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OPERATOR'S MANUAL

MODEL: TDS-9.5i/12.0i
TDS-9.5C/12.0C
TDS-9.5/12.0
TDS-6.5/8.5

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I General Introduction

Thank you for purchasing our **KINGONE** winch. We hope you are pleased with its performance. We also hope it can bring you convenient and cozy work. Please do read this manual and understand it before installing and operating. This manual covers all the instruction of installation, operation and maintenance of the winch. If you need other information, please contact us by: +86 574 88168988 or you can log on our website: www.kingonewinch.com.

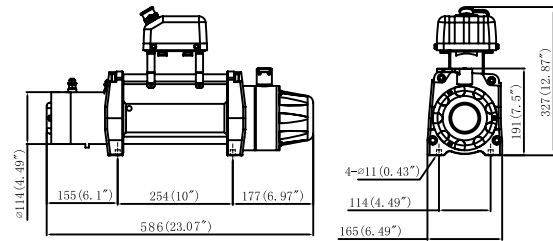
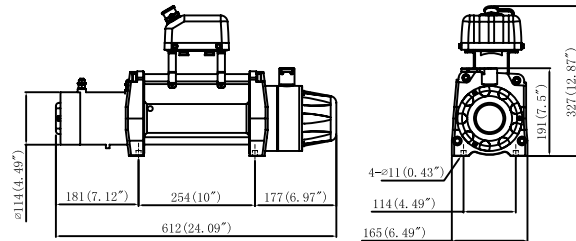
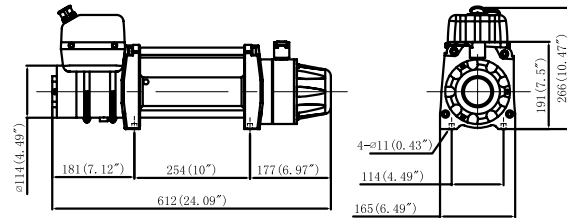
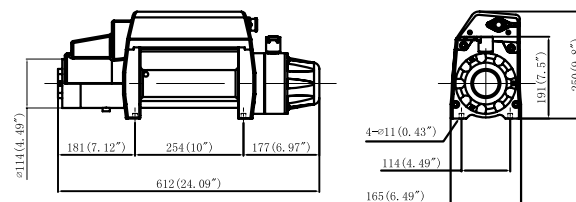
II Notice of Taking Delivery of Goods

This winch carton contains the following items

Contents	Quantity
Winch and wire rope	1
Controller	1
Hook	1
Handsaver	1
Pulley block	1
Roller fairlead	1
Owner's manual	1

Main Components and Features of the Winch

1. Electric Motor -12 Voltage and 24 Voltage.
2. Braking-Automatic load-holding brake.
3. Drum-Made of steel.
4. Freespool Clutch-Lift a pin by the rotating control of handle.
It is easy to separate the joggle and the gear, and to pull out the wire rope when there is no electric power.
5. Remote controller-15'hand control rope-release switch equipment.

Dimension of the Winch (See the following figures)

TDS-6.5/8.5

TDS-9.5/12.0

TDS-9.5C/12.0C

TDS-9.5i/12.0i
Performance Data of the Winch
Performance

TDS-9.5(i)(C)			TDS-12.0(i)(C)		
Wire rope layer	Max pulling force		Wire rope layer	Max pulling force	
	Lbs	Kgs		Lbs	Kgs
1	9,500	4,309	1	12,000	5,442
2	7,750	3,516	2	9,787	4,439
3	6,550	2,977	3	8,273	3,753
4	5,700	2,587	4	7,199	3,265

Line Speed and Amp Draw

		TDS-9.5(i)(C)				TDS-12.0(i)(C)			
Load		Line speed		Amp Draw		Line speed		Amp Draw	
Lbs	Kgs	FPM	MPM	12V	24V	FPM	MPM	12V	24V
No Load		55.8	17	60	40	29.3	9	60	40
2,000	907	14.7	4.5	140	106	13	4	116	87
4,000	1,814	12.5	3.8	181	158	9.8	3	141	110
6,000	2,722	12.0	2.7	248	187	7.9	2.4	178	129
8,000	3,650	8.2	2.5	295	226	6.9	2.1	224	165
9,500	4,309	7.5	2.3	338	259	6.2	1.9	238	185
11,000	5,000					4.9	1.5	270	214
12,000	5,442					4.5	1.4	285	217

Specifications

Model	Working load	Wire rope	Motor output	Gear ratio
TDS-9.5(i)(C)	9,500 lbs (4,309kgs)	Φ 11/32"x100'	5.0HP	173:1
TDS-12.0(i)(C)	12,000 lbs (5,442kgs)	Φ 3/8"x90'	6.0HP	254:1

The above performance is based on the first wire rope layer
(See figure 1).

