACT-RESISTANT RUBBER
2657	STEEL PIECE (SIZE)
2658	RAIL RUBBER (SIZE)
2660	SCREW FOR RAIL
2662	LIFT BELT (SIZE)
200725-110	110V TRANSMISSION MOTOR SET
200725-220	220V TRANSMISSION MOTOR SET
2007	GEAR LATCH
2011N-110	110V F.R.MOTOR
2011N-220	220V F.R.MOTOR
2013R	SENSOR SWITCH
2018	TRANSMISSION BASE COVER
2019	SPRING FOR 2656
2020	RAIL PLUG SOCKET (M)
2021	TRANSMISSION GEAR
2021-A	SCREW FOR TRANSMISSION GEAR
2022	F.R.MOTOR BASE
2022-A	F.R.MOTOR TERMINAL BOX
2023N	REDUCTION GEAR
202427	TRANSMISSION PULLEY SET
2024	TRANSMISSION PULLEY BASE
2025-3	THREE HOLES CABLE
2025-4	FOUR HOLES CABLE
2026	TRANSMISSION PULLEY
202641	CUPRUM WHEEL
2027	PULLEY FIXED BLADE
202830	FA-200 RAIL SET (SIZE)
2029	MICRO SWITCH
2030	RAIL PLUG SOCKET (F)
2042	TIMING BELT
2039C	LIFT SET COVER-LEFT
2039C-A	SHAFT-A
2039C-B	SHAFT-B



PART NO.	PART NAME
2002	MAGNET FOR SENSOR
2003	LIFTER
2004	MAGNET BASE
2005	CHAIN PENDANT
2006	CHAIN
2007	GEAR LATCH
2008	CHAIN GEAR
2008-A	SCREW M4x4 SOCKET SET CUP
2009	F.R.MOTOR PLATE
2010N	REDUCTION GEAR FOR LIFTING
2011N-110	110V F.R.MOTOR
-220	220V F.R.MOTOR
2012-5	FIVE HOLES CABLE
2012-7	SEVEN HOLES CABLE
2013	SENSOR SWITCH
200215-110	110V LIFTING MOTOR SYSTEM
200215-220	220V LIFTING MOTOR SYSTEM
2015	LIFTING FIXED CLAMP
2015-B	LIFTING MOTOR TERMINAL BOX
2016	CONTROL BOX STANDARD
2016-A	CONTROL BOX FIXED CLAMP
2016-B	CONTROL BOX BASEPLATE
2017-110	110V CONTROL BOX SET
-220	220V CONTROL BOX SET
2017-1N	START SWITCH
2017-2N	UP SWITCH
2017-3	DOWN SWITCH
2017-4N	EMER. STOP SWITCH
2017-5	WHEETING SWITCH
2017-8	POWER SWITCH
2017-9	LENGTH SETTING TUNER CUP
2017-9R	LENGTH SETTING TUNER
2017-10	FUSE BASE
2017-11	2 HOLES PLUG
2017-12	5 HOLES PLUG
2017-13	7 HOLES PLUG
2017-14-110	110V P.C.BOARD
2017-14-220	220V P.C.BOARD
2017-133	3 HOLES PLUG
2017-134	4 HOLES PLUG
2017-16	CONTROL CASE
2017-16A	CONTROL BOX COVER
2063	LIFT SET COVER
2635-110	110V COUNTER
2635-220	220V COUNTER
2640	LIFT BELT CATCH
2642	WHEEL RING
2644-A	SPRING FOR LIFT
2645	BIG SCREW
2646	WASHER FOR BIG SCREW
2648	BIG ROLLER
2649	ROLLER SHAFT
S121	SWITCH



PART NO.	PART NAME
203136	SUSTAINING FRAME UNIT
2031	SUSTAINING FRAME
2032	ROCKER
2032-B	ROCKER STOP SCREW
2032-C	ROCKER STOP SCREW COVER
2033-B	ROCKER SCREW
2033-C	ROCKER COVER
2034	ROCKER LEVER (SIZE)
2035	CLOTH FIXTURE
2036	CLOTH SUPPORT FIXING RING
203741	WIRE FRAME ASSEMBLY
2037	TWO HOLES CABLE
2038	WIRE SUPPORT BASE
2039	WIRE SUPPORT LEVER
2040	WIRE BRACKET ARM
2041	SPRING FOR WIRE STAND
2652	SUSTAINING BAR(SIZE)



PART NO.	PART NAME
2003	LIFTER
2004	MAGNET BASE
2005	CHAIN PENDANT
2006	CHAIN
2007	GEAR LATCH
2008	CHAIN GEAR
2008-A	SCREW M4x4 SOCKET SET CUP
2009	F.R MOTOR PLATE
2010N	REDUCTION GEAR
2011N	F.R MOTOR
2025-3	3 HOLES CABLE
2025-4	4 HOLES CABLE
2015	LIFTING FIXED CLAMP
2017-2N	SWITCH
2029	MICRO SWITCH
2043	2 PIN PLUG
2044N-110	110V REAR CONTROL BOX SET
2044N-220	220V REAR CONTROL BOX SET
2044NB	ELECTRIC BOX
2044NC	ELECTRIC BOX COVER
2044-1N	START SWITCH
2017-8	POWER SWITCH
2061	CLOTH PRESS TRACK SET
2655N	RAIL GUARD
2663-1	110V ELECTRICAL WIRE
2663-2	220V ELECTRICAL WIRE
200349	LIFTER SET
201546	LIFTING FIXED CLAMP SET
20916	REAR CONTROL BOX STAND
20919N-110	110V REAR LIFTING MOTOR SYSTEM
20919N-220	220V REAR LIFTING MOTOR SYSTEM
 INSTRUCTION MANUAL	
<p>1. Turn on the Power Switch. The Press Track will move down, until the micro-switch makes contact with either the table or the cloth, at which point the press track will stop.</p> <p>2. If you want to raise the press track up to 10 cm. and have it stay there, push the UP switch until the press track has reached 10 cm. then turn off the Power switch.</p>	

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