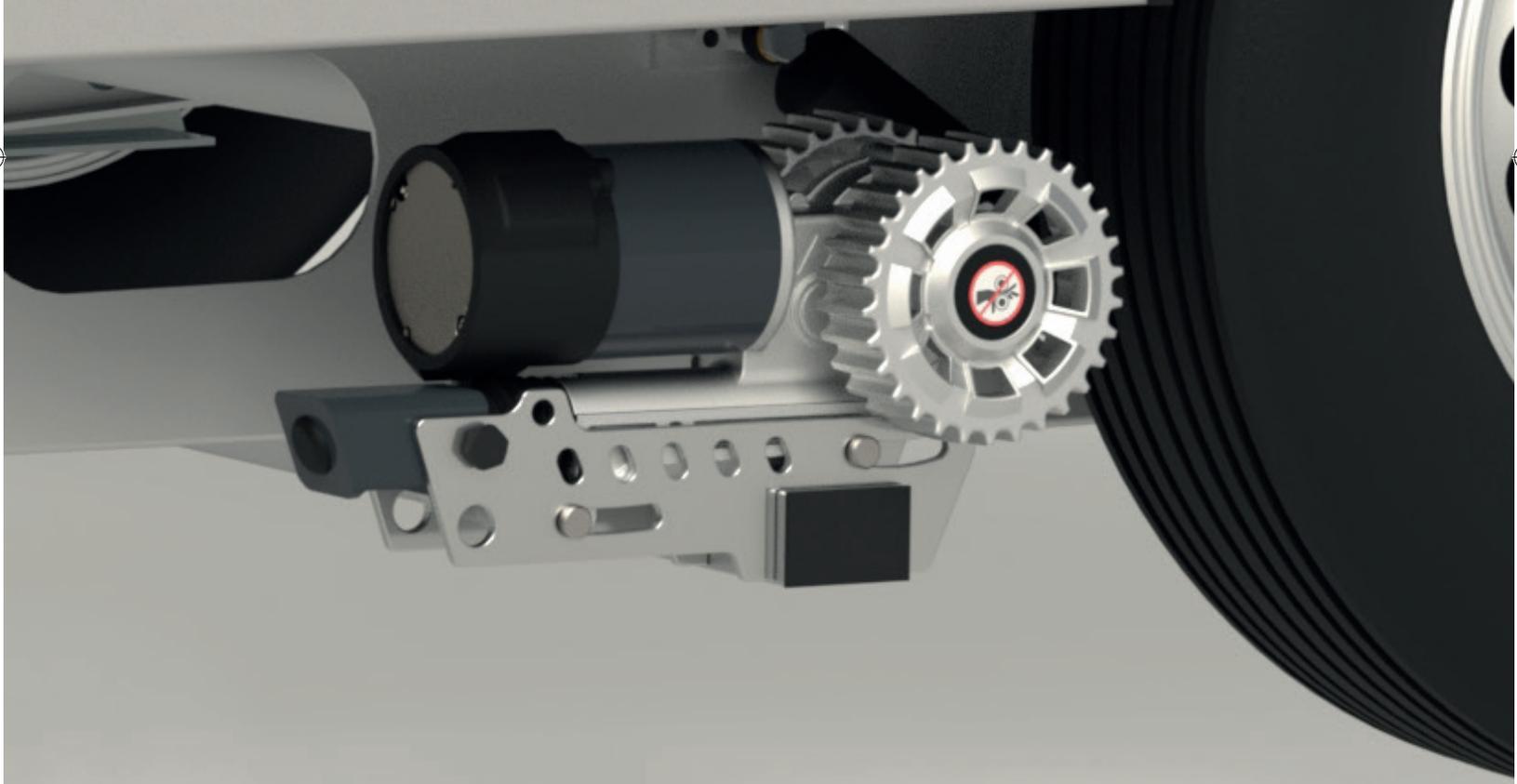




Model No. QUATTRO500 (MANUAL)
Model No. QUATTRO600 (AUTOMATIC)



REMOTE CARAVAN MOVER
Installation guide and user information

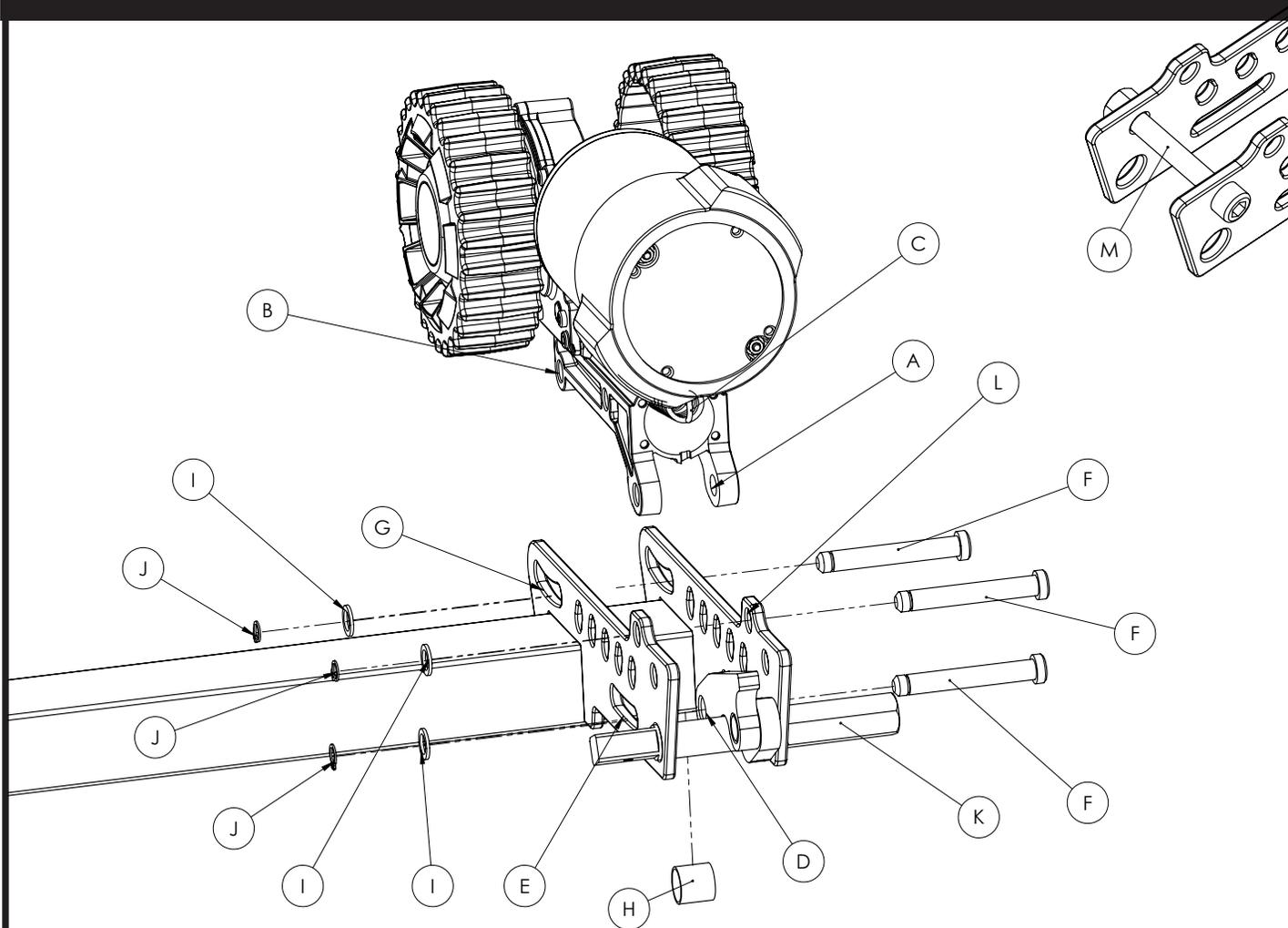
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Ref: QUATTRO500/600-UM

