

# *MicroCharge*

## **V2 Battery Powered Plastic Strapping Tool**



**TOM'S  
ELEKTRONIKSCHMIEDE**

Thomas Rücker - Hauptstraße 35 - D-31707 Heeßen  
Fon: +49-(0)5722-981967 - eMail: tom@microcharge.de

**Operating Manual / Spare Parts**

# [ 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.

## [ 2. TECHNICAL PARAMETERS ]

### 2.1 Description

Manufactured V2 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:** 380mm

**Width:** 130mm

**Height:** 130mm

**Weight:** 3.1kg

**Battery weight:** 0.48kg

### 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:** 900-3200N 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.

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## [ 3.ACCESSORY ]

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 **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:** 14.4V

**Capacity:** 4.0Ah

### **3.2 Battery charger**

**Standard charger:**

Input: 100V–240V-50/60Hz 1.5A

Output: 16.8–21V DC-2.5A

**Charging time:**

Lithiumbattery 4.0 A/h, charging time is approximately 90 minutes.

### **3.3 Each strapping tool equipped with one set of common operating tools**

## [ 3. ACCESSORY ]

### 3.4 Suspension System (optional purchase)



[ **3. ACCESSORY** ]

For work suspension position please choose FIG 1.



For work suspension position please choose FIG 2.



## 4. OPERATING ELEMENTS



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

# [ 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.

### Battery disassembly:

- 1) The battery is disassembled and assembled according to the graphic direction. When removing the battery, the red button should be pressed to move out.
- 2) When inserting the battery, electric quantity state will show for a short time.
- 3) Battery charge status is displayed by the indicator light.



Battery level	Indicator 1	Indicator 2	Indicator 3
2/3- full load	Green light	Green light	Green light
1/3-2/3	Green light	Green light	Extinguish
0-1/3	Red light	Extinguish	Extinguish
0	Extinguish	Extinguish	Extinguish

### Remove empty battery

If Indicator light 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, Figure: Left(F), Middle(▲), Right ( ▼ ) can adjust welding time and tightening force.

1. When press left(F), Protection plate screen show F1 (press again show F2), F1 is the tightening force instruction, press middle (▲) more tighten, press right ( ▼ ) less tighten ( show data range 1-10 )

2. When press left (F), Protection plate screen show F1 ( press again show F2), F2 is the welding time instruction, press middle(▲) more, press right ( ▼ ) less ( show data range 1.0-5.0s )





### 5.3 Straps winding

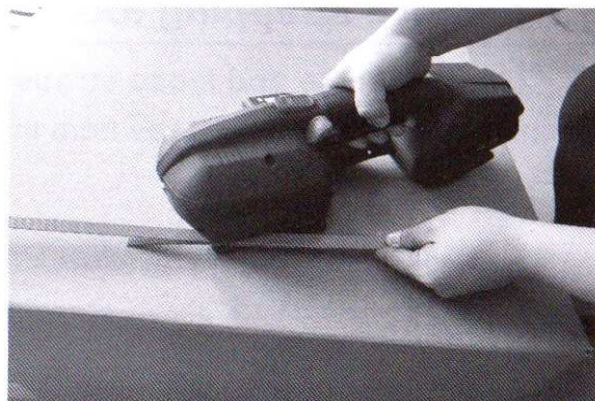
Wind the straps as shown in the figure.

**⚠ 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

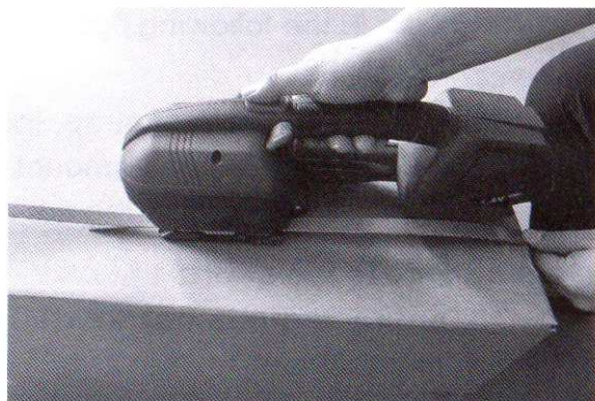
Press the tensioning button, after reaching straps tensioning strength, then release the switch knob.

