

# CHAMPION

POWER EQUIPMENT™

OWNER'S MANUAL & OPERATING INSTRUCTIONS



## Utility Winch

Rated Pulling Capacity 2000 lb.

Rated Marine Capacity 5000 lb./Rated Rolling Capacity 6000 lb.



MODEL NUMBER  
**12090**

SAVE THESE INSTRUCTIONS  
Important Safety Instructions  
are included in this manual.

MADE IN CHINA  
REV 12090-20160516

12039 Smith Ave.  
Santa Fe Springs CA 90670  
USA / 1-877-338-0999  
[www.championpowerequipment.com](http://www.championpowerequipment.com)

**Have questions or need assistance?**

Do not return this product to the store!

**WE ARE HERE TO HELP!**

Visit our website:

**[www.championpowerequipment.com](http://www.championpowerequipment.com)**

for more info:

- Product Info & Updates
- Tech Bulletins
- Frequently Asked Questions
- Product Registration

– or –

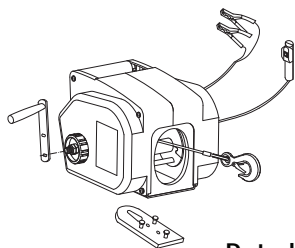
Call our Customer Care Team Toll-Free at:

**1-877-338-0999**

**FOR RESIDENTS OF CALIFORNIA:**

**WARNING:** This product contains chemicals known to the State of California to cause cancer and birth defects and other reproductive harm.

\*We are always working to improve our products. Therefore, the enclosed product may differ slightly from the image on the cover.



# Utility Winch

Rated Pulling Capacity 2000 lb.  
 Rated Marine Capacity 5000 lb./Rated Rolling Capacity 6000 lb.

## TABLE OF CONTENTS

---

<b>Introduction</b> . . . . .	<b>1</b>	<b>Operation</b> . . . . .	<b>9</b>
Introduction . . . . .	1	Inspection . . . . .	9
This Booklet . . . . .	1	Connecting a Load . . . . .	9
Website . . . . .	1	General Tips for Safe Operation . . . . .	10
<b>Manual Conventions</b> . . . . .	<b>2</b>	Manual Operation . . . . .	10
<b>Safety Rules</b> . . . . .	<b>3</b>	Winching Techniques . . . . .	11
<b>Controls and Features</b> . . . . .	<b>5</b>	<b>Maintenance</b> . . . . .	<b>12</b>
Utility winch . . . . .	5	Cleaning . . . . .	12
<b>Assembly</b> . . . . .	<b>6</b>	Lubrication . . . . .	12
Contents of the Box . . . . .	6	Cable Assembly Replacement . . . . .	12
Utility Winch Location . . . . .	6	Storage . . . . .	12
Mounting the Winch Permanently . . . . .	6	<b>Troubleshooting</b> . . . . .	<b>13</b>
Adapter Plate . . . . .	7	<b>Specifications</b> . . . . .	<b>14</b>
Battery Connections . . . . .	7	Performance Specifications . . . . .	14
Temporarily Wiring the Winch . . . . .	8	Parts Diagram . . . . .	15
Remote Control . . . . .	8	Parts List . . . . .	16

# INTRODUCTION

---

## Introduction

Congratulations on your purchase of a Champion Power Equipment utility winch. CPE designs and builds winches to strict specifications. With proper use and maintenance, this winch will bring years of satisfying service.

## This Booklet

Every effort has been made to ensure the accuracy and completeness of the information in this manual. We reserve the right to change, alter and/or improve the product and this document at any time without prior notice.

## Website

Champion Power Equipment manufactures and supports every product we sell. To find out more about your utility winch please visit our website at:  
→ [www.championpowerequipment.com](http://www.championpowerequipment.com)

---

Record the model and serial numbers as well as date and place of purchase for future reference. Have this information available when ordering parts and when making technical or warranty inquiries.

<b>Champion Power Equipment Support</b>
<b>1-877-338-0999</b>
<b>Model Number</b>
<b>12090</b>
<b>Serial Number</b>
<b>Date of Purchase</b>
<b>Purchase Location</b>

This manual uses the following symbols to help differentiate between different kinds of information. The safety symbol is used with a key word to alert you to potential hazards in operating and owning power equipment.

Follow all safety messages to avoid or reduce the risk of any damage, serious injury or death.

### DANGER

DANGER indicates an imminently hazardous situation which, if not avoided, **will** result in death or serious injury.

### WARNING

WARNING indicates a potentially hazardous situation which, if not avoided, **could** result in death or serious injury.

