

FITTING & OPERATING INSTRUCTIONS



BHW WINCH•ASSIST 8 CENTRALLY MOUNTED WINCH SYSTEM

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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.

BHW Winch•Assist 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.

INSTALLER RESPONSIBILITY FOR UKCA AND CE COMPLIANCE

1. Mount winch in accordance with instructions.
2. Install a suitable fuse or circuit breaker to reduce the possibility of overload.
Circuit breakers or fuses are available as optional extras from Bushey Hall Winchmaster.
3. Load test the winch following installation to check the integrity of the mounting and correct operation of the winch under load.

BHW Winch•Assist 8 must be installed correctly in accordance with the fitting instructions (Pages 5-7) and subsequently the installer and user must also adopt the correct procedures for operation (See Operating Instructions Pages 8-9).

It is important that with the winch installation adequate provision is made so that the load is transmitted into the floor pan of the vehicle. Strengthening plates should be used to spread the load where necessary.

WINCH INFORMATION

WINCH•ASSIST 8 – Part no. 13453

Features:

Multiturn Sensor: To turn the winch off if the strap is power **IN** or **OUT** too far.

Remote Controllers: Key fob control to make control as easy as possible.

Dynamic braking: To Ensure that the winch will not back drive.

Soft start: Ensures a smooth operation of the winch.

Technical:

Amperage draw: 10amp

Working Load Limit: (Maximum pulling force on upper layer of webbing strap) 235kg

Line Pull: (Bare drum, diameter 30mm): 350kg

Typical Rolling Road Load Capacity on Gradients:

| | 5° | 10° | 15° |
|-----------------------|-----|-----|-----|
| Capacity (Kg): | 700 | 370 | 310 |

WINCH CONTROL LABELS



INSTALLATION

FITTING A WINCH•ASSIST SYSTEM - GENERAL

Mobility vehicles from different manufacturers all vary in layout. The fitting instructions below are a general guide to best practice.

Bushey Hall Winchmaster can supply complete wiring looms. If BHW wiring looms are not used, please ensure that the electrical cables are the correct size. Winches may suffer voltage drop or be subject to slow running if cable specification is too small.

PLEASE FOLLOW THESE INSTRUCTIONS CAREFULLY AND CONTACT BUSHEY HALL WINCHMASTER IF ASSISTANCE IS REQUIRED.