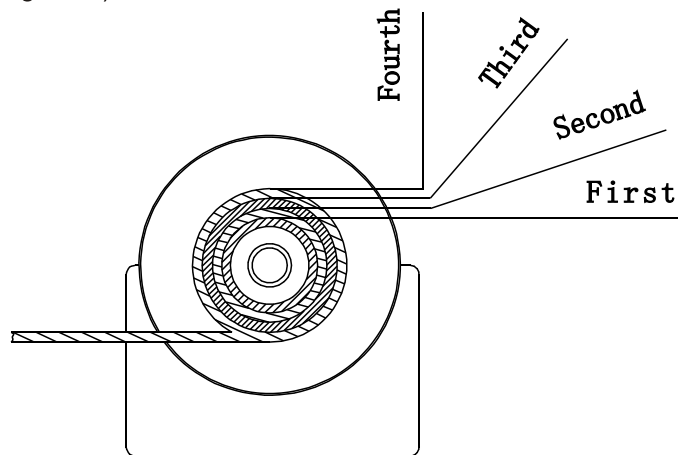


figure 1

III Safety Precautions

Electric winch is a machine with great pulling force. Please do follow the following instructions and be cautious when using it.

1. Stop the winch when motor does not rotate. Overload will damage the electric winch and the wire rope and cause other unsafety. When the pulling force is over-loaded by $2/3$, it's best to use the pulley block. The use of double-line wire rope (See figure 2) can reduce the load on the winch and wire rope by 50%. If you want to attach the winch to the back of the vehicle, you should choose a part that can bear the load. The engine of the vehicle should keep running, so that it can reduce the electric power consumption of the storage battery and meanwhile maximize the pulling force and speed of the winch. The battery storage may be too weak to restart the engine, on condition that the vehicle engine's power is off.

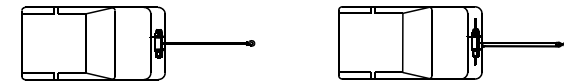


figure 2

2. Under any abnormal phenomena, stop the winch immediately and check whether the operating procedure is right, or repair it soon.
3. Never exceed the winch rated capacity while operating it.
3. Overloading may damage the relevant parts of the electric winch or cause other unsafety.
4. Do not use your vehicle to assist the winch while pulling a load. It will give the wire rope extra burden.
5. The pulling force of the winch should be powerful enough to overcome all the resistance caused by any vehicle.
6. Keep the winch and its surroundings clean and stay away from any barrier. Do not allow other people to stay in the winching area. Wire ropes and hooks should always be kept clean too. The best way to exclude dangers is to keep people in safety area.

7. Check wire rope and equipment frequently, change the wearing wire rope and replaced it immediately when it is broken. Normally, the wire rope should be replace by the original manufacturer. (See the Replacement Parts List). Regularly check the winch installation to ensure that all bolts are tight.
8. Wear qualified leather working gloves when handling wire rope in case of slippery.
9. The first layer of wire rope should never be less than 5 wraps on the drum, or the root of the wire rope can't withstand the load.

10. After the operation, clean the wire rope and the hook. It is forbidden to put fingers on the hook, for fear of causing injury. It is also forbidden to guide the wire rope to the drum by hand. When the hook comes near to the roller fairlead, you should use the handsaver to guide the wire rope (See figure 3).

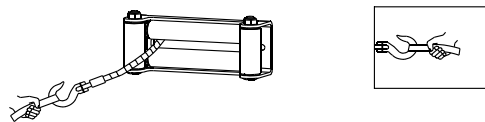


figure 3

11. Never turn over the wire rope to hook the wire rope. Or, it will damage the wire rope. You should use a nylon belt (See figure 4).

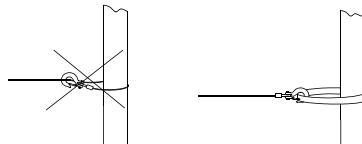


figure 4

12. Lay a blanket or a big towel near the hook on the wire rope when pulling heavy load, so that it can prevent the rebound of the wire rope when taken off the hook. Meanwhile, raise the lid of the vehicle for protection (See figure 5).

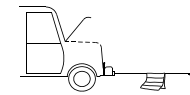


figure 5

13. Never use winch to carry people. Never lift heavy stuffs to pass over people's head (See figure 6).

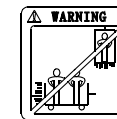
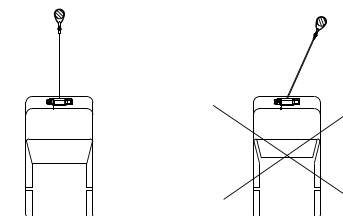


figure 6

14. Avoid pulling things from the limitary angles. Or else the wire rope will cause damage to one end of the drum (See figure 7). This will cause the tangling of wire rope on the winch and bring damage to the wire rope and the winch.