### CAUTION

CAUTION indicates a potentially hazardous situation which, if not avoided, **may** result in minor or moderate injury.

### CAUTION

CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, **may** result in property damage.

### NOTE

If you have questions regarding your winch, we can help. Please call our help line at **1-877-338-0999**

## SAFETY RULES

 **WARNING**

Read this manual thoroughly before operating your winch. Failure to follow instructions could result in damage, serious injury or death.

 **WARNING**

Do not exceed the rated capacities.

 **DANGER**

Do not use this winch for lifting or moving people or animals.

 **DANGER**

Keep yourself and others a safe distance to the side of the cable when under tension.

 **DANGER**

Never step over or under a cable or near a cable under load.

 **WARNING**

The wire cable may break before the motor stalls. For heavy loads at or near rated capacity, use a pulley block/snatch block to reduce the load on the wire cable.

 **WARNING**

Winch is NOT waterproof and is NOT for use underwater. DO NOT mount in a location that could have the winch submerged in water.

 **DANGER**

Do not use any vehicle to aid or help the winch pull any loads.

 **WARNING**

Do not use the winch to secure an item(s) for transport.

 **WARNING**

Disconnect the winch from power source when not in use.

 **WARNING**

Never leave an item(s) attached to the wire cable, hook, or loaded when not in use.

 **WARNING**

Do not use for overhead lifting.

 **CAUTION**

Use gloves to protect hands when handling the hook or cable. Never let the cable slide through your hands.

 **CAUTION**

Do not wrap the cable around any object and hook it back onto itself.

 **DANGER**

Do not install or have crank handle installed if the winch is connected to a power source.

 **DANGER**

Do not operate if cable is worn, frayed or appears damaged. Replace cable before use.

**⚠ WARNING**

When re-spooling the cable, ensure that the cable spools in the over-wind position with the cable entering the drum from the top, not the bottom.

To re-spool correctly, and while wearing gloves, keep a slight load on the cable while pushing the remote button to draw in the cable. Do not let your hands get within 12 in. (30.5 cm) of the winch while re-spooling. Turn off the winch and repeat the procedure until a few inches of cable are left before the stop bracket. Keep hands clear of the winch, cable and slight load which winch is under power.

**⚠ DANGER**

Do not anchor or mount winch in any overhead position. Overhead use not recommended.

**⚠ DANGER**

Do not lift any loads over people, animals, or property that cannot be damaged. Falling loads may result in property damage, injury or death.

**⚠ WARNING**

Use only supplied or manufacturer replacement power cables. Do not connect other cables to a power source and winch, as this may damage the winch and power source.

**⚠ WARNING**

Any support structure the winch will be mounted to must be designed to withstand any load or forces that the load and winch may apply to the structure. All mounting hardware must also be able to withstand all load weights and forces.

**⚠ CAUTION**

Duration of winching pulls should be kept as short as possible.

If the motor becomes uncomfortably hot to the touch, stop winching immediately and let it cool down for a few minutes. Do not pull for more than one minute at or near the rated load.

**⚠ CAUTION**

If the motor stalls, do not maintain power to the winch.

Utility winches are designed and made for intermittent use and should not be used in constant duty applications.

**CAUTION**

Never disengage clutch under load. Only engage or disengage clutch before connection of loads.

**⚠ DANGER**

Do not use damaged or broken equipment.

Before each use inspect the winch and equipment for any damage to the following:

- Winch
- Wire cable
- Hook
- Battery or Remote cables

If any of the above items or any other items appear to be damaged or broken then replace or fix before use.

