BHW
Bushey Hall Winchmaster
www.bhwgroup.com

FITTING & OPERATING INSTRUCTIONS

ARCHITECTURAL HOISTS

CH100 (100kg), CH200 (200kg), CH300 (300kg), CH500 (470kg)
240v x 1ph

Part Nos. CH100 – 10961, CH200 – 3392, CH300 – 3393, CH500 - 13824

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

Part No. 13845 / 13.03.12

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Bushey Hall Winchmaster is a division of BHW Group Limited. Registered in England No. 1342461

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INTRODUCTION

Thank you for purchasing a BHW Architectural Hoist, one of a range of professional winches and hoists available from the BHW Group Limited.

These hoists are designed for **lifting applications only** and therefore should never be used for any type of pulling application, nor should they be used for the movement of personnel.

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

Those responsible for the installation and the operation of the hoist must read and understand this manual.

This introduction also includes information on the European standard EN14492-2 for hoists and the importance of correct product specification, installation and testing to ensure the essential Health and Safety requirements of the EC machinery directive are met.

EUROPEAN STANDARDS & BHW GROUP LIMITED

The harmonised European standard: EN14492-2 for power driven hoists 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. Conformity to these standards is the joint responsibility of the hoist supplier, the installer and the operative of the machine.

Selecting the correct hoist for the application is very important not only from the health and safety aspect, but also to maximise product life and value for money by reducing maintenance costs and any possible down time.

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 further 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 should more assistance be required.

INSTALLER RESPONSIBILITY FOR CE COMPLIANCE

1. Mount hoist in accordance with instructions.

2. Install a suitable wire rope according to the specifications of the selected hoist
   (See specifications, page 4).

   Maximum rope lengths are dictated by the hoist specifications. This is the maximum rope length permissible to ensure compliance with EN14492-2 as this requires a 1.5 x wire rope diameter allowance from the top layer to the drum flange.

3. Attach wire rope to the drum as per WIRE ROPE INSTALLATION INSTRUCTIONS. (Page 13).

4. Load test the hoist following installation to check the integrity of the mounting using a weighted object prior to fixing the proposed load. The load test should be rated to at least 125% of the proposed load to be lifted. See Page 13.

5. The wire rope should be attached to the load with a suitable connector such as an industrially rated and CE marked high tensile bow shackle. All connectors should be rated for lifting at a safety factor of 4:1. Example: A 500kg (0.5 tonne) connector has a maximum yield of 0.5 x 4 = 2 Tonne.

6. The installation must be fully tested and certified by a qualified electrical engineer.

HOIST INFORMATION

HOIST SPECIFICATIONS

Models — **CH100 (100kg), CH200 (200kg), CH300 (300kg), CH500 (470kg)**
EN 14492-2 Compliant

Construction — Die cast aluminium end housings with steel drum

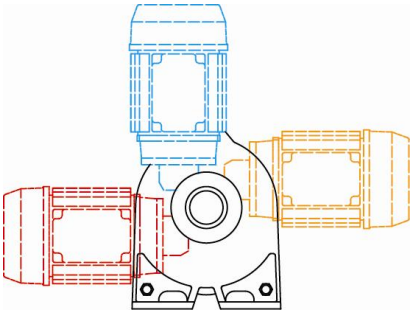
Drum Rotation — **CH100, CH200 & CH300**
Anti clockwise viewed from motor end when pulling in
CH500 Clockwise viewed from motor end when pulling in

The following chart refers to the four variants of BHW Architectural Hoists. Larger capacity hoists are also available for heavier applications. Data shown is approximate and intended as a guide only.

	CH100	CH200	CH300	CH500
Lifting Capacity (on 3rd layer):	110kg (1.1kN)	200kg (1.96kN)	300kg (2.94kN)	470kg (4.6kN)
Voltage:	240v x 1ph			240v x 1ph from 24v via transformer
Motor type:	Induction motor			Reversible Permanent Magnet Motor
Outputs Kilowatts:	0.18kw	0.37kw	0.37kw	0.3kw
Amperes:	1.6amp	3.6amp	3.6amp	25amp
Braking:	Dual mechanical and electromagnetic motor brake			Mechanical Ratchet Brake
Duty Cycle:	All Architectural Hoists have a duty cycle of 25%, with a maximum of 60 starts per hour			
Weight - hoist only:	9kg	30kg	40kg	34kg
Drum Diameter:	70mm	95mm	95mm	97mm
Length:	46mm	97mm	147mm	95mm
Flange Ø:	158mm	190mm	190mm	190mm
Wire rope Diameter:	4mm	5mm	5mm	6mm
Construction:	19 x 7 spin resistant rope, 1960² MBL 16.08kN (1640kg) Minimum factor of safety 5:1			
Rope to mean drum ratio:	18:1	20:1	20:1	15:1
Minimum recommended distance of hoist from pulley at ceiling aperture:	500mm	1100mm	1650mm	1165mm

NOTES:

- The CH500 (470kg) has a 24v motor and is supplied with a 240v transformer.
- Weights shown are for the hoist only. The weight of the whole kit being used should be assessed prior to installation, and suitable reinforcement made to the ceiling joists should made as necessary. If in doubt, consult a builder or structural engineer.
- It is important that the wire rope used is in accordance the specifications given and is also spin resistant to prevent unwanted rotation of the load when being raised or lowered.
- The recommended distance from the hoist to the first pulley in a straight line is necessary to optimise even wrapping of the wire rope on to the drum. A shorter distance may result in the wire rope becoming tangled on the drum and reduce efficiency of the hoist.

