

TYPAC
Inc.

PO Box 425
Baldwinsville, NY 13027
800 356-8964 315 638-9431
FAX 315 638-9433
www.typac.net
info@typac.com

SEMI AUTOMATIC POLYPROPYLENE STRAPPING MACHINE

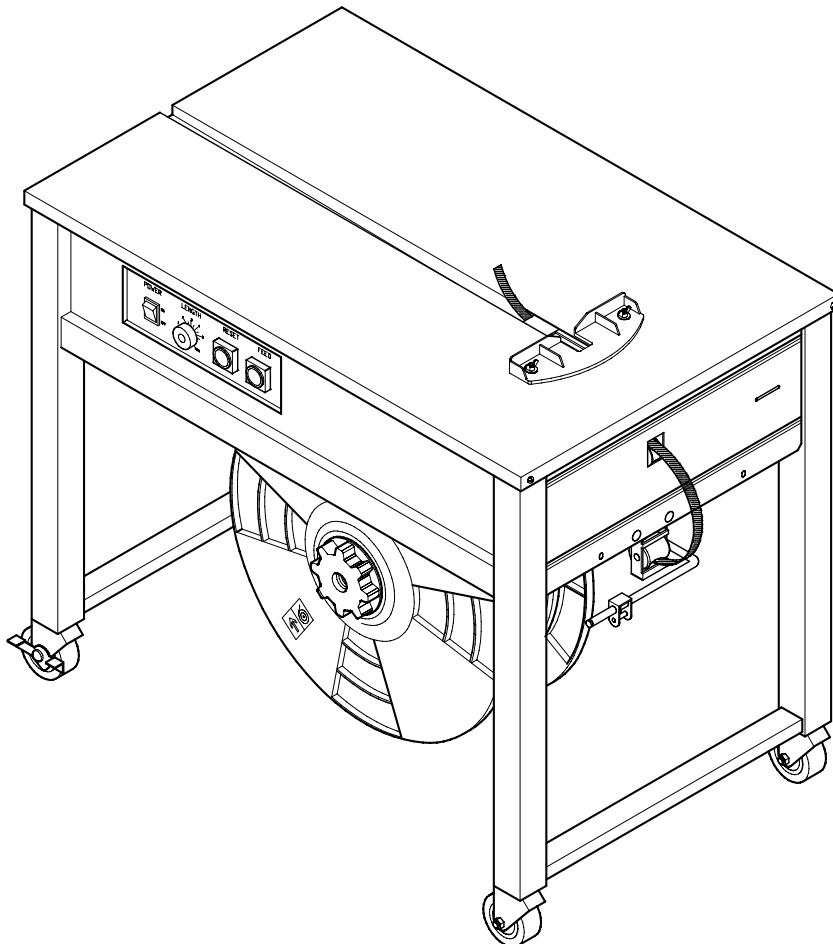


IC3

OPERATION MANUAL

&

SPARE PARTS LIST



READ ALL INSTRUCTIONS BEFORE OPERATING THIS PRODUCT

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1. Safety Instructions

THIS MANUAL GIVES YOU INFORMATION ON SAFETY INSTRUCTIONS, SPECIFICATIONS, OPERATION AND MAINTENANCE OF STRAPPING MACHINES.

BEFORE OPERATING OR SERVICING THE MACHINE, PLEASE REVIEW THE ENTIRE MANUAL AND FOLLOW THE SAFETY INSTRUCTIONS CAREFULLY.

(1) Operation

- a. Do not operate the machine with the table tops or covers removed.
- b. Make sure the proper voltage is being used to operate the machine.
- c. Never put any part of your body near, under or into a moving machine.
- d. Do not operate the machine with any safety devices removed or disabled.
- e. Follow instructions provided in this manual.
- f. Only trained people should operate this machine.
- g. Do not attempt to strap any part of your body.
- h. Do not overload the machine by exceeding the performance limitations specified in this manual.

(2) Maintenance

- a. Shut off and lock out all electrical power before performing any maintenance procedure.
- b. Use the correct tools and parts to repair the machine.
- c. Only trained people should service the machine.
- d. Follow instructions provided in this manual.

(3) Additional Considerations

- a. Do not touch the heater and the surrounding area. the heater operates at approximately 340°C. Allow sufficient time for the heater to cool down.
- b. The machine should be placed on a level floor and the surrounding area should be kept free of debris and discarded strap.

2. Main Features

(1) Portable

This is a compact and light-weight machine, allowing easy transportation and only requiring little space for installation.

(2) Single Motor Operation

A single motor powers the machine. Reliable operation is assured even if voltage drops.

(3) Easy Adjustment for Changing Strap Width

Adjustment for use of 6mm up to 15.5mm can be made by loosening only four screws.

(4) No Strap Damage

The feeding system, strap tensioning device and cams are designed to prevent splitting, bending and scratching.

(5) Applicable to Any Shape

The width of the slide table is small, allowing easy bundling of pipes and irregularly shaped objects.

(6) Simple Operation

The free end of the strap appears on the table which can be placed around this article by hand for strapping. No training is required.

3. Technical Data

TP-201/TP-201CE

MODEL	TP-201/TP-201CE
Strapping Speed	2.5sec/strap
Dimensions	902mm(W) X 586mm(D) X 775mm(H)
Net Weight	100kg
Max. Tension	45kg
Strap Width	6mm to 15.5mm
Power	AC110V,220V/230V/240V(50/60Hz), Single phase

TP-202/TP-202CE

MODEL	TP-202/TP-202CE
Strapping Speed	2.5sec/strap
Dimensions	902mm(W) X 586mm(D) X 760mm(H)
Net Weight	85kg
Max. Tension	45kg
Strap Width	6mm to 15.5mm
Power	AC110V,220V/230V/240V(50/60Hz), Single phase

TP-202L/TP-202LCE

MODEL	TP-202L/TP-202LCE
Strapping Speed	2.5sec/strap
Dimensions	1476mm(W) X 586mm(D) X 372mm(H)
Net Weight	80kg
Max. Tension	45kg
Strap Width	6mm to 15.5mm
Power	AC110V,220V/230V/240V(50/60Hz), Single phase

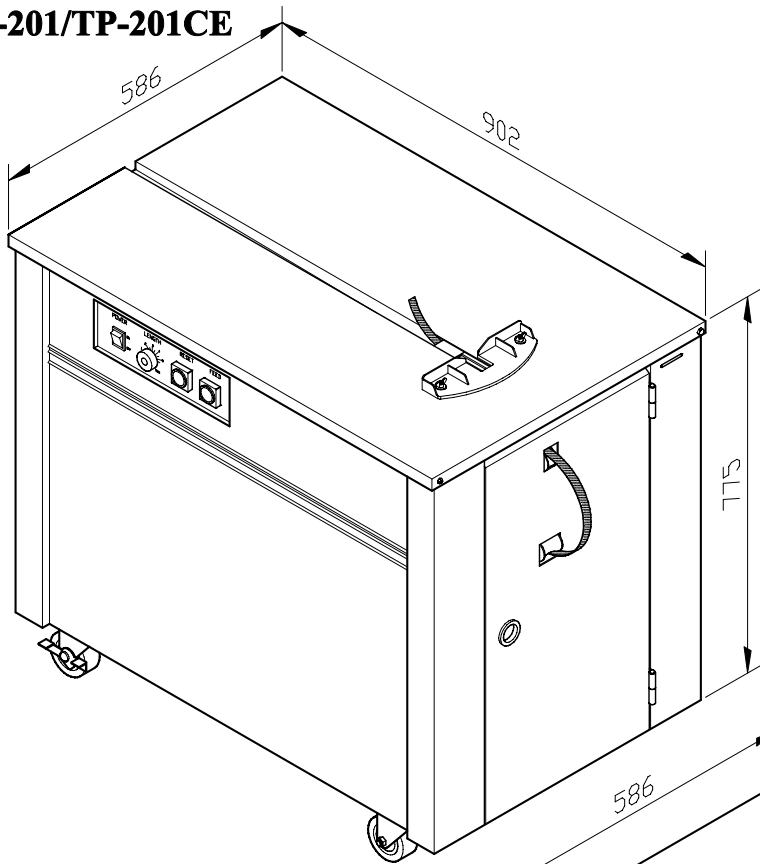
TP-203/TP-203CE

MODEL	TP-203/TP-203CE
Strapping Speed	2.5sec/strap
Dimensions	632mm(W) X 422mm(D) X 805mm(H)
Net Weight	80kg
Max. Tension	9~30kg
Strap Width	6mm to 15.5mm
Power	AC110V,220V/230V/240V(50/60Hz), Single phase

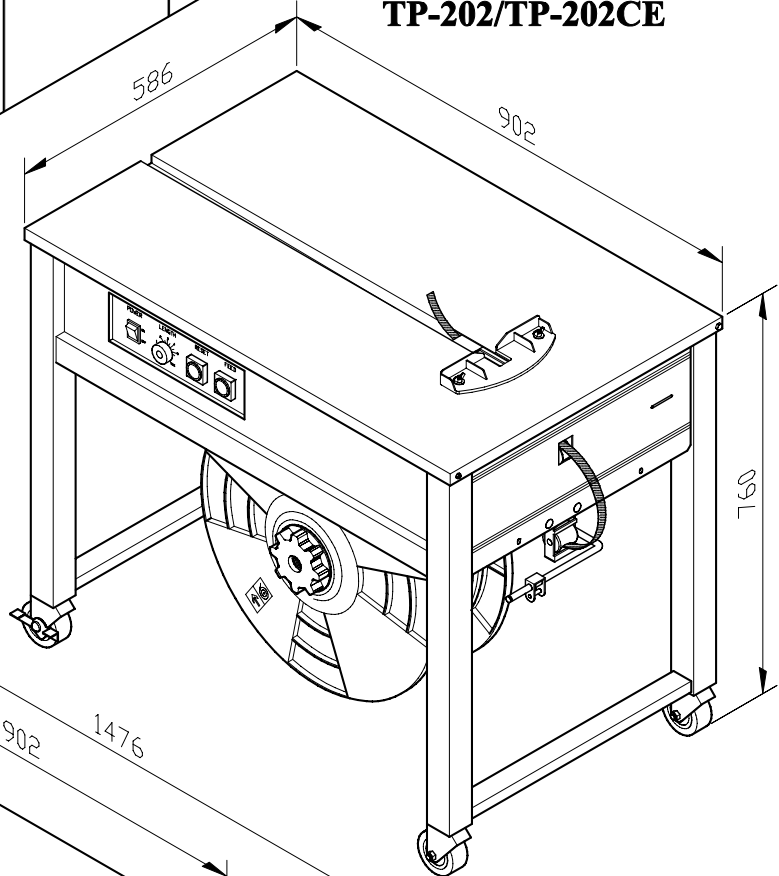
TP-201Y

MODEL	TP-201Y
Strapping Speed	2.5sec/strap
Dimensions	860mm(W) X 675mm(D) X 1625mm(H)
Net Weight	125kg
Max. Tension	45kg
Strap Width	6mm to 15.5mm
Power	AC110V,220V/230V/240V(50/60Hz), Single phase

