

12,000LB 12V HEAVY DUTY  
**ELECTRIC  
WINCH**  
INSTRUCTIONS



**RIDGE 4X4**  
ACCESSORIES  
**RYDER**



**⚠ IMPORTANT INFORMATION BEFORE USING YOUR 12V ELECTRIC WINCH ⚠**

The responsibility for safe operation of this winch ultimately rests with the operator. Please read all operating instructions carefully before installation and operation of your winch. Retain instructions for future reference. Use winch only as intended and outlined in operating instructions. Safety precautions should always be followed to reduce the risk of personal injury and damage to the winch.

## SAFETY WARNINGS

- After the winch is installed take some time to become familiar with all operations and practice prior to performing any recovery task.
- It is recommended that the user has four wheel drive training and is familiar with recovery situations prior to using the winch.
- A minimum of 5 wraps around the drum barrel is necessary to hold load
- Do not exceed maximum line pull capacity
- Do not use winch to lift or move people
- Keep clear of synthetic rope when under load and do not handle a cable under load.
- All persons should be kept a safe distance from any recovery situation (recommended 1.5 times the unstretched cable) Never situate yourself or your observers within the path of any vehicle under recovery
- Rated recovery hooks/points on each vehicle needs to have sufficient strength and need to be fitted correctly.
- Worn or damaged winches or equipment should never be used.
- Never connect DC power winches to AC power supply, motor damage or fatal shock may occur.
- Use safe practice whilst winching and stay clear of the danger zone of rotating winch drum, fairlead, clevis hook or winch motor. Relieve tension on cable and disconnect power before placing hands anywhere near this danger zone. Disconnect the power before working in or around the winch drum.
- Use only factory approved switches, remote controls and accessories.
- It is recommended to use a winch damper when recovery operation is performed.
- Correct installation of your winch is required for safe and correct operation – It is important that the winch is mounted on a flat surface so that the three sections (motor, drum and gear housing is properly aligned).
- Be sure that your structural support (minimum of 10mm thickness) is strong enough to support the maximum pulling capacity of winch
- Do not weld or machine any part of the winch. Machining or welding may weaken the structural integrity of the winch.
- The fitment of recovery winch and or a frontal protection system (bulbar) may affect the triggering of SRS airbags in an accident. Check that the mounting system has been tested and approved for winch fitment on an airbag equipped vehicle. i.e the winch should only be fitted to winch compatible bullbars.

## OPERATION

- This winch is designed for intermittent use, continual use will cause overheating of components.
- The winch is not intended for industrial use or use with hoisting operations or overhead lifting.

**Clutch** – The clutch handle located on the gear box has two positions, engaged or freespool

Turn the lever to freespool position to enable cable to be pulled manually from the drum. When lever is in engaged position the drum is connected to the gearbox and can be powered by winch motor.

The lever can only be moved when there is no load on the winch. The drum may need slight rotation to align gears prior to activation. Do not leave clutch engaged when not in use

**Brake** – the winch has an automatic in the drum brake, this prevents vehicle from rolling backwards when winching up a hill. Ensure cable is wound onto the drum in the right direction (shown by arrow) to ensure this safety feature is in operation.

**Powering your winch** – It is a minimum requirement to use 650CCA battery, ensure vehicle motor is running during winching operations to ensure sufficient charge in the battery. Ensure the battery is in good condition and all electrical leads have clean and secure connections.

**Duty cycle** – The maximum normal duty cycle is 50 seconds followed by 5 minute cool down period, maximum of 10 cycles under normal environment temperatures.

**Wired remote** – Connect the remote to the control box with the 3.5m lead, connect other end of lead to hand controller, use by pressing the directional switches

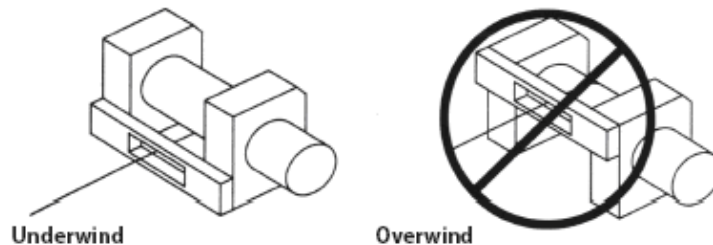
**Wireless remote** – When using the wireless remote, plug the activator (receiver for signal) into the control box. The remote can now be used by pressing the directional switches.

