

# **OPERATOR'S MANUAL**

Thanks for your buying our electric winch. This manual can suit for below series of electric winch: P series, X series, W Series. In order to ensure your correct usage and safety, please read it carefully before operation. And store it for checking.

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## ELECTRIC WINCH USAGE

Our company electric winch are extensively used for truck, 4x4 cars, farm cars, UTV, ATV, go-cart and others especially vehicles. It can work in extreme environment for vehicles recovery, like in the sands, swamp, snow, muddy road and so on. So it is named “the fifth wheel” .For example, the car was stucked in a mire, but it can't go out by itself. Like this case, we can pull the car out by electric winch. In other situations, we also can use electric winch to pass the barrier, pull the goods etc. Electric winch is a self-protection and recovery necessary device for fire fighting, military, police, immigration, hydrology and other off-road activities.

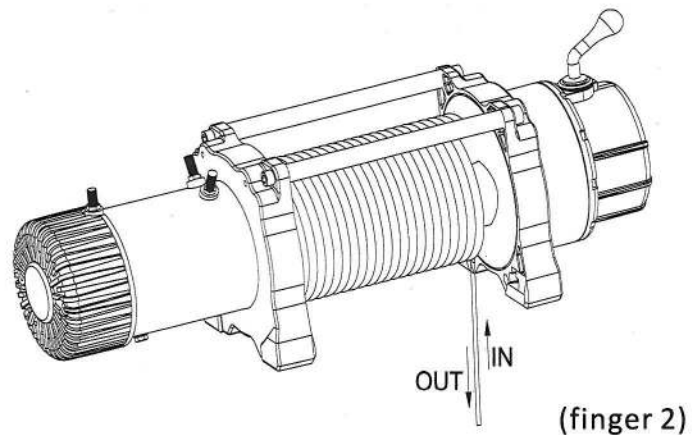
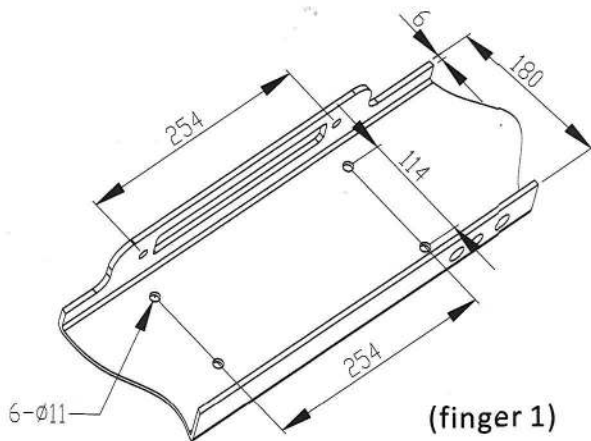
## Please read carefully

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15. Always keep away the wire rope and loading area during the winching operation. And make the necessary clearness and management. Be certain that it will not result in any injury or damage.
16. Before winching , place a blanket on the wire rope to avoid injury with wire rope breaking and lashing back with tremendous force. Never step over or under of wire rope during the winch operation. Ensure all persons in a safe distance with the wire rope and the pulled object. 1.5 times. the wire rope length recommended.
17. Never load when the wire rope spool out. Winch at least more than five wraps of wire rope around the winch drum.
18. Never withstand the winch pulling for a long time after winching.
19. Finish winching, the driver get off and make the vehicle can't move for making clear.
20. After winching, removed off accessories and store them well.
21. Leather gloves must be worn while respooling. To respool correctly, it is necessary to keep a slight load on the winch rope. Hold the winch rope with one hand and the remote control lead with the other hand . Start as far back and in the centre as you can. Walk up keeping load on the winch rope as the winch is powered in. Do not allow the winch rope to slop through your hand and do not approach the winch too closely.
22. Use the overheat avoid damage during the operation. Don't maintain power to the winch if the motor stalls. (the motor becomes uncomfortably not to touch lasting 5s), Stop and let it cool can still work. Don't exceed maximum line pull rating lasting 1 minute or more. (The winch with overheat can automaticly stop and recover).
23. If the motor lugged down to a low RPM during the operation. It is showing overload. Stop and inspect or reduce the load to go on.
24. Use the recommended professional accessories and any attached with any replacement. Never use the others parts instead of it.
25. Battery: Make sure the battery is in good condition. Avoid contacting with battery acid or other chemicals which it may damage the battery, working near the battery, wear goggles. When use the winch, launch vehicle engines and ensure sufficient battery power.

# Winch Installation

- 1) Choose a suitable mounted plate. First of all, choose a mounted plate matching your electric winch. Be sure the motor, drum and gear box on the one surface after installation. The second is certain that the mounted plate can withstand the winch pulling.
- 2) Fix the mounting plate position. The rule is that winch is withstood by the chassis and the operation doesn't interfere with any vehicles's moving/functions parts. Such as the function of air route, oil route and ignored aircondition. If the vehicle has SRS, make sure that the operation never interfere with it..
- 3) Our company supply one normal mounting plate(seeing Figure 1).Fix the roller fairlead in front of the mounting plate and installed four points with 4 screws on the mounting plate.



