

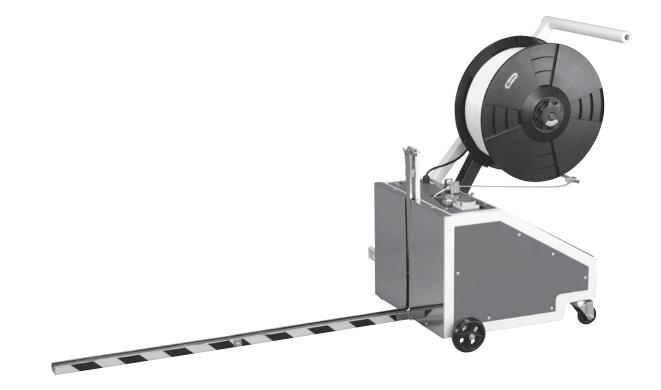
# SEMI-AUTO PALLET STRAPPING MACHINE



OPERATION, SAFETY & SPARE PARTS MANUAL

MINI VERTI

TP-202MV TP-202MVB (with battery)





Read All Instructions Before Operating This Product



# PART I

# **CONTENTS**

1. Safety Instructions	1
2. Construction and Units	3
3. General Safety Remarks	5
4. Machine Information	7
5. Operating the Machine	20
6. Adjustment	22
7. Maintenance	23
8. Troubleshooting Guide	28
9. Wiring Diagram	30



# **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) Before Operating

- a. Verify that the power line voltage is correct.
- b. The machine must be properly grounded to avoid a shock hazard. All wiring must be in accordance with local wiring standards.
- c. The strapping machine can only be operated with polypropylene (P.P.) strapping; do not use polyester (PET) strapping or polyethylene (PE) cord strap.

# (2) During Operation

- a. The height of the package should not be less than 280mm (11.06").
- b. Check if the machine emits any smokes or unusual sound when it is running.

## (3) After operating

- a. Remove dust and dirt from the unit.
- b. Turn off the power when the machine is not in use.

## (4) Signs



Caution! Hot! Do not touch!

## (5) Maintenance

- a. Turn off the power before removing either of the covers.
- b. Use the correct tools and parts to repair the machine.
- c. The heater tongue is very hot; do not touch it.



### (6) Storage

- a. The store room must be dry.
- b. Do not expose the machine to extreme cold or heat environment.
- c. Place the machine on an even floor in order to avoid any distortion.

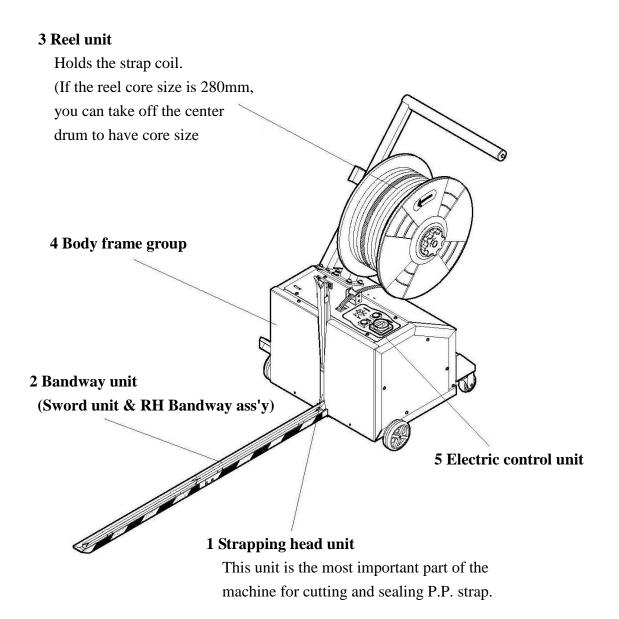
# (7) Other Reminders

- a. Do not alter or bypass protective interlocks.
- b. An operation manual must remain attached to the machine at all times.
- c. Do not alter the equipment or circuitry unless authorized to do so by the manufacturer.
- d. Do not operate the machine with the covers removed.
- e. Never put any part of your body near, under or into a moving machine.
- f. Do not overload the machine by exceeding the performance limitations specified in this manual.



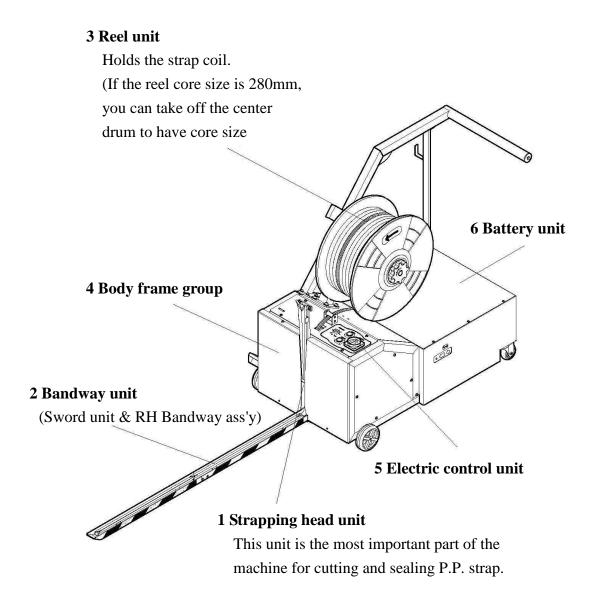
# 2. Construction and Units

# a. TP-202MV





## b. TP-202MVB





# 3. General Safety Remarks

## (1) Basic Operation

The manual and the safety remarks are to be read before use. The operation manual should be kept with the machine at all times for regular maintenance and inspections.

This machine was built with state of the art technology and rigid adherence to safety standards.

Unless used properly, it can cause injury to operators or persons in close proximity to the machine. In addition, improper use can cause damage to the machine or property around the machine.

### (2) Basic Safety Precautions

The user is to be instructed in all other generally applicable legal and other mandatory regulations relevant to accident prevention and environmental protection in addition to the operating instructions.

For safety reasons, long hair must be tied back or otherwise secured, garments must be close fitting and no jewelry may be worn.

Use protective equipment whenever required by circumstances or by law.

Carefully observe all safety instructions and warnings attached to the machine and make sure that they are always complete and perfectly legible.

Always make certain that persons being trained and instructed in working on or with the machine are permanently supervised by an experienced person.

Work on the electrical system and equipment of the machine is only to be carried out by a skilled electrician or by persons under the supervision and guidance of a skilled electrician and in accordance with the rules and regulations of electrical engineering.

## (3) Safety Instructions Governing Specific Operational Phases

Avoid any operation mode that might be unsafe.

All necessary precautions to ensure that the machine is only used being in a safe and reliable state are to be taken. The machine is only to be operated if all protective and safety devices, including removable safety devices, emergency shut-off equipment, noise-protection elements and exhaust systems are in right place and fully functional.

The machine is to be checked for damage and defects at least once per work shift. Any changes including the working behavior of the machine are to be reported to competent persons immediately. If necessary, the machine is to be stopped and locked immediately.

In case of any malfunction the machine must be stopped and locked until the defect has been eliminated.

Generally make sure that nobody is at risk before starting up the machine. All personnel that will be operating this machine should be thoroughly trained in all phases of operation and safety.

Always tighten unscrewed connections after maintenance and repair.

After completing maintenance and repair, all safety devices removed for setting up or repairing the machine must be reinstalled and checked for functionality prior to putting the machine back into service.

To minimize the environmental impact, all consumables and replaced parts must be disposed of safely.

Before starting the machine, check that the accessories have been stowed away safely.

Do not attempt any operation that may be a risk to the stability of the machine.

# (4) Warning of Electrical Dangers

Immediately remove power to the machine in case of trouble in the electrical system. Replace a fuse with one with the same style and ratings; pay particular attention to matching the specified current.

Any electrical work performed on the equipment must be conducted by a skilled electrician or under the supervision of a skilled electrician. All work must be observed good electrical engineering practice and follow safety rules and local wiring standards.

Inspect the electrical equipment of the machine at regular intervals. Tighten any loose connections. Check wiring for scorch marks; replace scorched wiring and determine and correct the reason for the overheating.

When working on live equipment, ensure that a second person is available to cut power in case of an emergency. When appropriate, secure the working area with safety tape and a warning sign. Use insulated tools for electrical work.

Before working on high-voltage assemblies, turn off the power supply. Carefully discharge the supply cable and short-circuit any energy-storage components such as capacitors.

If the equipment was moved, carefully refit and refasten all parts removed for transport before reapplying power.

Before moving the machine, remember to disconnect the power cable.

# (5) Grounding Instructions Shall Include the Following:

This product must be grounded. In the event of an electrical short circuit, grounding reduces the risk of electric shock. This product is equipped with a cord that has a grounding wire and an appropriate grounding plug. The plug must be plugged into an outlet that is properly installed and grounded in accordance with all local codes and ordinances.

If repair or replacement of the cord or plug is necessary, connect the ground wire to the ground terminal of the plug. The wire with green insulation (with or without yellow stripes) is the grounding wire.

Check with a qualified electrician or service person if the grounding instructions are not clear or if in doubt about the proper grounding of the machine. Do not modify the plug provided; if it will not fit the power outlet, have the proper outlet installed by a qualified electrician.

This product is designed for use on a nominal 120 (230) volt AC circuit and has a grounding plug.

#### **DANGER!**

Improper installation of the grounding can result in electrocution.

# 4. Machine Information

# (1) Areas of Application and Machine Description

This plastic strapping machine can be used for a wide range of applications where the minimum package height is at least 280mm.

This machine is particularly suitable for vertical low volume pallet strapping applications.

#### **Machine Description**

Semi-automatic plastic strapping machine for use with polypropylene strapping. Heavy duty construction.

Simple, safe and user-friendly operation.

With light weight and compact size, it is easy to move beside the pallet you want to strap. Handle is with feeding switch to feed the strap to the required length.

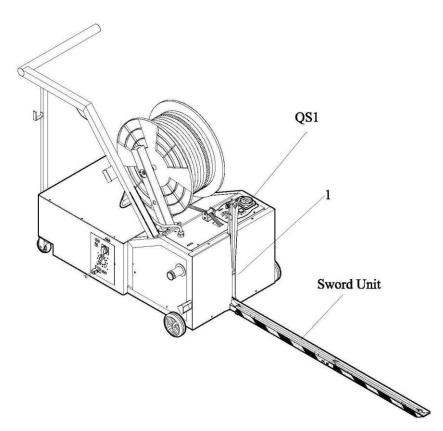
#### **Environment Information**

#### The strapping machine shall be installed in the following conditions:

- Supply voltage: 0.9 1.1 nominal supply voltage
- Source frequency: 0.99 1.01 nominal frequency
- Ambient temperature:  $5^{\circ}$ C  $40^{\circ}$ C ( $41^{\circ}$ F- $104^{\circ}$ F).
- Relative humidity: not exceed 50% at 40°C.
- Please provide a suitable illumination around the machine for safety operation.

# (2) The Safety Devices

This machine must only be operated with polypropylene strapping. The use of other synthetic straps may produce hazardous substances to health.



Caution!

Power Switch (QS1).

This switch is lockable for safety.

Danger of burns near the heating unit! (1)

Dangerous points in the machine are covered by the screwed table top.

For safety reason, please take off the Sword Unit and put it by the machine body when the machine is not operated, that is to prevent the people hitting or stepping the Sword Unit and will make the Sword Unit damage.

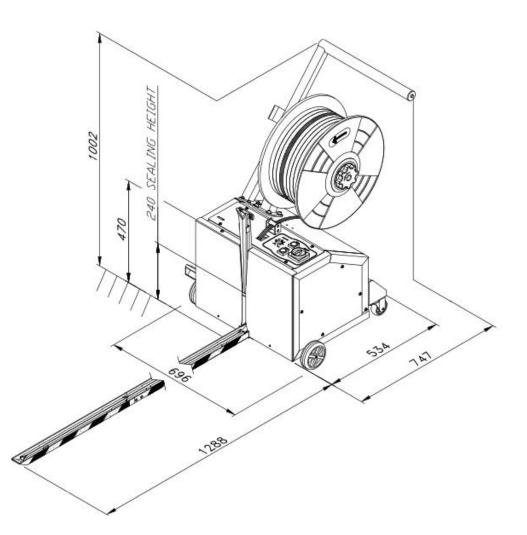
For safety reason, make sure the Sword Unit do not be hit or crushed when moving the machine.

