

10、 Troubleshooting

NO.	breakdown	Cause	Course of action
1	Fork frame cannot reach the maximum height	-Insufficient hydraulic oil	- Add hydraulic oil
2	Fork frame can't be lifted	-No hydraulic oil - Oil is not pure. -Adjusting nut too high -Air in hydraulic oil	- Add hydraulic oil - Oil change - Counter clockwise adjusting nut - Bleed air (place control handle in Lower position, quickly shake the handle several times)
3	Forks cannot be lowered	-The lifting piston or cylinder block is damaged because the cargo is placed to one side or overloaded. -The fork frame is in the raised position for a long time, so that the lifting piston is exposed and rusted, which hinders the movement of the piston. -The adjusting nut is too low.	- Replace the lifting piston or cylinder block - Please lower the yoke to the lowest position when not in use. Pay attention to lubricating the piston rod in time - Adjusting nut clockwise
4	Oil leakage	-Aging or damage of seal -Some parts are broken	- Renewal - Renewal
5	The oil drain rod does not work when the yoke is lowered	-The impure hydraulic oil causes the oil drain rod not to close tightly. -Some parts of the hydraulic system are broken or damaged. -Air is mixed with oil. -The seal is aged or damaged. -The adjusting nut is not in the correct position.	- Oil change - Check and replace parts - Remove air - Adjusting nut

Note: please do not attempt to repair the carrier without special training!

CE

SCALE HAND PALLET TRUCK OPERATION INSTRUCTIONS



Carefully read the instructions and obey all kinds of warning labels before operation.
Please confirm that the vehicle is safe without damage.



SAFETY INSTRUCTION

To ensure safe operation, please observe the following general safety precautions.



WARNING

It is strictly prohibited for non professionals to set up, debug, test and maintain electronic weighing instruments.

ATTENTION



OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
SENSITIVE DEVICES



WARNING

This electronic weighing instrument is electrostatic sensitive equipment. Please cut off the power supply when making electrical connection. It is forbidden to touch internal components by hand during operation. Please take anti-static measures.

WARNING:

If this operation manual is not followed, the quality assurance of the company will automatically fail, which also applies to the illegal export of products by customers or third parties without the permission of the manufacturer. Without the permission of the customer service department of the company, if the customer and the third party execute the nonstandard operation of the forklift without authorization, the company will not bear any responsibility for the loss.

Note: the manufacturer reserves the right to change the design and specification of the product without notice due to the continuous improvement of the product.

CATALOG

1、	Overview.....	1
1.1、	Performance Indicators.....	1
1.2、	Main Functions.....	1
2、	Instructions.....	1
2.1、	Display.....	2
2.2、	Button Function Description.....	2
2.3、	Calibration.....	3
2.4、	Factory Settings.....	3
2.5、	Time And Date Calibration.....	4
3、	Additional Features.....	4
3.1、	Auto Power-Off.....	4
3.2、	Backlight.....	4
4、	Battery Care And Maintenance.....	4
4.1、	Charging.....	4
4.2、	Battery Maintenance And Precautions.....	4
5、	Daily Maintenance.....	4
6、	Handle installation.....	5
6.1、	Handle installation diagram.....	5
6.2、	Adjusting the buffer.....	5
7、	Use and maintenance.....	6
8、	Safety operation instruction.....	7
9、	Exploded view and list.....	8
10、	Fault handling.....	13