- 4) Note the winch direction after installation, the wire rope runs through the bottom of the drum..( see Figure 2 )
- 5) Fixed the roller fairlead,open the rubber belt or zig tie( care for the spring out the wire rope head) , spool out the wire rope from the middle of roller fairlead and connect the hook.(clevis hook )

# Winch Installation

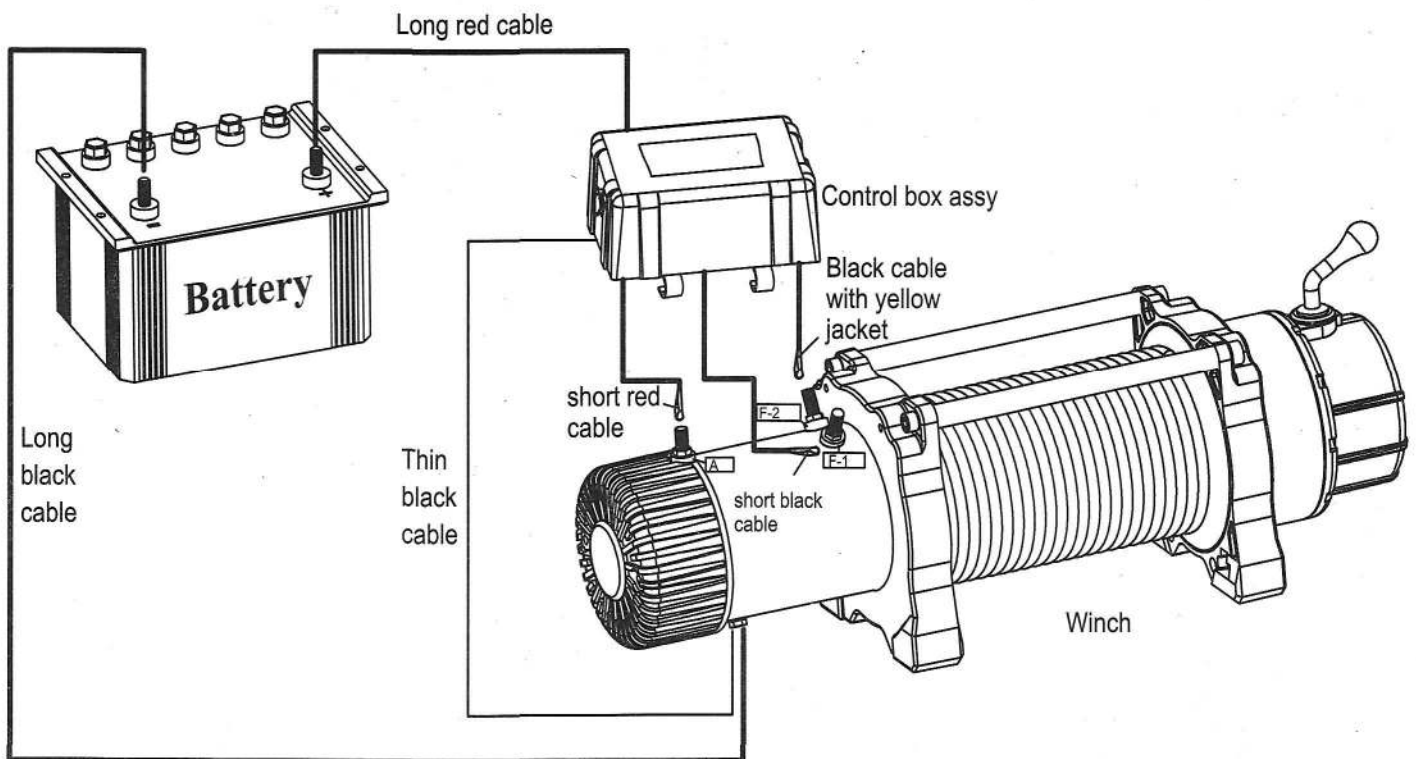
## Control Box Assembly Installation:

Control box assembly should be fixed near the motor , it is convenient to operate .

