

Models: **TW16500/12, TW16500/24, TW25000/12 & TW25000/24.**

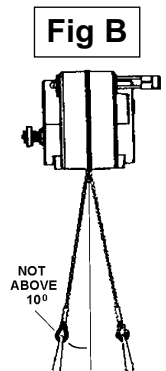
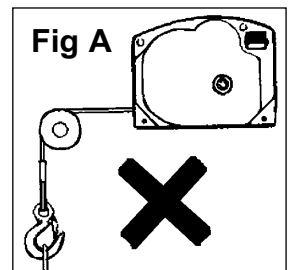
Thank you for purchasing a Sealey product. Manufactured to a high standard this product will, if used according to these instructions and properly maintained, give you years of trouble free performance.



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!** Winch is not designed for lifting or slinging loads. It is intended only for pulling a load and must be used with care.
- ✓ The winch is designed to take the strain of a load as a temporary manoeuvre and should not be used to hold or secure a load when winching has been completed.
- ✓ Fit only appropriately rated cable and hook-up suitable for the task for which the winch is to be used.
- ✓ Ensure the winch is maintained in a safe working condition. Inspect the cable regularly checking for fraying, kinks, broken strands or distortion. If such appears, replace the cable. Check all component parts, do not use if damaged, contact authorised service agent.
- ✓ Choose an appropriately strong winching point, which we recommend is reinforced with steel plates and appropriate securing bolts. The winch mounting point must be capable of withstanding loads greater than the maximum rated capacity of the winch.
- ✓ Ensure the winch is protected from the elements. **DO NOT** allow the winch or the switch unit to become wet.
- ✓ Ensure you plug the remote control switch into the winch before the power supply cable.
- ✓ Ensure the winch is correctly connected to a 12V or 24V power supply according to the model in use.
- ✓ Ensure connection to battery is undertaken in accordance with the safe connecting and handling instructions for the battery.
- ✓ Ensure power cables are safely placed away from winch cable and will not be accidentally caught up in the winching process.
- ✓ The vehicle from which the battery will be used must be in neutral gear with the hand brake fully on and the wheels chocked.
- ✓ Keep the vehicle engine running whilst the winch is being used so that the battery is not drained.
- ✓ Check running direction of the winch drum before use.
- WARNING!** Keep hands, body and clothing away from the winch components and the cable. Use a rag or protective gloves when handling cable. Take any necessary precautions to protect your personal safety whilst using the winch.
- ✓ For a heavy load, place a blanket (or similar) over the extended cable about 2 feet away from the hook in order to lessen the severity of a cable break.
- WARNING!** Ensure you know how much load you are winching. Never exceed the maximum pulling capacity. Take into account any angle of incline over which the load must be pulled and the additional loading when winching from thick mud, or through snow or water. Chock the wheels of vehicle to be winched then release any brakes and place gears in neutral. Ensure the load is capable of free movement before winching. Take the strain on cable and remove wheel chocks to move the load.
- ✓ Ensure the load to be pulled has an appropriate fixing point. If not, fit an adequate sling, eyebolt or other accessory to the load. Ensure accessories are equal to, or exceed, winch maximum pulling capacity.
- ✓ Ensure cable is securely attached to the load before winching.
- ✓ Maintain correct balance and footing whilst using the winch.
- ✓ Remove ill fitting clothing. Remove ties, watches, rings and other loose jewellery, and contain and/or tie back long hair.
- ✓ Keep children and non essential persons away from the operating area. Be aware of the location of other persons assisting you.
- ✓ Ensure the winch clutch is tightly closed (by turning clockwise) before attempting to winch. **DO NOT** over tighten.
- ✓ Should the winch vibrate or emit a noise during use, stop immediately and check to identify and solve the problem.
- ✗ **DO NOT** operate the winch if any parts are damaged or missing as this may cause failure and/or personal injury.
- ✗ **DO NOT** disconnect the electrical power supply during winching.
- WARNING!** **DO NOT** use the hand crank to assist the winch in operation as this will damage the winch and may cause personal injury.
- WARNING!** **DO NOT** use winch as a lifting device of any type (fig A). **DO NOT** use the winch for any purpose other than that for which it is designed.
- WARNING!** **DO NOT** exceed the rated pulling capacity of the winch.
- ✗ **DO NOT** pull the cable at an angle of more than 10° (fig B).
- ✗ **DO NOT** pull cable over or around a corner and **DO NOT** take hook around load and back onto cable. Use appropriate sling or pulley if necessary.
- ✗ **DO NOT** operate the winch with less than FIVE wraps of cable on the drum. The end of the cable is red, do not use with any of the red cable off the drum.
- ✗ **DO NOT** use a cheater bar, or any additional leverage on the crank handle when manually winching.
- ✗ **DO NOT** operate winch if you are tired, under the influence of alcohol, drugs or intoxicating medication.
- ✓ When not in use, disconnect winch from power supply and store remote control and power cable in a safe, dry location.