Tensioning operation can be interrupted or restarted at any time. In the tensioning process, indicator light displays in green.

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 indicator light 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.**



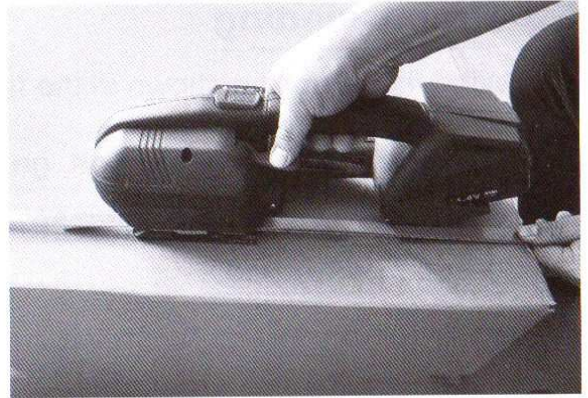
## [ 5. OPERATION ]

### 5.6 Contact adhesion

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

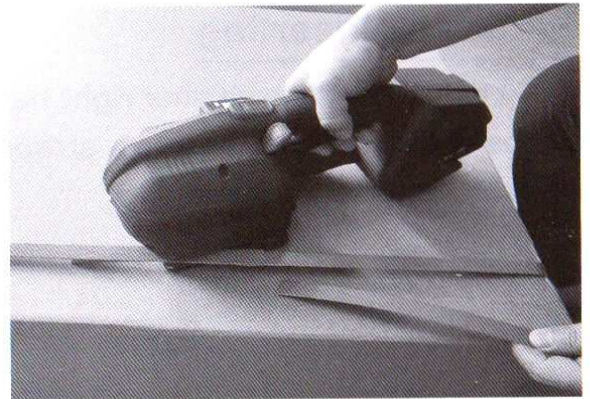
During welding, indicator light displays in green or purple.

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:**

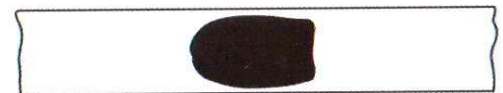
The entire width is not welded and the adhesion is insufficient.

