

OPERATING & MAINTENANCE MANUAL



CWG WINCH RANGE **CWG10151 & CWG30151** **240v x 1ph, 415v x 3ph**

Part Nos: CWG10151: 10031 (240v), 10032 (240v)
CWG30151: 10033 (415v), 10034 (415v), 10035 (415v)

CONFORMING TO
EN14492 Cranes – Power Driven Winches and Hoists – Part 1&2:

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INTRODUCTION

PLEASE READ THIS MANUAL CAREFULLY BEFORE INSTALLATION OR OPERATION OF THE WINCH

Those responsible for the installation and the operation of this winch must read and understand this manual. The first section deals with the installation requirements and the second section is for the user and provides information to ensure safe use of the winch.

These winches are of the highest quality and have been designed to give a robust and efficient service for many years if care and attention are given at all times to correct installation, operation and maintenance.

PLEASE KEEP THIS MANUAL WITH THE WINCH

NOTE: Hire companies should make the hirer fully aware of the safety issues and correct operation of this winch as detailed in this manual and ensure that the proposed operator is suitably trained.

EUROPEAN STANDARDS & BHW GROUP LIMITED

The harmonised European standard: EN14492 part 1&2 for power driven winch provide the means for conformity to essential Health and Safety requirements of the EN Machinery Directive. This standard is law throughout the European Union and must be applied.

Selecting the correct winch for the application is very important not only from the health and safety aspect, but also to maximise product life and ensure the best value for money.

BHW Group Limited products are fully compliant and carry a CE mark. A Declaration of Conformity is also supplied with each product. BHW Group Limited aim to ensure the correct machine is supplied to suit the application and we welcome the opportunity of discussing the proposed application and offer advice. It will help us considerably if information regarding the maximum and average loads to be lifted or pulled - and approximate frequency of use can be provided.



PRE OPERATION CHECK

- Check for any transit damage.
- Check that all fixings and joints are tight and secure.
- Check the capacity of the winch versus intended loads and ensure it is adequate for the task.
- Check that all external wiring is in good order.
- Check the wire rope to ensure that there is no damage – (see notes on Wire Ropes & Hooks, page 16).
- Check that the suspension point is fully capable of taking the proposed load bearing of operation.
- Check that the hooks (top and bottom) are in good order and that potential travel on the load hook is unimpeded.

SETTING UP WINCH PRIOR TO USE.

1. Check that all components of the winch are sound and in good working order.
2. Install and check the winch in accordance with instructions, ensuring that the winch is suited to the task.
3. Hooks must have a safety latch and a minimum rated capacity for the winch.
Use only high tensile grade 80 or 100 to comply with EN14492 part 1 & 2 standards. (Hooks supplied as standard from BHW Group are rated and stamped for lifting and have a safety factor of 4:1.)
Hook capacity for these machines is selected to ensure they are large enough to take webbing straps).
5. Fully test and check all wanderlead operations including Emergency Stop.
6. Ensure that winch has suitable circuit breaker or fuse as part of the power supply and suitable earthing.
7. When installing on site, test the winch, check the integrity of the selected mounting
8. Check that the wire rope is evenly wound on to the drum and generally fit for use, replace if damaged or worn (See section on wire ropes).
9. You are also advised that adherence to the directive ISO4309:2004/2010 regarding care, installation and disposal of wire ropes also applies to this range of winch. (See section on Wire Ropes & Hooks, page 16).

WINCH INFORMATION

WINCH SPECIFICATIONS

Models **CWG WINCH 400 - 600kg**
400kg = 240v x 1ph,
600kg = 415v x 3ph

EN 14492 part 1 & 2 Compliant

Typical Uses. Vertical winching and lowering of loads.

Construction Steel gears running in grease, in cast housing.

Motor 240v x 1ph, AC Induction Type capacitor start, Rated IP54
 415v x 3ph. AC Induction Type Rated IP54

CWG SPECIFICATIONS 10151a 10151b 30151a 30151b 30151c

Voltage options:	240v 1ph		415v 3ph		
Lifting capacity	400kg	480kg	400kg	600kg	600kg
Weight: Winch only Total kit average	120kg				
	148kg				
Wire rope: ϕ x length Construction	9mm x 42m				
	7 x 18 wire core 1960N/mm ² grade. Minimum factor of safety 5:1				
Motor type:	Induction motor				
Outputs: Kilowatts Amperes	2.2kw	1.5kw	2.2kw	1.5kw	1.5kw
	14.5amp	10.6amp	4.6amp	3.5amp	2.9amp
Braking:	Electromagnetic spring applied failsafe				
Drum & flange dimensions:	240mm length, drum ϕ = 140mm, flange ϕ = 280mm				
	Rope ϕ to mean drum ϕ ratio:16.5:1				

Total Kit Includes Winch, wire rope, weighted hook, pendant control and power lead with plug

Wanderlead Tough, 3 button hand held control with 3m lead. IP65 (see below). Includes Emergency Stop. Other lead lengths are available on request.

Hooks (as supplied with CP winch) 300kg rated with safety latch. High tensile grade 80 or 100 in compliance with EN14492-2 standards.

IP (Ingress Protection) Ratings **Motor = IP54** - Protection from entry by solid objects with a diameter or thickness greater than 1mm. Protection against water splashed from any direction – limited ingress permitted.

Wanderlead Control = IP65 – Totally protected against dust. Protection against strong jets of water – limited ingress permitted.

Machine Insulation Class **F** - Maximum operation temperature of 155° C (311° F). Allowable temperature rise at full load 1.0 service factor motor = 105° and at full load 1.15 service factor motor = 115°.

Gear Box: lithium grease EP000 or equivalent

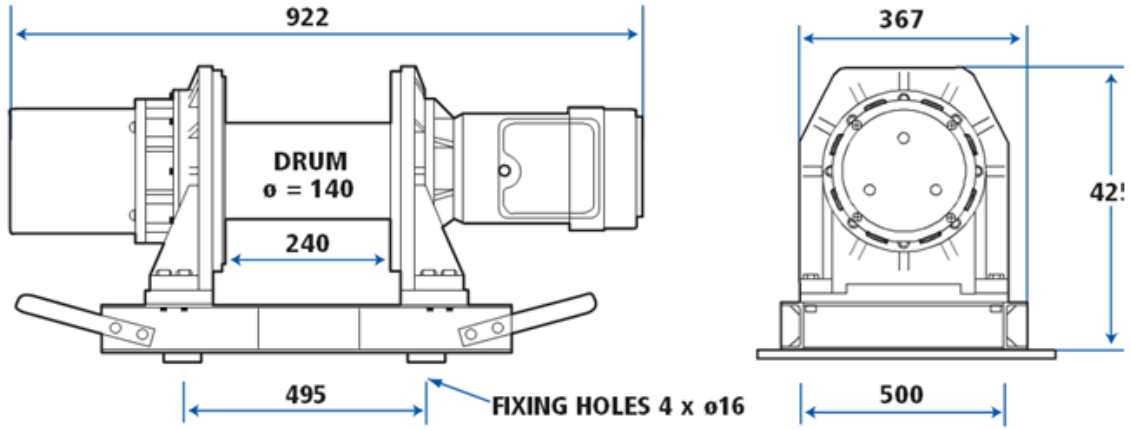
Lubrication & Recommended grease

Noise Level 80db

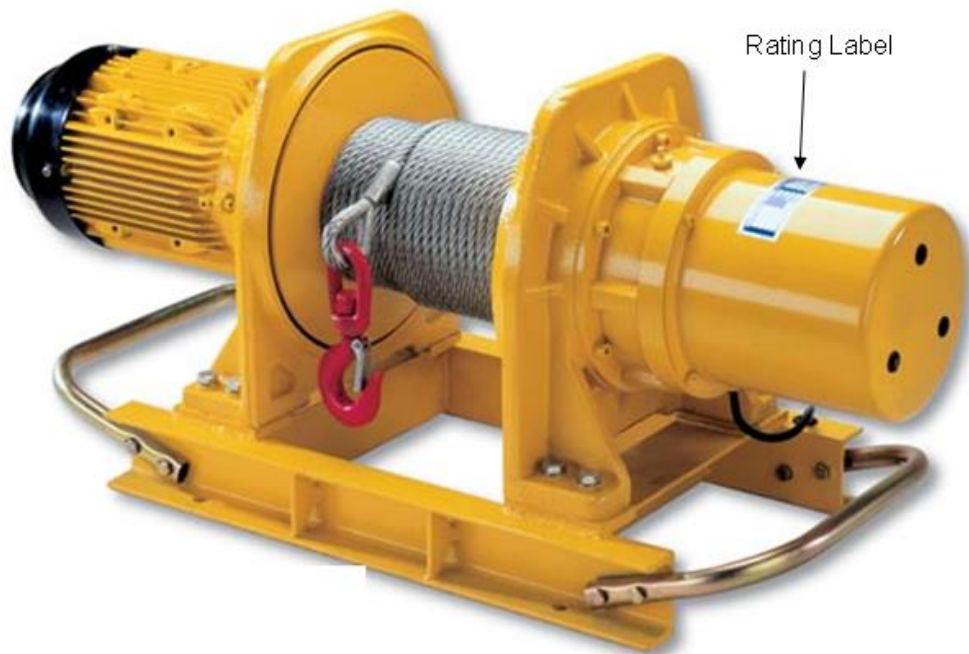
Ambient Temp. Operating Range -10°C to 40°C (humidity must be below 90%)

