

Multi-National

PARTS SUPPLY

ASSEMBLY/OPERATOR'S MANUAL AND USER'S GUIDE



UNIVERSAL
2000lb (907kg) and 3000lb (1361kg)

WINCH KIT

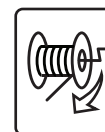
Part Numbers: WCH2000-CBL and WCH3000-CBL



2000lb
(907kg)



50ft
(15m)



10.5ft/min
(3.2m/min)

3000lb
(1361kg)

46ft
(50m)

14ft/min
(4.2m/min)

Read the Multi-National Parts Supply Operator's manual
 before installing, servicing or operating your Winch Kit.

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CUSTOMER MUST RECEIVE A COPY OF THIS OWNERS MANUAL AT TIME OF SALE.

SAVE THESE INSTRUCTIONS!

Important safety instructions are included in this manual.

Need assistance or have any questions?

We are happy to help!

Visit our website at

www.multinationalparts.com

for more information

-OR-

Call us at

519-603-4836

Product and Parts Ordering: Mon-Fri, 8:30AM-5PM (EST)

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Introduction

Thank you and congratulations on your purchase of a Multi-National Part Supply Winch Kit. When it comes to high quality at the lowest prices – Multi-National Parts Supply products reign supreme.

With proper care, knowledge and safe use, this product should serve you with satisfaction for years to come.

Each winch is equipped with a robust permanent magnet motor and is designed for intermittent duty, general use. This winch is not designed to be used in industrial or hoisting applications.

All our winches are fitted with a free spool clutch and operated by a pull and turn knob, this feature enables you to disengage the gearbox and pull out cable slack without using electric power. A specially designed tension plate reduces backlash and snaring when reeling out cable.

We strongly urge you to spend quality time with the Operator's Manual. It includes details on product components, optimal installation and safe operation. It is crucial that you, as well as others who plan on operating the product fully familiarize themselves with safe operation procedures before each use. To prevent accidents, injury or property damage, we ask you to please err on the side of caution and use common sense at all times.

Safety

WARNING

Serious injury or death can result if you do not follow the proper safety protocols, instructions and procedures outlined in this manual. Read this manual thoroughly before operating your winch.

WARNING

- Follow all operator safety instructions and age restrictions in your country, province and state, as well as those found in your ATV/UTV Owner's Manual.
- Always use caution when working with electricity and remember to verify that no exposed electrical connections are present before powering your winch circuit.
- For performance data and specifications, refer to the specification sheet supplied at the end of this manual.

Things you should NEVER do:

- Never exceed the rated capacity.
- Never use as a hoist. Horizontal use only. This winch is not designated for overhead lifting.
- Never use this winch for lifting or moving animals or people.
- Never tow using the winch cable. Moving a vehicle to pull a load could result in cable breakage.
- Never step near or over a cable under load, or tension of any kind.
- Never stand on or ride on the winch.

Things you should NEVER do:

- Never pull heavy loads for a prolonged period of time. Your electric winch is designed for intermittent use only, and should not be used for constant duty application. The duration of the pulling job should be kept as short as possible. If the winch motor becomes hot to the touch, let it cool down for several minutes before you continue use. Never pull for more than one minute at or near the rated load.
- Never let the cable slide through your hands. Never handle the cable without gloves.
- Never pull on areas of the vehicle other than those specified by the vehicle manufacturer.
- Never release the free spool clutch when there is a load on the winch, or any tension on the winch cable.
- Never insert body parts near or between the winch, winch cable, winch guide, mounting system, winch clip/latch and vehicle during operation or service.
- Never maintain power to the winch if the motor stalls.
- Never use the winch to hold or secure a vehicle for a long period of time.
- Never use the winch to secure a vehicle for or during transport.
- Never apply load to the hook tip or latch. Always apply load to the center of the hook.
- Never use a hook without a latch.
- Never use a hook that is twisted, bent or has an opening that has enlarged.
- Never touch winch cable or hook while it is under tension or load.

Safety

Things you should NEVER do:

- Never operate winch with less than 5 wraps of cable around the drum. Cable could come loose as the attachment to the drum is not designed to support a load.
- Never leave remote control where it can be activated during rigging, free-spooling or when the winch is not being used.
- Never use your winch on a low battery and never use your winch until your battery is depleted.
- Never operate this winch when under the influence of drugs, alcohol or medication.
- Never submerge your winch in water.