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

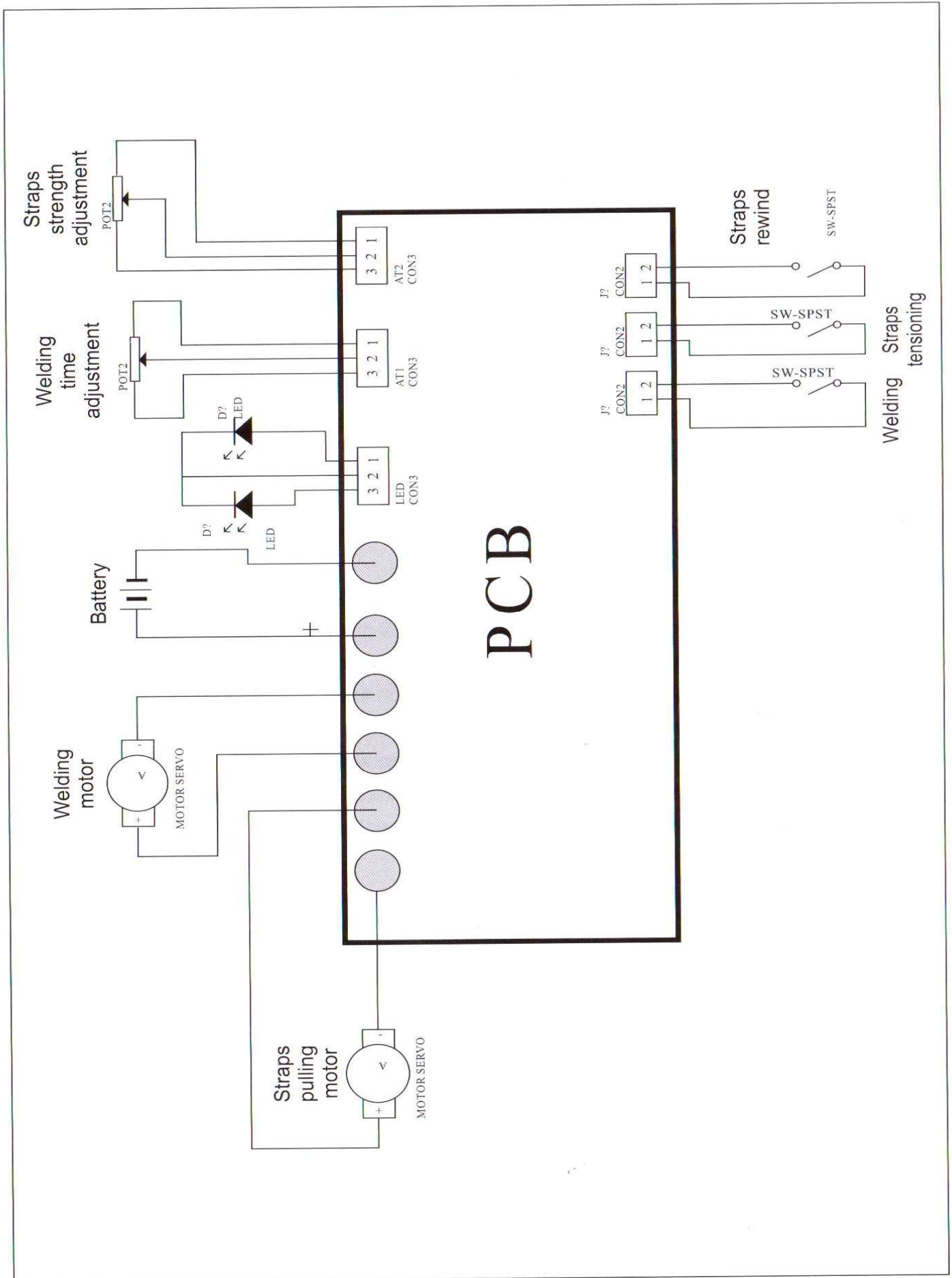
#### **Welding time is too long:**

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

**⚠ WARNING! Straps with not enough adhesive strength must be removed. Adjust the welding time.**



## 6. ELECTRICAL CONNECTION



## 7. WORN PARTS REPLACEMENT



**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 Tooth Plate (JDC1024):** Remove the fixed screw of the welding lower tooth plate to remove the welding tooth plate; and assemble in reverse order.

**Tensioning toothed plate (JDC-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 (JDC-1013):** Remove left shell first, 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

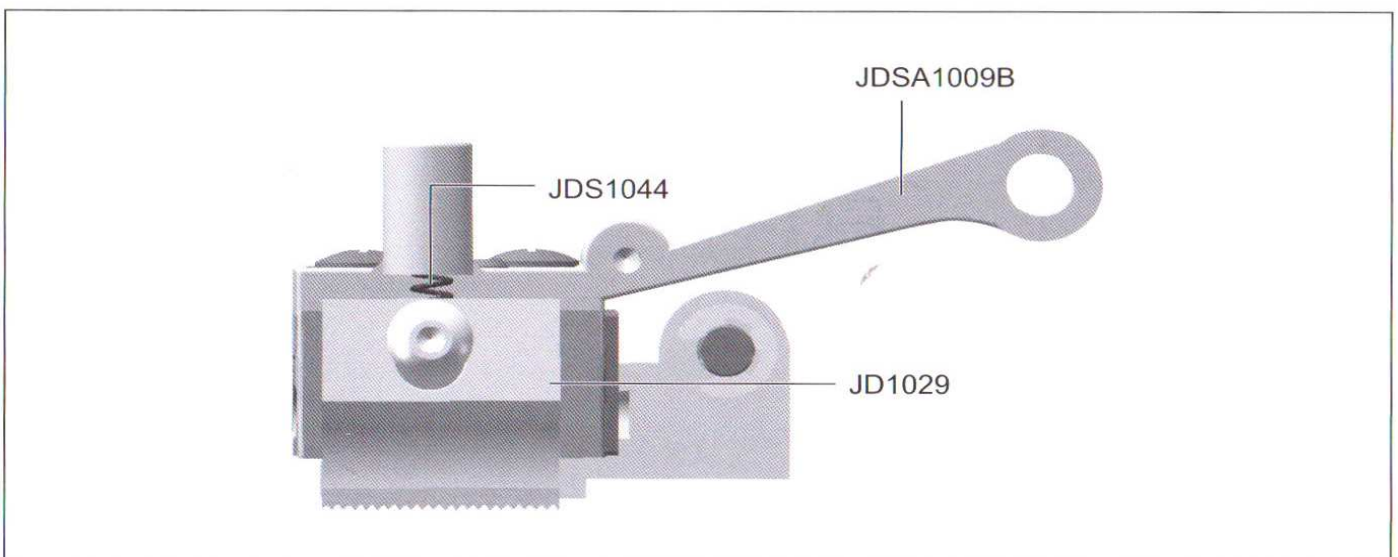
If tensioning slip, remove the screws of fixed tensioned toothed plate on the base and move, replace the top plate of the toothed plate.

