



## INSTRUCTIONS FOR:

# SELF RECOVERY WINCH 2720kg, 4300kg, 5400kg LINE PULL 12V MODEL No's: SRW2720(KG), SRW4300(KG), SRW5450(KG)

Thank you for purchasing a Sealey product. Manufactured to a high standard this product will, if used according to these instructions and properly maintained, give you years of trouble free performance.

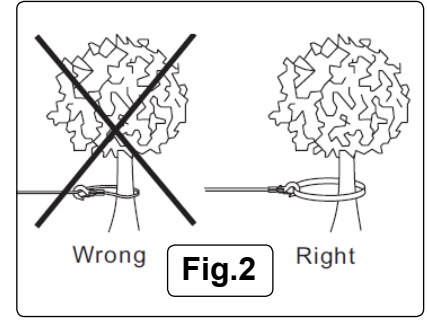
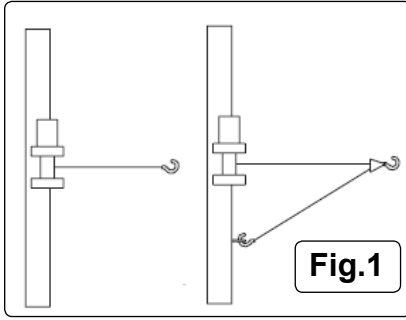


**IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS & CAUTIONS. USE THE PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY. PLEASE KEEP INSTRUCTIONS SAFE FOR FUTURE USE.**

### 1. SAFETY INSTRUCTIONS

- WARNING!** Winching a vehicle, especially with a steel cable, has an inherent danger element to it, and there is always some risk of injury. Proper training is highly advised and constant risk assessment needs to be undertaken.
  - WARNING!** Never connect DC powered winches to AC current. Motor damage or fatal shock may occur.
  - DO NOT** lift or hoist loads over people. **DO NOT** lift loads vertically. The winch was designed for ground use only.
  - DO NOT** overload. Be sure all equipment used meets the winch's maximum line pull rating. We recommend using the pulley block option to double line the wire rope (see fig.1). Double line with a pulley block to reduce the load on the winch, wire rope and battery. When double lining, pulley blocks should be rated to a minimum of two times the winch's line pull rating. The cable may break before the winch stalls. For heavy loads use a pulley block to reduce the load on the cable.
  - DO NOT** immerse the winch in water. Doing so will immediately effect load holding and brake efficiency and in time will damage the motor and cause accelerated gearbox wear invalidating the warranty.
  - DO NOT** operate the winch with less than 5 turns of wire rope around the winch drum, since the wire rope end may not withstand the full load.
  - DO NOT** let the wire rope to build up on one end of the drum, this will break the tie bars from the castings, will damage the wire rope, and invalidate the warranty.
  - WARNING!** The winch's line pull capacity is the maximum line pull of the first layer. Never operate a winch by pulling a load that is at or over the rated capacity.
  - DO NOT** hook the wire cable back to itself because it could damage the wire rope. Use a Self Recovery Kit, (see fig.2) contact your dealer for full details..
  - Make sure the winch is securely mounted on the vehicle or bracket before operation.
  - Before moving a load inspect the wire rope. Prevent kinks and uneven wire layering before they occur. Loosened wire rope must be properly tensioned under a load of about 100lbs (45.4kg).
  - Position a Wire Rope Dampener (available as an optional extra) over the wire rope near the hook end when pulling, as this will slow the snap back of a broken wire rope and reduce/prevent serious injury and/or damage.
  - DO NOT** move your vehicle to assist the winch in pulling the load. It will be easy to overload, and cause wire rope damage.
  - DO NOT** enter the danger zone. Keep away from the danger zone during operation. The danger zone is the area of the winch drum, the fairlead (if fitted), the wire rope, the pulley block (if used), and the hook.
  - DO NOT** approach or span the wire rope when the winch is under load.
  - When using the winch to move a load, place the vehicle transmission in neutral, apply the handbrake and chock all wheels. The vehicle engine should be running during winch operation so that the battery is fully charged. Never use the winch if there is any doubt as to the efficiency of the battery.
  - DO NOT** disconnect the free spool clutch when there is load on the winch.
  - After operation release the load immediately. **DO NOT** allow the cable to tighten anymore.
  - Inspect winch, wire rope, hooks and other accessories frequently. A mashed, pinched, kinked or frayed wire rope with broken strands should be replaced at once because a damaged wire rope has a reduced load carrying capability and could break easily.
  - Keep tension on the cable to re-spool the cable on the drum tightly after operating. It must be respooled with a load of about 45.4kg (100lbs).
  - DO NOT** allow the wire rope to slide through your hands, use heavy rigger gloves when handling wire rope.
  - Disconnect the clutch first then use the hand saver strap to hitch the hook and pull the wire rope. **DO NOT** pull the wire rope using your finger and do not put your finger through the hook.
  - DO NOT** operate the winch when under the influence of drugs, alcohol or medication.
  - If there is something wrong with the winch, cut the power at once, then check it carefully. If required, return it to your dealer for servicing.
  - Wear eye protection, insulated work clothes, non-slip shoes, keep hair tied up and wear rigger gloves. Remove all jewellery.
  - DO NOT** machine or alter the winch in any way.
  - Take good care of the winch when not in use.
  - WARNING!** Unplug the remote control before working in or around the fairlead or the wire rope drum, (the danger zone). Never tuck it under your arm or allow anyone to hold it when you are in the danger zone, so as to avoid the hand control being accidentally activated.
  - WARNING!** Do not use the winch to hold loads in place. Use other means of holding loads such as tie down straps.
  - WARNING!** If you are within four feet of the winch do not hold the wire rope and remote control at the same time.
  - WARNING!** Mount the winch to a firm base. Be sure that your structural support is strong enough to withstand the weight and rated pulling strength of the winch.
- NOTE:** Whilst mounting orientation is at your discretion, the winch is to be operated with the wire rope in an under wound orientation on the drum. The winch is designed to rope out and rope in, in one direction. **DO NOT** attempt to reverse the operation of the winch.
- WARNING!** Do not weld or machine any part of the winch, this will weaken it and void the warranty.
  - WARNING!** Batteries contain explosive gases. The following precautions should be taken before making battery connections: wear eye protection; remove all jewellery; follow the wiring diagram included in the installation instructions; keep spectators away. In the event of a battery explosion, acid should be washed away as soon as possible, seek medical help immediately.
  - WARNING!** Use of any other accessories or attachments other than those recommended in this instruction manual may result in personal injury or property damage and could void the warranty.

