

STEP ERGO Strap Table

with Built In Scale and Adjustable Height Semi-automatic Strapping Machine



Foreword

Introduction

Thank you for purchasing a STEP ERGO Strap Table with Built in Scale and Adjustable Height Semi-Automatic Strapping Machine. Salbaek Technology Group strives to deliver the best strapping technology combined with rugged, durable construction to provide a productive and reliable means of packaging your product.

To ensure the strapping machine lives up to all expectations, it is important to read and comply with this instruction manual. Please store this manual near the machine for easy access, as it is an important resource for all personnel involved with the operation and maintenance of the Salbaek Technology Group machine.

This manual provides personnel with the information needed to safely operate and maintain the Salbaek Technology Group machine. It has been designed and written to be used as an instructional tool, as well as a reference tool, for everyday work. To improve understanding by all levels of users, step-by-step instructions are provided where possible. To use for information about the best ways to operate the machine, and this information can be valuable in maximizing the production and longevity of the machine.

It is important that all personnel read and understand the Safety and Ergonomics BEFORE operating the machine. Also, read Warning and Checklists at the beginning BEFORE attempting to make installations, adjustments or changes.

If there are further questions about the operation or maintenance of the machine, please contact International Customer Support at +45 – 7027 2220 . For ordering additional manuals or replacement parts, please contact International Customer Support +45 – 7027 2220 . To gain the most from the machine, always use genuine Hallbrook component parts. Visit <http://hallbrookcomponents.com/> for more information about equipment and parts.

Note: if there is change of machine appearance and spare parts, please refer to actual machine purchased.

CE Declaration

We

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declares:

*As a manufacturer and distributor, as fully responsible, for **STEP Ergo Strap Table with Built – in Scale and Adjustable Height** for being verified and in compliance in accordance with the safety and health requirements listed in the following directives:*

In accordance with the Machinery Directive 98/37 / EC, 73 / 23EEC, 89/336 / EEC and 93/68 / EEC and other relevant directives.

And that we use:

EN 12100-1 **EN 12100-2**, **EN 60204-1**, **EN 294**, **EN 349**, **EN 1050**, **EN 50081-2**, "Electromagnetic Compilation - Generic Emission Standard Part 2. Industrial Environments." **EN 8500822** "Electromagnetic Compatibility - Generic Immunity Standard Part 2. Industrial environment.

The Product is in accordance with the above.

Tinglev 01.12.2018

Gunnar Salbæk Director
Sal-Tech Easy Packaging
and
Sal-Tech HKG Limited



Warnings:

- ✱ In order to use the machine safely, please read following warnings before operation.

Warning: Be sure to follow WARNING words in each page in this manual. Failure to observe the WARNING, It will damage the machine or cause serious injury and even death.

Attention: Be sure to follow WARNING words in each page in this manual. Failure to observe the WARNING, It will damage the part of machine or make the machine goes wrong.

Please read the following warnings and attention carefully**Attention:**

Customers do not install and try to operate the machine without the presence of the staff from our company or our agent.

Attention:

Please do not place the machine on slope and do not move the machine while it is running.

Warning:

Please do not place the machine on the wet floor or the room with much dust.

Warning:

If power branch runs with other machines in the meantime, it will not only damage the machine's function but also damage plugs. If sockets excessive heat, posing a fire hazard. Special attention: be sure to ready for special voltage and capacity of the machine used.

Warning:

The earth terminal must connect to the earth. If not connect to earth or not full connected, it will happen shock danger.

Warning:

If use extended wire, the cut area must above 2mm² and length less than 10m. Otherwise, it will not only damage the machine, and also cause hazard of fire because of overheat of plug and socket.

Warning:

Please wear a glove, eye protections and breathing mask while installing and operating the machine.

Warning:

The machine is used for strapping products or packages. Please do not put your hands or body close to the main machine body.

Warning:

Please do not take off the panel, cover, door and other parts to use the machine.
Taking off the parts will cause machine faulty and easy to cause human injury.

Warning:

Please do not remake the machine. Use the remade machine will cause human injury.

Warning:

Please do not put the wire on the passageway of forklift. Once the coat of wire is damaged or the wire is broken, it will cause danger.

Warning:

Please do not insert or pull out attaching plug with wet hand. Avoid shocking danger.

Warning:

It has shocking danger while strapping water or wet products.

Warning:

Please make sure pull out the plug if do not use the machine.

Warning:

Insulation degradation will result in electric shock or fire due to leakage.

Warning:

Please do not put inflammable materials around the machine if the heater is in high temperature. It will cause fire risk.

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1. STRAPPING MACHINE DESCRIPTION INSTRUCTION AND SPECIFICATION

1-1 Machine general description

It is a semi-automatic machine that applies strap on packaged.

It is with following accessories:

Operation manual: it is for you to use the semi-automatic strapping machine safely and correctly. And it describes how to solve problem when it has troubles.

Tools: for simply repair and clean the machine.

! Warning: Do not use the affiliate tools to remake the machine.

! Warning: Before operate the machine, please turn the power switch to 『O』 (OFF) position. Pull out the power plug and cutoff the power supply. Otherwise it may happen hazards of shock, burning and been drawn into machine

1-2 Machine specification (standard)

SPECIFICATIONS:	
Dimension	2000x800mm
Strap Type	PP
Strap Width	12mm
Tension	2-55kg
Lifting Height	700-1100mm
Static load	Up to 200kg
Plug Type	Type K Siemens
Power Output	0.25 Kw, 2.5 A
Power Supply	230V, 50/60 Hz, 1 Ph
STEP Item No.	25001020

1-3 Warning mark

The following mark cannot be removed or replaced. It is located where may be dangerous to human body. The power supply must be cut off before repair the machine.

- ① The mark as fig as 1-3-1 cannot be removed or replaced randomly. It is on the heating parts of machine. Please do not touch the parts that have this mark to avoid scald.



Fig 1-3-1

- ② The mark as fig as 1-3-2 cannot be removed or replaced randomly. Generally it is in the position of electrical parts.



Fig 1-3-2

- ③ It has clamping hazard on the transition device part. Do not repair the machine while it is running. Do not stretch hands into the parts where have the mark as fig 1-3-3.



Fig 1-3-3

Note: while working please make sure recognize other marks to operate the machine safely and avoid danger.

1-4 Fix and installation

The machine must be installed on the dry, flat, strong ground and near to power supply.

The power supply should be conform with that on the machine nameplate.

The installation place should accord with following conditions:

Temperature -20℃-40℃

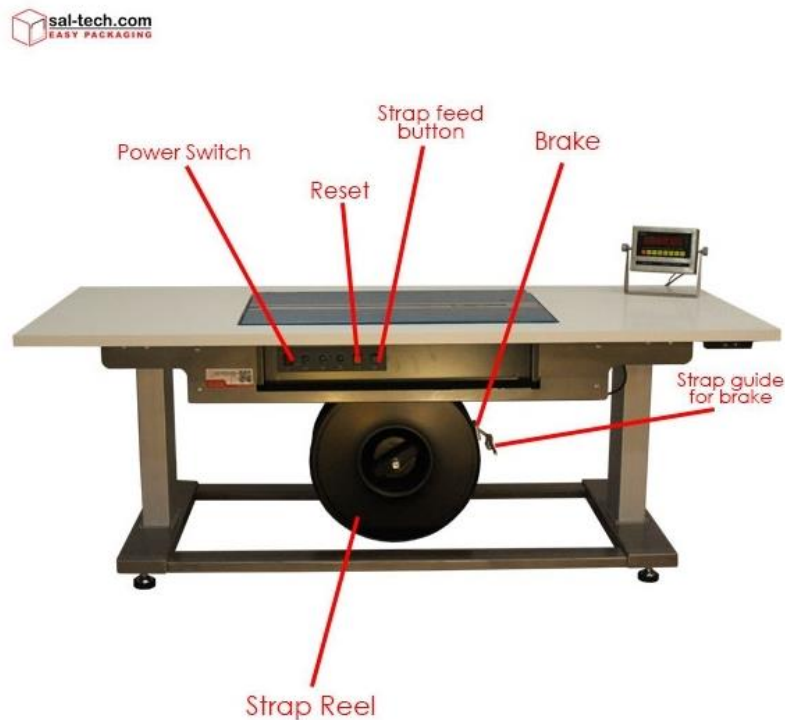
Moisture ≤90%RH

Base Max load 350kg/m²

Space Min: 2000mm×1500mm

Other Dry and ventilated, far away from smoke and corrosive materials.

1-5 ERGO Strap Table Parts



1-6 Transportation and storage

If long-distance transport or long-term store the machine, it should be packaged by wooden case or strong carton and fixed on the hard backing board. Put absorption of moisture and coat rust inhibitor in the machine. Do not place any heavy goods on top of the case. Do not put the machine inverted during transportation and storage.

After long-distance transport or long-term storage, please check all the moving parts before connect to the power supply.

1-7 Movement

Moving by forklift (see Fig. 1-7-1). Make sure that no violent collision occurs and the center of the gravity is steady while moving, in case the machine is damaged or the parts are loose leading to the failure of machine.

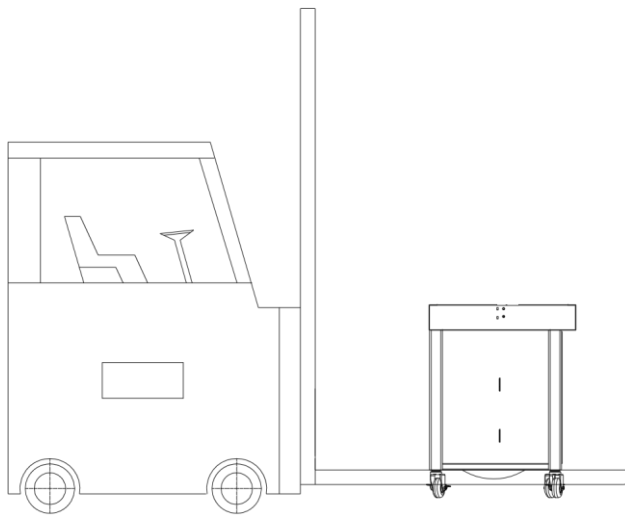


Fig.1-7-1

2 PREPARATION BEFORE RUNNING Install strap coil

The installation method accord to Fig. 2-1-1:

Step:

- 1) Screw off the hand wheel.
- 2) Quit the front strap reel.
- 3) Put in the PP strap with correct direction.
- 4) Close the front strap reel.
- 5) Tighten the hand wheel clockwise.

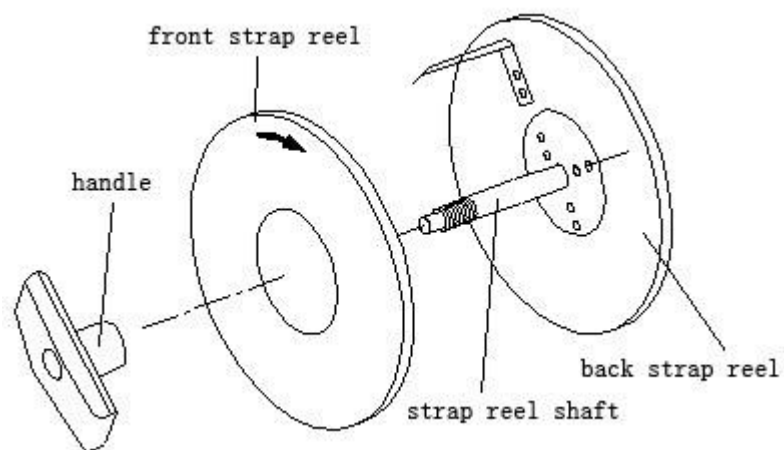
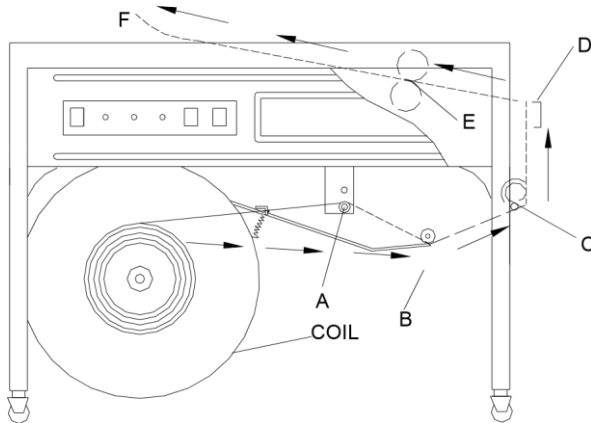


Fig. 2-2-1 chart of strap reel

2-2 Strap threading step

2-2-1 Diagrammatic sketch of threading strap for STEP ERGO Strapping Head



Step:

- 1) Pull the PP straps from the strap reel about one meter.
- 2) Pass the straps through ring (A) and (B), then to transition wheel (C), and come out from the side.
- 3) According to the indication, insert the head of the straps to (D)
- 4) Continue to feed straps until it pass through the rollers (E).
- 5) Press the feeding straps button which can feed straps. The strap comes out from (F) point. Then finish threading strap.

