



ELECTRICAL HOIST
260EHLW12
260EHLW24

Assembly & Operating Instruction

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INTRODUCTION

Congratulations on your purchase of a high quality winch. We design and manufacture lifting winches to strict specifications, with proper use and maintenance it will bring you many years of satisfying service.

⚠ WARNING - Read, understand and follow all danger, warning and cautions instructions before operating this device. Failure to read and follow these instructions may result in personal injury and/or property damage.

Follow these general safety precautions:

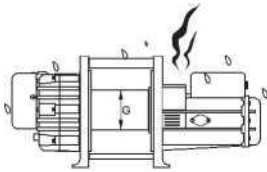
- **Confirm that the winch complies with the correct application.**
- **Ensure winch is secure and the rope is correctly wound on to the drum.**
- **Do not use unsuitable pulleys or accessories.**
- **Do not use unsuitable rope if construction is weak strength or has any defects.**
- **Pay attention to the earthing, it provides a path of least resistance for electric current to reduce the risk of shock.**
- **Check the winch for smooth operation without load before loading operation.**
- **Make sure the wire rope is wound evenly on the first layer on the drum, unwind if mixed crossed windings occur.**



- 1. The winch MUST never be used to lift, support or otherwise transport people or animals.**
- 2. The winch is NOT a load bearing / securing device and MUST never hold a load for long periods of time or used for anchoring transported pieces of equipment.**
- 2. A minimum of five (5) wraps of rope around the drum at all times is necessary to support the rated load.**
- 3. We take no responsibility for the subsequent or poor performance of this winch if oil or grease properties other than recommended are**

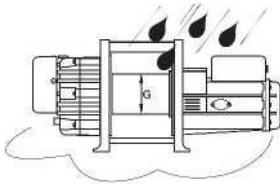
used or any accident occurs through not reading and following the these safety instructions.

DANGER



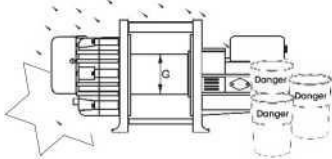
The following environmental conditions may result in the possible causes of winch problems.

-Low temperature below -10°C , high temperature above 40°C or humidity above 90% conditions.



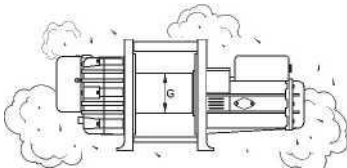
-In heavy acid or salty conditions.

*Cause malfunction of spare pares.



-Exposed to rain or snow

*Cause rust or short circuit.



-In a organic chemistry or explosive power conditions.

*Cause explosion.

-In a heavy general powder conditions.

*Cause malfunction of performances.