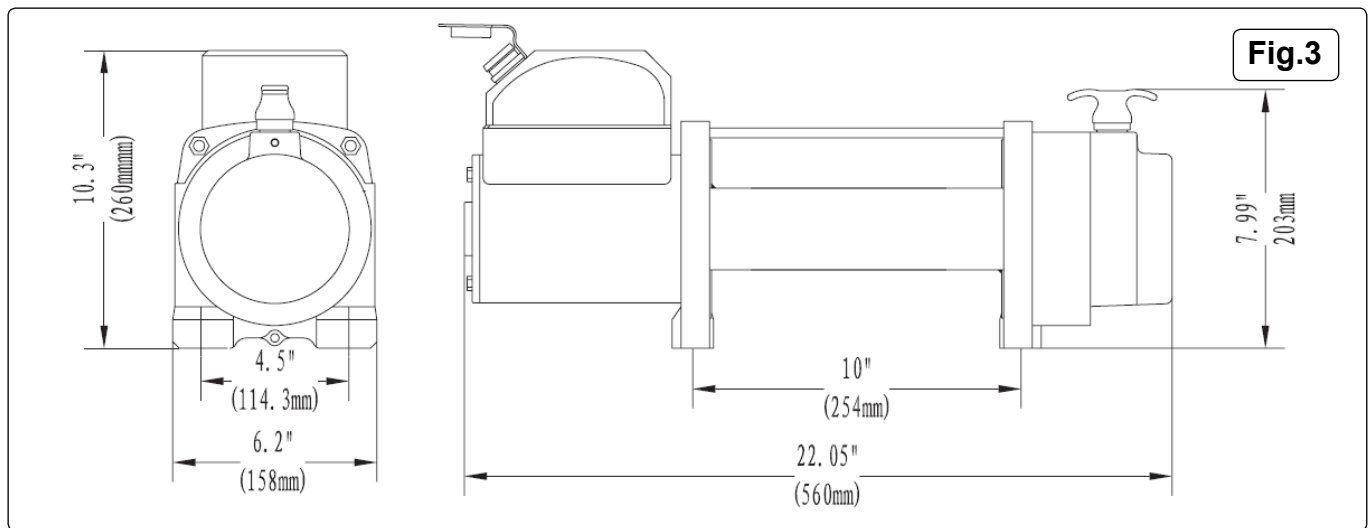
**NOTE:** The safety precautions and instructions discussed in this manual can't cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product but must be applied by the operator.



