



## FITTING AND OPERATING GUIDE

12V/24V ATV/UTILITY/TRAILER WINCH.



5,000lb (2,270kg) Winches



3,000lb (1,360kg) Winches

**VERY IMPORTANT** - YOU MUST READ AND UNDERSTAND THIS GUIDE BEFORE  
INSTALLING AND OPERATING YOUR WINCH

Thank you for buying a WINCHMAX brand winch. By using this product within its limitations and following the instructions provided you can expect many years of trouble-free service.

### **IMPORTANT**

**PLEASE READ AND UNDERSTAND THIS ENTIRE OWNER GUIDE BEFORE INSTALLING OR OPERATING THIS PRODUCT – FAILURE TO DO SO COULD RESULT IN DAMAGE TO PROPERTY, SERIOUS INJURY OR DEATH. UNDERTAKE A FULL SAFETY CHECK AND RISK ASSESSMENT BEFORE EACH USE.**

Whilst we have attempted to provide comprehensive guidance for the safe operation of this winch it remains the operator's responsibility to evaluate and minimise the potential risk before and during every operation. Keep these instructions for reference.

## **1. WARNINGS AND GENERAL SAFETY INFORMATION**

- No loose clothing or jewellery should be worn to prevent entanglement in moving parts.
- Good quality overalls, non-slip protective footwear, thick leather gloves and eye protection should be worn.
- It is the operator's responsibility to ensure he/she and all spectators remain at a safe distance. For spectators, this should be at least 1.5 times the rope length being used.
- Check your winch thoroughly, including all electrical connections before use. Any damaged parts should be replaced, using only genuine parts.
- Protect the winch from shock loads - do not allow the winch rope to be yanked by a rolling load or moving vehicle. Never drive your vehicle to assist the winch in any way.
- If a wire rope breaks or pulls loose under load it can lash back with significant force.
- With wire rope, it is a good idea to use a heavy winch blanket/damper draped over the rope towards the hook end to reduce whiplash in the event of rope failure. The vehicle bonnet can be raised to provide additional protection when operating from inside the vehicle.
- Do not use the winch if the rope is frayed or damaged.
- Never handle hook directly, always use hand saver tab and protective gloves.
- Never hook the winch rope back on itself.
- Always electrically isolate the winch when not in use.

- Do not use the winch as a hoist or for overhead lifting.
- Do not use the winch to lift, support or move personnel.
- Always ensure winch rope re-spools in tight and even wraps on the drum, do not allow cable bunching.
- Never attempt to use a synthetic rope with a roller fairlead designed for wire rope.
- Never approach the winch, hook or cable if someone else is at the controls.
- Always be certain the anchor point can withstand the load and will not slip.
- Protect the wireless remote from any possibility of accidental operation.

## 2. PHYSICAL INSTALLATION

**WARNING:** correct installation of your winch is vital for correct and safe operation.

- The winch must be installed onto a suitable mounting location at least 5mm thick. The mounting plate supplied with the winch may be utilised or a proprietary ATV or trailer bracket may also be used providing they are a minimum of 5mm thick and have provision to mount the fairlead in the correct position relative to the winch.
- If the supplied mounting plate is being used. Secure the winch and fairlead using the mounting hardware supplied.
- If an alternative mounting system is being used, please check that the supplied mounting hardware is suitable or replace it with alternative fixings of the same grade. The mounting bolts must be of a length that they engage the retained nuts in the base of the winch without contacting the top of the mounting nut pocket.
- The winch must be mounted with the direction of pull perpendicular to the mounting bolt fixings. See Fig 1
- Manually feed the rope thimble through the fairlead from the back, then attach the clevis hook.
- Disengage the clutch and pull out all the rope fully.
- Re-engage the clutch and re-spool the rope evenly under tension (refer to section 4) ready for use.

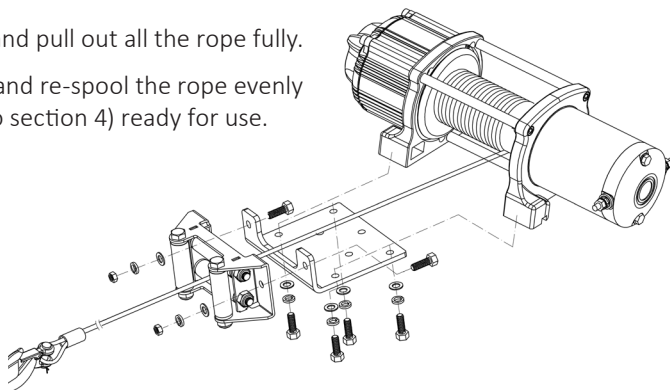


Fig 1.

### 3. ELECTRICAL INSTALLATION

#### WARNING

Do not route electrical cables across sharp edges.