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

Strap thickness between 0.5-1.2mm, if do not adjust upper and lower welding tooth, which cause poor welding. Remove the left cover, remove screw of welding button. Adjust the support shaft M6 nut and the fixed support shaft on the spring support, turn M6 nut to the right or left to adjust the elasticity of spring. Or remove the screw which fixed welding tooth on the base and remove the top tooth, put welding gasket under welding tooth, assemble in reverse order. ( The machine has been adjusted at the factory, please check the welding time)

If the cutter is not smooth, replace the cutter (JD-1029) or replace the cutter compressed spring (JDS-1044), refer to the cutter consumables and replace one.

As shown in page 14-16.



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## [ **8. COMMON FAULTS** ]

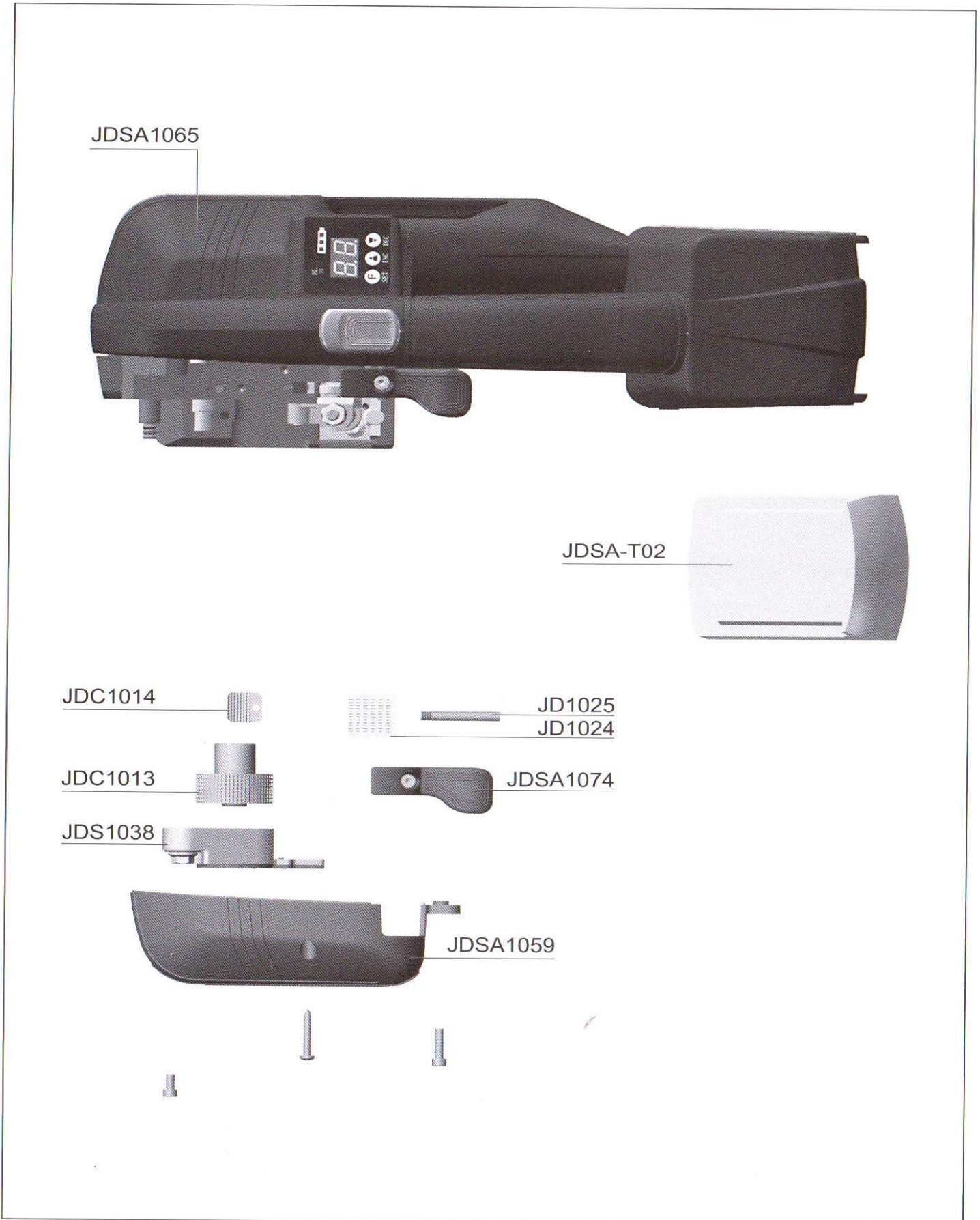
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1. Special reason: If the machine stuck in strapping process ( LED in red ), which results straps stuck in the machine and can't be removed. Immediately cut off power, cut the straps, remove the screws on the left and right panel covers and move, remove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