WINCH INFORMATION

CWG WINCH DIMENSIONS



CWG WINCH LABEL



CWG WINCH - FEATURES

OVERVIEW

The electric motor on the winch drives the drum via the integral planetary gearbox.

The winch has an automatic brake which will apply when the operator release the control button and ceases either winching in or out. The automatic brake will also operate in the event of a power supply failure.

The winch is fully capable of winching in or out using the wanderlead control as the task dictates. The wanderlead also has an emergency stop button which will shut down the winch instantly. The emergency stop can be released by turning the stop button clockwise, in order to resume operation.

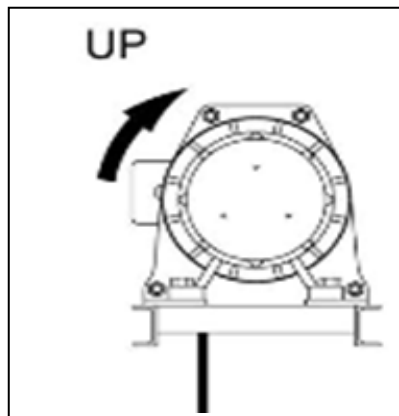
MOUNTING & SAFETY

It is generally envisaged that a secure, load tested surface will be the main support for the winch. All surfaces and bolts used must be capable of holding a load of 25% above the rated load of the winch used.

OPERATING THE CWG WINCH

To operate the CWG winch

- Twist and release the Emergency stop button
- Press the 'UP' button to raise the load, drum will rotate clockwise viewing the winch from the motor end
- Press the 'DOWN' button to lower the load; drum will rotate anti-clockwise viewing the winch from the motor end.
- Press the 'EMERGENCY STOP' button to isolate the control
- The wire rope can come of the top or bottom of the drum provided correct rotation for lifting is maintained.



Up button

Viewing the winch from the motor end the drum rotation is Clockwise

CWG WINCH - FEATURES *contd.*

SWIVEL LOAD HOOK & SPIN RESISTANT WIRE ROPE

The appropriate wire rope and load hook are both supplied with new CWG winch, with the wire rope already installed. Ropes and hooks for CWG winch are specifically calibrated for the safe working load of each model.

Hooks are swivel type, with a safety catch.

Ropes should be spin resistant, galvanised 18 x 7 wire core.

Replacement ropes and hooks should be of the same relevant calibration and are available from BHW Group sales. Please refer to the section on Parts (pages 19-22).

WIRE ROPES ARE NOT COVERED UNDER WARRANTY.

LOW VOLTAGE WANDERLEAD CONTROL: - provided on 240v x 1ph winches include low voltage controls as standard. These are supplied pre-wired to the control box (model dependant) on a 3 metre lead to a 3 button (including Emergency Stop) wander lead control. Press 'UP' and 'DOWN' buttons to activate the winch. The winch will stop once either of these buttons is released.



LOW VOLTAGE WANDERLEAD CONTROL: - provided on 415v x 3ph winches include low voltage controls as standard. These are supplied pre-wired to the control box (model dependant) on a 3 metre lead to a 3 button (including Emergency Stop) wander lead control. Press 'UP' and 'DOWN' buttons to activate the winch. The winch will stop once either of these buttons is released.



EMERGENCY STOP If the emergency stop button is used, winch operation will immediately cease. Once the operator is sure that any potential problem with operations has been solved, the hoist can be put back into use. To do this, the emergency stop needs to be reset by a small turn clockwise to release the button. 'UP' and 'DOWN' control can then be resumed.

NOTE: Cables should be kept away from the area of operation. Both cables should be attached to the hanging clip on the side of the motor housing. It is a good idea to also attach the cables to a hook above the winch, or place the wires over the suspension bar where possible to ensure that cables do not obstruct the operation of the hoist.

OPERATIONAL SAFETY

ENVIRONMENTAL CONSIDERATIONS

Protect the winch from unsuitable environmental conditions. The motor is IP54 rated, the wanderlead control is IP65 rated.

Avoid temperatures under -10° C or above 40° C. Conditions with humidity above 90% may also affect winch performance.

Avoid heavy acidic or salt environments. Protect the winch and controls from excessive exposure to rain or snow or other moisture ingress.

As with all electrical equipment, general exposure to excessive dust pollution, gas emissions or flammable / corrosive liquids, or any potentially explosive environment should also be avoided.

THE WINCH OPERATOR

The winch should be operated by designated and fully trained operators only. Operators should wear suitable work wear for onsite operations including safety gloves, helmets, steel reinforced footwear and protective clothing.

The operator should not engage in any activity which will divert attention from operating the winch.

Prior to use, the operator should check each operation mode (lift / descend / emergency stop) to ensure that all winch activities are fully operational.

Operators should also make sure that loads are safe to move and that the working area is clear of personnel and obstructions.

Operators should not attempt to use the winch if any aspect of the lifting operation or its surrounding environment is deemed unsafe.

WORKING ON SITE



Winch should **NEVER** be used for the transport or lifting of personnel. Loads should **NEVER** pass over the heads of personnel or in any way compromise on site safety.

Using the wanderlead, stand away from the load and use the lift or descend buttons according to need. Use suitable chains or strops to engage the load on to the lifting hook. Make sure that the load and its route is not obstructed in any way.



The wire rope must form a straight line from the load hook to the suspension point.

All loads should be securely hitched, PROPERLY BALANCED and central to the lift, with the load hook safety latch closed, before any lift is made.

If the load is not balanced and centred correctly the wire rope will bunch to one side of the drum, impede operation and damage the wire rope and drum flange. An unbalanced or off centre load is also dangerous.



WATCH WHAT YOU ARE DOING. Do not get distracted from the task. Always keep an eye on the winch and the load to ensure safe operation.

NEVER WRAP THE WIRE ROPE AROUND A LOAD TO ENGAGE THE HOOK.
NEVER STAND UNDERNEATH, OR CLOSE TO THE LOAD.
WEAR PROTECTIVE CLOTHING – ESPECIALLY GLOVES.



Make sure that the hoist is fully capable of lifting the intended load.

DO NOT attempt to lift loads that are beyond the winches capacity (See specifications, page 4).

NEVER use the winch beyond the rated duty cycles shown in specifications.

The efficiency and life of a CWG winch is dependent on weights of loads and working frequency. All CWG winch are rated at a 25% duty cycle, with a maximum of 60 starts per hour – this includes lifting and lowering. Exceeding the duty cycle or overloading the winch will cause unnecessary stress to component parts, and shorten the life of the machine, or may cause it to fail.

OPERATIONAL SAFETY

CHECK ALL EQUIPMENT: The winch, power lead, wanderlead, wire rope - and any chains, ropes and slings used for lifting should be continually inspected for damage or obvious wear that could make them unsafe to work with. Damaged accessory items should be replaced, not repaired (See notes on Routine Maintenance, page 17).

MAKE SURE THE WINCH IS SAFE WHEN UNATTENDED: Before leaving a winch unattended, the operator should lower any load onto the floor or on to an appropriate support and disconnect the winch. The unloaded hook should be raised clear of all passing personnel and traffic. The winch should be fully switched OFF when not in use. Wanderleads, power leads, strops and slings etc., should be neatly stowed away to avoid any trip hazard.