2-3 Description of control panel button

2-3-1 The control panel is at the left part of front board. See Fig. 2-3-1

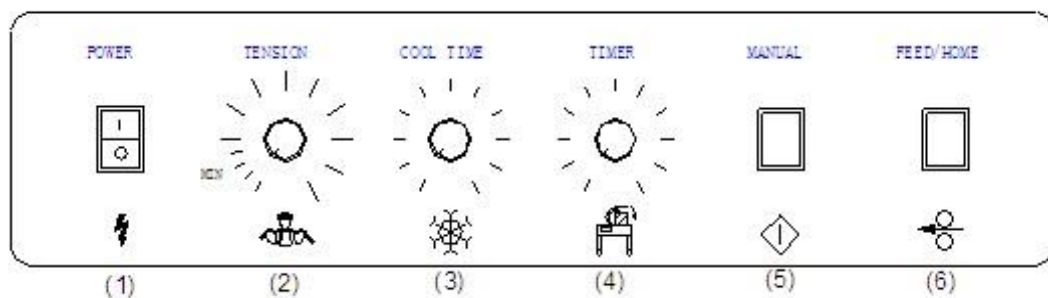


Fig. 2-3-1

(1) Power switch (POWER)

Turn on the switch, the red light is on and the machine can operate. Turn off the switch, cut off the power, the machine stop running.

(2) Tension adjusting button (TENSION)

Rotate the button and the tension force will change accordingly. When the tensioning is small, the speed of retreat strap is slow. If the tensioning is big, the speed of retreat strap is faster.

(Note: when the tensioning is big, please careful to operate and avoid hurt from PP strap.)

(3) Cooling adjustment button (COOL TIME)

Rotating the knob can avoid the strap burst when the tension force is too big or PP strap too thin.

(4) Length adjustment button (TIMER)

Each scale is about 500 mm, clockwise adjustment, the tie will be more long; otherwise, it will be much shorter.

(5) Manual start button (MANUAL)

You can manually start LS4 switch, with the same function Of PP band interpolation

(6) Manually send back with buttons (FEED/HOME)

The machine shows "zero" (green light is bright), You can press the button and manually into the PP band. At the same time press the button in the back with a belt can also be zero .

2-3-2 The function of potentiometer on PCB RV1

Adjust RV1, measure the voltage between two ends of capacitance C17. Adjust it clockwise, the voltage will increase and then the minimum tension increase. Adjust it anti-clockwise, the voltage will decrease and then the minimum tension decrease.

(Usually it is adjusted before deliver and no need to adjust again.)

RV2

When the machine starts, it has 15 second to warm up. When it warms up, the indicator on the PC board flickers. The warm up process stops if the indicator not flickers. Adjust RV2 clockwise, the heating voltage between two ends of the heater increase. Adjust it anti-clockwise, the heating voltage between two ends of the heater decrease. (Usually it is adjusted before deliver and no need to adjust again if the temperature can reach requirements.)

2-4 Instruction of adjustment

1. Temperature adjustment: You can see clearly on the distribution box, temperature increase when turn clockwise. The adhesive effect will be not very good if the temperature too is high or too low. So do not adjust too much for one time. Adjust it is between 4-6 will be OK.

2. Width adjustment: This machine is designed specially. Users can adjust (2) (3) (4) and benchmark' width (1) or (2) to use 6mm-15mm width PP straps. Generally, it will be 1mm longer than actual width. If the PP with poor quality, the width should be longer.

Otherwise send back will be a failure. See Fig. 2-4-1:

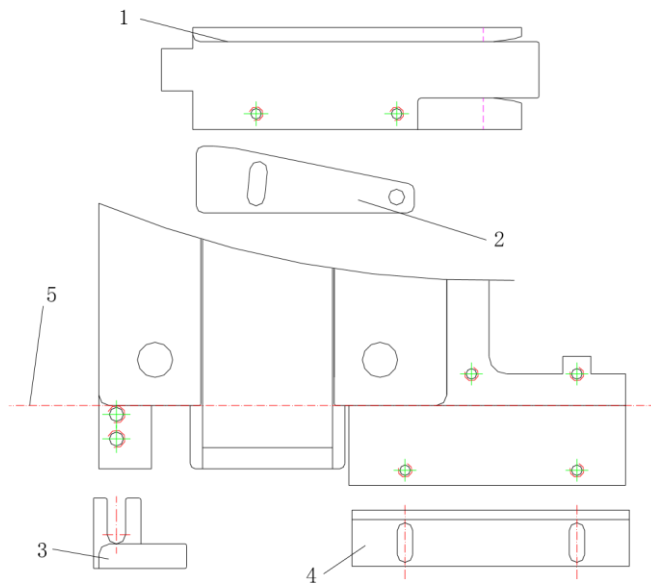


Fig. 2-4

3 START AND RUNNING Introduction of control system

There is intact electrical diagram in this manual. Now introduce the function of some micro switch and quick heater system. See Fig. 3-1-1.

LS1: In the LS2. When it is in home position, its contact point is hold out against by the cam of micro switch. After on cycle strapping, the program will control to send out PP strap automatically.

LS2: Outside of LS1. It is controlled by program to tension and cool.

LS4: Under the sliding board. When begin to strap, the strap head insert through the chute. A shrapnel makes it touch the contact point of switch and then begin to strap.

HL1: Quick heat piece is at the right side of fan. When the machine starts, it can reach the proper temperature within 20 second.

Fan1: Fan, it can exhaust smoke while strapping.

M1: Main motor controls the cam, cut strap and adhesive PP strap.

M2: Send and retreat strap motor. It controls sending strap and tensioning work.

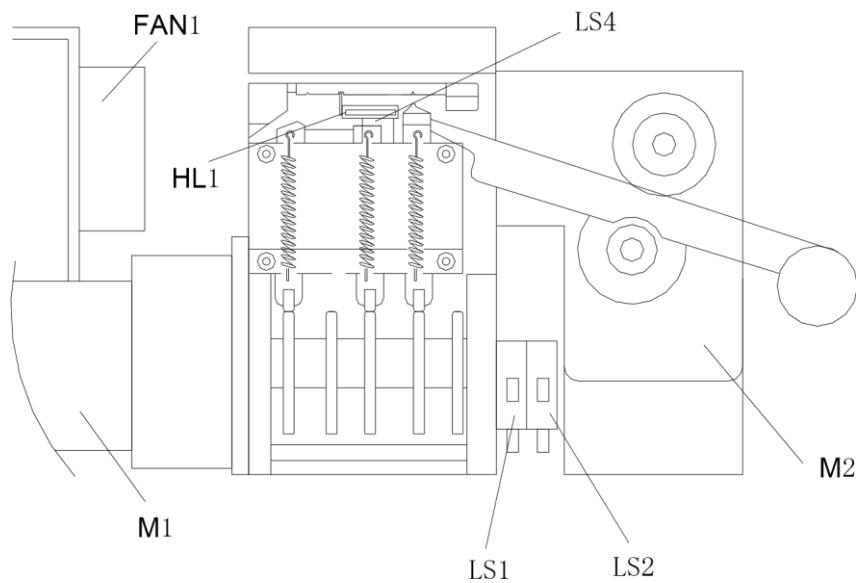


Fig. 3-1-1

3-2 Clean and adjustment

1.) Up skateboard

The up skateboard should be exactitude cooperate with left and right press bar. And we must keep the skateboard move up and down, left and right freely. So this part must keep clean and often maintain. See Fig. 3-2-1 and the process as following:

- A. Take away the pull spring which is on the sway rocker that under the skateboard.
- B. Move backward the up skateboard and take out.
- C. Wipe clearly the slot part between up skateboard and left right press bar.
- D. Moving the up skateboard forward and backward to check whether it moves smoothly or not. If need adjust, skate on the right aim at front top slot, left slot aim at back top slot, assure middle knife can drop and cut.
- E. Add some lubrication oil in the gap between skateboard and press bars.

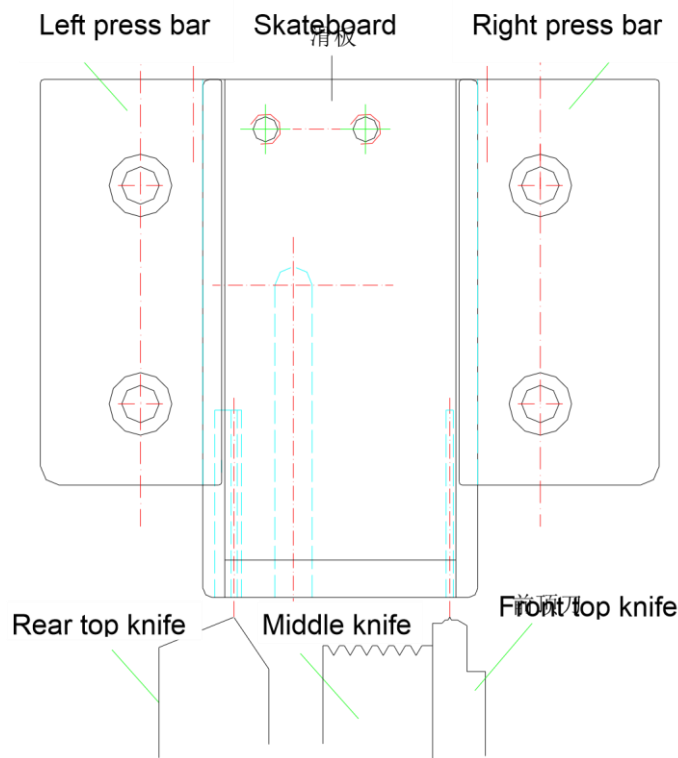


Fig. 3-2-1

2.)Micro-switch cam

The position of micro-switch cam related to the action of micro switch LS1 and LS2. When the machine is zero set, LS1 is close circuit and LS2 is open circuit. Because LS1 and LS2 join together, do not need to consider the adjustment method of LS1 and LS2. Loosen the fixed screw. The cam have three faces, one high, one concave and one normal. When LS1 adjust to the highest face, it is close circuit. When LS1 adjust to the normal face, it is open circuit.

3.)Middle knife and front top knife

The middle knife and front top knife must cooperate exactly to cut off strap. So the clear and maintenance are very important. See Fig. 3-2-2, the step as following: A. Take away the pull spring of middle knife and front point knife.

- B. Move the up skateboard backward, take out the middle knife and then take out the front point knife.
- C. Wipe the middle knife, front top knife and knife groove clearly.
- D. Fit on the front top knife, and then install the middle knife and spring.
- E. Add some lube to around the middle knife, front top knife and back top knife.
- F. If the middle knife and front top knife cannot cut off the strap after long-term usage, take out the middle knife, take out the spring fixing screw and fit to the other side. And then install the middle knife. So that changes to the sharp incision.