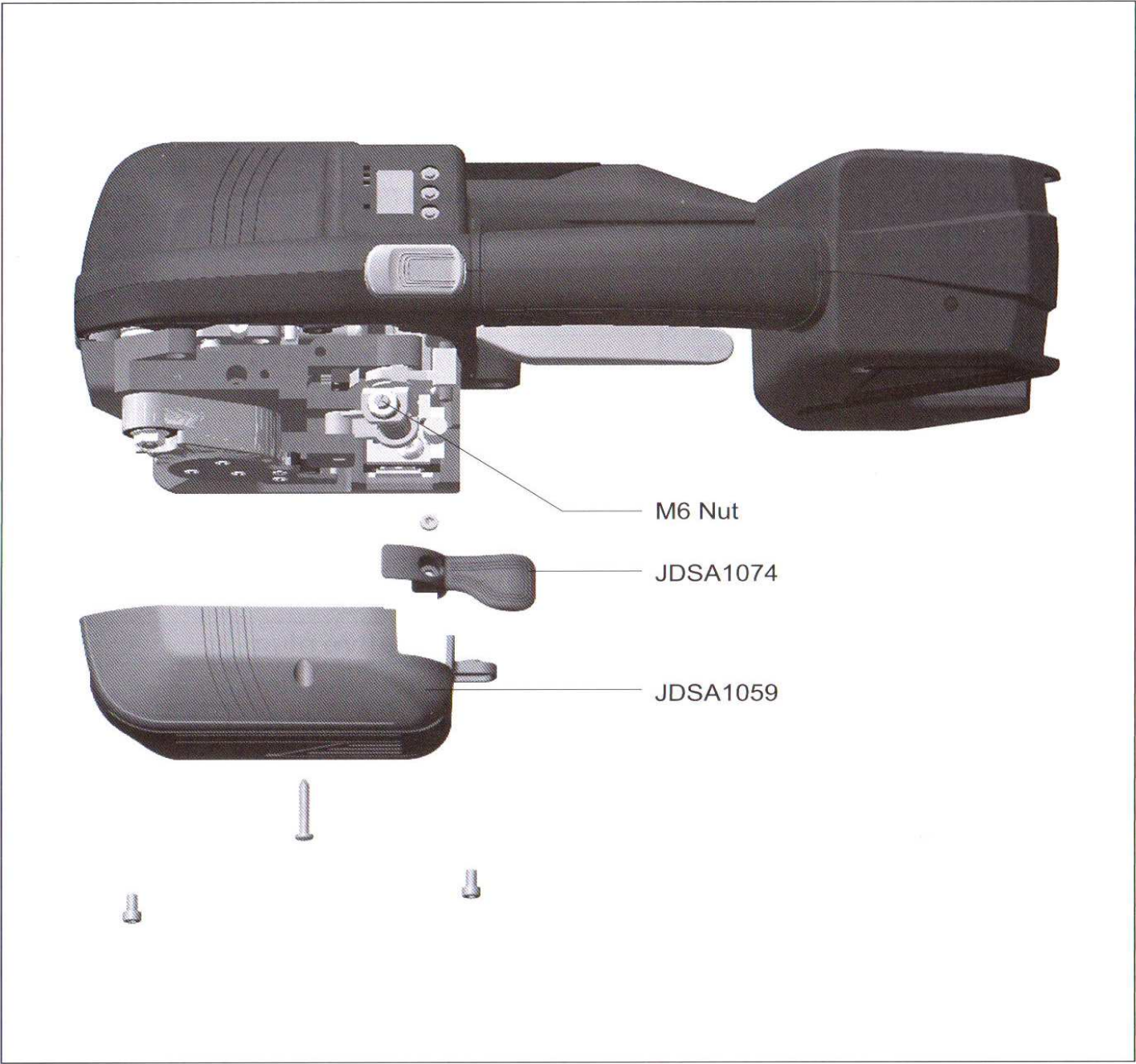
2. Press the welding and tensioning button, if motor doesn't rotate, check the motor and micro switch, and replace the motor and micro switch.

