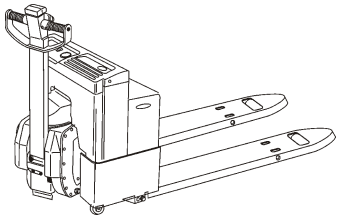
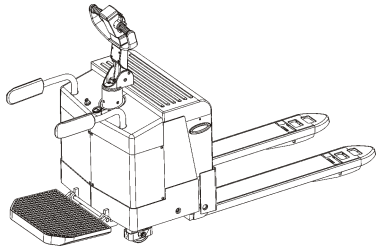
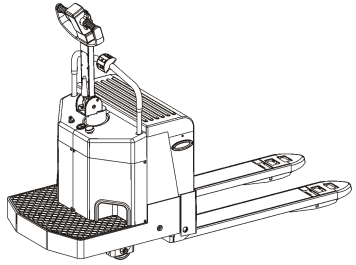
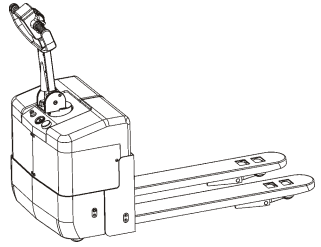
WP Series

Operatlon Manual
Service Manual







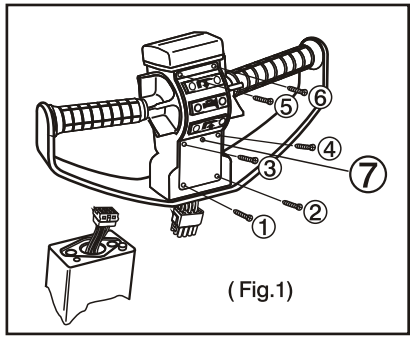


⚠Warning Read and observe all warnings on this unit before operating it.

⚠Warning DO NOT operate this equipment unless all factory installed guards and shields are properly secured in place.

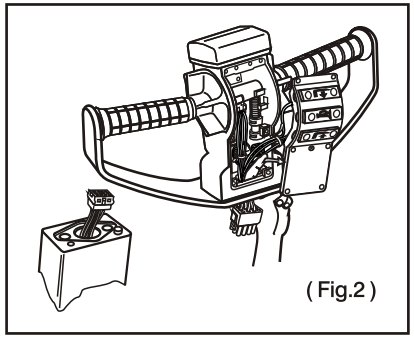
March:2010

Control Bar Assembly Instruction

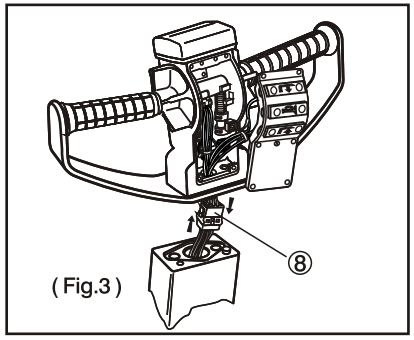


(Fig.1)

(1) Screw off the bolts #1,#2,#3,#4,#5,#6(Fig.1)
Warning: not to screw off the middle bolt #7(Fig.1)

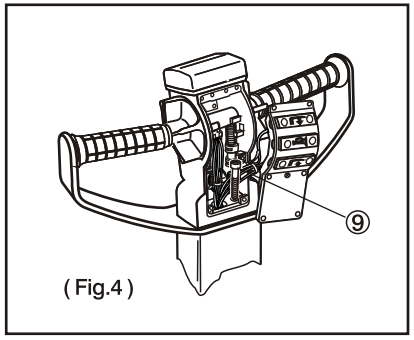

(Fig.2)

(2) Push the cover aside (Fig.2)



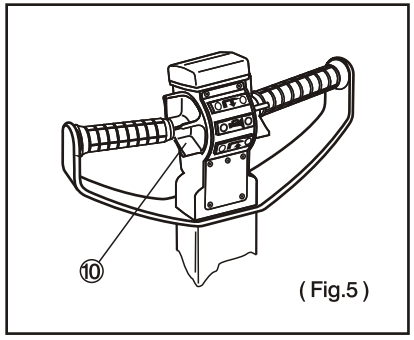
(Fig.3)

(3) Join the wire connection #8.(Fig.3)



(Fig.4)

(4) Tighten the 2pieces of fixing bolts #9.(Fig.4)