MOTOR & FRAMEWORK ASSEMBLY INSTRUCTIONS

QUATTRO500 (MANUAL)

NOTE: Depending on the space available around where the motor movers will be fitted, you may find it easier to fit the framework to the chassis before assembling the motor movers onto the framework.

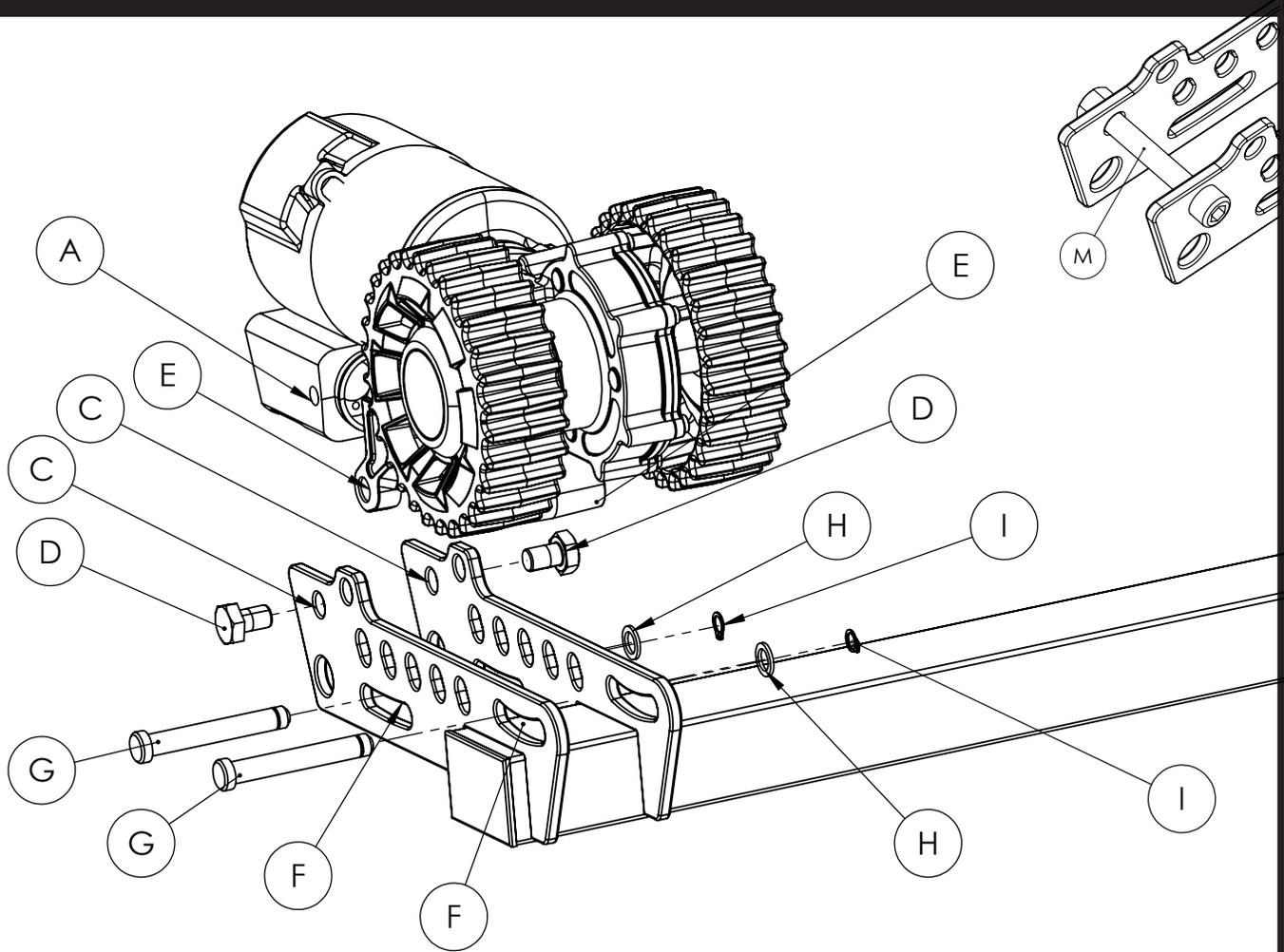


1. Remove shipping bolt (M) from the rear of the framework (if applicable) - discard once removed.
2. Align spring hook (C) with top framework mounting hole (L).
3. Insert pin (F) through framework mounting hole (J), ensuring it passes through the spring hook (C).
4. Insert washer (I) and attach clip (J) onto the pin once positioned.
5. Rotate motor body back and align rear motor mounting hole (A) with engagement arm hole (D).
6. Align spacer tube (H) with engagement arm hole (D) positioning it in the remaining space between the inside faces of the rear motor mounting holes (A).
Note: You may need to rotate the engagement bar (K) to the disengaged position as shown in the diagram to align the holes correctly.
7. Insert pin (F) through slot (E) ensuring it passes through the spacer tube (H) and engagement arm hole (D).
8. Insert washer (I) and attach clip (J) onto the pin once positioned.
9. Push the front of the motor down to align front motor mounting hole (B) with the front slot in the mover framework (G).
10. Insert pin (F) into slot (G) ensuring it passes through the front motor mounting hole (B).
11. Insert washer (I) and attach clip (J) onto the pin once positioned.

Watch our motor assembly video online at www.quattromover.co.uk or call us on +44 (0) 1473 601200 for more information.

MOTOR & FRAMEWORK ASSEMBLY INSTRUCTIONS QUATTRO600 (AUTOMATIC)

NOTE: Depending on the space available around where the motor movers will be fitted, you may find it easier to fit the framework to the chassis before assembling the motor movers onto the framework.