OPERATION

Gearbox – The winch has been supplied from new with the gearbox pre-greased with Lithium gear type.

Gear lubrication is very important to ensure the long life of the winch.

When replacing grease, please take note of the following advice:

For ambient temperature of approx. -10° to $+40^{\circ}\text{C}$, a gear grease with mild high-pressure additives should be used.

Under higher or lower than ambient temperatures, the type of grease used for the gearbox should be adapted to the specific conditions.

DO NOT USE GREASE OR OIL ON THE WIRE ROPE. USE A PROPRIETARY WIRE ROPE LUBRICANT.

CONNECTION TO THE ELECTRICAL SUPPLY – 240v x 1ph, 415v x 3ph

An AC supply is required at the appropriate voltage for the winch. The supply voltage and frequency at which the winch operates is marked on the motor rating plate as **240v x 1ph, 415v x 3ph**.

IT IS IMPERATIVE TO CHECK THAT YOU ARE USING THE CORRECT VOLTAGE.

Cables supplying the winch with power should be kept clear of the operating area and not impede the winch. A suitable circuit breaker or fuse should be installed in the power supply to the winch, and checked regularly.

COMMISSIONING THE WINCH

On completion of pre-operation, but before the winch is put into regular service, the following procedures should be carried out.

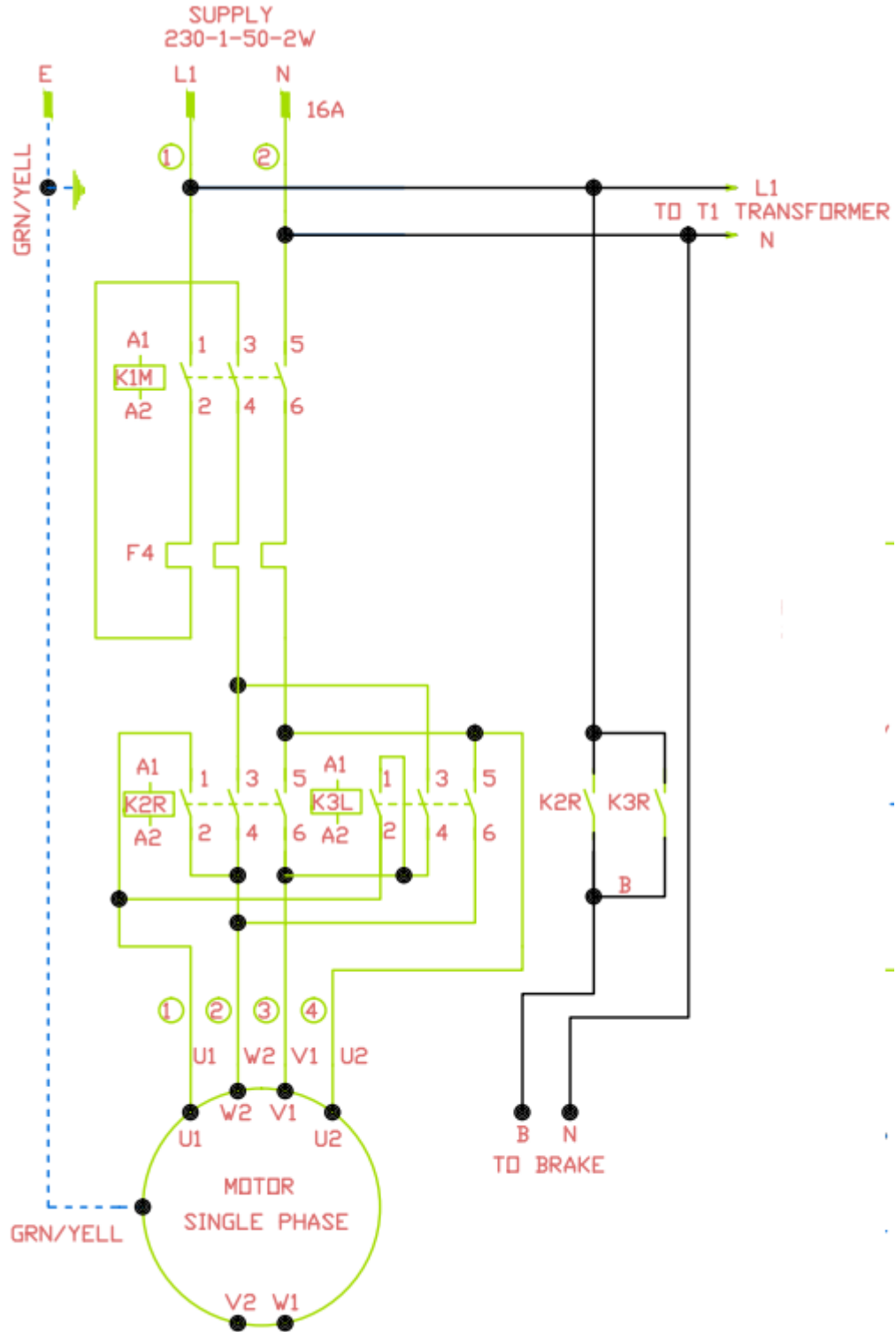
- Isolate the power supply.
- Check that all mechanical and electrical joints and connections are tight and secure.
- Switch on power supply.
- Run the full extent of winch without a load and check that the operation is smooth at all times. A slight tension on the wire rope is advised to ensure smooth running to and from the drum.
- Check operation of winch emergency stop, under both light load and full load conditions

NOTE: If the winch is not being used on a regular basis it should be powered in and out from time to time to minimise corrosion of the internal motor components that may occur due to condensation. Energising the motor will generate heat, which will help dissipate any moisture.

OPERATION

CIRCUITRY CWG10151

The basic circuit details for 240v are shown below:

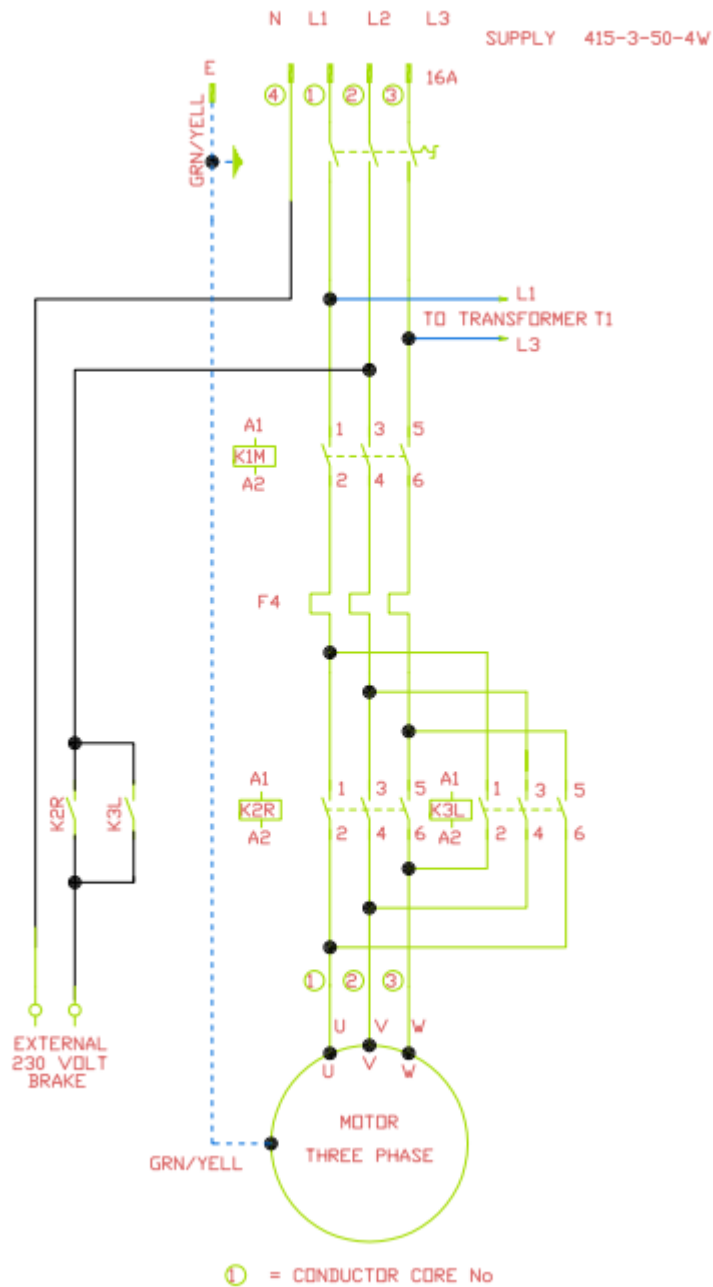


① = CONDUCTOR CORE No

OPERATION

CIRCUITRY CWG30151

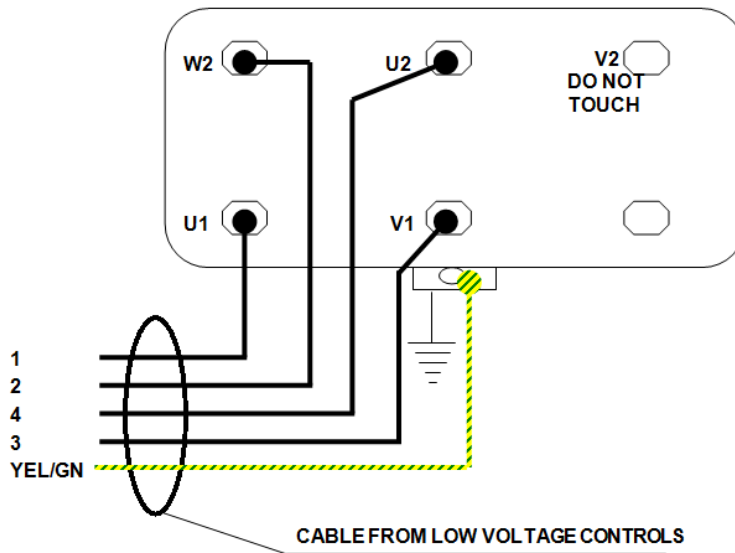
The basic circuit details 415v only are shown below:



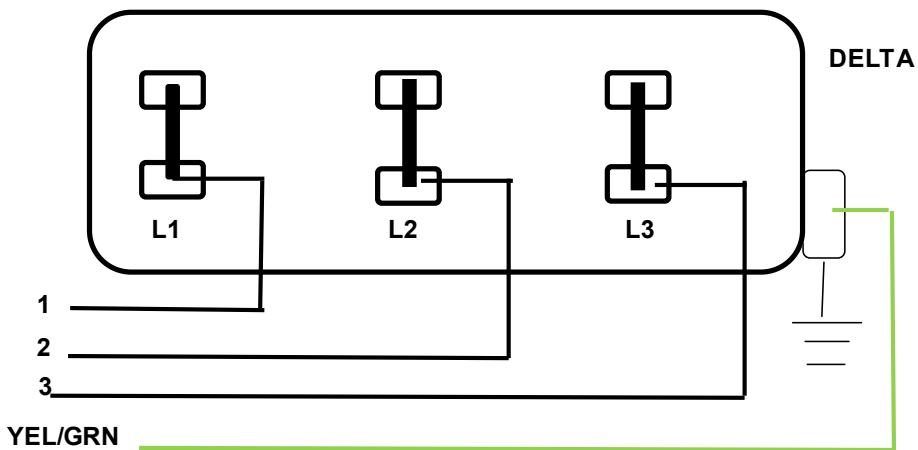
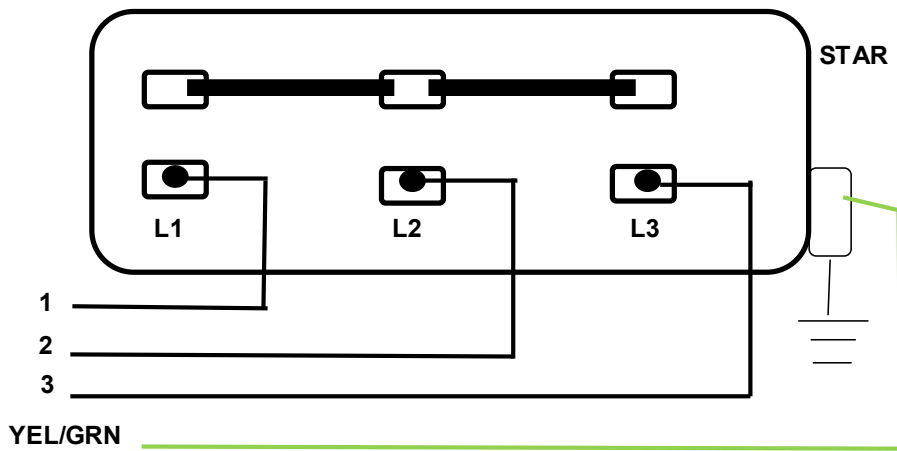
OPERATION

CIRCUITRY CWG10151 & 30151

Motor connection 240v only is shown below:



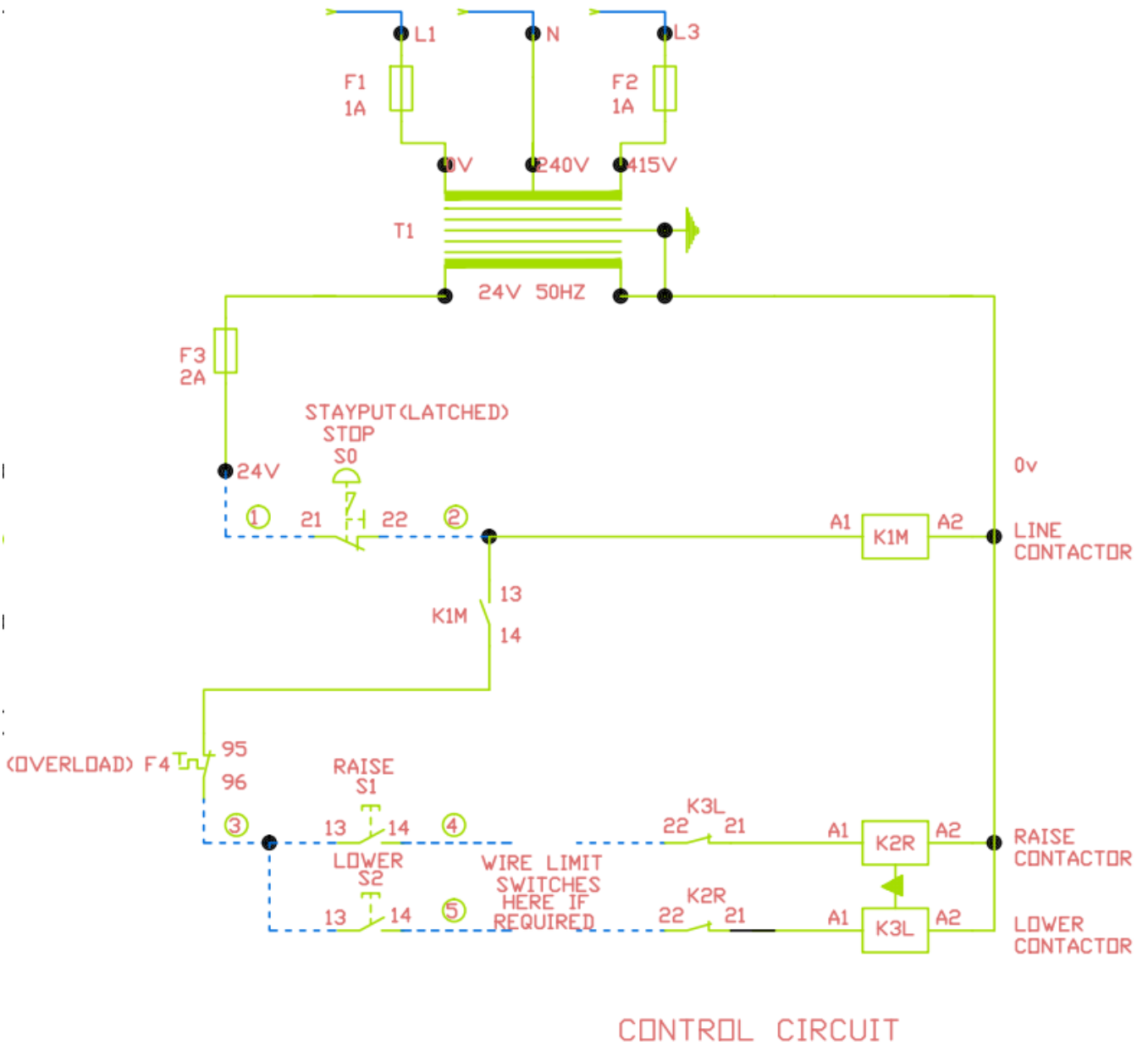
Motor connection 415v only is shown below:



OPERATION

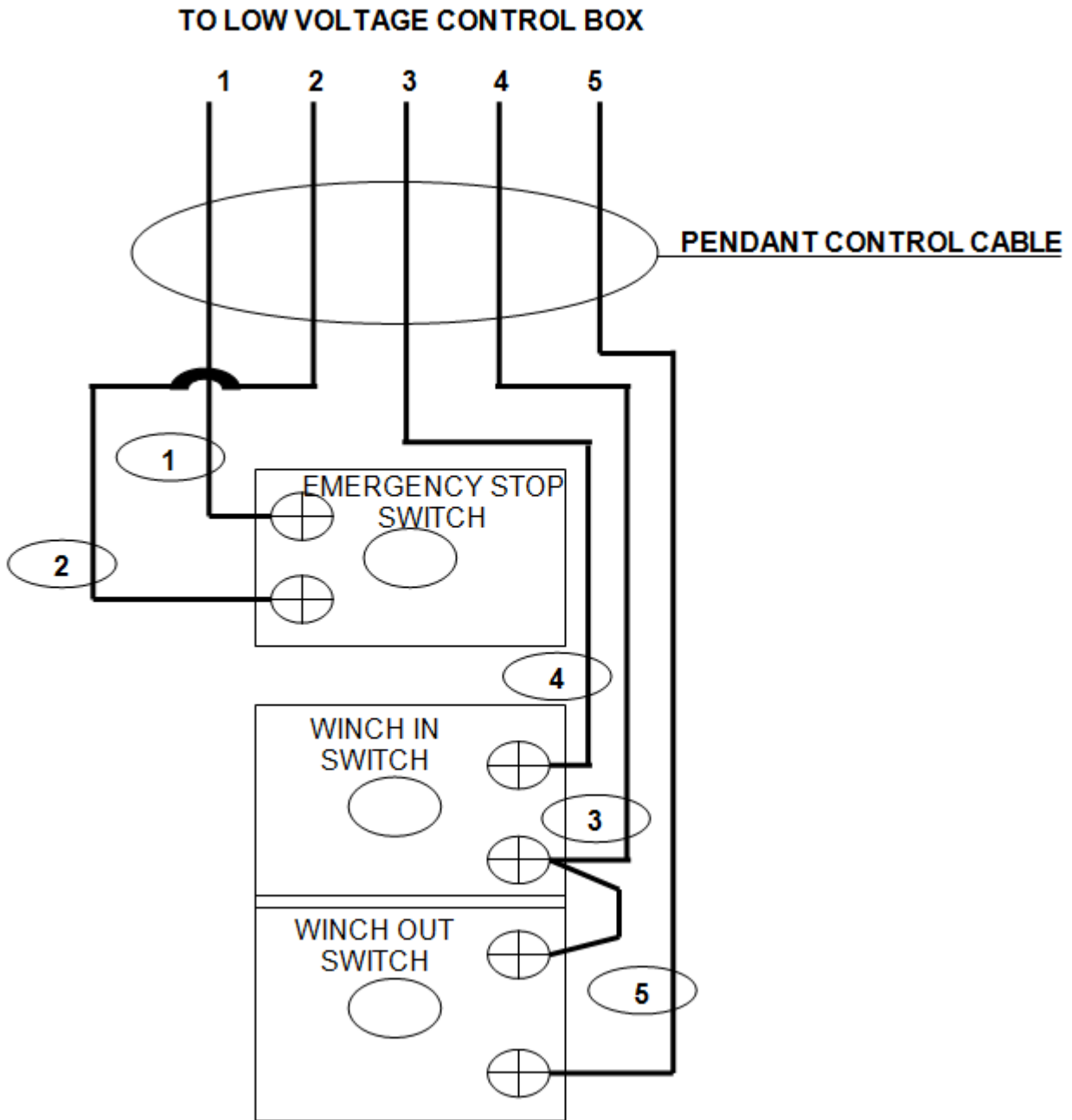
CIRCUITRY CWG10151 & 30151

N.B. CONNECT AS REQUIRED FOR THREE PHASE OR SINGLE PHASE OPERATION

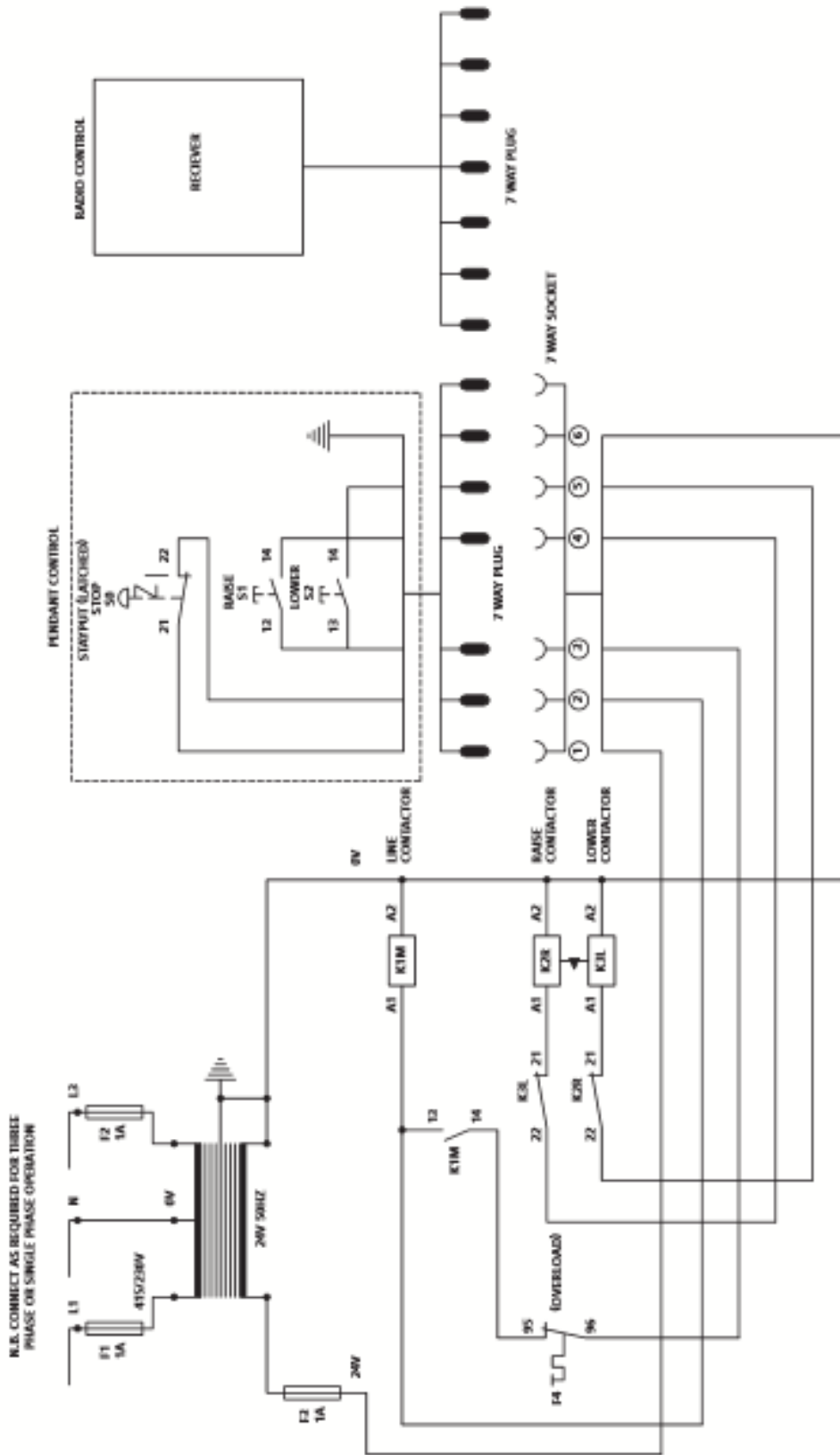


OPERATION

CIRCUITRY



Radio Remote Diagram



WIRE ROPE INFORMATION

NOTE: ISO 4309:2004/2010 – WIRE ROPES DIRECTIVE

ISO 4309:2004 / 2010 details guidelines for the care, installation, maintenance and examination of wire rope in service on winches, hoists and cranes, and enumerates the discard criteria to be applied to promote the safe use of the machinery.