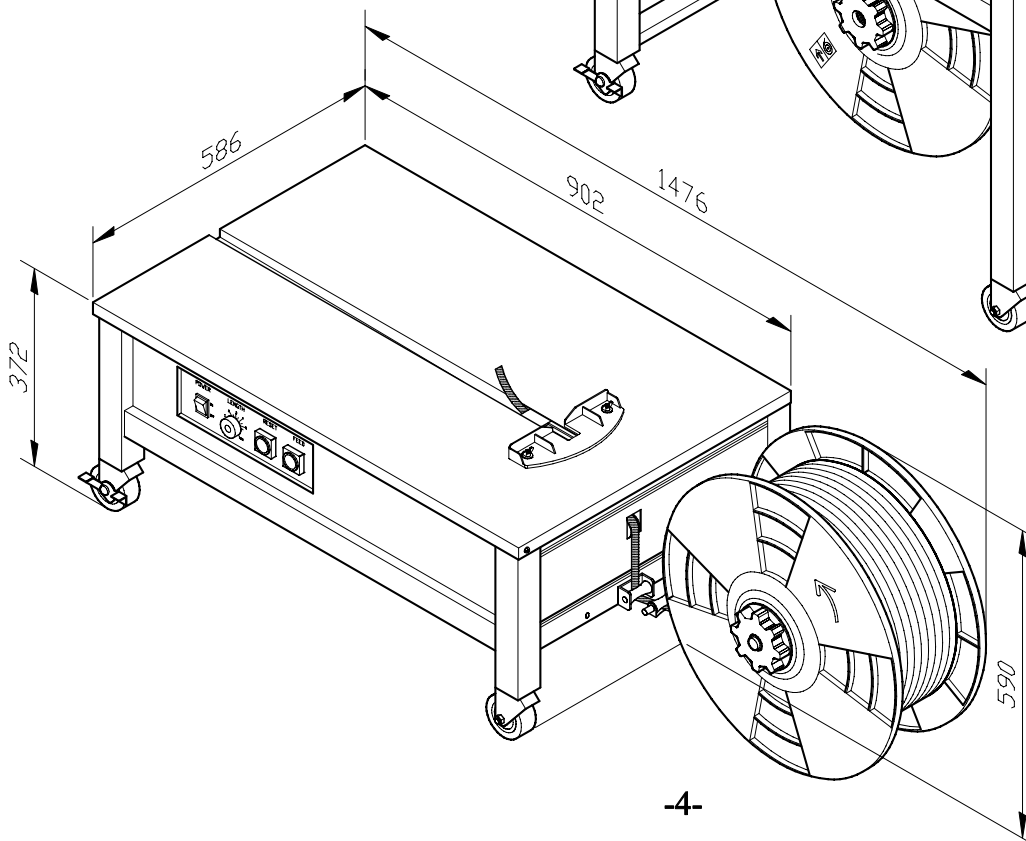
TP-201/TP-201CE



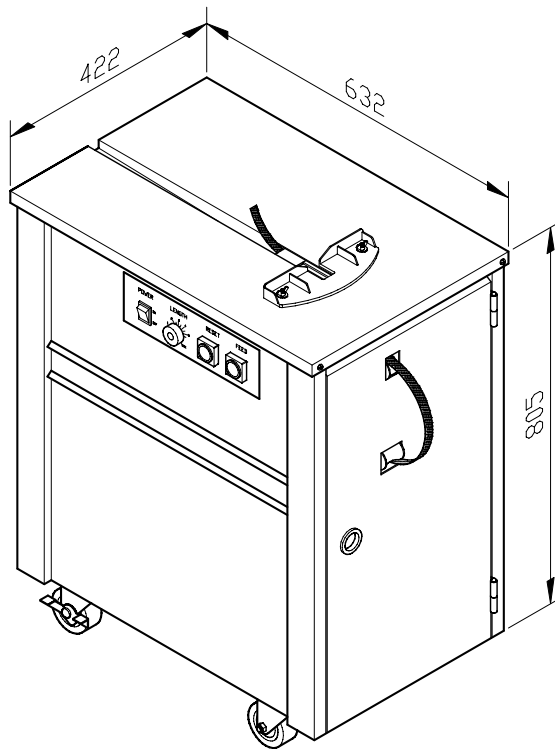
TP-202/TP-202CE



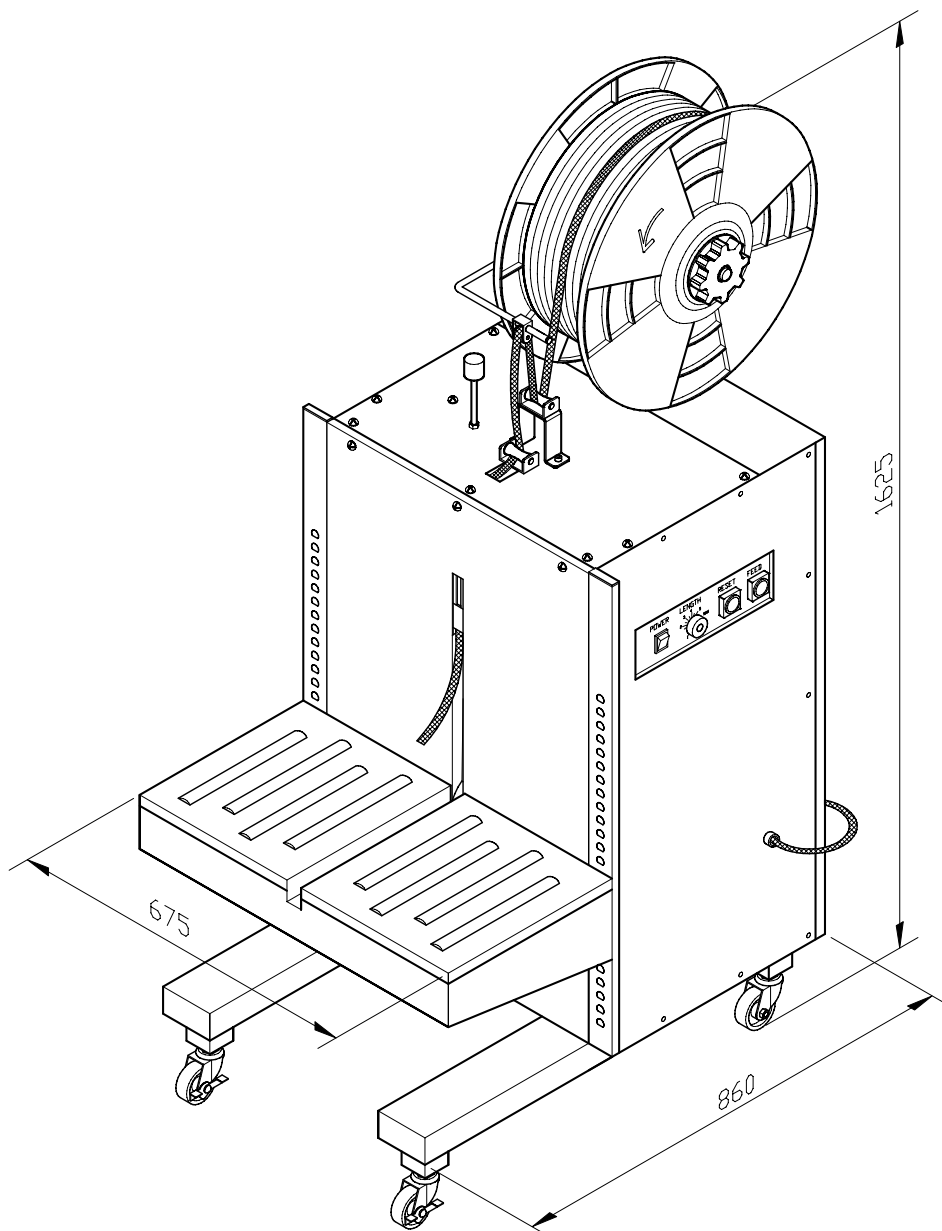
TP-202L/TP-202LCE



TP-203/TP-203CE

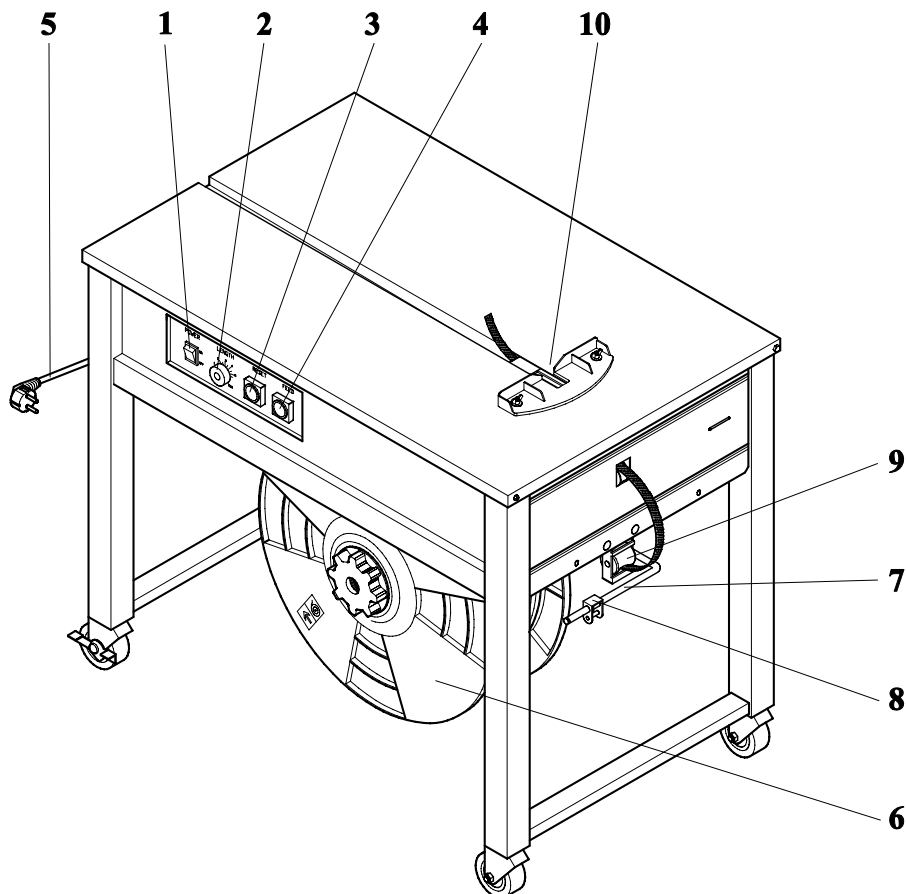


TP-201Y



4. Functional Description

- | | |
|-----------------------------------|---|
| (1) Power Switch | The motor starts rotating when this switch is turned ON. |
| (2) Feeding Length Knob | Strap is automatically fed during the time preset by the knob. |
| (3) Reset Button | To pull strap back into machine and/or to cut off strap. |
| (4) Strap Feed Button | To feed strap out of machine freely. |
| (5) Power Plug | To be connected to a 110V or 220V/230V/240V source. |
| (6) Strap Reel | Slide on strap coil here. (If strap core is 280mm, you can take off the center drum to have core size 200mm.) |
| (7) Brake | Stops the over-rotation of the band reel. |
| (8) Strap Guide for Brake | The strap is threaded through this guide. |
| (9) Strap Bypass Guide | The strap is passed through this guide. |
| (10) Strap Insertion Inlet | This is the strap inlet at which the leading strap end is detected. |



5. Operation

(1) Set Strap Feeding Length

The strap feeding length knob is located on the front of the control panel. This knob controls the length of strap that will feed out of the machine after each cycle. The knob is to set the feeding time from 0 to 6 seconds. Each second equals about 1 meter of strap feed. If you require 2 meters of strapping to secure your package, then set the knob at dial 2.

(2) Turn on Power Switch

The motor starts rotating as the power switch is in the "ON" position.

(3) Prefeed the Strap

Press the strap feed button on the control panel and hold it down until the desired length of strap is fed out.

Prefeeding the strapping is only necessary after installing a new strap coil or clearing the strap out of the machine. After each cycle, strap will feed automatically.

(4) To Strap the Package

Place the package on the machine and pass the strap around the package by inserting the leading edge of the strap into the strap inlet to activate the strapping cycle. Strap tension starts as soon as the cycle is activated and the heat sealing process takes place automatically after the tension cycle is complete. The timer is activated, strap is fed out and the machine is ready for the next cycle.

(5) Manual Switches

The machine is equipped with manual switches for each step of the cycle.

- (a) Strap feed button - Feeds strap.
- (b) Reset button - will complete cutting, the heat sealing process, and return the machine to the ready position.

(6) Turn the Power Switch Off

Make sure to turn off the power switch after operation is completed for the day.

6. Adjustments

(1) Strap Width

Adjustment for bands in different width can be done with only one Philips recess screw driver. The adjustment must be made in Two places, A (Strap Outlet), B (Strap Inlet) as shown below.

For A , the width of band guide should be at 12.5mm to 13.0mm when using 9mm and 12mm strap and the width of band guide should be at 15.5mm to 16mm when using 15mm strap.

For B, The width of band guide should be wider by 0.5mm to 1.0mm than the actual band width to be used.

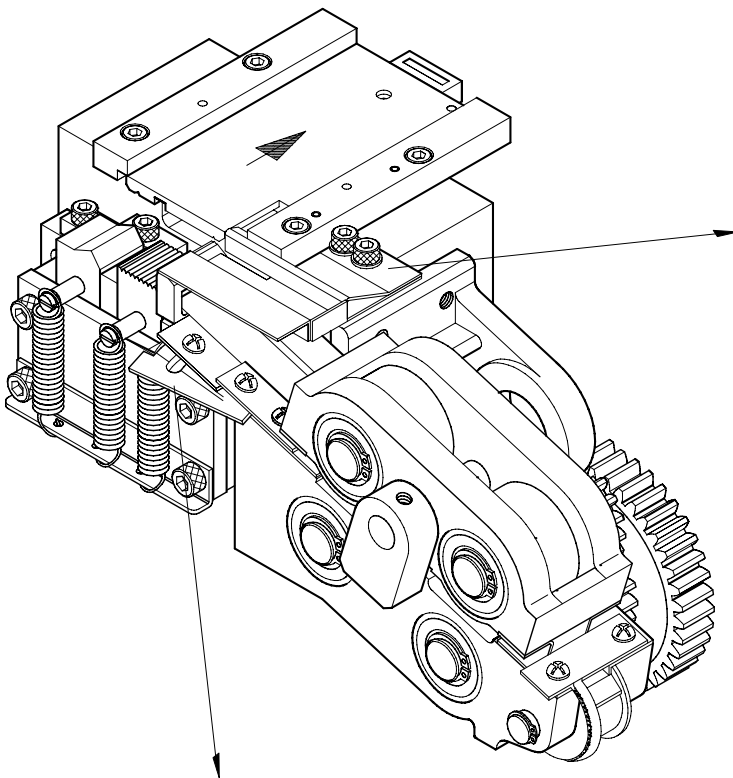
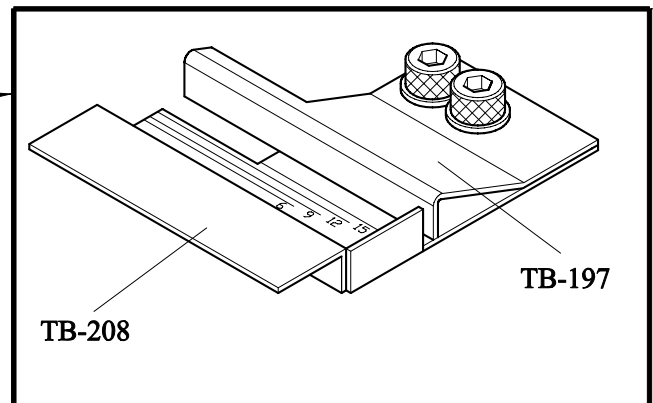
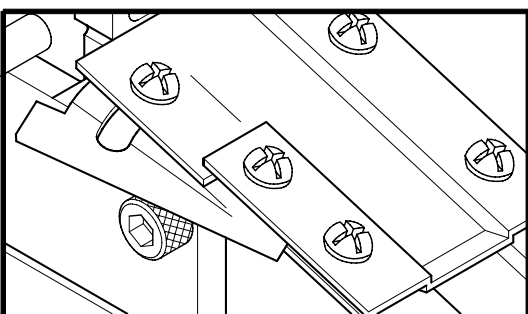


Fig. A Strap Outlet

Fig. B Strap Inlet



The adjustment is made with the guide located on the top of the table. Make both adjustments by loosening two screws and applying the band which is to be used.

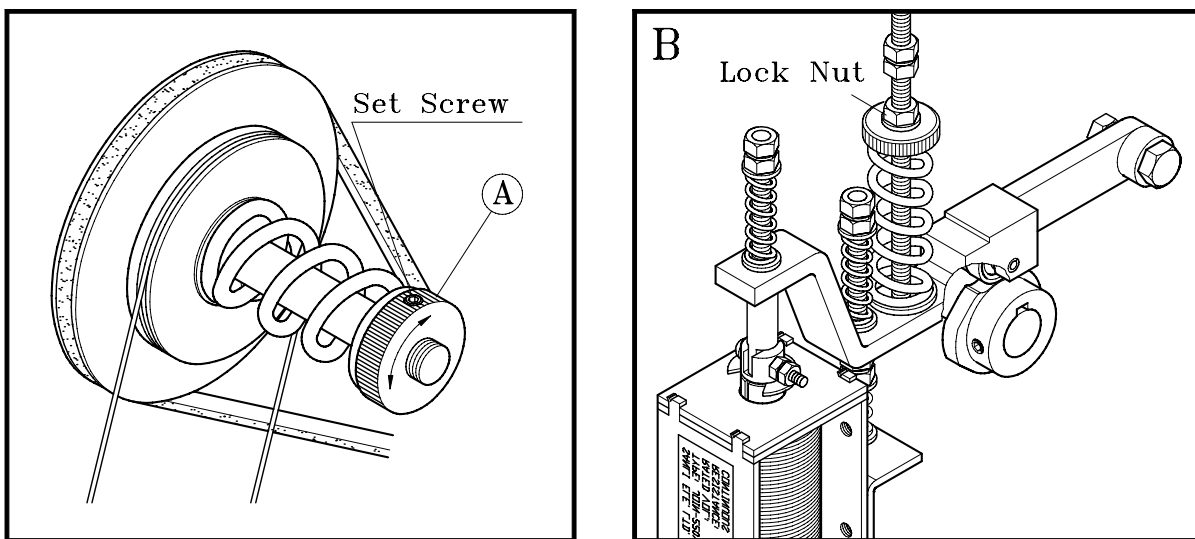


(2) Inside Tension Adjustment (For TP-201Y)

Tensioning strength should be adjusted properly by observing the tension of the strap applied around the pack.