# (3) Electrical Specifications

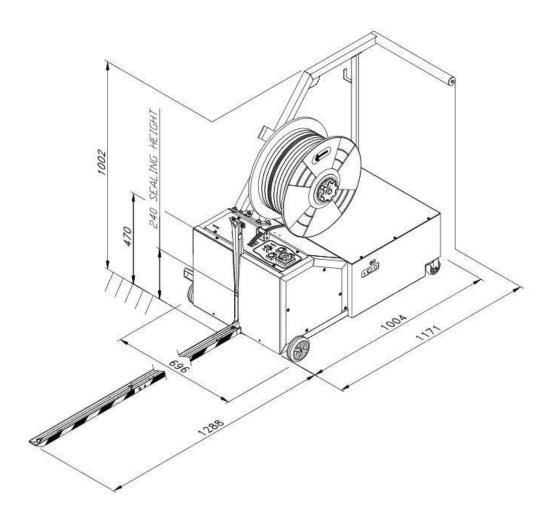
System configuration :	1L+N+PE (Ground)	1L+N+PE (Ground)
Nominal power :	0.5 KW	0.5 KW
Rated current :	7A	10A
Rated voltage :	220V/230V/240V	110V
Rated frequency :	50Hz	60Hz
Type of current :	AC - single phase	AC - single phase

# (4) Technical Data

# a. TP-202MV



Sealing method	Heat
Strap width :	9 mm to 15.5 mm (3/8" to 5/8")
Strap reel diameter :	200 mm (8")
Strap reel diameter(OPTION) :	280 mm (11")
Width :	696 mm (27.4")
Depth :	2035 mm (80.1")
Electrical Requirement :	AC 110V/220V/230V/240V
	(50/60Hz), 1PH
Weight :	85 kg (187 lbs.)
Noise emission :	78dB (A)
Ambient temp :	$5^{\circ}$ C ~ $40^{\circ}$ C ( $41^{\circ}$ F ~ $104^{\circ}$ F)

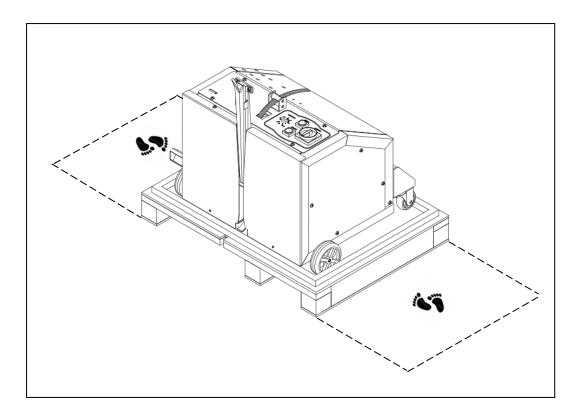


Sealing method	Heat
Strap width :	9 mm to 15.5 mm (3/8" to 5/8")
Strap reel diameter :	200 mm (8")
Strap reel diameter(OPTION) :	280 mm (11")
Width :	696 mm (27.4")
Depth :	2459 mm (96.8")
Electrical Requirement :	AC 110V/220V/230V/240V (50/60Hz), 1PH
Weight :	183 kg (403 lbs.)
Noise emission :	78dB (A)
Ambient temp :	5°C~40°C(41°F~104°F)



# (5) How to Remove/Handle the Machine from the Pallet

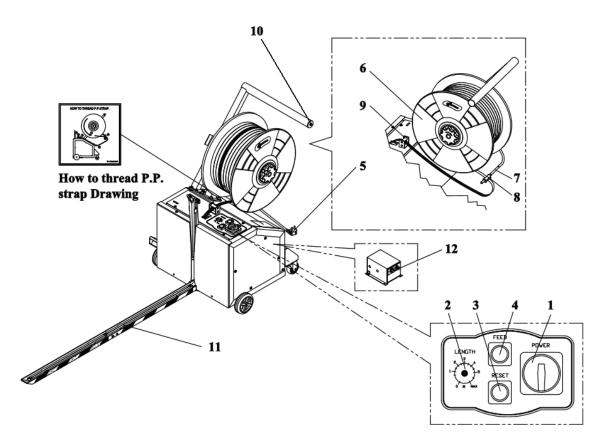
Two people stand on each side of the machine and remove the machine from the pallet to the floor.



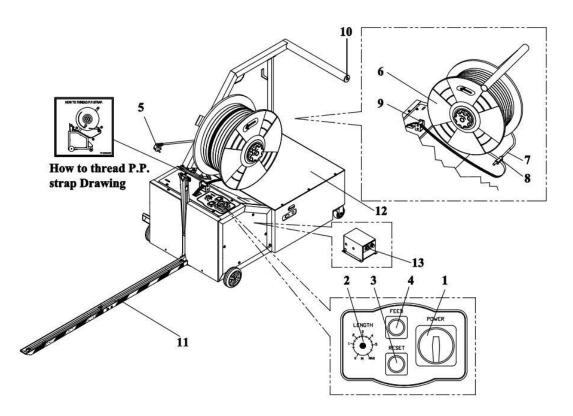


# (6) Machine and Operating Elements

# a.TP-202MV



(1) Power Switch	Supply the power when switch is ON.
(2) Feeding Length Knob	Strap is automatically fed according with 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 manually.
(5) Power Plug	To be connected to a 110V or 220V/230V/240V source.
(6) Strap Reel Slide on strap coil here. (If the reel core is 280mm, you	
	take off the center drum to have core size 200mm.)
(7) Brake	Stops the over-rotation of the strap reel.
(8) Strap Guide for Brake	Place strap on the Brake (7).
(9) Strap Bypass Guide	The strap is passed through this guide.
(10) Strap Feed Button	To feed strap out of machine manually.
(11) Sword Unit	To guide strap running through pallet.
(12) Weld cooling timer	To ensure good sealing efficiency under higher tension.



- (1) Power Switch(2) Feeding Length Knob
- (3) Reset Button
- (4) Strap Feed Button
- (5) Power Plug
- (6) Strap Reel

(7) Brake

- (8) Strap Guide for Brake
- (9) Strap Bypass Guide
- (10) Strap Feed Button
- (11) Sword Unit
- (12) Battery Unit
- (13) Weld cooling timer

Supply the power when switch is ON.

Strap is automatically fed according with the time preset by the knob.

- To pull strap back into machine and/or to cut off strap.
- To feed strap out of machine manually.

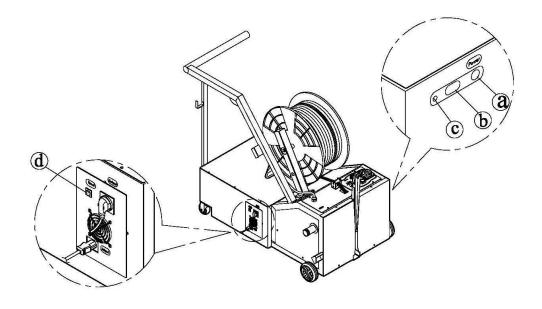
To be connected to a 110V or 220V/230V/240V source. Slide on strap coil here. (If the reel core is 280mm, you can take off the center drum to have core size 200mm.)

- Stops the over-rotation of the strap reel.
- Place strap on the Brake (7).

The strap is passed through this guide.

- To feed strap out of machine manually.
- To guide strap running through pallet.
- Supply the power through battery.
- er To ensure good sealing efficiency under higher tension.

#### c. UPS Operation Panel for TP-202MVB



- (a) Power Switch : It's to activate UPS.
- (b) LCD : It shows the potential of the battery.
- (c) LED : It shows the operation status of UPS. Green light means the power supply of either charging or strapping isn't from the battery but from the power company.

Red light means the power supply of the operation is from the battery.

(d) Reset : To operate the machine with battery power, you must press the power switch ⓐ first and then press "Reset" button for around 3 seconds.

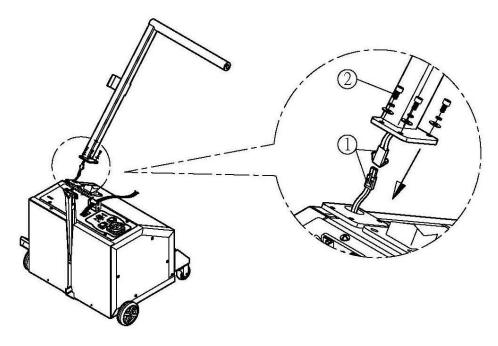


## (7) installation

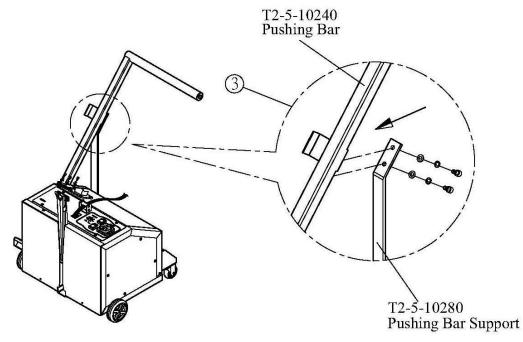
#### a. TP-201MV

#### (a) Installation of Pushing Bar

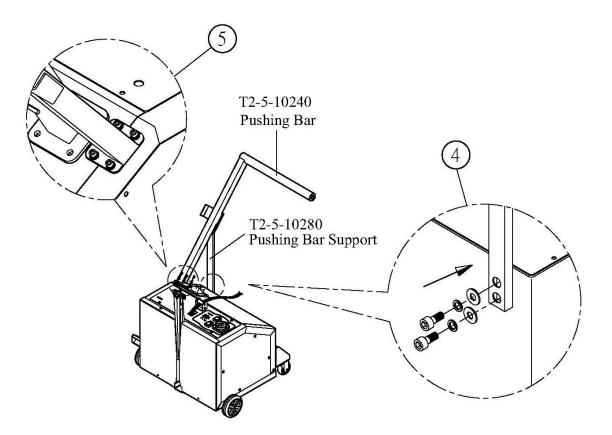
- ① Please connect the wiring plug of the pushing bar to the terminal of machine. Please refer to the illustration.
- 2 Put the pushing bar to the 4 M6 screw holes and then hand tighten the 4 sets of bolts (HBS0616N, SW06 & PW06A)



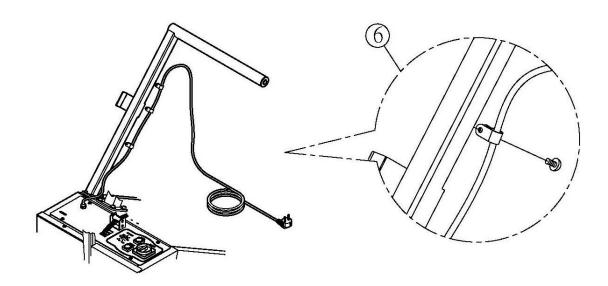
③ Put the pushing bar support under the pushing bar and lock it onto pushing bar with 2 sets of M8 bolts and washers.



- ④ Also tighten the pushing bar support to the frame with 2 sets of M8 bolts and washers.
- (5) Tighten the 4 sets of M6 bolts and washers that you just hand tighten on the step 2.



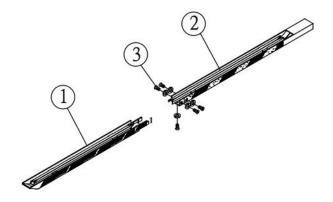
6 After fixing the pushing bar, fasten the power cord with cable clamps and screws TMS0408N on the pushing bar.





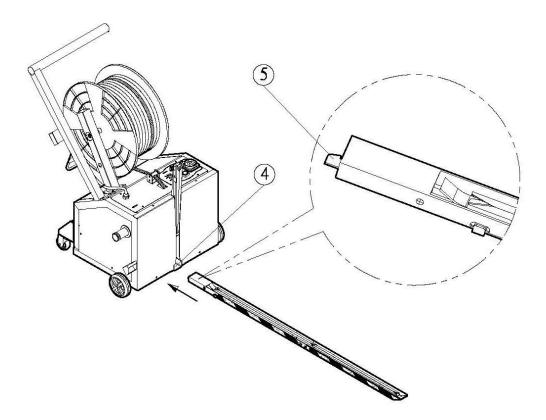
#### (b) Sword Assembling

Lock Bandway Ass'y (LH) ① and Bandway Ass'y (RH) ② in place by FMS0610 ③.



#### (c) Install the sword to the machine body

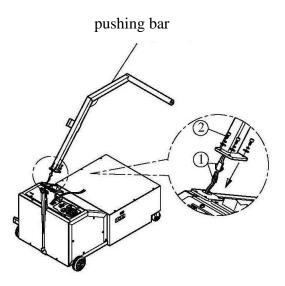
Fit the sword into the Block 4 at the bottom of the machine until the sword is locked in place. Make sure that the sword is hitched in with the hook 5.



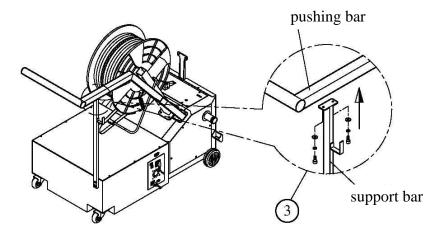
#### b. TP-201MVB

#### (a) Installation of Pushing Bar

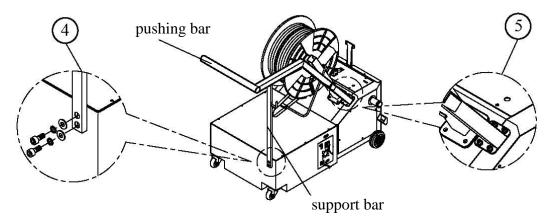
- Please connect the wiring plug of the pushing bar to the terminal of machine. Please refer to the illustration.
- ② Put the pushing bar to the 4 M6 Screw holes and then hand tighten the 4 sets of bolts and washers.



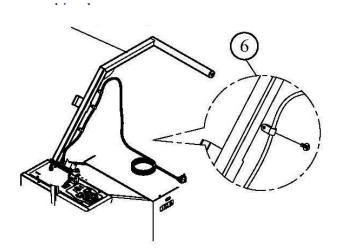
③ Put the support bar under the pushing bar and lock it onto pushing bar with 2 sets of M6 bolts and washers.



- ④ Also tighten the support bar to the battery frame with 2 sets of M6 bolts and washers.
- 5 Tighten the 4 sets of M6 bolts and washers that you just hand tighten on the step 2.

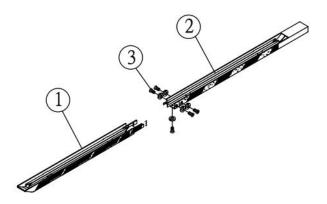


 After fixing the pushing bar, fasten the power cord with cable clamps and screws TMS0408N on the pushing bar.



#### (b) Sword Assembling

Lock Bandway Ass'y (LH) ① and Bandway Ass'y (RH) ② in place by FMS0610 ③.



#### (c) Install the sword to the machine body

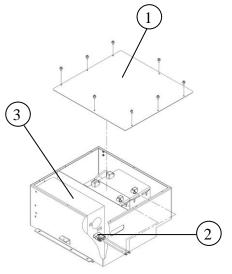
Fit the sword into the Block 4 at the bottom of the machine until the sword is locked in place. Make sure that the sword is hitched in with the hook 5.

#### (d) Plug the connector from battery to UPS

- 1. Loosen the screws of Battery Cover (1) and remove it.
- 2. Plug the Battery Wire ② to the housing ③ of UPS.
- 3. Put Battery cover ① back and fix it with screws.

## (e)Plug the Power Cord (MV-6-10060/MV-6-10061) in the Output socket on the back of the UPS





- 19 -

# 5. Operating the Machine

# (1) How to Load P.P Strap

Please make sure the power is off before you load the strap in the reel.