Things you should ALWAYS do:

- Always keep yourself and others at a safe distance to the side of the cable when under load. Remember, a broken cable under load can act as a whip.
- Always apply blocks to the vehicle wheels when on an incline.
- Always re-spool correctly. Ensure the cable is entering the drum from the direction specified. This is required for the automatic brake to function properly.
- Always disconnect the battery and remote control leads when not in use.
- Always be certain the anchor you select can more-than withstand the load. Be sure the strap or chain will not slip. Take time to rig correctly and be sure to use appropriate rigging.
- Always use hook strap when spooling winch cable in or out, whether during operation or installation.

Things you should ALWAYS do:

- Always inspect your winch, winch cable, winch hook as well as any slings/ chains before operating winch. A winch cable that is kinked, frayed or damaged must be replaced immediately. New winch cables are NOT expensive; never use a compromised cable.
- Always require bystanders and operators to be aware of the load and/ or vehicle stability. Plan for the unlikely.
- Always take time to learn and use suitable rigging techniques for any winch pull.
- Always be aware of possible hot surfaces on the winch, winch motor, drum, fairlead (cable guide), and cable during and after use.
- Always remove jewelry, tie back long hair and long sleeves, and wear eye protection.
- Always ensure the clutch is fully disengaged or engaged.
- Always store your remote control in a clean, dry, protected area.
- Always be sure the input voltage between the motor terminals is 12V DC in order to safely achieve the max rated line pull during operation.
- Always use only factory approved switches, remote controls and accessories.

Operation

! Safety Precautions and Usage Tips

- For heavy loads we recommend the use of a snatch block / pulley block to double your line and reduce the load on the winch cable. Remember your winch cable could snap before the motor stalls (Figure 1).

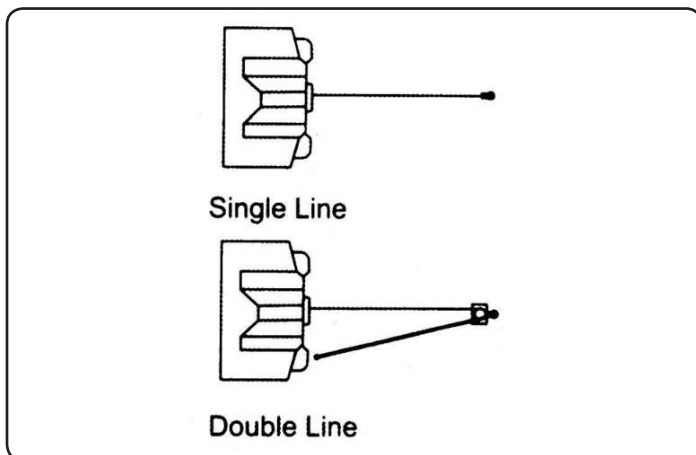


Figure 1.

- Avoid side pulls. These can pile up winch cable at one end of the drum and cause damage to the winch, cable, guides and vehicle (Figure 2).

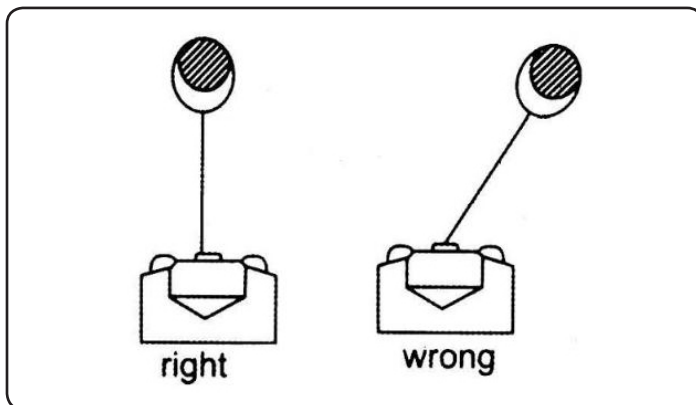


Figure 2.

- Do not wrap the cable around an object and hook it back onto itself as this can damage the cable. Use a tree trunk protector, choker chain or other designed winch anchor supports (Figure 3).
- A single load on your winch is not always constant. Load peaks can far exceed your winch and vehicle load rated capacity. Avoid "load spikes" by intermittently using

your control switch to take up the slack in your winch cable before engaging. Do not accelerate your vehicle during winch use.