The adjustment is made by two adjustment nuts, tension adjustment nut A and strap pressure adjustment nut B; the latter normally does not require any adjustment.

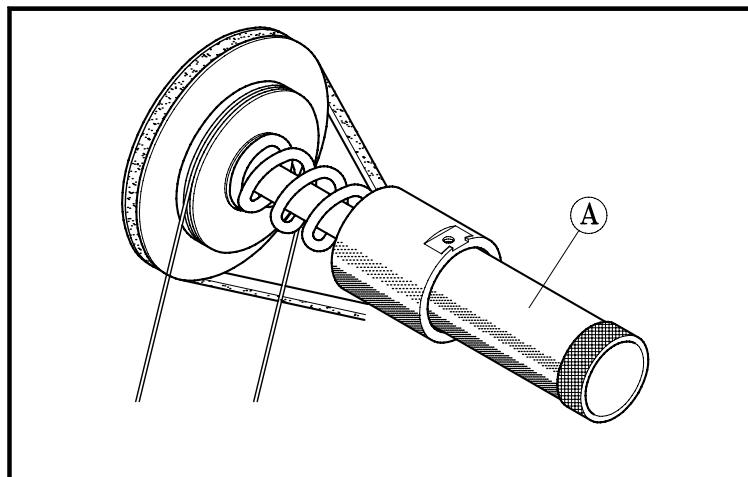
Both nuts are turned clockwise to increase strength and counterclockwise to decrease strength. After adjustment, nut A is fixed by means of a set screw and nut B by a lock nut.



(3) Outside Tension Adjustment (For TP-201/TP-202/TP-203/TP-202L)

The adjustment is made by tensioning adjustment nut A which is located at the back of the machine.

Tensioning adjustment nut A is turned clockwise to increase the strength and counterclockwise to decrease strength.



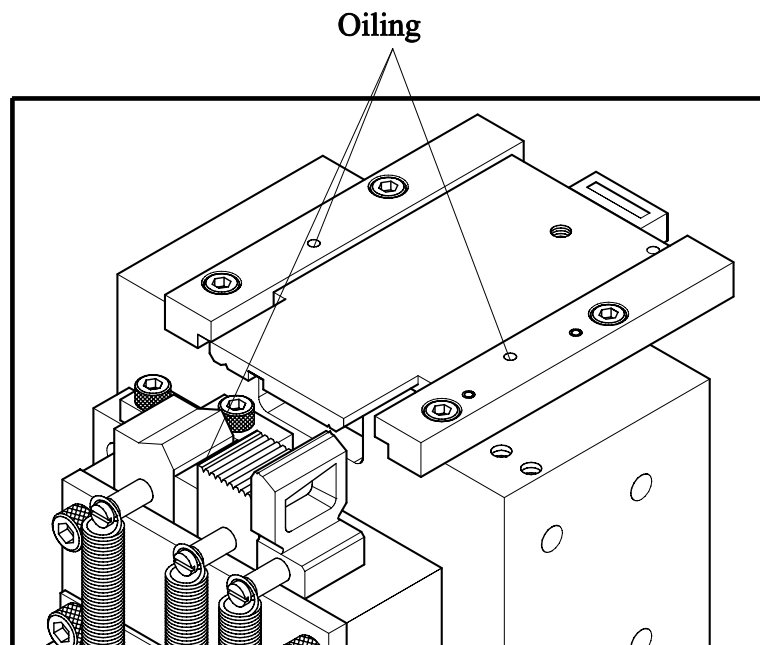
7. Maintenance & Lubrication

(1) Clean Machine

- Keep the machine clean and neat at all times. Never leave the machine uncleaned after use.
- Do not leave any tools and/or parts on the machine. Keep them properly stored in their prearranged places.
- After completion of operation for the day, clean the machine and make necessary oiling and ensure that the machine is protected by a cover.

(2) Lubrication

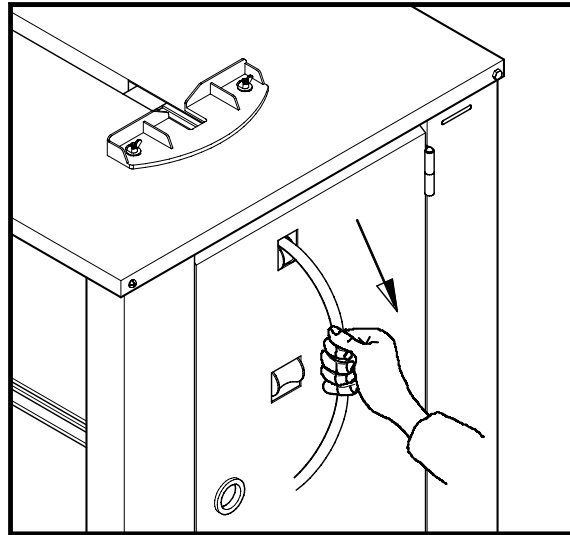
- Apply a few drops of light lubricant (Daphne mechanic oil or equivalent) into oil holes and on sliding parts prior to and after daily operation.
- Change the oil of the Gear Box once every year. 150ml of Daphne oil or equivalent should be used.



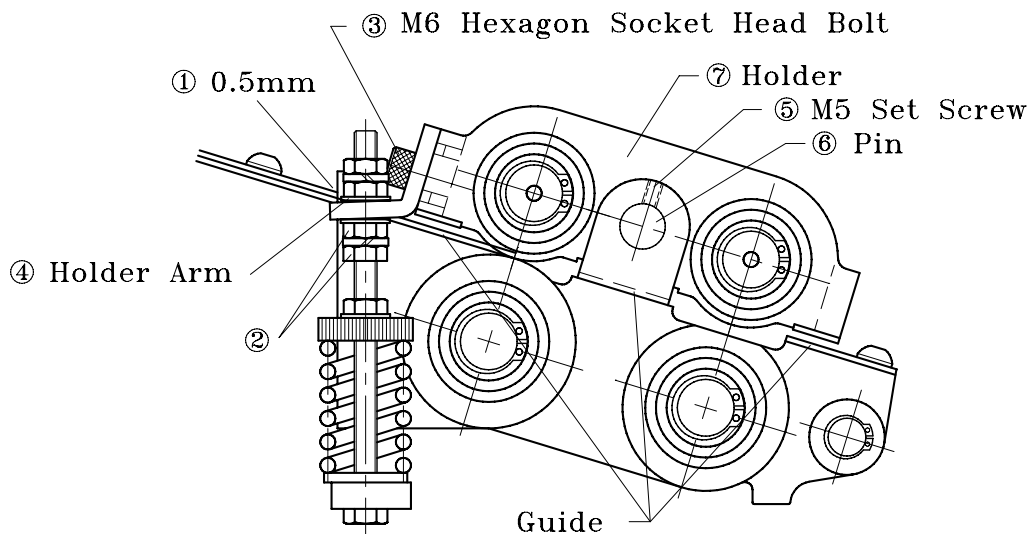
8. Troubleshooting Guide

(1) Strap Jams in the Groove

Step 1. Turn the power switch off and pull out the band strongly in tensioning direction.



Step 2. In case this remedy does not work due to a major jam, follow the instructions listed below.



- (a) Loosen M5 Set screw (Part No. 5)
- (b) Remove Pin (Part No. 6) then lift Holder (Part No. 7) and repeat step 1.
If this is not successful, continue
- (c) Remove Strap Inlet Guides (Page 8(B))
- (d) Remove M6 Hexagon Bolts (Part No. 3)
- (e) Remove Holder Arm (Part No. 4) from Holder (Part No. 7)
- (f) Lift out Holder (Part No. 7) and eliminate jam.
- (g) Reassemble from (f) back to (a)

(2) Motor Timer

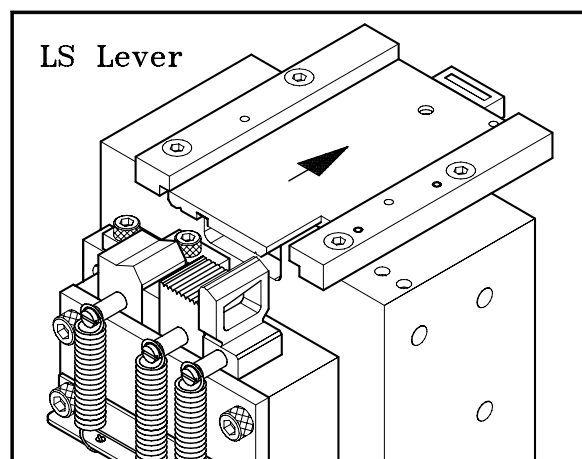
This timer is located on the PCB box. It is used to save energy. For example, if you run your machine with long intervals between packages, turn the timer down. If you cycle the machine more frequently, turn the time up so that the motor does not start and stop with only short intervals between packages.

(3) Fuse Protection

The fuse is located next to the motor timer. It is the circuit protection for your machine. If replaced, a fuse of the same amperage must be used as shown in the diagram on Page 13.

(4) The Strap Does Not Feed Past the Infeed Guide

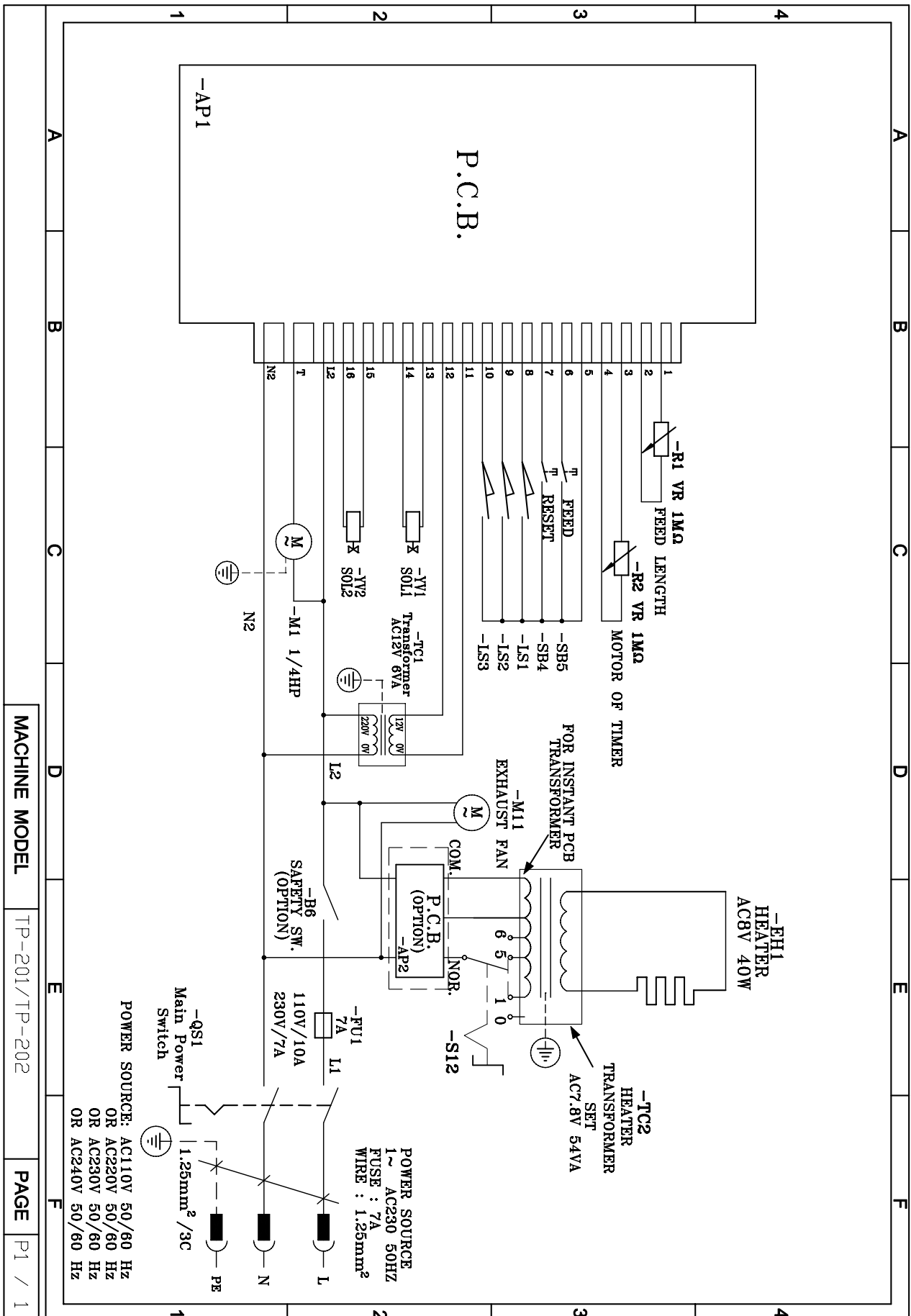
This failure is caused if the front bar is in the raised position (previous cycle has not been completed). Turn the motor switch "off", then "on" again. If this does not eliminate the failure, adjust the lever for LS1 to allow LS1 to energize and de-energize correctly.



*More trouble shooting guide is on request.