See figure 7

15. Equipment such as roller fairlead, hook, pulley block, hook belt, etc. should be periodically checked for damage and replaced.
16. Never release clutch when the winch is under working.
17. It is forbidden to operate the winch when you take drugs, alcohol or medicine.
18. When dragging an object, the wire rope condition should be from loose to tight slowly. Then stop, recheck if all the components of the winch are correctly used.
19. Never use the winch to load or unload cargoes.
20. Never add shock loads to the winch or wire rope.
21. Never dismantle or assemble other unrelated parts to the winch. Use matched parts that produced by the original manufacturer(refer to the Replacement Part List), to maximize its capacity. Any replacement or alteration will void the guarantee.
22. Never submerge the winch into water.
23. Never use the wire rope of the winch randomly. Do not try to pull the wire rope to move the winch, or pull hard the wire rope from the socket. The wire rope should be kept away from high temperature, grease and sharp objects.
24. The winch must be connected to DC POWER according to relevant regulations. Never connect winch to the AC POWER directly, otherwise the winch will burn or cause people's electric shock.

IV Installation

Safety for Installation

- ◇ Choose a location for installation that can endure the max. pulling force.
- ◇ Do use the switches, spare parts and installation components offered by the manufacturer.
- ◇ Always use the bolts no lower than ISO grade10.9 and never change the bolts randomly.
- ◇ While assembling, always complete the mounting of winch onto the base first, then the hook and staple, finally the wire rope.
- ◇ Wrap the wire rope on the drum according to circumrotate direct of the drum indicated at the label. If it needs the cooperation of the auto clutch, you can adjust its direction according to the actual situation.
- ◇ Always tighten the wire rope and rewrap it under the loading condition before working, in case of the loose of the wire rope. Otherwise, when under working, the wire rope will stuck in the loose layer and wear. This will cause damage to the wire rope.
- ◇ When boring is needed, always make warning marks, such as fuel lines, fuel tank, brake lines, electrical wires, and so on.
- ◇ Automobile storage batteries contain gas, which flames and explodes easily. During installation, remove all valuable objects and protect your eyes. Do not lean over to storage battery while installing.

Minimum Electrical Requirements

For 12 Voltage winches, a 60 A alternator and storage battery with (440 CcA) is the minimum recommended power sources. If the winch is dragging a heavy object, an auxiliary storage battery is recommended.

Methods of Installation

- ◇ Use bolt to install the support of the winch.
- ◇ Use bolt to install the winch to a base plate(See figure 8).

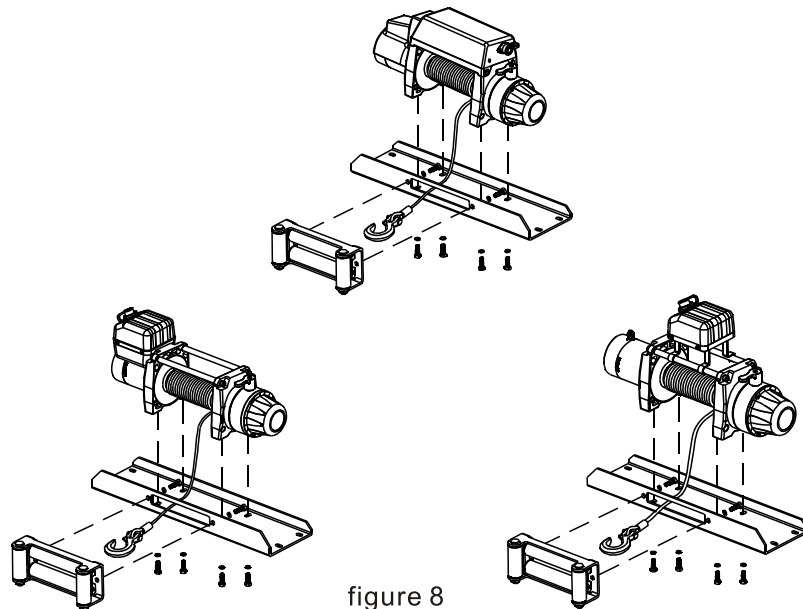


figure 8

- ◇ Connect the red and black leading wire to the storage battery. In order to prevent the wear, tear and the cut to the insulation, it offers many layers of insulated zones to avoid any sharp end of the vehicle. The red leading wire connects to the positive terminal of the battery, while the black leading wire connects to the negative terminal of the battery.

- ◇ Turn the rotary clutch to the position of "DISENGAGED" and pull out several feet of wire rope from the wheel. Then turn clutch to the position of "ENGAGED". Plug in the controller, press the button to check the rotation direction of wire rope and recheck the connection of the wire (See figure 9).