### Step 1

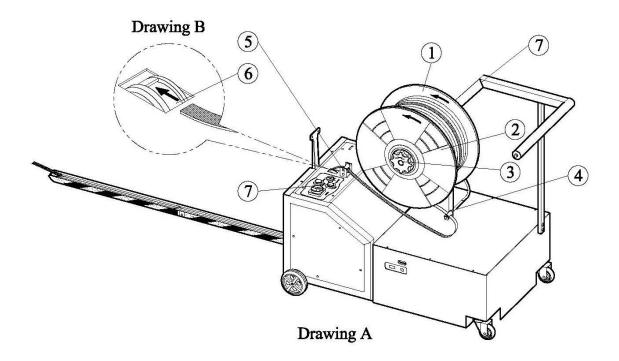
Please pay attention to the direction mark on the Outer Flange ②. Put a coil of strap into the Inner Flange ① according to the direction mark. Then install the Outer Flange ② and tighten the reel nut handle ③. (refer to following drawing A)

#### Step 2

Pull out some strap to thread it through the roller ④ on the Break Arm as well as two rollers ⑤. Then bend the strap a little to let strap tip can be fed smoothly into roller ⑥ about 10cm or longer. (refer to following drawing B)

### Step 3

Turn on the power switch.



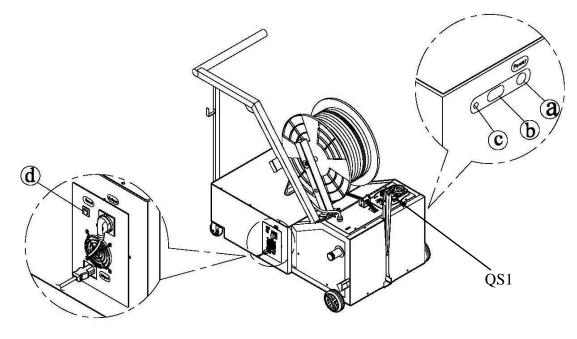


# (2) How to Operate

#### a. TP-202MV

- 1. Turn main switch QS1 to ON. The heating element will reach the working temperature at approximately 2 minute.
- 2. Push the machine to let the sword unit pass through to the pallet. Have the front plate of the machine close to the package.
- 3. Pull up the strap end around the package and insert the tip of the strap into the strap inlet to activate the strapping cycle. Then, the strapping cycle is completed.
- 4. Move the machine away from the package. Be sure the whole sword unit is totally out of the package.

#### b. TP-202MVB

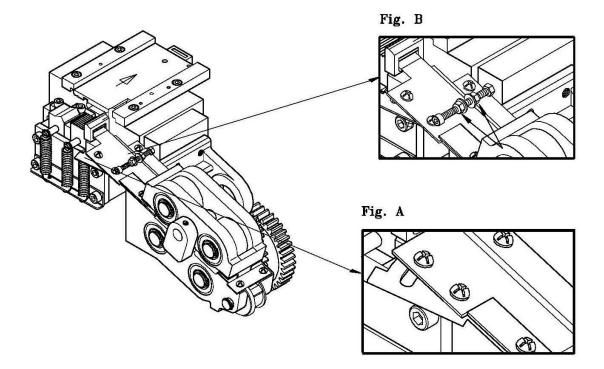


- 1. Press the Power Switch of UPS (a).
- 2. When operate the machine with only battery power, press the Reset button (d) on the UPS for around 3 seconds until the battery starts to supply the power(LED turns red).
- 3. Turn main switch QS1 to ON. The heating element will reach the working temperature in approximately 2 minutes.
- 4. Push the machine to let the sword unit pass through to the pallet. Have the front plate of the machine close to the package.
- 5. Pull up the strap end around the package and insert the tip of the strap into the strap inlet to activate the strapping cycle. Then, the strapping cycle is completed.
- 6. Move the machine away from the package. Be sure the whole sword unit is totally out of the package.
- 7. After operation, please turn off switch QS1 before turning off UPS.

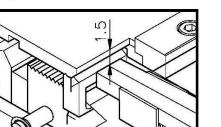
# 6. Adjustment

# (1) Strap Width

Adjustment for strap in different width can be done with screw driver and wrench. The adjustment must be made in Three places, Fig.A. Fig.B. Fig.C. as shown below. For A, the width of band guide should be at 12.5mm when using 9mm and 12mm, strap and the width of band guide should be at 15.5mm when using 15mm strap. For B, when you install the RH Bandway ass'y, you need to adjust the position of two nuts in Fig. B to set the RH Bandway ass'y on the good position. (Center of down layer Strap) and adjust the height of RH Bandway ass'y about 1.5mm lower then slide table. (Fig .C)







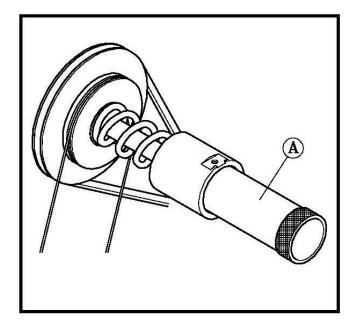
When you change the strap width you need to change the parts as show in follow detail :

Part Band	9mm	12mm	15.5mm	
RH Bandway ass'y	T6-2-11001	T6-2-11000	T6-2-11002	
Corrector	TB-256	TB-256		
Bandway			T2-1-10141	

# (2) Outside Tension Adjustment

The adjustment is made by tensioning adjustment tube A which is located at the left side of the machine.

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

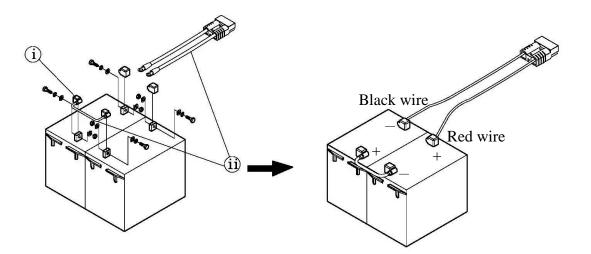


# 7. Maintenance

## (1) Maintenance of the Battery

- a. The temperature of the battery shouldn't be higher than  $50^{\circ}$ C whenever it is.
- b. Keep the terminal of the battery and the environment clean and dry. Be sure to mop the dust or liquid on the battery whenever there is any. (Note: it's necessary to keep the top of the battery clean and dry because dust or humidity could be electric conduction).
- c. Be sure to check the connection between the UPS and the battery before charging.Check the condition of the poles and the wires. Make sure the terminal brackets at the battery side are installed correctly.
- d. Fully charge (charge battery over 24 Hours) the battery when battery isn't used exceed 3 months.
- e. Note whether the battery is too old (can not charge the single battery over 13 Voltage) or dead (the capacity of the battery drop dramatically). It will be dangerous if doing the charging process on an old/dead battery because the temperature of the battery will rise while charging.
- f. When the battery is dead, both batteries need to be changed at the same time.

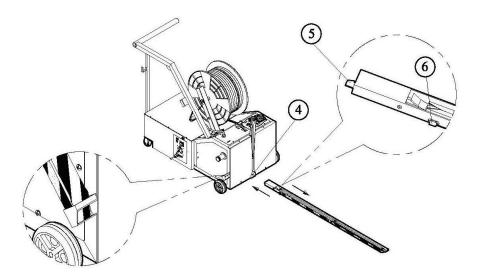
- g. How to replace the battery:
  - (i) Fix 4 terminal brackets (on the wires for the battery) to the positive and negative pole of the battery accordingly. (refer to the illustration)
  - (ii) Connect the UPS and the battery with the connection wire. The shorter wire is to connect the positive and negative pole of the battery. As to the longer wire (with black and red wires), connect the black wire to the negative pole of the battery, and the red wire to the positive pole of other battery; connect the other side of the wire to the battery socket on the UPS. Make sure each part is connected correctly and firmly. (refer to the illustration)
  - (iii) Put grease on each and every pole to avoid pitting. The pitting will influence the charging/discharging efficiency, and also dangerous.





# (2) Disconnect the Sword Unit from machine if it would not be used for a long time.

Press the release button <sup>(6)</sup> located on the right side of the sword to disassemble the sword from the machine. Place the sword to the prearranged place.



## (3) How to Charge the Battery

- 1. Plug the power wire of UPS to socket.
- 2. The LCD (P14) of UPS would show current battery state.
- 3. After 30 seconds, UPS would sound Bz Bz continuously for around 10 seconds.
- 4. It takes around 12 hours for charging.

Note the following points while charging:

- i. Avoid water and direct sun light.
- ii. Make sure it's situated somewhere ventilating.
- iii. Stay away from fire.
- iv. Avoid high-temperature environment. The temperature of the battery shouldn't be higher than  $50^{\circ}$ C.
- v. Charging at flat surface. Avoid positing it on slope.
- vi. Avoid shock and dust.
- vii. Prevent short between positive pole and negative pole of the battery.

# (4) Maintenance of the Machine

Before any maintenance or repairs on the machine, set the Main Power Switch to ''O'' (OFF). Wait about 5 minutes for cooling down the heater to avoid burns with this area.

# 1. Cleaning and Lubrication

The high reliability and long service life of the strapping machine will depend on regular cleaning and maintenance.

**ATTENTION!** 

All the important strap transport components, such as the tension rollers and the strap guides, must be kept free from oil and grease. (lubricant)

The lubricant has to be non-resinous. The lubricant is SAE 30

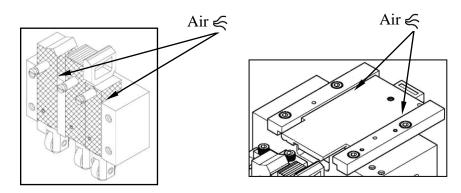
### 2. Maintenance

Only use original spare parts supplied by manufacturer.



#### Daily:

Use air gun to clean the circled positions (nearby the cutters, strap guide daily Remove plastic residue in the machine.



#### Weekly:

Lubricate front bar, press bar and rear bar weekly. Please refer to the above mesh areas for instruction.

Before lubricating, be sure to clean the parts first to avoid mixing oil and debris which might have a bad effect on machine's function.

#### Monthly :( or 3,000 strapping cycles)

Clean both sides of heater plate and polish with fine sandpaper if necessary.

#### ATTENTION: Make sure the welding plate is cool first!!

Check cam rollers of seal head for easy movement. Slide table back to home position automatically by the spring tension.

Be sure to clean any debris in the tension roller.

#### 6 Months: (or 18,000 strapping cycles)

Check heater plate, replace and readjust it if necessary.

Check strap cutter in seal head, replace it if necessary.

Check that connector at wiring loom to printed circuit board is firmly fixed.

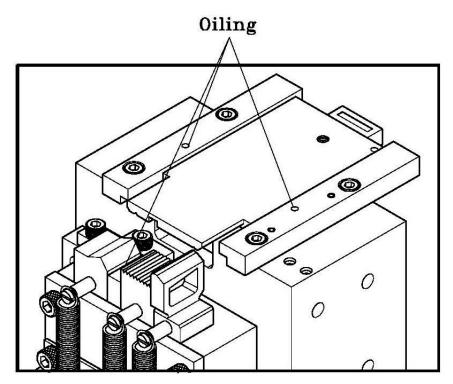
Make machine ready for operation. Strap one bundle manually several times, paying attention to mal-functions, repeat procedure.

#### 1 year :( or 36,000 strapping)

Replace deflection roller if it shows visible changes.

In case of loud noise at bearings: locate them, replace the bearings.

Get machine ready for operation again, strap one bundle manually several times, paying attention to malfunctions.

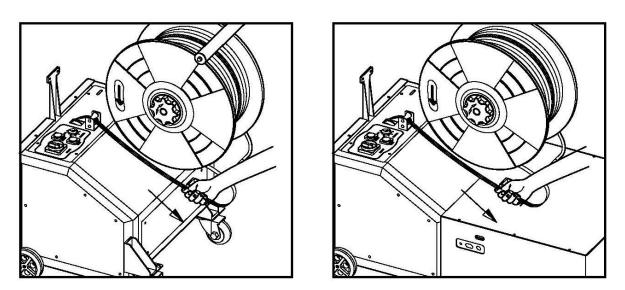




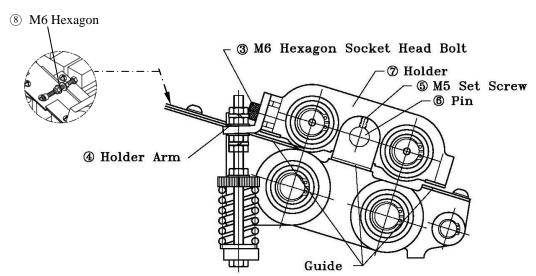
# 8. Troubleshooting Guide

#### (1) Strap Jams in the Groove

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



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

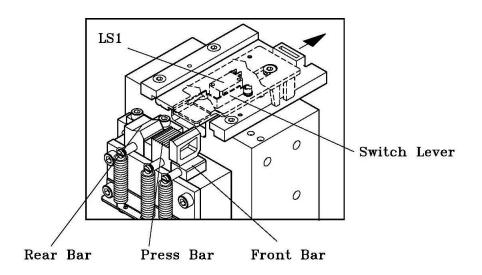


- (a) Loosen M5 Set screw (Part No. 5).
- (b) Remove Pin (Part No. 6) then lift Holder (Part No. 7) and repeat step 1. If this is not successful, continue.
- (c) Remove the RH Bandway ass'y.
- (d) Remove the M6 screw (Part No. 8).
- (e) Remove M6 Hexagon Socket Head Bolt (Part No. 3).
- (f) Lift out Holder (Part No. 7) and eliminate jam.
- (g) Reassemble from (f) back to (a).

# (2) The Strap Does Not Feed Past the Infeed Guide

This failure is caused when the front bar is in the raised position (previous cycle has not been completed). Turn the power switch "off ", then "on" again.