## Cables Connection ( After installation ):

### 1. Control box, Motors and Vehicle Battery Connection

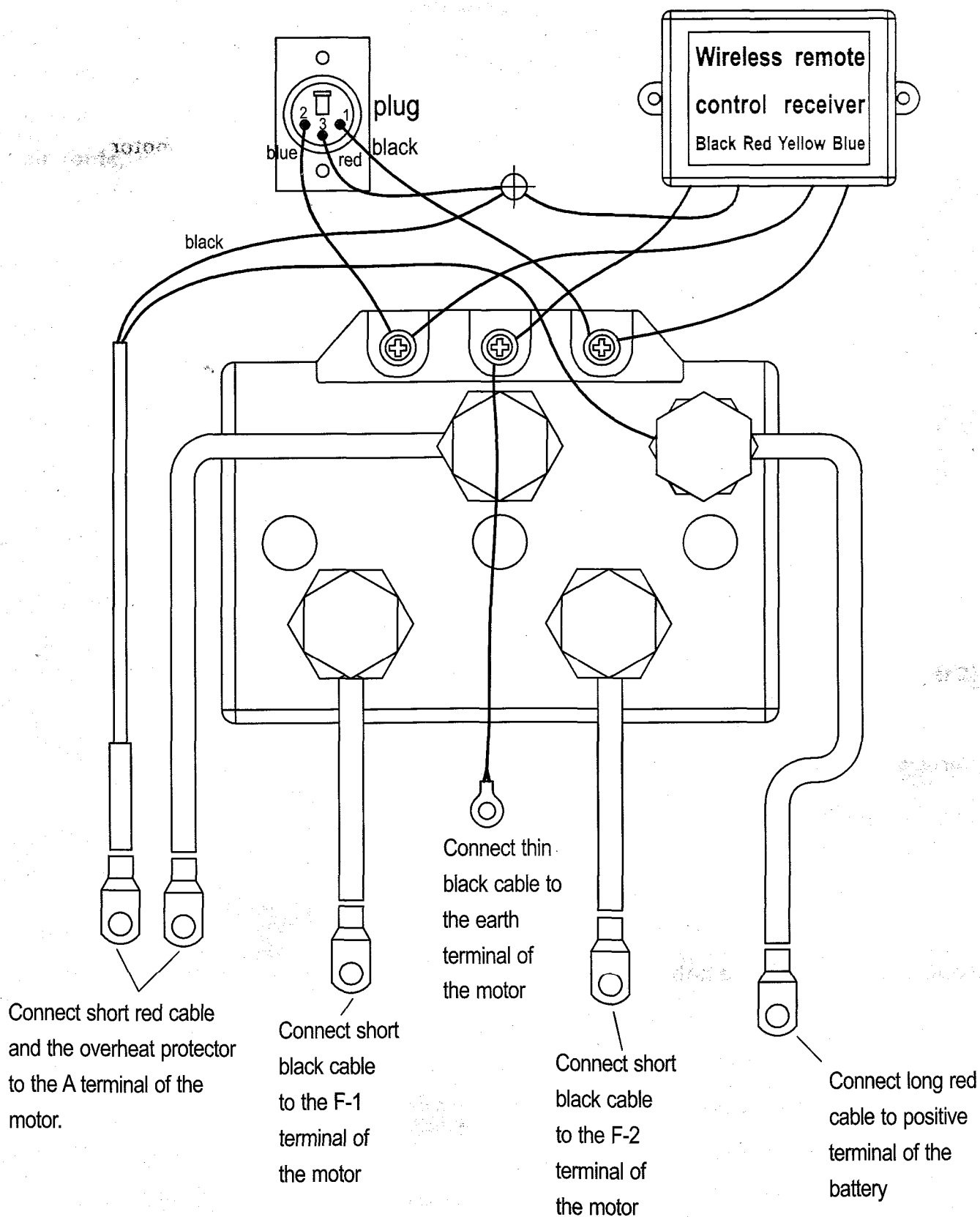
- 1.1 Short red cable connect to the red terminal of the motor .
- 1.2 Short black cable with yellow jacket connect to the yellow terminal of the motor .
- 1.3 Short black cable with black jacket connect to the black terminal of the motor .
- 1.4 Long red cable connect to positive (+) terminal of battery .
- 1.5 Long black cable , one terminal connect bottom terminal of the motor and the other terminal negative (-) connect to negative (-) terminal of battery .
- 1.6 Thin black cable connect to bottom of the motor .



- Attention:
1. Be sure cables are not drawn taught across any surface , which could possibly damage them.
  2. Connect battery and screw the nut on the all terminals to avoid any connection loose .
  3. Operate the wire remote controller after installation to make winch work in both directions.