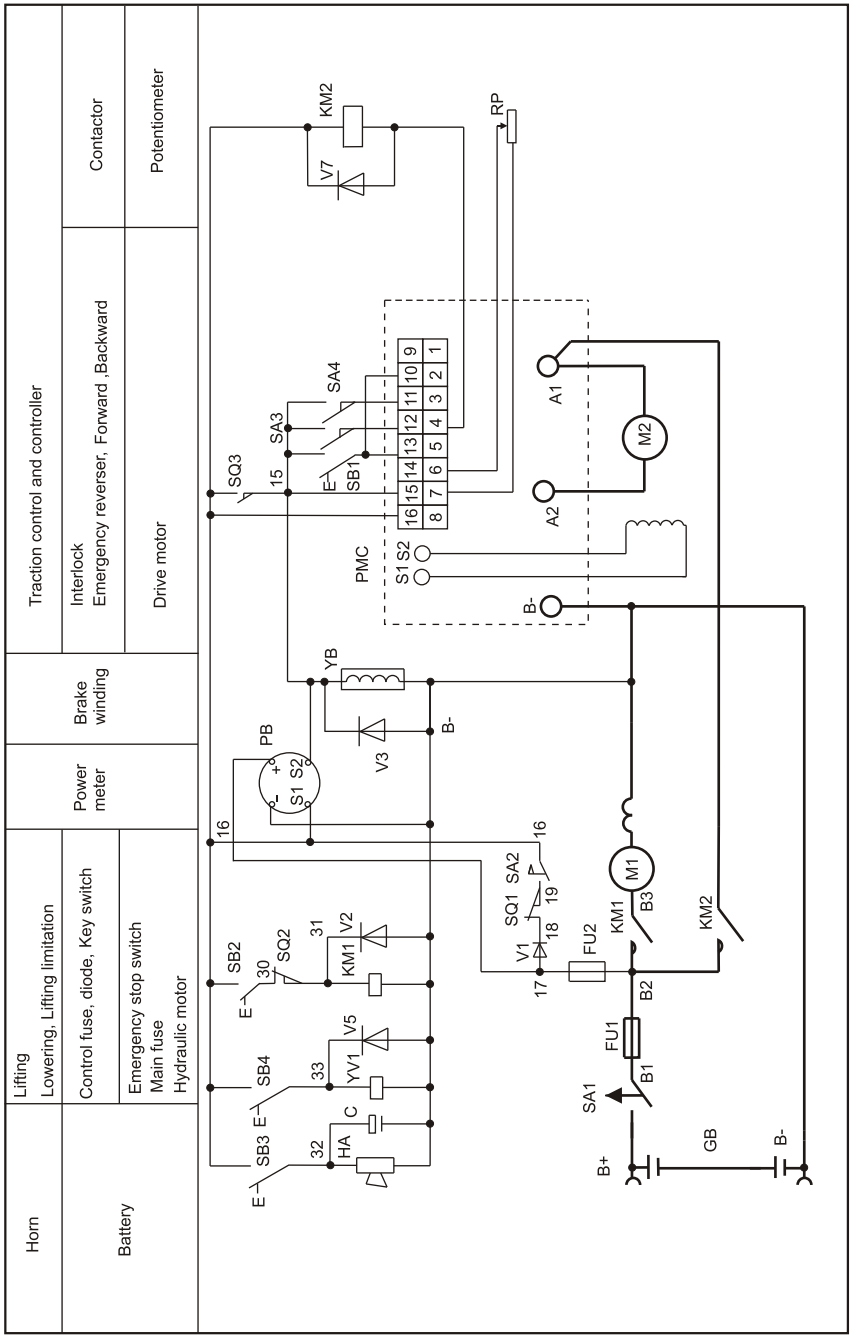


(Fig.5)

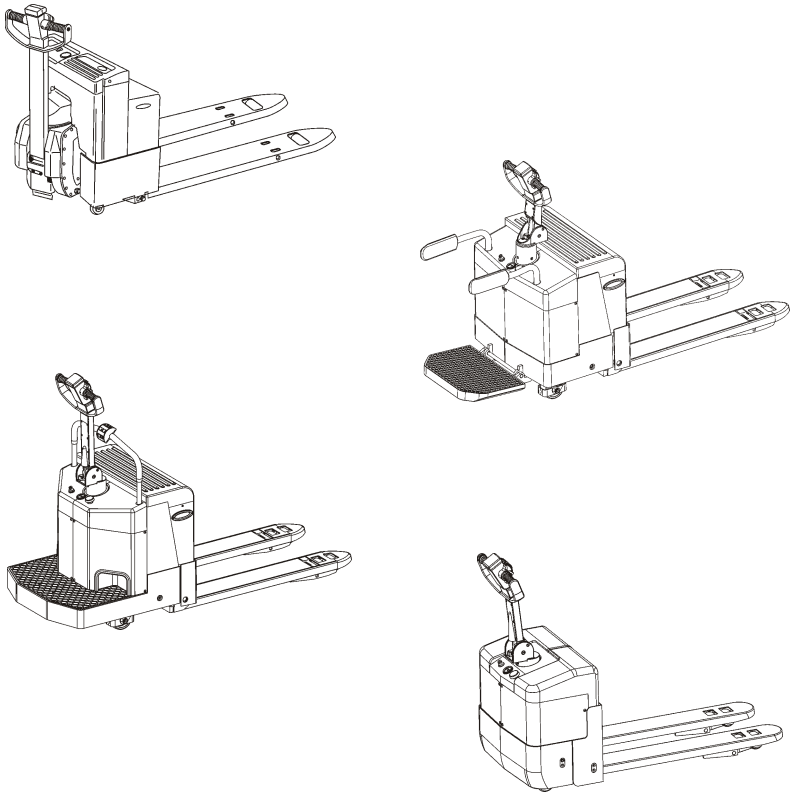
(5) Fix the cover back and tightening the 6 pieces of bolts.(Fig.5)

Remark: After step (3) completed, you' d better test truck' s working conditions, to ensure the wire connection #8 is joined perfectly.
Remark: After step (5) completed, in case the control #10 can not rotate smoothly, just use something to tap the control#10 slightly until it works normally.

Circuit diagram for WP60-13



Operation Manual



Warning Read and observe all warnings on this unit before operating it.

Warning DO NOT operate this equipment unless all factory installed guards and shields are properly secured in place.

March:2007

I. Warning:

* Only trained and certified people is permitted to operate this truck

* Inspect the truck before every starting working, make sure it's in good working order

* Always be alert to the working condition around you and watch where driving, be careful that any objects intruding or poking into the operator area may pin or crush you

* Be extremly careful when working around docks, dockboards and trailers, be aware any falling off operating truck is very serious accidents, which may hurt or even kill you

* Moving parts such as forks or wheels can cut or crush hands, arms or legs.

* Battery produce explosive gas

* Complete stop truck, lower forks to the floor, shut off truck with the key or disconnect the battery before leaving your truck.