9. Wiring Diagram

a. For TP-201/TP-202



MACHINE MODEL

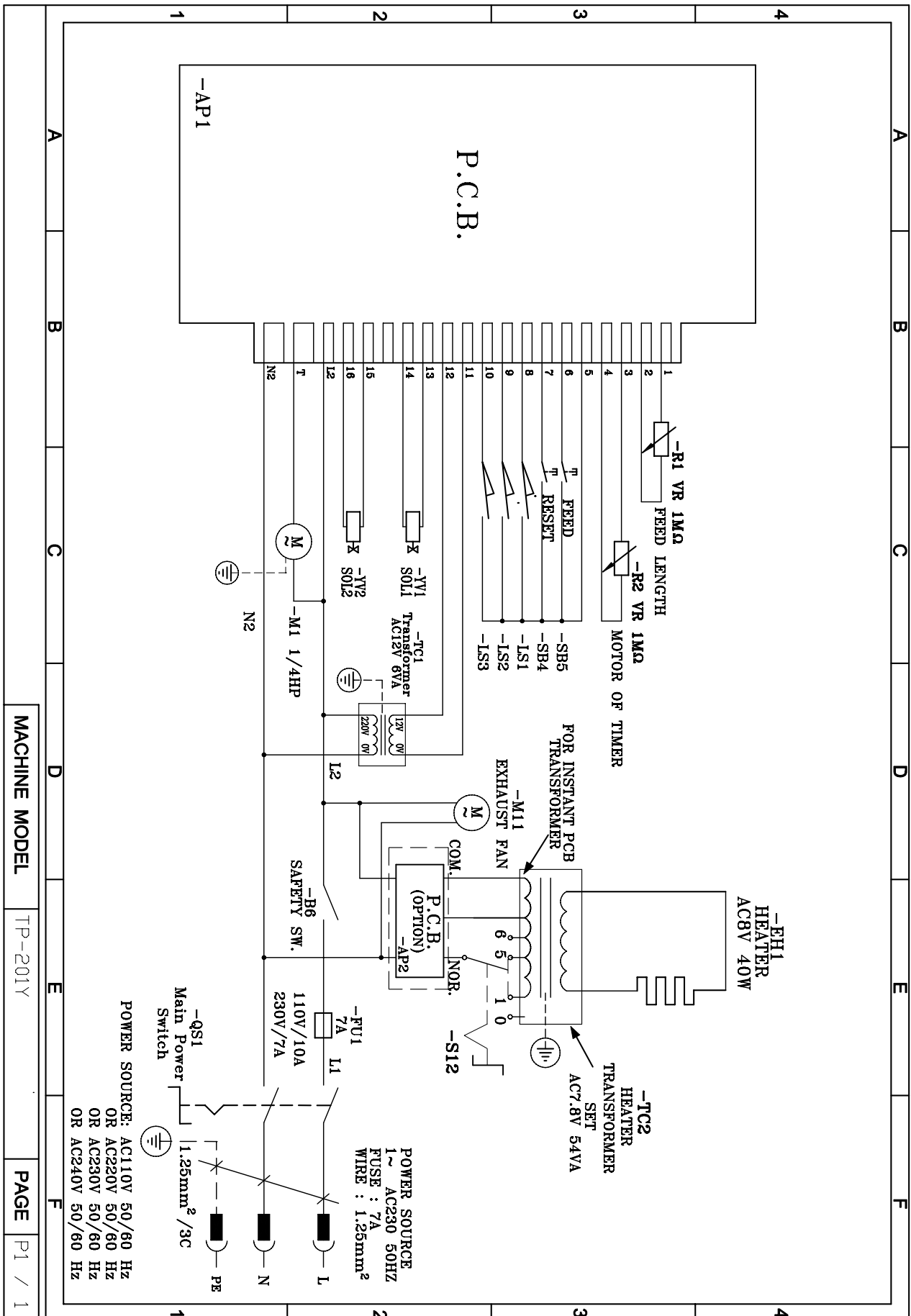
TP-201/TP-202

PAGE


































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9. Wiring Diagram

b. For TP-201Y

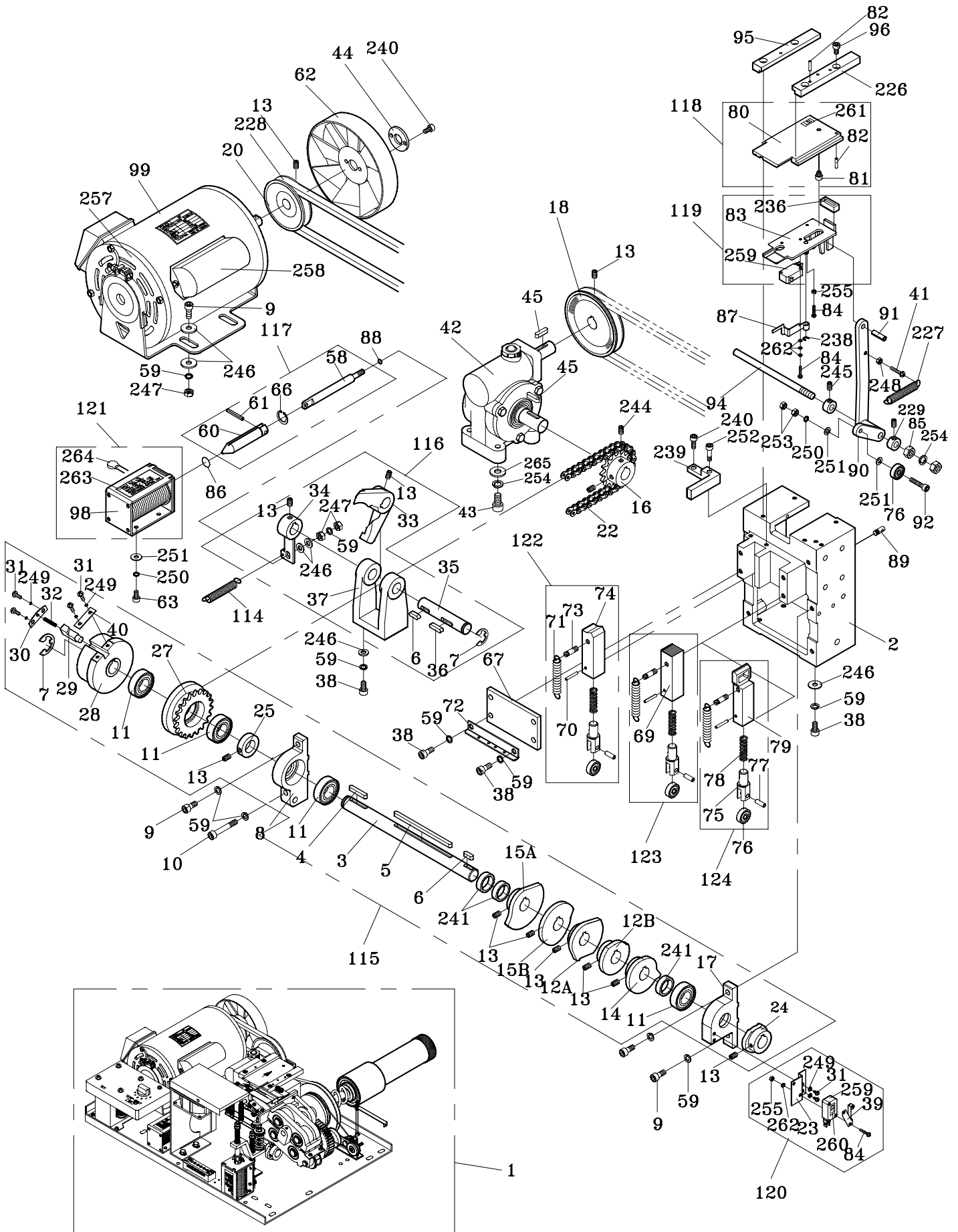


MACHINE MODEL TP-201Y PAGE P1 / 1

shape	classification	shape	classification
	HBS		ER
	TMS		RR
	PMS		SR
	FMS		SP
	HB		BR
	THS		MB
	HSS		KYA
	CAP		KYB
	HN		KYC
	WN		HBW
	FLG		PWA Ø8xØ12~Ø16x0.4~0.8t Ø6xØ13~Ø14x0.8~1.5t
	NTE		PWB Ø8xØ14~Ø16x1.3~1.5t Ø6xØ15~Ø16x1.0~1.5t
	PN		PWC Ø8xØ20~Ø23x2.0t Ø6xØ16~Ø19x2.0t
	PW		DS
	SW		TTP
	TW		FTP
	BWW		

10. Spare Parts List

MACHINE ASSEMBLY DRAWING (A)



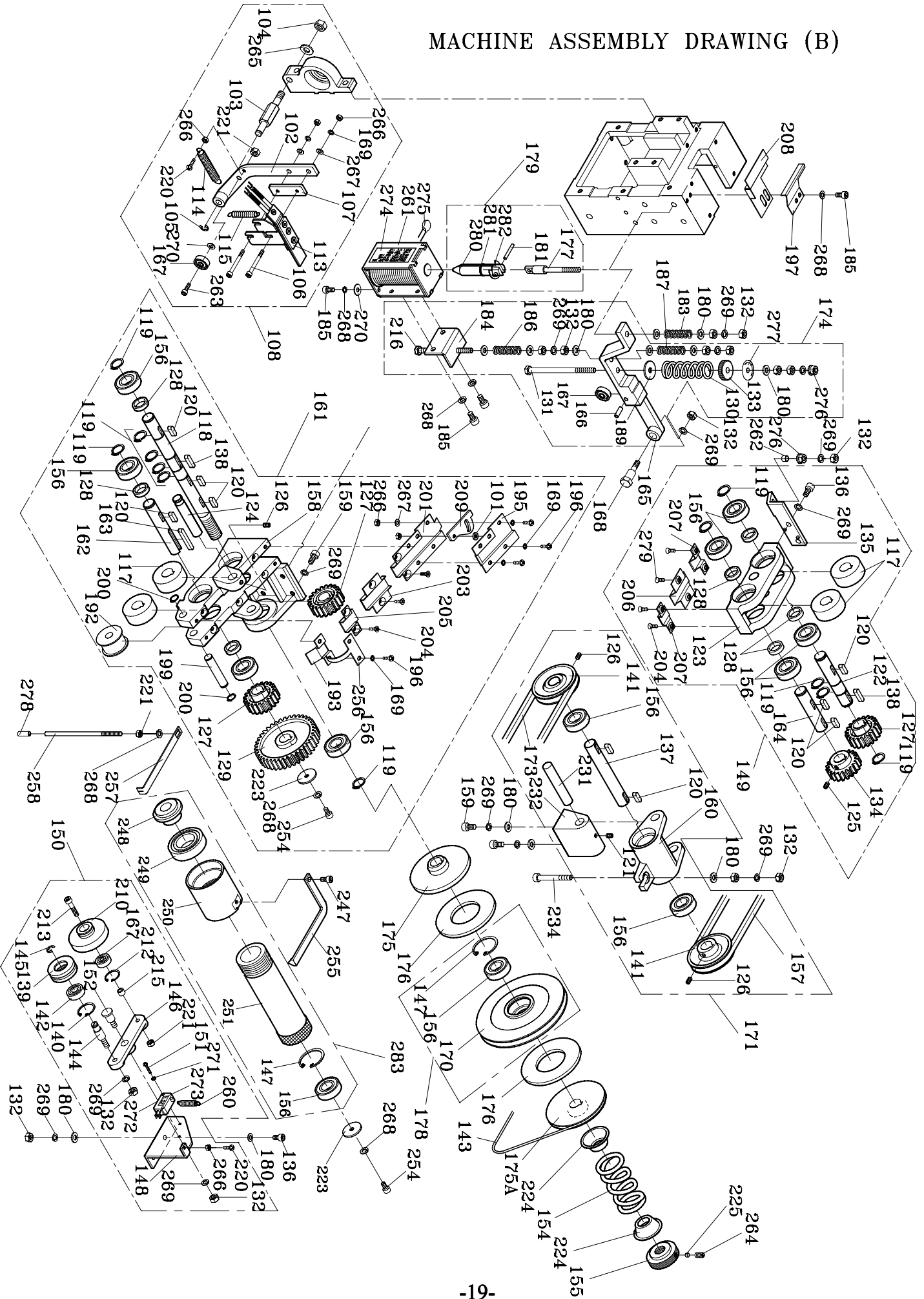
REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	TA-900	Control Head Unit	1	
2	T5-1-10110	Main Body Block	1	
3	TA-003	Cam Shaft	1	
4	KYA050530	Key, 5x5x30	1	
5	KYA0505101	Key, 5x5x101	1	
6	KYA050515	Key, 5x5x15	2	
7	ER12	Snap Ring, E-12	2	
8	TA-008-2	Bearing Support (L)	1	
9	HBS0620	HBS, M6x20	6	
10	HBS0645H	HBS, M6x45 (H)	1	
11	BR6003ZZ	Bearing, 6003ZZ	4	
12A	TA-012A	Grip Cam	1	
12B	TA-012B	Grip Cam	1	
13	HSS0608	HSS, M6x8	13	
14	TA-014	Separator Cam	1	
15A	TA-015A	Rear Bar Cam	1	
15B	TA-015B	Heater Cam	1	
16	TA-016	Sprocket	1	
17	TA-017-2	Bearing Support (R)	1	
18	TA-018	Pulley	1	
20	TA-020	Pulley	1	
22	TA-022	Chain	1	
23	TF-002	Micro Switch Bracket	1	
24	TA-024	Back Cam	1	
25	TA-025	Collar	1	
27	TA-027	Sprocket	1	
28	TA-028	Housing	1	
29	TA-029	Pin	1	
30	TA-030	Holder	1	
31	PMS0408	PMS, M4x8	6	
32	TA-032	Spring	1	
33	TA-033	Stop Arm	1	
34	TA-034	Clutch Arm	1	
35	TA-035	Shaft	1	
36	KYA050520	Key, 5x5x20	1	
37	TA-037	Clutch Support	1	
38	HBS0616	HBS, M6x16	14	
39	TF-009	Switch Trigger	1	
40	TA-040	Guide	1	
41	PMS0420	PMS, M4x20	1	

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
42	TA-042	Gear Box	1	
43	HBS0820	HBS, M8x20	4	
44	TF-022	Washer	1	
45	KYA050525	Key, 5x5x25	2	
58	TA-058	Pull Shaft	1	
59	SW06	SW, M6	19	
60	TA-060	Solenoid Shaft	1	
61	SP0414	Spring Pin, 4x14	1	
62	TF-028	Fan	1	
63	HBS0510	HBS, M5x10	4	
66	SR12	Stop Ring S-12	1	
67	TA-067	Bar Guide Lid	1	
69	TA-069	Press Bar	1	
	TA-069S	Press Bar (Stainless Steel Model)	1	
70	SP0318	Spring Pin, 3x18	3	
71	TA-071	Return Spring	3	
72	TA-072	Spring Hook	1	
73	TA-073	Spring Hook	3	
74	TA-074	Rear Bar	1	
	TA-074S	Rear Bar (Stainless Steel Model)	1	
75	TA-075	Plunger	3	
76	BR635ZZ	Bearing, 635ZZ	4	
77	SP0514	Spring Pin, 5x14	3	
78	TA-078	Spring	3	
79	TA-079	Front Bar	1	
	TA-079S	Front Bar (Stainless Steel Model)	1	
80	TA-080	Slide	1	
	TA-080S	Slide (Stainless Steel Model)	1	
81	HBS0505.2	HBS, M5x5.2	1	
	HBS0505.2S	HBS, M5x5.2 (Stainless Steel Model)	1	
82	SP0314	Spring Pin, 3x14	3	
83	TA-083	Separator	1	
	TA-083S	Separator (Stainless Steel Model)	1	
84	PMS0315	PMS, M3x15	6	
85	HN08	HN, M8	2	
86	TA-086	Seal	1	
87	TA-087	Switch Lever	1	
88	TA-088	Seal (Small)	1	
89	TA-089	Spring Hook	1	