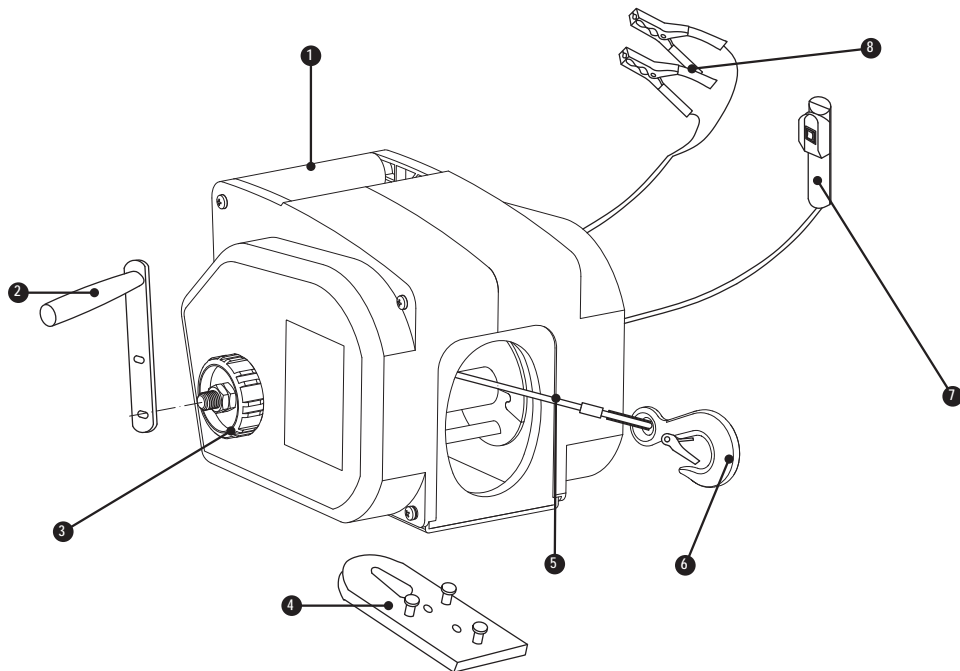
**⚠ WARNING**

Never operate a damaged or malfunctioning winch. If winch appears damaged or is malfunctioning, disconnect power source and disconnect load.

# CONTROLS AND FEATURES

Read this owner's manual before operating your winch. Familiarize yourself with the location and function of the controls and features. Save this manual for future reference.

## Utility winch



- |   |  |
|---|--|
| <p>(1) <b>Carry Handle</b> – Can be used to carry the winch when not mounted or in use.</p> <p>(2) <b>Crank Handle</b> – Used to manually retract or extend wire cable.</p> <p>(3) <b>Clutch</b> – Used to engage or disengage wire cable.</p> <p>(4) <b>Adapter Plate</b> – Used to temporarily mount winch.</p> | <p>(5) <b>Wire Cable</b></p> <p>(6) <b>Hook</b> – Used to secure wire cable to load.</p> <p>(7) <b>Remote Control</b> – Used to electronically retract or extend wire cable.</p> <p>(8) <b>Battery Cables</b> – Used to connect the winch to 12V automotive battery.</p> |
|---|--|



## Contents of the Box

This CPE 2000 lb./5000 lb./6000 lb. utility winch comes with the wire cable and hook already attached. The box will also contain the remote control, battery cables, adapter plate and crank handle. Please make sure to remove all contents from the box before assembly or operation.

## Utility Winch Location

When choosing an anchor (permanent or temporary) for the utility winch location please keep these safety points in mind.

- The winch area must not be accessible to children or animals. Loads may be very heavy and property damage, injury or death may occur if distractions are present.
- Make sure the winch is not installed on any support structure that is located overhead.
- The winch should be located in an area that has enough clearance on all sides of it, to avoid any accidental breaking of the wire cable.
- Do not choose an area where the winch can or will be submerged in water.
- Do not winch at any angle. Winching at any angle can damage the wire cable and winch.

### DANGER

Do not use the winch handle to anchor the winch at any time.

## Mounting the Winch Permanently

This CPE 2000 lb./5000 lb./6000 lb. utility winch can be securely mounted to a fixed anchor point before operation. Mounting hardware is not included. Mounting hardware must be strong enough to withstand all loads and forces imposed on it and the winch. Anchor point must also be strong enough to withstand all forces imposed on it from the loads and winch.

1. Find a secure and suitable anchor.
2. Using the holes at the bottom of the winch frame, take a marker and mark "spot" holes on the anchor.
3. Measure each hole on the winch frame and choose the correct drill bit for each one.
4. Drill through all "spot" holes in the anchor.
5. Secure winch to anchor through all holes using rated bolts, washers, and nuts able to withstand any loads and forces imposed on them by the loads and winch.
6. Make sure all bolts and nuts are tightened.

### CAUTION

Always double check anchor before drilling to ensure there are no hidden compartments or panels that may be damaged or cause structural damage by drilling.

### NOTE

If a mounting channel (not included) is used, make sure it is rated to take any load weight or force the winch and loads may impose on it.

### NOTE

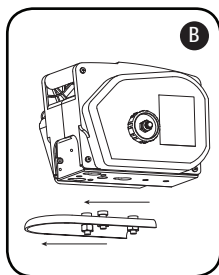
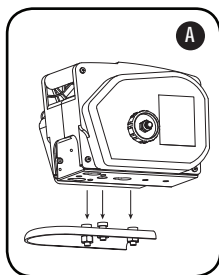
The length of bolts needed for mounting will vary based on the thickness of the anchor used. Measure anchor accordingly.