- Once the slack is taken up and the line becomes taut, recheck all connections. Be sure the hook is properly seated. If a sling is being used, check the attachment to the load.
- It is recommended to lay a heavy blanket or jacket over the winch cable near the hook end when pulling heavy loads (Figure 3). If a wire rope failure should occur, the cloth will act as a damper and help prevent the rope from whipping.

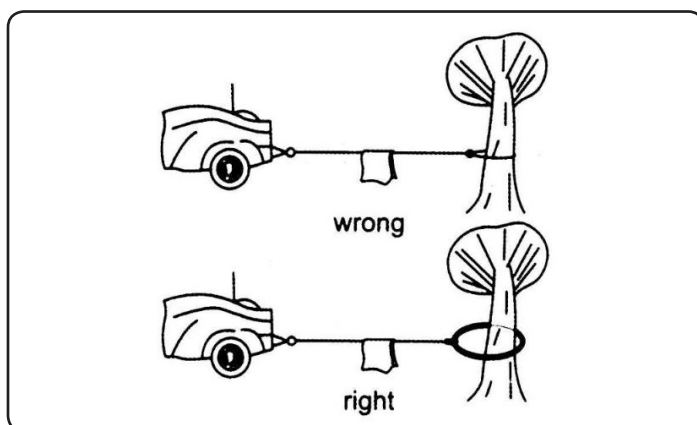


Figure 3.

- When using your winch to move a load, place the vehicle transmission in neutral, set vehicle brake, and chock all wheels. The vehicle engine should be running during winch operation.
- It is recommended to leave your machine running during winch use in order to provide continual recharge for your battery. If considerable winching is performed with the engine off, the battery may be too weak to restart the engine.
- Regularly clean your winch cable, drum and guide (fairlead), check for debris and reapply cable lubricant at this time.
- Do not operate the power switch when the drum can no longer rotate as it can destroy the motor.

Operation

Safety Precautions and Usage Tips cont'd

- As you reel-in the winch the spool diameter gradually increases. This has an effect of steadily accelerating the speed at which your line returns to the vehicle. As your cable hook approaches the cable guide on your winch it will be moving relatively fast. It is recommended that you do not hold your retract button at this stage, instead press the button using intermittent steps to retract it to its final resting position.



NOTE

Remember the installation of Winch Kit and/or Mounting System may affect your vehicle warranty.

Basic Operation Procedure

1. Pull and turn the clutch knob to the “Off” position, the drum should now turn freely by hand.
2. Using the hook strap or handsaver bar pull the cable to the desired length. Attach to item being pulled. **Check that there are at least five turns of cable left on the drum before operation.**
3. Engage the clutch by turning the clutch knob to the “In” position. **Clutch must be fully engaged before winching. Never engage clutch knob while drum is turning.**
4. Push and hold the “Cable In” button on the handlebar mounted switch to retract the load and re-spool your cable. If the load encounters any problems, push and hold the “Cable Out” button to reverse directions. **Always wait until the motor stops before reversing directions.**
5. Re-spool cable completely after completing operation.

Installation and Maintenance

! Installation and Service Safety

- Always choose a location for mounting that is **MORE** than strong enough to withstand the maximum rated capacity of your winch. Remember – Overbuilding keeps you safe.
- Always use hardware with a rating of 8.8 metric (SAE grade 5) or higher.
- Never use bolts that are too long. Always confirm bolt length to ensure proper thread engagement.
- Never weld mounting bolts. Do not machine or weld any part of the winch. Such alterations may weaken the structural integrity of your winch.
- Always complete the winch and hook attachment installation before installing the wiring.
- Always keep jewelry, hair, clothing and hands away from the winch cable, hook, cable guide and drum during installation, operation and spooling.
- Always tightly wind the winch cable to reduce chances of binding, which can damage the cable. Pre-stretch the winch cable and re-spool under load before use.
- Never service your winch without removing the ignition key and unplugging the wires.
- Always check your mounting area is clear of electrical wires, brake lines, fuel lines, fuel tank, etc. when drilling.
- Always insulate and protect all electrical terminals and wiring.
- Never route electrical cables across sharp edges, near parts that become hot, near moving parts or over battery terminals.
- Never short battery terminals with metal objects.
- Always keep flames, sparks, cigarettes and unprotected open wire connections away from the battery at all times. Batteries produce explosive gases and contain acid. Protect your eyes and wear safety glasses at all times. Do not lean over your battery during operation.