* Always no unbalance load on single fork

* Sudden start may cause serious damages

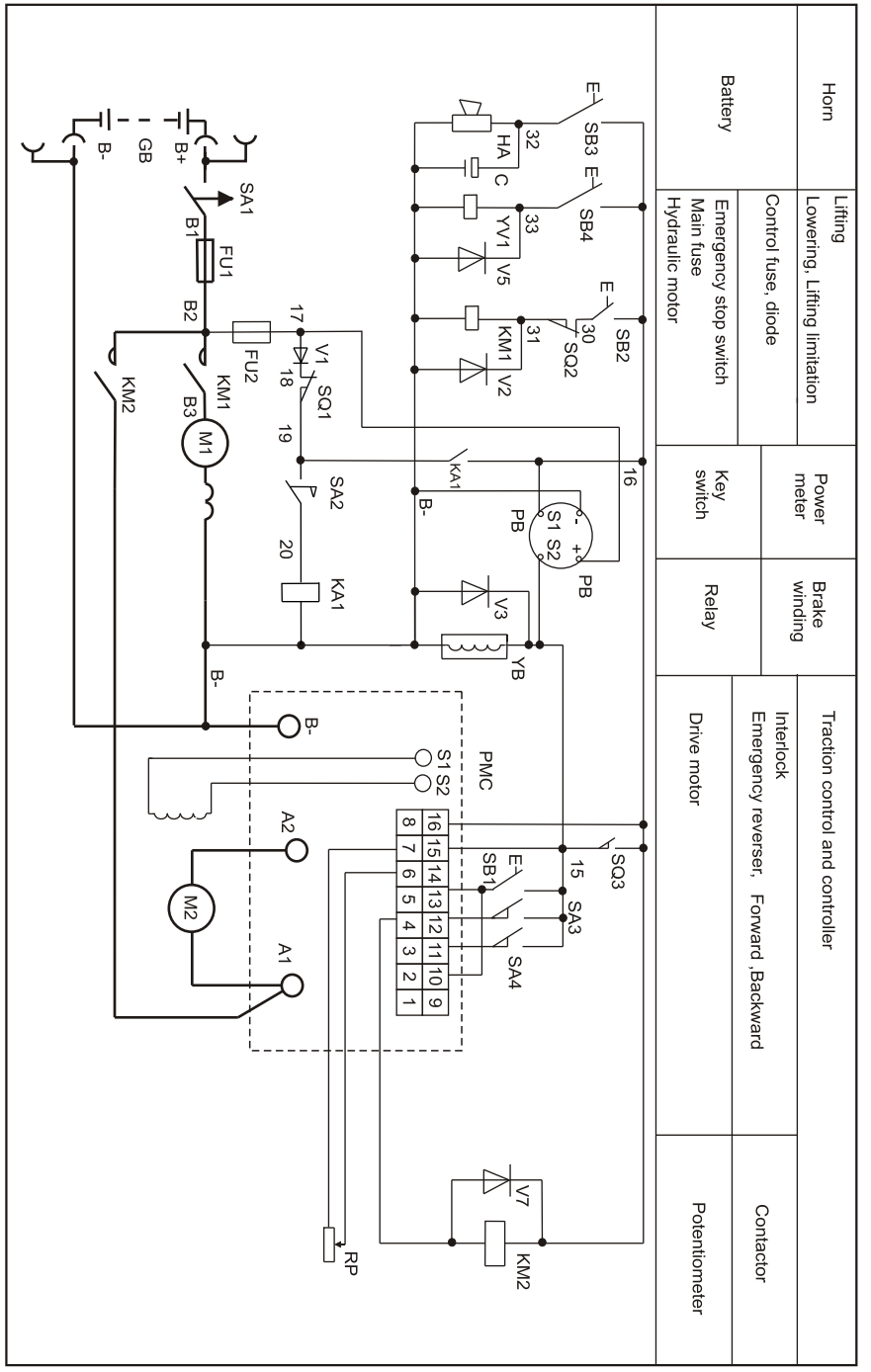
* Make sure the load not exceed the capacity

* It' s not permitted to operate the truck near the area with fire hazards

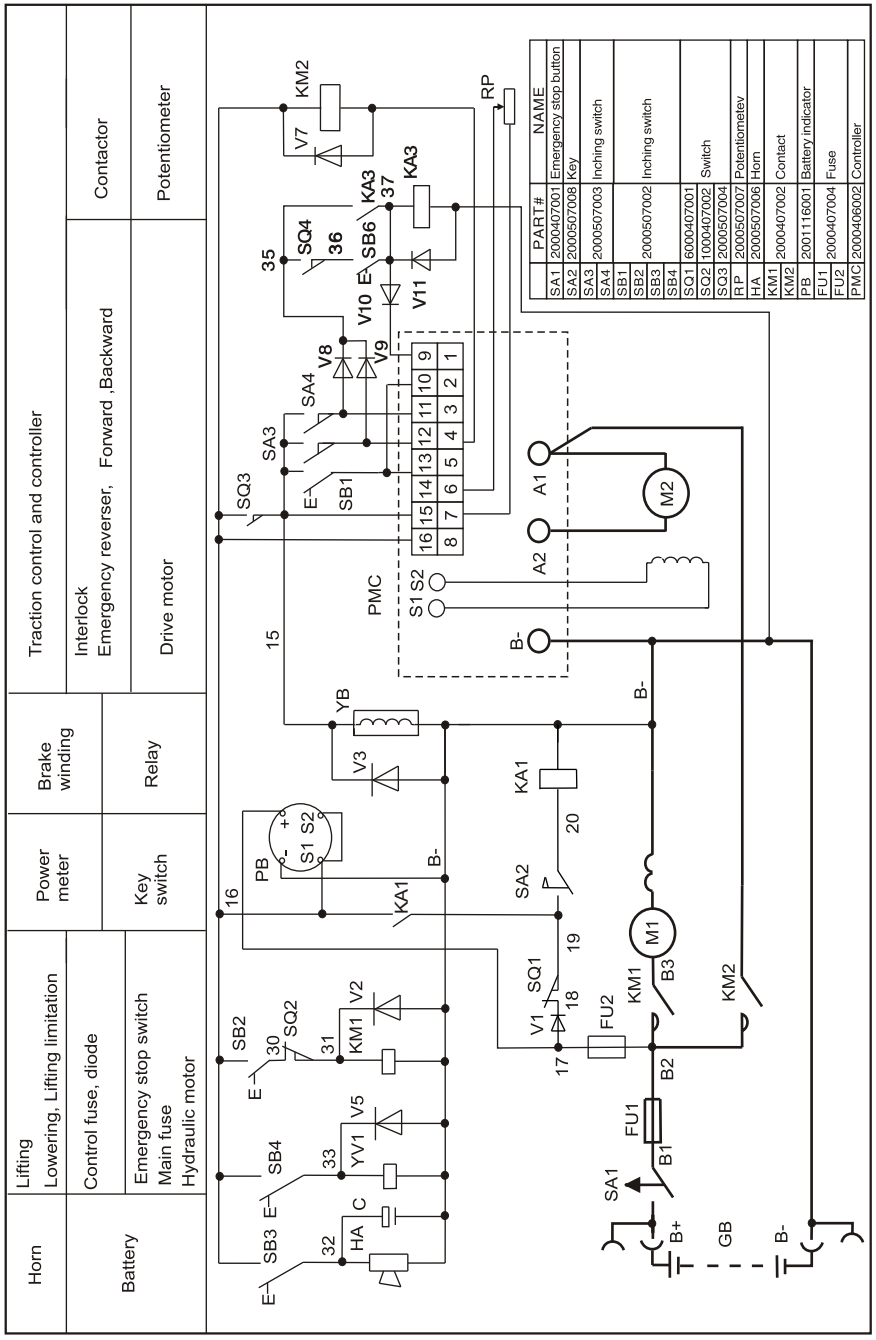
* Be careful of turning while travling forks. The power unit will swing wide in the opposite direction . Make sure you have clearance, and watch out for people in the area.

* Powder or liquid spills can cause slippery floors. Slow down or you could lose control of steering and braking. Be careful and allow for a longer stopping distance.

Circuit diagram for WP50-20



Circuit diagram for WP40-20



II. Ride your truck

* Keep your hands on the controls and feet on the pedals, always keep your body within the operation area.

* It is not allowed to ride the truck without opening the safety arm.

* Be careful if drive on uneven ground, don't try to drive over objects on the floor.

* Always control your speed with safe stop available.

* Stop your truck and relax your body when you feel tired. Make sure your physical condition always be good for operating the truck.