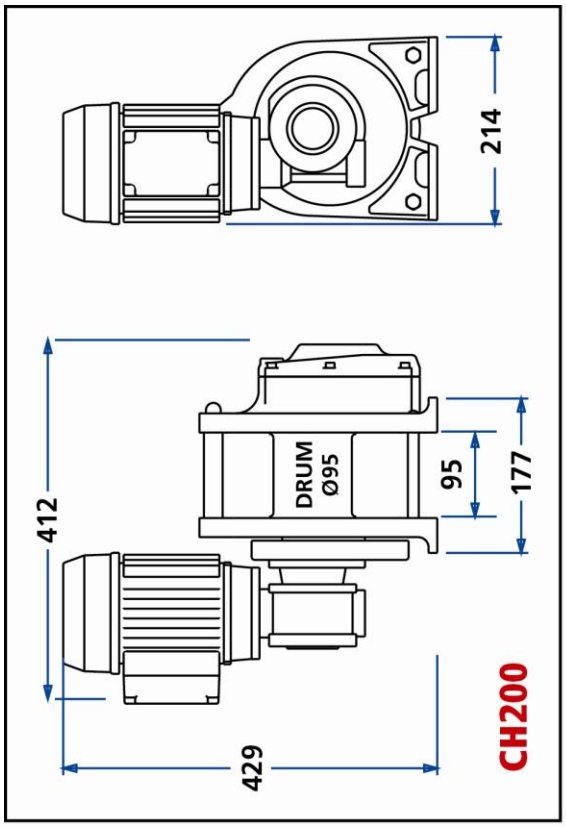


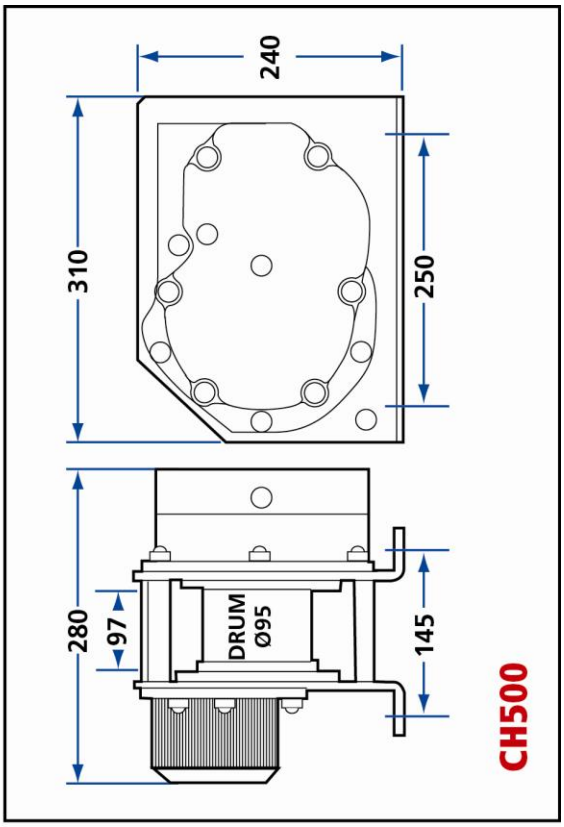
ROTATIONAL MOTOR OPTIONS

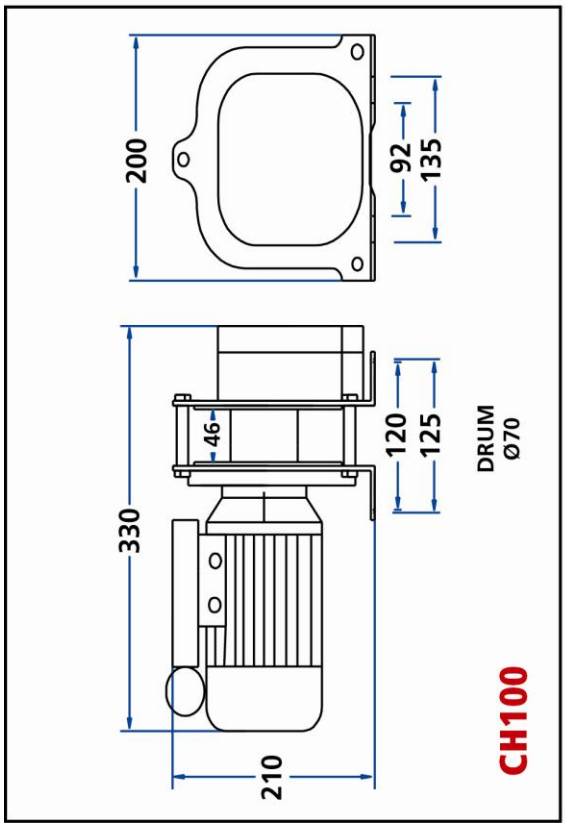
The CH200 and CH300 motors can be mounted in any of three positions on the hoist to suit space available.

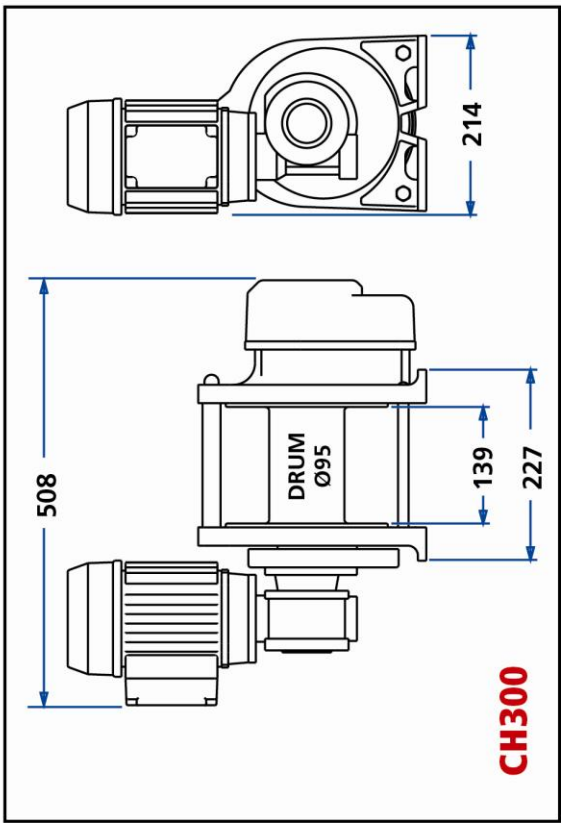
HOIST INFORMATION

HOIST DIMENSIONS









HOIST INFORMATION

HOIST PERFORMANCES

CH100
Rated lifting capacity 100kg on 4th layer

		NUMBER OF ROPE LAYERS ON DRUM							
		1	2	3	4	5	6	7	8
Maximum Rated Line Pull by Layer	kN	1.3	1.2	1.1	**0.9**	0.9	0.8	0.8	0.7
	kg	135	121	110	**100**	92	86	80	75
Rope Capacity Cumulative by Layer (4mm Ø Wire Rope)	m	2.5	5.4	8.5	**11.9**	15.5	19.5	23.8	28.3
Line Speed - m/min		3.5	4.0	4.5	**5.1**	5.6	6.1	6.6	7.1

CH200
Rated lifting capacity 200kg on 3rd layer

		NUMBER OF ROPE LAYERS ON DRUM							
		1	2	3	4	5	6	7	8
Maximum Rated Line Pull by Layer	kN	2.4	2.2	**2.0**	1.8	1.7	1.6	1.5	1.4
	kg	243	220	**200**	185	171	159	149	140
Rope Capacity Cumulative by Layer (5mm Ø Wire Rope)	m	5.8	12.2	**19.2**	27	35	44	53	63
Line Speed - m/min		3.5	3.9	**4.3**	4.7	5.0	5.4	5.8	6.1

CH300
Rated lifting capacity 300kg on 3rd layer

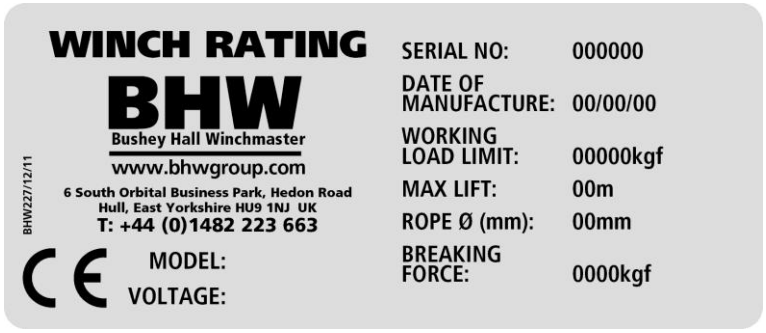
		NUMBER OF ROPE LAYERS ON DRUM							
		1	2	3	4	5	6	7	8
Maximum Rated Line Pull by Layer	kN	3.6	3.2	**2.9**	2.7	2.5	2.3	2.2	2.0
	kg	364	329	**300**	277	256	238	223	210
Rope Capacity Cumulative by Layer (5mm Ø Wire Rope)	m	8.8	18.5	**29.1**	40.6	53	66.5	81	96
Line Speed - m/min		2.4	2.6	**2.9**	3.1	3.4	3.6	3.9	4.1

CH500
Rated lifting capacity 470kg on 3rd layer

		NUMBER OF ROPE LAYERS ON DRUM				
		1	2	3	4	5
Maximum Rated Line Pull by Layer	kN	5.7	5.1	**4.6**	4.1	3.8
	kg	585	521	**470**	427	391
Rope Capacity Cumulative by Layer (6mm Ø Wire Rope)	m	4.8	10.2	**16.2**	22.8	30.1
Line Speed - m/min		2.3	2.6	**2.9**	3.1	3.4

Cumulative rope capacity denotes total length of rope in metres on the drum according to how many layers.
An assessment of rope length needed for lifting, plus the length required permanently off of the drum is needed to calculate rope lengths for individual applications.
Data shown is approximate and intended as a guide only.

HOIST LABELS



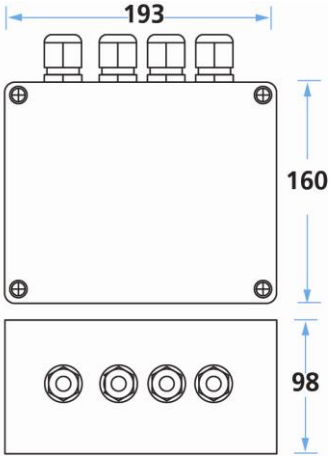
Ratings Label

Drum Direction Label

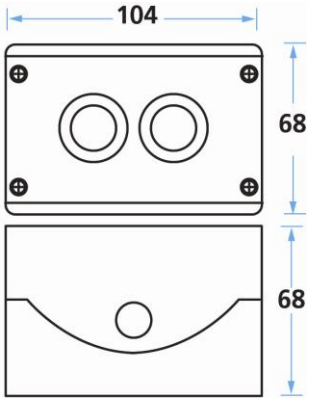
ADDITIONAL EQUIPMENT

The following pages show additional equipment that is typically used for an Architectural Hoist installation.
Dimensions given are nominal and intended as a guide to gauge installation space required.

CONTROL BOX Part No. 2179
For quick and easy installation of electrical circuits for the hoist, limit switches, power supply and control switches.

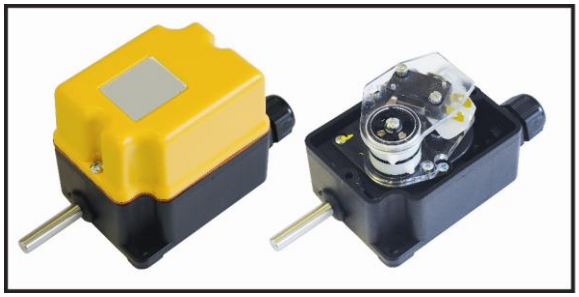


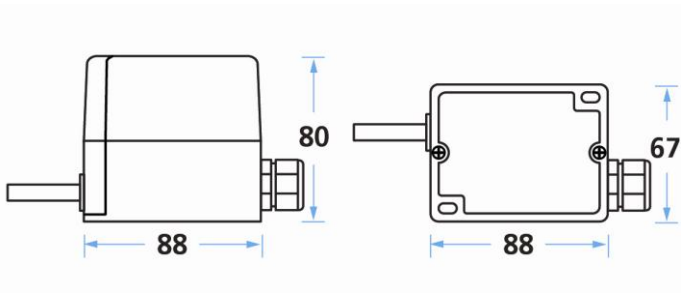
CONTROL SWITCH Part No. 9485
Hard wire control switching and isolator switches are normally sited within view of the load being raised or lowered.
Use of this 'key only' access switch offers additional security and safety.