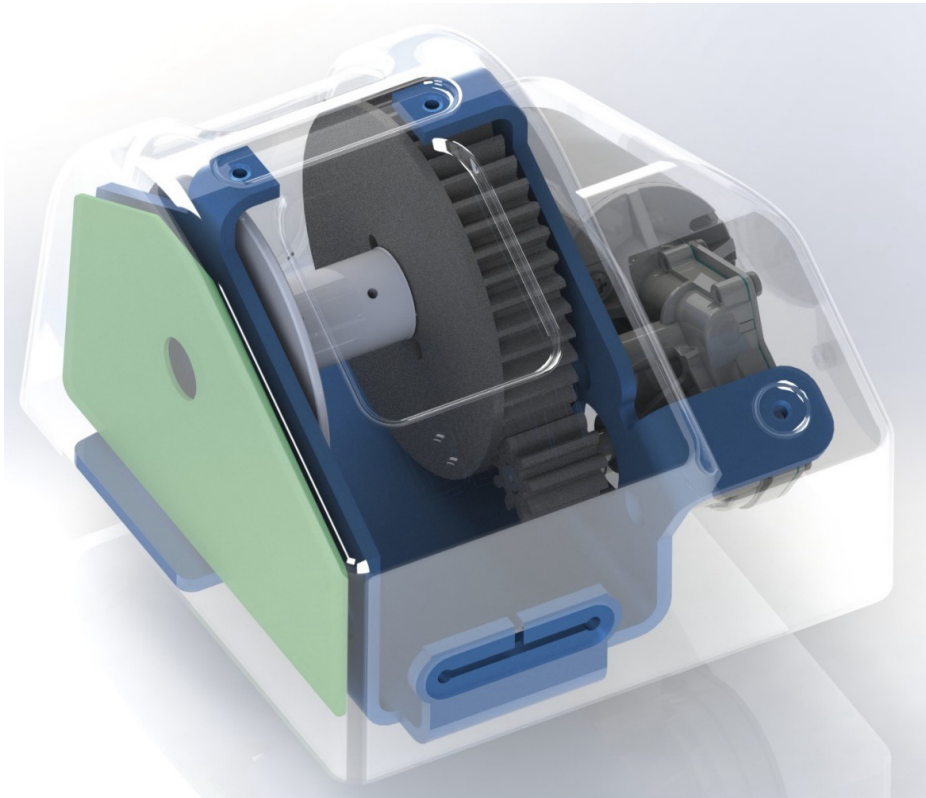
WINCH MOUNTING

To centrally mount a Winch•Assist 8, it is recommended that a backing plate (not supplied) is fitted below the floor, of a suitable size, to ensure that the load is spread sufficiently across the floor pan. Where the floors are corrugated, it may also be necessary to fit an additional plate to provide an even surface for mounting the winch.

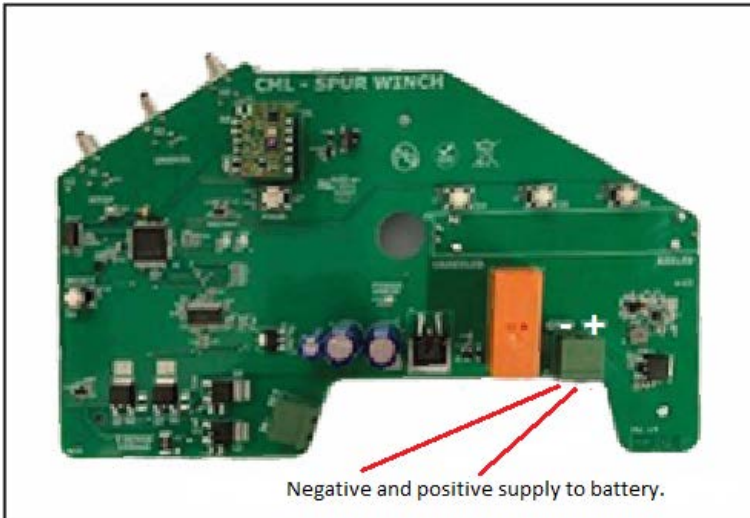
The winch should be positioned so that the winch drum is in line with the direction of pull. It is the installers' responsibility to ensure that the unit is positioned so that the possibility of entanglement with the rotating drum is avoided.

Remove cover and using the mounting locations securely mount the winch by bolting down through the floor pan any additional strengthening plates in the winches fixing positions using 4 x M8 high tensile bolts (min. grade 8.8) of a suitable length.

A suitable webbing strap can now be secured to the winch drum. In line mounted winches generally use a webbing strap which is clamped on to the drum spindle, although soft rope options are available.



INSTALLATION WIRING



PLEASE NOTE. The positive and negative supply from the battery and the red and black cables to the winch must be a minimum of 6mm² cross section to avoid any voltage drop. A minimum of 8v through the system must be maintained. The positive and negative terminals on the winch PCB are shown above.

A 16amp auto cut out / reset button linked into the positive supply from the battery is recommended by Bushey Hall Winchmaster for these systems, although a 30amp fuse can be used instead. The auto cut out or fuse is normally mounted under the dashboard, or inside the bonnet, close to the battery for ease of access.

