FITTING INSTRUCTION

CH6024A Batch 000000	Chrysler Grand Voyager (Model with Stow 'N' Go Seating) Type Approval Number e11 00-6872

COMPONENTS

ITEM	QTY	DESCRIPTION
A	1	Towbar
B	1	Detachable Towbar Neck Kit – ZCA6007
		> *Detachable Towbar Neck & Housing*
		> *Weather Plug*
		> *Storage Bag*
		> *Operation Manual V2*
		> *Swan Neck Ball Cap (ZM1406)*
C	1	Side Arm (L/H)
D	1	Side Arm (R/H)
EP	1	Electrical Mounting Bracket (ZM1418)

BOLT PACK

ITEM	QTY	DESCRIPTION
F	4	M12 x 25 Bolts & Washers
G	6	M12 x 35 Bolts, Washers & 4 Nuts
H	6	M10 x 35 Bolts & Washers
I	2	M8 Nuts & Washers
J	4	M10 H/D Washers – 40mm O/D x 5mm Thick
K	2	M10 H/D Washers – 30mm O/D x 5mm Thick
L	2	M8 Flat Washers – 16mm O/D x 1.6mm Thick
M	2	M12 Washers – 23mm O/D x 1.6mm Thick

FITTING PROCEDURE

⇒ Remove bumper (4 plastic plugs on lower edge, 2 screws on top edge, 3 tip screws each side, pull tips outward before pulling bumper rearward).

⇒ Remove bumper beam (3 nuts at each end of beam). Separate plastic support from bumper beam & retain. Remove support arms from chassis rail (3 bolts on underside of each chassis rail). Hand bumper beam, support arms & fixings to customer for retention.

⇒ Insert side arms (C) & (D) into open ends of vehicle chassis. Align with existing holes and attach using bolts (H) using heavy duty washers (J) on the forward 4 positions and heavy duty washers (K) at the rearmost positions.

⇒ Loosely attach towbar (A) to side arms (C) & (D) using bolts (G).

⇒ Attach detachable towbar neck housing (B) & retractable electrical mounting bracket (EP) to towbar (A) using bolts (F). **Note: Where there is no electrical mounting bracket (EP), use additional flat washers (M) under the bolt heads. The electrical mounting bracket carries type approval information required by law and must always be fitted as shown.** Please refer to separate fitting instruction (ZM1418/19/20) for assembly and use of the retractable electrical mounting bracket.

⇒ **For 12N or 13 Pin Electrical Socket Fitment:** Cut section from bumper as illustrated by the unbroken shaded area.

⇒ **For 12S Electrical Socket Fitment (Retractable Option):** For 12S Socket Additions where it is desired to retract the electrical mounting bracket, it is necessary to use additional Electrical Mounting Bracket ZM1420 (Purchased Separately). This is mounted to the right of the towbar as illustrated by the ghost image. An additional bumper cut will be required and is illustrated as the dotted shaded area.

⇒ **For 12S Electrical Socket Fitment (With Extension Plate Option):** For 12S Socket Additions where it is not desired to retract the electrical mounting bracket, add Extension Plate ZM1364 (Purchased Separately) after bumper re-fitment to Electrical Mounting Bracket (ZM1418). This method prevents retraction of both Electrical Sockets behind the bumper skin, but benefits from a minimised bumper cut.

⇒ Ensuring all components are level, tighten all bolts.

⇒ Reattach plastic support to threaded fixings provided on towbar (A) using nuts (I) & flat washers (L).

⇒ Reattach bumper using reverse of the above procedure.