* Speed option is only available when safty arm is open.
(Rabbit & Tortoise button on operation handle)

III. Capacity plate

Capacity plate information:
The capacity plate is on the top of the power unit cover. It contains:
* Capacity information
* Truck weight (does not including battery or load)
* Truck dimension

Electric Pallet truck CE

Model

Capacity (Kg) | (Suggested)Battery capacity(Ah)

Fork width(mm) | Selfweight without battery(kg)

Fork length(mm) | Series number

Walkie pallet truck CE

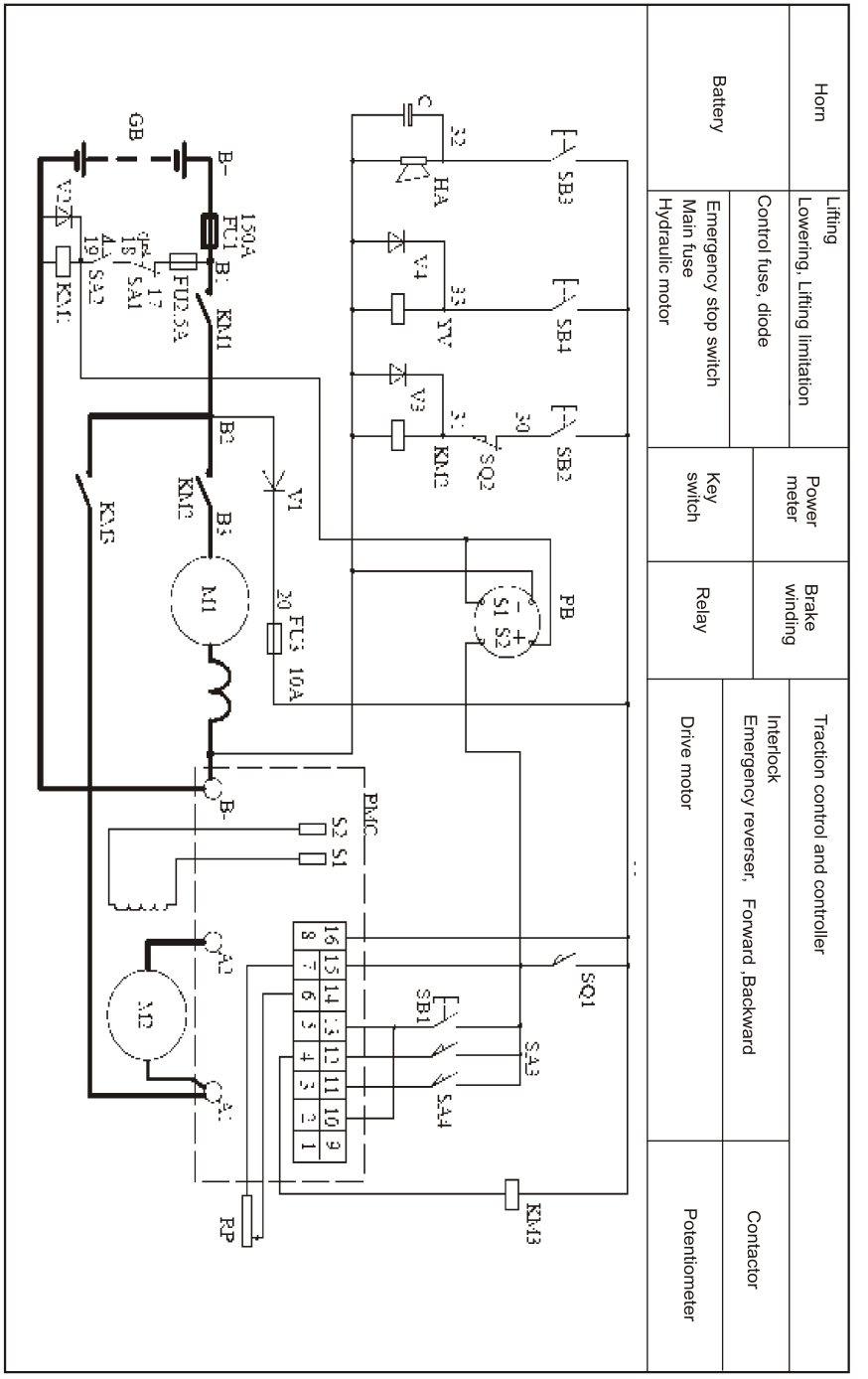
Model

Capacity (lb) | (Suggested)Battery capacity(Ah)

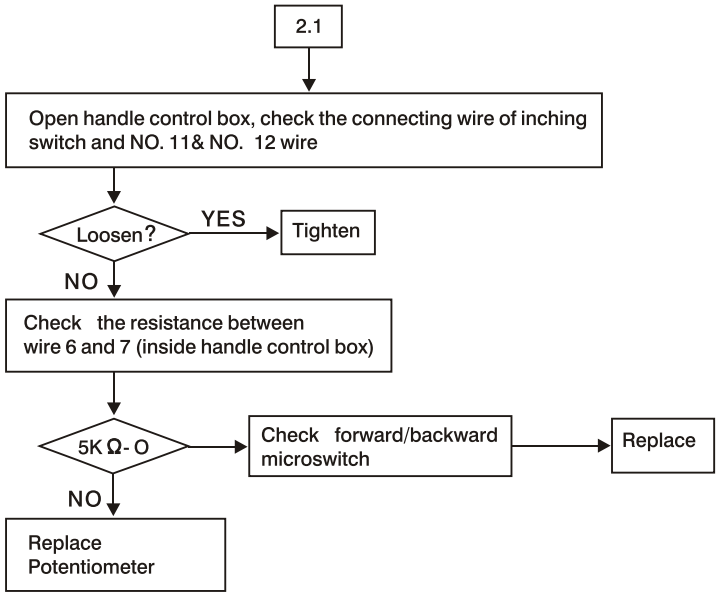
Fork width(inch) | Selfweight without battery(lb)