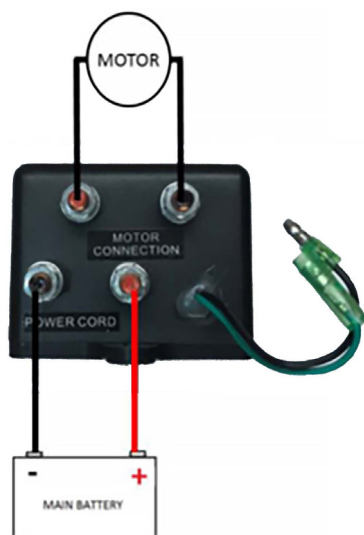
Do not route electrical cables through or near moving parts.

Do not route electrical cables through or near any high heat parts.

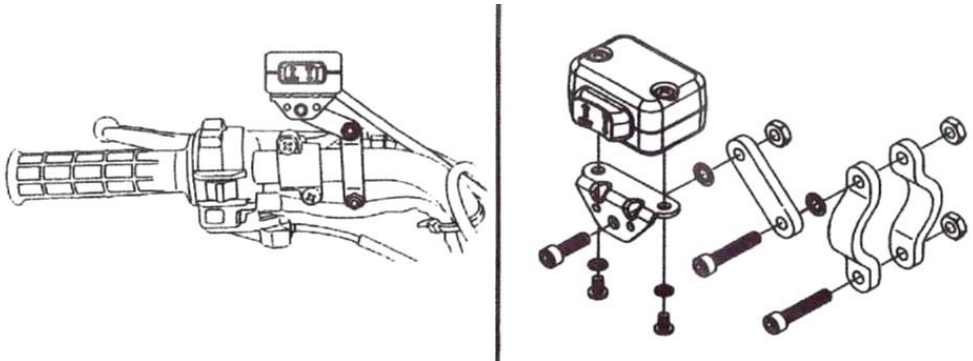
Avoid pinch and wear/abrasion points when installing all electrical cables.

Use caution when moving or repositioning any vehicle controls to not compromise the safe operation of the vehicle. Select a mounting position that will provide clearance for all vehicle controls.

- Ensure your battery is in good condition and can provide a minimum of 250 CCA.
- Regarding the cable lengths, select a location for your control box which is as clean and dry as possible (e.g. under the seat) and provides adequate clearance to ensure all electrical connections are well clear of any metalwork which could cause a short circuit.
- Connect the cables in accordance with Fig. 2.
- Before connection fit the supplied black rubber cable boots to the four cable ends connecting to the control box and the two ends connecting to the winch motor. Once the connections are made, slide the cable boot over the terminal to protect it.
- Route the power leads directly to the battery location, ensure that the cable is protected throughout its run from heat, abrasion and sharp edges.
- Attach the handlebar rocker switch to a convenient location (left handlebar is recommended – see Fig 3) and connect the two control wires to the corresponding bullet terminals on the end of the short trailing leads from the control box.



*Fig 2 Battery & motor connections to control box*



*Fig 3 Handlebar switch attachment*

- The power feed (thin red wire) should be connected to an ignition operated supply (so the handlebar switch will only operate when the vehicle ignition is turned on) or to a permanent battery positive feed if the winch is required to operate without the vehicle ignition (not recommended).
- When you are satisfied that all connections are correctly installed connect the red power lead to the battery positive terminal (via an isolator switch and the overload cut out if being used) and connect the black power lead to the negative battery terminal (never use a chassis earth).

### **Notes**

- If you need to extend the cables, use a minimum of 25mm<sup>2</sup> flexible automotive cables.
- Always fit a battery isolator switch to the positive supply line to allow for emergency stop and to prevent unintentional starting and protect the winch if the vehicle is jump-started.
- All earth connections must be fed from the battery, never attempt to use a chassis earth.
- Check all connections are secure and protect from corrosion with petroleum jelly, copper grease or similar.
- If there is an overload circuit breaker supplied, please mount this in line with the positive supply (fix one end to the battery terminal, and connect the positive supply lead to the winch on the other).
- Do not use a roller fairlead with synthetic rope as this can trap and damage the fibres.

## Remote Control

- The winch is supplied with two types of remote control. (a) handlebar rocker switch (b) twin handset wireless remote controls. The handlebar switch is considered to be the primary control system and allows very precise control and should always be installed.
- The wireless remote control receiver is pre-installed into the control box.
- To power on the transmitter hold down both buttons for approximately 3 seconds until the power light illuminates.
- To power off the transmitter repeat the process.
- If the transmitters are left on and unused for approximately 5 minutes they will auto power-off to preserve the battery.
- Always keep the wireless transmitters safe and dry and protect them from unauthorized/accidental operation.



## 4. CONNECTING AND SPOOLING THE ROPE

- This should be undertaken on a large open and level area.
- First, lay out the rope in front of the winch ensuring there are no twists or kinks.
- With the winch clutch disengaged, feed the drum end of the rope through the front of the roller/hawse fairlead and connect to the drum.
- If the winch has a 'through the drum' type fixing, undo the Allen head grub screw and feed the end of the rope through the hole until it is visible on the other side, Secure the grub screw.
- The rope must be wound onto the drum from the bottom of the drum.
- Grip the rope with gloved hands and at least 5m back from the winch apply as much pressure as you can by leaning your body weight against the rope and walking towards the winch whilst using the wireless remote to wind in. Ensure that each wrap lays tightly next to the other until the rope tensions against the anchor point. There should be at least 5 wraps around the drum.