SAFETY PRECAUTIONS

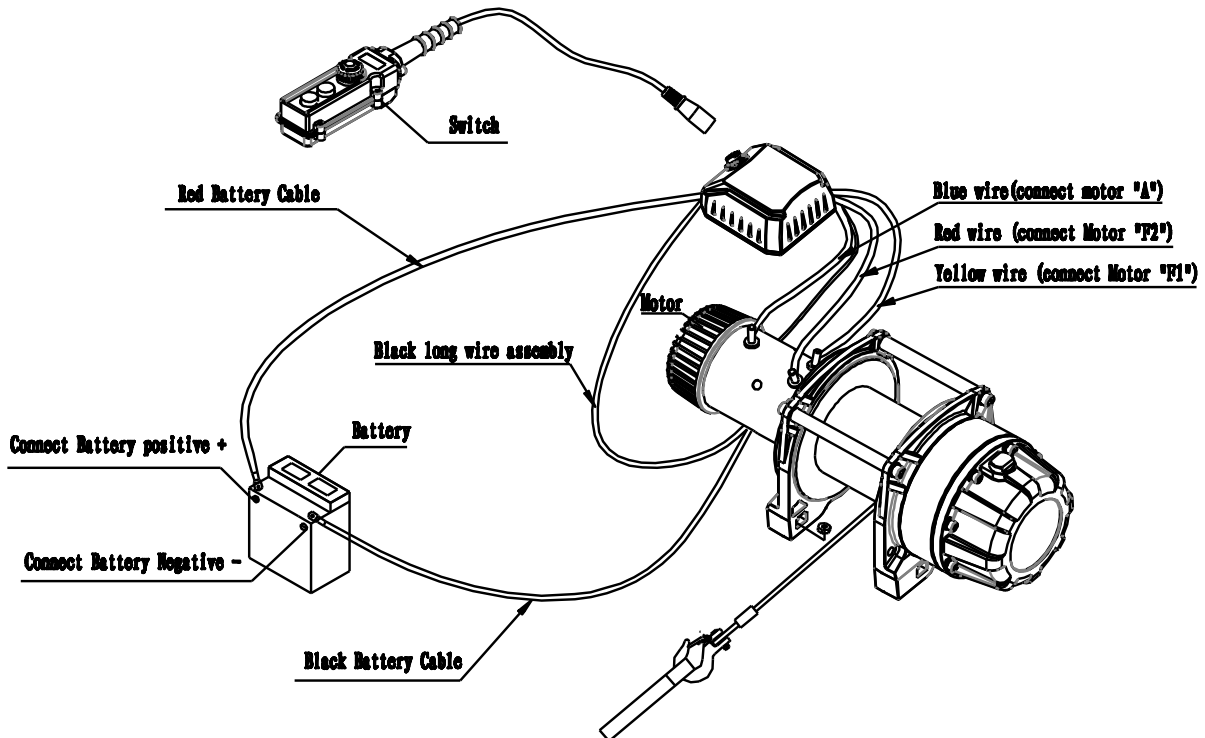
Always Pay attention to the following instructions. Obvious mistakes in operation may result in personal injury or equipment damage.

WINCH ASSEMBLY AND MOUNTING

1. Your winch is designed with a bolt pattern that is standard in this class of lifting winch. Many winch mounting kits (Sold Separately) are available that utilize this bolt pattern for the mounting channels. If you will utilize the mounting channel you must ENSURE that it is mounted on a flat surface so that the three major sections (motor, drum and gear housing) are properly aligned. Proper alignment of the lifting winch will allow even distribution of the full rated load.
2. Pull out a few inches of cable from the drum. Now, using the remaining cap screws, flat washer, lock washer and nut secure the hoist to the mounting channel (Sold Separately)
3. Connect the battery and motor leads as the drawing above. Keep in mind that every type of winch is different each other.
4. Assemble the clevis hook to the cable. Take off the pin from the clevis hook, connect the clevis hook to the cable and mount the pin back to the clevis Hook.
5. Always use the hand saver (If Supplied) when free-spooling and re-spooling the wire rope. Using the hand saver keeps your hands and fingers away from the rotating drum.
6. Check for proper drum rotation. Pull out some cable from the drum. Press the cable out button on the remote lead. If the drum is turning in the correct direction releasing more cable then your connections are correct. If the drum is turning and collecting more cable then the direction is incorrect and reverse the leads on the motor. Repeat and check rotation.

MOUNTING DRAWING

The mounting drawing



⚠ CAUTION – Batteries contain gases which are flammable and explosive. Wear eye protection during installation and remove all jewelry. Do not lean over battery while making connections.

WINCH WORKING DEMONSTRATION

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

⚠ Caution: Always leave at least five turns of cable on the drum; Review hoist safety warnings and precautions on page 2,3 before continuing.

2. Insert the remote lead switch assembly plug into the control box socket.


3. Test-run winch in both forward and backwards directions, each direction for one or two seconds.

4. While standing aside of the tow path, hold and operate the remote lead switch assembly supplied by your choice. To reverse directions. Wait until the motor stops completely before reversing directions.
5. When the pulling is complete, remove the remote lead switch assembly. From the female connector of the directional valve and replace the female connectors cover.