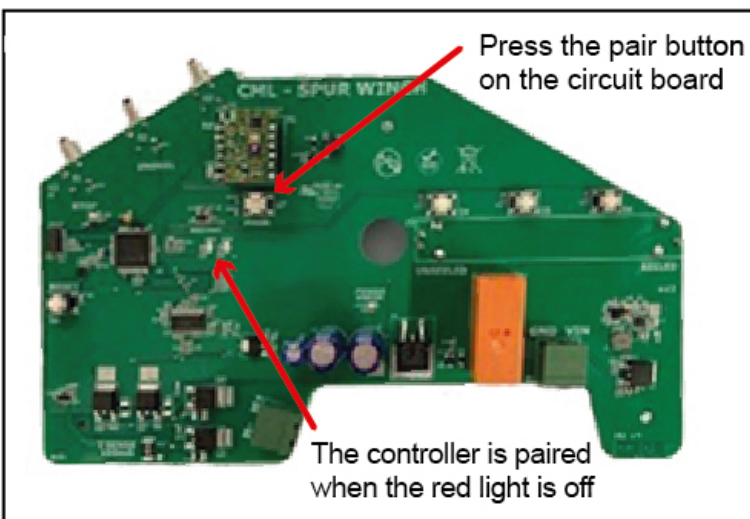
The radio remote control and automatic webbing strap cut out calibration should be already set at the factory before supply.

However, If radio remote requires pairing or the webbing strap cut out needs calibration the following processes should be followed:

PAIRING THE CONTROLLER

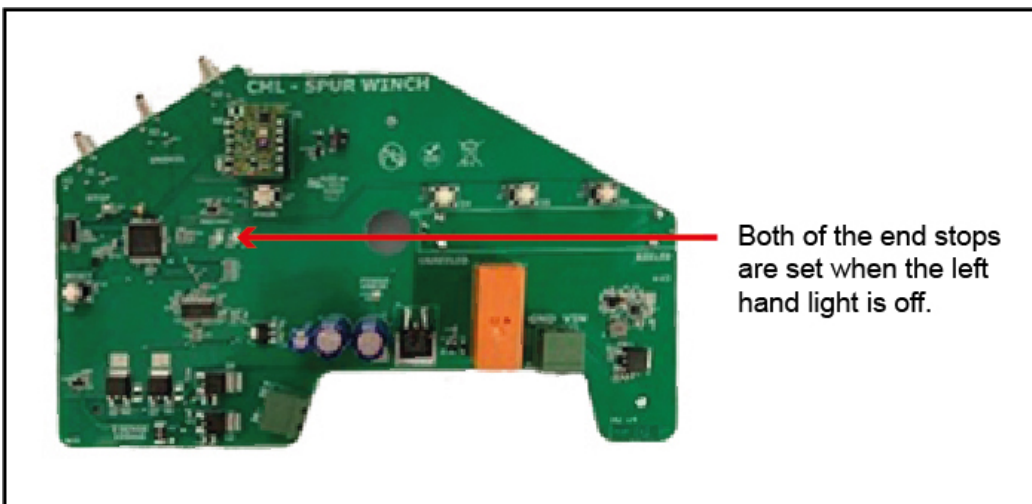
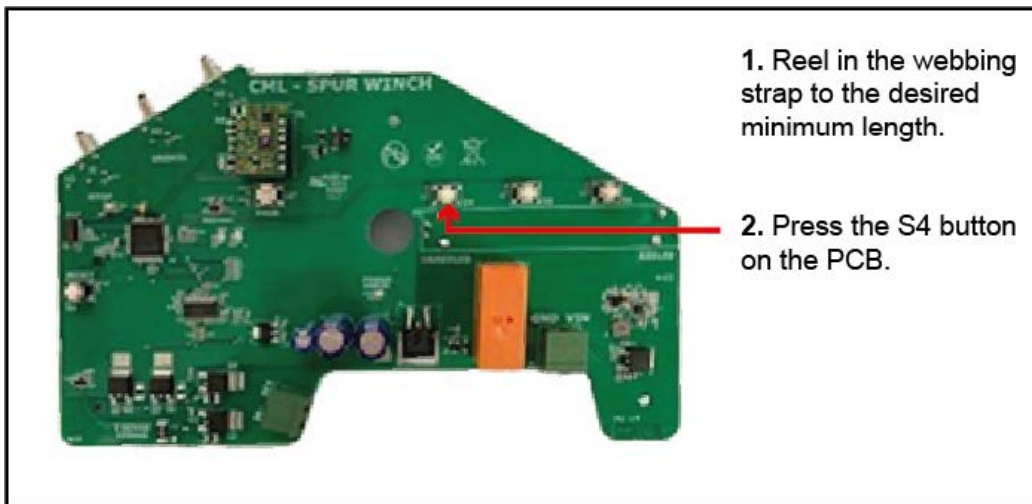
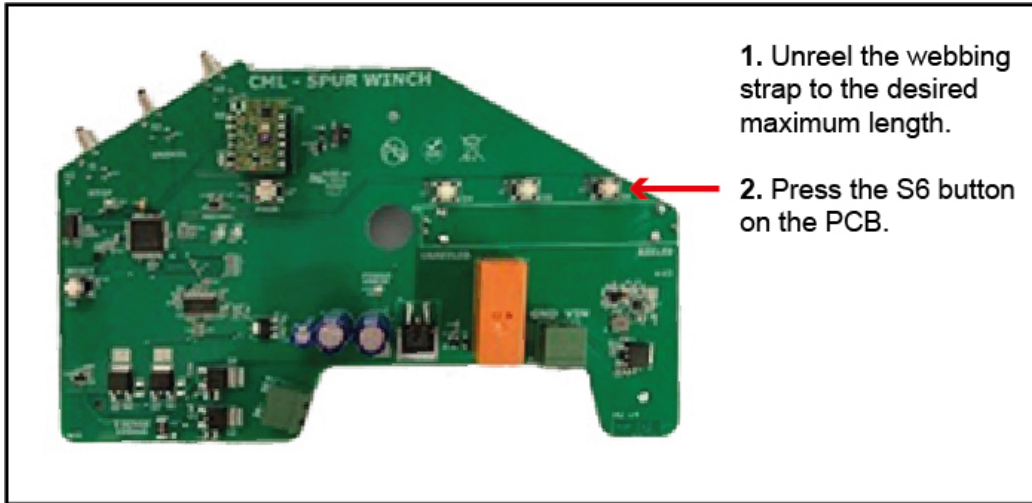
To pair the controller(s) to the winch PCB, press any button on the controller.