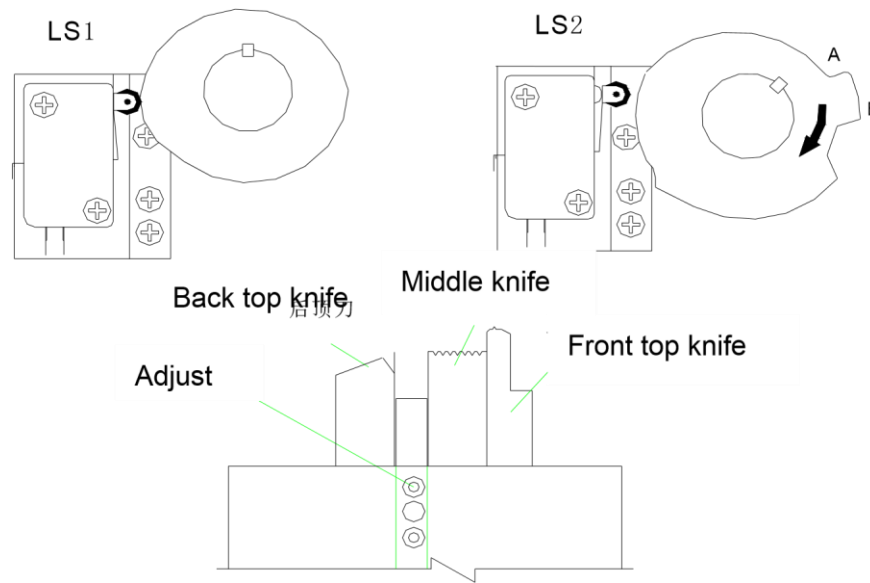


Fig. 3-2-2

4 MAINTENANCE AND LUBRICATION

The material of the strap is PP, which is easily out of shape if in high temperature and fire. Please do not place the strap near the inflammable and explosive products. If the strap is bend or out of shape, the machine may appear trouble and cannot strap normally. Cleaning and lubricating is important measures to prolong its service life. The strap powder and slices can be caused by friction during the strapping and usually gather in space between machine head and electrical component. The powders must be cleaned up in time, at least once a week. (Cut off the power supply during cleaning.)

4-1 Once a week maintenance regulation

Open the table panel, use air gun to blow the powder and clean inside of the machine with lubrication oil.

1. Movement part of up and down skateboard.
2. Movement part of heater.
3. Holes of the three knives .

Check the force of all spring. Check whether the strap store balance pole is flexible through simple movement.

Strap several cycles, check the visible and audible trouble.

4-2 Once a month (strapping 100000 cycles) maintenance regulation

Check whether bearing of machine head is flexible.

Whether the strap sending roller is flexible

Whether the temperature of heater changes

Whether the gear wheel has been worn The force of spring is correct.

4-3 Once half a year (strapping 600000 cycles) maintenance regulation

Check the heating device. If necessary, replace it.

Check the joint piece of PC board.

Check the function of every switch,

4-4 Once a year (strapping 1200000 cycles) maintenance regulation

Clean the inside parts and adds lubrication oil.

4-5 Parts list

Code	Description	Quantity	Remark
HYS GB25	Inner hexagon spanner	1	M2.5
HYS GB30	Inner hexagon spanner	1	M3
HYS GB40	Inner hexagon spanner	1	M4
HYS GB50	Inner hexagon spanner	1	M5
HYS GB0810	Open spanner	1	8x10
HYS GB1214	Open spanner	1	12x14
HYS GA04	Cross screwdriver	1	4

5 TROUBLE EXAMINE AND REPAIR

Here list some common trouble. Users can solve it refer to the following list.

Warning:

Please make sure turn the switch to 『O』 (OFF) position. Pull out the plug and screwing out the bolts that fix the table panel. Open the panel to adjust. It may occur shock or hurt caused by machine start. Screw up the bolt and then get through power supply.

Warning:

When repair the machine must be our company's serviceman, or trainee who has accept "service and technical lecture" to repair it. Non-ele ctrical machinery person is strictly prohibited to disassemble and repair.

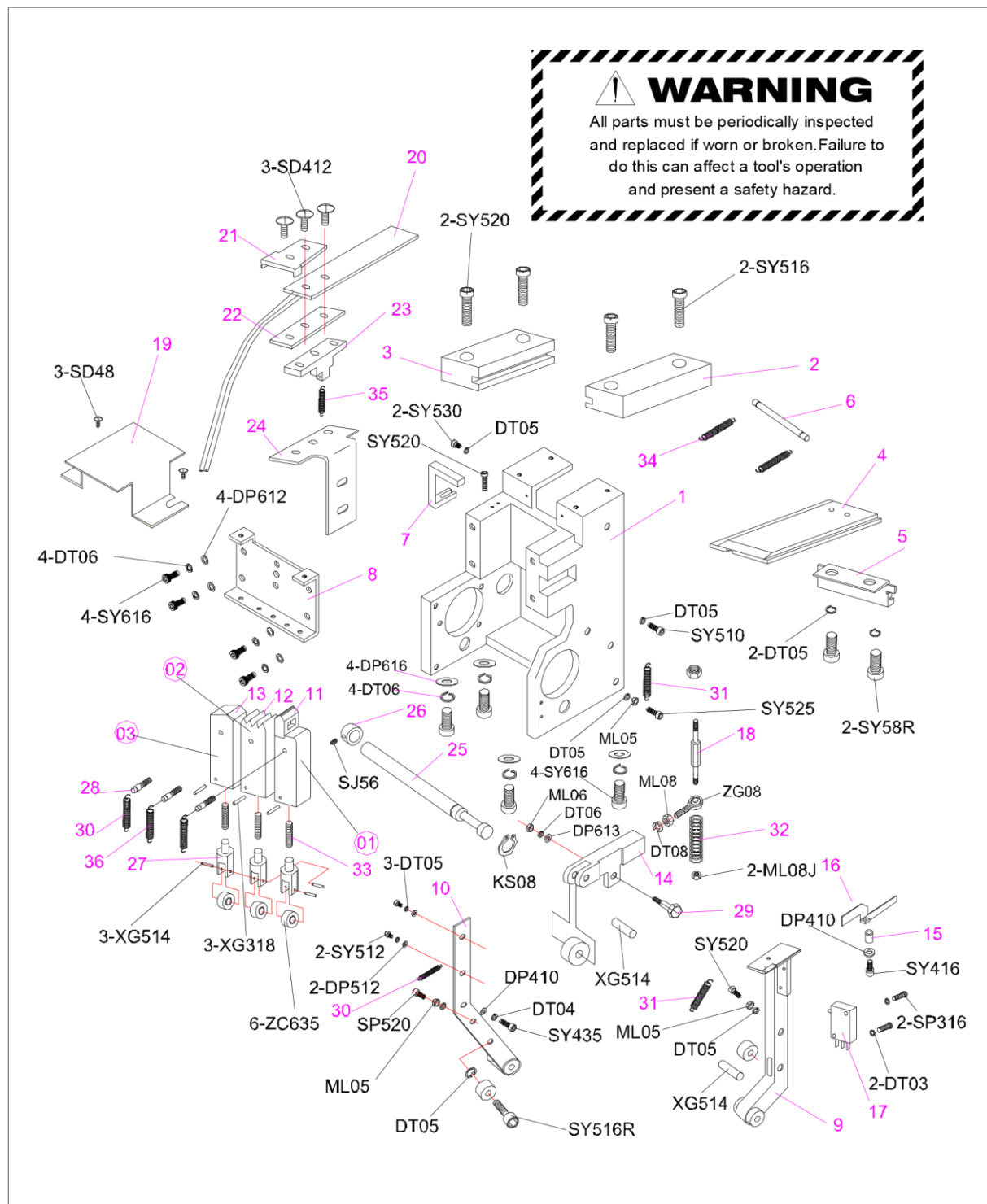
Trouble, cause and troubleshooting

No	Trouble	Cause	Troubleshooting
1	No action after insert the strap	LS4 micro switch fault	LS4 micro switch fault or shrapnel is blocked by foreign material and cannot touch connect point.
		PC board or switch power not good	Replace PC board or switch power

2	Not send strap automatically	The potentiometer that control the length on null line	Adjust the feed strap knob, every scale about one meter. Adjust clockwise, adjust scope bigger send strap longer. No sending strap when it is in zero position
		Thread strap incorrectly	Thread the strap according to the manual or the diagrammatic sketch at the right side of the door.
		There is foreign material in the up and down extension.	Clean the machine periodically.
3	Not cut strap	The bearing of middle knife is broken	Cause by improper operation. Replace the bearing
		Cutter of the middle knife is worn	There are two cutter sides. Change to another side to continue.
4	Adhesive not good	Temperature adjust improper	If the max temp. can no adhesive well, adjust the W2 on the PCB to increase the temp.
		The spring on the heater fault	The spring is exhausted. Replace it.
		Heater piece adjust improper	Heater piece is not in right position and touch the PP strap or knife, so that it cannot heat. Adjust it accordingly.
		The bearing of middle knife is broken	Replace the bearing
		The temperature is too high	Check whether the fan is faulty. Repair or replace it.
		The tension force is too large	Adjust to make the tension smaller. Or increase the cooling time.
5	Cannot reset	LS4 micro switch fault	LS4 contact point cannot release. Adjust the shrapnel gap. Check if there anything blocks the shrapnel.
		LS1 not good	Cannot detect the position. PCB faulty lamp flicker. Replace LS1
6	Cut strap while no tension	LS2 not good	Retreat strap cannot detect the position. PCB faulty lamp flicker. Replace LS2
		Tension is too small	Adjust to make the tension bigger. Adjust W1 on PCB to make it bigger.