LIMIT SWITCH Part Nos: 50:1 = 3294 / 75:1 = 12496 / 100:1 = 12495 / 150:1 = 3293
Designed to set the lowest and highest parameters of the operational requirement, effectively stopping the wire rope at top and bottom heights.

There are four variants of limit switch with different ratios. Choice of switch will depend on length of fall.

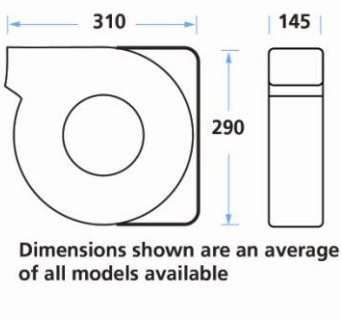




ADDITIONAL EQUIPMENT

AUTOMATIC CABLE REWINDER Part Nos. See Below

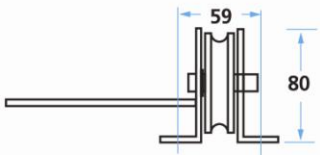
Supplied certified for each individual application, based on kw and circuit information supplied by the client.

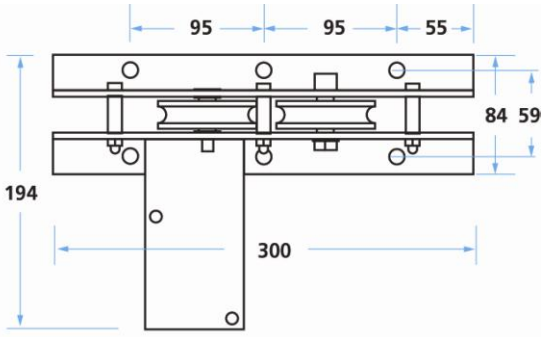


ARCHITECTURAL HOISTS IP42 CABLE REELS					
Model	No of Cores	Cable Section mm	Cable Ømm	Length of Coiled Cable + External Mtr	Max Wattage of Cable Coiled
5828XF	3	1	7	12.5 + 1.5	900
5827XF	3	1.5	8	10 + 1.5	1200
5825XF	3	2.5	9.5	7 + 1.5	1850
5824XF	4	1	7.5	10.5 + 1.5	1100
5823XF	4	1.5	8.5	8 + 1.5	1350
5821XF	4	2.5	11	5.5 + 1.5	2000
5844XF	5	1	9	7.5 + 1.5	1000
5834XF	5	1.5	10	5.5 + 1.5	1350

DOUBLE PULLEY Part No. 8179

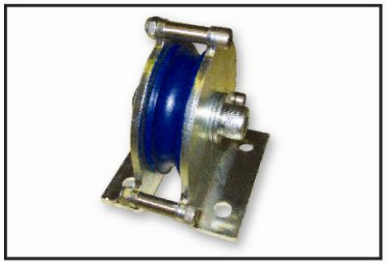
Double Pulleys for wire rope and power cable applications.

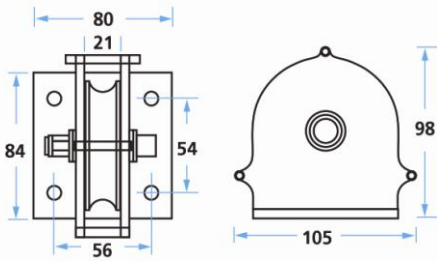




SINGLE PULLEY Part No. 8180

Single pulleys for hoist only applications or additional routing of wire rope or power cable in the ceiling void.





FM•CONNECT Part Nos. 4837 (Receiver) / 4835 (Transmitter)

Remote control system unique to BHW Group. Supplied with transmitter and receiver and full installation instructions.

Further accessories including connectors, bow shackles, mounting brackets and protective covers are available from BHW Group sales on (0) 1482 223 663.

INSTALLATION

PLEASE READ THIS CAREFULLY BEFORE INSTALLING OR OPERATING THE HOIST.
Respect for a hoist and common sense in its operation, will ensure complete safety and reliability. Do not underestimate the potential danger in hoisting operations. Be aware of the basic dangers so you can avoid risk of accidents and unnecessary damage to the hoist, the items being lifted or raised - or the surrounding environment.

Keep yourself and others at a safe distance, away from the operation of the hoist when in use.

GENERAL INSTALLATION NOTES

BHW Architectural Hoists have been built to a specification to comply with EN14492-2. These hoists are tough and will provide many years of reliable service if being used for the correct application. Like all machines they must be installed correctly in accordance with these fitting instructions (Pages 9-14) and subsequently the user must also adopt correct and safe operational procedures.

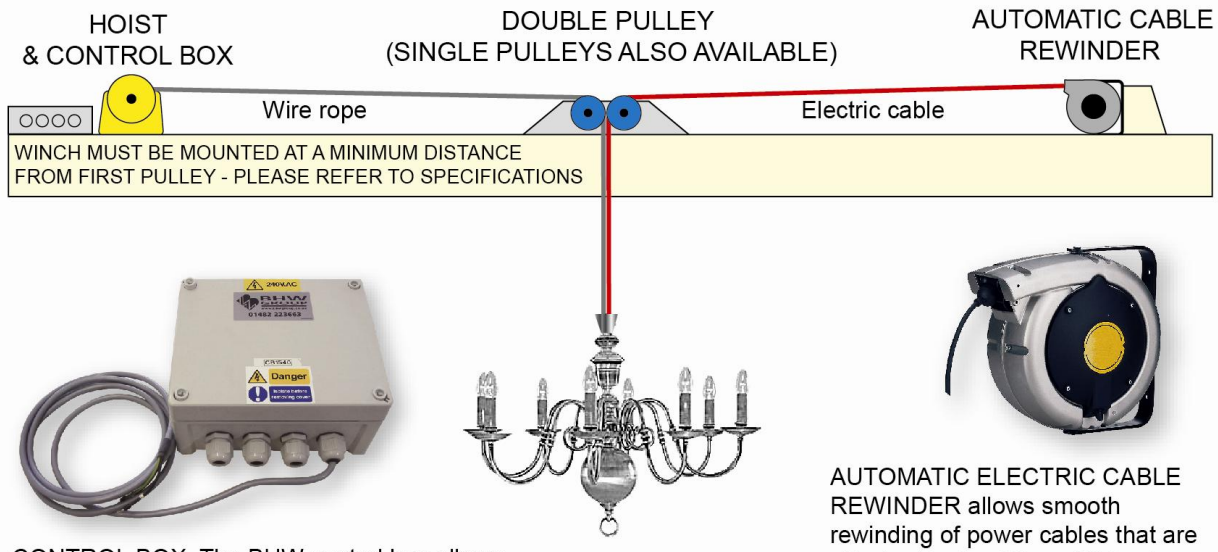
Before installing the hoist, it is important to work out what load bearing may be put into the adjacent area. A suitable support must be fitted across joists to support the load. You are advised to consult a qualified builder or structural engineer to determine these factors.

You are also advised to double check the amount of wire rope (and power cable) needed, not only for lowering and raising, but also including the length of wire rope or cable permanently off of the hoist drum as part of the installation.

INSTALLING THE HOIST & ADDITIONAL EQUIPMENT

To encourage even wire rope wrapping on the drum, the hoist must be securely mounted at least at the minimum distance from the hoist to the first pulley as specified on page 4. The diagram below shows a typical layout, incorporating an automatic cable rewinder.

TYPICAL ARCHITECTURAL HOIST INSTALLATION



CONTROL BOX The BHW control box allows quick and easy installation of the electrical circuits for the winch, limit switches, power supply and control switches.

AUTOMATIC ELECTRIC CABLE REWINDER allows smooth rewinding of power cables that are attached to the fitting. Wiring is calibrated for the kw rating and circuitry of the application.

INSTALLATION

ELECTRICAL INSTALLATION

Electrical installation and any subsequent repairs should be carried out by a qualified electrician.

ELECTRICAL SAFETY

According to the Health and Safety Executive, each year there are approximately 1000 work accidents involving electric shock or burns. Around 30 of these are usually fatal.

Even non fatal shocks can cause severe or even permanent injury. Improperly installed electrical equipment can also cause related accidents.