Then press the pair button on the winch PCB:



INSTALLATION

SETTING THE END STOPS



OPERATING INSTRUCTIONS

Once the BHW Winch Assist 8 has been installed and the circuitry has been checked. The installer should test load the winch to ensure that all aspects of the systems are working correctly.

PLEASE NOTE: As with any electrical device fitted to a vehicle, the BHW Winch Assist Model 8 will use additional amounts of vehicle battery power. It is important therefore that the battery is of a suitable strength and regularly charged to eliminate possible power drop. Where possible we recommend that the engine is kept running during operation of the winch.

BHW Winch Assist 8 should be operated by a competent person fully capable of navigating wheelchairs or stretchers and their occupants. We strongly advise that all operators should read the supplied operating instructions thoroughly to ensure that the operating of this Winch•Assist 8 is fully understood.

The operator(s) should undergo training in the use of this equipment without an occupant. It is advisable to apply a normal weight of a stretcher or wheelchair to build confidence and skill in winch operation and wheelchair or stretcher control.

Both the operator and wheelchair/stretcher occupant (where possible) should be fully aware of the position of the stop button on the winch and on the controller(s).

This equipment should only be used with an operator in charge of the task.

WHEELCHAIR OCCUPANTS MUST NOT SELF OPERATE THE SYSTEM

BHW Winch Assist Model 8 is designed to aid the loading and unloading of the free rolling wheelchairs/ stretchers and their occupants and shall not be used for any other purposes. The soft strap should not be reeved around or attached to any other equipment. – only the wheelchair/stretcher at a suitable, balanced anchor point.

When using the equipment at night, adequate lighting must be provided to enable the operator to see clearly to operate the loading and unloading.

All other personnel should be kept clear of the operation at all times.

TO OPERATE THE WINCH – TESTING

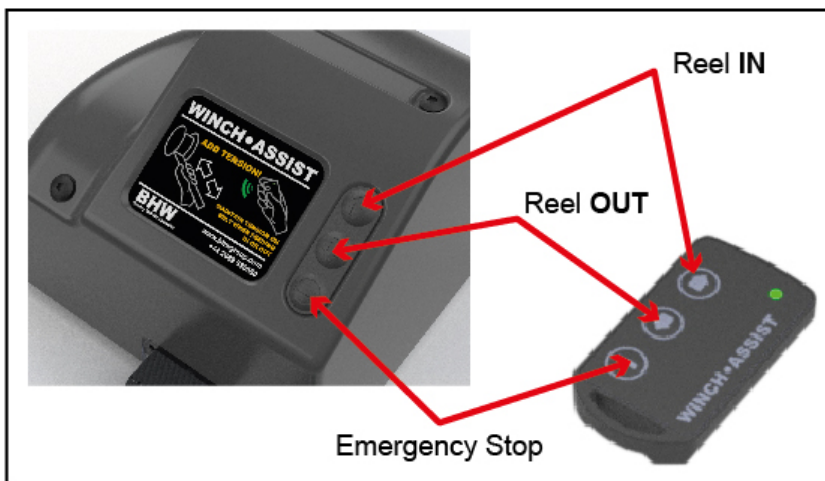
The installer should test the winch operation and then, loaded with a weighted wheelchair/stretcher (no occupant) follow the winching instructions detailed in 'Loading' on the next page. This will test the systems response and performance.

The winch is operated by pressing either the **IN** or **OUT** buttons on the controller(s) or the winch.

The strap should be winched out or in under slight tension, applied by hand.
Failure to do so may result in the strap being tangled.

It is recommended that the winch is tested to a load rating of at least 110% of the rated capacity to prove the integrity of the installation.

CONTROLS – From remote controller or from the winch:



OPERATING INSTRUCTIONS

LOADING

Check that the vehicle hand brake is fully engaged.

Position the wheelchair/stretcher in line with the ramp.

Connect the straps from the yoke assembly to the wheelchair. Every wheelchair/stretcher brand is different in terms of manufacture, so trials should be undertaken with the wheelchair/stretcher empty to ascertain the best fixing points to ensure that the complete load of wheelchair and occupant is stable and balanced during the winching operation.

If an isolation switch has been fitted into the system, turn it on.

Press **OUT** button on the controller or the winch and power out the strap, retaining tension on the strap.

POWER OUT APPLYING A SLIGHT TENSION TO THE STRAP FAILURE TO DO SO WILL TANGLE THE STRAP.

Power out the strap until a suitable length is suitable to attach to the wheelchair/stretcher.
(Please note that the winch is designed to turn off when the maximum permissible length of strap is paid out).
Anchor points for the individual wheelchair/stretcher concerned should be determined before use.
Attach the webbing straps to the suitable anchor points on the wheelchair/stretcher.

Operate the **IN** button on the controller or on the winch to take up the slack in the strap to a slight tension to engage the winch with the load. Disengage the wheelchair/ stretcher brakes and operate the winch **IN** to fully load the wheelchair / stretcher and its occupant.

When the wheelchair/ stretcher is fully loaded, apply the wheelchair/stretcher brakes.
Affix the wheelchair/stretcher travel restraints. Power out the winch and remove the webbing yoke strap.