It is important that these guidelines - for safe care, installation and ultimately disposal of wire ropes is strictly adhered to according to this directive.

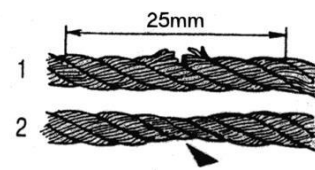
For hoisting applications the minimum breaking force (MBF) of the wire rope must be 5 x the lifting capacity of the winch. The ratio of wire rope diameter to mean drum diameter* is usually at least 15:1. This will vary according to the application, the average operating time per day and the average and maximum weights being lifted.

CARE OF THE WIRE ROPE

It is most important that the wire rope is inspected on a regular basis, for kinks, flat spots, broken strands and other damage caused by wear and tear or possible misuse.

Check both the rope and the hook and replace under any of the following circumstances:

- 10 strands of rope or more broken with a space of 25mm (See fig.1).
- Rope shows visible signs of wasting (See fig.2).
- Deformed or excessively corroded rope.
- Twisted rope.
- Bent rope.
- Broken or faulty safety catch on hook
- Damage or distortion to steel plate above hook



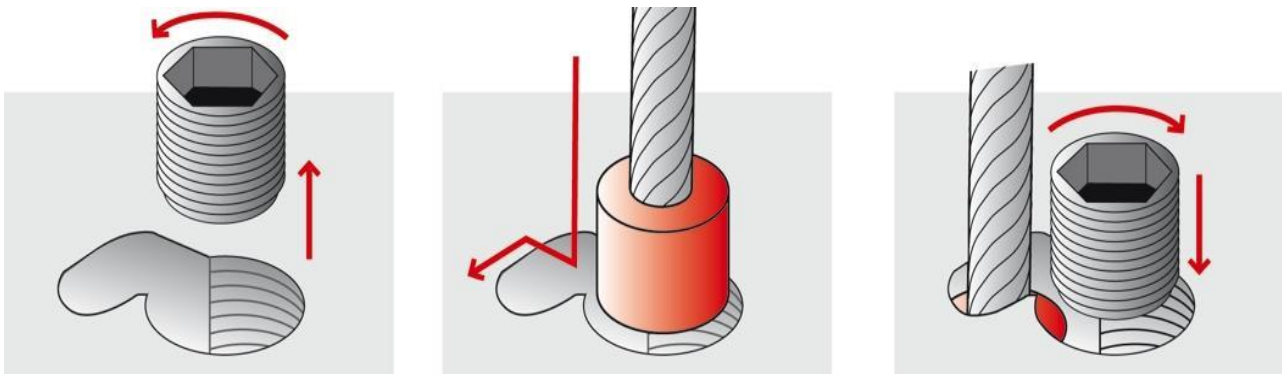
The wire rope or load hook should be replaced if damaged or worn.

After using the winch always check to ensure that the wire rope is layered evenly on the drum. If this is not the case, power out the wire rope and rewind it to ensure even layers. This will significantly extend wire rope life. Normally the tension can be applied by hand – wear gloves.

Under no circumstances wrap the wire rope around the load being recovered and then attach the hook back on to the rope. This will result in serious rope damage or breakage. Always employ a chain or webbing strap from the hook to the load.

WIRE ROPE REPLACEMENT

Unwind the new wire rope by rolling it out along the ground to prevent kinking. Position the cable drum so the large 15mm diameter hole in the drum flange is approximately on top. Remove grub screw from drum and insert cable end with plug into aperture, sliding plug sideways and down (see diagram below). Replace flange screw to secure rope end into drum. Keeping tension on end of rope, run the winch in the 'in' direction and spool all the rope onto the rope drum, taking care to form neatly wrapped layers.



WIRE ROPES ARE NOT COVERED BY WARRANTY.

TAKING CARE OF THE WINCH

CWG winches are a valuable item of equipment for working on site, but care should be taken to ensure the winch is packed away and stored in a responsible manner to minimise potential damage to external parts. It is recommended that either a suitable storage suspension point is fitted to vehicles or storage areas, or at least that the winch is protected by a suitable storage bag, protective covering or kept in a storage box. CWG winches should be routinely cleaned before taking off site or into storage.

ROUTINE INSPECTION & MAINTENANCE

To maintain optimum performance and condition of your CWG winch, it is important to carry out periodical checks.

BRAKING: Check continuously each time the winch is used and following a full service.

The brake unit is an electromagnetic coil with spring applied brake disc and plates. This is a failsafe system that will be applied when either the 'in' or 'out' buttons are released, the Emergency stop button is pressed or if there is a power failure. The brake is full load holding at design rating and will not release until the 'in' or 'out' button, emergency stop button is operated or the power supply is restored.

Therefore to test correctly, a load would have to be put onto the winch to check that the load stops correctly over a short distance. All this should be observed during a normal working schedule when it was last used or during a full service.

MOTOR: Check commutator every 9 - 12 months depending on use and loading conditions.

The motor can only be checked during a major strip down when the commutator can be seen. If it is badly scored or blued, the motor should be checked by a qualified electrician.

POWER LEAD AND WANDERLEAD CONTROL: Visual inspection daily.

The power lead and wanderlead should both be inspected before use to make sure that the outer insulation isn't damaged, that all the plugs are undamaged and the cable connections into the plugs are tight. The wanderlead emergency stop button and control buttons must also be checked for free movement and correct operation.

WINCH SUPPORT HOOK AND SAFETY LOCK: Visual inspection daily.

Before use, check that the hook and support fittings are secure and are moving freely. Lubricate if necessary with light oil.

WIRE ROPE: Visual inspection daily.

Check the wire rope for damage before use. This should be done before lifting any goods by powering the rope completely out and then back on by keeping tension on the rope while doing so.

NOTE: During this operation protective gloves must be worn. Check for kinks, broken strands and flattening of the rope during this operation.

MARKING LABELS: Visual inspection at major service.

Check for wear and damage. Replace if necessary.

SERVICING

It is recommended that CWG winch are returned to the supplier for a full service and load tested every 3 years or after 750 hours of use – whichever is the soonest.

TAKING CARE OF THE WINCH

ROUTINE INSPECTION & MAINTENANCE

BRAKE REPLACEMENT and ADJUSTMENT- Models from 2016 only.

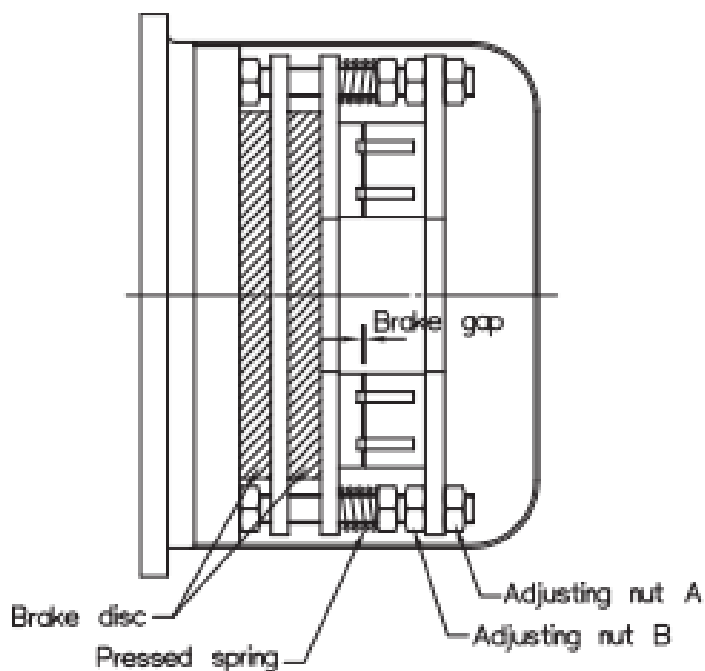
If the brake disc thickness is smaller than 12mm, replace it with new one.