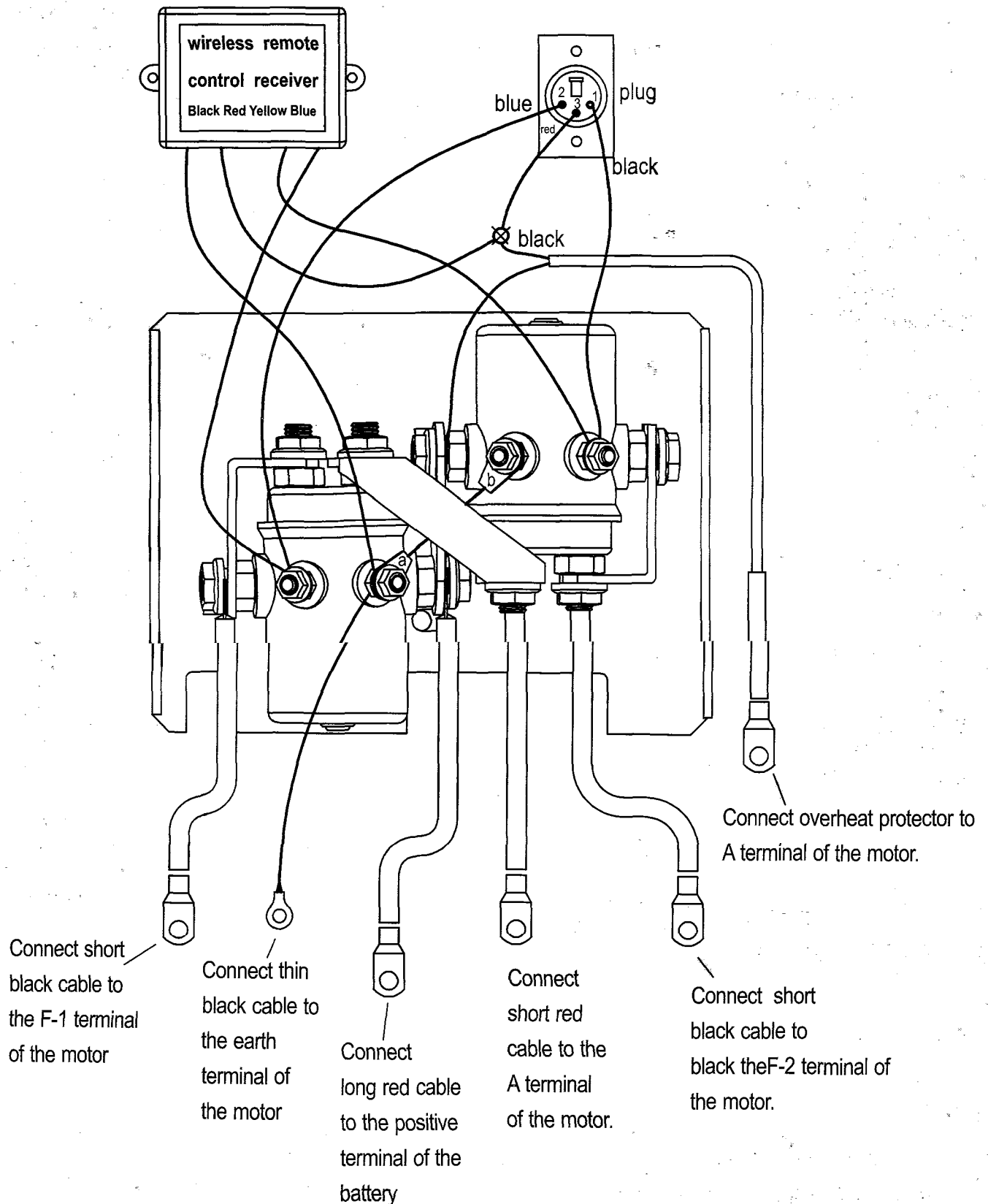
# Winch Installation

2. Contactor, motor, the wireless remote control receiver (for choice), overhear protector(for choice), plug connection(for choice).



# Winch Installation

3. Solenoid, motor, the wireless remote control receiver (for choice), overheat protector(for choice), plug connection(for choice).



## Winch Installation

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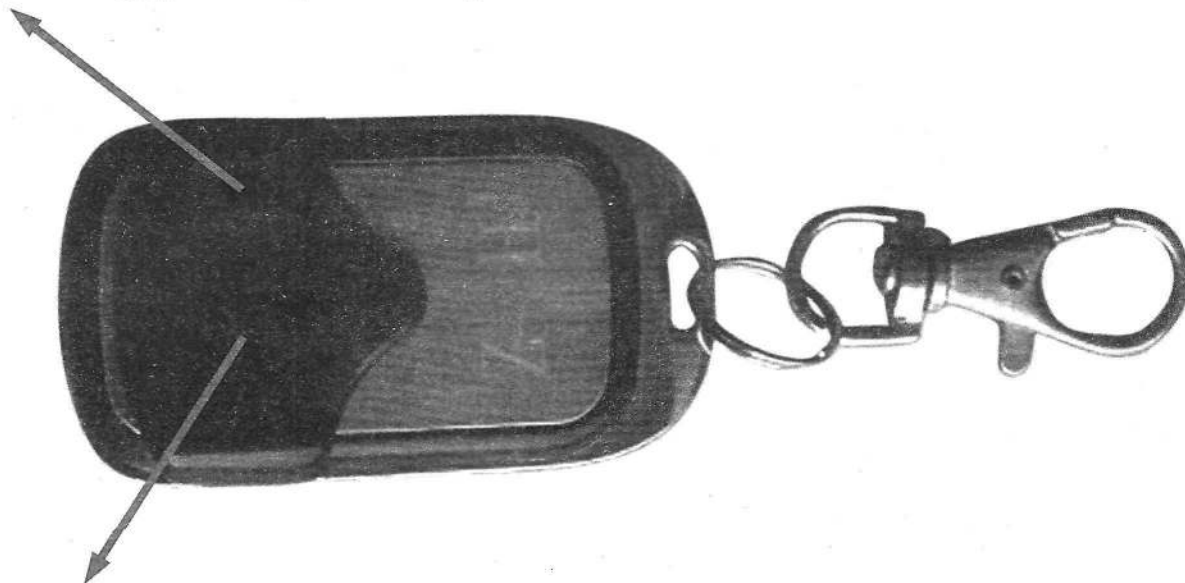
### 4. The wireless remote controller .