6 PARTS DRAWING AND LIST

6-1 Knife and skateboard assembly

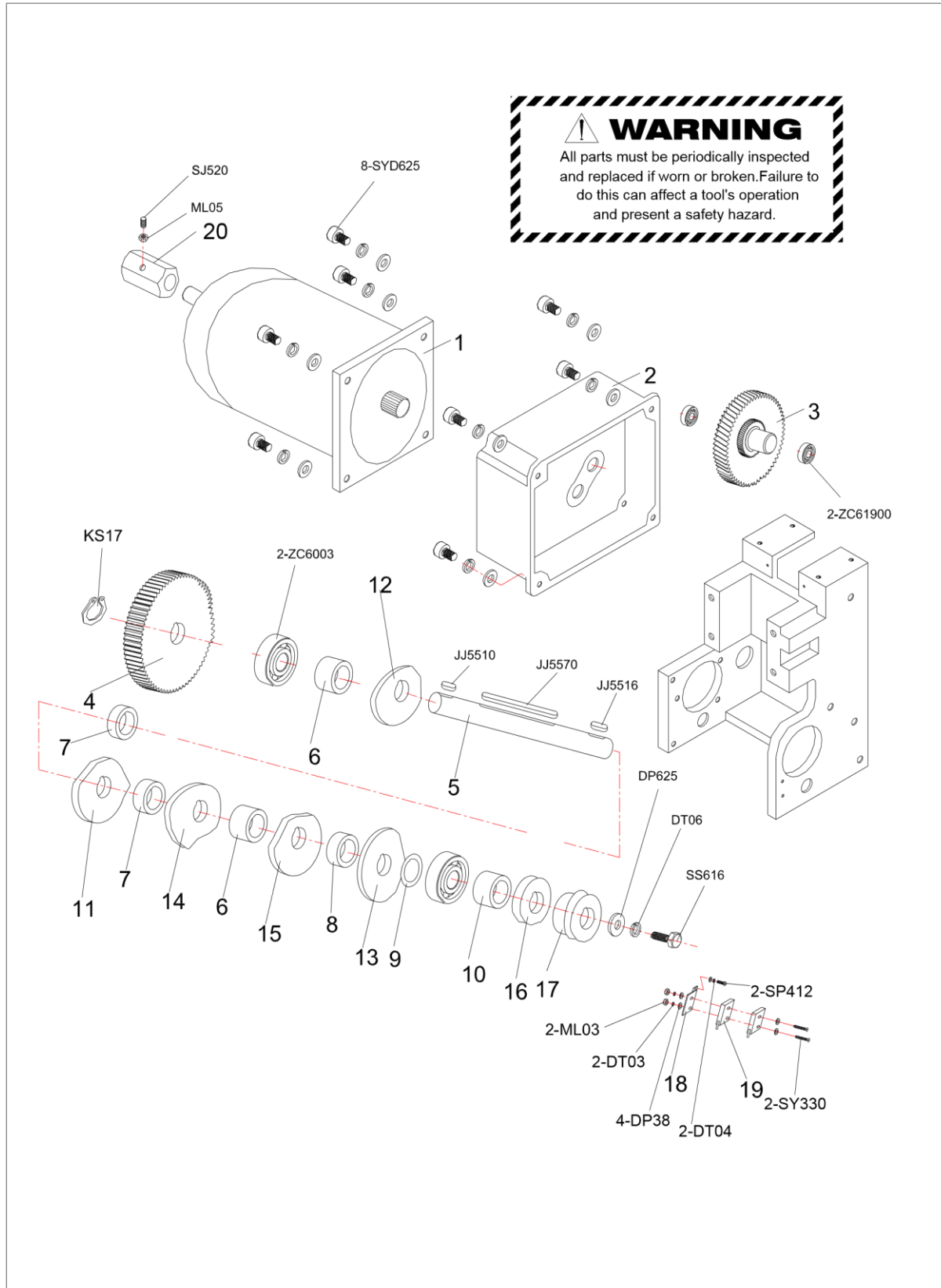


Detailed parts list

No	Code	Description	Qty
01	HYS AS1-11	1# knife combination	1
02	HYS AS1-12	2# knife combination	1
03	HYS AS1-13	3# knife combination	1
1	HYS A0200	Mechanism base	1
2	HYS A0173	Right press bar	1
3	HYS A0172	Left press bar	1
4	HYS A0171	Up skateboard	1
5	HYS A0191	Up skateboard barrier sheet	1
6	HYS A0192	Skateboard pull rod	1
7	HYS A0205	adjusting block	1
8	HYS A0214	Spring drawing board	1
9	HYS A0204	Skateboard arm	1
10	HYS A0201	Electric heating arm	1
11	HYS AS1-114	1# knife	1
12	HYS AS1-117	2# knife	1
13	HYS AS1-118	3# knife	1
14	HYS A0107	Cross bar	1
15	HYS A0131	Contacts copper sleeve	1
16	HYS A0130	Bottom slide contact	1
17	HYS EW001	Micro switch, no roller	1
18	HYS A0107	Cross bar	1
19	HYS A0206	Heat-resistant cover	1
20	HYS A1079	Electric heating head	1
21	HYS A1081	Electric heating press sheet	1
22	HYS A1080	Electric heating bakelite sheet	1
23	HYS A0202	Electric head fixed block	1
24	HYS A0203	Electric heating fixing board	1
25	HYS A0209	Rocker arm shaft	1
26	HYS A0210	Rocker arm shaft sleeve	1
27	HYS AS1-115	Knife neck	3

28	HYS AS1-116	Knife screw	3
29	HYS AS1-513	Cross bar screw	1
30	HYS HL101122	Long extension spring $\phi 1.0 \times \phi 10.8 \times 22$	2
31	HYS A0211	Send with spring	2
32	HYS A1100	Tensioning press spring	1
33	HY231042	Spring in knife $\phi 2.3 \times \phi 10 \times 42$	3
34	HYS A0132	Skateboard extension spring	2
35	HYS A1094	Electric tension spring	1
36	HYS HL121020	Short extension spring $\phi 1.2 \times \phi 10 \times 20$	1

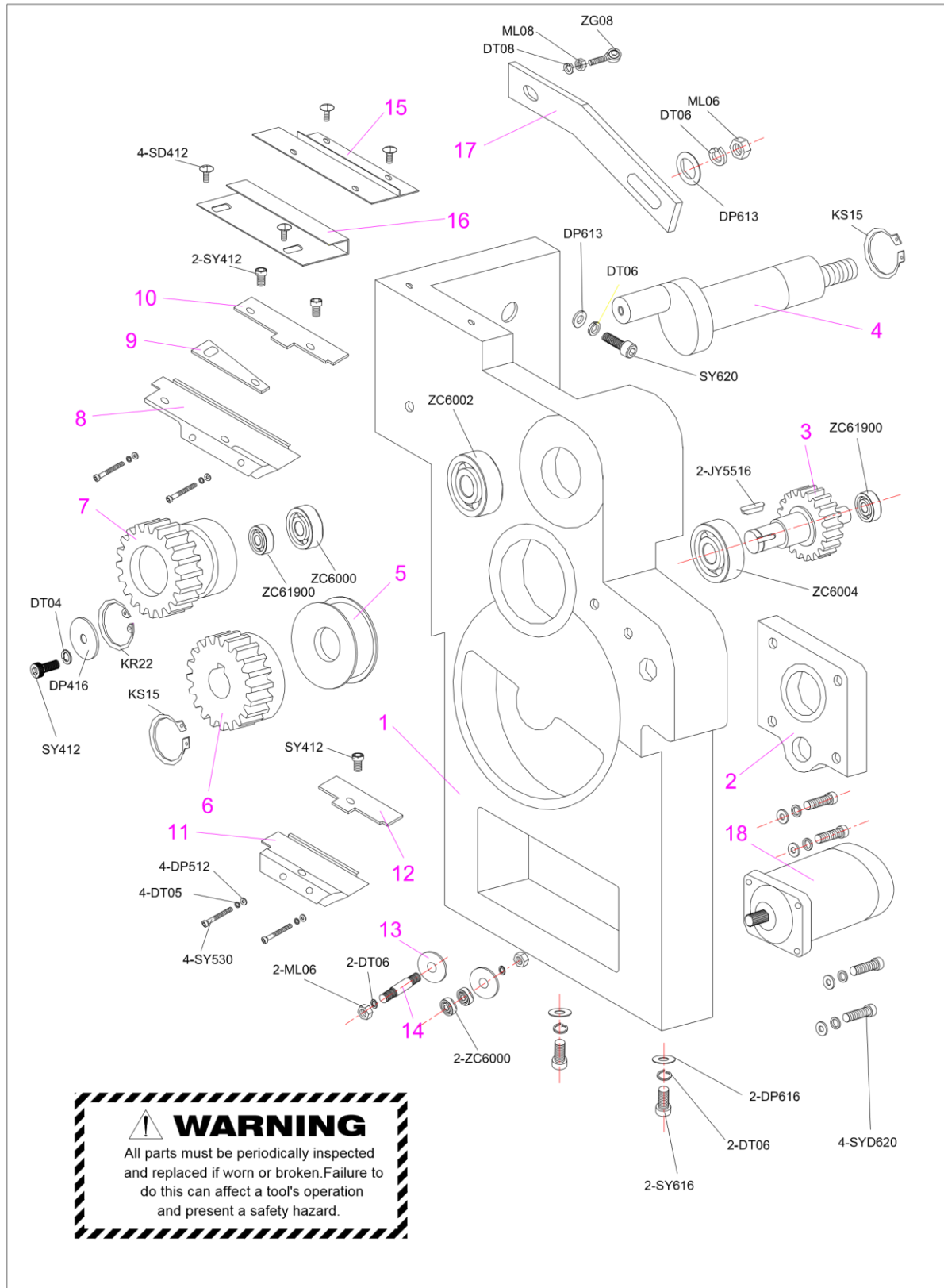
6-2 Cam and Reduction Gear Box Assembly



Detailed parts list

No	Code	Description	Qty
1	HYS EA012	DC cam motor	1
2	HYS A0150	Gear box cover	1
3	HYS A0152	Transition gear wheel	1
4	HYS A0151	Output gear wheel	1
5	HYS A0207	Cam shaft	1
6	HYS DJ172912	Cushion ring $\phi 17*29*12$	2
7	HYS DJ17298	Cushion ring $\phi 17*29*8$	2
8	HYS DJ17296	Cushion ring $\phi 17*29*6$	1
9	HYS DW17295	Cushion ring $\phi 17*29*0.5$	1
10	HYS A0208	Cam spacer	1
11	HYS A0139	Skateboard cam	1
12	HYS AS1-207	3# knife cam	1
13	HYS AS1-208	Electric heating cam	1
14	HYS A0140	2# knife cam	1
15	HYS AS1-205	1# knife cam	1
16	HYS AS1-210	Cross bar reset cam	1
17	HYS A0137	Retreat strap cam	1
19	HYS AS1-215	Micro switch base sheet	1
21	HYS EW002	Micro switch, with roller wheel	2
24	HYS A0153	Motor fixing sleeve	1

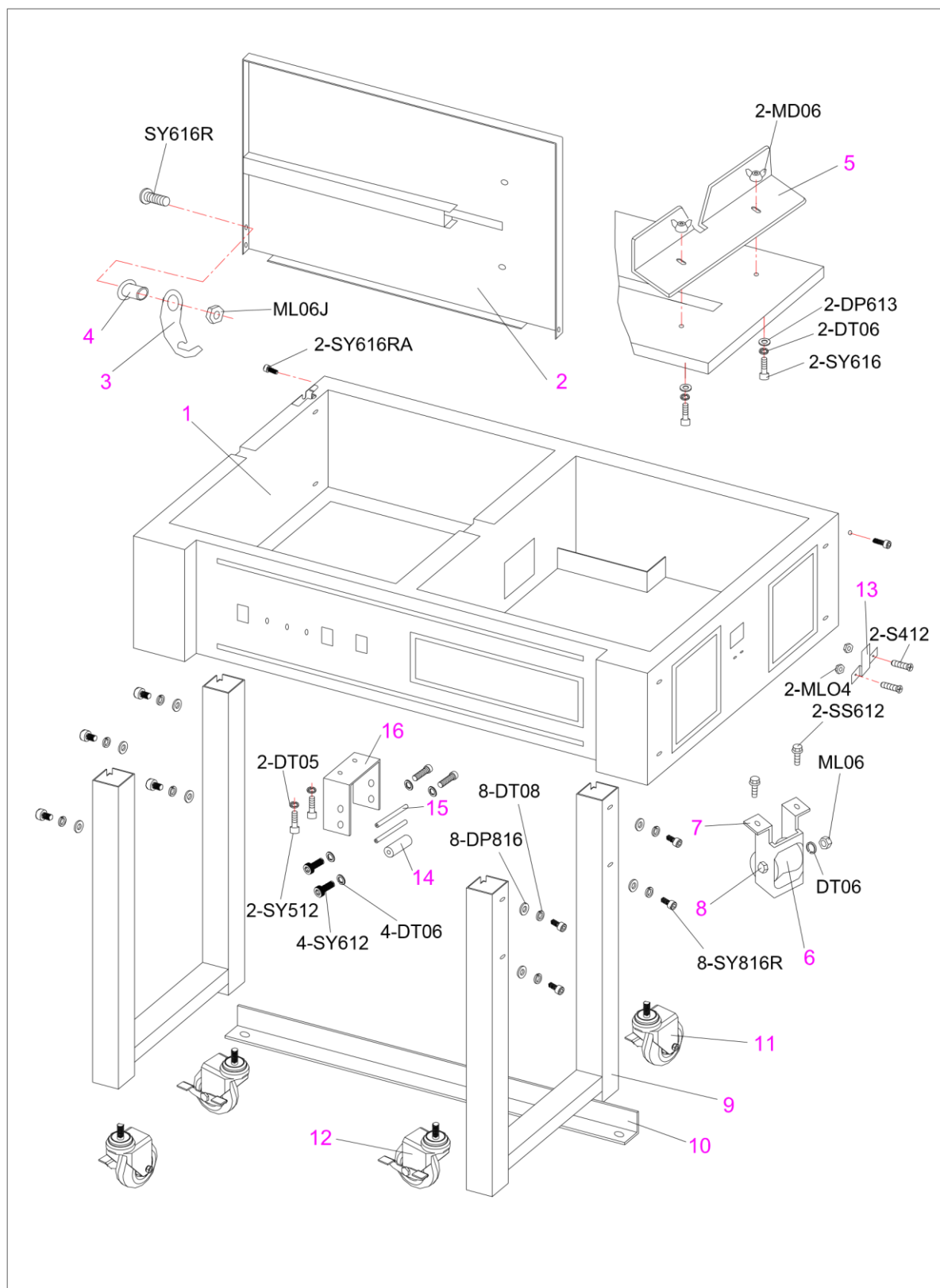
6-3 Send and retreat strap assembly



Detailed parts list

No	Code	Description	Qty	Remark
1	HYS A0180	Belt sending base	1	
2	HYS A0181	Gear cover	1	
3	HYS A0182	Reduction gear	1	
4	HYS A0184	Eccentric shaft	1	
5	HYS A0183	Send pulley	1	
6	HYS A0220	Iron gear	1	
7	HYS A0221	Driven wheel	1	
8	HYS A0186	Upper strap way	1	
9	HYS A0105	Adjustment board	1	
10	HYS A0188	Upper strap way cover	1	
11	HYS A0187	Lower strap way	1	
12	HYS A0189	Lower strap way cover	1	
13	HYS A0170	Pulley gasket	2	
14	HYS A0190	Pulley shaft	1	
15	HYS A0222	Insert aluminum plate	1	
16	HYS A0223	Insert belt adjustment board	1	
17	HYS A0185	Tighten rod	1	
18	HYS EA013	DC motor retreat	1	