1. Remove shipping bolt (M) from the rear of the framework (if applicable) - discard once removed.
2. Align mounting hole located on the rear of the mover engagement block (A) with the holes (C) in the mover framework.
3. Insert and tighten bolts x2 (D) into the engagement block.
4. Align motor body mounting holes (E) with slots (F) in the mover framework.
5. Insert pins x2 (G) into slots (F), ensuring they pass through motor body mounting holes (E).
6. Place washers x2 (H) onto the ends of the pins and attach clips x2 (I) to fasten.
7. Repeat process for second motor and framework.

Watch our motor assembly video online at www.quattromover.co.uk or call us on +44 (0) 1473 601200 for more information.



Fig.A

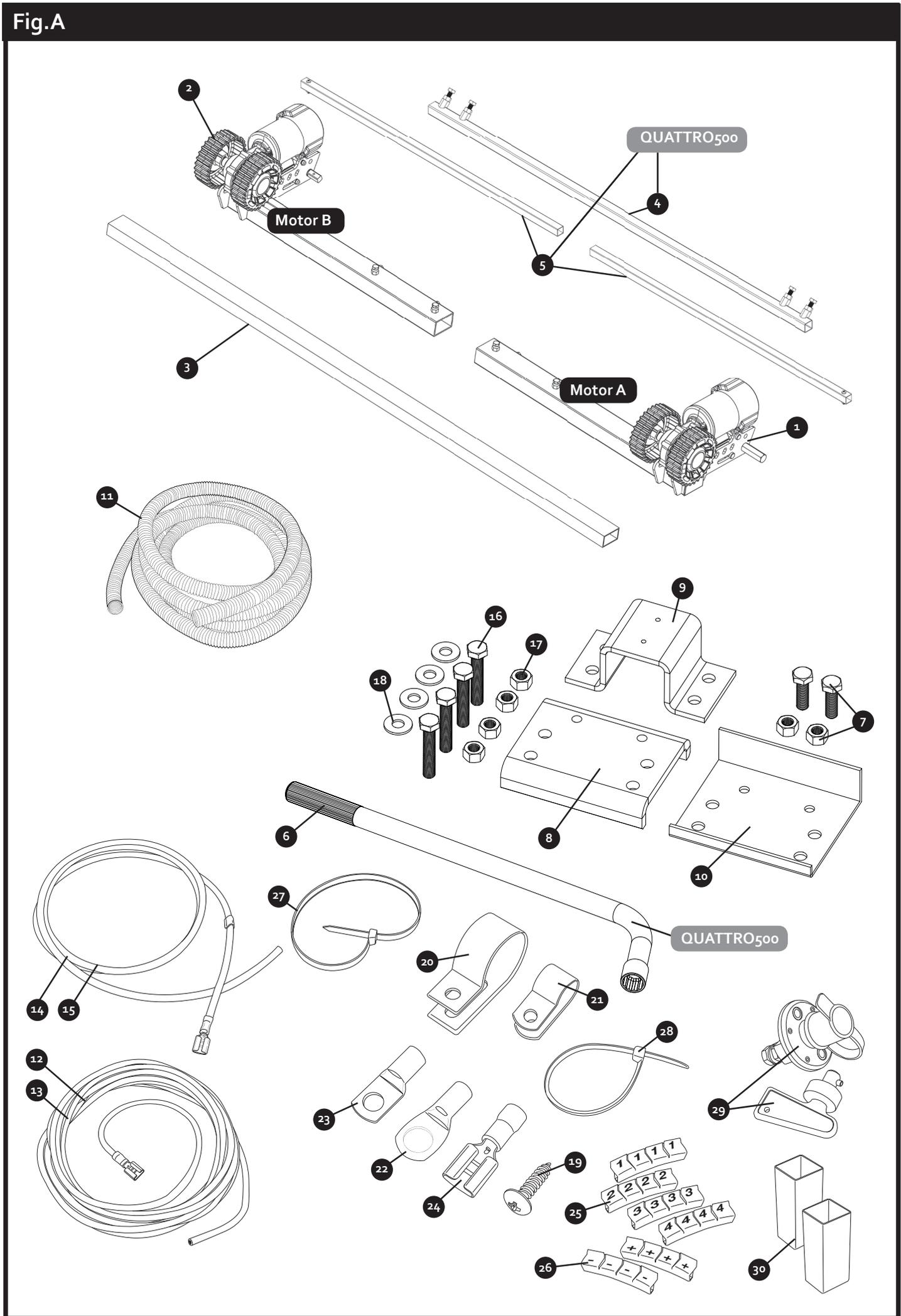




Fig.1

QUATTRO500

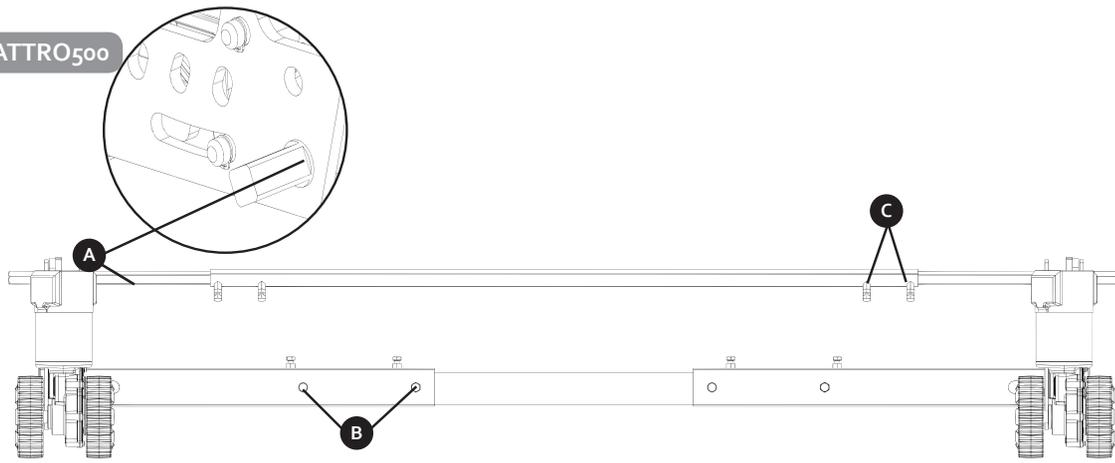
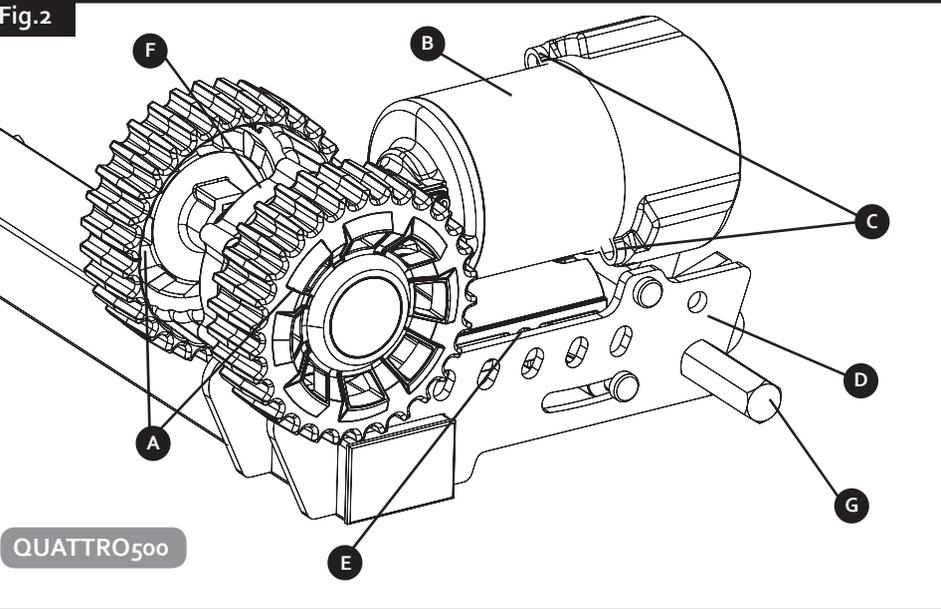