REPLACING THE WIRE ROPE

If the wire rope has become worn or is beginning to show signs of damage, it must be replaced before being used again.

1. Extend cable assembly to its full length. Note how the existing cable is connected to the drum.
2. Remove old cable assembly and attach new one as the old cable connected to the drum. Insert the end of the new rope and secure the screw.
3. Ensure that the new cable wraps in the same rotation direction as the old one. The cable should leave the drum from the bottom, under the drum.
4. Retract Cable Assembly onto drum, first five wraps being careful not to allow kinking, then steel cable must be wound onto the drum under a load of a light load.

 **WARNING** - Only replace the wire rope with the identical replacement part recommended by the manufacturer. Contact service agent.

MAINTENANCE

1. Periodically check the tightness of mounting bolts and electrical connections. Remove all dirt or corrosion and always keep clean.
2. Do not attempt to disassemble the gear box. Repairs should be done by the manufacturer or an authorized repair center.
3. The gearbox has been lubricated using a high temperature lithium grease and is sealed at the factory. No internal lubrication or maintenance is required.

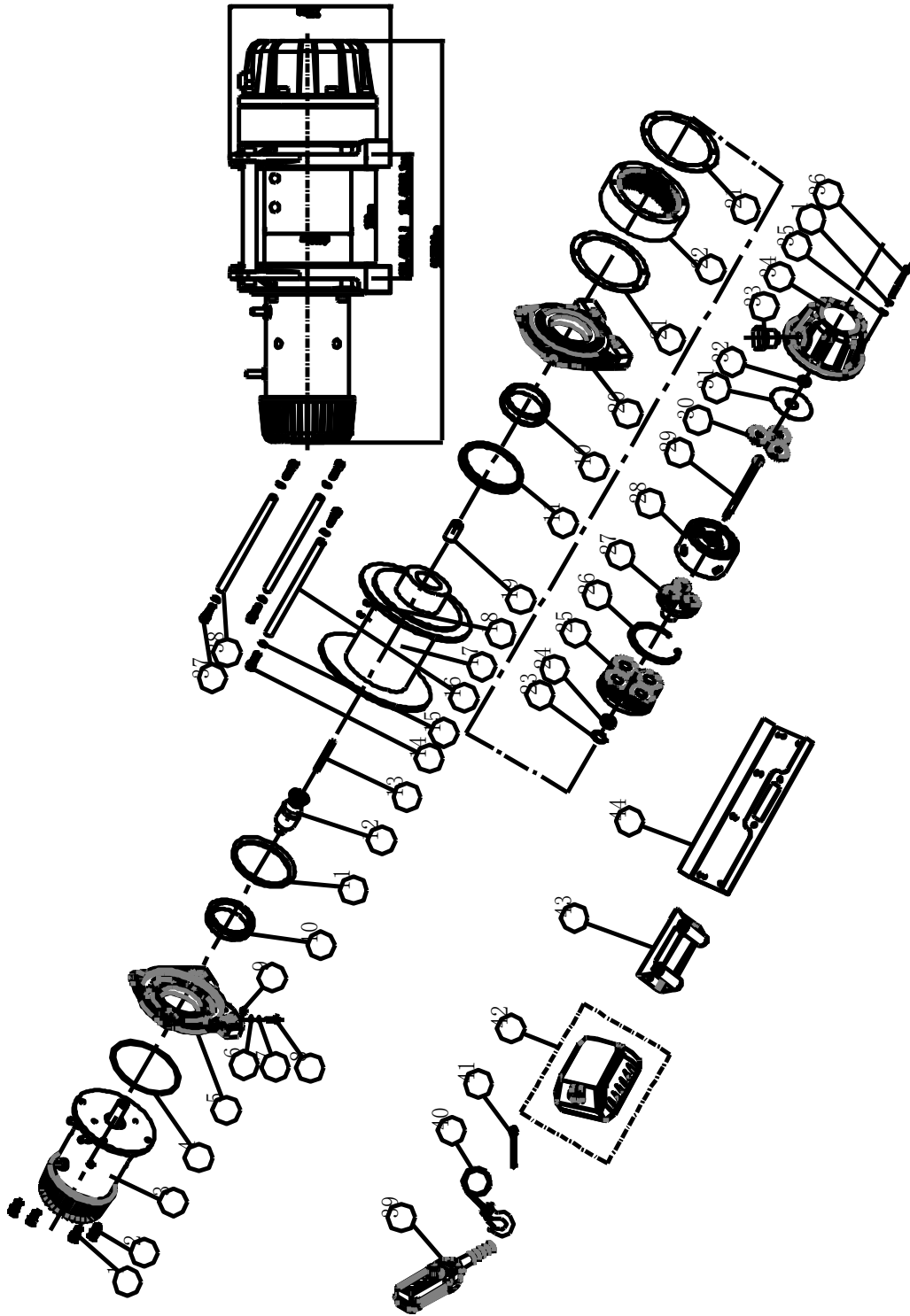
Classification of checks				Checking Item	Checking Method	Checking Reference	
Daily	Periodical						
	One month	Three month	One year				
◎				Wire Rope	Breaking of base wire	Visual	Less than 10%
◎					Decreasing of diameter	Visual	7% of normal diameter max
◎					Kink phenomena	Visual	To be free from kink phenomena
◎					Deforming or corrosion	Visual	To be not remarkable
◎					Fastening condition of end	Visual	To be sufficient for hanging up of load
◎					Condition of rope winding-in	Visual	To be free from irregular winding
◎	◎			Drum	Drum and flange	Visual	No deformation
		◎			Wear of drum	Visual	To be free from remarkable wearing
◎				Switch	Wire	Visual	No damage
◎					“IN” and “OUT”	Visual	No abnormality
◎				Operation	Working direction	Visual	No abnormality in lifting
◎					Abnormal sound	Hear out	No abnormal sound
			◎		Over load test	Working	Existence of abnormalities