Electricity at Work Regulations (1989) requires adequate precautions to be taken against the risk of death or injury from electricity during work, at or near electrical installations.

Installations in private dwellings must be certified by a fully qualified electrician and fully tested and certified. Failure to do so may invalidate insurances and warranties.

Please determine the electrical requirements for the application prior to any work as insufficient installation standards will result in damage to the hoist and possibly put operatives in danger.

Always ensure the correct 240v voltage corresponding to the hoist electrical system is used and protected by suitable circuit breakers. Power provided should be at 50Hz. In the case of the CH500 model, a transformer is supplied to reduce the 240v supply to 24v.

Additional equipment to be used in the installation that requires power (i.e. Power Cable Rewinder) must also be protected by circuit breakers and suitably earthed.

It is ultimately the responsibility of the person installing the hoist system to carry out a risk assessment to decide and if necessary provide any additional emergency stops, isolators or circuit restrictions suitable for the application.

INSTALL A FUSED ISOLATION SWITCH

It is important to fit a fused isolation switch in the power supply line to the hoist.

IN LINE OPERATIONAL CONTROLS

Further in-line operational controls that are on view can use rocker type switches, the bias of the rocker switch should be to the OFF position.

A lockable in-line switch (See Switch Control, page 7) may be deemed necessary if there is a risk of unauthorised personnel gaining access to the working area.

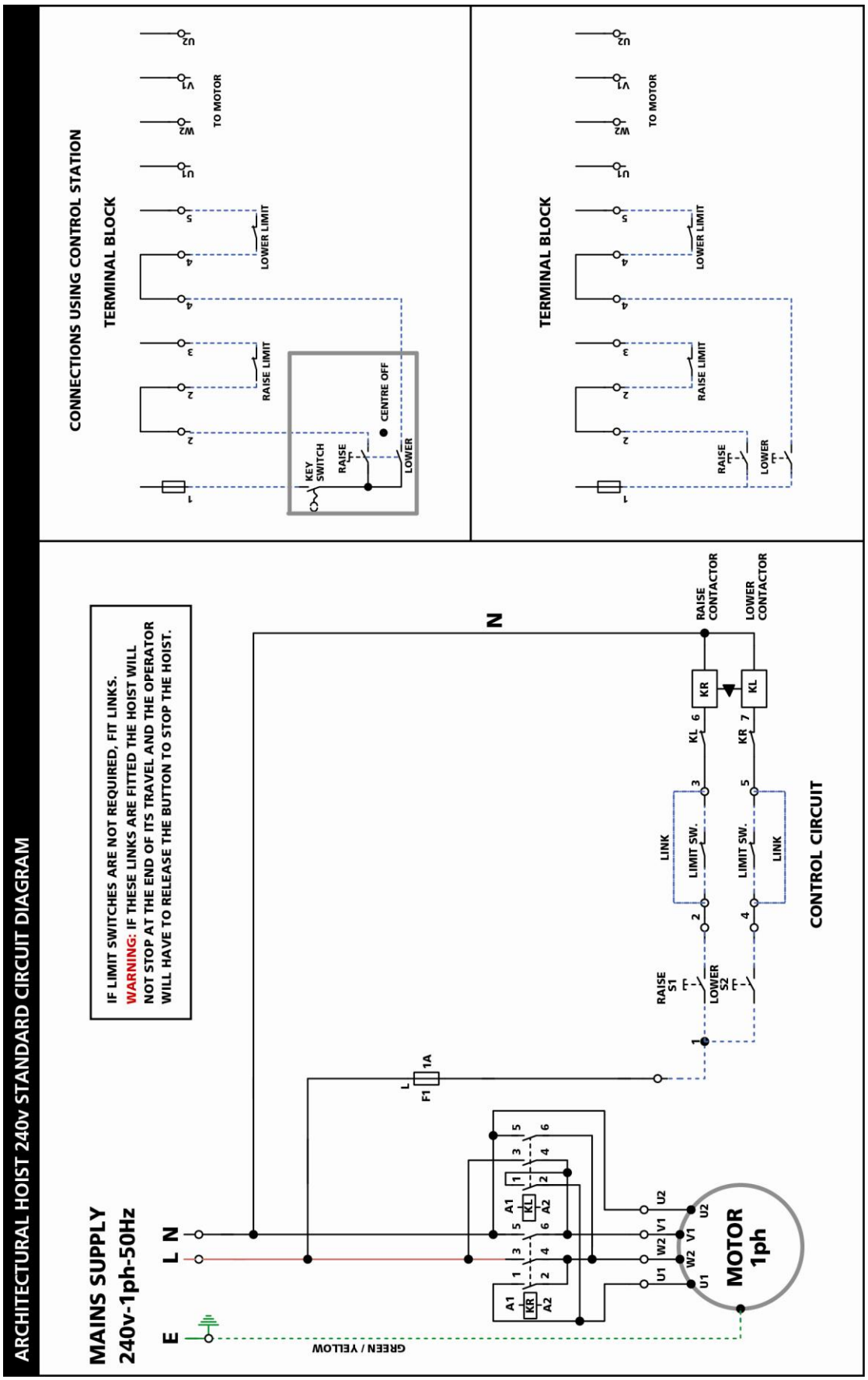
Operational controls should be positioned so that the hoisting operation is clearly in view.

Alternatively a remote control system may be fitted (See FM•Connect, page 7). Further details are available from the BHW Group sales team on (0) 1482 223 663.

INSTALLATION

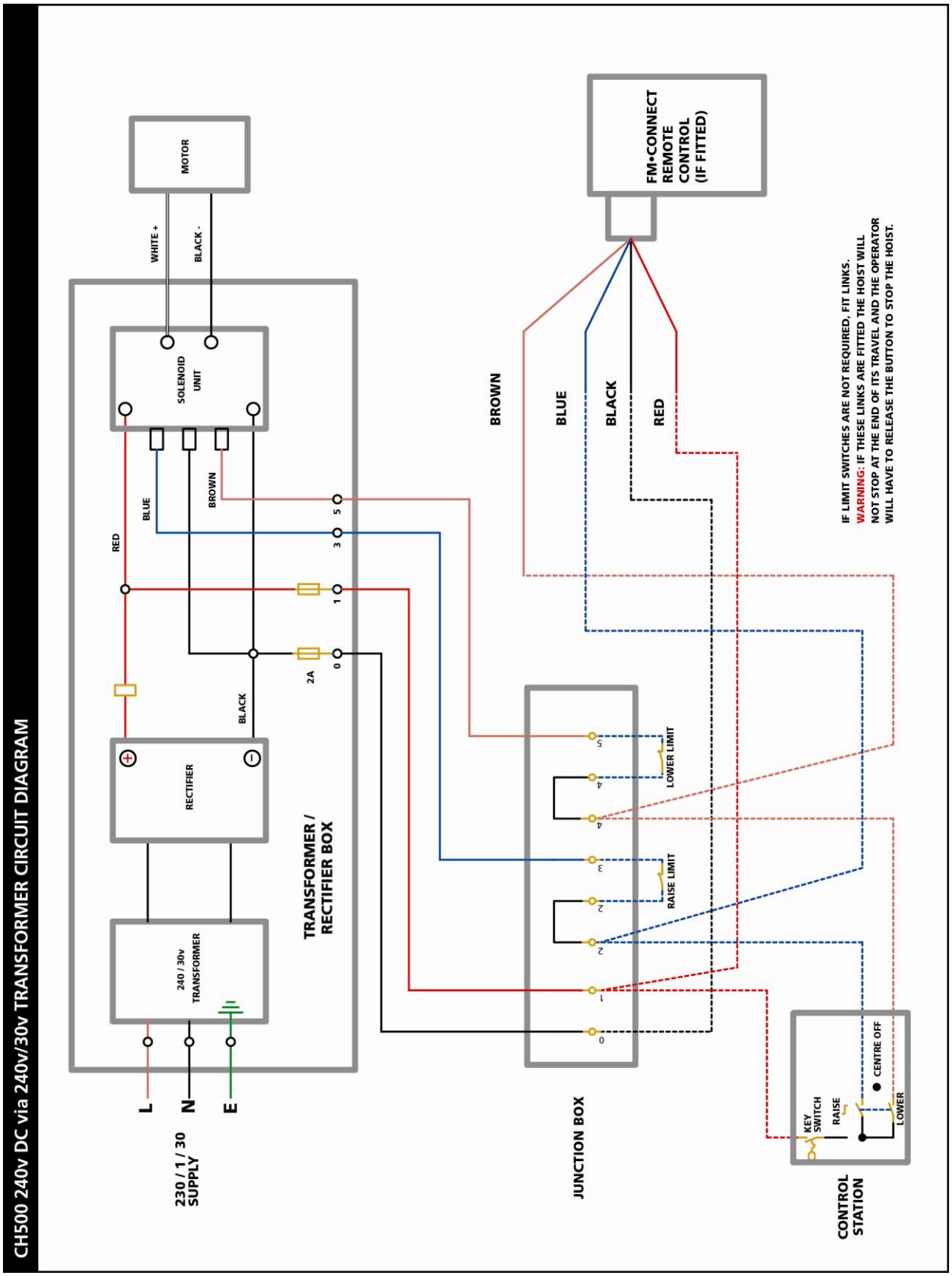
WIRING DIAGRAM – STANDARD ELECTRICAL INSTALLATION

A copy of this diagram can be found on the inside of the lid of the control box.