6-4 Machine frame

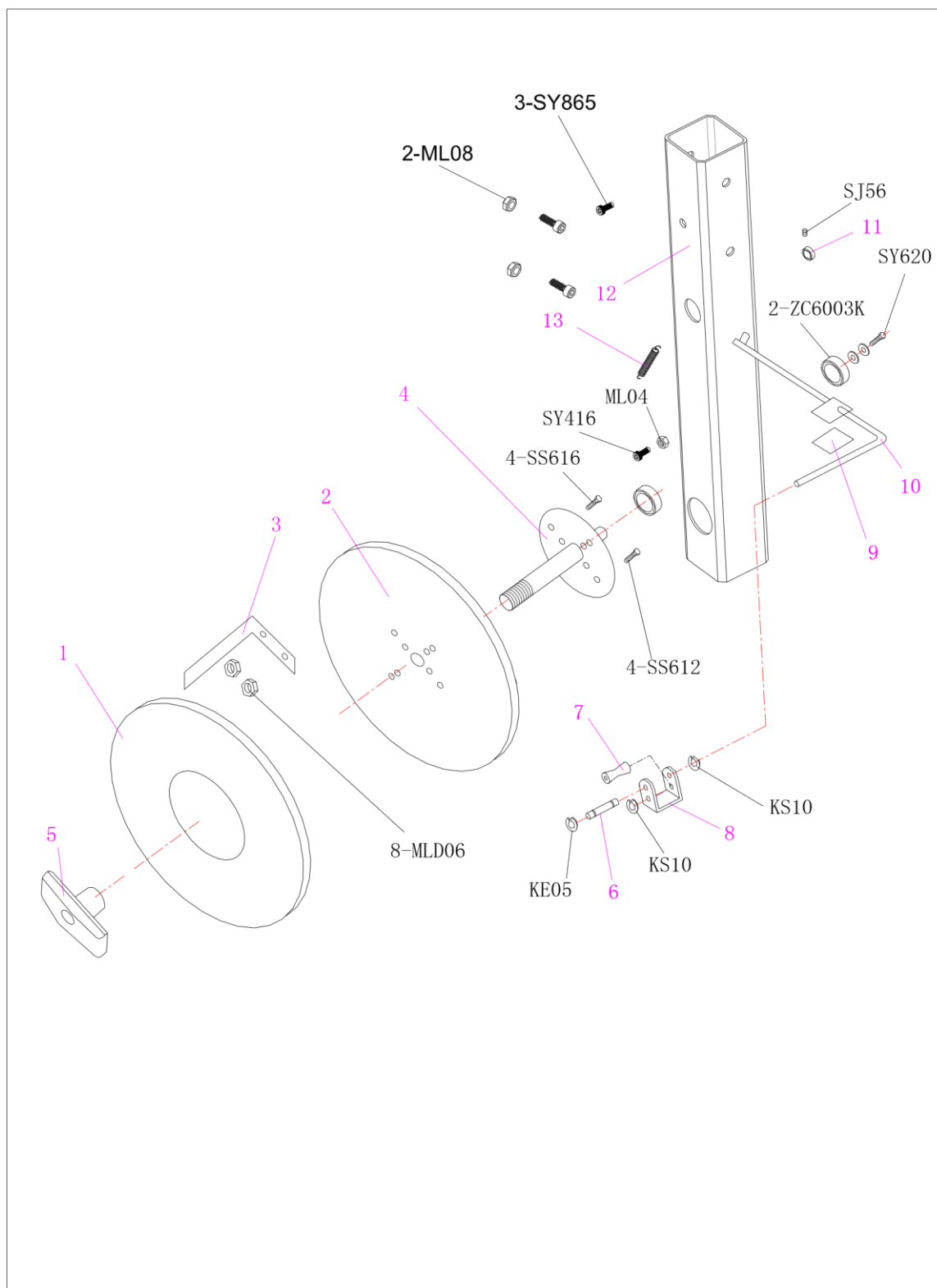


Detailed parts list

No	Code	Description	Qty
1	HYS A0010	AS-50 frame	1
2	HYS A0011	AS5 stainless steel table panel	1
3	HYS AS1-611	Arch support	1
4	HYS AS1-612	Cover support punch sleeve	1
5	HYS A0090	Stainless steel iron blocking device	1
6	HYS AS1-614	Guide strap pulley	1
7	HYS A0014	Pulley rack	1
8	HYS AS1-615	Guide strap pulley shaft	1
9	HYS A0016	Angle iron legs tube	0-2
	HYS A0018	Square tube legs tube	0-1
10	HYS A0017	Angle iron beams strengthened	0-2
	HYS A0019	Square tube beams strengthened	0-1
11	HYS LA1675	Screw stem universal castor	2
12	HYS LB1675	Screw stem universal castor with brake	2
13	HYS AS1-601	Door Strap way	1
14	HYS A0027	Strap way pulley	1
15	HYS A0028	Strap way pulley shaft	2
16	HYS A0029	Strap way pulley rack	1

6-5 Strap reel and brake assembly

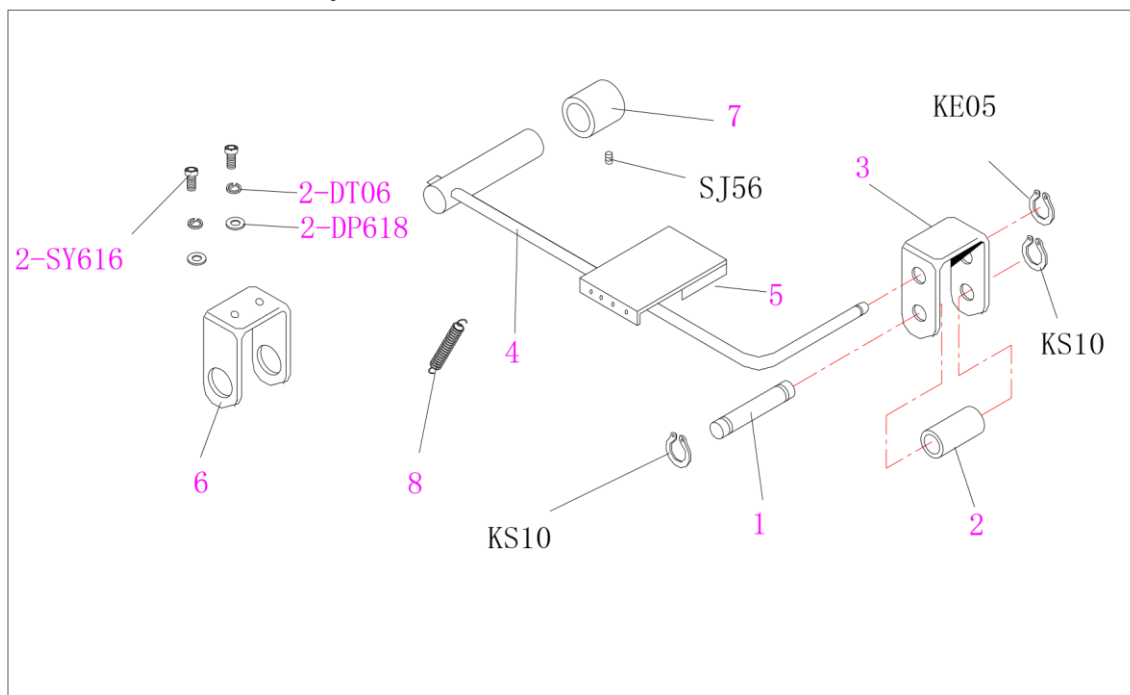
6-5-1 Strap reel assembly



Detailed parts list

No	Code	Description	Qty
1	HYS A0061	Outside strap reel	1
2	HYS A0060	Inside strap reel	1
3	HYS A0402	Brace claw	4
4	HYS A0050	AS-10 strap reel shaft	1
5	HYS AS1-709	Handle	1
6	HYS AS1-801	Brake rod pulley Shaft	1
7	HYS AS1-802	Brake pulley	1
8	HYS AS1-803A	Brake rod roller wheel support	1
9	HYS AS1-814	Brake belt	1
10	HYS A0015	AS-10 brake rod	1
11	HYS A0064	Small fixed sleeve	1
12	HYS A0404	Reel support tube	1
13	HYS A0400	Brake spring	1

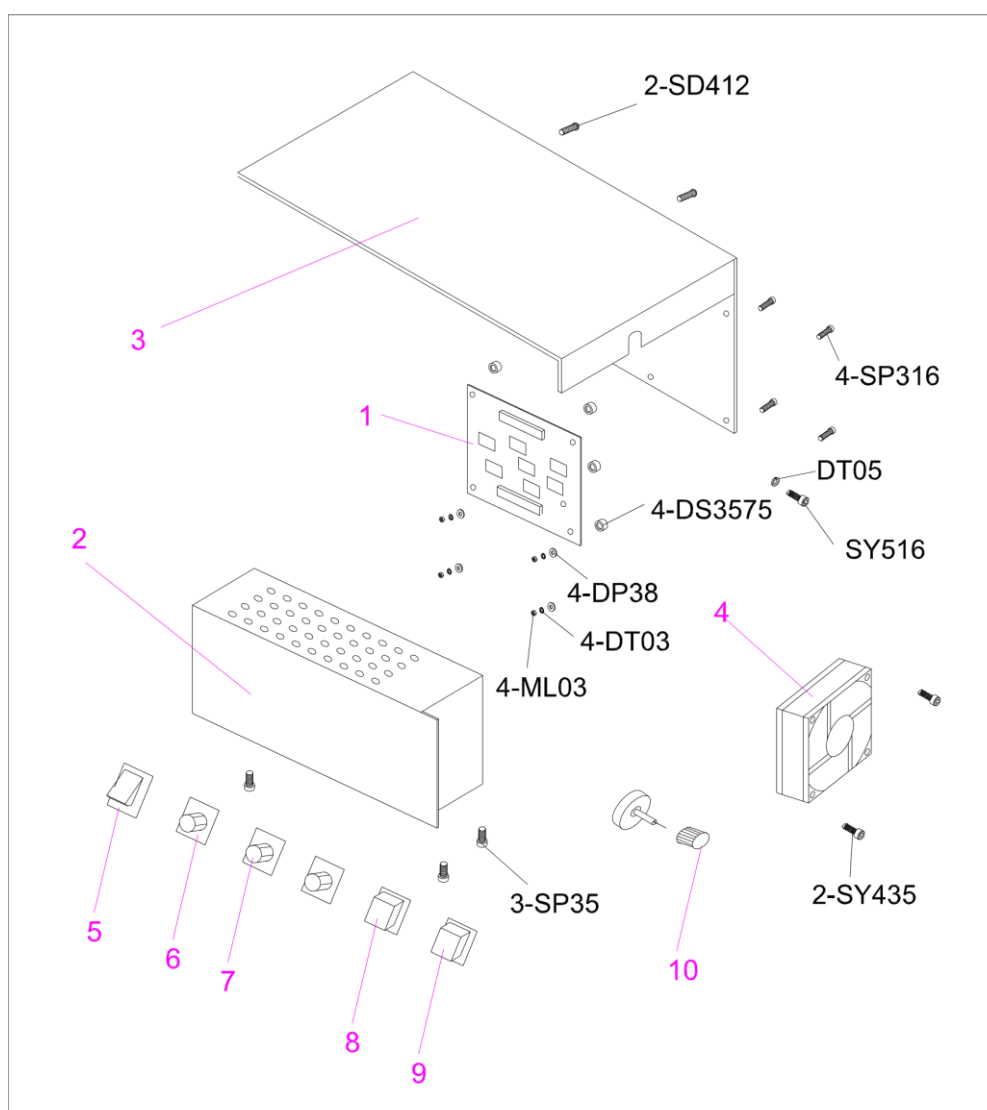
6-5-3 STEP ERGO brake parts



Detailed parts list

No	Code	Description	Qty
1	HYS AS1-801	Brake rod pulley shaft	1
2	HYS AS1-802	Brake pulley	1
3	HYS AS1-803	Brake rod roller wheel rack	1
4	HYS A0024	AS-11 brake rod	1
5	HYS AS1-814	Brake belt	1
6	HYS A0023	AS-11 brake support	1
7	HYS A0064	Small fixed sleeve	1
8	HYS A0400	Brake spring	