TROUBLE SHOOTING

When the winch fails to operate after several attempts, or if there is any fault while operating check the following:

Symptom	Possible Cause	Remedy
Hoist will not operate	Cut circuit	Check battery lead
	Weak battery	Recharge or replace battery (Minimum 650CCA)
	Damaged circuit breaker	Replace circuit breaker
	Bad connection of wirings	Reconnect tightly
	Damaged solenoid	Replace solenoid
	Cut circuit on switch	Replace switch
	Damaged motor or worn carbon brush	Replace motor or carbon brush
	Dropt or lost motor wiring	Tighten wirings
Motor runs in one direction	Broken wiring or bad connection	Reconnect or replace wiring
	Damaged or stuck solenoid	Replace solenoid
	Switch inoperative	Replace switch
	Dropt or lost wiring	Replace wiring and tighten wirings
Hoist won't lift rated load	Considerable voltage drop exceeds by 10% of the rated voltage of 12V DC or 24V DC	Correct leads size
		Replace battery as bad condition
		Clean and tighten the wirings
No brake	Damaged brake cam and disc	Replace brake cam and disc
	Damaged gear box	Replace gear box
	Dropt snatch ring	Replace snatch ring
	Oil leakage at brake	Clean oil leakage
	Damaged or inoperative spiral spring	Replace and position spiral spring
Brake distance is too long	Worn or damaged brake	Replace or adjust brake
	Oil leakage at brake	Clean oil leakage
Damaged gear train	Hit by certain exterior force	Replace the damaged components
	Damaged gear train	Replace the damaged components
	Over load operation	Replace a new hoist
Motor runs extremely hot	Long period of operation	Allow to cool
	Damaged motor	Replace or repair motor
	Damaged or inoperative brake	Replace or repair brake
Hoist vibrates badly, noisy or does not hold a load	Damaged brake	Replace or repair brake
	Mounting surface is not flat	Make sure mounting surface is flat
	Tie bar is bent	Replace tie bar