2. SPECIFICATIONS & PERFORMANCE

Model		TW25000/12	TW25000/24	TW16500/12	TW16500/24
Rolling Weight	lb	25,000		16,500	
	kg	11,340		7,484	
Rated Line Pull	lb	3,000		2,000	
	kg	1,361		907	
Voltage(DC)	v	12	24	12	24
Motor	w	300		300	
Gear Train		Spur Gear			
Gear Ratio		480		325	
Wire rope	ft	(7/32" x 50)		(3/16" x 45)	
	m	5.5mm x 15.2m		4.8mm x 13.7m	
Control		Solenoid/Indirect		Solenoid/Indirect	

LOAD CAPACITY AND LINE SPEED vary according to how much cable is on the drum. The winch is rated at its first layer of cable on the drum. The maximum line pull force will be reduced by subsequent layers of cable on the drum. The chart below illustrates the maximum line force at increasing cable layers.

MODEL	TW25000/12 TW25000/24		TW16500/12 TW16500/24	
	lb	kg	lb	kg
1	3,000	1,361	2,000	907
2	2,335	1,060	1,606	730
3	1,915	870	1,342	610
4	1,615	735	1,151	523
5	1,400	635	1,008	458
6	1,230	560	898	408

FIRST LAYER OF CABLE PERFORMANCE

Line Pull		Line Speed				Amp. Draw			
Model		TW25000/12 TW25000/24		TW16500/12 TW16500/24		TW25000/12 TW25000/24		TW16500/12 TW16500/24	
lb	kg	fpm	mpm	fpm	mpm	12V ; A	24V ; A	12V ; A	24V ; A
0	0	4	1.24	5.9	1.8	4.5	2.2	4	2
1,000	454	3.7	1.12	5.1	1.6	14	7	19	10
2,000	907	3.3	1.02	4.3	1.3	24	12	30	16
3,000	1,361	3	0.9	*	*	34	17	*	*

ROLLING LOAD CAPACITY AT DIFFERENT ANGLES ON FIRST LAYER OF CABLE.

The rolling weight performance shown includes a 12% rolling friction factor, and is based upon a hard level smooth surface. A 10% incline means a rise of 1ft in 10ft (fig C).

Model	GRADIENT				
	0° (0%)	6° (10%)	11° (20%)	17° (30%)	45° (100%)
TW25000/12	25,000 lb	12,256 lb	8,651 lb	6,443 lb	3,214 lb
TW25000/24	11,340 kg	5,559 kg	3,924 kg	2,922 kg	1,457 kg
TW16500/12	16,500 lb	8,089 lb	5,706 lb	4,252 lb	2,121 lb
TW16500/24	7,484 kg	3,669 kg	2,588 kg	1,928 kg	962 kg

DOUBLE LINE (PULLEY USE) & BOAT INFORMATION.

Use of an optional pulley block will increase the pulling capacity, see para. 4.4.