Installation

Correct installation of your winch is required for proper operation.

Mounting the Remote Control

1. The remote control is most commonly installed on the left handlebar.
2. It is recommended to wrap a piece of electrical tape around the handlebar before mounting the control switch. This will help to prevent rotation of the mount on the handlebar. Never tighten over any cables or hoses.
3. With the remote control properly mounted, route the wires back to their attachment points.
4. Check the handlebars to ensure full range of motion, then secure the remote control cable.

Mounting the Winch

1. Mount your winch to the vehicle using the M8x30 bolts, lock-washer and flat-washer. **This winch must be mounted with the winch cable in the under-wind orientation (Figure 4).**

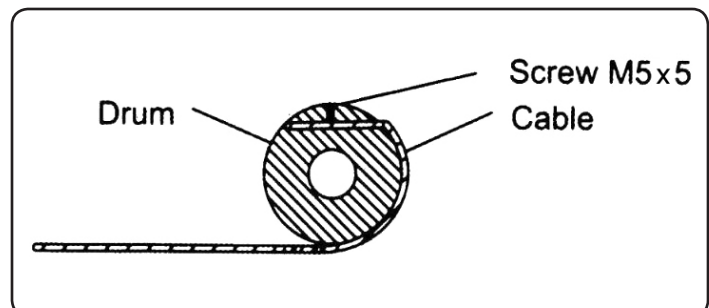


Figure 4.

2. Connect the battery leads. Connect the red (+) lead to the positive (+) terminal of the vehicle's 12V battery. Connect the black (-) lead to the negative (-) terminal of the vehicle's 12V battery.

Installation and Maintenance

Mounting the Winch cont'd

3. Connect the winch leads. Connect red (+) lead of the winch connection cables to the positive (+) terminal of the winch motor. Connect the black (-) lead of the winch connection cables to the negative (-) terminal of the winch motor (Figure 5). **Battery cables should never be drawn fully taut. Always leave some slack for cable movement.**

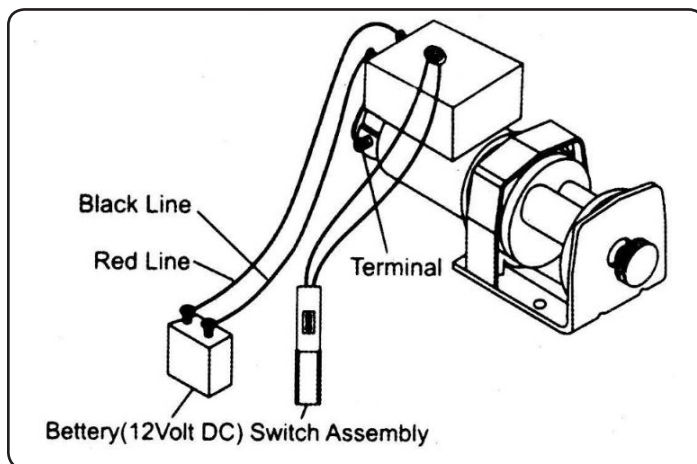


Figure 5.

4. Check for proper direction of drum rotation. Turn the clutch knob to the free-spooling "out" position. Pull some cable out from the drum, and then turn the clutch knob to the "In" position to engage the gears. Press the cable out button on the handlebar switch. If the drum is turning and releasing more cable then your connections are accurate. If the drum is turning and collecting more cable then reverse the leads on the motor. Repeat and check rotation.

NOTE

The clutch knob has been adjusted and permanently locked in place with a thread locking compound during the manufacturing process. Do not attempt to re-adjust the knob.

Maintenance

- Periodically check tightness of mounting bolts and electrical connections. Remove all dirt or corrosion that may have accumulated on the electrical connections.
- No internal lubrication is required. The gearbox has been lubricated using high temperature lithium grease during the manufacturing process. Do not attempt to disassemble the gearbox. Disassembly will void warranty.
- Lubricate the cable assembly periodically using a light penetrating oil.