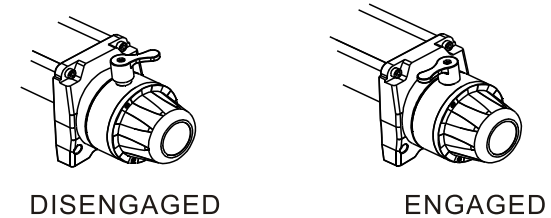


figure 9

Caution: The automatic wire rope release controller must be kept in the clean and dry place.

V Operation Guide

Precautions before use:

- ◇ Check the safety of the surroundings.
- ◇ Check if there is over abrasion, break, rust or other defects on the wire rope.
- ◇ Ensure the winch is correctly connected: 12v DC or 24v DC only.
- ◇ Ensure that the handle of the clutch is in the state of "ENGAGE".
- ◇ Ensure that the wire rope does not twist and knot.
- ◇ Ensure the button of the switch is clear and easily recognized.

- ◇ When power on, the LED on the controller shows RED. When press "IN" or "OUT", LED light shows GREEN (See figure 10).

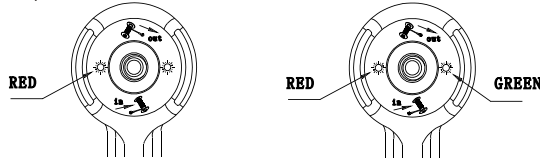


figure 10

- ◇ If the sound is abnormal or the winch vibrates, stop working immediately and check it.

Instructions For Wire Rope Operation

- ◇ When wire rope comes out, the switch trigger is in the position of "Out" (See figure 11).
- ◇ When wire rope goes in, the switch trigger is in the position of "In" (See figure 12).

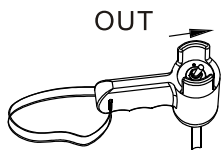


figure 11

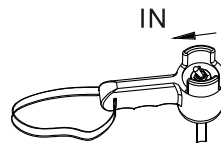


figure 12

Caution: The controller should be kept clean and located in a dry place.

Caution: The handle of the clutch should be in the position of "ENGAGED" (If it is not in the state of working, then it should be locked, see figure 13).

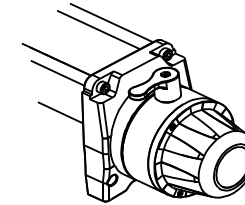


figure 13

Cautions & Service Regulation

- ✦ Keep the wire ropes roll tidy. A better choice is to draw back the ropes after use.
- ✦ Don't make the winch work in a state of heat since it should be working in an intermittent way. Try to stop it and cool the motor temperately. At this period make the engine runs, so that the battery can get recharged.
- ✦ To maximize the operation life of wire ropes, when loading heavier loads, double line pulley block should be used.
- ✦ The pulling force is stronger at the beginning of starting, so it is better to avoid frequent start or stop.
- ✦ Change the wire rope when twisted.
- ✦ Equip the winch with a roller fairlead to reduce abrasion of wire rope towed in different directions.

VI Maintenance

- ✦ Check regularly whether the bolts are well tightened and the connection condition of power. Clean the dust, rust on the connection section of power.
- ✦ The repairs can only be done by Maintenance Centers authorized by the manufacturer. The manufacturer is not responsible for any problems caused by users' disassembling the transmission gear by themselves.

Wire Rope Replacement

- ✦ To disassemble the wire rope from the drum, pulling the wire rope out and using controller switches or clutches.
- ✦ Never replace the damaged wire rope with lighter or heavier ones, or ropes made of other materials, but the wire rope made by the same producer, which is suitable for the replacement (see the Replacement Parts List).
- ✦ Insert one end of the wire rope into the end of the drum with hole(s). Tighten the wire rope with screw.

Notice: It is extremely important to tighten the wire rope with screws (See figure 14).