Boat lengths and weights are approximate values which will be influenced by the boat type and model. When the boat weight is calculated ensure the engine, fuel, and boat content is included in the calculation.

Model	Double Line Pull	Approximate Boat Weight		Approximate Boat Size	
TW25000/12 TW25000/24	5,500 lb	2,494 kg	9,000 lb	4,082 kg	25 ft 7.62 m
TW16500/12 TW16500/24	3,650 lb	1,655 kg	6,000 lb	2,721 kg	17 ft 5.2 m

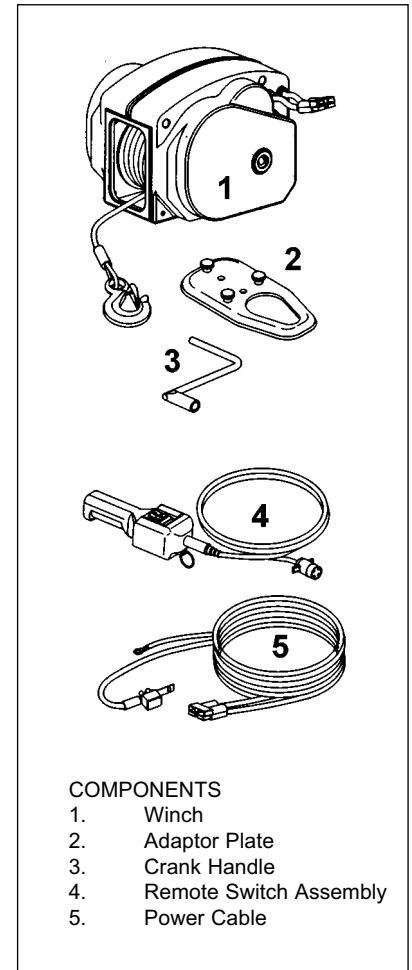
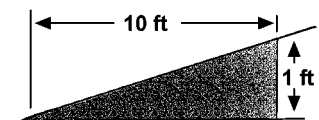


Fig C



3. INSTALLATION

❑ **WARNING!** Ensure you read and understand the safety instructions before installation.

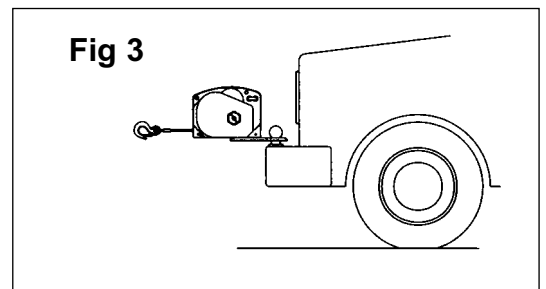
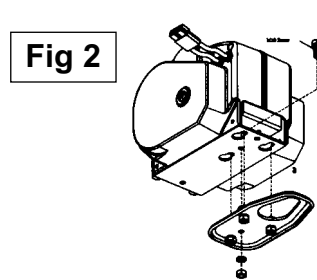
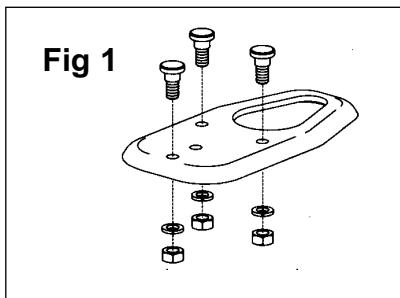
3.1. MOUNTING THE WINCH FOR USE.

3.1.1. Fixed mounting.

1. Choose the winch mounting location with care as it may not be designed to support the pulling capacity of a winch (especially if mounting on a vehicle). The mounting point must be capable of withstanding loads above the maximum rated capacity of the winch. Ensure the mounting point is protected from deterioration or corrosion over the life time of the winch use. We recommend the mounting point is reinforced with steel plates and appropriate securing bolts.
2. Before fixing, ensure the power supply cables will easily reach the battery.
3. Once fixed in place, the winch must be protected against the elements at all times.
4. Ensure there is an appropriate safe, dry, childproof location for the storage of the power cables and switches when not in use.

