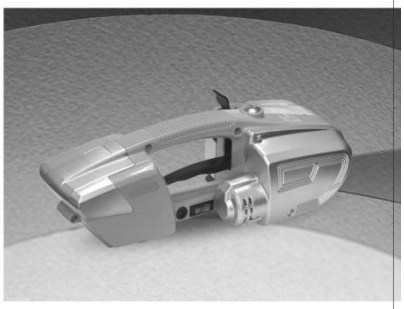
JD-13/16 Battery Powered Plastic Strapping Tool



Operating Manual / Spare Parts

CONTENTS

For your safety, please read the instructions carefully before operating and keep manual for use.

PART 1. SAFETY INSTRUCTION

Please read the matters carefully, if not follow this prompt, it is possible to cause operator injury during operation.

1.1 Battery operation

Environmental protection:

1) Please do not put used batteries into household trash can, waste water tank, or burn them.
2) Dealers provide battery environmental treatment services.

Short circuit

1) Do not leave batteries and other metal objects together.
2) Do not open the battery, and store the battery in a dry and anti-frost room.
   Maximum temperature is 50℃. Please keep dry all the time.
3) Do not charge waste battery. Change a new one immediately.

1.2 Eye injury hazard

If you do not ware safety glasses with side shields, it may cause eye damage and even blindness. It requires wearing safety glasses with side shields.

1.3 Operation

Personnel who are not properly trained are not allowed to operate the strapping tool. Before straining straps read and correctly understand the operating instructions. If you do not follow the operating instructions or improperly load the straps, it will cause straps damaged.

Before being familiar with the strapping tool, please keep your fingers far away from squeezing or cutting areas.

1.4 Adhesion position

You should check the pressured adhesion position. Be familiar with adhesion control and regulation. Irregular adhesion may be insecure, which cause serious injury. Please do not ship the packing containers which are not correctly packaged.

PART 1. SAFETY INSTRUCTION

1.5 Straps distribution

Please use the specially designed distributing device to distribute the straps. When not in use, please fold the strap end into the distributing device.

1.6 Straps warning

Do not use straps to drag or lift load, which easily lead to personal injury.

1.7 Straps broken hazard

Improper operation, excessive tensioning, using straps not as requires, load sharp corner will cause tightening force lose, or straps broken could eventually:

The operator loses his balance and falls down.

Strapping tool and straps together quickly fly to the operator's face.

⚠ **Attention:**

1) If the load angle is very sharp, please add edge protection.

2) Please wind the straps around the suitable load surface.

3) When tensioning and adhesion, operating personnel and straps are on the same straight line, there may be hurt by flying straps or strapping tool, so when operating please stand beside straps and keep spectators far away. Please use recommended straps with good quality in the instruction, with a suitable width, size, and strength. Straps that do not match may cause damage when tensioning.

1.8 Tensioning straps shearing

When shearing straps, please use a suitable shearing tool, and ensure a safe distance with people, and do not stand on the same straight line with straps, and keep away from the straps loose direction. Please use the special tool for shearing the straps. It is not allowed to use a hammer, pliers, hacksaw, axes and so on.

1.9 Fall hazard

Keep your work area clean and tidy. Untidy work area is likely to cause damage hazard. Before tensioning, bad stay or unbalance will be easy to fall, especially in the stair area. So keep body balance. Both feet shall tread on a flat and solid surface. When you feel uncomfortable, do not operate the tool. Please pay attention to the precautions specifically mentioned in work area.

1.10 Strapping tool hazard

1) Well-maintained strapping tool is necessary.

2) Periodically inspect broken or worn parts, if there are cracking or worn parts, do not use the machine.

3) Do not modify the machine, or else it may cause personal injury.

PART 2. TECHNICAL PARAMETERS

2.1 Description

Manufactured JD-13/16 strapping tool is using plastic straps. Manually use strap feeding device to wind the plastic straps around the box (bag). Straps end is inserted into strapping tool and automatically tensioned, separate after friction adhesion.

2.2 Size of strapping tool with battery

Length: 340mm
Width: 130mm
Height: 118mm
Weight: 2.7kg
Battery weight: 0.35kg

2.3 Straps material

Quality: flat or embossed PET (polyester) and PP (polypropylene) straps.
Size: 13.00-16.00 / 0.4-1.20
Please choose the appropriate size according to strapping tool you purchased.