**!NOTE** – Wireless activator must be removed from control box when not in use to prevent accidental activation

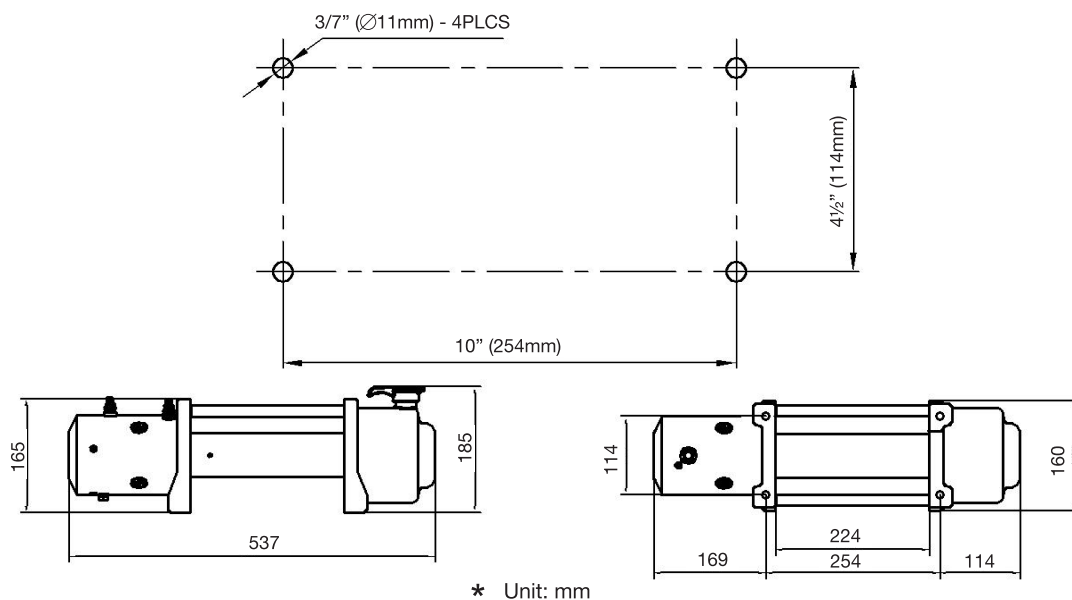


## FITMENT

1. Mount the winch to a flat firm base plate, a minimum of 10mm thickness is required, as the pressure placed on the winch may cause it to bind the gearing if it is not mounted as so. A universal winch ready bull bar should have all the sufficient bolt holes and room to fit the winch. While mounting remember that the winch is to be operated with the synthetic rope in an under-wound orientation on the synthetic rope drum. The winch is designed to WIND IN and WIND OUT in one direction. DO NOT attempt to reverse the operation of the winch.
2. The winch should be secured with carbon steel bolts M10 x 40 and nuts M10 and spring washers provided.
3. The fairlead is is to be mounted so as to guide the winch rope onto the drum.



## WINCH MOUNTING BOLT PATTEN & DIMENSIONS



## PARTS INCLUDED

- M8X25mm Bolts with nuts X 2
- M3X25mm Bolts with nuts X 2
- M10 x 40mm Bolts with nuts x 4
- Spring washers x 4
- 12000lb Winch dyneema rope x 1
- 1.8m Red (+) positive cable x 1
- 1.8m Black (-) negative cable x 1
- 3.5m Remote control lead x 1
- 1m Socket extension lead with bolt
- Control box x 1
- Hook strap x 1
- Clevis hook x 1
- Instruction manual x 1
- Remote Control x 1
- Wireless receiver x 1