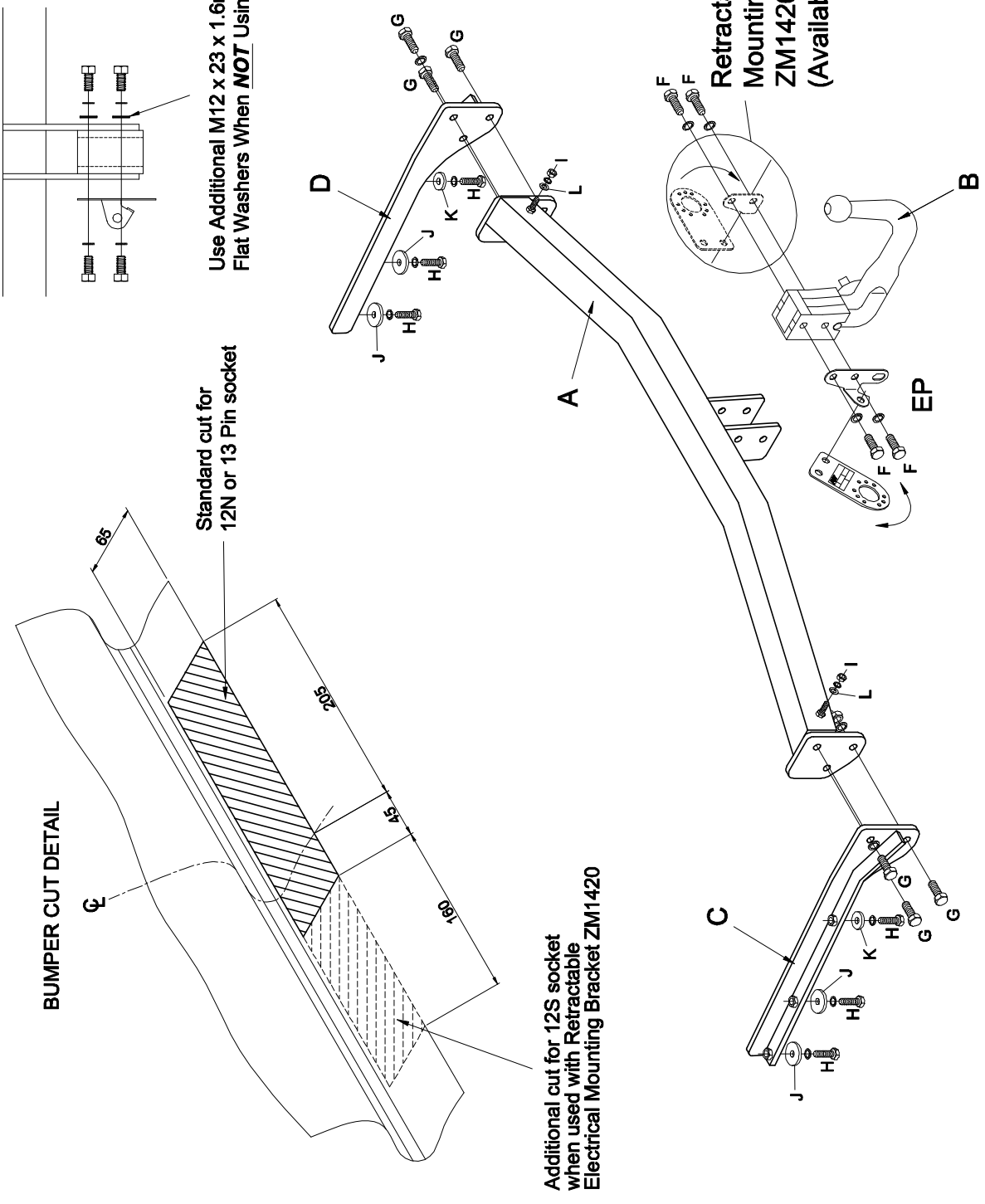
⇒ **NOTE:** Please refer to Operation Manual for Use and Maintenance of the Detachable Neck System.

TIGHTEN ALL BOLTS TORQUE SETTINGS ISO Coarse Pitch M8 = 29Nm, M10 = 58Nm, M12 = 102Nm, M16 = 252Nm
ISO Fine Pitch M8 = 31Nm, M10 = 61Nm, M12 = 111Nm

THE VEHICLE MANUFACTURER'S SPECIFICATION FOR THE TRAILER WEIGHT AND NOSE LOAD LIMITS MUST BE OBSERVED.

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FITTING DIAGRAM



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IMPORTANT PRODUCT INFORMATION & GUARANTEE
(TO BE RETAINED WITH THE VEHICLE AND PASSED TO SUBSEQUENT OWNERS)

Thank you for purchasing a PCT Automotive product. Please read the following information carefully before fitting or using your PCT Automotive product.

GUARANTEE

We shall free of charge either repair or at our option replace defective goods where the defects appear

i. if the goods are a towbar manufactured by us, during the economic lifetime of the vehicle it was first fitted to
ii. in the case of all other products manufactured by us, within 3 years following the date of your order

PROVIDED THAT (in each case) such defects shall be found to our reasonable satisfaction to have arisen substantially from our faulty design, workmanship or materials and have not arisen by reason of a failure to follow our instructions (whether written or oral), any modification, misuse, neglect or interference with the installation, any damage or abuse to the goods or vehicle by impact or vandalism or by a failure to carry out reasonable inspection, maintenance and/or adjustment.

At all times, the above guarantee is subject to our standard terms and conditions of sale a copy of which is available upon request from our offices.