## 2. SPECIFICATIONS & PERFORMANCE

The Self Recovery Winch range is designed and built with the toughest jobs in mind. Three models ranging from 2750kg line pull to 5450kg line pull. All have 3 stage planetary gears using over sized components for greater torque plus automatic 'in drum' brake. All models feature weather sealed solenoids and ergonomic 'lift and turn' free spool clutches. Supplied with units: wire rope with latched hook, 4 way roller fairlead with mounting bracket and plug-in hand held controller included as standard.

Model No:	SRW2720	SRW4300	SRW5450
Voltage:	12V	12V	12V
Line Pull*:	2720kg	4300kg	5450kg
Motor Power:	1.7kW	1.9kW	2kW
Gear Ratio:	196.6:1	196.6:1	196.6:1
Line Speed*:			
No Load:	3.6mtr/min	4.3mtr/min	4.3mtr/min
At Maximum Load:	1.7mtr/min	1.6mtr/min	0.6mtr/min
Current Draw:			
No Load:	90A	90A	90A
At Maximum Load:	350A	420A	460A
Cable Ø:	7.2mm	9.2mm	9.2mm
Cable Length:	32mtr	26mtr	26mtr
Winch Weight:	35.6kg	41.8kg	42.0kg
Gross Weight:	42.5kg	49.5kg	49.5kg
Replacement Rope Wire:	SRW2720.WR	SRW5450.WR	SRW5450.WR
Dyeena Rope:	SRW2720.DR	SRW5450.DR	SRW5450.DR
Aluminium Hawse:	See catalogue for size options to suit your requirements.		



### PERFORMANCE SPECIFICATIONS

CHART 1.

Single line rated pull	2720kgs	4300kgs	5450kgs
Gear reduction ratio	196.6:1	196.6:1	196.6:1
Motor (series wound)	1.7kw 2.3hp	1.9kw 2.5hp	2.0kw 2.7hp
Overall dimensions	560 x 158 x 260mm 22.05" x 6.2" x 10.3"	560 x 158 x 260mm 22.05" x 6.2" x 10.3"	560 x 158 x 260mm 22.05" x 6.2" x 10.3"
Drum size	φ63 x 224mm 2.48" x 8.8"	φ63 x 224mm 2.48" x 8.8"	φ63 x 224mm 2.48" x 8.8"
Cable length	φ7.2 x 32m 9/32" x 105'	φ9.2 x 26m 3/8" x 85'	φ9.2 x 26m 3/8" x 85'
Net weight	78.4lb (35.6kg)	92.1lb (41.8kg)	92.5lb (42.0kg)

**LINE PULL AND LINE SPEED** vary according to how much cable is on the drum. The winch is rated at the first layer of cable on the drum. The maximum line pull force will be reduced by subsequent layers of cable on the drum. Chart 2 illustrates the maximum line force at increasing cable layers.

**CHART 2.**

**2720kgs winch line pull and cable capacity**

Layer of cable		1	2	3	4
Rated line pull per layer	lbs	6000	4979	4255	3714
	kg	2720	2260	1932	1686
Cable capacity per layer	Ft.	22.5	48.7	78.4	105
	m	6.9	14.9	23.9	32

**4300kgs winch line pull and cable capacity**

Layer of cable		1	2	3	4
Rated line pull per layer	lbs	10000	7969	6624	5667
	kg	4300	3618	3007	2573
Cable capacity per layer	Ft.	18.1	39.9	65	85
	m	5.5	12.2	19.8	26

**5450kgs winch line pull and cable capacity**

Layer of cable		1	2	3	4
Rated line pull per layer	lbs	12000	9569	7949	6801
	kg	5450	4344	3609	3088
Cable capacity per layer	Ft.	18.1	39.9	65	85
	m	5.5	12.2	19.8	26

**CHART 3.**

**2720kgs winch Line speed and motor current (first layer)**

Line pull	lbs	0	2000	4000	5000	6000
	kg	0	908	1816	2270	2720
Line speed	(12V)FPM	11.81	9.84	7.87	5.58	5.58
	(12V)MPM	3.6	3	2.4	1.8	1.7
Motor current	(12V)Amps	90	160	220	330	350

**4300kgs winch Line speed and motor current (first layer)**

Line pull	lbs	0	4000	6000	8000	10000
	kg	0	1816	2724	3632	4300
Line speed	(12V)FPM	14.1	9.8	8.9	6.2	5.2
	(12V)MPM	4.3	3	2.7	1.9	1.6
Motor current	(12V)Amps	90	220	260	365	420

\* Use double line and block for pulling loads over 5,000lb / 2272kg.