INSTALLATION

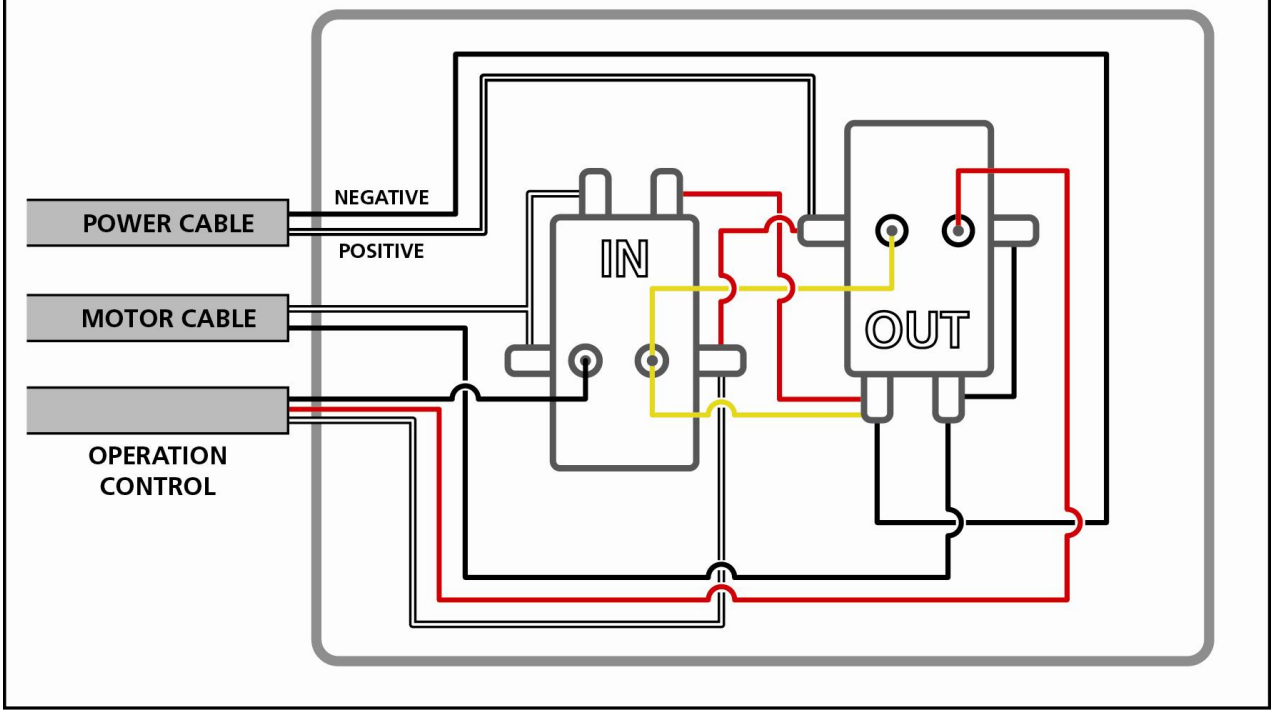
WIRING DIAGRAM –240v SUPPLY to 24v VIA TRANSFORMER (CH500 ONLY)



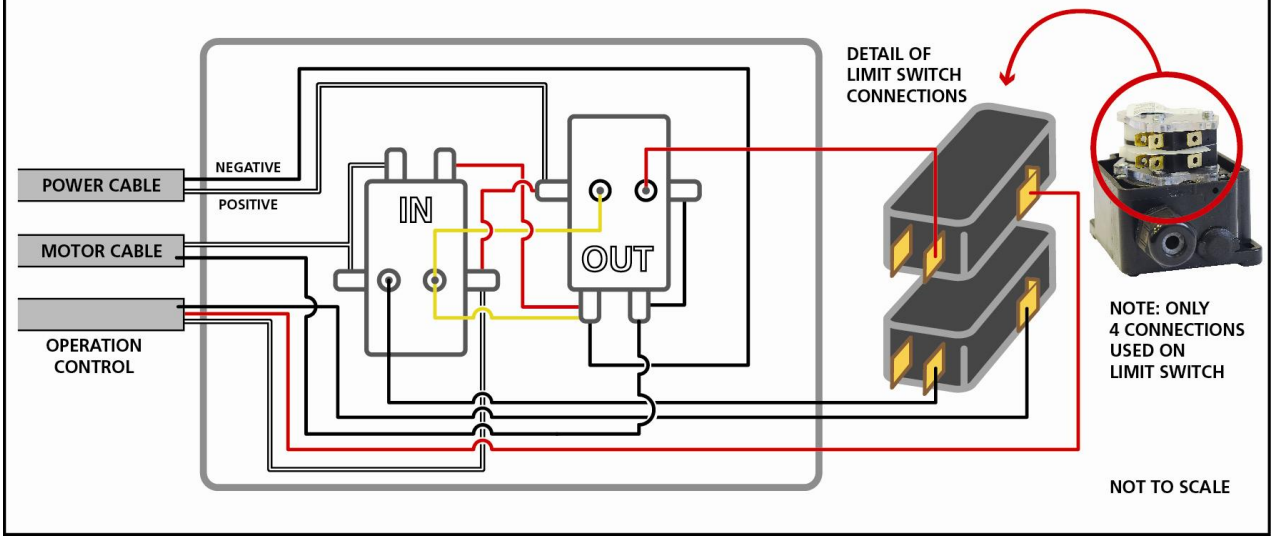
INSTALLATION

WIRING DIAGRAMS – SOLENOID & SOLENOID WITH LIMIT SWITCH (CH500 ONLY)

CH500 SOLENOID WIRING DIAGRAM



CH500 SOLENOID WIRING DIAGRAM TO LIMIT SWITCH



INSTALLATION

WINCH ROTATION VERY IMPORTANT

On models CH100, CH200 and CH300, the wire rope is fed over the top of the drum and 'winch in' direction is anti-clockwise when viewed from the motor end.
With the CH500 model, again the wire rope is fed over the top of the drum, but the 'winch in' direction is clockwise when viewed from the motor end, as the motor in this case is situated on the opposite side of the hoist.

FITTING THE WIRE ROPE

Once the hoist has been installed and all fixtures have been secured, the wire rope can be installed. Always wear protective gloves when handling the wire rope.

A spin resistant wire rope of the correct specification (as detailed on page 4) should be used according to the hoist chosen for the application.

Please note that wire ropes supplied from BHW Group are designed as 'fit for the purpose' for the hoist and the application. Wire ropes that are not purchased from our company cannot be guaranteed to give the same results - and may affect the performance of the hoist.

TO FIT THE WIRE ROPE TO THE DRUM

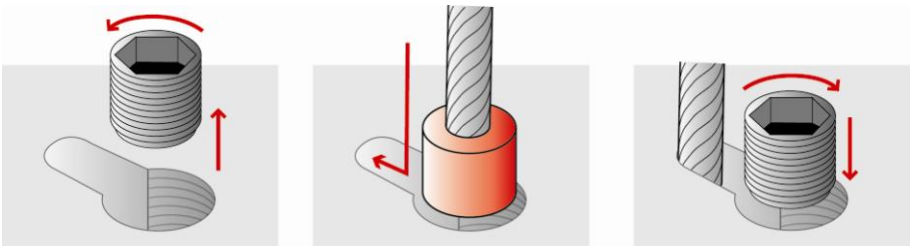
Thread the plug end of the wire rope through the ceiling aperture into the ceiling void from the room below.
After feeding through pulleys that are in line, the wire rope should then be attached to the hoist as follows:

1. On the drum of the hoist is a small hexagonal grub screw next as part of the aperture designed for the wire rope entry. Remove this grub screw and retain for replacement.

2. Insert the plug end of the wire rope into the drum and slide sideways to secure.

3. The grub screw that has been retained can then be re-inserted into its original position to secure the wire rope. Ensure that the grub screw is tight and flush with the drum surface.

4. The wire rope can now be wound on to drum. Keep tension on the wire rope at all times. Wear protective gloves when handling the wire rope.