## ELECTRICAL CONNECTIONS

### CAUTION:

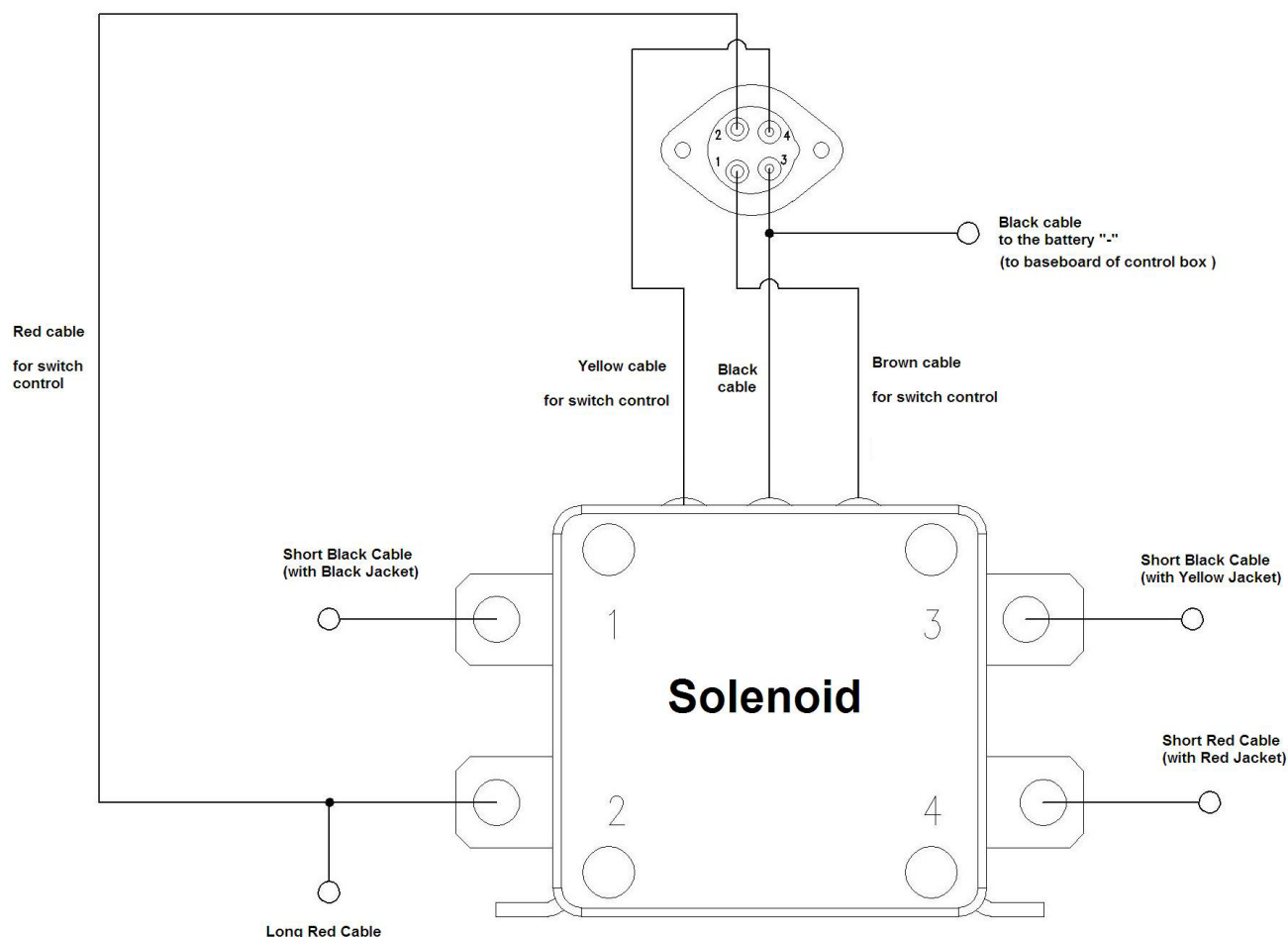
- Take appropriate safety precautions while working with or around battery connections
- Always wear eye protection when working around batteries
- Be sure that the battery is in good condition. Avoid contact with the battery acid or other contaminants. Corrosion on the electrical connections will reduce performance or may cause shorting out.
- Never route electrical cables across sharp edges, through or near moving parts or near parts that may become hot.
- Always insulate and protect all exposed wiring and electrical terminals
- Always install terminal boots as supplied with the winch

### BATTERY REQUIREMENTS

- Recommended 650CCA battery is suggested as a minimum.
- It is suggested to run the vehicle's motor during winching operations to keep sufficient charge in the battery