**5450 winch Line speed and motor current (first layer)**

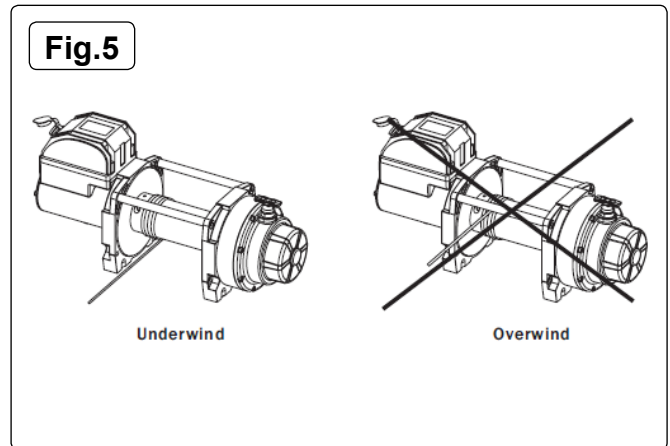
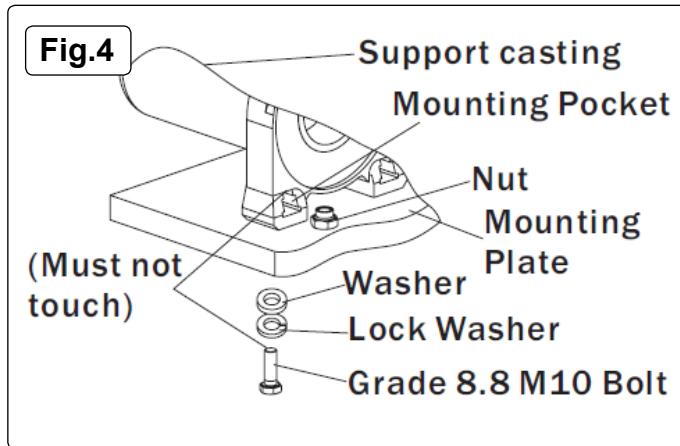
Line pull	lbs	0	4000	6000	8000	12000
	kg	0	1816	2724	3632	5450
Line speed	(12V)FPM	14.1	9.8	8.9	6.2	2.0
	(12V)MPM	4.3	3	2.7	1.9	0.6
Motor current	(12V)Amps	90	220	260	365	460

\* Use double line and block for pulling loads over 10,000lb / 4540kg.

### 3. INSTALLATION

#### 3.1 WINCH INSTALLATION

- 3.1.1 The winch needs to be mounted onto a steel mounting using the 4 point foot mounting system, in either a horizontal or vertical plane.
- 3.1.2 The winch needs to be mounted on a flat surface so that the three sections (motor, cable drum and gear housing) are properly aligned.
- 3.1.3 Before installation ensure the mounting position being used is capable of withstanding the winch weight and the rated capacity.
- 3.1.4 Use the dimensions in fig.3 to manufacture a steel mounting plate, a minimum of 6mm thick. Fasteners should be high tensile steel, grade 5 or better. A poorly designed mount may invalidate the warranty.
- 3.1.5 The winch should be secured to the mounting with grade 8.8 M12 bolts and spring washers, see fig.3.



#### 3.2 ELECTRICAL INFORMATION

**WARNING!** This winch works on standard automotive 12V DC only, **never** connect this winch to a 230V mains; solenoid burnout or fatal shock may occur.

For normal self-recovery work, your existing electrical system is adequate. A fully charged battery and proper connections are essential. Run the vehicle engine during winch operation to keep the battery charged. Pay close attention to the electrical connections below, ensure that they are made correctly.

