

# Electric Winch



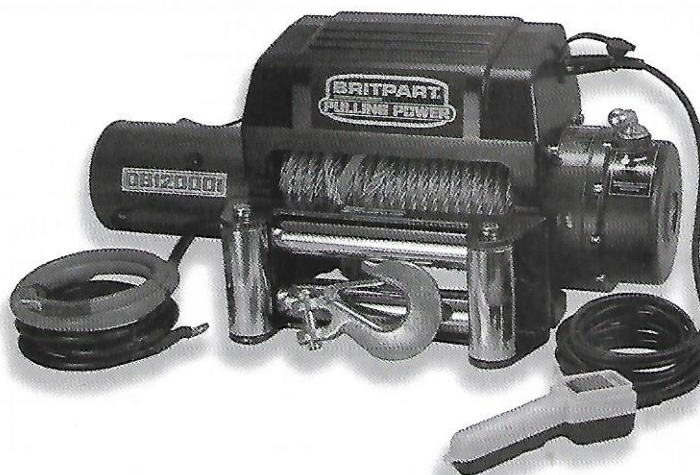
## Installation & Operation Manual

12 & 24 volt

DB9500i



DB12000i



CE

PUR-PM-09-06-006

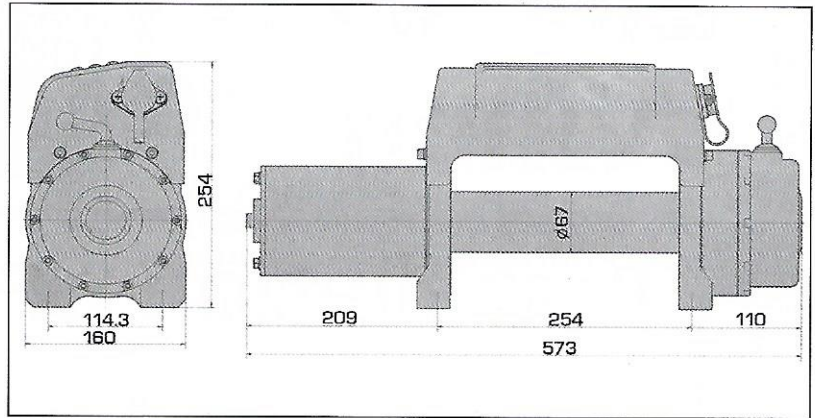
**BRITPART**

DB9500i

## DB9500i

### Features

- Planetary gear system for fast line speed
- Automatic load-holding brake
- Free spooling
- Power in and power out
- Low electric current
- Hardened drum
- Thermal overload protection
- 3.6Kw (4.8Hp) heavy duty series wound DC motor
- Weather and dustproof contactor controls for longer life and improved amperage draw



### Specifications

- Rated Line Pull - Single Line 4,309kgs 9,500lbs
- Gear Reduction Ratio 212:1
- Motor - Series Wound 3.6Kw 4.8Hp
- Drum Size (D x L) 67 x 228mm 2.64 x 9"
- Cable Supplied 9.53mm x 30.5m 3/8" x 100'  
Minimum Break Force 14,400lbs Galvanised Aircraft Cable
- Overall Dimension (L x W x H) 573 x 167 x 254mm 22.56 x 6.57 x 10"
- Net Weight 41.7kgs 92.0lbs
- Mounting Bolt Pattern 254 x 114.3mm 10 x 4.5"

### Performance of 1st Layer

Line Pull		Line Speed				Motor Current	
Lbs	Kgs	12 volt		24 volt		12 volt	24 volt
		Fpm	Mpm	Fpm	Mpm	Amp	Amp
0	0	18.70	5.70	21.30	6.50	85	58
2,000	907	13.12	4.00	16.70	5.10	150	110
4,000	1,814	10.50	3.20	13.12	4.00	210	135
6,000	2,722	7.90	2.41	10.17	3.10	270	185
8,000	3,629	5.91	1.80	7.71	2.35	320	220
9,500	4,309	4.32	1.32	5.90	1.80	365	240