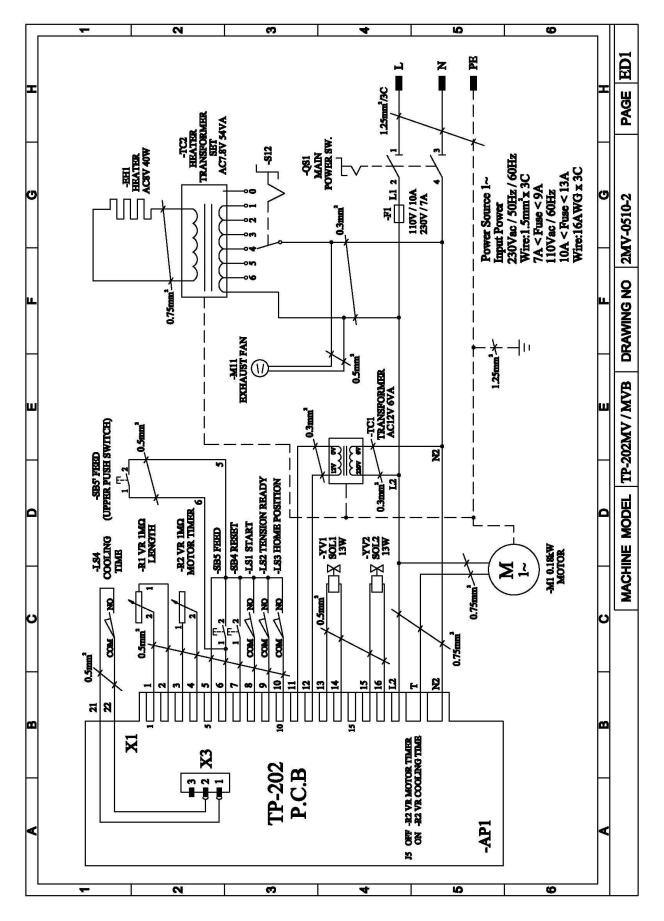
If this does not eliminate the failure, adjust the lever for LS1 to allow LS1 to be activated and de- activated correctly.



\*More trouble shooting guide is on request.



# 9. Wiring Diagram



shape	classification	shape	classification
	HBS	C	ER
Ŷ	TMS	Ô	RR
Ŷ	PMS	0	SR
(3) (3) (3) (3) (3) (3) (3) (3) (3) (3)	FMS	0	SP
<b>A</b>	HB		BR
	THS	$\Theta$	MB
	HSS	0	КҮА
$\bigcirc$	САР	0	КҮВ
0	HN	Ø	KYC
Ś	WN	Ø	HBW
8	FLG	0	<b>PWA</b> § 8x § 12~ § 16x0.4~0.8t § 6x § 13~ § 14x0.8~1.5t
9	NTE	0	PWB § 8x § 14~ § 16x1.3~1.5t § 6x § 15~ § 16x1.0~1.5t
8	PN	0	<b>PWC</b> § 8x § 20~ § 23x2.0t § 6x § 16~ § 19x2.0t
0	PW	0	PWD
Ø	SW	0	DS
$\odot$	TW		TTP
0	BWW		FTP

shape	classification	shape	classification
Colored .	T2-6-30230		T2-6-30240
	UPS Outlet		UPS Cable
	(Europe)		(Europe)
	T2-6-30231		T2-6-30241
	UPS Outlet		UPS Cable
	(America)		(America)



# PART II

# **CONTENTS**

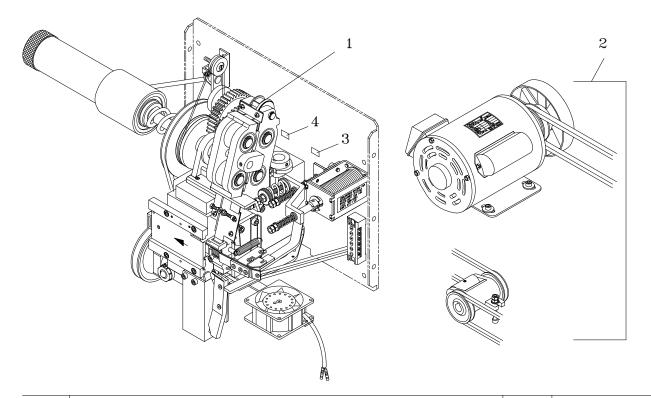
1.	Strapping Head Unit1
2.	Bandway Unit17
3.	Reel Unit
4.	Body Frame Group 25
5.	Electric Control Unit
6.	Battery Unit



1

# **STRAPPING HEAD UNIT**

T2-1-90016 T2-1-90017



REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
	T2-1-90016	Strapping Head Unit		
		(For 110V, 9mm~12mm)		
	T2-1-90017	Strapping Head Unit (For 110V, 15.5mm)	1	
	T2-1-90018	Strapping Head Unit	1	
		(For 220V, 9mm~12mm)		
	T2-1-90019	Strapping Head Unit (For 220V, 15.5mm)	1	
	T2-1-90020	Strapping Head Unit	1	
		(For 240V, 9mm~12mm)		
	T2-1-90021	Strapping Head Unit (For 240V, 15.5mm)	1	
1	T2-1-10013	Strapping Head Group	1	SEE PAGE 3
		(For 110V, 9mm~12mm)		
	T2-1-10014	Strapping Head Group (For 110V, 15.5mm)	1	SEE PAGE 3
	T2-1-10017	Strapping Head Group	1	SEE PAGE 3
		(For 220V~240V, 9mm~12mm)		
	T2-1-10019	Strapping Head Group	1	SEE PAGE 3
		(For 220V~240V, 15.5mm)	1	

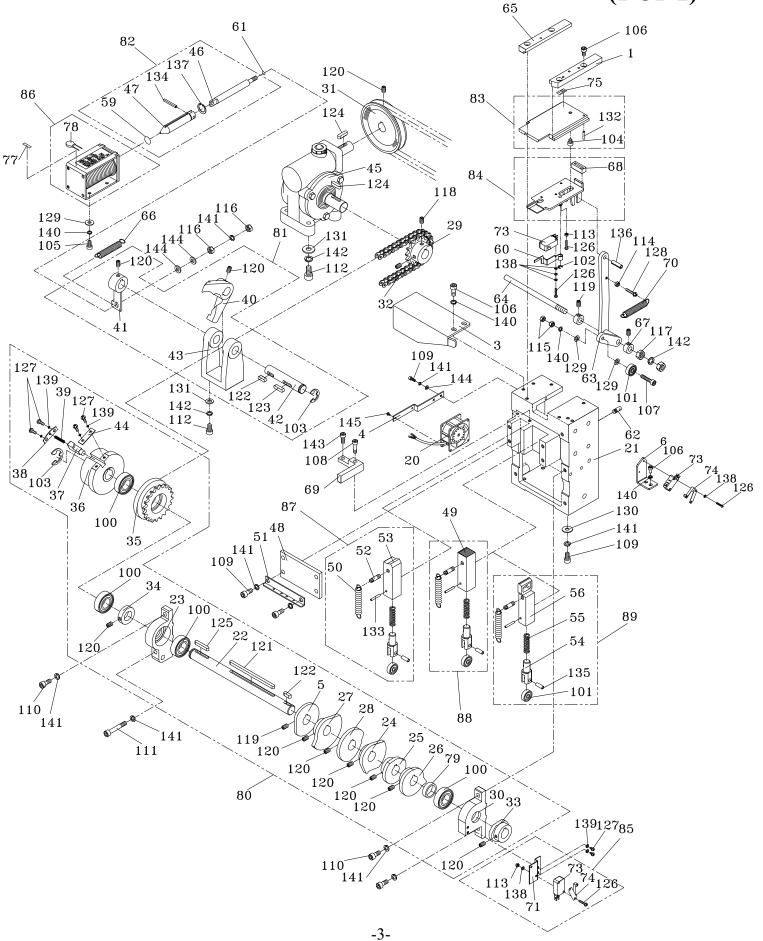
# **STRAPPING HEAD UNIT**

1

#### T2-1-90016 T2-1-90017

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
2	T2-1-20000	Bracket Gruop (For 110V)	1	SEE PAGE 15
	T2-1-20001	Bracket Gruop (For 220V)	1	SEE PAGE 15
	T2-1-20002	Bracket Gruop (For 240V)	1	SEE PAGE 15
3	LA-50082	Label (LS-3)	1	
4	LA-50095	Label (LS-4)	1	

T2-1-10013 T2-1-10014 (1 OF 2)



## **STRAPPING HEAD GROUP**

#### T2-1-10013 T2-1-10014 (1 OF 2)

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
	T2-1-10013	Strapping Head Group	1	
		(For 110V, 9mm~12mm)		
	T2-1-10014	Strapping Head Group	1	
		(For 110V, 15.5mm)		
	T2-1-10017	Strapping Head Group	1	
		(For 220V~240V, 9mm~12mm)		
	T2-1-10019	Strapping Head Group	1	
		(For 220V~240V, 15.5mm)		
1	$T_{2}$ 1 10010	$C_{-1}$ ( <b>D</b> )	1	
1	T2-1-10010	Guide (R)	1	
3	T2-1-10030	Protect Cover	1	
4	T2-1-10040	Fan Support	1	
5	T2-1-10050	Spacer	1	
6	T2-5-10310	Micro Switch Bracket	1	
20	TF-021-B	Fan (For 110V)	1	
	TF-021-1B	Fan (For 220V/230V/240V)	1	
21	T5-1-10110	Main Body Block	1	
22	TA-003	Cam Shaft	1	
23	TA-008-2	Bearing Support (L)	1	
24	TA-012A	Grip Cam	1	
25	TA-012B	Grip Cam	1	
26	TA-014	Separator Cam	1	
27	TA-015A	Rear Bar Cam	1	
28	TA-015B	Heater Cam	1	
29	TA-016	Sprocket	1	
30	TA-017-2	Bearing Support (R)	1	
31	TA-018	Pulley	1	
32	TA-022	Chain	1	
33	TA-024	Back Cam	1	
34	TA-025	Collar	1	

T2-1-10013 T2-1-10014 (1 OF 2)

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
<u>35</u>	TA-027	Sprocket	1	
36	TA-028	Housing		
37	TA-029	Pin	1	
38	TA-030	Holder	1	
39	TA-032	Spring		
40	TA-033	Stop Arm		
41	TA-034	Clutch Arm	1	
42	TA-035	Shaft	1	
43	TA-037	Clutch Support	1	
44	TA-040	Guide	1	
45	TA-042	Gear Box	1	
46	TA-058	Pull Shaft	1	
47	TA-060	Solenoid Shaft	1	
48	TA-067	Bar Guide Lid	1	
49	TA-069	Press Bar	1	
50	TA-071	Return Spring	3	
51	TA-072	Spring Hook	1	
52	TA-073	Spring Hook	3	
53	TA-074	Rear Bar	1	
54	TA-075	Plunger	3	
55	TA-078	Spring	3	
56	TA-079	Front Bar	1	
59	TA-086	Seal	1	
60	TA-087	Switch Lever	1	
61	TA-088	Seal (Small)	1	
62	TA-089	Spring Hook	1	
63	TA-090	Arm	1	
64	TA-094	Shaft	1	
65	TA-095	Guide (L)	1	
66	TA-114	Spring	1	
67	TA-229	Collar	2	
68	TA-236	Rubber Buffer	1	
69	TA-239	Cutter Holder	1	
70	TB-114	Return Spring	1	

## **STRAPPING HEAD GROUP**

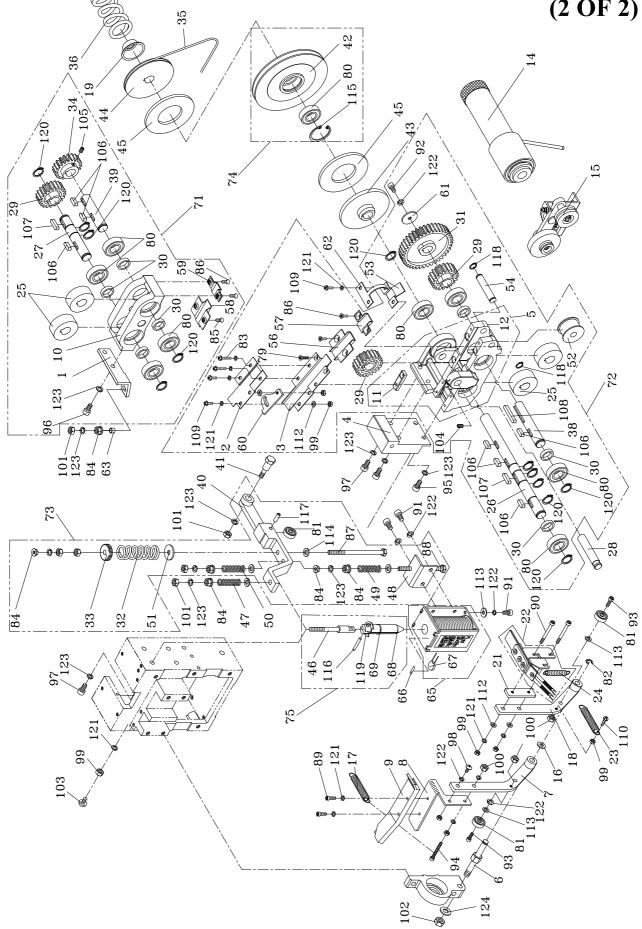
#### T2-1-10013 T2-1-10014 (1 OF 2)