2.4 Straps strength

Tensile strength: 600-2800N adjustable.
(Maximum value depends on the quality of straps.)
Tensioning speed: 100-200mm/s
Adhesive strength: about 75%of plastic straps.
(Depending on the quality of straps)

2.5 Working temperature

Ambient air temperature is 5 to 45 degree centigrade.
Optimum working temperature is 15 to 20 degree centigrade.

PART 3. ACCESSORY

⚠ **Please use the parts and accessories that mentioned in the operating instructions. To use other accessories may hurt you and others.**

3.1 Battery powered strapping tool

As some strapping tools may use NiCd (nickel cadmium) or NiMH (nickel metal hydride) batteries, please purchase the battery for this tool according to the following parameters.

Type: Lithium battery **Voltage**: 11.1V **Capacity**: 3.0Ah

3.2 Battery charger

Standard charger:
Voltage frequency is 100V-245VAC, 50-60HZ, DC12.6V - 3.0A
Charging time:
Lithiumbattery 3.0 A / h, charging time is approximately 90 minutes.

3.3 All types equipped with carton + pearl wool packaging

3.4 Each strapping tool equipped with one set of common operating tools

PART 3. ACCESSORY

3.5 Suspension System (optional purchase)

PART 3. ACCESSORY

For work suspension position please choose FIG 1.

PART 3. ACCESSORY

For work suspension position please choose FIG 2.

PART 4. OPERATING ELEMENTS

Diode Status Indication	
Blue	Normal working
Red flashing	Low battery, please charge
Red on	Machine failure, power off inspection
Purple on	Work finish

PART 5. OPERATION

5.1 Installation

1) Please do not put the strapping tools in the rain!
2) For security, the battery is not charged when delivery.
3) Before using, please charge. Refer to the separate battery charger instruction manual.

Insert the battery:

1) Push the battery box cover assembly upward by arrow direction, and insert the battery into slot from up to down.
2) When inserting the battery, electric quantity state will show for a short time.
3) Battery charge status is displayed by the LED charging indicator.

Quantity	Indicator light
No-load	Red light
1/4	Red flashing
1/2	Blue
3/4	Blue
5/6	Blue
1/1	Blue

Remove empty battery

If LED flashes in red when tensioning or welding, which indicates that the battery power runs out, all electrical functions will be stopped.

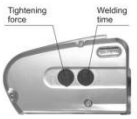
Adhesion insufficient

⚠ **Warning: If the adhesion is not sufficient, please remove the straps!**
The battery must be charged.

5.2 Adjustment of welding time and tightening force

Decide different welding time and tightening force according to the size and quality of the straps. The left and right knob can adjust welding time and tightening force.

Turn clockwise is to increase, counter-clockwise is to decrease.



5.3 Straps winding

Wind the straps as shown in the figure.

⚠ **Warning! Keep away from oil, grease and other dirt when welding plastic straps. Dirty straps can't be welded.**

5.4 Straps inserting

Lift the handle with your right hand, insert straps with left hand , and two straps parallel stacked, release the handle.

5.5 Straps tensioning

Press the tensioning button, after reaching straps tensioning strength, then release the switch knob.

Tensioning operation can be interrupted or restarted at any time. In the tensioning process, LED displays in blue.

After reaching the desired tension, do not press the switch knob, there is the risk of straps broken.

NOTE:

Press tensioning button all the time until the LED displays in purple, tightening protection doesn't affect next step.

⚠ **Keep strapping tools equilibrium shifting when tensioning. So please do not obstruct moving direction of the strapping tool.**

5.6 Contact adhesion

Press welding button, the hands leave immediately. plastic strap is welded and the redundant straps are cut off.

During welding, LED displays in blue or purple.

Welding is completed.

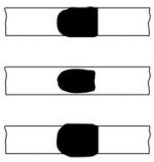
5.7 Remove strapping tool

Lift the handle and loose straps, pull the machine to right side and away from the straps.

5.8 Adhesion control

Normal adhesion control is necessary. You can see the quality of the adhesion with the eyes.