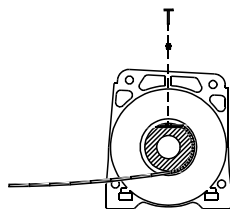


figure 14

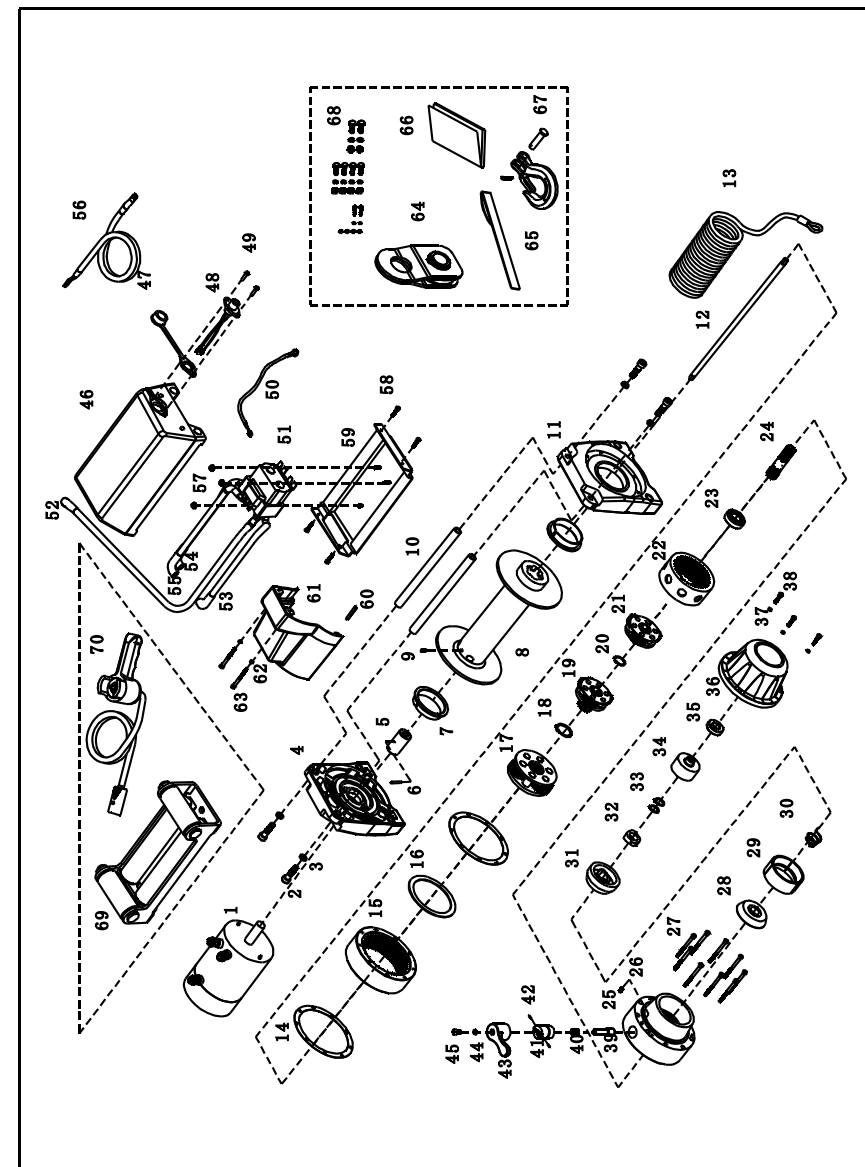
VII Malfunction Analysis

If malfunction happens, please contact the nearest retailers of the manufacturer or repairing centers authorized by the manufacturer.

Malfunction Description	Possible Causes	Solutions
The motor fails to run or only runs in one direction.	1.The electromagnetic unit is damaged or blocked, which is likely caused by the fact that the terminal nut is not tight. 2.The switch problem. 3.The leading wire is disconnected or not well connected.	1.Notice: Release the clutch, prevent the wire rope and drum from bearing force until the inspection is over. Change the electromagnetic unit once it is blocked, for it will likely block again. The sound "ka ka" will be heard when the electromagnetic unit is connected the first time. 2. Change the switch. 3. Find the poor contact (Notice: often use two wrenches).
The winch is unable to stop.	1. The electromagnetic unit is in a closed condition with the contacts bonded.	1.Change the magnetic switch.
The motor is overheated.	1. Long-time working. 2.The motor is damaged.	1.Stop and cool the motor. 2. Repair or replace the motor.
The motor is running, but the drum is unable to run.	1. The clutch is off working.	1. Close the clutch.