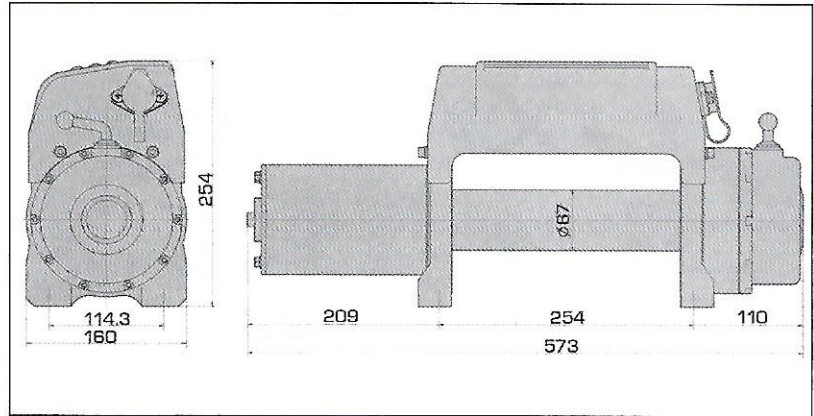
### Line Pull & Cable Capacity by Layer

Cable Layer	Rated Line Pull		Cable Capacity	
	Lbs	Kgs	Feet	Meters
1	9,500	4,309	15	5.0
2	7,500	3,402	38	11.5
3	6,200	2,812	64	19.5
4	5,300	2,404	95	29.0
5	4,630	2,100	100	30.5

## DB12000i

### Features

- Planetary gear system for fast line speed
- Automatic load-holding brake
- Free spooling
- Power in and power out
- Low electric current
- Hardened drum
- Thermal overload protection
- 3.6Kw (4.8Hp) heavy duty series wound DC motor
- Weather and dustproof contactor controls for longer life and improved amperage draw



### Specifications

- Rated Line Pull - Single Line 5,443kgs 12,000lbs
- Gear Reduction Ratio 294:1
- Motor - Series Wound 3.6Kw 4.8Hp
- Drum Size (D x L) 67 x 228mm 2.64 x 9"
- Cable Supplied 9.53mm x 30.5m 3/8" x 100'  
Minimum Break Force 14,400lbs Galvanised Aircraft Cable
- Overall Dimension (L x W x H) 573 x 167 x 254mm 22.56 x 6.57 x 10"
- Net Weight 42.6kgs 94.0lbs
- Mounting Bolt Pattern 254 x 114.3mm 10 x 4.5"

### Performance of 1st Layer

Line Pull		Line Speed				Motor Current	
Lbs	Kgs	12 volt		24 volt		12 volt	24 volt
		Fpm	Mpm	Fpm	Mpm	Amp	Amp
0	0	14.60	4.45	16.40	5.00	90	58
2,000	907	12.81	3.90	14.43	4.40	145	95
4,000	1,814	9.68	2.95	12.46	3.80	185	120
6,000	2,722	7.90	2.41	10.83	3.30	230	160
8,000	3,629	7.07	2.15	9.50	2.90	270	190
10,000	4,536	5.06	1.54	7.87	2.40	315	230
12,000	5,443	4.45	1.36	5.90	1.80	375	280

### Line Pull & Cable Capacity by Layer

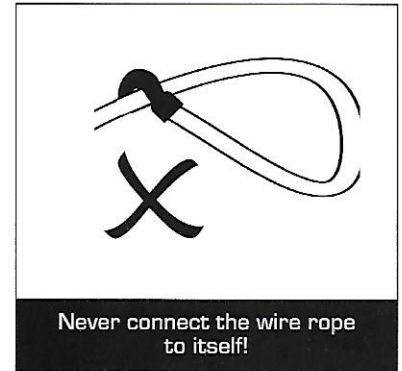
Cable Layer	Rated Line Pull		Cable Capacity	
	Lbs	Kgs	Feet	Meters
1	12,000	5,443	15	5.0
2	10,200	4,627	38	11.5
3	8,400	3,810	64	19.5
4	7,300	3,310	95	29.0
5	6,500	2,948	100	30.5



Wire hazard! Stay clear of wire rope when winch is in operation!



Place tree protect sling low on the tree!