WINCH ASSEMBLY DRAWING



HOIST PARTS LIST

No.	Part #	Qty	Description	Remark
1	H2600001	12	Lock Washer $\Phi 8$	
2	H2600002	4	Screw M8x 25	
3	H2600100	1	Motor Assembly	
4	H2600003	1	Ring Seals	
5	H2600004	1	Motor Bracket	
6	H2600005	8	Flat Washer $\Phi 12$	
7	H2600006	8	Lock Washer $\Phi 12$	
8	H2600007	8	Cap Screw M12 x 35	
9	H2600008	8	Locknut M12	
10	H2600009	2	Bushing-Drum	
11	H2600010	2	Ring Seals	
12	H2600200	1	Break / Shaft Assembly	
13	H2600011	1	Six Angle Bar	
14	H2600012	4	Screw M10 x 30	
15	H2600013	6	Lock Washer $\Phi 10$	
16	H2600014	2	Tie Bar	
17	H2600300	1	Drum Assembly	
18	H2600015	2	Screw M8 \times 10	
19	H2600016	1	Coupling	
20	H2600017	1	End Bearing	
21	H2600018	2	Gasket	
22	H2600019	1	Gear—Ring	
23	H2600020	1	Circlip For Hole	
24	H2600021	1	Bearing	
25	H2600400	1	Gear Carrier Assembly (Output)	
26	H2600022	1	Circlip For Hole	
27	H2600500	1	Gear Carrier Assembly (Intermediate)	
28	H2600600	1	Brake/ Shaft Assembly	
29	H2600023	1	Gear—Input Sun	
30	H2600024	3	Planetary Gear	
31	H2600025	1	Trust Washer	
32	H2600026	1	Bearing	
33	H2600027	1	Gear ring bolt	
34	H2600028	1	Gear—Housing	
35	H2600029	8	Flat Washer $\Phi 8$	
36	H2600030	8	Screw M8x 90	
37	H2600031	2	Screw M10 x 35	
38	H2600032	1	Tie Bar(l)	
39	H2600700	1	Remote Control Switch	
40	H2600800	1	Cable Assembly	
41	H2600033	1	Strap	
42	H2600900	1	Control Section	
43	H2601000	1	Roller Fairlead	
44	H2600034	1	Installation plate	

SPECIFICATION

Rated line pull	2600 lbs (1180 kgs)
Motor: series wound	12V: Input: 5.5kW / 7.4hp; Output: 2.9kW / 3.9hp 24V: Input: 6.1kW / 8.2hp; Output: 3.1kW / 4.2hp
Gear reduction ratio	370:1
Cable (Dia. × L)	Ø13/41" × 91.8 ' (Ø8.1mm × 28m)
Drum size (Dia. × L)	Ø4.7 " × 5.1 " (Ø120mm × 130mm)
Mounting bolt pattern	6.75 " × 4.5 " (171.4mm × 114.3 mm) 6.75 " × 6.5 " (171.4mm × 165.1mm)
Overall dimensions (L × W × H)	21.8" × 8.4" × 8.74" 553 mm × 214mm × 222mm

Pull, Speed, Amperes, Volts (First layer):

Line Pull	Line Speed ft/min (m/min)		Current (A)	
	lbs (kgs)	12V DC	24V DC	12V DC
0	24.6(7.5)	27.5 (8.4)	60	35
1000(453)	19.4(5.9)	23.3(7.1)	80	40
2000(907)	14.8(4.5)	18.7(5.7)	110	55
2600(1180)	12.5(3.8)	15.7(4.8)	125	65

Line Pull and Rope Capacity Per Layer

Layer	Rated line pull lbs (kgs)	Total rope on the drum ft (m)
1	2600(1180)	19.7(6)
2	2253(1022)	41(12.5)
3	1988(901)	65.6(20)
4	1700(770)	91.8(28)

Warranty Page

LIMITED LIFETIME WARRANTY WITH 3 YEAR ON ELECTRICAL

Winch Solutions Ltd are the sole distributors of WARRIOR WINCHES.