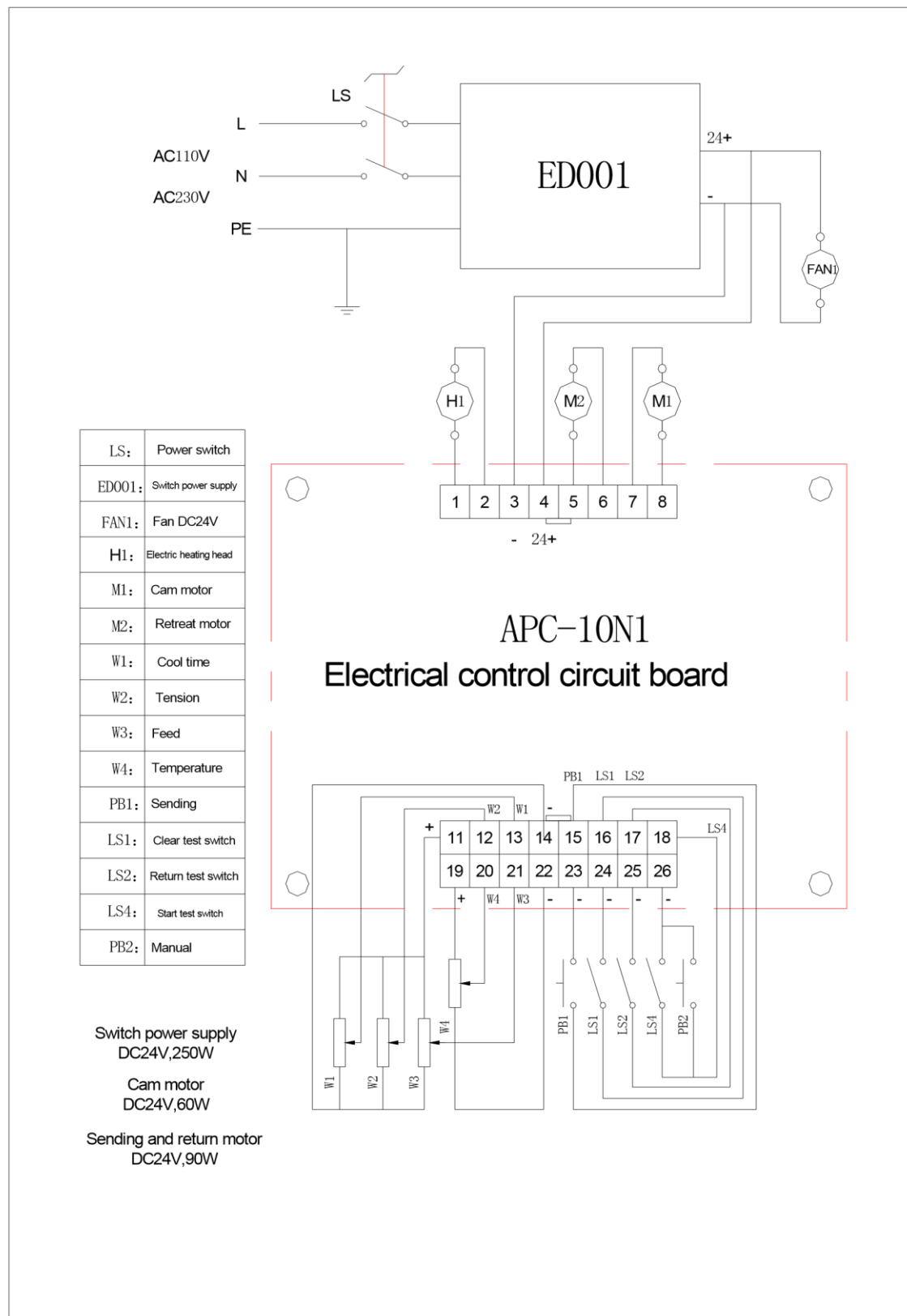
6-6 Electrical parts



Detailed parts list

No	Code	Description	Qty
1	HYS APC-10N1	PC board combination, APC-10N1	1
2	HYS ED001	250W switch power supply	1
3	HYS A0013	Electrical box cover	1
4	HYS EF001	Micro fan 24VDC	1
5	HYS EK002	Red switch	1
6	HYS EP002	Potentiometer 250K	4
7	HYS UN001	Rotate button (black)	3
8	HYS EN001	Yellow button	1
9	HYS EN002	Green button	1
10	HYS UN002	Rotate button (red)	1

7 ELECTRICAL SCHEMATIC DIAGRAM

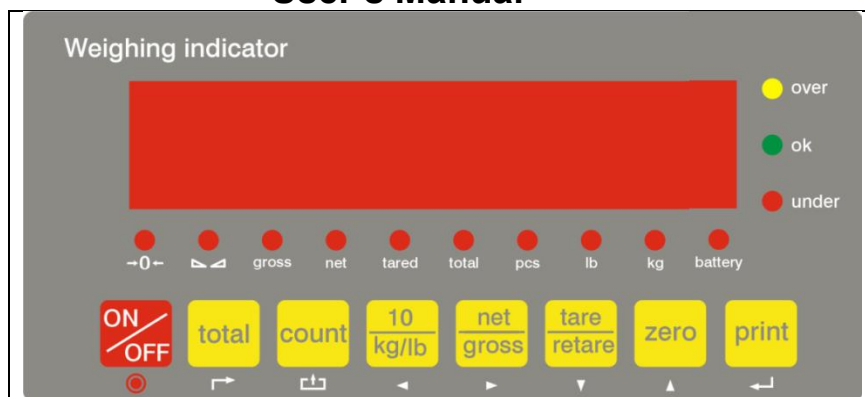


LP7510 **Weighing Indicator**

Item no. 95060004

User manual edition: A 031017 GUS

User's Manual



Edition:01-081008

Hallbrookcomponents.com

■ Load Cell ■ Controller ■ Scale

Preface

Thanks for using LP7510 Weighing indicator,
 ALL products are been strictly tested and inspected before shipment. You will benefit from
 its strong function and good quality.

Locosc is devoted to weighing technology development, industrial scales produce and
 technical service. If you have any suggestion on our product, do not hesitate to contact us. Contact info. Is as
 bellows:

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Hong Kong - Denmark
+45 -7027 22

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1 Safety instruction and notice for battery use



safety instruction

For safety operation pls. follow the safety instruction.



WARNING

The Non professional staff can not set. Calibrate, inspect or fix the the weighing display



WARNING

Pls. make sure the weighing display have good ground in using



WARNING

The indicator is the static and sensitive equipment, cut off the power when doing electrical connections, internal components touched by hand is prohibited, and please take the measure of anti-static.



Battery use instruction

The Company provided for the maintenance-free and rechargeable battery , low self-discharge rate, long life, and work temperature -10-40 °C. The new battery will make the best effective after two or three complete charge. Each time charge should keep at 6 to 8 hours, not more than 12 hours. when use battery-powered, the work time is 20-30 hours when the battery fully charged, when the indicator showed that "LOBATT", means the battery is under power. Pls. charge at once.

Charging method:

1. Random specific power adapter plugged into AC power outlet, the circular DC power supply plug into "DC" jack on the indicator back cover.
2. Open the power switch to "on", power-on self test, go into weighing status . "batter" status light does not on, in a battery is charging
3. Charging time 6 to 8 hours later , take off the adapter, "battery" light on, means battery-powered.

Note:

1. In order to keep the battery in best use condition, so suggest that monthly charge and discharge the battery completely at least once, the method is to use the indicator until the battery if finished automatically shut down the indicator and then recharging again.
2. If the battery when not in use for a long time, please take out the batteries from the indicator in order to avoid battery leakage and damage the indicator .Do not use the battery for a long time, it is essential to charge the batter every 2 or 3 month. Or the battery will expire.
3. Pls. make sure the indicator is powered off then change the batteries, or it will have an impact on the indicator life.
4. when replace the battery. The correct connection is : connect the red line to the plugs in red mark; and the black line to the plugs in black mark, Be sure wiring is correct, or it will cause damage to load cell, explosive, and the main board damage
5. Our Company only responsible for approved the standard battery and power adapter by our company. And not take any responsibility for any damage by the accessories offered by third-party.

2 Main functions and parameter

2.1 main functions:

Weighing function:

Zero, gross, net, accumulating, printing, counting, animal -weighing.

Toggle operation: kg/lb

Options:

Pinter

RS232/RS485 serial interface or second display

Classifying scales (with I/O card)

2.2 technical parameter

Accuracy class 6000 e

Resolution display: 30, 000 ADC: 2,000,000

Zero stability error $TK_0 < 0.1 \mu V/K$

Span stability error $TK_{spn} < \pm 6 \text{ ppm}/K$

Conversion time 50 ms

Sensitivity (internal) $0.12 \mu V / \text{count}$

Input voltage $-30 \sim 30 \text{ mV DC}$

Excitation circuit 5 VDC, 4 wire connection, all strain gauge,
min. 50Ω , e.g.: 6 load cell of 350Ω

AC power AC100~250V

DC power DC6V/4Ah rechargeable batter,700mA。

Operation temperature $-10^\circ \text{C} \sim +40^\circ \text{C}$

Storage temperature $-40^\circ \text{C} \sim +70^\circ \text{C}$

3 Installation and connection

3.1 Installation method

There are 3 installation method for LP7510

1. Wall mounting: Use screw M5 to fix the base of the weighing display to the wall
2. Table mounting: Adjust the elevation of the weighing display and the base. And then put it on the table.
3. Column mounting: Take off the base, then use screw M8 to fix the feet to the column

3.2 Connection

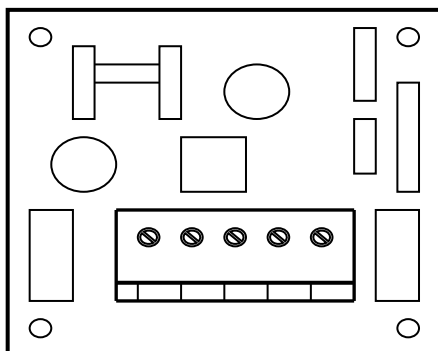
3.2.1 Supply power connection

2 kinds of power supply : One is AC 100-240V; another is in-built storage battery DC supply power, with charger.

AC powered connection method:

1. Open the back cover of the weighing display. And take off the Water-proof connector with AC mark. And insert the equipped power Line insider the back cover.

2. Fix the 3 core line to 5 bit terminal block J1 on the back cover AC power board. Shown as the below picture.



J1 pin	Pin symbol	AC supply power
--------	------------	-----------------

1	GND	Power ground line (yellow)
2	L	Power fire line (brown)
3	N	Power zero line (blue)

Built-in rechargeable connection method:

Open the back cover of the weighing display controller. Connect the red lines of the terminals to battery terminal (positive) with red mark;

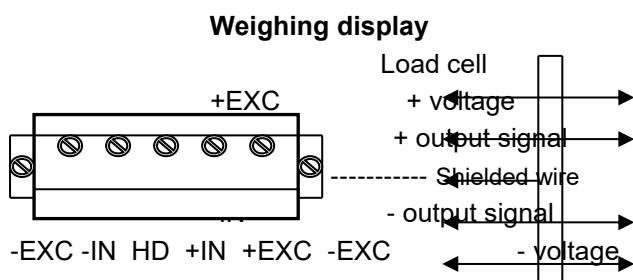
Black line connect battery terminals(negative) with black mark.

3.2.2 Connection of load cell and indicator

1. Weighing display of the incentives voltage for the load cell is 5VDC, the largest output current 120mA, maximum connect 6 pcs 350-ohm load cell;

2. Load cell (or the signal cable for the junction box) is connected with 5 bit Connection terminal (J2) on the weighing display circuit-board.

3. Open Weighing display controller back cover, insert signal line into the water-proof joint with "Load cell" signs. And connect signal cable to terminals J2, and make sure screw fixed tightly. Connection as below drawing:



3.2.3 Serial interface connection method(option)

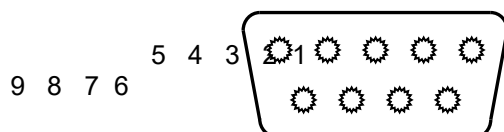
To connect with computers, second display, printer, and other communications equipment, Pls. purchase RS232 with DB9 joint and COM port together with the indicator. better choose the shielded twisted-pair. Length no longer than 15 meters.