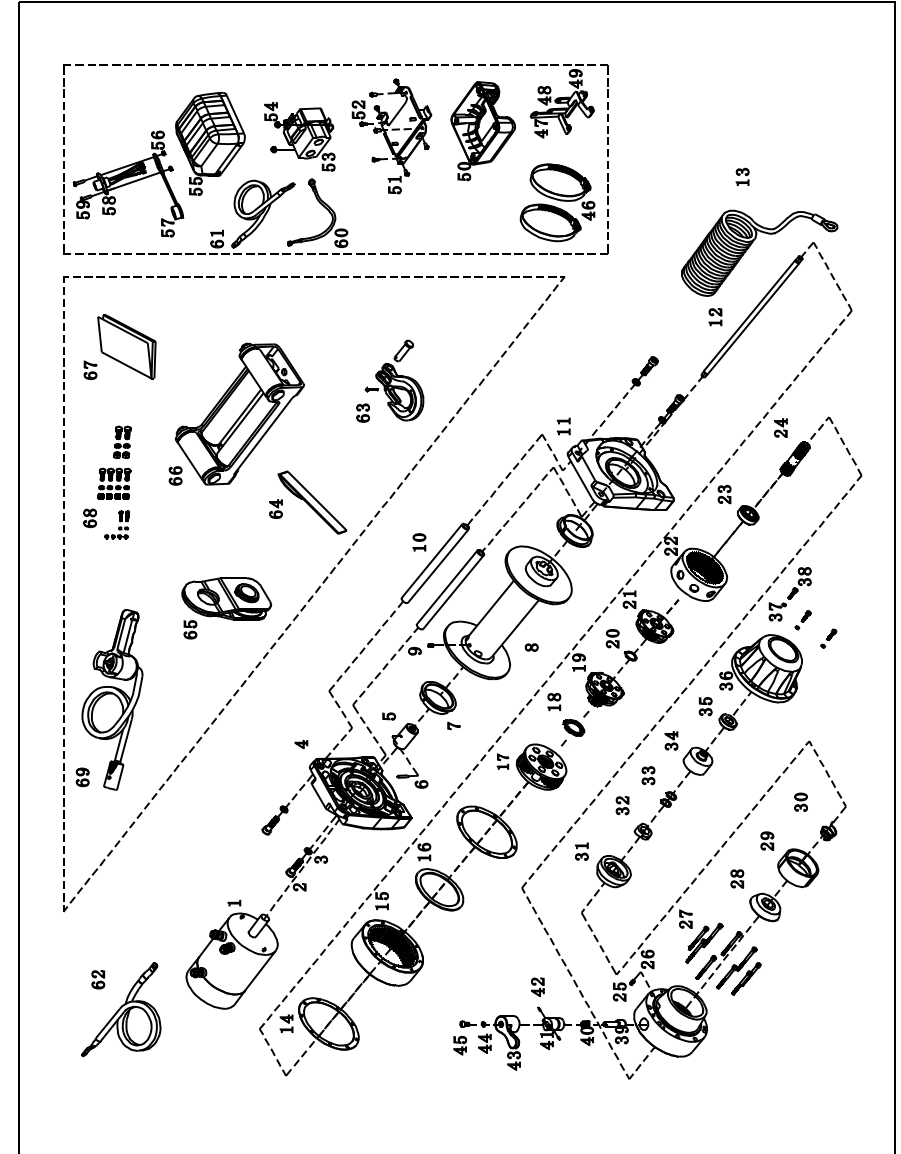
VIII Replacement Parts List

Malfunction Description	Possible Causes	Solutions
The winch is running in the opposite direction.	1. The motor leading wire is connected in the opposite direction. 2. Wrong wire connection of the electromagnetic unit.	1. Check the wire connection. 2. Check the wire connection.
The motor is working with lack of strength or linear velocity.	1. The battery is low. 2. The leading wire connecting the battery and the winch is too long. 3. Poor connection of the battery.	1. Charge or replace the battery. Check the charging system. 2. Use standard and high quality leading wire. 3. Check whether the two ends of the battery are corrosive. Clean the ends when necessary, or check the connection.
Unable to tow cargoes.	1. Over load. 2. The clutch is damaged.	1. Reduce the loading weights or use the bifilar set. 2. Replace the clutch.