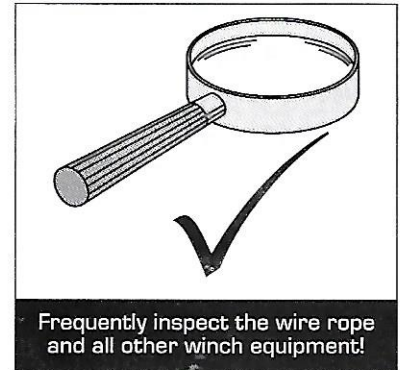
Never connect the wire rope to itself!



Keep hand and fingers clear of wire rope and hook when operating the winch!



Never try to use yourself or anyone else as a secure place to hook a winch too!



Frequently inspect the wire rope and all other winch equipment!



Never consume alcohol when operating the winch!



Always wear protection on your hands!



Always leave at least 5 turns of cable on the drum!

**When operating this winch, safety precautions should always be followed to reduce the risk of personal injury and damage to the winch.**

**• Learn How To Use Your Winch**

After the winch has been installed, take some time to practice using the winch so that you are familiar with its operation. Periodically check the winch installation to ensure all nuts and bolts are tight. To ensure proper operation, carefully inspect for any damaged parts before operating the winch. Any damaged part should be repaired or replaced.

**• Keep Winching Area Clear**

Do not allow people to remain in the area during winching operations. Do not step over a taut wire rope or allow anyone else to do so. Due to the possibility of a wire rope breaking, direct all persons to stand clear of any possible pathways. A snapped wire rope could cause winch failure, injury or death. Keep proper footing and balance at all times. Do not reach over or across the winch and/or wire rope or come between the winch and load whilst the winch is in operation.

**• Inspect Wire Rope & Equipment Frequently**

The wire rope should be inspected for damage that can reduce its breaking strength. A frayed rope with broken strands should be replaced immediately. Never use a wire rope that shows signs of weakening is knotted or kinked. Always replace the rope with one of the correct rating for the winch. Examine the winch before using as components may be affected by exposure to everyday weathering, chemicals, salts and rusts etc.

**• Working Area Conditions**

Keep the working area well lit. Do not use the winch in the presence of flammable gasses or liquids.

**• Keep Children Away**

Keep children away from the working area and never let children operate the winch.

## •Wear Gloves

When handling or rewinding the wire rope, always use hand protection to eliminate the possibility of cuts caused by burrs and slivers from broken strands.

## •Secure Vehicle

Be sure to secure vehicle in position before using the winch and after moving an item with the winch secure the item. Do not rely on the winch to hold it for an extended period as the winch does not have a locking mechanism. Apply blocks (such as a wheel choke) to vehicle when parked on an incline.

## •Drum Rope

Do not apply load to winch when the wire rope is fully extended. Always make sure that there are at least 5 complete turns of rope left on the drum before starting to winch. Take care to ensure the wire rope is re-spooled correctly.

## •Keep Hands & Fingers Clear Of Wire Rope & Hook When Operating Winch

Never put your finger through the hook when reeling in the last few feet. If your finger gets trapped in the hook or rope you could lose it. Never guide the wire rope under tension onto the drum with your hand. Always keep hands and body away from the fairlead (cable intake slot) when operating the winch.

## •Never Hook The Wire Rope Back Onto Itself

Hooking the rope back onto itself creates an unacceptable strain, breaking individual strands, which in turn weakens the entire wire rope.

## •Keep Pulling Durations As Short As Possible

The winch is designed for intermittent use and cannot be used in constant duty applications. Do not pull for more than one minute at or near the rated load. If the motor becomes too hot to touch, stop and let it cool off for a few minutes. If the motor stalls then cut off the power immediately.

## •Do Not Overload

Always use the winch at its rated capacity for your safety and better performance of the winch. Do not use inappropriate attachments in an attempt to exceed its rated capacity.

## •Avoid Continuous Pulls From Extreme Angles

This will cause the rope to pile up at one end of the drum. When feasible, get the rope as straight as possible to the direction of the object.

## •Never Operate The Winch Without The Rope Fairlead Fitted

Operator injury or winch damage can result if a fairlead is not installed.

## •Stay Alert

Watch what you are doing at all times. Use your common sense. Do not use this winch when you are tired, stressed or when under the influence of drugs, alcohol or medication.

