



FITTING INSTRUCTION

FD4538
Batch 000000

Ford Ranger / Mazda BT50 4x4 Pickup (With Tube Bumper & Step Bumper)(From 2012)
Type Approval Number E11 55R-01 11124

COMPONENTS		
ITEM	QTY	DESCRIPTION
A	1	Towbar
B	2	Profiled Side Plates
C	2	Cleat
D	2	Captive Nut Strap
E	2	Bumper Support (Models With Step Bumper)
CP	1	10mm Coupling Packer (ZMCP10)

BOLT PACK		
ITEM	QTY	DESCRIPTION
F	2	M16 x 55 Bolts, Nuts & Washers
G	10	M12 x 40 Bolts & Nyloc Nuts
H	4	M12 x 40 Bolts & Nyloc Nuts
I	2	M12 x 40 Bolts & Nyloc Nuts
J	6	M12 x 40 Bolts & Washers
K	4	M12 x 40 Bolts & Washers
L	4	M10 x 35 Bolts, Nuts & Washers
M	10	M12 H/D Washers – 30mm O/D x 5mm Thick
N	24	M12 Washers – 23mm O/D x 2mm Thick
O	8	M10 Washers – 21mm O/D x 1.6mm Thick

FITTING PROCEDURE

- ⇒ Models with Tube Bumper: Remove the tube bumper from the vehicle by removing the 4 bolts securing the bumper arms to the chassis wall. Remove the 4 large torx screws securing the bumper arms to the tube. Discard the arms & screws (Hand to vehicle operator for retention).
- ⇒ Models with Step Bumper: Disconnect the wiring harnesses to the rear step bumper. Remove the step bumper from the vehicle by removing the 4 bolts securing the bumper arms to the chassis wall. **Note:** 2 person lift recommended. Place step bumper safely and remove the 4 bolts securing the bumper arms to the bumper frame. Discard the arms & screws (Hand to vehicle operator for retention).
- ⇒ Locate the existing threaded fixings in the outside wall of the left hand chassis rail. Loosely attach side plate (B) using bolts (J) with heavy duty washers (M) under the bolt heads. At the remaining position each side, use bolts (I) with heavy duty washer (M) under the bolt head with nyloc nut (I) & heavy duty washer (M) inside the chassis.
- ⇒ Insert captive nut strap (D) into the end of the chassis rail & align with the two rearmost holes in the chassis floor. Loosely attach cleat (C) using bolts (K) with flat washers (N) under the bolt heads.
- ⇒ Loosely attach cleat (C) to side plate (B) using bolts (H), with flat washers (N) positioned under the nuts to cover the slots in (C).
- ⇒ Repeat the procedure on the right hand side.
- ⇒ Insert towbar (A) between side plates (B) and loosely attach using bolts (G). **Note:** On models with Tube Bumper mount close to the vehicle, on models with Step Bumper mount away from the vehicle, as illustrated.
- ⇒ Ensuring towbar (A) is square to side arms (B) fully tighten bolts (G). Push assembly up and ensuring that it is square & level fully tighten bolts (I) & (J). Continue by fully tightening bolts (H) & (K).
- ⇒ Models with Tube Bumper: Reattach tube bumper to holes provided on side plates (B) using bolts (L) with flat washers (O) under bolt heads & nuts. Use additional M12 washers (N) as spacers between each bumper tube tag & side plate (B) if required. **Note:** Tube tags attach to the right hand side of each plate (B) creating an offset of 5mm.
- ⇒ Models with Step Bumper: Attach bumper supports (E) to captive threads in step bumper using bolts (L) with flat washers (O) under bolt heads. Use x2 flat washer (N) between bumper support (E) and the step bumper at each position. Ensuring they are square and level, fully tighten. Carefully reattach step bumper to vehicle (2 person lift recommended), locating the bumper supports to the outside face of side plates (B) and attach at the provided holes using remaining bolts (G) with flat washers (N) under bolt heads & nuts. Reconnect wiring harnesses.
- ⇒ Ensuring tube bumper / step bumper is level, fully tighten bolts (G) and/or (L).
- ⇒ **Note 1:** The spare wheel can be loosened and relocated slightly further forward should additional clearance be required.
- ⇒ **Note 2:** Use coupling packer (CP) when attaching the coupling to the lower hole setting.

A type approved towball with 'D' and 'S' values that match or exceed those of the towbar must be fitted. The horizontal distance from the towbar faceplate to the centre of the ball must not exceed 76mm. The vertical distance from the centre of the towball holes to the centre of the ball must not exceed 75mm. The towbar has also been tested for use with a PCT Automotive universal coupling ZC1405, Bradley universal coupling part code V352L (E40TC) or Dixon-Bate universal coupling part code 202014.