UNDER NO CIRCUMSTANCES SHOULD THE WINCH BE USED AS A WHEELCHAIR/STRETCHER RESTRAINT.

Maintaining a slight tension on the strap, power **IN** any remaining strap length to safely store on the winch drum.
Turn off the isolator switch (if installed).

DO NOT DRIVE THE VEHICLE WITH THE WINCH ASSIST TURNED ON.

UNLOADING

After the vehicle has stopped and the handbrake is fully engaged, turn on the isolator (if fitted).

With the wheelchair/stretcher still locked into position by its travel restraints, reconnect the webbing straps to the wheelchair/ stretcher.

Power **OUT** the winch strap and attach to the yoke. Take up any slack in the winch strap before removing the travel restraints from the wheelchair/ stretcher and disengaging the brakes.

Ensure that the wheelchair/stretcher is centrally positioned at the top of the ramp, ready for descent.

Press the **OUT** button on the controller or on the winch and guide wheelchair/stretcher from the vehicle, down the ramp.

SAFETY

In the event of an emergency press the **⏏** button on the bottom of controller or the winch buttons and the system will immediately stop.

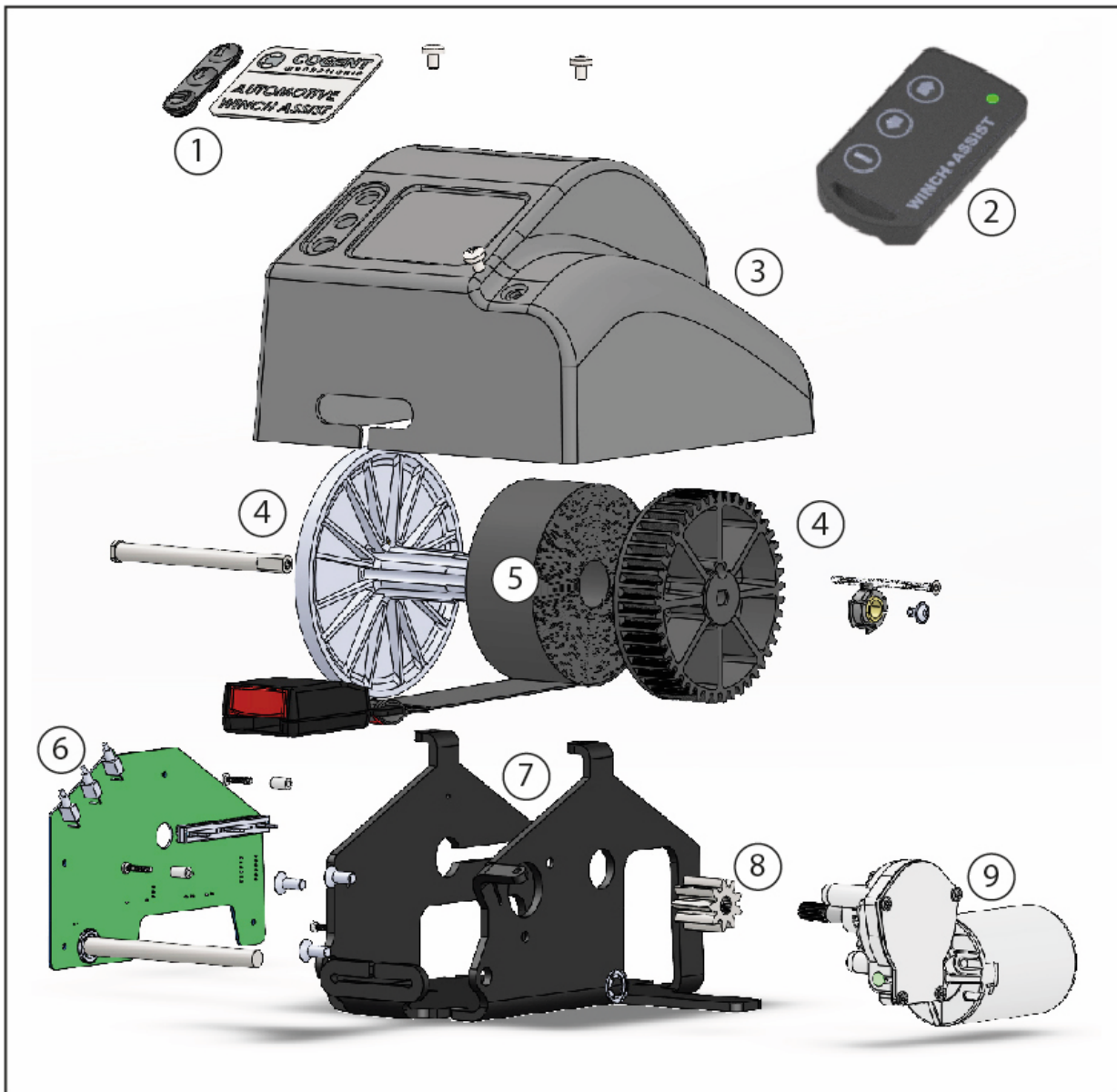
Where possible, the wheelchair /stretcher should be stabilised and secured until the operation can safely continue.