### ELECTRICAL CIRCUIT DIAGRAM:

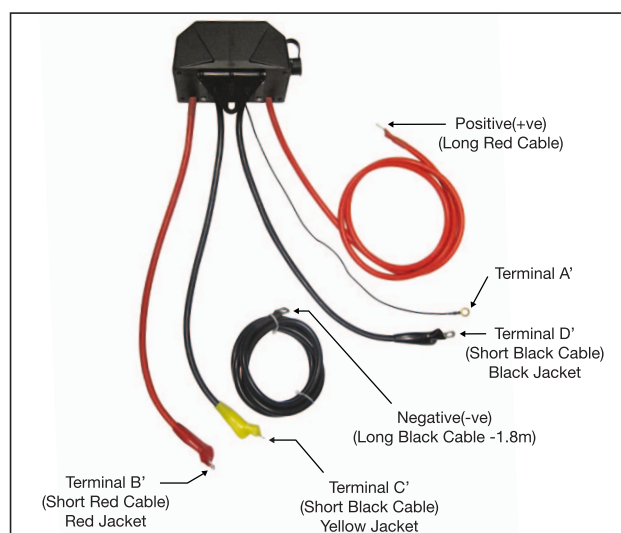
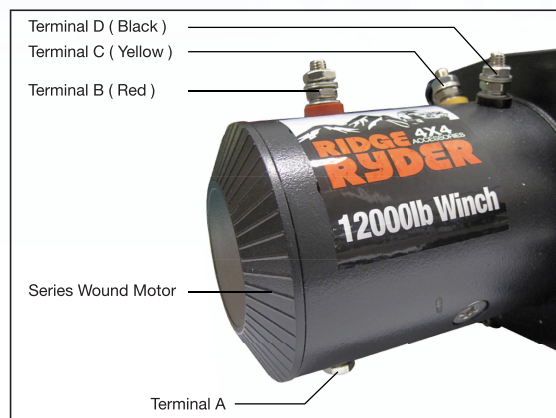
#### Single Solenoid Version



\* Only applicable when the wireless remote is fitted

## CONNECTION INSTRUCTIONS (AS PER DIAGRAM)

1. Connect short red cable (B') to the red terminal (B) of winch motor
2. Connect short black cable with yellow jacket (C') to the yellow terminal (C) of winch motor
3. Connect short black cable with black jacket (D') to the black terminal (D) of winch motor
4. Connect thin black cable (A') to bottom terminal (A) of winch motor
5. Connect long black cable (1.8m) : one end, to the bottom terminal (A) of the winch motor and the other end, negative (-) terminal to your battery
6. Connect the long red cable to the positive (+) terminal to the battery



## STRETCHING AND PREPARING THE SYNTHETIC ROPE:

**NOTE:** The synthetic rope is not included in the warranty.

The life of the synthetic rope is directly related to the care it receives. The synthetic rope on a new winch or any replacement synthetic ropes should be re-spoiled onto the drum under load of a least 450kg before using the winch for the first time for its correct application. Please follow the instructions below on how to stretch the synthetic rope onto the winch drum.

1. The following next steps are recommended to be preformed by a two person team for greater safety.

Note:

- Never exit the vehicle with a load on the winch synthetic rope.
- Tensioning the synthetic rope correctly is critical to ensure long product life
- Tensioning the synthetic rope will prevent the outer layers of the synthetic rope from pinching and deforming the inner layers.
- Use care to evenly wrap each layer onto the drum to prevent damage to the synthetic rope.