- When the rope is all but approx. 2m spooled in, using the hand saver to hold the hook and continue to wind in maintaining tension on the rope, pulse the remote to take in the remaining rope and then anchor the hook onto a suitable mounting point on the vehicle.
- Attach the hook end to a suitable anchor point allowing approximately 3m of slack rope.

### **Notes**

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• It is important to understand that it is the first 5-6 tight wraps around the drum in conjunction with the drum terminal fixing that allows the wire or synthetic rope to achieve full load attachment onto the drum.</li> <li>• The drum fixing is not full load-bearing, it is primarily designed to allow the cable to be wound on under sufficient load for it to wrap tightly</li> </ul> | <p>onto the drum and provide full load holding ability.</p> <ul style="list-style-type: none"> <li>• When wire rope is new it is greasy and springy and can easily unwind on the drum if tension is ever released.</li> <li>• If the outer wraps of a wire rope do 'unwind' then you must pull the whole rope out and re-spool under tension. Failure to observe this will result in the failure of the drum fixing.</li> </ul> |
|--|---|

## **5. WINCH OPERATION**

- Before each operation undertake a thorough check to ensure there are no damaged components and that all fixings are sound and secure.
- Switch on the battery isolator if fitted.
- Power out (for a short distance) or free-spool the cable out and connect to a suitable anchor point.
- Take up the slack and re-check all cable rigging before proceeding.
- To commence winching, start the vehicle engine and with the transmission in neutral operate the winch whilst guiding the path of the winch with the vehicle steering until free.
- You must ensure that the cable winds evenly onto the drum. Acute angle winching can result in rope bunching on the drum which could force the cable between the drum flange and/or break out the winch crossbars.
- When the operation has been completed, the rope should be pulled out and re-spooled as per (4) ready for the next use.

## 6. MAINTAINING YOUR WINCH

- The winch should be exercised at least once a month: Power out approx. 5m of cable, free spool 5m, then power back in under minimum 50kg load.
- Replace remote control batteries every 12 months or when exhausted.
- Fit a protective winch cover when the winch is not in use.
- All moving parts are permanently lubricated with grease and with normal use do not need greasing for the life of the winch.
- Clean your winch after use, use only low-pressure water and a brush to rinse off any dirt. Run the winch for a minute or two after cleaning to warm up the motor and assist in drying.
- Once dry you should use a light spray oil to coat the winch and wire rope before installing the winch cover.
- The winch should not be immersed in dirty water.