When the brake distance is more than 1.5% of the rope to be wound in during a period of 1 minute

Procedure to replace or Adjust the brake

- Loosen the adjusting nut "B" to enable the nut "A" can be loosen
- Rotate nut "A" clockwise to achieve correct brake gap of 0.35mm
- Tighten the adjustment nut "B"

This adjustment must be made to all four sets of nuts.

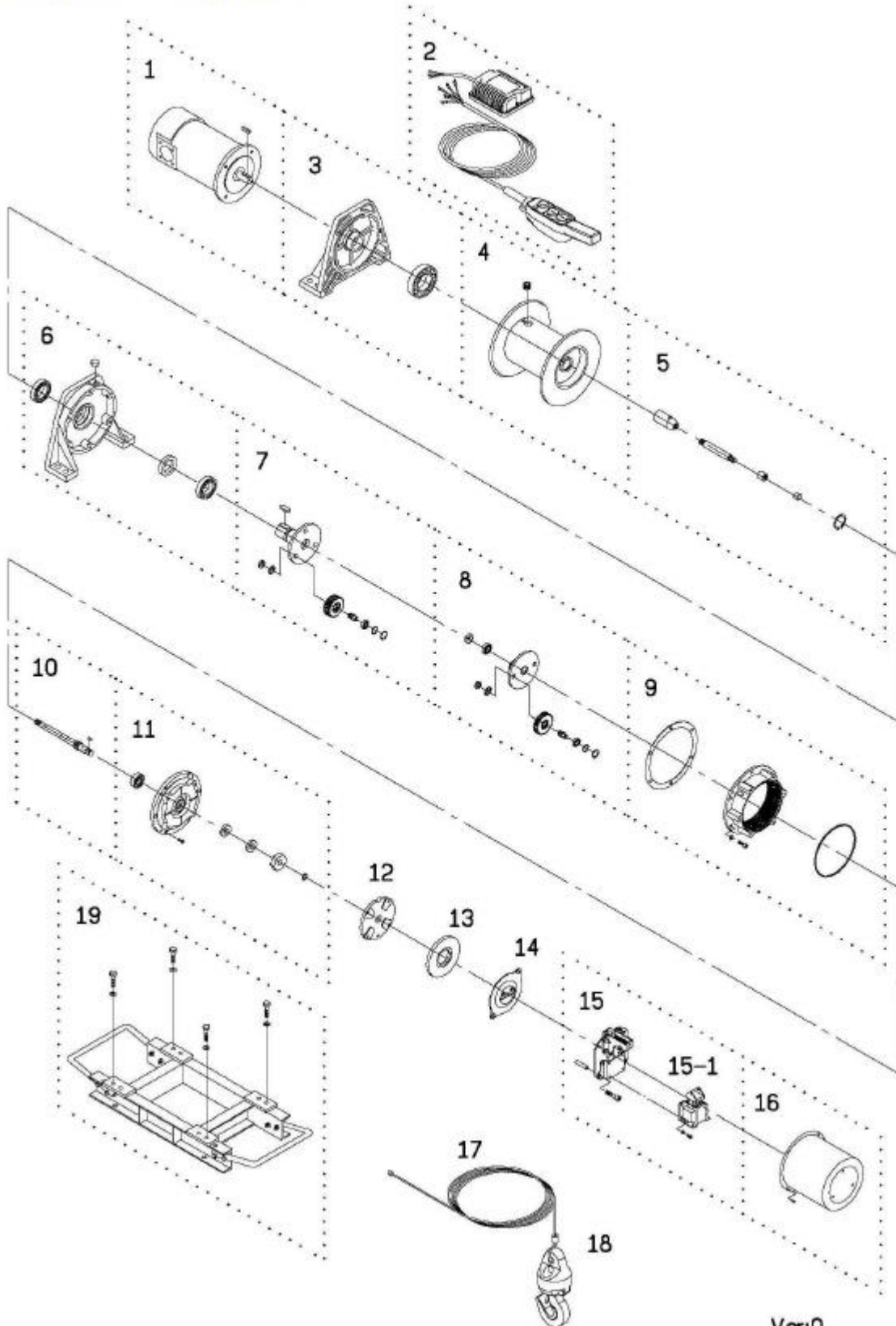


Brake Specification

Model	Coil Voltage V	Brake Disc Diameter mm x q'ty	Resistance ohm	Brake Gap mm
CWG-10151	DC 220	140 x 1	436	0.35
CWG-30151	DC 220	140 x 1	436	0.35

Parts diagram CWG10151 & CWG30151- Up to 2016

Winch Assembly



Ver:0

Parts List CWG10151 & CWG30151 – Up to 2016

Parts description - CWG10151- Up to 2016

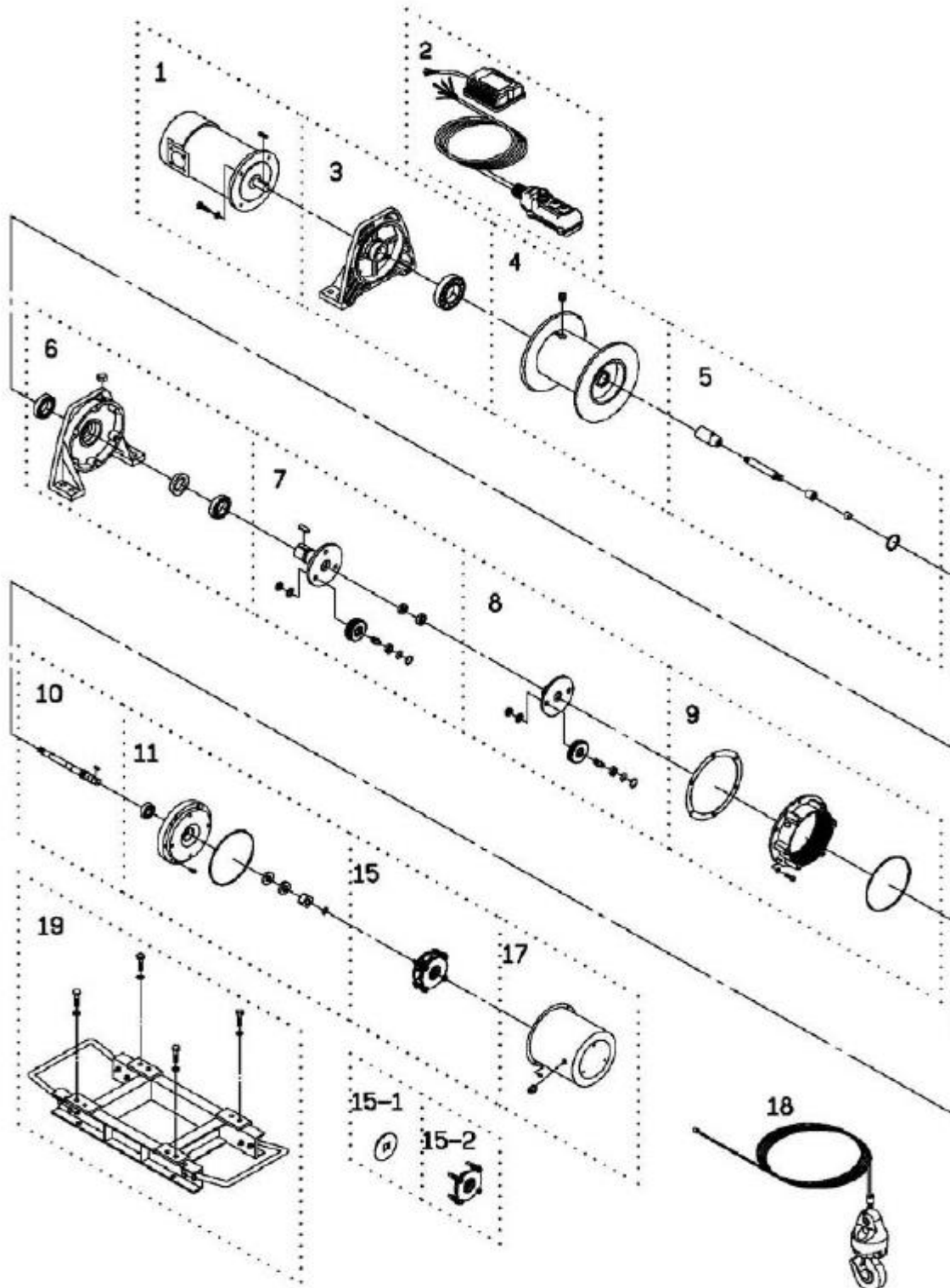
No.	BHW no.	Description	Qty
1	8041	Induction motor kit 240v 2.2kw 2 pole	1
	8045	Induction motor kit 240v 1.5kw 4 pole	1
2	2174	Low voltage control kit 240v 9-13a overload	1
	15778	Low voltage control kit 240v 7-10a overload	1
3	17072	Motor support rack kit - 880806	1
4	17073	Drum kit - 880807	1
5	13188	Connect shaft kit - 880808	1
6	17074	Gearbox support rack kit - 880809	1
7	17075	2nd stage carrier kit - 881663	1
8	17076	1st stage carrier kit - 881664	1
9	17077	Gear box kit - 880814	1
10	17078	1st stage kit - 880815	1
11	2209	Gearbox rear cover kit - 880816	1
12	2213	Brake base - 880817	1
13	2214	Brake disc - 880818	1
14	2215	Brake panel - 880819	1
15	2216	Brake bracket kit - 880820	1
15	2218	AC Solenoid - 880821	1
16	2219	Brake cover kit - 880822	1
17	13445	Wire rope 9mm x 18m c/w Hook	1
	13364	Wire rope 9mm x 25m c/w Hook	1
	10067	Wire rope 9mm x 42m Thimble eye	1
18	13287	Weight hook CHW-0005 - 880444	1
19	17079	Base plate kit - 880824	1