- If you attempt to tension the synthetic rope by yourself, be sure to engage the park brake and place the vehicle in park or into gear and switch the vehicle off.
2. Find an open flat and level location that is large enough to expose the length of synthetic rope and enough space for the vehicle.
  3. Turn the clutch to the out position or “Free Spool” position. Pull out the synthetic rope till the red paint mark shows. Do not pull further than this as there will not be sufficient synthetic rope left on the drum to proceed safely under load. Once the synthetic rope is spooled out, turn the clutch lever to the “IN” position or “Engaged” position.
  4. Attach the clevis hook end to a suitable anchor point and reverse the vehicle until the synthetic rope has limited amount of slack. Remember to engage the parking brake after turning off the vehicle.
  5. Connect the remote switch to the winch control box. Wind in the winch until all slack is wound onto the winch drum. Make sure all hands and loose clothing is kept away from the fairlead as injury could occur. Be sure to check that the synthetic rope is winding off the bottom of the drum, as the automatic load holding brake will not function correctly if not winding from the bottom of the drum.
  6. Remember to always use a winch damper when being used with tension on the synthetic rope for recovery or setting purposes.
  7. Pass the remote control through the driver’s window for the driver of the vehicle to operate. Instruct your assistant to stand to the side of the vehicle away from the winch synthetic rope at least 1.5 times the length of the synthetic rope. Your assistant should signal you if the synthetic rope is winding in correctly by watching the synthetic rope move across the fairlead diagonally as the winch is winding in. Release the park brake while applying moderate brake pedal pressure. Press down on the “IN” button on the remote control. After winching in approx 6ft, stop winching and let up off the brake pedal and then apply the park brake. This will ensure that there is no load on the winch synthetic rope. Exit the vehicle and inspect the winch to make sure synthetic rope is winding on evenly and not sinking into a lower layer of the synthetic rope. If the synthetic rope is sinking into the lower layer of the synthetic rope on the drum, power the winch “OUT” and repeat this step from the beginning with more brake pedal pressure.
  8. When you are happy with the synthetic rope winding on the drum correctly, repeat step 7 until the vehicle is within 6ft of the anchor point you are using. Slowly let off the brake pedal and then apply the parking brake. This will ensure there is no load on the winch synthetic rope. Exit the vehicle, disconnect the hook of the anchor point you are using. Holding the hook strap supplied, hold tension on the winch synthetic rope and slowly power “IN” the synthetic rope by slowly pulsing the power in on the remote control until the hook is within 3ft of the fairlead. **DO NOT POWER THE CLEVIS HOOK INTO THE FAIRLEAD** as this will cause damage to the fairlead, clevis hook and or winch synthetic rope. Stop winching in and attach the clevis hook to a suitable anchor point on the vehicle. Once the clevis is suitable attached to the vehicle, power “IN” the remaining slack in the winch synthetic rope by pulsing the power “IN” switch on the remote until there is minimal slack in the winch synthetic rope.

## **SPOOLING:**

### **Spooling Out**

- Free spooling is the quickest way to spool out the winch rope synthetic for recovery. Before free spooling, power out enough synthetic rope to remove any tension in the synthetic rope. Disengage the clutch (switch to “FREE SPOOL”) and now you can manually spool out the winch synthetic rope using the supplied hook strap to the required length for the winching operation. Always leave 5 wraps on the winch drum at all times when using for recovery operations.

### **Spooling In Under Load**

- Never exceed winch’s rated line pull.
- Use care to evenly wrap each layer to prevent damage to the synthetic rope and or winch.
- Avoid shock loading when spooling. Use the remote control intermittently to take up synthetic rope slack. Shock loading can far exceed the winch and synthetic rope ratings and can cause damage and or injury.
- It is recommended that a winch dampener is used when the synthetic rope is under load when a recovery operation is needed.

## **SPOOLING IN UNDER NO LOAD**

- Assisted

Have your assistant hold the hook with the hook strap putting as much constant tension on the synthetic rope as possible. Have them walk towards the winch while you control the winch to spool “IN.” Release the button when the synthetic rope is 8ft from the fairlead. Tighten up the slack by pulsing “IN” the synthetic rope onto the drum, be careful not to over tighten or damage may occur to the synthetic rope, clevis hook, anchor point, fairlead and winch.



## PARTS SPECIFICATIONS

- SC12000TW (12V) 12000lbs Heavy Duty Electric Winch
- Rated Line Pull: 12000lbs (5443kgs) single-line
- Motor: 6.6HP/4.8KW, High Performance Parallel Series Wound
- Remote Control: Remote switch, 11' (3.5 m) lead
- Geartrain: 3-Stage Planetary
- Gear Reduction Ratio: 187.2:1
- Clutch (Free Spooling): Flexible Operation
- Braking Action: Automatic In-The-Drum
- Drum Diameter/Length:  $\varnothing 2.5" \times 8.82"$  ( $\varnothing 63.5\text{mm} \times 224\text{mm}$ )
- Rope: 28m of 10mm diameter
- Fairlead: Aluminium Hawse version
- Remote Control: Included
- Recommended Battery: 650CCA minimum for winching
- Battery Leads: 2 gauge, 72" (1.83m)
- Finish: Black powder coat
- Overall Dimensions: 21.1" x 6.3" x 7.2" (536mm x 160mm x 183mm)
- Mounting Bolt Pattern: 254mm x 114.3mm
- Weight: 24.5kgs