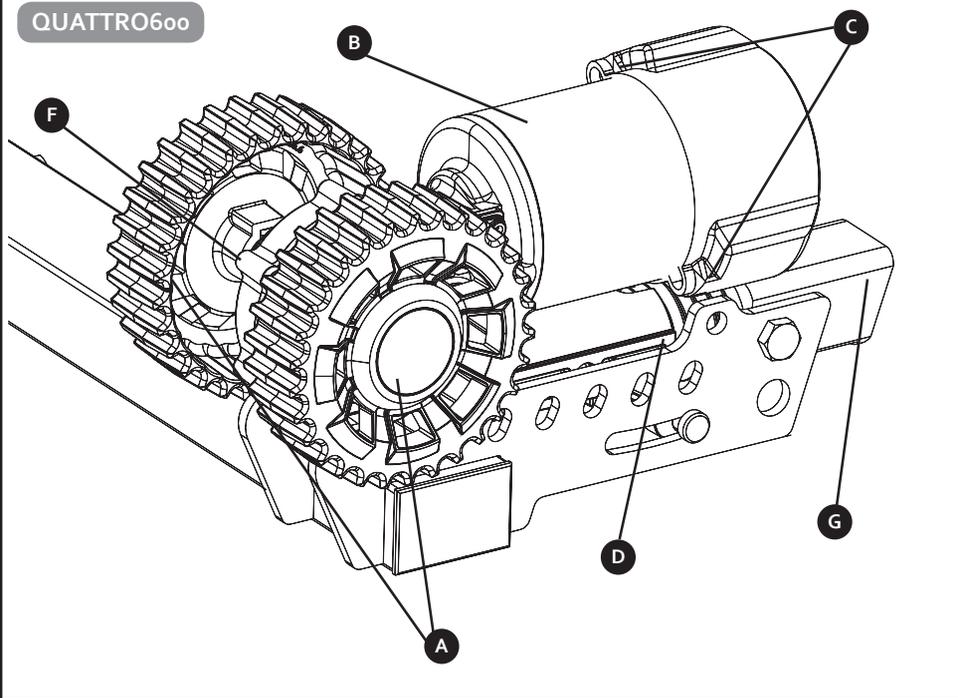
Fig.2



QUATTRO500

Fig.3

QUATTRO600



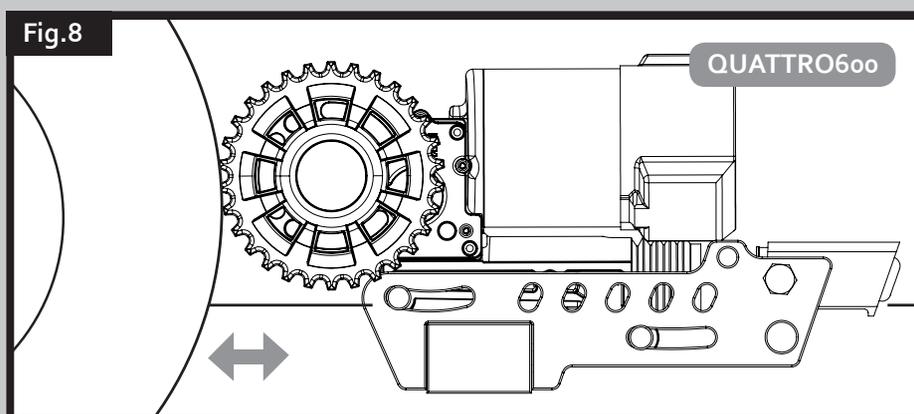
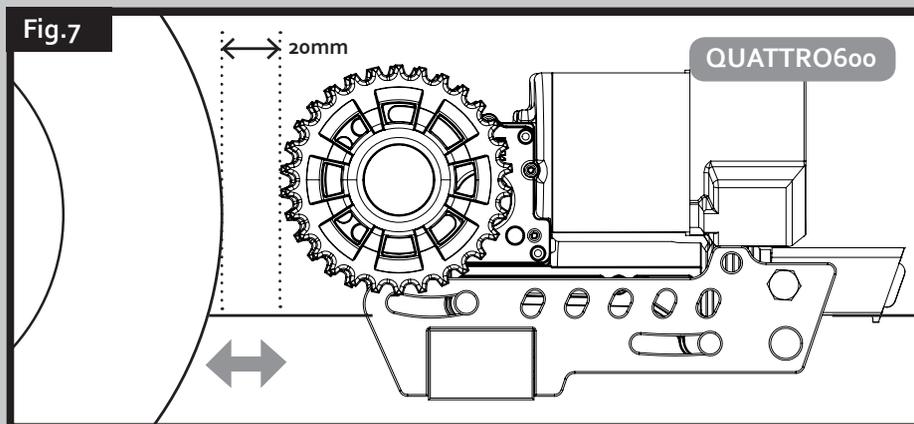
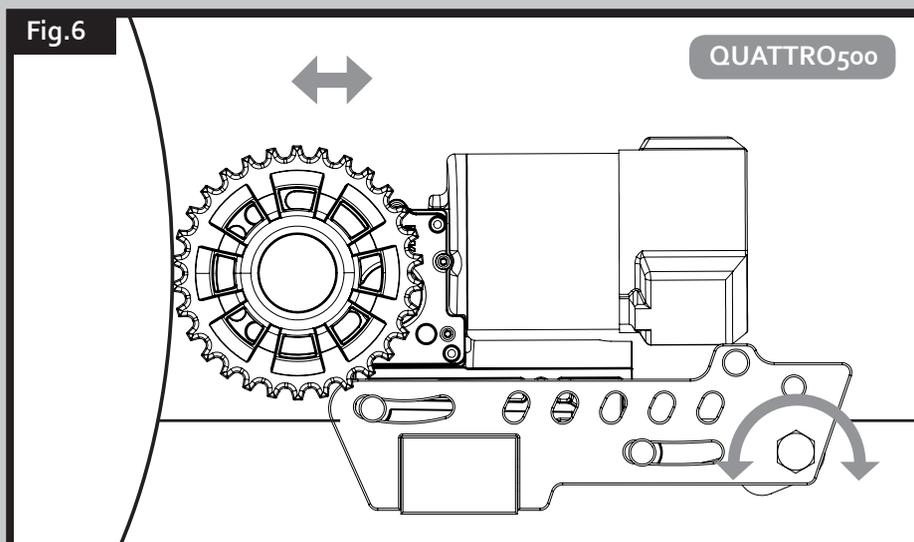
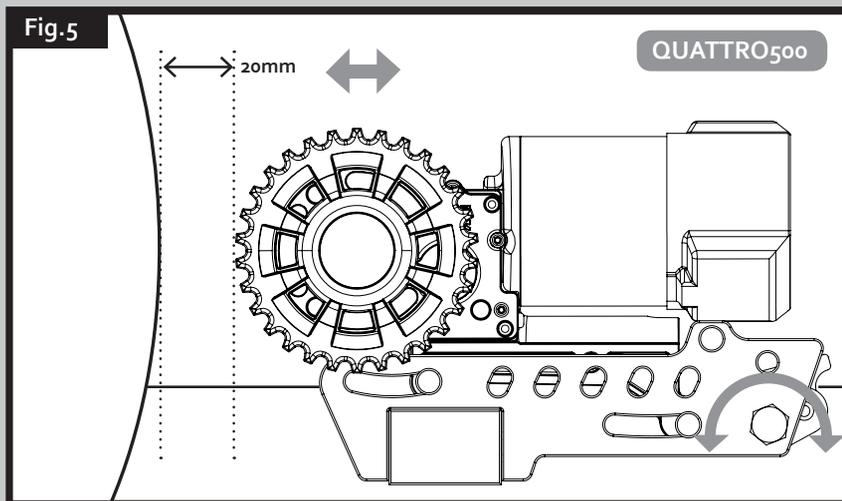
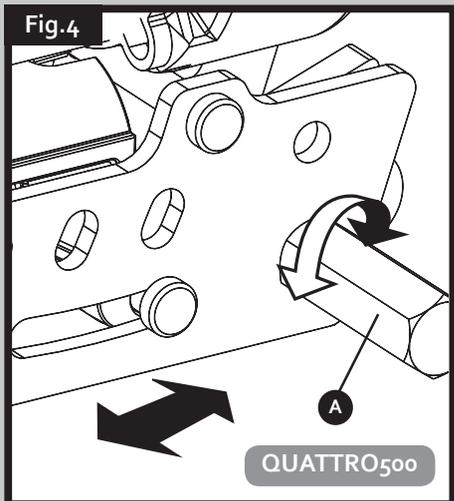