- Winch Solutions Ltd warrants to the original retail buyer for Domestic and Off Road use only that any mechanical component of a genuine WARRIOR WINCH is free of mechanical defects for the lifetime of the winch.
- Winch Solutions Ltd warrants to the original retail buyer for Commercial & Industrial use only that any mechanical component of a genuine WARRIOR WINCH is free of mechanical defects for a period of 1 year.
- Winch Solutions Ltd warrants to the original retail buyer for Domestic, Off Road, Commercial & Industrial use only that any mechanical component of a genuine WARRIOR HOIST is free of mechanical defects for a period of 1 year.

The Warranty DOES NOT cover the cost of transportation / shipping charges to and from a place of work or residence, labour (Outside 1 Year), replacement or installation of defective parts. If a product is deemed unusable and needs to be replaced we don't offer a new for old policy and the item will be replaced with a similar specification & age to the one that was submitted for repair.

The electrical components (including the motor, contactor, and switches) will be free of defects in material and workmanship for a period of (3) three years (36 Months) from the original purchase provable date of purchase except on WARRIOR HOIST & AC WINCHES this will be 1 Year Only.

Any Product Winch Solutions Ltd determines to be defective will be repaired or replaced at Winch Solutions Ltd sole discretion without charge to the Buyer upon Buyer's compliance with this procedure. The Seller or its Authorized Agent may make reasonable charges for parts and for labour for repairs not covered by this Lifetime Limited Warranty. The warranties set forth herein are exclusive and in lieu of all other warranties, whether oral, written, expressed or implied.

Year ONE (1): Parts & Labour.

Years TWO & THREE (2-3): Parts only on electrical.

Limited Lifetime:

Year ONE (1): Parts & Labour.

Remaining Years: Parts only.

Other Warranty Exclusions are as follows

This warranty excludes:

- Cosmetic defects such as paint, decals, etc.,
- Worn parts including steel/synthetic ropes
- Any Accessory part including roller fairleads, hooks, mounting plates, transmitter, isolator switches
- Failures due to acts of God and other force majeure events beyond the manufacturer's control
- Problems caused by parts that are not original WARRIOR parts
- Alteration or modification(s) made by any party other than the manufacturer.
- Any electrical cables & wireless remote systems outside of 30 days. (Excluding Lodar systems)
- General wear & tear of components
- Any third party equipment
- Batteries

To obtain service under this warranty, the Buyer shall mail, ship or otherwise deliver to the address noted below, at the Buyers expense; (1) the Product, (2) a written description of the problem, (3) Buyers name, address and contact number, (4) copy of the original purchase receipt.

This warranty does not apply to defects of the Product caused by; (1) normal wear and tear, (2) failure to comply with any installation or maintenance instructions provided by the Seller, including but not limited to subjecting the Product to loads in excess of the loads listed in any instructions, Owners Manual or as detailed upon the Sellers website, (3) commercial or industrial use, (4) alteration or modification by any parties other than the Seller, (5) misuse, abuse, neglect, accidents, Acts of God, terrorism or (6) other causes beyond the control of the Seller after delivery of the Product to the Sellers Authorized Agent.

Winch Solutions Ltd shall not be responsible or liable for any indirect or consequential damages. These consequential damages may include, but are not limited to, lost profits or loss of use and down time.

Winch Solutions Ltd reserves the right to change the Product design without notice. Winch Solutions Ltd reserves the right to replace any part or whole unit with a newer design of the same function.