REF.				
NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
71	TF-002	Micro Switch Bracket	1	
73	TF-006	Micro Switch (LS-1, LS-3)	3	
74	TF-009	Switch Trigger	2	
75	LA-50080	Label	1	
77	LA-50084	Label (SOL-2)	1	
78	TF-071	Varistor	1	
79	TA-241	Spacer	1	
80	T2-1-10200	Cam Ass'y	1	
81	TA-035A	Stop Arm Ass'y	1	
82	TA-058A	Pull Shaft Ass'y	1	
83	T2-1-10240	Slide Ass'y	1	
84	TA-083A	Separator Ass'y	1	
85	TF-002A	Micro Switch Bracket Ass'y	1	
86	TF-003A	D.C.Solenoid Ass'y (For 110V)	1	
	TF-003A-1	D.C.Solenoid Ass'y	1	
		(For 220V/230V/240V)		
87	T5-1-13000	Rear Bar Ass'y	1	
88	T5-1-14000	Press Bar Ass'y	1	
89	T5-1-15000	Front Bar Ass'y	1	
100	BR6003ZZ	Bearing, 6003ZZ	4	
101	BR635ZZ	Bearing, 635ZZ	4	
102	ER03	Snap Ring, E-3	1	
103	ER12	Snap Ring, E-12	2	
104	HBS0505.2	HBS, M5x5.2	1	
105	HBS0510	HBS, M5x10	4	
106	HBS0512	HBS, M5x12	8	
107	HBS0525	HBS, M5x25	1	
108	HBS0525H	HBS, M5x25 (H)	1	
109	HBS0616	HBS, M6x16	16	
110	HBS0620	HBS, M6x20	3	
111	HBS0645H	HBS, M6x45 (H)	1	
112	HBS0820	HBS, M8x20	4	

T2-1-10013 T2-1-10014 (1 OF 2)

REF.	PART NO.	DESCRIPTION	Q'TY	REMARKS
NO.			`	
113	HN03	HN, M3	1	
114	HN04	HN, M4	1	
115	HN05	HN, M5	2	
116	HN06	HN, M6	2	
117	HN08	HN, M8	2	
118	HSS0506G	HSS, M5x6 (G)	2	
119	HSS0606G	HSS, M6x6 (G)	3	
120	HSS0608G	HSS, M6x8 (G)	10	
121	KYA0505101	Key, 5x5x101	1	
122	KYA050515	Key, 5x5x15	2	
123	KYA050520	Key, 5x5x20	1	
124	KYA050525	Key, 5x5x25	2	
125	KYA050530	Key, 5x5x30	1	
126	PMS0315	PMS, M3x15	8	
127	PMS0408	PMS, M4x8	6	
128	PMS0420	PMS, M4x20	1	
129	PW05	PW, M5	2	
130	PW06C	PW, M6 (C)	8	
131	PW08C	PW, M8 (C)	4	
132	SP0314	Spring Pin, 3x14	1	
133	SP0318	Spring Pin, 3x18	3	
134	SP0414	Spring Pin, 4x14	1	
135	SP0514	Spring Pin, 5x14	3	
136	SP0620	Spring Pin, 6x20	1	
137	SR12	Snap Ring, S-12	1	
138	SW03	SW, M3	5	
139	SW04	SW, M4	4	
140	SW05	SW, M5	9	
141	SW06	SW, M6	17	
142	SW08	SW, M8	5	
143	HBS0516	HBS, M5x16	2	
144	PW06A	PW, M6 (A)	4	
145	PMS0510	PMS, M5x10	2	

T2-1-10013 T2-1-10014 (2 OF 2)



#### T2-1-10013 T2-1-10014 (2 OF 2)

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	T2-1-10060	Holder Arm	1	
2	T2-1-10082	Outlet Cover	1	
3	T2-1-10071	Outlet Guide	1	
4	T2-1-10090	Bracket	1	
5	T2-1-10101	Bracket Sub Ass'y	1	
6	T2-1-10110	Pin	1	
7	T2-1-10120	Heater Arm	1	
8	T2-1-10130	Bracket	1	
9	T2-1-10140	Bandway (For 9mm~12mm)	1	
	T2-1-10141	Bandway (For 15mm)	1	
10	T2-1-10172	Holder	1	
11	T2-1-10250	Plate	2	
12	T2-1-10102	Bracket	1	
14	T2-1-11000	Tube Ass'y	1	SEE PAGE 13
15	T2-1-12000	Roller Bracket Ass'y	1	SEE PAGE 14
16	T7-3-20200	Spacer	1	
17	T6-1-72140	Spring	1	
18	TB-102	Heater Arm	1	
19	TB-224	Spring Retainer	1	
21	TB-107	Side Plate	1	
22	TB-113	Heater Ass'y	1	
23	TB-114	Return Spring	1	
24	TB-115	Spring	1	
25	TB-117	Roller	4	
26	TB-118A	Shaft	1	
		(For Outside Tension Adjustment)		
27	TB-122	Shaft	1	
28	TB-124	Pin	1	
29	TB-127	Gear	3	
30	TB-128	Collar	7	
31	TB-129	Feed Gear	1	
32	TB-130	Spring	1	
33	TB-133	Nut	1	
34	TB-134	Gear	1	
35	TB-143	Round Belt	1	

T2-1-10013 T2-1-10014 (2 OF 2)

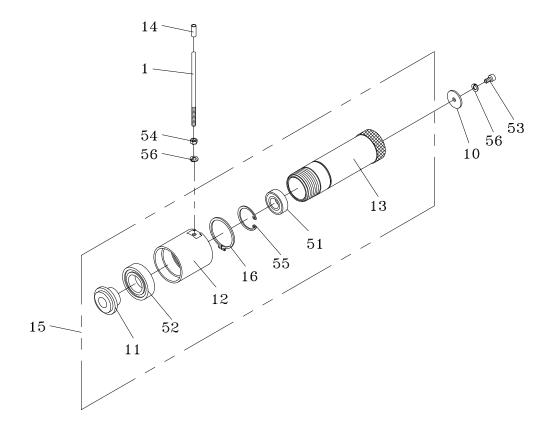
REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
<u> </u>	TB-154	Spring	1	
20		~pring		
38	TB-162	Shaft	1	
39	TB-164	Shaft	1	
40	TB-165	Feed Arm	1	
41	TB-168	Arm Pin	1	
42	TB-170	Pulley	1	
43	TB-175	Plate	1	
44	TB-175A	Plate	1	
45	TB-176	Friction Disc	2	
46	TB-177	Pull Shaft	1	
47	TB-183	Spring	1	
48	TB-184	Stop Bracket	1	
49	TB-186	Spring	1	
50	TB-187	Spring	1	
51	TB-189	Retainer	1	
52	TB-192	Roller	1	
53	TB-193	Cover	1	
54	TB-199	Pin	1	
56	TB-203	Guide	1	
57	TB-205	Guide	1	
58	TB-206	Cover	1	
59	TB-207	Cover-Side	1	
60	TB-209	Band Plate	1	
61	TB-223	Washer	1	
62	TB-256	Corrector	1	
63	TB-262	Tube	1	
65	TF-003A	D.C.Solenoid Ass'y (For 110V)	1	
	TF-003A-1	D.C.Solenoid Ass'y	1	
		(For 220V/230V/240V)		
66	LA-50083	Label (SOL-1)	1	
67	TF-071	Varistor	1	
68	TA-060	Solenoid Shaft	1	
69	TA-086	Seal	1	

#### T2-1-10013 T2-1-10014 (2 OF 2)

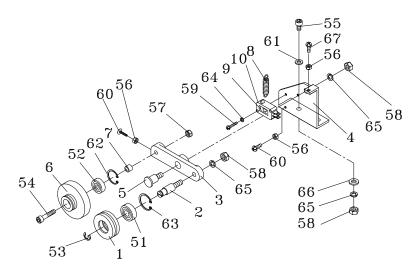
REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
71	T2-1-10182	Roller Holder Ass'y	1	
72	T2-1-10232	Bracket Ass'y	1	
73	TB-165A	Feed Arm Ass'y	1	
74	TB-170A	Pulley Ass'y	1	
75	TB-177A	Pull Shaft Ass'y	1	
79	FMS0412	FMS, M4x12	2	
80	BR6002ZZ	Bearing, 6002ZZ	9	
81	BR635ZZ	Bearing, 635ZZ	3	
82	ER06	Snap Ring, E-6	1	
83	PMS0416	FMS, M4x16	2	
84	FLG06	FLG, M6	6	
85	FMS0406	FMS, M4x6	2	
86	FMS0408	FMS, M4x8	8	
87	HB06100	HB, M6x100	1	
88	HB0680	HB, M6x80	1	
89	HBS0416	HBS, M4x16	2	
90	HBS0440H	HBS, M4x40 (H)	2	
91	HBS0510	HBS, M5x10	4	
92	HBS0512	HBS, M5x12	1	
93	HBS0516	HBS, M5x16	2	
94	HBS0550H	HBS, M5x50 (H)	1	
95	HBS0612	HBS, M6x12	2	
96	HBS0616	HBS, M6x16	2	
97	HBS0620	HBS, M6x20	10	
98	TMS0512	TMS, M5x12	1	
99	HN04	HN, M4	7	
100	HN05	HN, M5	5	
101	HN06	HN, M6	7	
102	HN08	HN, M8	1	
103	PMS0420	PMS, M4x20	1	
104	HSS0508G	HSS, M5x8 (G)	1	
105	HSS0606G	HSS, M6x6 (G)	1	

T2-1-10013 T2-1-10014 (2 OF 2)

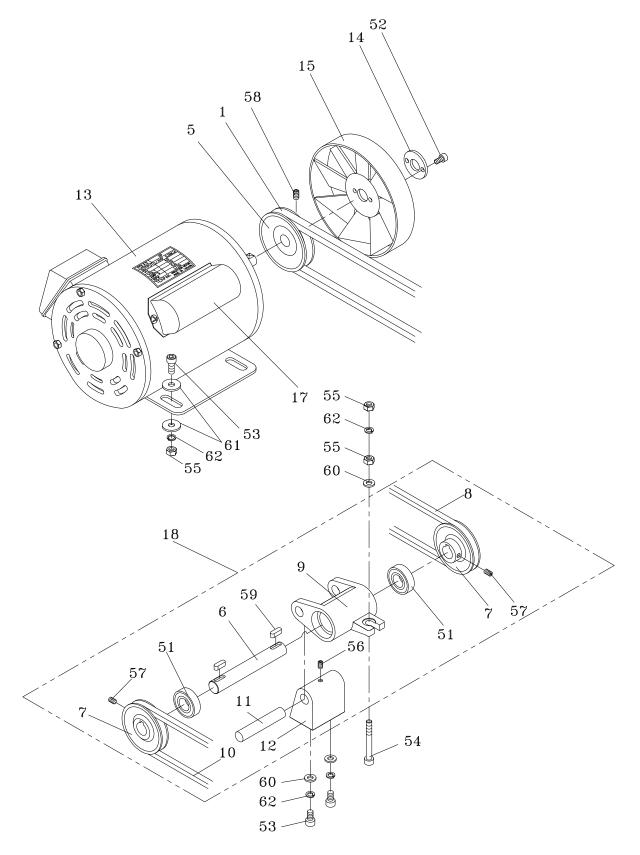
REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
106	KYA050515	Key, 5x5x15	7	
107	KYA050520	Key, 5x5x20	2	
108	KYA050538	Key, 5x5x38	1	
109	PMS0410	PMS, M4x10	3	
110	PMS0412	PMS, M4x12	2	
112	PW04	PW, M4	3	
113	PW05	PW, M5	6	
114	PW06A	PW, M6 (A)	13	
115	RR32	Snap Ring, H-32	1	
116	SP0414	Spring Pin, 4x14	1	
117	SP0520	Spring Pin, 5x20	1	
118	SR10	Snap Ring, S-10	2	
119	SR12	Snap Ring, S-12	1	
120	SR15	Snap Ring, S-15	10	
121	SW04	SW, M4	9	
122	SW05	SW, M5	7	
123	SW06	SW, M6	13	
124	SW08	SW, M8	1	



REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	T2-1-10150	Bolt	1	
10	TB-223	Washer	1	
11	TB-248	Spring Retainer	1	
12	TB-250	Tube A	1	
13	TB-251	Tube B	1	
14	TB-263	Tube	1	
15	TB-264	Tension Adjusting Ass'y	1	
16	SR40	Snap Ring, S-40	1	
51	BR6002ZZ	Bearing, 6002ZZ	1	
52	BR6005ZZ	Bearing, 6005ZZ	1	
53	HBS0512	HBS, M5×12	1	
54	HN05	HN, M5	1	
55	RR32	Snap Ring, H-32	1	
56	SW05	SW, M5	2	



REF.	PART NO.	DESCRIPTION	Q'TY	REMARKS
NO.				
1	TB-139	Pulley	1	
2	TB-144	Shaft	1	
3	TB-146	Arm	1	
4	T2-1-12110	Bracket	1	
5	TB-152	Shaft	1	
6	TB-210	Pulley	1	
7	TB-215	Collar	1	
8	T7-3-40480	Spring	1	
9	TF-007	Micro Switch (LS-2)	1	
10	LA-50081	Label (LS-2)	1	
51	BR608ZZ	Bearing, 608ZZ	1	
52	BR635ZZ	Bearing, 635ZZ	1	
53	ER06	Snap Ring, E-6	1	
54	HBS0525H	HBS, M5×25 (H)	1	
55	HBS0616	HBS, M6×16	2	
56	HN04	HN, M4	3	
57	HN05	HN, M5	1	
58	HN06	HN, M6	3	
59	PMS0315	PMS, M3×15	2	
60	PMS0412	PMS, M4×12	2	
61	PW06A	PW, M6 (A)	2	
62	RR19	Snap Ring, H-19	1	
63	RR22	Snap Ring, H-22	1	
64	SW03	SW, M3	2	
65	SW06	SW, M6	3	
66	PW06C	PW, M6 (C)	2	
67	TMS0412	TMS, M4×12	1	