# 9. DIAGRAM OF WORN PARTS REPLACEMENT

 Please remove the battery during each repair.



# 9. DIAGRAM OF WORN PARTS REPLACEMENT



## 10. V2 Assembly Parts Number Table

Table 1

Material code	Part dwg no.	Part name	Ratio
2011000127	JDS1002	Driven gear	1
210063988	JDS1012	Gearbox	1
210063989	JDS1013	Gearbox cover	1
2011000137	JDS1019	Fused motor gear	1
210063982	JDS1025	Welding bracket	1
210063990	JDS1026	Handle	1
2011000140	JDS1027	Handle tension spring pin	1
2011000141	JDS1028	Locking screw M26 × 1	1
2011000142	JDS1029	Worm drive gear	1
2011000143	JDS1030	Driven gear shaft	1
2011000146	JDS1036	Handle fixing pin 1	1
210063991	JDS1038	Front side panel	1
2011000151	JDS1044	Knife pressure spring 1	1
2011000150	JDS1045	Hook	1
1030119607	JDS1068	Decorative plug	1
2011000160	JDS1079	Spring fixing ring	1
2011000161	JDS1080	Base torsion spring	1
2011000178	JDS1085	Handle pressing	1
2011000180	JDS1086	Front composite plate	1
2011000181	JDS1087	Limit Block-13	1
2011000182	JDS1088	Limit Block-16	1
2010100164	JDSA1001	Body seat	1
2011000179	JDSA1002	Connecting pin	1
2010020284	JDSA1004	Collision resistant and wear-resistant block	1
2011000189	JDSA1006	Sliding gear block fixing pin	1
2291700700	JDSA1007	Rocker arm linkage	1
2291700698	JDSA1009A	Fusion skeleton	1
2011000190	JDSA1009B	Fusion chute	1
2010900062	JDSA1011	Fixed pin for fusion welded skeleton	1
2010900072	JDSA1018	Eccentric shaft	1
2010020285	JDSA1019A	Sliding gear block stopper 1	1
2010093666	JDSA1020	Fused sliding gear block	1
2291700699	JDSA1021	Welding pressure block	1
2010900064	JDSA1024	Fixed pin for fusion pressing block	1
2010020287	JDSA1046	Battery insert	2
1030213141	JDSA1057	Battery plug board	1