1. Through RS232 or RS485 interfaces can be connected to the big screen;

2. Through RS232 or RS485 interfaces can be connected to the computer;

3. Through RS232 or RS485 interfaces can be connected to a printer and have printing function.

4. Serial communication interface at the back of the display controller marked the RS232-joint BD9 as the below drawing:



Pin function and definition as bellows:

DB9 joint	Definition	Function
2	TXD	Sending data
3	RXD	Receiving data
5	GND	Ground interface
6	V+	Printer power (positive)
8	V-	Printer power(negative)

Note: Only 2 pin and 5 pin connecting with second display

5. Serial interface reception command:

RS232COM serial interface can receive simple ASCII command. And Command word and role as follows:

Command	Name	Role
T	Tare off command	Save and clear tare
Z	Zero command	Zero the gross weight
P	Print command	Print the weight

G	Gross/net weight shift command	Gross/net weight shift
R	Read gross/ net weight	Read gross/net weight

6. Continuous output:

Reaction of command "R" are same as continuous output

Diagram illustrating a 16-bit bus structure. The bus is divided into segments: S1 (2 bits), S2 (2 bits), S3 (2 bits), Data (8 bits), S4 (2 bits), and a final 2-bit segment. The last two bits are labeled R and F.

S1: weight status, ST=standstill, US= not standstill, OL= overload

S2: weight mode, GS=gross weight, NT=net weight

S3: weight value sign, “+” or “-”

S4: weight unit sign, “kg” or “lb”

Data: weight value, including decimal point

CR: carriage return

LF: line feed

3.2.4 I/O connection(option)

1. The indicator I / O card can achieve external control command operation via an external input 4, and to complete remote control by computer or other controlling instrument.

2. Output 4 signal through the I/O card and can be connected with external control equipment for the realize the automatic control function of the external control or the executive instrument. The indicator can set 4 function pack, the function of each function pack can output respectively 4 different signals.

3. input function. Input port and input signals as bellows:

Input port	Port definition	Function instruction
In1	Zero input port	External zero signal input
In2	Tare output port	External tare signal input
In3	Print input port	External print signal input
In4	Gross/net weight input port	External gross and net weight signal input

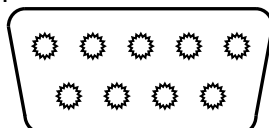
4.functions include output port and info. As bellows:

Function pack	Output port	Port definition	Function instruction
0	Out1	Overload output port	Indicator output overload signal
	Out2	Eligible output port	Indicator output eligible overload signal
	Out3	Under output port	Indicator output under load signal

	Out4	Reserve	No output signal
1	Out1	Overload output port	Indicator output overload signal
	Out2	Eligible output port	Indicator output eligible overload signal
	Out3	Under load output port	Indicator output under load signal
	Out4	Zero output port	Output zero bit signal
2	Out1	Overload output port	Indicator output overload signal
	Out2	Eligible output port	Indicator output eligible overload signal
	Out3	Under load output port	Indicator output under load signal
	Out4	Stable output port	Output stable signal
3	Out1	Zero output port	Output zero bit signal
	Out2	Tare output port	Output tare signal
	Out3	Stable output port	Output stable signal
	Out4	Reserved	No output signal

5. I/O card port is on I/O BD9 type joint of weighing display. The pin Definition and connection as bellows:

5 4 3 2 1
9 8 7 6

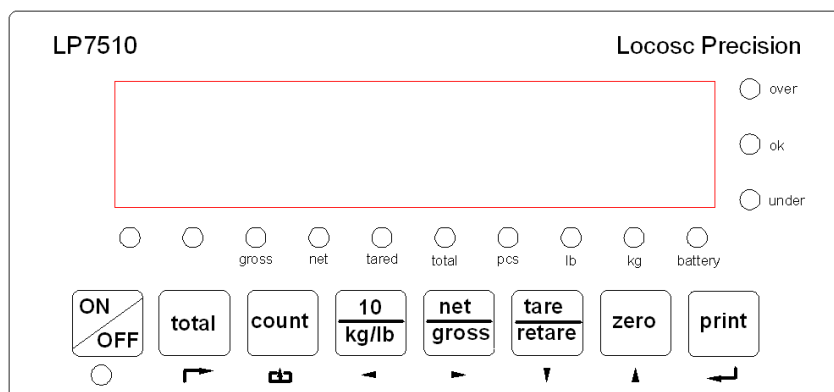


DB9	Pin definition	Port
1	First input pin	In1
2	Second input pin	In2
3	Third input pin	In3
4	Fourth input pin	In4
5	GND	I/O public groud
6	First output pin	Out1
7	Second output pin	Out2
8	Third output pin	Out3
9	Fourth output pin	Out4

Note: above is transistor output for I/O card install. When you select the relay output for I/O card. Pls. refer to Relay output I/O card manual.

4 Instruction

4. 1 Display and main key



Instruction:

When the light of status is on, the means are as follows:

- 【kg】 ——weight unit sign kg
- 【lb】 ——weight unit sign lb
- 【count】 ——count function
- 【battery】 ——in-built battery is working
- 【zero】 ——weight is zero
- 【stable】 ——weight is standstill
- 【gross】 ——weight is gross
- 【net】 ——weight is net
- 【tare】 ——have set tare
- 【total】 ——totalizing function level
- 【over】 ——weight is over upper limit
- 【ok】 ——acceptable weight
- 【under】 ——weight is under lower limit

LED light on means- the weighing data show on the display or setting the is working

Key functions of weighing level and operation

total	Press 5s to enter into and leave totalizing-scale operation Press 1s to totalize a weighing value during totalizing on
count	Press 5s to enter into and leave totalizing-scale operation Press 1s to convert pcs mode to weight mode for 4s during counting on
10 kg/lb	Press first times to convert display kg/lb to lb/kg for 4s Press second times to higher resolution display×10 for 4s Remarks: pressing two times continuously is invalid
net gross	Press first times to convert gross mode to net mode Press second times to convert net mode to gross mode
tare retare	Press first times to set gross weight > 0 into memory tare, the weight display changes automatically to net mode and light status of net and tared. Press second times to clear memory tare the weight display changes automatically to gross mode and light status of gross. Conditions: status light of standstill is on

	Press to set the gross weight to zero within $\pm 1/4d$ Conditions: status light of standstill is on & actual gross weight is with zero setting range
	Press to print current weighing documents Conditions: status light of standstill is on

Open/Close — open or power off the indicator

4.2 Basic operation

4.2.1 Switch on & off

1. **Switch on:** pls. connect the power for AC power supply. and connect the battery line for rechargeable battery.



Before switch on the indicator. the “kg” light on. It means the connection is ok. then press after 2s. the indicator show “000000-999999”. After the self inspection. It go the weighing mode.



2. **Switch off:** Press the key, 2s latter. Auto power off, only kg light is on. Take off the AC power supply or the battery. The kg light off.

4.2.2 Zero operation

1. Initial zero setting

When switching on the indicator, if the weight on the scale is within the initial zero range, indicator will put is zero automatically, and gross weight will show zero.

2. Zero setting

It is effective in gross weight status, when the minus data or nonzero data is within the zero setting range. Press



key. Than go to the zero.

4.2.3 10 times higher resolution and toggle operation.

1. Press UNIT key. the 10 times higher resolution weighing data shown on the display. And after 4s back to weighing status. Press UNIT again, the indicator proceed the toggle operation. And after 4s return.

2. Weight unit---kg/lb toggle operation. If the unit is kg, the kg light is on. Press UNIT key. it change to lb. and lb light on. After 4s back to kg automatically. And kg light on at the same time.

4.2.4 Tare operation

1. Tare function

When gross weight shown on the display, Press TARE key. the TARE light on. Indicator save the data and at same time NET light on. Net weight is zero.

2. Retare function

When NET light on. Press TARE key, the TARE and NET light off .

It means the indicator already clean the tare. And show the gross weight.

3. Tare operation condition.

Only the weight on the scales keep standstill and the light on. The tare operation is effective.

4.2.5 G.W/N.W operation switch



When the indicator show the gross weight. Press key, the net weight show. And light on. Press again. Back to gross weight display. And N.W light off. G.W light on.

4.2.6 Weight accumulating operation

1. weight accumulating operation

1. when the weight is zero.. Press  and keep it 2s latter. “SUON” show on the indicator. The light is on at same time.

2. when adding the weight to the scales. if you want the present weight be added. Press  2s, and “ n 01” (means the first time accumulating)show on the indicator, after 2s back to the present weight.

3. when the first weighing and accumulating is finished. Take off the weight. And enter second weighing. Press  2s for confirmation “(n 02)(means second accumulating). Then the total weight for the first & second weighing show on the display. After 2s back to the actual weight on the scales. repeat this operation again can accumulating many times.

4. when accumulating finish. Press  for 2s. and “ SU OFF” show on the indicator. Back to normal weighing status.

Note: when weight is accumulated, the weight on the scale should be standstill. And light on steadily

2. Check the total weight

Press . Firstly show the accumulating times(for example” n 02) then show the total weight. 2s latter back to the weighing.

4.2.7 Count operation

Two ways for count operation.

1. sampling and then get the average unit weight.:

If you don't know the unit weight. firstly get the total weight. Then do sampling and get unit weight. Then input the quantity. and go to the count operation.

2. Input the average unit weight: if already known the unit weight, add the goods. Then input the unit weight. We can get the quantity

How to get the unit weight:

1. Press  to display zero. Then put goods on the scales that you know the quantity.

2. Press  till it show “ PC on”, then automatically show “000” means it already go to the count

3. Press the  and  key, till “ PC 1” show on the display, and 1 means sampling and then get the average unit weight.

Press  and “PCS 00” show on the indicator

4. Use ← and → to shift the cursor, and ↑ and ↓ to adjust the parameter. Input the goods quantity on the scales. and suppose there are 5 pcs. Then input “ PCS 05”(Note: the sample qty should be below 99)

5. Press  to perform parameter setting. And count.
6.Put goods on the scales. and the quantity show on the indicator.

If you want the weight, Press . It will show on the indicator.
The weight status light and “ PCS” light on. 4s latter back to show qty.

4.3 Input the known average unit weight method:

1. when the weight is zero. Put goods that you already known the unit weight.

count

2. Press till "PC on" show on the indicator and then "000" automatically show. Means already into counting.

count

print

3. Press and 1s and release, and "PCS 1" show on the indicator. use ← and → to shift the cursor, and ↑ and ↓ to adjust the parameter. And change the "PCS 1" to "PCS 2" 2 means input the known average unit weight mode.

print

4. Press and input known unit weight to count. "0000.00"

Show on the indicator. use ← and → to shift the cursor, and ↑ and ↓ to adjust the parameter. Input known average unit weight. Suppose the unit weight is 1 kg, then input "0001.00"

print

5. Press perform the set average unit weight to count. Put goods on the scales. and the quantity will

count

show on the indicator. If you want the weight. press , weight will show on the indicator. And weight & "PCS" status light on. 4s latter automatically show quantity

4.4 Indicator for livestock scales(animal scales)

When the indicator used for livestock scales. only set the digital filter C13 1.and C14 2 is ok. steps as follows

total

print

1.Press and at the same time, enter into C13 by pressing the ↑ ↓ ← → , press for

print

confirmation. Then the press ↑ key to change "C13 0" to "C13 3". At last press again can enter into C14.

print

print

2. Press . Enter into" C14 3". Change "C14 2" to "C14 1" . and the setting for livestock scales finish.

Note: when for livestock weighing, set the digital filter 1 for C13. The No. is bigger, the weighing will be more stable. And change is slower.

Set the digital filter 2 for C14, The No. is smaller. The weighing change faster. Adjust the C13 and C14 . can control the weighing stability and speed suitable for animal weighing.