Fig.9

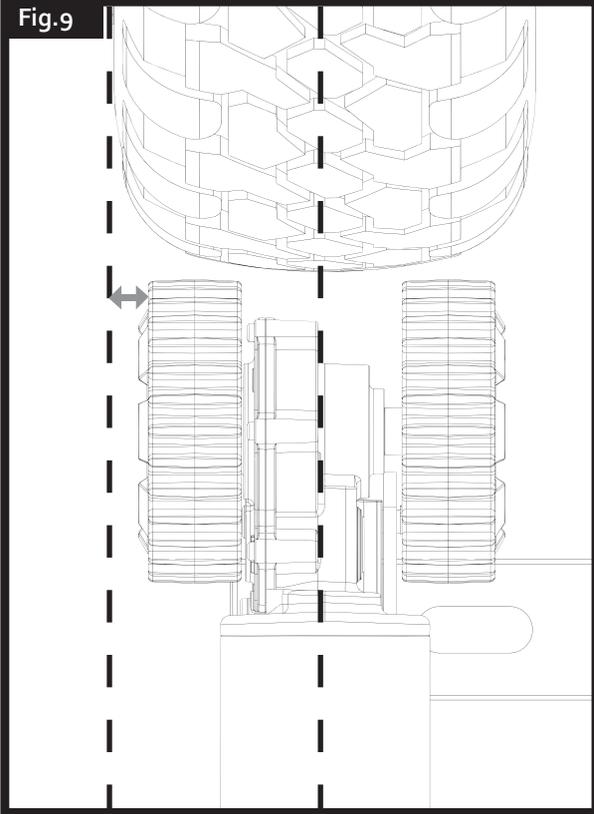


Fig.10

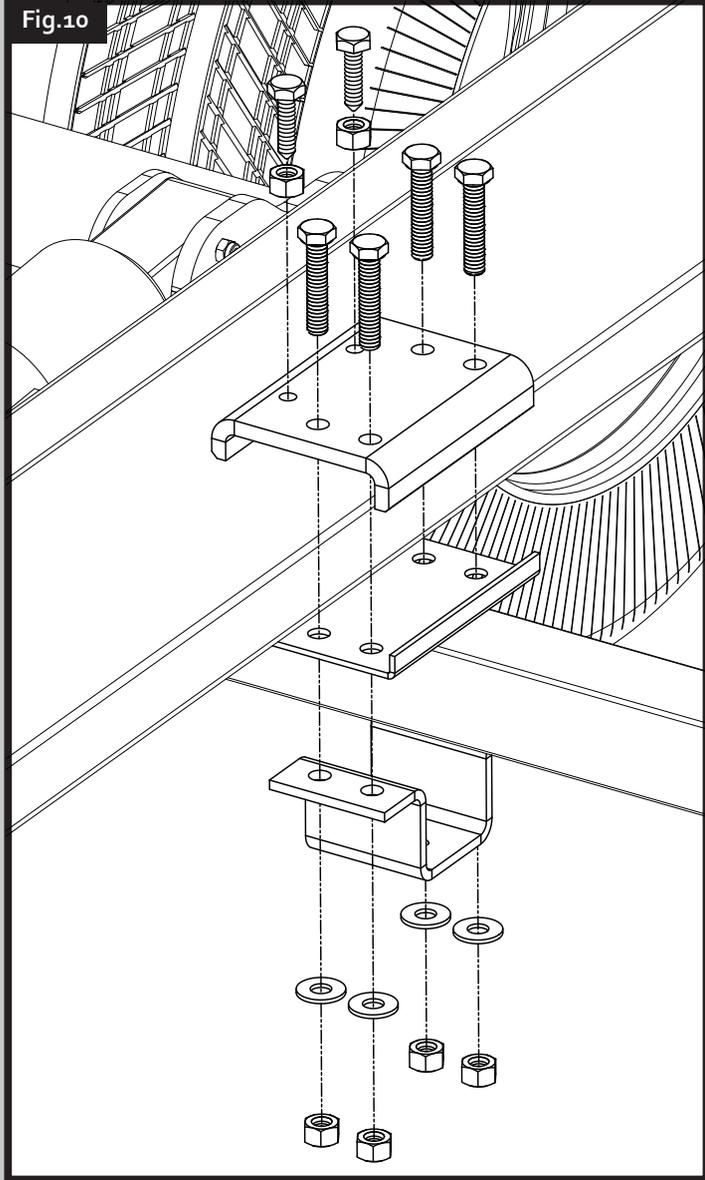


Fig.11



L - Profile

U - Profile

Fig.12

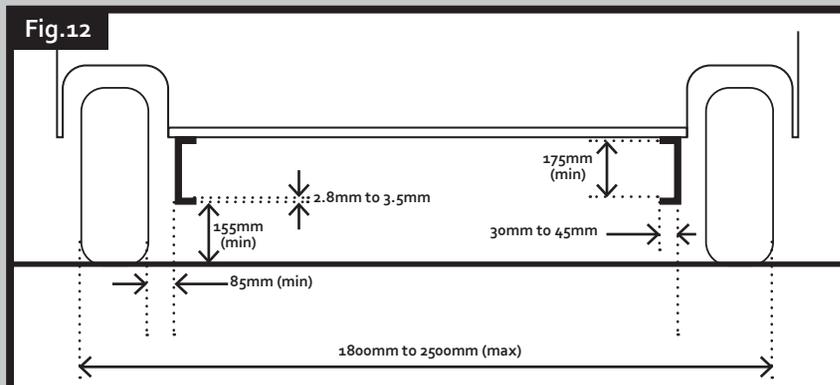


Fig.13