As shown in the following figure:



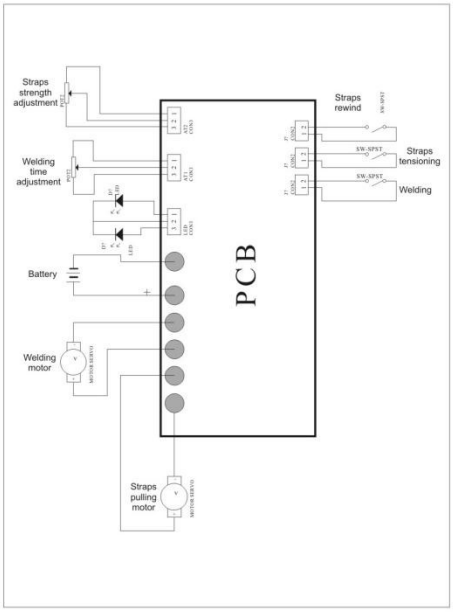
Correct adhesion:
Weld the entire width of strap, the welding length is about 19 mm. A small amount of molten plastic is allowed to overflow the edge.

Welding time is too short:
The entire width is not welded and the adhesion is insufficient.

⚠ **WARNING! Straps with insufficient welding must be removed. Adjust the welding time.**

Welding time is too long:
Such as if welding time is too long, straps are overheated, molten plastic overflow two sides. Adhesion effect is affected.

⚠ **WARNING! Straps withnot enough adhesive strength must be removed. Adjust the welding time.**



⚠ **Every time maintenance, please remove the battery.**

Cutter (JD-1029): First remove the cover screws of left panel and move, remove the screws on the cutter and move, replace the cutter, and assemble in reverse order.

Welding lower toothed plate (JD-1024): First remove the screws of fixed welded toothed plate (JD-1025) on the base and move, replace the top plate of the toothed plate, and assemble in reverse order.

Tensioning toothed plate (JD-1014): Remove the screws of fixed tensioned toothed plate on the base and move, replace the top plate of the toothed plate, and assemble in reverse order.

Tensioning wheel (JD-1013): Remove left and right covers and move, remove the nut of connecting pin shaft and move. Remove the front side panel and move, remove the tensioning wheel, and assemble in reverse order.

Tensioning, adhesion and cutting adjustment

If tensioning slip, remove the screws of fixed tensioned toothed plate on the base and move, replace the top plate of the toothed plate.

Put the factory matched gasket under the tensioned toothed plate and assemble in reverse order.

When using 0.5-1.2mm straps, do not adjust the upper and lower teethed plate welding gap, which will cause bad welding. Remove the left panel cover and move, remove the screws on welding button (JD-1010) and move together. Adjust fulcrum shaft M6 screws on spring support, fixed fulcrum shaft, adjust the spring tightening force by turning M6 nut left and right, and assemble in reverse order. (Machine has been adjusted when leaving factory, please check the welding time)

If the cutter is not smooth, replace the cutter (JD-1029) or replace the cutter compressed spring (JD-1030), refer to the cutter consumables and replace one.

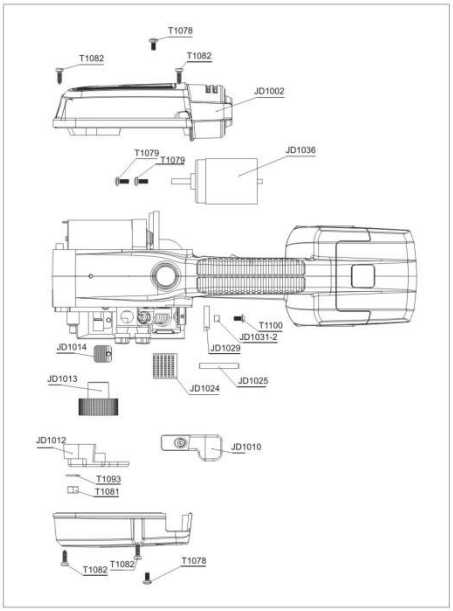
As shown in page 16-17.

PART 8. COMMON FAULTS

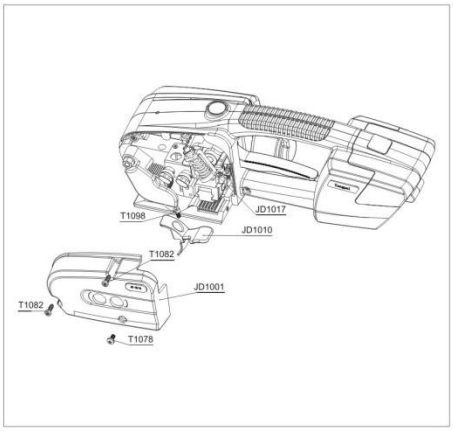
1. Special reason: If the machine stuck in strapping process (LED in red), which results straps stuck in the machine and can't be removed. Immediately cut off power, cut the straps, remove the screws on the left and right panel covers and move, remove the straps, and check the machine. Check the lines on travel switch fall off and replace micro switch.