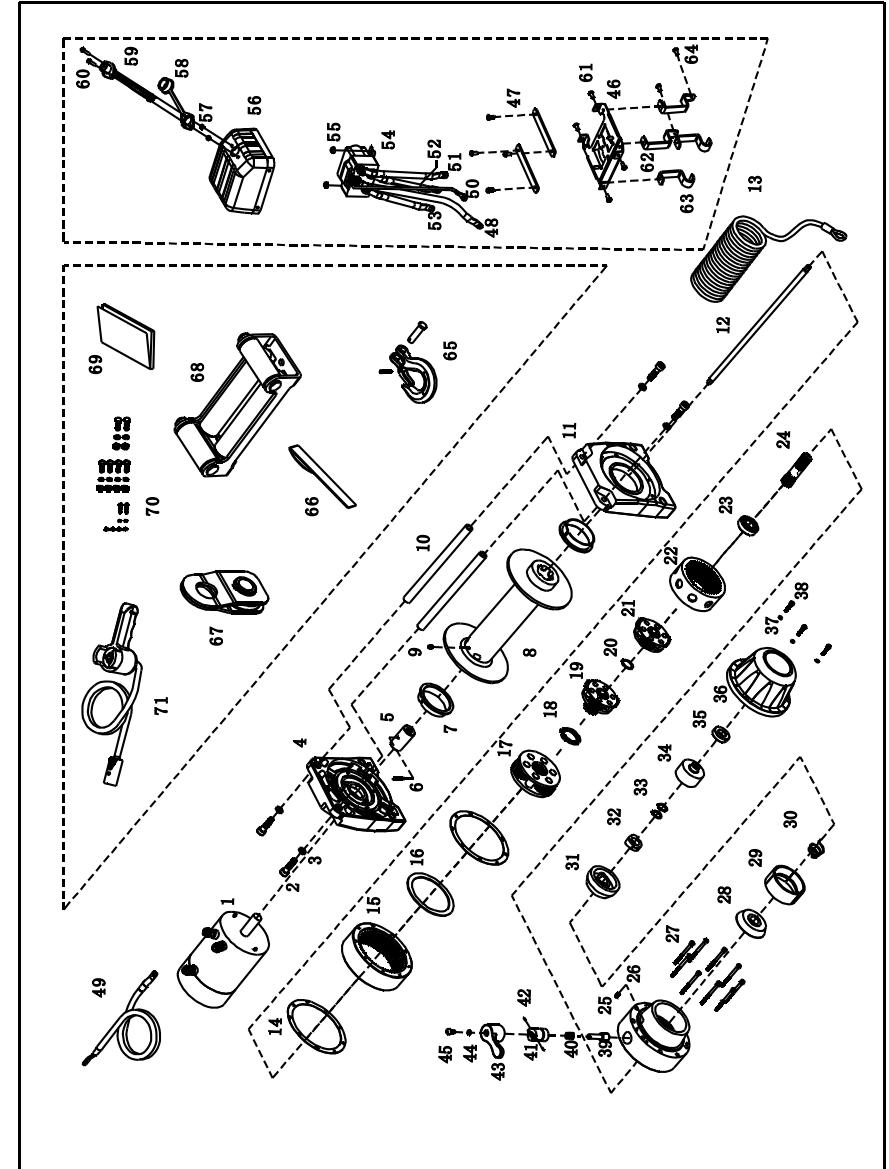
Replacement Parts List

NO	Name of parts	Qty	NO	Name of parts	Qty	NO	Name of parts	Qty
Parts in the Carton								Qty
1	12V DC motor 24V DC motor	1	26	Gear box	1	49	Round-headed inner hexagon screw	2
2	Headed inner hexagon screw	4	27	Headed inner hexagon screw	9	50	Grounding wire	1
3	Spring washer	4	Brake parts			51	Magnetic switch	1
4	Motor support rack	1	28	Wedge shape support	1	52	Motor connection wire A	1
5	Connecting socket	1	29	Braking plate	1	53	Motor connection wire F1	1
6	Spring pin	1	30	Spiral spring	1	54	Motor connection wire F2	1
7	Drum bushing	2	31	Wedge shape piece B	1	55	Power wire +	1
8	Drum	1	32	Wedge shape piece A	1	56	Power wire -	1
9	Grub inner hexagon screw	1	33	C-ring	2	57	Hexagon lock nut	3
10	Tie bar	2	34	Braking clutch base	1	58	Headed inner hexagon screw	4
11	Body support rack	1	35	Bearing	1	59	Base plate	1
12	1 st shaft	1	36	Braking cover	1	60	Spring pin	1
13	Wire rope	1set	37	Spring washer	3	61	Motor cover	1
14	Anti-leak seal	2	38	Headed inner hexagon screw	3	62	Spring shim	1
Clutch parts								Qty
15	3 rd ring gear	1	39	Clutch lever	1	63	Inner cap hexagon screw	1
16	3 rd washer	1	40	Pressed spring	1	Spare parts		
17	3 rd carrier	1set	41	Clutch sleeve	1	64	Pulley block	1
18	C-ring	1	42	Spring pin	2	65	Handsaver strap	1
19	2 nd carrier	1set	43	Clutch knob	1	66	Manual	1
20	C-ring	1	44	Spring washer	1	67	Hook set	1
21	1 st carrier	1set	45	Round-headed inner hexagon screw	1	68	Screw package	1set
22	1 st & 2 nd ring gear	1	Controller parts			69	4 way roller fairlead	1set
23	Bearing	1	46	Electric box	1	70	Remote controller	1set
24	1 st pinion	1	47	Waterproof cover	1			
25	Grub inner hexagon screw	1	48	Control wire set	1			