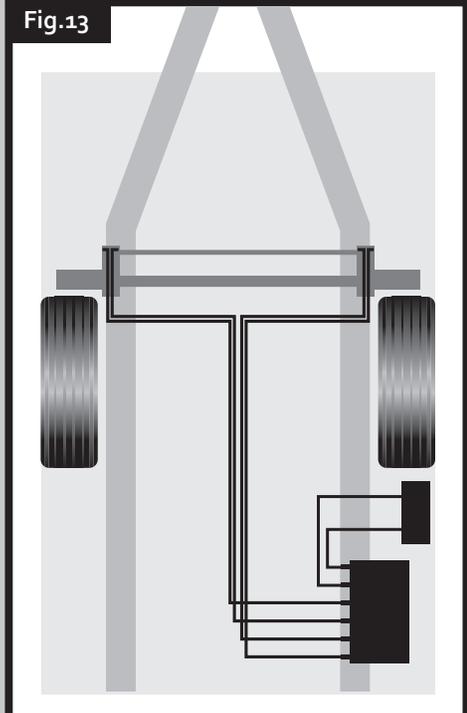




Fig.14

Overhead View

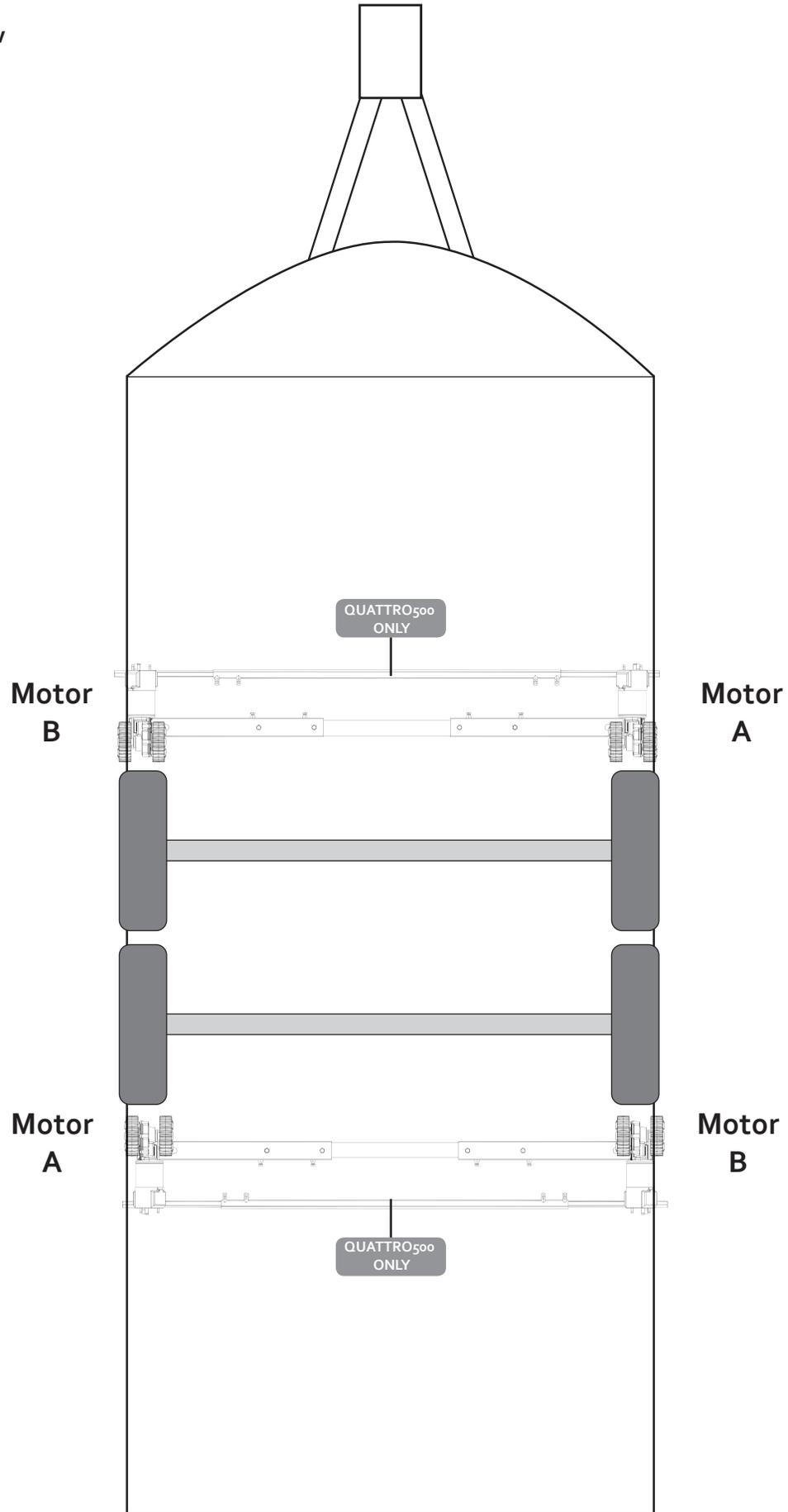


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Package Contents (Fig.A)