1、 Overview

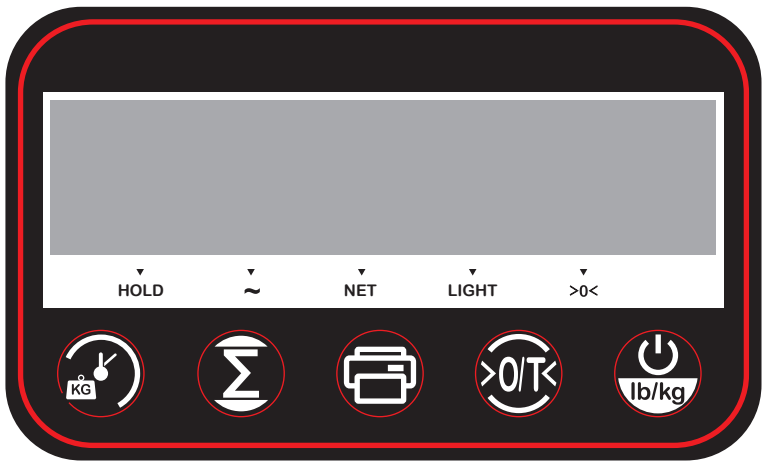
1.1 Performance Indicators

- » Working Voltage: 3.7v Dc
- » Charging Voltage: 5v 1a Dc
- » Working Temperature: 0℃-40℃
- » Load Capacity: 1kg~2000kg
- » Default graduation value: 0.2kg
- » Sensor Maximum Calibration Divisions: 3000
- » Sensor Comprehensive Error: $\leq \pm 0.020\%$
- » Sensor Creep: 0.02%/30min
- » Sensor Safe Overload Range: 150%
- » Plastic Housing, Protection Class: Ip54
- » 5.6-Inch LCD Screen, Character Height 33mm, LED White Backlight
- » 5 Function Buttons.

1.2 Main Function

Basic Functions: Hold, Sum, Unit Switch, Tare, Clear, Calibrate, Print (Optional), and Bluetooth Data Transfer (Optional).

2、 Instructions



Note: The Device has 5 dynamic cursors: Hold (lock cursor), ~ (dynamic cursor), Net (net weight cursor), Light (backlight cursor), >0< (zero cursor); 5 buttons: "Hold", "Sum", "Print", "Zero", "On/Off". Depending on the function to be implemented, the button shall be short pressed, long pressed, or combined with another button.

2.1 Display

Place the goods on the forks, and its weight will be displayed after 1 second. When the "dynamic cursor" (the inverted triangle above the "~") disappears, the value displayed on the screen is the goods weight.

2.2 Button Function Description

Single Button Function



Short Press - Lock/Unlock the weight value displayed on the current screen; In normal weighing mode, press once the **"Hold"** button on the operation panel, the weight currently displayed will be locked, and the lock cursor will show at this time. If the weight is in the locked state, press the **"Hold"** button again to return to the normal weighing state, and the lock cursor disappears. If it is in the weight lock state, operations like Tare, Sum, and Zero will be invalid.

Long Press - The Device enters the function mode or calibration setting mode.



Short Press - Sum button. (1) In the normal weighing mode, when the dynamic cursor disappears, then is the actual weight. Press the **"Sum"** button, the weight will be summed up with accumulating time increased by 1. Then the screen will alternately show the accumulated times and the current accumulated total weight. (2) when the goods are unloaded, the value will return 0 on the screen, then place the next goods to accumulate the weight; (3) when there is no goods on the forks, press the **"Sum"** button to check the total accumulated times and total weight so far.

Long Press - The screen stops beating and exits the sum function.



Short Press - If it has a printer module, it can print the weighing result displayed on the current screen. Note: Do not remove the goods while printing, otherwise the print result will be the weight after removing the goods.

Long Press - Enter time and date setting



Short Press - Clear the weight value if allowed.

Long Press - In gross weight state, tare the current weight, and the device switches to net weight state.



Long Press – Power it off if in power-on state.

Short Press – Switch the weight unit.

Short Press – Power it on if in power-off state.

2.3 Calibrate

Use the calibration function to calibrate the device if the weighing result is inaccurate (calibration unit in kg). Calibration shall be taken only once at one time.

Operation Method:

Power on the device, it will enter the normal weighing mode after the self-check is completed. Wait until the screen displays 0000, place the prepared weights (1000kg or 2000kg) on the weighing platform, then long press the "Hold" button to enter the function mode, the screen will display 01 at this moment. Press the 'Sum' button for 3 times to show 04, then is the calibration mode. Press the "Hold" button to enter this mode. At this time, the screen will flash 998 or 1998 (or any other random value), short press the "Sum" button to slowly increase the division value. Short press "Print" button to slowly decrease the division value. Press and hold "Sum" button to quickly add the division value, long press the "print" key to quickly decrease the division value. Set the division value to 1000kg or 2000kg. Short press the "Hold" button to confirm and exit. Now the calibration is completed. In any situation during calibration, just long press the "On/Off" button to exit if you want. But the incomplete calibration operation may make the electronic scale unable to weigh normally.