We recommend that all modifications be performed by a manufacturer authorized service center. Only manufacturer-supplied parts should be used.

Replacing the Winch Cable

1. Disengage the clutch by moving it to the "out" position.
2. Extend the winch cable assembly fully. Take note how the cable connects to the inside of the drum.
3. Remove the existing winch cable assembly and attach the new one. Be sure to insert the new cable in the correct end of the drum hole (Figure 4). Tighten the set screw.
4. Retract the new winch cable assembly and re-spool it around the drum. Be careful to ensure even spooling and do not allow kinking.

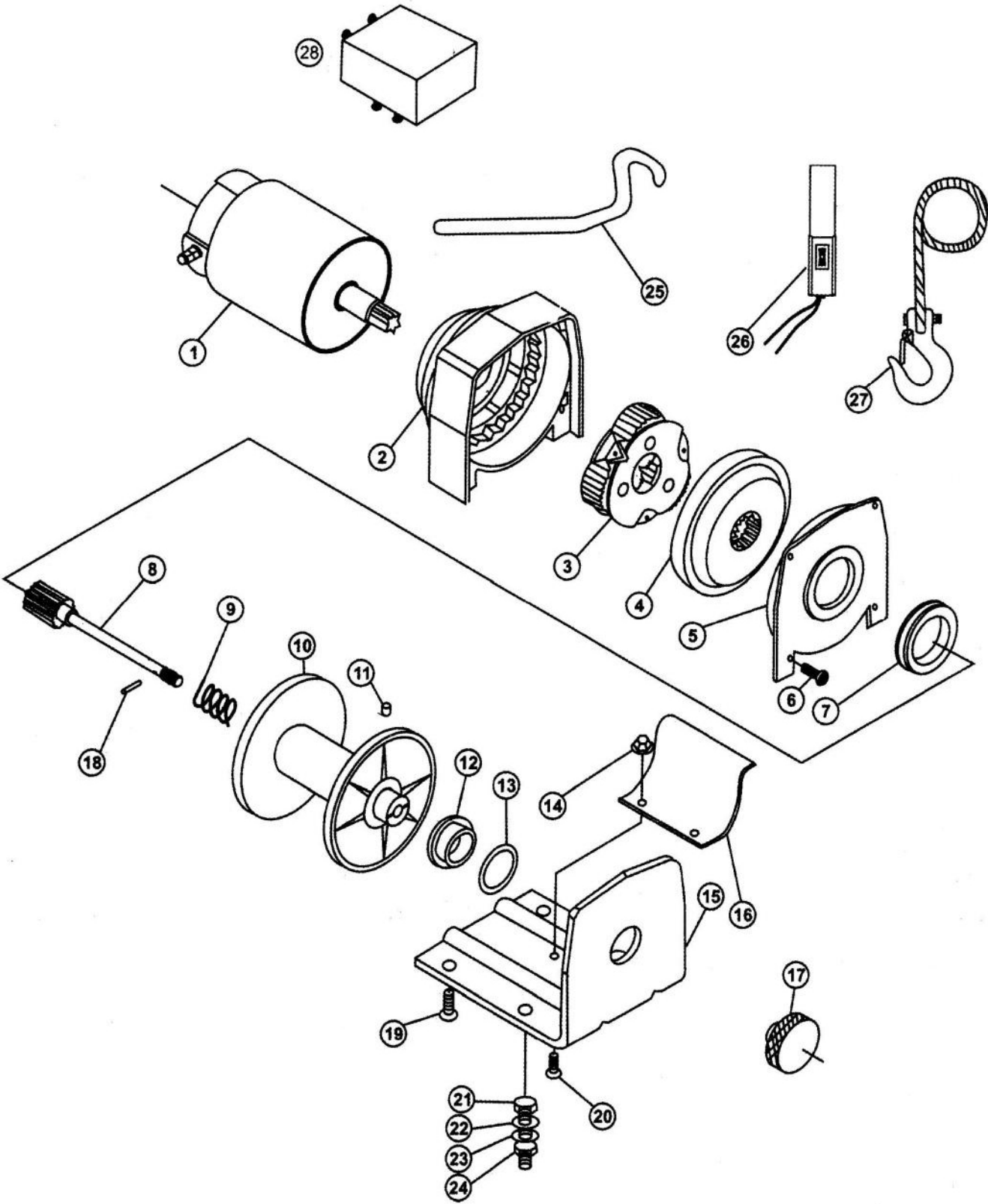
Always replace damaged winch cable with manufacturer's identical replacement part.