3.1.2. Temporary mounting.

1. The winch may be mounted on a static or mobile hitching point. Before use ensure the hitching point is in good condition and capable of withstanding loads above the maximum rated capacity of the winch.
2. Fix the ball adaptor plate (fig 1) to the base of the winch (fig 2).
3. The winch may now be connected to the hitching point (fig 3).



3.2. POWER SUPPLY CONNECTION.

3.2.1. Battery cable connection.

1. Ensure connection to the battery is undertaken in accordance with the safe connecting and handling instructions for the battery.
2. Ensure the power cables are safely routed away from the winch cable and will not be accidentally caught up in the winching process.
3. Attach the free end of RED cable (positive +) tightly to the end of the circuit breaker marked 'AUX' and connect the copper plate to the end marked 'BAT'.
4. Connect the copper plate tightly to the positive (+) terminal of the supply battery (fig 4.A).
5. Connect BLACK cable (negative -) to a suitable earthing point on the vehicle frame (fig 4.B).
6. **After** fitting Remote Control (para. 3.2.2.), connect the plug on the end of the power cable to the winch power socket (fig 5).

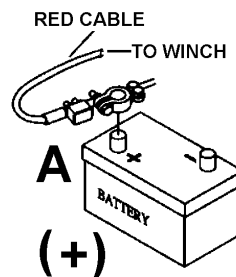
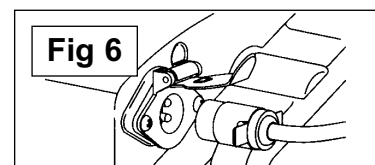
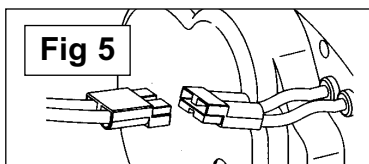
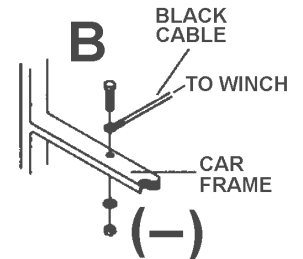


Fig 4



3.2.2. Remote Control cable connection.

Lift the plug dust cover on the side of the winch and insert the remote cable (fig 6).

4. OPERATING INSTRUCTIONS

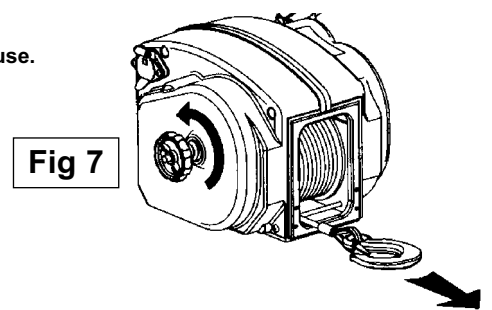
❑ **WARNING!** Ensure you read and understand the safety instructions before use.

4.1. FREE WHEEL FUNCTION.

The speed of unwinding the winch cable is controlled by a clutch.

For rapid unwinding proceed as follows:

1. Disconnect the winch from the electrical power supply.
2. Disengage the clutch by rotating the clutch knob anticlockwise (fig 7).
3. Pull the cable by hand to unwind ensuring you wear appropriate safety gloves.

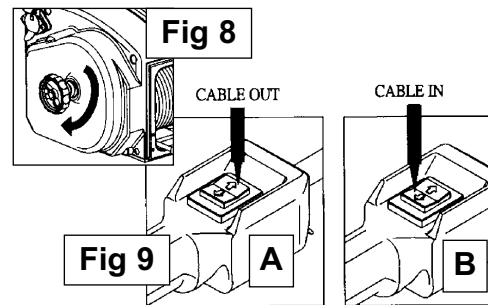


4.2. REMOTE SWITCH OPERATION.

WARNING! Always connect the remote control *before* connecting winch to battery. Disconnect winch from battery *before* disconnecting remote control.