4.5 Classifying scales operation

The classifying function is optional, set the C20 C21 C22 C23 and it can have the overload or under load alarming function. As follows

Menu	Optional function	Parameter
C 20	Value for upper limit alarm on	When the weight reach this value. Indicator output the overload signal
C 21	Value for upper limit alarm off	When the weight reach this value. Indicator stop the overload signal
C 22	Value for lower limit alarm on	When the weight reach this value. Indicator output the underload signal
C 23	Value for lower limit alarm off	When the weight reach this value. Indicator stop the underload signal

1. when set C20 C21 C22 C23 default=000000, it means close the upper limit(overload) and lower limit(under load) alarm

2. when set C20=C21, C22=C23, it means open upper limit(overload) and lower limit(under load) alarm. It mainly suit for classifying mode. For example:

The accepted range for a bag of rice is 24.9-25.0kg, setting as follows

1). Press **total** and **print**. Till it show C01. enter into setting parameter

2). Use $\leftarrow \rightarrow \uparrow \downarrow$ to set the C20. Press **print**. And it show "0000 00"

3). Follow the above steps. Set the C20 C21 C22 C23 as follows

Upper limit: C20=C21=25.10 kg

Lower limit: C22=C23=24.90 kg

4). Finish the setting. Press **count**. Than back to weighing status
If the actual weight is 25.00kg, status light is ok
If the actual weight is 24.80kg, status light is under
If the actual weight is 25.20kg, status light is over

3. when set "0000.00" for C20=C21. and C22=lower limit

C23=upper limit. It means use lower & upper limit independent. for example the application for hopper scales: for a hopper scales. the target control weight is 100-150kg, the I/O card in the indicator to control the open & close the valve. As follows:

1). Set C20 C21 C22 C23 as above

2). Set C20=C21=0000.00

3). Set C22=lower limit alarm. C22=100kg

4). Set C23=upper limit alarm. C23=500kg

5). Return the menu. Back to weighing status.

If the actual weight is under 100kg, UNDER light on. Indicator output the Under weight signal. Open the valve to add goods

If the actual weight is over 500kg, OVER light on. Indicator output the Over weight signal. close the valve

4. when set C20>C21, C21<C23. it means delay the alarming. For example:

If the actual weight is over 90.00, open the over load alarm; when the actual weight is under 12.00kg. open the under load alarm.

Set an alarm delay data can avoid some untrue alarm. For example when the actual weight is 89.90. it is within the acceptable arrange, but if the hopper is moved by wind or shake. The value possibly come to 90.1t. than the untrue alarm will happen. To avoid it. We can set a 0.5t alarm delay. As follows:

C20=90.00t, C21=89.50t;

C22=12.00t, C23=12.50t;

In application:

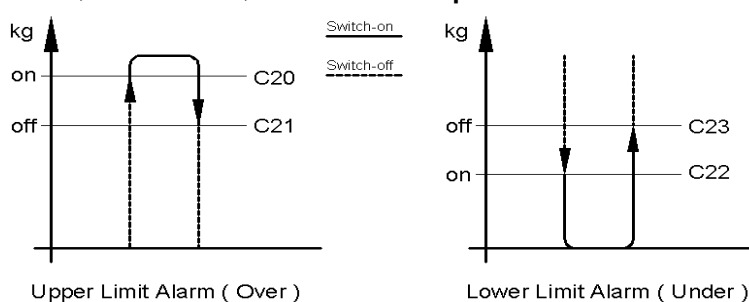
When the actual weight =90.00t. open overload alarm. Indicator output over load alarm signal;

When the actual weight =89.50t. close overload alarm. Indicator stop over load alarm signal;

When the actual weight =12.00t. open under load alarm. Indicator output under load alarm signal;

When the actual weight =12.50t. close under load alarm. Indicator stop under load alarm signal;

C20 与 C21, C22 与 C23 relationship as follows:



4.6 Second display, printer, computer communication(optional)

The print function is optional. If it is needed, it should add RS232 on the main board and build-in serial interface mini type printer or outside

Portable printer. Pls. see the details in the manual "3.2.3" serial interface connection method.

1. Second display. Printer. Computer communication parameter Setting.

print

total

Press and . Enter to the menu. Use ← → ↑ ↓ to adjust the C27 C28 C29. steps as follows:

Menu	Option function	Parameter setting
C27	Communication mode	C27=0 means shut off C27=1 means continuous sending. Connect to big display C27=2 connect printer C27= 3 command mode from supervisory
C28	Serial interface Baud rate	C28=0 baud rate=1200 C28=1 baud rate=2400 C28=2 baud rate =4800 C28=3 baud rate=9600
C29	Data bit and calibration bit	C29=0 means 8, none C29=1 means 7, even C29=2 means 7, odd

2. Second display using method

Connect with second display according to the “3.2.3” in this manual and Set C27=1. and C28 & C29 the same data bit and calibration with second display. After finish setting. Restart the indicator and second display. If the same data shown on the indicator and second display. Means it works regularly

3. Printer operation:

This indicator can connect with built-in mini serial interface printer and outside serial interface portable printer. And built-in printer is setted

Within the factory

Indicated need setting according to the communication data for the outside portable printer.

print

total

print

1. communication method set: Press and enter to function menu. Adjust to C27. press for confirm. And set “C27 2” press again.

print

2. Serial interface baud rate set: after set the C27. indicator show C28. press enter to C28 setting. Set the serial interface baud rate the same with equipped printer. For example: the printer baud rate is 9600 bt/s. set “ C28 3”.

print

Press . Save the setting. Enter to C29

3. Data bit and calibration bit set: the indictor show C29. Press

print

. Set the serial interface data bit and calibration bit the same with equipped printer.

print

count

4. Print operation: after the above setting is finished. Press . Then press the back to the weighing.

print

Press .

The print result as bellows:

NO: XX
Gross: XXXX
Tare: XXXX
Net: XXXX
Date: XXXX.XXXX
Time: XX.XX.XX

5. Error resolution and daily maintenance

Error code list

Error code	Reason	Resolution
UUUUUU	Overflow: measuring value is above FSD + overload range	1. Take off the goods from scales 2. Recalibration 3. Check load cell 4. Chang main board
nnnnnn	Underflow: measuring value is below negative display range	1. Recalibration 2. Check load cell 3. Chang main board
ERR1	During calibration: no enter the calibration weight value	Input weight of the calibrated weights
ERR2	During calibration: the used calibration weight value is too low	Add weights. Recommend the weights is 15-80% the Max. capacity
ERR3	During calibration: input voltage is negative	1. Check the installation is ok or not 2. Check the connection for load cell is ok or not
ERR4	During calibration: measuring value is not standstill	Check the scales installation is ok and the make sure the goods on the scales is stable
ERR5	Checksum error of EEPROM	1.Power off the indicator and re open again 2. Change main board
Lobat	The voltage of rechargeable battery is too low	Recharge the battery

Daily maintenance

1. Regularly clean the panel and body with soft cotton sheets and cleaning detergent. Industrial cleaning solvents can not be used to clean keyboard and display panel, and the solvent can not spray directly on the instrument.
2. In order to ensure indicator display clearly and useful life, the instrument should not be placed directly on sunlight. And can not be placed on dust and vibration serious area.
3. Sensors and indicator should be well connected, the system should have a good ground, away from strong electric field, magnetic field, sensors and indicator should stay away from flammable and explosive materials.

Battery maintenance:

1. Please note that when used in the emerging low-voltage meter "LOBATT" suggests that this occurred when prompted, for charging the battery immediately.
2. Under charging and over charging is prohibited; when replace and maintain the battery you should know the distinction between negative electrode to prevent short-circuit and anti connection so as not to damage the battery and instrumentation.
3. Battery can not close to flame or heat source to prevent damage of the batteries and indicator or others

6. Packing list

LP7510 display controller packing list

Item No.	Name	Model No.	UNIT	QTY
----------	------	-----------	------	-----

1	Display controller	LP7510	SET	1
2	Packing bag		PCS	1
3	Accessories bag		PCS	1
4	Power supply	GB/DC9V	PCS	1
		US/DC9V	PCS	1
		UK/DC/9V	PCS	1
		EU/DC9V	PCS	1
		AU/DC9V	PCS	1
		Others	PCS	1
5	English/ Chinese instruction	User's manual	PCS	1
		Operating manual	PCS	1
6	RS232 joint	D 9 cores	PCS	1
7	Load cell joint	5 core quick connector	PCS	1
8	Serial interface signal line	Φ5/5 core shield line	PCS	1
9	AC Power supply	3 cores Φ0.75mm	PCS	1
10	Fuse	0.5A fuse	PCS	1
11	Base	Wall type installation base	PCS	1
12	Product certification		PCS	1
13	Packing list	LP7510	PCS	1

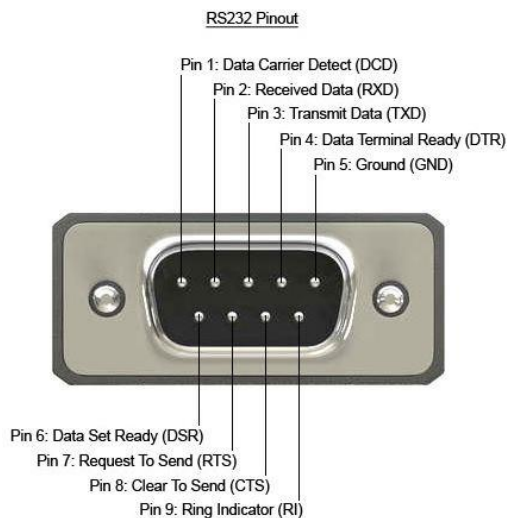
Pls. check the goods and accessories according to the packing list
After you open the carton. If anything missing or other question. Pls. contact us soonest. Our contact info. Is below the preface. We will resolve the problem soonest.

User guide for Serial Interface for LP7510 Weighing Indicator

Serial Interface is needed to be able to transfer data to another device such as

- : Printers
- : Secondary display monitor (LCDs, Video Projectors)
- : PC
- : other communications equipment

Item needed to connect LP7510 to other devices (serial interface)



RS232 /DB9 connector

View of the Communication Ports of LP7510 device



Front and Back View



Power supply port & Load Cell
(Weigher) port



RS232 /DB9 port

To connect LP7510 to Printer

Connect the RS232 connector from the LP7510 port towards the RS232 port on the printer



The print result will be as below:

NO : XX
Gross : XXXX
Tare : XXXX
Net : XXXX
Date : XXXX.XXXX
Time : XX.XX.XX

The usual number display on the weigher itself and on the print out result will be Ex.
0000.00 (2 digits after the decimal point)
- decimal notation can be set pls. refer to Machine manual for the complete instruction and guide on proper settings.

To connect LP7510 to a PC

- Usual purpose is for data storage and Management Info. Sys to be used in different areas within the organization and other purposes.

You can connect the LP7510 RS232 port to any of the ff: on the PC communication ports

- Various type of USB Port
- Various type of RS232 Port

NOTE: To be able to connect the LP7510 device, you must make sure that you have purchased the needed adapter so that you can match the RS232 connector to any of the different USB port type you wish to connect to.

Type	Port Image	Connector Image
Type A	4.5mm x 12.0mm 	
Type B	7.3mm x 8.5mm 	
Mini-B	3.0mm x 6.8mm 	

Various type of USB Ports
on PC with their equivalent
connectors

Various types of RS232 ports
on PC and their equivalent
connectors

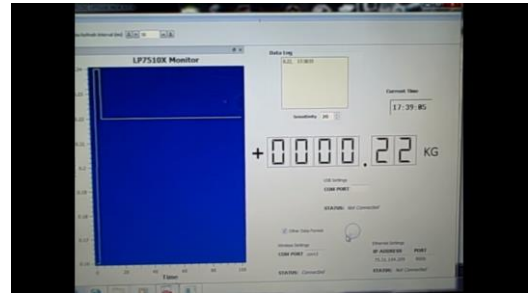
NOTE: To be able to connect the LP7510 device, you must make sure that you have purchased the needed adapter so that you can match the RS232 connector to any of the different RS232 port type you wish to connect to.

Type	Port Image	Connector Image
25-Pin Female		
25-Pin Male		
9-Pin Female		
9-Pin Male		

Typical appearance of Data from device to PC screen will be like this.

(It Depends on the Software used)

Note: LP7510 Weighing Indicator device is designed for simple weighing function, this is designed to run on any Software for Data collection and other related softwares. It is the duty of the User what Software to purchase/install.



Example is an image from a PC where a Software called Zigbee is used to transfer and show data on PC from LP7510 Weigher Indicator.