## •Disconnect Switch

Unplug the switch when not in use.

## •Stay Alert

When servicing, use only identical replacement parts. Use of any other parts will void the warranty.

## •Never Move The Vehicle With Wire Rope Extended

Do not move the vehicle with the wire rope extended and attached to the load to pull it as the wire rope could snap.

## •Check Winch Is Secure

Be certain that winch is properly bolted to a structure or vehicle that can hold the winch load.

## •Use The Right Couplings

Always use the proper couplings when connecting the winch cable to the load.

## •Use Horizontally

Never lift items vertically as the winch was designed for horizontal use only. Never lift people or hoist loads over people.

## •Inappropriate Attachments

Do not use any inappropriate attachments to extend the length of the winch cable.

## •Moving A Boat Onto A Trailer

When loading a boat into a trailer without reef or side hull rollers, make sure the trailer is submerged in the water when the boat is loaded by the winch. Attempting to drag the boat onto the trailer while on land can cause winch failure and possible injury.

## •...And Finally

The warnings, cautions and instructions in this manual cannot cover all the possible conditions and situations that may occur. It must be understood, by the operator, that common sense and cautions are factors that cannot be built into this product but must be exercised by the operator.

# BRITPART

The quality parts for Land Rovers

## EC Declaration of Conformity

Border Holdings (UK) Ltd

Britpart, The Grove, Craven Arms, Shropshire, SY7 8DB, UK

Part Numbers -

DB12000i, DB9500i, DB8000 & DB2000

Description -

Electric Winches

We hereby declare that above mentioned winches are compliant with the essential requirement of Directive 98/37/EC(MD) and satisfy the standards of BS EN60204-32 in their application of pulling a load.



## Installation

### Step One

Mount electric winch to the vehicle using cap screw and nut provided. If the provided hardware does not accommodate the installation, use SAE grade 8 bolts or higher with torque of 35 ft/lbs. The winch should be aligned and secured to a solid part of the vehicle (front or rear) where the full rated load will be evenly distributed. Also remember that the winch is designed for horizontal pull and not vertical.

### Step Two

Connect the red (positive) battery cable from the solenoid assembly to the closest screw-down positive (+) terminal to 12 volt battery.

**Caution - Battery cables should not be drawn taut - leave slack for some cable movement.**

### Step Three

Connect the black (negative) battery cable from the solenoid assembly to the closest screw-down negative (-) terminal to 12 volt battery.

### Step Four

Test electric winch for proper operation - refer to the operation section.

### Step Five

The winch cable must be rewound onto drum under a load of at least 500lbs. If this precaution is not taken then the inner wraps will damage the winch cable.

## Operation

### Step One

Disengage the clutch by moving the clutch handle to the DISENGAGED position.

### Step Two

Grab the cable assembly hook and pull the cable to the desired length, then attach to item being pulled.

### Step Three

Re-engage the clutch by moving the clutch handle to the ENGAGED position.

### Step Four

Lift the female connector cover on the solenoid assy exposing the electrical switch connector.

### Step Five

Insert the switch assy into the female connector.

### Step Six

While standing aside the pulling path, press and hold the red push button on the switch assy. Press and hold the opposite push button to reverse directions. Wait

until the motor stops before reversing directions.

### Step Seven

When the pulling is complete, remove the switch assy from the female connector and replace the female connector cover.

## Cautions

Always leave at least 5 turns of cable on the drum. Review the winch safety warnings and precautions before continuing.

It is important to make sure the winch is mounted on flat surface to guarantee the 3 major sections of the winch (the motor end, the cable drum and gear housing end) are properly aligned.

Run the vehicle engine during pulling operation to keep the battery charging.

When pulling a heavy load, place a blanket or similar over the cable 5 to 6 feet (1.5 to 1.8m) from the hook.

## Lubrication

No internal lubrication is required as all moving parts inside the winch have been lubricated using high temperature lithium grease at the factory. Lubricate cable every so often using a light penetrating oil.

## Clutch Assembly Replacement

### Step One

Move clutch handle to DISENGAGED position.

### Step Two

Extend cable assembly to its full length. **IMPORTANT** - Note how the existing cable is connected to the inside of the drum.