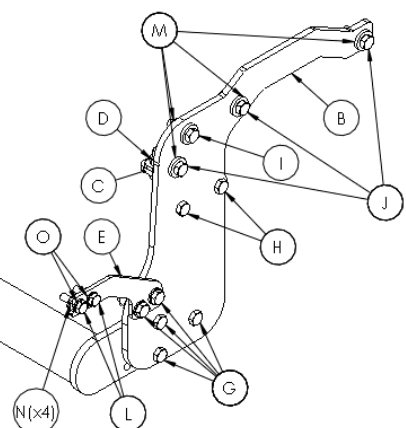
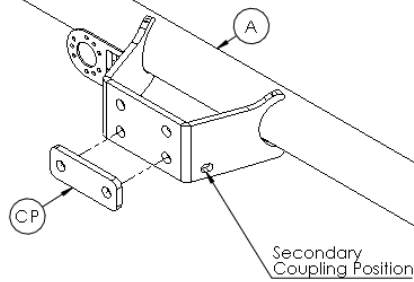
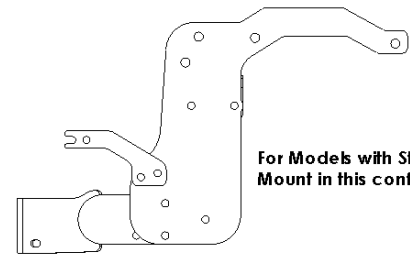
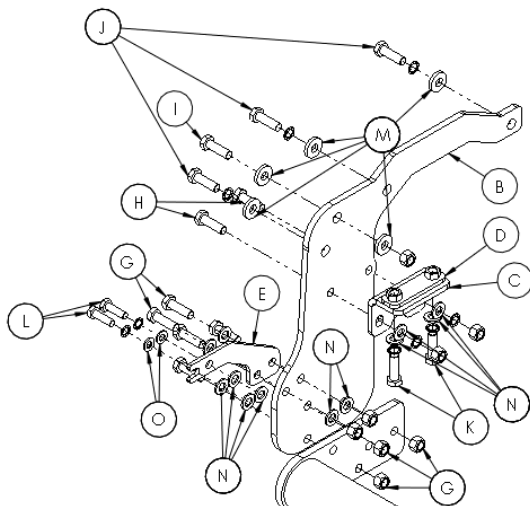
TIGHTEN ALL BOLTS

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

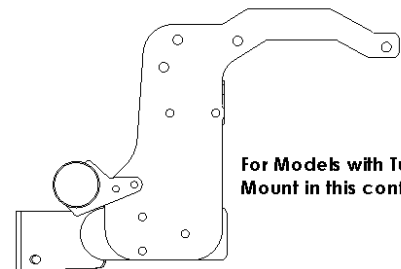
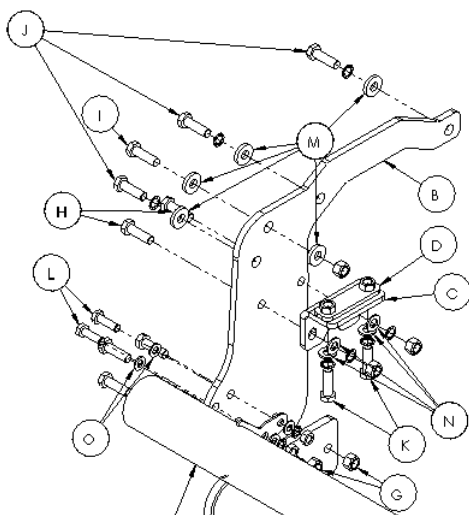
THE VEHICLE MANUFACTURER'S SPECIFICATION FOR THE TRAILER WEIGHT AND NOSE LOAD LIMITS MUST BE OBSERVED.

FITTING DIAGRAM

Step Bumper Models



Tube Bumper Models

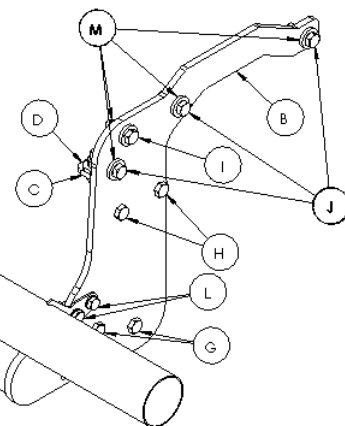


Tube Bumper

A

CP

Secondary Coupling Position



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

- ⇒ All products should only be fitted by competent persons. Electrical products must only be fitted by an experienced auto-electrician.
- ⇒ 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 a 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, or the initial 500 miles of driving uncoupled, and then every 3,000 towing miles or to coincide with the vehicle manufacturer's recommended service intervals, whichever is the sooner. All towbar fixing bolts 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. Scotchlocks, 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. All towing relays and modules manufactured by PCT Automotive have cabling with a copper cross-sectional area in the range 0.5mm² to 1mm².

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, New Street, 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.