Fork length(inch) | Series number

Crcuit diagram for WP10-20



Trouble showing code of controller



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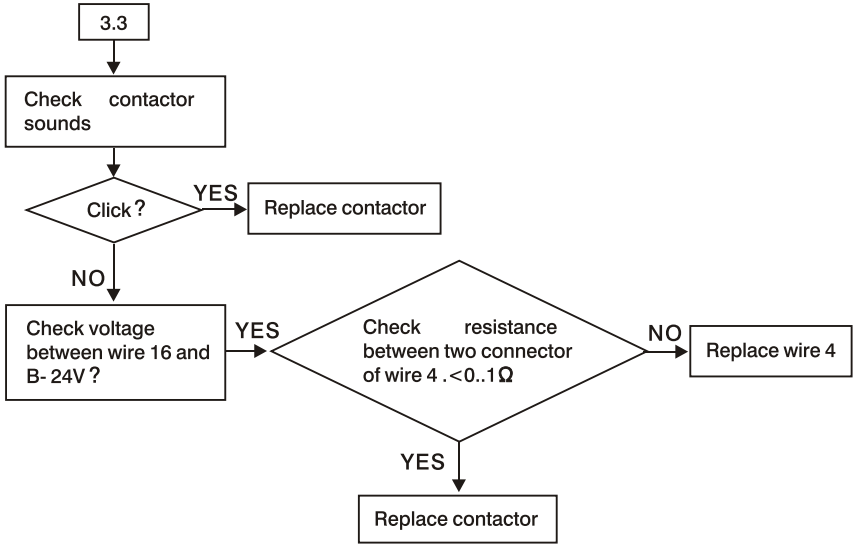
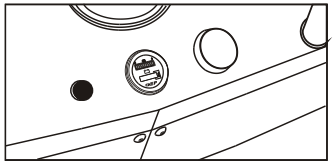


IV. Operation

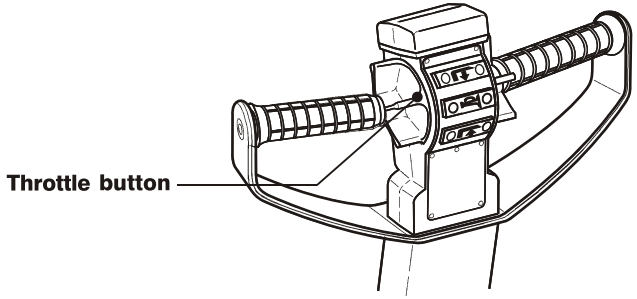
1. Power on & off

* Turn on the truck by turning the key to right -Power on
* Turn off the truck by turning the key to left -Power off
* Always turn off the truck when leaving the truck

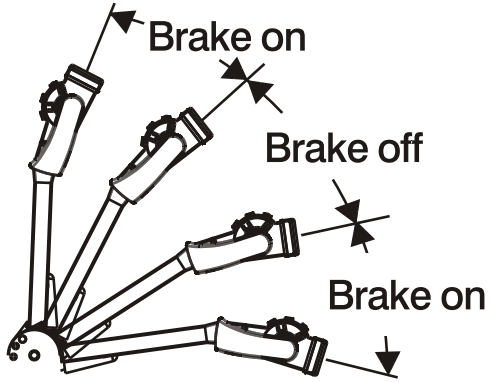


2. Braking

Loose the throttle button will make truck slow down and stop.

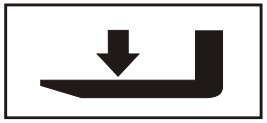


Move the handle all the way down or all the way up to apply the brake

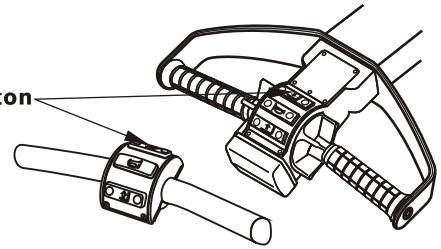


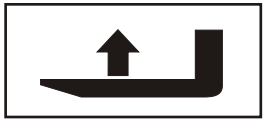
3. Raising and lowing

* Raise: Push raise button until the forks are at the desired height
* Lower: Push lower button until the forks are at the desired height