Please press “ In ” , the winch cable will pull in , release the button , the winch will stop working immediately .



Please press “ OUT ” , the winch cable will pull out , release the button , the winch will stop working immediately .

Before operating , please open the key cover .



After operating , please close the key cover to protect the keys .



# Winch Operation

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1. First you should inspect the winch suiting for work or not . Always daub the professional grease for wire rope after first use or replace wire rope .
2. Engaged free-spool clutch ( any kind of lever is Free-spool engaged ) , pull off the wire rope , and always more than five wraps around at least on the winch drum to prevent the rope loosing from the rope drum under heavy load . There are red mark on the fifth wrap , never pull beyond the mark .
3. Engaged the clutch (any kind of lever is engaged ) .
4. Connect the wire remote control , operate the winch following the wire remote control and button and the winch manual instruction .
5. In order to meet more recovery demands , it is recommended to equipped other necessary devices and assistant parts before winch . These complements include but are not limited to :  
1. Hand Winch   2. Farm Jack   3. Tree Saver   4. Tow Rope   5. Snatch Block   6. Leather Gloves  
7. Tool bag   8. U-Shackle   9. Chains   10. Anchor   11. Tow Chain   12. Blanket

## Attention:

1. The best way to get acquired with how your winch operation is to make a few runs before you actually to use it .
2. Before winching, inspect your vehicle battery voltage , capacity , installation stand , winch , roller fairlead and control box are ready or not , cable connect correctly or not . The cable can't intercross the wire rope and touch each other .
3. Plan your test in advance , get to recognize the sound of a light pull , a free load , a heavy load , and sounds covered by load jerking or shifting . Soon you will garn confidence in operating your winch .
4. Choose best route to fix anchor to be sure it withstand the load . Notice that use the soft ropes and tree saver to attach the anchor . The wire rope should never be wrapped around the anchor and then hook back itself . This will damage the wire rope .
5. Before winching, always place a blanket on the wire rope . Never allow anyone to stand near the cable with load and its work area. After winching, make the necessary clear and some maintain management to avoid any injury .
6. After winch , you should remove all the attachment and store them well , and maintain the winch properly .