Parts description - CWG30151- Up to 2016

No.	BHW no.	Description	Qty
1	10041	Induction motor kit 415v 2.2kw 2 pole	1
	8060	Induction motor kit 415v 1.5kw 4 pole	1
	8207	Induction motor kit 415v 1.1kw 6 pole	1
2	2175	Low voltage control kit 415v 4-6a overload	1
	15724	Low voltage control kit 415v 2.5-4a overload	1
3	17072	Motor support rack kit - 880806	1
4	17073	Drum kit - 880807	1
5	13188	Connect shaft kit - 880808	1
6	17074	Gearbox support rack kit - 880809	1
7	17075	2nd stage carrier kit - 881663	1
8	17076	1st stage carrier kit - 881664	1
9	17077	Gear box kit - 880814	1
10	17078	1st stage kit - 880815	1
11	2209	Gearbox rear cover kit - 880816	1
12	2213	Brake base - 880817	1
13	2214	Brake disc - 880818	1
14	2215	Brake panel - 880819	1
15	2216	Brake bracket kit - 880820	1
15.1	2218	AC Solenoid - 880821	1
16	2219	Brake cover kit - 880822	1
17	13445	Wire rope 9mm x 18m c/w Hook	1
	13364	Wire rope 9mm x 25m c/w Hook	1
	10067	Wire rope 9mm x 42m Thimble eye	1
18	13287	Weight hook CHW-0005 - 880444	1
19	17079	Base plate kit - 880824	1

Parts diagram CWG10151 & CWG30151- From 2016

Winch Assembly



Ver:02

Parts List CWG10151 & CWG30151- From 2016

Parts description - CWG10151- From 2016

No.	BHW no.	Description	Qty
1	8041	Induction motor kit 240v 2.2kw 2 pole	1
	8045	Induction motor kit 240v 1.5kw 4 pole	1
2	2174	Low voltage control kit 240v 9-13a overload	1
	15778	Low voltage control kit 240v 7-10a overload	1
3	17072	Motor support rack kit - 880806	1
4	17073	Drum kit - 880807	1
5	13188	Connect shaft kit - 880808	1
6	17074	Gearbox support rack kit - 880809	1
7	17075	2nd stage carrier kit - 881663	1
8	17076	1st stage carrier kit - 881664	1
9	17077	Gear box kit - 880814	1
10	17078	1st stage kit - 880815	1
11	2209	Gearbox rear cover kit - 880816	1
15	17080	Brake kit DC200V - 882220	1
15.1	17081	Brake disc - 882046	1
15.2	17082	Brake coil DC200V - 882221	1
17	2219	Brake cover kit - 880822	1
18	13445	Wire rope 9mm x 18m c/w Hook	1
	13364	Wire rope 9mm x 25m c/w Hook	1
	10067	Wire rope 9mm x 42m Thimble eye	1
18.1	13287	Weight hook CHW-0005 - 880444	1
19	17079	Base plate kit - 880824	1

Parts description - CWG30151- From 2016

No.	BHW no.	Description	Qty
1	10041	Induction motor kit 415v 2.2kw 2 pole	1
	8060	Induction motor kit 415v 1.5kw 4 pole	1
	8207	Induction motor kit 415v 1.1kw 6 pole	1
2	2175	Low voltage control kit 415v 4-6a overload	1
	15724	Low voltage control kit 415v 2.5-4a overload	1
3	17072	Motor support rack kit - 880806	1
4	17073	Drum kit - 880807	1
5	13188	Connect shaft kit - 880808	1
6	17074	Gearbox support rack kit - 880809	1
7	17075	2nd stage carrier kit - 881663	1
8	17076	1st stage carrier kit - 881664	1
9	17077	Gear box kit - 880814	1
10	17078	1st stage kit - 880815	1
11	2209	Gearbox rear cover kit - 880816	1
15	17080	Brake kit DC200V - 882220	1
15.1	17081	Brake disc - 882046	1
15.2	17082	Brake coil DC200V - 882221	1
17	2219	Brake cover kit - 880822	1
18	13445	Wire rope 9mm x 18m c/w Hook	1
	13364	Wire rope 9mm x 25m c/w Hook	1
	10067	Wire rope 9mm x 42m Thimble eye	1
18.1	13287	Weight hook CHW-0005 - 880444	1
19	17079	Base plate kit - 880824	1

Below are some tips on trouble shooting with a CWG winch, further advice is readily available from the BHW Group

SYMPTOM	POSSIBLE CAUSES	CORRECTIONS
No power	Faulty wiring on power lead or poor electrical source Burnt out motor	Check power lead and power source Replace Motor
Can lift, but fails to lower	Malfunction of 'DOWN' button on wanderlead	Replace 'DOWN' switch in wanderlead
Can lower, but fails to lift	Malfunction of 'UP' button on wanderlead	Replace 'UP' switch in wanderlead
Short circuit	Damage to wander lead Burnt out motor	Replace wanderlead Replace motor
Failure to lift the rated load	Overloaded	Reduce load
Failure to hold rated load after stopping	Worn brake	Replace or adjust brake
Brake distance is too long at 'no load'	Worn brake	Check brake or replace
Smell of burning or smoke	Malfunction of brake Malfunction of contact of pendant switch Winch has debris inside, impairing operation	Replace brake Replace pendant switch Remove debris and clean outer housing (do not use jet sprays)

BHW GROUP LIMITED warrants each new CWG winch and ancillary equipment supplied against factory defects in material and workmanship for one year from date of purchase.

The responsibility for uninstalling the winch or ancillary equipment is the owner's, together with its return, transportation prepaid to BHW Group Limited.

BHW Group Limited will, under this Warranty, without charge repair or replace at its option, parts, which on inspection are deemed to be defective.

The loss of use of the produce, loss of time, inconvenience, commercial loss or consequential damages are not covered.

Warranty does not apply where the product has been tampered with or altered in any way, or where the serial number or date stamp has been defaced, altered or removed, or if in the view of BHW Group Limited the damage or failure occurred from misuse, negligence or accident.

NOTE: This is a mechanical product and as such requires regular, routine maintenance (See page 12). Subject to duty cycle, some consumable parts are not likely to be covered by warranty. This would typically apply to items like wire ropes and motor brushes. BHW Group will always examine any product whilst under warranty and advise accordingly.

BHW Group Limited reserve the right to change the design of any product without assuming any obligation to modify any product previously supplied.

Winches or equipment returned under warranty should be despatched to BHW Group Limited service department at the address shown below, with full name and address of sender, a statement detailing the defect and proof of purchase.

BHW
Bushey Hall Winchmaster
www.bhwgroup.com

Service Department
BHW Group Limited
Unit 6 South Orbital Trading Park
Hedon Road
Hull HU9 1NJ

Telephone: +44 (0)1482 223 663
Fax: +44 (0)1482 218 285
Email: sales@bhwgroup.com
Website: www.bhwgroup.com

CWG WINCH MODEL & VOLTAGE.....
SERIAL NUMBER.....
DATE OF PURCHASE.....