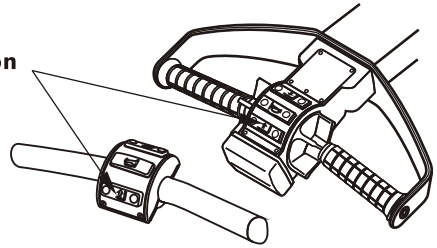


Lower button

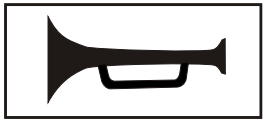




Raise button



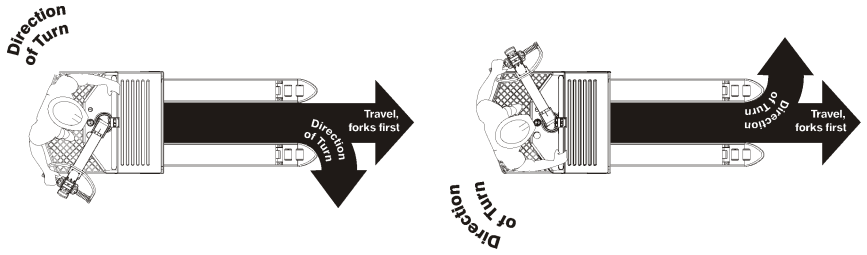
4. Horn



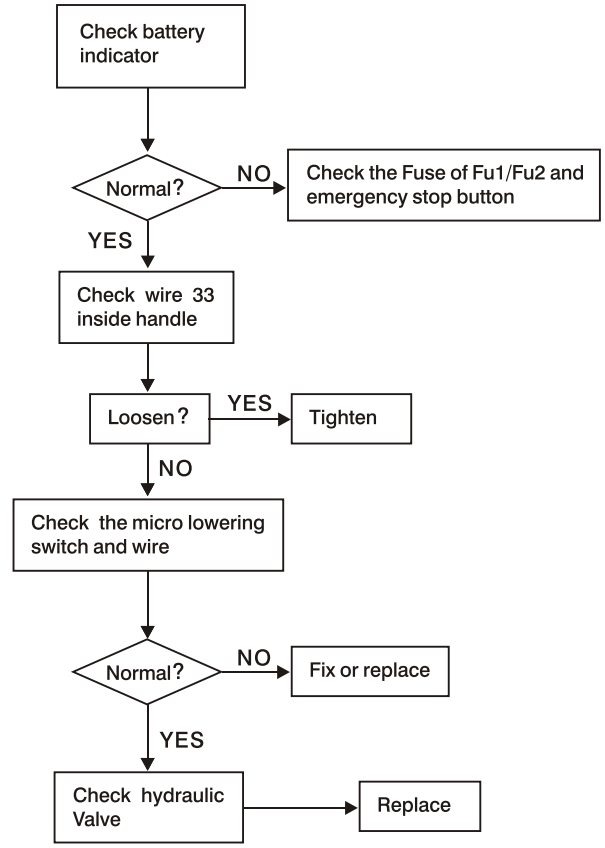
Horn Button

5. Steering

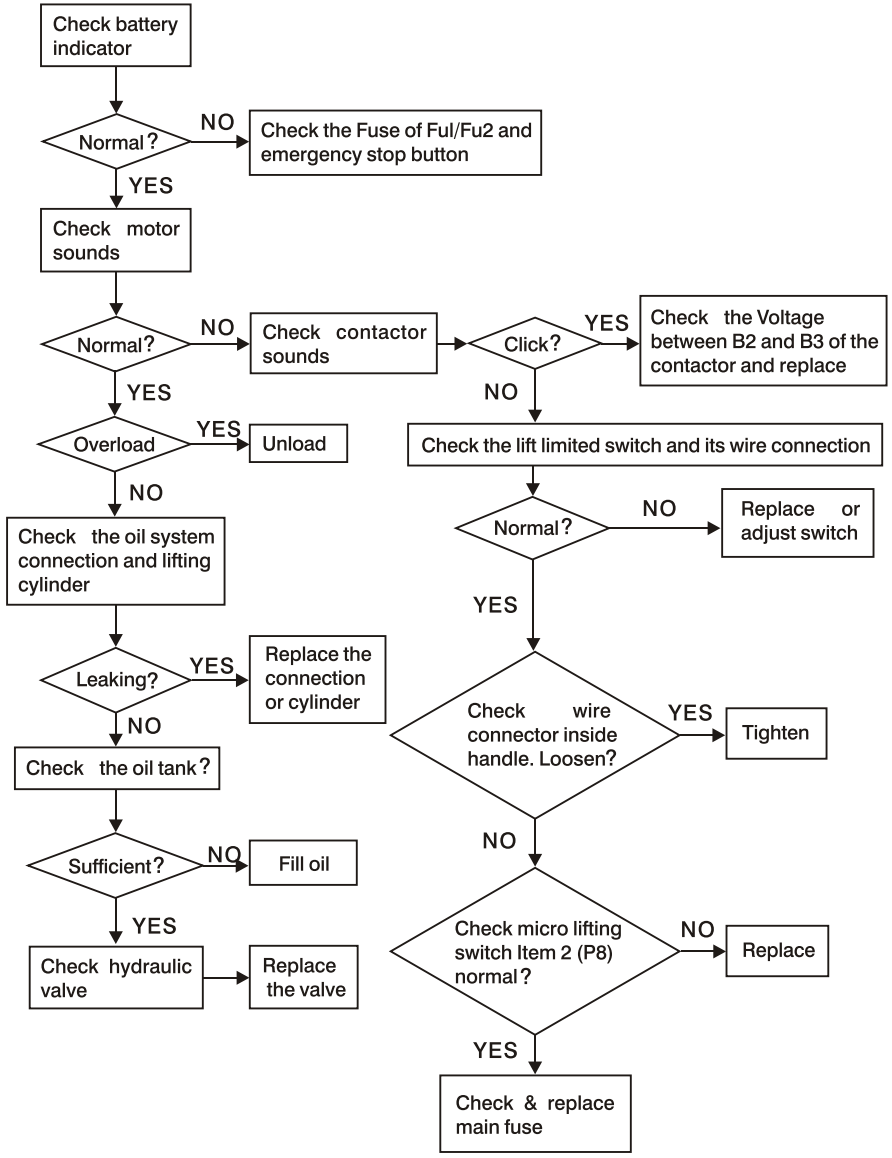
Control steering by moving the control handle from side to side



UNABLE TO LOWER



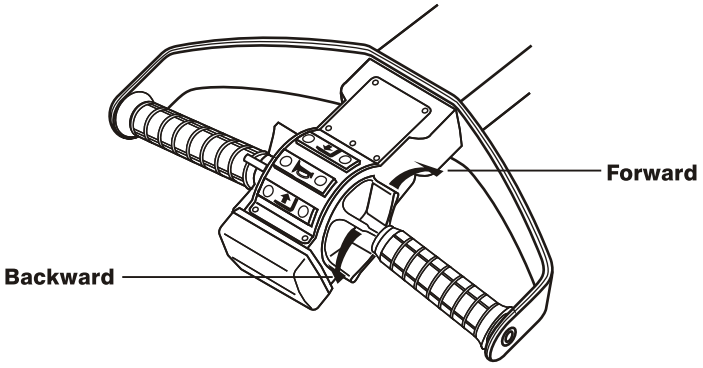
UNABLE TO LIFT



6. Travelling

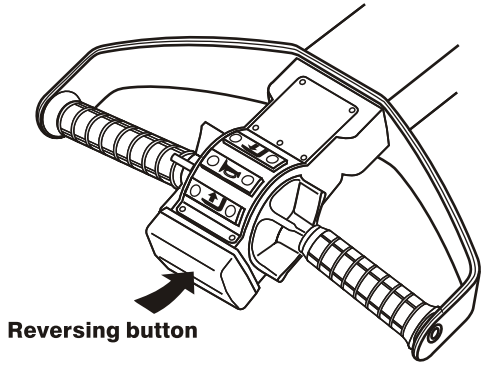
Rotate the throttle button in the direction you want to travel.

The farther you rotate the throttle button from the neutral position, the faster the truck will travel.



7. Reversing buutton

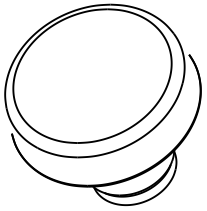
* If you accidentally hit the reversing button while working in the close corner the Truck will move in the direction of the forks.
  Be careful, the reversing button can not prevent all injuries.



Reversing button

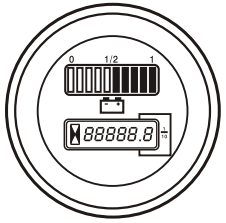
8. Emergncy stop button

Push down emergency stop button will cut any current of the machine, make immediately stop.

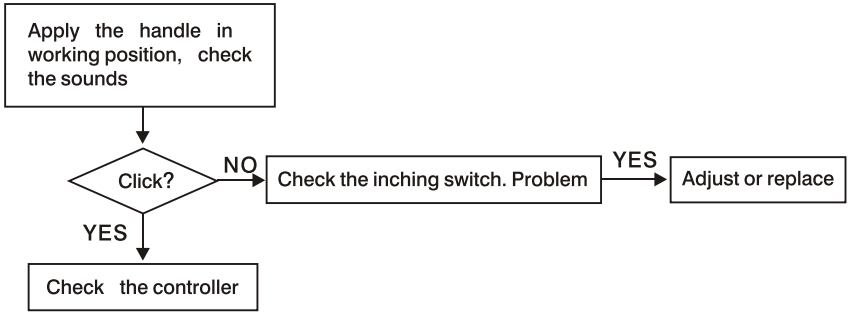


9. Battery indicator

The lighted bar shows how much charge is left in your battery
you should check battery indicator more often