# Winch Maintenance and Troubleshooting Guide

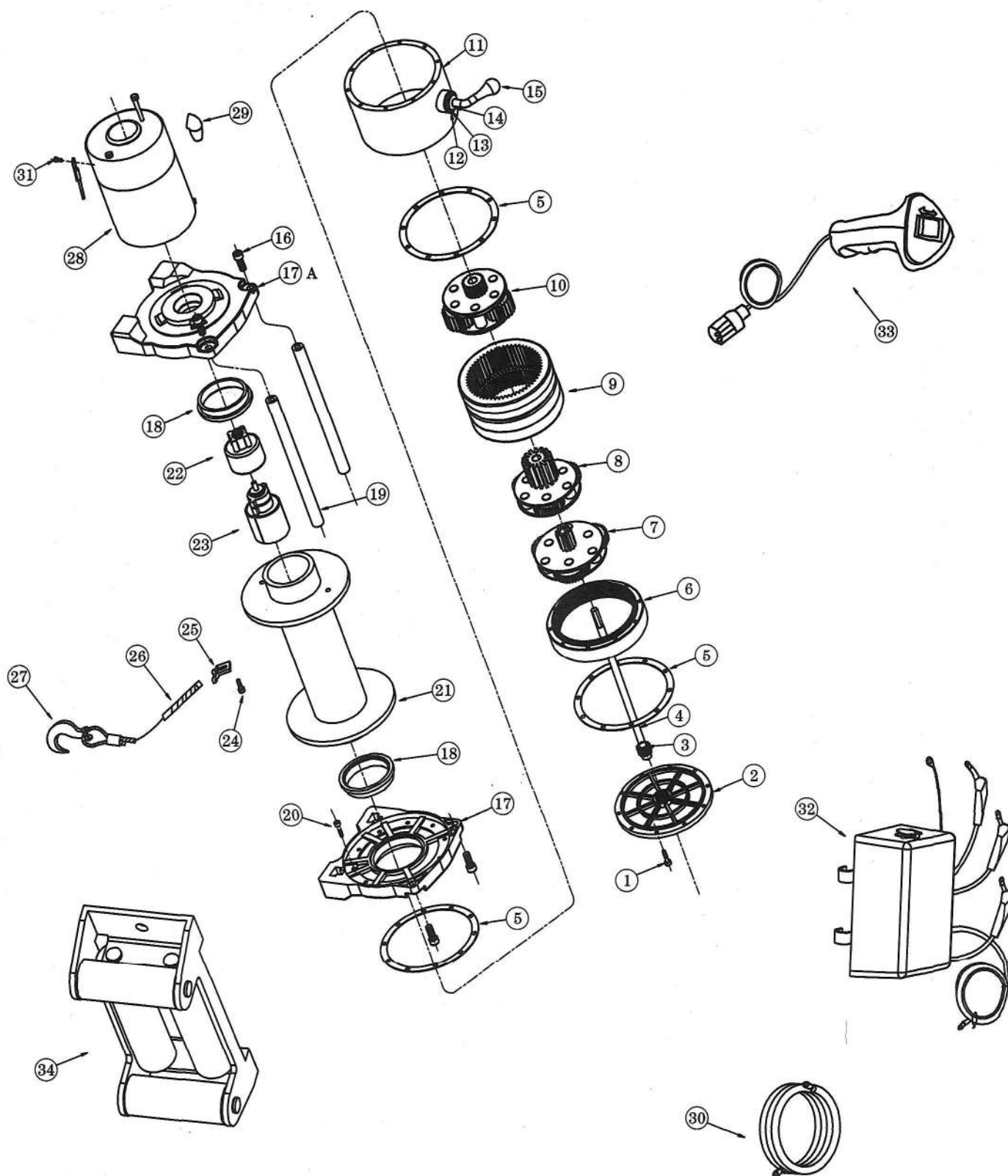
## Winch Maintenance

1. No internal lubrication by the owner as needed for the life of the winch which should not be submerged in water even if the water-proof winch , it isn't lasting a long time in water. If winch is accidentally submerged , it should be open the earth terminal to drain out the water. And run the winch in the following 3 days . This should drive out any moisture that has entered the motor .
2. Always daub the professional grease for wire rope, If wire rope is pinched and frayed serely , replace the new wire rope .
3. Always clear and grease after use , if long time no use , the winch should store in dry and clear place .Release the clutch to advoid playing by the child .
4. Replace and repair once the winch parts corroded or screw loosed .

## Troubleshooting

NO.	SYMPTOM	POSSIBLE	SUGGESTED