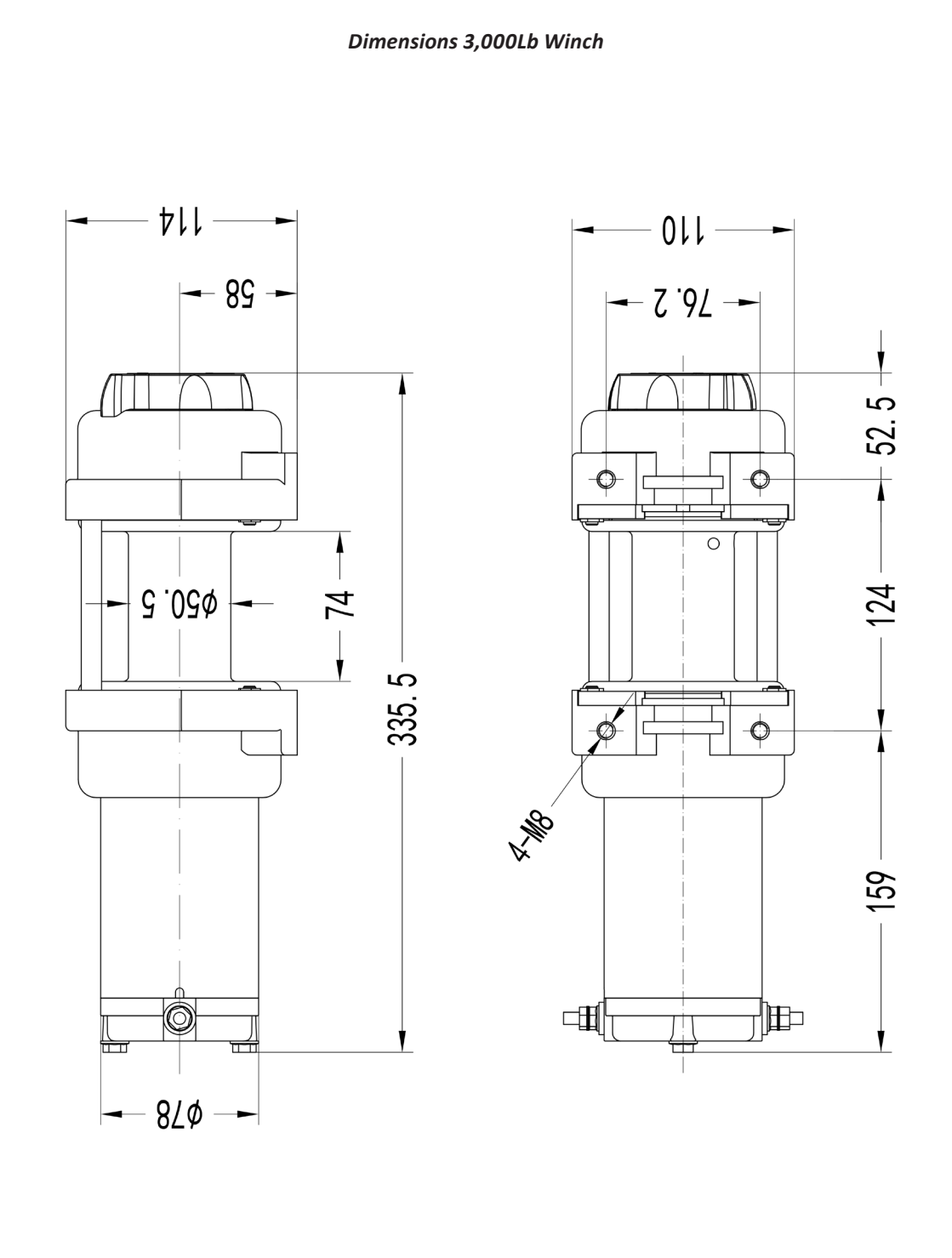
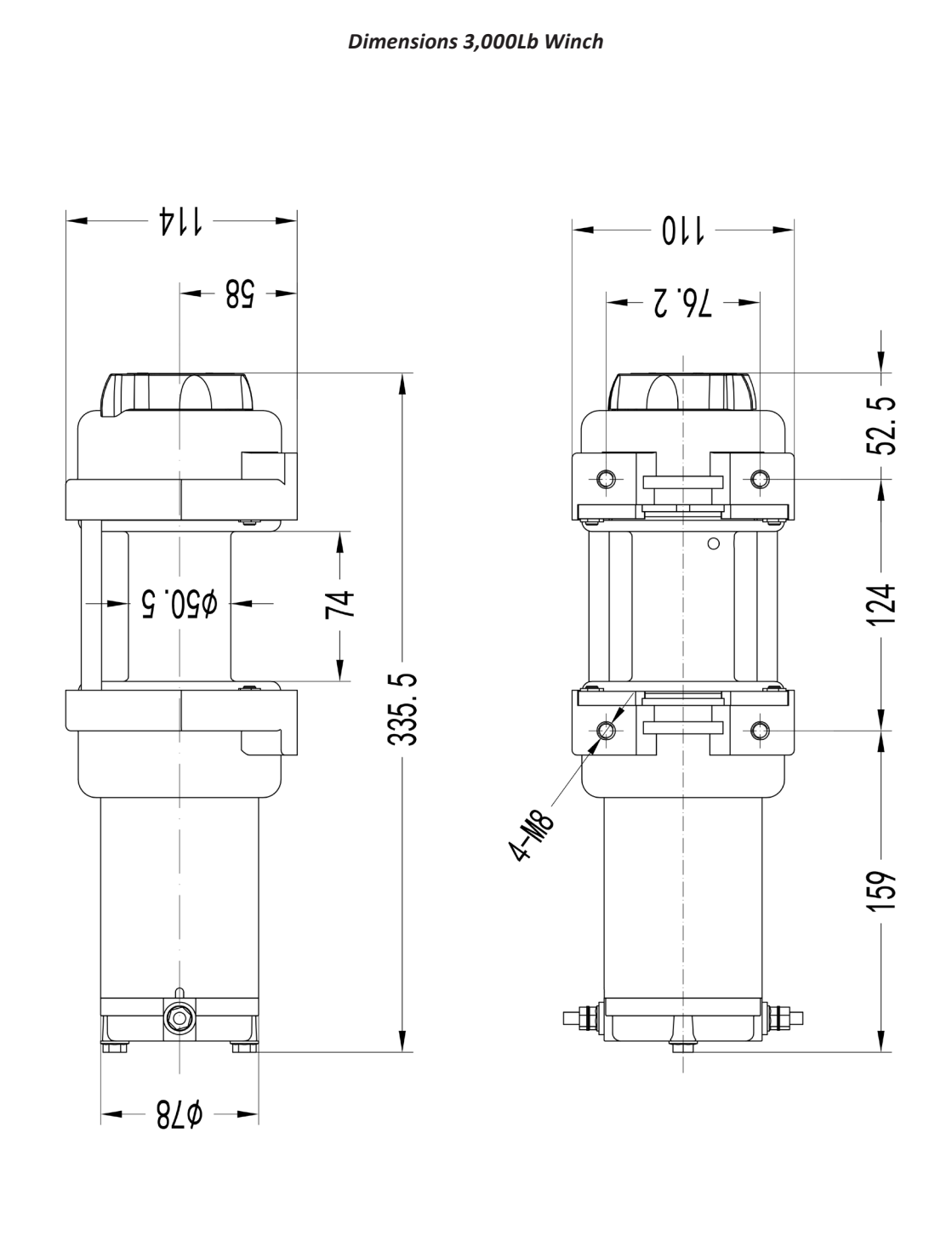
## 7. SYNTHETIC ROPE

- Do not allow the rope to contact sharp or abrasive objects.
- Do not expose to strong detergents, fuels, oils or anti-freeze solutions.
- After use; pull out the rope, wash, dry and carefully re-spool onto the drum.