Ref	Qty	Description
1	1	Motor Unit (A)
2	1	Motor Unit (B)
3	1	Main Cross Bar
4	1	Cross Actuation Centre Bar (Model No. QUATTRO500)
5	2	Cross Actuation Insert Bars (Model No. QUATTRO500)
6	1	Engagement Tool (QUATTRO500 ONLY)
7	2	Chassis Stop Bolts & Nuts (2 pairs)
8	2	Upper Chassis Clamp Plate
9	2	Chassis U Plate
10	2	Lower Chassis Clamp Plate
11	1	Convuluted Cable Trunking
12	2	Positive (+) Red Motor Cable
13	2	Negative (-) Black Motor Cable
14	1	Positive (+) Red Battery Cable
15	1	Negative (-) Black Battery Cable
16	8	Chassis Clamp Bolts - M10x55
17	8	Chassis Clamp Nylock Nuts M10
18	8	Chassis Clamp Washers 10mmØ

Ref	Qty	Description
19	20	P-Clip Screws - M4x15
20	10	Cable Trunking P-Clips 19.2mm
21	10	Cable P-Clips 10.4mm
22	4	Battery Terminal Connector 8mmØ
23	2	Battery Terminal Connector 6mmØ
24	6	Cable Spade Connectors
25	3	Cable Number Markers (1,2,3,4)
26	3	Cable Polarity Markers (+,-)
27	4	Motor Unit Cable Ties 8x400
28	10	Cable Ties 2x70
29	1	Power Isolation Switch + Key + Fixings
30	2	Roller Distance 20mm Spacers
31	1	User Manual (not illustrated)

Introduction

Thank you for choosing this caravan mover. This has been produced according to very high standards and has undergone careful quality control procedures. Simply by using the remote control you can move your caravan effortlessly into any position required within operating guidelines.

Before proceeding with installation and starting to use the mover, please read this manual very carefully and be aware of all the safety instructions! The owner of the caravan will always be responsible for correct use. Keep this manual inside your caravan for future reference.

This User Manual covers two models of Caravan Mover: Model No. QUATTRO500 (MANUAL) and Model No. QUATTRO600 (AUTOMATIC); any installation or operational differences between the two models are detailed where appropriate. The caravan mover consists of two 12V motor-powered rollers, a 12V electronic control box and a remote control. To function, the motor-powered rollers must be engaged against the tyres of your caravan. The supplied cross actuation device (QUATTRO500 ONLY) enables you to engage both rollers at the same time from one side of your caravan. Once this is done the mover is ready for operation. The remote control will allow you to move your caravan in any direction.

Fitting Guidelines

The chassis clamps provided are suitable for fitment onto most standard caravan chassis that have an L-shape or U-shape profile. Please refer to Fig.11 & Fig.12 for reference on dimensions and clearances BEFORE you proceed any further with installation. If your chassis has different dimensions to those shown in Fig.12 then various chassis clamp adapters are available to suit the majority of UK and Continental caravans; please refer to the section entitled 'Optional Fitting Adapters'.

Specifications

Model Number	QUATTRO500 (MANUAL)	QUATTRO600 (AUTO)
Operational Voltage	12 Volt DC	12 Volt DC
Minimum Width (caravan/trailer)	1800mm	1800mm
Maximum Width (caravan/trailer)	2500mm	2500mm
Power Source (caravan leisure battery)	12V	12V

Installation Safety Guidelines



Important Safety Instructions

Read this User Manual carefully before installation and use. Failure to comply with these rules could result in serious injury or damage to property.



These symbols identify important safety precautions.



They mean CAUTION! WARNING! SAFETY FIRST! IMPORTANT INFORMATION!

Before starting installation under the caravan:

- DO check that the caravan is disconnected from the battery supply and the mains electrical supply.
- DO only use adapters and accessories that are supplied or recommended by the manufacturer.
- DO check that the tyres are not over worn (fitting to new or nearly new tyres is the best option).
- DO make sure that the tyre-pressures are correct to the manufacturer's recommendation.
- DO make sure the chassis is in good condition without any damage and is free from rust, dirt etc.
- DO stop work immediately if you are in doubt about the assembly or any procedures and consult one of our engineers
- DO locate the battery isolation switch to be accessible at all times when parking and moving the caravan.
- DO NOT remove, change or alter any parts of the chassis, axle, suspension or brake mechanism.
- DO NOT operate the unit if you are under the influence of drugs, alcohol or medication that could impair your ability to use the equipment safely.

Installation - Mechanical Components



These instructions are for general guidance. Installation procedures may vary depending on caravan type.



Use appropriate support! Working under a vehicle without appropriate support is extremely dangerous. If you are fitting the mover system yourself, it is advisable that the installation is conducted by two people, as the mover will need to be raised up to the bottom of the caravan's chassis before the clamps can be installed.



Remember to complete the product registration form with the serial numbers of each motor assembly prior to fitment (see details within the Guarantee section of this manual).



If with your particular model of mover the motors are not pre-assembled onto the framework, please follow assembly manual supplied in the motor packaging.

Place the caravan on a hard, level surface. The use of a lifting ramp or an assembly pit is ideal for access and personal safety.

Clean the area of your chassis where you need to mount all components to ensure a good fitting.

Unpack all the components and check for the presence of all parts (see Package Contents List).

Make sure the caravan is prepared for installation. Check before installation that important areas, such as drains/spare tyre etc. do not cause any obstruction to the function of the mover.

Ensure both rollers are in the DISENGAGED position (Fig.5 or Fig.7), as the unit will not fit correctly otherwise

Loosely assemble motor unit (1), motor unit (2) and main cross bar (3) (see Fig.1). The nuts (Fig.1B), on the cross bar (3) to secure both motor units, must be no more than finger-tight at this stage.

Place the assembly (Fig.1) loosely under the caravan. In principle, the unit should be fitted in front of the caravan road wheels, but if fitting in this position is not possible, it is permissible to fit it to the rear of the wheels by rotating the whole assembly by 180° degrees.

Loosely fit the two clamping assemblies to the chassis (see Fig.10) and attach using the bolts, nuts and washers (16,17,18) provided in the installation kit. Nuts must be no more than finger-tight.

QUATTRO500 ONLY:

Assemble the parts of the cross actuation bar (4 & 5) and connect them to the motor units (1 & 2) with the nylock nut and bolt (factory fitted) onto the cross actuation bar-connectors (see Fig.1A). Nuts must be no more than finger-tight at this stage.

Make sure that the Main Cross Bar (3) and the Cross Actuation Centre Bar (4) are positioned in the middle of the caravan/mover (the centre of the bar is marked).

With the main assembly loosely fitted onto the chassis, slide the whole assembly along the chassis until the rollers (Fig.2A or Fig.4A) are 20mm away from the surface of the centre each tyre (Fig.5 or Fig.7). Two 20mm spacers (30) are provided.



It is vitally important that each roller is at exactly the same distance away from the tyre. The whole assembly must be parallel to the caravan/trailer axle.

Align each motor unit with the centre of each tyre. If the roller widths exceed that of the tyre ensure that the outer roller is aligned with the outer wall of the tyre, overhang on the inside wall of the tyre is acceptable on thinner tyres, and will not affect function or grip (Fig 9).