2.4 Factory Settings

Long press the "Hold" button to enter the function mode, and the screen will display 01 at this moment. Short press the "Sum" button 2 times, the screen will display 03, which means the factory settings. Press the "Hold" button, and the device will automatically exit to the weighing mode, then the factory settings are completed. After the settings are restored, the current calibrated weight will be cleared, and the device will be restored to the factory default value. Due to the deviation of each forklift, there will be a certain deviation between the default value and the actual weighing value. If there is a deviation, please follow the above method to calibrate.

2.5 Time and Date Calibration

1. Long press the "Print" button, the screen will display 0--xx to enter time calibration.
2. The 0--01 on the LED indicates the year setting. Press the "Sum" button to add one year, and press the "Print" button to decrease. Short press the "Zero" button to confirm the year and jump to the month setting.
3. Set the year, month, day, week, hour, minute and second in turn.
4. After setting the second, it will automatically exit.

Note:

0--xx Year
1--xx Month
2--xx Day
3--xx Week
4--xx Hour
5--xx Minute
6--xx Second

3、Additional Features

3.1 Auto Off

If the screen value keeps still without any operation in 3 minutes, the electronic scale will automatically shut down. Press the "On" button to turn it on. The automatic off time is the factory setting and cannot be adjusted.

3.2 Backlight

The auto off time of backlight is 10 seconds, and cannot be adjusted. The backlight will be automatically lit if screen numbers jump or any operation occurs.

4、Battery Care and Maintenance

4.1 Charging

The USB will be used to charge the product, with charging voltage of 5V, and charging current 500mah.

4.2 Battery Maintenance and Precautions

The electronic scale has a built-in 3.7v/5000mah lithium battery, which can work continuously for four weeks or longer when fully charged. When the charger is plugged in, the electronic scale will automatically charge the battery. The indicator light will be in red when charging and turns green if the battery is full. The charging will last 8-10 hours when the device is in Off state.

- ★In order to prolong the service life of the battery, be sure to fully charge it before using it.
- ★If the electronic scale is not used for a long time, it must be charged every 3 months for 12 hours each time.
- ★Be careful when handling or installing. Avoid strong vibration. Avoid shock or impact to prevent short circuit inside the battery.

5、Daily Maintenance

When the power monitoring icon is empty, the device will automatically shut down after power on. Charge the device as soon as possible.

Try to avoid long-term use of the device outdoors in rainy and snowy weather. Long time exposure under the sun is prohibited.

The housing of the device can be cleaned with a soft cleaning cloth and daily washing solvent. Do not use industrial solvents to clean or spray directly on the surface of the device.

It is recommended that users calibrate the device and sensors regularly to ensure accuracy during use.

6. Handle installation

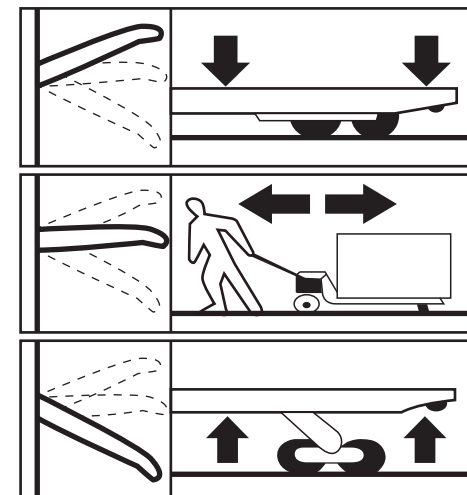
After purchasing the carrier, the user must prepare some tools, such as hammer, wrench, pliers, etc.; some accessories are attached, such as handle pin shaft, two elastic pins, which are installed in a plastic bag and wrapped on the handle with adhesive tape. Use the tools to connect the handle and the cylinder block, and pay attention to matching each other.