To use the electrical remote switch control the clutch must be engaged as follows:

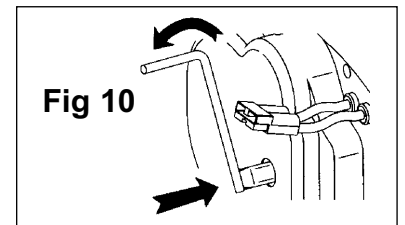
1. Connect remote control to winch (para. 3.2.2.)
2. Connect the winch to the power supply.
3. Fully tighten the clutch by turning the knob clockwise (fig 8). DO NOT overtighten.
4. To extend the cable depress the upper 'cable out' control switch (fig 9.A).
5. To winch the cable in depress the lower 'cable in' control switch (fig 9.B).
6. Stop the winch by releasing the switch. The internal brake will hold the load in place.
7. Before disengaging cable from load, disconnect winch from power supply.



4.3. THE HAND CRANK

In the case of power supply failure the hand crank may be used to pull the load.

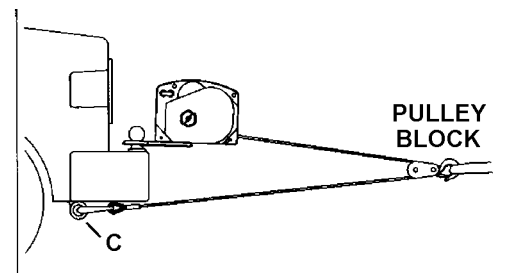
1. Ensure the winch is disconnected from the power supply.
2. Place the crank handle into the crank housing (fig 10).
3. Check that the clutch is engaged by turning the knob clockwise.
4. Turn the crank handle anticlockwise to pull the load. DO NOT use a cheater bar, or any additional leverage on the crank handle



4.4. USE OF A PULLEY

Additional pulling power may be obtained by use of a pulley block assembly. This almost doubles the effective pull and halves the pulling speed.

WARNING! When using a pulley, ensure the mounting point 'C' will be capable of withstanding loads greater than the capacity of the winch. **DO NOT** attach hook back onto winch body as winch mounting may fail. Always use a separate anchorage point.



5. MAINTENANCE

5.1. CHECK BEFORE EACH USE

Before each use check the following to ensure all parts are sound and in good working order and condition.

Mounting/fixing bolts and nuts, ball adaptor plate, motor for correct operation, steel winch cable for fraying, kinks, broken strands or distortion, operating switches and cables, power supply cables, clutch and brake to ensure loads will hold when switch is released. If any parts are broken or damaged, do not use the winch, but take immediate action to repair. With the exception of the items below, all service and maintenance must be undertaken by fully qualified personnel.

5.2. LUBRICATION

The winch is a sealed unit and has been fully lubricated at the time of manufacture. No additional lubrication should be necessary.

5.3. CABLE REPLACEMENT.

Only use a new cable of the same rating as the one supplied with the winch. DO NOT use a smaller or larger cable and ensure the cable is made of steel wire.

1. Unwind the entire cable from the winch, cut the cable and remove from the drum.
2. Insert the replacement cable (red end) into the drum.
3. Attach the cable to the hook with 2 cable clamps, then screw the clamps on tightly.
4. Check that the cable winds smoothly and correctly before use.

Declaration of Conformity We, the sole importer into the UK, declare that the products listed below are in conformity with the following standards and directives.

12 & 24V ELECTRIC POWER WINCH
Models: TW16500/12, TW16500/24,
TW25000/12 & TW25000/24

98/37/EC Machinery Directive
93/68/EEC EC Marking Directive



The construction files for these products are held by the Manufacturer and may be inspected by a national authority upon request to Jack Sealey Ltd.

Signed by Mark Sweetman

01st September 2000

For Jack Sealey Ltd. Sole importer into the UK of Sealey Power Products.

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 equipment

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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