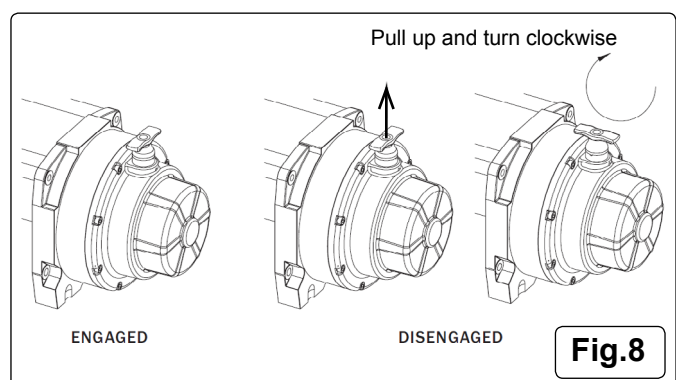
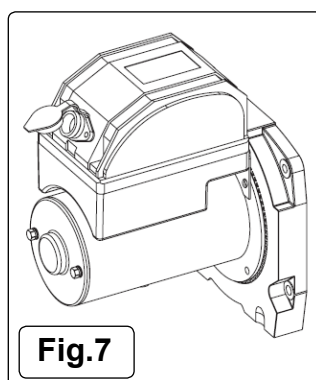
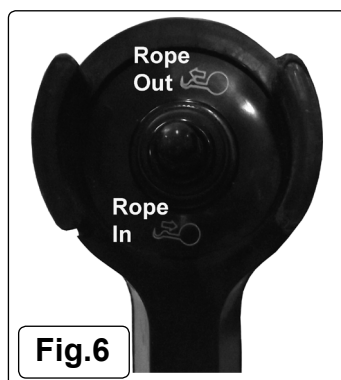
**NOTE:** For best performance a battery with 440 cold cranking ampere capacity and a 60 amp alternator are the minimum recommended power source. If the winch is in heavy use, an auxiliary battery and heavy duty alternator with isolator are recommended.

**NOTE:** Your battery must be kept in good condition. Make sure the battery cables are not drawn across any surfaces which could possibly damage them. Corrosion on electrical connections will reduce performance or may cause a short circuit. Keep all connections clean especially in the remote control switch and receptacle. In salty environments use silicon sealer to protect from corrosion.

#### 3.3 ELECTRICAL LEAD WIRE ATTACHMENT

- 3.3.1 Disconnect the vehicle battery.
- 3.3.2 The battery lead wires from the winch should be routed to the vehicle battery. To protect against abrasion fit grommets or sleeving where wiring may come into contact with sharp metal parts of the vehicle. Connect the red lead to the positive (+) terminal and the black lead to the negative (-) terminal of the battery.
- 3.3.3 Reconnect the battery, positive terminal first, then the negative. Rotate the clutch lever to the "disengaged position". Pull several metres of cable off the drum. Return the clutch lever back to the "engaged position". Plug in the remote switch assembly, refer to fig.6. Switch the hand control to "rope out" position. Pull the trigger momentarily to check cable drum rotation direction. If the drum rotates in the wrong direction, recheck the wiring.

**WARNING!** Double check the wiring. Incorrect wiring could result in motor burn out and/or personal injury.



### 4. OPERATING INSTRUCTIONS

**WARNING!** The switch assembly must be kept free of dirt and moisture to ensure safe operation.

- 4.1 The hand held switch activates power to the winch motor. To connect the remote control remove the waterproof plug cover and insert the control cable plug and turn the securing ring clockwise to lock see fig.7. The plug on the control cord is keyed and will only fit the socket one way. The switch trigger returns to the "Off" position when released. To change direction, press the rocker in the other direction, see fig.7.
- 4.2 **PULLING OUT THE WIRE ROPE**  
The wire rope has been installed on the winch under minimal load at the factory. It must be respooled onto the drum so the outer layers will not draw down into the inner layers, causing damage to the rope.
  - 4.2.1 Pull and rotate the clutch lever to the, "disengaged" position as shown in fig.8. If there is a load on the wire rope, the clutch lever may not turn easily. **DO NOT** force the clutch lever. Release the tension on the wire rope by paying out some of the wire rope, then try releasing the clutch.
  - 4.2.2 Pull out the wire rope and secure it to an anchor or a load.