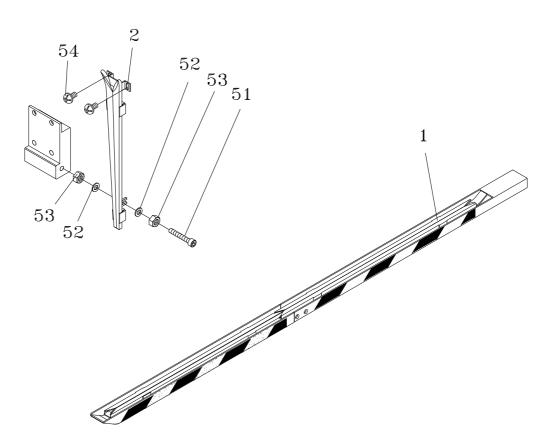


## **BRACKET GROUP**

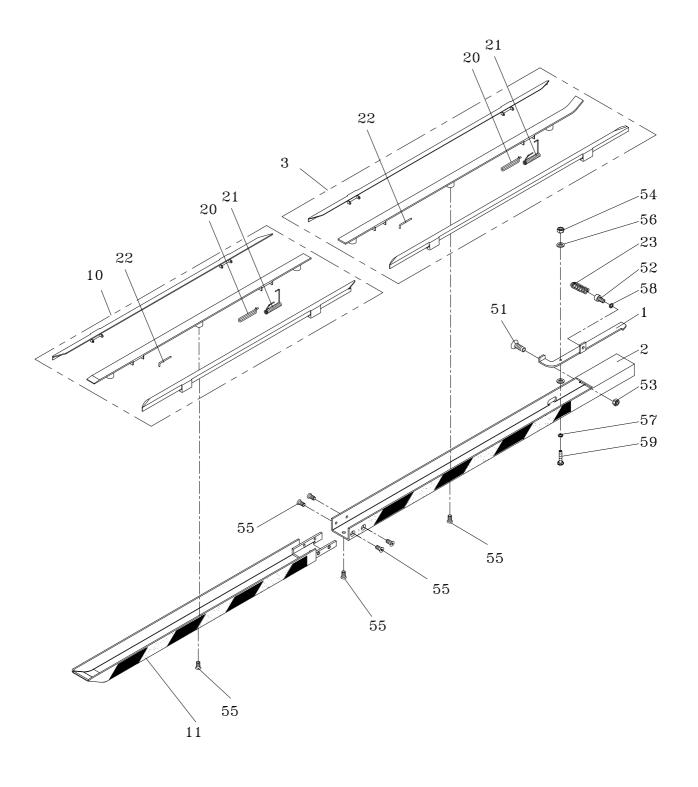
#### T2-1-20000 T2-1-20001

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
	T2-1-20000	Bracket Gruop (For 110V)	1	
	T2-1-20001	Bracket Gruop (For 220V)	1	
	T2-1-20002	Bracket Gruop (For 240V)	1	
1	T2-1-20010	Belt	1	
5	TA-020	Pulley	1	
6	TB-137	Shaft	1	
7	TB-141	Pulley	2	
8	TB-157	V-Belt	1	
9	TB-160	Bracket	1	
10	TB-173	V-Belt	1	
11	TB-231	Pin	1	
12	TB-232	Bracket	1	
13	TF-001	Motor (For 110V, 60HZ)	1	
	TF-001-1D	Motor (For 220V, 50HZ)	1	
	TF-001-1B	Motor (For 220V, 60HZ)	1	
	TF-001-2	Motor (For 240V, 50HZ)	1	
	TF-001-B	Motor (For 100V, 50/60HZ)	1	
14	TF-022	Washer	1	
15	TF-028	Fan	1	
17	TF-044	Start Capacitor (220V, 50HZ)	1	
	TF-045	Start Capacitor (220V, 60HZ/240V, 50HZ)	1	
	TF-046	Start Capacitor (110V, 60HZ)	1	
	TF-047	Start Capacitor (100V, 50/60HZ)	1	
18	TB-160B	Bracket Ass'y	1	
51	BR6002ZZ	Bearing, 6002ZZ	2	
52	HBS0516	HBS, M5x16	1	
53	HBS0620	HBS, M6x20	6	
54	HBS0665H	HBS, M6x65 (H)	1	
55	HN06	HN, M6	6	
56	HSS0506G	HSS, M5x6 (G)	1	
57	HSS0508G	HSS, M5x8 (G)	2	
58	HSS0608G	HSS, M6x8 (G)	1	
59	KYA050515	Key, 5x5x15	2	
60	PW06A	PW, M6 (A)	3	
61	PW06C	PW, M6 (C)	8	
62	SW06	SW, M6	7	

#### T2-2-90000 T2-2-90001



REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
	T2-2-90000	Bandway Unit (For 12mm)	1	
	T2-2-90001	Bandway Unit (For 9mm)	1	
	T2-2-90002	Bandway Unit (For 15.5mm)	1	
1	T2-2-10000	Sword Group	1	SEE PAGE 18
2	T6-2-11000	RH Bandway Ass'y (For 12mm)	1	SEE PAGE 20
	T6-2-11001	RH Bandway Ass'y (For 9mm)	1	SEE PAGE 20
	T6-2-11002	RH Bandway Ass'y (For 15.5mm)	1	SEE PAGE 20
51	HBS0650N	HBS, M6×50 (N)	1	
52	PW06A	PW, M6 (A)	2	
53	HN06	HN, M6	2	
54	TMS0608N	TMS, M6×8 (N)	2	



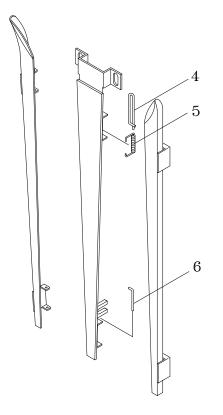


# SWORD GROUP

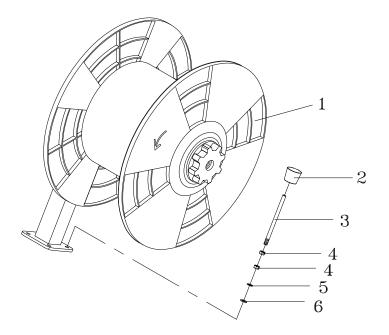
2-1

## **T2-2-10000**

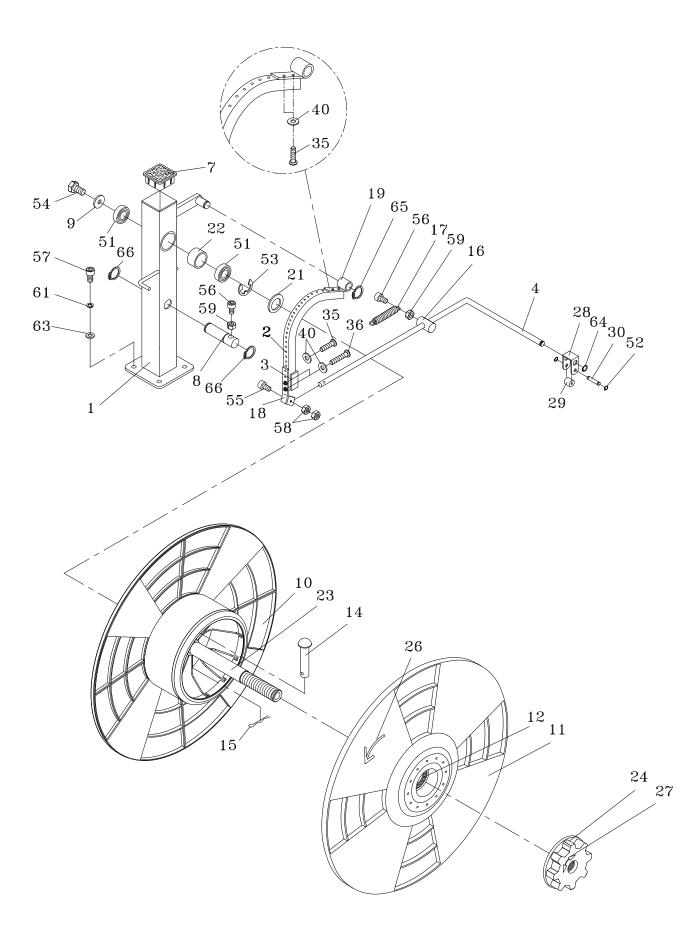
REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	T2-2-10010	Bandway Hook	1	
2	T2-2-10020	Rear Bandway Rack	1	
3	T2-2-10030	RH Bandway Ass'y	1	
10	T2-2-10100	LH Bandway Ass'y	1	
11	T2-2-10150	Front Bandway Rack	1	
	12 2 10100		-	
20	T6-2-11140	DH Bandway Flan Din (Dear)	4	
20 21	T6-2-11140 T6-2-11150	RH Bandway Flap Pin (Rear) RH Bandway Flap Spring	4	
21	T6-2-11150	RH Bandway Flap Pin (Front)	4	
22	T7-1-10310	Spring	1	
23	17-1-10310	Spring	1	
51	FMS0408N	EMC $M4_{42}$ (NI)	1	
52	HBS0608N	FMS, M4x8 (N) HBS, M6x8 (N)	1	
53	HN04	HN, M4	1	
54	NTE04	NTE, M4	1	
55	FMS0610	FMS, M6x10	11	
56	PW04	PW, M4	2	
57	SW04	SW, M4	1	
58	SW06	SW, M6	1	
59	PMS0416	PMS, M4x16	1	



REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
	T6-2-11000 T6-2-11001 T6-2-11002	RH Bandway Ass'y (For 12mm) RH Bandway Ass'y (For 9mm) RH Bandway Ass'y (For 15.5mm)	1 1 1	
4 5 6	T6-2-11140 T6-2-11150 T6-2-11160	RH Bandway Flap Pin (Rear) RH Bandway Flap Spring RH Bandway Flap Pin (Front)	2 2 2	



REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	T6-4-20002	Reel Control Group (For 200mm)	1	SEE PAGE 22
2	TL-023	Stopper	1	
3	TL-024	Bolt	1	
4	HN08	HN, M8	2	
5	SW08	SW, M8	1	
6	PW08C	PW, M8 (C)	1	