Please ensure the interior lighting is switched on when resolving the situation after dark.

AUTO CUT OUT

The winch is designed to stop if the strap is wound out too far or before the strap is wound in too much.
If the winch does cut out, operate in the opposite direction to reset once all loads have been checked for safety.

PARTS



| Item No | Part No. | Description |
|---------|----------|------------------------|
| 1 | 108006 | Push Button Cover |
| 2 | 107999 | Replacement Controller |
| 3 | 108000 | Plastic Cover |
| 4 | 108002 | Drum & Gear Assembly |
| 5 | 13411 | 5m Replacement Strap |

| Item No | Part No. | Description |
|---------|----------|---------------------------|
| 6 | 108005 | PCB Board |
| 7 | 108004 | Chassis Frame |
| 8 | 108003 | Pinion Gear |
| 9 | 108001 | 12v Motor & Gearbox |
| 10 | 7349 | Yoke Assembly (Not Shown) |

MAINTENANCE

REGULAR MONTHLY MAINTENANCE

Externally: The winch and winch area should be kept clean, in order to prevent any build-up of unwanted material on or around the winch.

- Check the **IN** and **OUT** buttons are operating the right way round on both the controller and winch.
- Check the emergency stop buttons are working on both controller and winch.
- Check for and external damage to the winch or the controller.
- Check winch mounting for any distortion and re-tighten mounting bolts if necessary.
- All electrical connections and wiring should be inspected for loose connections, corrosion, or fretting.
- Check vehicle battery power levels to ensure optimum operation.

If it becomes necessary to obtain replacement parts, referring to the parts page in this manual, call Bushey Hall Winchmaster sales on (0)208 953 6050 and quote any part numbers.

Care of webbing strap and yoke: It is most important that webbing straps and the yoke are inspected on a regular basis for tears and damaged buckles and karabiner hooks. Damaged parts should be replaced.

WARRANTY

BHW GROUP LIMITED warrants each new Winch•Assist 8 and ancillary equipment supplied, against factory defects in material and workmanship for three years from date of purchase.

The responsibility for removing 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.

WEBBING STRAPS AND KARABINER HOOKS ARE NOT COVERED BY WARRANTY.

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.

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, and a statement detailing the defect and proof of purchase.



Service Department
BHW Group Limited
Lismirrane Industrial Park, Elstree Road, Elstree, Herts WD6 3EE UK
Telephone: +44 (0)20 8953 6050
Email: sales@bhwgroup.com
Website: www.bhwgroup.com

WINCH•ASSIST 8 - SERIAL NUMBER.....

DATE OF PURCHASE.....