6.1 Handle installation diagram



6.2 Adjusting the buffer device

There are three adjustable positions on the control handle of the carrier.



These three positions have been adjusted before delivery. If there is any change due to unexpected reasons, the following steps can be followed:

- 6.2.1 If the control handle is opened in the middle position and the forklift rises, turn the adjusting nut on the hinge screw clockwise until the forklift does not rise and everything is normal.
- 6.2.2 If the control handle is pressed in the middle and the forklift is lowered, turn the nut anticlockwise until the forklift is not lowered.
- 6.2.3 When the control handle is in the down position and the forklift does not lower, turn the nut clockwise until the forklift lowers when the control handle is in this position. Then check the middle position (running position) according to items 3.1 and 3.2 to ensure that the nut is in the correct position.
- 6.2.4 If the control handle is pressed in the rising position and the forklift does not rise, turn the adjusting nut anticlockwise until the forklift rises. Then check the descent and operation position according to 3.1, 3.2 and 3.3.

The above adjustment method can also be adjusted by adjusting screw, and then locked by nut.

7. Use and maintenance:

The carrier needs frequent maintenance

- 7.1 Oiling
Check the oil quantity every six months. The hydraulic oil is I-hm32-46, and the oil quantity is about 0.4L (L).
- 7.2 exhaust
- 7.3 Due to transportation or inversion of the cylinder body, air is likely to enter the hydraulic oil, which will cause the fork frame to fail when the control handle is pressed in the rising position. The exhaust can be carried out as follows: turn the control handle to the down position, and then pull the handle assembly to make it move up and down for several times.
- 7.4 Routine inspection and maintenance
In the daily inspection and maintenance of the carrier, special attention should be paid to wheels and axles to see whether there are cotton strips, etc., which will entangle the wheels. After handling, all goods shall be unloaded and the fork frame shall be lowered to the lowest position.
lubrication
Before leaving the factory, all the bearings and bearing pins have been added with lubricant. You only need to add lubricant to the place where lubrication is needed at the interval of each month, or at each thorough cleaning.

8、 Safety operation instruction:

- 8.1 Before using the carrier, the operator must carefully read this manual and the precautions marked on the vehicle body.
- 8.2 When pulling the carrier, usually pull the control handle to the middle position. In this way, it is easy to move the handle and reduce the rebound force of the compression piston to the handle. At the same time, it also protects the hydraulic seals and piston components, and prolongs the service life of the carrier.
- 8.3 If you are not familiar with the car, do not use it without training.
- 8.4 It must be checked before use, and wheels, handle components, fork arms and swing rods must be checked carefully.
- 8.5 Do not use on bevels.
- 8.6 It can't carry people.
- 8.7 Operators should wear gloves for protection.
- 8.8 During the handling of the goods, the owner shall keep away from the fork frame by 600mm.
- 8.9 Attention should be paid to the center of gravity of heavy objects to avoid eccentric load or inclination (see Fig2 B).
- 8.10 Overload and unbalanced load are strictly prohibited.
- 8.11 In some special cases or special places, the operator should be careful to operate.
- 8.12 When carrying goods, the goods must be placed on pallets. It is forbidden to put the goods directly on forks and use the carrier.
- 8.13 It is strictly prohibited to use in flammable, explosive, corrosive and other dangerous environment.
- 8.14 Ground load: please check whether the weight of the body and load or the pressure of the wheel on the ground exceeds the bearing capacity of the ground when the vehicle is working.