2. Press the welding and tensioning button, if motor doesn't rotate, check the motor and micro switch (T1099), and replace the motor and micro switch (T1111).

PART 9. DIAGRAM OF WORN PARTS REPLACEMENT



PART 9. DIAGRAM OF WORN PARTS REPLACEMENT



PART 10. JD Assembly Parts Number Table

Table 1

Material code	Part dwg no.	Part name	Ratio
2010013534	JD1001	Left panel cover	1
2010013535	JD1002	Right panel cover	1
2010013536	JD1003	Battery box cover assembly (assembling unit)	1
1030113720	JD1003−1	Battery box cover	1
1030113721	JD1003−2	Battery box	1
2010013667	JD1003−3	Plug in board	1
1030114021	JD1004	Suspension lifting hook (optional)	1
2010013668	JD1008	Fixed mount of potentiometer	1
2010013125	JD1009	Base	1
1030113668	JD1010	Welding button	1
2010013126	JD1012	Left panel	1
2010013503	JD1013	Tensioning wheel	1
2010016513	JD1014−1	Tensioned toothed plate	1
2010013573	JD1015	Connecting shaft	1
1030113524	JD1017	Welding stand spring	1
2010013129	JD1018	Welding stand	1
2010013143	JD1018−1	Stand roller shaft pin	1
2010013144	JD1018−2	Stand roller shaft	1
2010013145	JD1019	Locating pin of welding stand	1
2010013146	JD1020	Welding fulcrum shaft	1
2010013128	JD1021	Welding lock block	1
2010013574	JD1022	Spring fixed collar	1
2010013130	JD1024	Welded toothed plate	1
2010013147	JD1025	Set screws pin of welding lower toothed plate	1
2010096282	JD1027−A	Welding framework	1
2010096283	JD1027−B	Sliding chute framework	1
2010013132	JD1028	Sliding toothed block	1
2010013133	JD1029	Cutter	1
1030113525	JD1030	Cutter spring 13	1
1030113526	JD1030−1	Cutter spring 16	1
2010013669	JD1031	Cutter fixed screw combination	1
2010013148	JD1031−2	Cutter bush	1
1030113527	JD1032	Tension spring of sliding chute framework	1

PART 10. JD Assembly Parts Number Table

Continued

Material code	Part dwg no.	Part name	Ratio
2010013537	JD1033	Left shell	1
2010013538	JD1034	Right shell	1
1020200900	JD1036	Welding motor	1
2010013539	JD1040	Eccentric shaft	1
2010013540	JD1041	Eccentric shaft belt pulley	1
2010013541	JD1042	Motor belt pulley	1
1021503506	JD1043	Transmission belt	1
2010013134	JD1044	Handle	1
2010013149	JD1044-1	Handle steady pin 1	1
2010013150	JD1044-2	Handle steady pin 2	1
2010013151	JD1044-3	Handle touching pin	1
2010013152	JD1044-4	Handle spring pin	1
1030113673	JD1045	Handle tension spring	1
2010013153	JD1046	Fixed pin of welding lock block	1
1020101250	JD1048	Tensioning motor	1
2100017189	JD1050-A	A Cover plate of gear case	1
2010013137	JD1051	Driving gear	1
2010013138	JD1052	Gear on worm	1
1030102659	JD1053	Split washer Φ5	1
1030102658	JD1054	Split washer Φ4	1
2010013154	JD1055	Driven gear shaft	1
2100017188	JD1056-A	Reducer casing	1
2010013140	JD1057	Turbine	1
2010013141	JD1059	Worm	1
20500100055	JD1060	Bearing cap of reducer casing	1
2010013142	JD1066	Driven gear	1
1021000942	JD1069-1	Circuit board	1
1030113725	JD1070	Cell spile assembly	1
2010013672	JD1070-1	Battery insert	2
2010013543	JD1070-2	Battery board	1
2010013673	JD1072	Anticollision wear-resisting block	1
2010013575	JD1074	Eccentric shaft spacer	2
2010013675	JD1075	Belt pulley spacer	1