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
90	TA-090	Arm	1	
91	SP0620	Spring Pin, 6x20	1	
92	HBS0525	HBS, M5x25	1	
94	TA-094	Shaft	1	
95	TA-095	Guide (L)	1	
	TA-095S	Guide (L) (Stainless Steel Model)	1	
96	HBS0512	HBS, M5x12	4	
	HBS0512S	HBS, M5x12 (Stainless Steel Model)	4	
98	TF-003	D.C.Solenoid (For 110V)	1	
	TF-003-1	D.C.Solenoid (For 220V/230V/240V)	1	
99	TF-001	Motor (For 110V)	1	
	TF-001-1	Motor (For 220V)	1	
	TF-001-2	Motor (For 240V)	1	
114	TA-114	Spring	1	
115	TA-003A	Cam Ass'y	1	
116	TA-035A	Clutch Ass'y	1	
117	TA-058A	Pull Shaft Ass'y	1	
118	TA-080A	Slide Ass'y	1	
119	TA-083A	Separator Ass'y	1	
120	TF-002A	Micro Switch Bracket Ass'y	1	
121	TF-003A	D.C.Solenoid Ass'y (For 110V)	1	
	TF-003A-1	D.C.Solenoid Ass'y (For 220V/230V/240V)	1	
122	T5-1-13000	Rear Bar Ass'y	1	
123	T5-1-14000	Press Bar Ass'y	1	
124	T5-1-15000	Front Bar Ass'y	1	
226	TA-226	Guide (R)	1	
	TA-226S	Guide (R) (SUS)	1	
227	TB-114	Return Spring	1	
228	TA-228	Belt	1	
229	TA-229	Collar	2	
236	TA-236	Rubber Buffer	1	
238	ER03	Snap Ring, E-3	1	
239	TA-239	Cutter Holder	1	
240	HBS0516	HBS, M5x16	4	
241	TA-241	Spacer	3	
244	HSS0506	HSS, M5x6	2	

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
245	HSS0606	HSS, M6x6	2	
246	PW06C	PW, M6 (C)	18	
247	HN06	HN, M6	6	
248	HN04	HN, M4	1	
249	SW04	SW, M4	4	
250	SW05	SW, M5	5	
251	PW05	PW, M5	2	
252	HBS0525H	HBS, M5x25 (H)	1	
253	HN05	HN, M5	2	
254	SW08	SW, M8	5	
255	HN03	HN, M3	1	
257	TF-042-1	Centrifugal Switch (50HZ)	1	
	TF-042-2	Centrifugal Switch (60HZ)	1	
258	TF-043	Start Capacitor	1	
259	TF-006	Micro Switch (LS-1, LS-3)	2	
260	TF-012	Name Plate (LS-3)	1	
261	TF-010	Name Plate (LS-1)	1	
262	SW03	SW, M3	3	
263	TF-014	Name Plate (SOL-2)	1	
264	TF-071	Varistor	1	
265	PW08C	PW, M8 (C)	4	

MACHINE ASSEMBLY DRAWING (B)



REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
101	PW04	PW, M4	2	
102	TB-102	Heater Arm	1	
103	TB-103	Pin	1	
104	HN08	HN, M8	1	
105	ER06	Snap Ring, E-6	1	
106	HBS0440H	HBS, M4x40 (H)	2	
107	TB-107	Side Plate	1	
108	TB-102A	Heater Arm Ass'y	1	
113	TB-113	Heater Ass'y	1	
114	TB-114	Return Spring	1	
115	TB-115	Spring	1	
117	TB-117	Roller	4	
118	TB-118	Shaft (For Inside Tension Adjustment)	1	
	TB-118A	Shaft (For Outside Tension Adjustment)	1	
119	SR15	Stop Ring, S-15	10	
120	KYA050515	Key, 5x5x15	9	
121	HSS0506	HSS, M5x6	2	
122	TB-122	Shaft	1	
123	TB-123	Holder	1	
124	TB-124	Pin	1	
125	HSS0606	HSS, M6x6	1	
126	HSS0508	HSS, M5x8	3	
127	TB-127	Gear	3	
128	TB-128	Collar	7	
129	TB-129	Feed Gear	1	
130	TB-130	Spring	1	
131	HB06100H	HB, M6x100 (H)	1	
132	HN06	HN, M6	16	
133	TB-133	Nut	1	
134	TB-134	Gear	1	
135	TB-135	Holder Arm	1	
136	HBS0616	HBS, M6x16	4	
137	TB-137	Shaft	1	
138	KYA050520	Key, 5x5x20	2	
139	TB-139	Pulley	1	
140	RR22	Snap Ring, H-22	1	
141	TB-141	Pulley	2	
142	BR608ZZ	Bearing, 608ZZ	1	
143	TB-143	Round Belt	1	

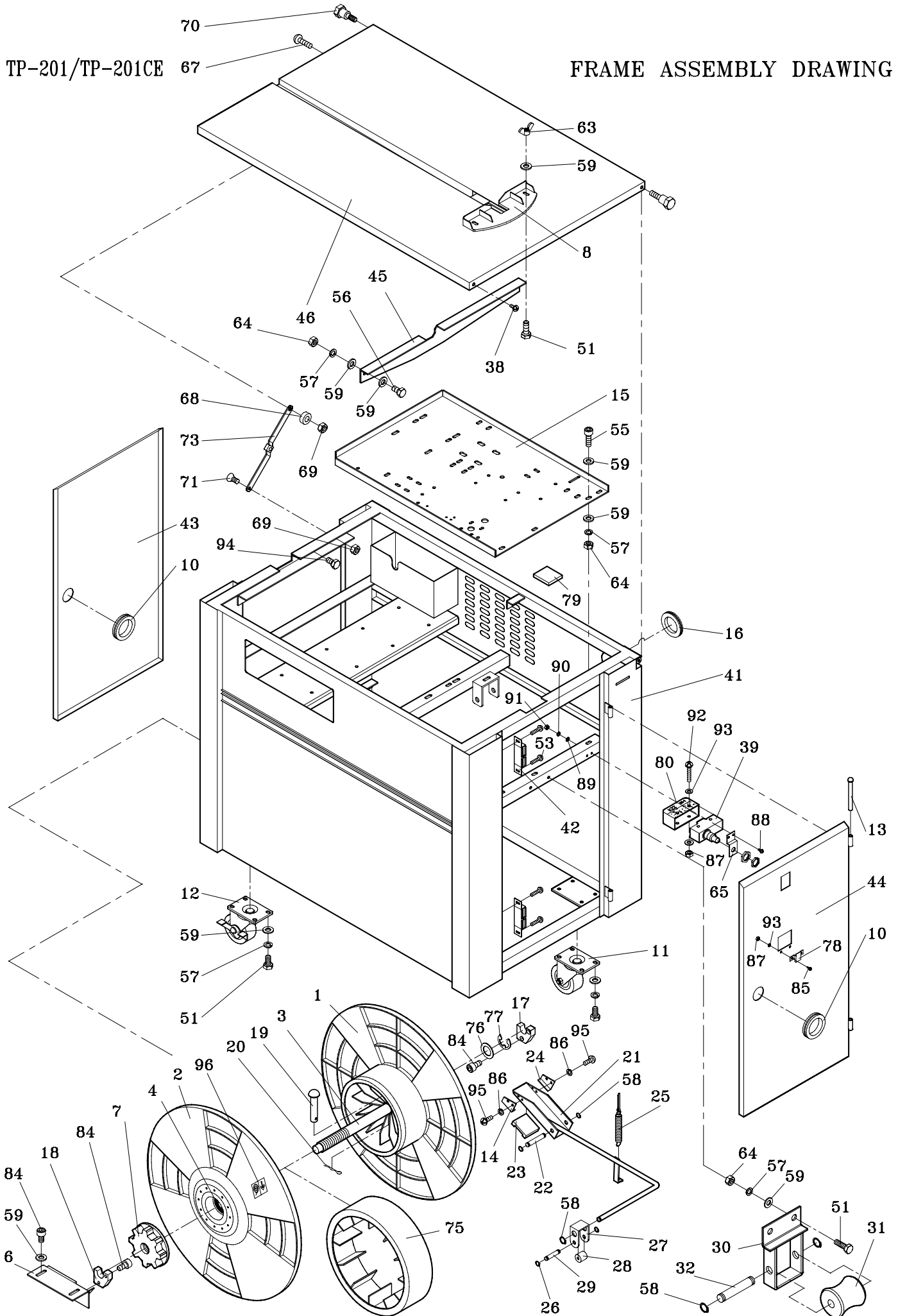
REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
144	TB-144	Shaft	1	
145	ER07S	Snap Ring, E-7 (SUS)	1	
146	TB-146	Arm	1	
147	RR32	Snap Ring, H-32	2	
148	TB-148	Bracket	1	
149	TB-123A	Holder Ass'y	1	
150	TB-148A	Bracket Ass'y	1	
151	PMS0315	PMS, M3x15	2	
152	TB-152	Shaft	1	
154	TB-154	Spring	1	
155	TB-155	Nut	1	
156	BR6002ZZ	Bearing, 6002ZZ	12	
157	TB-157	V-Belt	1	
158	TB-158	Bracket	1	
159	HBS0620	HBS, M6x20	6	
160	TB-160	Bracket	1	
161	TB-158A	Bracket Ass'y	1	
162	TB-162	Shaft	1	
163	KYA050538	Key, 5x5x38	1	
164	TB-164	Shaft	1	
165	TB-165	Feed Arm	1	
166	SP0520	Spring Pin, 5x20	1	
167	BR635ZZ	Bearing, 635ZZ	3	
168	TB-168	Arm Pin	1	
169	SW04	SW, M4	6	
170	TB-170	Pulley	1	
171	TB-160A	Bracket Ass'y	1	
173	TB-173	V-Belt	1	
174	TB-165A	Feed Arm Ass'y	1	
175	TB-175	Plate	1	
175A	TB-175A	Plate	1	
176	TB-176	Friction Disc	2	
	TJ-025	Friction Disc (For TP-203)	2	
177	TB-177	Pull Shaft	1	
178	TB-177A	Pull Shaft Ass'y	1	
180	PW06A	PW, M6 (A)	23	
181	SP0414	Spring Pin, 4x14	1	
182	TB-170A	Pulley Ass'y	1	

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
183	TB-183	Spring	1	
184	TB-184	Stop Bracket	1	
185	HBS0510	HBS, M5x10	6	
186	TB-186	Spring	1	
187	TB-187	Spring	1	
189	TB-189	Retainer	1	
192	TB-192	Roller	1	
193	TB-193	Cover	1	
195	TB-195	Outlet Cover	1	
196	PMS0410	PMS, M4x10	7	
197	TB-197	Guide Front	1	
199	TB-199	Pin	1	
200	SR10	Stop Ring, S-10	2	
201	TB-201	Outlet Guide	1	
203	TB-203	Guide	1	
	TB-203L	Guide (Longer) (OPTION)	1	
204	FMS0408	FMS, M4x8	10	
205	TB-205	Guide	1	
206	TB-206	Cover	1	
207	TB-207	Cover-Side	2	
208	TB-208	Front Plate	1	
209	TB-209	Band Plate	1	
210	TB-210	Pulley	1	
212	RR19	Snap Ring, H-19	1	
213	HBS0525H	HBS, M5x25 (H)	1	
215	TB-215	Collar	1	
216	HB0680	HB, M6x80	1	
220	PMS0412	PMS, M4x12	2	
221	HN05	HN, M5	3	
223	TB-223	Washer	2	
224	TB-224	Spring Retainer	2	
225	TB-225	Bush	1	
231	TB-231	Pin	1	
232	TB-232	Bracket	1	
234	HBS0665H	HBS, M6x65 (H)	1	

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
247	HBS0506	HBS, M5x6	1	
248	TB-248	Spring Retainer	1	
249	BR6005ZZ	Bearing, 6005ZZ	1	
250	TB-250	Tube A	1	
251	TB-251	Tube B	1	
	TJ-251	Tube B (For TP-203)	1	
254	HBS0512	HBS, M5x12	2	
255	TB-255	Fix Arm (For TP-201)	1	
256	TB-256	Corrector	1	
257	TB-257	Fix Arm (For TP-202, TP-202L)	1	
258	TB-258	Bolt (For TP-202, TP-202L)	1	
260	TB-260	Spring (For TP-201Y)	1	
261	TF-003	D.C.Solenoid (For 110V)	1	
	TF-003-1	D.C.Solenoid (For 220V/230V/240V)	1	
262	TB-262	Tube	1	
263	HBS0516	HBS, M5x16	1	
264	HSS0606	HSS, M6x6	1	
265	SW08	SW, M8	1	
266	HN04	HN, M4	7	
267	PW04	PW, M4	3	
268	SW05	SW, M5	6	
269	SW06	SW, M6	15	
270	PW05	PW, M5	1	
271	SW03	SW, M3	2	
272	TF-007	Micro Switch (LS-2)	1	
273	TF-011	Name Plate (LS-2)	1	
274	TF-013	Name Plate (SOL-1)	1	
275	TF-071	Varistor	1	
276	FLG06	FLG, M6	2	
277	T5-1-22220	Name Plate	1	
278	TB-263	Tube	1	
279	FMS0406	FMS, M4x6	2	
280	TA-060	Solenoid Shaft	1	
281	TA-086	Seal	1	
282	SR12	Stop Ring, S-12	1	
283	TB-264	Tension Adjusting Ass'y	1	
	TJ-252	Tension Adjusting Ass'y (For TP-203)	1	