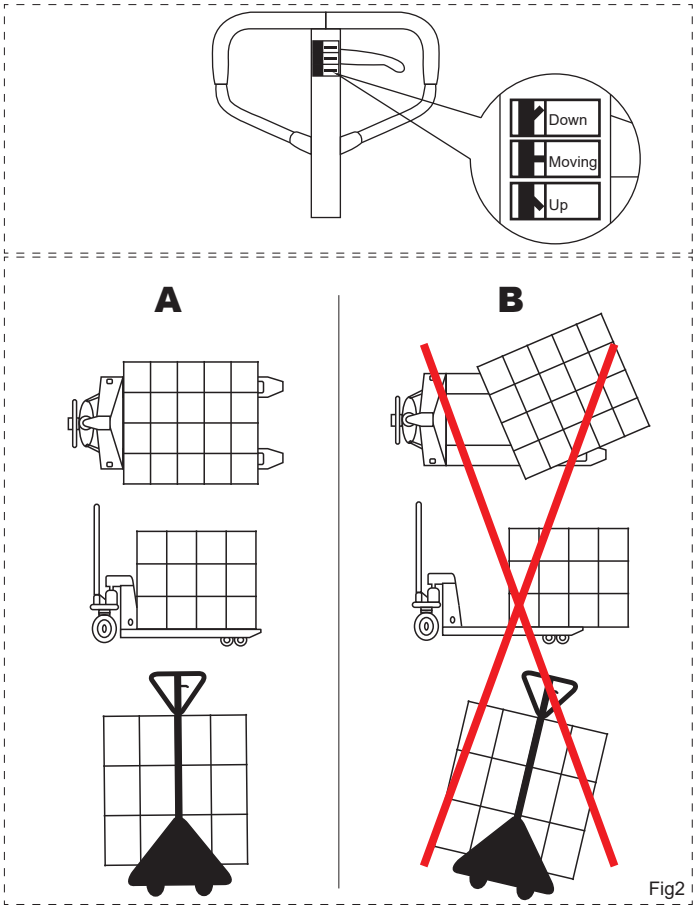


Fig2

9、 Exploded view and bill of materials

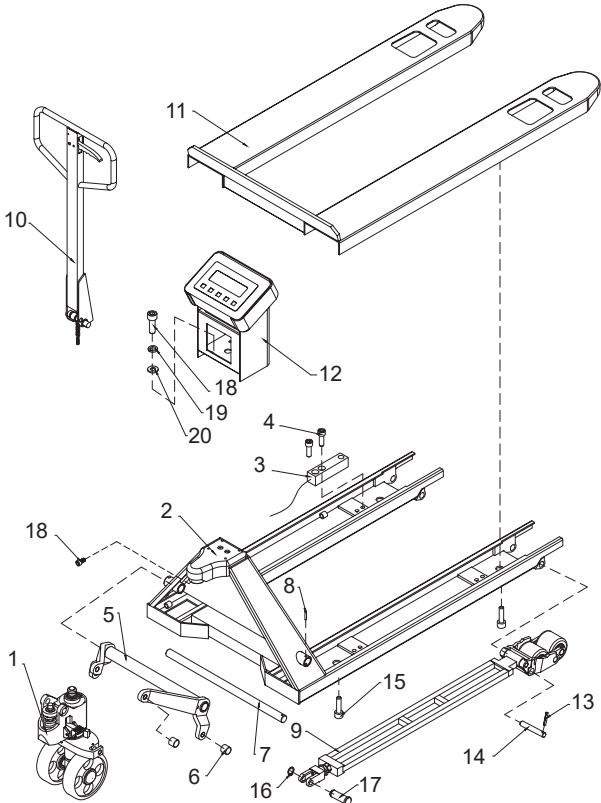


Fig.1

NO.	Part name	QTY	Remarks	NO.	Part name	QTY	Remarks
1	Pedestal gp-cylinder	1	see Fig.2	11	Fork arm weldment	1	540/685
2	Frame Weldments	1	540/685	12	Instrument gp-electronic	1	see Fig.5
3	sensor	4		13	Elastic pin $\Phi 5 \times 37$	2	
4	Socket head cap screw M12 $\times$ 30	8		14	Wheel shaft	2	
5	Curved arm weldment	1		15	Socket head cap screw M12 $\times$ 40	4	
6	Composite bushing $\Phi 16 \times \Phi 18 \times 15$	4		16	Retaining ring for shaft $\Phi 16$	2	
7	Crankshaft	1	540/685	17	Crank pin shaft	2	
8	Elastic pin $\Phi 6 \times 37$	1		18	Socket head cap screw M6 $\times$ 12	5	
9	Front wheel assembly of push rod	2	see Fig.3	19	Missile pad 6	4	
10	Handle assembly	1	see Fig.4	20	Flat pad 6	4	