Fully tighten the four nylock nuts (17) on both clamping assemblies (Fig.10) to a torque setting of 40 ft lbs/55Nm, then the four bolts (Fig.1B) on the Main Cross Bar (3) and the four bolts (Fig.1C) on Cross Actuation assembly (4 & 5) to a torque setting of 9ft lbs/12Nm. Re-check the distance of 20mm from the rollers to the tyres and if necessary, loosen the bolts and re-adjust the position of the assembly.

Once satisfied with the position of the assembly, fit and tighten the Chassis Stop Nuts & Bolts (7), one pair in each of the Upper Chassis Clamp Plates (see Fig.10). Tighten to a torque setting of 40 ft lbs/55Nm. The Stop Bolts grip the lip of the chassis and help prevent the mover from sliding along the chassis. The main mechanical components have now been installed.

Installation - Electrical/Electronic Components

PLEASE REFER TO MANUAL SUPPLIED WITH ELECTRONICS FOR WIRING INSTALLATION, OPERATION INSTRUCTIONS AND TROUBLESHOOTING

Operation and Maintenance



It is possible to position the caravan's hitch exactly over a stationary car's tow ball using the mover. But please be very careful!



Hitch the caravan in the normal way ready for towing.



Release the rollers from the caravan's tyres. You cannot tow the caravan with the Mover engaged! Make sure that both rollers are fully disengaged!



Trying to drive away with the mover still engaged, will damage the mover, your caravan tyres and strain your tow vehicle!

To prevent the battery from becoming totally discharged during long periods of inactivity it must be disconnected and recharged before using again.

Please check regularly that the rollers of the drive units are free of any dirt, or debris that may have been picked up from the road. Any further maintenance is not required.

Please check regularly the distance between the rollers and the tyres. In the neutral (fully disengaged) position this must be 20mm.

When your caravan is stored for an extended period of time (over winter for example) it is recommended to remove the leisure battery from the caravan. Make sure you keep it charged to ensure it is in good condition the next time you want to use it.

Once a year have your caravan mover maintained and visually inspected. This inspection must include all the bolt/nut connections, the cables and electrical connections and lubrication of movable parts/joints.



In case of any failures or problems, please contact your Caravan Mover supplier.

Guarantee

Quattro® caravan mover systems are provided with a UK parts only warranty for a period of 5-years which includes the first 12 months statutory, plus an additional 4 years extended warranty. Please note that the extended 4 year warranty is only offered if Product Registration is completed and returned within 14 days from the date of purchase. Any warranty claims must be directed through the place of purchase with a proof of purchase provided. Warranty cover is limited to products within UK mainland only.

Within the five year period, the manufacturer will, at their sole discretion, replace or repair any parts that have failed if deemed to be due to a manufacturing defect.

The manufacturer does not take responsibility for any consequential loss whatsoever.

Upon inspection, components that are missing when checked against the packing contents list must be reported to the place of purchase within 5 working days.

This warranty cover is available only to the original purchaser of the product and is non-transferable.

What is not covered:

- Normal wear and tear.
- Damage that is deemed to be due to customer misuse or neglect.
- The cost of repair following accidental damage, abuse of product or deliberate tampering.

- Warranty is not offered for any type of trade or commercial usage.
- As a result of the recall or modification of all equipment in a model range.
- Force Majeure e.g. Damage caused by extraordinary events or circumstance beyond anyone's control.
- Damage as a consequence of water ingress.
- Carriage or any additional charges incurred including travel or labour.
- Caravan electrics, including fuses, plugs, batteries, wiring connections and looms. Scratches, dents, paintwork and cosmetic trim.
- Damage as a result of incorrect installation and/or disregard to manufacturers fitting instructions.
- Cover will not be given to any part or component which is out of manufacture or no longer available.
- Cover will not be given if the product has been modified in any way.
- Damage occurring as a result of the product being used outside manufacturer's load recommendations.

Product Registration

Please register your Quattro® caravan mover online within 14 days of purchase. Registration is quick and simple, go to www.purpleline.co.uk/product-registration. Please retain your original purchase receipt.

Please fill-in the Serial Numbers + additional information and retain this manual for future reference.

The serial numbers can be found on the product label on each of the motor sections. The serial number starts with a W- and can be up to 18 digits long. Please make a note of your serial numbers in the section below for future reference. **The serial numbers will be required for product registration.**

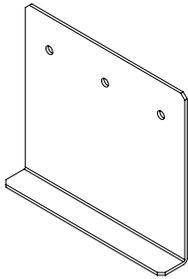
Serial No. QUATTRO500/ QUATTRO600	W <input type="text"/>
	W <input type="text"/>
Date of Purchase	
Name of Dealer	

Contact Information

UK Purple Line Limited
 Peninsula Business Centre
 Wherstead, Suffolk
 IP9 2BB, United Kingdom
 Tel: +44 (0) 1473 601200
 E-mail: info@purpleline.co.uk

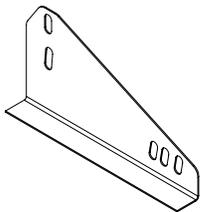
Optional Fitting Adapters

Additional chassis clamp adapters are available, as follows:



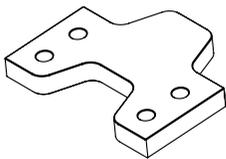
Low Profile Chassis Adapter Plates (Part No. CM-029)

If your chassis frame height is less than 140mm these plates must be fitted to lower the assembly to provide the correct height of 185mm. Drilling of your chassis may be required. Note: In some countries, the installation must be checked by a professional technician in order to adhere to local regulations.



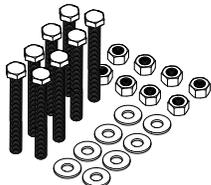
Narrow Gauge Chassis Adapters (Part No. CM-030)

These plates must be utilised if you have an AL-KO Vario III/AV chassis which has a frame thickness of less than 2.8mm. These must be positioned behind the axle using pre-drilled holes already available on the chassis; so your mover must be fitted behind the axle.



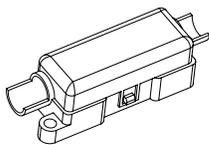
16mm Spacers - 1 pair (Part No. CM-028Q)

Use spacers to lower the mover assembly if your chassis has a frame height of between 140 to 185mm. A maximum of 3 sets of spacers can be utilised to achieve correct frame height of 185mm. A set of extended clamp bolts must be used in conjunction with these spacers (Part No. CM-031).



Set of 8 M10 x 100 Bolts (Part No. CM-031)

Set of 8 extended clamp bolts for use with 16mm spacers.



Mover inline fuse (Part No. CM-063)

Use the inline fuse to add extra protection to your 12V circuit. Please note the Quattro control box is designed to shut off automatically when the current reading is too high or too low.



UK: Photographs & diagrams for illustration purposes only. Actual product may differ slightly. All weights & dimensions are approximate. The manufacturer reserves the right to change product specification without prior notice. E & OE.