## **REEL CONTROL GROUP**

3-1

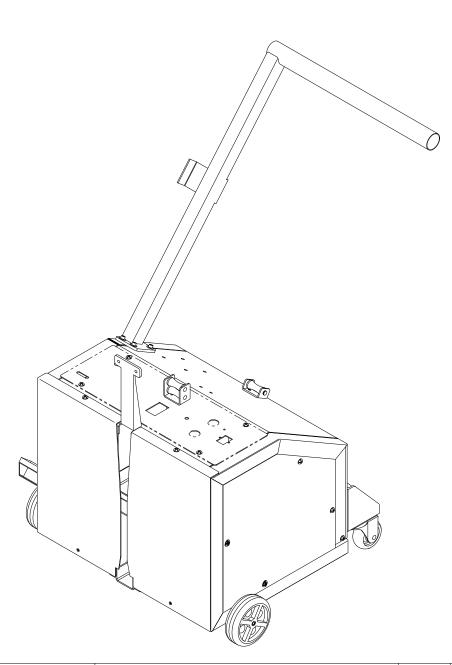
#### T6-4-20002

NO.   Fried No.   Description No.   Q 11   Relation     1   T6-4-20011   Reel Support   1   1     2   T6-4-20029   Brake Belt   1   1     3   T6-4-20031   Lining Fixed Bracket   1   1     4   T6-4-20024   Brake Arm   1   1     7   TC-005   Lid   1   1     8   TC-009   Brake Arm   1   1     9   TC-011   Washer   1   1     10   T6-4-10570   Inner Flange   1   1     11   TC-014   Outer Flange   1   1     12   TC-020   Pin   1   1     14   TC-020   Pin   1   1     16   TC-024   Brake Adjuster   1   1     17   TC-025   Spring   1   1     18   TC-045-1   Fixing Brake Lining Bracket   1     19   TC-076   Washer <td< th=""><th></th></td<>	
2 T6-4-20029 Brake Belt 1   3 T6-4-20031 Lining Fixed Bracket 1   4 T6-4-20024 Brake Arm 1   7 TC-005 Lid 1   8 TC-009 Brake Shaft 1   9 TC-011 Washer 1   10 T6-4-10570 Inner Flange 1   11 TC-014 Outer Flange 1   12 TC-015 Protector 1   14 TC-020 Pin 1   15 TC-021 Split Pin 1   16 TC-025 Spring 1   17 TC-050 Lining Brake Lining Bracket 1   19 TC-050 Lining Holder 1   21 TC-076 Washer 1   23 TD-003 Reel Shaft (LH) 1   24 TD-016 Reel Nut Handle (LH) 1	
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4 T6-4-20024 Brake Arm 1   7 TC-005 Lid 1   8 TC-009 Brake Shaft 1   9 TC-011 Washer 1   10 T6-4-10570 Inner Flange 1   11 TC-014 Outer Flange 1   12 TC-015 Protector 1   14 TC-020 Pin 1   15 TC-021 Split Pin 1   16 TC-024 Brake Adjuster 1   17 TC-025 Spring 1   18 TC-045-1 Fixing Brake Lining Bracket 1   19 TC-050 Lining Holder 1   21 TC-076 Washer 1   23 TD-003 Reel Shaft (LH) 1   24 TD-016 Reel Nut Handle (LH) 1	
7 TC-005 Lid 1   8 TC-009 Brake Shaft 1   9 TC-011 Washer 1   10 T6-4-10570 Inner Flange 1   11 TC-014 Outer Flange 1   12 TC-015 Protector 1   14 TC-020 Pin 1   15 TC-021 Split Pin 1   16 TC-024 Brake Adjuster 1   17 TC-025 Spring 1   18 TC-050 Lining Brake Lining Bracket 1   19 TC-076 Washer 1   21 TC-076 Spacer 1   23 TD-003 Reel Shaft (LH) 1   24 TD-016 Reel Nut Handle (LH) 1	
8 TC-009 Brake Shaft 1   9 TC-011 Washer 1   10 T6-4-10570 Inner Flange 1   11 TC-014 Outer Flange 1   12 TC-015 Protector 1   14 TC-020 Pin 1   15 TC-021 Split Pin 1   16 TC-024 Brake Adjuster 1   17 TC-025 Spring 1   18 TC-045-1 Fixing Brake Lining Bracket 1   19 TC-076 Washer 1   21 TC-076 Washer 1   23 TD-003 Reel Shaft (LH) 1   24 TD-016 Reel Nut Handle (LH) 1	
8 TC-009 Brake Shaft 1   9 TC-011 Washer 1   10 T6-4-10570 Inner Flange 1   11 TC-014 Outer Flange 1   12 TC-015 Protector 1   14 TC-020 Pin 1   15 TC-021 Split Pin 1   16 TC-024 Brake Adjuster 1   17 TC-025 Spring 1   18 TC-045-1 Fixing Brake Lining Bracket 1   19 TC-076 Washer 1   21 TC-076 Washer 1   23 TD-003 Reel Shaft (LH) 1   24 TD-016 Reel Nut Handle (LH) 1	
9 TC-011 Washer 1   10 T6-4-10570 Inner Flange 1   11 TC-014 Outer Flange 1   12 TC-015 Protector 1   14 TC-020 Pin 1   15 TC-021 Split Pin 1   16 TC-024 Brake Adjuster 1   17 TC-025 Spring 1   18 TC-045-1 Fixing Brake Lining Bracket 1   19 TC-050 Lining Holder 1   21 TC-076 Washer 1   23 TD-003 Reel Shaft (LH) 1   24 TD-016 Reel Nut Handle (LH) 1	
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11 TC-014 Outer Flange 1   12 TC-015 Protector 1   14 TC-020 Pin 1   15 TC-021 Split Pin 1   16 TC-024 Brake Adjuster 1   17 TC-025 Spring 1   18 TC-045-1 Fixing Brake Lining Bracket 1   19 TC-050 Lining Holder 1   21 TC-076 Washer 1   23 TD-003 Reel Shaft (LH) 1   24 TD-016 Reel Nut Handle (LH) 1	
12 TC-015 Protector 1   14 TC-020 Pin 1   15 TC-021 Split Pin 1   16 TC-024 Brake Adjuster 1   17 TC-025 Spring 1   18 TC-045-1 Fixing Brake Lining Bracket 1   19 TC-050 Lining Holder 1   21 TC-076 Washer 1   23 TD-003 Reel Shaft (LH) 1   24 TD-016 Reel Nut Handle (LH) 1	
14 TC-020 Pin 1   15 TC-021 Split Pin 1   16 TC-024 Brake Adjuster 1   17 TC-025 Spring 1   18 TC-045-1 Fixing Brake Lining Bracket 1   19 TC-050 Lining Holder 1   21 TC-076 Washer 1   23 TD-003 Reel Shaft (LH) 1   24 TD-016 Reel Nut Handle (LH) 1	
15 TC-021 Split Pin 1   16 TC-024 Brake Adjuster 1   17 TC-025 Spring 1   18 TC-045-1 Fixing Brake Lining Bracket 1   19 TC-050 Lining Holder 1   21 TC-076 Washer 1   23 TD-003 Reel Shaft (LH) 1   24 TD-016 Reel Nut Handle (LH) 1	
15 TC-021 Split Pin 1   16 TC-024 Brake Adjuster 1   17 TC-025 Spring 1   18 TC-045-1 Fixing Brake Lining Bracket 1   19 TC-050 Lining Holder 1   21 TC-076 Washer 1   23 TD-003 Reel Shaft (LH) 1   24 TD-016 Reel Nut Handle (LH) 1	
16 TC-024 Brake Adjuster 1   17 TC-025 Spring 1   18 TC-045-1 Fixing Brake Lining Bracket 1   19 TC-050 Lining Holder 1   21 TC-076 Washer 1   22 TC-094 Spacer 1   23 TD-003 Reel Shaft (LH) 1   24 TD-016 Reel Nut Handle (LH) 1	
17 TC-025 Spring 1   18 TC-045-1 Fixing Brake Lining Bracket 1   19 TC-050 Lining Holder 1   21 TC-076 Washer 1   22 TC-094 Spacer 1   23 TD-003 Reel Shaft (LH) 1   24 TD-016 Reel Nut Handle (LH) 1	
18TC-045-1Fixing Brake Lining Bracket119TC-050Lining Holder121TC-076Washer122TC-094Spacer123TD-003Reel Shaft (LH)124TD-016Reel Nut Handle (LH)1	
19 TC-050 Lining Holder 1   21 TC-076 Washer 1   22 TC-094 Spacer 1   23 TD-003 Reel Shaft (LH) 1   24 TD-016 Reel Nut Handle (LH) 1	
21 TC-076 Washer 1   22 TC-094 Spacer 1   23 TD-003 Reel Shaft (LH) 1   24 TD-016 Reel Nut Handle (LH) 1	
22 TC-094 Spacer 1   23 TD-003 Reel Shaft (LH) 1   24 TD-016 Reel Nut Handle (LH) 1	
22 TC-094 Spacer 1   23 TD-003 Reel Shaft (LH) 1   24 TD-016 Reel Nut Handle (LH) 1	
23TD-003Reel Shaft (LH)124TD-016Reel Nut Handle (LH)1	
24TD-016Reel Nut Handle (LH)1	
26 LA-30200 Label 1	
27 LA-30210 Label 1	
28TE-027Roller Holder1	
29 T6-4-20320 Roller 1	
30 TE-029 Pin 1	
35 PMS0415 PMS, M4×15 3	
36 PMS0420 PMS, M4×20 2	
40 PW04 PW, M4 5	

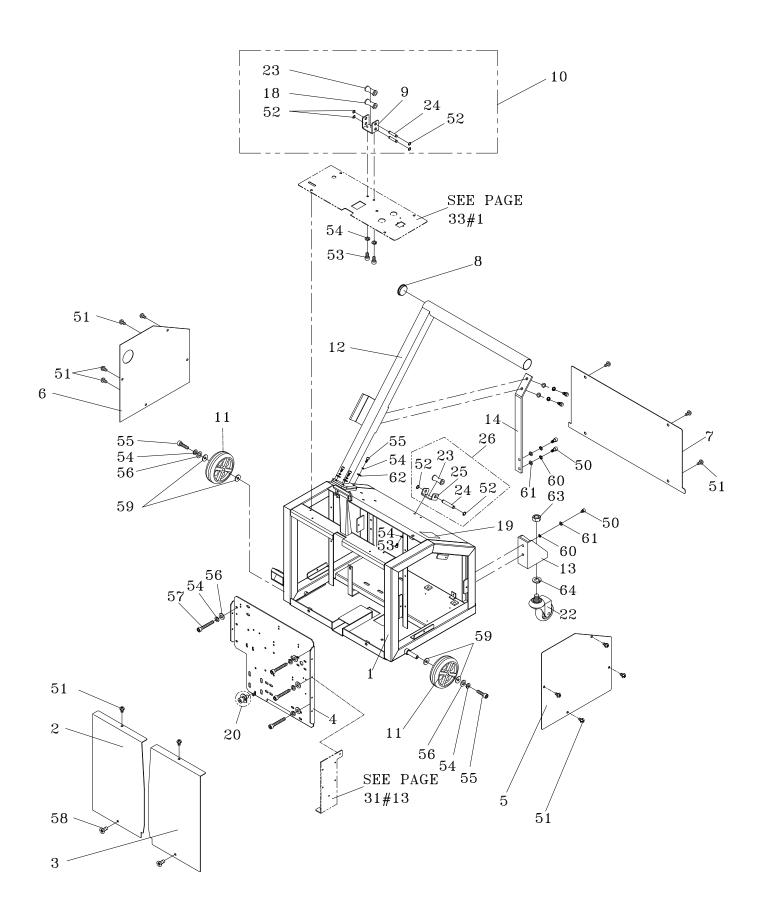
# REEL CONTROL GROUP T6-4-20002

U I		REEL CONTROL GROOT		
REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
51	BR6003ZZ	Bearing, 6003ZZ	2	
52	ER04	Snap Ring, E-4	2	
53	ER19	Snap Ring, E-19	1	
54	HB0816	HB, M8x16	1	
55	HBS0525H	HBS, M5x25 (H)	1	
56	HBS0616	HBS, M6x16	2	
57	HBS0825	HBS, M8x25	3	
58	HN05	HN, M5	2	
59	HN06	HN, M6	2	
61	SW08	SW, M8	3	
63	PW08C	PW, M8 (C)	3	
64	SR10	Snap Ring, S-10	1	
65	SR15	Snap Ring, S-15	1	
66	SR20	Snap Ring, S-20	2	

T2-5-10320 T2-5-10330



REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	T2-5-10320 T2-5-10330	Body Frame Group (For TP-202MV) Body Frame Group (For TP-202MVB)	1 1	SEE PAGE 25 SEE PAGE 25



# **BODY FRAME GROUP**

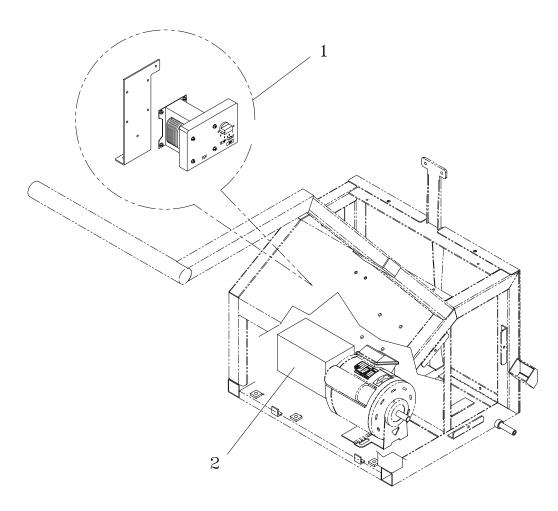
#### T2-5-10320 T2-5-10330

REF.	PART NO.	DESCRIPTION	Q'TY	REMARKS
NO.	T2-5-10320	Body Frame Group (For TP-202MV)	1	
	T2-5-10320	Body Frame Group (For TP-202MVB)	1	
1	T2-5-10011	Body Frame Group (For TF 2020(VB)) Body Frame	1	
2	T2-5-10020	Front Plate (LH)	1	
3	T2-5-10030	Front Plate (RH)	1	
4	T2-5-10040	Bracket	1	
5	T2-5-10051	Plate (RH)	1	
6	T2-5-10061	Plate (LH)	1	
7	T2-5-10250	Rear Cover	1	
8	T2-5-10080	Tube Plug	1	
9	T2-5-10090	Roller Bracket	1	
10	T2-5-10100	Roller Bracket Group	1	
11	T2-5-10230	Caster	2	
12	T2-5-10240	Pushing Bar (Only TP-202MV)	1	
13	T2-5-10260	Caster Bracket (Only TP-202MV)	2	
14	T2-5-10280	Pushing Bar Support (Only TP-202MV)		
18	T2-3-10260	Roller	1	
19	LA-30070	Label	1	
20	T2-1-10260	Bolt Set (M8×20)	1	
22	T7-5-10180	Caster (Free)	2	
23	TC-019	Roller	2	
24	TD-048	Shaft	3	
25	TD-047	Roller Bracket	1	
26	TD-047A	Roller Bracket Ass'y	1	
50	HBS0816N	HBS, M8x16 (N)(Only TP-202MV)	8	
51	TMS0608N	TMS, M6x8 (N)	14	
52	SR10	Snap Ring, S-10	6	
53	HBS0608N	HBS, M6x8 (N)	4	
54	SW06	SW, M6 (For TP-202MV)	16	
		SW, M6 (For TP-202MVB)	12	
55	HBS0616N	HBS, M6x16 (N)(For TP-202MV)	6	
		HBS, M6x16 (N)(For TP-202MVB)	2	
56	PW06C	PW, M6 (C)	8	
57	HBS0620N	HBS, M6x20 (N)	6	
58	FMS0616N	FMS, M6x16 (N)	2	
59	PW12C	PW, M12 (C)	4	

# **BODY FRAME GROUP**

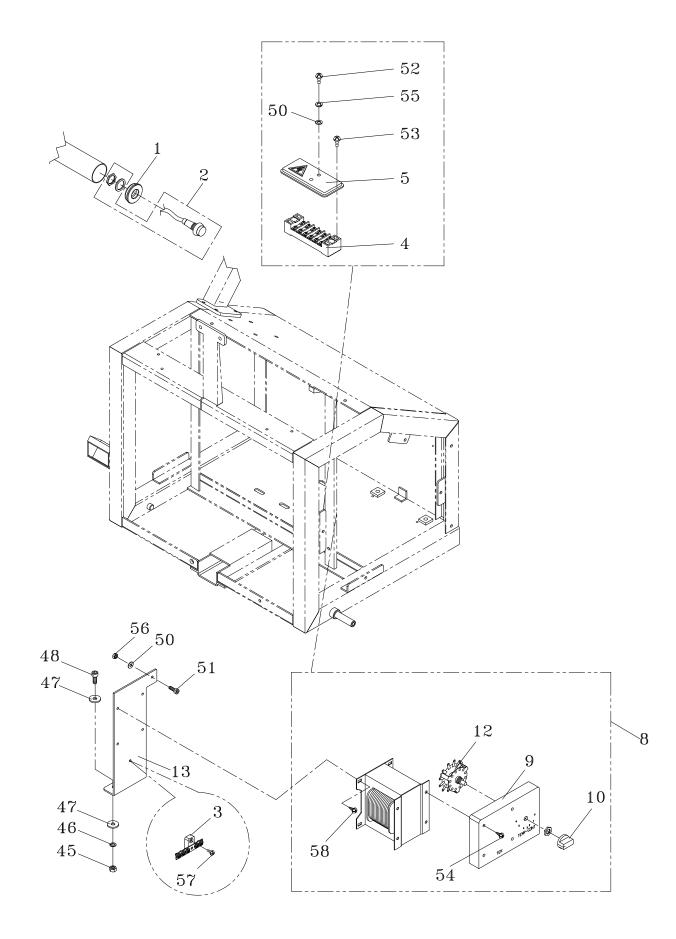
#### T2-5-10320 T2-5-10330

REF.	PART NO.	DESCRIPTION	Q'TY	REMARKS	
<u>NO.</u> 60	SW08	SW, M8 (Only TP-202MV)	8		
61	PW08C	PW, M8 (C)(Only TP-202MV)	8		
62	PW06A	PW, M6 (A)(Only TP-202MV)	4		
63	HN5/8	HN, 5/8"	2		
64	SW16	SW, M16	2		
			E0.0	500	
02 9452-3566 sales@getpacked.com.au					
		sales	@gel	tpacked.com.au	