TP-201/TP-201CE

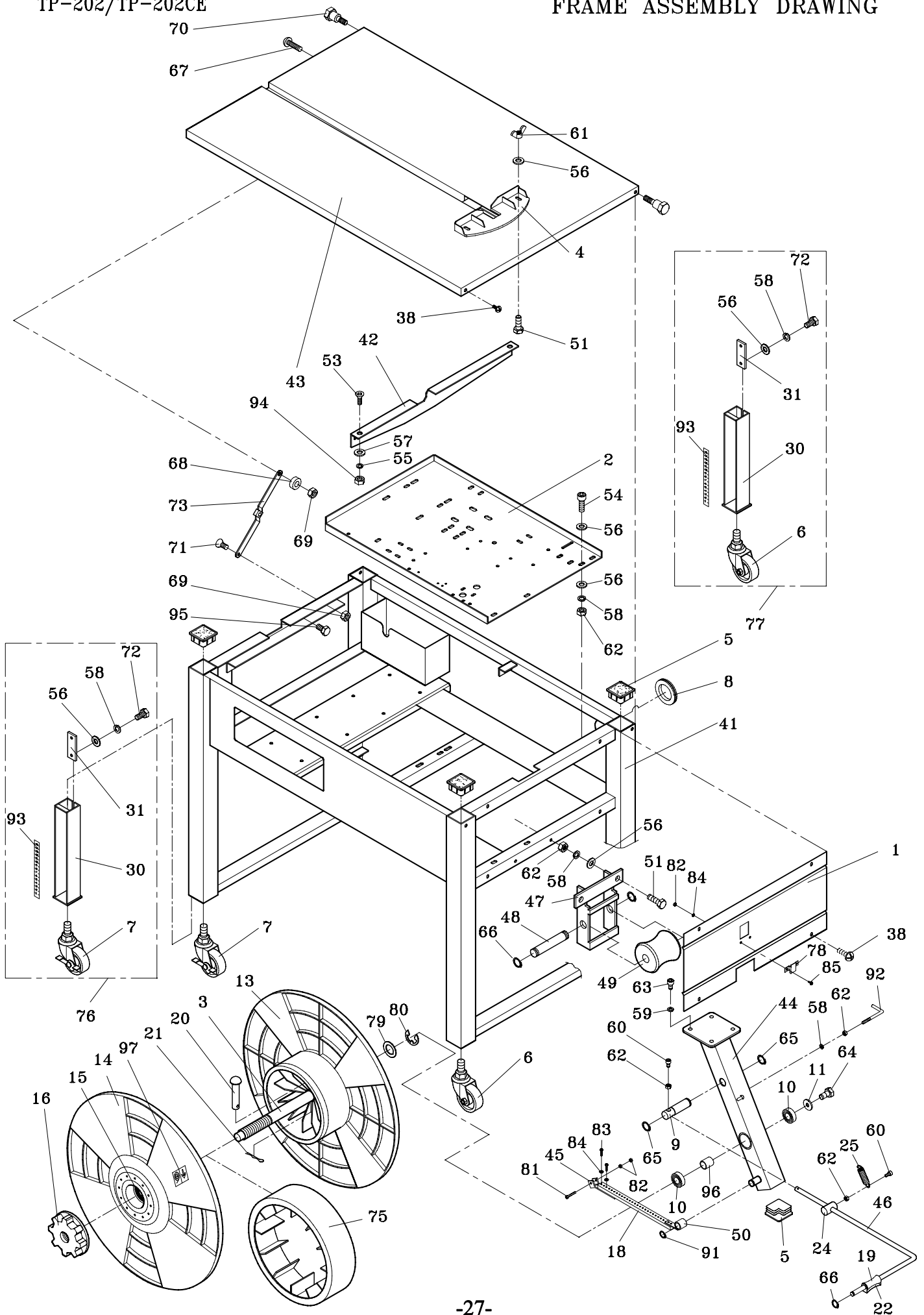
FRAME ASSEMBLY DRAWING



REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	TE-001	Inner Flange	1	
2	TC-014	Outer Flange	1	
3	TE-003	Shaft	1	
4	TC-015	Protector	1	
6	TE-006	Reel Bracket (R)	1	
	TE-006S	Reel Bracket (R) (Stainless Steel Model)	1	
7	TC-016	Reel Nut Handle	1	
8	TC-004	Package Guide	1	
10	TE-010	Grommet	2	
11	TE-011	Caster (Free)	2	
12	TE-012	Caster (Brake)	2	
13	TE-013	Lock Pin	4	
	TE-013S	Lock Pin (Stainless Steel Model)	4	
14	TE-014	Brake Holder (R)	1	
15	TC-002	Bracket	1	
16	TC-008	Grommet	1	
17	TE-017	Bush (L)	1	
18	TE-018	Bush (R)	1	
19	TC-020	Pin	1	
20	TC-021	Split Pin	1	
21	TE-021	Brake Set	1	
22	TE-022	Pin	1	
23	TE-023	Rubber Stop	1	
24	TE-024	Brake Holder (L)	1	
25	TE-025	Spring	1	
26	ER04	Snap Ring, E-4	2	
27	TE-027	Roller Holder	1	
28	TE-028	Roller	1	
29	TE-029	Pin	1	
30	TE-030	Band Guide Bracket	1	
31	TC-049	Roller	1	
32	TC-048	Shaft	1	
38	TMS0508	TMS, M5x8 (For CE)	2	
39	TF-018	Safety Limit Switch (OPTION)	2	
41	TE-041	Body Frame	1	
	TE-041S	Body Frame (Stainless Steel Model)	1	
	TK-033	Body Frame (For CE)	1	
	TK-033S	Body Frame (For CE)(Stainless Steel Model)	1	
42	TE-042	Magnet Catch	4	

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
43	TE-043	Side Door (L)	1	
	TE-043S	Side Door (L) (Stainless Steel Model)	1	
44	TE-044	Side Door (R)	1	
	TE-044S	Side Door (R)(Stainless Steel Model)	1	
45	TE-045	Support	1	
	TE-045S	Support (Stainless Steel Model)	1	
46	TC-043	Top Plate	1	
	TC-043S	Top Plate (Stainless Steel Model)	1	
51	HB0612	HB, M6x12	12	
53	TMS0306	TMS, M3x6	8	
55	HBS0620	HBS, M6x20	14	
56	HB0620	HB, M6x20	3	
57	SW06	SW, M6	20	
58	SR10	Stop Ring, S-10	5	
59	PW06C	PW, M6 (C)	30	
63	WN06	WN, M6	2	
64	HN06	HN, M6	8	
65	TE-065	Safety Switch Plate	2	
67	TMS0612	TMS, M6x12	1	
68	TC-068	Collar	1	
69	NTE06	NTE, M6	2	
70	TC-070	Shaft	2	
71	FMS0612	FMS, M6x12	1	
73	T5-2-10170	Hinge	1	
75	TC-075	Center Drum 280MM	1	
76	TC-076	Washer	1	
77	ER19	Snap Ring, E-19	1	
78	TB-205	Guide	1	
79	TE-079	Rubber	1	
80	TF-031	Switch Cover	2	
84	HBS0612	HBS, M6x12	4	
85	TMS0408	TMS, M4x8	2	
86	SW04	SW, M4	2	
87	HN04	HN, M4	6	
88	TMS0512	TMS, M5x12	4	

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
89	PW05	PW, M5	4	
90	SW05	SW, M5	4	
91	HN05	HN, M5	4	
92	PMS0425	PMS, M4x25	4	
93	PW04	PW, M4	6	
94	HB0610	HB, M6x10	1	
95	PMS0408	PMS, M4x8	2	
96	TE-096	Panel	1	



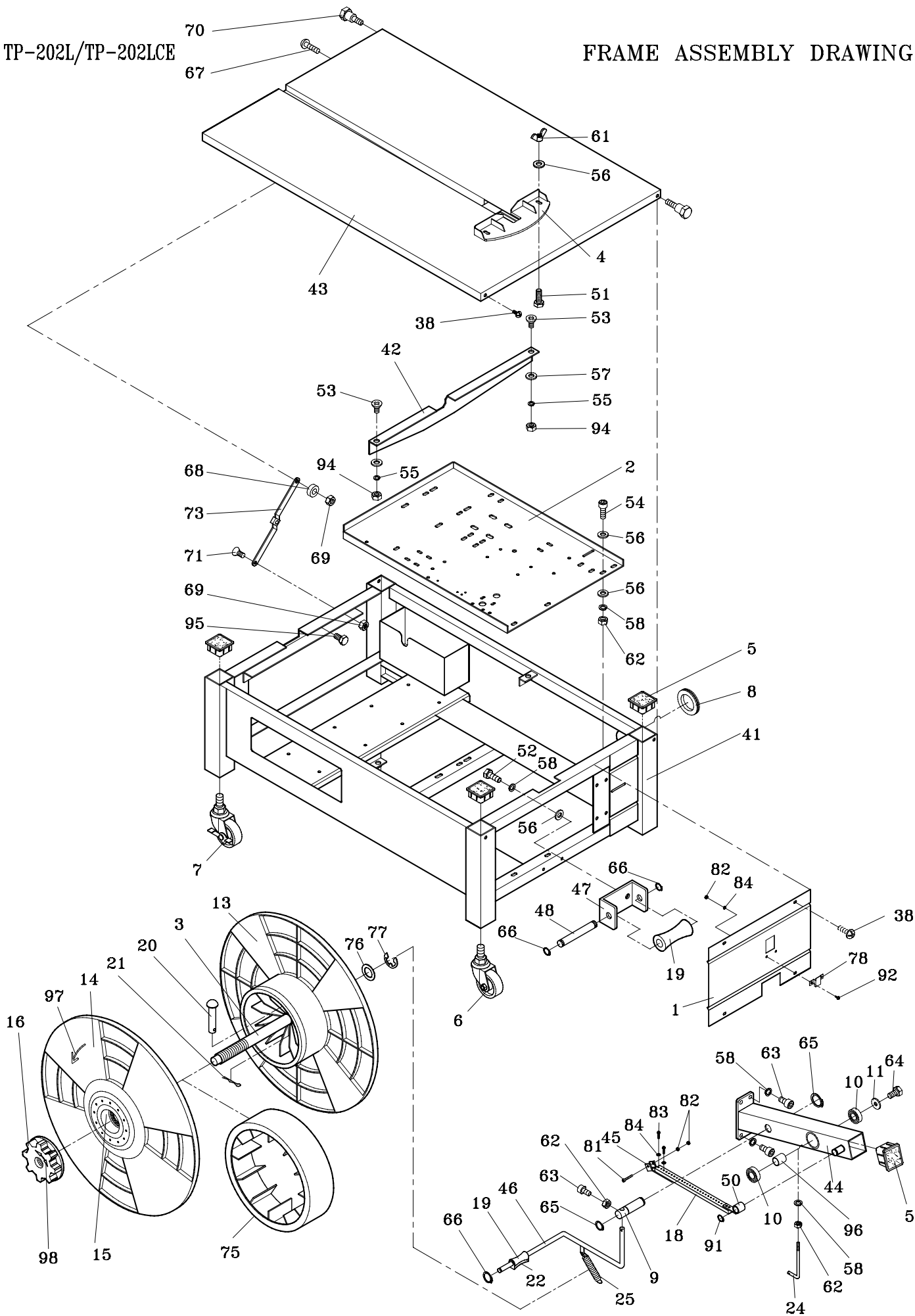
REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	TC-001	Protection Cover	1	
2	TC-002	Bracket	1	
3	TC-003	Reel Shaft	1	
4	TC-004	Package Guide	1	
5	TC-005	Lid	5	
6	TC-006	Caster (Free)	2	
7	TC-007	Caster (Brake)	2	
8	TC-008	Grommet	1	
	TC-008-1	Grommet (OPTION)	1	
9	TC-009	Brake Shaft	1	
10	BR6003ZZ	Bearing, 6003ZZ	2	
11	TC-011	Washer	1	
13	TC-013	Inner Flange	1	
14	TC-014	Outer Flange	1	
15	TC-015	Protector	1	
16	TC-016	Reel Nut Handle	1	
18	TC-018	Brake Lining	1	
19	TC-019	Roller	1	
20	TC-020	Pin	1	
21	TC-021	Split Pin	1	
22	TC-022	Roller Holder	1	
24	TC-024	Brake Adjusting	1	
25	TC-025	Spring	1	
30	T7-5-10160	Adjustment Leg (OPTION)	4	
31	TC-031	Fix Plate (OPTION)	4	
38	TMS0508	TMS, M5x8	6	
41	TC-041	Body Frame	1	
	TK-031	Body Frame (For CE)	1	
42	TC-042	Support	1	
43	TC-043	Top Plate	1	
44	TC-044	Reel Support	1	
45	TC-045-1	Fising Brake Lining Bracket	1	
46	TC-046-1	Arm	1	
47	TC-047	Roller Bracket	1	

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
48	TC-048	Shaft	1	
49	TC-049	Roller	1	
50	TC-050	Lining Holder	1	
51	HB0612	HB, M6x12	5	
53	FMS0512	FMS, M5x12	2	
54	HBS0620	HBS, M6x20	4	
55	SW05	SW, M5	2	
56	PW06A	PW, M6 (A)	8	
	PW06A	PW, M6 (A) (OPTION)	4	
57	PW05	PW, M5	2	
58	SW06	SW, M6	2	
	SW06	SW, M6 (OPTION)	4	
59	SW08	SW, M8	4	
60	HBS0616	HBS, M6x16	2	
61	WN06	WN, M6	2	
62	HN06	HN, M6	7	
63	HBS0816	HBS, M8x16	5	
64	HB0816	HB, M8x16	1	
65	SR20	Stop Ring, S-20	3	
66	SR10	Stop Ring, S-10	3	
67	TMS0612	TMS, M6x12	1	
68	TC-068	Collar	1	
69	NTE06	NTE, M6	2	
70	TC-070	Shaft	2	
71	FMS0612	FMS, M6x12	1	
72	HBS0616	HBS, M6x16	4	
	HBS0616	HBS, M6x16 (OPTION)	4	
73	T5-2-10170	Hinge	1	
75	TC-075	Center Drum 280MM	1	
76	TC-100	Adjustment Leg Ass'y (Brake) (OPTION)	2	
77	TC-110	Adjustment Leg Ass'y (Free)(OPTION)	2	
78	TB-205	Guide	1	
79	TC-076	Washer	1	
80	ER19	Snap Ring, E-19	1	
81	HBS0525H	HBS, M5x25 (H)	1	
82	HN04	HN, M4	4	
83	PMS0416	PMS, M4x16	4	
84	PW04	PW, M4	4	

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
85	TMS0408	TMS, M4x8	2	
91	SR15	Stop Ring, S-15	1	
92	TC-092	Holder	1	
93	TC-093	Name Plate (OPTION)	4	
94	HN05	HN, M5	2	
95	HB0610	HB, M6x10	1	
96	TC-094	Spacer	1	
97	TE-096	Panel	1	