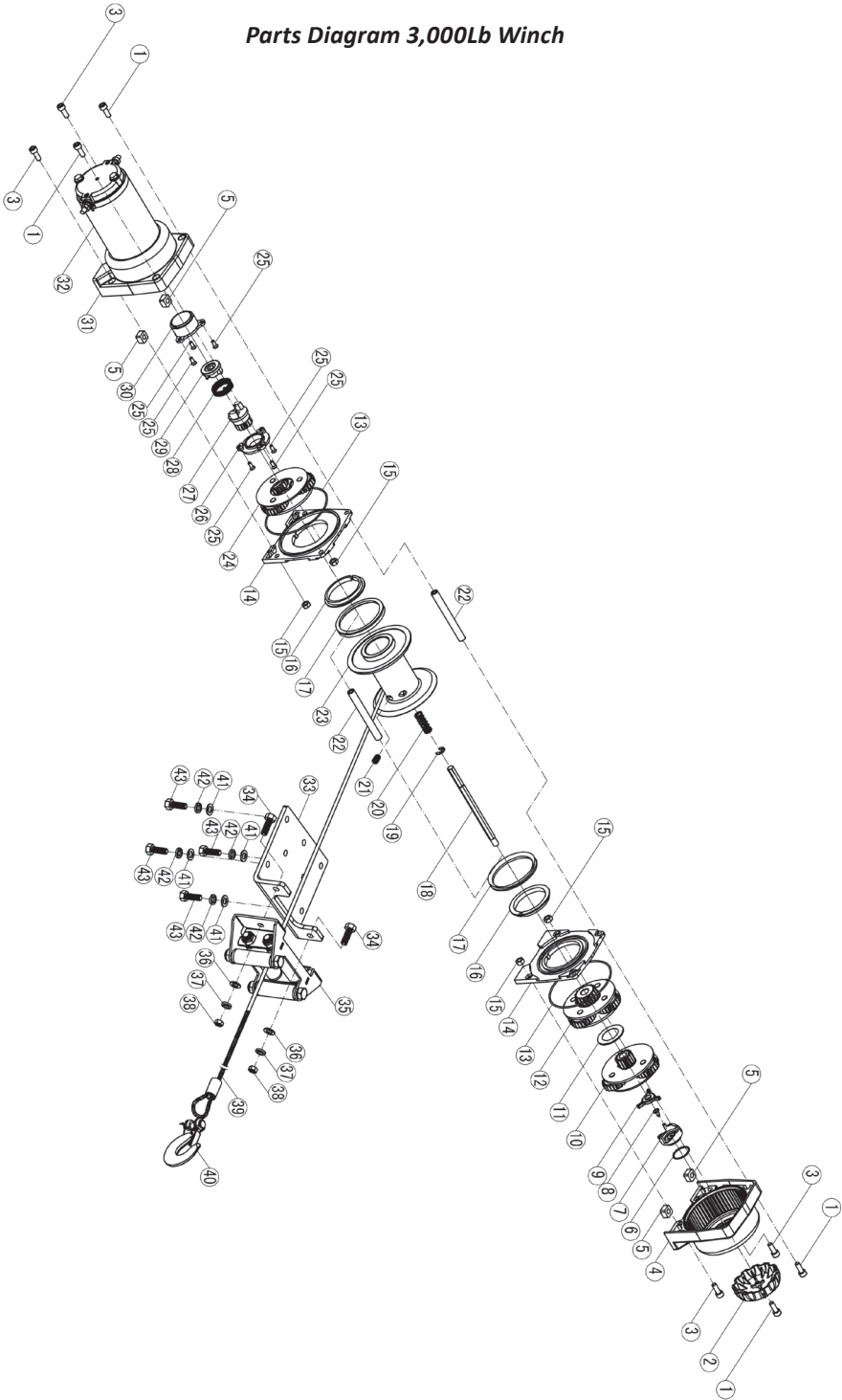
### **Notes**

- Your winch is not designed to be used continuously but instead to provide the high load short duration pulls required to recover an off-road vehicle from difficulty.
- Never allow the winch motor to stall.
- Whenever you operate your winch it will generate heat in the motor, high loading and/or long or repeated operation can cause the motor to overheat. Always monitor motor temperature; if the motor becomes too hot to comfortably hold your bare hand on stop operation immediately and allow to cool before further use.
- Do not exceed the maximum rated load of your winch.
- We recommend the use of a snatch block and double line technique for any loads exceeding 50% of the winch rating. Always anchor hook back to suitable chassis fixing not the winch mounting plate.
- Keep the vehicle engine running while winching to maintain battery charge.
- A minimum of 5 tight wraps on the drum must be maintained to prevent failure of drum fixing.
- Do not attempt to disengage the clutch will under load.
- Do not attempt to re-engage the clutch while the winch is running.
- Never drive your vehicle to assist the winch in any way.