# ASSEMBLY

## Adapter Plate

The adapter plate can be used to temporarily mount the winch to any 2 in. (5,1 cm) ball hitch receiver.

1. Align the keyslot holes on the bottom of the winch over the mounting bolts already on the adapter plate. (A)
2. Place the winch onto the adapter plate, keyslot holes over the bolts and then slide the plate until the winch is secure on the bolts. (B)
3. Place the adapter plate hole over any 2 in. (5.1 cm) ball hitch, making sure it is secure.



### WARNING

Do not use adapter plate and/or winch to tow any vehicle, boat or other object.

### WARNING

Before attaching winch to the adapter plate, make sure all bolts and nuts on the plate are tightened and secure.

## Battery Connections

Before wiring the winch to any battery powered source, please heed these safety warnings.

### DANGER

Never use or connect the battery cables or winch to a damaged battery or one with signs of corrosion.

### WARNING

Use only a 12V automotive or equivalent battery to supply power to the winch.

### WARNING

When working with batteries always make sure to use eye protection, gloves and safety gear, and never lean directly over the battery.

### WARNING

Do not place the battery cables near any moving or rotating parts, heat, or water.

### CAUTION

Make sure the battery cables are tied up at all times and are not left to "dangle" or hang.

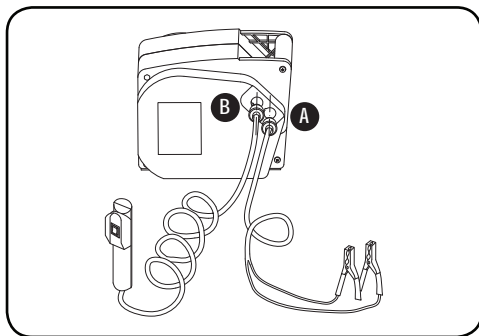
### DANGER

Never use the winch if it does not have a safe and proper ground. Any metal that is coated or painted is not a proper ground.

## Temporarily Wiring the Winch

Your utility winch can be temporarily wired to a 12V battery.

1. Find a safe location for the winch so the battery cables will not be pinched, cut or damaged.
2. Remove the protective plastic covering on the winch that covers the socket that houses the male ends.
3. Plug in the female ends of the battery cable into the socket. (A)
4. Route the battery cables from the winch location to the battery location, securing them along an anchor or frame.
5. Use the Red positive (+) battery clamp and attach the clamp to the Red positive (+) terminal of the battery.
6. Use the Black negative (-) battery clamp from the wire and attach the clamp to a bare metal part of the frame of the vehicle or another bare metal part not on the battery or winch, to create a secure and safe electrical ground.



## Remote Control

Your utility winch comes with a handheld wired remote control. The remote control is easy to connect. Once the winch has been connected to a battery and properly grounded, remove the plastic protective piece on the winch. Next take the male ends of the remote control cord and plug them into the female end connectors in the winch. (B) Test the remote by using the clutch to draw out some wire cable and then winching the wire cable in about 1 to 2 in. (2.5 to 5.1 cm).

### WARNING

Never leave the battery clamps hooked up to a live battery. Always disconnect battery clamps from battery when not in use.

### NOTE

The male plug end of the remote cable will only fit into the socket one way. (B)

### CAUTION

Battery clamps may become hot during use. Please exercise caution when touching or removing them after they have been hooked up to a battery.

### NOTE

The remote will only draw in the wire cable onto the spool. It will not feed out the wire cable.

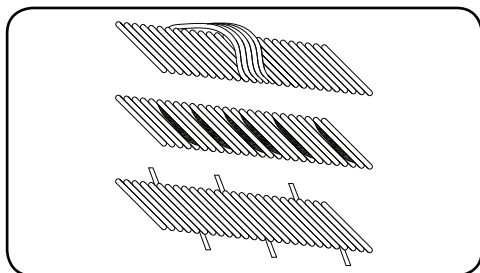
### NOTE

The female plug end of the battery cables will only fit into the socket one way. (A)

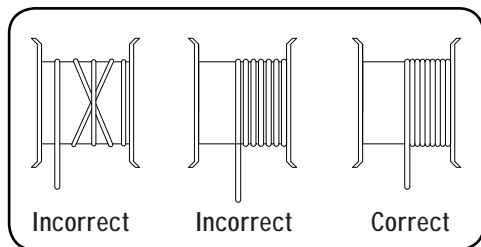
# OPERATION

## Inspection

Before use of the utility winch, always inspect the winch, power connections, wire cable, load connections, and winch area for any possible damage or hazards. Never connect a load to or operate a winch, if it or any of its parts appear to be worn or damaged.