UNABLE TO MOVE FORWARD
UNABLE TO MOVE BACKWARD



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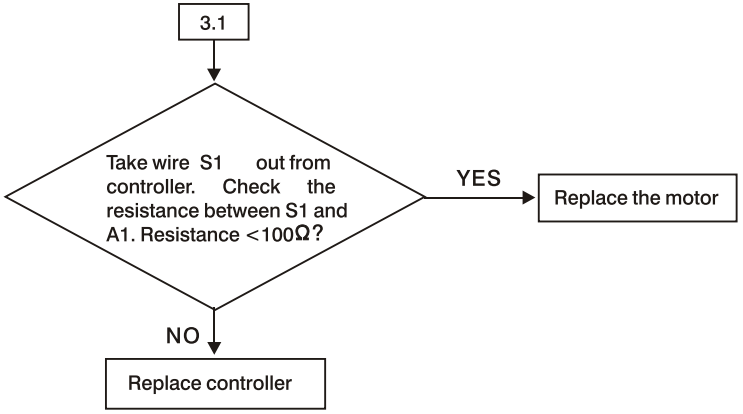

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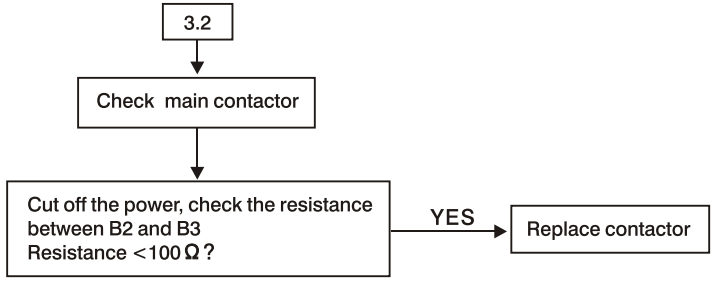


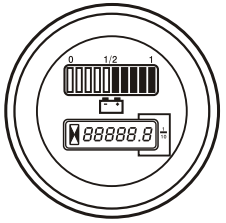
Hydraulic system

Name	Symbol	Period of maintain (hrs/per)						
		Check for oil level change oil	Clean suction strainer	Drain for foreign matter	Check for oil leaks looseness collapse deformation and damage	Replace hoses	Check hydraulic Pump for oil leaks or noise	Check pump drive gear for wear
Maintanence level 1	B1	8				8	8	
Maintanence level 2	B2	50				50	50	
Maintanence level 3	B3	200			200	200	200	200
Medium term of overhaul	Z	600			600	600	600	600
Large-scale overhaul	D	Replace	1200	1200	1200	Replace (1~2year)	1200	1200

Wheel

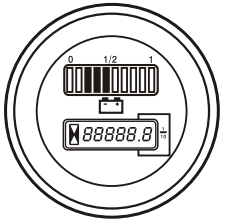
Name	Symbol	Period of maintain (hrs/per)		
		Wearing or crack	Tighten bolt	Where there is rope on the wheel
Maintanence level 1	B1	8(eye)		8
Maintanence level 2	B2	50	50	50
Maintanence level 3	B3	200	200	200
Medium term of overhaul	Z	600	600	600
Large-scale overhaul	D	1200	1200	1200

* Battery sufficient

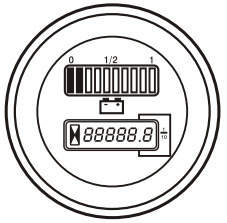


Sufficient

* Battery charger requirement, to be re-charged



Charge Require



Un-Sufficient

Before charging your truck battery

* make certain the charge is the same voltage and amperage as your battery

* Be sure the charger is turned off before connecting the battery to the charger. Otherwise you might create a spark which could cause the battery to explode.

* Make sure the truck key switch is turned off.

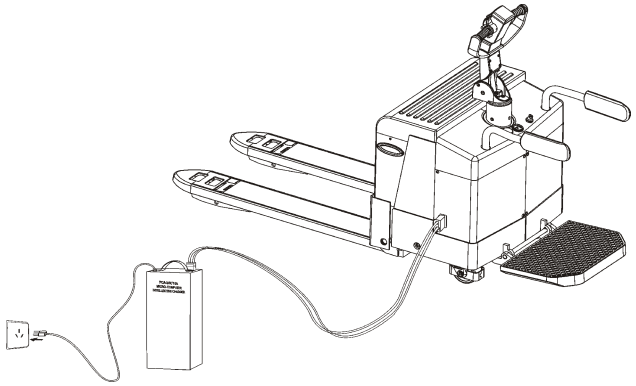
10. Charge the battery

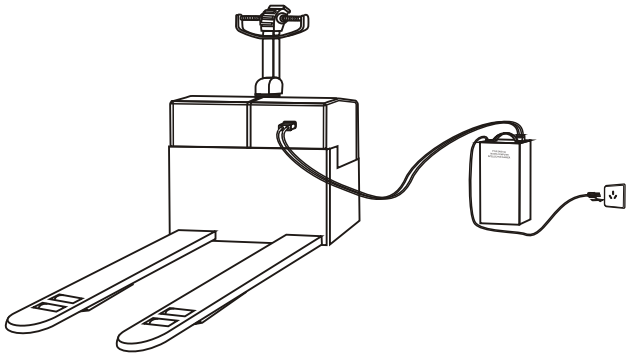
When the battery indictor shows ‘‘charger require’’,
The battery should be chargered at once
It is not necessary to open the battery cover when you want to charge, please operate as following steps.

(1) Turn off the key switch of truck.

(2) Connect the charger plug to the truck charger plug.

(3) See charge instruction to operate charger.





Brake system

Name	Symbol	Period of maintain (hrs/per)					
		Check the brake state when the handle on vertical or level position	Whether the micro switch loosen	Tighteness	Wearing	Clearnance between drum and shoes	Whehter brake agility
Maintanence level 1	B1	8					8
Maintanence level 2	B2	50					50
Maintanence level 3	B3	200	200	200			200
Medium term of overhaul	Z	600	600	600	600	600	600
Large-scale overhaul	D	1200	1200	1200	1200	1200	1200

Transmission unit

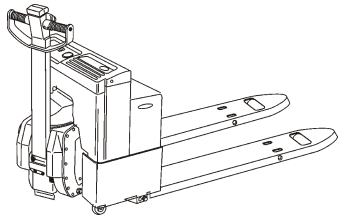
Name	Symbol	Period of maintain (hrs/per)						
		Abnormal noise(box)	Check oil leakage	Replace oil	Lubricatoin rollers	Whether steering agility	Abnormal noise(steering)	Rotate handle
Maintanence level 1	B1	8	8			8	8	8
Maintanence level 2	B2	50	50		50	50	50	50
Maintanence level 3	B3	200	200		200	200	200	200
Medium term of overhaul	Z	600	600		600	600	600	600
Large-scale overhaul	D	1200	1200	Replace	1200	1200	1200	1200