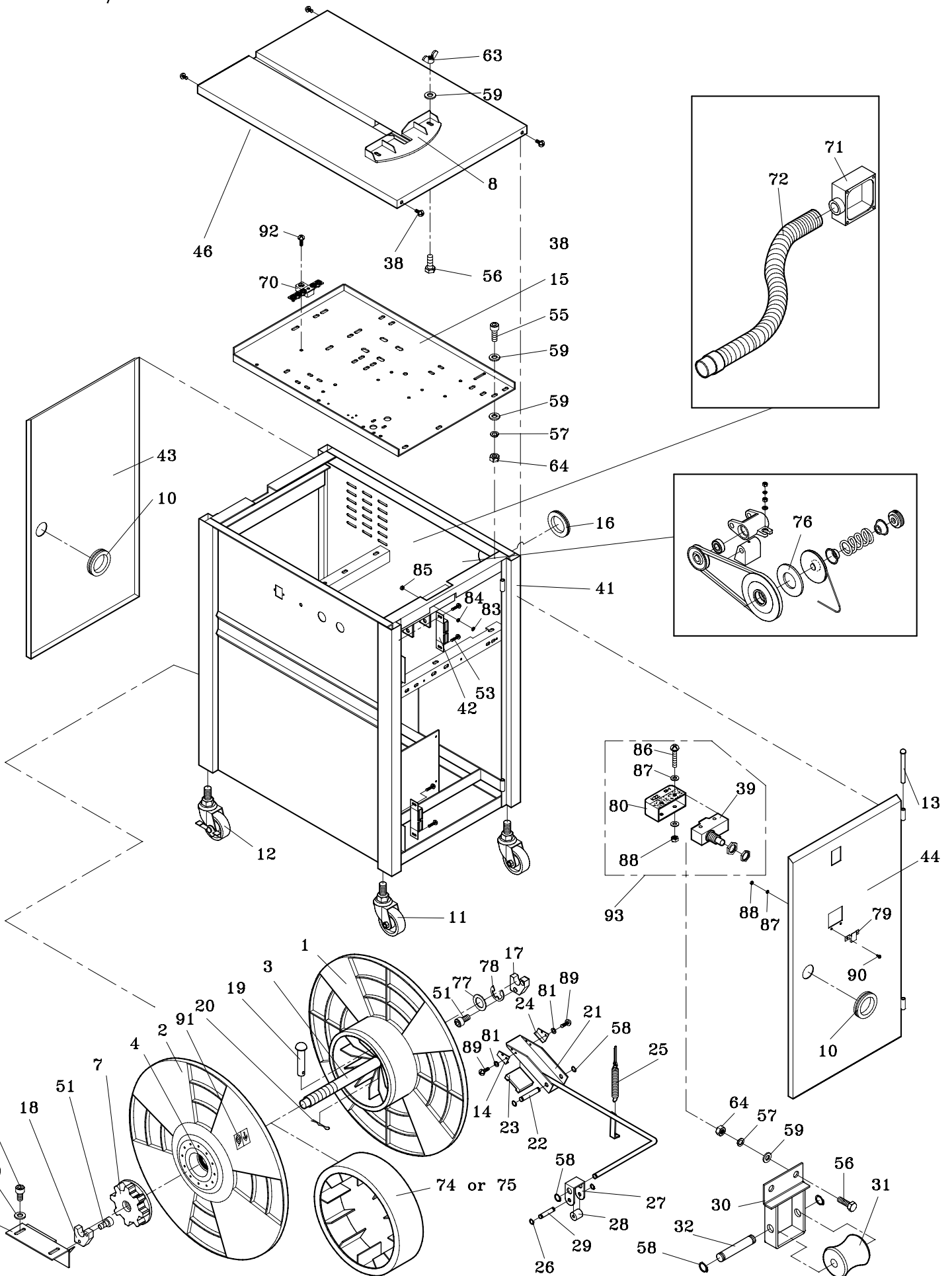
TP-202L/TP-202LCE

FRAME ASSEMBLY DRAWING



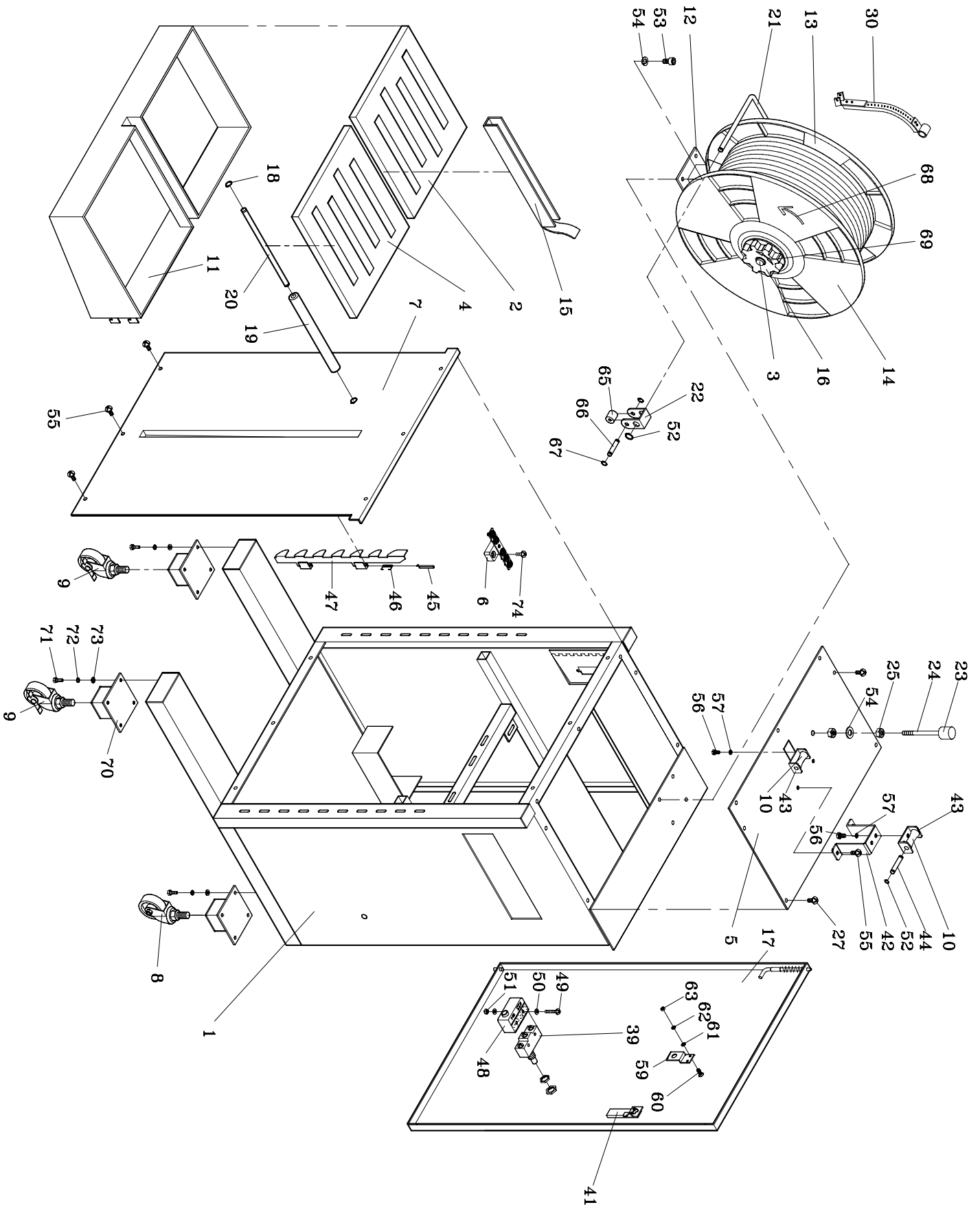
REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	TD-001	Protection Cover	1	
2	TC-002	Bracket	1	
3	TD-003	Reel Shaft	1	
4	TC-004	Package Guide	1	
5	TC-005	Lid	5	
6	TC-006	Caster (Free)	2	
7	TC-007	Caster (Brake)	2	
8	TC-008	Grommet	1	
	TC-008-1	Grommet (OPTION)	1	
9	TC-009	Brake Shaft	1	
10	BR6003ZZ	Bearing, 6003ZZ	2	
11	TC-011	Washer	1	
13	TC-013	Inner Flange	1	
14	TC-014	Outer Flange	1	
15	TC-015	Protector	1	
16	TD-016	Reel Nut Handle (LH)	1	
18	TD-018	Brake Lining	1	
19	TC-019	Roller	2	
20	TC-020	Pin	1	
21	TC-021	Split Pin	1	
22	TC-022	Roller Holder	1	
24	TD-024	Spring Hook	1	
25	TC-025	Spring	1	
38	TMS0508	TMS, M5x8	6	
41	TD-041	Body Frame	1	
	TK-041	Body Frame (For CE)	1	
42	TC-042	Support	1	
43	TC-043	Top Plate	1	
44	TD-044	Reel Support	1	
45	TC-045-1	Fising Brake Lining Bracket	1	
46	TD-046-1	Arm	1	
47	TD-047	Roller Bracket	1	
48	TD-048	Shaft	1	
50	TC-050	Lining Holder	1	
51	HB0612	HB, M6x12	3	
52	HB0610	HB, M6x10	2	
53	FMS0512	FMS, M5x12	2	
54	HBS0620	HBS, M6x20	4	

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
55	SW05	SW, M5	6	
56	PW06C	PW, M6 (C)	12	
57	PW05	PW, M5	2	
58	SW06	SW, M6	7	
61	WN06	WN, M6	2	
62	HN06	HN, M6	9	
63	HBS0616	HBS, M6x16	5	
64	HB0816	HB, M8x16	1	
65	SR20	Stop Ring, S-20	3	
66	SR10	Stop Ring, S-10	3	
67	TMS0612	TMS, M6x12	1	
68	TC-068	Collar	1	
69	NTE06	NTE, M6	2	
70	TC-070	Shaft	2	
71	FMS0612	FMS, M6x12	1	
73	T5-2-10170	Hinge	1	
75	TC-075	Center Drum 280MM	1	
76	TC-076	Washer	1	
77	ER19	Snap Ring, E-19	1	
78	TB-205	Guide	1	
81	HBS0525H	HBS, M5x25 (H)	1	
82	HN04	HN, M4	4	
83	PMS0416	PMS, M4x16	4	
84	PW04	PW, M4	6	
91	SR15	Stop Ring, S-15	1	
92	TMS0408	TMS, M4x8	2	
94	HN05	HN, M5	2	
95	HB0610	HB, M6x10	1	
96	TC-094	Spacer	1	
97	TD-097	Panel	1	
98	TD-098	Panel	1	



REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	TE-001	Inner Flange	1	
2	TC-014	Outer Flange	1	
3	TE-003	Shaft	1	
4	TC-015	Protector	1	
6	TJ-006	Reel Bracket (R)	1	
7	TC-016	Reel Nut Handle	1	
8	TC-004	Package Guide	1	
10	TE-010	Grommet	2	
11	TC-006	Caster (Free)	2	
12	TC-007	Caster (Brake)	2	
13	TE-013	Lock Pin	4	
14	TE-014	Brake Holder (R)	1	
15	TC-002	Bracket	1	
16	TC-008	Grommet	1	
	TC-008-1	Grommet (OPTION)	1	
17	TE-017	Bush (L)	1	
18	TE-018	Bush (R)	1	
19	TC-020	Pin	1	
20	TC-021	Split Pin	1	
21	TJ-021	Brake Set	1	
22	TE-022	Pin	1	
23	TE-023	Rubber Stop	1	
24	TE-024	Brake Holder (L)	1	
25	TE-025	Spring	1	
26	ER04	Snap Ring, E-4	2	
27	TE-027	Roller Holder	1	
28	TE-028	Roller	1	
29	TE-029	Pin	1	
30	TE-030	Band Guide Bracket	1	
31	TC-049	Roller	1	
32	TC-048	Shaft	1	
38	TMS0508	TMS, M5x8 (For CE)	6	
39	TF-018	Safety Limit Switch (OPTION)	2	
41	TJ-001	Body Frame	1	
42	TE-042	Magnet Catch	4	
43	TJ-043	Side Door (L)	1	
44	TJ-044	Side Door (R)	1	
46	TJ-002	Top Plate	1	
51	HBS0612	HBS, M6x12	8	

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
53	TMS0306	TMS, M3x6	8	
55	HBS0620	HBS, M6x20	22	
56	HB0612	HB, M6x12	4	
57	SW06	SW, M6	18	
58	SR10	Stop Ring, S-10	5	
59	PW06C	PW, M6 (C)	26	
63	WN06	WN, M6	2	
64	HN06	HN, M6	4	
70	T5-4-10310	Earth Plate (5P) (For CE)	1	
71	TJ-023	Bracket Of Smoke-Exhaustion Pipe	1	
72	TJ-024	Smoke-Exhaustion Pipe	1	
75	TC-075	Center Drum 280MM	1	
76	TJ-025	Friction Disc (For TP-203)	2	
77	TC-076	Washer	1	
78	ER19	Snap Ring, E-19	1	
79	TB-205	Guide	1	
80	TF-031	Switch Cover	1	
81	SW04	SW, M4	4	
83	PW05	PW, M5	2	
84	SW05	SW, M5	2	
85	HN05	HN, M5	2	
86	PMS0425	PMS, M4x25	2	
87	PW04	PW, M4	4	
88	HN04	HN, M4	4	
89	PMS0408	PMS, M4x8	4	
90	TMS0408	TMS, M4x8	2	
91	TE-096	Panel	1	
92	TMS0412	TMS, M4x12	1	
93	TE-100	Safety Limit Switch Ass'y (OPTION)	1	