Always check the wire cable for any wear, fraying or damage. Only wire cable in good condition should be used. If the wire cable appears worn, frayed or damaged, DO NOT connect any load to or use, replace immediately.



Inspect the wire cable to make sure it is spooled correctly. The wire cable should not be overlapping on itself, have space between the rolls or slack in it. If the wire cable is spooled incorrectly do not connect a load to it or use it until the wire cable has been re-spooled correctly.

## NOTE

It is highly recommended that random inspections also be done during operation.

## Connecting a Load

During connection of a load and operation of the winch, the user should keep hands and fingers clear of pinch points, moving parts, the wire cable and hook. Loose clothing and jewelry should not be worn, and long hair should be tied back while connecting a load and operation. Gloves and safety goggles should be worn at all times when connecting or winching a load. The cable should never be allowed to slide through the users hands. The user should only grab the hook, using a hook strap (not included) when loading/unloading an item. Never grab the wire cable directly. Attach the load to the hook using only rated equipment, such as slings, chains or winching shackles. Connection to the hook must be completely secure to prevent any accidental disconnection. Make sure the connection device is properly seated in the base of the hook and that the safety clasp closes fully.

## ! CAUTION

If the wire cable becomes kinked or twisted during operation stop use immediately.

Once a load has been properly connected, drape a blanket or jacket over the wire cable approximately 5 to 6 ft. (1.5 to 1.8 m) from the hook. In the event of a broken cable it will dampen the snap back. Make sure and do a test. Winch the load 1 to 2 in. (2.5 to 5.1 cm) and pause a moment to inspect all connections and that the equipment can handle the load.

## ! WARNING

Do not exceed rated load capacity, even while testing a load.

## General Tips for Safe Operation

Your 12090 utility winch is rated at a 2000 lb. (907 kg) max standard rated pull, 5000 lb. (2,268 kg) max rated marine pull and 6000 lb. (2,722 kg) max rated rolling pull. Overloads can damage the winch, motor, wire cable, and/or create a possible hazard for property damage, injury or death.

For loads over 1000 lb. (454 kg) standard, 2500 lb. (1,134 kg) marine, 3000 lb. (1,361 kg) rolling, the use of a snatch block/pulley system (not included) to double the wire cable line must be used. This will aid in two ways:

- reduce the number or cable layers on the drum, as well as,
- reduce the load on the wire cable by as much as 50%.

When doubling the line back to the winch, run the wire cable through the snatch block and attach the hook to a suitable anchor. Make sure the safety clasp on the hook closes before operation.

Get to know your winch before you actually need to use it. We recommend that you set up a few test runs to familiarize yourself with rigging techniques, the sounds your winch makes under various loads, the way the cable spools on the drum, etc.

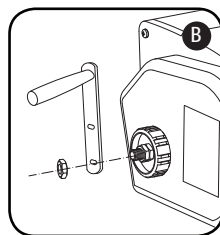
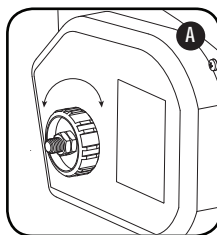
Inspect the wire cable and equipment before each use. A frayed or damaged cable shall be replaced immediately. Use only manufacturer's identical replacement cable with the exact specifications. Inspect the winch installation and bolts to ensure that all bolts are tight before each operation. Store the winch indoors and in a place that it will not be damaged.

Any winch that appears to be damaged in any way, is found to be worn, or operates abnormally **MUST BE REMOVED FROM SERVICE UNTIL REPAIRED**. It is recommended that the necessary repairs be made by a manufacturer's authorized repair facility.

Only attachments and/or adapters supplied by the manufacturer are to be used.

## Manual Operation

If the winch is not hooked up to a battery, the wire cable can be drawn in and out by releasing the clutch and using the hand crank. Always keep tension on the wire cable. Rotating the clutch will allow the user to access the winch cable manually. (A) Disengage the clutch by turning it counterclockwise. This will allow the user to draw out the wire cable. Use a hook strap (not included) on the hook when drawing out the cable. Once the hook has been attached to the load, and the safety clasp fully closed, the hand crank can be attached to the winch. Remove the outer nut on the bolt in the center of the clutch. (B) Only remove the outer nut, leave the inner nut on the bolt. Place the hand crank on the bolt, then reinsert and tighten the outer nut onto the bolt. When manual winching is done, engage the clutch by turning it clockwise. Once the clutch has been engaged, remove the hand crank.



### **⚠ DANGER**

Do not install or have hand crank installed if the winch is connected to a power source.