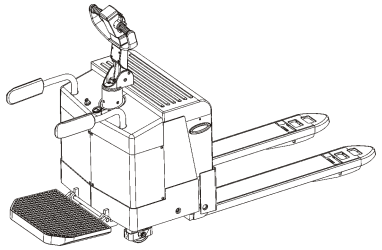
Name	Symbol	Period of maintain (hrs/per)			
		Check connector for worn	Check contactor for running	Check inching switchforrunning	Check the connection among motor battery and power unit
Maintanence level 1	B1				
Maintanence level 2	B2				
Maintanence level 3	B3				
Medium term of overhaul	Z	600	600	600	600
Large-scale overhaul	D	1200	1200	1200	1200

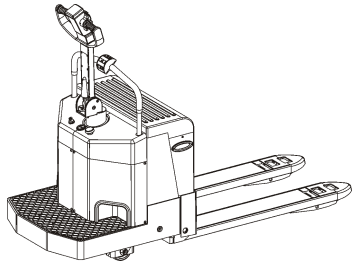
Moter

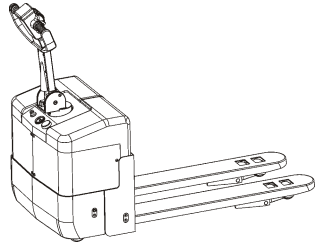
Name	Symbol	Period of maintain (hrs/per)				
		Clean the foreign body on the motor	Clean or replace the bearing	Check the carbon brush and comm.-Utater for worm,if spring is normal	If the connection is correct and firm	Brush carbon powder on shift plate and shift device
Maintanence level 1	B1					
Maintanence level 2	B2					
Maintanence level 3	B3	200		200	200	
Medium term of overhaul	Z	600		600	600	600
Large-scale overhaul	D	1200	1200	1200	1200	1200

Service Manual









Warning Read and observe all warnings on this unit before operating it.

Warning DO NOT operate this equipment unless all factory installed guards and shields are properly secured in place.

March:2007

CONTRO TROUBLESHOOTING CHART

LED CODE	PROGRANNER LCD DISPLAY	FAULT CATEGORY	POSSIBLE CAUSE	FAULT CLEARANCE
0,1	NO KNOWN FAULTS	0	n/a	N/a
1,1	CURRENT SHUNT FAULT	1	1. Abnormal vehicle operation causing high current spikes. 2. Current sensor out of range. 3. Controller failure.	Cycle KSI. If problem persists, replace controller.
1,2	HW FAILSAFE	1	1. Noisy environment. 2. Self-test or watchdog fault. 3. Controller failure.	Cycle KSI. If problem persists, replace controller.
1,3	M- SHORTED	1	1. Internal or external short of M- to B-. 2. Incorrect motor wiring. 3. Controller failure.	Check wiring;cycle KSI. If problem persists, replace controller.
1,4	SRO	3	1. Improper sequence of KSI, interlock, and direction inputs. 2. Interlock or direction switch circuit open. 3. Sequencing delay too short. 4. Wrong SRO or throttle type selected. 5. Misadjusted throttle pot.	Follow proper sequence; adjust throttle if necessary; adjust programmable parameters if necessary.
2,1	THROTTLE WIPER HI	1	1. Throttle input wire open or shorted to B+. 2. Defective throttle pot. 3. Wrong throttle type selected.	When Throttle Wiper High input returns to valid range.
2,2	EMR REV WIRING	1	1. Emproper sequence wire or wire open.	Re-apply emergency reverse or cycle interlock.
2,3	HPD	3	1. Improper sequence of KSI, interlock, and throttle inputs. 2. Misadjusted throttle pot. 3. Sequencing delay too short. 4. Wrong HPD or throttle type selected. 5. Misadjusted throttle pot.	Follow proper sequence; adjust throttle if necessary; adjust programmable parameters if necessary.
	SRVC TOTAL	3	1. Total maintenance timer expired.	Reset with programmer.
	SRVC TRAC	3	1. Traction maintenance timer expired.	Reset with programmer.
	TOTAL DISABLED	3	1. Total disable timer expired.	Reset with programmer.
	TRAC DISABLED	3	1. Traction disable timer expired.	Reset with programmer.
2,4	THROTTLE WIPER LO	1	1. Throttle pot wire open or shorted to B+. 2. Wrong throttle type selected. 3. Defective throttle pot.	When Throttle Wiper Low input returns to valid range.
3,1	FIELD SHORT	1	1. Main contactor coil shorted. 2. Field winding shorted to B+ or B-. 3. Field resistance too low.	Check contactor coil and field winding; cycle KSI.
3,2	MAIN CONT WELDED	1	1. Main contactor stuck closed. 2. Main contactor driver shorted.	Check wiring and contactor; cycle KSI.
3,3	FIELD OPEN	1	1. Field winding connection open. 2. Field winding open.	Check wiring and cycle KSI.
3,4	MISSING CONTACTOR	1	1. Main contactor coil open. 2. Main contactor missing. 3. Wire to main contactor open.	Check wiring and cycle KSI.

WP series Specification chart

Sale model	WP10-20	WP40-20	WP50-20	WP60-13
Factory model	100	400	500	100
Capacity(kg)	1800/2000	2000	2000	1300
Common lifting height(mm)	120	120	120	120
Minimum lifting height(mm)	85	85	85	85/74
Stantard fork width (mm)	685/600/540	685/540	685	685/600/540/520
Service weight without battery pack(kg)	390	543	535	244
Battery capacity (AH)	210	210	210	60
Travelling motor(kw)	0.93	2.2	2.2	0.6
Lifting motor(kw)	2	2	2	0.8
Control system	CURTIS 1243	CURTIS 1243	CURTIS 1243	CURTIS 1243

Preventive maintenance schedule

Battery

Name	Symbol	Period of maintain (hrs/per)								
		Electrolyte level	Electrolyte roportion	Battery quantity	Terminal looseness	Looseness of Connecting wire	Cleanness of the battery surface	If there is tool on the battery	The tightness of air cap	Far away from firing
Maintanence level 1	B1			8	8	8		8		8
Maintanence level 2	B2	50	50	50	50	50	50	50	50	50
Maintanence level 3	B3	200	200	200	200	200	200	200	200	200
Medium term of overhaul	Z	600	600	600	600	600	600	600	600	600
Large-scale overhaul	D	1200	1200	1200	1200	1200	1200	1200	1200	1200