TOWING LIMITS

Our towbars have been designed for towing up to the vehicle manufacturer's maximum recommended trailer weight and nose load limits for your model. Towing with gross weights above that recommended at any time will invalidate the guarantee and cancel any liability for damage. Towing a twin axle trailer, towing over rough ground or using a bicycle/motorcycle carrier, etc, exerts extreme loads on to a towbar and extra care should be taken in these situations not to exceed the vehicle manufacturer's maximum recommended limits.

PRODUCT IDENTIFICATION MARK

Your product carries a product identification mark. This mark carries important product and batch code information and if the product is type approved it also carries the type approval details which are required by law. Under no circumstances should this mark be defaced, removed or damaged.

INSTALLATION, INSPECTION, MAINTENANCE AND ADJUSTMENT

GENERAL INSTALLATION

⇒ Products should only be fitted by competent persons.
⇒ Read the product fitting instructions carefully and check all components are included in the fitting kit before commencing installation.
⇒ Check vehicle for corrosion and/or accident damage. Towbars should not be fitted to any vehicle suffering from corrosion or accident damage or which is not in a roadworthy condition.
⇒ Clean off all road dirt, underseal and sound deadening mastic where parts are to fit to ensure correct seating of all components.
⇒ Bumper cut information is given as a guide only. Variations in models may occur therefore the fitter should always check that the bumper cut is necessary and of the correct size and shape before commencing with the cut.
⇒ All drilling swarf should be removed from the vehicle and all holes drilled in the vehicle should be treated with an appropriate rust inhibitor.
⇒ Do not fully tighten bolts before towbar is completely fitted unless instructed to do so in the fitting instruction, this will allow some variances to be overcome before final tightening of bolts.

PAINT & CORROSION

Towbars manufactured by PCT Automotive undergo a phosphate chemical pre-treatment prior to an epoxy/polyester powder coat finish being applied. For long lasting good looks and in order to prevent corrosion the towbar should be regularly inspected for paint damage and wherever necessary re-painted in an appropriate finishing paint or underseal. The vehicle should also be regularly checked for any corrosion that could affect the towbar installation. Towbars should not be used on any vehicle suffering from corrosion that could affect the towbar installation.

BOLTS

All towbar fixing bolts should be checked initially after the first 300 towing miles and then every 3,000 towing miles or to coincide with the vehicle manufacturer's recommended service intervals, whichever is the sooner, and should be tightened using an appropriate torque wrench to the settings specified in the towbar fitting instruction.

ELECTRICAL INSTALLATION, TEST/COMMISSIONING AND MAINTENANCE

Failure to comply with the following instructions may cause damage to the towing vehicle's wiring loom and/or towing electrics installation.

Where displacement tap connectors e.g. Scotchloks, are the preferred method of connection, always use the correct colour coded tap connector for the size of cable to which it is to be connected. PCT Automotive's manufactured relays with integral cables should be connected using red tap connectors (0.5mm^2 to 1mm^2, conductor cross sectional area).

After installation of the 12N/12S sockets, prior to testing, a water displacement agent e.g. WD40 should be applied into the rear connection void through the water drain hole at the bottom of the sockets and also into the front pins under the socket flap. This socket maintenance should be carried out at least twice a year in the spring and autumn.

The towing electrics test procedure must be undertaken with the engine running. If any of the towing relays fail to function correctly, with the engine running and no other vehicle electrical systems turned on, check that the voltage across the vehicle's battery is between 13V and 14V approx, if this voltage is not correct, check the condition of the vehicle's battery/alternator.

Always ensure that the trailer/caravan/lighting board's own electrical systems are installed and functioning correctly before coupling to the vehicle's 12N/12S sockets.

Every six months (spring and autumn recommended) the battery and alternator of the vehicle should be checked to determine correct electrical functioning. All connections of the electrical installation including the earth should be checked for mechanical soundness and electrical quality. Plugs, sockets, relays and fixings should be checked for water ingress, mechanical soundness, electrical quality and general wear and tear.

Please complete the following information to validate the guarantee and for future reference.

VEHICLE OWNER NAME & ADDRESS:

VEHICLE MAKE & MODEL:

VEHICLE REGISTRATION NUMBER:

FITTER NAME & ADDRESS:

DATE TOWBAR FITTED:

If you have any comments or suggestions about the PCT Automotive product fitted to your vehicle, please address them to PCT Automotive, Holbrook Industrial Estate, Sheffield S20 3GH or email techsupport@pctautomotive.com
Your comments will help us in our aim to continually upgrade our products to meet the high standards expected by our customers.

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