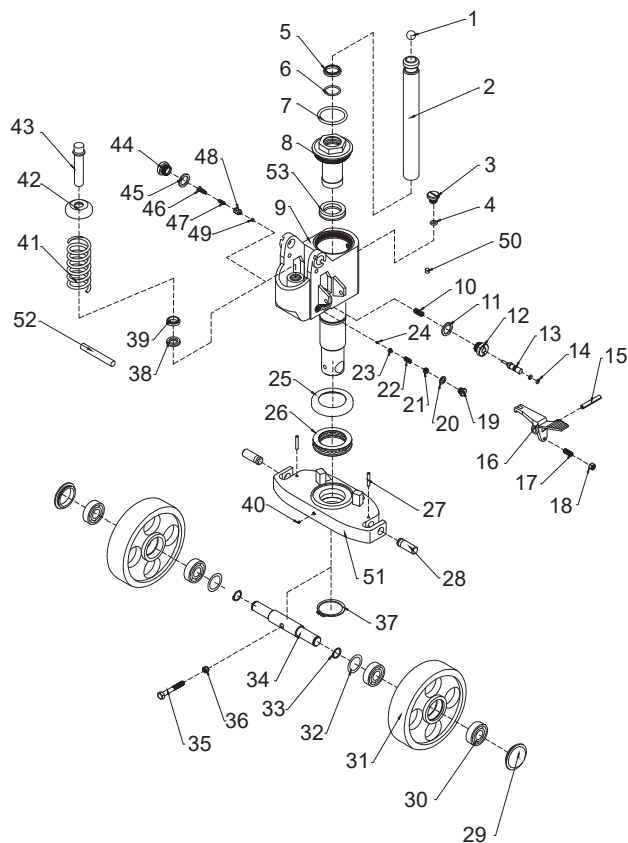


Fig.2 Pedestal gp-cylinder

NO.	Part name	QTY	NO.	Part name	QTY	NO.	Part name	QTY
1	Steel ball S 18	1	19	Pressure regulating sealing screw	1	37	Retaining ring for shaft Φ 55	1
2	Lifting lever	1	20	Combined washer Φ 10	1	38	Y-ring Φ 18 $\times$ D26 $\times$ 5	1
3	Pressure regulating sealing screw	1	21	Pressure adjusting screw	1	39	Dust ring Φ 18 $\times$ D26 $\times$ 4.5/6	1
4	Combined washer Φ 10	1	22	Pressure regulating spring	1	40	Copper oil nozzle M6 $\times$ 1	1
5	Dust ring d31.5 $\times$ d39.5 $\times$ 5	1	23	Spring seat	1	41	Spring	1
6	O-ring d31.5 $\times$ 3.55	1	24	Steel ball S 5	1	42	Spring cover	1
7	O-ring D69 $\times$ 2.65	1	25	Bearing plate	1	43	Compression rod	1
8	Cylinder body cap	1	26	Bearing 51111	1	44	Sealing screw	1
9	Cylinder body weldment	1	27	Elastic pin Φ 5 $\times$ 32	2	45	Combined washer Φ 20	1
10	Oil drain rod spring	1	28	Pedestal pin	2	46	Valve needle spring	1
11	Combined washer Φ 20	1	29	Dust cover	2	47	Valve needle	1
12	Sealed nut	1	30	Bearing 6204	4	48	Valve sleeve	1
13	Drain rod	1	31	Rear wheel Φ 180 $\times$ 50	2	49	Steel ball S 6.5	1
14	O-ring d7.65 $\times$ 1.78	2	32	Flat pad 20	2	50	Magnet Φ 10 $\times$ 3	1
15	Elastic pin Φ 8 $\times$ 50	1	33	Retaining ring for shaft Φ 20	2	51	Pedestal	1
16	Swing rod	1	34	Rear axle	1	52	Spring baffle	1
17	Slotted flat set screw M6 $\times$ 25	1	35	Hexagon bolt M8 $\times$ 60	1	53	Y-ring d31.5 $\times$ d41.5 $\times$ 6	1
18	Nut M6	1	36	Locknut M8	1			