Troubleshooting

Problem	Possible Cause	Corrective Action
Motor does not operate or runs only in one direction.	<ol style="list-style-type: none"> 1. Battery cable connections are not solid. 2. Switch assembly is not properly connected. 3. Defective switch assembly. 4. Defective motor. 5. Water has entered the motor. 6. At extreme temperatures the gear fluid can solidify and the gear can lock. 	<ol style="list-style-type: none"> 1. Inspect all cable connections, tighten nuts. 2. Be sure the switch assembly has been fully inserted into the connector. 3. Replace switch assembly. 4. Check for voltage at armature with switch engaged. If voltage is registered, replace motor. 5. Allow to drain until dry. 6. Heat the winch motor to a temperature above -25°C (-13°F). Running the winch without a load for 1 minute will warm the motor. (Warning - Run the winch cable out and then back in, never continue to retract your winch when the winch is already fully retracted).
The motor operates but the drum does not turn.	<ol style="list-style-type: none"> 1. Clutch is not engaged. 	<ol style="list-style-type: none"> 1. Adjust the clutch handle to the correct position. 2. Be sure to adjust the shifting gear handle or drum slowly to ensure it engages properly in its slot.
Motor operates but with insufficient power or line speed.	<ol style="list-style-type: none"> 1. Winch operating time is too long. 2. Battery current or voltage is low. 3. Battery cable connections are loose or corroded. 4. Defective motor. 	<ol style="list-style-type: none"> 1. Let your winch cool down before continuing use. It is recommended not to operate your winch for more than 1 minute continuously. 2. Charge your battery completely and frequently. Leave your machine running during operation of winch. 3. Tighten and clean connections. Replace if needed. 4. Repair or replace motor.
Winch cable is not reeling smoothly and easily.	<ol style="list-style-type: none"> 1. Cable was not spooled well during reeling. 2. Debris caught in the cables or cable guide (fairlead). 3. Snow or ice buildup on the cable and/or guide. 	<ol style="list-style-type: none"> 1. Be sure your cable is spooling systematically and evenly. Unsmooth or poor spooling can be a sign of worn cable. Always be sure to monitor your winch is spooling correctly with each use and that both your cable and cable guides are in good condition. 2. Cables can sometimes reel in debris which can get caught in the cable and/or cable guide. Be sure to keep all parts well lubricated and to regularly inspect for debris. 3. During the winter, snow and/or ice can build up on the cables and guides. Be sure to check regularly, keep clean and well lubricated.
The cable does not pull out.	<ol style="list-style-type: none"> 1. Shifting gear handle is not in free spool "out" position. 	<ol style="list-style-type: none"> 1. Set the shifting gear handle to the assigned free spool "out" position. If it is already in free spool then it is possible it has not engaged correctly; return the shifting gear handle to locked position and then slowly set it back to free spool. If problem persists, have inspected and repaired by a qualified technician.

Specifications

Parts Diagram



Specifications

Parts List

#	Part Number	Qty	Description
1	WCH2301	1	Motor Assembly
2	WCH2302	1	Stationary Gear Housing Assembly
3	WCH2303	1	T-Series Gear Carrier Assembly
4	WCH2304	1	T-Series Rotator Gear
5	WCH2305	1	Drum Support Plate
6	WCH2306	4	Pan Head Screw M4x12
7	WCH2307	1	Drum Support Bushing
8	WCH2308	1	Clutch Shaft Assembly
9	WCH2309	1	Spring
10	WCH2310	1	Drum Assembly
11	WCH2311	1	Screw M5x5
12	WCH2312	1	T-Series Bushing
13	WCH2313	1	Thick Flat Washer
14	WCH2314	2	Hex Flange Nut M5
15	WCH2315	1	T-Series Baseplate Assembly
16	WCH2316	1	Tension Plate
17	WCH2317	1	T-Series F/W Knob Assembly
18	WCH2318	1	Elastic Pin 2.5x14
19	WCH2319	2	Hexagon Head Bolt 1
20	WCH2320	2	Hexagon Head Bolt 2
21	WCH2321	2	Screw M8x30
22	WCH2322	2	Flat Washer Ø8
23	WCH2323	2	Lock Washer Ø8
24	WCH2324	1	Nut M8
25	WCH2325	1	Handsaver Bar
26	WCH2326	1	Switch Assembly
27	WCH2327	1	Cable and Hook
28	WCH2328	1	Control Box



NOTE

If the winch model purchased includes a wireless remote, then the switch will be the wireless variation.