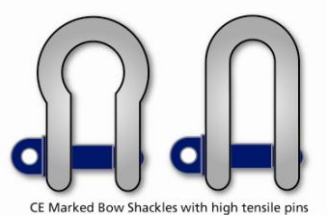
TESTING THE HOIST

NEVER STAND UNDERNEATH THE LOAD WHEN OPERATING THE HOIST

Load test the hoist following installation to check the integrity of the application and correct operation of the hoist by using a weighted object (not the load or fixture). The weight used for the load test should be at least 125% of the proposed load to be lifted.

Carefully check all fixtures and supporting frameworks or joists. Double check all wiring connections.

ATTACHING THE PROPOSED LOAD

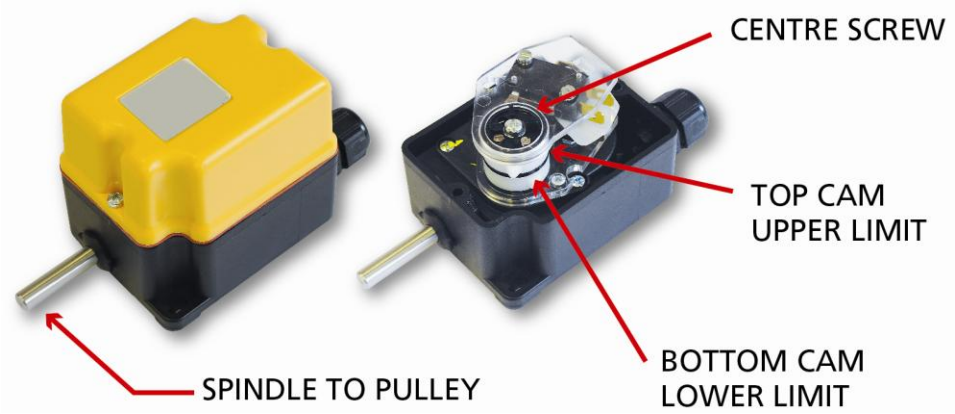

CE Marked Bow Shackles with high tensile pins

Attaching the wire rope to the load should use a suitable connector such as an industrially rated and CE marked high tensile bow shackle.
All connectors should be rated for lifting by at least a safety factor of 4:1.
Example: A 500kg (0.5 tonne) connector has a maximum
yield of 0.5 x 4 = 2 Tonne.

Information on height limit switches can be found on the next page.

INSTALLATION

SETTING A LIMIT SWITCH



If a limit switch is fitted into the installation, the highest and lowest points of operation can be pre-set. Suitable limit switches are available from BHW Group.

TO CONFIGURE THE LIMIT SWITCH

1. The wire rope fitted to the hoist drum should ALWAYS retain a minimum of 7 wraps, even when fully paid out.
2. The remainder of the rope can be lowered to the length required (also allowing for load depth) through the ceiling aperture to the floor below. Check that there is still enough wire rope left on the drum to comply with instructions above.
3. Once this length has been determined, loosen the CENTRE SCREW on the limit switch and adjust BOTTOM CAM (LOWER LIMIT) clockwise until the cam trips the switch.
4. Tighten the CENTRE SCREW.
5. Raise the wire rope until the highest desirable point of operation is achieved.
6. Loosen the CENTRE SCREW and turn the TOP CAM (UPPER LIMIT) clockwise until the cam trips the switch.
7. Tighten the CENTRE SCREW.
8. Run the operation 2-3 times without the final load (use a test weight of at least 15g to tension the rope) and double check highest and lowest limits. Adjust as necessary repeating the procedures above.
9. Fix the operational load and check limits again, adjust as necessary. You are advised to place suitable protection on the floor under the load to help prevent any damage.

NOTE: WHEN SETTING LIMIT SWITCHES IT IS IMPORTANT TO RETAIN AT LEAST 7 WRAPS OF WIRE ROPE ON THE DRUM WHEN FULLY PAID OUT. FAILURE TO DO SO MAY OVERSTRESS THE RETAINING PLUG ON THE END OF THE WIRE ROPE INSIDE THE DRUM AND CAUSE THE WIRE ROPE TO BECOME UNATTACHED.

ALWAYS USE SPIN RESISTANT WIRE ROPES TO THE CORRECT SPECIFICATION FOR THE HOIST BEING USED.

MAINTENANCE

LOOK AFTER THE HOIST

Check that the hoist, the housings and any additional equipment is free from debris and dust. Protective covers are recommended and available from BHW Group sales – call (0) 1482 223 663.

Always make sure that tension is applied to the wire rope. This is to ensure that the wire rope can wind neatly and evenly on to the drum. The load that is being lifted or raised is normally enough to ensure this if the required distance from the hoist to the first pulley has been observed (See page 4).
Loose coils or uneven wrapping are dangerous and can result in trapping or snatching on the drum when next used - and can also cause damage to the wire rope or the hoist.

Do not allow the any additional restraint on the load to cause extra load on the hoist during a lift, as this can momentarily double or even treble the load on the wire rope.

OPERATE THE HOIST FROM TIME TO TIME

Due to the nature of the application of architectural hoists, they are not constantly in use. It is recommended that the hoist(s) 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.

CHECK THE ADDITIONAL EQUIPMENT

Any additional equipment employed in the hoist system should be regularly checked and maintained. This includes greasing of the pulleys used, checking mountings and cables and generally ensuring that the system is free from debris or dust.

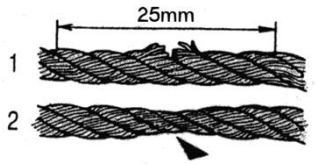
CARE OF THE WIRE ROPE

It is most important that the wire rope is inspected on a regular basis, for kinks, flat spots, broken strands and other damage. If necessary the wire rope should be replaced. Always use a spin resistant wire rope of a suitable breaking strain. Reset the limit switch if fitted, as the calibration of the old wire rope will not be retained.

General wear and tear can be prevented by regular applications of rope dressing available in aerosol form from BHW Group. Oil and grease should never be used on wire ropes.

CHECK THE WIRE ROPE 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.



Remember, always wear protective gloves when handling wire ropes.

WIRE ROPES ARE NOT COVERED BY WARRANTY.

MAINTENANCE

REGULAR MONTHLY MAINTENANCE

The hoist should be kept clean in order to prevent any build up of corrosion or debris on external working parts. Protection covers are available from BHW Group to help prevent dust and debris ingress.

- Check hoist for any external damage.
- Check hoist fixtures for any movement and re-tighten or replace fixings as necessary.
- All external-moving parts should be lubricated with lightweight oil (except the wire rope).
- All electrical connections and wiring should be inspected for loose connections, corrosion, fraying or pest damage.
- Check the raising and lowering of the load to ensure that the hoist is functioning properly.
  Make sure that personnel are well away from the operation. Never stand under the load when operating the hoist.

CHECK THE CONNECTION TO THE LOAD

- Check that any connector used to attach the load is secure and fit for purpose.
  Replace if any excessive wear and tear or damage is identified.

LUBRICATION

BHW Architectural Hoists are fully lubricated at the time of assembly and do not require lubrication before use. If at a later stage lubrication is necessary, a 460 grade 30/40w oil should be used. The average fill quantity is approximately 300ml.