REF.	PART NO.	DESCRIPTION	Q'TY	REMARKS
NO.				
	T2-6-90001	Control Group (For 110V)	1	
	T2-6-90003	Control Group (For 220V)	1	
	T2-6-90004	Control Group (For 240V)	1	
1	T2-6-10002	Heater Transformer Ass'y	1	SEE PAGE 30
		(For 110V, TP-202MV)		
	T2-6-10003	Heater Transformer Ass'y	1	SEE PAGE 30
		(For 220V/230V/240V, TP-202MV)		
	T2-6-10011	Heater Transformer Ass'y	1	SEE PAGE 30
		(For 110V, TP-202MVB)		
	T2-6-10012	Heater Transformer Ass'y	1	SEE PAGE 30
		(For 220V/230V/240V, TP-202MVB)		
2	T2-6-20003	Electric Group (For 110V)	1	SEE PAGE 32
	T2-6-20004	Electric Group (For 220V)	1	SEE PAGE 32
	T2-6-20005	Electric Group (For 240V)	1	SEE PAGE 32

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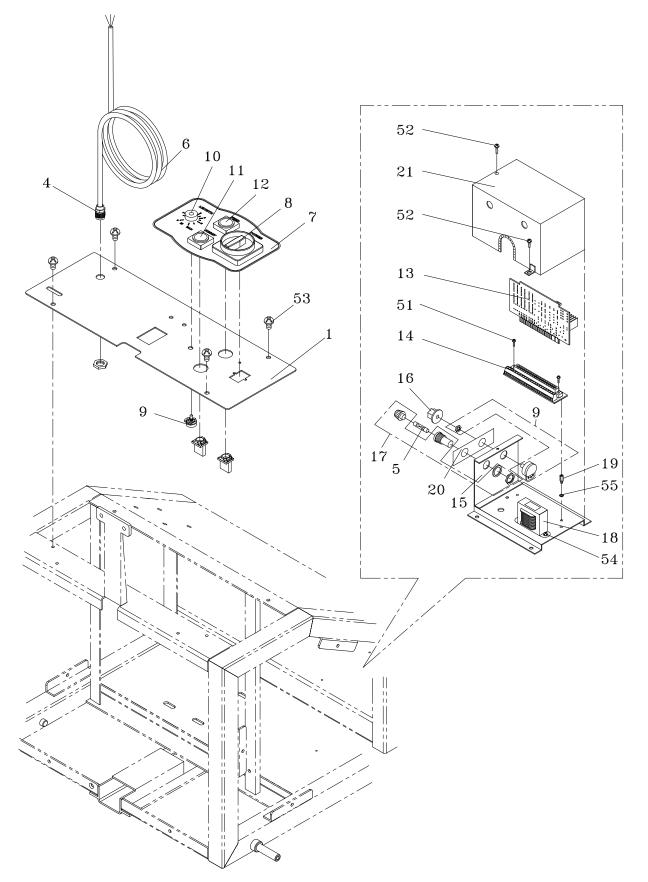


# 5-1 HEATER TRANSFORMER ASS'Y

#### T2-6-10002 T2-6-10003

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
NO.	T2-6-10002	Heater Transformer Ass'y	1	
	12 0 10002	(For 110V, TP-202MV)	1	
	T2-6-10003	Heater Transformer Ass'y	1	
	12 0 10000	(For 220V/230V/240V, TP-202MV)		
	T2-6-10011	Heater Transformer Ass'y	1	
		(For 110V, TP-202MVB)		
	T2-6-10012	Heater Transformer Ass'y	1	
		(For 220V/230V/240V, TP-202MVB)		
1	T2-6-10010	Tube Plug	1	
2	T2-6-10020	Wire Ass'y (For TP-202MV)	1	
	T2-6-10021	Wire Ass'y (For TP-202MVB)	1	
3	T5-4-10310	Earth Plate (5P)	1	
4	TF-015	Terminal Bracket	1	
5	TF-016	Cover	1	
8	TF-023A	Heater Transformer Ass'y (For 110V)	1	
	TF-023A-1	Heater Transformer Ass'y	1	
		(For 220V/230V/240V)		
9	TF-024	Transformer Cover	1	
10	TF-025	Knob	1	
12	TF-027	Selector Switch	1	
13	T2-6-10030	Transformer Bracket	1	
45	HN06	HN, M6	2	
46	SW06	SW, M6	2	
47	PW06C	PW, M6 (C)	4	
48	HBS0616N	HBS, M6×16 (N)	2	
50	PW04	PW, M4	3	
51	HBS0412N	HBS, M4×12 (N)	1	
52	PMS03.515	PMS, M3.5x15	2	
53	PMS0408	PMS, M4x8	2	
54	TMS0410N	PMS, M4x10 (N)	4	
55	SW03	SW, M3	2	
56	HN04	HN, M4	1	
57	TMS0412N	TMS, M4x12 (N)	1	
58	TMS0408N	TMS, M4x8 (N)	4	

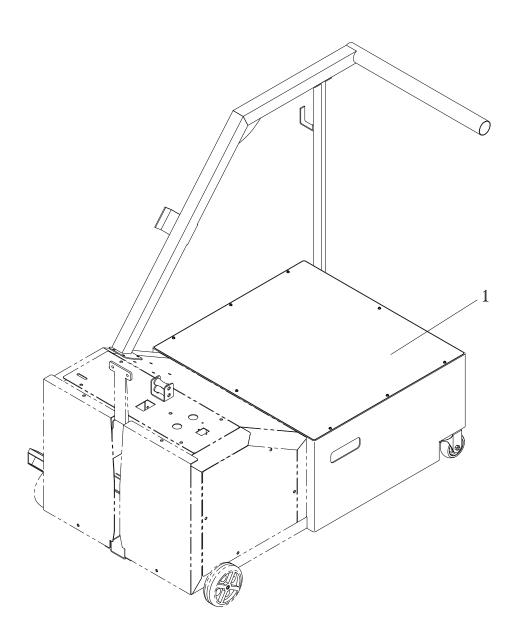
T2-6-20003 T2-6-20004



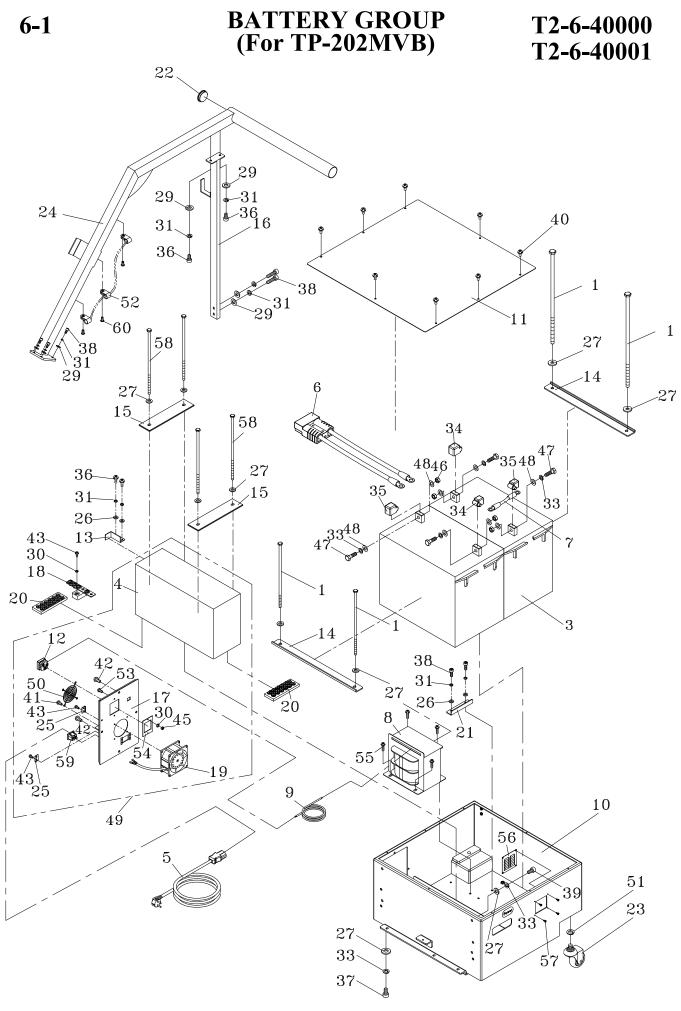
## **ELECTRIC GROUP**

#### T2-6-20003 T2-6-20004

			_	
REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
	T2-6-20003	Electric Group (For 110V)	1	
	T2-6-20004	Electric Group (For 220V)	1	
	T2-6-20005	Electric Group (For 240V)	1	
1	T2-6-20011	Control Plate	1	
4	T6-6-10980	Cable Gland (PG11)	1	
5	T6-6-30133	Fuse (10A) 30L (For 110V AC)	1	
5	T6-6-30034	Fuse (7A) 30L (For 220V/230V/240V AC)	1	
6	MV-6-10060	Power Cord (Europe Plug)	1	
	MV-6-10061	Power Cord (America Plug)	1	
7	LA-10012	Label	1	
8	TK-001	Main Power Switch	1	
9	TG-002	Variable Resistor $(1M\Omega)$	2	
10	TG-003	Knob	1	
11	TG-004	Reset Push Button Switch	1	
12	TG-005	Feed Push Button Switch	1	
13	T2-6-30250	PC Board	1	
14	TG-008	PC Board Receptacle	1	
15	TG-017	Base	1	
16	TG-012	Knob	1	
17	TG-013	Fuse Holder	1	
18	TG-015	Transformer (For 110V)	1	
	TG-015-1	Transformer (For 220V)	1	
	TG-015-2	Transformer (For 240V)	1	
19	TG-016	Bolt	1	
20	LA-20170	Label	1	
21	TG-035	Cover	1	
51	TMS0312	TMS, M3x12	2	
52	TMS0408N	TMS, M4x8 (N)	5	
53	TMS0608N	TMS, M6x8 (N)	4	
54	PMS0408	PMS, M4x8	2	
55	SW03	SW, M3	1	
	I	l		L



REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	T2-6-40000	Battery Group (For 220V/230V/240V)	1	SEE PAGE 36
	T2-6-40001	Battery Group (For 110V)	1	SEE PAGE 36



## BATTERY GROUP (For TP-202MVB)

#### T2-6-40000 T2-6-40001

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
<u> </u>	T2-6-40000	Battery Group (For 220V/230V/240V)	1	
	T2-6-40001	Battery Group (For 110V)	1	
1	HB08230	HB, M8×230	4	
-		,		
3	T2-6-30211	Battery (VRLA)	2	
4	T2-6-30220	UPS (For 110V)	1	
	T2-6-30221	UPS (For 220V/230V/240V)	1	
5	T2-6-30240	UPS Cable (Europe)	1	
	T2-6-30241	UPS Cable (America)	1	
6	T2-6-30261	Battery Wire	1	
7	T2-6-30270	Battery Connector	1	
8	T2-6-30400	UPS Transformer (For 220V/230V/240V)	1	
	T2-6-30430	UPS Transformer (For 110V)	1	
9	T2-6-30420	UPS Wire (Transformer Output)	1	
10	T2-6-40011	Battery Frame	1	
11	T2-6-40020	Battery Cover	1	
12	T2-6-30230	UPS Outlet (Europe)	1	
	T2-6-30231	UPS Outlet (America)	1	
13	T2-6-40040	UPS Holder	1	
14	T2-6-40051	Battery Presser	2	
15	T2-6-40070	UPS Presser	2	
16	T2-6-40080	Support	1	
17	T2-6-40090	UPS Cover	1	
18	T5-4-10310	Earth Plate (5P)	1	
19	TF-021-B	Fan (For 110V)	1	
	TF-021-1B	Fan (For 220V/230V/240V)	1	
20	T2-6-30410	Rubber	2	
21	T2-6-40110	Battery Holder	1	
22	T2-5-10080	Tube Plug	1	
23	T7-5-10180	Caster (Free)	2	
24	T2-6-40060	Pushing Bar	1	
25	T2-6-30370	Socket Presser	2	
26	PW06C	PW, M6 (C)	4	
27	PW08C	PW, M8 (C)	19	
28	PW10	PW, M10	4	
29	PW06A	PW, M6 (A)	8	

## BATTERY GROUP (For TP-202MVB)

#### T2-6-40000 T2-6-40001

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
$\frac{100.}{30}$	SW04	SW, M4	3	
31	SW06	SW, M6	12	
32	SW10	SW, M10	4	
33	SW08	SW, M8	15	
34	T2-6-30331	Battery Contact Insulation Sheath	2	
		(Positive)		
35	T2-6-30341	Battery Contact Insulation Sheath	2	
		(Negative)		
36	HBS0612N	HBS, M6x12 (N)	4	
37	HBS0820N	HBS, M8x20 (N)	3	
38	HBS0616N	HBS, M6x16 (N)	14	
39	HBS0816N	HBS, M8x16 (N)	4	
40	TMS0508N	TMS, M5x8 (N)	8	
41	TMS0512N	TMS, M5x12 (N)	4	
42	TMS0608N	TMS, M6x8 (N)	4	
43	TMS0412N	TMS, M4x12 (N)	5	
45	HN04	HN, M4	2	
46	HN08	HN, M8	4	
47	HB0825	HB, M8x25	4	
48	PW08A	PW, M8 (A)	8	
49	T2-6-30052	UPS Ass'y (For 110V)	1	
	T2-6-30053	UPS Ass'y (For 220V/230V/240V)	1	
50	T7-6-10930	Fan Cover	1	
51	SW16	SW, M16	2	
52	KUC-1.5	Cable Clamp	3	
53	TMS0410N	TMS, M4x10 (N)	2	
54	T2-6-30351	Plate (America UPS Outlet)	1	
	T2-6-30380	Plate (Europe UPS Outlet)	1	
55	TMS0610N	TMS, M6x10 (N)	4	
56	T2-5-10160	Ventilate Plate	1	
57	TMS0308N	TMS, M3x8 (N)	4	
58	HB08270	HB, M8×270	4	
59	T2-6-30390	UPS Outlet (For Charge)	1	
60	TMS0408N	TMS, M4x8 (N)	3	