Parts Diagram 3,000Lb Winch



### Parts List 3,000lb Winch

No.	Description	Qty.
1	Socket head screw	4
2	Clutch knob	1
3	Socket head screw	4
4	Gear box	1
5	Nut	4
6	O Ring	1
7	Clutch knob base	1
8	Screw	1
9	Fork pin	1
10	2nd stage planetary gear	1
11	Spacer	1
12	3rd stage planetary gear	1
13	O Ring	2
14	Gear box cap	2
15	Nut	4
16	Nylon bearing	2
17	Seal	2
18	Drive shaft	1
19	Clip	1
20	Spring	1
21	Screw	1
22	Tie bar	2

No.	Description	Qty.
23	Drum	1
24	1st stage planetary gear	1
25	Screw	6
26	Locating ring	1
27	Brake caliper	1
28	Spring	1
29	Brake base	1
30	Brake house	1
31	Gearbox (motor side)	1
32	Motor Assy	1
33	Mounting plate	1
34	Bolt	2
35	Roller Fairlead	1
36	Washer	2
37	Lock washer	2
38	Nut	2
39	Wire Rope	1
40	Hook 1/4	1
41	Washer	4
42	Lock Washer	4
43	Bolt	4

### ***Specifications 3,000lb Winch***

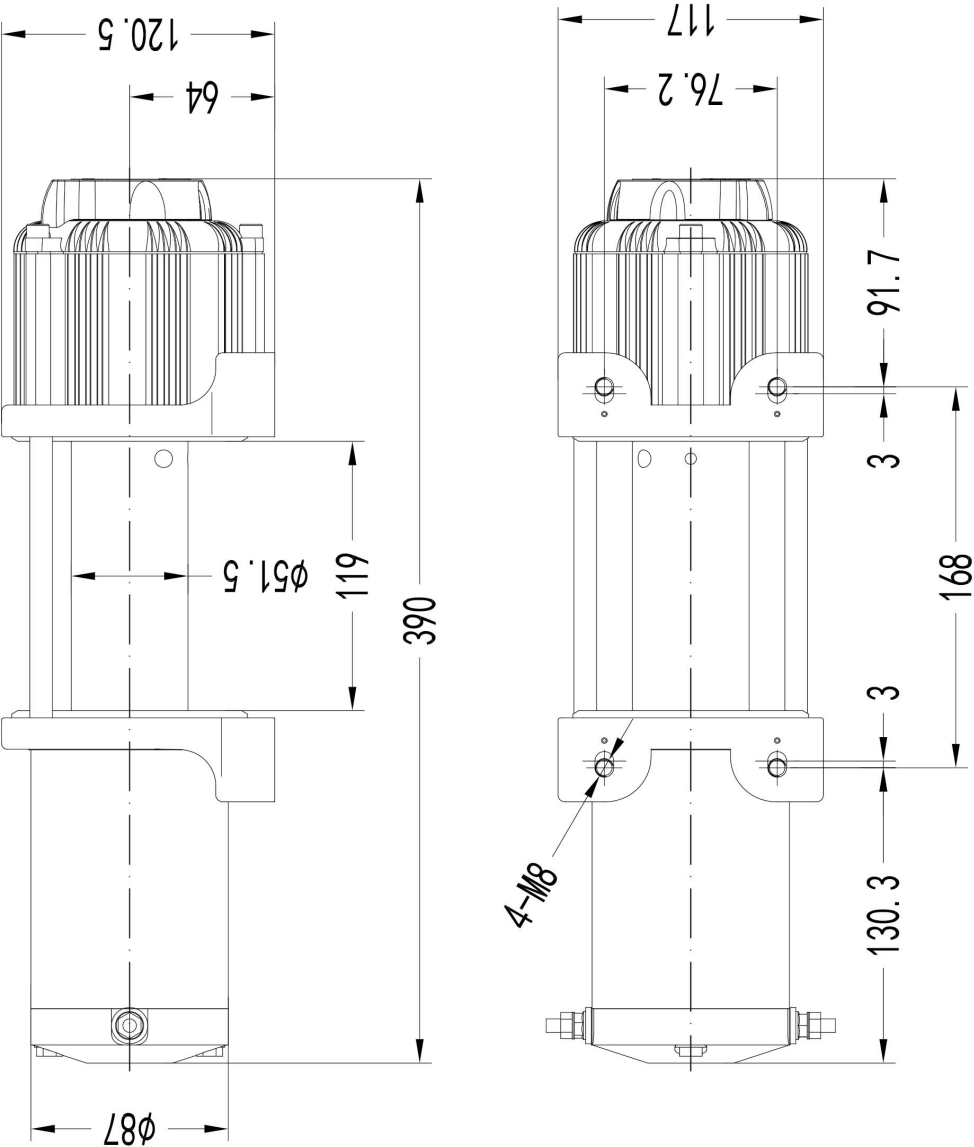
Single Line Rated Pull	3,000lb (1,361kg)
Motor	12v 1.5hp Permanent Magnetic Motor
Control	Twin Wireless Remote in/out Plus Handlebar-Mounted Rocker Switch
Gear Train	3 Stage Planetary
Gear Reduction Ratio	136:1
Clutch	Cam Activated Free Spool
Braking Action	Automatic Full Load Hold
Drum Size	Diameter 50mm (2.0") length 75mm (2.9")
Drum Finish	Aluminium
Cable	15m x 5mm Galvanized Steel Wire Rope
Hook	Clevis Hook 1/4 Inch, Zinc plated.
Fairlead	4 Way Roller Fairlead
Battery	Recommended 12Ah Minimum for Winching
Battery Leads (x2)	6 gauge, 1.7m (67") 15mmsq - 4.2mm diameter
Motor Leads (x2)	6 gauge, 0.9m (36") 15mmsq - 4.2mm diameter
Winch Finish	Original Orange powder coated
Weight (GW)	12kg (26.5lb)
Overall Dimensions	339 x 110 x 114 mm (LxWxH)
Mounting Bolt Pattern	120 x 76 mm
Motor Current	15-200A
No Load Line Speed	8.3m/min (27.2 ft/min)