### 12000lb LINE SPEED AND AMP DRAW (FIRST LAYER)

Line Pull	lb	0	4000	6000	8000	10000	12000
	kg	0	1814	2722	3629	4536	5443
Line Speed	ft/min	33.3	16.8	12.8	10.1	8.8	7.6
	m/min	10.1	5.1	3.9	3.1	2.7	2.3
Current	Amps	75	150	220	290	350	430

### 12000LB LINE PULL AND CAPACITY

Layers of Rope		1	2	3	4
Rated Line Pull per Layer	lb	12000	9210	8030	6894
	kg	5443	4178	3642	3127
Cumulative Cable Length	ft	17	41	71	82
	m	5.2	12.5	21.6	25

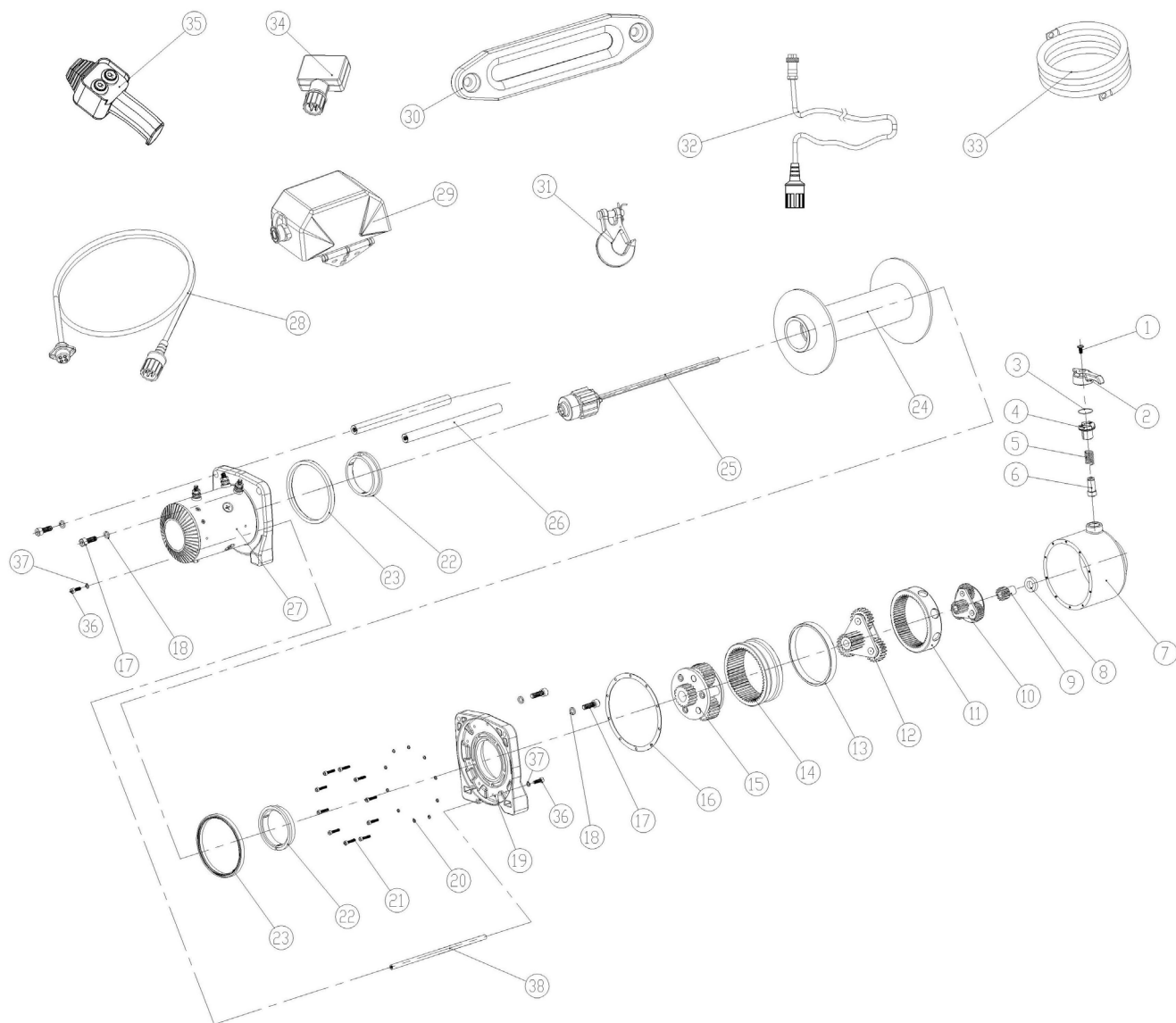


## PARTS LISTING

Item No.	Description	Qty
1	Cross Recess Head Screw M6 X 12	1
2	Clutch handle	1
3	O-ring $\Phi 28 \times 1$	1
4	Clutch bush	1
5	Clutch spring	1
6	Clutch shaft	1
7	Gear box housing	1
8	Shaft sleeve	1
9	Sun gear	1
10	3 <sup>rd</sup> Planetary gear assy	1
11	Clutch gear	1
12	2nd Planetary gear assy	1
13	Gear box lining	1
14	Inner gear	1
15	1st Planetary gear assy	1
16	Sealing washer	1
17	Hexagon screw M8 X 25	4
18	Spring washer $\Phi 8$	4
19	Gear box bracket	1
20	Spring washer $\Phi 4$	10
21	Hexagon screw M4 X 20	10
22	Bearing bush	2
23	Sealing washer	2
24	Durm assembly	1
25	Brake assembly	1
26	Tie bar	2
27	Motor	1
28	1M Socket extension	1
29	Control box assembly	1
30	Fairlead	1
31	3/8" Hook	1
32	3.5M remote control lead	1
33	Battery negative (-) cord	1
34	Wireless remote receiver	1
35	Remote control assembly	1
36	Hexagon screw M5 X 20	2
37	Spring washer $\Phi 5$	2
38	Shaft for bracket	1



## EXPLODED DIAGRAM



## MAINTENANCE

- Inspect all electrical components frequently to ensure clean and secure connections.
  - This item is exposed to the elements; moisture can accumulate inside the winch when exposed to rain, pressure cleaners, steam cleaning, river crossings and the common car wash. To prevent corrosion it is best practice to use the winch once a month as a minimum even if to unwind a few metres and wind back in, the heat generated will help to dissipate any condensation.
  - Regularly check all bolts and fittings are tight and secure, these could work loose under hard working conditions
  - Under normal conditions the winch should not require servicing. If you use the winch regularly you should consider a servicing schedule to maximise the life and performance of the winch