### **⚠ WARNING**

Do not use the hand crank to try and assist the winch while it is operating electronically.

### **⚠ CAUTION**

If hand crank is installed on the winch, do not pull wire cable out at any time.

# OPERATION

## Winching Techniques

1. Take time to assess your winch area, and make sure it is free of any debris and other possible hazards and distractions.
2. Take time to assess your situation and plan your winch.
3. Put on safety goggles to protect your eyes, gloves to protect your hands, tie back any long hair and remove jewelry.
4. Inspect winch, power cords and wire cable for excessive wear or damage.
5. Double check your anchors and make sure all connections are secure.
6. Attach the battery cables to a battery and properly ground the connection.
7. Test the winch without a load connected. Make sure the wire cable extends and retracts properly without any problems.
8. Connect desired load using only properly rated winching slings, chains or shackles.
9. Once a load has been properly connected, drape a blanket or jacket over the wire cable approximately 5 to 6 ft. (1.5 to 1.8 m) from the hook. In the event of a broken cable it will dampen the snap back.
10. Make sure hook clasp is closed fully.
11. Clear the area. Make sure all operators and bystanders stand clear and that no one is directly above, underneath, or to the direct side of the load or wire cable.
12. Begin winching. Be sure that the wire cable is winding evenly and tightly around the drum. Avoid shock loads; keep the wire cable under tension.
13. The winch is meant for intermittent use. Winch for a short time and then let the motor rest if needed before restarting.
14. If the winch must be stopped, with a load connected to it, support anchors should be placed until the winch is going again.
15. The winching operation is complete once the load is on stable ground and/or has anchors for support placed under it.

## Winching Techniques Cont'd.

16. Disconnect the wire cable from the anchor, but still maintain tension.
17. Rewind the wire cable. Make sure that any wire already on the drum has spooled tightly and neatly. If not, draw out the wire and re-spool from the point where the cable is tight.
18. Keep your hands clear of the winch drum, wire cable, and hook as the cable is being drawn in.
19. Secure the hook and hook strap.
20. Clean and inspect connections and mounting hardware for next winching operation.

### DANGER

Users and bystanders must keep a minimum distance of 12 in. (30.5 cm) at all times from the winch and load. If the wire cable breaks serious injury or death could occur if the broken cable "whips" around. More distance is advised as the cable length increases.

### WARNING

Support anchors are highly recommended if a load can not be placed on stable ground. Make sure the support anchors can withstand the full weight of the load being anchored.

### WARNING

Maintain at least 4 wraps (coils) of cable on the drum during operation. Operating with fewer than 4 wraps of cable on the drum can cause the cable to pull off the drum.

The owner/operator is responsible for all periodic maintenance.

### WARNING

Never operate a damaged or defective winch.

### WARNING

Improper maintenance will void your warranty.

Complete all scheduled maintenance in a timely manner. Correct any issue before operating the winch.

### NOTE

For service or parts assistance, contact our help line at **1-877-338-0999**

## Cleaning

Use a damp cloth to clean the exterior surfaces of the winch. Use a soft bristle brush to remove excess dirt and oil. Use an air compressor (25 PSI) to clear dirt and small debris from the wire cable spool and other tight places.

### CAUTION

DO NOT spray water directly on the winch or wire cable. DO NOT wipe the wire cable with the damp cloth. Use only compressed air to clean the wire cable.

## Lubrication

All moving parts within the Utility winch having been Lubricated using high temperature lithium grease at the factory. No internal lubrication is required. Lubricate cable assembly periodically using a light penetrating oil.

## Cable Assembly Replacement

It is recommended that any wire cable or spool modifications be performed by a manufacturer's authorized repair facility, and that only manufacturer-supplied parts be used.

## Storage

It is recommended the utility winch is stored indoors, in a clean dry place, free from sunlight and moisture.

1. Make sure the winch is properly cleaned before storage.
2. Make sure the wire rope is drawn onto the spool as much as it can be without damage.
3. Make sure to tie up all cords.
4. Store in a place that moisture can not damage the winch.
5. Store in place that excess dust or debris can not damage the winch.