PART 10. JD Assembly Parts Number Table

Continued

Material code	Part dwg no.	Part name	Ratio
2010013676	JD1082	Tensioning spacer	5
1021602954	JD1084	Battery	1
1020608882	JD1085	Charger	1
1030113747	JD1086	PE foam inner packaging	1
1030113679	JD1087	Film covering colored box	1
1030113680	JD1088	Film covering white box	1
1030113802	JD1089	Outer box 1 (46.5*19*29.5)	1
1030113801	JD1090	Outer box 2 (46.5*38*29.5)	1
1030118197	JD1092	JD English mark right	1
1030118198	JD1093	JD English mark left	1
1030114683	JD1094	Yongpai figure trademark	1
2010054287	JD1095	Potentiometer nut	2
2010060766	JD1096	Turbo gasket	2
2011000095	JD1097	Rotary knob	2
1030119477	JD1098	Electric JD series nameplate sticker	1
1030119486	JD1098-A	Electric JD series nameplate sticker (English)	1
1030119589	JD1099	Tag used for JD lithium battery	1
1030116576	T1078	Galvanized cross half round head screw M4X8	4
1030116577	T1079	Chroming cross round head screw M4X10	1
1030113532	T1080	Black cross half round head screw M2.5X10	2
1030113533	T1081	Stop nut M6 galvanizing	2
1030116578	T1082	Cross pan head BT type self-tapping screw M4X16 (color steel tile)	4
1030116579	T1083	Galvanized self-tapping screw M3X10 (color steel tile)	4
1030116580	T1084	Black half round cross head screw M2X8	5
1030114835	T1085	Black hexagon socket head cap screw M4X15	1
1030116581	T1087	Cross pan head BT type self-tapping screw M4X20	8
1030113539	T1088	Black hexagon socket head cap screw M4X4	1
1030116582	T1089	Black cross countersunk head screw M3X6	6
1030117837	T1090	Black cross countersunk head screw M5X10	3
1030114836	T1090-1	Black cross countersunk head screw M3X12	1
1030116583	T1091	Black cross countersunk head screw M3X8	4
1030115440	T1091-1	Black cross countersunk head screw M3X10	7
1030125124		Flat gasket ø6	2

PART 10. JD Assembly Parts Number Table

Continued

Material code	Part dwg no.	Part name	Ratio
1030100433	T1094	Steel ball ø5	4
1021400591	T1095	Composite bearing 12X10X12	2
104000443	T1097	Potentiometer	2
1030105808	T1098	Black hexagon socket head cap screw M4X8	1
1020608828	T1099	Welding switch	1
1030116584	T1100	Black inner hexagon cup head screw M4X8	3
1020609197	T1101	Tensioning button	1
1030113529	T1102	Inner snap ring Φ17	1
1021401815	T1103	Change 606 bearing	2
1021401816	T1104	Needle bearing NK10/12	1
1030114857	T1105	Black set screw M4*4	5
1021401583	T1106	Driven gear bearing WML-5009-2Z	2
1020608831	T1107	Indicator light	1
1021400507	T1108	Reducer casing bearing 6900	2
1021400711	T1109	Worm front bearing 607zz	1
1021401828	T1110	Worm back bearing BK0810	1
1021400002	T1110-1	Oil bearing	1
1020608827	T1111	Tape rewind micro switch D2F-01FL	1
1020608832	T1112	Power switch rocker switch KOD3	1
1020608871	T1113	Battery charging socket DC5.5*2.1mm	1
1030200331	T1114	Non-adjustable wrench 8-10mm	1
1030113572	T1115	Screw driver 4 cun straight or cross exchange	1
1030202263	T1116	Socket head wrench S2.5	1
1030200298	T1117	Socket head wrench S3	1
1030200299	T1118	Socket head wrench S4	1
1030113448	T1119	Steel pricker	1
1021401629	T1120	Composite oil bearing 10X12X18	2
1030114842	T1121	Black cross countersunk head screw M2.5X6	1
1030113851	T1122	Black set screw M5*8	1
1030112364	T1123	Black set screw M4*3	2
1030102639	T1124	Black set screw M4*5	1
1030117216	T1125	O type ring NBR (inner hole 6, line diameter 1.5)	2

PART 11. BREAKDOWN DRAWING