  - If the winch is fully submersed in water please ensure it is serviced at the next appropriate interval before storage.
- Ensure winch motor is clean and dry, renew grease in gear box and other internals using a quality bearing type grease.
- Check the winch cable before use for any signs of wear, if wear signs are apparent replace before use.
  - Wind cable neatly on the drum, after each use of the winch the cable should be unspooled to the point of where the cable lays neatly on the drum and respoiled under load.

## TROUBLE SHOOTING CHECK LIST

### WINCH DOES NOT OPERATE UNDER NORMAL CONDITIONS

- Vehicle battery should be in good working order and fully charged.
- Check that all wiring is correct as per the diagrams in this manual.
- Check that all electrical connections and cables are in good condition, free from corrosion and connected properly.
- Check to see if there is power getting to the motor from the battery.
- Earth power cable should be connected directly to the earth terminal on the battery not the vehicle chassis.
- Only the power cables supplied with this winch should be used, any other cable may not be of a high enough specification to supply sufficient power to the winch.
- Check that the hand control switch is not damaged and functioning properly.
- Check the battery in wireless remote controller.
- Check that the control box socket is in good condition.

### WINCH WORKS IN WRONG DIRECTION

- Check that the cable is spooled in right direction on the drum.
- Ensure all wiring is correct as per the diagrams in this manual.

### WINCH MOTOR GETS TOO HOT

- Winch should only be operated in 50 second duty cycles and allowed to cool.
- Check that all electrical connections and cables are in good condition, free from corrosion and connected properly.
- Only the power cables supplied with this winch should be used, any other cable may not be of high enough specification to supply sufficient power to the winch.

### WINCH OPERATES SLOWLY

- Vehicle battery should be in good working order and fully charged, vehicles charging system should be supplying good charge to battery.
- Check that all electrical connections and cables are in good condition, free from corrosion and connected properly.