1	Winch does not work	Remote control switch is not connected correctly	Connect the remote controller correctly
		The electrical cable is not connected correctly	Connect the electrical cable correctly
		Motor break down	Replace motor
		Remote control switch is broken down	Replace the remote control switch
2	Motor runs but cable rum does not turn	The clutch of winch is not enage to "IN"	Engage the clutch to " In"
3	Winch works but lack rally	Battery runs down	Recharge battery or Replace battery
		Electrical cables do not connect well	Connect electrical cables well
4	Motor runs too hot	Long period of operation	Let winch cool down periodically
5	Winch runs in one direction only	Control box is defective or damaged	Replace control box
		Remote control switch is damaged	Replace remote control switch

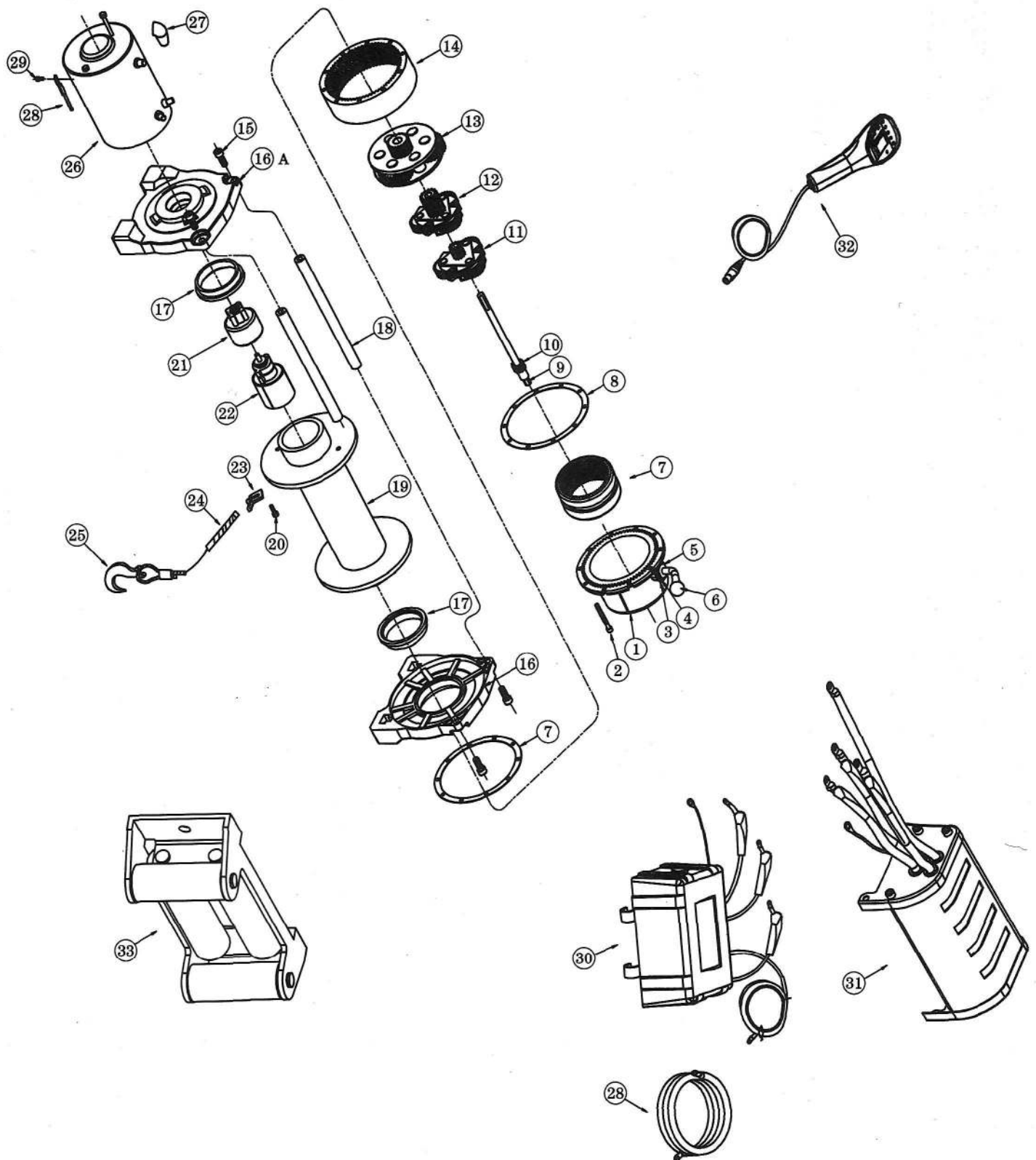
# Winch BOM Picture (P Series)