# TROUBLESHOOTING

Problem	Cause	Solution
Motor does not turn	No electrical power	Make sure battery cables are connected to a live 12V automotive battery or equivalent and to the winch
	Pinched battery cable	Check all battery cable connections and make sure nothing is resting on top of, or pinching the battery cables
	Defective remote control	Replace remote control
Motor runs slowly or without normal power	Insufficient current or voltage	The voltage supply is weak. Check to make sure voltage supply is 12V
Motor overheating	Winch running time is too long	Allow winch to cool down

## For further technical support:

### Technical Service

Mon – Fri 8:30 AM – 5:00 PM (PST/PDT)

Toll Free: 1-877-338-0999

tech@championpowerequipment.com



## Performance Specifications

- Max Rated Standard Pull	2000 lb. (907 kg)
- Max Rated Marine Pull	5000 lb. (2268 kg)
- Max Rated Rolling Pull	6000 lb. (2722 kg)
- Max Boat Size	18 ft. (5.5 m)
- Motor	0.3 Hp/ 0.2 Kw, 12V DC
- Cable	1/5 in. (D) x 30 ft. (L) [5.1 mm (D) x 9.1 m (L)]
- Battery Cable	20 ft./6 m (L) Positive Lead, 20 ft./6 m (L) Negative Lead
- Gross Weight	25 lb. (11.3 kg)
- Net Weight	22 lb. (10 kg)
- Height	7.5 in. (19.1 cm)
- Width	10 in. (25.4 cm)
- Length	9.5 in. (24.1 cm)

Line Speed and Motor Current (First Layer)						
Line pull Max	lb.	0	500	1000	1500	2000
	kg	0	227	454	680	907
Line speed (DC12V)	FPM	4.5	3.6	2.9	2.3	1.7
	MPM	1.4	1.1	0.9	0.7	0.5
Max current	A	3	6	11	17	21
Running Time*	minutes	1	1	1	1	1
Cooling Time**	minutes	5	5	5	5	5

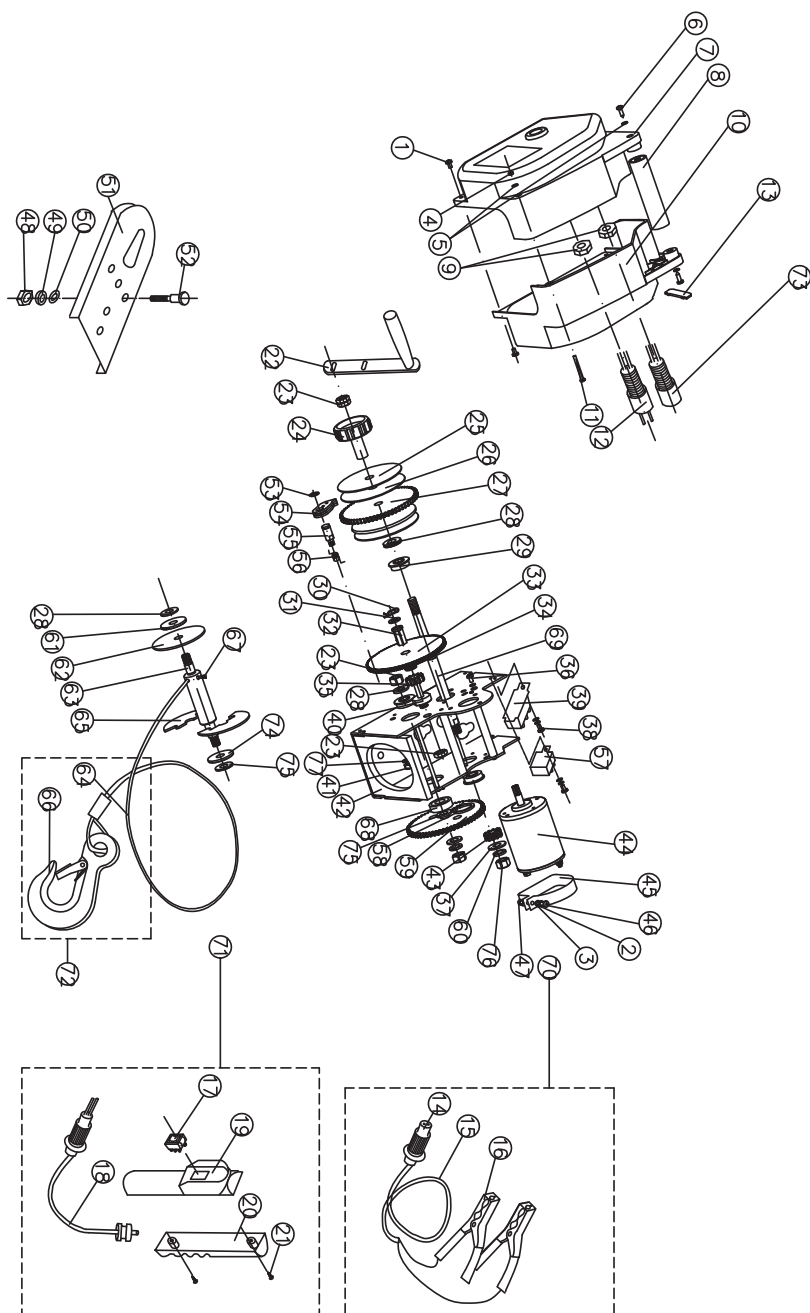
\*If the motor becomes uncomfortably hot to the touch, stop winching immediately and let it cool down for 5 minutes. Do not pull for more than one minute at or near the rated load.