SERVICE & PARTS REPLACEMENT

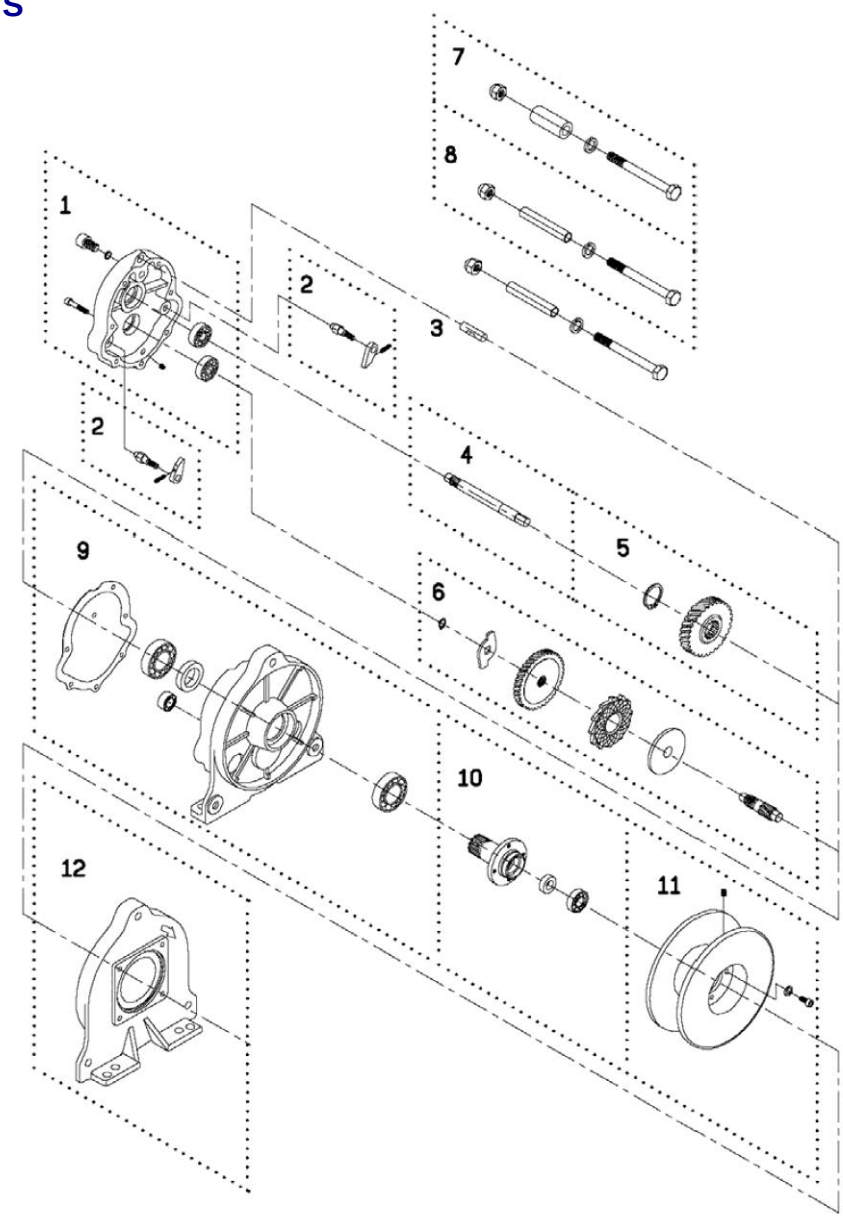
BHW Architectural Hoists should be serviced after approximately every 350 hours of effective service, or once a year, which ever is the soonest.

As the CH100, CH200 and CH300 models are not user serviceable, you are advised to contact BHW Group to arrange for professional servicing of the hoist(s).

Parts kits are available for the CH500 model, but any maintenance must be carried out by a qualified electrical engineer to ensure correct servicing and operational efficiency.

WINCH PARTS

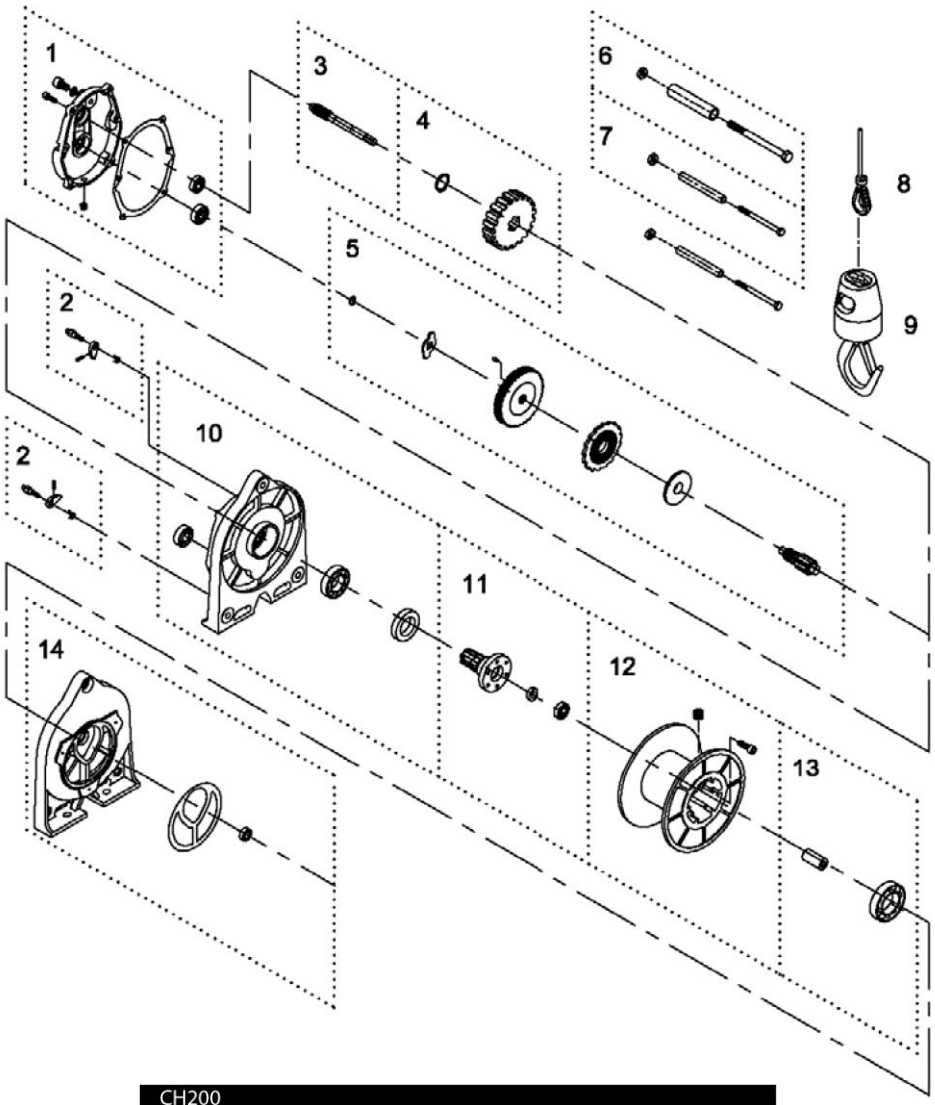
CH100



CH100			
Item no.	BHW Part No.	Description	QTY
1	13846	Gearbox Rear Cover Kit	1
2	13847	Ratchet stopper kit	2
3	13848	Balancer Indicator	1
4	13849	1st shaft kit	1
5	13850	2nd gear kit	1
6	13851	Brake kit	1
7	13852	Tie bar kit	1
8	13853	Tie bar kit A	2
9	13854	Gearbox support rack kit	1
10	13855	Output shaft kit	1
11	13856	Drum Kit	1
12	13857	Motor support kit	1
13	2616	Motor adaptor plate	1
14	8450	Coupling drive shaft	1
15	10767	Motor 240v 0.13kw IP55	1
n/s	2059	Bolt M6 x 25mm H/T 8.8 BZP	4
n/s	3373	Washer M6 plain ZP	4
n/s	3374	Washer M6 Spring ZP	4
n/s	2051	Bolt M5 x 20mm panhead slot M/T screw	4
n/s	3372	Washer M5 spring ZP	4
n/s	2875	Label " Arrow " drum rotation	1