NO	Name of parts	Qty	NO	Name of parts	Qty	NO	Name of parts	Qty
Parts in the Carton								
1	12V DC motor 24V DC motor	1	26	Gear box	1	49	Connecting plate F2	1
2	Headed inner hexagon screw	4	27	Headed inner hexagon screw	9	50	Lower solenoid box	1
3	Spring washer	4	Brake parts			51	Connecting base plate	1
4	Motor support rack	1	28	Wedge shape support	1	52	Round-headed inner hexagon screw	8
5	Connecting socket	1	29	Braking plate	1	53	Magnetic switch	1
6	Spring pin	1	30	Spiral spring	1	54	Hexagon lock nut	2
7	Drum bushing	2	31	Wedge shape piece B	1	55	Upper cover	1
8	Drum	1	32	Wedge shape piece A	1	56	Hexagon nut	2
9	Grub inner hexagon screw	1	33	C-ring	2	57	Waterproof cover	1
10	Tie bar	2	34	Braking clutch base	1	58	Control wire set B	1
11	Body support rack	1	35	Bearing	1	59	Round-headed inner hexagon screw	2
12	1 st shaft	1	36	Braking cover	1	60	Grounding wire	1
13	Wire rope	1set	37	Spring washer	3	61	Power wire +	1
14	Anti-leak seal	2	38	Headed inner hexagon screw	3	62	Power wire -	1
Clutch parts								
15	3 rd ring gear	1	39	Clutch lever	1	63	Hook set	1
16	3 rd washer	1	40	Pressed spring	1	64	Handsaver strap	1
17	3 rd carrier	1set	41	Clutch sleeve	1	65	Pulley block	1
18	C-ring	1	42	Spring pin	2	66	4 way roller fairlead	1set
19	2 nd carrier	1set	43	Clutch knob	1	67	Manual	1
20	C-ring	1	44	Spring washer	1	68	Screw package	1set
21	1 st carrier	1set	45	Round-headed inner hexagon screw	1	69	Remote controller	1set
Controller parts								
22	1 st & 2 nd ring gear	1	Controller parts					
23	Bearing	1	46	Clamp	2			
24	1 st pinion	1	47	Connecting plate A	1			
25	Grub inner hexagon screw	1	48	Connecting plate F1	1			

Replacement Parts List



NO	Name of parts	Qty	NO	Name of parts	Qty	NO	Name of parts	Qty
Parts in the Carton								
1	12V DC motor 24V DC motor	1	26	Gear box	1	49	Power wire -	1
2	Headed inner hexagon screw	4	27	Headed inner hexagon screw	9	50	Grounding wire	1
3	Spring washer	4	Brake parts			51	Motor connection wire A	1
4	Motor support rack	1	28	Wedge shape support	1	52	Motor connection wire F1	1
5	Connecting socket	1	29	Braking plate	1	53	Motor connection wire F2	1
6	Spring pin	1	30	Spiral spring	1	54	Magnetic switch	1
7	Drum bushing	2	31	Wedge shape piece B	1	55	Hexagon lock nut	2
8	Drum	1	32	Wedge shape piece A	1	56	Upper cover	1
9	Grub inner hexagon screw	1	33	C-ring	2	57	Hexagon nut	2
10	Tie bar	2	34	Braking clutch base	1	58	Waterproof cover	1
11	Body support rack	1	35	Bearing	1	59	Control wire set B	2
12	1 st shaft	1	36	Braking cover	1	60	Round-headed inner hexagon screw	1
13	Wire rope	1set	37	Spring washer	3	61	Connect plate	2
14	Anti-leak seal	2	38	Headed inner hexagon screw	3	62	Mounted plate 1	2
15	3 rd ring gear	1	Clutch parts			63	Mounted plate 2	2
16	3 rd washer	1	39	Clutch lever	1	64	Round-headed inner hexagon screw	2
17	3 rd carrier	1set	40	Pressed spring	1	Spare parts		
18	C-ring	1	41	Clutch sleeve	1	65	Hook set	1
19	2 nd carrier	1set	42	Spring pin	2	66	Handsaver strap	1
20	C-ring	1	43	Clutch knob	1	67	Pulley block	1
21	1 st carrier	1set	44	Spring washer	1	68	4 way roller fairlead	1set
22	1 st & 2 nd ring gear	1	45	Round-headed inner hexagon screw	1	69	Manual	1
23	Bearing	1	Controller parts			70	Screw package	1set
24	1 st pinion	1	46	Base plate	1	71	Remote controller	1set
25	Grub inner hexagon screw	1	47	Round-headed inner hexagon screw	8			
			48	Power wire +	1			

IX Limited Warranty

1. This quality warranty applies only to the original purchaser of Kingone Winch. Kingone Industrial Co., Ltd.(the seller) is responsible for the genuine winch which is installed and used by following the instructions of this manual correctly. The seller gives one year quality guarantee for all parts and components (except the wire rope).
2. Once defects are found, with this quality warranty declaration, the buyer can claim for repairs or replacement from the seller or the dealers authorized by Kingone. The buyer is required to show the following information: purchasing receipt, specifications, model, registered number, dates of purchase, name and address, vehicle number and description.
3. This Quality Warranty does not cover the failures caused by misuse, alteration, non-Kingone parts modification, damage resulting from abuse or accident, or exceed the quality guarantee period. In these cases, the buyers must pay for the transportation, material and labor, and Kingone is willing to supply parts, technique support and repairs for reasonable charge.
4. This winch is designed for vehicle recovery. Industrial application and people transportation voids this warranty.

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