Layer Rated	Line pull (Lb)	Line Pull (Kg)
1	3000	1361
2	2561	1162
3	2234	1013
4	1981	899
5	1779	807

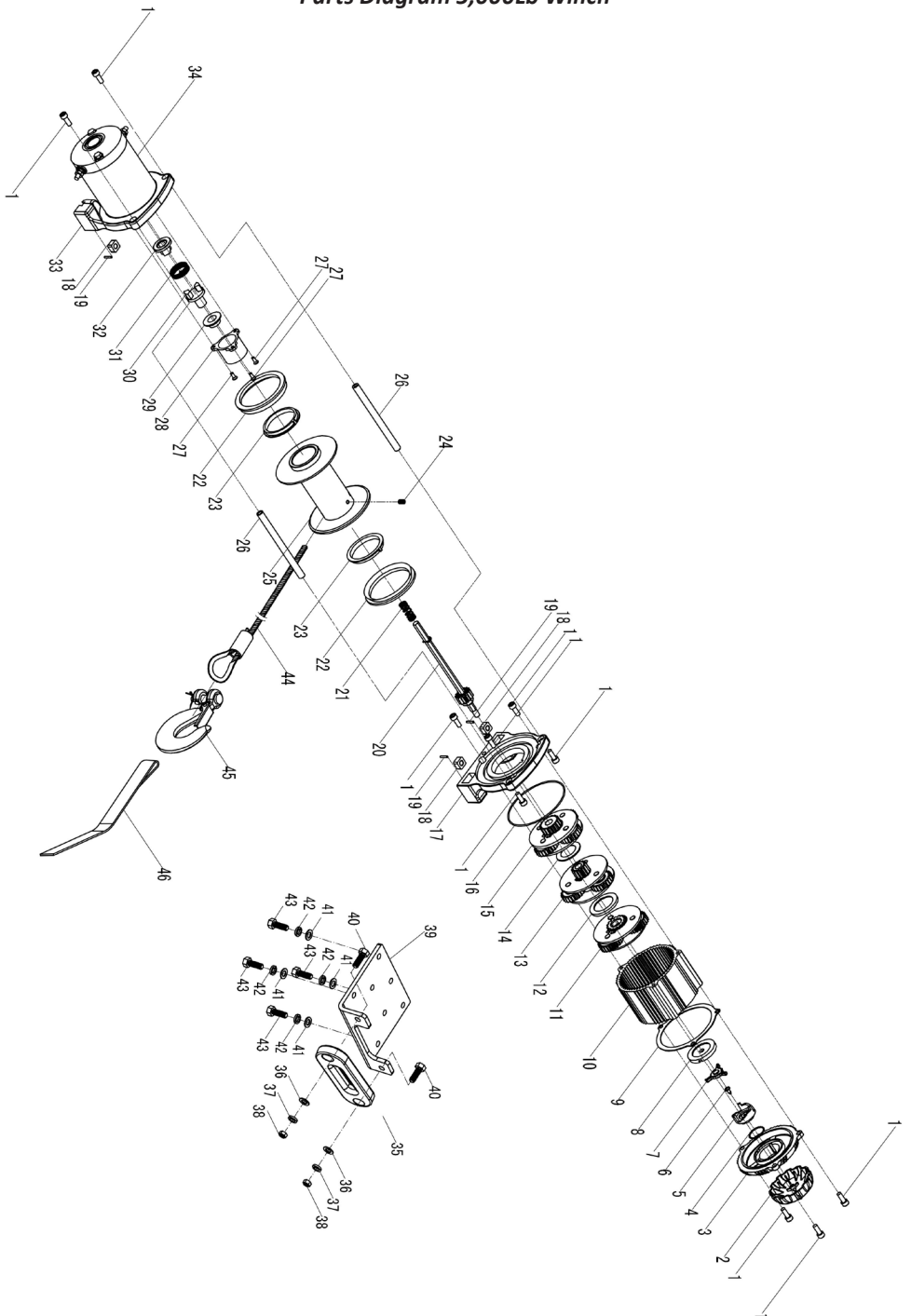
***Performance figures are based on the first layer of rope on the drum***