WINCH PARTS

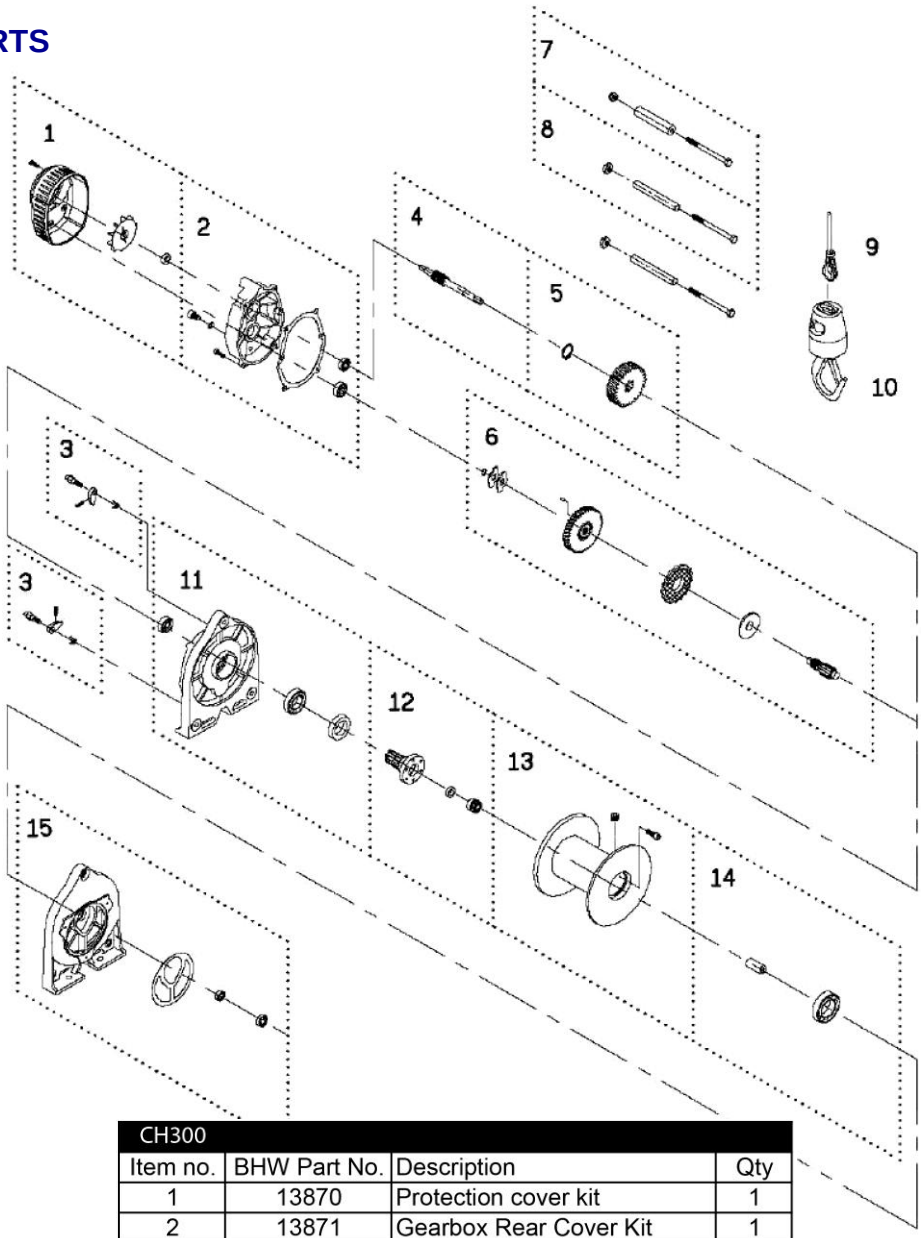
CH200



CH200			
Item no.	BHW Part No.	Description	Qty
1	13858	Gearbox Rear Cover Kit	1
2	12859	Ratchet stopper kit	2
3	13860	2nd shaft	1
4	13861	3rd gear kit	1
5	13862	Brake kit	1
6	13863	Tie bar kit	1
7	13864	Tie bar kit A	2
8	Options	Wire rope	1
9	Options	Weighted hook	1
10	13865	Gearbox support rack kit	1
11	13866	Output shaft kit	1
12	13867	Drum kit	1
13	13868	Motor coupling kit	1
14	13869	Motor support rack kit	1
15	8478	Motor adaptor plate	1
16	8476	Auxilliary gearbox 7:1	1
17	8479	Drive shaft	1
18	10256	Motor 240v 0.37kw	1
n/s	2058	Bolt M6 x 20mm H/T 8.8 BZP	4
n/s	2059	Bolt M6 x 25mm H/T 8.8 BZP	3
n/s	2069	Bolt M8 x 25mm H/T 8.8 BZP	4
n/s	3373	Washer M6 plain ZP	3
n/s	3375	Washer M8 plain ZP	4
n/s	2875	Label " Arrow " drum rotation	1

WINCH PARTS

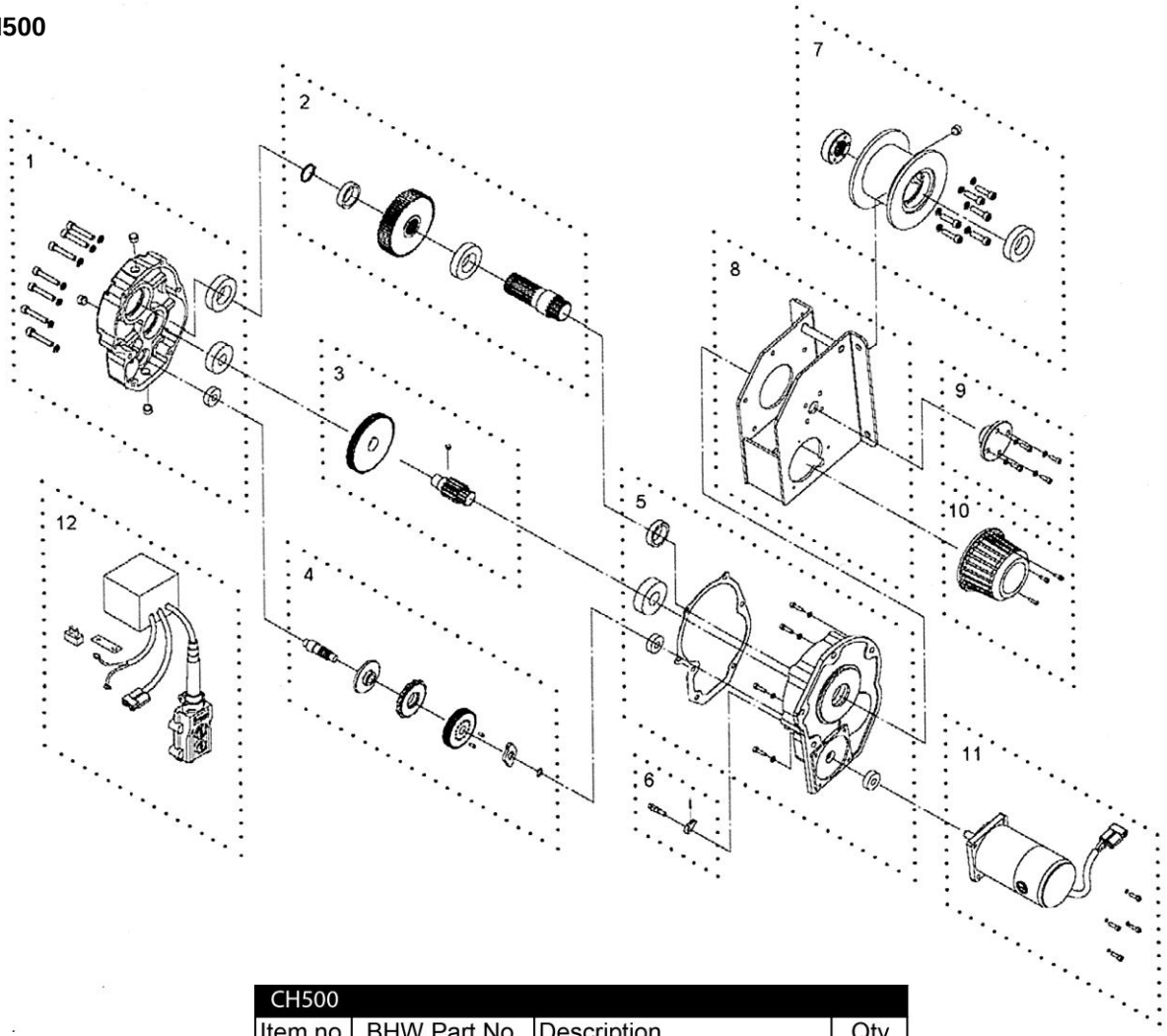
CH300



CH300			
Item no.	BHW Part No.	Description	Qty
1	13870	Protection cover kit	1
2	13871	Gearbox Rear Cover Kit	1
3	13872	Ratchet stopper kit	2
4	13873	2nd shaft	1
5	13874	3rd gear kit	1
6	13875	Brake kit	1
7	13876	Tie bar kit	1
8	13877	Tie bar kit A	2
9	Options	Wire rope	1
10	Options	Weighted hook	1
11	13878	Gearbox support rack kit	1
12	13866	Output shaft kit	1
13	13879	Drum kit	1
14	13868	Motor coupling kit	1
15	13869	Motor support rack kit	1
16	8478	Motor adaptor plate	1
17	8476	Auxilliary gearbox 7:1	1
18	8480	Drive shaft	1
19	10257	Motor 240v 0.37kw	1
n/s	2058	Bolt M6 x 20mm H/T 8.8 BZP	4
n/s	2059	Bolt M6 x 25mm H/T 8.8 BZP	3
n/s	2069	Bolt M8 x 25mm H/T 8.8 BZP	4
n/s	3373	Washer M6 plain ZP	3
n/s	3375	Washer M8 plain ZP	4
n/s	2875	Label " Arrow " drum rotation	1

WINCH PARTS

CH500



CH500			
Item no.	BHW Part No.	Description	Qty
1	13880	Gearbox Rear Cover Kit	1
2	13881	3rd Gear Kit	1
3	13882	2nd Gear Kit	1
4	13883	1st Gear Kit	1
5	13884	Gearbox Support Rack Kit	1
6	13885	Ratchet Kit	1
7	13886	Drum Kit	1
8	13887	Frame Kit	1
9	13888	Drum Supporter	1
10	13889	Brake Cover	1
11	8186	24v Motor Kit	1
12	8047	Control Assembly	1

WARRANTY

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

The responsibility for removing the hoist or equipment is the owner's together with its return and 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.

THIS WARRANTY EXCLUDES THE WIRE ROPE

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
Bushey Hall Winchmaster
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.co.uk

ARCHITECTURAL HOIST – TYPE & RATING……..……....

SERIAL NUMBER……..……..……

DATE OF PURCHASE……..……..……....