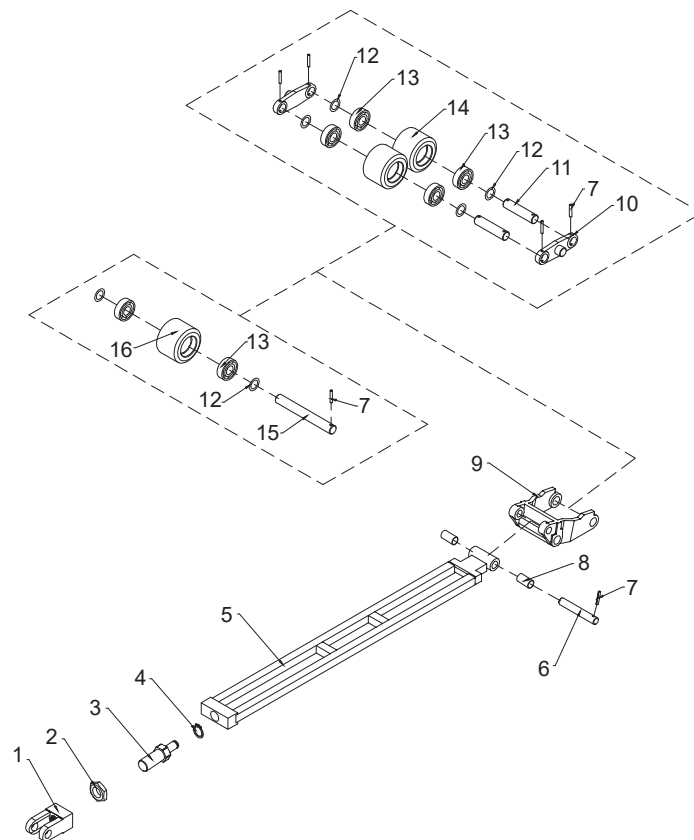


Fig.3 Front wheel assembly of push rod

NO.	Part name	QTY	Remarks
1	Push rod fork	2	
2	Thin hex nut M22 $\times$ 1.5	2	
3	Push rod screw	2	
4	Retaining ring for shaft Φ 14	2	
5	Push rod weldment	2	
6	Push rod shaft	2	1150/1220
7	Elastic pin Φ 5 $\times$ 37	10/4	Double / single
8	Composite bushing Φ 16 $\times$ Φ 18 $\times$ 30	4	
9	Front wheel frame	4	
10	Balance arm	2	
11	Double front axle	4	
12	Flat pad 20	8/4	Double / single
13	Bearing 6204	8/4	Double / single
14	Double front wheel Φ 80 $\times$ 70	4	
15	Single front axle	2	
16	Single front wheel Φ 80 $\times$ 93	2	