Line Pull (lb/kg)	Line Speed ft/min (m/min)	Motor (Amps)
0 (0)	15.7ft (4.8m)	20
1500 (680)	10.8ft (3.3m)	110
2250 (1021)	9.8ft (3.0m)	150
3000 (1361)	5.6ft (1.7m)	230

Dimensions 5,000Lb Winch



**Parts Diagram 5,000Lb Winch**



### Parts List 5,000lb Winch

No:	Description	Qty.
1	Socket head screw	10
2	Clutch knob	1
3	Cover of gear box	1
4	O Ring	1
5	Clutch knob base	1
6	Screw	1
7	Fork pin	1
8	Inner Supporter	1
9	Gasket ring	1
10	Ring Gear	1
11	1st stage planetary gear	1
12	Bulkhead	1
13	2nd stage planetary gear	1
14	Bulkhead	1
15	3rd stage planetary gear	1
16	O Ring	1
17	Gear box Base	1
18	Nut	1
19	Elastic Pin	4
20	Shaft Assy	4
21	Spring	1
22	Gasket ring	2
23	Nylon bearing	2

No:	Description	Qty.
24	Screw	1
25	Drum	1
26	Tie bar	2
27	Screw	3
28	Brake house	1
29	Brake caliper	1
30	Locating ring	1
31	Spring	1
32	Brake base	1
33	Gear box (motor side)	1
34	Motor Assy	1
35	Fairlead	1
36	Washer	2
37	Lock washer	2
38	Nut	2
39	Mounting plate	1
40	Bolt	2
41	Washer	4
42	Lock Washer	4
43	Nut	4
44	Synthetic rope	1
45	Hook 1/4	1
46	Hand Strap	1

## ***Specifications 5,000lb Winch***

Single Line Rated Pull	5,000lb (2,268kg)
Motor	12v 1.5hp Permanent Magnetic Motor
Control	Twin Wireless Remote in/out Plus Handlebar-Mounted Rocker Switch
Gear Train	3 Stage Planetary
Gear Reduction Ratio	166:1
Clutch	Cam Activated Free Spool
Braking Action	Automatic Full Load Hold
Drum Finish	Steel - Painted Black
Cable	15.2m x 6.3mm Galvanized Steel Wire Rope
Hook	Clevis Hook 1/4 Inch, Zinc plated.
Fairlead	4 Way Roller Fairlead
Battery	Recommended 12Ah Minimum for Winching
Battery Leads (x2)	10mm <sup>2</sup> x 180cm
Motor Leads (x2)	10mm <sup>2</sup> x 90cm
Winch Finish	Original Orange powder coated
Weight (GW)	16.2Kg (35.7lb)
Overall Dimensions	390 x 120 x 117mm (LxWxH)
Motor Current	15-296A
No Load Line Speed	6.1m/min (20.0ft/min)

Layer Rated	Line pull (Lb)	Line Pull (Kg)
1	5000	2268
2	4080	1851
3	3450	1565
4	2985	1354

*Performance figures are based on the first layer of rope on the drum*

Line Pull (lb/kg)	Line Speed ft/min (m/min)	Motor (Amps)
0 (0)	22.3ft (6.8m)	20
1250 (567)	13.1ft (4.0m)	77
2500 (1134)	11.8ft (3.6m)	124
3750 (1700)	9.2ft (2.8m)	188
5000 (2268)	4.9ft (1.5m)	286



## ***Troubleshooting***

Symptom	Possible cause	Remedy
Winch will not operate	Loose, cut or damaged wiring	Check all wiring carefully to ensure good condition
	The remote battery is critically low	Replace remote battery or use the wired remote
	Wireless signal strength is low	Decrease the distance between remote and winch
	Defective remote control	Test with the wired remote, replace wired remotes
Runs in only one direction	Loose, cut or damaged wiring	Check all wiring carefully to ensure good condition
Will not free spool	Free spool not dis-engaged	Disengaged free spool
No Brake	Disengaged free spool	Engaged free spool
Winch runs in opposite direction	Motor leads crossed	Reverse electric connections to motor
	Solenoid control crossed	Reverse black and red wires on solenoid
	Remote control or trigger switch crossed	Reverse electric connections
Motor runs extremely hot	Long period of operation	Stop operation to let the unit cool down
	Weight overload	Reduce load



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