Specifications

Performance Specifications WCH2000-CBL, 2000lb Winch Kit

Single Line Rated Pull	2000lb (907kg)
Gear Reduction Ratio	153:1
Motor	Permanent Magnet 1.1 HP/0.82 kW (12V DC)
Braking Action	Mechanical and Dynamic
Drum Diameter	1.24 in. / 3.15 cm
Drum Length	2.88 in. / 7.3 cm
Cable Diameter	5/32 in. / 0.4 cm
Cable Length	49 ft. / 15m
Net Weight	18.7 lb. / 8.5 kg
Height	4.1 in. / 10.5 cm
Width	4.1 in. / 10.5 cm
Length	7.3 in. / 18.5 cm
Mounting Bolt Pattern	3.13 in. / 7.93 cm

Line Speed and Motor Current (First Layer)						
Line Pull	LB	0	500	1000	1500	2000
	KG	0	227	454	680	907
Line Speed (12V DC)	FPM	10.5	9.2	7.5	5.9	4.2
	MPM	3.2	2.8	2.3	1.8	1.3
Motor Current (12V DC)	Amps	10	25	40	60	90
Running Time	Minutes	1	1	1	1	1
Cooling Time	Minutes	5	5	5	5	5

Remember, electric winches are designed and constructed for intermittent use and should never be used for constant duty applications.

If the motor becomes hot to the touch, stop winching and allow cooling for 5 minutes. At or near the rated load, do not pull for more than one minute.

Line Pull and Cable Capacity Per Layer							
Line of Cable		1	2	3	4	5	6
Rated Line Pull	LB	2000	1630	1380	1190	1050	940
	KG	906	740	620	540	470	420
Cable Capacity	FPM	6.5	14	22	31	41	49
	MPM	2	4.3	6.8	9.5	12.5	15

Specifications

Performance Specifications WCH3000-CBL, 3000lb Winch Kit

Single Line Rated Pull	3000lb (1361kg)
Gear Reduction Ratio	153:1
Motor	Permanent Magnet 1.4 HP/1.04 kW (12V DC)
Braking Action	Mechanical and Dynamic
Drum Diameter	1.24 in. / 3.15 cm
Drum Length	2.88 in. / 7.3 cm
Cable Diameter	7/32 in. / 0.54 cm
Cable Length	45.9 ft. / 14m
Net Weight	20.9 lb. / 9.5 kg
Height	4.1 in. / 10.5 cm
Width	4.4 in. / 11.2 cm
Length	12 in. / 30.5 cm
Mounting Bolt Pattern	3.13 in. / 7.93 cm

Line Speed and Motor Current (First Layer)								
Line Pull	LB	0	500	1000	1500	2000	2500	3000
	KG	0	227	454	680	907	1133	1361
Line Speed (12V DC)	FPM	14	12	10	8	7	5	3
	MPM	4.2	3.6	3.0	2.4	2.1	1.5	0.9
Motor Current (12V DC)	Amps	20	30	55	75	100	120	140
Running Time	Minutes	1	1	1	1	1	1	1
Cooling Time	Minutes	5	5	5	5	5	5	5

Remember, electric winches are designed and constructed for intermittent use and should never be used for constant duty applications.

If the motor becomes hot to the touch, stop winching and allow cooling for 5 minutes. At or near the rated load, do not pull for more than one minute.

Line Pull and Cable Capacity Per Layer								
Line of Cable		1	2	3	4	5	6	7
Rated Line Pull	LB	3000	2000	1630	1380	1190	940	940
	KG	1361	906	740	620	540	470	420
Cable Capacity	FPM	4	6.5	14	22	31	41	49
	MPM	1.2	2.0	4.3	6.8	9.5	12.5	15