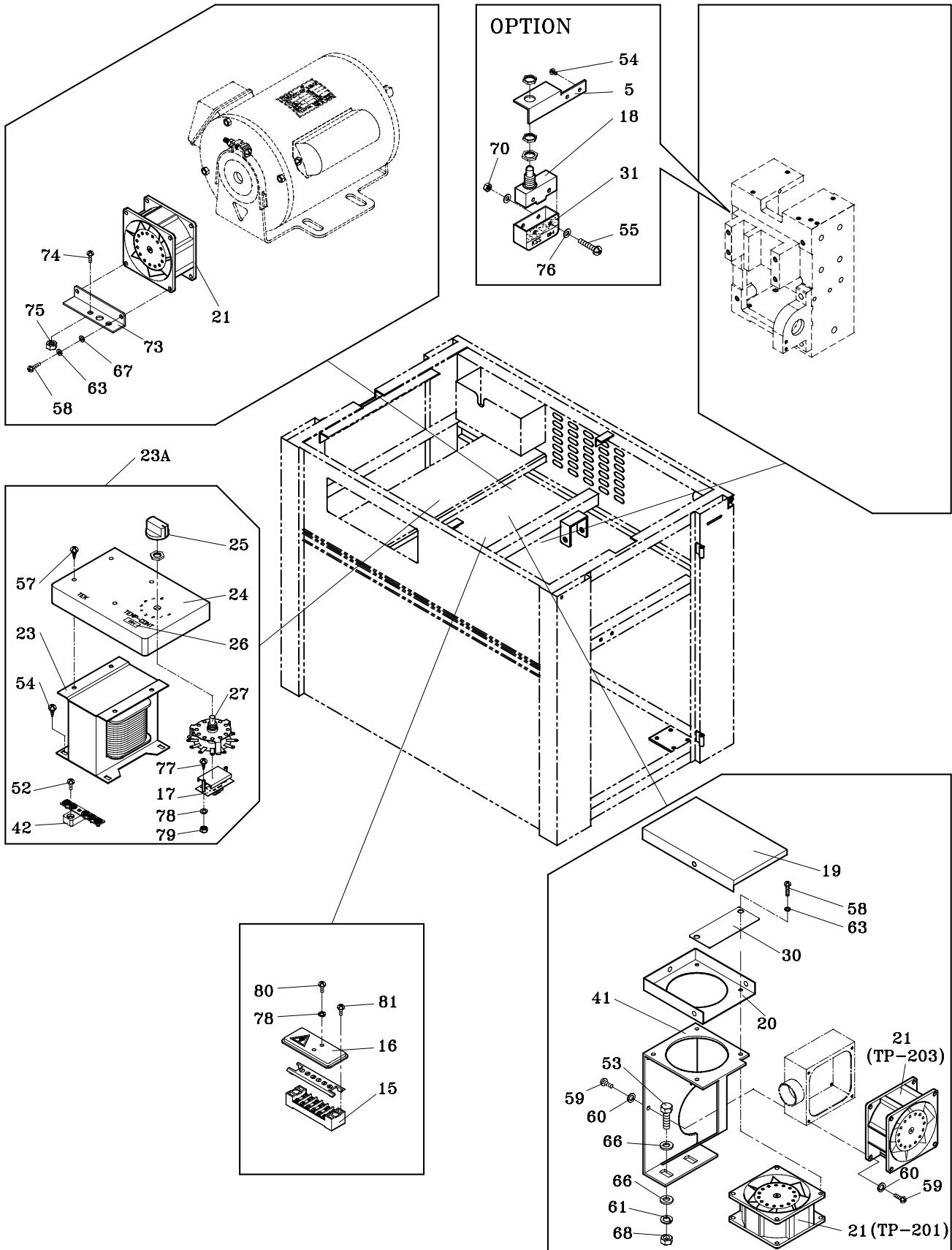


REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	TL-001	Body Frame	1	
	TL-001S	Body Frame (Stainless Steel Model)	1	
2	TL-002	Table (L)	1	
	TL-002S	Table (L)(Stainless Steel Model)	1	
3	TD-003	Reel Shaft	1	
	TD-003S	Reel Shaft (Stainless Steel Model)	1	
4	TL-004	Table (R)	1	
	TL-004S	Table (R) (Stainless Steel Model)	1	
5	TL-005	Top Plate	1	
	TL-005S	Top Plate (Stainless Steel Model)	1	
6	T5-4-10310	Earth Plate (5P) (For CE)	1	
7	TL-007	Front Plate	1	
	TL-007S	Front Plate (Stainless Steel Model)	1	
8	TC-006	Caster (Free)	2	
	TC-006S	Caster (Free) (Stainless Steel Model)	2	
9	TC-007	Caster (Brake)	2	
	TC-007S	Caster (Brake) (Stainless Steel Model)	2	
10	TC-019	Roller	2	
11	TL-011	Table Support	1	
	TL-011S	Table Support (Stainless Steel Model)	1	
12	TL-012	Reel Support	1	
	TL-012S	Reel Support (Stainless Steel Model)	1	
13	TC-013	Inner Flange	1	
14	TC-014	Outer Flange	1	
15	TL-015	Guide	1	
	TL-015S	Guide (Stainless Steel Model)	1	
16	TD-016	Reel Nut Handle (LH)	1	
17	TL-017	Back Door	1	
	TL-017S	Back Door (Stainless Steel Model)	1	
18	ER07S	Snap Ring, E-7 (SUS)	16	
19	T6-5-11120	Table Roller	8	
	T6-5-11121	Table Roller (Plastic)	8	
20	T6-5-11130	Table Roller Shaft	8	
	T6-5-11131	Table Roller Shaft (Stainless Steel Model)	8	
21	TL-021	Brake Arm	1	
	TL-021S	Brake Arm (Stainless Steel Model)	1	
22	TE-027	Roller Holder	1	
	TE-027S	Roller Holder (Stainless Steel Model)	1	
23	TL-023	Stopper	1	
24	TL-024	Bolt	1	

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
25	HN08	HN, M8	2	
	HN08S	HN, M8 (Stainless Steel Model)	2	
27	FMS0410	FMS, M4x10	4	
	FMS0410S	FMS, M4x10 (Stainless Steel Model)	4	
30	TL-030	Brake lining	1	
39	TF-018	Safety Limit Switch (For CE)	1	
41	TL-041	Door Lock	2	
42	TL-042	Bracket	1	
43	TD-047	Roller Bracket	2	
	TD-047S	Roller Bracket (Stainless Steel Model)	2	
44	TD-048	Shaft	2	
	TD-048S	Shaft (Stainless Steel Model)	2	
45	T6-2-11140	RH Strap Guide Flap Pin (Rear)	2	
46	T6-2-11150	RH Strap Guide Flap Spring	2	
47	TL-047	Flap	1	
	TL-047S	Flap (Stainless Steel Model)	1	
48	TF-031	Switch Cover	1	
49	PMS0425	PMS, M4x25	2	
50	PW04	PW, M4	4	
51	HN04	HN, M4	2	
52	SR10	Stop Ring, S-10	5	
	SR10S	Stop Ring, S-10 (Stainless Steel Model)	5	
53	HBS0816	HBS, M8x16	4	
	HBS0816S	HBS, M8x16 (Stainless Steel Model)	4	
54	SW08	SW, M8	5	
	SW08S	SW, M8 (Stainless Steel Model)	5	
55	TMS0612	TMS, M6x12	8	
	TMS0612S	TMS, M6x12 (Stainless Steel Model)	8	
56	HB0610	HB, M6x10	4	
	HB0610S	HB, M6x10 (Stainless Steel Model)	4	
57	SW06	SW, M6	6	
	SW06S	SW, M6 (Stainless Steel Model)	6	
59	TE-065	Safety Switch Plate	1	
60	FMS0525	FMS, M5x25	2	
	FMS0525S	FMS, M5x25 (Stainless Steel Model)	2	
61	PW05	PW, M5	2	
62	SW05	SW, M5	2	

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
63	HN05	HN, M5	2	
65	TE-028	Roller	1	
66	TE-029	Pin	1	
	TE-029S	Pin (Stainless Steel Model)	1	
67	ER04	Snap Ring, E-4	2	
	ER04S	Snap Ring, E-4 (Stainless Steel Model)	2	
68	TD-097	Panel	1	
69	TD-098	Panel	1	
70	TL-070	Supporting Leg	4	
	TL-070S	Supporting Leg (Stainless Steel Model)	4	
71	HB0616	HB, M6x16	16	
	HB0616S	HB, M6x16 (Stainless Steel Model)	16	
72	SW06	SW, M6	16	
	SW06S	SW, M6 (Stainless Steel Model)	16	
73	PW06A	PW, M6 (A)	16	
	PW06AS	PW, M6 (A) (Stainless Steel Model)	16	
74	TMS0412	TMS, M4x12	1	

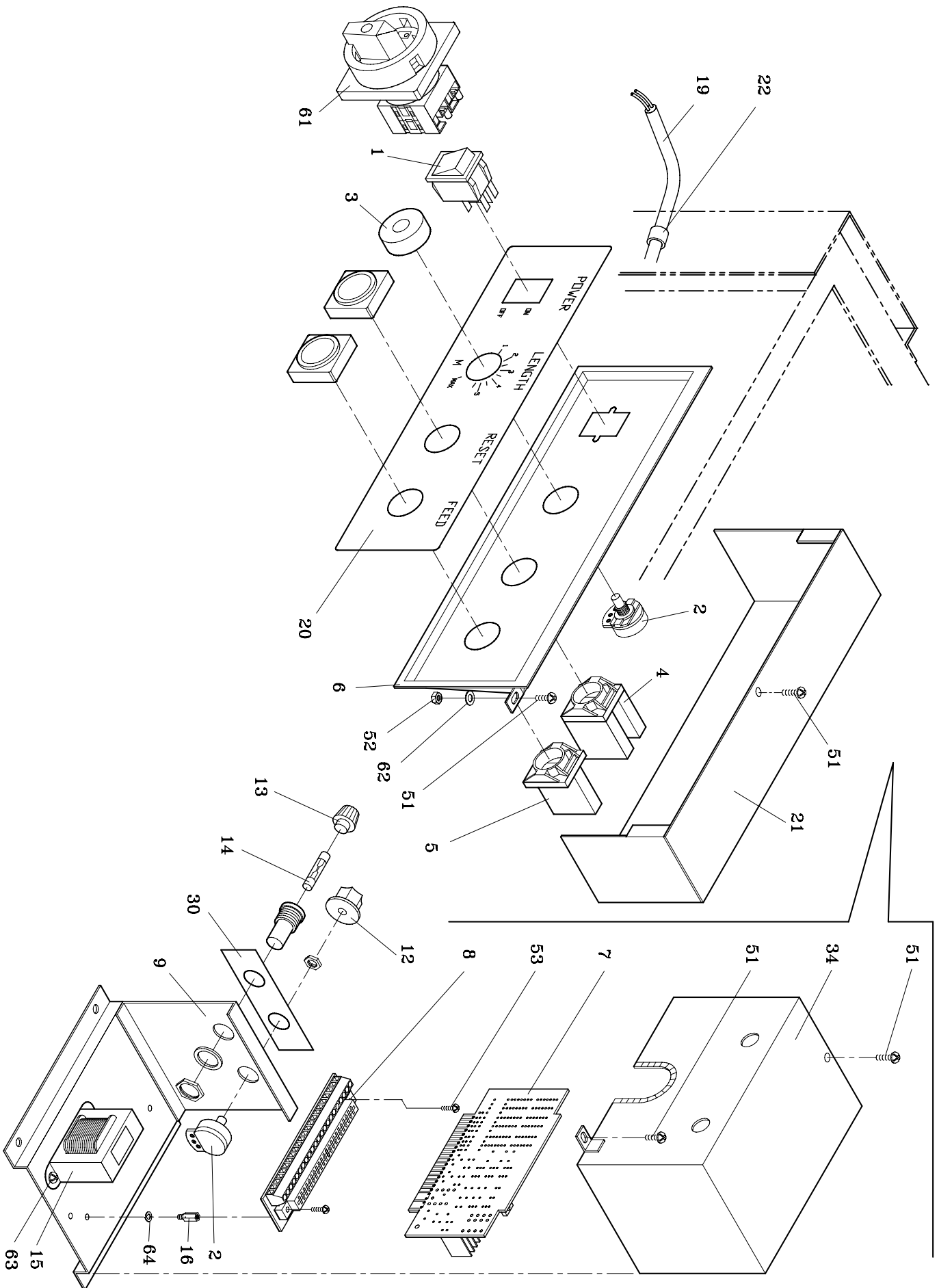
ELECTRIC PARTS DRAWING



REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
5	TF-005	Safety Switch Plate	1	
15	TF-015	Terminal Bracket	1	
16	TF-016	Cover (For CE)	1	
17	TF-017	P.C.B For Instant Heating (For 110V)	1	
	TF-017-1	P.C.B For Instant Heating (For 220V/230V/240V)	1	
18	TF-018	Safety Limit Switch (For CE)	1	
19	TF-019	Adiabatic Plate	1	
20	TF-020	Fan Cover	1	
21	TF-021	Fan (For 110V)	1	
	TF-021-1	Fan (For 220V/230V/240V)	1	
23	TF-023	Heater Transformer (For 110V)	1	
	TF-023-1	Heater Transformer (For 220V/230V/240V)	1	
	TG-045	Heater Transformer (Instant) (For 110V)	1	
	TG-045-1	Heater Transformer (Instant) (For 220V/230V/240V)	1	
23A	TF-023A	Heater Transformer Ass'y (For 110V)	1	
	TF-023A-1	Heater Transformer Ass'y (For 220V/230V/240V)	1	
	TG-045A	Heater Transformer Ass'y (Instant) (For 110V)	1	
	TG-045A-1	Heater Transformer Ass'y (Instant) (For 220V/230V/240V)	1	
24	TF-024	Transformer Cover	1	
25	TF-025	Knob	1	
26	TF-026	Name Plate	1	
27	TF-027	Selector Switch	1	
30	TF-029	Cover (For TP-203)	1	
31	TF-031	Switch Cover	1	
41	TJ-022	Fan Support	1	
42	T5-4-10310	Earth Plate (5P) (For CE)	1	
52	TMS0412	TMS, M4x12	1	
53	HB0620	HB, M6x20	2	
54	TMS0408	TMS, M4x8	4	
55	PMS0425	PMS, M4x25	2	

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
57	PMS0410	PMS, M4x10	8	
58	PMS0510	PMS, M5x10	6	
59	PMS0412	PMS, M4x12 (For TP-203)	8	
60	SW04	SW, M4 (For TP-203)	8	
61	SW06	SW, M6	2	
63	SW05	SW, M5	6	
66	PW06C	PW, M6 (C)	4	
67	PW05	PW, M5	2	
68	HN06	HN, M6	2	
70	HN04	HN, M4 (OPTION)	2	
73	T6-6-10260	Smoke Fan Bracket (OPTION)	1	
74	TMS0508	TMS, M5x8	2	
75	HN05	HN, M5	2	
76	PW04	PW, M4	4	
77	TMS0306	TMS, M3x6	2	
78	SW03	SW, M3	2	
79	HN03	HN, M3	2	
80	PMS03.515	PMS, M3.5x15	2	
81	PMS0408	PMS, M4x8	2	

CONTROL PANEL P.C. BOARD TYPE



REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	TG-001	Power Switch	1	
2	TG-002	Variable Resistor (1M Ω)	2	
3	TG-003	Knob	1	
4	TG-004	Push Button Switch (L)	1	
5	TG-005	Push Button Switch (R)	1	
6	TG-006	Control Panel	1	
7	TG-007	PC Board	1	
8	TG-008	PC Board Receptacle	1	
9	TG-009	Base	1	
12	TG-012	Knob	1	
13	TG-013	Fuse Holder	1	
14	T6-6-30133	Fuse (For 10A/110V AC)	1	
	T6-6-30034	Fuse (For 7A/220V/230V/240V AC)	1	
15	TG-015	Transformer (For 110V)	1	
	TG-015-1	Transformer (For 220V)	1	
	TG-015-2	Transformer (For 240V)	1	
16	TG-016	Bolt	1	
19	TG-019	Power Cord	1	
20	TG-020	Control Plate	1	
21	TG-021	Switch Cover	1	
22	TG-022	Grommet	1	
30	TG-030	Name Plate	1	
34	TG-034	Cover	1	
51	TMS0408	TMS, M4x8	6	
52	HN04	HN, M4	3	
53	TMS0312	TMS, M3x12	2	
61	TK-001	Main Power Switch (For CE)	1	
62	PW04	PW, M4	2	
63	PMS0408	PMS, M4x8	2	
64	SW03	SW, M3	2	

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