## [ 10. V2 Assembly Parts Number Table ]

Continued

Material code	Part dwg no.	Part name	Ratio
1030213134	JDSA1058	Left housing	1
1030213136	JDSA1059	Left cover	1
1030213139	JDSA1063	Tighten button	1
1030213135	JDSA1065	Right housing	1
1030213138	JDSA1074	Fusion button	1
2010096304	JDSA1081A	Eccentric shaft gasket 1	1
2010096305	JDSA1081B	Eccentric shaft gasket 2	1
2015000606	JDSA1081C	Eccentric shaft gasket 3	1
2010900065	JDSA1082	Motor sleeve	1
2250001658	JDSA1083	Gearbox bearing cover	1
1020101390	DD41	Fused motor	1
2010014297	FTL-T16	Planetary pin-1	2
1030113283	H19023	Support pressure spring	1
1030113524	JD1017	Welding bracket spring	1
2010013143	JD1018-1	Support roller shaft pin	1
2010013144	JD1018-2	Support roller	1
2010013146	JD1020	Fused support shaft	1
2010013147	JD1025	Fixing screw for fusion joint lower gear plate	3
2015000190	JDS1090	Cutter	1
2010013148	JD1031-2	Cutter bushing	1
1030113527	JD1032	Sliding groove framework tension spring	1
2010013151	JD1044-3	Handle actuation pin	1
2010013150	JD1044-2	Handle fixing pin 2	1
1030102659	JD1053	Open retaining ring $\phi$ 5	1
1030102658	JD1054	Open retaining ring $\phi$ 4	1
2010013140	JD1057	Turbine	1
2010013141	JD1059	Worm	1
2011000162	JDC1013	Tensioning wheel	1
2011000163	JDC1014	Tensioning toothed plate	1
2011000164	JDC1024	Fusion welded tooth plate	1
1020609629	JDSA-T02	Battery 14.4V 4.0Ah	1
1040001493	JDSA-T04	Circuit board	1
1030126332	JDSA-T06	Self-tapping screw M3.5 * 10	8
1030126336	JDSA-T10	Screw M5 * 6	2
1030125478	JDSA-T12	Screw M4 * 8	2
1030126338	JDSA-T13	Screw M4 * 16	2

## 10. V2 Assembly Parts Number Table

Continued

Material code	Part dwg no.	Part name	Ratio
1030126339	JDSA-T14	Set screw M5 * 3	1
1021400167	JDSA-T15	Bearing 61901	1
1020101613	JDS-T07	Tensioning motor (RZ-735VA)	1
1021402499	JDS-T08	Driven gear bearing (MR105ZZ)	3
1021402442	JDS-T09	Oil bearing (inner 12 * outer 18 * 20)	1
1021401559	JDS-T10	Oil bearing (inner 10 * outer 12 * 12)	1
1030115222	JDS-T13	Hexagon Flange nut M6	1
1030119858	JDS-T14	Countersunk screw M3×6	5
1030119949	JDS-T28	Screw M4 * 25	2
1021402500	JDS-T36	Oil bearing (inner 8 * outer 12 * 10)	1
2011000227	Q-2024	Pressing block	1
1030118355	Q-T206	Cylindrical pin $\Phi$ 3 * 8	2
1030128552	Q-T218	Cylindrical pin $\Phi$ 4 × 16	1
1030118009	SP301-T08	Shim (6.5 * 18 * 1.5)	1
1030113539	T001	Screw M4 × 4	1
1030113849	T021	Screw M4 × 6	1
1030105808	T023	Screw M4 × 8	3
1030102639	T042	Set screw M4 * 5	1
1030113851	T043	Set screw M5 × 8	1
1030113533	T1081	Lock nut M6 galvanized	1
1030116580	T1084	Screw M2 × 8	4
1030116583	T1091	Countersunk screw M3X8	3
1030100433	T1094	Steel ball $\phi$ 5	8
1030105808	T1098	Cylinder head screw M4 * 8	1
1020608828	T1099	Fusion switch SS-5GL	1
1030116584	T1100	Half round head screw M4 * 8	3
1021400507	T1108	Bearing 6900 (inner 10 * outer 22 * 6)	4
1021400711	T1109	Bearing 607zz (NSK607)	1
1021401828	T1110	Needle roller bearing TLAM810 (inner 8 * outer 12 * 10)	1
1020608827	T1111	Omron microswitch D2F-01FL	2
1021402163	T503	Bearing (626ZZ-ZB6-126)	2
1030116838	TD34	Set screw M3 * 5	1
1031023059	V2-T07	Chinese instruction manual	1
1020611722	V1-T06	Charger	1
1031031390	V2-T01	Key film	1
1040002203	V2-T05	Display board	1

# 11. BREAKDOWN DRAWING



Note: The manual is for reference only. If there is any discrepancy, the actual product shall prevail.