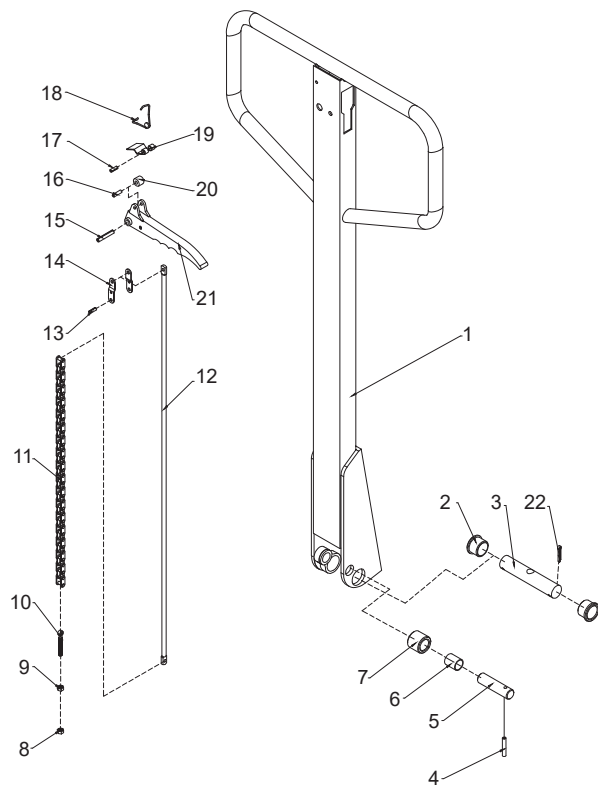


Fig.4 Handle assembly

NO.	Part name	QTY
1	Handle weldment	1
2	Flanging Bush $\Phi 20 \times \Phi 24 \times 15$	2
3	Handle pin with hole	1
4	Elastic pin $\Phi 4 \times 24$	1
5	Roller axle	1
6	Composite bushing $\Phi 15 \times \Phi 17 \times 20$	1
7	Pressing wheel	1
8	Locknut M5	1
9	Nut M5	1
10	Hinge bolt M5 $\times 42$	1
11	Roller chain 25h / 18 sections	1
12	Long link 673 (in two holes)	1
13	Elastic pin $\Phi 4 \times 12$	1
14	Connecting piece	2
15	Elastic pin $\Phi 6 \times 30$	1
16	Elastic pin $\Phi 4 \times 15$	1
17	Elastic pin $\Phi 4 \times 30$	1
18	Torsion spring	1
19	Folding	1
20	Small roller	1
21	Control handle	1
22	Split pin $\Phi 4 \times 50$	2

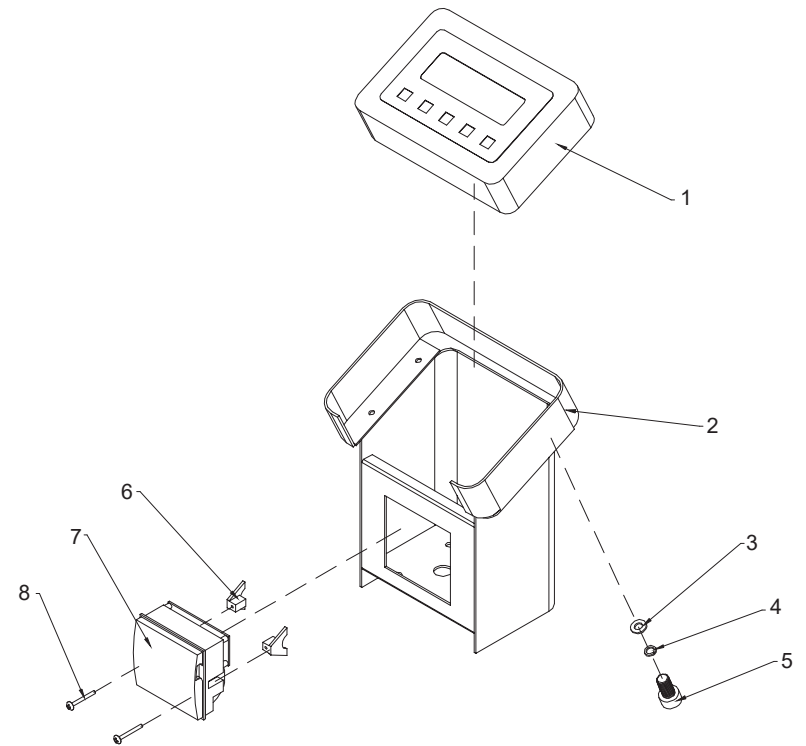


Fig.5 Instrument gp-electronic

NO.	Part name	QTY	Remarks
1	Meter	1	
2	Instrument base	1	
3	Socket head cap screw M4 $\times 12$	4	
4	Missile pad 4	4	
5	Flat pad 4	4	
6	Printer nut	2	Select accessories
7	Printer	1	
8	Half round head cross screw M2.5 $\times 25$	2	