### WINCH MOTOR OPERATES BUT THE CABLE WILL NOT SPOOL IN

- Ensure clutch handle is in the engaged position.

### WINCH ONLY OPERATES IN ONE DIRECTION:

- Check that all electrical connections and cables are in good condition, free from corrosion and connected properly.
- Check that all wiring is correct as per the diagrams in this manual.
- Check that the hand control switch is not damaged and functioning properly.
- Check that the control box socket is in good condition.

### WINCH BRAKE IS NOT WORKING OR HOLDING A LOAD:

- Check that the cable is spooled on the drum in the correct direction



#### WINCH SOLENOID IS NOT WORKING OR CLICKING RAPIDLY

- Check that the thin earth cable is connected correctly as per the diagram in this manual.
- Check that all electrical connections and cables are in good condition, free from corrosion and connected properly.
- Ensure all wiring is correct as per the diagrams in this manual.
- Check that your battery is in good condition and fully charged.

#### WINCH WILL NOT ENGAGE IN FREESPOOL

- Ensure that the winch is mounted on flat surface so all components (motor, drum & gearbox) are aligned.
- Check all winch mounting bolts and ensure that they are tight and secure.

## LIMITED PRODUCT WARRANTY

This product is guaranteed against defects for a period of 1 year from date of purchase. This warranty is provided by Super Cheap Auto Pty Ltd ACN 085 395 124 (Supercheap Auto) of 751 Gympie Rd Lawnton QLD 4501 Ph (07) 3482 7500. Supercheap Auto warrant that subject to the exclusions and limitations below, the product will be free from defects in materials and workmanship. The warranty is not transferable to a subsequent customer if the product is sold by original customer during the warranty period. If a defect appears in the manufacture or assembly of the product before the end of the warranty period and Supercheap Auto find the product to be defective in materials or workmanship then Supercheap Auto will, in its sole discretion, either;

- a) Replace or repair the product or the defective part of the product free of charge; or
- b) Have the product or the defective part of the product to be replaced or repaired by qualified repairer free of charge.

Supercheap Auto reserves the right to replace defective parts of the Product with parts and components of similar quality, grade and composition where an identical part is not available. Refurbished parts may be used to repair the product.

### WARRANTY CLAIMS

1. To claim under this warranty, take the product to the Front Service Desk of your nearest Supercheap Auto store. For store locations, visit [www.supercheapauto.com.au](http://www.supercheapauto.com.au) (AUS) or [www.supercheapauto.co.nz](http://www.supercheapauto.co.nz) (NZ).
2. Any warranty claim must be accompanied by proof of purchase, additional information may be requested to process your claim. Should you not be able to provide proof of purchase with a receipt or a bank statement, identification showing your name, address and signature may be required to process your claim.
3. The product may need to be sent for testing to assess the defect before determining any claim. Faults or defects caused by product modification, misuse and abuse, normal wear and tear or failure to follow user instructions are not covered under this warranty.

### EXCLUSIONS

#### *THIS WARRANTY WILL NOT APPLY WHERE:*

- a) The product has been repaired, altered or modified by someone who is not authorised to repair;
- b) Supercheap Auto cannot establish any fault in the product after test or inspection;
- c) The product has been used other than for the purpose for which it was designed;
- d) The defect in the product has arisen due to the customer's failure to properly install, use or maintain the product;
- e) The product has been subject to abnormal conditions, including environment, temperature, water, fire, humidity, pressure, stress or similar; or
- f) The defect has arisen due to abuse, misuse, neglect or accident.

#### *THE WARRANTY DOES NOT EXTEND TO:*

- a) Damage or defects caused by normal wear and tear;
- b) Wire cables or synthetic ropes; or
- c) Commercial/Industrial or hoisting applications.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Any expenses incurred relating to the return of this product to store will normally have to be paid by you. For more information contact your nearest Supercheap Auto store.

The benefits to the consumer given by this warranty are in addition to other rights and remedies of the Australian Consumer Law in relation to the goods and services to which this warranty relates.

PLU: 380258 CODE: SC12000TW  
Manufactured and packaged for  
SRGS PTY LTD  
ABN 23 113 230 050  
751 Gympie Road, Lawnton,  
Queensland 4501, Australia  
**MADE IN CHINA**