## Parts List of the winch (P Series)

ITEM	QTY	DESCRIPTION
1	10	Socket Head Cap Screw
2	1	End Cover
3	1	Sun Gear
4	1	Hex Shaft
5	3	Gasket
6	1	Ring Gear
7	1	Carrier Assembly Stage 1
8	1	Carrier Assembly Stage 2
9	1	Ring Gear
10	1	Carrier Assembly Stage 3
11	1	Gear Box Body
12	1	Detent Screw
13	1	O-ring Seal
14	1	Metal Cover
15	1	Clutch Lever
16	4	Socket Head Cap Screw
17A	1	Drum Support , Motor
17	1	Drum Support , Gear Train
18	2	Drum Bushing
19	1	Tie Rod
20	10	Socket Head Cap Screw
21	1	Drum Assembly
22	1	Connector
23	1	Brake Assembly
24	1	Head Cap Screw M6*10
25	1	Wire Rope Terminal Kit
26	1	Wire Rope
27	1	Clevis Hook
28	1	Motor
29	3	Boot, Electric Terminal
30	1	Wire
31	1	Head Cap Screw M8*12
32	1	Control Box Assy
33	1	Remote Control
34	1	Roller fairlead

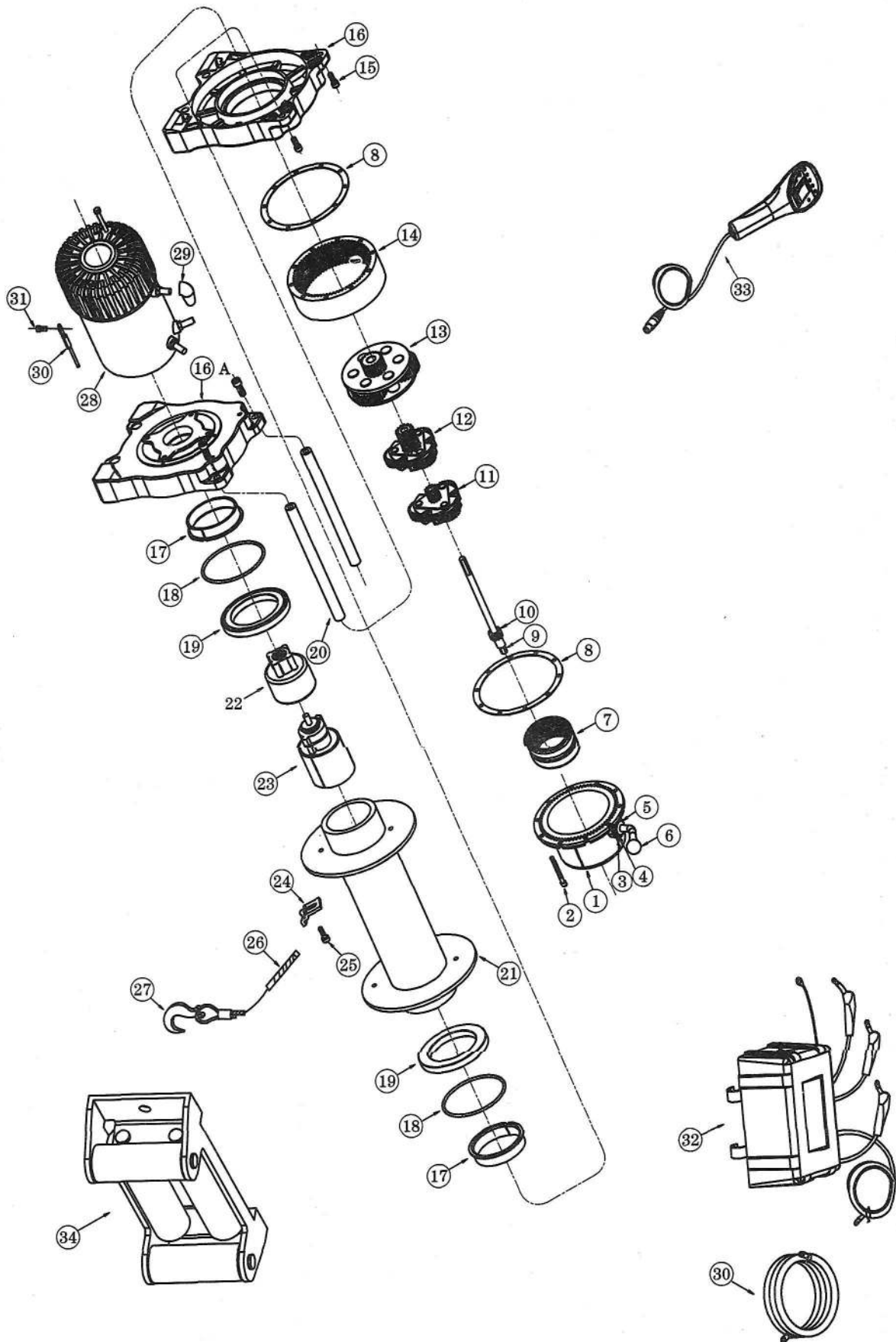
# Winch BOM Picture (W Series)



## Parts List of the winch (W Series )

ITEM	QTY	DESCRIPTION
1	1	End Housing Assembly
2	10	Socket Head Cap Screw
3	1	Detent Screw
4	1	O-ring Seal
5	1	Metal Cover
6	1	Clutch Lever
7	1	Ring Gear
8	2	Gasket
9	1	Hex Shaft
10	1	Sun Gear
11	1	Carrier Assembly Stage 1
12	1	Carrier Assembly Stage 2
13	1	Carrier Assembly Stage 3
14	1	Ring Gear
15	4	Flange Head Cap Screw
16A	1	Drum Support , Gear Train
16	1	Drum Support , Motor
17	2	Drum Bushing
18	2	Tie Rod
19	1	Drum Assembly
20	1	Hex Head Cap Screw
21	1	Connector
22	1	Brake Assembly
23	1	Wire Rope Terminal Kit
24	1	Wire Rope Assay
25	1	Clevis Hook
26	1	Motor
27	3	Boot, Electric Terminal
28	1	Cable Assay, Electric
29	1	Hex Head Cap Screw
30	1	Winch Control Assembly
31	1	Metal Control Box Assembly
32	1	Remote Controller
33	1	Roller Fairlead

# Winch BOM Picture (X Series)





## Parts List of the winch (X Series )

ITEM	QTY	DESCRIPTION
1	1	End Housing Assembly
2	10	Socket Head Cap Screw
3	1	Detent Screw
4	1	O-ring Seal
5	1	Metal Cover
6	1	Clutch Lever
7	1	Ring Gear
8	2	Gasket
9	1	Hex Shaft
10	1	Sun Gear
11	1	Carrier Assembly Stage 1
12	1	Carrier Assembly Stage 2
13	1	Carrier Assembly Stage 3
14	1	Ring Gear
15	4	Flange Head Cap Screw
16A	1	Drum Support , Gear Train
16	1	Drum Support , Motor
17	2	Drum Bushing
18	2	O-ring Seal
19	2	Drum Bushing , waterproof
20	2	Tie Rod
21	1	Drum Assembly
22	1	Hex Head Cap Screw
23	1	Brake Assembly
24	1	Wire Rope Terminal Kit
25	1	Wire Rope Assay
26	1	Clevis Hook
27	1	Motor
28	3	Boot, Electric Terminal
29	1	Cable Assay, Electric
30	1	Hex Head Cap Screw
31	1	Winch Control
32	1	Remote Control Assembly
33	1	Roller Fairlead



## **Winch Packing List**

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1. Winch Body	1pc
2. Winch control box	1pc
3. Long black wire	1pc
4. Wire remote controller	1pc
5. Clevis Hook(including lanyard)	1pc
6. Roller Fairlead	1pc
7. Mounting Screw ( install winch ) M10× 35	4pcs
8. Mounting Screw ( install Roller fairlead Shelf )M12× 25	2pcs
9. Winch Manual ( including Warranty Card )	1pc
10. Manufacturer Certificate	1pc