### Step Three

Remove old cable assembly and attach the new one.

### Step Four

Rewind cable assembly onto cable drum being careful not to allow kinking.

## General

Keep vehicle battery in good condition. Make sure the winch battery cable are not drawn taut against any surfaces which could possibly damage them.

Corrosion will reduce performance or may cause a short. Remove and clean the cable connections to the battery fuse box and chassis ground periodically. Cover cables and winch when not in use.

Symptom	Possible Cause	Suggested Remedy
<b>Motor does not turn on</b>	Switch assy not connected properly	Insert switch assy firmly to the connector
	Loose battery cable connection	Tighten the nuts on the cable connectors
	Solenoid malfunctioning	Tap solenoid to free contact, applying 12 volts to coil terminal directly. The solenoid will make an audible clicking when activating.
	Defective switch assy	Replace switch assy
	Defective motor	Check for voltage at armature port with switch pressed. If voltage is present then replace motor.
	Water has entered motor	Drain and dry. Run in short bursts without load until completely dry.
<b>Motor runs too hot</b>	Long period of operation	Let winch cool down periodically
<b>Motor runs slowly or without normal power</b>	Battery runs down	Recharge battery by running vehicle engine
	Insufficient current or voltage	Clean, tighten or replace the connector
<b>Motor runs but cable drum does not turn</b>	Clutch (cam ring) not engaged	Push cam ring into IN position. If that does not work, ask a qualified technician to check and repair
<b>Motor runs in one direction only</b>	Defective or stuck solenoid	Tap solenoid to free contacts. Repair or replace solenoid.
	Defective switch assy	Replace switch assy

**Britpart**  
 Border Holdings (UK) Ltd  
 The Grove  
 Craven Arms  
 Shropshire  
 SY7 8DB  
 United Kingdom



# Britpart Limited 1-Year Warranty



Britpart offers a limited one year warranty, to the original retailer purchaser, for each new Britpart electric winch against manufacturing defects in workmanship and materials on all mechanical and electrical components.

New cable assemblies are warranted against defects in workmanship and materials when received by the retail purchaser. There is no applicable warranty after initial use.

Warranty registration cards for each winch must be submitted at the time of purchase or within 30 days by the end user. Warranty will only be valid for the original purchaser of the winch and installed on the vehicle for which it was originally registered.

Britpart electric winches are intended for recreational self recovery usage. The warranty is void if the winch is used in commercial/industrial applications.

The obligation under this warranty, statutory or otherwise, is limited to the replacement or repair at the manufacturers factory or at a point designated by the manufacturer, of such part(s) as shall appear to the manufacturer, upon inspection of such part(s), to have been defective in material or workmanship. This warranty does not obligate Britpart to bear the cost of labour or transportation charges in connection with the replacement or repair of defective part(s), nor shall it apply to a product upon which repairs or alterations have been made, unless authorised by the manufacturer, or for equipment misused, neglected or improperly installed.

## Important Notice

To the fullest extent permitted by applicable law, the following are hereby excluded and disclaimed:

- 1 - All warranties of fitness for a particular purpose
- 2 - All warranties of merchantability
- 3 - All claims for consequential or incidental damages

**There are no warranties that extend beyond the description that appears on the face hereof.**

To the extent such warranties of fitness or merchantability are deemed to apply to this product, they exist for only so long as the express limited warranty elsewhere set forth is in existence.

Britpart reserves the right to change, alter or improve its products in design, materials or appearance without incurring any obligation to incorporate such changes in products that were previously manufactured.

To submit a warranty claim contact your Britpart distributor.

## WARRANTY CARD

name: _____	who installed your winch: _____
address: _____ _____	what vehicle is the winch installed onto - _____
postcode: _____	make: _____
telephone number: _____	model: _____
Britpart model number: _____	year: _____
serial number: _____	return completed form to:
date of purchase: _____	<b>Britpart</b>
where did you purchase winch: _____	Border Holdings (UK) Ltd      Tel: +44 (0) 1588 672711
	The Grove      Fax: +44 (0) 1588 672660
	Craven Arms
	Shropshire
	SY7 8DB
	United Kingdom
	Email: sales@britpart.co.uk
	www.britpart.co.uk

# BRITPART