\*\*Electric winches are designed and made for intermittent use and should not be used in constant duty applications.

Line Pull and Cable Capacity Per Layer						
Line of Cable		1	2	3	4	5
Max pulling capacity per layer	lb.	2000	1520	1226	1027	884
	kg	907	689	556	466	401
Cable capacity per layer	ft.	4.7	10.8	18.4	27.5	30
	m	1.4	3.3	5.6	8.4	9.1

# SPECIFICATIONS

## Parts Diagram



#	Part Number	Description	Qty
1	12090-001	Screw (M5 x 8)	4
2	12090-002	Lock Washer (ø5)	6
3	12090-003	Washer (ø5)	6
4	12090-004	Nut (M4)	1
5	12090-005	Washer (ø4)	3
6	12090-006	Screw (ST3.9 x 15)	2
7	12090-007	Right Shell	1
8	12090-008	Handle	1
9	12090-009	Nut (M16), PVC	2
10	12090-010	Left Shell	1
11	12090-011	Screw (M4 x 80)	1
12	12090-012	Battery Cable Socket	1
13	12090-013	Socket Cover	1
14	12090-014	Battery Cable Plug	1
15	12090-015	Battery Cable	1
16	12090-016	Battery Clamp	2
17	12090-017	Button Switch	1
18	12090-018	Remote Control Cable Assembly	1
19	12090-019	Front Remote Control Housing	1
20	12090-020	Rear Remote Control Housing	1
21	12090-021	Screw (ST3.9 x 13)	2
22	12090-022	Hand Crank	1
23	12090-023	Thin Nut (M12)	4
24	12090-024	Clutch Knob	1
25	12090-025	Friction plate cover	2
26	12090-026	Friction plate	2
27	12090-027	Large Gear Assembly II	2
28	12090-028	Washer (ø13 x 23 x 1.5)	3
29	12090-029	Bearing	3
30	12090-030	Pin	1
31	12090-031	Washer (ø9)	1
32	12090-032	Shaft Assembly	1
33	12090-033	Large Gear Assembly I	1
34	12090-034	Washer	4
35	12090-035	Small Gear Assembly II	3
36	12090-036	Screw (M5 x 16)	3
37	12090-037	Washer (ø13 x 23 x 2)	3
38	12090-038	Screw (M5 x 10)	2
39	12090-039	Circuit Breaker 25A	1

#	Part Number	Description	Qty
40	12090-040	Shaft	1
41	12090-041	Nut (M8)	1
42	12090-042	Frame Assembly	1
43	12090-043	Small Gear Assembly III	3
44	12090-044	Motor	1
45	12090-045	Motor Clamp	1
46	12090-046	Screw (M5 x 25)	1
47	12090-047	Nut (M5)	3
48	12090-048	Nut (M10)	3
49	12090-049	Lock Washer (ø10)	3
50	12090-050	Washer (ø10)	3
51	12090-051	Adapter Plate	1
52	12090-052	Plate Stud Bolt	3
53	12090-053	Circlip(ø12)	1
54	12090-054	Claw Lock	1
55	12090-055	Shaft Lock	1
56	12090-056	Spring	1
57	12090-057	Relay	1
58	12090-058	Circlip(ø35)	1
59	12090-059	Large Gear Assembly III	1
60	12090-060	Lock Washer (ø12)	2
61	12090-061	Washer (ø13 x 28 x 2)	1
62	12090-062	Left Plate	1
63	12090-063	Drum Shaft	1
64	12090-064	Wire Rope	1
65	12090-065	Right Plate	2
66	12090-066	Hook	1
67	12090-067	Screw (M5 x 10)	1
68	12090-068	Bearing (6202-ZN)	1
69	12090-069	Shaft	1
70	12090-100	Battery Cable Assembly	1
71	12090-200	Hand Remote Assembly	1
72	12090-300	Wire Rope Assembly	1
73	12090-070	Remote Control Cable Socket	1
74	12090-071	Washer (ø15 x 28 x 2)	1
75	12090-072	Washer (ø15 x 23 x 1.5)	2
76	12090-073	Thick Nut (M12)	2
77	12090-074	Lock washer (ø8)	1