- 4.2.3 Check that there are at least five turns of wire rope left on the drum.
- 4.2.4 Re-engage the drum by rotating the clutch lever to the "engaged" position, see fig.8.  
**WARNING!** The lever must be in the engaged position and locked before winching.
- 4.2.5 Your winch incorporates a proportional friction-type brake. After winching in a load, this mechanism holds the load, up to the rated capacity of the winch. While powering out the load, the winch controls the rate of speed by applying the brake in proportion to the amount of load on the wire rope. This results in heavier loads powering-out more slowly than lighter loads. Similar to the friction-type brakes in your car which can generate heat if used for a long time, the winch brake can generate heat if used to power-out a load for a long period of time. To ensure optimum winch performance, always limit powering-out a load to one minute and allow the brake to cool for fifteen minutes before continuing to winch. Under normal use the brake mechanism should not require any adjustment. Should the brake fail to hold a load or maintain a constant rate of speed during a powering-out operation, the brake pad may be worn and require replacement.
- 4.2.6 Keep a tightly wound wire rope drum. **DO NOT** allow the windings on the drum to become loosely wound. A loosely wound drum allows wire rope under load to work its way down into the layers of wire rope on the drum. When this occurs, wire rope may become wedged within the body of the windings causing damage to the wire rope. To prevent this keep the wire rope tightly and evenly wound on the drum at all times. Rewind the rope under tension after each use. One method is to attach the hook to a stationary object at the top of a small hill or incline and winch your vehicle up the incline.
- 4.2.7 **DO NOT** allow the motor to overheat. The winch is designed for intermittent use only. During long or heavy pulls the motor will get hot, with its internal parts hotter than the case. To check motor temperature, stop winching and carefully touch the end of the motor. If uncomfortably warm, allow the motor to cool before continuing. Keep engine running to recharge battery during this break.
- 4.2.8 The pull required to start a load moving is often much greater than the pull to keep it moving. Avoid stopping and starting during a pull except when required by motor temperature.
- 4.2.9 Prevent kinks before they occur, by keeping an even tension on the cable when paying in, (refer to 4.2.6).
- 4.2.10 Equipping the winch with a roller fairlead (supplied) will substantially reduce wear on the wire rope during angle pulls, because rollers eliminate heavy rubbing and abrasion to the wire rope, see fig.9.

**NOTE:** Never winch your vehicle in gear or in park, which would damage your vehicle's transmission.

Never wrap the wire rope around an object and hook the cable back onto itself. This can cause damage to the object being pulled and kink or fray the wire rope.

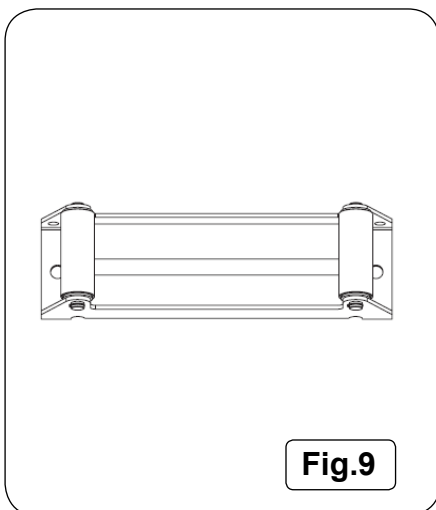
Keep hands, clothing, hair and jewellery clear of the drum and cable when winching.

Never use the winch if the cable is frayed, kinked or damaged.

Never allow anyone to stand near the cable, or in line with the cable or behind the winch while it is under power. If the cable should slip or break it can suddenly whip back towards the winch, causing great danger for anyone in the area. Always stand well to the side while winding.

**DO NOT** leave the switch plugged in when the winch is not in use.

**CHECK THE WINCH THOROUGHLY AND CAREFULLY BEFORE OPERATING!**



## 5. MAINTENANCE

- 5.1 It is strongly recommended that the winch is used regularly (once a month). Simply power out 15mtr of cable, free spool 5mtr then power back in. This will keep all the components in good working condition so that the winch can be relied on when needed.

**Parts support is available for this product. To obtain a parts listing and/or diagram, please log on to [www.sealey.co.uk](http://www.sealey.co.uk), email [sales@sealey.co.uk](mailto:sales@sealey.co.uk) or phone 01284 757500.**



### Environmental Protection.

Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycle centre and disposed of in a manner which is compatible with the environment.



### WEEE Regulations.

Dispose of this product at the end of its working life in compliance with the EU Directive on Waste Electrical and Electronic Equipment. When the product is no longer required, it must be disposed of in an environmentally protective way. Contact your local solid waste authority for recycling information.

**NOTE:** It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice.

**IMPORTANT:** No liability is accepted for incorrect use of this product.

**WARRANTY:** Guarantee is 12 months from purchase date, proof of which will be required for any claim.

**INFORMATION:** For a copy of our latest catalogue and promotions call us on 01284 757525 and leave your full name and address, including postcode.



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